



Features and Benefits

- High frequency stability (up to ± 1 ppb)
- Low aging (up to ± 10 ppb per year)
- Ultra low phase noise
- Low G-Sensitivity (1ppb typ.)

Typical Applications

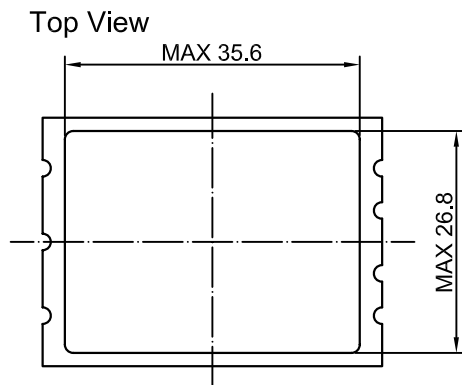
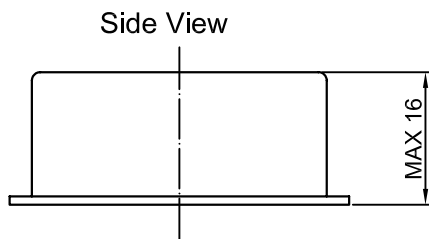
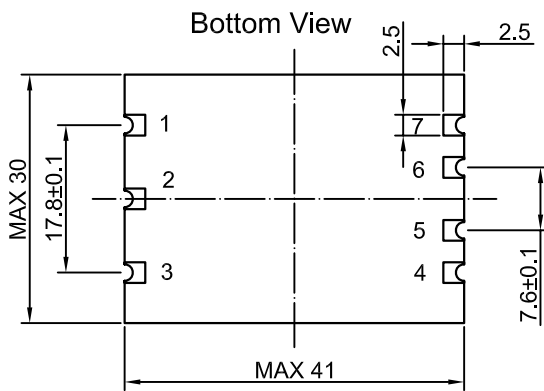
- SATCOM System
- Cellular Base Stations
- Radar Applications

Description

OCXO4130AN-10MHz-A-V offers high frequency stability, low long term aging and low phase noise, all in a compact package to suit the different communication needs.

Mechanical Drawing & Pin Connections

Drawing No: MD150029-2



Pin Connections:

Pin #	Symbol	Function
1	GND	Ground
2	N.C.	No Connection
3	RF	RF Output
4	Vs	Supply Voltage
5	OE	ON OFF
6	Vc	Control Voltage
7	Vref	Reference Voltage

Unit in mm
1mm = 0.0394 inches



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Operational Frequency	F _{nom}			10		MHz	
RF Output							
Signal Waveform			Sine wave				
Load	R _L	±5%	50			ohm	
Level			350			mV	
Harmonics			30			dB	
Power Supply							
Reference Voltage VREF Output				5		V	
Supply Voltage	V _s	±5%		12		V	
Warm-up Time	T _{up}	At +25°C to Δf/f=±2e-8			5	min	
Power Consumption		Steady state, +25°C			200	mA	
		Warm-up			500	mA	
Frequency Adjustment Range							
Electronic Frequency Control (EFC)			±0.3			ppm	
EFC voltage	V _c		0		5	V	
Frequency Stability							
Versus supply voltage		±5%			±0.5	ppb	
Versus Load Changes		±5%			±0.5	ppb	
Allan Variance		1s		1		e-12	5e-13 or 4e-13 be optional
Environmental, Mechanical Conditions							
Shock	75g/3±1ms						
Vibration	Frequency:10-500Hz; Acceleration:3g;						
Humidity@ +25°C	98%						
Storage Temperature	-55°C to +85°C						

Stability Vs Temp options

Stability Vs Temp		±5ppb	±3ppb	±2ppb	±1ppb
		a	b	c	d
1	0 to +55°C	Available	Available	Available	Available
2	-10 to +60°C	Available	Available	Available	Available
3	-20 to +70°C	Available	Available	Available	Contact DEI
4	-40 to +85°C	Available	Available	Contact DEI	Contact DEI



Aging @10MHz

- a. ±50ppb/year; Available;
- b. ±30ppb/year; Available;
- c. ±20ppb/year; Available;
- d. ±10ppb/year; Contact DEIÈ

Phase Noise

Phase Noise (dBc/Hz)	A	B	C
1Hz	<-112	<-115	≤-118 to -120
10Hz	<-142	<-144	≤-145
100Hz	<-154	<-157	<-159
1KHz	<-160	<-160	<-165
10KHz	<-160	<-160	<-168