



RFM Integrated Device, Inc.

PRODUCT SPECIFICATION

Part Number: XOC9007

OCXO, 20 MHz, ± 500 ppb
@ 25°C $\pm 2^\circ\text{C}$

25.4x22.1x11mm 20.0MHz OCXO



Characteristics	Values	Unit	Note
Nominal Frequency	20.0	MHz	±500 ppb @ 25°C ±2°C

Temperature Range

Characteristics	Min.	Nom.	Max.	Unit	Note
Operating	-40		85	°C	

Power - Consumption

Characteristics	Min.	Nom.	Max.	Unit	Note
Power Supply	3.135	3.3	3.465	V	
Max values at steady state			1.3	W	at 25°C
Max values during Warm-up			1000	mA	at turn on

Output Signal LVCMOS

Characteristics	Min.	Nom.	Max.	Unit	Note
Level	VOH	2.4		Volt	
	VOL		0.33	Volt	
Rise/Fall time			10	ns	10% to 90%
Spurious			-80	dBc	
Sub-harmonics			-40	dBc	
Duty cycle	40		60	%	
Load		15		pF	

Frequency Stability

Characteristics	Min.	Nom.	Max.	Unit	Note
Total			1.5	±ppm	20 years aging, temperature, voltage, and initial set frequency
Drift			0.5	±ppb	After 30 days continuous operation; for aging and +/-2.8°C temperature change
VS Temperature Range			5	±ppb	-40~85°C refer to freq at 25°C
VS Power Supply variation			1	±ppb	±5% Change
VS Load variation			1	±ppb	±5% Change

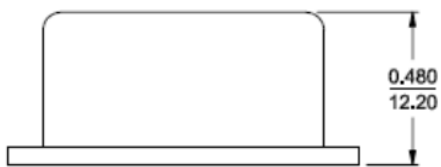
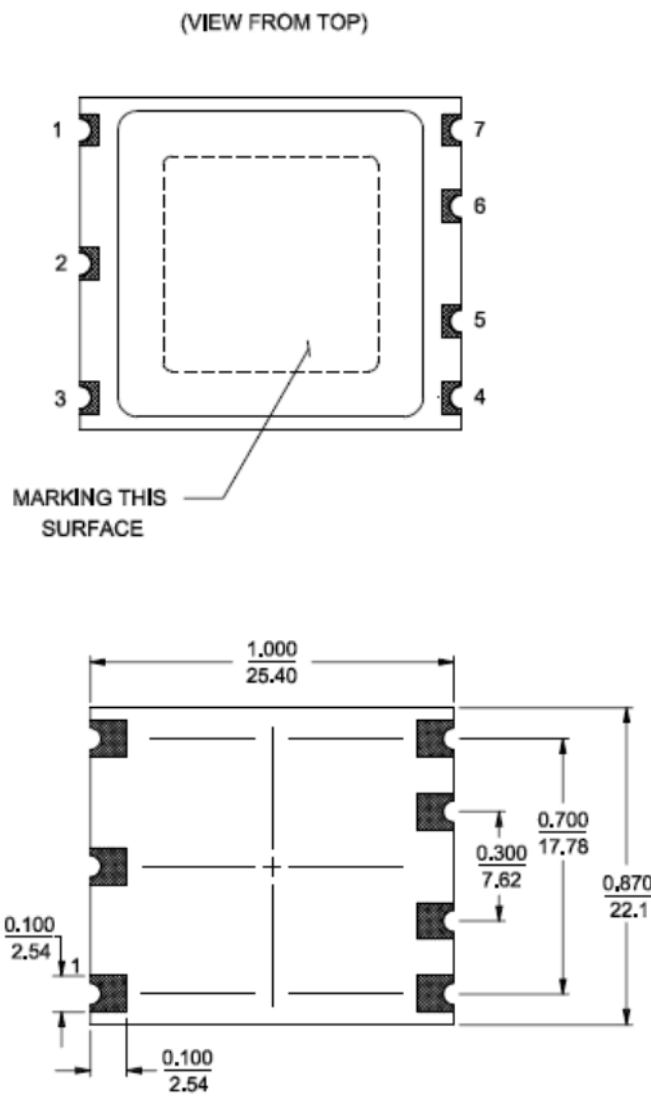
Aging

Characteristics	Values			Unit	Note
Medium/Long Term Stability	1 day	1 Year	10Years	±ppb	After continuous operating for 1 month at 25°C
	0.3	50	500		
Warm Up	5 min		100	±ppb	Refer to 1 hour on @ 25°C

Phase Noise

Characteristics	Values						Unit	Note
Static Conditions	1 Hz	10 Hz	100 Hz	1 KHz	10KHz			Typ value
	-80	-110	-135	-145	-155		dBc/Hz	
Short-term Stability	1ms	100ms	1s	10s	After 1 hour power on			
			5.0E-12					

Mechanical drawing Package



PIN CONNECTIONS	
PIN	FUNCTION
1	VCO INPUT or NOT CONNECTED
2	REFERENCE VOLTAGE or NOT CONNECTED
3	+VDC
4	R. F. OUTPUT
5	OVEN MONITOR or NOT CONNECTED
6	NOT CONNECTED
7	0 VOLTS & CASE

Label
(Top view)

