



北京振中致远显示技术有限公司

BEIJING ZHENZHONG ZHIYUAN DISP-TECH. CO.,LTD.

型号:

TNS-G12864FCDLW-BW

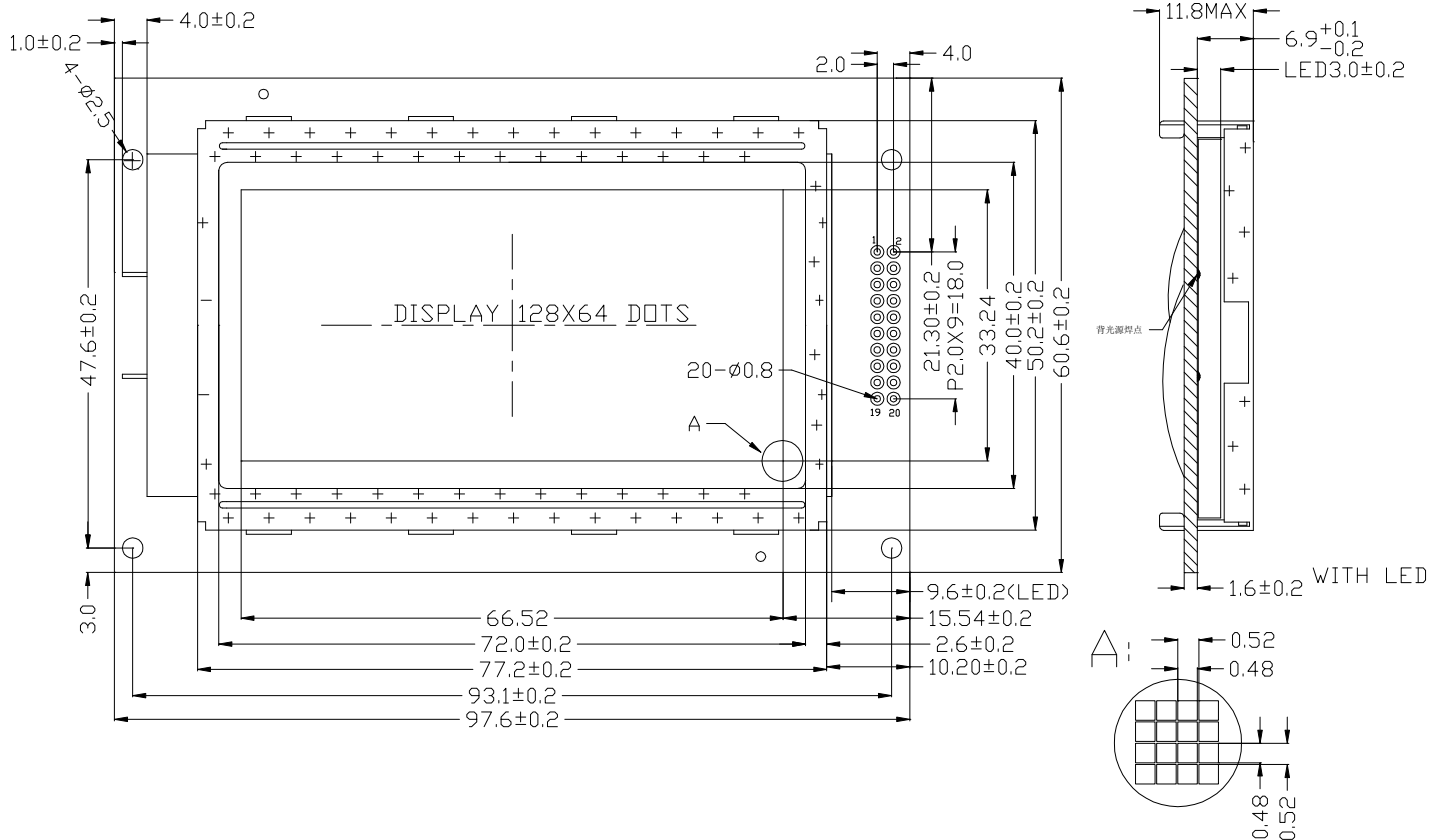
PRODUCT SPECIFICATIONS

TNS-G12864FCDLW-BW

- EXTERNAL DIMENSIONS
- PHYSICAL DATA
- BLOCK DIAGRAM
- ABSOLUTE MAXIMUM RATINGS
- ELECTRO-OPTICAL CHARACTERISTICS
- INTERFACE PIN CONNECTIONS



EXTERNAL DIMENSION



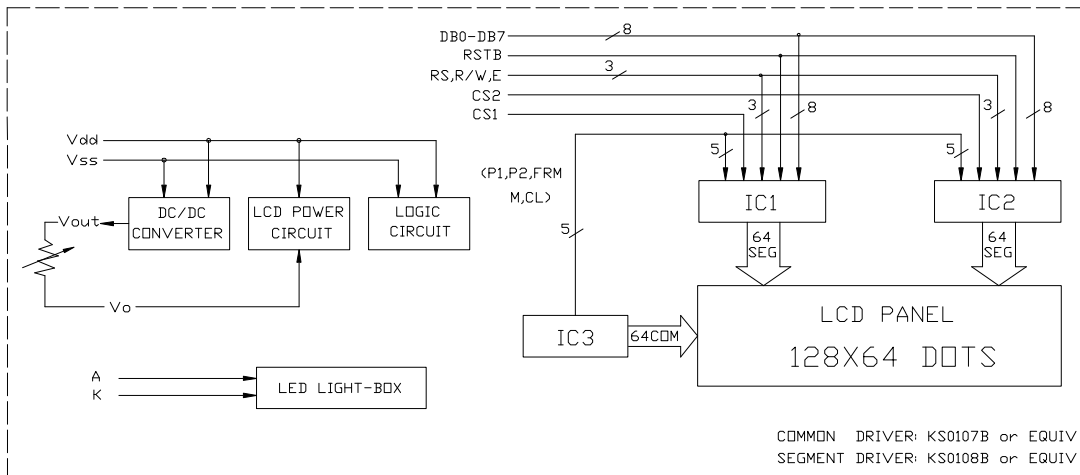
PHYSICAL DATA

Item	Contents	Unit
DIMENSIONAL OUTLINE	97.6(W)×60.6(H)×11.8(MAX)(T)	mm
VIEWING AREA	77.2(W)X40.0(H)	mm
EFFECTIVE AREA	66.52(W)×33.24(H)	mm
LCD TYPE	FSTN	---



LCD DUTY	1/64	---
LCD BIAS	1/9	---
VIEWING DIRECTION	6	o'clock
NUMBER OF DOTS	128×64	dots
DOT SIZE	0.48(W)×0.48(H)	mm
DOT PITCH	0.52(W)×0.52(H)	mm

■ BLOCK DIAGRAM



■ ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

ITEM	SYMBOL	MIN	MAX	UNIT
SUPPLY VOLTAGE FOR LOGIC	V _{DD}	-0.3	5.5	V
SUPPLY VOLTAGE FOR LCD	V _{LCD}	+0.3	9.7	V
INPUT VOLTAGE	V _{IN}	-0.3	V _{DD} + 0.3	V
OPERATING TEMPERATURE	T _{OP}	-20	70	°C
STORAGE TEMPERATURE	T _{ST}	-30	80	°C



■ ELECTRO-OPTICAL CHARACTERISTICS

1. Electro-Optic Characteristics:

Condition: TEMP=(23±3)°C Hum=(70±5)%RH V_{dd}: 5.0V

NO	Item	Symbol	Min	Typ.	Max	Unit	Condition
1	Supply Voltage(Logic)	V _{dd} -V _{ss}	--	5.0	--	V	
2	Supply Current (Logic)	I _{dd}		2.36		mA	V _{dd} =5V
3	LCD Operating Voltage	V _{dd} -V ₀		9.9		V	0°C
				9.7		V	25°C
				9.5		V	50°C
4	Response Time	T _{on}		97		ms	
		T _{off}		131		ms	
5	Contrast	CR	3				
6	Viewing Angel	12H	θ 1		40		Deg. (CR≥3.0)
		6H	θ 2		58		
		3H	θ 3		55		
		9H	θ 4		55		
7	LCD Threshold Voltage	V _{th}		7.66		V	25°C

2. Characteristics of backlight (LED unit)

(1).Absolute Maximum Ratings:

Item	Symbol	Typ.	Max.	Unit	Condition
Forward Current	IFM	100	200	mA	Ta=25°C
Reverse Voltage	VR	10		V	Ta=25°C
Power Dissipation	PD	420		mW	Ta=25°C

(2).Electrical-optical Characteristics:

Ltem	Symbol	Min	Typ	Max	Unit	Condition
Forward Voltage	VF		4.2	4.6	V	IF=100mA

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Reverse current	IR		0.2		mA	
Luminous	LV		60		cd/m ²	IF=100mA
Color	YELLOW-GREEN					

■ INTERFACE PIN CONNECTION

Pin No.	Symbol	Function
1	Vss	Ground
2	VDD	Supply power 5v
3	V0	LCD Driver Voltage Input,-4.5V
4	RS	The data bits are data or a command.
5	R/W	Read/write signal
6	E	Enable signal
7-14	D0-D7	The 8-bit bi-directional data bus to be connected to the MCU in parallel interface mode
15	/RES	System reset signal ,low level
16	VOUT	DC/DC converter output
17	CS1	Selection chip1
18	CS2	Selection chip2
19	BLA	LED Backlight +
20	BLK	LED Backlight -