



75 Ohm P3® Trunk and Distribution Cable, black PE jacket

- \*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

Product Type	Coaxial hardline cable
Product Brand	P3®
Warranty	One year

General Specifications

Cable Type	500 Series
Construction Type	Swaged
Jacket Color	Black
Short Description	P3 500 JCA SM PR2171

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 Jacket, nominal	14.224 mm   0.56 in
Diameter Over Outer Conductor, nominal	12.7 mm   0.5 in
Jacket Thickness, nominal	0.762 mm   0.03 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
dc Resistance Note	Nominal values based on a standard condition of 20 °C (68 °F)

# 5201803 | P3 500 JCA SM PR2171

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
Jacket Spark Test Voltage	5000 Vac
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

## Electrical Performance

Frequency	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
5.0 MHz	0.52	0.16
55.0 MHz	1.77	0.54
85.0 MHz	2.23	0.68
204.0 MHz	3.51	1.07
211.0 MHz	3.58	1.09
250.0 MHz	3.94	1.2
300.0 MHz	4.3	1.31
350.0 MHz	4.69	1.43
400.0 MHz	5.02	1.53
450.0 MHz	5.35	1.63
500.0 MHz	5.67	1.73
550.0 MHz	5.97	1.82
600.0 MHz	6.3	1.92
750.0 MHz	7.09	2.16
865.0 MHz	7.68	2.34
1002.0 MHz	8.32	2.54
1218.0 MHz	9.28	2.83
1500.0 MHz	10.68	3.26
1794.0 MHz	11.88	3.62
1800.0 MHz	11.91	3.63
2000.0 MHz	12.68	3.87
2200.0 MHz	13.44	4.1
2500.0 MHz	14.52	4.43
2700.0 MHz	15.22	4.64
3000.0 MHz	16.25	4.95

Material Specifications

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

Mechanical Specifications

Minimum Bend Radius, bonded	88.9 mm   3.5 in
Pulling Tension, maximum	136.078 kg   300 lb

Environmental Specifications

Environmental Space	Aerial
---------------------	--------

Packaging and Weights

Packaging Type	Reel
Weight, gross	178.58 kg/km   120 lb/kft

Regulatory Compliance/Certifications

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