



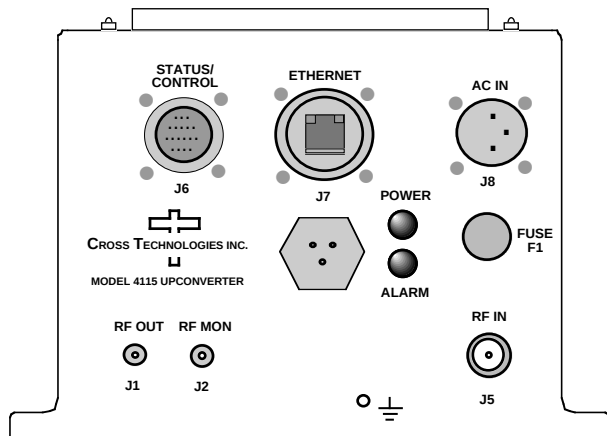
DATA SHEET

REV. D

12/07/10

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 $\pm$ 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 50 Ω /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 $\pm$ 1 dB (**$\pm$ 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 $\pm$ 2 dB, over RF band; $\pm$ 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 $\pm$ 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

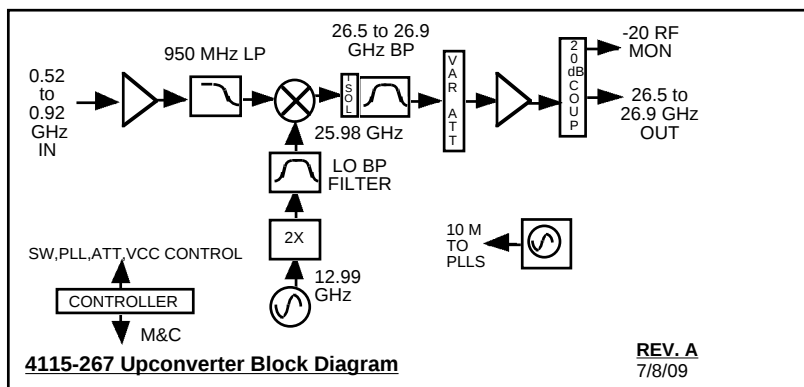
Super SMA (female), 50 Ω

RF In Connector Type N (female), 50 Ω

Standard RJ-45 Weather Resistant* Ethernet Connector, RJF6G

Size 8" Wide X 6" High X 16" Deep Weather Resistant* Enclosure

Power 100-240 $\pm$ 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

Cross Technologies, Inc. • www.crosstechnologies.com

6170 Shiloh Road • Alpharetta, GA 30005 • 770.886.8005 • FAX 770.886.7964