



# XTS<sup>®</sup> 1500

## Digital Portable Radio



Model 1

Model 1.5

### **XTS 1500 Portable Radios Feature:**

Available Frequency:

- 136-174 MHz (5W)
- 380-470 MHz (5W)
- 450-520 MHz (5W)
- 764-870 MHz (3W)

Supports APCO Project 16 (3600 control channel) and APCO Project 25 (9600 control channel)

Works with ASTRO<sup>®</sup> Analog and Digital Trunking with Mutual Aid or ASTRO 25 Digital Trunking with Mutual Aid

Meets Military Standards 810, C, D, E and F

Utilizes Customer Programming Software and supports USB and RS-232

Compatible with most XTS 3000, XTS 3500, XTS 2500, HT 1000, MT 1000 and MTS 2000 portable radio accessories

Supports enhanced audio features: noise reduction software, Hear Clear and audio gain control

### **Affordability in action. Durability to depend on. Simplicity that succeeds.**

Motorola's XTS 1500 portable radio is the cost-effective, convenient, compact solution for public works and public utilities. This high-quality APCO Project 25 radio features two-way functionality in a durable, dependable unit that is very easy to use.

Both Model 1 and Model 1.5 (display version) are available in 700/800 MHz, VHF, UHF R1 and UHF R2 bands, and supports APCO Project 16 or Project 25 operation. Use the analog functionality on the XTS 1500 or migrate to limited wide-area Project 25 operation.

For true simplicity, affordability and reliability make the right call with the XTS 1500 digital radio from Motorola.

**SPECIFICATION SHEET**

XTS® 1500  
Digital Portable Radio

**TRANSMITTER TYPICAL PERFORMANCE SPECIFICATIONS**

	700/800 MHz	UHF R1	VHF	UHF R2
Frequency Range	700 MHz: 764-776, 794-806 800 MHz: 806-870	380-470 MHz	136-174 MHz	450-520 MHz
Channel Spacing	12.5 / 20 / 25 kHz	12.5 / 25 kHz	12.5 / 25 kHz	12.5 / 25 kHz
Maximum Frequency Separation	Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit
Rated RF Output Power Adj*	764-806 MHz: 1 to 2.5 W 806-870 MHz: 1 to 3 W	1 to 5 W	1 to 5 W	1 to 5 W
Frequency Stability* (-30°C to +60°C; +25°C Ref.)	0.00015%	0.0002%	0.00025%	0.0002%
Modulation Limiting*				
25 kHz channel	5.0 kHz	5.0 kHz	5.0 kHz	5.0 kHz
NPSAC channel	4.0 kHz	N/A	N/A	N/A
12.5 kHz channel	2.5 kHz	2.5 kHz	2.5 kHz	2.5 kHz
Emissions* (Conducted & Radiated)	-75 dBc	-70 dBc	-65 dBc	-70 dBc
Audio Response* (6 dB/Octave Pre-emphasis from 300 to 3000 Hz)	+1, -3 dB	+1, -3 dB	+1, -3 dB	+1, -3 dB
FM Hum & Noise Ratio*				
25 kHz	-43 dB	-45 dB	-46 dB	-45 dB
12.5 kHz	-40 dB	-40 dB	-42 dB	-40 dB
Audio Distortion*	2.0%	2.0%	1.0%	2.0%

**RECEIVER TYPICAL PERFORMANCE SPECIFICATIONS**

	700/800 MHz	UHF R1	VHF	UHF R2
Frequency Range	700 MHz: 764-776, 800MHz: 851-870 <i>Note: Radio covers entire 700 MHz and 800 MHz frequency ranges</i>	380-470 MHz	136-174 MHz	450-520 MHz
Channel Spacing	12.5 / 20 / 25 kHz	12.5 / 25 kHz	12.5 / 25 kHz	12.5 / 25 kHz
Maximum Frequency Separation	Full Bandsplit	Full Bandsplit	Full Bandsplit	Full Bandsplit
Audio Output Power at Rated*	500 mW	500 mW	500 mW	500 mW
Frequency Stability* (-30°C to +60°C; +25°C Ref.)	0.00015%	0.0002%	0.00025%	0.0002%
Analog Sensitivity*				
12 dB SINAD	.25 µV	.25 µV	.25 µV	.25 µV
Digital Sensitivity**				
1% BER	.40 µV	.35 µV	.25 µV	.35 µV
5% BER	.25 µV	.25 µV	.20 µV	.25 µV
Selectivity*				
25 kHz channel	-72 dB	-73 dB	-80 dB	-73 dB
12.5 kHz channel	-63 dB	-63 dB	-63 dB	-63 dB
Intermodulation*	-74 dB	-73 dB	-78 dB	-75 dB
Spurious Rejection*	-75 dB	-75 dB	-80 dB	-75 dB
FM Hum & Noise Ratio*				
25 kHz	-47 dB	-47 dB	-52 dB	-50 dB
12.5 kHz	-40 dB	-40 dB	-40 dB	-47 dB
Audio Distortion*	2.5%	2.0%	1.0%	2.0%

\* Measured in the analog mode per TIA / EIA 603  
\*\* Measured in digital mode per TIA / EIA IS 102.CAAA

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### RADIO MODELS

	Display	Keypad	Channel Capacity	700/800MHz Band (764-870 MHz)	UHF R1 (380-470 MHz)	VHF (136-174 MHz)	UHF R2 (450-520 MHz)
Model 1	None	None	48	H66UCC9PW5_N	H66QDC9PW5_N	H66KDC9PW5_N	H66SDC9PW5_N
Model 1.5	Yes	None	48	H66UCD9PW5_N	H66QDD9PW5_N	H66KDD9PW5_N	H66SDD9PW5_N
FCC Designation				AZ489FT5804	AZ489FT4865	AZ489FT3807	AZ489FT4866

### FCC Emissions

Designators 11K0F3E, 16K0F3E, 8K10F1E, 8K10F1D

Power Supply One rechargeable nickel-cadmium, or nickel-metal hydride

### Dimensions without

battery (HxWxL) 6.00" x 2.30" x 1.50"

### Weight

without battery 11.0 oz

### BATTERIES FOR ASTRO DIGITAL XTS 1500

Battery Capacity /Type	Dimension (HxWxD)	Weight	Battery Part Numbers	mAH	Duty Cycle
High Capacity NiCD	4.86" x 2.37" x .968"	8.85 oz	NTN9815	1525	5-5-90 / 8 hr
High Capacity NiCD FM	4.86" x 2.37" x .968"	8.85 oz	NTN9816	1525	5-5-90 / 8 hr
High Capacity NiMH	4.86" x 2.37" x .968"	9.63 oz	NTN9858	1800	5-5-90 / 10 hr
High Capacity NiMH FM	4.86" x 2.37" x .968"	9.63 oz	NTN9857	1750	5-5-90 / 10 hr

### PORTABLE MILITARY STANDARDS 810 C, D, E & F

	MIL-STD-810C		MIL-STD-810D		MIL-STD-810E		MIL-STD-810F	
	Method	Proc./Cat.	Method	Proc./Cat.	Method	Proc./Cat.	Method	Proc./Cat.
Low Pressure	500.1	I	500.2	II	500.3	II	500.4	II
High temperature	501.1	I, II	501.2	I/A1, II/A1	501.3	I/A1, II/A1	501.4	I/Hot, II/Hot
Low Temperature	502.1	I	502.2	I/C3, II/C1	502.3	I/C3, II/C1	502.4	I/C3, II/C1
Temperature Shock	503.1	-	503.2	I/A1C3	503.3	I/A1C3	503.4	I
Solar Radiation	505.1	II	505.2	I	505.3	I	505.4	I
Rain	506.1	I, II	506.2	I, II	506.3	I, II	506.4	I, III
Humidity	507.1	II	507.2	II	507.3	II	507.4	-
Salt Fog	509.1	-	509.2	-	509.3	-	509.4	-
Blowing Dust	510.1	I	510.2	I	510.3	I	510.4	I
Vibration	514.2	VIII/F, Curve-W	514.3	I/10, II/3	514.4	I/10, II/3	514.5	I/24
Shock	516.2	I, II	516.3	I, IV	516.4	I/IV	516.5	I, IV

### ENVIRONMENTAL SPECIFICATIONS

Operating Temperature -30°C / +60°C

Storage Temperature -40°C / +85°C

Humidity Per MIL-STD

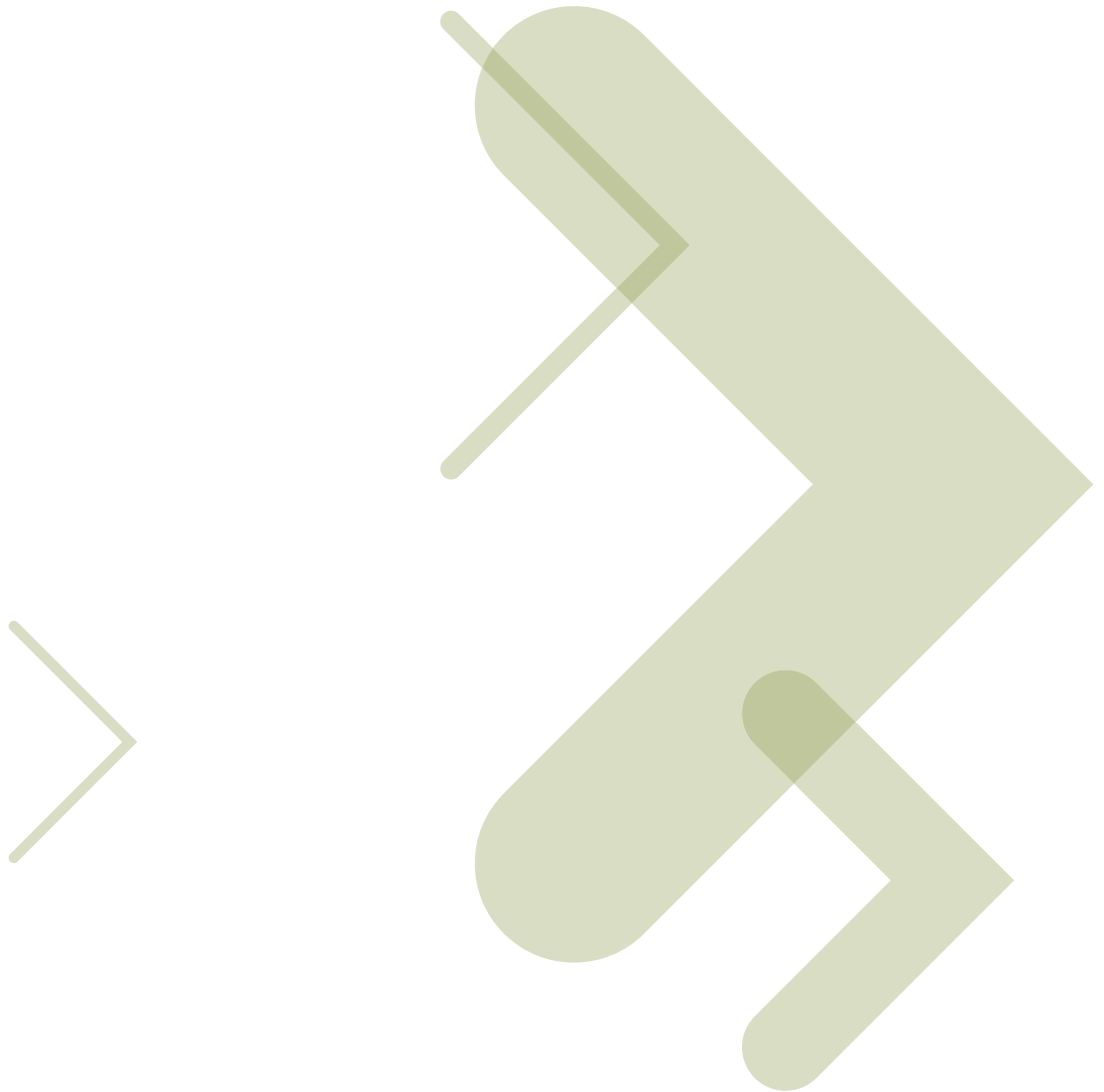
ESD IEC 801-2 KV

Water & Dust Intrusion IP54, MIL-STD

Specifications subject to change without notice.

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