TRANSBIT

Digital radio relay for III+ and IV band

R-460A

Simultaneous operation in the band III and IV within the frequency scope of 1 350 MHz to 2 690 MHz and 4,4 GHz to 5 GHz

Digital radio relay R-460A

The Digital Radio Relay R-460A belongs to the latest generation of High Capacity Line of Sight radio relays (HCLOS) for the IV and III+ bands. It offers up to 34 Mbps trunk or 1 Gbps Ethernet capacity and it is also equipped with advanced algorithms to protect against jamming, interference and interception of information.

The radio relay R-460A is highly integrated, easily reconfigurable and modular, designed with the aim to fulfil the demanding military requirements. R-460A allows to make radio relay links simultaneously in the band IV and III+, as well as radio relay networks with the use of multi-sector antennas in the band IV. The digital radio relay R-460A is compatible with radio relays from R-450A family within the operation range in the III+ band.

Technical parameters

BASIC FUNCTIONALITIES	
Simultaneous operation in the III+ and IV band within the frequency range of 1350 MHz to 2690 MHz and from 4,4 GHz to 5 GHz	
Possibility of streaming transmission up to 34 Mbps in the III+ band	
Possibility of packet transmission up to 200 Mbps in the IV band	
Compatibility with radio relays from the R-450A family	

GENERAL PARAMETERS	
Frequency range	1 350 MHz÷2 690 MHz 4.4 GHz÷5.0 GHz
Channel spacing/ Bandwidth	1 MHz/20 MHz - band III+
Channel spacing / Bandwidth	1 MHz /40 MHz - band IV

COMMUNICATION RANGE	
For the speed rate of 200 Mb/s	≥20 km
Modulation schemes	QAM (QPSK), 16QAM, OFDM (64QAM)
Radio operation modes	FDD

RESISTANCE TO INTERFERENCES	
Frequency hopping (band IV)	300 hops in point-to-point mode Directional antenna Selective receiver

TRANSMISSION (BAND IV)	
Bit rate (for one direction, band IV)	2, 8, 17, 34, 52, 68, 100 Mb/s
Bit rate for FH (band IV)	2, 4, 8, 16 Mb/s (option)
Bit rate for point-to-multipoint (band IV)	totally up to 100 Mb/s
FEC	Codes of Reed Solomon Viterbi code of the efficiency selected depending on the radio link quality

TRANSMITTER	
Transmitting power (band IV)	30 dBm (max.)
Transmitter power regulation (band IV)	od 30 dBm to 10 dBm with 1 dB increment
Automatically regulated power (band IV)	The power level optimized for the link quality and the level of interferences (30 dBm÷10 dBm)
Manually regulated power	Yes
Voice communication	EOW (Engineering Order Wire) Digital transmission with encryption

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