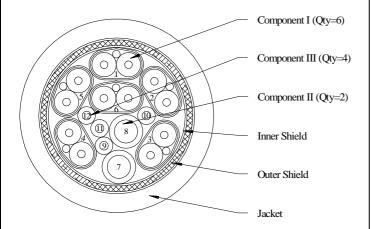
2 CONDUCTOR 24 AWG + 4 CONDUCTOR 32 AWG + 6 PAIR 32 AWG COMPOSITE CABLE

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 - 32 AWG Pairs

Conductor: 32 AWG Solid Bare Copper, 0.008 Inch [0.20 mm] Diameter Insulation: 0.0090 Inches [0.23 mm] of Polyethylene, 0.026 Inch [0.66 mm] Diameter

Pair: 2 Insulated Conductors Laid Flat and Parallel

Drain Wire: 32 AWG Solid Tin Plated Copper, 0.008 Inch [0.20 mm] Diameter **Pair Shield**: Aluminum/Polyester Tape, Aluminum Side Facing In, 25% Overlap,

 ${\bf Color-Yellow}$ ${\bf Pair\ Jacket:\ Polyester\ Tape}$

Pair Diameter: 0.0346 x 0.0591 Inches [0.88 x 1.50 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: 0.0060 Inches [0.15 mm] of Semi-Rigid PVC, 0.036 Inch [0.91 mm]

Diameter

Component III – 32 AWG Singles

 $\label{localization} \textbf{Conductor: } 32~\text{AWG Solid Tin Plated Copper, } 0.008~\text{Inch [} 0.20~\text{mm]}~\text{Diameter} \\ \textbf{Insulation: } 0.0055~\text{Inches [} 0.14~\text{mm]}~\text{of Semi-Rigid PVC, } 0.019~\text{Inch [} 0.48~\text{mm]} \\ \\ \textbf{Inches [} 0.48~\text{mm]}~\text{of Semi-Rigid PVC, } 0.019~\text{Inch [} 0.48~\text{mm]} \\ \textbf{Inches [} 0.48~\text{mm]}~\text{of Semi-Rigid PVC, } 0.019~\text{Inch [} 0.48~\text{mm]} \\ \textbf{Inches [} 0.48~\text{mm]}~\text{of Semi-Rigid PVC, } 0.019~\text{Inches [} 0.48~\text{mm]} \\ \textbf{Inches [} 0.48~\text{mm]}~\text{of Semi-Rigid PVC, } 0.019~\text{Inches [} 0.48~\text{mm]} \\ \textbf{Inches [} 0.48~\text{mm]}~\text{of Semi-Rigid PVC, } 0.019~\text{Inches [} 0.48~\text{mm]} \\ \textbf{Inches [} 0.48~\text{mm]}~\text{of Semi-Rigid PVC, } 0.019~\text{Inches [} 0.48~\text{mm]} \\ \textbf{Inches [} 0.48~\text{mm]}~\text{of Semi-Rigid PVC, } 0.019~\text{Inches [} 0.48~\text{mm]} \\ \textbf{Inches [} 0.48~\text{mm]}~\text{of Semi-Rigid PVC, } 0.019~\text{Inches [} 0.48~\text{mm]} \\ \textbf{Inches [} 0.48~\text{mm]}~\text{of Semi-Rigid PVC, } 0.019~\text{Inches [} 0.48~\text{mm]} \\ \textbf{Inches [} 0.48~\text{mm]}~\text{of Semi-Rigid PVC, } 0.019~\text{mm]} \\ \textbf{Inches [} 0.48~\text{mm]}~\text{of Semi-Rigid PVC, } 0.019~\text{mm]} \\ \textbf{Inches [} 0.48~\text{mm]}~\text{of Semi-Rigid PVC, } 0.019~\text{mm]} \\ \textbf{Inches [} 0.48~\text{mm]} \\$

Diameter

Final Assembly

Core: 1 Component I (#6), 1 Component II (#8) and 3 Component III (#10-12)
Cabled Together

Layer 1: 5 Component I (#1-5), 1 Component II (#7) and 1 Component III (#9) Cabled Around Core

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

Outer Shield: 40 AWG Tin Plated Copper Braid, 90% Coverage Minimum

Jacket: 0.026 Inches [0.65 mm] of PVC, Color – Black **Diameter**: 0.205 ± 0.008 Inches [5.20 ± 0.20 mm]

Print Legend (Gray Ink): "MADE IN CHINA --- TE CONNECTIVITY E47891 {Mfg. Location Code}¹ **%** AWM STYLE 20276 80°C 30V VW-1 --- SUBSTANCE COMPLIANT 2011/65/EU"

¹ 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	Revision History						
		1	07/16/13	SJ	Initial Release			
Connectivity		worcester, MA 01003 CSA	2	08/12/13	DC	Revised Comp III Qty; Added Filler; et. al.		
	tivity		3	11/05/13	DC	Revised Comp I OD; Jacket wall, OD		
- There's (1) (1) (1)		(500) 752 2561 (677) Milliolott	4	12/04/13	DC	Revised Comp I Cond; Shield #2		
Spec Number:	102-2718		5	01/13/14	DC	Revised Print Le	egend and Color	
Part Number:	18ZZSLF02	1	6	12/18/14	CZ	Revised 32# Sin	gles, Shield, OD, Leger	nd; et. al.
Customer:			Prepa	red By:	D.M.	Card		Page
Customer #:			Revie	wed By:	N. Zh	ang		1 of 2

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 32 AWG COMPOSITE CABLE

ELECTRICAL CHARACTERISTICS

Component I – 32 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

Attenuation²:

Frequency	Attenuation			
(GHz)	(dB/3m Maximum)			
1	6.1			
2	8.4			
5	13.5			
6.25	14.5			
10	21.4			

Differential to Common Mode Conversion (SCD21): 23 dB Minimum **Conductor DC Resistance**: 0.16 Ohms/ft [520 Ohms/km] Nominal @ 20°C

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 Susbstances of Hazardous Substances

	Madison Cable 125 Goddard Memorial Drive	REVISION HISTORY					
		1	07/16/13	SJ	Initial Release		
- $=$ T	Worcester, MA 01603 USA	2	08/12/13	DC	Revised Comp III Qty; Added Filler; et. al.		
connectivity	- Violeester, VIII 01005 0521	3	11/05/13	DC	Revised Comp I OD; Jacket wall, OD		
(200) /22 2001 (077) 11111110011		4	12/04/13	DC	Revised Comp I Cond; Shield #2		
Spec Number:	102-2718	5	01/13/14	DC	Revised Print Le	egend and Color	
Part Number:	18ZZSLF021	6	12/18/14	CZ	Revised 32# Sin	gles, Shield, OD, Leger	nd; et. al.
Customer:		Prepa	red By:	D.M.	Card		Page
Customer #:		Revie	wed By:	N. Zh	ang		2 of 2

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² Test/Functional to 10 GHz over 3 m length