

SATELLITE COMMUNICATION TRAINING SYSTEM

Satellite Communication Training System is the first of its kind using actual techniques of Satellite Communication. It can uplink a given signal to a satellite link emulator, which can be stationed up to 100 feet away. The emulator then re-transmits the same signal at a different frequency to a downlink receiver signal. Audio signal can be fed through a microphone provided at Transmitter and reproduced on built-in loud-speaker at Receiver. Video signal can be sent from CCD camera and viewed on a video monitor provided with the system. External broadband digital or analog data can be used for link testing. The system provides facility to interface with communication trainer kits. Actual emulation of satellite communication link can be performed with emulation of path loss, propagation delay, noise, fading, etc. Interactive user-friendly e-Manual software is provided optionally with this training system on CD.

FEATURES

- Dual Processor system
- ARM - 32 Bit RISC processor based PLL Synthesized microwave operation (ISM License free band)
- 20X4 LCD Digital display
- 16 keys keyboard
- PLL synthesized frequency in Transmitter, Receiver & Satellite Emulator
- S-band Microwave frequencies for smaller Antenna size
- Simultaneous communication of 3 different signals
- Choice of different transmitting and receiving frequencies between 2400-2481 MHz
- FM / FDM modulation used for transmit two audio and one video channel simultaneously
- Rugged Aluminium cabinets and Tin cans for shielding.
- Low RF leakage and isolation of 100dB
- Teflon cables for carrying RF signal
- SMA connectors for microwave operation
- Communicates audio, video, digital data, tone, voice and function generator signals
- Communication of external broadband digital, analog and baseband signals
- Dynamic microphone and speaker provided for audio link
- CCD camera and video monitor provided for video link
- Detachable pair of Yagi, RHCP helix and LHCP helix antennas are provided for dual polarization test
- PC interface provided for PC-to-PC communication via satellite
- Emulation of signal fading, thermal noise, propagation delay and path loss
- C/N & S/N measurement facility
- Facility to attach Analog/Digital Communication Kits.
- To measure the signal parameters in an Analog FM/FDM TV Satellite link
- To estimate FM deviation / bandwidth

LIST OF EXPERIMENTS

- Formation of passive satellite link.
- Formation of active satellite link.
- Transmission of audio, video and data simultaneously over satellite link.
- Study of telemetry and tele command in a satellite link.
- Measurement of received signal strength through direct link and through satellite link.
- Measurement of signal to noise ratio, carrier to noise ratio, threshold level, fading effect and noise effect.
- Determination of audio and video bandwidth for active satellite link.
- Observation of audio delay effect for satellite link.



FALCON

Unit-128, Hema Ind. Est., Sarvoday Nagar,
Jogeshwari (East), Mumbai - 400 060. INDIA.
Tel: 91-22-28348429 / 28248665 / 28346339 / 28343608
Fax: 91-22-28370165.
Email: falcon@falconindia.biz
Web: www.falconindia.biz