

AMT Touch Panels with UV Resistance

The best choice for outdoor applications

As the specifications of touch panels continue to advance, this technology is being applied to more and more mission critical systems in the industrial, medical, and commercial fields. This broadening of product applications leads us to forecast that touch panels will become ubiquitous in outdoor venues.

However, outdoor applications mean exposure to direct sunlight and long-term exposure to ultraviolet (UV) light will affect touch panel appearance such as hard coat cracking and hazing or varying degrees of yellowing and bubbling. All of these phenomena reduce transparency and contribute to a flawed appearance. Cracking and bubbling also impedes operation. Industrial, medical, and commercial systems located outdoors for long periods of time require an Anti-UV feature. Thus, AMT offers a UV resistant touch solution to equip outdoor industrial, medical, and commercial systems exposed to direct long-term sunlight with Anti-UV characteristics.

On the electromagnetic spectrum, UV light falls outside the range of visible light and has a wavelength ranging from 100nm to 400 nm. AMT's UV resistant PCI touch panel utilizes Anti-UV materials that block UV wavelengths less than approximately 400nm. Using these Anti-UV materials can meet the specifications of outdoors applications. AMT has performed a PCI touch panel test based on ASTM G154 with this Anti-UV design and test results meet ASTM G154 performance criteria Cycle 1 for 500 hours. AMT's UV resistant resistive touch panel utilizes a UV Blocker film bonded to the touch surface. It has passed accelerated UV exposure ASTM G154 performance criteria Cycle 1 for 200 or 500 hours.

Benefits

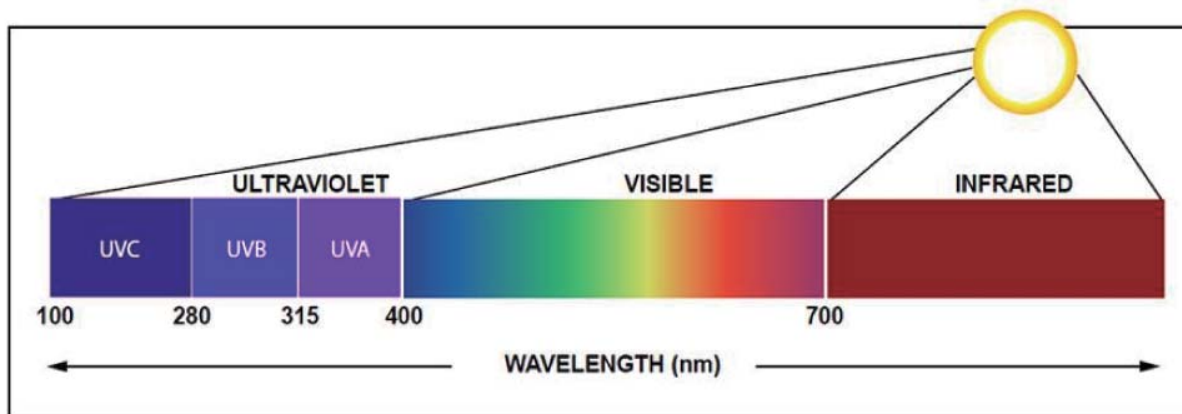
Applications

- Outdoor kiosks
- Interactive advertising billboards
- Port facilities
- Vehicle or marine systems
- Devices requiring resistance to prolonged sunlight exposure

Features

- AMT PCI UV resistant touch panels:
 - Blocks UV wavelengths less than $\approx 400\text{nm}$
 - Meets ASTM G154 performance criteria Cycle 1 for 500 hours
- AMT resistive UV resistant touch panels:
 - Meets ASTM G154 performance criteria Cycle 1 for 200 or 500 hours
 - Replaceable UV resistant film available

On the light spectrum, UV light falls outside the range of visible light and has a wavelength ranging from 100nm to 400nm. UV light can be further divided into UVA with a wavelength of 315nm to 400nm, UVB with a wavelength of 280nm to 315nm, and UVC with a wavelength of 100nm to 280nm.



The ozone layer of Earth's atmosphere blocks 98% of UV light and 98.7% of UV light that reaches the surface is UVA (relatively low energy).

Specifications

AMT offers resistive and PCI UV resistant touch panels from 3.5" to 24" and in a number of panel structures. Please refer to the following table for detailed specifications of various UV resistant touch solutions.

Type	Size	Surface Finish	Light Transmission	Haze	Operating Temperature	UV Spec.
Film-Glass (FG) FrameTouch (FT)	FG : 3.5"~21.5" FT : 7"~19"	AG/Clear	82±4%	4±3%	-20°C~+70°C	ASTM G154 Cycle 1 200 Hours
Touch Window	7"~19"	AG/Clear	81±4%	4±3%	-20°C~+70°C	
Glass-Film-Glass (GFG)	7"~24"	Clear	81±4%	4±3%	-30°C~+80°C	ASTM G154 Cycle 1 500 Hours
Low Reflective GFG	7"~20"	Clear	77±5%	6.5±5%	-30°C~+70°C	
PCI	3.5"~24"	Clear	89±3%	<3%	-30°C~+70°C	

AMT's Anti-UV materials extend the lifespan of touch panels placed in outdoor settings and ensures reliable continuous operation for mission critical systems. If you have a project that requires resistance to prolonged sunlight exposure, this UV resistant touch solution is right for you.