Functional Description:

The Model ASC501LE Up Converter is a high performance unit that is designed to up convert a 70 MHz (52 to 88 MHz) base band input signal to the output frequency band of 950 to 1750 MHz. The output signal then may be interfaced to the final power stage of a satellite RF transmitter (SSPA or BUC). The system performance makes the ASC501LE ideal for low data rate applications. The LE Series half-rack width permits mounting ether two of the same units or a combination of our ASC501LE Up Converter and our ASC401LE Down Converter (Model ASC902LE) side by side in one rack mount unit.

Systems Specifications:

Output Frequency: 950 to 1750 MHz
Spectrum: Non-inverted
Output Bandwidth: 36 MHz
Output Level: -15 dBm Max @ -25dBm Input
Output Mute: < - 50 dBc on frequency change
Input Frequency: 52 to 88 MHz
Input Level: -15 to - 35 dBm,-25 dBm, Typical
Frequency Tuning: 125 kHz Steps
Frequency Adjust: Front Panel or Remotely
Input Impedance: 50 Ohm
Input Connector: BNC, Female
Output Impedance: 50 Ohm
System Level Gain: 10 dB Max, Typical
Output Connector: Type-N, Female
System Level Attenuation: 0 to 25 dB, 1 dB Steps
Frequency Stability: ± 0.5 ppm
Input & Output Return Loss: 15 db
Spurious Response: - 55dBc modulated
(carrier related)
65 dBm un-modulated (non carrier)
Signal Phase Noise: ≤ 80 dBc/Hz, 1 kHz from Carrier (Meets IESS308/309)
Alarms: Unit Lock, Form-A
Front Panel Display: LCD with backlight
M&C: RS-232 or RS-422
M&C Connector: DB-9, Female

Physical Characteristics:

Size: 1.75"H X 16.00"D X 8.50"W
Weight: 4 lb. (1.82 kg)
Primary Power: 85 - 264 VAC 50-60Hz, 2.7 A
Auto-Sensing

Environmental Specifications:

Operating Temperature: 0°C to +50°C
Storage Temperature: -40°C to +70°C
Humidity: 95% RH @ 40°C

Options:

A. External Freq. Ref. (Multiplexed on Output Center Conductor)
   Frequency: 10 MHz
   Level: +4 dBm, Typical
   Phase Noise: 10 Hz, -90dBc/Hz
   Stability: ± 1 X 10^-8 ppm

B. BUC Power (Multiplexed Output Center Conductor)
   Voltage: + 24 VDC
   Power: 65 W, max

C. 10 MHz Ref. Input
   Input Level: -10 to –10 dBm
   Input connector: BNC, 50 Ohm Female
   Auto Switched: Internal/External
   External Stability: ±100 Hz (+10 ppm)

The 10 MHz reference is auto switched to internal when no external reference is available or less than –10 dBm.