



Noise Suppression Sheets

Flexield

IFM series

Hybrid type (Magnetic layer+Conductive layer)

Noise Suppression Sheets

Product compatible with RoHS directive

Flexield

Overview of IFM series Hybrid type (Magnetic layer+Conductive layer)

FEATURES

- Hybrid construction consisting of both magnetic and conductive layers
- Provides for attenuation via magnetic losses and noise magnetic flux absorption within magnetic layer
- Provides reflection (blocking) and Eddy current losses on conductive layer
- Available with top insulation layer or top conductive layer (which can be grounded)
- Available on a roll or in sheet form
- Easy to cut/punch to required size and shape

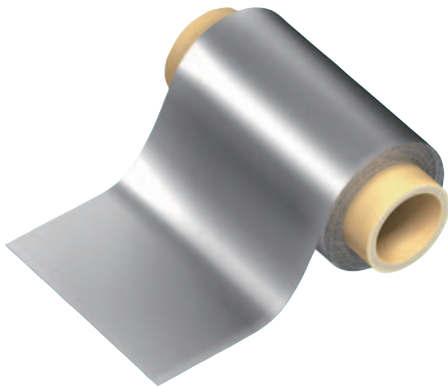
APPLICATION

- For ultra-thin, limited height applications
- High EMI level conditions where magnetic layer alone those not have sufficient attenuation
- Sensitivity improvement for stylus pens (inductive coupling type)
- PCB, FPC, ribbon cable data/address lines

STANDARD SHAPE LIST

Material name	Magnetic layer thickness (mm)	Sheet dimensions (mm)	Roll dimensions	
			Width (mm)	Length (m)
IFM10M	0.025	300X200	300	50
IFM16	0.030	300X200	Non-STD*	

* Please contact us for details



○ RoHS Directive Compliant Product: See the following for more details related to RoHS Directive compliant products. <http://product.tdk.com/en/environment/rohs/>

⚠ 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.

IFM series Hybrid type (Magnetic layer+Conductive layer)

PART NUMBER CONSTRUCTION

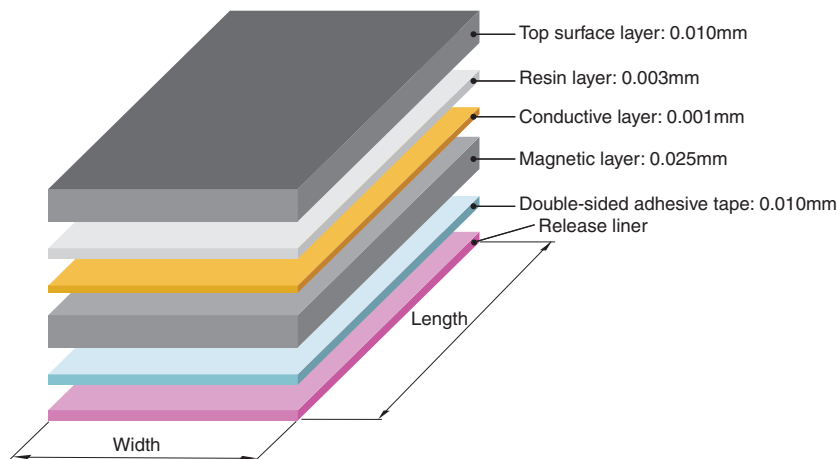
IFM10M

SHEET TYPE

IFM	10M	-	025	B	B	300	×	200
Series name	Material symbol		Magnetic layer thickness (mm)	Top surface layer thickness (mm)	Double-sided adhesive tape thickness (mm)	Length (mm)		Width (mm)
IFM	10M		025 0.025	B 0.010	B 0.010	300 300		200 200

ROLL TYPE

IFM	10M	-	025	B	B	50R	×	300
Series name	Material symbol		Magnetic layer thickness (mm)	Top surface layer thickness (mm)	Double-sided adhesive tape thickness (mm)	Length (m)		Width (mm)
IFM	10M		025 0.025	B 0.010	B 0.010	50R 50		300 300



STANDARD PART NUMBER LIST

Material name	Dimensions		Magnetic layer thickness (mm)	Total thickness (mm)typ.	Part number
	Width	Length			
IFM10M	200mm	300mm	0.025	0.049	IFM10M-025BB300X200
	300mm	50m			IFM10M-025BB50RX300

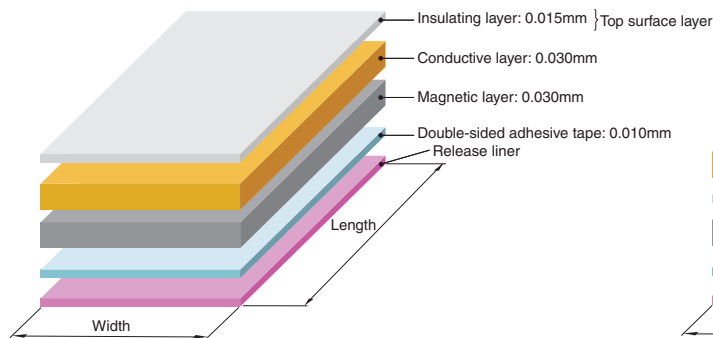
IFM series Hybrid type (Magnetic layer+Conductive layer)

PART NUMBER CONSTRUCTION

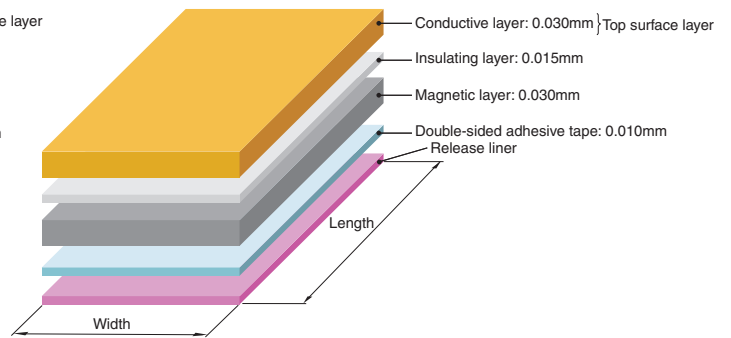
IFM16

IFM	16	-	030	E	B	300	×	200
Series name	Material symbol		Magnetic layer thickness (mm)	Top surface layer material	Double-sided adhesive tape thickness (mm)	Length (mm)		Width (mm)
IFM	16		030 0.030	E Insulating G Conductive	N No B 0.010	300 300		200 200

Top surface insulating type: IFM16-030EB300x200



Top surface conductive type: IFM16-030GB300x200



STANDARD PART NUMBER LIST

Material name	Sheet dimensions (mm)	Magnetic layer thickness (mm)	Total thickness (mm)typ.	Part number
IFM16	300X200	0.030	0.085	IFM16-030EB300X200 IFM16-030GB300X200

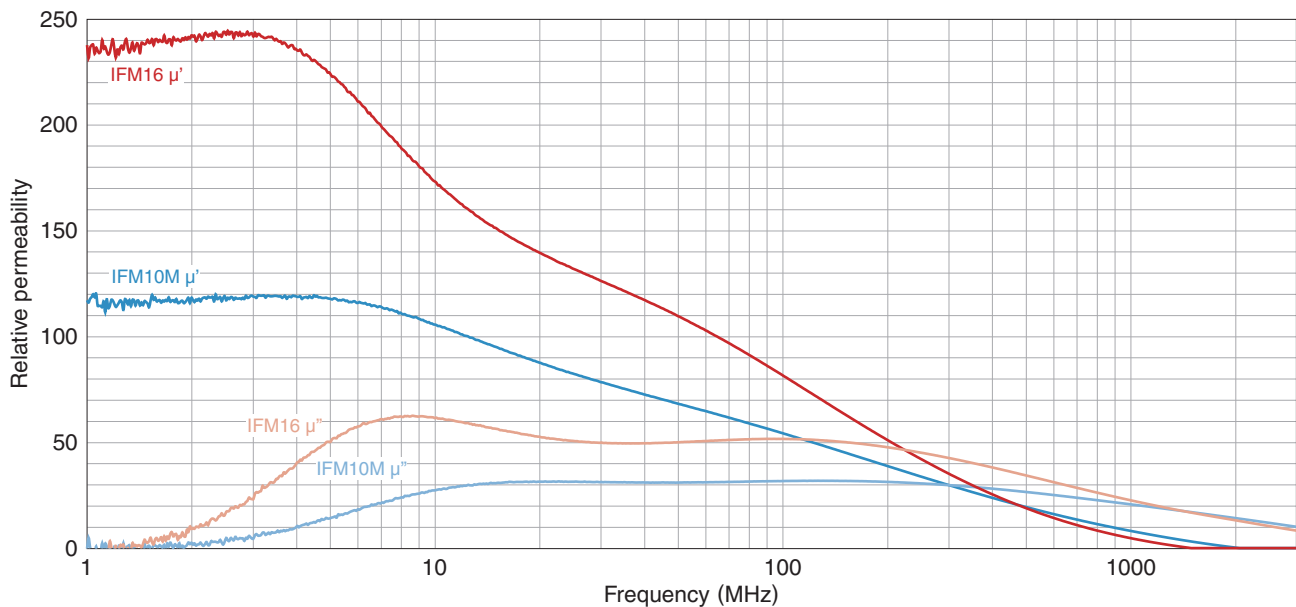
IFM series Hybrid type (Magnetic layer+Conductive layer)

MATERIAL CHARACTERISTIC

MATERIAL CHARACTERISTIC SPECIFICATION TABLE

Material name	Recommended specification frequency range	Relative permeability				Surface resistivity ($\Omega/\text{sq.}$)typ.	Thermal conductivity (W/m · K)	Saturated magnetic flux density (mT)	Curie temperature (°C)	Relative Permittivity (at 1MHz)typ.	Operating temperature (°C)
		[at 1MHz] μ'	μ''	[at 13.56MHz] μ'	μ''						
IFM10M	0.5MHz to 10GHz	120	< 1	100	30	1M	1.5	150 [H=1194A/m]	>500	1600	-40 to +85
IFM16	0.1MHz to 10GHz	220	< 1	140	60	10k	1.5	230 [H=1194A/m]	>500	1700	-40 to +85

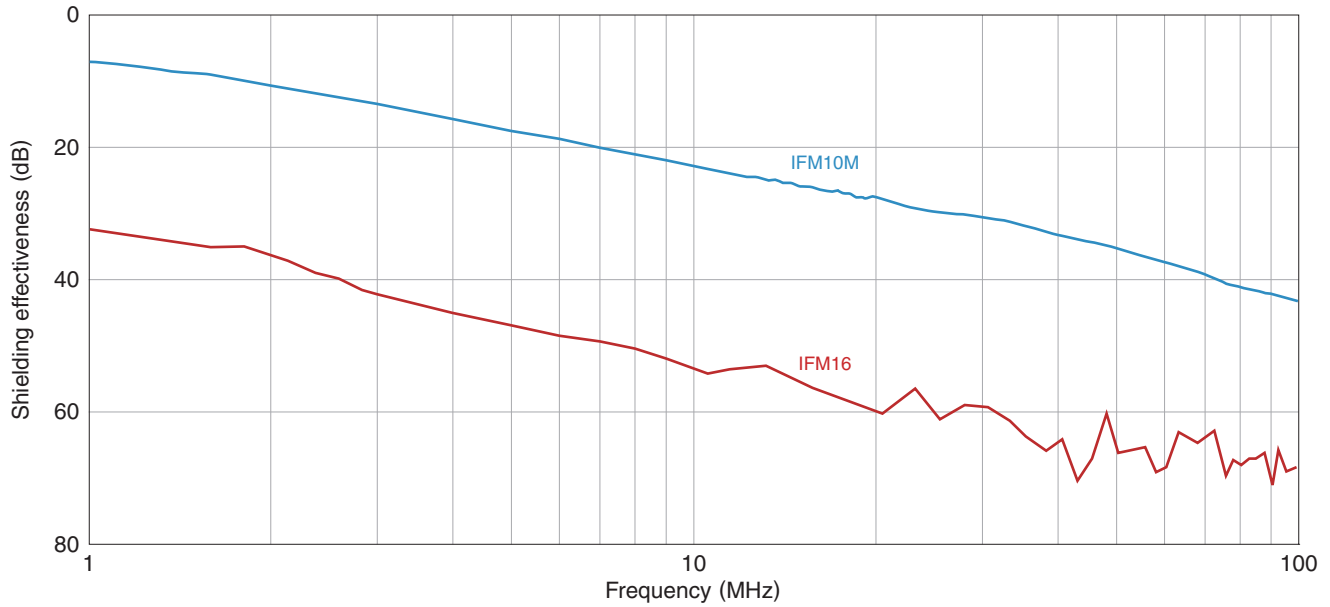
RELATIVE PERMEABILITY



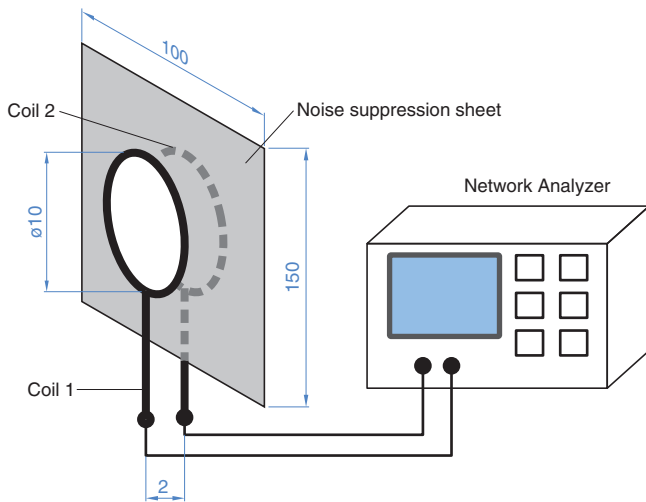
IFM series Hybrid type (Magnetic layer+Conductive layer)

MATERIAL CHARACTERISTIC

SHIELDING EFFECTIVENESS (Up to 100MHz)



MEASUREMENT SETUP (Up to 100MHz)



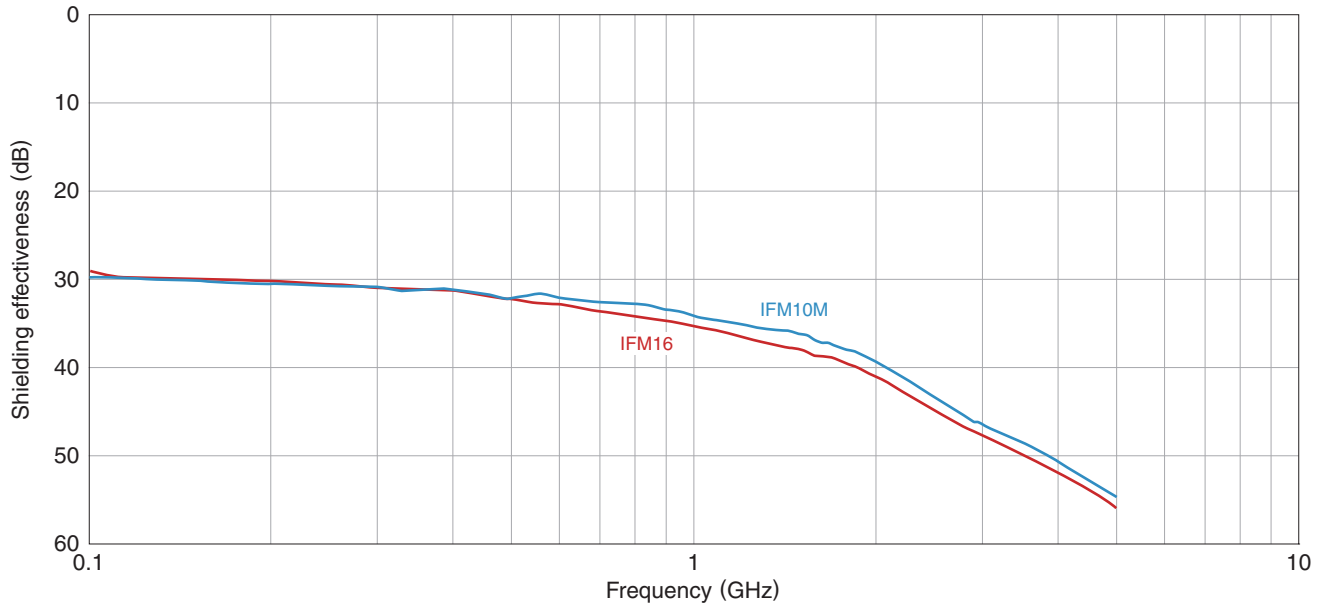
IFM series Hybrid type (Magnetic layer+Conductive layer)

MATERIAL CHARACTERISTIC

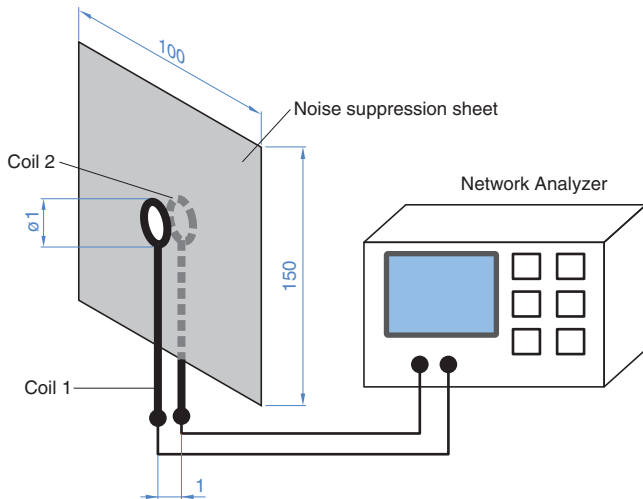
SHIELDING EFFECTIVENESS (100MHz to 6GHz)*

* Note that there is no continuity with data below 100MHz.

Gain is low due to the use of a small coil for high frequencies.



MEASUREMENT SETUP (100MHz to 6GHz)



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

- The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) 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.

If you intend to use 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 contact us.

- | | |
|--|--|
| (1) Aerospace/aviation equipment | (8) Public information-processing equipment |
| (2) Transportation equipment (cars, electric trains, ships, etc.) | (9) Military equipment |
| (3) Medical equipment (excepting Pharmaceutical Affairs Law classification Class1,2) | (10) Electric heating apparatus, burning equipment |
| (4) Power-generation control equipment | (11) Disaster prevention/crime prevention equipment |
| (5) Atomic energy-related equipment | (12) Safety equipment |
| (6) Seabed equipment | (13) Other applications that are not considered general-purpose applications |
| (7) Transportation control equipment | |

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