

## Soft ferrite component

# Flexible Ferrite Sheet for RFID (Low Loss Type)



### **OVERVIEW**

TODA KOGYO's FLX-170V is a Ni-Zn-Cu ferrite flexible magnetic sheet that achieves the world's highest level of permeability characteristics (both high permeability  $\mu$ ' and low loss  $\mu$ ") in the 13.56 MHz frequency band. By attaching it to an RFID or NFC antenna in the HF band, maximum communication characteristics can be obtained.

#### **FEATURES**

High permeability  $\mu'$  and low loss  $\mu''$ 

The development of new Ni-Zn-Cu ferrite materials has improved the permeability characteristics, enabling even better communication characteristics than conventional products.

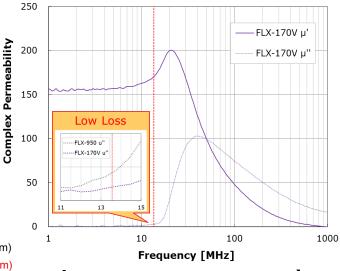
Very thin

By using thin-film technology, it is possible to provide sheets suitable for low-profile electronic devices.

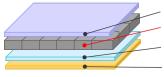
### **CHARACTERISTICS**

#### [Typical specifications]

Grade	FLX-170V
Material	Ni-Zn-Cu ferrite
Max. size (mm)	□135×135
Thickness of ferrite layer (mm)	0.05~0.30
μ' at 13.56MHz	170
μ" at 13.56MHz	2.5
Environment	RoHS/Halogen free



[Frequency dependence of permeability]



PET cover tape (0.01~0.05mm) Ni-Zn-Cu ferrite (0.05~0.30mm) Adhesive tape (0.01~0.05mm)

Release liner (PET/Paper)

(Layer structure)

#### [Optional fabrication]

- ✓ Lamination with many kinds of film.
- ✓ Complicated shape.
- ✓ Adjustment of permeability.

### **APPLICATIONS**

- IC Tags/NFC Tags for metal
- NFC devices embedded in smartphones, etc.
- Wireless charging devices such as mobile and wearable devices

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