

**SAMSUNG**

**ELECTRONICS**

## Product Information

*SAMSUNG TFT-LCD*

**MODEL NO. : LTM170E5-L01**

**SAMSUNG ELECTRONICS CO. LTD.**

Doc.No.

**PI002\_LTM170E5-L01**

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# GENERAL DESCRIPTION

## DESCRIPTION

LTM170E5-L01 is a color active matrix TFT (Thin Film Transistor) liquid crystal display (LCD) that uses amorphous silicon TFT as a switching devices. This model is composed of a TFT LCD panel, a driver circuit and a backlight system. The resolution of a 17.0" contains 1280 x 1024 pixels and can display up to 16.7 million colors with wide viewing angle of 85 degrees or higher in all directions. (Vertical viewing angle : 170 degrees , Horizontal viewing angle : 170 degrees )

## FEATURES

- High contrast ratio, high aperture structure
- PVA (Patterned Vertical Alignment) mode
- Wide viewing angle
- High speed response
- SXGA ((1280x1024) pixels) resolution
- Low power consumption
- 2 dual CCFT (Cold Cathode Fluorescent Tube)
- DE (Data enable) only mode.
- LVDS (Low Voltage Differential Signaling) Interface (2 pixel / clock)

## APPLICATIONS

- Workstation & desktop monitors
- Display terminals for AV application products
- Monitors for Industrial machine

## GENERAL INFORMATION

ITEM	SPECIFICATION	UNIT	NOTE
Display area	337.92(H)X270.336(V)	mm	
Driver element	a-Si TFT active matrix		
Display colors	16.7M (true)	colors	
Number of pixels	1280 x 1024	pixel	
Pixel arrangement	RGB vertical stripe		
Pixel pitch	0.264(H) x 0.264(W)	mm	
Display Mode	Normally Black		
Surface treatment	HAZE 25%, HARD-COATING (3H)		

## Mechanical Information

ITEM		MIN.	TYP.	MAX.	NOTE
Module size	Horizontal (H)	383.0	383.5	384.0	mm
	Vertical (V)	305.5	306.0	306.5	mm
	Depth (D)	-	-	22.8	mm
Weight		-	-	2,265	g

# INPUT Interface Connection

Connector : JAE FI-X30S-HF

PIN NO	SYMBOL	FUNCTION
1	RXO0-	Negative Transmission Data of Pixel 0 (ODD data)
2	RXO0+	Positive Transmission Data of Pixel 0 (ODD data)
3	RXO1-	Negative Transmission Data of Pixel 1 (ODD data)
4	RXO1+	Positive Transmission Data of Pixel 1 (ODD data)
5	RXO2-	Negative Transmission Data of Pixel 2 (ODD data)
6	RXO2+	Positive Transmission Data of Pixel 2 (ODD data)
7	GND	Power Ground
8	RXOC-	Negative Sampling Clock (ODD data)
9	RXOC+	Positive Sampling Clock (ODD data)
10	RXO3-	Negative Transmission Data of Pixel 3 (ODD data)
11	RXO3+	Positive Transmission Data of Pixel 3 (ODD data)
12	RXE0-	Negative Transmission Data of Pixel 0 (EVEN data)
13	RXE0+	Positive Transmission Data of Pixel 0 (EVEN data)
14	GND	Power Ground
15	RXE1-	Negative Transmission Data of Pixel 1 (EVEN data)
16	RXE1+	Positive Transmission Data of Pixel 1 (EVEN data)
17	GND	Power Ground
18	RXE2-	Negative Transmission Data of Pixel 2 (EVEN data)
19	RXE2+	Positive Transmission Data of Pixel 2 (EVEN data)
20	RXEC-	Negative Sampling Clock (EVEN data)
21	RXEC+	Positive Sampling Clock (EVEN data)
22	RXE3-	Negative Transmission Data of Pixel 3 (EVEN data)
23	RXE3+	Positive Transmission Data of Pixel 3 (EVEN data)
24	GND	Power Ground
25	NC	No Connection
26	DE	DE Out
27	NC	No Connection
28	V <sub>DD</sub>	Power Supply : +5V
29		
30		

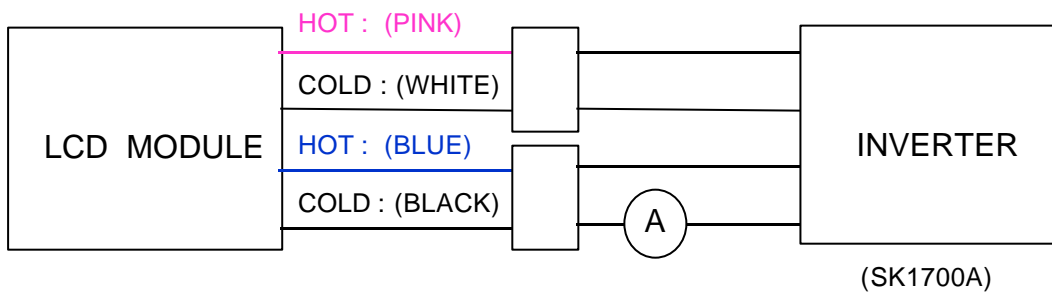
# BACK-LIGHT UNIT

The backlight system is an edge - lighting type with 2 dual CCFTs.

Ta = 25 ± 2 °C

ITEM	SYMBOL	MIN.	MAX.	UNIT	NOTE
Lamp Current	IL	3.0	7.0	mArms	(1)
Lamp frequency	FL	40	70	kHz	(1)

Note 1) Permanent damage to the device may occur if maximum values are exceeded  
Functional operation should be restricted to the conditions described under normal operating condition

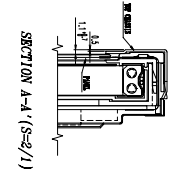
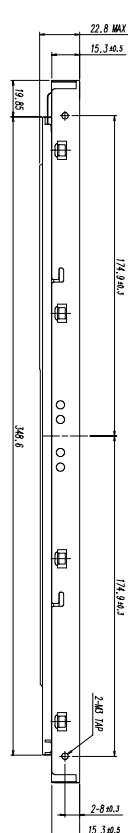
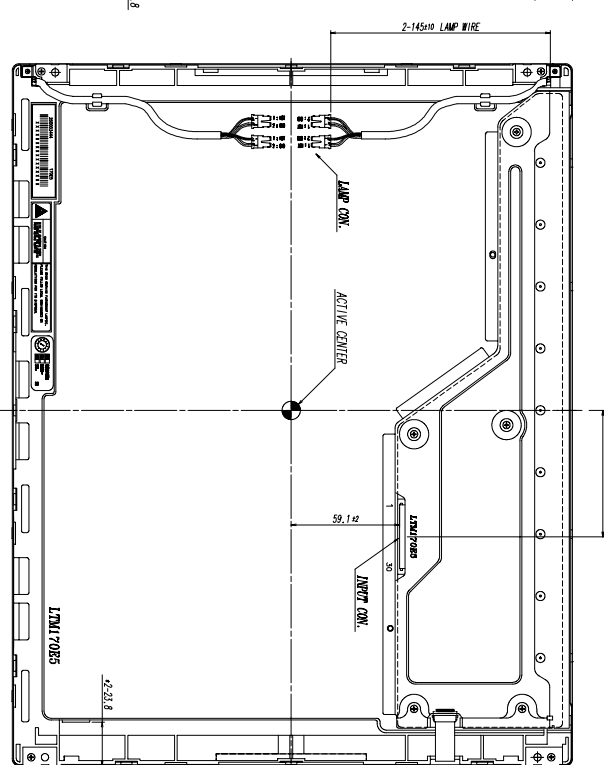
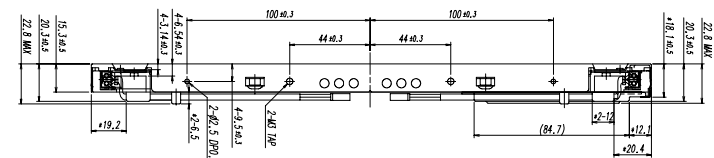
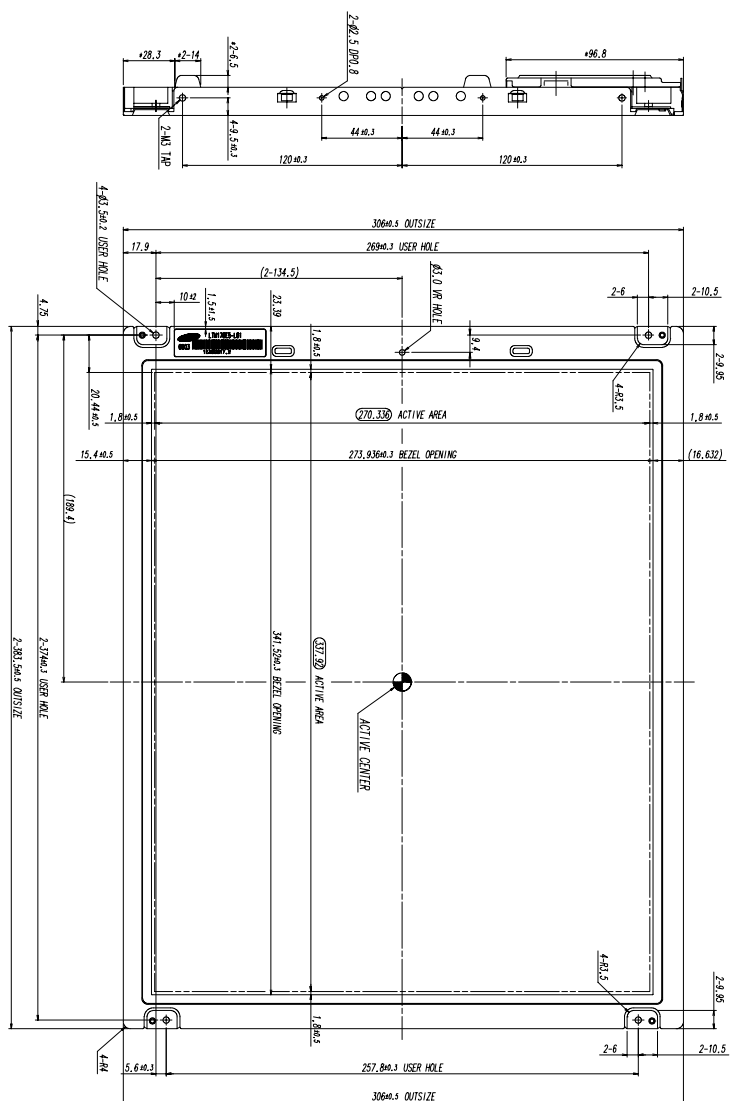
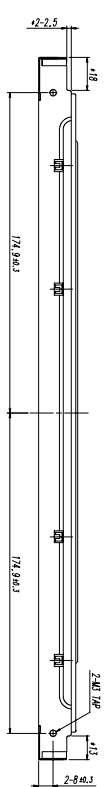


Connector : JST BHSR - 02VS -1

## BACKLIGHT CONNECTOR PIN CONFIGURATION

Pin NO.	Input [ch1], [ch2]	Color	Function
1	HOT 1	Pink	High Voltage
2	COLD 1	White	Ground
3	HOT 2	Blue	High Voltage
4	COLD 2	Black	Ground

REV	DATE	BY	CHKD	DESCRIPTION
01	12/11/10	WJ	WJ	ISSUED FOR MANUFACTURE



- NOTES**
- BACKLIGHT : 4 COLD CATHODE FLUORESCENT LAMPS.
  - 1/8 CONNECTOR SPECIFICATION.
    - MAKER : UAE
    - PART NO : F1-X30S-HF
  - LAMP CONNECTOR/WIRE SPECIFICATION.
    - MAKER : UST
    - PART NO : BHSR-02VS-(2 PIN x 145mm)

GENERAL INFORMATION		REVISIONS		DRAWING INFORMATION	
NO.	DATE	NO.	DESCRIPTION	BY	CHKD
01	12/11/10	01	ISSUED FOR MANUFACTURE	WJ	WJ

PROJECT NO	174.9	DATE	12/11/10
DESIGNER	WJ	SCALE	1:1
CHECKER	WJ	STATUS	ISSUED
APPROVER	WJ	DATE	12/11/10