

## 7913S Composite - Composite Data, Audio, Video, Security and Control Cable



For more Information  
please call

1-800-Belden1



### General Description:

Banana Peel® Composite - (2) Cat 5e 4-pair 24 AWG unshielded plus (2) Series 6 Coax with Duobond® IV Quad shield, polyolefin insulation on the pairs; Gas-injected FPE insulation on the coax, F-R PVC jackets, No overall jacket.

### Usage (Overall)

Suitable Applications:

HDTV, DBS, CATV, CCTV, Multimedia, Voice, Video, Data, High Speed Internet, Networked Computing, Distributed Video, Distributed Audio, Security Monitoring, Energy Monitoring

### Coax

#### Physical Characteristics

##### Conductor

AWG:

| # Coax | AWG | Stranding | Conductor Material | Dia. (in.) |
|--------|-----|-----------|--------------------|------------|
| 2      | 18  | Solid     | BC - Bare Copper   | 0.040      |

##### Insulation

Insulation Material:

| Insulation Material                  | Dia. (in.) |
|--------------------------------------|------------|
| Gas-injected FPE - Foam Polyethylene | 0.180      |

##### 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 | 100.000      |
| 2       |                         | Braid | AL - Aluminum                                     | 60.000       |
| 3       | Duofoil®                | Tape  | Aluminum Foil-Polyester Tape-Aluminum Foil        | 100.000      |
| 4       |                         | Braid | AL - Aluminum                                     | 40.000       |

##### Outer Jacket

Outer Jacket Material:

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

Outer Jacket Diameter:

| Nom. Dia. (in.) |
|-----------------|
| 0.298           |

Outer Jacket Color Code Chart:

| Number | Color |
|--------|-------|
| 1      | Black |
| 2      | White |

### Applicable Specifications and Agency Compliance

#### Applicable Standards & Environmental Programs

Series Type:

Series 6

### Electrical Characteristics

Nom. Characteristic Impedance:

| Impedance (Ohm) |
|-----------------|
| 75              |

Nom. Inductance:

| Inductance (µH/ft) |
|--------------------|
| 0.097              |

Nom. Capacitance Conductor to Shield:

| Capacitance (pF/ft) |
|---------------------|
| 16.200              |

Nominal Velocity of Propagation:

| VP (%) |
|--------|
| 83.000 |

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### Nominal Delay:

| Delay (ns/ft) |
|---------------|
| 1.200         |

### Nom. Conductor DC Resistance:

| DCR @ 20°C (Ohm/1000 ft) |
|--------------------------|
| 6.400                    |

### Nom. Inner Shield DC Resistance:

| DCR @ 20°C (Ohm/1000 ft) |
|--------------------------|
| 4.800                    |

### Minimum Structural Return Loss:

| Start Freq. (MHz) | Stop Freq. (MHz) | Min. SRL (dB) |
|-------------------|------------------|---------------|
| 5.000             | 1000.000         | 20.000        |
| 1000.000          | 2250.000         | 15.000        |
| 2250.000          | 3000.000         | 10.000        |

### Nom. Attenuation:

| Freq. (MHz) | Attenuation (dB/100 ft.) |
|-------------|--------------------------|
| 5.000       | 0.500                    |
| 55.000      | 1.400                    |
| 211.000     | 2.600                    |
| 500.000     | 4.100                    |
| 750.000     | 5.100                    |
| 862.000     | 5.500                    |
| 1000.000    | 6.000                    |
| 1450.000    | 7.800                    |
| 1800.000    | 8.600                    |
| 2250.000    | 9.800                    |
| 3000.000    | 11.300                   |

### Max. Attenuation:

| Freq. (MHz) | Attenuation (dB/100 ft.) |
|-------------|--------------------------|
| 5.000       | 0.670                    |
| 55.000      | 1.600                    |
| 211.000     | 2.870                    |
| 500.000     | 4.480                    |
| 750.000     | 5.590                    |
| 862.000     | 5.980                    |
| 1000.000    | 6.540                    |
| 1450.000    | 8.000                    |
| 1800.000    | 8.800                    |
| 2250.000    | 10.000                   |
| 3000.000    | 11.900                   |

### Max. Operating Voltage - UL:

150 V RMS

### Shield Effectiveness:

| Start Frequency (MHz) | Stop Frequency (MHz) | Shield Effectiveness (dB) |
|-----------------------|----------------------|---------------------------|
| 5.000                 | 50.000               | 105.000                   |
| 50.000                | 1000.000             | 110.000                   |

### Other Electrical Characteristic 1:

Coax Sweep tested to 3.0 GHz.

## Twisted Pair

### Physical Characteristics

#### Conductor

##### AWG:

| # Pairs | AWG | Stranding | Conductor Material | Dia. (in.) |
|---------|-----|-----------|--------------------|------------|
| 8       | 24  | Solid     | BC - Bare Copper   | 0.020      |

#### Insulation

##### Insulation Material:

| Insulation Material | Dia. (in.) |
|---------------------|------------|
| PO - Polyolefin     | 0.035      |

##### Twisted Pair Color Code Chart:

| Number | Color                          |
|--------|--------------------------------|
| 1      | White/Blue Stripe and Blue     |
| 2      | White/Orange Stripe and Orange |
| 3      | White/Green Stripe and Green   |
| 4      | White/Brown Stripe and Brown   |

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## Outer Jacket

Outer Jacket Material:

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

Outer Jacket Ripcord:

Yes

Outer Jacket Color Code Chart:

| Number | Color |
|--------|-------|
| 1      | Blue  |
| 2      | Green |

## Electrical Characteristics

Nom. Mutual Capacitance:

| Capacitance (pF/ft) |
|---------------------|
| 15.000              |

Nominal Velocity of Propagation:

| VP (%) |
|--------|
| 70.000 |

Maximum Conductor DC Resistance:

| DCR @ 20°C (Ohm/100 m) |
|------------------------|
| 9.380                  |

Max. Operating Voltage - UL:

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

Other Electrical Characteristic 1:

Third party verified to TIA/EIA-568-B.2, Category 5E

Premise Cable Electrical Table 1:

| Freq. (MHz) | Max. Attenuation (dB/100 m) | Min. PSNEXT (dB) | Min. PSACR (dB) | Min RL (dB) |
|-------------|-----------------------------|------------------|-----------------|-------------|
| 1.0         | 2.000                       | 62.3             | 60              | 20.000      |
| 4.0         | 4.100                       | 53.3             | 49              | 23.000      |
| 8.0         | 5.800                       | 48.8             | 43              | 24.500      |
| 10.0        | 6.500                       | 47.3             | 41              | 25.000      |
| 16.0        | 8.200                       | 44.3             | 36              | 25.000      |
| 20.0        | 9.300                       | 42.8             | 34              | 25.000      |
| 25.0        | 10.400                      | 41.3             | 31              | 24.300      |
| 31.25       | 11.700                      | 39.9             | 28              | 23.600      |
| 62.5        | 17.000                      | 35.4             | 19              | 21.500      |
| 100         | 22.000                      | 32.3             | 11              | 20.100      |

Premise Cable Electrical Table 2:

| Freq. (MHz) | Input (Unfitted) Imp. (Ohms) | Min. PSELFEXT (dB) |
|-------------|------------------------------|--------------------|
| 1.0         | 100 +/- 15%                  | 60.8               |
| 4.0         | 100 +/- 15%                  | 48.7               |
| 8.0         | 100 +/- 15%                  | 42.7               |
| 10.0        | 100 +/- 15%                  | 40.8               |
| 16.0        | 100 +/- 15%                  | 36.7               |
| 20.0        | 100 +/- 15%                  | 34.7               |
| 25.0        | 100 +/- 15%                  | 32.8               |
| 31.25       | 100 +/- 15%                  | 30.9               |
| 62.5        | 100 +/- 15%                  | 24.8               |
| 100         | 100 +/- 15%                  | 20.8               |

## Physical Characteristics (Overall)

## Conductor

## Outer Shield

Outer Shield Material:

| Outer Shield Material |
|-----------------------|
| Unshielded            |

## Outer Jacket

Outer Jacket Material:

| Outer Jacket Material |
|-----------------------|
| Unjacketed            |

## Overall Cable

Overall Nominal Diameter:

0.600 in.

## Mechanical Characteristics (Overall)

Operating Temperature Range:

-10°C To +75°C

**7913S Composite - Composite Data, Audio, Video, Security and Control Cable**

|                                   |                      |
|-----------------------------------|----------------------|
| Separation Temperature Range:     | 0°C To +75°C         |
| Bulk Cable Weight:                | 120.000 lbs/1000 ft. |
| Max. Recommended Pulling Tension: | 278.000 lbs.         |
| Min. Bend Radius/Minor Axis:      | 4.250 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                       |
| MIL Order #39 (China RoHS):           | Yes                       |
| Other Specification:                  | NEMA WC-63.1, Category 5e |

**Applicable Patents:**

|                                                        |
|--------------------------------------------------------|
| Country                                                |
| <a href="http://www.belden.com/p">www.belden.com/p</a> |

**Flame Test**

|                 |              |
|-----------------|--------------|
| UL Flame Test:  | UL1666 Riser |
| CSA Flame Test: | FT4          |

**Plenum/Non-Plenum**

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

**Notes (Overall)**

**Notes:** Shielding effectiveness determined from screening attenuation measurement when tested in accordance with IEC 61196-1.

**Put Ups and Colors:**

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|--------|-------|-------------|-------|-------|-----------|
|--------|-------|-------------|-------|-------|-----------|

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