



GENERAL SPECIFICATIONS

Protocol	DMR or analogue communications		Analogue / Digital or Analogue Only		Analogue / Digital		Analogue / Digital		Analogue / Digital		Analogue / Digital		Analogue / Digital		Analogue / Digital		Analogue / Digital		Analogue / Digital		Analogue / Digital					
Frequency	Capable of operating in the following frequency ranges																									
Max. Power Output	Radio's full power rating		4W UHF / 5W VHF		4W UHF / 5W VHF		4W UHF / 5W VHF		4W UHF / 5W VHF		4W UHF / 5W VHF		4W UHF / 5W VHF		1W UHF / VHF		4 W		2W(an) / 3W(dig)		25W or 40 / 45W ¹⁴		25W or 40 / 45W ¹⁴			
Max. Channel Capacity	Programmable channel capacity		32		64		32		1000		32		1000		1000		32		1000		16		160		99	
Channel Spacing	Programmable channel spacing		12.5 / 20 / 25 kHz		12.5 / 20 / 25 kHz		12.5 / 20 / 25 kHz		12.5 / 20 / 25 kHz		12.5 / 20 / 25 kHz		12.5 / 20 / 25 kHz		12.5 / 20 / 25 kHz		12.5 / 20 / 25 kHz		12.5 / 20 / 25 kHz		12.5 / 20 / 25 kHz		12.5 / 20 / 25 kHz		12.5 / 20 / 25 kHz	
Display	Displays provide easy access to advanced features																									
Keypad	Keypads provide access to radio controls, texting and telephony																									
Audio Recording	Enables the radio to record received voice calls																									
Integrated GPS	Embedded GPS receiver for location monitoring																									
Integrated GLONASS	Embedded GLONASS receiver for location monitoring																									
Event Driven Location Updates	Location update based on input from external device (eg door sensor)																									
Distance Driven Location Updates	Location update transmission based on distance travelled																									
Integrated Bluetooth 2.1	Wireless connection for audio accessories or data comms																									
Integrated Bluetooth 4.0	Energy efficient Bluetooth for greater battery life																									
Integrated Bluetooth 5.0	Draws less power than Bluetooth 4.2, which helps accessories with small batteries, such as earpieces, to last longer																									
Permanent Bluetooth Discovery	Bluetooth "always on" mode used by some applications																									
Smartphone Collaboration	M-Radio Control App allows user to view radio status and control selected features																									
Dedicated Emergency Button	Orange programmable button for one-touch emergency calling																									
Programmable Buttons	Allow access to most often used features with one press																									
Digital DMR Signalling	DMR standard digital voice communications																									
PL / DPL Signalling	Analogue Private Line / Digital Private Line compatible																									
Quick Call II Signalling	Analogue Quick Call II compatible																									
MDC Signalling	Analogue MDC compatible																									
5 Tone Signalling	Analogue 5 tone compatible																									
DTMF Hot Keypad	DTMF tone compatible																									
MPT1327 Signalling	Analogue MPT1327 compatible (requires option board)																									
Option Board Capability	Supports option boards for third party applications																									
IMPRES™ Audio Compatible	IMPRES™ audio ensures your voice is heard clearer and louder																									
SINCR™ Noise Cancellation	Integrated, advanced noise cancellation for noisy environments																									
Automatic Gain Control	Modifies microphone performance to produce the best voice quality																									
Microphone Distortion Control	Automatic microphone gain adjustment to reduce distortion																									
Tail Enhancement	Additional processing to enhance rolling "r" sound so speech is clearer																									
IMPRES™ Energy Compatible	Use IMPRES™ batteries for longer life and optimal performance																									
IMPRES™ OTA Battery Management	Automatic collection of battery data over the air with radios still in use																									
ATEX Certified	ATEX certified for use in potentially explosive environments																									
IEC Ex Certified	IEC Ex certified for use in potentially explosive environments																									
TIA4950 Certified	Telecommunications Industry Association (TIA) approved for IS use																									
SOLAS, MED/5.20, UK/5.20	Meets requirements of Marine Equipment Directive 2014/90/EU Item 5.20 and Merchant Shipping (Marine Equipment) Regulations 2016 Item 5.20																									
IP Rating	Rated sealing for dust and water ingress																									
MIL-STD 810	Rated to withstand environmental conditions																									
Dimensions (HxWxD) mm	Physical size																									
Dimensions (Weight)	Physical weight																									

FEATURES AND FUNCTIONS

Intelligent Audio	Automatic volume control based on background noise levels																					
User Selectable Audio Profiles	Optimises audio for specific environments and personal preferences																					
Emergency Alarm	Radio can initiate an Emergency call process																					
Lone Worker	Initiates emergency if user does not respond to periodic alerts																					
Remote Monitor	Radio can remotely activate another radio's microphone																					
VOX (supported on radio)	Voice activated calling allows handsfree operation																					
Audio Feedback Suppressor	Blocks feedback from other radios to eliminate "howling"																					
Freeform Text Messaging	User can enter and send free-form text messages																					
Pre-programmed Text Messaging	Radio can send pre-programmed text messages																					
Extended Texting	Maximum text message length is 280 character																					
Vibrate Alert	Vibrate silently alerts the user to an incoming call																					
Covert Mode	Disable display, LEDs and audible tones for ultimate discretion																					
All Call	One-way call to all radios on a logical channel																					
Radio Check	Check if another radio is active on a system without notifying the user																					
Digital Telephone Patch	Ability to connect to telephone system (requires additional hardware)																					
Transmit Interrupt Encode	Radio can interrupt transmissions from other radios																					
Basic Privacy	MOTOTRBO 16-bit encryption for protection against eavesdropping																					
Enhanced Privacy	MOTOTRBO 40-bit encryption for more robust protection																					
AES256 Encryption	Advanced Encryption Standard (AES) 256-bit encryption																					
Default Voice Announcement	Audible confirmation of selected operations of the radio																					
Programmable Voice Announcement	Ability to use customised recordings for voice announcements																					
Text-to-Speech Voice Announcement	Radio "reads out" Channel, Zone, Functions, Text Messages, Job Tickets																					
Radio Management	Centralised radio configuration and code plug management																					
Over the Air Programming (OTAP)	Remote, over-air programming using Radio Management																					
Integrated Wi-Fi	Enables remote software updates for easier radio management																					
Indoor Location Tracking	Use built-in Bluetooth with iBeacons and suitable apps to locate and track radios																					
Restricted Access to System	Prevents unauthorised users from communicating through the repeater																					
Radio Enable / Disable	Radio can remotely disable and re-enable another radio																					
Integrated Mandown	Built-in accelerometer enhances personnel safety by monitoring movement																					
Dual Capacity Direct Mode	Use both TDMA time slots to double system capacity without a repeater																					
Telemetry Supported	Integrated basic telemetry capability																					
Telemetry I/O Pins	Number of built-in input / output pins to support telemetry																					
Telemetry Buttons	Number of buttons that can be configured for telemetry																					
Fixed Installation	Mobile radios can be used in a fixed installation such as a control room																					
Control Station	Mobile acts as the RF link between an Application Server and the radio network																					
Remote Mount Control Head	Controls and display can be located separately from radio chassis																					
Data ADKs Available	Data Application Developer Kits are available to ADP members																					
Certificate Based Wi-Fi Access	WPA / WPA2 Enterprise Wi-Fi support allowing Wi-Fi enabled MOTOTRBO radios to access certificate based Wi-Fi networks																					
Rental Timer	Supports the ability to set a timer where the radio will stop functioning after the timer expires																					

SYSTEM CONFIGURATIONS

Direct Mode Operation	Direct radio-to-radio operation																					
Single-Site Conventional	Single-site conventional operation (channel selection by users)																					
Extended Range Direct Mode	Single-site conventional range extension via single channel repeater																					
IP Site Connect	Multi-site conventional operation (channel selection by users)																					
Capacity Plus	Single- or multi-site MOTOTRBO trunking (channel selection managed by system)																					
Capacity Max	Multi-site, DMR Tier III compliant trunking with centralised controller																					

¹ Integrated Bluetooth, GPS, GLONASS and Wi-Fi are supported on DP4401e, DP4801e, DP4801e, DM4401e & DM4801e only
² Based on NIMH battery
³ Based on standard Li-Ion battery
⁴ Option board capability on SL4010e only
⁵ SL4010e only
⁶ Requires IMPRES™ battery
⁷ DP4401e, DP4801e, DP4801e, DP4801e Ex are available with MPT Option Board factory fitted
⁸ Based on NIMH battery
⁹ DP4401e, DM1400 and DM1600 analogue-only models can be upgraded to MOTOTRBO digital by purchasing a software license
¹⁰ Integrated man down on DP4401e, DP4801e and DP4801e only
¹¹ Requires keypad microphone
¹² Even & distance driven location updates only supported on models with built-in GPS / GLONASS
¹³ Only DP2400e, DP4401e, DP4801e, DM4401e and DM4801e available in 300MHz versions
¹⁴ Maximum output RF power is 2W for frequencies >470MHz
¹⁵ Feature is standard on "Premium" models and optional on "Capable" models
¹⁶ DP4401e, DP4801e and DP4801e with software earlier than R02.21.04.3002 supported this feature
¹⁷ Only supported on DP4401e, DP4801e and DP4801e with software R02.21.04.3002 or greater
¹⁸ Single Site, 2 Repeaters
¹⁹ VHF models: 45W / 300MHz & UHF models: 40W
²⁰ VHF models: 45W / 300MHz & UHF models: 40W
²¹ Maximum output RF power is 2W for frequencies >470MHz
²² Feature is standard on "Premium" models and optional on "Capable" models