TDK

June 2017

Noise suppression sheets

Flexield

IFL series Hybrid type (magnetic layer+conductive layer)

REMINDERS FOR USING THESE PRODUCTS

Before using these products, be sure to request the delivery specifications.

SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using these products.

⚠ REMINDERS

○ When mounting on live electrical parts directly, there is a fear that an insulation accident is caused, so please consider on the design in case of use.

○ There is a fear that sullenness of double sided adhesive tape occurs, so please refrain from the use to a part where you wind repeatedly by which it's for the hinge part.

○ The products listed on this catalog are intended for use in automotive electronic equipment under a normal operation and use condition.
The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property. When the damage occurs by having been used the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in the each catalog, please understand that the responsibility cannot be taken.

(1) Aerospace/Aviation equipment
(2) Transportation equipment (electric trains, ships, etc.)
(3) Medical equipment
(4) Power-generation control equipment
(5) Atomic energy-related equipment
(6) Seabed equipment
(7) Transportation control equipment
(8) Public information-processing equipment
(9) Military equipment
(10) Electric heating apparatus, burning equipment
(11) Disaster prevention/crime prevention equipment
(12) Safety equipment
(13) Other applications that are not considered general-purpose applications

When designing your equipment even for automotive-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.

Noise suppression sheets

Flexield

Product compatible with RoHS directive
Halogen-free

Overview of IFL series Hybrid type (magnetic layer+conductive layer)

FEATURES

- In addition to the magnetic loss effect by a magnetic layer, the noise control effect by a conduction layer is demonstrated.
- As the sheet surface, it is lineup about two kinds, conductivity and insulation.
- Has flexibility , it does not crack by impact or the like .
- It excels in shape processability and can respond to various dimensions and shapes.
- Offer by a roll shape is possible.

APPLICATION

- Electromagnetic noise measures of various kinds of electronic equipment
- Receiver sensitivity improvement of PEN input (inductive coupling type)
- Performance improvement of RFID (on metal correspondence)

STANDARD PART NUMBER LIST

Magnetic sheet material	Magnetic sheet thickness (mm)	Sheet dimensions (mm)
IFL16	0.03	300×200



- RoHS Directive Compliant Product: See the following for more details.https://product.tdk.com/info/en/environment/rohs/index.html
- Halogen-free: Indicates that Cl content is less than 900ppm, Br content is less than 900ppm, and that the total Cl and Br content is less than 1500ppm.

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.
Please note that the contents may change without any prior notice due to reasons such as upgrading.

IFL series Hybrid type (magnetic layer+conductive layer)

PART NUMBER CONSTRUCTION

IFL	16	-	030	E	B	300	×	200
Series name	Material symbol		Magnetic sheet thickness (mm)	Surface state of the surface film	Double-sided tape thickness (mm)	Length (mm)		Width (mm)

Material symbol	
16	

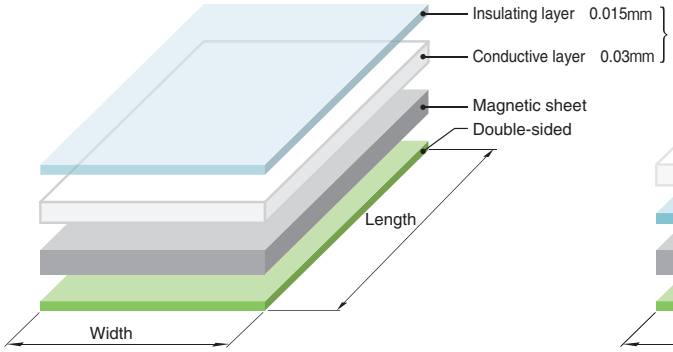
Magnetic sheet thickness (mm)	
030	0.03

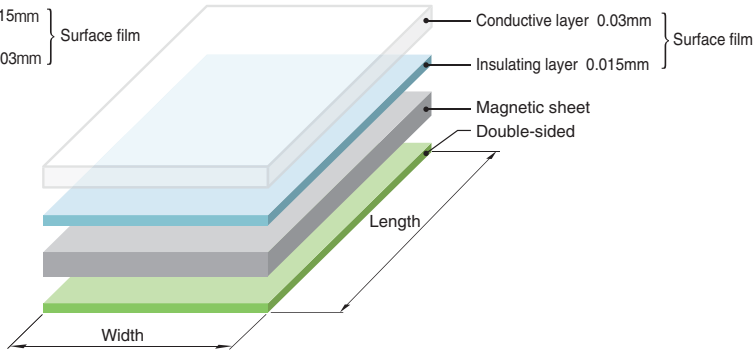
Surface state of the surface film	
E	The surface of the insulating layer
G	The surface of the conductive layer

Double-sided tape thickness (mm)	
N	No
B	0.01

Length (mm)	
300	300

Width (mm)	
200	200









STANDARD PART NUMBER LIST

Material	Standard dimensionss (mm)	Magnetic sheet thickness (mm)	Surface state of the surface film	Part number
IFL16	300×200	0.03	Magnetic layer	IFL16-030EB300X200
			Insulating layer	IFL16-030GB300X200

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IFL series Hybrid type (magnetic layer+conductive layer)

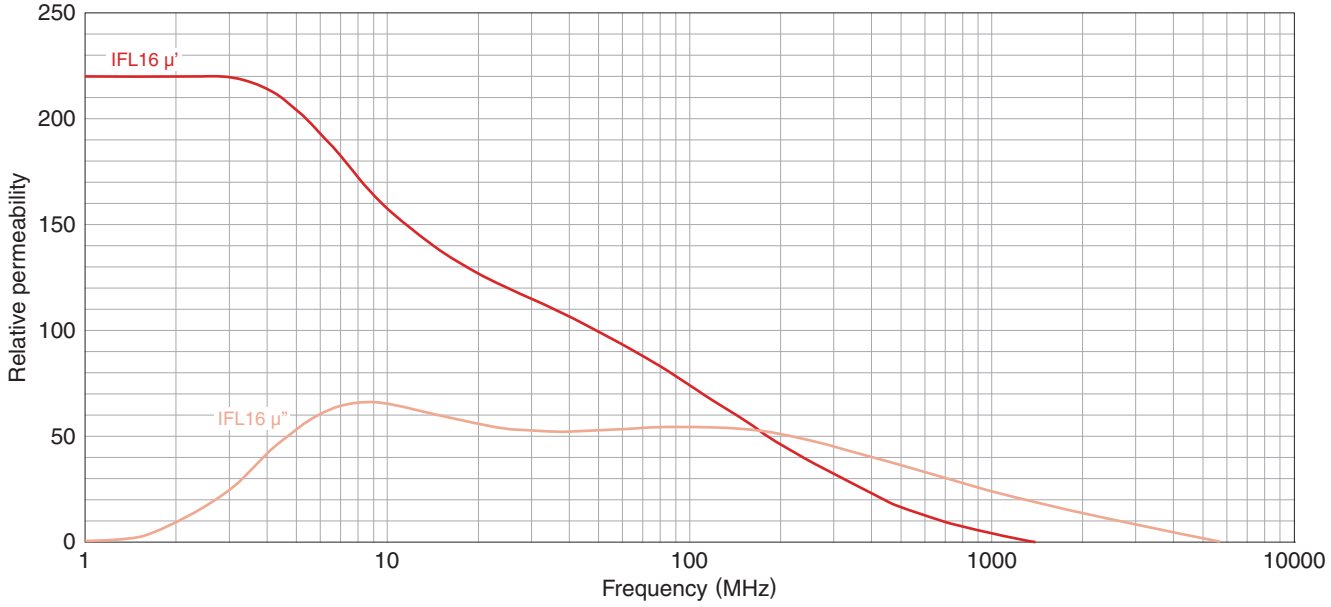
MATERIAL CHARACTERISTIC

MATERIAL CHARACTERISTIC SPECIFICATION TABLE*

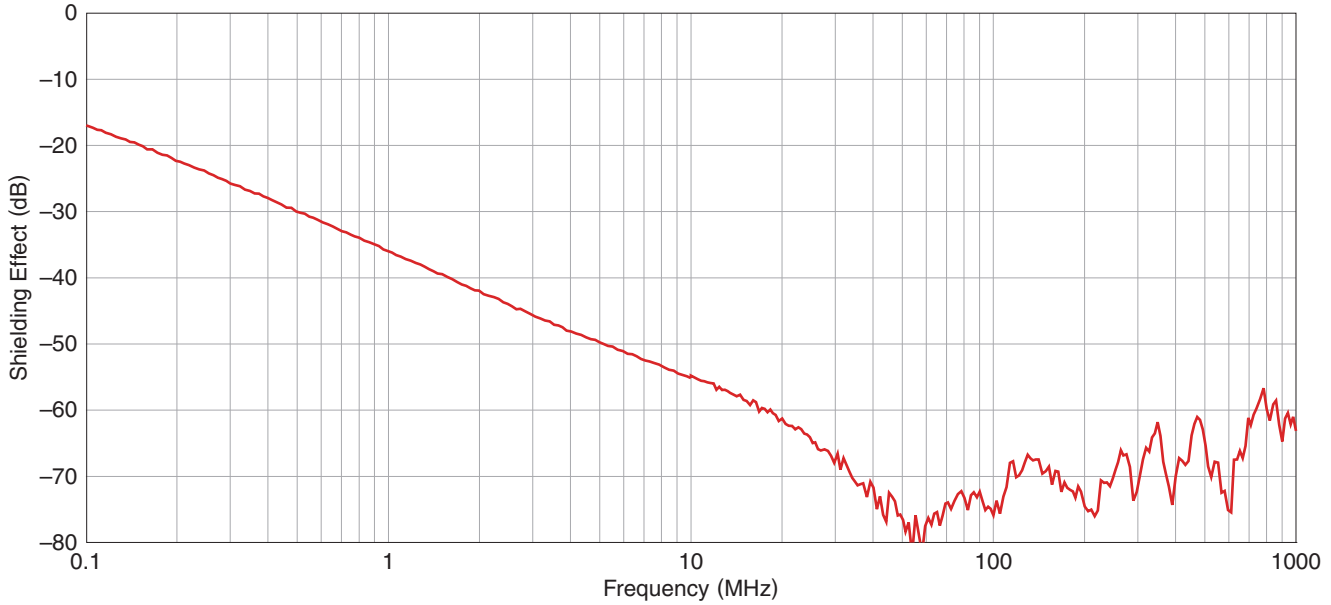
Material name	Recommended frequency range	Relative permeability (at 1MHz)	Surface resistivity (Ω/sq.)min	Thermal conductivity (W/m • K)	Operating temperature range (°C)
IFL16	0.5 MHz to 10 GHz	220	10k	1.5	–40 to +85

* Material property is value of magnetic layer.

RELATIVE PERMEABILITY



SHIELD EFFECT

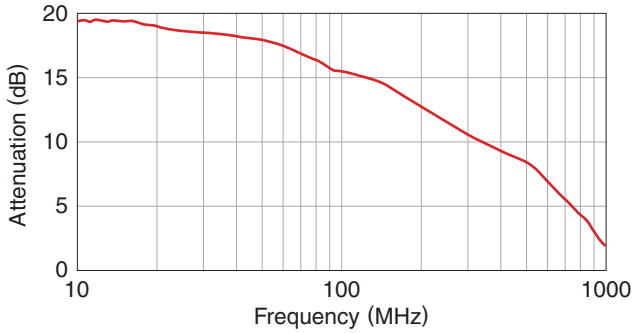


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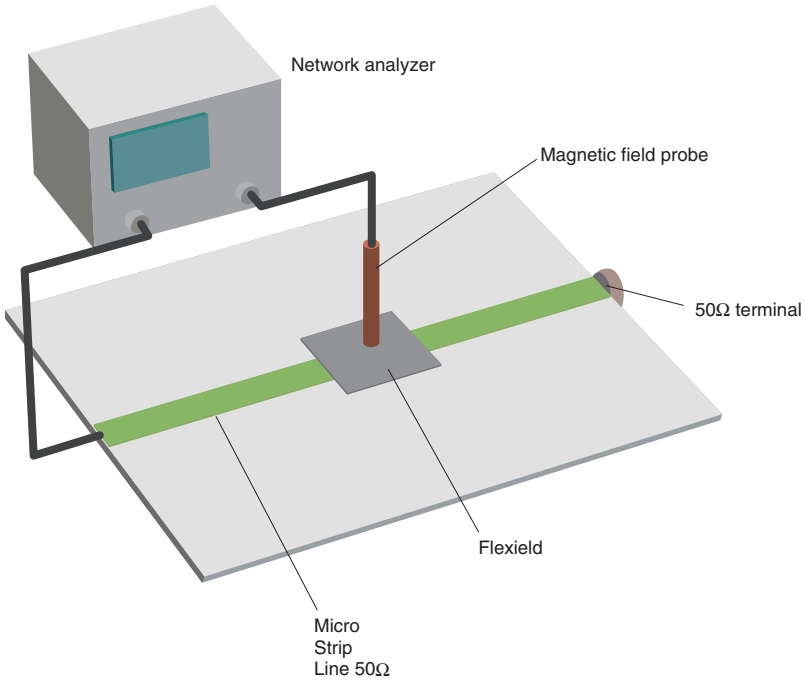
IFL series Hybrid type (magnetic layer+conductive layer)

MATERIAL CHARACTERISTIC

NEIGHBORHOOD MAGNETIC FIELD ATTENUATION



NEIGHBORHOOD MAGNETIC FIELD ATTENUATION TESTING METHOD (Magnetic field measurement on the microstrip line)

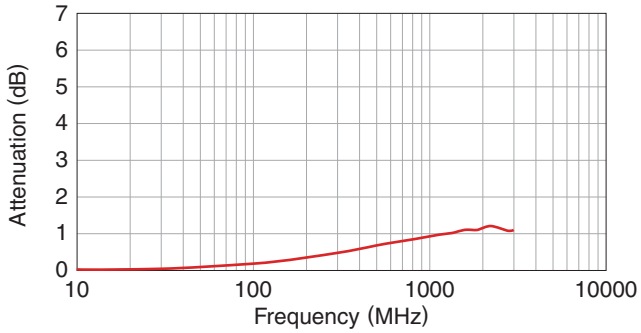


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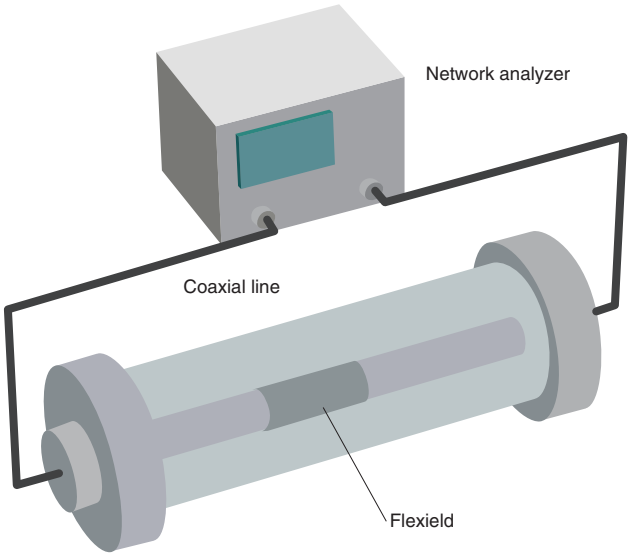
IFL series Hybrid type (magnetic layer+conductive layer)

MATERIAL CHARACTERISTIC

TRANSMISSION ATTENUATION



TRANSMISSION ATTENUATION TESTING METHOD (Transmission measurement in a coaxial track)



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