

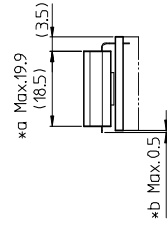
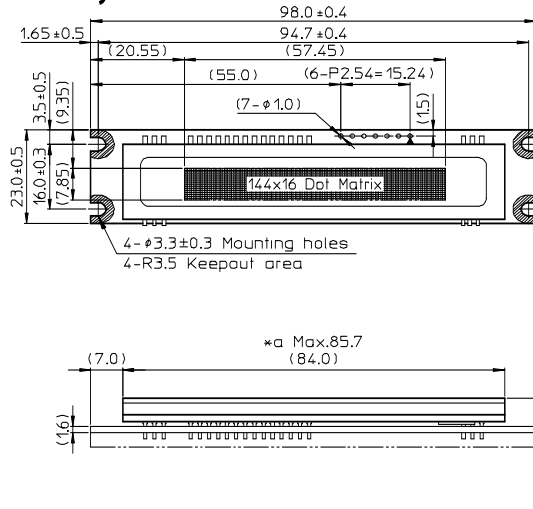
# GU144X16D-7053B

## SIMPLIFIED DATASHEET

### Features

144x16 dot graphic type on same size PCB as 20 character x 2 line small character unit. Can fit spaces where graphic units have previously not been an option. Also useful for making a more compact product without compromising the display.

### Physical dimension



( ) :Reference only  
Unit:mm  
\*a Included extra frit glass  
\*b Ensure conductive / metallic surfaces do not contact pin stubs.

### Get full specification



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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
'L' Logic Input Current SIN, SCK, /CS, /RESET	IIL	-	-	-0.6	mA	VIN=0V
'H' Logic Input Current SIN, SCK, /CS, /RESET	IIH	-	-	1.0	$\mu$ ADC	VIN=5V
Logic Input Voltage SIN, SCK, /CS, /RESET	VIH	0.8VCC	-	VCC	VDC	-
Logic Output Voltage SBUSY	VOL	0	-	0.2VCC	VDC	-
Logic Output Voltage SBUSY	VOH	3.8	-	VCC	VDC	IOH=-1.5mA
Power Supply Current 1	ICC-1	-	220	285	mADC	All dots ON
Power Supply Current 2	ICC-2	-	185	240	mADC	All dots OFF
Power Supply Current 3	ICC-3	-	20	30	mADC	Display power OFF
Power Consumption		-	1.10	1.43	W	All dots ON

#### Optical Specifications

Parameter	Value
Luminance	550 cd/m <sup>2</sup> Min. (1100 cd/m <sup>2</sup> Typ.)
Color of illumination	Green (Blue-Green)

#### Environmental Specifications

Parameter	Value
Operating Temperature	-40 ~ +85 degrees celsius
Storage Temperature	-40 ~ +85 degrees celsius
Operating Humidity	20 ~ 80% R.H. (non-condensing)
Storage 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	Value
Number of Dots	2,304 (144 x 16)
Display Area	57.45 mm x 7.85 mm
Dot Size (X x Y)	0.25 mm x 0.35 mm
Dot Pitch (X x Y)	0.40 mm x 0.50 mm
Weight	About 26 g

#### Interface

Sync/Asynchronous Serial, SPI(CMOS)

#### Pin Assignment

(Synchronous)		(SPI)	
Pin No.	Signal	Pin No.	Signal
1	VCC	1	VCC
2	SIN	2	SIN
3	GND	3	GND
4	SBUSY	4	SBUSY
5	SCK	5	SCK
6	/RESET	6	/RESET
7	NC	7	/CS

#### (Asynchronous)

Pin No.	Signal	Baud Rate Setting
1	VCC	9600bps
2	SIN	19200bps
3	GND	38400bps*
4	SBUSY	115200bps
5	NC	(*:Default setting)
6	/RESET	
7	NC	

#### Selectable Font

Parameter	Value
Character font type	5 x 7 ANK, International
Character width	Fixed/Proportional character format 1&2
Character numbers	20 x 2 by 5 x 7 dot ANK 24 x 2 by 5 x 7 dot Proportional

#### Functions

Parameter	Value
Control command	
Scroll display action	
Proportional Font function	
User-Windows function	
AND/OR/XOR Mixture display	
Reverse display	
Dot unit real-time bit image display	
Download character function	
Font Magnification function	
etc.	

