CABLE ASSEMBLIES

Flexible cable 7/75 D (HD 1.0/4.8 - RG6 type)



P/N: ST291384083

APPLICATION NOTE

Due to its 75 ohms characteristic impedance, this cable is rbetter suited for HDTV/Video application.

CONSTRUCTION / DIMENSIONS

	Material	mm	Inches
Center conductor	Solid BC[1]	1.02	0.040
Dielectric	FHD PE[2]	4.56	0.180
Inner shield	Al[3] tape	4.70	0.185
Outer shield	TC[4] braid	5.26	0.207
Jacket	Blue PVC[5]	6.95	0.274

ELECTRICAL CHARACTERISTICS

Characteristic impedance	75Ω ± 1.5Ω	
Operating frequency range	DC - 4.5 GHz	
Shielding effectiveness	-	
Voltage withstanding	300 V rms	
Peak power	-	
Capacitance	53.15 pF / m	16.2 pF / ft
Velocity of propagation	82 % (4.1 ns / m)	

MECHANICAL CHARACTERISTICS

Recommended minimum bending radius	69.85 mm	2.75 inch
Weight	59.5 g / m	0.04 lbs / ft

ENVIRONMENTAL CHARACTERISTICS

Operating temperature range	-30 / +75 °C	-22 / +167 °F
Fire resistance	Yes (UL1666 Vertical Shaft)	
Halogen free	No	

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

GHz	dB / m	dB / ft	Watts
0.5	0.134	0.040	-
1.0	0.193	0.058	-
1.5	0.240	0.073	-
2.0	0.281	0.085	-
2.5	0.318	0.096	-
3.0	0.352	0.107	-
3.5	0.384	0.116	-
4.0	0.414	0.125	-
4.5	0.443	0.134	-
Attenuation calculation (dB/m)	(0.179 x √f GHz) + (0.014 x f GHz)		

[1] BC = Bare Copper
[2] FHD PE = Foam High Density PolyEthylene
[3] Al = Aluminum
[4] TC = Tinned Copper
[5] PVC = PolyVinyl Chloride

Flexible cable 10/50 S (RG213 - KX4)



Cost effective solution

P/N: ST291 510 000 (MIL-C-17/74-RG213)

P/N: C291 510 010 (NF-C-93/550-KX4)

APPLICATION NOTE

Due to its construction and raw material selection, RG213 is a cost effectiveness solution in the 10 mm cable range.

This cable may be considered for low frequency applications that do not require a high level of screening effectiveness.

CONSTRUCTION / DIMENSIONS

	Material	mm	Inches
Center conductor	Standed copper	2.26	0.089
Dielectric	Solid PE[1]	7.24	0.285
Inner shield	Copper braid	8.13	0.320
Outer shield	-	-	-
Jacket	Black PVC[2]	10.30	0.406

ELECTRICAL CHARACTERISTICS

Characteristic impedance	50Ω ± 2Ω	
Operating frequency range	DC - 1 GHz	
Shielding effectiveness	40 dB	
Voltage withstanding	10 000 V rms	
Peak power	6.5 kW	
Capacitance	96 pF / m	29 pF / ft
Velocity of propagation	66 % (5 ns / m)	

MECHANICAL CHARACTERISTICS

Recommended minimum bending radius	40 mm	1.57 inch
Weight	148 g / m	0.0999 lbs / ft

ENVIRONMENTAL CHARACTERISTICS

Operating temperature range	-40 / +85 °C	-40 / +185 °F
Fire resistance	No	
Halogen free	No	

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

GHz	dB / m	dB / ft	Watts
0.05	0.05	0.01	805
0.1	0.07	0.02	569
0.2	0.10	0.03	402
0.3	0.12	0.04	329
0.5	0.16	0.05	255
0.6	0.18	0.05	232
0.7	0.20	0.06	215
0.8	0.21	0.06	201
1.0	0.24	0.07	180
Attenuation calculation (dB/m)	(0.20 x √f GHz) + (0.04 x f GHz)		
Power calculation (W)	180 / √f GHz		

[1] PE = PolyEthylene
[2] PVC = PolyVinyl Chloride

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