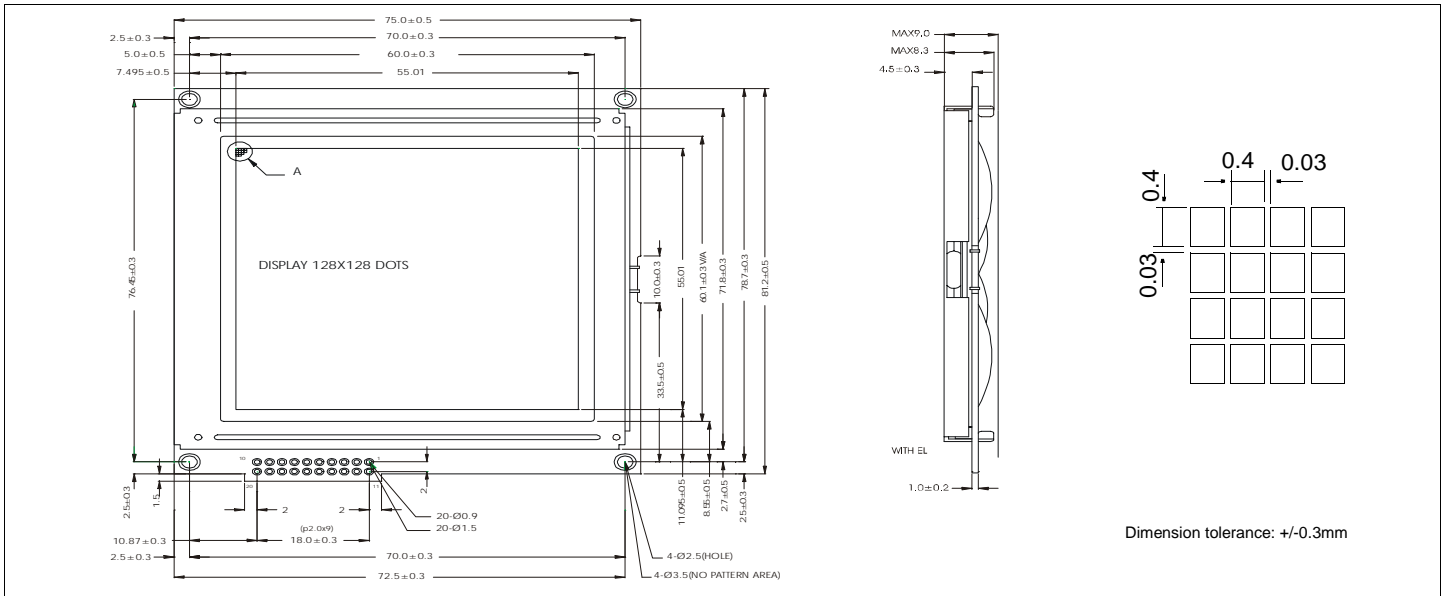


HDM128GS12-4

Dimensional Drawing

128 X 128 Dots Graphic



Features

- Backlight.....EL
- Options.....Gray STN / Yellow STN
- Normal / Extended Temperature
- Bottom / Top Viewing
- Built-in Controller.....Samsung KS018

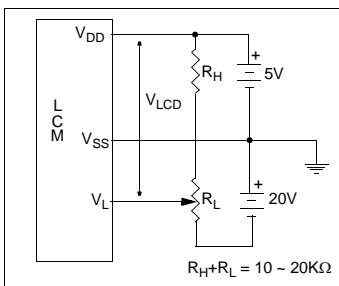
Physical Data

- Module Size.....75.0W x 82.7H x 9.0T mm
- Viewing Area Size.....62.0W x 62.0H mm
- Dot Pitch.....0.43W x 0.43H mm
- Dot Size.....0.40W x 0.40H mm
- Weight......60g

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

PARAMETER	SYM	CONDITION	MIN	TYP	MAX	UNIT
OPERATING VOLTAGE	V _{DD}	-	4.5	5.0	5.5	V
POWER SUPPLY FOR LCD	V _{DD} -V _L	-	-	17.8	-	V
LOGIC SUPPLY CURRENT	I _{DD}	V _{DD} =5.0V	-	2.27	-	mA
LCD SUPPLY CURRENT	I _L	V _{DD} =5.0V	-	9.8	-	mA
EL INPUT VOLTAGE	V _{EL}	-	-	100	150	Vrms
EL INPUT FREQUENCY	F _{EL}	-	-	400	-	Hz
BRIGHTNESS	L	I _f =500mA	152	180	-	cd/m ²
DRIVE METHOD	1/128 Duty					

Power Supply



Pin Connections

PIN NO.	SYMBOL	FUNCTION	
1	V _{DD}	5V	Power supply for logic
2	V _{SS}	0V	Ground
3	V _L	-	Operating voltage for LC
4	DB0	H/L	Data bus
5	DB1	H/L	
6	DB2	H/L	
7	DB3	H/L	
8	DB4	H/L	
9	DB5	H/L	
10	DB6	H/L	
11	DB7	H/L	
12	CS1	H	Left Half Chip Select
13	CS2	H	Right Half Chip Select
14	RESET	L	Reset
15	R/W	H/L	1=Data read, 0=Data write
16	D/I	H/L	1=Data, 0=Instruction
17	E	H/H->L	Enable Signal
18	V _{SS}	0V	Ground
19	EL	-	EL Backlight
20	EL	-	EL Backlight

Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNIT
SUPPLY VOLTAGE	V _{DD} -V _{SS}	-0.3	7.0	V
POWER SUPPLY FOR LCD	V _L	-0.3	30.0	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