

# QUAD-BAND SATELLITE SIMULATOR



## FEATURES:

- SIMULATES C, X, Ku, AND Ka BANDS SIMULTANEOUSLY
- PERMITS EARTH STATION SET UP WITHOUT ACTUAL SATELLITES AVAILABLE
- COMPACT WITH SELF CONTAINED ANTENNAS
- EASY TO OPERATE
- RUGGEDIZED / WEATHERPROOF ENCLOSURE
- LIGHT WEIGHT: <35 LBS
- FIELD TESTED
- SIMULATES OPERATION OVER 300 FT
- AC & DC POWER

TAMPA MICROWAVE'S satellite simulator provides a compact easy to use solution as a training and evaluation tool for satellite earth terminals.

## SPECIFICATIONS/MODEL NUMBER LTT-03-W-198

### INPUT CONTROL AND POWER:

AC POWER: 115 TO 230 VAC @ 5 WATTS NOMINAL

DC POWER: 12 TO 24 VOLTS DC

### RF INPUT SIGNALS:

C BAND: 5.85 TO 6.425 GHz @ NOMINAL -15 dBm

X BAND: 7.9 TO 8.4 GHz @ NOMINAL -15 dBm

Ku BAND: 14.0 TO 14.5 GHz @ NOMINAL -15 dBm

Ka BAND: 30.0 TO 31.0 GHz @ NOMINAL -15 dBm

INPUT LEVELS ARE DEPENDENT ON DISH SIZE, DISTANCE TO SIMULATOR, AND TRANSMITTER POWER

### RF OUTPUT SIGNALS: BAND SELECTION PER EXTERNAL CONTROLLER COMMAND

C BAND: 3.625 TO 4.20 GHz @ INPUT LEVEL -30 dB ATTENUATION SETTING

X BAND: 7.25 TO 7.75 GHz @ INPUT LEVEL -30 dB ATTENUATION SETTING

Ku BAND: 10.95-11.2 GHz, 11.45-11.7 GHz, 11.7-12.2 GHz, 12.25-12.75 GHz @ INPUT LEVEL -30 dB ATTENUATION SETTING

Ka BAND: 20.2 TO 21.2 GHz @ INPUT LEVEL -30 dB ATTENUATION SETTING

### ENVIRONMENTAL:

OPERATING TEMPERATURE: 0° TO + 50° C

(Model LTT-03-W-198R **Quad Band Satellite Simulator** with wireless remote control is also available. Specifications are the same as above except you can control band selection and adjust the attenuation remotely.)

### TRANSFER CHARACTERISTICS ALL BANDS

PHASE NOISE: 10 dB (TYPICAL) BETTER THAN IESS 308/309

MIDBAND GAIN: 30 dB LOSS + ATTENUATION SETTING (MEASURED @ INPUT/OUTPUT ANTENNA INTERFACES)

GAIN ADJUSTMENT: 35 dB CONTINUOUSLY VARIABLE

GAIN RIPPLE FULL BAND: +/- 1.5 dB MAX

GAIN RIPPLE PER 80 MHz: +/- 0.75 dB MAX

PHASE LINEARITY PER 5 MHz: +/- 10 DEG MAX

FREQUENCY TRANSLATION ACCURACY: +/-5kHz NOMINAL, +/-10kHz FOR Ka BAND

INBAND SIGNAL RELATED SPURIOUS: -50 dBc NOMINAL

LO LEAKAGE: -90 dBm MAX

IMAGE REJECTION: >50 dB

VSWR IN AND OUT: 2.0:1

INPUT AND OUTPUT ANTENNAS: WITH NOMINAL GAINS OF 6 dB

1 dB COMPRESSION POINT: 0 dBm AT 0 dB ATTENUATION

GROUP DELAY: +/- 5 ns/40 MHz

### PHYSICAL:

MECHANICAL DIMENSIONS: 6.0H X 14.0D X 12.0W INCHES

WEIGHT: <35 lbs

FRONT PANEL CONTROLS: 30 dB ATTENUATION (CONTINUOUS) PER BAND

FRONT PANEL INDICATORS: LOCK ALARMS

REMOTE SWITCH CONTROL (50 FT CABLE): BAND SELECT (SINGLE OR SIMULTANEOUS), LOCK INDICATORS