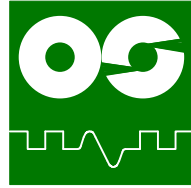


# OnSpec Oscillators



## OSO-TCCV-Range OSO-TCAV-Range

Voltage Controlled Digitally  
Compensated Crystal Oscillators

Frequency range:

HCMOS 1Hz - 20 MHz

AHCMOS 20 - 80 MHz

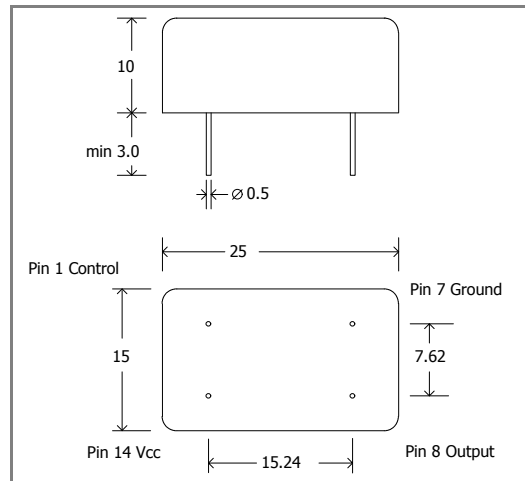
\*3.3 V Supply also available

Digitally compensated crystal oscillators available with a variety of temperature ranges and stabilities.

During operation, the oscillator frequency is adjusted to cancel out the change due to frequency. A microcontroller is used to perform the elaborate control algorithm, which is individually calibrated to each oscillator.

Fitted with an adjustment facility to compensate for ageing.

Specification	OSO-TCCV-Range	OSO-TCAV-Range
Output	HCMOS	AHCMOS
Frequency	1Hz - 20 MHz	20 - 80 MHz
Rise & Fall times	5 ns max	3 ns max
V <sub>OH</sub> min	0.9 V <sub>CC</sub>	0.9 V <sub>CC</sub>
V <sub>OL</sub> max	0.1 V <sub>CC</sub>	0.1 V <sub>CC</sub>
Symmetry	55/45..45/55%	55/45..45/55%
*Supply voltage (optionally)	5 V ± 5% (3.3 V ± 5%)	5 V ± 5% (3.3V ± 5%)
Pulling Range	± 30 ppm min	±10 ppm min
Control Voltage (optionally)	0 - 5 V (0 - 3 V)	0 - 5 V (0 - 3 V)
Supply Current	10 mA max	30 mA max
Temperature range & stability	See Table	See Table



	0°C - 50°C	-10°C - 60°C	-20°C - 70°C	Difficulty and Cost of Manufacture	
	±0.3 ppm	OSO-TC?V-B0.3	OSO-TC?V-C0.3		Easier
±1 ppm	OSO-TC?V-B001	OSO-TC?V-C001	OSO-TC?V-D001	Moderate	◐
±2 ppm	OSO-TC?V-B002	OSO-TC?V-C002	OSO-TC?V-D002		◑
±3 ppm	OSO-TC?V-B003	OSO-TC?V-C003	OSO-TC?V-D003	More difficult	◒

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