

Extreme Low Loss & High Heat Resistance & Halogen Free NY9999Q / NY9999QP

FEATURES:

- Excellent electrical and thermal reliability properties
- Low Dk (Dk 3.15@10GHz, SPDR)
- Low Df (Df 0.0007@10GHz, SPDR)
- High Tg halogen-free and lead-free compatible
- Superior PTH reliability and anti-CAF capability
- Stable and flat Dk/Df performance and excellent moisture resistance

APPLICATIONS:

- AI Server, data center
- Backplane, High performance computing
- Super Core Router and Switchers

Typical Properties for NY9999Q Laminate

Property	Item		IPC-TM-650	Test Condition	Unit	Typical Value
Thermal	Tg		2.4.25	DSC	°C	\
			2.4.24	TMA	°C	180
			2.4.24.4	DMA	°C	\
	CTE,X/Y-axis		2.4.24.5	<Tg,TMA	PPM/°C	6~8
	CTE,Z-axis		2.4.24	<Tg,TMA	PPM/°C	60
				>Tg,TMA	PPM/°C	200
	Z-axis Expansion		2.4.24	50~260°C	%	1.3
	Td		2.4.24.6	TGA(5%W.L)	°C	380
	T288		2.4.24.1	Clad	Min	>60
Etched				Min	>60	
Electrical	Dk (R/C:65%)	10GHz	SPDR method	C-24/23/50	-	3.15
	Df (R/C:65%)	10GHz	SPDR method	C-24/23/50	-	0.0007
	Volume Resistivity		2.5.17.1	C-96/35/90	MΩ-cm	2.4*10 ⁹
	Surface Resistivity				MΩ	1.9*10 ⁸
Physical	Water Absorption		2.6.2.1	E-1/105+D-24/23	%	0.05
	Peel Strength (HTE)	1oz	2.4.8	As Received	Lb/in	\
	Peel Strength (RTF)	1oz				\
	Peel Strength (HVLP)	1oz				2.5
	Flexural Strength	Warp	2.4.4	As Received	N/mm2	200
		Fill				175
	Flame Resistance		UL-94	A&E-4/125	-	V-0

Note: The coefficient of thermal expansion (CTE) in X/Y directions was measured using the tensile test method.

REV: 202507V0