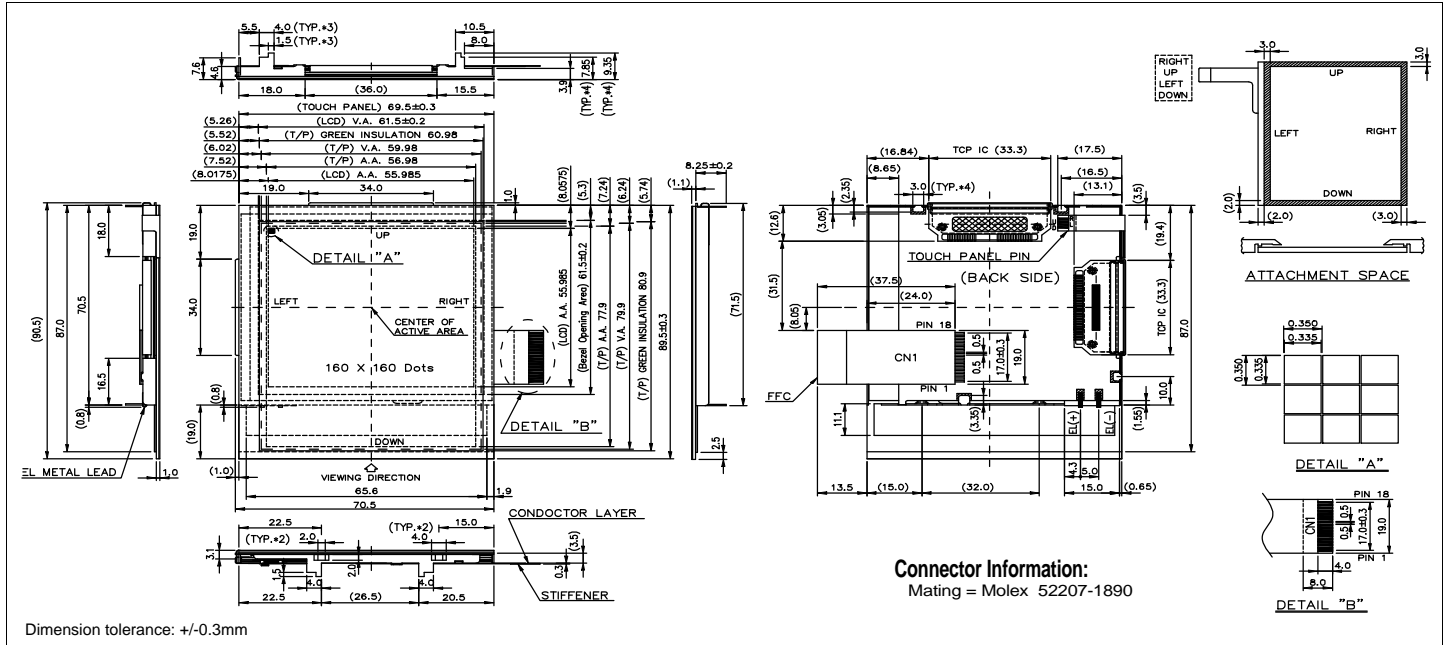


HDM 160GS16

Dimensional Drawing

160 X 160 Dots Graphic, Low Power w/Touch Screen



Features

- Backlight.....EL
- Options.....FSTN, Postive mode display
- Extended temperature, Bottom viewing
- Touch Screen
- Built-in Controller.....None

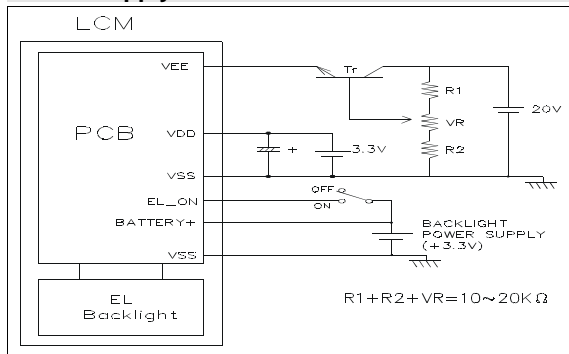
Physical Data

- Module Size.....70.5W x 90.5H x 10.8T mm
- Viewing Area Size.....61.5W x 61.5H mm
- Dot Pitch.....0.35W x 0.35H mm
- Dot Size.....0.335W x 0.335H mm
- Weight.....47.9g

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

PARAMETER	SYM	CONDITION	MIN	TYP	MAX	UNIT
OPERATING VOLTAGE	V _{DD}	-	3.0	3.3	3.6	V
POWER FOR LCD	V _{EE} - V _{SS}	-	20.2	20.5	20.8	V
INPUT HIGH VOLTAGE	V _{IH}	-	.8V _{DD}	-	V _{DD}	V
INPUT LOW VOLTAGE	V _{IL}	-	GND	-	.2V _{DD}	V
EL POWER SUP. CUR- RENT	I _{BATTERY}	V _{DD} =3.3V EL=ON		17.5	26.3	mA
POWER SUP. CURRENT	I _{DD}	V _{DD} =3.3V	-	0.03	0.05	mA
POWER SUP. CURRENT	I _{LCD}	V _{DD} =3.3V	-	1.0	1.5	mA
DRIVE METHOD	1/160 Duty					

Power Supply



Pin Connections

PIN NO.	SYMBOL	FUNCTION	
1	V _{SS}	0V	Ground
2	FLM	H	First line marker
3	CL1	H,H→L	Display data latch clock
4	CL2	H,H→L	Latch Pulse
5	M	H/L	AC driving control signal
6	V _{DD}	Power supply for logic +3.3v	
7	EL ON	EL Backlight Control (H=ON, L=OFF)	
8	V _{EE}	Power supply for LCD	
9	DB3	H/L	Data bus
10	DB2	H/L	
11	DB1	H/L	
12	DB0	H/L	
13	LEFT	Touch Panel Connections	
14	UP		
15	RIGHT		
16	DOWN		
17	V _{SS}	0V	Ground
18	BATTERY	3.3V	Power Supply for EL Backlight

Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNIT
SUPPLY VOLTAGE	V _{DD} -V _{SS}	-0.3	7.0	V
INPUT VOLTAGE	V _{EE} -V _{SS}	0	30.0	V
OPERATING TEMPERATURE	T _{OP}	0	50	°C
STORAGE TEMPERATURE	T _{STG}	-20	70	°C