

Organic polymer ceramic fiberglass cloth copper clad laminate series WL-CT350

This product is made of organic polymer, ceramic filler and glass fiber cloth through scientific preparation and strict process. It is a thermosetting material, and its performance is comparable to similar foreign products. It is suitable for 4G, 5G, base station antennas, automotive radars and sensors. , Power amplifiers, microwave devices, high-reliability radars, military communication devices, satellite tuner, etc.

Product parameters:

Exterior	Meet the requirements of the national military standard for microwave printed circuit substrate materials									
Model number	WL-CT350									
Dielectric constant	Dielectric constant (10GHZ): 3.48±0.05 Dielectric loss tangent value (10GHZ): 0.004									
Dimensions (mm)	610×460 600×500 915×1224									
	Special size can be pressed according to customer requirements									
Copper foil optional specifications	Forward copper foil : 0.5OZ、1 OZ									
Thickness size and tolerance (mm)	Media thickness (mm)	0.102	0.168	0.254	0.338	0.422	0.508	0.762	1.016	1.524
	Tolerance	±0.01	±0.015	±0.02	±0.03	±0.03	±0.03	±0.05	±0.05	±0.08
	Special thickness can be customized: starting from 0.508mm thickness, increasing with 0.0838mm thickness									

Mechanical behavior	Copper foil peeling strength (10Z)	WL-CT350 9N/cm
	Thermal Stress	Dip tin, 280°C*10s, ≥3 times, no delamination, no blistering
Chemical properties	According to the characteristics of the substrate, the circuit can be processed by referring to the chemical corrosion method of the printed circuit, and the dielectric properties of the material will not change.	

Physical electrical properties	Indicator name	Test Conditions	Unit	Index value		
	Tg	TMA	°C	> 280		
	Td	TGA	°C	386		
	Proportion	Normal		1.9		
	Water absorption	Soak in distilled water at 20±2°C for 24 hours	%	0.05		
	Operating temperature	High and low temperature box	°C	-50 ~ +260		
	Thermal conductivity		Kcal/mh°C	0.70		
	Thermal	-55 ° ~ 288°C	ppm/°C	X	Y	Z

	expansion coefficient (Typical value)				11	14	34
	Surface insulation resistance	500V DC	Normal	M.Ω	≥4×10 ⁸		
			Constant heat and humidity		≥1×10 ⁷		
	Volume resistance	Normal		MΩ.cm	≥1×10 ⁹		
		Constant heat and humidity			≥1×10 ⁸		
	Temperature Coefficient of Dielectric Constant	(PPM/ °C) -50 ° ~ 150°C		52			
	Dielectric loss tangent	2.5GHz		tgδ	0.0032		
		10GHz		tgδ	0.0040		
	Flame retardant	94V-0					

Features:

1. Organic polymer ceramic fiberglass cloth is a thermosetting resin system, which has better hardness than PTFE thermoplastic resin system and has a good loss value.
2. The values of DK and DF are stable, and DK/DF changes little as the frequency increases.

3. Excellent electrical performance, excellent thermal conductivity, better insulation performance and heat treatment ability than PTFE materials.
4. Compatible with FR-4 processing technology, without plasma treatment, processing technology is relatively simple, compatible with most PP sheets, PCB processability is excellent, especially suitable for PCB multi-layer board processing.
5. The low thermal expansion coefficient improves the reliability and dimensional stability of plated through holes.
6. Especially suitable for lead-free soldering process.

For more information, please link

<https://www.ipcb.com/material/688.html>