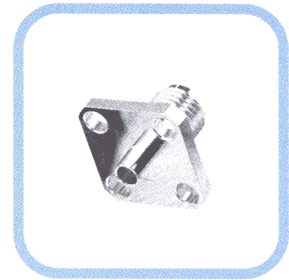
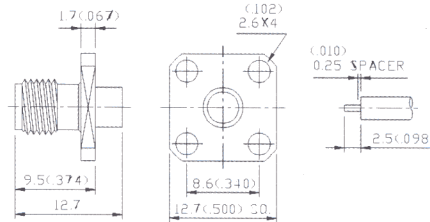


Semi-Rigid Cable - Direct Solder Attachment

Straight Square Flange Jack

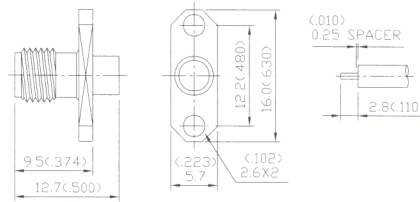
PART No.	APPLICABLE CABLE RG/U	NOTES
19-59W-1-TGG	RG 402/U (.141")	1
19-59V-TGG	RG 405/U (.085")	1



- Finish: gold plated center contact & body (see Notes)
- Insulation: Teflon
- Refer to recommended assembly instruction on page 130

Straight 2 Hole Flange Jack

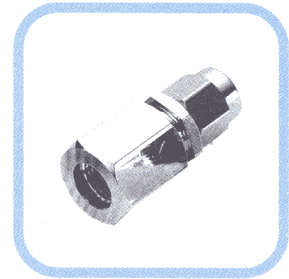
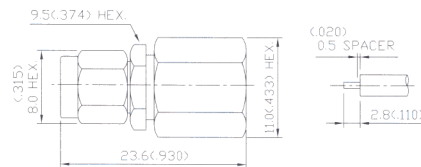
PART No.	APPLICABLE CABLE RG/U	NOTES
19-63W-TGG	RG 402/U (.141")	1
19-63V-1-TGG	RG 405/U (.085")	1



- Finish: gold plated center contact & body (see Notes)
- Insulation: Teflon
- Refer to recommended assembly instruction on page 130

Straight Plug

PART No.	APPLICABLE CABLE RG/U	NOTES
19-64P-TGN	RG 401/U (.250")	1



- Finish: gold plated center contact & body (see Notes)
- Insulation: Teflon

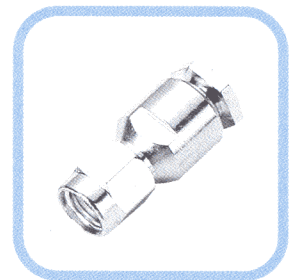
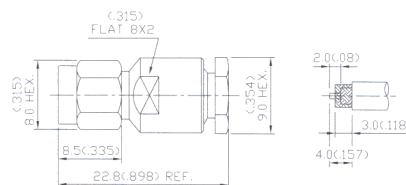
Flexible Cable-Clamp Attachment

Straight Plug Clamp

4107949

4107950

PART No.	APPLICABLE CABLE RG/U	NOTES
19-01F-TGG	58,58A,141A	1
19-01L-TGG	174,188A,316	1
19-01K-TGG	142B/U	1



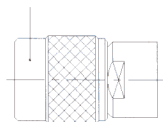
- Finish: gold plated center contact & body (see Notes)
- Insulation: Teflon
- Refer to recommended assembly instruction on page 136

Notes: 1. Nickel plated body available, change the part no. suffix from TGG to TGN ;
 Passivated for stainless steel body available, change the part no. suffix from TGG to TGX

CABLE MOUNTING INSTRUCTIONS

CM-07 for Clamp Type Connectors (1)

Connector Body



Braid Clamp



Washer



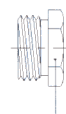
Center Contact



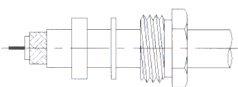
Gasket



Nut



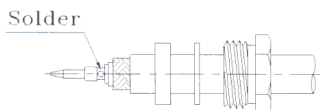
1.



Preparation of Cable

- (1). Slide nut, washer and gasket onto cable.
- (2). Strip cable to recommended dimensions shown in catalogue.

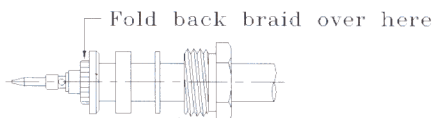
2.



Solder Center Contact to Cable Center Conductor

- (1). Insert cable center conductor into center contact until it butts against cable dielectric.
- (2). Solder center contact.

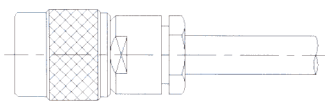
3.



Install Braid Clamp

- (1). Place braid clamp over cable braid.
- (2). Comb braid wires out straight and fold back over front shoulder of braid clamp.
- (3). Trim braid wires flush with edge of braid clamp.

4.



Final Assembly

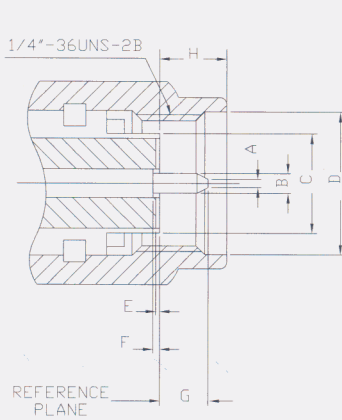
- (1). Mount cable assembly and hardware into connector body.
- (2). Screw and tighten nut.

50 ohm 0-18 GHz

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

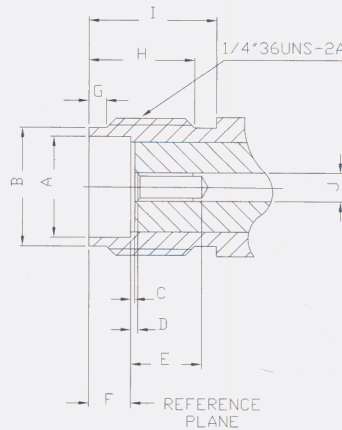
The SMA design has been broadened to accommodate many interconnect requirements and is available in pressure crimp, clamp and solder terminal attachments. SMA design parameters have incorporated the considerations of balancing cost, size, weight and performance to yield the best value in your microwave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

Interface Dimensions:



PLUG

Letter	Millimeters (Inches)	
	Minimum	Maximum
A	0.00(.000)	0.38 (.015)
B	0.90(.0355)	0.94 (.037)
C	—	4.59 (.1808)
D	6.35(.250)	—
E	0.00(.000)	0.18 (.007)
F	0.00(.000)	0.25 (.010)
G	—	2.54 (.100)
H	—	3.43 (.135)



JACK

Letter	Millimeters (Inches)	
	Minimum	Maximum
A	4.60 (.1810)	4.67 (.1837)
B	5.28 (.208)	5.49 (.216)
C	0.00 (.000)	0.18 (.007)
D	0.00 (.000)	0.25 (.010)
E	2.92 (.115)	—
F	1.88 (.074)	1.98 (.078)
G	0.38 (.015)	1.14 (.045)
H	4.32 (.170)	—
I	5.54 (.218)	—
J	1.24 (.049)	1.30 (.051)

Electrical:

Impedance	50 ohm												
Frequency Range	0 to 18.0 GHz · for RG-402 & RG-405 semi-rigid cable-0 to 18.0 GHz · for flexible cable → max operation frequency of cable per MIL-C-17(12.4 GHz max)												
VSWR	<table border="0"> <tr> <td>RG178U→1.2+0.025 f max (Straight)</td> <td>RG402→1.05+0.01 f GHz max (Straight)</td> </tr> <tr> <td>1.2+0.03 f max (Right Angle)</td> <td>1.1+0.01 f GHz max (Right Angle)</td> </tr> <tr> <td>RG316U→1.15+0.02 f max (Straight)</td> <td>RG405→1.07+0.01 f GHz max (Straight)</td> </tr> <tr> <td>1.15+0.03 f max (Right Angle)</td> <td>1.1+0.01 f GHz max (Right Angle)</td> </tr> <tr> <td>RG142U→1.15+0.01 f max (Straight)</td> <td></td> </tr> <tr> <td>1.15+0.02 f max (Right Angle)</td> <td></td> </tr> </table>	RG178U→1.2+0.025 f max (Straight)	RG402→1.05+0.01 f GHz max (Straight)	1.2+0.03 f max (Right Angle)	1.1+0.01 f GHz max (Right Angle)	RG316U→1.15+0.02 f max (Straight)	RG405→1.07+0.01 f GHz max (Straight)	1.15+0.03 f max (Right Angle)	1.1+0.01 f GHz max (Right Angle)	RG142U→1.15+0.01 f max (Straight)		1.15+0.02 f max (Right Angle)	
RG178U→1.2+0.025 f max (Straight)	RG402→1.05+0.01 f GHz max (Straight)												
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1.15+0.03 f max (Right Angle)	1.1+0.01 f GHz max (Right Angle)												
RG142U→1.15+0.01 f max (Straight)													
1.15+0.02 f max (Right Angle)													
Working Voltage	<ul style="list-style-type: none"> · RG-402(.141"OD.)→500 volts rms max · RG-405(.085"OD.)→335 volts rms max · RG-58,141,142,223→500 volts rms max · RG-174,188,316→335 volts rms max · RG-178,196→250 volts rms max 												
Dielectric Withstanding Voltage	<ul style="list-style-type: none"> · RG-402(.141"OD.)→1,000 volts rms max · RG-405(.085"OD.)→750 volts rms max · RG-58,141,142,223→1,000 volts rms max · RG-174,188,316→750 volts rms max · RG-178,196→500 volts rms max 												
Contact Resistance	center contact=3.0 Milliohms max outer contact=2.0 Milliohms max												
Insertion Loss	0.06 dB max× \sqrt{f} GHz @ 6 GHz												
Insulation Resistance	5,000 Megohms min												

Mechanical & Environmental:

Mating	1/4"-36 threaded coupling
Durability	500 matings
Coupling Nut Retention	60 lbs Min
Recommend Nut Mating Torque	7 to 10 inch-pounds
Cable Retention	RG-58,141,142,223→40 lbs min RG-174,188,316→20 lbs min
Temperature Range	-65°C to 165°C
Vibration	MIL-STD-202 Method 204 Test Cond. D.
Salt Spray	MIL-STD-202 Method 101 Test Cond. B.
Thermal Shock	MIL-STD-202 Method 107 Test Cond. B.

Material:

	Material	Plating
Connector Body	Stainless steel Brass	Passivated or gold Nickel or gold
Center Contact	Male:Brass Female:Beryllium Copper	50 μ " gold over 100 μ " nickel 50 μ " gold over 100 μ " nickel
Insulation	Teflon	None
Gasket	Silicone Rubber	None
Crimp Ferrule	Annealed Copper	Same as Body