

Data Sheet

**Ultra-low transmission loss Highly heat resistant
Multi-layer circuit board materials**

MEGTRON6

**Laminate R-5775
Prepreg R-5670**

博锐电路始终坚持“品质至上，服务根本”的原则。为客户提供高效制造及可靠品质，迅速获得最佳的市场和竞争优势，是我们永恒的目标。
如您需要工程技术支持或报价服务，请联系工程技术：eq@brpcb.com；商务报价：sales@brpcb.com Web：www.brpcb.com
陈工10年PCB工程经验，专门为电子工程师提供2-36层（HDI任意阶阻抗）叠层阻抗设计 Tel：19195667992 0755-23599845

Aug. 2022 No.22081031

Partnering to go beyond.

Electronic Materials
Panasonic Industry

Specification / Laminate R-5775

Property			Units	Test Method	Condition	Typical Value
THERMAL	Glass Transition Temp (Tg)		C	DSC	As received	185
				DMA	As received	210
	Thermal Decomposition Temp (Td)		C	TGA	As received	410
	Time to Delam (T288)	Without Cu	Min	IPC TM-650 2.4.24.1	As received	> 120
		With Cu	Min	IPC TM-650 2.4.24.1	As received	> 120
	CTE : $\alpha 1$	X - axis	ppm / C	IPC TM-650 2.4.24	< Tg	14 - 16
		Y - axis	ppm / C	IPC TM-650 2.4.24	< Tg	14 - 16
		Z - axis	ppm / C	IPC TM-650 2.4.24	< Tg	45
	CTE : $\alpha 2$	Z - axis	ppm / C	IPC TM-650 2.4.24	> Tg	260
ELECTRICAL	Volume Resistivity		M Ω - cm	IPC TM-650 2.5.17.1	C-96/35/90	1×10^9
	Surface Resistivity		M Ω	IPC TM-650 2.5.17.1	C-96/35/90	1×10^8
	Dielectric Constant (Dk)	@ 1GHz	-	IPC TM-650 2.5.5.9	C-24/23/50	3.71
		@ 10GHz	-	IPC TM-650 2.5.5.5	C-24/23/50	3.61
	Dissipation Factor (Df)	@ 1GHz	-	IPC TM-650 2.5.5.9	C-24/23/50	0.002
		@ 10GHz	-	IPC TM-650 2.5.5.5	C-24/23/50	0.004
PHYSICAL	Water Absorption		%	IPC TM-650 2.6.2.1	D-24/23	0.14
	Peel Strength	1oz (H-VLP)	kN / m	IPC TM-650 2.4.8	As Received	0.8
	Flammability		-	UL	C-48/23/50	94V-0

Sample thickness ; 29.5 mil = 0.750 mm (Core Type 30)

* The data in the above table are not guaranteed values.

Specification / Laminate R-5775(K)

1GHz ; IPC TM650-2.5.5.9 2GHz-10GHz ; IPC TM650-2.5.5.5

Core Type	Actual Thickness		Cloth Style	ply	Typical Resin Content (%)	Typical Dk						Typical Df					
	mil	mm				1GHz	2GHz	4GHz	6GHz	8GHz	10GHz	1GHz	2GHz	4GHz	6GHz	8GHz	10GHz
2	2.0	0.050	1035	1	65	3.46	3.39	3.38	3.38	3.38	3.37	0.002	0.002	0.003	0.003	0.004	0.004
2.6	2.6	0.065	1080	1	57	3.65	3.58	3.57	3.56	3.56	3.55	0.002	0.002	0.003	0.003	0.004	0.004
2.6	2.6	0.065	1078	1	57	3.65	3.58	3.57	3.56	3.56	3.55	0.002	0.002	0.003	0.003	0.004	0.004
3	3.0	0.075	1078	1	63	3.49	3.42	3.41	3.40	3.40	3.39	0.002	0.002	0.003	0.003	0.004	0.004
3.5	3.5	0.090	1078	1	68	3.41	3.34	3.33	3.33	3.33	3.32	0.002	0.002	0.003	0.003	0.004	0.004
4	3.9	0.100	3313	1	54	3.71	3.64	3.63	3.63	3.62	3.61	0.002	0.002	0.003	0.003	0.004	0.004
4	3.9	0.100	1035	2	65	3.46	3.39	3.38	3.38	3.38	3.37	0.002	0.002	0.003	0.003	0.004	0.004
5	5.0	0.127	1078	2	57	3.65	3.58	3.57	3.56	3.56	3.55	0.002	0.002	0.003	0.003	0.004	0.004
5	4.9	0.125	2116	1	54	3.71	3.64	3.63	3.63	3.62	3.61	0.002	0.002	0.003	0.003	0.004	0.004
5	5.1	0.130	1080	2	57	3.65	3.58	3.57	3.56	3.56	3.55	0.002	0.002	0.003	0.003	0.004	0.004
6	5.7	0.146	1078	2	63	3.49	3.42	3.41	3.40	3.40	3.39	0.002	0.002	0.003	0.003	0.004	0.004
6	5.9	0.150	1080	2	63	3.49	3.42	3.41	3.40	3.40	3.39	0.002	0.002	0.003	0.003	0.004	0.004
7	7.0	0.178	1078	2	68	3.41	3.34	3.33	3.33	3.33	3.32	0.002	0.002	0.003	0.003	0.004	0.004
8	7.9	0.200	3313	2	54	3.71	3.64	3.63	3.63	3.62	3.61	0.002	0.002	0.003	0.003	0.004	0.004
10	9.8	0.250	2116	2	54	3.71	3.64	3.63	3.63	3.62	3.61	0.002	0.002	0.003	0.003	0.004	0.004
12	11.8	0.300	3313	3	54	3.71	3.64	3.63	3.63	3.62	3.61	0.002	0.002	0.003	0.003	0.004	0.004
16	15.7	0.400	3313	4	54	3.71	3.64	3.63	3.63	3.62	3.61	0.002	0.002	0.003	0.003	0.004	0.004
20	19.7	0.500	2116	4	54	3.71	3.64	3.63	3.63	3.62	3.61	0.002	0.002	0.003	0.003	0.004	0.004
25	24.6	0.625	2116	5	54	3.71	3.64	3.63	3.63	3.62	3.61	0.002	0.002	0.003	0.003	0.004	0.004
30	29.5	0.750	2116	6	54	3.71	3.64	3.63	3.63	3.62	3.61	0.002	0.002	0.003	0.003	0.004	0.004

* The data in the above table are not guaranteed values.

Specification / Prepreg R-5670(K)

1GHz ; IPC TM650-2.5.5.9 2GHz-10GHz ; IPC TM650-2.5.5.5

Cloth Style	Resin Content (%)	Typical Thickness (um)	Typical Dk						Typical Df					
			1GHz	2GHz	4GHz	6GHz	8GHz	10GHz	1GHz	2GHz	4GHz	6GHz	8GHz	10GHz
1027	75	49	3.28	3.21	3.20	3.20	3.20	3.19	0.002	0.002	0.003	0.003	0.004	0.004
1035	70	60	3.35	3.25	3.25	3.24	3.24	3.23	0.002	0.002	0.003	0.003	0.004	0.004
	73	68	3.29	3.22	3.22	3.21	3.21	3.20	0.002	0.002	0.003	0.003	0.004	0.004
	75	74	3.28	3.21	3.20	3.20	3.20	3.19	0.002	0.002	0.003	0.003	0.004	0.004
1080	64	76	3.47	3.40	3.39	3.39	3.39	3.38	0.002	0.002	0.003	0.003	0.004	0.004
	68	87	3.41	3.34	3.33	3.33	3.33	3.32	0.002	0.002	0.003	0.003	0.004	0.004
1078	64	77	3.47	3.40	3.39	3.39	3.39	3.38	0.002	0.002	0.003	0.003	0.004	0.004
	68	89	3.41	3.34	3.33	3.33	3.33	3.32	0.002	0.002	0.003	0.003	0.004	0.004
	72	104	3.31	3.24	3.23	3.23	3.23	3.22	0.002	0.002	0.003	0.003	0.004	0.004
	75	118	3.28	3.21	3.20	3.20	3.20	3.19	0.002	0.002	0.003	0.003	0.004	0.004
3313	54	98	3.71	3.64	3.63	3.63	3.62	3.61	0.002	0.002	0.003	0.003	0.004	0.004
	57	106	3.65	3.58	3.57	3.56	3.56	3.55	0.002	0.002	0.003	0.003	0.004	0.004
2116	54	125	3.71	3.64	3.63	3.63	3.62	3.61	0.002	0.002	0.003	0.003	0.004	0.004
	56	132	3.67	3.60	3.59	3.58	3.58	3.57	0.002	0.002	0.003	0.003	0.004	0.004

* The data in the above table are not guaranteed values.

Specification / Laminate R-5775(G)

1GHz ; IPC TM650-2.5.5.9 2GHz-10GHz ; IPC TM650-2.5.5.5

Core Type	Actual Thickness		Cloth Style	ply	Typical Resin Content (%)	Typical Dk						Typical Df					
	mil	mm				1GHz	2GHz	4GHz	6GHz	8GHz	10GHz	1GHz	2GHz	4GHz	6GHz	8GHz	10GHz
2	2.0	0.050	1035	1	65	3.46	3.39	3.38	3.38	3.38	3.37	0.002	0.002	0.003	0.003	0.004	0.004
2	2.0	0.050	1067	1	64	3.47	3.40	3.39	3.39	3.39	3.38	0.002	0.002	0.003	0.003	0.004	0.004
2.6	2.6	0.065	1080	1	57	3.65	3.58	3.57	3.56	3.56	3.55	0.002	0.002	0.003	0.003	0.004	0.004
2.6	2.6	0.065	1078	1	57	3.65	3.58	3.57	3.56	3.56	3.55	0.002	0.002	0.003	0.003	0.004	0.004
3	3.0	0.075	1078	1	63	3.49	3.42	3.41	3.40	3.40	3.39	0.002	0.002	0.003	0.003	0.004	0.004
3.5	3.5	0.090	1078	1	68	3.41	3.34	3.33	3.33	3.33	3.32	0.002	0.002	0.003	0.003	0.004	0.004
4	3.9	0.100	3313	1	54	3.71	3.64	3.63	3.63	3.62	3.61	0.002	0.002	0.003	0.003	0.004	0.004
4	3.9	0.100	1035	2	65	3.46	3.39	3.38	3.38	3.38	3.37	0.002	0.002	0.003	0.003	0.004	0.004
5	5.0	0.127	1078	2	57	3.65	3.58	3.57	3.56	3.56	3.55	0.002	0.002	0.003	0.003	0.004	0.004
5	4.9	0.125	2116	1	54	3.71	3.64	3.63	3.63	3.62	3.61	0.002	0.002	0.003	0.003	0.004	0.004
5	5.1	0.130	1080	2	57	3.65	3.58	3.57	3.56	3.56	3.55	0.002	0.002	0.003	0.003	0.004	0.004
6	5.7	0.146	1078	2	63	3.49	3.42	3.41	3.40	3.40	3.39	0.002	0.002	0.003	0.003	0.004	0.004
6	5.9	0.150	1080	2	63	3.49	3.42	3.41	3.40	3.40	3.39	0.002	0.002	0.003	0.003	0.004	0.004
7	7.0	0.178	1078	2	68	3.41	3.34	3.33	3.33	3.33	3.32	0.002	0.002	0.003	0.003	0.004	0.004
8	7.9	0.200	3313	2	54	3.71	3.64	3.63	3.63	3.62	3.61	0.002	0.002	0.003	0.003	0.004	0.004
10	9.8	0.250	2116	2	54	3.71	3.64	3.63	3.63	3.62	3.61	0.002	0.002	0.003	0.003	0.004	0.004
12	11.8	0.300	3313	3	54	3.71	3.64	3.63	3.63	3.62	3.61	0.002	0.002	0.003	0.003	0.004	0.004
16	15.7	0.400	3313	4	54	3.71	3.64	3.63	3.63	3.62	3.61	0.002	0.002	0.003	0.003	0.004	0.004
20	19.7	0.500	2116	4	54	3.71	3.64	3.63	3.63	3.62	3.61	0.002	0.002	0.003	0.003	0.004	0.004
22	21.9	0.555	7628	3	42	4.07	4.00	3.97	3.96	3.95	3.95	0.002	0.002	0.003	0.003	0.004	0.004
25	24.6	0.625	2116	5	54	3.71	3.64	3.63	3.63	3.62	3.61	0.002	0.002	0.003	0.003	0.004	0.004
29	29.1	0.740	7628	4	42	4.07	4.00	3.97	3.96	3.95	3.95	0.002	0.002	0.003	0.003	0.004	0.004
30	29.5	0.750	2116	6	54	3.71	3.64	3.63	3.63	3.62	3.61	0.002	0.002	0.003	0.003	0.004	0.004
37	36.4	0.925	7628	5	42	4.07	4.00	3.97	3.96	3.95	3.95	0.002	0.002	0.003	0.003	0.004	0.004

* The data in the above table are not guaranteed values.

Specification / Prepreg R-5670(G)

1GHz ; IPC TM650-2.5.5.9 2GHz-10GHz ; IPC TM650-2.5.5.5

Cloth Style	Resin Content (%)	Typical Thickness (um)	Typical Dk						Typical Df					
			1GHz	2GHz	4GHz	6GHz	8GHz	10GHz	1GHz	2GHz	4GHz	6GHz	8GHz	10GHz
1027	75	49	3.28	3.21	3.20	3.20	3.20	3.19	0.002	0.002	0.003	0.003	0.004	0.004
1035	70	60	3.35	3.25	3.25	3.24	3.24	3.23	0.002	0.002	0.003	0.003	0.004	0.004
	73	68	3.29	3.22	3.22	3.21	3.21	3.20	0.002	0.002	0.003	0.003	0.004	0.004
	75	74	3.28	3.21	3.20	3.20	3.20	3.19	0.002	0.002	0.003	0.003	0.004	0.004
1067	69	59	3.38	3.29	3.29	3.28	3.28	3.27	0.002	0.002	0.003	0.003	0.004	0.004
	72	67	3.31	3.24	3.23	3.23	3.23	3.22	0.002	0.002	0.003	0.003	0.004	0.004
	74	72	3.29	3.22	3.21	3.21	3.21	3.20	0.002	0.002	0.003	0.003	0.004	0.004
1080	64	76	3.47	3.40	3.39	3.39	3.39	3.38	0.002	0.002	0.003	0.003	0.004	0.004
	68	87	3.41	3.34	3.33	3.33	3.33	3.32	0.002	0.002	0.003	0.003	0.004	0.004
1078	64	77	3.47	3.40	3.39	3.39	3.39	3.38	0.002	0.002	0.003	0.003	0.004	0.004
	68	89	3.41	3.34	3.33	3.33	3.33	3.32	0.002	0.002	0.003	0.003	0.004	0.004
	72	104	3.31	3.24	3.23	3.23	3.23	3.22	0.002	0.002	0.003	0.003	0.004	0.004
	75	118	3.28	3.21	3.20	3.20	3.20	3.19	0.002	0.002	0.003	0.003	0.004	0.004
3313	54	98	3.71	3.64	3.63	3.63	3.62	3.61	0.002	0.002	0.003	0.003	0.004	0.004
	57	106	3.65	3.58	3.57	3.56	3.56	3.55	0.002	0.002	0.003	0.003	0.004	0.004
2116	54	125	3.71	3.64	3.63	3.63	3.62	3.61	0.002	0.002	0.003	0.003	0.004	0.004
	56	132	3.67	3.60	3.59	3.58	3.58	3.57	0.002	0.002	0.003	0.003	0.004	0.004

* The data in the above table are not guaranteed values.