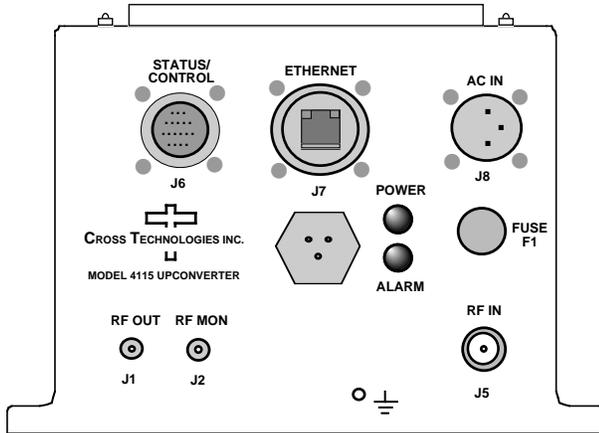


**4115-267 Ka-band Block Upconverter, Weather Resistant\***

The 4115-267 Ka-band Block Upconverter converts 0.52 - 0.92 GHz up to 26.5 - 26.9 GHz. Front panel LEDs provide indication of DC Power, and PLL Alarms. The L-band to RF gain is **-15 to +15 dB** adjustable in 0.5 dB steps. Connectors are Type N female for the L-band, Super SMA female for the RF output. Gain, and input range select, are controlled by the Ethernet M&C. The 4115 is powered by a 100-240 ± 10% VAC power supply, and mounted in a 8" Wide X 6" High X 16" Deep Weather Resistant\* Enclosure.



**\*Weather Resistant** enclosures are designed to be water resistant for installation in an outdoor enclosure/antenna hut OR mounted outdoors on an antenna assembly at their specified temperature ranges. They are designed to be located "out in the elements" (water, sleet, snow, etc.) but they are *not* designed to be "submerged under" water.

If an extended temperature range is required, there is an **Extended Temperature** option (**Option W21**; -30°C to +60°C) available at an additional cost. Contact Cross for quote.

**EQUIPMENT SPECIFICATIONS\*\***

**Input Characteristics**

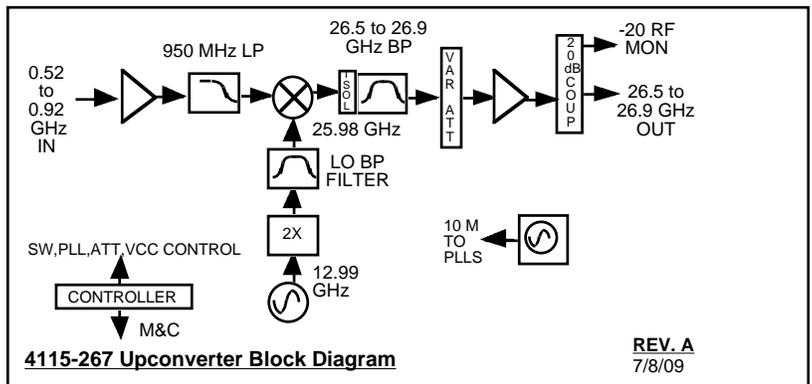
Impedance/Return Loss      50Ω/14 dB  
 Frequency                      0.52 to 0.92 GHz  
 Noise Figure, Max.            20 dB max gain  
**Input Level range**            **-20 to -5 dBm**

**Output Characteristics**

Impedance/Return Loss      50 Ω /14 dB  
 Frequency                      26.5 to 26.9 GHz  
**Output Level Range**            **-35 to +5 dBm**  
 Output 1 dB compression    +10 dBm

**Channel Characteristics**

Gain                                +15 ±1 dB (**±2 dB, -30 to +60 deg C**) (+15 to -15 dB variable in 0.5 dB steps)  
 Image Rejection                > 60 dB, min  
 Spurious, Inband               SIGNAL RELATED <-50 dBC in band, -30 to +5 dBm out; SIGNAL INDEPENDENT, <-70dBm  
 Spurious, Out of band        <-50 dBm  
 Intermodulation               <-50 dBC for two carriers each at -10 dBm below maximum **input and** output level out  
 Frequency Response          ±2 dB, over RF band; ± 0.8 dB, 40 MHz BW  
 Group Delay                    **3 ns** p-p over any 40 MHz BW in the 400 MHz output band  
 Frequency Sense                Non-inverting



**LO Characteristics**

LO Frequency                    **25.98 GHz**  
 Frequency Accuracy            ± 0.05 ppm max over temp internal reference

Phase Noise @ F (Hz) >	100	1K	10K	100K	1M	10M
dBC/Hz	-60	-70	-80	-95	-108	-125

**Controls, Indicators**

Gain, Band, 10M Freq.        Gain, band select, and internal 10 MHz frequency via Ethernet M&C or Status/Control Connector  
 PLL Alarm                      Red LED, External Contact Closure  
 Power                            Green LED

**Other**

**RF Out, Mon Connector**      Super SMA (female), 50Ω  
 RF In Connector                Type N (female), 50Ω  
**Ethernet**                            **Standard RJ-45 Weather Resistant\* Ethernet Connector, RJF6G**  
 Size                                8" Wide X 6" High X 16" Deep Weather Resistant\* Enclosure  
 Power                              100-240 ±10% VAC, 47 - 63 Hz, 20 watts max./ FCI Clipper Series CL1M1102 W/R\*Connector

\*\*+0 to +50 degrees C; Specifications subject to change without notice