



MTM-427 PC Software

User Manual

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1. General Information

1.1 Introduction

MTM-427 PC Software is a computer software for processing, archiving, or reporting VSWR & DTF measurements exported from MTM-427 handheld cable and antenna Analyzer. It allows users to process and analyze their data and exporting it in the form of PDF, Bmp ,and CSV file formats for reporting.

1.2 Features

- Store and analyze site measurements on your laptop
- Compare multiple measurement traces by using add trace feature.
- Add up to 6 markers ,adjust and modify 2 limit lines
- Customize your graph area through zooming , auto-scale ,and coloring for better appearance
- Export measurements in the form of CSV, Bmp ,and PDF file formats.

2. Installing MTM-427 PC Software

2.1 System Requirements

Component	Requirement
Processor	1 gigahertz (GHZ) or faster x86- or x64-bit processor
Operating System	Windows 7 (64 bit or 32 bit) Windows 8 (64 bit or 32 bit) Windows 8.1 (64 bit or 32 bit) Windows 10 (64 bit or 32 bit)
Memory	1 gigabyte (GB) RAM (32-bit) or 2 GB RAM (64-bit)
Hard disk space	16 GB free hard disk space (32-bit) or 20 GB (64-bit)
Microsoft .Net Framework	Version 4.5.1 or latest

2.2 Installation

- 1- Extract “*Consultix MTM-427 PC Software*” archive (provided by Consultix) to a relevant place.
- 2- Install Crystal Reports Runtime which is compatible with your system (32bit /64bit).
- 3- Right-click “*Setup.exe*” icon, and choose “*Run as administrator*”.
- 4- The installation will start, follow the setup instructions.
- 5- Finalize the setup.

3. Getting Started with MTM-427 PC Software

The main function of MTM-427 PC Software is to view and edit measurements captured by MTM-427 handheld cable and antenna analyzer and loaded to a PC.

The following sections below describe and explain all SW capabilities and features.

3.1 MTM-427 PC Software Main Window

After finalizing software setup, click on the desktop shortcut “**MTM**” to launch MTM-427 PC Software Main window as shown in figure 1 below,

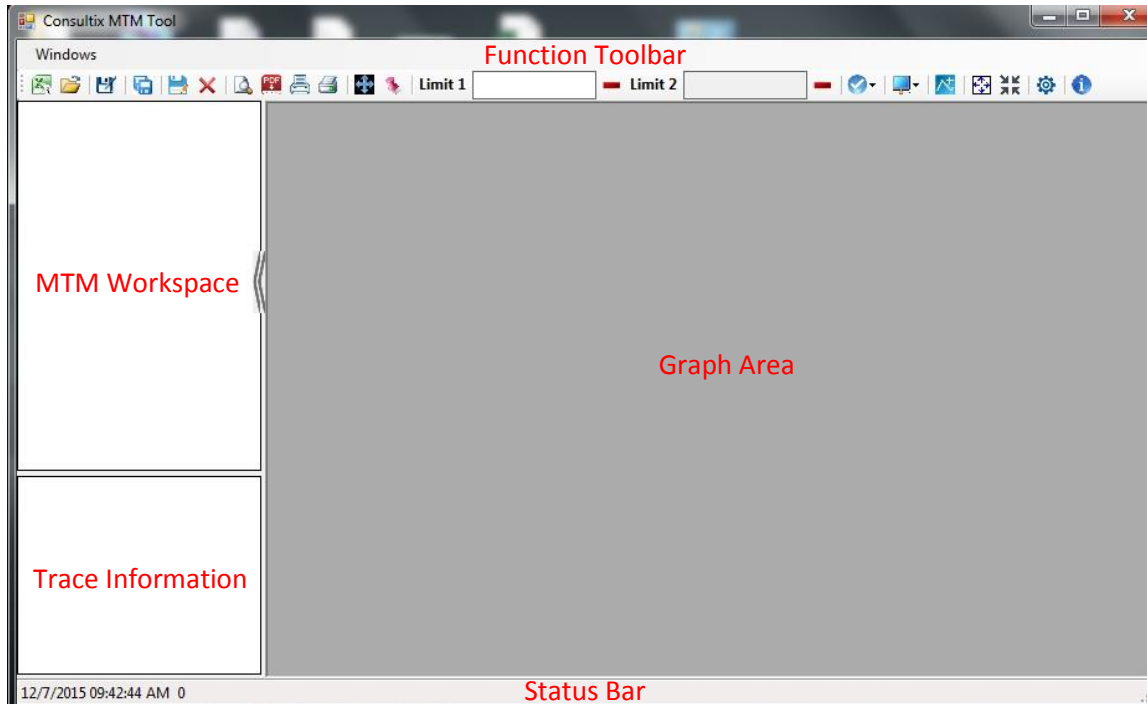


Figure 1, MTM-427 PC Software Main Window

MTM Workspace: Shows the opened CSV files.

Trace Information: Shows the trace information like, unit serial number, date & time, start freq. & stop freq. extra.

Status Bar: Shows x-y co-ordinates when users move over the graph, the system date & time, and printing & PDF exporting.

Graph Area: Displays the current opened traces where users can do their markers, limit lines,..etc.

Function Toolbar: Shows all available SW capabilities like, open & save a work set, edit & move markers,...etc

3.2 Browsing a measurement file

MTM-427 PC Software supports CSV file formats captured from MTM-427 handheld cable and antenna analyzer.

- 1- From **Function Toolbar**, click **"Import CSV"** button and browse your measurement file; as shown in figure 2



Figure 2, VSWR-Return Loss measurement trace

- 2- Users can browse and process many measurement files at the same time as shown in figure 3.

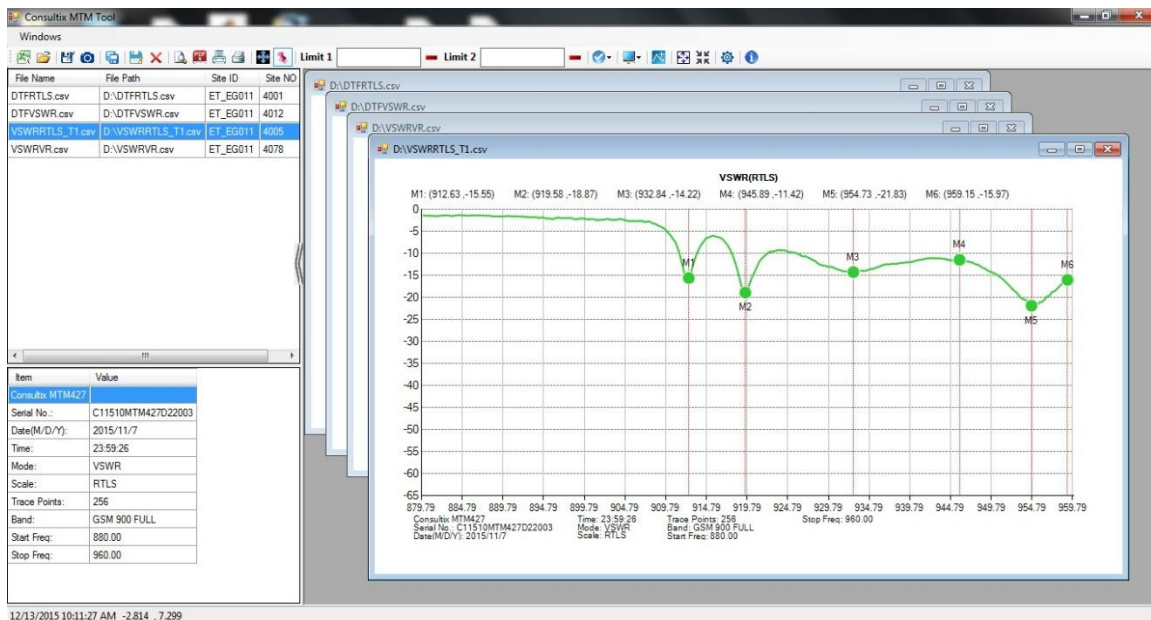


Figure 3, Working on multiple files

3.3 Markers

MTM-427 PC Software supports 6 Markers; users can view, edit, and position markers according to their measurements.

3.3.1 Moving Markers

From **Function Toolbar**, click “**Move Marker**” button, double click the marker (its color changes), and place it everywhere on the curve by double clicking it as shown in figure 4



Figure 4, Moving Markers

3.3.2 Editing Markers

- 1- Add markers: from **Function Toolbar**, click “**Edit Marker**” button, and double click everywhere on the trace to place your markers in addition to adding maximum and minimum markers by right click the marker and choose “**Add Max Marker**” and “**Add Min Marker**” as shown in figure 5. (Users can add up to 6 markers).

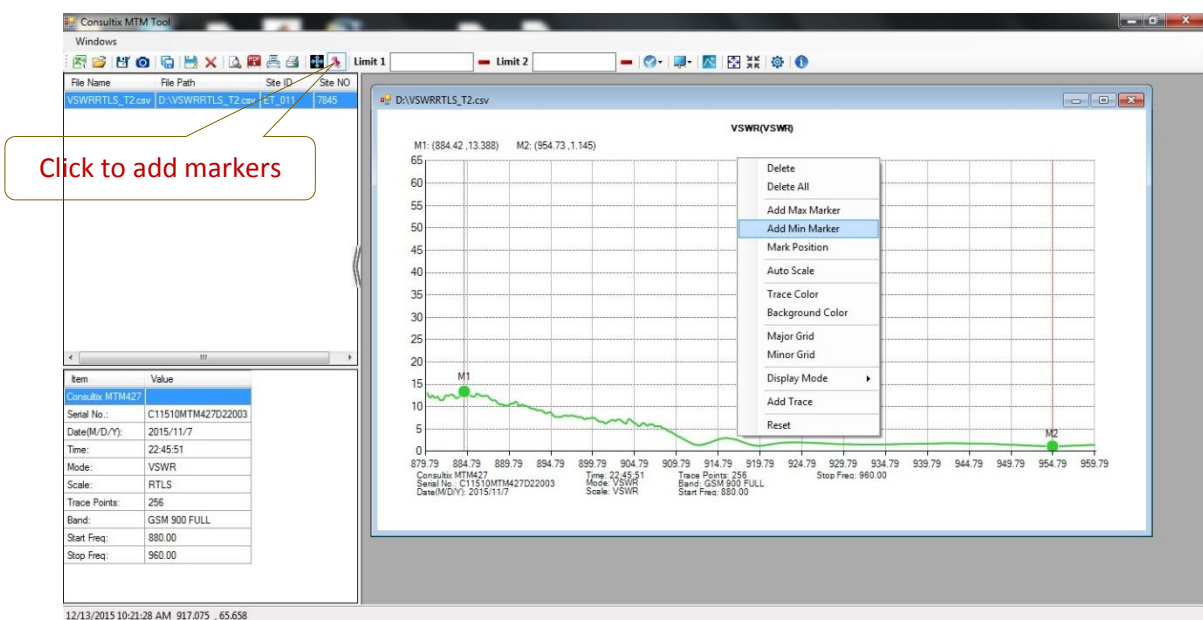


Figure 5, Adding Markers

- 2- Edit markers: from **Function Toolbar**, click “**Edit Marker**” button, right click the marker and choose “**Marker Position**”, “**Add Position Marker**” window appears, enter the marker value as shown in figure 6.

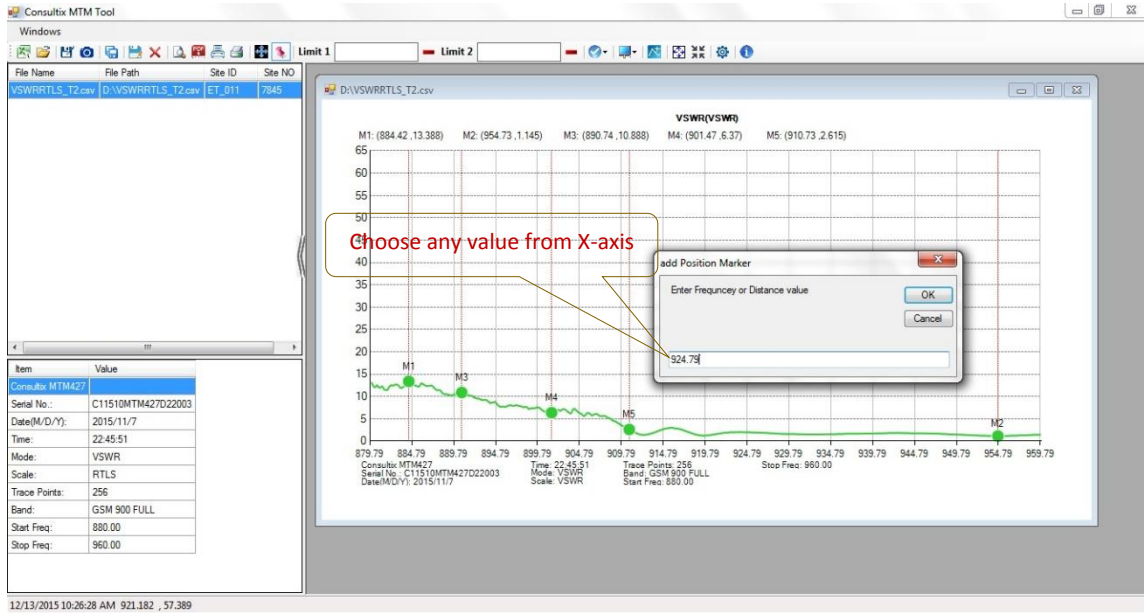


Figure 6, Editing Markers

- 3- Delete markers: from **Function Toolbar**, click “**Edit Marker**” button, right click the marker and choose “**Delete**” to delete the marker or “**Delete All**” to delete all markers.

3.4 Limit Lines

MTM-427 PC Software supports 2 Limit Lines; users can add and remove limit lines according to their measurements.

- 1- Add limit lines: from **Function Toolbar**, enter the limit line value in “**Limit 1**” textbox and/or “**Limit 2**” textbox then click enter as shown in figure 7

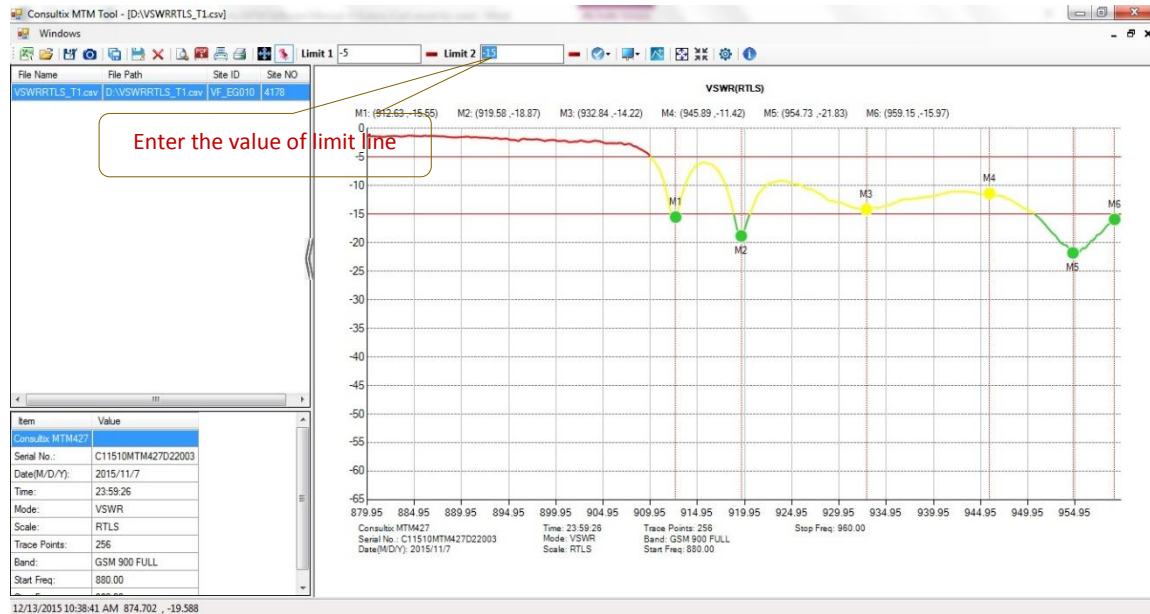


Figure 7, Adding Limit Lines

- 2- Remove limit lines: from **Function Toolbar**, click “**Remove Limit Line 1**” and/or “**Remove Limit Line 2**” as shown in figure 8

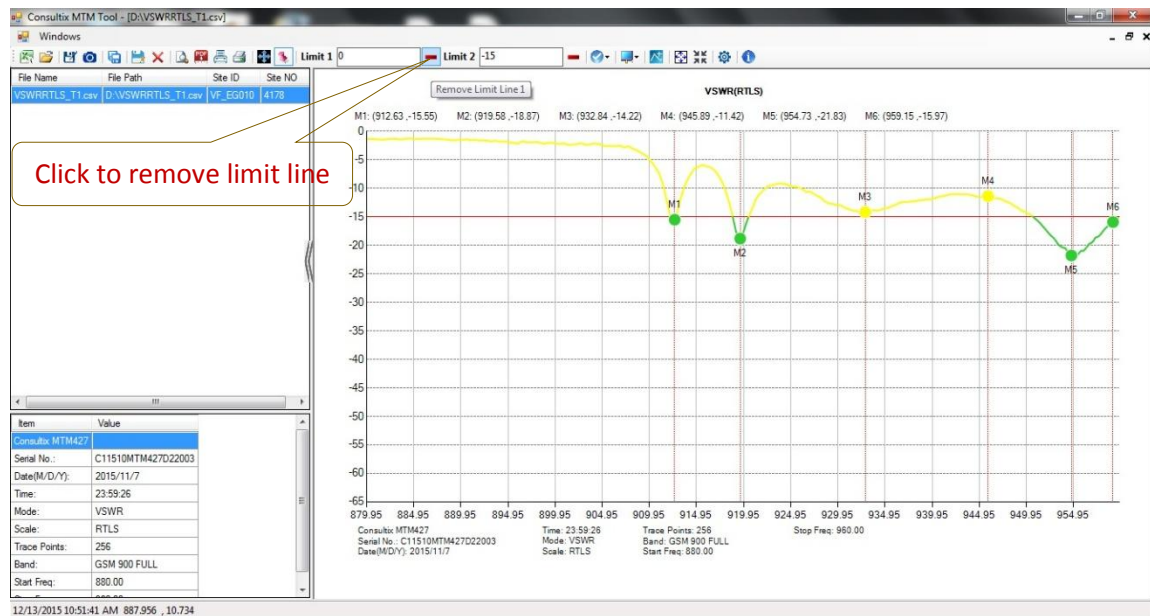


Figure 8, Removing Limit Lines

3.5 Adding Traces

From **Function Toolbar**, click “**Add Trace**” button, and browse the CSV trace files as shown in figure 9



Figure 9, Adding Traces

Users can switch between traces by clicking “**Select Trace**” button as shown in figure 10

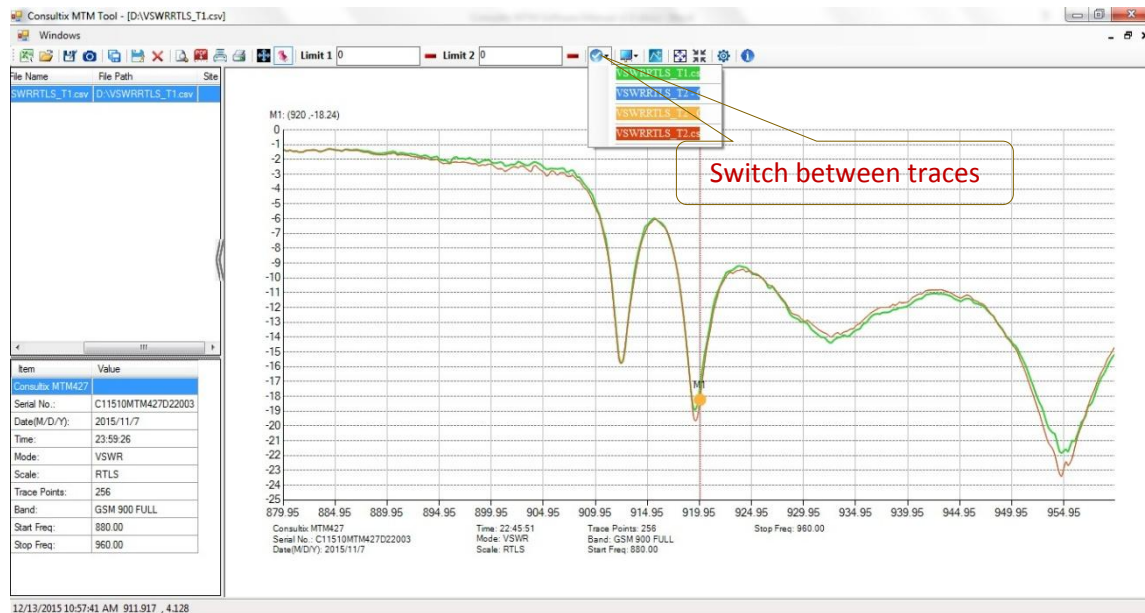


Figure 10, Selecting Traces

3.6 Customizing your Graph Area

On **Graph Area**, users can right click and chose between many options to change background color, trace color, and displaying grids besides adding traces, auto-scaling the selected trace, switching between “**VSWR**” & “**Return Loss**” modes and resetting your graph area as shown in figure 11

From “Settings” button, users can add their personal information, operator information and some other tips for reporting

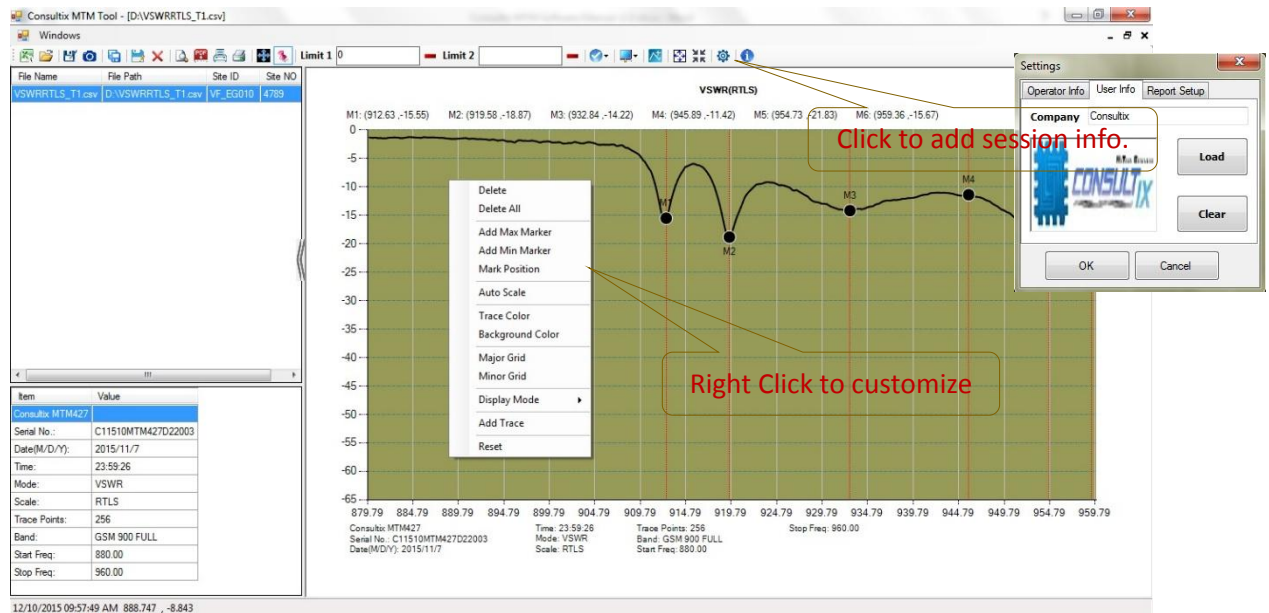


Figure 11, Customizing Graph Area

3.7 Save and Export






















From **Function Toolbar**, users can save their data as workset.cws¹, and save the current trace as CSV file or as an image besides exporting their data measurements to PDF file formats as shown in figure 12



Figure 12, Save and Export

¹ Workset.cws is a file format representing a group of traces referenced by one CWS (Consultix Work Set) file

Appendix: MTM-427 PC Software Function Toolbar

Button	Symbol	Function description
Import CSV		Imports .csv file formats that exported from Consultix MTM-427
Open Work Set		Opens a saved Work Set in .cws file formats.
Save Trace As		Saves the current trace to your local disk
Save As Image		Exports the current trace to .Bmp image file
Save All Traces		Saves all opened traces as a work set in .cws format
Save Work Set As		Save the current work set to your local disk
Close Work Set		Close the current opened work set
Print Preview		Previews the opened CSV traces before printing
Export to PDF		Exports your work set to pdf file format.
Print All		Prints all of the work set content
Print Active Trace		Prints the current activated trace
Move Marker		Moves your markers over the activated trace
Edit Marker		Edits markers for add, delete, and position markers
Remove Limit Line		Removes the assigned limit line
Select Trace		Switches between the opened traces
Display Mode		Switches between “VSWR” and “Return Loss” modes for the activated trace
Add Trace		Adds a new trace over the activated trace
Scale		Customizes the scale of the graph area
Reset Zoom		Resets trace zooming
Settings		Records operator and company information, and other report tips
About MTM		Displays the current SW version, and contact details

Further Help

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