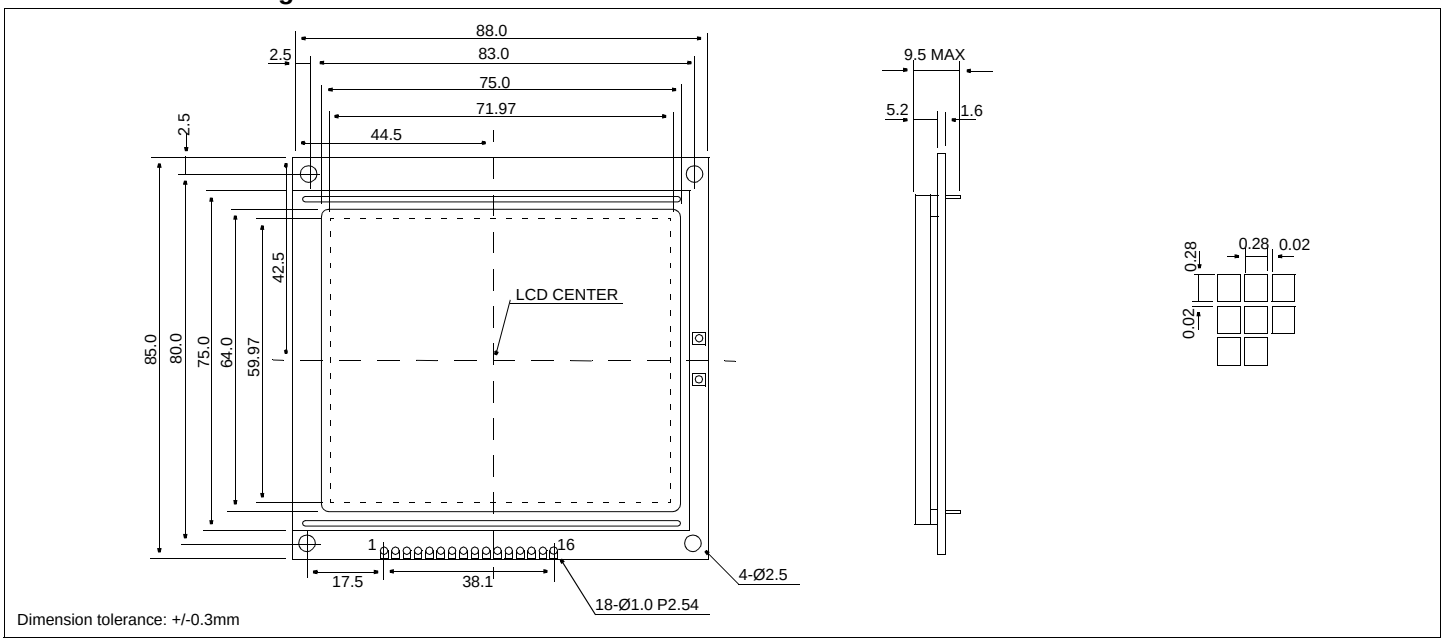
HDM240200

240 X 200 Dots Graphics, 3.3 volt

Dimensional Drawing



Dimension tolerance: +/-0.3mm

Features

Backlight.....EL Optional
Options.....Gray STN/Yellow STN/FSTN
Normal/Extended Temperature
Bottom / Top Viewing
Built-in Controller.....None

Physical Data

Module Size.....88.0W x 85.0H x 9.5T mm
Viewing Area Size.....75.0W x 64.0H mm
Dot Pitch.....0.30W x 0.30H mm
Dot Size.....0.28W x 0.28H mm
Weight.....120g

Pin Connections

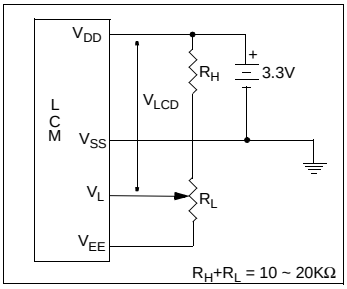
PIN NO.	SYMBOL	FUNCTION	
1	V_{DD}	+3.3v	Logic Power Supply
2	V_{SS}	-	Ground
3	FLM	H/L	Frame Pulse
4	CL1	H/H→L	Data latch signal
5	CL2	H/H→L	Data Shift
6	M	H/L	A/C Control Signal
7	DB0	H/L	Data bus
8	DB1	H/L	
9	DB2	H/L	
10	DB3	H/L	
11	DISPOFF	L	Display Off
12	FG		Frame Ground
13	V_{EE}		Output #
14	V_L	-	Operating voltage for LC
15	EL1		EL Backlight
16	EL2	-	EL Backlight

#Has built-in inverter for negative power supply

Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNIT
SUPPLY VOLTAGE	V_{DD}-V_{SS}	3.1	3.5	V
SUPPLY VOLTAGE FOR LCD	V_{DD}-V_{EE}	0	28.0	V
INPUT VOLTAGE	V_{IN}	-	4.0	V
OPERATING TEMPERATURE	T_{OP}	0	50	°C
STORAGE TEMPERATURE	T_{STG}	-20	70	°C

Power Supply



Electrical Characteristics (VDD=3.3±0.25V 25°C)

PARAMETER	SYM	CONDITION	MIN	TYP	MAX	UNIT
INPUT HIGH VOLTAGE	V_{IH}	-	0.7x V_{DD}	V_{DD}	-	V
INPUT LOW VOLTAGE	V_{IL}	-	-	V_{SS}	0.3x V_{DD}	V
OUTPUT HIGH VOLTAGE	V_{OH}	I_{OH}=0.4mA	V_{DD} -0.4	-	-	V
OUTPUT LOW VOLTAGE	V_{OL}	I_{OL}=0.4mA	-	-	0.4	V
SUPPLY VOLTAGE	V_{DD}	-	3.1	3.3	3.5	V
	-V_{EE}	-	-	22.7	-	V
POWER SUPPLY CURRENT	I_{DD}	V_{DD}=3.0V	-	-	10.0	mA
	-I_{EE}	V_{EE}=-20.2V	-	-	5.0	mA
POWER SUPPLY FOR LCD	V_{DD}-V_L	T_A=25°C	-	20.2	-	V
FRAME FREQUENCY	f_{FP}	-	65	72	80	Hz
DRIVE METHOD	1/200 DUTY					