



## N4000-7 – Dielectric Properties Table

LAMINATE:

Thickness	&	Tol.	Construction							RC%	1 MHz			1 GHz			2.5GHz			10GHz		
											IPC-TM-650 2.5.5.3			IPC-TM-650 2.5.5.9			IPC-TM-650 2.5.5.5			IPC-TM-650 2.5.5.5		
0.002	±	0.0005	1	106						70.1%	4.13	±	0.08	3.68	±	0.07	3.56	±	0.07	3.52	±	0.08
0.003	±	0.0005	1	1080						63.2%	4.24	±	0.07	3.79	±	0.07	3.67	±	0.07	3.63	±	0.07
0.004	±	0.0005	1	2113						55.8%	4.37	±	0.07	3.91	±	0.07	3.80	±	0.07	3.76	±	0.07
0.004	±	0.0005	1	106	+	1	1080			58.9%	4.31	±	0.06	3.86	±	0.06	3.74	±	0.06	3.71	±	0.07
0.004	±	0.0005	1	2116						44.3%	4.61	±	0.11	4.14	±	0.10	4.03	±	0.10	4.01	±	0.11
0.005	±	0.0007	1	106	+	1	2113			54.0%	4.40	±	0.08	3.94	±	0.08	3.83	±	0.08	3.80	±	0.09
0.005	±	0.0007	1	2116						53.1%	4.42	±	0.09	3.96	±	0.08	3.85	±	0.09	3.82	±	0.09
0.006	±	0.0007	1	1080	+	1	2113			53.5%	4.41	±	0.07	3.95	±	0.07	3.84	±	0.07	3.81	±	0.08
0.006	±	0.0007	1	106	+	1	2116			52.1%	4.44	±	0.08	3.98	±	0.07	3.87	±	0.08	3.84	±	0.08
0.006	±	0.0007	2	2113						44.8%	4.60	±	0.10	4.13	±	0.09	4.02	±	0.10	4.00	±	0.10
0.006	±	0.0007	1	1500						43.0%	4.64	±	0.10	4.17	±	0.10	4.06	±	0.10	4.04	±	0.11
0.007	±	0.001	2	2113						50.9%	4.46	±	0.10	4.00	±	0.09	3.89	±	0.09	3.86	±	0.10
0.008	±	0.001	1	7628						45.7%	4.57	±	0.10	4.11	±	0.10	4.00	±	0.10	3.98	±	0.11
0.008	±	0.001	2	2116						44.3%	4.61	±	0.11	4.14	±	0.10	4.03	±	0.10	4.01	±	0.11
0.008	±	0.001	1	2116	+	1	2113			49.9%	4.48	±	0.09	4.02	±	0.08	3.91	±	0.09	3.88	±	0.09
0.008	±	0.001	1	7629						43.8%	4.62	±	0.11	4.15	±	0.10	4.04	±	0.11	4.02	±	0.11
0.009	±	0.001	2	2116						49.1%	4.50	±	0.08	4.04	±	0.08	3.93	±	0.08	3.90	±	0.08
0.010	±	0.001	2	2116						53.1%	4.42	±	0.06	3.96	±	0.06	3.85	±	0.06	3.82	±	0.07
0.010	±	0.001	1	7628	+	1	1080			46.3%	4.56	±	0.08	4.10	±	0.08	3.99	±	0.08	3.96	±	0.08
0.010	±	0.001	1	7635						48.8%	4.51	±	0.07	4.04	±	0.07	3.93	±	0.07	3.91	±	0.08
0.012	±	0.0015	2	1080	+	1	7628			46.8%	4.55	±	0.10	4.09	±	0.09	3.98	±	0.10	3.95	±	0.10
0.014	±	0.0015	2	7628						40.0%	4.71	±	0.11	4.24	±	0.10	4.14	±	0.11	4.12	±	0.11
0.015	±	0.0015	2	7628						43.0%	4.64	±	0.09	4.17	±	0.09	4.06	±	0.09	4.04	±	0.09
0.018	±	0.0015	2	7628	+	1	2113			43.3%	4.63	±	0.08	4.16	±	0.07	4.06	±	0.08	4.04	±	0.08
0.021	±	0.002	2	7628	+	1	7628			40.0%	4.71	±	0.10	4.24	±	0.09	4.14	±	0.09	4.12	±	0.10



## N4000-7 – Dielectric Properties Table

### PREPREG:

PREPREG	RESIN CONTENT				1MHz			1 GHz		
	Mean	Min	Max		Mean	Min	Max	Mean	Min	Max
75	72	78	106	4.06	4.10	4.02	3.62	3.66	3.58	
65	62	68	1080	4.21	4.26	4.16	3.76	3.81	3.71	
58	55	61	2113	4.33	4.38	4.28	3.87	3.92	3.82	
55	52	58	2116	4.38	4.44	4.33	3.92	3.98	3.87	
43.5	42	45	7628	4.62	4.66	4.59	4.16	4.19	4.12	
PREPREG	RESIN CONTENT				2.5 GHz			10 GHz		
	Mean	Min	Max		Mean	Min	Max	Mean	Min	Max
75	72	78	106	3.50	3.54	3.45	3.45	3.49	3.40	
65	62	68	1080	3.64	3.69	3.60	3.60	3.65	3.55	
58	55	61	2113	3.76	3.81	3.71	3.72	3.78	3.67	
55	52	58	2116	3.81	3.87	3.76	3.78	3.84	3.72	
43.5	42	45	7628	4.05	4.09	4.02	4.03	4.07	4.00	

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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