

Micro-Firewall Prototype User Manual



User Manual

May 2016

Revision 1.00

Revision History

Date	Revision	Remarks
5/10/16	R1.00	Initial version

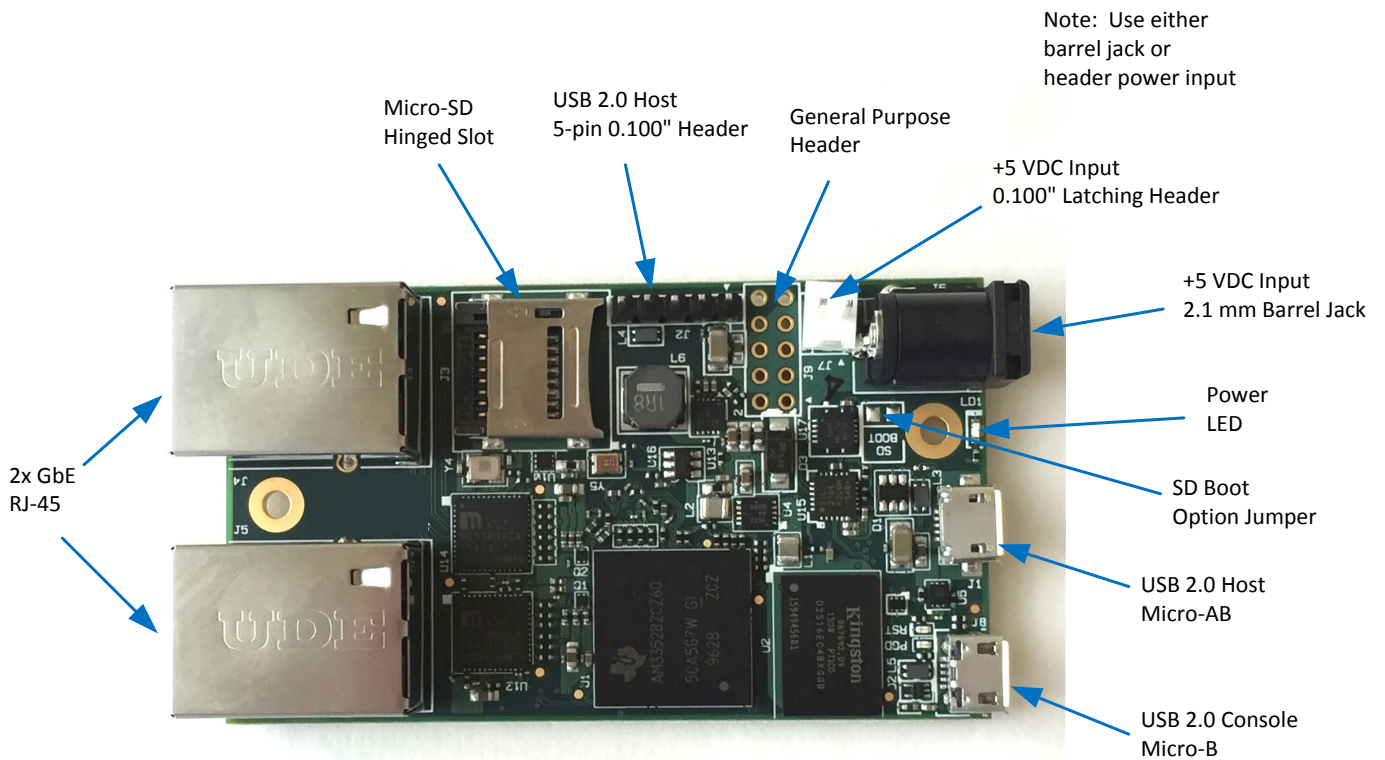
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1 SPECIFICATIONS

- Power: +5 VDC at max 2.5 A (recommend 15 W power adapter)
- Environmental: Operating temperature range 0 to +40 C

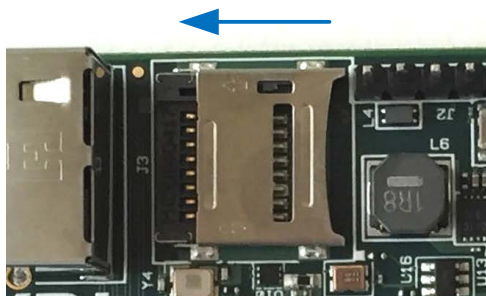
2 FEATURE LOCATIONS



3 FEATURE USAGE AND CONNECTOR PINOUTS

3.1 Micro-SD Slot (J3)

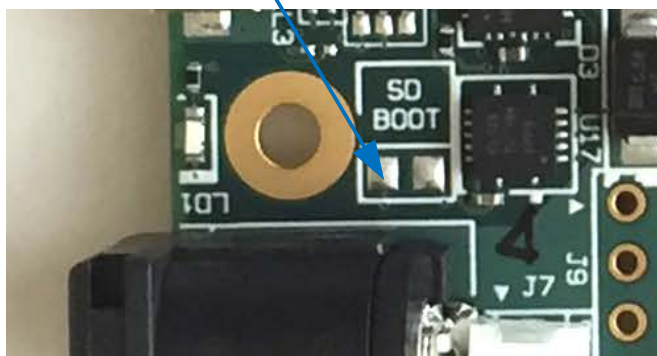
Slide micro-SD cover towards RJ-45 and pull up on cover with fingernail to open



3.2 SD Boot Option

To force boot from the micro-SD card instead of eMMC flash, short across the “SD BOOT” metal pads with a screwdriver during powerup. The screwdriver can be removed approximately 2 seconds after power is applied and the RST LED (section 0) turns off.

SD Boot option shorting pads



3.3 USB 2.0 Header (J2)

A 5-pin 0.100" header is provided for attaching external USB 2.0 devices.

Pin	Function
1	+5 VDC power output
2	USB-
3	USB+
4	GND
5	No connect

3.4 General Purpose Header (J9)

A 2x5 pin 0.100" header is provided for attaching various I/O devices.

Function	Pin	Pin	Function
+3.3 VDC out	1	2	UART TX out
I2C clock out	3	4	UART RX in
I2C data	5	6	GPIO pin U5
GPIO pin U6	7	8	GPIO pin R5
GND	9	10	GPIO pin R6

3.5 DC Power Header (J7)

An optional 2-pin 0.100" latching header is provided for +5 VDC power input when the barrel jack J6 is not used. The PCB header part number is TE Connectivity 640456-2. The mating (cable side) connector has multiple options in the TE Connectivity MTA100 series.

Pin	Function
1	+5 VDC power input
2	GND

3.6 Debug LEDs

Two green LED indicators are provided for debug purposes.

Debug LEDs



LED	Function	
PGD	On	Board power good
	Off	Power fault
RST	On	CPU is in reset state
	Off	CPU is running (not in reset)