

Configuring the Anritsu PIM Master MW82119A for Wireless Browser Control

This application note details the setup and use of the PIM Master MW82119A for browser based control.

Browser based control allows users to remotely control the PIM Master from any Ethernet or Wi-Fi enabled device with web browser software (Safari 6, Internet Explorer 10, Chrome 30, FireFox 23, or later). This includes a wide range of tablets and phones running Android or iOS operating systems as well as the traditional Linux and Windows laptops/desktop computers.

Wi-Fi links are quite useful in the field, particularly when the PIM Master is on a tower and the user is on the ground. This application note will cover setting up the PIM Master's built in remote control capabilities for a Wi-Fi link.

Purchase ZyXEL MWR102 Travel Router (or equivalent)

The ZyXEL MWR102 Travel Router is one of many suitable travel routers. It can be purchased at a number of online retail outlets. All you need to wirelessly connect to your analyzer is included with the router. This includes an Ethernet cable, a USB cable (for powering the MWR102) as well as instructions for its use.

The router comes pre-programmed with a password for accessing the device. This password can be found on a sticker placed on the reverse side of the router. Write down the password and SSID for this router. You will need this information to access it.



Figure 1. The PIM Master with wireless remote control via iPhone.



Figure 2. The ZyXEL Pocket Router.



Figure 3. The Pocket Router configuration information.

PIM Master Firmware

The PIM Master will require firmware version v1.15 or later. Firmware may be downloaded from Anritsu.com, by following the “Downloads and Software” and “Handheld RF Firmware Updates” links.

Connect the Router to your PIM Master

The router has two Ethernet ports. One is marked ‘LAN’ (colored black) and the other is marked ‘WAN’ (colored blue). Insert the Ethernet cable provided into the black LAN port on the router and insert the other end into the Ethernet port of your test instrument.

Insert the Mini-B (small) end of the USB cable provided into the router and the Type-A (larger) end of the cable into one of the USB ports of your test instrument.

Secure the router to the PIM analyzer chassis using a small strip of Velcro or other hook and loop fastener.

Use your Browser Device’s Wi-Fi Configuration Utility

Use your tablet, phone, or computer’s Wi-Fi Connection utility to find the ZyXEL router. The SSID name will be ZyXEL, followed by several other numbers and characters unique to your particular router. Connect to this SSID.

When prompted, enter the password for the router, as shown on the back of the router.

Configuring the Analyzer

The PIM Master needs some set up to work with the ZyXEL router:

- Press <shift> System on the instrument keypad
- Press System Options → Ethernet Config on the softkeys.

This brings up the Ethernet Editor screen as shown below. Complete the entries for the IP, Gateway and Subnet addresses with the numbers shown below and press ENTER

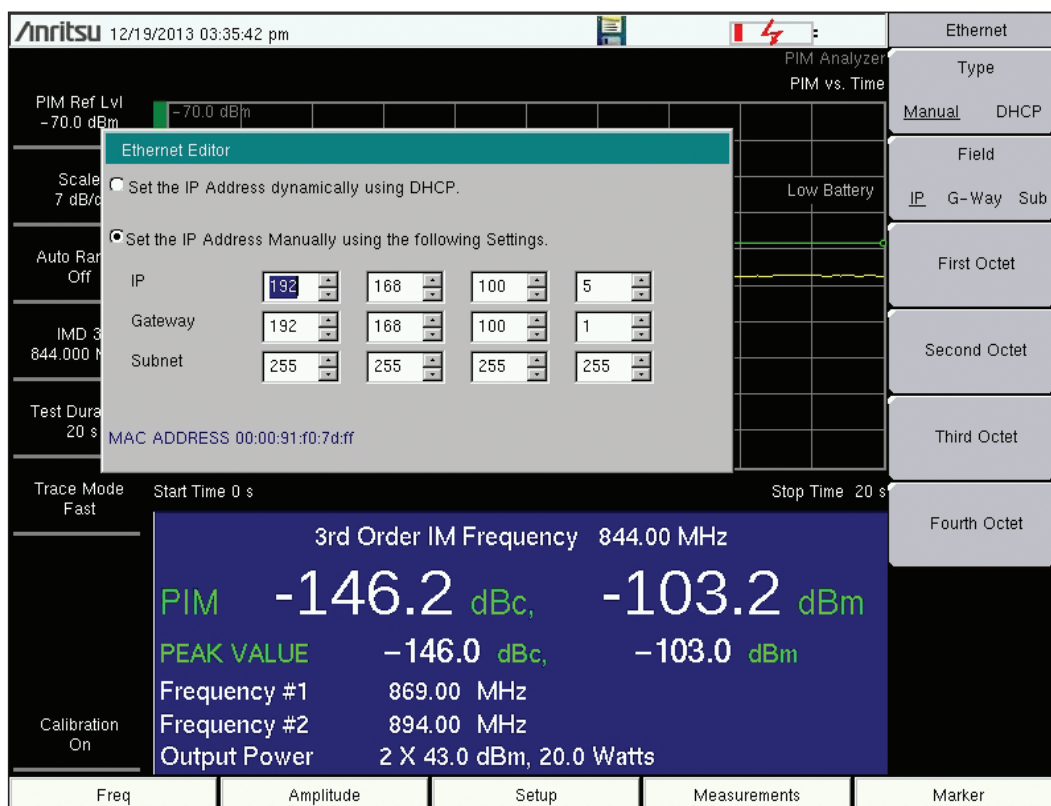


Figure 4. Setting the IP address on the PIM Master.

Launch the Browser

Make sure your wireless device (Phone, Tablet, or Laptop) is connected to the ZyXEL router. Next, open a browser window on your wireless device. Type the Instrument's IP address (192.168.100.5 in this example) into the browser's URL line. The browser will find the instrument and open the initial instrument control window as shown below.

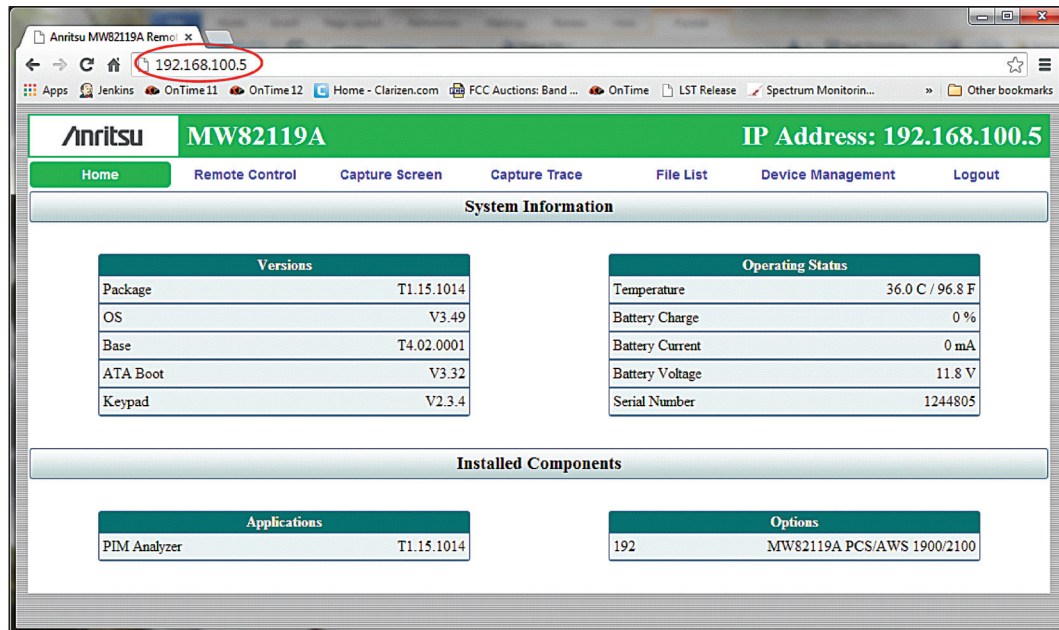


Figure 5. A Chrome browser, with the instrument's IP Address in the URL line.

The initial screen shows instrument status information. The various tabs allow remote control, screen captures, trace captures, trace transfer from the instrument to the browser download area, and even password control.

Pressing the Remote Control tab displays a copy of the instrument screen on the controlling device. Follow the exact same process for controlling the PIM Master as you would if you were touching the actual instrument screen. A green communication activity indicator in the lower right hand corner indicates the connection status with the instrument. An example of the remote control screen is shown below.

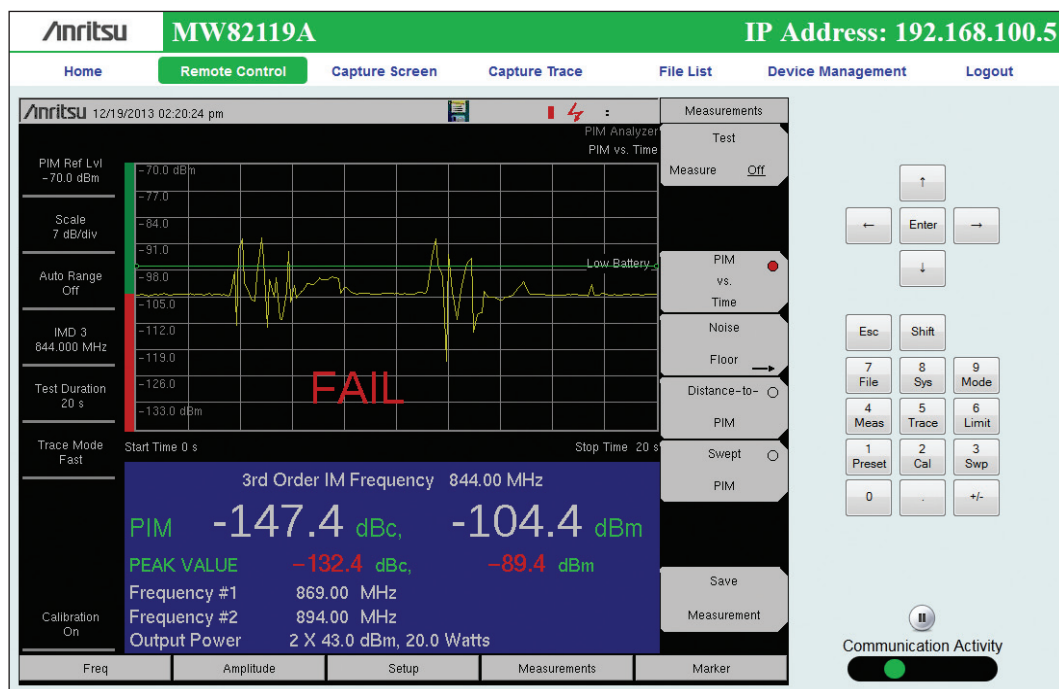


Figure 6. The remote control screen from a browser.

Pressing the Capture Screen tab saves a time-stamped screenshot of the instrument display, both in the instrument memory as well as in the web browser. This image can be downloaded from the browser and saved on the controlling device by using the “Save Image As” or “Save Picture As” menu option in the browser. Right clicking on the image will typically open this menu. The image can also be sent via email from this screen by selecting the “Email Image” or “Email picture” menu option.

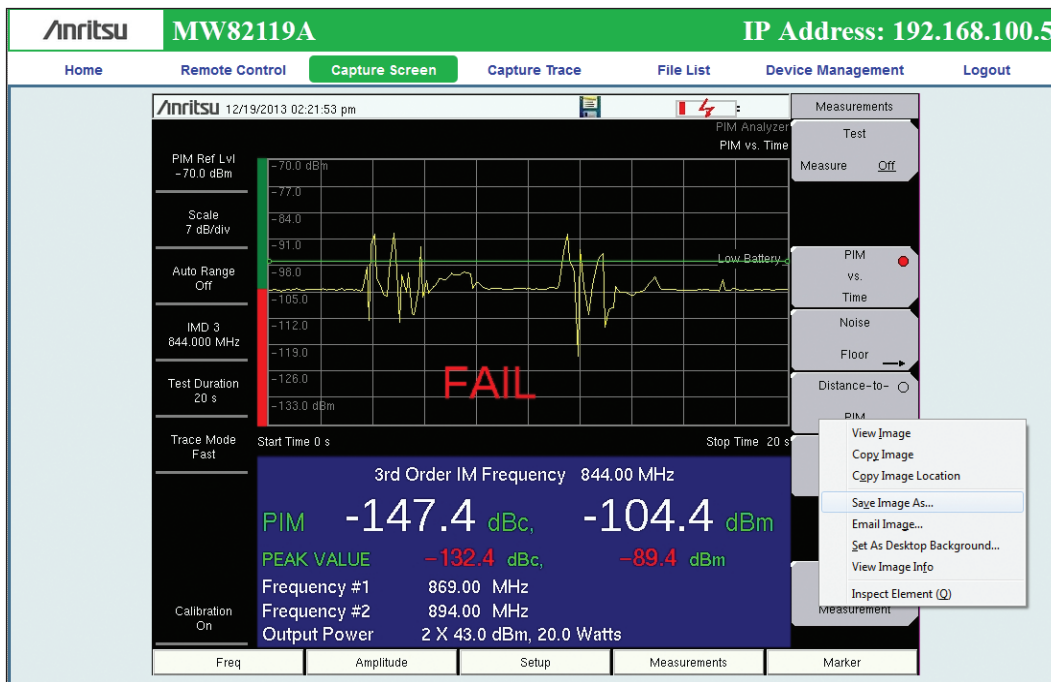


Figure 7. The capture screen menu from a browser.

Pressing the Capture Trace tab performs the same function as “Save Measurement.” A dialog box will appear allowing you to type a name for the saved measurement. The File List tab shows a table with all files in the internal memory folder on the instrument. Subfolders are not displayed. Files may be downloaded from the instrument to the controlling device by clicking on the filenames. If controlling device is a laptop computer with Anritsu Line Sweep Tools (LST) installed, you can open the measurement files directly and generate site reports.

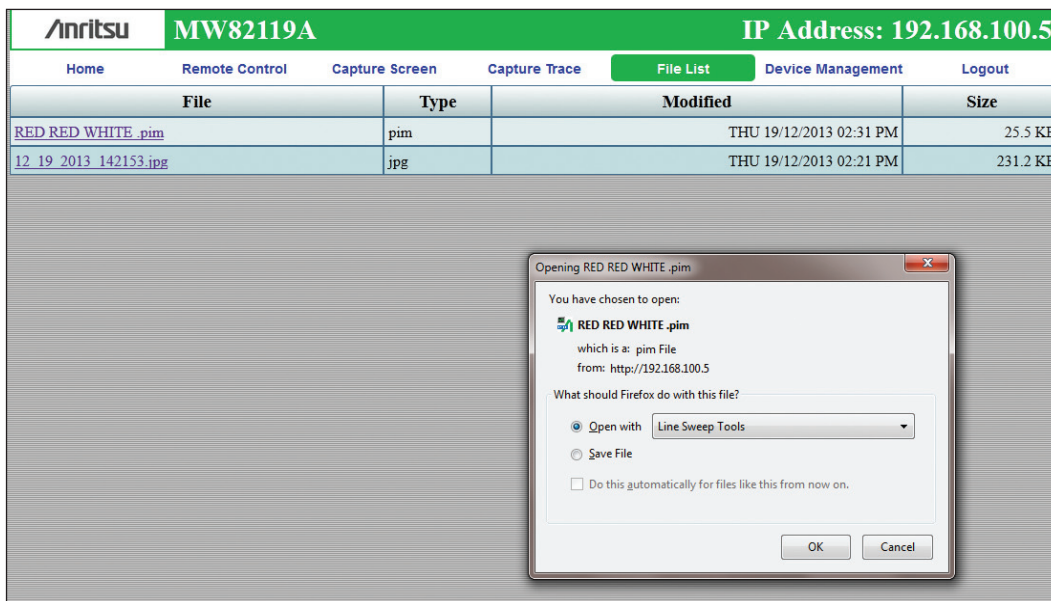


Figure 8. The file list menu from a browser.

Summary

Browser enabled remote control brings unsurpassed flexibility to the Anritsu MW82119A PIM Master. It is now possible to control the PIM Master using a wide variety of web browsers running on Wi-Fi enabled devices. Since the control software is served by the instrument, it is no longer necessary to install and run application software on the controlling device. Rather, a customer's existing web browsing software (Safari, Internet Explorer, Google Chrome, etc.) can be used to control the PIM Master from a remote location. This flexibility makes remote control of the PIM Master more convenient for field personnel.

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