The 2015-03U140 Upconverter consists of an agile IF to L-band upconverter (in 1 MHz steps; 125 kHz and 100 kHz step options available) and a 950 to 1450 MHz to 14.0-14.5 GHz block upconverter with a fixed frequency LO and fixed gain.

For the agile IF to L-band upconverter, the front panel push button switches select the RF frequency, gain (-10 to +30 dB), and other parameters. Front panel LEDs provide indication of DC power (green), PLL alarm (red), remote operation (yellow) and TX carrier MUTE (yellow). Remote operation allows selection of frequency and gain. Parameter selection and frequency and gain settings appear on the LCD display. Connectors are 75Ω, BNC (female) for the IF input and the external reference input and output, 50Ω, BNC (female) for the L-band RF output and L-band input, and SMA for the Ku band RF output. It has a high stability (±0.01 ppm) 10 MHz reference. The 10 MHz output connector contains either the internal or external 10 MHz reference signal as selected locally or remotely. 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.

### Power
- **Size**: 1 3/4" X 19" X 16"
- **Alarm/Remote Conn.**: DB9 (female) - NO or NC contact closure on Alarm

### 10 MHz Connectors
- **BNC (male)**, 75Ω, works with 50 or 75 ohms (option E)
- **Alarm/Remote Conn.**: DB9 (female) - NO or NC contact closure on Alarm

### Synthesizer Characteristics
- **Phase Noise @ F (Hz) >**: 10, 100, 1K, 10K, 100K, 1MHz
- **L-Band-1 MHz steps: dB/Hz**: -55, -75, -75, -85, -95, -120
- **Ku Band fixed LO: dB/Hz**: -55, -70, -80, -87, -100, -110

### Controls, Indicators, L-Band Converter
- **Freq/Gain Selection**: direct readout LCD; manual or remote selection
- **Pwr; Alarm; Rem; Mute**: Green LED; Red LED; Yellow LED; Yellow LED
- **Remote**: RS232C, 9600 baud (RS485, Ethernet Optional)

### RF, IF Connectors
- **RF, IF Connectors**: L-Band Converter; RF-50Ω, BNC (female); RF-75Ω, BNC (female)
- **RF, L-Band Connectors**: Ku-Band Block Converter; RF-50Ω, BNC (female)

### IF to L-band Converter Options
- **X** or **X1-** 125 kHz or 100 kHz step size
- **Z** or **Z5-** Atten. 0.1 dB or 0.5 dB steps

### Comm. Interface/Standard RS232
- **Q**: RS485 Remote Interface
- **W8**: Ethernet; w/Web Browser (WB)
- **W18**: Ethernet; w/WB & SNMP
- **W28**: Ethernet; w/TCP/IP, Telnet

### Connectors/Impedance
- **B**: 75Ω 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)
- **S7**: 50Ω SMA (RF), 75Ω BNC (IF)

### L-Band to Ku Block Converter Options
- **M**: 50Ω N-type (RF), 50Ω BNC (L-BAND)
- **N**: 50Ω N-type (RF), 75Ω BNC (L-BAND)
- **NN**: 50Ω N-type (RF), 50Ω N-type (L-BAND)
- **S7**: 50Ω SMA (RF), 75Ω BNC (L-BAND)
- **SN**: 50Ω SMA (RF), 50Ω N-type (L-BAND)
- **SS**: 50Ω SMA (RF), 50Ω SMA (L-BAND)

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