



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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

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TIA 806FG product is mostly used for bonding heat dissipation fins, microprocessors and other power consumption semiconductors. This type of adhesive tape possesses ultimate bonding strength with low thermal impedance, with which in effect can be able to replace the method of lubricating grease and mechanical fixing.

**Feature**  
 Thermal Conductivity 1.0W/mK  
 High bond strength to a variety of surfaces  
 Double sided pressure sensitive adhesive tape  
 High performance, thermally conductive acrylic adhesive

**Application**  
 Mount heat sink onto BAG graphic processor or drive processor  
 Mount heat spreader onto power converter PCB or onto motor control PCB  
 High performance, thermally conductive acrylic adhesive  
 Can be used instead of heat cure adhesive, screw mounting or clip mounting

Typical Properties	TIA™806FG	Test Method									
Color	White	Visual									
Adhesive Type	Acrylic Adhesive	*****									
Backing Type	Fiberglass	*****									
Continuous Use Temp	-45 °C to 120 °C	*****									
Thickness	0.006" 0.152mm	ASTM D374									
Thickness Tolerance	±0.001" ±0.025mm	ASTM D374									
Voltage Breakdown	> 3000 Vac	ASTM D149									
Tensile Strength	120psi	ASTM D412									
Thermal Impedance @50psi	0.59°C-in²/W	ASTM D5470									
Thermal Conductivity	1.0 W/mK	ASTM D5470									
Peel Adhesion	> 1000 g/inch (Steel, Immediate)	PSTC-1									
Peel Adhesion	> 1200 g/inch (Steel after 24 hrs)	PSTC-1									
Holding Power (25 °C/Hours)	> 48 Hours	PSTC-7									
Holding Power (80 °C/Hours)	> 48 Hours	PSTC-7									
Recommend Using Pressure	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align:center;">Pressure</th> <th style="text-align:center;">Temperature</th> <th style="text-align:center;">Time</th> </tr> </thead> <tbody> <tr> <td style="text-align:center;">10 psi (0.069 MPa)</td> <td style="text-align:center;">25°C</td> <td style="text-align:center;">20 sec</td> </tr> <tr> <td style="text-align:center;">10 psi (0.069 MPa)</td> <td style="text-align:center;">50 °C - 65 °C</td> <td style="text-align:center;">5 sec</td> </tr> </tbody> </table>	Pressure	Temperature	Time	10 psi (0.069 MPa)	25°C	20 sec	10 psi (0.069 MPa)	50 °C - 65 °C	5 sec	*****
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Shelf Life	1 year when stored at room temperature	*****									

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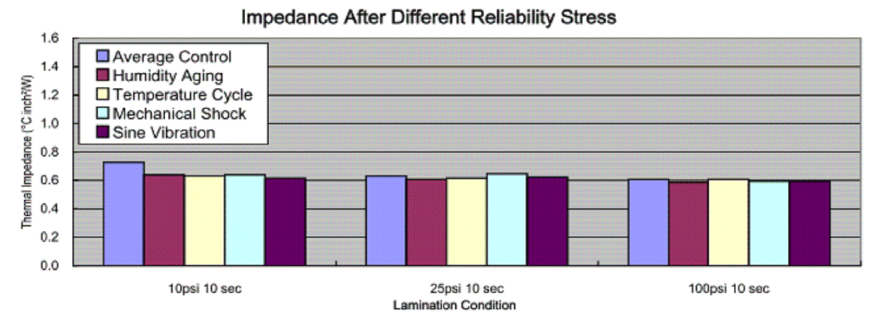
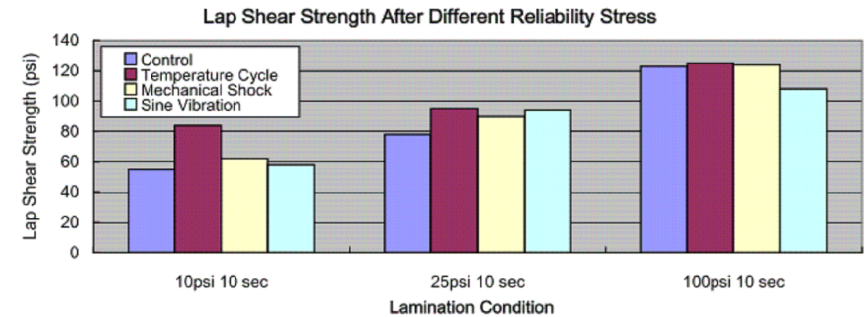
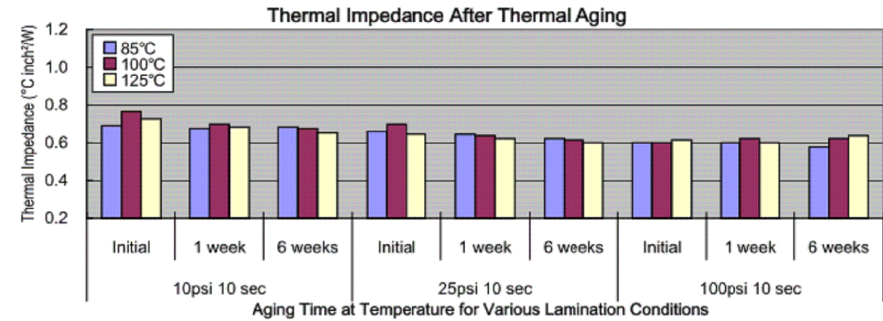
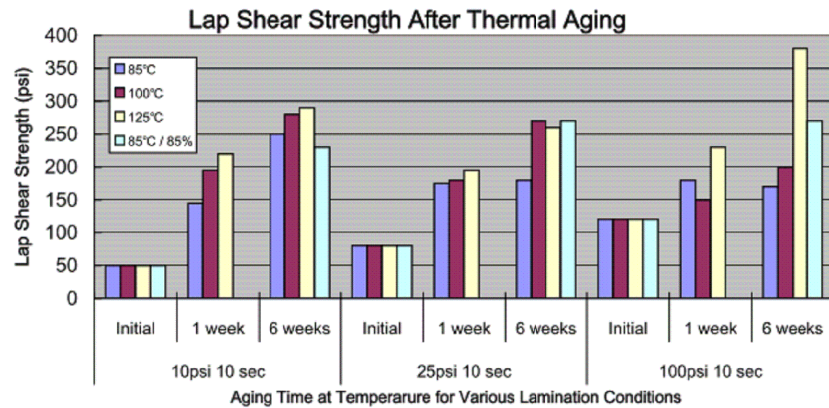
**RoHS compliant**  
 Unit: mm

Scale	Free	⑧	Update tolerance	29.05.2018	Segal		Date	Name	Customer-No.
⑧ TOLERANCE		⑦	Add IC size and power in notes	22.05.2018	Amy	Drawn	02.05.2013	Amy	ASSMANN WSW-No. <b>V2136Nx-x</b>
Less 10	±0.10	⑥	Change the foil on page 2/3	23.06.2016	Amy	Approved	29.05.2018	Amy	
10~30	±0.20	⑤	Add thermal resistance graph	19.02.2016	Amy				
31~50	±0.30	④	Add new version	25.01.2016	Amy				Drawing-No.
51~100	±0.50	③	Update the solder pin	21.05.2015	Amy				<b>ASS 2103 HS</b>
DIM	Tol								rev08
Angle	±1°	Id.	Modification	Date	Name			Replace	Sheet 2 / 3


## Thermal Cycling Reliability Test TIA806FG

The long term reliability of TIA806FG tape was evaluated. Lap shear strength and thermal impedance were measured after exposing to various aging environments. Lap shear samples were prepared by sandwiching TIA806FG tape between Al substrates with 1x1 inch<sup>2</sup> overlap. Thermal samples for reliability testing were also prepared by laminating the tape between Al substrates at various pressures. TIA806FG exhibits excellent stability and passes thermal and adhesion properties after various aging conditions.

- Thermal aging: 1000 hours at three different temperatures: 85°C, 100°C and 125°C
- Thermal/ humidity aging: 1000 hours at 85°C/85% relative humidity
- Thermal shock: temperature ramp from -40 to 125°C at a rate of 10°C/minute with 10 minute hold at peaks for 100 cycles
- Mechanical shock: 3 blows in 6 directions (total of 18) with 60G's force in half sine pulse
- Sine vibration: vibration between 10 to 2000Hz with 2grams to 12grams force on X and Y axis only



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