

Mobile Satellite Test Set

Models

TLT/DNB-6-1

TLT INPUT:	5.845 – 6.425 GHz
TLT OUTPUT:	3.62 – 4.20 GHz
DNB INPUT:	3.4 – 4.2 GHz
DNB OUTPUT:	0.95 – 1.75 GHz
Note: Output is inverting	

TLT/DNB-14-1

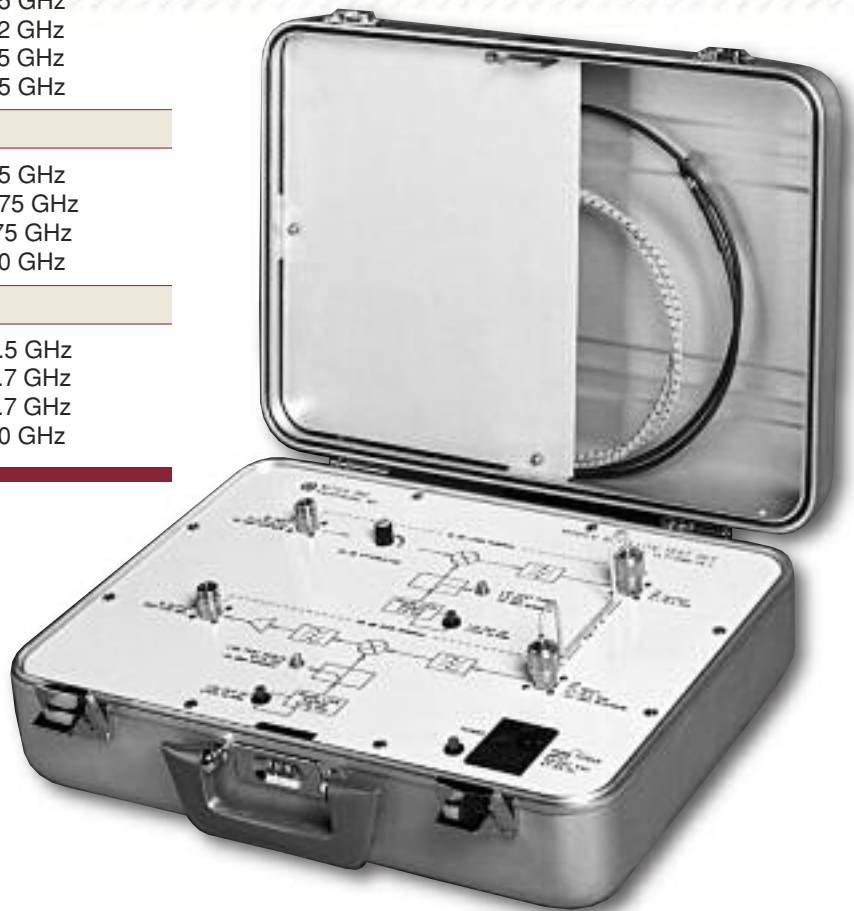
TLT INPUT:	14.0 – 14.5 GHz
TLT OUTPUT:	11.7 – 12.2 GHz
DNB INPUT:	11.7 – 12.5 GHz
DNB OUTPUT:	0.95 – 1.75 GHz

TLT/DNB-14-2

TLT INPUT:	14.0 – 14.5 GHz
TLT OUTPUT:	12.25 – 12.75 GHz
DNB INPUT:	12.2 – 12.75 GHz
DNB OUTPUT:	0.95 – 1.50 GHz

TLT/DNB-14-3

TLT INPUT:	13.75 – 14.5 GHz
TLT OUTPUT:	10.95 – 11.7 GHz
DNB INPUT:	10.95 – 11.7 GHz
DNB OUTPUT:	950 – 1700 GHz



The Mobile Satellite Test Set provides a test translator and block downconverter in a single transportable package. This unit offers transmit to receive, receive to L-, or transmit to L-band frequency translations. Both translations are designed for a minimum of amplitude and delay distortion.

Features

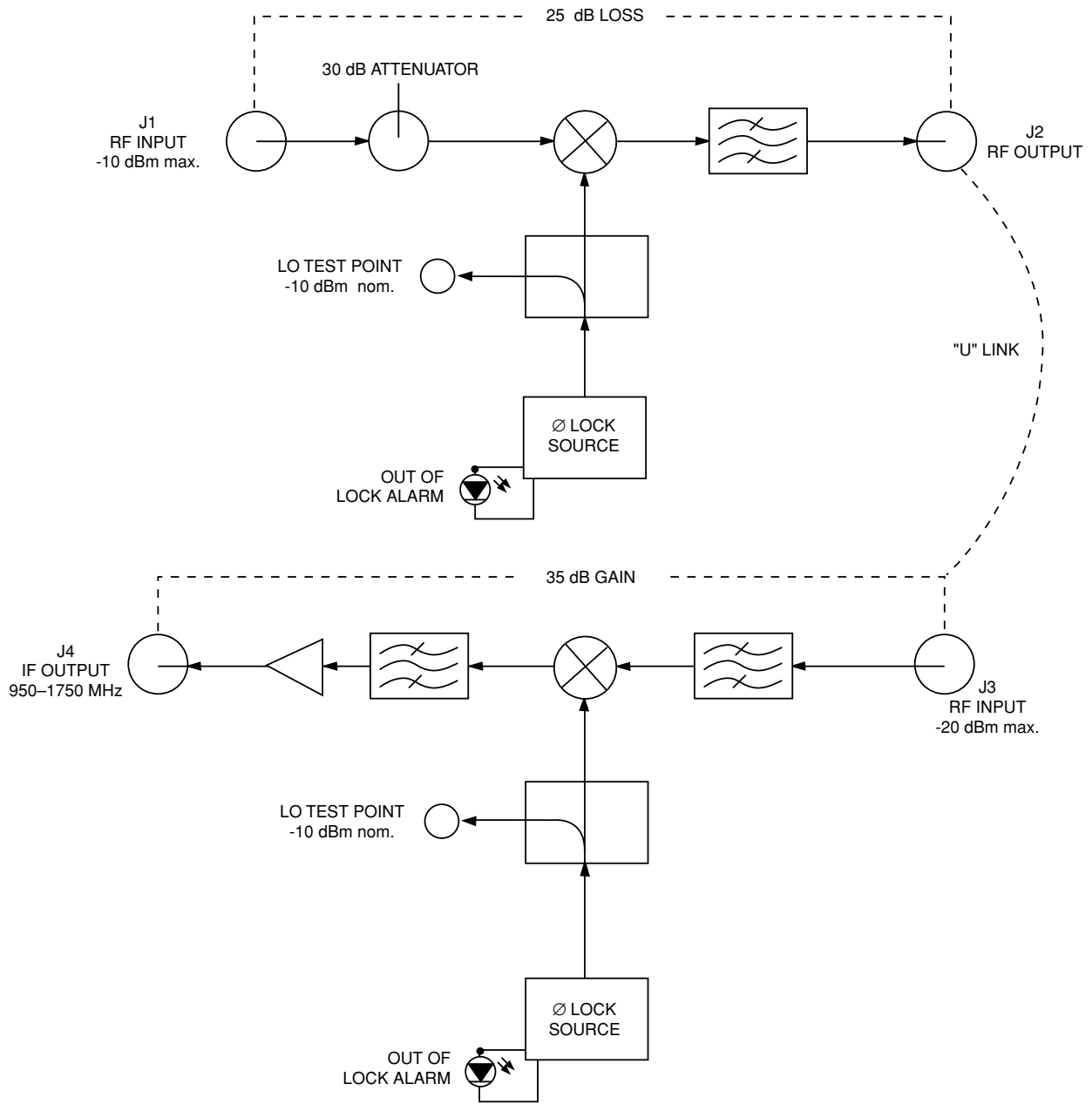
- High frequency stability
- Low phase noise contribution
- Low intermodulation distortion
- 30 dB level control
- Cable storage area
- Optional 30 dB additional level control (translator)

Specifications	Translator	Block Downconverter
Input characteristics	Refer to table	
Frequency	Refer to table	
Level	-10 dBm maximum	-20 dBm maximum
Noise figure	N/A	20 dB nominal
Return loss	18 dB nominal	18 dB nominal
Impedance	50 ohms	
Output characteristics	Refer to table	
Frequency	Refer to table	
Level	-20 dBm maximum	N/A
Return loss	18 dB nominal	14 dB nominal
Impedance	50 ohms	
Transfer characteristics	Refer to table	
Conversion loss	25 dB nominal	N/A
Gain	N/A	35 dB minimum
Amplitude response	±0.25 dB over any 40 MHz, ±1.0 dB over output frequency band	±0.5 dB over any 40 MHz,
Frequency stability	±3 x 10 ⁻⁶ /day (0 to 50°C)	
Intermodulation distortion	With two inband signals at -5 dBm, third order intermodulation products are less than 50 dBc	third order intermodulation products are less than 60 dBc
Input/output isolation	60 dB minimum	
Image rejection	N/A	60 dB minimum
Spurious outputs (inband)	60 dBc up to -35 dBm input	
Signal related	N/A	60 dBc up to -35 dBm input
Signal independent	N/A	-60 dBm maximum
Level stability	N/A	±0.25 dB/day at constant temperature

Option

1. Additional 30 dB level control (translator).

Block Diagram



General Specifications

Primary Power Requirements

Voltage90–250 VAC +10%, -13% (auto selectable)
Frequency47–63 Hz
Power consumption200 W typical

Physical

Weight 35 pounds (15.88 kg) nominal
Overall dimensions 6" [152.4mm] x 13" [330.2mm] x 18" [457.2mm] nominal
Panel connectors
 RF connectorsN type female
 LO monitorSMA female

Environmental

Operating
 Ambient temperature0 to 50°C
 Relative humidityUp to 95% at 30°C
 Atmospheric pressureUp to 10,000 feet
Nonoperating
 Ambient temperature-50 to +70°C
 Relative humidityUp to 95% at 40°C
 Atmospheric pressureUp to 40,000 feet
 Shock and vibrationNormal handling by commercial carriers

