



# SJ9102N

## SJ9102N High Frequency Low Loss Material

### FEATURES

- High dielectric constant, reducing circuit size.
- Low dielectric loss.
- Low Moisture Absorption
- Low water absorption

### APPLICATIONS

Patch antenna  
 Satellite communication system  
 Power amplifier  
 Aircraft collision avoidance system  
 Ground radar warning system

### GENERAL PROPERTIES

Test Items	Test Method	Test Condition	Direction	Unit	Typical Value
Dielectric Constant (Process Dk)	IPC-TM-650 2.5.5.5 Clamped Stripline	10GHz/23°C	Z	-	10.2±0.25
Dielectric Constant (Design Dk)	Differential Phase Length Method	1.5 GHz -6GHz/23°C	Z	-	10.7
Dissipation Factor, Df	IPC-TM-650 2.5.5.5 Clamped Stripline	10GHz/23°C	Z	-	0.0015
Td	ASTM D3850	TGA	-	°C	500
Coefficient of Thermal Expansion (-55°C-288°C)	IPC-TM-650 2.4.41	TMA	X	ppm/°C	30
	IPC-TM-650 2.4.41	TMA	Y	ppm/°C	30
	IPC-TM-650 2.4.41	TMA	Z	ppm/°C	50
Volume Resistivity	IPC-TM-650 2.5.17.1	COND A	-	MΩ-cm	10 <sup>5</sup>
Surface Resistivity	IPC-TM-650 2.5.17.1	COND A	-	MΩ	10 <sup>6</sup>
Peel Strength	IPC-TM-650 2.4.8	after solder float H oz. HVLP foil	-	N/mm	1.2
Water Absorption	IPC-TM-650 2.6.2.1	-	-	%	0.02
Thermal Conductivity	ASTM D5470	50°C	-	W/m-K	0.75
Flammability	UL94	-	-	Rating	V-0

### Product Specification

STANDARD THICKNESS	STANDARD PANEL SIZE	COPPER FOIL
0.010" (0.254mm) 0.020" (0.508mm) 0.025" (0.635mm) 0.030" (0.762mm)	18"×24" (457*610mm) 21"×24" (534*610mm)	1/2 oz. (18 μ m) VLP / RTF / HVLP copper foil. 1 oz. (35 μ m) VLP / RTF / HVLP copper foil. 1 oz. (35 μ m) VLP / RTF / HVLP copper foil.

#### Remarks:

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