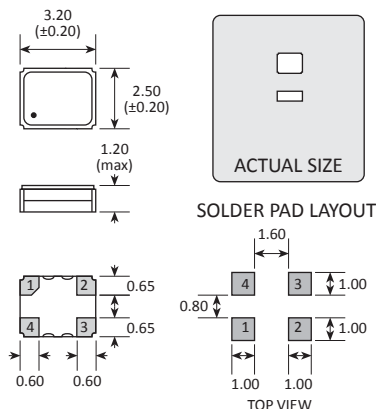
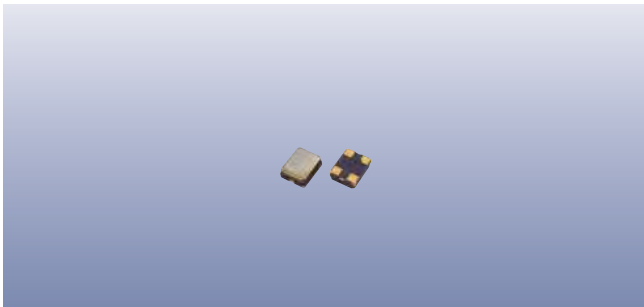




Scale 3:1

Features

- Ideally suited for GPS applications
- Supply voltages from 1.8V ~ 3.6V
- Low power consumption
- Miniature SM package
- Excellent frequency stability

GPS / Mobile Applications

Frequency	Application	Part No
16.367667MHz	SiRF - Centrality, Nemerix, Skytraq	MP02057
16.3680MHz	MTK, Sige	MP01176
16.3690MHz	SiRF	MP01863
19.20MHz	W/CDMA	MP02058
26.0MHz	Broadcom (Global Locate), u-Blox	MP02059
26.0MHz	GSM / EGSM	MA06427
40.0MHz	WiMax, Intel, Sequans, Beceem	MP02060

Specifications

GTXO-93T: TCXO, no frequency adjustment

GTXO-93V: TCXO with VC frequency adjustment

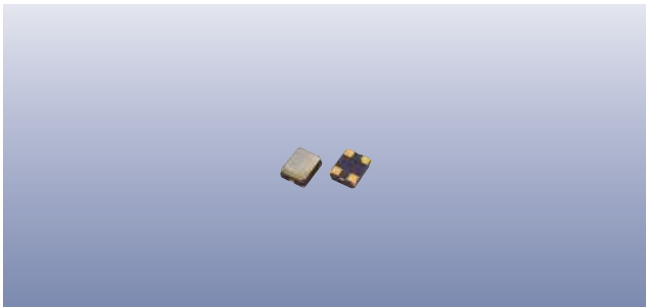
Parameters	Variant		Option Codes
	T	V	
Frequency range: 10.0 ~ 52.0MHz	■	■	
Frequency calibration: ±2.0ppm (+25°C ±3°C)	■	■	
Frequency stability: ±2.5ppm	■	■	J
±2.0ppm	□	□	H
±1.5ppm	□	□	G
±0.5ppm (see note 1)	□	□	E
Temperature range: 0 to +50°C	□	□	R
-10 to +60°C	□	□	C
-20 to +75°C	□	□	N
-30 to +85°C	■	■	S
Storage temperature range: -40 to +85°C	■	■	
Frequency vs supply voltage: ±0.2ppm, V _{DD} ±5%	■	■	
Frequency vs load change: ±0.2ppm (10kΩ±10%/10pF±10%)	■	■	
Frequency slope: ±0.05ppm/°C over -30+85°C	■	■	
Ageing: ±1.0ppm max first year	■	■	
Supply voltage (V _{DD}): +2.8V	■	■	specify
Other (+1.8V ~ +3.6V)	□	□	
Supply current: 1.5~2.0mA max	■	■	
Output waveform: Clipped sine, 0.8V p-p (see note 2)	■	■	
Test load: 10kΩ // 10pF	■	■	
Start up time: 3ms max	■	■	
Frequency adjustment: None	■	■	
±8 ~ ±14ppm, +1.4V ±1.0V		■	
Harmonics: -5dBc max	■	■	
Phase noise: -130dBc/Hz @ 1kHz	■	■	

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

Ordering Information

Product name + variant + option codes + frequency
 Option codes must be included to properly specify a model.
 eg: **GTXO-93V/JS 13.00MHz** ±2.5ppm -30+85°C, TCXO with VC
GTXO-93T/HN 14.40MHz ±2.0ppm -20+75°C, TCXO no VC
 Option code X (eg GTXO-93V/X) denotes a custom spec.

- ◆ 1: ±0.5ppm over -30+85°C is not available in V variant (VC-TCVXO)
- ◆ 2: The output is not DC-free. A coupling capacitor (10nF) may be required.



Packaging & Handling

Production quantities supplied on T & R, 1k or 3k pcs per reel.
Small quantities may be supplied on tape (no reel), or in bulk.



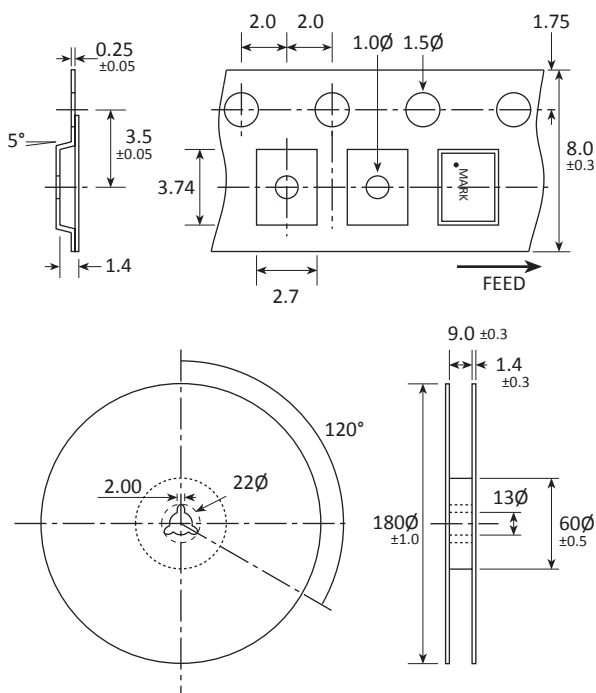
♦ Static sensitive product. Observe proper handling precautions

Marking

FREQUENCY
• DC

• Pin 1
Marking type: Laser
DC = Date code

Tape & Reel Specification



Not to scale. Dimensions in mm. Tolerances ± 0.1 mm unless otherwise stated

Construction

- Ceramic body with gold-plated pads
- Metal lid, seam sealed

Composition



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



Soldering Profile

