

液晶之友 电话: 020-33819057
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PRODUCT SPECIFICATION

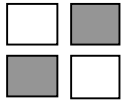
MONOCHROME LCD MODULE

PART NUMBER : FDG128064G

DESCRIPTION : 64x128Graphic

REVISION : Rev A

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



FDG128064G (128 DOTS X 64 DOTS)

FEATURES

- ◆ BUILT-IN CONTROLLER (T6963C OR EQUIVALENT)
- ◆ +5 V POWER SUPPLY
- ◆ 1/64 DUTY CYCLE
- ◆ 8-BIT PARALLEL INTERFACE
- ◆ 4.2 V LED FORWARD VOLTAGE

MECHANICAL DATA

ITEM	DIMENSIONS	UNIT
Module Size (W x H x T)	78.0 x 70.0 x 8.8(12.7)	mm
Viewing Area (W x H)	72.0 x 40.0	mm
Active Area (W x H)	66.52 x 33.24	mm
Dot Size (W x H)	0.48 x 0.48	mm
Dot Pitch (W x H)	0.52 x 0.52	mm

INTERFACE PIN CONNECTIONS

NO.	SYMBOL	LEVEL	FUNCTION
1	FG	-	Frame Ground
2	VSS	0V	Power Supply Ground
3	VDD	5V	Power Supply Voltage
4	Vo	-	Contrast Adjustment Voltage
5	/WR	L	Write Singal
6	/RD	L	Read Signal
7	/CE	L	Enable Signal
8	C/D	H/L	H : Data, L : Instruction Code
9	/RST	L	Reset Signal
10~17	DB0-DB7	H/L	Data Bus Line
18	FS	H/L	H : 6*8, L : 8*8 Select Of Columns
19	A	4.2V	LED Power (+)
20	K	0V	LED Power (-)

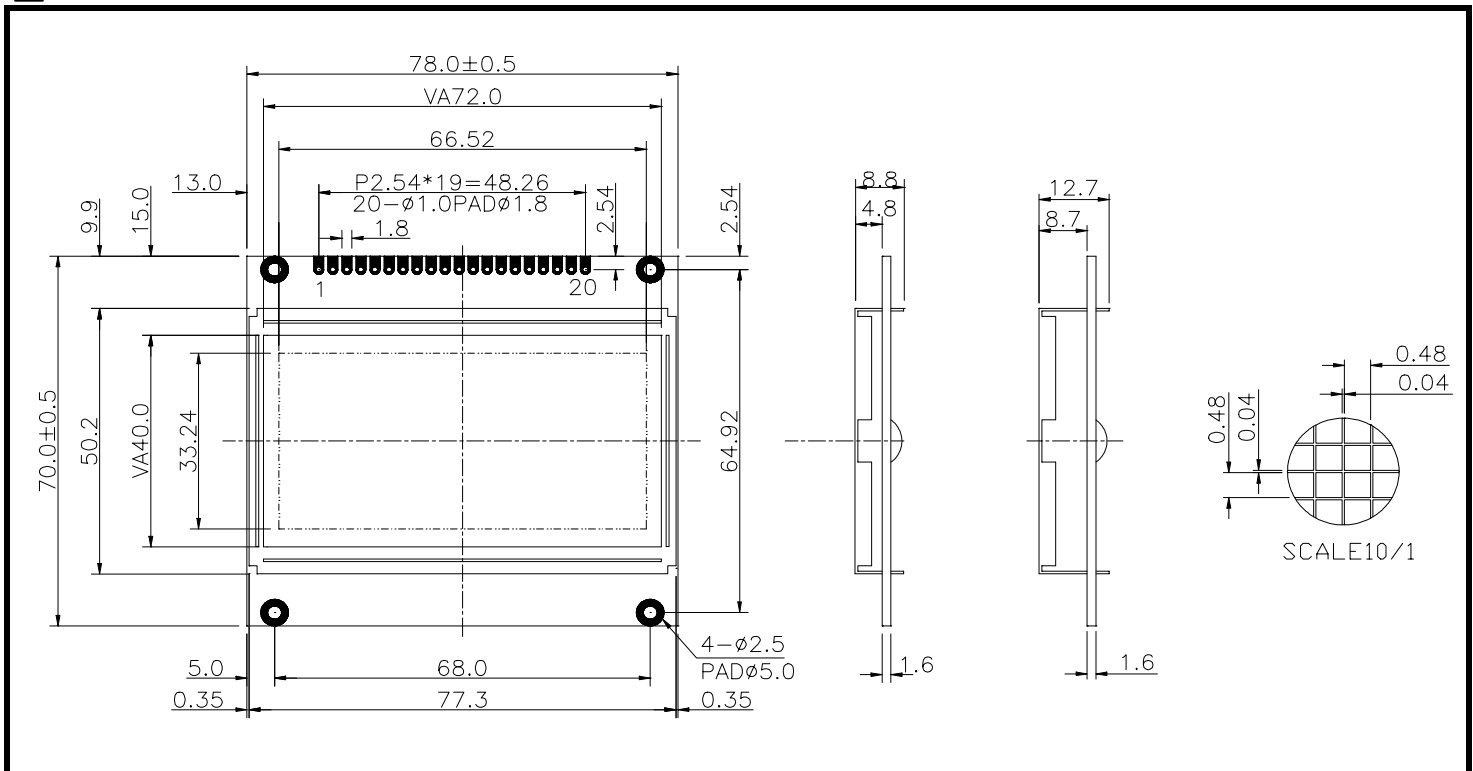
ABSOLUTE MAXIMUM RATINGS

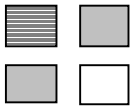
ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT
Supply Voltage For Logic	V _{DD} -V _{SS}	0	-	7	V
Supply Voltage For LCD Drive	V _{DD} -V _o	0	-	14	V
Input Voltage	V _I	V _{SS}	-	V _{DD}	V

ELECTRICAL CHARACTERISTICS

ITEM	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT	
Supply Voltage For Logic	V _{DD} -V _{SS}	-	4.5	5	5.5	V	
Supply Voltage For LCD	V _{DD} -V _o	V _{DD} =5V Ta=25°C	7.6	8.3	9.2	V	
Supply Current	I _{DD}	V _{DD} =5V	-	4.5	10	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	V
	"LOW" Level	V _{OL}	-	-	-	0.4	V

EXTERNAL DIMENSIONS



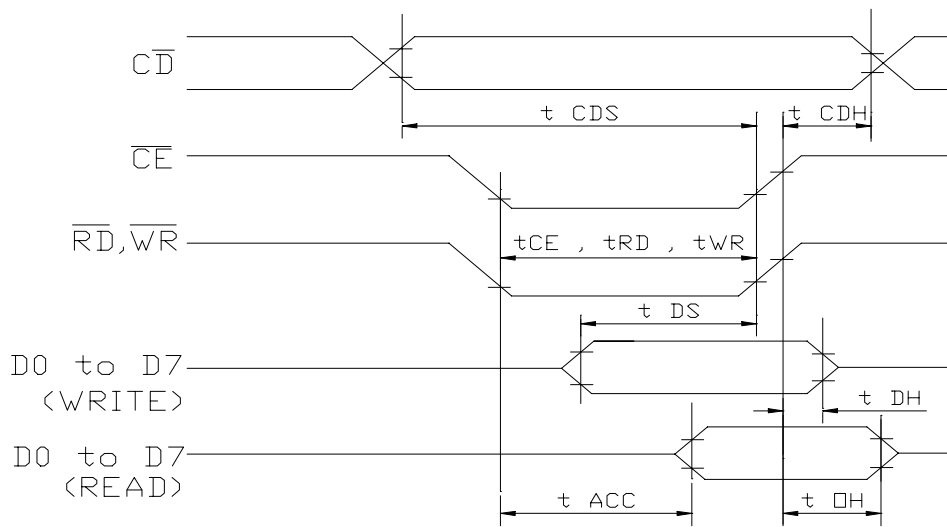


FDG128064G (128 DOTS X 64 DOTS)

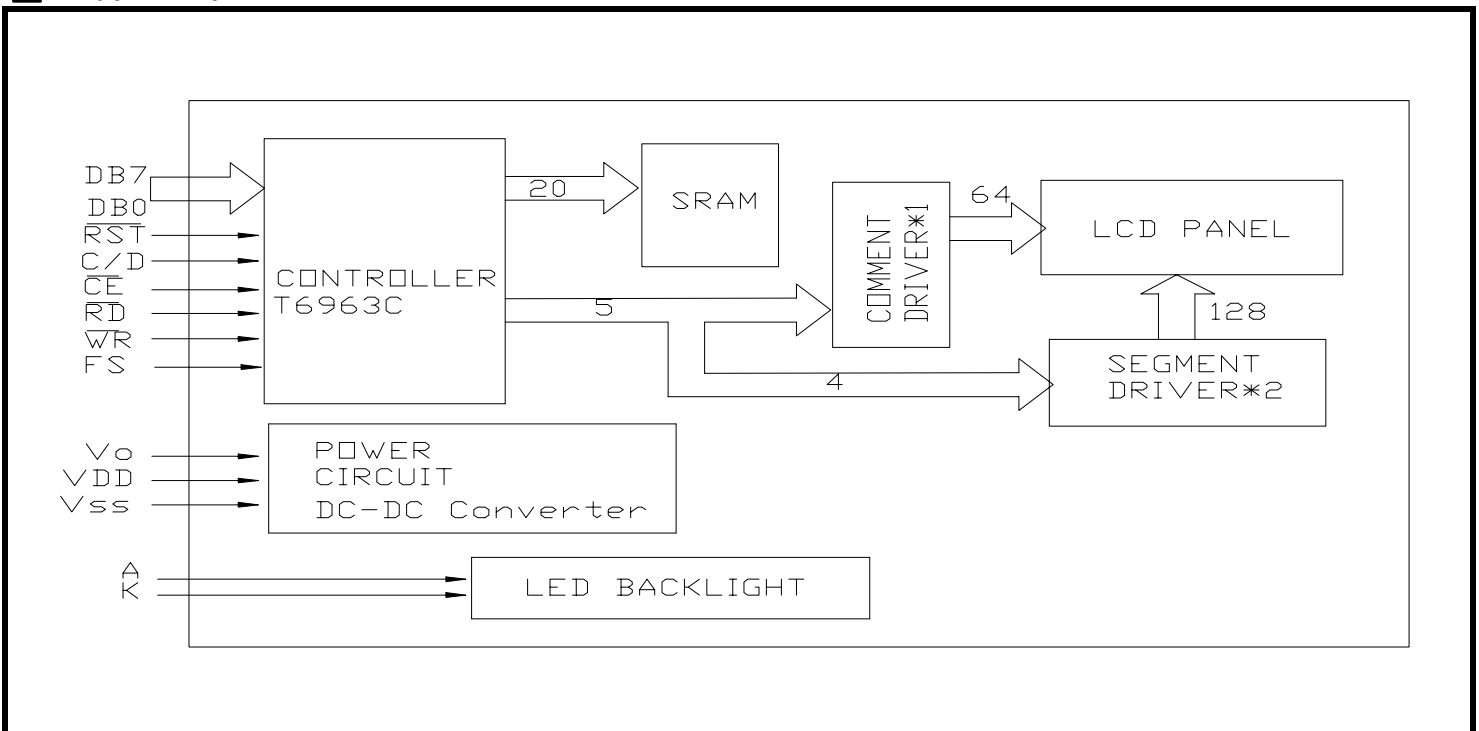
■ TIMING CHARACTERISTICS

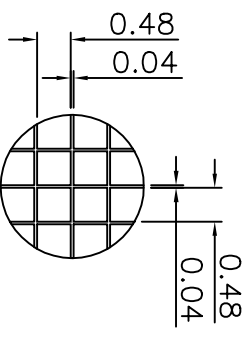
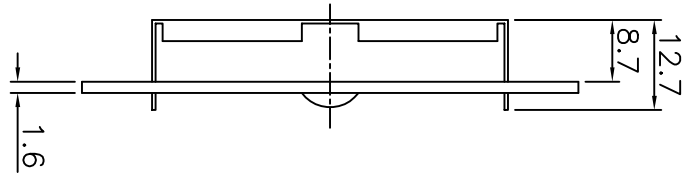
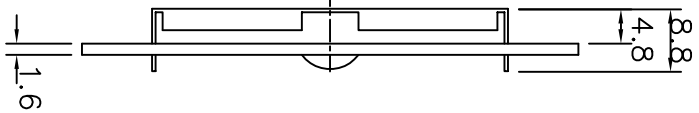
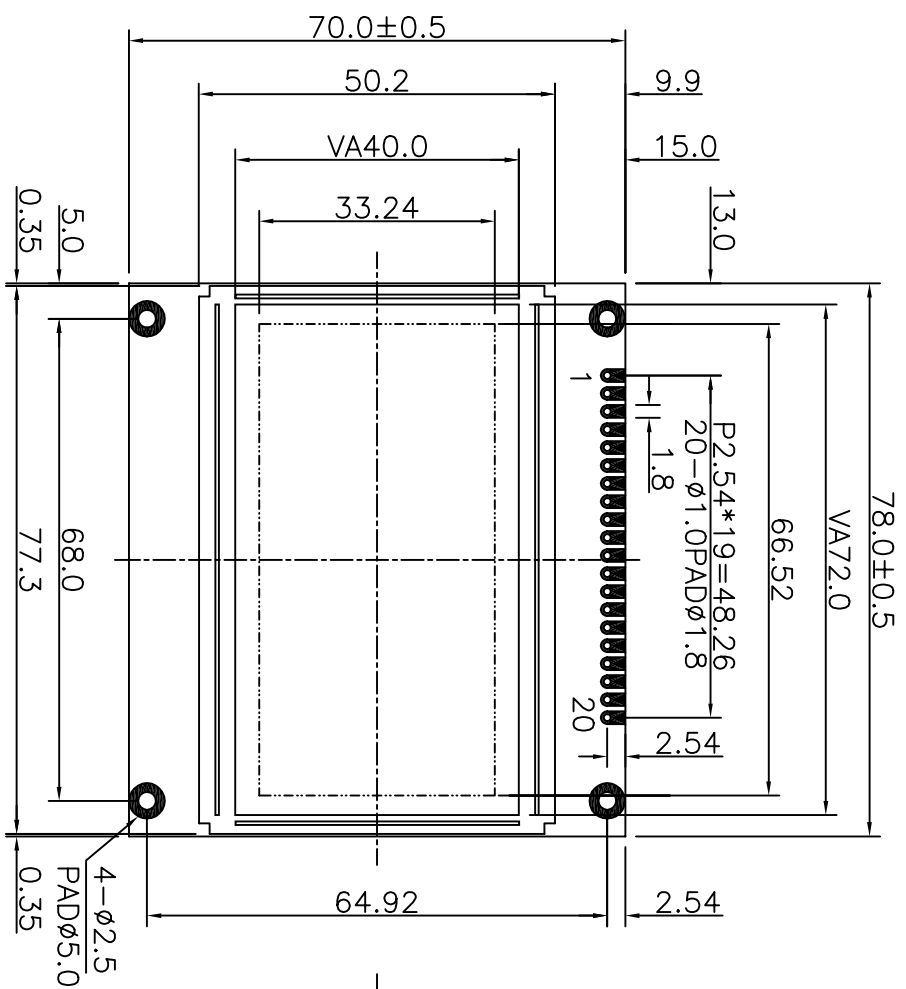
ITEM	SYMBOL	MIN.	MAX.	UNIT.
C/D Setup Time	t_{CDS}	100	-	ns
C/D Hold Time	t_{CDH}	10	-	ns
CE, RD,WR Pulse Width	t_{CE}, t_{RD}, t_{WR}	80	-	ns
Data Setup Time	t_{DS}	80	-	ns
Data Hold Time	t_{DH}	40	-	ns
Access Time	t_{ACC}	-	150	ns
Output Hold Time	t_{OH}	10	50	ns

Bus Timing



■ BLOCK DIAGRAM





SCALE10/1

PIN NO	SIGNAL
1	FG
2	VSS
3	VDD
4	VO
5	/WR
6	/RD
7	/CE
8	/CD
9	/RST
10	DB0
11	DB1
12	DB2
13	DB3
14	DB4
15	DB5
16	DB6
17	DB7
18	FS
19	A
20	K

NOTE	ITEM	CONTENT	DATA	REV	TOLERANCE	SCALE	UNIT	DWYN	DATE	CUSTOMER APVL	TITLE	DWG NO	PAGE
		NEW DRAWING	2004.04.13		X. ±0.30 X ±0.20 .XX±0.05	1/1	mm	Gili	2004.04.13		MODULE MODEL SG12864G	D-A1-0062	1/1

SUNLIKE DISPLAY