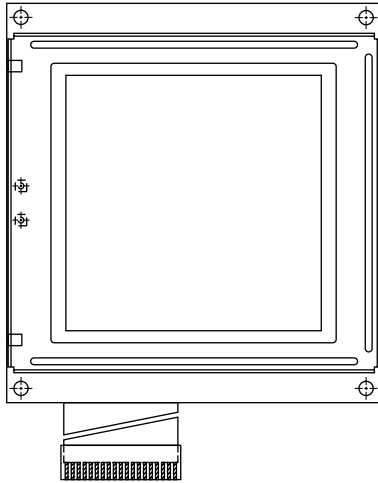


128 x 128 Graphic LCD


FEATURES

- Type: Graphic
- Display format: 128 x 128 dots
- Built-in controller: Toshiba T6963 (or equivalent)
- Duty cycle: 1/128
- + 5 V power supply
- No negative voltage option
- Compliant to RoHS directive 2002/95/EC


RoHS
COMPLIANT

MECHANICAL DATA		
ITEM	STANDARD VALUE	UNIT
Module Dimension	65.5 x 70.0	mm
Viewing Area	50.0 x 49.0	
Dot Size	0.32 x 0.32	
Dot Pitch	0.35 x 0.35	
Mounting Hole	60.5 x 65.0	
Character Size	N/a	

ABSOLUTE MAXIMUM RATINGS					
ITEM	SYMBOL	STANDARD VALUE			UNIT
		MIN.	TYP.	MAX.	
Power Supply	V_{DD} to V_{SS}	4.75	5.0	5.25	V
Input Voltage	V_I	- 0.3	-	V_{DD}	

Note

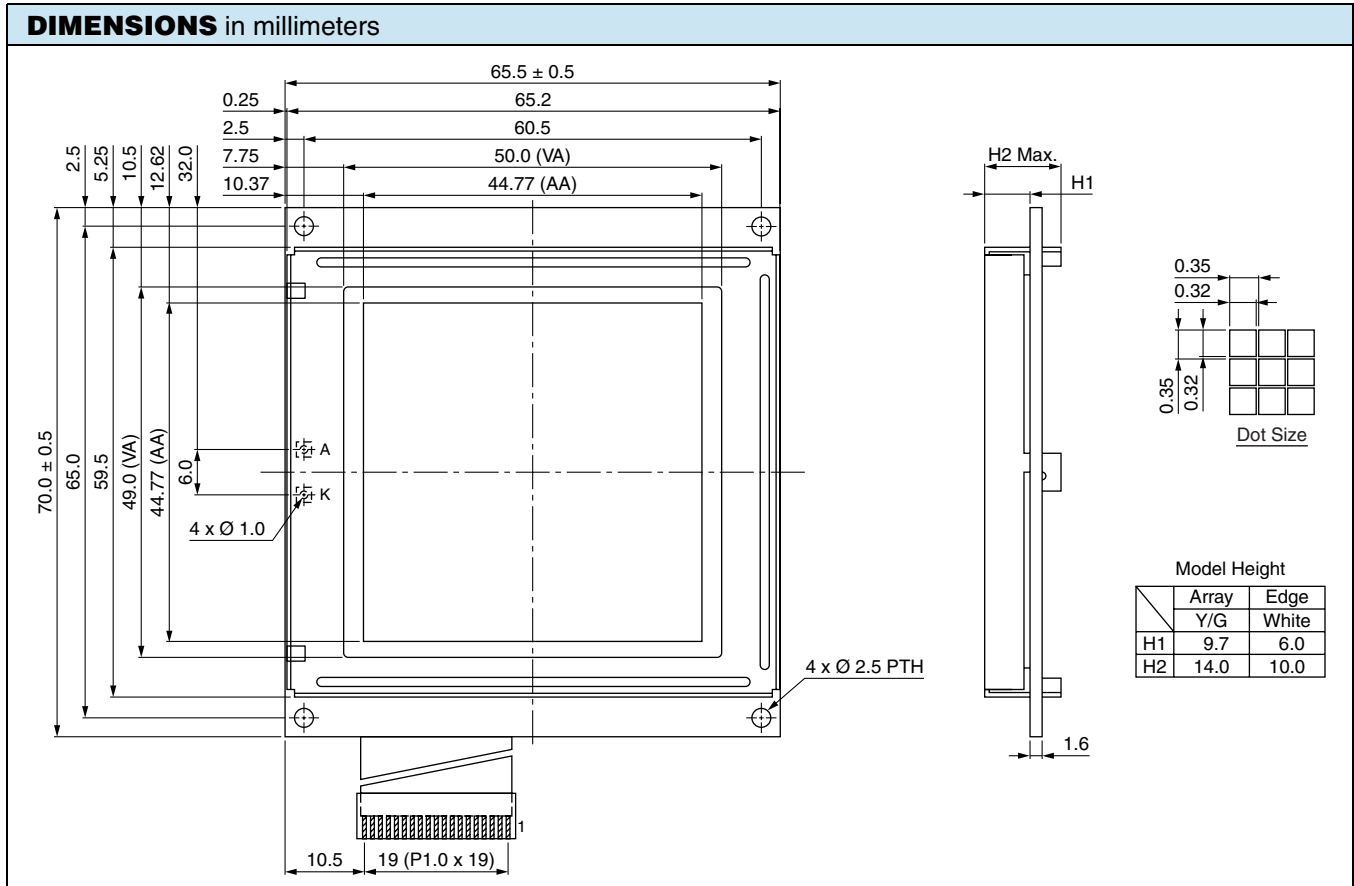
- $V_{SS} = 0$ V, $V_{DD} = 5.0$ V

ELECTRICAL CHARACTERISTICS						
ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT
			MIN.	TYP.	MAX.	
Input Voltage	V_{DD}	-	4.75	5.0	5.25	V
Supply Current	I_{DD}	$V_{DD} = +5$ V	4.5	5.8	7.0	mA
Recommended LC Driving Voltage for Normal Temperature Version Module	V_{DD} to V_0	- 20 °C	16.2	16.7	17.2	V
		0 °C	15.8	16.2	16.7	
		25 °C	15.0	15.8	16.2	
		50 °C	14.6	15.0	15.8	
		70 °C	14.2	14.6	15.0	
LED Forward Voltage	V_F	25 °C	-	4.2	4.6	V
LED Forward Current	I_F	25 °C	-	-	-	mA
EL Power Supply Current	I_{EF}	$V_{EL} = 110$ V _{AC} , 400 Hz	-	-	5.0	mA

OPTIONS									
PROCESS COLOR						BACKLIGHT			
TN	STN Gray	STN Yellow	STN Blue	FSTN B&W	STN Color	None	LED	EL	CCFL
	x	x	x			x	x	x	

For detailed information, please see the "Product Numbering System" document.

INTERFACE PIN FUNCTION		
PIN NO.	SYMBOL	FUNCTION
1	V _{SS}	Ground
2	V _{DD}	Power supply (+ 5 V)
3	V ₀	Power supply for driving
4	/WR	Data write
5	/RD	Data read
6	/CE	Chip enable to controller T6963C
7	C/D	WR = L, C/D = H: Command, C/D = L: Data write RD = L, C/D = H: Status read, C/D = L: Data read
8	RESET	L: Reset signal
9	DB0	Data bus line
10	DB1	Data bus line
11	DB2	Data bus line
12	DB3	Data bus line
13	DB4	Data bus line
14	DB5	Data bus line
15	DB6	Data bus line
16	DB7	Data bus line
17	FS	Pins for selection of font; H: 6 x 8, L: 8 x 8
18	NC	No connection
19	A	Power supply for LED B/L (+ 4.2 V)
20	K	Power supply for LED B/L (0 V)





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