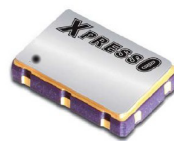


### Features

- Extremely low jitter
- Low cost
- Express delivery
- Stability from  $\pm 20$ ppm, -40 to +85°C
- RoHS compliant
- Serial ID with comprehensive traceability



### Description

The XPRESSO range of fully configurable oscillators 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 oscillators.

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

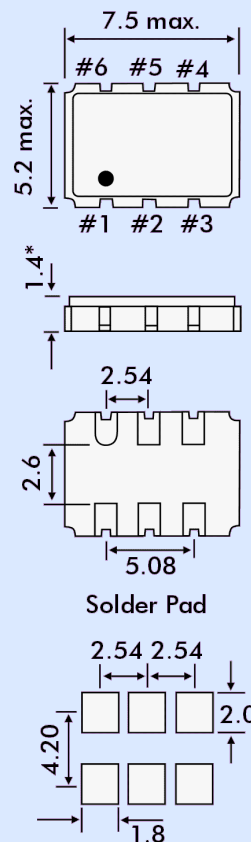
### Typical applications

- 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 ~ 1.0GHz
Frequency stability:	from $\pm 20$ ppm to $\pm 100$ ppm
Operating Temperature Range:	-20° ~ +70° to -40° ~ +85°C
Storage Temperature Range:	-55° ~ +125°C
Supply Voltage:	+2.5 Volts $\pm 5\%$
Input Current	
0.75 ~ 20MHz:	33mA
20+ ~ 220MHz:	41mA
220+ ~ 630MHz:	63mA
630+ ~ 1.0GHz:	72mA
Output Load:	50 $\Omega$ into Vdd-2VDC, typical
Start-up Time:	10ms
Output Enable/Disable Time:	100ns
Moisture Sensitivity Level:	1
Termination Finish:	Au
Output Low Voltage:	0.68 Volts typical
Output High Voltage:	1.4 Volts typical
Output Symmetry:	45/55%
Output Enable Voltage:	>70% Vdd
Output Disable Voltage:	<30% Vdd
Rise/Fall Time:	400ps
Maximum Soldering Parameters:	260°C for 10 seconds

### OUTLINE & DIMENSIONS

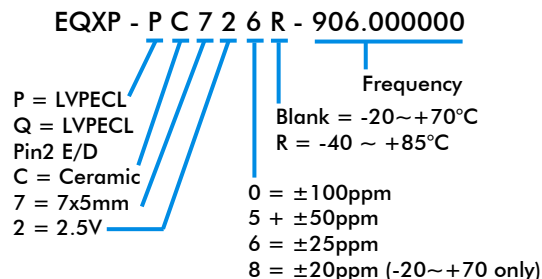


- Pad Connections
- |   |                |
|---|----------------|
| 1 | Enable/Disable |
| 2 | Not connected  |
| 3 | Ground         |
| 4 | Output         |
| 5 | Output         |
| 6 | Vcc            |

### Supply Format

Tape and Reel, 12mm tape,  
8.0mm pitch,  
1k reel = 178mm $\emptyset$   
2k reel = 255mm $\emptyset$

### Model Selection Guide



### Jitter Measurements

Frequency (MHz)	Phase Jitter (12kHz~20MHz) (ps RMS)	Time Interval Error $\sigma$ of jitter distribution (ps RMS)	Rj/Dj Composition		
			Random Jitter (Rj) (ps RMS)	Deterministic Jitter (Dj) (ps p-p)	Total Jitter (Tj) ( $1.4 \cdot Rj$ ) + Dj (ps)
62.5	2.01	3.1	1.35	10.5	30.5
156.25	1.20	3.5	1.36	10.0	29.3
212.50	1.27	4.2	1.33	11.8	30.8
622.08	1.68	3.7	1.06	8.3	23.4