

TRI-BAND SATELLITE SIMULATOR



FEATURES:

SIMULATES C, X, AND KU (14.0-14.5 GHz)
BANDS SIMULTANEOUSLY

PERMITS EARTH STATION SET UP WITHOUT ACTUAL
SATELLITES AVAILABLE

COMPACT WITH SELF CONTAINED ANTENNAS

EASY TO OPERATE

RUGGEDIZED / WEATHERPROOF ENCLOSURE

LIGHT WEIGHT- < 30 LBS

FIELD TESTED

SIMULATES OPERATION OVER 300 FT

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

SPECIFICATIONS/MODEL LTT-03-W-197

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 @ NOMINAL -15 dBm

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

Ku BAND: 14.0 TO 14.5 @ 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

Ka BAND: 11.70 TO 12.20 GHz, 10.95-11.2 GHz, 11.45-11.7 GHz,
AND 12.25-12.75 GHz @ INPUT LEVEL -30 dB ATTENUATION SETTING

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: ± 5 kHz NOMINAL

INBAND SIGNAL RELATED SPURIOUS: -50 dBc

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: ± 0.5 NS/40 MHz

CONTINUED >



SPECIFICATIONS (CONT)

PHYSICAL:

MECHANICAL DIMENSIONS: 6.0H X 14.00D X 12W INCHES

WEIGHT: <30 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

ENVIRONMENTAL:

OPERATING TEMPERATURE: 0° TO 50° C