

MOTOTRBO™ CP100d SERIES PORTABLE RADIOS

EASY TO USE, EASY TO MIGRATE

BATTLE CARD

The MOTOTRBO CP100d Series is a range of practical, entry-level digital radios for professionals wanting to communicate with greater ease and efficiency.

Features

- Analog / Digital Voice Communications
- Dual Capacity Direct Mode
- Scan Mode
- VOX
- Voice Announcement
- Radio (DMR) Standards Compliant (digital mode only)
- IP54 Rated


Target Markets

- Hospitality
- Golf Courses
- Logistics
- Retail
- Construction
- Warehouses





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Features	CP100d 	RCA RDR2600	Kenwood NX-1000	Hytera PD480i	Why Motorola Solutions CP100d?
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DMR NETWORK COMMUNICATIONS					
DMR Types Supported	Analog & Digital Conventional and DMR II	Analog & Digital Conventional and DMR II ⁴	Analog & Digital Conventional and NXDN, DMR II ⁵	Analog & Digital Conventional and DMR II ³	MOTOTRBO CP100d supports both Analog and Digital in Conventional mode as well as DMR Tier II.
Bands Supported	VHF (136-174 MHz) UHF (400-470 MHz)	VHF (136-174 MHz) UHF (400-470 MHz) ⁴	VHF (136-174 MHz) UHF (400-520 MHz) ⁵	VHF (136-174 MHz) UHF (350-470 MHz) ¹	MOTOTRBO CP100d offers similar frequency bands of radio operation in UHF and VHF compared to the competition
RX Sensitivity (Typical)	Analog: 0.22uV ³ (12 dB SINAD) Digital: 0.19uV ³ (BER 5%)	Analog: 0.22uV ⁴ (12 dB SINAD) Digital: 0.20uV ⁴ (BER 5%)	Analog: 0.24uV ⁵ (12 dB SINAD) Digital (DMR): 0.18uV ⁵ (BER 5%)	Analog: 0.22uV ¹ (12 dB SINAD) Digital: 0.22uV ¹ (BER 5%)	MOTOTRBO CP100d features an enhanced sensitivity parameter which can positively enhance range coverage ⁵ , virtually without compromising battery life. (The lower the uV number, the better the RX Sensitivity).
RF TX High Power Output	4W (UHF) 5W (VHF) ³	5W (UHF) ⁴ 5W (VHF) ⁴	4W (UHF) ⁵ 5W (VHF) ⁵	4W (UHF) ¹ 5W (VHF) ¹	MOTOTRBO CP100d features enhanced RF specs, especially RX sensitivity of CP100d which helps to maximize coverage ⁵ . A lower power of 4W in the UHF positively impacts the battery for extended time of radio operation for CP100d.
Out of Range Alert		No ⁴	No ⁵	No ¹	MOTOTRBO CP100d features an "Out of the Range Alert" that will alert users when they are getting out of the coverage zone helping users not to miss communications.
Extended Range Direct Mode		No ⁴	No ⁵	No ¹	MOTOTRBO CP100d radios can communicate via repeaters when within range or can automatically switch to direct mode if the direct signal is stronger than the repeater signal (e.g. working close together at the edge of the repeater coverage)


Features	CP100d 	RCA RDR2500	Kenwood NX-1000	Hytera PD480i	Why Motorola Solutions CP100d?
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AUDIO PERFORMANCE					
Rx Audio Output Power (Speaker)	0.5W @ 1% distortion (rated) 2.1W (Max)	1W @ 3% distortion (rated) ⁴	1W @ 7% distortion (rated) ⁵	0.5W @ 3% distortion (rated) ¹	MOTOTRBO CP100d features very loud speaker audio output at maximum level.
Noise Suppression		No ⁴	Yes ⁵	Yes ¹	MOTOTRBO CP100d offers Audio Noise Suppression in analog and digital modes providing clear audio under very noisy environments.

AUDIO FEATURES					
AGC and RX Audio Levelling		No ⁴	Limited (ACG Only) ⁵	Limited (ACG Only) ¹	MOTOTRBO CP100d RX Audio Levelling allows the radio to automatically adjust audio on the receiver side to account for inconsistent audio levels. Similarly, AGC (Automatic Gain Control) adjusts the microphone audio on the transmitting side to achieve optimal audio levels.
Multi-Language Audio Profiles		No ⁴	No ⁵	No ¹	MOTOTRBO CP100d audio profile can be optimised according to the tonal characteristics of many international languages
Trill Enhancement		No ⁴	No ⁵	No ¹	MOTOTRBO CP100d enhances the intelligibility of the Alveolar Trill (i.e Rolling "rrr") language pattern found in many international languages, so audio is clear and intelligible.
Audio Accessory Mic Gain		No ⁴	No ⁵	No ¹	MOTOTRBO CP100d allows users to customize the MIC gain level desired to optimise audio performance when using audio accessories

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RUGGEDNESS					
Operating Temperatures	 -30°C / +60°C -22°F / +140°F	-20°C / +50°C ⁴ -4°F / +122°F	(-30°C) / +60°C ⁵ (-22°F) / +140°F	(-30°C) / +60°C ¹ (-22°F) / +140°F	MOTOTRBO CP100d is able to operate at higher and lower extreme temperatures which is key for helping to ensure continuous communications.
14 different MIL-STD 810 Tests IP54 Rating	 IP54 MILI STD 810-C,D,E,F,G <ol style="list-style-type: none"> 1. Low pressure 2. High Temperature 3. Low Temperature 4. Temperature 5. Solar Radiation 6. Rain 7. Humidity 8. Salt Fog 9. Dust 10. Vibration 11. Shock 12. Packaging 13. Blowing Sand 14. Shock (drop) 	IP54 MIL STD 810-C,D,E,F,G ⁴ (No tests specified) ⁴	IP54/55* MIL STD 810-C,D,E,F,G ⁵ <ol style="list-style-type: none"> 1. Low pressure 2. High Temperature 3. Low Temperature 4. Temp Shock 5. Solar Radiation 6. Rain 7. Humidity 8. Salt Fog 9. Dust 10. Vibration 11. Shock (drop) 	IP54 MIL STD 810-C,D,E,F,G ¹ <ol style="list-style-type: none"> 1. Vibration 2. Shock 3. Humidity 	MOTOTRBO CP100d passed multiple rigorous and different 810- MIL-STD tests as well IP54 Ingress Protection.
Motorola Solutions ALT Tests		No ⁴	No ⁵	No ¹	A special set of Motorola Solutions Accelerated Life Tests (ALT) are conducted in addition to industry standards. MOTOTRBO CP100d radios are released making sure they comply with these ruggedness tests in order to help ensure top notch quality levels.

*The 2 pin connector cover has to be connected on the radio or the locking bracket has to be attached to the external speaker microphone for IP54/55

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CALL FEATURES					
Group and Private Calls		Yes ⁴	Yes ⁶	Yes ²	MOTOTRBO CP100d has been designed with simplicity in mind to allow for out of the box, “ready to use” experience, with intuitive operation that allows new users just to grab and go into action. *In non-display models Rx only mode.
Priority Scan, One Touch Access		Limited (no priority scan) ⁴	Yes ⁶	Yes ²	MOTOTRBO CP100d has the ability to use a pre-programmed button press to access various features quickly, as well as the ability to assign group or user priority when in scan mode.
Extended Range Direct Mode		No ⁴	No ⁵	No ¹	MOTOTRBO CP100d radios can communicate via repeaters when within range or can automatically switch to direct mode if the direct signal is stronger than the repeater signal (e.g. working close together at the edge of the repeater coverage)
Radio Check, Remote Monitor, Stun/Revive, Call Alert, Emergency Alert, TX Interrupt		Yes ⁴	Yes ⁶	Yes (TX Interrupt Optional) ^{2,3}	MOTOTRBO CP100d offers similar features related to worker safety and security (For non-display models Radio Check, Radio Monitor and Radio enable/disable functions works on decode(receive) mode only)
Quick Text Messaging		Yes ⁴	Yes ⁶	Yes ¹	MOTOTRBO CP100d can send and receive (display models only) pre-programmed text messages.
Free From Text Messaging	Yes (Full Display Model Only)	Yes	No ⁵	Yes	MOTOTRBO CP100d can send (full keypad) and receive (limited keypad) free form text messages.
Voice Prompts Customization		No ⁴	No ⁵	No ¹	MOTOTRBO CP100d allows users to personalize their radio voice announcements by using their own audio files to customize the default voice announcements or use the language of their preference

BATTERY LIFE					
Standard Battery Life (Analog / Digital)	Standard 10.7 hrs /14.4 hrs (w/ 1700mAh)	Standard 10hrs / 14 hrs (w/ 1800mAh, B2618LI) ⁴	Standard 14.5 hrs digital (w/ 2000mAh) Analog N/A ⁵	Standard 16 hrs /22 hrs (w/ 2000mAh) ¹	MOTOTRBO CP100d provides enhanced battery life times typically with less battery capacity when compared to other competitive batteries.
High Cap Battery Life (Analog / Digital)	High Cap 15 hrs / 20 hrs (w/ 2250mAh)	No optional battery featured ⁴	High Cap 19 hrs Digital (w/ 2450mAh) Analog N/A ⁵	No optional battery featured ¹	MOTOTRBO CP100d provides enhanced capacity battery options for long operating hours.

SOURCE REFERENCES / FOOTNOTES

[1] Hytera PD482i Brochure: https://www.hytera.us/media/Hytera_PD482i_DS-C.pdf

[2] Hytera PD482i User Manual:

https://orizonmobile.com/wp-content/uploads/2020/02/Hytera-PD482-Digital-Portable-Radio-User-Manual-R1.0_eng.pdf

[3] Hytera Product Page: <https://www.hytera.us/products/pd482i#functions>

[4] For specs and features on RDR2500 series click in each model [RDR2500](#), [RDR2550](#), [RDR2600](#) or <https://www.discounttwo-wayradio.com/rdr2500>

[5] Kenwood NX-1000 series features and spec sheet: https://www.kenwood.com/usa/com/lmr/nx-1200_1300/spec.html

[6] Kenwood NX-1000 series user manual: http://manual.kenwood.com/files/B5A-3233-00_01_K_EN.pdf

MOTOROLA SOLUTIONS MARKETING MATERIAL

- **CP100d Specs:** motorolasolutions.com/CP100d

Note: Motorola Solutions Data Specifications subject to change without notice. All specifications shown are typical unless otherwise stated.

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