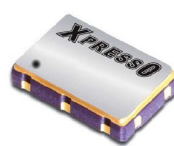


Features

- 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.

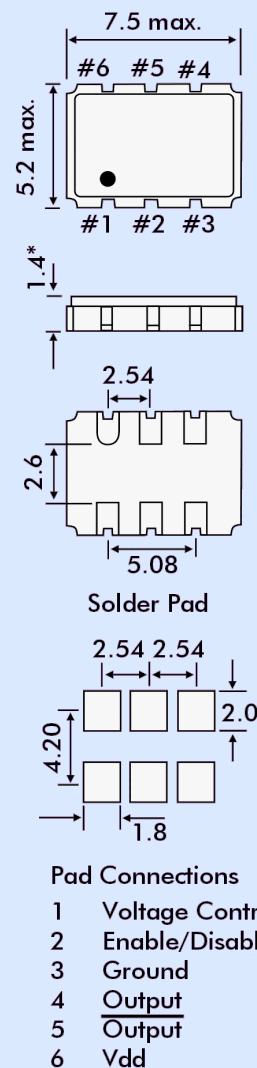
Electrical Specification

Frequency Range:	0.750MHz ~ 1.0GHz
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:	$+2.5\text{VDC} \pm 5\%$
Input Current	
0.75 ~ 20.0MHz:	26mA
20+ ~ 220.0MHz:	34mA
220+ ~ 630.0MHz:	44mA
630+ ~ 1.000GHz:	65mA
Output Load:	100 Ω typical
Start-up Time:	10ms
Output Enable/Disable Time:	100ns
Control Voltage Tuning Slope:	40 ~ 75ppm/V typical
Control Voltage Linearity:	$\pm 10\%$
Control Voltage Tuning Range:	0V ~ 2.5V
Modulation Bandwidth:	10kHz minimum
Nominal Control Voltage:	1.25 volts
Differential Output Voltage:	0.4V typical
Output Offset Voltage:	1.25Volts 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

Typical applications

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

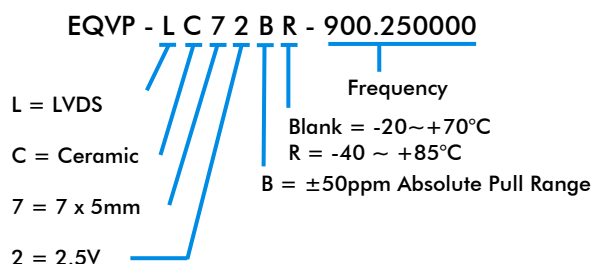
OUTLINE & DIMENSIONS



Supply Format

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

Model Selection Guide



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) ($14 \cdot Rj + Dj$) (ps)
62.5	2.12	3.1	1.35	8.4	27.6
156.25	1.04	3.5	1.40	9.2	29.2
212.5	1.35	4.2	1.42	10.9	31.2
622.08	1.30	3.7	1.18	10.4	27.2