



Product Specification For TFT

Model Name	XF156WXS01B-TLNL
Customer	
Note	

☒ Preliminary Specification

☐ Final Specification

☐ CUSTOMER'S APPROVAL
BY: DATE:
Comment

PRESENTED BY



1. GENERAL DESCRIPTION

1.1 DESCRIPTION

XF156WXS01B-TLNL is a color active matrix thin film transistor (TFT) TN liquid crystal display (LCD) that uses amorphous silicon TFT as a switching device. It is composed of a TFT LCD panel, FPCs, Driver ICs, PCBA and a backlight unit.

1.2 FEATURES:

No.	Item	Specification	Unit
1	Panel Size	15.6"	inch
2	Number of Pixels	1366×RGB (3) ×768	pixels
3	Active Area	344.232(H)x193.536(V)	mm
4	Pixel Pitch	0.252(H)×0.252(V) x RGB	mm
5	Outline Dimension	359.5(W)×224.3(H)×3.5MAX.(D)	mm
6	Number of Colors	262K	-
7	Display ModeS	Normally White	-
8	Viewing Direction	6 O'clock	-
9	Luminance(cd/m2)	200(MIN.) 250(TYP.)	nit
10	Contrast Ratio	350(TYP.)	-
11	Display Format	RGB vertical stripe	-
12	Surface Treatment	Glare	-
13	Interface	One Channel LVDS	-
14	Backlight	White LED	-
15	Operation Temperature	0~50	°C
16	Storage Temperature	-20~60	°C
17	Weight	360.5(±10)	g

DETAIL F(4:1)
300E40-0010RA-G3 or equivalent

3. ELECTRICAL CHARACTERISTICS

3.1 ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Power supply	VCC	VCC-0.3	+3.6	V

3.2 TFT LCD MODULE

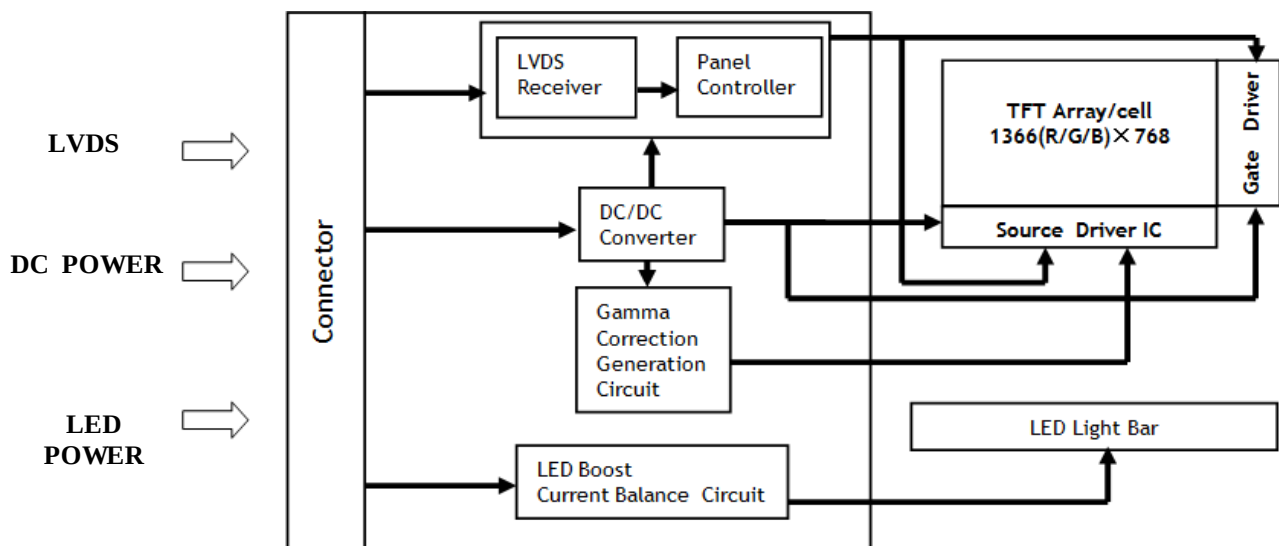
3.2.1 OPERATING CONDITIONS

Parameter	Symbol	Min.	Typ.	Max.	Unit
Power supply	VCC	3.0	3.3	3.6	V

3.3 CURRENT CONSUMPTION

Item	Symbol	Condition	Values			Unit
			Min.	Typ.	Max.	
Power supply	IVC C	IVCC = 3.3V	-	285	-	mA
FOB Consumption	PC	IVCC= 3.3V	-	940.5	-	mW
BL Power Consumption	PC	VLED=6V	-	-	3450	mW
Total power Consumption	PC	-	-	4390.5	-	mW

3.4 GENERAL DESCRIPTION



3.5 BACKLIGHT DRIVING

The backlight system is an edge-lighting type with white-LED.

(It is usually required to measure under the following condition: $T_a=25^{\circ}\text{C}\pm 2^{\circ}\text{C}$)

Parameter		Min.	Typ.	Max.	Unit	Remarks
LED Forward Voltage	V_F	-	-	3.2	V	-
LED Forward Current	I_F	-	17.5		mA	-
LED Power Consumption	P_{LED}		-	3.45	W	Note 1
LED Life-Time	N/A	15,000	-	-	Hour	
Power supply voltage for LED Driver	V_{LED}	6	12	19	V	
EN Control Level	Backlight on	2.5		5.0	V	
	Backlight off	0		1.0	V	
PWM Control Level	PWM High Level	2.5		5.0	V	
	PWM Low Level	0		0.1	V	
PWM Control Frequency	F_{PWM}	200	-	10,000	Hz	
Duty Ratio	-	1	-	100	%	Note3

Notes : 1. Power supply voltage 12V for LED Driver,

Calculator Value for reference $I_F \times V_F \times 48 / \text{Driver efficiency} = P_{LED}$

2. The LED Life-time define as the estimated time to 50% degradation of initial luminous.

3. 1% duty cycle is achievable with a dimming frequency less than 1KHz.

**4. OPTICAL CHARACTERISTICS**

Ta=25°C±2

Item		Symbol	Condition	Min.	Typ.	Max.	Unit	Note
Response Time (Rising + Falling)		T _{RT}	Ta= 25°C Θ = 0°	-	20	25	ms	Note1 Note3
Viewing Angle range	Horizontal	Θ3	CR > 10	40	45	-	Deg	Note2
		Θ9		40	45	-		
	Vertical	Θ12		10	15	-		
		Θ6		30	35	-		
Contrast ratio		CR		250	350			Note4
Luminance(cd/m2)		L		200	250		nit	Note7
Luminous tolerance		LU		65	70	-	%	Note7
Color Chromaticity	White	x		0.368	0.398	0.428		Note1 Note5 Note6
		y		0.309	0.339	0.369		
	Red	x		0.543	0.573	0.603		
		y		0.337	0.367	0.397		
	Green	x		0.302	0.332	0.362		
		y		0.554	0.584	0.614		
	Blue	x		0.125	0.155	0.185		
		y		0.100	0.130	0.160		
NTS C				-	47	-	%	
Gamma Scale				2.0	2.2	2.4		