



KONGSBERG

# Multi Role Radio HANDHELD MH300

**Multi Role Radio (MRR) is a state-of-the-art military VHF radio family (Handheld, Portable and Vehicular). MRR is equally suited for both CNR voice and advanced data network services. The MRR radios are all Software configurable.**

**MH300 is the handheld version.**

## **The World's Most Advanced Handheld**

### **Features:**

- **Very long battery lifetime**  
Better than 25 hrs (8:1:1)
- **Very low Weight:** ~1055 Grams  
Radio ~555 g, Battery ~375 g, Antenna ~125 g
- **Excellent Voice Quality,** CVSD, MELP or FM.  
Built in Speaker and Microphone. Headset or Handset
- **Long Range 64 kbps** transmission Data Rate  
with Forward Error Correction.
- **Standard RS232 Data Interface:** Synch- & Asynchronous:  
Connect your Laptop or PDA directly.
- **Tactical SMS** built in, free-text or predefined:  
Individual or group addressing.
- **“Grab and Run”** from Vehicular Installation:  
Battery-on-Radio charging while operating.
- **Superior Resistance to Jamming & Interference:**  
Combining NBDS (Narrow Band Direct Sequence Spread Spectrum) with Adaptive Frequency Hopping.
- **Built in Encryption**, up to level SECRET:  
Comprehensive Crypto and Key Management is provided.

**Packet-Data Radio:** The radio combines voice, packet data with source routing and transparent data in the same service integrated net.

The radio automatically detects type of traffic and present the information to the user accordingly. Voice instantly overrides data, with data traffic automatically restored.

**Patented NBDS technology** enable reception in negative signal-to-noise ratio and in multipath conditions. NBDS greatly enhance EPM.

MRR has battle proven superior tactical range and experience significantly less “black holes”.



**Built in Manual or automatic interference rejection:** Narrow band Interference Rejection of more than 20 dB.

**Vehicular Amplifier available**



#### Other features:

- Intuitive Man-Machine Interface (Easy operation)
- High MTBF and low LCC
- Transparent and Packet Data
- Software upgradeable
- Cloning
- User defined profiles
- MELP Voice coder for improved range

#### Services:

- FM hailing
- EPM (digital) hailing
- Late net entry
- Relay or Repeater
- Whisper or Radio Silence
- Signal-Strength Meter
- Background-Noise Meter
- Built-in Test Equipment



#### Vehicular Installation:

Radio charging battery while operating. External power amplifier is available.

#### A wide range of Tactical Accessories are available

#### Technical Data for Handheld MH300:

#### Electronic Protective Measures (EPM):

- NBDS in Fixed Frequency EPM
- Frequency Hopping (FH) and NBDS at the same time
- Adaptive FH
- Multihop Packet Radio
- Multipath Integration
- Free Channel Search
- Interference Cancelling
- Time Dependency



#### MRR, Family of Multi Role Radios

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

Frequency range:	30.000-87.975 MHz (2320 channels)
Bandwidth:	45 kHz
Output power:	15 mW, 1 W
EPM Modes:	Fixed Frequency (Narrow Band Direct Sequence) Frequency Hopping (combined with NBDS) Free Channel Search Adaptive FH
FM analogue modes:	AN/PRC77 and STANAG 4204
Digital Voice:	16.000 bps CVSD, or MELP 2.400 bps
Transmission Data Rates:	Up to 64 kbps (all with forward error correction), synchronous and asynchronous
Data Interface:	Standard RS-232, up to 115,2 kbps. X28 PAD. GPS NMEA.
Analogue interface:	Balanced 8 wire
Battery:	7.2 V Li-Ion
Battery lifetime:	More than 25 hrs (8:1:1) at -15°C or above
Sensitivity:	CVSD Voice: -117 dBm MELP Voice: -122 dBm FM Voice: -113 dBm
Operational temperature:	2.400 bps data : -121 dBm (BER < 10 <sup>-3</sup> ) 64 kbps data : -100 dBm (BER < 10 <sup>-3</sup> )
Environmental spec:	-35°C to + 55°C
Physical characteristics:	Mil Std 810F 155 mm x 86 mm x 50 mm without battery 240 mm x 86 mm x 50 mm with battery
Weight:	Radio 555 g, Large battery 375 g, Antenna 125 g

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