TFT LCD



RoHS Compliant

Description

MP011384 is a 10.4 (4:3) inch diagonally measured active display with metal frame, high resolution for 1024 × 768 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

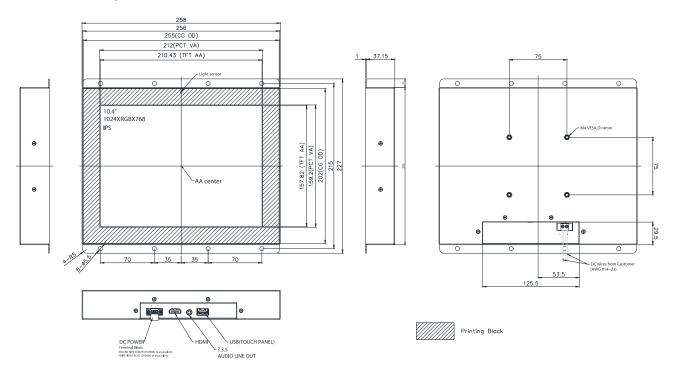
No.	ltem	Item Specification		
1	Panel Size	10.4"	Inch	
2	Number of Pixels	1024 (W) × RGB × 768 (H)	Pixels	
3	Active Area	210.432 (W) × 157.824 (H)	mm	
4	Pixel Pitch	0.2055 (W) × 0.2055 (H)	mm	
5	Outline Dimension	258 (W) × 227 (H) × 38.15 (T)	mm	
6	Number of Colours	16.7M		
7	Display Mode	IPS / Normally Black / Transmissive		
8	View Direction	Wide viewing angle		
9	Display Format	RGB vertical stripe		
10	Surface Treatment	Clear (7H)		
11	Bonding	OCR (0.6)		
12	Contrast Ratio	1000 (Тур.)		
13	Luminance (cd/m^2)	2000 (Тур.)	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	-30 to 70	°C	
18	Storage Temperature	-30 to 80	°C	
19	Weight	(2310)	g	



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Mechanical Specification



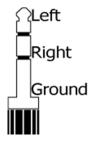
Pin Description

Power Input [Terminal Block:OQ0255510000G or equivalent]

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

Standard 3.5mm Phone Jack

HDMI Audio Analog Output



Newark.com/multicomp-pro Farnell.com/multicomp-pro sg.element14.com/b/multicomp-pro

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HDMI [HDMI A TYPE]

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

PCT Control:USB

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





Absolute Maximum Ratings

Electrical Absolute Rating

HDMI TFT LCD Module

ltom	Symbol	Val	llmit	
Item	Symbol	Min	Max.	Unit
Power supply voltage	12V	10	14	V

Environment Absolute Rating

ltem	Symphol	Val	ues	Unit	Note
item	Symbol	Min	Max.	Unit	
Operating Temperature	Тор	-30	70	- °C	Ambient temperature
Storage Temperature	Tst	-30	80	U U	

Electrical Characteristics

HDMI TFT LCD Module

ltem	Symbol	Values		Unit	Note	
item	Symbol	Min	Тур.	Max.	Onit	Note
Supply Voltage	12V	11	12	13	V	
Supply Current	ICC(12V)	-	1080	1200	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.

Porojected Capacitive Touch Panel Specification

Main Feature

ltem	Specification	Unit
Screen Size	7 inches	Diagonal
Туре	Transparent Type Projected Capacitive Touch Panel	
Input Mode	Human's Finger	
Interface	USB	
Touch number	1 points	
Cover glass pencil-hardness	7H	
Cover Glass Thickness	6mm	
Response time	≤25ms	ms
Controller IC	ILI2511	

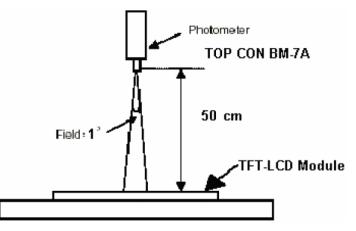


Optical Characteristics

lte	m	Symbol	Condition	Min.	Тур.	Max.	Unit
Brightness				1600	2000		cd/m2
Contrast Ratio		CR	Note1,	800	1000		
Response Time		Tr+Tf	Note 3, (θ= 0°,		25	35	ms
Colour Chromaticity	White	Wx	Normal	0.27	0.32	0.37	
		Wy		0.3	0.35	0.4	
	Horizontal	θx+	Viewing	80			
View angle		θx-	Angle)				
	Vertical	θΥ+	Center				
	Vertical	θΥ-	CR≥10				

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

Note1: The method of optical measurement

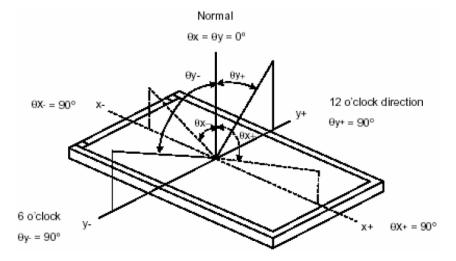


Note2: Measured at the center area of the panel and at the viewing angle of the $\theta x=\theta y=0^{\circ}$ Note3: Definition of Contrast Ratio (CR):

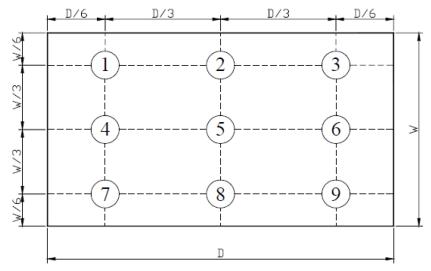
CR = Luminance with all pixels in white state ÷ Luminance with all pixels in Black state

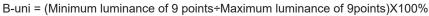


Definition of Viewing Angle



Definition of Brightness Uniformity (B-uni)



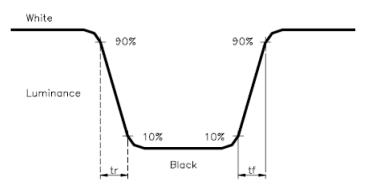






Note 6: Definition of Response Time:

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, 10.4", HDMI, Capacitive Touch	MP011384

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