# **Detailed Specifications & Technical Data**

## METRIC MEASUREMENT VERSION



83242 Coax - 50 Ohm Coax

For more Information please call

1-800-Belden1



# **General Description:**

19 AWG solid .037" silver-coated copper-covered steel conductor, plenum, TFE Teflon® insulation, double silver-coated copper braid shield (95% coverage), FEP jacket.

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# **Physical Characteristics (Overall)**

### Conductor

#### AWG:

| # Coax | AWG | Stranding | Conductor Material                         | Dia. (mm) |
|--------|-----|-----------|--|-----------|
| 1      | 19  | Solid     | SCCCS - Silver-coated Copper-covered Steel | 0.940     |

Total Number of Conductors:

### Insulation

### **Insulation Material:**

| Insulation Trade Name | Insulation Material       | Dia. (mm) |
|-----------------------|---------------------------|-----------|
| Teflon®               | TFE - Tetrafluoroethylene | 2.9464    |

### **Outer Shield**

## **Outer Shield Material:**

| Layer # | Type  | Outer Shield Material | Coverage (%) |
|---------|-------|-----------------------|--------------|
| 1       | Braid | Silver-coated Copper  | 95.000       |
| 1       | Braid | Silver-coated Copper  | 95.000       |

### **Outer Jacket**

### **Outer Jacket Material:**

| Outer Jacket Material                |  |
|--------------------------------------|--|
| FEP - Fluorinated Ethylene Propylene |  |

## **Overall Cable**

Overall Nominal Diameter: 4.953 mm

# **Mechanical Characteristics (Overall)**

| Operating Temperature Range:      | -70°C To +200°C |  |  |
|-----------------------------------|-----------------|--|--|
| UL Temperature Rating:            | 200°C           |  |  |
| Bulk Cable Weight:                | 63.993 Kg/Km    |  |  |
| Max. Recommended Pulling Tension: | 649.437 N       |  |  |
| Min. Bend Radius/Minor Axis:      | 50.800 mm       |  |  |

# **Applicable Specifications and Agency Compliance (Overall)**

## **Applicable Standards & Environmental Programs**

| NEC/(UL) Specification:            | CMP |
|------------------------------------|-----|
| CEC/C(UL) Specification:           | CMP |
| 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 |
|                                    |     |

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## 83242 Coax - 50 Ohm Coax

| EU RoHS Compliance Date (mm/dd/yyyy): | 04/01/2005                |
|---------------------------------------|---------------------------|
| 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                       |
| Military Specification:               | MIL-DTL-17, M17/158-00001 |
| RG Type:                              | 142B/U                    |
| Flame Test                            |                           |
| UL Flame Test:                        | NFPA 262                  |
| CSA Flame Test:                       | FT6                       |
| Suitability                           |                           |
| Suitability - Indoor:                 | Yes                       |
| Plenum/Non-Plenum                     |                           |
| Plenum (Y/N):                         | Yes                       |
|                                       |                           |

# **Electrical Characteristics (Overall)**

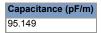
Nom. Characteristic Impedance:



Nom. Inductance:



Nom. Capacitance Conductor to Shield:



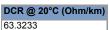
Nominal Velocity of Propagation:



**Nominal Delay:** 



Nom. Conductor DC Resistance:



Nominal Outer Shield DC Resistance:



Nom. Attenuation:

| Freq. (MHz) | Attenuation (dB/100m) |
|-------------|-----------------------|
| 10          | 3.6091                |
| 50          | 8.5306                |
| 100         | 12.4678               |
| 200         | 17.7174               |
| 400         | 25.9199               |
| 700         | 35.1067               |
| 900         | 40.3563               |
| 1000        | 42.9811               |
| 2000        | 63.3233               |
| 3000        | 79.4002               |
| 5000        | 106.961               |
| 8000        | 141.739               |

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Max. Operating Voltage - UL:

Voltage 150 V RMS

Max. Operating Voltage - Other:

Voltage Description 1400 V RMS | Military

## Misc. Information (Overall)

## **Notes (Overall)**

Notes: Non-SWR swept version of RG-142. Teflon® is a registered trademark of E. I. duPont de Nemours and Co. used under license by Belden, Inc

## **Put Ups and Colors:**

| Item #        | Putup    | Ship Weight | Color | Notes | Item Desc      |
|---------------|----------|-------------|-------|-------|----------------|
| 83242 001100  | 100 FT   | 5.200 LB    | BROWN | CE    | RG-142B/U COAX |
| 83242 0011000 | 1,000 FT | 44.000 LB   | BROWN | CE    | RG-142B/U COAX |
| 83242 001500  | 500 FT   | 22.000 LB   | BROWN | CE    | RG-142B/U COAX |

#### Notes:

C = CRATE REEL PUT-UP

E = MAY CONTAIN MORE THAN 1 PIECE. MINIMUM LENGTH OF ANY ONE PIECE IS 25'

Revision Number: 5 Revision Date: 04-04-2014

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