



THE FUTURE OF BUSINESS COMMUNICATION, DELIVERED TODAY

MOTOTRBO™ DIGITAL TWO-WAY RADIO REPEATERS

Make technology more productive and personal. You asked for a forward-thinking way to connect your people to their work, wherever they go. An innovative business tool that increases their efficiency while lowering your costs. Versatile and powerful, MOTOTRBO combines the best of two-way radio functionality with the latest digital technology. It integrates voice and data seamlessly, offers enhanced features that are easy to use and delivers increased capacity to meet your communication needs from the field to the factory floor. With exceptional voice quality and packed with advanced features, MOTOTRBO keeps your work teams connected when communication is a must.

HIGH-POWERED PERFORMANCE

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

INDUSTRY-LEADING APPLICATIONS

Motorola's Application Developer Program offers customized data applications so you can adapt your radios to your unique business needs. Because we've created the largest developer program in the industry, we can provide nimble applications that address your challenges and answer your objectives – from work order ticket management to network management, email gateways to location tracking, dispatch consoles to telephony integration, and beyond.

Whether you want to send text messages or track work order information, pinpoint work crew locations with integrated GPS or manage your fleet from a central dispatch location, MOTOTRBO™ paves the way – with customizable data applications on one convenient device.

ADDED FUNCTIONALITY

MOTOTRBO offers added functionality, enhanced call signalling, basic and enhanced privacy-scrambling, option board expandability and compatibility with SCADA solutions for utility and public service monitoring and alarms. Plus digital telephone interconnect capability to enable communication between radios and landline or mobile phones as well as a Transmit Interrupt suite – with voice interrupt, emergency voice interrupt or data over voice interrupt – to prioritize critical communication the moment you need it.

EXPANDED CAPACITY AND COVERAGE

Your workforce is hard at work every day – picking up loads, making road repairs, providing security, responding to guest requests or restoring power after a storm. That’s why you need the proven performance of MOTOTRBO radio systems for non-stop communication no matter the size of your work force, no matter where they go.

MOTOTRBO’s IP Site Connect helps to dramatically improve customer service and productivity by using the Internet to extend coverage to create a wide area network, enhance single site coverage or link geographically dispersed locations. Capacity Plus single-site trunking

expands capacity to over 1,000 users without having to add new frequencies. Linked Capacity Plus combines the expanded capacity of Capacity Plus with the wide area coverage of IP Site Connect, delivering a high capacity, wide area, and cost effective multi-site trunking solution. So whether you want coverage at a single site or across multiple ones, MOTOTRBO can be scaled to your business and budget

MIGRATE AT YOUR OWN PACE

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

RELIABLE DURABILITY

MOTOTRBO repeaters are backed by a two-year Standard Warranty.



PRODUCT SPEC SHEET

MTR3000 BASE STATION/REPEATER SPECIFICATION

GENERAL SPECIFICATIONS		
	VHF	UHF
Number of Frequencies		Up to 16
Modulation		FM & 4FSK
Frequency Generation		Synthesized
Channel Spacing Analogue / Digital		12.5 kHz, 25 kHz / 12.5 kHz (6.25e compliant)
Mode of Operation		Simplex / Semi-Duplex / Duplex
Temperature Range		-30°C to +60°C
Antenna Connectors		Transmit and Receive, Type "N" Female
AC Operation		85-264 VAC, 47-63 Hz
DC Operation		28.6 VDC (25.7-30.7 VDC full rated output power)
Dimensions		133 mm H x 483 mm W x 419 mm L
Weight		19 kg

INPUT CURRENT		
100 W Standby	0.4A (220 V AC) / 0.8A (typical) (28 V DC)	
100 W Transmit	1.9A (220 V AC) / 12.2A (typical) (28 V DC)	1.8A (220 V AC) / 11.5A (typical) (28 V DC)

RECEIVER		
	136-174 MHz	403-470 MHz
Frequencies		
Selectivity (TIA603) 25 kHz / 12.5 kHz	80 dB (90 dB typical) / 75 dB (82 dB typical)	80 dB (86 dB typical) / 75 dB (78 dB typical)
Selectivity (TIA603D) 25 kHz / 12.5 kHz	80 dB (90 dB typical) / 50 dB (60 dB typical)	75 dB (85 dB typical) / 45 dB (60 dB typical)
Analogue Sensitivity 12dB SINAD		0.30 uV (0.22 uV typical)
Digital Sensitivity 5% BER		0.30 uV (0.20 uV typical)
Signal Displacement Bandwidth 25 kHz / 12.5 kHz		2 kHz / 1 kHz
Intermodulation Rejection 25 kHz and 12.5 kHz		85 dB
Spurious and Image Response Rejection		85 dB (typical 95 dB)
Audio Response	+1,-3 dB from 6 dB per octave de-emphasis; 300-3000 Hz referenced to 1000 Hz at line output	
Audio Distortion	Less than 3% (1% typical) at 1000 Hz, 60% RSD	Less than 3% (1.5% typical) at 1000 Hz, 60% RSD
Line Output	330 mV (RMS) @ 60% RSD	
FM Hum and Noise (750 µs de-emphasis) 25 kHz / 12.5 kHz	50 dB nominal / 45 dB nominal	50 dB nominal / 40 dB nominal
RF Input Impedance	50 Ohms	

TRANSMITTER		
	136-174 MHz	403-470 MHz
Frequencies		
Power Output (Continuous Duty)	8-100 watts	
Electronic Bandwidth	Full Band	
Output Impedance	50 Ohms	
Intermodulation Attenuation	55 dB	
Maximum Deviation (RSD) 25 kHz / 12.5 kHz	±5 kHz / ±2.5 kHz	
Audio Sensitivity	60% RSD @ 80 mV RMS	
Spurious and Harmonic Emissions Attenuation	90 dB	
FM Hum and Noise (750 µs de-emphasis) 25 kHz / 12.5 kHz	50 dB nominal, 45 dB nominal	
Frequency Stability (for temperature and aging variation)	1.5 PPM/External Ref (optional)	
Audio Response	+1,-3 dB from 6 dB per octave pre-emphasis; 300-3000 Hz referenced to 1000 Hz at line output	
Audio Distortion	Less than 3% (1% typical) at 1000 Hz; 60% RSD 30 kHz	
Emission Designators	FM Modulation: 12.5 kHz: 11K0F3E; 25 kHz: 16K0F3E 4FSK Modulation: 12.5 kHz - Data Only: 7K60FXD; 12.5 kHz - Data & Voice: 7K60FXE	

Specifications per TIA/EIA 603D unless otherwise noted
 Product meets ETSI 300-086 & ETSI 300-113
 CE Marked; RoHS compliant; UL Listed
 Digital Protocol ETSI 102 361-1, -2, -3; AMBE +2™ Vocoder
 Specifications subject to change without notice.

PRODUCT SPEC SHEET
MOTOTRBO DR 3000 REPEATER

GENERAL SPECIFICATIONS			DR 3000	
		VHF	UHF Band I	UHF Band II
Channel Capacity			1	
Typical RF Output:	Low Power	1-25 W	1-25 W	—
	High Power	25-45 W	25-40 W	1-40 W
Frequency		136-174 MHz	403-470 MHz	470-527 MHz
Dimensions			133 mm H x 483 mm W x 296 mm L	
Weight			14 kg	
Voltage Requirements			100-240 V AC (13.6 V DC)	
Current Drain During Standby:			0.5A (240 V AC) / 1.0A (typical) (13.4 V DC)	
Current Drain During Transmit:	Low Power		1.5A (240 VAC) / 7.5A (typical) (13.4 VDC)	
	High Power		1.8A (240 V AC) / 12A (typical) (13.4 V DC)	
Operating Temperature Range			-30°C to +60°C	
Max Duty Cycle			100%	

RECEIVER			
Frequencies	136-174 MHz	403-470 MHz	470-527 MHz
Channel Spacing		12.5 kHz / 20kHz / 25 kHz	
Frequency Stability (-30° C, +60° C, +25° C)		+/- 0.5 ppm	
Analogue Sensitivity (12dB SINAD)		0.30 uV 0.22 uV (typical)	
Digital Sensitivity		5% BER: 0.3 uV	
Intermodulation		70 dB	
Adjacent Channel Selectivity:		60 dB @ 12.5 kHz, 70 dB @ 20/25 kHz	
Spurious Rejection (TIA603C)		70 dB	
Audio Distortion @ Rated Audio		3% (typical)	
Hum and Noise		-40 dB @ 12.5 kHz -45 dB @ 20/25 kHz	
Audio Response		+1, -3dB	
Conducted Spurious Emission (TIA603C)		-57 dBm < 1 GHz	

TRANSMITTER			
Frequencies	136-174 MHz	403-470 MHz	470-527 MHz
Channel Spacing		12.5 kHz / 20 kHz / 25 kHz	
Frequency Stability (-30° C, +60° C, +25° C Ref.)		+/- 0.5 ppm	
Low Power Output	1-25 W	1-25 W	—
High Power Output	25-45 W	25-40 W	1-40 W
Modulation Limiting		+/- 2.5 kHz @ 12.5 kHz +/- 4.0 kHz @ 20 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 @ 20/25 kHz	
Audio Response		+1, -3 dB	
Audio Distortion		3%	
Digital Vocoder Type		AMBE +2™	
Digital Protocol		ETSI TS 102 361-1, -2, -3	

Specifications subject to change without notice. All specifications shown are typical.
 Repeater meets applicable regulatory requirements. EMEA Version 1 06/13

For more information on how to make your business more efficient and better connected, visit www.motorolasolutions.com/mototrbo or find your closest Motorola representative or authorised Partner at www.motorolasolutions.com/contactus

MOTOTRBO
 DIGITAL
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