CABLE ASSEMBLIES

Flexible cable 6/75 S (KX6A)



Cost effective solution

P/N: ST291 351 012 (NF-C-93/550-KX6)

APPLICATION NOTE

Relevant standard: NF-C-93/550-KX6 (France)

Due to its stranded inner conductor, KX6 is much more flexible than RG59.

This cable is better suited instead of RG59 for specific applications requiring high flexibility.

CONSTRUCTION / DIMENSIONS

	Material	mm	Inches
Center conductor	Stranded copper	0.60	0.024
Dielectric	Solid PE[1]	3.70	0.146
Inner shield	Copper braid	4.50	0.177
Outer shield	-	-	-
Jacket	Green PVC[2]	6.10	0.240

ELECTRICAL CHARACTERISTICS

Characteristic impedance	75Ω ± 3Ω	
Operating frequency range	DC - 1 GHz	
Shielding effectiveness	40 dB	
Voltage withstanding	7 000 V rms	
Peak power	2.7 kW	
Capacitance	63 pF / m	19 pF / ft
Velocity of propagation	66 % (5 ns / m)	

MECHANICAL CHARACTERISTICS

Recommended minimum bending radius	25 mm	0.98 inch
Weight	48 g / m	0.0320 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	0.10	0.03	300
0.1	0.14	0.04	212
0.2	0.20	0.06	150
0.3	0.25	0.08	122
0.5	0.33	0.10	95
0.6	0.36	0.11	86
0.7	0.40	0.12	80
0.8	0.43	0.13	75
1.0	0.48	0.15	67
Attenuation calculation (dB/m)	(0.44 x √f GHz) + (0.04 x f GHz)		
Power calculation (W)	67 / √f GHz		

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

Flexible cable 6/75 D (HD 0.8/3.7 - RG59 type)



P/N: ST291360 093

APPLICATION NOTE

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

CONSTRUCTION / DIMENSIONS

	Material	mm	Inches
Center conductor	Solid BC[1]	0.81	0.032
Dielectric	FHD PE[2]	3.68	0.145
Inner shield	Al[3] tape	3.81	0.150
Outer shield	TC[4] braid	4.37	0.172
Jacket	Blue PVC[5]	5.92	0.233

ELECTRICAL CHARACTERISTICS

Characteristic impedance	75Ω ± 1.5Ω	
Operating frequency range	DC - 4.5 GHz	
Shielding effectiveness	-	
Voltage withstanding	300 V rms	
Peak power	-	
Capacitance	53.5 pF / m	16.3 pF / ft
Velocity of propagation	83 % (4.0 ns / m)	

MECHANICAL CHARACTERISTICS

Recommended minimum bending radius	63.5 mm	2.5 inch
Weight	46 g / m	0.031 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	0.173	0.052	-
1.0	0.247	0.075	-
1.5	0.304	0.092	-
2.0	0.353	0.107	-
2.5	0.397	0.120	-
3.0	0.437	0.132	-
3.5	0.473	0.143	-
4.0	0.508	0.154	-
4.5	0.541	0.164	-
Attenuation calculation (dB/m)	(0.24 x √f GHz) + (0.007 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

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