The 2015-03-01 L-band Upconverter converts 70 ± 18 MHz to 900 to 1450 MHz in 1 MHz steps with low group delay and flat frequency response. Synthesized local oscillators (LO) provide frequency selection. Multi-function push button switches select the RF frequency, gain, and other parameters. Front panel LEDs provide indication of DC power (green), PLL alarm (red), remote operation (yellow) or the TX carrier is muted (yellow). Variable attenuators for the IF input and output provide a gain range of -10 to +30 dB as adjusted by the front panel multi-function push-button switches. Remote operation allows selection of frequency and gain. Parameter selection and frequency and gain settings appear on the LCD display. Connectors are BNC female for IF and the optional external reference input and output, and Type F female for the RF output. SSPB +24 VDC, 2.5 Amps and 10 MHz reference can be inserted on the RF line as added options. The 10 MHz option includes a 10 MHz output connector which contains either the internal or external 10 MHz reference signal. A high stability (±0.01ppm) option is also available. The unit is powered by a 100-240 ± 10% VAC power supply, and housed in a 1 3/4” X 19” X 16” rack mount chassis.

**EQUIPMENT SPECIFICATIONS***

**Input Characteristics (IF)**
- Impedance/Return Loss: 75 Ω/18 dB
- Frequency: 70 ± 18 MHz
- Input Level: -40 to -10 dBm

**Output Characteristics (RF)**
- Impedance/Return Loss: 75 Ω/12 dB
- Frequency: 900 to 1450 MHz
- Output level: 0 to -20 dBm
- Output 1 dB comp.: +5 dBm

**Channel Characteristics**
- Gain range (adjustable): -10.0 to +30.0 dB
- Frequency Response: ±1.5 dB, 900 - 1450 MHz ; ± 0.5 dB, 36 MHz BW
- Spurious Response: < -50 dBc, in band
- Group Delay, max: 0.01 ns/MHz2 parabolic; 0.03 ns/MHz linear; 1 ns ripple
- Frequency Sense: Non-inverting

**Synthesizer Characteristics**
- Frequency Accuracy: ± 1.0 ppm max over temp (±0.01 ppm, option-H)
- Frequency Step: 1.0 MHz (as low as 1 kHz steps available)

**Available Options**
- E - External 10 MHz ref in & out w/RF insertion
- H - High Stability (±0.01 ppm) Internal Ref
- Q - RS422/RS485 Remote Interface
- V - SSPB Voltage, +24 VDC, 2.5 amps
- T - Temperature Sensor
- W8 - Ethernet M&C Remote Interface
- Z5 - Attenuator 0.5 dB +0.5 dB Steps
- X or X1 - 125 or 100 kHz Frequency Steps

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*10°C to 40°C; Specifications subject to change without notice*