

Mesh Rider Radio Wearable – Connector Descriptions

Overview

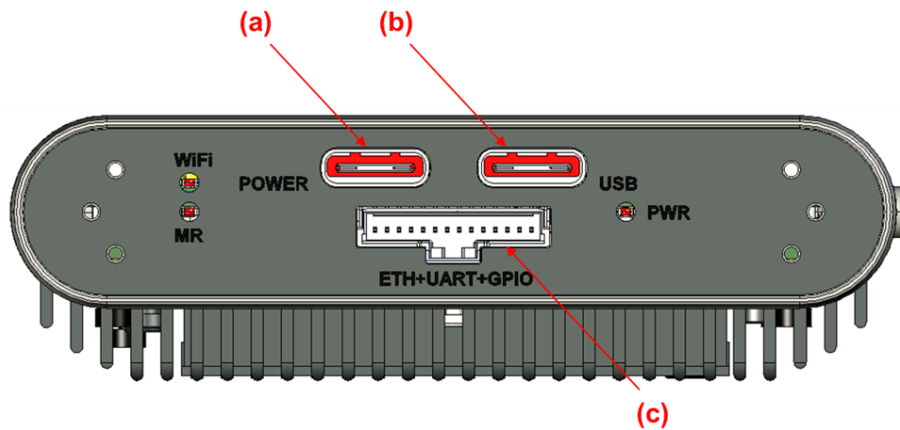


Fig. 1 Wearable Mesh Rider Radio Electrical Interfaces

1. Power Connector (USB-C) - USB-PD compliant, 6-24V
2. USB Device + Power Connector (USB-C) - 4.5v to 5.5v
3. Auxiliary Connector (Molex 5015681407)

USB-C Connectors

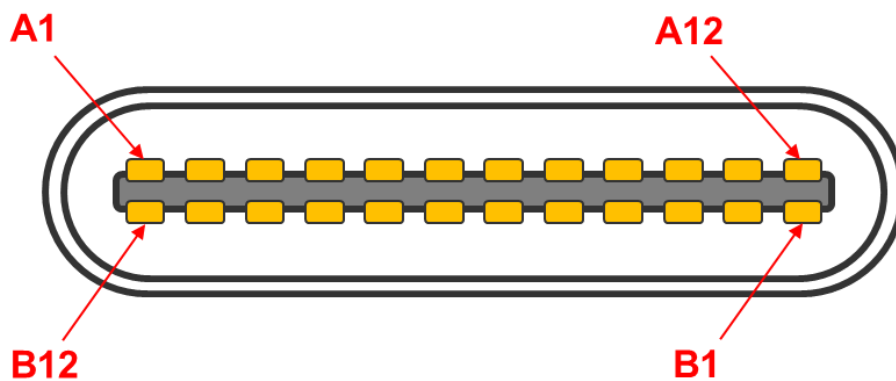


Fig. 2 USB-C Pin Numbering

Power Connector (a)



Pin Number	Direction	Voltage	Pin Description
A1, B1	-	GND	GND
A4, B4	-	+6V - +24V	Power. 6-24 V. USB-PD Compliant.
A5	I/O	0V - +5V	CC1. Required for USB-PD. DO NOT USE
B5	I/O	0V - +5V	CC2. Required for USB-PD. DO NOT USE
A9, B9	-	+6V - +24V	Power. 6-24 V. USB-PD Compliant.
A12, B12	-	GND	GND
A2, B2, A3, B3, A6, B6, A7, B7, A8, B8, A10, B10, A11, B11	-	-	No Internal Connection

Data + Power Connector (USB-C Slave) (b)

Pin Number	Direction	Voltage	Pin Description
A1, B1	-	GND	GND
A4, B4	-	+5V 5-V Input	
A6, B6	I/O	Diff signal	USB_D+. USB Slave port which supports Ethernet over USB only.

Pin Number	Direction	Voltage	Pin Description
A7, B7	I/O	Diff signal	USB_D-. USB Slave port which supports Ethernet over USB only.
A9, B9	-	+5V	5-V Input
A12, B12	-	GND	GND
A2, B2, A3, B3, A5, B5, A8, B8, A10, B10, A11, B11	-	-	No Internal Connection

Auxiliary Connector

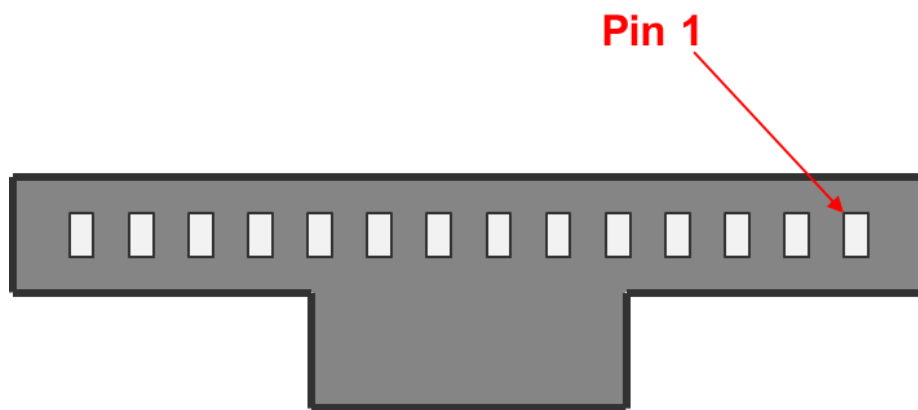


Fig. 3 Auxiliary Connector Pin Numbering. View from the front panel of the Wearable Mesh Rider Radio.

Auxiliary Connector (c)

Pin Number	Direction	Voltage	Pin Description
1	O	+5-V	5-V, 1A Output
2	I/O	Diff signal	USB_D-. USB Host port. Must be twisted with GND
3	I/O	Diff signal	USB_D+. USB Host port. Must be twisted with GND

Pin Number	Direction	Voltage	Pin Description
4	O	Diff Signal	ETH1_TX-
5	O	Diff Signal	ETH1_TX+
6	I	Diff Signal	ETH1_RX-
7	I	Diff Signal	ETH1_RX+
8	-	-	N.C.
9	I	0V - +VIN V	Power ON signal. Connected to a power push button. Peak voltage is equal to VIN which is rated up to 20 V.
10	-	GND	GND
11	I/O	0V - +3.3 V	GPIO1
12	O	0V - +3.3 V	UART_TX
13	I	0V - +3.3 V	UART_RX
14	-	GND	GND