MOTOROLA
PROFESSIONAL RADIO
APPLICATION
provider
MAKING SOLUTIONS WORK FOR YOU

Portable COFDM Mesh Node

Rapidly deployed wireless COFDM mesh network that effectively expands the range of radio reach, video connectivity, and Novel applications.

Expedient communications — between first responders involved in an emergency situation and the remote command center — is essential for both the success of the mission and the safety of the personnel. TechMer's TRBO - mesh delivers a continuous stream of radio and video coverage in dead zones and harsh environments (such as underground tunnels, concrete buildings, or almost any other complex situation). TechMer's TRBO - mesh makes efficient use of high-speed data network access and wireless connectivity to facilitate VoIP connection of radio systems at remote sites. This ensures that high bandwidth applications, such as video streaming and telemetry sensors, are accessible through broadband Wi-Fi access points.

TechMer's TRBO - mesh combines the mACS RoIP Gateway and a COFDM mesh transceiver, establishing a fluid and secure IP-based wireless network, self forming, self-healing with full non line-of-sight coverage. The TRBO - mesh provides the essential flexibility and mobility of a portable wireless mesh network for complete radio and video field coverage with up to 15 nodes. Existing radio systems can easily be integrated with the TRBO - mesh's portable mesh network for a full on-the-spot interoperability communication network.

- Broadband wireless mesh backbone technology
- Ad hoc network COFDM
- Rugged, fully mobile design
- Easy to operate
- Node-to-Node distance up to 0.75 mile in non line-of-sight
- Self-adapt and healing network
- 2 radio interfaces
- Interoperability between various communications devices
- Wi-Fi Hot Spots
- IP video streaming
- Cost effective and easy to deploy
- Customized to the organization Standard Operating Procedure

Command & Control

Internet

Operator Console
mACS-5100

0.75 mile

0.75 mile

TRBO - mesh

Chain Network

TRBO - mesh units can be chained together to feed radio audio, video and data information from end-to-end. Each unit is placed at the outermost range of the previous unit to receive maximum communication distance.


Portable Mesh Node mACS-5405

Bi-directional communication
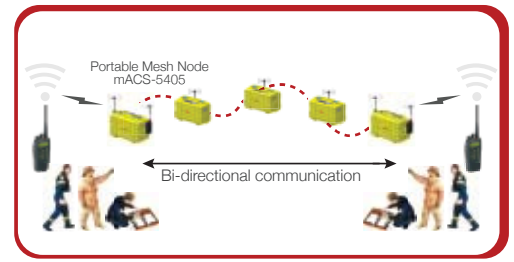
Stand Alone Repeater Functionality

As a repeater backup, the TRBO - mesh bridges between two radio frequencies, receiving RF on frequency A and transmitting it on frequency B.

Portable Mesh Node mACS-5405
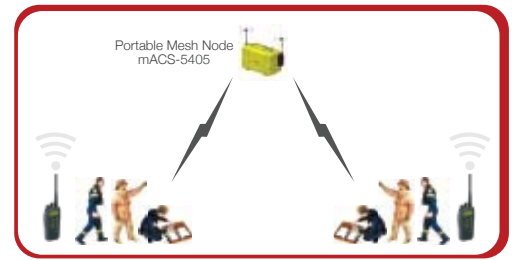
Link to Command and Control Center

Radio and video communications are streamed via a backbone — consisted of multiple TRBO - mesh units — to an operator console (such as mACS-5100) or other command center applications. This permits effective use and control of radio devices located at the far-end.

Portable Mesh Node mACS-5405

Command & Control

Internet

Bi-directional communication

Operator Console mACS-5100
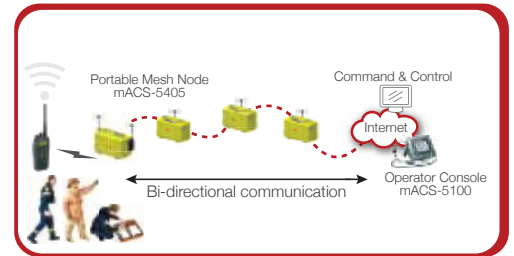
Specification	
Base Unit	Portable waterproof and rugged container
Radio Interface	2 RF networks (HF, VHF, UHF, iDEN and ASTRO)
IP Interface	10/100 BaseT
Wi-Fi Hot Spot	802.11g access point
COFDM Frequency Bands	UHF, L-Band, S-Band, C-Band
Channel Bandwidth	5-25 Mhz
Output Power	10mW-1W
Data	Up to 60 Mbps
DC Input	12V, rechargeable internal battery
Extensibility	Extendable by stacking additional Nodes
Dimension	17.6L x 11.7W x 7.1D inch
Weight	Lbs 20

About TechMer

As a wholly-owned subsidiary of Mer Group, TechMer has been supplying both the military and commercial markets with turnkey video and audio systems for security, public safety and crisis management.

TechMer Ltd develops and integrates custom multimedia solutions for two-way audio/video communication, recording, analysis and archiving. We are a certified DSP (Digital Signal Processor) Component Specialist and an authorized TI Third Party.

TechMer maintains a global presence with offices in Holon, Israel and New Jersey, USA.