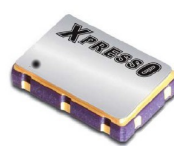


Features

- Extremely low jitter
- Low cost
- Express delivery
- Stability from $\pm 20\text{ppm}$, -40 to $+85^\circ\text{C}$
- 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.

Electrical Specification

Frequency Range:	0.750MHz ~ 180.0MHz
Frequency stability:	from $\pm 20\text{ppm}$ to $\pm 100\text{ppm}$
Operating Temperature Range:	$-40^\circ \sim +85^\circ\text{C}$
Storage Temperature Range:	$-55^\circ \sim +125^\circ\text{C}$
Supply Voltage:	+2.5 Volts $\pm 5\%$
Input Current	
0.75 ~ 20MHz:	22mA max.
20+ ~ 50MHz:	25mA max.
50+ ~ 100MHz:	29mA max.
100+ ~ 130MHz:	32mA max.
130+ ~ 160MHz:	35mA max.
160+ ~ 180MHz:	37mA max.
Output Load:	15pF standard 30pF <125MHz available
Start up Time:	10mS
Output Enable/Disable Time:	100ns
Output Low/High Voltages	
0.75 ~ 150MHz:	10%Vdd max./90%Vdd min.
160+ ~ 180MHz:	20%Vdd max./80% Vdd min.
Symmetry:	45%/55%
Rise/Fall Times	
0.75 ~ 160MHz:	3.5ns max.
160+ ~ 180MHz:	2.5ns max.
Moisture Sensitivity Level:	1
Termination Finish:	Au
Maximum Soldering Parameters:	260°C for 10 seconds

Model Selection Guide

EQXP - H C 3 2 5 R - 106.250000

H = HCMOS

C = Ceramic

3 = 3.2 x 2.5mm

2 = 2.5V

Frequency

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

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

0 = $\pm 100\text{ppm}$

5 = $\pm 50\text{ppm}$

6 = $\pm 25\text{ppm}$

8 = $\pm 20\text{ppm}$ ($-20 \sim +70$ only)

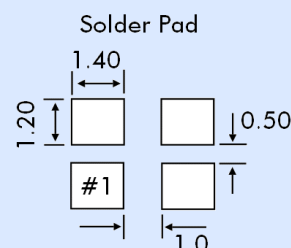
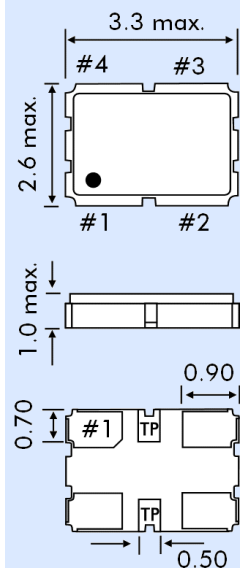
Typical applications

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

Supply Format

Tape and Reel, 8mm tape,
4.0mm pitch,
1k reel = 178mm $\varnothing$

OUTLINE & DIMENSIONS



Pad Connections

- 1 Enable/Disable
- 2 Ground
- 3 Output
- 4 Vdd

* TP are test points
- not connected

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) ($1.4 \times Rj + Dj$) (ps)
62.5	0.9	2.9	1.3	9.2	28.4
106.25	0.8	3.5	1.4	9.0	27.2
125.0	0.8	2.5	1.3	8.8	27.7
156.25	0.9	3.1	1.4	10.4	30.3