

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

### Core 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
1x106	69.0%	Alternate	0.0020	0.051	3.58 0.015	3.54 0.017	3.52 0.020	3.49 0.021	3.46 0.022	3.46 0.024
1x106	73.0%	Standard	0.0025	0.064	3.51 0.016	3.47 0.018	3.45 0.020	3.42 0.021	3.39 0.023	3.39 0.025
1x1080	61.0%	Standard	0.0030	0.076	3.73 0.014	3.69 0.016	3.68 0.018	3.65 0.019	3.62 0.020	3.62 0.022
2x106	66.0%	Standard	0.0035	0.089	3.64 0.015	3.60 0.017	3.58 0.019	3.55 0.020	3.52 0.021	3.52 0.024
1x2116	43.0%	Standard	0.0040	0.102	4.16 0.012	4.13 0.013	4.13 0.015	4.10 0.015	4.07 0.016	4.07 0.018
106/1080	58.0%	Alternate	0.0042	0.107	3.78 0.014	3.75 0.016	3.73 0.018	3.70 0.019	3.68 0.020	3.68 0.022
106/1080	61.0%	Standard	0.0045	0.114	3.73 0.014	3.69 0.016	3.68 0.018	3.65 0.019	3.62 0.020	3.62 0.022
106/1080	64.0%	Alternate	0.0050	0.127	3.67 0.015	3.64 0.016	3.62 0.019	3.59 0.020	3.56 0.021	3.56 0.023
2x1080	56.0%	Standard	0.0050	0.127	3.83 0.014	3.80 0.152	3.79 0.017	3.76 0.018	3.74 0.019	3.74 0.021
106/2113	53.0%	Standard	0.0053	0.135	3.90 0.013	3.86 0.015	3.85 0.017	3.82 0.017	3.80 0.018	3.80 0.020
106/2116	49.0%	Standard	0.0060	0.152	3.99 0.013	3.96 0.014	3.94 0.016	3.92 0.017	3.89 0.017	3.89 0.019
1080/2116	51.0%	Standard	0.0070	0.178	3.94 0.013	3.91 0.014	3.89 0.016	3.87 0.017	3.84 0.018	3.84 0.020

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
2x1080/106	63.0%	Standard	0.0080	0.203	3.69 0.014	3.65 0.016	3.64 0.019	3.61 0.019	3.58 0.020	3.58 0.023
2113/2116	47.0%	Standard	0.0080	0.203	4.03 0.012	4.00 0.014	3.99 0.016	3.97 0.016	3.94 0.017	3.94 0.019
2x2113/106	54.0%	Standard	0.0090	0.229	3.88 0.013	3.84 0.015	3.83 0.017	3.80 0.018	3.78 0.018	3.78 0.021
2x1080/2116	54.0%	Standard	0.0100	0.254	3.88 0.013	3.84 0.015	3.83 0.017	3.80 0.018	3.78 0.018	3.78 0.021
1080/7628/1080	43.0%	Standard	0.0120	0.305	4.16 0.012	4.13 0.013	4.13 0.015	4.10 0.015	4.07 0.016	4.07 0.018
2x7628	39.0%	Standard	0.0140	0.356	4.23 0.012	4.20 0.012	4.19 0.014	4.17 0.015	4.11 0.015	4.11 0.017
2x7628/106	40.0%	Alternate	0.0160	0.406	4.18 0.012	4.15 0.013	4.15 0.014	4.12 0.015	4.09 0.015	4.09 0.017
2x7628/2113	41.0%	Alternate	0.0180	0.457	4.16 0.012	4.13 0.013	4.13 0.015	4.10 0.015	4.07 0.016	4.07 0.017
3x7628	38.0%	Alternate	0.0200	0.508	4.24 0.012	4.21 0.012	4.20 0.014	4.16 0.014	4.13 0.015	4.13 0.017
3x7628/2116	40.0%	Alternate	0.0240	0.610	4.18 0.012	4.15 0.013	4.15 0.014	4.12 0.015	4.09 0.015	4.09 0.017
4x7628	39.0%	Standard	0.0280	0.711	4.23 0.012	4.20 0.012	4.19 0.014	4.14 0.015	4.11 0.015	4.11 0.017
4x7628/2116	39.0%	Standard	0.0310	0.787	4.23 0.011	4.20 0.012	4.19 0.014	4.14 0.014	4.11 0.015	4.11 0.017
6x7628	37.0%	Standard	0.0390	0.991	4.24 0.012	4.21 0.012	4.21 0.014	4.18 0.015	4.15 0.015	4.15 0.017
1x2116/ 8x7628	38.0%	Standard	0.0590	1.499	4.24 0.012	4.21 0.012	4.20 0.014	4.16 0.014	4.13 0.015	4.13 0.017

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

### Prepreg Data

Glass Style	Resin Content %	Thickness (inch)	Thickness (mm)	Dielectric Constant (DK) / Dissipation Factor (DF)					
				100 MHz	500 MHz	1 GHz	2 GHz	5 GHz	10 GHz
106	75.00%	0.0024	0.061	3.48 0.0158	3.43 0.018	3.41 0.0208	3.38 0.0218	3.35 0.0229	3.35 0.0259
1080	65.00%	0.0032	0.081	3.66 0.0146	3.62 0.0165	3.60 0.0189	3.57 0.0198	3.54 0.0207	3.54 0.0233
2113	57.00%	0.004	0.102	3.81 0.0136	3.78 0.0153	3.76 0.0174	3.74 0.0181	3.71 0.019	3.71 0.0212
2116	54.00%	0.005	0.127	3.88 0.0133	3.84 0.0148	3.83 0.0169	3.80 0.0175	3.78 0.0183	3.78 0.0205
7628	42.00%	0.0078	0.198	4.14 0.0119	4.11 0.0129	4.11 0.0149	4.08 0.0151	4.05 0.0158	4.05 0.0175

#### NOTE

Revisions:

A-Original-4/17

B-Modified construction offering 6/19

C-Correct 31 mil core thickness 9/19

D-Corrected 20 mil construction 7/20

Standard-Commonly available with the best availability.

Alternate-Available, but not stocked with longer lead time