METRIC MEASUREMENT VERSION



7810R 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), PVC jacket.

Physical Characteristics (Overall)

Conductor

AWG:

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

Total Number of Conductors:

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 Ty | | Type | Outer Shield Material | Coverage (%) |
|------------------------------------|-----------------|-------|---|--------------|
| 1 | Bonded Duofoil® | Таре | 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: 10.236 mm

Mechanical Characteristics (Overall)

| Operating Temperature Range: | -40°C To +75°C |
|-----------------------------------|----------------|
| UL Temperature Rating: | 60°C |
| Bulk Cable Weight: | 127.985 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

| 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 |

Page 1 of 4 10-30-2013

METRIC MEASUREMENT VERSION



7810R Coax - RG-8 Type

| 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)

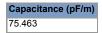
Nom. Characteristic Impedance:



Nom. Inductance:



Nom. Capacitance Conductor to Shield:



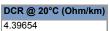
Nominal Velocity of Propagation:



Nominal Delay:



Nom. Conductor DC Resistance:



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 |

Page 2 of 4 10-30-2013

METRIC MEASUREMENT VERSION



7810R Coax - RG-8 Type

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

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|---------------|--------|-------------|-------|-------|-------------------------|
| 7810R 0101000 | 305 MT | 43.091 KG | BLACK | С | #10 LDPE/FHDPE SH FRPVC |
| 7810R 010500 | 152 MT | 21.319 KG | BLACK | С | #10 LDPE/FHDPE SH FRPVC |

Notes:

C = CRATE REEL PUT-UP.

Page 3 of 4 10-30-2013

METRIC MEASUREMENT VERSION



7810R Coax - RG-8 Type

Revision Number: 5 Revision Date: 10-03-2012

© 2013 Belden, Inc All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described herein are subject to error or omission and to change without notice, and the listing of such information and specifications does not

Belden provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale. Belden believes this product to be in compliance with EU RoHS (Directive 2002/95/EC, 27-Jan-2003). Material manufactured prior to the compliance date may be in stock at Belden facilities and in our Distributor's inventory. The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden's knowledge, information, and belief at the date of its publication. The information provided in this Product Disclosure is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. This Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.

Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 73/23/EEC), as amended by directive 93/68/EEC.

Page 4 of 4