EQUIPMENT SPECIFICATIONS

Input Characteristics (RF)
- Impedance/Return Loss: 50Ω/14 dB
- Frequency: 3.40 to 4.20 GHz
- Noise Figure, Max.: 15 dB max gain
- Input Level range: -55 to -35 dBm
- Input 1 dB compression: -25 dBm

Output Characteristics
- Impedance/Return Loss: 50Ω/14 dB
- Frequency: 0.95 to 1.75 GHz
- Output Level Range: -20 to 0 dBm
- Output 1 dB compression: +10 dBm at max. gain

Channel Characteristics
- Gain, max; adjustment: +35 dB ±2 dB, max. gain; 30 dB adjustment in 0.5 ± 0.5 dB Steps
- Image Rejection: > 60 dB, min.
- Spurious, In Band: -55 dBc in band, 0 dBm out; (0.95-1.75 GHz Out)
- Spurious, Out of Band: <50 dBm (0.5-0.95 GHz and 1.75-2.5 GHz Out)
- Intermodulation: <55 dBc for two carriers each at -10 dBm out
- Frequency Response: ±1.0 dB, 0.95 - 1.75 GHz out; ± 0.5 dB, 40 MHz BW
- Frequency Sense: Non-inverting
- Frequency Accuracy: ±0.01 ppm max over temp internal reference; ext. ref. input
- 10 MHz In/Out Level: 3 dBm, ± 3 dB, w/ Auto-detect

Phase Noise @ F (Hz) >
- Standard dBC/Hz:
  - 10: -55
  - 100: -70
  - 1K: -80
  - 10K: -80
  - 100K: -95
  - 1M: -110

Controls, Indicators
- Gain, Ext Ref Selection: Direct readout LCD; pushbutton switches or remote
- Power: Alarm; Remote: Green LED; Red LED; Yellow LED
- Remote: RS232C/485/422, 9600 baud (Ethernet Optional)

Other
- RF In Connector: Type N (female), 50Ω
- L-band Connector (female), 50Ω
- 10 MHz Connectors: BNC (female), 75Ω, works with 50 or 75 ohms
- Alarm/Remote Conn.: DB9 - NO or NC contact closure on Alarm
- Size: 19 inch standard chassis 1.75” high X 14.0” deep
- Power: 100-240 ± 10% VAC, 47 - 63 Hz, 30 watts max.

3116-3442 Block Downconverter, 3.40 - 4.20 GHz to 0.95 - 1.75 GHz

The 3116-3442 Downconverter converts 3.40 - 4.20 GHz to 0.95 - 1.75 GHz (non-inverted) with 8.80 and 11.25 GHz local oscillators. The gain is +35 dB maximum and is adjustable in 0.5 ± 0.5 dB steps. Front panel LEDs provide indication of Remote operation, PLL Alarm and DC Power. Gain and internal/external/Auto reference frequency selection are controlled by front panel switches or remote selection (via RS-232C/485, standard; Ethernet Optional) and are viewable on the LCD Display. Connectors are Type N female for RF In and BNC female for the L-band and external reference input and reference output. In AUTO, the 10 MHz reference stays in external if the external level is +3 dBm, ±3 dB. The 3116 is powered by a 100-240 ± 10% VAC power supply, and housed in a 1 3/4” X 19” X 14” rack mount chassis.

Available Options
- W31 - 0 to +50 degrees C operation
- Remote M&C Ethernet Options
  - W8 - Ethernet w/web browser Interface
  - W18 - Ethernet w/SNMP (and MIB) Interface
  - W28 - Ethernet w/direct TCP/IP Interface
- Connector Options
  - N - 50Ω N-type (RF), 75Ω BNC (L-BAND)
  - NF - 50Ω N-type (RF), 75Ω F-type (L-BAND)
  - NN - 50Ω N-type (RF), 50Ω N-type (L-BAND)
  - S7 - 50Ω SMA (RF), 75Ω BNC (L-BAND)
  - SF - 50Ω SMA (RF), 75Ω F-type (L-BAND)
  - SN - 50Ω SMA (RF), 50Ω N-type (L-BAND)
  - SS - 50Ω SMA (RF), 50Ω SMA (L-BAND)
- Contact Cross for other options

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