

HT750 PORTABLE RADIO

Available in Low Band, VHF and UHF
Operates on Conventional Systems



HT750: The Practical Radio

The HT750™ radio is the affordable solution for professionals who require a rugged and reliable radio to stay in contact. This practical radio can easily help increase productivity by keeping users communicating, while allowing them to concentrate on the job at hand. And with Motorola's unique X-pand™ technology, audio quality is clean and crisp even in noisy environments. With the HT750 radio, communication couldn't be easier.

4 or 16 Channels

Programmable Emergency Button

Sound alarm or alert
dispatcher in an
emergency situation

X-Pand Voice Compression

Crisper, clearer audio quality

3 Programmable Side Buttons

Easy access to
favorite features

Adjustable Power Levels

Saves battery life

Priority Channel Scan

Frequently scan higher
priority channels

Monitor/Permanent Monitor

Allows continuous
channel monitoring

Repeater Talkaround

Unit-to-unit communications
bypassing the repeater



HT750 Features:

- **Small, Lightweight and Durable**
- **12.5/25 kHz Switchable Channel Spacing**
- **LED Battery Status Indicator**
- **Telephone Interconnect Capable**
- **Option Board Capabilities**

Internal VOX

Handsfree operation
with headset

Escalart™ Call Features

Ensures important signals
are heard

Quik Call II™ and MDC1200 Signaling

Send and receive information in
a variety of ways, including:

- **Push-to-talk ID (Encode)**
Identify your outgoing calls
- **Selective Call (Decode)**
Receive a call from a specific
group or individual
- **Call Alert (Decode)** Receive
alerts of incoming calls when
you're a short distance away
from your radio
- **Radio Check (Decode)** Lets
others check your radio status
- **Emergency (Encode)** Sounds
an alarm or alerts dispatcher
in urgent situations
- **Selective Radio Inhibit
(Decode)** Allows system
owner to disable stolen or
missing radios

HT1250 PORTABLE RADIO

Available in Low Band, VHF and UHF
Operates on Conventional Systems



HT1250: The Versatile Radio

The HT1250™ portable radio is an essential tool for growing organizations because of its unique versatility. The radio offers a full menu of advanced signaling features, including paging or calling selective radios or groups. Users can store information such as phone numbers, call lists and radio IDs for easy access. And with Motorola's unique X-Pand™ technology, audio clarity is superb—even in noisy surroundings. The large LCD display is extremely helpful in large communication networks and critical situations. The radio of choice is the HT1250 portable. It's the radio that changes with your needs.

X-Pand Voice Compression
Crisper, clearer audio quality

6 Programmable Buttons
Easy access to favorite features

Adjustable Power Levels
Saves battery life

Dual Priority Scan
Frequently scan higher priority channels

Repeater Talkaround
Unit-to-unit communications bypassing the repeater

Telephone Interconnect Capable
Make and receive phone calls with the radio

Front Panel Programmable Phone list
Easily store and retrieve favorite phone numbers



(Available in both limited and full keypad)

128 Channels (16 Zones)

Emergency Button
Sound alarm or alert dispatcher in an emergency situation

Escalator™ Call Features
Ensures important signals are heard

Internal VOX
Handsfree operation with headset

14-Character Alphanumeric Display with User-Friendly Icons
Information is clear and easy to read

Control Buttons
Menu, navigation, and exit functions

Quik Call II™ and MDC1200 Signaling
Send and receive information in a variety of ways, including:

- **Push-to-talk ID (Encode/Decode)**
Identify your outgoing calls and incoming callers
- **Selective Call (Encode/Decode)**
Send and receive a call from a specific group or individual
- **Call Alert (Encode/Decode)**
Inform unavailable users that you're trying to reach them, and receive alerts of incoming calls when you're a short distance away from your radio
- **Radio Check (Encode/Decode)**
Learn whether another user's radio is activated, and let others check your radio status
- **Emergency (Encode)**
Sounds an alarm or alerts dispatcher in urgent situations
- **Selective Radio Inhibit (Decode)**
Allows system owner to disable stolen or missing radios

HT1250 Features:

- **Small, Lightweight and Durable**
- **12.5/25 kHz Switchable Channel Spacing**
- **Alarm Clock**
- **Option Board Capabilities**

HT750 and HT1250

Specifications

General Specifications

	Low Band	VHF	UHF
HT750 Channel Capacity	4 or 16		
HT1250 Channel Capacity	128		
Power Supply	Rechargeable battery 7.5V		
Dimensions: H x W x D With NiMH High Capacity Battery With impres NiMH Battery With impres NiMH FM Battery With impres Li-ion Battery	5.40 in x 2.26 in x 1.50 in (137mm x 57.5mm x 37.5 mm) 5.40 in x 2.26 in x 1.60 in (137mm x 57.5mm x 40 mm) 5.40 in x 2.26 in x 1.60 in (137mm x 57.5mm x 40 mm) 5.40 in x 2.26 in x 1.30 in (137mm x 57.5mm x 40 mm)		
Weight: With NiMH High Capacity Battery With impres NiMH Battery With impres NiMH FM Battery With impres Li-ion Battery	15.0 oz. (420g) 17.5 oz. (488g) 17.5 oz. (488g) 12.8 oz. (358g)		
Average Battery Life @ 5/5/90 Duty Cycle*:	Low Power	High Power	Low Power High Power
With NiMH High Capacity Battery	11 hrs	8 hrs	11 hrs 8 hrs
With impres NiMH Battery	17 hrs	11 hrs	17 hrs 13 hrs
With impres NiMH FM Battery	16 hrs	10 hrs	16 hrs 13 hrs
With impres Li-ion Battery	18 hrs	11 hrs	18 hrs 14 hrs
FCC description	AZ489FT3794 (136-174 MHz) AZ489FT4826 (403-470 MHz), AZ489FT4834 (450-512 MHz) AZ489FT1625 (29.7-42 MHz, 42-50 MHz)		

Transmitter

Specifications	Low Band	VHF	UHF
Frequencies	29.7–42 MHz 35–50 MHz	136–174 MHz	403–470 MHz 450–512 MHz
Power Output	1–6 W	1–5 W	1–4 W
Frequency Stability (-30° C to +60° C, +25° Ref.)	±10 ppm	±5 ppm @ 25 kHz ±2.5 ppm @ 12.5 kHz	
Modulation Limiting	+5.0 @ 20 kHz	±2.5 @ 12.5 kHz/±4.0 @ 20 kHz/ +5.0 @ 25 kHz	
Spurs/Harmonics	-36 dBm < 1 GHz -30 dBm > 1 GHz		
Channel Spacing	20/25 kHz	12.5/20/25 kHz	
FM Hum & Noise	-40 dB typical		
Adjacent Channel Power	-60 dB @ 12.5, -70 dB @ 25 kHz		
Audio Response (300 – 3000 Hz)	+1 to -3 dB		
Audio Distortion	3%		
FM Modulation	25 kHz 16KOF3E	125 kHz 2530 kHz 11KOF3E 16KOF3E	125 kHz 25 kHz 11KOF3E 16KOF3E

Environmental Specifications

Operating Temperature	-30 to +60° C
Storage Temperature	-55 to +85° C
Humidity	95% RH @ 8 Hr.
ESD	IEC 801-2 KV
Water Intrusion	IP54

Receiver

Specifications	Low Band	VHF	UHF
Frequencies	29.7–42 MHz 35–50 MHz	136–174 MHz	403–470 MHz 450–512 MHz
Hum and Noise	-45 dB @ 20/25 kHz	-45 dB @ 12.5 kHz, -50 db @ 25 kHz	
Sensitivity (12 dB SINAD) EIA	.30 µV	.25 µV	
Sensitivity (20 dB SINAD) ETS	.50 µV		
HT750 Channel Spacing	20/25 kHz	12.5/20/25 kHz	
HT1250 Channel Spacing	20/25 kHz	12.5/15/20/25/30 kHz PLL Steps 2.5, 3.125 kHz	
Intermodulation	70 dB		
Adjacent Channel Selectivity	60 dB @ 12.5 kHz/70 dB @ 25 kHz		
Spurious Rejection	70 dB		
Rated Audio	0.5 W		
Audio Distortion @ Rated Audio	3% typical		
Audio Response (300 – 3000 Hz)	+1 to -3 dB		
Conducted Spurious Emission FCC Part 15	-57 dBm < 1 GHz -47 dBm > 1 GHz		

Portable Military Standards 810 C, D, & E

Applicable MIL-STD	810C		810D		810E	
	Methods	Procedures	Methods	Procedures	Methods	Procedures
Low Pressure	500.1	1	500.2	2	500.3	2
High Temperature	501.1	1,2	501.2	1,2	501.3	1,2
Low Temperature	502.1	2	502.2	1,2	502.3	1,2
Temperature 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 Approvals

The HT Series is Factory Mutual approved and Canadian Standard Association approved as intrinsically safe 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, and battery.