RR 4702 - High Capacity LOS Radio Relay

Main features:

- HCLOS PTP radio relay with transmission capacity up to 320 Mbps
- Harmonized frequency band 4,4 – 5 GHz (NATO IV)
- High output power and long distance up to 90 km
- Channel bandwidth 7 MHz ÷ 56 MHz
- Modulation QPSK ÷ 256 QAM
- Gigabit ethernet and E1

RR4702 High Capacity Line of Sight (HCLOS) Point to Point (PTP) radio relay based on software configuration core for building of higher organizational levels in mobile tactical networks in NATO IV frequency band. Time continuous full duplex transmission capacity up to 320 Mbps is ensured by Frequency Division Duplex (FDD). Ethernet 10/100/1000 BASE-T and E1 (2048 kbps) are standard interfaces. Local control is over PC and IP management is over webserver or SNMP.

RR4702 is very universal due to a wide range of easy software setup parameters (channel bandwidth 7 MHz ÷ 56 MHz and modulation QPSK ÷ 256 QAM). It can be configured to high capacity data transport in backbone net (12 - 15 km) as well as to long distance connection (60-90km) with high robustness and lower data rate. Robustness algorithms APC, ACM and FEC are included. Radio meets strict conditions for EMC and mechanical ruggedness – it is designed for extreme climatic conditions.
## Technical specifications

### General
- **Frequency range**: 4400 ÷ 5000 MHz
- **Duplex spacing**: 312 MHz
- **Modulation**: QPSK to 256 QAM or ACM (promptly SW setup)
- **Channel separation**: 7, 14, 28, 40, 56 MHz (promptly SW setup)
- **Max. aggregate transmission rate**: cca 320 Mbps (full duplex)
- **Forward error correction**: LDPC
- **Channel**: 1x ETH 10/100/1000 Base-T up to 320Mbps (IEEE 802.3u, 802.3x, 802.3ac)
- **Channels**: 1x E1, G.703 2,048 Mbps (optionally more ports)

### Transmitter
- **Output power control (ATPC or manual)**: 40 dB
- **Manual control step**: 1 dB
- **Intermediate frequency**: 350 MHz
- **Output power**: 33 dBm (QPSK), 28 dBm (256 QAM)

### Receiver
- **Receiver threshold (10e-3 BER)**: -85 dBm (QPSK), -67 dBm (256 QAM)
- **Max. level of input signal**: 0 dBm
- **Intermediate frequency**: 140 MHz

### Management
- **Local management**: PC (USB) – PC application
- **IP management**: 2x 10/100 Base-T (separate channel) - SNMP v.2/3, HTTP
- **EOW**: 32 kbps (servis full duplex call)

### Power supply, Dimensions, Weight, Environmental conditions
- **Power supply**: 18 - 30 V
- **Consumption**: < 60W
- **Dimensions (W x H x D)**: Indoor Unit (IDU) 288 x 128 x 303 mm, Outdoor Unit (ODU) 224 x 135 x 310 mm
- **Weight**: Indoor Unit (IDU) < 8 kg, Outdoor Unit (ODU) < 7 kg
- **Operating temperature range**: -33°C to +50°C
- **Humidity**: 100 % (waterproof)

### Accessories
- **Antenna FPA 26 dBi, 6°**: H or V turn 90°, 600x600x24mm, 5 kg, green or tan
- **Fixture of antenna and ODU**: diameter 40 mm, elevation +25°
- **Hand-microtelephone**: with PTT
- **IDU-ODU cable**: 100 m (optionally other length up to 300m)
- **ODU-Antenna cable**: 1.2 m
- **Power cable**: 2.5 m (optionally other length)
- **USB cable**: 1.8 m
- **Microtelephone extension cable**: 40 m (optionally other length)
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