MITSUBISHI ELECTRIC
Changes for the Better

for a greener tomorrow

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

FOR IMMEDIATE RELEASE **No. 3165**

Customer Inquiries

LCD Marketing Dept.
Mitsubishi Electric Corporation

www.MitsubishiElectric.com/semiconductors

Media Inquiries

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

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

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

TOKYO, January 31, 2018 – Mitsubishi Electric Corporation (TOKYO: 6503) announced today the launch of 8.0-inch WVGA and 12.1-inch XGA/WXGA color TFT-LCD modules equipped with projected capacitive touch panels using cover glass of up to five millimeters in thickness. Sample sales will begin on February 28 via Mitsubishi Electric offices worldwide.

8.0-inch WVGA 12.1-inch XGA 12.1-inch WXGA

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

The new modules will meet the increasing industrial demands for cover glass offering sturdy thickness and operation while wearing gloves. Accurate, multi-touch sensing is even possible when the screens are wet. Combining these cutting-edge touch capabilities with Mitsubishi Electric's proven TFT-LCD technology, the new models are built to handle a diverse range of applications and installation configurations.

Product Features

1) Projected capacitive touch panels offering superior operability

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

2) Total touch-panel solution

- One-stop solution for TFT-LCD, touch panel and touch-control board
- Optional optical bonding (resin bonding of the TFT-LCD module, touch-panel sensor and cover glass for clearer images in bright light)
- Tempered cover glass and anti-reflection/anti-smudge surface treatment for wide-ranging use
- Factory-installed TFT-LCD, PCAP touch panel, cover glass and touch controller offer superior reliability

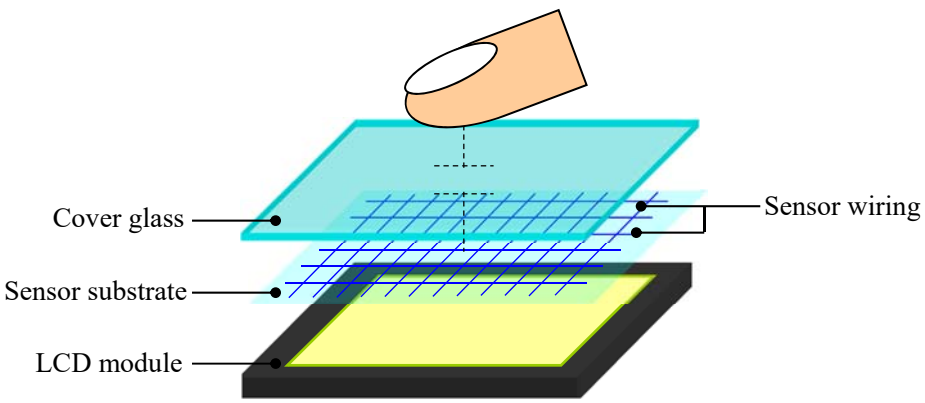
Sample Sale Schedule

Product	Model	Display Size	Resolution	Brightness (cd/m^2)	Viewing Angles (°) (U/D), (L/R)	Shipment
TFT-LCD Modules with Projected Capacitive Touch Panels	AA080MB01ADA11	8.0-inch	WVGA	900	80/80, 80/80	February 28, 2018
	AA080MB11ADA11			1200	80/80, 80/80	
	AA121XN01DDE11	12.1-inch	XGA	500	80/80, 80/80	
	AA121XN11DDE11			1000	80/80, 80/80	
	AA121XP01DDE11			400	85/85, 85/85	
	AA121XP13DDE11			800	85/85, 85/85	
	AA121TD01DDE11		WXGA	600	80/60, 80/80	
	AA121TD11DDE11			1200	80/60, 80/80	
	AA121TH01DDE11			400	85/85, 85/85	
	AA121TH11DDE11			800	85/85, 85/85	

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.

Simplified Image of TFT-LCD PCAP Touch Panel



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	85/85, 85/85	AA070MC01ADA11
		1000	85/85, 85/85	AA070MC11ADA11
		800	60/80, 80/80	AA070ME01ADA11
		1200	60/80, 80/80	AA070ME11ADA11
8.0-inch	**WVGA**	**900**	**80/80, 80/80**	**AA080MB01ADA11**
		1200	**80/80, 80/80**	**AA080MB11ADA11**
8.4-inch	SVGA	400	85/85, 85/85	AA084SC01ADA11
		400	80/60, 80/80	AA084SD01ADA11
		900	80/60, 80/80	AA084SD11ADA11
	XGA	500	85/85, 85/85	AA084XD01ADA11
		800	85/85, 85/85	AA084XD11ADA11
		400	80/60, 80/80	AA084XE01ADA11
		800	80/60, 80/80	AA084XE11ADA11
10.6-inch	WXGA	800	85/85, 85/85	AA106TA01DDA11
		800	85/85, 85/85	AA106TA11DDA11
12.1-inch	**XGA**	**500**	**80/80, 80/80**	**AA121XN01DDE11**
		1000	**80/80, 80/80**	**AA121XN11DDE11**
		400	**85/85, 85/85**	**AA121XP01DDE11**
		800	**85/85, 85/85**	**AA121XP13DDE11**
	WXGA	**600**	**80/60, 80/80**	**AA121TD01DDE11**
		1200	**80/60, 80/80**	**AA121TD11DDE11**
		400	**85/85, 85/85**	**AA121TH01DDE11**
		800	**85/85, 85/85**	**AA121TH11DDE11**
19.0-inch	SXGA	400	80/80, 80/80	AA190EB02DDE11

Specifications

Model		AA080MB01ADA11	AA080MB11ADA11
Display size/resolution		20.3cm (8.0 inches) WVGA	
Display area (mm)		174.0 (H) × 104.4 (V)	
Number of dots		800 (H) × 480 (V)	
Pixel pitch (mm)		0.2175 (H) × 0.2175 (V)	
Contrast ratio		700:1	
Luminance (cd/m^2)		900	1200
Viewing angles (°) (U/D), (L/R)		80/80, 80/80	
Colors		262K (6 bits/color), 16.7M (8 bits/color)	
LED driver		Implemented	—
Electrical interface		LVDS 6/8 bits	
Size (mm)	W	212.0 (LCD: 192.0)	
	H	142.0 (LCD: 122.0)	
	D	14.1 (LCD: 8.9)*	
Operational temperatures (°C)		-30 to +70	
Storage temperatures (°C)		-30 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**		Windows7/8.1/10 and Linux	

* Depends on cover glass thickness (1.1 mm thickness in this example)

** Support for other operating systems is available upon request

Model		AA121XN01 DDE11	AA121XN11 DDE11	AA121XP01 DDE11	AA121XP13 DDE11
Display size/resolution		31cm (12.1 inches) XGA			
Display area (mm)		245.76 (H) × 184.32 (V)			
Number of dots		1024 (H) × 768 (V)			
Pixel pitch (mm)		0.240 (H) × 0.240 (V)			
Contrast ratio		800:1		1000:1	
Luminance (cd/m^2)		500	1000	400	800
Viewing angles (°) (U/D), (L/R)		80/80, 80/80		85/85, 85/85	
Colors		262K (6 bits/color), 16.7M (8 bits/color)			
LED driver		Implemented	—	Implemented	—
Electrical interface		LVDS 6/8 bits			
Size (mm)	W	281.8 (LCD: 260.5)			
	H	220.8 (LCD: 203)			
	D	15.1 (LCD: 9.5)*			
Operational temperatures (°C)		-30 to +70			
Storage temperatures (°C)		-30 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**		Windows7/8.1/10 and Linux			

Model		AA121TD01 DDE11	AA121TD11 DDE11	AA121TH01 DDE11	AA121TH11 DDE11
Display size/resolution		31cm (12.1 inches) WXGA			
Display area (mm)		261.12 (H) × 163.2 (V)			
Number of dots		1280 (H) × 800 (V)			
Pixel pitch (mm)		0.204 (H) × 0.204 (V)			
Contrast ratio		700:1		1000:1	
Luminance (cd/m^2)		600	1200	400	800
Viewing angles (°) (U/D), (L/R)		80/60, 80/80		85/85, 85/85	
Colors		262K (6 bits/color), 16.7M (8 bits/color)			
LED driver		Implemented	—	Implemented	—
Electrical interface		LVDS 6/8 bits			
Size (mm)	W	303 (LCD: 283)			
	H	205.1 (LCD: 185.1)			
	D	15.3 (LCD: 9.7)*			
Operational temperatures (°C)		-30 to +70			
Storage temperatures (°C)		-30 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**		Windows7/8.1/10 and Linux			

Environmental Awareness

These models 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.

###

About Mitsubishi Electric Corporation

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 4,238.6 billion yen (US$ 37.8 billion*) in the fiscal year ended March 31, 2017. For more information visit:
http://www.MitsubishiElectric.com

*At an exchange rate of 112 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2017