

OVEN CONTROLLED CRYSTAL OSCILLATOR

AOCJY6 Series



RoHS
Compliant



51 x 41 x 25 mm Leaded

FEATURES:

- Exceptional Frequency Stability: ± 0.10 ppb, ± 0.20 ppb, ± 0.50 ppb over the operating temperature range of -20°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 Ω 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 Ω 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) | | | ± 50 | ppb | |
| Freq vs Supply ($V_{s\pm 5\%}$) | | | ± 0.1 | ppb | |
| Freq vs Load (Load $\pm 5\%$) | | | ± 0.05 | ppb | |
| Freq vs Temp (Ref to Freq @ 25°C) | | | ± 0.1 | ppb | See options |
| Operating Temp | -20 | 25 | +70 | $^{\circ}\text{C}$ | |
| Aging per day | | | ± 0.1 | ppb | |
| Aging per month | | | ± 5 | ppb | |
| Aging per year(After 30 days) | | | ± 20 | ppb | |
| Short term stability (1S) | | | ± 0.005 | ppb | |
| Warm Up (10mn-2Hr on) | | | ± 10 | ppb | |
| Control Voltage | 0 | 3 | 6 | V | |
| Pulling Range | ± 300 | ± 400 | ± 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°C to $+70^{\circ}\text{C}$**
- iii) **RF Output** = **Pure Sinewave into 50 Ω**

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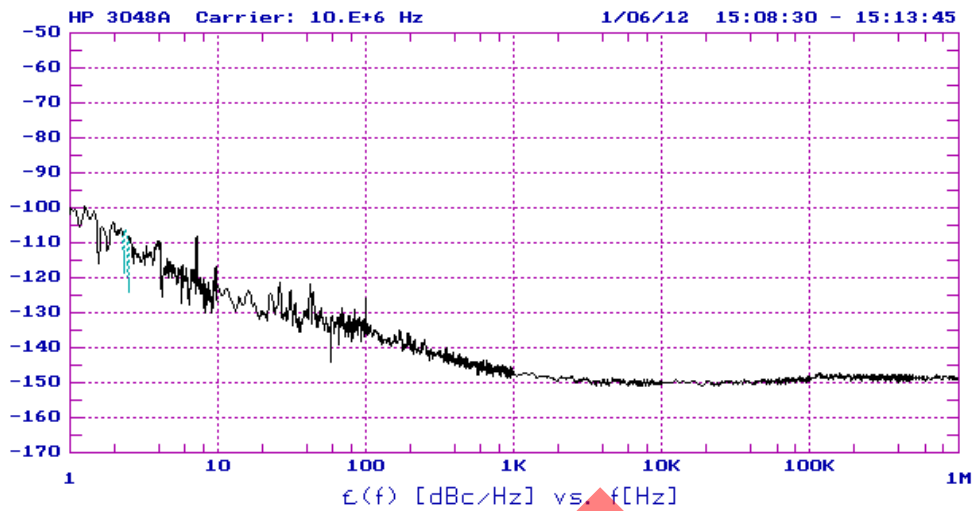
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TYPICAL PHASE NOISE PERFORMANCE:



PART IDENTIFICATION:

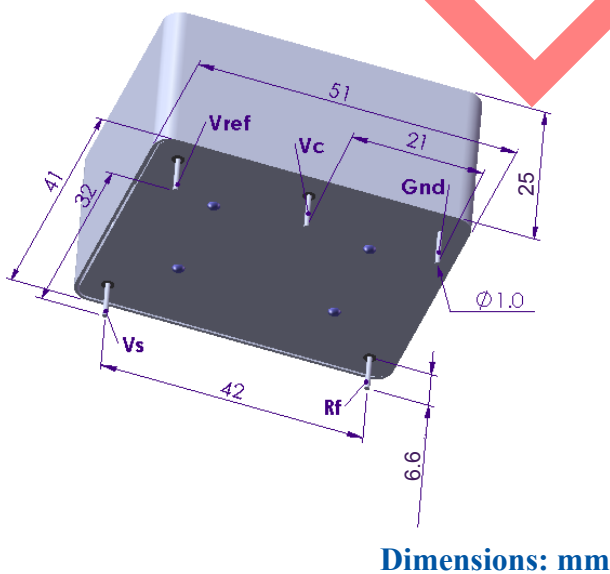
AOCJY6 - 10.000 MHz -

F vs Temp. (ppb)

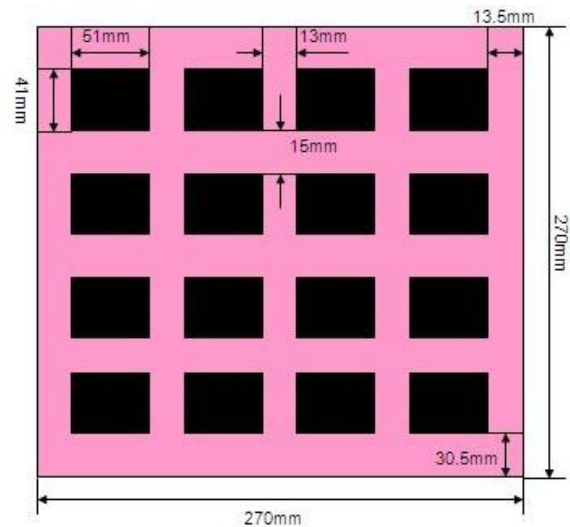
| |
|---------|
| 1: ±0.1 |
| 2: ±0.2 |
| 5: ±0.5 |

OUTLINE DRAWING:

PACKAGING:



Packaging: 16 unites/tray



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