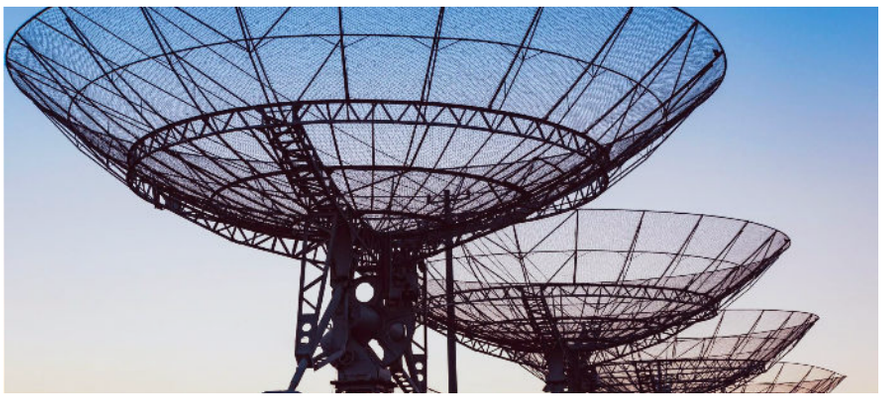
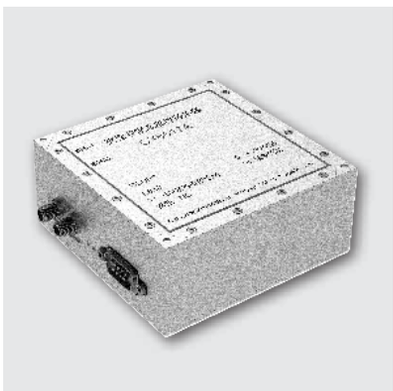
北斗邦泰
BDSTAR TIME

-CX8617A





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.

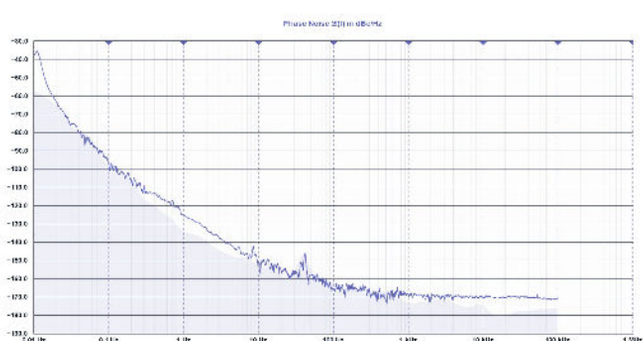
Product features

- 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)

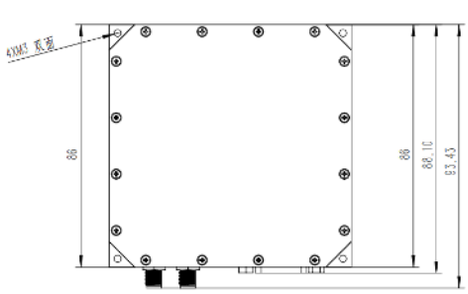
0.1Hz:	-97dBc/Hz		
1Hz:	-125dBc/Hz	10Hz:	-151dBc/Hz
100Hz:	-165dBc/Hz	1kHz:	-169dBc/Hz
10kHz:	-170dBc/Hz	100kHz:	-170dBc/Hz

Technical Parameters

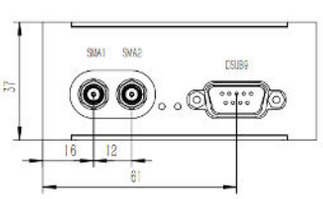
-CX8617A

Test Item		Technical Indicators			
Output frequency	Standard layout	10MHz			
Frequency stability	1s@10MHz	Standard	OptionA1*	OptionA2*	OptionA3*
		⩽ 5×10^{-13}	⩽ 3×10^{-13}	⩽ 1.5×10^{-13}	⩽ 1.2×10^{-13}
	10s@10MHz	⩽ 5×10^{-13}	⩽ 3×10^{-13}	⩽ 2×10^{-13}	⩽ 2×10^{-13}
	100s@10MHz	⩽ 5×10^{-13}	⩽ 5×10^{-13}	⩽ 5×10^{-13}	⩽ 5×10^{-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	⩽ 5×10^{-10}		⩽ 3×10^{-10}	
	1 month	⩽ 5×10^{-9}			
	The first year	⩽ 5×10^{-8}			
	Ten years	⩽ 2.5×10^{-7}			
Frequency control	Pressure control voltage range	0~5V，Positive slope			
	Frequency regulation range	⩾ $\pm1\times10^{-7}$			
Wave shape		Sine wave			
Output power		⩾ 5dBm			
Output impedence		50Ω			
Harmonic		⩽ -40dBc			
Clutter		⩽ -80dBc			
Working temperature		-5°C ~+55°C			
Storage temperature		-40°C ~+85°C			
Power supply		+12~15VDC			
Electric current		⩽ 1.6A			
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