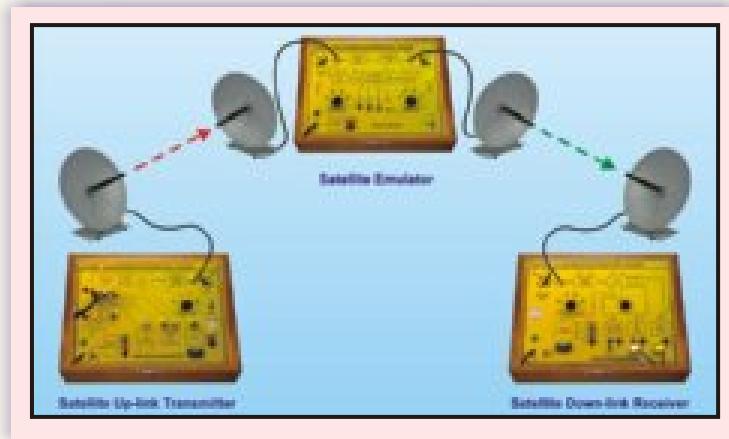




# SATELLITE COMMUNICATION TRAINER

## MODEL SATCOM200

This trainer has been designed with a view to provide practical and experimental knowledge of a Satellite communication.



### FEATURES

- \* Simultaneous communication of three different signals at each up-linking frequency.
- \* 2.4 GHz and 5.8 GHz Microwave operation
- \* Receives & demodulates 3 Signals Simultaneously.
- \* Communicate Audio, Video, Digital data, PC data, Tone, Voice, function generator waveforms etc.
- \* Communication of external broad band digital and analog data and base band signals
- \* Choice of different transmitting and receiving frequencies.
- \* Built-in microphone and speaker for Voice and Audio link
- \* Detachable Dish Antenna at each station

### SPECIFICATIONS

- A. Books for Satellite Communication : 10 Nos in pdf Format**  
**Mp4 Video Class for Satellite Communication : 40 Classes in Mp4 on DVD / Pen Drive**

#### B. Satellite Uplink Transmitter

- \* Transmit three signals simultaneously at each up-linking frequency
- \* 2390/2468/2490/2510 MHz up-linking frequencies selectable by up-down switch and LED indication.
- \* 4 MHz clock frequency
- \* Wide band RF amplifier, No manual matching required.
- \* Frequency UP-Down Switch and LED indication.
- \* FM Modulation of Audio and Video
- \* 5.55 MHz Audio and 8MHz Video Modulation
- \* Detachable Dish Antenna
- \* Radiated Power output 25mW (approx.) with power control.
- \* Transmit Audio, Video, Digital/Analog data, PC data, Tone, Voice, function generator waveforms etc.
- \* Separate terminals provided for different inputs.
- \* Power Supply - 220 Volts, +/-10%, 50Hz

**Sigma Trainers and Kits**  
E-113, Jai Ambe Nagar,  
Near Udgam School,  
Thaltej,  
**AHMEDABAD - 380054.**  
**INDIA.**

**Phone(O): +91-79-26852427/ 26850829**  
**Phone(F): +91-79-26767512/ 26767648**  
**Fax : +91-79-26840290/ 26840290**  
**Mobile : +91-9824001168**  
**Email : sales@sigmatrainers.com**  
**: sigmatrainers@sify.com**  
**Web : www.sigmatrainers.com**

**Dealer:-**

## 2. Satellite Downlink Receiver

Receives and demodulate three signals simultaneously.  
Intermediate Frequency 479.6 MHz (approx.)  
4 downlink frequencies 5740, 5760, 5800, 5820 Mhz  
Built in speaker for audio and video output  
Detachable Dish Antenna  
Power Supply - 220 Volts, +/-10%, 50Hz

## 3. Satellite link Emulator

Transponder with selectable frequency conversion  
4 downlink frequencies 2390/2468/2490/2510 MHz  
4 uplink frequencies 5740, 5760, 5800, 5820 MHz  
Rotary Switch and Tuner for selecting Uplink frequency  
Link Fail operation  
Detachable Dish Antennas  
Radiated power 25mW (approx.) with Variable gain control  
Power Supply 220 Volts, +/-10%, 50 Hz

# EXPERIMENTS

1. Understanding Basic concepts of Satellite communication.
2. To establish a direct communication link between Uplink Transmitter and Down link Receiver using tone signal.
3. To setup an Active satellite link and demonstrate Link Fail operations.
4. To establish an AUDIO-VIDEO satellite link between Transmitter and Receiver
5. To communicate VOICE signal through satellite link
6. To change different combinations of uplink and downlink frequencies and to check the communication link
7. To transmit and receive three separate signals (Audio, Video, Tone) simultaneously through satellite link.
8. To transmit and receive function generator waveforms through satellite link
9. To transmit and receive PC data through satellite link