CABLE ASSEMBLIES

Low loss Flexible cable 5/50 S+F
(AEP-200FR alternative to LMR-200FR®)



P/N: ST291 327 020

APPLICATION NOTE

AEP-200FR cable is an alternative solution to 50 Ohms LMR-200FR® cable offering the same performance and similar construction with cost advantage.

REGULATIONS

RoHS compliant
UL/NEC: CMR
UL/CSA: FT4

CONNECTORS COMPATIBLE WITH AEP-200FR (and to LMR® 200FR)

QMA Series

P/N	Interface	Model
R123 096 110	Straight plug	Crimp type

SMA Series

P/N	Interface	Model
R124 076 450	Straight plug	Crimp type
R124 175 200	R/A plug	Crimp type

TNC Series

P/N	Interface	Model
R143 082 200	Straight plug	Crimp type

N Series

P/N	Interface	Model
R161 082 200	Straight plug	Crimp type
R161 182 080	R/A plug	Crimp type
R161 329 130	Straight BH jack	Crimp type

CONSTRUCTION / DIMENSIONS

	Material	mm	Inches
Center conductor	Solid BC[1]	1.12	0.044
Dielectric	Foam PE[2]	2.95	0.116
Inner shield	Aluminum Tape	3.07	0.121
Outer shield	Tinned Copper braid	3.66	0.144
Outer jacket	Black LSZH	4.95	0.195

ELECTRICAL CHARACTERISTICS

Characteristic impedance	50 ohms	
Operating frequency range	DC - 6 GHz	
Dielectric constant	1.45	
Screening effectiveness	> 90 dB	
Velocity of propagation	83 %	
Capacitance	80.3 pF / m	24.5 pF / ft
Inductance	0.20 uH / m	0.061 uH / ft
Time delay	4.02 nS / m	1.22 nS / ft
Inner conductor DC resistance	17.6 ohms / km	5.36 ohms / 1000 ft
Outer conductor DC resistance	16.1 ohms / km	4.9 ohms / 1000 ft
Voltage withstand	1000 Volts DC	
Jacket spark	3000 Volts RMS	
Peak power	2.5kW	
Phase stability over temp	< 25 ppm / deg C	

MECHANICAL CHARACTERISTICS

Maximum weight	30 g / m	0.022 lb / ft
Min. bend radius: installation	12.7 mm	0.5 inch
Min. bend radius: repeated	50.8 mm	2.0 inch
Bending moment	0.27 N-m	0.2 ft-lb
Tensile strength	18.2 kg	40 lb
Flat plate crush	0.27 kg / mm	15 lb / inch

ENVIRONMENTAL CHARACTERISTICS

Installation temperature range	-40 / +85 °C	-40 / +185 °F
Storage temperature range	-70 / +85 °C	-94 / +185 °F
Operating temperature range	-40 / +85 °C	-40 / +185 °F

FREQUENCY / ATTENUATION (typ.) / AVG POWER (*)

MHz	DB / 100 m	DB / 100 ft	kW
30	5.8	1.8	1.02
50	7.5	2.3	0.79
150	13.1	4.0	0.45
220	15.9	4.8	0.37
450	22.8	7.0	0.26
900	32.6	9.9	0.18
1500	42.4	12.9	0.14
1800	46.6	14.2	0.13
2000	49.3	15.0	0.12
2500	55.4	16.9	0.11
5800	86.5	26.4	0.07

(*) = Avg power calculated at sea level / 40°C and VSWR 1:0
(Cable-assemblypower ratings may be limited by the connector type. Please contact us for specific needs)