SG16080A (160 DOTS X 80 DOTS)

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	V_{DD}	5V	Power Supply Voltage
11	V_{SS}	0V	Power Supply Ground
12	V_{EE}	-	Power Supply Voltage For LCD
13	V_O	-	Contrast Adjustment Voltage
14	FGND	-	Frame Ground
15	A	3.4V	LED Power (+)
16	K	0V	LED Power (-)

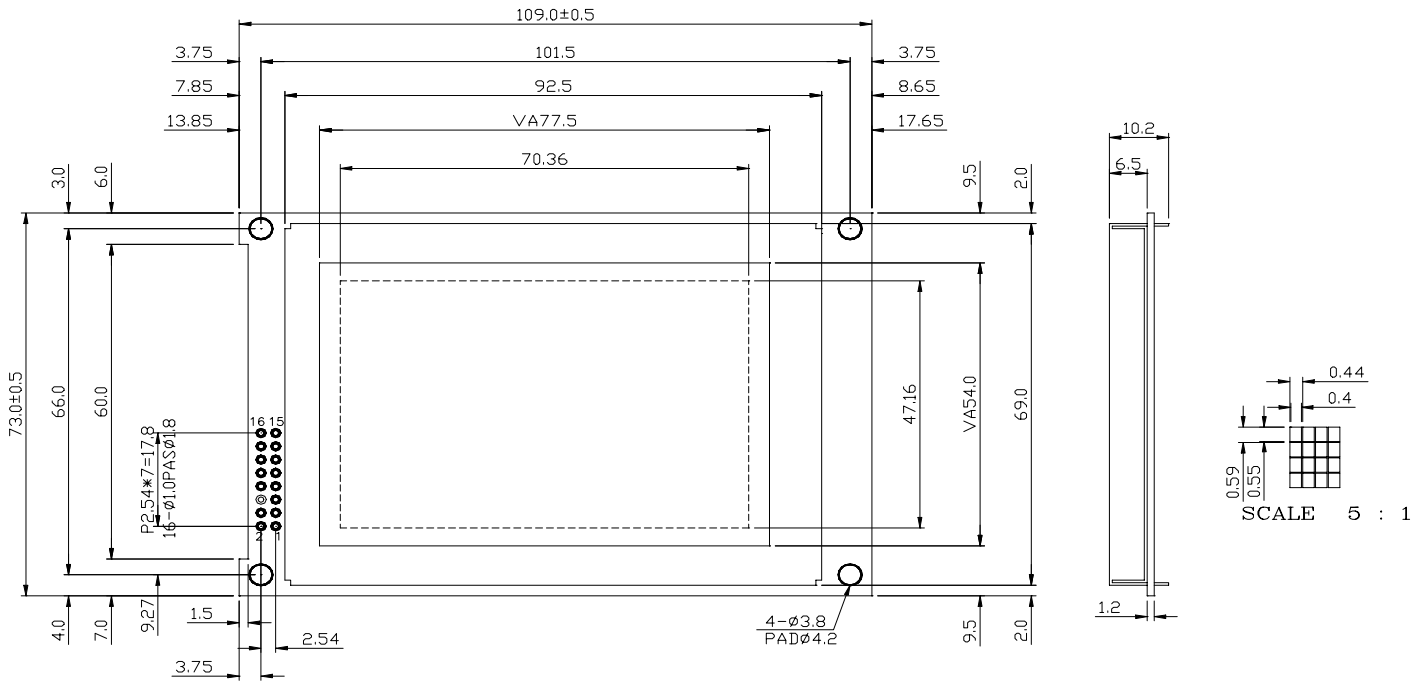
ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT
Supply Voltage For Logic	V_{DD}-V_{SS}	0	-	7	V
Supply Voltage For LCD Drive	V_{DD}-V_o	0	-	28	V
Input Voltage	V_I	Vss	-	V_{DD}	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 Voltage	"HIGH" Level	V_{IH}	-	2.2	-	VDD	V
	"LOW" Level	V_{IL}	-	-	-	0.6	V
Output Voltage	"HIGH" Level	V_{OH}	-	2.4	-	-	V
	"LOW" Level	V_{OL}	-	-	-	0.4	V

EXTERNAL DIMENSIONS



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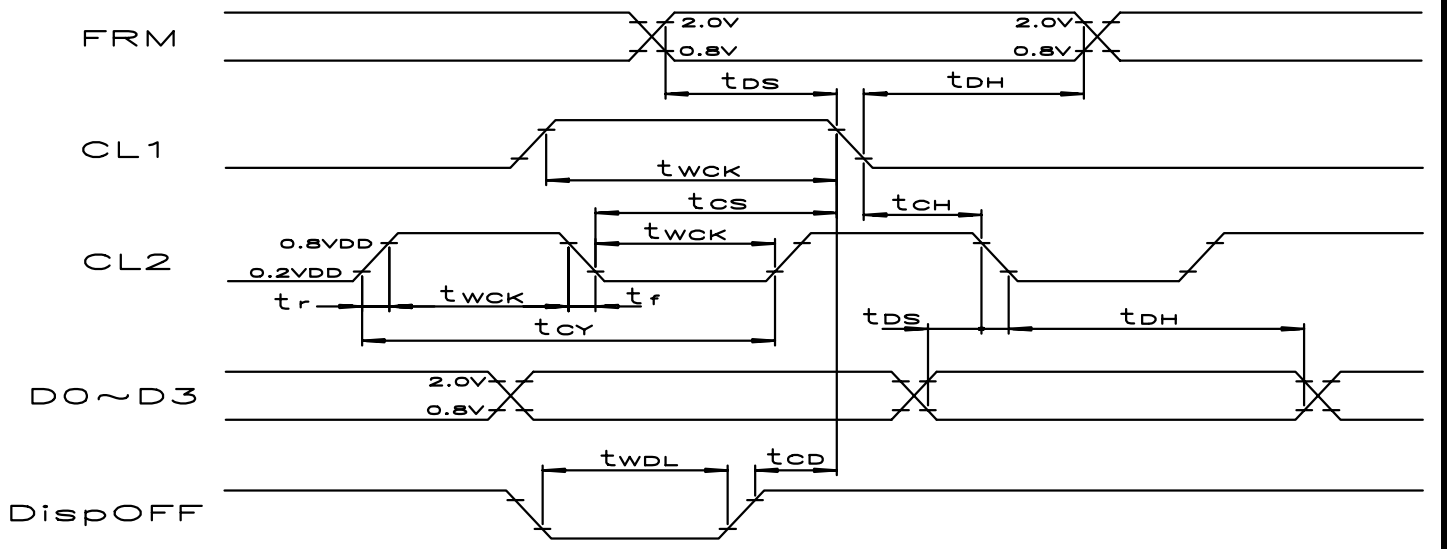
■ TIMING CHARACTERISTICS

ITEM	SYMBOL	TEST CONDITION	MIN.	MAX.	UNIT.
Clock cycle time	t_{CY}	Duty=50%	250	-	ns
Clock Pulse Width	t_{WCK}		95	-	ns
Data Set Up Time	t_{DS}		65	-	ns
Data Hold Time	t_{DH}		65	-	ns
Latch pulse 'H' width	t_{WCK}		95	-	ns
Input signal Rise/Fall Time	t_r, t_f		-	30	ns
Clock Set Up Time	t_{CS}		120	-	ns
Clock hold time	t_{CH}		120	-	ns
FRM set-up time	t_{DS}		30		ns
FRM hold time	t_{DH}		30		ns
DispOFF clear time	t_{CD}		100	-	ns
DispOFF 'L' pulse width	t_{WDL}		1.2	-	μs



■ BLOCK DIAGRAM