

Eliminate Infrastructure, Connect Everything...
VIDEO • DATA • VOICE • CONTROL



Gen4 Integration Unit

Man Portable Unit 3 MPU3

Man Portable Unit 4 MPU4

Quad Radio Router

Tracking Antenna System

So much more than just a radio, the Wave Relay® solution enables end-users to bring every operator and piece of equipment into a single network...

Wave Relay™ Key Features

- Peer to Peer Mobile Ad-hoc Networking
- Ground to Ground, Air & Maritime
- Full-motion video at high bandwidth
- Overt & covert form factors
- Tactical video distribution
- Remote monitoring



Wave Relay® is a Mobile Ad Hoc Networking System (MANET) designed to maintain connectivity on the move. It is a scalable, peer-to-peer wireless network which provides data, video, and voice even in the most Challenging applications. With user throughput of 41 Mbps UDP and 31.1 Mbps TCP, Wave Relay® provides a dynamic, reliable, and secure wireless networking solution beyond mesh.

No communication or networking solution is more able to tackle the challenges of mining operations than Wave Relay®. Mining technology experts agree that real-time information and networking is becoming essential to mining operations. Wave Relay® unlocks the full capabilities of machine to machine (M2M) technologies in complex mining applications.

The more Wave Relay® nodes you install, the stronger the network becomes! As nodes move dynamically through any imaginable environment, the network will “self-form” to enable the strongest-possible connection between any group of nodes. That means that once initial configuration is complete, no network maintenance is required. Another advantage of Wave Relay® is that it does not rely on any single access point. If any single node fails, the network will “self-heal” by automatically and instantaneously re-routing information through the next-strongest path.

The capability of Wave Relay® radio modules to connect at distances of up to 125 miles makes it easy to network everything in an open-pit mine. Moreover, the patented multi-hop capability of all Wave Relay® devices also enables any two devices to connect beyond line-of-sight, a powerful capability to have particularly in an underground setting. Integration with GPS receivers allows position location information (PLI) data to be transferred across the network at lightning speeds –displaying the position of every node in the network on a map, even when nodes are constantly in motion.

Best of all, Wave Relay® can bridge new equipment and older legacy devices alike in one scalable, fault-tolerant network. As the first true Mobile Ad-Hoc Networking (MANET) solution, Wave Relay® has a proven track record of reliability that puts it in a class by itself.

Contact us today :

Tel: +44 (0)1527 512400

Email: sales@steatite.co.uk



WAVE RELAY® PRODUCTS SPECIFICATION

Networking

- Seamless layer 2 network connectivity
- Industry leading Wave Relay MANET routing
- 802.11a/b/g AP compatible with MANET
- Integrated serial-to-Ethernet capability
- Cursor-on-Target
- Cloud Relay™
- Dynamic Link Exchange Protocol (DLEP) Certified
- IPV4 and IPV6 compatible
- Integrated DHCP server
- Advanced multicast algorithm

Security

- Integrated hardware cryptographic accelerator
- FIPS 140-2 (level 2)
- Utilizes Suite B algorithms
- Active response to tamper
- AES-CTR-256 with SHA-512 HMAC
- Over the air re-keying

Android™

- Multicast Video, position locator and chat in an Android application
- Supports commercial and custom phones and tablets
- Provides power through USB tether

Native Voice Capability

- Supports up to 16 channels of Push-to-talk (PTT) Voice
- G.711 Codec with toll-quality audio

Management

- Secure web management interface
- Network wide management and configuration functionality
- Google™ Earth based network monitoring

Manufacturing & Warranty

- Limited one year warranty
- Monthly training classes available
- Courses led by industry experts
- ISO 9001:2008 certified
- MIL-STD certified

PRODUCT MATRIX

	FIPS 140-2 Level	IP67 Rated	Suite B Encryption	Number of Radios	Number of Ethernet	Mbps UDP Throughput (20 MHz Channel)	Mbps TCP Throughput (20 MHz Channel)	19 Pin Circular Connector	20 Pin Snap Lock Connector	Input Voltage Range	Weight (US/Metric)	Dimensions (LxWxH US/Metric)
MPU4	2	✓	✓	1	2	41	31.1	✓	N/A	8 - 48	1.1lbs / 499g without battery, 1.9lbs / 844g with battery	4.6x3.0x1.5in / 11.7x7.6x3.2cm without battery, 7.8x3.0x1.5in / 19.8x7.6x3.2cm with battery
MPU3	2	✓	✓	1	2	41	31.1	✓	N/A	10 - 48	0.88lbs / 399g	5.0x4.7x1.3in / 12.7x11.9x3.3 cm
MPU4 Dual	2	✓	✓	2	2	41	31.1	✓	N/A	10 - 48	1.2lbs / 562g	5.0x4.7x1.8 in / 12.7x11.9x4.6 cm
Quad Radio Router	2	✓	✓	4	5	41	31.1	N/A	N/A	8 - 48	3.2lbs / 1451g	8.5x6x2 in / 21.6x15.2x5.1 cm
Gen4 Integration	1	N/A	✓	1	2	41	31.1	N/A	✓	8 - 48	3.4oz / 96g with	2.7x3.9x0.7 in / 6.8x10x1.6 cm