

MC128064B6W-FPTLR-V2	128 x 64	LCD Module
Specification		
Version: 1	Date: 31/10/2016	
Revision		

Display Features	
Operating Temp. Range	-20°C ~ +70°C
Viewing Direction	6 O'Clock
STN	FSTN Transflective
Backlight	LED Red
Controller	NT7107C
Characters	128 x 64
Voltage	5V
Module Size	78.00 x 70.00 x 15.00 mm
Display Construction	Chip on Board



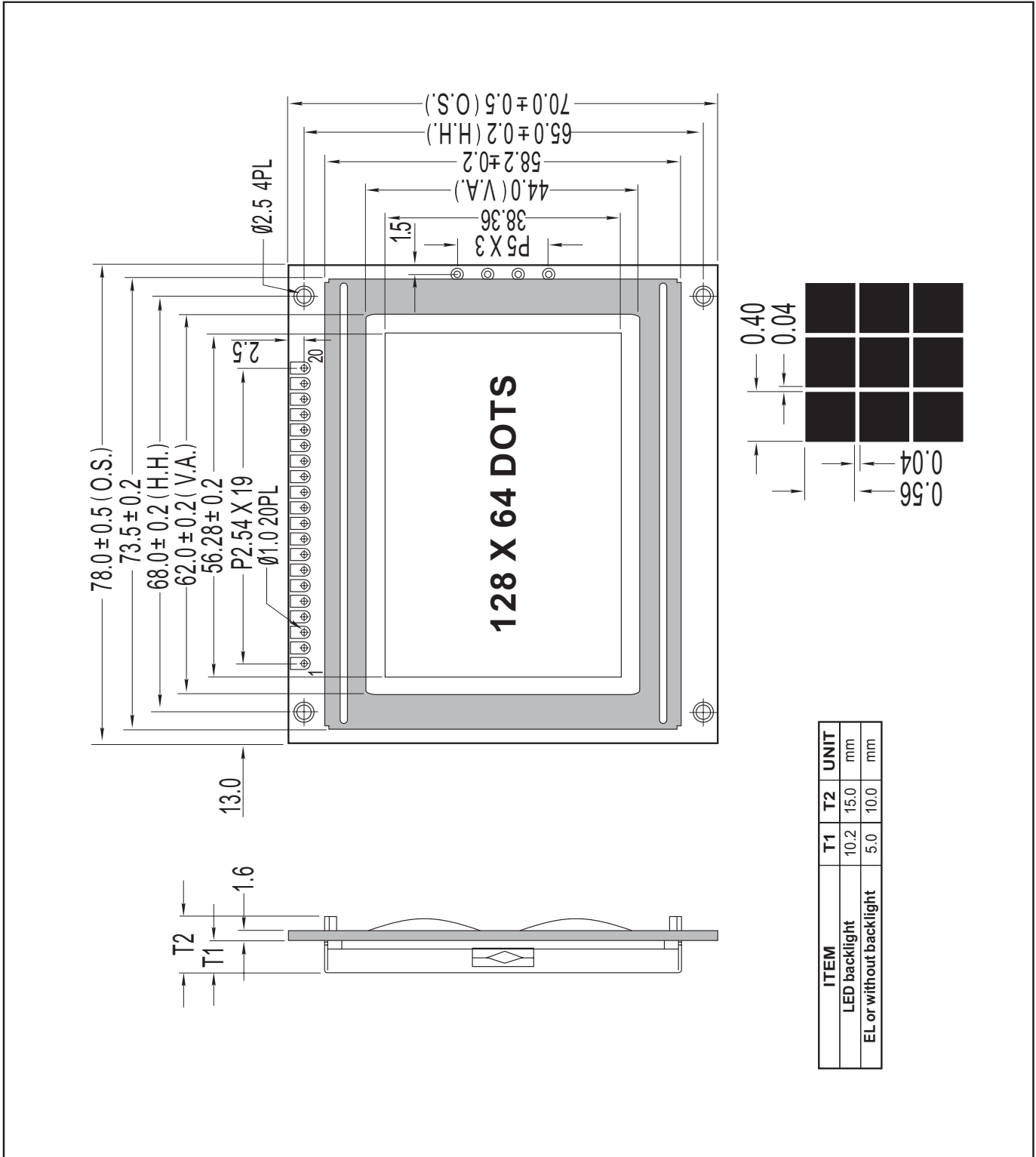
Box Quantity	Weight / Display
30 pcs	79.16 grams

* - For full design functionality, please use this specification in conjunction with the NT7107C specification. (Provided Separately)

Optional Variants			Display Accessories	
Fonts	Physical Aspects	Voltage	Part Number	Description
N/A	N/A	N/A	MCCMDB-16SIL	LCD interconnect board, can be driven from either a PC or a single board computer with a USB output.

Mechanical Specifications

Module Size	78.00 x 70.00 x 15.00 (With Backlight)				W x H x D mm
Viewing Area	62.00 x 44.00	W x H mm	Hole-to-Hole	68.00 x 65.00	W x H mm
Dot Size	0.40 x 0.56	W x H mm	Dot Pitch	0.04 x 0.04	W x H mm

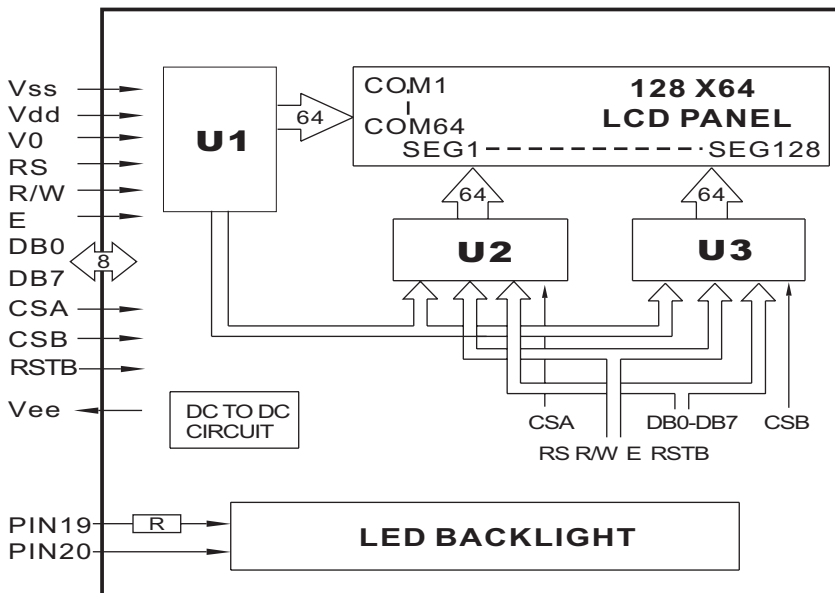


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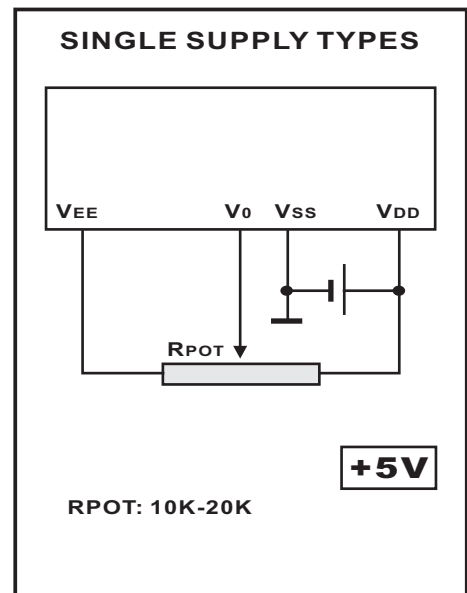
Pin Layout

D j b	G ra V c `	8 YgWjdH j cb	F Y a U f _g
1	CSA	When CSA=L, CSB=H, Select U2	
2	CSB	When CSB=L, CSA=H, Select U3	
3	Vss	GND	
4	Vdd	Power Supply for LCM	
5	V0	Contrast Adjust	
6	RS	Register Select Signal	
7	R/W	Data Read / Write	
8	E	Enable Signal	
9	DB0	Data bus Line	
10	DB1	Data bus Line	
11	DB2	Data bus Line	
12	DB3	Data bus Line	
13	DB4	Data bus Line	
14	DB5	Data bus Line	
15	DB6	Data bus Line	
16	DB7	Data bus Line	
17	RST	Reset Signal	
18	VEE	Negative Voltage Output	
19	LED+	Anode of LED Unit	5.0V
20	LED-	Cathode of LED Unit	0V

Block Diagram



Power Supply Diagram



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Absolute Maximum Ratings						
Item	Symbol	Condition	Min	Typ	Max	Unit
Power Supply (LOGIC)	Vdd	25°C	-0.3	---	7.0	V
Power Supply (LCD)	V0	25°C	Vdd -19.00	---	Vdd +0.3	V
Input Voltage	Vin	25°C	-0.3	---	Vdd +0.3	V
Operating Temperature	Vopr	---	-20	---	70	C
Storage Temperature	Vstg	---	-30	---	80	C

Electronic Characteristics						
Item	Symbol	Condition	Min	Typ	Max	Unit
Input Voltage	Vlcm = Vdd	+5V	2.7	5.0	5.5	v
Supply Current	Idd	Vdd=5V	---	2.1	---	mA
Driving Voltage for LCD Panel	Vlcd = (Vdd - V0)	-20°C	8.40	---	8.90	v
		0°C	8.10	---	8.55	
		25°C	8.00	---	8.40	
		50°C	7.90	---	8.30	
		70°C	7.75	---	8.10	

LCD Characteristics						
For STN/FSTN LCD Panel Types						
Item	Symbol	Condition	Min	Typ	Max	Unit
Viewing Angle	$\Phi 2 - \Phi 1$	K = 4	40°	---	---	Deg
	Θ		60°			
Contrast Ratio	K	---	---	10	---	---
Response Time (Rise)	TR	---	---	150	250	ms
Response Time (Fall)	TF	---	---	150	250	ms

LED Characteristics						
Item	Symbol	Condition	Min	Typ	Max	Unit
LED Forward Voltage	Vf	25°C	3.6	---	4.4	V
LED Forward Current*	If	25°C	---	240	---	mA
LED Reverse Current	Ir	25°C	---	---	240	A
LED Peak Wave Length	λp	25°C If=240mA	620	---	630	nm
LED Brightness (Without LCD)	Lv	25°C If=240mA	---	---	---	cd/m ²
LED Life Time	---	25°C If=240mA	9K	---	---	Hours

Attention: It is constant current, not constant voltage, which should be applied when driving the LED backlight, please ensure you adhere to this rule.

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