

Dielectric Constant (DK) / Dissipation Factor (DF) Table

Core Data

Constructions	Resin Content %	Standard/Alternate	Thickness (inch)	Thickness (mm)	Dielectric Constant (DK) / Dissipation Factor (DF)					
					100 MHz	500 MHz	1 GHz	2 GHz	5 GHz	10 GHz
1x106	71.0%	Standard	0.002	0.051	3.89 0.0181	3.84 0.021	3.81 0.024	3.77 0.025	3.63 0.03	3.63 0.03
1x1067	65.0%	Alternate	0.002	0.051	3.99 0.0172	3.94 0.02	3.91 0.022	3.88 0.023	3.74 0.028	3.74 0.028
1x1080	58.0%	Standard	0.0025	0.064	4.11 0.0161	4.06 0.018	4.04 0.021	4.00 0.022	3.88 0.026	3.88 0.026
1x1080	59.0%	Standard	0.003	0.076	4.09 0.0163	4.04 0.018	4.02 0.021	3.99 0.022	3.86 0.026	3.86 0.026
1x2113	46.0%	Alternate	0.003	0.076	4.34 0.0142	4.30 0.016	4.28 0.018	4.25 0.019	4.14 0.022	4.14 0.022
1x1086	60.0%	Alternate	0.003	0.076	4.07 0.0164	4.02 0.019	4.00 0.021	3.97 0.022	3.84 0.026	3.84 0.026
1x2113	54.0%	Standard	0.0035	0.089	4.18 0.0155	4.14 0.017	4.11 0.02	4.08 0.021	3.96 0.024	3.96 0.024
1x3313	51.0%	Alternate	0.0035	0.089	4.24 0.015	4.19 0.017	4.17 0.019	4.14 0.02	4.03 0.023	4.03 0.023
2x106	68.0%	Standard	0.0035	0.089	3.94 0.0177	3.89 0.02	3.86 0.023	3.82 0.024	3.68 0.029	3.68 0.029
1x2116	47.0%	Standard	0.004	0.102	4.32 0.0144	4.27 0.016	4.26 0.018	4.23 0.019	4.17 0.022	4.17 0.022
1x2113	55.0%	Alternate	0.004	0.102	4.16 0.0156	4.12 0.018	4.10 0.02	4.05 0.021	3.99 0.244	3.99 0.025
1x106/1x1080	60.0%	Standard	0.004	0.102	4.07 0.0164	4.02 0.019	4.00 0.021	3.97 0.022	3.84 0.026	3.84 0.026

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					100 MHz	500 MHz	1 GHz	2 GHz	5 GHz	10 GHz
1x106/1x1080	62.0%	Alternate	0.0043	0.109	4.04 0.0167	3.99 0.019	3.97 0.022	3.93 0.023	3.80 0.027	3.80 0.027
1x2116	51.0%	Standard	0.0045	0.114	4.24 0.015	4.19 0.017	4.17 0.019	4.14 0.02	4.03 0.023	4.03 0.023
2x1080	55.0%	Standard	0.0045	0.114	4.16 0.0156	4.12 0.018	4.10 0.02	4.05 0.021	3.99 0.244	3.99 0.025
1x2116	54.0%	Standard	0.005	0.127	4.18 0.0154	4.14 0.017	4.11 0.02	4.08 0.021	3.96 0.024	3.96 0.024
1x1652	43.0%	Alternate	0.005	0.127	4.40 0.0137	4.36 0.015	4.34 0.017	4.32 0.018	4.21 0.021	4.21 0.021
2x1080	58.0%	Standard	0.005	0.127	4.11 0.0161	4.06 0.018	4.04 0.021	4.00 0.022	3.88 0.026	3.88 0.026
1x106/1x2113	57.0%	Alternate	0.0053	0.135	4.13 0.016	4.08 0.018	4.06 0.021	4.02 0.021	3.90 0.025	3.90 0.025
1x1652	46.0%	Alternate	0.0055	0.14	4.34 0.0142	4.30 0.016	4.28 0.018	4.25 0.019	4.14 0.022	4.14 0.022
2x1080	59.0%	Standard	0.006	0.152	4.09 0.0163	4.04 0.018	4.02 0.021	3.99 0.022	3.86 0.026	3.86 0.026
1x1652	51.0%	Standard	0.006	0.152	4.24 0.015	4.19 0.017	4.17 0.019	4.14 0.02	4.03 0.023	4.03 0.023
2x1086	59.0%	Alternate	0.006	0.152	4.09 0.0163	4.04 0.018	4.02 0.021	3.99 0.022	3.86 0.026	3.86 0.026
1x7628	42.0%	Standard	0.007	0.178	4.42 0.0136	4.38 0.015	4.36 0.017	4.34 0.018	4.24 0.02	4.24 0.02
2x2113	54.0%	Standard	0.007	0.178	4.18 0.0155	4.14 0.017	4.11 0.02	4.08 0.021	3.96 0.024	3.96 0.024
2x3313	51.0%	Alternate	0.007	0.178	4.24 0.015	4.19 0.017	4.17 0.019	4.14 0.02	4.03 0.023	4.03 0.023
1x7628	44.0%	Alternate	0.0075	0.191	4.38 0.0139	4.34 0.015	4.32 0.017	4.29 0.018	4.19 0.021	4.19 0.021
2x2116	47.0%	Standard	0.008	0.203	4.32 0.0144	4.27 0.016	4.26 0.018	4.23 0.019	4.17 0.022	4.17 0.022

Constructions	Resin Content %	Standard/Alternate	Thickness (inch)	Thickness (mm)	Dielectric Constant (DK) / Dissipation Factor (DF)					
					100 MHz	500 MHz	1 GHz	2 GHz	5 GHz	10 GHz
2x3313	55.0%	Alternate	0.008	0.203	4.16 0.0156	4.12 0.018	4.10 0.02	4.05 0.021	3.99 0.244	3.99 0.025
1x7628	46.0%	Standard	0.008	0.203	4.34 0.0142	4.30 0.016	4.28 0.018	4.25 0.019	4.14 0.022	4.14 0.022
2x2116	51.0%	Alternate	0.009	0.229	4.24 0.015	4.19 0.017	4.17 0.019	4.14 0.02	4.03 0.023	4.03 0.023
2x2116	54.0%	Standard	0.01	0.254	4.18 0.0155	4.14 0.017	4.11 0.02	4.08 0.021	3.96 0.024	3.96 0.024
2x1652	43.0%	Alternate	0.01	0.254	4.40 0.0137	4.36 0.015	4.34 0.017	4.32 0.018	4.21 0.021	4.21 0.021
2x1652	51.0%	Standard	0.012	0.305	4.24 0.015	4.19 0.017	4.17 0.019	4.14 0.02	4.03 0.023	4.03 0.023
2x1080/1x7628	48.0%	Alternate	0.012	0.305	4.30 0.0145	4.25 0.016	4.24 0.018	4.21 0.019	4.09 0.022	4.09 0.022
2x7628	42.0%	Standard	0.014	0.356	4.42 0.0136	4.38 0.015	4.36 0.017	4.34 0.018	4.24 0.02	4.24 0.02
2x7628	46.0%	Standard	0.016	0.406	4.34 0.0142	4.30 0.016	4.28 0.018	4.25 0.019	4.14 0.022	4.14 0.022
2x1080/1x7628	41.0%	Alternate	0.018	0.457	4.44 0.0134	4.40 0.014	4.39 0.017	4.36 0.017	4.26 0.02	4.26 0.02
2x7628/1x2116	45.0%	Standard	0.018	0.457	4.36 0.0141	4.32 0.016	4.30 0.018	4.27 0.019	4.15 0.021	4.15 0.021
3x7628	42.0%	Standard	0.021	0.533	4.42 0.0136	4.38 0.015	4.36 0.017	4.34 0.018	4.24 0.02	4.24 0.02
3x7628	46.0%	Standard	0.024	0.61	4.34 0.0142	4.30 0.016	4.28 0.018	4.25 0.019	4.14 0.022	4.14 0.022
4x7628	42.0%	Standard	0.028	0.711	4.42 0.0136	4.38 0.015	4.36 0.017	4.34 0.018	4.24 0.02	4.24 0.02
4x7628/1x1080	44.0%	Standard	0.031	0.787	4.38 0.0139	4.34 0.015	4.32 0.017	4.30 0.018	4.19 0.021	4.19 0.021
5x7628	42.0%	Alternate	0.035	0.889	4.42 0.0136	4.38 0.015	4.36 0.017	4.34 0.018	4.24 0.02	4.24 0.02

Constructions	Resin Content %	Standard/Alternate	Thickness (inch)	Thickness (mm)	Dielectric Constant (DK) / Dissipation Factor (DF)					
					100 MHz	500 MHz	1 GHz	2 GHz	5 GHz	10 GHz
5x7628/1x2116	43.0%	Alternate	0.039	0.991	4.40 0.0137	4.36 0.015	4.34 0.017	4.34 0.018	4.24 0.02	4.24 0.02
6x7628	42.0%	Alternate	0.042	1.067	4.42 0.0136	4.38 0.015	4.36 0.017	4.34 0.018	4.24 0.02	4.24 0.02

NOTE

Revision B: Corrected 106 76% RC and 1067 70% RC prepreg thickness values

Dielectric Constant (DK) / Dissipation Factor (DF) Table

Prepreg Data

Construction	Resin Content %	Standard/Alternate	Thickness (inch)	Thickness (mm)	Dielectric Constant (DK) / Dissipation Factor (DF)					
					100 MHz	500 MHz	1 GHz	2 GHz	5 GHz	10 GHz
1067	70.00%	Alt/Spread	0.0023	0.058	3.91 0.018	3.85 0.0204	3.83 0.0236	3.79 0.0246	3.65 0.0293	3.65 0.0294
106	76.00%	Standard	0.0024	0.061	3.81 0.0188	3.75 0.0216	3.73 0.025	3.69 0.0261	3.54 0.0313	3.54 0.0313
1067	75.00%	Alt/Spread	0.0027	0.069	3.83 0.0187	3.77 0.0214	3.75 0.0247	3.71 0.0259	3.56 0.031	3.56 0.031
1080	66.00%	Standard	0.003	0.076	3.97 0.0173	3.92 0.0197	3.90 0.0226	3.86 0.0235	3.72 0.028	3.72 0.028
1086	63.00%	Alt/Spread	0.0031	0.079	4.02 0.0169	3.95 0.0191	3.91 0.0219	3.91 0.0229	3.78 0.027	3.78 0.0271
1080	68.00%	Standard	0.0032	0.081	3.94 0.0177	3.89 0.02	3.86 0.0231	3.82 0.024	3.68 0.029	3.68 0.029
1086	65.00%	Alt/Spread	0.0033	0.084	3.99 0.0172	3.94 0.0195	3.92 0.0224	3.88 0.0234	3.75 0.0276	3.74 0.0276
1086	67.00%	Alt/Spread	0.0035	0.089	3.96 0.0175	3.90 0.0199	3.88 0.0229	3.84 0.0237	3.70 0.0283	3.70 0.0284
1080	71.00%	Standard	0.0036	0.091	3.89 0.0181	3.83 0.0206	3.81 0.0238	3.77 0.025	3.63 0.0296	3.63 0.0296
3313	55.00%	Standard	0.0038	0.097	4.16 0.0156	4.12 0.0176	4.10 0.0201	4.06 0.0209	3.95 0.0244	3.95 0.0245
2113	59.00%	Standard	0.004	0.102	4.09 0.0163	4.04 0.0183	4.02 0.021	3.99 0.022	3.86 0.026	3.86 0.026
2116	56.00%	Standard	0.0048	0.122	4.14 0.0158	4.10 0.0178	4.08 0.0203	4.04 0.021	3.92 0.025	3.92 0.025

Construction	Resin Content %	Standard/Alternate	Thickness (inch)	Thickness (mm)	Dielectric Constant (DK) / Dissipation Factor (DF)					
					100 MHz	500 MHz	1 GHz	2 GHz	5 GHz	10 GHz
1652	51.00%	Standard	0.0057	0.145	4.24 0.015	4.19 0.0168	4.17 0.0191	4.14 0.02	4.03 0.023	4.03 0.023
7628	45.00%	Standard	0.0073	0.185	4.36 0.0141	4.32 0.0156	4.30 0.0177	4.27 0.018	4.16 0.021	4.16 0.021
7628	50.00%	Standard	0.0082	0.208	4.26 0.0149	4.21 0.0166	4.19 0.0189	4.16 0.0196	4.05 0.0228	4.05 0.0229

NOTE

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