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Others

A decorative graphic consisting of a dark teal circle on the left and a light teal rounded rectangle extending to the right, both with a subtle drop shadow.

01

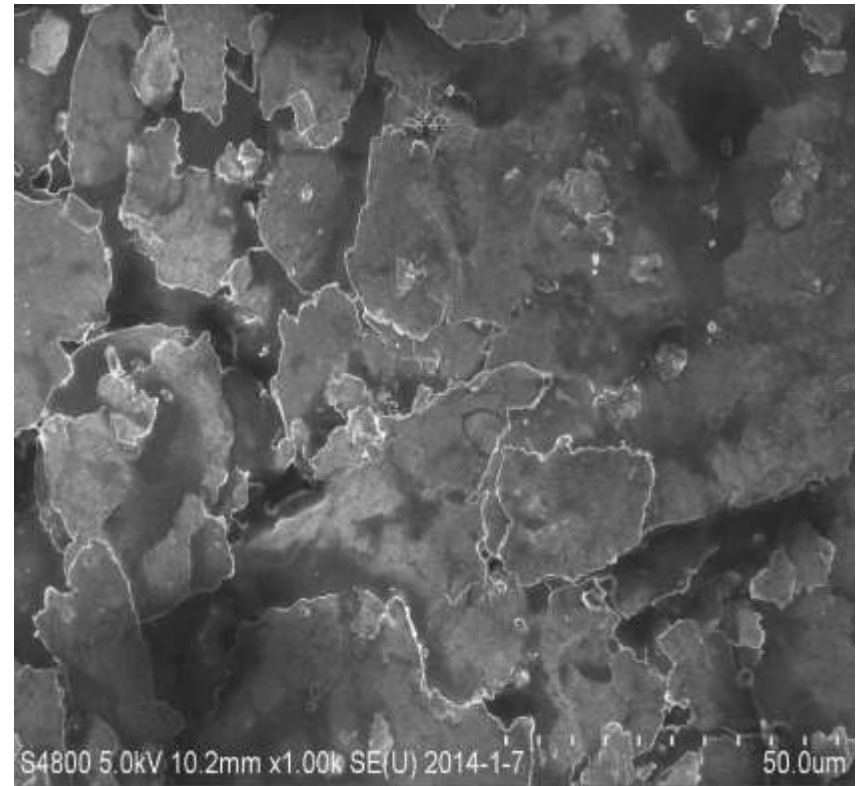
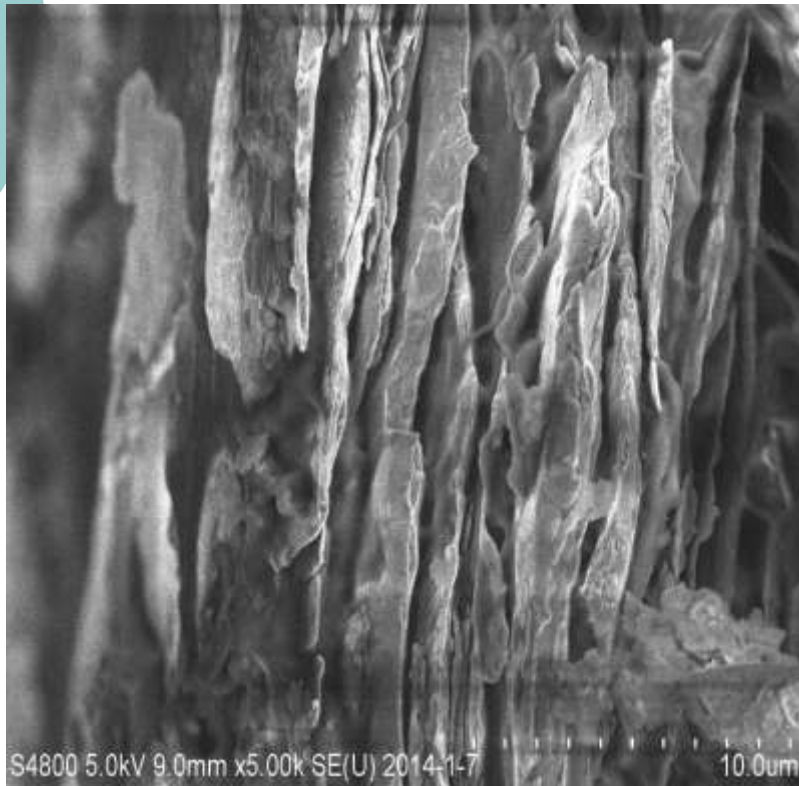
Product Overview

1.1 Electromagnetic Wave Absorbing Material

Electromagnetic Wave Absorber is a material that can absorb the energy of electromagnetic waves projected onto its surface. It has resistance type, dielectric type and magnetic medium type according to the material loss mechanism. What iAMPS&Hz produces is that of magnetic medium type.

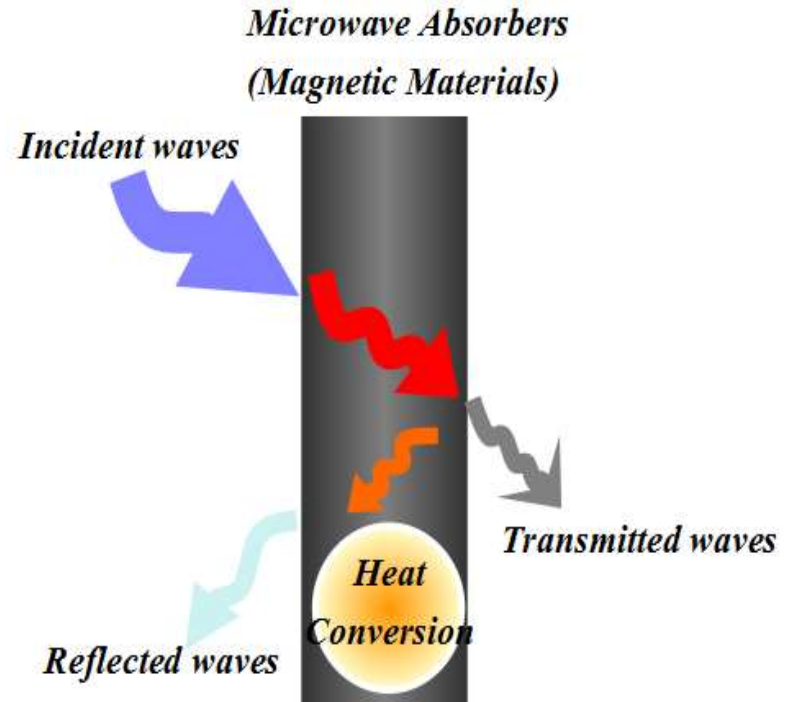


SEM Scope



1.2 The Working Principle of Electromagnetic Wave Absorber

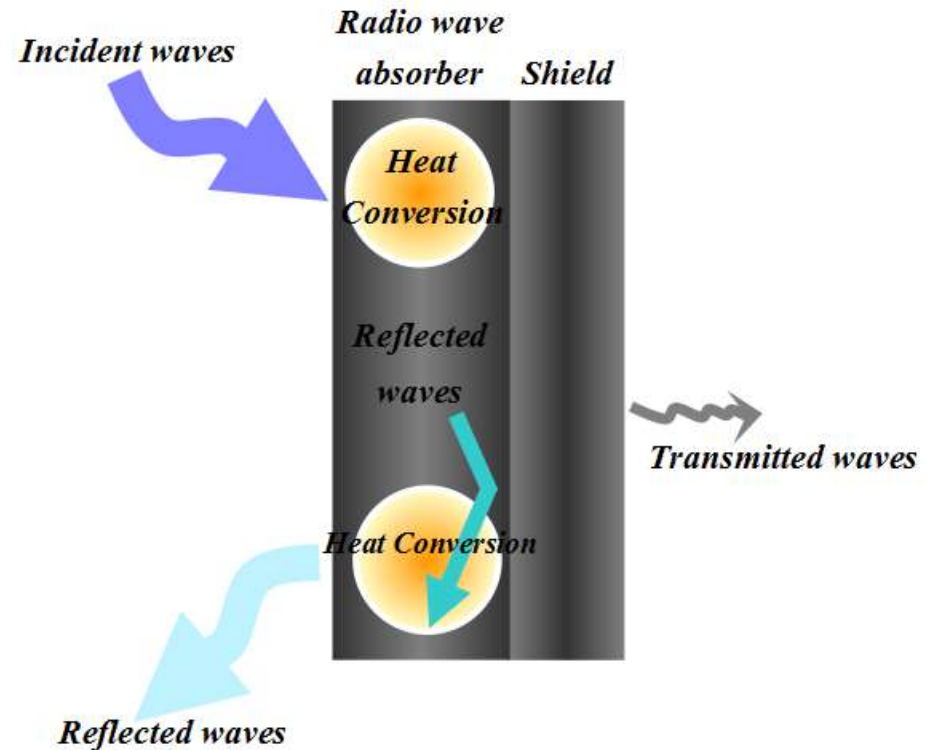
When the incident waves get into the material, they will be transformed as heat so that the noise will also be reduced for the reflected waves and transmitted waves have been largely reduced.



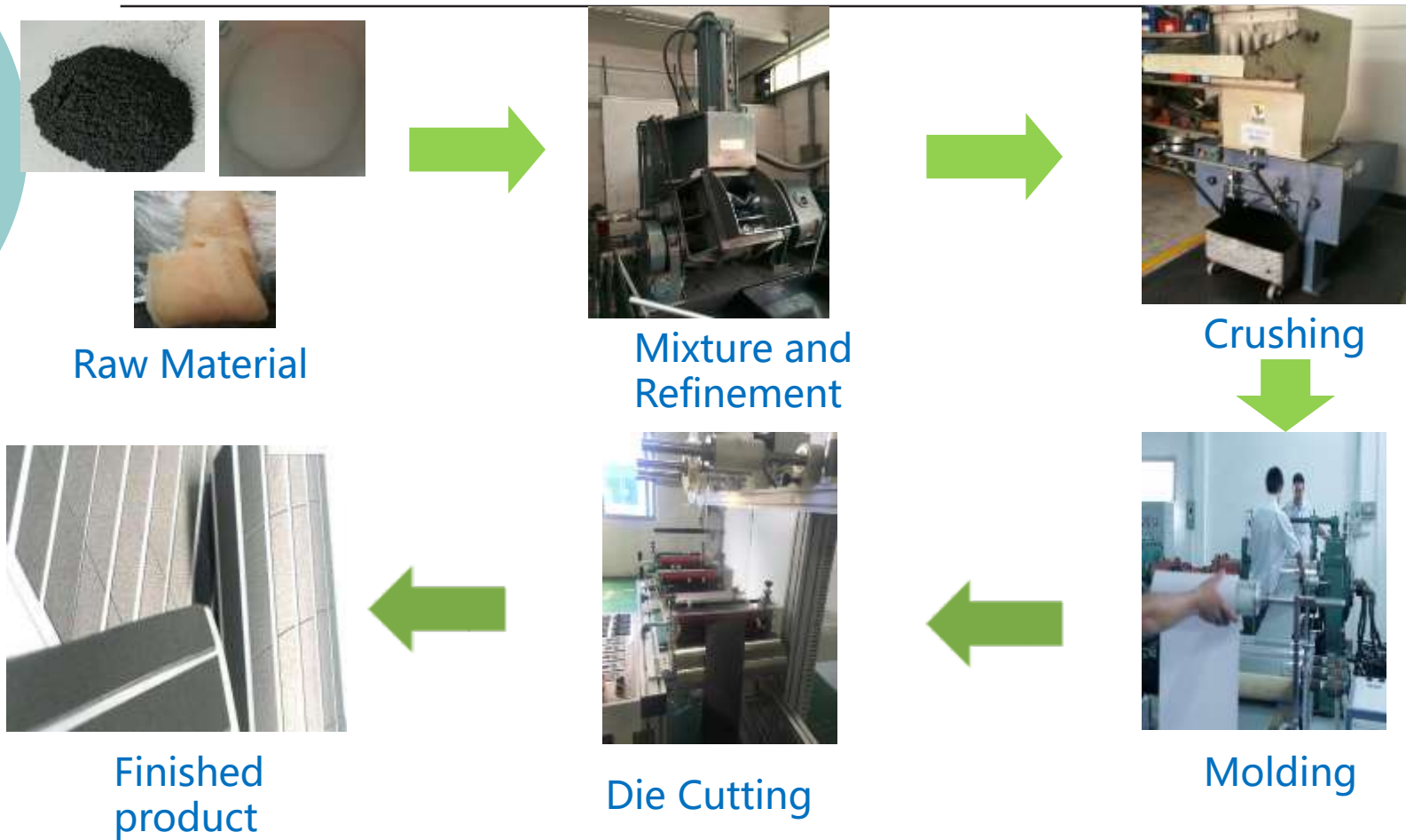
Composite material:

Shielding Materials+Electromagnetic Wave Absorber

When electromagnetic wave absorber combine with shielding materials,it can both shield and absorb the electromagnetic wave,which will greatly enhance its absorbiing performance.



1.3 The Manufacture Process of Electromagnetic Wave Absorber



Electromagnetic Wave Absorber



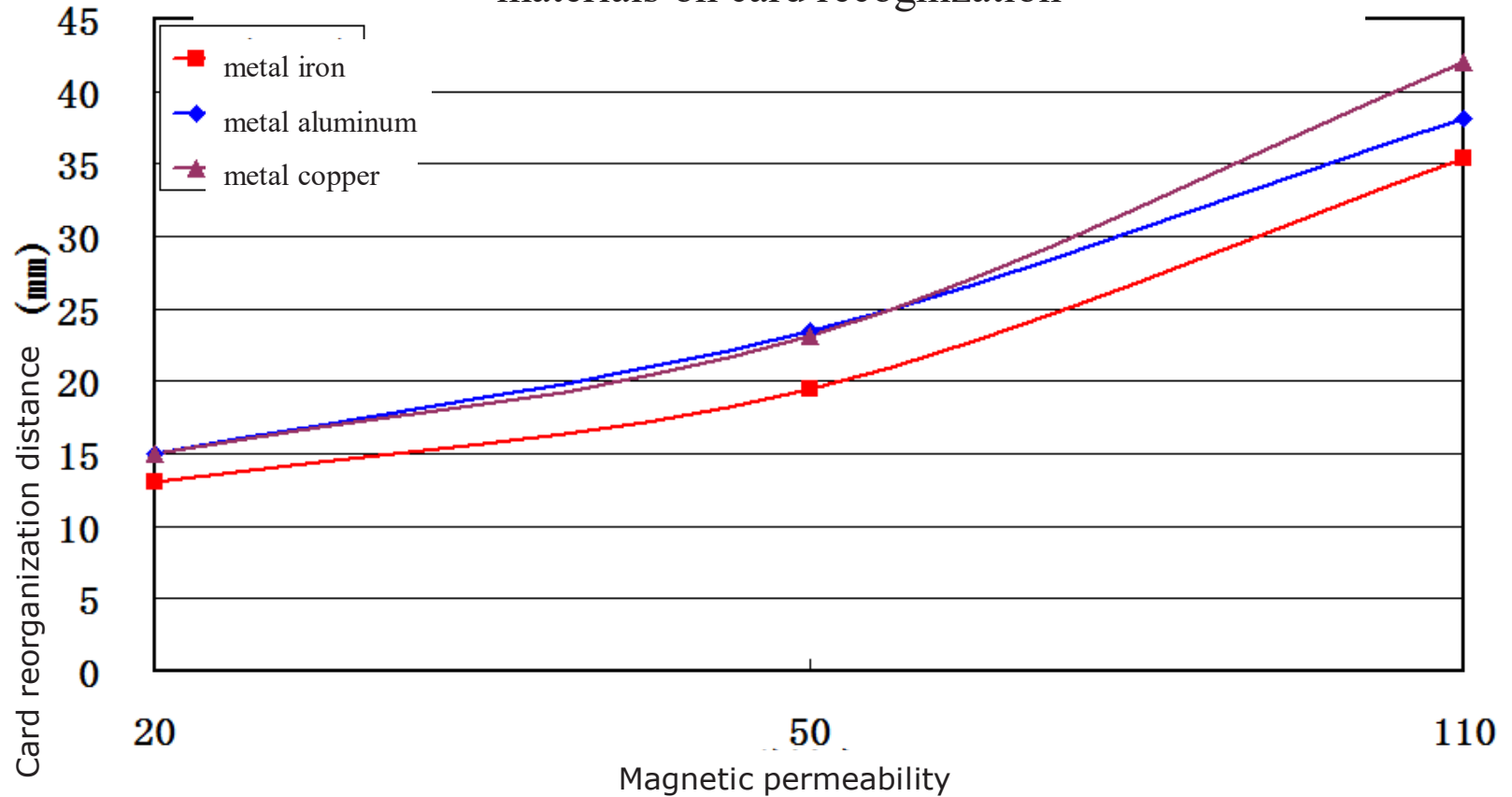
item	单位	Type					
		HFC-A1000	HFC-A2000	HFC-A5000	HFC-A12000	HFC-A16000	HFC-A25000
permeability @13.56MHz	-	10	20	50	120	160	250
working temperature	°C	-25~85					
surface resistance	Ω/inch^2	$\geq 1.6 \times 10^6$					
working frequency	Hz	RFID:125KHz\134KHz\13.56KHz;			EMI:10MHz~8GHz		
adhesive strength	kgf/inch	≥ 1.0					
thickness	mm	0.1~1.0	0.1~1.0	0.05~1.0	0.005~0.5	0.05~0.1	0.03~0.1
environment protection	meet the requirement of RoHS、halogen-free						
Remarks:the material can be laminated with shielding layer and customized							



03

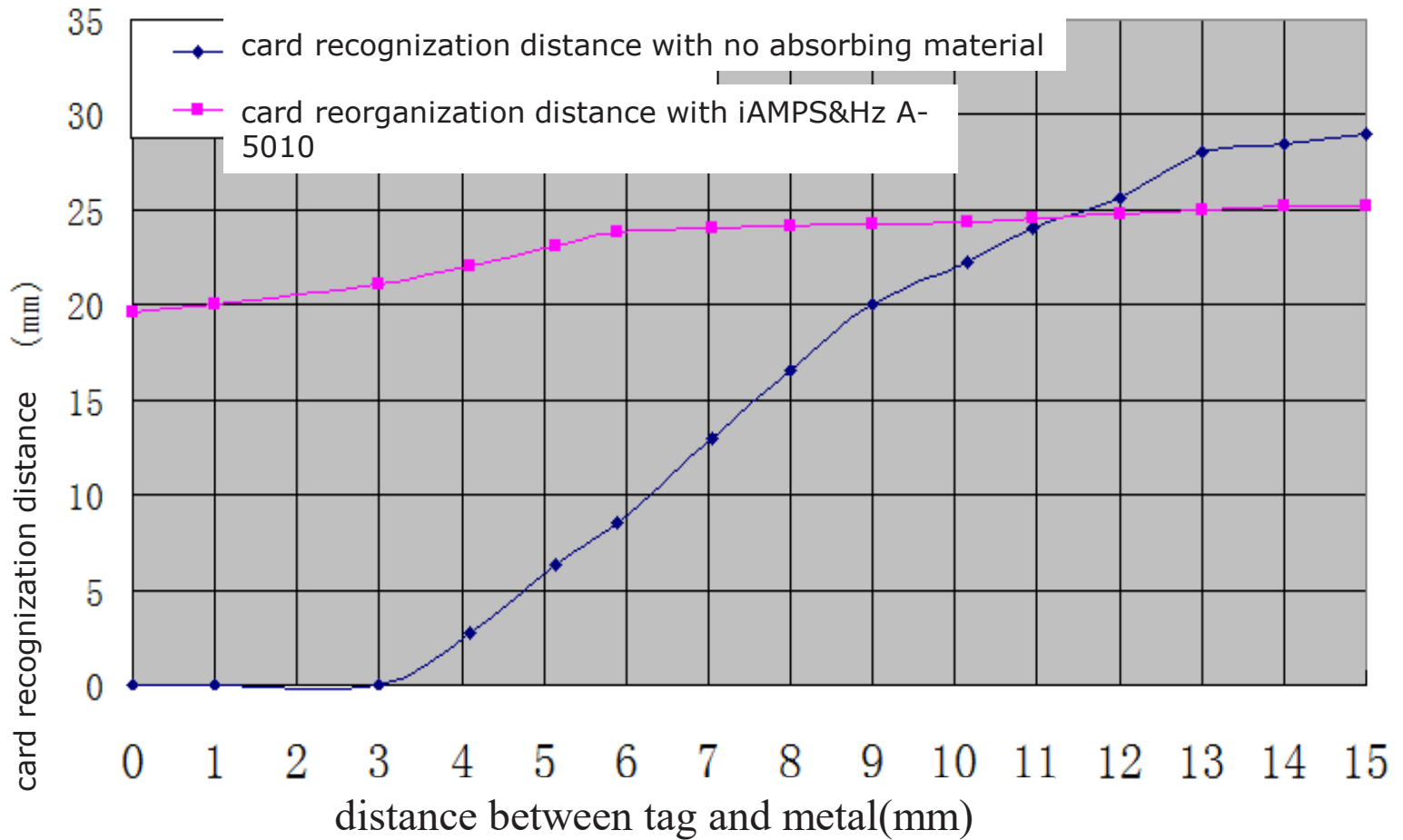
Product Test

The influence of magnetic permeability of 0.1mm absorbing materials on card recognition

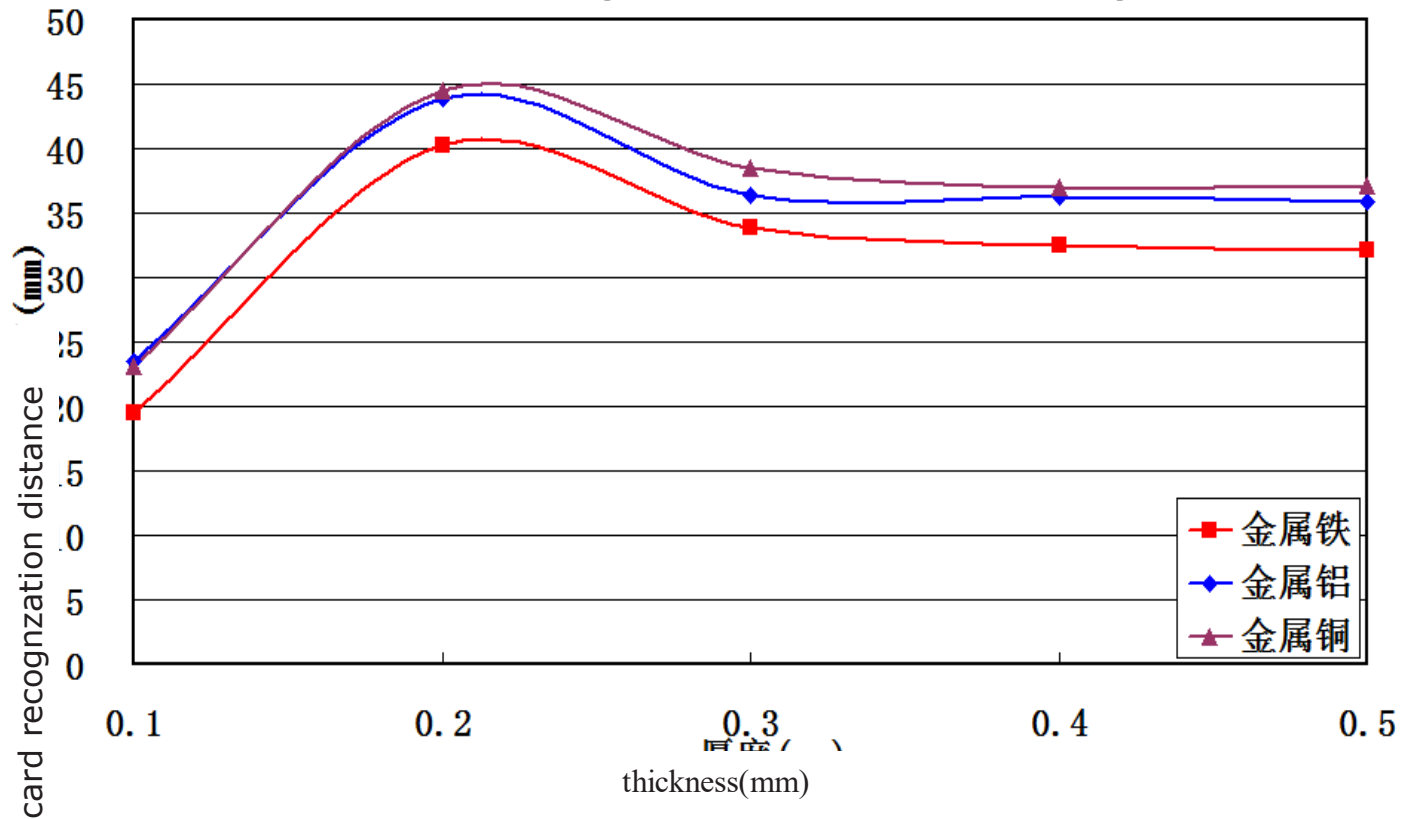


The higher of μ of Permeability, the far of recognizing card.

The relation between distance between tag and metal thickness and card recognition distance



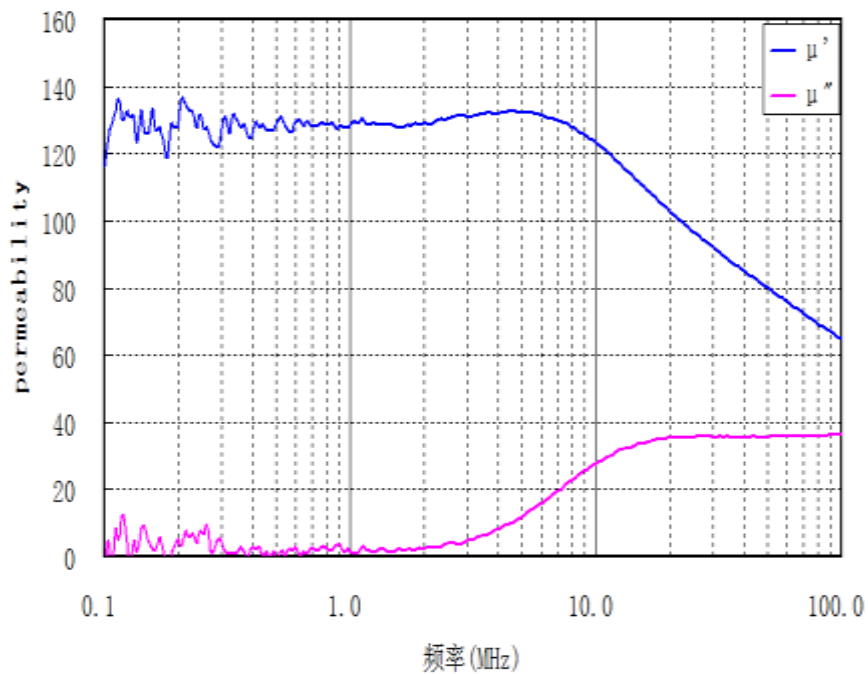
The influence of 50 magnetic permeability of different thickness of absorbing materials on card recognition



The best card recognition distance is around 0.2mm

Frequency Curve of Electromagnetic Wave Absorber

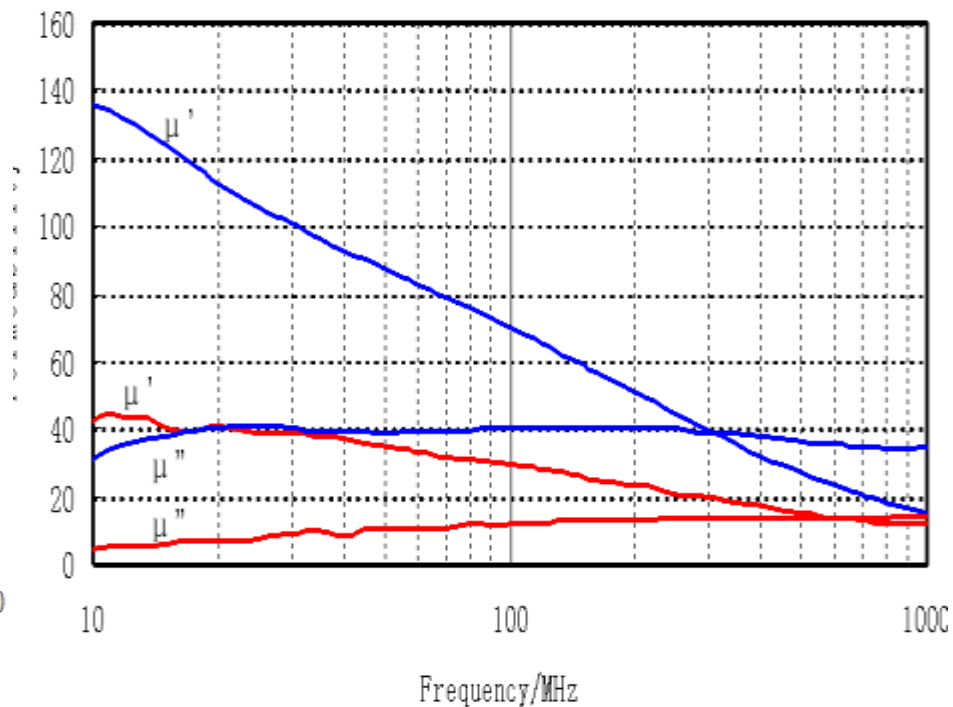
the permeability of HFC-A12000



the permeability of different kinds of 0.1mm product

— HFC-A5000

— HFC-A12000





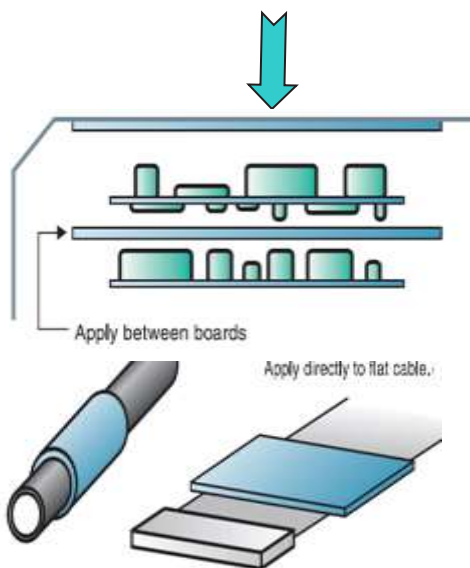
03

Product Application

2.The Application of Electromagnetic Wave Absorber

Electromagnetic Wave Absorber (magnetic medium type)

EMI/EMC



RFID/NFC



Electromagnetic Screen

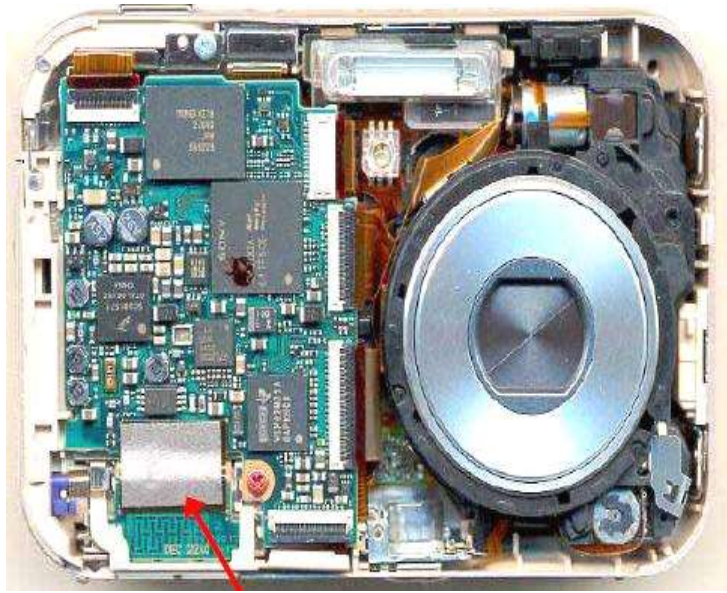


Wireless Charging



2.1 EMI Application Case : In Chips and FPC

Sony cyber-shot DSC-N2



Canon IXY Digital 1000

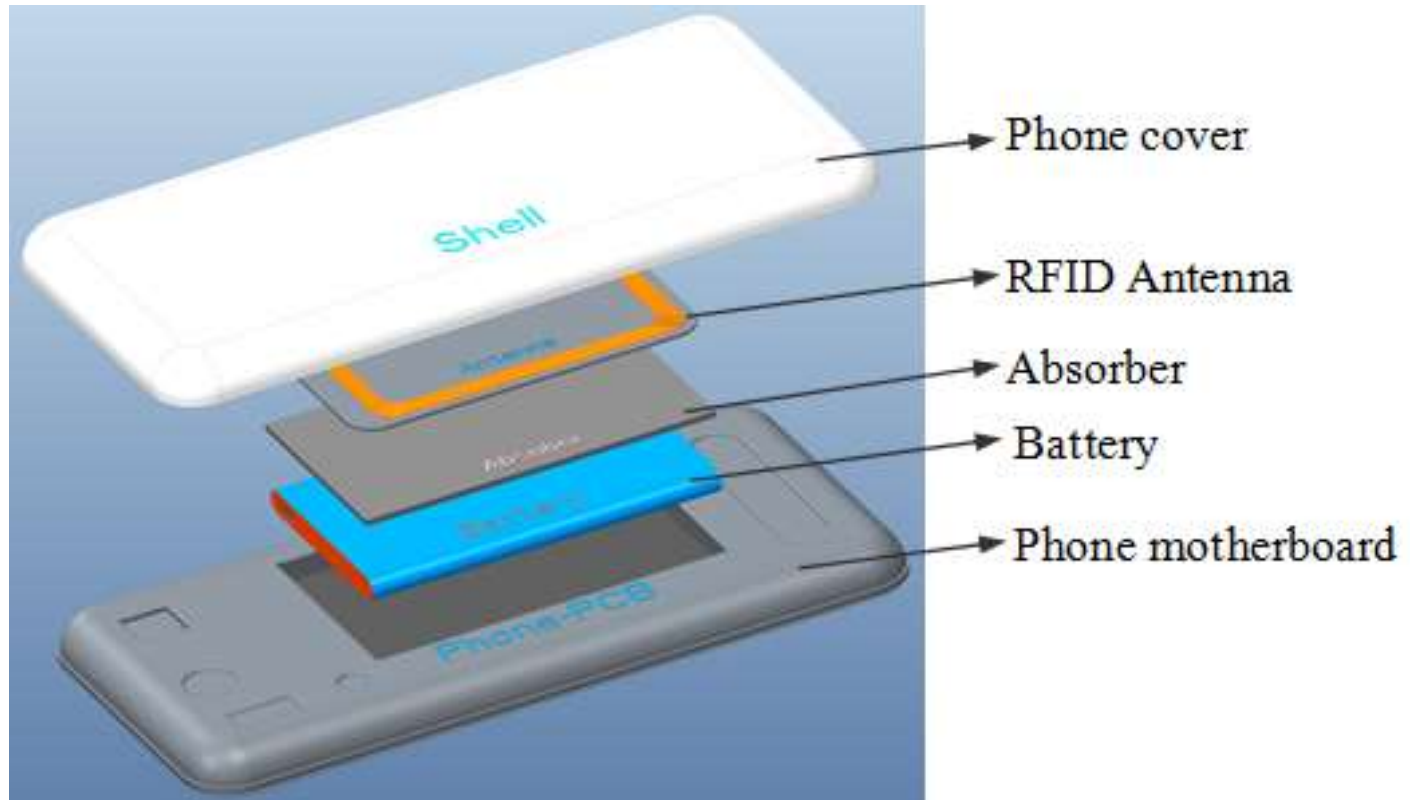


EMI Application Case :

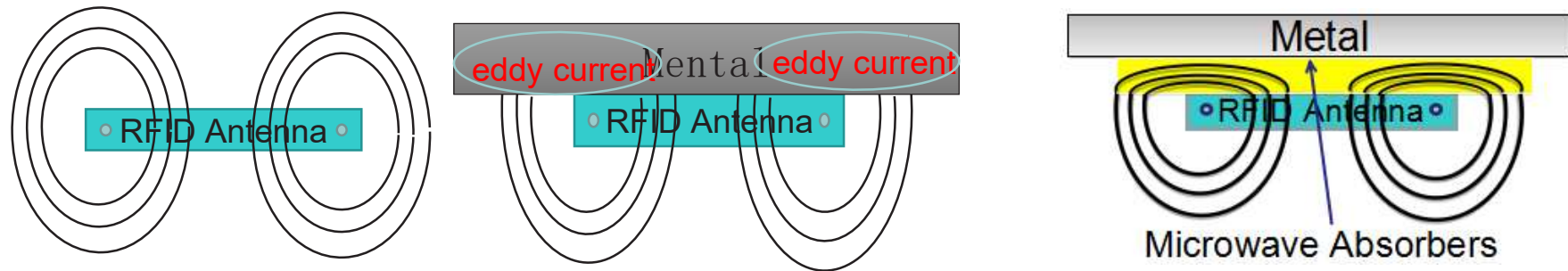


In PC

2.2 RFID Application Case :In Phone



Working Principle of RFID



2.3 Application in Electromagnetic Screen



Galaxy Note 10.1



Galaxy Note2