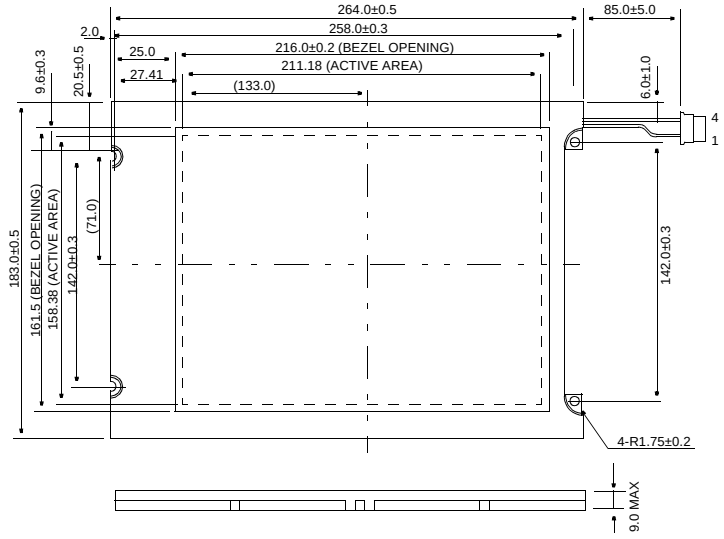
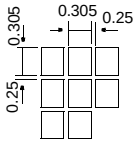
HDM6448-A

Dimensional Drawing

640 X 480 10.4" VGA Monochrome





CONNECTOR INFORMATION:

LCD
DISPLAY: 53261-1590 (MOLEX)
MATING: 51021-1500 (MOLEX)

CCFL
DISPLAY: M63M83-04 (MITSUMI)
MATING: M60-04-30-114P (MITSUMI)
M60-04-30-134P (MITSUMI)
M61M73-04 (MITSUMI)

Dimension tolerance: +/-0.3mm

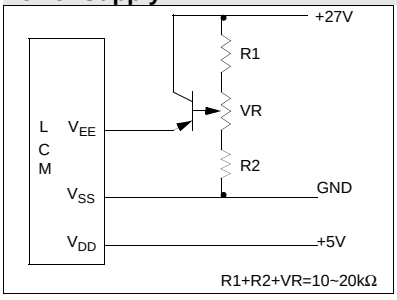
Features

Backlight.....CCFL
Options.....Black and White FSTN, Bottom View
Normal/ Extended Temperature
Built-in Controller.....None

Physical Data

Module Size.....264.0W x 183.0H x 10.0T mm
Viewing Area Size.....216.0W x 161.2H mm
Dot Pitch.....0.33W x 0.33H mm
Dot Size.....0.305W x 0.305H mm
Weight.....500g

Power Supply



Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNIT
SUPPLY VOLTAGE	V_{DD}-V_{SS}	-0.3	6.5	V
SUPPLY VOLTAGE FOR LCD	V_{EE}-V_{SS}	0	27.0	V
INPUT VOLTAGE	V_{IN}	-0.3	V_{DD}+0.3	V
OPERATING TEMPERATURE	T_{OP}	0	50	°C
STORAGE TEMPERATURE	T_{STG}	-20	70	°C
HUMIDITY (NO CONDENSATION)	-	10	85	%RH

Electrical Characteristics (VDD=5.0±0.25V 25°C)

PARAMETER	SYM	CONDITION	MIN	TYP	MAX	UNIT
SUPPLY VOLTAGE	V_{DD}	-	4.5	5.0	5.5	V
	V_{EE}-V_{ss}	-	22.9	23.2	23.5	V
POWER SUPPLY CURRENT	I_{DD}	V_{DD}=5.0V	-	2.3	4.0	mA
	I_{EE}	V_{EE}-V_{ss}= 23.2V	-	10.3	16	mA
INPUT HIGH VOLTAGE	V_{IH}	-	.8V_{DD}	-	V_{DD}	V
INPUT LOW VOLTAGE	V_{IL}	-	0	-	.2V_{DD}	V
CCFL OP. VOLTAGE	V_{FL}	I_{FL}=5mArms	-	596	-	Vrms
CCFL OP. CURRENT	I_{FL}	V_{FL}=360V	4.0	5	6.0	mA
CCFL START VOLTAGE	V_{FLS}	-	-	-	1200	Vrms
CCFL FREQUENCY	f_{FL}	-	-	50	-	kHz
DRIVE METHOD	1/240 DUTY					

Pin Connections

PIN NO.	SYMBOL	LEVEL	FUNCTION
DATA CONNECTOR			
1	FP	H	First Line Marker
2	LP	H/L	Data Latch
3	SCP	H/L	Shift clock
4	DISPOFF	H/L	H=On, L=Off
5	V_{DD}	5V	Power supply for logic
6	V_{SS}	0V	Ground
7	V_{EE}	-	Operating voltage for LC
8	UD0	H/L	Upper screen data input
9	UD1	H/L	Upper screen data input
10	UD2	H/L	Upper screen data input
11	UD3	H/L	Upper screen data input
12	LD0	H/L	Lower screen data input
13	LD1	H/L	Lower screen data input
14	LD2	H/L	Lower screen data input
15	LD3	H/L	Lower screen data input
CCFL CONNECTOR			
1	V_{FLG}	-	Ground
2	NC	-	No Connection
3	NC	-	No Connection
4	V_{FL}	-	Power supply for CCFL