

MOTO**TRBO**™

PROFESSIONAL DIGITAL TWO-WAY RADIO SYSTEM

		MOTOTRBO MOBILE RADIOS																					
		DP1000 SERIES	R2	DP2000e SERIES		DP3000e SERIES		DP4000e SERIES			R7 SERIES			DP4000 Ex SERIES		ION SMART RADIO	SL SERIES		DM1000 SERIES	DM2000 SERIES	DM4000e SERIES		
																							
GENERAL SPECIFICATIONS																							
Protocol	DMR or analogue communications	Analogue / Digital or Analogue Only	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	VHF: 136-174MHz UHF: 403-470MHz	VHF: 136-174MHz UHF: 400-480MHz	VHF: 136-174MHz / UHF: 403-527MHz 300 ¹ : 300-360, 350-400MHz		VHF: 136-174MHz UHF: 403-527MHz		VHF: 136-174MHz / UHF: 403-527MHz 300 ¹ : 300-360, 350-400MHz			VHF: 136-174MHz UHF: 400-527MHz			VHF: 136-174MHz UHF: 403-470MHz		UHF: 400-527MHz	VHF: 136-174MHz UHF: 403-470MHz		VHF: 136-174MHz UHF: 403-470MHz		VHF: 136-174MHz UHF: 403-470MHz, 450-527MHz 300 ¹ : 300-360, 350-400MHz		
Max. Power Output	Radio's full power rating	4W UHF / 5W VHF	4W UHF / 5W VHF	4W 300MHz/UHF / 5W VHF		4W UHF / 5W VHF		4W 300MHz/UHF / 5W VHF			4W UHF / 5W VHF			1W UHF / VHF		4 W 1000	2W(an) / 3W(dig)		25W or 40 / 45W ¹⁴		25W or 40 / 45W ¹⁴		VHF: 136-174MHz UHF: 403-470MHz, 450-527MHz 300 ¹ : 300-360, 350-400MHz
Max. Channel Capacity	Programmable channel capacity	32	64	32		32		32			64			32		1000	99		16		160		99
Channel Spacing	Programmable channel spacing	12.5 / 20 / 25 kHz	12.5 / 20 / 25 kHz	12.5 / 20 ¹ / 25 kHz		12.5 / 20 / 25 kHz		12.5 / 20 ¹ / 25 kHz			12.5 / 20 / 25 kHz			12.5 / 20 / 25 kHz		102 mm colour display, 480 x 800 px	12.5 / 20 / 25 kHz		12.5 / 20 / 25 kHz		12.5 / 20 / 25 kHz		12.5 / 20 ¹ / 25 kHz
Display	Displays provide easy access to advanced features	No	No	No	2 line monochrome	No	5 line colour	No	5 line colour	5 line colour	No	No	2.4" 320 x 240 px. QVGA display, with up to 10 lines of text	No	5 line colour	Capacitive touch-screen with Gorilla Glass	No	4 virtual buttons	2-digit numeric	2 line monochrome	2 line monochrome	2-digit numeric	4 line colour
Keypad	Keypads provide access to radio controls, texting and telephony	No	No	No	Menu buttons	No	Menu buttons	No	Menu buttons	Full Keypad	No	No	Full Keypad	No	Full Keypad		No	4 virtual buttons	No	Menu buttons	Menu buttons	No	Menu buttons
Audio Recording	Enables the radio to record received voice calls	No	No	No	No	No	No	No	No	No	No	Yes ¹⁷	No	No	No	No	No	No	No	No	No	No	No
Integrated GPS	Embedded GPS receiver for location monitoring	No	No	No	No	Yes	Yes	No	Yes ¹	Yes	No	Yes ¹⁷	Yes ¹⁷	Yes	Yes	Yes	No	No	No	No	No	Yes ¹	
Integrated GLONASS	Embedded GLONASS receiver for location monitoring	No	No	No	No	Yes	Yes	No	Yes ¹	Yes	No	Yes ¹⁷	Yes ¹⁷	No	No	Yes	No	No	No	No	No	Yes ¹	
Event Driven Location Updates	Location update based on input from external device (eg door sensor)	No	No	No	No	No	No	Yes ¹¹	No	No	No	Yes ¹⁷	Yes ¹⁷	No	No	Yes	No	No	No	No	No	Yes ¹¹	
Distance Driven Location Updates	Location update transmission based on distance travelled	No	No	No	No	Yes	Yes ¹¹	Yes ¹¹	No	No	No	Yes ¹⁷	Yes ¹⁷	No	No	Yes	No	No	No	No	No	Yes ¹¹	
Integrated Bluetooth 2.1	Wireless connection for audio accessories or data comms	No	No	No	No	n/a	n/a	n/a	n/a	n/a	No	No	Yes ¹⁷	No	No	Yes	No	n/a	No	No	No	n/a	
Integrated Bluetooth 4.0	Energy efficient Bluetooth for greater battery life	No	No	No	No	Audio and Data		Audio and Data ¹			No	No	No	No	No	Yes	No	Audio and Data	No	No	No	Audio and Data ¹	
Integrated Bluetooth 5.0	Draws less power than Bluetooth 4.2, which helps accessories with small batteries, such as earpieces, to last longer	No	No	No	No	No	No	Audio and Data ¹⁹			No	Yes ¹⁷	Yes ¹⁷	No	No	Yes	No	No	No	No	No	No	
Permanent Bluetooth Discovery	Bluetooth "always on" mode used by some applications	No	No	No	No	Yes	Yes	No ¹⁸	No	No	No	No	No	No	No	Yes	No	Option	No	No	No	No	No
Smartphone Collaboration	M-Radio Control App allows user to view radio status and control selected features	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	No	No	No	No	No	No	No	No	No
Dedicated Emergency Button	Orange programmable button for one-touch emergency calling	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No
Programmable Buttons	Allow access to most often used features with one press	2	2	2	4	2	4	3	5	5	Yes	Yes	Yes	3	5	3	1 ¹	1	2	4	4	4	4
Digital DMR Signalling	DMR standard digital voice communications	Yes ⁸	Yes ⁸	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes ⁸	Yes	Yes	Yes	Yes
PL / DPL Signalling	Analogue Private Line / Digital Private Line compatible	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quick Call II Signalling	Analogue Quick Call II compatible	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MDC Signalling	Analogue MDC compatible	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5 Tone Signalling	Analogue 5 tone compatible	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	No	Option	Yes	No	Yes	No	Yes	Yes
DTMF Hot Keypad	DTMF tone compatible	No	No	No	No	No	No	No	No	Yes	No	No	Yes	No	No	No	No	No	No	Yes ⁸	Yes ⁸	Yes ⁸	Yes ⁸
MPT1327 Signalling	Analogue MPT1327 compatible (requires option board)	No	No	No	No	No	No	Option ⁷	Yes	Yes	No	No	Yes	No	Option ⁷	No	No	No	No	No	No	Option	Yes
Option Board Capability	Supports option boards for third party applications	No	No	No	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes
IMPRES™ Audio Compatible	IMPRES™ audio ensures your voice is heard clearer and louder	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes
SINCR Noise Cancellation	Integrated, advanced noise cancellation for noisy environments	No	Option	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Option	No	Yes	No	Yes	Yes
Automatic Gain Control	Modifies microphone performance to produce the best voice quality	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Microphone Distortion Control	Automatic microphone gain adjustment to reduce distortion	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	No	No	No	No	No
Tail Enhancement	Additional processing to enhance rolling "r" sound so speech is clearer	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IMPRES™ Energy Compatible	Use IMPRES™ batteries for longer life and optimal performance	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	n/a	n/a	n/a	n/a	n/a
IMPRES™ OTA Battery Management	Automatic collection of battery data over the air with radios still in use	No	No	Yes ¹⁰	Yes ¹⁰	Yes ¹⁰	Yes ¹⁰	Yes ¹⁰	Yes ¹⁰	Yes ¹⁰	Yes	Yes	Yes	Yes ¹⁰	Yes	Yes ¹⁰	No	No	n/a	n/a	n/a	n/a	n/a
ATEX Certified	ATEX certified for use in potentially explosive environments	No	No	No	No	No	No	No	No	No	No	No	No	Gas: Class II 2G Ex ib IIC T4 Gb Dust: Class II 2D Ex ib IIIC T130 °C Db Mining: I M2 Ex ib I Mb		No	No	No	No	No	No	No	
IEC Ex Certified	IEC Ex certified for use in potentially explosive environments	No	No	No	No	No	No	No	No	No	No	No	No	Gas: Ex ib IIC T4 Gb / Dust: Ex ib IIIC T130°C Db / Mining: Ex ib I Mb		No	No	No	No	No	No	No	
TIA4950 Certified	Telecommunications Industry Association (TIA) approved for IS use	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	No	No	No	No	No	No
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	No	No	No	No	No	No	No	No	No	No	No	No	Yes (UHF)		No	No	No	No	No	No	No	No
IP Rating	Rated sealing for dust and water ingress	IP54	IP55	IP67		IP68		IP68			IP68 / IP68			IP67		IP68	IP54		IP54		IP54		
MIL-STD 810	Rated to withstand environmental conditions	C, D, E, F & G	C, D, E, F, G & H	C, D, E, F & G		C, D, E, F & G		C, D, E, F & G			C, D, E, F, G & H			C, D, E, F & G		C, D, E, F, G & H	C, D, E, F & G		C, D, E, F & G		C, D, E, F & G		
Dimensions (HxWxL) mm	Physical size	128 x 62 x 39 ¹	125 x 55 x 36.8 ¹	122 x 56 x 36 ¹		100 x 55 x 36 ¹		130 x 55 x 34 ¹			132 x 56 x 31 mm			138 x 57 x 36 ¹		143 x 70 x 29 ¹	126 x 55 x 22 ¹		44 x 169 x 134		53 x 175 x 206		
Dimensions (Weight)	Physical weight	341g ¹	286g ¹	265g ¹		282g ¹		254g ¹			290g ¹			289 g		289 g	456g ¹		456g ¹		414g ¹		
FEATURES AND FUNCTIONS																							
Intelligent Audio	Automatic volume control based on background noise levels	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
User Selectable Audio Profiles	Optimises audio for specific environments and personal preferences	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Emergency Alarm	Radio can initiate an Emergency call process	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lone Worker	Initiates emergency if user does not respond to periodic alerts	Yes	Yes	Yes	Yes	Yes																	