

mmWave

PROPERTY	Typical Value	Direction	Units	Condition	Test Method
Dielectric Constant, ϵ_r (Process specification)	3.00±0.05	Z		10GHz/23	IPC-TM-650 2.5.5.5 (1) Clamped Stripline
Dielectric Constant, ϵ_r (Design specification)	3.064	Z		6GHz/23	Differential Phase Length Method
Dissipation Factor tan, δ	0.002	Z		10GHz/23	IPC-TM-650 2.5.5.5 (1) Clamped Stripline
Thermal Coefficient of ϵ_r	60	Z	ppm/	-40C to +150	IPC-TM-650 2.5.5.5
Volume Resistivity	2.0×10 ⁷		MΩ·cm	COND A	IPC-TM-650 2.5.17.1
Surface Resistivity	2.0X10 ⁷		MΩ	COND A	IPC-TM-650 2.5.17.1
Electrical Strength	85	Z	KV/mm	0.51mm (0.020")	IPC-TM-650 2.5.6.2
Coefficient of Thermal Expansion	17	X	ppm/	-55 to 260	IPC-TM-650 2.4.41
Coefficient of Thermal Expansion	19	Y	ppm/	-55 to 260	IPC-TM-650 2.4.41
Coefficient of Thermal Expansion	50	Z	ppm/	-55 to 260	IPC-TM-650 2.4.41
Tg	190		TMA	A	IPC-TM-650 2.4.24
Td	400		TGA		ASTM D3850
Thermal Conductivity	0.5		W/m°K	100	ASTM D5470
Moisture Absorption	0.09		%		IPC-TM-650 2.6.2.1
Copper Peel Strength	0.85 (4.85)		N/mm (lb/in.)	after solder float 1 oz. HVLP Foil	IPC-TM-650 2.4.8
PIM (Typical)	-158		dBc	Reflected 43 Dbm swept tones	Summitek 1900b PIM Analyzer
Flammability	94V-0				UL