

# OVEN CONTROLLED CRYSTAL OSCILLATOR

**AOCJY6 Series**



**RoHS**  
Compliant



51 x 41 x 25 mm Leaded

## FEATURES:

- Exceptional Frequency Stability:  $\pm 0.10$  ppb,  $\pm 0.20$  ppb,  $\pm 0.50$  ppb over the operating temperature range of  $-20^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$
- SC-Cut, High "Q" resonator based design yielding excellent close to the carrier Phase Noise
- 10.0MHz carrier frequency
- Tuned Sinewave output into a  $50\Omega$  load
- Industry Standard, 51x41x25 mm, RoHS compliant & Pb free package

## APPLICATIONS:

- Stratum II clock
- WiMax, LTE
- Precision timing and frequency standards
- Test & Measurement Equipment
- GPS Tracking with precision hold-over accuracy

## STANDARD SPECIFICATIONS:

Parameters	Minimum	Typical	Maximum	Units	Notes
Center Frequency		10.000		MHz	
Supply Voltage	+11.4	+12.0	+12.6	V	
Supply Current (Start up)			800	mA	
Supply Current (Stabilized)			300	mA	
Sine Output Level (with $50\Omega$ load)	5	8	11	dBm	
Harmonics (Reference to Carrier)			-30	dBc	
Phase Noise (SSB @1Hz)			-90	dBc/Hz	
Phase Noise (SSB @10Hz)			-120	dBc/Hz	
Phase Noise (SSB @100Hz)			-135	dBc/Hz	
Phase Noise (SSB @1KHz)			-145	dBc/Hz	
Phase Noise (SSB @10KHz)			-150	dBc/Hz	
Phase Noise (SSB @100KHz)			-150	dBc/Hz	
Adjust. Tolerance (Typ. control voltage)			$\pm 50$	ppb	
Freq vs Supply ( $V_s \pm 5\%$ )			$\pm 0.1$	ppb	
Freq vs Load (Load $\pm 5\%$ )			$\pm 0.05$	ppb	
Freq vs Temp (Ref to Freq @ $25^{\circ}\text{C}$ )			$\pm 0.1$	ppb	See options
Operating Temp	-20	25	+70	$^{\circ}\text{C}$	
Aging per day			$\pm 0.1$	ppb	
Aging per month			$\pm 5$	ppb	
Aging per year (After 30 days)			$\pm 20$	ppb	
Short term stability (1S)			$\pm 0.005$	ppb	
Warm Up (10mn-2Hr on)			$\pm 10$	ppb	
Control Voltage	0	3	6	V	
Pulling Range	$\pm 300$	$\pm 400$	$\pm 500$	ppb	
Linearity			5		
Reference Voltage	5.9	6	6.1	V	
Storage temperature	-40		+85	$^{\circ}\text{C}$	
Spurious in the frequency range to 1MHz			-70	dBc	

By default, AOCJY6 OCO is constructed with the following key specifications:

- i) **Supply Voltage** = **12.00 Volts**
- ii) **Operating Temperature Range** =  **$-20^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$**
- iii) **RF Output** = **Pure Sinewave into  $50\Omega$**

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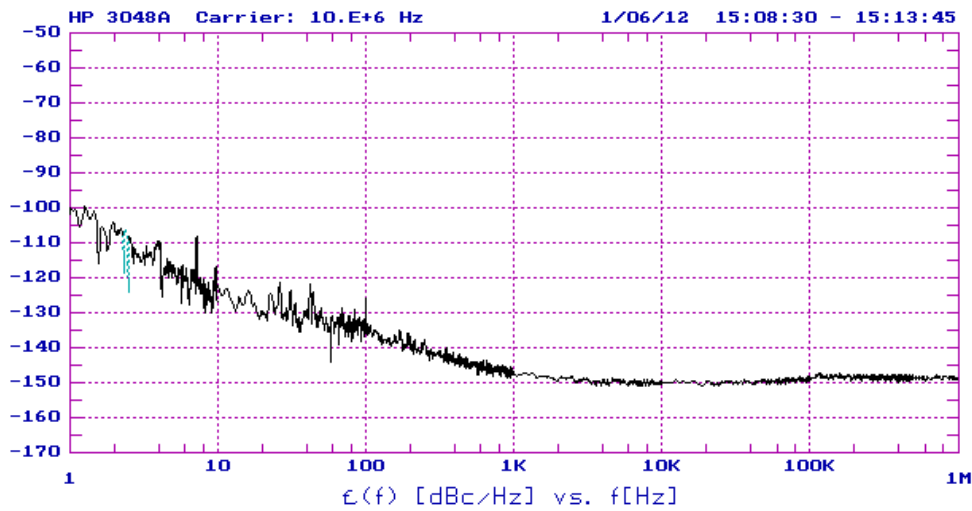
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## TYPICAL PHASE NOISE PERFORMANCE:



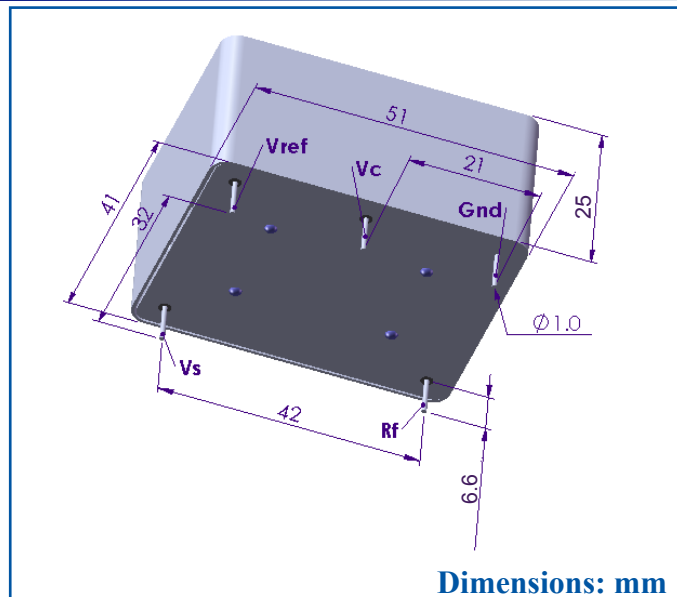
## PART IDENTIFICATION:

AOCJY6 - 10.000 MHz -

### F vs Temp. (ppb)

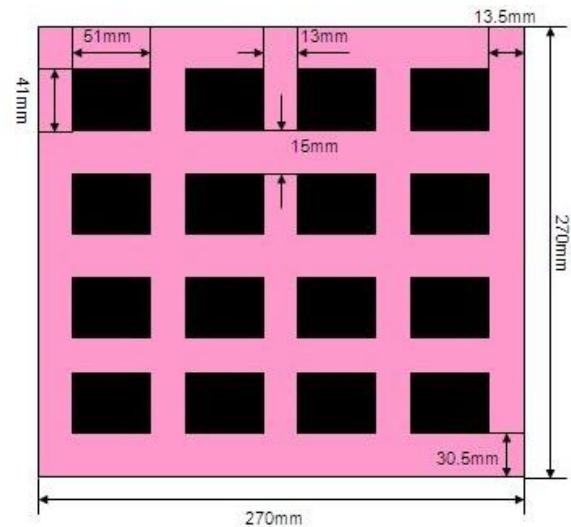
1: ±0.1
2: ±0.2
5: ±0.5

## OUTLINE DRAWING:



## PACKAGING:

Packaging: 16 unites/tray



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