# EUROQUARTZ

# LVPECL 5x3.2mm 3.3V VCXO

## EQVP-PC53 SERIES

**Freq: 0.75MHz to 1.35GHz**

### Features

- Extremely low jitter
- Low cost
- Express delivery
- Stability from ±20ppm, -40 to +85°C
- Absolute pull range ±50ppm
- Serial ID with comprehensive traceability

RoHS Compliant


### 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

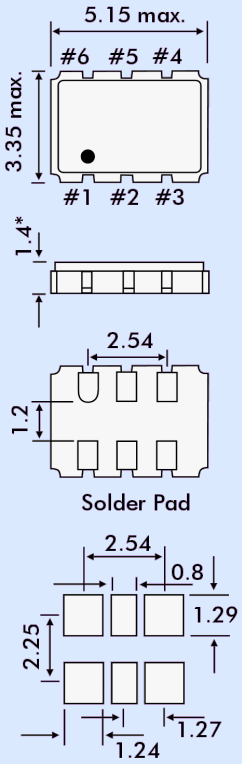
### Electrical Specification

| | |
|---|---|
| Frequency Range: | 0.750MHz ~ 1.35GHz |
| Absolute Pull Range: | ±50ppm |
| Operating Temperature Range: | -20° ~ +70° to -40° ~ +85°C |
| Storage Temperature Range: | -55 to +125°C |
| Supply Voltage: | +3.3VDC ±5% |
| Input Current: | 120mA |
| Output Load: | 50Ω into Vdd-2VDC typical |
| Start-up Time: | 10ms |
| Output Enable/Disable Time: | 100ns |
| Control Voltage Tuning Slope: | 40 ~ 75ppm/V typical |
| Control Voltage Linearity: | ±10% |
| Control Voltage Tuning Range: | 0V ~ 3.3V |
| Modulation Bandwidth: | 10kHz minimum |
| Nominal Control Voltage: | 1.65 volts |
| Low Output Voltage: | 1.305V ~ 1.65V |
| High Output Voltage: | 2.055V ~ 2.405V |
| Typical Complimentary Difference: | 0.75V p-p typical |
| Output Enable (Pad 2) Voltage: | >70% Vdd |
| Output Disable (Pad 2) Voltage: | <30% Vdd |
| Rise/Fall Times: | 400ps |
| Moisture Sensitivity Level: | 1 |
| Termination Finish: | Au |

### Supply Format

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

### OUTLINE & DIMENSIONS




Pad Connections

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

### Model Selection Guide

EQVP - P C 5 3 B R - 644.531250

- P = LVPECL
- C = Ceramic
- 5 = 5 x 3.2mm
- 3 = 3.3V
- B = ±50ppm Absolute Pull Range
- R = -40 ~ +85°C
- Blank = -20~+70°C
- Frequency

### 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*Rj)+Dj (ps) |
| 62.5 | 1.01 | 3.1 | 1.27 | 8.1 | 26.2 |
| 156.25 | 0.86 | 3.5 | 1.29 | 9.3 | 27.7 |
| 212.5 | 1.05 | 3.6 | 1.22 | 8.6 | 26.1 |
| 622.08 | 0.94 | 3.5 | 1.21 | 9.6 | 26.8 |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