

7876S Composite - Composite Data, Audio, Video, Security and Control Cabel



For more Information
please call

1-800-Belden1



Description:

Banana Peel® Composite - (2) Cat 5e 4-bonded-pairs. 24 AWG unshielded plus (2) Series 6 Coax with Duobond Plus® Bonded Tri-shield. Polyolefin Insulation on the pairs; Gas-injected FPE Insulation on the coax, F-R PVC jacket. 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 | Duobond Plus® | Tape | Bonded Aluminum Foil-Polyester Tape-Aluminum Foil | 100.000 |
| 2 | | Braid | AL - Aluminum | 77.000 |
| 3 | | Tape | Bonded Aluminum Foil-Polyester Tape w/Shorting Fold | 100.000 |

Outer Jacket

Outer Jacket Material:

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

Outer Jacket Diameter:

| Nom. Dia. (in.) |
|-----------------|
| 0.275 |

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:

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Capacitance (pF/ft)

16.200

Nominal Velocity of Propagation:

VP (%)

83.000

Nominal Delay:

Delay (ns/ft)

1.300

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

6.400

Nom. Inner Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

4.600

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:

350 V RMS

Shield Effectiveness:

| Start Frequency (MHz) | Stop Frequency (MHz) | Shield Effectiveness (dB) |
|-----------------------|----------------------|---------------------------|
| 5.000 | 50.000 | 105.000 |
| 50.000 | 1000.000 | 125.000 |

Twisted Pair

Physical Characteristics

Conductor

AWG:

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| # 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 |

Outer Jacket

Outer Jacket Material:

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

Outer Jacket Diameter:

| Nom. Dia. (in.) |
|-----------------|
| 0.204 |

Outer Jacket Ripcord: Yes

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 T1a/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 |

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| | | |
|-------|-----------|------|
| 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)

Outer Shield

Outer Shield Material:

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

Outer Jacket

Outer Jacket Material:

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

Overall Cable

Overall Nominal Diameter: 0.550 in.

Mechanical Characteristics (Overall)

Operating Temperature Range: -10°C To +75°C

Separation Temperature Range: 0°C To +75°C

Bulk Cable Weight: 120.000 lbs/1000 ft.

Max. Recommended Pulling Tension: 262.000 lbs.

Min. Bend Radius (Install)/Minor Axis: 4.000 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMR

CEC/C(UL) Specification: CMG

Other Standards: ISO/IEC 11801, Category 5e

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

MII Order #39 (China RoHS): Yes

Telecommunications Standards: ANSI/TIA/EIA-568-B.2, Category 5e

Other Specification: NEMA WC-63.1, Category 5e

Flame Test

UL Flame Test: UL1666 Riser

C(UL) 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. Banana Peel® US PATENT 7049523.

Related Documents:

7876S Composite - Composite Data, Audio, Video, Security and Control Cabel

No related documents are available for this product

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|---------------|----------|-------------|-------|-------|--------------------------|
| 7876S 0001000 | 1,000 FT | 119.000 LB | NONE | C | 2 RG6 DB PLUS + 2 CAT 5E |
| 7876S 000500 | 500 FT | 61.500 LB | NONE | C | 2 RG6 DB PLUS + 2 CAT 5E |

Notes:

C = CRATE REEL PUT-UP.

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