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AMT Optical Bonding for Touch Panels

Increase optical performance and touch module strength

Optical bonding gives your product a superior appearance and characteristics that separate it from the competition. Both projected capacitive (PCAP or PCI) and resistive touch screens will benefit from increased luminescence, durability, and serviceability whether used in medical application, placed outdoors, in high-traffic areas, or other specialized environments. Optical bonding can be performed with either liquid or solid OCA. AMT uses a special solid OCA (SOCA) formulation to enhance touch module performance.

Comprehensive Touch Display Module

AMT's touch solution includes a touch panel, LCD panel, and optical bonding service. The two panel devices are laminated using AMT's SOCA creating a complete touch display module kit with the following qualities:

- Better LCD panel optical performance
- Reduced reflection rate
- Increased ruggedness
- One-stop touch panel/LCD panel solution





Simplify Your Supply Chain

AMT's optical bonding process can reduce the hassle of procuring individual components from multiple vendors. AMT can source LCD panels for customers or customers can consign LCD panels to take advantage of the power and versatility offered by our optical bonding process!



The Benefits of AMT Optical Bonding

AMT uses a SOCA dry bonding material which is a silicon based material with a number of advantages. The Optical bonding process eliminates the air gap between LCD panel and touch sensor and the SOCA can be applied in different thicknesses during the optical bonding process. AMT optical bonding advantages include:

- Increased LCD light transmission up to 91%
- Reduced reflection rate by approximately 5%
- Optical bonding available for LCD panels up to 24"
- Thicknesses of SOCA is from 0.2mm to 1mm or thicker
- Excellent shock absorption
- Enhanced ruggedness and safety for the entire touch assembly
- Superior yellowing performance compared to other bonding materials
- No disassembly of the LCD panel frame preserves original LCD manufacturer warranty
- Repairable after delivery



Optical Bonding Specifications

Material Type	SOCA, Silicone-based
Available Bonding LCD Size	3.5″-24″
SOCA Thickness	0.2mm / 0.5mm/ 1.0mm or thicker
Storage Temperature	-40°C to +80°C
Operation Temperature	-30°C to +70°C
Light Transmission	Over 91%
Refraction Index (23°C, 589nm)	1.41%
Shock Absorption	~50%, 0.5mm, ~80%, 1.0mm ↑
Peeling Strength	14N/20mm, Glass subtract

The above specifications are based on bonding material alone. The final optical bonding specification for the entire touch panel/LCD module will depend on touch panel and LCD specifications.

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