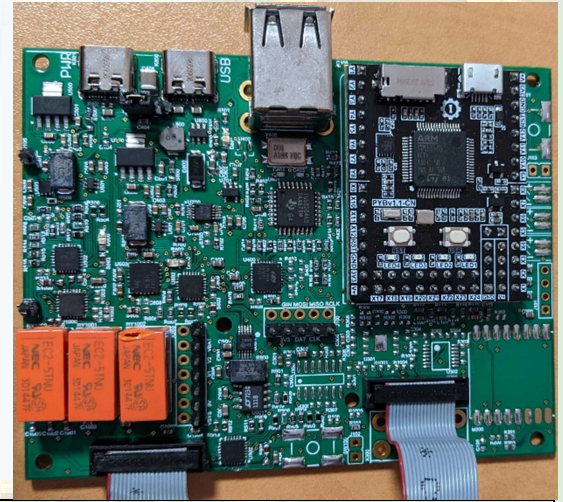
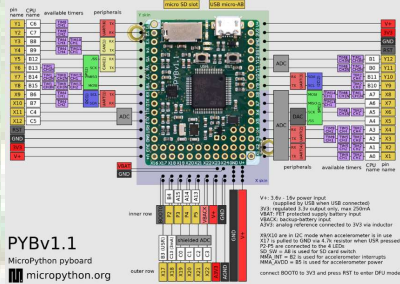


# Prism IBA01

- Hardware Open Source SCH/PCB
- The IBA01 PCB provides a prototype for the listed features.  
The PCB can be forked and modified to suit specific DUT needs. All functions are available through simple Python class<sup>1</sup> available in the Prism Framework.



## Features<sup>1</sup>

<b>Embedded MicroPython Board</b> <ul style="list-style-type: none"> <li>• STM32F405</li> <li>• (12bit)ADCs, DAC, GPIOs, UARTs, PWMs, Timers, I2C, SPI</li> <li>• MicroSD Slot</li> <li>• Note some resources used by the IBA01, see schematic</li> </ul>	 <p>PYBv1.1 MicroPython pyboard micropython.org</p>
<b>Two Programmable DC Supplies</b>	<b>V1 (TPS7A7200)</b> <ul style="list-style-type: none"> <li>• 500-3500mV, 50mV Steps, 500mA Maximum</li> <li>• Current measurement, <math>\pm 100\mu\text{A}</math>, 100mA Max</li> </ul> <b>V2 (TPS7A7200)</b> <ul style="list-style-type: none"> <li>• 500-3500mV, 50mV Steps, 500mA Maximum</li> <li>• Current measurement, <math>\pm 100\mu\text{A}</math>, 100mA Max</li> </ul>
<b>Programmable Battery Emulator/Supply</b>	<b>VBAT (LT1118)</b> <ul style="list-style-type: none"> <li>• Source and Sink Current to 800mA Maximum</li> <li>• 1650-4500mV, 50mV Steps</li> <li>• Current measurement, <math>\pm 1\text{mA}</math>, 500mA Max</li> </ul>
<b>USB Embedded HUB</b>	Two free USB (2.1) ports
<b>USB Virtual Serial Port</b>	Based FT2232
<b>USB JTAG Programmer</b>	Based FT2232
<b>16Bit ADC</b>	Two inputs, based on ADS1115
<b>Two non-programmable Supplies</b>	<ul style="list-style-type: none"> <li>• 9V, 500mA Maximum<sup>2</sup></li> <li>• 5V (VSYS) (Supplied externally thru USB-C)</li> </ul>
<b>DUT Supply Connect Relays</b>	Relays control when V1, V2, VSYS, 9V, VBAT are connected to DUT
<b>LoRa Module</b>	RF Solutions RFM95W
<b>Arduino Nano Slot</b>	For WiFi/Bluetooth Connectivity
<b>Digital Resistor</b>	Based on TPL0102
<b>Buffer Amplifier</b>	Based on LTC6090
<b>Level Translator</b>	Based on TXS0104

<sup>1</sup> Some functions are in development, or will be developed based on request.  
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