Bolt
Allxon swiftDR OOB Enabler

A hardware module that embeds Nuvoton NUC980DR63YC microprocessor to provide disaster recovery functions across edge systems. Bolt also offers a wide range of interfaces for custom hardware application development.

Features

- ARM9 microprocessor embedded
- Built-in Allxon **Out-Of-Band (OOB)** service agent, capable of supporting both **public** and **local** network environment architectures
- Includes a **fully secure** central portal for remote device management
- Supports **complete power control** over the edge system when the system is unresponsive
- Supports edge system **power ON/OFF detection**
- USB 2.0 high speed host/device
- Supports I²C / UART / Digital Input
- Supports 4G LTE, Wi-Fi

Specification

| Out-Of-Band Monitoring and Management Functions	
Allxon swiftDR for Power Cycling	• Edge device force shutdown • Edge device power switch ON/OFF • Edge device power ON/OFF detection • Edge device reset
Signal Interface	
Remote Control	• 1 set x power switch (PSW/GND) • 1 set x power reset (RST/GND)
Edge Device Power ON/OFF Detection	1 set x power input (1.8V ~5V)
Factory Reset	Factory reset button (7 Seconds Pressed)
LED Indicator Lights	• MCU power ON/OFF indicator • Allxon Service indicator
Extension I/O	1x USB 2.0, 1x I²C, 1x UART, 2x GPIO, 1x 3.3Vdc
Network Interface	
Ethernet	1-port 10/100 Mbps RJ45 Port
Wireless	Support 4G LTE USB dongle & Wi-Fi USB dongle
Protection	1.5 KV magnetic isolation
Power Requirement	
Input Voltage	5 VDC
Power Consumption	< 0.5 W (without additional peripheral connected)
Hardware	
Dimensions	40 x 35.15 mm (without bracket) 43.4 x 35.15 mm (with bracket)

Environment	
Operating Temperature	0 to 70ºC (32 to 158ºF)
Operation Humidity	5 to 90% (non-condensing)
Storage Temperature	-40 to 85ºC (-40 to 185ºF)
Certification	CE / FCC, RoHS & REACH compliant

IO & USB Evaluation Kit	
I/O Board	• 10 pin SMT plug, 1 mm pitch • 2 set x digital input/output • 1 set x I^{2}C • 1 set x UART • 3.3 V output

USB 2.0 Connection Cable	• 1 x 5 pin SMT plug, 1 mm pitch
	• Pin assignment:
	    pin 1 – USB 5 V
	    pin 2 – USB_D-
	    pin 3 – USB_D+
	    pin 4 – GND
	    pin 5 – GND (Shielding)

Main Board - Dimensions

- 40 x 35.1 mm (without bracket)
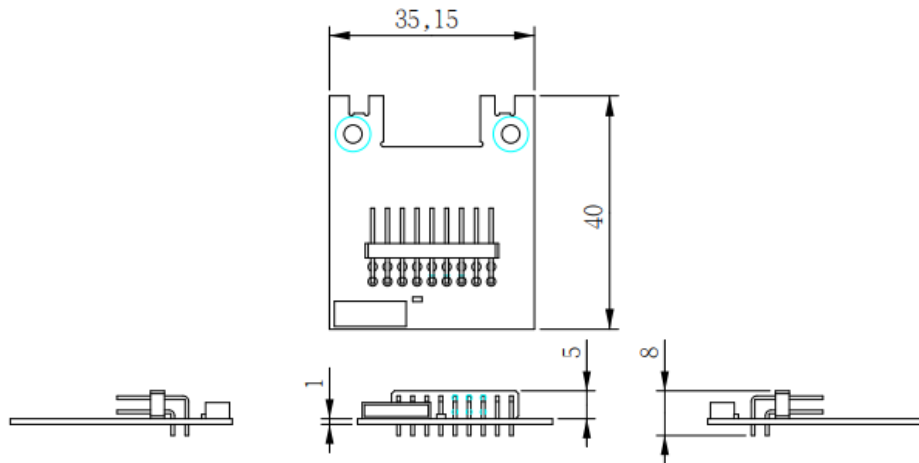- 43.4 x 35.1 mm (with bracket)
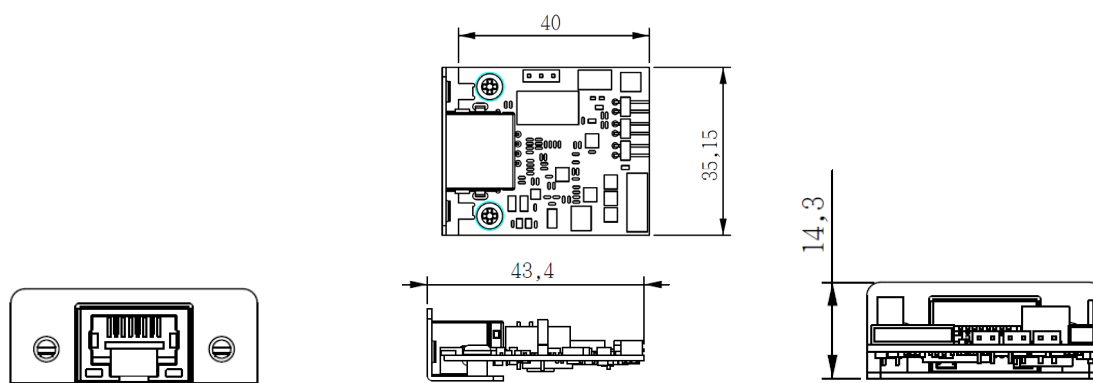
## Main Board - Connection Diagram
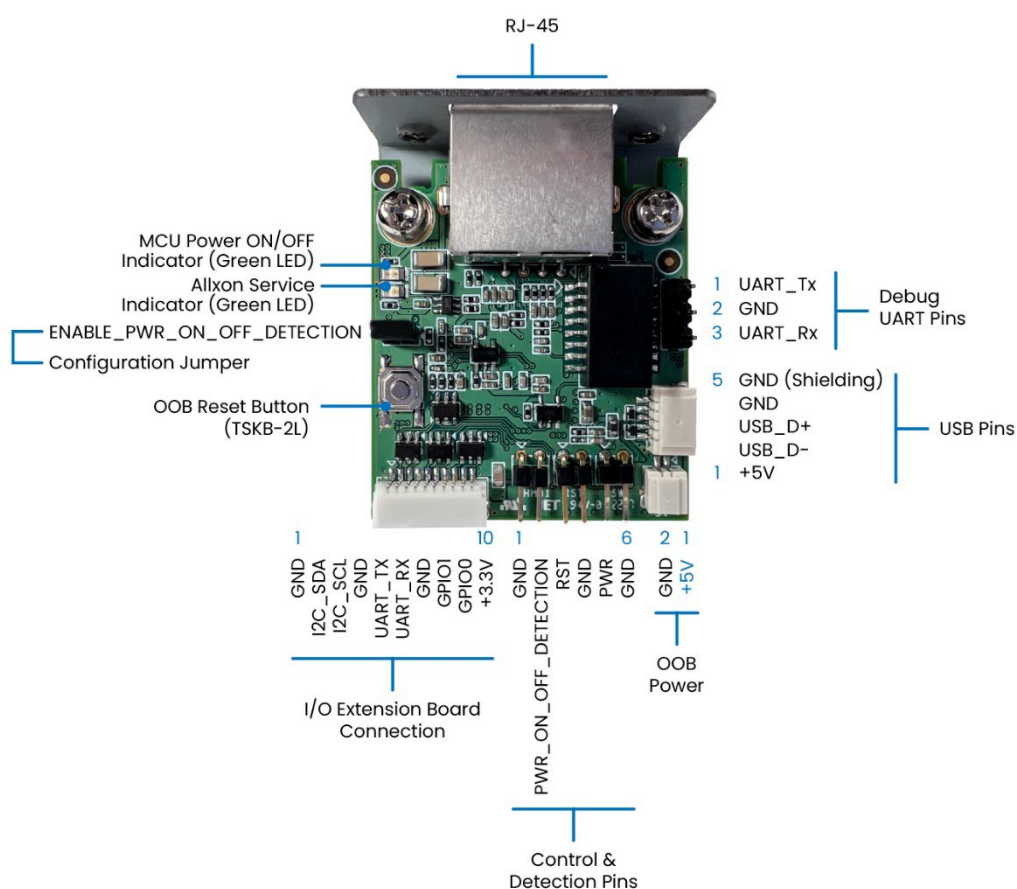
Main Board - Connection Table

Configuration Jumper		I/O Extension Board Connection		Debug UART Pin	
1	ENABLE_PWR_ON_OFF_DETECTION	1	GND	1	UART_TX
2	GND	2	I2C_SDA	2	GND
		3	I2C_SCL	3	UART_RX
Control & Detection Pins		4	GND		
1	GND	5	UART_TX	**USB Pins**	
2	PWR_ON_OFF_DETECTION	6	UART_RX	1	5V
3	RST	7	GND	2	USB_D-
4	GND	8	GPIO1	3	USB_D+
5	PWR	9	GPIO0	4	GND
6	GND	10	3.3V	5	GND (Shielding)

*Note: All specifications are subject to change without notice.

I/O Extension Board - Dimensions

- 40 x 35.1 mm (without bracket)
- 43.4 x 35.1 mm (with bracket)

I/O Extension Board - Connection Diagram
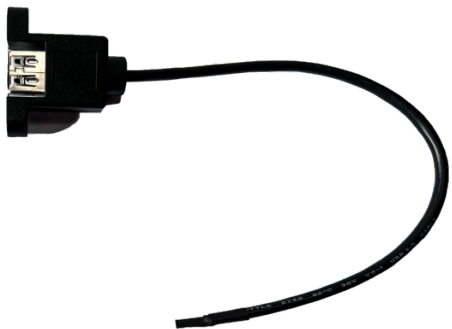

17	+3.3V
15	GPIO0
13	GPIO1
11	+3.3V
9	UART_RX
7	UART_TX
5	+3.3V
3	I2C_SCL
1	I2C_SDA

GND
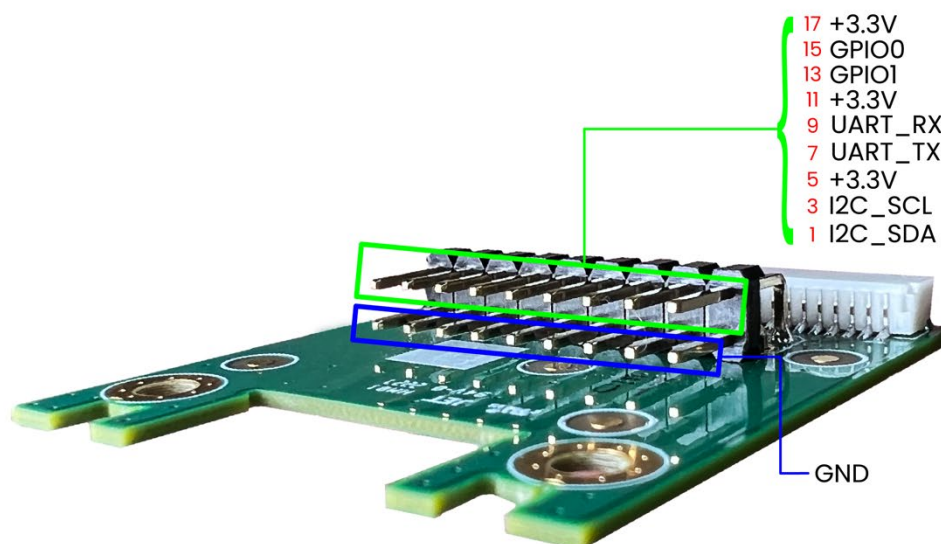
I/O Extension Board - Connection Table

	I²C		UART		Digital Input
1	I2C_SDA	7	UART_TX	13	GPIO1
2	GND	8	GND	14	GND
3	I2C_SCL	9	UART_RX	15	GPIO0
4	GND	10	GND	16	GND
5	3.3 V	11	3.3 V	17	3.3 V
6	GND	12	GND	18	GND

USB 2.0 Connection Cable – Dimensions
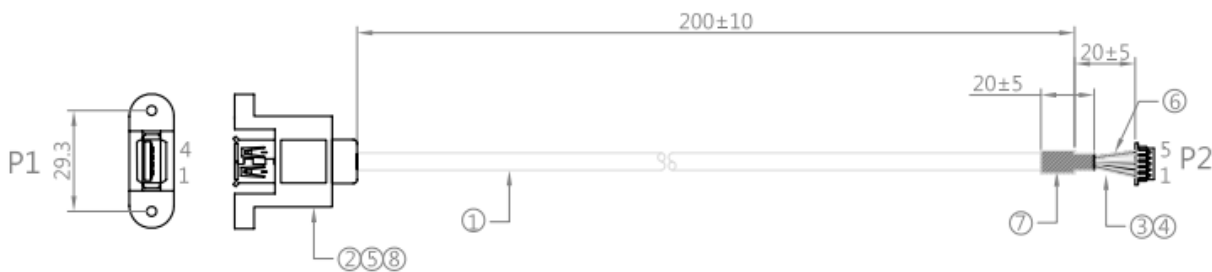
USB 2.0 Connection Cable – Connection Diagram

USB 2.0 Connection Cable – Connection Table

USB WIRE	
1	USB 5V
2	USB_D-
3	USB_D+
4	GND
5	GND (Shielding)