

AT RF13D Duplex VHF Transceiver

AT RF13D Duplex VHF Transceiver



AT RF13D is a VHF transceiver designed for duplex data operation. AT RF13D design is based on AT RF13 transceiver, the difference being in an added independent input for receiving antenna, modified AF paths and modified control program. It is used in a set with ZM13.1 (ZV13.1) power amplifier, AF13, AF13.1 co-site filters. The transceiver can be operated independently with RF13 transceiver accessories.

Operating features

- ✓ whisper operation with increased microphone sensitivity
- ✓ squelch - inhabitable, normal or tone (150 Hz)
- ✓ 9 preset channels storage
- ✓ pre-set channels priority scanning
- ✓ selective calling
- ✓ FLASH - 3 digits code quick transmission
- ✓ in case of emergency, instant erasure of data stored in memory
- ✓ selection of access and operation level
- ✓ channel programming from PK13 fill gun, or from another transceiver
- ✓ controlling of transceiver from handset
- ✓ pre-set channels selection
- ✓ group and general call
- ✓ group and individual users selection
- ✓ encrypted speech with individual codes of channels
- ✓ telephone line extension

Technical parameters

Frequency range	30.000 MHz to 87.975 MHz
Channel spacing	25 kHz
Number of channels	2320
Channel selection	digital, from transceiver keyboard
Operating modes	simplex or semiduplex telephony or data transmission to 16 kbit/s
Voice encryption	through internal digital scrambler
Modulation	FM, max. deviation 5.6 kHz
RF power output	0.2 W reduced (± 2 dB)
	5 W nominal (+1.5 dB/-1 dB)
Receiver sensitivity	better than 0.5 μ V at 12 dB SINAD
Effectively transmitted frequencies range	
for communication	300 Hz to 3400 Hz
for data transmission	150 Hz to 9000 Hz
AF power output	controllable, min. 200 mW/4 Ω
Nominal power supply voltage	12 V from the rechargeable battery pack with NiCd storage batteries with 4 Ah capacity
Power supply voltage range	10 V to 15 V
Operation time	minimum 14 hours at 1 : 1 : 10 Tx/Rx/Standby ratio and nominal output power
Current consumption	max. 2 A in transmission mode at nominal output power
	max. 0.6 A in transmission mode at reduced output power
	max. 0.2 A in reception mode
	max. 0.12 A in standby mode
Operating temperature	-30 °C to +60 °C
Transceiver weight	max. 2.7 kg (no battery pack or accessories)
Battery pack weight	max. 2.5 kg
Dimensions of transceiver with battery pack	W 205 mm x H 83 mm x D 252 mm
Weight of complete set in bag, including a spare battery pack	max. 11.5 kg
Dimensions of complete set in bag	250 mm x 380 mm x 450 mm
Range average range at nominal output power in medium-wooded and medium-undulated terrain:	
- with 0.5 m short tape antenna	1 km
- with 1.5 m long tape antenna	8 km
- with hang-up antenna	15 km
- with 30 m long-wire antenna	25 km

AT RF13D Duplex VHF Transceiver