



ISSUE 5; 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 $\pm 0.28\text{ppm}$

Electrical Parameters

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

Operating Temperature Ranges

- -40 to 85°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 $< 1\text{mA}$)

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
-130dBc/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

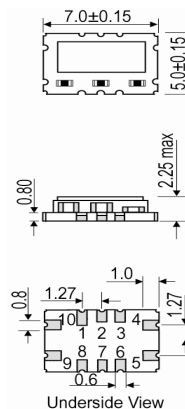
Ordering Information

- Frequency*
Model*
- Example:
20.0MHz E3199

Compliance

- RoHS Status Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable
- Soldering: Suitable for Convection Reflow soldering. Peak tempera

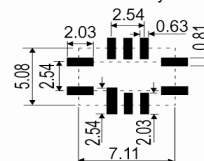
Outline (mm)



Pad Connections

1. Do not connect
 2. N/C
 3. Do not connect
 4. GND
 5. Output
 6. N/C
 7. N/C
 8. Tri-state Control *
 9. +V_S
 10. Do not connect
- * Leave unconnected if not required

Solder Pad Layout



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Packaging Details

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

Electrical Specification - maximum limiting values 3.3V $\pm$ 5%

Frequency	Temperature Range	Stability (min)	Current Draw	Rise and Fall Time	Duty Cycle
	°C	ppm	mA	ns	%
20.0MHz	-40 to 85	$\pm$ 0.28	6	8	45/55

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