FC50AL-78-PE-01 HCTA(A)Y-50-22

Flexible coaxial feeder cable, ring corrugated aluminum for outer conductor and smooth copper tube for inner conductor, 7/8 in, black PE jacket

General Specifications

Flexibility	Standard
Jacket Color	Black
Performance Note	Attenuation guaranteed within the tolerance ±10%
Structure Note	Dimension guaranteed within the tolerance ±5%
Nominal Size	7/8 in

Material Specifications

Inner Conductor	Smooth Copper Tube
Dielectric	Physical Foam Polyethylene
Outer Conductor	Ring Corrugated Aluminum Tube
Jacket	Black PE
Diameter of Inner Conductor	9.00 mm
Diameter of Dielectric	22.3 mm
Diameter of Outer Conductor	24.9 mm
Diameter of Jacket	27.5 mm

Electrical Specifications

Impedance	50 ohms±1 ohm
Maximum Available Frequence	5.0 GHz
Cut-off Frequency	5.2 GHz
Velocity Ratio	88%
Peak Power	91 kW
Insulation Resistance	3000 MΩ·km
DC Breakdown Voltage	6000 V
Nominal Capacitance	76 pF/m
Nominal Inductance	0.19 μH/m

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Attenuations

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
0.5	0.10	0.02	91.00
1	0.14	0.05	78.60
1.5	0.17	0.05	64.10
2	0.20	0.06	55.50
10	0.44	0.13	24.60
20	0.61	0.19	17.30
30	0.77	0.24	14.10
50	1.00	0.30	10.80
88	1.33	0.41	8.08
100	1.42	0.43	7.56
108	1.48	0.44	7.26
150	1.78	0.54	6.12
174	1.90	0.58	5.66
200	2.05	0.62	5.26
300	2.53	0.77	4.24
400	2.96	0.90	3.63
450	3.18	0.97	3.41
500	3.35	1.02	3.22
512	3.38	1.03	3.17
600	3.68	1.13	2.91
700	4.01	1.22	2.67
800	4.32	1.32	2.48
824	4.39	1.34	2.44
900	4.64	1.42	2.33
960	4.85	1.48	2.24
1000	4.90	1.49	2.19
1250	5.56	1.69	1.93
1500	6.16	1.87	1.74
1700	6.61	2.02	1.62
1800	6.84	2.09	1.56
2000	7.31	2.23	1.48
2100	7.48	2.28	1.44
2200	7.68	2.34	1.40
2400	8.09	2.46	1.30
3000	9.04	2.76	1.16
3400	9.95	3.04	1.08
4000	10.97	3.35	0.98
5000	12.60	3.84	0.85

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Return Loss / VSWR

Frequency Band	VSWR	Return Loss (dB)	Tolerance
0.8-1.0GHz	1.15	23.1	5%
1.7-2.2GHz	1.15	23.1	5%
2.2-2.7GHz	1.15	23.1	5%
3.3-3.8GHz	1.22	20.1	5%
4.8-5.0GHz	1.22	20.1	5%

Mechanical Specifications

Bending Radius (Single)	≥135 mm
Bending Radius (Repeated)	≥240 mm
Number of Bending (Typical)	≤15
Tensile Strength	1400N

Environmental Specifications

Installation Temperature	-20 °C to +55 °C
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +85 °C

Regulatory Compliances

ISO 9001:2015	Compliant
ROHS	Compliant
China RoHS	Compliant
UK RoHS	Compliant
REACH	Compliant
EU/CE	Compliant