

# AIT PRODUCT APPLICATION ANALYSIS & ASSISTANCE FORM

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Date: \_\_\_\_\_ AIT Contact: \_\_\_\_\_ Contact Source: Call-In  Website  Customer Visit  Tradeshow  Name of Show: \_\_\_\_\_

<b>I. CUSTOMER</b> Company:			
Name of Contact:		Title of Contact:	
Address:			
Tel:		Email:	
<b>II. APPLICATION</b>		<i>(Circle Application Type and Check Applicable Box)</i>	
(Sketch the assembly with the applied material whenever Possible: You are welcome to email us separate pictures or drawings.)		<i>Please Check One Applicable Box Only</i>	
		1. Die Attach: Paste <input type="checkbox"/> Film <input type="checkbox"/>	Conductive <input type="checkbox"/> Insulating <input type="checkbox"/> Flip-Chip Solder-Replacement <input type="checkbox"/>
		2. Component Attach: Paste <input type="checkbox"/> Film <input type="checkbox"/>	Mechanical Only <input type="checkbox"/> Solder-Replacement <input type="checkbox"/>
		3. Underfill: Paste <input type="checkbox"/> Film <input type="checkbox"/>	Flip-Chip Thermo-mechanical <input type="checkbox"/> Component Thermo-mechanical <input type="checkbox"/>
		4. Substrate-Module Attach: Paste <input type="checkbox"/> Film <input type="checkbox"/>	Electrically Conductive <input type="checkbox"/> Insulating <input type="checkbox"/> Insulating with High Thermal <input type="checkbox"/>
		5. Encapsulation and Potting	Wire-Bond Glob-Top <input type="checkbox"/> Glob-Top with Dam <input type="checkbox"/> Multi-Component Potting <input type="checkbox"/>
		6. Thermal Interface Grease-Paste	Grease <input type="checkbox"/> Gel-Forming Grease <input type="checkbox"/> Electro-Grease <input type="checkbox"/> Thermal Adhesive Paste <input type="checkbox"/>
		7. Thermal Interface Pad-Tape-Film	Compressible Phase-Change <input type="checkbox"/> Gap-Filling Pad <input type="checkbox"/> Thermal PSA <input type="checkbox"/> Dry Film <input type="checkbox"/>
		8. Insulated Metal Substrate	Std. Insulated CU over AL Base <input type="checkbox"/> Insulated CU over CU Base <input type="checkbox"/> Flexible IMS <input type="checkbox"/>
		9. Flexible PWB Single-Sided <input type="checkbox"/> Two-Sided <input type="checkbox"/>	Insulation Thickness: _____ Copper Thickness: 1oz <input type="checkbox"/> 1/2oz <input type="checkbox"/> 1/4oz <input type="checkbox"/>
		10. Lid-Seal: Paste <input type="checkbox"/> Film <input type="checkbox"/>	Mechanical and Semi-Hermetic <input type="checkbox"/> Mechanical with EMI <input type="checkbox"/>
		11. Coating (Moisture and Water Resistant)	Transparent UV Block <input type="checkbox"/> Pigmented UV Block <input type="checkbox"/> PWB Conformal <input type="checkbox"/> EMI Shield <input type="checkbox"/>
		12. Sealant (Moisture and Water Resistant)	Flexible Insulating <input type="checkbox"/> Tough-Rigid Insulating <input type="checkbox"/> Flexible EMI Shield <input type="checkbox"/>
		13. Dicing Tape	Control Peel Release <input type="checkbox"/> UV Release <input type="checkbox"/> Heat-Thermal Release <input type="checkbox"/>
		14. Grinding Tape (for Wafer or Substrate Thinning)	Wafer-Substrate Only <input type="checkbox"/> Wafer with Au Bumps <input type="checkbox"/> Wafer with Solder Bumps <input type="checkbox"/>
		15. Grinding Temporary Bonding "Wax"	Spin-Coating IPA Liquid <input type="checkbox"/> IPA Soluble Film <input type="checkbox"/> Thickness: _____
16. Custom and Special Others <i>(Please specify)</i>			
<b>III. DISPENSING</b>		<i>Please check one and provide details whenever possible</i>	
1. Needle Dispensing	<input type="checkbox"/> Pressure-Time Needle Gauge: _____ <input type="checkbox"/> Volumetric Needle Gauge: _____		
2. Screen <input type="checkbox"/> Stenciling <input type="checkbox"/>	<input type="checkbox"/> Stencil or Emulsion Thickness: _____		
• Preferred Specific Viscosity & Thixotropy	Viscosity (cps, @5 rpm): _____ Thixotropic Index Range: _____		
3. Film (Preform-Sheet-Roll)	Dry <input type="checkbox"/> Tacky-PSA <input type="checkbox"/> Preform-Sheet-Roll Width-Length-Thickness: _____		
<b>IV. BONDING &amp; CURING CONDITIONS:</b> <i>(Please be as precise as possible)</i>			
1. Max. Cure Temp:	°C <input type="checkbox"/> °F <input type="checkbox"/>		
2. Max. Cure Time:	Hour <input type="checkbox"/> Minute <input type="checkbox"/> Second <input type="checkbox"/>		
3. Max. Pressure (For Film Adhesives Only):	PSI (or other unit) _____ Fixture in Place During Curing <input type="checkbox"/> Melt-Flow Tacking for Curing Without Pressure <input type="checkbox"/>		
<b>V. RELIABILITY AND TECHNICAL CONSIDERATIONS:</b>			
➤ Bonding or Interface Area <i>(For Stress Consideration)</i>	Width: _____ Length: _____ Diameter: _____	Dimension (e.g. 0.5cmx 2.0cm or 5cm Ø)	
➤ Adherends Material <i>(For CTE Mismatch Consideration)</i>	Part Material: _____ Substrate Material: _____	Material (e.g. Aluminum, Copper, FR4)	
➤ Flatness Tolerance <i>(For Thickness Consideration)</i>	Widthwise: _____ Lengthwise: _____	e.g. 6mils total or 2mil/inch, etc.	
➤ Electrically Insulating or Conductive	Insulating <input type="checkbox"/> : _____ Conductive <input type="checkbox"/> : _____	Dielectric Strength in V/mil, Resistivity in Ω-cm	
➤ Device Power <i>(For Thermal Interface Consideration)</i>	Watts: _____ Watts (e.g. 30 watts)		
➤ Highest Operating Temperature	Degree: _____ °C <input type="checkbox"/> °F <input type="checkbox"/>		e.g. 80°C, 150°C, 250°C
➤ Highest Intermittent Temperature	Degree: _____ °C <input type="checkbox"/> °F <input type="checkbox"/> Duration: _____ Hr <input type="checkbox"/> Min <input type="checkbox"/> Sec <input type="checkbox"/>	e.g. 250°C wire-bonding, 350°C for 5 minutes	
➤ Max Temp. and Load <i>(For Adhesive Tg Consideration)</i>	Max. Temp: _____ °C <input type="checkbox"/> °F <input type="checkbox"/> T ensile or Shear Load (PSI): _____	e.g. 125°C, 125psi, tensile and/or shear load	
➤ Temperature Cycling <i>(For Stress Consideration)</i>	Low Temp: _____ High Temp: _____ °C <input type="checkbox"/> °F <input type="checkbox"/> No. of Cycle: _____	e.g. -40°C/85°C, -55°C/150°C for 1000 cycles	
➤ Others <i>(Check all applicable boxes)</i>	NASA outgassing <input type="checkbox"/> Mil Std 883H/5011.5 <input type="checkbox"/> HAST <input type="checkbox"/>	Others: _____	
<b>VI. PROJECTED USAGE VOLUME</b> (Per Year):			
<b>VII. DATES REQUIRED:</b> Sample Date: _____ Prototype-Pilot Date: _____ Production Start Date: _____			
<b>Additional Requirements and Comments:</b>			
Drawings or Pictures Attached for Additional Clarification:		Other Documents and Attachments:	
Please fax (609) 799-9308 or email:ait@aitechnology.com the completed form to AIT. Call (609) 799-9388 for additional questions or assistance.			
AIT Recommendations or Comments (Do Not Fill In. For AIT Use Only):			