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3M™ Twisted Pair, Flat Cable, .050" 28 AWG Stranded, 10 Color Repeat, 1700/34, 100 ft.

34 conductors, Mass Terminatable, PVC, Standard

GTIN(UPC/EAN) : 0 00 54007 53978 0

3M Id : 80-6106-7251-3

Characteristics

3M Logo, Position Indicator, Wire Gauge, Insulator Material	None
Balanced Capacitance	13.3 pF/ft (43.6 pF/m)
Balanced Inductance	.20 microHenry/ft (0.66 microHenry/m)
Balanced Propagation Delay	1.63 ns/ft (5.35 ns/m)
Cable Style	Flat
Canadian Option	AWM 20462 105C 300V VW1 3M NU C AWM IA 80C 150V FT1 EU<50V
Capacitance -- Balanced	13.3 Picofarad
Capacitance -- Unbalanced	15.9 Picofarad
Characteristic Impedance -- Balanced	122 Ohm
Characteristic Impedance -- Unbalanced	101 Ohm
Color	10 Color Repeat with Tan Common
Conductor Material	Copper
Conductor Resistance	65 Ohm
Conductors	28 AWG 7x36 [7x0.127] Tinned Stranded Copper
EPC Can View	Public
EU RoHS Compliant	Yes
First Position Marking	Brown
Flammability Rating -- Canada	FT1
Flammability Rating -- EU	None
Flammability Rating--USA	VW-1
Impedance -- Balanced	122 Ohm
Impedance -- Unbalanced	101 Ohm
Inductance -- Balanced	.20 Microhenry
Inductance -- Unbalanced	.16 Microhenry

Insulation Material	Polyvinyl Chloride (PVC)
Insulation Resistance	(Primary Cable) $>1 \times 10^{10}$ Ohm/10ft. [3m]
Jacket	No
Lower Temperature Rating	-20 Degree Celsius
Number of Conductors	34
Pitch	0.050 Inch
Plating Material	Tin
Primary Configuration	Twist & Flat
Primary Insulation Color	Multi
Primary Insulation Material	Polyvinyl Chloride (PVC)
Propagation Delay -- Balanced	1.63 Nanosecond
Propagation Delay -- Unbalanced	1.61 Nanosecond
Shape	Flat
Shield	No
Stranding	7 X 36 [7 X 0.127]
Temperature Rating: Canada	-20 Degree C to +80 Degree C
Temperature Rating: USA	-20 Degree C to +105C
UL File Number	E42769
UL Listed -- USA	None
UL Recognized -- USA	AWM Style 20462
UL Recognized-- Canada	IA
Unbalanced Capacitance	15.9 pF/ft (52.2 pF/m)
Unbalanced Inductance	.16 microHenry/ft (0.52 microHenry/m)
Unbalanced Propagation Delay	1.61 ns/ft (5.28 ns/m)
Upper Temperature Rating -- Canada	80 Degree Celsius
Upper Temperature Rating -- USA	105 Degree Celsius
Velocity of Propagation--Balanced	62%
Velocity of Propagation--Unbalanced	63%
Voltage Rating -- Canada	150 Volt
Voltage Rating -- EU	>0 to <50 Volt
Voltage Rating--USA	300V
Wire Gauge	28 American Wire Gauge (AWG)

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3M™ Twisted Pair, Flat Cable, .050" 28 AWG Stranded, 10 Color Repeat, 1700/34, 100 ft. Packaging

3M Id: 80-6106-7251-3

Minimum Order Quantity: 3.0 RLS

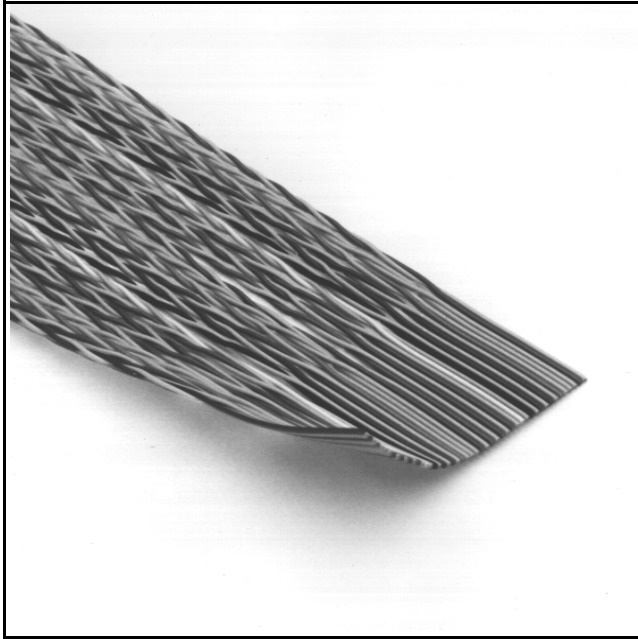
Case Quantity: 3.0 RLS

	English	Metric
Length	12.2 INCH	0.310 MTR
Width	12.2 INCH	0.310 MTR
Height	8.8 INCH	0.224 MTR
Gross Weight	17.6000 LBS	7.9832 KG

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



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

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

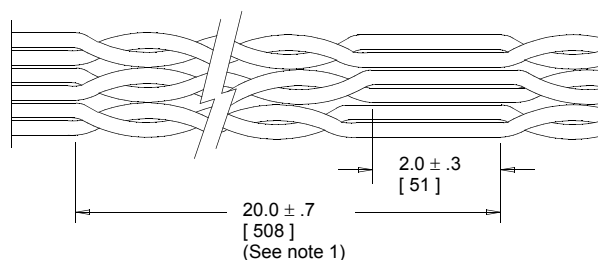
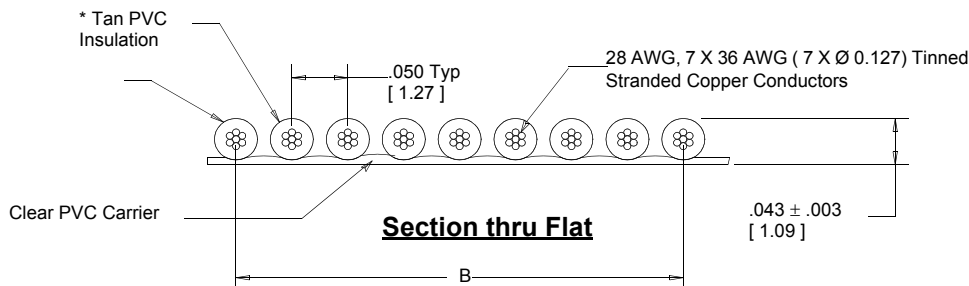
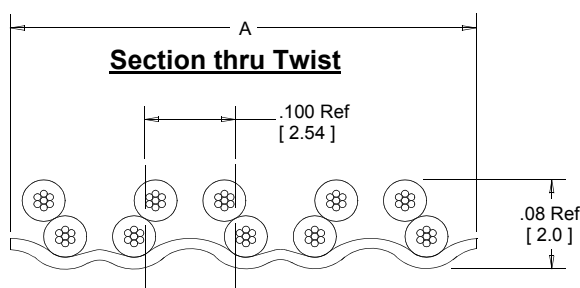
.050" 28 AWG Stranded, Mass Terminatable Pair, PVC

1700 Series



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

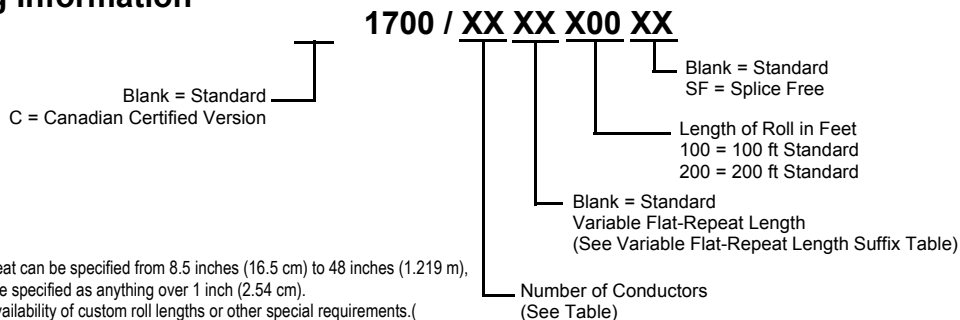
* 10 Color Repeat
 Brown/Tan
 Red/Tan
 Orange/Tan
 Yellow/Tan
 Green/Tan
 Blue/Tan
 Violet/Tan
 Gray/Tan
 White/Tan
 Black/Tan

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.

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