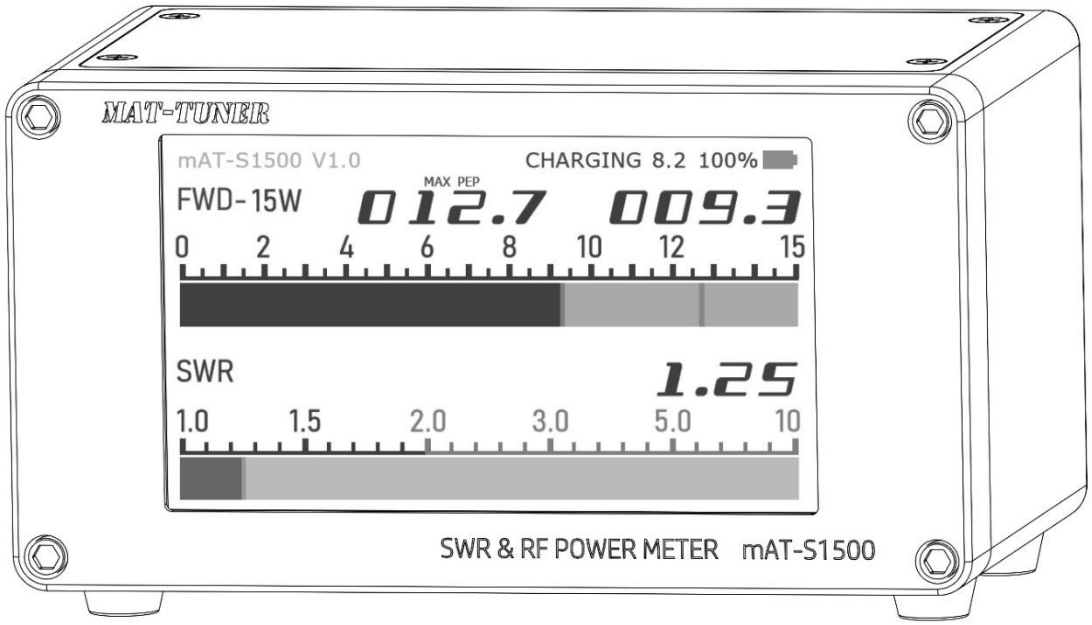
MAT-TUNER

mAT-S1500

Digital SWR/Wattmeter
Operations Manual



Introduction

The mAT-S1500 is designed as an accurate instrument for monitoring station performance. It uses two RF specific measurement chips, which can accurately measure the power and SWR of the RF system, but cannot display information such as spectrum and impedance.

The mAT-S1500 features a 4.3" diagonal TFT color display screen that displays the current RF power and SWR using bar and digital displays.

It has two power supply methods. This mAT-S1500 is equipped with two high capacity 18650 lithium batteries, which can operate without the need for additional power supply. By using the TYPE-C charging socket, users can easily use their phone charger to charge it. The charger is not an accessory to this instrument, and the user needs to prepare it themselves. It also has an external DC power socket. You can power it with an external power supply, the internal battery is no

longer used. But this socket cannot charge the built-in battery.

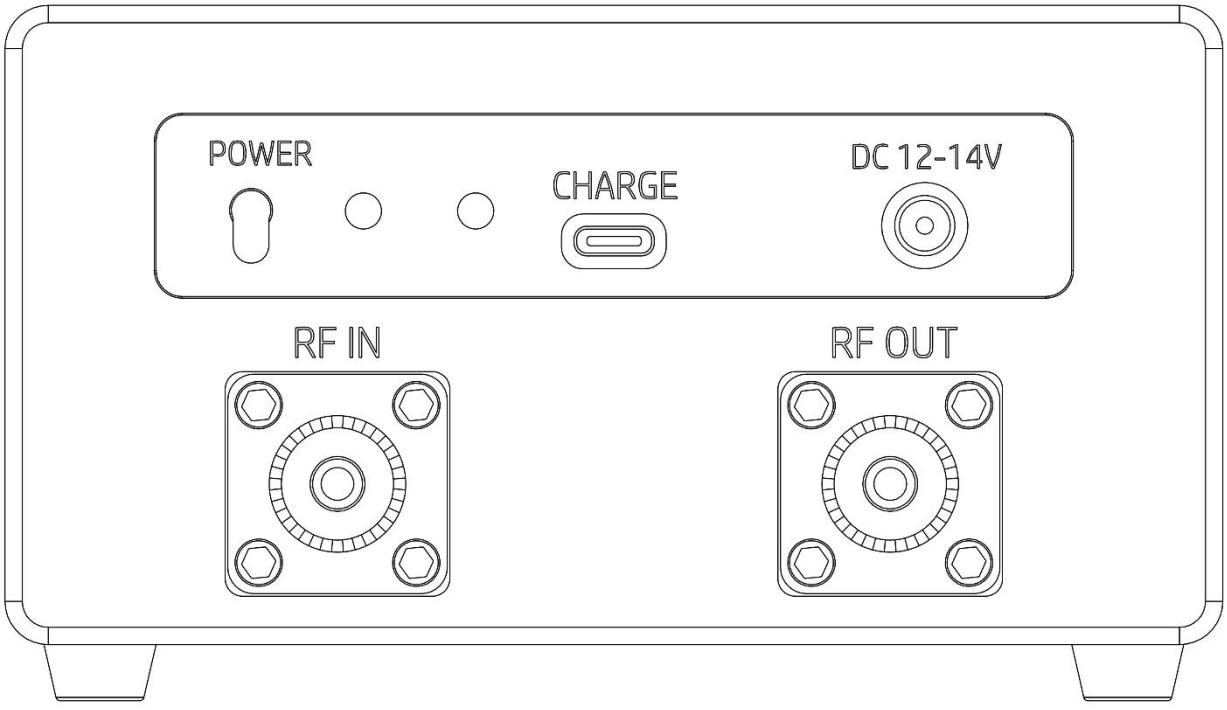
The mAT-S1500 is an automated instrument that is very easy to use. It only has one power switch and can automatically set the range based on the input RF signal. It can also automatically set the color of the screen background based on the brightness of the ambient light, helping users to better see the display.

The shell of the mAT-S1500 is made using aluminum milling technology, which makes it very delicate and sturdy.

Specifications

Power Range	Auto-ranging, 15, 150 and 1500 watts.
Power Accuracy	+/- 5% at 7 MHz.
Frequency Range	1.8 to 54 MHz.
SWR Range	1.00 to 9.99
SWR Accuracy	Within 3%, 1.8 to 30MHz.
Charging	4.5 to 5.5V, less than 1A, less than 5 hours.
Size	14.1cm x 10.9cm x 8.1cm 5.6"W x 4.3"D x 3.2"H
Weight	1.21Kg

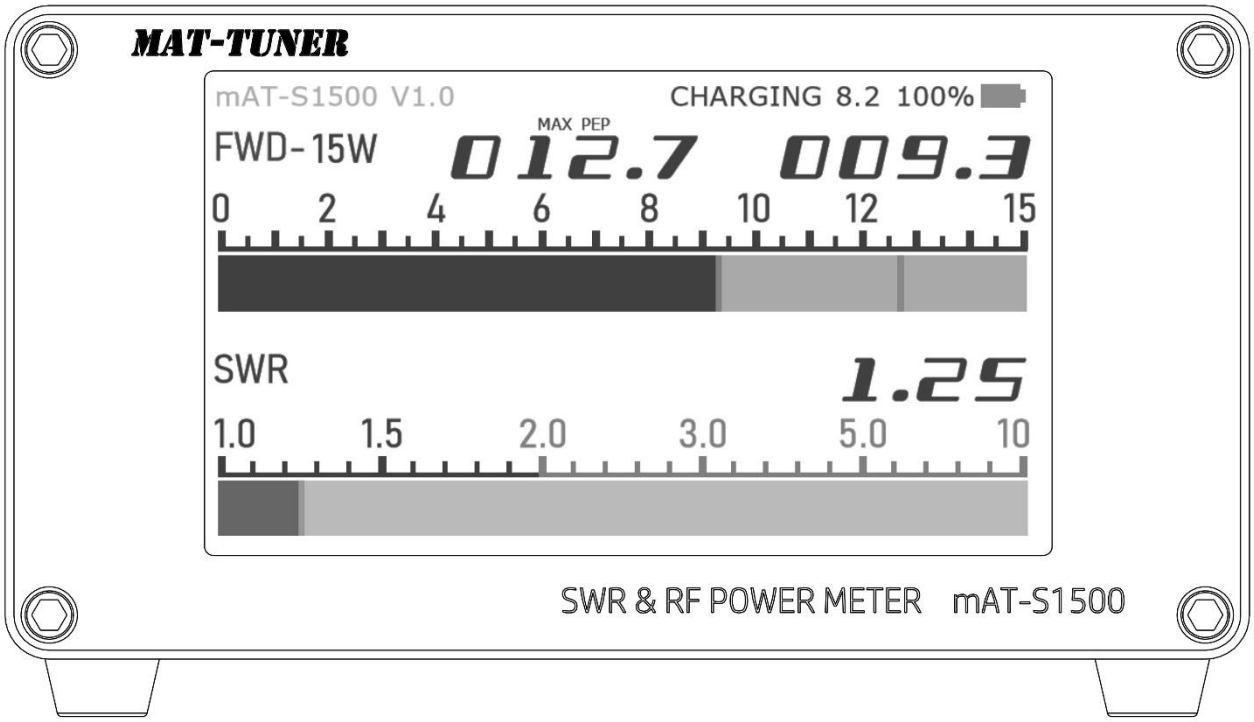
Rear panel



RF IN	RF signal input. Connect the transmitter or amplifier.
RF OUT	RF signal output. Connect the antenna or tuner.
POWER	Power switch. Turn on the power supply upwards.
CHARGE	Charging socket, TYPE-C type.
DC	12-14V, Max 1A.

There is an indicator light on the left side of the charging socket, which will be illuminated during charging. After the battery is fully charged, this indicator light goes out. On the left side of this indicator light is an ambient light sensor. The mAT-S1500 will automatically set the color of the screen background based on the light perceived by this sensor, making the display screen easier to read.

Front panel



The front panel of the mAT-S1500 is a 4.3 "high-resolution color display screen.

Battery and charging

The top right side of the screen displays the battery level and charging status. When a charger is connected, the text "CHARGING"

will be displayed, and the battery voltage will also be displayed. When the charger is removed, the text "CHARGING" will disappear and the battery voltage display will also turn off. When the mAT-S1500 is started, the battery voltage will also be displayed for approximately 5 seconds.

The mAT-S1500 does not come with a charger. Users can use the TYPE-C charger of most mobile phones to charge it. The charging voltage range is 4.5-5.5V, exceeding the range will damage this meter. The maximum charging current should not exceed 1A.

Important note 1: Please do not use this device when charging. The strong electromagnetic waves emitted by the transmitter may disrupt the charger, resulting in incorrect output voltage and damage to mAT-S1500. If mAT-S1500 detects that a charger is connected, a warning message will pop up to remind the user. The display screen of the mAT-S1500 consumes almost all of its electrical energy, and charging the mAT-S1500 during shutdown can greatly shorten the charging time.

WARNING:
Please do not use this meter during charging. Powerful radio waves may disrupt your charger, output incorrect voltage, and damage your meter.

警告:
请不要在充电时使用该表。充电器可能会被电台信号干扰，导致输出错误电压损坏该表。

Important note 2: If the lithium battery inside the mAT-S1500 is reinstalled, please connect the charger to activate the protection circuit before it can start normally.

Fwd

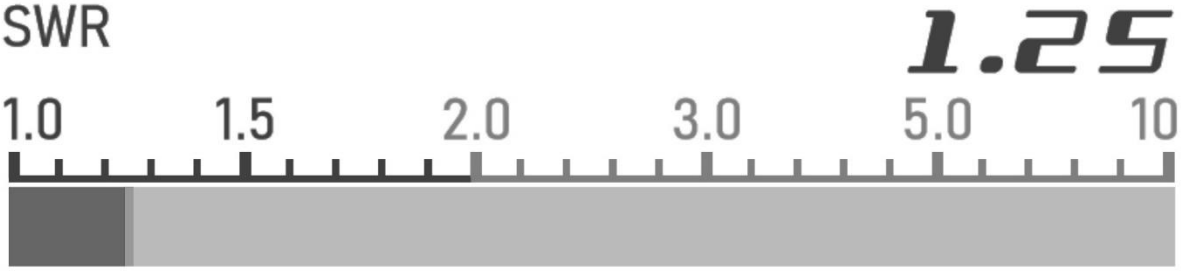
Fwd displays two data, maximum power and instantaneous power.

The first digit displays the maximum RF power, and the second data

displays the instantaneous power. The following progress bar displays the instantaneous power, and the cursor on the right is used to mark the maximum power.
Range: FWD has three ranges, 15W, 150W, and 1500W. When the mAT-S1500 starts, the range is automatically set to 15W and an appropriate range is automatically set based on the input RF signal. The range will only be automatically set from small to large. If the user needs to return to a smaller range, simply turn off the power and restart. The scale of the progress bar will be automatically set according to the range.

Important: If you want to accurately measure RF power, please set your transmitter to FM, FSK, RTTY, CW mode, so that your transmitter can output a stable carrier wave.

Swr: SWR also has two displays, number and progress bar. The display range is 1.00-9.99. If SWR displays 99.99, it indicates that the "RFOUT" socket is connected incorrectly or the antenna is invalid.



The progress bar will set different colors according to the value of SWR, which are green, yellow and monochrome. When the SWR is too high, mAT-S1500 will emit a beep to prompt the user.

Shipping instructions
mAT-S1500 has two built-in lithium batterys, which may be restricted during transportation. Please comply with relevant laws and requirements.

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