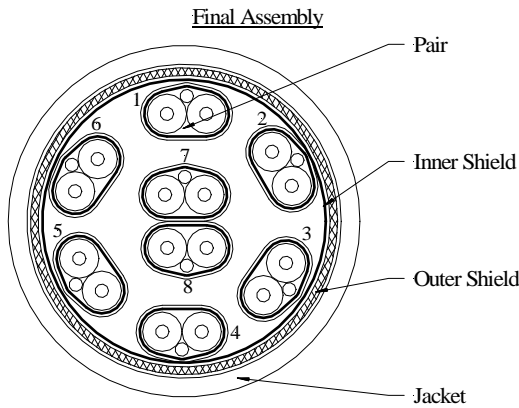
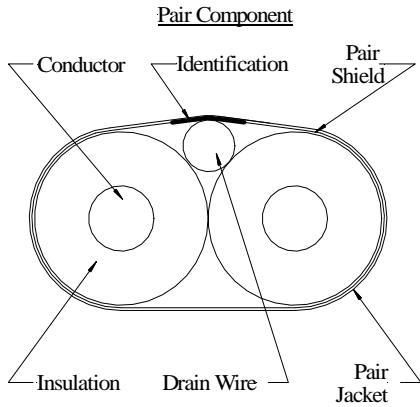


## 8 PAIR 33 AWG 10G TURBOTWIN™ CABLE

### 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:** 33 AWG Solid Silver Plated Copper, 0.0071 Inch [0.18 mm] Diameter  
**Insulation:** 0.0074 Inches [0.19 mm] of Polyolefin, 0.022 Inch [0.56 mm] Diameter, Color – Natural  
**Pair:** 2 Singles Laid Flat and Parallel  
**Drain Wire:** 33 AWG Solid Tin Plated Copper, 0.0071 Inch [0.18 mm] Diameter  
**Pair Shield:** Aluminum/Polyester Tape, Aluminum Side Facing In 25% Overlap, Color – Yellow  
**Pair Jacket:** Polyester Tape  
**Pair Diameter:** 0.030 x 0.050 Inches [0.76 x 1.27 mm] Nominal  
**Pair Identification:** Pairs sequentially numbered on entire length of pair

**Final Assembly**

**Core:** 8 Pairs (#1-8) Cabled Together  
**Inner Shield:** Aluminum/Polyester Tape, Aluminum Side Facing Out, 25% Overlap  
**Outer Shield:** 44 AWG Tin Plated Copper Braid, 85% Coverage  
**Jacket:** 0.025 Inches [0.64 mm] of Flexible PVC, Color – Black  
**Diameter:** 0.182 Inches [4.62 mm] Nominal  
**Print Legend (White Ink):** “MADISON CABLE {Mfg. Location Code}<sup>1</sup> AWM STYLE 20276 80°C 30V VW-1 TurboTwin™ 10G 102-0505 RoHS COMPLIANT {Date Code}<sup>2\*</sup>”

<sup>1</sup> Manufacturing location code, if applicable  
<sup>2</sup> Date Code is a 4-digit code with the first two digits identifying the calendar week and the last two identifying the calendar year of manufacturing. Example – 0206 for cable manufactured in the second week of January 2006.

### ELECTRICAL CHARACTERISTICS

**Differential Impedance:** 100 ± 5 Ohms @ TDR  
**Mutual Capacitance:** 15 pF/ft [49.2 pF/m] Nominal  
**Time Delay:** 1.55 ns/ft [5.09 ns/m] Nominal  
**Time Delay Skew (Within Pair):** 40 ps/3m Maximum  
**Time Delay Skew (Between Pair):** 350 ps/3m Maximum

Frequency (GHz)	SDD21 <sup>3</sup> Attenuation (dB/3 m Nominal)	SDD11 <sup>4</sup> Return Loss (dB Nominal)
1.25	6.3	9.8
2.50	9.2	8.8
5.00	14.6	7.5
7.00	18.8	TBD
9.00	22.8	TBD
10.00	25.6	TBD

**Differential to Common Mode Conversion (SCD21):** 28 dB Nominal  
**Conductor DC Resistance:** 0.21 Ohms/ft [0.69 Ohms/m] Nominal @ 20°C

<sup>3</sup> Tested/Functional to 10 GHz over a 3 meter length.  
<sup>4</sup> SDD11 is per the draft standard SFF-8431 Revision 3.3 and are subject to change.

### MECHANICAL CHARACTERISTICS

**Bend Radius (5 x OD):** 0.91 Inches (23 mm) Minimum

### SAFETY CERTIFICATION

**UL Recognized:** AWM Style 20276 80°C 30V VW-1  
**RoHS Compliance:** In Accordance to European Directive 2002/95/EC, Issue 13.2.2003



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#### REVISION HISTORY

Rev	Date	By	Description
1	01/07/11	DC	Initial Release
2	06/28/11	DC	Removed Customer name
3	09/19/11	DC	Revised UL Approval, Jkt wall/OD, Legend
4	09/23/11	DC	Revised Diameter
5	10/27/11	DC	Revised Print Legend
6	08/20/13	HA	Added Mfg. Location Code to Legend

<b>Spec Number:</b>	<b>102-0505</b>
<b>Part Number:</b>	<b>16PW2LF002</b>
<b>Customer:</b>	
<b>Customer #:</b>	

<b>Prepared By:</b>	D.M. Card			<b>Page</b>
<b>Reviewed By:</b>	H. Themistocle			1 of 1

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