










Digital phase-locked thermostat

Crystal Oscillators

Product profile

PLOD260 is a high-performance phase-locked crystal oscillator with three 10MHz signals and one 5MHz signal output. BDSTAR TIME's standard form factor design, internal integration of high-performance constant temperature crystal oscillator and an all-digital phase-locked loop, which accepts 10MHz input signals and can be customized to have one low phase-noise 5MHz crossover output, with bandwidths ranging from 4MHz to 512MHz, and can be set by RS-232 to optimize the phase noise of Rubidium and Cesium clocks. The bandwidth can be set from 4MHz to 512MHz via RS-232, which can be used to optimize the phase noise and short stability of Rubidium and Cesium clocks.

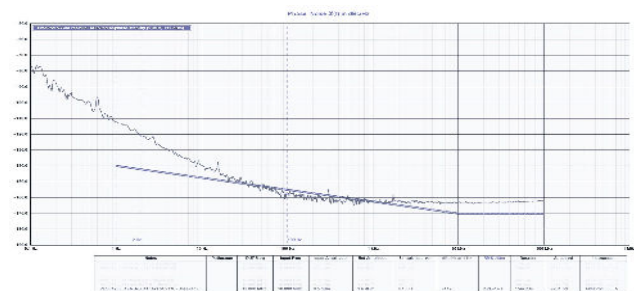
Application area

			
Communication navigation	Sailing	Sonar	Radar
			
Communication	Telemetry	Remote sensing	Instrumentation

Product features

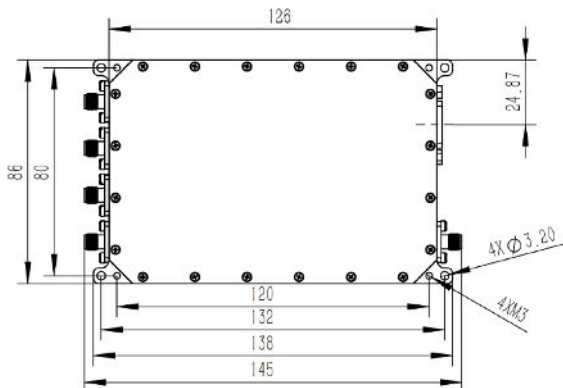
- Full digital phase-locked loop, built-in high stability and low phase noise constant temperature crystal oscillator
- Standard construction, height 19mm, stackable mounting
- Ultra-low phase-noise output: -140 dBc / Hz@10Hz
- +12~+15VDC power supply
- 3 way 10M output and optional 1 way 5M output

Typical curve

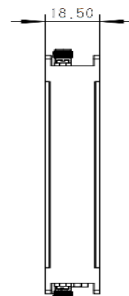


Test Item		Technical Indicators		
Input frequency		1-way, 10 MHz		
Input power range		5dBm~15dBm		
Input accuracy		$\pm 2 \times 10^{-7}$		
Output frequency		3-way 10MHz , 1-way 5MHz		
Digital phase-locked bandwidth		4 mHz ~ 512 mHz can be set		
Output frequency stability	1s	$\leq 5 \times 10^{-13}$		
10MHz Phase noise dBc/Hz		Standard	OptionB1	OptionB2
	1Hz	≤ -105	≤ -115	≤ -118
	10Hz	≤ -135	≤ -142	≤ -145
	100Hz	≤ -155	≤ -155	≤ -155
	1kHz	≤ -160	≤ -160	≤ -160
	10kHz	≤ -160	≤ -160	≤ -160
	100kHz	≤ -160	≤ -160	≤ -160
5MHz [optional] Phase noise dBc/Hz	1Hz	$\leq -111^*$		
	10Hz	≤ -141		
	100Hz	≤ -161		
	1kHz	≤ -166		
	10kHz	≤ -166		
	100kHz	≤ -166		
Working temperature		-20°C ~+70°C		
Storage temperature		-55°C ~+125°C		
Power supply		+12V~+15V		
Power-on current		$\leq 0.8A$		
Steady-state current		$\leq 0.5A$		
Body size		138mm×86mm×19mm		

External Dimension



Unit: mm



DSUB9 Pin Definition:

- 1: The Ground
- 2: N/C
- 3: RS232-TX
- 4: RS232-RX
- 5: Locking Indication
- 6: Power supply: +12~+15V
- 7: N/C
- 8: The Ground
- 9: N/C