

Voltage Controlled Oscillator

RSW165AM

Wideband 120 to 165 MHz

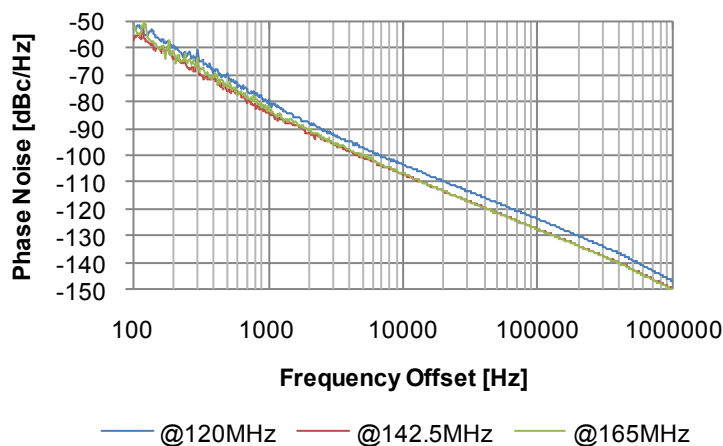
Rev. A

Features

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

Applications

- Broadcast
- VHF radio
- Wireless Telemetry
- Test Instrument-Signal Generation

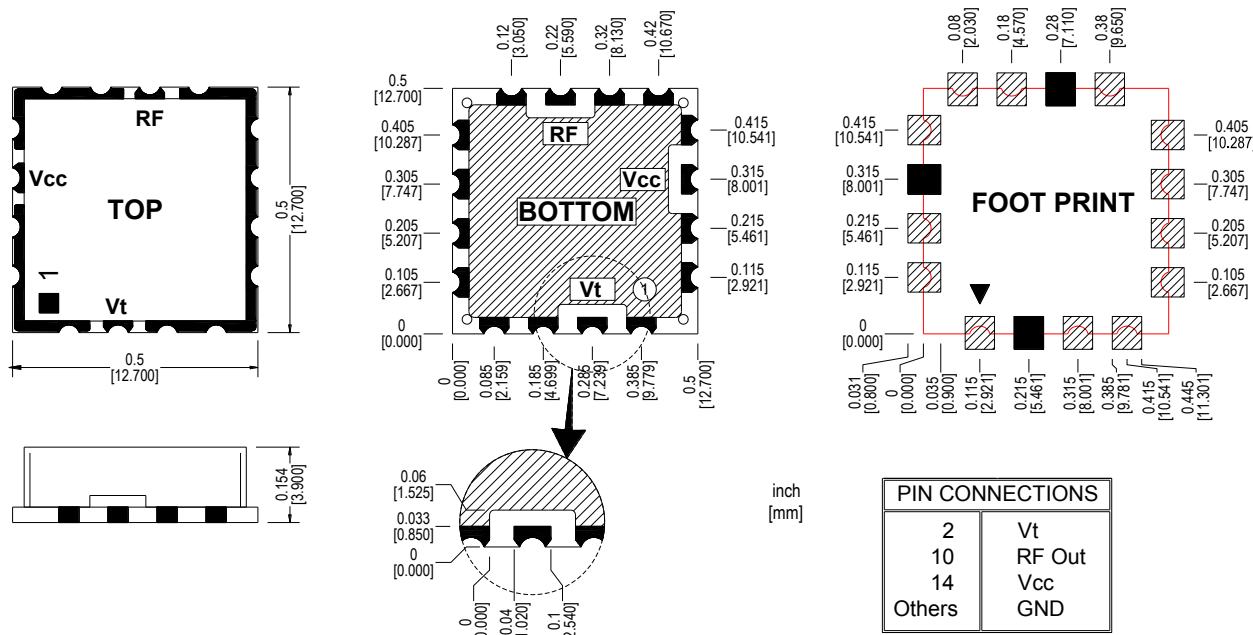


Electrical Characteristics

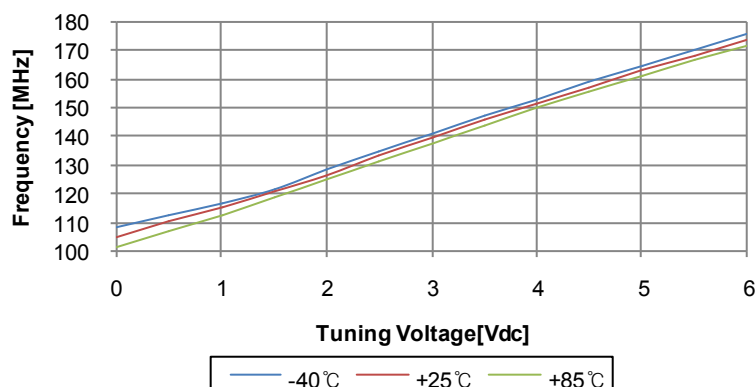


Parameter	Units	Min	Typ	Max
Operating Frequency Range	MHz	120		165
Output Power	dBm	+8.0	+11.0	+14.0
Output Impedance	Ω		50	
Phase Noise @10kHz offset	dBc/Hz		-106	-101
Phase Noise @100kHz offset	dBc/Hz		-127	-122
Tuning Voltage (Vt)	Vdc	+0.5		+6.0
Tuning Voltage Sensitivity (Kv)	MHz/V		5 - 6	
2nd Harmonic Suppression	dBc		-6	
Power Supply (Vcc) Voltage	Vdc		5	
Power Supply (Vcc) Current	mA		20	25
Pushing Figure	MHz/V		2.1	
Pulling Figure	MHz		0.05	
Input Capacitance	pF		100	
Operating Temp. Range	$^{\circ}\text{C}$	-40		+85

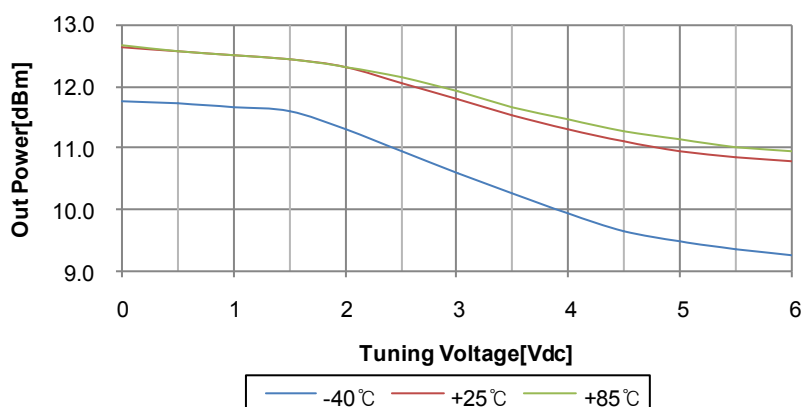
Dimensions



■ Tuning Curve



■ Output Power Curve



■ Performance Data

V _t [Vdc]	Frequency [MHz]			K _v [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	104.8	101.0	108.4	-	-	-	12.7	12.7	11.8	-5.5
0.5	110.1	106.9	112.6	10.5	11.8	8.4	12.6	12.6	11.7	-5.7
1.0	115.3	112.8	116.9	10.4	11.8	8.4	12.5	12.5	11.7	-5.5
1.5	120.6	118.7	121.6	10.8	11.8	9.5	12.4	12.4	11.6	-5.3
2.0	126.4	124.7	128.4	11.5	12.2	13.6	12.3	12.3	11.3	-6.8
2.5	133.2	131.3	135.1	13.7	13.1	13.4	12.1	12.1	10.9	-6.8
3.0	139.7	137.9	141.4	12.9	13.2	12.5	11.8	11.9	10.6	-6.0
3.5	145.9	144.1	147.4	12.3	12.4	12.0	11.5	11.7	10.3	-6.2
4.0	151.7	150.0	153.3	11.8	11.8	11.8	11.3	11.5	9.9	-7.5
4.5	157.4	155.7	159.0	11.4	11.5	11.5	11.1	11.3	9.7	-7.8
5.0	163.1	161.3	164.7	11.4	11.3	11.4	11.0	11.1	9.5	-7.8
5.5	168.6	166.8	170.4	10.9	10.9	11.3	10.9	11.0	9.4	-7.0
6.0	174.0	172.1	175.9	10.8	10.6	11.0	10.8	10.9	9.3	-8.3