



Product: [RA500P](#)

Low Loss 1/2" Coaxial Cables

Product Description

DAS Coax, 1/2 Inch Low Loss Plenum Air, Corrugated Copper Outer Conductor, PVC Jacket, CMP

Technical Specifications

Product Overview

Suitable Applications:	In-building wireless systems for active and passive distributed antenna systems (DAS). 4G LTE, LTE Advanced (LTE-A) and LTE Advanced Pro with Licensed Assisted Access (LAA). Public safety emergency responder radio communications systems (ERRCS). CBRS/private LTE networks
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Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Coax
5	Solid	BCCA - Bare Copper Covered Aluminum	0.188 in	1

Insulation

Material
PE - Polyethylene (Semi-Solid)

Outer Shield

Material	Coverage [%]
Bare Copper (BC)	100%

Outer Jacket

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.630 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Outer Conductor DCR
0.5 Ohm/1000ft	0.9 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Shield
23 pF/ft

Impedance

Nominal Characteristic Impedance
50 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
5 MHz	0.35 dB/100ft
30 MHz	0.36 dB/100ft
100 MHz	0.66 dB/100ft
150 MHz	0.82 dB/100ft

450 MHz	1.47 dB/100ft
700 MHz	1.84 dB/100ft
824 MHz	2.03 dB/100ft
890 MHz	2.10 dB/100ft
894 MHz	2.12 dB/100ft
960 MHz	2.21 dB/100ft
1000 MHz	2.24 dB/100ft
1700 MHz	3.06 dB/100ft
1800 MHz	3.16 dB/100ft
2000 MHz	3.36 dB/100ft
2300 MHz	3.63 dB/100ft
2400 MHz	3.76 dB/100ft
2700 MHz	4.00 dB/100ft
3000 MHz	4.32 dB/100ft
3400 MHz	4.62 dB/100ft
3500 MHz	4.71 dB/100ft
4000 MHz	5.11 dB/100ft
5000 MHz	6.00 dB/100ft
6000 MHz	6.78 dB/100ft

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.15 ns/ft	88%

Power Rating

Frequency [MHz]	Max. Power Rating [W]
30 MHz	6,190 W
150 MHz	2,740 W
700 MHz	1,240 W
890 MHz	1,100 W
960 MHz	1,050 W
1,000 MHz	1,030 W
1,800 MHz	760 W
2,000 MHz	720 W
3,000 MHz	580 W
4,000 MHz	490 W
5,000 MHz	440 W
6,000 MHz	390 W

Voltage

Non-UL Voltage Rating
4000 VDC

VSWR

Frequency [MHz]	Max. VSWR
700-894 MHz	1.25
806-960 MHz	1.25
1700-2700 MHz	1.25
2700-3555 MHz	1.3
3700-4200 MHz	1.35

Temperature Range

Operating Temperature Range:	-20°C to +75°C
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Mechanical Characteristics

Bulk Cable Weight:	162 lbs/1000ft
Max. Pull Tension:	249 lbs
Min. Bend Radius/Minor Axis:	4.92 in

Applicable Environmental and Other Programs

Environmental Space:	Indoor - Plenum
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Suitability

Suitability - Burial:	No
Suitability - Hazardous Locations:	No
Suitability - Indoor:	Yes
Suitability - Outdoor:	No

Plenum/Non-Plenum

Plenum (Y/N):	Y
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Related Part Numbers

Non-Plenum Number:	RA500, RA500R
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Variants

Item #	Color	Put-Up Type	Length
RA500P 0101000	Black	Reel	1,000 ft
RA500P 0103000	Black	Reel	3,000 ft
RA500P 0061000	Blue, Light	Reel	1,000 ft
RA500P 0063000	Blue, Light	Reel	3,000 ft
RA500P 3651000	White	Reel	1,000 ft
RA500P 3653000	White	Reel	3,000 ft

History

Update and Revision:	Revision Number: 0.111 Revision Date: 12-22-2023
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