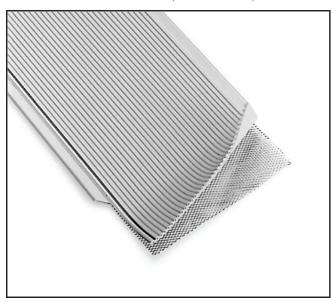
# 3M<sup>™</sup> Ground Plane Cable

.050" 28 AWG Stranded, One Drain, PVC

3476 Series



- 28 AWG wire on .050 inch centers permits mass termination to a broad line of IDC connectors
- Ground plane construction for increased signal density or improved transmission properties
- Stranded wire provides flexibility and extended product life
- Ground plane can be stripped by hand for easy termination
- The drain wire terminates the ground plane into the first connector contact
- See Regulatory Classification note: Environmental section below

Date Modified: May 11, 2009

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### **Physical**

**Insulation:** 

Material: Polyvinyl Chloride (PVC)

Color: Gray

Marking:

Standard: None

Canadian Option: AVM 268 05 00 VW1 3M NU C AVM IA 105C 150V FT1 EU < 50V

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

#### **Electrical**

**Voltage Rating:** Us 300V Canada: 150V

**Insulation Resista** :e:  $\times 10^{10} \Omega/10 \text{ ft.} [3 \text{ m}]$ 

Characteristic Im Tan Unbalanced: 65 Ω

Cal sita te: Unbalanced: 25.1 pF/ft [ 82.3 pF/m ]

Local sita te: Unbalanced: 0.11 μH/ft [ 0.36 μH/m ]

as an Delay: Unbalanced: 1.64 ns/ft [5.38 ns/m ]

**Propagation:** Unbalanced: 62%

Note: Unbalanced is have red ween ground-signal-ground conductors.

#### **Environmental**

**Temperature Rating:** -20°C to +105°C

**Flammability Rating:** USA: VW-1 Canada: FT1 **Regulatory Classification:** EU: Compliant, see RIA note E1

CN: •, see RIA note C1

Regulatory Information Appendix (RIA) attached

UL File No.: E42769, Style No: 2682

.050" 28 AWG Stranded, One Drain, PVC

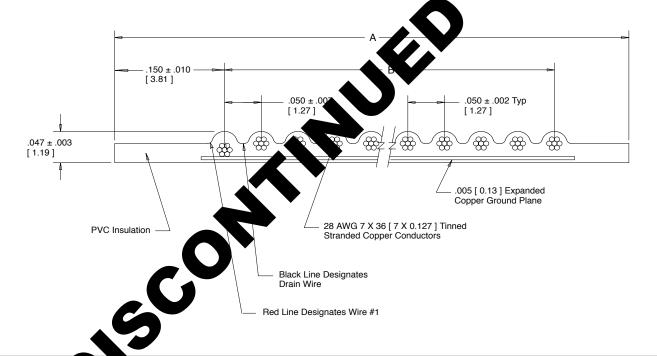


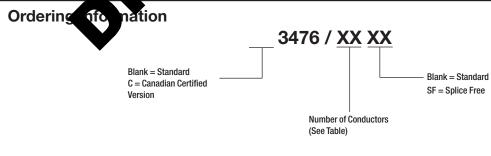
Inch [mm]

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

[] Dimensions for Reference Only

Number of Conductors Number		Dimension A	Dimension B	
10	3476/10	0.750 ± .015 [ 19.05 ]	0.450 ± .010 [ 11.43 ]	
14	3476/14	0.950 ± .015 [ 24.13 ]	0.650 ± .010 [ 16.51 ]	
15	3476/15	1.000 ± .015 [ 25.40 ]	0.700 ± .010 [ 17.78 ]	
16	3476/16	1.050 ± .015 [ 26.67 ]	0.750 ± .010 [ 19.05 ]	
20	3476/20	1.250 ± .015 [ 31.75 ]	0.950 ± .010 [ 24.13 ]	
24	3476/24	1.450 ± .015 [ 36.83 ]	1.150 ± .010 [ 29.21 ]	
25	3476/25	1.500 ± .015 [ 38.10 ]	1.200 ± .010 [ 30.48 ]	
26	3476/26	1.550 ± .015 [ 39.37 ]	1.250 ± .010 [ 31.75 ]	
34	3476/34	1.950 ± .015 [ 49.53 ]	± .010 [ 41.91 ]	
37	3476/37	2.100 ± .015 [ 53.34 ]	1.800 010 [ 45.72 ]	
40	3476/40	2.250 ± .015 [ 57.15 ]	950 ± .010 [ 49.53 ]	
50	3476/50	2.750 ± .015 [ 60.85 ]	2.450 ± .010 [ 65.23 ]	
60	3476/60	3.250 ± .01 <sup>r</sup> / 6 55 ]	2.950 ± .010 [ 74.93 ]	
64	3476/64	3 450 + 015 [ 87	3 150 + 010 [ 80 01 ]	





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.

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# **Regulatory Information Appendix**

#### 3M Electronic Solutions Division/Interconnect

#### **EUROPE**

## Appendix E1: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment, as amended by EU Commission Decision 2005/618/EC.

#### This product is RoHS Compliant 2005/95/EC.

"RoHS Compliant 2005/95/EC" means that the product or part ("Product") does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. Unless otherwise stated by 3M in writing, this information represents 3M's best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M's Regulatory Information Appendix, then the entire liability and Buyer's exclusive remedy will be in accordance with the Warranty stated below.

### **Appendix E2: European Union RoHS**

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Figure 2012 & Electronic Equipment, as amended by EU Commission Decision 2005/618/EC.

This product contains lead in the compliant pin area in excess of the max from a centration value allowed but is compliant by exemption under EU Commission Decision 2005/747/EC.

"RoHS Compliant 2005/95/EC" means that the product or part ("Produce does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as wend by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. These stated by 3M in writing, this information represents 3M's best knowledge and belief based upon information ided by third party suppliers to 3M.

In the event any product is proven not to conform with M's sulatory Information Appendix, then 3M's entire liability and Buyer's exclusive remedy will be in accordance with a Warranty stated below.

### Appendix E3: European Union Base

Directive 2002/95/EC, Restriction of the operation of the properties of the properti

This product contains lead in \* Color and area in excess of the maximum concentration value allowed.

Unless otherwise stated by 3M writing, this information represents 3M's best knowledge and belief based upon information provided by third party symmetric.

In the event any production is given not to conform with 3M's Regulatory Information Appendix, then 3M's entire liability and Buyer's exclusive and will be in accordance with the Warranty stated below.

## Appendix European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment, as amended by EU Commission Decision 2005/618/EC, as amended by EU Commission Decision 2005/717/EC, as amended by EU Court of Justice Decision 2008/C 116/04

This product contains decaBDE in the insulating material in excess of the maximum concentration allowed for finished products subject to EU RoHS that are placed on the EU market after June 30, 2008.

Unless otherwise stated by 3M in writing, this information represents 3M's best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M's Regulatory Information Appendix, then 3M's entire liability and Buyer's exclusive remedy will be in accordance with the Warranty stated below.

### **Appendix E5: European Union RoHS**

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment, as amended by EU Commission Decision 2005/618/EC.

This product contains lead in excess of the maximum concentration value allowed but is compliant by exemption under Item 6 of the Annex to the Directive.

"RoHS Compliant 2005/95/EC" means that the product or part ("Product") does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. Unless otherwise stated by 3M in writing, this information represents 3M's best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M's Regulatory Information Appendix, then 3M's are liability and Buyer's exclusive remedy will be in accordance with the Warranty stated below.

#### **CHINA**

# **Appendix C1: China RoHS**



Electronic Industry Standard of the People's Republic of China, SJ/T11363-2006, Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Information Products.

This symbol, per Marking for the Control of Pollution Caused by Electronic Information Pollucts, SJ/T11364-2006, means that the product or part **does not** contain any of the following substances in excess of the following maximum concentration values in any homogeneous material: (a) 0.1% (by weight) for lead, mercury, hexavalent threat the production of polybrominated diphenyl ethers (excluding decaBDE); or (b) 0.01% (by weight) for cadmination for cadmination represents 3M's best knowledge and belief based upon internation provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M's Information Appendix, then 3M's entire liability and Buyer's exclusive remedy will be in accordance with the Variant tated below.

# Appendix C2: China RoHS



Electronic Industry Standard of the People's Laurine of China, SJ/T11363-2006, Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Industry Standard of the People's Laurine of China, SJ/T11363-2006, Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Industry Standard of the People's Laurine of China, SJ/T11363-2006, Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Industry Standard of the People's Laurine of China, SJ/T11363-2006, Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Industry Standard of the People's Laurine of China, SJ/T11363-2006, Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Industry Standard of the People's Laurine of China, SJ/T11363-2006, Requirements for Concentration Limits for China, SJ/T11363-2006, Requirements for Concentration Limits for China, SJ/T11363-2006, Requirements for China, SJ/T1136

This symbol, per Marking for the Contract Polition Caused by Electronic Information Products, SJ/T11364-2006, means that the product or part **does** contain a castance, as detailed in the chart below, in excess of the following maximum concentration values in any homogeneous materal: (a) .1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl a ractic (exertaing decaBDE); or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information is seen 3M's best knowledge and belief based upon information provided by third party suppliers to 3M.

The numerical the symbol above should not be construed as a representation regarding the product's life or an extension of a policy warranty. The product warranty is stated below. In the event any product is proven not to conform with 3M's Regulatory pormation Appendix, then 3M's entire liability and Buyer's exclusive remedy will be in accordance with the product Warranty stated below.

产品中有毒有害物质或元素的名称及含量 Name and Content of Hazardous Substances or Elements

7 100 1 10 10 10 10 10 10 10 10 10 10 10						
部件名称	有毒有害物质或元素(Hazardous Substances or Elements)					
(Part or Component Name)	铅(Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
端子镀层(contact plating)	×	0	0	0	0	0

〇:表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006 标准规定的限量要求以下。(Indicates that this hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in SJ/T11363-2006.)

<sup>×:</sup>表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006 标准规定的限量要求。(Indicates that this hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in SJ/T11363-2006.)

# Appendix C3: China RoHS



Electronic Industry Standard of the People's Republic of China, SJ/T11363-2006, Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Information Products.

This symbol, per Marking for the Control of Pollution Caused by Electronic Information Products, SJ/T11364-2006, means that the product or part **does** contain a substance, as detailed in the chart below, in excess of the following maximum concentration values in any homogeneous material: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers (excluding decaBDE); or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M's best knowledge and belief based upon information provided by third party suppliers to 3M.

The numerical reference in the symbol above should not be construed as a representation regarding the product's life or an extension of a product warranty. The product warranty is stated below. In the event any product is proven of conform with 3M's Regulatory Information Appendix, then 3M's entire liability and Buyer's exclusive remedy will in accordance with the product Warranty stated below.

#### 产品中有毒有害物质或元素的名称及含量 Name and Content of Hazardous Substances or Elements

部件名称	有毒有害物质或元素(Hazardous Substances or Elements)					
(Part or Component Name)	铅(Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(V	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
合金(Metal alloy)	×	0	0			0

〇:表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006 标准规定/ 限量多 (下》(Indicates that this hazardous substance contained in all of the homogeneous materials for this part is below the limit requires in \$\frac{11363-2006.}{}

#### **Important Notice**

All statements, technical information believed to be reliable, but the accuracy or completeness is not guaranteed. By the ingression of guaranteed is not guaranteed in 3M's current publications, or any contrary statements contained on your purchase order shall have no force by the ingression of guaranteed in 3M's current publications, or any contrary statements contained on your purchase order shall have no force by the ingression of guaranteed in 3M's current publications, or any contrary statements contained on your purchase order shall have no force by the ingression of guaranteed in 3M's current publications, or any contrary statements contained on your purchase order shall have no force by the ingression of guaranteed in 3M's current publications, or any contrary statements contained in 3M's current publications, or any contrary statements contained in 3M's current publications, or any contrary statements contained in 3M's current publications, or any contrary statements contained in 3M's current publications.

#### 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.



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