

ISSUE 1; July 2024

Description

- Surface mount crystal oscillator (SPXO)

Frequency Parameters

- Frequency 80.0MHz to 98.304MHz
- Frequency Stability $\pm 50.00\text{ppm}$
- Ageing $\pm 3\text{ppm}$ max per year @ 25°C

Electrical Parameters

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

Operating Temperature Ranges

- 20 to 70°C

Output Details

- Output Compatibility HCMOS
- Drive Capability 15pF

Noise Parameters

- Phase Noise @ 25°C (typ):
 - 99dBc/Hz @ 10Hz
 - 132dBc/Hz @ 100Hz
 - 149dBc/Hz @ 1kHz
 - 160dBc/Hz @ 10kHz
 - 162dBc/Hz @ 100kHz
 - 164dBc/Hz @ 1MHz
- Phase noise (max) @ 80MHz & 90.3168MHz
 - 95dBc/Hz @ 10Hz
 - 125dBc/Hz @ 100Hz
 - 145dBc/Hz @ 1kHz
 - 155dBc/Hz @ 10kHz
 - 160dBc/Hz @ 100kHz
 - 162dBc/Hz @ 1MHz

Phase noise (max) @ 98.304MHz

- 90dBc/Hz @ 10Hz
- 123dBc/Hz @ 100Hz
- 145dBc/Hz @ 1kHz
- 155dBc/Hz @ 10kHz
- 160dBc/Hz @ 100kHz
- 162dBc/Hz @ 1MHz

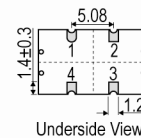
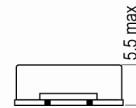
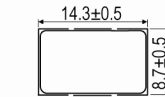
Environmental Parameters

- Storage Temperature Range: -40 to 85°C

Ordering Information

- Frequency*
Model*
Output
Frequency Stability
Operating Temperature Range
Supply Voltage
(*minimum required)
- Example
80.0MHz IQXO-401
HCMOS $\pm 50\text{ppm}$ -20 to 70C 3.3V

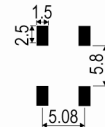
Outline (mm)



Pad Connections

1. N/C
2. GND
3. Output
4. +Vs

Solder Pad Layout



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Compliance

- RoHS Status (2015/863/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): 2

Packaging Details

- Pack Style: Bulk Bulk pack
Standard Pack Quantity: 1
- Pack Style: Reel Tape & reel in accordance with EIA-481
Standard Pack Quantity: 600

Electrical Specification - maximum limiting values 3.30V $\pm$ 5%

Frequency	Temperature Range	Stability	Current Draw	Rise and Fall Time	Duty Cycle
	°C	ppm	mA	ns	%
80.0MHz	-20 to 70	$\pm$ 50.00	35	3	45/55%
90.3168MHz	-20 to 70	$\pm$ 50.00	35	3	45/55%
98.304MHz	-20 to 70	$\pm$ 50.00	35	3	45/55%

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