

MITSUBISHI ELECTRIC CORPORATION
PUBLIC RELATIONS DIVISION
7-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo, 100-8310 Japan

FOR IMMEDIATE RELEASE

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Customer Inquiries

Media Inquiries

LCD Marketing Dept.
Mitsubishi Electric Corporation

Public Relations Division
Mitsubishi Electric Corporation
prd.gnews@nk.MitsubishiElectric.co.jp
www.MitsubishiElectric.com/news

www.MitsubishiElectric.com/semiconductors

Mitsubishi Electric to Launch 10.4-inch SVGA Color TFT-LCD Modules with Projected Capacitive Touch Panels for Industrial Applications

Market-leading touch functionality and sensitivity combined with max. 5mm cover glass

TOKYO, December 12, 2018– [Mitsubishi Electric Corporation](http://www.mitsubishielectric.com) (TOKYO: 6503) announced today the launch of 10.4-inch SVGA color TFT-LCD modules equipped with projected capacitive touch panels using cover glass of up to five millimeters in thickness. The new modules are designed for industrial applications, including measurement system machine tools, construction equipment, agricultural vehicles, factory automation, and gas station point-of-sale terminals. Sample sales will begin on January 31, 2019 via Mitsubishi Electric offices worldwide.



AA104SL02DDE11

Mitsubishi Electric Color TFT-LCD module with projected capacitive touch panel

The new modules will meet increasing industrial demands for thicker and sturdier cover glass that facilitates touch-panel operations by people wearing gloves. Accurate, multi-touch sensing is possible even when the module screens are wet. Combining these cutting-edge touch-panel capabilities with Mitsubishi Electric’s proven TFT-LCD technology, the new models are expected to accommodate a diverse range of applications and installation configurations. 10.4-inch VGA and 10.4-inch XGA color TFT-LCD modules will also be available on an optional basis to further satisfy customer needs.

Product Features

1) Projected capacitive touch panels offering superior operability

- Thick, five-millimeter cover glass withstanding rugged usage
- Ten-point touch operation allowing accurate sensing
- High-level operability, even when using gloves or when screens are wet

2) Total touch-panel solution

- One-stop solution for TFT-LCD, touch panel and touch-control board
- Optional optical bonding* provides clearer images in bright light
- Tempered cover glass and anti-reflection/anti-smudge surface treatment enable diverse uses
- Factory-installed TFT-LCD, PCAP touch panel, cover glass and touch controller realize superior reliability

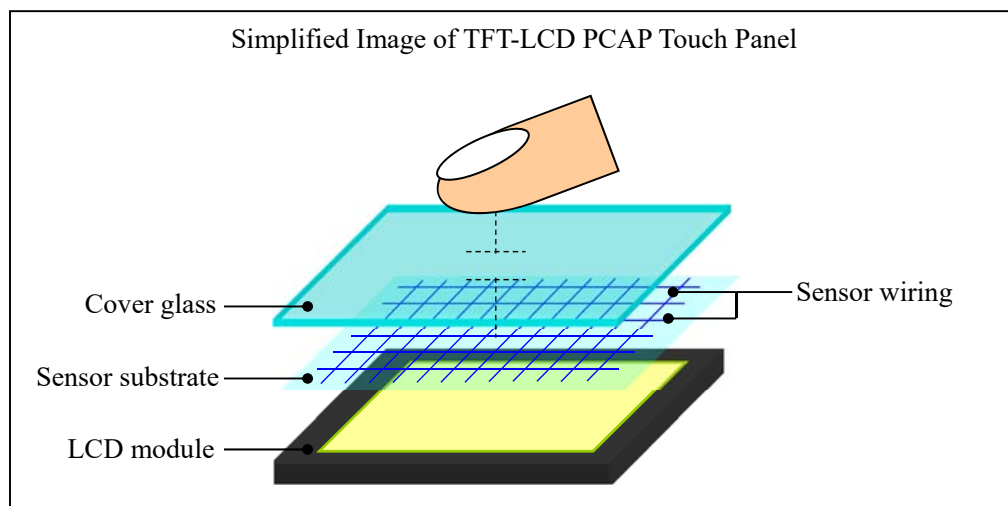
* Resin bonding of the TFT-LCD module, touch-panel sensor and cover glass

Sales Schedule

Product	Model	Display Size	Resolution	Brightness (cd/m ²)	Shipment
TFT-LCD Modules with Projected Capacitive Touch Panels	AA104SL02DDE11	10.4-inch	SVGA	560	January 31, 2019
	AA104SL12DDE11			960	

Projected Capacitive Touch (PCAP)

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



Lineup of Color TFT-LCD Modules with Projected Capacitive Touch Panels (new models in bold)

Display Size	Resolution	Brightness (cd/m ²)	Viewing angles (°) (U/D), (L/R)	Model
6.5-inch	VGA	1000	80/60, 80/80	AA065VE11ADA11
7.0-inch	WVGA	800	88/88, 88/88	AA070MC01ADA11
		1040	88/88, 88/88	AA070MC11ADA11
		800	60/80, 80/80	AA070ME01ADA11
		1200	60/80, 80/80	AA070ME11ADA11
	WXGA	800	88/88, 88/88	AA070TA01ADA11
		800	88/88, 88/88	AA070TA11ADA11
8.0-inch	WVGA	960	80/80, 80/80	AA080MB01ADA11
		1200	80/80, 80/80	AA080MB11ADA11
8.4-inch	SVGA	480	88/88, 88/88	AA084SC01ADA11
		480	80/60, 80/80	AA084SD01ADA11
		960	80/60, 80/80	AA084SD11ADA11
	XGA	560	88/88, 88/88	AA084XD01ADA11
		800	88/88, 88/88	AA084XD11ADA11
		400	80/60, 80/80	AA084XE01ADA11
		800	80/60, 80/80	AA084XE11ADA11
		800	80/60, 80/80	AA084XE11ADA11
10.1-inch	WXGA	400	88/88, 88/88	AA101TA02ADA11
		800	88/88, 88/88	AA101TA12ADA11
<u>10.4-inch</u>	<u>SVGA</u>	<u>560</u>	<u>60/80, 80/80</u>	<u>AA104SL02DDE11</u>
		<u>960</u>	<u>60/80, 80/80</u>	<u>AA104SL12DDE11</u>
10.6-inch	WXGA	800	88/88, 88/88	AA106TA01DDA11
		800	88/88, 88/88	AA106TA11DDA11
12.1-inch	XGA	560	80/80, 80/80	AA121XN01DDE11
		1040	80/80, 80/80	AA121XN11DDE11
		400	88/88, 88/88	AA121XP01DDE11
		800	88/88, 88/88	AA121XP13DDE11
	WXGA	640	80/60, 80/80	AA121TD01DDE11
		1200	80/60, 80/80	AA121TD11DDE11
		400	88/88, 88/88	AA121TH01DDE11
		800	88/88, 88/88	AA121TH11DDE11
15.0-inch	XGA	600	60/80, 80/80	AA150XT02DDE11
		1200	60/80, 80/80	AA150XT12DDE11
		400	88/88, 88/88	AA150XW01DDE11
		800	88/88, 88/88	AA150XW14DDE11
19.0-inch	SXGA	400	80/80, 80/80	AA190EB02DDE11

Specifications

Model	AA104SL02DDE11	AA104SL12DDE11
Display size/resolution	26cm (10.4 inches) SVGA	
Display area (mm)	211.2 (H) × 158.4 (V)	
Number of dots	800 (H) × 600 (V)	
Pixel pitch (mm)	0.264 (H) × 0.264 (V)	
Contrast ratio	700:1	
Luminance (cd/m ²)	560	960
Viewing angles (°) (U/D), (L/R)	60/80, 80/80	
Colors	262K (6 bits/color), 16.7M (8 bits/color)	
LED driver	Implemented	—
Electrical interface	LVDS 6/8 bits	
Size (mm)	W	240.6 (LCD: 230.0)
	H	190.8 (LCD: 180.2)
	D	15.0 (LCD: 9.5)**
Operational temperatures (°C)	-30 to +70	
Storage temperatures (°C)	-40 to +80	
Glass thickness (mm)	Up to 5	
Black mask printing	Available	
Strengthening treatment	Available	
Low-reflection treatment	Available	
Anti-smudge treatment	Available	
Optical bonding*	Available	
Controller interface	USB	
Operating systems***	Windows 7/8.1/10 and Linux	

** Depends on cover glass thickness (1.8mm in this example)

*** Support for other operating systems is available upon request

Environmental Awareness

The new models mentioned in this release are mercury-free and fully compliant with the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) directive 2011/65/EU.

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About Mitsubishi Electric Corporation

With nearly 100 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 4,444.4 billion yen (in accordance with IFRS; US\$ 41.9 billion*) in the fiscal year ended March 31, 2018. For more information visit:

www.MitsubishiElectric.com

*At an exchange rate of 106 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2018

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