



Nov. 2018  
TDK Corporation

P/N: **MAGNETIC SHEET SAMPLE KIT**

## ■ Sample list

"Magnetic Sheet Sample Kit" includes the following:

| No. | Series                 | Magnetic Material Thickness (mm) | Series Product Name          | Sample Size (mm) | Qty |
|-----|------------------------|----------------------------------|------------------------------|------------------|-----|
| 1   | <a href="#">IFL10M</a> | 0.025                            | <a href="#">IFL10M-025NB</a> | 140X95           | 1   |
| 2   |                        | 0.050                            | <a href="#">IFL10M-050NB</a> | 140X95           | 1   |
| 3   |                        | 0.100                            | <a href="#">IFL10M-100NB</a> | 140X95           | 1   |
| 4   |                        | 0.200                            | <a href="#">IFL10M-200ND</a> | 140X95           | 1   |
| 5   | <a href="#">IFL12</a>  | 0.050                            | <a href="#">IFL12-050NB</a>  | 140X95           | 1   |
| 6   |                        | 0.100                            | <a href="#">IFL12-100NB</a>  | 140X95           | 1   |
| 7   |                        | 0.200                            | <a href="#">IFL12-200ND</a>  | 140X95           | 1   |
| 8   | <a href="#">IFL16</a>  | 0.030                            | <a href="#">IFL16-030NB</a>  | 140X95           | 1   |
| 9   |                        |                                  | <a href="#">IFL16-030EB</a>  | 140X95           | 1   |
| 10  |                        |                                  | <a href="#">IFL16-030GB</a>  | 140X95           | 1   |
| 11  |                        | 0.050                            | <a href="#">IFL16-050NB</a>  | 140X95           | 1   |
| 12  |                        | 0.100                            | <a href="#">IFL16-100NB</a>  | 140X95           | 1   |
| 13  | <a href="#">IFM10M</a> | 0.025                            | <a href="#">IFM10M-025BB</a> | 140X95           | 1   |
| 14  | <a href="#">IFF08</a>  | 0.050                            | <a href="#">IFF08-050ND</a>  | 140X95           | 1   |
| 15  |                        | 0.100                            | <a href="#">IFF08-100ND</a>  | 140X95           | 1   |
| 16  | <a href="#">IFL04</a>  | 0.050                            | <a href="#">IFL04-050NB</a>  | 140X95           | 1   |
| 17  |                        | 0.100                            | <a href="#">IFL04-100NB</a>  | 140X95           | 1   |
| 18  |                        | 0.200                            | <a href="#">IFL04-200ND</a>  | 140X95           | 1   |



Noise suppression sheet  
- Flexield -

Series name

**IFL(normal)**

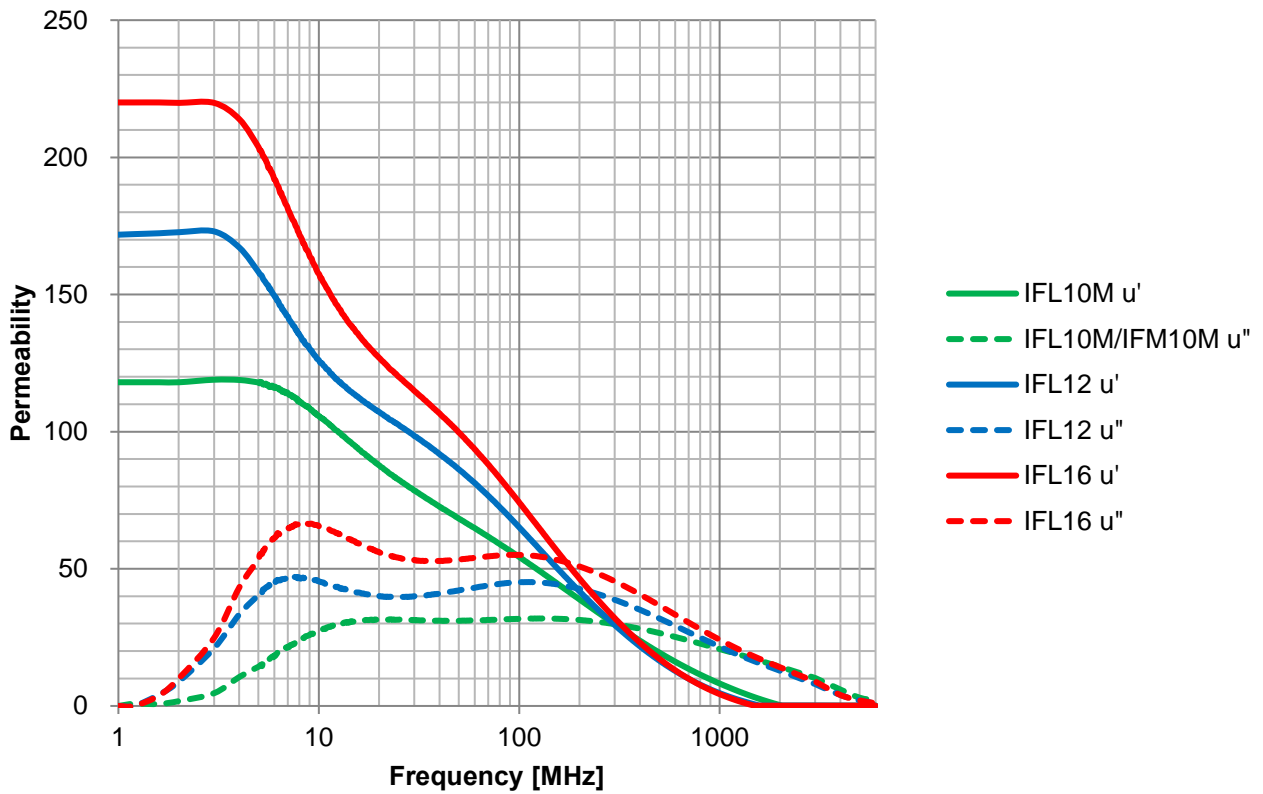
**IFM(with copper)**

**IFF(Heat-resistant)**

Material characteristic(Relative permeability)

| Material name          | Recommended specification frequency range | Relative permeability (at 1MHz) | Surface resistivity ( $\Omega$ /sq.)min | Thermal conductivity (W/m·K) | Operating temperature range ( $^{\circ}$ C) |
|------------------------|---|---------------------------------|---|------------------------------|---|
| <a href="#">IFL10M</a> | 10MHz to 3GHz                             | 120                             | 1M                                      | 1.5                          | -40 to +85                                  |
| <a href="#">IFL12</a>  | 5MHz to 3GHz                              | 180                             | 10k                                     | 1.5                          | -40 to +85                                  |
| <a href="#">IFL16</a>  | 0.5MHz to 1GHz                            | 220                             | 10k                                     | 1.5                          | -40 to +85                                  |
| <a href="#">IFF08</a>  | 10MHz to 3GHz                             | 100                             | 1M                                      | 1.5                          | -40 to +125                                 |
| <a href="#">IFM10M</a> | 0.5MHz to 10GHz                           | 120                             | 1M                                      | 1.5                          | -40 to +85                                  |

Frequency vs. Permeability

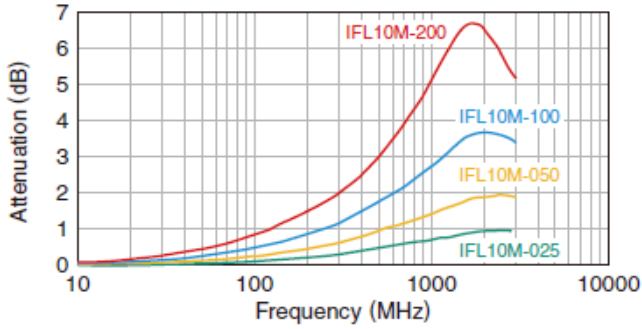


All specifications are subject to change without notice.  
 Before using these products, be sure to request the delivery specifications.

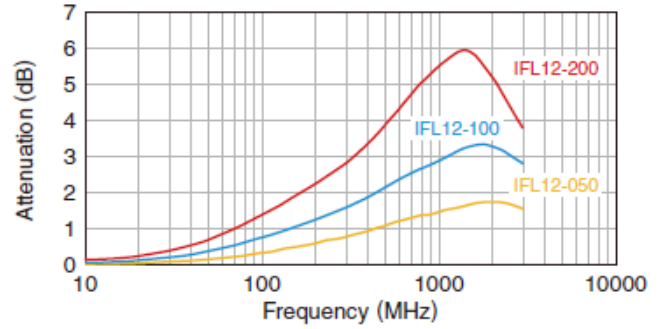
## Material characteristic(Transmission attenuation)

### TRANSMISSION ATTENUATION

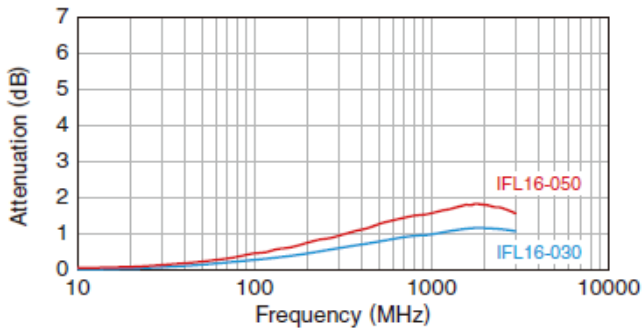
IFL10M



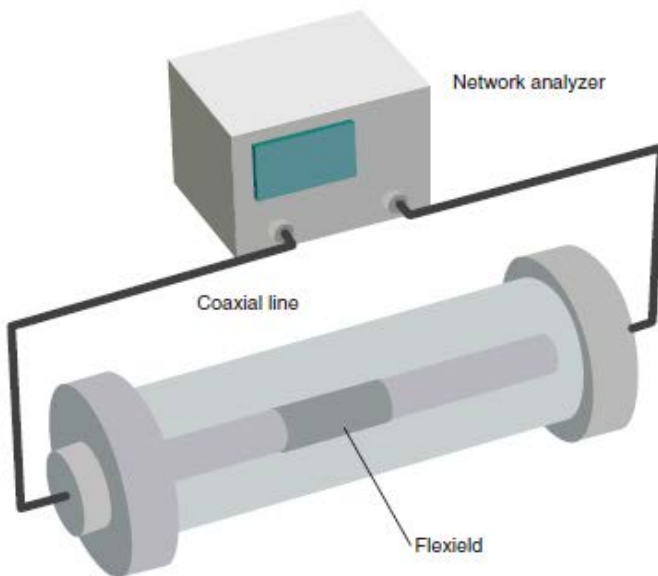
IFL12



IFL16



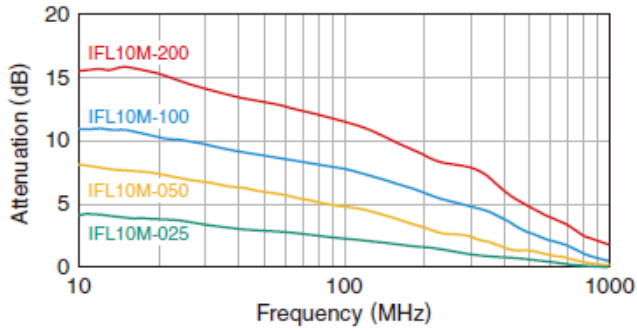
### TRANSMISSION ATTENUATION TESTING METHOD (Transmission measurement in a coaxial track)



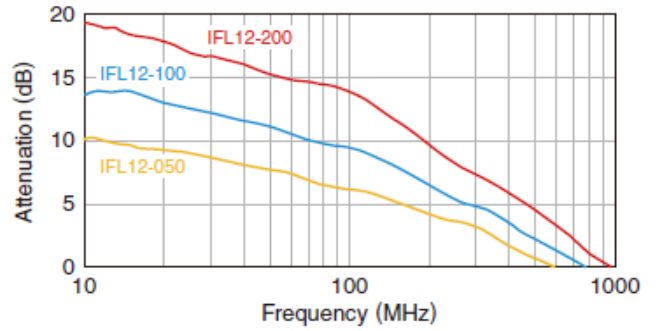
## Material characteristic(Transmission attenuation)

### NEIGHBORHOOD MAGNETIC FIELD ATTENUATION

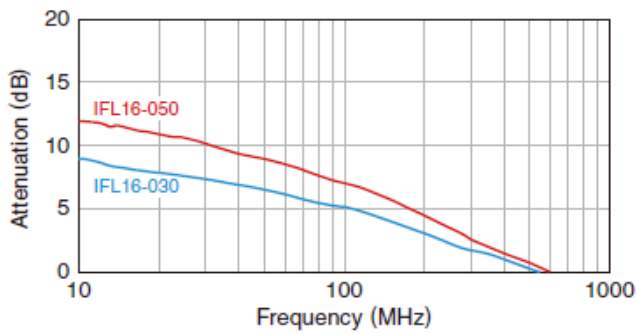
IFL10M



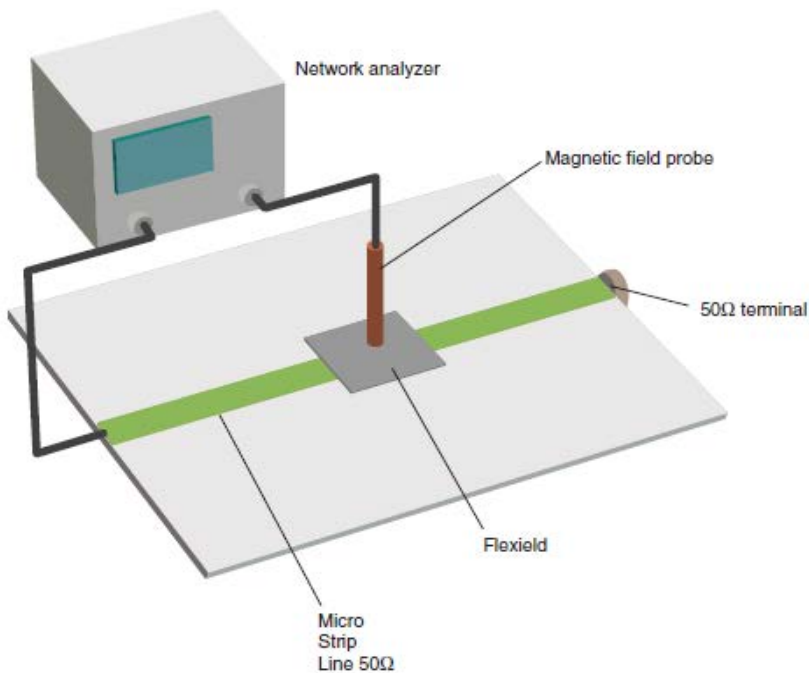
IFL12



IFL16



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





Magnetic Sheets for NFC & RFID  
- Flexield -

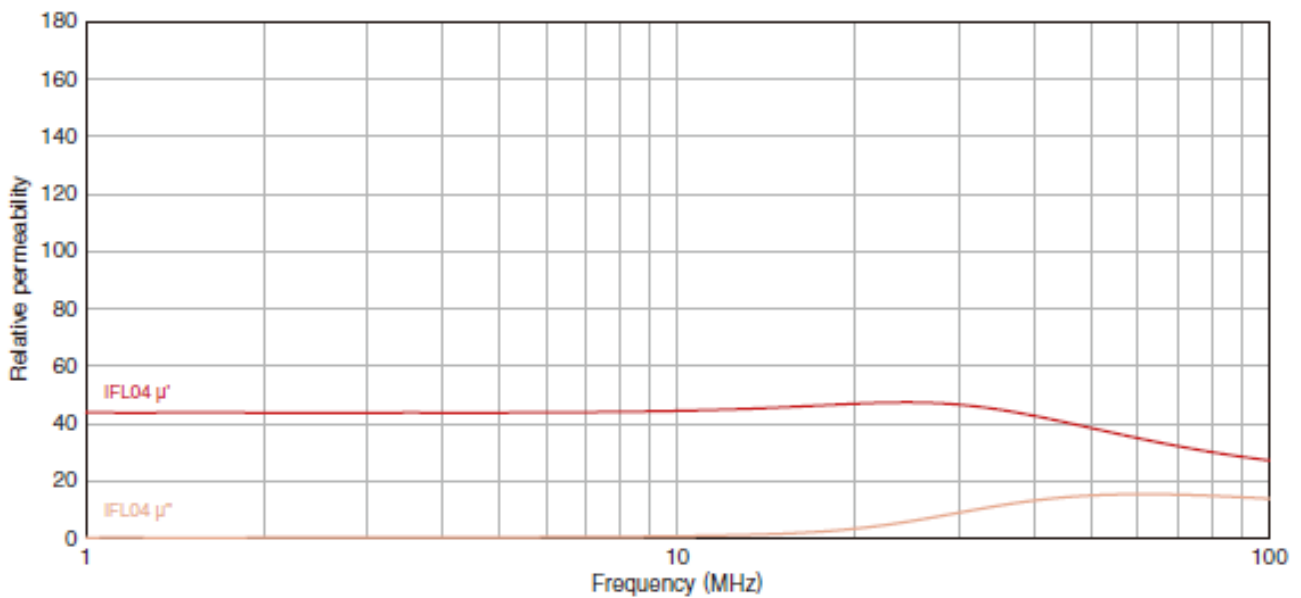
Series name

**IFL04 series**

Material characteristic(Relative permeability)

| Material name | Relative permeability (at 13.56MHz) typ. | Surface resistivity ( $\Omega$ /sq.)min | Thermal conductivity (W/m·K) | Operating temperature range ( $^{\circ}$ C) |
|---------------|--|---|------------------------------|---|
| IFL04         | $\mu'/\mu''=45/1.3$                      | 10k                                     | 1.5                          | -40 to +85                                  |

RELATIVE PERMEABILITY





## 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.

All specifications are subject to change without notice.  
Before using these products, be sure to request the delivery specifications.