

# Based Material Line Up



## ST115G/ST115GB

### 1. CORE (C-STAGE)

Thickness		ply-up	RC (%)	Dk				Df			
mil	mm			1 MHz	1 GHz	5 GHz	10 GHz	1 MHz	1 GHz	5 GHz	10 GHz
3	0.076	1X106	87	5.40	5.23	5.36	5.30	0.0095	0.0131	0.0143	0.0144
4.3	0.110	2X106	82	5.31	5.13	5.41	5.36	0.0090	0.0122	0.0147	0.0141
4.3	0.110	1X106	90	5.48	5.33	5.33	5.27	0.0099	0.0137	0.0140	0.0146
6.0	0.152	2X106	87	5.40	5.23	5.36	5.30	0.0095	0.0131	0.0143	0.0144
8.0	0.203	2X106	90	5.48	5.33	5.33	5.27	0.0099	0.0137	0.0140	0.0146
10.0	0.254	2X1080	84	5.34	5.16	5.39	5.34	0.0092	0.0125	0.0145	0.0142
12.0	0.305	3X106	90	5.47	5.32	5.33	5.27	0.0099	0.0137	0.0140	0.0146
14.0	0.356	1X1080+1X106+1X1080	84	5.40	5.23	5.36	5.30	0.0095	0.0131	0.0143	0.0144
16.0	0.406	1X1080+2X106+1X1080	84	5.36	5.22	5.37	5.32	0.0095	0.0128	0.0143	0.0144
20.0	0.508	4X1080	84	5.34	5.16	5.39	5.34	0.0092	0.0125	0.0145	0.0142
24.0	0.610	2X1080+1X106+2X1080	84	5.36	5.22	5.37	5.32	0.0095	0.0128	0.0143	0.0144
28.0	0.711	2X1080+2X106+2X1080	84	5.36	5.22	5.37	5.32	0.0095	0.0128	0.0143	0.0144
30.0	0.762	6X1080	84	5.34	5.16	5.39	5.34	0.0092	0.0125	0.0145	0.0142
40.0	1.016	8X1080	84	5.34	5.16	5.39	5.34	0.0092	0.0125	0.0145	0.0142
50.0	1.270	10X1080	84	5.34	5.16	5.39	5.34	0.0092	0.0125	0.0145	0.0142
60.0	1.524	12X1080	84	5.34	5.16	5.39	5.34	0.0092	0.0125	0.0145	0.0142

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## 2. PREPREG (B-STAGE)

Glass style	RC (%) Nominal	Thickness		Dk				Df			
		mm	mil	1MHz	1GHz	5GHz	10GHz	1 MHz	1 GHz	5 GHz	10 GHz
1080	85	0.135	5.7	5.37	5.18	5.37	5.31	0.0094	0.0127	0.0144	0.0144
106	90	0.105	4.2	5.48	5.33	5.33	5.27	0.0099	0.0137	0.0140	0.0146
1027	88	0.072	2.8	5.45	5.38	5.30	5.25	0.0092	0.0133	0.0138	0.0141
1027	90	0.086	3.2	5.48	5.33	5.33	5.27	0.0099	0.0137	0.0140	0.0146

## 3. REMARK

- 1) 5G, 10GHz data, test by SPDR method (IEC 61189-2-721).
- 2) SPDR method is taken as internal Dk and Df consistency monitoring. When used for impedance calculation, need to use engineering Dk, which is better for PCB fabricators to use their own test vehicle. The value is about 0.3-0.4 lower than SPDR tested value showed above.
- 3) 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.;
- 4) Last update: September, 2020.