

# MOTOTRBO™ XiR C2000 SERIES PORTABLE RADIO

EASY TO USE, EASY TO MIGRATE



When you are choosing cost-effective two-way portable radios, you do not have to compromise features. The MOTOTRBO XiR C2000 Series is a new range of practical, entry-level digital radios for professionals wanting to communicate with greater ease and efficiency.

The affordable XiR C2000 Series radios offer all the benefits of digital technology – up to 40% longer talk-time, twice the voice capacity in a 12.5 kHz licensed channel, wider radio coverage and superior audio. In digital mode, your MOTOTRBO radio provides clearer voice communications throughout the coverage area, as compared to analog radios, rejecting static and noise in the background.

The digital radios outperform analog radios for demanding or extended work shifts, and ensure voice communications are easily and clearly understood. You get pre-programmed text messages for instant update at the push of a button. You receive voice announcement as an audio confirmation of channel changes. A versatile alternative for those who require additional radio features to meet increasing communication needs, while lowering operating costs.

The XiR C2000 Series are easy to use and migrate from analog. Your radio users can operate and communicate on their new digital radios while on the job, as your business transitions to digital technology. Accessory compatibility ensures you can reuse your inventory of battery, antenna and charger, further protecting your investments.

Experience MOTOTRBO digital voice communications trusted by millions of users for exceptional voice quality and exceptional performance. This means more productive workforce and lower operating costs for your business.

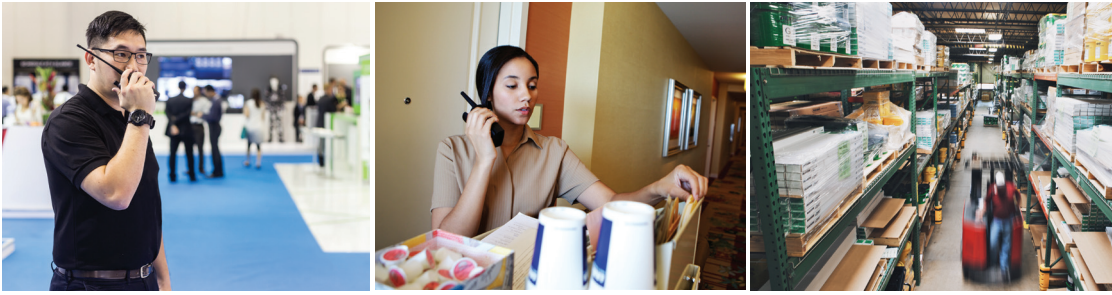
## FEATURES

- Analog / Digital Voice Communications
- Voice Announcement
- Dual Capacity Direct Mode
- Pre-programmed Text Messaging
- Transmit Interrupt (Decode only)
- Digital Mobile Radio (DMR) Standards Compliant<sup>1</sup>
- IP54 Rated

<sup>1</sup> Features only available in Digital mode

## PRACTICAL AND EASY USE

An entry-level digital radio solution for users in hospitality, light manufacturing and event management.



## VERSATILE SOLUTION TO START AND GROW

Offering 160 channels, the XiR C2000 Series comprise radios with full or limited keypad, as well as, display models. It is designed with easy-to-use functionalities and supports Chinese character display for select models.

The ability to operate in both analog and digital modes also makes it easy and affordable to adapt your new digital radios to work along with your existing analog radios. You can migrate to a digital two-way radio platform at your own pace.

## INCREASED EFFICIENCY WITHOUT INCREASED COSTS

Powered by the Time Division Multiple Access (TDMA) digital technology, your XiR C2000 Series radios provide twice the calling capacity (as compared to analog radio) for the price of one frequency license.

The radio features the Dual Capacity Direct Mode that unlocks the full capacity of your digital radio system to double your channels without the cost of a repeater and its associated infrastructure. This is how it works: in order for both time slots of a 12.5kHz DMR channel to carry simultaneous and independent traffic, you usually need a repeater to provide the timing reference. Your radios are able to synchronize automatically and collaboratively, eliminating the requirement for a timing reference. Now you can use both time slots, thereby doubling capacity and increasing spectrum efficiency without the cost of a repeater and its associated infrastructure.

Your investment in radio accessories does not go to waste. The XiR C2000 Series radios incorporate the 2-pin accessory connector so you can reuse your existing audio earpieces. The advantage of accessory compatibility also extends to battery, antenna and charger.

## CLEARER AUDIO, BETTER PERFORMANCE

When it comes to exceptional audio clarity, the quality of digital cannot be denied. The XiR C2000 Series portables give you digital audio performance throughout your coverage area. The digital voice processing with enhanced call signalling ensures faster and more reliable calls.

The pre-programmed text messages permits fast and flexible communication, reaching out to your radio users in a high noise environment where voice is difficult to hear or when sensitive information is being communicated.

When your workers cannot be distracted, voice announcement provides audible confirmation of channel changes, as well as programmable buttons that eliminate the need to view the radio display. This customizable feature uses default audio files for easy operation.

## HOTEL ROOMS, ASSEMBLY LINES AND EVENT VENUES

From the guest rooms to light manufacturing premises and moving across event locations, you can connect more people effortlessly wherever they work.

Easy to carry and operate, your housekeepers can quickly update the supervisors from inside the guest rooms or on the hotel floors. Their XiR C2000 Series radios deliver both voice and data throughout the entire coverage area of your sprawling resort or high-rise hotel buildings.

With C2000 Series radios, your on-site crew runs on double call capacity on the same radio spectrum. Giving them more open lines for instant updates, as they run more events with greater efficiency. When there is an emergency, you can send the closest security employee to any part of the venue and speed up response time.

Your assembly line workers can rely on the clear digital audio of their XiR C2000 Series radios to filter out background noise. They can hear clearly anywhere in the busy factory or use one of the programmable buttons to send pre-programmed text messages.

## MADE FOR LIFE, MADE TO LAST

The XiR C2000 Series radios meet demanding specifications, including IP54 for dust and water and U.S Military Standard 810C, D, E, F and G for exceptional durability. They also surpassed the Accelerated Life Testing (ALT) where they were subjected to simulation of 5 years of hard use in real life. These tests included drop, temperature shock, vibration, dust, ESD and humidity.

## GENERAL SPECIFICATIONS

### XiR C2000 SERIES

#### Keypad XiR C2620 / XiR C2660

Channel Capacity	160
Typical RF Output	
Low Power	1W
High Power	4W
Frequency	403-480 MHz
Dimensions (H x W x L)	
NiMH 1400mAh	120.0 x 55.0 x 37.5 mm
Li-Ion 1700mAh	120.0 x 55.0 x 36.5 mm
High Cap Li-Ion 2250mAh	120.0 x 55.0 x 41.7 mm
Weight with battery:	
NiMH 1400mAh	360 g
Li-Ion 1700mAh	295 g
High Cap Li-Ion 2250mAh	300 g
Power Supply	7.5V (Nominal)

## BATTERY

Average battery life at 5/5/90 duty cycle with carrier squelch and transmitter in high power.<sup>1</sup>

NiMH 1400mAh	Analog: 9.5 hrs / Digital: 12.3 hrs
Li-Ion 1700mAh	Analog: 10.7 hrs / Digital: 14.4 hrs
High Cap Li-Ion 2250mAh	Analog: 15.0 hrs / Digital: 20.0 hrs

## RECEIVER

Frequency	403-480 MHz
Channel Spacing	12.5 kHz / 25 kHz
Frequency Stability (-30°C, +60°C, +25°C Ref)	± 1.5 ppm
Analog Sensitivity (12 dB SINAD)	0.3 µV / 0.22 µV (typical)
Digital Sensitivity (5% BER)	0.25 µV / 0.19 µV (typical)
Intermodulation (TIA603D)	70dB
Adjacent Channel Selectivity (TIA603D)	45 dB @ 12.5 kHz / 70 dB @ 25 kHz
Spurious Rejection (TIA603D)	70dB
Rated Audio	0.5 W (Internal)
Audio Distortion @ Rated Audio	5% (3% typical)
Hum and Noise	-40 dB @ 12.5 kHz / -45 dB @ 25 kHz
Audio Response	TIA603D
Conducted Spurious Emissions (TIA603D)	-57 dBm

## TRANSMITTER

Frequency	403-480 MHz
Channel Spacing	12.5 kHz / 25 kHz
Frequency Stability (-30°C, +60°C, +25°C Ref)	± 1.5 ppm
Low Power Output	1W
High Power Output	4W
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 / Radiated Emission	-36 dBm < 1 GHz / -30 dBm > 1 GHz
Adjacent Channel Power	60 dB @ 12.5 kHz / 70 dB @ 25 kHz
Audio Response	TIA603D
Audio Distortion	3% (typical)
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 Vocoder Type	AMBE +2™
Digital Protocol	ETSI TS 102 361-1, -2, -3

<sup>1</sup> Actual battery runtime observed may vary.

Specifications subject to change without notice. All specifications shown are typical.



XiR C2620



XiR C2660

## MILITARY STANDARDS

Applicable MIL-STD	810C		810D		810E		810F		810G	
	Method	Procedures	Method	Procedures	Method	Procedures	Method	Procedures	Method	Procedures
Low Pressure	500.1	I	500.2	II	500.3	II	500.4	I/II	500.5	I/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	501.5	I/A1, II/A2
Low Temperature	502.1	I	502.2	I/C3, II/C1	502.3	I/C3, II/C1	502.4	I/C3, II/C1	502.5	I/C3, II/C1
Temperature Shock	503.1	I	503.2	I/A1C3	503.3	I/A1C3	503.4	I	503.5	I/C
Solar Radiation	505.1	II	505.2	I	505.3	I	505.4	I	505.5	I/A1
Rain	506.1	I, II	506.2	I, II	506.3	I, II	506.4	I, III	506.5	I, III
Humidity	507.1	II	507.2	II	507.3	II	507.4	–	507.5	II - Aggravated
Salt fog	509.1	I	509.2	I	509.3	I	509.4	–	509.5	–
Blowing Dust	510.1	I	510.2	I	510.3	I	510.4	I	510.5	I
Blowing Sand	–	–	510.2	II	510.3	II	510.4	II	510.5	II
Vibration	514.2	VIII/E, W	514.3	I/10, II/3	514.4	I/10, II/3	514.5	I/24	514.6	I/24
Shock	516.2	I, III, V	516.3	I, VI, VI	516.4	I, VI, VI	516.5	I, VI, VI	516.6	I, VI, VI
Shock (Drop)	516.2	II	516.3	IV	516.4	IV	516.5	IV	516.6	IV

## ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-30°C / +60°C
Storage Temperature	-40°C / +85°C
Thermal Shock	Per MIL-STD
Humidity	Per MIL-STD
ESD	IEC 61000-4-2 Level 3
Dust and Water Intrusion	IP54. MIL-STD
Packaging Test	MIL-STD 810D and E

<sup>1</sup> Radio only - Li-Ion battery -10°C  
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 All specifications shown are typical.

For more information, please visit us at [motorolasolutions.com/MOTOTRBO](http://motorolasolutions.com/MOTOTRBO)

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**MOTOTRBO™**  
 DIGITAL REMASTERED.