

LTE Portable Emergency Command & Communication System

Rapid Deployment TD-LTE Private Network

Model No: Patron-P10



Main Features:

- All-in-one portable TD-LTE network for emergency, public-safety and rapid-deployment communications.
- Integrates BBU, RRU, EPC and multimedia dispatch functions in one rugged portable enclosure.
- Supports professional PTT/trunking voice, real-time video, data, GIS and full-duplex audio/video services.
- Frequency options at 400 MHz, 600 MHz, 1.4 GHz and 1.8 GHz with 5/10/20 MHz channel bandwidth.
- Up to 30 W RF transmit power with 2T2R architecture and GPS synchronization.
- Supports up to 1,000 users and up to 200 online PTT calls.
- One-button startup, IP Ethernet interface, internal battery operation and rapid field deployment.
- Rugged IP65 design with -40°C to +60°C operating temperature range.

Introduction

The Patron-P10 is a compact portable emergency communication platform designed to establish an independent LTE network for first responders and command centers. By combining radio access, core-network and multimedia dispatch functions, the system enables rapid voice, video and operational-data communications when conventional coverage is unavailable, congested or impractical.

Typical Applications

Disaster Relief	Public Safety & Emergency Management	VIP Security
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EMTS Telecom Services Ltd. offers a comprehensive portfolio of enhanced coverage solutions for the Wireless Networks, based on advanced technologies, EMTS's proven, indoor and outdoor solutions solve a wide range of network issues including interference and oscillation problems, challenging coverage holes, rapid response deployment, and inadequate in-building coverage. Regardless of the technology or frequency, EMTS can provide customized coverage solutions that address any combination of unique and complex network needs for the Wireless Networks.



Technical Specifications

Item	Specification
Model	Patron-P10
Technology	TD-LTE
Frequency Options	400-430 MHz; 566-626 MHz; 1447-1467 MHz; 1785-1805 MHz
Channel Bandwidth	5 / 10 / 20 MHz
Time Slot Ratio	1:3, 2:2, 3:1
RF Transmit Power	≤ 30 W
RF Paths	2 paths, 2T2R
UL / DL Data Rate	50 / 100 Mbps
System Throughput	1 Gbps
System Time Delay	< 300 ms
Maximum Users	1,000
Maximum Online PTT Calls	200
Transmission Port	IP Ethernet
Synchronization	GPS
Internal Battery	4-6 hours
Operating Temperature	-40°C to +60°C
Storage Temperature	-50°C to +70°C
Air Pressure Range	70-106 kPa
Environmental Protection	IP65
Weight	< 25 kg
Dimensions	580 × 440 × 285 mm

Supported Terminals & Deployment Modes

Terminals: trunking handset, manpack CPE, portable dispatch console, UAV, portable dome camera and AI glasses.

Deployment: manpack, vehicle-mounted and on-board configurations.

About EMTS telecom Services:

EMTS Telecom Services is a leading supplier of high-quality RF coverage solutions designed to maximize wireless network coverage in difficult RF environments and complex settings. The company specializes in extending RF radio coverage to rural areas, office buildings, subways, tunnels, and shadowed areas. The EMTS coverage solution supports all major mobile technologies and standards of wireless Networks.



Rapid Deployment & Flexible Field Operation

The portable TD-LTE platform is designed for rapid establishment of an independent mission-critical network when public infrastructure is unavailable, overloaded or unsuitable. The integrated architecture combines radio access, core-network and dispatch functions inside a rugged portable enclosure.

Operational Highlights

- Compact portable enclosure for rapid emergency deployment, typically within approximately 10-15 minutes depending on field setup.
- One-button startup minimizes commissioning effort and supports fast activation by field personnel.
- Local display interface allows working-frequency and transmit-power configuration.
- Supports portable PAD dispatch operation for command and coordination in the field.
- Rugged IP65 construction and -40°C to +60°C operating range for harsh environments.



Deployment Modes



Manpack / Portable

Portable operation for mobile field teams and temporary command posts.



Vehicle-Mounted

Integration in emergency or command vehicles for rapidly moving operations.



On-Board / UAV

Supports on-board deployments and integration with unmanned aerial platforms.

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Application Scenarios

The system is intended for public-safety, emergency-management and security operations that require an independent broadband LTE network with voice, video, data and GIS services for field personnel and command centers.



Disaster Relief

Rapidly restore operational communications when fixed or public infrastructure is damaged or inaccessible.



Search & Rescue

Connect rescue teams with command personnel using PTT voice, live video and operational data in difficult environments.



VIP Security

Provide a deployable private network for coordinated security teams, mobile command and protected operational communications.



Public Safety & Emergency Management

Support first responders and decision-makers with real-time voice, video, dispatch and GIS information.

Communication Services

PTT / Trunking	Live Video	IP Data	GIS / Positioning	Multimedia Dispatch
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Supported Terminals & Multimedia Dispatch

The portable LTE network supports a broad range of field terminals and command-and-control devices, allowing voice, video and data to be shared between users in the field and the dispatch center.



Field Communications

- Broadband trunking handset for voice, data, video and GIS services.
- Manpack LTE CPE for long-range field connectivity and local Wi-Fi access.
- Support for UAV, portable dome camera and additional mission devices.



Command & Dispatch

- Portable dispatch console and GUI-based command platform.
- Voice, data and video exchange with GIS-based operational awareness.
- Interworking with PLMN, PSTN and trunking systems where required.

Representative Dispatch Functions

PTP & Group Calls	Emergency Calls	Conference / Broadcast	Floor Preemption
Video Upload & Distribution	Video Collaboration	GIS Tracking & Playback	User Mapping & Grouping

Terminal availability and specific software functions may depend on the selected system configuration and project requirements.

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Why a Private LTE Network for Emergency Operations?

A deployable private LTE network gives the operator direct control over access, capacity, priority and service availability. This is particularly important during emergencies, when commercial networks may be congested, damaged or unavailable.

Customized Design	The network can be configured for mission-specific applications used by public safety, emergency management, government and other professional users.
Security	Supports multi-level authentication and encryption mechanisms, with controlled terminal identification and access.
Flexible Deployment	The network can be rapidly deployed at the required operational location without dependency on fixed telecom infrastructure.
Operational Reliability	Dedicated network resources remain available to authorized users and are not consumed by public traffic during an emergency.
Priority & Controllability	The operator can manage priority users, service quality and available resources according to the operational need.

Operational Value

- Independent broadband communications for first responders and command teams.
- Integrated voice, video, data and GIS services over a single private LTE infrastructure.
- Rapid deployment for temporary, mobile or contingency communication requirements.
- Centralized command, dispatch and field-user coordination.

Technical data in this document is based on the supplied product documentation and may vary by selected frequency band, terminal package and project configuration.

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