



ACME Electronics Corporation

## • Outline:



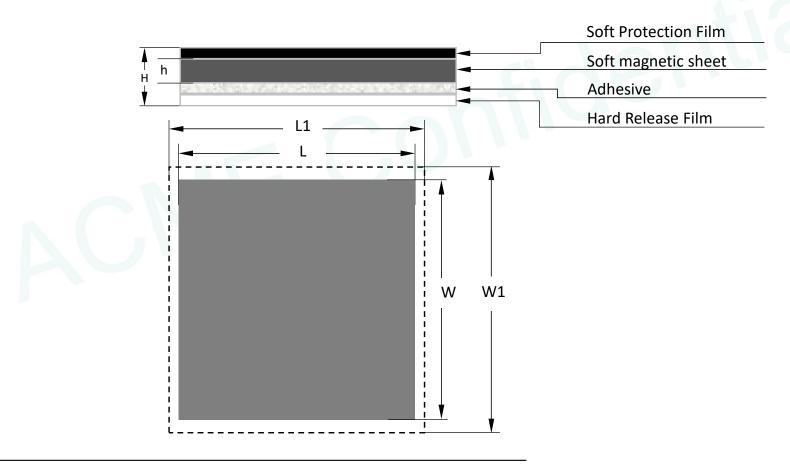
- 1. Characteristics of ACME's Flexible Sheet
- 2. Features of ACME's Flexible Sheet
- 3. Applications

## • 1. Characteristics of ACME's Flexible Sheet:



#### (1) Structure

There are 4 layers in Flexible Sheet including Protection Film, Soft magnetic Sheet, Adhesive film, and Release liner shown as below.

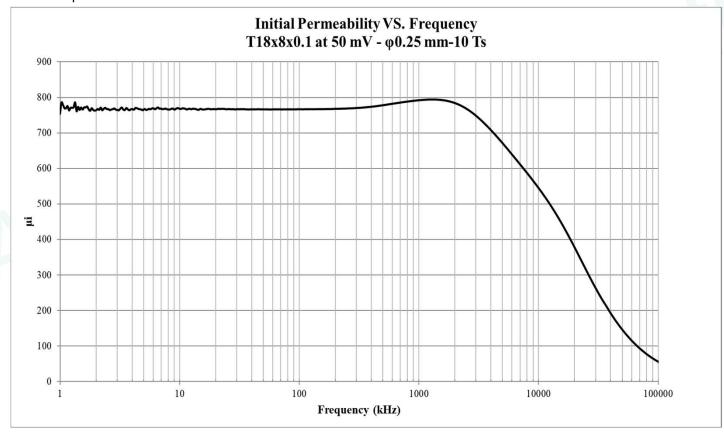


## 1. Characteristics of ACME's Flexible Sheet:



#### (2) Characteristics:

As an example, with the highest initial permeability achieving 800 and wide frequency range, it can provide effective EMI suppression and avoid interference between components.



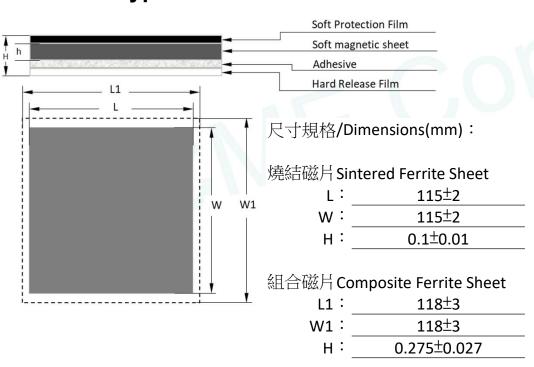
#### 1. Characteristics of ACME's Flexible Sheet:



#### (3) Standard Product:

We provide customer with standard Sheet and Tape types shown as below. And we can also adjust the dimensions on length and width under request.

#### **Sheet Type: FFS08I115\*115\*0.1TP**



#### Tape Type: FFS08R6\*20M\*0.1TP



尺寸規格/Dimensions(mm):

燒結磁片 Sintered Ferrite Sheet A(Width): 6±0.5

A(Width):  $6\pm0.5$ C(Length):  $20M\pm3mm$ I(Thickness):  $0.1\pm0.01$ 



組合磁片 Composite Ferrite Sheet

A(Width):  $6\pm0.5$ C(Length):  $20M\pm3mm$ I(Thickness):  $0.1\pm0.01$ 

#### 2. The Features of ACME's Flexible Sheet:



#### Features:

- (1MHz to 6GHz)
- Guide the magnetic flux path to avoid interference between components
- Reduce the eddy current when magnetic flux pass through metal housing
- <u>Ultra thin and extremely flexible</u>, it can be freely arranged in space
- Non-conductive adhesive (UL Recognized) available
- Effective in suppressing coupling
- High surface resistance (10 $^6$   $\Omega$ )
- Easy and fast to process
- Can be cut as any shape easily

## • 3. Applications:



Flexible Sheet is a very thin sheet of electronic ceramic material for blocking electromagnetic noise such as eddy currents generated by integrated circuits so as to reduce interference between components. Ferrite patches are required for functions such as <a href="Near Field Communication">Near Field Communication</a> (NFC), Magnetic Secure <a href="Transmission">Transmission</a> (MST) and wireless charging of smartphones.

## Some applications include:

- RFID and NFC systems near metal
- efficiency improvement for Wireless power charging
- reduction of crosstalk on PCBs
- shielding on flat cables
- noise suppression inside housings
- general EMC improvement of devices etc.

# • 3. Applications:

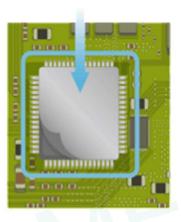


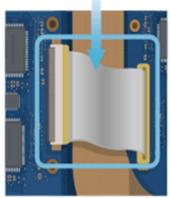
(1) EMI

Suppression of noise emitted from ICs

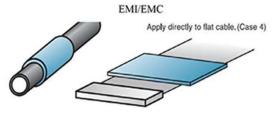
Suppression of noise emitted from flexible cables

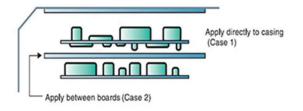
Protection of circuits from noise emission









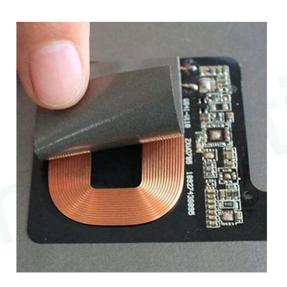


## • 3. Applications:



#### (2) NFC





The NFC magnetic chip is used in the NFC antenna, working at 13.56MHz frequency, has two functions

- 1). To prevent NFC communication signals from being absorbed by metals, batteries, etc.;
- 2). To increase the magnetic induction strength of the coil of wireless power charging effectively so as to increase the communication sensing distance.



# Thank you for attention! 111911K hon 101 gueunoui