

# Flexible Ferrite Sheets For NFC & Wireless Charging MULL Series



## FEATURES VROHS ®

- Flexible ferrite sheets for 13.56 MHz NFC, RFID application & wireless charging application
- Made by thin, high permeability sintered ferrite with PET film and adhesive tape
- Standard ferrite layer thickness 0.05mm,0.1mm and 0.2mm
- Custom size or thickness available upon request
- Operating temperature -40  $^\circ\!\mathrm{C}$  to 85  $^\circ\!\mathrm{C}$

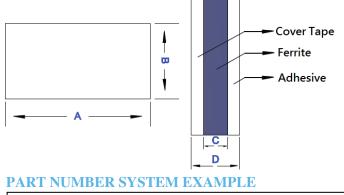
SHAPES AND DIMENSIONS

RoHS compliant

### APPLICATIONS

- NFC antenna for mobile phones
- NFC antenna for automobile
- NFC or RFID antenna for security & access control system
- Wireless charging for mobile phones and battery powered handheld electronic devices
- NFC or RFID read/write devices, improved read distance
- EMI suppression for IC or IC circuitry

Δ				
A mm	B mm	C mm	D mm MAX	
(inches)	(inches)	(inches)	(inches)	
50	40	0.20	0.35	
(1.969)	(1.575)	(0.008)	(0.014)	
50	40	0.10	0.20	
(1.969)	(1.575)	(0.004)	(0.008)	
60	60	0.05	0.09	
(2.362)	(2.362)	(0.002)	(0.004)	
120	60	0.20	0.35	
(4.724)	(2.362)	(0.008)	(0.014)	
120	60	0.10	0.20	
(4.724)	(2.362)	(0.004)	(0.008)	
	(inches) 50 (1.969) 50 (1.969) 60 (2.362) 120 (4.724) 120	(inches)(inches)5040(1.969)(1.575)5040(1.969)(1.575)6060(2.362)(2.362)12060(4.724)(2.362)12060	(inches)(inches)(inches)50400.20(1.969)(1.575)(0.008)50400.10(1.969)(1.575)(0.004)60600.05(2.362)(2.362)(0.002)120600.20(4.724)(2.362)(0.008)120600.10	



MULL	12060	-	000	
Material Code	Part Size Code		Thickness Code	
			Catalog or Custom Information	

USA: +1.423.308.1690 Europe: +42.0.4885.7511.1 Asia: +86.757.2563.8860

### MCP-DS-MULL SHEET 0814

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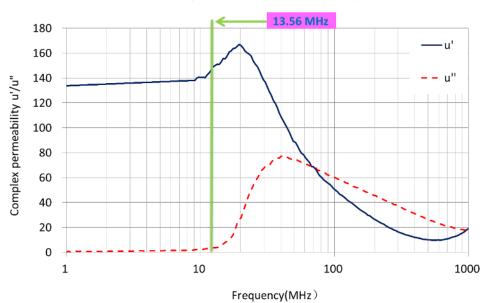


## Flexible Ferrite Sheets For NFC & Wireless Charging MULL Series

### **MATERIAL SPECIFICATIONS**

Property	MULL Series
Real Permeability, $\mu'@$ 13.56MHz, 0.1V	150 ± 20%
Imaginary Permeability, $\mu$ "@13.56MHz, 0.1V	5 max
Operating Temperature, °C	-40°C ~ +85°C

### **TYPICAL ELECTRICAL CHARACTERISTICS**



### Complex Permeability vs. Frequency

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