

Model ASC 902LE: Full Duplex 70 MHz to L-Band Converter



70 MHz to L-Band Converter Specifications

Functional Description:

The **Model ASC902LE Full Duplex 70 MHz to L-Band Converter** is a high performance unit that is a combination of the model ASC501LE Up Converter and the model ASC401LE Down Converter modules installed in the ASCLE series single rack mount unit. The ASC902LE Converters independent design is to up convert a 70 MHz (52 to 88 MHz) base band input signal to the output frequency band of 950 to 1750 MHz and, simultaneously, down convert an input signal in the band of 950 to 1750 MHz to a 70 MHz output.

The up converter and down converter are two independent functions that are individually controlled from the front panel facilities.

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 half-rack width permits mounting two units side by side in one rack mount unit.

The Model **ASC401LE Down Converter** is a high performance unit that is designed to down convert an input signal in the frequency band of 950 to 1750 MHz to the 70 MHz (52 to 88 MHz) base band output. The output signal then may be interfaced to an external 70 MHz customer supplied receive equipment. The half-rack width permits mounting two units side by side in one rack mount unit.

Features:

- Economical Pricing
- Low Phase Noise for low data rate applications
- High Linearity for multiple carrier operation
- Universal AC Input
- Operator Friendly
- Rugged Design
- Excellent Amplitude Response
- Output Muting when frequency is changed on transmission
- 900 MHz transmit HPF to minimize wireless interference
- Hot Swap Capability

ASC501LE Up Converter System Specifications:

- Input Frequency.....52 to 88 MHz (Standard)
- Input Level.....-15 to -35 dBm at 70MHz
- Output Frequency.....950 to 1750 MHz
- Frequency Tuning.....1 MHz Steps
- Frequency Adjust.....Front Panel or Remotely
- Input Impedance.....50 Ohm
- Input Connector.....BNC, Female
- Output Impedance.....50 Ohm
- Output Connector.....Type-N, Female
- Output Level.....-10 dBm (Max.), -35 dBm (Min.)
- Output Level Attenuation.....0 to 25 dB, 1 dB Steps
- Spurious.....<-50dBc
- Signal Phase Noise.....> 80 dB-Hz, 1 kHz from Carrier
Meets IESS308/309
- Alarms.....Unit lock, BUC Lock,(Options A&B)
- Alarms Relay.....Form-A
- Front Panel Display.....LCD with Backlight
- M & C.....RS-232 or RS-422/485
Switchable on rear panel
- M & C Connector.....DB-9, Female

Physical Characteristics:

- Size.....1.75" H X 16.00"D X 19.00"W
- Weight.....4lb. (1.82 kg)
- Primary Power.....85 - 264 VAC 50 - 60Hz, 2A Auto-Sensing

Options:

- A. External Freq. Ref. (Multiplexed on Output Center Conductor)
 - Frequency.....10 MHz
 - Level.....0 dBm, Typical
 - Phase Noise.....10 Hz, -90dBc/Hz
 - Stability.....± 0.28 ppm
- B. Power (Multiplexed Output Center Conductor)
 - Voltage.....+ 24 VDC
 - Power.....65 W, max

ASC401LE Down Converter System Specifications:

- Output Frequency.....52 to 88 MHz
- Spectrum.....Inverted/Non-Inverted Switchable
- Output Bandwidth.....36 MHz
- Input Frequency.....950 to 1750 MHz
- Frequency Tuning.....1 MHz Steps
- Frequency Adjust.....Front Panel or Remotely
- Input Level.....-45 to -65 dBm
- Input Impedance.....75 Ohm
- Input Connector.....Type-F, Female
- Output Impedance.....50 Ohm
- Output Connector.....BNC, Female
- System Gain.....25 dB (Max.)
- System Attenuation Adjust.....0 to 25 dB, 1dB Steps
- Frequency Stability.....±0.5 ppm

- Frequency Reference.....10 MHz (Internal)
- Phase Noise.....>80 dB-Hz, 1kHz from Carrier
- Front Panel Display.....LCD with Backlight
- Alarms.....Unit Lock
- Alarms Relay.....Form-C
- External LNB Power.....+24 VDC, Switchable In-Out, 300 ma,max
- M & C.....RS-232 or RS-422/485 Switchable
- M & C.....DB-9, Female

Physical Characteristics:

- Size.....1.75" H X 16.00"D X 19.00"W
 - Weight.....4lb. (1.82 kg)
 - Primary Power.....85 - 264 VAC 50 - 60Hz, 2A Auto-Sensing
 - External DC Power.....+ 24 VDC (**Optional**)
- Other voltages Available. Call or email factory.**

Environmental Specifications:

- Operating Temperature.....0⁰c to +50⁰c
- Storage Temperature.....-40⁰c to +70⁰c
- Humidity.....95% RH @ 40⁰c