

Maximum instruNet Sample Rates

Application Note #117, 8/13/2002

The following table shows maximum aggregate sample rates for various setups with an iNet-100xx box, and an i230 or i200 controller. To get the sample rate for each channel, divide by the number of channels.

Setup: instruNet World 1.18.2, iNet-100 box, iNet-200 controller, Strip Chart, 30000 samples/scan, 100 scans, 1 sec/div hScale, 1point/pixel max plot, 10x10cm window, 2 instruNet devices, 4meter 4000bps network, Binary Merge fileType, and fast switching.

Things that will decrease sample rate: longer cable, slower computer, optical-isolator, digital filtering, plotting, display size, # of devices.

Max Aggregate Sample Rate (Ks/sec)										
Save	Switch	Range	#of DSP	#of Dev	#of ft	Net BPS	#of Chan	40MHz 68040	120M 604	166M Pent
<i>Rev 2 instruNet 100, Driver 1.18.2:</i>										
File		+/-5V	1	1	10	4M	1	110		
					10		8	100		
				2	12		32	64		
<i>Rev 3 instruNet 100, Driver 1.22:</i>										
Ram	Fast	+/-5V	1	1	10	4M	1	166	166	
							8	166	166	
							16	133		
		+/- .6V					8	166	166	
		+/-80mV					8	124	124	
	Fast	+/-10mV					8	99		
	Acc							62		
	Fast						16	74		
	Acc							44		
<i>Rev 4 instruNet 100, Driver 1.31:</i>										
Ram	Fast	10mV/5V	1	2	18	4M	32			80
				4		2.6M	32			80
						2.6M	64			82
					68	1.3M	64			62
					168	.5M	64			26