



TRC-421/E

Transportable Radio Communication System

High capacity transportable radio communication systems are considered specially for transmitting high capacity information from tactical areas to operational commander levels. Whereas the communication services including single-channel communication equipment operated in tactical zones do not meet needs of brigades and divisions in operational areas, usually high capacity point-to-point transportable radio communication systems are benefited from for higher level communication services.

TRC-421/E provides capability of establishing full duplex telephone communication, exchanging data/image with maximum capacity of 8Mbps in the UHF frequency range. In case that the capacity is used only for telephone communication, 128 subscribers can make high quality call. All of the exchanged information including voice, data, and image is encrypted before exchanging by an advanced encryption unit. Due to network interfaces, the two LAN networks available in both sides can be connected to each other via this transportable radio communication system. Frequency range of the TRC-421/E is a wide range of 225~400 MHz specified proportionate to distance of the two points, terrain, and exact operational frequency. In addition to operate the radio as a point-to-point radio, it can be used as a repeater for increasing communication distance.

General specifications

Modulation type.....	QPSK
Data transmission rate.....	1E1, 2E1, 4E1
Input traffic type.....	E1, Ethernet
	O.W supervisor channel with the rate of 64Kbps
Operating status.....	1+0
Input voltage of the system.....	28VDC/220VAC
Maximum gain of the system.....	130dB

Transmitter specifications

Transmitting power.....	1W/4W/10W/20W in manual status
	28±15dBm in automatic status
Harmonic rejection.....	45dB
DC current consumption.....	5A

Receiver specifications

Receiving sensitivity.....	nominal -87dBm (1E1@BER=10-6)
Dynamic range.....	55dB@4E1
Image frequency rejection.....	60dB
IF.....	70MHz

Antenna specifications

Frequency band.....	225~400 MHz
Polarization.....	vertical & horizontal
Antenna gain.....	9.5dBi
Antenna beam width.....	about 28°
Connector type.....	N type

Physical & environmental specifications

Dimension.....	19 inch-5U
Weight.....	less than 45kg
Operating temperature.....	-20°C ~ +60°C
Environmental standard.....	MIL-STD-810F