

Noise suppression sheets **Flexield offers outstanding performance for high-frequency applications**

- Noise attenuation at high frequencies from 10 MHz to 3 GHz

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TDK-EPC, a group company of the TDK Corporation, presents its newly developed TDK Flexield family of IRJH3 magnetic sheets. The new sheets exhibit outstanding performance in suppressing the electromagnetic noise radiated by the ICs and flexible printed circuit boards of electronic devices. Mass production is scheduled to begin in October 2010.

The key enablers in the development of the IRJH3 magnetic sheets are the specialized materials technologies of TDK. They were used to combine original soft magnetic materials and polymer materials and create a magnetic powder with an innovative composition and configuration. The resulting sheets are able to attenuate noise at high frequencies from 10 MHz to 3 GHz. They also have a certified flammability rating of UL94V-0.

As various types of electronic devices have become smaller while incorporating more advanced functions, the occurrence of high frequency noise has become more and more challenging. The IRJH3 magnetic sheets exhibit excellent noise suppression effects, especially at high frequencies from 500 MHz to 2 GHz, a frequency range for which the demand for solutions has been growing in recent years.

The new magnetic sheets are ideal for noise countermeasure applications in mobile electronic devices such as mobile phones, digital still cameras, digital video cameras, and other consumer electronic devices.

Glossary

- Soft magnetic material: Magnetic material with low coercive force and high magnetic permeability.
- UL94V-0: The highest flame resistance rating of the UL-94 flammability standard developed by Underwriters Laboratories Inc.

Main applications

- Noise countermeasures in mobile electronic devices such as mobile phones, digital still cameras, digital video cameras, and other consumer electronic devices.

Main features and benefits

- Compound magnetic sheet with outstanding noise suppression effects in high frequency bands
- Certified to the UL94V-0 flame resistance standard.
- RoHS compatible.

Key data

Product designation	IRJH3
Recommended frequency band	10 MHz to 3 GHz
Magnetic permeability [μ' at f = 1MHz]	120
Operating temperature range[°C]	-40 to +85
Thickness [mm]	0.1, 0.2, 0.3, 0.4, 0.5
Standard size [mm]	300 × 200

About TDK-EPC Corporation

TDK-EPC Corporation (TDK-EPC), a TDK group company, is a leading manufacturer of electronic components, modules and systems headquartered in Tokyo, Japan. TDK-EPC has emerged from the combination of the electronic components business of TDK and the EPCOS Group and markets its products under the product brands, TDK and EPCOS.

The product portfolio includes ceramic, aluminum electrolytic and film capacitors, ferrites and inductors, high-frequency components such as surface acoustic wave (SAW) filter products and modules, piezo and protection components, and sensors. With this product spectrum TDK-EPC offers a broad range of products and solutions of outstanding value from a single source and focuses on demanding markets in the areas of information and communication technology and automotive, industrial and consumer electronics. The company has design and manufacturing locations and sales offices in Asia, Europe, and in North and South America.

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