

*MOTOROLA MCX SERIES
PROFESSIONAL MOBILE RADIO FOR
MPT TRUNKING SYSTEM*

Motorola offers the MCX Series, its range of professional MPT trunked mobile radios allowing users of any size to tap into the vast capabilities of MPT1327 networks.

From voice to data capabilities the MCX Trunked Professional Mobile Radio Series has the right radio for you, enabling organisations to achieve high levels of productivity and efficiency. Ideally suited for courier, airport, transportation, mining and security services.

The MCX700, MCX760 & MCX780 all comply with the MPT1327 signalling standard and support major dialling plans such as MPT1343, RegioNet 43 and ANN.

From the versatile MCX760 radio to the enhanced features of the "DATA READY" MCX780, with its optional MAP27 Expandable Control Head and built-in modem, means you can customise your solution to grow with your business now and in the future. The series also includes the MCX700 MAP27 Databox for users who require a data only radio.

*MCX SERIES
PROFESSIONAL
MOBILE RADIO SYSTEM*

MCX780

The MCX780 is a DATA READY radio which means you can enjoy data capabilities now with the optional MAP27 Expandable Control Head with built in modem or easily add MAP27 any time in the future.



MCX760 & MCX780 SPECIFICATIONS

General Specifications	VHF	UHF
* Frequency Range	136-174MHz	403-470MHz 450-527MHz
Frequency Stability (-30C to 60C, 25c Ref.)	± 2.5ppm	± 2ppm
Channel Capacity	16 channels per conventional mode	
Power Output	1 to 25W	
Power Supply	13.2Vdc (10.8-15.6Vdc) Negative Vehicle ground	
Channel Spacing	12.5/20/25 kHz	
Dimensions	Depth x Width x Height	
MCX760: (add 9mm for volume knob)	186mm x 179mm x 59mm	
MCX780: (add 7mm for volume knob)	188mm x 185mm x 72mm	
Weight	1400g (3.15lbs)	
Operating Temperature	- 30 to +60°C	
Sealing	Passes rain testing to IP54	
Shock and Vibration	Meets MIL-STD 810-C,D&E and TIA/EIA 603	
Dust	Meets MIL-STD 810-C,D&E and TIA/EIA 603	
Humidity	Meets MIL-STD 810-C,D&E and TIA/EIA 603	

TRANSMITTER	VHF	UHF
Modulation Limiting	± 2.5kHz @ 12.5kHz ± 4.0kHz @ 20kHz ± 5.0kHz @ 25kHz	
FM Hum & Noise	- 40dB @ 12.5kHz - 45dB @ 20/25kHz	
Conducted/ Radiated Emiss	- 36dBm < 1 GHz - 30dBm > 1 GHz	
Adjacent Channel Power	- 60dB @ 12.5kHz - 70dB @ 20/25kHz	
Audio Response (300 to 3000Hz)	+1, -3dB	
Audio Distortion @ 1000Hz, 60% Rated Max. Deviation	3%	

RECEIVER	VHF	UHF
Sensitivity (12dB SINAD)	0.30uV (0.22uV typical)	
Intermodulation (EIA)	78dB @ 25kHz 78dB @ 20kHz 75dB @ 12.5kHz	75dB @ 25kHz 75dB @ 20kHz 75dB @ 12.5kHz
Adjacent Channel Selectivity	80dB @ 25 kHz 70dB @ 20 kHz 65dB @ 12.5 kHz	75dB @ 25 KHz 70dB @ 20 kHz 65dB @ 12.5 kHz
Spurious rejection	80dB @ 20/25 kHz 75dB @ 12.5 kHz	75dB @ 20/25 kHz 70dB @ 12.5 kHz
Rated Audio	3W Internal 7.5W & 13W External	
Audio Distortion @ rated audio	3% Typical	
Hum & Noise	- 40dB @ 12.5kHz - 45dB @ 20/25kHz	
Audio Response (300 to 3000Hz)	+1, -3dB	
Conducted Spurious Emission per FCC part 15	- 57dBm < 1 GHz - 47dBm > 1 GHz	

* Availability subject to country law and regulations. Specifications subject to change without notice. All specifications shown are typical. Radios meet applicable regulatory requirements.

For more information, please contact:



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MCX700/760/780.01.Aust.Aug-03

Mobile Military Standards 810 C		
Applicable MIL-STD	Methods	Procedures
Low Pressure	500.1	1
High Temp	501.1	1, 2
Low Temp	502.1	2
Temp. Shock	503.1	1
Solar Radiation	505.1	1
Rain	506.1	2
Humidity	507.1	2
Salt Fog	509.1	1
Dust	510.1	1
Vibration	514.2	8, 10
Shock	516.2	1, 2, 5

Mobile Military Standards 810 D		
Applicable MIL-STD	Methods	Procedures
Low Pressure	500.2	2
High Temp	501.2	1,2
Low Temp	502.2	1, 2
Temp. Shock	503.2	1
Solar Radiation	505.2	1
Rain	506.2	2
Humidity	507.2	2, 3
Salt Fog	509.2	1
Dust	510.2	1
Vibration	514.3	1
Shock	516.3	1

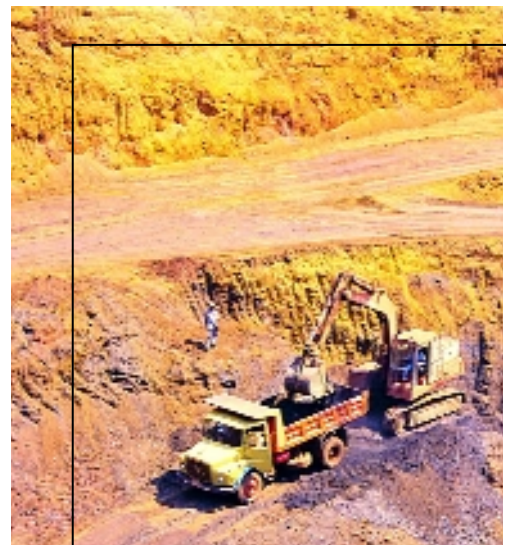
Mobile Military Standards 810 E		
Applicable MIL-STD	Methods	Procedures
Low Pressure	500.3	2
High Temp	501.3	1, 2
Low Temp	502.3	1, 2
Temp. Shock	503.3	1
Solar Radiation	505.3	1
Rain	506.3	2
Humidity	507.3	3
Salt Fog	509.3	1
Dust	510.3	1
Vibration	514.4	1
Shock	516.4	1

One-Year Warranty
Each Motorola radio is backed by a one-year warranty on radio parts and labour.

ALTM Accelerated Life Testing
Motorola's Accelerated Life Testing simulates 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.



MOTOROLA

MCX700

MCX760

MCX780

**MOTOROLA MCX SERIES
PROFESSIONAL MOBILE RADIO
FOR MPT TRUNKING SYSTEM**

**SMART SIMPLICITY IN
MOBILE COMMUNICATIONS**

MCX760



we hear you

MCX780



**COMMON FEATURES OF THE
MOTOROLA MCX760 AND MCX780
PROFESSIONAL MOBILE RADIOS**

EXCELLENT AUDIO CLARITY

Motorola's special voice compression and low level expansion technology ensures crisper, clearer and stronger audio quality, allowing you to communicate even in harsh environments.

SWITCHABLE CHANNEL SPACING

The series allows programmable channel spacing of 12.5/20/20.5kHz, offering flexibility and easy migration of channel spacing.

INTUITIVE MENU

The intuitive driven menu consists of features such as one-touch dialling and alphanumeric phonebook providing users easy management of the radio functionalities.

BUILT-IN VOICE STORAGE

The built-in voice storage in both MCX760 & MCX780 provides users with a paperless notepad to store and retrieve messages.

DYNAMIC REGROUPING

Enables a field radio to be reassigned to flexible groupings over the air, without the necessity to return the radio to the workshop for re-programming.

REMOTE MOUNT CONTROL HEAD

The remote mount control head can be mounted on the dashboard without the radio chassis. This is especially useful when space is a constraint.

STATUS CALL/MESSAGING

Up to 32 pre-defined text messages can be tagged to status codes in the contact list allowing users to send frequently used status messages quickly without the need to talk. The radios can also store up to 10 unread status messages.

SHORT DATA MESSAGE

Enables users the flexibility to send and receive short data messages with a maximum of 20 characters per message.

MCX760

MCX760 – THE VERSATILE RADIO

Offering an expandable list of programmable features, the MCX760's flexibility enables it to grow with the organisation. The versatile MCX760 mobile will keep your productivity at its highest, no matter how fast your business grows.

LARGE LCD DISPLAY

The large one-line alpha-numeric display with icons such as radio signal indicator & caller identification makes it easy & clear to read both text and icon display.

4 CUSTOMISED BUTTONS

Easy to use, users have the flexibility to dedicate the most useful operations to these specific buttons for quick one-touch access.

4 PERSONALITIES

Radios are configurable for up to 4 personalities for MPT or conventional signalling.

MISSED CALL

Ability to store up to 10 missed call entries, allowing the user to return the calls received, ensuring that important calls will not be missed.

CONTACT LIST

Enables users easy access for up to 100 pre-programmed alpha-numeric entries.



MCX780

MCX780 – THE SOPHISTICATED RADIO

The MCX780 not only includes the features of the MCX760 it also comes packed with a range of additional features and enhancements for professionals who need to communicate using the advanced levels of MPT radio sophistication.

Equipped with a alpha-numeric keypad and 4 line display the MCX780 is a DATA READY radio fully equipped to handle sophisticated mixed voice and data operations for the most demanding day-to-day operations.

You can start enjoying enhanced data capabilities now with the optional MAP27 Expandable Control Head (with Built-in Modem) or integrate MAP27 data applications any time in the future.

Built to Motorola renown quality the MCX780 mobile radio takes its users to a new level of communication capability.

7 CUSTOMISED BUTTONS

Easy to use, users have greater flexibility to dedicate the most useful operations to these specific buttons for even more quick one-touch access.

LARGE LCD DISPLAY

The large alpha-numeric display allows users to read up to 4 lines of messages. The display also features a radio signal strength icon. The radio provides separate distinctive tones and alpha tagging for incoming calls, enabling both audio and text caller identification.

60 PERSONALITIES

Radios are configurable for up to 60 personalities for MPT or conventional signalling, offering users the flexibility to meet diverse communication needs.

BUILT TO MEET MILITARY SPECIFICATIONS

The MCX Series are commercial quality radios which has been tested to MIL810 (C,D and E) Military Specification Standards including temperature extremes, solar radiation, rain, humidity, salt fog, dust, vibration and shock. These tests were conducted subject to specific military procedures.

OPTIONAL MAP27 EXPANDABLE CONTROL HEAD

DATA MESSAGING

MCX780 provides data messaging directly from the radio or via the optional MAP27 data interface. Users can send data messages either from the 32 pre-programmed status message in the contact list for instant communication or manually entered alpha-numeric text from the keypad. It also enables users to store up to 10 data messages.

NON PRESCRIBED DATA (NPD)

NPD enables data messaging of any length or duration within the network constraints.

Compatible with most types of data equipment this extends the fixed data network into the mobile environment. With data rates higher than 1200 Baud a broad range of specialist applications, such as automated despatch, telemetry, controlling and metering equipment remotely, monitoring databases on the move, are made possible.

MCX700

For those who require a purely data only radio without a user interface there is also the MCX700 MAP27 Databox.

