



Magnetic Sheet for EMC - Flexield -

Series name

[IFL \(Normal\)](#)

[IFF \(Heat-resistant\)](#)

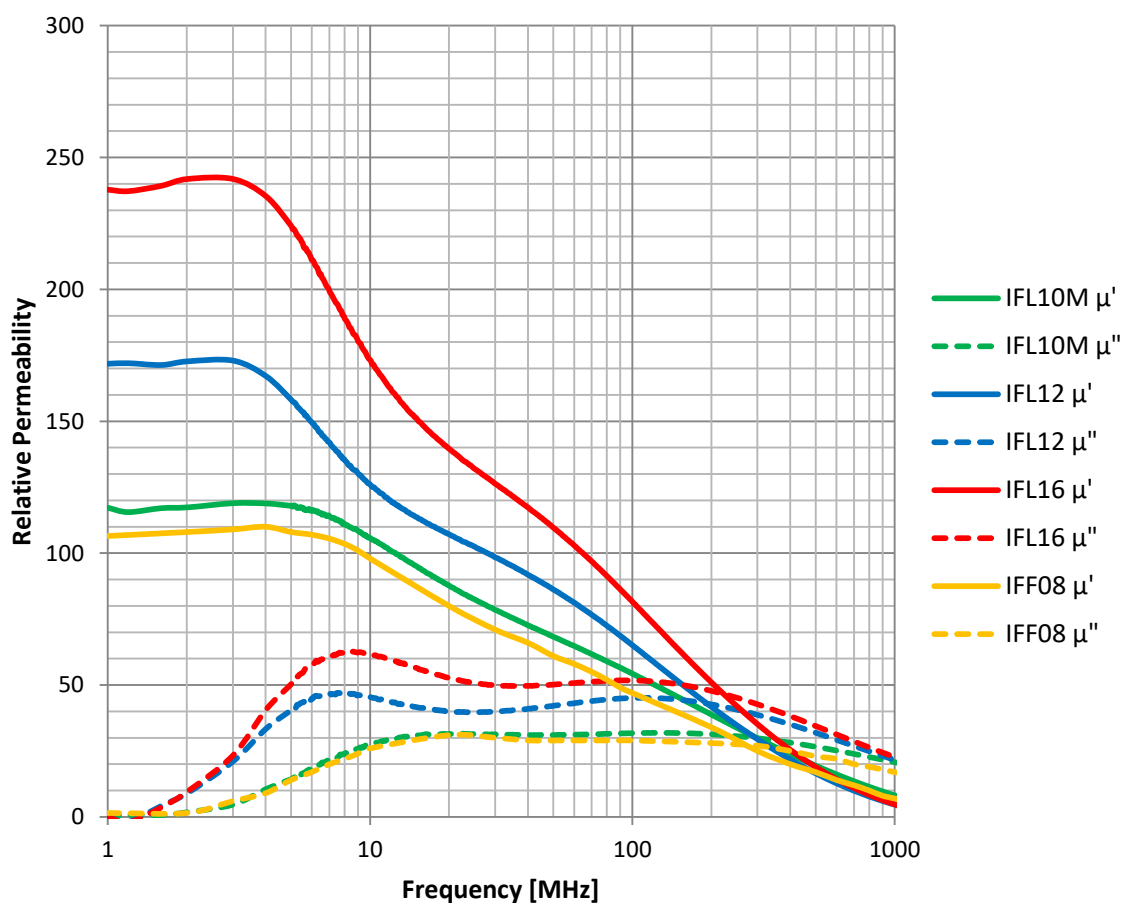
[IFM \(With metal layer\)](#)

[IPM \(Ultra-thin\)](#)

Material characteristics (IFL,IFF series)

Material name	Recommended specification frequency range	Relative permeability (at 1MHz)	Surface resistivity ($\Omega/\text{sq.}$)min	Thermal conductivity ($\text{W/m}\cdot\text{K}$)	Operating temperature ($^{\circ}\text{C}$)
IFL10M	10MHz to 3GHz	120	1M	1.5	-40 to +85
IFL12	5MHz to 3GHz	180	10K	1.5	-40 to +85
IFL16	0.5MHz to 1GHz	220	10K	1.5	-40 to +85
IFF08	10MHz to 3GHz	100	1M	1.5	-40 to +125

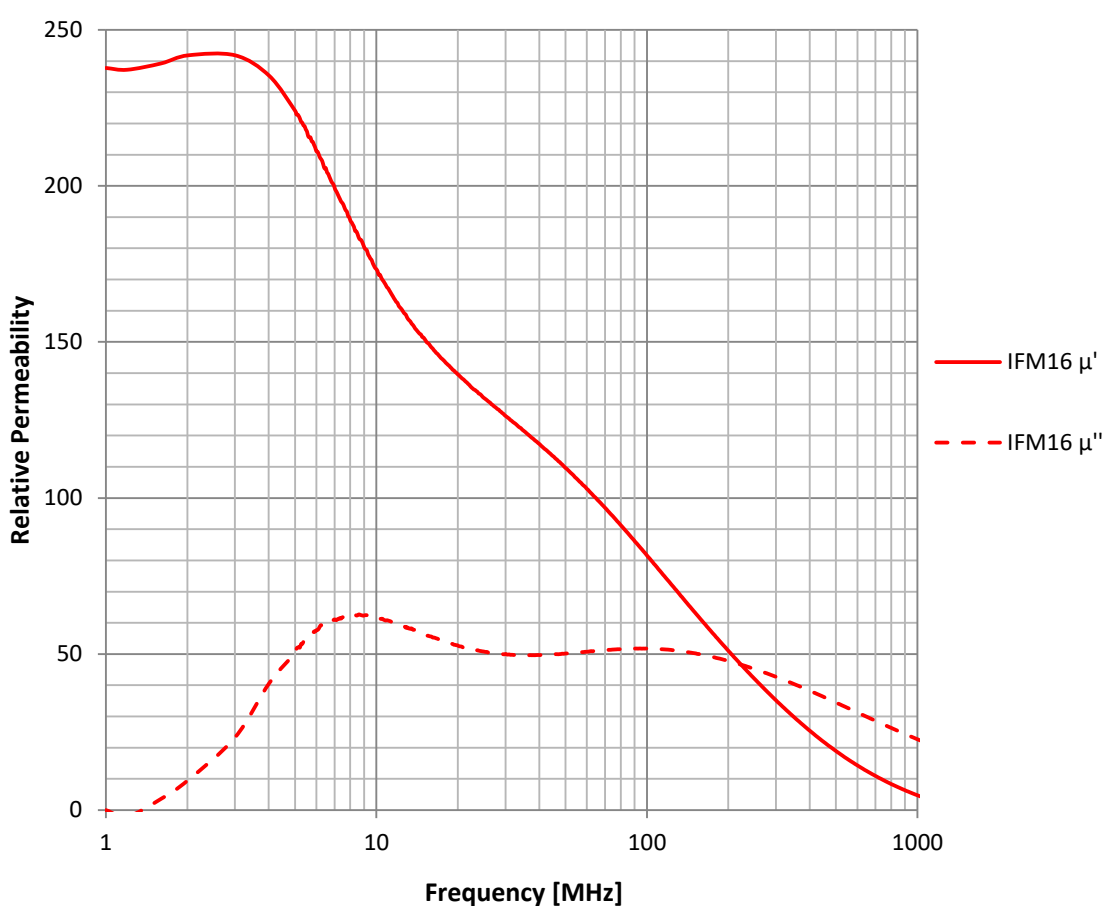
Frequency vs. Permeability



Material characteristics (IFM series)

Material name	Recommended specification frequency range	Relative permeability (at 1MHz)	Surface resistivity ($\Omega/\text{sq.}$)min	Thermal conductivity ($\text{W/m}\cdot\text{K}$)	Operating temperature ($^{\circ}\text{C}$)
IFM16	0.1MHz to 10GHz	220	10	1.5	-40 to +85

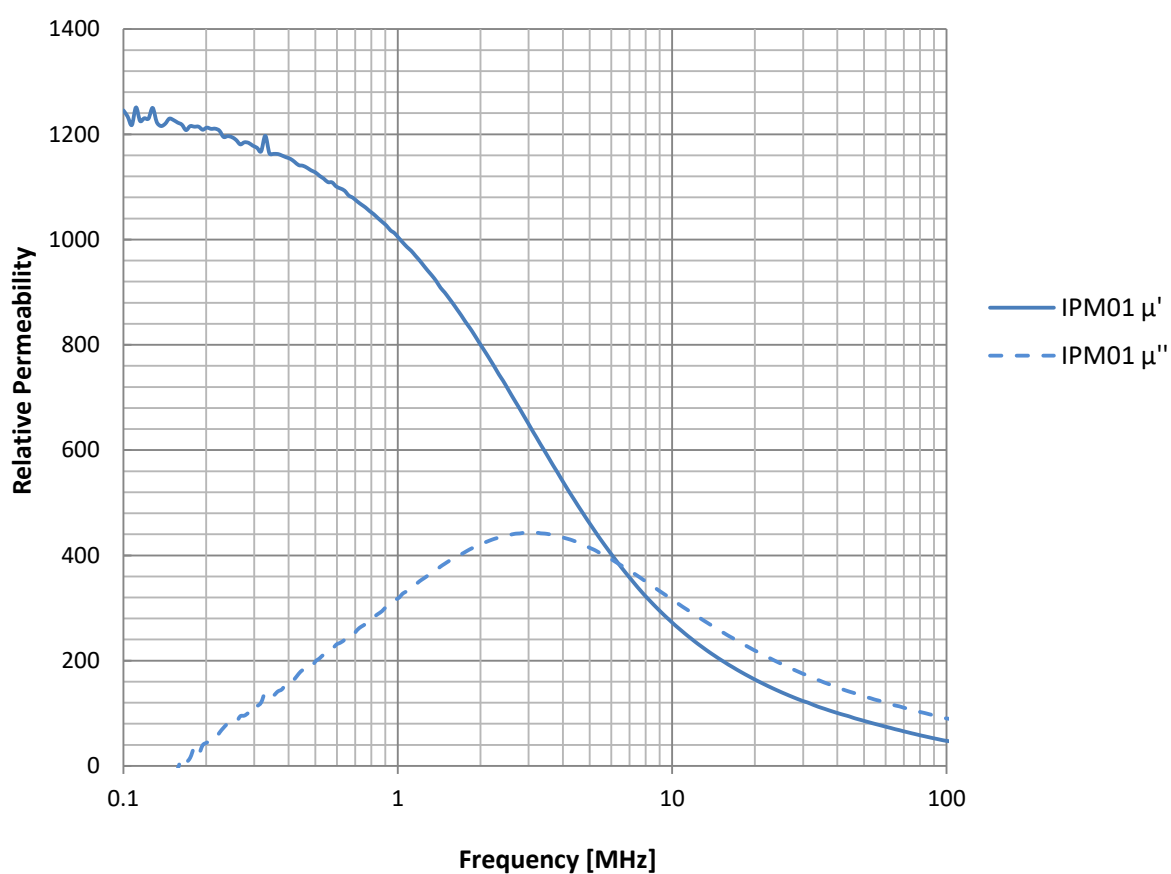
Frequency vs. Permeability



Material characteristics (IPM series)

Material name	Recommended specification frequency range	Relative permeability (at 1MHz)	Surface resistivity ($\Omega/\text{sq.}$)min	Thermal conductivity ($\text{W/m}\cdot\text{K}$)	Operating temperature ($^{\circ}\text{C}$)
IPM01	10kHz to 10GHz	1000	0.03	90.9	-40 to +85

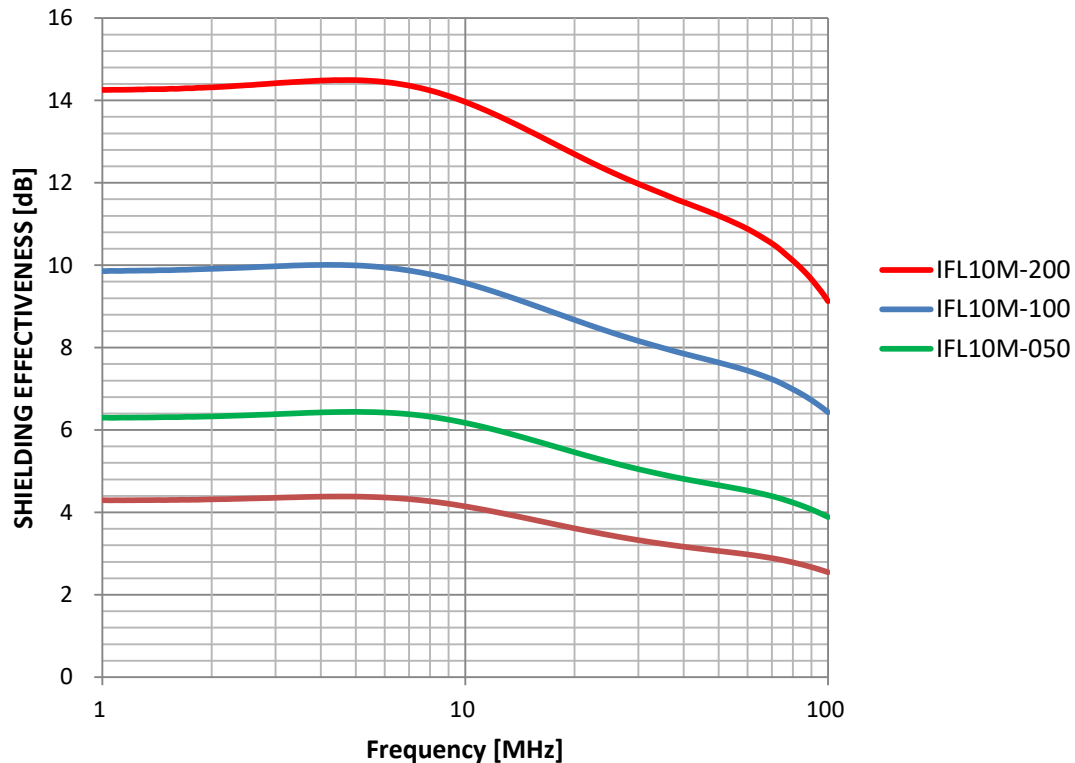
Frequency vs. Permeability



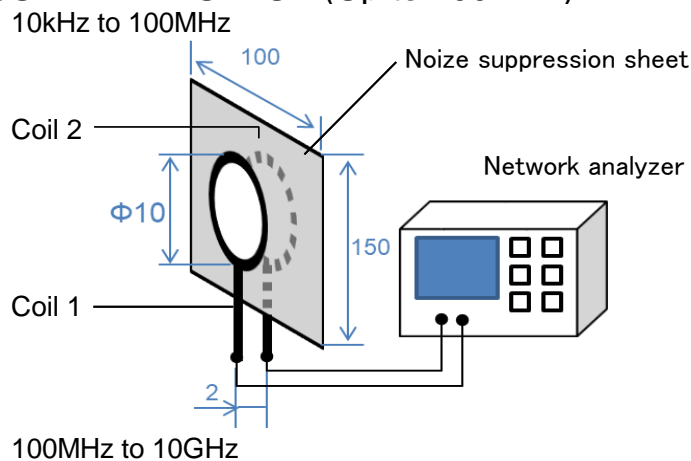
Material characteristics (IFL10M)

SHIELDING EFFECTIVENESS

IFL10M Frequency vs. SHIELDING EFFECTIVENESS



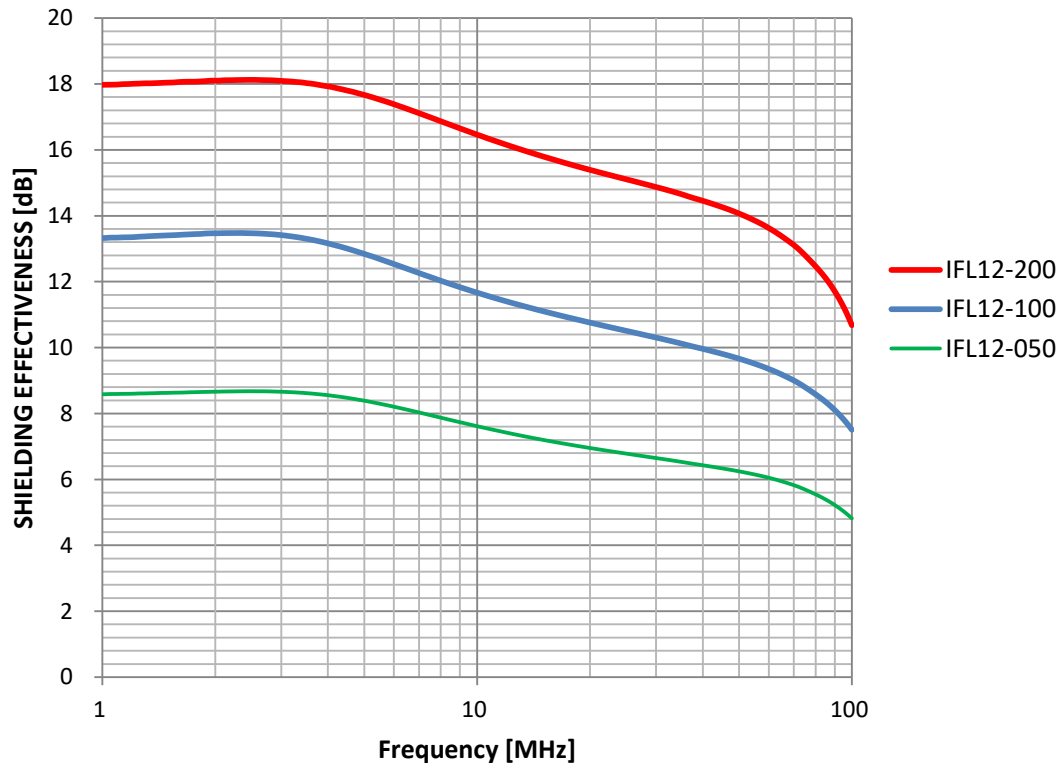
MEASUREMENT SETUP (Up to 100MHz)



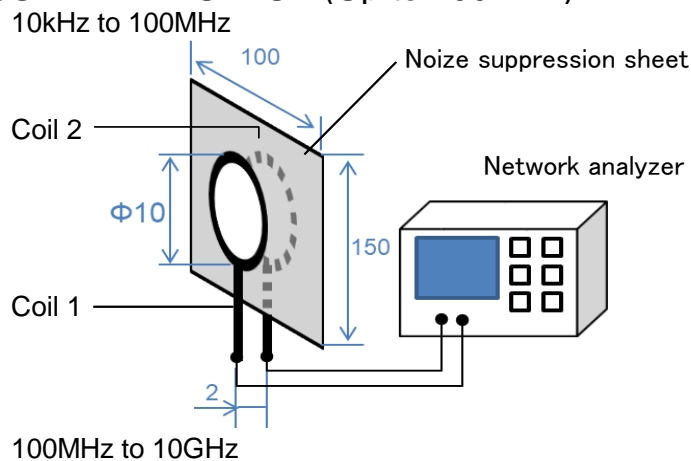
Material characteristics (IFL12)

SHIELDING EFFECTIVENESS

IFL12 Frequency vs. SHIELDING EFFECTIVENESS



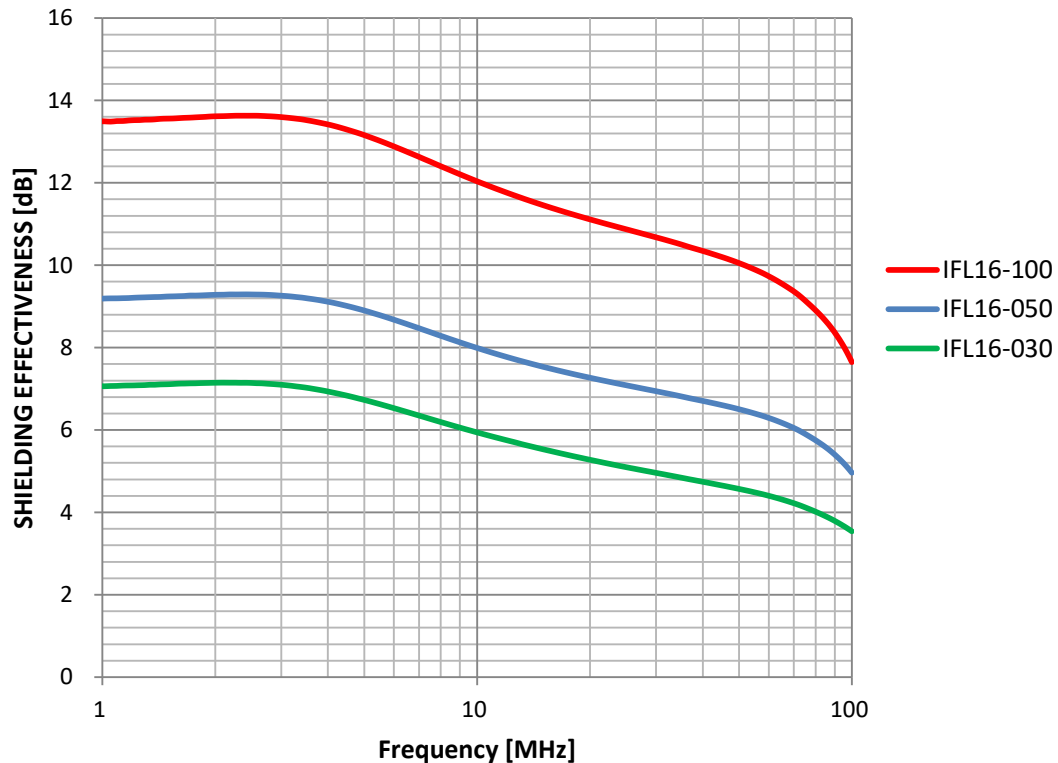
MEASUREMENT SETUP (Up to 100MHz)



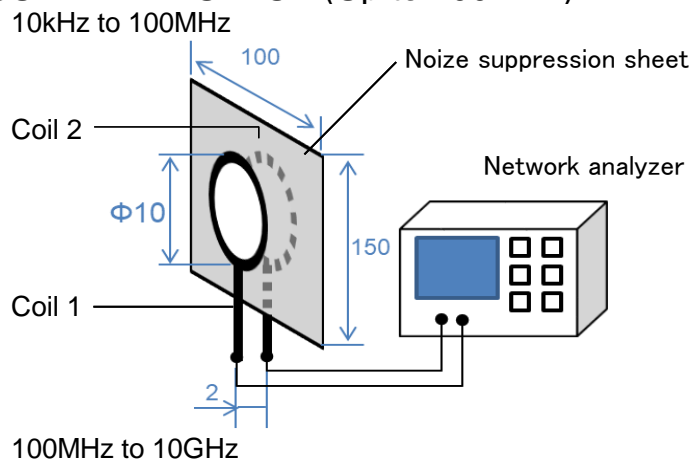
Material characteristics (IFL16)

SHIELDING EFFECTIVENESS

IFL16 Frequency vs. SHIELDING EFFECTIVENESS



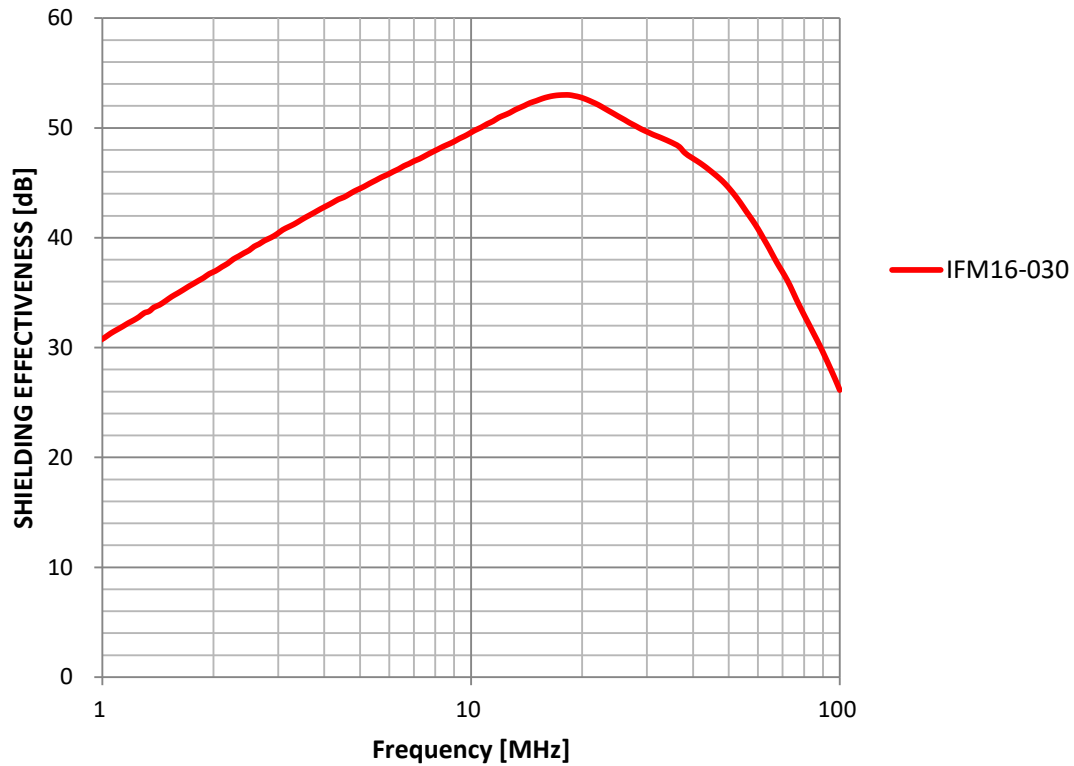
MEASUREMENT SETUP (Up to 100MHz)



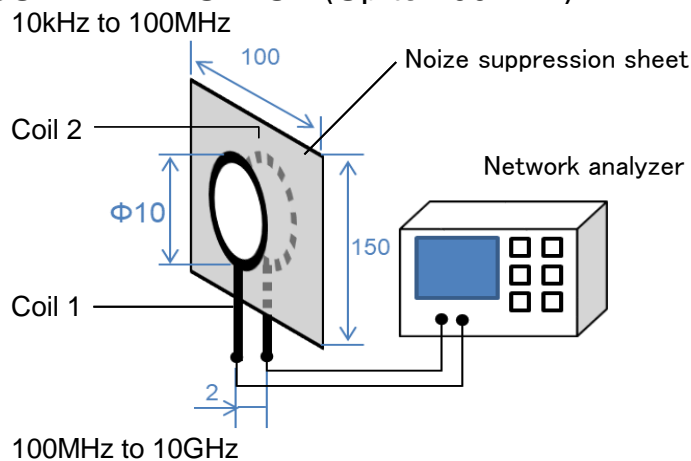
Material characteristics (IFM16)

SHIELDING EFFECTIVENESS

IFM16 Frequency vs. SHIELDING EFFECTIVENESS



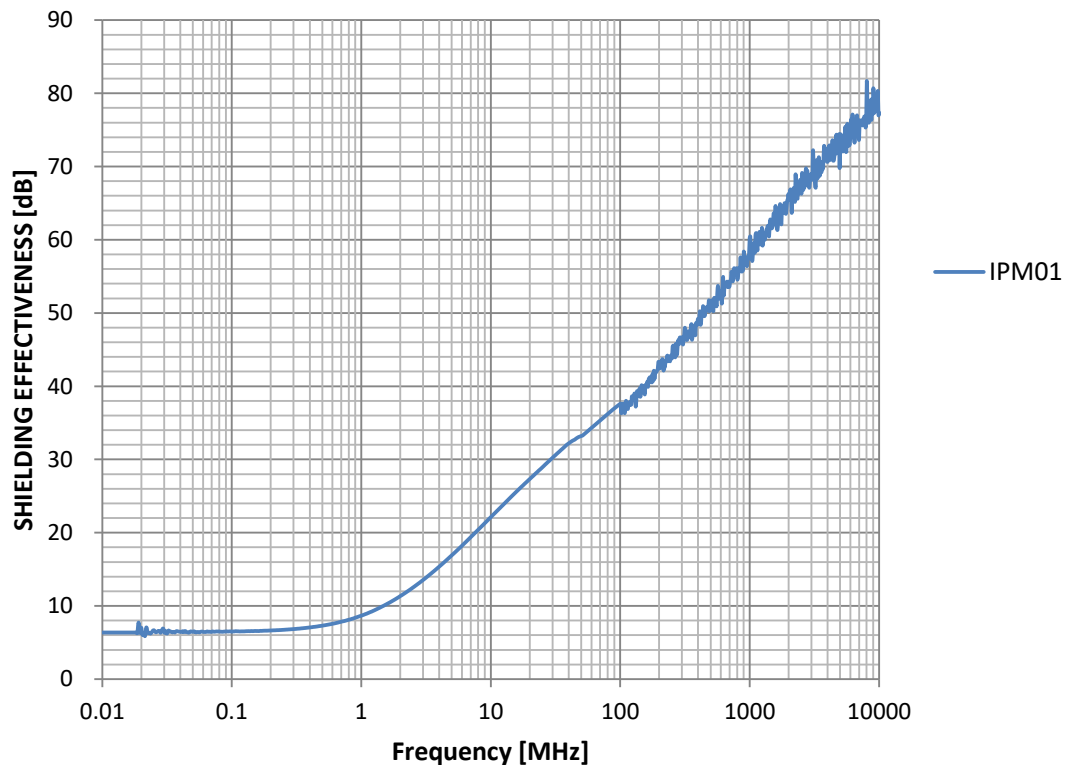
MEASUREMENT SETUP (Up to 100MHz)



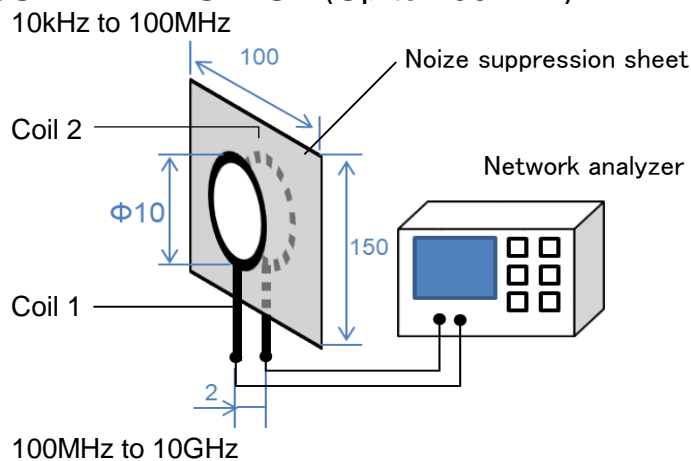
Material characteristics (IPM01)

SHIELDING EFFECTIVENESS

IPM01 Frequency vs. SHIELDING EFFECTIVENESS



MEASUREMENT SETUP (Up to 100MHz)



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 specification sheet 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. 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 (cars, 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 using these products in general purposes and standard use, it is recommended that protection circuits are used, devices are secured, and backup circuits are kept for increased safety.