ST7500

COMPACT TETRA RADIO

BEING ON THE FRONTLINE DEMANDS A SPECIAL KIND OF COMMUNICATION DEVICE THAT'S EASY TO CARRY YET RUGGED AND CAPABLE ENOUGH TO GET THE JOB DONE.

The ST7500 is a compact TETRA radio that weighs less than 200 grams, making it easy to carry and easy to wear in a variety of belt or body-worn configurations. Despite its size, performance is mission-critical with leading-edge features such as Multi-Band Compression for loud and clear audio, a hybrid antenna and the latest Bluetooth® 4.1 LE technology for collaborating with a range of complementary devices and wireless accessories.

Whether responding to a riot in a town centre or dealing with a road traffic accident, the ST7500 provides public safety officers with a device that's fully capable and simple to use in the moments that matter for optimum response and safety.

KEY BENEFITS

- Compact and lightweight
- Simple and intuitive user interface
- Bright OLED display
- Loud and clear audio
- Rugged and robust with IP65, IP67 and MIL-STD 810 D, E, F, G
- Hardware based end-to-end encryption
- Vibration alert

- MAC13 accessory connector
- Bluetooth 2.1 and 4.1 LE wireless technology
- GPS, BeiDou and GLONASS location services
- Up to 22 hours battery life
- Proprietary hybrid antenna technology
- Wi-Fi ready

MOTOROLA SOLUTIONS

GENERAL SPECIFICATIONS

Dimensions H x W x D	112 x 63 x 22mm
Dimensions Including Antenna	139 x 63 x 22mm (28mm Antenna) 171 x 63 x 22mm (57mm Antenna)
Weight Including Battery and 28mm Antenna	197g
Battery	Removable 2300 mAh IMPRES 2 Li-Ion
Battery Performance	5-5-90 > 22 hrs 5-35-60 > 19 hrs
Audio	Audio Output Power at Rated / Max: 1 W Audio Distortion at Rated: < 1 %

DATA AND MESSAGING SERVICES

Secondary Control Channel

ETSI and Enhanced AT Commands (including Voice Control and Short Data)

TNP1 - Support Simultaneous Packet Data and Short Data Services over PEI

Wi-Fi Hardware Ready

BLUETOOTH AUDIO AND DATA SERVICES

Bluetooth Versions Supported	Bluetooth 2.1 +EDR, Bluetooth 4.1, Bluetooth Smart (BTLE)
Bluetooth Security	Bluetooth 2.1 introduces Mandatory Encryption with Secure Simple Pairing (SSP), Easier Pairing and Preventing Sniffing / Hacking
Bluetooth Audio	Headset Profile, Fast PTT with Motorola Solutions Accessories
Bluetooth Data Services	Serial Port Profile, Dial Up Networking Profile, Discovery Mode, Generic Access Profile, Generic Attributes Profile (GATT), Heart Rate Profile, Battery Service Profile, Devices Info Profile.

RF SPECIFICATIONS

Frequency Bands	380-430 MHz
Transmitter RF	Power Class 3L (1.8W) & Class 4 (1W)
Receiver Class	A and B
Rx Static Sensitivity (UHF)	UHF: -116 dBm (min); -118 dBm (Typical)
Rx Dynamic Sensitivity	UHF: -107 dBm (min); -109 dBm (Typical)

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature °C	-30 to +60
Storage Temperature °C	-40 to +85
Humidity	ETS 300-019-1-7 Class 7.3E, MIL-STD 810 D, E, F, G
Dust and Water Ingress Protection	IP65, IP67 per IEC 60529
Shock, Drop and Vibration	ETS 300-019 1-7 Class 5M3; MIL STD 810 D, E, F, G

SECURITY OPTIONS

Enhanced Security - OTAR/DMO SCK	End to End Encryption : Motorola CRYPTR Micro Hardware Module
Authentication (Mutual)	Permanent Disable (ETSI, V2-Customer Restore)
Air Interface Encryption (ETSI / SFPG TEA Algorithms)	Temporary Disable (Stun)
Security Class	1, 2, 3 and 3G Support

LOCATION SERVICES

Constellations Supported :	GPS, BeiDou, GLONASS Integrated Internal Antenna
Simultaneous Satellites	12
Tracking Sensitivity (dBm)	-161 GPS -156 BeiDou -155 GLONASS
Accuracy	< 5 Metre (50% Probable) @ -130 dBm
Protocols	ETSI LIP, LRRP

MAIN VOICE SERVICES

General	Full Duplex TMO Private, PABX, PSTN, Emergency Half Duplex TMO Private, Group, Emergency Half Duplex DMO Private, Group, Emergency	Inter-MNI, Gateway, Repeater Compatible PTT Double Push Adaptive Audio Gain Control (AGC)
Emergency Call Management	Tactical Emergency Group Call to ATTACHED talkgroup Non-Tactical Emergency Group Call to DEDICATED talkgroup HOT MIC Emergency - hands free in moments that matter	Emergency Status Message sent to Dispatch Console Pre-emptive Priority Calls
DMO Repeater and Gateway Services	Works with DMO Repeaters and Gateways*	

* Does not Work as a DMO Repeater

USER INTERFACE

Display	OLED 128 x 64 Pixels, White
Hard Keys	Emergency Button High Tactility PTT Button Power / Wakeup Button Talkgroup Change Rocker Switch Volume Up / Down 3 User Configurable One Touch Buttons, Extensive List of Functions 4 Menu and Navigation Keys
Simplified User Interface	Minimalistic Default Menu Structure • Favourite Talkgroups • Favourite Contacts • Bluetooth • Radio Settings • My Info • Language Options Menu Editor - simplify and tailor to user needs

Advanced User Interface	Talkgroups – TMO Folders: 256, TMO Unique: 10,000
	Talkgroups – DMO Folders: 128, DMO Groups: 2,000
	Talkgroups – Extended Folders: 330, Mixed TMO/DMO Groups: up to 15 groups per folder
	Country/Network Code List - Up to 100 by Contact or Talkgroup
	Scan lists - 40 lists of up to 20 groups
	Contacts - Up to 1000 with 6 numbers per Contact (Max 2000 unique numbers)
	Fast/Flexible Call Set Up / Answer
	Multiple ring tones possible
Text and Status Messaging	Status Messages Text Messages** Call-out features**

** Supported in future software release

Hybrid Internal and 28mm External Antenna

Programmable Button 1

Full Duplex Earpiece

Large High-tactility PTT Button

High-contrast Bright White OLED Display

Well-defined Tactile Keypad

Programmable Button 3

Volume Control Buttons

Microphone

Programmable Button 2

Open Speaker Port

MAC13 Accessory Connector

Coverage Indicator

Large but well-protected Emergency Button

Talk Group Toggle

Charge Indicator

Hybrid Internal and 57mm External Antenna

Removable 2300mAh IMPRES2 Battery

Bluetooth 2.1 and 4.1 LE Wireless Technology

Wi-Fi Ready

SPECIFICATION SHEET | ST7500 COMPACT TETRA RADIO

ACCESSORIES

AUDIO ACCESSORIES

PMMN4550	IMPRES Small Remote Speaker Microphone with 3.5mm Audio Jack and Emergency Button
PMLN7844	3.5mm Receive Only Earpiece with Translucent Tube (Secondary Audio Device for PMMN4550)
PMLN6900	1-Wire Receive Only Earpiece with Translucent Tube

BLUETOOTH AUDIO ACCESSORIES

Our exclusive Operations Critical Wireless accessories handle loud environments, while an optional wireless PTT seamlessly links to any accessory. Just put the PTT in a pocket or on a lapel and connect instantly.*

PMLN6463***	Wireless Kit Includes a Receive-only Earpiece, Bluetooth Pod and Charging Cradle (Use PTT on Radio)
PMLN7181***	Wireless Kit Includes a Swivel Earpiece with Boom Microphone, Bluetooth Pod and Charging Cradle (Use PTT on Radio)
NNTN8191***	Wireless Bluetooth Push-to-Talk Pod
NTN2572	Earpiece with Integrated Microphone and 12-inch Cable (Requires NNTN8191 PTT Pod)
NNTN8294	Single Wire Earbud with Inline Microphone, 29cm Cord, Black (Requires NNTN8191 PTT Pod)
NNTN8295	Single Wire Earbud with Inline Microphone, 114cm Cord, Black (Requires NNTN8191 PTT Pod)
NNTN8433***	Completely Discreet Wireless Surveillance Kit Includes: Wireless Neckloop Y Adapter and Retention Hook, Discreet Earpiece Kit and Wireless Push-to-Talk Pod (NNTN8191)
PMLN7851	Operational Critical Wireless Earpiece Push-to-Talk

CARRY ACCESSORIES

Our carry accessories keep your hands free so you can concentrate on the task ahead.

PMLN7841	Carry Holster with Swivel Clip
PMLN7842	Carry Holster with Peter Jones

*** Requires Separate Power Supply - PS000042A12 (EURO) / PS000042A13 (UK) / PS000042A11 (US)

BATTERIES AND CHARGERS

PMNN4510	IMPRES 2 Li-Ion 2300 mAh Battery
PMPN4373A	6-Battery Multi-Unit Charger with UK Plug
PMPN4372A	6-Battery Multi-Unit Charger with EURO Plug
PMPN4371A	6-Battery Multi-Unit Charger with US Plug
PMPN4393A	6-Device/Battery Multi-Unit Charger with UK Plug
PMPN4392A	6-Device/Battery Multi-Unit Charger with EURO Plug
PMPN4461A	6-Device/Battery Multi-Unit Charger with US Plug
PMPN4447A	IMPRES2 Battery Single-Unit Charger with UK Plug
PMPN4446A	IMPRES2 Battery Single-Unit Charger with EURO Plug
PMPN4445A	IMPRES2 Battery Single-Unit Charger with US Plug

ANTENNAS

AN000169A01	Antenna 380-430 MHz - 28mm
AN000262A01	Antenna 380-430 MHz - 57mm

ANTENNA BANDS

Colored bands easily slip on antennas and enable you to quickly visually identify custom radio user groups.

PMLN7636	Pack of 10 Gray Antenna ID Bands
PMLN7637	Pack of 10 Yellow Antenna ID Bands
PMLN7638	Pack of 10 Red Antenna ID Bands
PMLN7639	Pack of 10 Blue Antenna ID Bands
PMLN7640	Pack of 10 Purple Antenna ID Bands

MISCELLANEOUS

PMHN4389A	Battery Cover
PMKN4203A	Radio Programming Cable
PMLN7951A	Pack of 50 Identification Label
HN001402A01	Dust Cover
PMKN4024A	Si500 cable

For more information please visit: **motorolasolutions.com/ST7500**

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