

# iDMN-X and iPoE

## Dynamic Mesh Communication Network for unmanned and manned vehicle applications

With the **iDMN** "dynamic mesh network" iMAR provides a powerful communication solution for data exchange and remote control tasks for unmanned and manned vehicles on the road, in the sea and in the air and bridges the gap until 5G network is fully available. The whole communication architecture of iMAR's solutions is designed for both – WLAN-based and 5G communication, also in parallel.



- iDMN supports unlimited number of vehicles (100+)
- iDMN supports iMAR's dynamic mesh network for robust multi-frequency vehicle-to-vehicle and vehicle-to-base communication
- high speed & low latency communication
- after initial registration, each vehicle can enter and leave the mesh area without any additional login request – easy to use. Mesh config. routing is updated within < 100 ms
- iXCOM-CMD GUI available for MS Windows and LINUX
- includes integrated WiFi access point for easy configuration

The achievable distance of transmission depends on environment. For undistorted line-of-sight the micro-

wave based transmission can cover up to several hundred meters distance between communication nodes.

iDMN-X is available for all kind of static, driving, swimming, flying objects and installations:

- iDMN-FHS: Flying Hotspot
- iDMN-MHS: Mast Mounted Hotspot
- iDMN-OHS: Moveable Object Mounted Hotspot
- iDMN-THS: Tripod Mounted Hotspot

The communication nodes of the iDMN are provided with power via the iPOE "power over Ethernet" adapter, which is available for DC input power as well as for AC input power.

- iPoE-DC/48 P/N: 00013-06381-1000  
Power Input: 9...36 V DC  
PoE output: 48 V DC / 420 mA max; passive



- iPoE-AC/48 P/N: 00013-06382-1000  
Power Input: 100...240 VAC, 50/60 Hz  
PoE output: 48 V DC / 310 mA max; passive

iDMN as well as iPOE units come with IP67 protected enclosure.

The iPoE-XX/48 device is free of maintenance.

Attention: Make assure, that the device connected to the iPoE-XX/48 is able to operate with 48 VDC on the Ethernet line (all iDMN devices will do, but take care if any other device is connected to the Ethernet output of the iPoE-XX/48) before connecting.

