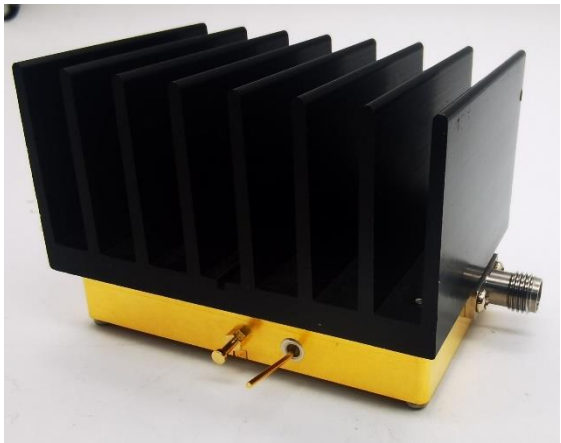
AT-VCO-2040A-20

20-40GHz Voltage Control Oscillator

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

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
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.

Shanghai AT Microwave Limited

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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	-40 to + 85C
Storage Temperature	-55 to +125C

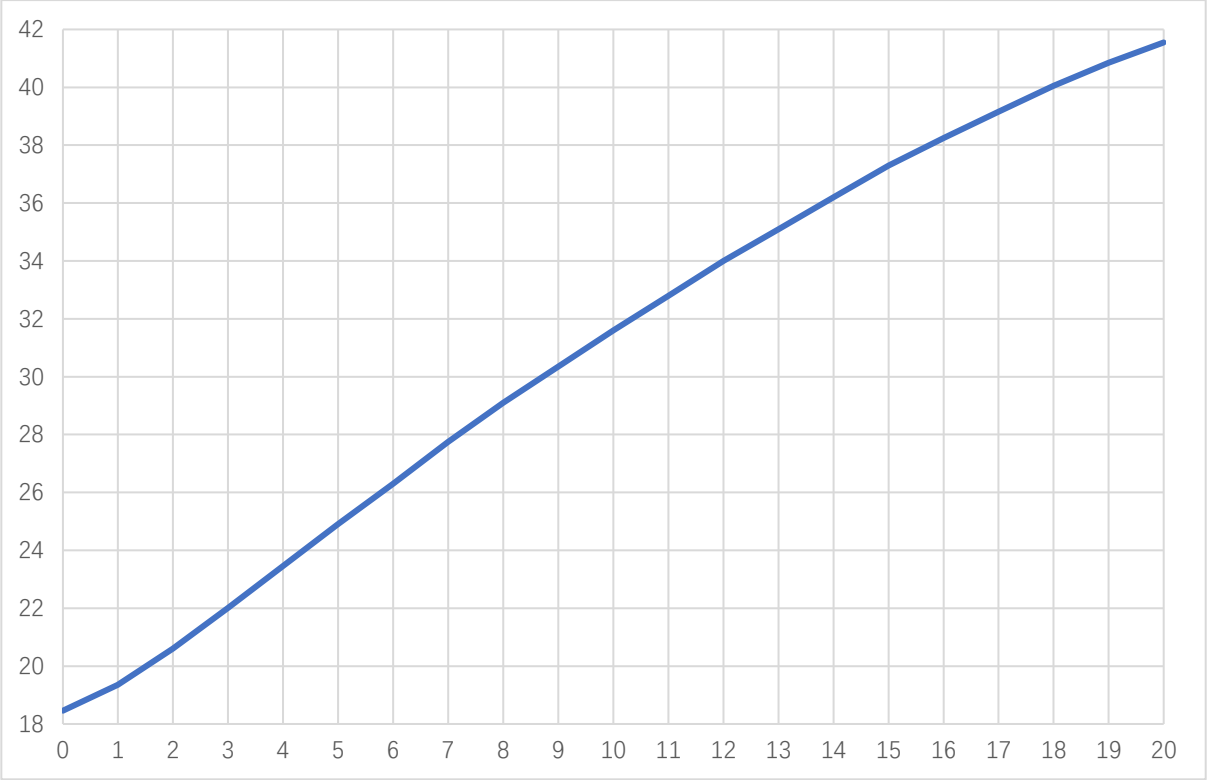
Caution:

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.

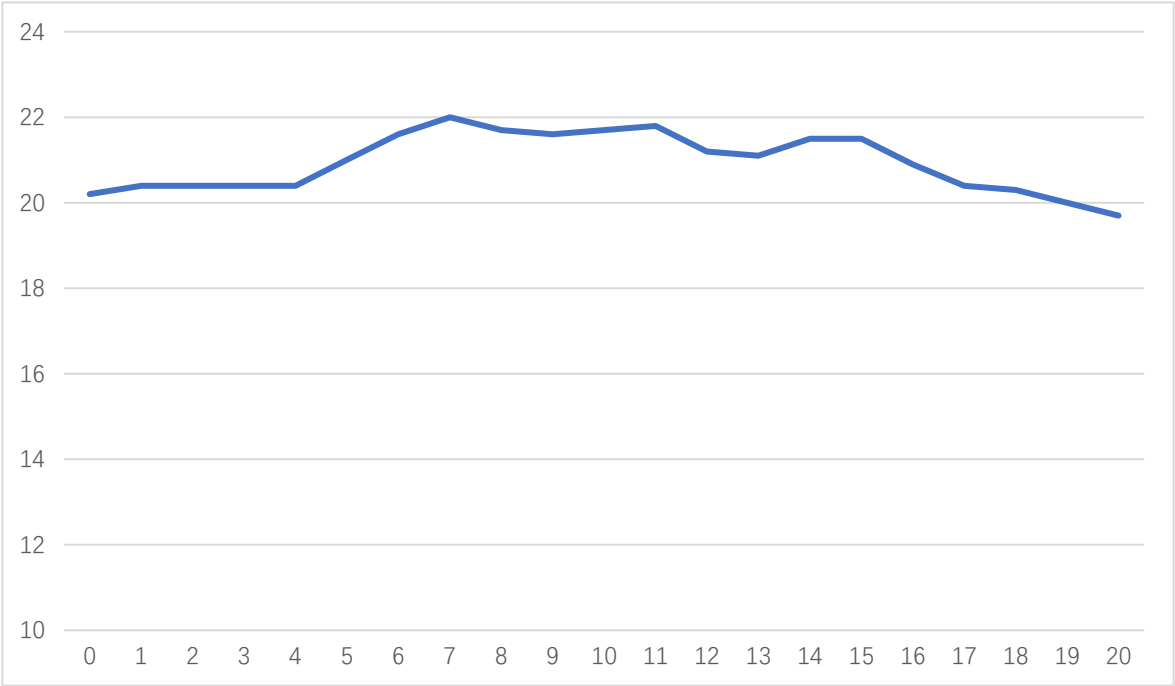
Notes:

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.

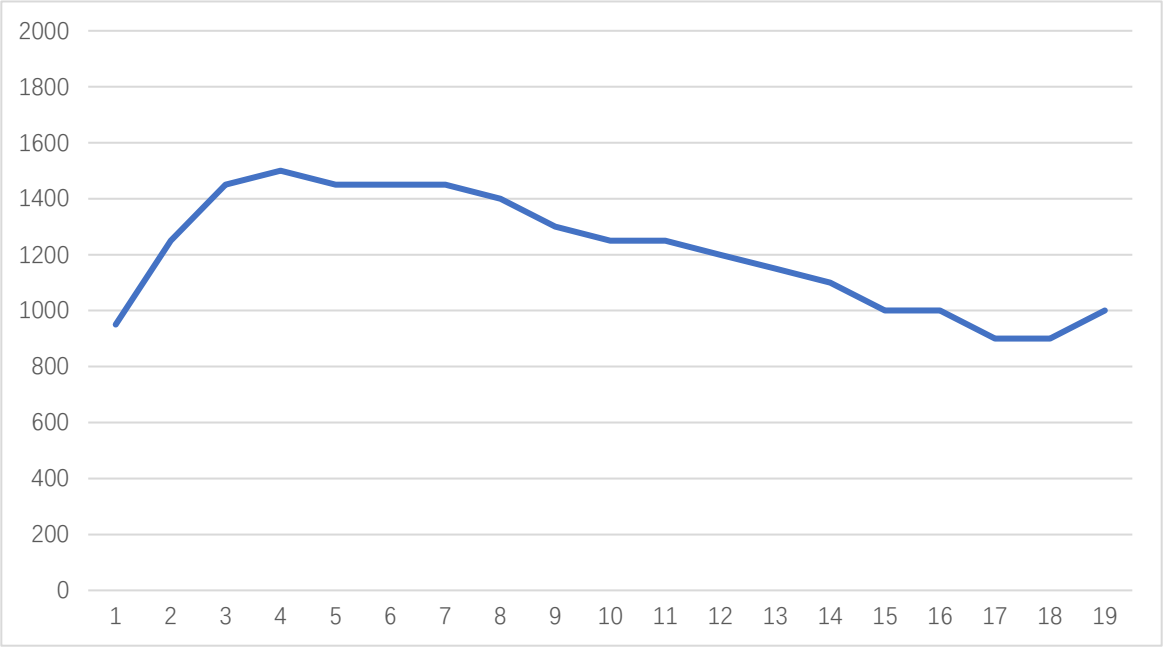
Test Data(25c)



Frequency vs Tuning Voltage



Pout vs Tuning Voltage



Sensitivity vs Tuning Voltage

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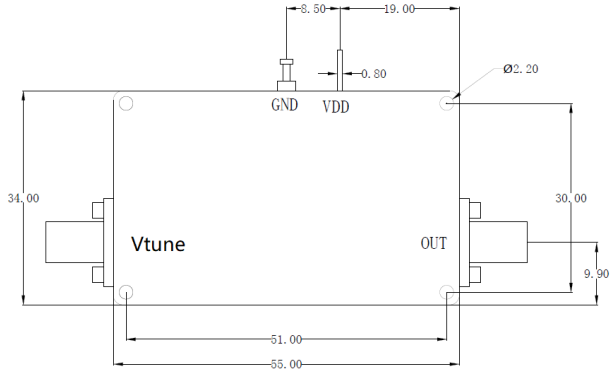
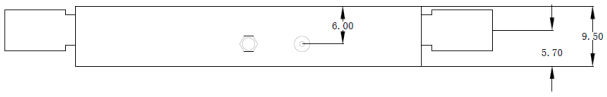
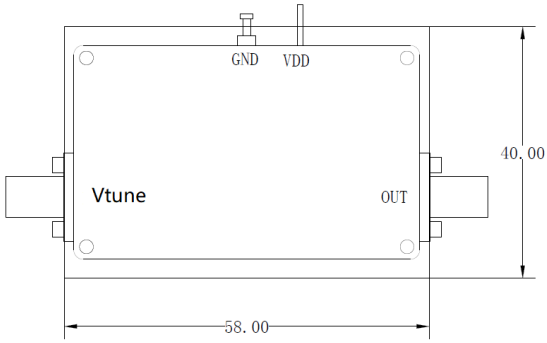
Dimension: (unit in mm)

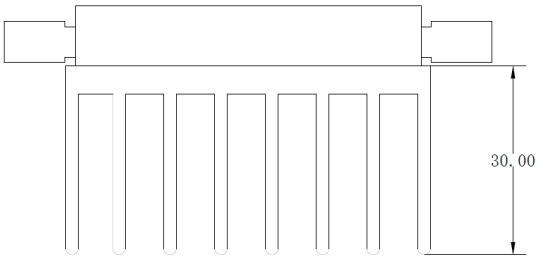




	<26.5GHz	<40GHz	<50GHz	<67GHz
Connector	SMA	2.92mm	2.4mm	1.85mm
Lenth of a	9.4mm	9.5mm	10.8mm	11.3mm

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

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