

MOTOTRBO™ XPR™ 5000e Series

Mobile two-way radios

The XPR 5000e Series is designed for the skilled professional who refuses to compromise. With high performance integrated voice and data, and advanced features for efficient operation, these mobile radios deliver complete connectivity to your teams.



Key features

- VHF, UHF and 800/900 MHz
- Analog and digital
- Voice and data
- Alphanumeric and numeric display models
- Canned text messaging
- Freeform text messaging¹ (requires keypad mic)
- Work order ticketing
- Integrated Wi-Fi
- GPS location tracking
- Indoor location tracking
- Event-driven location update
- Bluetooth audio and data
- Voice announcement
- Text to speech
- Option board
- Home channel reminder
- Intelligent Audio
- IMPRES™ audio
- Background noise cancellation
- Acoustic feedback suppressor
- Microphone distortion control
- User-selectable audio profiles
- Trill enhancement
- Four programmable buttons
- Over-the-air software update
- Lone worker
- Basic privacy
- Enhanced privacy
- Transmit interrupt
- Digital emergency
- Emergency search tone
- Remote monitor
- Radio disable / enable
- Splashproof to IP54
- Rugged to MIL-STD 810
- Wide range of accessories

GENERAL SPECIFICATIONS								
	ALPHANUMERIC MODEL				NUMERIC MODEL			
Model name	XPR 5550e	XPR 5550e	XPR 5550e	XPR 5580e	XPR 5350e	XPR 5350e	XPR 5350e	XPR 5380e
Band	VHF	UHF band 1	UHF band 2	800/900	VHF	UHF band 1	UHF band 2	800/900
Frequency	136-174 MHz	403-470 MHz	450-512 MHz	806-825 MHz, 851-870 MHz, 896-902 MHz, 935-941 MHz	136-174 MHz	403-470 MHz	450-512 MHz	806-825 MHz, 851-870 MHz, 896-902 MHz, 935-941 MHz
High Power Output	25-45 W	25-40 W	1-40 W	10-35 W (800) 10-30 W (900)	25-45 W	25-40 W	1-40 W	10-35 W (800) 10-30 W (900)
Low Power Output	1-25 W	1-25 W	-	-	1-25 W	1-25 W	-	-
Channel Spacing	12.5, 25 ² kHz							
Channel Capacity	1000							
Dimensions (H x W x D)	53 x 175 x 206 mm (2.1 x 6.9 x 8.1 in)							
Weight	1.8 kg (3.9 lb)							
FCC Description (Low Power)	AZ492FT7082	AZ492FT7080	-	-	AZ492FT7082	AZ492FT7080	-	-
FCC Description (High Power)	ABZ99FT3087	AZ492FT7079	AZ492FT7076	AZ492FT7083	AZ492FT7081	AZ492FT7079	AZ492FT7076	AZ492FT7083
IC Description (Low Power)	109U-92FT7082	109U-92FT7080	-	-	109U-92FT7082	109U-92FT7080	-	-
IC Description (High Power)	109U-92FT7080	109U-92FT7079	109U-92FT7076	109U-92FT7083	109U-92FT7081	109U-92FT7079	109U-92FT7076	109U-92FT7083
Power Supply (Nominal)	12 V							
Max Current Drain, Standby	0.8 A							
Max Current Drain, Receive	2 A							
Transmit Current Draw, Low Power	11 A							
Transmit Current Draw, High Power	14.5 A	14.5 A	14.5 A	12 A	14.5 A	14.5 A	14.5 A	12 A



TRANSMITTER SPECIFICATIONS	
4FSK digital modulation	12.5 kHz Data: 7K60F1D and 7K60FXD 12.5 kHz Voice: 7K60F1E and 7K60FXE Combination of 12.5 kHz Voice and Data: 7K60F1W
Digital protocol	ETSI TS 102 361-1, -2, -3, -4 DMR Tier II and DMR Tier III
Conducted / radiated spurious emissions (TIA603D)	-36 dBm < 1 GHz, -30 dBm > 1 GHz
Adjacent channel power	60 dB (12.5 kHz channel) 70 dB (25 ² kHz channel)
Frequency stability	±0.5 ppm

RECEIVER SPECIFICATIONS	
Analogue sensitivity (12dB SINAD)	0.22 µV
Digital sensitivity (5% BER)	0.19 µV
Intermodulation (TIA603D)	70 dB
Adjacent channel Selectivity, (TIA603A)-1T	60 dB (12.5 kHz channel) 70 dB (25 ² kHz channel)
Adjacent channel Selectivity, (TIA603D)-2T	45 dB (12.5 kHz channel) 70 dB (25 ² kHz channel)
Spurious rejection (TIA603D)	70 dB

AUDIO SPECIFICATIONS	
Digital vocoder type	AMBE+2™
Audio response	TIA603D
Rated audio	3 W (internal speaker) 7.5 W (external 8 ohm speaker) 13 W (external 4 ohm speaker)
Audio distortion at rated audio	3%
Hum and noise	-40 dB (12.5 kHz channel) -45 dB (25 ² kHz channel)
Conducted spurious emissions (TIA603D)	-57 dBm

BLUETOOTH SPECIFICATIONS	
Version	4.0
Range	Class 2, 10 m (33 ft)
Supported profiles	Bluetooth Headset Profile (HSP), Serial Port Profile (SPP), Motorola Solutions fast push-to-talk
Simultaneous connections	1 x audio accessory and 1 x data device
Permanent discoverable mode	Optional

GNSS SPECIFICATION	
Constellation support	GPS
Time to first fix, cold start	<60 seconds
Time to first fix, hot start	<10 seconds
Horizontal accuracy	< 5 m (< 16.5 ft)

WI-FI SPECIFICATIONS	
Standards supported	IEEE 802.11b, 802.11g, 802.11n
Security protocol supported	WPA, WPA2, WEP
Maximum number of SSIDs	128 (64 for numeric models)

ENVIRONMENTAL SPECIFICATIONS	
Operating temperature	-30 °C to 60 °C (-22 °F to 140 °F)
Storage temperature	-40 °C to 85 °C (-40 °F to 185 °F)
Electrostatic discharge	IEC 61000-4-2 level 4
Dust and water intrusion	IEC 60529 - IP54
Packaging test	MIL-STD 810C, D, E, F, G and H

MILITARY STANDARDS												
	MIL-STD 810C		MIL-STD 810D		MIL-STD 810E		MIL-STD 810F		MIL-STD 810G		MIL-STD 810H	
	Method	Procedure/ category	Method	Procedure/ category	Method	Procedure/ category	Method	Procedure/ category	Method	Procedure/ category	Method	Procedure/ category
Low pressure	500.1	I	500.2	II	500.3	II	500.4	II	500.6	II	500.6	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	501.6	I/A1, II/A1	501.7	I/A1, II/A1
Low temperature	502.1	I	502.2	I/C3, II/C1	502.3	I/C3, II/C1	502.4	I/C3, II/C1	502.6	I/C3, II/C1	502.7	I/C3, II/C1
Temp shock	503.1	I	503.2	I/A1/C3	503.3	I/A1/C3	503.4	I	503.6	I-C	503.7	1-C
Solar radiation	505.1	II	505.2	I	505.3	I/A1	505.4	I/A1	505.6	I/A1	505.7	I/A1
Rain	506.1	I	506.2	I	506.3	I	506.4	I	506.6	I	506.6	I
Humidity	507.1	II	507.2	II	507.3	II	507.4	-	507.6	II/Aggravated	507.6	II/Aggravated
Salt fog	509.1	I	509.2	I	509.3	-	509.4	-	509.6	-	509.7	-
Blowing dust	510.1	I	510.2	I	510.3	I	510.4	I	510.6	I	510.7	I
Blowing sand	-	-	510.2	II	510.3	II	510.4	II	510.6	II	510.7	II
Vibration	514.2	VIII/CatF, XI	514.3	I/10, II/3	514.4	I/10, II/3	514.5	I/24, II/5	514.7	I/24, II/5	514.8	I/24, II/5
Shock	516.2	I, II, III, V	516.3	I, IV, V, VI	516.4	I, IV, V, VI	516.5	I, IV, V, VI	516.7	I, IV, V, VI	516.8	I, IV, V, VI



Features

	XPR 5550e/ XPR 5580e	XPR 5350e/ XPR 5380e
GENERAL		
Alphanumeric display	●	—
Numeric display	—	●
Analog and digital	●	●
Voice and data	●	●
Canned text messaging	●	●
Freeform text messaging ¹	●	—
Text to speech	●	●
Work order ticketing	●	●
Integrated Wi-Fi	○	●
Indoor location tracking	●	●
Outdoor location tracking (GPS)	●	●
Event-driven location updates	●	●
Bluetooth audio	●	●
Bluetooth data	●	●
Voice announcement	●	●
Home channel reminder	●	●
Late entry	●	●
Priority scan	●	●
IP54	●	●
Rugged to MIL-STD 810	●	●
AUDIO		
Intelligent Audio	●	●
IMPRES audio	●	●
Background noise cancellation	●	●
Acoustic feedback suppressor	●	●
User-selectable audio profile	●	●
Trill enhancement	●	●
Microphone distortion control	●	●
Received audio leveling	●	●
Voice operated transmit (VOX)	●	●

	XPR 5550e/ XPR 5580e	XPR 5350e/ XPR 5380e
MANAGEMENT		
CPS 2.0 and Radio Management	●	●
Over-the-air programming (via DMR)	●	●
Over-the-air software update (via Wi-Fi)	○	●
Preventive maintenance	○	○
Rental timer	●	●
SAFETY		
Emergency alert	●	●
Lone worker	●	●
Transmit Interrupt	●	●
Basic privacy	●	●
Enhanced privacy	●	●
AES256 encryption	○	○
Remote monitor	●	●
Digital emergency	●	●
Emergency search tone	●	●
Radio disable / enable	●	●
CUSTOMIZATION		
Programmable buttons	4	4
Option board	●	●
SYSTEMS		
Dual Capacity Direct Mode	●	●
Conventional	●	●
IP Site Connect	●	●
Capacity Plus single site	●	●
Capacity Plus multi-site	●	●
Capacity Max	○	●

● Included ○ Optional — Not Included

¹ Alphanumeric models only. Requires keypad mic.

² 25 kHz channels not available in USA.

To learn more, visit: www.motorolasolutions.com/mototrbo



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