

75 Ohm P3® Trunk and Distribution Cable, unjacketed



- *Product complies with the Build America, Buy America Act (BABAA) requirements of the Infrastructure Investment and Jobs Act of 2021 (Pub. L. 117- 58, §§ 70901-70953), or is the subject of a waiver approved by the Secretary of Commerce or designee. Compliance requirements and waiver applicability vary based on government funding program. Check the laws and regulations for your specific program.

Product Classification

Regional Availability	North America
Product Type	Coaxial hardline cable
Product Brand	P3®
Government Funding	Build America Buy America (BABA) compliant*
Warranty	One year

General Specifications

Cable Type	500 Series
Construction Type	Swaged
Jacket Color	Unjacketed
Short Description	P3 500 CA

Dimensions

Cable Length	731.52 m 2400 ft
Diameter Over Center Conductor, nominal	2.769 mm 0.109 in
Diameter Over Dielectric, nominal	11.481 mm 0.452 in
Diameter Over Outer Conductor, nominal	12.7 mm 0.5 in
Outer Conductor Thickness, nominal	0.61 mm 0.024 in

Electrical Specifications

Capacitance	50.197 pF/m 15.3 pF/ft
Capacitance Tolerance	±1.0 pF/ft
Characteristic Impedance	75 ohm
Characteristic Impedance Tolerance	±2 ohm

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dc Resistance Note	Nominal values based on a standard condition of 20 °C (68 °F)
dc Resistance, Inner Conductor, nominal	4.429 ohms/km 1.35 ohms/kft
dc Resistance, Loop, nominal	5.643 ohms/km 1.72 ohms/kft
dc Resistance, Outer Conductor, nominal	1.214 ohms/km 0.37 ohms/kft
Nominal Velocity of Propagation (NVP)	87 %
Operating Frequency Band	5–3000 MHz
Structural Return Loss	24 dB @ 1003–1218 MHz 24 dB @ 1219–1794 MHz 30 dB @ 5–1002 MHz
Structural Return Loss, Grade N	≥24 dB @ 1003–1218 MHz ≥24 dB @ 1219–1794 MHz ≥30 dB @ 5–1002 MHz

Attenuation

Frequency (MHz)	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
5.0	0.52	0.16
55.0	1.77	0.54
85.0	2.23	0.68
204.0	3.51	1.07
211.0	3.58	1.09
250.0	3.94	1.2
300.0	4.3	1.31
350.0	4.69	1.43
400.0	5.02	1.53
450.0	5.35	1.63
500.0	5.67	1.73
550.0	5.97	1.82
600.0	6.3	1.92
750.0	7.09	2.16
865.0	7.68	2.34
1002.0	8.32	2.54
1218.0	9.28	2.83
1500.0	10.68	3.26
1794.0	11.88	3.62
1800.0	11.91	3.63
2000.0	12.68	3.87
2200.0	13.44	4.1

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2500.0	14.52	4.43
2700.0	15.22	4.64
3000.0	16.25	4.95

Material Specifications

Center Conductor Material	Copper-clad aluminum
Dielectric Material	Foam PE
Jacket Material	Unjacketed
Outer Conductor Material	Aluminum

Mechanical Specifications

Minimum Bend Radius, bonded	101.6 mm 4 in
Pulling Tension, maximum	136.078 kg 300 lb

Environmental Specifications

Environmental Space	Aerial
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Packaging and Weights

Packaging Type	Reel
Weight, gross	144.352 kg/km 97 lb/kft

Regulatory Compliance/Certifications

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

