

# MOTOTRBO™ CDM SERIES

PROFESSIONAL MOBILE TWO-WAY RADIOS



# CDM PROFESSIONAL SERIES TWO-WAY MOBILE RADIOS— DESIGNED FOR PROFESSIONALS ON THE MOVE.

Motorola is a company of firsts with a rich heritage of innovation. We continue to invent what's next—connecting people, delivering mobility and making technology personal. Whether you need to connect with one, one dozen or one hundred people, the CDM Series two-way mobile radios help keep you and your team working efficiently.

With CDM Series radios, you'll enjoy exceptional quality and user-friendly functionality. Featuring Motorola's X-Pand™ audio enhancement technology and a large front projecting speaker, CDM Series radios ensure crisp, clear audio even in noisy locations or vehicles. Customizable buttons can be programmed for quick access to your most frequently used features and MDC 1200 signaling provides a wide range of calling options.

The CDM Series is comprised of four two-way mobile radios—so whether you need simple yet high-performing functionality or a more complex communication solution, there is a CDM Series radio to meet your needs.

## MOTOROLA BUILT AND BACKED BY SUBSCRIBER REPAIR

Managing the in-house repair and maintenance of your radios takes a dedicated staff of technicians and an ongoing investment in equipment and training. Motorola has already made that investment and can help you easily and cost effectively keep your radios in top operating condition. You can rely on Motorola to support your radio system with these Subscriber Repair service offerings:

### REPAIR SERVICE ADVANTAGE (RSA)

Repair Service Advantage is a post-warranty service offering that extends the service coverage of Motorola subscriber mobile or portable radios. RSA can be purchased as an option to new radio purchases and is available in 1, 2 or 3-year increments. (US only)

### EXTENDED WARRANTY

In addition to the 2-year standard warranty, Extended Warranty is available for a total of 3 or 5 year coverage. (Canada only)

# MOTOROLA ORIGINAL® ACCESSORIES CAN TURN YOUR RADIO INTO A CUSTOM COMMUNICATION SYSTEM.

CDM Series Professional Radios offer high performance and rugged dependability for users on the move. Motorola Original accessories enhance the performance and capabilities of the CDM mobiles. That's because every Motorola Original accessory is designed, built and rigorously tested to the same quality standards as Motorola radios, so you can be sure that each accessory will be ready to do its job time after time.

## AUDIO SOLUTIONS

### MICROPHONES

A variety of mobile microphones are available to support user needs. The keypad microphone provides a full numeric keypad and three programmable buttons. The heavy duty microphone provides enhanced durability and easier handling while wearing gloves and the visor microphone enables hands-free and discreet communication.

### SPEAKERS AND PUBLIC ADDRESS KITS

These accessories turn your mobile into a public communication system. Ideal for college campuses, industrial complexes or local schools that need to communicate with the public in the event of an emergency. A range of speakers and installation accessories give you flexibility to communicate from a desktop station or vehicle.

## CONTROL STATION ACCESSORIES

The CDM Control Station converts a CDM Professional Series mobile into a convenient base station. The radio mounts into the lightweight, portable chassis, containing a full range of front panel control buttons plus an internal microphone, speaker and power supply. A front connector allows for a range of external audio accessories; including a desk microphone, tone or DC remote adapter and telephone interconnect. Additional desktop tray and microphone options are available for simple base station operation.



## REMOTE MOUNTING KITS

These kits allow you to mount the radio chassis in the trunk or under the seat and mount the control head elsewhere in the vehicle. Ideal for vehicles with no convenient place to mount the radio near the dashboard, or where security is a concern.

## ANTENNA SOLUTIONS

A wide variety of antenna options are available to support specific mobile configurations and ensure users get the coverage required whether operating in urban or rural environments.

# CDM750™

## AVAILABLE IN LOW BAND, VHF AND UHF OPERATES ON CONVENTIONAL SYSTEMS

### THE PRACTICAL RADIO—THAT GETS THE JOB DONE

This radio is ideal for organizations and businesses with moderate communication requirements, especially those in construction and manufacturing industries. The CDM750 radio provides simple yet high-performing functionality. Its streamlined features include the essentials to keep users communicating steadily and efficiently—including limited signaling capabilities and two customizable function buttons. Motorola's flexible X-Pand™ audio feature and a large front-projecting speaker ensure clear, crisp sound, even in noisy environments. The CDM750 radio is a practical tool to get the job done.

#### FEATURES AND BENEFITS:

- **4 Channels**
- **Data Capable**
- **Scan**  
Monitors channels for activity
- **Repeater Talkaround**  
Unit-to-unit communication, bypassing the repeater

- **MDC 1200 Encode Signaling**  
Sends information via digital signals  
Features Include:  
**Caller ID Encode:** Allows users to identify you as the caller  
**Selective Radio Inhibit:** Can be remotely deactivated if lost or stolen
- **X-Pand™ Audio Enhancement**  
Crisp, clear audio quality
- **Monitor/Permanent Monitor**  
Allows continuous channel monitoring



- 1 Multicolored LED Indicators**  
Visible feedback of transmit, scan, and monitor status
- 2 Large, Easy to Use Controls**
- 3 Large Textured PTT Button on Palm Microphone**
- 4 Powerful, Front-Projecting Speaker**
- 5 Rugged, Die-Cast Chassis with Polycarbonate Outer Shell**
- 6 2 Customizable Function Buttons (P1, P2)**  
Program for instant access to your favorite features
- 7 4 Channel Selector Buttons**

#### GENERAL SPECIFICATIONS

		Low Band	VHF	UHF
Channel Capacity		4	4	4
Typical RF Output	Low Power High Power	40-60W	1-25W 25-45W	1-25W 25-40W
Frequencies		29.7-36 MHz, 36-42 MHz 42-50 MHz	136-174 MHz	403-470 MHz 450-512 MHz
Dimensions (H x W x D)	Low Power (1-25W)  High Power	2.3 x 6.93 x 9.47 in. 58 x 176 x 240 mm	2.2 x 6.93 x 6.97 in. 56 x 176 x 177 mm 2.2 x 6.93 x 7.44 in. 56 x 176 x 189 mm	2.2 x 6.93 x 6.97 in. 56 x 176 x 177 mm 2.2 x 6.93 x 7.44 in. 56 x 176 x 189 mm
Weight	Low Power High Power	N/A 4.5 lbs (2.04 Kg)	3.15 lbs (1.43 Kg) 3.5 lbs (1.59 Kg)	3.15 lbs (1.43 Kg) 3.5 lbs (1.59 Kg)
Current Drain	Standby	.4A	.3A	.4A
Rx @ rated, external 8 ohm speaker		1.5A	1.5A	1.5A
Transmit		17A	7A@25W, 13.5A@45W	8A@25W, 13.5A@40W
FCC Description		AZ492FT1627 (29.7-36 MHz) AZ492FT1628 (36-42 MHz)	AZ492FT3796 (25W) AZ492FT3795 (45W)	AZ492FT4835 (25W, 403-470 MHz) AZ492FT4830 (40W, 403-470 MHz) AZ492FT4829 (25W, 450-512 MHz) AZ492FT4836 (40W, 450-512 MHz)

#### TRANSMITTER SPECIFICATIONS

		Low Band	VHF	UHF
Channel Capacity		12.5/20/30 kHz	12.5/20/25 kHz*	12.5/20/25 kHz*
Frequency Stability (-30° to +60° C, +25° Ref.)		± 5 ppm	± 2.5 ppm	± 2.5 ppm
Typical RF Output	Low Power High Power	40-60W	1-25W 25-45W	1-25W 25-40W
Modulation Limiting		± 5.0	± 2.5 @ 12.5 kHz ± 4.0 @ 20 kHz ± 5.0 @ 25 kHz*	± 2.5 @ 12.5 kHz ± 4.0 @ 20 kHz ± 5.0 @ 25 kHz*
FM Hum and Noise		-45dB (25 kHz)	-40dB @ 12.5 kHz, -45dB @ 25 kHz*	-40dB @ 12.5 kHz, -45dB @ 25 kHz*
Conducted/Radiated Spurious Emission		-26dBm < 1 GHz -26dBm > 1 GHz	-36dBm < 1 GHz -30dBm > 1 GHz	-36dBm < 1 GHz -30dBm > 1 GHz
Adjacent Channel Power		-70dB	-60dB @ 12.5 kHz, -70dB @ 25 kHz*	-60dB @ 12.5 kHz, -70dB @ 25 kHz*
Audio Response		TIA 603 and ETS300 and CEPT 84 Annex 2	TIA 603 and ETS300 and CEPT 84 Annex 2	ETS300 and CEPT 84 Annex 2
Audio Distortion		3% Typical	3% Typical	3% Typical
FM Modulation		16K0F3E (25 kHz)	16K0F3E (25 kHz)*, 11K0F3 (12.5 kHz)	16K0F3E (25 kHz)*, 11K0F3 (12.5 kHz)

#### RECEIVER SPECIFICATIONS

		Low Band	VHF	UHF
Frequencies		29.7-36 MHz 36-42 MHz 42-50 MHz	136-174 MHz	403-470 MHz 450-512 MHz
Channel Spacing		12.5/20/30 kHz	12.5/20/25 kHz*	12.5/20/25 kHz*
Frequency Stability (-30° C to +60° C, +25° Ref.)		± 5 ppm	± 2.5 ppm	± 2.5 ppm
Sensitivity: (12dB SINAD)		0.3 µV (0.25 Typical)	0.3 µV (0.23 Typical)	0.3 µV (0.23 Typical)
Intermodulation		78dB Typical	75dB @ 12.5 kHz 78dB @ 25 kHz*	75dB @ 12.5 kHz 75dB @ 25 kHz*
Adjacent Channel Selectivity		80dB	65dB @ 12.5 kHz 80dB @ 20 kHz 80dB @ 25 kHz*	65dB @ 12.5 kHz 75dB @ 20 kHz
Spurious Rejection		80dB	75dB @ 12.5 kHz VHF 80dB @ 25 kHz*	70dB @ 12.5 kHz 75dB @ 25 kHz*
Rated Audio:		3W Internal	3W Internal	3W Internal
External with 4 ohm speaker		13W External	13W External	13W External
Audio Distortion @ Rated Audio		3% Typical	3% Typical	3% Typical
Hum and Noise		-45dB	-40dB 12.5 kHz, -45dB 25 kHz*	-40dB 12.5 kHz, -45dB 25 kHz*
Audio Response		TIA603 and ETS300 and CEPT 84 Annex 2	TIA603 and ETS300 and CEPT 84 Annex 2	TIA603 and ETS300 and CEPT 84 Annex 2
Conducted Spurious Emission		-57dBm < 1 GHz -47dBm > 1 GHz	-57dBm < 1 GHz -47dBm > 1 GHz	-57dBm < 1 GHz -47dBm > 1 GHz

#### PORTABLE MILITARY STANDARDS

Applicable MIL-STD	810C Method/Procedure	810D Method/Procedure	810E Method/Procedure
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	506.1/2	506.2/2	506.3/2
Humidity	507.1/2	507.2/2, 3	507.3/3
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, 5	516.3/1	516.4/1

#### ENVIRONMENTAL

Operating Temperature	-30° to +60° C
Storage Temperature	-55° to +85° C
Thermal Shock	-40° to +85° C
Humidity	95% RH @ 8 Hr.
ESD	IEC 801-2 KV
Water Intrusion	IP54
Packing Test	Impact Test

\* Availability of new 25 kHz equipment may be restricted due to Narrowbanding regulations in your country. Please check with your frequency coordinator and/or regulatory agency for the latest information on Narrowbanding.



# CDM1250™

## AVAILABLE IN LOW BAND, VHF AND UHF OPERATES ON CONVENTIONAL SYSTEMS

### THE VERSATILE RADIO—MORE ACCESSIBLE THAN YOU THINK

Perfect for growing organizations, the flexible CDM1250 two-way mobile can readily expand to meet rapidly changing business needs. Motorola's flexible X-Pand™ audio feature and a powerful front-projecting speaker ensure superb sound clarity, even in noisy environments, making it an ideal choice for public administration and mining applications. The large 14-character alphanumeric display with user-friendly icons helps make information readily available and easy to understand. A full range of signaling capabilities lets you instantly see who's sending you transmissions, notifies others you're trying to reach them even when they're away from their vehicles, and programs your radio to call a specific group or individual. The versatility of the CDM1250 mobile helps keep productivity at it's highest, no matter how fast your business grows.

#### FEATURES AND BENEFITS:

- **64 Channels**
- **Dual Priority Scan**  
Frequently scans higher priority channels
- **Repeater Talkaround**  
Unit-to-unit communication, bypassing repeater
- **Data Capable**
- **Quik-Call II™ and MDC 1200 Signaling (Encode/Decode)**  
Send and receive information via tone or digital signals. Features Include:
  - **Caller ID:** Identifies incoming callers
  - **Selective Call:** Let's you call a specific group or individual
  - **Call Alert:** Notifies users that you're trying to reach them
- **DTMF Encode**  
Sends and receives pages and telephone calls
- **Status Message**  
Exchanges text messages between base and user
- **X-Pand™ Audio Enhancement**  
Crisp, clear audio quality
- **Emergency Signaling**  
Sends discreet help signal
- **Horn and Lights Activation**  
Notifies user of call alerts/selective calls when away from vehicle
- **Optional Voice Storage**  
Records important messages or memos
- **Multi-Language Capabilities**  
Programming in English, Spanish, French, or Portuguese
- **RSSI Indicator**  
Displays signal strength level
- **Remote Mountable Control Head**



- 1 Large, Easy to Use Controls**
- 2 Multicolored LED Indicators**  
Visible feedback of transmit, scan, and monitor status
- 3 14-Character Alphanumeric Display**  
Information is clear and easy to read
- 4 Large Textured PTT Button on Palm Microphone**
- 5 Powerful, Front-Projecting Speaker**
- 6 Rugged, Die-Cast Chassis with Polycarbonate Outer Shell**
- 7 4 Customizable Function Buttons (P1, P2, P3, P4)** Program for instant access to your favorite features
- 8 Channel Selector Buttons**

#### GENERAL SPECIFICATIONS

		Low Band	VHF	UHF
Channel Capacity		64	64	64
Typical RF Output	Low Power High Power	40-60W	1-25W 25-45W	1-25W 25-40W
Frequencies		29.7-36 MHz, 36-42 MHz 42-50 MHz	136-174 MHz	403-470 MHz 450-512 MHz
Dimensions (H x W x D)	Low Power (1-25W)  High Power	  2.39 x 7.05 x 9.84 in. 61 x 179 x 250 mm	2.34 x 7.05 x 7.32 in. 59 x 179 x 186 mm 2.34 x 7.05 x 7.8 in. 59 x 179 x 198 mm	2.34 x 7.05 x 7.32 in. 59 x 179 x 186 mm 2.34 x 7.05 x 7.8 in. 59 x 179 x 198 mm
Weight	Low Power (1-25W) High Power	 4.5 lbs (2.04 Kg)	3.15 lbs (1.43 Kg) 3.5 lbs (1.59 Kg)	3.15 lbs (1.43 Kg) 3.5 lbs (1.59 Kg)
Current Drain Rx @ rated, external 8 ohm speaker	Standby	.4A 1.5A	.3A 1.5A	.3A 1.5A
Transmit		17A	7A@25W, 13.5A@45W	8A @ 25W, 13.5 A @ 40W
FCC Description		AZ492FT1627 (29.7-36 MHz) AZ492FT1628 (36-42 MHz) AZ492FT1626 (42-50 MHz)	AZ492FT3796 (25W) AZ492FT3795 (45W)	AZ492FT4835 (25W, 403-470 MHz) AZ492FT4830 (40W, 403-470 MHz) AZ492FT4829 (25W, 450-512 MHz) AZ492FT4836 (40W, 450-512 MHz)

#### TRANSMITTER SPECIFICATIONS

		Low Band	VHF	UHF
Channel Capacity		12.5/20/30 kHz	12.5/20/25 kHz*	12.5/20/25 kHz*
Frequency Stability (-30° to +60° C, +25° Ref.)		± 5 ppm	± 2.5 ppm	± 2.5 ppm, ± 1.5 ppm UHF B2 HP
Typical RF Output	Low Power High Power	40-60W	1-25W 25-45W	1-25W 25-40W
Modulation Limiting		± 5.0	± 2.5 @ 12.5 kHz ± 4.0 @ 20 kHz ± 5.0 @ 25 kHz*	± 2.5 @ 12.5 kHz ± 4.0 @ 20 kHz ± 5.0 @ 25 kHz*
FM Hum and Noise		-45dB	-40dB @ 12.5 kHz, -45dB @ 25 kHz*	-40dB @ 12.5 kHz, -45dB @ 25 kHz*
Conducted/Radiated Spurious Emission		-26dBm < 1 GHz -26dBm > 1 GHz	-36dBm < 1 GHz -30dBm > 1 GHz	-36dBm < 1 GHz -30dBm > 1 GHz
Adjacent Channel Power		-70dB	-60dB @ 12.5 kHz, -70dB @ 25 kHz*	-60dB @ 12.5 kHz, -70dB @ 25 kHz*
Audio Response		TIA 603 and ETS300 and CEPT 84 Annex 2	TIA 603 and ETS300 and CEPT 84 Annex 2	ETS300 and CEPT 84 Annex 2
Audio Distortion		3% Typical	3% Typical	3% Typical
FM Modulation		16K0F3E (25 kHz)	16K0F3E (25 kHz)*, 11K0F3 (12.5 kHz)	16K0F3E (25 kHz)*, 11K0F3 (12.5 kHz)

#### RECEIVER SPECIFICATIONS

		Low Band	VHF	UHF
Frequencies		29.7-36 MHz, 36-42 MHz 42-50 MHz	136-174 MHz	403-470 MHz 450-512 MHz
Channel Spacing		12.5/20/30 kHz	12.5/20/25 kHz*	12.5/20/25 kHz*
Sensitivity: (12dB SINAD)		0.3 µV (0.25 Typical)	0.3 µV (0.23 Typical)	0.3 µV (0.23 Typical)
Intermodulation		78dB Typical	75dB @ 12.5 kHz 78dB @ 25 kHz*	75dB @ 12.5 kHz 75dB @ 25 kHz*
Adjacent Channel Selectivity		80dB	65dB @ 12.5 kHz 70dB @ 20 kHz 80dB @ 25 kHz*	65dB @ 12.5 kHz 70dB @ 20 kHz 75dB @ 25 kHz*
Spurious Rejection		80dB	75dB @ 12.5 kHz VHF 80dB @ 25 kHz*	70dB @ 12.5 kHz 75dB @ 25 kHz*
Rated Audio: External with 4 ohm speaker		3W Internal 13W External	3W Internal 13W External	3W Internal 13W External
Audio Distortion @ Rated Audio		3% Typical	3% Typical	3% Typical
Hum and Noise		-45dB	-40dB 12.5 kHz, -45dB 25 kHz*	-40dB 12.5 kHz, -45dB 25 kHz*
Audio Response		TIA603 and ETS300 and CEPT 84 Annex 2	TIA603 and ETS300 and CEPT 84 Annex 2	TIA603 and ETS300 and CEPT 84 Annex 2
Conducted Spurious Emission		-57dBm < 1 GHz -47dBm > 1 GHz	-57dBm < 1 GHz -47dBm > 1 GHz	-57dBm < 1 GHz -47dBm > 1 GHz

#### PORTABLE MILITARY STANDARDS

Applicable MIL-STD	810C Method/Procedure	810D Method/Procedure	810E Method/Procedure
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	506.1/2	506.2/2	506.3/2
Humidity	507.1/2	507.2/2, 3	507.3/3
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, 5	516.3/1	516.4/1

#### ENVIRONMENTAL

Operating Temperature	-30° to +60° C
Storage Temperature	-55° to +85° C
Thermal Shock	-40° to +85° C
Humidity	95% RH @ 8 Hr.
ESD	IEC 801-2 KV
Water Intrusion	IP54
Packing Test	Impact Test

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# CDM1550™

## AVAILABLE IN LOW BAND OPERATES ON CONVENTIONAL SYSTEMS

### THE SOPHISTICATED RADIO—FOR ADVANCED NEEDS

Security and utilities teams will appreciate the CDM1550, a top-tier radio that is fully equipped to handle the advanced communication needs of organizations requiring high levels of flexibility and functionality. Motorola's flexible X-Pand™ audio feature and a powerful front-projecting speaker ensure clear, crisp sound, even in noisy environments. The large 14-character alphanumeric display with user-friendly icons helps make information easy to understand. An extensive range of signaling capabilities lets you exchange status messages with your dispatcher to minimize channel usage and improve efficiency, or discreetly signals for emergency help even when your vehicle is turned off. And, the enhanced menu gives you easy access to all of the radio's many features. With 128 channels, this exceptional mobile delivers the superb communication power and control needed to work at maximum efficiency.

#### FEATURES AND BENEFITS:

- **128 Channels**
- **Dual Priority Scan**  
Frequently scans higher priority channels
- **Repeater Talkaround**  
Unit-to-unit communication, bypassing repeater
- **Quik-Call II™ and MDC 1200 Signaling (Encode/Decode)**  
Send and receive information via tone or digital signals. Features Include:
  - **Selective Call:** Let's you call a specific group or individual
  - **Call Alert:** Notifies users that you're trying to reach them
  - **Radio Check:** Identifies active radio
  - **Message:** Send/receive messages
- **DTMF Encode**  
Sends pages and telephone calls
- **Status Message**  
Exchanges text messages between base and user
- **X-Pand™ Audio Enhancement**  
Crisp, clear audio quality
- **Emergency Signaling**  
Sends discreet help signal
- **Horn and Lights Activation**  
Notifies user of call alerts/selective calls when away from vehicle
- **Optional Voice Storage**  
Records important messages or memos
- **Multi-Language Capabilities**  
Programming in English, Spanish, French, or Portuguese
- **RSSI Indicator**  
Displays signal strength level
- **Remote Mountable Control Head**



- 1 **Large, Easy to Use Controls**
- 2 **Multicolored LED Indicators**  
Visible feedback of transmit, scan, and monitor status
- 3 **14-Character Alphanumeric Display**  
Information is clear and easy to read
- 4 **Large Textured PTT Button on Palm Microphone**
- 5 **Powerful, Front-Projecting Speaker**
- 6 **Rugged, Die-Cast Chassis with Polycarbonate Outer Shell**
- 7 **4 Customizable Function Buttons (P1, P2, P3, P4)** Program for instant access to your favorite features
- 8 **Channel Selector Buttons**

### GENERAL SPECIFICATIONS

		Low Band
Channel Capacity		128
Typical RF Output	Low Power High Power	40-60W
Frequencies		29.7-36 MHz, 36-42 MHz, 42-50 MHz
Dimensions (H x W x D)	Low Power (1-25W) High Power	2.83 x 7.28 x 10.02 in. 72 x 185 x 255 mm
Weight	Low Power (1-25W) High Power	4.5 lbs (2.04 Kg)
Current Drain	Standby	.4A
Rx @ rated, external 8 ohm speaker		1.5A
Transmit		17A
FCC Description		AZ492FT1627 (29.7-36 MHz) AZ492FT1628 (36-42 MHz) AZ492FT1626 (42-50 MHz)

### TRANSMITTER SPECIFICATIONS

		Low Band
Channel Capacity		12.5/20/30 kHz
Frequency Stability (-30° to +60° C, +25° Ref.)		± 5 ppm
Typical RF Output	Low Power High Power	40-60W
Modulation Limiting		± 5.0
FM Hum and Noise		-45dB (25 kHz)*
Conducted/Radiated Spurious Emission		-26dBm
Adjacent Channel Power		-70dB
Audio Response		TIA 603 and ETS300 and CEPT 84 Annex 2
Audio Distortion		3% Typical
FM Modulation		16K0F3E (25 kHz)*

### RECEIVER SPECIFICATIONS

		Low Band
Frequencies		29.7-36 MHz, 36-42 MHz, 42-50 MHz
Channel Spacing		12.5/20/30 kHz
Frequency Stability: (-30° C to +60° C, +25° Ref.)		± 5 ppm
Sensitivity: (12dB SINAD)		0.3 µV (0.25 Typical)
Intermodulation		78dB Typical
Adjacent Channel Selectivity		80dB
Spurious Rejection		80dB
Rated Audio:		3W Internal 13W External
Audio Distortion @ Rated Audio		3% Typical
Hum and Noise		-40 dB @12.5 kHz
Audio Response		TIA603 and ETS300 and CEPT 84 Annex 2
Conducted Spurious Emission		-57dBm < 1 GHz -47dBm > 1 GHz

### PORTABLE MILITARY STANDARDS

Applicable MIL-STD	810C Method/Procedure	810D Method/Procedure	810E Method/Procedure
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	506.1/2	506.2/2	506.3/2
Humidity	507.1/2	507.2/2, 3	507.3/3
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, 5	516.3/1	516.4/1

### ENVIRONMENTAL

Operating Temperature	-30° to +60° C
Storage Temperature	-55° to +85° C
Thermal Shock	-40° to +85° C
Humidity	95% RH @ 8 Hr.
ESD	IEC 801-2 KV
Water Intrusion	IP54
Packing Test	Impact Test

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# CDM1550 LS+™

## AVAILABLE IN VHF, UHF, 200 MHz AND 700 MHz

### OPERATES ON CONVENTIONAL, LTR® AND PASSPORT® SYSTEMS

#### THE INTELLIGENT RADIO—SO ADVANCED, IT PRACTICALLY THINKS FOR YOU

High-performing features combined with versatile trunking capabilities make the CDM1550.LS+ two-way radio the smart choice to keep mobile work teams performing their best, especially those in transportation. With LTR trunking capabilities you experience wider calling range, faster channel access, enhanced privacy, and higher user and talkgroup capacity. The CDM1550.LS+ also offers PassPort trunking. Ideal for users with growing communication needs, PassPort includes all the advantages of LTR trunking plus wider area coverage, seamless roaming, exceptional audio quality, superb system access, efficient channel expansion and electronic serial number production.

#### FEATURES AND BENEFITS:

- **16 or 160 Channels**
- **15 PassPort and/or LTR Zones (16 Talkgroups each)**
- **Dual Priority Scan in Conventional Mode**  
Frequently scans higher priority channels
- **Conventional Talkaround**  
Unit-to-unit communication, bypassing repeater
- **Quik-Call II™ on Conventional Zones**
- **Quik-Call II™ MDC 1200 Signaling (Encode/Decode)**  
Send and receive information via tone or digital signals
- **MDC 1200 Signaling (Encode/Decode)**  
Features on Conventional and LTR Zones Including:
  - **Caller ID:** Identifies incoming callers
  - **Selective Call:** Let's you call a specific group or individual
  - **Call Alert:** Notifies users that you're trying to reach them
  - **Radio Check:** Identifies active radio
  - **Message:** Send/receive messages
- **DTMF Encode**  
Sends and receives pages and telephone calls
- **Telephone Interconnect Capability**
- **PassPort Selective Call/Call Alert**
- **System/All Group/Auto Group Selective Scanning**
- **PTT-ID Aliasing Available in PassPort and LTR**
- **NTIA Band Support:** 9 MHz Rx/Tx Spacing in NTIA Band
- **Roam Request**
- **Roam Lock**
- **Home Channel Revert**
- **User-Defined Lists**
- **X-Pand™ Audio Enhancement**  
Crisp, clear audio quality
- **Emergency Signaling**  
Sends discreet help signal
- **Horn and Lights Activation**  
Notifies user of call alerts/selective calls when away from vehicle
- **Optional Voice Storage**  
Records important messages or memos
- **Multi-Language Capabilities**  
Programming in English, Spanish, French, or Portuguese
- **RSSI Indicator**  
Displays signal strength level
- **Remote Mountable Control Head**



- 1 Large, Easy to Use Controls**
- 2 Multicolored LED Indicators**  
Visible feedback of transmit, scan, and monitor status
- 3 14-Character Alphanumeric Display**  
Information is clear and easy to read
- 4 Large Textured PTT Button on Palm Microphone**
- 5 Powerful, Front-Projecting Speaker**
- 6 Rugged, Die-Cast Chassis with Polycarbonate Outer Shell**
- 7 4 Customizable Function Buttons (P1, P2, P3, P4)** Program for instant access to your favorite features
- 8 Channel Selector Buttons**

#### GENERAL SPECIFICATIONS

	VHF	UHF	200 MHz	700 MHz
Channel Capacity	15	15	15	15
Trunking Zone	16	16	16	16
Trunking Talkgroup (per zone)	16 or 160	16 or 160	16	16
Conventional Channel	16 or 160	16 or 160	16	16
Typical RF Output	1-25W - Low 25-45W - High	1-25W - Low 25-40W - High	1-25W	1-25W
Frequencies	136-174 MHz	403-470 MHz 450-512 MHz	217-218 MHz (Talkaround) 219-220MHz 220-221MHz (Talkaround) 221-222MHz	776-777 MHz 792-794 MHz 746-747MHz (Talkaround) 762-764MHz (Talkaround)
Dimensions (H x W x D)	2.34 x 7.05 x 7.32 inch (60 x 179 x 186 mm)	2.34 x 7.05 x 7.79 inch (60 x 179 x 198 mm)	- VHF/UHF Low Power, 200 MHz - VHF/UHF High Power, 700 MHz	
Weight	3.15 lbs (1.43 Kg) - VHF/UHF Low Power, 200 MHz 3.5 lbs (1.59 Kg) - VHF/UHF High Power, 700 MHz			
Current Drain	Standby .3A	.3A	.3A	.3A
Rx @ rated, external 8 ohm speaker	1.5A	1.5A	1.5A	1.5A
Transmit	7A @ 25W 13.5A @ 45W	7A @ 25W 13.5A @ 40W	7A @ 25W	7A @ 25W
FCC Description	AZ492FT3796 (25W, 136-174 MHz), AZ492FT3795 (45W, 136-174 MHz) ABZ99FT3081 (25W, 217-218, and 219-222 MHz) AZ492FT4835 (25W, 403-470 MHz), AZ492FT4830 (40W, 403-470 MHz) AZ492FT4829 (25W, 450-512 MHz), AZ492FT4836 (40W, 450-512 MHz) ABZ99FT5001 (15W, 746-747, 762-764, 776-777, and 792-794 MHz)			

#### TRANSMITTER SPECIFICATIONS

	VHF	UHF	200 MHz	700 MHz
Power Output	1-25 or 25-45W	1-25 or 25-40W	1-25W	1-25W
Frequency Stability: (-30° C to +60° C, +25° Ref.)	±2.5 ppm	±5 ppm @ 25 kHz* ±2.5 ppm @ 12.5 kHz	±2.5 ppm	±1.5 ppm
Modulation Limiting	±2.5 @ 12.5 kHz ±4.0 @ 20 kHz ±5.0 @ 25 kHz*	±2.5 @ 12.5 kHz ±4.0 @ 20 kHz ±5.0 @ 25 kHz*	±2.5 kHz	±2.5 kHz
Conducted/Radiated Emissions	-36dBm < 1 GHz -30dBm > 1 GHz	-36dBm < 1 GHz -30dBm > 1 GHz	-16dBm	-16dBm (except 40dBm from 1559 to 1610MHz)
Channel Spacing	12.5/20/25 kHz*	12.5/20/25 kHz*	12.5 kHz	12.5 kHz
FM Hum and Noise	-40dB @ 12.5 kHz -45dB 25 kHz*	-40dB Typical	-40dB Typical	-40dB Typical
Adjacent Channel Power	-60dB @ 12.5 kHz -70dB @ 25 kHz*	-60dB @ 12.5 kHz -70dB @ 25 kHz*	-60dB	-60dB
Audio Response	TIA 603 and ETS300 and CEPT 84 Annex 2	TIA 603 and ETS300 and CEPT 84 Annex 2	+1 to -3dB	+1 to -3dB
Audio Distortion	3%Typical	3%Typical	3%Typical	3%Typical
FM Modulation Designator	11K0F3E (12.5 kHz) 16K0F3E (25 kHz)*	11K0F3E (12.5 kHz) 16K0F3E (25 kHz)*	11K0F3E	11K0F3E
Adjacent Channel Coupled Power	N/A	N/A	N/A	Complies with 47 CFR 27.53 (d) (1)

#### RECEIVER SPECIFICATIONS

	VHF	UHF	200 MHz	700 MHz
Frequencies	136-174 MHz	403-470 MHz 450-512 MHz	217-218 MHz 219-220 MHz, 220-222 MHz	746-747 MHz 762-764 MHz
Channel Spacing	12.5/20/25 kHz*	12.5/20/25 kHz*	12.5 kHz	12.5 kHz
Frequency Stability: (-30° C to +60° C, +25° Ref.)	±2.5 ppm	±2.5 ppm	±2.5 kHz	±1.5 kHz
Sensitivity: (12dB SINAD) EIA	0.3 µV (0.23 typical)	0.3 µV (0.23 typical)	0.3 µV (0.25 typical)	0.3 µV (0.23 typical)
Intermodulation	75dB @ 12.5 kHz 78dB @ 25 kHz*	75dB @ 12.5 kHz 75dB @ 25 kHz*	75dB	75dB
Adjacent Channel Selectivity	65dB @ 12.5 kHz 80dB @ 25 kHz*	65dB @ 12.5 kHz 75dB @ 25 kHz*	65dB (TIA 603) 40dB (TIA 603-A)	65dB (TIA 603) 40dB (TIA 603-A)
Spurious Rejection	75dB @ 12.5 kHz 80dB @ 25 kHz*	70dB @ 12.5 kHz 75dB @ 25 kHz*	75dB	75dB
Rated Audio: External with 4 ohm speaker	3W Internal 13W External	3W Internal 13W External	3W Internal 13W External	3W Internal 13W External
Audio Distortion @ Rated Audio	3%Typical	3%Typical	3%Typical	3%Typical
Hum and Noise	-40dB 12.5 kHz -45dB 25 kHz*	-40dB 12.5 kHz -45dB 25 kHz*	-40dB	-40dB
Audio Response	TIA 603 and ETS300 and CEPT 84 Annex 2	TIA 603 and ETS300 and CEPT 84 Annex 2	+1 to -3dB	+1 to -3dB
Conducted Spurious Emission: FCC Part 15	-57dBm < 1 GHz -47dBm > 1 GHz	-57dBm < 1 GHz -47dBm > 1 GHz	-57dBm < 1 GHz -47dBm > 1 GHz	-57dBm < 1 GHz -47dBm > 1 GHz

#### PORTABLE MILITARY STANDARDS

Applicable MIL-STD	810C Method/Procedure	810D Method/Procedure	810E Method/Procedure
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	506.1/2	506.2/2	506.3/2
Humidity	507.1/2	507.2/2, 3	507.3/3
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, 5	516.3/1	516.4/1

#### ENVIRONMENTAL

Operating Temperature	-30° to +60° C
Storage Temperature	-55° to +85° C
Thermal Shock	-40° to +85° C
Humidity	95% RH @ 8 Hr.
ESD	IEC 801-2 KV
Water Intrusion	IP54
Packing Test	Impact Test

\* Availability of new 25 kHz equipment may be restricted due to Narrowbanding regulations in your country. Please check with your frequency coordinator and/or regulatory agency for the latest information on Narrowbanding.

**MOTOTRBO™**  
CDM SERIES

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