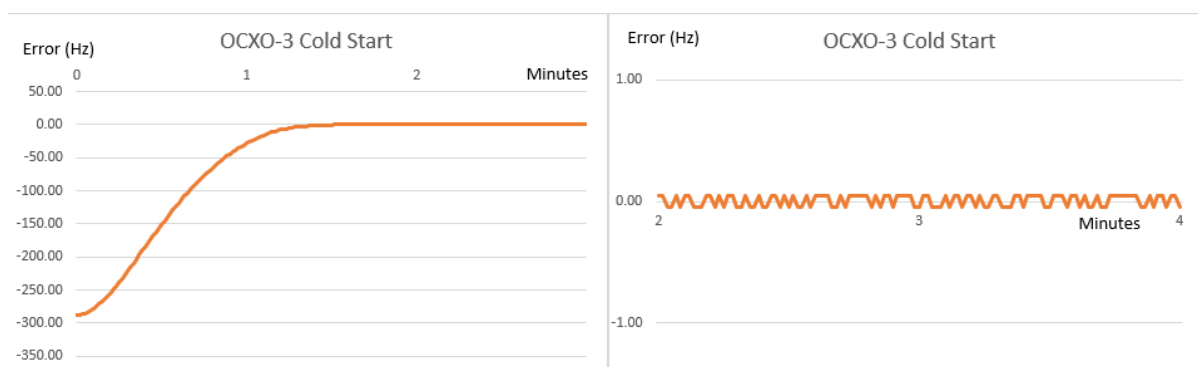


The **OCXO-3 10MHz Frequency Reference** is designed to provide frequency stable locking for microwave digital phase locked loops, VHF/UHF radios, and test equipment. Four outputs may be sine or square wave. The module operates over a wide range of supply voltages The reference when calibrated will provide an accurate frequency for years. GPS disciplined option is available.



The OCXO-3 is a stand-alone Oven Controlled Crystal Oscillator calibrated for 10 MHz output. The reference generator operates from a supply of 12 to 28V dc. At 12V the current drain at start-up is less than 0.5A. When settled, the current drain at 12V is less than 250mA and at 26V is less than 150mA.

The module may be configured for sine or square wave outputs of more than 0 dBm. Four SMA outputs are available along one edge of the enclosure. An additional output may be added to the end plate connector or to a flying lead.



The module is based on a CTI OSC5AB02 oven-controlled crystal oscillator OCXO, square wave, operating at 5V.

Warmup time is less than 2 mins. Stability is better than 10 ppb at 0°C to 45°C. Accuracy - Long term ageing less than 100 ppb per year, less than 400ppb over 10years.

Phase noise is excellent -80dBc/Hz@1Hz, -120dBc/Hz@10Hz, -140dBc/Hz@100Hz, -145dBc/Hz@ 1kHz.

Enclosure is an aluminium clamshell with screw-on aluminium end plates 80 x 50 x 20 mm.

Specification

Frequency	10	MHz	
Waveform	Sine		Square selectable
Number of Outputs	4		SMA
	+1		Fly lead
Output level	> 4	dBm	Up to +16dBm by mod
	1.2 Vp-p	In 50R	typical
OCXO	OSC5AB02	CTI	Square wave 5V
Stability	< 10	ppb	after warm-up
Accuracy	< 100	ppb	long term (year)
	< 400	ppb	long term (ten year)
Warm-up	2	min	typical
Power Supply	12 - 26	Vdc	
	At switch-on		
Consumption	500	mA	@12V
	300	mA	@26V
	After warm-up		
	150	mA	@12V
	250	mA	@26V
Phase Noise	-80	dBc/Hz	@1Hz
	-120	dBc/Hz	@10Hz
	-140	dBc/Hz	@100Hz
	-145	dBc/Hz	@1kHz
	-150	dBc/Hz	@10kHz
Output Connectors	SMA		
Power Connector	DC Jack		Plug & red black
Indicators	Power	LED	green
Enclosure	Aluminium	Diecast Box	
	115 x 60 x 35	mm	L x W x D

VK4AMG@wia.org.au