TRANSBIT

Wideband Radio

R-450C-01

Polish SDR type wideband radio

Support of indirect jump

Fast data transfer

Wideband radio R-450C-01

Wideband radios R-450C-01 are designed to create wireless local (LAN) and wide (WAN) IPv4 package networks, using the band I (from 225 MHz to 400 MHz). Radios are highly resistant to interferences and adverse propagation phenomena such as signal reflections (multipath) or losses, thanks to what it is possible to organize wireless computer networks between mobile objects (e.g. reconnaissance vehicles), as well as high capacity access networks.

Technical parameters

BASIC FUNCTIONALITIES

Flexible reconfiguration and dynamic adaptation of system parameters to changing environment
Automatic change of used modulation and coding depending on propagation quality
Services Quality Management (QoS) defined by a user
Platform to transfer various services (VoIP voice connections, videoconferences, Internet, email, etc.)

PARAMETERS

Work frequency scope	225-400 MHz
Number of available radio channels	176
Modulation type	OFDM (BPSK, QPSK, 16QAM, 64QAM)
Channel size	1-4 MHz

INTERFACES

Optical Ethernet interface	1x100Base-FX
GPS	RS-422
Diagnostic	RS-232C

TRANSMITTER PARAMETERS

Transmitter power	43±3 dBm RMS
Adjusting Power of transmitter	Manual:-20..0 dB (±2 dB) Leap 1 dB Automatic:-20..0 dB (±2 dB)
Frequency stability	±5 ppm
Attenuation of unwanted emissions	≥60 dBc
Attenuation of harmonics	≥60 dBc

RECEIVER PARAMETERS

Noise coefficient	<6 dB
Sensitivity	(BER<1e-6) min. -100 dBm/1MHz/BPSK

POWER SUPPLY

Power supply	+27 V (-18, +10 [%])
Power consumption	<250 W (transmission) <80 W (collection)

OTHER TECHNICAL PARAMETERS

Mechanical and climatic classification	Group N.7, N.13-O-II(A i B), acc. NO-06-A101÷108 (MIL-STD-810G compliant) (multi-use and continuous use equipment)
Electromagnetic compatibility	NO-06-A200 (MIL-STD-461F compliant) (KRE-02, KCE-02, KCS-01, KCS-06, KCS-07, KCS-08, KRS-02)
Operating temperature	Od -30°C do +60°C
Storage temperature	Od -40°C do +85°C
Humidity resistance	95-98% at +40°C

FUNCTIONAL PARAMETERS

Network protocol	IPv4 (RFC 791)
Routing protocol	RIPv2 (RFC 2453), OSPF (RFC 2328), PIM-DM (RFC 3973), PIM-SM (RFC 2362), OSLR

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