GA-888N

GA-888N is an advanced high Tg (200℃/DSC) ultra low-loss multifunctional resin laminate . Superior electrical performance are suitable for high frequency high speed telecommunications. The characteristics of low transmission loss and low degree of distortion can be mainly suitable for base station platform, cloud computing, storage and advanced servers.

Laminate:GA-888N

Prepreg: GA-888BN

Applications

➢ Multilayer PCB
➢ Servers
➢ Storage
➢ Router/Switch
➢ RF/Wireless Communication
➢ Line cards

Key Features

● **Tg: 200℃(DSC)**
This material with high performance multi-function resin，crosslink density is high. Material Tg values can reach above 200℃(DSC).

● **Dk: 3.28 ＆ Df: 0.0011**
Material has superior electrical properties, is conducive to the high frequency high-speed transmission, and high density wiring design. The lower signal loss can ensure signal integrity.

● **Z-CTE(50-260):2.2%**
Its remarkable very low expansion coefficient, is more suitable for making high multilayer PCB, ensure the reliability of high temperature welding and assembly process.

● **Td: 400℃**
Excellent resistance to aging temperature, keep the material performance in high thermal shock or high temperature environment impact.

Industrial Approvals

➢ IPC-4101E/102
➢ UL File Number：e186152
➢ Flammability Rating：94V-0

Normal Size & Thickness

Thickness Inch (mm)	Size Inch mm		Thickness Tolerance
0.002 (0.05) To 0.125 (3.2)	49×37	1244×0940	IPC-4101 Class C/M
	49×41	1244×1042	
	49×43	1244×1093	

Characteristic GA-888N		Unit	Test Method IPC-TM-650 （or as noted）	Typical data	spec
Volume Resistivity		MΩ-cm	2.5.17.1	2×10^9	$\geqq 10^6$
Surface Resistivity		MΩ	2.5.17.1	1×10^8	$\geqq 10^5$
Permittivity (RC59%)	At 1GHz	-	2.5.5.9	3.28	/
	At 5GHz		2.5.5.13	3.27	/
	At 10GHz		2.5.5.13	3.27	/
	At 15GHz		2.5.5.13	3.26	/
Loss Tangent (RC59%)	At 1GHz	-	2.5.5.9	0.0011	/
	At 5GHz		2.5.5.13	0.0018	/
	At 10GHz		2.5.5.13	0.0020	/
	At 15GHz		2.5.5.13	0.0022	/
Arc Resistance		Sec	2.5.1	120	$\geqq 60$
Dielectric Breakdown		KV	2.5.6	40	$\geqq 40$
Electric Strength(thickness<0.5mm)		KV/mm	2.5.6.2	40	$\geqq 30$
Thermal Stress Test		–	2.4.13.1	Pass	Pass
Td (5% Weight loss)		℃	2.4.24.6	400	$\geqq 340$
Glass Transition Temperature	DMA	℃	2.4.24.4	220	$\geqq 185$
	DSC	℃	2.4.25	200	
T288		Min	2.4.24.1	$\geqq 120$	$\geqq 15$
Z-Axis CTE	Before Tg	PPM/℃	2.4.24	40	$\leqq 45$
	After Tg	PPM/℃		240	$\leqq 260$
Z-Axis CTE (50~260℃)		%	2.4.24	2.2	$\leqq 2.8$
Peel Strength (1OZ)		Lb/in(N/mm)	2.4.8	4(0.7)	$\geqq 4(0.7)$
Flexural Strength	LW	N/mm^2	2.4.4	430	$\geqq 345$
	CW	N/mm^2		360	$\geqq 345$
Moisture Absorption		%	2.6.2.1	0.05	$\leqq 0.2$
Flammability		–	UL94	V-0	V-0

Note: 1.Test sample is 62mil 1/1(without special remark).

2. The data above is only for reference, and the actual data will have deviation, according to varieties of test equipment and method.