

AMT Optical Bonding Technology: Innovation and Advantages

AMT focuses on providing high-quality optical bonding services. Whether bonding touch panels or cover lens (glass, PC, or PMMA), we offer unparalleled optical bonding technology. Our bonding technology is applicable to various sizes of LCD panels, from small sizes up to 32 inches. We use our self-developed Lucent Gel solid optically clear adhesive, made of silicone, known for its excellent weather resistance and UV Resistance. With thicknesses ranging from 0.2mm to 1.8mm, it suits different types of LCD panels. Choosing AMT optical bonding services not only grants you access to industry-leading technology but also simplifies your supply chain. Here, we share the latest advancements in AMT optical bonding.

Professional Solutions for ePaper Displays

As global attention on environmental sustainability grows, the demand for ePaper (EPD) has rapidly increased. AMT offers the following value-added services for ePaper optical bonding solutions:

- Adding a front light guide and light bar to ePaper displays ensures clear screen visibility even in low-light conditions.
- Adding an IR cut film: Since ePaper operates within a temperature range of 0°C to 50°C, in outdoor high-temperature environments, excessive heat can prevent the ePaper screen from refreshing. AMT's IR cut film can effectively reduce the temperature by approximately 6°C.
- Since ePaper displays are not naturally UV-resistant, AMT provides UV protection to safeguard ePaper from UV damage.
- Others



Innovative Design: Curved and Dual-Screen Bonding



Some newer products feature curved screens (e.g., car dashboards or gaming devices), and AMT's optical bonding technology supports bonding curved displays and glass. In automotive and rail applications, dual-screen designs are becoming more common. AMT's unique optical bonding technology can accommodate two displays on a single piece of glass, meeting the needs of today's automotive market.

AMT Optical Bonding for Various LCD Panels

Different LCD panels have inherent limitations. AMT's optical bonding uses the OCA bonding process, eliminating the risk of glue overflow. Our specialized bonding technology prevents the occurrence of Mura effects after bonding. Some LCD panels are designed with narrow bezels, and after optical bonding, refraction



from the edges of the OCA may cause bright edges when viewed at an angle. AMT, through specialized processing methods and optical bonding techniques, ensures that LCD panels do not show bright edges when viewed from an angle. Regardless of the type of LCD panel (metal frames, tape-sealed, Open Cell, EPD, etc.), AMT's optical bonding can support them all.

Value-Added Glass Bonding and Multi-Function Protection

In addition to bonding between touch panels and LCDs, AMT also provides services for bonding cover glass to LCDs. We use silicone-based OCA, which offer weather resistance and impact protection, significantly enhancing the reliability of LCD panels after bonding. This OCA is suitable for industrial, medical, automotive, or outdoor products. Additionally, we can incorporate specific functionalities into the cover glass based on customer requirements.

AMT optical bonding provides comprehensive pre-sales and post-sales services, offering customers complete technical support and a one-stop service. If you'd like to learn more about AMT's optical bonding details, feel free to contact us anytime!