

**FEATURES**

- Stability up to ±0.01ppm
- Low Aging
- Compact Package

**APPLICATIONS**

- PCS Base Stations
- Cellular Base Stations
- Synthesizer
- Measurement Equipment
- Digital Switching



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**SPECIFICATION \***

Parameters	Product	Option Code
	OCXO	O
Frequency Range:	1.0 ~ 160.0MHz	△ Specify
Dimensions:	38.8X38.8X15mm	△ E
Oscillation Mode:	AT Cut SC Cut	△ A △ S
Supply Voltage(V <sub>DD</sub> ):	+3.0VDC +5.0VDC +12.0VDC	△ 30 △ 50 △ 12
Frequency Stability vs Temp. :	See Table 1	△ Specify
Operating Temp. Range:	See Table 1	△ Specify
Storage Temp. Range:	-40℃ ~+85℃	▲
Frequency Accuracy:	±0.5ppm(Center control voltage)	▲
Phase Noise:	1Hz,-80dBc/Hz 10Hz,-120dBc/Hz 100Hz,-140dBc/Hz 1KHz,-145dBc/Hz 10KHz,-150dBc/Hz	▲ ▲ ▲ ▲ ▲
Adjustable Frequency Range:	AT Cut:±7.0ppm SC Cut:±1.0ppm	▲ ▲
Output Wave Form & Load Characteristics:	See Table 2	△ Specify
Frequency Stability vs. Load:	±0.02ppm vs. ±10% load change	▲
Frequency Stability vs. Voltage:	±0.02ppm vs. ±5% voltage change	▲
Control Voltage Range:	0~5V	▲
Slope:	Positive	▲
Linearity:	±10%	▲
Supply Consumption:	4.0W(Max.)when warm-up 1.5W(Max.)when static	▲ ▲
Warm-up Temp:	AT Cut:±0.2ppm,<1m. SC Cut:±0.05ppm,<1m.	▲ ▲
Aging:	AT Cut: First year±0.1ppm 10year±1ppm SC Cut: First year±0.1ppm 10year±0.1ppm	▲ ▲ ▲ ▲
Package:	Bulk	▲

▲ Standard \* Specifications Subject to Change Without Notice  
△ Optional: please specify required code when inquiring or ordering

**PACKAGE**

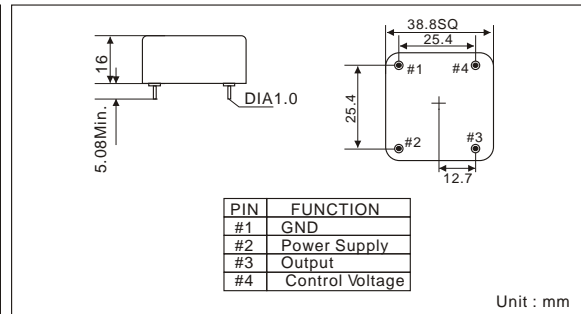
- Standard package in Bulk & Packed in box.

**PARTNUMBER GUIDE**

TGS	O	E	50	A	01	C	-20M480
Mark	OCXO	Dimensions	Supply Voltage	Oscillation Mode	See Table 1	See Table 2	Frequency Range

e.g. Full P/N.: TGS OE50A01C - 20M480

**DIMENSIONS \***



\* Available in Special Dimension Requested by Customer

**FREQUENCY STABILITY VS TEMPERATURE**

Table 1

Code	Frequency Stability Vs Temp.	Temp. Range
01	±0.01ppm (AT Cut) Max.	0℃~+50℃
02	±0.002ppm (SC Cut) Max.	0℃~+50℃
03	±0.03ppm (AT Cut) Max.	-20℃~+70℃
04	±0.01ppm (SC Cut) Max.	-20℃~+70℃
05	±0.05ppm (AT Cut) Max.	-40℃~+75℃
06	±0.01ppm (SC Cut) Max.	-40℃~+75℃

**OUTPUT WAVEFORM & LOAD CHARACTERISTICS**

Table 2

Output Waveform	Output Characteristics	Option Code
Clipping Sine Wave	Load: 10KΩ/10pF Output level: >1Vp-p	C
TTL	Load: Max. 10 lowpower consumption TTL gates "1" level: >+2.4VDC "0" level: <+0.2VDC Duty Cycle: 45/55 Rise/fall time: <6ns	D
HC MOS	Load: Max. 10 lowpower consumption TTL/HC MOS "1" level: >+4.3VDC "0" level: <+0.5VDC Duty Cycle: 45/55 Rise/fall time: <6ns	E
AC MOS	Load: Max. 10 lowpower consumption TTL/AC MOS "1" level: >+4.3VDC "0" level: <+0.5VDC Duty Cycle: 45/55 Rise/fall time: <6ns	F
Sine Wave	Load: Nominal value 50Ω Output level: >2dBm Harmonic Attenuation: <-25dBc Noise Attenuation: <-75dBc	G

**STANDARD FREQUENCIES**

Frequency in MHz

10.00000	20.48000	40.00000	77.76000
12.28800	28.32200	50.00000	80.00000
14.40000	30.00000	60.00000	90.00000
20.00000	38.88000	70.00000	100.00000

