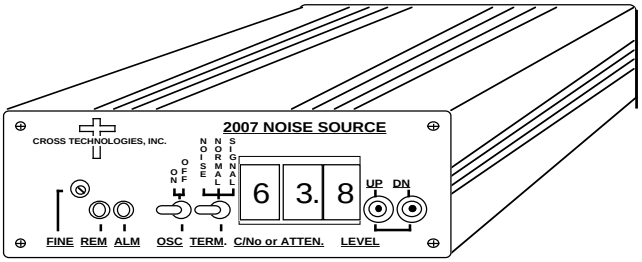
CROSS TECHNOLOGIES, INC.

DATA SHEET

8/5/08

2007, 2007R
Noise Source

The Model 2007 Noise Source provides 70 MHz band limited noise in 0.1dB increments and summing of an external signal.

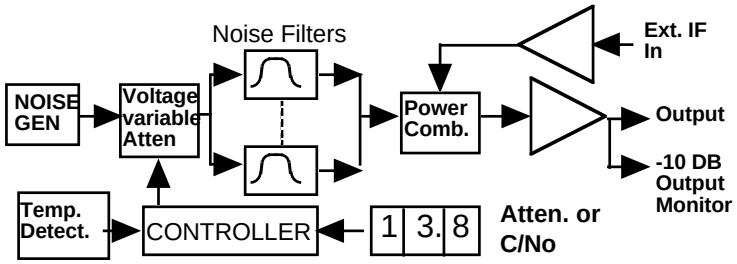


EQUIPMENT FEATURES

- 10MHz or 40 MHz bandwidth at 70 MHz center frequency
- Accurate attenuator provides 0.1 dB steps of noise power
- Display shows C/No or attenuation from maximum noise power

EQUIPMENT DESCRIPTION

Broad band noise goes to precision attenuators controlled by front panel “up” and “down” pushbutton switches via the microprocessor controller. The front panel display shows C/No or attenuation of the noise from a 50 dB- Hz C/No level calibrated for a -20.0 dBm carrier level. Bandpass filters are selected with on board jumpers to band limit the noise at 70 MHz. The 2007 has a front panel red LED that lights if the ambient temperature is outside the +15 to +40 C calibrated temperature range. A yellow LED o the front panel indicates if in remote operation.



2007 Noise Source Block Diagram

EQUIPMENT SPECIFICATIONS*

Input Characteristics- carrier input	
Input Impedance/RL	75 Ω/15db
Frequency	70 MHz center
Input Level	-20.0 dBm
Gain	0 dB ± 0.1 dB
Output Characteristics	
Impedance/RL	75 Ω/15db
Frequency Band	52 - 88 MHz
Level	noise power range allows C/No range of 50 to 90 dB-Hz (with 10 MHz filter; 60 to 90 dB-Hz with 40 MHz filter) with a -20.0 dBm carrier
Monitor level	-10dB down from main output
Channel Characteristics - noise source	
Selectable BW(MHz)	10MHz or 40 MHz @ 70MHz
Frequency Response	±0.5 dB 8 MHz, 36MHz
Noise Power Accuracy	±0.25 dB, 15 to 40 deg C; ±0.5 dB, 10 to 15, 40 to 50 deg C
Noise Power stability	±0.5 dB, 15 to 40 deg C, 30 days
Controls	
Test Carrier	Toggle switch turns reference 70 MHz carrier on and off
Term Noise or Carrier	Toggle switch terminates noise or external signal
Output Level	Potentiometer for Noise calibration
Attenuation	PB switches w/ readout of attenuator or C/No setting
Indicators	
Alarm	Red LED for temp range (with FET open drain)
Remote	Yellow LED lights when remote control of noise power level is selected
Level	Three digit displays show C/No for a -20.0dBm carrier or attenuation from max noise level
Other	
RF, IF Connectors	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	100-240 ± 10% VAC, 60Hz, 20 watts max, wall mount power supply

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

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