



OUTSTANDING DIGITAL AUDIO WITHIN YOUR REACH

MOTOTRBO™ DEP™500 SERIES DIGITAL TWO-WAY PORTABLE RADIOS



Monitoring supply needs on a manufacturing line or reporting an emergency on school grounds, how do you keep employees connected and students safe? MOTOTRBO digital radio solutions can help by putting the power of digital communications within reach.

Versatile and powerful, MOTOTRBO combines the best of two-way radio functionality with the latest digital technology. DEP™500 Series radios offer best-in-class audio in a scalable solution to meet your communication needs. Because they are also analog interoperable, you can make the transition to digital at your own pace and budget.

The DEP™500 Series radios can reinvent your workplace and the way people collaborate to help you achieve even greater productivity, safety and cost-effectiveness.

PRODUCT SPEC SHEET

MOTOTRBO™ DEP™500 SERIES PORTABLE RADIOS

INDUSTRY-LEADING AUDIO

When it comes to exceptional audio clarity, the quality of digital can't be denied. With the DEP™500 Series portables, you get digital quality throughout your coverage area plus unique features to help your employees hear and speak clearly, wherever they work.

With Intelligent Audio, the radio volume automatically adjusts to compensate for background noise. Now, workers don't have to adjust their radio volume to avoid missing a call in loud situations or disturbing others when they move into quiet places. Increased background noise suppression filters out unwanted external clamor – from the rumble of forklifts to the buzz of school hallways. And IMPRES™ audio accessories enhance noise suppression and improve voice intelligibility for smarter audio than they've ever experienced before.

HIGH-POWERED PERFORMANCE

Because the DEP™500 Series uses TDMA digital technology, it delivers twice the calling capacity plus clearer voice communications. When it comes to battery performance, these radios operate up to 40 percent longer between recharges compared to analog. In fact, the leading-edge IMPRES™ technology in our batteries, chargers and audio accessories also ensures longer talk time and clearer audio.

The DEP™500 Series offers plenty of features to make workers more efficient. Voice announcement provides audible confirmation so they can be notified of channel and zone changes as well as programmable button features

without having to view the radio display. The display and easy to use navigation menu makes the radio intuitive to use so they can stay focused on the job at hand - from the hotel receptionist confirming rooms to high school security covering an event.

MIGRATE AT YOUR OWN PACE

Keeping operations running smoothly during a change in communication systems is vital to your operation. It's easy to migrate to digital because the DEP™500 Series radios operate in analog and digital mode while the dynamic mixed mode repeater functionality streamlines automatic switching between analog and digital calls. So you can begin using MOTOTRBO radios and repeaters on your existing analog system, and when your time and budget allow, move to digital at your own pace.

SCALABLE TO MEET YOUR NEEDS

Your workforce is hard at work every day – getting students home safely, unloading cargo, checking inventory and checking on guests. That's why you'll appreciate the easy flexibility and scalability of the DEP™500 Series to fit your changing needs and coverage area. All it takes is a software license to add key features like enhanced privacy scrambling or the transmit interrupt suite to prioritize critical communication exactly when it's needed.

DAY-IN, DAY-OUT DURABILITY

The DEP™500 Series meets demanding specs, including IP55 for water protection and U.S. Military 810 C, D, E, F and G. And it's backed by a two-year Standard Warranty.



DEP™500 SERIES SPECIFICATIONS

GENERAL SPECIFICATIONS							
DISPLAY DEP™570							
NON DISPLAY DEP™550							
		VHF	350	UHF	VHF	350	UHF
Channel Capacity		128	128	128	16	16	16
Frequency		136-174MHz	350-400 MHz	403-512 MHz	136-174 MHz	350-400 MHz	403-512 MHz
Core Slim Li-Ion (1500 mAh) Battery	Height (H)	4.80 inch / 122 mm					
	Width (W)	2.20 inch / 56 mm					
	Thickness (T)	1.43 inch / 36.4 mm					
	Weight	10.0 oz (285 g)			9.3 oz (265 g)		
IMPRES SLIM Li-ion (1500 mAh) Battery	Height (H)	4.80 inch / 122 mm					
	Width (W)	2.20 inch / 56 mm					
	Thickness (T)	1.43 inch / 36.4 mm					
	Weight	10.0 oz (285 g)			9.3 oz (265 g)		
IMPRES Hi-Cap Li-ion Non-FM (2150 mAh) Battery	Height (H)	4.80 inch / 122 mm					
	Width (W)	2.20 inch / 56 mm					
	Thickness (T)	1.64 inch / 41.7 mm					
	Weight	10.8 oz (305 g)			9.3 oz (265 g)		
Power Supply		7.5 V (Nominal)					
Operating Temperature		-30°~ +60° C					
FCC Description		ABZ99FT3088	ABZ99FT4089		ABZ99FT3088	ABZ99FT4089	
IC Description		109AB-99FT3088	109AB-99FT4089		109AB-99FT3088	109AB-99FT4089	
IMPRES SLIM Li-ion (1500 mAh) Battery Core Slim Li-Ion (1500 mAh) Battery		Analog: 8 hrs Digital: 11.5 hrs					
IMPRES Hi-Cap Li-ion Non-FM (2150 mAh) Battery		Analog: 11.5 hrs Digital: 16.5 hrs					

Average battery life at 5/5/90
duty cycle with carrier squelch and
transmitter in high power.

MILITARY STANDARDS: DISPLAY & NON-DISPLAY										
810C			810D		810E		810F		810G	
APPLICABLE MIL-STD	METHOD	PROCEDURES	METHOD	PROCEDURES	METHOD	PROCEDURES	METHOD	PROCEDURES	METHOD	PROCEDURES
Low Pressure	500.1	I	500.2	II	500.3	II	500.4	II	500.5	II
High Temperature	501.1	I, II	501.2	I/A1,II/A1	501.3	I/A1,II/A1	501.4	I/Hot, II/Hot	501.5	I-A1, II
Low Temperature	502.1	I	502.2	I/C3, II/C1	502.3	I/C3, II/C1	502.4	I-C3, II/C1	502.5	I, II
Temperature Shock	503.1	-	503.2	I/A1/C3	503.3	I/A1/C3	503.4	I	503.5	I-C
Solar Radiation	505.1	II	505.2	I	505.3	I	505.4	I	505.5	I-A1
Rain	506.1	I, II	506.2	I, II	506.3	I, II	506.4	I, III	506.5	I, III
Humidity	507.1	II	507.2	II	507.3	II	507.4	-	507.5	II
Salt fog	509.1	-	509.2	-	509.3	-	509.4	-	509.5	-
Dust	510.1	I	510.2	I	510.3	I	510.4	I	510.5	I
Vibration	514.2	VIII/F, Curve-W	514.3	I/10, II/3	514.4	I/10, II/3	514.5	I/24	514.6	I-cat 24, II/5
Shock	516.2	I, II	516.3	I, IV	516.4	I, IV	516.5	I, IV	516.6	I, IV, VI

PRODUCT SPEC SHEET
MOTOTRBO™ DEP™500 SERIES PORTABLE RADIOS

RECEIVER			
	VHF	350	UHF
Frequencies	136-174 MHz	350-400 MHz	403-512 MHz
Channel Spacing	12.5/25 kHz		
Frequency Stability	± 0.5 ppm		
Analog Sensitivity (12dB SINAD) Typical	0.3uV 0.22uV (typical)		
Digital Sensitivity	0.25 uV (0.19 uV typical)		
Intermodulation (TIA603D)	70 dB		
Adjacent Channel Selectivity (TIA603A)-1T	60dB @ 12.5kHz / 70dB @ 25 kHz		
Adjacent Channel Selectivity (TIA603D)-2T	45dB @ 12.5kHz / 70dB @ 25 kHz		
Spurious Rejection (TIA603D)	70 dB		
Rated Audio	0.5W		
Audio Distortion @ Rated Audio	5% 3% (typical)		
Hum and Noise	-40dB @ 12.5kHz / -45dB @ 25 kHz		
Audio Response	TIA603D		
Conducted Spurious Emission (TIA603D)	-57 dBm		

**ENVIRONMENTAL SPECIFICATIONS:
DISPLAY DEP™570 & NON-DISPLAY DEP™550**

Operating Temperature	-30° C / +60° C
Storage Temperature	-40° C / +85° C
Thermal Shock	Per MIL-STD
Humidity	Per MIL-STD
ESD	IEC 61000-4-2 Level 3
Dust and Water Intrusion	IEC60529 - IP55
Packaging test	MIL-STD 810D and E

Testing completed using portable radio with attached battery and antenna.

TRANSMITTER			
	VHF	350	UHF
Frequencies	136-174 MHz	350-400 MHz	403-512 MHz
Channel Spacing	12.5/20/25kHz		
Frequency Stability	± 0.5 ppm		
Low Power Output	1W	1W	
High Power Output	5W	4W	
Modulation Limiting	± 2.5 kHz @ 12.5 kHz		
	± 5.0 kHz @ 25 kHz		
FM Hum and Noise	-40 dB@ 12.5 kHz		
	-45 dB@ 20/25 kHz		
Conducted/Radiated Emission	-36 dBm < 1 GHz		
	-30 dBm > 1 GHz		
Adjacent Channel Power	60 dB @ 12.5 kHz		
	70 dB @ 25 kHz		
Audio Response	TIA603D		
Audio Distortion	3%		
4FSK Digital Modulation	12.5kHz Data: 7K60F1D & 7K60FXD		
	12.5kHz Voice: 7K60F1E & 7K60FXE		
	Combination of 12.5 kHz Voice and Data: 7K60F1W		
Digital Vocoder Type	AMBE+2™		
Digital Protocol	-ETSI TS 102 361 -1,-2,-3		

Please contact your
Motorola sales
representative for battery
runtime expectations based
on your specific radio
configuration.

Specifications subject to
change without notice. All
specifications shown are
typical.

Radio meets applicable
regulatory requirements.
Version 1 08/11

For more information on how to reach it all with digital,
visit www.motorolasolutions.com/caribbean/mototrbo

MOTOTRBO
REINVENTING
DIGITAL

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