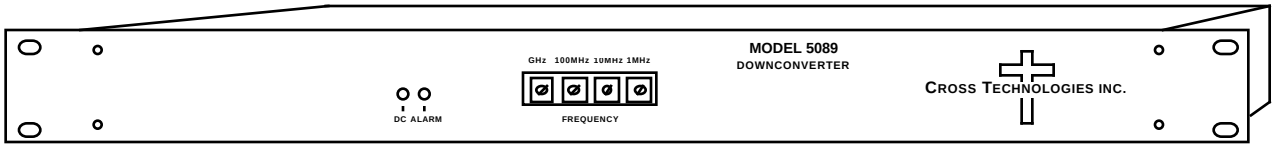
CROSS TECHNOLOGIES, INC.

DATA SHEET

PRELIMINARY 2/20/02

Series 5089 5 GHz Downconverters

5089 5 GHz Downconverters - The Series 5089 5 GHz Downconverters convert 5 GHz to IF with no spectrum inversion, high linearity, good phase noise, flat frequency response, and 1 MHz tuning steps. For the 5089-07, the 5.30 GHz input is mixed with synthesized local oscillator (LO) signals, first to 1500 MHz and finally to 70 MHz IF. The 5089-17 has a 170 MHz IF output and 5.725 to 5.825 GHz input frequency. Other frequencies can be provided. Front panel LEDs indicate DC power is applied (green) and if a PLL alarm occurs (red). The gain is set at 10 dB . Connectors are type N female for the RF input and type F female for the IF output. The 5089 is housed in an 1 3/4" X 19 " X 14 " deep rack mount chassis.



5089 DOWNCONVERTER

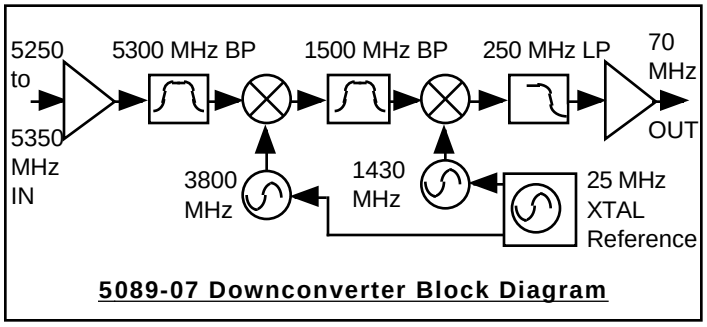
EQUIPMENT SPECIFICATIONS*

Input Characteristics

Impedance/RL	50 Ω/10 dB
Frequency 5089-07	5300 ± 20 MHZ
Frequency 5089-17	5775 ± 50 MHZ
Noise Figure, Max.	15 dB
Input Level range	-20 to -30 dBm
Input 1 dB compression	-10 dBm

Output Characteristics

Impedance/RL	75 Ω /15 dB
Frequency 5089-07	70 ± 20 MHZ
Frequency 5089-17	170 ± 50 MHZ
Output Level, max linear	-10 dBm
Output 1 dB compression	0 dBm



5089-07 Downconverter Block Diagram

Channel Characteristics

Gain	10 ± 1.0 dB
Image Rejection	> 45 dB, min; >50 dB typical
Spurious Response	<-50 dBC in band
Frequency Response	± 1.5 dB, entire band; ± 0.5 dB, any 10 MHz increment

Synthesizer Characteristics

Frequency Accuracy	±10 kHz max over temp
Phase Noise (dBC/Hz)	<= -75, 10 kHz; <=-90, 100 kHz; <=-100, 1 MHz

Controls, Indicators

Frequency Select	BCD Switches select input center frequency in 1 MHz steps
DC Power; PLL Alarm	Green LED; Red LED

Other

IF; RF Connectors	Type F, female; Type N, female
Size	19 inch standard chassis 1.75"high X 14.0" deep
Power	90 - 260 VAC, 47 - 63 Hz, 30 watts max.

Model Numbers

5089-07	5300 ± 20 MHZ input and 70 MHz IF output
5089-17	5775 ± 50 MHZ input and 170 MHz IF output
Call for other frequencies	

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

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