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
1x1035	66.00%	Standard	0.0020	0.050	4.32 0.0120	4.26 0.0130	4.23 0.0140	4.16 0.0140	4.23 0.0170	4.17 0.0150
1x1080	62.00%	Standard	0.0030	0.080	4.40 0.0120	4.33 0.0130	4.30 0.0130	4.24 0.0140	4.30 0.0160	4.24 0.0150
1x3313	57.00%	Standard	0.0040	0.100	4.51 0.0120	4.43 0.0120	4.39 0.0120	4.34 0.0130	4.40 0.0160	4.33 0.0160
2x1035	66.00%	Standard	0.0040	0.100	4.32 0.0120	4.26 0.0130	4.23 0.0140	4.16 0.0140	4.23 0.0170	4.17 0.0150
1x3313	60.00%	Standard	0.0045	0.110	4.44 0.0120	4.37 0.0120	4.34 0.0130	4.28 0.0140	4.34 0.0160	4.28 0.0160
1x2116	55.00%	Standard	0.0050	0.130	4.56 0.0120	4.46 0.0120	4.43 0.0120	4.39 0.0130	4.44 0.0160	4.37 0.0160
2x1080	62.00%	Standard	0.0060	0.150	4.40 0.0120	4.33 0.0130	4.30 0.0130	4.24 0.0140	4.30 0.0160	4.24 0.0150
1x7628	44.00%	Standard	0.0074	0.190	4.83 0.0110	4.70 0.0100	4.65 0.0090	4.64 0.0120	4.67 0.0140	4.61 0.0160
1x7628	47.00%	Standard	0.0080	0.200	4.75 0.0110	4.63 0.0100	4.59 0.0100	4.57 0.0120	4.61 0.0150	4.54 0.0160
2x3313	57.00%	Standard	0.0080	0.200	4.51 0.0120	4.43 0.0120	4.39 0.0120	4.34 0.0130	4.40 0.0160	4.33 0.0160
2x2116	55.00%	Standard	0.0100	0.250	4.56 0.0120	4.46 0.0120	4.43 0.0120	4.39 0.0130	4.44 0.0160	4.37 0.0160
2x7628	44.00%	Standard	0.0148	0.370	4.83 0.0110	4.70 0.0100	4.65 0.0090	4.64 0.0120	4.67 0.0140	4.61 0.0160
2x7628	47.00%	Standard	0.0160	0.410	4.75 0.0110	4.63 0.0100	4.59 0.0100	4.57 0.0120	4.61 0.0150	4.54 0.0160
3x7628	44.00%	Standard	0.0220	0.560	4.83 0.0110	4.70 0.0100	4.65 0.0090	4.64 0.0120	4.67 0.0140	4.61 0.0160
4x7628	44.00%	Standard	0.0300	0.760	4.83 0.0110	4.70 0.0100	4.65 0.0090	4.64 0.0120	4.67 0.0140	4.61 0.0160
5x7628	47.00%	Standard	0.0390	0.990	4.75 0.0110	4.63 0.0100	4.59 0.0100	4.57 0.0120	4.61 0.0150	4.54 0.0160
6x7628	47.00%	Standard	0.0480	1.220	4.75 0.0110	4.63 0.0100	4.59 0.0100	4.57 0.0120	4.61 0.0150	4.54 0.0160
8x7628	44.00%	Standard	0.0590	1.500	4.83 0.0110	4.70 0.0100	4.65 0.0090	4.64 0.0120	4.67 0.0140	4.61 0.0160

Prepreg Dielectric Constant(Dk) / Dissipation factor (Df) Table

Prepreg Data

Glass Style	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
1035	66.0%	Standard	0.0020	0.051	4.32 0.0120	4.26 0.0130	4.23 0.0140	4.16 0.0140	4.23 0.0150	4.17 0.0150
106	76.0%	Standard	0.0024	0.061	4.12 0.0130	4.08 0.0140	4.07 0.0150	3.97 0.0150	4.05 0.0150	3.99 0.0150
1035	75.0%	Standard	0.0028	0.071	4.14 0.0130	4.10 0.0140	4.09 0.0150	3.99 0.0150	4.07 0.0150	4.01 0.0150
1080	68.0%	Standard	0.0033	0.084	4.28 0.0130	4.22 0.0130	4.20 0.0140	4.12 0.0140	4.19 0.0150	4.13 0.0150
1080	72.0%	Standard	0.0039	0.099	4.20 0.0130	4.15 0.0140	4.13 0.0150	4.04 0.0150	4.12 0.0150	4.06 0.0150
3313	60.0%	Standard	0.0045	0.114	4.44 0.0120	4.37 0.0120	4.34 0.0130	4.28 0.0140	4.34 0.0150	4.28 0.0160
1080	77.0%	Alternate	0.0049	0.124	4.10 0.0130	4.07 0.0140	4.05 0.0160	3.95 0.0150	4.04 0.0150	3.98 0.0150
2116	55.0%	Standard	0.0050	0.127	4.56 0.0120	4.46 0.0120	4.43 0.0120	4.39 0.0130	4.44 0.0140	4.37 0.0160
2116	58.0%	Standard	0.0054	0.137	4.49 0.0120	4.41 0.0120	4.37 0.0120	4.32 0.0130	4.38 0.0150	4.31 0.0160
2116	62.0%	Alternate	0.0061	0.155	4.40 0.0120	4.33 0.0130	4.30 0.0130	4.24 0.0140	4.30 0.0150	4.24 0.0150
7628	47.0%	Standard	0.0079	0.201	4.75 0.0110	4.63 0.0100	4.59 0.0100	4.57 0.0120	4.61 0.0140	4.54 0.0160
7628	52.0%	Standard	0.0090	0.229	4.63 0.0110	4.53 0.0110	4.49 0.0110	4.45 0.0130	4.50 0.0140	4.44 0.0160

IS550H

Halogen Free, High Reliability Laminate and Prepreg

Revision No: D | March 27, 2026

NOTE

Revisions:
A-Original-1/2021
B-Added 2x106 4 mil & 1x2116 4.5 mil cores and 106 80% RC prepreg - 8/21
C-Changed construction of 2 mil 1x106 to 1x1035 core, changed 4 mil 2x106 to 2x1035 core, changed 4.5 mil 1x2116 to 1x3313 core, added 7.4 mil 1x7628 and 14.8 mil 2x7828 core, removed 47 mil 6x7628 and 63 mil 8x7628 core. Removed 106 70% and 80% prepreg, added 1035 66%, 3313 60% and 2116 62%. Changed 1080 77% to alternate. - 6/23
D-corrected typo metric thickness 48mil core

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