

Customer Code:

# DATASHEET

DAPU P/N: CM11A-J328-122.88MHz

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DAPU			Customer Approval
Drew	Audited	Approved	Stamp, please! Thanks!
Date: 2024.05.15			

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## 1. Pin Definition

**Table 1 Pin Definition**

Pin#	Pin Name	Type	Description
1	VC_TEST	O	Test output of the control voltage for the VCXO
2	LOCK_DETECT	O	Test output signal for PLL lock detected 0 :PLL out of lock 1 :PLL in lock
3	REF_SEL	I	Select Logic for Reference frequency 0: 10MHz 1: 11.2MHz
5	N.C.	N.C.	Not connected
6,7	GND	GND	GND
8	FOUT_P	O	RF synchronized output
9	FOUT_N	O	RF synchronized output
10	GND	GND	GND
12	N.C.	N.C.	Not connected
13	REF_IN	I	High stable input frequency for synchronization
14	VCC	PWR	Power Supply



## 2. Electrical Parameters

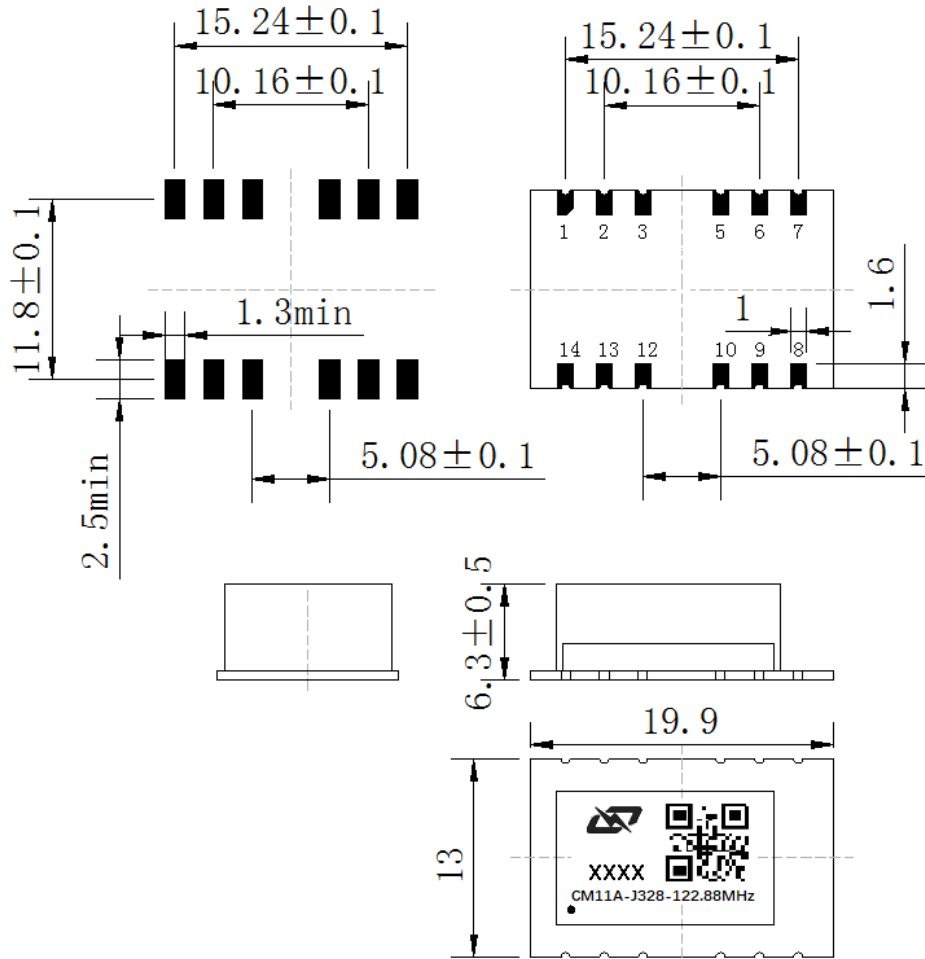
型号: CM11A-J328-122.88MHz						
Item	Description	Parameters			Unit	Test Condition
		Min.	Typ.	Max.		
Output	Frequency	122.88			MHz	
	Output Waveform	LVPECL				
	Output Low Voltage			1.8	V	@25°C, V <sub>cc</sub> =3.3V
	Output High Voltage	2.2			V	@25°C, V <sub>cc</sub> =3.3V
	Duty Cycle	45	50	55	%	@50%, V <sub>c</sub> =1.65V
	Rise / Fall Time (20%~80%)			1	ns	@25°C, V <sub>cc</sub> =3.3V
	Load	50			Ω	Connect to V <sub>cc</sub> -2.0V
	Jitter			1	ps	RMS (12KHz ~20MHz)
Frequency Stabilities	Frequency Tolerance vs. Operating Temperature Range	-30		+30	× 10 <sup>-6</sup>	T <sub>A</sub> varied from -40°C to 85°C, measurement referenced to frequency observed with T <sub>A</sub> =25°C, V <sub>cc</sub> =3.3V, O <sub>load</sub> =50 Ω Connect to V <sub>cc</sub> -2.0V, temperature variable speed less than 2°C per minute.
	Frequency Tolerance vs. Supply Voltage	-5		+5	× 10 <sup>-6</sup>	measurement referenced to frequency observed T <sub>A</sub> =25°C, V <sub>cc</sub> varied from 3.13V to 3.47V and O <sub>Load</sub> =50 Ω Connect to V <sub>cc</sub> -2.0V.
	Frequency Tolerance vs. Load	-3		+3	× 10 <sup>-6</sup>	5% load change measurement referenced to frequency observed with T <sub>A</sub> =25°C, V <sub>cc</sub> =3.3V and O <sub>Load</sub> =50 Ω Connect to V <sub>cc</sub> -2.0V.
	Aging Tolerance 1 Year	-3		+3	× 10 <sup>-6</sup>	T <sub>A</sub> =25°C, V <sub>cc</sub> =3.3V and after 30 days of operation.
Power Supply	Supply Voltage	3.13	3.3	3.47	V	
	Current Consumption			100	mA	@25°C
Phase Noise	Phase Noise ( depends on reference Phase Noise )		-73		dBc/Hz	10Hz
			-105			100Hz
			-125			1KHz
			-145			10KHz
			-148			100KHz
			-150			1MHz



Reference Frequency	Input frequency	10 11.2			MHz	Pin 3 Select = 0 Pin 3 Select = 1
	Reference Level	0.5		2.7	V <sub>pp</sub>	LVC MOS or LV TTL
	Reference Input Impedance	2			KΩ	
	Short-term Stability		3	5	× 10 <sup>-9</sup> /s	
	Input frequency Phase Noise			-90	dBc/Hz	@ 10 Hz
Environmental Conditions	Operable Temperature	-40		+85	°C	
	Storage Temperature	-55		+105	°C	
	ESD Level	Human Body Model, class2: 2000V to 4000V; ANSI/ESDA/JEDEC JS-001-2010.				
		Machine Model, class B: 200V to 400V; ANSI/ESDA/JEDEC JS-001-2010.				
	Moisture Sensitivity Level	Level 2.				
	Vibration	Test Condition: 0.75mm ;acceleration:10g;10Hz~500Hz, one cycle per 30 min, test 2 hour. (3 times for each 3 directions X , Y , Z), IEC 68-2-06 Test Fc.				
Shock	100g; 6ms; half sine wave (3 times for each 3 directions X , Y, Z ),IEC 68-2-27 Test Ea/Severity 50A.					
Full Package Storage	Relative Humidity	20%~70%				
	Temperature	-10°C~35°C				



### 3. Mechanical Structure (mm)



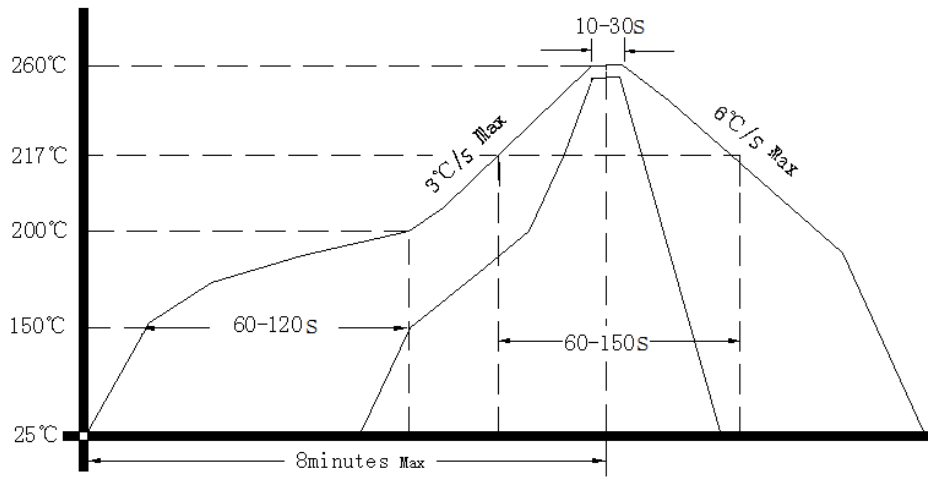
**Note1:** Tolerance  $\pm 0.2$ mm without mark.

**Note2:** WW represents Week.

YY represents Year.



#### 4. Reflow Soldering Curve (RoHS)



Passing through reflow upside down is not supported

#### 5. Package (mm)

