

Self-Powered & Field Deployable

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AIRRAPTOR

Rapid Deployment Tactical Repeater

**ENCRYPTED APCO P25
DIGITAL TRUNKED AND
CONVENTIONAL REPEATER
FOR RAPID DEPLOYMENT
IN AD-HOC NETWORKS**



From
etherstack





Self Powered & Field Deployable

The AIRAPTOR Tactical Basestation is a self powered, field deployable basestation. It can be used to rapidly provide local or wide-area networked operation for a temporary installation.

The AIRAPTOR is about the size of a lunch box so it can be easily transported into an incident area. Once there, it will provide instant communications between mobile users. Furthermore, it will provide seamless networked communications to a larger network as well as back to command and control locations.



Rapid Deployment Tactical Repeater

Temporary Network Coverage

The AIRAPTOR can be deployed to provide temporary network coverage at an event, providing immediate secure repeater capability for authorized subscribers, while also supporting interoperability with other fleets of analog or digital users if enabled. This temporary network coverage can then be enhanced by networking the AIRAPTOR back into broader fixed radio networks, or back to a command and control center located nearby, or on the other side of the world. A wide range of options exist via an inbuilt Ethernet port, which provides networking capabilities rapidly.

Underground Applications

Radio coverage in tunnels, mines and other underground situations, such as subway stations and utility ducts, can be a challenging safety and communications problem. The AIRAPTOR can be easily deployed in underground environments to provide radio coverage in hard to reach places.

... When It Must Work!

Self-powered, the AIRAPTOR can provide hours of standalone operation until a permanent power source can be supplied, or a field swappable battery module is replaced. Tactical connectors and switches make the AIRAPTOR easy to set up in dark and unforgiving environments.



FEATURES

- Internal battery power with external AC/DC inputs
- Power saving modes for extended remote operation
- “Set and Forget” stand-by mode for remote activation
- 136-174MHz, 380-520MHz & 706-890MHz, 30-512MHz
- 1W-15W software controlled intelligent power input
- US NIST certified AES & DES encryption, 128 & 25-bit, plus custom cryptography
- 3G and Satellite backhaul links supported
- Ethernet 10/100 Base-T network capable
- Wide range of link radio options available
- Internal field removable duplexer or single antenna operation
- Rugged IP-67 rated housing
- Digital repeating with FEC
- Swappable RF modules
- Redundant transmit and receive modules with automatic failover switching
- Extensive self-test with local status indicators
- Inbuilt Ethernet port for connection to IP broadband networks
- Remote Diagnostics and Power Control
- Self-Meshing Network capable to provide rapid wide-area coverage
- Part of a family of tactical & covert products
- Tamper detection with programmed response (zeroize, power down, status message)
- Programmable mission profiles (clear, encrypt, transmit power, channel, analog)
- Local external microphone and speaker connector, Internal AES/DES crypto option available for local operation (not repeating)



Set & Forget Applications

Set & Forget Applications allow the AIRAPTOR to be deployed in “Sleep Mode” for the unit to awake at a predetermined time.

This feature allows the unit to be deployed ahead of a planned event, when access to your deployment site is more convenient.

The ability to remotely enable the unit via a wired/ wireless link connection and refined intelligent power-saving modes are features coming soon.

DETAILED SPECIFICATIONS

- Conventional or Trunked Composite Modes
- AES & DES encryption capability (DES, ECB, DES OFB, DES CBC, DES 1-bit CFB, AES-256 ECB, AES-256 OFB & AES-256 CBC)
- Multiple talk group support and legacy analog support
- Optional FIPS-140-2 Level 1 hardware encryption module
- HTML based GUI for configuration
- 16 field selectable mission profiles (pre-programmed)
- Self test mode for in-field verification
- Set & Forget mode of operation
- 10—16 VDC
- 100—250VAC at 50-60 Hz
- 8 hrs operation at 12W output power on 70/15/15 duty cycle
- Type N RF connector, BNC optional
- Local audio connection available
- 10/100 Base-T Ethernet interface
- IP-67 rated housing
- -2C to +60C operation

RF Performance

- 1W—15w output power primary
- 1W-15W output power secondary (PA failover)
- 136-174 MHz (VHF mode)
- 380-520 MHz (UHF mode)
- TriBand (VHF, UHF, 700/800 MHz) under development
- Receiver sensitivity better than -118dBm
- 12.5 / 25 kHz channel operation



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