

Base Material Line Up



Synamic6GX Line up

1. Thin Core (Synamic6GX)

Thickness		Ply-up	RC (%)	Dk					Df				
mil	mm			1 GHz	3 GHz	5 GHz	10 GHz	15 GHz	1GHz	3 GHz	5 GHz	10 GHz	15 GHz
2	0.051	1x1067	67	3.54	3.54	3.54	3.54	3.53	0.0032	0.0037	0.0042	0.0047	0.0049
2.5	0.064	1x1067	73	3.43	3.43	3.43	3.43	3.42	0.0029	0.0034	0.0039	0.0044	0.0046
3	0.076	1x1067	77	3.36	3.36	3.36	3.36	3.35	0.0028	0.0033	0.0038	0.0043	0.0045
3	0.076	1x1078	66	3.56	3.56	3.56	3.56	3.55	0.0032	0.0037	0.0042	0.0047	0.0049
3.5	0.089	1x1086	67	3.54	3.54	3.54	3.54	3.53	0.0032	0.0037	0.0042	0.0047	0.0049
3.5	0.089	1x3313	53	3.80	3.80	3.80	3.80	3.79	0.0036	0.0041	0.0046	0.0051	0.0053
4	0.102	2x1067	67	3.54	3.54	3.54	3.54	3.53	0.0032	0.0037	0.0042	0.0047	0.0049
4	0.102	1x3313	58	3.71	3.71	3.71	3.71	3.70	0.0035	0.0040	0.0045	0.0050	0.0052
4	0.102	1x1086	71	3.47	3.47	3.47	3.47	3.46	0.0030	0.0035	0.0040	0.0045	0.0047
4.5	0.114	1x2116	53	3.80	3.80	3.80	3.80	3.79	0.0036	0.0041	0.0046	0.0051	0.0053
5	0.127	1x2116	57	3.73	3.73	3.73	3.73	3.72	0.0035	0.0040	0.0045	0.0050	0.0052
5	0.127	2x1067	73	3.43	3.43	3.43	3.43	3.42	0.0029	0.0034	0.0039	0.0044	0.0046
5	0.127	2x1078	62	3.64	3.64	3.64	3.64	3.63	0.0033	0.0038	0.0043	0.0048	0.0050
6	0.152	2x1080	66	3.56	3.56	3.56	3.56	3.55	0.0032	0.0037	0.0042	0.0047	0.0049
6	0.152	2x1078	66	3.56	3.56	3.56	3.56	3.55	0.0032	0.0037	0.0042	0.0047	0.0049
8	0.203	2x3313	58	3.71	3.71	3.71	3.71	3.70	0.0035	0.0040	0.0045	0.0050	0.0052
9	0.229	2x2116	53	3.80	3.80	3.80	3.80	3.79	0.0036	0.0041	0.0046	0.0051	0.0053
10	0.254	2x2116	57	3.73	3.73	3.73	3.73	3.72	0.0035	0.0040	0.0045	0.0050	0.0052
12	0.305	3x2116	49	3.88	3.88	3.88	3.88	3.87	0.0038	0.0043	0.0048	0.0053	0.0055

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12	0.305	3x3313	58	3.71	3.71	3.71	3.71	3.70	0.0035	0.0040	0.0045	0.0050	0.0052
15	0.381	3x2116	57	3.73	3.73	3.73	3.73	3.72	0.0035	0.0040	0.0045	0.0050	0.0052
20	0.508	4x2116	57	3.73	3.73	3.73	3.73	3.72	0.0035	0.0040	0.0045	0.0050	0.0052
25	0.635	5x2116	57	3.73	3.73	3.73	3.73	3.72	0.0035	0.0040	0.0045	0.0050	0.0052
28	0.711	7x2116	49	3.88	3.88	3.88	3.88	3.87	0.0038	0.0043	0.0048	0.0053	0.0055
30	0.762	6x2116	57	3.73	3.73	3.73	3.73	3.72	0.0035	0.0040	0.0045	0.0050	0.0052
40	1.016	10x2116	49	3.88	3.88	3.88	3.88	3.87	0.0038	0.0043	0.0048	0.0053	0.0055

2. Prepreg (Synamic6GXB)

Glass Type (E-glass)	RC (%)	Thickness		Dk					Df				
		mil	mm	1GHz	3GHz	5 GHz	10 GHz	15 GHz	1GHz	3GHz	5 GHz	10 GHz	15 GHz
1067	67	2.0	0.051	3.54	3.54	3.54	3.54	3.53	0.0032	0.0037	0.0042	0.0047	0.0049
1067	71	2.3	0.058	3.47	3.47	3.47	3.47	3.46	0.0030	0.0035	0.0040	0.0045	0.0047
1067	73	2.5	0.064	3.43	3.43	3.43	3.43	3.42	0.0029	0.0034	0.0039	0.0044	0.0046
1067	76	2.8	0.071	3.38	3.38	3.38	3.38	3.37	0.0028	0.0033	0.0038	0.0043	0.0045
1078	64	2.8	0.071	3.60	3.60	3.60	3.60	3.59	0.0033	0.0038	0.0043	0.0048	0.0050
1078	66	3.0	0.076	3.56	3.56	3.56	3.56	3.55	0.0032	0.0037	0.0042	0.0047	0.0049
1078	68	3.2	0.081	3.53	3.53	3.53	3.53	3.52	0.0031	0.0036	0.0041	0.0046	0.0048
1078	70	3.5	0.089	3.49	3.49	3.49	3.49	3.48	0.0031	0.0036	0.0041	0.0046	0.0048
1078	73	3.8	0.097	3.43	3.43	3.43	3.43	3.42	0.0029	0.0034	0.0039	0.0044	0.0046
1080	63	2.8	0.071	3.62	3.62	3.62	3.62	3.61	0.0033	0.0038	0.0043	0.0048	0.0050
1080	66	3.0	0.076	3.56	3.56	3.56	3.56	3.55	0.0032	0.0037	0.0042	0.0047	0.0049
1080	68	3.2	0.081	3.53	3.53	3.53	3.53	3.52	0.0031	0.0036	0.0041	0.0046	0.0048

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1080	70	3.5	0.089	3.49	3.49	3.49	3.49	3.48	0.0031	0.0036	0.0041	0.0046	0.0048
3313	58	4.0	0.102	3.71	3.71	3.71	3.71	3.70	0.0035	0.0040	0.0045	0.0050	0.0052
3313	61	4.5	0.114	3.66	3.66	3.66	3.66	3.65	0.0034	0.0039	0.0044	0.0049	0.0051
3313	63	4.7	0.119	3.62	3.62	3.62	3.62	3.61	0.0033	0.0038	0.0043	0.0048	0.0050
2116	57	5.0	0.127	3.73	3.73	3.73	3.73	3.72	0.0035	0.0040	0.0045	0.0050	0.0052
2116	60	5.5	0.140	3.67	3.67	3.67	3.67	3.66	0.0034	0.0039	0.0044	0.0049	0.0051

Remarks:

- 1) Dk/Df measuring method: IPC TM-650 2.5.5.5;
- 2) Copper Foil: HOZ, 1OZ with RTF3, 2OZ with RTF. Other types of copper foil can be option upon request.
- 3) The above data is for reference only, but not guarantee value. SYTECH reserves the right for any update.
- 4) Last update: November 29, 2023