

EVX-S24

Compact,
discreet,
lightweight

Portable digital radio

Give your team members a compact, discreet, and lightweight radio that allows them to be comfortable in any situation.

Worn on a belt, tucked away in a pocket or clipped to a lapel, the water-submersible and dust-proof EVX-S24 is designed to survive demanding conditions. It operates in both analogue and digital modes, so it's ideal for use with mixed fleets. And in digital mode, enjoy noise cancellation for crisp audio and clear conversations.



General features

- Water Submersible and Dust Proof (IP67)
- Channel Capacity:
 - 256 Channels/ 16 Groups
- 4 Programmable Buttons
- 8 Character Alphanumeric Display
- Safety Features:
 - Lone Worker Alert
 - Emergency Alert
- Multiple Scan Options
- Better Radio Call Quality with AMBE+2™ Vocoder
- Battery Status Indicator (Low Battery Alert)
- Battery Saver
- Busy Channel Lock Out (BCLO)
- Time Out Timer
- Keypad Lock
- AF Minimum Volume
- Auto Power Off
- Escalating Alerts
- Low Power
- Whisper Mode
- RSSI Indicator
- Internal VOX (Compatible Headset Required)

Signalling features

- MDC-1200® ANI Encode
 - MDC-1200 ANI
 - MDC-1200 Call Alert
 - MDC-1200 Selcall
 - MDC-1200 Radio Check
 - MDC-1200 Stun/Revive
- FleetSync® ANI Encode
- CTCSS/DCS Encode and Decode
- 2-Tone Encode/Decode
- 5-Tone Encode/Decode
- Stun/Kill/Revive (5-Tone and DTMF Pager)
- DTMF Encode/Decode
- DTM ANI
- DTMF Paging
- DTMF Speed Dial

Analogue mode features

- Busy Tone Lock Out (BTLO)
- Auto Range Transponding System (ARTS™)
- Voice Inversion Encryption

Digital

mode features

- Direct Mode
- Transmit Interrupt
- Site Search
- Message Control and Privacy
- Text Message
- All, Group and Private Call
- Basic and Enhanced Privacy
- Radio Check
- Radio Stun/Revive
- Remote Monitor (Decode)
- Call Alert
- Call History
- Simplex Only and Repeater Capable Encryption
- Emergency
- Radio Enable/Disable
- Scan Options:
 - Scan (Mixed Mode - Analogue/Digital Channels)
 - Scan (Operator Selectable On/Off)



MOTOROLA SOLUTIONS

GENERAL SPECIFICATIONS

Frequency Range	UHF: 403 – 480 MHz
Dimension (H x W x D)	91 x 55 x 31 mm
Weight Approx. with Antenna, Belt Clip	215 g (with PMNN4468, ATU-20, Belt Clip)
Display	8 Character Alphanumeric
Channel Spacing	12.5 kHz (Digital) 12.5/20/25 kHz (Analogue)
Number of Channels and Groups	256/16
Programmable Buttons	4 (Front: 3, Side: 1)
Battery Life [5-5-90 Duty with Battery Saver]	Digital 3W: 12 Hours Analogue 2W: 11 Hours
IP Rating	IP67
Power Supply Voltage	3.7 VDC (Nominal)
Operating Temperature Range	-30° C to +60° C
Frequency Stability	± 1.5 ppm
RF Input-Output Impedance	SMA 50 Ohm

RECEIVER SPECIFICATIONS

measured by EN 300 086, EN 300 113

Sensitivity	Analogue: 20 dB SINAD: 0.4µV Digital: 1% BER: 0.28µV
Adjacent Channel Selectivity	70/60 dB (25 kHz/12.5 kHz)
Intermodulation	65 dB
Spurious Rejection	70 dB
Audio Output	500 mW @ 4 Ohms 10 % THD
FM Hum and Noise	45/40 dB (25 kHz/12.5 kHz)
Conducted Spurious Emission	-57 dBm

TRANSMITTER SPECIFICATIONS

measured by EN 300 086, EN 300 113

Output Power	Digital: 0.5W/1W/2W/3W ¹ , Analogue: 0.5W/1W/2W
Modulation Limiting	± 5 kHz (25 kHz), ± 4 kHz (20 kHz), ± 2.5 kHz (12.5 kHz)
Conducted Spurious Emission	-36 dBm (≤1 GHz), -30 dBm (>1 GHz)
FM Hum and Noise	45/40 dB (25 kHz/12.5 kHz)
Audio Distortion	< 5 % @ 1 kHz
Adjacent Channel Power	70/60 dB
Analogue FM Modulation	16K0F3E (25 kHz), 14K0F3E (20 kHz), 11K0F3E (12.5 kHz)
4FSK Digital Modulation	12.5 kHz Data: 7K60F1D/7K60FXD 12.5 kHz Voice: 7K60F1E/7K60FXE Combination of 12.5 kHz Voice and Data: 7K60F1W
Digital Vocoder Type	AMBE+2
Digital Protocol	ETSI102 361-1, -2, -3

Applicable MIL-STD

METHODS/PROCEDURES

Standard	MIL 810C	MIL 810D	MIL 810E	MIL 810F	MIL 810G
Low Pressure	500.1 proc 1	500.2 proc 2	500.3 proc 2	500.4 proc 1/2	500.5 proc 1/2
High Temperature	501.1 proc 1/2	501.2 proc 1/A1 proc 2/A1	501.3 proc 1/A1 proc 2/A1	501.4 proc 1/HOT proc 2/HOT	501.5 proc 1/A1 proc 2/A2
Low Temperature	502.1 proc 1	502.2 proc 1/Cat 3 proc 2/Cat 1	502.3 proc 1/Cat 3 proc 2/Cat 1	502.4 proc 1/Cat 3 proc 2/Cat 1	502.5 proc 1/Cat 3 proc 2/Cat 1 proc 3/Cat 1
Temperature Shock	503.1 proc 1	503.2 proc 1/A1 Cat 3	503.3 proc 1/A1 Cat 3	503.4 proc 1	503.5 proc 1/C
Solar Radiation	505.1 proc 2	505.2 proc 1	505.3 proc 1	505.4 proc 1	505.5 proc 1/A1
Rain	506.1 proc 1/2	506.2 proc 1/2	506.3 proc 1/2	506.4 proc 1/3	506.5 proc 1/3
Humidity	507.1 proc 2	507.2 proc 2	507.3 proc 2	507.4	507.5 proc 2/Agg
Salt Spray/Fog	509.1 proc 1	509.2 proc 1	509.3 proc 1	509.4	509.5
Dust	510.1 proc 1	510.2 proc 1	510.3 proc 1	510.4 proc 1	510.5 proc 1
Blowing Sand	-	510.2 proc 2	510.3 proc 2	510.4 proc 2	510.5 proc 2
Vibration	514.2 proc 8/F, W	514.3 proc 1/Cat 10 proc 2/Cat 3	514.4 proc 1/Cat 10 proc 2/Cat 3	514.5 proc 1/ Cat 24	514.6 proc 1/ Cat 24
Shock	516.2 proc 1/2/3/5	516.3 proc 1/4/6	516.4 proc 1/4/6	516.5 proc 1/4/6	516.6 proc 1/4/6

¹ Digital High Power output is 2.5 W typical for 470 - 480 MHz frequency range.

Availability is subject to individual country law and regulations.

All specifications shown are typical unless otherwise stated and are subject to change without notice.

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Accessories

Antennas

- AAE23X501 ATU-6A: 400-430 MHz 165 mm (6.5")
- AAE23X506 ATU-6B: 420-450 MHz 155 mm (6.1")
- AAE23X502 ATU-6C: 440-470 MHz 155 mm (6.1")
- AAE23X503 ATU-6D: 450-485 MHz 152 mm (6")
- AAM23X501 ATU-20AS: Stubby 400-430 MHz 80 mm (3.15")
- AAM23X504 ATU-20CS: Stubby 420-450 MHz 80 mm (3.15")
- AAM23X502 ATU-20DS: Stubby 440-470 MHz 80 mm (3.15")
- AAM23X503 ATU-20FS: Stubby 450-480 MHz 80 mm (3.15")
- AAM28X501 ATU-21AS: Super Stubby 400-420 MHz 50.8 mm (2")
- AAM28X502 ATU-21CS: Super Stubby 420-440 MHz 50.8 mm (2")
- AAM28X503 ATU-21DS: Super Stubby 440-460 MHz 50.8 mm (2")
- AAM28X504 ATU-21FS: Super Stubby 460-480 MHz 50.8 mm (2")

Battery

- PMNN4468 2300 mAh Li-Ion Battery

Carry Solutions

- AAM22X501 LCC-S24: Leather Case, Belt Loop
- AAM22X502 LCC-S24S: Leather Case, Swivel Belt Loop
- AAM18X501 Clip-27: Belt Clip

Chargers

- PS000227A12 Micro USB AC Charger (EU)
- PS000227A13 Micro USB AC Charger (UK)
- AAM19X501 CD-65: Standard Single Unit Charging Cradle
- AAM20X501 CD-66: Enhanced Single Unit Charging Cradle
- GMLN5515A VAC6066: Multi Unit Charger (EU)
- GMLN5516A VAC6066: Multi Unit Charger (UK)

Audio Accessories

- AAM21X501 MH-89A4B: Earpiece Microphone
- AAM24X501 MH-90A4B: Compact Speaker Microphone
- AAE46X509 MH-66F4B: IP57 Submersible Speaker Microphone
- AAM26X501 VH-190: VOX Lightweight Headset, Behind-the-Head



EVX-S24 Yellow

EVX-S24 Black