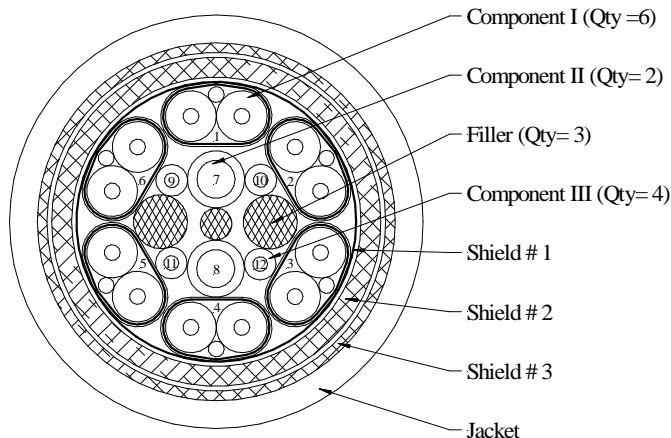


## 2 CONDUCTOR 24 AWG + 4 CONDUCTOR 32 AWG + 6 PAIR 30 AWG 10G PARALLEL PAIR COMPOSITE CABLE

### 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

#### Component I – 30 AWG Pairs

**Conductor:** 30 AWG Solid Bare Copper, 0.010 Inch [0.25 mm] Diameter

**Insulation:** 0.012 Inches [0.30 mm] of Polyethylene, 0.034 Inch [0.86 mm] Diameter

**Pair:** 2 Insulated Conductors Laid Flat and Parallel

**Drain Wire:** 30 AWG Solid Tin Plated Copper, 0.010 Inch [0.25 mm] Diameter

**Pair Shield:** Aluminum/Polyester Tape, Aluminum Side Facing In, 25% Overlap, Color – Yellow

**Pair Jacket:** Polyester Tape

**Pair Diameter:** 0.041 x 0.073 Inches [1.04 x 1.85 mm] Nominal

**Pair Identification:** Pairs sequentially numbered on entire length of pair

#### Component II – 24 AWG Singles

**Conductor:** 24 AWG 7/32 Tin Plated Copper, 0.024 Inch [0.61 mm] Diameter

**Insulation:** 0.006 Inches [0.15 mm] of Semi-Rigid PVC, 0.036 Inch [0.91 mm] Diameter

#### Component III – 32 AWG Singles

**Conductor:** 32 AWG 7/40 Tin Plated Copper, 0.009 Inch [0.23 mm] Diameter

**Insulation:** 0.005 Inches [0.13 mm] of Semi-Rigid PVC, 0.019 Inch [0.48 mm] Diameter

#### Final Assembly

**Core:** 2 Component II (#7-8), 4 Component III (#9-12) and Fillers Cabled Together

**Layer 1:** 6 Component I (#1-6) Cabled Around Core

**Shield # 1:** Aluminum/Polyester Tape, Aluminum Side Facing Out, 25% Overlap

**Shield # 2:** 34 AWG Bare Copper Double Spiral, 85% Coverage

**Shield # 3:** 40 AWG Tin Plated Copper Braid, 85% Coverage

**Jacket:** 0.022 Inches [0.56 mm] of Super Flexible PVC, Color – Black

**Diameter:** 0.266 ± 0.008 Inches [6.76 ± 0.20 mm]

**Print Legend (Blue Ink):** “TE CONNECTIVITY E47891 {Mfg. Location Code}<sup>1</sup> AWM

STYLE 20276 80°C 30V VW-1 SUBSTANCE COMPLIANT 2011/65/EU”

<sup>1</sup> Manufacturing Location Code, if applicable.

### COLOR CODE

Component #	Component	Conductor #1	Conductor #2
1	I	Natural	Natural
2	I	Natural	Natural
3	I	Natural	Natural
4	I	Natural	Natural
5	I	Natural	Natural
6	I	Natural	Natural
7	II	White	
8	II	Black	
9	III	Brown	
10	III	Red	
11	III	Orange	
12	III	Yellow	



#### Madison Cable

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

### REVISION HISTORY

1	07/25/13	HA	Initial Release
2	08/16/13	DC	Revised Qty of Comp III, Added Filler; et. al.
3	11/11/13	HA	Revised Component I and Jacket Wall/OD
4	11/19/13	HA	Revised Attenuation
5	01/20/14	LX	Revised Comp. I, Double Spiral and Legend
6	05/15/14	LX	Revised Skew

**Spec Number:** 102-2720

**Part Number:** 18ZZSLF020

**Customer:**

**Customer #:**

**Prepared By:** H. Abusamra

**Reviewed By:** N. Zhang

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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.

## 2 CONDUCTOR 24 AWG + 4 CONDUCTOR 32 AWG + 6 PAIR 30 AWG 10G PARALLEL PAIR COMPOSITE CABLE

### ELECTRICAL CHARACTERISTICS

#### Component I – 30 AWG Pairs

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

**Time Delay:** 1.55 ns/ft [5.09 ns/m] Nominal

**Time Delay Skew (Within Pair):** 10 ps/m Maximum

**Attenuation<sup>2</sup>:**

Frequency (GHz)	Attenuation (dB/5.5 m Maximum)
1	9.6
2	13.0
5	21.6
6.25	22.55
10	36.0

**Differential to Common Mode Conversion (SCD21):** 28 dB Nominal

**Conductor DC Resistance:** 0.10 Ohms/ft [330 Ohms/km] Nominal @ 20°C

<sup>2</sup> Test/Functional to 10 GHz over 5.5 m length

#### Component II – 24 AWG Singles

**Conductor DC Resistance:** 0.024 Ohms/ft [80 Ohms/km] Nominal @ 20°C

#### Component III – 32 AWG Singles

**Conductor DC Resistance:** 0.16 Ohms/ft [520 Ohms/km] Nominal @ 20°C

### SAFETY CERTIFICATION

**UL Recognized:** AWM Style 20276 80°C 30 Volts VW-1

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



#### **Madison Cable**

125 Goddard Memorial Drive  
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(508) 752-2884 (877) MADISON

### REVISION HISTORY

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**Spec Number:** 102-2720

**Part Number:** 18ZZSLF020

**Customer:**

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**Prepared By:** H. Abusamra

**Reviewed By:** N. Zhang

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