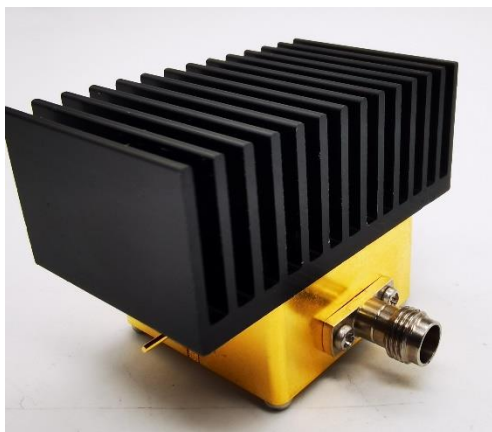


4-8GHz Voltage Control Oscillator, High Power = +20dBm



Product Overview

AT-VCO-0408A-20 is a high performance voltage controlled oscillator module from 4-8GHz. 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 +18V.

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 | | 4-8GHz | |
| Output Power(note) | +18 | +20dBm | |
| Phase Noise @10kHz | | -75dBc/Hz | |
| Phase Noise @100kHz | | -100dBc/Hz | |
| Phase Noise @1MHz | | -110dBc/Hz | |
| Vtune Range | 0 | | +18V |
| Vtune Current | | 1 uA | 10uA |
| Vdd | | +5V | +8V |
| Current | | 200mA | |
| Sensitivity | | 200-300MHz/V | |
| Temp | | 25C | |

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





AT-VCO-0408A-20

4-8GHz Voltage Control Oscillator

Mechanical Information

| Item | Description |
|---------------------------|-------------|
| Vtune Port | SMA Female |
| RF Output Port | SMA Female |
| Vdd Power Supply | PIN |
| Case Material | Copper |
| Finish | Gold Plated |
| Weight (Without Heatsink) | 50g |
| Size: | See outline |

Absolute Maximum Ratings Table

| Parameter | Value |
|-----------------------|--------------|
| Drain Supply | +15V |
| Vtune | +22V |
| 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.

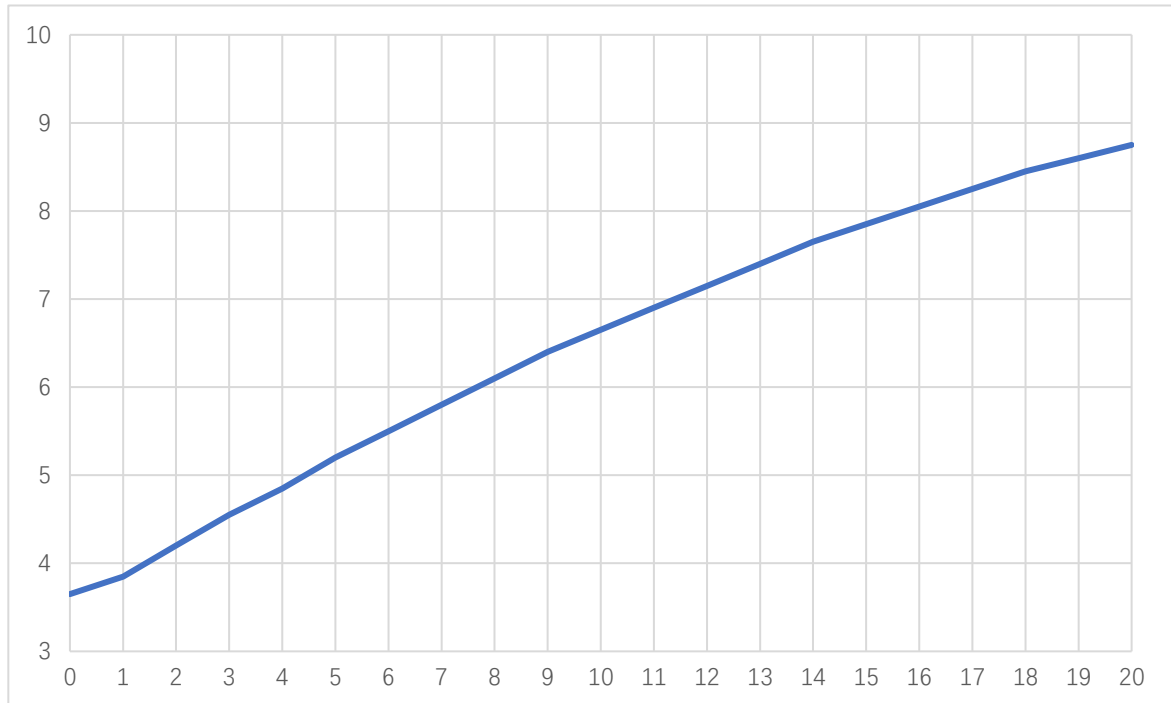




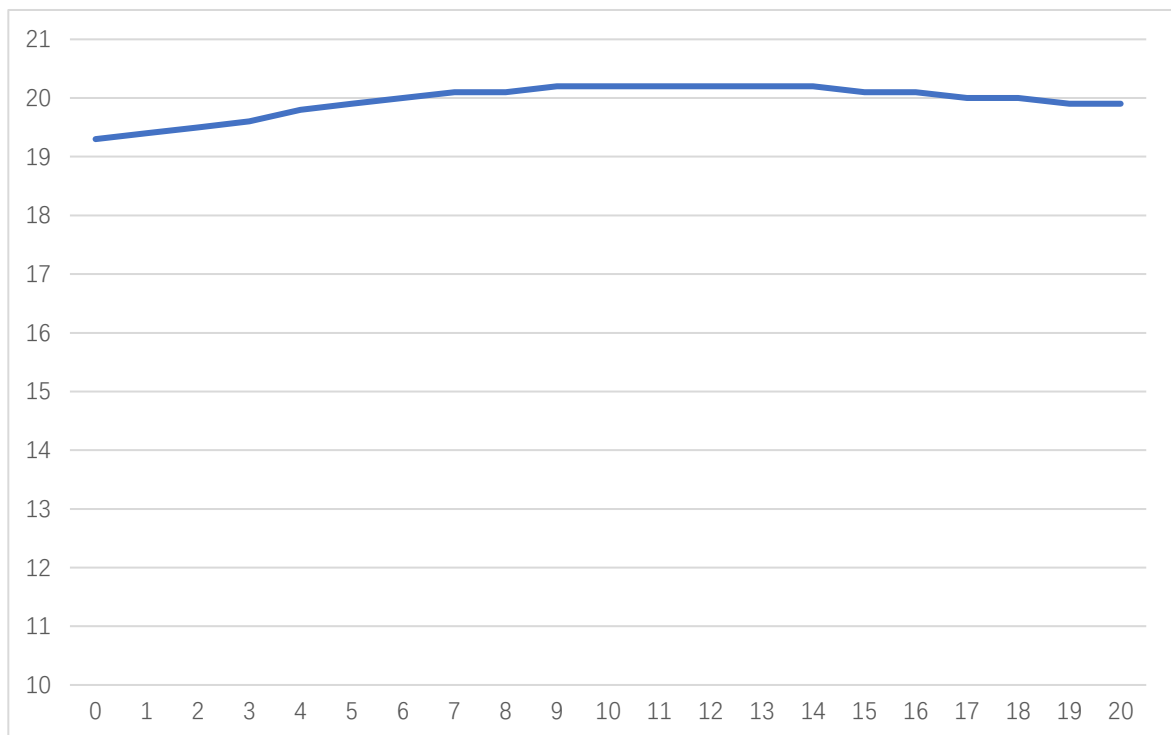
AT-VCO-0408A-20

4-8GHz Voltage Control Oscillator

Test Data(25c)



Output Frequency vs Tuning Voltage



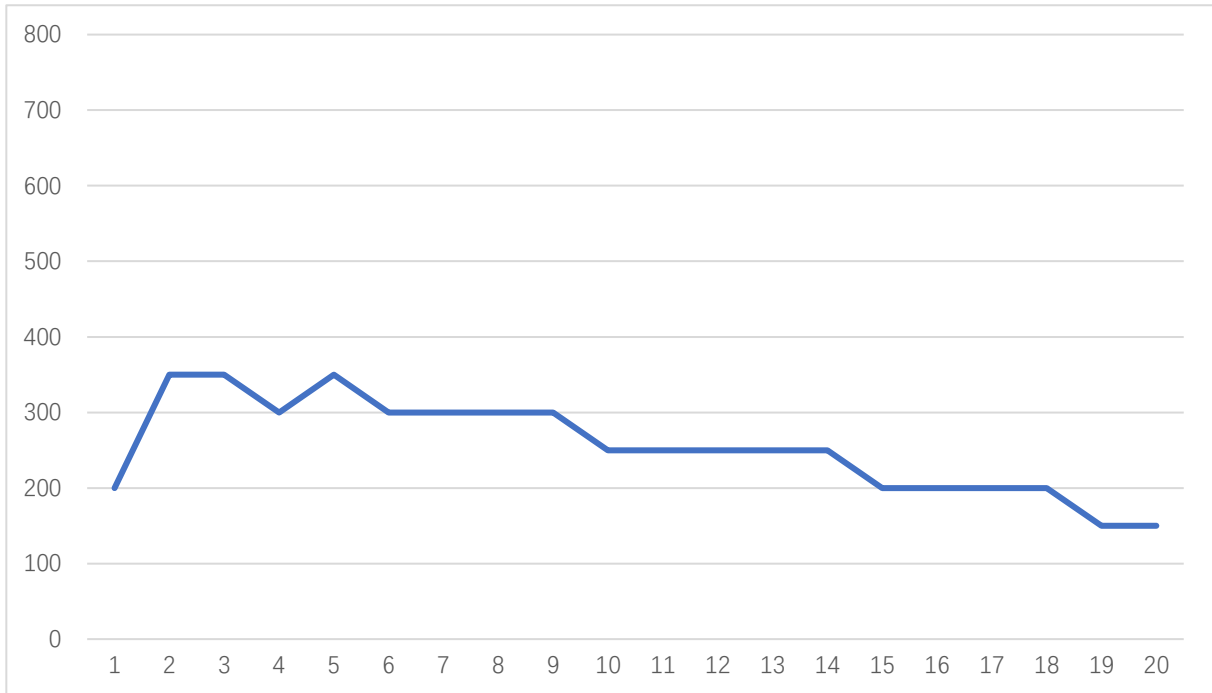
Output Power vs Tuning Voltage



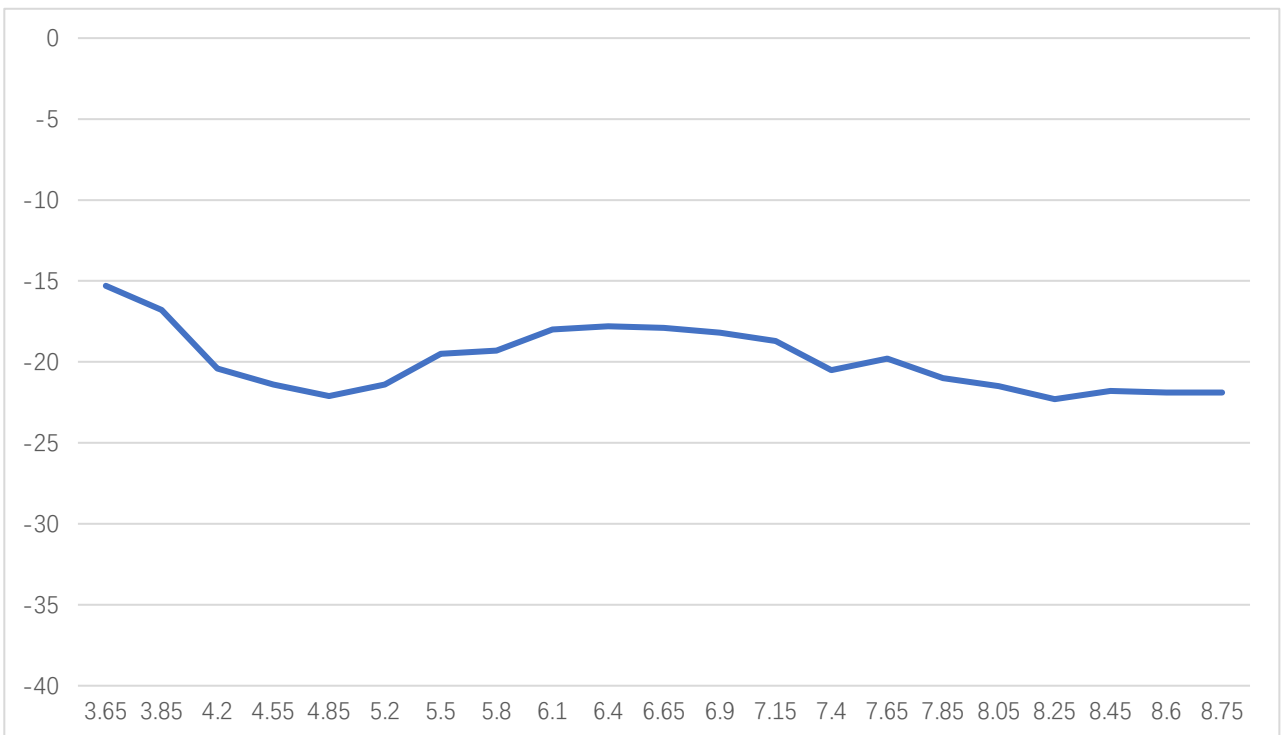


AT-VCO-0408A-20

4-8GHz Voltage Control Oscillator



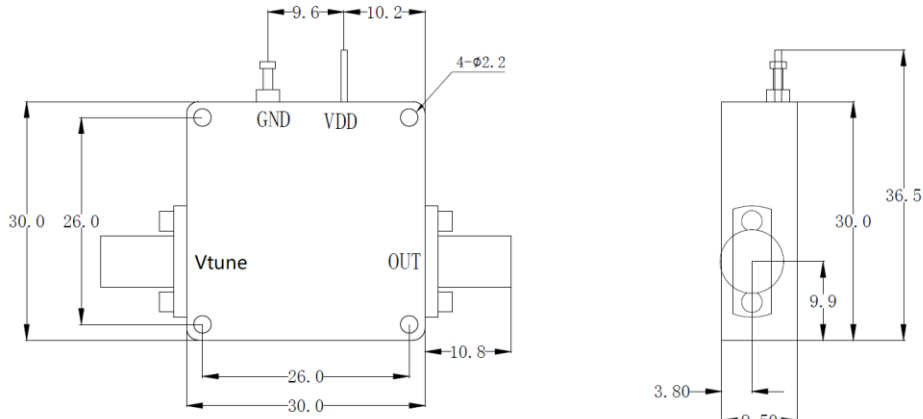
Sensitivity vs Tuning Voltage



X2 Harmonics Suppression

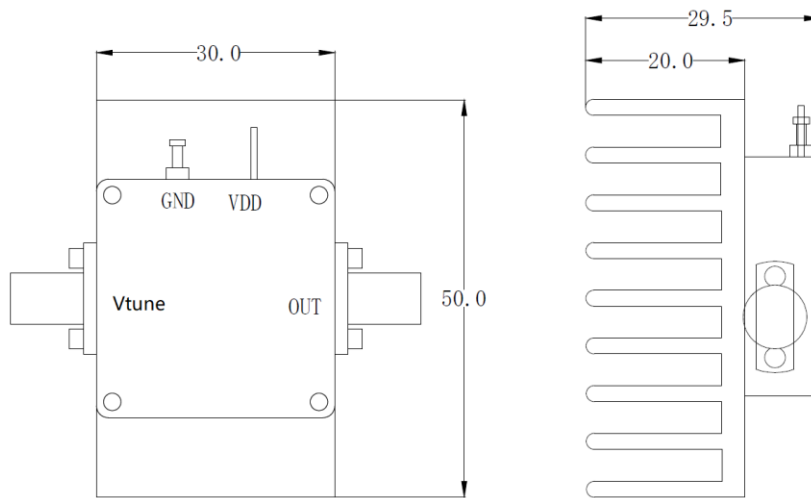


Dimension: (unit in mm)



| | <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

