MD13.1 - Radio modem (P2P)

Type designation: **MD13.1**
NSN: **5895160033133**
PN (RN): **2025.100.52**
KČN: **0068600200202**

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). The SLIP (Serial Line Internet Protocol) protocol is used for communication between computer and modem.

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/full duplex
Nominal modulation level into transceiver	(1.25 ± 0.15) V/2 kΩ
Nominal input signal level from transceiver	(4 ± 1) V/5 kW

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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	Continous 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	1.2 kbit/s to 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	W 184 mm x H 45 mm x D 142 mm
Weight	0.8 kg

Documentation

MD13.1 operating instructions	2025.010.52

Components

Type designation	PN (RN)	Name
MD13.1	2025.000.52	Radio modem set (P2P)