

## P7300 Portable 700/800 MHz

The P7300 portable is a digital two-way radio that provides

- Dual-band TDMA-capable operation
- Multi-Mode functionality
- Digital voice and IP data



The 700/800 MHz dual-band P7300 portable provides versatile and reliable communications to meet a range of user requirements.

### Multiple Applications with One Radio

The P7300 uses a new high-speed digital signal processor and the latest RF components to support multiple applications in one package:

- Project 25 Digital Trunking – Phase 1 FDMA now. Phase 2 TDMA trunking via software upgrade once the TIA standard is finalized.
- P25 Digital Conventional
- OpenSky® Digital TDMA Trunking
- ProVoice™ Digital Trunking
- Enhanced Digital Access Communications System (EDACS®) Trunking
- Complete Analog Conventional features

### Maximum RF Performance

The radio operates in the 700/800 MHz band and combines digital and analog operation in one radio. Such versatility maximizes interoperability. The portable complies with TIA-603 and TIA-102 standards to provide the highest RF performance.

### Advanced Digital 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. It performs autonomous roaming for wide area applications. High-quality voice

coding and robust audio components assure speech clarity even in noisy environments.

### Mobile Data Capability

The optional data feature allows the P7300 portable to be used in high-performance wireless data systems in 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.

### Encrypted Communications

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

### Radio TextLink Text Messages

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

### High Performance in a Rugged Package

The sturdy mechanical package of the P7300 provides high performance and reliable service.

- MIL-STD-810F durable – including 1.5-meter drop to concrete, exceeding TIA-603-C requirement

- IP67 rated dust-tight and immersion (optional) performance
- Programmable dual-position switch for flexible operation
- Tx/Rx LED and enhanced clarity LCD for more visible signaling (including features such as a battery-level gauge)
- At 15.2 ounces with Lithium-Ion battery, one of the lightest weight portables offered by Harris
- Illuminated channel indicator for easy channel identification
- Intrinsically safe certification (pending)

### Software-Based Design for Customization

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

- Stores up to 1,024 trunked group combinations and up to 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
- ProScan™ provides smooth, automatic roaming between sites
- Full conventional feature set
- Personality Lock prevents unauthorized users from programming radios or accessing the system

# PRELIMINARY

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

## General Specifications

**P7300 Portables are available in 2 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)

### Approximate Weight (with Battery):

Li-Ion: 15.2 oz (431g)

NiCd: 18.4 oz (521g)

NiMH: 20.0 oz (567g)

### Input Voltage:

7.5 VDC (nominal)

### Vibration:

5 G (per U.S. Forest Service)

### Shock:

1.5 meter drop to concrete (exceeds TIA-603C)

### Immersion\*:

1 meter for 30 minutes in accordance with IEC60529. IP67 dust-tight and immersion certified.

\*P7300 immersion model only.

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

NiCd: 8 hours (1600 mAh)

Li-Ion: 9 hours (1900 mAh)

NiMH: 11 hours (2400 mAh)

### Operating Temperature Range:

NiCd: -22 to +140°F (-30 to +60°C)

Li-Ion: -4 to +122°F (-10 to +50°C)

NiMH: +14 to +122°F (-20 to +50°C)

### Relative Humidity:

90% @ 122°F (+50°C)

### Altitude:

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

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

### Color (case):

Black

## Options and Accessories

Headset, earpiece, speaker microphones, PC programming software and cables, subminiature surveillance accessories, antennas, cases, straps, belt loops and swivel mounts, desk chargers, and wall chargers.

## Intrinsically Safe Options

To be provided upon receipt of Factory Mutual and CSA certifications.

## Transmitter

	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) (ppm):	±1.5
Modulation Deviation (kHz):	2.5, 4, or 5 FM
FM Hum & Noise (Companion Receiver) (dB)	>39 (700 MHz), >43 (NPSPAC), >45 (non-NPSPAC)
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 band

## Receiver

	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 (700MHz)
Adjacent Channel Rejection @ 25 kHz (dB) per TIA/EIA-603-1:	>72 (800MHz non-NPSPAC)
P25 Adjacent Channel Rejection @ 12.5 kHz (dB):	>60
Offset Channel Selectivity @ NPSPAC (dB):	>20
Intermodulation (dB):	>72
Spurious and Image Rejection (dB):	>72
FM Hum and Noise (dB):	>31 (700 MHz), >35 (NPSPAC), >37 (non-NPSPAC)
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
	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**	Dust-tight, Immersion
U.S. Forest Service	Vibration (10-60 Hz)	USDA LMR Standard, Section 2.15
TIA-603C***	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 1.0 meter drop shock with additional height.

## Digital Operation

	ProVoice	P25
Vocoding Method:	Improved MultiBand Excitation (IMBE™)	Improved MultiBand Excitation (IMBE)
Data Rate (kbps):	9.6	9.6
Modulation:	GFSK	C4FM

## Regulatory Data

Frequency Range (MHz)	RF Output (W)	Frequency Stability (ppm)	FCC Type Acceptance Number	Applicable FCC Rules	Industry Canada Certification Number	Applicable Industry Canada Rules
769-775, 799-805, 806-825, 851-870	3*	1.5	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).



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These item(s)/technical data have been reviewed in accordance with the international traffic in arms regulations, 22 CFR 120 - 130, and the export administration regulations, 15 CFR 730 - 774, and determined by the Harris export control department to be rated EAR99. General prohibitions apply.

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