LiPOLY®
SHIU LI TECHNOLOGY CO.,LTD

TEM96E

Thermal Conductive RF Absorber Pad

LiPOLY TEM96E is a thermally conductive absorber based upon soft magnetic materials dispersed in a polymeric resin. It has a thermal conductivity of 6.0 W/m*K and dissipates electromagnetic radiation rapidly to mitigate against EMI issues.

FEATURES

/ Thermal conductivity: 6.0 W/m*K
/ Excellent absorption characteristics
/ Naturally tacky
/ Reworkable

TYPICAL APPLICATION

/ IC, CPU, MOS, LED, M/B, Heat sink
/ LCD-TV, Notebook PC, PC, Telecom device, Wireless hub
/ DDR II module, DVD applications, Hand-set applications
/ 5G base station & infrastructure
/ EV electric vehicle

SPECIFICATIONS

/ Sheet form
/ Die-cut parts

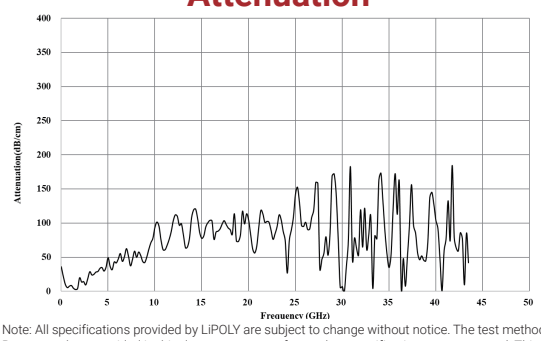
FREQUENCY APPLICATION

2.4 GHz Wi-Fi Router , Bluetooth
3.5 GHz 5G Mobile Networks
5.0 GHz Wi-Fi Router
6.0 GHz Wi-Fi Router
12~18 GHz Low Earth Orbit (LEO) System
28 GHz 5G Mobile Networks
39 GHz 5G Mobile Networks

TYPICAL PROPERTIES

PROPERTY	TEM96E	TEST METHOD	UNIT
Color	Dark Gray	Visual	-
Surface tack 2-side/1-side	2	-	-
Thickness	0.5~5.0	ASTM D374	mm
Density	3.8	ASTM D792	g/cm³
Hardness	75	ASTM D2240	Shore OO
TML	0.04	By LiPOLY	%
Water absorption	0.04	ASTM D570	%
Application temperature	-60~180	-	°C
ROHS & REACH	Compliant	-	-
COMPRESSION@1.0mm			
Deflection @10 psi	5	ASTM D5470 modify	%
Deflection @20 psi	8	ASTM D5470 modify	%
Deflection @30 psi	11	ASTM D5470 modify	%
Deflection @40 psi	13	ASTM D5470 modify	%
Deflection @50 psi	16	ASTM D5470 modify	%
EMI Attenuation @1.0mm			
EMI attenuation@ 2.4 GHz	17.4	ASTM D4935 modify	dB/cm
EMI attenuation@ 3.5 GHz	28.6	ASTM D4935 modify	dB/cm
EMI attenuation@ 5.0 GHz	49.8	ASTM D4935 modify	dB/cm
EMI attenuation@ 6.0 GHz	44.8	ASTM D4935 modify	dB/cm
EMI attenuation@ 12 GHz	94.2	ASTM D4935 modify	dB/cm
EMI attenuation@ 18 GHz	91.1	ASTM D4935 modify	dB/cm
EMI attenuation@ 28 GHz	88.4	ASTM D4935 modify	dB/cm
EMI attenuation@ 39 GHz	41.5	ASTM D4935 modify	dB/cm
ELECTRICAL			
Surface resistivity	$>10^{11}$	ASTM D257	Ohm
Volume resistivity	$>10^{10}$	ASTM D257	Ohm-m
THERMAL			
Thermal conductivity	6.0	ASTM D5470	W/m*K
Thermal impedance@10 psi	0.288	ASTM D5470	°C-in²/ W
Thermal impedance@20 psi	0.278	ASTM D5470	°C-in²/ W
Thermal impedance@30 psi	0.264	ASTM D5470	°C-in²/ W
Thermal impedance@40 psi	0.255	ASTM D5470	°C-in²/ W
Thermal impedance@50 psi	0.250	ASTM D5470	°C-in²/ W

Attenuation



Thermal Impedance vs. Pressure vs. Deflection