CABLE ASSEMBLIES

Flexible cable 2.6/75 S (RG179)



P/N: ST291 210 007 (MIL-C-17/94-RG179)

APPLICATION NOTE

Due to its 75 ohms characteristic impedance, RG179 is dedicated to TV/Video application.

Its small internal stranded inner conductor diameter allows high flexibility for easy routing.

Suitable for severe thermal conditions.

CONSTRUCTION / DIMENSIONS

	Material	mm	Inches
Center conductor	Stranded SPCCS[1]	0.30	0.012
Dielectric	Solid PTFE[2]	1.60	0.063
Inner shield	SPC[3] braid	2.00	0.079
Outer shield	-	-	-
Jacket	Brown FEP[4]	2.54	0.100

ELECTRICAL CHARACTERISTICS

Characteristic impedance	75Ω ± 3Ω	
Operating frequency range	DC - 3 GHz	
Shielding effectiveness	40 dB	
Voltage withstanding	2 000 V rms	
Peak power	1.6 kW	
Capacitance	69 pF / m	21 pF / ft
Velocity of propagation	70 % (4.8 ns / m)	

MECHANICAL CHARACTERISTICS

Recommended minimum bending radius	10 mm	0.400 inch
Weight	14.5 g / m	0.0097 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	0.29	0.09	791
0.2	0.41	0.13	559
0.3	0.51	0.15	456
0.5	0.66	0.20	354
1.0	0.95	0.29	250
1.5	1.17	0.36	204
2.0	1.37	0.41	117
2.5	1.54	0.47	158
3.0	1.70	0.51	144
Attenuation calculation (dB/m)	(0.91 x √f GHz) + (0.04 x f GHz)		
Power calculation (W)	250 / √f GHz		

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

Flexible cable 4.6/75 D (HD 0.6/2.8 - mini RG59 type)



P/N: ST291 333 039

APPLICATION NOTE

Due to its 75 ohms characteristic impedance, this cable is dedicated to HDTV/Video applications.

CONSTRUCTION / DIMENSIONS

	Material	mm	Inches
Center conductor	Solid BC[1]	0.60	0.024
Dielectric	Foam PE[2]	2.80	0.110
Inner shield	Triplex tape Al[3]/PES[4]/Al	2.90	0.114
Outer shield	TC[5] braid	3.30	0.130
Jacket	Purple LSZH PE[6]	4.60	0.181

ELECTRICAL CHARACTERISTICS

Characteristic impedance	75Ω ± 3Ω	
Operating frequency range	DC - 3 GHz	
Shielding effectiveness	-	
Voltage withstanding	1 500 V rms	
Peak power	-	
Capacitance	56 pF / m	17.07 pF / ft
Velocity of propagation	78 % (4.3 ns / m)	

MECHANICAL CHARACTERISTICS

Recommended minimum bending radius	37 mm	1.46 inch
Weight	24 g / m	0.0161 lbs / ft

ENVIRONMENTAL CHARACTERISTICS

Operating temperature range	-20 / +70 °C	-4 / +158 °F
Fire resistance	Yes (IEC 60332-1)	
Halogen free	Yes (IEC 60754-1 & -2)	

FREQUENCY / ATTENUATION (typ.) / CW MAX POWER (sea level / 25 °C)

GHz	dB / m	dB / ft	Watts
0.05	0.073	0.022	-
0.1	0.103	0.031	-
0.5	0.238	0.072	-
0.8	0.305	0.092	-
1.0	0.343	0.104	-
1.5	0.426	0.129	-
2.0	0.499	0.151	-
2.5	0.563	0.171	-
3.0	0.623	0.189	-
Attenuation calculation (dB/m)	(0.32 x √f GHz) + (0.023 x f GHz)		

[1] BC = Bare Copper
[2] PE = PolyEthylene
[3] Al = Aluminum
[4] PES = PolyESter
[5] TC = Tinned Copper
[6] LSZH PE = Low Smoke Zero Halogen PolyEthylene

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