CABLE ASSEMBLIES

Flexible cable 2.6/50 S (RG316 - KX22A)



P/N: ST291170007 (MIL-C-17/113-RG316)

P/N: ST291170017 (NF-C-93/550-KX22A)

APPLICATION NOTE

RG316 is one of the most popular RG cables.
This cable has good flexibility and better attenuation than RG174.
Suitable for 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	0.060
Inner shield	SPC[3] braid	1.98	0.078
Outer shield	-	-	-
Jacket	Brown FEP[4]	2.49	0.098

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)	

MECHANICAL CHARACTERISTICS

Recommended minimum bending radius	10 mm	0.394 inch
Weight	17 g / m	0.0110 lbs / ft

ENVIRONMENTAL CHARACTERISTICS

Operating temperature range	-55 / +200 °C	-67 / +392 °F
Fire resistance	Yes (CSA FT6 / IEC 332-2)	
Halogen free	No	

FREQUENCY / ATTENUATION (typ.) / CW 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		

[1] SPCCS = Silver Plated Copper covered steel
[2] PTFE = PolyTetraFluoroEthylene
[3] SPC = Silver Plated Copper
[4] FEP = Fluorinated Ethylene Propylene

Flexible cable 2.6/50 D (RD316)



P/N: ST291185067

APPLICATION NOTE

Based on the RG316 construction, RD316 has an outer shield braid which allows higher screening effectiveness and better mechanical resistance.
Suitable for severe thermal conditions, this cable is compatible with a large range of connector series.

CONSTRUCTION / DIMENSIONS

	Material	mm	Inches
Center conductor	Stranded SPC[1]	0.53	0.021
Dielectric	Solid PTFE[2]	1.52	0.060
Inner shield	SPC[1] braid	1.90	0.075
Outer shield	SPC[1] braid	2.30	0.091
Jacket	Brown FEP[3]	2.80	0.110

ELECTRICAL CHARACTERISTICS

Characteristic impedance	50Ω ± 2Ω	
Operating frequency range	DC - 3 GHz	
Shielding effectiveness	60 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)	

MECHANICAL CHARACTERISTICS

Recommended minimum bending radius	15 mm	0.590 inch
Weight	27 g / m	0.0181 lbs / ft

ENVIRONMENTAL CHARACTERISTICS

Operating temperature range	-55 / +200 °C	-67 / +392 °F
Fire resistance	Yes (CSA FT6 / IEC 332-2)	
Halogen free	No	

FREQUENCY / ATTENUATION (typ.) / CW 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
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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		

[1] SPC = Silver Plated Copper
[2] PTFE = PolyTetraFluoroEthylene
[3] FEP = Fluorinated Ethylene Propylene

Note:
Typical attenuation for a couple of connectors (dB) = 0.045 x √f (GHz)