

Version

1

User's Guide

MILLIMETER WAVE PRODUCTS, INC

551W Series High Accuracy Direct- Reading Precision Electronic Frequency Meter

© Millimeter Wave Products, Inc
2007 Gandy Blvd • Suite 1310
Saint Petersburg, FL 33702
Phone 727.563.0034 • Fax 727.563.0031
www.miww.com

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Specifications

Supply Voltage.....	+5 V
Battery Life.....	Approximately 30 hours
Frequency Range.....	75.0 to 110.0 GHz
Resolution.....	20 MHz
Max Power.....	5 watts CW

Initial Setup

Upon each power up, the device must be reset in order to operate the Frequency Meter.

Refer to Figure 1, Figure 2, and Figure 3 for Top View, Right Side View, and Left Side View, respectively.

1. Connect the Power Adapter to the USB-C port located on the right side and turn ON the Power Switch. The unit will display its serial number and enter Reset Mode in order to zero the attenuation.
2. The unit will display “Reset,” before showing arrows to indicate the direction in which the knob must be rotated.
3. After rotating the knob in the direction corresponding to the display, a mechanical stop will be reached. At this point, the display will continue to flash “Press Reset,” until the Reset Button is pressed. The Reset Button must be pressed while the knob’s position is against the mechanical stop. Rotating the knob away from the mechanical stop before pressing the Reset Button will result in significant reduction in accuracy.
4. After the reset sequence is complete, the unit will display “Max,” and is now ready for normal operation.



Operation

1. After completing the initial reset sequence, counterclockwise rotation of the knob will decrease the frequency and clockwise rotation will increase the frequency. The digital readout indicates the frequency of the resonant dip of the frequency meter, 2 dB to 4 dB typical of resonant dip.
2. The unit contains up to approximately 30 hours of battery life and can be run continuously while the Power Adapter is plugged in. If the battery voltage falls below 20%, a “Low Battery,” message will be displayed. To prevent damage to the battery, the unit will enter a lock state if the battery voltage drops below 2%. If the lock state is entered or the battery is completely drained, the Power Switch must be shut off before plugging the Power Adapter in. When the yellow charge indicator LED is no longer lit up, the battery is fully charged.
3. In order to maximize battery life, the display backlight will automatically shut off after 3 minutes without an attenuation change. Upon changing the attenuation, the backlight power will be restored. During normal operation, the Reset Button can be utilized to toggle the backlight between ON and OFF.

Warning:

1. Never over turn or force the knob as this can cause permanent damage to the unit.
2. Only use a USB-C +5V, 1A minimum Power Adapter to prevent damage to the unit.



Top and Side Views

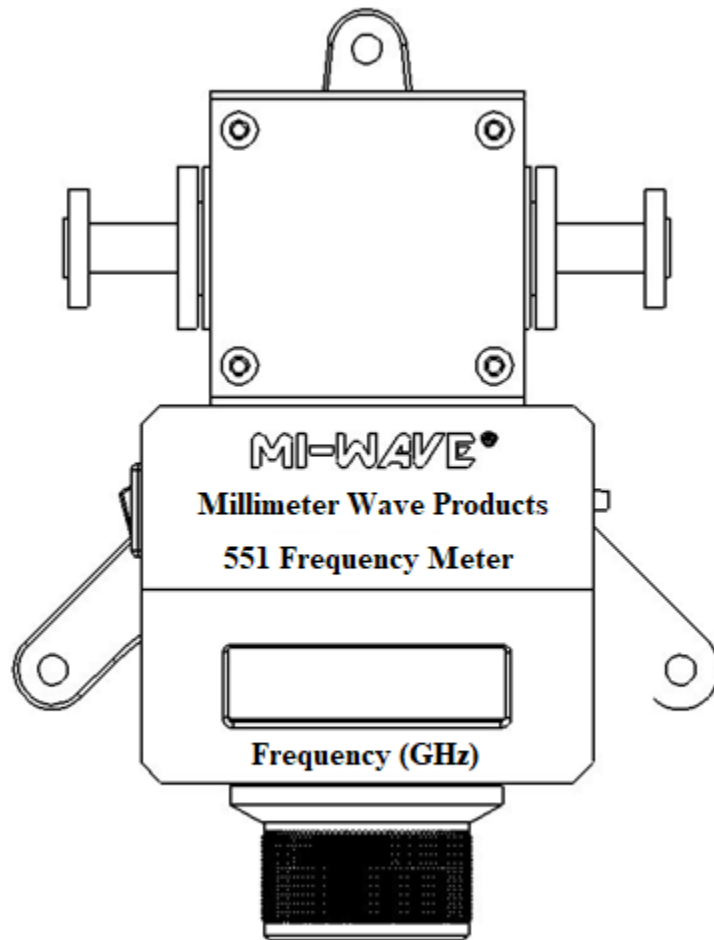


Figure 1: Top View of WR-10 model.

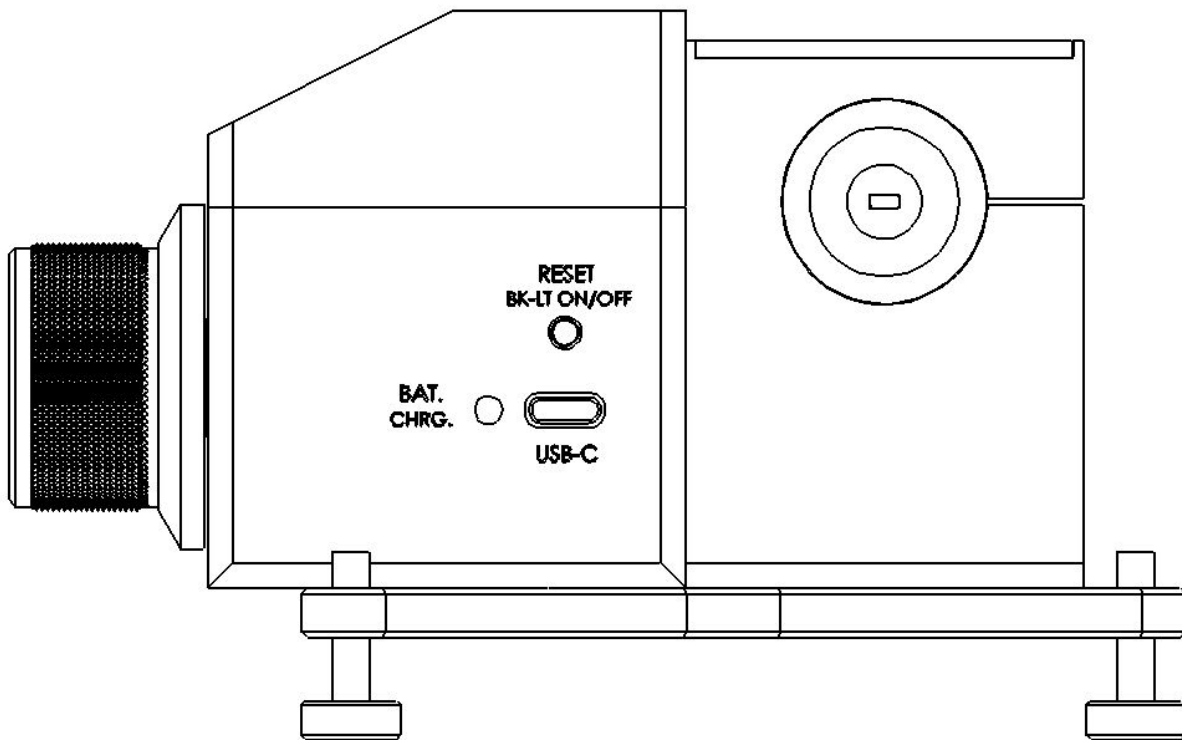


Figure 2: Right side view of WR-10 model.

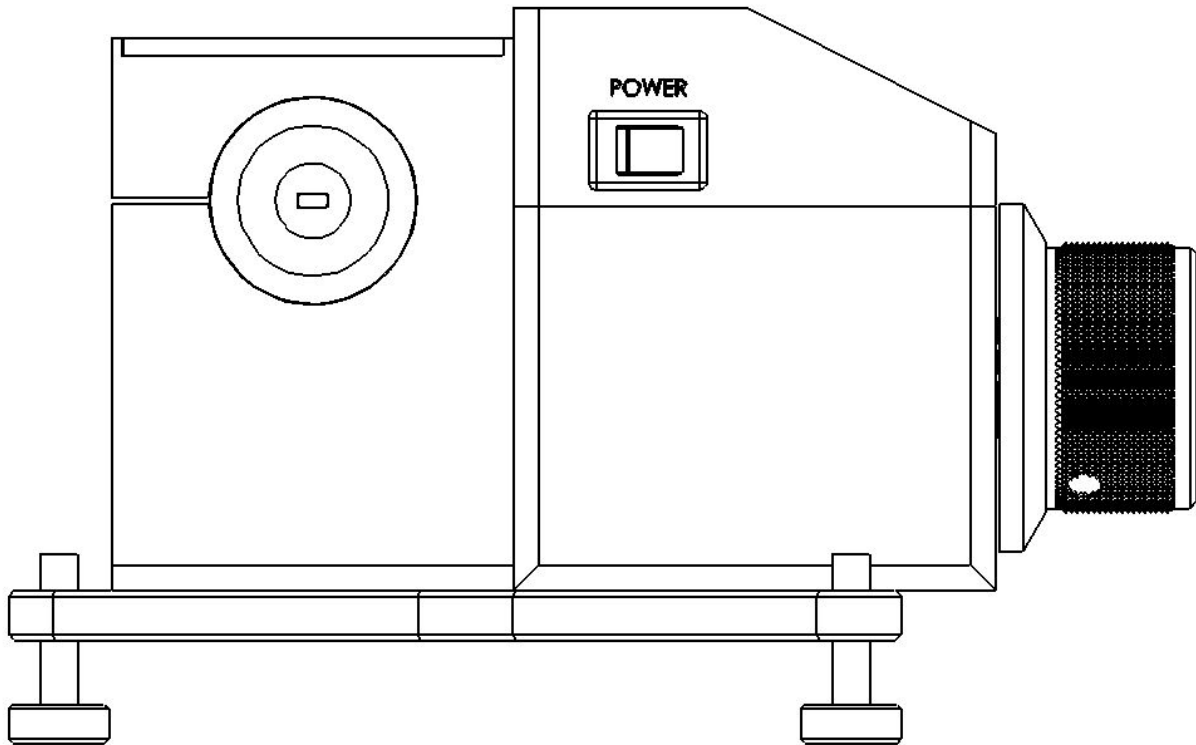


Figure 3: Left side view of WR-10 model.



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