

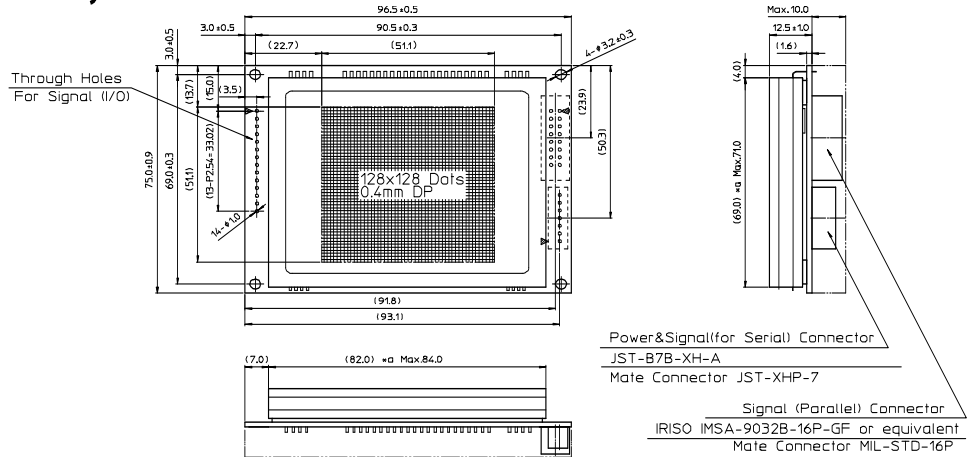
# GU128X128D-3900B

## SIMPLIFIED DATASHEET

### Features

VFD module with square display area. Suitable for devices with less width, or for placing beside a control panel, etc. Excellent for graphs or meters to show status information.

### Physical dimension



( ) : Reference only  
\* : Including extra 0.1mm glass  
Unit : mm  
Tolerance : ±0.5

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### Specifications

#### Electrical Ratings

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Power supply voltage	VCC	4.75	5.00	5.25	VDC	

#### Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
<b>Parallel I/F</b>						
Logic input current	I <sub>piH</sub>	-	-	1.0	μADC	-
D0-D7, /WR	I <sub>piL</sub>	-	-	-200	μADC	-
Logic input voltage	V <sub>piH</sub>	0.8VCC	-	VCC	VDC	-
D0-D7, /WR	V <sub>piL</sub>	0	-	0.2VCC	VDC	-
Logic output voltage	V <sub>poH</sub>	3.5	-	VCC	VDC	IOH=-10μA
RDY	V <sub>poL</sub>	0	-	0.6	VDC	IOL=4mA
<b>RS-232 I/F</b>						
Logic input voltage	V <sub>siH</sub>	3	-	15	VDC	-
RXD, DSR	V <sub>siL</sub>	-15	-	-3	VDC	-
Logic output voltage	V <sub>soH</sub>	5	-	-	VDC	RL=3KΩ
RXD, DSR	V <sub>soL</sub>	-	-	-5	VDC	-
Logic input Impedance	R <sub>siN</sub>	3	-	7	KΩ	-
<b>General-purpose I/O port</b>						
Power Supply Current 1	ICC1	-	0.70	0.98	ADC	All dots ON
Power Supply Current 2	ICC2	-	0.50	0.70	ADC	All dots OFF
Power Supply Current 3	ICC3	-	55	80	mADC	Display power OFF
Power Consumption		-	3.50	4.90	W	All dots ON

#### Optical Specifications

Parameter	
Luminance	350 cd/m <sup>2</sup> Min. (800 cd/m <sup>2</sup> Typ.)
Color of illumination	Green (Blue-Green)

#### Environmental Specifications

Parameter	
Operating Temperature	-40 ~ +85 degrees celsius
Storage Temperature	-40 ~ +85 degrees celsius
Operating Humidity	20 ~ 80% R.H. (non-condensing)
Vibration (non-operating)	10-55-10Hz, all amplitude 1mm, 30 minutes, X-Y-Z
Shock (non-operating)	392m/s <sup>2</sup> (40G) 9ms X-Y-Z, 3 times each direction

#### Physical Specifications

Parameter	
Number of Dots	16,384 (128 x 128)
Display Area	51.1 mm x 51.1 mm
Dot Size (X x Y)	0.3 mm x 0.3 mm
Dot Pitch (X x Y)	0.4 mm x 0.4 mm
Weight	About 129 g

#### Interface

Parallel(CMOS), Asynchronous Serial (RS232), I/O port

#### Pin Assignment

Pin No.	Signal	Pin No.	Signal
1	D7	2	D6
3	D5	4	D4
5	D3	6	D2
7	D1	8	D0
9	GND	10	/WR
11	GND	12	RDY
13	GND	14	GND
15	VCC	16	VCC

#### (Asynchronous Serial)

Pin No.	Signal	Baud Rate Setting
1	RXD	4800bps
2	DTR	9600bps
3	DSR	19200bps
4	TXD	38400bps*
5	TEST	57600bps
6	VCC	115200bps
7	GND	(*:Default setting)

(General-purpose I/O port:Abbreviation)

#### Selectable Font

Parameter	
ANK	All Font Size
International	6 x 8 / 8 x 16 / 12 x 24 / 16 x 32 dot
2-byte character	16 x 16 dot
Japanese	32 x 32 dot
Character numbers	21 x 16 by 6 x 8 dot ASCII 10 x 5 by 12 x 24 dot ASCII 8 x 8 by 16 x 16 dot 2-byte character 4 x 4 by 32 x 32 dot Japanese

#### Functions

Parameter	
Variable Character display	Variable Action Commands
Scroll function	Line / BOX Draw
Display Power Auto ON/OFF	AND/OR/XOR Mixture display
User Windows function	Program Macro function
I/O Port Control Function	Graphic DMA mode
Bit image by dot	
Variable stored settings	
etc.	