- 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)


## Physical

Insulation Material: Polyvinyl Chloride (PVC)
Color: 10 Color Repeat with White Common

## Marking:

Standard: None
Conductors: 28 AWG, $7 \times 36$ AWG [ $7 \times \varnothing 0.127$ ] Tinned Stranded Copper

## Electrical

| Voltage Rating: | USA: 300 V | EU: $<50 \mathrm{~V}$ |
| ---: | :--- | :--- |
| Insulation Resistance: | $>1 \times 10^{10} \Omega / 10 \mathrm{ft} .[3 \mathrm{~m}]$ |  |
| Characteristic Impedance: | Unbalanced | Balanced |
|  | $103 \Omega$ | $137 \Omega$ |
| Capacitance: | $14.8 \mathrm{pF} / \mathrm{ft}[48.5 \mathrm{pF} / \mathrm{m}]$ | $11.1 \mathrm{pF} / \mathrm{ft}[36.3 \mathrm{pF} / \mathrm{m}]$ |
| Inductance: | $0.16 \mu \mathrm{H} / \mathrm{ft}[0.52 \mu \mathrm{H} / \mathrm{m}]$ | $0.21 \mu \mathrm{H} / \mathrm{ft}[0.69 \mu \mathrm{H} / \mathrm{m}]$ |
| Propagation Delay: | $1.52 \mathrm{~ns} / \mathrm{ft}[4.99 \mathrm{~ns} / \mathrm{m}]$ | $1.52 \mathrm{~ns} / \mathrm{ft}[4.99 \mathrm{~ns} / \mathrm{m}]$ |
| 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: $-20^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$
Flammability Rating: USA:VW-1

# 3M ${ }^{\text {m" }}$ Twisted Pair Flat Cable 

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

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




Note:

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

## Ordering Information

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

## 3782/XXP XXXA

$270=270 \mathrm{~mm}$ repeat $540=540 \mathrm{~mm}$ repeat

## Number of Pairs

(See Table)

## ЗМ

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