1. General Description and Features

GVIGA1MCHJ1C0-FC is 10.1″ color TFT (Thin Film Transistor) liquid crystal display composed of a TFT-LCD module, a driver circuit, a touch Panel and a back-light unit. By applying 1280×800 images are displayed on the 10.1″ diagonal screen.

1.1 Features

- Back-light with 36 LEDs are available.
- IPS
- ROHS Compliance

1.2 LCD Module

Item	Specification	Unit
Screen Size	10.1 inches	Diagonal
Display Resolution	1280(H) x 800 (V)	Pixel
Active Area	216.96(H) x 135.6 (V)	mm
Outline Dimension	229.46 (H) x 149.1 (V) x 8.02 (T)	mm
Display Mode	Normally Black, Transmissive	--
Color Arrangement	RGB Stripe	--
Pixel pitch	0.1695(H) x 0.1695(V)	mm
Viewing Direction	ALL	--
Input Interface	LVDS	--

2. Mechanical Information

Item		Min.	Typ.	Max.	Unit	Note
Module Size	Horizontal (H)	--	229.46	--	mm	
	Vertical (V)	--	149.1	--	mm	
	Thickness (T)	--	8.02	--	mm	(1)
Weight		--	(429.0)	--	g	--

Note (1) Not Include Component. Refer to the Outline Dimension Drawing as attached.

3. Absolute Maximum Ratings

3.1 Absolute Ratings of Environment

If the operating condition exceeds the following absolute maximum ratings, the TFT LCD module may be damaged permanently.

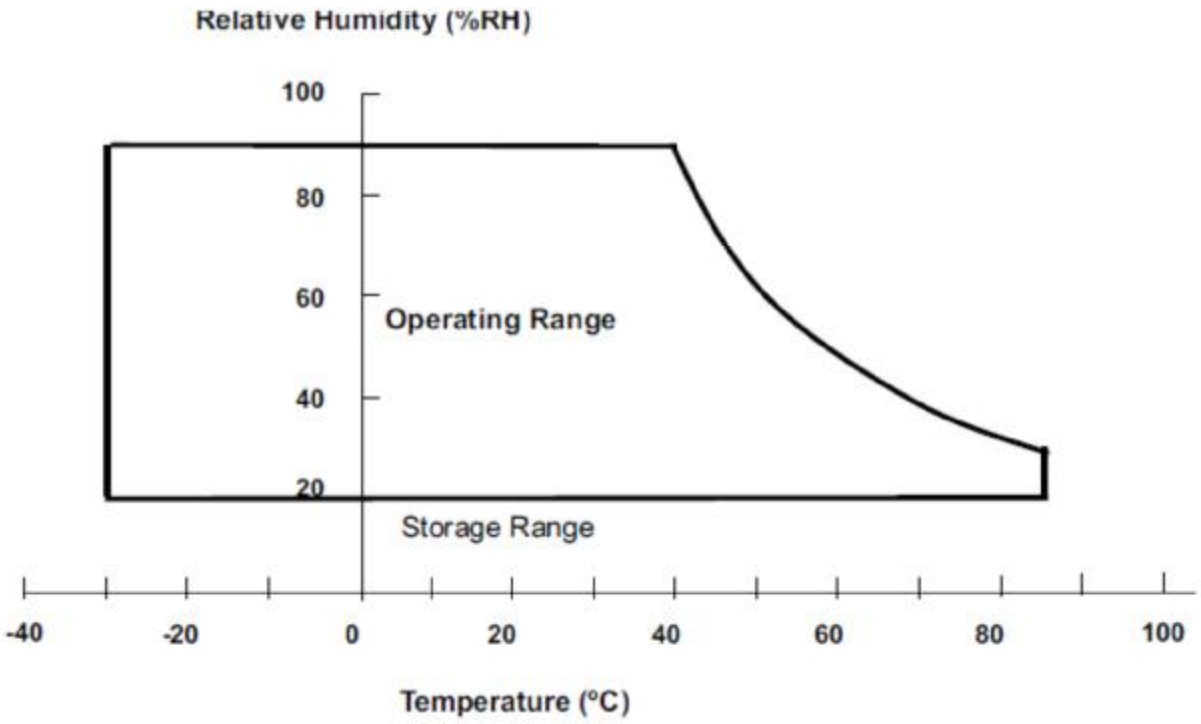
(Ta=25±2°C, V_{SS}=GND=0)

Item	Symbol	Min.	Max.	Unit	Note
Storage temperature	T_{STG}	-30	80	°C	(1)
Operating temperature	T_{OPR}	-20	70	°C	(1,2,3)

Note (1) 90 % RH Max. (40 °C ≥ Ta). Maximum wet-bulb temperature at 39 °C or less. (Ta > 40 °C) No condensation.

Note (2) In case of below 0°, the response time of liquid crystal (LC) becomes slower and the color of panel becomes darker than normal one. Level of retardation depends on temperature, because of LC's character

Note (3) Only operation is guarantied at operating temperature. Contrast, response time, another display quality are evaluated at +25°C.



8. I/O Terminal

8.1 Pin Assignment:

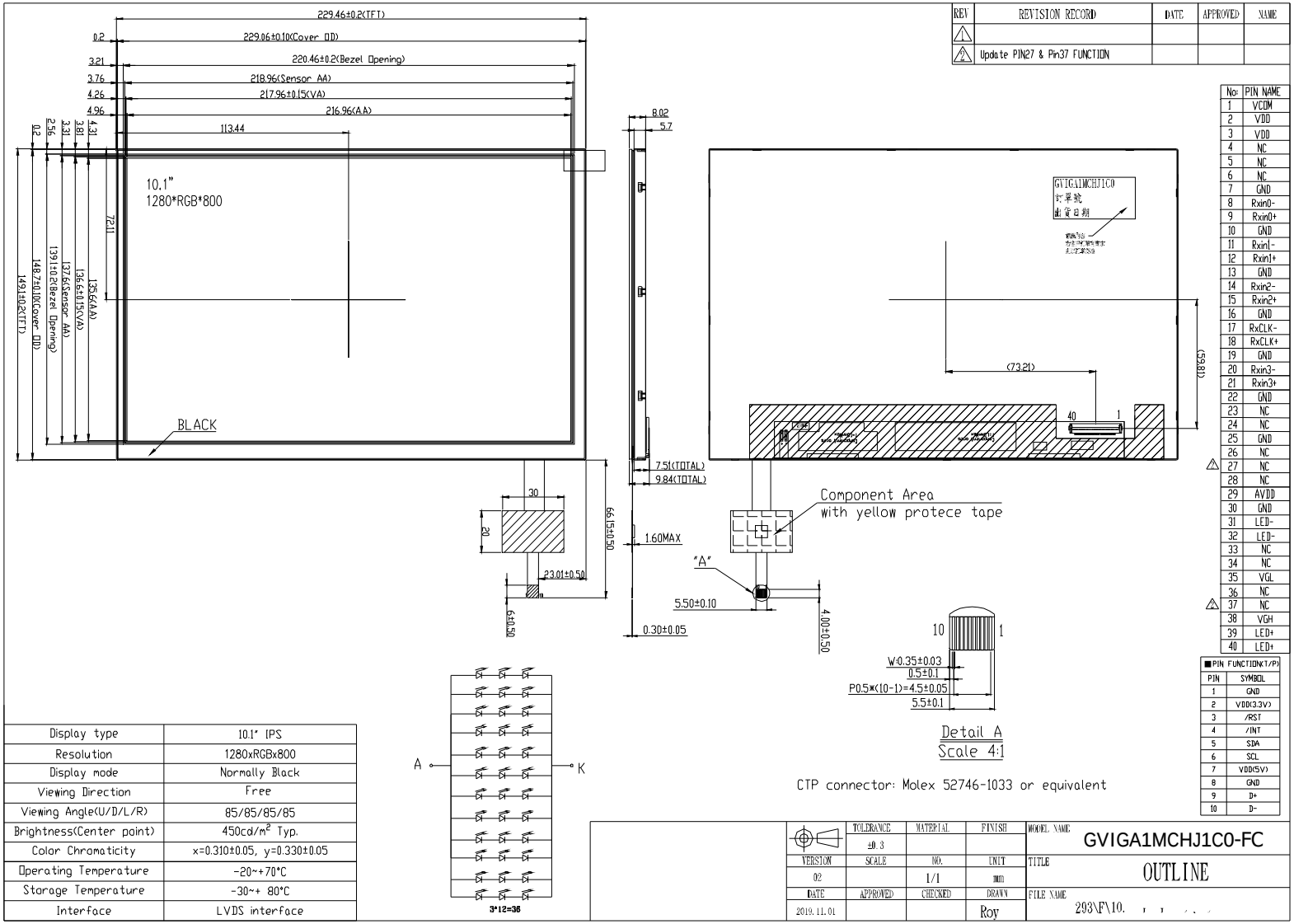
A 40pin connector is used for the module electronics interface. The recommended model is 196479-40041-3 manufactured by P2 Connector

Pin No.	Symbol	I/O	Function	Remark
1	VCOM	P	Common Voltage	
2	VDD	P	Power Supply	
3	VDD	P	Power Supply	
4	NC	---	No connection	
5	NC	---	No connection	
6	NC	---	No connection	
7	GND	P	Ground	
8	Rxin0-	I	-LVDS Differential Data Input	R0-R5, G0
9	Rxin0+	I	+LVDS Differential Data Input	
10	GND	P	Ground	
11	Rxin1-	I	-LVDS Differential Data Input	G1~G5, B0,B1
12	Rxin1+	I	+LVDS Differential Data Input	
13	GND	P	Ground	
14	Rxin2-	I	-LVDS Differential Data Input	B2-B5,HS,VS,DE
15	Rxin2+	I	+LVDS Differential Data Input	
16	GND	P	Ground	
17	RxCLK-	I	-LVDS Differential Clock Input	LVDS CLK
18	RxCLK+	I	+LVDS Differential Clock Input	
19	GND	P	Ground	
20	Rxin3-	I	-LVDS Differential Data Input	R6, R7, G6, G7, B6, B7
21	Rxin3+	I	+LVDS Differential Data Input	
22	GND	P	Ground	
23	NC	---	No connection	
24	NC	---	No connection	

25	GND	P	Ground	
26	NC	---	No connection	
27	NC	---	No connection	
28	NC	---	No connection	
29	AVDD	P	Power for Analog Circuit	
30	GND	P	Ground	
31	LED-	P	LED Cathode	
32	LED-	P	LED Cathode	
33	NC	---	No connection	
34	NC	---	No connection	
35	VGL	P	Gate OFF Voltage	
36	NC	---	No connection	
37	NC	---	No connection	
38	VGH	P	Gate ON Voltage	
39	LED+	P	LED Anode	
40	LED+	P	LED Anode	

I: input, O: output, P: Power

13.Dimensional Outlines



REV	REVISION RECORD	DATE	APPROVED	NAME
1				
2	Update PIN27 & Pin37 FUNCTION			

No:	PIN NAME
1	VCOM
2	VDD
3	VDD
4	NC
5	NC
6	NC
7	GND
8	RxinO-
9	RxinO+
10	GND
11	Rxin1-
12	Rxin1+
13	GND
14	Rxin2-
15	Rxin2+
16	GND
17	RxCLK-
18	RxCLK+
19	GND
20	Rxin3-
21	Rxin3+
22	GND
23	NC
24	NC
25	GND
26	NC
27	NC
28	NC
29	AVDD
30	GND
31	LED-
32	LED-
33	NC
34	NC
35	VGL
36	NC
37	NC
38	VGH
39	LED+
40	LED+

PIN FUNCTION(T/P)	
PIN	SYMBOL
1	GND
2	VDD(3.3V)
3	/RST
4	/INT
5	SDA
6	SCL
7	VDD(5V)
8	GND
9	D+
10	D-

Display type	10.1" IPS
Resolution	1280xRGBx800
Display mode	Normally Black
Viewing Direction	Free
Viewing Angle(U/D/L/R)	85/85/85/85
Brightness(Center point)	450cd/m^2 Typ.
Color Chromaticity	x=0.310±0.05, y=0.330±0.05
Operating Temperature	-20~+70°C
Storage Temperature	-30~+ 80°C
Interface	LVDS interface

TOLERANCE	MATERIAL	FINISH	MODEL NAME
±0.3			GVIGA1MCHJ1C0-FC
VERSION	SCALE	NO.	UNIT
02		1/1	mm
DATE	APPROVED	CHECKED	DRAWN
2019.11.01			Roy

TITLE: OUTLINE

FILE NAME: 293\F\10. , , , . .