



Features and Benefits

- Frequency range: 15-2100MHz
- Output waveform: LVPECL
- Supply voltage: 2.5V
- Current: 95mA Max.
- Frequency stability vs. temperature: ± 25 PPM
- Operating temperature: -10°C to $+60^{\circ}\text{C}$
- Size: 3.2x2.5x1mm
- Package type: Surface Mount



Typical Applications

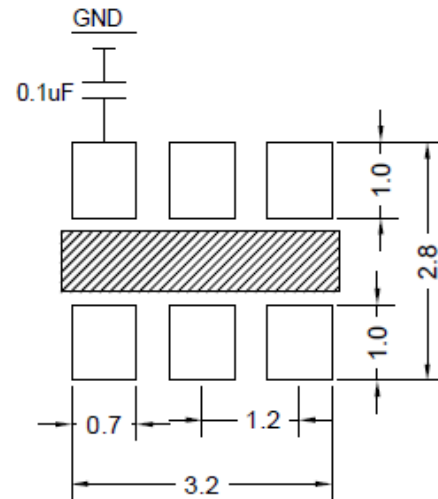
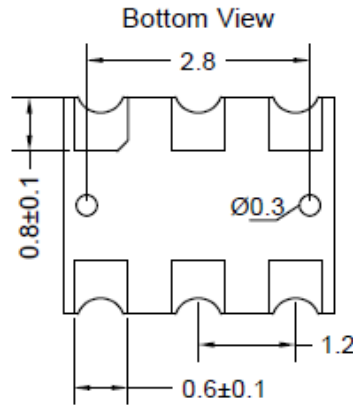
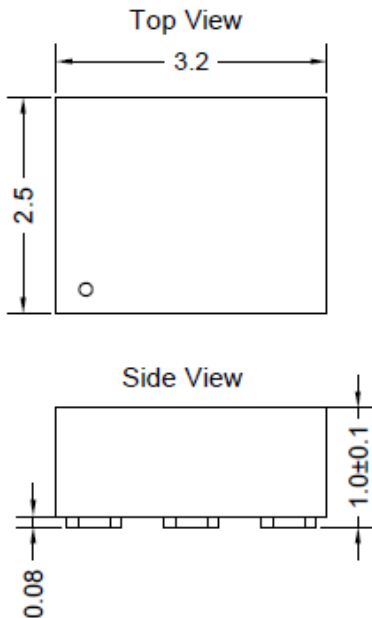
- Defense Systems
- Mobile Radar Station
- Gigabit Ethernet, SONET/SDH
- Server & Storage, Data Center
- SD/HD Video, FPGA Clock Generation

Description

VCXO3225BM-LJ_LVPECL-121 is the high frequency and low jitter differential VCXO. It can be widely used in digital circuits.

Mechanical Drawing & Pin Connections

Drawing No: MD240085-1



| PIN | Function |
|-----|-----------------|
| #1 | Control Voltage |
| #2 | OE |
| #3 | GND |
| #4 | OUTPUT |
| #5 | OUTPUT_N |
| #6 | Supply Voltage |

Unit in mm
1mm = 0.0394 inches

Please keep the middle area blank.
Do not layout any lines in this space.
To ensure optimal oscillator performance, place a by-pass capacitor of 0.1µF as close to the part as possible between Vcc and GND pads



Specifications

| Oscillator Specification | Sym | Condition | Value | | | Unit | Note |
|--|-----------------|------------------------|------------------------|------|-----------------------|--------|------|
| | | | Min. | Typ. | Max. | | |
| Operational Frequency | f ₀ | | 15 | | 2100 | MHz | |
| RF Output | | | | | | | |
| Output Waveform | | | LVPECL | | | | |
| Output Level | | Output high | V _{cc} -1.165 | | V _{cc} -0.8 | V | |
| | | Output low | V _{cc} -2.0 | | V _{cc} -1.55 | V | |
| Duty Cycle | | | 45 | | 55 | % | |
| Rise & Fall Time | | | | | 0.35 | ns | |
| Startup Time | | | | | 8 | ms | |
| Tri-State (Input to Pin2) | | Enable | 0.7 V _{cc} | | | V | |
| | | Disable | | | 0.3 V _{cc} | V | |
| Power Supply | | | | | | | |
| Voltage | V _{cc} | ±10% | | 2.5 | | V | |
| Supply Current | | V _{cc} =2.5V | | | 95 | mA | |
| Stand by Current | | V _{cc} =2.5V | | | 95 | mA | |
| Control Voltage | | | | | | | |
| Control Voltage | | V _{cc} =2.5V | 0.25 | 1.25 | 2.25 | V | |
| Pulling Range | | | ±50 | | ±250 | ppm | |
| Linearity | | | | | ±10 | % | |
| Modulation Bandwidth | | | 5 | | 20 | KHz | |
| VC Input Impedance | | | 5 | | | Mohm | |
| Frequency Stability | | | | | | | |
| Versus Temperature | | | | | ±25 | ppm | |
| Phase Noise At V _{cc} =3.3V, 873.515MHz Frequency | | 1KHz | | -106 | | dBc/Hz | |
| | | 10KHz | | -115 | | | |
| | | 100KHz | | -123 | | | |
| | | 1MHz | | -133 | | | |
| RMS Phase Jitter | | Integrated 12KHz-20MHz | 150 | | 300 | fs | |
| Period Jitter | | | | | 50 | ps | |
| Environmental Conditions | | | | | | | |
| Operating temperature range | | | -10°C to +60°C | | | | |