

# 3M™ Shielded/Jacketed, Flat Cable

.050" 28 AWG Stranded, PVC/PVC

3517 Series



- Meets external wiring requirements of National Electrical Code, Article 725 (CL2)
- UL listed for USA and Canadian markets
- 28 AWG stranded wire on .050 inch centers permits mass termination to broad line of IDC connectors
- 360 degree expanded copper shielding provides 20 db average shielding effectiveness
- Primary cable is zippable for branching or discrete terminations
- See the Regulatory Information Appendix (RIA) in the "RoHS compliance" section of [www.3M.com/Interconnects](http://www.3M.com/Interconnects) for compliance information (RIA E1 & C1 apply)

Date Modified: December 8, 2009

TS-0069-D  
Sheet 1 of 2

## Physical

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

Color: Black

Primary Material: PVC

Color: Gray

**Marking:**

Standard: (UL) CL2 75C 28 AWG or AWM 20879 3M NU C  AWM IIA/B 80C 300V FT1 EU <50V

**Conductors:** 28 AWG, 7 × 36 AWG [ 7 × Ø 0.127 ] Tinned Stranded Copper

Shielding Material: Expanded Copper

## Electrical

**Voltage Rating:** USA: N.E.C. 725, CL2 or AWM 300V    Canada: <50V    EU: <50V

**Insulation Resistance:** (Primary Cable) > 1 × 10<sup>10</sup> Ω/10 ft. [ 3 m ]

<b>Characteristic Impedance:</b>	<b>Unbalanced</b>	<b>Balanced</b>
	70 Ω	119 Ω

<b>Capacitance:</b>	21.5 pF/ft [ 70.5 pF/m ]	12.7 pF/ft [ 41.7 pF/m ]
---------------------	--------------------------	--------------------------

<b>Inductance:</b>	0.11 μH/ft [ 0.35 μH/m ]	0.18 μH/ft [ 0.59 μH/m ]
--------------------	--------------------------	--------------------------

<b>Propagation Delay:</b>	1.51 ns/ft [ 4.95 ns/m ]	1.51 ns/ft [ 4.95 ns/m ]
---------------------------	--------------------------	--------------------------

<b>Velocity of Propagation:</b>	67%	67%
---------------------------------	-----	-----

Note: Unbalanced is measured between ground-signal-ground conductors, with shield grounded. Balanced is measured between signal conductors within a pair, with the shield floating.

## Environmental

**Temperature Rating:** USA: CL2; 75°C or AWM: -20°C to +80°C    Canada: 80°C

**Flammability Rating:** USA: N.E.C. 725, CL2    Canada: FT1

UL File No.: E118773, Power Limited Circuit Cable: CL2 (or AWM Style 20879)

# 3M™ Shielded/Jacketed, Flat Cable

.050" 28 AWG Stranded, PVC/PVC

3517 Series



Inch  
[mm]

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

[ ] Dimensions for Reference Only

Number of Conductors	3M Part Number	Dimension A ± .040"	Dimension B
09	3517/09	.58 [ 14.7 ]	0.400 ± .007 [ 10.16 ]
10	3517/10	.63 [ 16.0 ]	0.450 ± .007 [ 11.43 ]
14	3517/14	.83 [ 21.1 ]	0.650 ± .007 [ 16.51 ]
15	3517/15	.88 [ 22.4 ]	0.700 ± .007 [ 17.78 ]
16	3517/16	.93 [ 23.6 ]	0.750 ± .011 [ 19.05 ]
20	3517/20	1.13 [ 28.7 ]	0.950 ± .011 [ 24.13 ]
24	3517/24	1.33 [ 33.8 ]	1.150 ± .011 [ 29.21 ]
25	3517/25	1.38 [ 35.0 ]	1.200 ± .011 [ 30.48 ]
26	3517/26	1.43 [ 36.3 ]	1.250 ± .011 [ 31.75 ]
30	3517/30	1.63 [ 41.4 ]	1.450 ± .015 [ 36.83 ]
34	3517/34	1.83 [ 46.5 ]	1.650 ± .015 [ 41.91 ]
36	3517/36	1.93 [ 49.0 ]	1.750 ± .015 [ 44.45 ]
37	3517/37	1.98 [ 50.3 ]	1.800 ± .015 [ 45.72 ]
40	3517/40	2.13 [ 54.1 ]	1.950 ± .015 [ 49.53 ]
50	3517/50	2.63 [ 66.8 ]	2.450 ± .015 [ 62.23 ]
60	3517/60	3.13 [ 79.5 ]	2.950 ± .015 [ 74.93 ]
64	3517/64	3.38 [ 85.9 ]	3.150 ± .015 [ 80.01 ]



Note: Red marking on edge of primary cable designates wire #1.

## Ordering Information

**3517/XX XX**

Blank = Standard  
C = Canadian Certified Version

Number of Conductors  
(See Table)

Blank = Standard  
SF = Splice Free

Note: Available in standard 100 ft or 300 ft rolls, please specify when ordering. Contact 3M for availability of additional conductor counts and/or custom roll lengths.

TS-0069-D  
Sheet 2 of 2

**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.3m.com/interconnects](http://www.3m.com/interconnects)

Please recycle. Printed in USA.  
© 3M 2008. All rights reserved.  
RIA-2217B-E

3M is a trademark of 3M Company.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## 3M:

[N4640-2000](#) [N4620-2000](#) [N4634-2200](#) [N4660-2300](#) [N4610-2050](#) [N4610-2250](#) [N4610-2350](#) [N4614-2300](#) [N4626-2000](#) [N4626-2300](#) [N4634-2000](#) [N4634-2300](#) [N4640-2300](#) [N4650-2000](#) [N4650-2300](#) [N4660-2000](#) [N4614-2000](#) [N4610-2051-RB](#) [N4620-2300-RB](#) [N4626-2001-RB](#) [N4640-2001-RB](#) [N4610-2051](#) [N4650-2201-RB](#) [N4610-2351](#) [N4610-2251-RB](#) [3517/15SF](#) [3517/34SF](#) [3517/24SF](#) [3517/30SF](#) [3517/37SF](#) [N4650-2200-RB](#) [N4620-2301-RB](#) [N4634-2301-RB](#) [N4650-2301-RB](#) [N4626-2301-RB](#) [N4620-2200](#) [N4640-2200](#) [N4614-2200](#) [N4626-2200](#) [N4616-2000](#) [3517/26-100](#) [N4610-2351-RB](#) [N4650-2001-RB](#) [N4660-2200-RB](#) [N4660-2300-RB](#)