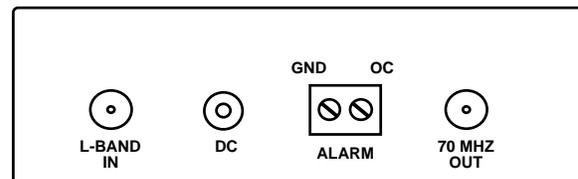
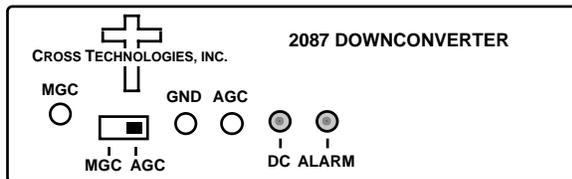


2087-XXX Downconverter, L-Band, Fixed Frequency

The 2087-XXX Downconverter converts an X.XX GHz L-Band signal (0.95-1.75 GHz) to IF with no spectrum inversion, low group delay, and flat frequency response. The L-Band input is mixed with a fixed frequency local oscillator (LO) signal to 70 or 140 MHz (specified by the customer). The L-Band frequency is fixed and specified by the customer. A green front panel LED lights when DC power is applied and a red LED lights if the phase lock loop for the LO is in alarm. Connectors are BNC female for the IF output and Type F female for the RF input. Power is provided by a $120 \pm 10\%$ VAC, 60Hz, wall mount power supply. The 2087 Downconverter is housed in a 4.7" wide X 1.75" high X 12.5" deep aluminum chassis. The 2087 has the option to be mounted on an 1 3/4" X 19" rack mount panel (**option -R**). The 2087 can also be powered by the 2000-01 switching power supply using **option -C** which includes no power supply. **Option -A** includes automatic gain control (AGC) for a -25 to -65 dBm input range, an AGC/MGC switch, MGC adjust, and AGC gain monitor. **Option -S** provides a SAW IF filter.



2087 Downconverter Front and Rear Panel (with SAW and AGC options)

EQUIPMENT SPECIFICATIONS*

Input Characteristics

Input Impedance/RL	75 Ω /12 dB
Frequency	X.XX GHz
Level range	-10 to -20 dBm
Input 1 dB comp.	0 dBm

Output Characteristics

Impedance/RL	75 Ω /18 dB
Frequency	70 or 140 MHz

Channel Characteristics

Gain	0 ± 1.0 dB
Spurious Response	< -45 dBC
Image Rejection	> 45 dB
Frequency Response	± 0.5 dB, ± 18 MHz or determined by SAW filter (option -S)
Group Delay, max	0.01 ns/MHz ² parabolic; 0.03 ns/MHz linear; 1 ns ripple or determined by SAW filter (option -S)

Synthesizer Characteristics

Frequency Accuracy	± 25 kHz max over temp
Phase Noise (dBC/Hz)	≤ -70 @ 1 kHz; ≤ -80 @ 10 kHz; ≤ -95 @ 100 kHz; ≤ -110 @ 1 MHz

Indicators

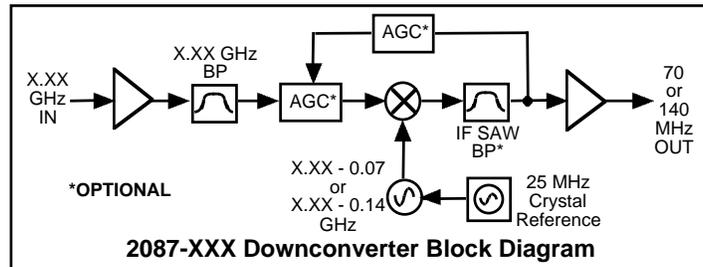
AGC/MGC select	Toggle switch
MGC gain adjust	Multi-turn potentiometer
AGC Voltage/Gain	Test points
DC Power; PLL Alarm	Green LED; Red LED & open collector output

Other

RF Connector	Type F (female)
IF Connector	BNC (female)
Size, Bench Top	4.7" wide X 1.75" high X 12.5" deep
Size, Rack Mount (-R)	19 inch standard chassis 1.75"high X 13.0" deep (Optional)
Power	$120 \pm 10\%$ VAC, 60Hz, 20 watts max, wall mount power supply

Model Numbers

-R	Rack Mount
-C	No power supply, use with 2000-01 power supply
-S	SAW IF filter, 36 MHz unless otherwise specified by customer
-A	Automatic Gain Control (AGC) for -25 to -65 dBm input range



2087-XXX Downconverter Block Diagram

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