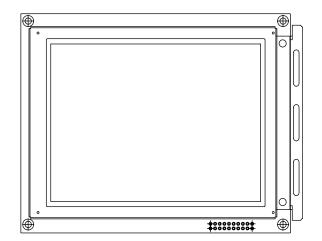




320 x 240 Graphic LCD



FEATURES

• Type: Graphic

• Display format: 320 x 240 dots

• Built-in controller: RA8835 and SRAM

Duty cycle: 1/240Built-in N.V.

• Touch screen option (analog type)

• Temperature compensation option

• Compliant to RoHS directive 2002/95/EC



MECHANICAL DATA				
ITEM	STANDARD VALUE	UNIT		
Module Dimension	148.02 x 120.24			
Viewing Area	120.14 x 92.14			
Dot Size	0.34 x 0.34			
Dot Pitch	0.36 x 0.36	mm		
Mounting Hole	139.98 x 116.61			
Character Size	N/a			

ABSOLUTE MAXIMUM RATINGS						
ITEM	SYMBOL	STAN	LIMIT			
IIEWI	STINIBUL	MIN.	TYP.	MAX.	UNIT	
Power Supply	V_{DD} to V_{SS}	4.75	5.0	5.25	V	
Input Voltage	VI	- 0.3	-	V_{DD}	V	

Note

• $V_{SS} = 0 \text{ V}, V_{DD} = 5.0 \text{ V}$

ELECTRICAL CHARACTERISTICS							
ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT	
	STWIBOL	CONDITION	MIN.	TYP.	MAX.	ONII	
Input Voltage	V_{DD}	L level	0.7 V _{DD}	-	V_{DD}	V	
	V _{IO}	H level	0	-	0.3 V _{DD}		
Supply Current	I _{DD}	V _{DD} = + 5.0 V	-	100	105	mA	
Recommended LC Driving		- 20 °C	-	-	26.1		
Voltage for Normal Temperature Version Module	V_0 to V_{SS}	25 °C	-	23.8	-	V	
		70 °C	20.9	-	-		
CCFL Starting Voltage	V _{FLS}	25 °C	-	600	-	V _{RMS}	
CCFL Driving Voltage	V _{FLD}	25 °C	-	268	-	V _{RMS}	
CCFL Driving Current	I _{FLD}	$V_{FQ} = 450 V_{RMS}$, 30 kHz	-	5.0	-	mA _{RMS}	
LED Forward Voltage	V _F	25 °C	-	4.2	4.6	V	
LED Forward Current	I _F	25 °C	-	180	360	mA	
EL Power Supply Current	I _{EF}	V _{EL} = 110 V _{AC} , 400 Hz	-	=	5.0	mA	

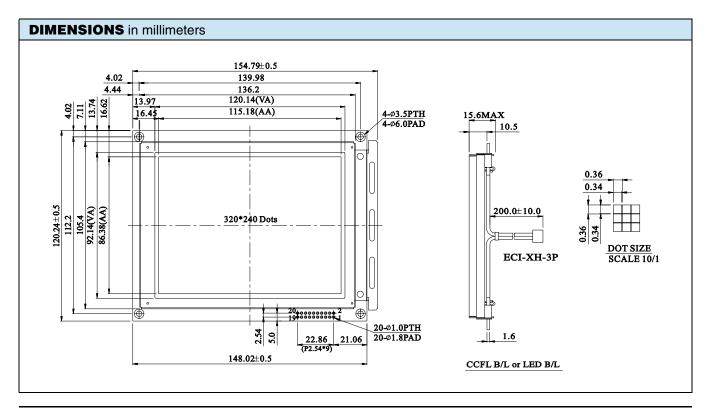
OPTION	OPTIONS								
PROCESS COLOR					BACKLIGHT				
TN	STN Gray	STN Yellow	STN Blue	FSTN B&W	STN Color	None	LED	EL	CCFL

For detailed information, please see the "Product Numbering System" document.

320 x 240 Graphic LCD



INTERFACE PIN FUNCTION					
PIN NO.	SYMBOL	FUNCTION			
1	V _{SS}	Ground			
2	V _{DD}	Power supply for logic			
3	V ₀	Driving voltage for LCD			
4	RD	8080 family: Read signal/6800 family: Enable clock			
5	WR	8080 family: Write signal/6800 family: R/W signal			
6	A ₀	Data type select For 80 family: RD = L, WR = H; AO = L: Data read, AO = H: Status read RD = H, WR = L; AO = L: Data write, AO = H: Command write For 68 family: R/W = L; AO = H: Command write, AO = L: Data write R/W = H; AO = H: Status read, AO = L: Data read			
7	DB0	Date bus line			
8	DB1	Date bus line			
9	DB2	Date bus line			
10	DB3	Date bus line			
11	DB4	Date bus line			
12	DB5	Date bus line			
13	DB6	Date bus line			
14	DB7	Date bus line			
15	CS	Chip select, active L			
16	RES	Controller reset signal, active L			
17	V _{EE}	Negative voltage output (optional)			
18	F _{GND}	Frame ground			
19	NC	No connection			
20	NC	No connection			





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