



P7300 PORTABLE

700/800 MHz

VERSATILE AND RELIABLE COMMUNICATIONS IN A RUGGED PACKAGE

FEATURES

The rugged mechanical package of the P7300 provides high performance and dependable service. The radio meets MIL-STD-810F for durability, including a 1-meter drop per TIA, and IP67 and IP68 for immersion.

The Radio TextLink option improves real-time communications among first responders while also providing the capability to leave messages with users that are actively engaged in other critical activities.

The optional Advanced Encryption Standard (AES) and Data Encryption Standard (DES) are available for maximum security.

The 700/800 MHz dual-band P7300 portable provides multimode functionality, dual-band TDMA-capable operation, digital voice and Internet Protocol (IP) data, and P25 Phase 2 upgrade capability. The radio supports multiple applications: P25 digital trunking, P25 digital conventional, OpenSky® digital TDMA trunking, Enhanced Digital Access Communications System (EDACS®) trunking, ProVoice™ digital trunking, and complete analog conventional features.

ADVANCED TRUNKING FEATURES

The P7300 supports a wide range of digital trunking features, including voice group calls, priority scanning, pre-emptive emergency calls, late call entry, and dynamic reconfiguration. High-quality voice coding and robust audio components assure speech clarity even in noisy environments. The optional data feature allows the radio to be used in high-performance wireless data systems for all operating modes listed. For mobile data applications, the P7300 serves as an IP network node, providing end-to-end IP connectivity for an external portable computer connected to the radio's data port.

SOFTWARE-BASED DESIGN

With its software-based design, the P7300 is readily configurable and easily expandable with software upgrades to meet customized needs.

- Stores up to 1,024 trunked system/group combinations and 1,024 conventional channels
- Stores 255 individual call numbers and 255 telephone numbers in memory
- ProFile™ offers easy over-the-air programming for efficient updates

RADIO TEXTLINK TEXT MESSAGES

With this option, users may receive, display, and respond to text messages sent from authorized users on the network.

GENERAL SPECIFICATIONS

Radio Models:

P7370: System Model with LCD and DTMF keypad

P7350: Scan Model with LCD and limited keypad

Dimensions (H x W x D):

(Without Knobs and Antenna)

With Battery:

5.89 x 2.44 x 1.94 in.

(149.5 x 62.0 x 48.5 mm)

Weight (With Battery):

Li-Ion: 15.20 oz (431g)

Li-Polymer: 15.70 oz (445g)

NiMH: 20.00 oz (567g)

Immersion*:

- 1 meter for 4 hours with 49°F (27°C) differential (per MIL-STD-810F)

- IP67 and IP68 rated

- 2 meters for 4 hours

*P7300 immersion model only

Battery Life (at 5% Tx, 5% Rx, and 90% standby):

Li-Ion: 9 hours (2000 mAh)

Li-Polymer: 16 hours (3600 mAh)

NiMH: 11 hours (2400 mAh)

Operating Temperature Range:

Li-Ion: +14 to +140°F (-10 to +60°C)

Li-Polymer: -4 to 140°F (-20 to +60°C)

NiMH: -4 to 140°F (-20 to +60°C)

Relative Humidity:

90% @ 122°F (+50°C)

Altitude:

Operational: 15,000 ft (4,572 m)

In Transit: 50,000 ft (15,240 m)

Hazardous Location Option:

As of May 23, 2016, P7300 FM approved radios manufactured by Harris shall be re-classified to Nonincendive Class I, Division 2, Groups A, B, C, and D.

About Harris Corporation

Harris Corporation is a leading technology innovator that creates mission-critical solutions that connect, inform and protect the world. The company's advanced technology provides information and insight to customers operating in demanding environments from ocean to orbit and everywhere in between. Harris has approximately \$8 billion in annual revenue and supports customers in 125 countries through four customer-focused business segments: Communication Systems, Space and Intelligence Systems, Electronic Systems, and Critical Networks.

TRANSMITTER

Typical performance specifications	700/800
Frequency Range (MHz):	764-776, 794-805, 806-825, 851-870
Rated RF Power Trunked (W):	3
Rated RF Power Talkaround (W):	3
Frequency Stability (-30 to +60°C; +25°C Ref) (ppm):	±1.5
Modulation Deviation (kHz):	2.5, 4, or 5 FM
FM Hum and Noise (Companion Receiver) (dB):	>39 (700 MHz), >43 (NPSPEC), >45 (non-NPSPEC)
Audio Response (dB):	Meets TIA-603-C Section 3.2.6
Spurious and Harmonics (dBm/dBc):	Meets FCC Part 90; emission mask "G" and "H" for 800 MHz
Audio Distortion:	<3% at rated audio @ 1000 Hz, 3 kHz deviation
P25 Modulation Fidelity (%):	<5
P25 Adjacent Channel Power (dBc):	>67 (800 MHz); meets Section 3.2.8.2 of TIA-102.CAAB-B for 700 MHz

RECEIVER

Typical performance specifications	700/800
Frequency Range (MHz):	764-776, 851-870
Channel Spacing (kHz):	12.5, 25, PLL Step
Sensitivity (12 dB SINAD) (µV/dBm):	0.25/-119
P25 Reference Sensitivity (5% BER) (µV/dBm):	0.25/-119
Adjacent Channel Rejection @ 12.5 kHz (dB) per TIA/EIA-603-1:	>60 (700 MHz)
Adjacent Channel Rejection @ 25 kHz (dB) per TIA/EIA-603-1:	>72 (800 MHz non-NPSPEC)
P25 Adjacent Channel Rejection @ 12.5 kHz (dB):	>60
Offset Channel Selectivity @ NPSPEC (dB):	>20
Intermodulation (dB):	>72
Spurious and Image Rejection (dB):	>72
FM Hum and Noise (dB):	>31 (700 MHz), >35 (NPSPEC), >37 (non-NPSPEC)
Rated Audio Output (mW):	500
Audio Distortion:	<3% @ rated audio output power

*Measurements per TIA/EIA-603-C except where noted; P25 parameters are per TIA-102.CAAB-B

ENVIRONMENTAL SPECIFICATIONS

Standard	Parameter	Methods & Procedures
MIL-STD-810F*	Low Pressure	500.4/1,2
	High Temperature	501.4/1,2
	Low Temperature	502.4/1,2
	Temperature Shock	503.4/1
	Solar Radiation	505.4/2
	Blowing Rain	506.4/1
	Humidity	507.4
	Salt Fog	509.4
	Blowing Dust	510.4/1
	Immersion**	512.4/1
	Vibration (Minimum Integrity)	514.5/1, Category 24
	Vibration (Basic Transportation)	514.5/1, Category 4
	Shock (Functional/Basic)	516.5/1
	Shock (Transit Drop)	516.5/4
IEC 60529**	Immersion	IP67 & IP68
U.S. Forest Service	Vibration (10-60 Hz)	USDA LMR Std, Sec 2.15
TIA-603-C***	Shock (1-meter drop)	Paragraph 3.3.5.3

*Also meets equivalent superseded MIL-STD-810C, -D, and -E.

**P7300 immersion model only. Available option that must be ordered.

***Environmental test certification of 1.5-meter drop shock to concrete using parameters of TIA-603-C 1-meter drop shock with additional height.

DIGITAL OPERATION

	OpenSky	ProVoice	P25
Vocoding Method:	AMBE+2™ Half Rate & Enhanced Half Rate	AMBE+2 Enhanced Full Rate	AMBE+2 Enhanced Full Rate & Enhanced Half Rate
Signaling Rate (kbps):	19.2 & 9.6	9.6	9.6
Modulation:	4-level GFSK & M4FM	GFSK	WCQPSK & C4FM

REGULATORY DATA

Frequency Range (MHz)	RF Output (W)	FCC Type Acceptance Number	Applicable FCC Rules	Industry Canada Certification Number	Applicable Industry Canada Rules
769-775, 799-805, 806-825, 851-870	3*	OWDTR-0054-E	90	3636B-0054	RSS-119

*Except for channels identified in FCC §§90.531(b)(3), 90.531(b)(4) as low power (2W maximum ERP).

Technical specifications are subject to change without notice. Product sales are subject to applicable U.S. export control laws.

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