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

SDS Messaging
Call-Out[1]
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 AND SAFETY OPTIONS

Man Down[1] (Fall Alert)	No movement and angle detection
PIN Lock	Personal Identification Number (PIN) and PIN Unblocking Key (PUK)
Enhanced Security - OTAR/DMO SCK	End-to-End Encryption: Hardware Security Module (HSM)
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[2]	

[1] Licensed Feature
[2] 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

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

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

MAC13 Accessory Connector

SPECIFICATION SHEET | ST7500 COMPACT TETRA RADIO

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

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