

Helping Customers Innovate, Improve & Grow



Description

The OX-202 is part of a series of oscillators specifically designed to support Timing Over Packet applications, in particular 1588-2008 based frequency and phase reference systems. The OX-202 is stratum 3E compliant.

Features

- Available in three standard frequencies (10MHz, 12.8MHz and 20MHz)
- Excellent temperature stability
- Superior long term stability
- Optimized to support Timing Over Packet applications
- Stratum 3E compliant according to GR1244

Applications

- SETS clock support
- Wireless Base Stations
- Edge and Core Routers

Performance Specifications

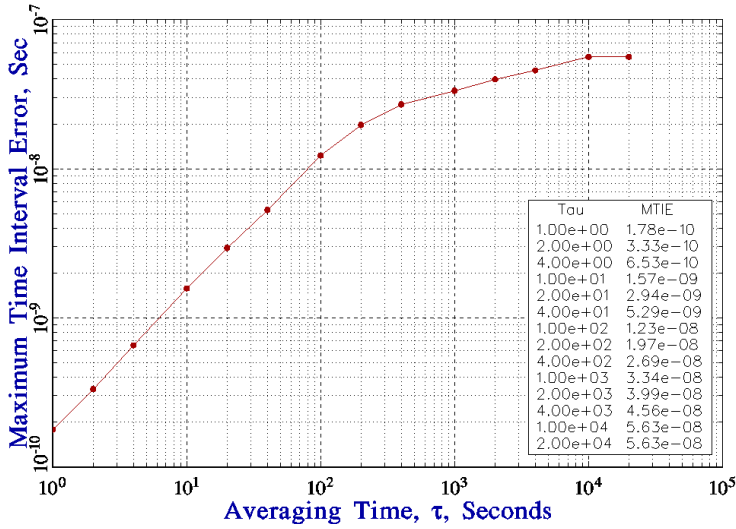
Frequency Stability ¹					
Parameter	Min	Typ	Max	Units	Notes
Over all stability (df/f ₀)			±2.6	ppm	Free run accuracy (20 years)
Drift			±1	ppb	Over 24 hours and ±3.0°C
Temperature stability (df/f)			10	ppb pk -pk	-40 to 85°C
Initial Tolerance (df/f ₀)			±0.5	ppm	@25°C
vs. supply voltage change (df/f)			±2	ppb	static; 3.3V ± 1%
vs. load change (df/f)			±5	ppb	static; Load ± 5%
vs. aging / daily (df/f)			±0.75	ppb	after 7 days; @25°C
vs. aging / month (df/f)			±25	ppb	after 7days; @25°C
vs. aging / year (df/f)			±100	ppb	after 7 days; @25°C
vs. aging / 20 years (df/f)			±2.0	ppm	after 7 days; @25°C
Phase Stability					
Parameter	Min	Typ	Max	Units	Notes
Jitter			1	ps rms	@12kHz to 20MHz
MTIE 1s		0.2		ns	Wander Generation per GR1244, system performance when locked through a 1mHz loop bandwidth, see typical performance data.
MTIE 10s		1.6		ns	
MTIE 100s		12		ns	
MTIE 1000s		34		ns	

Performance Specifications

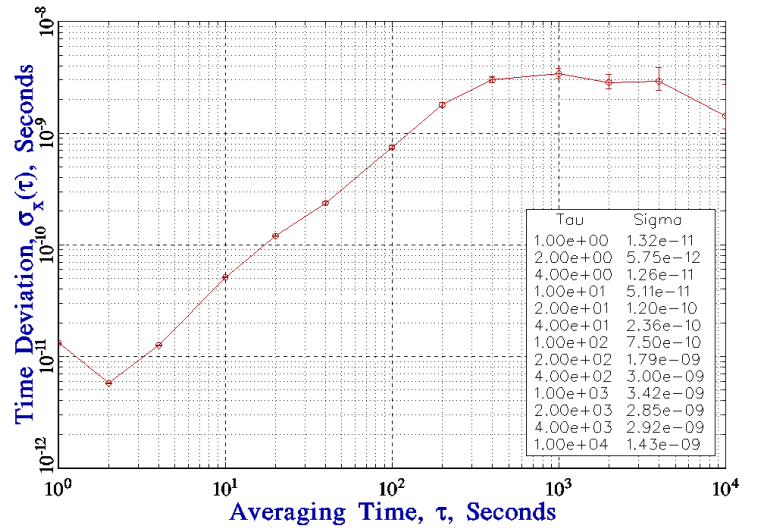
Phase Stability (continued)					
Parameter	Min	Typ	Max	Units	Notes
TDEV 1s		0.01		ns	Wander Generation per GR1244, system performance when locked through a 1mHz loop bandwidth, see typical performance data.
TDEV 10s		0.05		ns	
TDEV 100s		0.8		ns	
TDEV 1000s		3.5		ns	
Phase Noise					
Parameter	Min	Typ	Max	Units	Notes
Phase Noise at 1 Hz Offset			-85	dBc/Hz	
Phase Noise at 10 Hz Offset			-115	dBc/Hz	
Phase Noise at 100 Hz Offset			-135	dBc/Hz	
Phase Noise 1 kHz Offset			-145	dBc/Hz	
Phase Noise at 10 kHz Offset			-150	dBc/Hz	
Phase Noise at 100kHz Offset			-150	dBc/Hz	
RF Output					
Signal	HCMOS				
Load	15			pF	±10%
Rise Time	<10			ns	@ 10% to 90% V _{out}
Fall Time	<10			ns	@90% to 10% V _{out}
Duty Cycle	45/55			%	@ 50% V _{out}
V Low	0.4			V	With V _s 3.0V and 15pF load
V High	2.4			V	With V _s 3.0V and 15pF load
V Low	0.5			V	With V _s 5.0V and 15pF load
V High	3.5			V	With V _s 5.0V and 15pF load
Supply					
Supply Voltage (V _s)	3.3, 5.0			V	±10%
Power consumption	<1.5			W	Steady state, @ V _s = 3.3V, 25°C
Power consumption	<3.3			W	During warm up, @ V _s = 3.3V, 25°C
Additional Parameters					
Warm Up Time	3			minutes	@25°C to final frequency (1 Hour) within ±0.1ppm
ROHS	ROHS 6 compliant				
Washable	Washable device (hermetically sealed).				
Absolute Maximum Ratings					
		Min	Max	Units	
Operating temperature range		-40	85	°C	
Storage temperature range		-50	90	°C	

Typical Performance

FREQUENCY STABILITY

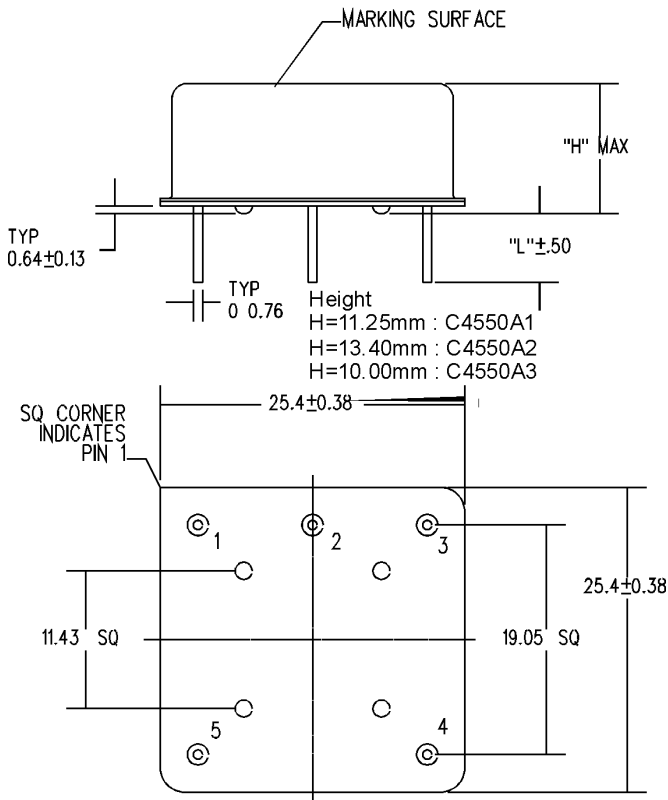


TIME STABILITY



Wander Generation per GR1244, system performance when locked through a 1MHz loop bandwidth.

Outline Drawing / Enclosure



Dimensions in mm

Height Codes		
Code	Height "H"	Pin Length "L"
2	13.4	6.35

Pin Assignment	
Pin	Connection
1	RF Out
2	Ground (case)
3	NC
4	NC
5	Supply Voltage Input (V_c)

Ordering Information

OX - 202 2 - E A E - 108 0 - 10M0000000

Product Family
OX: OCXO

Package
25.8 x 25.8 mm THT

Height
2: 13.4 mm

Supply Voltage
D: +5.0V
E: +3.3V

RF Output Code
A: HCMOS

Frequency

Frequency Control
0: Fixed Frequency

Stability Code
108: 10ppb pk-pk

Temperature Range
E: -40°C to +85°C
J: -20°C to +70°C

Notes:

1. Contact factory for improved stabilities or additional product options. Not all options and codes are available at all frequencies.
2. Unless other stated all values are valid after warm-up time and refer to typical conditions for supply voltage, frequency control voltage, load, temperature (25°C).
3. Phase noise degrades with increasing output frequency.
4. Subject to technical modification.
5. Contact factory for availability.

For Additional Information, Please Contact

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Rev: 2-18-2014 jar

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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