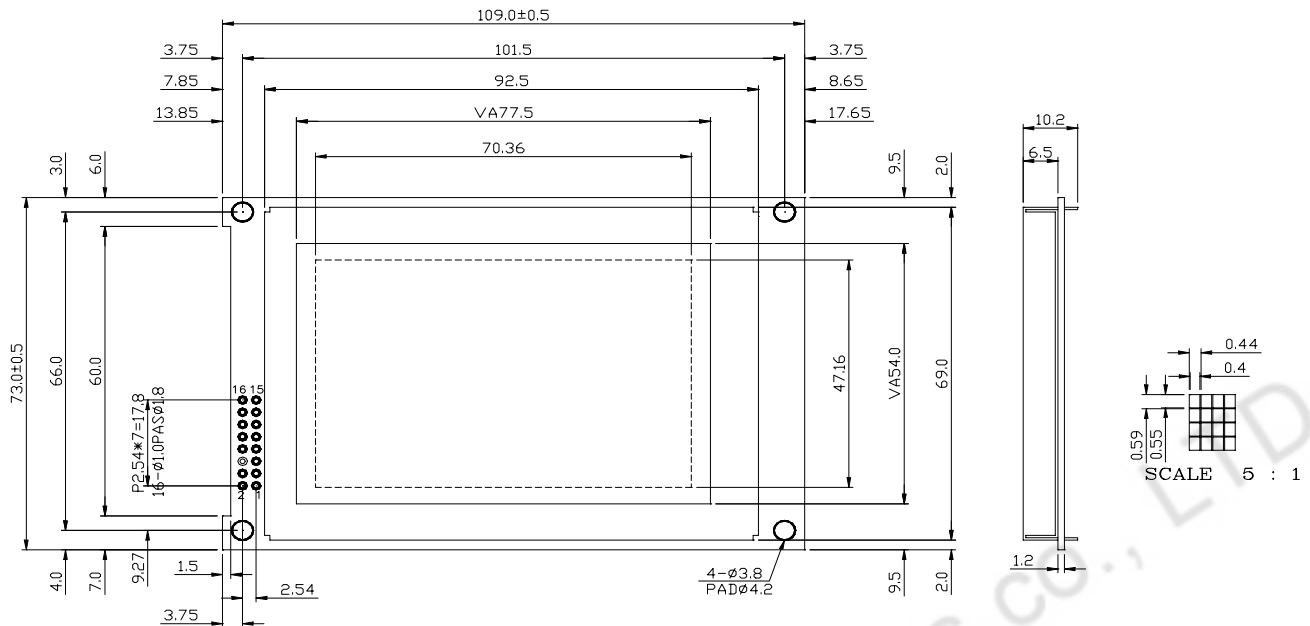




FEATURES

- ◆ NO BUILT-IN CONTROLLER
- ◆ 2.7~5.5V POWER SUPPLY
- ◆ 1/128 DUTY CYCLE
- ◆ 8-BIT PARALLEL INTERFACE

MECHANICAL DATA

ITEM	DIMENSIONS	UNIT
Module Size (W x H x T)	109.0 x 73.0 x 10.2	mm
Viewing Area (W x H)	77.5 x 54.0	mm
Active Area (W x H)	70.36 x 47.16	mm
Dot Size (W x H)	0.4 x 0.55	mm
Dot Pitch (W x H)	0.44 x 0.59	mm

INTERFACE PIN CONNECTIONS

NO.	SYMBOL	LEVEL	FUNCTION
1~4	DB0-DB3	H/L	Data Bus Line
5	/DispOFF	H/L	Display OFF.Active LOW
6	FRM	H	Frame start signal
7	LEDOFF	L	Power Supply For LED
8	CL1	H→L	Common Driver Data Shift Signal
9	CL2	H→L	Clock Pulse For Segment Shift Register
10	VDD	5V	Power Supply Voltage
11	VSS	0V	Power Supply Ground
12	VEE	-	Power Supply Voltage For LCD
13	Vo	-	Contrast Adjustment Voltage
14	FGND	-	Frame Ground
15	A	3.4V	LED Power (+)
16	K	0V	LED Power (-)

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT
Supply Voltage For Logic	VDD-VSS	0	-	7	V
Supply Voltage For LCD Drive	VDD-Vo	0	-	28	V
Input Voltage	Vi	VSS	-	VDD	V

ELECTRICAL CHARACTERISTICS

ITEM		SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage For Logic		V _{DD} -V _{SS}	-	2.7	5	5.5	V
LCD Supply Voltage		V _{DD} -V _o	V _{DD} =5V Ta=25℃	11.3	12.6	13.8	V
Supply Current		I _{DD}	V _{DD} =5V	-	20	30	mA
Input	"HIGH" Level	V _{IH}	-	2.2	-	V _{DD}	V
Voltage	"LOW" Level	V _{IL}	-	-	-	0.6	V
Output	"HIGH" Level	V _{OH}	-	2.4	-	-	V
Voltage	"LOW" Level	V _{OL}	-	-	-	0.4	V