

# Sigma S Series Touchscreen Display

## 7" to 21.5" Touch Display Manufacturer

The AMT Sigma series is an integrated touch display solution (TDS) designed to simplify your development process and provide scalable solutions. This solution seamlessly combines LVDS, touch panel, and LED driver control signals into one connector. With uniform PIN definitions, the Sigma TDS ensures high compatibility, enabling effortless integration into various customer systems and significantly reducing setup time. AMT Sigma touch display allows customers to quickly carry out new projects, bringing Customer's greatest benefit and efficiency!

### Sigma Touch Display Uniqueness

The Sigma TDS is ingeniously designed to amalgamate LCD panels and Projected Capacitive (PCAP) touch panels into a cohesive unit with a universal connector. This innovative approach allows for the use of a single cable across various LCD sizes, accelerating the development process, meeting stringent environmental standards, and minimizing inventory complexities.

### Sigma Touch Display Features

- Integrated LVDS, touch panel, and LED driver control signals into a single 51-pin connector.
- Simplify interface cables into one common cable for all sizes.
- LCD brightness: 500 nits or 1000 nits available.
- Longer LED lifetime with 50,000 or 70,000 hours.
- LCD operating temperature: -20°C to 70°C or -30°C to 85°C.
- Touch panel operating temperature: -40°C to 85°C.
- Two LCD + touch integration options: tape bonding or optical bonding.
- Sigma TDS is designed with an anti-UV feature; surface glass is chemically strengthened.
- Features advanced firmware for operation with thick glass, thick gloves, and water detection.
- Built-in panel driver and backlight driver with PWM for dimming

### Sigma TDS Advantages

- AMT has been known for high-quality and reliable touch panels for more than 20 years.
- Décor glass can be customized according to customer needs.
- User-friendly and easy-to-use PenMount utility for quick system tuning.
- High-brightness LCD suitable for outdoor applications.
- Anti-UV design meets ASTM G154-Cycle 1 1000-hour standards.
- Wide operating and storage temperature range.



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- Designed with ESD and EMC protection to meet IEC 61000 standards.
- Longer LED lifetime for better system durability.
- Soft OSD is available as an optional item.
- Optional AD104 AD Board available.

#### Sigma TDS Benefits

- Provide a convenient one-stop service, simplifying the procurement process.
- Integrating Sigma series TDS with one common connector for all sizes makes it easy for customers to design and purchase accessories and materials, and simplifies the company's inventory.
- Minimizing the need for extensive hardware and firmware design shortens your development time.
- Sigma series TDS meet the demands of various harsh environments.
- Sigma series TDS can easily integrate into customers' systems, saving time and effort.
- Pre-compliance with CE and UL certifications saves time in the product certification process.
- Provide complete documentation and test reports.
- Long-term supply and expert services.



## Sigma Touch Display Specifications

Items	Specification			
Screen Size	7"	10.1"	12.1"	21.5"
Display Resolution	1024x600	1280x800		1920x1080
Display Mode	IPS , Normally Black			
Display Luminance (nits)	Air bond : 400 / 800 (Typ.), Dry bond: 450 / 900 (Typ.)			
Contrast Ratio	1000:1 (Typ.)			
LCD Interface	LVDS			
Cover glass	Chemical strengthen, Black printing			
Surface treatment	Clear surface, UV protection			
Operating Temp.	-30°C ~ 85°C	-30°C ~ 85°C	-20°C ~ 70°C	-20°C ~ 70°C
Storage temp.	-40°C ~ 85°C	-40°C ~ 85°C	-30°C ~ 80°C	-30°C ~ 80°C
Touch Interface	USB, I <sup>2</sup> C		USB	
Touch Controller	COF or control board, PenMount utility supporting			
Touch Point	1, 2 or multiple fingers by user setting			

<b>AD104 AD Board (Optional)</b>	
Input Signal	VGA, HDMI, DP, STEREO AUDIO (PC AUDIO)
Support Mode	VGA, SVGA, XGA, SXGA, UXGA, HD, Full HD
Output Signal	Dual channels LVDS
Power Input	DC 12 or 24V +/- 10% (PXC 3Pin Connector)
Temperature	-30°C ~ 80°C (Operating) / -40°C ~ 80°C (Storage)
OSD	Physical OSD optional, soft OSD available