2016-02-370 L-Band Downconverter, 370 ±100 MHz IF

The 2016-02-370 Downconverter converts 950 to 2150 MHz to 370 MHz in 125 kHz steps (100 kHz steps with option X1) with low group delay and flat frequency response. Synthesized local oscillators (LO) provide frequency selection. Multi-function switches select the input frequency, gain, and other parameters. Front panel LEDs provide indication of DC power, PLL alarm or Remote operation. Gain is adjustable manually (MGC) over a 0 to +30 dB range. The frequency and gain are remotely selectable. Parameter selection and frequency and gain settings appear on the LCD display. Connectors are Type F female for the RF, and BNC female for the IF and external 10 MHz reference input and output. External 10 MHz is standard. A 10 MHz output connector contains either the internal or external 10 MHz reference signal whichever is selected by the user. The 2016-02-370 is powered by a 100-240 ±10% VAC, 47-63 Hz power supply, and is contained in a 1 3/4” X 19” X 16” rack mount chassis.

**EQUIPMENT SPECIFICATIONS**

- **Input Characteristics**
  - Impedance/Return Loss: 75Ω/10 dB
  - Frequency: 950 to 2150 MHz
  - Noise Figure, Max.: 20 dB max. gain
  - Input Level range: -50 to -20 dBm

- **Output Characteristics**
  - Impedance/Return Loss: 50Ω/18 dB
  - Frequency: 370 ± 100 MHz
  - Output Level Range: -20 to -10 dBm
  - Output 1 dB compression: 0 dBm, max. gain

- **Channel Characteristics**
  - Gain range (adjustable): 0.0 to +30.0 dB, 1 ±1 dB steps
  - Image Rejection: > 45 dB, min., 50 dB typical
  - Frequency Response: ±2.0 dB, 950 to 2150 MHz; ±1.0 dB, 200 MHz BW
  - Spurious Response: < -45 dBc, in band
  - Group Delay, max: 10 ns total, maximum (parabolic + linear + ripple), 200 MHz BW
  - Frequency Sense: Non-inverting

- **Synthesizer Characteristics**
  - Frequency Accuracy: ±1.0 ppm max. over temp (±0.01 ppm option -H)
  - Frequency Step: 125 kHz
  - Phase Noise @ Freq: dBc/Hz
  - 100Hz | 1kHz | 10kHz | 100kHz | 1MHz
  - -70 | -70 | -80 | -90 | -100

- **10 MHz Level (In or Out):** 3 dBm, ± 3 dB, 75 ohms

- **Controls, Indicators**
  - Frequency Selection: Direct readout LCD; manual or remote selection
  - Gain Selection: Direct readout LCD; manual or remote selection
  - Power, Alarm, Remote: Green LED; Red LED; Yellow LED
  - Remote: RS232C, 9600 baud (RS485, Ethernet Optional)

- **Other**
  - RF Connector: Type F (female)
  - IF, 10 MHz Connectors: BNC (female)
  - Alarm/Remote Connector: DB9 (female) - 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, 30 watts max.

Available Options:
- H - High Stability (±0.01ppm) Internal Ref
- Q - RS485 Remote Interface
- L - LNB Voltage, +24VDC, 0.4 amps
- X1 - 100 kHz tuning steps
- Z5 - 0.5 dB gain steps
- W8 - Ethernet; w/Web Browser (WB)
- W18 - Ethernet; w/WB & SNMP
- W28 - Ethernet; w/TCP/IP, Telnet®