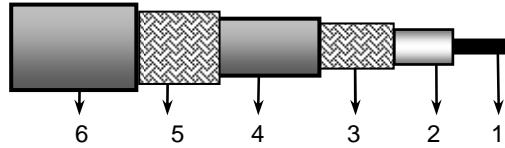


## 7784ECH

### Low Loss Serial Digital Video coax Video Triax 11 FRNC cable



### Applications

- Low loss HDTV/SDI Digital coax used in analog and digital video circuits and high quality applications.
- The cable is UV-resistant and suitable for indoor and outdoor use.
- Use of 1080p/50 applications

### General Standards

- SDTV/HDTV serial digital standard compliant
- European standard EN 50117-1
- European standard EN 50290-2-20

### Construction & Dimensions

|                          |                   |
|--------------------------|-------------------|
| <b>1. Conductor</b>      |                   |
| Material                 | Bare copper       |
| Diameter                 | 1.40 mm (AWG15)   |
| <b>2. Insulation</b>     |                   |
| Material                 | Foam polyethylene |
| Diameter over insulation | 6.50 ± 0.20 mm    |
| <b>3. Inner shield</b>   |                   |
| Material                 | Bare copper braid |
| Minimum coverage         | 85%               |
| Diameter over braid      | 7.2 mm nominal    |
| <b>4. Inner jacket</b>   |                   |
| Material                 | FRNC              |
| Diameter over jacket     | 8.50 ± 0.20 mm    |
| <b>5. Outer shield</b>   |                   |
| Material                 | Bare copper braid |
| Minimum coverage         | 85%               |
| Diameter over braid      | 9.2 mm nominal    |
| <b>6. Outer jacket</b>   |                   |
| Material                 | FRNC              |
| Diameter over jacket     | 11.3 ± 0.2 mm     |

## Mechanical characteristics

| Parameter   | Specification | Unit  |
|---|---------------|-------|
| Temperature rating (installation)                                     | -5 - +70      | °C    |
| Temperature rating (operating/storage)                                | -30 - +70     | °C    |
| Resistance to flame propagation (IEC 60332-3-24: Cat C (CEI 20-22-3)) | Pass          |       |
| Halogen content IEC 60754-1 (CEI 20-37/1)                             | Pass          |       |
| Corrosivity of fire gasses IEC 60754-2 (CEI 20-37/2)                  |               |       |
| Conductivity  | ≤ 100         | μS/cm |
| pH value  | ≥ 3,5         |       |
| Smoke emission EN 61034-2:2005 (CEI 20-37/3)                          | Pass          |       |
| Minimum bending radius (without pulling tension)                      | 110           | mm    |
| Maximum pulling tension   | 300           | N     |

## Electrical characteristics

| Parameter   | Specification | Unit |
|---|---------------|------|
| Nominal impedance                                 | 75            | Ω/km |
| Nominal inductance                                | 0.4           | μH/m |
| Nominal capacitance conductor to shield @ 1 kHz   | 55            | pF/m |
| Nominal velocity of propagation                   | 81            | %    |
| Nominal delay                                     | 4.1           | ns/m |
| Nominal conductor DC resistance @ 20°C            | 11.2          | Ω/km |
| Nominal shield DC resistance @ 20°C: Inner shield | 7.4           | Ω/km |
| Nominal shield DC resistance @ 20°C: Outer shield | 5.5           | Ω/km |
| Minimum structural return loss @ 5 - 850 MHz      | 23            | dB   |
| Minimum screening attenuation @ 30 - 850 MHz      | 75            | dB   |
| Maximum operating voltage                         | 400           | Vrms |

| Attenuation at: | Nominal | Unit    |
|-----------------|---------|---------|
| 1 MHz:          | 0.5     | dB/100m |
| 3.58 MHz:       | 1.0     | dB/100m |
| 5 MHz:          | 1.2     | dB/100m |
| 7 MHz:          | 1.3     | dB/100m |
| 10 MHz:         | 1.6     | dB/100m |
| 67.5 MHz:       | 4.1     | dB/100m |
| 71.5 MHz:       | 4.3     | dB/100m |
| 88.5 MHz:       | 4.8     | dB/100m |
| 100 MHz:        | 5.2     | dB/100m |
| 135 MHz:        | 6.0     | dB/100m |
| 143 MHz:        | 6.2     | dB/100m |
| 180 MHz:        | 7.1     | dB/100m |

| Attenuation at: | Nominal | Unit    |
|-----------------|---------|---------|
| 270 MHz:        | 8.7     | dB/100m |
| 300 MHz:        | 9.0     | dB/100m |
| 360 MHz:        | 10.2    | dB/100m |
| 540 MHz:        | 12.8    | dB/100m |
| 720 MHz:        | 15.0    | dB/100m |
| 750 MHz:        | 15.4    | dB/100m |
| 1000 MHz:       | 18.2    | dB/100m |
| 1500 MHz:       | 23.0    | dB/100m |
| 2000 MHz:       | 27.4    | dB/100m |
| 2250 MHz:       | 29.4    | dB/100m |
| 3000 MHz:       | 35.1    | 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.

