AVA6RK-50

AVA6RK-50, HELIAX® Andrew Virtual Air™ Coaxial Cable, corrugated copper, 1-1/4 in, black , fire retardant polyolefin jacket B2ca- s1b, d2,a1 (CPR testing is conducted annually please reference the website for latest classification)

Product Classification

Product Type	Coaxial wireless cable
Product Brand	HELIAX®
Product Series	AVA6-50
Ordering Note	CommScope® standard product in Europe, the Middle East, and Africa

General Specifications

Flexibility	Standard
Jacket Color	Black
Performance Note	Values typical, guaranteed within 5% | Values typical, unless otherwise stated

Dimensions

Diameter Over Dielectric	34.036 mm | 1.34 in
Diameter Over Jacket	39.624 mm | 1.56 in
Inner Conductor OD	14.021 mm | 0.552 in
Outer Conductor OD	36.068 mm | 1.42 in
Nominal Size	1-1/4 in

Electrical Specifications

Attenuation, Ambient Temperature	68 °F | 20 °C
Cable Impedance	50 ohm ±1 ohm
Capacitance	72 pF/m | 21.946 pF/ft
dc Resistance, Inner Conductor	1.74 ohms/km | 0.53 ohms/kft
dc Resistance, Outer Conductor	0.75 ohms/km | 0.229 ohms/kft
dc Test Voltage	8500 V

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Inductance	0.187 µH/m | 0.057 µH/ft
Insulation Resistance	100000 Mohms•km
Jacket Spark Test Voltage (rms)	10000 V
Operating Frequency Band	1 – 3700 MHz
Peak Power	180 kW
Power Attenuation	2
Pulse Reflection	0.5%
Velocity	92 %

VSWR/Return Loss

Frequency Band	VSWR	Return Loss (dB)
680–800 MHz	1.13	24.3
806–960 MHz	1.13	24.3
1700–2170 MHz	1.13	24.3

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)	Average Power (kW)
1.0	0.079	0.024	82.63
1.5	0.097	0.03	67.41
2.0	0.113	0.034	58.33
10.0	0.253	0.077	25.89
20.0	0.36	0.11	18.21
30.0	0.443	0.135	14.8
50.0	0.576	0.176	11.39
85.0	0.758	0.231	8.66
88.0	0.772	0.235	8.51
100.0	0.825	0.251	7.96
108.0	0.858	0.262	7.65
150.0	1.019	0.311	6.44
174.0	1.102	0.336	5.96
200.0	1.186	0.361	5.53
204.0	1.198	0.365	5.48
300.0	1.471	0.448	4.46
400.0	1.717	0.523	3.82
450.0	1.829	0.558	3.59

460.0	1.851	0.564	3.54
500.0	1.937	0.59	3.39
512.0	1.962	0.598	3.34
600.0	2.14	0.652	3.07
700.0	2.329	0.71	2.82
800.0	2.507	0.764	2.62
824.0	2.548	0.777	2.58
894.0	2.666	0.813	2.46
960.0	2.774	0.846	2.37
1000.0	2.838	0.865	2.31
1218.0	3.171	0.967	2.07
1250.0	3.218	0.981	2.04
1500.0	3.569	1.088	1.84
1700.0	3.835	1.169	1.71
1794.0	3.955	1.206	1.66
1800.0	3.963	1.208	1.66
2000.0	4.212	1.284	1.56
2100.0	4.333	1.321	1.51
2200.0	4.452	1.357	1.47
2300.0	4.569	1.393	1.44
2500.0	4.798	1.462	1.37
2700.0	5.021	1.53	1.31
3000.0	5.345	1.629	1.23
3400.0	5.76	1.755	1.14
3600.0	5.961	1.817	1.1
3700.0	6.06	1.847	1.08

Material Specifications

Dielectric Material	Foam PE
Jacket Material	Non-halogenated, fire retardant polyolefin
Inner Conductor Material	Corrugated copper tube
Outer Conductor Material	Corrugated copper

Mechanical Specifications

Minimum Bend Radius, multiple Bends	8 in | 203.2 mm
Minimum Bend Radius, single Bend	6 in | 152.4 mm

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Number of Bends, minimum	15
Number of Bends, typical	40
Tensile Strength	154 kg | 339.511 lb
Bending Moment	29.8 N-m | 263.752 in lb
Flat Plate Crush Strength	1.3 kg/mm | 72.797 lb/in

Environmental Specifications

Installation temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Operating Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Storage Temperature	-40 °C to +60 °C (-40 °F to +140 °F)
Average Power, Ambient Temperature	104 °F | 40 °C
Average Power, Inner Conductor Temperature	212 °F | 100 °C
EN50575 CPR Cable EuroClass	B2ca | a1 | d2 | s1b
Fire Retardancy Test Method	NFPA 130-2010 | UL 1666/CATVR
Smoke Index Test Method	IEC 61034
Toxicity Index Test Method	IEC 60754-1 | IEC 60754-2

Packaging and Weights

Cable weight	0.8 kg/m | 5.786 lb/ft

Regulatory Compliance/Certifications

Agency	Classification
CENELEC	EN 50575 compliant, Declaration of Performance (DoP) available
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant
UL/ETL Certification	Compliant