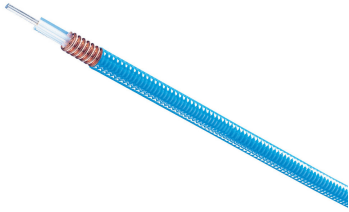


HS4RP-50



HS4RP-50, HELIAX® Plenum Rated Air Dielectric Coaxial Cable, corrugated copper, 1/2 in, blue PVDF jacket

OBSOLETE

This product was discontinued on: April 1, 2014

Product Classification

Product Type	Air coaxial cable
Product Brand	HELIAX®
Product Series	HS4RP-50

General Specifications

Flexibility	Superflexible
Jacket Color	Blue

Dimensions

Diameter Over Jacket	13.208 mm 0.52 in
Inner Conductor OD	3.556 mm 0.14 in
Outer Conductor OD	12.192 mm 0.48 in
Nominal Size	1/2 in

Electrical Specifications

Cable Impedance	50 ohm \pm 2 ohm
Capacitance	82.021 pF/m 25 pF/ft
dc Resistance, Inner Conductor	2.854 ohms/km 0.87 ohms/kft
dc Resistance, Outer Conductor	3.281 ohms/km 1 ohms/kft
dc Test Voltage	2500 V
Inductance	1.87 μ H/m 0.57 μ H/ft
Insulation Resistance	100000 MOhms-km
Jacket Spark Test Voltage (rms)	5000 V

HS4RP-50

Operating Frequency Band	1 – 10200 MHz
Peak Power	15.6 kW
Power Attenuation	1.699
Velocity	81 %

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
1.0	0.32	0.098	15.6
1.5	0.393	0.12	14.2
2.0	0.454	0.138	12.28
10.0	1.025	0.312	5.44
20.0	1.46	0.445	3.82
30.0	1.798	0.548	3.1
50.0	2.342	0.714	2.38
85.0	3.09	0.942	1.8
88.0	3.147	0.959	1.77
100.0	3.366	1.026	1.66
108.0	3.506	1.069	1.59
150.0	4.173	1.272	1.34
174.0	4.518	1.377	1.23
200.0	4.868	1.484	1.14
204.0	4.92	1.5	1.13
300.0	6.064	1.848	0.92
400.0	7.1	2.164	0.78
450.0	7.578	2.31	0.74
460.0	7.671	2.338	0.73
500.0	8.035	2.449	0.69
512.0	8.142	2.482	0.68
600.0	8.898	2.712	0.63
700.0	9.706	2.958	0.57
800.0	10.472	3.192	0.53
824.0	10.65	3.246	0.52
894.0	11.158	3.401	0.5
960.0	11.625	3.543	0.48
1000.0	11.902	3.627	0.47

HS4RP-50

1218.0	13.345	4.067	0.42
1250.0	13.549	4.129	0.41
1500.0	15.082	4.597	0.37
1700.0	16.246	4.951	0.34
1794.0	16.776	5.113	0.33
1800.0	16.81	5.123	0.33
2000.0	17.908	5.458	0.31
2100.0	18.443	5.621	0.3
2200.0	18.97	5.782	0.29
2300.0	19.489	5.94	0.29
2500.0	20.506	6.25	0.27
2700.0	21.498	6.552	0.26
3000.0	22.944	6.993	0.24
3400.0	24.804	7.56	0.22
3600.0	25.71	7.836	0.22
3700.0	26.157	7.972	0.21
3800.0	26.601	8.107	0.21
3900.0	27.041	8.242	0.21
4000.0	27.478	8.375	0.2
4100.0	27.912	8.507	0.2
4200.0	28.342	8.638	0.2
4300.0	28.77	8.769	0.19
4400.0	29.195	8.898	0.19
4500.0	29.617	9.027	0.19
4600.0	30.037	9.155	0.19
4700.0	30.454	9.282	0.18
4800.0	30.869	9.408	0.18
4900.0	31.281	9.534	0.18
5000.0	31.691	9.659	0.18
6000.0	35.676	10.874	0.16
8000.0	43.165	13.156	0.13
8800.0	46.024	14.027	0.12
10000.0	50.199	15.3	0.11

Material Specifications

Dielectric Material

PE

HS4RP-50

Jacket Material	PVDF
Inner Conductor Material	Copper-clad aluminum wire
Outer Conductor Material	Corrugated copper

Mechanical Specifications

Minimum Bend Radius, multiple Bends	31.75 mm 1.25 in
Number of Bends, minimum	20
Number of Bends, typical	50
Tensile Strength	79 kg 174.165 lb
Bending Moment	4.5 ft lb 6.101 N-m
Flat Plate Crush Strength	1.964 kg/mm 110 lb/in
Pressurization, maximum	0.207 N/mm ² 30 psi

Environmental Specifications

Installation temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Temperature	-55 °C to +85 °C (-67 °F to +185 °F)
Storage Temperature	-70 °C to +85 °C (-94 °F to +185 °F)
Attenuation, Ambient Temperature	68 °F 20 °C
Average Power, Ambient Temperature	104 °F 40 °C
Average Power, Inner Conductor Temperature	212 °F 100 °C

Packaging and Weights

Cable weight	0.208 kg/m 0.14 lb/ft
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Regulatory Compliance/Certifications

Agency	Classification
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

