



SMARTSAT



UHF Satellite Simulators

Integrated Waveform Simulators

Power Amplifiers

Filtered Preamplifiers

Combiner Attenuator Test Sets

Reference Controllers

Bias-Tees

PRODUCT CATALOG

SMARTSAT

SMARTSAT.COM | 727.535.6880

SATELLITE SIMULATORS



USS-101-001 | 1-CHANNEL SATSIM



USS-101-003 | 2-CHANNEL SATSIM



USS-101-400 | 4-CHANNEL SATSIM



USS-101-002A | 1-CHANNEL PORTABLE BRIEFCASE SATSIM WITH 3-HOUR BATTERY

1-CHANNEL, 2-CHANNEL, 4-CHANNEL & BRIEFCASE UHF SATELLITE SIMULATORS

For more than 15 years, SmartSAT's family of satellite simulators have set the standard for UHF SATCOM test equipment. Rugged, reliable and exceptionally easy to use, SATSIM test sets accurately simulate UHF satellite propagation and channel characteristics. Whether using the intuitive touch-screen display or remote PC interface, SATSIM enables users to easily test radio performance, troubleshoot communications systems and train personnel. Available in one-channel, two-channel, four-channel, and briefcase models, SATSIM provides true, independent simulation of hard limited UHF SATCOM channels.

Features

- Auto selectable external or internal reference
- Programmable signal and noise levels
- Programmable uplink and downlink signal levels
- Propagation time delay programmable to users' parameters
- Intuitive touch screen interface
- Internal white noise generator
- USB remote control port

Specifications

Weight	Rack mount: <45 pounds Briefcase: <20 pounds
Dimensions	Rack Mount: 19" W, 3U 24" D Briefcase: 15" L x 12" W x 7" D
Input Voltage	100-240 VAC, 47-63 Hz
Power	25 Watts max per channel
Storage Temps	-20° C to +45° C
Operating Temps	0° C to +40° C

Accessories

AC Cable	Standard US 3-prong plug
Interface Cable	Standard USB connector
Power Attenuator	1 per channel, 100 Watts, 30 dB
RF Cable	N to BNC

Options

- 70 MHz interface | Removable touch-screen controller
- On-site training at customer locations

Detailed specification sheets are available at www.SMARTSAT.com | 727.535.6880

INTEGRATED WAVEFORM SIMULATOR COMMON INTERACTIVE BROADCAST TERMINAL TEST SYSTEM

CIB-TTS-401 COMMON INTERACTIVE BROADCAST – TERMINAL TEST SET (CIB-TTS) FOR TESTING INTEGRATED WAVEFORM (IW)

SmartSAT's newest test set, the CIB-TTS, provides the capability of testing Integrated Waveform (IW) terminals in a simulated, over-the-air environment. The only fully functional IW tester on the market, the CIB-TTS accurately emulates the current performance characteristics of the waveform. The full system includes a 4-channel satellite simulator (SATSIM4), a Combiner Attenuator Test Set (CATS), a GPS unit, a SATCOM terminal*, and a rack-mount PC, monitor and keyboard. Additionally, the test set comes equipped with the Integrated Waveform (IW) Channel Controller (CC) SAC-III and PTSC software — all neatly integrated in a rugged transit case or standard 19" rack.

Specifications

Weight	Approx. 350 pounds
Configurations	Available in standard 19" rack or ruggedized transit case
	*SATCOM terminal may be ordered through SmartSAT or supplied as GFE/CFE for final integration



Specifications

Weight	<45 pounds
Size	19" rack mount, 5U 20" D
Input Voltage	100-240 VAC / 47-66 Hz
Power	<5 watts max.
Storage Temps	-20° C to +75° C
Operating Temps	0° C to +55° C
Accessories	Standard Plug AC Power Cable RS232 Interface Cable

SSC-101-400 COMBINER ATTENUATOR TEST SET (CATS)

CATS is a consolidated RF signal combiner/splitter attenuator. Designed to simulate conditions found in UHF SATCOM over-the-air RF transmission and reception, CATS provides a compact, calibrated network environment. CATS accepts up to six 100 watt UHF uplink transmitter inputs simultaneously. Each channel provides for programmable uplink signal level control. Downlink signals are combined into a single RF environment with the ability to insert noise from the internal broadband noise generator. The downlink is split eight ways, allowing up to eight receivers to connect simultaneously. Available as part the CIB-TTS or as a stand-alone component, CATS is ideal for testing environments that require networked radios and for operator training with multiple, simultaneous users.

Detailed specification sheets are available at
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AMPLIFIERS, FILTERED PRE-AMPS & ACCESSORIES



EPA-002M | 100 WATT EXCITER-POWER AMPLIFIER

Ruggedized and tested to operate in harsh environments, the EPA provides complete upconversion of a phase modulated 70 MHz IF input to the UHF band (225 - 400 MHz). The well-defined serial interface allows for complete remote control and status of the EPA, including frequency tuning, power output level and built-in-test (BIT). Weighing less than 25 pounds, the unit is designed to operate in military platforms, including aircraft and tracked vehicles. The EPA is easily integrated with radios operating with a 70 MHz IF or UHF interface utilizing either an external or internal 10 MHz reference. SmartSAT's EPA is suitable for use in both line-of-sight (LOS) and SATCOM applications. It operates on 120-250 VAC or 28 VDC and can be configured to auto select based on power available. Also available in 150 watt and 200 watt versions.

Specifications

Weight	<25 pounds
Dimensions	15.7" L x 7.5" W x 7.6" H
Form Factor	3/4 ruggedized ATR
Operating Temp	-22° C to +45° C
Input Voltages	100-132, 200-254 VAC from 47-440 Hz, single phase 21-32 VDC (28 VDC nominal)

SS-RC1032 | RC REFERENCE CONVERTER

For use with legacy SATSIMs, the RC converts a standard 10 MHz input reference signal to a phase-locked 32 MHz reference signal.



Specifications

Weight	<1 pound
Dimensions	5.7" L x 3.4" W x 2.1" H
Input Voltage	12-14 VAC

SS-BT6XX SERIES | BIAS-TEE 12-22 VDC

SmartSAT's custom BIAS-TEE supplies power to RF peripherals while providing current condition feedback, over-current protection, and under-current indication.



Specifications

Weight	<1 pound
Dimensions	6.2" L x 3.4" W x 2.1" H
Input Voltage	90-260 VAC
DC Output	70 mA at 22 VDC (can be ordered 15-25 VDC)
Operating Temps	0° C to +60° C
Frequency Range	0.1 MHz to 4 GHz

FPA-103 | FPA FILTERED PRE-AMPLIFIER

SmartSAT's filtered pre-amplifier is a low noise, high gain amplifier that provides separation between receive and transmit signals while maintaining outstanding system sensitivity. Built-in filters allow for operation in close proximity to other communications systems. Available in a variety of filter configurations.



Specifications

Gain	28 dB min.
Noise Figure	<2 dB
Weight	<2.5 pounds
Dimensions	8.6" L x 2.9" W x 2.2" H
Input Voltage	18-32 VDC
Input Current	100 mA max.
Operating Temp	-20° C to +55° C
Accessories	3 foot Cable (TNC to BNC) TNC Dust Caps

FOR MORE INFORMATION, PLEASE CONTACT
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