



BUILT FOR THE EXTREME

# THE MOTOROLA MTP830 S TETRA RADIO

When you're working under extreme conditions, you need a radio that's up to the challenge. That is why we created the MTP830 S, a rugged radio that combines louder audio and enhanced ergonomics with simplified controls – a combination that allows fire fighters and other first responders to focus on the task at hand and not on the technology.

## ENHANCED ERGONOMICS

**Simplified controls:** By enlarging the rotary knob, we've made the radio glove-friendly so it's easier to control talkgroup and volume settings.

**Specialist accessories:** Operating a radio under protective clothing can be challenging. Through our partnerships with world leading accessory suppliers, we've made this easier by ensuring that the MTP830 S can safely inter-operate with a wide range of specialist audio and push-to-talk equipment.

## BETTER PERSONAL SAFETY

**Man-Down detector:** The built-in angle and motion detector will trigger an emergency call for help when you don't move for a period of time - helping you stay safe in harsh conditions.

**Advanced GPS:** Knowing where your colleagues are not only helps you work more efficiently, it also improves your safety. With the latest GPS technology and powerful reporting profiles, the MTP830 S helps you achieve this.

**Automatic accessory sensing:** The MTP830 S automatically adjusts audio settings based on pre-loaded profiles for detected accessories. It also enables you to select the best audio profile for different working environments.

**Configurable user interface:** You should not need to go through multiple key presses to get to the functions you need. With its configurable user interface, the MTP830 S helps keep button presses to a minimum.

## UNCOMPROMISING PERFORMANCE

**Extended Operational Range:** The combination of a highly sensitive RF receiver and transmission power that is adjustable to 1.8W provides extended operational range, helping you stay connected wherever work takes you.

**Rugged Design:** IP55 ingress protection means the MTP830 S is extremely weather resistant – giving you the robustness you require in a radio.

**PRODUCT SPEC SHEET**  
MTP830 S

**GENERAL**

Dimensions mm	Standard Battery 125 x 59 x 36	
Weight	174g (radio only) 234g (with standard battery)	
Battery Performance	Class 4 (1W)	Class 3L (1.8W)
Duty Cycle (5/5/90)	> 23 hours	> 20.5 hours
Duty Cycle (5/35/60)	> 17 hours	> 15.5 hours
Talk Time	3.5 hours	2.5 hours

**RF SPECIFICATIONS**

Frequency Bands	380-430 MHz	
Transmitter RF Power	Class 4 (1W)	Class 3L (1.8W)*
RF Power Level Accuracy	+/- 2 dB	
Adaptive Power Control	Per EN 300 392-2	
Receiver Class	A and B	
Receiver Static Sensitivity	-112 dBm minimum (-115 dBm typical)	
Receiver Dynamic Sensitivity	-103 dBm minimum (-107 dBm typical)	

**ENVIRONMENTAL SPECIFICATIONS**

Operating Temperature oC	-30 to +60
Storage Temperature oC	-40 to +85
Humidity	ETSI 300 019-1-7 Class 7.3E
Dust and Water Ingress Protection	IP55 per IEC 60529
Shock, drop and vibration	ETSI 300-019-1-7 Class 5M3

**SECURITY SERVICES**

Authentication (Mutual)	
Air Interface Encryption (CESG Baseline)	Class 1 (CLEAR), Class 2 (SCK), Class 3(CCK, DCK, GCK), OTAR
E2E Encryption Options	
BSI SIM Card Encryption	

**MAIN DATA SERVICES**

Packet Data	WAP Browser (Image Browsing) Multi-Slot Packet Data
Short Data	STATUS Messaging in TMO & DMO SDS Messaging in TMO & DMO Short Data Application
TNP1	Simultaneous operation of Packet Data and Short Data Services over a common Peripheral Equipment Interface (PEI)
Remote Terminal Control	Remote control of radio terminal via SDS
AT Commands	Comprehensive set of AT Commands (including Voice Control)
Radio Management	Fully compatible with Motorola Integrated Terminal Management system for fleet management (remote programming)

**LICENSES/OPTIONS\***

Call-Out	
Greyscale or Colour Display Options	
GPS	
Multi-Slot Packet Data	
WAP Browser	
Enhanced Security	
Permanent Disable	
Temporary Disable	
Radio User Assignment/Radio User Identity (RUA/RUI)	
Language Options	
Air Interface Encryption Options	
End to End Encryption Options	
Man-Down Feature	
Class 3L (1.8W) Option	
PTT Double Push	

**LOCATION SERVICES**

Simultaneous Satellites	12
GPS antenna	Helical integrated into TETRA antenna
Sensitivity	-152 dBm / -182 dBW
Accuracy	5m (50% probable)      10m (95% probable)
Protocols	ETSI LIP & Motorola LRRP

**ACCESSORIES**

Antennas (Short stubby, long stubby, whip)
Battery (Li Ion 1850 mAh)
Various carrying solutions
Battery Chargers & Vehicle Adapters
Audio headsets
Remote Speaker Microphones
Earpieces
In-Vehicle Solutions
Serial & USB Programming Cables

**USER INTERFACE**

Colour Display	130x130 pixel screen with 65,536 vivid colours Flip screen and large/x-large text & icon options; Backlight
Screen Saver	Gif image & text (any user's selection)
Universal Time Display	
Multiple Languages	
Keypad Lock	Includes automatic keypad locking
Talkgroup Management	User friendly, flexible, efficient, fast
Talkgroups – TMO	2048
Talkgroups – DMO	1024
Talkgroup Folders	Dual layer folder structure (folder/subfolder) 256 folders
Favourite Folders	Up to 3 (to store any favourite talkgroup)
Menu	Tailored to user needs Menu Shortcuts Menu Configuration
Contacts Management	Cellular Type (Rapid Search)
Contact List	Up to 1000 contacts Up to 6 numbers per contact, max 2000 numbers
Multiple Dialling Methods	User selects how to dial
Fast/Flexible Call Response	Private Call Response to a Group Call via One Touch Button
Vibrator & Multiple Ring Tones	
Message Manager	Cellular Type (Flexible) with concatenated messages up to 1,000 characters
Text message list	100 Predefined or user defined
Intelligent Keypad Text Input	
Status List	400
Country/Network Code List	100
Scan lists	40 lists of 20 groups
User Controls	
Multi-function Rotary Knob	Volume, List Scroll, and/or Talkgroup Selection
One touch Buttons & Keys	Each button key can be programmed with one of the multiple functions available
Adaptive Audio Control	Best audio profile for a given working environment
Covert Mode	

**MAIN VOICE SERVICES**

Full Duplex	TMO	Private, PABX, PSTN, Emergency
Half Duplex	TMO	Private, Group, Emergency
	DMO	Private, Group, Emergency Inter-MNI
Dialling		Direct, Scroll, Speed, One touch button Alpha Search, Call History Redial
Emergency (tailored by users)	Tactical	Emergency Group Call to ATTACHED talkgroup
	Non-Tactical	Emergency Group Call to DEDICATED talkgroup
	Individual	Emergency Call to PREDEFINED party (half/full duplex)
	HOT MIC	Talk without needing to press PTT (user enabled)
STATUS Message		Sent to dispatch console (user enabled)
	DMO to TMO	Enter DMO emergency (with/without gateway) or enter TMO emergency
Preemptive Priority Calls		

\* Only a subset of available licenses/options are listed.  
Product features may be subject to infrastructure support.  
Selected features are subject to optional or future software upgrade.

For more information on how your organisation can benefit from the MTP830 S, please visit us on the web at: [www.motorola.com/tetra](http://www.motorola.com/tetra)

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