

## Analog phase-locked thermostat Crystal Oscillators

### Product profile

PLOA260 is a low noise analog phase-locked oscillator which is based on the standard form factor design of BDSTAR TIME, and integrates 1 high performance thermostatic crystal, 1 digital phase-locked loop and 3 isolation amplifiers, and also can be Customized with 1 low phase noise 5MHz crossover output, 5Hz fixed bandwidth filament, 1Hz phase noise, and 1s fixed degree following standard. While the far end noise is determined by the local low noise crystal oscillator, the PLOA260 can be used to optimize the output noise of the clock-keeping room phase trimmer, and is suitable for connecting to the hydrogen clock set phase trimmer, which improves the phase noise performance while maintaining the hydrogen clock second stability.

### Application area



Communication navigation



Sailing



Sonar



Radar



Communication



Telemetry



Remote sensing

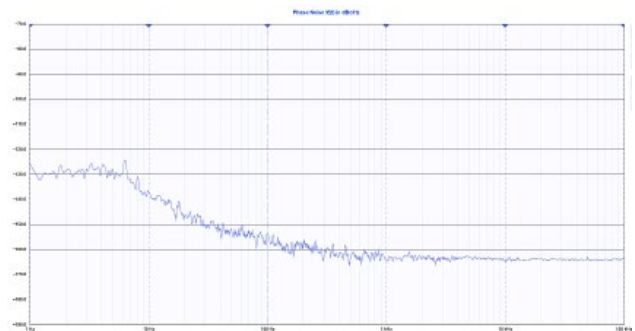


Instrumentation

### Product features

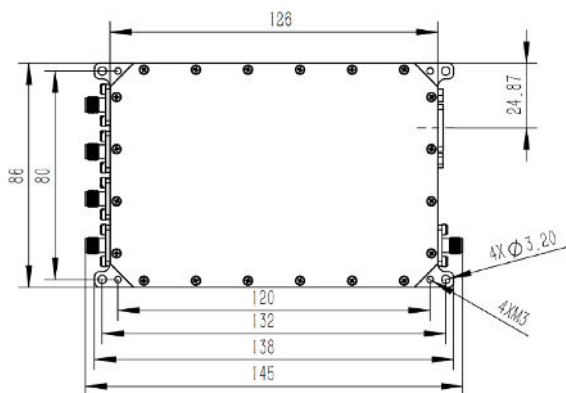
- Pure analog low-noise phase lock with built-in ultra-low-noise thermostatic crystal oscillator
- Standard structure, only 19mm high, which can be stacked for installation
- DSUB9 Connector and the SMA RF connector
- 3-way 10 MHz and optional 1-way 5 MHz output
- + 12~ + 15VDC power supply

### 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		3Hz~8Hz for customization
Output frequency stability	1s	$\leq 5 \times 10^{-14}$
10MHz Phase noise dBc/Hz	1Hz	$\leq -125$
	10Hz	$\leq -135$
	100Hz	$\leq -155$
	1kHz	$\leq -160$
	10kHz	$\leq -160$
	100kHz	$\leq -160$
5MHz [optional] Phase noise dBc/Hz	1Hz	$\leq -130^*$
	10Hz	$\leq -141$
	100Hz	$\leq -161$
	1kHz	$\leq -166$
	10kHz	$\leq -166$
	100kHz	$\leq -166$
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