

# 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

TS-0999-E  
Sheet 1 of 2

## 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 ]

1.52 ns/ft [ 4.99 ns/m ]

**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



Electronic Solutions Division  
Interconnect Solutions  
<http://www.3Mconnector.com>

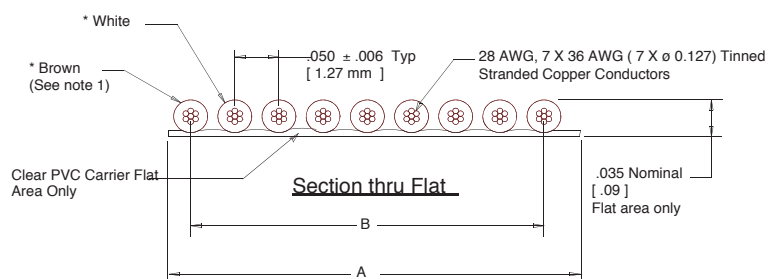
3M is a trademark of 3M Company.  
For technical, sales or ordering information call  
**800-225-5373**

# 3M™ Twisted Pair Flat Cable

.050" 28 AWG Stranded, Mass Terminatable, PVC

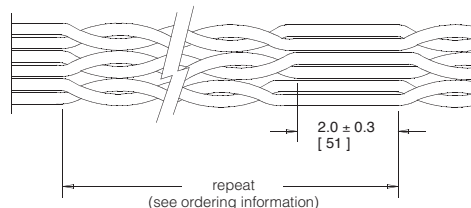
3782 Series

| 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



Electronic Solutions Division  
Interconnect Solutions  
<http://www.3Mconnector.com>

3M is a trademark of 3M Company.  
For technical, sales or ordering information call  
**800-225-5373**

#### **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.

#### **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.**



#### **3M Electronics Solutions Division**

6801 River Place Blvd.  
Austin, TX 78726-9000  
U.S.A.  
1-800-225-5373  
[www.3Mconnector.com](http://www.3Mconnector.com)

Please recycle. Printed in USA.  
© 3M 2010. All rights reserved.  
RIA-2217B-E

3M is a trademark of 3M Company.

## Данный компонент на территории Российской Федерации

**Вы можете приобрести в компании MosChip.**

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9