

Talaria TWO EVB-A (INP3010 & INP3011)

Module Evaluation Boards

IEEE 802.11 b/g/n, BLE

User Guide for MPD and iPerf3 Applications GUI

Version 0.6.1

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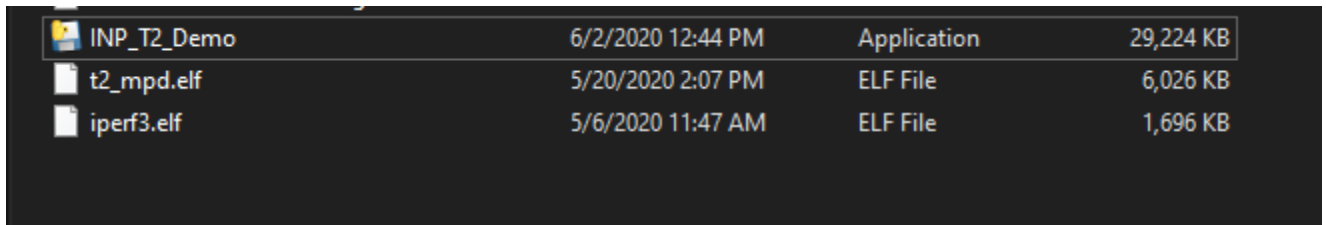
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1 Introduction

This document describes the use of Graphical User Interface (GUI) specific to MPD and iPerf3 applications. This GUI is intended for use with the INP3010 and INP3011 Talaria TWO Module boards to enable easy programming and accelerated evaluations.

2 Prerequisites

For the GUI to successfully launch, ensure files `t2_mpd.elf` and `iperf3.elf` are all present in the same directory as the GUI.exe file. Though this document specifically describes the use of the GUI on a Windows platform, the procedure is similar for other operating systems.



File Name	Modified	Type	Size
INP_T2_Demo	6/2/2020 12:44 PM	Application	29,224 KB
t2_mpd.elf	5/20/2020 2:07 PM	ELF File	6,026 KB
iperf3.elf	5/6/2020 11:47 AM	ELF File	1,696 KB

Figure 1: Folder contents

`T2_mpd.elf` and `iperf3.elf` are secured files. The GUI will work only with the provided files. If new `.elf` files are added with the same names, the signature will not match. This will result in the GUI throwing up an error message as shown below.

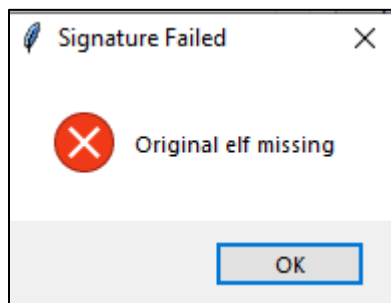


Figure 2: Signature failed window

3 MPD Application

1. Enter your SSID and Password
2. Select the MPD tab as highlighted below. This will automatically load t2_mpd.elf file.

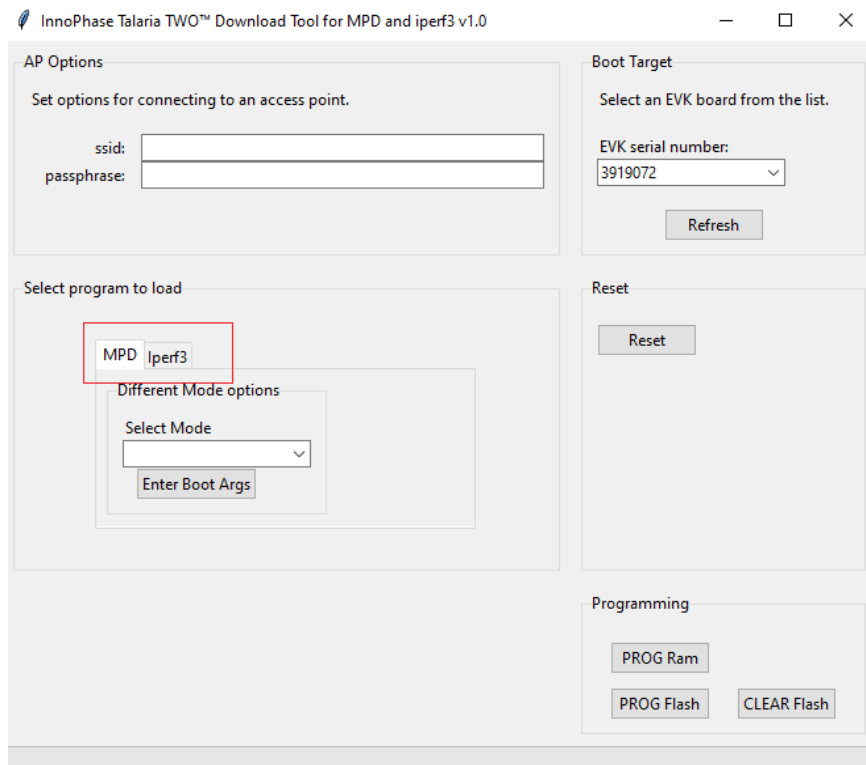


Figure 3: MPD tab control

3.1 Base Mode

1. Select 'Base' from the 'Select Mode' drop-down menu and click on 'Enter Boot Args'.

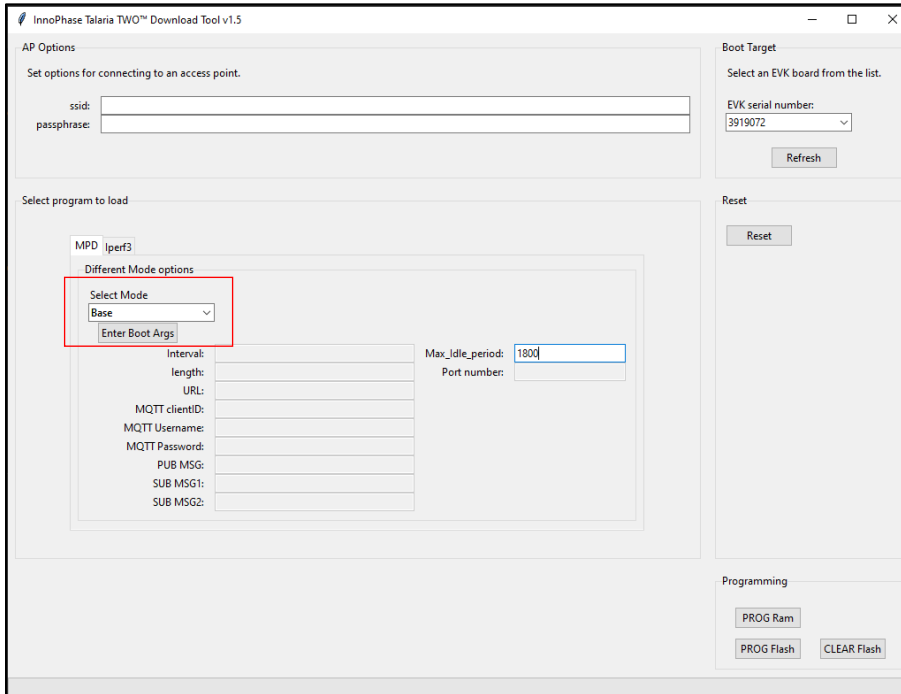


Figure 4: Selecting Base Mode

2. Enter a value for 'Max_Idle_period'. If nothing is passed, the GUI will pop-up an error message.

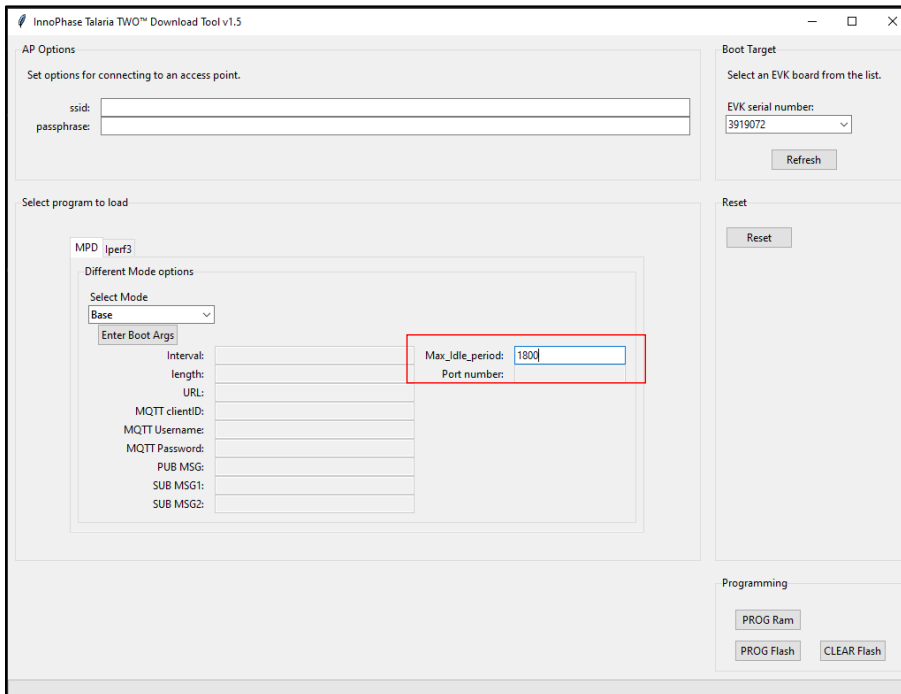


Figure 5: Passing Max_Idle_period

3. Click on either 'PROG Ram' or 'PROG Flash' as per your requirement.

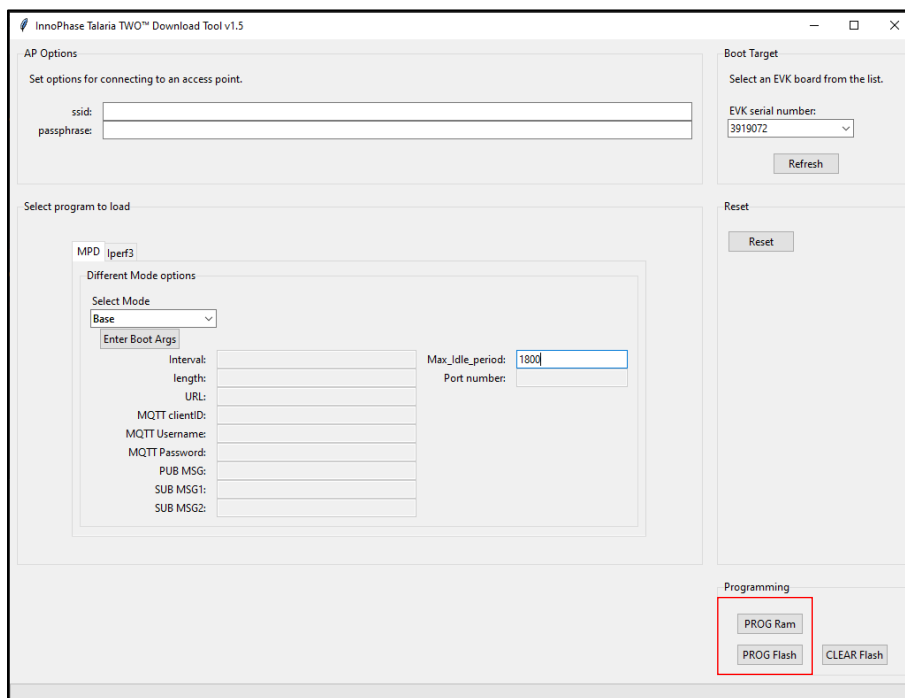


Figure 6: Load elf in RAM or In Flash

3.2 'Keep Alive' Mode

1. Select 'Keep Alive' mode from the 'Select Mode' drop-down and click on 'Enter Boot Args'
2. Enter a value for 'Max_Idle_period'. If no value is passed, GUI will pop-up an error message.
3. Click on either 'PROG Ram' or 'PROG Flash' as per your requirement

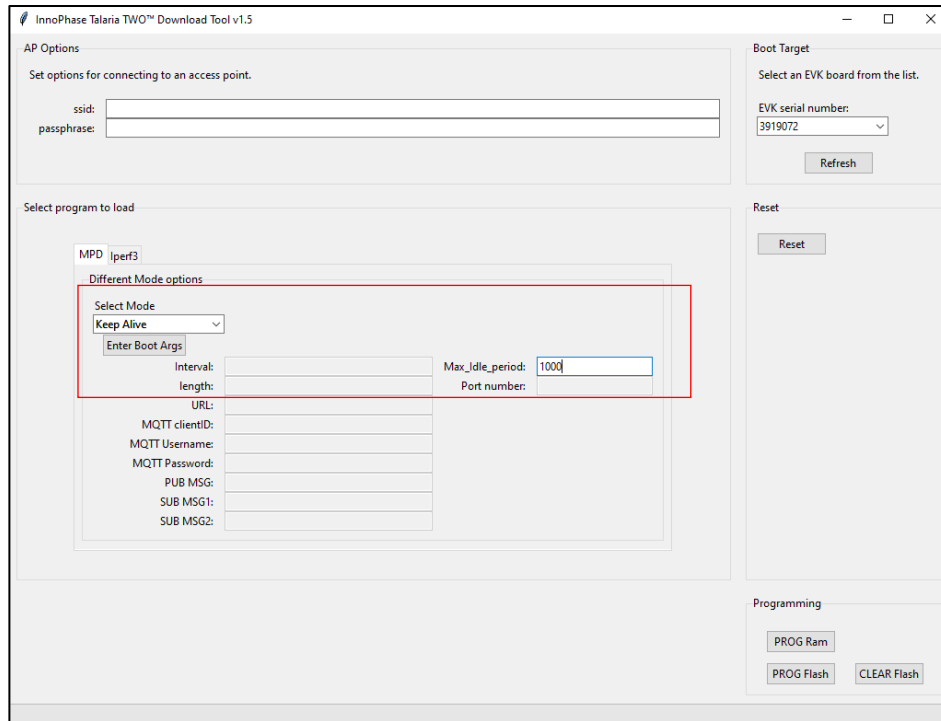


Figure 7: Select Keep alive mode and pass Max_Idle_period

3.3 TCP

1. Select 'TCP' from the 'Select Mode' drop-down menu and click on 'Enter Boot Args'.
2. Enter values for 'Interval', 'length' and 'Port Number'. If no value is passed, GUI will pop-up an error message.
3. Click on either 'PROG Ram' or 'PROG Flash' as per your requirement.

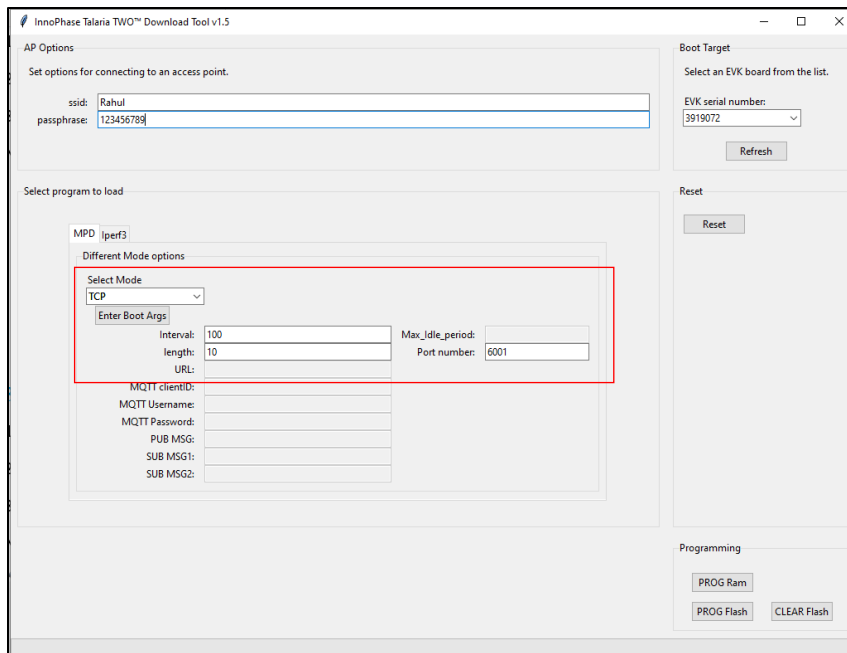


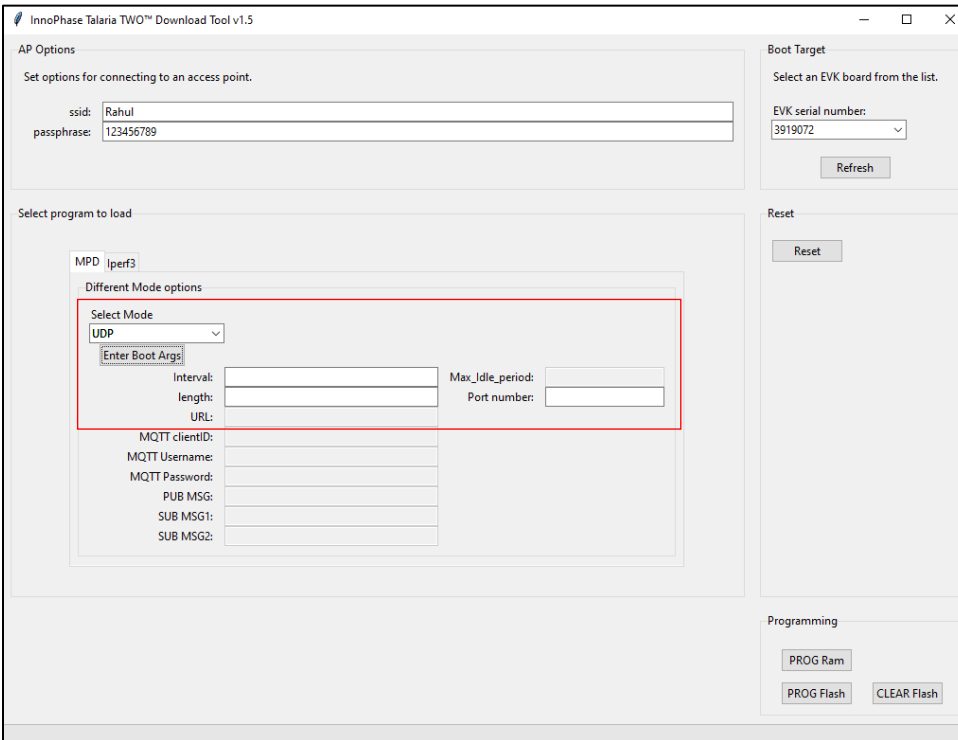
Figure 8: Select TCP and pass the required parameters

Note: Ensure both the 'Host' and 'T2' are connected to the same network.

3.4 UDP

1. Select 'UDP' from the 'Select Mode' drop-down menu and click on 'Enter Boot Args'.
2. Enter values for 'Interval', 'length' and 'Port Number'. If no value is passed, GUI will pop-up an error message.
3. Click on either 'PROG Ram' or 'PROG Flash' as per your requirement.

Note: Ensure both the 'Host' and 'T2' are connected to the same network.



The screenshot shows the 'InnoPhase Talaria TWO™ Download Tool v1.5' interface. It is divided into several sections:

- AP Options:** Fields for 'ssid' (Rahul) and 'passphrase' (123456789).
- Boot Target:** A dropdown for 'EVK serial number' (3919072) and a 'Refresh' button.
- Select program to load:** A sub-section for 'MPD Iperf3' with 'Different Mode options'. The 'Select Mode' dropdown is set to 'UDP'. Below it, the 'Enter Boot Args' button is highlighted with a red box. To its right are input fields for 'Interval', 'length', 'URL', 'Max_Idle_period', and 'Port number'.
- MQTT clientID:** Fields for 'MQTT clientID:', 'MQTT Username:', 'MQTT Password:', 'PUB MSG:', 'SUB MSG1:', and 'SUB MSG2:'.
- Reset:** A 'Reset' button.
- Programming:** Buttons for 'PROG Ram', 'PROG Flash', and 'CLEAR Flash'.

Figure 9: Select UDP and pass the required parameters

3.5 HTTP

1. Select 'HTTP' from the 'Select Mode' drop-down and click on 'Enter Boot Args'.
2. Enter 'Interval' and 'URL'. If no value is passed, GUI will pop-up an error message.
3. Click on either 'PROG Ram' or 'PROG Flash' as per your requirement.

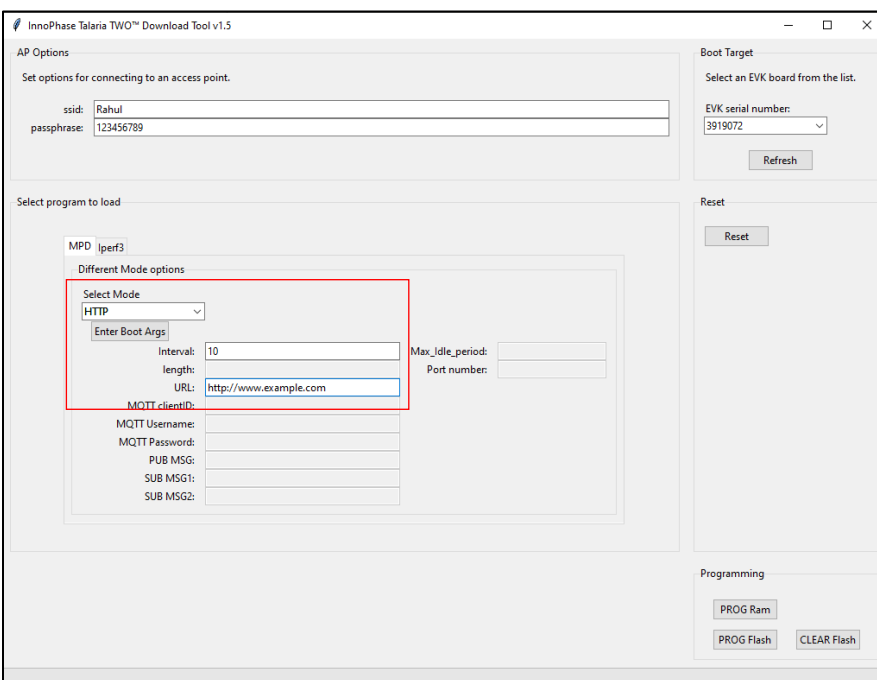


Figure 10: Select HTTP and pass the required parameters

3.6 HTTPS

1. Select 'HTTPS' from the 'Select Mode' drop-down and click on 'Enter Boot Args'.
2. Enter 'Interval' and 'URL'. If no value is passed, GUI will pop-up an error message.
3. Click on either 'PROG Ram' or 'PROG Flash' as per your requirement.

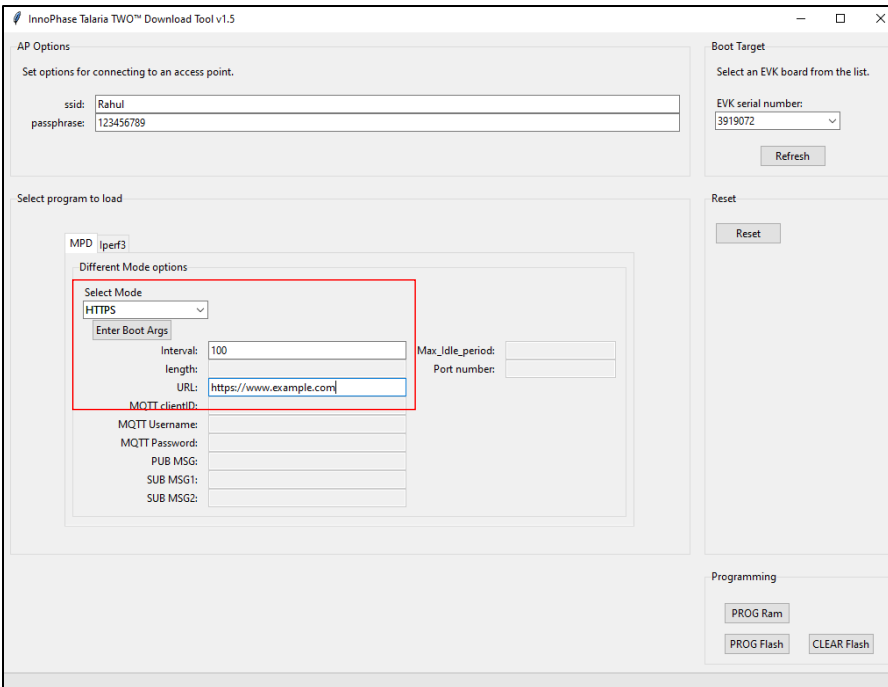


Figure 11: Select HTTPS and pass the required parameters

3.7 MQTT

1. Select 'MQTT' from 'Select Mode' drop-down menu and click on 'Enter Boot Args'.
2. Enter 'Interval', 'Port number', 'URL', 'ClientID', 'Username', 'Password', 'Publish', 'SUB MSG1' and 'SUB MSG2'. If no values are passed, the GUI will pop-up an error message.
3. Click on either 'PROG Ram' or 'PROG Flash' as per your requirement.

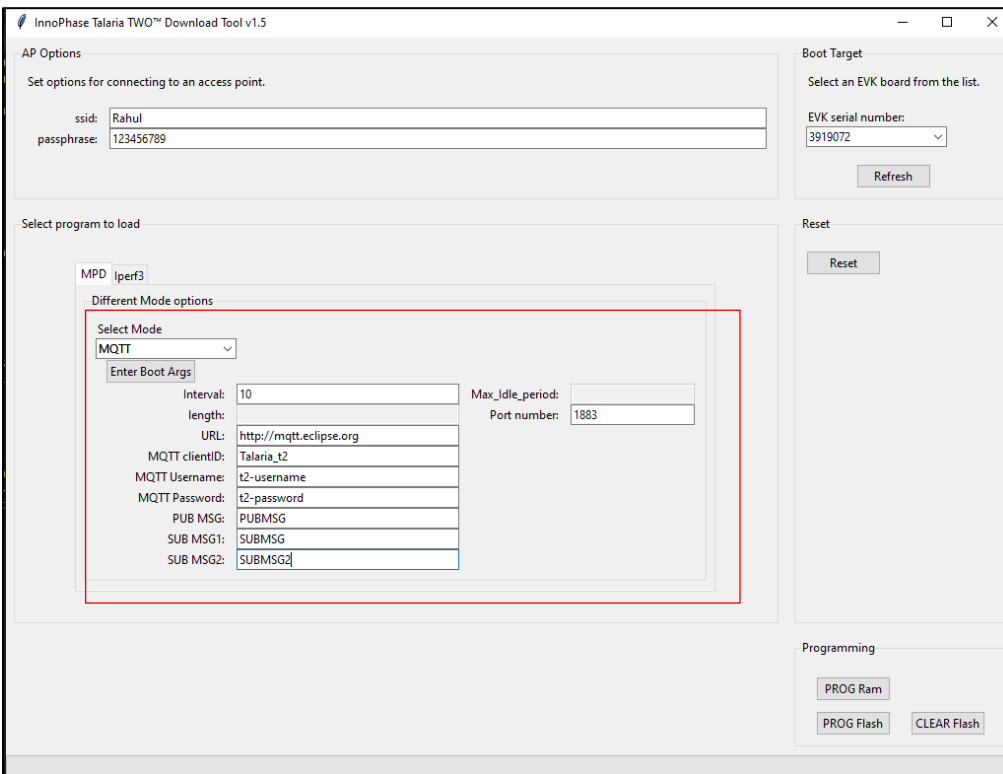


Figure 12: Select MQTT and pass the required parameters

3.8 Multicast Reception OFF, Grat ARP OFF and Grat ARP ON

1. Select 'Multicast ARP ON' or 'Multicast ARP OFF' from the 'Select Mode' drop-down and click on 'Enter Boot Args'.
2. No value to be passed.
3. Click on either 'PROG Ram' or 'PROG Flash' as per your requirement.

Multicast ARP OFF

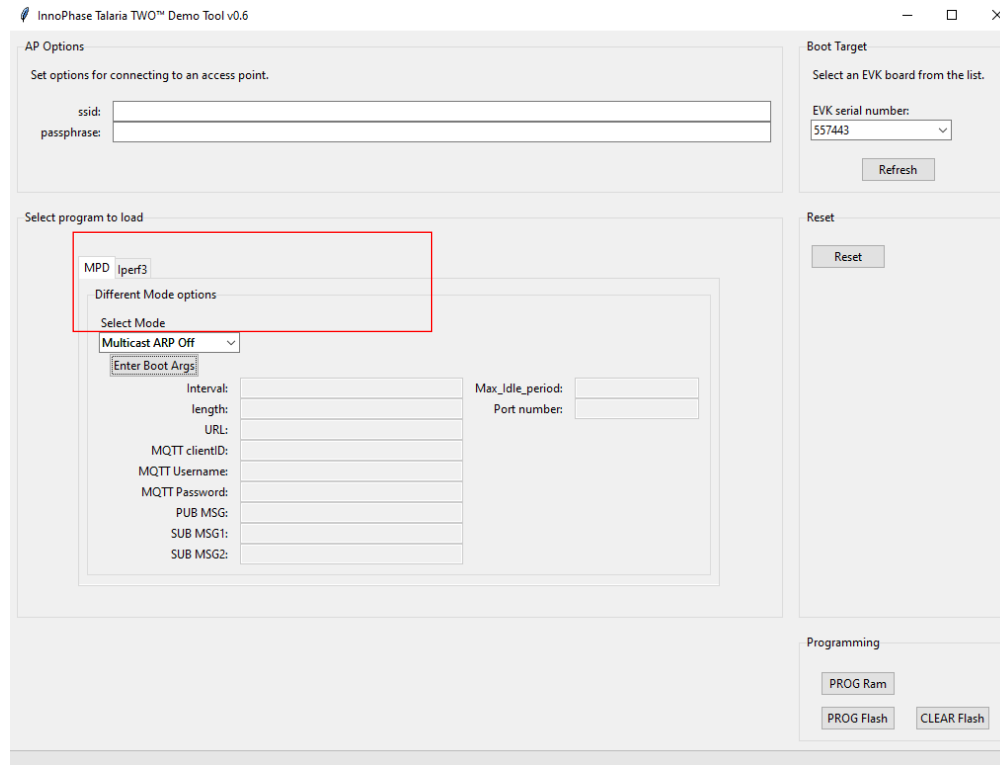


Figure 13: Multicast Select ARP OFF

Multicast ARP ON

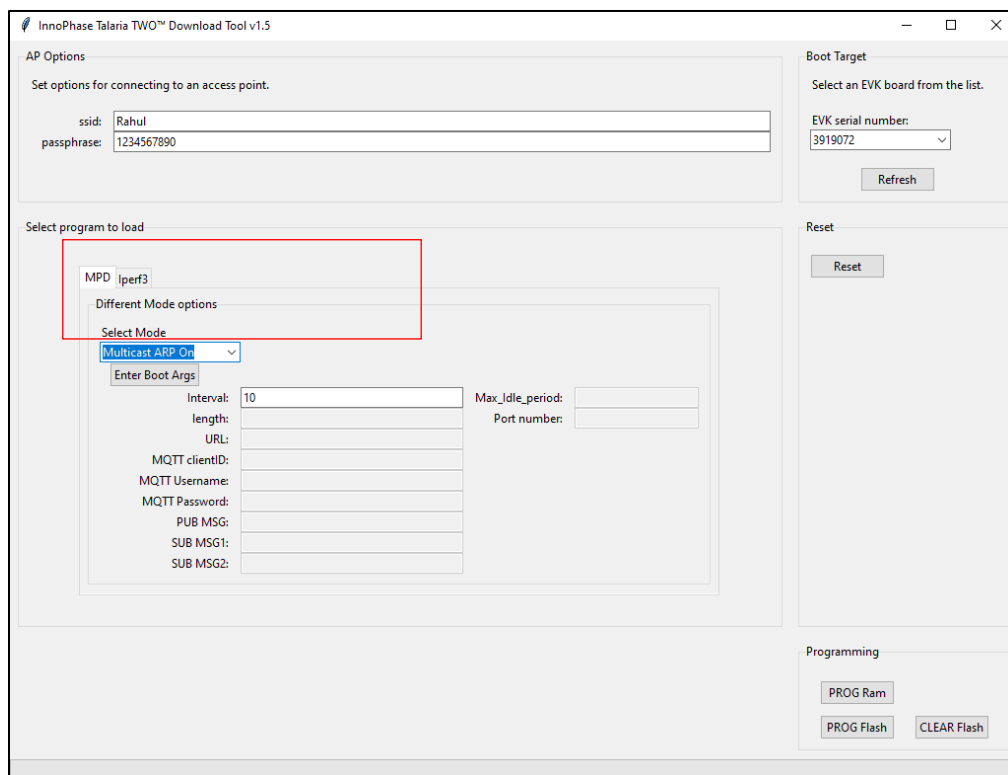


Figure 14: Select Multicast ARP OFF and pass the required parameters

4 iPerf3 Application

You can download the iperf.exe application from the following link: <https://iperf.fr/iperf-download.php>

1. Enter your SSID and Password
2. Select 'iPerf3' from tab control. This will automatically load the iperf.exe file.

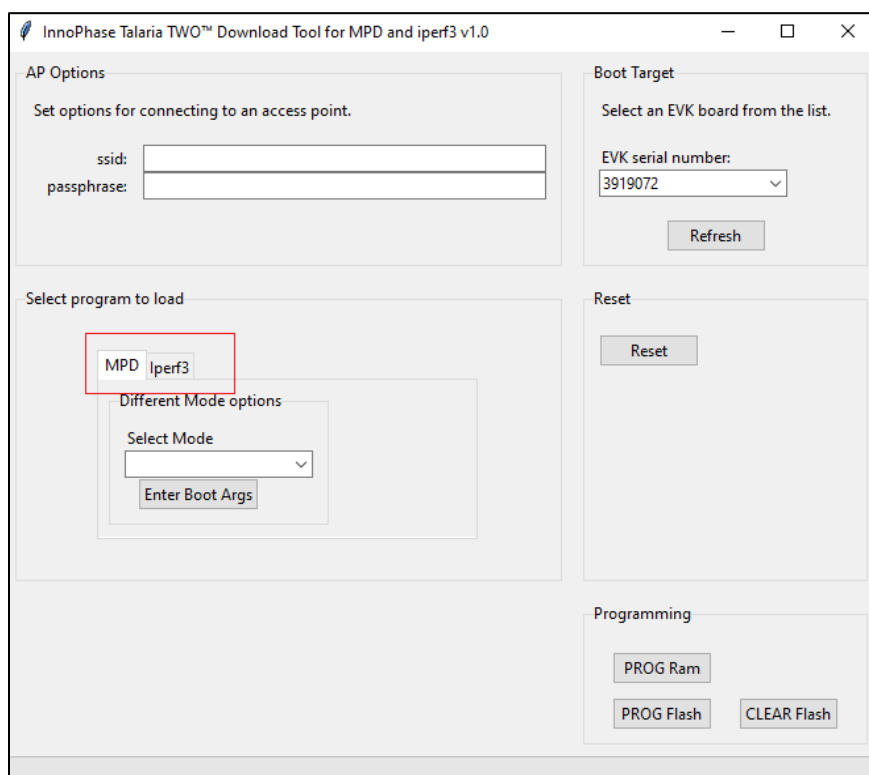


Figure 15: Select iperf3 tab

4.1 Talaria TWO (T2) as Server

1. Select an appropriate mode from the 'Select Mode' drop-down.
2. Select 'T2 as Server' option.
3. Click on either 'PROG Ram' or 'PROG Flash' as per your requirement.

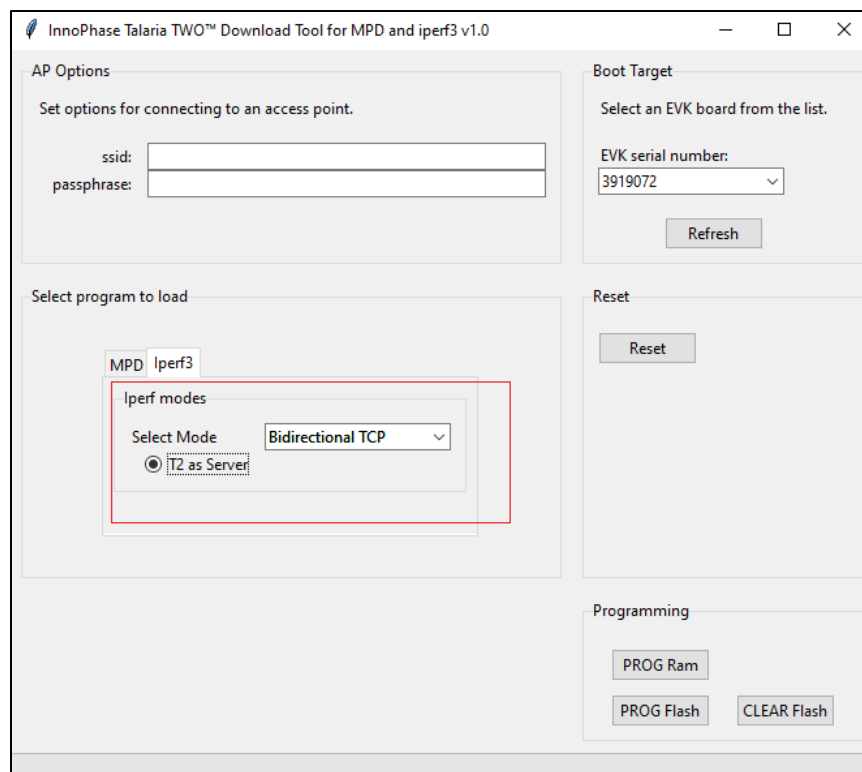


Figure 16: Select required T2 mode and T2 as Server

Follow the same procedure as above for the rest of the modes.

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1. Sales Support: Contact an InnoPhase sales representative via email – sales@innophaseinc.com
2. Technical Support:
 - a. Visit: <https://innophaseinc.com/support/>
 - b. Also Visit: <https://innophaseinc.com/talaria-two-modules>
 - c. Contact: support@innophaseinc.com

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