

# Atlantic Microwave Phase Locked Voltage Controlled Oscillators

APV Series

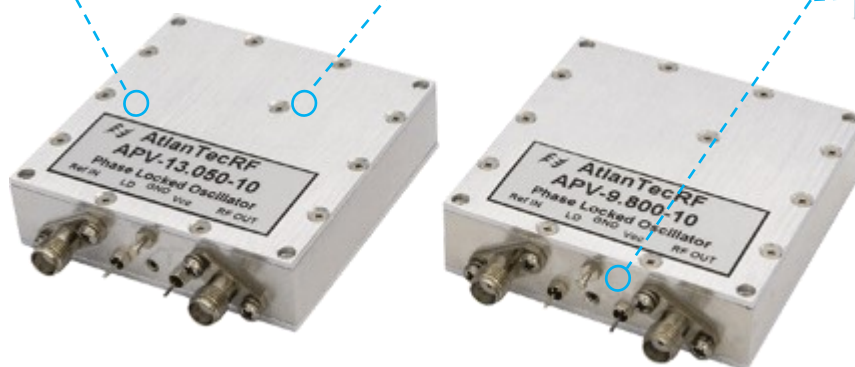
The APV series are a single phase locked loop design that lock a voltage controlled oscillator to either an internal or external reference.

- Output Frequencies 10MHz to 32GHz
- Internal (+/-0.5ppm) or External Reference
- Good Phase Noise
- Low Spurious
- Compact Size

 **Output Frequency Range**  
10MHz - 32GHz

 **Compact Size**

 **High Output Power**  
+13dBm min.



## General Specifications

Output Frequency	10MHz to 32GHz
External Reference	10MHz or 100MHz (0dBm +/-3dB)
Internal Reference	+/-0.5ppm (-10 to +70C)
Output Power	+13dBm min.
Output Power Variation	2dB max.
Harmonics	-20dBc typ.
Spurious	-60dBc typ.
Load VSWR	2:1 max.
Operating Temperature	-5 to +65C
Storage Temperature	-40 to +85C
Input Voltage	+5.5 Vdc +/-0.5 V @ 400 mA typ.
Lock Alarm	TTL High for Locked
RF Output Connector	SMA Female or 2.92mm Female above 26GHz
Size	2.25" x 2.25" x 0.62" 2.25" x 2.25" x 1.10" above 16GHz

## Phase Noise (dBc/Hz) (typical)

Offset Frequency (Hz)	Typical Output Frequency (GHz)								
	0.175	1.0	2.0	6.0	10.0	14.0	19.0	24.0	28.0
100	-100	-95	-90	-80	-65	-65	-65	-65	-65
1K	-110	-105	-100	-85	-75	-75	-75	-75	-75
10K	-110	-110	-100	-85	-95	-75	-80	-80	-80
100K	-120	-120	-110	-90	-95	-85	-80	-80	-80
1M	-140	-140	-130	-120	-125	-115	-115	-115	-115

Note 1: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved spec accuracy.  
Note 2: Operation beyond the quoted limits stated above may cause instantaneous and permanent damage.

