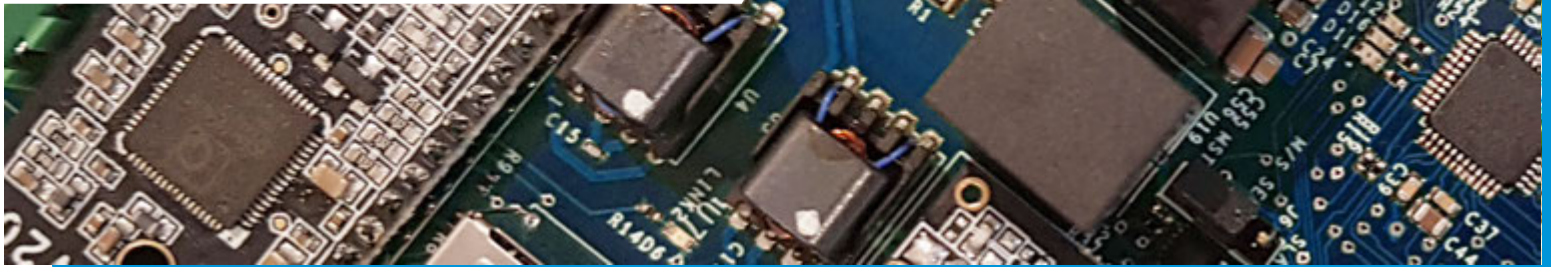


DEPS MUX 2.0

Dual Ethernet Plus Serial Multiplexer



- Two Ethernet Devices over a STP (Single Twisted Pair)
- 5VDC, 12VDC & 24VDC to Power Accessories
- Drop-in replacement for Blue Robotics FathomX Board.



Now adding an additional IP Camera, multibeam sonar or other Ethernet based devices to small UUVs (unmanned underwater vehicles) has a “drop-in” solution. The DEPS (Dual Ethernet Plus Serial) Multiplexer is an economical approach to expanding the communication capabilities of small UUVs without major design revisions. The DEPS MUX 2.0 not only combines two Ethernet signals onto a single twisted pair (2 conductors), it can power the devices via its onboard 12VDC and 24VDC clean power supplies.

For initial BlueROV2 integration, the FathomX board inside the BlueROV2 is removed and replaced by the DEPS MUX 2.0. Then the same 5VDC power supply from the FathomX board is connected to the DEPS MUX 2.0 and the two wires (single twisted pair) from the tether are connected to the two middle positions of the green, six position terminal block on the DEPS MUX 2.0. The RJ45 connector from the Raspberry Pi can then be connected to either of the two RJ45 terminals on the DEPS MUX 2.0 leaving one spare RJ45 terminal for additional Ethernet devices. The topside FathomX board does not need to be replaced as the DEPS MUX 2.0 was designed to be directly compatible to the FathomX board.

Communications	
Ethernet #1	10/100Mbps, RJ45
Ethernet #2	10/100Mbps, RJ45
Max. Data Rate	100Mbps
Compatibility (Ethernet)	(1) Blue Robotics FathomX
Dual Ethernet Connectivity	STP (Single Twisted Pair)
Max. Range (Ethernet)	300m

Power	
Output #1	5VDC at up to 6A, replaces 5VDC regulator in BlueROV2
Output #2	12VDC at up to 3A
Output #3	24VDC at up to 4A
Input Voltage	9-28VDC (comms continues to function down to 6.5V)
Max. Input Current	6.3A (fuse limited)
Environmental	
Operating Temperature	0-50°C (32-122°F)
Storage Temperature	-25-125°C (-13-257°F)
Relative Humidity	0-90% non-condensing