Base Material Line Up

SML02G(X)/ SML02GB(X)

1. CORE (C-STAGE)

Thickness		ply-up	RC(%)	Dk				Df			
mm	mil			1GHz	3GHz	5GHz	10GHz	1 GHz	3 GHz	5 GHz	10GHz
0.051	2.00	1*106	75%	3.99	3.96	3.94	3.90	0.0081	0.0088	0.0090	0.0095
0.064	2.50	1*106	80%	3.90	3.86	3.85	3.81	0.0077	0.0081	0.0083	0.0090
0.076	3.00	1*1080	68%	4.10	4.09	4.08	4.06	0.0090	0.0093	0.0094	0.0098
0.076	3.00	2*1027	73%	4.02	4.02	4.01	3.96	0.0086	0.0090	0.0091	0.0095
0.089	3.50	2*1027	77%	3.99	3.94	3.91	3.87	0.0081	0.0084	0.0086	0.0092
0.102	4.00	1*3313	60%	4.34	4.32	4.30	4.26	0.0092	0.0095	0.0098	0.0100
0.102	4.00	2*106	75%	3.99	3.96	3.94	3.90	0.0081	0.0088	0.0090	0.0095
0.114	4.50	1*3313	64%	4.25	4.22	4.20	4.16	0.0090	0.0094	0.0095	0.0098
0.114	4.50	1*2116	56%	4.44	4.42	4.41	4.36	0.0095	0.0098	0.0100	0.0102
0.127	5.00	1*2116	60%	4.34	4.32	4.30	4.26	0.0092	0.0095	0.0098	0.0100
0.127	5.00	2*106	80%	3.90	3.86	3.85	3.81	0.0077	0.0081	0.0083	0.0090
0.152	6.00	2*1080	68%	4.10	4.09	4.08	4.06	0.0090	0.0093	0.0094	0.0098
0.152	6.00	1*1506	49%	4.63	4.60	4.59	4.55	0.0100	0.0103	0.0103	0.0106
0.178	7.00	2*1080	72%	4.03	4.02	4.00	3.96	0.0086	0.0093	0.0095	0.0097
0.203	8.00	2*3313	60%	4.34	4.32	4.30	4.26	0.0092	0.0095	0.0098	0.0100
0.203	8.00	1*7628	52%	4.56	4.54	4.53	4.48	0.0099	0.0100	0.0102	0.0104
0.254	10.00	2*2116	60%	4.34	4.32	4.30	4.26	0.0092	0.0095	0.0098	0.0100
0.305	12.00	2*1506	49%	4.63	4.60	4.59	4.55	0.0100	0.0103	0.0103	0.0106
0.305	12.00	3*3313	60%	4.34	4.32	4.30	4.26	0.0092	0.0095	0.0098	0.0100

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0.381	15.00	3*2116	60%	4.34	4.32	4.30	4.26	0.0092	0.0095	0.0098	0.0100
0.406	16.00	2*7628	52%	4.56	4.54	4.53	4.48	0.0099	0.0100	0.0102	0.0104
0.457	18.00	4*2116	56%	4.44	4.42	4.41	4.36	0.0095	0.0098	0.0100	0.0102
0.508	20.00	4*2116	60%	4.34	4.32	4.30	4.26	0.0092	0.0095	0.0098	0.0100
0.610	24.00	3*7628	52%	4.56	4.54	4.53	4.48	0.0099	0.0100	0.0102	0.0104
0.635	25.00	5*2116	60%	4.34	4.32	4.30	4.26	0.0092	0.0095	0.0098	0.0100
0.711	28.00	4*1506	55%	4.48	4.46	4.44	4.38	0.0096	0.0100	0.0101	0.0102
0.762	30.00	6*2116	60%	4.34	4.32	4.30	4.26	0.0092	0.0095	0.0098	0.0100
0.813	32.00	4*7628	52%	4.56	4.54	4.53	4.48	0.0099	0.0100	0.0102	0.0104
0.914	36.00	8*2116	56%	4.44	4.42	4.41	4.36	0.0095	0.0098	0.0100	0.0102
1.016	40.00	8*2116	60%	4.34	4.32	4.30	4.26	0.0092	0.0095	0.0098	0.0100
1.016	40.00	5*7628	52%	4.56	4.54	4.53	4.48	0.0099	0.0100	0.0102	0.0104
1.143	45.00	9*2116	60%	4.34	4.32	4.30	4.26	0.0092	0.0095	0.0098	0.0100
1.219	48.00	6*7628	52%	4.56	4.54	4.53	4.48	0.0099	0.0100	0.0102	0.0104
1.372	54.00	9*1506	49%	4.63	4.60	4.59	4.55	0.0100	0.0103	0.0103	0.0106
1.422	56.00	7*7628	52%	4.56	4.54	4.53	4.48	0.0099	0.0100	0.0102	0.0104
1.524	60.00	8*1506	58%	4.39	4.37	4.36	4.33	0.0094	0.0097	0.0099	0.0101
1.524	60.00	10*1506	49%	4.63	4.60	4.59	4.55	0.0100	0.0103	0.0103	0.0106
1.524	60.00	12*2116	60%	4.34	4.32	4.30	4.26	0.0092	0.0095	0.0098	0.0100
1.626	64.00	8*7628	52%	4.56	4.54	4.53	4.48	0.0099	0.0100	0.0102	0.0104

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2. PREPREG (B-STAGE)

Glass style	RC (%) Nominal	Thickness		Dk				Df			
		mm	mil	1GHz	3GHz	5GHz	10GHz	1 GHz	3 GHz	5 GHz	10GHz
106	75%	0.051	2.00	3.99	3.96	3.94	3.90	0.0081	0.0088	0.0090	0.0095
	78%	0.058	2.30	3.95	3.92	3.89	3.85	0.0080	0.0083	0.0084	0.0091
	80%	0.064	2.50	3.90	3.86	3.85	3.81	0.0077	0.0081	0.0083	0.0090
	83%	0.076	3.00	3.84	3.81	3.79	3.75	0.0076	0.0078	0.0081	0.0089
	85%	0.089	3.50	3.80	3.76	3.75	3.71	0.0073	0.0076	0.0078	0.0087
	88%	0.104	4.10	3.76	3.72	3.69	3.65	0.0070	0.0073	0.0075	0.0081
1067	75%	0.064	2.50	3.99	3.96	3.94	3.90	0.0081	0.0088	0.0090	0.0095
	78%	0.071	2.80	3.95	3.92	3.89	3.85	0.0080	0.0083	0.0084	0.0091
1080	68%	0.076	3.00	4.10	4.09	4.08	4.06	0.0090	0.0093	0.0094	0.0098
	70%	0.081	3.20	4.09	4.07	4.06	4.02	0.0089	0.0092	0.0094	0.0098
	72%	0.089	3.50	4.03	4.02	4.00	3.96	0.0086	0.0093	0.0095	0.0097
	75%	0.102	4.00	3.99	3.96	3.94	3.90	0.0081	0.0088	0.0090	0.0095
1086	72%	0.094	3.70	4.03	4.02	4.00	3.96	0.0086	0.0093	0.0095	0.0097
	75%	0.107	4.20	3.99	3.96	3.94	3.90	0.0081	0.0088	0.0090	0.0095
3313	60%	0.102	4.00	4.34	4.32	4.30	4.26	0.0092	0.0095	0.0098	0.0100
	62%	0.107	4.20	4.30	4.27	4.25	4.21	0.0092	0.0095	0.0097	0.0099
	64%	0.114	4.50	4.25	4.22	4.20	4.16	0.0090	0.0094	0.0095	0.0098
2116	56%	0.114	4.50	4.44	4.42	4.41	4.36	0.0095	0.0098	0.0100	0.0102
	60%	0.127	5.00	4.34	4.32	4.30	4.26	0.0092	0.0095	0.0098	0.0100
	62%	0.135	5.30	4.30	4.27	4.25	4.21	0.0092	0.0095	0.0097	0.0099

	64%	0.145	5.70	4.25	4.22	4.20	4.16	0.0090	0.0094	0.0095	0.0098
1506	49%	0.152	6.00	4.63	4.60	4.59	4.55	0.0100	0.0103	0.0103	0.0106
	52%	0.165	6.50	4.56	4.54	4.53	4.48	0.0099	0.0100	0.0102	0.0104
	55%	0.178	7.00	4.48	4.46	4.44	4.38	0.0096	0.0100	0.0101	0.0102
	58%	0.191	7.50	4.39	4.37	4.36	4.33	0.0094	0.0097	0.0099	0.0101
7628	52%	0.203	8.00	4.56	4.54	4.53	4.48	0.0099	0.0100	0.0102	0.0104
	54%	0.216	8.50	4.50	4.48	4.47	4.41	0.0097	0.0100	0.0101	0.0102

3. REMARK

1) Test method: IPC-TM-650 2.5.5.5;
2) Copper foil:HTE, RTF;
3) Copper foil thickness:1/2oz,1oz and 2oz;
4) All the values listed above are for your reference only. Please contact Shengyi Technology Co., Ltd. for detailed information.
5) Last update: January, 2022.