

7810A Coax - RG-8 Type



For more Information
please call

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), polyethylene jacket.

Physical Characteristics (Overall)

Conductor

AWG:

| # Coax | AWG | Stranding | Conductor Material | Dia. (mm) |
|--------|-----|-----------|-------------------------------------|-----------|
| 1 | 10 | Solid | BCCA - Bare Copper Covered Aluminum | 2.7432 |

Total Number of Conductors: 1

Insulation

Insulation Material:

| Insulation Material | Dia. (mm) |
|---|-----------|
| Gas-injected FHDPE - Foam High Density Polyethylene | 7.239 |

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 |
|-----------------------|
| PE - Polyethylene |

Overall Cable

Overall Nominal Diameter: 10.236 mm

Mechanical Characteristics (Overall)

| | |
|-----------------------------------|----------------|
| Operating Temperature Range: | -40°C To +75°C |
| Non-UL Temperature Rating: | 80°C |
| Bulk Cable Weight: | 104.174 Kg/Km |
| Max. Recommended Pulling Tension: | 667.230 N |
| Min. Bend Radius/Minor Axis: | 101.600 mm |

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

| | |
|---------------------------------------|------------|
| EU Directive 2011/65/EU (ROHS II): | Yes |
| EU CE Mark: | No |
| 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 |
| MIL Order #39 (China RoHS): | Yes |
| RG Type: | 8/U |
| Series Type: | RF 400 |

Suitability

Plenum/Non-Plenum

Plenum (Y/N): No

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

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

Nom. Inductance:

| Inductance (µH/m) |
|-------------------|
| 0.19686 |

Nom. Capacitance Conductor to Shield:

| Capacitance (pF/m) |
|--------------------|
| 75.463 |

Nominal Velocity of Propagation:

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

Nominal Delay:

| Delay (ns/m) |
|--------------|
| 3.83877 |

Nom. Conductor DC Resistance:

| DCR @ 20°C (Ohm/km) |
|---------------------|
| 4.39654 |

Nominal Outer Shield DC Resistance:

| DCR @ 20°C (Ohm/km) |
|---------------------|
| 6.562 |

Maximum VSWR:

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

Nom. Attenuation:

| Freq. (MHz) | Attenuation (dB/100m) |
|-------------|-----------------------|
| 30 | 2.2967 |
| 50 | 2.9529 |
| 150 | 4.9215 |
| 220 | 5.9058 |
| 450 | 8.8587 |
| 900 | 12.4678 |
| 1500 | 16.7331 |
| 1800 | 18.3736 |
| 2000 | 19.686 |
| 2500 | 21.9827 |
| 3000 | 24.6075 |
| 3500 | 26.9042 |
| 4500 | 31.1695 |
| 5800 | 36.4191 |
| 6000 | 37.4034 |

Max. Attenuation:

| Freq. (MHz) | Attenuation (dB/100m) |
|-------------|-----------------------|
| 30 | 2.2967 |
| 50 | 3.05133 |
| 150 | 5.18398 |
| 220 | 6.36514 |
| 450 | 9.28523 |
| 900 | 13.3209 |
| 1500 | 17.4549 |
| 1800 | 19.6204 |
| 2000 | 20.8344 |
| 2500 | 23.2295 |
| 3000 | 26.1496 |
| 3500 | 28.8728 |
| 4500 | 33.5646 |
| 5800 | 39.372 |
| 6000 | 40.1266 |

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: Belden® The Wire in Wireless®

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|---------------|----------|-------------|-------|-------|-------------------------------|
| 7810A 0101000 | 1,000 EA | 117.565 KG | BLACK | C | RF400 WIRELESS 50 OHM COAX PE |
| 7810A 010500 | 152 MT | 17.690 KG | BLACK | C | RF400 WIRELESS 50 OHM COAX PE |

Notes:
C = CRATE REEL PUT-UP.

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