

Voltage Controlled Oscillator

RS2140AM

Optimized band 2110 to 2170 MHz

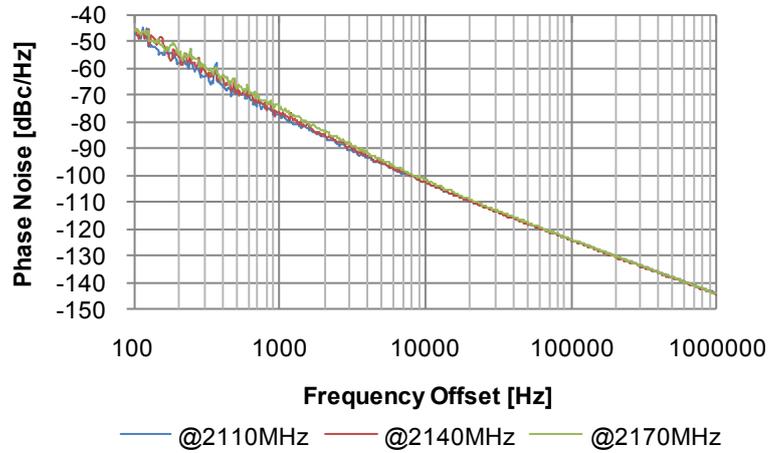
Rev. A

Features

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

Applications

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

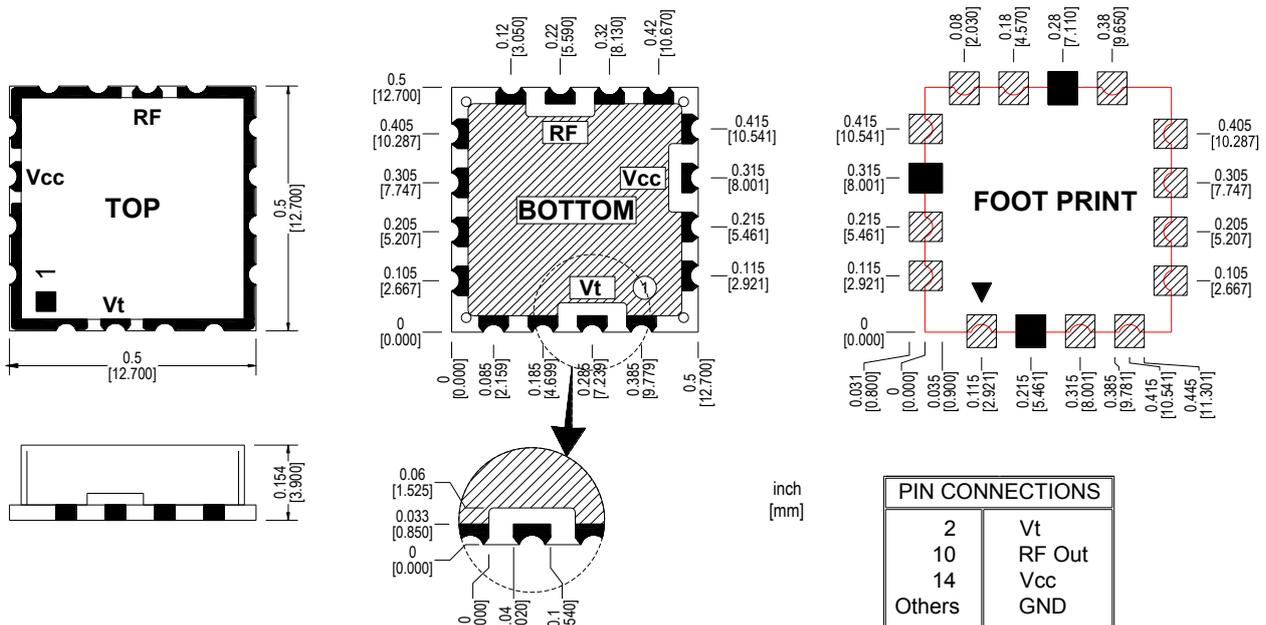


Electrical Characteristics

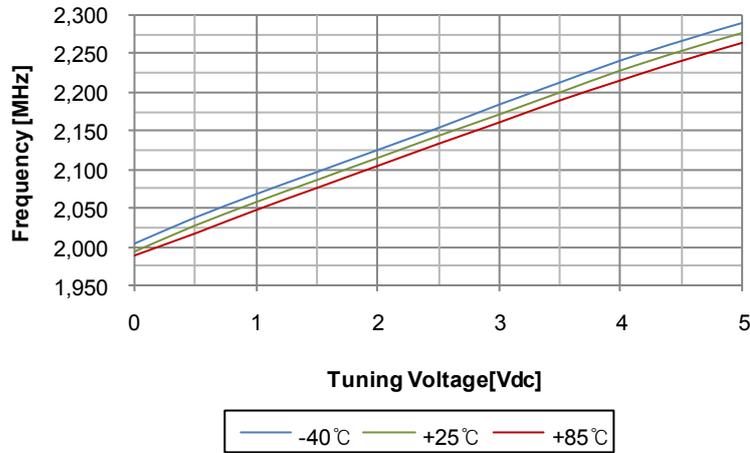


Parameter	Units	Min	Typ	Max
Operating Frequency Range	MHz	2110		2170
Output Power	dBm		3.0	
Output Impedance	Ω		50	
Phase Noise	@10kHz offset		-100	
	@100kHz offset		-120	
Tuning Voltage (Vt)	Vdc	1.3		3.5
Tuning Voltage Sensitivity (Kv)	MHz/V		28	
2nd Harmonic Suppression	dBc		-21	
Power Supply (Vcc)	Voltage		5	
	Current		18	
Pushing Figure	MHz/V		0.8	
Pulling Figure	MHz		1.7	
Input Capacitance	pF		100	
Operating Temp. Range	$^{\circ}\text{C}$	-40		+85

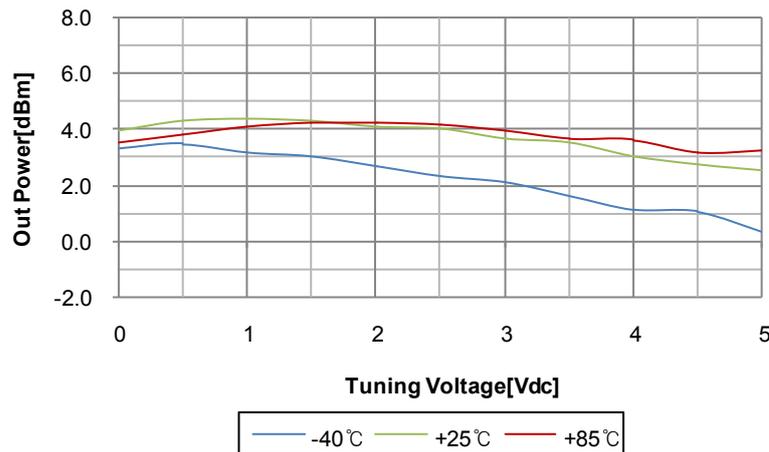
Dimensions



Tuning Curve



Output Power Curve



Performance Data

Vt [Vdc]	Frequency [MHz]			Kv [MHz/0.5V]			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	1994.1	1987.6	2004.3	-	-	-	3.9	3.6	3.3	-22.8
0.5	2027.0	2018.0	2037.4	32.9	30.5	33.1	4.3	3.8	3.5	-21.3
1.0	2058.1	2049.0	2068.4	31.1	30.9	31.0	4.4	4.1	3.2	-21.6
1.5	2087.3	2077.6	2097.7	29.2	28.7	29.2	4.3	4.3	3.0	-22.3
2.0	2115.6	2105.5	2126.3	28.4	27.9	28.6	4.1	4.2	2.7	-21.1
2.5	2143.9	2133.2	2154.8	28.3	27.6	28.5	4.0	4.2	2.3	-20.1
3.0	2172.4	2161.0	2183.7	28.5	27.8	28.9	3.7	3.9	2.1	-18.8
3.5	2201.2	2189.1	2212.9	28.8	28.1	29.1	3.6	3.7	1.6	-18.1
4.0	2229.2	2216.6	2241.7	28.0	27.5	28.8	3.1	3.6	1.1	-18.3
4.5	2255.5	2242.3	2268.5	26.3	25.7	26.8	2.7	3.1	1.1	-20.3
5.0	2278.4	2265.3	2291.8	22.9	23.0	23.3	2.5	3.2	0.3	-22.5