

**Customer Part:**

**Description**

- Zarlink approved TCXO for GR-1244 & GR-253 Stratum 3 applications.
- Model E3179LF
- Model Issue number 7

**Frequency Parameters**

- Frequency 20.0MHz
- Frequency Stability  $\pm 0.32$ ppm
- Operating Temperature Range -5.00 to 80.00°C
- Ageing  $\pm 4.6$ ppm max after 20 years
- Holdover Stability [ $\pm(F_{max}-F_{min})/2F_0$ ]:  
Temperature, -5 to 80°C, inclusive of Supply Voltage: 3.3V  $\pm 5\%$  and Ageing, 24 hours:  $< \pm 0.32$ ppm
- Free-Run Accuracy, incl.  
Calibration @25°C, Temperature -5 to 80°C, Supply Voltage 3.3V  $\pm 5\%$ , Load 15pF  $\pm 5\%$ , Reflow Soldering and Ageing 20 years:  $< \pm 4.6$ ppm ref. to Follow

**Electrical Parameters**

- Supply Voltage 3.3V  $\pm 5\%$
- Current Draw 6.000mA

**Output Details**

- Output Compatibility HCMOS
- Drive Capability 15pF max
- Rise and Fall Time 9.0ns max
- Duty Cycle 45/55%

**Output Control**

- Tri-State Operation:  
Logic '1' ( $\geq 60\%V_S$ ) to pad 8 enables output  
Logic '0' ( $\leq 20\%V_S$ ) 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  $< 1$ mA)

**Output Levels**

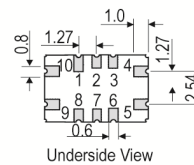
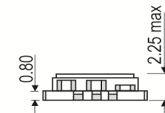
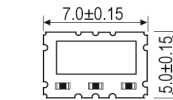
- VOL:  $\leq 10\% V_S$
- VOH:  $\geq 90\% V_S$

**Noise Parameters**

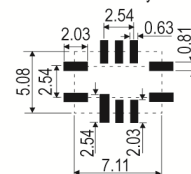
- Phase Noise (max):  
-85dBc/Hz @ 10Hz  
-110dBc/Hz @ 100Hz  
-120dBc/Hz @ 1kHz  
-135dBc/Hz @ 10kHz

**Environmental Parameters**

- Storage Temperature: -55 to 125°C
- 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
- Solderability: MIL-STD-202, Method 208, Category 3


**Outline (mm)**

**Pad Connections**

1. Do not connect
  2. N/C
  3. Do not connect
  4. GND
  5. Output
  - 6 & 7. N/C
  8. Tri-state Control \*
  9. +V<sub>S</sub>
  10. Do not connect
- \* Leave unconnected if not required

**Solder Pad Layout**

**Sales Office Contact Details:**

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**Customer Part:****Manufacturing Details**

- Resistance to Soldering Heat: 260°C, 60sec max above 220°C
- RoHS Terminations                      NiCoAu
- RoHS Reflow Temp                         260degC 30s

**Compliance**

- RoHS Status (2015/863/EU)            Compliant
- REACh Status                                Compliant
- MSL Rating (JDEC-STD-033):          Not Applicable

**Packaging Details**

- Pack Style: Bulk            Loose in bulk pack  
Pack Size: 10
- *Alternative packing option available*

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