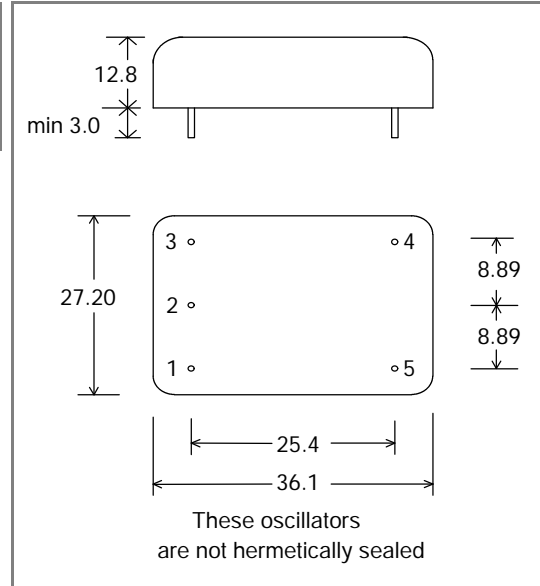


Digitally Temperature Compensated Crystal Oscillators

Pin 1	Pin 2	Pin 3	Pin 4	Pin 5
No Connection	No Connection	Oscillator Supply	Output	Ground

Digitally Compensated Crystal Oscillators, sometimes known as DTCXOs, are made to closely match the non-linear characteristics of a crystal to give the best temperature stability of all compensated oscillators. The digital temperature-compensated crystal oscillator (DTCXO) allows improved temperature compensation over an analogue TCXO by using digital processing rather than the conventional analog compensation network.

Each oscillator is individually calibrated and the compensation values are stored as digital information, accurately matched to the individual crystal's characteristics. This is a quick way of accurately matching the compensation to the crystal, to give the best stability when in use. However, it still suffers from the basic TCXO limitations deriving from the need to keep the oscillator tuned to frequency. Also it has small frequency jumps due to the discrete nature of digital compensation.



	OSO-TCXO-001
Frequency Range	8 to 20 MHz
Supply Stability	± 0.1 ppm
Temperature Stability	± 0.3ppm
Output	HCMOS
Rise / Fall Times	10 nS max
Temperature range	-10 to +70 °C
Start-up times	< 5 ms to ± 30ppm < 500 ms to full specification
Symmetry	48% / 52%...52% / 48%
Supply Voltage	5.0 V ± 0.25 V
Supply Current	20 mA max

OnSpec Oscillators Limited