

## GP328 PORTABLE RADIO - A PRACTICAL RADIO

### KEY FEATURES AND BENEFITS

#### X-PAND™ Audio Technology

Motorola's special voice compression and expansion technology called X-PAND™ enables crisper, clearer and stronger audio quality, allowing you to keep communicating in any noisy environment.

#### 16 Channels

Maximum of 16 channels to organise work groups with ease and efficiency.

#### Tone Tagging

Assign 8 different ringing tones to 8 specific users/talkgroups making audio caller identification to these 8 groups possible.

#### LED Battery Gauge

Tri-colour LED to indicate battery strength, avoiding failed communication with early warning on low battery strength.

#### Emergency Siren

Easy-to-access, one-touch button with piercing alarm to seek help in critical situation.

#### Switchable RF Power Level

Optimize coverage and conserve battery consumption.

#### Field Retrofit Option Boards

Easy to install, affordable add-on functionality whenever your needs arise. Option Boards are available for:

I) DTMF Decode for in-coming calls capability.

II) Voice Storage for recording and playing back voice messages.

III) Mandown Alert for triggering an emergency procedure when the radio is horizontal or still for a pre-defined time. Ideal for radio users who work alone or in isolated environments

#### Programmable Channel Spacing Of 12.5/25 kHz Mode

Flexible and easy migration of channel spacing requirements in any situation.

#### Repeater/Talkaround Enable/Disable

Freedom to communicate via a repeater for wide area coverage; or bypass a repeater and talk directly to another unit for easy local unit-to-unit communications.

#### Internal Voice Operated Transmission (VOX)

For hands-free operation, activate this option by speaking with the optional headsets.

#### Tight/Normal Squelch

Flexibility to switch to tight squelch to filter out excessive noise; or, normal squelch for normal coverage.



# GP328

## The Power Tool for Contact & Control

The GP328 is the two-way radio solution for professionals who need to stay in contact but don't require extra features. This practical radio can easily increase productivity by keeping users communicating, yet streamlines their radio use—allowing them to concentrate on the job at hand. With the GP328, communication couldn't be easier.

#### Easy To Use, Lightweight Yet Rugged To Suit Your Every Need

Ideal when you need:

- Wide range coverage within the workplace.
- Simple-to-operate two-way radio.
- To contact people who are mobile.
- To make several calls to repeat the same message.
- To manage a facility or more than one building.

## ENHANCED SIGNALLING FEATURES

The GP328 two-way radio supports these three Signalling protocols:

### I) MDC1200 Signalling:

- PTT-ID (encode)  
Identifies your outgoing calls on other users' radios
- Selective Call (decode)  
Lets you receive a specific group or individual call
- Call Alert (decode)  
Notifies you of incoming calls
- Radio Check (decode)  
Tell others if your radio is activated or within range
- Emergency (encode)  
Sounds an alarm or alerts dispatcher in urgent situations

### II) Quik Call II Signalling:

- Call Alert
- Voice Selective Call

### III) Dual Tone Multiple Frequency (DTMF)

Signalling Encode:

GP328 optional retrofit keypad model supports DTMF encode features

## OTHER GP328 FEATURES

- Channel Scan
- Time-Out-Timer
- PL / DPL
- Busy Channel Lockout

## ACCESSORIES SOLUTION

### Battery Options

Flexible choice of batteries:

- NiCD Battery
- High Capacity NiMH Battery
- Ultra High Capacity NiMH Battery
- Factory Mutual Approved NiCD & NiMH Batteries

### Powerful impres™ Smart Energy Solution

The impres™ Smart Energy System helps battery maintenance, predicts end-of-service life and provides real-time battery usage information.

## ENHANCE YOUR RADIO'S CAPABILITIES

A comprehensive range of accessories is available so that the radios can be customised to suit your needs. Adding the proper headsets, microphones, batteries, chargers or carry cases can enhance your productivity. Motorola accessories are built with the highest quality standards and are specially engineered to assure maximum performance of your radio, no matter what profession you're in.



Light Weight Head Set  
AZRMN4018



NiMH Battery & Belt Clip  
PMNN4008



Carry Case  
HLN9701



Multi-unit Charger



impres™ Smart Energy  
System



Remote Speaker Microphone  
PMMN4002

## GP328 Specifications

### General Specifications

*Frequency (MHz):	29 - 42 / 35 - 50 / 136 - 174 / 330 - 400 / 403 - 470 / 450 - 527				
Channel Capacity:	16 Channels				
Power Supply:	Provided through rechargeable battery - 7.5V				
DIMENSIONS:	<b>H</b>	<b>x</b>	<b>W</b>	<b>x</b>	<b>D</b>
With Standard High Capacity NiMH Battery:	137mm	x	57.5mm	x	37.5mm
With Ultra High Capacity NiMH Battery:	137mm	x	57.5mm	x	40.0mm
With NiCD Battery:	137mm	x	57.5mm	x	40.0mm
With Lilon Battery:	137mm	x	57.5mm	x	33.0mm
	(Radio footprint height excluding knobs)				
WEIGHT:					
With Standard High Capacity NiMH Battery:	420 gm				
With Ultra High Capacity NiMH Battery:	500 gm				
With NiCD Battery:	450 gm				
With Lilon Battery:	350 gm				
AVERAGE BATTERY LIFE @ 5/5/90 CYCLE	Low Power				High Power
With Standard High Capacity NiMH Battery:	11 hours				8 hours
With Ultra High Capacity NiMH Battery:	14 hours				11 hours
With NiCD Battery:	12 hours				9 hours
With Lilon Battery:	11 hours				8 hours
Sealing:	Withstands rain testing per MIL-STD 810 C / D / E and IP54				
Shock and Vibration:	Protection provided via impact resistant housing exceeding MIL-STD 810 C / D / E and TIA/EIA 603				
Dust and Humidity:	Protection provided via environment resistant housing exceeding MIL-STD 810 C / D / E and TIA/EIA 603				

### TRANSMITTER

Specifications	Low Band	VHF/UHF
*Frequency (MHz)	29 - 42 / 35 - 50	136 - 174 / 330 - 400 / 403 - 470 / 450 - 527
Frequency separation	Full bandsplit	
Channel spacing	12.5/20/25kHz	
Freq Stability:(-30°C to 60°C,+25°CRef.)	+/- 0.0010%	+/- 0.00025%
Power	6W	5W – 136 - 174 MHz 4W – 330 - 400 / 403 - 470 / 450 - 527 MHz
Modulation limiting	±2.5 @ 12.5kHz ±5.0 @ 20kHz/25kHz	±2.5 @ 12.5kHz ±4.0 @ 20kHz ±5.0 @ 25kHz
FM Hum & Noise	-40dB	
Conducted/Radiated Emission	-36dBm < 1GHz / -30dBm > 1GHz	
Modulation FCC Type	12.5 kHz 11K0F3E / 25 kHz 16K0F3E	
Audio Response (from 6 dB/ octave pre-emphasis 300-3000Hz)	+1 to -3dB	
Audio Distortion	3%	

### RECEIVER

Specifications	Low Band	VHF/UHF
*Frequency (MHz)	29 - 42 / 35 - 50	136 - 174 / 330 - 400 / 403 - 470 / 450 - 527
Frequency separation	Full bandsplit	
Sensitivity (12dB SINAD)EIA	.25µV	
Intermodulation(EIA)	70dB	
Adjacent Channel Selectivity	60dB @ 12.5kHz / 70dB @ 25kHz	
Spurious Rejection	70dB	
Rated Audio	500 mW	
Audio Distortion	3%	
Hum and Noise	-45dB @ 12.5kHz, -50dB @ 25kHz	
Audio Response (300-3000Hz)	+1 to -3dB	
Conducted Spurious Emission	-57dBm < 1Ghz / -47dBm > 1Ghz / FCC Part 15	

\* Availability subject to country law and regulations.

Radios meet applicable regulatory requirements.

All specifications shown are subject to change without notice. Specifications are not representative of all radios and may vary in different radios.

Applicable MIL-STD	810C		810D		810E	
	Methods	Procedures	Methods	Procedures	Methods	Procedures
Low Pressure	500.1	1	500.2	2	500.3	2
High Temp	500.1	1,2	501.2	1,2	501.3	1,2
Low Temp	502.1	1	502.2	1, 2	502.3	1,2
Temp. Shock	503.1	1	503.2	1	503.3	1
Solar Radiation	505.1	1	505.2	1	505.3	1
Rain	506.1	1, 2	506.2	1, 2	506.3	1, 2
Humidity	507.1	2	507.2	2, 3	507.3	2, 3
Salt Fog	509.1	1	509.2	1	509.3	1
Dust	510.1	1	510.2	1	510.3	1
Vibration	514.2	8, 10	514.3	1	514.4	1
Shock	516.2	1, 2, 5	516.3	1, 4	516.4	1, 4

**Factory Mutual Approval**

Factory Mutual has given GP328 an intrinsically safe rating for use in Classes I, II, and III, Division 1, Groups C, D, E, F and G, as well as non-incendive use in Class I, Division 2, Groups A, B, C and D on models ordered with the Factory Mutual option.

**Motorola: Reliability & Quality**



**Accelerated Life Testing**  
Stringent Motorola Accelerated Life Testing simulating 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.