

Varying Distance							
Constants:	Thickness of paper(mm)	0.0573	Area (cm^2)	100	Area %unc	0.01%	
#sheets	Distance abs unc (mm)	Distance %unc	d(mm)	1/d	Capacitance abs unc (pF)	Capacitance %unc	Capacitance (pF)
20	0.005	0.44%	1.146	0.873	0.5	0.21%	238
40	0.005	0.22%	2.292	0.436	0.05	0.05%	107.1
60	0.005	0.15%	3.438	0.291	0.05	0.06%	79.1
80	0.005	0.11%	4.584	0.218	0.05	0.07%	70.2
100	0.005	0.09%	5.73	0.175	0.05	0.08%	59.4
120	0.005	0.07%	6.876	0.145	0.05	0.10%	50.6

Slope(F/m)	Slope Max	Slope Min	Slope unc	Trendline Slope	K	K unc	
2.58E-13	2.60E-13	2.56E-13	2.14E-15	254	2.912	0.0242	
ε0	A(m^2)						
8.85E-12	0.01						

Varying Area						
Constants:	Thickness of paper(mm)	0.0573	Distance (mm)	5.73	Distance %unc	0.09%
Area abs unc	Area %unc	Area (cm^2)	Capacitance abs unc (pF)	Capacitance %unc	Capacitance (pF)	
1	1.00%	100	0.05	0.08%	59.4	
1	1.11%	90	0.05	0.10%	52.4	
1	1.25%	80	0.05	0.11%	47.2	
1	1.43%	70	0.05	0.12%	41	
1	1.67%	60	0.05	0.14%	36.3	
1	2.00%	50	0.05	0.15%	32.5	

Slope(F/m)	Slope Max	Slope Min	Slope unc	Trendline Slope	K	K unc	
5.38E-09	5.63E-09	5.15E-09	2.36E-10	0.54	3.483	0.153	
ε0	d(m)	Consistency K	Consistency ΔK	K Accepted			
8.85E-12	0.00573	0.5713166102	0.1767	3.7			

