

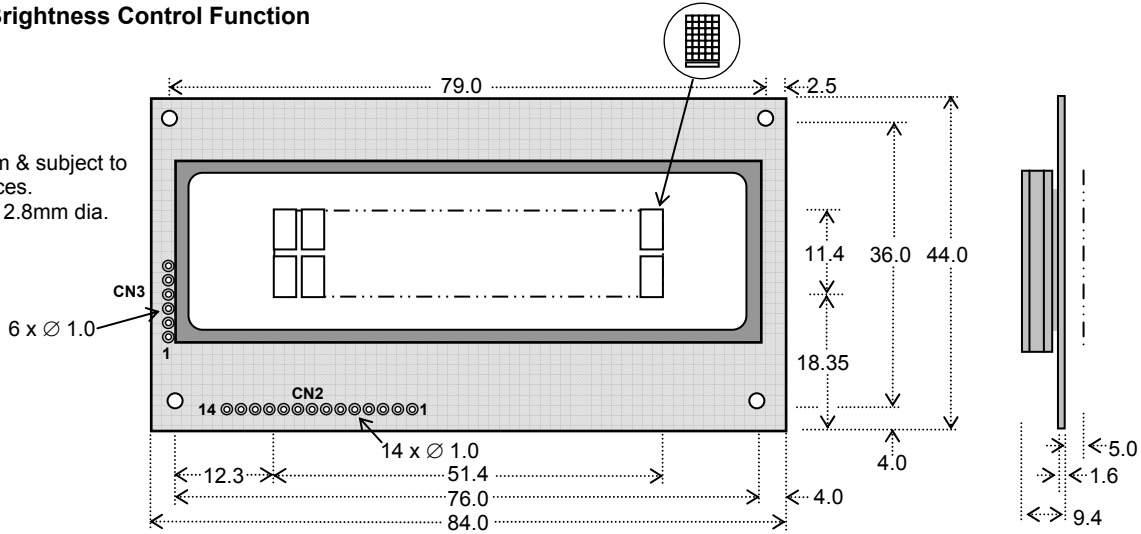
5X7 Dot Character VFD Module

CU16025-UW2J

- ❑ 2 X 16 Characters 5mm High
- ❑ LCD Compatible Design
- ❑ Wide Operating Temp -40°C to +85°C
- ❑ Single 5V Supply with Power Save Mode
- ❑ High Brightness Blue Green Display
- ❑ Selectable 4/8 bit M68/i80 Parallel & Serial 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 i80 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 & subject to tolerances.
Mounting holes 2.8mm dia.



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-0.8VDC min.	I _{OH} = -4mA
Logic Low Output	V _{OL}	0.6VDC max.	I _{OL} =4mA

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)	2.275 x 4.759/3.275 x 5.991
Dot Size/Pitch (XxY mm)	0.359 x 0.577/0.479 x 0.697
Luminance	700 cd/m ² (204 fL) Typ.
Colour of Illumination	Blue-Green (Filter for more colours)
Operating Temperature	-40°C to +85°C
Storage Temperature	-50°C to +85°C
Operating Humidity (non condensing)	20 to 80% RH @ 25°C

SOFTWARE COMMANDS

Instruction	R/W	RS	D0-D7
Clear Display	L	L	01H
Cursor Return Home	L	L	02H-03H
Entry Mode Set	L	L	04H-07H
Display ON/OFF	L	L	08H-0FH
Cursor/Display Shift	L	L	10H-1FH
Function Set	L	L	20H-3FH
Brightness Set	L	H	00H-03H
Set CG RAM Addr.	L	L	40H-7FH
Set DD RAM Addr.	L	L	80H-E7H
Read BUSY/Addr.	H	L	00H-FFH
Write Data to RAM	L	H	00H-FFH
Read Data from RAM	H	H	00H-FFH

TIMING PARAMETERS (min)

(E)nable Cycle Time	500ns
(E)nable Pulse Width	230ns
Hold after (E)nable	10ns

PIN CONNECTIONS (CN2)

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

PIN CONNECTIONS (CN3)

Pin	Sig	Pin	Sig
1	Vcc	4	STB
2	SI/SO	5	SCK
3	GND	6	NC

Font Selection

If A/J is open, Katakana is selected, If linked, International is selected.

CHARACTER FONT

H _{EX}	00	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
00	|	|	0	1	2	3	4	5	6	7	8	9	-	0	1	2
01	|	|	!	"	#	\$	%	&	'	(	)	*	+	,	.	/
02	|	|	"	2	B	R	b	r	Δ	ε	Γ	γ	∞	∞	∞	∞
03	|	|	#	3	C	S	c	s	Δ	ε	Γ	γ	∞	∞	∞	∞
04	|	|	\$	4	D	T	d	t	Δ	ε	Γ	γ	∞	∞	∞	∞
05	|	|	%	5	E	U	e	u	Δ	ε	Γ	γ	∞	∞	∞	∞
06	|	|	&	6	F	V	f	v	Δ	ε	Γ	γ	∞	∞	∞	∞
07	|	|	'	7	G	W	g	w	Δ	ε	Γ	γ	∞	∞	∞	∞
08	|	|	(	8	H	X	h	x	Δ	ε	Γ	γ	∞	∞	∞	∞
09	|	|	)	9	I	Y	i	y	Δ	ε	Γ	γ	∞	∞	∞	∞
0A	|	|	*	A	J	Z	j	z	Δ	ε	Γ	γ	∞	∞	∞	∞
0B	|	|	+	B	K	L	k	l	Δ	ε	Γ	γ	∞	∞	∞	∞
0C	|	|	,	C	L	#	l	#	Δ	ε	Γ	γ	∞	∞	∞	∞
0D	|	|	.	D	-	=	M	J	Δ	ε	Γ	γ	∞	∞	∞	∞
0E	|	|	/	E	.	>	N	^	Δ	ε	Γ	γ	∞	∞	∞	∞
0F	|	|	Δ	F	/	?	0	_	Δ	ε	Γ	γ	∞	∞	∞	∞

JUMPER LINKS

Interface M68/i80

When jumper link MPU is soldered, these inputs change to i80 series CPU control lines. Pin 5= /WR Pin 6 = /RD

CONTACT

Noritake Sales Office Tel Nos
 Nagoya Japan: +81 (0)52-561-9867
 Canada: +1-416-291-2946
 Chicago USA: +1-847-439-9020
 Munchen (D): +49 (0)89-3214-290
 Itron UK: +44 (0)1493 601144
 Rest Europe: +49 (0)61-0520-9220
www.noritake-itron.com

Interface

This is normally open circuit. And set in Parallel mode. If linked, Serial mode.

R16Jumper Resistor

R16 links between pin 3 of CN2 & Pin 6 of CN3. Open=NC, Linked=/RESET

Subject to change without notice.
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