

ISSUE 7; May 2021

Description

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



Frequency Parameters

- Frequency: 20.0MHz
- Frequency Stability: ± 0.28 ppm
- Ageing: ± 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/s² 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/s², 30mins in 3 mutually perpendicular planes at 1 oct/min
- Solderability: MIL-STD-202, Method 208, Category 3

Manufacturing Details

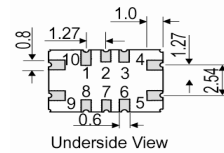
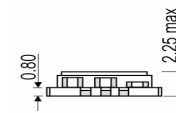
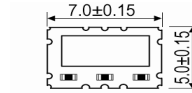
- RoHS Terminations: NiCoAu
- RoHS Reflow: 260degC 30s

Ordering Information

- Frequency*
Model*
- Example:
20.0MHz E2791



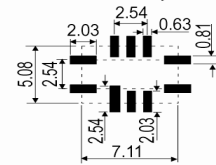
Outline (mm)



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



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Compliance

- RoHS Status (2015/863/EU) 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 3.30V \pm 5%

Frequency	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
	°C	ppm	mA	ns	%
20.0MHz	-20 to 70	\pm 0.32	6	9	45/55%

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