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Mitsubishi Electric to Expand Lineup of Color TFT-LCD Modules with Projected Capacitive Touch Panels for Industrial Applications

TOKYO, January 23, 2013 – [Mitsubishi Electric Corporation](http://www.MitsubishiElectric.com) (TOKYO: 6503) announced today the launch of 8.4-inch SVGA, 9.0-inch WXGA and 10.6-inch WXGA color TFT-LCD modules with projected capacitive touch panels that enable intuitive operation even with gloved hands. Sales will begin on February 8 at Mitsubishi Electric offices worldwide (www.MitsubishiElectric.com/semiconductors/). Initial production has been set at 2,000 units per month for each model.

Mitsubishi Electric's existing models, launched on July 19, 2012, are 6.5-inch VGA, 10.4- and 12.1-inch XGA modules offering excellent visual clarity combined with durable 2.8mm cover glass. The three newly announced modules include one 4:3 aspect model and two with wide aspects, thereby offering additional options for industrial applications of high-quality touch-panel screens.

Mitsubishi Electric color TFT-LCD modules equipped with industrial-use touch panels



AA084SD11-PCAP



AA090TA01-PCAP



AA106TA01-PCAP

Highly reliable and widely applicable touch-panel solutions

- Wide range of solutions, including TFT-LCD, PCAP touch panel, touch controller and driver software, making these three modules ideal choices for diverse industrial applications.
- TFT-LCD, PCAP touch panel, cover glass and touch controller are factory-installed, ensuring excellent reliability.
- Many options, such as optical bonding*1 for clear images in bright environments, tempered cover glass and anti-reflection/anti-smudge surface treatments, for adaptation to diverse operational environments.

*1 Solution for resin-bonding the TFT-LCD module, touch-panel sensor and protection glass

Excellent visual clarity combined with tactile operation via 2.8mm cover glass

- Proprietary detective processing technologies enable smooth, accurate response to finger movements on the screen, even when wearing gloves.
- Ultra-thin, highly conductive sensor lines incorporating proprietary TFT array technologies achieve excellent visual clarity.

Expanded lineup for broader range of industrial applications

- Two of the three new touch-panel modules offer wide-aspect ratios for more varied industrial applications.

Lineup of color TFT-LCD modules with projected capacitive touch panel (new models in bold)

Display Size		Resolution	Model
4:3	6.5-inch	VGA	AA65VE11-PCAP
	8.4-inch	SVGA	AA084SD11-PCAP
	10.4-inch	XGA	AA104XF12-PCAP
	12.1-inch	XGA	AA121XN11-PCAP
Wide	9.0-inch	WXGA	AA090TA01-PCAP
	10.6-inch	WXGA	AA106TA01-PCAP

Specifications

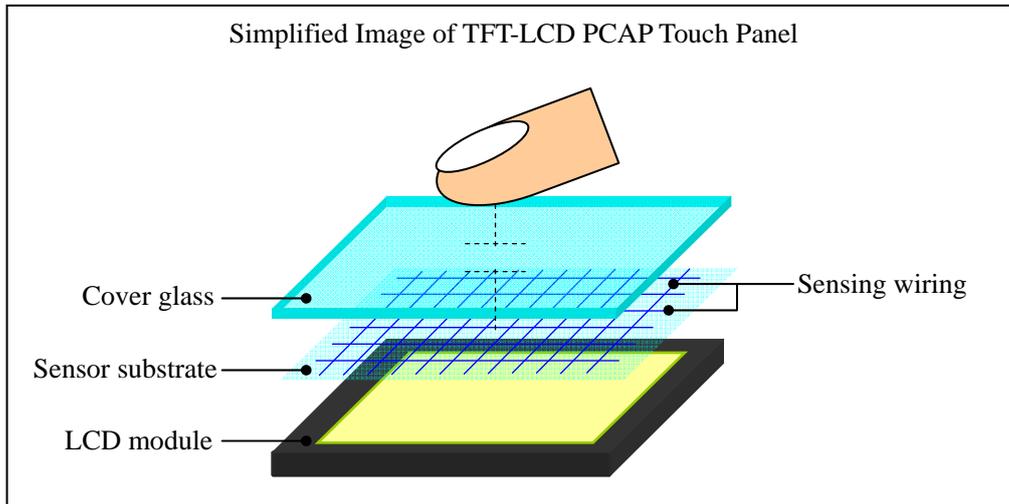
Model	AA084SD11-PCAP	AA090TA01-PCAP	AA106TA01-PCAP	
Display size/resolution	21.3cm (8.4inch) SVGA	23cm (9.0inch) WXGA	26.9cm (10.6inch) WXGA	
Display area (mm)	170.4 (H) × 127.8 (V)	195.8 (H) × 117.5 (V)	231.4 (H) × 138.8 (V)	
Number of dots	800 (H) × 600 (V)	1280 (H) × 768 (V)	1280 (H) × 768 (V)	
Pixel pitch (mm)	0.213 (H) × 0.213 (V)	0.153 (H) × 0.153 (V)	0.18075 (H) × 0.18075 (V)	
Contrast ratio	600:1	1,000:1	1,000:1	
Luminance (cd/m ²)	1,100	720	900	
Viewing angle (CR>10)(°)	-80 ~ +80 (H) -60 ~ +80 (V)	-85 ~ +85 (H) -85 ~ +85 (V)	-85 ~ +85 (H) -85 ~ +85 (V)	
Colors	262k (6 bit/color), 16.7M (8 bit/color)	262k (6 bit/color), 16.7M (8 bit/color)	262k (6 bit/color), 16.7M (8 bit/color)	
Electrical interface	LVDS 6/8bit	LVDS 6/8bit	LVDS 6/8bit	
Size (mm)	W	209.5 (LCD: 199.5)	229.0 (LCD: 219.0)	260.0 (LCD: 250.0)
	H	159.0 (LCD: 149.0)	146.2 (LCD: 136.2)	167.0 (LCD: 157.0)
	D	13.4 (LCD: 9.7) ^{*2}	13.4 (LCD: 9.5) ^{*2}	13.0 (LCD: 8.9) ^{*2}
Operational temperatures (°C)	-20 ~ +70	-20 ~ +70	-20 ~ +70	
Storage temperatures (°C)	-30 ~ +80	-30 ~ +80	-30 ~ +80	
Glass thickness (mm)	Up to 2.8mm ^{*3}			
Black mask printing	Available			
Strengthening treatment	Available			
Low-reflection treatment	Available			
Anti-smudge treatment	Available			
Optical bonding	Available			
Controller interface	UART, USB			
OS	Windows7 and Linux			

*2 Depends on cover glass thickness. (1.1 mm thickness in this case)

*3 If thicker glass is necessary, please contact Mitsubishi Electric sales representatives.

About Projected Capacitive Touch (PCAP)

Capacitive touch is a touchscreen technology that uses two perpendicular layers of conductive material to form a grid. When a current is applied, it forms a uniform electrostatic field. The touch of a finger or other conductive object will distort the field, allowing the system to accurately track movement across the screen at multiple points. This technology is used commonly for smartphones and tablets.



Environmental awareness

The color TFT-LCD modules are fully compliant with the European Restriction of the use of certain Hazardous Substances in electrical and electronic equipment (RoHS), and are completely mercury-free.

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About Mitsubishi Electric

With over 90 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation (TOKYO: 6503) is a recognized world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, energy, transportation and building equipment. Embracing the spirit of its corporate statement, Changes for the Better, and its environmental statement, Eco Changes, Mitsubishi Electric endeavors to be a global, leading green company, enriching society with technology. The company recorded consolidated group sales of 3,639.4 billion yen (US\$ 44.4 billion*) in the fiscal year ended March 31, 2012. For more information visit <http://www.MitsubishiElectric.com>

*At an exchange rate of 82 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2012