2015-25 Upconverter, 70 MHz to 2.0 - 2.5 GHz

The 2015-25 S-band Upconverter converts 70 ± 18 MHz to 2000 to 2500 MHz in 1 MHz steps (0.5 MHz to 1 kHz step options available) with low group delay and flat frequency response. Synthesized local oscillators (LO) provide frequency selection. 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 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 RF, IF and the internal or external 10 MHz reference signal. A optional external reference input and output. The -E external 10 MHz option includes a 10 MHz output connector which contains either the internal or external 10 MHz reference signal. A -H 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: 75Ω / 18dB
- Frequency: 70 ± 18 MHz
- Input Level Range: -40 to -10 dBm

Output Characteristics (RF)
- Impedance / Return Loss: 50Ω / 12dB
- Frequency: 2.0 to 2.5 GHz
- Output level: -20 to 0 dBm
- Output 1 dB compression: +5 dBm

Channel Characteristics
- Gain range (adjustable): -10 to +30 dB
- Image Rejection: > 50 dB, min.
- Frequency Response: ±1.5 dB, 2.0-2.5 GHz ; ± 0.5 dB, 36 MHz BW
- Spurious Response: < -50 dBc, in band
- Group Delay, max: 0.015 ns/MHz² parabolic; 0.05 ns/MHz linear; 1 ns ripple
- Frequency Sense: Non-inverting

Synthesizer Characteristics
- Frequency Accuracy: ± 1.0 ppm internal reference (±0.01 ppm, option H)
- Frequency Step: 1.0 MHz (0.5 MHz to 1 kHz step options available)
- 10 MHz In/Out Level: 3 dBm ± 3 dB (option -E)

Available Options
- E - External 10 MHz ref input & output
- H - High Stability (±0.01ppm) Internal Ref
- Z5 - Attenuator 0.5 dB ± 0.5 dB Steps
- X - 125 kHz step size

Contact Cross for other available options

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

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Cross Technologies, Inc. • www.crosstechnologies.com
6170 Shiloh Road • Alpharetta, GA 30005 • 770.886.8050 • FAX 770.886.7964