

FLEXIBLE CABLE RG316

(MIL-C-17/113-RG316)



MIL-C-17/113-RG316

Application:

RG316 is one of the most popular RG cables. This cable has a good flexibility and a better attenuation than RG174.

Usable in severe thermal conditions, this cable is compatible with a large range of connector series.

CONSTRUCTION / DIMENSIONS			
	material	mm	inches
Center conductor	stranded SPCCS(1)	0.53	0.021
Dielectric	solid PTFE (2)	1.52	0.06
Inner shield	SPC(3) braid	1.98	0.078
Outer shield	-	-	-
Jacket black	Brown FEP(4)	2.95	0.098

- (1) SPCCS= Silver Plated Copper Covered Steel
- (2) PTFE = Polytetrafluoroethylene
- (3) SPC = Silver plated copper
- (4) FEP = Fluorinated Ethylene Propylene

ELECTRICAL CHARACTERISTICS	
characteristic impedance	50Ω ± 2Ω
operating frequency range	DC - 3 GHz
shielding effectiveness	40 dB
voltage withstanding	2 000 V rms
peak power	1.8 kW
capacitance	96 pF / m 29 pF / ft
velocity of propagation	70 % (4.8 ns / m)

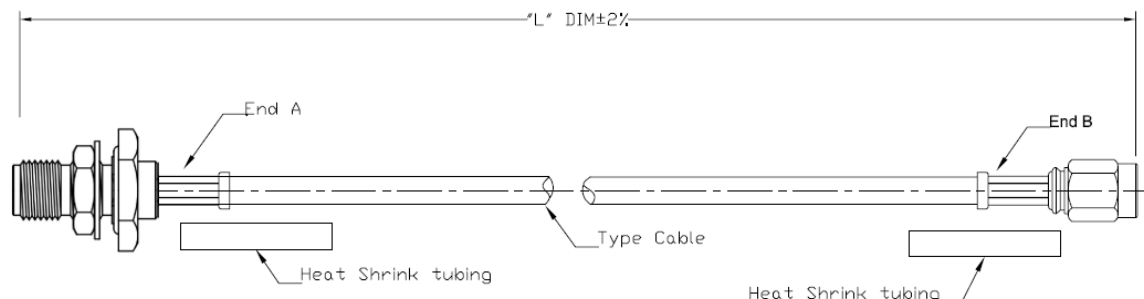
Note: typical VSWR for the cable assembly
VSWR=1.25:1

MECHANICAL CHARACTERISTICS		
recommended minimum bending radius	10 mm inch	0.394
weight	17 g / m	0.0110 lbs / ft

FREQUENCY / ATTENUATION MAX POWER (sea level / 25 °C)			
GHz	dB/ m	dB / ft	Watts
0.1	0.26	0.08	411
0.2	0.37	0.11	291
0.3	0.46	0.14	237
0.5	0.60	0.18	184
1.0	0.86	0.26	130
1.5	1.06	0.32	106
2.0	1.24	0.38	92
2.5	1.40	0.42	82
3.0	1.54	0.47	75
attenuation calculation (dB/m)	(0.82 x √f GHz) + (0.04 x f GHz)		
power calculation (W)	130 / √f GHz		

Note: typical attenuation for a couple of connectors
(dB) = 0.075 x √f (GHz)

ENVIRONMENTAL CHARACTERISTICS		
operating temperature range	-55 / +200 °C	-67 / +392 °F
fire resistance	Yes(CSA FT6/IEC332-2)	
halogen free	NO	



- TYPE COAX CABLE
- CONNECTOR ON END A
- CONNECTOR ON END B
- LENGTH: Standard = overall length (or please specify if length between references planes)

FLEXIBLE CABLE RG316 ASSEMBLES

(MIL-C-17/113-RG316)

<u>FLEXIBLE CABLE RG316 ASSEMBLES</u>				
SKU	Model	End A - Connector	End B - Connector	Photo
00-0381	N male to RA-SMA male RG316-XX.XX(M)	N male straight	SMA male Reversed Polarization	
00-0382	N female to RP-SMA male RG316-XX.XX(M)	N female BH straight	SMA male Reversed Polarization	
00-0383	SMA male to SMA male RG316-XX.XX(M)	SMA male straight	SMA male straight	
00-0384	RP-SMA male to RP-SMA female RG316-XX.XX(M)	SMA male Reversed Polarization	SMA female Reversed Polarization	
00-0385	SMA male to SMA female RG316-XX.XX(M)	SMA male straight	SMA female BH straight	
00-0386	SMA male to N female RG316-XX.XX(M)	SMA male straight	N female BH straight	
CUSTOM	End A to End B RG316- XX.XX(M)	End A - Connector	End B - Connector	

FLEXIBLE CABLE RG316 ASSEMBLES

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CONNECTOR SELECTION (FOR RG316 CABLE)					
SKU	Connector Type Series	Interface	Frequency (GHz)	Impedance (Ω)	Classic level (Mil Spec)
01-0312	N	Male Straight, Crimp	6	50	Commercial
01-0404	SMA	Male Straight, Crimp	6	50	Commercial
01-0441	SMA	Male Right Angle, Crimp,	6	50	Commercial
01-0414	SMA	Female Straight, crimp	6	50	Commercial
01-0437	SMA	Female straight, O-ring,	6	50	Commercial
01-0432	SMA	Male straight, Reversed polar,	6	50	Commercial
01-0455	SMA	Female straight, Reversed polar	6	50	Commercial
01-0509	TNC	male straight, crimp,	6	50	Commercial
01-0510	TNC	female straight, crimp,	6	50	Commercial
01-0521	TNC	male straight, Reversed polar, crimp,	6	50	Commercial
01-0209	BNC	Male Straight, Crimp	4	50	Commercial
01-0208	BNC	Female, Bulkhead, Straight, Crimp	4	50	Commercial
01-0802	MCX	Male Straight, Crimp	3	50	Commercial
01-0801	MCX	Male Right Angle, Crimp	3	50	Commercial
01-0820	SMB	Male Straight, Crimp	2.5	50	Commercial