# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

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!



## Contact us

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Noritake **itron** 

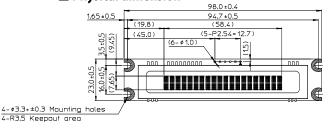
SIMPLIFIED DATASHEET

### CU20024-UX3J

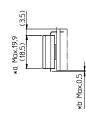
#### Features

20 character x 2 line display LCD compatible module. Compact version of CU20025-UX1J.

#### Physical dimension



\*a Max.85.7 (84.0) 8.55±1.0 (7.0 ŝ



():Reference only Unit:mm

\*a Included extra frit glass

\*b Ensure conductive / metalic surfaces do not contact pin stubs.



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#### Specifications

#### Electrical Ratings

<u> </u>						
Parameter	Symbol	Min.	Тур.	Max.	Unit	Condition
Logic Input Voltage	VIH1	2.0	-	VCC	VDC	VCC-VSS= 5.0 V
SCK, STB	VIL1	VSS	-	0.8	VDC	VUC-VSS= 5.0 V
Logic Input Voltage	VIH2	0.7VCC	-	VCC	VDC	VCC-VSS= 5.0 V
SI/SO	VIL2	VSS	-	0.3VCC		
Power supply Voltage	VCC-VSS	4.75	5.00	5.25	VDC	-

#### About

#### 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	VDO	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	-	180	230	mA	Display ON
Power Supply Current #2	ICC2	-	140	180	mA	Display ON
Power Supply Current 3	ICC3	-	7	20	mA	Display OFF
Power Consumption #1		-	0.9	1.2	W	Display ON
Power Consumption #2		-	0.7	0.9	W	Display ON
#1. Brightness 200% #2	· Brightne	ee 100%				

#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:	Brightness 100%

#### 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

Max.

Parameter	
Number of char.	40 (20 x 2)
Matrix format	5 x 7 ANK, International
Display area	58.4 x 7.65 mm (X x Y)
Character size	2.065 x 3.569 mm (X x Y)
Character pitch	2.965 mm
Linepitch	4.081 mm
Weight	About 26 g

#### Interface

Synchronous Serial (CMOS)

(Synchronous Serial)			
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 etc.



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