

AMT Touch Solutions for the Outdoors

The Sun, a Relentless Adversary

Readability is crucial for applications placed in direct sunlight. The reflective rate for a common air-bonded PCAP touch panel is approximately 12%. In order to lower reflective rate, AMT LR PCAP touch panels utilize a two-layer glass design. The cover lens is a glass panel paired with an Anti-Reflective (AR) coating and the sensor is Double-sided ITO (DITO). A polarizer layer helps achieve a light reflectivity of $1.5\% \pm 0.5\%$. AMT LR PCAP touch panels also confer a light transmittance rate of $85\% \pm 3\%$.

Extended exposure to sunlight can also cause UV damage and material degradation such as yellowing and bubbling. AMT's anti-UV design mitigates UV damage. AMT's anti-UV panels have passed ASTM G154 Cycle 1 at 500 hours.

Protection from the Unexpected

You can never be sure what objects might strike your touch panel in an outdoor setting. Tree branches, shopping carts, and other objects can all impact the touch surface accidentally. Some systems may also require vandal-resistance. AMT provides cover lenses that meet IK10 specifications using thick glass, strengthen glass, or laminated glass. The IK10 impact test specifies an impact energy of 20 joules which is equivalent to a 5kg steel ball dropped from a height of 400mm.

In the event the PCAP touch panel does shatter, AMT Anti-shatter Film can be applied to prevent airborne glass shards. After extensive testing, it has been shown that no glass shards, from either touch panel or LCD, will exit from an AMT touch panel laminated with Anti-shatter Film and assembled to a LCD, if one or both shatter. AMT Anti-shatter Film also conforms to UL94 VTM-2 flammability rating.

PenMount All-weather Operation

PenMount System Reference (SR) is a proprietary environmental calibration tool that stabilizes operation within wider temperature and humidity ranges and when there is a rapid change in temperature. In addition, PenMount water handling prevents false touch signals in rain and offers basic touch functionality.