# **Detailed Specifications & Technical Data**



### ENGLISH MEASUREMENT VERSION

## 1855A Coax - Sub-Miniature



For more Information please call

1-800-Belden1



### **General Description:**

23 AWG solid .023" bare copper conductor, gas-injected foam HDPE insulation, Duofoil® + tinned copper braid shield (95% coverage), PVC jacket.

| Phys  | sical Characteristics (Ov                             |               | •                            |                      |              |
|-------|---|---------------|------------------------------|----------------------|--------------|
| Conc  | ductor  |               |                              |                      |              |
| AW    | VG:<br># Coax AWG Stranding Condu                     | uctor Mat     | terial Dia. (in.)            |                      |              |
|       |   | are Copp      |                              |                      |              |
| 1     | Total Number of Conductors:                           |               |                              | 1                    |              |
| Insul | lation  |               |                              |                      |              |
| -     | sulation Material:                                    |               |                              |                      |              |
|       | Insulation Material<br>Gas-injected FHDPE - Foam High | 1 Density     | Dia. (in.) Polvethylene .102 |                      |              |
| L     |   |               | . ,,                         |                      |              |
|       | er Shield<br>iter Shield Material:                    |               |                              |                      |              |
|       | Layer # Outer Shield Trade Nar                        |               |                              |                      | Coverage (%) |
|       | 1 Duofoil®<br>2                                       |               | Aluminum Foil-Polyeste       | r Tape-Aluminum Foil | 100<br>95    |
| L     |   | Dialu         | TC - Timed Copper            |                      | 95           |
|       | er Jacket<br>Iter Jacket Material:                    |               |                              |                      |              |
| _     | Outer Jacket Material                                 |               |                              |                      |              |
|       | PVC - Polyvinyl Chloride                              |               |                              |                      |              |
| Over  | rall Cable  |               |                              |                      |              |
| C     | Overall Nominal Diameter:                             |               |                              | 0.159 in.            |              |
| Mech  | nanical Characteristics (                             | Overal        | 1)                           |                      |              |
|       | Operating Temperature Range:                          | , or or or or | ,                            | -30°C To +75°C       |              |
| _     | UL Temperature Rating:                                |               |                              | 75°C                 |              |
| _     | Bulk Cable Weight:                                    |               |                              | 17 lbs/1000 ft.      |              |
| _     |   | sion:         |                              | 40 lbs.              |              |
| _     | Max. Recommended Pulling Ter                          | 191011:       |                              |                      |              |
|       | Min. Bend Radius/Minor Axis:                          |               |                              | 1.500 in.            |              |
|       | icable Specifications an                              | -             |                              | Overall)             |              |
|       | licable Standards & Enviror                           | nmental       | Programs                     |                      |              |
| _     | NEC/(UL) Specification:                               |               |                              | CMR                  |              |
|       | CEC/C(UL) Specification:                              |               |                              | CMG                  |              |
| E     | EU Directive 2011/65/EU (ROHS                         | II):          |                              | Yes                  |              |
| E     | EU CE Mark:   |               |                              | Yes                  |              |
| E     | EU Directive 2000/53/EC (ELV):                        |               |                              | Yes                  |              |
| E     | EU Directive 2002/95/EC (RoHS)                        | :             |                              | Yes                  |              |
| E     | 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                       | <i>.</i>      |                              | Yes                  |              |
| _     |   | <i>.</i>      |                              |                      |              |
| _     | MII Order #39 (China RoHS):                           |               |                              | Yes                  |              |
| F     | RG Type:  |               |                              | Sub-miniature 59/    | ΰ            |

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| ame Test<br>UL Flame   |   |   |
|--|---|---|
|  | Test:   | UL1666 Vertical Shaft   |
| C64 El   |   |   |
| CSA Flan   | ie lest:  | FT4   |
| uitability   |   |   |
| Suitabilit   | y - Indoor:   | Yes   |
| lenum/Non  | -Plenum   |   |
| Plenum (   | Y/N):   | No  |
| Plenum N   | lumber:   | 1855P   |
|  |   |   |
|  | haracteristics (Ove   | rall)   |
| Impedance  | eristic Impedance:  |   |
| 75   |   |   |
| om. Inductar   |   |   |
| Inductance   |   |   |
| .107   | (   |   |
| om Canacita  | ance Conductor to Shield  |   |
| Capacitanc   |   |   |
| 16.3   |   |   |
| ominal Veloc   | ity of Propagation:   |   |
| VP (%)   |   |   |
| 82   |   |   |
| ominal Delay   | <i>r</i> :  |   |
| Delay (ns/f  | t)  |   |
| 1.22   |   |   |
| om. Conduct  | or DC Resistance:   |   |
| DCR @ 20°  | C (Ohm/1000 ft)   |   |
| 20.1   |   |   |
| om. Attenuat   | tion:   |   |
| Freq. (MHz   | Attenuation (dB/100 ft.)  |   |
| 1.000  | 0.390   |   |
| 3.580  | 0.780   |   |
| 5.000  | 0.920   |   |
| 6.000<br>7.000   | 1.000   |   |
| 10.000   | 1.200   |   |
| 12.000   | 1.300   |   |
| 25.000   | 1.800   |   |
| 67.500   | 2.830   |   |
|  |   |   |
| 71.500   | 2.860   |   |
| 71.500<br>88.500   | 3.160   |   |
| 71.500<br>88.500<br>100.000  | 3.160<br>3.330  |   |
| 71.500<br>88.500<br>100.000<br>135.000   | 3.160<br>3.330<br>3.810   |   |
| 71.500<br>88.500<br>100.000<br>135.000<br>143.000  | 3.160<br>3.330<br>3.810<br>3.920  |   |
| 71.500<br>88.500<br>100.000<br>135.000<br>143.000<br>180.000   | 3.160<br>3.330<br>3.810<br>3.920<br>4.380   |   |
| 71.500<br>88.500<br>100.000<br>135.000<br>143.000<br>180.000<br>270.000  | 3.160<br>3.330<br>3.810<br>3.920<br>4.380<br>5.400  |   |
| 71.500<br>88.500<br>100.000<br>135.000<br>143.000<br>180.000<br>270.000<br>360.000   | 3.160<br>3.330<br>3.810<br>3.920<br>4.380<br>5.400<br>6.200   |   |
| 71.500           88.500           100.000           135.000           143.000           180.000           270.000           360.000           540.000  | 3.160<br>3.330<br>3.810<br>3.920<br>4.380<br>5.400<br>6.200<br>7.700  |   |
| 71.500           88.500           100.000           135.000           143.000           270.000           360.000           540.000           720.000  | 3.160<br>3.330<br>3.810<br>3.920<br>4.380<br>5.400<br>6.200<br>7.700<br>9.000   |   |
| 71.500           88.500           100.000           135.000           143.000           270.000           360.000           540.000           720.000           750.000  | 3.160         3.330         3.810         3.920         4.380         5.400         6.200         7.700         9.000         9.230   |   |
| 71.500           88.500           100.000           135.000           143.000           270.000           360.000           540.000           720.000           750.000           1000.000   | 3.160         3.330         3.810         3.920         4.380         5.400         6.200         7.700         9.000         9.230         10.600  |   |
| 71.500           88.500           100.000           135.000           143.000           270.000           360.000           540.000           720.000           750.000  | 3.160         3.330         3.810         3.920         4.380         5.400         6.200         7.700         9.000         9.230   |   |
| 71.500           88.500           100.000           135.000           143.000           270.000           360.000           540.000           750.000           1000.000           1500.000  | 3.160         3.330         3.810         3.920         4.380         5.400         6.200         7.700         9.000         9.230         10.600         13.000   |   |
| 71.500           88.500           100.000           135.000           143.000           270.000           360.000           540.000           750.000           1000.000           1500.000           2000.000   | 3.160         3.330         3.810         3.920         4.380         5.400         6.200         7.700         9.000         9.230         10.600         13.000         15.100  |   |
| 71.500           88.500           100.000           135.000           143.000           270.000           360.000           540.000           750.000           1000.000           1500.000           2000.000           2250.000  | 3.160         3.330         3.810         3.920         4.380         5.400         6.200         7.700         9.000         9.230         10.600         13.000         15.100         16.000                               |   |
| 71.500           88.500           100.000           135.000           143.000           270.000           360.000           540.000           750.000           1000.000           250.000           3000.000           2450.000   | 3.160         3.330         3.810         3.920         4.380         5.400         6.200         7.700         9.000         9.230         10.600         13.000         15.100         16.000         18.500         22.800 |   |
| 71.500           88.500           100.000           135.000           143.000           143.000           270.000           360.000           540.000           750.000           1000.000           2500.000           250.000           3000.000           4500.000           ax. Operatin                                       | 3.160         3.330         3.810         3.920         4.380         5.400         6.200         7.700         9.000         9.230         10.600         13.000         15.100         16.000         18.500                |   |
| 71.500         88.500         100.000         135.000         143.000         143.000         270.000         360.000         540.000         720.000         750.000         1000.000         250.000         3000.000         2550.000         3000.000         4500.000         ax. Operatin         Voltage                    | 3.160<br>3.330<br>3.810<br>3.920<br>4.380<br>5.400<br>6.200<br>7.700<br>9.000<br>9.230<br>10.600<br>13.000<br>15.100<br>15.100<br>18.500<br>22.800<br>g Voltage - UL:   |   |
| 71.500         88.500         100.000         135.000         143.000         143.000         270.000         360.000         540.000         720.000         750.000         1000.000         2500.000         2000.000         2250.000         3000.000         4500.000         ax. Operatin         Voltage         300 V RMS | 3.160<br>3.330<br>3.810<br>3.920<br>4.380<br>5.400<br>6.200<br>7.700<br>9.000<br>9.230<br>10.600<br>13.000<br>15.100<br>15.100<br>18.500<br>22.800<br>g Voltage - UL:   | Impedance tested in accordance with ASTM D-4566 paragraph 43.2, option 2 using a 75 Ohm fixed bridge and termination. 75 +/- 1.5 Ohms |

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Other Electrical Characteristic 2:

Return loss tested in accordance with ASTM D-4566 paragraph 45.3 using a 75 Uhm fixed bridge and termination.

#### Minimum Return Loss:

| Start Freq. (MHz) | Stop Freq. (MHz) | Min. RL (dB) |
|-------------------|------------------|--------------|
| 5                 | 1600             | 23           |
| 1601              | 4500             | 21           |

Sweep Test

Sweep Testing:

100% Sweep tested 5 MHz to 4.5 GHz.

#### Misc. Information (Overall)

#### Notes (Overall)

Notes: Also available in multiples, bundled. See 7787A through 7792A.

#### Put Ups and Colors:

| Item #         | Putup    | Ship Weight | Color          | Notes | Item Desc                  |
|----------------|----------|-------------|----------------|-------|----------------------------|
| 1855A N3UN1000 | 1,000 FT | 21.000 LB   | GREEN, MIL     |       | #23 PE/GIFHDPE SH FR PVC   |
| 1855A N3U1000  | 1,000 FT | 19.000 LB   | GREEN, MIL     | С     | #23 PE/GIFHDPE SH FR PVC   |
| 1855A 001N1000 | 1,000 FT | 21.000 LB   | BROWN          |       | #23 PE/GIFHDPE SH FR PVC   |
| 1855A 0011000  | 1,000 FT | 19.000 LB   | BROWN          | С     | #23 PE/GIFHDPE SH FR PVC   |
| 1855A 002N1000 | 1,000 FT | 21.000 LB   | RED            |       | #23 PE/GIFHDPE SH FR PVC   |
| 1855A 0021000  | 1,000 FT | 19.000 LB   | RED            | С     | #23 PE/GIFHDPE SH FR PVC   |
| 1855A 003N1000 | 1,000 FT | 21.000 LB   | ORANGE         |       | #23 PE/GIFHDPE SH FR PVC   |
| 1855A 0031000  | 1,000 FT | 19.000 LB   | ORANGE         | С     | #23 PE/GIFHDPE SH FR PVC   |
| 1855A 004N1000 | 1,000 FT | 21.000 LB   | YELLOW         |       | #23 PE/GIFHDPE SH FR PVC   |
| 1855A 0041000  | 1,000 FT | 19.000 LB   | YELLOW         | С     | #23 PE/GIFHDPE SH FR PVC   |
| 1855A 006N1000 | 1,000 FT | 21.000 LB   | BLUE, LIGHT    |       | #23 PE/GIFHDPE SH FR PVC   |
| 1855A 0061000  | 1,000 FT | 19.000 LB   | BLUE, LIGHT    | С     | #23 PE/GIFHDPE SH FR PVC   |
| 1855A 007N1000 | 1,000 FT | 21.000 LB   | VIOLET         |       | #23 PE/GIFHDPE SH FR PVC   |
| 1855A 0071000  | 1,000 FT | 19.000 LB   | VIOLET         | С     | #23 PE/GIFHDPE SH FR PVC   |
| 1855A 008N1000 | 1,000 FT | 21.000 LB   | GRAY           |       | #23 PE/GIFHDPE SH FR PVC   |
| 1855A 0081000  | 1,000 FT | 19.000 LB   | GRAY           | С     | #23 PE/GIFHDPE SH FR PVC   |
| 1855A 009N1000 | 1,000 FT | 21.000 LB   | WHITE          |       | #23 PE/GIFHDPE SH FR PVC   |
| 1855A 0091000  | 1,000 FT | 19.000 LB   | WHITE          | С     | #23 PE/GIFHDPE SH FR PVC   |
| 1855A 010N1000 | 1,000 FT | 21.000 LB   | BLACK          |       | #23 PE/GIFHDPE SH FR PVC   |
| 1855A 0101000  | 1,000 FT | 19.000 LB   | BLACK          | С     | #23 PE/GIFHDPE SH FR PVC   |
| 1855A 010500   | 500 FT   | 9.500 LB    | BLACK          |       | #23 PE/GIFHDPE SH FR PVC   |
| 282138-75      | 1 EA     | 0.032 LB    | CHROME, BRIGHT | Q     | Amphenol MiniDin for 1855A |

#### Notes:

C = CRATE REEL PUT-UP.

Q = STANDARD PACKAGES CANNOT BE BROKEN.

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