

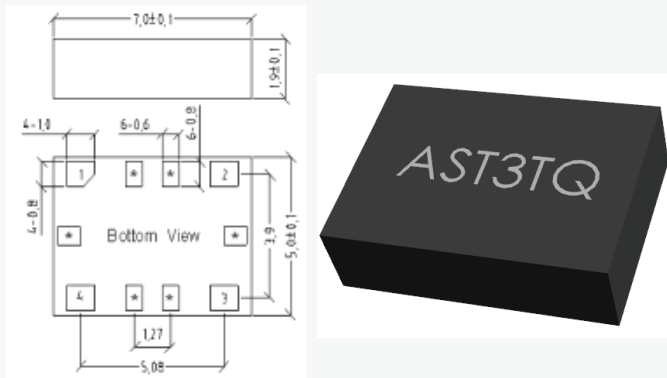
TCXO with -55 to +95°C Operating Temperature in a 5 x 7mm footprint !

New AST3TQ Series

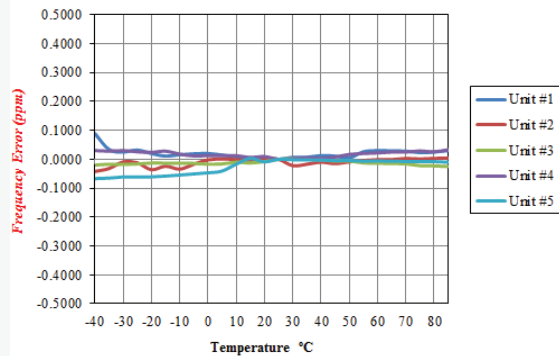
ABRACON's AST3TQ series offers wide operating temperature, precision fixed clock TCXO's in a small profile 5 x 7 x 1.9 mm SMT package. These devices are available from 10MHz to 40MHz carrier frequencies with LVCMOS output; offering ± 500 ppb frequency stability over -55°C to +95°C operating temperature.

AST3TQ series complies with Stratum-III requirement of $< \pm 4.60$ ppm all-Inclusive error over 20-year product life. Temperature stability options include ± 100 ppb over -40°C to +85°C, ± 280 ppb over -50°C to +90°C and ± 500 ppb over -55°C to +95°C operating temperature range. With maximum current drain of 7mA @ 40MHz, these devices offer OCXO level accuracy over a wide operating temperature range, with minimal power consumption.

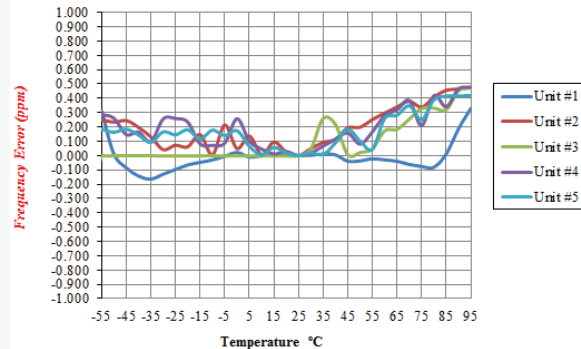
AST3TQ– High Frequency TCXO ... tight stability & economical.....



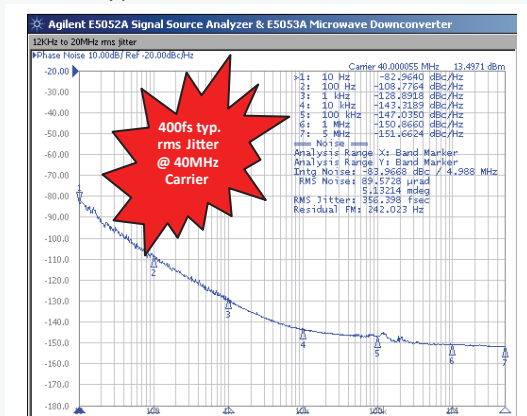
AST3TQ- 10.000MHz-1-T
Frequency Stability Vs. Temperature (normalized to 25°C)



AST3TQ- 20.000MHz-5-T
Frequency Stability Vs. Temperature (normalized to 25°C)



Typical Noise @ 40MHz Carrier



What AST3TQ series offers designers?

- Standard available frequencies: 10.00, 12.80, 19.20, 20.00, 25.00, 26.00, 30.72, 38.40 & 40.00MHz
- Standard LVCMOS Output
- Frequency stabilities to include ± 100 ppb over -40°C to +85°C, ± 280 ppb over -50°C to +90°C and ± 500 ppb over -55°C to +95°C operating temperature range
- Excellent Phase Noise, Harmonics and Spurious content
- Typical rms jitter of 400fs @ 40MHz carrier & 1.0ps @ 10MHz carrier over 12kHz to 20MHz BW
- +3.3V ($\pm 5\%$) operating Voltage
- Low Power, 4mA max. @ 10MHz & 7mA max. @ 40MHz
- 5.0 x 7.0 x 1.9 mm RoHS Compliant SMT package

Applications:

- COTS – Military Communication Circuitry
- WiMax
- LTE, BTS
- CATV, LAN, LMDS
- GPS Tracking with Hold-Over Accuracy
- Test & Measurement Equipment
- Avionics
- A/D and D/A Converters
- DDS based architecture
- Phase Locked Loops
- Point-to-Point Communication Networks

[AST3TQ Data Sheet Link](#)