



N4000-12SI – Preliminary Dielectric Properties Table

LAMINATE:

Thickness	&	Tol.	Construction							1 MHz IPC-TM-650 2.5.5.3			1GHz IPC-TM-650 2.5.5.9			2.5 GHz IPC-TM-650 2.5.5.5			10 GHz IPC-TM-650 2.5.5.5		
0.0020	±	0.0005	1	106						3.44	±	0.03	3.22	±	0.07	3.27	±	0.02	3.24	±	0.02
0.0025	±	0.0005	1	1080						3.52	±	0.04	3.40	±	0.09	3.32	±	0.02	3.29	±	0.03
0.0027	±	0.0005	1	1080						3.50	±	0.04	3.36	±	0.08	3.31	±	0.02	3.28	±	0.02
0.0030	±	0.0005	1	1080						3.48	±	0.03	3.31	±	0.06	3.30	±	0.02	3.26	±	0.02
0.0040	±	0.0005	2	106						3.44	±	0.02	3.22	±	0.04	3.27	±	0.01	3.24	±	0.01
0.0040	±	0.0005	1	2116						3.63	±	0.04	3.63	±	0.09	3.38	±	0.03	3.36	±	0.03
0.0050	±	0.0007	2	1080						3.52	±	0.03	3.40	±	0.07	3.32	±	0.02	3.29	±	0.02
0.0050	±	0.0007	1	2116						3.55	±	0.04	3.47	±	0.08	3.34	±	0.02	3.31	±	0.02
0.0060	±	0.0007	2	1080						3.48	±	0.02	3.31	±	0.05	3.30	±	0.01	3.26	±	0.01
0.0070	±	0.001	2	1080	+	1	106			3.50	±	0.03	3.35	±	0.06	3.31	±	0.02	3.27	±	0.02
0.0080	±	0.001	2	2116						3.63	±	0.04	3.63	±	0.09	3.38	±	0.03	3.36	±	0.03
0.0090	±	0.001	1	2116	+	1	2116			3.59	±	0.03	3.54	±	0.07	3.36	±	0.02	3.33	±	0.02
0.0090	±	0.001	2	1080	+	1	1080			3.48	±	0.02	3.31	±	0.04	3.30	±	0.01	3.26	±	0.01
0.0100	±	0.001	2	2116						3.55	±	0.03	3.47	±	0.06	3.34	±	0.02	3.31	±	0.02
0.0100	±	0.001	2	2116	+	1	106			3.59	±	0.03	3.54	±	0.07	3.36	±	0.02	3.33	±	0.02
0.0120	±	0.0015	2	2116	+	1	2116			3.63	±	0.04	3.63	±	0.09	3.38	±	0.03	3.36	±	0.03
0.0140	±	0.0015	2	2116	+	1	2116			3.57	±	0.03	3.51	±	0.07	3.35	±	0.02	3.33	±	0.02
0.0150	±	0.0015	2	2116	+	1	2116			3.55	±	0.03	3.47	±	0.06	3.34	±	0.02	3.31	±	0.02
0.0160	±	0.0015	2	2116	+	2	2116			3.63	±	0.03	3.63	±	0.07	3.38	±	0.02	3.36	±	0.02
0.0180	±	0.0015	2	2116	+	2	2116			3.59	±	0.03	3.54	±	0.06	3.36	±	0.02	3.33	±	0.02
0.0200	±	0.002	2	2116	+	2	2116			3.55	±	0.03	3.47	±	0.06	3.34	±	0.02	3.31	±	0.02



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0.0210	±	0.002	2	2116	+	2	2116	+	1	106	3.55	±	0.03	3.47	±	0.05	3.34	±	0.01	3.31	±	0.02
0.0240	±	0.002	2	2116	+	4	2116				3.63	±	0.03	3.63	±	0.07	3.38	±	0.02	3.36	±	0.02
0.0280	±	0.002	4	2116	+	2	2116				3.57	±	0.02	3.51	±	0.05	3.35	±	0.01	3.33	±	0.01
0.0310	±	0.003	2	2116	+	4	2116				3.54	±	0.02	3.45	±	0.05	3.33	±	0.01	3.31	±	0.02

PREPREG:

PREPREG	RESIN CONTENT				1MHz			1 GHz		
	Mean	Min	Max		Mean	Min	Max	Mean	Min	Max
75	72	78	106	3.40	3.41	4.30	3.13	3.16	3.10	
65	62	68	1080	3.45	3.47	4.32	3.24	3.28	3.21	
55	52	58	2116	3.51	3.53	4.35	3.38	3.42	3.34	
PREPREG	RESIN CONTENT				2.5 GHz			10 GHz		
	Mean	Min	Max		Mean	Min	Max	Mean	Min	Max
75	72	78	106	3.25	3.26	3.24	3.21	3.22	3.20	
65	62	68	1080	3.28	3.29	3.27	3.24	3.26	3.23	
55	52	58	2116	3.31	3.33	3.30	3.28	3.30	3.27	

The following laminate and prepreg items are a representative of available materials. These items and their associated values may not be regularly available and additional lead times or minimum order quantities could apply. Please contact our office or your local technical representative for assistance with choosing the best material for your design and application.

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