

syscoSDR24 IP MESH RADIO



MODULAR AND COMPACT

A flexible and portable radio which is carefully designed, convenient to use with an aluminum frame. The modular radio block design allows for flexible and quick frequency band changes

POWERFULL CONNECTION

High IP throughput, over 100Mbps (point-to-point), allows for the establishment of IP backbones, enabling high-speed video/data transmission.

FLEXIBLE AND AGILE NETWORK

Expand the network quickly and flexibly by simply adding additional radios as needed.

IP MESH Radio syscoSDR24 forming mobile ad-hoc network (MANET) is an IP Mesh network used in mobile tactical environments.

Network deployment time is fast, providing instant service.

Allows communication within line of sight (LoS) and near line of sight (NLoS).

Provides IP-based information network for Command and Control (C2) used for:

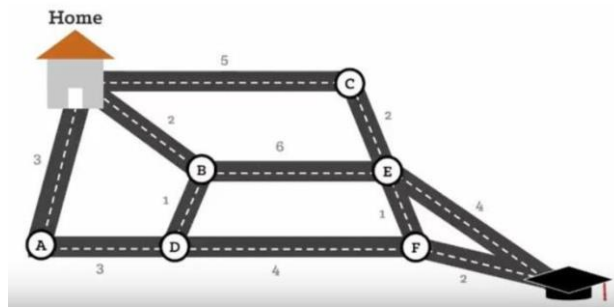
- Real-time video monitoring
- Real-time voice monitoring
- Real-time data network connection

Central software (C2) enables the display of online radio locations on the map, facilitates voice communication, and supports video monitoring from the field.

FEATURES

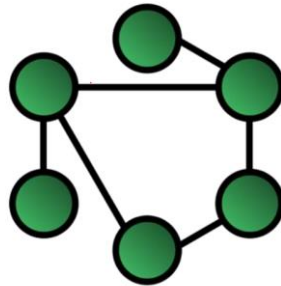
Self-configuration

- Nodes automatically establish a mesh network with surrounding units



Self-healing

- Transmission routes are frequently updated whenever nodes move or connect/disconnect from the Mesh network.
- There are often multiple transmission routes between nodes, creating a stable network.



APPLICATIONS

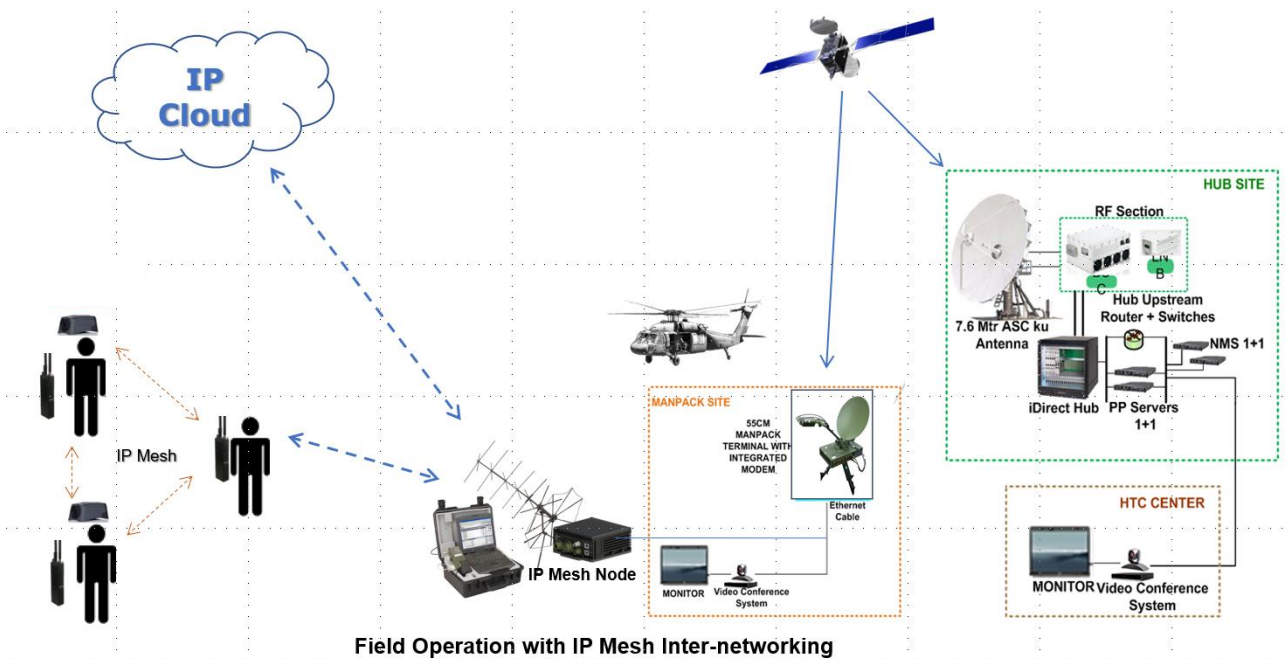
- Tactical IP Mesh:
 - SF & SWAT Teams
- Monitoring and Surveillance:
 - Portable (body-wear or in-vehicle)
 - Fix infrastructure
 - Safe-city
- On the battlefield:
 - Tác chiến đô thị/trong các môi trường phức tạp
 - Data links between vehicles from BMS
 - Combat in urban/complex environments
- Aviation communication:
 - Air - Ground - UAVs
 - Air - Air
- Maritime:
 - Boat approach (Anti-piracy) & Maritime Interdiction Operations (MIOPS)
 - Autonomous Surface Vehicles (ASVs) and Unmanned Surface Vehicles (USVs)

DEPLOYMENT SCENARIO

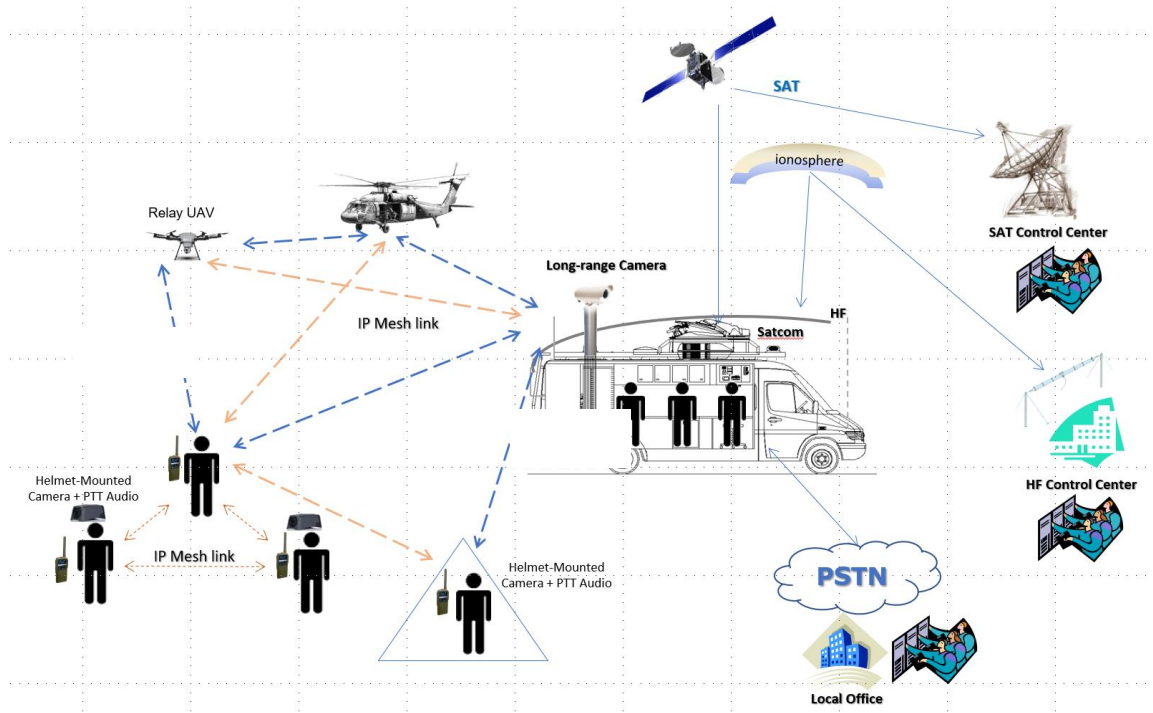
- IP Backbone
- Disaster response / search and rescue
- Fire fighting
- Military operation
- Under tunnel
- Maritime
- Airport



Interconnect with satellite network



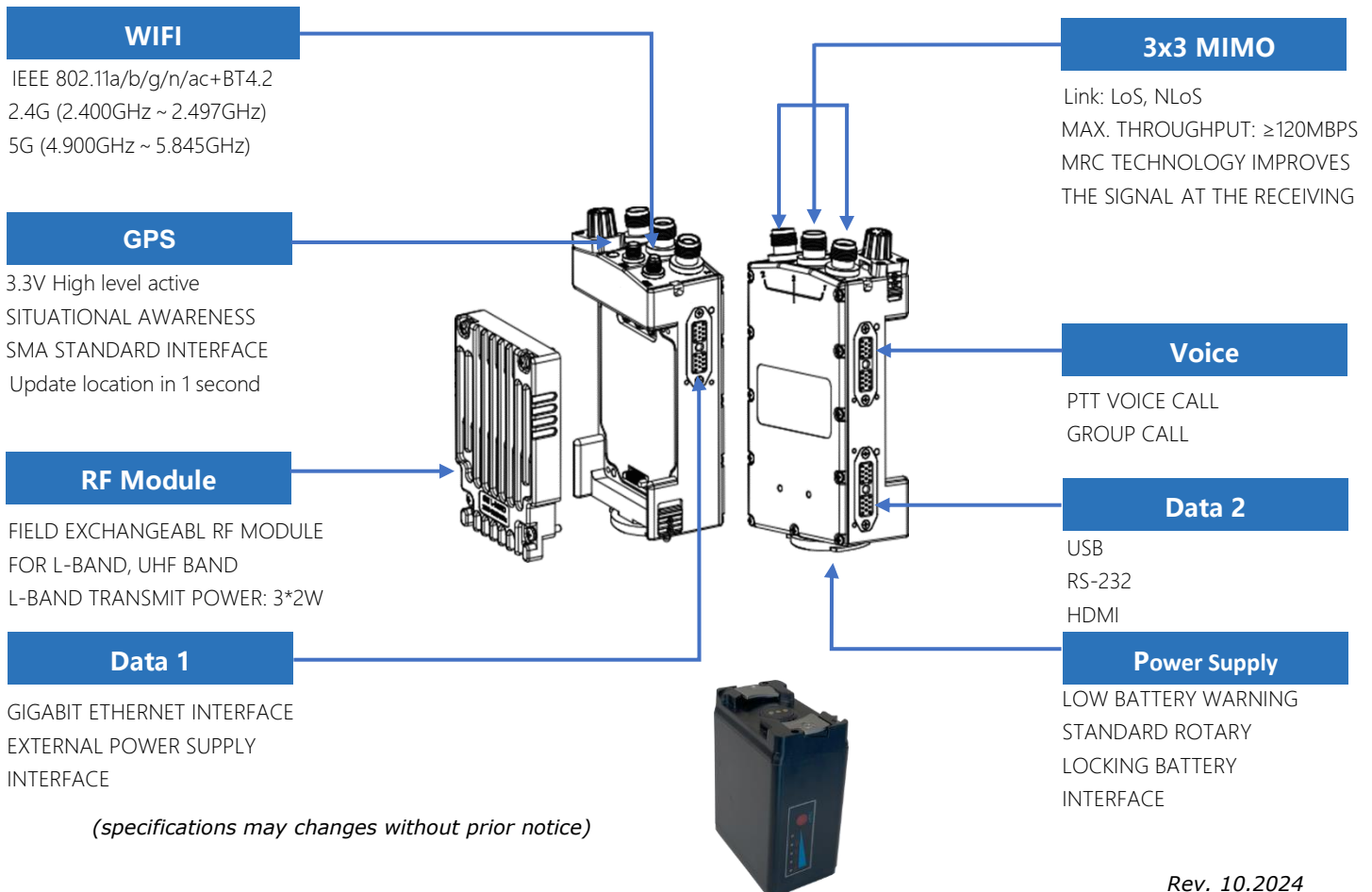
Multi connection to other communication networks within Mobile Command Vehicle



SPECIFICATIONS

Network mode	Multiple topology
MIMO	3x3
Network size	≥64 nodes
Single hop delay	≤3ms
GPS	Included
WiFi	2.4G/5G dual-band
Service	Video, Voice, Data
Max. IP data rate	100Mbps
Operating distance	Est. 10km on ground, LoS
Frequency band	L-band 1350 - 1390MHz UHF band 440 - 470MHz (Other bands: customization)

Bandwidth	1.25MHz, 2.5MHz, 5MHz, 10MHz, 20MHz, (40MHz L-band) selectable
Rx sensitivity	-100dBm at 5MHz BW
Tx power	2W/port x 3 ports
Power consumption	Max. 30W, avg. 7W
Battery voltage	9 – 28V
Battery operation time	Est. 6 – 8 hours; with level indicator
Interface	Ethernet, RS232, HDMI (with integrated video encoder)
RF port	3 x TNC
Dimension	120mm×38mm×67mm (excluding antenna)
Weight	890g (including battery)
Operating temperature	-40°C to +55°C



Rev. 10.2024