APPLICATION

★ PH024TN2802A
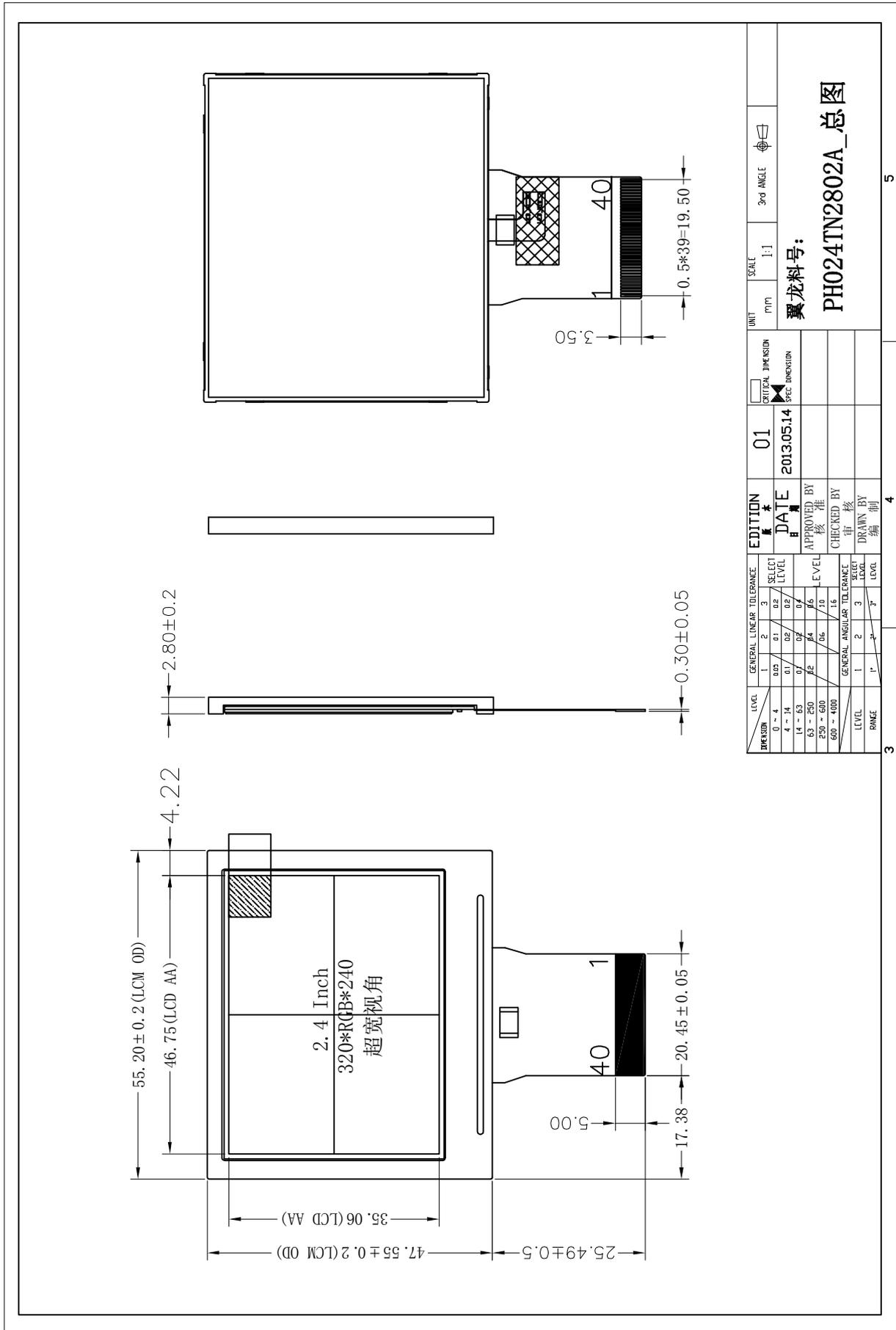
2.4" TFT LCD Module

2019/10/01

1. General Specifications

No.	Item	Specification	Remark
1	LCD size	2.4 inch(Diagonal)	
2	Driver element	a-Si TFT active matrix	
3	Resolution	320 $\times$ 3(RGB) $\times$ 240	
4	Display mode	Normally White, Transmissive	
5	Dot pitch	0.1461(W) $\times$ 0.1461(H) mm	
6	Active area	46.75(W) $\times$ 35.06(H) mm	
7	Module size	55.20(W) $\times$ 47.55(H) $\times$ 2.8(D) mm	Note 1
8	Surface treatment	Anti-Glare	
9	Color arrangement	RGB-stripe	
10	Interface	SYNC Mode	
11	View direction(Gray inversion)	12 o'clock	

3. Dimensional Outline

2. Pin Assignment

FPC Connector is used for the module electronics interface. The recommended model is FH19SC-40S-0.5SH manufactured by HIROSE.

Pin No.	Symbol	I/O	Description	Note
1	NC	I	NC	
2	NC	I	NC	
3	VGL	I	connect to capacitor	
4	C4P	I	Step-up Capacitor	
5	C4N	I	Step-up Capacitor	
6	VGH	I	connect to capacitor	
7	NC	I	NC	
8	VDDD	I	connect to capacitor	
9	VCL	I	connect to capacitor	
10	C3P	I	Step-up Capacitor	
11	C3N	I	Step-up Capacitor	
12	NC	I	NC	
13	C2P	I	Step-up Capacitor	
14	C2N	I	Step-up Capacitor	
15	NC	I	NC	
16	C1P	I	Step-up Capacitor	
17	C1N	I	Step-up Capacitor	
18	GND	I	Ground	
19	VCC	I	VCC	
20	NC	I	NC	
21	LED+	I	Backlight LED Anode	
22	NC	I	NC	
23	LED-	I	Backlight LED Cathode	

Pin No.	Symbol	I/O	Description	Note
24	NC	I	NC	
25	GND	P	Ground	
26	VCC	P	power supply	
27	CS	I/O	Chip Selection	
28	SDA	I/O	Serial data input / output	
29	SCL	I/O	SCL signal.	
30	HS	I/O	Line synchronizing signal	
31	VS	I/O	Frame synchronizing signal	
32	DCLK	I/O	Dot clock signal	
33	DB07	I/O	LCD Data bus	
34	DB06	I/O	LCD Data bus	
35	DB05	I/O	LCD Data bus	
36	DB04	I/O	LCD Data bus	
37	DB03	I/O	LCD Data bus	
38	DB02	I/O	LCD Data bus	
39	NC	I/O	Ground	
40	NC	I/O	Ground	

4. Peripheral Circuit

JP3

Pin	Signal			
1	NC			
2	NC			
3	VGL	C8	1UF/0603/25V/10%
4	C1P			
5	C1N	C2	1UF/0402/10V/10%
6	VGH	C10	1UF/0603/25V/10%
7				
8	VDDD	C3	1UF/0402/10V/10%
9	VCL	C7	1UF/0402/10V/10%
10	C2P	C4	1UF/0402/10V/10%
11	C2N			
12				
13	C3P			
14	C3N	C6	1UF/0402/10V/10%
15				
16	C4P	C9	1UF/0603/25V/10%
17	C4N			
18				
19	VCC			
20				
21	LED_A			
22				
23	LED_K			
24				
25				
26	VCC			
27	CS			
28	SDA			
29	SCL			
30	HSYNC			
31	VSYNC			
32	DOTCLK			
33	DB07			
34	DB06			
35	DB05			
36	DB04			
37	DB03			
38	DB02			
39				
40				

Left-side labels (JP3 pins):
NC, NC, VGL, C4P, C4N, VGH, NC, VCAC, VINT3, C3P, C3N, NC, C2P, C2N, NC, C1P, C1N, GND, VCC, TE, LED+, NC, LED-, NC, GND, VCC, CS, SDA, SCL, HS, VS, DCLK, DB05, DB04, DB03, DB02, DB01, DB00, NC, NC

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