

## E3179 SMD TCXO GR-1244 & GR-253 STRATUM 3

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### Description

- Zarlink approved TCXO for GR-1244 & GR-253 Stratum 3 applications, manufactured for us by Rakon utilising their Pluto™ ASIC technology

### Nominal Frequency, Fo

- 20.0MHz

### Output Compatibility & Load

- HCMOS
- Load: 15pF max
- VOL: <10% Vs
- VOH: >90% Vs
- Duty Cycle @ 50%: 45% to 55%
- Rise Time, 10% to 90%: ≤9ns
- Fall Time, 90% to 10%: ≤9ns

### Supply Voltage

- 3.3V±5%

### Input Current

- ≤6mA

### Holdover Stability [±(Fmax-Fmin) /2.Fo]

- Temperature, -5 to 80°C <±0.28ppm
- Temperature, -5 to 80°C, inclusive of Supply Voltage, 3.3V ±5% and Ageing, 24 hours: < ±0.32ppm

### Free-Run Accuracy, incl,

- Calibration @25°C, Temperature -5 to 80°C, Supply Voltage 3.3V ±5%, Load 15pF ±5%, Reflow Soldering and Ageing 20 years: < ±4.6ppm ref. to Fo

### Phase Noise (max)

- 85dBc/Hz @ 10Hz
- 110dBc/Hz @ 100Hz
- 125dBc/Hz @ 1kHz
- 135dBc/Hz @ 10kHz

### Tri-State Operation

- Logic '1' (>60%Vs) to pad 8 enables output
- Logic '0' (<20%Vs) to pad 8 disables output
- When at logic '0' the output stage is disabled for all output options, but the oscillator and compensation circuit are still active (Current consumption ≤1mA)

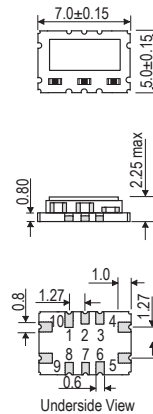
### Storage Temperature Range

- 55 to 125°C

### Environmental

- Shock: IEC 60068-2-27, Test Ea: 980m/s<sup>2</sup> acceleration for 6ms, 3 shocks in each of 3 mutually perpendicular planes
- Vibration: IEC 60068-2-6, Test Fc, Procedure B4: 10Hz-60Hz 1.5mm displacement, 60-2000Hz at 98.1m/s<sup>2</sup>, 30mins in 3 mutually perpendicular planes at 1 oct/min

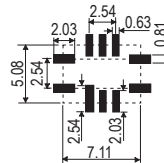
### -Outline (mm)



### Pad Connections

- Do not connect
  - N/C
  - Do not connect
  - GND
  - Output
  - N/C
  - N/C
  - Tri-state Control \*
  - +Vs
  - Do not connect
- \* Leave unconnected if not required

### Solder Pad Layout



### Manufacturing Information

- Soldering: Suitable for Convection Reflow soldering. Peak temperature 260°C, 60sec max above 220°C

### Packaging

- Loose in bulk pack, 10pcs per pack
- Tape and reel in accordance with EIA-481-D, 1kpcs per reel (please see pages 372 & 373)

### Ordering Information (\*minimum required)

- Frequency\*
- Model\*

### Example

- 20.0MHz E3179LF