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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# CU20025-UX1J

## SIMPLIFIED DATASHEET

#### ■ Features

20 character x 2 line display LCD compatible module.

Simple control.

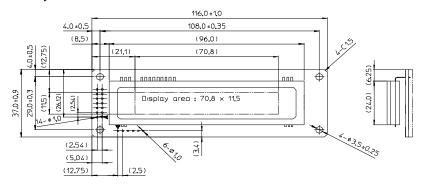
Higher brightness, from standard (CU20025-UW1J level) 1000cd/m<sup>2</sup> (typ) to up to  $2000cd/m^2$  (max).

## **Get full specification**



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## **■** Physical dimension





( ): Reference only Unit: mm

#### Specifications

## **■** Electrical Ratings

Parameter	Symbol	Min.	Тур.	Max.	Unit	Condition
Logic Input Voltage						
DB0-DB7, RS,R/W(WR),	VIH1	2.0	-	VCC	VDC	VCC-VSS= 5.0 V
E(RD),SCK, STB	VIL1	VSS	-	8.0	VDC	VOC-VSS= 3.0 V
Logic Input Voltage	VIH2	0.7VCC	-	VCC	VDC	VCC-VSS= 5.0 V
SI/SO	VIL2	VSS	-	0.3VCC	VDC	VUC-VSS= 5.0 V
Logic Input Voltage	VIH3	0.8VCC	-	VCC	VDC	VCC-VSS= 5.0 V
/RESET	VIL3	VSS	-	0.2VCC	VDC VCC	VCC-VSS= 5.0 V
Power supply Voltage	VCC-VSS	4.75	5.00	5.25	VDC	-

## **■** Electrical Characteristics

Parameter	Symbol	Min.	Тур.	Max.	Unit	Condition
Logic Output Voltage 'H'	VOH	VCC-0.8	-	-	VDC	IOH = -4  mA
'L'	VOL	-	-	0.6	VDC	IOL = 4 mA
'H'	VOH	VCC-0.5	-	-	VDC	IOH = -2 mA
'L'	VOL	-	-	0.5	VDO	IOL = 2 mA
Power Supply Current #1	ICC1	-	210	290	mΑ	Display ON
Power Supply Current #2	ICC2	-	160	210	mΑ	Display ON
Power Supply Current 3	ICC3	-	3	10	mΑ	Display OFF
Power Consumption #1		-	1.05	1.45	W	Display ON
Power Consumption #2		-	0.70	1.00	W	Display ON
#1: Brightness 200% #2: Brightness 100%						

## **■** Optical Characteristics

Parameter	
Luminance	350 cd/m <sup>2</sup> Min.
#1	1000 cd/m <sup>2</sup> Typ.
#2	2000 cd/m <sup>2</sup> Typ.
Color of illumination	Green (Blue-Green)
#1: Brightness 200% #2: I	Brightness 100%
	Luminance #1 #2 Color of illumination

#### **■** Environmental Conditions

Parameter	
Operating Temperature	-40 ~ +85 degrees celsius
Storage Temperature	-50 ~ +85 degrees celsius
Operating Humidity	20 ~ 80% R.H. (non-condensing)
Vibration (Non operation)	10-55-10Hz, all amplitude 1mm, 30 minutes, X-Y-Z
Shock (Non operation)	539m/s <sup>2</sup> (55G) 10ms

## **■** Physical Specifications

Parameter	
Number of char.	40 (20 x 2)
Matrix format	5 x 7 ANK, International
Display area	70.8 x 11.5 mm (X x Y)
Character size	2.4 x 4.7 mm (X x Y)
	Underline is not included.
Character pitch	3.6 mm
Line pitch	6.1 mm
Weight	About 40 g

#### ■ Interface

8bit/4bit Parallel(TTL), Synchronous Serial (CMOS)

## ■ Pin Assignment (Parallel)

Pin No	Signal	Pin No	Signal
1	GND	2	VCC
3	NC	4	RS
5	R/W(WR)	6	E(RD)
7	DB0	8	DB1
9	DB2	10	DB3
11	DB4	12	DB5
13	DB6	14	DB7

## al)

(Synchronous Seria			
Pin No Signal			
1	VCC		
2	SI/SO		
3	GND		
4	STB		
5	SCK		
6	NC		

#### **■** Functions

Parameter Brightness Boost function

Command compatible with HD44780 LCD controller

Display ON/OFF Brightness Control

Cursor ON/OFF

8 User definable character font





