



# Precision Tester Line Comparison Chart

Tester Parameter	Multiferroic II	Premier	LC II	RT66C
Voltage Range (built-in drive voltage)	±10V, ±30V, ±100V, ±200V or ±500V built-in			±200V
Voltage Range with an external amplifier and high voltage interface (HVI)	10KV	10KV	10KV	10KV
Number of ADC Bits	18	18	18	14
Minimum Charge Resolution	0.80fC	0.80fC	<10fC	122fC
Minimum Area Resolution (assuming 1 ADC bit = 1µC/cm <sup>2</sup> )	0.080µ <sup>2</sup>	0.080µ <sup>2</sup>	<1µ <sup>2</sup>	12.2µ <sup>2</sup>
Maximum Charge Resolution	5.26mC	5.26mC	276µC	4.8µC
Maximum Area Resolution (assuming saturation polarization = 100µC/cm <sup>2</sup> )	52.6cm <sup>2</sup>	52.6cm <sup>2</sup>	2.76cm <sup>2</sup>	4.8mm <sup>2</sup>
Maximum Charge Resolution with High Voltage Interface (HVI)	526mC	526mC	27.6mC	480µC
Maximum Area Resolution (assuming saturation polarization = 100µC/cm <sup>2</sup> ) w/o HVI	>100cm <sup>2</sup>	>100cm <sup>2</sup>	>100cm <sup>2</sup>	4.8cm <sup>2</sup>
Maximum Hysteresis Frequency	270KHz @ 10V 270KHz @ 30V 270KHz @ 100V 100KHz @ 200V 5KHz @ 500V	250KHz @ 10V 50KHz @ 30V 50KHz @ 100V 50KHz @ 200V 2KHz @ 500V	5KHz @ 10V 5KHz @ 30V 5KHz @ 100V 5KHz @ 200V 2KHz @ 500V	1KHz
Minimum Hysteresis Frequency	0.03Hz	0.03Hz	0.03Hz	1/8th Hz
Minimum Pulse Width	0.5µs	0.5µs	50µs	500µs
Minimum Pulse Rise Time (5V)	400ns	400ns	40µs	500µs
Maximum Pulse Width	1s	1s	1s	100ms
Maximum Delay between Pulses	40ks	40ks	40ks	40ks
Internal Clock	25ns	25ns	25ns	50µs
Minimum Leakage Current (assuming max current integration period = 1 seconds)	1pA**	1pA**	1pA**	10pA
Maximum Small Signal Cap Frequency	1MHz	1MHz	20KHz	2KHz
Minimum Small Signal Cap Frequency	1Hz	1Hz	1Hz	10Hz
Output Rise Time Control	10 <sup>5</sup> scaling	10 <sup>5</sup> scaling	10 <sup>3</sup> scaling	2 settings
Input Capacitance	-6fF	-6fF	-6fF	1pF
Electrometer Input All Test Frequencies for all test at any speed	Yes	Yes	Yes	Yes

\* The minimum area resolution under actual test conditions depends upon the internal noise environment of the tester, the external noise environment, and the test jig parasitic capacitance.

\*\* 2pA - +/- 3.5% accuracy and 1pA - +/-15% accuracy

\*\*\* Tester specifications are subject to change without notice.