This is a quick start guide for the Host Interface Level Shifter module for use with **UniFi™** development kit. This document provides guidance to set up the M1852v1 board to debug and adjust signal levels for the PC.

Supplied Components

Please identify and check that you have the following components. Email sales@csr.com if any components are missing.

- M1852 Level Shifter module
- 1 SPI Lead (RJ45<>D25). 1m long
- 1 Null modem cable (for RS232/UART). 1m long
- 1 9V 1A power supply
- 2 x 0.5mm pitch 40w flexi-cable (Farnell part number: 3352663 / Multicomp part number: FFC0.50A40/0202L4)
- 1 Mini-USB AB<>USB A cable. 1m long
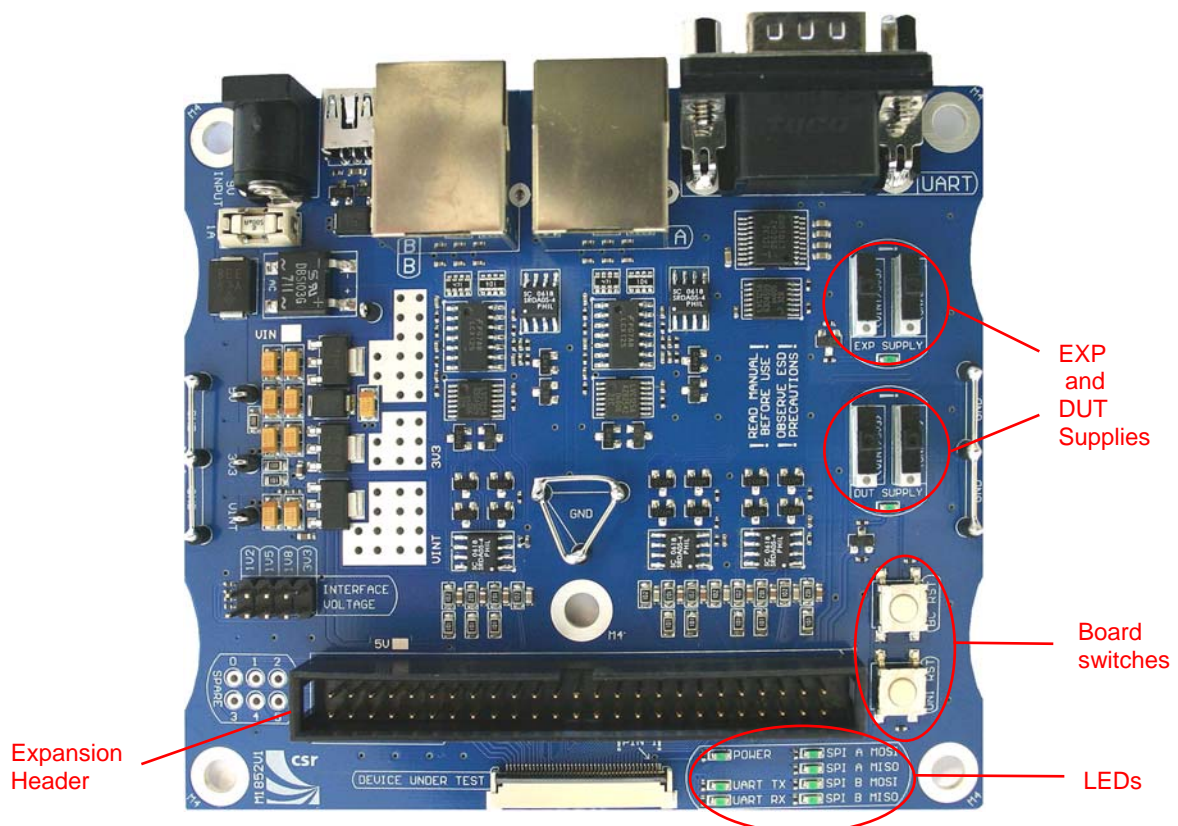- Schematic and CAM files

Support

Sales

- Tel (UK): +44 (0) 1223 692 000
- Email: sales@csr.com
- Corporate website: www.csr.com

Technical Support

- Support documentation and software downloads: www.csrsupport.com/M1852

Figure 1: M1852v1 Module

LEDs

POWER	Indicates that power is applied to the M1852
UART TX	Indicates that the UART is transmitting
UART RX	Indicates that the UART is receiving
SPI A MOSI	Indicates that the 'A' SPI port is receiving
SPI A MISO	Indicates that the 'A' SPI port is transmitting
SPI B MOSI:	Indicates that the 'B' SPI port is receiving
SPI B MISO	Indicates that the 'B' SPI port is transmitting

Switches

UNI RST		Pressing this switch pulls the UniFi reset line low. This resets the attached UniFi target device.
BC RST		As above but it relates to **BlueCore®**.
DUT SUPPLY	ON/OFF	This switch turns the supplied voltage from the M1852 (via the debug header) to the target device ON or OFF.
	VINT/3V3	This switch selects either a 3.3V or VINT (same as interface voltage) supply voltage present on the debug header.
EXP SUPPLY	ON/OFF	This switch turns the supplied voltage from the M1852 (via the expansion header) to the target device ON or OFF.
	VINT/3V3	This switch selects either a 3.3V or VINT (same as interface voltage) supply voltage present on the expansion header.

Fuse

CSR recommends using a 1A antisurge type fuse.

Getting Started

Set the interface voltage via the jumper. Figure 2 shows the location of the interface voltage on the lower left corner of the M1852v1. You may need to start at the lowest voltage of 1.2V (1V2). Check the target board schematic to confirm the voltage to use.

Important Note:

Ensure that the jumper is in the correct position before connecting the M1852 to the target device. Failure to set the jumper in the correct position can cause damage to the target device.
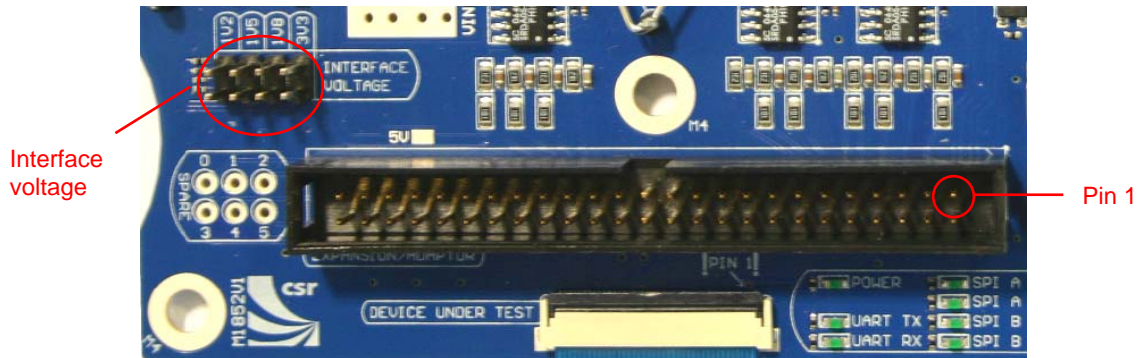
Figure 2: Interface Voltage

Figure 3 shows the pinout of the CSR debug header (FPC) and the expansion header. The first 40 pins of the expansion header are pin compatible with the debug connector. An arrow on the outside shell of the header indicates pin number 1.
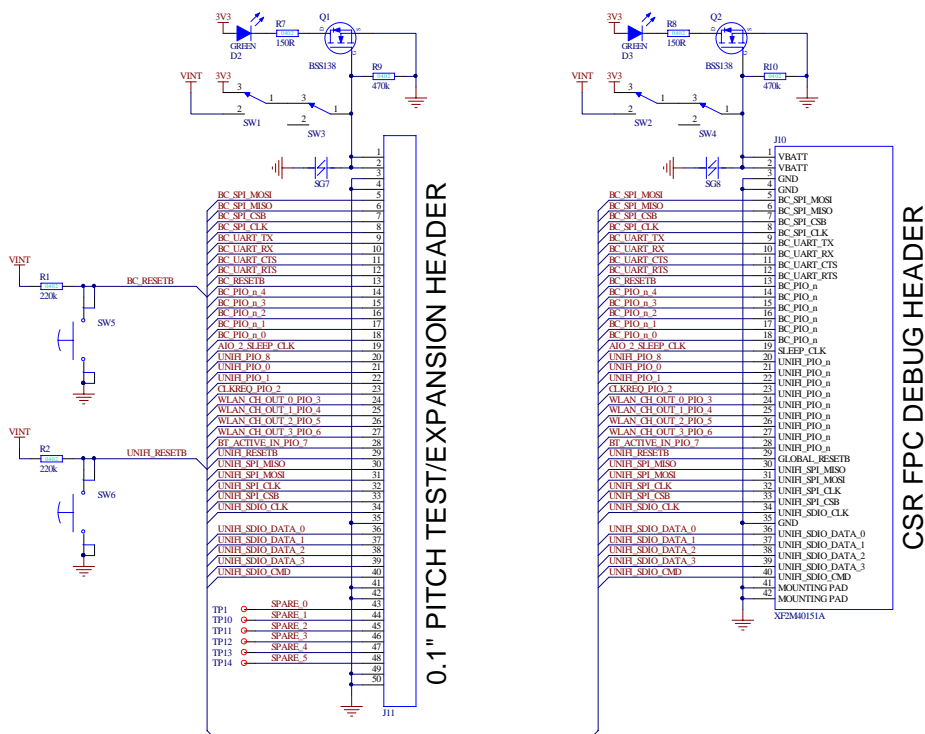
Figure 3: Expansion and Debug Headers Schematic

The expansion header can be used to connect to your design with a simple add-on expansion PCB. This is not necessary if you follow the pinout of the CSR debug connector and use the same connector type. Some users may need to develop their own expansion board if they require a smaller connector.

Communicate with UniFi over SPI

Connect the M1852v1 to theM1824 to communicate with UniFi over SPI:

1. Connect the M1824 to the M1852 using the supplied 40-way flexi cable. Carefully lift the connector tabs to insert the cable ends.

2. Set the appropriate interface voltage via the jumper (3.3V in this case).

3. Connect the SPI cable to the M1852 in the appropriate SPI port (B in this case).

4. Connect the SPI cable to the host PC (using either the XSPI adaptor or directly to Babel).

5. Connect power to the M1852 via the 9V adaptor.
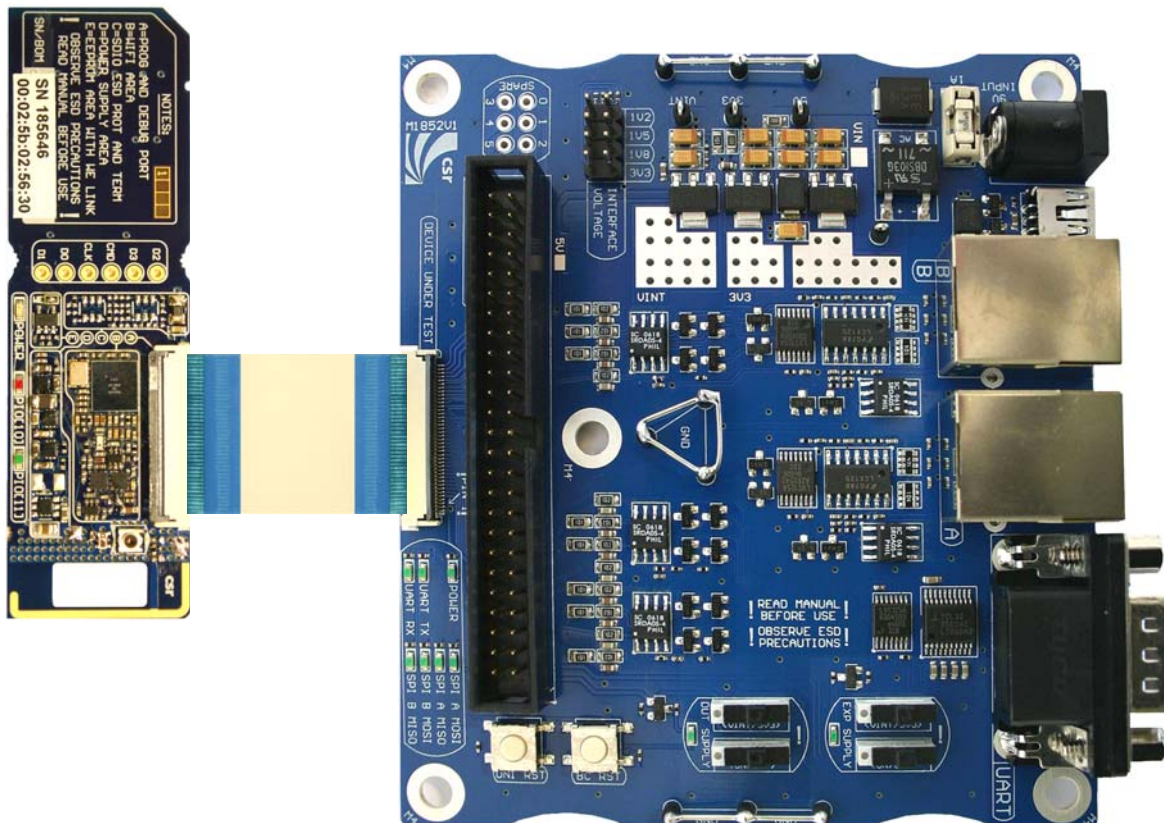
6. Open the host tool to connect to UniFi (for example with UniTest).

Figure 4: Connect M1852v1 to M1824v3