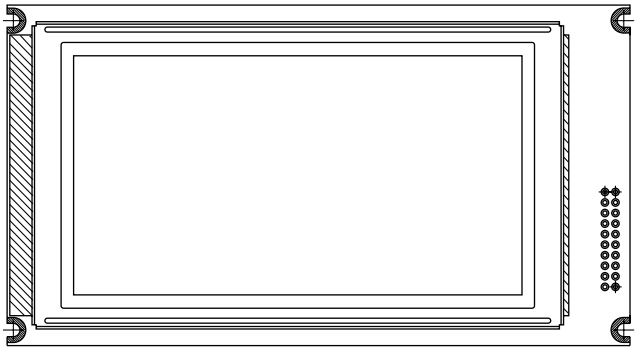
240 x 128 Graphic LCD



FEATURES

- Type: Graphic
- Display format: 240 x 128 dots
- Built-in controller: Avant IC T6963C (or equivalent)
- Duty cycle: 1/128
- Built-in N.V.
- COB version
- Compliant to RoHS directive 2002/95/EC

Pb-free RoHS COMPLIANT

MECHANICAL DATA

ITEM	STANDARD VALUE	UNIT
Module Dimension	150.0 x 82.2	mm
Viewing Area	114.0 x 64.0	
Dot Size	0.43 x 0.43	
Dot Pitch	0.45 x 0.45	
Mounting Hole	147.0 x 74.5	
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	-	28.2	-	mA
Recommended LC Driving Voltage for Normal Temperature Version Module	V_{DD} to V_0	- 20 °C	-	-	20.1	V
		0 °C	-	-	-	
		25 °C	-	18.9	-	
		50 °C	-	-	-	
		70 °C	16.3	-	-	
CCFL Starting Voltage	V_{FLS}	25 °C	-	-	-	V_{RMS}
CCFL Driving Voltage	V_{FLD}	25 °C	-	-	-	V_{RMS}
CCFL Driving Current	I_{FLD}	V_{FQ} = 450 V_{RMS}, 30 kHz	-	-	-	mA_{RMS}
LED Forward Voltage	V_F	25 °C	3.4	3.5	3.6	V
LED Forward Current	I_F	25 °C	140	180	270	mA
EL Power Supply Current	I_{EL}	V_{EL} = 110 V_{AC}, 400 Hz	-	-	5.0	mA

OPTIONS

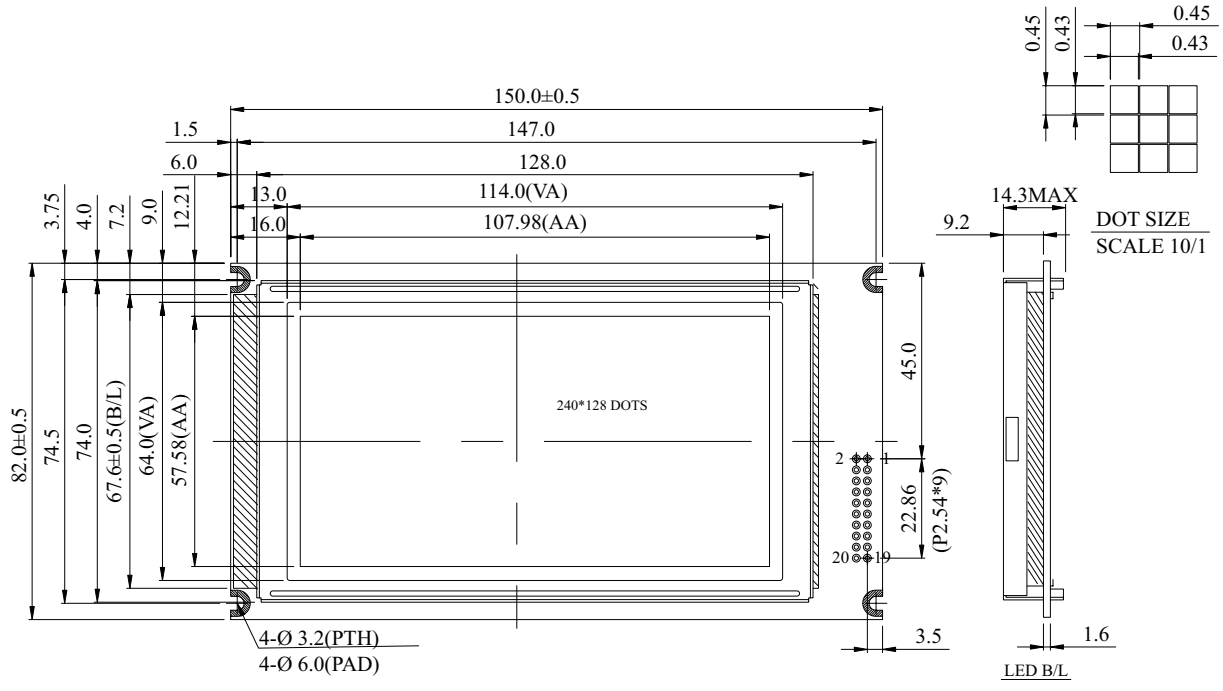
PROCESS COLOR						BACKLIGHT			
TN	STN Gray	STN Yellow	STN Blue	FSTN B&W	STN Color	None	LED	EL	CCFL
	x	x	x	x		x	x	x	x

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

INTERFACE PIN FUNCTION

PIN NO.	SYMBOL	FUNCTION
1	F_{GND}	Frame ground
2	V_{SS}	Ground
3	V_{DD}	Power supply
4	V_0	Power supply for LCD driver
5	/WR	L: Data write
6	/RD	L: Data read
7	CE	Enable signal
8	C/D	WR = L, C/D = H: Command write, C/D = L: Data write RD = L, C/D = H: Status read, C/D = L: Data read
9	V_{EE}	Negative voltage output
10	RESET	H: Normal/L: Initialize T6963C
11	DB0	Data bus line
12	DB1	Data bus line
13	DB2	Data bus line
14	DB3	Data bus line
15	DB4	Data bus line
16	DB5	Data bus line
17	DB6	Data bus line
18	DB7	Data bus line
19	FS	Pins for selection of font; H: 6 x 8, L: 8 x 8
20	RV	H: Reverse/L: Normal

DIMENSIONS in millimeters



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