

SG320240H (320 DOTS X 240 DOTS)

FEATURES

- ◆ NO BUILT-IN CONTROLLER
- ◆ +3.3V POWER SUPPLY
- ◆ 1/240 DUTY CYCLE
- ◆ 4-BIT PARALLEL INTERFACE

MECHANICAL DATA

ITEM	DIMENSIONS	UNIT
Module Size (W x H x T)	154.6 x 114.8 x 8.5	mm
Viewing Area (W x H)	121.4 x 92.62	mm
Active Area (W x H)	115.17 x 86.37	mm
Dot Size (W x H)	0.33 x 0.33	mm
Dot Pitch (W x H)	0.36 x 0.36	mm

INTERFACE PIN CONNECTIONS

NO.	SYMBOL	LEVEL	FUNCTION
1~4	DB0~DB3	H/L	Data Bus Line
5	/DISPOFF	L	Display OFF Active LOW
6	FLM	H	Frame Signal
7	NC	-	No Connection.
8	CL1	H→L	Common Driver Data Shift Signal
9	CL2	H→L	Common Driver Data Shift Signal
10	VDD	3.3V	Logic 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	NC	-	No Connection.

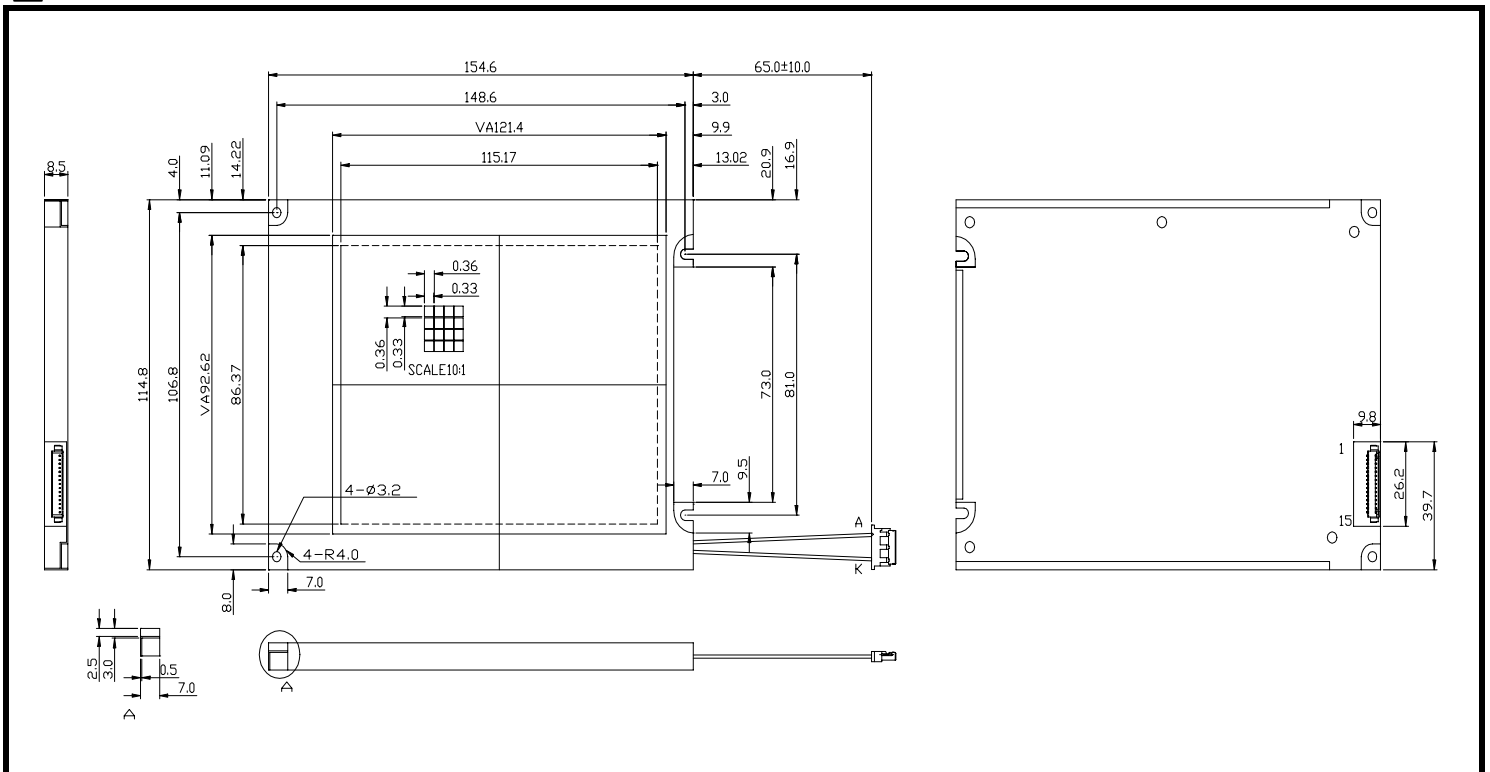
ABSOLUTE MAXIMUM RATINGS

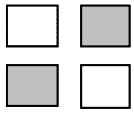
ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT
Supply Voltage For Logic	V _{DD} -V _{SS}	0	-	7	V
Supply Voltage For LCD Drive	V _{DD} -V _o	0	-	30	V
Input Voltage	V _i	V _{SS}	-	V _{DD}	V

ELECTRICAL CHARACTERISTICS

ITEM	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT	
Supply Voltage For Logic	V _{DD} -V _{SS}	-	2.7	3.3	4.5	V	
LCD Supply Voltage	V _{DD} -V _o	V _{DD} =3.3V Ta=25°C	21.3	22.5	23.7	V	
Supply Current	I _{DD}	V _{DD} =3.3V	-	4.5	6.5	mA	
Input Voltage	"HIGH" Level	V _{IH}	-	2.2	-	V _{DD}	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

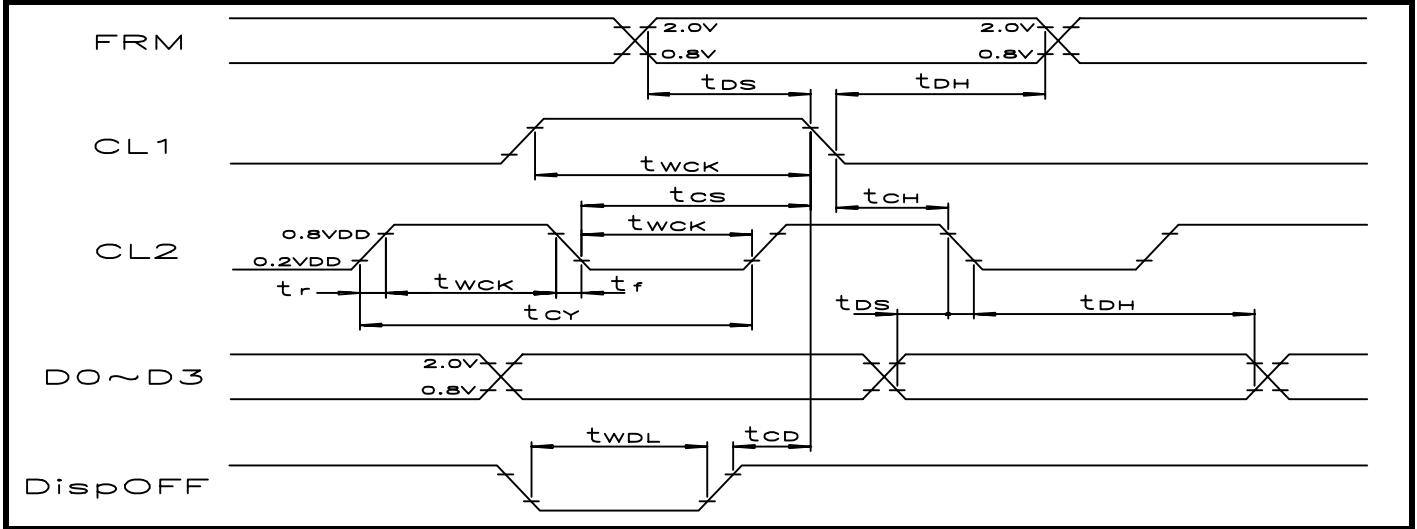




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TIMING CHARACTERISTICS

ITEM	SYMBOL	MIN.	TYP.	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

