



KONGSBERG

Multi Role Radio MP300/MV300

VHF Radios for CNR Voice and advanced Data Network Services

Multi Role Radio (MRR) is the most advanced military VHF radio family on the market today. Equally suitable for CNR and advanced data network services. The MRR radios are all Software Configurable.

MP300 and MV300 are the manpack and vehicular versions.

Features:

- Fixed Frequency & Frequency Hopping
- Built-in Tactical SMS terminal
- COMSEC
- Up to 19.2 kbps data, all with FEC.
- Packet Radio, (Automatic Routing)
- Standard RS-232 data interface
- High MTBF and low LCC
- Voice, transparent and packet data
- Software upgradeable
- Detachable Control Terminal
- 2 wire Eurocom interface
- Cosite Filter available
- Interference Cancelling

By combining Frequency Hopping and NBDS technology, a unique TRANSEC (EPM - ECCM) capability is obtained.

MP300 and MV300 offer high data rates which all are forward error corrected (up to 19.2 kbps).

A built-in tactical SMS message function is available. It is possible to send short pre-defined, partly defined or free text messages efficiently to other radios.

MP300
Manpack Configuration.



MV300
Vehicular configuration



The MP300 and MV300 apply the patented Narrow Band Direct Sequence Spread Spectrum (NBDS) technology.

This implies the possibility of reception in negative signal to noise ratios and resistance to multipaths. The result is improved range and less black holes (better coverage) for the user.

Packet Radio with Automatic Routing is available. The radio combines voice, data and packet radio traffic on the same service integrated net.

With the MP300 and MV300 a mobile connection to the Tactical Area Network may be established (SCRA).

MP300 / MV300

FEATURES

MP300 and MV300 are built on a modular concept where the basic units are used in the portable as well as for the vehicle radio. The Control Terminal may be separated from the Transceiver. The high capacity Li-Ion battery gives the radio an excellent battery lifetime.

A range of accessories are available making it possible to integrate the MRR in vehicles as well as carried by the soldier himself. A range of efficient antenna solutions are available. Together with the MRR special waveform this ensures long range capability.



Electronic Protective Measures (EPM - ECCM):

- NBDS in Fixed Frequency
- Frequency Hopping
- Multihop Packet Radio Service with automatic routing.
- Multipath Integration
- Free Channel Search
- Interference Cancelling Equipment (ICE)
- Time dependency
- Separation of transceiver and control terminal

Services:

- FM Hailing
- EPM (digital) Hailing
- Late Net Entry
- Relaying
- Whisper
- Radio Silence
- Signal Strength Measurement
- Background Noise Measurement
- Built-In Test
- Tactical SMS
- Engineering Order Wire

The MRR family consist of Handheld, Portable (PRC) and Vehicle Mounted (VRC) Radios.



- More than 23000 units sold.
- MRR are deployed by Nato and other forces.
- MRR is field proven from the arctic to desert and jungle conditions.

Technical Data

Frequency range:	30.000-87.975 MHz (2320 channels)
Bandwidth:	45 kHz
Output power:	10 mW, 0.5 W, 5 W, 50 W
EPM modes:	Fixed Frequency (NBDS) Narrow Band Direct Sequence Frequency Hopping (FH) combined with NBDS Free Channel Search
FM Voice modes:	AN/PRC-77 or STANAG 4204
Digital Voice modes:	16 kbps CVSD, 2.4 kbps MELP
Transmission Data rates:	Up to 19.2 kbps (all with Forward Error Correction), both in synchronous and asynchronous modes.
Data Interface:	RS-232 up to 19.2 kbps. X.28 PAD and X.25 with military enhancements Eurocom K (two wire) GPS NMEA Packet switched data, automatic routing.
Analogue Interface:	Balanced 8 wire
Battery:	14.4 V Li-Ion
Battery lifetime for PRC:	> 18 hrs (8:1:1), above -15°C
Sensitivities for PRC:	CVSD Voice < -114 dBm MELP (option) Voice < -119 dBm FM Voice < -112 dBm 2.400 bps data < -118 dBm (BER = 10 ⁻³)
Environmental spec:	Mil-STD 810C Operational temperature: -35° C to + 55° C
Physical characteristics:	MP300: 300 mm x 246 mm x 82 mm with battery MV300: 418 mm x 367 mm x 221 mm with 50W and Cosite filter
Weight:	MP300: 6,4 kg with Battery and Antenna MV300: 18,8 kg with 50W and Cosite filter

This publication is not to be regarded as a complete system specification, or to be used as a contract document. We reserve the right to change the design or specifications without prior notice.

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