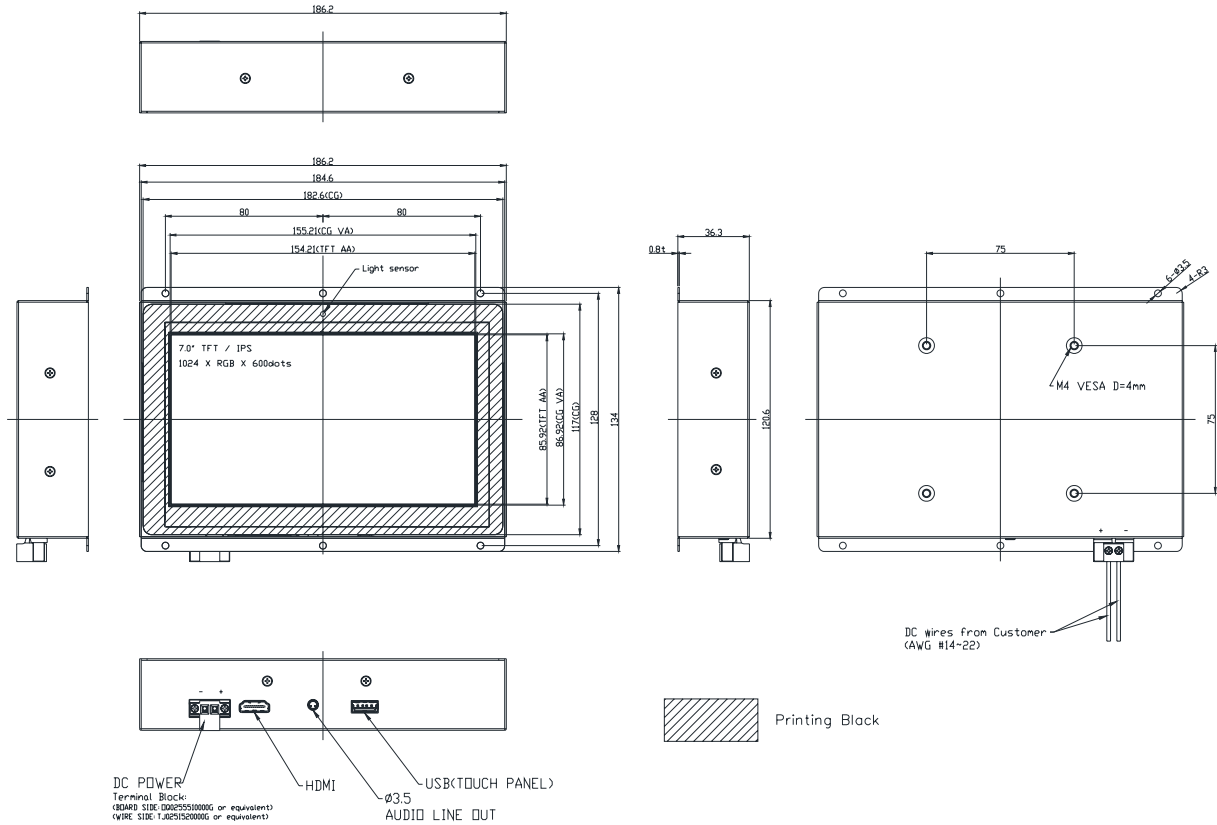# TFT LCD

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Description

MP011382 is a 7 (16:9) inch diagonally measured active display with metal frame, high resolution for 1024 × 600 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	7"	Inch
2	Number of Pixels	1024 (W) × RGB × 600 (H)	Pixels
3	Active Area	154.21 (W) × 85.92 (H)	mm
4	Pixel Pitch	0.1506 (W) × 0.1432 (H)	mm
5	Outline Dimension	186.2 (W) × 134 (H) × 36.3 (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	600 (Typ.)	- -
13	Luminance (cd/m^2)	1500 (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	-20 to 60	°C
18	Storage Temperature	-30 to 70	°C
19	Weight	(860)	g

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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

Left

Right

Ground

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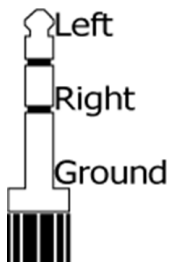
HDMI [HDMI A TYPE]

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	

- +
DC 12V   HDMI   AUDIO   USB

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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	-20	60	°C	Ambient temperature
Storage Temperature	Tst	-30	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)	-	570	620	mA	
LED life time		70000	-	-	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

Item	Specification	Unit
Screen Size	7 inches	Diagonal
Type	Transparent Type Projected Capacitive Touch Panel	
Input Mode	Human's Finger	
Interface	USB	
Touch number	1 points	
Cover glass pencil-hardness	7H	
Cover glass thicknes	4mm	
Response time	≤25ms	ms
Controller IC	ILI2511	

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Optical Characteristics

Item		Symbol	Condition	Min.	Typ.	Max.	Unit
Brightness		--	Note1, Note 3, (θ= 0˚, Normal Viewing Angle)	1200	1500	--	cd/m2
Uniformity		B-uni		70	75	--	%
Contrast Ratio		CR		400	600	--	--
Response Time		Tr		--	4	8	ms
		Tf		--	12	24	ms
Colour Chromaticity	White	Wx		0.26	0.31	0.36	--
		Wy		0.28	0.33	0.38	
View angle	Horizontal	θx+	Center CR≥10	80	85	--	
		θx-					
	Vertical	θY+					
		θY-					

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˚C±2˚C. The measurement method is shown in Note1.

Note1: The method of optical measurement
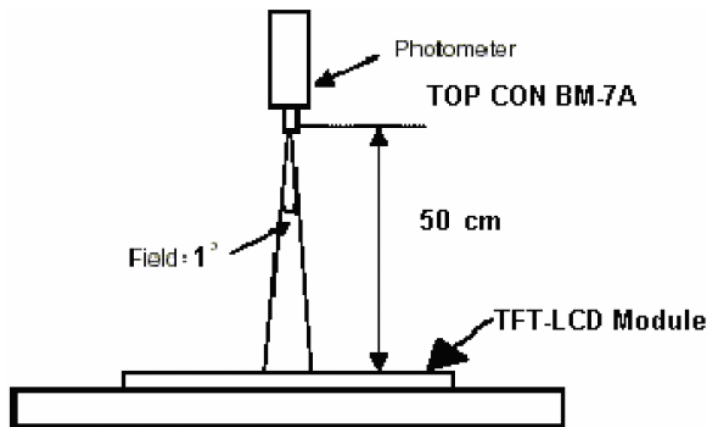
Note2: Measured at the center area of the panel and at the viewing angle of the θx=θy=0˚
Note3: Definition of Contrast Ratio (CR):
CR = Luminance with all pixels in white state ÷ Luminance with all pixels in Black state

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Definition of Viewing Angle
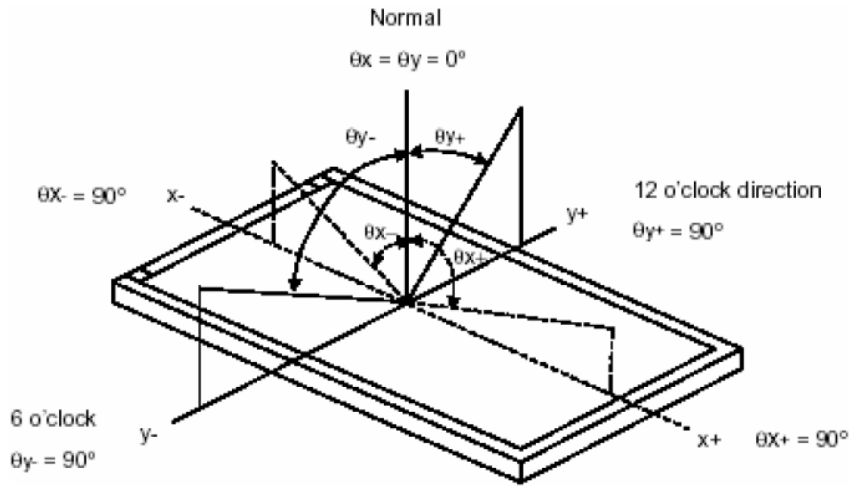
Definition of Brightness Uniformity (B-uni)
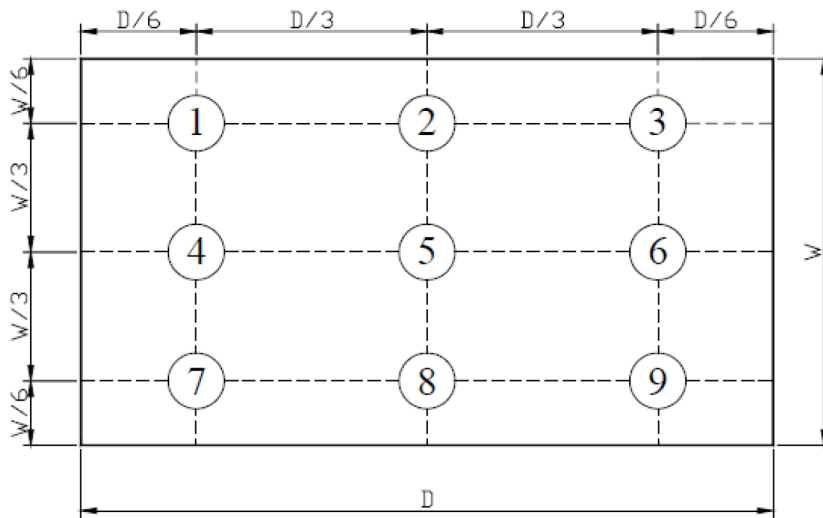
B-uni = (Minimum luminance of 9 points÷Maximum luminance of 9points)X100%

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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
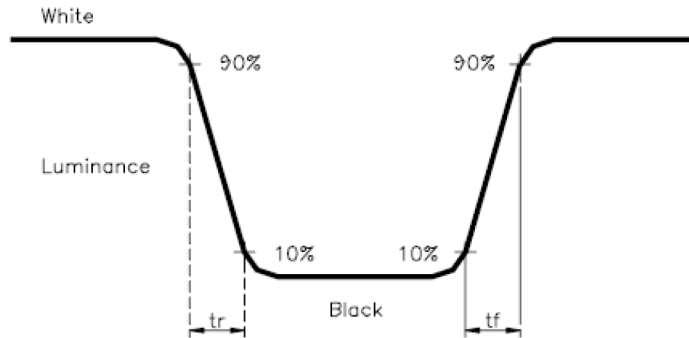
Note 7: Definition of Chromaticity:

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, 7", HDMI, Capacitive Touch	MP011382

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