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1-800-Belden1



General Description:

RG-8 type, 10 AWG solid .108" bare copper-covered aluminum conductor, gas-injected foam HDPE insulation, Duobond® II + tinned copper braid shield (95% coverage), PVC jacket.

Physical Characteristics (Overall)

Conductor

AWG:

| # Coax | AWG | Stranding | Conductor Material | Dia. (in.) |
|--------|-----|-----------|-------------------------------------|------------|
| 1 | 10 | Solid | BCCA - Bare Copper Covered Aluminum | .108 |

Total Number of Conductors: 1

Insulation

Insulation Material:

| Insulation Material | Dia. (in.) |
|---|------------|
| Gas-injected FHDPE - Foam High Density Polyethylene | .285 |

Outer Shield

Outer Shield Material:

| Layer # | Outer Shield Trade Name | Type | Outer Shield Material | Coverage (%) |
|---------|-------------------------|-------|---|--------------|
| 1 | Bonded Duofoil® | Tape | Bonded Aluminum Foil-Polyester Tape-Aluminum Foil | 100 |
| 2 | | Braid | TC - Tinned Copper | 95 |

Outer Jacket

Outer Jacket Material:

| Outer Jacket Material |
|--------------------------|
| PVC - Polyvinyl Chloride |

Overall Cable

Overall Nominal Diameter: 0.403 in.

Mechanical Characteristics (Overall)

Operating Temperature Range: -40°C To +75°C

UL Temperature Rating: 60°C

Bulk Cable Weight: 86 lbs/1000 ft.

Max. Recommended Pulling Tension: 150 lbs.

Min. Bend Radius/Minor Axis: 4 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMR

CEC/C(UL) Specification: CMG

EU Directive 2011/65/EU (ROHS II): Yes

EU CE Mark: Yes

EU Directive 2000/53/EC (ELV): Yes

EU Directive 2002/95/EC (RoHS): Yes

EU RoHS Compliance Date (mm/dd/yyyy): 01/01/2004

EU Directive 2002/96/EC (WEEE): Yes

EU Directive 2003/11/EC (BFR): Yes

CA Prop 65 (CJ for Wire & Cable): Yes

MII Order #39 (China RoHS): Yes

RG Type: 8/U

Series Type: RF 400

Flame Test

| | |
|-----------------|-----------------------|
| UL Flame Test: | UL1666 Vertical Shaft |
| CSA Flame Test: | FT4 |

Suitability

| | |
|-----------------------|-----|
| Suitability - Indoor: | Yes |
|-----------------------|-----|

Plenum/Non-Plenum

| | |
|---------------|----|
| Plenum (Y/N): | No |
|---------------|----|

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

| |
|------------------------|
| Impedance (Ohm) |
| 50 |

Nom. Inductance:

| |
|---------------------------|
| Inductance (µH/ft) |
| 0.060 |

Nom. Capacitance Conductor to Shield:

| |
|----------------------------|
| Capacitance (pF/ft) |
| 23.0 |

Nominal Velocity of Propagation:

| |
|---------------|
| VP (%) |
| 86 |

Nominal Delay:

| |
|----------------------|
| Delay (ns/ft) |
| 1.17 |

Nom. Conductor DC Resistance:

| |
|---------------------------------|
| DCR @ 20°C (Ohm/1000 ft) |
| 1.34 |

Nominal Outer Shield DC Resistance:

| |
|---------------------------------|
| DCR @ 20°C (Ohm/1000 ft) |
| 2 |

Maximum VSWR:

| Description | Freq. (MHz) | Start Freq. (MHz) | Stop Freq. (MHz) | Max. VSWR |
|-------------|-------------|-------------------|------------------|-----------|
| | | 5 | 6000 | 1.25:1 |

Nom. Attenuation:

| Freq. (MHz) | Attenuation (dB/100 ft.) |
|-------------|--------------------------|
| 30 | 0.7 |
| 50 | 0.9 |
| 150 | 1.5 |
| 220 | 1.8 |
| 450 | 2.7 |
| 900 | 3.8 |
| 1500 | 5.1 |
| 1800 | 5.6 |
| 2000 | 6.0 |
| 2500 | 6.7 |
| 3000 | 7.5 |
| 3500 | 8.2 |
| 4500 | 9.5 |
| 5800 | 11.1 |
| 6000 | 11.4 |

Max. Attenuation:

| Freq. (MHz) | Attenuation (dB/100 ft.) |
|-------------|--------------------------|
| 30 | 0.70 |
| 50 | 0.93 |
| 150 | 1.58 |
| 220 | 1.94 |
| 450 | 2.83 |
| 900 | 4.06 |
| 1500 | 5.32 |
| 1800 | 5.98 |
| 2000 | 6.35 |
| 2500 | 7.08 |

| | |
|------|-------|
| 3000 | 7.97 |
| 3500 | 8.80 |
| 4500 | 10.23 |
| 5800 | 12.00 |
| 6000 | 12.23 |

Max. Power Rating:

| Freq. (MHz) | Rating (W) |
|-------------|------------|
| 30 | 3427 |
| 50 | 2588 |
| 150 | 1428 |
| 220 | 1195 |
| 450 | 817 |
| 900 | 575 |
| 1500 | 437 |
| 1800 | 399 |
| 2000 | 375 |
| 2500 | 334 |
| 3000 | 305 |
| 3500 | 282 |
| 4500 | 247 |
| 5800 | 217 |
| 6000 | 213 |

Max. Operating Voltage - Non-UL:

| Voltage |
|-----------|
| 300 V RMS |

Sweep Test

Sweep Testing: 100% Sweep tested to 6 GHz.

Misc. Information (Overall)

Notes (Overall)

Notes: 100% Sweep tested. 6 GHz. Belden® The Wire in Wireless®

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|---------------|----------|-------------|-------|-------|-------------------------|
| 7810R 0101000 | 1,000 FT | 95.000 LB | BLACK | C | #10 LDPE/FHDPE SH FRPVC |
| 7810R 010500 | 500 FT | 47.000 LB | BLACK | C | #10 LDPE/FHDPE SH FRPVC |

Notes:
C = CRATE REEL PUT-UP.

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