



SWR/RF METER TFT 3.2"

- **User Manual**

Version 1.0

20/01/2023

Specifications

- milliwatts to kilowatts

- dual bargraphs
- sticky bar for PEP reading
- instantaneous power, 100ms average power, 1s average power and 100ms peak power
- 1, 2.5 or 5 second PEP
- adjustable SWR alarm threshold, 1.5:1 to 4:1
- modulation scope
- automatic scale selection (auto ranging), mW to kW
- power is measured 200 times per second
- "rotate and push" navigation of configuration menus
- calibration (if required) against an accurate known power level
- 0.025 dB resolution (12 bits referenced at 2.6V)

MODES

Modulation Scope

100ms Peak Power

100ms Average Power

1s Average Power

Instantaneous Power & SWR

dBm Meter

Forward & Reflected Power

Description

Note that the PEP bar indication is also visible in every mode. PEP period is selectable in the Configuration Menu as 1, 2.5 or 5 seconds.

Any of the modes above, will become the "Default Mode" if left running for over 10 seconds. When powered on, the Meter will start in the Default Mode.

A long push (>1 second) of button will enter into the Configuration Mode, you also be able to navigate with on screen buttons, see below.



At the back panel there are 2pcs so239 connectors.

"TRX" will be connected,with coaxial cable 50ohm,with the transceiver and "ANT" will be connected with our Antenna system.

DC prepared cable is included and it must be connected at the socket down left "DC 9-15V".

Finally you can use the ptt "IN"&"OUT" RCA'S in order to connect your amplifier ptt,and protect it if $swr > 2.0$

Just keep in mind that the swr protection is adjustable from 1.5-3.9



Thank you for your purchase

This item is covered by lifetime warranty.

Instructions: Provide a general walkthrough of the system from initiation through exit. The logical arrangement of the information should enable the user to understand the sequence and flow of the system. Use screen prints to depict examples of text under each heading. All screen prints must have a caption and an associated tag providing appropriate alternative text for Section 508 compliance.

- **Cautions & Warnings**

Instructions: If applicable, identify any cautions or warnings that the user should know about before using the system (e.g., noted prohibitions, penalties for unauthorized access, etc.). If waiver use or copy permissions need to be obtained, describe the process.

- **Set-up Considerations**

Instructions: Briefly describe and graphically depict as appropriate the equipment, communications, and network configuration of the system in a way that a non-technical user can understand. Include the type of computer input and output devices. Describe any set-up considerations.

- **User Access Considerations**

Instructions: Describe the different users and/or user groups and the restrictions placed on system accessibility or use for each.

- **Accessing the System**

Instructions: Provide detailed information and describe the procedures necessary to access the system. If applicable, include how to get a user ID and log on to the system, as well as the actions a user must take to change and/or reset a password.

- **System Organization & Navigation**

Instructions: Describe in general terms the organization of the system (e.g., the system menu or home page) and the navigation paths to the main functions/features. Each system function/feature should be described under a separate sub-section header, as appropriate.

- **Exiting the System**

Instructions: Describe the actions necessary to properly exit the system.

- **Using the System**

Instructions: Provide a detailed description of each user function and/or feature, explaining in detail the characteristics of the required input and system-produced output. Each function/feature should be described under a separate sub-section header, 4.1-4.x, and should correspond sequentially to the system functions (e.g., menu items) and/or features listed in certain sub-sections found in this document. Include screen prints as needed to depict examples. This section of the User Manual may also be tailored or customized based on defined user roles, if appropriate.

If applicable, include sub-sections that describe the pre-programmed and/or ad hoc query and retrieval capabilities of the system and associated user procedures (e.g., sequenced control instructions to extract query requests from the database). Include the query name or code the user would invoke to execute the query and any query parameters.

If applicable, include sub-sections to describe and depict all standard and/or ad hoc report capabilities available to the end user and any associated user procedures. Include formats for each available report and the meaning of each field shown on the report. Also describe any special formats associated with ad hoc reports that the user may be able to create. Provide detailed instructions for executing and printing the different reports that are available. Include descriptions of output procedures, identifying output formats and specifying the output's purpose, frequency, options, media, and location.

The following sub-sections provide detailed, step-by-step instructions on how to use the various functions or features of the <System Name and/or Acronym>.

- **<Given Function/Feature>**

Instructions: Describe the specific system function or feature in detail and depict graphically by including screen prints and descriptive narrative as appropriate. Ensure each screen print is captioned and has an associated tag providing appropriate alternative text for Section 508 compliance. Describe, in detail, active links on any screen print illustrated so that the user knows what options are available. Provide information on menus and functionalities that the user must master, expected output/results, and any special instructions. Identify any caveats and exceptions that the user may encounter specific to the system function.

- **<Given Sub-Function/Sub-Feature>**

Instructions: Include additional sub-sections as necessary for system sub-functions or sub-features, if they exist.

- **Troubleshooting & Support**

Instructions: Describe all recovery and error correction procedures, including error conditions that may be generated and corrective actions that may need to be taken. Organize the information in sub-sections as appropriate. The following are common sub-sections that may be included as appropriate.

- **Error Messages**

Instructions: Identify the error messages that a user may receive and the likely cause(s) and/or possible corrective actions for the error. If the list is extensive, this information may be best provided in an appendix to the document that is referenced here.

- **Special Considerations**

Instructions: If applicable, describe any special circumstances, actions, caveats, exceptions, etc., that should be considered for troubleshooting.

- **Support**

Instructions: Provide information on how the user can get emergency assistance and system support (e.g., help desk support, production support, etc.). Include the names of the responsible personnel and organization(s), telephone numbers, and email addresses of the staff who serve as points of contact for system support. The following table is provided as an example and may be modified as needed. Also provide instructions for how identified problems with the system are to be reported. Include instructions for security incident handling, as appropriate.

Table 1 - Support Points of Contact

Contact	Organization	Phone	Email	Role	Responsibility
<Contact Name>	<Organization>	<Phone>	<Email>	<Role>	<Responsibility>

Appendix A: Record of Changes

Instructions: Provide information on how the development and distribution of the User Manual will be controlled and tracked. Use the table below to provide the version number, the date of the version, the author/owner of the version, and a brief description of the reason for creating the revised version.

Table 2 - Record of Changes

Version Number	Date	Author/Owner	Description of Change
<X.X>	<MM/DD/YYYY>	CMS	<Description of Change>
<X.X>	<MM/DD/YYYY>	CMS	<Description of Change>
<X.X>	<MM/DD/YYYY>	CMS	<Description of Change>

Appendix B: Glossary

Instructions: Provide clear and concise definitions for terms used in this document that may be unfamiliar to readers of the document. Terms are to be listed in alphabetical order.

Table 3 - Glossary

Term	Acronym	Definition
<Term>	<Acronym>	<Definition>
<Term>	<Acronym>	<Definition>
<Term>	<Acronym>	<Definition>

Appendix C: Referenced Documents

Instructions: Summarize the relationship of this document to other relevant documents. Provide identifying information for all documents used to arrive at and/or referenced within this document (e.g., related and/or companion documents, prerequisite documents, relevant technical documentation, etc.).

Table 4 - Referenced Documents

Document Name	Document Location and/or URL	Issuance Date
<i><Document Name></i>	<i><Document Location and/or URL></i>	<i><MM/DD/YYYY></i>
<i><Document Name></i>	<i><Document Location and/or URL></i>	<i><MM/DD/YYYY></i>
<i><Document Name></i>	<i><Document Location and/or URL></i>	<i><MM/DD/YYYY></i>

Appendix D: Approvals

The undersigned acknowledge that they have reviewed the User Manual and agree with the information presented within this document. Changes to this User Manual will be coordinated with, and approved by, the undersigned, or their designated representatives.

Instructions: List the individuals whose signatures are desired. Examples of such individuals are Business Owner, Project Manager (if identified), and any appropriate stakeholders. Add additional lines for signature as necessary.

Table 5 - Approvals

Document Approved By	Date Approved
Name: <Name>, <Job Title> - <Company>	Date
Name: <Name>, <Job Title> - <Company>	Date
Name: <Name>, <Job Title> - <Company>	Date
Name: <Name>, <Job Title> - <Company>	Date

Appendix E: Notes to the Author/Template Instructions

This document is a template for creating a User Manual for a given investment or project. The final document should be delivered in an electronically searchable format. The User Manual should stand on its own with all elements explained and acronyms spelled out for reader/reviewers, including reviewers outside CMS who may not be familiar with CMS projects and investments.

This template was designed based on best practices and information to support CMS governance and IT processes. Use of this template is not mandatory, rather programs are encouraged to adapt this template to their needs by adding or removing sections as appropriate. Programs are also encouraged to leverage these templates as the basis for web-based system development artifacts.

This template includes instructions, boilerplate text, and fields. The author should note that:

- Each section provides instructions or describes the intent, assumptions, and context for content included in that section. Instructional text appears in blue italicized font throughout this template.*
- Instructional text in each section should be replaced with information specific to the particular investment.*
- Some text and tables are provided as boilerplate examples of wording and formats that may be used or modified as appropriate.*

When using this template, follow these steps:

- Table captions and descriptions are to be placed left-aligned, above the table.*
- Modify any boilerplate text, as appropriate, to your specific project.*
- All documents must be compliant with Section 508 requirements.*
- Figure captions and descriptions are to be placed left-aligned, below the figure. All figures must have an associated tag providing appropriate alternative text for Section 508 compliance.*
- Delete this “Notes to the Author/Template Instructions” page and all instructions to the author before finalizing the initial draft of the document.*