


MC144032B6WC-SPTLY	144 x 32	Font Set	LCD Module
Specification			
Version: 1		Date: 31/10/2016	
Revision			

Display Features					
Resolution	144 x 32				
Appearance	Black on Yellow/Green				
Logic Voltage	5V				
Interface	Parallel				
Font Set	English/European/Japanese				
Display Mode	Transflective				
LC Type	STN				
Module Size	80.00 x 36.00 x 13.20				
Operating Temperature	-20°C ~ +70°C				
Construction	COB	Box Quantity	Weight / Display		
LED Backlight	Yellow/Green	---	---		

* - For full design functionality, please use this specification in conjunction with the ST7920 specification. (Provided Separately)

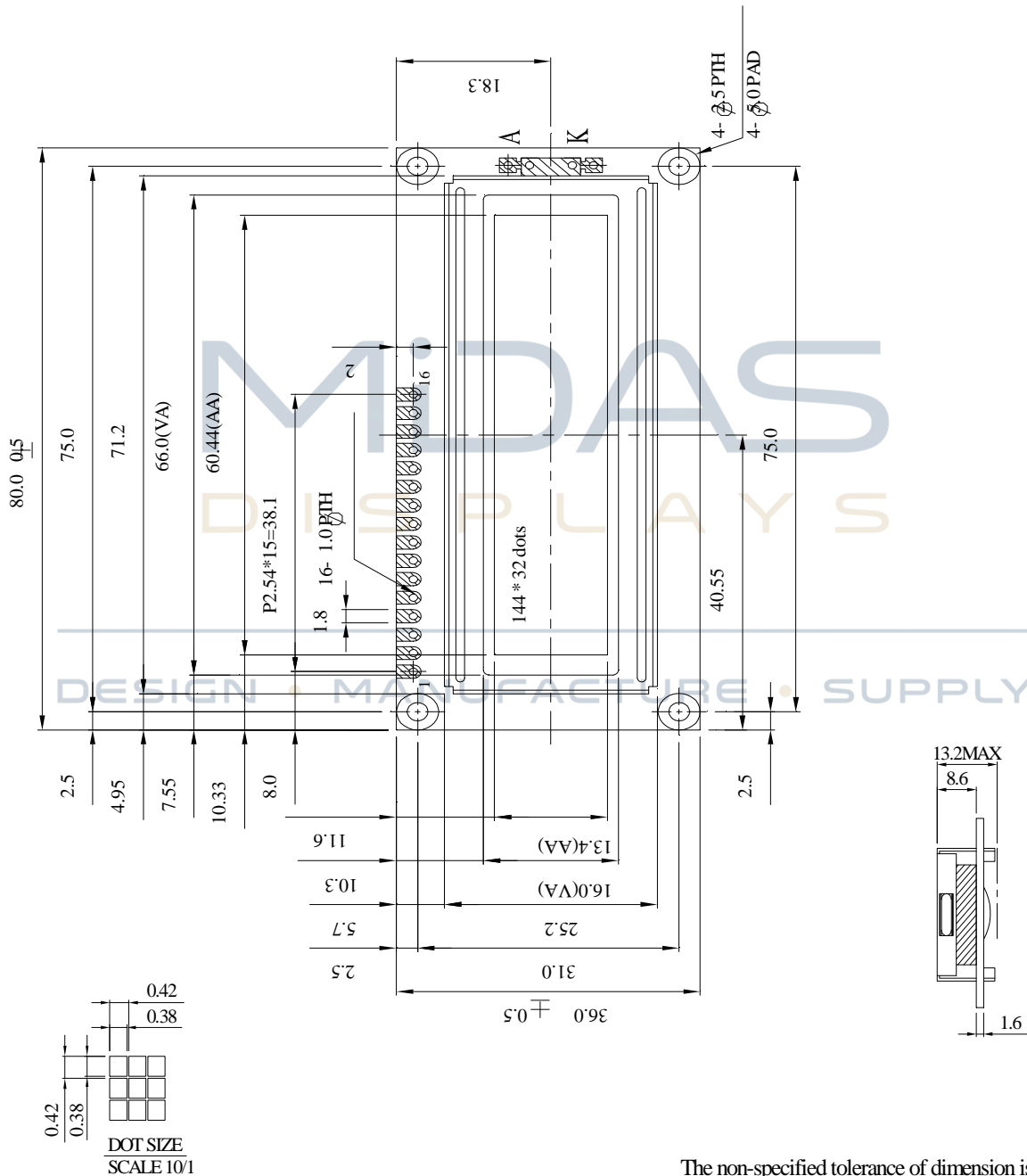
Display Accessories	
Part Number	Description
MCC1A200ILP-F1 A	F1 Way, 0.5m In-line to Dual DILS-150
MCC1A200ILP-F1 A	F1 Way, 0.5m In-line to 0.5m In-line connector Cable.
T00T000F100	Display Interface Board, with USB connection.

Optional Variants	
Appearances	Voltage



Mechanical Specifications

Module Size	MC144032B6WC-SPTLY (With Backlight)				W x H x D mm
Viewing Area	66.0 x 16.0	W x H mm	Hole-to-Hole	75.00 x 31.00	W x H mm
Dot Size	0.49 x 0.49	W x H mm	Dot Pitch	0.04 x 0.04	W x H mm

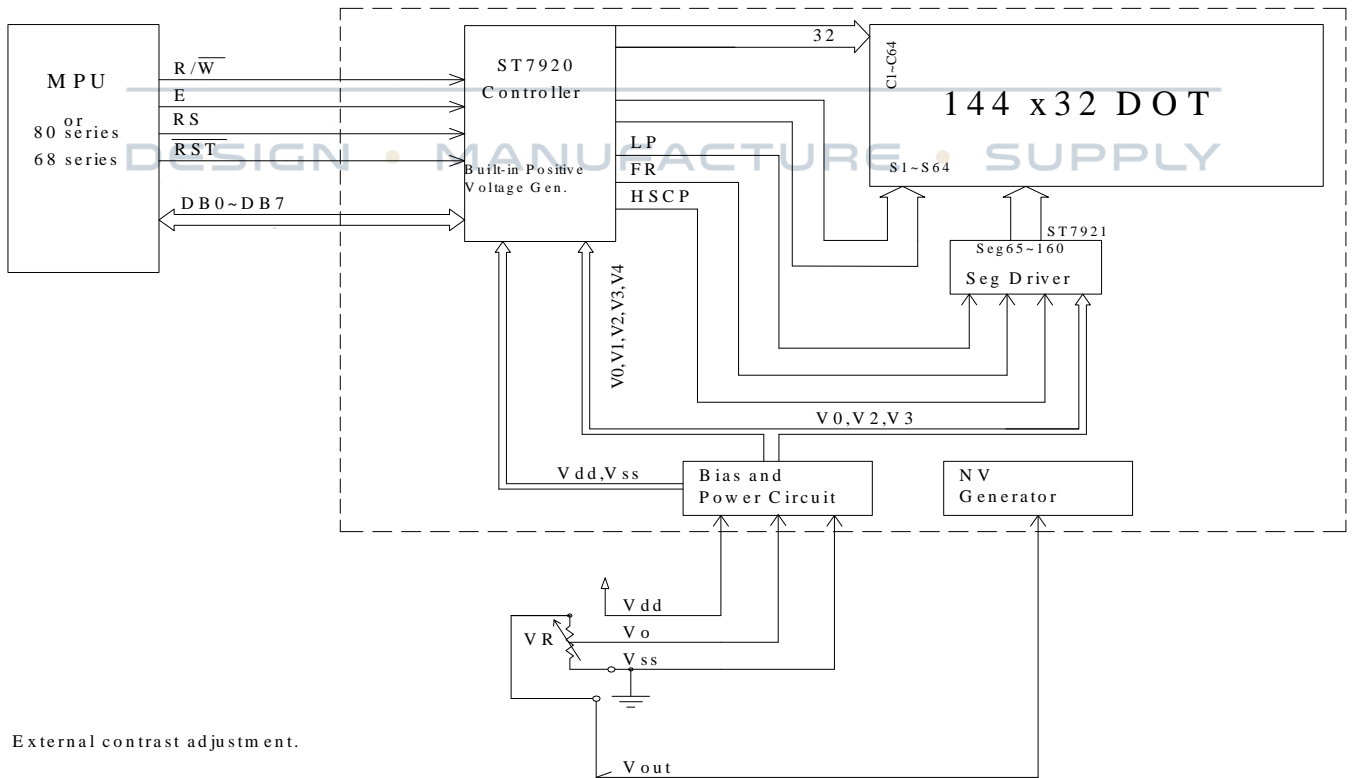


The non-specified tolerance of dimension is 0.3mm.

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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	Data Instruction	
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	Vout	Positive Voltage Output	
16	NC	No Connection	



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Font Map

ROM Code 0101

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

DESIGN • MANUFACTURE • SUPPLY

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Absolute Maximum Ratings

Item	Symbol	Condition	Min	Typ	Max	Unit
Power Supply (LOGIC)	Vdd	25°C	-0.3	---	5.5	V
Power Supply (LCD)	Vlcd	25°C	0	---	7.0	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	Minimum	Typical	Maximum	Unit
Input Voltage High	V _{IH}	---	0.70	---	V _{DD}	V
Input Voltage Low	V _{IL}	---	-0.30	---	0.60	V
Output Voltage High	V _{OH}	---	0.80	---	Vdd	V
Output Voltage Low	V _{OL}	---	0	---	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	4.10	4.30	4.50	V
Supply Current	I _{DD}	V _{DD} =5.0V	2.00	2.50	3.50	mA

LCD Characteristics

For STN/FSTN LCD Panel Types						
Item	Symbol	Condition	Min	Typ	Max	Unit
Viewing Angle	Φ2 – Φ1	CR ≥ 2	20°	3	40	Deg
	Θ		-30°		30	
Contrast Ratio	K	---	---	3	---	---
Response Time (Rise)	TR	---	---	200	300	ms
Response Time (Fall)	TF	---	---	200	300	ms

LED Characteristics

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Supply Current	I _{LED}	V=4.2V	90	100	120	mA
Supply Voltage	V	---	4.00	4.20	4.40	V
Reverse Voltage	VR	---	---	---	8	V
Luminance (Without LCD)	IV	I _{LED} =100mA	128	154	---	Cd/m ²
Wave Length	λP	I _{LED} =100mA	528	572	575	nm
LED Life Time	---	I _{LED} =100mA	---	100K	---	Hour

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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