

# Graphic VFD Module

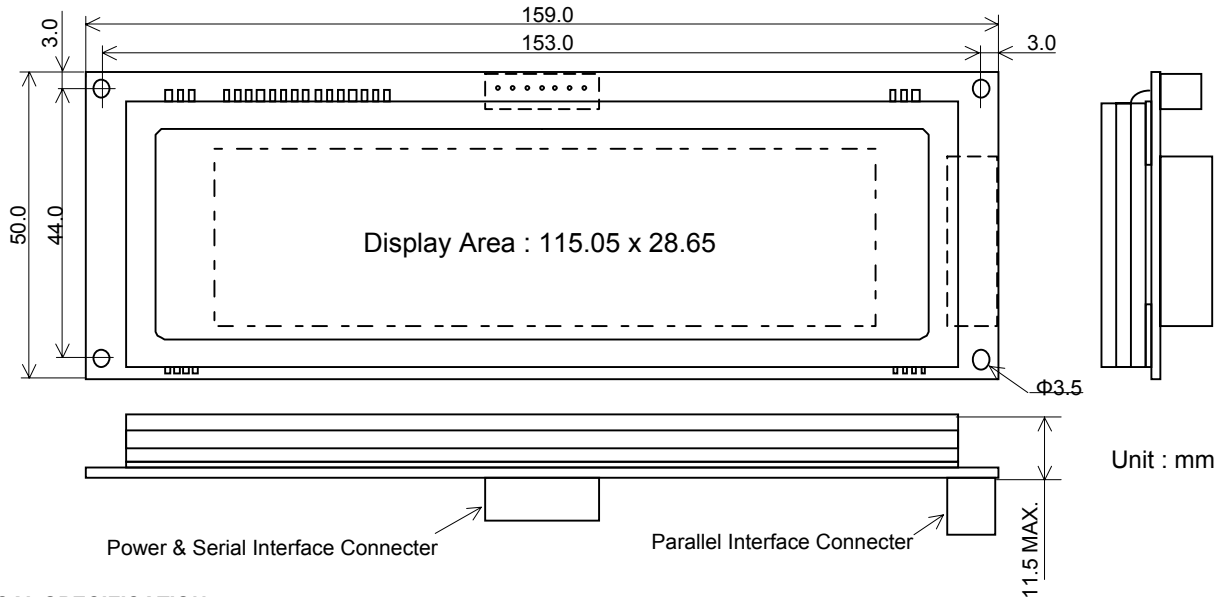
# GU256x64D-3900

Ref: MC-019 Mar.03

- Single 5V power supply
- High Brightness Blue Green Display
- Operating Temp -40°C to +70°C
- 6x8, 8x16, 16x32 Font table
- 16x16 Asian(Japanese, Chinese, Korean) for
- RS232C, Parallel, USB(option) Interface
- Easy drawing function
- Power ON/OFF control

- I/O Port controllability
- User window definition and individual control
- High speed Graphic animation ability
- Character & Bitmap image download
- 8 level brightness control

**Development Kit Available (GUD-3000)**  
RS232C cable, Power supply, Sample software



## ELECTRICAL SPECIFICATION

Parameter	Symbol	Value
Power Supply Voltage	VCC	5.0VDC
Power Supply Current	ICC	0.85ADC typ.
Logic Hi Input (Parallel)	VIH	0.8VDC min. Vcc max.
Logic Low Input (Parallel)	VIL	0VDV min. 0.2Vcc max.
Logic Hi output (Parallel)	VOH	3.5VDC min. Vcc max.
Logic Low output (Parallel)	VOL	0VDV min. 0.6Vcc max.
Logic Hi Input (RS232)	VIH	3.0VDC min. 15VDC max.
Logic Low Input (RS233)	VIL	-15VDC min. -3VDC max.
Logic Hi output (RS233)	VOH	5.0VDC min.
Logic Low output (RS232)	VOL	-5VDC max.

## OPTICAL and ENVIRONMENTAL SPECIFICATIONS

Parameter	Value
PCB Size (X x Y mm)	159.00 x 50.00
Display Area (X x Y mm)	115.05 x 28.65
Dot size / Pitch (X x Y mm)	0.30 / 0.45
Luminance	800 cd/m <sup>2</sup> Typ.
Color of Illumination	Blue Green
Operating Temperature	-40°C to +85°C
Operating Humidity	20 to 80 % RH (non condensing)

## SOFTWARE COMMANDS - Popular codes, more included

Command	Code
Write Character to Display	20H-FFH
BS, HT, LF, CR, Display Clear	08H, 09H, 0AH, 0DH, 0CH
Initialize Display	1BH
Specify International Font	1BH 52H n
Vertical / Horizontal Scroll Mode	1FH 02H / 1FH 03H
Scroll Display Action	1FH 28H 61H 10H wL wH cL cH s
Display Blink	1FH 28H 61H 11H p t1 t2 c
Font Size Select	1FH 28H 67H 01H m
Font Magnified Display	1FH 28H 67H 40H x y
Brightness Level Setting	1FH 58H n

COMMON FONT	2 x H, 3 x H, 4 x H, 5 x H, 6 x H, 7 x H							
	x0H	0	1	2	3	4	5	6
x1H	8	9	A	B	C	D	E	F
x2H	G	H	I	J	K	L	M	N
x3H	O	P	Q	R	S	T	U	V
x4H	W	X	Y	Z	[	]	^	_
x5H	`	a	b	c	d	e	f	g
x6H	h	i	j	k	l	m	n	o
x7H	p	q	r	s	t	u	v	w
x8H	x	y	z	{	}	~		
x9H								
xAH								
xBH								
xCH								
xDH								
xEH								
xFH								

INTERNATIONAL FONT	n=0 to n=19															
	x0H	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E
x1H	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
x2H	W	X	Y	Z	[	]	^	_	`	a	b	c	d	e	f	
x3H	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	
x4H	v	w	x	y	z	{	}	~								
x5H																
x6H																
x7H																
x8H																
x9H																
xAH																
xBH																
xCH																
xDH																
xEH																
xFH																

6x8, 8x16, 16x32 Font table available.  
Also, 4 types of 16x16 Asian font include

## Serial Interface (CN1)

Pin	Sig
1	RXD
2	DTR
3	DSR
4	TXD
5	TEST
6	VCC
7	GND

Baud rate: 38,400 or 19,200

## Parallel interface (CN5)

Pin	Sig	Pin	Sig
1	D7	2	D6
3	D5	4	D4
5	D3	6	D2
7	D1	8	D0
9	GND	10	WR
11	GND	12	READY
13	GND	14	GND
15	VCC1(5V)	16	VCC1(5V)

Please inquire for full specification.

\*\* Subject to change without notice \*\*