

instruNet 100 Noise Performance

Application Note #112, 7/9/2002

All amplifiers have an internal noise source that is added to the amplified signal. The source of this noise is due to physical properties of internal silicon and resistors. The noise level is a function of Voltage Range and Integration time, as shown in the following table. This internal noise is measured by grounding the input, digitizing 1000 points (e.g. 1000s/sec), and calculating the Volts-Root-Mean-Square noise value, which is similar to the average deviation from the average value.

Hardware	Network BPS	SE/DI	Voltage Range	Integration	Noise
iNet-100	4M	SE	+/-10mv	0 us	20.0 uVrms
				100 us	5.5 uVrms
				1000 us	1.6 uVrms
				10,000 us	0.6 uVrms
			+/-80mv	0 us	37.0 uVrms
				100 us	10.0 uVrms
				1000 us	3.3 uVrms
				10,000 us	1.3 uVrms