



AeroWave 300

High Frequency, Low Loss Material for RF PCB

FEATURES

- Stable Dk/Df over frequency and temperature
- Tight Dk tolerance control +/-0.05
- Excellent copper peel strength
- UL 94 V-0 flame rating
- Thermal setting resin system with good PCB processibility and available for hybrid or multilayer design

APPLICATIONS

Cellular base station antennas
 Antenna feed networks
 Telemetry
 DAS & CPE antenna
 Massive MIMO antenna

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	-	3.0±0.05
Dielectric Constant (Design Dk)	Differential Phase Length Method	1.5 GHz -6GHz/23°C	Z	-	2.98
Dissipation Factor, Df	IPC-TM-650 2.5.5.5 Clamped Stripline	10GHz/23°C	Z	-	0.0031
Thermal Coefficient of Dk	IEC 61189-2-721 (10GHz)	-40~+120°C	Z	-	50
Tg	IPC-TM-650 2.4.24.4	DMA	-	°C	200
Td	ASTM D3850	TGA	-	°C	400
Coefficient of Thermal Expansion	IPC-TM-650 2.4.41	TMA	X	ppm/°C	15
	IPC-TM-650 2.4.41	TMA	Y	ppm/°C	15
	IPC-TM-650 2.4.41	TMA	Z	ppm/°C	50
Volume Resistivity	IPC-TM-650 2.5.17.1	COND A	-	MΩ-cm	2.21×10 ⁸
Surface Resistivity	IPC-TM-650 2.5.17.1	COND A	-	MΩ	6.84×10 ⁷
Peel Strength	IPC-TM-650 2.4.8	after solder float 1 oz. HVLP foil	-	N/mm	0.85
Electrical Strength	IPC-TM-650 2.5.6.2	0.508mm(0.020")	Z	kV/mm	60
Flexural Strength	IPC-TM-650 2.4.4	A	LW/CW	MPa	232/216
Water Absorption	IPC-TM-650 2.6.2.1	-	-	%	0.15
Thermal Conductivity	ASTM D5470	100°C	-	W/m-K	0.46
Flammability	UL94	-	-	Rating	V-0

Remarks:

All the typical values listed above are for your reference only and not intended for specification. Please contact Shengyi Technology Co., Ltd. for detailed information. All rights from this data sheet are reserved by Shengyi Technology Co., Ltd.



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High Frequency, Low Loss Material for RF PCB

Product Specification

PRODUCT	STANDARD THICKNESS	STANDARD PANEL SIZE	COPPER FOIL
AeroWave 300	0.005" (0.127mm) 0.010" (0.254mm) 0.020" (0.508mm) 0.030" (0.762mm) 0.060" (1.524mm)	36"×48", 40"×48", 42"×48", Additional panel sizes may be available upon request	HVLP type low profile copper foil

TOPTTEK PCB