



Dynamic Engineers Inc.

2550 Gray Falls Dr., Suite#128, Houston, TX, 77077
TEL: 1-281-870-8822 EMAIL: Sales@DynamicEng.com

OCXO2525KLN-10MHz-X
Ultra-Low Noise 25.8 x 25.8 x 14.8 mm
solder seal package

Features and Benefits

- Frequency 10 MHz
- 10 dBm low noise sine wave output
- ± 20.0 ppb from -20°C to $+70^{\circ}\text{C}$
- 25.8 x 25.8 x 14.8 mm leaded package
- Three Levels of Phase Noise as order options
- 12 V supply
- Low G-sensitivity ≤ 1 ppb/G

Typical Applications

- Microwave Communication
- Ref. for Microwave Signal Source
- Test Equipment Reference
- Telecommunication Systems

Description

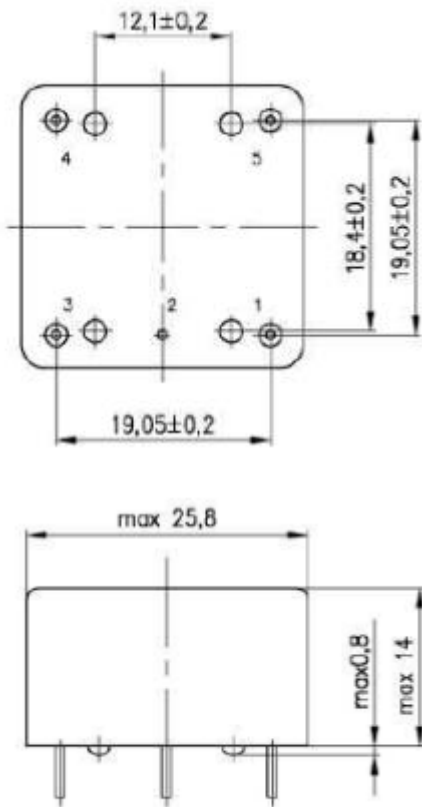
The OCXO2525KLN family offers a specially designed 10 MHz third overtone SC-cut crystal with very high Q that is specially matched to the oscillator and amplifier circuits to deliver consistent world class phase noise on all production shipments.

Picture of Part

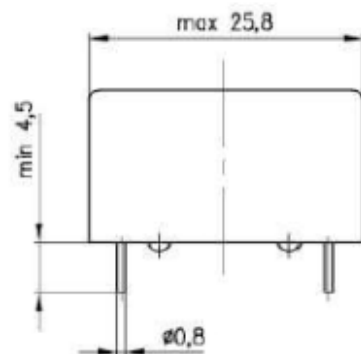


Mechanical Drawing & Pin Connections

Drawing No: n/a



Pin	Function
1	RF Output
2	GND, case
3	Control Voltage V_C
4	Reference voltage output V_{REF}
5	Supply Voltage V_S





Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency Range	F ₀			10.000000		MHz	
RF Output							
50 Ohm sine wave	Level		7.5	10.0	12.5	dBm	
	Harmonics				-30.0	dBc	
	Spurious				-100	dBc	
Power Supply							
Voltage	V _{cc}		11.400	12.000	12.600	V	
Current Consumption		Warm-up			400	mA	
		Steady-state			150	mA	
Warm-up Time: To within ±50 ppb after five minutes referenced to frequency after 60 minutes from turn-on							
Frequency Control*							
Frequency Adjust Range			±0.5		±1.5	ppm	Tuning Slope Positive
Control Voltage on Pin 3			0.00		10.0	V	
Reference Voltage on Pin 4			9.350	9.500	9.650	V	
Frequency Stability							
Versus temperature		-20°C to +70°C, ref 25°C	-20.000		+20.000	ppb	
Versus 5% change in supply voltage		Ref V _{cc} typ.	-1.000		+1.000	ppb	
Tolerance at 25°C and 5 V V _c			-100.00		+100.00	ppb	
Total Aging	1st Year	Projected after 30 days of operation	-50		+50	ppb	
SSB Phase noise at 10 MHz and 10 dBm level		1 Hz			-105.0	dBc/Hz	Class A Level Option
		10 Hz			-135.0		
		100 Hz			-157.0		
		1 kHz			-170.0		
		10 kHz			-175.0		
		100 kHz			-178.0		
Environmental Conditions							
Operating temperature range		-20°C to +70°C					
Storage temperature range		-40°C to +85°C					

Phase Noise Ordering Options:

“ X “ = “ A “ ; -105 dBc/Hz or better at 1 Hz offset ; -135 dBc/Hz or better at 10 Hz offset ; -157 dBc/Hz or better at 100 Hz offset ; -170 dBc/Hz or better at 1 KHz offset ; -175 dBc/Hz or better at 10 KHz ; -178 dBc/Hz or better at 100 KHz offset.

“ X “ = “ B “ ; -100 dBc/Hz or better at 1 Hz offset ; -130 dBc/Hz or better at 10 Hz offset ; -155 dBc/Hz or better at 100 Hz offset ; -167 dBc/Hz or better at 1 KHz offset ; -174 dBc/Hz or better at 10 KHz ; -176 dBc/Hz or better at 100 KHz offset.

“ X “ = “ C “ ; -95 dBc/Hz or better at 1 Hz offset ; -125 dBc/Hz or better at 10 Hz offset ; -150 dBc/Hz or better at 100 Hz offset ; -165 dBc/Hz or better at 1 KHz offset ; -172 dBc/Hz or better at 10 KHz ; -175 dBc/Hz or better at 100 KHz offset.