

Features

- Ideally suited for base stations, VSAT etc
- Outstanding phase noise characteristics
- LVCMOS output
- Optional electronic frequency control
- Commercial, extended or industrial temp range
- Miniature SM package

Specifications

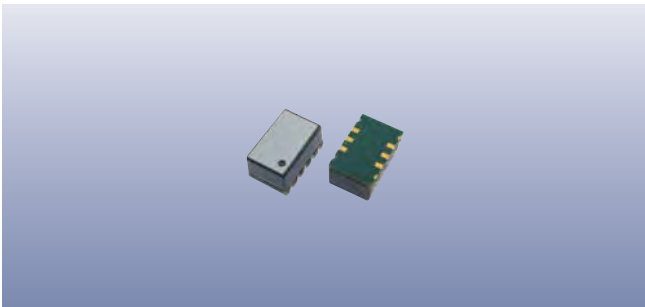
Parameters	Product	Option Codes
	GOXO-149	
Frequency range: 10.0 ~ 80.0MHz	■	
Temperature stability: < $\pm 2 \times 10^{-8}$ < $\pm 5 \times 10^{-8}$ < $\pm 1 \times 10^{-7}$	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	P N M
Operating temperature range: 0 to +70°C -20 to +75°C -40 to +70°C -40 to +85°C	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	E F G I
Ageing (after 30 days): < $\pm 1 \times 10^{-8}$ per day < $\pm 3 \times 10^{-7}$ first year	■ ■	
Calibration tolerance @25°C: < $\pm 1 \times 10^{-6}$	■	
Frequency stability: < $\pm 2 \times 10^{-8}$ per 5% change in load < $\pm 2 \times 10^{-8}$ per 5% change in V_{DD}	■ ■	
Overall stability*: $\pm 4.6 \times 10^{-6}$ max	■	
Storage temperature range: -55 to +125°C	■	
Output waveform: 15pF LVCMOS 45:55% @ 50% V_{DD}	■ ■	
Rise / fall times: 6.5ns	■	
Start up time: 10ms	■	
Frequency adjustment: None ± 10 ppm, 1.65V ± 1.35 V (positive slope, 5% linearity)	<input type="checkbox"/> <input type="checkbox"/>	T V
Supply voltage (V_{DD}): +3.3V ($\pm 5\%$)	■	
Power consumption (0+70°C): 2.5W max at switch on 1.1W typ when stabilised at 25°C	■ ■	
Warm up (to within spec): 60s at +25°C 90s at -40°C	■ ■	
Allan variance (1 sec): < $\pm 1 \times 10^{-9}$	■	
Phase noise (@ 10.0MHz): < -100 dBc/Hz @ 10Hz < -130 dBc/Hz @ 100Hz < -148 dBc/Hz @ 1kHz < -154 dBc/Hz @ 10kHz < -155 dBc/Hz @ 100kHz	■ ■ ■ ■ ■	
Phase jitter RMS: 0.5ps typ, 1.0ps max, 12kHz~fo/2	■	

■ Standard. □ Optional - Please specify required code(s) when ordering

* Overall stability is inclusive of calibration @ 25°C, operating temperature range, supply voltage change, load change, shock and vibration and 20 years ageing.

Ordering Information

Product name + option codes + frequency
 Option codes must be included to properly specify a model.
 eg: **GOXO-149/NFT 13.00MHz** $\pm 5 \times 10^{-8}$ -20+75°C, OCXO no VC
GOXO-149/MIV 14.40MHz $\pm 1 \times 10^{-7}$ -40+85°C, OCXO with VC
 Option code X (eg GOXO-149/X) denotes a custom spec.



Construction

- FR4 substrate, Ryton R4 cover
- Water resistant, non hermetic seal

Composition



This product is lead-free, and is fully compliant with the RoHS directive 2002/95/EC



Packaging & Handling

Production quantities supplied on T&R, 500 pcs max per reel. Small quantities may be supplied on tape (no reel), or in bulk.



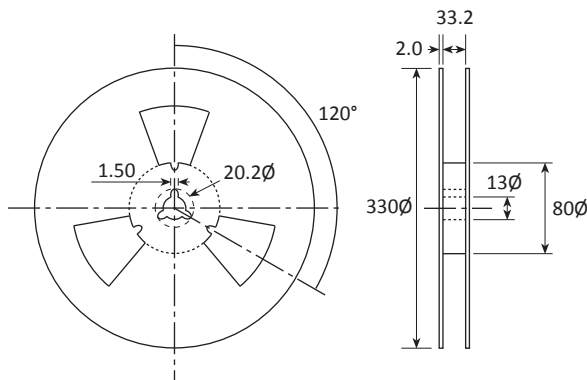
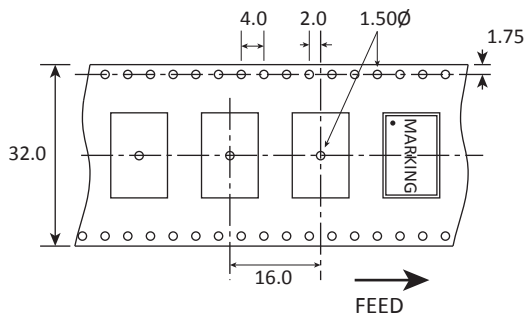
♦ Static sensitive product. Observe proper handling precautions

Marking

GOLLEDGE
FREQUENCY
• DC

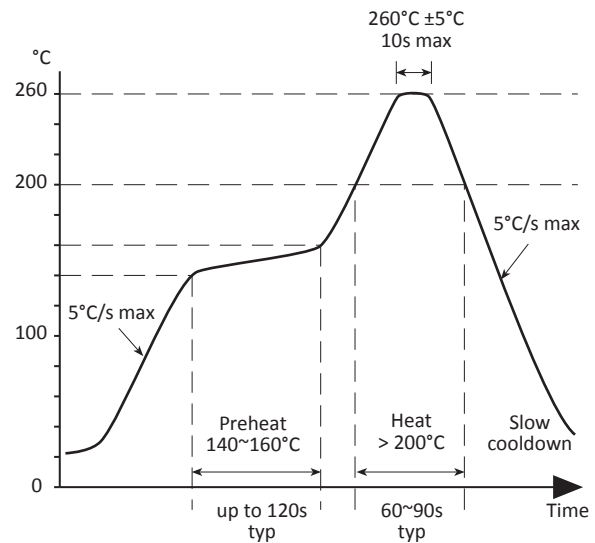
- Pin 1
- Marking type: Ink
- DC = Date code

Tape & Reel Specification



Not to scale. Dimensions in mm. Tolerances $\pm 0.1\text{mm}$ unless otherwise stated.

Soldering Profile



Meets IPC/JEDEC J-STD-020C

Recommended Cleaning

Wash only in an inline high pressure wash station that has an air knife and drying capabilities. (Drying temperature range from 85° to 100°C)