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	ANDREW® standard product in Europe, the Middle East, and Africa

General Specifications

Product Number	520099202/00 | SZ520099202/00
Flexibility	Standard
Jacket Color	Black
Performance Note	Attenuation values typical, guaranteed within 5%

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

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
Inductance	0.187 µH/m | 0.057 µH/ft
Insulation Resistance	100000 MOhms-km
Jacket Spark Test Voltage (rms)	10000 V

AVA6RK-50

Operating Frequency Band	1 – 4000 MHz
Peak Power	180 kW
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
3800.0	6.16	1.877	1.07
4000.0	6.36	1.94	1.03

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	203.2 mm | 8 in
Minimum Bend Radius, single Bend	152.4 mm | 6 in
Number of Bends, minimum	15
Number of Bends, typical	40

AVA6RK-50

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)
Attenuation, Ambient Temperature	68 °F | 20 °C
Average Power, Ambient Temperature	104 °F | 40 °C
Average Power, Inner Conductor Temperature	212 °F | 100 °C
EN50575 CPR Cable EuroClass Fire Performance	B2ca
EN50575 CPR Cable EuroClass Smoke Rating	s1b
EN50575 CPR Cable EuroClass Droplets Rating	d2
EN50575 CPR Cable EuroClass Acidity Rating	a1
Fire Retardancy Test Method	IEC 60332-1-2 | 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 | 0.538 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.andrew.com/ProductCompliance
ROHS	Compliant
UK-ROHS	Compliant
UL/ETL Certification	Compliant