

Noise Suppression Sheets Flexield

Flexield® is an absorptive electromagnetic shielding material consisting of magnetic material and resin. It suppresses noise radiated from electronic equipment over a wide range of frequencies, offers flexibility in fabrication and delivers particularly excellent performance in high frequency ranges. Flexield® is the ideal sheet-type noise reduction product for mobile devices including notebook PCs, digital cameras and cell phones.

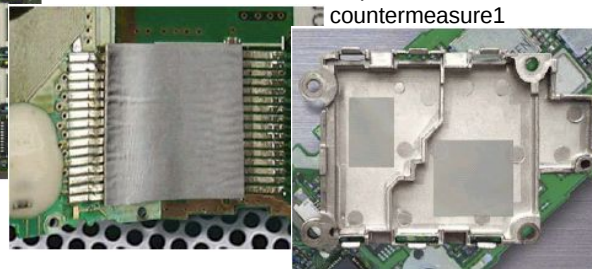
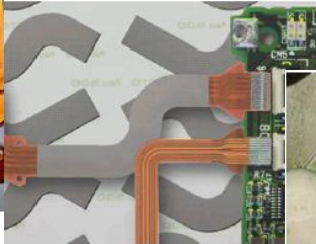
*** All Product Conforming to RoHS Directive**

★Features

- They are flexible (Will not crack).
- They are suited for thin and compact devices.
- Available in a wide range of dimensions and shapes.
- The products in the line-up support a wide range of frequency bands (10M-

★Applications 1

- Electromagnetic noise reduction for electric equipment (especially for mobile equipment)
 - Internal EMI, resonance reduction (mounting inside a shielded box)
 - RF-block • Amplifier
 - Radiated noise reduction (Circuit, IC, flat cable)
 - Surface current suppression
- Improvement of noise immunity
- SAR reduction for mobile phone



countermeasure1

★Materials list by thickness

Standard sheet thickness (mm)	Halogen-free	Flame retardant UL94V-0
0.05	IRL02	
0.1	IRL05	IRJ04
0.25	IRL04	IRJ04
0.5	IRL04	IRJ04
1.0	IRL02	
2.0	IRL02	

★Method of naming the products

IRL02□□□H 200×200×1

L×W×T(mm)
In the case of half-cut products, a unit simple substance size is indicated.

Half-cut sign*
Adhesion processing sign*
Upper surface layer sign*
Form sign (Rectangle type: No publication)
Material name

* Unsettled product: No publication

Adhesion processing sign

sign	Thickness
A	0.17mm
AB	0.03mm
AT	0.01mm

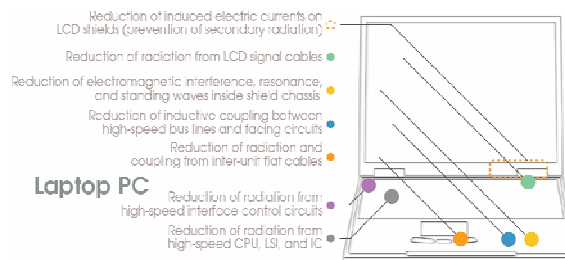
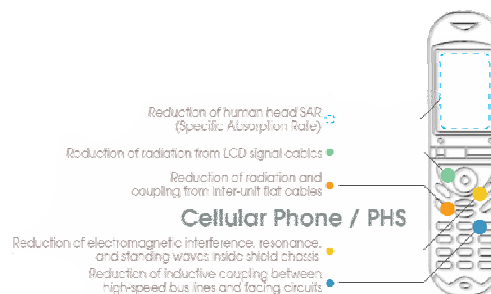
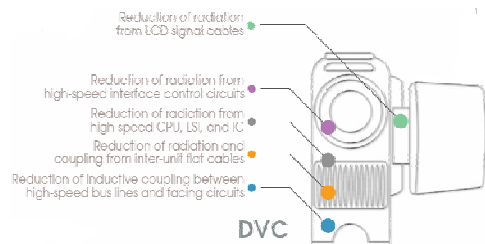
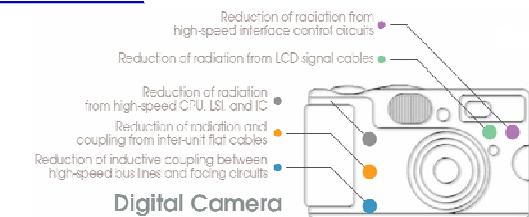
★Specifications

	IRL02	IRL04	IRL05	IRJ04
Recommended frequency range	100MHz~10GHz	50MHz~10GHz	10MHz~10GHz	50MHz~10GHz
Operating temperature range (* °C)	-40~+85	-40~+85	-40~+85	-40~+85
Initial permeability μ_i [at 10MHz]	≥ 20	≥ 30	≥ 50	≥ 35
Resistivity ($\Omega/\square$) min.	$\geq 1M$	$\geq 10K$	$\geq 1G$ (The magnetic layer/10 μm)	$\geq 1M$
Environment	Product Conforming to RoHS Directive Halogen-free			Product Conforming to RoHS Directive
Flame retardant	—			UL94V-0
Standard sheet dimensions (mm)	300X200	200X200	300X200	300X200
Standard sheet thickness (mm)	0.05	1, 2	0.25, 0.5	0.1, 0.25, 0.5

• All specifications are subject to change without notice.

• It may not be allowed to export these absorbers due to Export Control regulations.

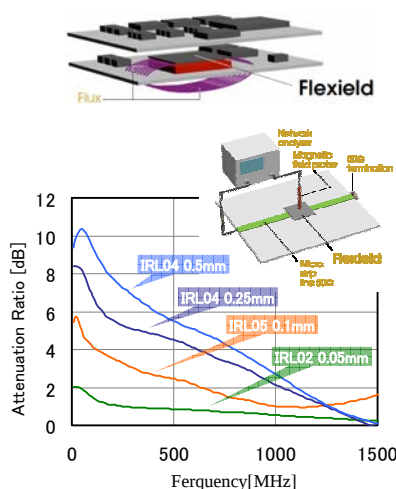
★Applications 2



★Basic characteristics

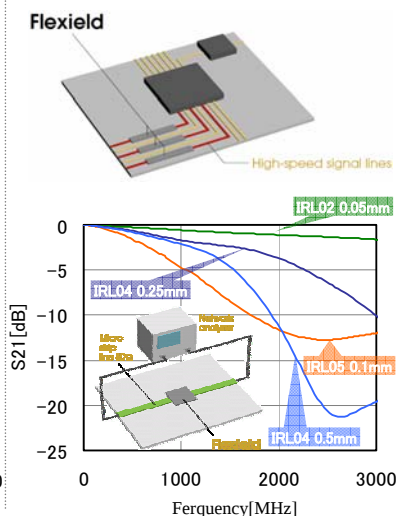
The decoupling effect

Reduces the opposite line of high-frequency magnetic-field elements occurring due to signal lines and ICs inside devices, and reduces inductive coupling of cohesive units



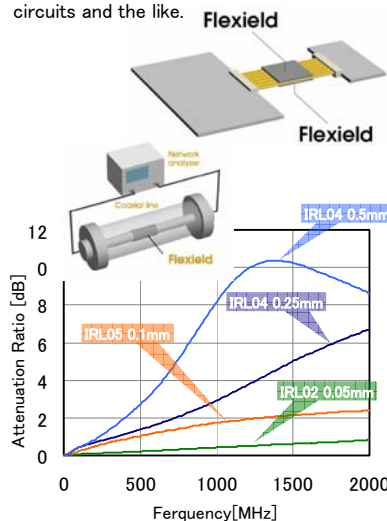
The filter effect

Reduces the effects of high-frequency elements by adding impedance to signal lines



Common-mode electrical current reduction effect

Reduces the common-mode electrical current elements superposed in the flexible cables connecting high-speed circuits and the like.



● Attenuation Ratio [dB] = S21 [dB] without Flexield - S21 [dB] with Flexield

Product information HP <http://www.tdk.co.jp/absorber/>

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