The PUMA T4 handheld introduces a new concept of handheld device, with a modular design combining reliable and secure communications with new value-added services that greatly enhance efficiency in daily operations and emergency situations.

An Android based general purpose core provides computing, ancillaries and MMI functions integrated with radio communications provided by a modem component that can be delivered in different versions.

Field officers are presented with increasingly demanding challenges. These evolving scenarios require dismounted officer to act as mobile sensors in addition to autonomous operating units. The increased importance of data communications (audio and video) is shaping the requirement for new devices that support the activities of first responders in a flexible way without compromising the security and robustness that are characteristics of PMR radios.

**PUMA T4-TK** delivers the security and the robustness of a TETRA radio with the features that characterize today smartphones, providing both mission critical communications services and multimedia capabilities.

### KEY FEATURES

- Android OS with apps supporting admin, browsing, situation awareness, image and video
- TETRA TMO/DMO voice capabilities
- Local communications capability including Wi-Fi, Bluetooth and NFC establishing a personal area network for sensor connection
- GPS and accelerometer for enhanced location services
- Expandability via external accessories
- Local camera and SD card for imaging support
TECHNICAL DATA

GENERAL

Frequency bands
› 340 MHz to 400 MHz
› 380 MHz to 470 MHz

TETRA protocols
TMO, DMO, DMO via Repeater, DMO via Gateway

Output power
1.8W (3L TETRA class)

Audio power
1W @ 4 ohm

Channel spacing
25 kHz (step 6.25 kHz)

Security support
› Air-Interface Encryption (TEA 1, 2, 3)
› End-to-End Encryption

Battery
5,100 mAh, 3.7V

Operating System (OS)
Android 5.1

RAM
1 GB

Internal storage
8 GB FLASH eMMC

Additional storage
Micro SD (up to 32 GB)

Dimensions (HxWxD)
153 x 69 x 39 mm [6,02 x 2,72 x 1,54 in] (including rotary knob and battery)

Weight
Approx. 430 g [0,95 lb] (included battery)

GPS
Protocol
ETSI LIP standard

Acquisition sensitivity
-155 dBm

Tracking sensitivity
-159 dBm

Location accuracy
5 m [16.4 ft] (probability 50%)

Additional support
Dual-mode functionality support for GLONASS

ENVIRONMENTAL CONDITIONS

Operating temperature
› -20°C to +55°C [-4°F to 131°F] (conformance tested)
› -30°C to +60°C [-22°F to 140°F] (degraded)

Storage temperature
-40°C to +85°C [-40°F to 185°F]

Water and dust protection
IP67

USER INTERFACES

Display
2.4” colour LCD TFT (320x240 RGB resolution) with 262K colours

Rotary knob
Unique knob for both talkgroup selection and audio volume

PTT and programmable keys
› Large PTT for half-duplex voice calls
› Two programmable functional keys next to PTT

Emergency button
Placed on handheld top, programmable to send emergency call and/or status

Navigation keys
› Four arrow navigation keys with acceptance button
› Two programmable keys (F1, F2)
› Standard alphanumeric keypad with 12 keys

LED
› One red and one green for voice calls
› One multicolour for wireless connection (Bluetooth, Wi-Fi) to other devices and accessories

Brightness and proximity sensors
› For automatic display brightness adjustment

USER INTERFACES (CONT.D)

Microphone/loudspeaker
› Loudspeaker below the navigation keys and loudspeaker for private calls above the display
› Two microphones with noise canceling

Connections
› Antenna SMA connector (upper side)
› 18-pin connector for dedicated accessories
› Micro-USB for audio/data accessories and battery charger placed on the handheld right side

Camera
5.0 MP (2608 x 1960 pixels resolution) with LED flash, placed in the rear side

OTHER FEATURES

Other HW resources
› Bluetooth®
› Wi-Fi
› NFC
› Vibracall accelerometer
› Magnetometer gyroscope

Base applications
Browser, multimedia player/recorder, file manager, e-mail, phone book

Accessories
Antennas (short and whip), desktop and travel chargers, desktop multi-charger, remote speaker microphone, lightweight headset with transparent earbud, USB programming and data cables, leather bag with belt clip.

PUMA T4-TK TETRA handheld (version with keypad)