

# Low Phase Noise Phase Locked Oscillator

V 1.00

# MASYML0007

## Features

- Low Phase noise
- Ceramic resonator
- Fixed frequency applications
- High Reliability
- Hermetic Package

## Description

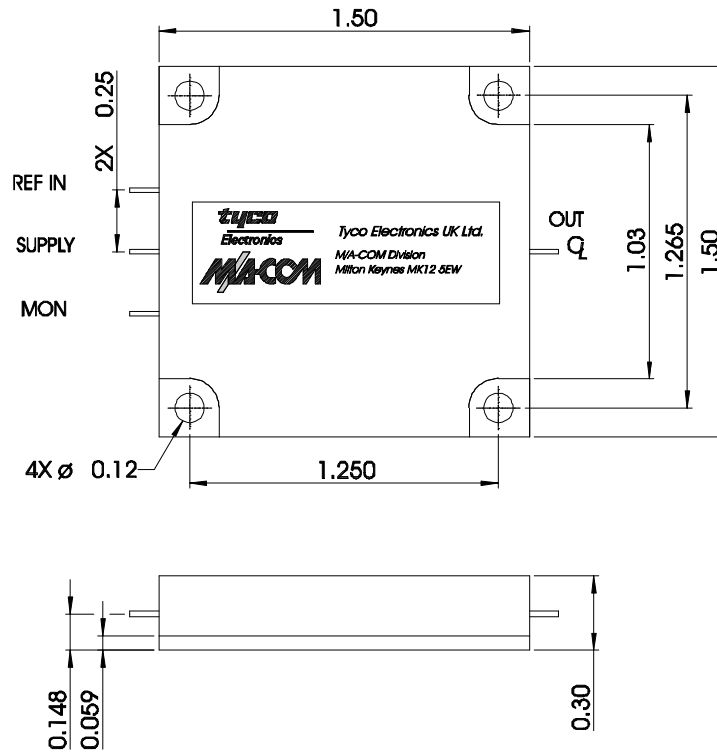
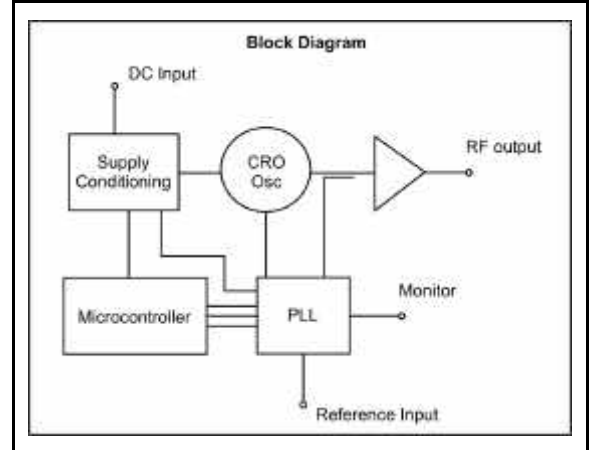
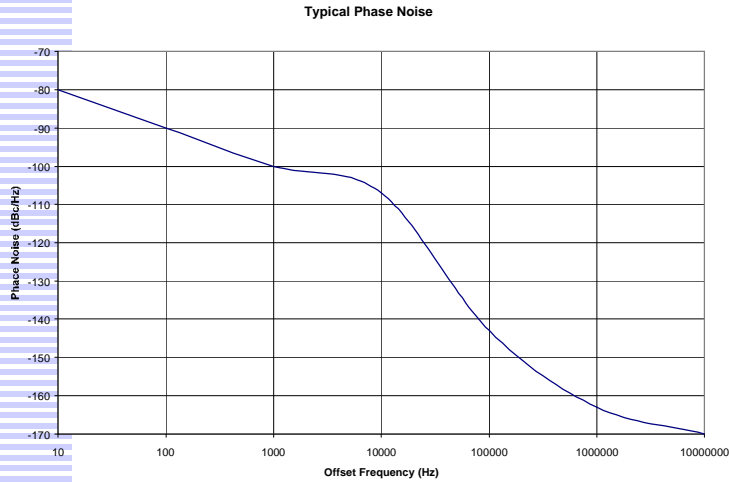
M/A-COM's MASYML0007 is a high reliability phase locked CRO oscillator with excellent phase noise performance. The MASYML0007 is designed for demanding applications that require the ultimate in low phase noise and robust construction. Applications include communications terminals, surveillance radar exciters, airborne transponders and fire control radar. The module is supplied in a flange mount metal package for ease of integration into the user's hardware. Frequency control is handled internally using a customized micro-controller.



## Electrical Performance

(Applies over output frequency range @ +25 °C, VCC +9V, Fref 100 MHz, output load 50 unless otherwise stated. Limits & Conditions are indicated values.)

	Min	Typ	Max	Unit	Notes
Frequency		1600		MHz	Over T <sub>OP</sub> Derivative designs available for discrete frequencies from 1 GHz to 3 GHz
RF Output power	-3	0	+3	dBm	Over T <sub>OP</sub>
RF Output VSWR		1.2:1			
Switch on Time		200	350	ms	
Harmonics		-20	-15	dBc	Over T <sub>OP</sub>
Spurious		-75	-70	dBc	
Phase Noise		-80	-77	dBc/Hz	10Hz offset
		-90	-87	dBc/Hz	100Hz offset
		-100	-97	dBc/Hz	1kHz offset
		-107	-103	dBc/Hz	10kHz offset
		-143	-139	dBc/Hz	100kHz offset
		-163	-160	dBc/Hz	1MHz offset
External Ref		100		MHz	With stability of 20 ppm (max) over temperature. Reference phase noise: -98 dBc/Hz @ 10 Hz, -110 dBc/Hz @ 100 Hz, -120 dBc/Hz @ 1 kHz
Lock Monitor (in lock)	2.0	2.5	3.3	Volt	
Lock Monitor (not locked)	0	0.1	0.8	Volt	
DC Supply voltage		9		Volt	Other voltages may be specified
DC Current		70		mA	
Power consumption		1		Watt	
Operating Temp	-40		+85	°C	
Non-Operating/Storage Temp	-55		+125	°C	



NOTES:-  
 1. CONDUCTOR PINS WITH GLASS/METAL SEALS. PIN  $\phi$ 0.018 SEALS. PIN  $\pm$  0.020.

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