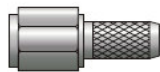


# 34 SMA Specifications

SMA Plug



SMA Jack



## ELECTRICAL

Impedance  
Frequency  
VSWR  
  
Insertion Loss  
RF Leakage  
Insulation Resistance  
Inner Contact Resistance  
Outer Contact Resistance  
Working Voltage  
Dielectric Withstanding Voltage

## FLEXIBLE CABLE

50 ohms  
DC to 12.4GHz  
1.15 + 0.01f(GHz) Straight  
1.18 + 0.02f(GHz) Right Angle  
0.2dB  
-60dB Minimum  
5Gohms Minimum  
3mohms Maximum  
2mohms Maximum  
RG400: 500V, RG316: 335V  
RG400: 1000V, RG316: 750V

## SEMI RIGID CABLE

50 ohms  
DC to 18GHz  
1.05 + 0.005f(GHz) Straight  
1.15 + 0.015f(GHz) Right Angle  
0.25dB  
-90dB Minimum  
5Gohms Minimum  
3mohms Maximum  
2mohms Maximum  
RG402: 500V, RG405: 335V  
RG402: 1000V, RG405: 750V

## MECHANICAL

Durability  
Cable Retention  
Mating Torque

500 mating cycles  
Equal to cable breaking strain  
0.79 to 1.13NM (7-10 inch pounds)

500 mating cycles  
27N  
0.79 to 1.13NM (7-10 inch pounds)

## ENVIRONMENTAL

Temperature Range

-65 to +165 degrees centigrade

-65 to +165 degrees centigrade

## MATERIALS

Bodies  
Pins  
Contacts  
Ferrules  
Insulators  
End Caps  
Gaskets  
Springs  
Panel Nuts  
Panel Washers

Brass, Gold or Nickel Plated  
Brass, Gold Plated  
Beryllium Copper, Gold Plated  
Brass, Gold or Nickel Plated  
PTFE  
Brass, Gold or Nickel Plated  
Silicon Rubber  
Beryllium Copper  
Brass, Gold or Nickel Plated  
Brass, Gold or Nickel Plated

Brass, Gold Plated  
Brass, Gold Plated  
Beryllium Copper, Gold Plated  
Not Applicable  
PTFE  
Brass, Gold Plated  
Silicon Rubber  
Beryllium Copper  
Brass, Gold Plated  
Brass, Gold Plated

All of the above products are manufactured in accordance with MIL-C-39012.

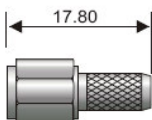
The above specifications are typical although some variations may occur.

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# SMA Cable Fixing 35

## Crimp Plug



PART NUMBER	CABLE TYPE		STRIP DIMS		HEX SIZES	
MA15-D316-C01	RD316	Gold	S11	H8		
MA15-D316-C06	RD316	Nickel	S11	H8		
MA15-0400-C01	RG142, 223, 400	Gold	S12	H3		
MA15-0400-C06	RG142, 223, 400	Nickel	S12	H3		
MA15-0174-C01	RG174, 188, 316	Gold	S11	H1		
MA15-0174-C06	RG174, 188, 316	Nickel	S11	H1		
MA15-0058-C01	RG58, URM43	Gold	S12	H3		
MA15-0058-C06	RG58, URM43	Nickel	S12	H3		

CRIMP HEX SIZES (ferrule / contact)

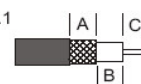
H1	3.25mm	
H3	5.41mm	
H8	3.83mm	

Strip Dimensions - see Illustration S.1

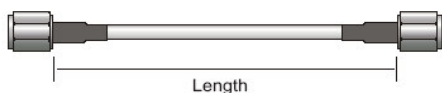
S11: A = 6.0mm B = 1.0mm C = 3.0mm  
S12: A = 7.0mm B = 2.5mm C = 2.5mm

See pages 85-86 for application tooling

Illustration S.1



## Plug to Plug Assemblies



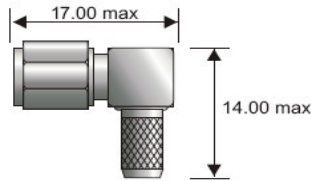
PART NUMBER	CABLE TYPE	DETAILS	
JP1BJP1BB058-500	RG58C/U, 0.5m	50 ohm	3GHz
JP1BJP1BB058-1000	RG58C/U, 1.0m	50 ohm	3GHz
JP1BJP1BB058-3000	RG58C/U, 3.0m	50 ohm	3GHz
JP1BJP1BBM43-500	URM43, 0.5m	50 ohm	1GHz
JP1BJP1BBM43-1000	URM43, 1.0m	50 ohm	1GHz
JP1BJP1BBM43-3000	URM43, 3.0m	50 ohm	1GHz
JP1BJP1BB174-500	RG174A/U, 0.5m	50 ohm	1GHz
JP1BJP1BB174-1000	RG174A/U, 1.0m	50 ohm	1GHz
JP1BJP1BB174-3000	RG174A/U, 3.0m	50 ohm	1GHz
JP1BJP1BB223-500	RG223/U, 0.5m	50 ohm	12.4GHz
JP1BJP1BB223-1000	RG223/U, 1.0m	50 ohm	12.4GHz
JP1BJP1BB223-3000	RG223/U, 3.0m	50 ohm	12.4GHz
JP1BJP1BB400-500	RG400/U, 0.5m	50 ohm	12.4GHz
JP1BJP1BB400-1000	RG400/U, 1.0m	50 ohm	12.4GHz
JP1BJP1BB400-3000	RG400/U, 3.0m	50 ohm	12.4GHz

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# 36 SMA Cable Fixing

## Crimp Right Angle Plug



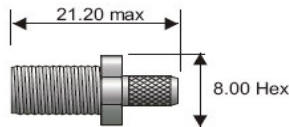
PART NUMBER	CABLE TYPE		STRIP DIMS		HEX SIZES	
MA17-D316-C01	RD316	Gold	S14	H8		
MA17-D316-C06	RD316	Nickel	S14	H8		
MA17-0400-C01	RG142, 223, 400	Gold	S13	H3		
MA17-0400-C06	RG142, 223, 400	Nickel	S13	H3		
MA17-0174-C01	RG174, 188, 316	Gold	S13	H1		
MA17-0174-C06	RG174, 188, 316	Nickel	S13	H1		
MA17-0058-C01	RG58, URM43	Gold	S14	H3		
MA17-0058-C06	RG58, URM43	Nickel	S14	H3		

Strip Dimensions - see Illustration S.1

S13: A = 6.5mm B = 5.0mm C = 1.5mm

S14: A = 7.5mm B = 4.5mm C = 1.5mm

## Crimp Jack

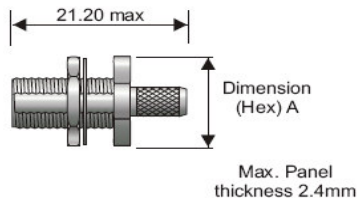


PART NUMBER	CABLE TYPE		STRIP DIMS		HEX SIZES	
MA10-D316-C01	RD316	Gold	S12	H8		
MA10-D316-C06	RD316	Nickel	S12	H8		
MA10-0400-C01	RG142, 223, 400	Gold	S12	H3		
MA10-0400-C06	RG142, 223, 400	Nickel	S12	H3		
MA10-0174-C01	RG174, 188, 316	Gold	S12	H1		
MA10-0174-C06	RG174, 188, 316	Nickel	S12	H1		
MA10-0058-C01	RG58, URM43	Gold	S12	H3		
MA10-0058-C06	RG58, URM43	Nickel	S12	H3		

Strip Dimensions - see Illustration S.1

S12: A = 7.0mm B = 2.5mm C = 2.5mm

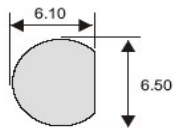
## Crimp Bulkhead Jack



PART NUMBER	CABLE TYPE		STRIP DIMS		HEX SIZES		DIMENSION A
MA02-D316-C01	RD316	Gold	S12	H8		11.0mm	
MA02-D316-C06	RD316	Nickel	S12	H8		11.0mm	
MA02-0400-C01	RG142, 223, 400	Gold	S12	H3		11.0mm	
MA02-0400-C06	RG142, 223, 400	Nickel	S12	H3		11.0mm	
MA02-0174-C01	RG174, 188, 316	Gold	S12	H1		11.0mm	
MA02-0174-C01-8	RG174, 188, 316	Gold	S12	H1		8.0mm	
MA02-0174-C06	RG174, 188, 316	Nickel	S12	H1		11.0mm	
MA02-0174-C06-8	RG174, 188, 316	Nickel	S12	H1		8.0mm	
MA02-0058-C01	RG58, URM43	Gold	S12	H3		11.0mm	
MA02-0058-C06	RG58, URM43	Nickel	S12	H3		11.0mm	

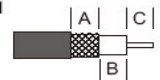
Strip Dimensions - see Illustration S.1

S12: A = 7.0mm B = 2.5mm C = 2.5mm



Crimp Hex Sizes:  
See Page 35 for  
crimp hex sizes.

Illustration S.1

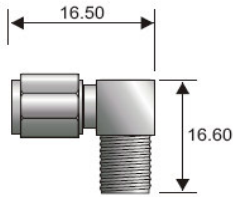


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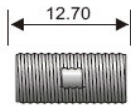
# SMA Cable Adaptors 37

## Right Angle Plug to Jack



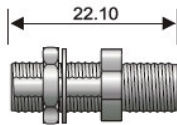
PART NUMBER	DETAILS	PLATING
MA17-10-A01	50 ohms	Gold
MA17-10-A06	50 ohms	Nickel

## Jack to Jack



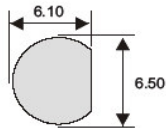
PART NUMBER	DETAILS	PLATING
MA10-10-A01	50 ohms	Gold
MA10-10-A06	50 ohms	Nickel

## Bulkhead Jack to Jack

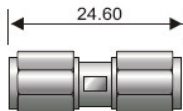


Max. Panel  
thickness 4.5mm

PART NUMBER	DETAILS	PLATING
MA02-10-A01	50 ohms	Gold
MA02-10-A06	50 ohms	Nickel



## Plug to Plug



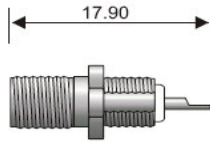
PART NUMBER	DETAILS	PLATING
MA15-15-A01	50 ohms	Gold
MA15-15-A06	50 ohms	Nickel

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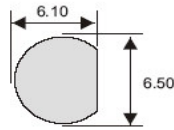
# 38 SMA Panel and PCB Mounting

## Panel Mount Jack

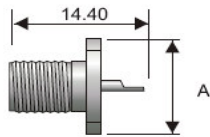


Max. Panel thickness 2.4mm

PART NUMBER	DETAILS	PLATING
MA62-X001-N01	50 ohms	Gold
MA62-X001-N06	50 ohms	Nickel

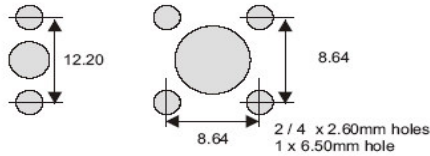


## Flange Mount Jack

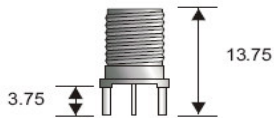


Dimension A:  
2 hole = 16.00  
4 hole = 12.70

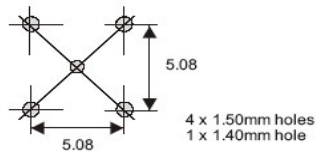
PART NUMBER	DETAILS	PLATING
MA06-X001-N01	4 hole	Gold
MA06-X001-N06	4 hole	Nickel
MA36-X001-N01	2 hole	Gold
MA36-X001-N06	2 hole	Nickel



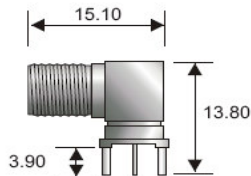
## Vertical PCB Jack



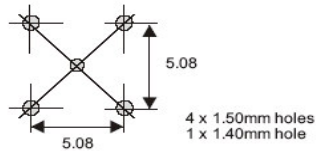
PART NUMBER	DETAILS	PLATING
MA10-X150-N01	50 ohms	Gold
MA10-X150-N06	50 ohms	Nickel



## Right Angle PCB Jack



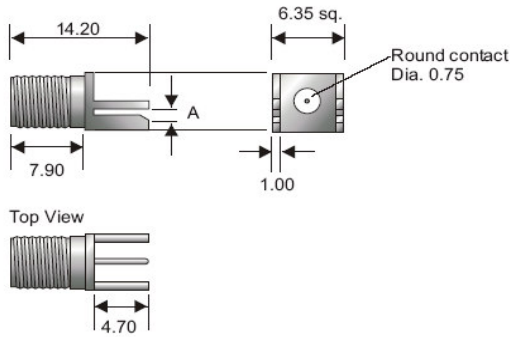
PART NUMBER	DETAILS	PLATING
MA10-X170-N01	50 ohms	Gold
MA10-X170-N06	50 ohms	Nickel



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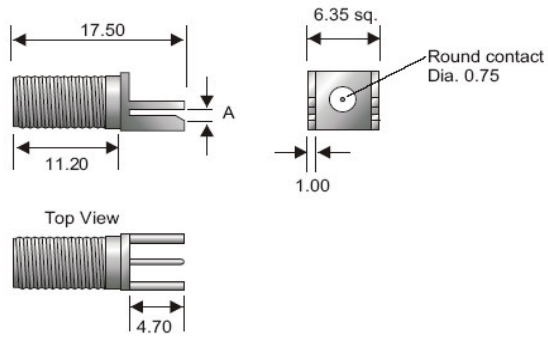
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## End Launch Jack



PART NUMBER	DETAILS	PLATING
MA10-X800-N01	Dim A = 1.73mm	Gold
MA10-X800-N06	Dim A = 1.73mm	Nickel
MA10-X800-N01-1	Dim A = 1.22mm	Gold
MA10-X800-N06-1	Dim A = 1.22mm	Nickel

## Bulkhead End Launch Jack



PART NUMBER	DETAILS	PLATING
MA02-X800-N01	Dim A = 1.73mm	Gold
MA02-X800-N06	Dim A = 1.73mm	Nickel
MA02-X800-N01-1	Dim A = 1.22mm	Gold
MA02-X800-N06-1	Dim A = 1.22mm	Nickel

