

Based Material Line Up



S7045GX/S7045GXB

1. CORE (C-STAGE)

Thickness		ply-up	RC (%)	Dk					Df				
mm	mil			1 GHz	3 GHz	5 GHz	10 GHz	15 GHz	1 GHz	3 GHz	5 GHz	10 GHz	15 GHz
0.051	2.00	1x106	75	3.79	3.88	3.85	3.84	3.84	0.0039	0.0056	0.0061	0.0064	0.0068
0.064	2.50	1x106	80	3.72	3.76	3.74	3.73	3.73	0.0042	0.0057	0.0061	0.0065	0.0070
0.076	3.00	1x1080	68	3.91	4.05	4.03	4.02	4.02	0.0035	0.0055	0.0060	0.0064	0.0067
0.076	3.00	1x1078	69	3.90	4.04	4.02	4.01	4.01	0.0036	0.0055	0.0060	0.0064	0.0067
0.089	3.50	1x3313	56	4.11	4.37	4.35	4.34	4.34	0.0028	0.0053	0.0058	0.0062	0.0064
0.089	3.50	1x1080	72	3.84	3.95	3.93	3.92	3.91	0.0038	0.0056	0.0060	0.0064	0.0068
0.089	3.50	1x1078	73	3.83	3.93	3.91	3.90	3.90	0.0038	0.0056	0.0060	0.0064	0.0068
0.089	3.50	2x1027	77	3.77	3.84	3.82	3.81	3.81	0.0040	0.0056	0.0061	0.0064	0.0069
0.102	4.00	1x3313	61	4.03	4.24	4.22	4.21	4.21	0.0031	0.0054	0.0059	0.0063	0.0065
0.102	4.00	2x1067	70	3.88	4.02	4.00	3.99	3.99	0.0036	0.0055	0.0060	0.0064	0.0067
0.102	4.00	2x106	75	3.79	3.88	3.85	3.84	3.84	0.0039	0.0056	0.0061	0.0064	0.0068
0.114	4.50	1x2116	56	4.10	4.36	4.34	4.33	4.33	0.0028	0.0053	0.0058	0.0062	0.0064
0.114	4.50	2x106	78	3.75	3.81	3.79	3.78	3.78	0.0041	0.0057	0.0061	0.0064	0.0069
0.127	5.00	2x1080	63	4.00	4.19	4.17	4.16	4.16	0.0032	0.0054	0.0059	0.0063	0.0065
0.127	5.00	2x1078	63	3.99	4.18	4.16	4.15	4.15	0.0033	0.0054	0.0059	0.0063	0.0066
0.127	5.00	1x2116	60	4.04	4.26	4.24	4.23	4.23	0.0031	0.0054	0.0059	0.0063	0.0065
0.152	6.00	2x1080	68	3.91	4.05	4.03	4.02	4.02	0.0035	0.0055	0.0060	0.0064	0.0067
0.152	6.00	2x1078	69	3.90	4.04	4.02	4.01	4.01	0.0036	0.0055	0.0060	0.0064	0.0067
0.178	7.00	2x3313	56	4.11	4.37	4.35	4.34	4.34	0.0028	0.0053	0.0058	0.0062	0.0064

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0.203	8.00	1x7628	52	4.16	4.45	4.43	4.42	4.42	0.0026	0.0053	0.0058	0.0062	0.0063
0.203	8.00	2x3313	61	4.03	4.24	4.22	4.21	4.21	0.0031	0.0054	0.0059	0.0063	0.0065
0.254	10.00	2x2116	60	4.04	4.26	4.24	4.23	4.23	0.0031	0.0054	0.0059	0.0063	0.0065
0.305	12.00	3x3313	61	4.03	4.24	4.22	4.21	4.21	0.0031	0.0054	0.0059	0.0063	0.0065
0.381	15.00	3x2116	60	4.04	4.26	4.24	4.23	4.23	0.0031	0.0054	0.0059	0.0063	0.0065
0.406	16.00	2x7628	52	4.16	4.45	4.43	4.42	4.42	0.0026	0.0053	0.0058	0.0062	0.0063
0.406	16.00	4x3313	61	4.03	4.24	4.22	4.21	4.21	0.0031	0.0054	0.0059	0.0063	0.0065
0.508	20.00	4x2116	60	4.04	4.26	4.24	4.23	4.23	0.0031	0.0054	0.0059	0.0063	0.0065
0.508	20.00	1x7628+1x2116 +1x7628	53	4.15	4.43	4.41	4.40	4.40	0.0027	0.0053	0.0058	0.0062	0.0063
0.635	25.00	5x2116	60	4.04	4.26	4.24	4.23	4.23	0.0031	0.0054	0.0059	0.0063	0.0065
0.762	30.00	6x2116	60	4.04	4.26	4.24	4.23	4.23	0.0031	0.0054	0.0059	0.0063	0.0065
0.889	35.00	7x2116	60	4.04	4.26	4.24	4.23	4.23	0.0031	0.0054	0.0059	0.0063	0.0065
1.016	40.00	8x2116	60	4.04	4.26	4.24	4.23	4.23	0.0031	0.0054	0.0059	0.0063	0.0065
1.270	50.00	10x2116	60	4.04	4.26	4.24	4.23	4.23	0.0031	0.0054	0.0059	0.0063	0.0065
1.372	54.00	12x2116	56	4.10	4.36	4.34	4.33	4.33	0.0028	0.0053	0.0058	0.0062	0.0064

2. PREPREG (B-STAGE)

Glass style	RC (%) Nominal	Thickness		Dk					Df				
		mm	mil	1 GHz	3 GHz	5 GHz	10 GHz	15 GHz	1 GHz	3 GHz	5 GHz	10 GHz	15 GHz
106	75	0.051	2.00	3.79	3.88	3.85	3.84	3.84	0.0039	0.0056	0.0061	0.0064	0.0068
106	80	0.064	2.50	3.72	3.76	3.74	3.73	3.73	0.0042	0.0057	0.0061	0.0065	0.0070
106	83	0.076	3.00	3.67	3.68	3.66	3.65	3.65	0.0044	0.0057	0.0062	0.0065	0.0070

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106	85	0.089	3.50	3.63	3.62	3.60	3.59	3.59	0.0045	0.0058	0.0062	0.0065	0.0071
106	87	0.102	4.00	3.60	3.58	3.55	3.54	3.54	0.0046	0.0058	0.0062	0.0065	0.0071
1067	75	0.064	2.50	3.79	3.88	3.85	3.84	3.84	0.0039	0.0056	0.0061	0.0064	0.0068
1067	79	0.076	3.00	3.73	3.78	3.76	3.75	3.75	0.0042	0.0057	0.0061	0.0065	0.0069
1080	68	0.076	3.00	3.91	4.05	4.03	4.02	4.02	0.0035	0.0055	0.0060	0.0064	0.0067
1080	70	0.083	3.25	3.87	4.00	3.97	3.96	3.96	0.0037	0.0055	0.0060	0.0064	0.0067
1080	72	0.089	3.50	3.84	3.95	3.93	3.92	3.91	0.0038	0.0056	0.0060	0.0064	0.0068
1080	76	0.102	4.00	3.79	3.87	3.85	3.84	3.83	0.0040	0.0056	0.0061	0.0064	0.0069
1078	69	0.076	3.00	3.90	4.04	4.02	4.01	4.01	0.0036	0.0055	0.0060	0.0064	0.0067
1078	73	0.089	3.50	3.83	3.93	3.91	3.90	3.90	0.0038	0.0056	0.0060	0.0064	0.0068
3313	61	0.102	4.00	4.03	4.24	4.22	4.21	4.21	0.0031	0.0054	0.0059	0.0063	0.0065
3313	64	0.114	4.50	3.97	4.14	4.12	4.11	4.11	0.0033	0.0055	0.0059	0.0063	0.0066
2116	56	0.114	4.50	4.10	4.36	4.34	4.33	4.33	0.0028	0.0053	0.0058	0.0062	0.0064
2116	60	0.127	5.00	4.04	4.26	4.24	4.23	4.23	0.0031	0.0054	0.0059	0.0063	0.0065
2116	63	0.140	5.50	3.99	4.18	4.16	4.15	4.15	0.0032	0.0054	0.0059	0.0063	0.0066
7628	52	0.203	8.00	4.16	4.45	4.43	4.42	4.42	0.0026	0.0053	0.0058	0.0062	0.0063

3. REMARK

- 1) 1 GHz Dk/Df measuring method: IPC-TM-650 2.5.5.9; 3 GHz, 5 GHz, 10 GHz, 15 GHz Dk/Df measuring method: IPC-TM-650 2.5.5.5;
- 2) Copper foil: HTE, RTF;
- 3) Copper foil thickness: 1/2 oz; 1 oz; 2 oz and 3 oz;
- 4) All the values listed above are for your reference only. Please contact Shengyi Technology Co., Ltd. for detailed information. All rights from this line up are reserved by Shengyi Technology Co., Ltd.;
- 5) Last update: Jun, 2025.