M7200 Vehicular Tactical Network
700/800 MHz

The M7200 V-TAC provides

- Extended connectivity for portable users of Harris' most advanced networks
- Scene-of-Incident operation as a local base station
- Digital voice and data

The M7200 Vehicular Tactical Network (V-TAC) is a unique public safety mobile radio system that operates on a Harris digital voice and data network. In addition to performing all of the M7200 mobile radio functions, the V-TAC provides in-band network extension to portable radios that cannot directly connect to the OpenSky® radio network. This greatly extends the coverage area for portables, providing added user safety. The M7200 V-TAC can also function as a local base station at the scene of an incident.

Multiple Operating Modes
The M7200 V-TAC supports multiple operating modes, including OpenSky digital operation, Enhanced Digital Access Communication System (EDACS®) or ProVoice™ trunked modes, P25 digital trunked mode, P25 digital conventional mode, and conventional analog mode.

Network Extension
The M7200 V-TAC consists of two tightly coupled digital radios. One of the radios is used to maintain connectivity with the digital network and the other provides connectivity with portable radios, as needed. On cue from a portable radio that has lost direct network connectivity, the M7200 V-TAC automatically establishes connection with the portable radio. The V-TAC then functions as a router between the network and the portable radio, thereby extending the coverage area of the portable.

Scene of Incident
The M7200 V-TAC can also be a vital link at the scene of an incident by providing local control while operating as a local base station, or alternatively, by providing a repeater among radios that are part of the network.

Public Safety Hardened
Its rugged design allows the M7200 V-TAC to operate in demanding environments. The V-TAC is compliant with MIL-STD-810F for temperature, altitude, solar radiation, rain, humidity, salt fog, sand, dust, vibration, and shock, ensuring that it will perform under the wide range of public safety environmental conditions.

Over-the-Air Programming
The M7200 V-TAC supports OpenSky over-the-air programming to take advantage of the software-based digital radio design. Features and user profiles are software-defined and can be configured over the air. The optional over-the-air programming feature also allows communications protocols, encryption keys, and network functions to be changed easily and added at any time.

Secure Communications
The optional Advanced Encryption Standard (AES) and Data Encryption Standard (DES) are offered for maximum security. OpenSky operates the most advanced vocoder on a private wireless Intranet that provides maximum digital voice clarity. As an additional measure of security, OpenSky radios may be password-protected, preventing unauthorized use.

Integrated GPS
The M7200 V-TAC includes an integrated Global Positioning System (GPS) receiver. GPS data may be reported to either a local mobile control unit or over the air to a central location such as a dispatch center. This option allows the V-TAC to fully support the Automatic Vehicle Locator (AVL) for fleet management and dispatch applications.

General Specifications

Dimensions (H x W x D):

8 x 8 x 9 in.
(203 x 203 x 229 mm)

Control Unit (Remote):
2.4 x 7.0 x 4.0 in.
(60 x 175 x 100 mm)

Weight:

16 lb (7.26 kg)

Ambient Temperature Range:

-22 to +140°F
(-30 to +60°C)

Storage Temperature Range:

-40 to +185°F
(-40 to +85°C)

Input Voltage:

12 to 17 VDC at rated RF output

Input Current:

4A Rx mode
12A Tx mode at full power

Options and Accessories

Antennas, encryption, and CH-721 Control Unit.

CH-721 Control Unit

Transmitter and Receiver

	Mobile Radio Unit Network Connectivity	Vehicular Repeater Base for Local Coverage and Extension
Frequency Range (MHz):	794-797, 803-806 SMR 806-821, 851-866 NPSPAC 821-824, 866-869	764-767, 773-776 SMR 806-821, 851-866 NPSPAC 821-824, 866-869
Transmit Power (W):	10 nominal	0.25 nominal (repeater link)
Channel Spacing (kHz):	12.5	12.5
Data Communication Mode:	Half Duplex or Full Duplex	Half Duplex or Full Duplex
Oscillator Stability (ppm):	<±1.5	<±1.5
Sensitivity @12 dB SINAD) (dBm): @ 1% BER (dBm):	 -118 -112	 -118 -112
Intermodulation Rejection (dB):	70	70

Environmental Specifications

Standard	Parameter	Methods & Procedures
MIL-STD-810F*	Low Pressure	500.4, Proc. II
	High Temperature	501.4, Proc. I, II, Category A1
	Low Temperature	502.4, Proc. I, II, Category C1
	Temperature Shock	503.4, Proc. I
	Solar Radiation	505.4, Proc. II
	Blowing Rain	506.4 Proc. I
	Humidity	507.4, Proc. II
	Salt Fog	509.4, Proc. I
	Blowing Dust	510.4, Proc. I
	Vibration (Functional/Ground Mobile)	514.5, Proc.1, Category 8
	Vibration (Basic Transportation)	514.5, Proc.1, Category 8
	Shock (Functional/Basic)	516.5, Proc. I
	Shock (Transit Drop)	516.5, Proc. IV
	Shock (Bench Handling)	516.5, Proc. VI
SAEJ1455	Temperature	4.1.3.1
	Temperature Shock	4.1.3.2
	Shock (Functional/Basic)	4.10.3.4
SAEJ551/15	ESD (Functional)	Human Body Model
U.S. Forest Service	Vibration (10-60 Hz)	USDA LMR Standard, Section 2.15
*Also meets equivalent superseded MIL-STD-810C, -D, and -E.		

Regulatory Data

Frequency Range (MHz)	RF Output (W)	FCC Type Acceptance Number	Applicable FCC Rules	Industry Canada Certification Number	Applicable Industry Canada Rules
764-803	3, 10	BV8M7200VTAC	90	NA	NA
806-869	3, 10	BV8M7200VTAC	90	3670A-M72VTAC	RSS-119

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