

# 3M™ Twisted Pair Flat Cable

.050" 28 AWG Stranded, Mass Terminatable, PVC

3782 Series



- Combines the advantages of loose twisted pairs with flat section parts for mass termination
- Loose twisted pairs allow for easy routing
- Twisted pairs reduce crosstalk for balanced drive applications
- Zippable for branching or discrete termination
- Wires are color-coded for easy identification
- See the Regulatory Information Appendix (RIA) in the "RoHS compliance" section of [www.3Mconnector.com](http://www.3Mconnector.com) for compliance information (RIA E1 & C1 apply)

Date Modified: July 5, 2009

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## Physical

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

Color: 10 Color Repeat with White Common

**Marking:**

Standard: None

**Conductors:** 28 AWG, 7 x 36 AWG [ 7 x  $\phi$  0.127 ] Tinned Stranded Copper

## Electrical

**Voltage Rating:** USA: 300V

EU: <50V

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

**Characteristic Impedance:** Unbalanced  
103  $\Omega$

Balanced  
137  $\Omega$

**Capacitance:** 14.8 pF/ft [ 48.5 pF/m ]

11.1 pF/ft [ 36.3 pF/m ]

**Inductance:** 0.16  $\mu\text{H/ft}$  [ 0.52  $\mu\text{H/m}$  ]

0.21  $\mu\text{H/ft}$  [ 0.69  $\mu\text{H/m}$  ]

**Propagation Delay:** 1.52 ns/ft [ 4.99 ns/m ]

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**Velocity of Propagation:** 67%

67%

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

## Environmental

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

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



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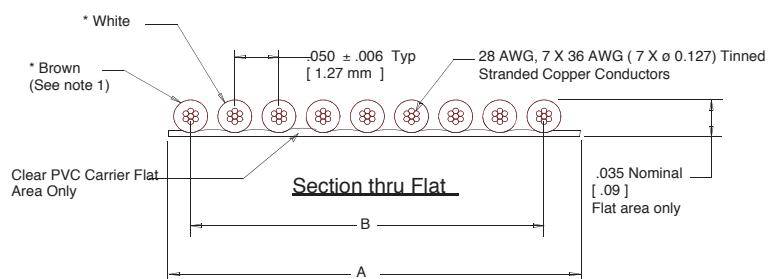
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.050" 28 AWG Stranded, Mass Terminatable, PVC

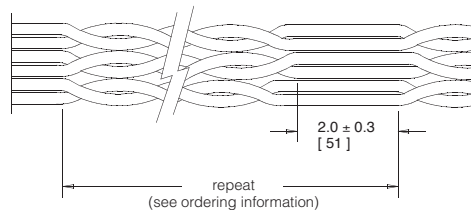
3782 Series

Number of Pairs	3M Part Number	Dimension A	Dimension B
5	3782-5P-XXXX 100FT	0.50 [12.70]	0.450 ± .010 [ 11.43 ]
7	3782-7P-XXXX 100FT	0.70 [17.80]	0.650 ± .010 [ 16.51 ]
8	3782-8P-XXXX 100FT	0.80 [20.30]	0.750 ± .010 [ 19.50 ]
10	3782-10P-XXXX 100FT	1.00 [25.40]	0.950 ± .020 [ 24.13 ]
12	3782-12P-XXXX 100FT	1.20 [30.50]	1.150 ± .020 [ 29.21 ]
13	3782-13P-XXXX 100FT	1.30 [33.00]	1.250 ± .020 [ 31.75 ]
15	3782-15P-XXXX 100FT	1.50 [38.10]	1.450 ± .020 [ 36.83 ]
17	3782-17P-XXXX 100FT	1.70 [43.20]	1.650 ± .020 [ 41.91 ]
20	3782-20P-XXXX 100FT	2.00 [50.80]	1.950 ± .020 [ 49.53 ]
25	3782-25P-XXXX 100FT	2.50 [63.50]	2.450 ± .020 [ 62.23 ]
30	3782-30P-XXXX 100FT	3.00 [76.20]	2.950 ± .020 [ 74.93 ]
32	3782-32P-XXXX 100FT	3.20 [81.30]	3.150 ± .020 [ 80.01 ]
34	3782-34P-XXXX 100FT	3.40 [86.40]	3.350 ± .020 [ 85.09 ]



\* 10 Color Repeat

Brown/White  
Red/White  
Orange/White  
Yellow/White  
Green/White  
Blue/White  
Violet/White  
Gray/White  
Pink/White  
Black/White



Note:

1. Brown conductor indicates conductor number 1.
2. RIA E1 & C1 apply for all cables listed

Inch  
[mm]

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

[ ] Dimensions for Reference Only

## Ordering Information

**3782/XXP XXXA**

270 = 270 mm repeat  
540 = 540 mm repeat

Number of Pairs  
(See Table)

Note: Available in standard 100 ft rolls. Contact 3M for availability of additional conductor counts and/or custom roll lengths.

TS-0999-D  
Sheet 2 of 2

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