**2017-05 Up/Downconverter, 950-1525 MHz, 140 MHz IF**

The 2017-05 L-band Up/Downconverter converts 140 MHz to 950-1525 MHz (Up) and 950-1525 MHz to 140 MHz (Down) 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 for up and downconverters (red), remote operation (yellow), and upconverter mute (yellow). Gain is manually controlled over a -10 to +30 dB range for the upconverter and over a 0 to +50 dB range for the downconverter as adjusted by the front panel multifunction 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 RF. LNB or SSPB +24 VDC and 10 MHz reference can be inserted on the RF lines as added options. A high stability (±0.01ppm) option is also available. It is powered by a 100-240 ±10% VAC power supply & housed in a 1.75" X 19" X 16" 1RU chassis.

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**EQUIPMENT SPECIFICATIONS* **

**UPCONVERTER**

**Input Characteristics (IF)**
- Impedance/Return Loss: 75Ω/18 dB
- Frequency: 140 ± 36 MHz
- Input Level Range: -40 to -10 dBm

**Output Characteristics (RF)**
- Impedance/Return Loss: 75Ω/12 dB
- Frequency: 950 to 1525 MHz
- Output level: -20 to 0 dBm
- Output 1 dB compression: +5 dBm

**Channel Characteristics**
- Gain range (adjustable): -10 to +30 dB
- Frequency Sense: Non-inverting

**DOWNCONVERTER**

**Input Characteristics (RF)**
- Impedance/Return Loss: 75Ω/12 dB
- Frequency: 950 to 1525 MHz
- Noise Figure, max.: 15 dB (max gain)
- Input Level Range: -70 to -20 dBm
- Input 1 dB compression: -15 dBm

**Output Characteristics (IF)**
- Impedance/Return Loss: 75Ω/18 dB
- Frequency: 140 ± 36 MHz
- Output level/max linear: -20 dBm / -10 dBm
- Output 1 dB compression: -5 dBm

**Channel Characteristics**
- Gain range (adjustable): 0 to +50 dB
- Frequency Sense: Inverting or Non-inverting (selectable)

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**Available Options**
- E - External 10 MHz ref input & output
- H - High Stability (±0.01) Internal Ref
- Q - RS485 Remote Interface
- L - LNB Voltage (+24VDC, 0.4 amps max)
- V - SSPB Voltage (+24VDC, 2.5 amps max)
- T - Temperature Sensor
- X - 125 kHz Frequency Steps
- Z - 0.1 dB Attenuator Steps on Upconverter

**Connectors/Impedance**
- B - 75Ω BNC (RF), 75Ω BNC (IF)
- C - 50Ω BNC (RF), 75Ω BNC (IF)
- D - 50Ω BNC (RF), 50Ω BNC (IF)
- N - 50Ω N-type (RF), 75Ω BNC (IF)
- M - 50Ω N-type (RF), 50Ω BNC (IF)

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