



Introducing InfinitiTwist – High Speed Twisted Pair Cable

The new Madison Cable brand InfinitiTwist family of products provide a high speed cable solution that significantly reduces the problems associated with parallel pair cable designs. The InfinitiTwist cables out-perform parallel pair designs in bend radius, flexibility, reliability, time delay skew and mode conversion (SCD21).

Using a twisted shielded pair design, InfinitiTwist products allow for a tighter bend radius for improved cable management in high density systems. InfinitiTwist cables also dramatically reduce the termination issues associated with pistoning as seen in current parallel pair products.

Available in constructions of 1 to 36 pairs and above, this family of products utilizes conductor sizes of 32 AWG to 24 AWG. They can be manufactured in both 85 and 100 Ohm impedance and support transmission speeds up to 16 Gb/s and beyond. This performance allows these cables to be used in applications such as InfiniBand standard (SDR, DDR, QDR, and FDR - 1X, 4X and 12X), 10G/40G/100G Ethernet (1X, 4X, 10X), SAS 6 and 12 Gb/s, SFP+, QSFP+, CXP, CR4, CR10, 16 Gb/s Fibre Channel, and other custom applications as specified by customer requests.



InfiniTwist – High Speed Twisted Pair Cable

KEY FEATURES

- Tighter bend radius than parallel pair (bend radius of <2.5X cable diameter, tested in accordance to SFF 8417-Multi Conductor Cable Flex Cycle Test Procedure)
- Increased flexibility due to use of twisted pair
- Improved mechanical reliability over parallel pair
- Virtually no pistoning of conductors or pairs as exhibited by parallel pairs
- Conductor sizes of 32, 30, 28, 26 and 24 AWG available
- Constructions of 1 to 36+ pairs, 1X, 2X, 4X, 8X, 12X

TE Technical Support Center

Madison Cable:	+1 (877) 623-4766 (ext 0)
USA:	+1 (800) 522-6752
Canada:	+1 (905) 475-6222
Mexico:	+52 (0) 55-1106-0800
Latin/S. America:	+54 (0) 11-4733-2200
Germany:	+49 (0) 6251-133-1999
UK:	+44 (0) 800-267666
France:	+33 (0) 1-3420-8686
Netherlands:	+31 (0) 73-6246-999
China:	+86 (0) 400-820-6015

te.com

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4-1773457-2 PDF 3M 03/2011

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APPLICATIONS

- SDR, DDR, QDR, and FDR InfiniBand (1X, 4X, 12X)
- 10G/40G/100G Ethernet (1X, 4X, 10X)
- SAS 6 Gb/s and 12 Gb/s
- SFP+, QSFP+, CXP, CR4, CR10
- 16 Gb/s Fibre Channel
- Custom applications based on customer request

ELECTRICAL

- Tightly controlled impedance
- Excellent performance consistency within and between the pairs of a cable as well as manufacturing lot to lot performance
- Tightly controlled skew characteristics
- Lower attenuation variation when compared to parallel pairs
- Lower mode conversion (SCD21) than parallel pair
- 85-100 Ohm impedance available
- Bandwidths of 10G, 12G and 15G and beyond

MATERIALS

- Silver plated conductors used for excellent signal integrity
- Foam primary insulation utilizes uniform, small cell structure for exceptional performance
- Available in 32, 30, 28, 26 and 24 AWG
- Low Smoke Zero Halogen designs available

PRODUCT OFFERING

InfiniTwist Cables				
Part Numbers	Pair Count	AWG	Bandwidth	Bend Radius (mm)
04PA3LF001	2	32	10 G	8.9
04KB3LF001	2	30	10 G	10.8
04KD3LF001	2	28	10 G	11.7
04KE3LF001	2	26	10 G	15.6
04KF3LF002	2	24	10 G	16.2
16PA3LF001	8	32	10 G	13.5
16KB3LF001	8	30	10 G	16
16KD3LF002	8	28	10 G	19.5
16KE3LF003	8	26	10 G	22
16KF3LF001	8	24	10 G	25.5
48PA3LF001	24	32	10 G	21.6
48KB3LF001	24	30	10 G	25.7
48KD3LF001	24	28	10 G	31.1
48KE3LF001	24	26	10 G	34.3
48KF3LF001	24	24	10 G	40.3
16PA3LF002	8	32	12 G	13.5
16KB3LF002	8	30	12 G	16
16KD3LF004	8	28	12 G	19.5
16KE3LF002	8	26	12 G	22
16KF3LF002	8	24	12 G	25.5

Additional designs under development.
Contact Madison Cable at +1 (877) 623-4766 (ext. 0)



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