



## 75 Ohm QR® Trunk and Distribution Cable, black flame retardant 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

|                                |   |
|--------------------------------|---|
| <b>Regional Availability</b>   | North America                               |
| <b>Product Type</b>            | Coaxial hardline cable                      |
| <b>Product Brand</b>           | QR®   |
| <b>Government Requirements</b> | Build America Buy America (BABA) compliant* |

### General Specifications

|                                  |                         |
|----------------------------------|-------------------------|
| <b>Cable Type</b>                | 540 Series              |
| <b>Construction Type</b>         | Welded                  |
| <b>Jacket Color</b>              | Black                   |
| <b>Location of Manufacturing</b> | Catawba, North Carolina |
| <b>Short Description</b>         | QR 540 JCAR SM PR2351   |

### Dimensions

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

### Electrical Specifications

|                              |                          |
|------------------------------|--------------------------|
| <b>Capacitance</b>           | 50.197 pF/m   15.3 pF/ft |
| <b>Capacitance Tolerance</b> | ±1.0 pF/ft               |

|  |   |
|--|---|
| <b>Characteristic Impedance</b>                | 75 ohm  |
| <b>Characteristic Impedance Tolerance</b>      | ±2 ohm  |
| <b>dc Resistance Note</b>                      | Nominal values based on a standard condition of 20 °C (68 °F)         |
| <b>dc Resistance, Inner Conductor, nominal</b> | 3.346 ohms/km   1.02 ohms/kft   |
| <b>dc Resistance, Loop, nominal</b>            | 5.282 ohms/km   1.61 ohms/kft   |
| <b>dc Resistance, Outer Conductor, nominal</b> | 1.936 ohms/km   0.59 ohms/kft   |
| <b>Jacket Spark Test Voltage</b>               | 5000 Vac  |
| <b>Nominal Velocity of Propagation (NVP)</b>   | 88 %  |
| <b>Operating Frequency Band</b>                | 5–3000 MHz  |
| <b>Structural Return Loss</b>                  | 24 dB @ 1003–1218 MHz   24 dB @ 1219–1794 MHz   30 dB @ 5–1002 MHz    |
| <b>Structural Return Loss, Grade N</b>         | ≥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                    |

# 5526402 | QR® 540 JCAR

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|               |       |      |
|---------------|-------|------|
| <b>1800.0</b> | 10.13 | 3.09 |
| <b>2000.0</b> | 10.81 | 3.29 |
| <b>2200.0</b> | 11.46 | 3.49 |
| <b>2500.0</b> | 12.41 | 3.78 |
| <b>2700.0</b> | 13.03 | 3.97 |
| <b>3000.0</b> | 13.93 | 4.24 |

## Material Specifications

|                                  |                      |
|----------------------------------|----------------------|
| <b>Center Conductor Material</b> | Copper-clad aluminum |
| <b>Dielectric Material</b>       | Foam PE              |
| <b>Jacket Material</b>           | Fire retardant PE    |
| <b>Outer Conductor Material</b>  | Aluminum             |

## Mechanical Specifications

|                                    |                   |
|------------------------------------|-------------------|
| <b>Minimum Bend Radius, bonded</b> | 101.6 mm   4 in   |
| <b>Pulling Tension, maximum</b>    | 99.79 kg   220 lb |

## Environmental Specifications

|                               |                |
|-------------------------------|----------------|
| <b>Environmental Space</b>    | Riser          |
| <b>Temperature Rating, UL</b> | 60 °C   140 °F |

## Packaging and Weights

|                       |                            |
|-----------------------|----------------------------|
| <b>Packaging Type</b> | Reel                       |
| <b>Weight, gross</b>  | 187.509 kg/km   126 lb/kft |

## Regulatory Compliance/Certifications

|               |  |
|---------------|--|
| <b>Agency</b> | <b>Classification</b>  |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |