

Eujgoov Eujgoovaieqmgzhc4602

Eujgoov RF Oscillator Module (VCO) 515 MHz-1150 MHz Instruction Manual

Model: Eujgoovaieqmgzhc4602 | Brand: Eujgoov

1. INTRODUCTION

This manual provides detailed instructions for the Eujgoov Voltage Controlled RF Oscillator (VCO) Module, designed for wideband frequency generation from 515 MHz to 1150 MHz. It covers product features, technical specifications, setup procedures, operating guidelines, and maintenance tips to ensure optimal performance and longevity of your device.

2. PRODUCT FEATURES

- **Efficient Heat Dissipation:** Designed for extended operation with excellent heat dissipation capabilities.
- **High-Quality PCB:** Features a 1.6mm thick double-sided printed circuit board, ensuring stable performance for both high and low current paths.
- **Seamless Construction:** Manufactured as a single, integrated piece, free from burrs, providing a smooth surface and simplifying installation.
- **Advanced Craftsmanship:** Utilizes advanced technology and superior craftsmanship for a refined finish and reliable operation.
- **Stable and High Performance:** Offers a robust structure and consistent high performance for various RF applications.

3. SPECIFICATIONS

Item Type	RF Oscillator Module
Material	PCB (Printed Circuit Board)
Frequency Range	515 MHz - 1150 MHz
Output Power	7 dBm (approximately 5 milliwatts)

Harmonic Output	-22 dBc
Operating Voltage	12 V
Operating Current	50 mA
Frequency Adjustment Voltage Range	0-12 V
RF Output Interface	SMA Female
PCB Thickness	1.6 mm
Product Dimensions (L x W x H)	1 x 1 x 1 cm (approx.)
Item Weight	8 grams

Frequency vs. Control Voltage Relationship:

0 V:	515 MHz
1 V:	615 MHz
2 V:	690 MHz
3 V:	754 MHz
4 V:	808 MHz
5 V:	864 MHz
6 V:	916 MHz
7 V:	972 MHz
8 V:	999 MHz
9 V:	1030 MHz
10 V:	1070 MHz
11 V:	1110 MHz
12 V:	1150 MHz

4. PACKAGE CONTENTS

- 1 x Eujgoov RF Oscillator Module

5. SETUP

5.1 Unpacking and Inspection

Carefully remove the RF Oscillator Module from its packaging. Inspect the module for any visible damage during transit. If any damage is found, contact customer support immediately.

5.2 Power Connection

Connect a stable **12V DC power supply** to the module's power input. Ensure correct polarity to prevent damage to the device. The module typically draws 50 mA of current.

5.3 RF Output Connection

Connect your RF load or measurement equipment to the **SMA Female RF output interface**. Use appropriate SMA cables and connectors to ensure proper signal transmission and impedance matching.

5.4 Control Voltage Input

Connect a variable **DC voltage source (0-12V)** to the frequency adjustment input. This voltage controls the output frequency of the VCO module.

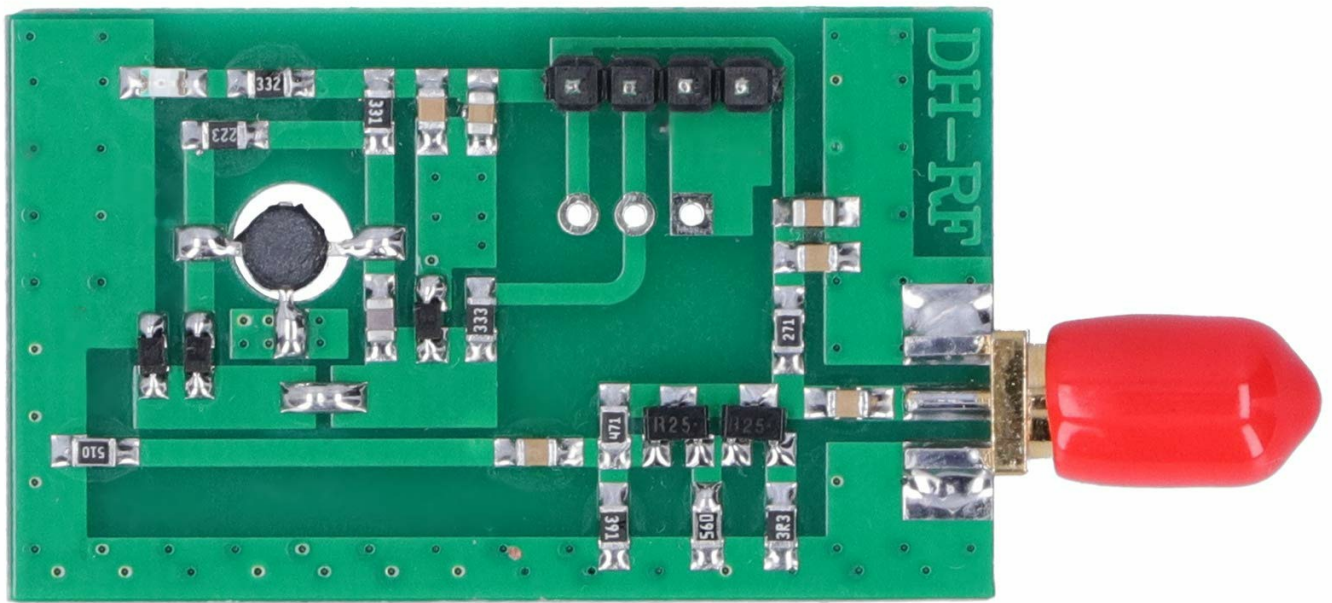


Figure 1: Top view of the Eujgoov RF Oscillator Module, showing the SMA connector and power/control inputs.

6. OPERATING INSTRUCTIONS

6.1 Powering On

Once all connections are secure, apply the 12V DC power to the module. The module will begin operation.

6.2 Adjusting Output Frequency

The output frequency of the VCO module is controlled by the input voltage on the frequency adjustment pin. Vary the control voltage between 0V and 12V to achieve the desired output frequency within the 515 MHz to 1150 MHz range. Refer to the "Frequency vs. Control Voltage Relationship" table in the Specifications section for precise voltage-to-frequency mapping.

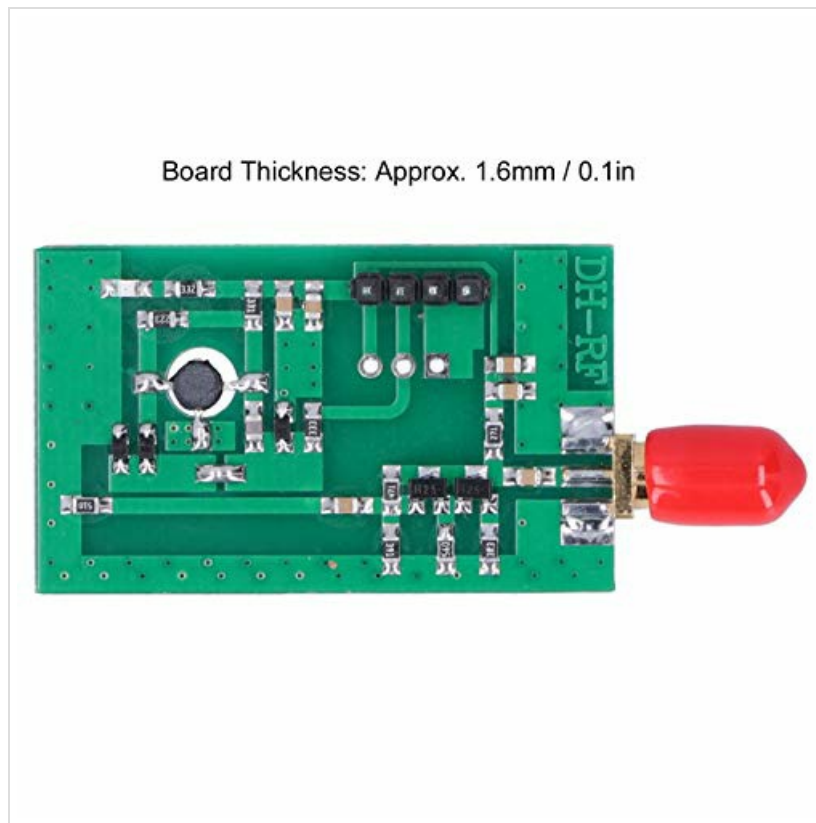


Figure 2: Side view of the RF Oscillator Module, highlighting its compact design.

6.3 Monitoring Output

Use appropriate RF test equipment, such as a spectrum analyzer or frequency counter, connected to the SMA output to verify the module's output frequency and power levels.

7. MAINTENANCE

- **Cleaning:** Keep the module clean and free from dust and debris. Use a soft, dry cloth for cleaning. Avoid using liquid cleaners directly on the module.
- **Environment:** Operate the module in a dry, well-ventilated environment. Avoid extreme temperatures and humidity.
- **Handling:** Handle the module with care to prevent physical damage to the PCB or connectors. Avoid static discharge.
- **Power Supply:** Always use a stable and regulated 12V DC power supply to prevent voltage fluctuations that could affect performance or damage the module.



Figure 3: Close-up view of the module's components on the PCB.

8. TROUBLESHOOTING

- **No Output Signal:**

- Check if the 12V DC power supply is correctly connected and providing power.
- Ensure the RF output cable is securely connected to both the module and the receiving device.
- Verify that the control voltage is within the 0-12V range and is being applied correctly.

- **Incorrect Frequency Output:**

- Confirm that the control voltage applied corresponds to the desired frequency as per the specifications table.
- Check the stability and accuracy of your control voltage source.

- **Low Output Power:**

- Ensure proper impedance matching (50 Ohm) between the module and the connected RF equipment.
- Check for any damage to the SMA connector or RF cable.

9. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the documentation provided with your purchase or contact your retailer. Keep your purchase receipt for warranty claims.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question