Wellshow Technology

- **RF Connector**
- **RF Cable Assembly**
- **Antenna**

Quality first · Customer satisfaction · Innovation

CNC Manufacture / RF coaxial connector

Wellshow have the number of CNC lathes machines from Japan can produce a wide range of high precision metal parts in RF field, automotive field and fields need turned parts quickly and precisely.

Highly skilled and professional experienced machine operating engineers inspect machined parts mutually several times in working hours to assure the high quality.

We care and pay attention at each process and are looking perfect quality and performance.

Engineers have rich knowledge in RF field to design great performance connectors.
Not only integrate the know-how of connectors and cable assembly, we but also improve the mechanical structure to reduce the process lead time when assembly.

IP grade waterproof connectors have been designed and manufactured.
Our customers definitely can get best quality connectors at reasonable prices.

Antenna

Wellshow has developed antenna for application of WLAN, GPS and GSM or other bands.
For custom built antenna, we are ready to discuss your specific requirements.

We are forever engaged in coming up with new technology that enables us to offer better and more advanced design to our clients.

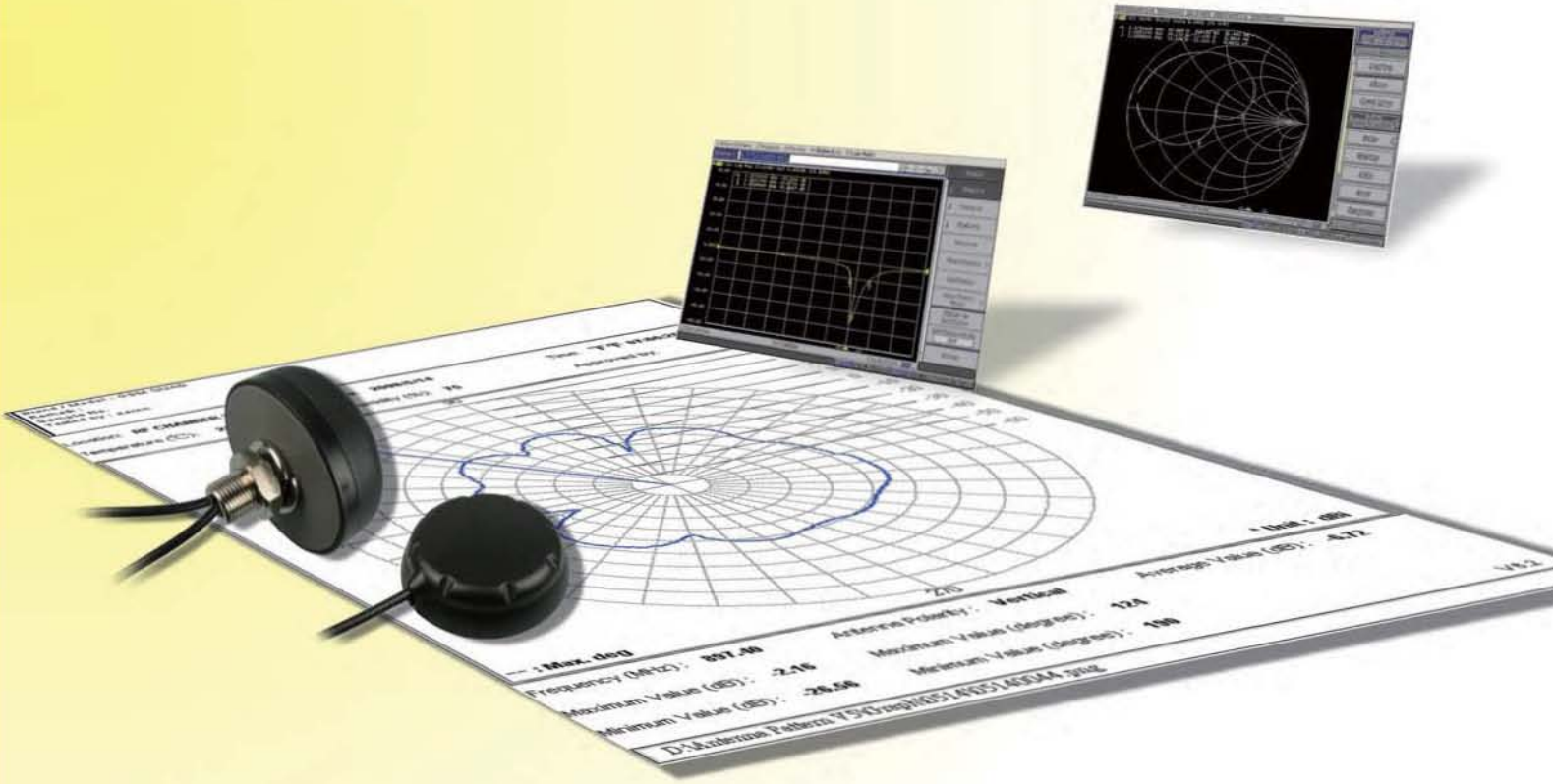
Waterproof level antenna for outdoor use can be designed and manufactured.
Customers' high satisfaction is from our 100% antenna testing before shipping.
We believe the excellent quality control is one of ways to keep top.

Research & Design

Wellshow's intelligent R&D team can help the initial planning and development stages of your projects.
Striving ourselves to be best, we commit us on investment to keeping innovating continually.

To make customers' concepts came true is Wellshow's mission.
The long-term and win-win cooperation relationship is what we are working for.

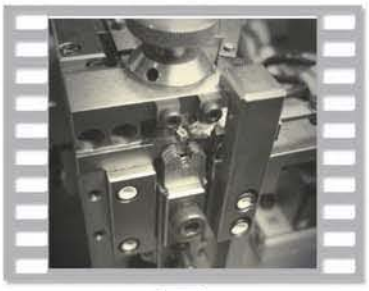
The pursued further education in technical skill and knowledge is the way to be the most valued supplier, and we believe a valued supplier is very important asset for customers.



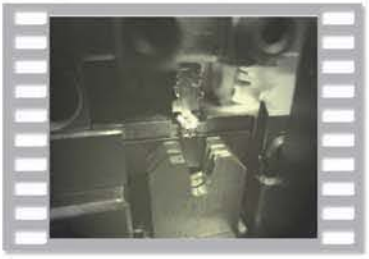
Cable Assembly

*Wellshow is the top cable assembly manufacturer in Taiwan and have all series **micro coax connectors** (Hirose, I-PEX, Murata, etc.) to complete customized mini cables in only **7** days.*

The Manufacturing System Command for each cable assembly will be built by engineer according to approved drawing.
Every single procedure on Manufacturing System Command has quality control rule, and QC check in-processing all the time.



We are striving to innovate every procedure effectively so as to save time, improve quality stability and increase productivity.
Thanks our talented engineer team, several manual procedures have been designed to be completed automatically by machines.



A systemized manufacturing procedure, 100% signal continuity testing, in-process and out-going QC inspection guarantee every customer gets best quality cables.

Schleuniger®

Quality-Centric Enterprise (Stringent Quality control)

The quality control concepts are implemented at every stage standard quality checks. Every product goes through a series of checks and inspections to ensure quality specifications are met.

Wellshow's QC department has set up a stringent quality control system for raw material (IQC), in process (PQC) as well as final products (FQC) and package materials. This stringent quality control process provides 100% assurance for customers.

We have regular inner training to root QC aggressive attitude and clear quality concept into everyone's mind including operators.
We, the whole staff in Wellshow, take quality first, customer's satisfaction and ever-improving as the target from hearts.

ERA

UKAS QUALITY MANAGEMENT

RoHS

ISO 9001:2000

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SMA Connector

SMA is a precision coaxial connector for microwave applications. The maximum frequency is 24 GHz, recommended frequency range up to 18 GHz. SMA connectors have a threaded interface and 50 ohm impedance.

SMA connectors are available in various quality classes for different applications with different material options. Various SMA connectors are widely used in Telecommunication, Vehicle Tracking System, Wireless LAN, Microwave Components, Aero and precise testing instrumentation.

Reverse Polarity SMA connectors are non-standardized versions of SMA connectors. Applications for reverse polarity connectors are based on the regulations of FCC for the limited purpose of connecting between Wireless LAN components.

Standard and Reverse Polarity SMA connectors have high quality and characterized by high durability, high mechanical stability, long service life and optimum electrical features.

Application

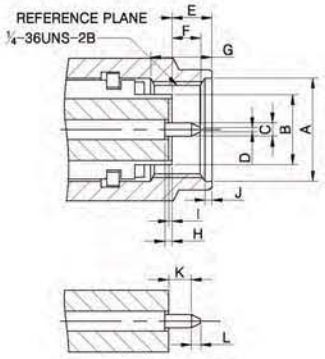
- Cable Assembly
- Antenna
- Microwave Comonents
- Aero
- Instrumentation
- W-LAN
- Vehicle Tracking System
- GPS
- Telecommunications
- Cellular Mobile System

Product Range

- Cable Connectors (straight and right angle) for flexible, semi-flex and semi-rigid cables
- PCB connectors (straight and right angle)
- Panel connectors in various flanges
- Adaptors

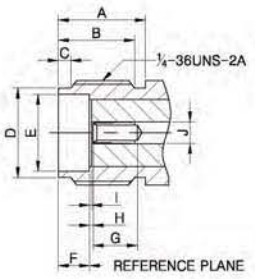
SMA Interface Dimensions

PLUG



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	6.35	6.73	0.2500	0.2650
B	4.53	4.59	0.1783	0.1808
C	0.90	0.94	0.0354	0.0370
D	–	0.38	–	0.0150
E	2.54	3.43	0.1000	0.1350
F	1.91	2.54	0.0752	0.1000
G	3.30	–	0.1300	–
H	0.00	0.25	0.0000	0.0100
I	0.00	0.25	0.0000	0.0100
J	0.38	1.14	0.0150	0.0450
K	1.27	–	0.0500	–
L	0.38	–	0.0150	–

JACK



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	5.54	–	0.2180	–
B	4.32	–	0.1700	–
C	0.38	1.14	0.0150	0.0450
D	5.28	5.49	0.2080	0.2160
E	4.60	4.67	0.1810	0.1840
F	1.88	1.98	0.0740	0.0780
G	2.92	–	0.1150	–
H	0.00	0.25	0.0000	0.0100
I	0.00	0.25	0.0000	0.0100
J	1.24	1.30	0.0490	0.0510

Technical Characteristics

Electrical

Impedance	50 ohm
Frequency range	0 ~ 18GHz
VSWR	Straight type ≦1.3 max. R/A type ≦ 1.5 max.
Dielectric withstanding voltage	1000 V rms min. for RG142, RG405 750 V rms min. for RG316, RG402 500 V rms min. for RG178
Working voltage	500 V rms max. for RG142, RG405 375 V rms max. for RG316, RG402 170 V rms max. for RG178
Center contact resistance	≦ 6.0 mΩ (Milliohms max.)
Outer contact resistance	≦ 2.0 mΩ (Milliohms max.)
Insulation resistance	≧ 5 x 10^3 MΩ (Megohms min.)

Mechanical

Coupling	1/4-36 thread
Coupling nut torque	15 in-lbs. min.
Mating torque	2 in-lbs. min.
Mating Durability	500 cycles min. (For Beryllium copper contact only)

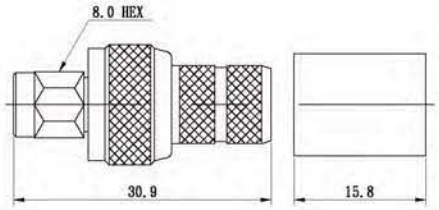
Environmental

Temperature Range	-65°C ~ +155°C
Vibration	MIL-STD-202 Meth. 204
Corrosion resistance	MIL-STD-202 Meth. 101

Materials

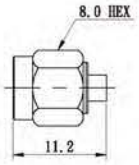
Body, coupling nut	Brass, Non-magnetic stainless steel
Insulator	Teflon
Center contact	Brass for male, Beryllium copper for female
Crimping sleeve	Annealed brass
Body plating	Nickel (Ni), Gold(Au), Passivated
Center contact plating	Gold (Au)

Note: These characteristics are typical and may not apply to all connectors.



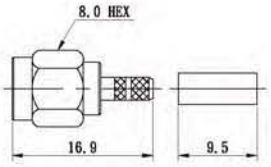
SMA straight crimp plug

P/N	Cable Group	Ohm
C01AA3FL40011	RG8/U, LMR400, H1000, B9913, B8214, B7810A	50



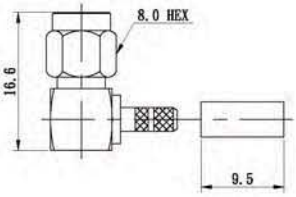
SMA straight solder plug

P/N	Cable Group	Ohm
C01AA31047004B	.047"	50
C01AA31085004B	0.85"(RG405)	50
C01AA31141004B	.141"(RG402)	50



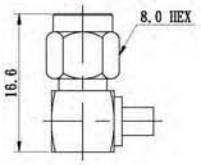
SMA straight crimp plug

P/N	Cable Group	Ohm
C01AA31174004A	RG174, RG316, RG188, LMR100	50
C01AA31058A04A	RG58, RG141, RG303, LMR195, B7806A	50
C01AA31400004A	RG142, RG400, RG55	50
C01AA31223004A	RG223	50
C01AA31L20004A	LMR200, B7807A	50
C01AA31L24004A	LMR240, RG8X, Belden 8214	50



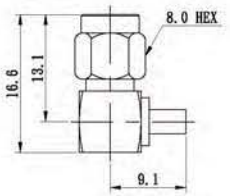
SMA R/A crimp plug

P/N	Cable Group	Ohm
C01BA31058A08A	RG58, RG141, RG303, LMR195, B7806A	50
C01BA31174008A	RG174, RG316, RG188, LMR100	50
C01BA31L20008A	LMR200, B7807A	50
C01BA31400008A	RG142, RG400, RG55	50
C01BA31223008A	RG223	50



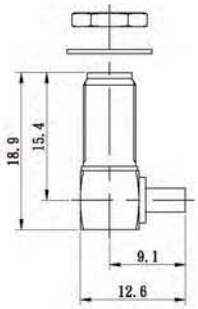
SMA R/A solder plug

P/N	Cable Group	Ohm
C01BA31085008B	0.85"(RG405)	50
C01BA31141008B	.141"(RG402)	50



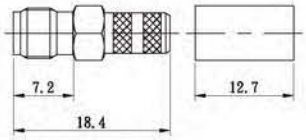
SMA R/A crimp plug

P/N	Cable Group	Ohm
C01BA31178008	RG178, RG196	50
C01BA31148008	1.48, 1.50	50
C01BA31137008	1.37, 1.38	50
C01BA31132008	1.32, 1.32D	50
C01BA31113008	1.13	50
C01BA31081008	0.81	50



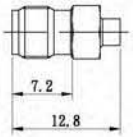
SMA R/A bulkhead crimp jack

P/N	Cable Group	Ohm
C02BS31178017	RG178, RG196	50
C02BS31148017	1.48, 1.50	50
C02BS31137017	1.37, 1.38	50
C02BS31132017	1.32, 1.32D	50
C02BS31113017	1.13	50
C02BS31081017	0.81	50



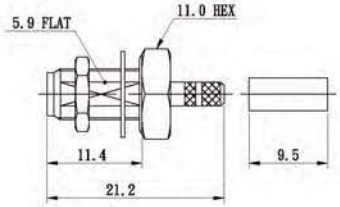
SMA straight crimp jack

P/N	Cable Group	Ohm
C02AA31058A12	RG58, RG141, RG303, LMR195, B7806A	50
C02AA31174012	RG174, RG316, RG188, LMR100	50
C02AA31L20012	LMR200, B7807A	50
C02AA31400012	RG142, RG400, RG55	50
C02AA31223012	RG223	50



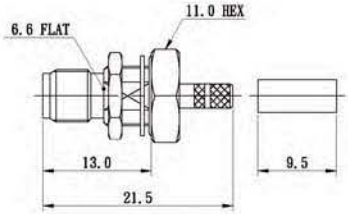
SMA straight solder jack

P/N	Cable Group	Ohm
C02AA31047012A	.047"	50
C02AA31085012A	0.85"(RG405)	50
C02AA31141012A	.141"(RG402)	50



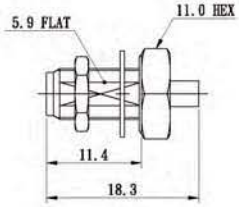
SMA straight bulkhead w/Oring crimp jack

P/N	Cable Group	Ohm
C02AD31058A05A	RG58, RG141, RG303, LMR195	50
C02AD31174005A	RG174, RG316, RG188, LMR100	50
C02AD31L20005A	LMR200, B7807A	50



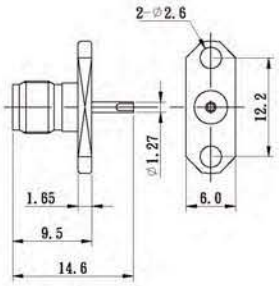
SMA straight bulkhead w/Oring crimp jack

P/N	Cable Group	Ohm
C02AD31174034	RG174, RG316, RG188, LMR100	50



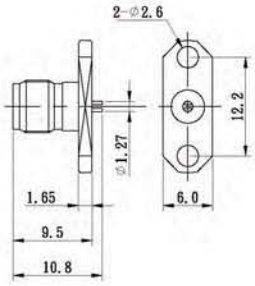
SMA straight bulkhead w/Oring crimp jack

P/N	Cable Group	Ohm
C02AD31178005	RG178, RG196	50
C02AD31148005	1.48, 1.50	50
C02AD31137005	1.37, 1.38	50
C02AD31132005	1.32, 1.32D	50
C02AD31113005	1.13	50
C02AD31081005	0.81	50



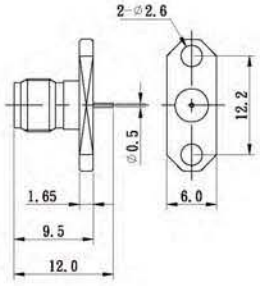
SMA straight 2holes panel mount receptacle jack (solder cup)

P/N	Cable Group	Ohm
C02AF3130	N/A	50



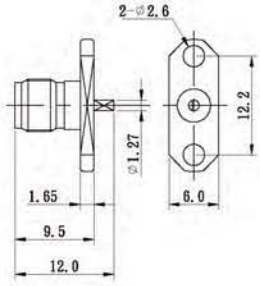
SMA straight 2holes panel mount receptacle jack (slot)

P/N	Cable Group	Ohm
C02AF3137	N/A	50



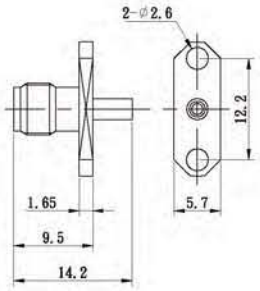
SMA straight 2holes panel mount receptacle jack(blunt post)

P/N	Cable Group	Ohm
C02AF3143	N/A	50



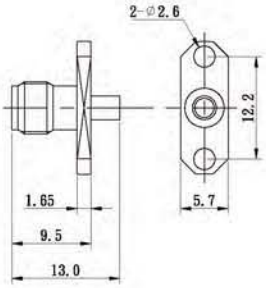
SMA straight 2holes panel mount receptacle jack(tab)

P/N	Cable Group	Ohm
C02AF3145	N/A	50



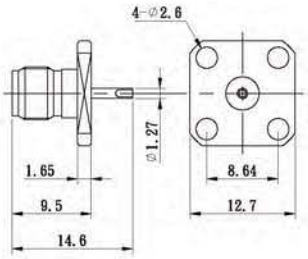
SMA straight 2holes panel mount solder jack

P/N	Cable Group	Ohm
C02AF31047007C	.047"	50
C02AF31085007C	0.85"(RG405)	50
C02AF31141007C	.141"(RG402)	50



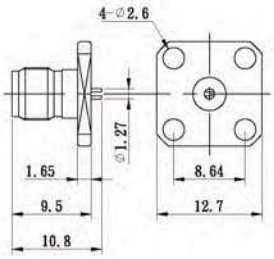
SMA straight 2holes panel mount crimp jack

P/N	Cable Group	Ohm
C02AF31178007	RG178, RG196	50
C02AF31148007	1.48, 1.50	50
C02AF31137007	1.37, 1.38	50
C02AF31132007	1.32, 1.32D	50
C02AF31113007	1.13	50
C02AF31081007	0.81	50



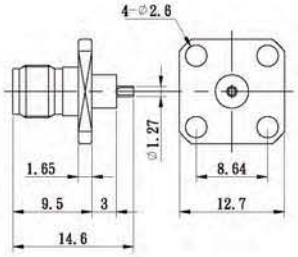
SMA straight 4holes panel mount receptacle jack (solder cup)

P/N	Cable Group	Ohm
C02AG3131	N/A	50



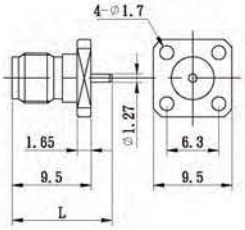
SMA straight 4holes panel mount receptacle jack (slot)

P/N	Cable Group	Ohm
C02AG3138	N/A	50



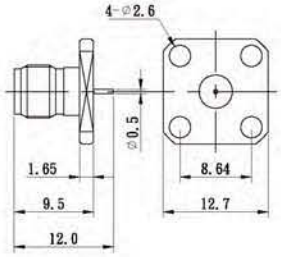
SMA straight 4holes panel mount w/extended PTFE receptacle jack (solder cup)

P/N	Cable Group	Ohm
C02AG3140	N/A	50



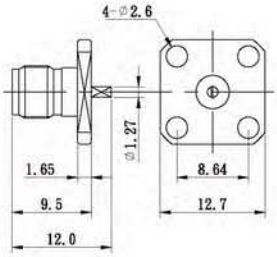
SMA straight 4holes panel mount receptacle jack (blunt post)

P/N	Cable Group	Ohm
C02AG3141	L: 12mm	50
C02AG3141A	L: 14.6mm	50



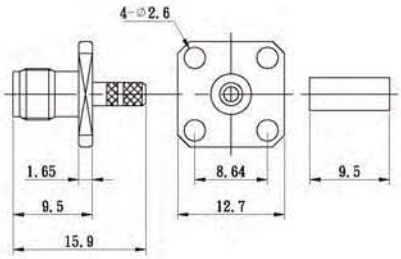
SMA straight 4holes panel mount receptacle jack (blunt post)

P/N	Cable Group	Ohm
C02AG3142	N/A	50



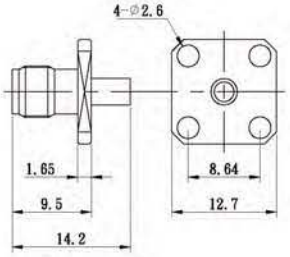
SMA straight 4holes panel mount receptacle jack (tab)

P/N	Cable Group	Ohm
C02AG3144	N/A	50



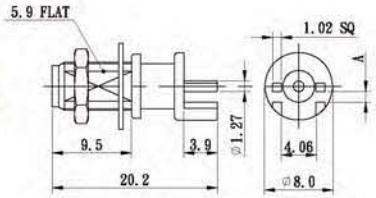
SMA straight 4holes panel mount crimp jack

P/N	Cable Group	Ohm
C02AG31058A18B	RG58, RG141, RG303, LMR195	50
C02AG31174018B	RG174, RG316, RG188, LMR100	50
C02AG31400018B	RG142, RG400, RG55	50
C02AG31223018B	RG223	50



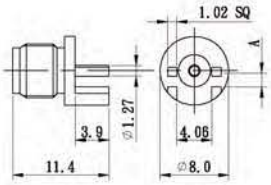
SMA straight 4holes panel mount solder jack

P/N	Cable Group	Ohm
C02AG31047018	.047"	50
C02AG31085018	0.85"(RG405)	50
C02AG31141018	.141"(RG402)	50



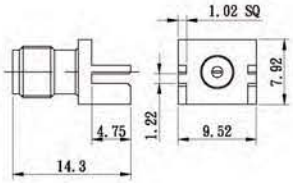
SMA straight bulkhead edge mount jack

P/N	Cable Group	Ohm
C02AJ31P00110	A: 0.8mm	50
C02AJ31P00110A	A: 1.6mm	50



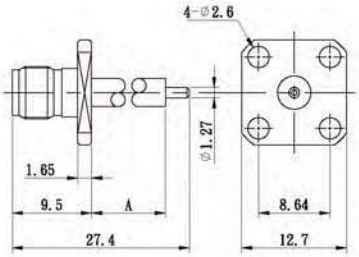
SMA straight edge mount jack

P/N	Cable Group	Ohm
C02AJ31P00121	A: 0.8mm	50
C02AJ31P00121A	A: 1.3mm	50
C02AJ31P00121B	A: 1.6mm	50
C02AJ31P00121C	A: 1.73mm	50



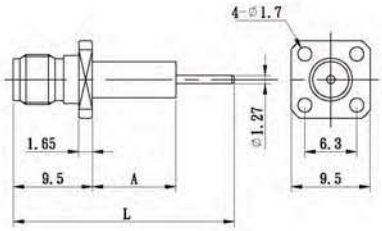
SMA straight edge mount receptacle jack

P/N	Cable Group	Ohm
C02AJ3146	N/A	50



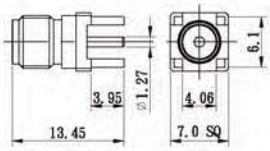
SMA straight 4holes panel mount w/extended PTFE receptacle jack (blunt post)

P/N	Cable Group	Ohm
C02AM3106	A: 8.0mm	50
C02AM3106B	A: 3.0mm	50
C02AM3106C	A: 4.1mm	50
C02AM3106D	A: 5.0mm	50
C02AM3106E	A: 10.0mm	50
C02AM3106F	A: 12.5mm	50
C02AM3106G	A: 15.0mm	50



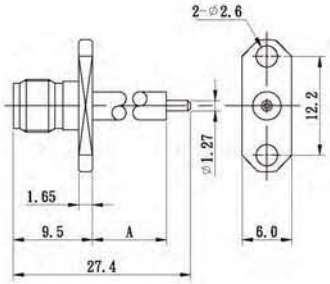
SMA straight 4holes panel mount w/extended PTFE receptacle jack (blunt post)

P/N	Cable Group	Ohm
C02AM3122	A: 4.1mm, L: 15.5mm	50
C02AM3122A	A: 6.0mm, L: 18.8mm	50
C02AM3122B	A: 10mm, L: 26.5mm	50
C02AM3122C	A: 15mm, L: 27.4mm	50



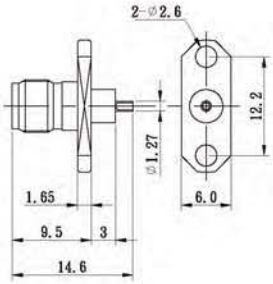
SMA straight PCB mount jack

P/N	Cable Group	Ohm
C02AN30P00101	N/A	50
C02AN31P00101	N/A	50



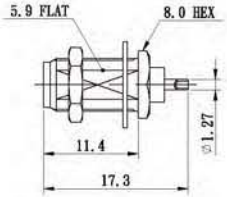
SMA straight 2holes panel mount w/extended PTFE receptacle jack (blunt post)

P/N	Cable Group	Ohm
C02AQ3114	A: 4.1mm	50
C02AQ3114B	A: 3.0mm	50
C02AQ3114C	A: 5.0mm	50
C02AQ3114D	A: 8.0mm	50
C02AQ3114E	A: 10.0mm	50
C02AQ3114F	A: 12.5mm	50
C02AQ3114G	A: 15.0mm	50



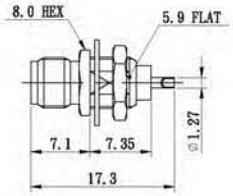
SMA straight 2holes panel mount w/extended PTFE receptacle jack (solder cup)

P/N	Cable Group	Ohm
C02AQ3139	N/A	50



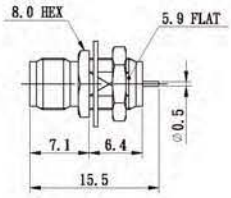
SMA straight bulkhead w/extended PTFE receptacle jack (solder cup)

P/N	Cable Group	Ohm
C02AT3126A	N/A	50



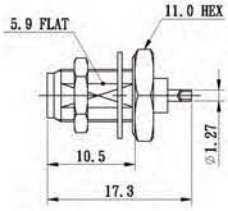
SMA straight front mount bulkhead w/extended PTFE receptacle jack (solder cup)

P/N	Cable Group	Ohm
C02AV3127	N/A	50



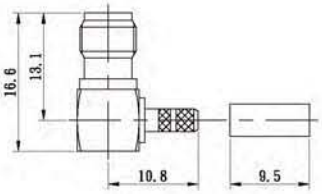
SMA straight front mount bulkhead receptaceje jack (blunt post)

P/N	Cable Group	Ohm
C02AV3136	N/A	50



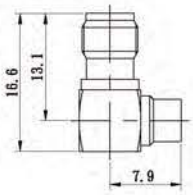
SMA straight bulkhead w/Oring receptacle jack (solder cup)

P/N	Cable Group	Ohm
C02AW3135	N/A	50



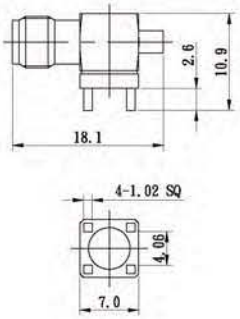
SMA R/A crimp jack

P/N	Cable Group	Ohm
C02BA31058A33	RG58, RG141, RG303, LMR195	50
C02BA31174033	RG174, RG316, RG188, LMR100	50
C02BA31L20033	LMR200, B7807A	50
C02BA31400033	RG142, RG400, RG55	50
C02BA31223033	RG223	50
C02BA31178033A	RG178, RG196	50
C02BA31148033A	1.48, 1.50	50
C02BA31137033A	1.37, 1.38	50
C02BA31132033A	1.32, 1.32D	50
C02BA31113033A	1.13	50
C02BA31081033A	0.81	50



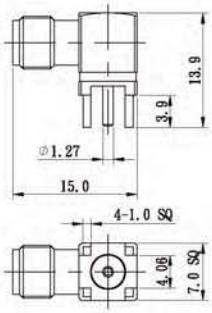
SMA R/A solder jack

P/N	Cable Group	Ohm
C02BA31085033B	0.85"(RG405)	50
C02BA31141033B	.141"(RG402)	50



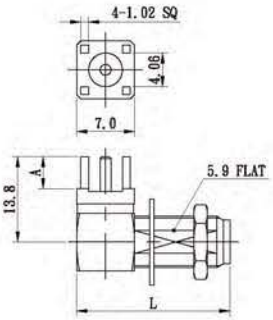
SMA R/A PCB mount & crimp jack

P/N	Cable Group	Ohm
C02BI31178015B	RG178, RG196	50
C02BI31148015B	1.48, 1.50	50
C02BI31137015B	1.37, 1.38	50
C02BI31132015B	1.32, 1.32D	50
C02BI31113015B	1.13	50
C02BI31081015B	0.81	50



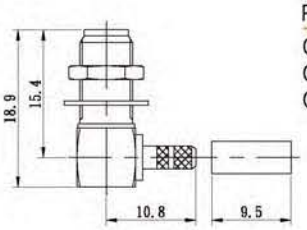
SMA R/A PCB mount jack

P/N	Cable Group	Ohm
C02BN30P00102	N/A	50
C02BN31P00102	N/A	50



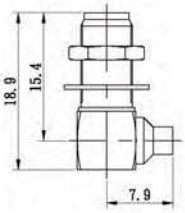
SMA R/A bulkhead PCB mount jack

P/N	Cable Group	Ohm
C02BO31P00102B	L: 18.4, A:3.9mm	50
C02BO30P00202B	L:19.7, A:2.8mm	50



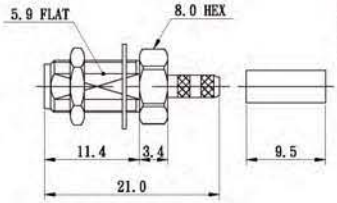
SMA R/A bulkhead crimp jack

P/N	Cable Group	Ohm
C02BS31058A17A	RG58, RG141, RG303, LMR195	50
C02BS31174017A	RG174, RG316, RG188, LMR100	50
C02BS31400017A	RG142, RG400, RG55	50



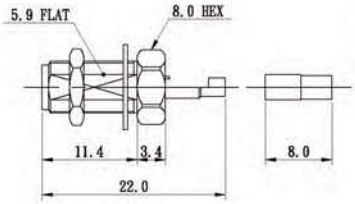
SMA R/A bulkhead solder jack

P/N	Cable Group	Ohm
C02BS31085017B	0.85"(RG405)	50
C02BS31141017B	.141"(RG402)	50



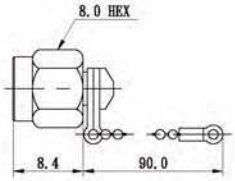
SMA straight bulkhead crimp jack

P/N	Cable Group	Ohm
C02ABWS174003C	RG174, RG316, RG188, LMR100	50



SMA straight bulkhead crimp jack

P/N	Cable Group	Ohm
C02ABWS178003B	0.81, 1.13, 1.32, 1.37, 1.48, RG178	50



SMA plug cap with chain

P/N	Cable Group	Ohm
C01CP3199-1	w/chain	N/A
C01CP3199	w/O chain	N/A

SMB Connector

SMB connector is a smaller version of the SMA with snap-on coupling and was designed in 1960's. The snap-on design permits rapid connection and disconnection in limited spaces.

50 ohm SMB usually is specified up to 4 GHz, and 75 ohm SMB connectors are specified for only 2 GHz.

SMB series is designed originally with female contact in male body or male contact in female body. These connectors are popularly used in telecommunication and automotive.

Application

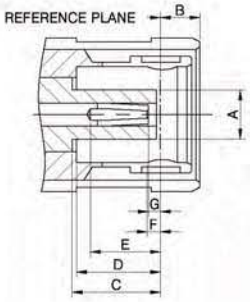
- Cable Assembly
- PC/LAN
- Telecommunication
- Automotive(GPS)
- Radio Boards
- Test and Measurement
- Components
- Process Controls
- Video Systems
- Instrumentation

Product Range

- Cable Connectors (straight and right angle) for flexible, semi-flex and semi-rigid cables
- PCB connectors (straight and right angle)
- Panel connectors in various flanges
- Adaptors

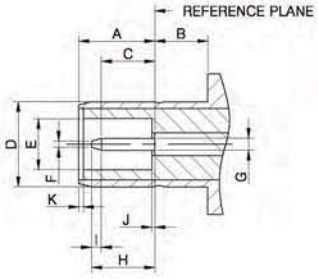
SMB Interface Dimensions

PLUG



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	2.00	2.06	0.0790	0.0810
B	–	1.63	–	0.0640
C	3.58	–	0.1410	–
D	3.58	–	0.1410	–
E	2.97	–	0.1170	–
F	0.18	–	0.0070	–
G	0.18	0.94	0.0070	0.0370

JACK



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	3.33	3.58	0.1310	0.1410
B	1.65	–	0.0650	–
C	1.32	–	0.0520	–
D	3.66	3.71	0.1441	0.1460
E	2.08	2.16	0.0820	0.0850
F	–	0.25	–	0.0100
G	0.48	0.53	0.0190	0.0210
H	–	2.97	–	0.1170
I	0.25	–	0.0100	–
J	–	0.18	–	0.0070
K	0.00	–	0.0000	–

Technical Characteristics

Electrical

Impedance	50 ohm or 75 ohm
Frequency range	0 ~ 4 GHz for 50 ohm 0 ~ 2 GHz for 75 ohm.
VSWR	Straight type ≦ 1.3 max. R/A type ≦ 1.5 max.
Dielectric withstanding voltage	1000 V rms min. for RG316, RG402 750 V rms min. for RG178
Working voltage	335 V rms max. for RG316, RG402 250 V rms max. for RG178
Center contact resistance	≦ 6.0 mΩ (Milliohms max.)
Outer contact resistance	≦1.5 mΩ (Milliohms max.)
Insulation resistance	≧ 10^3 MΩ (Megohms min.)

Mechanical

Coupling	Snap-on
Contact Retention	4 lbs min.
Mating Durability	500 cycles min. (For Beryllium copper contact only)

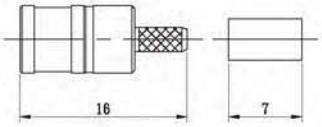
Environmental

Temperature Range	-65˚C ~ +155˚C
Vibration	MIL-STD-202 Meth. 204
Corrosion resistance	MIL-STD-202 Meth. 101

Materials

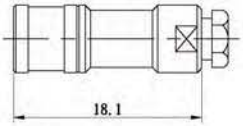
Body	Brass
Insulator	Teflon
Center contact	Brass for male Beryllium copper or phosphor bronze for female
Crimping sleeve	Annealed brass
Body plating	Gold (Au)
Center contact plating	Gold (Au)

Note: These characteristics are typical and may not apply to all connectors.



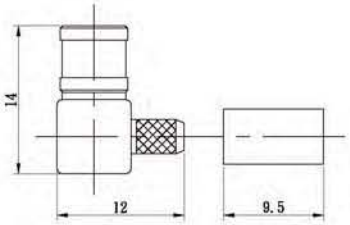
SMB straight crimp plug

P/N	Cable Group	Ohm
C03AA3F174003	RG174, RG316, RG188, LMR100	50
C03AA3F058A03	RG58, RG141, RG303, LMR195, B7806A	50
C03OA3F179003	RG179, RG187, Belden 9221	75
C03OA3F300203	BT3002	75



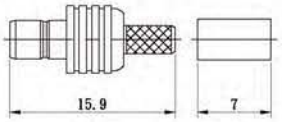
SMB straight clamp plug

P/N	Cable Group	Ohm
C03AA3F174005	RG174, RG316, RG188, LMR100	50



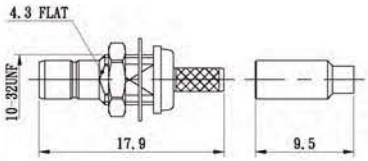
SMB R/A crimp plug

P/N	Cable Group	Ohm
C03BA3F174001	RG174, RG316, RG188, LMR100	50
C03BA3F058A01	RG58, RG141, RG303, LMR195, B7806A	50
C03PA3F179001	RG179, RG187, Belden 9221	75
C03PA3F300201	BT3002	75



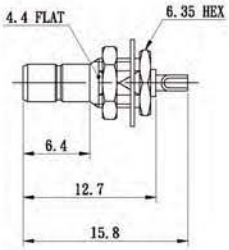
SMB straight crimp jack

P/N	Cable Group	Ohm
C04AA3F174008	RG174, RG316, RG188, LMR100	50



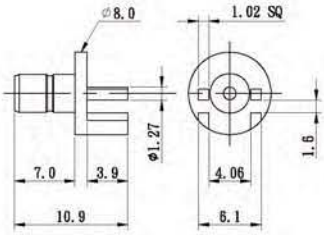
SMB straight bulkhead crimp jack

P/N	Cable Group	Ohm
C04AB3F178006	RG178, RG196	50
C04AB3F174006B	RG174, RG316, RG188, LMR100	50



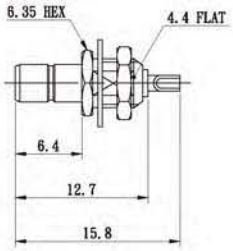
SMB straight bulkhead receptacle jack

P/N	Cable Group	Ohm
C04AB3107	N/A	50



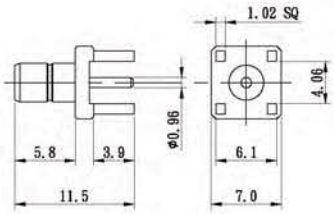
SMB straight edge mount receptacle jack

P/N	Cable Group	Ohm
C04AJ31P00109	N/A	50



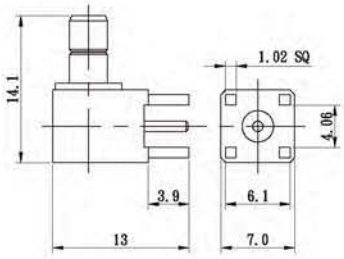
SMB straight front mount bulkhead receptacle jack

P/N	Cable Group	Ohm
C04AK3113	N/A	50



SMB straight PCB mount jack

P/N	Cable Group	Ohm
C04AN31P00104	N/A	50
C04ON31P00104	N/A	75



SMB R/A PCB mount jack

P/N	Cable Group	Ohm
C04BN31P00102	N/A	50
C04PN31P00102	N/A	75

SSMB Connector

SSMB connectors are a minimized version of the standard SMB connector with snap-on mating design. This latching design allows easy installation and permits rapid connection and disconnection in small space especially in inaccessible working environment.

SSMB series has a 50 ohm impedance and provides excellent electrical performance max. up to 12.4 GHz. These connectors are mainly used in miniaturized high frequency coaxial modules in subminiature devices at frequency up to 3 GHz and for internal equipment cable connections.

Application

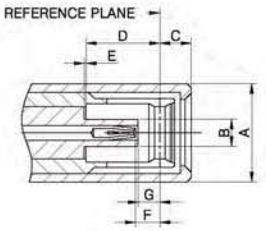
- Cable Assembly
- Instrumentation
- PC/LAN
- Components
- Mil/Aero
- Telecommunication

Product Range

- Cable Connectors (straight and right angle) for flexible, semi-flex and semi-rigid cables
- PCB connectors (straight and right angle)
- Adaptors

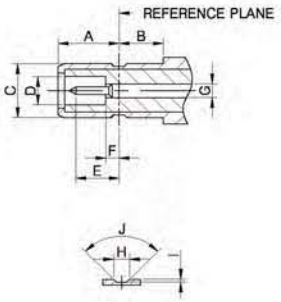
SSMB Interface Dimensions

PLUG



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	–	4.83	–	0.1900
B	–	1.35	–	0.0530
C	–	1.78	–	0.0700
D	3.10	–	0.1220	–
E	0.00	–	0.0000	–
F	0.84	–	0.0330	–
G	0.84	–	0.0330	–

JACK



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	3.10		0.1220	
B	1.91	–	0.0750	–
C	–	2.67	–	0.1050
D	1.37	–	0.0540	–
E	1.91	–	0.0750	–
F	–	0.84	–	0.0330
G	0.36	0.38	0.0140	0.0150
H	0.71	0.74	0.0280	0.0290
I	0.05	0.15	0.0020	0.0060
J	90°		90°	

Technical Characteristics

Electrical

Impedance	50 ohm
Frequency range	0 ~ 3 GHz
VSWR	Straight type ≦ 1.3 max. R/A type ≦ 1.5 max.
Dielectric withstanding voltage	500 V rms min.
Working voltage	250 V rms max.
Center contact resistance	≦ 5.0 mΩ (Milliohms max.)
Outer contact resistance	≦ 2.5 mΩ (Milliohms max.)
Insulation resistance	≧ 10^3 MΩ (Megohms min.)

Mechanical

Coupling	Snap-on
Contact Retention	2 lbs min.
Mating Durability	500 cycles min. (For Beryllium copper contact only)

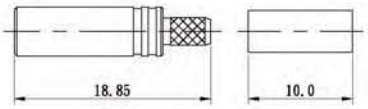
Environmental

Temperature Range	-65℃ ~ +155℃
Vibration	MIL-STD-202 Meth. 204
Corrosion resistance	MIL-STD-202 Meth. 101

Materials

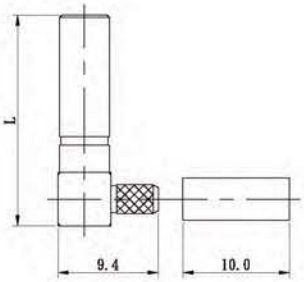
Body	Brass
Insulator	Teflon
Center contact	Brass for male Beryllium copper or phosphor bronze for female
Crimping sleeve	Annealed brass
Body plating	Gold (Au)
Center contact plating	Gold (Au)

Note: These characteristics are typical and may not apply to all connectors.



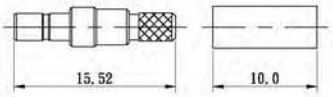
SSMB straight crimp plug

P/N	Cable Group	Ohm
C11AA30174002	RG174, RG316, RG188, LMR100	50



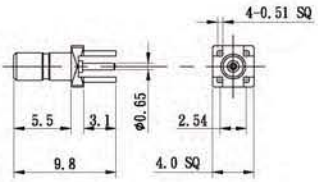
SSMB R/A crimp plug

P/N	Cable Group	Ohm
C11BA30174001	RG174, RG316, RG188, LMR100	50
C11BA30178001	RG178, RG196	50
C11BA30178001A	RG178, RG196 (L=10.8)	50



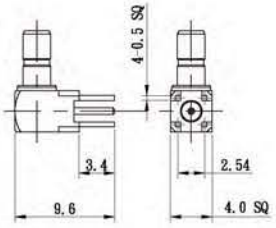
SSMB straight crimp jack

P/N	Cable Group	Ohm
C12AA30174005	RG174, RG316, RG188, LMR100	50



SSMB straight PCB mount jack

P/N	Cable Group	Ohm
C12AN30P00403	N/A	50



SSMB R/A PCB mount jack

P/N	Cable Group	Ohm
C12BN30P00904	N/A	50

SMC Connector

SMC was named after SubMiniature C in 1960's and SMC series has identical interface dimensions with SMB connectors but with threaded coupling mechanism.

SMC connectors have threaded coupling with 10-32 threads, which permits a vibration-proof connection and specially suitable for mobile applications with low VSWR.

Application

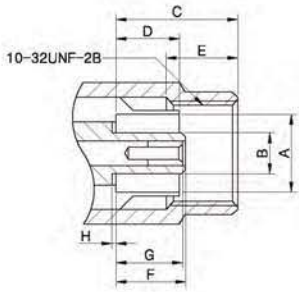
- Cable Assembly
- PC/LAN
- Telecommunication
- Automotive(GPS)
- Radio Boards
- Test and Measurement
- Components
- Process Controls
- Video Systems
- Instrumentation

Product Range

- Cable Connectors (straight and right angle) for flexible cable
- PCB Connectors (straight and right angle)
- Panel Connectors in various flanges
- Adaptors

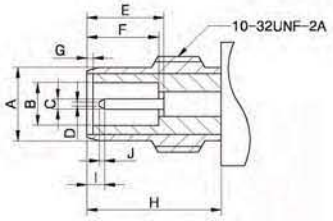
SMC Interface Dimensions

PLUG



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	3.71	3.81	0.1460	0.1500
B	2.00	2.06	0.0790	0.0810
C	5.92		0.2330	
D	–	3.10	–	0.1220
E	2.79	–	0.1100	–
F	3.15	3.40	0.1240	0.1340
G	3.05	3.40	0.1201	0.1340
H	0.00	0.30	0.0000	0.0118

JACK



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	3.63	3.71	0.1429	0.1460
B	2.08	2.16	0.0820	0.0850
C	0.48	0.53	0.0190	0.0210
D	–	0.25	–	0.0100
E	3.40	–	0.1340	–
F	3.40	–	0.1340	–
G	0.00	0.30	0.0000	0.0118
H	5.94	–	0.2340	–
I	–	2.13	–	0.0840
J	0.25	–	0.0100	–

Technical Characteristics

Electrical

Impedance	50 ohm
Frequency range	0 ~ 10 GHz
VSWR	Straight type ≦ 1.3 max. R/A type ≦ 1.5 max.
Dielectric withstanding voltage	1000 V rms min. for RG316, RG402 750 V rms min. for RG178
Working voltage	335 V rms max. for RG316, RG402 250 V rms max. for RG178
Center contact resistance	≦ 6.0 mΩ (Milliohms max.)
Outer contact resistance	≦ 1.5 mΩ (Milliohms max.)
Insulation resistance	≦ 10^3 MΩ (Megohms min.)

Mechanical

Coupling	10-32 thread
Contact Retention	4 lbs min.
Mating Durability	500 cycles min. (For Beryllium copper contact only)

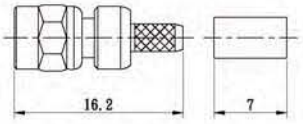
Environmental

Temperature Range	-65℃ ~ +155℃
Vibration	MIL-STD-202 Meth. 204
Corrosion resistance	MIL-STD-202 Meth. 101

Materials

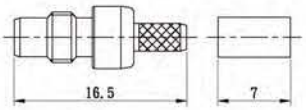
Body	Brass
Insulator	Teflon
Center contact	Brass for male Beryllium copper or phosphor bronze for female
Crimping sleeve	Annealed brass
Body plating	Gold (Au)
Center contact plating	Gold (Au)

Note: These characteristics are typical and may not apply to all connectors.



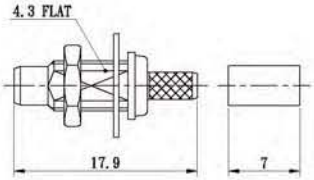
SMC straight crimp plug

P/N	Cable Group	Ohm
C13AA3F174003	RG174, RG316, RG188, LMR100	50



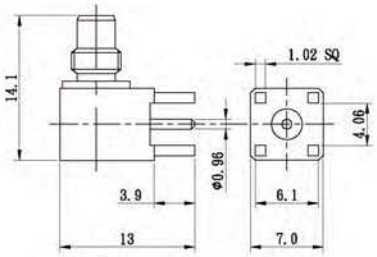
SMC straight crimp jack

P/N	Cable Group	Ohm
C14AA3F174010	RG174, RG316, RG188, LMR100	50



SMC straight bulkhead crimp jack

P/N	Cable Group	Ohm
C14AB3F174006B	RG174, RG316, RG188, LMR100	50



SMC R/A PCB mount jack

P/N	Cable Group	Ohm
C14BN31P00102	N/A	50

MMCX Connector

MMCX series was developed in the 1990's with a lock-snap mechanism allowing for 360 degrees rotation enabling flexibility in PCB layouts. MMCX connectors conform to the European CECC 22000 specification.

The special lock-snap coupling design also helps to reduce the RF leakage at the joints of the connector.

MMCX connectors have a 50 ohm impedance and offer broadband capability from 0 to 6 GHz.

MMCX series is used in many different applications like GPS tracking , GSM cellular , WLAN equipments, but the most commonly seen on Wi-Fi PCMCIA cards as antenna connectors.

Application

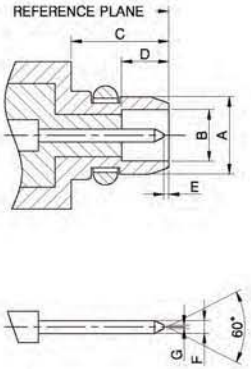
- Cable Assembly
- Antenna
- PCMCIA Card
- Instrumentation
- W-LAN
- GPS
- Satcom
- Telecommunications
- Radio boards

Product Range

- Cable Connectors (straight and right angle) for flexible, semi-flex and semi-rigid cables
- PCB connectors (straight and right angle)
- Bulkhead panel mount connectors
- Adaptors

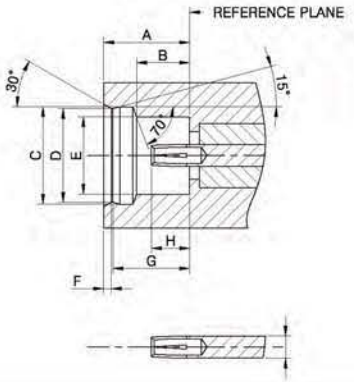
MMCX Interface Dimensions

PLUG



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	–	2.40	–	0.0945
B	1.57	1.63	0.0620	0.0640
C	2.69	–	0.1060	–
D	1.45	–	0.0570	–
E	0.00	0.25	0.0000	0.0100
F	0.38	0.43	0.0150	0.0170
G	–	0.20	–	0.0080

JACK



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	2.59	–	0.1020	–
B	1.57	1.63	0.0620	0.0640
C	3.00	3.05	0.1180	0.1200
D	2.87	2.90	0.1130	0.1140
E	2.41	–	0.0950	–
F	–	0.23	–	0.0090
G	2.31	2.34	0.0910	0.0920
H	0.89	1.19	0.0350	0.0470
I	0.71		0.0280 REF	

Technical Characteristics

Electrical

Impedance	50 ohm
Frequency range	0 ~ 6 GHz
VSWR	Straight type ≦ 1.3 max. R/A type ≦ 1.5 max.
Dielectric withstanding voltage	500 V rms min.
Working voltage	170 V rms max.
Center contact resistance	≦ 5.0 mΩ (Milliohms max.)
Outer contact resistance	≦ 2.5 mΩ (Milliohms max.)
Insulation resistance	≧ 10^3 MΩ (Megohms min.)

Mechanical

Coupling	Lock-snap
Contact Retention	2.3 lbs min.
Mating Durability	500 cycles min. (For Beryllium copper contact only)

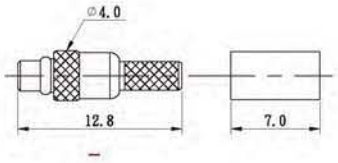
Environmental

Temperature Range	-65°C ~ +155°C
Vibration	MIL-STD-202 Meth. 204
Corrosion resistance	MIL-STD-202 Meth. 101

Materials

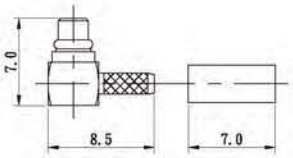
Body, coupling nut	Brass
Insulator	Teflon
Center contact	Brass for male Beryllium copper for female
Crimping sleeve	Annealed brass
Body plating	Gold (Au)
Center contact plating	Gold (Au)

Note: These characteristics are typical and may not apply to all connectors.



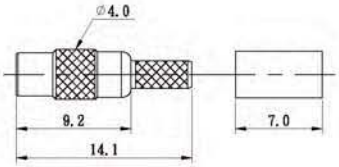
MMCX straight crimp plug

P/N	Cable Group	Ohm
C05AA3F174003	RG174, RG316, RG188, LMR100	50
C05AA3F316D03	RGD316	50
C05AA3F178003A	RG178, RG196	50
C05AA3F137003A	1.37, 1.32	50
C05AA3F113003A	1.13	50



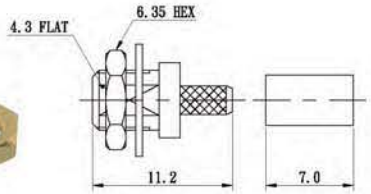
MMCX R/A crimp plug

P/N	Cable Group	Ohm
C05BA3F174001	RG174, RG316, RG188, LMR100	50
C05BA3F316D01	RGD316	50
C05BA3F178001	RG178, RG196, 1.48	50
C05BA3F137001	1.37, 1.32	50
C05BA3F113001	1.13	50



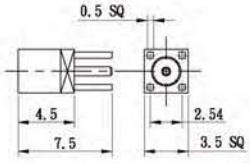
MMCX straight crimp jack

P/N	Cable Group	Ohm
C06AA3F178006	RG178, RG196	50
C06AA3F174006	RG174, RG316, RG188, LMR100	50
C06AA30137006A	1.37, 1.32	50
C06AA30113006A	1.13	50



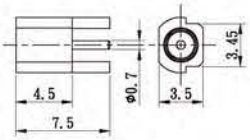
MMCX straight bulkhead crimp jack

P/N	Cable Group	Ohm
C06AB3F174007B	RG174, RG316, RG188, LMR100	50
C06AB3F316D07B	RG316D	50
C06AB3F178007B	RG178, RG196	50
C06AB30178007	RG178, RG196, 1.48	50



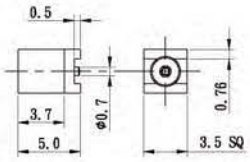
MMCX straight PCB mount jack

P/N	Cable Group	Ohm
C06AN3FP00402	N/A	50



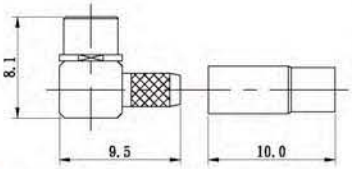
MMCX straight edge mount jack

P/N	Cable Group	Ohm
C06AN30P00409	N/A	50



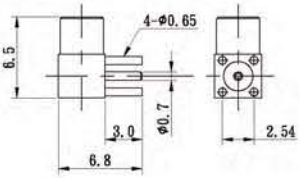
MMCX straight SMT jack

P/N	Cable Group	Ohm
C06AN30P00711	N/A	50
C06AN30P00711A	Reel packing	50
C06AN3F11B	N/A	50



MMCX R/A crimp jack

P/N	Cable Group	Ohm
C06BA3F174005	RG174, RG316, RG188, LMR100	50
C06BA3F316D05	RG316D	50



MMCX R/A PCB mount jack

P/N	Cable Group	Ohm
C06BN3FP00410	N/A	50

MCX Connector

MCX connector series was developed in 1980's confirm to the European CECC 22220 specification. MCX series has snap-on coupling mechanism design and offers broadband capability through 6 GHz.

MCX connectors are less than SMB approximately 30% in mounting space. 50 ohm and 75 ohm connectors for different cables impedance are available.

Snap-on mating design reduces installation time. MCX connectors are used in GPS, Wireless and Telecommunications.

Application

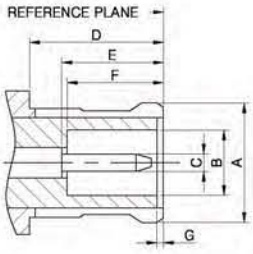
- Cable Assembly
- Antenna
- Instrumentation
- W-LAN
- GPS
- Satcom
- Telecommunications
- Radio boards

Product Range

- Cable Connectors (straight and right angle) for flexible, semi-flex and semi-rigid cables
- PCB connectors (straight and right angle)
- Bulkhead panel mount connectors
- Adaptors

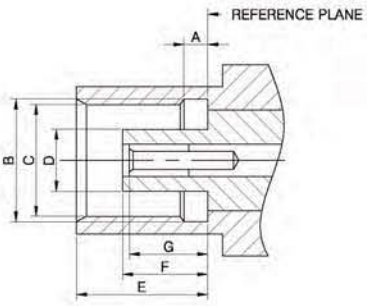
MCX Interface Dimensions

PLUG



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	3.66	3.76	0.1460	0.1500
B	2.00	2.07	0.0790	0.0820
C	0.48	0.53	0.0190	0.0210
D	4.16	–	0.1630	–
E	2.81	3.20	0.1100	0.1260
F	2.79	3.20	0.1100	0.1260
G	0.00	0.31	0.0000	0.0120

JACK



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	0.76	0.84	0.0300	0.0330
B	3.61	3.71	0.1420	0.1460
C	3.43	3.48	0.1350	0.1370
D	1.80	1.98	0.0710	0.0780
E	4.00	4.12	0.1580	0.1620
F	2.61	2.79	0.1030	0.1100
G	2.31	2.79	0.0910	0.1100

Technical Characteristics

Electrical

Impedance	50 ohm
Frequency range	0 ~ 6 GHz
VSWR	Straight type ≦ 1.3 max. R/A type ≦ 1.5 max.
Dielectric withstanding voltage	1000 V rms min.
Working voltage	335 V rms max.
Center contact resistance	≦ 5.0 mΩ (Milliohms max.)
Outer contact resistance	≦ 1.0 mΩ (Milliohms max.)
Insulation resistance	≧ 10^3 MΩ (Megohms min.)

Mechanical

Coupling	Push-on/Push-off
Contact Retention	4 lbs min.
Mating Durability	500 cycles min. (For Beryllium copper contact only)

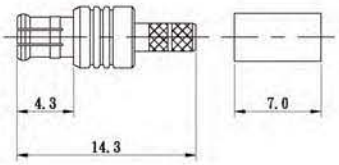
Environmental

Temperature Range	-65℃ ~ +155℃
Vibration	MIL-STD-202 Meth. 204
Corrosion resistance	MIL-STD-202 Meth. 101

Materials

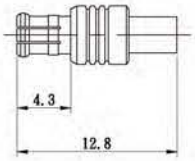
Body, coupling nut	Brass
Insulator	Teflon
Center contact	Brass for male Beryllium copper for female
Crimping sleeve	Annealed brass
Body plating	Gold (Au)
Center contact plating	Gold (Au)

Note: These characteristics are typical and may not apply to all connectors.



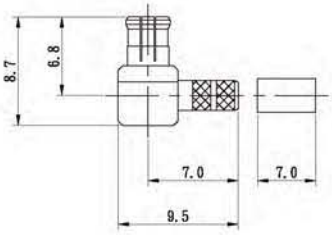
MCX straight crimp plug

P/N	Cable Group	Ohm
C07AA31174004	RG174, RG316, RG188, LMR100	50
C07AA31316D04	RG316D	50
C07AA31058A04	RG58, RG141, RG303, LMR195	50



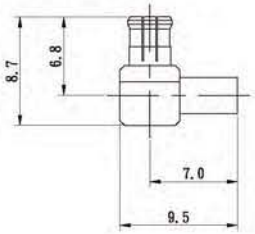
MCX straight crimp plug

P/N	Cable Group	Ohm
C07AA31178004A	RG178, RG196	50
C07AA31148004A	1.48, 1.50	50
C07AA31137004A	1.37, 1.38	50
C07AA31132004A	1.32, 1.32D	50
C07AA31113004A	1.13	50
C07AA31081004A	0.81	50



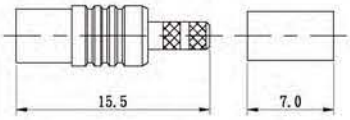
MCX R/A crimp plug

P/N	Cable Group	Ohm
C07BA31174001	RG174, RG316, RG188, LMR100	50
C07BA31316D01	RG316D	50
C07BA3F058A01	RG58, RG141, RG303, LMR195	50
C07PA30179001	RG179, RG187, Belden 9221	75



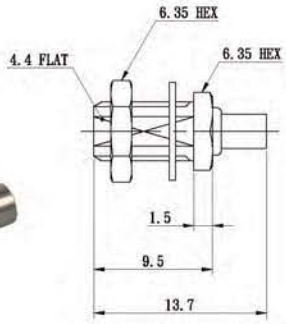
MCX R/A crimp plug

P/N	Cable Group	Ohm
C07BA31178001A	RG178, RG196	50
C07BA31148001A	1.48, 1.50	50
C07BA31137001A	1.37, 1.38	50
C07BA31132001A	1.32, 1.32D	50
C07BA31113001A	1.13	50
C07BA31081001A	0.81	50



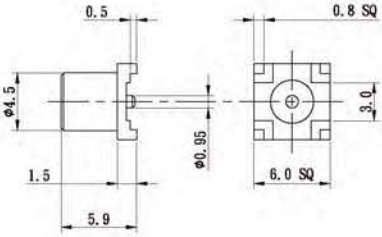
MCX straight crimp jack

P/N	Cable Group	Ohm
C08AA31174008	RG174, RG316, RG188, LMR100	50
C08AA31316D08	RG316D	50



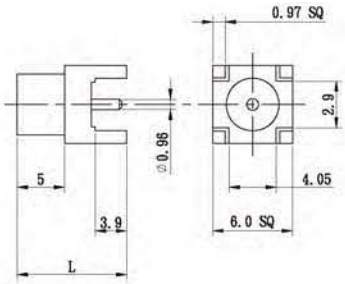
MCX straight bulkhead crimp jack

P/N	Cable Group	Ohm
C08AB31178002B	RG178, RG196	50
C08AB31148002B	1.48, 1.50	50
C08AB31137002B	1.37, 1.38	50
C08AB31132002B	1.32, 1.32D	50
C08AB31113002B	1.13	50
C08AB31081002B	0.81	50
C08AB3F174002A	RG174, RG316, RG188, LMR100	50



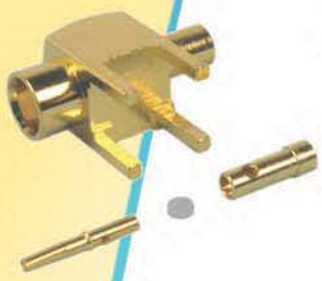
MCX straight SMT jack

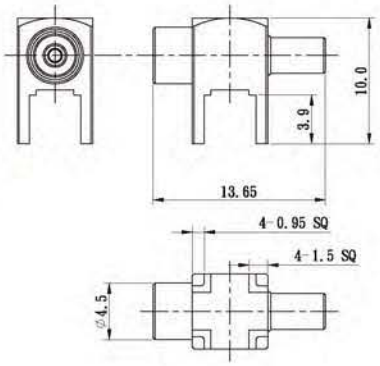
P/N	Cable Group	Ohm
C08AN3F07	N/A	50



MCX straight PCB mount jack

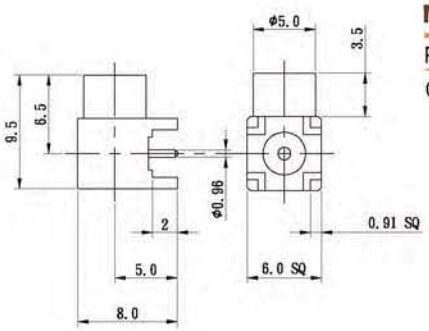
P/N	Cable Group	Ohm
C08AN31P00105	L: 10mm	50
C08AN31P01105A	L: 8.8mm	50
C08ON30P00905	L: 10mm	75





MCX R/A PCB mount & crimp jack

P/N	Cable Group	Ohm
C08BI30137003	1.37	50



MCX R/A PCB mount jack

P/N	Cable Group	Ohm
C08BN31P01006	N/A	50

FME Connector

FME connectors are used for mobile antenna applications and have frequency range 0 ~ 3GHz.

Application

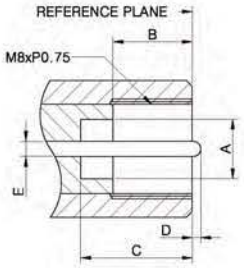
- Antennas
- Cable Assembly
- Telecommunication
- Mobile Phone System

Product Range

- Cable Connectors (straight and right angle) for flexible cables
- PCB connectors
- Bulkhead panel mount connectors
- Adaptors

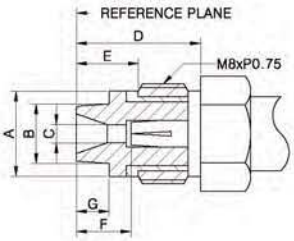
FME Interface Dimensions

PLUG



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	4.70	–	0.1850	–
B	6.40	–	0.2520	–
C	9.00	–	0.3543	–
D	0.00	1.00	0.0000	0.0394
E	1.25 nom.		0.0492 nom.	

JACK



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	–	6.80	–	0.2677
B	–	4.60	–	0.1811
C	1.35	–	0.0530	–
D	7.60	–	0.2992	–
E	4.90	–	0.1929	–
F	4.00	5.00	0.1575	0.1969
G	–	2.60	–	0.1024

Technical Characteristics

Electrical

Impedance	50 ohm
Frequency range	0 ~ 3GHz
VSWR	≦ 1.3 max.
Dielectric withstanding voltage	1000 V rms
Working voltage	500 V rms
Center contact resistance	≦ 10.0 mΩ (Milliohms max.)
Outer contact resistance	≦ 5.0 mΩ (Milliohms max.)
Insulation resistance	≧ 5 x 103 MΩ (Megohms min.)

Mechanical

Coupling	M8 x P0.75 thread

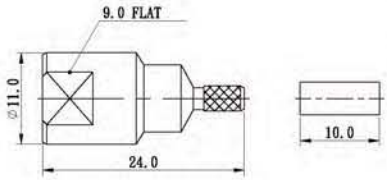
Environmental

Temperature Range	Teflon -65℃ ~ +155℃ Delrin -55℃ ~ +85℃
Vibration	MIL-STD-202 Meth. 204
Corrosion resistance	MIL-STD-202 Meth. 101

Materials

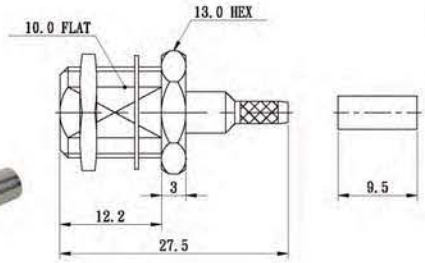
Body	Brass
Insulator	Teflon, Delrin
Center contact	Brass
Crimping sleeve	Annealed brass
Body plating	Nickel (Ni)
Center contact plating	Gold (Au)

Note: These characteristics are typical and may not apply to all connectors.



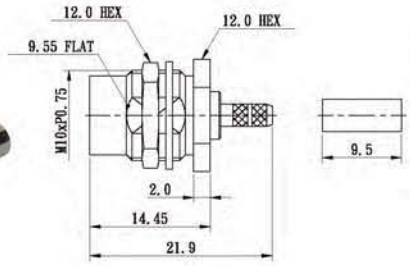
FME straight crimp plug

P/N	Cable Group	Ohm
C29CAWS174002	RG174, RG316, RG188, LMR100	50
C29CA37058A02	RG58/U	50
C29CA3F178002A	RG178B/U	50



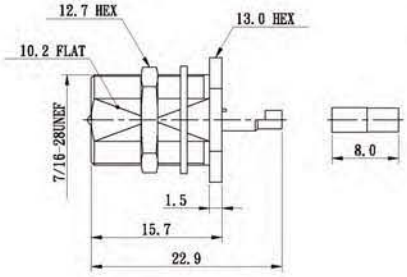
FME straight bulkhead crimp plug

P/N	Cable Group	Ohm
C29CB3F174001A	RG174, RG316, RG188, LMR100	50



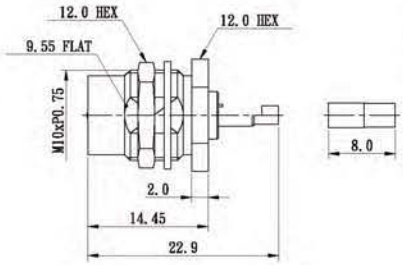
FME straight bulkhead crimp plug

P/N	Cable Group	Ohm
C29CBWS174001C	RG174, RG316, RG188, LMR100	50



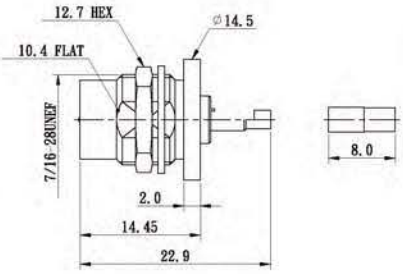
FME straight bulkhead crimp plug

P/N	Cable Group	Ohm
C29CBWS178001	RG178/U, 1.48, 1.37, 1.32, 1.13, 0.81	50



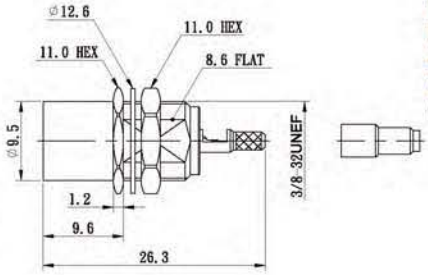
FME straight bulkhead crimp plug

P/N	Cable Group	Ohm
C29CBWS178001B	RG178/U, 1.48, 1.37, 1.32, 1.13, 0.81	50



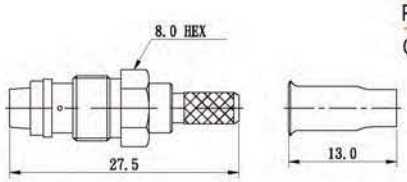
FME straight bulkhead crimp plug

P/N	Cable Group	Ohm
C29CBWS178001D	RG178, 1.48, 1.37, 1.32, 1.13, 0.81	50



FME straight front mount bulkhead crimp plug (hex panel)

P/N	Cable Group	Ohm
C29CL3F178005	RG178, RG196	50



FME straight crimp jack

P/N	Cable Group	Ohm
C30CA37174003	RG174, RG316, RG188, LMR100	50

BNC Connector

BNC connectors have a two-stud bayonet locking design for rapid and reliable connection and disconnection.

BNC series is available with 50 and 75 ohm impedance. The maximum frequency for 50 ohm BNC is 11GHz, but optimum operating frequency are achieved to 4 GHz. The 75 ohm BNC can be used successfully up to 1 GHz.

75 ohm BNC connectors are used in broadcast, CATV and CCTV applications crimped with 75 ohm coaxial cables like RG179, BT3002, 2.5C2V, RG59 and RG6U.

These low-cost connectors typically utilize die cast and molded components. While performance will not be equal to the industrial or military grade products, these connectors are ideal for use on a variety of commercial applications.

Application

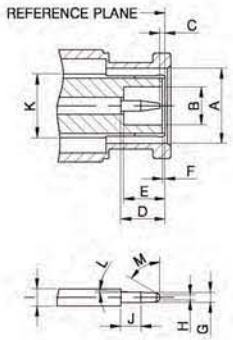
- Antennas
- Cable Assembly
- Automotive
- Radios
- Telecommunication
- Surge Protection
- Base Stations
- Medical Equipmen
- Instrumentation
- CCTV
- CATV

Product Range

- Cable Connectors (straight and right angle) for flexible, semi-flex and semi-rigid cables
- PCB connectors (straight and right angle)
- Panel connectors in various flanges
- Adaptors

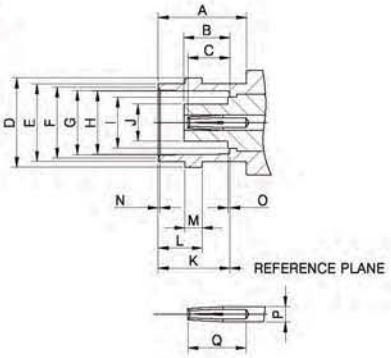
BNC Interface Dimensions

PLUG



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	9.78	9.91	0.3850	0.3900
B	4.83	–	0.1900	–
C	0.08	1.02	0.0030	0.0401
D	5.33	5.84	0.2100	0.2300
E	5.28	5.79	0.2080	0.2280
F	0.15	0.46	0.0060	0.0181
G	1.32	1.37	0.0520	0.0540
H	–	0.64	–	0.0250
I	2.06	2.21	0.0810	0.0870
J	1.98	–	0.0780	–
K	–	8.18	–	0.3220
L	1°	4°	1°	4°
M	55°	65°	55°	65°

JACK



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	10.52	–	0.4140	–
B	4.78	5.28	0.1880	0.2080
C	4.72	5.23	0.1860	0.2060
D	10.97	11.07	0.4320	0.4360
E	9.60	9.70	0.3780	0.3820
F	8.79	9.04	0.3460	0.3560
G	8.31	8.46	0.3270	0.3330
H	8.10	8.15	0.3190	0.3210
I	–	6.50	–	0.2560
J	–	4.72	–	0.1860
K	8.31	8.51	0.3270	0.3350
L	5.18	5.28	0.2040	0.2080
M	1.91	2.06	0.0750	0.0810
N	0.38	0.76	0.0150	0.0300
O	–	0.15	–	0.0060
P	2.06	2.21	0.0810	0.0870
Q	4.95	–	0.1950	–

Technical Characteristics

Electrical

Impedance	50 ohm or 75 ohm
Frequency range	0 ~ 4 GHz for 50 ohm 0 ~ 1 GHz for 75 ohm
VSWR	Straight type ≦ 1.3 max. R/A type ≦ 1.5 max.
Dielectric withstanding voltage	1500 V rms
Working voltage	500 V rms
Center contact resistance	≦ 1.5 mΩ (Milliohms max.)
Outer contact resistance	≦ 2.0 mΩ (Milliohms max.)
Insulation resistance	≧ 5 x 10^3 MΩ (Megohms min.)

Mechanical

Coupling	2-stud bayonet
Contact Retention	6 lbs min.
Mating Durability	500 cycles min. (For Beryllium copper contact only)

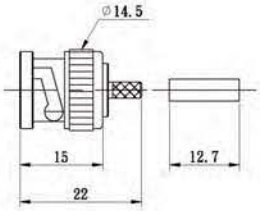
Environmental

Temperature Range	Teflon -65˚C ~ +155˚C Delrin -55˚C ~ +85˚C
Coupling nut retention	100 lbs. min.
Vibration	MIL-STD-202 Meth. 204
Corrosion resistance	MIL-STD-202 Meth. 101

Materials

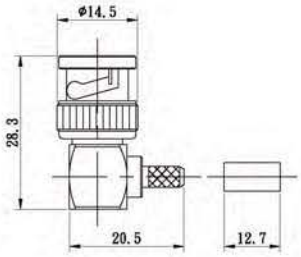
Body, coupling nut	Brass, Zinc alloy(diecast)
Insulator	Teflon, Delrin
Center contact	Brass for male Beryllium copper or phosphor bronze for female
Crimping sleeve	Annealed brass
Body plating	Nickel (Ni)
Center contact plating	Gold (Au)

Note: These characteristics are typical and may not apply to all connectors.



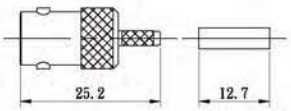
BNC straight crimp plug

P/N	Cable Group	Ohm
C15CA37058A01-Z	RG58, RG141, RG303, LMR195, B7806A	50
C15CA37174001A-Z	RG174, RG316, RG188, LMR100	50
C15CA37178001A-Z	RG178, RG196	50
C15QA37059001-Z	RG59, RG62, RG140, RG210	75
C15QA3F179001-Z	RG179, RG187, Belden 9221	75



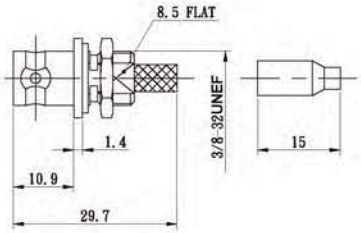
BNC R/A crimp plug (zinc alloy shell)

P/N	Cable Group	Ohm
C15DA37058A02-Z	RG58, RG141, RG303, LMR195, B7806A	50
C15DA37174002A-Z	RG174, RG316, RG188, LMR100	50
C15DA37178002A-Z	RG178, RG196	50
C15RA37059002-Z	RG59, RG62, RG140, RG210	75
C15RA37179002A-Z	RG179, RG187, Belden 9221	75



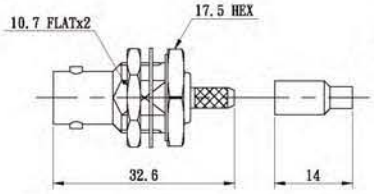
BNC straight crimp jack

P/N	Cable Group	Ohm
C16CA3F174003	RG174, RG316, RG188, LMR100	50
C16CA3F316D03	RG316D	50
C16QA3F179003	RG179, RG187, Belden 9221	75



BNC straight front mount bulkhead crimp jack

P/N	Cable Group	Ohm
C16CK37174013A	RG174, RG316, RG188, LMR100	50
C16CK37058A13B	RG58, RG141, RG303, LMR195, B7806A	50
C16QK37059013B	RG59, RG62, RG140, RG210	75



BNC straight bulkhead w/Oring crimp jack

P/N	Cable Group	Ohm
C16QD3F179012A	RG179, RG187, Belden 9221	75
C16CD3F174012	RG174, RG316, RG188, LMR100	50

TNC Connector

TNC connectors are designed with 7/16"-28 thread coupling and as a threaded version of the BNC. With a medium size compared with SMA and N connectors, and has bigger pitch thread. TNC series are ideal choice for use in equipment which needs a high durable coupling.

TNC series has medium mechanical size and weight, is commonly used in military radio telecommunication systems. Most TNC connectors are 50ohm impedance which optimum working frequency is up to 4 GHz (Max. 11GHz) but 75ohm also is available. 75 ohm TNC can be used successfully up to 1GHz.

Reverse Polarity TNC is a variation of standard TNC which has female pin in male body or male pin in female body. RP-TNC connectors are based on the regulations of FCC and generally used in Wi-Fi / WLAN application.

Application

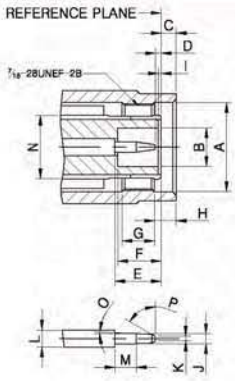
- Cable Assembly
- Microwave Components
- Base Stations
- Cellular Mobile Phones
- Instrumentation
- Military equipment
- Radar
- Networks
- Antennas
- Telecommunications

Product Range

- Cable Connectors (straight and right angle) for flexible, semi-flex and semi-rigid cables
- PCB connectors (straight and right angle)
- Panel connectors in various flanges
- Adaptors

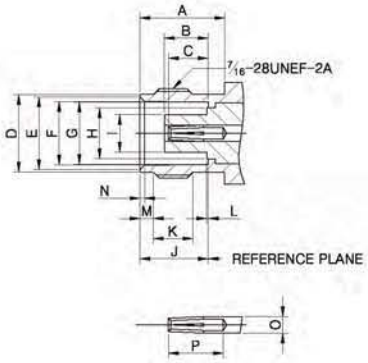
TNC Interface Dimensions

PLUG



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	11.18	-	0.4400	-
B	4.83	-	0.1900	-
C	-	1.98	-	0.0780
D	0.08	1.02	0.0030	0.0400
E	5.33	5.84	0.2100	0.2300
F	5.28	5.79	0.2080	0.2280
G	3.96	-	0.1560	-
H	1.60	-	0.0630	-
I	0.15	0.46	0.0060	0.0181
J	1.32	1.37	0.0520	0.0540
K	-	0.64	-	0.0250
L	2.06	2.21	0.0810	0.0870
M	1.98	-	0.0780	-
N	-	8.18	-	0.3220
O	1°	4°	1°	4°
P	55°	65°	55°	65°

JACK



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	10.52	–	0.4140	–
B	4.78	5.28	0.1880	0.2080
C	4.72	5.23	0.1860	0.2060
D	9.60	9.68	0.3780	0.3810
E	8.79	9.04	0.3460	0.3560
F	8.31	8.46	0.3270	0.3330
G	8.10	8.15	0.3190	0.3210
H	–	6.50	–	0.2560
I	–	4.72	–	0.1860
J	8.31	8.51	0.3270	0.3350
K	4.75	–	0.1870	–
L	–	0.15	–	0.0060
M	1.73	2.24	0.0680	0.0880
N	0.38	0.76	0.0150	0.0300
O	2.06	2.21	0.0810	0.0870
P	4.95	–	0.1950	–

Technical Characteristics

Electrical

Impedance	50 ohm or 75 ohm
Frequency range	0 ~ 4 GHz for 50 ohm 0 ~ 1 GHz for 75 ohm
VSWR	Straight type ≦ 1.3 max. R/A type ≦ 1.5 max.
Dielectric withstanding voltage	1500 V rms
Working voltage	500 V rms
Center contact resistance	≦ 3.0 mΩ (Milliohms max.)
Outer contact resistance	≦ 2.0 mΩ (Milliohms max.)
Insulation resistance	≧ 5 x 10^3 MΩ (Megohms min.)

Mechanical

Coupling	7/16-28 thread
Contact Retention	6 lbs min.
Mating Durability	500 cycles min. (For Beryllium copper contact only)

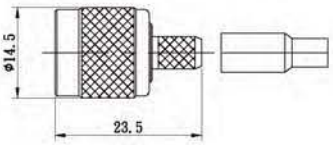
Environmental

Temperature Range	Teflon -65℃ ~ +155℃ Delrin -55℃ ~ +85℃
Coupling nut retention	100 lbs. min.
Vibration	MIL-STD-202 Meth. 204
Corrosion resistance	MIL-STD-202 Meth. 101

Materials

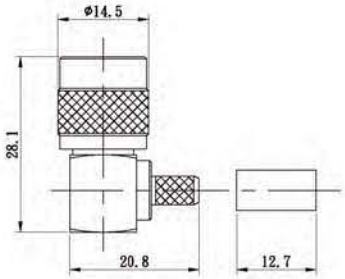
Body, coupling nut	Brass
Insulator	Teflon, Delrin
Center contact	Brass for male Beryllium copper or phosphor bronze for female
Crimping sleeve	Annealed brass
Body plating	Nickel (Ni)
Center contact plating	Gold (Au)

Note: These characteristics are typical and may not apply to all connectors.



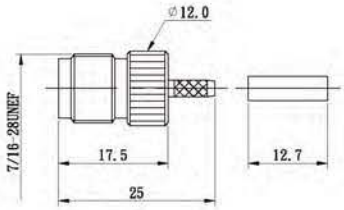
TNC straight crimp plug

P/N	Cable Group	Ohm
C17CA38174002A	RG174, RG316, RG188, LMR100	50
C17CA37058A02	RG58, RG141, RG303, LMR195, B7806A	50
C17CA3F213002	RG213, RG8A/U, RG393	50
C17CA3F223002	RG223	50
C17CA38L24002	LMR240. RG8X, B8214	50
C17CA37400002	RG400, RG142, RG55	50
C17QA37059A02	RG59, RG62, RG140, RG210	75



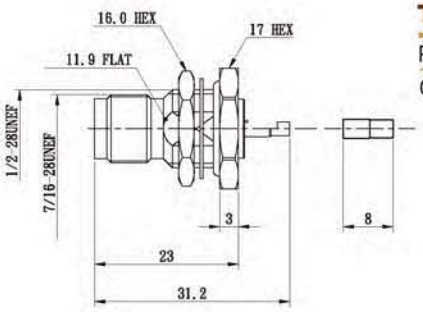
TNC R/A crimp plug

P/N	Cable Group	Ohm
C17DA38058A04	RG58, RG141, RG303, LMR195, B7806A	50
C17DA38223004	RG223	50
C17DA38H15504	H155	50
C17RA38059004	RG59, RG62, RG140, RG210	75



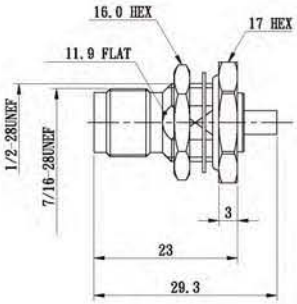
TNC straight crimp jack

P/N	Cable Group	Ohm
C18CA3F174008	RG174, RG316, RG188, LMR100	50
C18CA37058A08A	RG58, RG141, RG303, LMR195, B7806A	50
C18QA37059008A	RG59, RG62, RG140, RG210	75



TNC straight bulkhead w/Oring crimp jack

P/N	Cable Group	Ohm
C18CDWS178003C	0.81, 1.13, 1.32, 1.37, 1.48, RG178	50



TNC straight bulkhead w/Oring crimp jack

P/N	Cable Group	Ohm
C18CDWS174003	RG174, RG316, RG188, LMR100	50
C18CDWS316D03B	RD316	50

N Connector

N series was developed with thread coupling in accordance with MIL-C-39012 and comes in 50 and 75 ohm versions.

The 50 ohm N connectors are widely used in the infrastructure of cellular base station, and wireless base station which run at 0~11 GHz. The 75 ohm N connectors can be used up to 1.5 GHz like cable TV infrastructure.

The 50 and 75 ohm versions can't be mated to each other.

Application

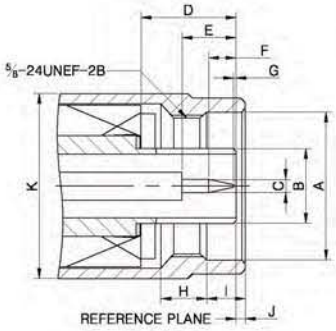
- Cable Assembly
- Antenna
- Base Station
- Satcom
- Surge Protector
- Aero
- WLAN
- Microwave Components
- Test instrumentation

Product Range

- Cable Connectors (straight and right angle) for flexible, semi-flex and semi-rigid cables
- PCB connectors (straight and right angle)
- Panel connectors in various flanges
- Adaptors

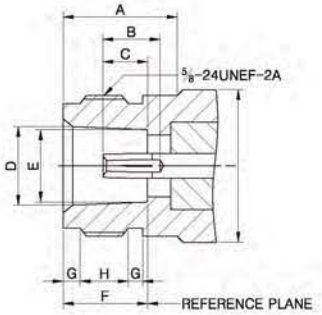
N Interface Dimensions

PLUG



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	16.00	-	0.6300	-
B	-	8.38	-	0.3300
C	1.60	1.68	0.0630	0.0660
D	10.11	10.46	0.3980	0.4120
E	5.33	5.84	0.2100	0.2300
F	2.79	3.56	0.1100	0.1400
G	0.08	-	0.0030	-
H	4.50	-	0.1770	-
I	4.01	4.27	0.1580	0.1680
J	0.41	1.52	0.0160	0.0600
K	-	21.01	-	0.8270

JACK



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	10.72	–	0.4220	–
B	5.33	–	0.2100	–
C	4.75	5.26	0.1870	0.2070
D	8.53	8.74	0.3360	0.3440
E	8.03	8.13	0.3160	0.3200
F	9.04	9.19	0.3560	0.3620
G	1.19	1.96	0.0470	0.0770
H	4.37	5.13	0.1720	0.2020
I	–	15.93	–	0.6270

Technical Characteristics

Electrical

Impedance	50 ohm or 75 ohm
Frequency range	0 ~ 11 GHz for 50 ohm 0 ~ 1.5 GHz for 75 ohm
VSWR	Straight type ≦ 1.3 max. R/A type ≦ 1.5 max.
Dielectric withstanding voltage	2500 V rms min.
Working voltage	1000 V rms max.
Center contact resistance	≦ 1.0 mΩ (Milliohms max.)
Outer contact resistance	≦ 0.2 mΩ (Milliohms max.)
Insulation resistance	≧ 5 x 10^3 MΩ (Megohms min.)

Mechanical

Coupling	5/8-24 thread
Contact Retention	6 lbs min.
Coupling nut torque	30 in-lbs. min.
Mating Durability	500 cycles min. (For Beryllium copper contact only)

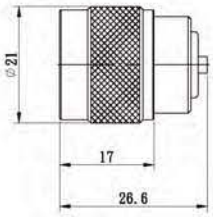
Environmental

Temperature Range	Teflon -65℃ ~ +155℃ Delrin -55℃ ~ +85℃
Vibration	MIL-STD-202 Meth. 204
Corrosion resistance	MIL-STD-202 Meth. 101

Materials

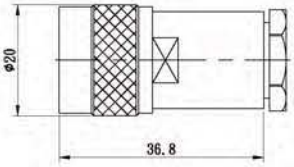
Body	Brass
Insulator	Teflon, Delrin
Center contact	Brass for male Beryllium copper or phosphor bronze for female
Crimping sleeve	Annealed brass
Body plating	Nickel (Ni), Gold (Au)
Center contact plating	Gold (Au)

Note: These characteristics are typical and may not apply to all connectors.



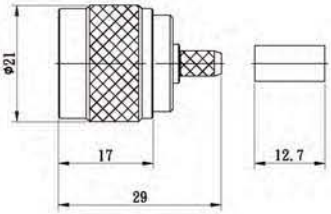
N straight solder plug

P/N	Cable Group	Ohm
C27CA3F085001D	.085", .086"	50



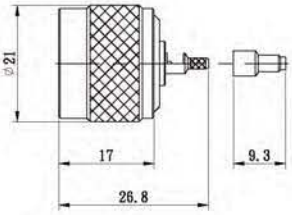
N straight clamp plug

P/N	Cable Group	Ohm
C27CA38058A03	RG58, RG141, RG303, LMR195, B7806A	50
C27CA38213003	RG213, RG8A/U, RG393	50
C27CA38L40003	RG8/U, LMR400, H1000, B9913, B8214, B7810A	50



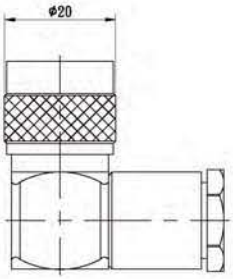
N straight crimp plug

P/N	Cable Group	Ohm
C27CA3F058A01	RG58, RG141, RG303, LMR195, B7806A	50
C27CA3F174001A	RG174, RG316, RG188, LMR100	50
C27CA3F223001	RG223	50
C27CA3FL20001	LMR200, B7807A	50
C27CA3FL24001	LMR240. RG8X, B8214	50
C27CA3FL40001	RG8/U, LMR400, H1000, B9913, B8214, B7810A	50



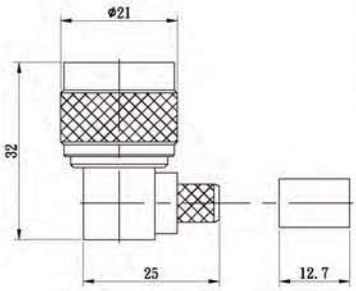
N straight crimp plug

P/N	Cable Group	Ohm
C27CA3F113001B	1.13	50
C27CA3F178001B	RG178, RG196, 1.48	50



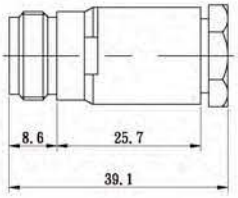
N R/A clamp plug

P/N	Cable Group	Ohm
C27DA38058A05	RG58, RG141, RG303, LMR195, B7806A	50
C27DA38213005	RG213, RG8A/U, RG393	50
C27DA38L40005	RG8/U, LMR400, H1000, B9913, B8214, B7810A	50



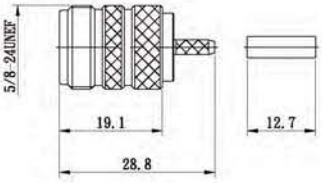
N R/A crimp plug

P/N	Cable Group	Ohm
C27DA3FL20007	LMR200, B7807A	50
C27DA38L40007	RG8/U, LMR400, H1000, B9913, B8214, B7810A	50



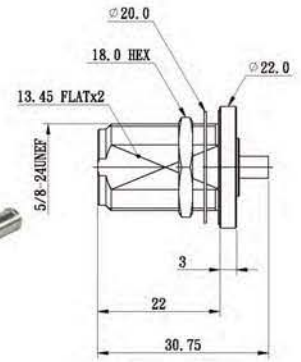
N straight clamp jack

P/N	Cable Group	Ohm
C28CA38058A12	RG58, RG141, RG303, LMR195, B7806A	50
C28CA38213012	RG213, RG8A/U, RG393	50
C28CA38L40012	RG8/U, LMR400, H1000, B9913, B8214, B7810A	50



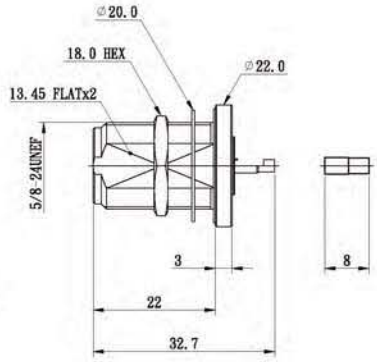
N straight crimp jack

P/N	Cable Group	Ohm
C28CA3F174004A	RG174, RG316, RG188, LMR100	50
C28CA3F058A04	RG58, RG141, RG303, LMR195, B7806A	50
C28CA3F213004	RG213, RG8A/U, RG393	50
C28CA3FL24004	LMR240. RG8X, B8214	50



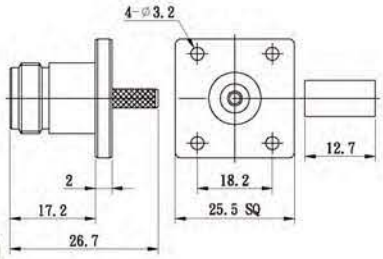
N straight bulkhead w/Oring crimp jack

P/N	Cable Group	Ohm
C28CEWS174002D	RG174, RG316, RG188, LMR100	50
C28CEWS316D02B	RD316	50
C28CE3F058A02A	RG58, RG141, RG303, LMR195, B7806A	50
C28CE3FL20002A	LMR200, B7807A	50
C28CE3FL24002A	LMR240. RG8X, B8214	50



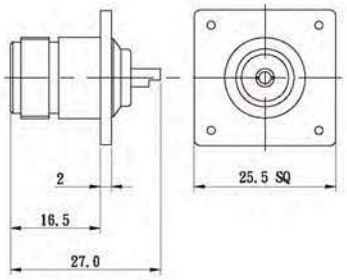
N straight bulkhead w/Oring crimp jack

P/N	Cable Group	Ohm
C28CEWS178002	0.81, 1.13, 1.32, 1.37, 1.48, RG178	50



N straight 4holes panel mount crimp jack

P/N	Cable Group	Ohm
C28CG37058A11	RG58, RG141, RG303, LMR195, B7806A	50



N straight 4holes panel mount receptacle jack

P/N	Cable Group	Ohm
C28CG3806	N/A	50

1.0/2.3 Connector

1.0/2.3 series is a European design introduced in the 1990s. The push-pull coupling allows quick installation.

1.0/2.3 coaxial connectors are available in 50 ohm and 75 ohm impedance. 50ohm version can work successfully from 0 to 4 GHz; 75 ohm version work to 2 GHz.

This series complies with DIN 41626, DIN 47297, and NFC 93-571 international specifications.

Application

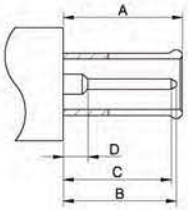
- Base Station
- Cable Assembly
- Telecommunication
- Routers
- Switching Equipment

Product Range

- Cable Connectors (straight and right angle) for flexible cables
- PCB connectors (straight and right angle)
- Adaptors

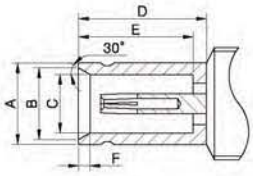
1.0/2.3 Interface Dimensions

PLUG



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	5.40	5.70	0.2240	
B	–	5.50	–	0.2160
C	4.50	–	0.1770	–
D	–	1.15	–	0.0450

JACK



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	4.03	4.15	0.1640	
B	3.53	3.60	0.1420	
C	3.00	3.06	0.1180	
D	6.40	6.50	0.2560	
E	5.80	5.90	0.2320	
F	0.50	0.60	0.0200	

Technical Characteristics

Electrical

Impedance	50 ohm or 75 ohm
Frequency range	0 ~ 4GHz for 50 ohm 0 ~ 2GHz for 75 ohm
VSWR	Straight type ≦ 1.3 max. R/A type ≦ 1.5 max.
Dielectric withstanding voltage	750 V rms
Working voltage	250 V rms
Center contact resistance	≦ 6.0 mΩ (Milliohms max.)
Outer contact resistance	≦ 3.0 mΩ (Milliohms max.)
Insulation resistance	≧ 10^4 MΩ (Megohms min.)

Mechanical

Coupling	Push-Pull
Contact Retention	4 lbs min.
Mating Durability	500 cycles min. (For Beryllium copper contact only)

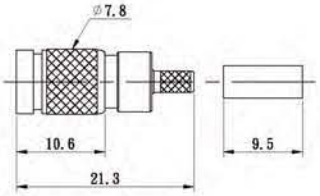
Environmental

Temperature Range	Teflon -40°C ~ +155°C

Materials

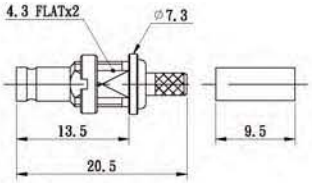
Body, coupling nut	Brass
Insulator	Teflon
Center contact	Brass for male Beryllium copper or phosphor bronze for female
Crimping sleeve	Annealed brass
Body plating	Nickel (Ni), Gold(Au)
Center contact plating	Gold (Au)

Note: These characteristics are typical and may not apply to all connectors.



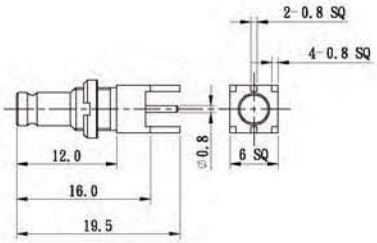
1.0/2.3 straight crimp plug

P/N	Cable Group	Ohm
C33CA3F1740002	RG174, RG316, RG188, LMR100	50
C33QA3F179002	RG179, RG187, Belden 9221	75
C33QA3F300202	BT3002	75



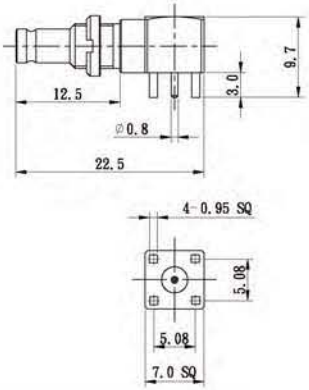
1.0/2.3 straight bulkhead crimp jack

P/N	Cable Group	Ohm
C34AB3I174003	RG174, RG316, RG188, LMR100	50
C34OB3I179003	RG179, RG187, Belden 9221	75
C34OB3I300203	BT3002	75



1.0/2.3 straight bulkhead PCB mount jack

P/N	Cable Group	Ohm
C34AO3I04	N/A	50



1.0/2.3 R/A bulkhead PCB mount jack

P/N	Cable Group	Ohm
C34BO3I05	N/A	50

1.6/5.6 Connector

1.6/5.6 series was specially developed for communications engineering and transmission in frequency range up to 1 GHz and 75 ohm impedance.

Screw-on coupling allows quick and safe connection and disconnection.

Application

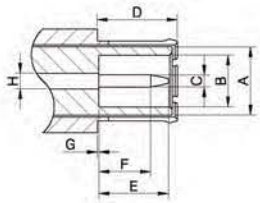
- Base Station
- Cable Assembly
- Telecommunication

Product Range

- Cable Connectors (straight and right angle) for flexible cables
- PCB connectors (straight and right angle)
- Adaptors

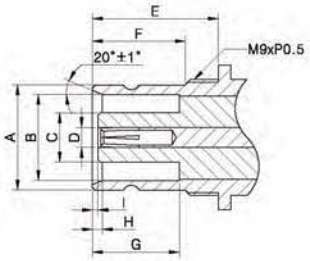
1.6/5.6 Interface Dimensions

PLUG



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	5.60		0.2205	
B	4.00	–	0.1575	–
C	1.03		0.0406	
D	6.40	6.60	0.2520	0.2598
E	–	5.50	–	0.2165
F	3.90	4.30	0.1535	0.1693
G	–	0.15	–	0.0059

JACK



Letter	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	8.25		0.3248	
B	6.60		0.2598	
C	–	3.80	–	0.1496
D	1.60		0.0630	
E	9.70	–	0.3819	–
F	7.00	7.50	0.2756	0.2953
G	6.70	–	0.2638	–
H	0.90	1.10	0.0354	0.0433
I	0.25	–	0.0100	–

Technical Characteristics

Electrical

Impedance	75 ohm
Frequency range	0 ~ 1 GHz
VSWR	Straight type ≦ 1.3 max. R/A type ≦ 1.5 max.
Dielectric withstanding voltage	1000 V rms
Working voltage	335 V rms
Center contact resistance	≦ 4.0 mΩ (Milliohms max.)
Outer contact resistance	≦ 2.0 mΩ (Milliohms max.)
Insulation resistance	≧ 10^4 MΩ (Megohms min.)

Mechanical

Coupling	M9 x 0.5 thread
Contact Retention	6 lbs min.
Mating Durability	500 cycles min. (For Beryllium copper contact only)

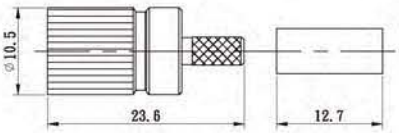
Environmental

Temperature Range	-40°C ~ +155°C

Materials

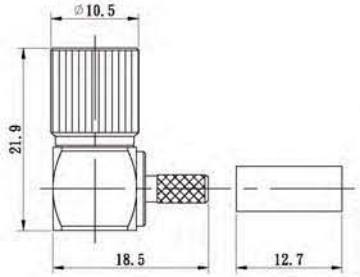
Body, coupling nut	Brass
Insulator	Teflon
Center contact	Brass for male Beryllium copper or phosphor bronze for female
Crimping sleeve	Annealed brass
Body plating	Nickel (Ni), Gold(Au)
Center contact plating	Gold (Au)

Note: These characteristics are typical and may not apply to all connectors.



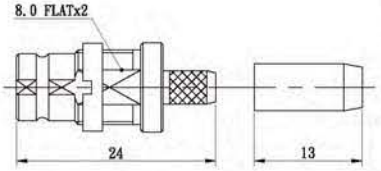
1.6/5.6 straight crimp plug

P/N	Cable Group	Ohm
C31QA3F300203	BT3002	75
C31QA3F179003	RG179, RG187, Belden 9221	75



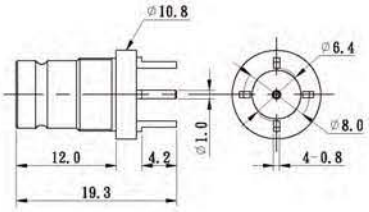
1.6/5.6 R/A crimp plug

P/N	Cable Group	Ohm
C31RA3I300205	BT3002	75
C31RA3F179005	RG179, RG187, Belden 9221	75
C31RA3I059005	RG59, RG62, RG140, RG210	75



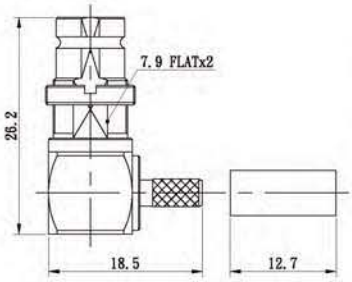
1.6/5.6 straight bulkhead crimp jack

P/N	Cable Group	Ohm
C32OB3FFEX301	Flex 3	75
C32OB3F179001	RG179, RG187, Belden 9221	75
C32OB3F300201	BT3002	75



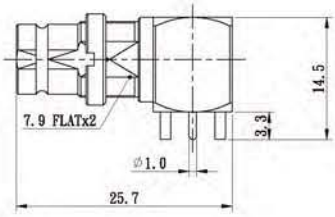
1.6/5.6 straight bulkhead PCB mount jack

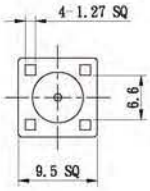
P/N	Cable Group	Ohm
C32OO3I04	N/A	75



1.6/5.6 R/A bulkhead crimp jack

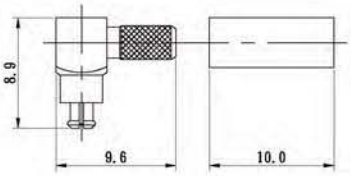
P/N	Cable Group	Ohm
C32PB3I300202	BT3002	75
C32PB3I179002	RG179, RG187, Belden 9221	75
C32PB3FFEX302	Flex 3	75





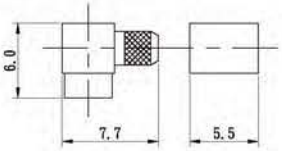
1.6/5.6 straight bulkhead PCB mount jack

P/N	Cable Group	Ohm
C32PO3I06	N/A	75



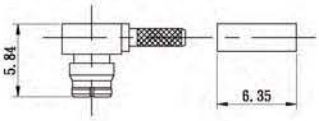
MC-Card R/A crimp plug

P/N	Cable Group	Ohm
C09DA30113001	1.13	50
C09DA30178001	RG178, RG196	50
C09DA30174001	RG174, RG316, RG188, LMR100	50



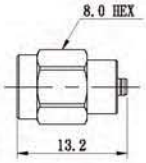
MMS R/A crimp plug

P/N	Cable Group	Ohm
C57BA30174001	RG174, RG316, RG188, LMR100	50



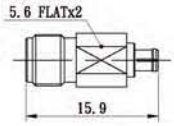
SMP R/A crimp jack

P/N	Cable Group	Ohm
C60BA32113001	1.13	50



Adaptor-SMA plug to IPEX jack

P/N	Cable Group	Ohm
C0A003F0140-01	NA	50



Adaptor - SMA jack to IPEX plug

P/N	Cable Group	Ohm
C0A003F0239-01	NA	50

IPEX MHF series (Compatible to Hirose U.FL, Sunridge MCB)

P/N	Cable Group	Frequency	Ohm	Mated Height	Temperature
20278-112R-08	0.81	0 ~ 6 GHz	50	2.5mm	-40°C ~ +90°C
20278-112R-13	1.13	0 ~ 6 GHz	50	2.5mm	-40°C ~ +90°C
20278-112R-32	1.32	0 ~ 6 GHz	50	2.5mm	-40°C ~ +90°C
20351-112R-37	1.37, 1.48, RG178	0 ~ 6 GHz	50	2.5mm	-40°C ~ +90°C
20279-001E-01	Receptacle	0 ~ 6 GHz	50	2.5mm	-40°C ~ +90°C

IPEX MHF II series (Compatible to Hirose U.FL, Sunridge MCB)

P/N	Cable Group	Frequency	Ohm	Mated Height	Temperature
20311-011R-08	0.81	0 ~ 6 GHz	50	2.0mm	-40°C ~ +90°C
20311-011R-08	1.13	0 ~ 5 GHz	50	2.0mm	-40°C ~ +90°C
20279-001E-01	Receptacle	0 ~ 6 GHz	50	2.0mm	-40°C ~ +90°C

IPEX MHF III series (Compatible to Hirose W.FL, Sunridge MCD)

P/N	Cable Group	Frequency	Ohm	Mated Height	Temperature
20367-001R	0.81	0 ~ 6 GHz	50	1.5mm	-40°C ~ +90°C
20367-001R	1.13	0 ~ 5 GHz	50	1.5mm	-40°C ~ +90°C
20369-001E	Receptacle	0 ~ 6 GHz	50	1.5mm	-40°C ~ +90°C

IPEX MHF IV series (Compatible to Murata HSC)

P/N	Cable Group	Frequency	Ohm	Mated Height	Temperature
20448	0.81	0 ~ 6 GHz	50	1.2mm	-40°C ~ +90°C
20449-001E	Receptacle	0 ~ 6 GHz	50	1.2mm	-40°C ~ +90°C

HIROSE U.FL series (Compatible to IPEX MHFI, MHFII, Sunridge MCB)

P/N	Cable Group	Frequency	ohm	Mated Height	Temperature
U.FL-LP-040	0.81	0 ~ 6 GHz	50	2.5mm	-40°C ~ +90°C
U.FL-LP-068	1.13	0 ~ 6 GHz	50	2.5mm	-40°C ~ +90°C
U.FL-LP-066	1.32	0 ~ 6 GHz	50	2.5mm	-40°C ~ +90°C
U.FL-LP-088	1.37	0 ~ 6 GHz	50	2.5mm	-40°C ~ +90°C
U.FL-LP(V)-040	0.81	0 ~ 6 GHz	50	2.0mm	-40°C ~ +90°C
U.FL-R-SMT(10)	Receptacle	0 ~ 6 GHz	50	2.5 / 2.0mm	-40°C ~ +90°C

Hirose H.FL series (Compatible to Sunridge MCG)

P/N	Cable Group	Frequency	ohm	Mated Height	Temperature
H.FL-LP-DFS111	1.32, 1.48, RG178	0 ~ 3 GHz	50	3.0mm	-40°C ~ +90°C
H.FL-LP-DFS111-75	1.48	0 ~ 3 GHz	75	3.0mm	-40°C ~ +90°C
H.FL-R-SMT(10)	Receptacle	0 ~ 3 GHz	50	3.0mm	-40°C ~ +90°C

Hirose W.FL series (Compatible to IPEX MHFIII, Sunridge MCD)

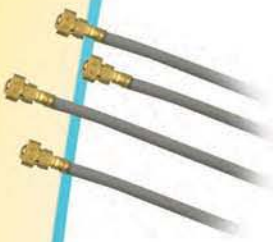
P/N	Cable Group	Frequency	ohm	Mated Height	Temperature
W.FL-LP-040	0.81	0 ~ 6 GHz	50	1.5mm	-40°C ~ +90°C
W.FL-R-SMT-1(10)	Receptacle	0 ~ 6 GHz	50	1.5mm	-40°C ~ +90°C

Murata GSC series (Compatible to Sunridge MCF)

P/N	Cable Group	Frequency	ohm	Mated Height	Temperature
MXTK92	0.81	0 ~ 6 GHz	50	2.0mm	-40°C ~ +90°C
MM9329-2700	Receptacle	0 ~ 6 GHz	50	2.0mm	-40°C ~ +90°C

Murata HSC series (Compatible to IPEX MHF IV)

P/N	Cable Group	Frequency	ohm	Mated Height	Temperature
MXHP32	0.81	0 ~ 6 GHz	50	1.2mm	-40°C ~ +90°C
MXHP38	0.7	0 ~ 6 GHz	50	1.2mm	-40°C ~ +90°C
MM4829-2702RB0	Receptacle	0 ~ 6 GHz	50	1.2mm	-40°C ~ +90°C



Sunridge MCA series (Compatitble to Murata FSC)

P/N	Cable Group	Frequency	ohm	Mated Height	Temperature
MCA-LP-54	1.24mm	0 ~ 3 GHz	50	3.1mm	-40°C ~ +90°C
MCA-ST-00T	Receptacle	0 ~ 3 GHz	50	3.1mm	-40°C ~ +90°C

Sunridge MCD series (Compatible to Hirose W.FL, IPEX MHF III)

P/N	Cable Group	Frequency	ohm	Mated Height	Temperature
MCD-LP-68	0.81	0 ~ 6 GHz	50	1.55mm	-40°C ~ +90°C
MCD-LP-62	0.91	0 ~ 6 GHz	50	1.55mm	-40°C ~ +90°C
MCD-LP-60	0.98	0 ~ 6 GHz	50	1.55mm	-40°C ~ +90°C
MCD-ST-00T	Receptacle	0 ~ 6 GHz	50	1.55mm	-40°C ~ +90°C

RF Cable Assembly

RF Cable Assembly is used as adaptor cable to connect both devices in signal transmission. (ie. Wireless module and 2.4G antenna). The application is much wide from WLAN, GPS, GSM, Radio, VHF, DVB-T, and even for Medical instrumentation.

We have various standard RF connectors and coaxial cables in stock, and can assemble per customer's requests just in 7 days. A drawing will be provided to customers for final checking before sample or mass production.

The Manufacturing System Command for each cable assembly will be built by engineer according to approved drawing. All assembly process will follow it with all operating history. The in-process QC and out-going QC are completely executed with records.

A systemized manufacturing procedure, 100% signal continuity testing, in-process and out-going QC inspection guarantee every customer receive best quality cables.

If you have an inquiry, necessary information is:

- 1) Connector type at both ends
- 2) Cable Type
- 3) Cable length (Include or exclude both connectors)
- 4) Quantity

Additional information is:

- 5) Working Frequency (Advise if it's over 3GHz for 50ohm or 1GHz for 75ohm)
- 6) Orientation (Please consider when cable length is shorter than 150mm)
- 7) Label and label location (White label with unscratched black text and logo)
- 8) Adhesive type heat shrinking tube

Insertion Loss, connector orientation, white label and adhesive heat shrinking tube are special requests and please advise when inquiry. Make sure above special requests are noted on drawing before you approve.

1) Connector outward appearance synopsis:

Straight

Right angle

Bulkhead (Rear mount)

Bulkhead (Front mount)

With o-ring

2 hole panel

4 hole panel

PCB

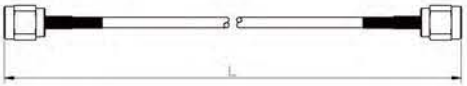
2) Cable type

- The cable model (ex：0.81、1.13、1.32、RG178、CFD200...)
- Advise the application or working environment.

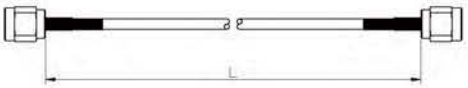
3) Cable length

- Measuring basis：Include or exclude both connectors

Include both ends



Exclude both ends

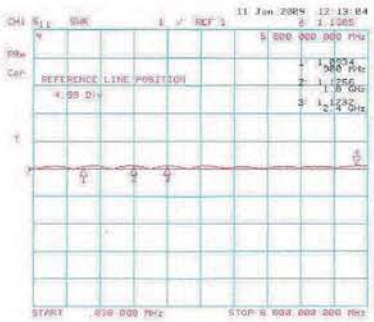


4) Quantity

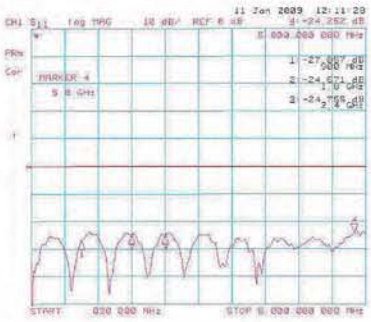
5) Working Frequency

- Advise if it's over 3GHz for 50ohm or 1GHz for 75ohm.

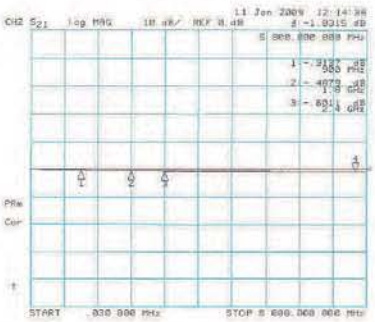
VSWR



Return Loss



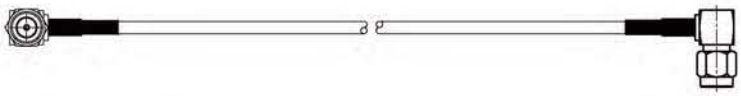
Insertion Loss



6) Orientation

Please consider when cable length is shorter than 150mm.

- The both sides face at 90 degrees.

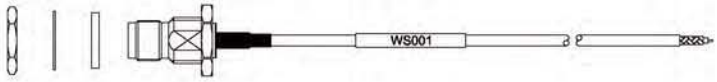


- The both sides face at 180 degrees.

- The both sides face at 0 degrees (the same direction).

7) Label and label location

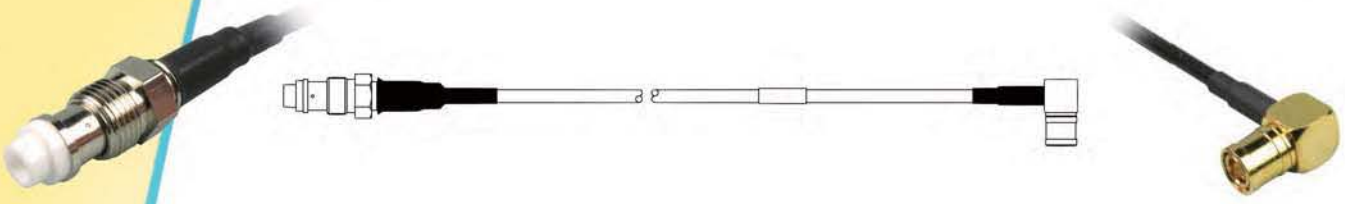
White label with unscratched black text and logo.



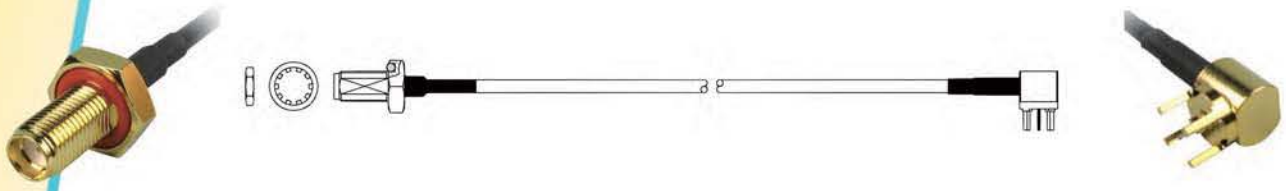
8) Adhesive type heat shrinking tube

- Adhesive heat shrinking
- White heat shrinking as label
- Transparent(clear) heat shrinking

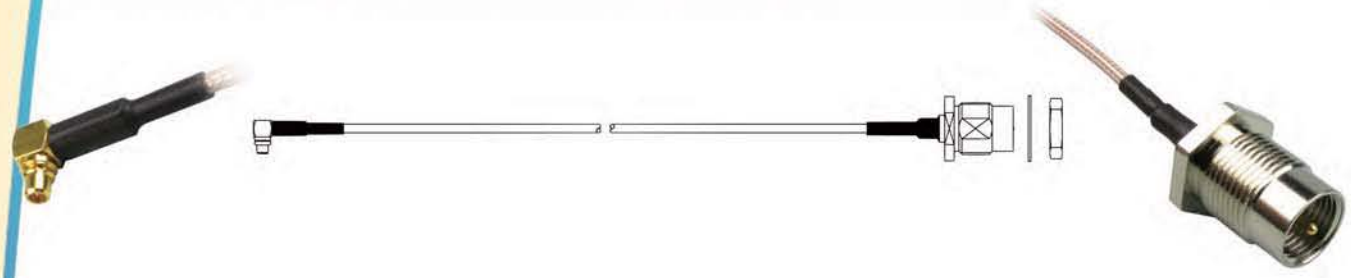
1. FME straight jack to RG174 to SMB R/A plug



2. SMA bulkhead jack w/Oring to RG174 to R/A terminator



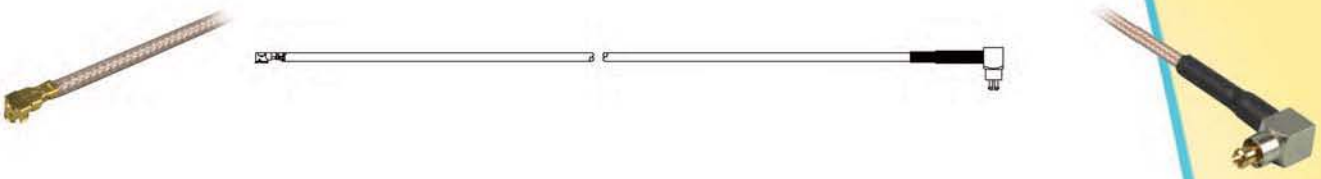
3. MMCX R/A plug to RG178 to FME bulkhead plug, half thread



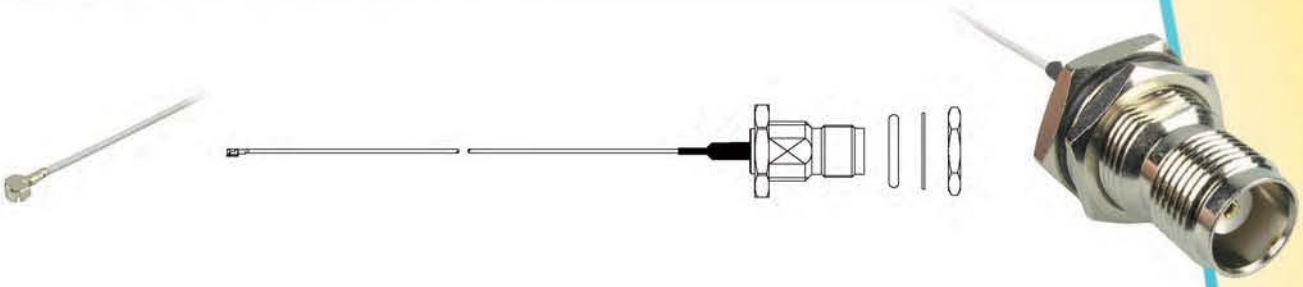
4. IPEX to 1.13 to MMCX bulkhead jack

5. H.FL to 1.37 to SMA 4holes panel jack

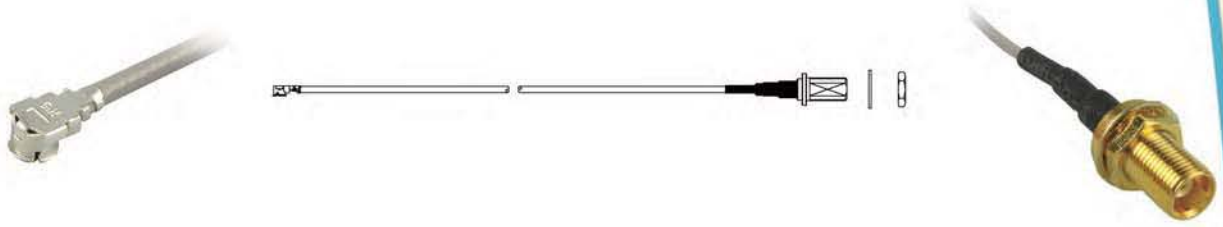
6. IPEX to RG178 to MC Card R/A plug



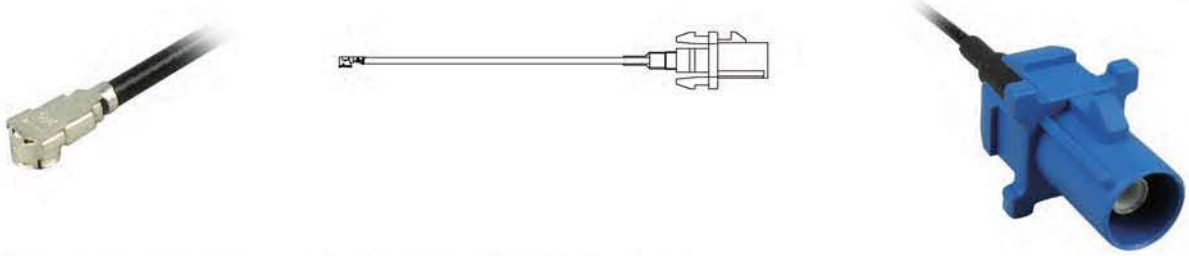
7. GSC to 0.81 to TNC bulkhead jack w/Oring



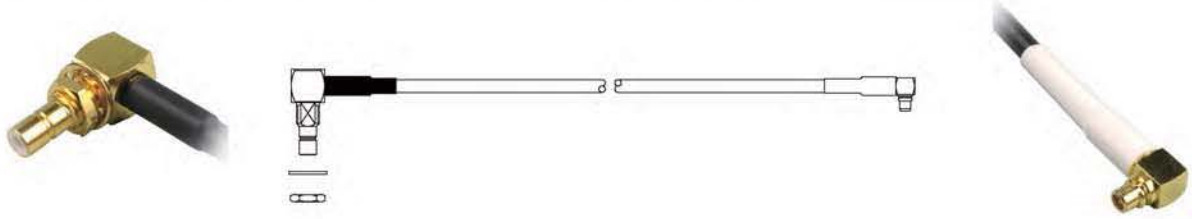
8. U.FL to 1.32DS to MCX bulkhead jack



9. U.FL to 1.37 to Fakra panel mount plug

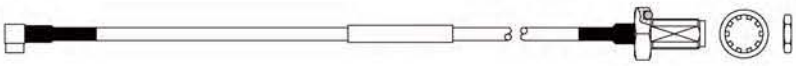


10. SMB R/A bulkhead jack to RG174 to MMCX R/A plug



11. SMA R/A plug to .141" semi rigid to N straight plug

12. MMS R/A plug to RG174 to SMA bulkhead jack w/Oring

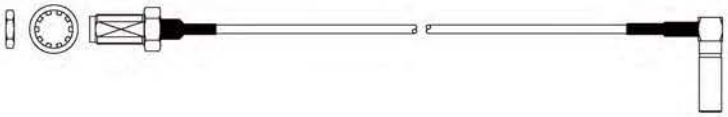


13. IPEX to 1.32 to MCX R/A PCB receptacle

14. SMP R/A jack to 1.13 to SMA bulkhead jack

15. IPEX to 1.13 convert to RG174 to FME straight plug

16. SMA bulkhead jack to RG178 to SSMB R/A plug



AR001WSG08XXX (GSM quad band stubby type antenna)

Frequency Range	850/900/1800/1900 MHz	Antenna tube	TPR
Impedance	50 ohm	Tube color	Black
VSWR	2.0 : 1	Connector type	(RP)SMA st. plug
Gain	2.0 dBi		(RP)SMA R/A plug
Radiation	Omni		FME st. jack
Polarization	Vertical		FME R/A jack
Electrical Wave	1/2λ, Dipole	Connector plating	Nickel or Gold
		Working temperature	-20˚C ~ +60˚C
		Storage temperature	-30˚C ~ +70˚C

AR001WSW01XXX (W-LAN 2.4 GHz stubby type antenna)

Frequency Range	2.4 GHz	Antenna tube	TPR
Impedance	50 ohm	Tube color	Black
VSWR	2.0 : 1	Connector type	(RP)SMA st. plug
Gain	2.0 dBi		(RP)SMA R/A plug
Radiation	Omni	Connector plating	Nickel or Gold
Polarization	Vertical	Working temperature	-20˚C ~ +60˚C
Electrical Wave	1/2λ, Dipole	Storage temperature	-30˚C ~ +70˚C

AR002WSG08XXX (GSM quad band stubby type antenna)

Frequency Range	850/900/1800/1900 MHz	Antenna tube	TPR
Impedance	50 ohm	Tube color	White
VSWR	2.0 : 1	Connector type	(RP)SMA st. plug
Gain	2.0 dBi		(RP)SMA R/A plug
Radiation	Omni		FME st. jack
Polarization	Vertical		FME R/A jack
Electrical Wave	1/2λ, Dipole	Connector plating	Nickel or Gold
		Working temperature	-20˚C ~ +60˚C
		Storage temperature	-30˚C ~ +70˚C

AR002WSW01XXX (W-LAN 2.4 GHz stubby type antenna)

Frequency Range	2.4 GHz	Antenna tube	TPR
Impedance	50 ohm	Tube color	White
VSWR	2.0 : 1	Connector type	(RP)SMA st. plug
Gain	2.0 dBi		(RP)SMA R/A plug
Radiation	Omni	Connector plating	Nickel or Gold
Polarization	Vertical	Working temperature	-20˚C ~ +60˚C
Electrical Wave	1/2λ, Dipole	Storage temperature	-30˚C ~ +70˚C

AR003WSG08XXX (GSM quad band swivel type antenna)

Frequency Range	850/900/1800/1900 MHz	Antenna tube	PU
Impedance	50 ohm	Tube color	Black
VSWR	2.0 : 1	Connector type	(RP)SMA plug
Gain	2.0 dBi	Connector color	Black
Radiation	Omni	Working temperature	-20˚C ~ +60˚C
Polarization	Vertical	Storage temperature	-30˚C ~ +70˚C
Electrical Wave	1/2λ, Dipole		

AR00357W01XXX (GSM 2.4 GHz swivel type antenna)

Frequency Range	2.4 GHz	Antenna tube	TPEE
Impedance	50 ohm	Tube color	Black
VSWR	2.0 : 1	Connector type	(RP)SMA plug
Gain	2.0 dBi	Connector color	Black
Radiation	Omni	Working temperature	-10˚C ~ +60˚C
Polarization	Vertical	Storage temperature	-20˚C ~ +70˚C
Electrical Wave	1/2λ, Dipole		

AR003WSW03XXX (W-LAN 2.4 / 5.8 GHz swivel type antenna)

Frequency Range	2.4 / 5.8 GHz	Antenna tube	PU
Impedance	50 ohm	Tube color	Black
VSWR	2.0 : 1	Connector type	(RP)SMA plug
Gain	2.0 dBi	Connector color	Black
Radiation	Omni	Working temperature	-20˚C ~ +60˚C
Polarization	Vertical	Storage temperature	-30˚C ~ +70˚C
Electrical Wave	1/4λ, Dipole		

AR00657W01XXX (W-LAN 2.4 GHz swivel type antenna)

Frequency Range	2.4 GHz	Antenna tube	TPEE
Impedance	50 ohm	Tube color	Black
VSWR	2.0 : 1	Connector type	(RP)SMA plug
Gain	5.0 dBi	Connector color	Black
Radiation	Omni	Working temperature	-10˚C ~ +60˚C
Polarization	Vertical	Storage temperature	-20˚C ~ +70˚C
Electrical Wave	1/2λ, Dipole		

AR010WSG08A17 (GSM quad band panel mount type antenna)

Frequency Range	850/900/1800/1900 MHz	Antenna tube	PU
Impedance	50 ohm	Tube color	Black
VSWR	2.0 : 1	Connector type	Per customer's request
Gain	1.5 dBi	Cable type	RG178
Radiation	Omni	Metal part	M4 thread
Electrical Wave	1/2λ, Dipole	Working temperature	-20°C ~ +60°C
		Storage temperature	-30°C ~ +70°C

AG001WSG05005 (GSM 900/1800 MHz glass mount type antenna)

Frequency Range	900 / 1800 MHz	Antenna tube	TPR
Impedance	50 ohm	Tube color	Black
VSWR	2.0 : 1	Connector type	Per customer's request
Gain	2.5 dBi	Cable type	RG174
Radiation	Omni	Cable length	Per customer's request
Electrical Wave	1/4λ, Dipole	Working temperature	-20°C ~ +60°C
		Storage temperature	-30°C ~ +70°C

AG002WSG05005 (GSM 900/1800MHz glass mount type antenna)

Frequency Range	900 / 1800 MHz	Antenna tube	PVC
Impedance	50 ohm	Tube color	Black
VSWR	2.0 : 1	Connector type	Per customer's request
Gain	2.0 dBi	Cable type	RG174
Radiation	Omni	Working temperature	-20°C ~ +60°C
Electrical Wave	1/2λ, Dipole	Storage temperature	-30°C ~ +70°C

AM00258G05005 (GSM 900/1800MHz magnetic type antenna)

Frequency Range	900 / 1800 MHz	Antenna tube	PVC
Impedance	50 ohm	Tube color	Black
VSWR	2.0 : 1	Connector type	Per customer's request
Gain	2.0 dBi	Cable type	RG174
Radiation	Omni	Working temperature	-20°C ~ +60°C
Electrical Wave	1/2λ, Dipole	Storage temperature	-30°C ~ +70°C

AP001WSGPS005 (GPS active magnetic type antenna, IP67 waterproof)

Frequency Range	1575.42 MHz (+/-1.023 MHz)	Antenna tube	ABS (PU is available)
Impedance	50 ohm	Tube color	Black
VSWR	2.0 : 1	Connector type	Per customer's request
LNA Gain	30 ~ 37 dB	Cable type	RG174
Voltage	3.3 ~ 5.5V	Cable length	Per customer's request
Current	8 ~ 23 mA	Working temperature	-20°C ~ +60°C
Polarization	R.H.C.P.	Storage temperature	-30°C ~ +70°C

AP002WSG05005 (GPS/GSM dual band combo glass mount type antenna)

Frequency Range	1575.42 / 900 / 1800 MHz	Antenna tube	ABS
Impedance	50 ohm	Tube color	Black
VSWR	2.0 : 1	Connector type	Per customer's request
LNA Gain	20 dB typ.	Cable type	RG174
Voltage	3.3 ~ 5.5V	Cable length	Per customer's request
Current	8 ~ 23 mA	Working temperature	-20°C ~ +60°C
Polarization	R.H.C.P.	Storage temperature	-30°C ~ +70°C

AP003WSGPS005 (GPS active glass mount type antenna)

Frequency Range	1575.42 MHz (+/-1.023 MHz)	Antenna tube	ABS
Impedance	50 ohm	Tube color	Black
VSWR	2.0 : 1	Connector type	Per customer's request
LNA Gain	20 dB typ.	Cable type	RG174
Voltage	3.3 ~ 5.5V	Cable length	Per customer's request
Current	8 ~ 23 mA	Working temperature	-20°C ~ +60°C
Polarization	R.H.C.P.	Storage temperature	-30°C ~ +70°C

AP003WSG05005 (GSM dual band glass mount type antenna)

Frequency Range	900 / 1800 MHz	Antenna tube	ABS
Impedance	50 ohm	Tube color	Black
VSWR	2.0 : 1	Connector type	Per customer's request
LNA Gain	0 dB	Cable type	RG174
Radiation	Omni	Cable length	Per customer's request
		Working temperature	-20°C ~ +60°C
		Storage temperature	-30°C ~ +70°C

AP005WSG05005 (GPS/GSM two in one screw mount type antenna)

Frequency Range	1575.42 / 900 / 1800 MHz	Antenna tube	ABS (PU is available)
Impedance	50 ohm	Tube color	Black
VSWR	2.0 : 1	Connector type	Per customer's request
LNA Gain	30 dB typ.	Cable type	RG174
Voltage	3.3 ~ 5.5V	Cable length	Per customer's request
Current	8 ~ 23 mA	Working temperature	-20°C ~ +60°C
Polarization	R.H.C.P.	Storage temperature	-30°C ~ +70°C

AP005WSGPS005 (GPS active screw mount type antenna)

Frequency Range	1575.42 MHz (+/-1.023 MHz)	Antenna tube	ABS
Impedance	50 ohm	Tube color	Black
VSWR	2.0 : 1	Connector type	Per customer's request
LNA Gain	30 dB typ.	Cable type	RG174
Voltage	3.3 ~ 5.5V	Cable length	Per customer's request
Current	8 ~ 23 mA	Working temperature	-20°C ~ +60°C
Polarization	R.H.C.P.	Storage temperature	-30°C ~ +70°C

AE001WSGPS000 (GPS active ceramic modual antenna)

Frequency Range	1575.42 MHz (+/-1.023 MHz)	Patch dimension	25 x 25 x 8 mm
Impedance	50 ohm	Connector type	Per customer's request
VSWR	2.0 : 1	Cable type	Per customer's request
LNA Gain	30 ~ 37 dB	Cable length	Per customer's request
Voltage	3.3 ~ 5.5V	Working temperature	-40°C ~ +90°C
Current	8 ~ 23 mA	Storage temperature	-40°C ~ +90°C
Polarization	R.H.C.P.		

AE003WSGPS000 (GPS active ceramic module antenna)

Frequency Range	1575.42 MHz (+/-1.023 MHz)	Patch dimension	18.5 x 18.5 x 7 mm
Impedance	50 ohm	Connector type	Per customer's request
VSWR	2.0 : 1	Cable type	Per customer's request
LNA Gain	16 dB typ.	Cable length	Per customer's request
Voltage	3.0 ~ 3.3V	Working temperature	-40°C ~ +90°C
Current	13 mA	Storage temperature	-40°C ~ +90°C
Polarization	R.H.C.P.		

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