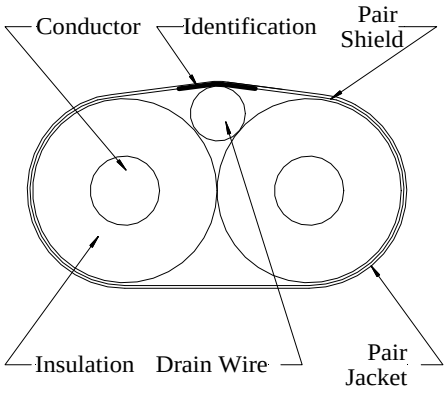
# 8 PAIR 26 AWG 14G TURBOTWIN™ CABLE

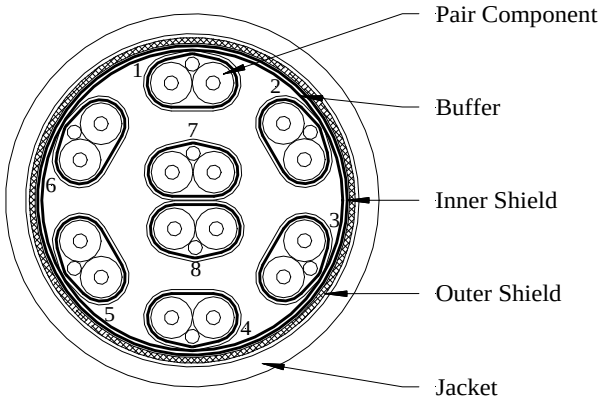
## PROPRIETARY DESIGN



Pair Component




Final Assembly




## 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
**Drain Wire**: 28 AWG Solid Tin Plated Copper, 0.0126 Inch Diameter
**Pair Shield**: Aluminum/Polyester Tape, Aluminum Side Facing In, Color – Yellow
**Pair Jacket**: Polyester Tape
**Pair Diameter**: 0.055 x 0.095 Inches Nominal
**Pair Identification**: Pairs sequentially numbered on entire length of pair.

**Final Assembly**

**Core**: 2 Pairs (#7-8) Cabled Together
**Layer 1**: 6 Pairs (#1-6) Cabled Around Core
**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**: 0.032 Inches of Flexible PVC, Color – Black
**Diameter**: 0.345 Inches Nominal
**Print Legend (White Ink)**: "MADISON CABLE (UL) TYPE CL2 75°C 26 AWG CSA AWM II A/B 75°C 30V FT4 TurboTwin™ 14G 102-0378 RoHS COMPLIANT {Date Code}[1]"

[1] 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**: 14 pF/ft Nominal
**Time Delay**: 1.35 ns/ft Nominal
**Time Delay Skew (Within Pair)**: 54 ps/7 m Maximum
**Time Delay Skew (Between Pairs)**: 300 ps/7 m Maximum
**Attenuation (SDD21)**[2]:

| Frequency (GHz) | Attenuation (dB/7 m Nominal) |
|---|---|
| 1.25 | 7.4 |
| 2.50 | 11.0 |
| 5.00 | 17.0 |
| 7.00 | 21.5 |
| 9.00 | 25.5 |
| 10.00 | 26.7 |
| 12.00 | 37.0 |
| 14.00 | TBD |

**Differential to Common Mode Conversion (SCD21)**: 30 dB Nominal
**Conductor DC Resistance**: 0.040 Ohms/ft Nominal @ 20°C

[2] Tested/Functional to 14 GHz over a 7 meter length.

## MECHANICAL CHARACTERISTICS

**Bend Radius (5 X OD)**: 1.65 Inches minimum, tested in accordance with SFF 8417

## SAFETY CERTIFICATION

**UL Listing**: Type CL2 as specified in Article 725 of the National Electrical Code
**CSA Certification**: AWM II A/B 75°C 30 Volts FT4
**RoHS Compliance**: In Accordance to European Directive 2002/95/EC, Issue 13.2.2003



TE connectivity
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## REVISION HISTORY

| | | | |
|---|---|---|---|
| 1 | 11/16/10 | HA | Initial Release |
| 2 | 03/25/11 | DC | Revised Drain Wire and Inner Shield |
| 3 | 09/14/11 | HA | Added Under Development Watermark |
| 4 | 12/30/11 | HA | Revised Electrical Characteristics |
| 5 | 04/13/12 | DC | Revised jacket wall/Diameter |

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|---|---|---|---|---|---|
| **Spec Number:** | **102-0378** | | | | |
| **Part Number:** | **16KE2LF039** | | | | |
| **Customer:** | | **Prepared By:** | D.M. Card | | **Page** |
| **Customer #:** | | **Reviewed By:** | K. Nippani | M. Dupuis | 1 of 1 |