

MC240064A6W-FPTLW-V2	240 x 64	Font Set	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 White
Controller	SAP1024B
Characters	240 x 64
Voltage	5V
Module Size	180.00 x 65.00 x 13.00 mm
Display Construction	Chip on Board



Box Quantity	Weight / Display
15 pcs	150 grams

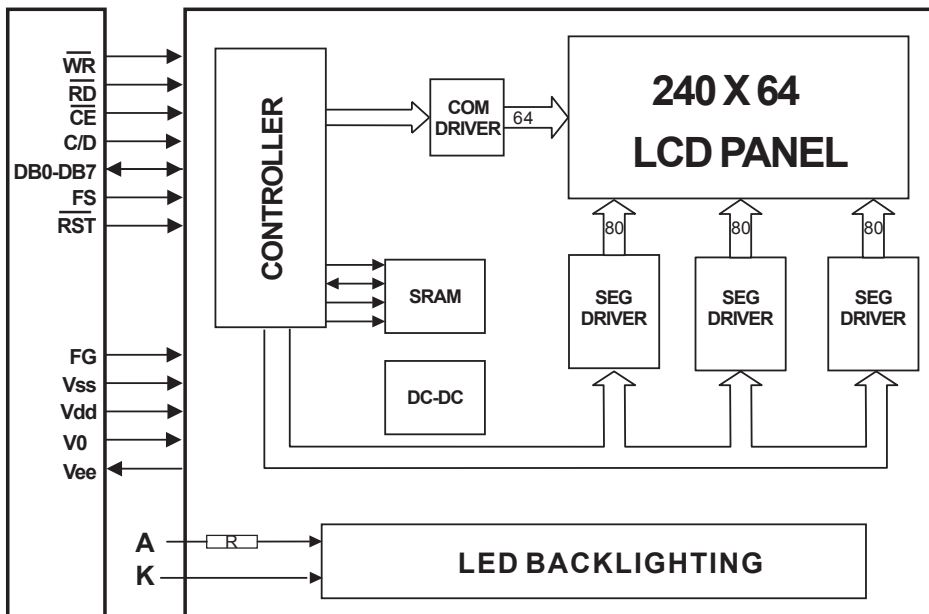
* - For full design functionality, please use this specification in conjunction with the SAP1024B specification. (Provided Separately)

Optional Variants			Display Accessories	
Fonts	Physical Aspects	Voltage	Part Number	Description
Font Set	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.
			MCC1A20DILP-20DIL S-150	20 Way, Dual in-line to Dual in-line Connector Cable.

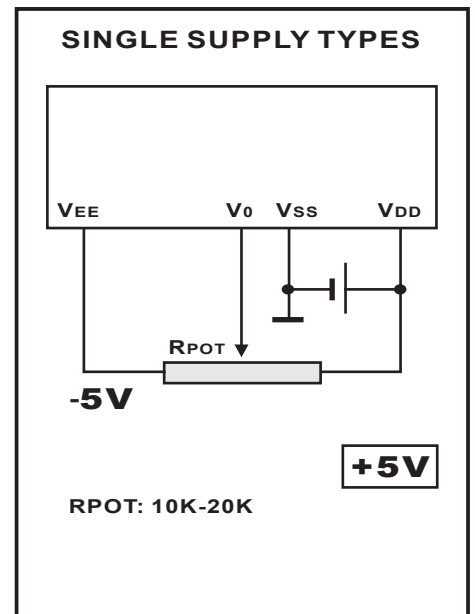
Pin Layout

3IQ	6\ P ERO	' H\FUSWRQ	5 HP DUW
1	FG	Module Frame Ground	
2	Vss	GND	
3	Vdd	Power Supply for LCM	5.0V
4	V0	Contrast Adjust	
5	WR	Data Write	
6	RD	Data Read	
7	CE	Chip Enable	
8	C/D	Command / Data Select	
9	Vee	Operating Voltage for LCD	
10	RST	Reset Signal	
11	DB0	Data bus Line	
12	DB1	Data bus Line	
13	DB2	Data bus Line	
14	DB3	Data bus Line	
15	DB4	Data bus Line	
16	DB5	Data bus Line	
17	DB6	Data bus Line	
18	DB7	Data bus Line	
19	FS	Font Selection	
20	NC	No Connection	
A	LED+	Anode of LED Unit	5.0V
K	LED-	Cathode of LED Unit	0V

Block Diagram



Power Supply Diagram



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Font Map

ROM Code 0101

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
LSB MSB																
0																
1																
2																
3																
4																
5																
6																
7																

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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	4.7	5.0	5.5	v
Supply Current	Idd	Vdd=5V	---	2.5	---	mA
Driving Voltage for LCD Panel	Vlcd = (Vdd - V0)	-20°C	11.70	---	12.10	v
		0°C	11.45	---	11.95	
		25°C	11.40	---	11.90	
		50°C	11.00	---	11.50	
		70°C	10.40	---	11.10	

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	2.9	---	3.4	V
LED Forward Current*	If	25°C	---	60	80	mA
LED Reverse Current	Ir	25°C	---	40	---	A
LED Colour Range	X Coordinate	25°C If=60mA	0.26	---	0.28	---
	Y Coordinate		0.27	---	0.29	---
LED Brightness (Without LCD)	Lv	25°C If=60mA	160	---	210	cd/m ²
LED Life Time	---	25°C If=60mA	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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