

MD13.1 - Radio modem (Net)

PN (RN): 2025.100.51 NSN: 5895160031390



MD13.1 radio data modem features radio data transfer with the 16 kbit/s bit rate via RF13 and RF1301 transceivers or other transceivers according to STANAG 4204, edition 2. The radio modem is supplied in two variants. The point to point connection variant (P2P) ensures radio data connection between two data terminating equipments (DTE - usually computers). The net version (Net) makes it possible to create and operate mobile data networks - tactical internet. The communication protocol used in the network variant complies with the US MIL-STD-188-220B (Interoperability Standard for Digital Message Transfer Device Subsystems). It has all mandatory features with the exception of the number of net nodes, which is restricted to max. 32 nodes. It ensures IP packet transmission in the radio network (retranslation of IP packet through 6 nodes).

Technical parameters

| | |
|--|--|
| Power supply | from the transceiver connector |
| Supply voltage | 6 V to 33 V |
| Current consumption with 12 V | max. 150 mA |
| AF INTERFACE | |
| AF signal interface | |
| ten pin panel connector AMPHENOL for the transceiver | |
| Bit rate | 16 kbit/s |
| Modulation | GMSK |
| Transmission | half-duplex |
| Nominal modulation level into transceiver | $(1.25 \pm 0.15) V/2 k\Omega$ |
| Nominal input signal level from transceiver | $(4 \pm 1) V/5 k\Omega$ |
| Error detection and correction | |
| Coding with backward error correction | Golay (24.12) - data throughput 8 kbit/s |
| Time-dispersive coding | |
| Data scrambling | |
| Detection of voice and data operation | |
| CTCSS 150 Hz | Continuous Tone Controlled Squelch System |
| Noise power | evaluating power of noise (voice and data) |
| Data interface for connecting | |
| Data interface | 2 x RS232C, seven pin panel connector AMPHENOL |
| Baud rate A | 19.2 kbit/s, 38.4 kbit/s |
| Baud rate B | 19.2 kbit/s |
| Parity | none |
| Data bits | 8 |
| Stop bits | 1 |
| Transmission | full-duplex |
| Operating temperature range | -30 °C to +60 °C |

Dimensions
Weight

W 184 mm x H 45 mm x D 142 mm
0.8 kg

Set

Radio modem set (Net) MD13.1 - (2025.000.61)

Documentation

MD13.1 operating instructions 2025.010.52