Project No. 项目编号	WJWU070139A
Customer 客户名称	
Module No. 客户型号	
Product type 产品内容	Standard LCD Module 1200 x 3RGB x 1920 Dots 7.02”TFT LCD

Signature by customer:
客户确认签章：

编 制	电子审核	结构审核	批 准

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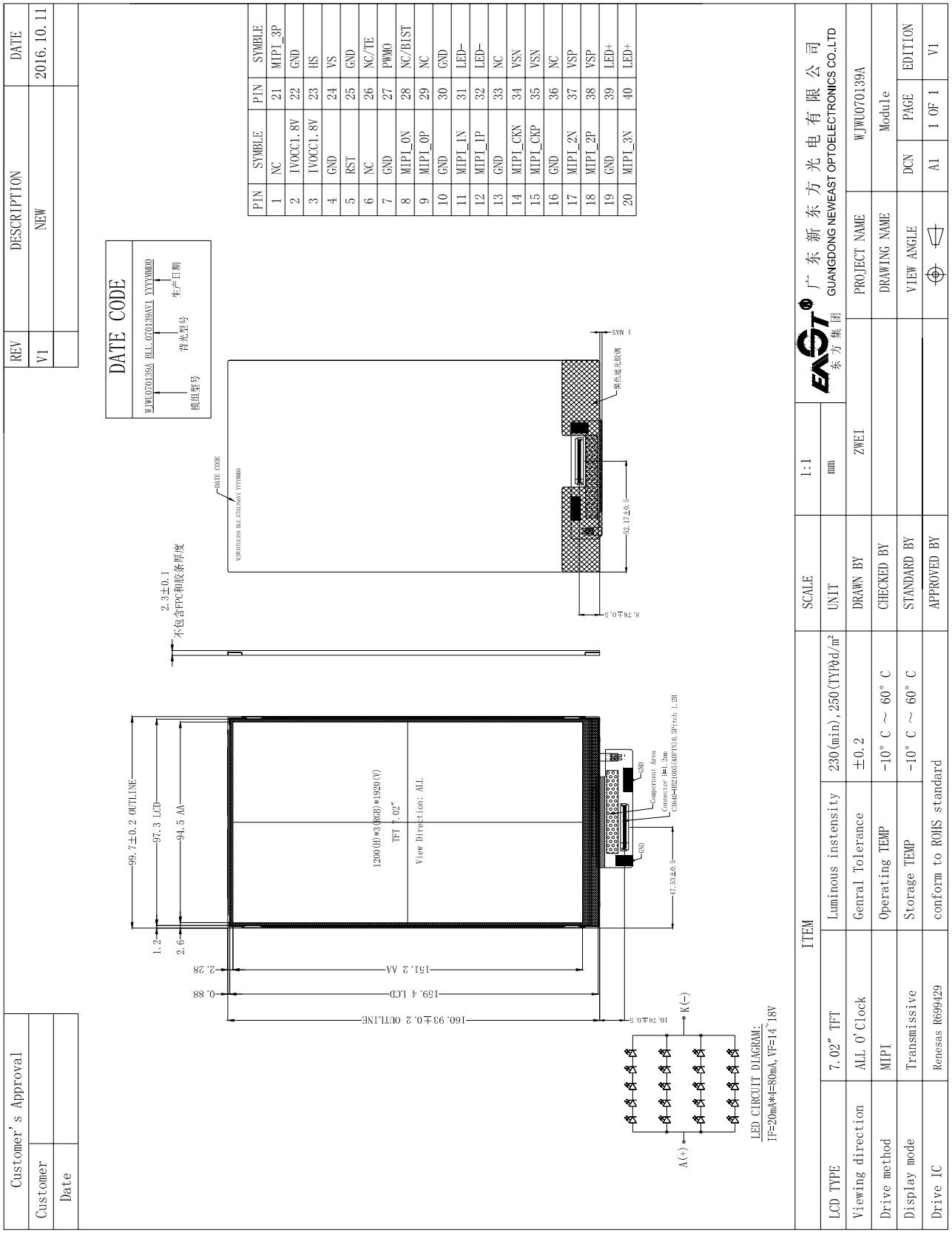
1 Document revision history :

DOCUMENT REVISION	DATE	DESCRIPTION	PREPARED BY	APPROVED BY

1. General Feature:

Item	Standard Value	Unit
Display Size	7.02”	--
Number of Pixels	1200(H)x3(RGB)x1920(V)	--
Active Area	94.50 (H) *151.20(V)	mm
Pixel pitch	0.07875(H) × 0.07875(V)	mm
Outline Dimension	99.70(H) ×160.93(V) × 2.3(T)	mm
Pixel Arrangement	RGB stripe arrangement	-
Display Mode	Normally Black	-
Number of color	16.7M	-
Viewing Direction	All Viewing direction	-
Surface Treatment	Anti-Glare	-
Interface	MIPI interface	-
Driver IC	TBD	-
Driver Condition	3.3	V
Backlight	White LED	-
Touch Panel	No Touch Panel	-
Operation Temperature	-10~50	℃
Storage Temperature	-10~50	℃
Weight	TBD	g

2.Mechanical Dimension



3.Pin Description

Pin NO.	Symbol	Description
1	NC	Not connect
2~3	IOVCC	Power supply for system 1.8V
4	GND	Ground
5	RESET	Global reset pin
6	NC	Not connect
7	GND	Ground
8	MIPI_TD0N	MIPI data Negative signal D0N
9	MIPI_TD0P	MIPI data Negative signal D0P
10	GND	Ground
11	MIPI_TD1N	MIPI data Negative signal D1N
12	MIPI_TD1P	MIPI data Negative signal D1P
13	GND	Ground
14	MIPI_TCN	MIPI CLK Negative signal CLK-
15	MIPI_TCK	MIPI CLK Negative signal CLK+
16	GND	Ground
17	MIPI_TD2N	MIPI data Negative signal D2N
18	MIPI_TD2P	MIPI data Negative signal D2P
19	GND	Ground
20	MIPI_TD3N	MIPI data Negative signal D3N
21	MIPI_TD3P	MIPI data Negative signal D3P
22	GND	Ground
23	NC	Not connect
24	NC	Not connect
25	GND	Ground
26~29	NC	Not connect
30	GND	Ground
31~32	LEDK	Backlight negative(-)
33	NC	Not connect
34~35	VSN	Analog supply negative voltage(-5.5V)
36	NC	Not connect
37~38	VSP	Analog supply positive voltage(+5.5V)
39~40	LEDA	Backlight positive(+)

4. Electrical Characteristics

4-1 TFT LCD Module Operating Conditions

Item	Symbol	Condition	Min	Type	Max	Uint
Power Supply Voltage	VDD	-				V
	VDDI		1.65	1.8	2.8	V
VCOM Power Voltage	VCOMH	DVDD		TBD		V
	VCOML	DVDD		TBD		V
TFT Gate ON voltage	VGH	DVDD		TBD		V
TFT Gate OFF voltage	VGL	DVDD		TBD		V
Consumption current of LED	ILED	ILED=16		80		mA

4-2 LED back light specification (per a chip)

Item	Symbol	Condition	Min	Type	Max	Uint
Forware Voltage	Vf	If=80mA	15	16	17	V
Reverse Voltage	Vr	Per Chip		4.0		V
Forward current	If	If=20mA/ 1-chip		80		mA
Reverse current	Ir	Vr=4V			15	uA
Power Consumption	PBL	If=140mA	-	1344		mW
Uniformity	-	If=140mA	70%	75%	-	-
Luminance(With LCD)	Lv	If=140mA		250	-	cd/m2
Luminous color	Lv	White				

5. Optical Characteristics Main LCD:(Ta=25℃)

(T_a=+25℃)

Item	Symbol	Condition	Values			Unit	Remark
			Min.	Typ.	Max.		
Viewing angle (CR≥ 10)	θ_L	Φ=180°(9 o'clock)	-	80	-	degree	Note 1 Note 5
	θ_R	Φ=0°(3 o'clock)	-	80	-		
	θ_T	Φ=90°(12 o'clock)	-	80	-		
	θ_B	Φ=270°(6 o'clock)	-	80	-		
Response time	T_{ON+} T_{OFF}	Normal θ=Φ=0°		25		msec	Note 2 Note 3
Contrast ratio	CR			1200	-	-	Note 4 Note 5
Color chromaticity	W_X		-	0.31	-	-	Note 5
	W_Y		-	0.33	-	-	
Transmittance	Tr	-	-	3.8	-	%	Note 5
NTSC Ratio				71.5		%	Note 5

*Note(1) Definition of Contrast Ratio (CR):

The contrast ratio can be calculated by the following expression.

Contrast Ratio (CR) = L255 / L0

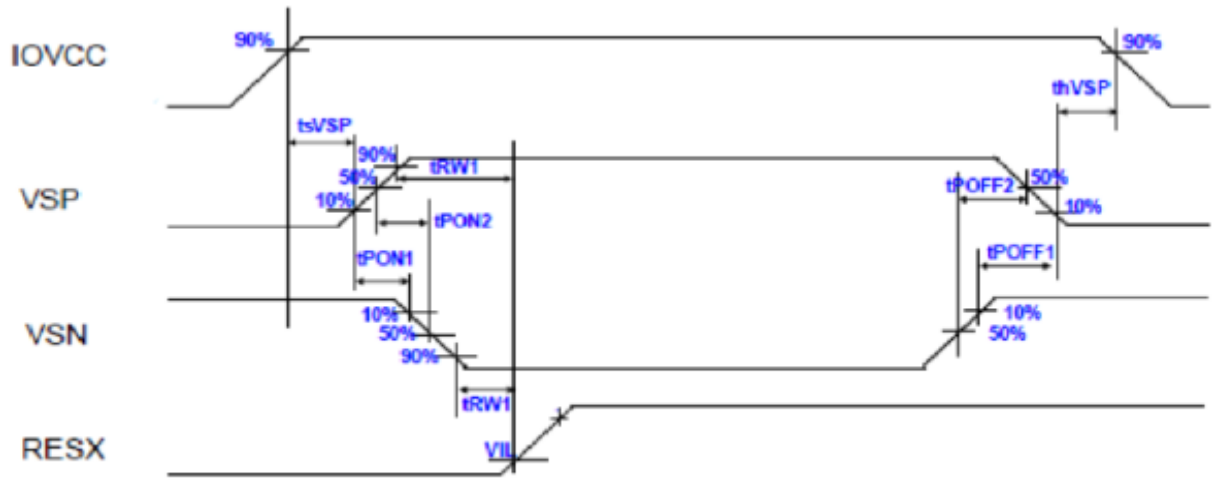
L255 : Luminance of gray level 255

L 0: Luminance of gray level 0

CR = CR (5)

CR (X) is corresponding to the Contrast Ratio of the point X at Figure in Note (5).

6. Power sequence:



Item	Symbol	Unit	Min	Max
IOVCC on to VSP on time	tsVSP	ms	1	-
VSP on to VSN on time	tPON1	ms	0	-
VSN on to REST on time	tRW1	ms	1	-
VSN off to VSP off time	tPOFF1	ms	0	-
VSP off to IOVCC off time	thVSP	ms	0	-

7. RELIABILITY TEST

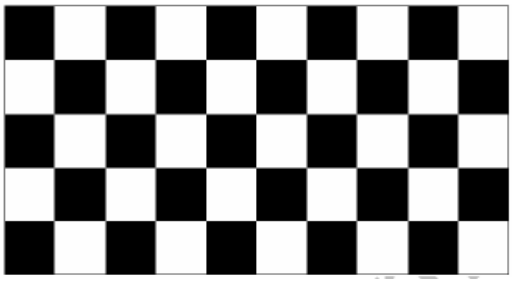
7-1 Temperature and Humidity

TEST ITEMS	CONDITIONS	NOTE
High Temperature Operation	50℃ ; 240hrs	
High Temperature Storage	50℃ ; 240hrs	
High Temperature High Humidity Operation	50℃; 90%RH ; 240hrs (No condensation)	
Low Temperature Operation	-10℃ ; 240hrs	

Low Temperature Storage	-10℃ ; 240hrs	
Thermal Shock	-10℃ (0.5hr) ~ 60℃ (0.5hr) ; 100 Cycles	Non-Operating
Image Sticking	25℃ ; 2hrs	1

Note 1: Condition of Image Sticking test：25℃ ±2℃

Operation with test pattern sustained for 4 hrs, then change to gray pattern immediately.After 5 mins, the mura must be disappeared completely .



(a) Test Pattern (chess board Pattern)

(b) Gray Pattern

7-2 Shock and Vibration

ITEMS	CONDITIONS
Packing Shock (Non-Operation)	● Shock level:980m/s^2 ● Waveform:1/2 Sine wave,6msec ● ±X, ±Y ±Z,each axis 1 times
Packing Vibration (Non-Operation)	● Frequency range:8-33.3HZ ● Stoke:1.0mm ● Sweep: 10Hz-50Hz ● x,y,z 2 hours for each direction

7-3 Electrostatic Discharge

TEST ITEM	CONDITIONS
ESD (Non-operation)	150pF,330Ω， Contact±4KV,Air :±8KV.Note 1
	200pF,0Ω， ±200V Contact test.Note 2

Note:Measure Point:

1.LCD glass and metal bezel

2.IF connector pins

- END -