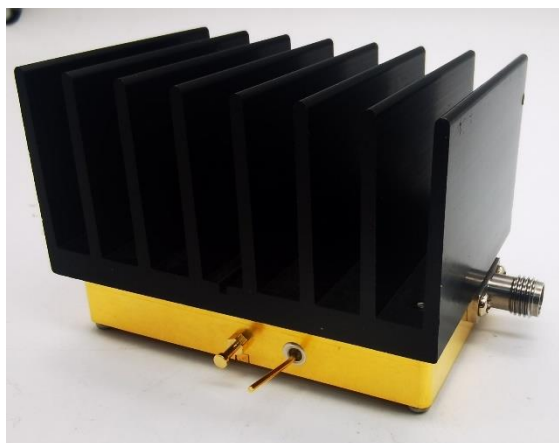


### 20-40GHz Voltage Control Oscillator, High Power



#### Product Overview

AT-VCO-2040A-20 is a high performance voltage controlled oscillator module from 20-40GHz. The VCO provides very low phase noise and low power consumption.

Both input and output ports are SMA connector. The Vtune port accepts an analog tuning voltage from 0 to +23V.

More information, please visit [www.atmicrowave.com](http://www.atmicrowave.com)

#### Advantages

- ✓ Wideband Tuning
- ✓ Low SSB phase noise
- ✓ Low power consumption
- ✓ Single Power Supply

#### Application

- ✓ 5G Communication
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

#### Key Features

Parameter	Min	Typical	Max
RF OUT Frequency Range		20-40GHz	
Output Power (note)	+18dBm	+20dBm	
Vtune Range	0V		+20V
Vtune Current		10 uA	25uA
Frequency Drift Rate		0.8MHz/C	
3dB FM BW(Estimated)		1MHz	
Phase Noise @10kHz		-54dBc/Hz	
Phase Noise @100kHz		-84dBc/Hz	
Phase Noise @1MHz		-105dBc/Hz	
Vdd		+5V	+8V
Current		380mA	
Sensitivity		0.9-1.5GHz/V	
Temp		25C	

Note: Customized Output power from 0 to +30dBm is available according to request.





# AT-VCO-2040A-20

20-40GHz Voltage Control Oscillator

## Mechanical Information

Item	Description
Vtune Port	SMA Female
RF Output Port	2.92mm Female
Vdd Power Supply	PIN
Case Material	Copper
Finish	Gold Plated
Weight (Without Heatsink)	50g
Size:	55x34x9.5 mm

## Absolute Maximum Ratings Table

Parameter	Value
Drain Supply	+15V
Vtune	+25V
Operating Temperature	-20 to + 70C
Storage Temperature	-65 to +150C

### Caution:

Please pay attention to the case temperature. If case temperature exceed higher than +50C, heat sink and fan are required, or the amplifier may be damaged.

### Notes:

1. Datasheet may be changed according to update of MMIC, Raw materials , process, and so on.
2. This data is only for reference, not for guaranteed specifications.
3. Please contact AT Microwave team to make sure you have the most current data.

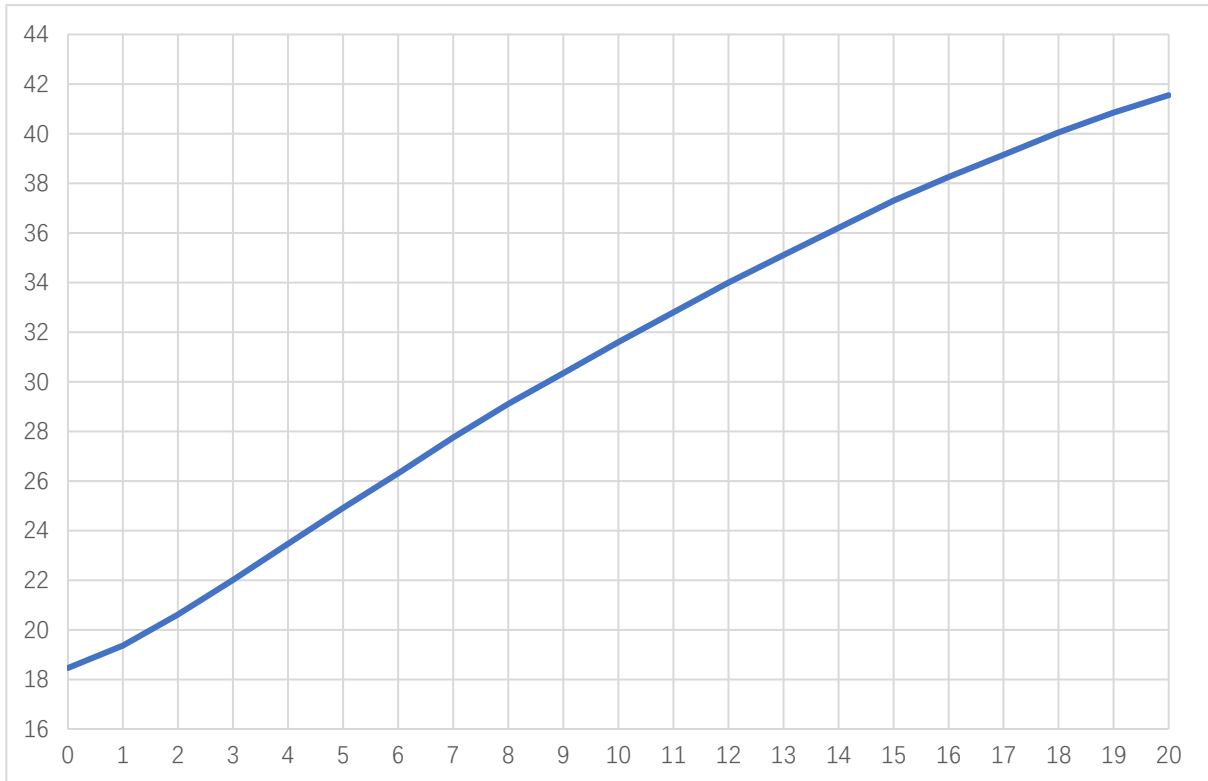




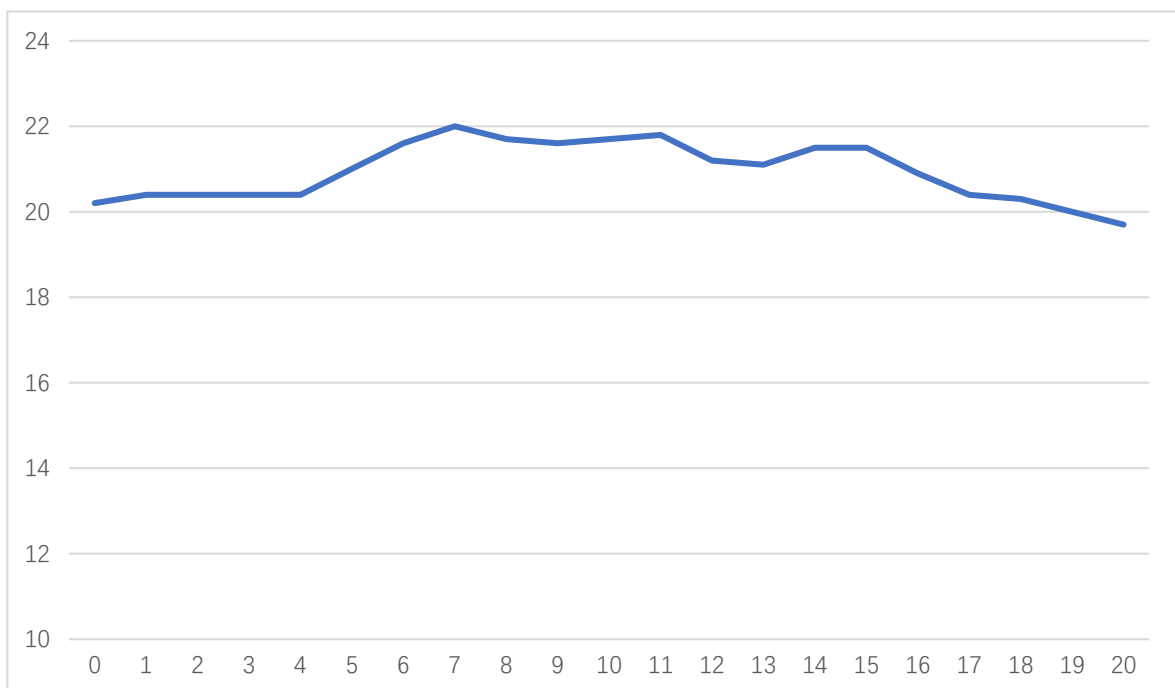
# AT-VCO-2040A-20

20-40GHz Voltage Control Oscillator

## Test Data:



Frequency vs Tuning Voltage



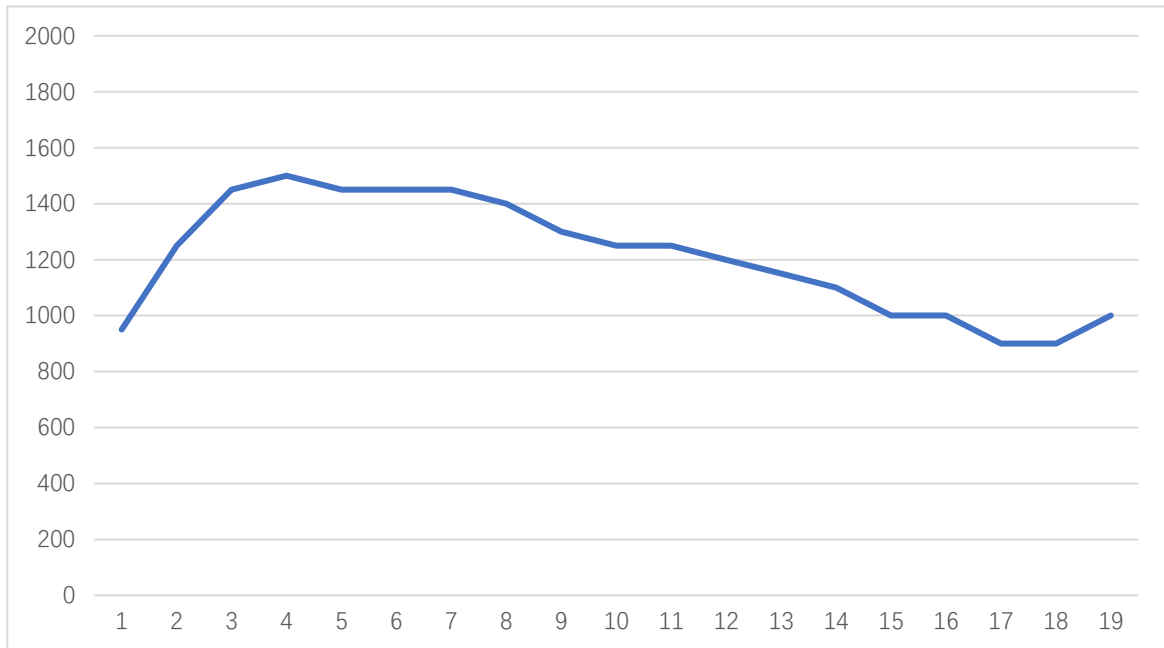
Pout vs Tuning Voltage





# AT-VCO-2040A-20

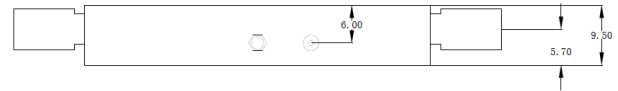
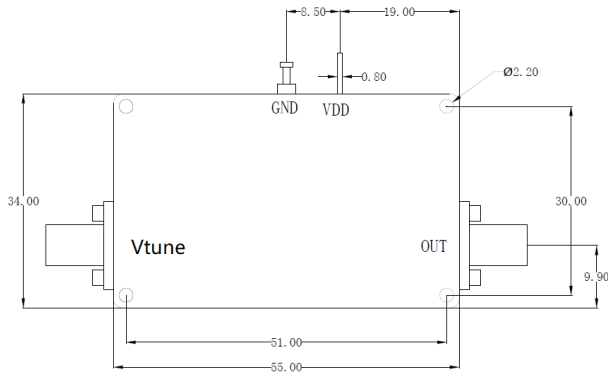
20-40GHz Voltage Control Oscillator



Sensitivity vs Tuning Voltage

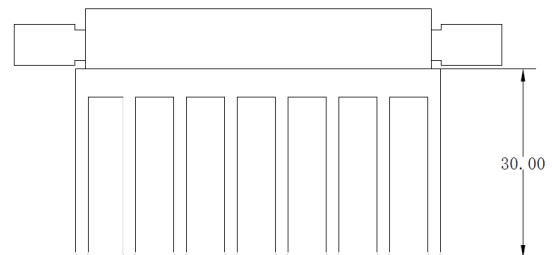
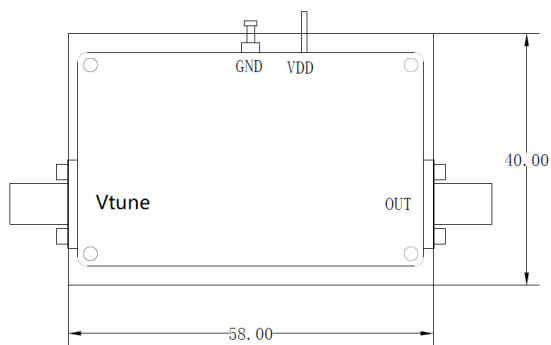


### Dimension: (unit in mm)



	<26.5GHz	<40GHz	<50GHz	<67GHz
Connector	SMA	2.92mm	2.4mm	1.85mm
Length of a	9.4mm	9.5mm	10.8mm	11.3mm

Note: Female Default. Contact with us for other types.



Including a small heatsink without Fan if output Power higher than +20dBm.

Customers can remove it or use their own heatsink according to actual situation.

Heat Sink Required If Case Temp Higher Than 50C

