

Technical Specifications

Appearance	Meet the specification requirements for microwave PCB baseplate specified in National and Military Standards.					
Dimensions (mm)	F4BMX217	F4BMX220	F4BMX245	F4BMX255	F4BMX265	F4BMX275
	F4BMX285	F4BMX295	F4BMX300	F4BMX320	F4BMX338	F4BMX350
	For special dimensions, customized lamination is available.					
Thickness and tolerance (mm)	Plate thickness	0.25	0.5	0.8	1.0	
	Tolerance	±0.02~±0.04				
	Plate thickness	1.5	2.0	3.0	4.0	5.0
	Tolerance	±0.05~±0.07				
	Plate thickness includes the copper thickness. For special dimensions, customized lamination is available.					
Mechanical properties	Angularity	Plate thickness (mm)	Maximum angularity mm/mm			
			Original board	Single-sided board	Double-sided board	
		0.25~0.5	0.03	0.05	0.025	
		0.8~1.0	0.025	0.03	0.020	
		1.5~2.0	0.020	0.025	0.015	
	3.0~5.0	0.015	0.020	0.010		
	Cutting/punching property	For the plate of < 1mm, no burrs after cutting, minimum space between two punching holes is 0.55mm, no separation. For the plate of ≥1mm, no burrs after cutting, minimum space between two punching holes is 1.10mm, no separation.				
Peel strength	In normal state: ≥18N/cm; No bubbling, no separation and peel strength ≥15 N/cm when in the environment of constant humidity and temperature and kept in the melting solder of 260°C±2°C for 20 seconds.					
Chemical properties	According to different properties of baseplates, the chemical etching method for PCB can be used for the circuit processing, the dielectric properties of materials are not changed and the holes can be metallized.					

Electrical properties	Names	Test conditions	Unit	Specifications
	Weight	Normal state	g/cm ³	2.2~2.3
	Water absorption rate	Dip in distilled water of 20±2°C for 24 hours.	%	≤0.02
	Operating temperature	high-low temperature chamber	°C	-50~+260
	Thermal conductivity coefficient		Kcal /m .h.°C	0.8
	Coefficient of thermal expansion	Temperature rise of 90°C per hour	Coefficient of thermal expansion×1	≤5×10 ⁻⁵
	Shrinkage factor	Two hours in boiling water	%	0.0002
	Surface insulation resistance	500V DC	Normal state	≥1×10 ⁵
			Constant humidity and temperature	≥1×10 ³
	volume resistance	Normal state		≥1×10 ⁶
		Constant humidity and temperature		≥1×10 ⁵
	Pin resistance	500V DC	Normal state	≥1×10 ⁵
			Constant humidity and temperature	≥1×10 ³
	Surface dielectric strength	Normal state		≥1.2
		Constant humidity and temperature		≥1.1
	Permittivity	10GHZ	ε _r	2. 2.17,2.20,2.45, 2. 2.55,2.65,2.75, (±2%) 2. 2.85,2.95,3.00, 3.20,3.38,3.50.
	Dielectric loss angle tangent	10GHZ	tgδ	≤7×10 ⁻⁴