



## DESCRIPTION

communication (using reflection of the troposphere layer and scattering) in frequency band of 4.4 ~ 5 GHz for establishing secure/reliable voice communication including various types of telephone communication lines (Hot Line, FX & internal, 4-wire, 6-wire, and ...) and data/voice communication. This system is considered for transmitting information of radar sensors, voice messages, and data of radar sights from operational fields to command & control centers via the troposphere layer beyond the horizon paths where the Line of Sight (LOS) communication cannot be established and more than 150Km communication distance. In order to establish various types of command network communication, most of the required communication ports including fiber optics, Ethernet, LAN, E1 ... are available in the system. Considered capacity for communication link is 2Mbps. In case of decreasing the capacity to 1Mbps, 512Kbps, and 256Kbps, sensitivity and communication distance can be increased. All information i.e. voice communication, radar data, and or exchanged videos are encrypted via complicated encryption systems and actually nothing can be eavesdropped/decrypted by enemy. For increasing communication distance, in addition to benefit from the link as a point-to-point communication link, it can be operated as repeater too.



General specifications	
Frequency range	4.82-5GHz & 4.40-4.58GHz
Channel space	1MHz
Frequency precision	better than $\pm 1$ ppm
IF frequency	70MHz
Min. space between TX/RX frequency	240MHz
Type of modulation	QPSK
Rate of transmission	more than 2Mbps, fractional E1
Communication ports	
E1, Ethernet, RS232 including O.W 64Kbps	
RX specifications	
Noise level	better than 4.5dB
Sensitivity for BER 10e-5	-90dBm@2048Kbps
Dynamic range	better than 4.5dB