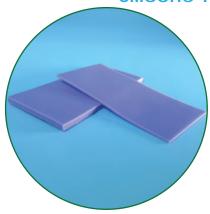




Thermal Pad CPLK Series

NEW

Silicone-Free

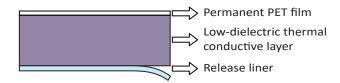


Noise suppression thermally conductive sheet



- Noise level is lowered at low-frequencies compared with conventional thermally conductive sheets
- Low-dielectric thermally conductive sheet helps to reduce noise in GHz bands, which occurs by heat sink's resonance phenomena
- Silicone-free THERMAL PAD contains no siloxane gas and oil bleeding is reduced

Cross-section view



Resonance Phenomena

Resonance frequency is determined by heat sink dimensions, permeability and permittivity inside of a resonator.

Thermal conductive Heat sink sheet

IC Eeff *2

Circuit board ground layer

The smaller the real part of the permittivity is the lower the radiation is at frequencies except resonance.

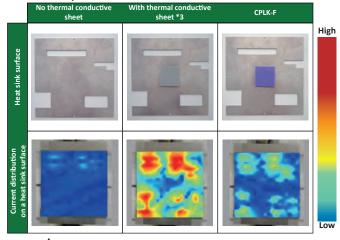
Properties

Part Number	CPLK-F
Thickness (mm)	1.0,1.5,2.0
Available Max Dimension** (mm)	200 x 500
Thermal Conductivity (W/m•K) *JIS R 2616 Hot-wire met	hod 2.0
Thermal Conductivity (W/m•K) *ISO22007-2 Hot-disc me	thod 1.4
Hardness (ASKER C) *JIS K 7312	30
Hardness (Shore 00)*ASTM D 2240	60
Tensile Strength (MPa) *JIS K 6251	0.39
Elongation Rate (%) *JIS K 6251	9.1
Volume Resistivity (Ω • cm) *JIS K 6911	1.0 X 10 ¹¹
Flame Resistance *UL94	V-0 equivalent
Flame Resistance *UL94 Operating Temperature (°C)	V-0 equivalent -40 ~ 125
Operating Temperature (°C)	-40 ~ 125
Operating Temperature (°C) Color	-40 ~ 125 Mauve
Operating Temperature (°C) Color Loss Tangent (500 MHz) *Company Standard	-40 ~ 125 Mauve 0.17
Operating Temperature (°C) Color Loss Tangent (500 MHz) *Company Standard Loss Tangent (1 GHz) *Company Standard	-40 ~ 125 Mauve 0.17 0.13
Operating Temperature (°C) Color Loss Tangent (500 MHz) *Company Standard Loss Tangent (1 GHz) *Company Standard Relative Permittivity(500 MHz) *Company Standard	-40 ~ 125 Mauve 0.17 0.13 4.51
Operating Temperature (°C) Color Loss Tangent (500 MHz) *Company Standard Loss Tangent (1 GHz) *Company Standard Relative Permittivity(500 MHz) *Company Standard Relative Permittivity(1 GHz) *Company Standard	-40 ~ 125 Mauve 0.17 0.13 4.51 4.46

^{*}TEST METHOD **Please contact us for available pcs/sheet

■ Effects of Dielectric (measured)

1.0 GHz $^{\sim}$ 1.2 GHz Magnetic field intensity in vicinity of heat sink



*2 $\boldsymbol{\mathcal{E}}'$ eff: Equivalent relative permittivity between a heat sink and a ground layer of a circuit board



Please request for detailed product specification data prior to purchase

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^{*3} Relative permittivity: $\boldsymbol{\varepsilon'}$ = 35