1. Specification

1.1 Display Specification

Item	Standard Value	Unit
Display Format	320X(RGB)X480 Dots	--
Display Connector	FPC	--
FPC Connector	50 Pin 0.5 mm Pitch Bottom Contact ZIF	--
Operating Temperature	-20 ~ +70	℃
Storage Temperature	-30 ~ +80	℃
Touch Panel	Resistive	--
Sunlight Readable	No	--

1.2 Mechanical Specification

Item	Standard Value	Unit
Diagonal Size	3.5	Inch
Outline Dimension with FPC	56.54(W)X84.96(H)X2.25(T)	mm
Visual Area	50.56X75.04	mm
Active Area	48.96X73.44	mm
Dot Pitch	0.153(W)X0.153(H)	mm

1.3 Electrical Specification

Item	Standard Value	Unit
IC Package	COG	--
Controller	ILI9488	--
Interface	8080 8b/16b Parallel, 3/4 wire SPI, RGB	--
Response Time	20	mS

1.4 Optical Specification

Item	Standard Value	Unit
LCD Type	TFT-LCD	--
Viewing Angle Range	Left : 70, Right : 70, Up : 70, Down : 50	Deg
Colors	262K	--
Contrast Ratio(Typ)	500:1	--
Brightness(Typ)	280	Cd/m2

2.Electrical Specification

2.1 Pin Configuration

Pin No	Pin Name	Descriptions
1	LEDA	Anode for LED Backlighting
2	LEDK	Cathode for LED Backlighting
3	LEDK	Cathode for LED Backlighting
4~6	NC	NO Connect
7	IM0	Select Interface Mode
8	IM1	
9	IM2	
10	RESET	Reset Pin.
11	VSYNC	Frame Sync
12	HSYNC	Line Sync
13	DOTCLK	Dot Clock Signal
14	DE	Data Enable
15 ~ 32	D17 ~ D0	DATA BUS
33	SDO	Serial Out
34	SDA	Serial DATA
35	RD	Parallel Read
36	WR	Parallel Write
37	D/CX	Data/Command selection
38	CS	Chip Select
39	TE	Tearing Effect
40	VDDI	Power Supply
41	VDDI	Power Supply
42	VCI	Logic Power
43	GND	Ground
44	XR	Touch Panel output
45	YD	Touch Panel output
46	XL	Touch Panel output
47	YU	Touch Panel output
48	GND	Ground
49	GND	Ground
50	GND	Ground

Note : IM

IM2	IM1	IM0	Interface Mode
0	0	0	8080 18 Bit
0	0	1	8080 9 Bit
0	1	0	8080 16 Bit
0	1	1	8080 8 Bit
1	0	1	3 wire SPI
1	1	1	4 wire SPI

2.2 Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Power Supply	VDDI	-0.3	-	+ 4.6	V
Logic Power	VCI	-0.3	-	+ 4.6	V
Humidity	RH	-	-	90%(Max60℃	RH

2.3 Electrical Characteristics

Item	Symbol	Min	Typ	Max	Unit
Power Supply	VDDI	2.5	2.8	3.3	V
Logic Power	VCI	1.65	2.8	3.3	V
Input Voltage 'H'	VIH	0.7 VDDI	-	VDDI	V
Input Voltage 'L'	VIL	-0.3	-	0.3VDDI	V
Output Voltage 'H'	VOH	0.8VDDI	-	VDDI	V
output Voltage 'L'	VOL	0	-	0.2VDDI	V

2.4 Backlight Characteristics

Item		Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage		Vf	Lf = 120mA		3.2	3.4	V
Forward Current	Normal	Ipn	6 Chip		110	120	mA
	Dimming	Ipd	Parallel				
LED Life Time		-	Lf = 90mA Ta = 25℃		-		Hrs

3. Mechanical Drawing

Top view dimensions:
- 1.69
- 56.54±0.2(BLOD)
- 53.16
- V.A.50.56
- A.A.48.96
- 3.5"
- 320x480 dots
- Viewing Direction 6:00
- 2.99
- 3.79
- 3.76
- A.A. 73.44
- 2.96
- V.A. 75.04
- 1.81
- 81.64
- 84.96 OD
- 16.02
- 1.82
- 13.70
- W0.35±0.03
- 24.50±0.03
- 25.50±0.15
- 1
- 50
- 8.70
- 3.50±0.2
- 12.41
- 11.70
- 24.11
- 5.89
- 30.00

1. Unit: mm
2. BL=Backlight
3. VA=Visual Area
4. AA=Active Area
5. OD=Outline Dimension

Side view dimensions:
- 0.95
- 55.59±0.1
- Reflector Tape
- 5.00±0.3
- 50
- 25.50±0.15
- 1
- 0.475
- 84.01±0.1
- 2.25±0.15
- 3-0.80
- STIFFENER