

# FEATURE COMPARISON CHART

		MOTOTRBO PORTABLE RADIOS										MOTOTRBO MOBILE RADIOS					
		DP1000 SERIES		DP2000 SERIES		DP4000 SERIES		DP4000 Ex SERIES		DP3441	SL SERIES		DM1000 SERIES		DM2000 SERIES	DM4000 SERIES	
		DP1400	DP2400	DP2600	DP4400/DP4401	DP4600/DP4601	DP4800/DP4801	DP4401 Ex	DP4801 Ex	DP3441	SL1600	SL4000/SL4010	DM1400	DM1600	DM2600	DM4400/DM4401	DM4600/DM4601
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	
Frequency	Capable of operating in the following frequency ranges	VHF: 136-174MHz UHF: 403-470MHz		VHF: 136-174MHz UHF: 403-527MHz 300 <sup>12</sup> : 300-360, 350-400MHz		VHF: 136-174MHz UHF: 403-527MHz 300 <sup>12</sup> : 300-360, 350-400MHz		VHF: 136-174MHz UHF: 403-470MHz		VHF: 136-174MHz UHF: 403-527MHz		VHF: 136-174MHz UHF: 403-470MHz		VHF: 136-174MHz UHF: 403-470MHz		VHF: 136-174MHz UHF: 403-470MHz 300 <sup>12</sup> : 300-360, 350-400MHz	
Max. Power Output	Radio's full power rating	4W UHF/5W VHF		4W UHF/5W VHF		4W UHF/5W VHF		1W UHF/VHF		4W UHF/5W VHF		2W(an) / 3W(dig)		25W or 40/45W <sup>15</sup>		25W or 40/45W <sup>15</sup>	
Max. Channel Capacity	Programmable channel capacity	16		16 128		32 1000 1000		32 1000		32		99 1000		16 160 256		99 1000	
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	
Display	Displays provide easy access to advanced features	No		No 2 line monochrome		No 4 line monochrome 5 line colour		No 5 line colour		No		Single line scrolling 5 line colour		2-digit numeric 2 line monochrome		2-digit numeric 4 line	
Keypad	Keypads provide access to radio controls, texting and telephony	No		No Menu buttons		No Menu buttons Full Keypad		No Full Keypad		No		Full Keypad		No Menu buttons		Menu buttons	
Integrated GPS	Embedded GPS receiver for location monitoring	No		No		Yes <sup>13</sup> No Yes <sup>13</sup>		No Yes		Yes No		No No		No No		No Yes <sup>14</sup>	
Integrated GLONASS	Embedded GLONASS receiver for location monitoring	No		No		Yes <sup>13</sup> No Yes <sup>13</sup>		No No		Yes No		No No		No No		No No	
Event Driven Location Updates	Location update based on input from external device (eg door sensor)	No		No		Yes <sup>11</sup> No Yes <sup>11</sup>		Yes No		No No		No No		No No		No No	
Distance Driven Location Updates	Location update transmission based on distance travelled	No		No		Yes <sup>11</sup> No Yes <sup>11</sup>		Yes No		No No		No No		No No		No No	
Integrated Bluetooth Capability	Wireless connection for audio accessories or data comms	No		No		Audio and Data <sup>1</sup>		No		Yes No		Yes No		No No		Audio and Data <sup>1</sup>	
Permanent Bluetooth Discovery	Bluetooth "always on" mode used by some applications	No		No		Option		No		Option		No		Option		No	
Dedicated Emergency Button	Orange programmable button for one-touch emergency calling	No		No		Yes		Yes		Yes		No		Yes		No	
Programmable Buttons	Allow access to most often used features with one press	2		2 4		3 5 5		3 5		2 4 <sup>9</sup>		2 4		2 4		4	
Digital DMR Signalling	DMR standard digital voice communications	Yes <sup>8</sup>		Yes		Yes		Yes		Yes		Yes		Yes <sup>8</sup>		Yes	
PL / DPL Signalling	Analogue Private Line / Digital Private Line compatible	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	
MDC Signalling	Analogue MDC compatible	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
5 Tone Signalling	Analogue 5 tone compatible	No		Yes		Yes		Yes		Yes		No		No		Yes	
DTMF Hot Keypad	DTMF tone compatible	No		No No		No No Yes		No Yes		No No		No No		Yes <sup>6</sup> Yes <sup>6</sup>		Yes <sup>6</sup> Yes <sup>6</sup>	
MPT1327 Signalling	Analogue MPT1327 compatible (requires option board)	No		No		Option <sup>7</sup>		No Option <sup>7</sup>		No		No		No		Option	
Option Board Capability	Supports option boards for third party applications	No		No		Yes		No Yes		Yes		No		No		Yes	
IMPRES Audio Compatible	IMPRES audio ensures your voice is heard clearer and louder	No		Yes		Yes		Yes		Yes		No		No		Yes	
Automatic Gain Control	Modifies microphone performance to produce the best voice quality	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Microphone Distortion Control	Automatic microphone gain adjustment to reduce distortion	No		No		Yes		Yes		No		No		No		No	
Trellis Enhancement	Additional processing to enhance rolling "r" sound so speech is clearer	Yes		Yes		Yes		Yes		Yes		No		Yes		Yes	
IMPRES Energy Compatible	Use IMPRES batteries for longer life and optimal performance	No		Yes		Yes		Yes		No		No		N/A		N/A	
IMPRES OTA Battery Management	Automatic collection of battery data over the air with radios still in use	No		Yes <sup>10</sup>		Yes <sup>10</sup>		Yes <sup>10</sup>		No		No		N/A		N/A	
ATEX certified	ATEX certified for use in potentially explosive environments	No		No		No		Yes		No		No		No		No	
FM Intrinsically Safe	Factory Mutual (FM) approved for intrinsically safe use	No		No		Factory Mutual (FM)		No		No		No		No		No	
TIA4950 Intrinsically Safe	Telecommunications Industry Association (TIA) approved for IS use	No		No		TIA4950		No		No		No		No		No	
IP Rating	Rated sealing for dust and water ingress	IP54		IP55		IP57		IP67		IP67		IP54 IP54		IP54		IP54	
Dimensions (HxWxL) mm	Physical size	128 x 62 x 42 <sup>2</sup>		122 x 56 x 39 <sup>2</sup> 122 x 56 x 39 <sup>2</sup>		130 x 55 x 37 <sup>2</sup> 130 x 55 x 39 <sup>2</sup>		138 x 57 x 38 138 x 57 x 40		100 x 63 x 34 <sup>3</sup> 100 x 63 x 34 <sup>3</sup>		126 x 55 x 22 <sup>3</sup> 121 x 55 x 20 <sup>3</sup>		44 x 169 x 134 44 x 169 x 134		53 x 175 x 206	
Dimensions (Weight)	Physical weight	406g <sup>2</sup>		355g <sup>2</sup> 375g <sup>2</sup>		393g <sup>2</sup> 426g <sup>2</sup>		456g <sup>2</sup> 482g <sup>2</sup>		254g <sup>2</sup> 254g <sup>2</sup>		166g <sup>3</sup> 169g <sup>3</sup> 165g <sup>3</sup>		1.3kg 1.3kg		1.8kg 1.8kg	
FEATURES AND FUNCTIONS																	
Intelligent Audio	Automatic volume control based on background noise levels	No		Yes		Yes		Yes		Yes		No		Yes		Yes	
User Selectable Audio Profiles	Optimises audio for specific environments and personal preferences	No		Yes		Yes		Yes		Yes		No		Yes		Yes	
Emergency Alarm	Radio can initiate a Emergency call process	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		Yes		Yes		Yes	
Remote Monitor	Radio can remotely activate another radio's microphone	Decode Only		Decode Only Yes		Yes		Yes		Yes		Decode Only		Decode Only		Yes	
VOX (supported on radio)	Voice activated calling allows handsfree operation	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Audio Feedback Suppressor	Blocks feedback from other radios to eliminate "howling"	No		Yes		Yes		Yes		Yes		Yes		No		Yes	
Freeform Text Messaging	User can enter and send free-form text messages	No		No		No Yes		No Yes		No		Yes		No		Yes	
Pre-programmed Text Messaging	Radio can send pre-programmed text messages	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Vibrate Alert	Vibrate silently alerts the user to an incoming call	No		No		No		No		No		No		No		No	
Covert Mode	Disable display, LEDs and audible tones for ultimate discretion	No		No		No		No		No		No		No		No	
All Call	One-way call to all radios on a logical channel	Decode Only		Yes		Yes		Yes		Yes		Decode Only		Decode Only		Yes	
Radio Check	Check if another radio is active on a system without notifying the user	Decode Only		Decode Only Yes		Decode Only Yes		Decode Only Yes		Decode Only		Decode Only		Decode Only		Decode Only Yes	
Digital Telephone Patch	Ability to connect to telephone system (requires additional hardware)	No		Option		Yes		Yes		Yes		No		Option		Yes	
Transmit Interrupt Encode	Radio can interrupt transmissions from other radios	Decode Only		Option		Yes		Yes		Yes		Decode Only		Option		Yes	
Basic Privacy	MOTOTRBO 16-bit encryption for protection against eavesdropping	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Enhanced Privacy	MOTOTRBO 40-bit encryption for more robust protection	No		Option		Yes		Yes		Yes		No		Option		Yes	
AES256 Encryption	Advanced Encryption Standard (AES) 256-bit encryption	No		No		Option		Option		Option		No		Option		Option	
Default Voice Announcement	Audible confirmation of selected operations of the radio	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Programmable Voice Announcement	Ability to use customised recordings for voice announcements	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Text-to-Speech Voice Announcement	Radio "reads out" Channel, Zone, Functions, Text Messages, Job Tickets	No		No		Option		Option		Option		No		Option		Option	
Radio Management	Centralised radio configuration and code plug management	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Over the Air Programming (OTAP)	Remote, over-air programming using Radio Management	No		Yes		Yes		Yes		Yes		No		Yes		Yes	
Restricted Access to System	Prevents unauthorised users from communicating through the repeater	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Radio Enable/Disable	Radio can remotely disable and re-enable another radio	Decode Only		Decode Only Yes		Decode Only Yes		Decode Only Yes		Decode Only		Decode Only		Decode Only		Decode Only Yes	
Integrated Mandown	Enhance personnel safety by monitoring movement	No		No		No		Yes		No		No		No		No	
Dual Capacity Direct Mode	Use both TDMA time slots to double system capacity without a repeater	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Telemetry Supported	Integrated basic telemetry capability	No		No		Yes		Yes		No		Yes		No		Yes	
Telemetry IO Pins	Number of built-in input/output pins to support telemetry	N/A		N/A		3		3		N/A		0		N/A		5	
Telemetry Buttons	Number of buttons that can be configured for telemetry	N/A		N/A		3		3		N/A		3		N/A		3	
Fixed Installation	Mobile radios can be used in a fixed installation such as a control room	N/A		N/A		N/A		N/A		N/A		N/A		Yes		Yes	
Control Station	Mobile acts as the RF link between an Application Server and the radio network	N/A		N/A		N/A		N/A		N/A		N/A		No		Yes	
Remote Mount Control Head	Controls and display can be located separately from radio chassis	N/A		N/A		N/A		N/A		N/A		N/A		No		Option	
Data ADKs Available	Data Application Developer Kits are available to ADP members	No		No		Yes		Yes		Yes		No		No		Yes	
SYSTEM CONFIGURATIONS																	
Direct Mode Operation	Direct radio-to-radio operation	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Single-Site Conventional	Single site conventional operation (channel selection by users)	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
IP Site Connect	Multi-site conventional operation (channel selection by users)	Option		Yes		Yes		Yes		Option		Yes		No		Yes	
Capacity Plus	Single site MOTOTRBO trunking (channel selection managed by system)	No		Option		Yes		Yes		Yes		No		No		Option	
Linked Capacity Plus	Multi-site MOTOTRBO trunking (channel selection managed by system)	No		Option		Yes		Yes		Yes		No		No		Option	
Connect Plus	Multi-site MOTOTRBO trunking with dedicated control channel	No		No		Option		No Option		No		Option <sup>5</sup>		No		Option	

<sup>1</sup> Integrated Bluetooth and GPS are supported on DP4401, DP4601, DP4801, DM4401 & DM4601 only  
<sup>2</sup> Based on NiMH battery  
<sup>3</sup> Based on standard Li-Ion battery  
<sup>4</sup> Option board capability on SL4010 only

<sup>5</sup> SL4010 only  
<sup>6</sup> Requires keypad microphone  
<sup>7</sup> DP4401, DP4801, DP4801 Ex are available with MPT Option Board factory fitted  
<sup>8</sup> DP1400, DM1400 and DM1600 analogue-only models can be upgraded to MOTOTRBO digital by purchasing a software license

<sup>9</sup> SL1600 Programmable Button can scroll through up to 7 features  
<sup>10</sup> Requires IMPRES battery  
<sup>11</sup> Event & distance driven location updates only supported on models with built-in GPS  
<sup>12</sup> Only DP2400, DP4401, DP4801, DM4401 and DM4801 available in 300MHz versions

<sup>13</sup> DP4401 & DP4801 VHF & UHF models only  
<sup>14</sup> DM4401: 300MHz models only, DM4601: all models  
<sup>15</sup> VHF models: 45W / 300MHz & UHF models: 40W  
<sup>16</sup> 20 kHz not supported for