

Customer Part:

Description



- Semtech approved TCXO for Stratum 3 applications.
- Model E2747
- Model Issue number 8

Frequency Parameters

- Frequency 12.80MHz
- Frequency Stability $\pm 0.28\text{ppm}$
- Operating Temperature Range -20.00 to 70.00°C
- Holdover Stability [$\pm(\text{Fmax}-\text{Fmin})/2\text{F}_0$]:
Temperature, -20 to 70°C: $<\pm 0.28\text{ppm}$
Temperature, -20 to 70°C, inclusive of
Supply Voltage, 3.3V $\pm 5\%$ and Ageing, 24 hours: $<\pm 0.32\text{ppm}$
- Free-Run Accuracy, incl.
Calibration @25°C, Temperature -20 to 70°C, Supply Voltage 3.3V $\pm 5\%$, Load 15pF $\pm 5\%$, Reflow Soldering and Ageing 20 years: $<\pm 4.6\text{ppm}$ ref to F_0



Electrical Parameters

- Supply Voltage 3.3V $\pm 5\%$
- Current Draw 4.000mA

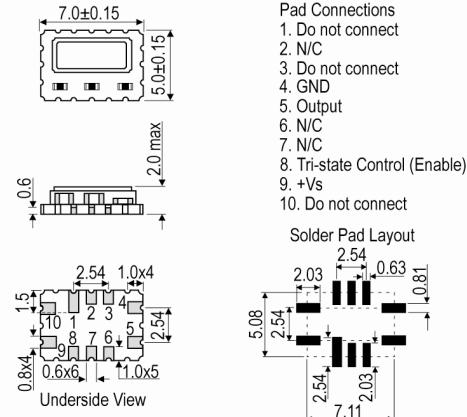
Output Details

- Output Compatibility HCMOS
- Drive Capability 15pF
- Rise and Fall Time 8.0ns max
- Duty Cycle 45/55%
- VoL: $\le 10\%$ Vs
VoH: $\ge 90\%$ Vs

Output Control

- Tri-State Operation:
Logic '1' ($\ge 60\%$ VS) to pad 8 enables output
Logic '0' ($\le 20\%$ VS) to pad 8 disables output
In Tri-state mode, the output stage is disabled but the oscillator and compensation circuit are still active (current consumption $\approx 1\text{mA}$)

Outline (mm)



Noise Parameters

- Allan Deviation ($\tau_{\text{au}}=100\text{ms}$): $<1.10 \cdot 10^{-10}$
- Phase Noise (max):
-90dBc/Hz @ 10Hz
-115dBc/Hz @ 100Hz
-127dBc/Hz @ 1kHz
-137dBc/Hz @ 10kHz
-143dBc/Hz @ $\ge 100\text{kHz}$

Environmental Parameters

- Storage Temperature: -55 to 125°C
- Vibration: IEC 60068-2-6, Test Fc, 10Hz-60Hz 1.5mm displacement at 10G, 30mins in each of 3 mutually perpendicular axes at 1 oct/min.
- Shock: IEC 60068-2-27, Test Ea: 100G acceleration for 6ms duration, 3 shocks in each direction along 3 mutually perpendicular axes.
- Solderability: MIL-STD-202, Method 208, Category 3
- Resistance to Soldering Heat: 260°C/10sec exposure

Sales Office Contact Details:

UK: +44 (0)1460 270200

Email: info@iqdfrequencyproducts.com

Web: www.iqdfrequencyproducts.com

Customer Part:**Manufacturing Details**

- RoHS Terminations NiCoAu
- RoHS Reflow Temp 260degC 30s

Compliance

- RoHS Status (2015/863/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

Packaging Details

- Tape & reel in accordance with EIA-481
Quantities below the standard reel size to be supplied on
cut tape

Standard Pack Quantity: 1,000

Sales Office Contact Details:

UK: +44 (0)1460 270200

Email: info@iqdfrequencyproducts.com

Web: www.iqdfrequencyproducts.com