### Motorola CDM1250™



The Versatile Radio

# Helps keep productivity at its highest, no matter how fast your business grows.



#### **Additional Features**

- 64 Channels
- 12.5/25 kHz Switchable Channel Spacing
- Data Capable
- Large, Easy to Use Controls
- Channel Selector Buttons
- Large Textured PTT Button on Palm Microphone
- Powerful, Front-Projecting Speaker
- Rugged, Die-Cast Chassis with Polycarbonate Outer Shell
- Remote Mountable Control Head

## Motorola Quality: More Accessible Than You Think

Perfect for growing organizations, the CDM1250™ mobile radio can readily expand to meet rapidly changing business needs. Motorola's flexible X-Pand™ audio enhancement technology and a powerful front-projecting speaker ensure superb sound clarity, even in noisy environments. The large 14-character alphanumeric display with user-friendly icons helps make information 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 you keep productivity at its highest, no matter how fast your business grows.

### specifications

GENERAL		LOW BAND	VHF	UHF
Channel Capacity:		64	64	64
Typical RF Output:	Low Power		1-25W	1-25W
	High Power	40-60W	25-45W	25-40W
Frequency:		29.7-36 MHz, 36-42 MHz, 42-50 MHz	136-174 MHz	403-470 MHz, 450-512 MHz
Dimensions: (HxWxE	) Low Power		2.34 x 7.05 x 7.32 inch (59 x 179 x 186 mm)	2.34 x 7.05 x 7.32 inch (59 x 179 x 186mm)
	High Power	2.39 x 7.05 x 9.84 inch (61 x 179 x 250 mm)	2.34 x 7.05 x 7.8 inch (59 x 179 x 198 mm)	2.34 x 7.05 x 7.8 inch (59 x 179 x 198 mm)
Weight:	Low Power (1-25W)		3.15 lbs. (1.43 kg)	3.15 lbs. (1.43 kg)
	High Power	4.5 lbs. (2.04 kg)	3.5 lbs. (1.59 kg)	3.5 lbs. (1.59 kg)
Current Drain:	Standby	.4A	.3A	.3A
	Rx @ rated,	1.5A	1.5A	1.5A
	external 8 ohm speaker			
	Transmit	17A	7A @ 25W, 13.5 A @ 45W	8A @ 25W,13.5 A @ 40W
FCC Description:		AZ492FT1627 (29.7-36 MHz)	AZ492FT3796 (25W)	AZ492FT4835 (25W, 403-470 MHz)
		AZ492FT1628 (36-42 MHz)	AZ492FT3795 (45W)	AZ492FT4830 (40W, 403-470 MHz)
		AZ492FT1626 (42-50 MHz)		AZ492FT4829 (25W, 450-512 MHz)
TRANSMITTER				AZ492FT4836 (40W, 450-512 MHz)
Channel Spacing:		20/30 kHz	12.5/20/25 kHz	12.5/20/25 kHz
	(-30° C to +60° C, +25° Ref.)	± 5 ppm	± 2.5 ppm	± 2.5 ppm, ± 1.5 ppm UHF B2 HP
Power Output:	Low Power	± 5 ppiii	1-25W	1-25W
rower output.	High Power	40-60W	25-45W	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:	-	± 5.0 -45dB	-40dB 12.5 kHz and -45dB 25 kHz	-40dB 12.5 kHz and -45dB 25 kHz
Conducted/Radiated	Emission:	-26dBm < 1 GHz and -26dBm > 1 GHz	-36dBm < 1 GHz, -30dB > 1 GHz	-36dBm < 1 GHz and -30dBm > 1 GHz
Adjacent Channel Power:		-70dB	-60dB @ 12.5 kHz and -70dB @ 25 kHz	-60dB @ 12.5 kHz and -70dB @ 25 kHz
Audio Response:		TIA 603 & ETS 300 & CEPT84 Annex 2	TIA 603 & ETS 300 & CEPT 84 Annex 2	ETS 300 & CEPT 84 Annex 2
Audio Distortion		3% typical	3% typical	3% typical
FM Modulation:		25 kHz 16K0F3E	25 kHz 16K0F3E, 12.5 kHz 11K0F3	25 kHz 16K0F3E, 12.5 kHz 11K0F3
		23 KHZ TOKOTSE	25 KIZ TOKOTSE, TZ.5 KIZ TTKOTS	25 KHZ TOKOTSE, 12.5 KHZ TIKOTS
RECEIVER		00.7.00.141100.40.141140.50.1411	400 474 MIL	400 470 MIL 450 540 MIL
Frequency:		29.7-36 MHz, 36-42 MHz, 42-50 MHz	136-174 MHz	403-470 MHz, 450-512 MHz
Channel Spacing:	NAD	20 kHz	12.5/20/25 kHz	12.5/20/25 kHz
Sensitivity: (12dB SINAD)		0.3 μV, 0.25 μV typical	0.3 μV, 0.23 μV typical	0.3 µV, 0.23 µV typical
Intermodulation:		80dB 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, 80dB @ 25 kHz	70dB @12.5 kHz, 75dB @ 25 kHz
Rated Audio: (external audio with 4 ohm speaker)		3W Internal Speaker, 13W External Speaker	3W Internal Speaker, 13W External Speaker	3W Internal Speaker, 13W External Speaker
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: Conducted Spurious Emission:		TIA603 & ETS 300 & CEPT 84 Annex 2	TIA603 & ETS 300 & CEPT 84 Annex 2	TIA603 & ETS 300 & 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
ENVIRONMENT				
Operating Temperato		-30° to +60° C	-30° to +60° C	-30° to +60° C
Storage Temperature:		-55° to +85° C	-55° to +85° C	-55° to +85° C
Thermal Shock :		-40° to +85° C	-40° to +85° C	-40° to +85° C
Humidity:		95% RH @ 8 Hr.	95% RH @ 8 Hr.	95% RH @ 8 Hr.
ESD:		IEC 801-2 KV	IEC 801-2 KV	IEC 801-2 KV
Water Intrusion:		IP54	P54	P54
Packing Test:		Impact Test	Impact Test	Impact Test

PORTABLE MILITARY STANDARDS 810 C, D, & E\*

Methods/Procedures         Methods	
High Temperature:     501.1/1, 2     501.2/1, 2     501.3       Low Temperature:     502.1/2     502.2/1, 2     502.3       Temperature Shock:     503.1/1     503.2/1     503.3	ds/Procedures
Low Temperature:         502.1/2         502.2/1, 2         502.2/1, 2         502.3/1         503.2/1<	1/2
Low Temperature:         502.1/2         502.2/1, 2         502.3           Temperature Shock:         503.1/1         503.2/1         503.3	
	/1, 2
Solar Radiation: 505.1/1 505.2/1 505.3	/1
,	/1
Rain: 506.1/2 506.2/2, 3 506.3	1/2
Humidity: 507.1/2 507.2/3 507.3	/3
Salt Fog: 509.1/1 509.2/1 509.3	
Dust: 510.1/1 510.2/1 510.3	
Vibration: 514.2/8, 10 514.3/1 514.4	-/1
Shock: 516.2/1, 5 516.3/1 516.4	/1

 $<sup>^{\</sup>ast}$  MIL Standards - The CDM mobile radio is designed to meet most requirements for MIL STD 810 C, D, and E.

