

ISSUE 7; April 2016

### Description

- Zarlink approved TCXO for GR-1244 & GR-253 Stratum 3 applications.

### 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

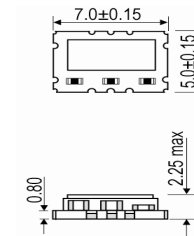
- Frequency\*  
Model\*
- Example:  
20.0MHz E2791

### Compliance

- RoHS Status (2011/65/EU): Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): 1

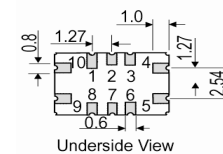


### Outline (mm)

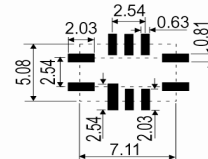


### Pad Connections

- 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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**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 3.30V ±5%**

Frequency	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
	°C	ppm	mA	ns	%
20.0MHz	-20 to 70	±0.32	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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