

MC41605A6W-SPR-V2	4 x 16	5mm Character Height	LCD Module
Specification			
Version: 1		Date: 28/10/2016	
Revision			

Display Features	
Operating Temp. Range	-20°C ~ +70°C
Viewing Direction	6 O'Clock
STN	Yellow/Green Reflective
Backlight	N/A
Controller	SPLC780D
Characters	4 x 16
Voltage	5V
Module Size	87.00 x 60.00 x 9.50 mm
Character Height	5mm
Display Construction	Chip on Board

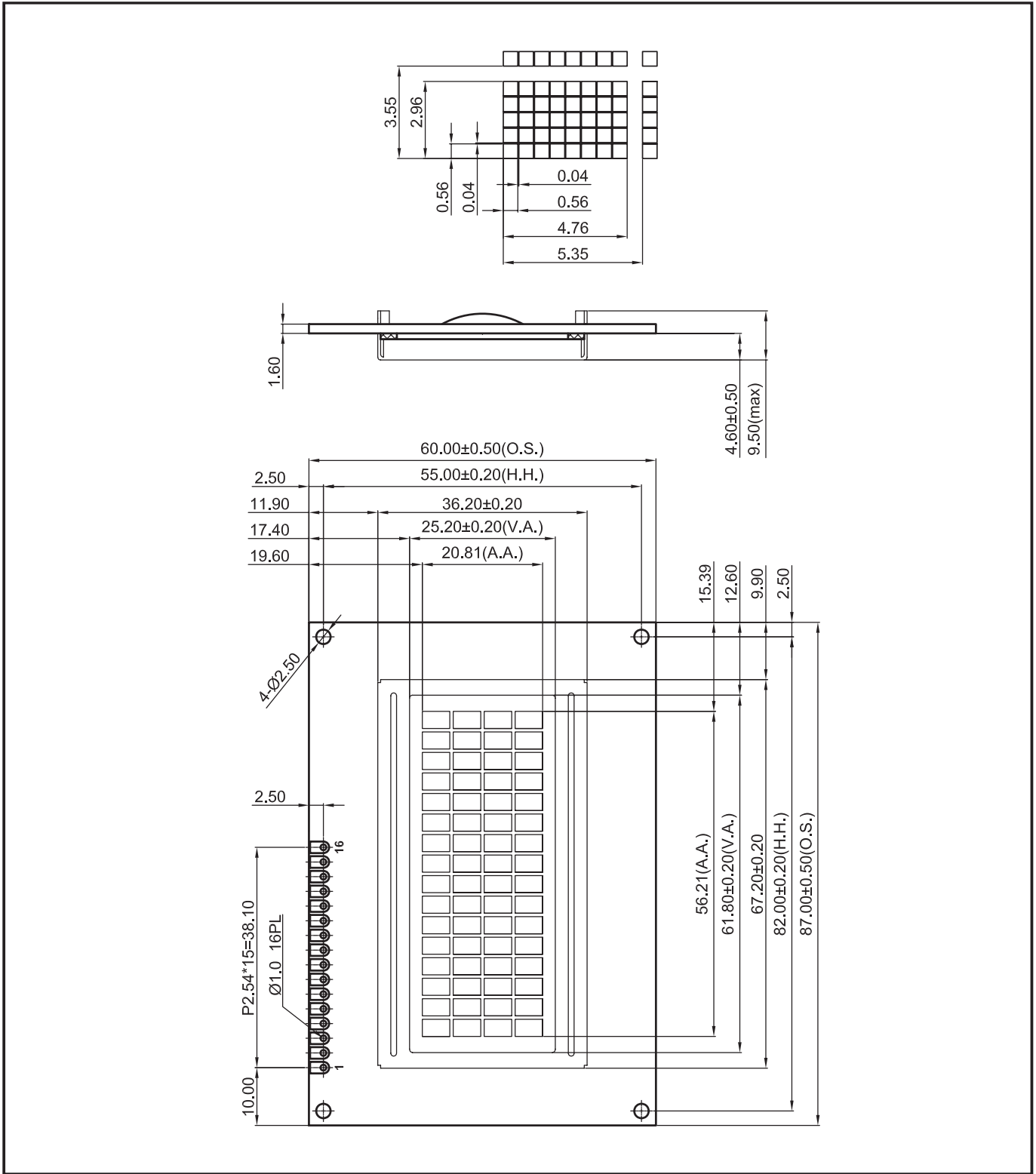


Box Quantity	Weight / Display
30 pcs	75 grams

* - For full design functionality, please use this specification in conjunction with the SPLC780D specification. (Provided Separately)

Optional Variants			Display Accessories	
Fonts	Physical Aspects	Voltage	Part Number	Description
English/Japanese	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.
			MCCBL1A16SILP-16DILS-150	16 Way, Single in-line to Dual In-line connector Cable.
			MCCBL1A16SILP-16SILS-150	16 Way, Single in-line to Single In-line connector Cable.

Mechanical Specifications					
Module Size	87.00 x 60.00 x 9.50 (Without Backlight)				W x H x D mm
Viewing Area	61.80 x 25.20	W x H mm	Hole-to-Hole	82.00 x 55.00	W x H mm
Character Size	2.96 x 4.76	W x H mm	Character Pitch	0.59 x 0.59	W x H mm
Dot Size	0.56 x 0.56	W x H mm	Dot Pitch	0.04 x 0.04	W x H mm



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Pin Layout			
PI	SYMBOL	DESCRIPTION	REMARKS
1	Vss	GND	
2	Vdd	Power supply for LCM	5.0V
3	V0	Contrast Adjust	
4	RS	Register Select Signal	
5	R/W	Data Read / Write	
6	E	Enable Signal	
7	DB0	Data bus line	
8	DB1	Data bus line	
9	DB2	Data bus line	
10	DB3	Data bus line	
11	DB4	Data bus line	
12	DB5	Data bus line	
13	DB6	Data bus line	
14	DB7	Data bus line	
15	NC	No Connection	
16	NC	No Connection	

Block diagram of a multi-segment LED display system. A large block U1 is connected to a series of smaller blocks U2, U3, and an LCD 16x4. U1 has 8 inputs and outputs. U2 and U3 are connected to U1 and the LCD. The LCD is connected to U1, U2, and U3. The LCD is labeled SEG1 to SEG160 and COM1 to COM16.

SINGLE SUPPLY TYPES

The diagram shows a potentiometer (RPOT) connected between V_{SS} and V_{DD} . The wiper is connected to V_0 . A $5V$ source is connected to V_{DD} . The potentiometer value is $10K-20K$.

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Font Map

Upper 4bit Lower 4bit		LLLL	LL LH	LL HL	LL HH	LH LL	LH LH	LH HL	LH HH	HLLL	HLLH	HLHL	HLHH	HHLL	HH LH	HH HL	HHHH
LLLL	CG RAM (1)																
LL LH	(2)																
LL HL	(3)																
LL HH	(4)																
LH LL	(5)																
LH LH	(6)																
LH HL	(7)																
LH HH	(8)																
HLLL	(1)																
HLLH	(2)																
HLHL	(3)																
HLHH	(4)																
HHLL	(5)																
HHLH	(6)																
HHHL	(7)																
HHHH	(8)																

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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 -13.5	---	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	---	---	5.0	---	V
Supply Current	Idd	Vdd=5V	---	1.5	---	mA
Driving Voltage for LCD Panel	Vlcd = (Vdd - V0)	-20°C	4.40	---	4.80	V
		0°C	---	---	---	
		25°C	4.25	4.50	4.75	
		50°C	---	---	---	
		70°C	4.05	---	4.55	

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

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