

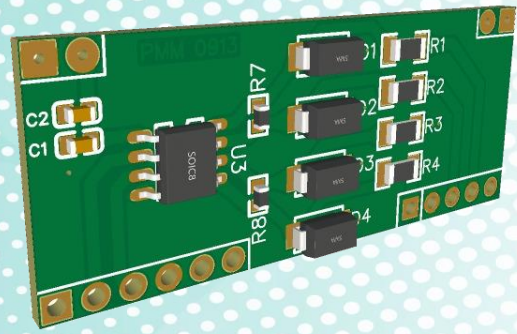


Power Meter Monitor

Model: PMM0913

Document version: 1.2

Date: October 2020



UART/TTL to RS422 Converter Module

KEY FEATURES AND SPECIFICATIONS

- Customized 3.3V power supply and signals
- Communication speed 2.5MBPS
- Ultra-long transmission 1000 meters.
- Improved ESD Specifications:
 1. $\pm 15\text{kV}$ Human Body Model
 2. $\pm 15\text{kV}$ IEC1000-4-2 Air Discharge
 3. $\pm 8\text{kV}$ IEC1000-4-2 Contact Discharge
- 120 ohm termination resistor
- Operating temperature -40 to 80°C
- Very high EMC and EMI performance
- Module size: 43mm X 18mm X 3mm
- Vertical and horizontal mounting options, compatible with standard DIP/SIP pinout
- RoHS Compliant
- Proven PCB Layout
- Fully Assembled and Tested

BOARD PINOUT



DESCRIPTION

PMM0913 is a TTL to RS422 converter module via SP490E TTL to RS-422 Interface chipset which allows ICs to use RS-422 differential signaling for robust long-distance serial communications. This module allows for data transmission and communication of a CPU/MCU with any RS422 device over large distances up to 1000m.

Earthing the module by connecting its terminal to ground gives it an excellent anti-jamming and anti-lightning effect, thus making it more secure and perfect for industrial use. Moreover, it has the ability to work under difficult environmental conditions.

WIRING RS-422 MODULE

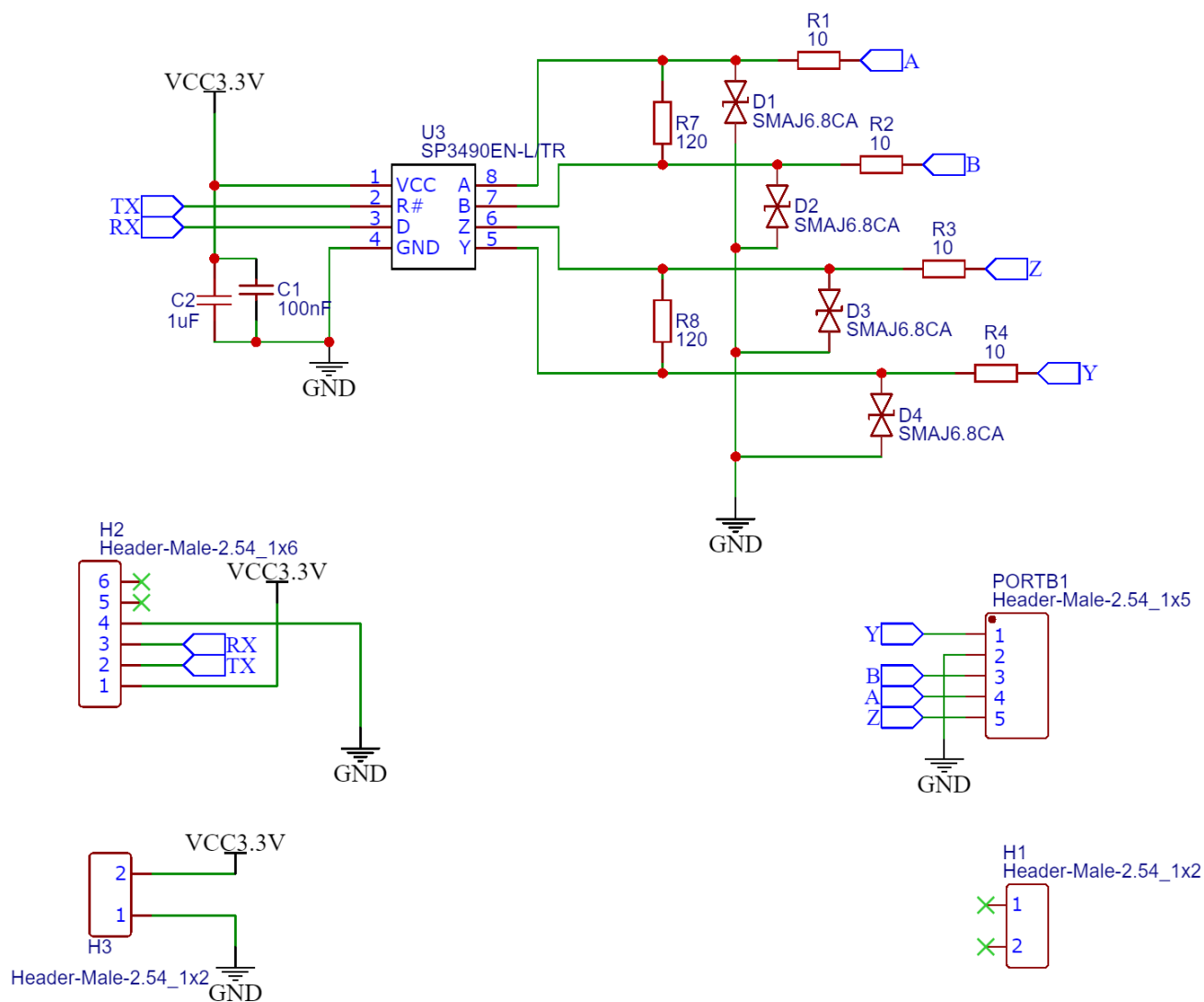
The differential data lines **A**, **B**, **Y** and **Z** refers to **TX+**, **TX-**, **RX+** and **RX-** respectively. These pins are connected to the communication network. The wiring should be straight through, where **A** on one end should be connected to **A** on the other end and so on.

The wires should ideally be twisted and shielded within one cable, this method is important as it runs for longer where there is a lot of electrical noise. The shield or the common ground is labeled as **E** in output side of the module.

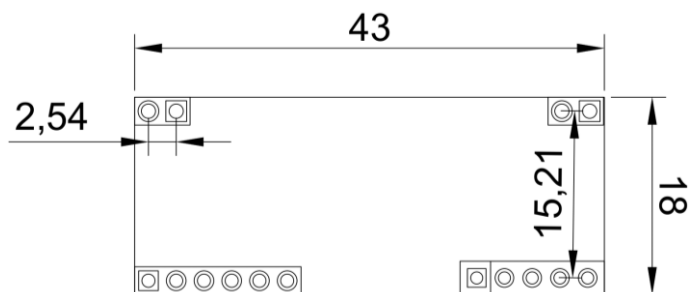
BOARD PINOUT DESCRIPTION

PINs	DESCRIPTION
1	RX+ DIFFERENTIAL OUTPUT
2	RX- DIFFERENTIAL OUTPUT
3	TX- DIFFERENTIAL OUTPUT
4	SHIELD/COMMON GROUND
5	TX+ DIFFERENTIAL OUTPUT
6,7,12,13	NOT CONNECTED
8	TTL/UART GND
9	TTL/UART TX
10	TTL/UART RX
11,14	(VCC) POWER SUPPLY: 3.3VDC
NOTE	TTL level should match the connected VCC

SCHEMATIC DIAGRAM



DIMENSIONS (mm)



ORDERING INFORMATION

Part Number	Description
PMM0913	UART/TTL to RS422 Converter Module

CUSTOMIZED REQUIREMENT

For any customized inquiries and orders, contact us
on info@Pmm-usa.us