2016-02-790 Downconverter, 0.86-1.61 GHz to 430-790 ±5 MHz IF

The 2016-02-790 Downconverter converts 860 to 1610 MHz to 430-790 MHz in 100 kHz steps 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 -10 to +10 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 2016-02-790 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.

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**EQUIPMENT SPECIFICATIONS**

**Input Characteristics**
- Impedance/Return Loss: 75Ω/10 dB
- Frequency: 860 to 1610 MHz
- Noise Figure, Max.: 20 dB max. gain
- Input Level range: -65 to -45 dBm

**Output Characteristics**
- Impedance/Return Loss: 50 Ω/14 dB
- Frequency: 430-790 ±5 MHz
- Output Level Range: -65 to -45 dBm
- Output 1 dB compression: 0 dBm, max. gain

**Channel Characteristics**
- Gain range (adjustable): -10.0 to +10.0 dB, 1 ±1 dB steps
- Frequency Response: > 45 dB, min, 50 dB typical
- Spurious Response: < -45 dBc, in band
- Frequency Sense: Non-inverting

**Synthesizer Characteristics**
- Frequency Accuracy: ± 1.0 ppm max. over temp (± 0.01 ppm option -H)
- Frequency Step: 100 kHz
- Phase Noise @ Freq: 100Hz, 1kHz, 10kHz, 100kHz, 1MHz
  - dBC/Hz: -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 Control: 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.

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**Available Options**
- H - High Stability (±0.01ppm) Internal Ref
- O - RS485 Remote Interface
- W8 - Ethernet; w/Web Browser (WB)
- W18 - Ethernet; w/WB & SNMP
- W28 - Ethernet; w/TCP/IP, Telnet®

**Connectors/Impedance**
- STD - 75Ω Type F (RF), 50Ω BNC (IF)
- B - 75Ω BNC (RF), 75Ω BNC (IF)
- C - 50Ω BNC (RF), 75Ω BNC (IF)
- D - 50Ω BNC (RF), 50Ω BNC (IF)
- F - 75Ω Type F (RF), 75Ω BNC (IF)
- K - 75Ω BNC (RF), 50Ω BNC (IF)
- M - 50Ω Type N (RF), 50Ω BNC (IF)
- N - 50Ω Type N (RF), 75Ω BNC (IF)
- S - 50Ω SMA (RF), 50Ω BNC (IF)

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