

High stability and double constant temperature

Crystal Oscillators

Product profile

The CX8617A is a dual constant temperature low phase noise crystal oscillator, with excellent phase noise performance and frequency stability, and has good environmental adaptability, and the nominal index can be obtained in the desktop environment.

Product features

- Near-end phase noise down to -125dBc/Hz@1Hz
- Stability can be reached 1.5E-13/1s, 5E-13/100s
- +15VDC power supply

Application area



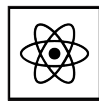
Radar communication system



Short-term stability /phase noise Measurement Standards



Measuring and testing instruments



Hydrogen cesium atomic clock local oscillator



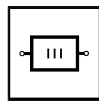
Frequency standard comparison measurement system



Phase noise test system



Atomic Signal Purification Phase-Locked Loops



Microwave Frequency multiplier

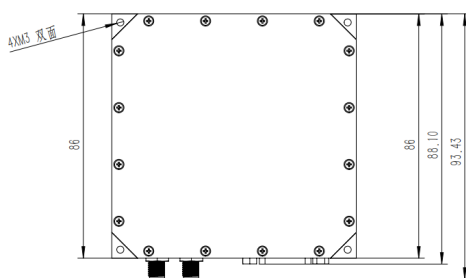
Typical curve



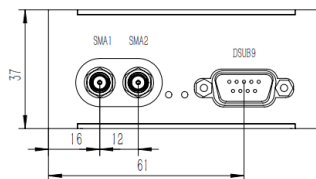
Noise Marker(Hz)	0.1Hz: -97dBc/Hz	10Hz: -151dBc/Hz
1Hz: -125dBc/Hz	100Hz: -165dBc/Hz	1kHz: -169dBc/Hz
100Hz: -165dBc/Hz	10kHz: -170dBc/Hz	

Test Item		Technical Indicators			
Output frequency	Standard layout	10MHz			
Frequency stability	1s@10MHz	Standard	OptionA1*	OptionA2*	OptionA3*
		$\leq 5 \times 10^{-13}$	$\leq 3 \times 10^{-13}$	$\leq 1.5 \times 10^{-13}$	$\leq 1.2 \times 10^{-13}$
	10s@10MHz	$\leq 5 \times 10^{-13}$	$\leq 3 \times 10^{-13}$	$\leq 2 \times 10^{-13}$	$\leq 2 \times 10^{-13}$
	100s@10MHz	$\leq 5 \times 10^{-13}$	$\leq 5 \times 10^{-13}$	$\leq 5 \times 10^{-13}$	$\leq 5 \times 10^{-13}$
Phase noise dBc/Hz		Standard	OptionB1*	OptionB2*	OptionB3*
	1Hz*	≤ -120	≤ -122	≤ -124	≤ -125
	10Hz	≤ -143	≤ -145	≤ -147	≤ -148
	100Hz	≤ -155	≤ -155	≤ -155	≤ -155
	1kHz	≤ -160	≤ -160	≤ -160	≤ -160
	10kHz	≤ -160	≤ -160	≤ -160	≤ -160
	100kHz	≤ -160	≤ -160	≤ -160	≤ -160
Aging rate (Measured after 30day of continuous aging)		Standard		OptionC1	
	1day	$\leq 5 \times 10^{-10}$		$\leq 3 \times 10^{-10}$	
	1 month	$\leq 5 \times 10^{-9}$			
	The first year	$\leq 5 \times 10^{-8}$			
	Ten years	$\leq 2.5 \times 10^{-7}$			
Frequency control	Pressure control voltage range	0~5V, Positive slope			
	Frequency regulation range	$\geq \pm 1 \times 10^{-7}$			
Wave shape		Sine wave			
Output power		$\geq 5\text{dBm}$			
Output impedance		50Ω			
Harmonic		$\leq -40\text{dBc}$			
Clutter		$\leq -80\text{dBc}$			
Working temperature		-5°C ~+55°C			
Storage temperature		-40°C ~+85°C			
Power supply		+12~15VDC			
Electric current		$\leq 1.6\text{A}$			
External Dimension		86mm×86mm×37mm			

External Dimension



Unit: mm



DSUB9 Interface Definition:

- 1, 8: The Ground
- 6: +15V power supply
- 7: +5V Reference Voltage Output
- 9: Frequency pressure control
- Other: NC