



ELECTRONICS

Product Information

SAMSUNG TFT-LCD

MODEL NO. : LTM240W1-L01

SAMSUNG ELECTRONICS CO. LTD.

GENERAL DESCRIPTION

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LTM240W1 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 back-light system. The resolution of a 24.0" contains 1920 x 1200 pixels and can display up to 16.7 million colors with wide viewing angle of 80 degrees or higher in all directions. 6 O'clock direction is the Optimum viewing angle.

FEATURES

- High contrast ratio, high aperture structure
- PVA (Patterned Vertical Alignment) mode
- Wide viewing angle
- High speed response
- WUXGA ((1920x1200) pixels) resolution
- Low power consumption
- 6 CCFTs (Cold Cathode Fluorescent Tube)
- DE (Data enable) only mode.
- Open LDI (DS90CF388)

APPLICATIONS

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

GENERAL INFORMATION

ITEM	SPECIFICATION	UNIT	NOTE
Display area	518.4(H) X 324(V) (24.06 inch diagonal)	mm	
Driver element	a-Si TFT active matrix		
Display colors	16.7M (true 8-bit)	colors	
Number of pixels	1920 x 1200	pixel	
Pixel arrangement	RGB vertical stripe		
Pixel pitch	0.27(H) x 0.27(W)	mm	
Display Mode	Normally Black		
Surface treatment	HAZE 25%, HARD-COATING (3H)		

Mechanical Information

ITEM		MIN.	TYP.	MAX.	NOTE
Module size	Horizontal (H)	-	569.1	-	mm
	Vertical (V)	-	368.4	-	mm
	Depth (D)	-	-	32.0	mm
Weight		-	-	5,600	g

INPUT Interface Connection

Connector : JAE F1-WE31P-HF

Mating Connector : JAE F1-WE31S-HF

387 NO	Tx Signal	JAE 31P No.	388 NO	Rx Signal	Remark
		31 (Reserved)		Reserved	Service Port
		30 (Reserved)		Reserved	Service Port
		29 (Reserved)		Reserved	Service Port
		28 (Reserved)		Reserved	Service Port
		27 (Reserved)		Reserved	Service Port
28	TxOut7+	26	79		Twisted Pair
29	TxOut7-	25	80		
		24 (GND)			Twisted Pair
		23 (GND)			
31	TxOut6+	22	82	RxOut6+	Twisted Pair
32	TxOut6-	21	83	RxOut6-	
33	TxOut5+	20	84	RxOut5+	Twisted Pair
34	TxOut5-	19	85	RxOut5-	
36	TxOut4+	18	86	RxOut4+	Twisted Pair
37	TxOut4-	17	87	RxOut4-	
		16(GND)			Twisted Pair
		15(GND)			
38	TxOut3+	14	89	RxOut3+	Twisted Pair
39	TxOut3-	13	90	RxOut3-	
41	TxOutCLK+	12	91	RxOutCLK+	Twisted Pair
42	TxOutCLK-	11	92	RxOutCLK-	
		10(GND)			Twisted Pair
		9(GND)			
44	TxOut2+	8	94	RxOut2+	Twisted Pair
45	TxOut2-	7	95	RxOut2-	
46	TxOut1+	6	96	RxOut1+	Twisted Pair
47	TxOut1-	5	97	RxOut1-	
49	TxOut0+	4	98	RxOut0+	Twisted Pair
50	TxOut0-	3	99	RxOut0-	
		2(GND)			Twisted Pair
		1(GND)			

BACK-LIGHT UNIT

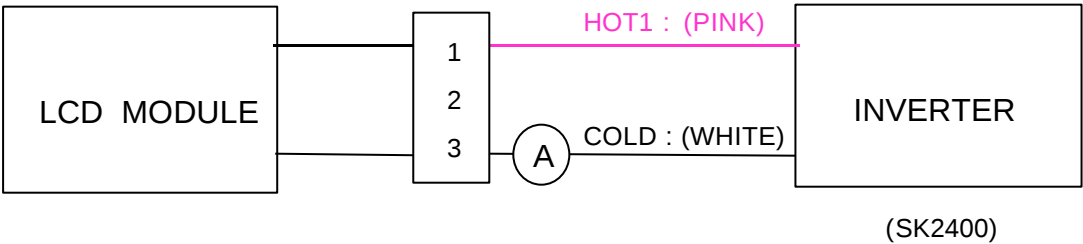
The backlight system is an edge - lighting type with 6 CCFTs.

Ta = 25 ± 2 °C

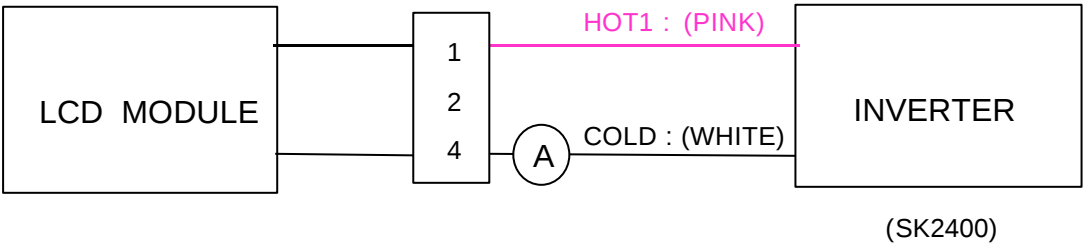
ITEM	SYMBOL	MIN.	MAX.	UNIT	NOTE
Lamp Current	IL	9.0	19.5	mArms	(1)
Lamp frequency	FL	30	60	kHz	(1)

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

• side lamps



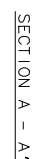
• center lamps



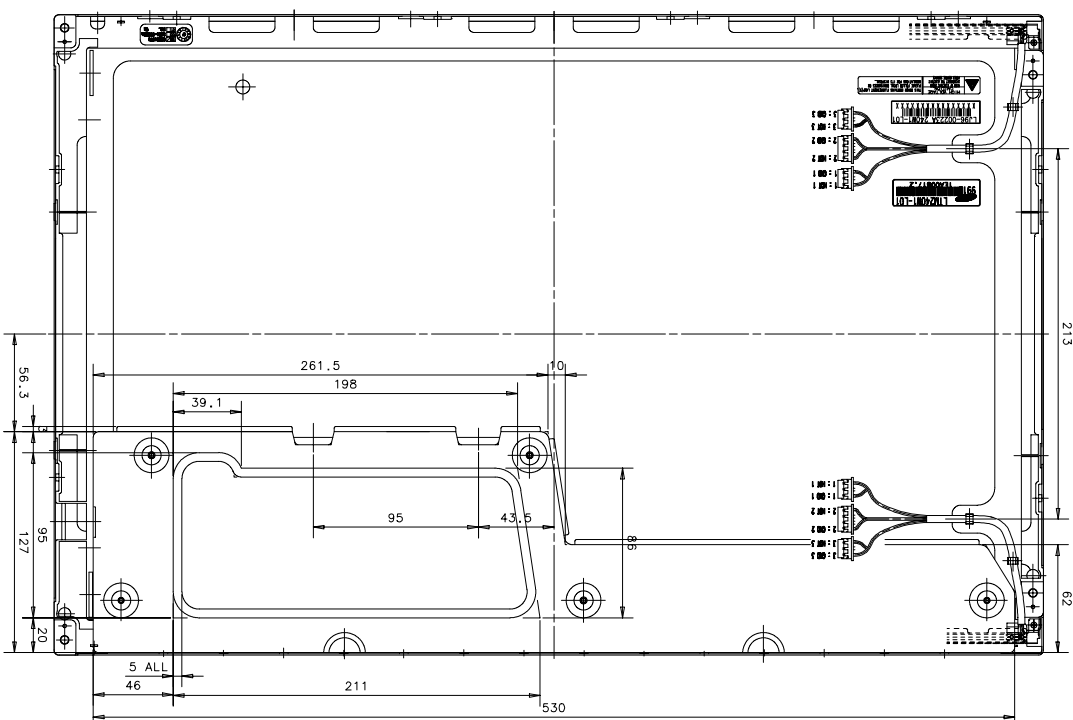
Connector : JST BHR - 03VS -1, JST BHR - 04VS -1

BACKLIGHT CONNECTOR PIN CONFIGURATION

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



- F1-WE31P-HF (MAKER : JAE)
53261-1290 (MAKER : MOLEX)



GENERAL TOLERANCE										CHG'D BY	
STEP		LEVEL 1		LEVEL 2		LEVEL 3		REV	DATE	REASON	
0	X	X	4	0.05	0.05	0.2				DESCRIPTION OF REVISION	
1	X	X	4	0.08	0.15	0.3				DRAWN BY: DESIGNED BY: CHECKED BY: APPROVED BY:	
16	X	X	4	0.16	0.25	0.5				MATERIAL	
64	X	X	5	0.56	0.4	0.8				SPEC. NO.	
SAMSUNG ELECTRONICS										CODE NO.	
										VER.	