

# Voltage Controlled Oscillator

# RS01883AH

Ultra Low Noise 1873 to 1893 MHz

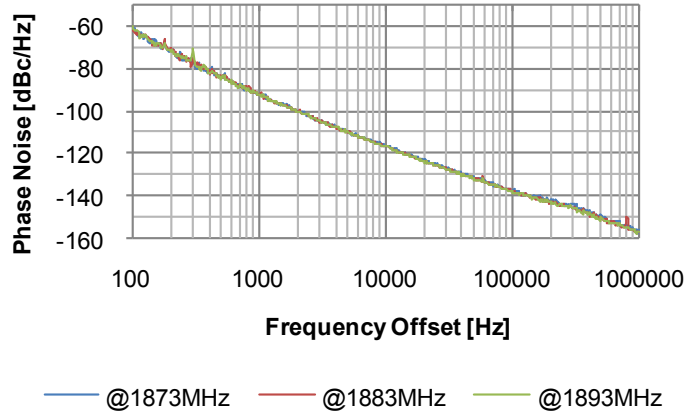
Rev. A

## 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

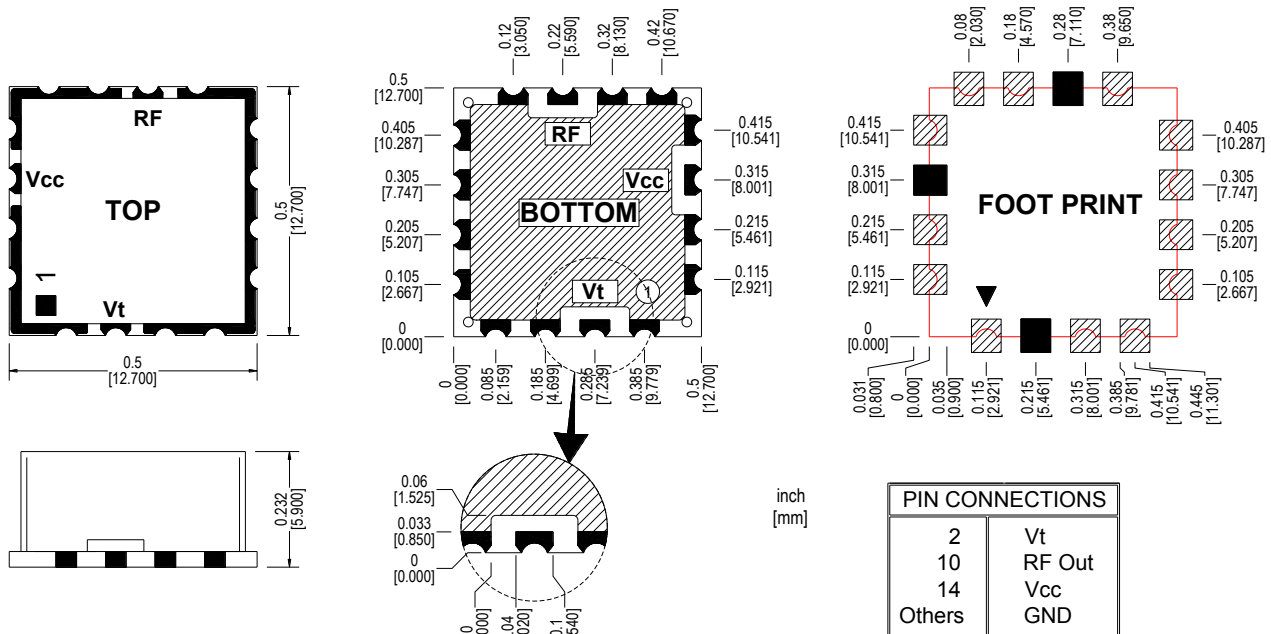


## Electrical Characteristics

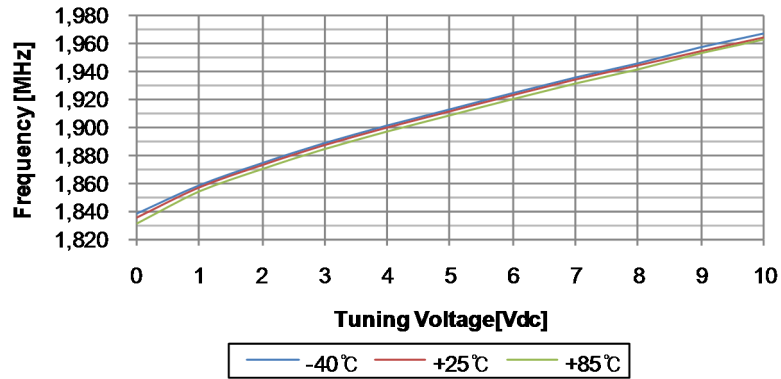


Parameter	Units	Min	Typ	Max
Operating Frequency Range	MHz	1873		1893
Output Power	dBm	3.0	6.0	
Output Impedance	$\Omega$		50	
Phase Noise	@10kHz offset	dBc/Hz	-115	-110
	@100kHz offset	dBc/Hz	-135	-130
Tuning Voltage (Vt)	Vdc	+1.0		+7.0
Tuning Voltage Sensitivity (Kv)	MHz/V		12 - 16	
2nd Harmonic Suppression	dBc		-30	
Power Supply (Vcc)	Voltage	Vdc	8	
	Current	mA	27	32
Pushing Figure	MHz/V		0.2	
Pulling Figure	MHz		1.5	
Input Capacitance	pF		100	
Operating Temp. Range	$^{\circ}\text{C}$	-40		+85

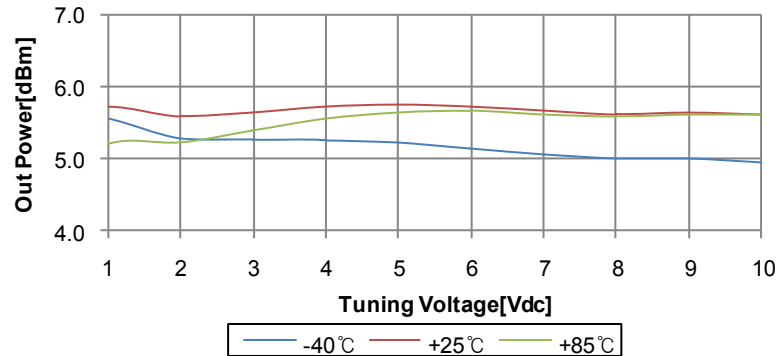
## Dimensions



## 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	1834.8	1831.4	1837.4	-	-	-	5.6	4.7	5.7	-34.5
1.0	1856.4	1853.5	1858.3	21.6	22.1	20.9	5.7	5.2	5.6	-37.1
2.0	1872.8	1870.1	1874.6	16.4	16.6	16.3	5.6	5.2	5.3	-35.3
3.0	1886.8	1884.2	1888.5	14.0	14.1	14.0	5.7	5.4	5.3	-32.7
4.0	1899.5	1896.9	1901.2	12.7	12.7	12.7	5.7	5.6	5.3	-31.6
5.0	1911.4	1908.9	1913.2	12.0	12.0	12.0	5.8	5.7	5.2	-30.5
6.0	1922.8	1920.3	1924.5	11.4	11.4	11.4	5.7	5.7	5.1	-29.4
7.0	1933.8	1931.2	1935.5	10.9	10.9	10.9	5.7	5.6	5.1	-28.6
8.0	1944.4	1941.9	1946.1	10.6	10.7	10.6	5.6	5.6	5.0	-27.3
9.0	1954.6	1952.2	1956.5	10.2	10.3	10.4	5.6	5.6	5.0	-27.0
10.0	1964.7	1962.2	1966.5	10.0	10.0	10.0	5.6	5.6	5.0	-26.7