

Based Material Line Up

S1170G/S1170GB

1. CORE (C-STAGE)

Thickness		ply-up	RC (%)	Dk				Df			
mm	mil			1 GHz	3 GHz	5 GHz	10 GHz	1 GHz	3 GHz	5 GHz	10 GHz
0.040	1.57	1x1037	66	4.24	4.21	4.18	4.16	0.015	0.017	0.017	0.018
0.050	2.00	1x1067	64	4.29	4.26	4.22	4.20	0.015	0.016	0.017	0.017
0.076	3.00	1x1080	64	4.29	4.26	4.22	4.20	0.015	0.016	0.017	0.017
0.089	3.50	1x1080	68	4.19	4.16	4.13	4.11	0.015	0.017	0.017	0.018
0.100	4.00	1x3313	56	4.48	4.45	4.42	4.40	0.014	0.015	0.015	0.015
0.100	4.00	2x106	70	4.14	4.11	4.07	4.07	0.016	0.017	0.018	0.018
0.127	5.00	1x2116	55	4.50	4.47	4.44	4.42	0.014	0.015	0.015	0.015
0.127	5.00	2x106	77	3.98	3.96	3.90	3.90	0.016	0.018	0.018	0.019
0.150	6.00	1x1506	44	4.76	4.72	4.70	4.68	0.012	0.013	0.013	0.013
0.150	6.00	2x1080	64	4.29	4.26	4.22	4.20	0.015	0.016	0.017	0.017
0.200	8.00	1x7628	45	4.74	4.70	4.68	4.66	0.012	0.013	0.014	0.013
0.200	8.00	2x3313	56	4.48	4.45	4.42	4.40	0.014	0.015	0.015	0.015
0.254	10.00	2x2116	55	4.50	4.47	4.44	4.42	0.014	0.015	0.015	0.015
0.300	12.00	2x1506	44	4.76	4.72	4.70	4.68	0.012	0.013	0.013	0.013
0.400	15.75	2x7628	44	4.76	4.72	4.70	4.68	0.012	0.013	0.013	0.013
0.410	16.00	2x7628	45	4.74	4.70	4.68	4.66	0.012	0.013	0.014	0.013
0.510	20.00	2x7628+2116	45	4.74	4.70	4.68	4.66	0.012	0.013	0.014	0.013
0.610	24.00	3x7628	45	4.74	4.70	4.68	4.66	0.012	0.013	0.014	0.013
0.710	28.00	4x7628	41	4.82	4.81	4.76	4.77	0.012	0.013	0.013	0.013
0.810	31.89	4x7628	45	4.74	4.70	4.68	4.66	0.012	0.013	0.014	0.013
1.000	39.40	5x7628	44	4.76	4.72	4.70	4.68	0.012	0.013	0.013	0.013
1.200	47.00	6x7628	44	4.76	4.72	4.70	4.68	0.012	0.013	0.013	0.013
1.400	55.12	7x7628	44	4.76	4.72	4.70	4.68	0.012	0.013	0.013	0.013
1.600	63.00	9x7628	40	4.84	4.84	4.78	4.80	0.012	0.013	0.013	0.013

Based Material Line Up

2. PREPREG (B-STAGE)

Glass style	RC (%) Nominal	Thickness		Dk				Df			
		mm	mil	1GHz	3GHz	5GHz	10GHz	1 GHz	3 GHz	5 GHz	10 GHz
1037	71	0.048	1.89	4.12	4.09	4.05	4.04	0.016	0.017	0.018	0.018
1037	73	0.052	2.05	4.07	4.05	4.01	3.99	0.016	0.017	0.018	0.018
1037	75	0.057	2.24	4.02	4.00	3.96	3.94	0.016	0.018	0.018	0.019
106	72	0.053	2.09	4.10	4.07	4.03	4.01	0.016	0.017	0.018	0.018
106	76	0.064	2.52	4.00	3.98	3.93	3.92	0.016	0.018	0.018	0.019
1080	64	0.078	3.07	4.29	4.26	4.22	4.20	0.015	0.016	0.017	0.017
1080	68	0.090	3.54	4.19	4.16	4.13	4.11	0.015	0.017	0.017	0.018
2313	55	0.101	3.98	4.50	4.47	4.44	4.42	0.014	0.015	0.015	0.015
2313	59	0.114	4.49	4.40	4.37	4.34	4.32	0.014	0.015	0.016	0.016
2116	52	0.119	4.69	4.57	4.54	4.51	4.49	0.013	0.014	0.015	0.015
2116	55	0.130	5.12	4.50	4.47	4.44	4.42	0.014	0.015	0.015	0.015
2116	58	0.141	5.55	4.43	4.40	4.37	4.35	0.014	0.015	0.016	0.016
1506	45	0.159	6.26	4.74	4.70	4.68	4.66	0.012	0.013	0.014	0.013
1506	48	0.171	6.73	4.66	4.63	4.60	4.59	0.013	0.014	0.014	0.014
7628	43	0.193	7.60	4.78	4.75	4.72	4.71	0.012	0.013	0.013	0.013
7628	46	0.207	8.15	4.71	4.68	4.65	4.64	0.013	0.014	0.014	0.014
7628	48	0.218	8.58	4.66	4.63	4.60	4.59	0.013	0.014	0.014	0.014
7628	50	0.229	9.02	4.62	4.58	4.56	4.54	0.013	0.014	0.014	0.014

Based Material Line Up

S1170G (For interposer)

3. CORE (C-STAGE)

Thickness		Ply-up	RC (%)	DK				Df			
mm	mil			1 GHz	3 GHz	5 GHz	10 GHz	1 GHz	3 GHz	5 GHz	10 GHz
0.71	28.0	7x2116	48	4.66	4.63	4.60	4.59	0.013	0.014	0.014	0.014
0.75	29.5	7x2116	50	4.62	4.58	4.56	4.54	0.013	0.014	0.014	0.014
0.81	31.9	8x2116	48	4.66	4.63	4.60	4.59	0.013	0.014	0.014	0.014
0.91	35.8	9x2116	48	4.66	4.63	4.60	4.59	0.013	0.014	0.014	0.014
0.95	37.4	9x2116	49	4.64	4.60	4.58	4.57	0.013	0.014	0.014	0.014
1.00	39.4	10x2116	47	4.68	4.66	4.62	4.61	0.013	0.014	0.014	0.014
1.11	43.7	11x2116	47	4.68	4.66	4.62	4.61	0.013	0.014	0.014	0.014
1.61	63.4	16x2116	47	4.68	4.66	4.62	4.61	0.013	0.014	0.014	0.014

4. REMARK

- 1) Dk /Df test method (1GHz ~10GHz): IPC-TM-650 2.5.5.15 SPDR.
- 2) Not used for PCB's IQC test reference. QA Dk/Df consistency monitoring method uses SPDR. Please check with SYTECH technical service engineers.
- 3) The above data are intended for reference only. SYTECH reserves the right to make any update.