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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



### Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China







# 3M<sup>TM</sup> Copper Foil Tape 1181

# **Copper Foil with Conductive Adhesive**

Data Sheet	April 2010	
Description	3M™ Copper Foil Tape 1181 consists of a 1-ounce rolled copper foil backing and an electrically conductive, pressure-sensitive acrylic adhesive. This tape is supplied on a removable liner for easy handling and die-cutting. It has excellent solder ability.	
Agency Approvals & Self Certifications	Meets flame retardant requirements of UL510, Product Category OANZ2, File E17385	
	RoHS 2002/95/EC	
	RoHS Compliant 2002/95/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 2002/618/EC, unless the substance is in an application that is exempt under RoHS. This information represents 3M's knowledge and belief, which may be based in whole or in part on information provided by third party suppliers to 3M.	
Applications	3M Copper Foil Tape 1181 is typically used as an EMI/RFI shielding tape for applications in the electronics industry such as static charge draining, seaming shielded rooms, cable wrapping and surface contact to non-solderable materials.	
Shielding Effectiveness	Many factors determine true shielding effectiveness of a shielding tape, including type and thickness of foil, adhesive type, intimacy of contact, smoothness of application surface, frequency of the EMI signal, etc. Typical shielding effectiveness for 1181 Tape is >85dB, 1MHz to 2 GHz, ASTMD-4935 test method	
Typical Properties	Not for specifications. Values are typical, not to be considered minimum or maximum.	
	Properties measured at room temperature 73°F (~23°C) unless otherwise stated.	

#### **Physical**

Property (Test Method)	Typical Value US units (metric)
Color	Copper
Adhesive	Acrylic Conductive
Type of Backing	Copper
Backing Thickness	1.4 mil (0.04mm)
Total Thickness (ASTM D1000)	2.6 mils (0.066mm)
Electrical Resistance <sup>1</sup>	0.005 Ω/□
Flame Retardancy <sup>2</sup>	Pass
Breaking Strength (ASTM D3759)	25 lbs/in (44N/10mm)
Elongation -% at break	5%
Adhesion Strength (ASTM D3330)	35 oz/in (3.8N/10mm)
Temperature Range	-40°C to 130°C
Shielding Effectiveness <sup>3</sup>	>85 dB, 1MHz to 2 GHz

- Mil-STD-202 Method 303 maintained at 5 psi (3.4N/cm2) measured over 1 in2 surface area. Conductive
  particles in the adhesive provide the electrical path between the application substrate and the foil backing.
- 2. UL Recognized for flame retardancy per UL 510, Product Category OANZ2, File E17385
- 3. ASTMD-4935 Test Method



## 3M<sup>TM</sup> Copper Foil Tape 1181

Shelf Life & Storage	This product has a 5-year shelf life from date of manufacture when stored in a humidity controlled storage (10°C/50°F to 27°C/80°F and <75% relative humidity).
Availability	Please contact your local distributor; available from 3M.com/oem [Where to Buy] or call 1-800-676-8381.

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#### **Electrical Markets Division**

6801 River Place Blvd. Austin, TX 78726-9000 800 676 8381 FAX: 800 828 9329 www.3M.com/emc

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