

The ECOC-2522 is a SMD CMOS SC-Cut OCXO. The 25.4 x 22.0 x 12.2 mm SMD package is ideal for Cellular, Radar, Test & Measurement and IOT applications.

ECOC-2522 SMD OCXO

ECOC-2522 OCXO



- SC Cut
- 25.4 x 22 mm Footprint
- Extended Temp Range
- RoHS Compliant

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

| PARAMETERS | CONDITIONS | ECOC-2522 | | | UNITS |
|-----------------------|---|-----------|--------------------|-----------------|--------|
| | | MIN | TYP | MAX | |
| Frequency Range | | 2.000 | | 100.000 | MHz |
| Frequency Stability | 0 ~ +50°C (F Opt) | | | ± 5.0 | ppb |
| | -20 ~ +70°C (G Opt) | | | ± 10.0 | ppb |
| | -40 ~ +75°C (H Opt) | | | ±30.0 | ppb |
| | Supply Voltage ±5% | | | ±20.0 | ppb |
| | Warm-Up @+25°C (≤ 3 minutes) | | | ±100.0 | ppb |
| | Load Change (±10%) | | | ±0.2 | ppm |
| Power Consumption | At turn on | | | 3.6 | Watts |
| Power Consumption | Steady State | | | 1.4 | Watts |
| Supply Voltage | 3.3 Option | 3.135 | 3.3 | 3.465 | V |
| Supply Voltage | 5.0 Option | 4.75 | 5.0 | 5.25 | V |
| Aging | Daily (after 30 days) | | | ±1.0 | ppb |
| | Yearly | | | ±100 | ppb |
| | 10-Years | | | ±500 | ppb |
| Waveform | CMOS | | | | |
| Output voltage Level | VOL:10%V _{dd} max./VOH:90%V _{dd} min.V DC | | | | |
| Output Load | | | 15 | | pF |
| Rise & Fall time | 10%V _{dd} – 90%V _{dd} | | | 5 | ns |
| Duty Cycle | @ ½ V _{dd} | | | 45/55 | % |
| Waveform | Sinewave | | | | |
| Peak Power | | 2.0 | | | dBm |
| Output Load | | | 50 | | Ω |
| Spurious Response | | | | -70 | dBc |
| Phase Noise | @ 10 MHz Carrier, V _{dd} 3.3V | | | | |
| @ 1 Hz Offset | | | | -90 | dBc/Hz |
| @ 10 Hz Offset | | | | -120 | dBc/Hz |
| @ 100 Hz Offset | | | | -135 | dBc/Hz |
| @ 1,000 Hz Offset | | | | -145 | dBc/Hz |
| @ 10,000 Hz Offset | | | | -150 | dBc/Hz |
| @ 100 KHz Offset | | | | -150 | dBc/Hz |
| @ 1 MHz Offset | | | | -150 | dBc/Hz |
| Control Voltage Range | Positive Slope | 0 | V _{dd} /2 | V _{dd} | V |
| Frequency Pull Range | | ±0.7 | | | ppm |
| VC Port Impedance | | 10 | | | kΩ |
| Storage Temperature | | -40 | | +100 | °C |

PART NUMBERING GUIDE: Example ECOC-2522-10.000-3-F-C

| ECOC - SERIES | FREQUENCY | VOLTAGE | STABILITY /TEMP | OUTPUT |
|---------------------------|------------|------------------------|--|--------------------------|
| 2522 25.4 x 22 mm OCXO | 10.000 MHz | 3 = +3.3V 5 = +5.0V | F = ±5 ppb 0 ~ +50°C G = ±10 ppb -20 ~ +70°C H = ±30 ppb -40 ~ +75°C | C = CMOS S = Sinewave |

DIMENSIONS (mm)



| PAD CONNECTIONS | |
|-----------------|-----------------|
| 1 | Voltage Control |
| 2 | V Ref |
| 3 | Supply Voltage |
| 4 | Output |
| 5 | Ground |

| FREQUENCY MHz |
|---------------|
| 10.000 |
| 12.800 |
| 13.000 |
| 16.384 |
| 20.000 |
| 38.400 |
| 38.800 |
| 40.000 |
| 100.000 |



| SOLDER PROFILE |
|---|
| Peak solder Temp +260°C Max 10 sec Max. |
| 2 Cycles Max. |
| MSL 1, Lead Finish Au |

Figure 1) Top, Side, Bottom and suggested Land pattern.