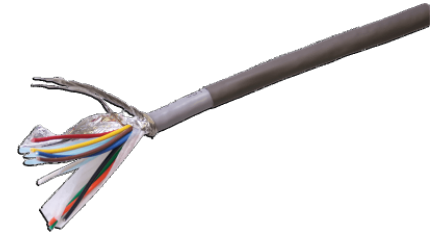


5780 - EMI Flexible absorber sheets

The EMI flexible absorber sheets developed for electromagnetic wave absorber and noise suppression can eliminate noise effectively. You can solve EMC/EMI problems by attaching noise suppression sheets simply on the parts of noise sources.



Several types of flexible EMI absorber sheets



Flexible EMI absorber sheet is easy to bend around a cable (optional available as a tube)

Features and benefits

- Very flexible and easy to handle
- Can be delivered in any shape, size and/or thickness
- Optionally available as custom made tube
- Can be cut according to your supplied drawings
- Provide effective EMI suppression in a wide frequency range (10MHz to 18GHz)
- Change the magnetic flux path to avoid interference on other components or surrounding cables
- Reduce the eddy current when the magnetic flux is close to metal
- Non-conductive adhesive backing (UL Recognized) available
- Effective in preventing resonance and suppressing coupling
- High surface resistance (10⁶ ohms)
- Easy and fast to process through self adhesive

Applications

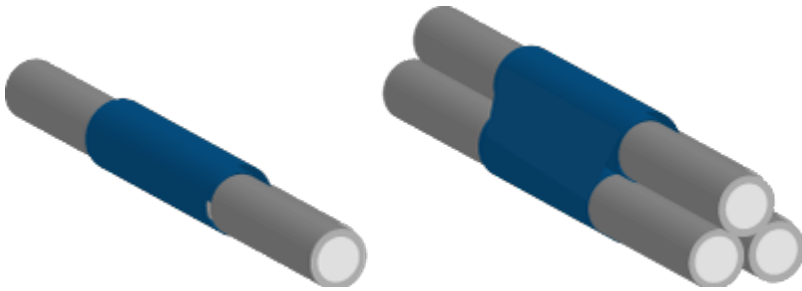
- RFID (Radio Frequency Identification) systems
- NFC (Near field communication)
- Wireless Power Chargers (WPC / Qi)
- Computers (NB / Desktop / Tablet) and peripherals Digital Products
- Mobile Phones / Smart Phones / Phablet
- Wireless equipments
- EMI Shielding Box / Dark Box
- Between printed circuit boards
- On ICs, processors, and controllers
- On cables that need high flexibility

Part number and characteristics

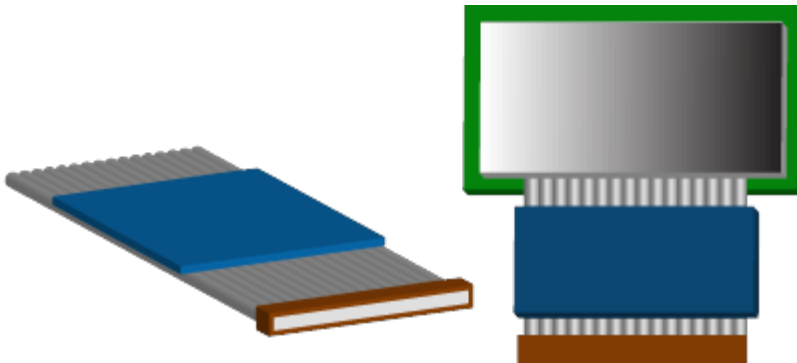
Properties	Unit	5780-C1	5780-C3	5780-C5	5780-C7	5780-C8
Operating Temperature	C	-40 ~ +85	-40 ~ +85	-40 ~ +85	-40 ~ +85	-40 ~ +85
Applicable Frequency	GHz	0.01 8.0	0.1 18.0	0.01 18.0	0.01 1.0	0.01 1.0
Relative permeability (@1MHz)	-	25	50	115	140	450
Material	-	Magnetic Powder + Rubber	Magnetic Powder + Rubber	Magnetic Powder + Rubber	Sintered Ferrite	Sintered Ferrite
Thickness Range	mm	0.12 - 2.50	0.25 / 0.50 / 0.75	0.05 - 0.50	0.08 / 0.12	0.12 / 0.22
Max. Dimension	mm	400 x 400	400 x 400	210 x 297 (A4)	130 x 130	130 x 130
Surface Resistance	Ohm	10 ⁶	10 ⁹	10 ⁶	10 ⁹	10 ⁹
Density	g/cm ³	3.6	4.8	2.7	3.8	3.8
RoHS 2.0 Compliance	-	2011/65/EU	2011/65/EU	2011/65/EU	2011/65/EU	2011/65/EU
Halogen-Free	-	No	No	Yes	Yes	Yes

Usage examples

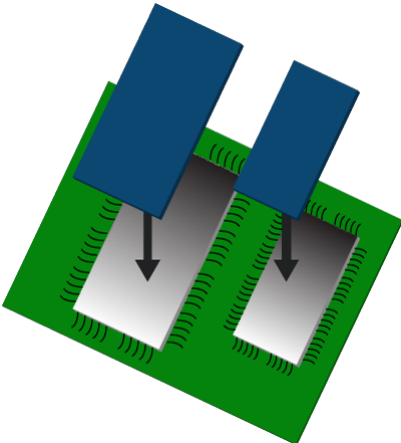
5780 - EMI Flexible absorber sheets



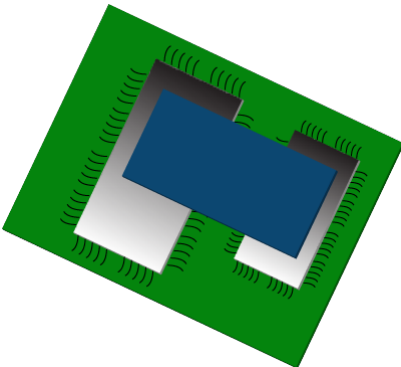
Example 1: Wrap around a cable



Example 2: Apply to flat cable

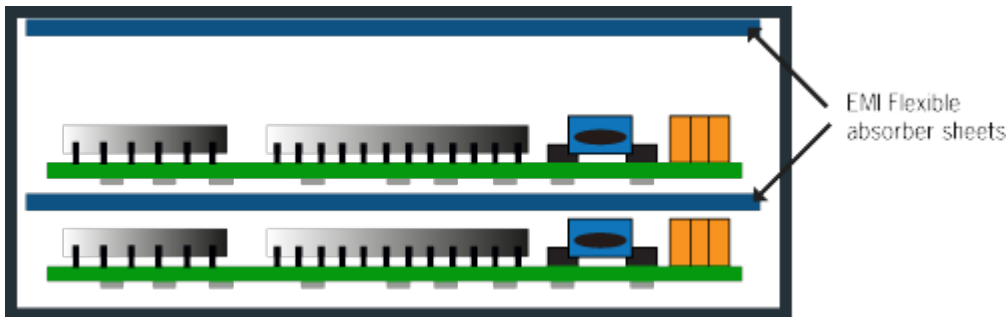


Example 3: Apply to a integrated circuit (IC) top



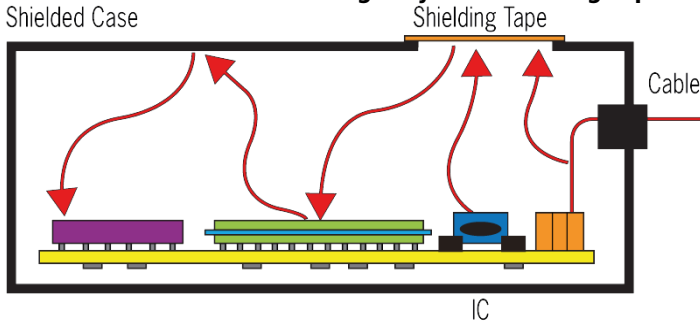
Example 4: Apply between integrated circuit

5780 - EMI Flexible absorber sheets

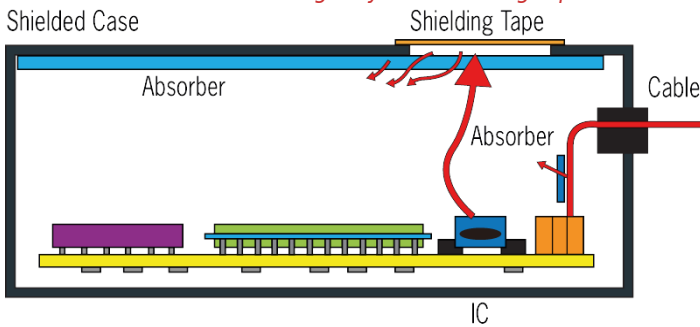


Example 5: Apply to case and between boards

EMI enclosure solutions using only EMI shielding tapes or with EMI absorbers

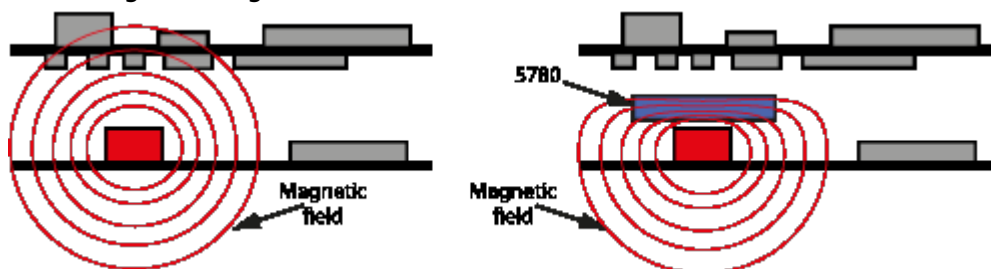


EMI enclosure solutions using only EMI shielding tapes



EMI enclosure solutions using EMI shielding tapes and EMI absorbers

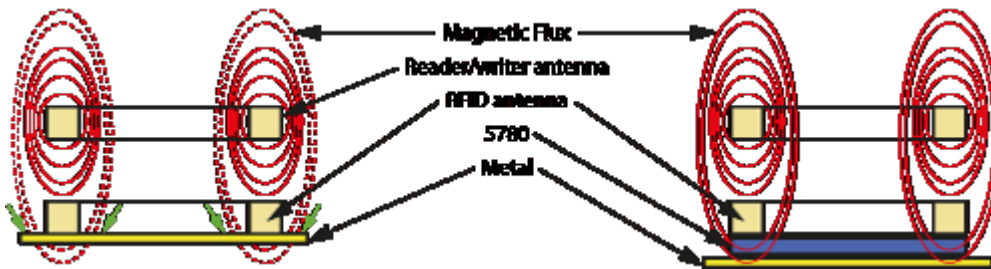
Effect diagram - Magnetic shield



5780 EMI Flexible absorber sheets can change the magnetic flux path to avoid the magnetic flux affect others components.

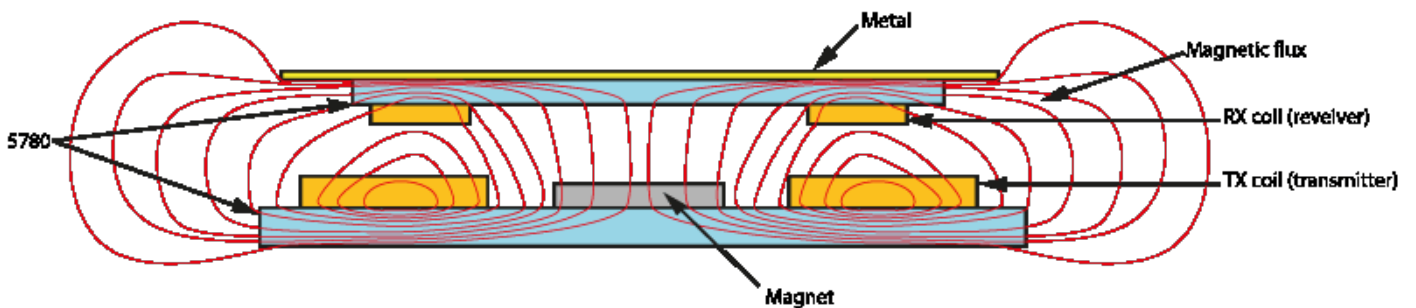
Effect diagram - RFID/NFC on metal

5780 - EMI Flexible absorber sheets



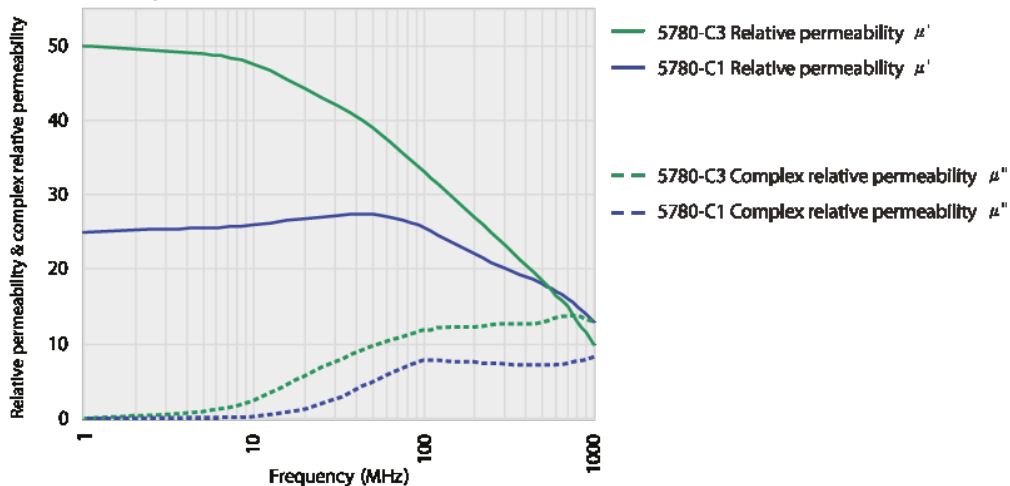
The magnetic flux induced eddy current and generated a reverse magnetic field to offset the magnetic flux to cancel the communication. After attached 5780 between metal and RFID antenna, the communication will recover.

Effect diagram - Wireless Power Charger



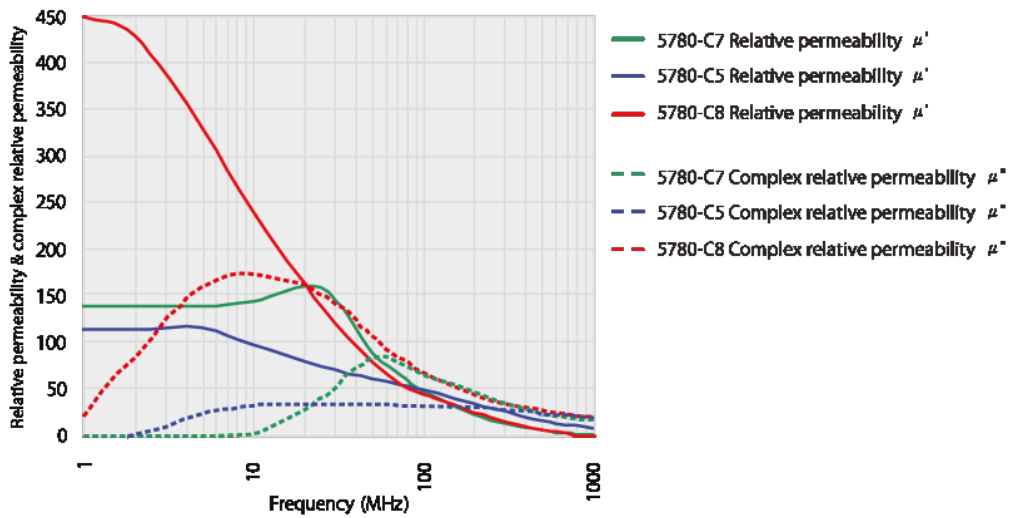
5780 EMI Flexible absorber sheets can be used for wireless power charger to avoid eddy current when RX coil attached on metal and change the magnetic flux path between TX coil, RX coil, magnet.

Permeability characteristics



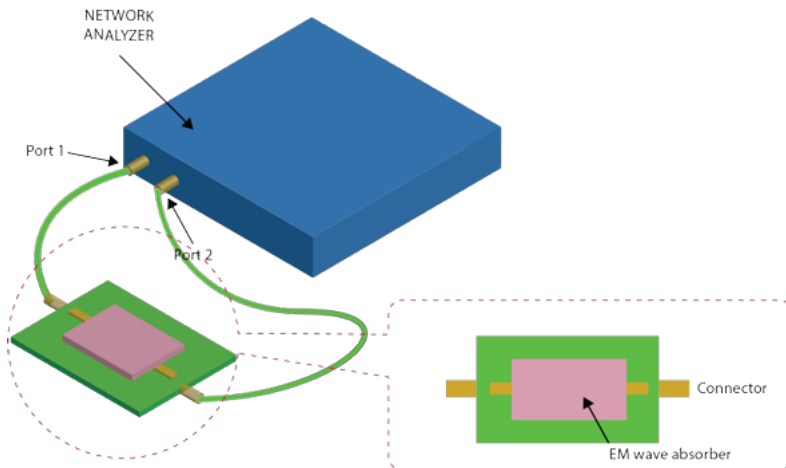
5780-C1, 5780-C3, 5780-C6 EMI Flexible absorber sheets permeability characteristics

5780 - EMI Flexible absorber sheets

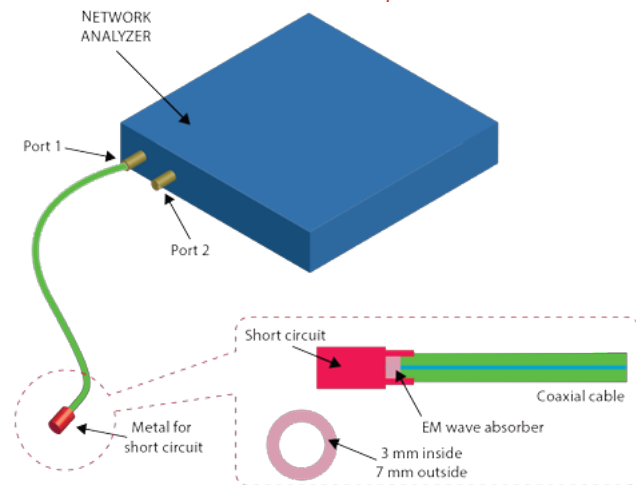


5780-C5, 5780-C7, 5780-C8 EMI Flexible absorber sheets permeability characteristics

Methods of measurement



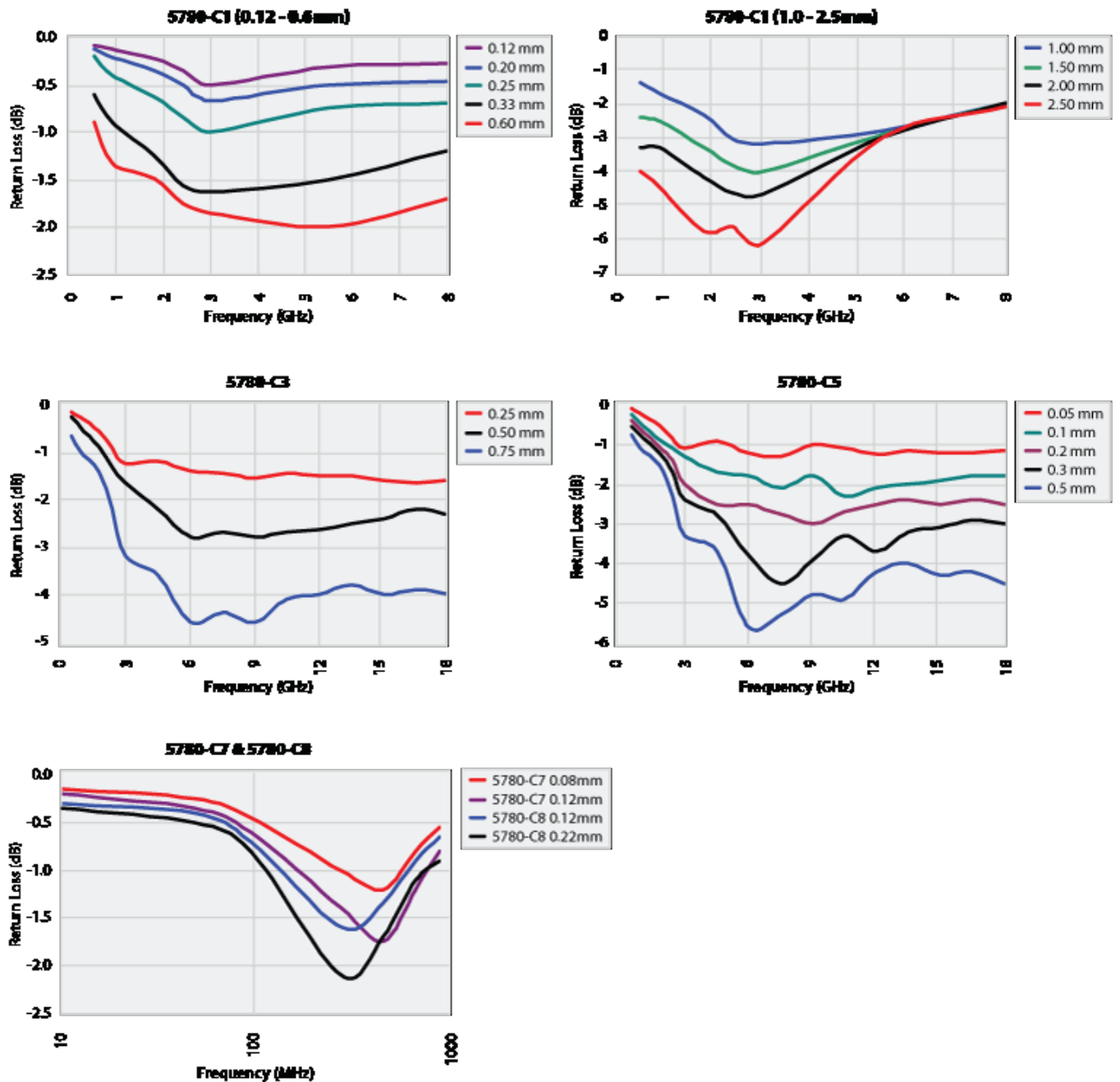
5780 EMI Flexible absorber sheets power loss measurement



5780 EMI Flexible absorber sheets reflection loss measurement

Return loss at a given frequency

5780 - EMI Flexible absorber sheets



5780 EMI Flexible absorber sheets return loss at a given frequency

Pick the right EMI flexible absorber sheet

5780 - EMI Flexible absorber sheets

Item	5780-C1	5780-C3	5780-C5	5780-C7	5780-C8
Economic	Best	Good	Poor	Middle	Middle
Operation temperature	-40 ~ +85 C			-30 ~ +120 C	
Material	Magnetic Powder + Rubber			Sintered Ferrite	
Relative permeability (@1MHz)	25	50	115	140	450
Thinnest version	0.12 mm	0.25 mm	0.05 mm	0.08 mm	0.12 mm
Thickest version	2.50 mm	0.75 mm	0.50 mm	0.12 mm	0.22 mm
Surface Resistance	10 ⁶	10 ⁹	10 ⁶	10 ⁹	10 ⁹
RoHS 2.0 Compliance	2011/65/EU				
Halogen-Free	No		Yes		
Best Application	RFID/NFC	EMI, RFID/NFC	EMI, RFID/NFC Wireless Charger (no magnet type)	EMI, RFID/NFC Wireless Charger (no magnet type)	

Series	Type	Width (mm)	Length (mm)	Thickness (mm)
5780	Select an option:			
	C1 : Magnetic powder + rubber	Specify the width in mm	Specify the length in mm	Specify the desired thickness. The options can be found in the table above.
	C3 : Magnetic powder + rubber			
	C5 : Magnetic powder + rubber			
	C6 : Magnetic powder + rubber			
	C7 : Sintered ferrite			
	C8 : Sintered ferrite			