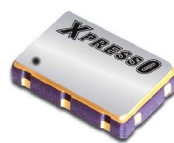


Features

- Extremely low jitter
- Low cost
- Express delivery
- Stability from $\pm 20\text{ppm}$, -40 to $+85^\circ\text{C}$
- Absolute pull range $\pm 50\text{ppm}$
- Serial ID with comprehensive traceability



Description

The XPRESSO range of fully configurable VCXOs utilizes a family of proprietary ASICs developed for noise reduction to provide oscillators with noise levels comparable to traditional bulk-produced quartz and SAW-based VCXOs.

XPRESSO VCXOs are low-cost, low-noise, have a wide frequency range, excellent ambient performance and are available on very short leadtimes. All XPRESSO VCXOs are 100% final tested.

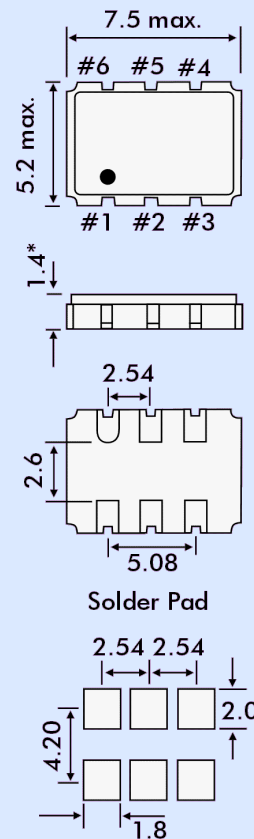
Typical applications

- Any application requiring an oscillator.
- SONET
- Ethernet
- Storage Area Networks
- Broadband Access
- Microprocessors/DSP/FPGA
- Industrial Controllers
- Test and measurement
- Fibre Channel

Electrical Specification

Frequency Range:	0.750MHz ~ 1.35GHz
Absolute Pull Range:	$\pm 50\text{ppm}$
Operating Temperature Range:	$-20^\circ \sim +70^\circ$ to $-40^\circ \sim +85^\circ\text{C}$
Storage Temperature Range:	-55 to $+125^\circ\text{C}$
Supply Voltage:	$+3.3\text{VDC} \pm 5\%$
Input Current:	120mA
Output Load:	100Ω typical
Start-up Time:	10ms
Output Enable/Disable Time:	100ns
Control Voltage Tuning Slope:	$40 \sim 75\text{ppm/V}$ typical
Control Voltage Linearity:	$\pm 10\%$
Control Voltage Tuning Range:	$0\text{V} \sim 3.3\text{V}$
Modulation Bandwidth:	10kHz minimum
Nominal Control Voltage:	1.65 volts
Differential Output Voltage:	0.6V typical
Output Offset Voltage:	1.3Volts typical
Symmetry:	45/55%
Output Enable (Pad 2) Voltage:	$>70\% \text{Vdd}$
Output Disable (Pad 2) Voltage:	$<30\% \text{Vdd}$
Rise/Fall Times:	400ps
Moisture Sensitivity Level:	1
Termination Finish:	Au

OUTLINE & DIMENSIONS



Solder Pad

Pad Connections

- 1 Voltage Control
- 2 Enable/Disable
- 3 Ground
- 4 Output
- 5 Output
- 6 Vdd

Supply Format

Tape and Reel, 16mm tape,
8.0mm pitch,
1k reel = 178mmØ
2k reel = 255mmØ

Model Selection Guide

EQVP - L C 7 3 B R - 1244.160000

L = LVDS

C = Ceramic

7 = 7 x 5mm

3 = 3.3V

Frequency

Blank = $-20 \sim +70^\circ\text{C}$

R = $-40 \sim +85^\circ\text{C}$

B = $\pm 50\text{ppm}$ Absolute Pull Range

Jitter Measurements

Frequency (MHz)	Phase Jitter (12kHz~20MHz) (ps RMS)	Time Interval Error σ of jitter distribution (ps RMS)	Rj/Dj Composition		
			Random Jitter (Rj) (ps RMS)	Deterministic Jitter (Dj) (ps p-p)	Total Jitter (Tj) ($14 \times Rj + Dj$) (ps)
62.5	0.77	3.0	1.3	7.0	24.9
156.25	1.19	3.6	1.3	5.8	23.6
212.5	0.89	3.9	0.9	6.7	18.7
622.08	0.99	3.2	1.1	5.3	20.7