



PCBMASTER

High-Frequency PCB Material Selection Guide

2025/9/17

Supplier	PCB Material	Resin Type	Material Properties				Price Index	Applications
			DK	DF	Z-CTE	Water Absorption		
			(1GHZ)	(1GHZ)	(50-260)	(%)		
SY	SCGA-500 GF220	PTFE + Glass Fiber	2.2	0.0009	0.0217%	0.01%	12	Military, Avionics and Aerospace, Base Station Antennas, Satellite Communications, Filters, Couplers, Low-Noise Amplifiers, Power Amplifiers, Phased Array Antennas, and other related applications
AGC	TLY-5	PTFE + Glass Fiber	2.2	0.0009	0.0217%	0.02%	30	
ROGERS	RT/duroid 5880	PTFE + Glass Fiber	2.2	0.0009	0.0237%	0.02%	40	
Wangling Technology	F4BM220	PTFE + Glass Fiber	2.2	0.001	0.0240%	0.09%	10	
Zhongying Technology	ZYF220D	PTFE + Glass Fiber	2.2	0.0009	0.0233%	0.02%	8	
Wangling Technology	F4BK225	PTFE + Glass Fiber	2.25	0.0015	0.0240%	0.10%	11	
ROGERS	RT/duroid 5870	PTFE + Glass Fiber	2.33	0.0012	0.0173%	0.02%	38	Military, Avionics and Aerospace, Automotive Radar, Base Station Antennas, Satellite Communications, Power Amplifiers, Phased Array Antennas, and other related applications
AGC	TLY-3	PTFE + Glass Fiber	2.33	0.0012	0.0217%	0.02%	28	
Wangling Technology	F4BMX245	PTFE + Glass Fiber (Imported)	2.45	0.0014	0.0168%	0.08%	12	Military, Avionics and Aerospace, Automotive Radar, Base Station Antennas, Satellite Communications, Power Amplifiers, Phased Array Antennas, and other related applications
Wangling Technology	F4BME245	PTFE + Glass Fiber	2.45	0.0015	0.0173%	0.08%	12	
AGC	TLX-0	PTFE + Glass Fiber	2.45	0.0012	0.0215%	0.02%	26	Aviation, Aerospace, Radar, Antennas, Mixers, Splitters, Filters and Combiners, Passive Components
AGC	TLT-0	PTFE + Glass Fiber	2.45	0.0006	0.0215%	0.02%	26	
ROGERS	AD250C	PTFE + Glass Fiber	2.5	0.0013	0.0200%	0.04%	18	Base Station Antennas, Power Amplifiers
Zhongying Technology	ZYF250D	PTFE + Glass Fiber	2.5	0.0017	0.0125%	0.03%	8	Military, Avionics and Aerospace, Automotive Radar, Base Station Antennas, Satellite Communications, Power Amplifiers, Phased Array Antennas, and other related applications
Zhongying Technology	ZYF255DA	PTFE + Glass Fiber	2.55	0.0018	0.0125%	0.03%	9	
Zhongying Technology	ZYC8255	Hydrocarbon + Ceramic + Glass Fiber	2.55	0.0024	0.0035%	0.08%	11	Radar Systems, Mobile Communications, Microwave Test Equipment, Microwave Transmission Equipment, and RF Components
AGC	TLX-8	PTFE + Glass Fiber	2.55	0.0015	0.0215%	0.02%	24	
SY	SCGA-500 GF255	PTFE + Glass Fiber	2.55	0.0014	0.0145%	0.01%	12	
Wangling Technology	F4B255	PTFE + Glass Fiber	2.55	0.0015	0.0186%	0.10%	12	
AGC	TLC-27	PTFE + Glass Fiber	2.75	0.003	0.0070%	0.02%	24	Antennas, Filters and Combiners, Passive Components
Wangling Technology	F4BMX275	PTFE + Glass Fiber	2.75	0.0014	0.0168%	0.08%	14	
ROGERS	RT/duroid 6002	PTFE + Ceramic	2.94	0.0012	0.0024%	0.02%	36	Military, Base Station Antennas, Power Amplifiers
ROGERS	AD300C	PTFE + Glass Fiber	2.94	0.002	0.0054%	0.05%	18	Base Station Antennas, Power Amplifiers
ROGERS	CLTE-XT	PTFE + Glass Fiber	2.94	0.0012	0.0020%	0.02%	26	Automotive Radar, Sensors
Zhongying Technology	ZYF300CA-C	PTFE + Ceramic	2.94	0.0016	0.0120%	0.05%	10	Satellite TV, Base Station Antennas, Power Amplifiers, Microwave Components, Microwave Modules, Global Positioning System (GPS), Passive Components
AGC	TLE-95	PTFE + Glass Fiber	2.95	0.0026	0.0070%	0.02%	26	
Wangling Technology	F4BME295	PTFE + Glass Fiber	2.95	0.0015	0.0095%	0.08%	16	
SY	mmWave77	PTFE + Glass Fiber	3	0.001	0.0022%	0.01%	28	Automotive Radar Applications, Base Station Antennas, Satellite Communications, Antenna Feed Networks, DAS & CPE Antennas, RF Passive Components
SY	AERO WAVE300	Thermosetting Resin System	3	0.0031	0.0050%	0.15%	18	Base Station Antennas, Satellite Communications, Antenna Feed Networks, DAS & CPE Antennas, RF Passive Components
SY	SCGA-500 GF300	PTFE + Glass Fiber	3	0.0023	0.0095%	0.01%	22	
AGC	TLC-30	PTFE + Glass Fiber	3	0.003	0.0070%	0.02%	26	Automotive Radar Applications, Base Station Antennas, Satellite Communications, Antenna Feed Networks, DAS & CPE Antennas, RF Passive Components
ROGERS	RO3003	PTFE + Ceramic	3	0.001	0.0025%	0.04%	34	
ROGERS	R04730G3	Hydrocarbon + Ceramic	3	0.0029	0.0030%	0.15%	10	Base Station Antennas, Power Amplifiers, Microwave Components, Microwave Modules, Passive Components
Wangling Technology	F4BM300	PTFE + Glass Fiber	3	0.0015	0.0095%	0.09%	12	
Zhongying Technology	ZYF300CA-P	PTFE + Ceramic	3	0.0018	0.0120%	0.05%	14	
Zhongying Technology	ZYC8300	Hydrocarbon + Ceramic	3	0.0026	0.0047%	0.08%	12	
Zhongying Technology	ZYC8320	Hydrocarbon + Ceramic	3.2	0.0027	0.0045%	0.08%	12	Satellite TV, Base Station Antennas, Power Amplifiers, Microwave Components, Microwave Modules, Global Positioning System (GPS)
Zhongying Technology	ZYF320CA	PTFE + Ceramic	3.2	0.003	0.0126%	0.06%	16	
SY	LN833C	Hydrocarbon + Ceramic	3.3	0.003	0.0055%	0.05%	20	High-Frequency Wireless Communications, Cellular Base Station Antennas, WiMAX Antenna Networks
AGC	TLC-32	PTFE + Glass Fiber	3.2	0.003	0.0070%	0.02%	26	
ROGERS	AD320A	PTFE + Glass Fiber	3.2	0.0032	0.0040%	0.07%	20	
ROGERS	TMM-3	Hydrocarbon + Ceramic	3.27	0.002	0.0023%	0.06%	22	
ROGERS	RO4003C	Hydrocarbon + Ceramic	3.38	0.0027	0.0046%	0.04%	12	Satellite TV, Base Station Antennas, Power Amplifiers, Microwave Components, Microwave Modules, Global Positioning System (GPS)
Zhongying Technology	ZYF340CA	PTFE + Ceramic	3.4	0.0033	0.0105%	0.06%	10	

Zhongying Technology	ZYC8340	Hydrocarbon + Ceramic	3.4	0.003	0.0045%	0.08%	12	Microwave Modules, Global Positioning System (GPS)
SY	S7136H	Hydrocarbon + Ceramic	3.42	0.003	0.0045%	0.06%	12	
ROGERS	RO4350B	Hydrocarbon + Ceramic	3.48	0.0037	0.0032%	0.05%	18	Satellite TV LNBs, Microstrip Lines, Power Amplifiers
ROGERS	RO4835	Hydrocarbon + Ceramic	3.48	0.0037	0.0031%	0.06%	18	
ROGERS	AD350A	PTFE + Glass Fiber	3.5	0.003	0.0035%	0.01%	20	
ROGERS	RO3035	PTFE + Ceramic	3.5	0.0015	0.0024%	0.04%	28	
Zhongying Technology	ZYF350CA	PTFE + Ceramic	3.5	0.0031	0.0085%	0.06%	14	
Zhongying Technology	ZYF350CA-T	PTFE + Ceramic	3.5	0.002	0.0046%	0.06%	16	
Zhongying Technology	ZYC8350	Hydrocarbon + Ceramic	3.5	0.0032	0.0050%	0.08%	15	
SY	LN833C(350)	Hydrocarbon + Ceramic	3.5	0.0035	0.0030%	0.05%	18	
SY	SG7350D	PTFE + Ceramic	3.55	0.0022	0.0025%	0.05%	20	Satellite TV LNBs, Microstrip Lines, Power Amplifiers
Zhongying Technology	ZYF430CA	PTFE + Ceramic	4.3	0.0034	/	/	16	
Zhongying Technology	ZYS-P438	PTFE + Ceramic	4.38	0.001	/	/	16	
ROGERS	TMM-4	Hydrocarbon + Ceramic	4.5	0.002	0.0021%	0.07%	24	
ROGERS	AD450L	PTFE + Glass Fiber	4.5	0.0035	0.0040%	0.06%	26	
ROGERS	AD600L	PTFE + Glass Fiber	6.15	0.003	0.0045%	0.04%	28	High-Power Amplifiers, Miniaturized Antennas, GPS Modules, RFID Readers, Filters, Couplers and Splitters, Satellite Components
ROGERS	RO3006	PTFE + Ceramic	6.15	0.002	0.0024%	0.02%	30	
ROGERS	R04360G2	Hydrocarbon + Ceramic	6.15	0.0038	0.0028%	0.08%	28	
ROGERS	RT/duroid 6006	PTFE + Ceramic	6.15	0.0027	0.0117%	0.05%	36	
ROGERS	TMM-6	Hydrocarbon + Ceramic	6.00	0.0023	0.0026%	0.06%	32	
AGC	RF-60TC	PTFE + Ceramic	6.15	0.002	0.0040%	0.03%	28	
ROGERS	TMM 10	Hydrocarbon + Ceramic	9.2	0.0022	0.0020%	0.09%	30	Microstrip Patch Antennas, GPS Antennas, Passive Components (Filters, Couplers, Power Dividers), Satellite Components
ROGERS	TMM 10i	Hydrocarbon + Ceramic	9.8	0.002	0.0020%	0.16%	28	
ROGERS	RT/duroid 6010.2LM	PTFE + Ceramic	10.2	0.0023	0.0047%	0.01%	32	Microstrip Patch Antennas, GPS Antennas, Passive Components (Filters, Couplers, Power Dividers), Aircraft Collision Avoidance Systems, Satellite Components
ROGERS	R03010	PTFE + Ceramic	10.2	0.0022	0.0016%	0.05%	30	
ROGERS	R03210	PTFE + Ceramic + Glass Cloth	10.2	0.0027	0.0034%	0.12%	34	
ROGERS	AD1000	PTFE + Glass Fiber	10.2	0.0023	0.0020%	0.03%	32	
AGC	RF-10	PTFE + Ceramic	10.2	0.0025	0.0025%	0.08%	36	
ROGERS	TMM 13i	Hydrocarbon + Ceramic	12.85	0.0019	0.0020%	0.16%	40	