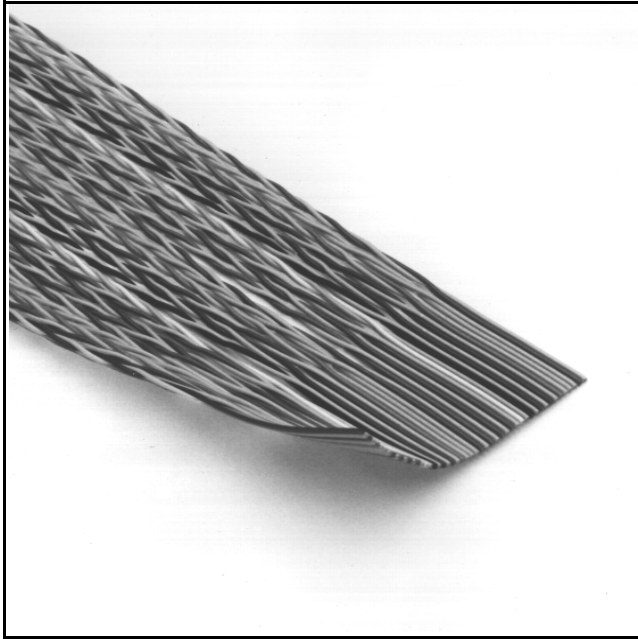


# 3M™ Twisted Pair Flat Cable

.050" 28 AWG Stranded, Mass Terminatable Pair, PVC

1700 Series



- Wires are color-coded for easy identification
- Twist and flat repeat has variable length option
- Can be mass terminated to a broad line of IDC connectors
- Provides reduced crosstalk in balanced drive applications
- 28 AWG stranded wire provides flexibility and extended product life
- 10 color repeat
- RoHS\* compliant

Date Modified: April 13, 2007



TS-0115-17  
Sheet 1 of 2

## Physical

**Insulation Material:** Polyvinyl Chloride (PVC)

**Color:** 10 Color Repeat with Tan Common

**Marking:** None

**Canadian Option:**  AWM 20462 105C 300V VW1 3M NU C  AWM IA 80C 150V FT1 EU <50V

**Conductors:** 28 AWG, 7 x 36 AWG [ 7 x Ø 0.127 ] Tinned Stranded Copper

## Electrical

**Voltage Rating:** USA: 300V      Canada: 150V    EU: <50V

**Insulation Resistance:**  $> 1 \times 10^9 \Omega/10 \text{ ft. [ 3m ]}$

	<b>Unbalanced</b>	<b>Balanced</b>
<b>Characteristic Impedance:</b>	101 $\Omega$	122 $\Omega$
<b>Capacitance:</b>	15.9 pF/ft [ 52.2 pF/m ]	13.3 pF/ft [ 43.6 pF/m ]
<b>Inductance:</b>	0.16 $\mu\text{H/ft}$ [ 0.53 $\mu\text{H/m}$ ]	0.20 $\mu\text{H/ft}$ [ 0.66 $\mu\text{H/m}$ ]
<b>Propagation Delay:</b>	1.61 ns/ft [ 5.28 ns/m ]	1.63 ns/ft [ 5.35 ns/m ]
<b>Velocity of Propagation:</b>	63%	62%

Note: Unbalanced is measured between ground-signal-ground conductors. Balanced is measured between conductors within a pair.

## Environmental

**Temperature Rating:** USA: -20° C to +105° C      Canada: -20° C to +80° C

**Flammability Rating:** USA: VW-1      Canada: FT1

\*"RoHS Compliant 2005/95/EC" means that the product or part ("Product") does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. This information represents 3M's knowledge and belief which may be based in whole or in part on information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M's Regulatory Information Appendix, then 3M's entire liability and Buyer's exclusive remedy will be in accordance with the Warranty stated below.

UL File No.: E42769, Style No.: 20462

# 3M™ Twisted Pair Flat Cable

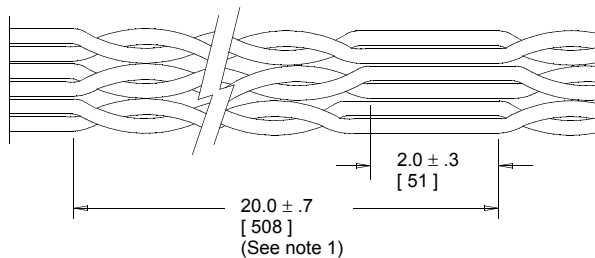
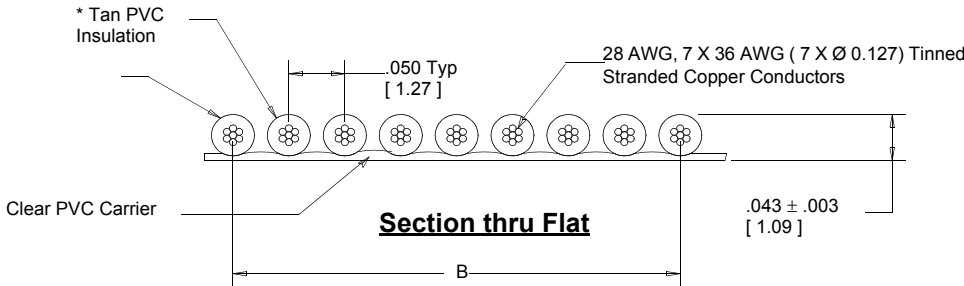
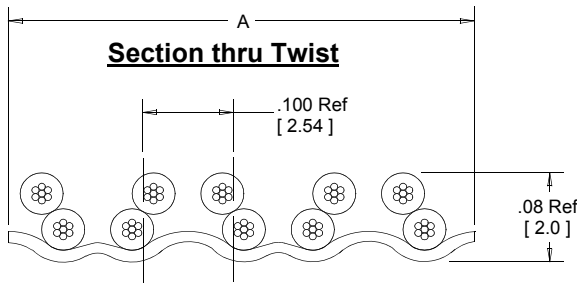
.050" 28 AWG Stranded, Mass Terminatable Pair, PVC

1700 Series



Number of Conductors	3M Part Number	Dimension A	Dimension B
10 (5 pair)	<b>1700/10</b>	0.50 [ 12.7 ]	0.450 ± .010 [ 11.43 ]
14 (7 pair)	<b>1700/14</b>	0.70 [ 17.8 ]	0.650 ± .010 [ 16.51 ]
16 (8 pair)	<b>1700/16</b>	0.80 [ 20.3 ]	0.750 ± .015 [ 19.05 ]
20 (10 pair)	<b>1700/20</b>	1.00 [ 25.4 ]	0.950 ± .015 [ 24.13 ]
26 (13 pair)	<b>1700/26</b>	1.30 [ 33.0 ]	1.250 ± .015 [ 31.75 ]
34 (17 pair)	<b>1700/34</b>	1.70 [ 43.2 ]	1.650 ± .020 [ 41.91 ]
36 (18 pair)	<b>1700/36</b>	1.80 [ 45.7 ]	1.750 ± .020 [ 44.45 ]
40 (20 pair)	<b>1700/40</b>	2.00 [ 50.8 ]	1.950 ± .020 [ 49.53 ]
50 (25 pair)	<b>1700/50</b>	2.50 [ 63.5 ]	2.450 ± .020 [ 62.23 ]
60 (30 pair)	<b>1700/60</b>	3.00 [ 76.2 ]	2.950 ± .020 [ 74.93 ]
64 (32 pair)	<b>1700/64</b>	3.20 [ 81.3 ]	3.150 ± .020 [ 80.01 ]

Note: Contact 3M for availability of additional conductor counts.



Variable Flat-Repeat Length Suffix Table		
Alternative Twist and Flat Repeats		
Suffix	Repeat (in.)	Flat (in.)
Blank (Standard)	20.0	2.0
TO	22.0	4.0
TB	7.5	1.0
TD	43.0	3.0
BP	9.0	1.5
BA	10.5	2.0
BW	34.0	2.0

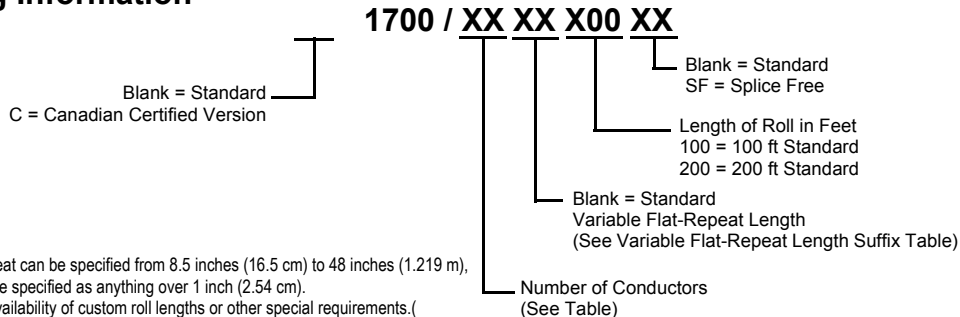
- \* 10 Color Repeat
- Brown/Tan
  - Red/Tan
  - Orange/Tan
  - Yellow/Tan
  - Green/Tan
  - Blue/Tan
  - Violet/Tan
  - Gray/Tan
  - White/Tan
  - Black/Tan

Inch [mm]

Tolerance Unless Noted			
	.0	.00	.000
Inch	±.1	±.01	±.005

[ ] Dimensions for Reference only

## Ordering Information



Note:

- The twist-flat repeat can be specified from 8.5 inches (16.5 cm) to 48 inches (1.219 m), and the flat can be specified as anything over 1 inch (2.54 cm).
- Contact 3M for availability of custom roll lengths or other special requirements.

TS-0115-17  
Sheet 2 of 2

## Important Notice

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.



### 3M Electronics

6801 River Place Blvd.  
Austin, TX 78726-9000  
800/225-5373  
[www.3M.com/electronics](http://www.3M.com/electronics)

## Warranty; Limited Remedy; Limited Liability.

This product will be free from defects in material and manufacture for a period of one (1) year from the time of purchase. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. **Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**



Minimum 10%  
Post-Consumer Fiber

Printed in USA.

© All rights reserved. 3M 2007

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Flat Cables](#) category:*

*Click to view products by [3M](#) manufacturer:*

Other Similar products are found below :

[8132/08100](#) [FST-23A-15](#) [1301210030](#) [C336514-500](#) [902220736002000](#) [902220736006000](#) [28100-0614](#) [281000616](#) [281000625](#) [9L28014-008-H300](#) [28100-0571](#) [28100-0602](#) [281000624](#) [28100-0650](#) [28100-0664](#) [336512-300](#) [336518](#) [336537-CUT-LENGTH](#) [3447/10-100](#) [3625/08-30M](#) [362514100MSF](#) [40WDY00005](#) [5111993623](#) [336506-300](#) [336508-300](#) [C374910](#) [34WDY00006](#) [3749/10-100](#) [375630](#) [3-971111-6](#) [1-1437356-3](#) [57034-6](#) [812504](#) [8132/11100](#) [5-1437214-8](#) [1301210060](#) [1301210058](#) [1301190003](#) [1301210032](#) [5111196336](#) [607.5689.087](#) [607.5689.091](#) [3801/04](#) [1301210020](#) [3754/12](#) [902220736003000](#) [3625/22100MSF](#) [902220736005000](#) [902220736004000](#) [C3811/10-100](#)