

Application

This specification is applied to the 8 inch HD supported TFT-LCD module, and can display true 16.7M colors (8 bit/ color). The module is designed for OA, Car TV application and other electronic products which require flat panel display of digital signal interface. This module is composed of a 8" TFT-LCD panel, a driver circuit, and backlight unit and used as the input devices for general electric appliances via both finger and Capacitive stylus pen.

Features

- HD (1280×720 pixels) resolution.
- 6 bit & 8 bit LVDS Interface
- Projected Capacitive Touch
 - USB Interface
 - Multi Touch (10 points)
 - 2048 x 2048 resolution

General Specifications

Item	Specifications	Unit
Screen Size	8 (Diagonal)	inch
Display Format	1280 RGB(H)×720 (V)	dot
Active Area	176.64(H)×99.36(V)	mm
Pixel Pitch	0.138(H)×0.138(V)	mm
Pixel Configuration	RGB Vertical Stripe	-
Display Mode	IPS Type / Transmissive Mode / Normally black	-
Surface Treatment	Anti-Glare	-
Viewing Direction	Full view angle	-
Outline Dimension	192.8(W)×116.9(H)×11.05(D)	mm
Weight	(278)	g
RoHS Compliance	Evervision certifies this product to be in compliance with European Union Directive 2015/863/EU on the restriction of certain hazardous substances in electrical and electronic equipment.	-

▲ Absolute Maximum Ratings

Absolute Ratings of Environment

Item	Symbol	Value		Unit	Note
		Min.	Max.		
Storage Temperature	T _{ST}	-30	+80	°C	(1)(2)
Operating Ambient Temperature	T _{OP}	-20	+70	°C	(1)(2)

Note1: Background color changes slightly depending on ambient temperature.

This phenomenon is reversible.

Note2: Please refer to item of RELIABILITY.

▲ Electrical Absolute Ratings

TFT-LCD Module

(Ta=25±2°C)

Item	Symbol	Value		Unit	Note
		Min.	Max.		
Power Supply Voltage	VDD	-0.3	3.96	V	-

Backlight Unit

(Ta=25±2°C)

Items	Symbol	Min	Max	Unit	Remark
LED Reverse Voltage	VR	-	-	V	Note 3
LED Forward Current	IF	-	150	mA	Each LED

Note 1: With in Ta= 25°C

Note 2: Permanent damage to the device may occur if exceed maximum values

Note 3: Do not reverse the connection of LED

Electrical Characteristics

TFT-LCD Module

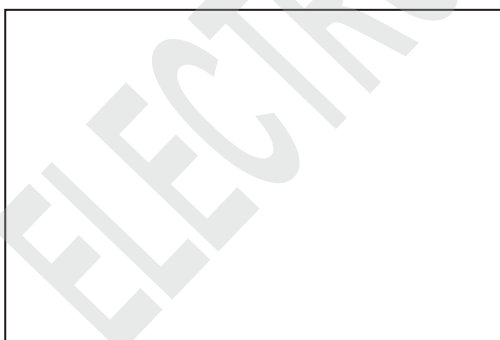
(Ta=25±2°C)

Item	Symbol	Value			Unit	Note
		Min.	Typ.	Max.		
Power Supply Voltage	V _{DD}	3.0	3.3	3.6	V	(1)
Power Supply Current	I _{DD}	-	300	425	mA	-
Input logic high voltage	V _{IH}	0.7V _{DD}	-	V _{DD}	V	(2)
Input logic low voltage	V _{IL}	GND	-	0.3V _{DD}	V	(2)
Internal Pull low / high resistor	RI	200	350	850	kΩ	(2)

Note 1: VDD setting should match the signals output voltage of customer's system board .

Note 2: RESET, STBYB, SELB(DINT), L/R, U/D

White Pattern / 255 Gray



Active Area

Backlight Unit

(Ta=25±2°C)

Parameter	Min.	Typ.	Max.	Unit	Note
LED voltage (VL)	-	(18.6)	-	[V]	(1)(3)
LED current (IL)	-	260	-	[mA]	-
LED Life Time	20000	-	-	[Hour]	(2)

Note 1: The LED Supply Voltage is defined by the number of LED at Ta=25°C and IL = 260 mA

Note 2: The “LED life time” is defined as the module brightness decrease to 50% original brightness at Ta=25°C and IL =260 mA. The LED lifetime could be decreased if operating IL is larger than 260 mA.

Note 3: The BLU is driven by constant current, the voltage value is for reference only.

Projected Capacitive Touch

(Ta=25±2°C)

Item	Symbol	Value			Unit	Note
		Min.	Typ.	Max.		
Power Supply Voltage	VDD	4.8	5.0	5.2	V	-
Power Supply Current	IDD	-	32.0	45.0	mA	(1)
Output High Threshold Voltage	V _{OH}	2.8	-	-	V	-
Output Low Threshold Voltage	V _{OL}	-	-	0.8	V	-
Differential Input Sensitivity (D+)-(D-)	V _{DI}	0.2	-	-	V	-
Differential Input Common Mode Range	V _{CM}	0.8	-	2.5	V	
Power Consumption	P _L	-	160	225	mW	@5.0V
Report Rate	R _R	-	60	-	Hz	-
Interface		USB				
Function		Multi Touch				

Note (1) This test condition is touched with 10 points.



Input / Output Terminals Pin Assignment

TFT-LCD Module

Connector: 20647-040E-01 manufactured by I-PEX or EQUIALENT

Pin No.	Symbol	I/O	Description
1	NC	-	Keep floating
2	VDD	P	External main and I/O power supply ; Power3V3
3	VDD	P	External main and I/O power supply ; Power3V3
4	NC	-	Keep floating
5	Reset	I	Global reset pin, active low.
6	STBYB	I	Standby mode setting pin, active low.
7	GND	P	Ground
8	RXIN0-	I	LVDS odd data 0-
9	RXIN0+	I	LVDS odd data 0+
10	GND	P	Ground
11	RXIN01-	I	LVDS odd data 1-
12	RXIN01+	I	LVDS odd data 1+
13	GND	P	Ground
14	RXCLKIN-	I	LVDS odd clk -
15	RXCLKIN+	I	LVDS odd clk +
16	GND	P	Ground
17	RXIN02-	I	LVDS odd data 2-
18	RXIN02+	I	LVDS odd data 2+
19	GND	P	Ground
20	RXIN03-	I	LVDS odd data 3-
21	RXIN03+	I	LVDS odd data 3+
22	GND	P	Ground
23	NC	-	Keep floating

24	NC	-	Keep floating
25	GND	P	Ground
26	NC	-	Keep floating
27	NC	-	Keep floating
28	SELB(DINT)	I	Input data format selection DINT = 1 : 8-bit DINT = 0 : 6-bit
29	NC	-	Keep floating
30	GND	P	Ground
31	LED-	P	Negative Backlight voltage
32	LED-	P	Negative Backlight voltage
33	L/R	I	Horizontal shift direction (source output) selection. RL = 1: Left -> Right(default: Customer to Pull high, internal IC Pull high) RL = 0: Right -> Left
34	U/D	I	Vertical shift direction (gate output) selection. TB = 0: Bottom->Top TB = 1: Top ->Bottom (default: Customer to Pull high, internal IC Pull high)
35	NC	-	Keep floating
36	NC	-	Keep floating
37	NC	-	Keep floating
38	NC	-	Keep floating
39	LED+	P	Positive Backlight voltage
40	LED+	P	Positive Backlight voltage

Outline Drawing

