

DMR 8000

MOBILE RADIO



The DMR8000 is an ergonomically designed vehicle based and fixed station Digital Radio, made in India, with loud and clear audio quality. Based on open DMR standards and protocol, it is built on extremely rugged platform and comes packed with innovative features. Available in both VHF and UHF versions, It is an ideal communication tool for use by Public Safety, Defence and Security organizations, ensuring smooth migration and interoperability with Analog and other imported radio models based on similar open DMR standards.



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Smartest digital mobile radio

Vertel is a leading provider of world class Radio communication equipment. Making its foray in design and manufacture using European technology standards, Vertel is among the first to manufacture world class digital radio products in India. Our unique DMR product portfolio provides robust and secure solutions for use by mission critical users in harsh environments. Vertel digital radio products are supported by innovative data applications and peripherals using open standard interface.

Other key benefits of moving to Vertel DMR Radios include

- Vertel quality and reliability. DMR8000 is type tested and certified by ILAC/NABL and Government Laboratories to meet the electrical parameters and MIL-STD 883C environmental standards
- Customized Support from a leading supplier that is dedicated to open non-proprietary standards
- Made in India assurance provides the reliability, network security and prompt local support.

The Unique features that the DMR8000 offers include:

- All call – communicate to all groups instantly & simultaneously
- Group call – instant communication within the group
- Private call – one to one calling
- Busy channel – prevents talking when the channel is busy
- Scanning and priority scanning – comprehensive communications control
- Transmit interrupt – overriding priority
- Call alert – an audible tone to alert a user of a private incoming call
- Contact list – for quick selection for private call
- Caller ID – confirm the identity of the caller
- Emergency call – user configurable
- Remote monitor – remotely hear what users are saying
- End to End encryption up to 256 bit AES – provides communication secrecy at all times
- Radio enable/disable/kill – Ensures network integrity and security.
- GPS – Provides realtime information of the user location
- Lone Worker and Man Down – Provides safety to the users
- Radio check – informs the control station whether users are in range
- Status messages
- Text messaging – Up to 300 Characters
- Transmitter time out timer

Vertel DMR8000 is a high specification advanced featured DMR mobile radio.

It provides mission critical users the true functionality and sturdiness that they need for their vehicles and static stations round the clock. Available in both VHF and UHF frequency bands, the Vertel DMR8000 is an ideal choice for users requiring reliable communication in tough environment and terrain in sectors such as:

- **Police and Public Safety**
- **Defence Forces**
- **Central Paramilitary Forces**
- **Forestry**
- **Railways**
- **Fire Fighting Forces**
- **Airports**
- **Seaports**
- **Utilities**

Ensuring backward compatibility the DMR8000 also supports analogue features:

- CTCSS and DCS
- 5-tone/Selcallsignaling
- MDC1200 signalling



Advanced features,
user friendly, field endurance
and interoperability

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GENERAL

Frequency: 136-174 (Full Band)/400-470 / 450-520 MHz

Channel capacity: 1024

Zones: 248

Channel spacing: Digital: 12.5 KHz, Analog: 12.5/20/25 KHz

Protocol & Technology: TDMA based DMR Standards

Display: 1.77" Color Display

Dimensions: 60 x 175 x 180mm

Weight: < 1500g

Power supply: 13.8V DC \pm 15%

Antenna connector: BNC 50 Ohm

Protection: Reverse Polarity & High VSWR

Frequency stability: \pm 0.5ppm

Image Rejection: >70dB

Intermodulation Rejection: >70dB

Spurious rejection: >70dB

Conducted/radiated emissions: -57dBm(\leq 1GHz) -47dBm($>$ 1GHz)

Rated Audio Output: >3W

Rated Audio Distortion: <3%

Audio frequency response: +1,-3dB (300-3000Hz)

GPS: Accuracy specs are for long-term tracking (95th percentile values, >5 satellites visible at nominal-130 dBm signal strength)

TTFF (Time to First Fix)- Cold Start<60 seconds

TTFF (Time to First Fix)- Hot Start<10 seconds

Horizontal Accuracy: <5 meters

TRANSMITTER

Power: 5/25 W (Selectable/Programmable)

Modulation limiting: \pm 2.5KHz@12.5KHz, \pm 4KHz@20KHz,
 \pm 5KHz@ 25KHz

Conducted/radiated emissions: -36dBm (\leq 1GHz), -30dBm($>$ 1GHz)

Hum & noise: >-40dB

Adjacent channel power: >-60dB

Audio frequency response: +1,-3dB (300-3000Hz)

Digital Vocoder: AMBE+2

Digital 4FSK protocol: ETSI 102 361-1, -2, -3, & -4

RECEIVER

Sensitivity : Analog : <0.25 μ V (12dB SINAD)

Digital: <0.25 μ V@5% BER

Adjacent Channel selectivity: >70dB

ENVIRONMENTAL

Operating temperature: -30°C to 60°C

Storage temperature: -40°C to 70°C

Humidity: 95% @ 40°C (20°C to 60°C) non condensing

Dust & Water protection: IP55

Environmental testing: MIL-STD 810 C/D/E/F/G (Low pressure, High Temperature (Operation/Storage), Temperature Shock, Solar Radiation, Rain, Salt Fog, Vibration, Dust & Shock)

SUPPLIED ACCESSORIES: DTMF / Fist Mic, DC Power Cable, Mounting Bracket, Mic Hanger

OPTIONAL ACCESSORIES: Antennas (Vehicle& Fixed), Low Loss RF Cables, Power Supplies, Radio Dispatcher Console & Software

* **Note:** All stated Specifications are subject to change in our endeavor of continuous improvement.