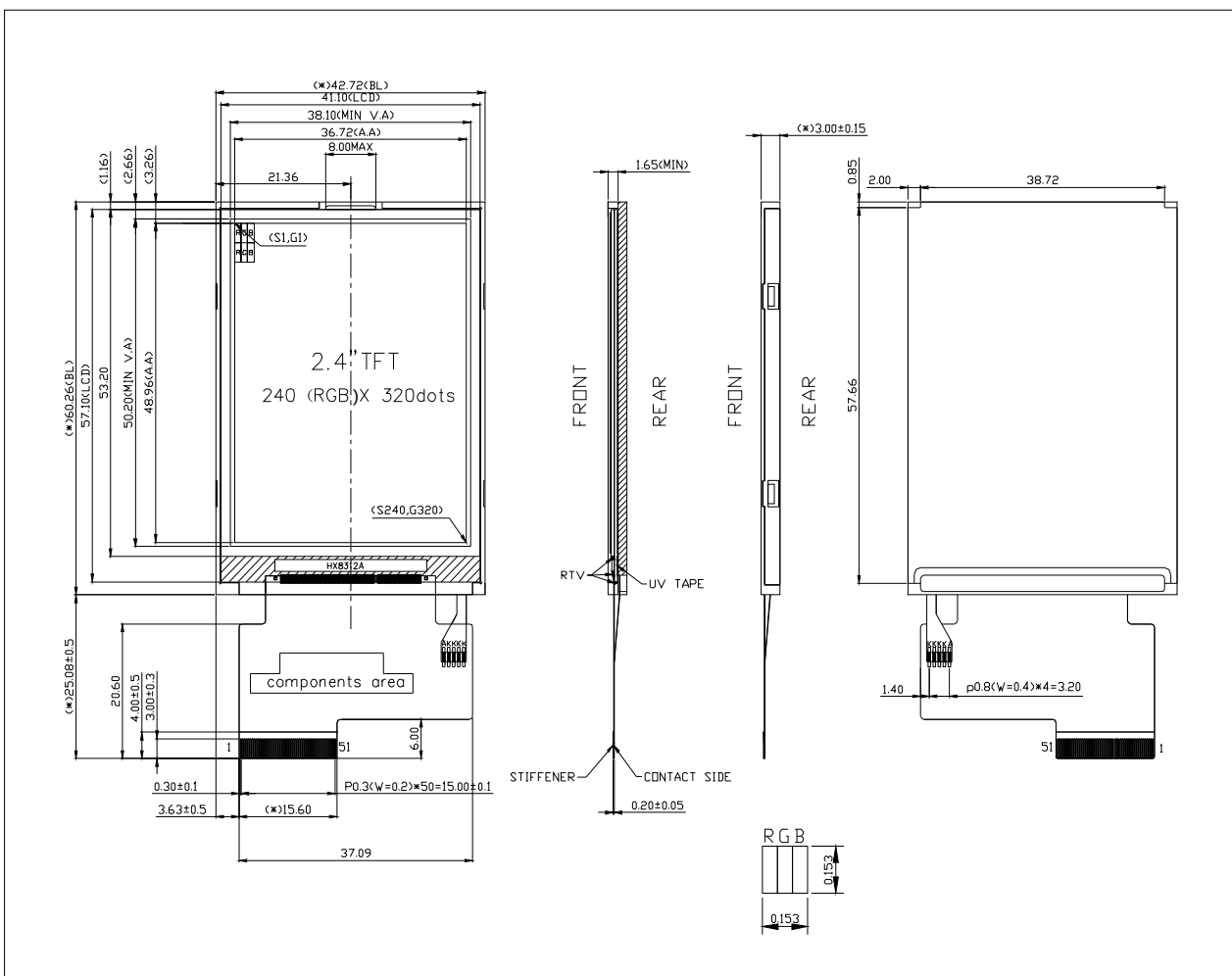


1.0 DIMENSIONAL DRAWING



Pin No	Symbol	Description
1	GND	Ground
2	DOTCLK	Input used in the RGB interface circuit. Must be connected to IOVCC if not in use.
3	HSYNC	Horizontal synchronization signal input pin. Must be connected to IOVCC if not in use.
4	GND	Ground
5	/CS	L: Chip Selected H: Chip Unselected
6	SCL	Serial bus interface clock input pin. Fix it to IOVCC or VSSD level when using parallel bus interface.
7	SDI	Serial bus interface data input pin. Fix it to IOVCC or VSSD level when using parallel bus interface.
8	RS	L: Instruction; H: Data;
9	/WR	L: Write
10	/RD	L: Read
11	/RESET	Reset
12-29	DB0-DB17	18bit data bus
30	VDD	Supply voltage
31-32	VCI	For analog power supply
33-36	LED+	LED backlight power supply: anode
37	LED-	LED backlight power supply: cathode
38	GND	Ground
39-40	GND	Ground
41-44	NC	Open
45	GND	Ground
46	SDO	Serial bus interface data output pin. Keep it open while using parallel bus interface.
47-49	NC	Open
50-51	GND	Ground

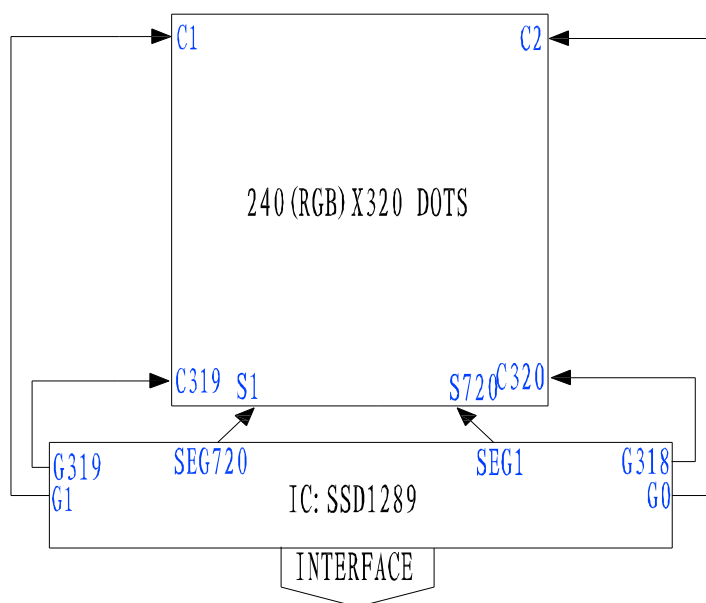
LCD PIN	IC PIN
G1-G320	G1-G320
S1-S720	S720-S1

NOTE:

- DISPLAY TYPE: 262K COLORS-TFT-NEGATIVE-TRANSMISSIVE
- VIEWING DIR.: 12:00
- DRIVE METHOD: 1/320DUTY, VDD=3.0±0.2V
- OP. TEMP.: -20°C~70°C
- ST. TEMP.: -30°C~80°C
- DRIVE IC: HX8312(COG, HIMAX)
- BACKLIGHT: LED COLOR-WHITE, If=72mA, Vf=3.2±0.2V
LUMINANCE>2800CD/m² X=0.25-0.29, Y=0.24-0.28
- ROHS

9. LCD DRAWING NO.: JY06B37 (CLAF024GB01AA)

2.0 BLOCK DIAGRAM



3.0 MECHANICAL SPECIFICATIONS

ITEM	CONTENT	UNIT
DOTS NUMBER	240(RGB) x320	dots
MODULE DIMENSION	42.72(w)*84.78(h)*4.10(t)	mm
ACTIVE AREA	36.72(w)*48.96(h)	mm
PIXEL DIMENSION	0.153 (w)*0.153(h)	mm

4.0 ELECTRO-OPTICAL CHARACTERISTICS

LCM Optical Characteristics

Item		Symbol	Condition	Min.	Typ.	Max.	Unit	Note
Contrast ratio (center point)		CR	$\theta = 0$ $\phi = 0$ (Normal Viewing Angle) B / L on	-	300	-	-	(1) Ez-contrast
Luminance of white (Center point)		YL		110	140	-	cd / m ²	(4)BM-7f
Response time		Tr		-	10	-	ms	(2)BM-7f
		Tf		-	20	-	ms	
Color chromaticity (CIE 1931)	White	Wx		0.237	0.267	0.297	-	(4) BM-7f
		Wy		0.263	0.293	0.323		
	Red	Rx		0.588	0.618	0.648		
		Ry		0.293	0.323	0.353		
	Green	Gx		0.272	0.302	0.332		
		Gy		0.577	0.607	0.637		
	Blue	Bx		0.112	0.142	0.172		
		By		0.043	0.073	0.103		
Viewing angle	Hor.	θ L	CR ≥ 10 B / L on	-	45	-	Degrees	(3) Ez-contrast
		θ R		-	45	-		
	Ver.	ϕ H		-	35	-		
		ϕ L		-	15	-		

Ta = 25 ± 2°C, V_{CC} = V_{CI} = 2.8V

Note (1) Contrast ratio is defined as follows

$$CR = \frac{\text{Luminance (brightness) all pixels "White"}}{\text{Luminance (brightness) all pixels "dark"}}$$

5.0 ELECTRONIC CHARACTERISTICS

ITEM	SYMBOL	STANDARD VALUE		UNIT
		MIN	MAX	
Logic supply voltage	V _{DDIO}	-0.3	+4.0	V
	V _{DDEXT}	-0.3	+4.0	V
Input voltage	V _{CI}	VSS-0.3	+5.0	V
Operating Temperature	Top	-20	+70	℃
Storage Temperature	Tst	-30	+80	℃

6.0 PINS DESCRIPTION

Pin No.	Symbol	Description									
1-4	DB0-DB3	Data Bus									
5	GND1	Ground									
6	VCC1	Power supply:+2.8V									
7	/CS	L:Chip Selected H:Chip Unselected									
8	RS	L:Command;H:display data									
9	/WR	I80 system:Serves as a write signal and writes data at the rising edge M68 system:0:Write 1:Read									
10	/RD	I80 system:Serves as a read signal and reads data at the low level M68 system:0:Read/Write disable, 1:Read/Write enable									
11	IMO	<table border="1"> <tr> <th>IMO</th><th>Data Bus Width</th><th>DB Pin</th></tr> <tr> <td>1</td><td>16bit parallel interface</td><td>DB0-DB15</td></tr> <tr> <td>0</td><td>8-bit parallel interface</td><td>DB0-DB7</td></tr> </table> Unused pin must fixed either VCC2 OR GND1 level	IMO	Data Bus Width	DB Pin	1	16bit parallel interface	DB0-DB15	0	8-bit parallel interface	DB0-DB7
IMO	Data Bus Width	DB Pin									
1	16bit parallel interface	DB0-DB15									
0	8-bit parallel interface	DB0-DB7									
12	X+	touch panel output pin. (Touch screen X coordinate left)									
13	Y+	touch panel output pin. (Touch screen Y coordinate up)									
14	X-	touch panel output pin. (Touch screen X coordinate right)									
15	Y-	touch panel output pin. (Touch screen Y coordinate down)									
16	LEDA	Backlight LED anode									
17	LEDK1	Backlight LED cathode (K1)									
18	LEDK2	Backlight LED cathode (K2)									
19	LEDK3	Backlight LED cathode (K3)									
20	LEDK4	Backlight LED cathode (K4)									
21	IM3	0:Format for I80 series MPU, 1:Format for M68 series MPU									
22	DB4	Data bus									
23-30	DB10-DB17	Data bus									
31	/RESET	L: initialization is executed									
32	VCI	A Power supply for step-up circuit and power supply circuit. (+2.8v)									
33	VCC2	Power supply for I/O circuit. (+2.8V)									
34	GND	Ground									
35-37	DB5-DB7	Data bus									

Remark

1. LCD option: STN, FSTN .

2.Customized module.

3. Backlight option: EL backlight feature, other specs not available on catalog is under request.