Transko

OX - D

RoHS Compliant

OCXO 50 X 50 X 19mm PACKAGE

FEATURES:

- SC cut
- High frequency Stability / Good short term stability

APPLICATION:

- Precision time keeping device
- GPS/GSM/UMTS/CDMA
- Reference clock
- Military tactical communications system
- Base station

■ SPECIFICATION

FREQUENCY RANGE		10 ~ 20MHz	
FREQ. STABILITY	Vs. OPERATING TEMPERATURE	See Table 1	
	Vs. SUPPLY VOLTAGE (±5%)	±2ppb max.	
SHORT TERM STABILITY		See Table 2	
STORAGE TEMPERATURE RANGE		-55°C ~ +85°C	
SUPPLY VOLTAGE ±5%		$+5.0V_{DC}$, $+12.0V_{DC}$	
SUPPLY CURRENT		5.0W max. during warm-up, 2.5W max. when static	
WARM-UP TIME		±0.1ppb, 3minutes max.	
OUTPUT	LOGIC FAMILY	Sine Wave	HCMOS/TTL
	LOAD	50Ω	15pF
	LEVEL	+5dBm	"1" level: 90%V_{DD} min.; "0" level: 10%V_{DD} max.
	HARMONICS	-30dBc max.	-
	NOISE SUPPRESSION	-70dBc max.	-
	SYMMETRY (DUTY CYCLE)	-	45/55%
	RISE/FALL TIME	-	6ns max.
FREQUENCY DEVIATION		+0.5ppb min. (via Mechanical Trimmer)	
CONTROL VOLTAGE		0~5.0V	
FREQUENCY ADJUSTMENT (OPTION)		+0.5ppm min. (EFC)	
AGING	1st YEAR	±50ppb max.	
PHASE NOISE	1Hz	-100dBc/Hz	
	10Hz	-130dBc/Hz	
	100Hz	-140dBc/Hz	
	1kHz	-150dBc/Hz	

■ TABLE 1 FREQUENCY STABILITY VS TEMPERATURE

Frequency Stability vs Temperature	Temperature Range
±0.2ppb, ±0.5ppb, ±1.0ppb, ±2.0ppb	0°C ~ +50°C
±0.2ppm, ±0.5ppb, ±1.0ppb, ±2.0ppb	-10°C ~ +60°C
±0.5ppb, ±1.0ppb, ±2.0ppb	-20°C ~ +70°C
±1.0ppb, ±2.0ppb	-30°C ~ +70°C
±2.0ppb	-40°C ~ +70°C

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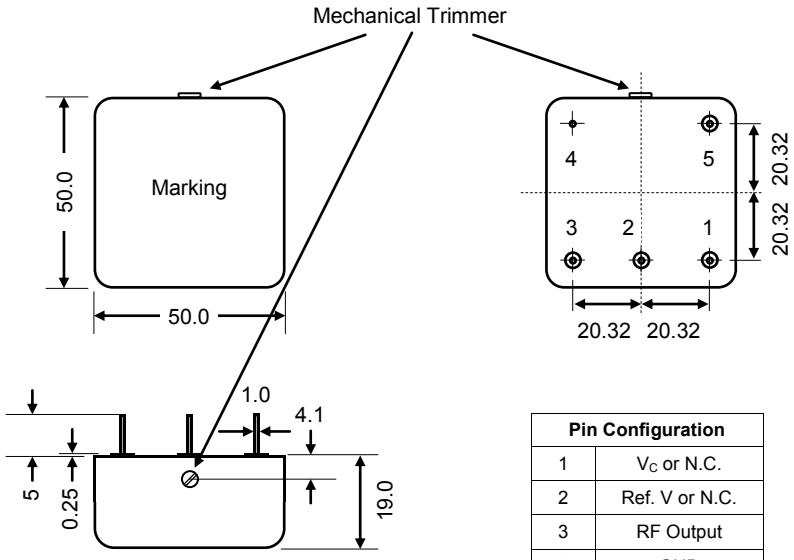
■ TABLE 2	SHORT TERM STABILITY (10MHz Typical)
2 x 10^{-10} max.	t = 10ms
2 x 10^{-11} max.	t = 100ms
2 x 10^{-12} max.	t = 1s

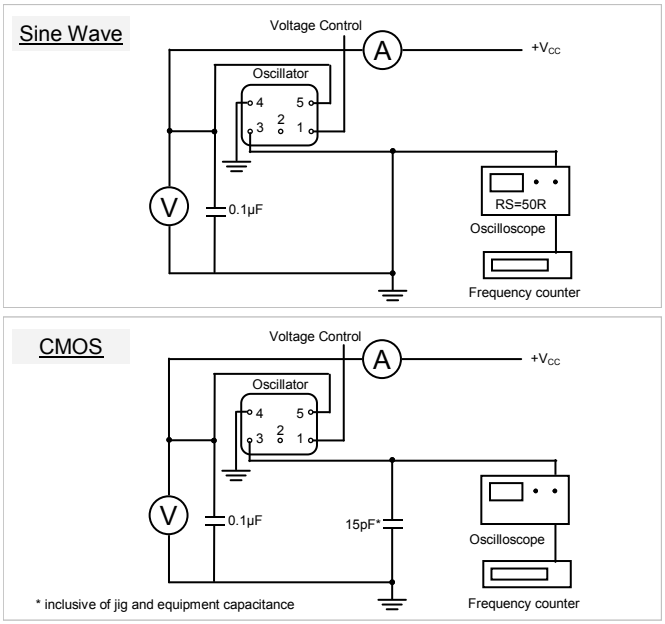
■ PACKAGE DIMENSIONS



Pin Configuration	
1	V_C or N.C.
2	Ref. V or N.C.
3	RF Output
4	GND
5	V_{DC}

Unit:mm

■ TEST CIRCUIT



■ PART NUMBERING GUIDE

OX-D – 5 – E5 – J – R – 10.000M

Voltage
5: +5.0 V
12: +12.0V

Frequency
Frequency in MHz

Output
Q: Sine Wave
R: CMOS

Stability
02: ± 0.2ppb
05: ± 0.5ppb
10: ± 1.0ppb
20: ± 2.0ppb

Operating Temperature
H: 0°C to 50°C
I: -10°C to 60°C
J: -10°C to 70°C
K: -20°C to 70°C
L: -30°C to 70°C
M: -40°C to 70°C

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