

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 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 ϕ 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 | Balanced |
|----------------------------------|-------------------|-----------------|
| | 103 Ω | 137 Ω |

| | | |
|---------------------|--------------------------|--------------------------|
| 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

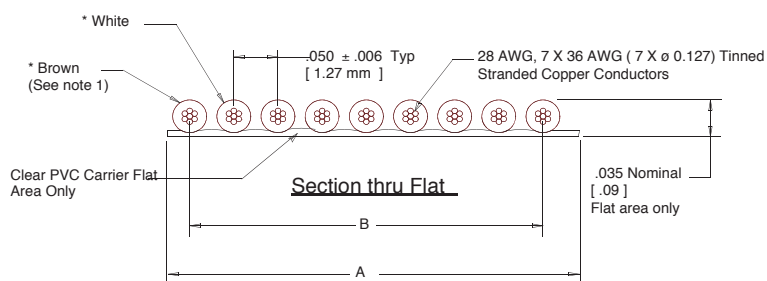
Flammability Rating: USA:VW-1

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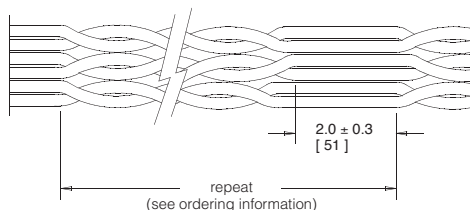
3782 Series

| 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



Inch
[mm]

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

[] Dimensions for Reference Only

Note:

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

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.

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