



Dynamic Engineers Inc.

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Features and Benefits

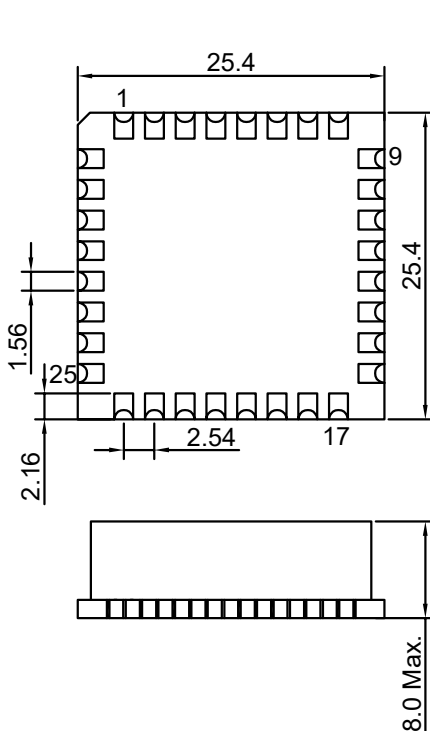
Frequency range: 1030MHz
Supply voltage: 5.0V
Current: 200mA Max
Output waveform: Sinewave
Frequency stability vs. operating temperature: ± 1.0 ppm
Aging: ± 2.0 ppm per year
Phase noise@10KHz: -110dBc/Hz
Operating temperature: -40°C to +55°C
Size: 25.4x25.4x8.0mm

Typical Applications

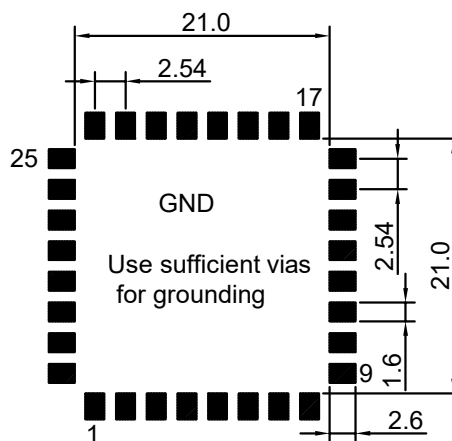
Secondary Radar
IFF
Air Security

Mechanical Drawing & Pin Connections

Drawing No: MD22001(-1)



Note:
50 Ohm transmission line for PIN# 19 - RF Output



Pin connections

PIN #	Function
1	Lock Detect
2	N.C.
19	RF Output
22	Gate Input or N.C.
31, 32	Supply Voltage
Others	GND, CASE

Unit in mm
1mm = 0.0394 inches



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Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Frequency	F_{nom}			1030		MHz	
RF Output							
Signal Waveform			Sinewave				
Load			50			ohm	
Output level GATE ON			+10		+26	dBm	@ $V_{GATE} > +3.5V$
Output level variation					± 2.0	dB	
Output level GATE OFF				-60	-50		@ $V_{GATE} < +1.5V$
Spurious					-80	dBc	
Harmonics					-30	dBc	
Power Supply							
Supply Voltage	V_{cc}		4.75	5.0	5.25	V	
Current (Note 2)					200	mA	
Lock detect output LD (Note 1)			3.0			V	PLL Locked
Gate Function							
Low level input voltage V_{GL}				0	1.5	V	
High level input voltage V_{GH}			3.5	5.0	5.5	V	
Input resistance				10		kohm	
Input capacitance					10	pF	
Turn-on time				35	40	ns	
Turn-off time				25	30	ns	
Frequency Stability							
Versus Operating Temperature Range					± 1.0	ppm	
Initial Tolerance		+25°C			± 1.0	ppm	
Aging 1 st Year					± 2.0	ppm	
Phase noise		@10KHz		-110		dBc/Hz	
		@100KHz		-130		dBc/Hz	
		@1MHz		-150		dBc/Hz	
Environmental Conditions							
Operation temperature range		-40°C to +55°C					

Note 1: Internal PLL with TCXO reference

Note 2: Current consumption depends on output level