

RoHS
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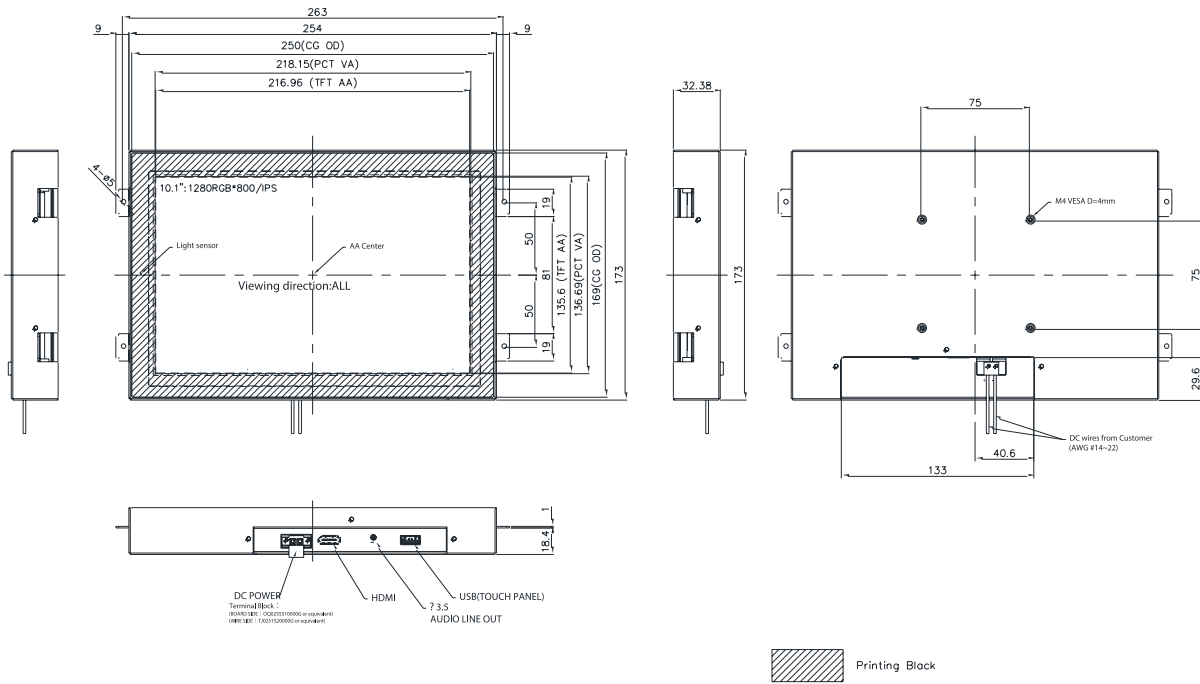
Description

MP011383 is a 10.1 (16:10) inch diagonally measured active display with metal frame, high resolution for 1280 × 800 and high brightness. This model is composed of a TFT LCD module, a projected capacitive touch, HDMI interface, audio line-out, automatic dimming with Ambient Light Sensor, and bracket. Easy use this TFT display with SBC, HMI, or as a computer display with any device which has HDMI output. The model supports a Rear mount and VESA mount, which would be great for embedded applications.

Features

No.	Item	Specification	Unit
1	Panel Size	10.1	Inch
2	Number of Pixels	1280 (W) × RGB × 800 (H)	Pixels
3	Active Area	216.96 (W) × 135.6 (H)	mm
4	Pixel Pitch	0.1695 (W) × 0.1695 (H)	mm
5	Outline Dimension	254 (W) × 173 (H) × 32.38(T)	mm
6	Number of Colours	16.7M	--
7	Display Mode	IPS / Normally Black / Transmissive	--
8	View Direction	Free direction	--
9	Display Format	RGB vertical stripe	--
10	Surface Treatment	Clear (7H)	--
11	Bonding	OCR (0.6)	--
12	Contrast Ratio	900 (Typ.)	--
13	Luminance (cd/m ²)	1250 (Typ.)	cd/m ²
14	Video Input Interface	HDMI (Compliance HDMI V1.4)	--
15	Audio Output Interface	Analog Output	--
16	Backlight	White LED	--
17	Operation Temperature	-10 to 60	°C
18	Storage Temperature	-20 to 70	°C
19	Weight	(TBD)	g

Mechanical Specification



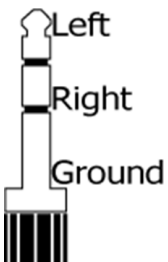
Pin Description

Power Input [Terminal Block: OQ0255510000G or equivalent]

Symbol	I/O	Function	Note
12V	P	Power Supply +12V	+
GND	P	Ground	-

Standard 3.5mm Phone Jack

HDMI Audio Analog Output

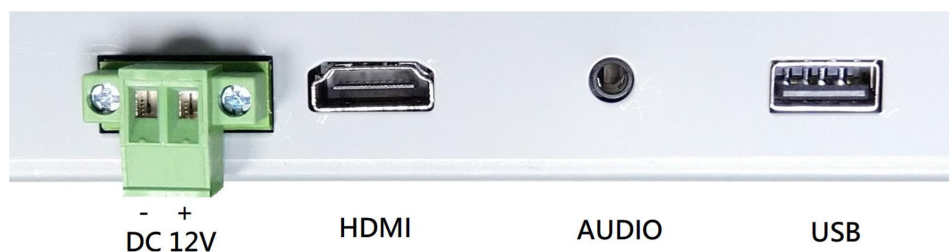


HDMI [HDMI A TYPE]

Pin No.	Symbol	I/O	Function
1	TMDS 2+	I	TMDS Data2+
2	GND	P	TMDS Data2 Shield
3	TMDS 2-	I	TMDS Data2-
4	TMDS 1+	I	TMDS Data1+
5	GND	P	TMDS Data1 Shield
6	TMDS 1-	I	TMDS Data1-
7	TMDS 0+	I	TMDS Data0+
8	GND	P	TMDS Data0 Shield
9	TMDS 0-	I	TMDS Data0-
10	TMDS CLK+	I	TMDS Clock+
11	GND	P	TMDS Clock Shield
12	TMDS CLK-	I	TMDS Clock-
13	N.C.	-	N.C.
14	N.C.	-	N.C.
15	DDC_SCL	I	IIC SCL to EDID ROM
16	DDC_SDA	I/O	IIC SDA to EDID ROM
17	GND	P	DDC/CEC Ground
18	HD_5V	P	+5V Power
19	HPD	O	Hot Plug Detect

PCT Control:USB

Symbol	I/O	Function	Note
VBUS	P	Power supply for USB I/F	5V
D-	I/O	USB data -	
D+	I/O	USB data +	
GND	P	Power Ground for USB I/F	



Absolute Maximum Ratings

Electrical Absolute Rating
HDMI TFT LCD Module

Item	Symbol	Values		Unit
		Min	Max.	
Power supply voltage	12V	10	14	V

Environment Absolute Rating

Item	Symbol	Values		Unit	Note
		Min	Max.		
Operating Temperature	Top	-10	60	°C	Ambient temperature
Storage Temperature	Tst	-20	70		

Electrical Characteristics

HDMI TFT LCD Module

Item	Symbol	Values			Unit	Note
		Min	Typ.	Max.		
Supply Voltage	12V	11	12	13	V	
Supply Current	ICC(12V)	-	720	770	mA	
LED life time		50000	-	-	Hr	(1)

Note

The "LED life time" is defined as the module brightness decrease to 50% original brightness that the ambient temperature is 25°C 60% RH.

Projected Capacitive Touch Panel Specification

Main Feature

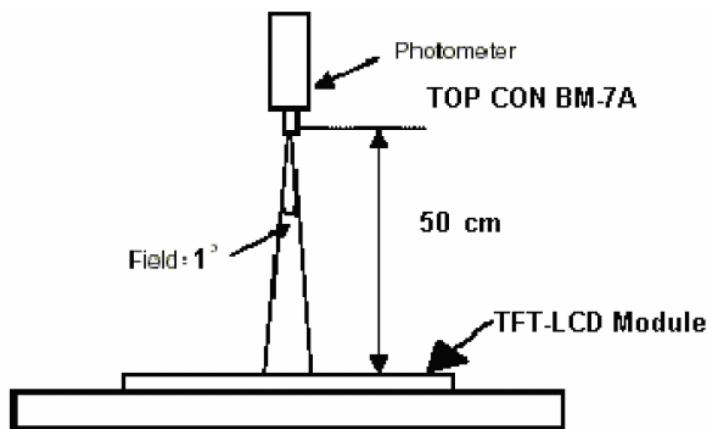
Item	Specification	Unit
Screen Size	10.1 inches	Diagonal
Type	Transparent Type Projected Capacitive Touch Panel	
Input Mode	Human's Finger	
Interface	USB	
Touch number	10 points	
Cover glass pencil-hardness	7H	
Cover glass thicknes	4mm	
Response time	≤25ms	ms
Controller IC	ILI2511	

Optical Characteristics

Item		Symbol	Condition	Min.	Typ.	Max.	Unit
Brightness		--	Note1, Note 3, ($\theta = 0^\circ$, Normal Viewing Angle)	1000	1250	--	cd/m ²
Uniformity		B-uni		75	80	--	%
Contrast Ratio		CR		700	900	--	--
NTSC					73		
Response Time		Tr + Tf		--	25	35	ms
Colour Chromaticity	White	Wx	Center CR \geq 10	0.275	0.315	0.355	--
		Wy		0.31	0.35	0.39	
View angle	Horizontal	θ_{x+}		70	80	--	
		θ_{x-}					
	Vertical	θ_{Y+}					
		θ_{Y-}					

Note: The following optical specifications shall be measured in a darkroom or equivalent state (ambient luminance ≤ 1 lux, and at room temperature). The operation temperature is $25^\circ\text{C} \pm 2^\circ\text{C}$. The measurement method is shown in Note1.

Note1: The method of optical measurement

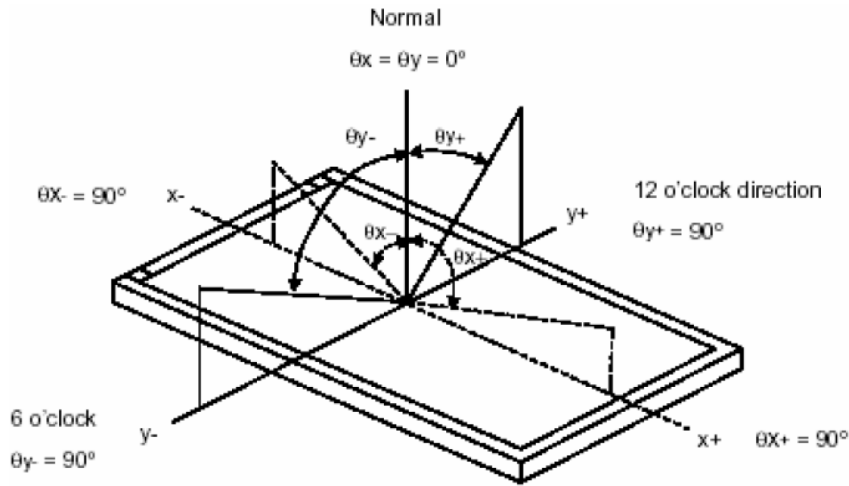


Note2: Measured at the center area of the panel and at the viewing angle of the $\theta_x = \theta_y = 0^\circ$

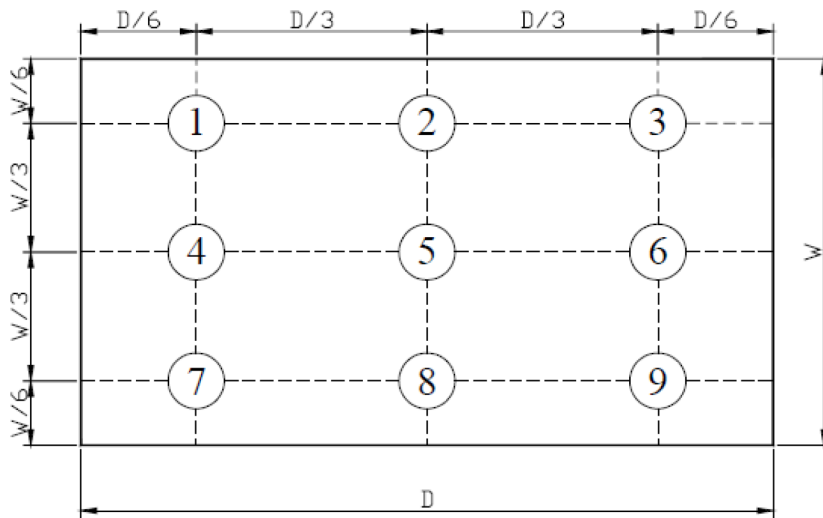
Note3: Definition of Contrast Ratio (CR):

CR = Luminance with all pixels in white state \div Luminance with all pixels in Black state

Definition of Viewing Angle



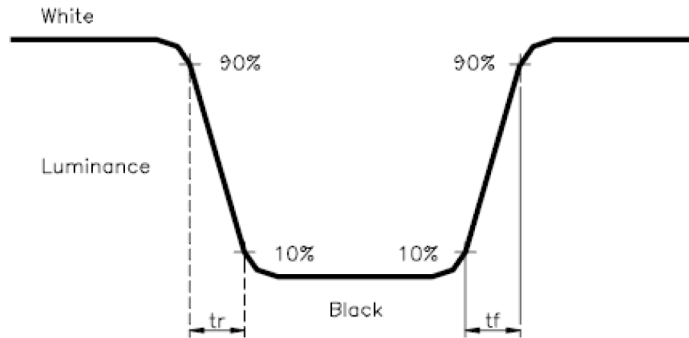
Definition of Brightness Uniformity (B-uni)



$B\text{-uni} = (\text{Minimum luminance of 9 points} \div \text{Maximum luminance of 9 points}) \times 100\%$

Note 6: Definition of Response Time:

The Response Time is set initially by defining the “Rising Time (Tr)” and the “Falling Time (Tf)” respectively. Tr and Tf are defined as following figure



Note 7: Definition of Chromaticity:

The color coordinates (Wx,Wy),(Rx,Ry),(Gx,Gy),and (Bx,By) are obtained with all pixels in the viewing field at white, red, green, and blue states, respectively.

Part Number Table

Description	Part Number
TFT LCD, 10.1", HDMI, Capacitive Touch	MP011383

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