5302002 | P3® 500 CA



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 RequirementsBuild America Buy America (BABA) compliant*

Warranty One year

General Specifications

Cable Type500 SeriesConstruction TypeSwagedJacket ColorUnjacketed

Location of ManufacturingCatawba, North Carolina

Short Description P3 500 CA

Dimensions

Cable Length731.52 m | 2400 ftDiameter Over Center Conductor, nominal2.769 mm | 0.109 inDiameter Over Dielectric, nominal11.481 mm | 0.452 inDiameter Over Outer Conductor, nominal12.7 mm | 0.5 inOuter Conductor Thickness, nominal0.61 mm | 0.024 in

Electrical Specifications

Capacitance 50.197 pF/m | 15.3 pF/ft

Capacitance Tolerance±1.0 pF/ftCharacteristic Impedance75 ohmCharacteristic 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, nominal4.429 ohms/km | 1.35 ohms/kftdc Resistance, Loop, nominal5.643 ohms/km | 1.72 ohms/kftdc Resistance, Outer Conductor, nominal1.214 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 MaterialFoam PEJacket MaterialUnjacketedOuter Conductor MaterialAluminum

Mechanical Specifications

Minimum Bend Radius, bonded101.6 mm | 4 inPulling Tension, maximum136.078 kg | 300 lb

Environmental Specifications

Environmental Space Aerial

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

