

Technical Service Dept.

【 】 Testing & Analysis 【V】 Technical Support 【 】 Others



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TU-883 Sp Typical Dk/Df Value

Laminate Standard Construction List

Nominal Thickness		Standard Construction	Dk@							Df@						
(mils)	(mm)		1GHz	5GHz	10GHz	15GHz	20GHz	30GHz	40GHz	1GHz	5GHz	10GHz	15GHz	20GHz	30GHz	40GHz
2.0	0.051	1035x1	3.22	3.21	3.19	3.19	3.18	3.17	3.16	0.0021	0.0027	0.0028	0.0030	0.0031	0.0036	0.0041
2.5	0.064	1035x1	3.15	3.14	3.12	3.12	3.11	3.10	3.09	0.0020	0.0026	0.0028	0.0030	0.0031	0.0036	0.0041
2.5	0.064	1078x1	3.34	3.33	3.31	3.31	3.30	3.29	3.28	0.0023	0.0028	0.0029	0.0032	0.0032	0.0037	0.0042
3.0	0.076	1078x1	3.25	3.24	3.22	3.21	3.21	3.20	3.19	0.0021	0.0027	0.0029	0.0031	0.0032	0.0037	0.0042
3.5	0.089	1078x1	3.19	3.18	3.16	3.16	3.15	3.14	3.13	0.0021	0.0026	0.0028	0.0030	0.0031	0.0036	0.0041
4.0	0.102	1078x1	3.15	3.14	3.12	3.12	3.11	3.10	3.09	0.0020	0.0026	0.0028	0.0030	0.0031	0.0036	0.0041
4.0	0.102	1035x2	3.22	3.21	3.19	3.19	3.18	3.17	3.16	0.0021	0.0027	0.0028	0.0030	0.0031	0.0036	0.0041
4.0	0.102	2113x1	3.36	3.34	3.33	3.32	3.32	3.31	3.30	0.0023	0.0028	0.0029	0.0032	0.0032	0.0037	0.0042
4.5	0.114	1035x2	3.19	3.18	3.16	3.16	3.15	3.14	3.13	0.0021	0.0026	0.0028	0.0030	0.0031	0.0036	0.0041
4.5	0.114	2113x1	3.30	3.29	3.27	3.27	3.26	3.25	3.24	0.0022	0.0028	0.0029	0.0031	0.0032	0.0037	0.0042
5.0	0.127	1078x2	3.34	3.33	3.31	3.31	3.30	3.29	3.28	0.0023	0.0028	0.0029	0.0032	0.0032	0.0037	0.0042
5.0	0.127	2116x1	3.37	3.36	3.34	3.34	3.33	3.32	3.31	0.0023	0.0028	0.0029	0.0032	0.0032	0.0037	0.0042
5.5	0.140	2116x1	3.33	3.32	3.30	3.30	3.29	3.28	3.27	0.0023	0.0028	0.0029	0.0031	0.0032	0.0037	0.0042
6.0	0.152	1078x2	3.25	3.24	3.22	3.21	3.21	3.20	3.19	0.0021	0.0027	0.0029	0.0031	0.0032	0.0037	0.0042
7.0	0.178	1078x2	3.19	3.18	3.16	3.16	3.15	3.14	3.13	0.0021	0.0026	0.0028	0.0030	0.0031	0.0036	0.0041
8.0	0.203	2113x2	3.36	3.34	3.33	3.32	3.32	3.31	3.30	0.0023	0.0028	0.0029	0.0032	0.0032	0.0037	0.0042
10.0	0.254	2116x2	3.37	3.36	3.34	3.34	3.33	3.32	3.31	0.0023	0.0028	0.0029	0.0032	0.0032	0.0037	0.0042
11.0	0.279	2116x2	3.33	3.32	3.30	3.30	3.29	3.28	3.27	0.0023	0.0028	0.0029	0.0031	0.0032	0.0037	0.0042
15.0	0.381	2116X3	3.37	3.36	3.34	3.34	3.33	3.32	3.31	0.0023	0.0028	0.0029	0.0032	0.0032	0.0037	0.0042
20.0	0.508	2116X4	3.37	3.36	3.34	3.34	3.33	3.32	3.31	0.0023	0.0028	0.0029	0.0032	0.0032	0.0037	0.0042
25.0	0.635	2116X5	3.37	3.36	3.34	3.34	3.33	3.32	3.31	0.0023	0.0028	0.0029	0.0032	0.0032	0.0037	0.0042

Laminate Optional Construction Upon Request

Nominal Thickness		Standard Construction	Dk@							Df@						
(mils)	(mm)		1GHz	5GHz	10GHz	15GHz	20GHz	30GHz	40GHz	1GHz	5GHz	10GHz	15GHz	20GHz	30GHz	40GHz
3.5	0.089	1035x2	3.29	3.28	3.26	3.25	3.25	3.24	3.23	0.0022	0.0027	0.0029	0.0031	0.0032	0.0037	0.0042
5.0	0.127	1035x2	3.14	3.13	3.11	3.10	3.10	3.09	3.08	0.0020	0.0026	0.0028	0.0030	0.0031	0.0036	0.0041

SPC Method



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The electric performance shown in the table is for reference only, please refer to the consigned contract for incoming inspection.

KF2401018B

Technical Service Dept.

【 】 Testing & Analysis 【V】 Technical Support 【 】 Others



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TU-883P Sp Typical Dk/Df Value

Prepreg Standard Construction List

Prepreg type	RC (%)	Thickness (for reference)		Dk@							Df@						
		(mils)	(mm)	1GHz	5GHz	10GHz	15GHz	20GHz	30GHz	40GHz	1GHz	5GHz	10GHz	15GHz	20GHz	30GHz	40GHz
1035	67	2.0	0.051	3.22	3.21	3.19	3.19	3.18	3.17	3.16	0.0021	0.0027	0.0028	0.0030	0.0031	0.0036	0.0041
1035	72	2.5	0.064	3.15	3.14	3.12	3.12	3.11	3.10	3.09	0.0020	0.0026	0.0028	0.0030	0.0031	0.0036	0.0041
1078	65	3.0	0.076	3.25	3.24	3.22	3.21	3.21	3.20	3.19	0.0021	0.0027	0.0029	0.0031	0.0032	0.0037	0.0042
1078	69	3.5	0.089	3.19	3.18	3.16	3.16	3.15	3.14	3.13	0.0021	0.0026	0.0028	0.0030	0.0031	0.0036	0.0041
2113	57	4.0	0.102	3.36	3.34	3.33	3.32	3.32	3.31	3.30	0.0023	0.0028	0.0029	0.0032	0.0032	0.0037	0.0042
2113	61	4.5	0.114	3.30	3.29	3.27	3.27	3.26	3.25	3.24	0.0022	0.0028	0.0029	0.0031	0.0032	0.0037	0.0042
2116	56	5.0	0.127	3.37	3.36	3.34	3.34	3.33	3.32	3.31	0.0023	0.0028	0.0029	0.0032	0.0032	0.0037	0.0042
2116	59	5.5	0.140	3.33	3.32	3.30	3.30	3.29	3.28	3.27	0.0023	0.0028	0.0029	0.0031	0.0032	0.0037	0.0042

Prepreg Optional Construction List Upon Request

Prepreg type	RC (%)	Thickness (for reference)		Dk@							Df@						
		(mils)	(mm)	1GHz	5GHz	10GHz	15GHz	20GHz	30GHz	40GHz	1GHz	5GHz	10GHz	15GHz	20GHz	30GHz	40GHz
*106	77	2.5	0.064	3.08	3.07	3.05	3.05	3.04	3.03	3.02	0.0019	0.0025	0.0027	0.0029	0.0030	0.0035	0.0040
1035	76	3.0	0.076	3.10	3.08	3.07	3.06	3.06	3.05	3.04	0.0019	0.0025	0.0027	0.0029	0.0030	0.0035	0.0040
1080	65	3.0	0.076	3.25	3.24	3.22	3.21	3.21	3.20	3.19	0.0021	0.0027	0.0029	0.0031	0.0032	0.0037	0.0042
*1080	69	3.5	0.089	3.19	3.18	3.16	3.16	3.15	3.14	3.13	0.0021	0.0026	0.0028	0.0030	0.0031	0.0036	0.0041
*1080	72	4.0	0.102	3.15	3.14	3.12	3.12	3.11	3.10	3.09	0.0020	0.0026	0.0028	0.0030	0.0031	0.0036	0.0041
1078	72	4.0	0.102	3.15	3.14	3.12	3.12	3.11	3.10	3.09	0.0020	0.0026	0.0028	0.0030	0.0031	0.0036	0.0041

* Extreme High RC Prepreg for 2oz(up) Inner Layer Resin Fill, recommend 1080 / 106 type for multi-ply inner layer design

* Extreme high RC might cause cosmetic issue if use at outer layer

SPC Method

Note

2021.11 Optimized construction

2023.10 Up to 40GHz

2024.01 Dk difference reference for Impedance simulation Dk around -0.35

