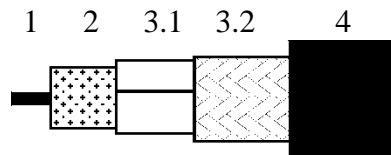


**APPLICATION**

Low loss HDTV/SDI Digital coax used in critical analog and digital video circuits and high quality applications such as live broadcast in network studios and pre- or post-production facilities. Cable is suitable for indoor and outdoor use.

**CONSTRUCTION**



- |     |                 |                                    |
|-----|-----------------|------------------------------------|
| 1   | Inner conductor | Solid soft annealed copper         |
| 2   | Dielectric      | Gas injected PE                    |
| 3.1 | Foil            | AL-PET-AL                          |
| 3.2 | Braid           | Annealed tinned copper             |
| 4   | Sheath          | LSNH/FRNC according EN 50290-2-20. |

**REQUIREMENTS AND TEST METHODS**

**Test methods in accordance with European standard EN 50117-1.**

**Mechanical characteristics**

1. Inner conductor:
  - Diameter: 0.65 mm ± 0.02 mm
2. Dielectric:
  - Diameter: 2.90 mm ± 0.15 mm
3. Outer conductor:
  - Nominal diameter screen: 3.45 mm
  - Foil overlap: ≥ 2 mm
  - Coverage braid: 90 % ± 5 %
4. Sheath:
  - Diameter: 4.45 mm ± 0.2 mm
  - Tensile strength: ≥ 9.0 N/mm<sup>2</sup>
  - Elongation at break: ≥ 125 %
  - LOI > 35%
5. Cable:
  - Storage/operating temperature: -30°C to +70°C
  - Minimum installation temperature: -5 °C
  - Resistance to flame propagation: IEC 60332-1-2 (CEI20-35/1)
  - Corrosivity of fire gasses IEC 60754-2 (CEI 20-37/2)
    - Conductivity ≤ 100 µS/cm
    - pH value ≥ 3,5
  - Halogen content IEC 60754-1 (CEI 20-37/1)
  - Smoke emission EN 61034-2:2005 (CEI 20-37/3)
  - Maximum tensile strength of cable: 160 N
  - Minimum static bend radius: 45 mm

**Electrical characteristics**

|  |                         |
|--|-------------------------|
| Mean characteristic impedance:         | 75 ± 3 Ω                |
| Nominal DC resistance inner conductor: | 55 Ω/km                 |
| Nominal DC resistance outer conductor: | 17 Ω/km                 |
| Capacitance:                           | 53 pF/m ± 2 pF/m        |
| Velocity ratio:                        | 0.84 ± 0.02             |
| Nominal delay:                         | 4.0 ns/m                |
| Insulation resistance:                 | > 10 <sup>4</sup> MΩ.km |
| Return loss at 5-1600 MHz:             | ≥ 23 dB                 |
| 1600-4500 MHz:                         | ≥ 21 dB                 |
| Transfer Impedance 5-30 MHz:           | ≤ 15 mOhm/m             |
| Screening attenuation:                 |                         |
| 30-1000 MHz:                           | ≥ 85 dB                 |
| 1000-2000 MHz:                         | ≥ 85 dB                 |
| 2000-3000 MHz:                         | ≥ 85 dB                 |
| 3000-4500 MHz:                         | ≥ 80 dB                 |

Nominal Attenuation:

$$0.9 \cdot \sqrt{\text{freq}} + 0.002 \cdot \text{freq} + 0.8 \text{ [dB/100m]}, \text{ with freq} = \text{frequency in [MHz]}$$

| Attenuation at | Nominal      | Attenuation at | Nominal      |
|----------------|--------------|----------------|--------------|
| 1 MHz:         | 1.7 dB/100m  | 180 MHz:       | 13.2 dB/100m |
| 3.6 MHz:       | 2.5 dB/100m  | 270 MHz:       | 16.1 dB/100m |
| 5 MHz:         | 2.8 dB/100m  | 360 MHz:       | 18.6 dB/100m |
| 6 MHz:         | 3.0 dB/100m  | 540 MHz:       | 22.8 dB/100m |
| 7 MHz:         | 3.2 dB/100m  | 720 MHz:       | 26.4 dB/100m |
| 10 MHz:        | 3.7 dB/100m  | 750 MHz:       | 26.9 dB/100m |
| 12 MHz:        | 4.0 dB/100m  | 1000 MHz:      | 31.3 dB/100m |
| 25 MHz:        | 5.4 dB/100m  | 1500 MHz:      | 38.7 dB/100m |
| 67.5 MHz:      | 8.3 dB/100m  | 2000 MHz:      | 45.0 dB/100m |
| 71.5 MHz:      | 8.6 dB/100m  | 2250 MHz:      | 48.0 dB/100m |
| 88.5 MHz:      | 9.5 dB/100m  | 2500 MHz:      | 50.8 dB/100m |
| 100 MHz:       | 10 dB/100m   | 3000 MHz:      | 56.1 dB/100m |
| 135 MHz:       | 11.5 dB/100m | 4000 MHz:      | 65.7 dB/100m |
| 143 MHz:       | 11.9 dB/100m | 4500 MHz:      | 70.2 dB/100m |



Belden declares this product to be in compliance with the environmental regulations EU RoHS (Directive 2002/95/EC, 27 January 2003); this is valid for all material produced after the RoHS compliant date for this product.