

MC21605F6WE-SPR	2 x 16	5mm Character Height	LCD Module
Specification			
Version: 1		Date: 20/10/2016	
Revision			

Display Features			
Character Count	2 x 16		
Appearance	Black on Yellow/Green		
Logic Voltage	5V		
Interface	Parallel		
Font Set	English / Japanese		
Display Mode	Reflective		
Character Height	4.67mm		
LC Type	STN		
Module Size	59.00 x 29.30 x 5.50 mm		
Operating Temperature	-20°C ~ +70°C		
Construction	COB		
LED Backlight	---	Box Quantity	Weight / Display
		---	---

* - For full design functionality, please use this specification in conjunction with the ST7066 specification. (Provided Separately)

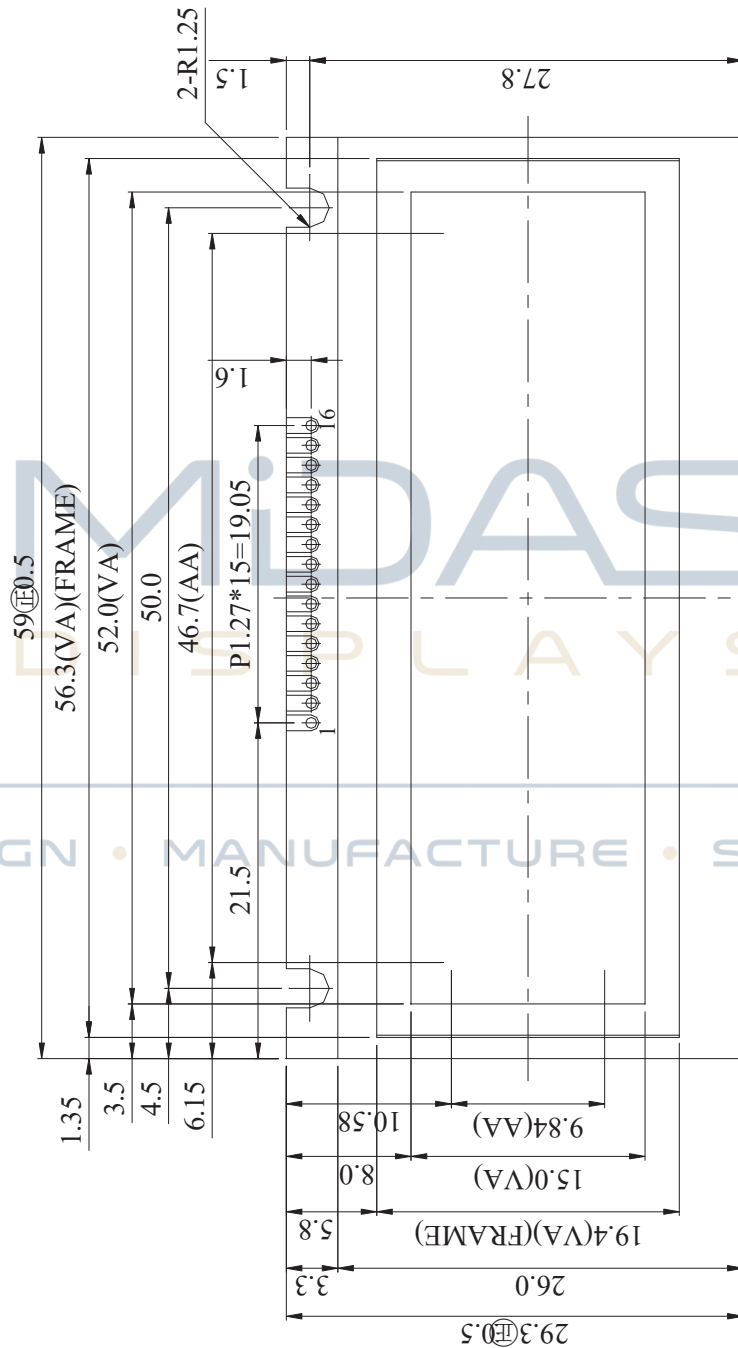
Display Accessories	
Part Number	Description
MCCMDB-16SIL	LCD Interconnect board, can be driven from either a PC or a single Board computer with a USB output.
MCCBL1A16SILP -16DILS-150	16 Way, Single in-line to Dual In-line connector Cable.
MCCBL1A16SILP -16SILS-150	16 Way, Single in-line to Single In-line connector Cable.

Optional Variants		
Fonts	Appearances	Voltage



Mechanical Specifications

Module Size	59.00 x 29.30 x 5.50 (Without Backlight)				W x H x D mm
Viewing Area	52.00 x 15.00	W x H mm	Hole-to-Hole	50.00	W
Character Size	2.45 x 4.67	W x H mm	Character Pitch	2.95 x 5.17	W x H mm
Dot Size	0.45 x 0.54	W x H mm	Dot Pitch	0.50 x 0.59	W x H mm

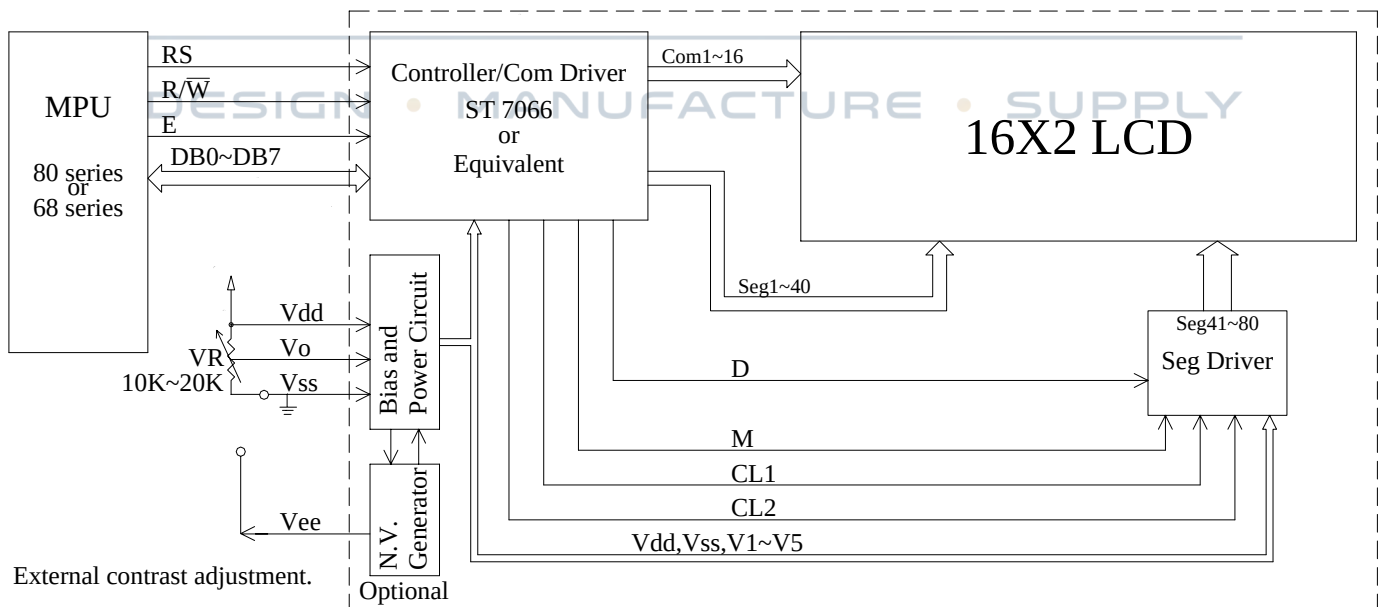


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Pin Layout

PI	SYMBOL	DESCRIPTION	REMARKS
1	NC	No Connection	
2	Vss	Ground	
3	Vdd	Supply Voltage for Logic	
4	V0	Operating Voltage	5.0V
5	RS	Instruction Code	
6	R/W	Read / Write	
7	E	Chip Enable Signal	
8	DB0	Data bus line	
9	DB1	Data bus line	
10	DB2	Data bus line	
11	DB3	Data bus line	
12	DB4	Data bus line	
13	DB5	Data bus line	
14	DB6	Data bus line	
15	DB7	Data bus line	5.0V
16	NC	No Connection	

DISPLAYS



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Font Map

Upper 4bit Lower 4bit	LLLL	LLLH	LLHL	LLHH	LHLL	LHLH	LHHL	LHHH	HLLL	HLLH	HLHL	HLHH	HHLL	HHLH	HHHL	HHHH
LLLL	CG RAM (1)															
LLLH	(2)															
LLHL	(3)															
LLHH	(4)															
LHLL	(5)															
LHLH	(6)															
LHHL	(7)															
LHHH	(8)															
HLLL	(1)															
HLLH	(2)															
HLHL	(3)															
HLHH	(4)															
HHLL	(5)															
HHLH	(6)															
HHHL	(7)															
HHHH	(8)															

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Absolute Maximums Ratings					
Item	Symbol	Minimum	Typical	Maximum	Unit
Power Supply (Logic)	Vdd	-0.3	---	7.0	V
Power Supply (LCD)	V0	Vss -0.3	---	13.0	V
Input Voltage	Vin	Vss	---	Vdd	V
Operating Temperature	T _{OP}	-20°C	---	70°C	°C
Storage temperature	T _{ST}	-30°C	---	80°C	°C

Electronic Characteristics						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Input Voltage High	V _{IH}	---	0.70	---	V _{DD}	V
Input Voltage Low	V _{IL}	---	Vss	---	0.60	V
Output Voltage High	V _{OH}	---	3.90	---	---	V
Output Voltage Low	V _{OL}	---	---	---	0.40	V
Supply Voltage Logic	V _{DD} - V _{SS}	---	4.50	5.00	5.50	V
Supply Voltage LCD	V _{DD} - V ₀	Ta=25°C	---	3.70	---	V
Supply Current	I _{DD}	V _{DD} =5.0V	---	1.20	1.50	mA

LCD Characteristics						
For STN/FSTN LCD Panel Types						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Viewing Angle	Φ2 - Φ1	CR ≥ 2	20	---	40	ψ=180°
	Θ	CR ≥ 2	-30	---	30	
Contrast Ratio	CR	---	---	3	---	---
Response Time (Rise)	TR	25°C	---	260	---	ms
Response Time (Fall)	TF	25°C	---	280	---	ms

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