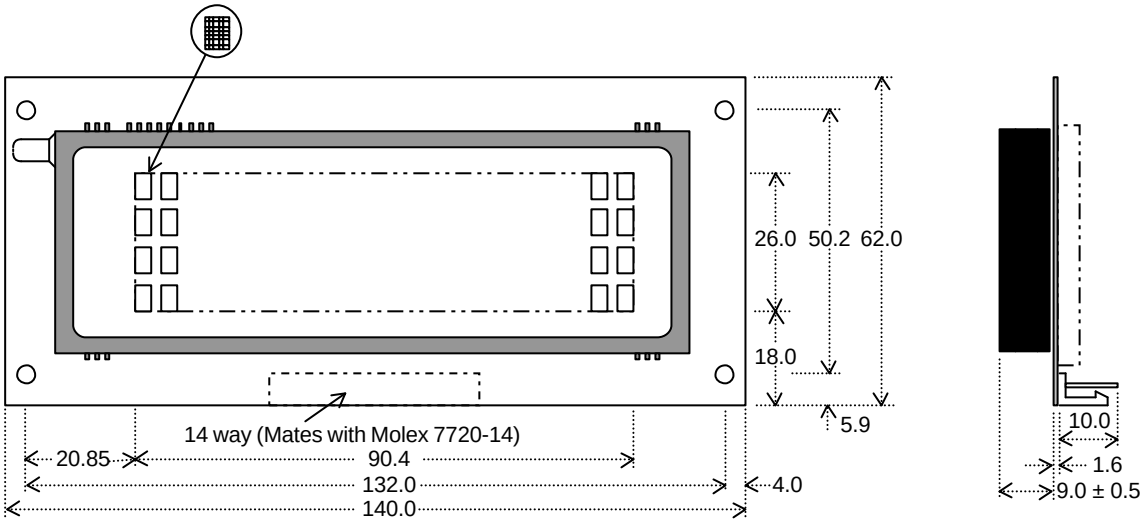
5X7 Dot Character VFD Module CU20045SCPB-KT70A

- 4 Lines of 20 Characters 5mm High
- High Speed Parallel/Serial Interface
- Operating Temp -30°C to +70°C
- Single 5V Supply
- High Brightness Blue Green Display
- ASCII & Extended Character Font

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. User defined characters and many control commands are available.



Dimensions in mm & subject to tolerances. Mounting holes 3.5mm dia.

ELECTRICAL SPECIFICATION

Parameter	Symbol	Value	Condition
Power Supply Voltage	V_{CC}	5.0VDC +/- 5%	G_{ND}=0V
Power Supply Current	I_{CC}	350mADC typ.	Vcc=5V
Logic High Input	V_{IH}	2.0VDC min.	V_{CC}=5V
Logic Low Input	V_{IL}	0.8VDC max.	V_{CC}=5V
Logic High Output	V_{OH}	2.4VDC min.	I_{OH} = -2.0mA
Logic Low Output	V_{OL}	0.5VDC max.	I_{OL} =2.0mA

The power on rise time should be less than 50ms.The inrush current at power on can be 2 x I_{CC}.

OPTICAL and ENVIRONMENTAL SPECIFICATIONS

Parameter	Value
Character Size/Pitch (XxY mm)	3.0 x 5.0/4.6 x 7.0
Dot Size/Pitch (XxY mm)	0.4 x 0.5/0.65 x 0.75
Luminance	700 cd/m^2 (204 fL) Typ.
Colour of Illumination	Blue-Green (Filter for colours)
Operating Temperature	-30°C to +70°C
Storage Temperature	-40°C to +85°C
Operating Humidity (non condensing)	20 to 80% RH @ 25°C

SOFTWARE COMMANDS

Instruction	D0-D7	Instruction	D0-D7
Back Space	08H	Reset	14H
Horizontal Tab	09H	Display Clear	15H
Line Feed	0AH	Cursor Home	16H
Carriage Return	0DH	External Font Load	18H
Block Cursor Invisible	0EH	Bit 7 High for next byte	19H
Block Cursor Visible	0FH	Internal Font	20H - EFH
Increment Write Mode	11H	External User Font	F0H - FFH
Overwrite Mode	12H		
Horizontal Scroll Mode	13H		

TIMING PARAMETERS (min)

Data Set Up To Write	0nS
Write Pulse Width	250nS
Hold After Write	10nS
Busy Transition	50nS

Subject to change without notice.
Detailed specification on request.
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CHARACTER FONT

IDC DATA CONNECTOR

Pin	Signal	Pin	Signal
1	BUSY	8	D2
2	Write Strobe	9	D1
3	D7	10	D0
4	D6	11	V_{CC} (5V)
5	D5	12	G_{ND} (0V)
6	D4	13	NC
7	D3	14	/RESET

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