

To modernize the survey multiplexor, Zupt developed the *Zupt Mux*. It is a compact network switch with serial and analog ports. Unlike conventional subsea multiplexors, the Mux provides a streamlined solution that works just as efficiently for minimal port requirements as it does for larger configurations, making it both cost effective and space efficient. Its user friendly topside interface removes the need for complex topside units. Only a computer and a 10 Gb Ethernet switch on the surface vessel are required for topside data communication.

As a subsea multiplexor, the Mux enables reliable fiber optic data transfer through a single cable from subsea sensors to the surface. An additional fiber port on the top end cap allows it to be daisy chained with other Mux units to expand subsea connectivity.

Engineered for the demands of offshore operations, the Mux delivers seamless data management in a compact, lightweight, and rugged package. Optimized for use on both ROVs and subsea structures/templates, it is the all in one fiber multiplexor where space, speed, and reliability matter most.

Reliable subsea data transfer

made simple and efficient.



Zupt Mux Key Features:

- Small form factor
- Low weight
- Web controlled
- 10GB fiber connection
- 4 x 1GB ethernet connectors
- Redundant fiber ports
- Can be daisy-chained
- Configurable power options
- E-fuse protected outputs
- Option for low latency IP cameras





Subsea Unit Specifications

Mechanical

Housing height: 321 mm Housing diameter: 236 mm

Estimated weight in air: 25.0 kg
Estimated weight in water: 18.0 kg

Material: Titanium

Max depth rating: 4000 m

Multiplexed Channels

Serial: Up to 8 configurable connections,

RS232/RS422/RS485

Ethernet: Up to 4 connections, 10/100/1000

Base-T

Triggers: PPS, PTP, TTL

Connectors

8 x MCBH8F SubConn connectors for serial

connections

4 x DFCR2013F for ethernet connections

1 or 2 connectors for power and 4 fiber paths

The optional second connector allows for dai-

sy chaining

Transport

Hard shell case

Electrical

Supply voltage: 100-250 VAC 50/60 Hz

Output voltage: 48 VDC/300 W

24 VDC/600 W 12 VDC/300 W

Fiber

Fiber type: single mode $9/124 \mu m$ Number of available fiber paths: 4

Flux budget: >18dB

Configurable 10G SFP + transceivers Enabling different umbilical lengths

CWDM 8 fiber channels

Monitoring

Temperature

Voltages and current draw

Power on/off feedback status

Optical loss

Optional Features

Second fiber connector

Topside unit for conventional connections

Daisy chain capabilities to expand the

number of subsea interfaces

CWDM multiple channel multiplexor

