### **Belden Americas Division**

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# Belden Part Number YR51157 (Rev 2, 2/10/10)

#### I. Description

HDMI Composite Cable - Four patented 23.5AWG (solid) bonded pairs are individually shielded for Clock & Data. Seven 24AWG (solid) conductors for control applications. Overall foil and braid shields. Overall Flame Retardant PVC jacket.

#### II. **Electrical Characteristics**

Maximum Operating Voltage: **300V RMS** Maximum Current per Conductor @ 25°C: (23.5/24AWG): 3.0 A

Nom. Conductor DC Resistance @ 25°C

of 23.5/24AWG Conductors: 24.0 Ω/1000'

Nom. Shield DC Resistance @ 25°C

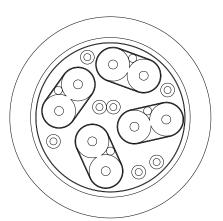
of Individual Shields: 15.0 Ω/1000' of Overall Shield: 1.75 Ω/1000'

Capacitance between Conductors

of Shielded Pairs: 15.3 pF/ft nominal of Control Pairs: 16.5 pF/ft nominal Nominal Impedance of Shielded Pairs:  $100 + / - 10 \Omega$  (TDR) Nominal Return Loss of Shielded Pairs: -15dB, 1-1200 MHz

Nom. Delay Skew Between

Pairs 0.8 ns/ft (Estimated) Conductors of Pair (TDR): 2.0 ps/ft (Estimated)



### Nominal Attenuation @ 25°C of Clock & Data pairs:

- 6.0 dB/100' @ 100 MHz -34 dB/100' @ 2.1 GHz\* - 8.3 dB/100' @ 200 MHz -38 dB/100' @ 2.475 GHz\* -13.5 dB/100' @ 400 MHz -42 dB/100' @ 3 GHz\* -15.1 dB/100' @ 500 MHz -45 dB/100' @ 3.25 GHz\* -16.9 dB/100' @ 600 MHz -47 dB/100' @ 3.5 GHz\* -19.8 dB/100' @ 825 MHz -48 dB/100' @ 4.0 GHz\* -21.2 dB/100' @ 1.0 GHz -50 dB/100' @ 4.125 GHz\* -24.1 dB/100' @ 1.2 GHz -54 dB/100' @ 5.1 GHz\* -30 dB/100' @ 1.6 GHz\*

-32 dB/100' @ 1.9 GHz\* \*estimated

Far End Cross Talk (FEXT): -35 dB 1MHz - 5.1 GHz (Estimated)

#### III. **Physical Characteristics**

Weight:

## Bonded, Shielded High-Speed Pairs (4):

Conductor Material & Diameter: 23.5 AWG (solid) Bare Copper, .022" nominal

Insulation Material & Diameter: Polyolefin, .074" nominal

Shield Material & % Coverage: Al/Polyester tapes w/ 24AWG (solid) TC Drain wires Color Code: Orange & White/Orange, Brown & White/Brown, Green &

White/Green, Blue & White/Blue

**Control Conductors (7):** 

Conductor Material & Diameter: 24AWG (solid) Bare Copper, .020" nominal

Insulation Material & Diameter: PVC insulation, .041" nominal

Brown, Red, Orange, Yellow, Green, Blue, Violet Color Code:

Al/Polyester tape (100%), 24AWG (solid) Tinned Copper Drain wire, Overall Shield Material & % Coverage:

36AWG Tinned Copper Braid (82%)

Overall Jacket Material & Diameter: FR PVC,.435" +/- .010"

Temperature Rating: -20 to +60°C 130 lbs Max. Pulling Tension: Min. Bend Radius: 4.5"

Applicable Specifications: **EU RoHS Compliant** 

UL Type CM, C(UL) Type CM

88 lbs/1000°

UL1581 Vertical Tray Flame Resistance: