5514002 | QR® 540 JCASS SM MT

75 Ohm QR® Trunk and Distribution Cable, black PE jacket, flooded for underground

- *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	QR®
Government Funding	Build America Buy America (BABA) compliant*

General Specifications

Cable Type	540 Series
Construction Type	Welded
Jacket Color	Black
Location of Manufacturing	Catawba, North Carolina
Short Description	QR 540 JCASS SM MT PR2352

Dimensions

Cable Length	1,127.76 m | 3700 ft
Diameter Over Center Conductor, nominal	3.15 mm | 0.124 in
Diameter Over Dielectric, nominal	13.056 mm | 0.514 in
Diameter Over Jacket, nominal	15.494 mm | 0.61 in
Diameter Over Outer Conductor, nominal	13.716 mm | 0.54 in
Jacket Thickness, nominal	0.889 mm | 0.035 in
Outer Conductor Thickness, nominal	0.343 mm | 0.014 in

Electrical Specifications

Capacitance	50.197 pF/m | 15.3 pF/ft
Capacitance Tolerance	±1.0 pF/ft

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Characteristic Impedance	75 ohm
Characteristic Impedance Tolerance	±2 ohm
dc Resistance Note	Nominal values based on a standard condition of 20 °C (68 °F)
dc Resistance, Inner Conductor, nominal	3.346 ohms/km | 1.02 ohms/kft
dc Resistance, Loop, nominal	5.282 ohms/km | 1.61 ohms/kft
dc Resistance, Outer Conductor, nominal	1.936 ohms/km | 0.59 ohms/kft
Jacket Spark Test Voltage	5000 Vac
Nominal Velocity of Propagation (NVP)	88 %
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	0.46	0.14
55.0	1.54	0.47
85.0	1.94	0.59
204.0	3.05	0.93
211.0	3.12	0.95
250.0	3.38	1.03
300.0	3.71	1.13
350.0	4.04	1.23
400.0	4.33	1.32
450.0	4.59	1.4
500.0	4.89	1.49
550.0	5.12	1.56
600.0	5.38	1.64
750.0	6.07	1.85
865.0	6.56	2
1002.0	7.12	2.17
1218.0	7.89	2.41
1500.0	9.07	2.76
1794.0	10.11	3.08

1800.0	10.13	3.09
2000.0	10.81	3.29
2200.0	11.46	3.49
2500.0	12.41	3.78
2700.0	13.03	3.97
3000.0	13.93	4.24

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	101.6 mm | 4 in
Pulling Tension, maximum	99.79 kg | 220 lb

Environmental Specifications

Corrosion Protection	Migraheal®
Environmental Space	Buried

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