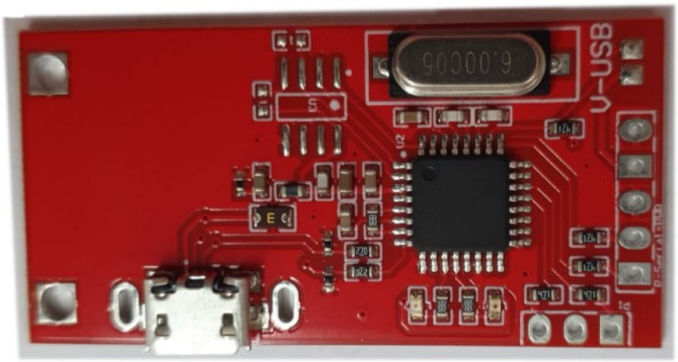
MReX Programming Board



User Guide

Introduction

The MReX Programming Board is a USB to 3.3V TTL serial board, designed to interface the MReX Module or the MReX PCB to a computer or USB host terminal.

The board physical dimensions are 48mm X 24mm X 5mm (L x W x H).

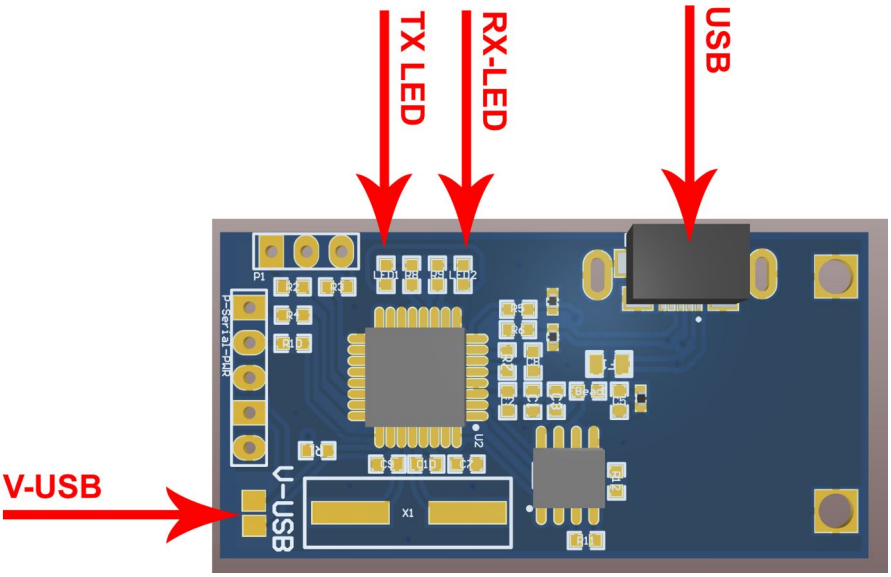
Board Details

Top view

The following 3D images shows the top side of the board.

On this side of the board you can find:

- Micro USB connection header
- RX and TX status LEDs
- V-USB jumper blob solder jumper header
- Through hole pin header connections

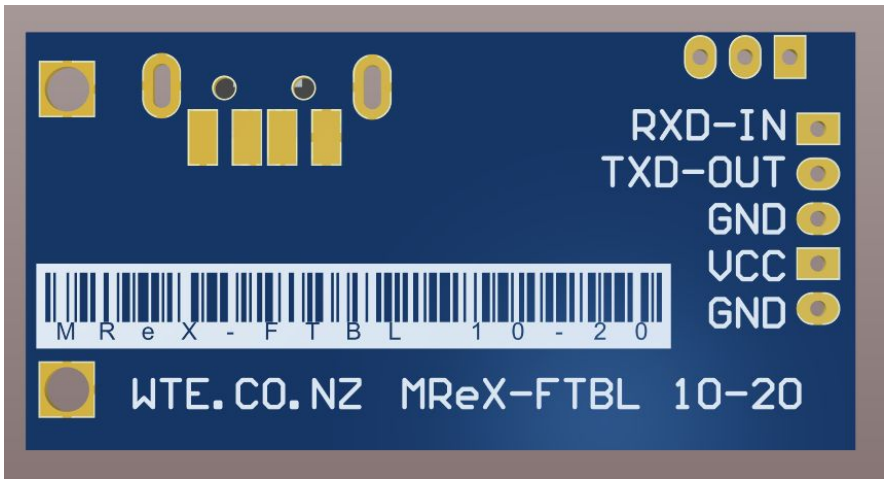


V-USB

The board is capable of providing 5V to the MReX module (VCC). This can be achieved by making a solder blob on the V-USB pads.

Bottom Side

The bottom side of the MReX Programming Board has the connection labels.



Programming Requirements

In order to program the MReX board you need:

- A USB cable with micro USB connector for the programming board to PC connection

- A PC with a USB port
- A serial terminal application/software. We recommend the use of the WTE serial terminal application, which can be downloaded at no cost from our WTE website. (https://www.wte.co.nz/tools.html)
- An MReX 460 module or MReX PCB board that is to be configured.

Usage Example

The following example shows the MReX PCB, being connected and powered by the MReX Programming Board.

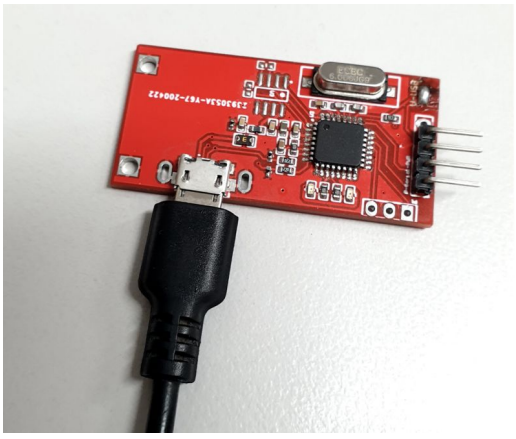
Note: If the MReX PCB board is NOT being powered via the USB, please ignore Step 1.

Step 1

Remove batteries / power from the MReX 460 since the MReX is powered from the USB connection

Step 2

Plug the micro USB connector cable into the programmer board. Connect the other end of the USB cable into your PC, ensure V-USB is blob soldered.



The following steps are assuming you are using the free WTE Serial Terminal PC application.

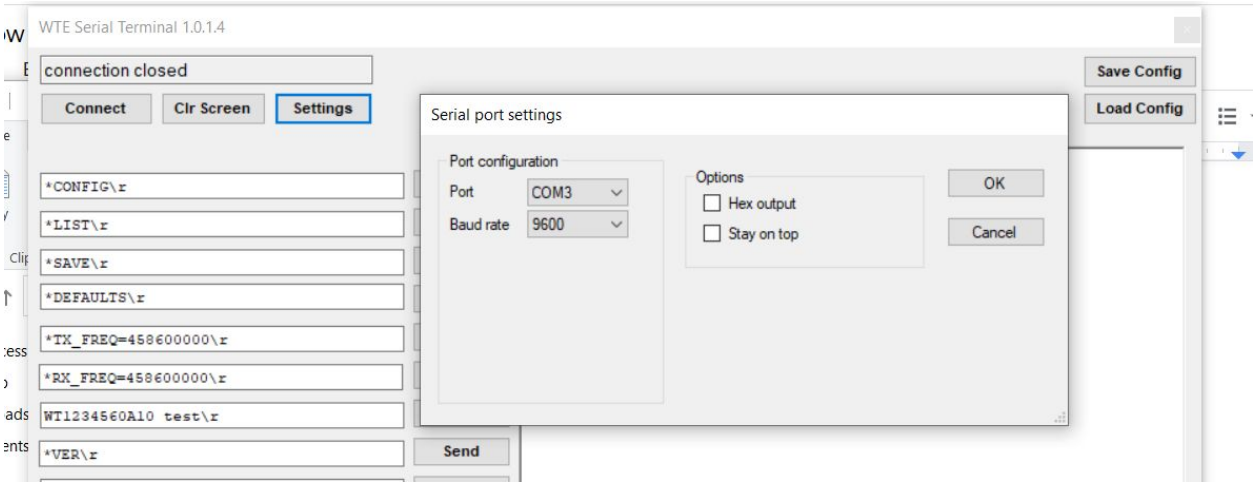
Step 3

Plug the programmer board into the header as shown in the photos. It's easy to get it the wrong way around so replicate the photo

Note: At this moment the MReX Module will the powered and depending on the MReX configuration it should flash its green status led.

Step 4

Run the serial terminal application. If you are using the WTE Serial Terminal, first press Settings and select the USB serial port and 9600 baud, press OK. Then press Connect



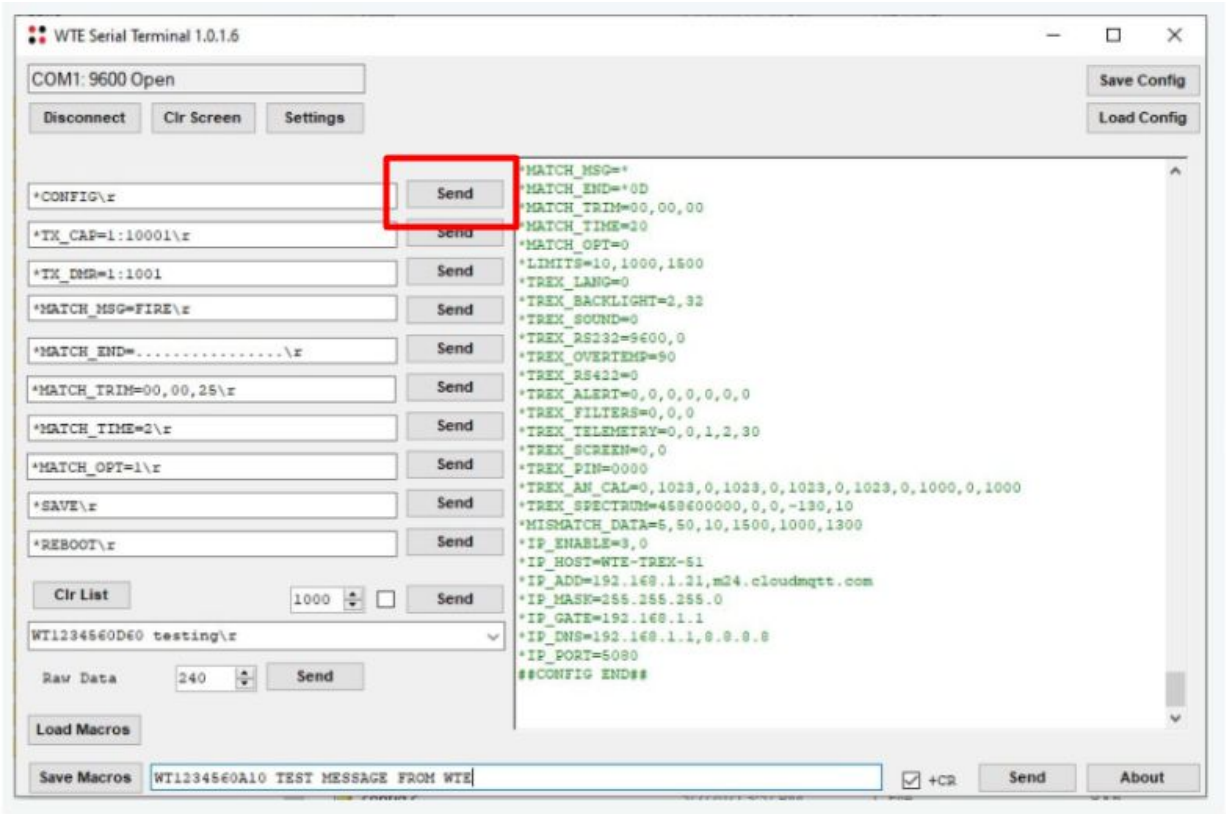
Step 5

If the MReX is asleep (for ultra low power consumption) it needs to be woken up before using the WTE Serial Terminal.

To wake the MReX an input must be triggered. The MReX flashes the green led once a second

Step 6

A simple test to ensure the Serial Terminal is communicating with the MReX is to press the SEND button to the right of the first line of the command table (ie the *CONFIG\r command). All the current settings of the MReX should stream up in green text on the right panel:



Step 7

You are now ready start configuring the MReX, please refer the MReX User Manual.

Please download the MReX User Manual from WTE website (https://www.wte.co.nz/mrex.html)

Disclaimer

THE RESPONSIBILITY LIES COMPLETELY ON THE USER TO ENSURE THAT THIS DEVICE IS TESTED, THROUGH METHODS THAT ARE APPROPRIATE, TO CONFIRM THAT ALL SYSTEM COMPONENTS (THAT THIS DEVICE AND PC SOFTWARE MAY BE PART OF) ARE WORKING CORRECTLY.

This document has been prepared in good faith and produced to assist in the use of this product, however WTE Limited reserves the right to modify, add or remove features without notice.

When product is supplied, it is the user who is responsible for payment of any customs fees/taxes that are imposed on importation.

Please note that the maximum permitted transmit power level may vary from country to country. It is the users responsibility to ensure local regulations are adhered to.

No User-Serviceable Components. There are no user-serviceable components within the radio

RoHS and WEEE Compliance
MReX programming board is fully compliant with the European Commission's RoHS (Restriction of Certain Hazardous Substances in Electrical and Electronic Equipment) and WEEE (Waste Electrical and Electronic Equipment) environmental directives.

Restriction of hazardous substances (RoHS)
The RoHS Directive prohibits the sale in the European Union of electronic equipment containing these hazardous substances: lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyls (PBBs), and polybrominated diphenyl ethers (PBDEs).

End-of-life recycling programme (WEEE)
The WEEE Directive concerns the recovery, reuse, and recycling of electronic and electrical equipment. Under the Directive, used equipment must be marked, collected separately, and disposed of properly.

Product End Of Life

It is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help conserve natural resources and help ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling contact your local dealer or city council

Please recycle this device responsibly.

Product Warranty

WTE Limited products are warranted for a period of 12 months after purchase date against faulty workmanship or materials. Return the product, all freight paid by the customer and the product will be repaired or replaced.

The MReX programming board can be damaged through improper handling and system integration. ESD handling precautions must be observed.

The product warranty will be invalidated through evidence of:

- Unauthorised work carried out.
- Tampering, including evidence of removal of internal electronics from the case.
- Installation in wet or corrosive environments.
- Exposure to impact or excessive vibration.
- Use or installation outside of the specified operating parameters.
- Use in any system or product without the inclusion of ESD or over voltage protection devices.