**DMR**

**RCA**
Communications Systems

# DMR Mobile Radio

**3 YEAR WARRANTY PROTECTION PROGRAM**

## BRM300D UHF / VHF

**Guaranteed compatible with all major brands.**

RCA's BRM300D is an analog/digital mobile radio with up to 50 watts of power for maximum signal coverage. This rugged and affordable radio will help you stay in touch without breaking your budget. The BRM300D series has a wide variety of features that will enable you to communicate effectively and efficiently.

# BRM300D FEATURES

**TDMA** Meets DMR standards.

**Signaling** 2-Tone, 5-Tone, DTMF Encode/Decode and MDC1200 Encode: PTT ID (identifies outbound calls), Individual/Group Call (receive/place calls from specific individuals or groups), Call Alert (tone indicates new inbound call), and Alarm (sounds alarm or notifies system administrator of emergency).

**Digital/Analog Operation** Clear digital and analog operation all-in-one enables you to move to digital equipment at your own pace.

**Annunciation** Announces changed channel number

**Radio Stun/Kill/Revive** Allows the radio administrator to disable or enable the radio if it is lost or stolen.

**Send/Receive Data** Text messages and quick texts

**7 Programmable Buttons** Programmable features include: radio check, group/private calls, time-out timer, scan, CTCSS/DCS and others.

**Password Protection** Protects the radio from unauthorized programming changes.

**Durable and Reliable** Meets IP65 dust proof and water resistant standards and Military Specs (MIL-STD-810C/D/E/F) for durability.

**Monitor** Enables users to monitor channel activity

**Easy-To-Read Dot-Matrix Display** Bright backlight makes menu and radio function navigation easy

**Up To 5W of Power** Maximum signal coverage

**Messaging** Transmit and receive short messages and text messages

**Public Address** Broadcasts amplified audio through external speaker

**Voice Operating Transmission (VOX)** Provides "hands-free" operation on a programmed channel

**Frequencies and Part Numbers**
VHF (136-174 MHz) - BRM300DV;
UHF (400-470 MHz) - BRM300DU;
UHF (450-520 MHz) - BRM300DU2

BRM300D

① **1,000 Channels / 250 Zones**
② **Volume Knob and Programmable Button**
③ **LCD Display**
④ **LED Indicator**
⑤ **Internal Speaker**
⑥ **On/Off Button**
⑦ **Channel Select/Programmable Buttons[▲]/[▼]**
⑧ **Programmable Buttons P1 - P4**
⑨ **Speaker Microphone (Standard)**
⑩ **Push-To-Talk Button[PTT]**

DIGITAL VOICE SYSTEMS, INC.
The Speach Compression Specialists
**AMBE+2 Vocodor**

www.**RCACommunicationsSystems.com**

# BRM300D SPECIFICATIONS

## GENERAL

| | |
|---|---|
| **Frequency Bands** | 136 - 174 MHz (VHF "V"); 400 - 470 MHz (UHF "U"); 450 - 520 MHz (UHF "U2") |
| **Dimensions** | 1.8" X 6.3" X 6.9"<br>46 x 160 x 175mm |
| **Weight** | 2.9 lbs / 1,315 g |
| **Power Supply** | 13.6V DC +/-20% |
| **Channels** | 1,000 |
| **Zones** | 250 |
| **Channels/Zone** | 16 channels per zone |
| **Frequency Stability** | <1.0 ppm |
| **Environmental Protection** | IP65 (Water Resistant/Dust Proof) |

| **Environmental Standards** | MIL-STD-810 C,D,E,F,G | Method | Procedure |
|---|---|---|---|
| | Low Pressure | 500.4 | I, II |
| | High Temperature | 501.4 | I, II |
| | Low Temperature | 502.4 | I, II |
| | Temperature Shock | 503.4 | I |
| | Solar Radiation | 505.4 | I |
| | Rain Blowing/Drip | 506.4 | I, III |
| | Humidity | 507.4 | - |
| | Salt Fog | 509.4 | - |
| | Dust Blowing | 510.4 | I |
| | Vibration | 514.5 | I |
| | Shock | 516.5 | I, IV |

| | |
|---|---|
| **Digital Protocol** | ETSI TS 102 361-1,-2,-3 |
| **Operating Temperature** | -22°F (-30°C) ~ 140°F (60°C) |
| **Vocoder** | AMBE+2™ |

## TRANSMITTER SPECIFICATION

| | |
|---|---|
| **Power Output** | 5W, 25W, 45W (UHF) / 50W (VHF) |
| **Audio Response** | +1 dB ~ -3 dB @ 300 to 3,000 Hz |
| **Hum and Noise** | -40dB (12.5KHz) |
| **Conducted/Radiated Emission** | -36dBm@<1GHz,<br>-30dBm@>1GHz |
| **Adjacent Channel Power** | -60dB |
| **FM Modulation Mode** | 12.5KHz: 11K0F3E<br>25KHz: 16K0F3E |
| **4FSK Digital Mode** | 12.5KHz Data: 7K60FXD<br>12.5KHz Data/Voice: 7K60FXE |
| **4FSK Modulation Accuracy** | 5%@77°F,<br>10% @ extreme temperature |

## RECEIVER SPECIFICATION

| | |
|---|---|
| **Analog Sensitivity** | 0.35µV/-116dBm (20 dB SINAD)<br>0.22µV/-120dBm (12 dB SINAD) |
| **Digital Sensitivity** | 0.3µV/-11.4dBm (BER 5%)<br>0.7µV/-110dBm (BER 1%) |
| **Selectivity** | 60 dB (12.5kHz); 70 dB (20/25 kHz) |
| **Adjacent Channel Selectivity** | TIA603C: 65dB<br>ETSI: 60dB |
| **Spurious Rejection** | TIA603C: 75dB; ETSI: 70dB |
| **Co-channel rejection** | -8dB@12.5KHz |
| **Blocking** | 84dB |
| **Rated Audio Output Power** | 7W @ 8 Ohms |
| **Rated Audio Distortion** | ≤3% |
| **Intermodulation** | 70 dB |
| **Audio Response** | +1 dB to -3 dB @ 300 to 3000 Hz |
| **Conducted Spurious Emission** | -57 dBm <1GHz, -47 dBm>1GHz<br>ETS300 086 |

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# ACCESSORIES

## BRM300D Accessories

**Speaker Microphone**
MM300D

**Keypad
Speaker Microphone**
MM300DK

**Desktop
Microphone**
DMM1250

**Base Station
Conversion Kit**
BSC300D PKG

## Also Available From RCA
### BR200D/BR300D Series

**Guaranteed compatible with all major brands, such as Motorola, Kenwood, Icom or Vertex!**

RCA's BR200D/BR300D analog/digital handheld radios have 4/5 watts of power for maximum signal coverage. These rugged and affordable radios will help you stay in touch without breaking your budget. The BR200D/BR300D series has a wide variety of features that will enable you to communicate effectively and efficiently.

- **TDMA** Meets DMR standards. Compatible with Motorola MotoTrbo™.
- **Signaling** 2-Tone, 5-Tone, DTMF Encode/Decode and MDC1200 Encode: PTT ID (identifies outbound calls), Individual/Group Call (receive/place calls from specific individuals or groups), Call Alert (tone indicates new inbound call), and Alarm (sounds alarm or notifies system administrator of emergency).
- **Digital/Analog Operation** Clear digital and analog operation all in one enables you to switch to digital equipment at your own pace.
- **Radio Stun/Kill/Revive** Allows the radio administrator to disable or enable the radio if it is lost or stolen.
- **Send/Receive Data** Text messages and quick texts (BR300D only).
- **Audio Connector** Compatible with Motorola CP200/CP200d accessories.

BR200D

BR300D