



MOTOROLA

MOTOTRBO™

XPR™ 6580/6380 SMARTNET® / PRIVACY PLUS™ ANALOG TRUNKED PORTABLE RADIOS

TAKE ADVANTAGE OF MOTOTRBO BENEFITS TODAY WHILE PREPARING FOR DIGITAL TRUNKING TOMORROW

Motorola is a company of firsts with a rich heritage of innovation. We continue to invent what's next. We connect people, we deliver mobility, and we continually work to ensure that technology functions easily at a personal level. Versatile and powerful, MOTOTRBO is the next generation of professional two-way radio communications. It delivers enhanced performance, greater productivity and more value.

With MOTOTRBO analog trunked radios you get many of the benefits of MOTOTRBO two-way radios including

IMPRES™ accessories, high battery capacity, and an IP57 submersibility rating. Yet, you can continue using your current analog trunking system.

More importantly, MOTOTRBO analog trunked radios begin to prepare you for your migration to digital trunking. When you are ready to make your move to digital you can use these same radios, with only a software upgrade, to take full advantage of all the many benefits of digital technology like clearer audio, integrated data applications, longer battery life and increased capacity.



- **Reliable and Flexible Call Features**—MOTOTRBO analog trunked radios provide you with remarkable ease of use and exceptional functionality at the touch of a button.

SMARTNET Features*

Call Alert
Private Call
Telephone Interconnect
Emergency Call/Alarm
Busy Queue and Call Back
Recent User Priority
Push-To-Talk ID
Priority Monitor Scan
Message/Transmission Trunking
Dynamic Regrouping
Selective Radio Inhibit

SmartZone Features

All SMARTNET features, plus
Wide Area Seamless Roaming
RSSI Operation
Preferred Site
Forced Site Search

- **Dual Band**—MOTOTRBO analog trunked radios provide operation in both 800 and 900 MHz operation – all in a single radio.

- **Increased Capacity**—The MOTOTRBO XPR 6580 display portable radio supports up to 20 trunked systems and a maximum of 240 channels or trunked personalities radio wide (16 maximum per zone).

- **Flexible System Operation**—MOTOTRBO analog trunked radios provide functionality in Analog Conventional and Type II 800/900 MHz Privacy Plus Enhanced, SMARTNET, StartSite™, SmartWorks™ and SmartZone™ trunked systems.*

- **Demanding Specifications**—MOTOTRBO radios feature an IP57 rating for submersibility in water (portable radios), U.S. Military 810 C, D, E and F specifications and Motorola standards for durability and reliability.

- **Digital Migration**—MOTOTRBO analog trunked radios are upgradeable to

MOTOTRBO digital trunking via a software upgrade - with no additional hardware required.

- **IMPRES Energy and Audio Technology**—Batteries, chargers and audio accessories feature Motorola's state-of-the-art IMPRES technology, providing longer talk time and clearer audio delivery.

- **High Battery Capacity**—Standard with MOTOTRBO analog trunked portable radios, the IMPRES Li-Ion 2150 mAh battery provides up to 12 hours of battery life for long work shifts.

- **Intrinsically Safe**—When purchased with the FM approved IMPRES Li-Ion 1400 mAh battery, MOTOTRBO radios can be used in locations where flammable gas, vapors or combustible dust may be present.

- **Backed by a two-year Standard Warranty plus one-year Repair Service Advantage (US) / Extended Warranty (Canada) and at least a one-year warranty for accessories.**

* Some features need to be supported and enabled in the trunked system.

General Specifications		
	XPR™ 6580 Display Portable	XPR™ 6380 Non-Display Portable
Frequency Band	800 and 900 MHz	800 and 900 MHz
No. of Systems	20	20
Zone Capacity	130	2
Max. No. of Conv. Channels or Personality Capacity	240	32
Talkgroup Capacity per Zone	16	16
Dimensions (H x W x L) with Li-Ion non-FM battery	5.18 x 2.40 x 1.38 in 131.5 x 61 x 35 mm	5.18 x 2.40 x 1.38 in 131.5 x 61 x 35 mm
Weight with Li-Ion non-FM battery	12.7 oz (360 gr)	10.75 oz (305 gr)
Power Supply	7.5 V Nominal	7.5 V Nominal
FCC Description	ABZ99FT5011	ABZ99FT5011
IC Description	109AB-99FT5011	109AB-99FT5011
Average battery life with IMPRES Li-Ion 2150 mAh battery (5/5/90 duty cycle)	12 hrs	12 hrs
Average battery life with IMPRES Li-Ion 1400 mAh battery (5/5/90 duty cycle)	8 hrs	8 hrs
Trunking System Support	Type II 800/900 MHz Privacy Plus™ Enhanced, SMARTNET®, StartSite™, SmartWorks™ and SmartZone™ analog trunked systems	

Receiver		
	XPR 6580 Display Portable	XPR 6380 Non-Display Portable
Frequencies	800 MHz: 854-866 MHz and 869-870 MHz 900 MHz: 935-941 MHz	
Channel Spacing	800 MHz: 12.5 and 25 kHz 900 MHz: 12.5 kHz	
Frequency Stability (-30° C, +60° C, +25° C)	+/- 0.5 ppm	
Analog Sensitivity (12 dB SINAD) Typical	0.25 UV	
Intermodulation (TIA603C)	70 dB	
Adjacent Channel Selectivity (TIA603) - 1T	60 dB @ 12.5 kHz 70 dB @ 25 kHz	
Adjacent Channel Selectivity (TIA603C) - 2T	45 dB @ 12.5 kHz 70 dB @ 25 kHz	
Spurious Rejection (TIA603C)	70 dB	
Rated Audio	.5 W	
Audio Distortion @ Rated Audio	3% (typical)	
Hum and Noise	-40 dB @ 12.5 kHz -45 dB @ 25 kHz	
Audio Response	TIA603C	
Conducted Spurious Emission (ETSI)	-57 dBm	

Transmitter		
	XPR 6580 Display Portable	XPR 6380 Non-Display Portable
Frequencies¹	800 MHz: 809-821 MHz and 824-825 MHz 900 MHz: 896-902 MHz	
Talkaround	800 MHz: 854-866 MHz and 869-870 MHz 900 MHz: 935-941 MHz	
Channel Spacing	800 MHz: 12.5 and 25 kHz 900 MHz: 12.5 kHz	
Frequency Stability (-30° C, +60° C)	+/- 0.5 ppm	
Low Power Output	1 W	
High Power Output	2.5 W	
Modulation Limiting	+/- 2.5 kHz @ 12.5 kHz +/- 5.0 kHz @ 25 kHz	
FM Hum and Noise	-40 dB @ 12.5 kHz -45 dB @ 25 kHz	
Conducted / Rated Emission (ETSI)	-36 dBm < 1 GHz -30 dBm > 1 GHz	
Adjacent Channel Power	-60 dB @ 12.5 kHz -70 dB @ 25 kHz	
Audio Response	TIA603C	
Audio Distortion (per EIA)	3%	
FM Modulation	12.5 kHz: 11K0F3E 25 kHz: 16K0F3E	

Environmental Specifications		
	XPR 6580 Display Portable	XPR 6380 Non-Display Portable
Operating Temperature (Radio Only)	-30deg. C to + 60 deg. C	
Operating Temperature (with IMPRES Li-Ion battery)	-10deg. C to + 60 deg. C	
Storage Temperature	-40deg. C to + 85 deg. C	
Thermal Shock	per MILSTD	
Humidity	per MILSTD	
ESD	IEC-801-2KV	
Water Intrusion	IEC 60529 - IP57	
Packaging Test	MIL STD 810D and E	

Factory Mutual Approvals

MOTOTRBO XPR Portable series radios have been certified by FM Approvals in accordance with Canada and U.S. Codes as intrinsically safe for use in Class I, II, III, Division 1, Groups C, D, E, F, G, when properly equipped with a Motorola FM approved battery option. They are also approved for use in Class I, Division 2, Groups A, B, C, D.



- 1
No 806-809 MHz or 821-824 MHz(NPSPAC) channels trunked capability. NPSPAC Mutual Aid Conventional Channels supported:
- | | |
|----------|----------|
| TX | TX |
| 806.0125 | 821.0125 |
| 806.5125 | 821.5125 |
| 807.0125 | 822.0125 |
| 807.5125 | 822.5125 |
| 808.0125 | 823.0125 |

For digital mode and GPS receiver specifications, please refer to MOTOTRBO XPR digital model specifications in 800/900 MHz. For frequencies 901-902, 940-941 MHz, FCC Rule 24 limits power to 7W ERP. Antennas HAF4025_ and HAF4029_ can be used with reduced power setting for these frequencies. Specifications subject to change without notice. All specifications shown are typical. Radio meets applicable regulatory requirements. Version 1 11/09

