Typical Applications

Frequency Synthesizers
Position Location
Satellite Communications
Space Applications

Features

Low Phase Noise
Fast Warm-up
High Stability
SC-Cut Crystal
Compact Size
Hybrid Construction
Hermetic
100krad tolerant

Frequency Range (Sinewave) 40 MHz to 120 MHz
Frequency Range (CMOS) 5 MHz to 100 MHz

Supply Characteristics

Parameter	Value	Condition
Supply voltage[3] (Vs)	+5 V	±5%
Power consumption steady state	2.0 W (max)	@ 25°C
Power consumption during warm up	4.5 W (max)	

Output Characteristics

Waveform	Sinewave	
Load	50Ω (nominal)	
Output level	+3 dBm to +7dBm	Straight Sine
Harmonics	-30 dBc (max)	
Spurious	-75 dBc (max)	DC to 1GHz
Output VSWR	2:1	Fo ±2%

Frequency Stability[1]

Set-on Tolerance [2,3]	± 150 x10^{-9}	Δf/f
Temperature Stability (Total Deviation) [1]	30 x10^{-9}	0....+50°C
	60 x10^{-9}	-20.....+70°C
	80 x10^{-9}	-40....+85°C
Warm-up Accuracy	±50 x10^{-9}	Within 2 minutes @ 25°C
Aging[1,3]	< ± 4.0 x10^{-9}	per Day after 7 days
	< ± 0.75 x10^{-6}	per Year after 30 days
Acceleration Sensitivity[1]	0.8 x10^{-9}	per G, Total Gamma
Frequency Pull[1]	± 15 x10^{-9}	10% change in load
Frequency Push[1]	± 30 x10^{-9}	5% change in voltage

Frequency Control

Electrical frequency control (EFC):	± 2.0 x10^{-6}	minimum
Voltage range	0V to 5V	2.5V nominal
Pulling slope	Negative	

Additional Parameters[1]

Parameter	Value	Offset
Phase Noise[1]	< - 72 dBc/Hz	1 Hz
	< - 92 dBc/Hz	10 Hz
	< -123 dBc/Hz	100 Hz
	< -150 dBc/Hz	1 kHz
	< -160 dBc/Hz	10 kHz
	< -163 dBc/Hz	100 kHz
	< -163 dBc/Hz	1 MHz

Short-term Stability (AVAR)[1]	3 x 10^{-11}	τ = 1 sec.

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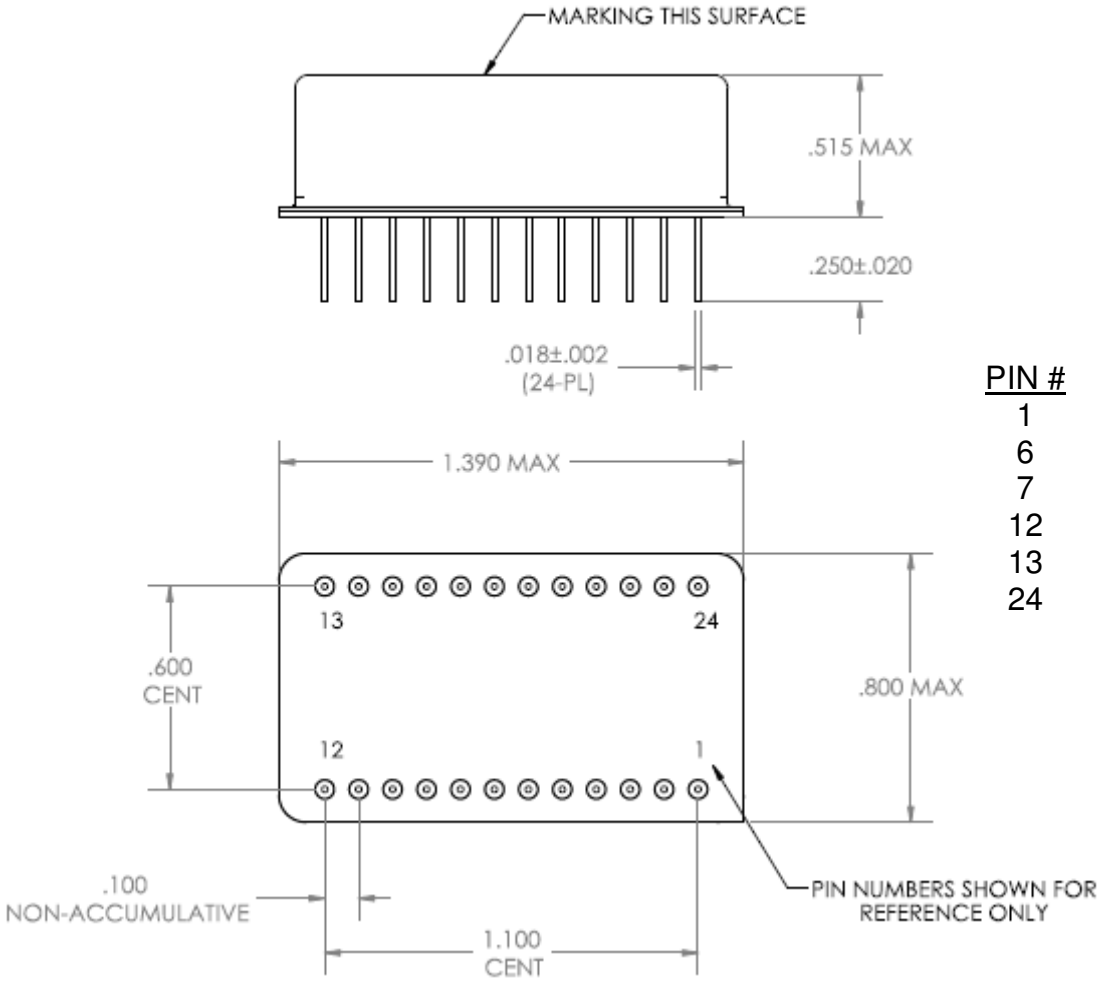

PIN #	FUNCTION
1	EFC
6	GND
7	GND
12	GND
13	RF OUT
24	Vcc

Notes

1 Typical values @ 100 MHz

2 Set-on Tolerance is specified with EFC set to the mid-point of its range or no EFC installed.

3 Set-on Tolerance and Daily aging rate are 'At Time of Shipment' values

Unless otherwise stated all values are valid after warm-up time and refer to typical conditions for supply voltage, frequency control voltage, load, temperature (25℃)

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