

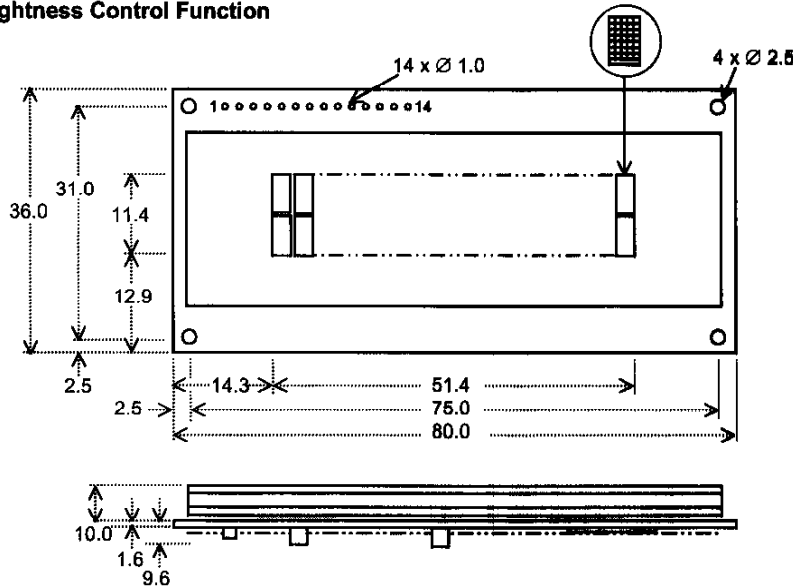
5X7 Dot Character VFD Module

CU16025ECPB-U5J

- 2 X 16 Characters 5mm High
- LCD Compatible Design
- Operating Temp -20°C to +70°C
- Single 5V Supply with Power Save Mode
- High Brightness Blue Green Display
- Selectable 4/8 bit M68/180 Interface
- ASCII + Extended Character Font
- 8 User Definable Character RAM
- 4 Level Brightness Control Function

The module includes the Vacuum Fluorescent Display glass, driver and micro-controller ICs with refresh RAM, character generator and interface logic.

The high speed 8 bit parallel interface is 5V CMOS compatible suitable for connection to a host CPU bus which can be set to M68 or 180 series interface by a solder link on the module. Brightness control and power down functions are provided. A full data sheet is available.



Dimensions in mm

ELECTRICAL SPECIFICATION

Parameter	Symbol	Value	Condition
Power Supply Voltage	Vcc	5.0VDC +/- 5%	GND=0V
Power Supply Current	Icc	150mADC typ.	Vcc=5V
Logic High Input	V _{IH}	2.0VDC min.	Vcc=5V
Logic Low Input	V _{IL}	0.8VDC max.	Vcc=5V
Logic High Output	V _{OH}	Vcc-0.5VDC min.	I _{OH} = -1.8mA
Logic Low Output	V _{OL}	0.4VDC max.	I _{OL} = 1.8mA

The power on rise time should be less than 50ms. The inrush current at power on can be 2 x Icc. The Icc current is 10mA maximum while in power down mode.

OPTICAL and ENVIRONMENTAL SPECIFICATIONS

Parameter	Value
Character Size/Pitch (XxY mm)	2.46 x 4.76/3.26 x 6.01
Dot Size/Pitch (XxY mm)	0.38 x 0.56/0.52 x 0.7
Luminance	700 cd/m ² (200 fl.) Typ.
Colour of Illumination	Blue-Green (Filter for additional colours)
Operating Temperature	-20°C to +70°C
Storage Temperature	-40°C to +85°C
Operating Humidity	20 to 80% RH @ 25°C

SOFTWARE COMMANDS

Instruction	RS	DD-D7
Clear Display	L	01H
Cursor Return Home	L	02H-03H
Entry Mode Set	L	04H-07H
Display ON/OFF	L	08H-0FH
Cursor/Display Shift	L	10H-1FH
Function Set	L	20H-30H
Brightness Set	H	00H-03H
Set CG RAM Addr.	L	40H-7FH
Set DD RAM Addr.	L	80H-E7H
Read BUSY/Addr.	L	00H-FFH
Write Data to RAM	H	00H-FFH
Read Data from RAM	H	00H-FFH

PIN CONNECTIONS

Pin	Sig	Pin	Sig
1	GND	2	Vcc
3	(Fnc)	4	RS
5	R/W #	6	E #
7	D0	8	D1
9	D2	10	D3
11	D4	12	D5
13	D6	14	D7

TIMING PARAMETERS (min)

(E)nable Cycle Time	1000ns
(E)nable Pulse Width	450ns
Hold after (E)nable	10ns

CHARACTER FONT

H _{EX}	00	10	20	30	40	50	60	70	80	90	00	10	20	30	40	50	60	70	80	90	00	10	20	30	40	50	60	70	80	90	
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JUMPER LINKS

Interface M68/180
When jumper link JP2 is soldered, these inputs change to 180 series CPU control lines. Pin 5 = /WR Pin 6 = /RD

Pin 3 (Fnc) Input

This is normally open circuit. If pads JP1.1 and JP1.2 are linked. Pin 3 = /Reset.

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