

3M Anisotropic Conductive Film (ACF)
Interconnect Solutions



Get Connected



Get Connected with 3M™ Anisotropic Conductive Film (ACF)

3M offers you a variety of high-performance anisotropic conductive adhesive products, used to mechanically and electrically connect flex circuits to a variety of substrates.

These reliable, production-proven technologies can replace soldering and mechanical fasteners in many applications, reducing assembly time and saving on space requirements.

Get the job done faster, easier and more economically with 3M™ Anisotropic Conductive Film (ACF) Interconnect Solutions

- Products for a variety of applications
 - Flex circuit to PCB
 - Flex circuit to flex circuit
 - Flex circuit to glass panels
- Good room temperature stability for long life on the factory floor
- Low temperature processing for lead free solutions
- Replaces connectors for cost savings, lower Z-axis standoff

Choose the 3M ACF Adhesive That's Right for Your Application

	Flex-On-Board			Flex-On-Glas
	3M ACF 5363	3M ACF 7303	3M ACF 7378	3M ACF 5552
Adhesive Thickness (micron)	40	75	40	19
Particle Diameter (micron)	10	43	10	6
Type of Particle	Au/Ni	Ag/Glass	Au/Ni	Au/Ni/Polymer
Bonding Temperature (°C)	195 to 210	135 to 150	160 to 180	170 to 190
Bonding Time (seconds)	10 to 20	25	5 to 9	20 to 30
Bonding Pressure (MPa)	3 to 5	2	3 to 4	2 to 4
Minimum Pitch (micron)	200	500	200	<100
Minimum Pad Area (mm ²)	0.15	0.75	0.2	0.015
Connection Resistance	<100 mOhms	<200 mOhms	<100 mOhms	<20 Ohms
90° Peel Adhesion (g/cm)	>700	>500	>1000	>800
Temp/Humidity Aging (°C/%r.h.)	85/85	70/90	85/85	85/85
Temp Cycling (°C)	-40 to 100	-40 to 80	-40 to 85	-40 to 100

Flex Type

Silver Ink on Polyester		X		
Gold/Copper on Polyester		X	X	
Gold/Copper on Polyimide	X	X	X	X

Connection Type

Flex to Glass		X ¹		X
Flex to Plastic Device		X ²		
Flex to PC Board	X	X	X	
Flex to Flex	X	X	X	X

¹Tested only for silver frit; not suitable for ITO traces. ²Suitable for silver ink traces only; not suitable for ITO traces.

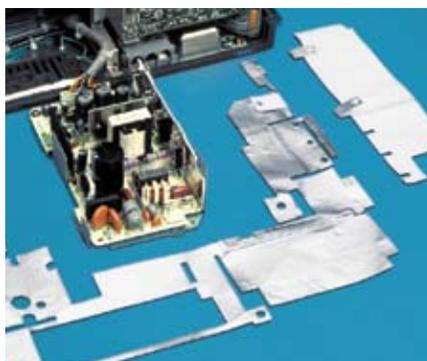


3M™ Electrically Conductive Adhesive Transfer Tape (ECATT)

An easy-to-use, pressure sensitive tape designed for connecting, bonding and grounding flex circuits, PCBs and EMI/RFI shields and gaskets. Applied at room temperature – no thermal bonding required! Not recommended for extreme high or low temperatures.



	3M ECATT 9703	3M ECATT 9705
Adhesive Thickness (micron)	50	50
Type of Particle	Ag/Ni	Ag/Ni
Pitch (micron)	800	800
Application Notes	Good adhesion; reworkable. For connecting/bonding/grounding flex circuits, printed circuits boards, EMI/RFI shields & gaskets, PSA attachments at room temp. Not recommended for extreme high/low temps.	



Contact 3M

3M provides applications development support. For more information, contact 3M at 800-251-8634. Or visit us on the web: www.3M.com/electronics.

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