


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

**Electrical Parameters**

- Supply Voltage  $3.3\text{V} \pm 5\%$
- Current Draw  $6.00\text{mA}$

**Output Details**

- Output Compatibility HCMOS
- Drive Capability  $15\text{pF}$  max
- Rise and Fall Time  $9.0\text{ns}$  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  $< 1\text{mA}$ )

**Output Levels**

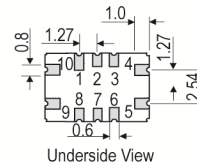
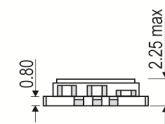
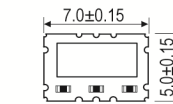
- VOL:  $\leq 10\% V_S$
- VOH:  $\geq 90\% V_S$

**Noise Parameters**

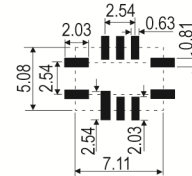
- Phase Noise (max):  
 $-85\text{dBc/Hz}$  @  $10\text{Hz}$   
 $-110\text{dBc/Hz}$  @  $100\text{Hz}$   
 $-120\text{dBc/Hz}$  @  $1\text{kHz}$   
 $-135\text{dBc/Hz}$  @  $10\text{kHz}$

**Environmental Parameters**

- Storage Temperature:  $-55$  to  $125^\circ\text{C}$
- Shock: IEC 60068-2-27, Test Ea:  $980\text{m/s}^2$  acceleration for 6ms, 3 shocks in each of 3 mutually perpendicular planes
- Vibration: IEC 60068-2-6, Test Fc, Procedure B4:  $10\text{Hz}$ - $60\text{Hz}$   $1.5\text{mm}$  displacement,  $60$ - $2000\text{Hz}$  at  $98.1\text{m/s}^2$ , 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. +Vs
  10. Do not connect
- \* Leave unconnected if not required

**Solder Pad Layout**

**Sales Office Contact Details:**

UK: +44 (0)1460 270200  
Germany: 0800 1808 443

France: 0800 901 383  
USA: +1.760.318.2824

Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)  
Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

**Manufacturing Details**

- Resistance to Soldering Heat: 260°C, 60sec max above 220°C

**Compliance**

- RoHS Status (2011/65/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*

---

**Sales Office Contact Details:**

UK: +44 (0)1460 270200  
Germany: 0800 1808 443

France: 0800 901 383  
USA: +1.760.318.2824

Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)  
Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)