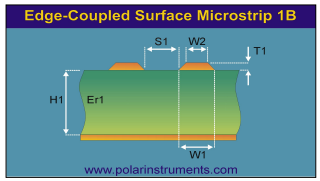
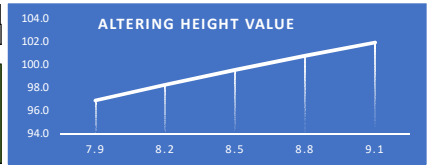


Some cells are protected - use [Review - Unprotect Sheet](#) to access them
 If [SiExcelExpert64](#) is not already open, open it now.
 The darker blue fields permit entry of dimensional and other data.
 In the top frame, enter the nominal design dimensions, Er etc. In the lower frames, enter the increment size for evaluation.
 Press <shift><F9> to calculate this page. (Do not use F9 as it tends to calculate other sheets too.)
Explanation:
 Altering Trace Width - W1 and W2 vary in width together, maintaining the same Etch Taper and center-to-center track spacing.
 Altering Taper - changes only the W2 dimension, meaning that the Etch Taper has been changed.
 If you have any questions or queries please call your local Polar Office (www.polarinstruments.com)

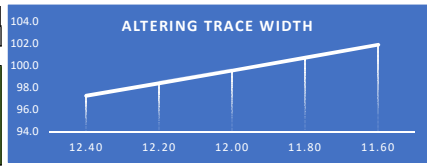


Enter base data in the dark blue cells in the following frames								
H1	Er1	W1	W2	S1	T1	Z**/D/Eer	Zdiff	
8.50	4.20	12.00	11.00	9.00	1.20	Zdiff	99.55	
Etch taper = W1						1.0	Min =	-9%
							Nominal =	91.0
							Max =	99.6
								108.2
								9%

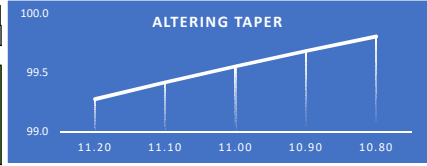
Altering Height value								
H1	Er1	W1	W2	S1	T1	Z**/D/Eer	Zdiff	
Var	0.30							
7.9	4.2	12.00	11.00	9.00	1.20	Zdiff	96.9	
8.2	4.2	12.00	11.00	9.00	1.20	Zdiff	98.3	
8.5	4.2	12.00	11.00	9.00	1.20	Zdiff	99.6	
8.8	4.2	12.00	11.00	9.00	1.20	Zdiff	100.8	
9.1	4.2	12.00	11.00	9.00	1.20	Zdiff	101.9	



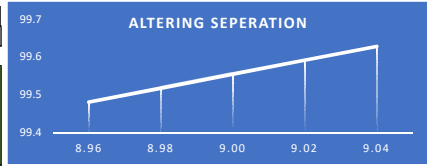
Altering Trace Width								
H1	Er1	W1	W2	S1	T1	Z**/D/Eer	Zdiff	
Var		Var	0.20					
8.5	4.2	12.40	11.40	8.60	1.20	Zdiff	97.3	
8.5	4.2	12.20	11.20	8.80	1.20	Zdiff	98.4	
8.5	4.2	12.00	11.00	9.00	1.20	Zdiff	99.6	
8.5	4.2	11.80	10.80	9.20	1.20	Zdiff	100.7	
8.5	4.2	11.60	10.60	9.40	1.20	Zdiff	101.9	



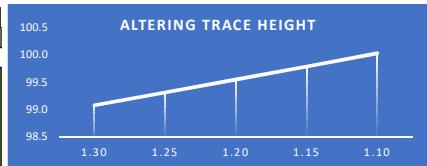
Altering Taper								
H1	Er1	W1	W2	S1	T1	Z**/D/Eer	Zdiff	
Var			0.10					
8.5	4.2	12.00	11.20	9.00	1.20	Zdiff	99.3	
8.5	4.2	12.00	11.10	9.00	1.20	Zdiff	99.4	
8.5	4.2	12.00	11.00	9.00	1.20	Zdiff	99.6	
8.5	4.2	12.00	10.90	9.00	1.20	Zdiff	99.7	
8.5	4.2	12.00	10.80	9.00	1.20	Zdiff	99.8	



Altering Separation								
H1	Er1	W1	W2	S1	T1	Z**/D/Eer	Zdiff	
Var				0.02				
8.5	4.2	12.00	11.00	8.96	1.20	Zdiff	99.5	
8.5	4.2	12.00	11.00	8.98	1.20	Zdiff	99.5	
8.5	4.2	12.00	11.00	9.00	1.20	Zdiff	99.6	
8.5	4.2	12.00	11.00	9.02	1.20	Zdiff	99.6	
8.5	4.2	12.00	11.00	9.04	1.20	Zdiff	99.6	



Altering Trace Height								
H1	Er1	W1	W2	S1	T1	Z**/D/Eer	Zdiff	
Var					0.05			
8.5	4.2	12.00	11.00	9.00	1.30	Zdiff	99.1	
8.5	4.2	12.00	11.00	9.00	1.25	Zdiff	99.3	
8.5	4.2	12.00	11.00	9.00	1.20	Zdiff	99.6	
8.5	4.2	12.00	11.00	9.00	1.15	Zdiff	99.8	
8.5	4.2	12.00	11.00	9.00	1.10	Zdiff	100.0	



Altering Dielectric Constant								
H1	Er1	W1	W2	S1	T1	Z**/D/Eer	Zdiff	
Var	0.15							
8.5	4.50	12.00	11.00	9.00	1.20	Zdiff	96.8	
8.5	4.35	12.00	11.00	9.00	1.20	Zdiff	98.1	
8.5	4.20	12.00	11.00	9.00	1.20	Zdiff	99.6	
8.5	4.05	12.00	11.00	9.00	1.20	Zdiff	101.0	
8.5	3.90	12.00	11.00	9.00	1.20	Zdiff	102.6	

