

**ISSUE 7; September 2014 - RoHS 2011/65/EU**
**Description**

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

**Frequency Parameters**

- Frequency 20.0MHz
- Frequency Stability  $\pm 0.28$ ppm
- Ageing  $\pm 4.6$ ppm max after 20 years

**Electrical Parameters**

- Supply Voltage 3.3V  $\pm 5\%$

**Operating Temperature Ranges**

- 20 to 70°C

**Output Details**

- Output Compatibility HCMOS
- Drive Capability 15pF max

**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**

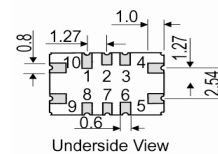
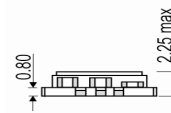
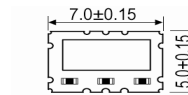
- Phase Noise (max):  
-85dBc/Hz @ 10Hz  
-110dBc/Hz @ 100Hz  
-125dBc/Hz @ 1kHz  
-135dBc/Hz @ 10kHz

**Environmental Parameters**

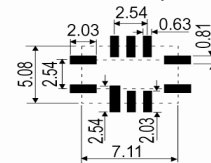
- Storage Temperature: -55 to 125°C
- Shock: IEC 60068-2-27, Test Ea: 980m/s<sup>2</sup> acceleration for 6ms, 3 shocks in each of 3 mutually perpendicular planes
- Vibration: IEC 60068-2-6, Test Fc, Procedure B4: 10Hz-60Hz 1.5mm displacement, 60-2000Hz at 98.1m/s<sup>2</sup>, 30mins in 3 mutually perpendicular planes at 1 oct/min
- Solderability: MIL-STD-202, Method 208, Category 3

**Ordering Information**

- Frequency\*  
Model\*
- Example:  
20.0MHz E2791


**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**

**Sales Office Contact Details:**

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**Compliance**

- RoHS Status                                   Compliant
- REACH Status                                   Compliant
- MSL Rating (JDEC-STD-033):           1

**Packaging Details**

- Pack Style: Reel           Tape & reel in accordance with EIA-481-D  
   Pack Size: 1,000
- Pack Style: Bulk           Loose in bulk pack  
   Pack Size: 10

**Electrical Specification - maximum limiting values 3.3V ±5%**

Frequency	Temperature Range	Stability (min)	Current Draw	Rise and Fall Time	Duty Cycle
	°C	ppm	mA	ns	%
20.0MHz	-20 to 70	±0.00	6	9	45/55

*This document was correct at the time of printing; please contact your local sales office for the latest version.*

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