

# OVEN CONTROLLED CRYSTAL OSCILLATOR

**AOCJY7 Series**



**RoHS**  
Compliant



25.4x 25.4 x 12.7 mm Leaded

## FEATURES:

- Exceptional Close to the carrier Maximum Phase Noise of -160dBc/Hz @ 1kHz & -174dBc/Hz @ 10kHz offset from 100.0 MHz Carrier
- SC-Cut, High “Q” resonator based design
- 100.0MHz carrier frequency
- Excellent Frequency Stability of  $\pm 50.0$  ppb over the operating temperature range of -20°C to +70°C
- Tuned Sinewave output into a 50Ω load
- Industry Standard, 25.4x25.4x12.7 mm, RoHS compliant & Pb free package

## APPLICATIONS:

- COTS Military & Industrial Radios & Timing Circuits
- Cellular Infrastructure
- Radar Systems
- Test & Measurement Equipment
- GPS Tracking with precision hold-over accuracy
- WiMax / WLAN
- Precision primary frequency reference clocks

## STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Center Frequency	100.000			MHz	
Supply Voltage	+11.4	+12.0	+12.6	V	
Supply Current (Start up)			400	mA	
Supply Current (Stabilized)			200	mA	
Sine Output Level (with 50Ω load)	8	11	12	dBm	
Harmonics (Reference to Carrier)			-30		
Phase Noise (SSB @10Hz)			-90	dBc/Hz	
Phase Noise (SSB @100Hz)			-125	dBc/Hz	
Phase Noise (SSB @1KHz)			-160	dBc/Hz	
Phase Noise (SSB @10KHz)			-174	dBc/Hz	
Phase Noise (SSB @100KHz)			-174	dBc/Hz	
Adjust. Tolerance (Typ control voltage)			$\pm 100$	ppb	
Freq vs Supply (Vs $\pm 5\%$ )			$\pm 5$	ppb	
Freq vs Load (Load $\pm 5\%$ )			$\pm 5$	ppb	
Freq vs Temp (Ref to Freq @ 25°C)			$\pm 50$	ppb	
Operating Temp	-20	25	+70	°C	
Aging per year(After 30 days)			$\pm 100$	ppb	
Warm Up (10mn-2Hr on)			$\pm 10$	ppb	
Control Voltage	0	2.5	5	V	
Pulling Range	$\pm 1000$			ppb	
Linearity			10		
Storage temperature	-55		+100	°C	

By default, AOCJY7 OCO is constructed with the following key specifications:

- i) **Supply Voltage** = **12.00 Volts**
- ii) **Operating Temperature Range** = **-20°C to +70°C**
- iii) **RF Output** = **Pure Sinewave into 50Ω**



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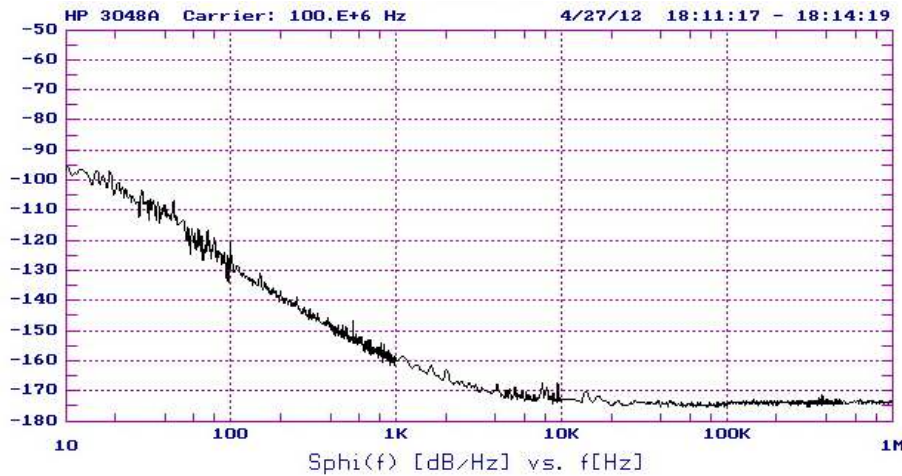


RoHS  
Compliant

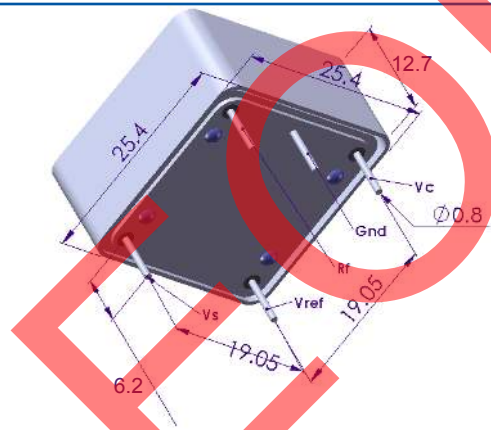


25.4x 25.4 x 12.7 mm Leaded

## TYPICAL PHASE NOISE PERFORMANCE:



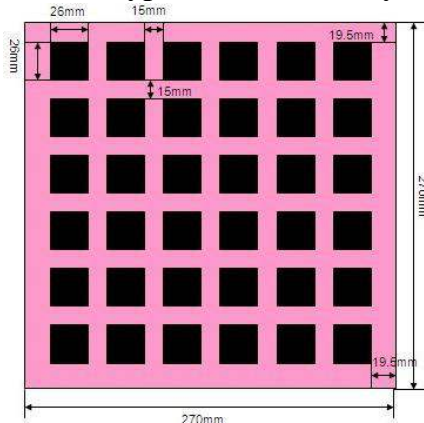
## OUTLINE DRAWING:



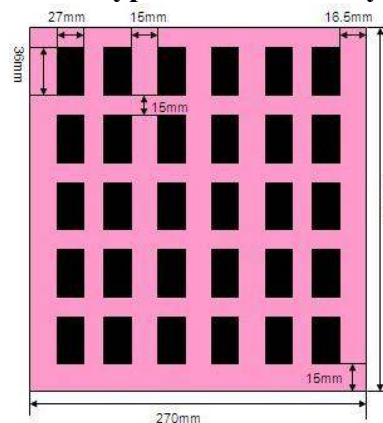
Dimensions: mm

## PACKAGING:

Foam Type A: 36 units/tray



Foam Type B: 30 units/tray



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ABRACON IS  
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