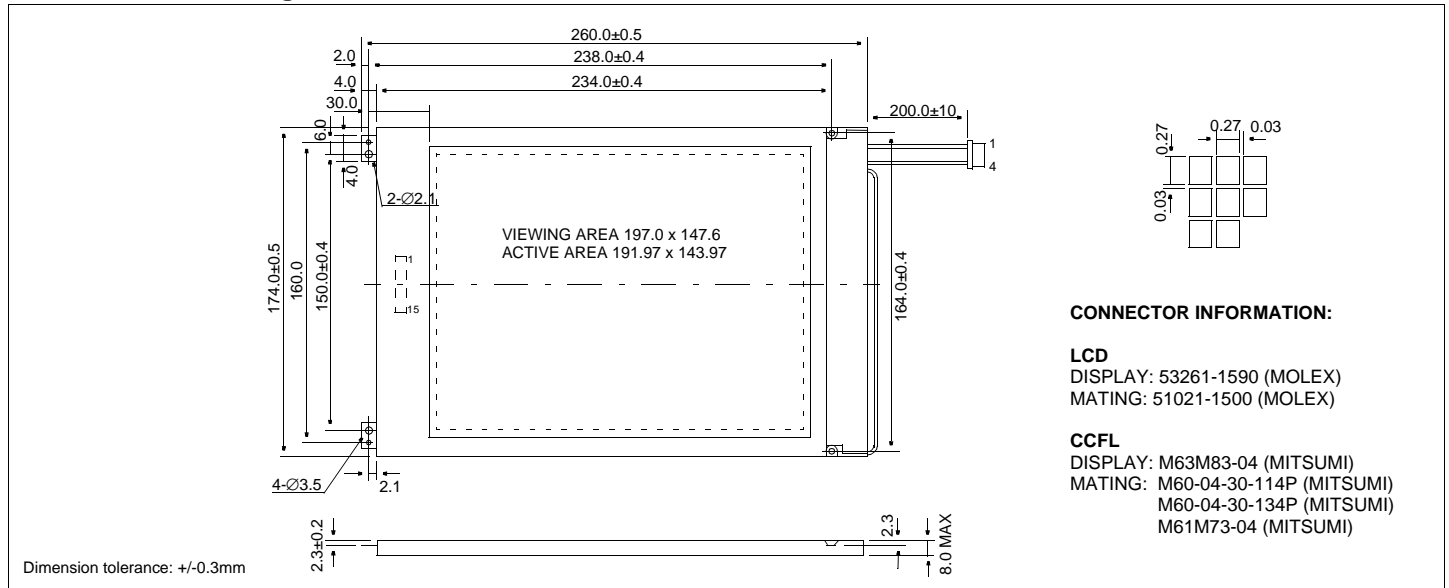


HDM6448-1

Dimensional Drawing

640 X 480 9.5" VGA Monochrome



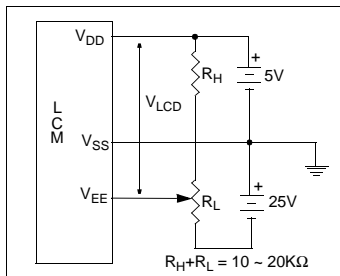
Features

Backlight.....CCFL
Options.....Black and White FSTN
Built-in Controller.....None

Physical Data

Module Size.....260.0W x 174.0H x 8.0T mm
Viewing Area Size.....197.0W x 147.6H mm
Dot Pitch.....0.30W x 0.30H mm
Dot Size.....0.27W x 0.27H mm
Weight.....354g

Power Supply



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

PARAMETER	SYM	CONDITION	MIN	TYP	MAX	UNIT
SUPPLY VOLTAGE	V _{DD}	-	4.75	5.0	5.25	V
	-V _{EE}	-	13.6	17.0	19.8	V
POWER SUPPLY CURRENT	I _{DD}	V _{DD} =5.0V	-	30.0	-	mA
	-I _{EE}	V _{EE} =-17.0V	-	20.0	-	mA
INPUT HIGH VOLTAGE	V _{IH}	-	4.5	-	V _{DD}	V
INPUT LOW VOLTAGE	V _{IL}	-	0.3	-	0.5	V
CCFL OP. VOLTAGE	V _{FL}	I _{FL} =5mArms	-	450	-	Vrms
CCFL OP. CURRENT	I _{FL}	V _{FL} =360V	-	5.0	-	mA
CCFL START VOLTAGE	V _{FLS}	T _a =0°C	-	-	-	Vrms
CCFL FREQUENCY	f _{FL}	-	-	30	-	kHz
FRAME FREQUENCY	f _{FP}	-	65	72	80	Hz
DRIVE METHOD	1/240 DUTY					

Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNIT
SUPPLY VOLTAGE	V _{DD} -V _{SS}	-0.3	6.5	V
SUPPLY VOLTAGE FOR LCD	V _{DD} -V _{EE}	0	27.0	V
INPUT VOLTAGE	V _{IN}	-0.3	V _{DD} +0.3	V
CCFL OPERATING VOLTAGE	V _{FL}	-	1500	Vrms
CCFL OPERATING CURRENT	I _{FL}	-	10	mArms
OPERATING TEMPERATURE	T _{OP}	0	50	°C
STORAGE TEMPERATURE	T _{STG}	-25	60	°C
HUMIDITY (NO CONDENSATION)	-	10	85	%RH

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