SmartSat’s family of satellite simulators set the standard for UHF SATCOM test equipment. Rugged, reliable, and easy to use, SATSIM accurately simulates satellite characteristics, enabling users to test radio performance, troubleshoot communication systems and train personnel. Available in one-channel, two-channel, four-channel, and portable briefcase models it is an essential component of every well equipped SATCOM testing and training facility.

**SATSIM4**
**USS-101-400**

**SPECIFICATIONS:**

**Mechanical Specifications:**
- **Weight:** <45 lbs
- **Size:** 19” Rack mount, 3U 24” Deep

**Electrical Specifications:**
- **Input Voltage:** 100 - 240 VAC, 47-66 Hz
- **Power:** 25 W Max. per channel

**Environmental Specifications:**
- **Storage Temps:** -20°C to +75°C
- **Operating Temps:** -0°C to +55°C

**Accessories:**
- **AC Cable:** US 3 Prong Plug
- **Interface Cable:** Standard USB
- **Power Attenuator:** 100 W, 30 dB
- **RF Cable:** N to BNC

*1 ea per channel

**Features:**
- Auto selectable external or internal reference
- Fully controllable signal and noise levels
- Propagation time delay programmable to users’ parameters
- Intuitive touch screen interface
- Internal white noise generator
- USB remote control port

**Options:**
- **Training:** Up to 10 students at user site
- **Option D:** DAMA DC Mode CCOW
- **Option P:** Filtered RX/TX Port Installed
Performance Characteristics:

- **Signal Control Range**
  - Maximum input +50 dBm
  - >80 dB range in 1.0 dB increments

- **Noise Source**
  - Internal white noise generator
  - >62 dB range in 0.5 dB increments

- **Doppler Generator**
  - 0 to ±5 kHz
  - Programmed to user profile
  - Rate of change to 100 Hz/sec

- **Time Delay**
  - 0 to 300 msec
  - Programmed to users’ parameters

System Interoperability:

SATSIM simulates the hard limiting narrowband filtering (5 and 25 kHz) characteristics of all UHF satellites, including:

- FLTSATCOM
- LEASAT
- AFSATCOM
- UFO

SATSIM is an excellent test aid for all common UHF SATCOM systems, such as:

- Integrated Waveform (CIB / IBS-1 / IBS-S)
- DAMA
- Secure Narrowband Voice

Applications:

SATSIM is the ideal device to deploy in test labs or in the field for evaluating and troubleshooting critical UHF SATCOM transceivers and receive-only terminals.

This versatile test set …

- allows the user to quickly determine if a radio or SATCOM system is operating to specification.
- includes built-in independent synthesizers enabling the selection of any up or downlink frequency.
- provides total control of receive signal level, noise power, and signal-to-noise ratio.
- allows the user to determine the impact of platform movement in a laboratory environment utilizing a built-in Doppler generator.
- provides a wide range of time delay selections for testing network timing.
- provides accurate simulation of UHF satellite channel characteristics.