### **AP**subsea: Data Control Solutions

## **SPECIFICATION**

# Subsea (submersible 6000 m) compact 2.4GHz Wi-Fi radio transceiver

#### **Application:**

Our compact, standing alone Wi-Fi transceiver with antenna provides high speed (**up to 135 Mbps**) wireless link to your asset: AUV, ROV, ASV/USV, drone or RC – you name it.

#### Features:

- High power, long range;
- Waterproof for subsea and outdoor/indoor use, <u>open face</u> pressure rated connectors;
- Portable design, easy maintenance, replace and upgrade;
- POE (power over Ethernet) to transceiver, no losses on long RF cables;
- Modes: bridge, access point or repeater. Wi-Fi transceivers in bridge mode <u>are</u> <u>transparent</u> for your network and passing all traffic seamlessly;
- Zero downtime due to hardware failure;
- Transceivers can be encapsulated into housing of your choice: Acrylic, Delrin, PEEK, Aluminum, Stainless steel, or Titanium.

#### Radio, Data, Power parameters:

- Frequency: 2.4 GHz;
- Radio power: 28 dBm;
- Radio standards: IEEE 802.11 b/g/n /AirMax;
- Ethernet 10/100 Base-T;



Subsea radio transceiver with antenna and cable. Antenna, radio transceiver housing and electronics are designed for harsh environment, wide temperature, and humidity range.

- Radio range (vessel to vehicle, omnidirectional): 500 meters;
- Supply power: 7W, 12-24 VDC, 300mA@24VDC or 600mA@12VDC

#### SUBSEA Wi-Fi module (in pressure housing rated up to 6000 m depth)

- Subsea WiFi transceiver dimensions:
- o Length: 162 mm; OD: 58 mm.
- Subsea WiFi transceiver cables and connectors:
  - o 1x Connector for power and Ethernet (POE): MCBH-8M or by client specification;
  - 1x Connector to WiFi antenna: Teledyne D.G.O'Brien 110 series, Subconn HF50CX series, Rampart RP5 series, penetrator;
  - Inline cable 3 m (twisted pairs) to asset: PUR jacket, MCIL8F MCIL8M with locking sleeves.
- Subsea 3 dBi Wi-Fi omnidirectional antenna (depth rated 6000 m):
  Length: 180mm; OD 24 mm.
- Subsea 3 dBi WiFi antenna cables and connectors:
  - Antenna connector: Teledyne D.G.O'Brien 110 series, Subconn HF50CX series, Rampart RP5 series;
  - o Coaxial cable, 50 Ohm impedance: PUR jacket, Length by request.

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#### SURFACE Wi-Fi module (in housing rated to IP68)

- Surface Wi-Fi transceiver dimensions (in cylindrical housing depth rated up to 200 m):
  Length 162 mm; OD: 58 mm.
- Surface Wi-Fi transceiver cables and connectors:
  - 1x Connector for power and Ethernet (POE): MCBH-8M or penetrator crimped in RJ-45 3 meters whip or by client specification;
  - o 1x Connector to Wi-Fi antenna: penetrator crimped in N-type connector or by client specification;
  - All weather junction box with two ports to connect Ethernet deck cable with surface Wi-Fi transceiver, coupler.
- Surface 5 dBi Wi-Fi omnidirectional antenna (IP68 ingress protection):
  - o Length: 300mm; OD: 20mm;
  - o Antenna connector: N-type;
  - o Coaxial cable, 50 Ohm impedance: PUR jacket, Length by request.

For the best performance we recommend using two wireless transceivers from AP Subsea.

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