

VCO1000ET

Surface Mount

Voltage Controlled Oscillator

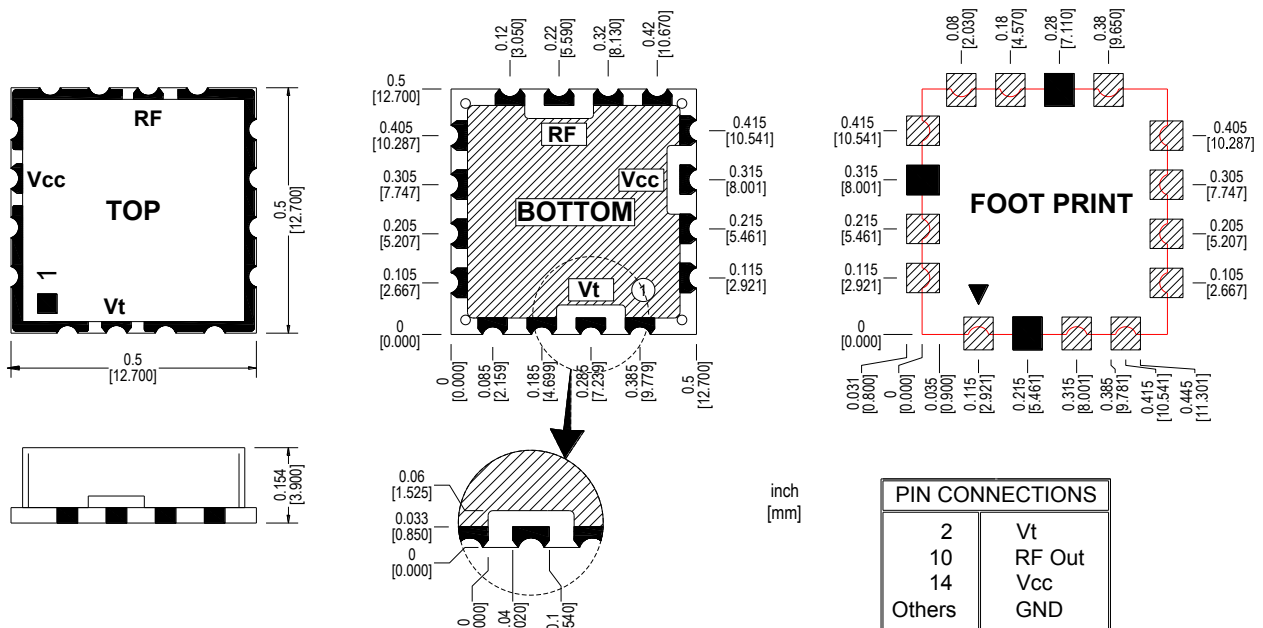
Features

Low phase noise
Linear tuning characteristics
Low pushing / Low pulling
Aqueous washable

Typical Applications

SATCOM • Point –to-Point
Receiver • Radio
Test Equipment • MMDS
Radar • WiMax

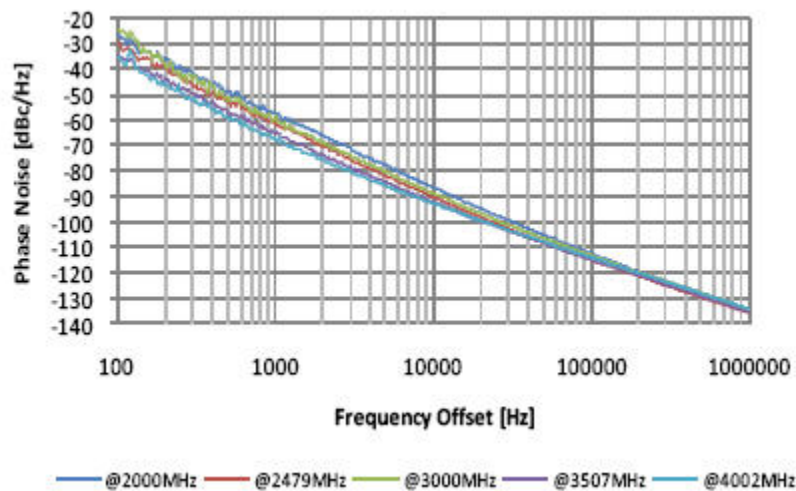
Mechanical Drawing and PIN Connections



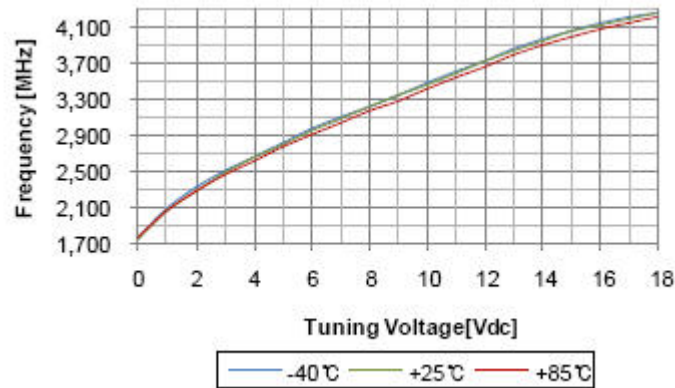
Specification

Parameter	Units	Min	Typ	Max
Operating Frequency Range	MHz	2000		4000
Output Power	dBm		5.0	
Output Impedance	Ω		50	
Phase Noise	@10kHz offset		-90	
	@100kHz offset		-111	
Tuning Voltage (Vt)	Vdc	0.5		16.0
Tuning Voltage Sensitivity (Kv)	MHz/V		100 - 235	
2nd Harmonic Suppression	dBc		-20	
Power Supply (Vcc)	Voltage		5	
	Current		50	
Pushing Figure	MHz/V		8.7	
Pulling Figure	MHz		5	
Input Capacitance	pF		10	
Operating Temp. Range	°C	-40		+85

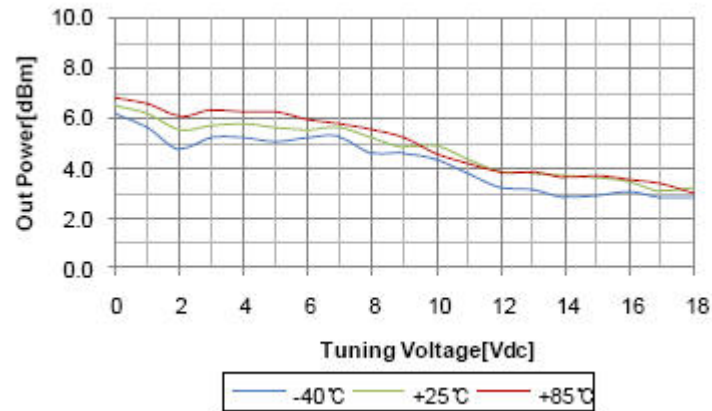
Performance Graph



Tuning Curve



Output Power Curve



Performance Data

Vt [Vdc]	Frequency [MHz]			Kv [MHz/V]			Output Power [dBm]			2nd Harmonic [dBc]
	+25°C	+85°C	-40°C	+25°C	+85°C	-40°C	+25°C	+85°C	-40°C	
0.0	1735.0	1769.3	1767.2	-	-	-	6.5	6.8	6.2	-15.2
1.0	2049.3	2040.8	2078.0	314.3	271.5	310.8	6.2	6.6	5.6	-13.8
2.0	2284.3	2264.0	2309.2	235.0	223.2	231.2	5.5	6.1	4.8	-18.7
3.0	2475.4	2451.3	2496.8	191.1	187.3	187.6	5.7	6.3	5.2	-20.5
4.0	2643.6	2616.1	2663.2	168.3	164.8	166.4	5.8	6.3	5.2	-21.1
5.0	2793.9	2765.5	2812.9	150.2	149.4	149.8	5.7	6.2	5.0	-21.3
6.0	2938.3	2904.1	2957.5	144.4	138.6	144.6	5.6	6.0	5.2	-23.8
7.0	3075.9	3040.5	3092.5	137.6	136.4	135.0	5.6	5.7	5.2	-25.5
8.0	3206.5	3166.5	3221.6	130.6	126.0	129.0	5.2	5.5	4.6	-18.5
9.0	3337.7	3291.6	3351.6	131.1	125.1	130.0	4.8	5.2	4.6	-18.5
10.0	3465.9	3417.1	3479.2	128.2	125.4	127.6	4.9	4.6	4.4	-21.6
11.0	3593.3	3540.0	3606.7	127.4	122.9	127.5	4.4	4.2	3.8	-20.6
12.0	3719.9	3663.6	3733.8	126.7	123.6	127.0	3.8	3.9	3.2	-26.3
13.0	3842.9	3785.5	3857.7	123.0	121.9	124.0	3.8	3.9	3.1	-25.1
14.0	3958.0	3901.1	3972.9	115.0	115.6	115.2	3.7	3.7	2.8	-31.2
15.0	4058.2	4004.4	4073.4	100.2	103.3	100.5	3.6	3.7	2.9	-36.1
16.0	4141.2	4092.9	4156.0	83.0	88.5	82.6	3.5	3.6	3.0	-34.0
17.0	4207.4	4165.3	4220.6	66.2	72.4	64.6	3.1	3.4	2.8	-36.6
18.0	4259.3	4220.2	4271.3	51.8	54.9	50.7	3.2	3.0	2.8	-35.8