



MOTOROLA
intelligence everywhere™

Assembled Trunking System Base Station/Repeater Portfolio

PassPort®, LTR® and Conventional Compatible

An increasing number of forward-thinking businesses are utilizing the power of trunking for their two-way radio communication. Cost-effective and efficient, LTR and PassPort trunked communication provides wide calling range, great privacy, and fast channel access to help workers connect without delays—as well as high user and talkgroup capacity to enhance system efficiency. And by purchasing their own trunked systems, companies can gain the control and flexibility they need to keep costs low and communication quality high.

Motorola delivers all the expertise and equipment required to create a fully functioning, integrated two-way radio trunked network—quickly and easily. Your choice of repeater components below provides your business the coverage and capacity flexibility of the Motorola Assembled Trunking System (ATS).

Radius R1225™/RKR1225™

Ideal for desktop use in an office setting, the R1225/RKR1225 can also become a base station allowing a dispatch operator to communicate with other radios in the field. It has built-in basic repeater capabilities. Optional controllers can be added for enhanced features such as telephone interconnect, multiple PL/DPL codes and signaling.

Available in UHF (444-474 MHz)
and VHF (146-174 MHz)



MTR2000™

The MTR2000 Station/Repeater provides unmatched flexibility in a compact design. This product offers features such as Tone Remote Control and continuous duty cycle operation. In addition, the MTR2000 unit is available in 100-25 Watt, 40-2 Watt, and 30-2 Watt variable power models.

Available in UHF (403-470 MHz)
and VHF (136-174 MHz)



"Limited" Quantar™

The "Limited" Quantar Station/Repeater helps maximize system up time by providing reliable solid state performance and self-testing capabilities. Available in 110-25 Watt or 100-25 Watt variable models, the "Limited" Quantar is also available with battery reverting to help maintain system operation in the event of a site power failure.

Available in UHF (470-494 MHz
and 494-520 MHz)



MX800

The MX800 Base Station Repeater, manufactured by Spectra Engineering Pty, is the repeater component intended for use in Motorola's PassPort and LTR ATS systems in 200 and 700 MHz frequency bands. Offering wide RF switching bandwidth with superior blocking, intermodulation, and adjacent channel performance, the MX800 also comes with fully welded steel housing, a built-in NTS Trunking Controller interface, and provides a 50 Watt power output.

Available in 200 MHz (217-221 MHz)
and 700 MHz (746-764 MHz)



Limited product specifications appear on the reverse of this sheet. For full product information and specifications, please refer to the dedicated product and specification sheets.

Base Station/Repeater Portfolio Specifications

R1225/RKR1225		R1225/RKR1225		MTR2000		MTR2000		Quantar Limited		Spectra MX800		Spectra MX800	
VHF		UHF		VHF		UHF		UHF		200 MHz		700 MHz	
1-10W: M03GRC 25-50W: M43GRC		1-10W: M04GRC 25-45W: M44GRC		T5766, T5769		T5766, T5769		C99ED/001C Factory ID: T5365		DN6725		DN6726	
146-174 MHz		444-474 MHz		132-174 MHz		403-470 MHz		470-494 MHz, 494-520 MHz		217-222 MHz		746-794 MHz	
Adjustable RF Power Output		1-10 Watts or 25-50 Watts		X345 (132-174 MHz) 30 Watts X330 (132-174 MHz) 40 Watts X530 (132-154, 150-174 MHz) 100 Watts		X341 (403-470 MHz) 30-2 Watts X340 (403-470 MHz) 40-2 Watts X540 (403-435 MHz, 435-470 MHz) 100-25 Watts		X640 (470-494 MHz) 110-25 Watts X640 (494-520 MHz) 100-25 Watts		5-50 Watts			
Channel Spacing		12.5/20/25/30 kHz up to 16		12.5 kHz/25 kHz/30 kHz up to 32		12.5 kHz/25 kHz up to 32		12.5 kHz/25 kHz up to 16		12.5 kHz up to 255			
RF Channel Capacity		Full Duplex		Simplex/Semi-duplex/Duplex		Full Duplex		Full Duplex		Full Duplex			
Mode of Operation		Continuous @ 25W and 1-10W		14.2 VDC (40/30 Watt Station)		14.2 VDC (40/30 Watt Station)		Continuous		Continuous			
Duty Cycle		50% @ 45/50W (5 min. on/5 min. standby)		28.6 VDC (100 Watt Station)		28.6 VDC (100 Watt Station)		Continuous		Continuous transmit with thermally controlled fan			
Dimensions		5.25" x 19" x 13.5" (133 x 482 x 343 mm)		5.25" x 19" x 16.5" (133 x 483 x 419 mm)		5.25" x 19" x 16.5" (133 x 483 x 419 mm)		8.75" x 19" x 17"		3.6" x 19" x 13.2" (2RU high, 19" standard rack mounting)			
Weight		22 lbs. (10 kg)		40 lbs. (19 kg)		40 lbs. (19 kg)		55 lbs. (25 kg)		19.8 lbs. (9 kg)			
Temperature Range		-30° C to +60° C		-30° C to +60° C		-30° C to +60° C		-30° C to +60° C		-10° C to +60° C (reduced specs from -30° C to -10° C)			

R1225/RKR1225		R1225/RKR1225		MTR2000		MTR2000		Quantar Limited		Spectra MX800		Spectra MX800	
VHF		UHF		VHF		UHF		UHF		200 MHz		700 MHz	
146-174 MHz		444-474 MHz		30 Watt: 132-174 MHz 40 Watt: 132-174 MHz 100 Watt: 132-154 MHz, 150-174 MHz		30 Watt: 403-470 MHz 40 Watt: 403-470 MHz 100 Watt: 403-435 MHz, 435-470 MHz		470-494 MHz 494-520 MHz		217-221 MHz		746-764 MHz	
± 2.5 ppm (-30° C to +60° C)		± 1.5 ppm (-30° C to +60° C)		1.5 ppm/ External Ref		1.5 ppm/ External Ref		1.5 ppm/ External Ref (Optional)		± 2.5 ppm		± 1.0 ppm	
FM Deviation												+2.5 kHz	
Spurious		-23 dBm		-85 dBc		-85 dBc		90 dB		90 dB		-90 dBc	
Audio Distortion		< 3% EIA @ 1000 Hz 60% rated maximum deviation)		< 3%		< 3%		< 2% 1000 Hz @ 60% RSD		< 2% EIA			
FM Hum and Noise		20/25/30 kHz: -45 dB Normal 12.5 kHz: -40 dB Normal		300 to 3000 Hz bandwidth, 60% RSD, 30 (VHF) 25 kHz: 50 dB Normal 12.5 kHz: 45 dB Normal		300 to 3000 Hz bandwidth, 60% RSD, 30 (VHF) 25 kHz: 50 dB Normal 12.5 kHz: 45 dB Normal		300 to 3000 Hz bandwidth, 60% RSD, 750 Hz de-emphasis 25 kHz: 50 dB Normal 12.5 kHz: 45 dB Normal		12.5 kHz: -44 dB Typical			
Emission Designators		12.5 kHz: 1K0F3E 20/25/30 kHz: 16K0F3E		25 kHz: 16K0F3E, 13K6F1D 12.5 kHz: 11K0F3E, 10K0F1D, 8K60F1D		25 kHz: 16K0F3E, 13K6F1D 12.5 kHz: 11K0F3E, 8K60F1D		16K0F3E, 16K0F1D, 20K0F1E, 20K0F1D, 11K0F3E, 8K10F1E, 10K0F1D		11K0F3E			

R1225/RKR1225		R1225/RKR1225		MTR2000		MTR2000		Quantar Limited		Spectra MX800		Spectra MX800	
VHF		UHF		VHF		UHF		UHF		200 MHz		700 MHz	
146-174 MHz		444-474 MHz		132-174 MHz		403-470 MHz		470-494 MHz 494-520 MHz		219-222 MHz		776-794 MHz	
± 2.5 ppm		± 1.5 ppm		1.5 ppm/ External Ref		1.5 ppm/ External Ref		1.5 ppm/ External Ref (Optional)		± 1.5 ppm -10° C to +60° C, ± 2.5 ppm -30° C to -10° C			
Sensitivity @ 12 dB SINAD		0.35µV (-116.1 dBm)		.35µV		0.35µV		0.35µV		0.3µV (-117 dBm)			
Selectivity		20/25/30 kHz: -85 dB 12.5 kHz: -65 dB		25/30 kHz: 80 dB 12.5 kHz: 75 dB		25/30 kHz: 80 dB 12.5 kHz: 75 dB		25 kHz: 85 dB 12.5 kHz: 75 dB		75 dB		65 dB	
Intermodulation		-80 dB		(12.5 and 25/30 kHz) 80 dB/ 85 dB		(12.5 and 25/30 kHz) 80 dB/ 85 dB		85 dB		80 dB			
Spurs and Image		-85 dB		85 dB Nominal		-85 dB Nominal		100 dB		90 dB			
FM Hum and Noise		20/25/30 kHz: -45 dB Normal 12.5 kHz: -40 dB Normal		1000 Hz tone @ 60% RSD 25 kHz: 50 dB Nominal 12.5 kHz: 45 dB Nominal		1000 Hz tone @ 60% RSD 25 kHz: 50 dB Nominal 12.5 kHz: 45 dB Nominal		100 Hz tone @ 60% RSD 25 kHz: 50 dB Normal 12.5 kHz: 45 dB Normal		12.5 kHz: -44 dB Typical			

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