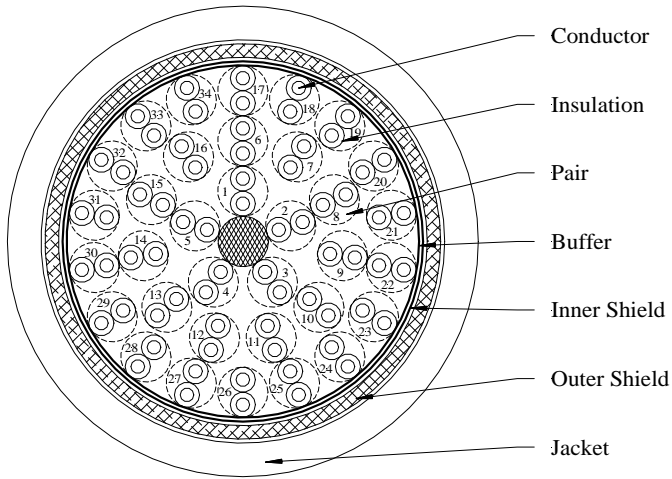


# 34 PAIR 30 AWG UNIVERSAL SCSI CABLE



## CONSTRUCTION

### Pair Component

**Conductor:** 30 AWG 7/38 Tin Plated Copper, 0.012 Inch [0.30 mm] Diameter

**Insulation:** 0.007 Inches [0.18 mm] of Foam Polyolefin, 0.026 Inch [0.66 mm] Diameter

**Pair:** 2 Insulated Conductors Twisted Together

### Final Assembly

**Core:** Solid Polyethylene Filler

**Layer 1:** 5 Pairs (#1-5) Cabled Around Core

**Layer 2:** 11 Pairs (#6-16) Cabled Around Layer 1

**Layer 3<sup>1</sup>:** 18 Pairs (#17-34) Cabled Around Layer 2

**Buffer:** Foam Polypropylene Tape

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

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

**Jacket:** 0.025 Inches [0.64 mm] of PVC Color - Black

**Diameter:** 0.385 ± 0.010 Inches [9.78 ± 0.25 mm]

**Print Legend (White Ink):** "MADISON CABLE {Mfg. Location Code}<sup>2</sup> AWM STYLE 20276 60°C 30V VW-1 CSA AWM I A 60°C 30V FTI Universal<sup>TM</sup> SCSI RoHS COMPLIANT {Date Code}<sup>3</sup>"

<sup>1</sup> Location of pairs from layer to layer may vary

<sup>2</sup> Mfg. Location Code, if applicable.

<sup>3</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 in the second week of January, 2006.

## COLOR CODE

Pair #	Cond #1 – Cond #2	Pair #	Cond #1 – Cond #2
1	White/Tan-Tan/White	18	Brown/Pink-Pink/Brown
2	White/Brown-Brown/White	19	Brown/Orange-Orange/Brown
3	White/Pink-Pink/White	20	Brown/Yellow-Yellow/Brown
4	White/Orange-Orange/White	21	Brown/Green-Green/Brown
5	White/Yellow-Yellow/White	22	Brown/Blue-Blue/Brown
6	White/Green-Green/White	23	Brown/Violet-Violet/Brown
7	White/Blue-Blue/White	24	Brown/Gray-Gray/Brown
8	White/Violet-Violet/White	25	Pink/Orange-Orange/Pink
9	White/Gray-Gray/White	26	Pink/Yellow-Yellow/Pink
10	Tan/Brown-Brown/Tan	27	Pink/Green-Green/Pink
11	Tan/Pink-Pink/Tan	28	Pink/Blue-Blue/Pink
12	Tan/Orange-Orange/Tan	29	Pink/Violet-Violet/Pink
13	Tan/Yellow-Yellow/Tan	30	Pink/Gray-Gray/Pink
14	Tan/Green-Green/Tan	31	Orange/Yellow-Yellow/Orange
15	Tan/Blue-Blue/Tan	32	Orange/Green-Green/Orange
16	Tan/Violet-Violet/Tan	33	Orange/Blue-Blue/Orange
17	Tan/Gray-Gray/Tan	34	Orange/Violet-Violet/Orange

## ELECTRICAL CHARACTERISTICS

### Impedance:

**Differential:** 125 ± 10 Ohms @ TDR

**Single-Ended<sup>4</sup>:** 90 ± 6 Ohms @ TDR

### Capacitance:

**Mutual:** 14 pF/ft [46 pF/m] Maximum @ 100 kHz and 1 MHz

**Single-Ended:** 20 pF/ft [65.6 pF/m] Maximum @ 100 kHz and 1 MHz

### Velocity of Propagation:

71% Nominal

### Time Delay:

1.50 ns/ft [4.92 ns/m] Maximum

### Time Delay Skew (Between Pairs):

0.025 ns/ft [0.082 ns/m] Maximum

### Attenuation:

**Differential:** 0.022 dB/ft [0.072 dB/m] Nominal @ 5 MHz  
0.031 dB/ft [0.10 dB/m] Nominal @ 10 MHz  
0.044 dB/ft [0.14 dB/m] Nominal @ 20 MHz  
0.063 dB/ft [0.21 dB/m] Nominal @ 40 MHz  
0.090 dB/ft [0.30 dB/m] Nominal @ 80 MHz  
0.129 dB/ft [0.42 dB/m] Nominal @ 160 MHz  
0.180 dB/ft [0.59 dB/m] Maximum @ 200 MHz

**Single-Ended:** 0.021 dB/ft [0.069 dB/m] Nominal @ 5 MHz  
0.033 dB/ft [0.11 dB/m] Nominal @ 10 MHz  
0.050 dB/ft [0.16 dB/m] Nominal @ 20 MHz

**Near-End Crosstalk:** 3% Maximum (Sum of REQ/ACK to all pairs at the outer layer plus REQ/ACK), Tested on a 12 meter sample

**Dielectric Withstand:** 500 Volts DC for 3 sec.

**Conductor DC Resistance:** 0.10 Ohms/ft [0.33 Ohms/m] Nominal @ 20°C

<sup>4</sup> Pairs (#1-5) only. All other pairs are 90 +6 / -10 Ohms.



### Madison Cable

125 Goddard Memorial Drive  
Worcester, MA 01603 USA  
(508) 752-2884 (877) MADISON

## REVISION HISTORY

1	09/26/03	KA	Initial Release
2	11/12/03	KA	Revised cross-section
3	04/14/05	DM	Added RoHS Compliance
4	03/14/06	DM	Revised print legend
5	08/30/07	DM	Added date code
6	12/12/11	DM	Added Temperature Rating; Revised print

**Spec Number:** 100-8998

**Part Number:** 68KBKLF045

**Customer:**

**Customer #:**

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

**Reviewed By:** T. Grzysiewicz

**Page**

B. Morissette  
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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.

# 34 PAIR 30 AWG UNIVERSAL SCSI CABLE

## PHYSICAL CHARACTERISTICS

**Temperature Rating:** -40°C to +80°C

## INDUSTRY STANDARDS

**SCSI Parallel Interconnect-5 (SPI-5):** Meets the requirements for Fast 10, Fast 20, Fast 40 (Ultra), Fast 80 (Ultra 2), Fast 160 (Ultra 320), and Fast 320 (Ultra 640) SCSI. Can be used for Differential (HVD & LVD) and Single-Ended Systems, as applicable.

**SCSI Passive Interconnect Performance (PIP):** Meets the requirements specified in this new SCSI Standard for bulk cables.

## SAFETY CERTIFICATION

**UL Recognized:** AWM Style 20276 60°C 30 Volts VW-1

**CSA Certification:** AWM I A 60°C 30 Volts FT1

**RoHS Compliance:** In Accordance to European Directive 2002/95/EC, Issue 13.2.2003



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