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PRODUCT SPECIFICATION

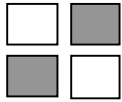
MONOCHROME LCD MODULE

PART NUMBER : FDG160160B

DESCRIPTION : 160x160Graphic

REVISION : Rev A

Approval for Specification only		Approval for Sample Only
Approval for Pre-production	x	Approval for Mass Production



FDG160160B (160 DOTS X160 DOTS)

FEATURES

- ◆ BUILT-IN CONTROLLER (SED1335 OR EQUIVALENT)
- ◆ +5 V POWER SUPPLY
- ◆ 1/160 DUTY CYCLE
- ◆ EDGE LIGHTING TYPE LED BACKLIGHT

MECHANICAL DATA

ITEM	DIMENSIONS	UNIT
Module Size (W x H x T)	88.8 x 88.8 x 9.4(13.8)	mm
Viewing Area (W x H)	62.0 x 62.0	mm
Active Area (W x H)	60.76 x 60.76	mm
Dot Size (W x H)	0.34 x 0.34	mm
Dot Pitch (W x H)	0.38 x 0.38	mm

INTERFACE PIN CONNECTIONS

NO.	SYMBOL	LEVEL	FUNCTION
1	VSS	0V	Power Supply Ground
2	VDD	5V	Power Supply Voltage
3	Vo	-	Contrast Adjustment Voltage
4	/RD	L	Read Signal
5	/WR	L	Write Signal
6	/CS	L	Chip Signal
7	A ₀	H/L	Data Type Select
8~15	DB0-DB7	H/L	Data Bus Line
16	/RES	L	Reset Signal
17	V _{EE}	-	Power Supply Voltage For LCD
18	A	4.2V	LED Power (+)
19	K	0V	LED Power (-)
20	NC	-	No Connection

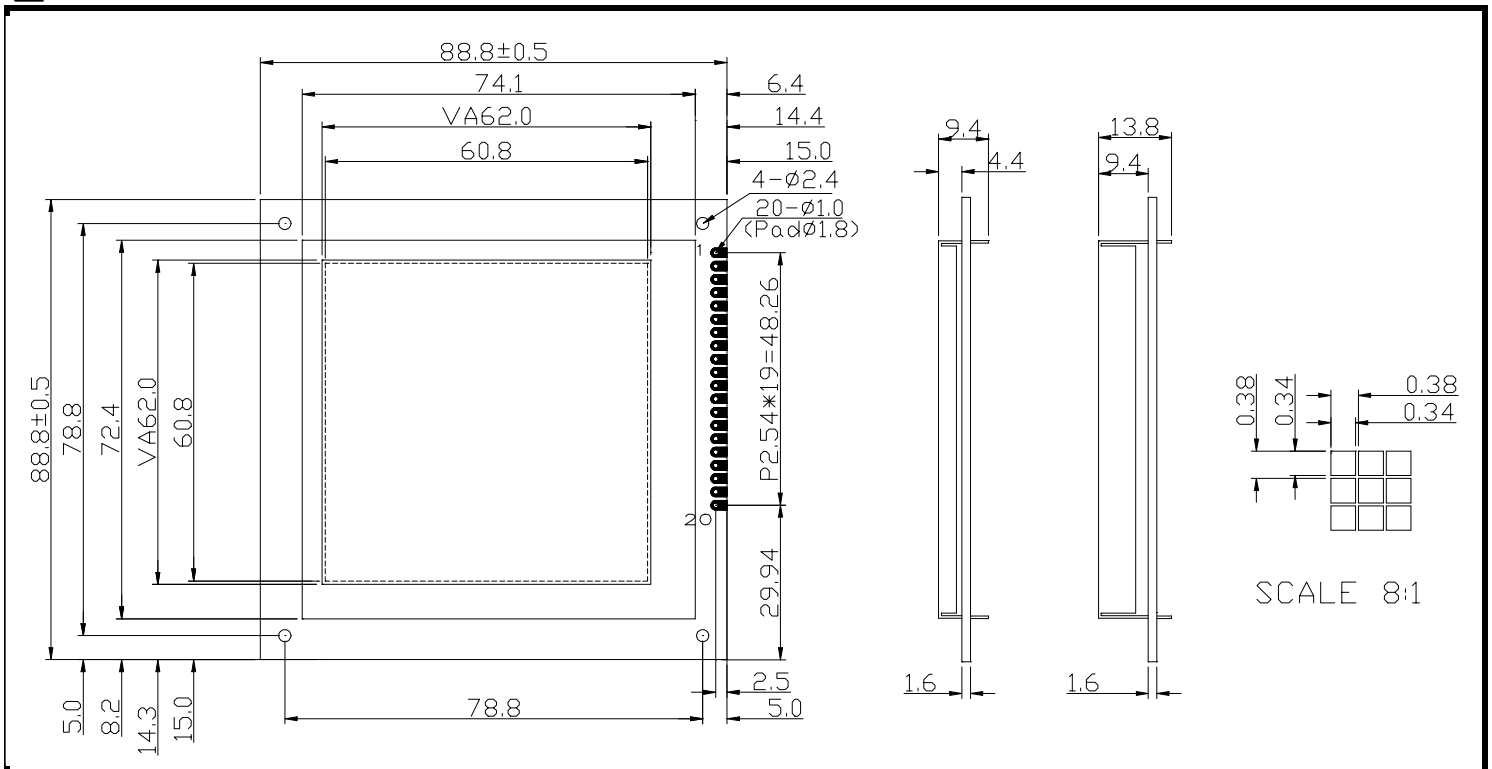
ABSOLUTE MAXIMUM RATINGS

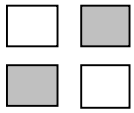
ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT
Supply Voltage For Logic	V _{DD} -V _{SS}	0	-	7	V
Supply Voltage For LCD Drive	V _{DD} -V _o	0	-	21	V
Input Voltage	V _I	V _{SS}	-	V _{DD}	V

ELECTRICAL CHARACTERISTICS

ITEM	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT	
Supply Voltage For Logic	V _{DD} -V _{SS}	-	4.5	5	5.5	V	
LCD Supply Voltage	V _{DD} -V _o	V _{DD} =5V Ta=25°C	17.4	18	24.3	V	
Supply Current	I _{DD}	V _{DD} =5V	-	14	23	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

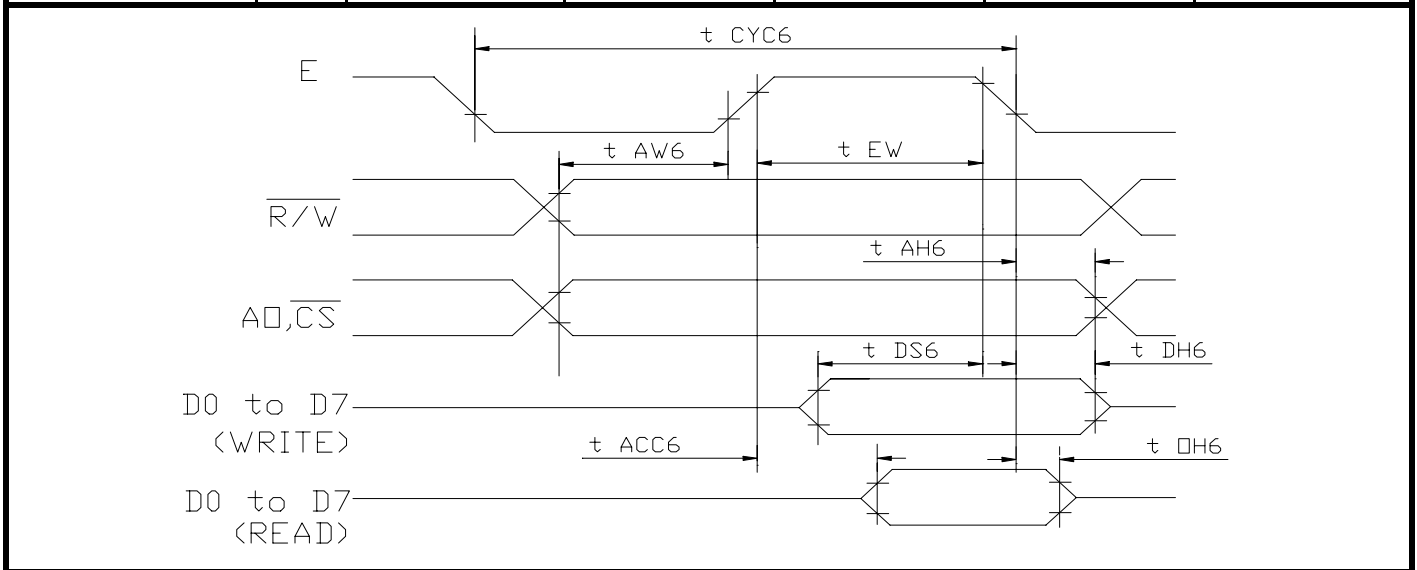




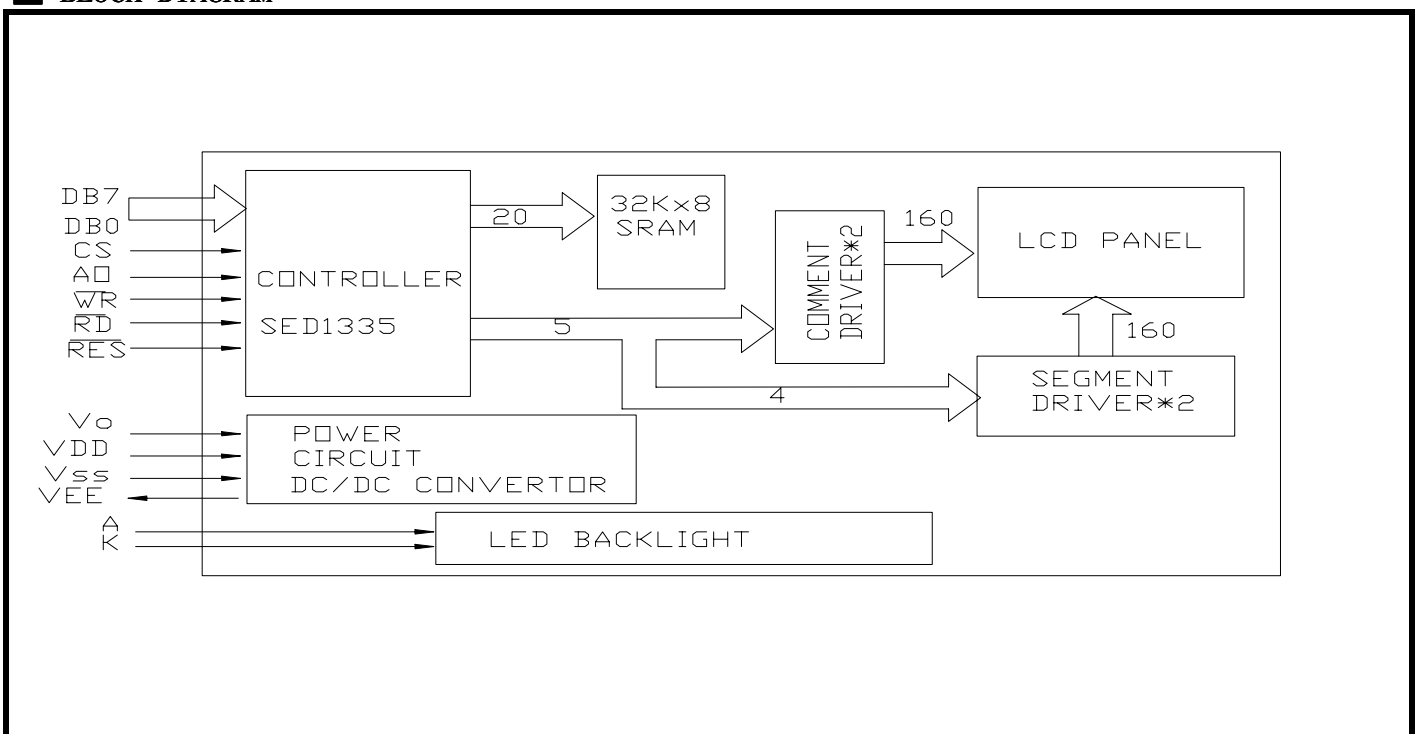
FDG160160B (160 DOTS X 160 DOTS)

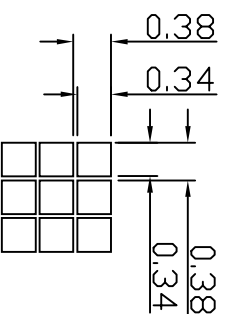
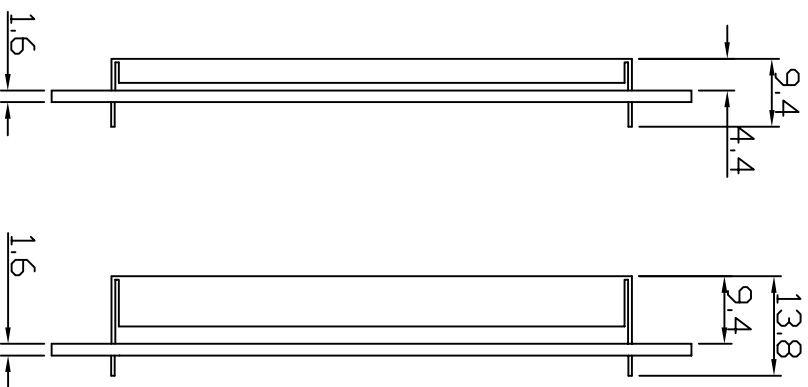
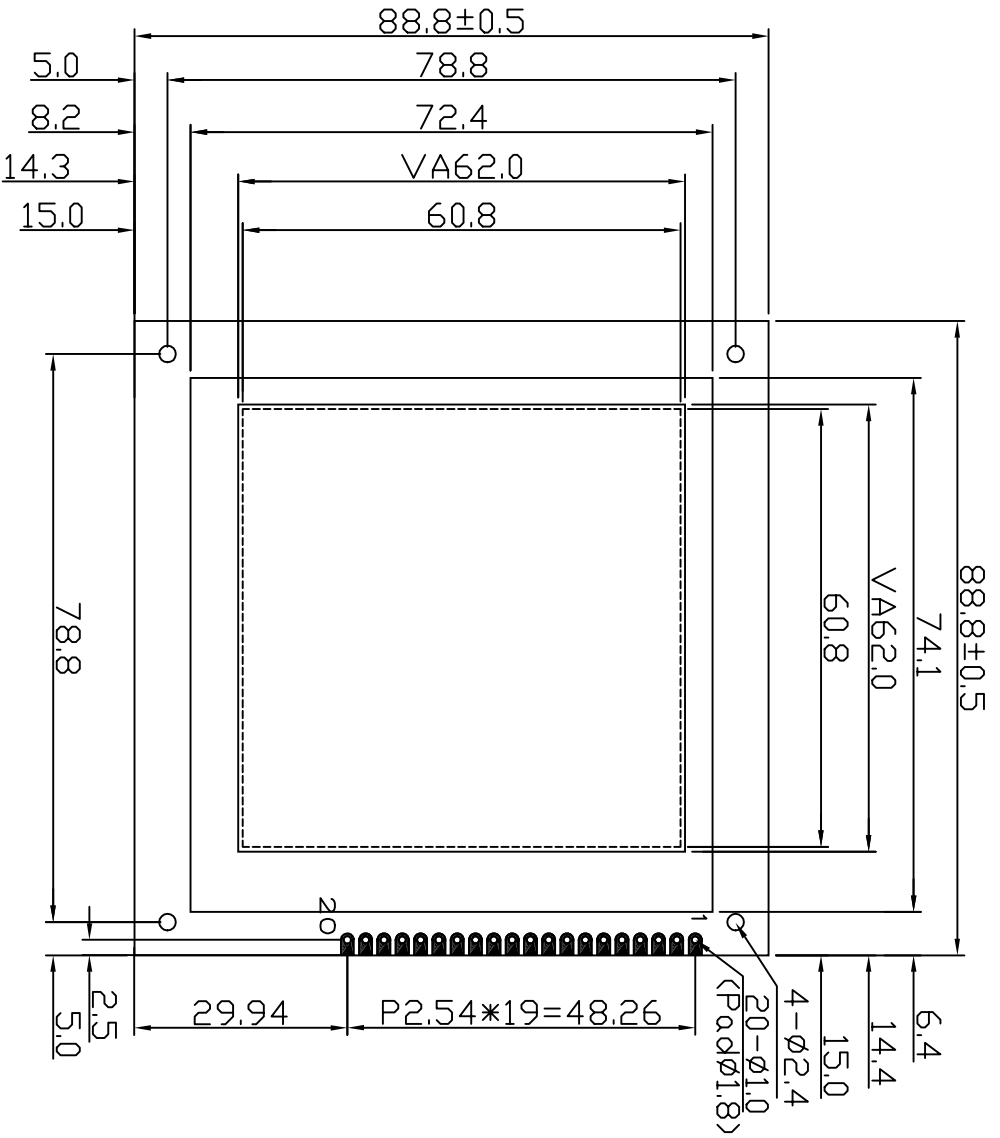
■ TIMING CHARACTERISTICS

ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT.
System Cycle Time	t_{CYC}	425	-	-	ns
Address Set-up Time	t_{AW}	30	-	-	ns
Address Hold Time	t_{AH}	10	-	-	ns
Data Set-up Time	t_{DS}	120	-	-	ns
Data Hold Time	t_{DH}	10	-	-	ns
Output Disable Time	t_{OH}	10	-	50	ns
Access Time	t_{ACC}	-	-	120	ns
Enable Pulse Width	Read	t_{EW}	-	-	ns
	Write				



■ BLOCK DIAGRAM





PIN NO	SIGNAL
1	VSS
2	VDD
3	VO
4	/RD
5	/WR
6	CS
7	AO
8	DB0
9	DB1
10	DB2
11	DB3
12	DB4
13	DB5
14	DB6
15	DB7
16	/RES
17	VEE
18	A
19	K
20	NC

SCALE 10:1

NOTE	ITEM	CONTENT	DATA	REV	TOLERANCE	SCALE	UNIT	CHKD	DWN	DATE	CUSTOMER APVL	TITLE	MODEL	DWG. NO	PAGE
		CHANGE NUMBER	2004.03.01	0	X. ±0.30 X ±0.20 .XX±0.05	1/1	mm	Hsu	Gili	2004.03.01		MODULE	SG160160B	A-A2-0027	1/1
						SUNLIKE DISPLAY									