The 2017-65 C-band Up/Downconverter converts 70 MHz to 5.85-6.425 GHz (Up) and 3.625-4.2 GHz to 70 MHz (Down) in 0.125 MHz steps with low group delay and flat frequency response. Synthesized local oscillators (LO's) provide simultaneous, concurrent frequency selection for the Up and Down converter. 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 can be manually controlled over a 0 to +30 dB range for the upconverter and over a +30 to +50 dB range for the downconverter 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 N female for RF. A high stability (±0.01ppm) option is also available. It is powered by a 100-240 ± 10% VAC power supply and housed in a 1.75” X 19” X 16” 1RU chassis.

EQUIPMENT SPECIFICATIONS*

----------UP CONVERTER----------

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

Output Characteristics (RF)
- Impedance/Return Loss: 50Ω/14 dB
- Frequency: 5.85 to 6.425 GHz
- Level: -20 to 0 dBm
- 1dB compression: +10 dBm

Channel Characteristics
- Gain range (adjustable): 0 to +30 dB, 1dB steps
- Frequency Sense: Non-inverting

----------DOWN CONVERTER----------

Input Characteristics (RF)
- Impedance/Return Loss: 50Ω/14 dB
- Frequency: 3.625 to 4.2 GHz
- Noise Figure, max.: 15 dB (max gain)
- Level: -60 to -30 dBm
- 1dB compression: -10 dBm (min gain)

Output Characteristics (IF)
- Impedance/Return Loss: 75Ω/18 dB
- Frequency: 70 ± 18 MHz
- Output Level Range: -15 dBm to +5 dBm
- 1dB compression: +15 dBm

Channel Characteristics
- Gain range (adjustable): +30 to +50 dB
- Image Rejection: > 50 dB, min
- Frequency Sense: Non-inverting

Controls, Indicators
- Freq/Gain Selection: direct readout LCD; pushbutton switches or remote selection
- Power; Alarm; Remote: Green LED; Red LED; Yellow LED
- Remote: RS232C, 9600 baud (RS485, option Q)
- Other
  - RF Connector: N (female)
  - IF Connector: BNC (female)
  - 10 MHz Connectors: BNC (female), 50Ω/75Ω (option E)
  - Alarm/Remote Connector: D9 - NO or NC contact closure on Alarm
  - Size: 19 inch, 1RU standard chassis 1.75” high X 16.0” deep
  - Power: 100-240 ± 10% VAC, 47-63 Hz, 45 watts max

Available Options
- H - High Stability (±0.01ppm) internal ref
- Q - Frequency Reference Offset Adjust
- Q - RS485 Remote Interface
- T - Temperature Sensor
- X - 125 kHz frequency steps

Connectors/Impedance
- M - 50Ω N-type (RF), 50Ω BNC (IF)

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