#### **Poynting Direct**

3B Chadwick Road, Wynberg, Johannesburg, 2090, SOUTH AFRICA

TEL: +27 87 750 7080 FAX: +27 86 631 9980

Contact Person: Onalenna Dikokwe E-Mail: sales@poynting.co.za Web site: www.poyntingdirect.co.za

#### Pacific West America (West Coast)

22287 Mulholland Hwy, Unit 184-A Calabasas,

CA91302-5157 TEL: 818-9926890 FAX: 818-4500299

Contact Person: Joe Wagner

E-Mail: jw@pacificwestamerica.com
Web site: http://www.pacificwestamerica.com

#### Promark Electronics Inc.

215 rue Voyageur, Point-Claire, Quebec H9R 6B2 TEL: 514-426-4104

FAX: 514-426-4105 Contact Person: Syd Knecht

E-Mail: sydk@pmk.com Web site: http://www.promarkelectronics.ca/

#### PHP Maritex

81-411 Gdynia Kopernika 56 Poland TEL: 48-58-6228900

FAX: 48-58-6224766

Contact Person: Henryk Pickarski E-Mail: h.piekarski@maritex.com.pl Web site: http://www.maritex.com.pl

INTELEK spol.s r.o., Vlarska 22, 658 14 Bron,

Czech Republic TEL: 420 5 3333 8833

FAX: 420 880 900 468

Contact Person: Alexei Dubov

E-Mail: sales@intelek.cz
Web site: http://www.intelek.cz

Web site: http://www.intelek.eu

116-14 kosato Ueda-city Nagano 386-0005 Japan

TEL: 81-268-28-7576
FAX: 81-268-28-7577
Contact Person: YUKA SAKURAI

E-Mail: sakurai@mapele.co.jp Web site: http://www.mapele.co.jp



RF/Microwave Commectors Cable Assemblies



S-CONNENTERPRISE CO., LTD.



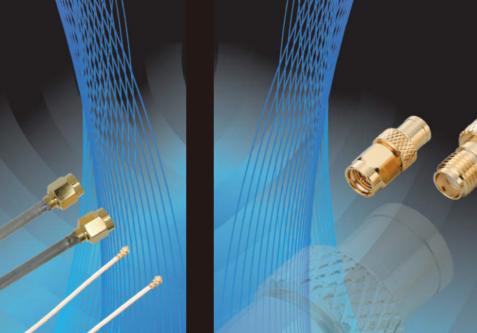


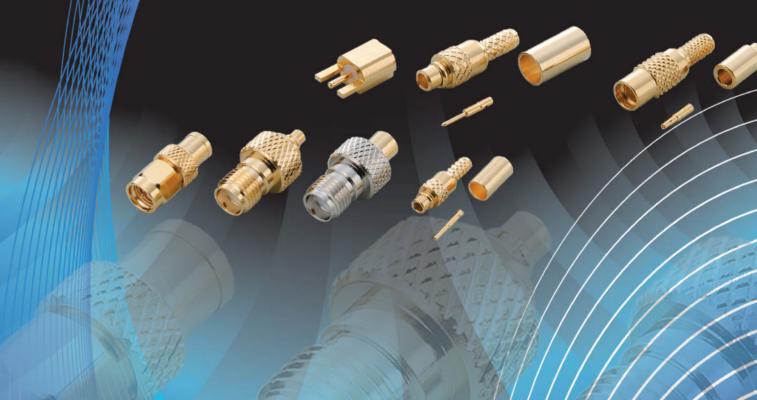












### S-CONN ENTERPRISE CO., LTD. No.213, Chengren E. St., Renwu Dist., Kaohsiung City 81456, Taiwan (R.O.C.)

**\( +886-7-373 3588 \)** 

**(3)** +886-7-373 9873

sales2@s-conn.com

A Hank Sun

www.s-conn.com

- 1. MMCX
- 2. MCX
- 3. 1.0/2.3
- 4. 1.6/5.6
- 5. SMA
- 6. SMB
- 7. SMZ
- 8. Reverse Polarity (RP)
- 9. BNC
- 10. 12G-SDI BNC
- 11. Twin BNC
- 12. TNC
- 13. N
- 14. UHF
- 15. Mini UHF
- 16. F
- 17. FME
- 18. SSMB
- 19. SMC
- 20. SMP
- 21. BMA
- 22. Ultra Tiny BNC
- 23. Surge Protector Series
- 24. Other Series
- 25. Adapter
- 26. Cable Assembly instruction









Connector and cable play a significant role for interconnection. S-Conn knows how important it is. To meet that commitment, we integrate both together to provide customers with a total solution.

For connectors, advanced CNC machines and measuring equipments to ensure the dimensions in range. After terminating with cable, a Vector Network Analyzer to guarantee the performance can meet your expectations.

Contact us, and let S-Conn's sales teams to look after your interests.



S-Conn started running in 2008 and provides an extensive range of connectors that are primarily used in the industries of communications and information processing for products such as CATV, cellular phone, data communications, and many other applications.

#### **Product Range**

This publication will help you to select the proper S-Conn RF/Microwave connectors to meet your requirements. To this end, we have included virtually all S-Conn coaxial connectors in one volume. Our RF/Microwave connectors are furnished in a wide variety of styles and configurations to suit almost any design requirements. In addition to the standard ranges, custom-built connectors to meet customer specifications can be designed, developed and manufactured by S-Conn.

#### **RF-Cable Assemblies**

As a result of many years of experience in interconnection technology, S-Conn is now able to provide a broad range of coaxial assemblies to meet the ever more demanding specifications requested by customers. Today, S-Conn is here to take care of our customers' needs. We are happy and proud to commit ourselves to provide the best solutions, with quick and cost effective professional response to our customers.

## Hand Tools Guide for RF & Microwave Connector

S-Conn also provides a broad choice of hand tool to meet exact production needs for cable connectors. This combination of connector and hand tools guarantee trouble-free terminations at a low applied cost.

Nowadays, to meet of oversea market, S-Conn is putting the marketing policy of

" highest Quality, competitive price " in practice. We would like to reiterate that we accept customization of products to suit your requirements.

#### **New Product**

Please surfing our web regularly to see what we are developing.

#### Note

Only the most commonly used products are included here; should you require other styles, contact our local agent or sales department of S-Conn.





### **Ordering Information**

RF/Microwave Connector Part Number is Constructed as Follows Part Number:



#### RF/Microwave Connector Part Number Series & Abbreviation

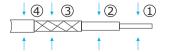
Α	FME Series	K	2.92 Series	SB	SMB Series
AL	Alprox	L	2.4 Series	SC	SMC Series
A-	Adapter	М	Mini UHF Series	LA	Lightning Arrester
В	BNC Series	MC	MC-Card Series	SM	SSMB Series
BM	BMA Series	MM	MMCX Series	SO	Solderless Series
BT	SMZ(BT43) Series	MX	MCX Series	SP	SMP Series
С	1.0/2.3 Series	N	N Series	SS	SSMA Series
D	DIN 7/16	Q	QMA Series	SV	SHV Series
Е	European Series	R	RCA Series	Т	TNC Series
F	F Series	R∗	Reverse Polarity Series	TB	Twin BNC Series
G	1.6/5.6 Series		(see catalog inside)	U	UHF Series
НВ	12G-SDI BNC Series	S	SMA Series	UB	Ultra Tiny BNC

	Gender		Body Plating
Р	Plug	G	Gold
J	Jack	S	Silver
Χ	Unspecified	N	Nickel
Т	3-Way	Т	Tin
		ВС	Black Chrome
	Pin Plating	BN	Black Nickel
G	Gold	М	White Bronze
S	Silver	Р	SUS Passivated
N	Nickel		
Т	Tin		

	Insulator	
Т	PTFE	
D	Delrin	
TX	TPX	
В	Bakelite	
Α	ABS	
Р	PBT	
PP	Polypropylene	
PE	Polyethylene	
PR	PR Polyamide Resin	

#### **Customized Connector**

For any customized connector, please provide the OD of each section on cable per drawing on the right with impedance.



- 1. OD of Conductor
- 2. OD of Dielectric
- 3. OD of Braided Wire
- 4. OD of Outer Jacket

## **Ordering Information**

Cable (	Group Coding Table		
Code	Cable Group	Code	Cable Group
Α	RG6, 6A, 143, 212, B1694A	AE	B88281
AA	RG6 Plenum, B1695A	AF	B8227, 89207
В	RG8A, 213, 393; URM67; B8267	AG	B1694A, B9248
ВВ	RG8X; LMR240; B7808A; H155	АН	RA519
С	RG9, 214	AI	BT2002
D	RG11, 12	AJ	URM202
F	LMR600	AK	CT100LSOH
G	LMR200, B7807A, HDF200, CFD200	AL	LMR300; CFD300
н	RG58; LMR195; HDF195; URM43, 76; B9907; PSF1/6	АМ	CT100; H109F
нн	RG58 Plenum; Thinnet; 122U; B88240, 89907	AN	CT125; H47
I	Mini RG59	AO	CFD400
J	RG59, 62; URM70, 90	AQ	RG108
JJ	RG59/U-20AWG	AR	Digital Video Cable 0.6/2.8/4.5
J1	59/U Plenum	AS	Type 735
J2	59/U Plenum-20 AWG	AT	B1855A
JT	RG59, 62 Teflon	AV	HF-Kabel KOKA 777(75 Ohm)
К	B9913; LMR400; B7810A, 8214,	AZ	1.37 Cable
	RG8	AY	1.48 Cable
L	RG55, 142, 223, 400	ВА	Dacar 302 (198259000)
L5	LL335	ВС	B1794A
LL	L910(Nexans)	BD	BT2003
M	RG174, 188, 316; B7805A; URM95, LMR100A	BE	BT3002
MM	316/U Double Braided	BG	Flex-2(2.0mm)750hm
N	RG178, 168A, 196	BZ	1.37 Cable (750hm)
Р	RG179, 187; B9221	P2	PSF 1/2M
PP	179/U Double Braided	P3	PSF 1/3M
Q	401 (.141") ;RG402/U	P7	PSF 1/7M
R	.250, Semi Rigid	C2	0.6L/2.4 AIZ
S	405 (.085") ; RG405/U	CA	1.5C-2V
Т	.047 Semi Rigid	СВ	1.5C-2V.CW
U	.086 Semi Rigid (750hm)	CC	1.5C-2E
V	11/U-14 AWG, B8213, B9292, B7731, B1859A	CD	2.5C-2V
X	0.8 Cable	CE	2.5C-2V.CW
Υ 7	1.13 Cable	CF CG	2.5C-2V.S 2.5C-2E
YZ	1.24 mm		
Z XY	1.32 Cable Mini Coaxial Cable	CH	3C-2V 3C-2V.CW
DA	0.8D-2V	CI	3C-2W
DB	1.5D-2V	CK	3C-2W 3C-2W.S
DC	2.5D-2V	CL	3C-2W.S 3C-2T
DD	3D-2V	CM	3C-2E
DE	5D-2V 5D-2V	CN	5C-2V
DF	5D-2V 5D-2W	CO	5C-2V 5C-2V.S
DG	8D-2V	CP	5C-2W
DH	10D-2V	CQ	5C-2E
DI	8DSFA	CR	7C-2V
DJ	5DFB	CS	7C-2E
DK	12DFB	CT	10C-2V
DL	10DFB	CV	10C-2W
AB	B89113	CW	10C-2E
AC	RG180, 195, 122; B8218, 1865A, B185	CY	4C-2V
AD	B8281, 9231, 9141	CZ	2C-2V
	, , -	- '	

## **Content of products**

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We reserve the right to change the design w/ o notice.

# **MMCX Series**

### Description

The MMCX family of products is a 6 GHz 50 ohm interconnection system.









### **Applications**

- PCMCIA Cards
- Wireless Applications
- Antennas
- Wireless LANs
- Broadband communications
- Instrumentation
- RF Test Ports
- Cellular Telephones
- Global Positioning Systems (GPS)
- Base Stations
- Radio Boards
- Satellite Reception Terminals

#### Features

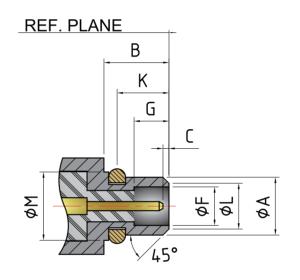
- Mating cycles ≥ 500
- Conforms to CECC 22000 specifications.
- Interface according to CECC 22340, EN 122340

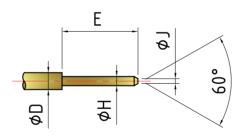
### Specification

#### MMCX

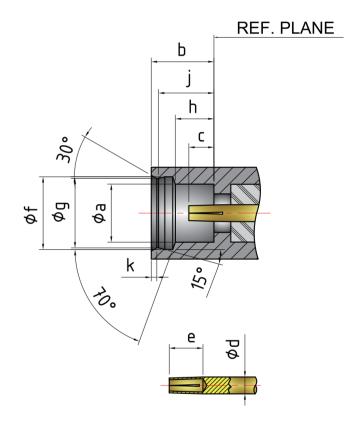
MMCX, micro-miniature connectors are designed with a 50 ohm characteristic impedance, The working frequency is up to 6 GHz. The reliable snap-on mating design offers "low RF-leakage". Also, the small dimensions allow you to use the connectors where space requirements are critical. MMCX connectors are most commonly seen on external GPS antennas on small devices like PDAs or GPS receivers.

### **Interface Mating Dimensions**





Letter	Millimeters/Inchs		
Letter	Minimum	Maximum	
Α	-	2.40(.094)	
В	2.70(.106)	-	
С	0.00(.000)	0.25(.010)	
D	0.70(.0	28)nom	
E	-	3.15(.124)	
F	1.58(.062)	1.62(.064)	
G	1.45(.057)	-	
Н	0.38(.015)	0.42(.017)	
J	-	0.20(.008)	
K	2.08(.0819)	2.12(.0835)	
L	2.00(.0787)		
М	-	2.83(.111)	



	Millimeters/Inchs		
Letter	Minimum	Maximum	
а	2.41(.095)	-	
b	2.60(.102)	2.69(.106)	
С	0.90(.035)	1.20(.047)	
d	0.70(.02	8)nom	
е	1.40(.055)	-	
f	3.00(.118)	3.04(.120)	
g	2.88(.113)	2.90(.114)	
h	1.57(.062)	1.63(.064)	
j	2.30(.090)	2.34(.092)	
k	0.18(.007)	0.23(.009)	

MM01 MM02





#### **Electrical**

Liccificat	
Impedance	50Ω
Frequency Range	0 to 6 GHz
VSWR	≦1.15 @ DC to 4 GHz ≦1.40 @ 4 to 6 GHz
RF Leakage	≧60 dB (flexible cable) ≧70 dB (semi- rigid cable)
Dielectric Withstanding Voltage	500 V rms
Voltage Rating	≦170 V rms (depending on cable)
Inner Contact Resistance	≦10 mΩ
Outer Contact Resistance	≦5 mΩ
Insulation Resistance	≧1 GΩ

#### Mechanical

Mating	Snap-on Coupling
Connector Durability	≥500 Cycles (for beryllium copper female contact only)
Engagement Force	≦3.4 lbs
Disengagement Force	1.4 lbs ~ 3.4 lbs
Cable Retention Force	≥7.3 lbs (for RG178) ≥12.1 lbs (for RG316)

#### **Environmental**

Temperature Range	-55° C to 155° C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Cond. B
Vibration	MIL-STD-202, Method 204, Cond. C
Thermal Shock	MIL-STD-202, Method 107, Cond. F
Mechanical Shock	MIL-STD-202, Method 213, Cond. B

#### **Material**

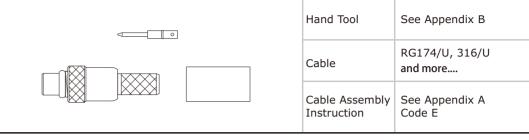
Parts Name	Material	Plating
Body	Brass	Gold or Nickel
Inner Contact	Male : Brass Female :Phosphor Bronze Beryllium Copper	Gold
Insulator	PTFE	
Crimp Ferrule	Annealed Copper	Same as Body

Note: Other Material/Finish is Available on Request.

### Crimp Type (for Flexible Cable)

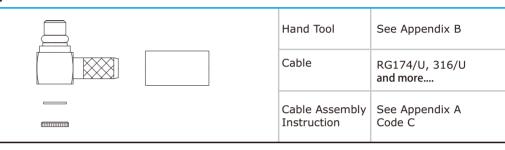
### MMCX S/T Plug, Crimp Type





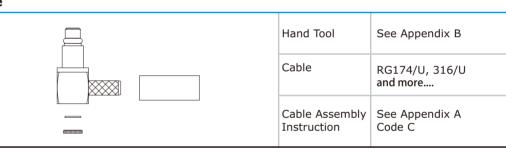
#### MMCX R/A Plug, Crimp Type





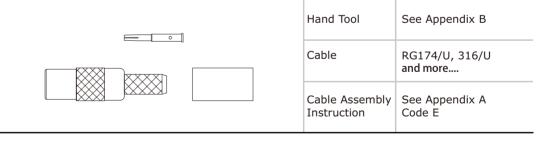
#### MMCX R/A Plug, Crimp Type





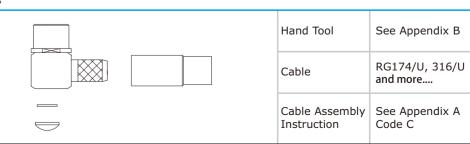
#### MMCX S/T Jack, Crimp Type





#### MMCX R/A Jack, Crimp Type

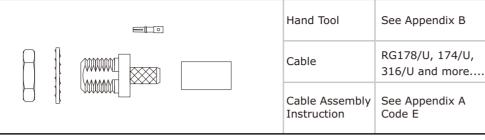






#### MMCX B/H Jack, Crimp Type

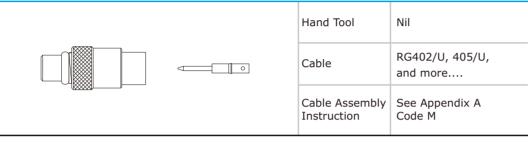




### Solder Type (for Semi-Rigid Cable)

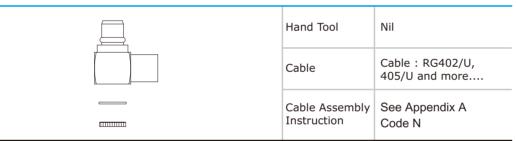
### **MMCX S/T Plug, Solder Type**





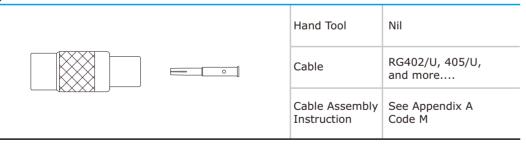
#### MMCX R/A Plug, Solder Type





#### MMCX S/T Jack, Solder Type

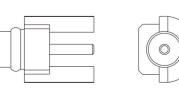




### Edge Mount Type

#### MMCX S/T Plug, Edge Mount Type



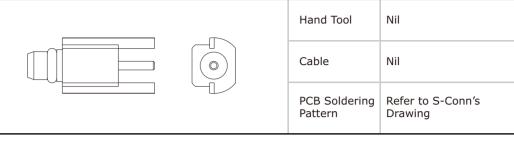


	Hand Tool	Nil
	Cable	Nil
	PCB Soldering Pattern	Refer to S-Conn's Drawing

#### MMCX S/T Plug, Edge Mount Type

MM108

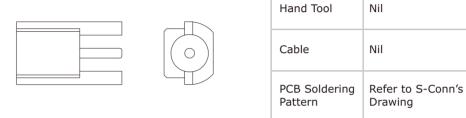




#### MMCX S/T Jack, Edge Mount Type

MM212



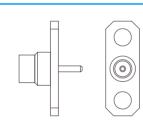


### Panel Mount Type

#### MMCX P/M 2-Hole Jack, Receptacle

MM213





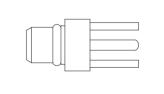
Hand Tool	Nil
Cable	Nil

### PCB Mount Type

### MMCX S/T Plug, PCB Mount Type

MM106

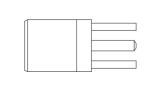




Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

#### MMCX S/T Jack, PCB Mount Type







Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

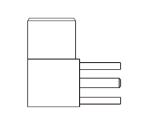
MMCX





### MMCX R/A Jack, PCB Mount Type



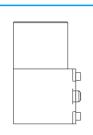


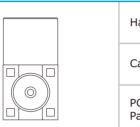
Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

## SMT Type

### MMCX R/A Jack, SMT Type



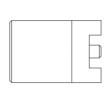




Hand Tool	Nil
Cable	Nil
PCB Soldering Pattern	Refer to S-Conn's Drawing

### MMCX S/T Jack, SMT Type



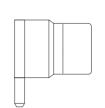


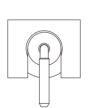


Hand Tool	Nil
Cable	Nil
PCB Soldering Pattern	Refer to S-Conn's Drawing

### MMCX S/T Jack, SMT Type





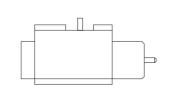


Hand Tool	Nil
Cable	Nil
PCB Soldering Pattern	Refer to S-Conn's Drawing

### Switch

### MMCX Jack Switch, Edge Mount Type







Hand Tool	Nil
Cable	Nil
PCB Soldering Pattern	Refer to S-Conn's Drawing

MM07

# **MCX Series**

### Description

MCX provides broadband capability through 6 Ghz. Ranges of configurations are available including printed circuit board and cable termination. This series gives design engineers options in applications where weight and physical space are limited.













### **Applications**

- Telecommunications
- Instrumentation
- Wireless
- Process Controls
- PC/LAN

#### **Features**

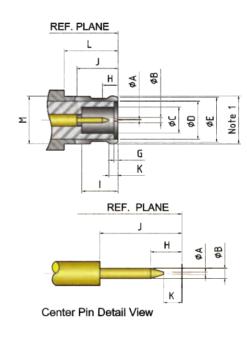
- Low cost combined with high quality.
- Broadband performance with low reflection DC to 6 GHz.
- Quick connect/disconnect snap-on mating.
- 50 ohm impedance.
- Interface according to IEC 169-36, CECC 22220

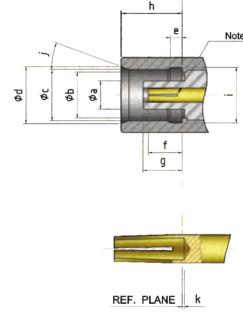
### **Specification**

#### MCX 50 ohm 0-6 GHz

MCX microminiature connectors provide repeatable performance from DC to 6 GHz. The design of these devices have taken into consideration the need for size reduction, low weight, durability and reliable performance. The MCX devices enable a 30% space reduction over similar SMB/SMC types. The MCX is available for affixement to industry standard cable and as a printed circuit board device. The snap-on connection feature between devices offer the user ease of assembly in dense packaging layouts. Applications for the MCX are those where size, weight, performance and ease of assembly are the driving considerations to the final design decision. Typically, these include GPS, wireless communications (WLAN and mobile) and automotive.

### **Interface Mating Dimensions**





REF. PLANE

1. Must meet the force to engage and disengage when mated with mating part.

#### **PLUG**

Letter	Millimeters (inches)		
Lettei	Minimum	Maximum	
Α	_	0.25(.010)	
В	0.48(.019)	0.53(.021)	
С	2.00(.079)	_	
D	_	3.00(.118)	
Е	_	3.60(.142)	
G	0.00(.000)	0.30(.012)	
Н	_	1.20(.047)	
I	2.80(.110)	_	
J	2.80(.110)	3.20(.126)	
K	0.15(.006)	_	
L	4.15(.163)	_	
М	_	3.40(.134)	

#### Center Pin Detail View

#### Note:

2.ID of contact to meet VSWR mating characteristics and connector durability when mated with a dia. .019-.021 (0.48-0.653) male contact.

#### **JACK**

Letter	Millimeters (inches)	
Letter	Minimum	Maximum
а	1.80(.071)	1.98(.078)
b	3.05	NOM
С	3.42(.135)	3.48(.137)
d	3.80(.150)	_
е	0.75(.029)	0.85(.033)
f	2.30(.091)	2.80(.110)
g	2.60(.102)	2.80(.110)
h	4.00(.157)	4.12(.162)
i	3.60(.142)	3.75(.148)
j	18°	22°
k	0.00(.000)	_
m	_	3.00(.118)

MX01 MX02







#### **Electrical**

Impedance	50Ω / 75Ω
Frequency Range	0 to 6 GHz
VSWR	≦1.2
RF Leakage	≥60 dB (flexible cable) ≥70 dB (semi- rigid cable)
Dielectric Withstanding Voltage	750 V rms
Voltage Rating	≧335 V rms (depending on cable)
Inner Contact Resistance	≦5 mΩ
Outer Contact Resistance	≦2.5 mΩ
Insulation Resistance	≧1 GΩ

#### Mechanical

Mating	Snap-on Coupling
Connector Durability	≥500 Cycles (for beryllium copper female contact only)
Engagement Force	≦3.4 lbs
Disengagement Force	1.4 lbs ~ 3.4 lbs
Cable Retention Force	≥ 7.3 lbs (for RG178) ≥ 12.1 lbs (for RG316)

#### **Environmental**

Temperature Range	-55° C to 155° C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Cond. B
Vibration	MIL-STD-202, Method 204, Cond. C
Thermal Shock	MIL-STD-202, Method 107, Cond. F
Mechanical Shock	MIL-STD-202, Method 213, Cond. B

#### **Material**

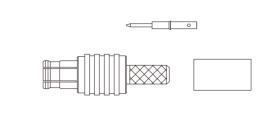
Parts Name	Material	Plating
Body	Brass	Gold or Nickel
Outer Contact	Beryllium Copper	Gold or Nickel
Inner Contact	Male : Brass Female :Phosphor Bronze Beryllium Copper	Gold
Insulator	PTFE	None
Gasket	Silicone Rubber	None
Crimp Ferrule	Annealed Copper	Same as Body

Note: Other Material/Finish is Available on Request.

## Crimp Type (for Flexible Cable)

### MCX S/T Plug, Crimp Type

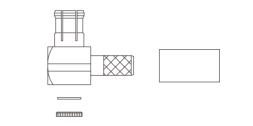




Hand Tool	See Appendix B
Cable	RG174/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

### MCX R/A Plug, Crimp Type

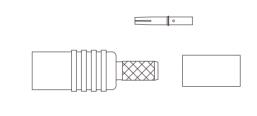




Hand Tool	See Appendix B
Cable	RG174/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code C

### MCX S/T Jack, Crimp Type



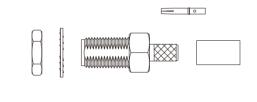


Hand Tool	See Appendix B
Cable	RG174/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

#### MCX B/H Jack, Crimp Type

MX204



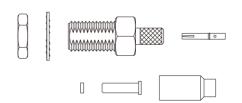


Hand Tool	See Appendix B
Cable	RG174/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

#### MCX B/H Jack, Crimp Type

MX210





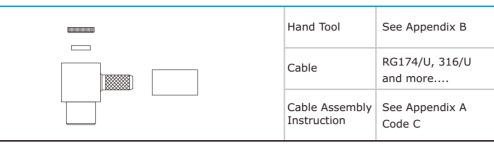
Hand Tool	See Appendix B
Cable	Mini Coaxial Cable, RG178 and more
Cable Assembly Instruction	See Appendix A Code E

MX03





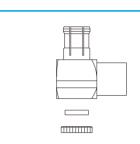




## Solder Type (for Semi-Rigid Cable)

### MCX R/A Plug, Solder Type

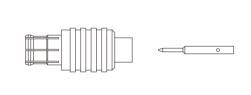




Hand Tool	Nil
Cable	RG402/U, 405/U and more
Cable Assembly Instruction	See Appendix A Code N

### MCX S/T Plug, Solder Type

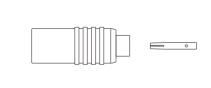




Hand Tool	Nil
Cable	RG402/U, 405/U and more
Cable Assembly Instruction	See Appendix A Code M

#### MCX S/T Jack, Solder Type

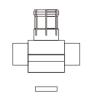


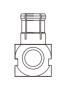


Hand Tool	Nil
Cable	RG402/U, 405/U and more
Cable Assembly Instruction	See Appendix A Code M

### MCX T-Style Plug, Solder Type







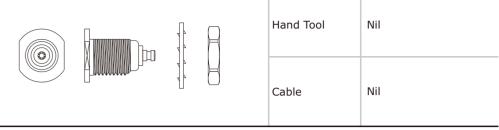
Hand Tool	Nil
Cable	RG402/U, 405/U and more
Cable Assembly Instruction	See Appendix A Code N

## Chassis Mount Type

#### MCX B/H Jack, Receptacle

MX205

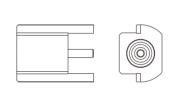




### **Edge Mount Type**

### MCX S/T Jack, Edge Mount Type

MX236



Hand Tool	Nil
Cable	Nil
PCB Soldering Pattem	Refer to S-Conn's Drawing

### PCB Mount Type

### MCX S/T Plug, PCB Mount Type





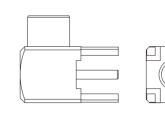


Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

#### MCX R/A Jack, PCB Mount Type

MX208

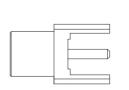




Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

#### MCX S/T Plug, PCB Mount Type





Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

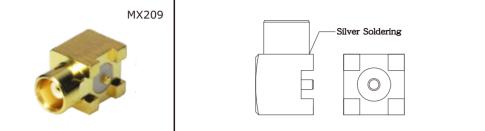
MX05



MCX

## SMT Type

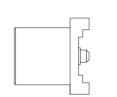
### MCX R/A Jack, SMT Type

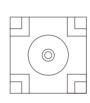


Hand Tool	Nil
Cable	Nil
PCB Soldering Pattern	Refer to S-Conn's Drawing

### MCX S/T Jack, SMT Type







Hand Tool	Nil
Cable	Nil
PCB Soldering Pattern	Refer to S-Conn's Drawing

## Switch

### MCX Switch Jack, Edge Mount Type

MX90









Hand Tool	Nil
Cable	Nil
PCB Soldering Pattern	Refer to S-Conn's Drawing

MX07 MX08

# 1.0/2.3 Series

### Description

1.0/2.3 coaxial connectors are miniature 50 ohm units with threaded coupling mechanisms which provide positive mating. The compact design of the 1.0 / 2.3 permits dense connector packing, making these connectors ideally suited to applications where space saving is factor.





#### **Applications**

- Telecommunications
- Switching equipment and routers
- Datacom

#### **Features**

- Meets DIN 41626, DIN 47297 and NFC 93-571 international specifications.
- Plugs and bulkhead jacks available in push pull types ensuring high reliability and a lower installed cost.
- Mates with DIN 41612 Two-Piece connectors.
- Interface according to IEC 169-29, CECC22230, DIN47297

### **Specification**

These connectors have been specially developed for application in communication engineering. The maximum operating frequency of the 50 ohm version is approximately 4 GHz. Plug style are available for screw-on, snap-on (two versions: simple snap-on and an automatic latching quick-lock), and slide-on coupling. Female styles are identical for all versions.

#### Type A (Screw-on coupling)

The connector is fitted with a coupling nut with which the plug and socket sections can be screwed by hand in accessible locations.

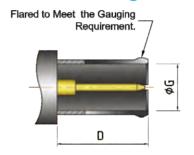
#### Type C (Slide-on coupling with centering sleeve)

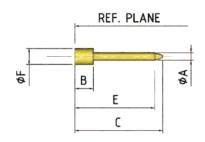
The movable (floating) inserted male connector used in a panel plate is provided with a conical insertion guide to facilitate its connection to the fixed part (female connector). The interconnection is a slide fit.

#### Type F (Quick-lock automatic latching coupling)

Plugs posses a latching sleeve fitted with an additional spring device which snaps into a corresponding slot of the jack when it plugged together. Pulling the latching sleeve of the plug disengages the connection. Rapid and simple connection and disconnection is possible.

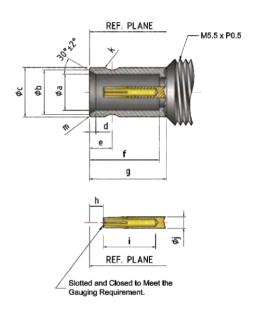
### **Interface Mating Dimensions**





#### **PLUG**

Letter	Millimeters (inches)		
Letter	Minimum	Maximum	
Α	0.48(.0187)	0.52(.0205)	
В	_	1.15(.045)	
С	_	5.50(.217)	
D	5.40(.213)	5.70(.224)	
Е	4.50(.177) —		
F	1(.039)NOM.		
G	2.3(.091)NOM.		



#### **JACK**

Letter	Millimeters (inches)	
Letter	Minimum	Maximum
а	3.00(.118)	3.06(.120)
b	3.53(.139)	3.60(.142)
С	4.03(.159)	4.14(.163)
d	0.50(.020)	0.60(.024)
е	1.80(.071)	1.90(.075)
f	5.80(.228)	5.90(.232)
g	6.40(.252)	6.50(.256)
h	1.15(.045)	1.75(.069)
I	4.50(.177)	_
j	1(.039)NOM.	
k	Radius $0.80\pm0.05(.03\pm.002)$	
m	Radius 0.3	.010 MAX.

1.0/2.3-01





1.0/2.

#### **Electrical**

Impedance	50Ω / 75Ω
Frequency Range	0 to 10 GHz / 0 to 2 GHz
VSWR	<b>≦</b> 1.4
RF Leakage	≧90 dB
Dielectric Withstanding Voltage	750 V rms
Voltage Rating	250 V rms (depending on cable)
Inner Contact Resistance	≦10 mΩ
Outer Contact Resistance	≦3 mΩ
Insulation Resistance	≧1 GΩ

#### Mechanical

Mating	Screw-on / Slide-on / Quick-lock
Connector Durability	≥ 500 Cycles (for beryllium copper female contact only)
Engagement Force	≦2.3 lbs
Disengagement Force	≦2.3 lbs
Cable Retention Force	≥12.1 lbs (for RG316, RG179)

#### **Environmental**

Temperature Range	-40° C to 85° C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Cond. B
Vibration	MIL-STD-202, Method 204, Cond. A
Thermal Shock	MIL-STD-202, Method 107, Cond. B
Mechanical Shock	MIL-STD-202, Method 213, Cond. B

#### Material

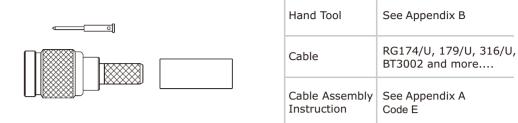
Parts Name	Material	Plating
Male (Plug)	Body:Brass Outer Contact:Phosphor Bronze Inner Contact:Brass	Nickel Gold Gold
Female (Jack)	Body:Brass Inner Contact:Beryllium Copper	Gold/ Nickel Gold
Insulator	PTFE	None
Crimp Ferrule	Annealed Copper	Same as Body

Note: Other Material/Finish is Available on Request.

### Crimp Type (for Flexible Cable)

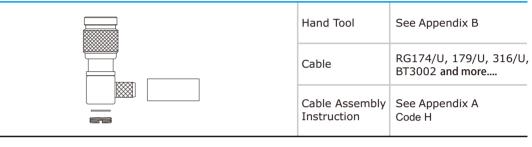
1.0/2.3 S/T Plug, Crimp Type





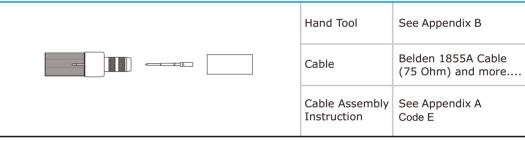
#### 1.0/2.3 R/A Plug, Crimp Type





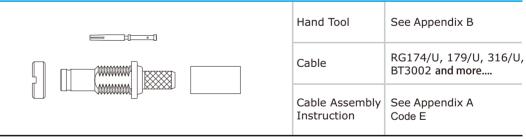
#### 1.0/2.3 S/T Plug, Dual Crimp Type (Type A, Screw-On Coupling)





#### 1.0/2.3 B/H Jack, Crimp Type

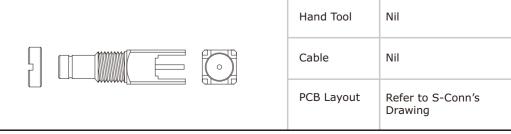




### **PCB Mount Type**

#### 1.0/2.3 S/T Jack, PCB Mount Type









1.0/2.3 R/A Bulkhead Jack, PCB Mount Type

C204



1.0/2.3-05

# 1.6/5.6 Series

### Description

1.6/5.6 coaxial connectors are miniature 75 ohm units with threaded coupling mechanisms which provide positive mating. The compact design of the 1.6/5.6 permits dense connector packing, making these connectors ideally suited to applications where space limitation is a important factor.













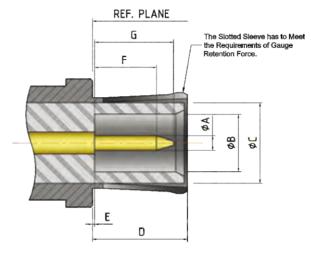
### **Applications**

- •Telecommunications
- Switching equipment and routers

#### **Features**

- 1.6/5.6 connectors meet IEC 169-13, DIN 47295 and NFC 93-570 international specifications.
   1.6 / 5.6 plugs and bulkhead jacks are available as crimp termination types ensuring high reliability in connector assembly and a lower cost installation method.
- Interface according to IEC 169-13, DIN 47295

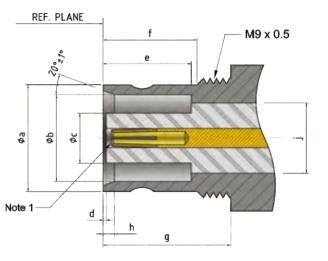
### **Interface Mating Dimensions**



Note:
Each Diameter shall be Concentric with a Common
Axis within t/2. Where t is the Total Tolerance of
that Diameter.

#### **PLUG**

Letter	Millimeters (inches)		
	Minimum	Maximum	
Α	0.97(.0382)	1.03(.0406)	
В	4.00(.157)	_	
С	5.60(.220) NOM.		
D	6.40(.252)	6.60(.260)	
Е	_	0.15(.0059)	
F	3.90(.1535)	4.30(.1693)	
G	_	5.50(.217)	



Note 1: Dimensions shall be chosen to meet the specified insertion/ withdrawal force of this standard.

#### **JACK**

Letter	Millimeters (inches)	
	Minimum	Maximum
а	8.10(.319)	8.25(.325)
b	6.60(.260)	6.69(.263)
С	0.90(.035)	3.80(.150)
d	0.25(.010)	_
е	6.70(.264)	7.50(.295)
f	7.00(.276)	_
g	9.70(.382)	1.10(.043)
h	0.90(.035)	_
j	5.60(.220) ref.	

1.6/5.6-01





#### **Electrical**

Impedance	75Ω
Frequency Range	0 to 1 GHz
VSWR	≦1.2
RF Leakage	≧100 dB
Dielectric Withstanding Voltage	1000 V rms
Voltage Rating	≧335 V rms (depending on cable)
Inner Contact Resistance	≦4 mΩ
Outer Contact Resistance	≦2 mΩ
Insulation Resistance	≧10 GΩ

#### Mechanical

Mating	M9xP0.5 Screw-on Coupling
Connector Durability	≥ 500 Cycles (for beryllium copper female contact only)
Recommended Mating Torque	≦6.75 lbs
Engagement Force	0.5 lbs ~ 2.7 lbs
Disengagement Force	0.5 lbs ~ 2.7 lbs
Cable Retention Force	≥12.1 lbs (for RG179) ≥38.3 lbs (for RG59)

#### **Environmental**

Temperature Range	-40° C to 85° C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Cond. B
Vibration	MIL-STD-202, Method 204, Cond. D
Thermal Shock	MIL-STD-202, Method 107, Cond. B
Mechanical Shock	MIL-STD-202, Method 213, Cond. B

#### **Material**

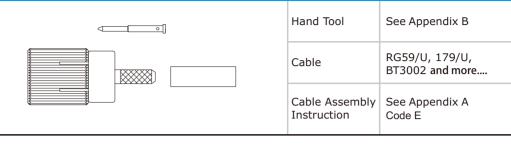
Parts Name	Material	Plating
Male (Plug)	Body/Metal parts:Brass Outer Contact:Phosphor Bronze Inner Contact:Brass	Nickel Gold Gold
Female (Jack)	Body/Metal Parts:Brass Inner Contact:Beryllium Copper Phosphor Bronze	Gold/ Nickel Gold
Insulator	PTFE	None
Crimp Ferrule	Annealed Copper	Same as Body

Note: Other Material/Finish is Available on Request.

### Crimp Type (for Flexible Cable)

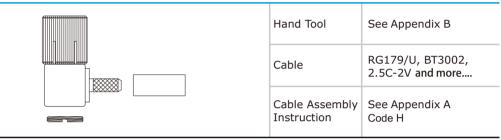
1.6/5.6 S/T Plug, Crimp Type





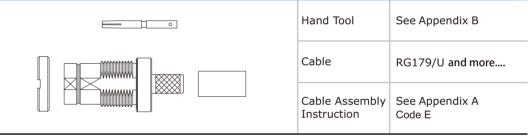
### 1.6/5.6 R/A Plug, Crimp Type





#### 1.6/5.6 B/H Jack, Crimp Type

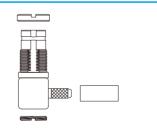




#### 1.6/5.6 R/A Bulkhead Jack, Crimp Type

G205



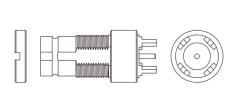


Hand Tool	See Appendix B
Cable	RG179/U, BT3002 and more
Cable Assembly Instruction	See Appendix A Code H

### **PCB Mount Type**

#### 1.6/5.6 B/H Jack, PCB Mount Type





Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

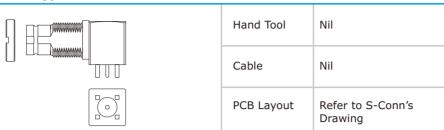
1.6/5.6-03



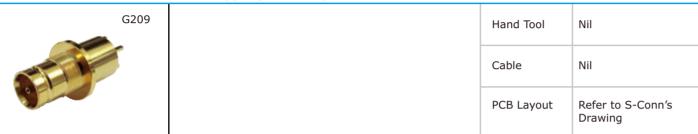


### 1.6/5.6 R/A Bulkhead Jack, PCB Mount Type

G207	
OFFICE	



### 1.6/5.6 S/T Jack, PCB Mount Type (75 Ohm)



1.6/5.6-05

# **SMA Series**

### Description

SMA connectors are adaptable to interconnection requirements of both systems and components. S-Conn offers a wide variety of cable connectors, receptacles, feed thrus, end launches, and precision adapters to allow for interfacing with other connector.



### **Applications**

- Civil & Military Telecommunication
- Instrumentation
- Wireless
- Process Control PC/LAN
- Microwave Components(power splitters and combiners, filters, amplifiers)





#### Features

- Commercial Grade (Brass SMA) available.
- Various cable groups including double shielded 316.
- Built in accordance with MIL-C-39012 and CECC 22110 / 1111.
- Gold or stainless steel passivated finish available.
- Interface according to IEC 169-15, EN 122110, MIL-C-39012 SMA, MIL-STD-348





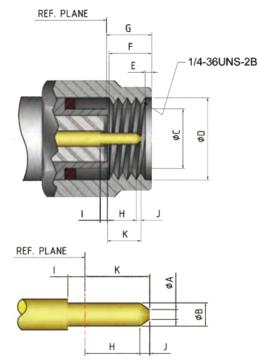
### **Specification**

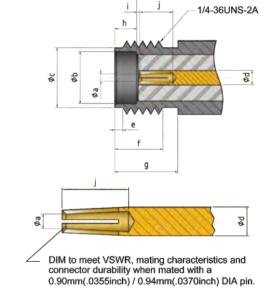
#### **SMA 50 ohm 0-18 GHz**

SMA connectors are semi - precision, subminiature devices that provide repeatable electrical performance from DC to 12.4 GHz with flexible cable. Semi - rigid cabling extends the frequency range of the device to 18 GHz. These devices offer broadband performance with low reflection and constant 50 ohm impedance. These properties, along with minimum attenuation and low VSWR have made the SMA extremely popular in the microwave community.

The SMA design has been broadened to accommodate many interconnect requirements and is available in pressure crimp, clamp and solder terminal attachments. SMA design parameters have incorporated the considerations of balancing cost, size, weight and performance to yield the best value in your microwave system. Among typical applications are components such as dividers, mixers, amplifiers, trimmers and attenuators. SMA connectors are also used to provide interconnections from printed circuit board stripliness to coaxial cable.

### Interface Mating Dimensions





#### **PLUG**

Letter	Millimeters (inches)		
	Minimum	Maximum	
Α	_	0.38(.015)	
В	0.90(.0355)	0.94(.037)	
С	_	4.59(.1808)	
D	6.35(.025)	_	
Е	0.38(.015)	1.15(.045)	
F	3.30(.130)	_	
G	_	3.43(.135)	
Н	1.27(.050)	_	
I	0.00(.000)	0.245(.010)	
J	_	0.38(.015)	
K	_	2.54(.100)	

#### **JACK**

Letter	Millimeters (inches)		
	Minimum	Maximum	
а	0.90(.0355)	0.94(.037)	
b	4.60(.181)	_	
С	5.28(.208)	5.49(.216)	
d	1.25(.049)	1.30(.051)	
е	0.38(.015)	1.15(.045)	
f	4.32(.170)	_	
g	5.54(.218)	_	
h	1.88(.074)	1.98(.078)	
i	0.00(.000)	0.25(.010)	
j	2.92(.115)	_	

S-01 S-02







#### **Electrical**

Impedance	50Ω
Frequency Range	0 to 18 GHz
VSWR	$\leq$ 1.2 + .03 f (GHz)
RF Leakage	≧60 dB
Dielectric Withstanding Voltage	1000 V rms
Voltage Rating	≥ 500 V rms (depending on cable)
Inner Contact Resistance	≦3 mΩ
Outer Contact Resistance	≦2.5 mΩ
Insulation Resistance	≧5 GΩ

#### Mechanical

Mating	1/4-36 UNS Screw-on Coupling
Connector Durability	≥500 Cycles (for beryllium copper female contact only)
Recommended Mating Torque	7.1 lbs ~ 9.7 lbs
Coupling Nut Retention Force	≧60.7 lbs
Cable Retention Force	≥7.3 lbs (for RG178) ≥12.1 lbs (for RG316) ≥28.7 lbs (for RG58)

#### **Environmental**

Temperature Range	-65° C to 165° C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Cond. B
Vibration	MIL-STD-202, Method 204, Cond. D
Thermal Shock	MIL-STD-202, Method 107, Cond. B
Mechanical Shock	MIL-STD-202, Method 213, Cond. I

#### Material

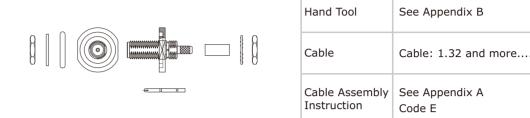
Parts Name	Material	Plating
Body	Stainless steel Brass	Passivated or Gold Nickel or Gold
Inner Contact	Male: Brass Female: Beryllium Copper Phosphor Bronze	Gold
Insulator	PTFE	None
Gasket	Silicone Rubber	None
Crimp Ferrule	Annealed Copper	Same as Body

Note: Other Material/Finish is Available on Request.

### Crimp Type (for Flexible Cable)

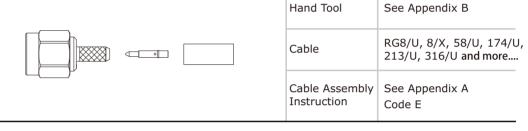
#### **SMA B/H Jack, Crimp Type**





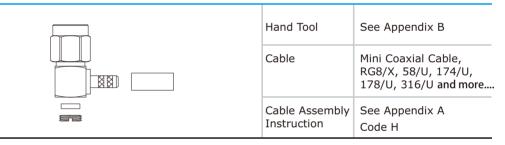
#### **SMA S/T Plug, Crimp Type**





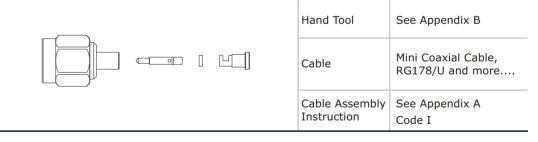
#### SMA R/A Plug, Crimp Type





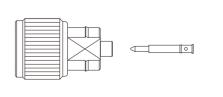
#### SMA S/T Plug, Crimp Type





#### SMA S/T Plug, Crimp Type (Antenna)





Hand Tool	See Appendix B
Cable	Mini Coaxial Cable, RG178/U and more
Cable Assembly Instruction	See Appendix A Code M

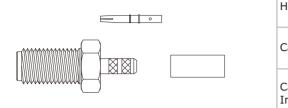
S-03





#### **SMA S/T Jack, Crimp Type**



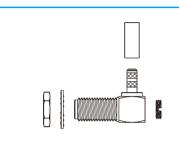


	Hand Tool	See Appendix B
	Cable	RG8/X, 58/U, 174/U, 316/U and more
	Cable Assembly Instruction	See Appendix A Code E

#### **SMA R/A Jack, Crimp Type**



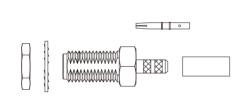
**SMA** 



Hand Tool	See Appendix B
Cable	Mini Coaxial Cable, RG174/U, 178/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code H

#### **SMA B/H Jack, Crimp Type**

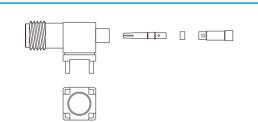




	Hand Tool	See Appendix B
	Cable	RG8/U, 8/X, 58/U, 174/U, 213/U, 316/U and more
	Cable Assembly Instruction	See Appendix A Code E

#### SMA R/A Jack, PCB Mount Crimp Type

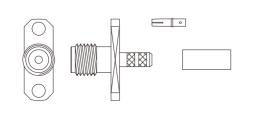




Hand Tool	See Appendix B
Cable	Mini Coaxial Cable, RG178/U and more
Cable Assembly Instruction	See Appendix A Code E
	Cable Assembly

#### **SMA P/M 2-Hole Jack, Crimp Type**

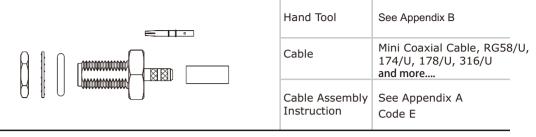




Hand Tool	See Appendix B
Cable	Mini Coaxial Cable, RG58/U, 174/U, 178/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

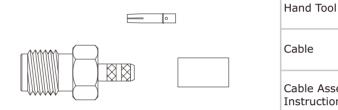
#### **SMA B/H-O Jack, Crimp Type**





#### SMA S/T Jack, Crimp Type



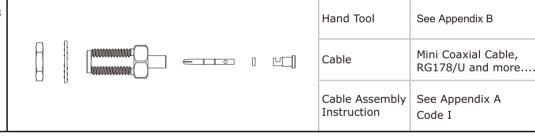


Cable	RG178/U, 174/U, 316/U , 58/U, 142/U, LMR400 and more
Cable Assembly Instruction	See Appendix A Code E

See Appendix B

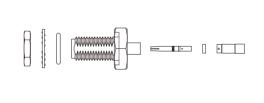
#### SMA B/H Jack, Crimp Type (Direct Solder Type is also available)





#### SMA B/H-O Jack, Crimp Type (Direct Solder Type is also available)



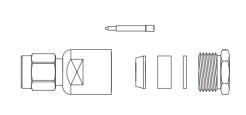


Hand Tool	See Appendix B
Cable	Mini Coaxial Cable RG178/U and more
Cable Assembly Instruction	See Appendix A Code I

### Clamp Type (for Flexible Cable)

### SMA S/T Plug, Clamp Type





Hand Tool	Nil
Cable	RG174/U, RG316/U , RG58/U and more
Cable Assembly Instruction	See Appendix A Code L







Nil

RG402/U, 405/U

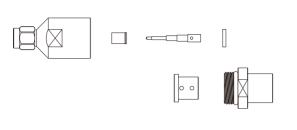
and more....

Code M

#### **SMA S/T Plug, Clamp Type**



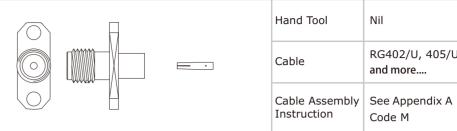




Hand Tool	Nil
Cable	LL335, and more
Cable Assembly Instruction	See Appendix A Code L

### SMA P/M 2-Hole Jack, Solder Type

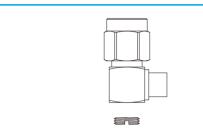




### Solder Type (for Semi-Rigid Cable)

#### SMA R/A Plug, Solder Type

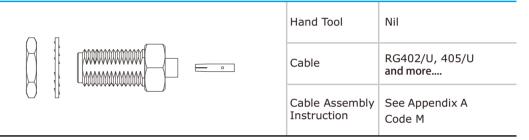




Hand Tool	Nil
Cable	RG402/U, 405/U and more
Cable Assembly Instruction	See Appendix A Code N

#### SMA B/H Jack, Solder Type

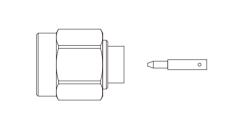




#### **SMA S/T Plug, Solder Type**

S122



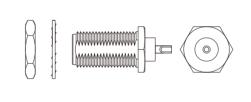


Hand Tool	Nil
Cable	RG402/U, 405/U and more
Cable Assembly Instruction	See Appendix A Code M

### Chassis Mount Type

#### SMA B/H Jack, Solder Type

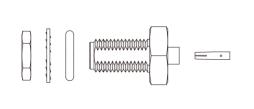




Hand Tool	Nil
Cable	Nil

#### SMA B/H-O Jack, Solder Type

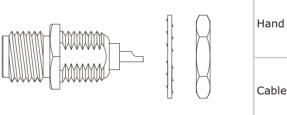




Hand Tool	Nil
Cable	RG402/U, 405/U and more
Cable Assembly Instruction	See Appendix A Code M

#### **SMA B/H Jack, Front Mount Solder Type**



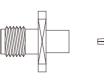


Hand Tool	Nil
Cable	Nil

#### **SMA P/M 4-Hole Jack, Solder Type**







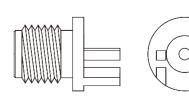
•	

Hand Tool	Nil
Cable	RG402/U, 405/U and more
Cable Assembly Instruction	See Appendix A Code M

### End Launch Type

#### SMA S/T Jack, End Launch Type





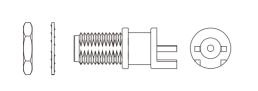
Hand Tool	Nil
Cable	Nil
PCB Soldering Pattern	Refer to S-Conn's Drawing





#### SMA B/H Jack, End Launch Type



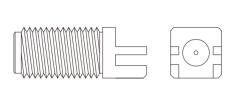


Hand Tool	Nil
Cable	Nil
PCB Soldering Pattern	Refer to S-Conn's Drawing

#### **SMA S/T Jack, End Launch Type**



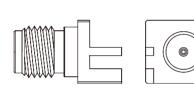
**SMA** 



Hand Tool	Nil
Cable	Nil
PCB Soldering Pattern	Refer to S-Conn's Drawing

### **SMA S/T Jack, End Launch Type**

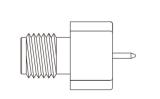




Hand Tool	Nil
Cable	Nil
PCB Soldering Pattern	Refer to S-Conn's Drawing

#### SMA S/T Jack, Edge Mount Type





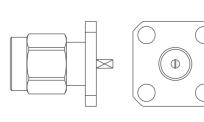


Hand Tool	Nil
Cable	Nil
PCB Soldering Pattern	Refer to S-Conn's Drawing

## Panel Mount Type

#### SMA P/M 4-Hole Plug, Receptacle (Tab Contact)

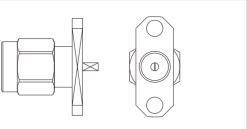




Hand Tool	Nil
Cable	Nil

#### SMA P/M 2-Hole Plug, Receptacle (Tab Contact)

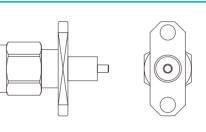




Hand Tool	Nil
Cable	Nil

### SMA P/M 2-Hole Plug, Receptacle (Extended PTFE)

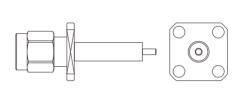




Hand Tool	Nil
Cable	Nil

#### SMA P/M 4-Hole Plug, Receptacle (Extended PTFE)

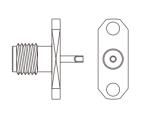




Hand Tool	Nil
Cable	Nil

#### SMA P/M 2-Hole Jack, Solder Type



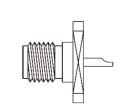


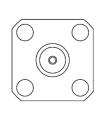
Hand Tool	Nil
Cable	Nil

### SMA P/M 4-Hole Jack, Solder Type

S216







Hand Tool	Nil
Cable	Nil

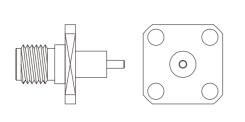






#### SMA P/M 4-Hole Jack, Receptacle (Exlended PTFE)



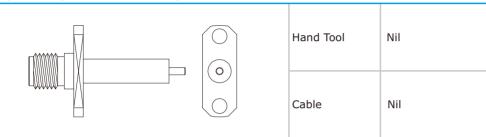


Hand Tool	Nil
Cable	Nil

#### SMA P/M 2-Hole Jack, Receptacle (Extended PTFE)

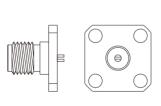


SMA



#### SMA P/M 4-Hole Jack, Receptacle (R-Contact w/Slot)



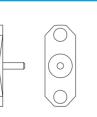


Hand Tool	Nil
Cable	Nil

#### SMA P/M 2-Hole Jack, Receptacle (Epoxy)

S222

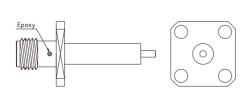




Hand Tool	Nil
Cable	Nil

#### SMA P/M 4-Hole Jack, Receptacle (Extended PTFE, Epoxy)

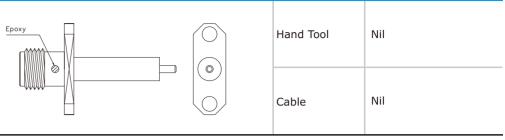




Hand Tool	Nil
Cable	Nil

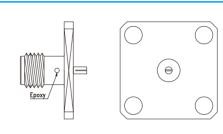
#### SMA P/M 2-Hole Jack, Receptacle (Extended PTFE, Epoxy)

\$255



#### SMA P/M 4-Hols Jack, Receptacle (R-connect w/Slot, Epoxy)

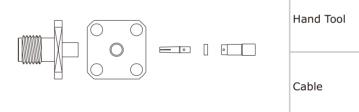




Hand Tool	Nil
Cable	Nil

#### SMA P/M 4-Hole Jack, Crimp Type



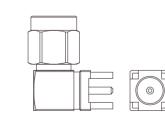


1	Hand Tool	Nil
J	Cable	Mini Coaxial Cable, RG178/U and more

### **PCB Mount Type**

### SMA R/A Plug, PCB Mount Type

S103

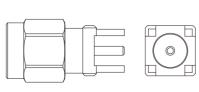


Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

### SMA S/T Plug, PCB Mount Type

S105





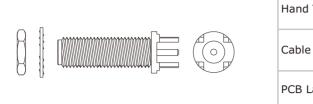
Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing





#### **SMA S/T Jack, PCB Mount Type**



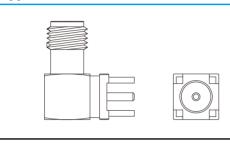


Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

#### **SMA R/A Jack, PCB Mount Type**



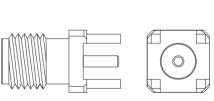
SMA



Hand Tool	N/A
Cable	N/A
PCB Layout	Refer to S-Conn's Drawing

#### **SMA S/T Jack, PCB Mount Type**

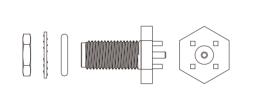




Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

#### SMA S/T-O Jack, PCB Mount Type

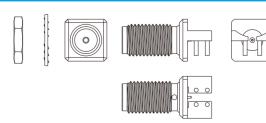




Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

#### SMA R/A Jack, PCB Mount Type(Epoxy)

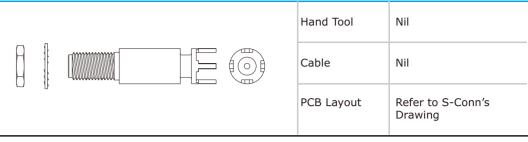




Hand Tool		Nil
Cable		Nil
PCB Layou	ıt	Refer to S-Conn's Drawing

#### **SMA S/T Jack, PCB Mount Type**

\$290



#### **SMA S/T Jack, PCB Mount Type**

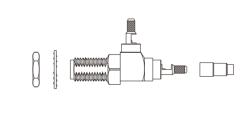




### **Switch**

### SMA S/T Jack, PCB Mount Type



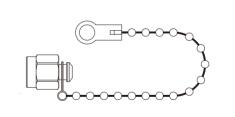


Hand Tool	Nil
Cable	1.37 and more
Cable Assembly Instruction	Code F

### **Dust Cap**

#### **Dust Cap for SMA Jack**

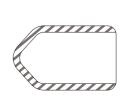




Hand Tool	Nil
Cable	Nil

#### **Dust Cap for SMA Jack, Plastic Type**





Hand Tool	Nil
Cable	Nil

S-13 S-14



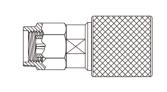




## **Terminator (SMA)**

**SMA Jack Terminator** 

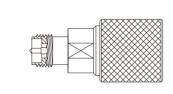




Hand Tool	Nil
Cable	Nil
VSWR	0-18G <1.2, 1/2W

### **SMA Jack Terminator**



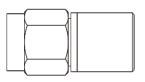


Hand Tool	Nil
Cable	Nil
VSWR	0-18G <1.2, 1/2W

### **SMA Plug Terminator**



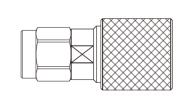




Hand Tool	Nil
Cable	Nil
VSWR	0-6G <1.2

### **SMA Plug Terminator**

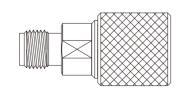




Hand Tool	Nil
Cable	Nil
VSWR	0-18G <1.2, 1/2W

#### **SMA Jack Terminator**





Hand Tool	Nil
Cable	Nil
VSWR	0-18G <1.2, 1/2W

S-15 S-16

# **SMB Series**

#### Description

The growth rate of these emerging markets has fueled an increasing demand for subminiature coaxial connectors with very good electrical performance to 4 GHz.

SMB connectors conform to the requirements of MIL-C-39012 and their interface is in compliance with MIL-STD-348. SMB series connectors feature quick connect / disconnect snap-on mating and are available in 50 ohm, 75 ohm and a high density 75 ohm version.

The series has broadband performance with low reflection.











### **Applications**

- Telecommunications
- Test and Measurement
- Instrumentation
- Wireless
- Process Controls
- PC / LAN
- Base Stations
- Microwave Components
- Radio Boards
- Video Systems

#### **Features**

- Low cost combined with high quality.
- Broadband performance with low reflection DC to 4 GHz
- Quick connect/disconnect snap on mating.
- 50 and 75 ohm impedance.
- Various plating options.
- Braid crimp cable attachment and solder center pin.
- Automated assembly and inspection.
- Especially designed for subminiature packaging needs where snap-on mating is an advantage.
- Interface according to IEC 169-10, CECC 22130, MIL-C-39012 SMB, MIL-STD-348A/311

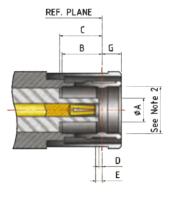
### **Specification**

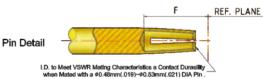
#### **SMB 50 ohm 0-4 GHz**

SMB connectors are semi - precision, subminiature devices that provide repeatable electrical performance to 4 Ghz. The SMB family of connectors provide a means of quick-connect and disconnect through a snap-on type coupling.

Its smaller physical size and snap-on coupling make the SMB an ideal general purpose connector where packaging density, ease of mating / unmating and economy are prerequisites. Crimp, clamp and receptacle types are available in right angle , printed circuit board and straight body styles. Typical applications for SMB connectors are telecommunications, test equipment, instrumentation and GPS.

### **Interface Mating Dimensions**



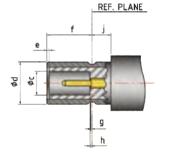


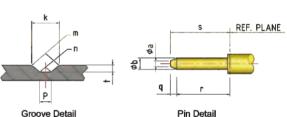
#### Note:

- 1.Method of Slotting of Inner Contact Optional.
- Must Meet the Longitudinal Force Requirements of Force to Engage and Disengage when Mated with Its Mating Gauge.
- 3.This Interaface shall Meet the Gauge Requirements as Specified in MIL-C-39012/67

#### **PLUG**

Letter	Millimeters (inches)		
Letter	Minimum	Maximum	
Α	_	2.06(.081)	
В	3.58(.141)	_	
С	3.58(.141)	_	
D	0.18(.007)	_	
L	0.18(.007)	0.94(.037)	
I	2.97(.117)	_	
G	_	1.63(.064)	
Н	3.05(.13	20)nom	





#### Note

- 1. This Interface shall meet the guage requirements as Specified in MIL-C-39012/68.
- 2.Clearance for Mating Connector Coupling Nut.

#### **JACK**

Letter	Millimeters (inches)		
Letter	Minimum	Maximum	
а	_	0.25(.010)	
b	0.48(.019)	0.53(.021)	
С	2.08(.082)	_	
d	3.66(.144)	3.71(.146)	
е	0.00(.000)	_	
f	3.33(.131)	3.58(.141)	
g	_	0.18(.007)	
h	_	0.18(.007)	
j	1.65(.065)	_	
k	0.69(.027)	0.94(.037)	
m	0.05(.002)	0.15(.006)	
n	_	0.13(.005)	
р	0.28(.011)	0.38(.015)	
q	0.25(.010)	_	
r	1.32(.052)	_	
S	_	2.97(.117)	
t	0.15(.006)	0.25(.010)	
u	3.05	(.120)nom	
	-		

SB-01 SB-02







#### **Electrical**

Impedance	50Ω / 75Ω
Frequency Range	0 to 4 GHz
VSWR	≤1.3 (straight connector) ≤1.45 (right angle connector)
RF Leakage	≧55 dB
Dielectric Withstanding Voltage	750 V rms
Voltage Rating	250 V rms (depending on cable)
Inner Contact Resistance	≦5 mΩ
Outer Contact Resistance	≦2.5 mΩ
Insulation Resistance	≧1 GΩ

#### Mechanical

Mating	Snap-on Coupling
Connector Durability	≥500 Cycles (for beryllium copper female contact only)
Engagement Force	≦14.2 lbs
Disengagement Force	1.8 lbs ~ 14.2 lbs
Cable Retention Force	≥7.3 lbs (for RG178) ≥12.1 lbs (for RG316)

#### **Environmental**

Temperature Range	-65° C to 165° C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Cond. B
Vibration	MIL-STD-202, Method 204, Cond. D
Thermal Shock	MIL-STD-202, Method 107, Cond. B
Mechanical Shock	MIL-STD-202, Method 213, Cond. B

#### **Material**

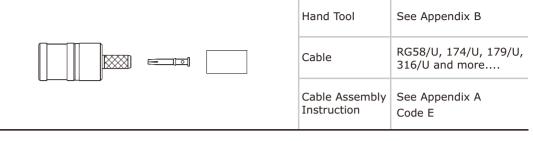
Parts Name	Material	Plating
Body	Brass	Nickel or Gold
Inner Contact	Male : Brass Female :Phosphor Bronze Beryllium Copper	Gold
Insulator	PTFE	None
Gasket	Silicone Rubber	None
Crimp Ferrule	Annealed Copper	Same as Body

Note: Other Material/Finish is Available on Request.

### Crimp Type (for Flexible Cable)

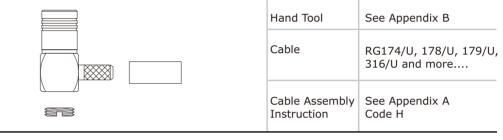
### SMB S/T Plug, Crimp Type





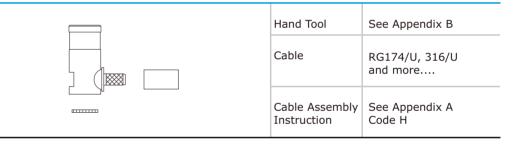
#### SMB R/A Plug, Crimp Type





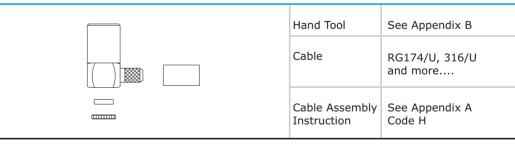
#### SMB R/A Plug, Crimp Type





#### SMB R/A Plug, Crimp Type

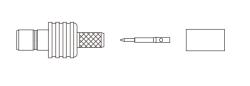




#### **SMB S/T Jack, Crimp Type**

SB201





Hand Tool	See Appendix B
Cable	RG174/U, 178/U, 316/ and more
Cable Assembly Instruction	See Appendix A Code E





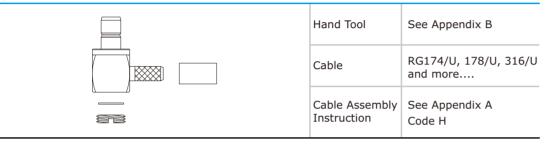
#### SMB B/H Jack, Crimp Type



	Hand Tool	See Appendix B
	Cable	RG174/U, 178/U, 316/U and more
	Cable Assembly Instruction	See Appendix A Code E

#### **SMB R/A Jack, Crimp Type**

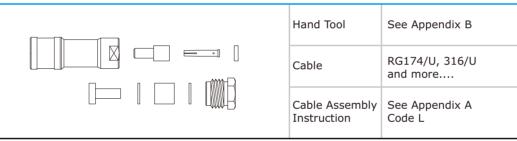




### Clamp Type (for Flexible Cable)

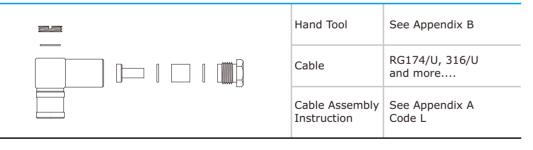
#### SMB S/T Plug, Clamp Type





#### **SMB R/A Plug, Clamp Type**





### Chassis Mount Type

#### SMB B/H Jack, Front Mount Solder Type

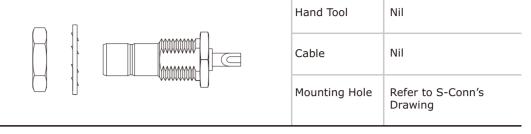


	Hand Tool	Nil
	Cable	Nil
	Mounting Hole	Refer to S-Conn's Drawing

#### SMB B/H Jack, Solder Type

SB231

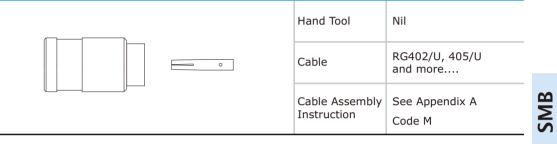




### Direct Solder Type (for Semi-Rigid Cable)

### SMB S/T Plug, Solder Type

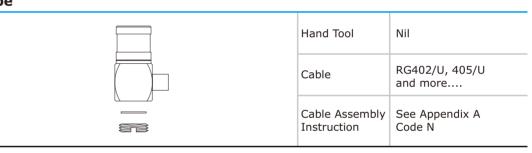
SB121



#### SMB R/A Plug, Solder Type

SB122

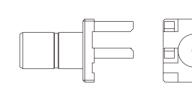




### End Launch Type

#### SMB S/T Jack , End Launch Type

SB233

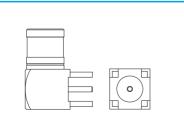


Hand Tool	Nil
Cable	Nil
PCB Soldering Pattern	Refer to S-Conn's Drawing

### **PCB Mount Type**

#### SMB R/A Plug, PCB Mount Type

SB105



Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

SB-05

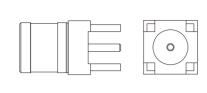




### PCB Mount Type

### SMB S/T Plug, PCB Mount Type

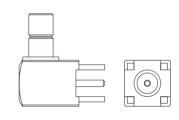




Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

### SMB R/A Jack, PCB Mount Type

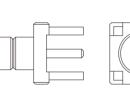




Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

### SMB S/T Jack, PCB Mount Type

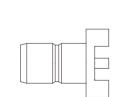


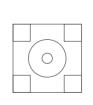


Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

### SMB S/T Jack, SMT Type



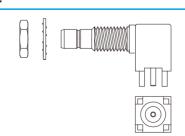




Hand Tool	Nil
Cable	Nil
PCB Soldering Pattem	Refer to S-Conn's Drawing

### SMB R/A Jack, PCB Mount Type

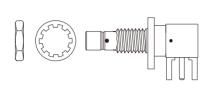




Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

### SMB R/A Jack, PCB Mount Type (Epoxy)

SBJ17



Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

SB-07

# SMZ(BT43) Series

### Description

The coaxial connector ranges featured in this catalogue include both the standard (12.7mm), high density (10.0mm) and ultra high density (9.00mm) versions of Type 43 Digital Distribution Frame (DDF) plugs, sockets and U-links, as well as ancillary products such as SMB , SMZ, BNC connectors and adaptors.







#### Type 43 series-Features Telecommunications

 Where applicable the Type 43 product range is approved to all current BT specifications, as well as being the first choice for many other new or existing analogue or digital telecommunication systems e.g. land based, mobile, PCN and GSM networks.

#### Low cost

• Low installation cost due to high quality, proven crimp centre contact design.

#### High performance

• Excellent VSWR at rated frequencies up to 5 GHz Reliable

### Long life design, incorporating special locking feature which prevents accidental disconnection.

#### Fast termination

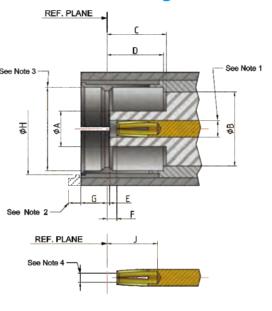
- Single piece body styles allow reliable, easy operator assembly in varied on-site conditions.
- Interface according to IEC 169-28

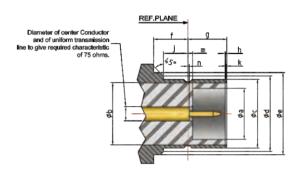
### **Specification**

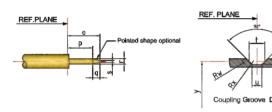
#### **SMZ Type 43 General Technical Specification**

75 ohm coaxial Type 43 connectors are designed to meet or exceed the requirements of BS 9210 F0022. The following information is subject to change without notice. The performance values shown are typical and may not relate to all connector styles available.

### **Interface Mating Dimensions**







#### Note:

- 1.Diameter of center Conductor and of uniform transmission line to give required characteristic of 75 ohms.
- 2.May be 2.36 MAX. provided that any projection beyond 1.98 clear the MMC mating connector defined by SMZ Plug.
- 3.From and dimension of outer contact detent to meet electrical and mechanical requirements.
  4.Bore diameter closed to meet electrical and mechanical requirements.

#### Plua

1 lug	
Millimeters (inches)	
Minimum	Maximum
_	3.33
5.60(N	lom.)
3.58	_
3.58	_
0.18	_
0.18	0.94
	1.98(See Note2)
6.35	_
2.97	_
	Minimum  - 5.60(N 3.58 3.58 0.18 0.18 6.35

-			
- 1	2	$\sim$	_
J	ч	C	$\mathbf{r}$

Jack		
Lottor	Millimeters	s (inches)
Letter	Minimum	Maximum
W	0.05	0.15
Х	_	0.13
У	5.97	6.07
		Letter Millimeters  W 0.05  X -

#### Jack

Letter	Millimeters (inches)	
	Minimum	Maximum
а	3.35	_
b	5.60(1	Nom.)
С	6.20	6.25
d	_	6.99
е	_	7.94
f	2.36	_
g	3.33	3.58
h	0.10	0.20
j	2.01	_
k	0.00	_
m	_	0.18
n	_	0.18
0	_	2.97
р	1.32	_
q	0.25	_
r	0.48	0.53
S	_	0.25
t	0.53(Nom.)	
u	0.28	0.38
V	0.15	0.25

BT-01 BT-02





#### **Electrical**

Impedance	75Ω
Frequency Range	0 to 3 GHz
VSWR	≦1.5
RF Leakage	≧55 dB
Dielectric Withstanding Voltage	1000 V rms
Voltage Rating	≥ 335 V rms (depending on cable)
Inner Contact Resistance	≦5 mΩ
Outer Contact Resistance	≦2.5 mΩ
Insulation Resistance	≥5 GΩ

#### Mechanical

Mating	Snap-on Coupling
Connector Durability	≥ 500 Cycles (for beryllium copper female contact only)
Engagement Force	≦14.2 lbs
Disengagement Force	1.8 lbs ~ 14.2 lbs
Cable Retention Force	≧12.1 lbs (for RG179)

#### **Environmental**

Temperature Range	-65° C to 165° C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Cond. B
Vibration	MIL-STD-202, Method 204, Cond. D
Thermal Shock	MIL-STD-202, Method 107, Cond. B
Mechanical Shock	MIL-STD-202, Method 213, Cond. I

#### **Material**

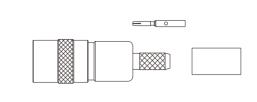
Parts Name	Material	Plating
Body	Brass	Gold
Outer Contact	Phosphor Bronze	Gold
Inner Contact	Male: Brass Female: Beryllium Copper Phosphor Bronze	Gold
Insulator	PTFE	Not applicable
Panel Grommet	Polyacetal	Not applicable
Ferrule	Brass	Nickel
Panel Mounting Hardware **	Brass or Phosphor Bronze	Nickel

- \*In general all Type 43 series connector bodies are gold plated in mating areas.
- \*\*Panel mounting hardware includes component such as nut, washer, spacer etc.
  \*\*\*Note, lower cable retention value for RG179-60 N min and BT3002/TZC 75024 150 N min.

### Crimp Type (for Flexible Cable)

### BT43 S/T Plug, Crimp Type



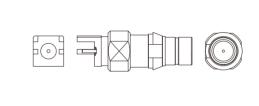


Hand Tool	See Appendix B
Cable	RG179/U and more
Cable Assembly Instruction	See Appendix A Code E

### End Launch Type

### BT43 S/T Jack, End Launch Type





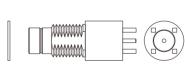
Hand Tool	Nil
Cable	Nil
PCB Soldering Pattern	Refer to S-Conn's Drawing

### PCB Mount Type

### BT43 B/H Jack, PCB Mount Type





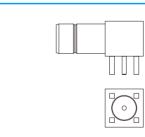


	Hand Tool	Nil
)	Cable	Nil
	PCB Layout	Refer to S-Conn's Drawing

#### BT43 R/A Jack, PCB Mount Type

BT204



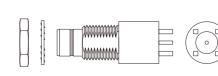


Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

#### BT43 B/H Jack, PCB Mount Type

BT205





Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

# **Reverse Polarity (RP) Series**

### Description

Reverse polarity BNC, TNC, N & SMA connectors (RP-BNC, RP-TNC, RP-SMA) are designed for uses in wireless applications where a non-standard interface has been mandated by the FCC.









### **Applications**

• Spread Spectrum Wireless Devices

#### Features

 These connectors may also be used in applications where keying is a necessity. The RP BNCs, RP TNCs & RP SMAs meet the same high quality requirements as standard S-CONN'S BNCs, TNCs & SMAs. They provide excellent performance DC to 4 GHz for RP BNCs, DC to 4 GHz for RP TNCs and DC 18 GHz for RP-SMAs.

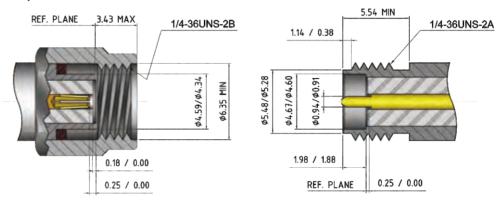
### **Specification**

#### **REVERSE POLARITY CONNECTORS(SMA, BNC, TNC)**

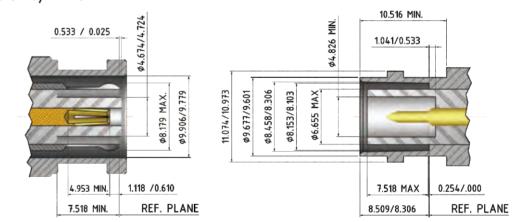
Reverse Polarity non-standard interface connectors are designed for spread spectrum wireless applications where Part 15. 203 of U.S. FCC regulations are applicable. The reverse polarity design prevents damage and will not mate with standard interface devices if accidentally connected. SMA, BNC and TNC devices are readily available. Standard cable affixment sizes are available with special or custom design inquiries accepted.

### **Interface Mating Dimensions**

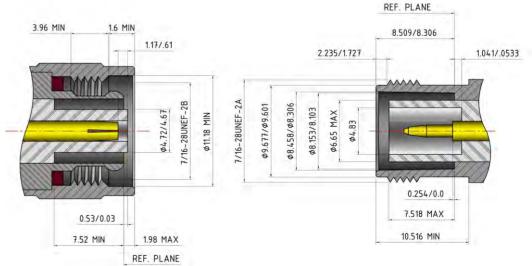
#### Reverse Polarity SMA



#### Reverse Polarity BNC



#### Reverse Polarity TNC



Notes: Unit of "Inch'

RP-01

## RP





### Reverse Polarity SMA

#### **Electrical**

Impedance	50Ω
Frequency Range	0 to 18 GHz
VSWR	$\leq$ 1.2 + .03 f (GHz)
RF Leakage	≧60 dB
Dielectric Withstanding Voltage	1000 V rms
Voltage Rating	≥ 500 V rms (depending on cable)
Inner Contact Resistance	≦3 mΩ
Outer Contact Resistance	≦2.5 mΩ
Insulation Resistance	≧5 GΩ

#### Mechanical

Mating	1/4-36 UNS Screw-on Coupling
Connector Durability	≥500 Cycles (for beryllium copper female contact only)
Recommended Mating Torque	7.1 lbs ~ 9.7 lbs
Coupling Nut Retention Force	≧60.7 lbs
Cable Retention Force	≥7.3 lbs (for RG178) ≥12.1 lbs (for RG316) ≥28.7 lbs (for RG58)

#### **Environmental**

Temperature Range	-65° C to 165° C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Cond. B
Vibration	MIL-STD-202, Method 204, Cond. D
Thermal Shock	MIL-STD-202, Method 107, Cond. B
Mechanical Shock	MIL-STD-202, Method 213, Cond. I

### Reverse Polarity BNC, TNC

#### **Electrical**

Impedance	50Ω / 75Ω	
Frequency Range	0 to 4 GHz / 0 to 1 GHz	
VSWR	≤1.3 (straight connector) ≤1.35 (right angle connector)	
RF Leakage	BNC: ≧55 dB	TNC: ≧60 dB
Dielectric Withstanding Voltage	1500 V rms	
Voltage Rating	≥500 V rms (depending on cable)	
Inner Contact Resistance	≦1.5 mΩ	
Outer Contact Resistance	≦1 mΩ	
Insulation Resistance	≧5 GΩ	

#### Mechanical

Mating	BNC: Bayonet Coupling	TNC: 7/16-28 UNEF Screw-on Coupling
Connector Durability	≥500 Cycles (for beryllium cop	per female contact only)
Recommended Mating Torque	BNC: 0.6 lbs ~ 2.5 lbs	TNC: 4.1 lbs ~ 6.1 lbs
Coupling Nut Retention Force	≧101.2 lbs	
Cable Retention Force $\geq$ 12.1 lbs (for RG316) $\geq$ 28.7 lbs (for RG58) $\geq$ 38.3 lbs (for RG59)		

#### **Environmental**

Temperature Range	-65° C to 165° C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Cond. B
Vibration	MIL-STD-202, Method 204, Cond. B
Thermal Shock	MIL-STD-202, Method 107, Cond. B
Mechanical Shock	MIL-STD-202, Method 213, Cond. G

#### Material

Parts Name	Material	Plating
Body	Stainless steel Brass	Passivated or Gold Nickel or Gold
Inner Contact	Male: Brass Female: Beryllium Copper Phosphor Bronze	Gold
Insulator	PTFE	None
Gasket	Silicone Rubber	None
Crimp Ferrule	Annealed Copper	Same as Body

Note: Other Material/Finish is Available on Request.

RP-03

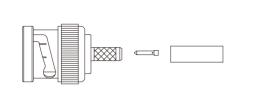




### BNC - Crimp Type (for Flexible Cable)

### RP BNC S/T Plug, Crimp Type





Hand Tool	See Appendix B
Cable	RG58/U, 174/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

#### **RP BNC S/T Jack, Crimp Type**

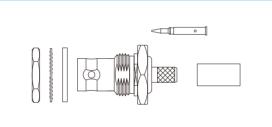




Hand Tool	See Appendix B
Cable	RG58/U, 174/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

#### **RP BNC B/H-O Jack, Crimp Type**



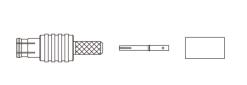


Hand Tool	See Appendix B
Cable	RG58/U and more
Cable Assembly Instruction	See Appendix A Code E

### MCX - Crimp Type (for Flexible Cable)

#### **RP MCX S/T Plug, Crimp Type**

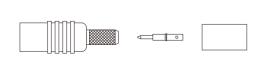




Hand Tool	See Appendix B
Cable	Mini Coaxial Cable, RG174/U, 178/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

### **RP MCX S/T Jack, Crimp Type**





Hand Tool	See Appendix B
Cable	RG174/U, 178/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

### MMCX - Crimp Type (for Flexible Cable)

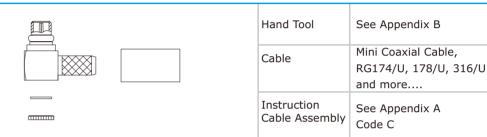
### **RP MMCX S/T Plug, Crimp Type**



	Hand Tool	See Appendix B
	Cable	Mini Coaxial Cable, RG174/U, 178/U, 316/U and more
	Instruction Cable Asseml	See Appendix A Code E

#### RP MMCX R/A Plug, Crimp Type

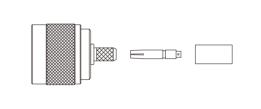




### N - Crimp Type (for Flexible Cable)

#### RP N S/T Plug, Crimp Type

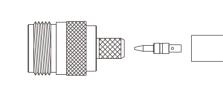




Hand Tool	See Appendix B
Cable	RG8/U, 8/X, 58/U, 174/U, 213/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

#### **RP N S/T Jack, Crimp Type**

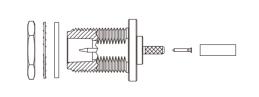




Hand Tool	See Appendix B
Cable	RG8/X, 58/U and more
Cable Assembly Instruction	See Appendix A Code E

#### RP N B/H-O Jack, Crimp Type





Hand Tool	See Appendix B
Cable	RG58/U, 174/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

**RP-05** 

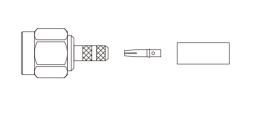




### SMA - Crimp Type (for Flexible Cable)

#### **RP SMA S/T Plug, Crimp Type**

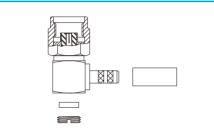




Hand Tool	See Appendix B
Cable	RG8/U, 8/X, 58/U, 174/U, 213/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

#### **RP SMA R/A Plug, Crimp Type**

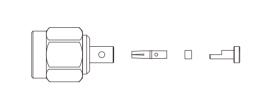




Hand Tool	See Appendix B
Cable	Mini Coaxial Cable, RG8/X, 58/U, 174/U, 213/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code H

#### **RP SMA S/T Plug, Crimp Type**

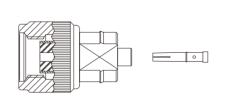




Hand Tool	See Appendix B
Cable	0.8, 1.13, 1.32 and more
Cable Assembly Instruction	See Appendix A Code I

#### RP SMA S/T Plug, Crimp Type (Antenna)

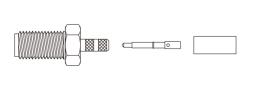




Hand Tool	See Appendix B
Cable	Mini Coaxial Cable, RG178/U and more
Cable Assembly Instruction	See Appendix A Code M

#### **RP SMA S/T Jack, Crimp Type**



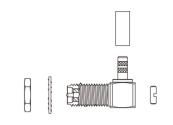


Hand Tool	See Appendix B
Cable	RG58/U, 174/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

#### RP SMA R/A Bulkhead Jack, Crimp Type

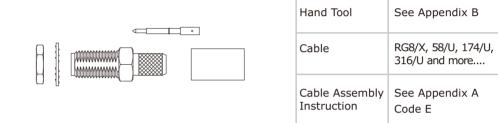
RS204

RS203



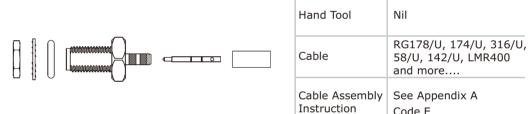
Hand Tool	See Appendix B
Cable	Mini Coaxial Cable, RG178/U and more
Cable Assembly Instruction	See Appendix A Code H

#### RP SMA B/H Jack, Crimp Type



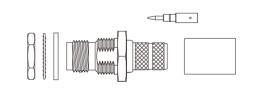
RP SMA B/	H-O Jack,	Crimp	type
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#### RP TNC B/H-O Jack, Crimp Type

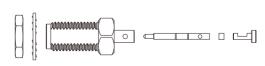




	Hand Tool	See Appendix B
	Cable	RG174/U, RG316/U and more
	Cable Assembly Instruction	See Appendix A Code E

#### RP SMA B/H Jack, Crimp Type (Direct Solder Type is also available)





	Hand Tool	Nil
ᆁ	Cable	Mini Coaxial Cable, RG178/U and more
	Cable Assembly Instruction	See Appendix A Code I

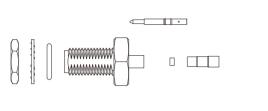




#### RP SMA B/H-O Jack, Crimp Type



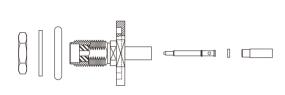




Hand Tool	See Appendix B
Cable	Mini Coaxial Cable, RG178/U and more
Cable Assembly Instruction	See Appendix A Code I

#### **RP SMA B/H-O Jack, Crimp Type**

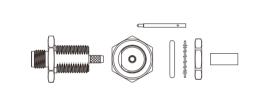




Hand Tool	See Appendix B
Cable	Mini Coaxial Cable, RG178/U and more
Cable Assembly Instruction	See Appendix A Code I

#### **RP SMA B/H-O Jack, Front Mount Crimp Type**



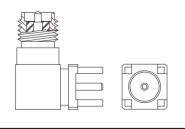


Hand Tool	See Appendix B
Cable	Mini Coaxial Cable, RG178/U and more
Cable Assembly Instruction	See Appendix A Code E

### SMA - PCB Mount Type

#### RP SMA R/A Jack ,PCB Mount Type

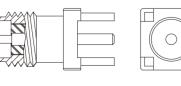




Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

#### RP SMA S/T Jack ,PCB Mount Type



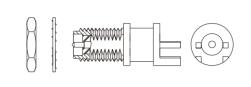


Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

### SMA - End Launch Type

#### RP SMA B/H Jack, End launch Type

RS250

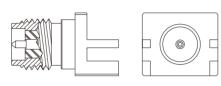


Hand Tool	Nil
Cable	Nil
PCB Soldering Pattern	Refer to S-Conn's Drawing

#### RP SMA S/T Jack, End Launch Type

RS252



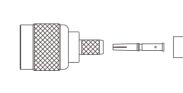


Hand Tool	Nil
Cable	Nil
PCB Soldering Pattern	Refer to S-Conn's Drawing

### TNC - Crimp Type (for Flexible Cable)

#### **RP TNC S/T Plug, Crimp Type**

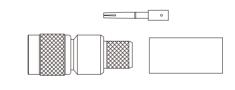




Hand Tool	Nil
Cable	RG178/U, 174/U, 316/U 58/U, 142/U, LMR400 and more
Cable Assembly Instruction	See Appendix A Code E

#### **RP TNC S/T Plug, Crimp Type**

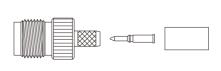




Hand Tool	Nil
Cable	LMR400 and more
Cable Assembly Instruction	See Appendix A Code E

#### **RP TNC S/T Jack, Crimp Type**





Hand Tool	Nil
Cable	RG178/U, 174/U, 316/U, 58/U, 142/U, LMR400 and more
Cable Assembly Instruction	See Appendix A Code E

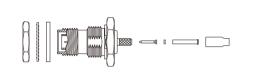
RP-09 RP-10





#### RP TNC B/H-O Jack, Crimp Type

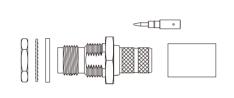




Hand Tool	See Appendix B
Cable	Mini Coaxial Cable, RG178/U, 174/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

### **RP TNC B/H-O Jack, Crimp Type**

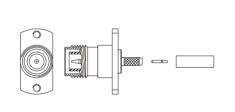




Hand Tool	See Appendix B
Cable	RG174/U, 316/U, and more
Cable Assembly Instruction	See Appendix A Code E

#### RP TNC P/M 2-Hole Jack, Crimp Type

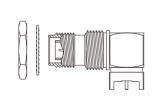




Hand Tool	See Appendix B
Cable	RG174/U and more
Cable Assembly Instruction	See Appendix A Code E

# TNC - PCB Mount Type RP TNC R/A Jack, PCB Mount Type

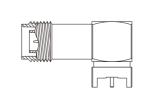




Hand Tool	See Appendix B
Cable	Nil
PCB Layout	See Appendix A Code I

#### **RP TNC R/A Jack, PCB Mount Type**





Hand Tool	See Appendix B
Cable	Nil
PCB Layout	See Appendix A Code I

RP-12 RP-11

# **BNC Series**

#### Description

BNC connectors are miniature units, light in weight and feature a quick disconnect bayonet lock coupling mechanism. One of the most widely used connector interfaces in the industry today, BNC connectors are available in a number of termination styles and accommodate a variety of popular coaxial cables.













#### **Applications**

- Computers/LANs
- Instrumentation
- Test and Measurement
- Medical Equipment
- Broadcast (75Ω)

#### Features

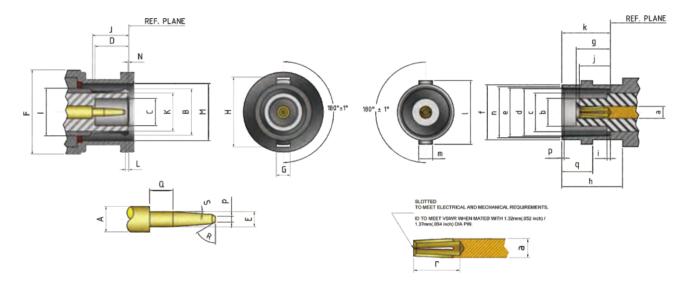
- 50 ohm nominal impedance are designed for use in telecommunication, data communication and test and instrumentation equipment.
- 75 ohm nominal impedance are designed for broadcast, video and other applications which require impedance matched performance.
- Both 50 ohm and 75 ohm BNC connectors are intermateable.
- Interface according to IEC 169-8, MIL-C-39012 BNC, MIL-STD-348A, CECC 22120

### **Specification**

#### BNC 50 ohm 0-4 GHz

BNC coaxial connectors are one of the world's most popular RF connectors. They are miniature, light-weight and can operate satisfactorily up to 4 GHz. The BNC is typically used in applications from DC to 4 GHz and yield low reflection in this frequency range. Cable terminations are available in crimp, clamp, solder and jacket quick twist configurations. The two-stud bayonet lock coupling provides ease of connecting and disconnecting and is ideally suited for applications such as test equipment where this feature is notably significant. BNC connectors are most prevalent in computer networks, audio, data processing and telecommunications equipment because of their size and relatively low installed cost.

### **Interface Mating Dimensions**



#### **PLUG**

Letter	Millimeters (inches)	
Letter	Minimum	Maximum
Α	2.06(.081)	2.21(.087)
В	Flared to med	et Gauge test
С	4.83(.190)	_
D	5.28(.208)	5.79(.227)
Е	1.32(.052)	1.37(.053)
F	_	15.06(.592)
G	2.31(.091)	2.46(.097)
Н	11.76(.463)	12.01(.473)
I	_	8.18(.322)
J	5.33(.210)	5.84(.230)
K	7.00	nom
L	0.08(.003)	_
М	9.78(.385)	9.91(.390)
N	0.15(.006)	_
Р	_	0.64(.025)
Q	1.98(.078)	_
R	55°	66°
S	1°	4°

#### **JACK**

Letter	Millimeters (inches)		
	Minimum	Maximum	
а	2.06(.081)	2.21(.087)	
b	_	4.72(.186)	
С	_	6.50(.256)	
d	8.10(.319)	8.15(.321)	
е	8.31(.327)	8.46(.333)	
f	9.60(.378)	9.70(.382)	
g	4.78(.188)	5.28(.208)	
h	10.52(.414)	_	
i	_	0.15(.006)	
j	4.72(.186)	5.23(.206)	
k	8.31(.327)	8.51(.335)	
I	10.97(.432)	11.07(.436)	
m	1.91(.075)	2.06(.081)	
n	8.79(.346)	9.04(.356)	
р	0.76(.015)	0.38(.030)	
q	5.18(.204)	5.28(.208)	

B-01 B-02





#### **Electrical**

Impedance	50Ω / 75Ω
Frequency Range	0 to 4 GHz / 0 to 1 GHz
VSWR	≦1.3 (straight connector)
	≦1.35 (right angle connector)
RF Leakage	≧55 dB
Dielectric Withstanding Voltage	1500 V rms
Voltage Rating	≧500 V rms (depending on cable)
Inner Contact Resistance	≦1.5 mΩ
Outer Contact Resistance	≦1 mΩ
Insulation Resistance	≥5 GΩ
Inner Contact Resistance Outer Contact Resistance	≤1.5 mΩ ≤1 mΩ

#### Mechanical

Mating	Bayonet Coupling
Connector Durability	≥500 Cycles (for beryllium copper female contact only)
Recommended Mating Torque	0.6 lbs ~ 2.5 lbs
Coupling Nut Retention Force	≧101.2 lbs
Cable Retention Force	≥12.1 lbs (for RG316) ≥28.7 lbs (for RG58) ≥38.3 lbs (for RG59)

#### **Environmental**

Temperature Range	-65° C to 165° C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Cond. B
Vibration	MIL-STD-202, Method 204, Cond. B
Thermal Shock	MIL-STD-202, Method 107, Cond. B
Mechanical Shock	MIL-STD-202, Method 213, Cond. G

#### **Material**

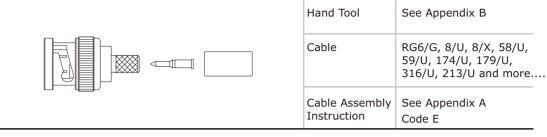
Parts Name	Material	Plating
Body	Brass	Gold or Nickel
Inner Contact	Male: Brass Female: Brass, Phosphor Bronze or Beryllium Copper	Gold or Nickel
Insulator	PTFE or Delrin	None
Gasket	Silicone Rubber, Rubber	None
Crimp Ferrule	Annealed Copper	Same as Body

Note: Other Material/Finish is Available on Request.

### Crimp Type (for Flexible Cable)

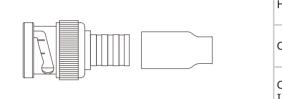
### **BNC S/T Plug, Crimp Type**





#### **BNC S/T Plug, Crimp Type**

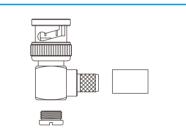




Hand Tool	See Appendix B
Cable	RG6/U, 58/U, 59/U and more
Cable Assembly Instruction	See Appendix A Code A

#### **BNC R/A Plug, Crimp Type**

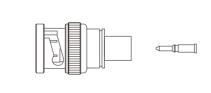




	Hand Tool	See Appendix B
	Cable	RG6/U, 8/X, 58/U, 59/U 174/U, 179/U, 316/U and more
	Cable Assembly Instruction	See Appendix A Code H

#### BNC S/T Plug, Crimp & Cable Molded Type

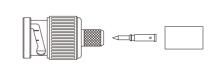




Hand Tool	See Appendix B
Cable	RG6/U, 8/X, 58/U, 59/U 174/U, 179/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code M

### **BNC S/T Plug, Crimp Type**





Hand Tool	See Appendix B
Cable	RG59, 62; URM70, 90 and more
Cable Assembly Instruction	See Appendix A Code E

B-03

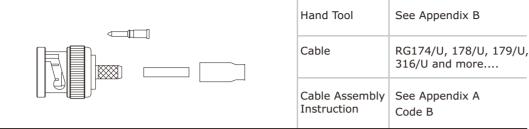






#### **BNC S/T Plug, Crimp Type**





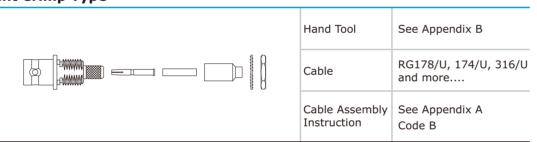
#### **BNC B/H Jack, Front Mount Crimp Type**



==-t1	Hand Tool	See Appendix B
	Cable	RG6/U, 8/X, 58/U, 59/U 174/U, 179/U, 316/U and more
	Cable Assembly Instruction	See Appendix A Code E

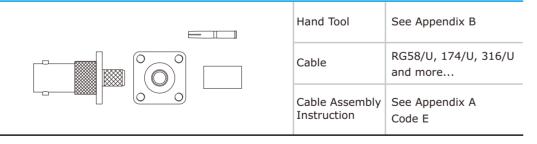
#### **BNC B/H Jack, Front Mount Crimp Type**





#### **BNC P/M 4-Hole Jack, Crimp Type**





#### **BNC S/T Jack, Crimp Type**

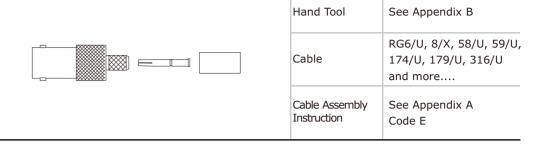


DC470/// 474
Cable RG178/U, 174/ and more
Cable Assembly Instruction See Appendix A

#### **BNC S/T Jack, Crimp Type**

B218





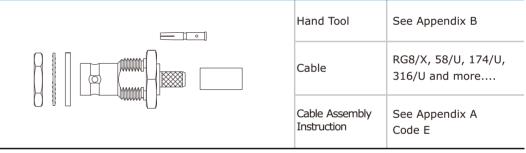
#### **BNC S/T Jack, Crimp Type**



Hand Tool	See Appendix B
Cable	RG6/U, 8/X, 58/U, 59/U, 174/U, 179/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

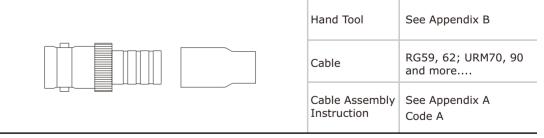
#### **BNC B/H-O Jack, Crimp Type**





#### **BNC S/T Jack, Crimp Type**





#### **BNC B/H-O Jack, Crimp Type**



	Hand Tool
	Cable
() (  f] b	Cable Assembly Instruction

See Appendix B

See Appendix A

and more....

Code B

RG174/U, 188/U, 316/U, B7805A; URM95; LMR100A

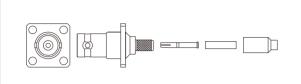
# BNC





#### **BNC P/M 4-Hole Jack, Crimp Type**

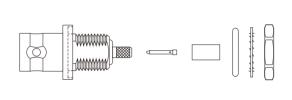




Hand Tool	See Appendix B
Cable	RG174/U, 316/U, 179/U and more
Cable Assembly Instruction	See Appendix A Code B

#### **BNC B/H-O Jack, Front Mount Crimp Type**



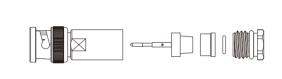


Hand Tool	See Appendix B
Cable	RG174/U, 188/U, 316/U, B7805A; URM95; LMR100A and more
Cable Assembly Instruction	See Appendix A Code E

### Clamp Type (for Flexible Cable)

#### BNC S/T Plug, Clamp Type (75 Ohm)

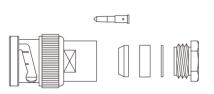




Hand Tool	Nil
Cable	Belden 1505A and more
Cable Assembly Instruction	See Appendix A Code L

#### **BNC S/T Plug, Clamp Type**

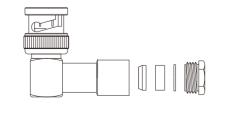




Hand Tool	Nil
Cable	RG6/U, 58/U, 59/U and more
Cable Assembly Instruction	See Appendix A Code L

#### **BNC R/A Plug, Clamp Type**



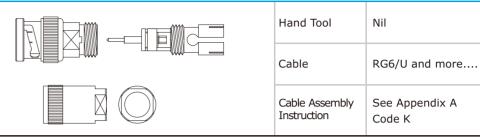


Hand Tool	Nil
Cable	RG58/U and more
Cable Assembly Instruction	See Appendix A Code L

#### **BNC S/T Plug, Clamp & Lock Type**

B123

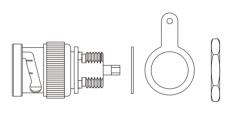




### **Chassis Mount Type**

#### BNC B/H Plug, Front Mount Solder Type

B111

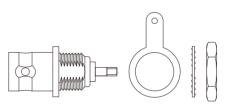


Hand Tool	Nil
Cable	Mini Coaxial, Flexible and more
Mounting Hole	Refer to S-Conn's Drawing

#### **BNC B/H Jack, Front Mount Solder Type**

B222



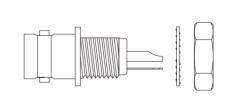


Hand Tool	Nil
Cable	Mini Coaxial, Flexible and more
Mounting Hole	Refer to S-Conn's Drawing

#### **BNC B/H Jack, Front Mount Solder Type(Isolated)**

B223





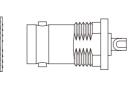
Hand Tool	Nil
Cable	Mini Coaxial, Flexible and more
Mounting Hole	Refer to S-Conn's Drawing

#### **BNC B/H Jack, Rear Mount Solder Type**

B242







Hand Tool	Nil
Cable	Nil
Mounting Hole	Refer to S-Conn's Drawing

B-07

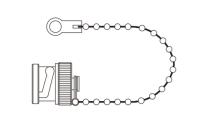




### **Dust Cap**

#### **Protective Cap for BNC Jack**



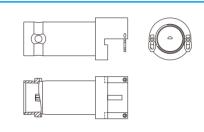


Hand Tool	Nil
Cable	Nil

### Edge Mount Type

#### BNC R/A Jack, Edge Mount Type (D-Contact)



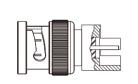


Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

### End Launch Type

#### **BNC S/T Plug, End Launch Type**





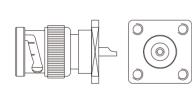


Hand Tool	Nil
Cable	Nil
PCB Soldering Pattern	Refer to S-Conn's Drawing

### Panel Mount Type

### **BNC P/M 4-Hole Plug, Solder Type**

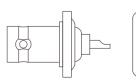




Hand Tool	Nil
Cable	Nil

#### **BNC P/M-4 Hole Jack, Solder Type**





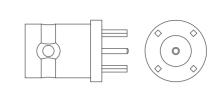


Hand Tool	Nil
Cable	Nil

### PCB Type

### BNC S/T Jack, PCB Mount Type

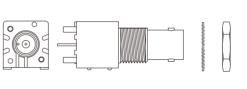




Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

#### **BNC B/H Jack, PCB Mount Type (PBT Housing)**

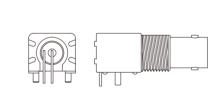




Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

#### BNC R/A Bulkhead Jack , PCB Mount Type (PBT Housing)

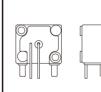


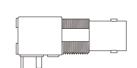


٦	Hand Tool	Nil
-	Cable	Nil
J	PCB Layout	Refer to S-Conn's Drawing

#### BNC R/A Bulkhead Jack, PCB Mount Type (Metal Housing)





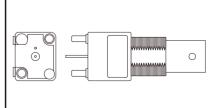




	Hand Tool	See Appendix B
H	Cable	Nil
U	PCB Layout	Refer to S-Conn's Drawing

#### **BNC B/H Jack, PCB Mount Type (Metal Housing)**







	Hand Tool	Nil
A	Cable	Nil
	PCB Layout	Refer to S-Conn's Drawing

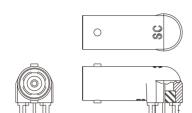
BNC





#### **BNC R/A Jack, PCB Mount Type**

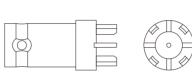




Hand Tool	See Appendix B
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

#### **BNC S/T Jack, PCB Mount Type**

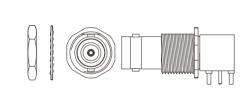




Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

#### BNC R/A Bulkhead Jack, PCB Mount Type

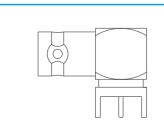




Hand Tool	See Appendix B
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

#### **BNC R/A Jack, PCB Mount Type**

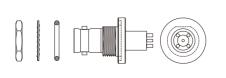




Hand Tool	See Appendix B
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

#### **BNC B/H-O Jack, PCB Mount Type**

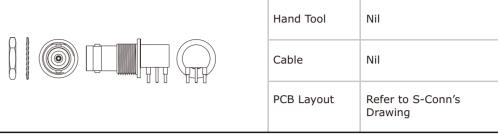




Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

#### BNC R/A Bulkhead Jack, PCB Mount Type

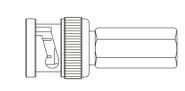




### Twist-On Type (for Flexible Cable)

#### BNC S/T Plug, Twist-on Type

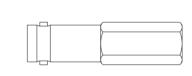




Hand Tool	Nil
Cable	Nil
Cable Assembly Instruction	See Appendix A Code O

#### **BNC S/T Jack, Twist-on Type**



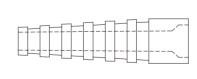


Hand Tool	Nil
Cable	RG58/U, 59/U and more
Cable Assembly Instruction	See Appendix A Code O

#### **Boots**

#### **BNC Boot**





Hand Tool	Nil
Cable	RG58/U,59/U, 174/U and more
Cable Assembly Instruction	Nil

B-11 B-12

# 12G-SDI BNC



# **12G-SDI BNC Series**

### Description

12G-SDI BNC connectors are applied with an optimum frequency up to 12 GHz. Characteristic features are reliable quality standard as well as fast and easy connections with a two stud bayonet mechanism.  $50\Omega$  and  $75\Omega$  versions can be interconnected without restriction.





### **Applications**

- Serial digital interface (SDI)
- High definition television (HDTV)
- 6G UHD SDI (Per SMPTE ST-2081\*) & 12G UHD SDI(Per SMPTE ST-2082\*)
- NTSC & PAL video system





#### Features

- •Interface compatible to IEC 60169-8, CECC 22 120, MIL-PRF-39012 BNC
- Quality tested according to US MIL-STD-202
- Frequency range optimum up to 12 GHz

#### **Electrical**

Impedance	75Ω
Frequency Range	0 to 12 GHz
VSWR	≦1.2 (0 ~ 6 GHz)
	≦1.3 (6 ~ 12 GHz)
RF Leakage	≧55 dB
Dielectric Withstanding Voltage	1500 V rms
Voltage Rating	≥500 V rms (depending on cable)
Center Contact Resistance	≦1.5 mΩ
Outer Contact Resistance	≦1 mΩ
Insulation Resistance	≧5 GΩ

#### Mechanical

Mating	Bayonet Coupling
Connector Durability	≥500 Cycles (for beryllium copper female contact only)
Engagement Force	0.6 lbs ~ 2.5 lbs
Coupling Nut Retention Force	≧101.2 lbs
Cable Retention Force	≥ 12.1 lbs (for RG316) ≥ 28.7 lbs (for RG58) ≥ 38.3 lbs (for RG59)

#### **Environmental**

Temperature Range	-65° C to 165° C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Cond. B
Vibration	MIL-STD-202, Method 204, Cond. B
Thermal Shock	MIL-STD-202, Method 107, Cond. B
Mechanical Shock	MIL-STD-202, Method 213, Cond. G

#### Material

Parts Name	Material	Plating
Body	Brass	Gold or Nickel
Inner Contact	Male: Brass Female: Brass, Phosphor Bronze or Beryllium Copper	Gold
Insulator	PTFE	None
Gasket	Silicone Rubber	None
Crimp Ferrule	Annealed Copper	Same as Body

Note: Other Material/Finish is Available on Request.

HB-01 HB-02

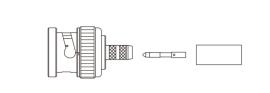




## Crimp Type (for Flexible Cable)

### BNC S/T Plug, Crimp Type

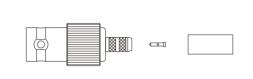




Hand Tool	See Appendix B
Cable	RG179/U, 59/U, 735A, Mini 59, BT3002 and more
Cable Assembly Instruction	See Appendix A Code E

#### **BNC S/T Jack, Crimp Type**

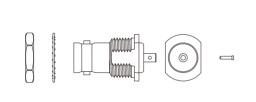




Hand Tool	Nil
Cable	1.37 (75 ohm) and more
Cable Assembly Instruction	See Appendix A Code M
,	

#### **BNC B/H Jack, Crimp Type**



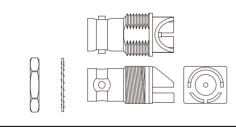


Hand Tool	Nil
Cable	1.37 (75 ohm) and more
Cable Assembly Instruction	See Appendix A Code M

### End Launch Type

#### **BNC B/H Jack, End Launch Type**



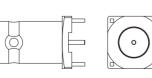


Hand Tool	Nil
PCB Soldering Pattem	Refer to S-Conn's Drawing

### PCB Type

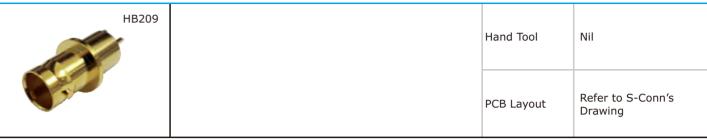
### BNC S/T Jack, PCB Mount Type (75 Ohm, 12GHz)





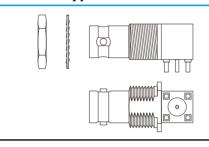
	Hand Tool	Nil
	PCB Layout	Refer to S-Conn's Drawing

#### BNC S/T Jack, PCB Mount Type (75 Ohm)



#### **BNC R/A Bulkhead Jack, PCB Mount Type**

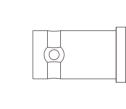




Hand Tool	Nil
PCB Layout	Refer to S-Conn's Drawing

#### **BNC S/T Jack, PCB Mount Type**







Hand Tool	Nil
PCB Layout	Refer to S-Conn's Drawing

# **Twin BNC Series**





### Specification

#### TWIN-BNC 0-100 MHz

Twin-BNC connectors are designed with polarized contacts (one female, one male) and a two-stud bayonet coupling. The two-stud bayonet lock coupling provides ease of connecting and disconnecting and are ideal in applications where polarization and frequent

connect/disconnect are required. The operating range of the Twin-BNC is DC to 100 MHz. Terminations are available in crimp, clamp and solder styles. Test equipment, circuit clusters and polarized circuits are just a few of the applications for Twin-BNC connectors.

#### **Electrical**

|--|

#### Mechanical

Mating	Bayonet Coupling
Durability	>=200 Cycles
Coupling Nut Retention	100 lbs min
Temperature Range	-55° C to 80° C
Vibration	MIL-STD-202 Method 204 Test Cond. D
Corrosion (SaltSpray)	MIL-STD-202 Method 101 Test Cond. B
Thermal Shock	MIL-STD-202 Method 102 Test Cond. C

#### Material

**Twin BNC** 

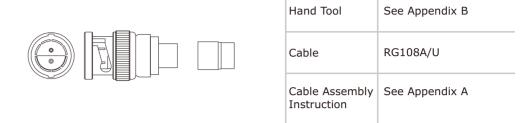
Parts Name	Material	Plating
Body	Brass	Nickel
Inner Contact	Male: Brass Female: Brass or Phosphor Bronze or Beryllium Copper	Gold
Insulator	PTFE or Noryl	None
Gasket	Rubber	None
Crimp Ferrule	Annealed Copper	Same as Body

Note: Other Material/Finish is Available on Request.

#### Twin BNC S/T Plug, Crimp Type

TWB101

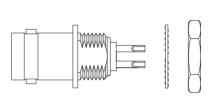




#### Twin BNC B/H Jack, Front Mount Solder Type

TWB201





Hand Tool	See Appendix B
Cable	Nil
Mounting Hole	Refer to S-Conn's Drawing

TB-01 TB-02

# **TNC Series**

#### Description

TNC connectors are miniature, weatherproof units which have constant 50 ohm impedance and operate in the 0-11 GHz frequency range. These features make TNC connectors an ideal choice for use in cellular mobile communications, and test and instrument equipment. TNC connectors are also widely used in airframe, aerospace and radar applications where extreme vibration is a factor.





### <u>Applications</u>

- Cellular Mobile Phones
- Test and Measurement
- Instrumentation
- Aircraft and Missile
- Radar
- Computer Networks/LANs
- Base Stations
- Microwave Components (Filters, Diplexors)









#### **Features**

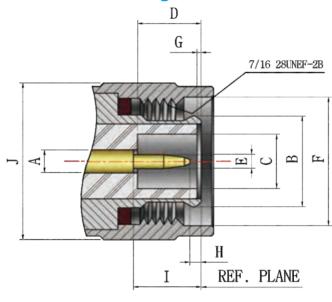
- These connectors are suitable for use in applications where safety can not be compromised such as test and measurement, and medical equipment. Designed to accommodate a wide range of popular miniature coaxial cables, TNC connectors are available with crimp terminations which provide lower cost installation.
- Interface according to IEC 169-17, CECC 22200, MIL-C-39012 TNC, MIL-STD-348A/313

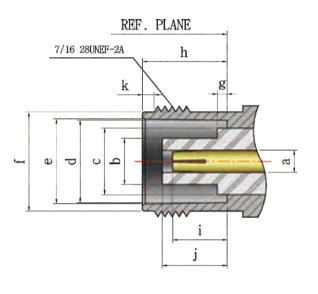
### **Specification**

#### TNC 50 ohm 0-11 GHz

TNC series connectors are similar to BNC connectors except for their mating threaded coupling which is designed to provide low reflection from DC to 11GHz under extreme environmental conditions, especially shock and vibration. Cable terminations are available in crimp, clamp, twist-on and solder configuration. The 7 /16"-28 thread coupling provides positive mating. Although their rugged design was initially developed for high vibration environments, TNC connectors are widely accepted and used for data transmission, medical equipment, cellular mobile telephones, test equipment, microwave components and aerospace applications

#### **Interface Mating Dimensions**





<b>PLUG</b>	
-------------	--

. 200		
Letter	Millimeters (inches)	
Lettei	Minimum	Maximum
Α	2.06(.081)	2.21(.087)
В	Gauge	e test
С	4.83(.190)	5.79(.228)
D	5.28(.208)	1.37(.054)
Е	1.32(.052)	_
F	11.18(.440)	_
G	0.15(.006)	1.02(.040)
Н	0.08(.003)	5.84(.230)
I	5.33(.210)	
J	16 nom	

#### **JACK**

Letter	Millimeters (inches)		
Letter	Minimum	Maximum	
а	2.06(.081)	2.21(.087)	
b	_	4.72(.186)	
С	_	6.50(.256)	
d	8.10(.319)	8.15(.321)	
е	8.31(.327)	8.46(.333)	
f	9.60(.378)	9.68(.381)	
g	_	0.15(.006)	
h	8.31(.327)	8.51(.335)	
I	4.72(.186)	5.23(.206)	
j	4.78(.188)	5.28(.208)	
k	1.73(.068)	2.24(.088)	

LNC





#### **Electrical**

Impedance	50Ω / 75Ω
Frequency Range	0 to 11 GHz / 0 to 1 GHz
VSWR	≦1.3 (straight connector)
	≦1.35 (right angle connector)
RF Leakage	≧60 dB
Dielectric Withstanding Voltage	1500 V rms
Voltage Rating	≧500 V rms (depending on cable)
Inner Contact Resistance	≦1.5 mΩ
Outer Contact Resistance	≦1 mΩ
Insulation Resistance	≥5 GΩ

#### Mechanical

Mating	7/16-28 UNEF Screw-on Coupling
Connector Durability	≥500 Cycles (for beryllium copper female contact only)
Recommended Mating Torque	4.1 lbs ~ 6.1 lbs
Coupling Nut Retention Force	≧101.2 lbs
Cable Retention Force	≥12.1 lbs (for RG316) ≥28.7 lbs (for RG58) ≥38.3 lbs (for RG59)

#### **Environmental**

Temperature Range	-65° C to 165° C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Cond. B
Vibration	MIL-STD-202, Method 204, Cond. B
Thermal Shock	MIL-STD-202, Method 107, Cond. B
Mechanical Shock	MIL-STD-202, Method 213, Cond. G

#### Material

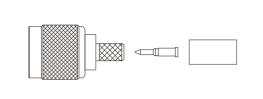
Parts Name	Material	Plating
Body	Brass	Gold or Nickel
Inner Contact	Male: Brass Female: Brass, Phosphor Bronze or Beryllium Copper	Gold or Nickel
Insulator	PTFE or Delrin	None
Gasket	Silicone Rubber	None
Crimp Ferrule	Annealed Copper	Same as Body

Note: Other Material/Finish is Available on Request.

### Crimp Type (for Flexible Cable)

### TNC S/T Plug, Crimp Type

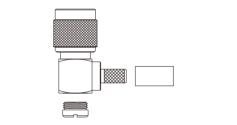




	Hand Tool	See Appendix B
	Cable	RG6/G, 8/U, 8/X, 58/U, 59/U, 174/U, 179/U, 316/U, 213/U and more
	Cable Assembly Instruction	See Appendix A Code E

#### TNC R/A Plug, Crimp Type

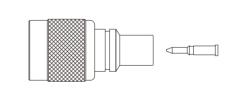




	Hand Tool	See Appendix B
	Cable	RG6/U, 58/U, 59/U and more
	Cable Assembly Instruction	See Appendix A Code H

#### TNC S/T Plug, Crimp & Cable Molded Type

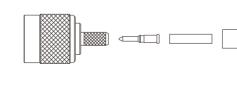




Hand Tool	See Appendix B
Cable	RG58/U and more
Cable Assembly Instruction	See Appendix A Code M

#### TNC S/T Plug, Crimp Type

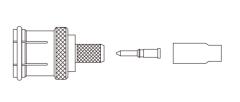




	Hand Tool	See Appendix B
	Cable	RG178/U, 174/U, 316/U and more
	Cable Assembly Instruction	See Appendix A Code B

### TNC Push-on Plug, Crimp Type





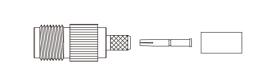
Hand Tool	See Appendix B
Cable	RG58/U, RG174/U and more
Cable Assembly Instruction	See Appendix A Code E

# F



#### **TNC S/T Jack, Crimp Type**

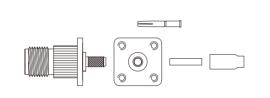




Hand Tool	See Appendix B
Cable	RG6/U, 8/X, 58/U, 59/U, 174/U, 179/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

### TNC P/M 4-Hole Jack, Crimp Type

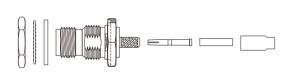




Hand Tool	See Appendix B
Cable	RG58/U, 174/U and more
Cable Assembly Instruction	See Appendix A Code B

#### **TNC B/H-O Jack, Crimp Type**

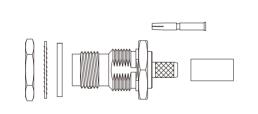




Hand Tool	See Appendix B
Cable	RG58/U, 174/U, 178/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code B

#### TNC B/H-O Jack, Rear Mount Crimp Type

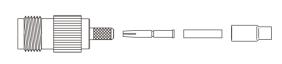




Hand Tool	See Appendix B
Cable	RG58/U, 174/U, 178/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

#### TNC P/M 2-Hole Jack, Crimp Type



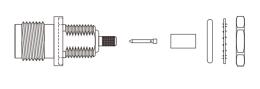


Hand Tool	See Appendix B
Cable	RG58/U, 174/U, 178/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code B

#### TNC B/H-O Jack, Front Mount Solder Type (IP67)

T2A1



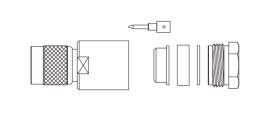


Hand Tool	See Appendix B
Cable	RG58/U, 174/U, 178/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

### Clamp Type (for Flexible Cable)

#### TNC S/T Plug, Clamp Type

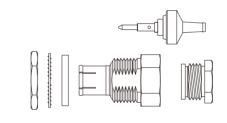




Hand Tool	Nil
Cable	RG8/U, 8/X, 58/U, 59/U 213/U and more
Cable Assembly Instruction	See Appendix A Code L

#### TNC(BNC) B/H Push-on Plug, Quick Clamp Type

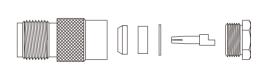




Hand Tool	Nil
Cable	RG174 and more
Cable Assembly Instruction	See Appendix A Code J

#### TNC(BNC) B/H Push-on Plug, Quick Clamp Type



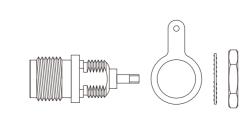


	Hand Tool	Nil
	Cable	RG174 and more
J	Cable Assembly Instruction	See Appendix A Code J

### Chassis Mount Type

#### TNC B/H Jack , Front Mount Solder Type





Hand Tool	Nil
Cable	Nil
Mounting Hole	Refer to S-Conn's Drawing

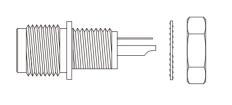
TNC



#### TNC B/H Jack , Front Mount Solder Type (Isolated)

T220

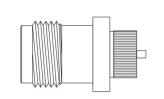




Hand Tool	Nil
Cable	Nil
Mounting Hole	Refer to S-Conn's Drawing

#### **TNC Press Fit Jack, Front Mount Type**



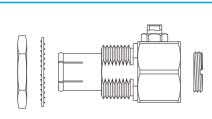


Hand Tool	Nil
Cable	Nil
Mounting Hole	Refer to S-Conn's Drawing

### Direct Solder Type (for Semi-Rigid Cable)

#### TNC R/A Bulkhead Push-on Plug, Solder Type

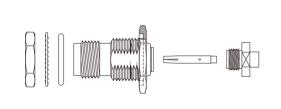




	Hand Tool	Nil
	Cable	RG405/U and more
	Cable Assembly Instruction	Code N

#### TNC B/H-O Jack, Solder Type



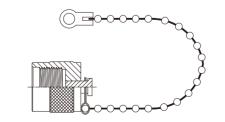


Hand Tool	Nil
Cable	RG405/U and more
Cable Assembly Instruction	Code M

### Terminator & Cap

#### **Protective Cap for TNC Jack**



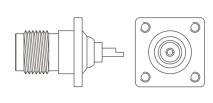


Hand Tool	Nil
Cable	Nil
Cable Assembly Instruction	Nil

### Panel Mount Type

#### TNC P/M 4-Hole Jack, Solder Type



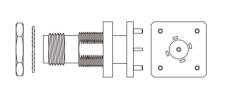


Hand Tool	Nil
Cable	Nil

### PCB Type

#### TNC B/H Jack, PCB Mount Type

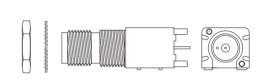




Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

#### TNC B/H Jack, PCB Mount Type (PBT Housing)





Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conns Drawing

#### TNC R/A Bulkhead Jack, PCB Mount Type (PBT Housing)







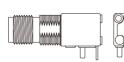
Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

#### TNC R/A Bulkhead Jack, PCB Mount Type (Metal Housing)

T235







Cab
PCB

Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

T-07

**JNL** 

T-10

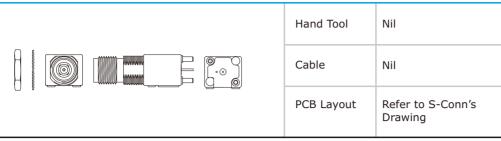


### TNC B/H Jack, PCB Mount Type (Metal Housing)

T23



TNC





T-09

# **N** Series

#### Description

N series coaxial connectors are medium size units which have constant 50 ohm impedance, and provide excellent radio frequency performance up to 11 GHz.













#### **Applications**

- Antenna
- Base Stations
- Microwave Components (Power Splitters & Combiners, Filters, Diplexors)
- Transmitters
- Broadcast
- Receivers
- Radar
- Test & Measurement
- Instrumentation
- LANs

#### **Features**

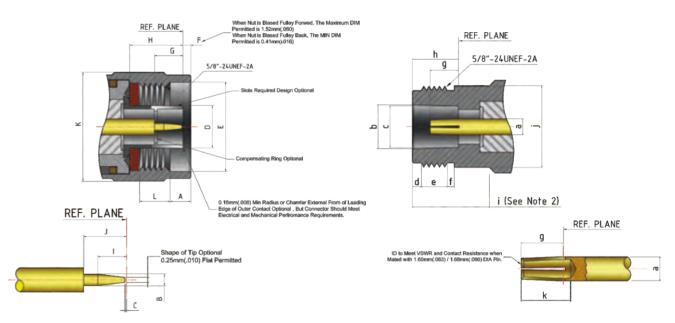
- Accommodates a wide range of popular coaxial cables.
- Provides threaded coupling mechanisms.
- Available in crimp terminations to provide for low cost installation.
- Interface according to IEC 169-16, CECC 22210, MIL-C-39012N, MIL-STD-348A/304

### **Specification**

#### N 50 ohm 0-11 GHz

N series coaxial connectors are medium-sized, threaded coupling connectors designed for use from DC to 11 GHz. Their consistently low broadband VSWR have made them popular over the years in many applications. The N series connector is impedance matched to 50 ohm cables. Cable terminations are available in crimp, clamp and solder configurations. The threaded coupling ensures proper mating in applications where shock and extreme vibration are design considerations. N connectors are used in aerospace, broadcast audio and video applications as well as many microwave components such as filters, couplers, dividers, amplifiers and attenuators to name a few.

#### **Interface Mating Dimensions**



Note: This Interface Shall Meet the Gauge Requirements as Specified in MIL-C-39012/1.

#### **PLUG**

Letter	Millimeters (inches)		
Lettei	Minimum	Maximum	
Α	4.01(.158)	4.27(.168)	
В	1.60(.063)	1.68(.066)	
С	0.08(.003)	_	
D – 8.3		8.38(.330)	
E 16.0(.063)		_	
F 0.41(.016)		1.52(.060)	
G 5.33(.210) 5.8		5.84(.230)	
H 10.11(.398) 1		10.46(.412)	
I 2.79(.110)		3.56(.140)	
J 5.33(.210) -		_	
K	_	21.01(.827)	
L	L 4.50(.117) –		

- 1. This Interface Shall Meet the Gauge Requirements as Specified in MIL-C-39012/2.
- 2. Clearance for Mating Connector Coupling Nut.

#### **JACK**

Letter	Millimeters (inches)		
Lettei	Minimum	Maximum	
а	3.02(.119)	3.15(.124)	
b	8.53(.336)	8.74(.344)	
С	8.03(.316)	8.13 <del>(</del> .320)	
d	1.19(.047)	1.96(.077)	
е	4.37(.172)	5.13(.077)	
f	1.19(.047)	1.96(.077)	
g	4.75(.187)	5.26(.207)	
h	9.04(.356)	9.19(.362)	
i	10.72(.422)	_	
j	_	15.93(.627)	
k	5.33(.210)	_	





#### **Electrical**

Impedance	50Ω / 75Ω
Frequency Range	0 to 11 GHz / 0 to 1.5 GHz
VSWR	≤1.3 (straight connector) ≤1.35 (right angle
RF Leakage	≧60 dB
Dielectric Withstanding Voltage	2500 V rms
Voltage Rating	≧ 1000 V rms (depending on cable)
Inner Contact Resistance	≦1 mΩ
Outer Contact Resistance	≦1 mΩ
Insulation Resistance	≥5 GΩ

#### Mechanical

Mating	5/8-24 UNEF Screw-on Coupling
Connector Durability	≥500 Cycles (for beryllium copper female contact only)
Recommended Mating Torque	6.0 lbs ~ 10.0 lbs
Coupling Nut Retention Force	≧101.3 lbs
Cable Retention Force	≥ 12.1 lbs (for RG316) ≥ 28.7 lbs (for RG58) ≥ 94.5 lbs (for RG213)

#### **Environmental**

Corrosion (Salt Spray)	MIL-STD-202, Method 101, Cond. B
Vibration	MIL-STD-202, Method 204, Cond. B
Thermal Shock	MIL-STD-202, Method 107, Cond. B
Mechanical Shock	MIL-STD-202, Method 213, Cond. I

#### Material

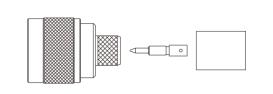
Parts Name	Material	Plating
Body	Brass	Gold
Inner Contact	Male: Brass Female: Brass or Phosphor Bronze or Beryllium Copper	Gold
Insulator	PTFE	None
Gasket	Silicone Rubber	None
Crimp Ferrule	Annealed Copper	Same as Body

Note: Other Material/Finish is Available on Request.

### Crimp Type (for Flexible Cable)

### N S/T Plug, Crimp Type

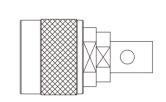




Hand Tool	See Appendix B
Cable	RG6/U, 8/U, 8/X, 11/U, 58/U, 59/U, 174/U, 178/U, 213/U, 316/U and more
Cable Assembly Instruction	See Appendix A

### N S/T Plug, Crimp Type(3D,5D,8D,10D)

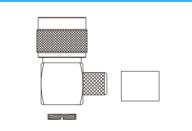




Hand Tool	See Appendix B
Cable	3D-2V,5D-2V,8D-2V, 10D-2V and more
Cable Assembly Instruction	See Appendix A

#### N R/A Plug, Crimp Type

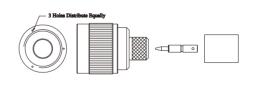




Hand Tool	See Appendix B
Cable	RG8/U, 8/X, 58/U, 174/U 213/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code H

#### N S/T Plug, Crimp Type (Vibration Proof)

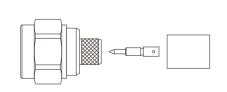
N119



Hand Tool	See Appendix B
Cable	RG6/U, 8/U, 8/X, 11/U 58/U, 59/U, 174/U, 178/U, 213/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

#### N S/T Plug, Crimp Type





Cable	RG6/U, 8/U, 8/X, 11/U, 58/U, 59/U, 174/U, 178/U, 213/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

Z



## N R/A Plug, Crimp Type

N1 E2

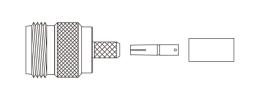




Hand Tool	See Appendix B
Cable	RG55/U, 142/U, 223/U, 400/U and more
Cable Assembly Instruction	See Appendix A Code E

#### N S/T Jack, Crimp Type

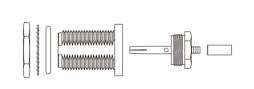
N201



Hand Tool	See Appendix B
Cable	RG8/U, 8/X, 58/U, 174/U, 213/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

#### N B/H-O Jack, Rear Mount Crimp Type

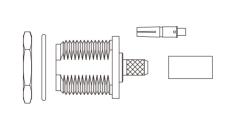




Hand Tool	See Appendix B
Cable	RG58/U, 174/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code D

#### N B/H Jack, Rear Mount Crimp Type

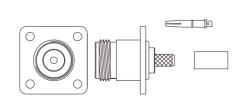




Hand Tool	See Appendix B
Cable	RG8/U, 8/X, 58/U, 59/U, 213/U and more
Cable Assembly Instruction	See Appendix A Code E

#### N P/M 4-Hole Jack, Crimp Type

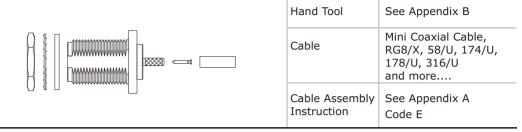




Hand Tool	See Appendix B
Cable	RG58/U, 174/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

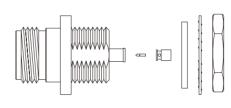
#### N B/H-O Jack, Rear Mount Crimp Type





#### N B/H-O Jack, Front Mount Crimp Type

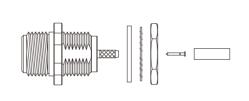




Hand Tool	See Appendix B
Cable	RG174/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code G

#### N B/H-O Jack, Front Mount Crimp Type

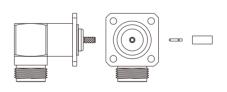




Hand Tool	See Appendix B
Cable	RG174/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

#### N R/A Panel Mount 4-Hole Jack, Crimp type



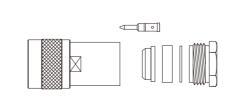


Hand Tool	See Appendix B
Cable	RG174/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

### Clamp Type (for Flexible Cable)

#### N S/T Plug, Clamp Type



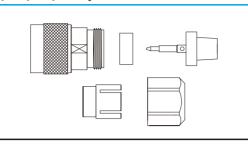


Hand Tool	Nil
Cable	RG8/U, 8/X, 58/U, 59/U, 213/U and more
Cable Assembly Instruction	See Appendix A Code L
•	



### N S/T Plug, Clamp Type (3D,5D,8D,10D)

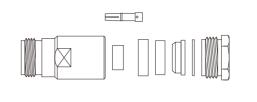




Hand Tool	Nil
Cable	3D-2V,5D-2V,8D-2V, 10D-2V and more
Cable Assembly Instruction	See Appendix A

#### N S/T Jack, Clamp Type



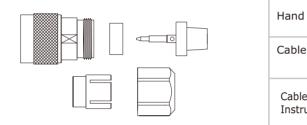


Hand Tool	Nil
Cable	RG8/U, 8/X, 58/U, 59/U, 213/U and more
Cable Assembly Instruction	See Appendix A Code L

#### N R/A Plug, Clamp Type



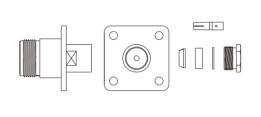




	Hand Tool	Nil
	Cable	3D-2V,5D-2V,8D-2V, 10D-2V and more
	Cable Assembly Instruction	See Appendix A

#### N P/M 4-Hole Jack, Clamp Type

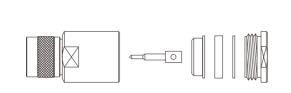




Hand Tool	See Appendix B
Cable	RG174/U, 316/U and more
Cable Assembly Instruction	See Appendix A

### N S/T Plug, Clamp Plug





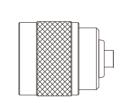
Hand Tool	Nil
Cable	LMR600 and more
Cable Assembly Instruction	See Appendix A Code L

### Direct Solder Type (for Semi-Rigid Cable)

#### N S/T Plug, Solder Type

N121

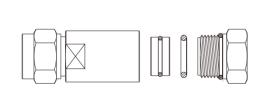




Hand Tool	Nil
Cable	RG402/U, 405/U and more
Cable Assembly Instruction	See Appendix A

#### N S/T Plug, Clamp Type



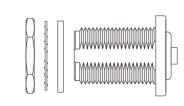


Hand Tool	Nil
Cable	RG8/U, 8/X, 58/U, 59/U, 213/U and more
Cable Assembly Instruction	See Appendix A Code L

#### N B/H-O Jack, Rear Mount Solder Type

N22

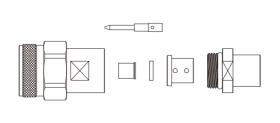




Hand Tool	Nil
Cable	RG402/U, 405/U and more
Cable Assembly Instruction	See Appendix A

#### N S/T Plug, Clamp Type

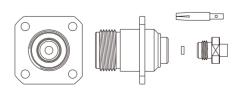




Hand Tool	Nil
Cable	Ll335, and more
Cable Assembly Instruction	See Appendix A Code L

#### N P/M 4-Hole Jack, Solder Type





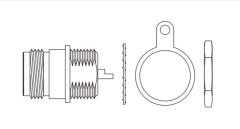
Hand Tool	Nil
Cable	RG405/U and more
Cable Assembly Instruction	See Appendix A



### Bulkhead Receptacle, Solder Pot Terminal

#### N B/H Jack, Front Mount Solder Type

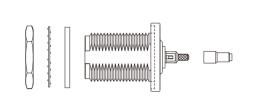




Hand Tool	Nil
Cable	Nil
Cable Assembly Instruction	See Appendix A

#### N B/H-O Jack, Crimp Type



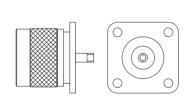


Hand Tool	Nil
Cable	Mini Coaxial Cable, RG178/U and more
Cable Assembly Instruction	See Appendix A

### Panel Mount Type

#### N P/M 4-Hole Plug, Solder Type

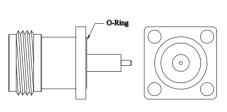




Hand Tool	Nil
Cable	Nil

#### N P/M-O 4-Hole Jack, Receptacle (Extended PTFE)

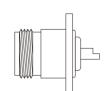


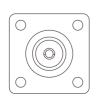


Hand Tool	Nil
Cable	Nil

#### N P/M 4-Hole Jack, Solder Type



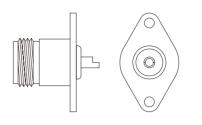




Hand Tool	Nil
Cable	Nil
Cable Assembly Instruction	Nil

#### N P/M 2-Hole Jack, Solder Type

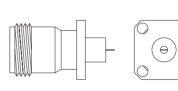




Hand Tool	Nil
Cable	Nil
Cable Assembly Instruction	Nil

#### N P/M-O 4-Hole Jack, Receptacle (Extended PTFE, Tab Contact)





Hand Tool	Nil
Cable	Nil
Cable Assembly Instruction	Nil

### Terminator & Cap

#### **Protective Cap N Jack**

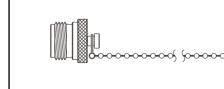




	Hand Tool	Nil
<b>₽</b>	Cable	Nil
	Cable Assembly Instruction	Nil

#### **Protective Cap N Plug**



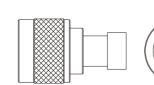


Hand Tool	Nil
Cable	Nil
Cable Assembly Instruction	Nil

#### N Terminator Plug, 50ohm

Te101





50 Ω	Hand Tool	Nil
	Cable	Nil
	Cable Assembly Instruction	Nil

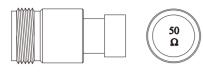
Z



### N Terminator Jack, 50ohm

Te202



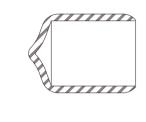


	Hand Tool	Nil
	Cable	Nil
	Cable Assembly Instruction	Nil

#### N Jack Cap

Z





Hand Tool	Nil
Cable	Nil
Cable Assembly Instruction	Nil

N-11 N-12

# **UHF Series**

### Description

UHF coaxial connectors are general purpose units developed for use in Low frequency systems applications up to 300MHz.











#### **Applications**

- CB Radios
- Antennas
- Public Address Systems

#### **Features**

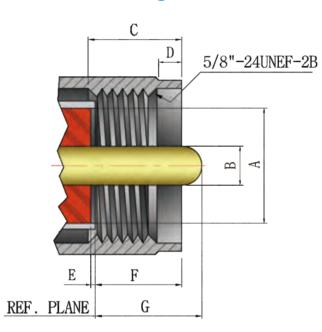
With the use of optional reducing adapters, UHF connectors are designed to accommodate a wide range of popular coaxial cables. The solder termination types require no special assembly tools. Crimp termination types, which provide a lower cost installation method, are also available.

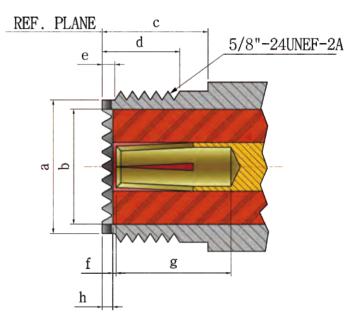
### Specification

#### **UHF 0-300MHz**

UHF coaxial connectors were one of the first RF connector series to be developed. They are a general purpose, non-constant impedance connector which operate from DC to 300 MHz. The 5/8"-24 thread coupling and clamp, crimp, twist-on and solder termination provide the UHF with the flexibility that have kept it one of the most popular coaxial connectors over the years. Among the many application of this low cost, low frequency device are antenna connections for CB radios, public address systems, audio, video, mobile radio and test equipment.

### **Interface Mating Dimensions**





#### **PLUG**

- 100			
Letter	Millimeters (inches)		
Lettei	Minimum	Maximum	
Α	11.56(.455)	12.22(.481)	
В	3.912(.154)	4.013(.158)	
С	8.76(.345)	_	
D	1.19(.047)	4.27(.168)	
Е	0.00	_	
F	_	9.91(.390)	
G	_	11.1(.437)	

#### **JACK**

Letter	Millimeters (inches)		
Lettei	Minimum	Maximum	
а	14.00(.551)	14.25(.561)	
b	11.56(.455)	12.22(.481)	
С	11.1(.437)	_	
d	7.87(.310)	_	
е	1.19(.047)	1.96(.077)	
f	0.03(.0012)	_	
g	11.76(.463)	_	
h	1.02(.040)	_	





#### **Electrical**

Impedance	Non-constant
Frequency Range	0 to 300 MHz
VSWR	<b>≦</b> 1.5
RF Leakage	≥90 dB
Dielectric Withstanding Voltage	2000 V rms
Voltage Rating	≧750 V rms (depending on cable)
Inner Contact Resistance	≦5 mΩ
Outer Contact Resistance	≦5 mΩ
Insulation Resistance	≧5 GΩ

#### Mechanical

Mating	5/8-24 UNEF Screw-on Coupling
Connector Durability	≥ 500 Cycles (for beryllium copper female contact only)
Cable Retention Force	≥ 12.1 lbs (for RG316) ≥ 28.7 lbs (for RG58) ≥ 94.5 lbs (for RG213)

#### **Environmental**

Temperature Range	-25° C to 70° C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Cond. B
Vibration	MIL-STD-202, Method 204, Cond. B
Thermal Shock	MIL-STD-202, Method 107, Cond. B
Mechanical Shock	MIL-STD-202, Method 213, Cond. G

#### **Material**

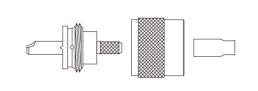
Parts Name	Material	Plating
Body	Brass	Nickel or Silver
Inner Contact	Male: Brass Female: Brass or Phosphor Bronze	Nickel, Silver or Gold Nickel, Silver or Gold
Insulator	PTFE, Delrin or Bakelite	None
Gasket	Rubber	None
Crimp Ferrule	Annealed Copper	Same as Body

Note: Other Material/Finish is Available on Request.

### Crimp Type (for Flexible Cable)

### **UHF S/T Plug, Crimp Type**

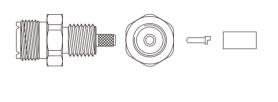




	Hand Tool	See Appendix B
	Cable	RG8/U, 8/X, 58/U, 174/U, 213/U, 316/U, LMR300 and more
	Cable Assembly Instruction	See Appendix A

#### UHF B/H Jack, Front Mount Crimp Type

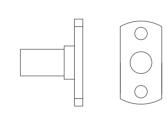




	Hand Tool	See Appendix B
	Cable	RG58/U and more
	Cable Assembly Instruction	See Appendix A

#### **UHF Accessory**

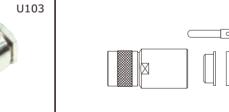




Hand Tool	See Appendix B
Cable	RG58/U and more
Cable Assembly Instruction	Nil

### Clamp Type (for Flexible Cable)

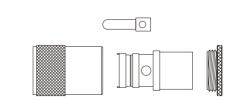
#### **UHF S/T Plug, Clamp Type**



Hand Tool	Nil
Cable	8D,10D,12D and more
Cable Assembly Instruction	See Appendix A Code L

#### **UHF S/T Plug, Clamp Type**



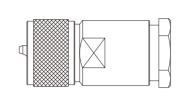


Hand Tool	Nil
Cable	8D,10D,12D and more
Cable Assembly Instruction	See Appendix A

#### **UHF S/T Plug, Clamp Type**

U115



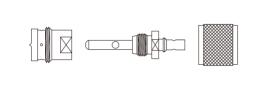


Hand Tool	Nil
Cable	3D, 5D, 8D, 10D and more
Cable Assembly Instruction	See Appendix A

### Solder Termination for Flexible Cable

#### **UHF S/T Plug, Solder Type**

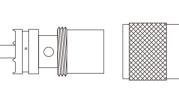
U108



Hand Tool	Nil
Cable	1.5D, 3D, 5D and more
Cable Assembly Instruction	See Appendix A

#### **UHF S/T Plug, Solder Type**

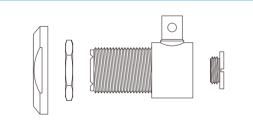




Hand Tool	Nil
Cable	3D, 5D, 8D and more
Cable Assembly Instruction	See Appendix A Code P

#### **UHF R/A Jack, Solder Type**



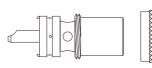


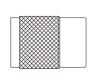
Hand Tool	Nil
Cable	1.5D, 3D, 5D, 8D, 10D and more
Cable Assembly Instruction	See Appendix A Code N

### Twist-on Termination for Flexible Cable

#### UHF S/T Plug, Twist-on Type (PL-259)





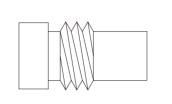


Hand Tool	Nil
Cable	RG8/U, 8/X, 58/U, 213/U, LMR240, LMR300 and more
Cable Assembly Instruction	See Appendix A Code P

#### **UHF Reducer for UP02**

U121



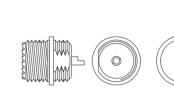


Hand Tool	Nil
Cable	RG58,59 and more
Cable Assembly Instruction	Nil

### Bulkhead Receptacle, Solder Pot Terminal

#### UHF B/H Jack, Front mount Solder Type

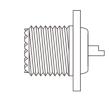
U203

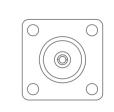


Hand Tool	Nil
Cable	Nil
Mounting Hole	Refer to S-Conn's Drawing

#### **UHF P/M 4-Hole Jack, Solder Type**





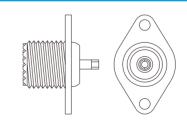


Hand Tool	Nil
Cable	Nil
Cable Assembly Instruction	Nil

### Panel Mount Type

#### UHF P/M 2-Hole Jack, Receptacle



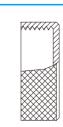


Hand Tool	Nil
Cable	Nil
Cable Assembly Instruction	Nil

### Cap

#### **Protective Cap for UHF Jack**





Hand Tool	Nil
Cable	Nil
Cable Assembly Instruction	Nil

# **Mini UHF Series**

#### Description

Miniature UHF connectors are designed for use as coaxial interconnections in cellular mobile telephone systems and similar applications where size, weight and cost factors are critical. These connectors will terminate RG-58, -58A, -58B, -58C, and Belden 9258 cables. Crimp type cable plugs and jacks are available as well as panel and printed circuit board receptacles.







#### Applications

- Cellular mobile telephone.
- Low cost local area networks.
- Telecommunications

#### **Features**

- These miniature 3/8"-24 thread size UHF connectors provide excellent RF performance for applications up to 2.5 GHz. This compares to the limit of 300 MHZ for the standard 5/8" -24 thread size UHF connectors normally associated with CB applications Combining excellent electrical characteristics, small size and light weight, Mini-UHF connectors feature crimp-type cable termination providing low installation cost.
- Interface according to IEC 169-34

### **Specification**

Mini-UHF coaxial connectors are designed for use in applications from DC to 2.5 GHz where size, weight and cost elements are crucial. These miniature 3/8 " -24 thread size connectors provide excellent RF performance and are impedance matched to 50 ohm cable. Crimp, twist-on and solder terminations are available with the Mini-UHF series. Mini-UHF connectors combine excellent electrical characteristics, small size and lightweight at a relatively inexpensive cost for many coaxial connector applications.

#### **Electrical**

Impedance	50 ohm
Frequency Range	0 to 2.5 GHz
VSWR	1.25max
Voltage Rating	335 VRMS max
Dielectric Withstanding Voltage	1000 VRMS max
Contact Resistance	Center Contact = 5.0 Milliohms max Outer Contact =5.0 Milliohms max
RF Leakage	-55 dB min@2.5GHz
Insertion Loss	.2 dB max@ 2.5GHz
Insulator Resistance	5,000 Megohms min

#### **Mechanical & Environmental**

Mating	3/8-24 UNF Screw-on coupling
Cable Retention	RG-58, 141,142, 223 → 40 lbs min RG-174, 188, 316 → 20 lbs min
Durability	500 matings(for beryllium copper female contact only)
Temperature Range	-55 C to 85 C
Vibration	MIL-STD-202 Method 204 Test CondB
Salt Spray	MIL-STD-202 Method 101 Test CondB

#### Material

Parts Name	Material	Plating
Body	Brass	Nickel
Inner Contact	Male: Brass Female: Brss, Phosphor Bronze or Beryllium Copper	Gold
Insulator	PTFE or Delrin	None
Crimp Ferrule	Annealed Copper	Same as Body

Note: Other Material/Finish is Available on Request.

M-01 M-02

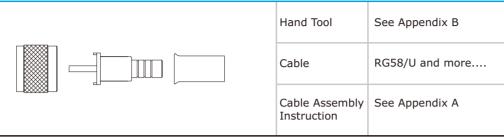




### Crimp Type (for Flexible Cable)

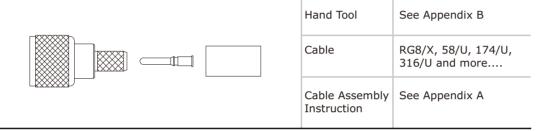
### Mini UHF S/T Plug, Crimp Type





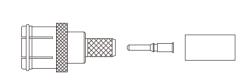
#### Mini UHF S/T Plug, Crimp Type





#### Mini UHF Push-on Plug, Crimp Type

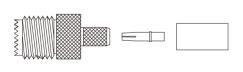




Hand Tool	See Appendix B
Cable	RG58/U and more
Cable Assembly Instruction	See Appendix A Code E

#### Mini UHF S/T Jack, Crimp Type





Hand Tool	See Appendix B
Cable	RG58/U, 174/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E

M-03

Mini UHF

# **F** Series

### **Specification**

#### **F TYPE Technical Specification**

F connectors were designed as a low cost method of coupling coaxial cables and equipment used in TV, MTV, and safelite communication applications. They have threaded coupling interfaces and the plug utilises the center contacts of the cable rather than a separately applied pin. They are designed for low frequency transmissions (typically video) up to 3GHz.





#### **Features**

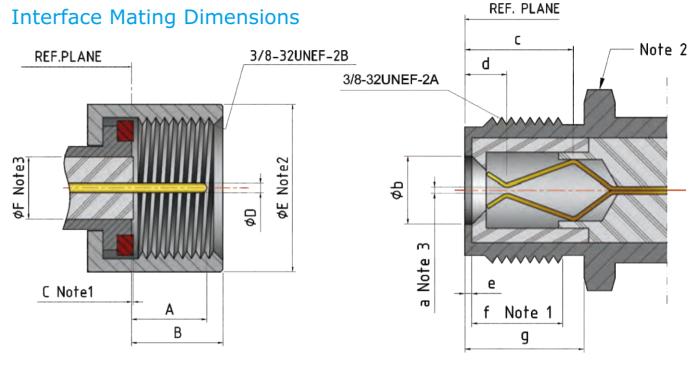
• Interface according to IEC 169-24











- 1.Protrusion of dielectric beyond reference plane is applicable to only the 0.146 in nominal dielectric core diameter cables. When larger core diameter cables are used, no protrusion of the dielectric beyond the reference plane is permitted.
- 2.Shape of coupling nut is optional; however, provision for wrench tightening should be made. For example, wrench flats.
- 3.Applicable to only the 0.146 in nominal dielectric core diameter cables. The 3.8mm maximum diameter is not applicable when larger core diameter cables are

#### **PLUG**

. 200		
Letter	Millimeters (inches)	
Letter	Minimum	Maximum
Α	4.95(.195)	6.86(.270)
В	_	7.29(.287)
С	_	0.25(.010)
D	0.51(.020)	1.63(.024)
Е	_	12.95(.510)
F	_	3.80(.149)

- 1.Length of full thread.
   2.Shape of connector body is optional; however, provision for wrench tightening should be made. For example, wrench flats.
- 3.Socket contact shall accept a pin contact of 0.51 mm to 1.63 mm (0.20 in to 0.64 in); this shall be satisfied at dimension " d ".

#### **JACK**

Letter	Millimeters (inches)	
Letter	Minimum	Maximum
а	See N	ote 3
b	3.86(.152)	_
С	7.00(.295)	_
d	_	4.70(.185)
е	0.30(.012)	_
f	5.56(.219)	_
g	7.59(.299)	_





RG6/U, 59/U, 3C-2V and more....

#### **Electrical**

Impedance	75Ω
Frequency Range	0 to 3 GHz
VSWR	≦1.2
RF Leakage	≥100 dB
Dielectric Withstanding Voltage	1500 V rms
Voltage Rating	500 V rms (depending on cable)
Inner Contact Resistance	≦10 mΩ
Outer Contact Resistance	≦1 mΩ
Insulation Resistance	≧5 GΩ

#### Mechanical

Mating	3/8-32 UNEF Screw-on Coupling
Connector Durability	≥ 500 Cycles (for beryllium copper female contact only)
Recommended Mating Torque	0.38 lbs ~ 0.51 lbs
Coupling Nut Retention Force	1.5 lbs
Cable Retention Force	≧20 lbs

#### **Environmental**

Temperature Range	-40° C to 60° C
Corrosion (Salt Spray)	IEC61169-1, Sub clause9.4.6
Vibration	IEC61169-1, Sub clause9.3.3
Thermal Shock	IEC61169-1, Sub clause9.4.4
Mechanical Shock	IEC61169-1, Sub clause9.3.14

#### **Material**

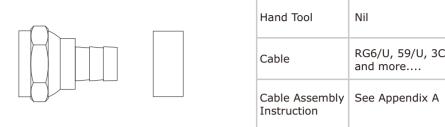
Parts Name	Material	Plating
Body	Brass	Nickel
Inner Contact	Male : Brass Female :Phosphor Bronze	Gold or Nickel or Tin
Ferrule	Brass	Nickel
Insulator	Delrin, Polypropylene, PTFE	
Nut	Brass or Steel	Nickel
Washer	Brass or Steel	Nickel

Note: Other Material/Finish is Available on Request.

### Crimp Type (for Flexible Cable)

#### F S/T Plug, Crimp Type

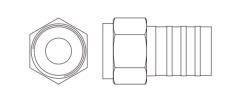




#### F S/T Plug, Crimp Type (Attached Grip Ring)

F105



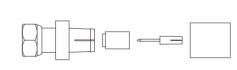


Hand Tool	Nil
Cable	RG6U, 59/U and more
Cable Assembly Instruction	See Appendix A

#### F S/T Plug, Crimp Type

F108



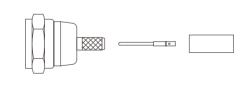


Hand Tool	See Appendix B
Cable	7C-2V and more
Cable Assembly Instruction	See Appendix A

#### F S/T Plug, Crimp Type

F112



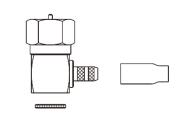


Hand Tool	See Appendix B
Cable	RG179/U and more
Cable Assembly Instruction	See Appendix A Code E

#### F R/A Plug, Crimp Type

F113



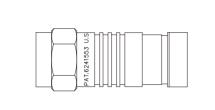


Hand Tool	See Appendix B
Cable	RG179, 187; B9221 and more
Cable Assembly Instruction	See Appendix A Code H



#### F Plug, Compression Type





Hand Tool	Nil
Cable	RG6/U, 59/U, 7C-2V and more
Cable Assembly Instruction	See Appendix A Code O

#### F S/T Plug, Crimp Type

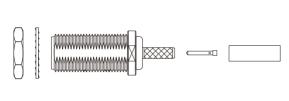




Hand Tool	See Appendix B
Cable	Rg11, 12 and more
Cable Assembly Instruction	See Appendix A

#### F B/H Jack, Rear Mount Crimp Type

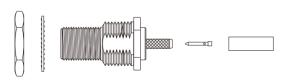




Hand Tool	See Appendix B
Cable	RG179/U and more
Cable Assembly Instruction	See Appendix A Code O

#### F B/H Jack, Rear Mount Crimp Type



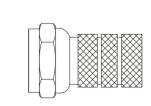


Hand Tool	See Appendix B
Cable	RG179, 187; B9221 and more
Cable Assembly Instruction	See Appendix A Code H

### Twist-on Termination for Flexible Cable

#### F S/T Plug, Twist-on Type



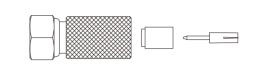


Hand Tool	Nil
Cable	RG58/U, 59/U and more
Cable Assembly Instruction	See Appendix A Code O

#### F S/T Plug, Twist-on Type

F107





Hand Tool	Nil
Cable	7C-2V and more
Cable Assembly Instruction	See Appendix A Code O

### PCB Type

#### F Push-on Jack, PCB Mount Type (G Series)

F203

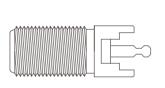




Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

#### F S/T Jack, PCB Mount Type (Tab Contact)



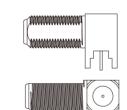


Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

#### F R/A BulkHead Jack, PCB Mount type

F223





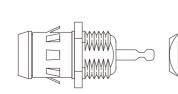
Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

### Bulkhead Receptacle, Solder Pot Terminal

#### F B/H Push-on Jack, Front Mount Solder Type (G Series, Tab Contact)

F202





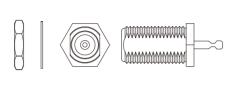
	Hand Tool	Nil
	Cable	Nil
)	Mounting Hole	Refer to S-Conn's Drawing

F-05



#### F B/H Jack, Rear Mount Solder Type (Tab Contact)

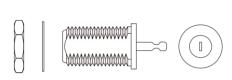
F2	206
Manual	



Hand Tool	Nil
Cable	Nil
Mounting Hole	Refer to S-Conn's Drawing

#### F B/H Jack, Rear Mount Solder Type (Tab Contact)

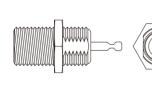




Hand Tool	Nil
Cable	Nil
Mounting Hole	Refer to S-Conn's Drawing

#### F B/H Jack, Front Mount Solder Type (Tab Contact)





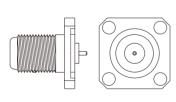


Hand Tool	Nil
Cable	Nil
Mounting Hole	Refer to S-Conn's Drawing

### Panel Mount Type

### F P/M-O 4-Hole Jack, Receptacle





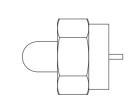


Hand Tool	Nil
Cable	Nil

### Terminator & Cap

### F Plug Terminator, 75 ohm





Hand Tool	Nil
Cable	Nil

ш

# **FME Series**

### FME Cable Fixing and Adaptors

FME (For Mobile Equipment)is a miniature 50 ohm RF connector series offering excellent performance from DC to 2.0 GHz used with primarily with RG-58 or equivalent coaxial cables employed in mobile applications and installations. The FME female is designed to allow cables it has been installed on to be snaked through the often tight access holes or spaces of a vehicle to the desired equipment location(s) where an FME male adapter to the required equipment connector series is fitted to the female cable connector. There is an extensive array of FME inter-series adapters available and a male cable connector is also offered for both RG-58 and RG-174 type cables to facilitate extensions, splices or transitions.



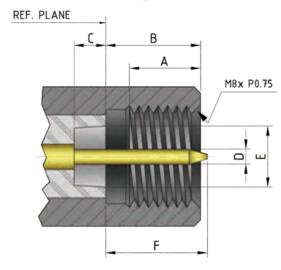


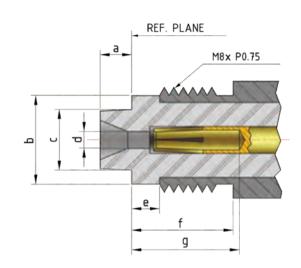


### FME Technical Specification

2 GHz Max ycles(only for BeCu)
ycles(only for BeCu)
Nickel Plated
Gold Plated
Gold Plated
or Delrin
.75 threaded

### **Interface Mating Dimensions**





#### **PLUG**

Letter	Millimeters (inches)		
Letter	Minimum	Maximum	
Α	5.60(.220)	_	
В	7.58(.298)	7.62(.300)	
С	2.50(.098)	_	
D	1.17(.046)	1.23(.048)	
Е	4.80(.189)	_	
F	_	8.00(.315)	

#### **JACK**

Letter	Millimeters (inches)	
Letter	Minimum	Maximum
а	_	2.50(.098)
b	_	7.00(.276)
С	_	4.80(.189)
d	1.30(.051)	_
е	2.20(.087)	_
f	8.50(.355)	_
g	8.50(.355)	_



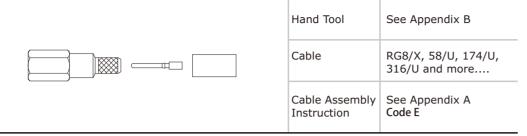
A-01 A-02



### Crimp Type (for Flexible Cable)

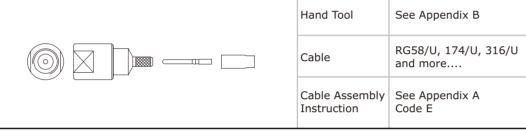
### FME S/T Plug, Crimp Type





#### FME S/T Plug, Rear Mount Crimp Type

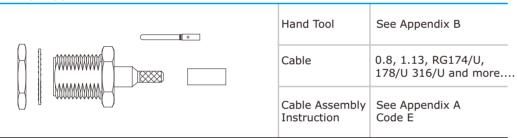




#### FME B/H Plug, Rear Mount Crimp Type

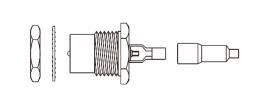
A105





#### FME B/H Plug, Rear Mount Crimp Type

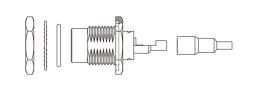




Hand Tool	See Appendix B
Cable	Mini Coaxial Cable, RG178/U and more
Cable Assembly Instruction	See Appendix A Code F

#### FME B/H Plug, Crimp Type



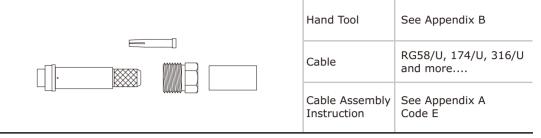


Hand Tool	See Appendix B
Cable	Mini Coaxial Cable, RG178/U and more
Cable Assembly Instruction	See Appendix A Code F

#### FME S/T Jack, Crimp Type

A201

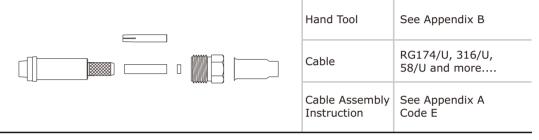




#### FME S/T Jack, Crimp /type

A204

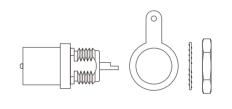




### Bulkhead Receptacle, Solder Pot Terminal

#### FME B/H Plug, Front Mount Solder Type





Hand Tool	Nil
Cable	Nil
Mounting Hole	Refer to S-Conn's Drawing

A-03

FME

# **SSMB Series**

### Description

SSMB connectors series used a snap-on connection. In doing this connectors are plugged together and are held by a tongue and groove arrangement. The design permits rapid connection and disconnection in small spaces, even in inaccessible locations.









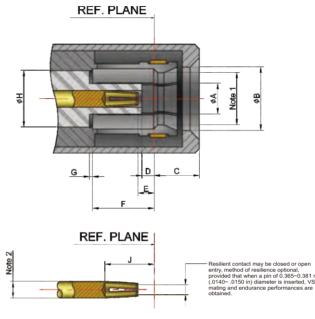
### **Applications**

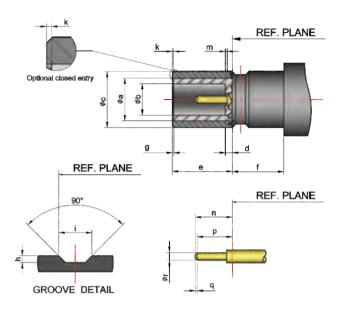
- Cable connectors (straight and right angle) for flexible cables with diameters from 2 to 2.8 mm
- PCB connectors (straight and right angle)
- Panel connectors

#### **Features**

- Quality tested according to US MIL-STD 202
- Frequency range up to 3 GHz
- VSWR (straight connector) :  $\leq$  1.30 typ.
- Interface according to IEC 169-19, EN 122170

### **Interface Mating Dimensions**





- 1. The form and end dimension of outer contact detent shall meet electrical and mechanical requirements.
- 2.The diameters are chosen upon the assumption that PTFE dielectric constant of 2.02 to give an impedance of 50  $\Omega$  .

#### **PLUG**

Millimeters (inches)		
Minimum	Maximum	
_	1.35(.053)	
2.74(.108)	_	
_	2.26(.089)	
0.53(.021)	_	
0.53(.021)	0.89(.035)	
2.74(.108)	_	
0.00	_	
2.11(.083)Nom.		
2.46(.097)	_	
	Minimum  - 2.74(.108)  - 0.53(.021) 0.53(.021) 2.74(.108) 0.00  2.11(.08)	

#### **JACK**

Letter	Millimeters (inches)		
LCCC	Minimum	Maximum	
а	2.11(	.083)	
b	1.37(.054)	_	
С	_	2.69(.106)	
d	_	0.56(.022)	
е	_	2.77(.109)	
f	2.30(.091)	_	
g	0.00(.000)	_	
h	0.05(.002)	0.15(.006)	
i	0.63(.025)	0.74(.029)	
k	0.00(.000)	0.51(.020)	
m	0.00(.000)	_	
n	_	2.44(.096)	
р	1.78(.070)	_	
q	_	0.25(.010)	
r	0.36(.014)	0.38(.015)	

**SSMB** 

SM-01







#### **Electrical**

50Ω
0 to 3 GHz
≦1.35
≧40 dB
500 V rms
175 V rms (depending on cable)
≦5 mΩ
≦2.5 mΩ
≧1 GΩ

#### Mechanical

Mating	Snap-on Coupling
Connector Durability	≥500 Cycles (for beryllium copper female contact only)
Engagement Force	≦6.0 lbs
Disengagement Force	1.8 lbs ~ 6.0 lbs
Cable Retention Force	≥7.3 lbs (for RG178) ≥12.1 lbs (for RG316)

#### **Environmental**

	Temperature Range	-55° C to 155° C
	Corrosion (Salt Spray)	MIL-STD-202, Method 101, Cond. B
	Vibration	MIL-STD-202, Method 204, Cond. D
	Thermal Shock	MIL-STD-202, Method 107, Cond. B
ĺ	Mechanical Shock	MIL-STD-202, Method 213, Cond. B

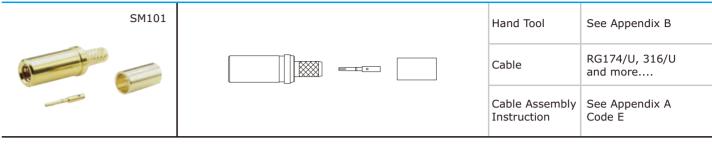
#### **Material**

Parts Name	Material	Plating
Body	Brass	Gold or Nickel
Inner Contact	Male : Brass Female :Phosphor Bronze Beryllium Copper	Gold
Insulator	PTFE	None
Crimp Ferrule	Annealed Copper	Same as Body

Note: Other Material/Finish is Available on Request.

### Crimp Type (for Flexible Cable)

#### SSMB S/T Plug, Crimp Type



### SSMB R/A Plug, Crimp Type

SM110	Hand Tool	See Appendix B
A A	Cable	RG174/U, 316/U and more
	Cable Assembly Instruction	See Appendix A Code C

#### SSMB S/T Jack, Crimp Type

SM201	Hand Tool	See Appendix B
	Cable	RG174/U, 316/U and more
	Cable Assembly Instruction	See Appendix A Code E

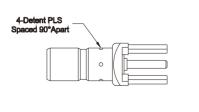
#### SSMB R/A Jack, Crimp Type

SM202	Hand Tool	See Appendix B
	Cable	RG174/U, RG316/U and more
	 Cable Assembly Instruction	See Appendix A Code E

### PCB Type

#### SSMB S/T Jack, PCB Mount Type





$\Diamond \Diamond$	
$\Diamond$ $\Diamond$	

Hand Tool	See Appendix B
Cable	Nil
Cable Assembly Instruction	See Appendix A Code E

# MS

# **SMC Series**

### Description

SMC connectors are designed with a screw-on connection and can be used for frequencies up to 10 GHz. Connector pairs can be connected and secured by means of a coupling nut system.





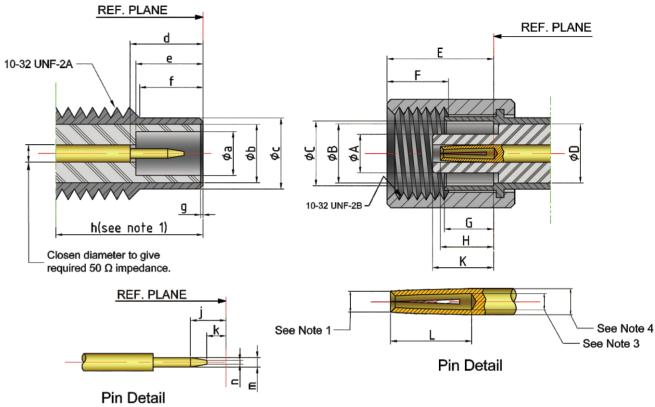
### **Applications**

- Cable Connectors (straight and right angle) for flexible and semi-rigid cables with diameters to 3.1 mm
- PCB connectors
- Panel connectors
- Adaptors.

#### **Features**

- Quality tested according to US MIL-STD 202
- Frequency range up to 10 GHz
- $\bullet$  VSWR (straight connector) :  $\leq 1.30$  typ.
- $\bullet$  Screw-on coupling mechanism.
- Interface according to IEC 169-9, CECC 22140, MIL-C-39012 SMC, MIL-STD-348A/312

### **Interface Mating Dimensions**



#### Note:

- 1. Method of slotting optional. Closing of socket to give required electrical and mechanical performance.
- 2. Dimension when coupling nut biased forward.
- 3. Dimension of bore to meet electrical and mechanical requirements.
- 4.Dimension chosen to give 50  $\Omega$  impedance.
- 5. Application at the reference plane.

#### **PLUG**

Letter	Milimeters (inches)		
Lettei	Minimum	Maximum	
а	2.08(.082)		
b	3.05(.1	20)Nom.	
С	_	3.71(.146)	
d	3.40(.134)	_	
е	3.40(.134)	_	
f	3.12(.123)	3.38(.133)	
g	0.00(.000)	_	
h	5.94(.234)	_	
j	_	2.13(.084)	
k	0.61(.024)	_	
m	0.48(.019)	0.53(.021)	
n	_	0.25(.010)	

Note:

1.Thread gauge to go this minimum distance.

**JACK** 

Milimeters Minimum –	(inches)  Maximum  2.06(.081)
Minimum —	
_	2.06(.081)
_	3.07(.121)
3.73(.147)	_
3.05(.120)Nom.	
_	5.92(.233)
2.79(.110)	_
_	3.10(.122)
2.85(.112)	3.40(.134)
_	3.40(.134)
2.79(.110)	_
	3.05(.1 - 2.79(.110) - 2.85(.112)

SC-01 SC-02





#### **Electrical**

Impedance	50Ω / 75Ω
Frequency Range	0 to 10 GHz
VSWR	≤1.3 (straight connector) ≤1.45 (right angle connector)
RF Leakage	≧90 dB
Dielectric Withstanding Voltage	750 V rms
Voltage Rating	250 V rms (depending on cable)
Inner Contact Resistance	≦5 mΩ
Outer Contact Resistance	≦2.5 mΩ
Insulation Resistance	≧1 GΩ

#### Mechanical

Mating	#10-32 UNF Screw-on Coupling
Connector Durability	≥500 Cycles (for beryllium copper female contact only)
Recommended Mating Torque	2.2 lbs ~ 3.1 lbs (max. 6.2 Lbs)
Coupling Nut Retention Force	≧33.72 lbs
Cable Retention Force	≧ 7.3 lbs (for RG178) ≧ 12.1 lbs (for RG316)

#### **Environmental**

Temperature Range	-65° C to 165° C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Cond. B
Vibration	MIL-STD-202, Method 204, Cond. D
Thermal Shock	MIL-STD-202, Method 107, Cond. B
Mechanical Shock	MIL-STD-202, Method 213, Cond. C

#### Material

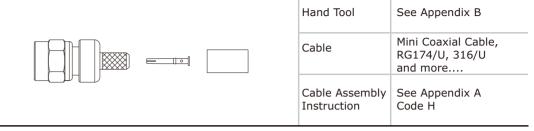
Parts Name	Material	Plating
Body	Brass	Gold or Nickel
Inner Contact	Male : Brass Female :Phosphor Bronze Beryllium Copper	Gold
Insulator	PTFE	None
Crimp Ferrule	Annealed Copper	Same as Body

Note: Other Material/Finish is Available on Request.

#### Crimp Type (for Flexible Cable)

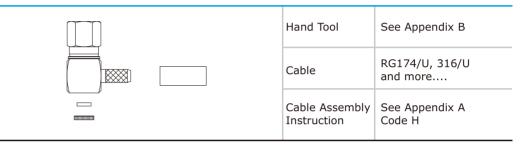
#### SMC S/T Plug, Crimp Type





#### **SMC R/A Plug, Crimp Type**

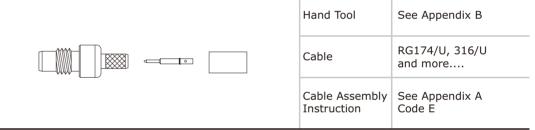




#### SMC S/T Jack, Crimp Type

SC201

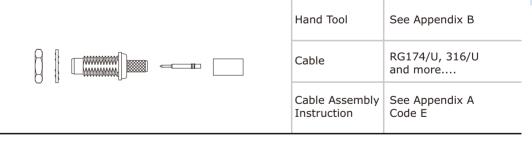




#### SMC B/H Jack, Crimp Type

SC202

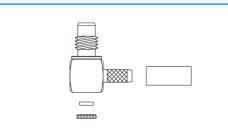




#### **SMC B/H Jack, Crimp Type**

SC205





Hand Tool	See Appendix B
Cable	RG174/U, 316/U and more
Cable Assembly Instruction	See Appendix A Code E



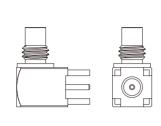




#### PCB Type

#### SMC R/A Jack, PCB Mount Type





Hand Tool	Nil
Cable	Nil
PCB Layout	Refer to S-Conn's Drawing

SC-05 SC-06

## **SMP Series**

#### Description

The SMP interface is a subminiature interface in the same scale as MMCX connectors but offers a frequency range of DC to 40 GHz. It is commonly used in miniaturized high frequency coaxial modules and is offered in both push-on and snap-on mating styles.





#### **Applications**

- Aerospace
- Board to Board Interconnect
- Broadband
- Instrumentation
- Mil/Aero
- Optical Nodes and Routers
- Telecommunications





#### Features

- Designed to accommodate both radial and axial misalignment.
- Cable connector designs for both flexible and semi-rigid cables.
- Interface according to MIL-STD-348A/326

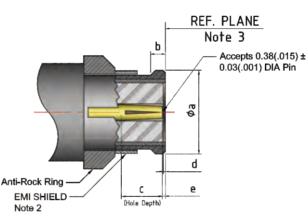
#### **Specification**

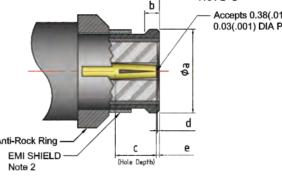
#### **SMP 50 ohm 0-40 GHz**

SMP bullet connectors at high frequencies up to DC to 40 GHz. The SMP bullet connector was developed to meet the need for a smaller high frequency compact design that incorpo ease of use and functionality. The SMP bullet connector is the heart of this unique design. The bullet is designed to allow the joining of two RF Modules by captivating the bullet between the two shrouds. This mounting method allows for higher density of connectors and by design the SMP bullet connector allows for misalignment to compensate for tolerance stack up. With significant withdrawal forces on the full detent shroud the SMP connector has become a standard for quick and effective interconnects using both semi-rigid and flexible cables. The "Push-on" design allows the installe to mate connectors without the need for threads or wrenches. Today's industry requires both innovation and flexibility, and the SMP bullet connector meets that challenge.

#### **Interface Mating Dimensions**

SMP Jack (CABLE)





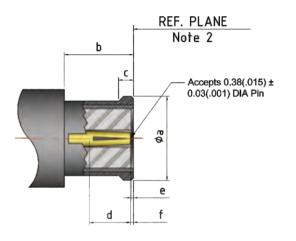
#### Note:

1.Pin may not be supplied with shroud, refer to the applicable specification.

#### JACK(CABLE)

Steri(ense)		
Letter	Millimeter	s (inches)
	Minimum	Maximum
а	_	3.43(.135)
b	0.46(.018)	0.64(.025)
С	1.78(.070)	_
d	0.00 Dielectric Projection	
е	Center Contact Flush to 0,20(,008)Recession	

SMP Jack (Uncable)



- 1.Interface shall meet the force to engage and disengage requirements in accordance with DSCC drawing 94007.
- 2.From and dimension of outer conductor to meet electrical and mechanical requirements.

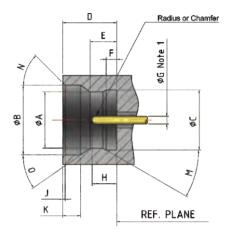
#### JACK(UNCABLE)

Letter	Millimeters (inches)		
Letter	Minimum	Maximum	
а	_	3.43(.135)	
b	2.84(.112)	_	
С	0.46(.018)	0.64(.025)	
d	1.78(.070)	_	
е	0.00 Dielectric Projection		
f	Center Contact Flush to 0.20(.008)Recession		

SP-01 SP-02

#### **Interface Mating Dimensions**

#### SMP Plug (Full Detent Type)

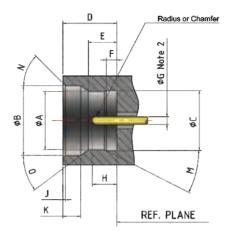


1.Pin may not be supplied with shroud, refer to the applicable specification.

#### PLUG(FULL DETENT TYPE)

Letter	Millimeters (inches)	
Lettei	Minimum	Maximum
Α	2.90(.114)	2.95(.116)
В	3.53(.139)	3.68(.145)
С	3.15(.124)	3.20(.126)
D	2.74(.108)	2.84(.112)
Е	1.30(.051)	1.45(.057)
F	0.52(.0205)	0.59(.0235)
G	0.36(.014)	0.40(.016)
Н	1.14(.045)	1.40(.055)
J	0.08(.003)	0.20(.008)
K	0.84(.033)	0.94(.037)
М	30° REF	
N	40°	50°
0	35° REF	

#### SMP Plug (Limited Detent Type)

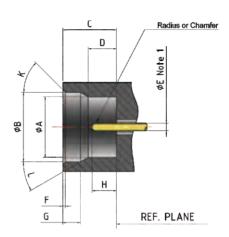


- Note:
  1.Metric equivalents are given for general information only.
  2.Pin may not be supplied with shroud, refer to the applicable specification.

#### PLUG(LIMITED DETENT TYPE)

Letter	Millimeters (inches)	
Letter	Minimum	Maximum
Α	3.00(.118)	3.10(.122)
В	3.53(.139)	3.68(.145)
С	3.15(.124)	3.20(.126)
D	2.74(.108)	2.84(.112)
Е	1.37(.054)	1.52(.060)
F	0.52(.0205)	0.59(.0235)
G	0.36(.014)	0.40(.016)
Н	1.14(.045)	1.40(.055)
J	0.08(.003)	0.20(.008)
K	0.84(.033)	0.94(.037)
М	30° REF	
N	40°	50°
0	35° REF	

#### SMP Plug (Smooth Bore Type)

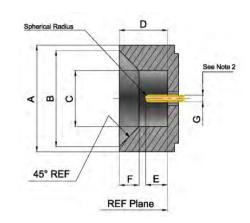


Note:
1.Pin may not be supplied with shroud, refer to the applicable specification.

#### PLUG(SMOOTH BORE TYPE)

Letter	Millimeters (inches)	
Letter	Minimum	Maximum
Α	3.12(.123)	3.23(.127)
В	3.53(.139)	3.68(.145)
С	2.74(.108)	2.84(.112)
D	1.37(.054)	1.52(.060)
Е	0.36(.014)	0.40(.016)
F	0.08(.003)	0.20(.008)
G	0.84(.033)	0.94(.037)
Н	1.14(.045)	1.40(.055)
K	40°	50°
L	35° REF	

#### SMP Plug (Catchers Mit)



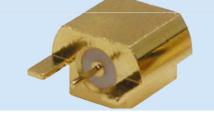
- Note:
  1.Metric equivalents are given for general information only.
  2.Pin may not be supplied with shround, refer to the applicable Specification.

#### PLUG(Catchers Mit)

r Lod (Catchers Mit)		
Lathau	Millimeters (inches)	
Letter	Minimum	Maximum
Α	5.84(.230)	6.10(.240)
В	5h.33(.210)	5.59(.220)
С	3.05(.120)	3.30(.130)
D	2.74(.108)	2.84(.112)
E	0.36(.014)	1.40(.055)
F	1.09(.043)	1.19(.047)
G	0.36(.014)	0.41(.016)

SP-03





#### **Electrical**

Impedance	50Ω
Frequency Range	0 to 40 GHz
VSWR	DC to 26.5 GHz $\rightarrow$ 1.15 max. 26.5 to 40 GHz $\rightarrow$ 1.35 max.
Voltage Rating	170 volts rms max.
Dielectric Withstanding Voltage	500 volts rms at sea level
Contact Resistance	Inner Contact: 6.0 milliohms max. Outer Contact: 2.0 milliohms max.
RF Leakage	-80dB min. at 3GHz -65dB min. form 3 to 26.5GHz min.
Insertion Loss	.4 dB max (straight) .6 dB max (right angle)
Insulator Resistance	5,000 Megohms min

#### **Mechanical & Environmental**

Durability	100 matings min.(Full Detent) 500 matings min. (Limited Detent) 1000 matings min. (Smooth Bore)
Engagement force	15 lbs Max (Full Detent) 10 lbs Max (Limited Detent) 2 lbs Max (Smooth Bore)
Disengagement force	5 lbs Min(Full Detent) 2 lbs Min(Limited Detent) 5 lbs Min (Smooth Bore)
Vibration	MIL-STD-202, Method 204, Condition D
Salt Spray	MIL-STD-202, Method 101, Condition B
Shock	MIL-STD-202, Method 213, Condition D
Temperature Range	-65° C to +165° C
Thermal Shock	MIL-STD-202, Method 107, Condition B
Moisture Resistance	MIL-STD-202, Method 106

#### Material

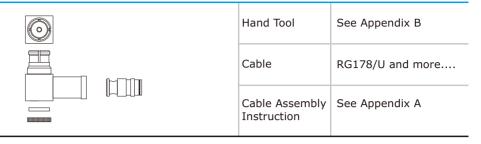
Parts Name	Material	Plating
Body	Shield: Stainless steel Male:Beryllium-Copper or Brass Female:Beryllium-Copper or Brass	Passivated Gold Gold
Inner Contact	Beryllium-Copper	Gold
Insulator	PTFE	None

Note: Other Material/Finish is Available on Request.

#### Crimp Type (for Flexible Cable)

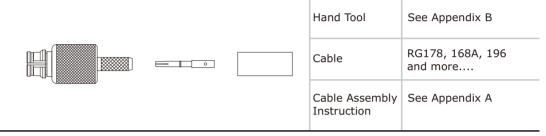
#### SMP R/A Jack, Crimp Type





#### **SMP S/T Plug, Crimp Type**



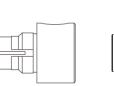


#### Direct Solder Type (for Semi-Rigid Cable)

#### SMP R/A Jack, Solder Type







Hand Tool	Nil
Cable	RG405/U and more
Cable Assembly Instruction	See Appendix A

#### SMP S/T Jack, Solder Type







0

Hand Tool	Nil
Cable	RG405/U and more
Cable Assembly Instruction	See Appendix A Code M

#### SMP R/A Panel Mount 2-Hole Jack, Solder Type

SP205





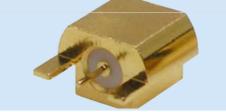


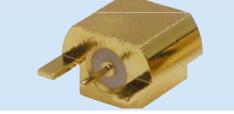


Hand Tool	Nil
Cable	RG405/U and more
Cable Assembly Instruction	See Appendix A Code M

SP-05 SP-06

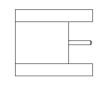






PCB Type
SMP S/T Plug, Edge Mount Type

SP108





Hand Tool	Nil
Cable	Nil
PCB Soldering Pattern	Refer to S-Conn's Drawing

SP-07

## **BMA Series**

#### Description

BMA connectors are 50 ohm with slide-on mating & non-locking interface that accomplish feature of blindmate.

The feature of blindmate has an external spring to provide mechanical movement for extensive mechanical misalignment of ± .020 radial and .060 axial minimum is suitable for high performance microwave applications such as wireless infrastructure, satellite equipment and test and measurement.

BMA also offer good electrical performance up to 18GHz and approximately the same size as SMA connectors







#### **Applications**

- Satellite Communication Equipment
- Microwave Subsystems
- Test and Measurement
- Wireless Base Station Equipment
- Military Radar

#### Features

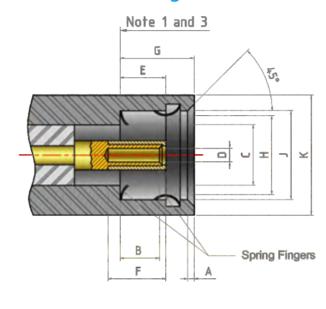
- Air Dielectric
- Compliant Contacts
- Hooded Female Contact
- Interface according to IEC 1169-33

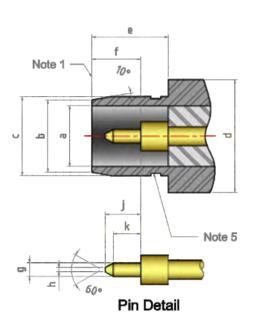
#### **Specification**

#### **BMA**

BMA connectors feature a push-on interface and a threadless outer ground connection. They can withstand both radial and axial misalignment. BMA connectors are miniature BMA connector. BMA connectors also includes a unique First-Make-Last-Break (FMLB) ground contact, which allows modular components to be plugged and unplugged or "hot swapped" in and out of a live system.

#### **Interface Mating Dimensions**





#### Note:

- 1.Reference plane, mechanical and electrical.
- 2.Bore diameter closed to meet electrical and mech anical requirements when mated with a 0.9017/0.9398 mm (0.355/0.370 in) diameter.
- 3. With spring finger bottomed.
- 4. To meet electrical and mechanical requirements.
- 5.Design and location of the sealing feature is optional but shall ensure the environmental performance requirements are met with up to 0.38 mm (0.015 in) interface separation.
- 6.Location of point of electrical and mechanical contact from the reference place.

#### **JACK**

JACK		
Letter	Millimeters (inches)	
Lettei	Minimum	Maximum
Α	0.38 (.015)	0.51 (.020)
В	2.845 (.112) See Note 4, 6	_
С	4.090 (.16	51) nominal
D	See Note 2	
E	3.048 (.120) See Note 3	3.225 (.127) See Note 3
F	2.921 (.115)	
G	_	5.029 (.198)
Н	See N	ote 4
J	5.720 (.225)	_
K	7.370 (.290)	_
	,	

#### PI IIG

PLUG		
Letter	Millimeters	s (inches)
Lettei	Minimum	Maximum
а	4.090 (.10	51) nominal
b	4.880 (.19	92) nominal
С	5.309 (.290)	5.359 (.211)
d	7.620 (.30	00)nominal
е		_
f	3.252 (.128)	3.429 (.135)
g	.9017 (.0355)	.9398 (.0370)
h	_	.380 (.015)
j	2.159 (.085)	2.413 (.095)
k	1.346 (.053)	<del>-</del>

BM-01







#### **Electrical**

Immediance	
Impedance $50\Omega$	
Frequency Range 0 to 18 GHz	
VSWR ≦1.2	
RF Leakage ≥90 dB	
Dielectric Withstanding Voltage 1000 V rms	
Voltage Rating ≧670 V rms (depending on cable)	
Inner Contact Resistance $\leq 2 \text{ m}\Omega$	
Outer Contact Resistance $\leq 2 \text{ m}\Omega$	
Insulation Resistance $\geq 5 \text{ G}\Omega$	

#### Mechanical

Mating	Slide-on Coupling
Connector Durability	≥500 Cycles (for beryllium copper female contact only)
Engagement Force	≦2.7 lbs
Disengagement Force	≧0.45 lbs
Cable Retention Force	≥ 22.5 lbs (for Semi-flexible) ≥ 36 lbs (for Semi-rigid)

#### **Environmental**

Temperature Range	-60° C to 125° C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Cond. B
Vibration	MIL-STD-202, Method 204, Cond. D
Thermal Shock	MIL-STD-202, Method 107, Cond. B
Mechanical Shock	MIL-STD-202, Method 213, Cond. I

#### Material

Parts Name	Material	Plating
Male (Plug)	Body:Brass Outer Contacts:Phosphor Bronze Inner Contact:Brass Phosphor Bronze	Nickel Gold Gold
Female (Jack)	Body:Brass Stainless Steel Inner Contact:Beryllium Copper	Gold/ Nickel Passivated Gold
Insulator	PTFE	None

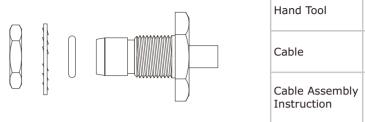
Note: Other Material/Finish is Available on Request.

#### Solder Type (for Semi-Rigid Cable)

BMA B/H Plug, Solder Type





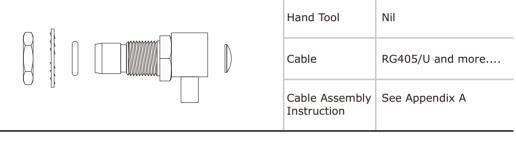


Hand Tool	Nil
Cable	RG405/U and more
Cable Assembly Instruction	See Appendix A

#### BMA R/A Plug, Rear Mount Solder Type

RM104

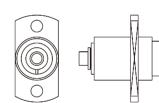




#### BMA P/M 2-Hole Jack, Solder Type

BM201





Hand Tool	Nil
Cable	RG405/U and more
Cable Assembly Instruction	See Appendix A

# **Ultra Tiny BNC**

Ultra Tiny BNC

# **Ultra Tiny BNC Series**

#### Description

Ultra Tiny BNC allowing four times the density, and 40% smaller than the DIN 1.0/2.3. Ultra Tiny BNC delivers Real 75 ohm performance in a PCB Mounting type 51% smaller than old faction BNC connectors. Design to enhance electrical and mechanical performance, the Ultra Tiny BNC connector with the trusted bayonet interface, push and turn mating same as the old faction BNC. Provided a reliable locking way to make sure the mating could be fast and correctly positioned. We used the same cable and termination specifications of traditional broadcast connectors makes adopting Ultra Tiny BNC seamless.





#### **Applications**

- Serial digital interface (SDI)
- High definition television (HDTV)
- 6G UHD SDI (Per SMPTE ST-2081\*) & 12G UHD SDI(Per SMPTE ST-2082\*)
- NTSC & PAL video system





#### Features

- Fully Compatible with HD/Micro BNC
- Quality tested according to US MIL-STD-202
- Frequency range optimum up to 4 GHz





#### **Electrical**

Impedance	75Ω
Frequency Range	0 to 12 GHz
VSWR	≦1.2 (0 ~ 3 GHz)
	≦1.3 (3 ~ 4 GHz)
RF Leakage	≧55 dB
Dielectric Withstanding Voltage	1500 V rms
Voltage Rating	≥500 V rms (depending on cable)
Inner Contact Resistance	≦1.5 mΩ
Outer Contact Resistance	≦1 mΩ
Insulation Resistance	≧5 GΩ

#### Mechanical

Mating	Bayonet Coupling
Connector Durability	≥500 Cycles (for beryllium copper female contact only)
Engagement Force	0.6 lbs ~ 2.5 lbs
Coupling Nut Retention Force	≧101.2 lbs
Cable Retention Force	≥ 12.1 lbs (for RG316) ≥ 28.7 lbs (for RG58) ≥ 38.3 lbs (for RG59)

#### **Environmental**

Temperature Range	-65° C to 165° C
Corrosion (Salt Spray)	MIL-STD-202, Method 101, Cond. B
Vibration	MIL-STD-202, Method 204, Cond. B
Thermal Shock	MIL-STD-202, Method 107, Cond. B
Mechanical Shock	MIL-STD-202, Method 213, Cond. G

#### Material

Parts Name	Material	Plating
Body	Brass	Gold or Nickel
Inner Contact	Male: Brass Female: Phosphor Bronze or Beryllium Copper	Gold
Insulator	PTFE	None
Gasket	Silicone Rubber	None
Crimp Ferrule	Annealed Copper	Same as Body

Note: Other Material/Finish is Available on Request.

UB-01 UB-02





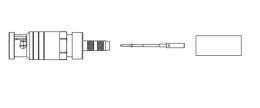


Refer to S-Conn's Drawing

#### Crimp Type (for Flexible Cable)

#### Ultra Tiny BNC S/T Plug, Crimp Type





Hand Tool	See Appendix B
Cable	Rg6, RG179, Belden 1855A, 1505A, 1694F and more
Cable Assembly Instruction	See Appendix A Code E

#### Ultra Tiny BNC B/H Jack, Rear Mount Crimp Type

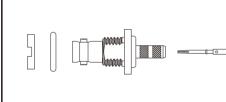




Hand Tool	Nil
Cable	1855A, Rg179 and more
Cable Assembly Instruction	See Appendix A Code E

#### Ultra Tiny BNC B/H-O Jack, Rear Mount Crimp Type





Hand Tool	Nil
Cable	1855A, Rg179 and more
Cable Assembly Instruction	See Appendix A Code E

#### End Launch Type

#### Ultra Tiny BNC B/H Jack, End Launch Type



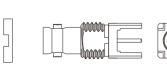


Hand Tool	Nil
PCB Soldering Pattern	Refer to S-Conn's Drawing

#### PCB Type

#### Ultra Tiny BNC B/H Jack, PCB Mount Type



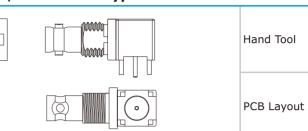




Hand Tool	Nil
PCB Layout	Refer to S-Conn's Drawing

#### Ultra Tiny BNC R/A Bulkhead Jack, PCB Mount Type





Ultra Tiny BNC

# Surge Protector Series

# **Surge Protector Series**

#### Description

Surge Protectors are designed with surge arrestor molded that used to provide a transition from one RF connector serise to another especially for outdoor use. There is a high performance of application, such as wireless communication equipment, Mobile and fixed telecommunication and other outdoor equipment...etc.





#### **Applications**

- Tower Mounted Amplifiers (TMA)
- Global Positioning Systems (GPS)
- Antenna Systems
- Tower Top Electronics (TTE)
- Transmitters and Receivers
- \//iF
- Broadband Wireless





#### Features

- Quarter Wave Technology
- Maintenance Free





#### **Specification**

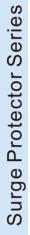
The Surge Protectors may meet IEC 61643-1, EN 61643-11 and 21 , Telcordia Technologies Technical Reference TR-NWT-001011, ANSI / IEEE C62.xx, or UL1449. Each standard defines different protector characteristics, test vectors, or operational purpose.

#### **Electrical Specification Table**

Part No	SG01	SG02	SG03	SG05	SG06	SG07
Frequency Range	0 to 6 GHz					
VSWR	1.3 Max	1.3 Max	1.5 Max	1.3 Max	1.3 Max	1.3 Max
Insertion Loss	0.5 dBi Max	0.5 dBi Max	0.8 dBi Max	0.5 dBi Max	0.5 dBi Max	0.5 dBi Max
Impedence	50Ω	50Ω	50 Ω	50Ω	50Ω	50 Ω
Gas Tube DC	230V ± 20 %					
Gas Tube Impulse Breakdown Voltage	≦700V	≦700V	≦700V	≦700V	≦700V	≦700V
Gas Tube Insulation Resistance	≧10000 MΩ					
Max Withstand Current	5 KV					
RF Power Rating	15 W					
Operating temperature	-40° C ~85° C					

Part No	SG08	SG09	SG10	SG11	SG12	SG13
Frequency Range	0 to 6 GHz	0 to 6 GHz	0 to 1 GHz	0 to 1 GHz	0 to 1 GHz	0 to 6 GHz
VSWR	1.3 Max	1.5 Max	1.7 Max	1.7 Max	1.7 Max	1.5 Max
Insertion Loss	0.5 dBi Max	0.8 dBi Max	0.9 dBi Max	0.9 dBi Max	0.9 dBi Max	0.8 dBi Max
Impedence	50Ω	50Ω	50Ω	50Ω	50Ω	50Ω
Gas Tube DC	230V ± 20 %					
Gas Tube Impulse Breakdown Voltage	≦700V	≦700V	≦700V	≦700V	≦700V	≦700V
Gas Tube Insulation Resistance	≧10000 MΩ					
Max Withstand Current	5 KV					
RF Power Rating	15 W					
Operating temperature	-40° C ~85° C	-40° C ~85° (				

LA-01 LA-02

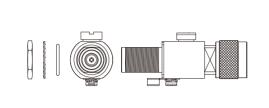






#### N Plug to B/H Jack

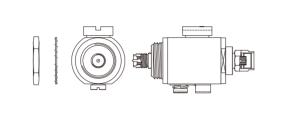




Hand Tool	Nil
Cable	Nil
Electrical Specification	See Electrical Specification Table

#### **RP SMA Jack to RP SMA Plug**

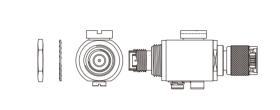




Hand Tool	Nil
Cable	Nil
Electrical Specification	See Electrical Specification Table

#### **RP TNC Plug to RP TNC Jack**

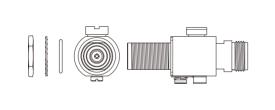




Hand Tool	Nil
Cable	Nil
Electrical Specification	See Electrical Specification Table

#### N Jack to B/H Jack

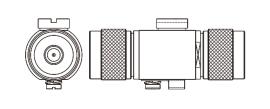




Hand Tool	Nil
Cable	Nil
Electrical Specification	See Electrical Specification Table

#### N Plug to Plug

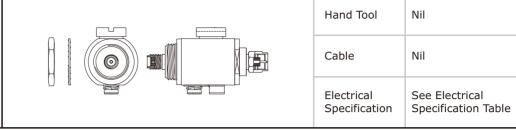




Hand Tool	Nil
Cable	Nil
Electrical Specification	See Electrical Specification Table

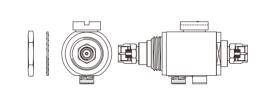
#### **SMA Plug to Jack**





#### **SMA Plug to Plug**

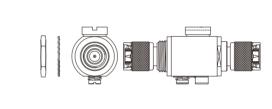




Hand Tool	Nil
Cable	Nil
Electrical Specification	See Electrical Specification Table

#### **TNC Plug to Plug**

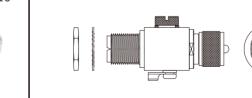




Hand Tool	Nil
Cable	Nil
Electrical Specification	See Electrical Specification Table

#### **UHF Plug to Jack**

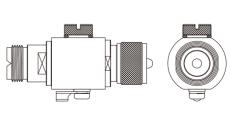




Hand Tool	Nil
Cable	Nil
Electrical Specification	See Electrical Specification Table

#### **UHF Plug to Jack**





Hand Tool	Nil
Cable	Nil
Electrical Specification	See Electrical Specification Table

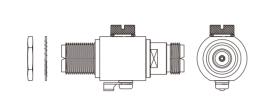
Surge Protector Series





#### UHF S/T Jack to Jack

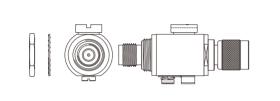
SG12



Hand Tool	Nil
Cable	Nil
Electrical Specification	See Electrical Specification Table

#### TNC S/T Plug to Jack



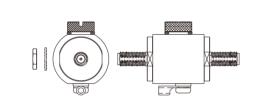


	Hand Tool	Nil
Cable		Nil
	Electrical Specification	See Electrical Specification Table

#### SMA B/H Jack to Jack

Surge Protector Series





Hand Tool	Nil
Cable	Nil
Electrical Specification	See Electrical Specification Table

# See Appendix A



# **Other Series**





Specification **Special Connector & Terminal** 



Others



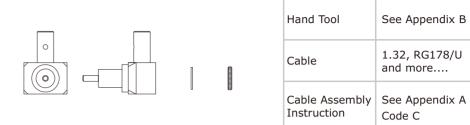




#### Terminal for Flexible Cable

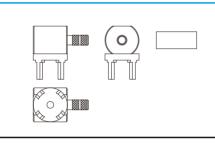
#### R/A PCB Mount, Terminal





#### **R/A PCB Mount, Terminal**

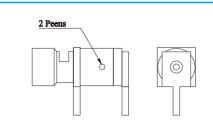




Hand Tool	See Appendix B
Cable	RG174/U, 316/U and more
Cable Assembly Instruction	See Appendix A

#### **R/A PCB Mount, Terminal**

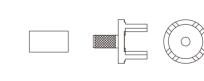




Hand Tool	See Appendix B
Cable	RG174/U, 316/U and more
Cable Assembly Instruction	See Appendix A

#### S/T PCB Mount, Terminal

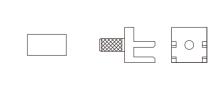
TE911



	Hand Tool	See Appendix B
	Cable	RG174/U, 316/U and more
	Cable Assembly Instruction	See Appendix A

#### **End Launch PCB Mount, Terminal**





	Hand Tool	See Appendix B
	Cable	RG174/U, 316/U and more
	Cable Assembly Instruction	See Appendix A

0-01



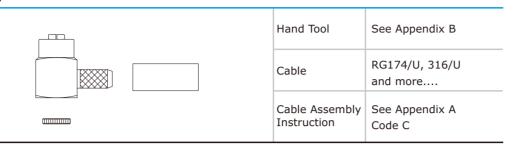


#### Crimp Type (for Flexible Cable)

#### AlProx R/A Plug, Crimp Type

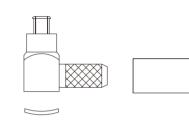
AI 102





#### MC-Card R/A Plug, Crimp Type





	Hand Tool	See Appendix B
	Cable	RG174/U, 316/U and more
	Cable Assembly Instruction	See Appendix A Code C

0-03

### Cross Reference Index for In-Line Series

#### Description

To provide customers with a solution to bridge different type of RF coaxial connector, a broad array of adapter are off-the-shelf to meet end-user's expectations.

For customized adapters, send your drawing, samples or a full description, our engineers will design it from the ground.

Contact S-Conn to get a full drawing for information.











- ST: Straight
- R/A: Right Angle
- B/H: Bulkhead
- P2: Panel Mount-2 Hole
- P4: Panel Mount-4 Hole
- U: U Link
- -O: With O-ring
- -E: Epoxy Type
- -P: Plastic Thread
- -I: Isolated Type
- -T: Terminator
- -Q: Quick

SMA			
Plug		Туре	P/N
	SMA(M)	ST	AT014
		Е	AT014H1
		R/A	AT412
	SMA(F)	ST	AT006
		R/A	AT401
	BNC (M)	ST	AT021
	BNC (F)	ST	AT015
	Mini UHF(M)	ST	AT022
	Mini UHF(F)	ST	AT023
	N (M)	ST	AT010
	N (F)	ST	AT020
	TNC(M)	ST	AT000
	TNC(F)	ST	AT024
	UHF(M)	ST	AT025
	UHF(F)	ST	AT012
	SMB(F)	ST	AT039
	Ipex(F)	ST	AT030
	MMCX(M)	ST	AT050
	SMB(M)	ST	AT040
	FME(M)	ST	AT005
		R/A	AT404
	FME(F)	ST	AT036
	MMCX(F)	ST	AT049
	F(F)	ST	AT051
Jack		Туре	P/N
Jack	SMA(F)	B/H	AT008
		P4	AT034
		P2	AT035
		B/H-O	AT002
		ST	AT011
	BNC(M)	ST	AT019
	BNC(F)	ST	AT016
	Mini UHF(M)	ST	AT026
	Mini UHF(F)	ST	AT027
	N(M)	ST	AT017
	N(F)	ST	AT018
		B/H-O	AT009
		B/H-OE	AT009H1
	TNC(M)	ST	AT001

 $\mathsf{TNC}(\mathsf{F})$ 

ST

AT028

Jack		Туре	P/N
	UHF(M)	ST	AT029
	UHF(F)	ST	AT013
	MMCX(F)	ST	AT031
	SMB(M)	ST	AT041
	SMB(F)	ST	AT042
	FME(F)	ST	AT043
	1.0/2.3 (F)	ST	AT044
	MCX(F)	ST	AT003
	MCX(M)	ST	AT007
	SMP(M)	ST-E	AT048
	SMP(F)	ST	AT054
	SMC(M)	ST	AT052
	MMCX(M)	R/A	AT407
RP Plug		Туре	P/N
	SMA(M)	ST	AT088
	SMA(F)	ST	AT098
	RP SMA(M)	ST	AT087
	N(M)	ST	AT085
	N(F)	ST	AT095
	RP TNC(F)	ST	AT093
	BNC (F)	ST	AT082
RP Jack		Туре	P/N
	SMA(M)	ST	AT094
	SMA(F)	ST	AT092
	MCX(F)	ST	AT091
	TNC(M)	ST	AT089
	RP SMA(F)	ST	AT086
	N(M)	ST	AT084
	N(F)	ST	AT099
	RP TNC(F)	ST	AT096
	BNC(F)	ST	AT097
	RP MMCX(F)	ST	AT080

Cross Reference Index for In-Line

AT-01 AT-02

D	NI	
D	IA	L

P	u	ç

Jack

 $\mathsf{BNC}(\mathsf{F})$ 

 $F(\boldsymbol{M})$ 

PAL(M)

PAL(F)

RCA(M)

RCA(F)

N(F)

TNC(F)

3.5 Mono(M) ST

2.5 Mono(M)

ST

В/Н

P4

B/H-I

ST-Q

ST

ST

ST

ST

ST

В/Н

ST

ST

ST

R/A

ST

R/A

B/H-O B/H-P

AT104 AT115W0

AT115W1

AT100

AT134

AT146

AT113

AT102

AT124

AT118

AT125

AT126

AT127

AT128

AT135

AT106

AT136

AT461

AT137

AT411

	Туре	P/N
BNC(M)	ST	AT116
BNC(F)	ST	AT119
	R/A	AT463
SMB(M)	ST	AT152
PAL(M)	ST	AT123
N(M)	ST	AT110
N (F)	ST	AT109
F (F)	ST	AT105
F (M)	ST	AT129
RCA(M)	ST	AT108
RCA(F)	ST	AT107
TNC (M)	ST	AT130
TNC (F)	ST	AT132
UHF(M)	ST	AT133
UHF(F)	ST	AT111
	R/A	AT411
Mini UHF(F)	ST	AT141
FME(M)	ST	AT138
	R/A	AT400
FME(F)	ST	AT145
1.6/5.6(F)	ST	AT114
	Туре	P/N

Jack		Туре	P/N
	F(F)	ST	AT103
		R/A	AT422
	N(M)	ST	AT112
	SMB(F)	ST	AT131
	SMB(M)	ST	AT139
	TNC (M)	ST	AT121
	UHF(M)	ST	AT140
	Mini UHF(M)	ST	AT101
		R/A	AT441
	FME(M)	ST	AT142
	FME(F)	ST	AT144
	1.6/5.6(F)	ST	AT122
RP Jack		Туре	P/N

ST

SMA(M)

AT199

# Plug

RP Jack

 $\mathsf{SMA}(\mathsf{F})$ 

Plug		Туре	P/N
	N(M)	ST	AT202
		R/A	AT415
	N(F)	ST	AT207
		R/A	AT416
	RCA (F)	ST	AT214
	TNC (M)	ST	AT209
	TNC (F)	ST	AT204
	UHF(M)	ST	AT211
	UHF(F)	ST	AT212
		R/A	AT421
	F (F)	ST	AT203
	SMB(F)	ST	AT218
	F(M)	ST	AT219
	Mini UHF(F)	ST	AT222
	FME(M)	ST	AT223
Jack		Туре	P/N
	N(F)	ST	AT201
		B/H	AT200
		B/H-O	AT208
	SMB(F)   ST   ATT     F(M)   ST   ATT     Mini UHF(F)   ST   ATT     FME(M)   ST   ATT     ack   Type   P/N     N(F)   ST   ATT     B/H   ATT     B/H-O   ATT     R/A   ATT	AT417	
	TNC(F)	ST	AT210

		B/H	AT200
		B/H-O	AT208
		R/A	AT417
	TNC(F)	ST	AT210
	UHF(F)	ST	AT213
	UHF(M)	ST	AT215
		R/A	AT432
	SMB(F)	ST	AT217
	F(M)	ST	AT205
	F(F)	ST	AT220
	TNC(M)	ST	AT206
	Mini UHF(M)	ST	AT221
RP Plug		Туре	P/N
	N(F)	ST	AT297
	SMA(F)	ST	AT299

Туре

ST

P/N

AT298

#### MCX

Plug		Туре	P/N
	PAL(M)	ST	AT381
	F(M)	ST	AT350
	FME(M)	ST	AT351

#### **SMB**

	Туре	P/N
SMB(F)	ST	AT700
SMB(M)	ST	AT702
TNC(F)	ST	AT701
FME(M)	ST	AT704
	Туре	P/N
SMB(F)	В/Н	AT703
	SMB(M) TNC(F) FME(M)	SMB(F)         ST           SMB(M)         ST           TNC(F)         ST           FME(M)         ST           Type

#### **DIN 7/16**

Plug		Туре	P/N
	DIN 7/16(M)	ST	AT750
	N(F)	ST	AT751
	N(M)	ST	AT753
Jack		Туре	P/N
	DIN 7/16(F)	ST	AT752
	N(M)	ST	AT755
	N(F)	ST	AT754

#### 1.6/5.6

Plug		Туре	P/N
	1.6/5.6(M)	ST	AT801
		U	AT802
Jack		Туре	P/N
	1.6/5.6(F)	ST	AT800
	·	·	

AT-03

F			
Plug		Туре	P/N
	F(M)	ST	AT903
		ST-Q	AT913
		ST-Q	AT925
	F(F)	ST-Q	AT905
		ST-Q	AT911
		B/H	AT926
	PAL (M)	ST-Q	AT923
		ST	AT920
	PAL(F)	ST-Q	AT906
		ST	AT921
	RCA (F)	ST-Q	AT917
		ST	AT901
	TNC(F)	ST	AT912
	UHF(M)	ST	AT909
	UHF(F)	ST	AT910
	TNC(M)	ST	AT914
	RCA(M)	ST	AT927
	3.5Mono(M)	ST	AT930
Jack		Туре	P/N
	F(F)	В/Н	AT900
		ST	AT902
	UHF(M)	ST	AT907
	TNC(M)	ST	AT915
	RCA(M)	ST	AT904
	UHF(F)	ST	AT908
	PAL(F)	ST	AT922
	RCA(F)	ST	AT919
		В/Н	AT918
	3.5Mono(M)	ST	AT924
	TNC(F)	ST	AT916
	PAL(M)	ST	AT928

DCA			
RCA			
Plug		Туре	P/N
	RCA(F)	ST	AT954
	UHF(F)	ST	AT953
	PAL(F)	ST	AT951
	PALo(M)	ST	AT956
	TNC(F)	ST	AT957
	TNC(M)	ST	AT958
Jack		Туре	P/N
	RCA(F)	B/H	AT950
		ST	AT952

Jack		Туре	P/N
	3.5Mono(M)	ST	AT955
	TNC(F)	ST	AT959
	UHF(M)	ST	AT960
	PAL(F)	В/Н	AT961
		ST	AT963
	PAL(M)	ST	AT962

TNC			
Plug		Туре	P/N
	TNC(M)	ST	ATA04
	TNC(F)	ST	ATA06
		ST-Q	ATA07
		R/A	AT403
	UHF(F)	ST	ATA01
	UHF(M)	ST	ATA05
	Mini UHF(F)	ST	ATA13
	FME(M)	ST	ATA00
		R/A	AT402
	FME(F)	ST	ATA16
Jack		Туре	P/N
	TNC(F)	ST	ATA09
		B/H	ATA10
		P4	ATA11
	UHF(F)	ST	ATA03
	NEC(M)	ST	ATA08
	UHF(M)	ST	ATA02
	Mini UHF(M)	ST	ATA12
		R/A	AT442
	FME(M)	ST	ATA14
RP Plug		Туре	P/N
	SMA(F)	ST	ATA48
	N(F)	ST	ATA47
	N(M)	ST	ATA46
	SMA(M)	ST	ATA45
	RP TNC(M)	ST	ATA44
RP Jack		Туре	P/N
	SMA(M)	ST	ATA49
	N(M)	ST	ATA41
	SMA(F))	ST	ATA43

UHF			
Plug		Туре	P/N
	UHF(M)	ST	ATA51
	UHF(F)	ST	ATA56
		ST-Q	ATA59
		R/A	AT409
	Mini UHF (F)	ST	ATA53
	FME (M)	ST	ATA52
		R/A	AT413
Jack		Туре	P/N
	UHF(F)	ST	ATA54
		B/H	ATA55
	3.5Mono(M)	ST	ATA58
	Mini UHF(M)	ST	ATA50

		ST-Q	ATA59
		R/A	AT409
	Mini UHF (F)	ST	ATA53
	FME (M)	ST	ATA52
		R/A	AT413
 Jack		Туре	P/N
	UHF(F)	ST	ATA54
		B/H	ATA55
	3.5Mono(M)	ST	ATA58
	Mini UHF(M)	ST	ATA50
Mini UHI	F		
Plug		Туре	P/N
	Mini UHF(M)	ST	ATB00
	Mini UHF(F)	R/A	AT443
	FME(M)	ST	ATB02
	FME(F)	ST	ATB03
Jack		Туре	P/N
	Mini UHF(F)	ST	ATB01
	FME(F)	ST	ATB14
	FME(M)	ST	ATB05
FME			
Plug		Туре	P/N
	FME(M)	ST	ATB50
	MMCX(M)	ST	AT300
Jack		Туре	P/N
	FME(F)	ST	ATB51
PAL			
Plug		Туре	P/N
	PAL(F)	ST	ATC01
	9 N(F)	ST	ATC04

P111111 0111	•		
Plug		Туре	P/N
	Mini UHF(M)	ST	ATB00
	Mini UHF(F)	R/A	AT443
	FME(M)	ST	ATB02
	FME(F)	ST	ATB03
Jack		Туре	P/N
	Mini UHF(F)	ST	ATB01
	FME(F)	ST	ATB14
	FME(M)	ST	ATB05
FME			
Plug		Туре	P/N
	FME(M)	ST	ATB50
	MMCX(M)	ST	AT300
Jack		Туре	P/N
	FME(F)	ST	ATB51
PAL			
Plug		Туре	P/N
	PAL(F)	ST	ATC01
	9.0(F)	ST	ATC04
Jack		Туре	P/N
			ATCOO
	PAL(F)	B/H	ATC00
	PAL(F)	B/H ST	ATC02

SMP			
Jack		Туре	P/N
	SMP(F)	ST	ATD00

Plug		Туре	P/N
	K(2.92)(M)	ST	ATK00
	K(2.92)(F)	ST	ATK01
	2.4(M)	ST	ATK03
	2.4(F)	ST	ATK04
Jack		Туре	P/N
	K(2.92)(F)	ST	ATK02
	2.4(M)	ST	ATK05
	2.4(F)	ST	ATK06

Plug		Туре	P/N
	PAL(F)	ST	ATC01
	9.0(F)	ST	ATC04
Jack		Туре	P/N
	PAL(F)	B/H	ATC00
		ST	ATC02
	9.0(M)	ST	ATC03

AT-05 AT-06

#### 5 SERIES(T, Y, F Type)

9	SERIES(I,	i, riype)
	P/N#	Specification
	AT501	1.6/5.6 Plug-Jack-Plug "Y"
	AT502	1.6/5.6 Jack-Plug-Jack "Y"
	AT508	F Jack-Jack "T"
	AT509	F Jack-Quick Plug-Jack "T"
	AT510	UHF Jack-Plug-Jack "T"
	AT511	UHF Jack-Jack "T"
	AT518	N Jack-Plug-Jack "T"
	AT519	N Jack-Jack "T"
	AT520	N Plug-Plug-Jack "T"
	AT521	N Plug-Jack-Jack "T"
	AT522	N Jack-BNC Plug-N Jack "T"
	AT529	SMA Jack-Plug-Jack "T"
	AT530	SMA Jack-Jack-Jack "T"
	AT531	TNC Plug-Plug "T"
	AT537	TNC Jack-Jack "T"
	AT538	TNC Jack-Plug-Jack "T"
	AT541	PAL Jack-Plug-Jack "T"
	AT542	BNC Jack-TNC Plug-BNC Jack "T"
	AT561	BNC Jack-Plug-Jack "T"
	AT562	BNC Plug-Plug "T"
	AT563	BNC Plug-Jack-Plug "T"
	AT564	BNC Jack-Jack-Jack "T"
	AT565	BNC Plug-Jack-Jack "T"
	AT567	Mini UHF Jack-Plug-Jack "T"
	AT571	Mini UHF Jack-Jack-Jack "T"
	AT572	BNC R/A Jack-Plug-Jack "Y"
	AT573	BNC Jack-Plug-Jack "Y"
	AT574	BNC Plug-Jack-Jack "F"

#### 6 SERIES(Cross Type)

P/N#	Specification
AT666	BNC Four Jack
AT667	BNC Three Jack to One Plug
AT668	BNC Double Plug to Double Jack

#### Triax

ack		Туре	P/N	
	Triax(F)	B/H	ATS01	

# Ultra Tiny BNC (Fully Compatible with HD BNC & Micro BNC)

Jack		Туре	P/N
	Ultra Tiny BNC(F)	B/H-I	ATH00

AT-07 AT-08

# **Cable Assembly**



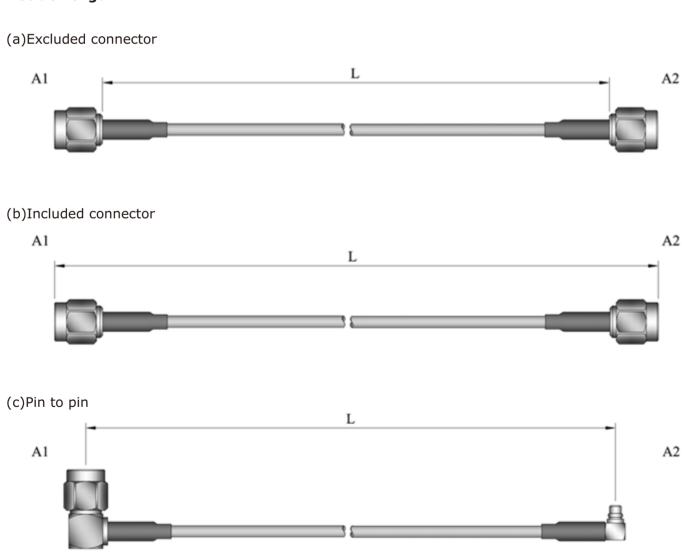
#### Cable Assembly

To provide excellent performance for signal transmission, a broad array of cable assembly machines are added to meet any customized demand for any cable assemblies. Standard RG8/U, 58C/U, 59B/U, 174/U, 316/U and many other specific cable are available within the appropriate connector series, as well as custom design assistance for cellular, mobile and network communications.

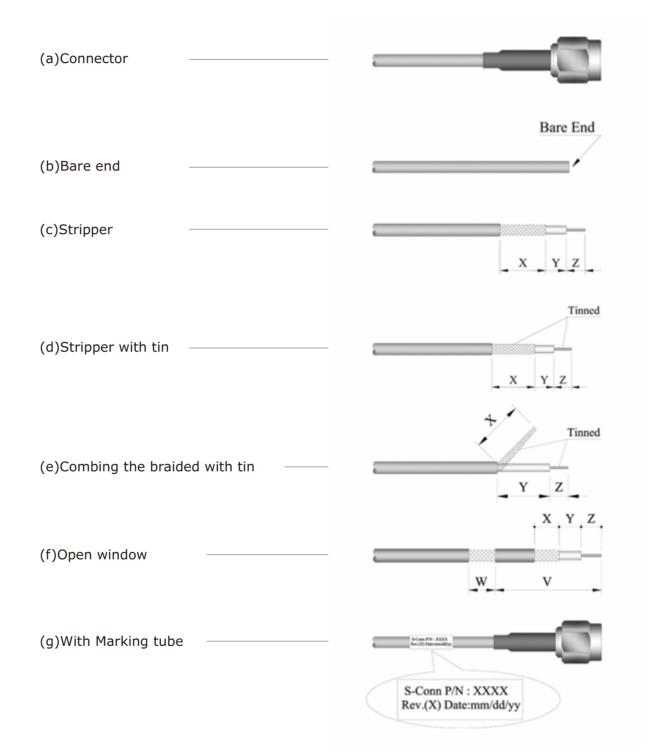
#### Specification for RF cable Processes

#### A: Select cable type (See next page)

#### **B:** Decide Length



#### C: Select the type on each end:



#### D: Other request: please contact our sales.

Tolerances										
Length (mm)	100- 500	>500- 1,000	'	>1,500- 2,500	>2,500- 4,000	>4,000- 6,000	>6,000- 8,000	> 8,000- 10,000	>10,000- 20,000	>20,000- 50,000
Tolerances	+5 -0	+10 -0	+15 -0	+25 -0	+40 -0	+60 -0	+100 -0	+300 -0	+600 -0	+1000 -0

#### **Coaxial Cable**

1. 高週波同軸電纜 Radio frequency coaxial cable

3 C - 2 V C S

S: 中心導體為絞線構成

Strand inner conductor.

CS: 中心導體為銅包鋼線

Copper-clad steel wire inner conductor.

V: 外部導體(一層編織) W: 外部導體(二層編織) Single braided outer conductor Double braided outer conductor

2: 聚乙烯充實絕緣

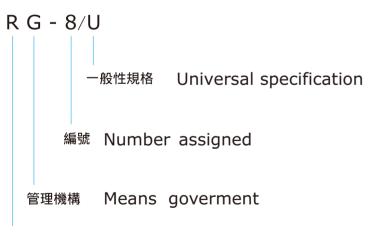
Solid PE dielectric core

C: 特性阻抗75 Characteristic impedance 75 D: 特性阻抗50 Characteristic impedance 50

3: 絕緣體概略外徑 Approx. diameter of dielectric core

#### **Type Designation**

2. RG型電纜 RG type coaxial cable



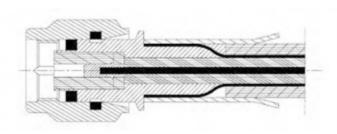
高週波 Radio frequency

#### **Coaxial Cable Table**

	INNER CONDUCTOR		DIELECTI	DIELECTRIC CORE		JACKET		
CABLE TYPE	NO./MM DETAILS	DIAN	M/M	INCH	M/M	INCH	M/M	IMPEDANCE
0.81	7/0.05	.0059	.15	.016	.41	.032	1	50
1.13	7/0.08	.0094	.24	.027	.68	.044	1.13	50
1.32	7/0.08	.0094	.24	.027	.68	.052	1.32	50
1.32D	7/0.08	.0094	.24	.027	.68	.052	1.32	50
1.37	7/0.102	.0122	.31	.036	.92	.054	1.37	50
1.37-75	7/0.064	.0079	.20	.039	.98	.054	1.37	75
1.5C-2V	1/0.26	.0100	.26	.063	1.60	.144	2.90	75
1.5D-2V	7/0.18	.0213	.54	.065	1.60	.120	2.90	50
2.5C-2V	1/0.4	.0157	.40	.094	2.40	.157	4.00	75
2.5D-2V	1/0.8	.0315	.80	.106	2.70	.169	4.30	50
3C-2V	1/0.5	.0190	.50	.122	3.10	.212	5.40	75
3D-2V	7/0.32	.0190	.96	.122		.212	5.30	75
5C-2V	1/0.8	.0310	.80		3.00 4.90	.212	7.40	75
				.193				
5D-2V	1/1.4	.0310	1.40	.193	4.80	.291	7.30	75
7C-2V	7/0.4	.0470	1.20	.287	7.30	.409	10.40	75
8D-2V	7/0.8	.0945	2.40	.307	7.80	.437	11.10	50
10C-2V	7/0.5	.0590	1.50	.370	9.40	.512	13.00	75
10D-2V	1/2.9	.0590	2.90	.370	9.70	.512	13.10	75
RG-142/U	1/0.939	.0370	.95	.116	2.95	.195	4.95	50
RG-174/U	7/0.16	.0190	.48	.060	1.52	.101	2.57	50
RG-178B/U	7/0.1	.0120	.30	.033	.84	.070	1.78	50
RG-179/U	7/0.102	.0040	.10	.062	1.58	.100	2.54	75
RG-188A/U	7/0.18	.0210	.53	.059	1.50	.102	2.59	50
RG-196/U	7/0.102	.0122	.31	.033	.84	.071	1.80	50
RG-213/U	7/0.752	.0890	2.26	.285	7.24	.405	10.29	50
RG-214/U	7/0.752	.0890	2.26	.285	7.24	.425	10.80	50
RG-223/U	1/0.89	.0350	.89	.116	2.95	.209	5.30	50
RG-316/U	7/0.17	.0067	.17	.060	1.52	.098	2.49	50
RG-316D	7/0.17	.0067	.17	.060	1.52	.114	2.90	50
RG-393	7/0.79	.0941	2.39	.285	7.24	.390	9.91	50
RG-400	19/0.203	.0384	.98	.116	2.95	.195	4.95	50
RG-402	1/0.92	.0362	.92	.118	2.99	.163	4.14	50
RG-405	1/0.51	.0201	.51	.064	1.63	.104	2.64	50
RG-6/U	1/0.93	.0370	.93	.180	4.57	.275	6.99	75
RG-8/U	7/0.724	.1080	2.74	.285	7.24	.405	10.29	50
RG-8/X	19x29	.0560	1.42	.155	3.94	.242	6.15	50
	1/0.813							50
RG-58/U		.0320	.813	.116	2.95	.195	4.95	
RG-58A/U	19/0.18	.0370	.94	.116	2.95	.195	4.95	50
RG-58C/U	19/0.18	.0370	.94	.116	2.95	.195	4.95	50
RG-58LOW LOSS	7/0.32	.0320	.813	.110	2.8	.195	4.95	50
RG-59/U	1/0.635	.0250	.635	.146	3.71	.242	6.15	73
RG-59/U-20AWG	1/0.813	.0320	.813	.146	3.71	.241	6.12	75
BELDEN 734A	1/0.81	.0320	.81	.148	3.76	.235	5.97	75
BELDEN 735A	1/0.41	.0159	.41	.077	1.96	.129	3.28	75
BELDEN 1505A	1/0.81	.0320	.81	.145	3.68	.233	5.92	75
BELDEN 1694A	1/1.02	.0400	1.02	.180	4.57	.274	6.96	75
BELDEN 1855A	1/0.58	.0227	.58	.102	2.59	.159	4.04	75
BELDEN 1865A	1/0.53	.0210	.53	.094	2.39	.150	3.81	75
BELDEN 8281	1/0.79	.0310	.79	.198	5.03	.305	7.75	75
BELDEN 9913	1/2.74	.1080	2.74	.286	7.26	.405	10.29	50
BELDEN H155	1/1.15	.0453	1.15	.154	3.90	.213	5.40	50
BELDEN H1000	1/2.62	.1031	2.62	.281	7.15	.406	10.30	50
LMR 100A	1/0.46	.1080	.46	.060	1.52	.110	2.79	50
LMR 195	1/0.94	.0370	.94	.110	2.79	.195	4.95	50
LMR 200	1/1.12	.0440	1.12	.116	2.95	.195	4.95	50
LMR 240	1/1.12	.0560	1.12	.150	3.81	.240	6.10	50
LMR 300	1/1.78	.0700	1.78	.190	4.83	.300	7.62	50
LMR 400	1/2.74	.1080	2.74	.285	7.24	.405	10.29	50
LMR 500	1/3.61	.1420	3.61	.370	9.40	.500	12.70	50
LMR 600	1/4.47	.1760	4.47	.445	11.56	.590	14.99	50

#### Cable Entry type

#### **Crimp Type**

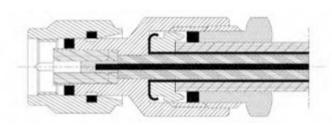


# **Soldered or Crimped Inner Contacts**The Inner Contact is soldered or crimped, the cable

The Inner Contact is soldered or crimped, the cable braid is crimped to the connector body. Captivated or loose Inner Contact is seated inside insulator. The crimping technique enables economic assembling of high reliability.

#### **Clamp Type**

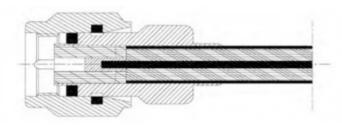
Cable Entry type



#### **Soldered Inner Contact**

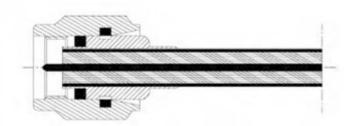
Clamp type cable entry is recommended for weather-exposed applications. The cable jacket is secured by a rubber gasdet and the cable screen by an axially tightened pressing ring.

#### **Semi-Rigid Cable Entry**



# Soldered, with Inner Contact and insulator

Inner Contact and body of the connector are soldered onto the inner and outer conductor of the cable.

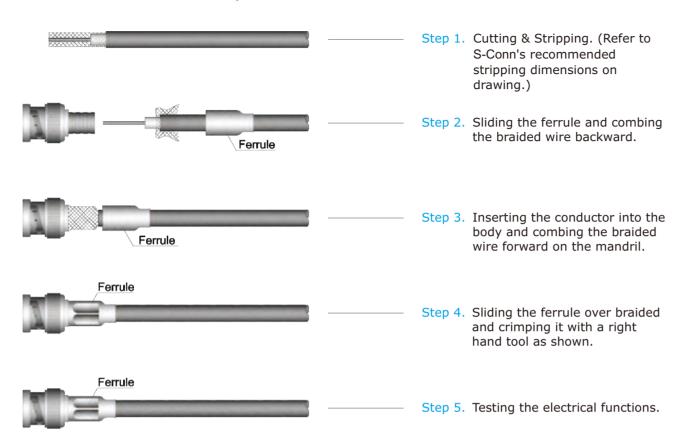


# Soldered, without Inner Contact and insulator

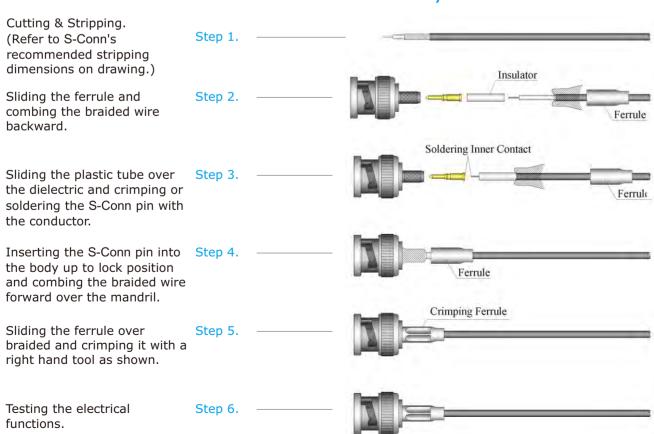
Inner Contact and insulator are formed direct by the cable. The body is soldered to the copper jacket. This design features a very low reflection coefficient, low cost and ease of assembly.

# Appendix A

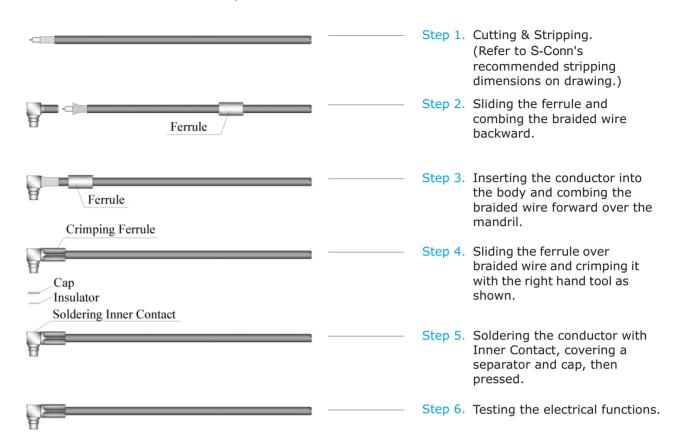
# Appendix A Guide Cable Assembly Instruction A



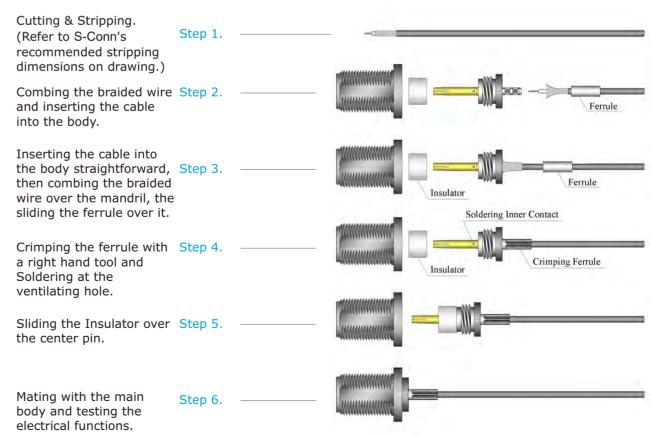
#### Guide Cable Assembly Instruction B



#### Guide Cable Assembly Instruction C

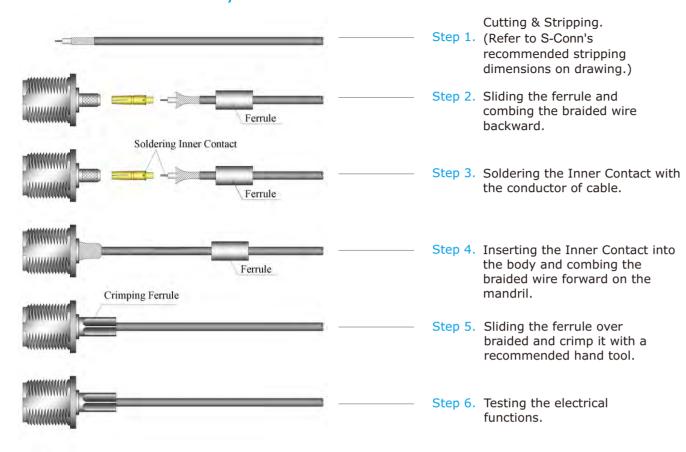


#### Guide Cable Assembly Instruction D

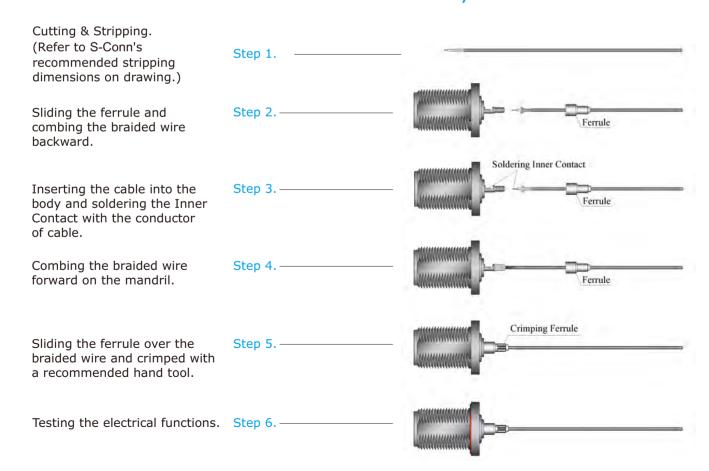


#### Guide Cable Assembly Instruction E

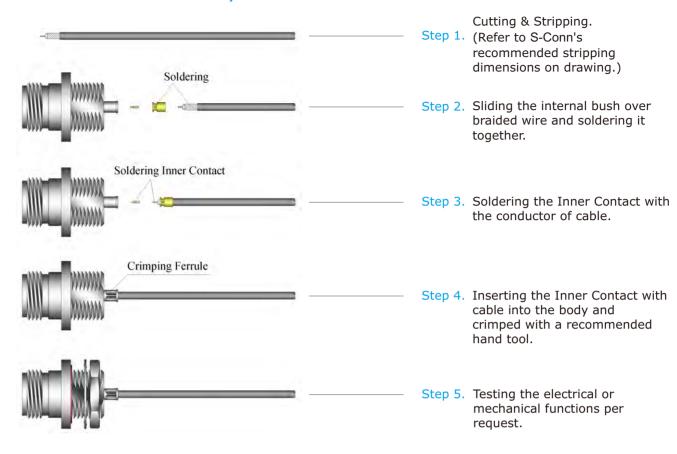
Appendix A



#### Guide Cable Assembly Instruction F



#### Guide Cable Assembly Instruction G

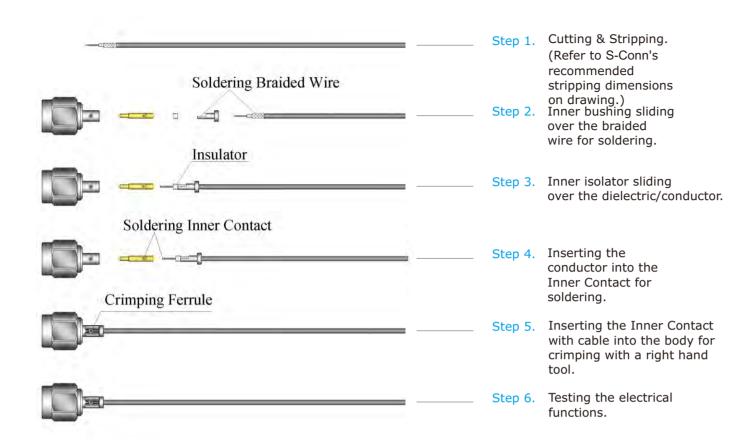


#### Guide Cable Assembly Instruction H

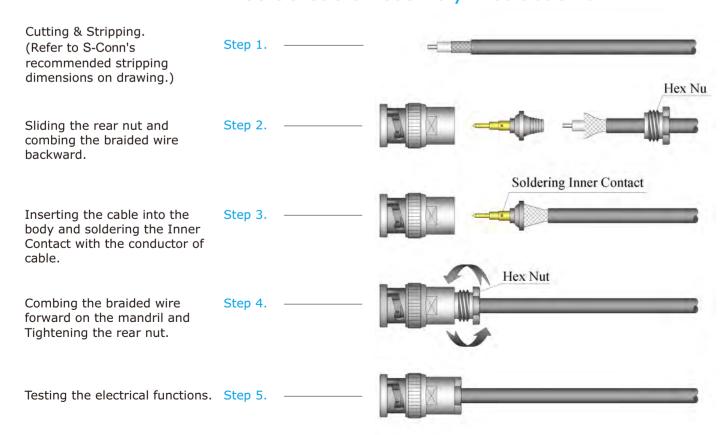
Cutting & Stripping. (Refer to S-Conn's recommended stripping dimensions on drawing.)	Step 1.	
Sliding the ferrule and combing the braided wire backward.	Step 2.	 Ferrule
Inserting the cable into the body and combing the braided wire forward.	Step 3.	 Ferrule Crimping Ferrule
Sliding the ferrule over the braided wire and crimped with a recommended hand tool.	Step 4.	Soldering Inner Contact
Soldering the Inner Contact with the conductor of cable.	Step 5.	
Placing the insulator and end cap.	Step 6.	Cap Nut Insulator
Testing the electrical functions.	Step 7.	

CA09 CA10

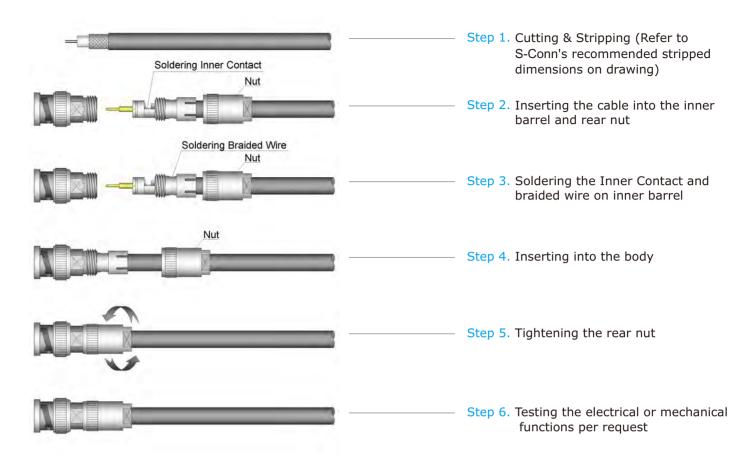
#### Guide Cable Assembly Instruction I



#### Guide Cable Assembly Instruction J

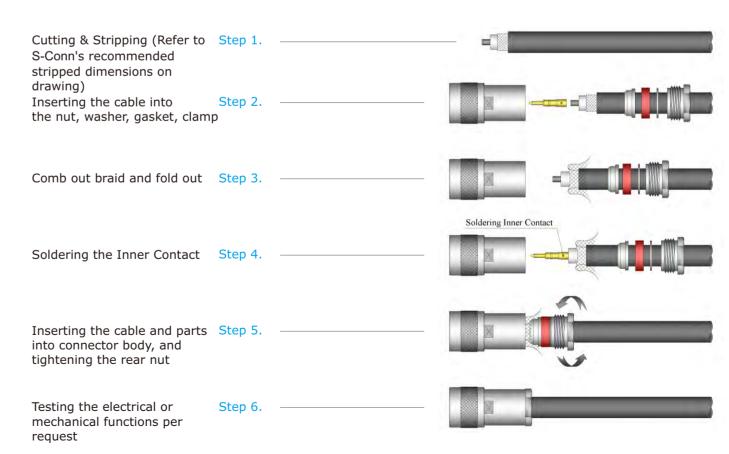


#### Guide Cable Assembly Instruction K



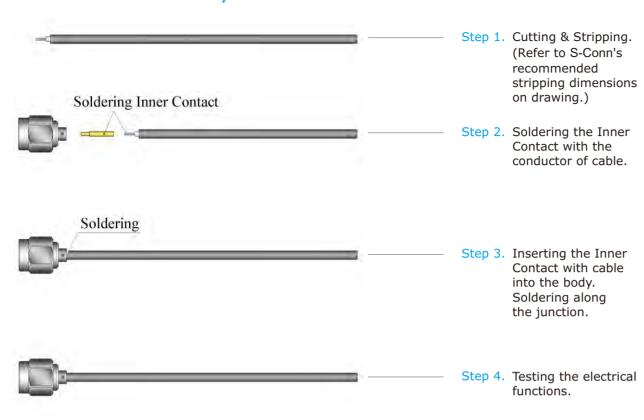
#### Guide Cable Assembly Instruction L

Appendix

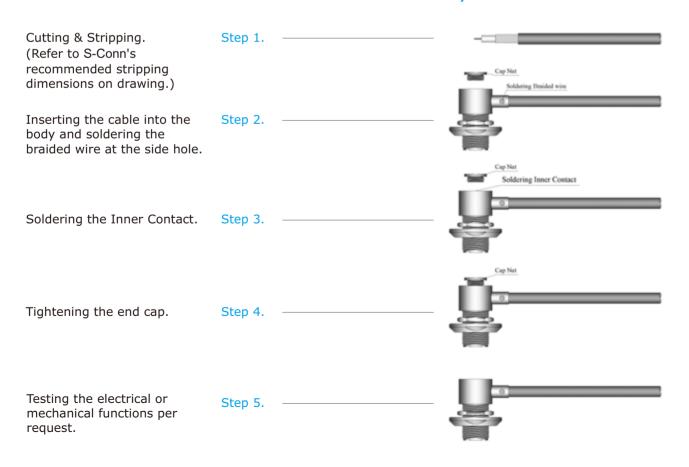


CA11 CA12

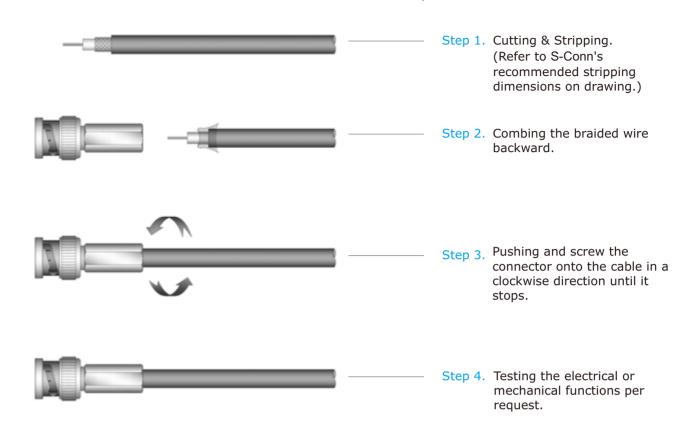
#### Guide Cable Assembly Instruction M



#### Guide Cable Assembly Instruction N



#### Guide Cable Assembly Instruction Crimp O



#### Guide Cable Assembly Instruction P

Cutting & Stripping. (Refer to S-Conn's recommended stripping dimensions on drawing.)	Step 1.	
Sliding the shell onto the cable, then screw the main body onto the cable and solder it as shown.	Step 2.	Soldering Inner Contact
Soldering the Inner Contact with the conductor and braided wire at the side hole		Soldering Braided Wire
Sliding the shell forward and screw in place on the main body.	d Step 4.	
Testing the electrical or mechanical functions per request.	Step 5. ———	

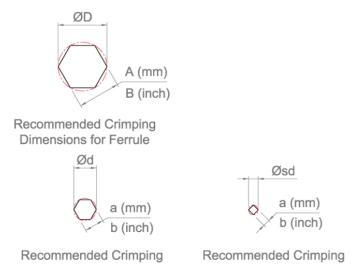
Appendix A

#### Recommended Crimping Dimensions Table

Recommended Ferrule Crimping Dimensions			
Ferrule Outer Diameter	Crimping I	Hand Tool	
D(mm)	A(inch)	B(mm)	
2.2(short)	0.075	1.91	HT-801K
2.3(short)	0.078	1.98	HT-909P
2.3	0.078	1.98	HT-909P
2.7(short)	0.093	2.36	HT-909P
2.8	0.095	2.41	HT-H116P
2.9(short)	0.098	2.49	HT-301P1
3	0.1	2.54	HT-909M
3.0(short)	0.1	2.54	HT-909M
3.1	0.105	2.67	N/A
3.2	0.109	2.77	N/A
3.6	0.122	3.1	HT-H116N
3.8	0.128	3.25	HT-909M
3.9	0.133	3.38	HT-909M
4	0.137	3.48	HT-801V
4.4	0.151	3.84	HT-801V
4.5	0.151	3.84	HT-801V
5.1	0.174	4.42	N/A
5.2	0.178	4.52	HT-909H
5.3	0.178	4.52	HT-909H
5.4	0.184	4.67	HT-909R
5.5	0.184	4.67	HT-909R
6.3	0.213	5.41	HT-801C
6.4	0.215	5.46	HT-909R
6.5	0.22	5.59	HT-301Y
6.8	0.228	5.79	HT-909Q
7.5	0.255	6.48	HT-909N
8	0.275	6.99	HT-301D3
8.2	0.278	7.06	HT-301G4

Recommended Ferrule Crimping Dimensions				
Ferrule Outer Diameter	Crimping	Dimension	Hand Tool	
D(mm)	A(inch)	B(mm)		
8.5	0.29	7.37	N/A	
9	0.305	7.75	HT-909Q	
9.5	0.324	8.23	HT-909N	
11.8	0.406	10.31	HT-H116L	
11.9	0.406	10.31	HT-H116L	
12.2	0.416	10.57	N/A	
12.3	0.419	10.64	N/A	
12.4	0.429	10.9	HT-909K	
12.5	0.429	10.9	HT-909K	
17.3	0.59	14.99	N/A	
17.9	0.61	15.49	HT-H136AR	

Recommended PCB Dimensions (mm)			
Drilling	Diameter		
0.5	0.9		
0.6	1		
0.65	1.2		
0.8	1.3		
0.85	1.4		
1	1.6		
1.02	1.7		



<b>Recommended Inner Contact Dimensions</b>				
Ferrule Outer Diameter	Contact D	Hand Tool		
D(mm)	A(inch)	B(mm)		
0.8 \$	0.0224	0.57	N/A	
0.9 \$	0.0252	0.64	N/A	
1 \$	0.028	0.71	HT-909P	
1.1 ♦	0.0307	0.78	N/A	
1.1	0.039	0.99	HT-909L	
1.15 ♦	0.0321	0.82	N/A	
1.15	0.039	0.99	HT-909L	
1.25 ♦	0.035	0.9	HT-909P	
1.27 ♦	0.035	0.9	HT-909P	
1.3 ♦	0.035	0.9	HT-909P	
1.32 ♦	0.0369	0.94	N/A	
1.35 ♦	0.039	0.99	HT-301T1	
1.4 \$	0.039	0.99	HT-301T1	
1.5 ♦	0.042	1.07	HT-801V	
1.6 ♦	0.044	1.12	HT-301Y	
1.7 ♦	0.047	1.19	HT-301T1	
1.75	0.06	1.52	HT-2250	
1.8	0.06	1.52	HT-2250	
1.9	0.065	1.65	HT-301G2	
2	0.068	1.73	HT-909P	
2.1	0.068	1.73	HT-909P	
2.2	0.075	1.91	HT-801K	
2.3	0.078	1.98	HT-909P	
3	0.1	2.54	HT-909M	
3.2	0.109	2.77	N/A	
3.5	0.118	3	HT-909K	
4	0.133	3.38	HT-909M	











Appendix B