

Voltage Controlled Oscillator

RSW300AM

Rev. A

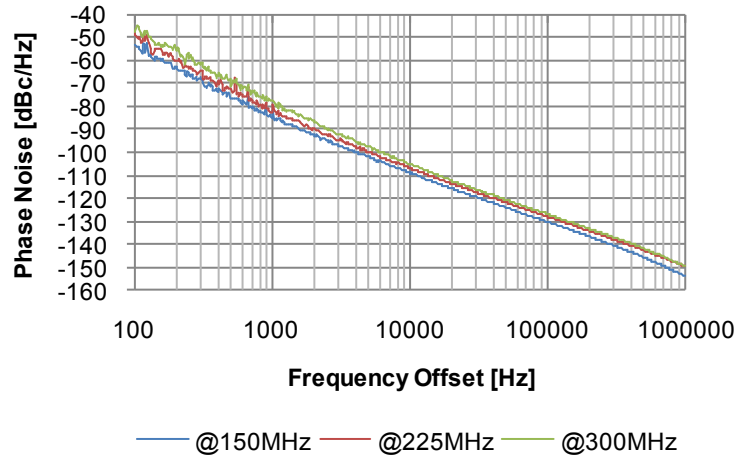
Wideband 150 to 300 MHz

Features

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

Applications

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

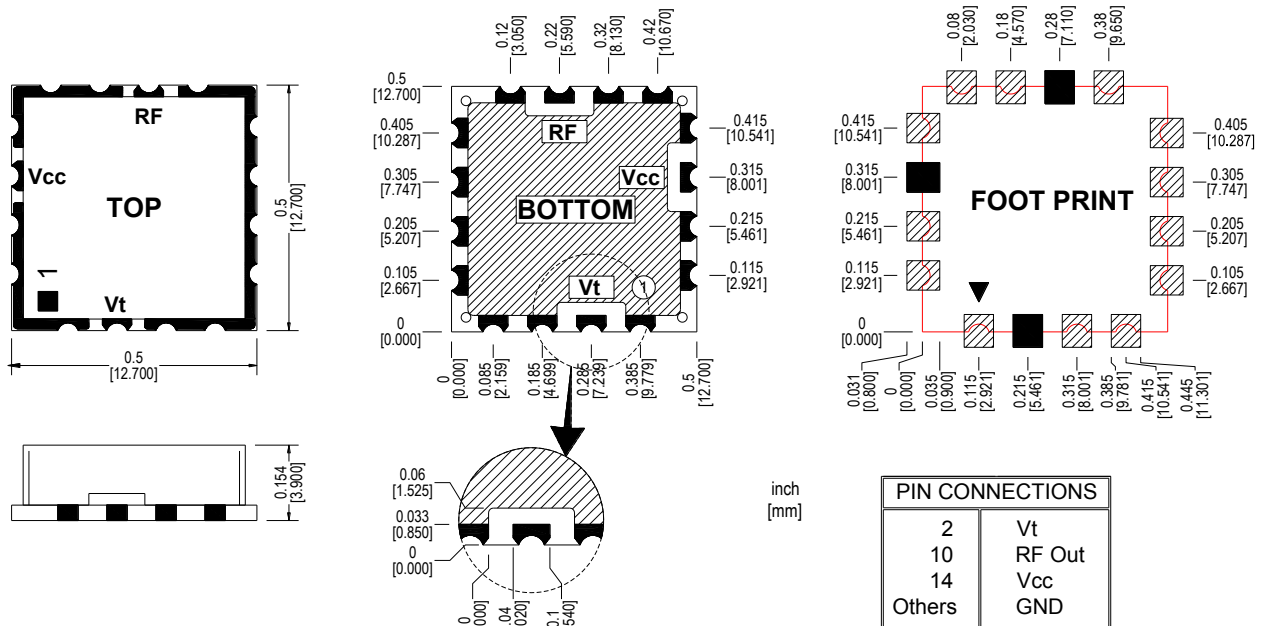


Electrical Characteristics

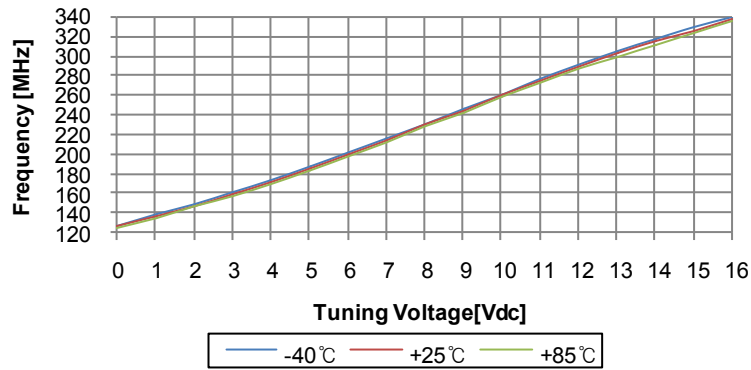


Parameter	Units	Min	Typ	Max
Operating Frequency Range	MHz	150		300
Output Power	dBm	+7.0	+9.0	+12.0
Output Impedance	Ω		50	
Phase Noise	@10kHz offset		-106	-101
	@100kHz offset		-127	-122
Tuning Voltage (Vt)	Vdc	+1.0		+16.0
Tuning Voltage Sensitivity (Kv)	MHz/V		11 - 15	
2nd Harmonic Suppression	dBc		-8	
Power Supply (Vcc)	Voltage		5	
	Current		18	25
Pushing Figure	MHz/V		1.3	
Pulling Figure	MHz		0.6	
Input Capacitance	pF		100	
Operating Temp. Range	$^{\circ}\text{C}$	-40		+85

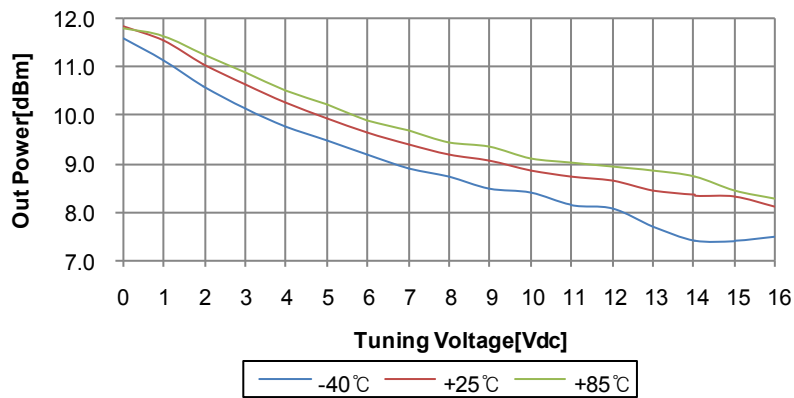
Dimensions



Tuning Curve



Output Power Curve



Performance Data

Vt [Vdc]	Frequency [MHz]			Kv [MHz/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	126.3	125.4	127.4	-	-	-	11.9	11.8	11.6	-3.7
1.0	137.1	135.7	138.2	10.8	10.4	10.8	11.5	11.7	11.2	-4.2
2.0	147.8	146.4	149.1	10.8	10.6	10.8	11.1	11.3	10.6	-4.8
3.0	159.3	157.6	160.6	11.5	11.3	11.5	10.7	10.9	10.2	-5.8
4.0	171.8	170.0	173.1	12.5	12.4	12.5	10.3	10.5	9.8	-6.2
5.0	185.3	183.5	186.8	13.5	13.4	13.6	10.0	10.2	9.5	-7.0
6.0	199.6	197.8	201.1	14.3	14.3	14.3	9.6	9.9	9.2	-7.5
7.0	214.4	212.4	215.9	14.8	14.7	14.8	9.4	9.7	8.9	-7.8
8.0	229.5	227.5	231.0	15.1	15.0	15.1	9.2	9.5	8.7	-8.2
9.0	244.7	242.4	246.5	15.2	14.9	15.5	9.1	9.4	8.5	-8.2
10.0	259.6	257.5	261.3	15.0	15.1	14.8	8.9	9.1	8.4	-8.5
11.0	274.3	271.8	276.3	14.7	14.3	15.0	8.7	9.0	8.1	-7.8
12.0	288.4	285.8	290.5	14.1	14.0	14.2	8.6	8.9	8.1	-8.0
13.0	302.3	299.3	304.6	13.8	13.4	14.1	8.5	8.9	7.7	-8.3
14.0	314.6	311.2	317.8	12.4	12.0	13.2	8.3	8.7	7.4	-8.2
15.0	325.6	323.3	329.2	11.0	12.1	11.4	8.3	8.5	7.4	-7.7
16.0	337.0	334.7	339.1	11.3	11.3	9.9	8.1	8.3	7.5	-8.0