

Based Material Line Up



SI13U/SI13NB

1. CORE (C-STAGE)

Type	SPEC	Nominal Thickness		ply-up	Dk			Df		
		mm	mil		1 GHz	5 GHz	10 GHz	1 GHz	5 GHz	10 GHz
Standard	0.03	0.033	1.30	1X1027	4.51	4.50	4.49	0.012	0.013	0.013
	0.04	0.043	1.69	1x1067	4.62	4.60	4.58	0.012	0.013	0.013
	0.05	0.053	2.05	1x1078	4.78	4.75	4.73	0.012	0.013	0.013
	0.06	0.060	2.36	1x1078	4.69	4.68	4.66	0.011	0.012	0.012
	0.08	0.086	3.39	2x1067	4.62	4.60	4.58	0.014	0.015	0.015
	0.10	0.106	4.09	2x1078	4.78	4.75	4.73	0.012	0.013	0.013
	0.13	0.136	5.28	1078+1037+1078	4.70	4.69	4.68	0.013	0.014	0.014
	0.15	0.159	6.14	3x1078	4.78	4.75	4.73	0.012	0.013	0.013
	0.18	0.186	7.32	1067+2116+1067	4.77	4.76	4.75	0.012	0.013	0.013
	0.20	0.210	8.27	2x2116	4.85	4.82	4.80	0.009	0.010	0.010
	0.30	0.315	12.40	3x2116	4.85	4.82	4.80	0.009	0.010	0.010
	0.40	0.420	16.14	4x2116	4.85	4.82	4.80	0.009	0.010	0.010
	0.50	0.510	20.08	5x2116	4.85	4.82	4.80	0.009	0.010	0.010
	0.60	0.610	24.02	6x2116	4.85	4.82	4.80	0.009	0.010	0.010
	0.70	0.710	27.95	7x2116	4.85	4.82	4.80	0.009	0.010	0.010
0.80	0.810	31.89	8x2116	4.85	4.82	4.80	0.009	0.010	0.010	
M	0.04	0.043	1.69	2x1017	4.48	4.47	4.46	0.013	0.014	0.014
	0.05	0.052	2.05	2x1027	4.35	4.34	4.33	0.014	0.015	0.015
	0.06	0.060	2.36	2x1037	4.50	4.48	4.47	0.014	0.015	0.015

Based Material Line Up



	0.20	0.208	8.19	4X1078	4.78	4.75	4.73	0.012	0.013	0.013
H	0.03	0.033	1.30	1X1024	4.63	4.62	4.61	0.013	0.014	0.014
	0.04	0.043	1.69	2X1015	4.69	4.68	4.67	0.011	0.012	0.012
	0.05	0.052	2.05	2X1024	4.79	4.78	4.77	0.011	0.012	0.012
	0.06	0.066	2.60	2X1030	4.78	4.77	4.76	0.011	0.012	0.012

Remark:

- 1) Type M: Multi ply-up
- 2) Type H: High density glass fabric
- 3) Type LC: Low CTE glass
- 4) Type LCH: Low CTE/High density glass

2. PREPREG (B-STAGE)

Glass style	RC (%)	Nominal Thickness		Dk			Df		
		mm	mil	1GHz	5GHz	10GHz	1 GHz	5 GHz	10 GHz
1078	66	0.070	2.76	4.48	4.46	4.45	0.012	0.013	0.013
1078	61	0.060	2.36	4.69	4.68	4.66	0.011	0.012	0.012
1067	74	0.060	2.36	4.39	4.38	4.37	0.014	0.015	0.015
1067	69	0.050	1.97	4.42	4.41	4.40	0.012	0.013	0.013
1037	78	0.055	2.17	4.35	4.34	4.32	0.016	0.017	0.017
1037	76	0.050	1.97	4.36	4.35	4.34	0.015	0.016	0.016
1037	71	0.040	1.57	4.41	4.40	4.39	0.013	0.014	0.014
1027	74	0.040	1.57	4.38	4.37	4.36	0.013	0.014	0.014
1027	67	0.030	1.18	4.51	4.50	4.49	0.012	0.013	0.013
1017	73	0.025	1.00	4.47	4.46	4.45	0.013	0.014	0.014

Based Material Line Up



3. REMARK

- 5) Test by SPDR method
- 6) The data above show actual values and are not guaranteed.
- 7) Last update: July 2021