

# Voltage Controlled Oscillator

# RSO4700AM

Wideband 4680 to 4720 MHz

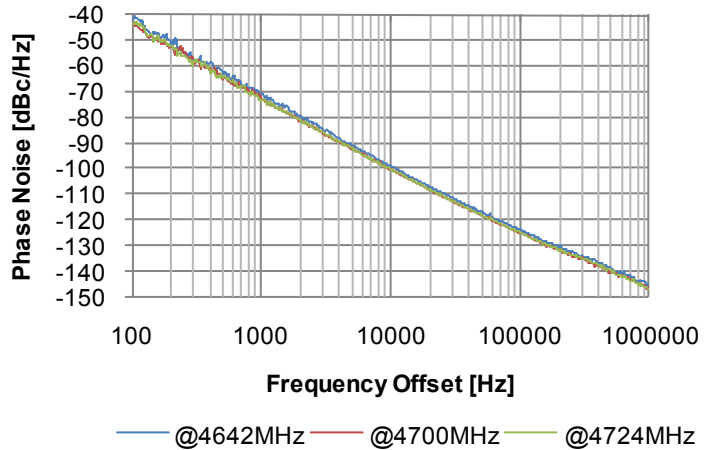
Rev. A

## Features

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

## Applications

- Microwave Radios
- Satellite Communications
- Direct Broadcast

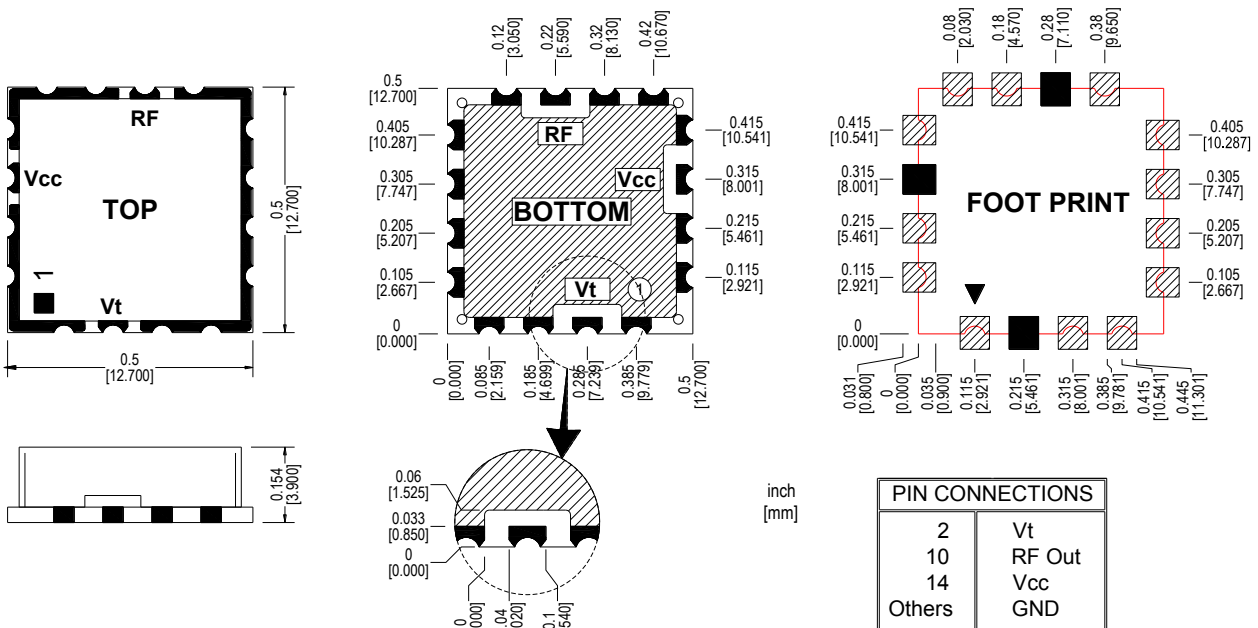


## Electrical Characteristics

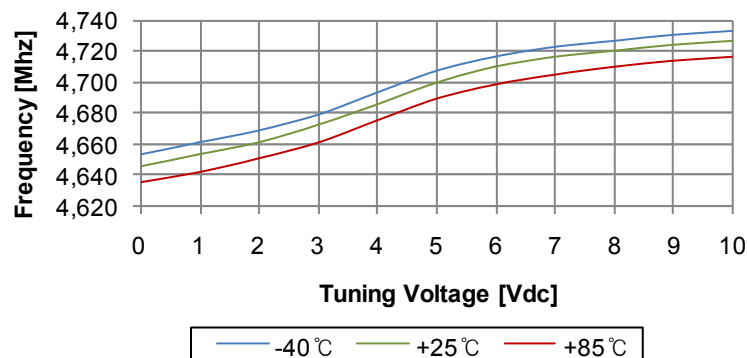


Parameter	Units	Min	Typ	Max
Operating Frequency Range	MHz	4680	4700	4720
Output Power	dBm	+2.0	+4.0	+6.0
Output Impedance	$\Omega$		50	
Phase Noise	@10kHz offset	dBc/Hz	-100	-95
	@100kHz offset	dBc/Hz	-124	-119
Tuning Voltage (Vt)	Vdc	0		10.0
Tuning Voltage Sensitivity (Kv)	MHz/V		3 - 14	
2nd Harmonic Suppression	dBc		-36	
Power Supply (Vcc)	Voltage	Vdc	5	
	Current	mA	20	25
Pushing Figure	MHz/V		1.5	
Pulling Figure	MHz		2	
Input Capacitance	pF		33	
Operating Temp. Range	$^{\circ}\text{C}$	-40		+85

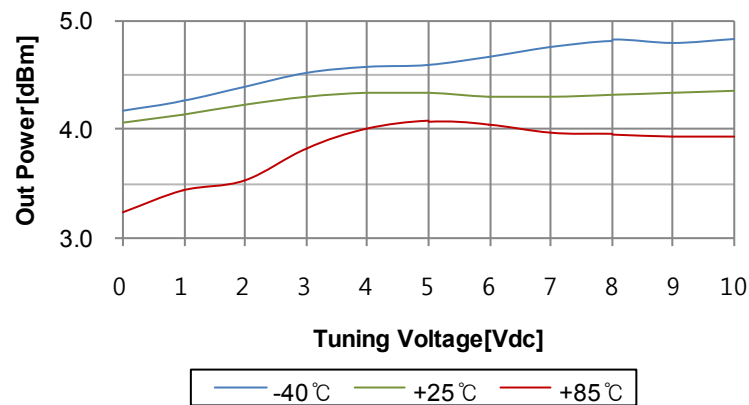
## Dimensions



## 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	4646.3	4635.8	4653.8	-	-	-	4.1	3.2	4.2	-39
1.0	4653.6	4642.6	4660.8	7.2	6.8	7.0	4.1	3.4	4.3	-40
2.0	4661.8	4650.8	4669.0	8.3	8.1	8.2	4.2	3.5	4.4	-40
3.0	4672.4	4661.3	4679.6	10.6	10.6	10.6	4.3	3.8	4.5	-39
4.0	4686.3	4675.3	4693.5	13.9	14.0	13.9	4.3	4.0	4.6	-37
5.0	4700.2	4689.3	4707.3	13.8	14.1	13.8	4.3	4.1	4.6	-36
6.0	4709.8	4699.2	4716.7	9.7	9.9	9.3	4.3	4.1	4.7	-36
7.0	4716.2	4705.7	4722.8	6.4	6.5	6.1	4.3	4.0	4.8	-36
8.0	4720.8	4710.3	4727.3	4.6	4.6	4.5	4.3	4.0	4.8	-35
9.0	4724.4	4714.0	4730.8	3.6	3.6	3.5	4.3	3.9	4.8	-35
10.0	4727.4	4716.9	4733.8	2.9	2.9	3.0	4.3	3.9	4.8	-34