Syndesy

SynTRAC™ PLx Family | Quick Start

Firmware: Please verify that the latest firmware is loaded on the board.

Power/Mode button: Device will instantly power on when power is applied. A long press of the button will yield a short `RED` flash of the LED, at this point the device will go into HF mode and communicate more frequently. Repeat with a long press of the button to return back to normal operation.

USB Connector: The Board can be powered via the **USB connector**. This also allows direct communication to the Cellular Module. Please make sure to download the latest [drivers](#) for your system. On some boards you will have pass-thru access to the GNSS module. USB must be use for Cellular Firmware updates.

USB Functionality: Only valid for SynTRAC™PLM devices, due to a limitation in the chipset used USB and Serial connections to the modem cannot operate at the same time. In order for this to work you must jump 2 pins details in the images below. Please use conductive tape provided.

SIM Holder: Please insert a valid Nano SIM (4FF) in the **SIM Holder** for your region and communication type*. Make sure that the SIM is properly inserted and aligned.

Microchip/Atmel ICE 6 Pin: Can be used for programming and updating Atmel ATMEGA32 processor. Details can be found at Microchip's [website](#).

LED indicators: When initially powered the device will show a `GREEN` Led. `RED` indicators show MCU communication to modules. `GREEN` indicators represent data packet transmission to Server.

External Power Connectors: External power can accept power from Batteries or other power management systems. 3.7v to 4.4v input acceptable.

Test Points Description: All boards will have these test points, locations may vary slightly. See images for locations.

- TP1 – Pin 18 on Modem, reserved for u-blox diagnostics
- TP2 – Pin 19 on Modem, reserved for u-blox diagnostics
- TP3 – Pin 6 on the ATMega Processor and Pin 3 on the Accelerometer. Goes high when movement detected and can 'wake' the processor if in sleep mode.
- TP4 – Pin 20 on Modem. Goes high to turn on Modem if the processor needs to send something.
- TP5 – Pin 5 of the Modem. Provides power to the Maxim Audio CODEC (if Applicable).
- TP6 – Pin 62 of the Modem. HOST_SELECT1 indicator.
- TP7 – Pin 12 of the Modem. DCD of the serial port.
- TP8 – Pin 13 of the Modem. DTR of the serial port.

Setup: Server configuration can be done via USB connector

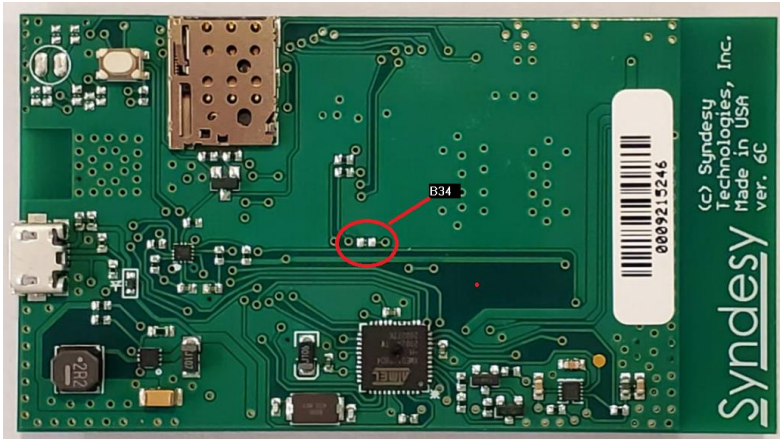* NB-IoT and CAT M technologies may require a specific SIM from your carrier.

Software:
- [Atmel Studio 7](#)
- [m-Center](#)
- [u-Center](#)

Documentation/Manuals: Additional documentation can be found at http://www.syndesytech.com.

Recommended Accessories
[ATMEL-ICE](#)

Board images with locations

For SynTRAC™PLM modules only:

B34 = Pins that need to be jumped using conductive tape provided for USB functionality.

About Us:

Syndesy Technologies, Inc. provides IoT solutions to mee the needs of every customer. From initial design to final quality assurance processes, we make sure our goods are reliable and exceptional. We are proud to design and manufacture in the U.S.A.

For more information about Syndesy products and Services please contact us, see contact details below.

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