



# S1150GH

(UL ANSI: FR4.1) Halogen-free, Mid-Loss PCB Used Multilayer Material

## FEATURES

- Anti-CAF capability
- Lead-free compatible
- Halogen, antimony and red phosphorous free
- lower loss than normal Mid-Tg FR-4.1

## APPLICATIONS

Smartphone, Tablet, NB  
LED, Game Station  
Network Terminals

## GENERAL PROPERTIES

Test Items	Test Method	Test Condition	Unit	Typical Value
Tg	IPC-TM-650 2.4.25D	DSC	°C	160
Td	IPC-TM-650 2.4.24.6	TGA (5% wt. loss)	°C	390
T288	IPC-TM-650 2.4.24.1	TMA	min	>60
T260	IPC-TM-650 2.4.24.1	TMA	min	>60
Thermal Stress	IPC-TM-650 2.4.13.1	288°C, solder dipping	s	>100
CTE (Z-axis)	IPC-TM-650 2.4.24	Before Tg	ppm/°C	35
	IPC-TM-650 2.4.24	After Tg	ppm/°C	190
	IPC-TM-650 2.4.24	50-260°C	%	2.2
Permittivity (1GHz) (RC: 56%)	IPC-TM-650 2.5.5.9	C-24/23/50	-	4.05
Loss Tangent (1GHz) (RC: 56%)	IPC-TM-650 2.5.5.9	C-24/23/50	-	0.008
Volume Resistivity	IPC-TM-650 2.5.17.1	C-96/35/90	MΩ-cm	6.0×10 <sup>8</sup>
Surface Resistivity	IPC-TM-650 2.5.17.1	C-96/35/90	MΩ	8.0×10 <sup>7</sup>
Arc Resistance	IPC-TM-650 2.5.1	D-48/50+D-0.5/23	s	148
Dielectric Breakdown	IPC-TM-650 2.5.6	D-48/50+D-0.5/23	kV	45+kV NB
Peel Strength (1oz)	IPC-TM-650 2.4.8	288°C/10s	N/mm [lb/in]	1.4 [8.0]
Flexural Strength (LW/CW)	IPC-TM-650 2.4.4	A	Mpa	550/430
Water Absorption	IPC-TM-650 2.6.2.1	D-24/23	%	0.10
Flammability	UL94	C-48/23/50	Rating	V-0

Remark: 1. All the typical value is based on the 1.6mm (8\*7628) specimen. Dk and Df value is based on 2116 RC56%.

2. All the typical value listed above is for your reference only, please turn to Shengyi Technology Co., Ltd for detailed information, and all rights from this data sheet are reserved by Shengyi Technology Co., Ltd.