



ATS2500 (keypad & non-keypad) Specifications

GENERAL - VHF, UHF	ATS2500 Model I	ATS2500 Model II
*Frequency:	136 - 174 / 330 - 400 / 403 - 470 / 450-527 / 800	
Power Supply:	Provided through rechargeable battery - 7.5V	
DIMENSIONS:		
H x W x D (Radio footprint height excluding knobs) With Standard High Capacity NiMH Battery:	137 mm x 57.5 mm x 37.5 mm	
With Ultra High Capacity NiMH Battery:	137 mm x 57.5 mm x 40.0 mm	
With NiCD Battery:	137 mm x 57.5 mm x 40.0 mm	
With Lilon Battery:	137 mm x 57.5 mm x 33.0 mm	
WEIGHT:		
With Standard High Capacity NiMH Battery:	420 gm	428 gm
With Ultra High Capacity NiMH Battery:	508 gm	508 gm
With NiCD Battery:	450 gm	458 gm
With Lilon Battery:	350 gm	358 gm
AVERAGE BATTERY LIFE @ 5/5/90 CYCLE		
With Standard High Capacity NiMH Battery:	Low Power 11 hours	High Power 8 hours
With Ultra High Capacity NiMH Battery:	14 hours	11 hours
With NiCD Battery:	12 hours	9 hours
With Lilon Battery:	11 hours	8 hours
Sealing:	Withstands rain testing per MIL STD 810 C/D/E and IP54	
Shock and Vibration:	Protection provided via impact resistant housing exceeding MIL STD 810-C/D/E and TIA/EIA 603	
Dust and Humidity:	Protection provided via environment resistant housing exceeding MIL STD 810 C/D E and TIA/EIA603	

TRANSMITTER SPECIFICATION

	All Specs Measured to TIA/EIA-603			
	VHF	330-400 MHz	UHF	800 MHz
*Frequency (MHz)	136-174 MHz	330-400 MHz	403-470 MHz 450-527 MHz	806 - 825 MHz
Power	1 - 5W	1 - 4W	1 - 4W	1 - 2.5W
Frequency Separation	Full bandsplit			Full bandsplit
Channel Spacing	12.5/20/25 kHz			25 kHz
Frequency Stability: (-30°C to 60°C, +25°C Ref.)	±2.5 ppm			±2.5 ppm
Modulation Limiting	±2.5 kHz @ 12.5 kHz ±4 kHz @ 20 kHz ±5 kHz @ 25 kHz			±5 kHz @ 25 kHz
FM Hum & Noise	<-34 dB @ 12.5 kHz <-38 dB @ 20 kHz <-40 dB @ 25 kHz			-40 dB
Conducted/Radiated Emission	-66 dBW < 1GHz -60 dBW > 1GHz			-66 dBW < 1GHz -60 dBW > 1GHz
Adjacent Channel Power	-60 dBc @ 12.5 kHz			-60 dBc -70 dBc @ 20/25 kHz
Audio Response (from 6 dB/oct. pre-emphasis 300-3000 Hz)	+1 to -3 dB			+1 to -3 dB
Audio Distortion	3%			3%

RECEIVER SPECIFICATION

	All Specs Measured to TIA/EIA-603			
	VHF	330-400 MHz	UHF	800 MHz
*Frequency	136-174 MHz	330-400 MHz	403-470 MHz 450-527 MHz	851-870 MHz
Power	1 - 5W	1 - 4W	1 - 4W	1 - 2.5W
Frequency Separation	Full bandsplit			Full bandsplit
Sensitivity (12dB SINAD)	0.25 µV			0.25 µV
Intermodulation	-70 dB			-65 dB
Adjacent Channel Selectivity	-60 dB @ 12.5 kHz -70 dB @ 20/25 kHz			-70 dB
Spurious Rejection	-70 dB			-70 dB
Rated Audio	0.5 W			0.5 W
Audio Distortion @ Rated Audio	3% typical			3% typical
Hum and Noise	<-34 dB @ 12.5 kHz <-38 dB @ 20 kHz <-40 dB @ 25 kHz			-37 dB
Conducted Spurious Emission	-57dBm < 1 GHz -47dBm > 1 GHz			-57dBm < 1GHz -47dBm > 1GHz

All Rx Hum & Noise numbers assume low level expander is used.
Data for +25°C unless otherwise specified.
*Availability subject to country law and regulations / Specifications subject to change without notice.
All specifications shown are typical. Radios meet applicable regulatory requirements.

Portable Military Standards 810 C, D, & E

Applicable MIL-STD	810C		810D / E	
	Methods	Procedures	Methods	Procedures
Low Pressure	500.1	1	500.2	1
High Temp	501.1	1, 2	501.2	1, 2
Low Temp	502.1	1	502.2	1, 2
Temp. Shock	503.1	1	503.2	1
Solar Radiation	505.1	1	505.2	1
Rain	506.1	1, 2	506.2	1, 2
Humidity	507.1	2	507.2	2
Salt Fog	509.1	1	509.2	1
Dust	510.1	1	510.2	1
Vibration	514.2	8, 10	514.3	1
Shock	516.2	1, 2, 5	516.3	1, 4

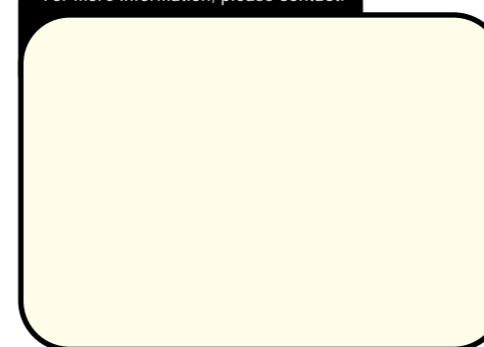
Firmware Offering	ATS2500 Privacy Plus Roaming		ATS2500 Smartzone	
	Non-Keypad	Keypad	Non-Keypad	Keypad
Model				
GENERAL				
Maximum Number of Modes	16	160	16	250
Systems				
Maximum Number of Systems	16	20	16	20
Max Number of Talkgroups / Personality	15	15	15	15
Max Number of Personality	16	50	16	50
Channel/Zone Selection via Menu	-	✓	-	✓
Caller ID- Text Alias	N/A	✓	N/A	✓
Low Battery Indication	✓	✓	✓	✓
Out of Range Indicator	✓	✓	✓	✓
Microphone Automatic Gain Control (TX)	✓	✓	✓	✓
Time-Out-Timer Programmable via RSS	✓	✓	✓	✓
Variable F Power Level	✓	✓	✓	✓
TRUNK MODE				
Group Call/Announcement Call	✓	✓	✓	✓
Private Call/Call Alert/Telephone Encode	X	✓	X	✓
Private Call/Call Alert/Telephone Decode	✓	✓	✓	✓
One-Touch Button	X	X	X	✓
Trunking Scan	✓	✓	✓	✓
Selective Radio Inhibit	✓	✓	✓	✓
Emergency	X	X	✓	✓
Remote Monitor	X	X	✓	✓
Dynamic Regroup	X	X	✓	✓
Reprogram Request	X	X	✓	✓
Status/Message (encode only)	X	X	X	✓
AMSS	✓	✓	✓	✓
SMARTZONE (RSSI Site/32 element cc etc)	✓	✓	✓	✓
Voice on Control	X	X	✓	✓
OMNILINK Capable	X	X	Optional**	Optional**
CONVENTIONAL SIGNALING				
PL/DPL/CSQ	✓	✓	✓	✓
Monitor	✓	✓	✓	✓
Conventional Scan	✓	✓	✓	✓
MDC -1200	X	X	Optional**	Optional**
Voting Scan	N/A	N/A	Optional**	Optional**

** Optional feature must be ordered upfront with radio.



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ATS2500

Trunked System Radio Series



Professional Radio

The Power Tool For Contact & Control

Trunked Professional Radio Series

From daily operations of policing, fighting oil spills, fire, or just any life threatening situations, you can rely on Motorola Professional Radio Series – ATS2500 to meet your communication needs.

Both the ATS2500 non-keypad and ATS2500 keypad are designed for use in the SMARTNET/SmartZone trunking systems. Each of the models comes with either Privacy Plus Roaming or SmartZone software packages; offering a wide range of capability for SmartZone Shared Mobile Radio users to public safety users to accomplish their unique tasks.

The ATS2500 radio also allows users the flexibility to roam freely from site to site in the wide area infrastructure systems based on the signal strength. The radio will automatically send its talkgroup affiliation and radio ID whenever it changes sites.

Common Key Features for ATS2500 non-keypad and ATS2500 keypad model

Audio Technology
As with any radio, sound quality is critical for effective communications. Motorola's ATS2500 Trunked system radio series can be heard in almost any environment because of LLE and noise cancelling microphone.

Intrinsically Safe Standards
The radio complies with Factory Mutual (FM) Intrinsically Safe Standards in order to meet the needs of petrol chemical, oil refinery, hazardous material users and those who operate in dangerous environment such as emergency services and public safety.

Wideband and Programmable Channel Spacing (12.5/20/25 kHz)
The wideband technology and programmable channel spacing of 12.5/20/25 kHz offer flexibility & easy migration of channel spacing requirement in any situation.

Failsafe Operation
In the event of a trunked system or central controller failure, radio conversation is still possible in failsafe mode. Upon indication of the central controller failure, the radio will automatically revert to a preassigned voice channel and operate in a non-trunked repeater mode.

Selective Radio Inhibit
In situations when the radios have been are stolen or are missing, selective radio inhibit allows the dispatcher to remotely disable the radios for greater privacy.

Talkgroup/Priority Scan
The ATS2500 radio provides effortless scanning ability to monitor conversations on other talkgroups without having to change systems or talkgroups. It supports dual mode scanning, priority level and nuisance channel delete scanning.

Dual modes
The ATS2500 radio operates on both trunking and conventional modes providing maximum systems flexibility.

Lithium Ion battery option
Motorola ATS2500 trunked radio series offers a Lithium Ion battery option which provides higher capacity at a lighter weight; allowing users to communicate for a longer period of time.

- ATS2500 also supports various multiple call types such as:
- » Private Call
 - » Call Alert
 - » Telephone Interconnect
 - » Group call
 - » Announcement call

ATS2500 SmartZone Enhanced Features
Committed to satisfying the trunking communication needs, the ATS2500 SmartZone package offers the public safety features below

- a. **Emergency Alarm/Call**
During emergency operation, the ATS2500 SmartZone radio is assigned the highest priority for access on trunking system. In life threatening situations, access to communication is critical, an emergency alarm will be sent to the dispatcher

identifying the unit in trouble, even before a channel is assigned. Emergency calls can be directed to specific talkgroups, dispatcher, or announcement groups, according to users' need.

- b. **Dynamic Regrouping**
Enables different talkgroups to be brought together to communicate during an emergency. It permits the dispatcher to change the radio talkgroup assignments of individual radios without having to return the radio to the workshop for reprogramming.
- c. **Omlink (optional)**
This feature allows the user nation wide roaming capabilities among all the SmartZone networks.
- d. **Advanced Conventional (optional)**
The ATS2500 SmartZone Radio supports a range of enhanced signaling capabilities such as PL, CTCSS to suite users with complex communication needs.
- e. **Remote Monitor**
Dispatcher has control to monitor the radio user activity especially when it suspected that the radio user may be in danger.

ATS2500 Common Accessories
Enhanced your radios capabilities

A comprehensive range of accessories is also available so that Motorola professional ATS2500 Trunked Radio Series can be customised to suit your unique applications. Adding the proper headsets, microphones, batteries, chargers or carry case can enhance the productivity of the two-way radio users.

Motorola accessories are built with the highest quality standards and are specially engineered to ensure maximum performance for your radio, no matter what profession you're in.

Key Accessories:



Transformer



Antenna



Rapid-rate Desktop Charger



Battery & Belt Clip



Remote Speaker Microphone

ATS2500 non keypad



ATS2500 keypad



Two-Year Warranty

Each Motorola radio is backed by a two-year warranty on radio parts and labour and a one-year warranty on the battery, charger, antenna and belt clip.

Motorola: Reliability & Quality

Accelerated Life Testing
Stringent Motorola's Accelerated Life Testing simulating five years of hard use in real life. EIA RS-316B in Shock, Vibration, Dust, Humidity, IP54 for Sealing.

MIL-STD 810C, D and E
Stamp of approval from the U.S. Military for use in rough environments.

ISO 9001 Standard
Compliance with ISO 9001 Standard - an international quality system assurance on design, development, production, installation and servicing of a product.