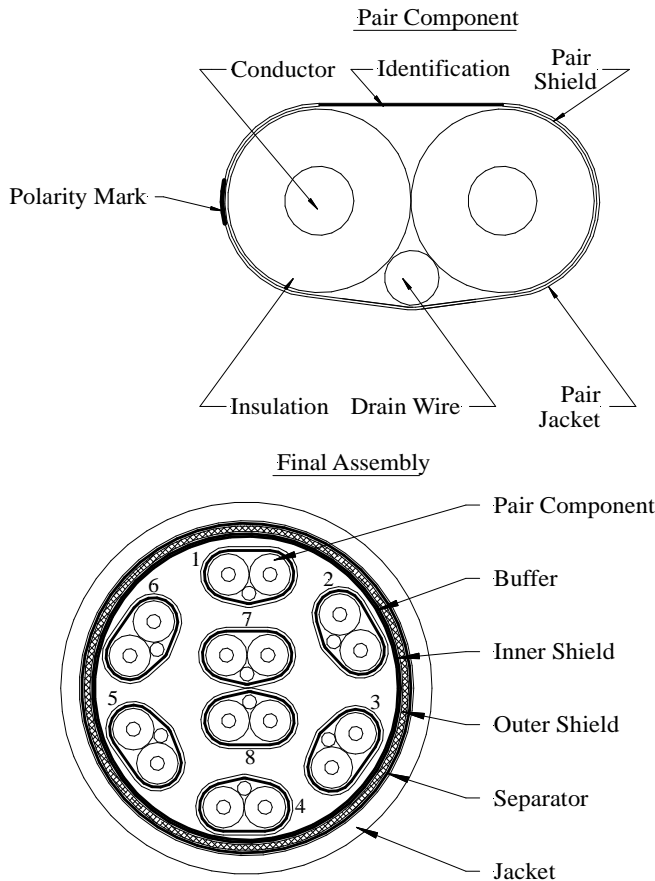


## 8 PAIR 26 AWG SAS TURBOTWIN™ CABLE

### PROPRIETARY DESIGN

THIS CONFIDENTIAL DOCUMENT HAS BEEN RELEASED WITH THE UNDERSTANDING THAT IT SHALL NOT BE SENT TO ANYONE OTHER THAN THE ORIGINAL INTENDED RECIPIENT WITHOUT PRIOR AUTHORIZATION FROM TE CONNECTIVITY/MADISON CABLE



### CONSTRUCTION

#### Pair Component

**Conductor:** 26 AWG Solid Silver Plated Copper, 0.0159 Inch Diameter

**Insulation:** 0.0145 Inches of Foam Polyolefin, 0.045 Inch Diameter, Color - Natural

**Pair:** 2 Singles Laid Flat and Parallel

**Pair Drain Wire:** 28 AWG Solid Silver Plated Copper, 0.0126 Inch Diameter

**Pair Shield:** Aluminum/Polyester Tape, Aluminum Side Facing In, 25% Overlap, Color - See Color Code Table

**Pair Jacket:** Polyester Tape

**Pair Diameter:** 0.051 x 0.096 Inches Nominal

**Pair Identification:** Pairs sequentially numbered and polarity marked on entire length of pair.

#### Final Assembly

**Core:** 8 Pairs (#1-8) Cabled Together

**Buffer:** Foam Polyolefin Tape

**Inner Shield:** Aluminum/Polyester Tape, Aluminum Side Facing Out, 25% Overlap

**Outer Shield:** 38 AWG Tin Plated Copper Braid, 85% Coverage

**Jacket:** 0.027 Inches of Flexible PVC, Color - Black

**Diameter:** 0.340 Inches Nominal

**Print Legend (White Ink):** "MADISON CABLE (UL) TYPE CL2 75°C 26 AWG CSA AWM I/II A/B 80°C 30V FT4 TurboTwin™ SAS External SUBSTANCE COMPLIANT 2011/65/EU {Date Code}"<sup>1</sup>

<sup>1</sup> Date code is a 4-digit code with the first 2 digits identifying the calendar week and the last 2 digits identifying the calendar year of manufacture. Example - 0206 for cable manufactured the second week of 2006.

### COLOR CODE TABLE

| Pair# | Pair Shield Color |
|-------|-------------------|
| 1     | Green             |
| 2     | Yellow            |
| 3     | White             |
| 4     | Orange            |
| 5     | Green             |
| 6     | Yellow            |
| 7     | White             |
| 8     | Orange            |

### ELECTRICAL CHARACTERISTICS

**Differential Impedance:** 100 ± 5 Ohms @ TDR

**Mutual Capacitance:** 14 pF/ft Nominal

**Time Delay:** 1.35 ns/ft Nominal

**Time Delay Skew (Within Pair):** 50 ps/5.5m Maximum

**Attenuation<sup>2</sup>:** better than TCTF/5.5 m from 50 MHz to 4.5 GHz

| Frequency (MHz) | Attenuation (dB/5m Maximum) |
|-----------------|-----------------------------|
| 50              | 1.4                         |
| 100             | 1.6                         |
| 500             | 3.7                         |
| 750             | 4.7                         |
| 1500            | 7.0                         |
| 3000            | 10.7                        |
| 4500            | 13.8                        |

**Near-End/Far-End Crosstalk<sup>3</sup>:** 1% Maximum, Pulse Method, 100 ps rise-time (20-80%)

#### Eye Pattern:

**Input:** 1600 mVp-p, 3.0 Gbps, 100 ps rise time (20-80%), CJTPAT

**Mask:** 225 mVp-p x 167 ps

**Length:** 5 meters (longer lengths achievable when equalized)

**Conductor DC Resistance:** 0.040 Ohms/ft Nominal @ 20°C

<sup>2</sup> TCTF:  $|S_{DD21}(f)| \leq -20 \log_{10}(e) * [(1.7E(-5) * f^{1/2}) + (1.0E(-10) * f)]$  [dB], where  $f$  is frequency in Hz

<sup>3</sup> Measured as maximum deviation from zero to peak differential (Single Pulse method)

### SAFETY CERTIFICATION

**UL Listing:** Type CL2 as specified in Article 725 of the National Electrical Code

**CSA Listing:** AWM I/II A/B 80°C 30V FT4

**RoHS II Material Compliance:** In accordance with EU Directive 2011/65/EU for the Restriction of Hazardous Substances



#### Madison Cable

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### REVISION HISTORY

|   |          |    |   |
|---|----------|----|---|
| 3 | 09/29/09 | DC | Revised Elect, Legend, Drawing, Added C(UL) |
| 4 | 10/08/09 | DC | Revised print legend; Revised Atten. & Skew |
| 5 | 12/21/10 | DC | Revised print legend                        |
| 6 | 04/06/11 | DC | Corrected print legend                      |
| 7 | 07/29/11 | DC | Revised print legend, CSA Approval          |
| 8 | 09/16/15 | DC | Revised Print, RoHS Statement, & Jacket OD  |

**Prepared By:** D.M. Card

**Reviewed By:** T. Grzysiewicz

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Users should evaluate the suitability of this product for their application. Contact factory for latest revision of specification. TE Connectivity reserves the right to make changes in materials or processing, which do not affect compliance with any specification, without notification to the Buyer.