

**YST**

# 研鑫科技

可繞式鎳鋅鐵氧体磁片 **NFC**

可繞式錳鋅鐵氧体磁片 **WPC**

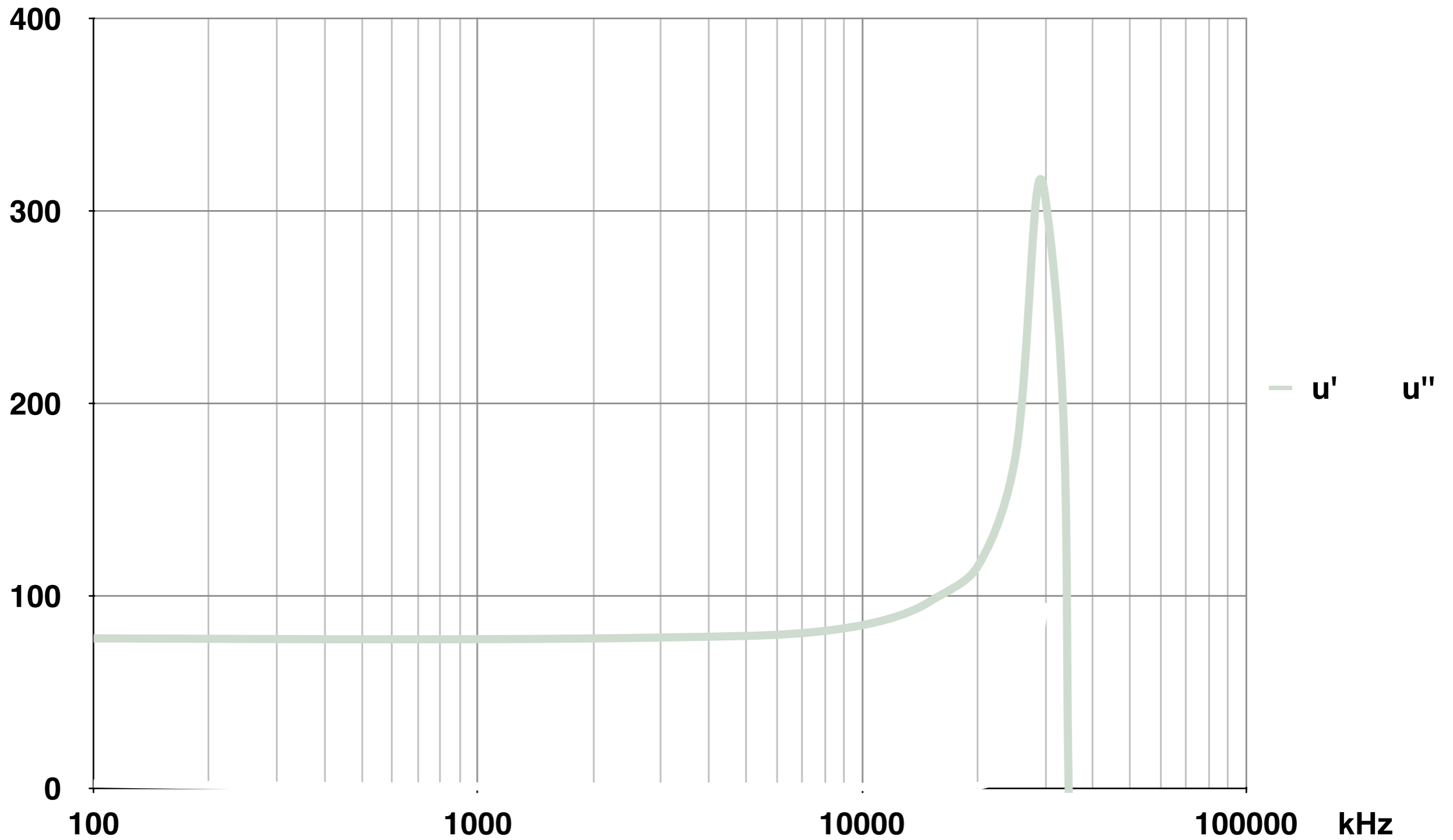
# Material Characteristics



	N0	N1	N2	M5	Nano
material	NiZn ferrite	NiZn ferrite	NiZn ferrite	MnZn ferrite	納米晶
Frequency	13.56MHz	13.56MHz	6.78MHz	100KHz	100KHz
Application	NFC	NFC	A4WP	WPC	WPC
U'	80	150	220	1500	650
U''	1	3	8	15	50

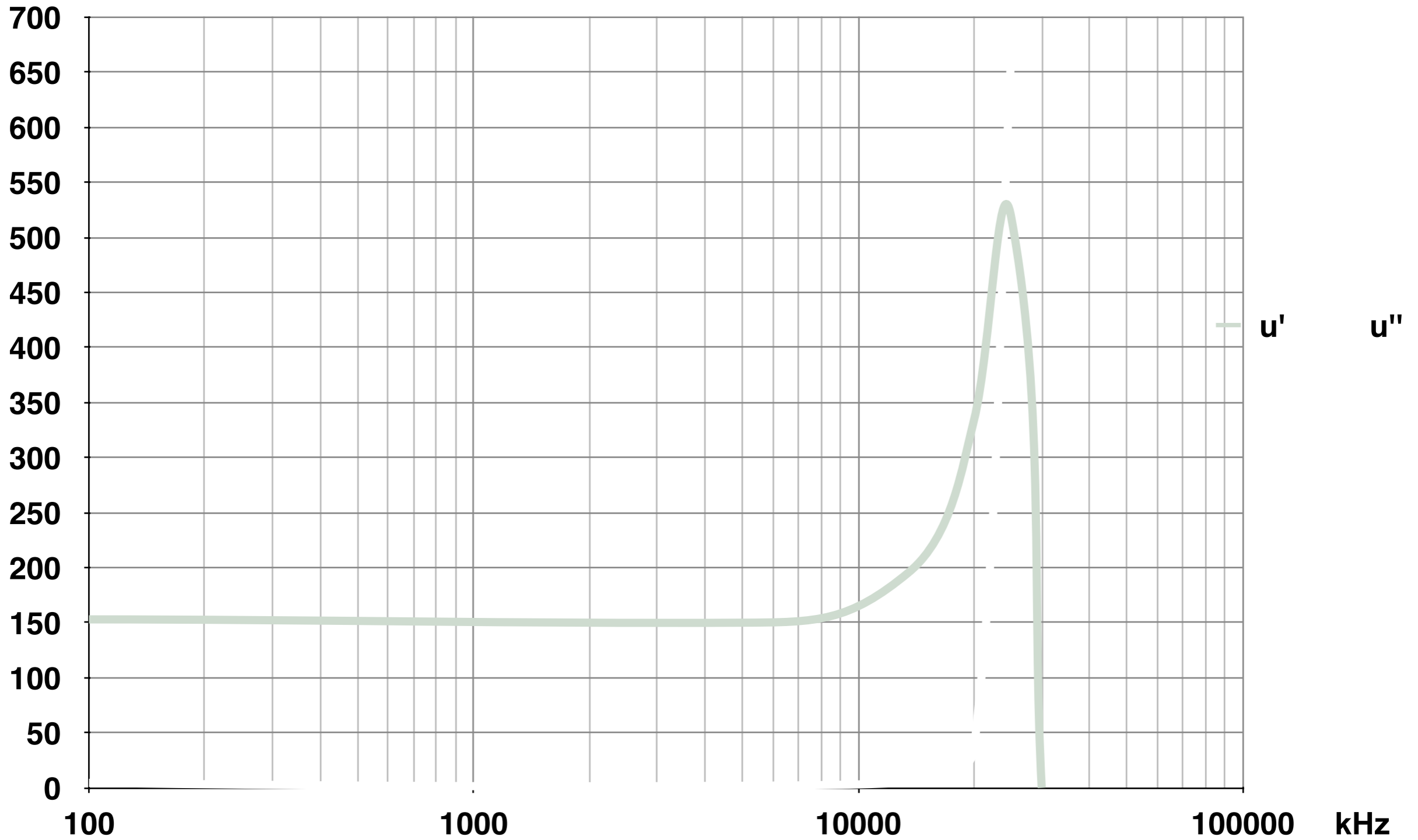
# YST

NO



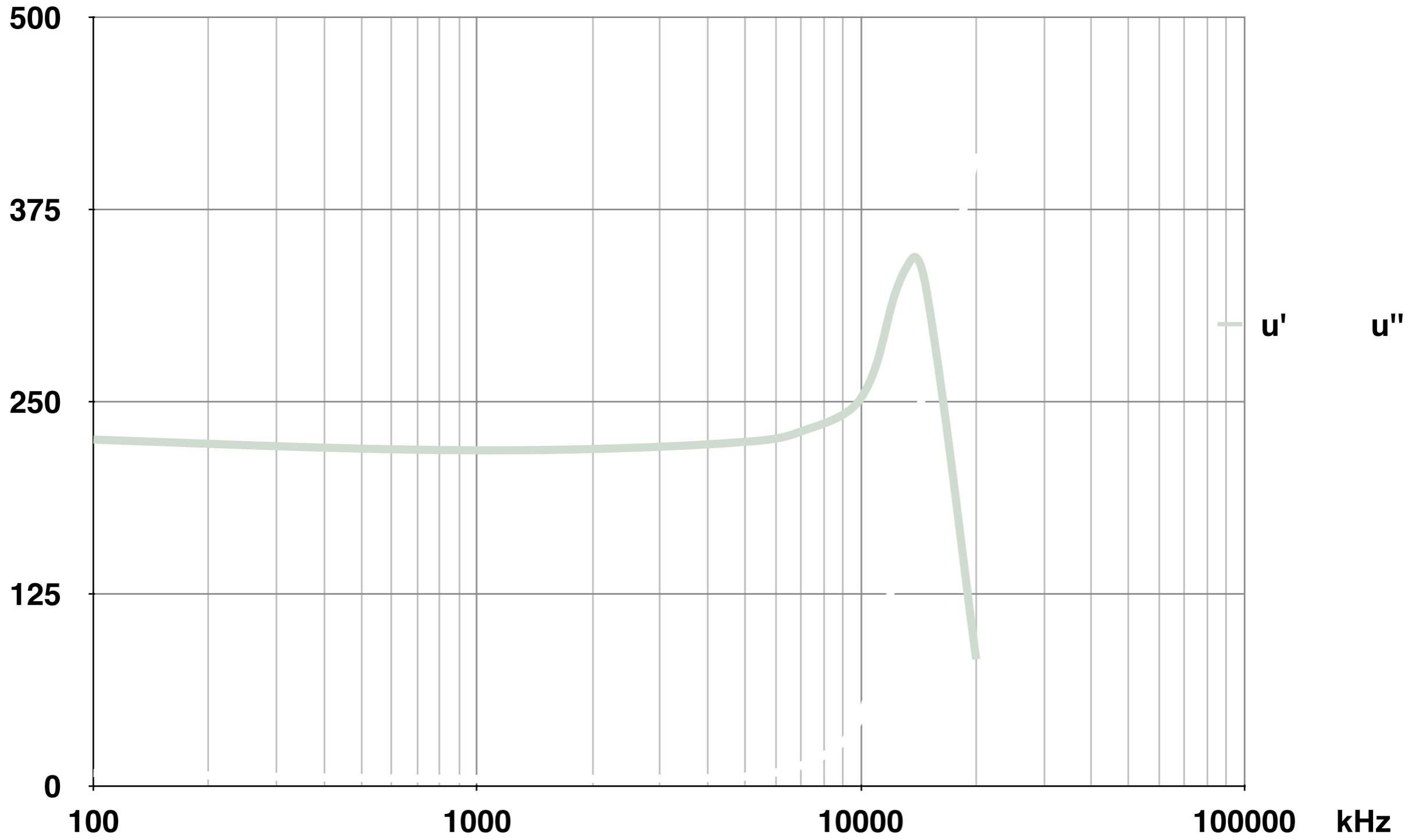
# YST

## N1



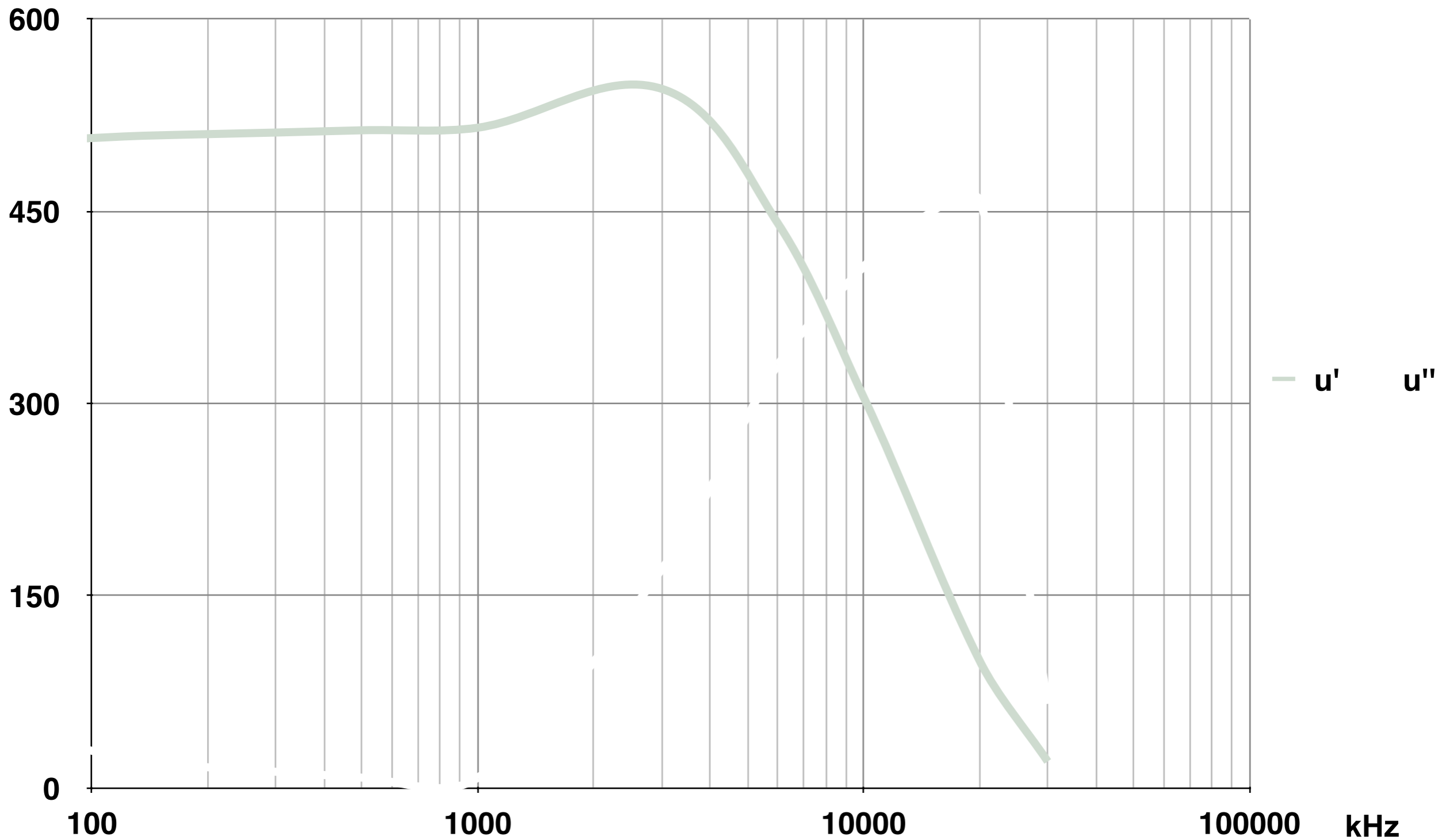
N2

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M5

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	測試條件	納米晶	錳鋅鐵氧體		
初導磁率( $\mu_i$ )	100KHz	15,000	3000		
有效導磁率( $\mu_e$ )	100KHz (after crack)	1500	650~1700		
飽和磁通量( $B_s$ )	DC	1230 mT	530 mT		
殘留磁力( $B_r$ )	DC	250 mT	50 mT		
矯挽磁力( $H_c$ )	DC	2.5 A/m	6 A/m		
	100KHz/100mT	220	60		
磁損(kW/m <sup>3</sup> )	100kHz/200mT	1000	500		
	100kHz/300mT	2200	1600		
樣品形狀					

	納米晶磁片	錳鋅鐵氧體磁片	說明
價格	高	低	
功耗	低	低	納米晶磁片功耗表現變異大
溫升	低	低	輕,中載時錳鋅溫升較低.重載時相當
可靠度	差	優	納米晶在85%濕度,85度C長時間電性易飄移
NFC表現	差	優	錳鋅材質高頻表現較佳



# 與其他天線共用時的比較



## □ R/W 인식거리

								
Ant Passive			Ultra Light	LG Inbox	Soft Card	Standard 1K	Type B tag	Type 4 tag
<b>ANT</b>	<b>Frequency</b>	<b>Impedance</b>	<b>25mm 이상</b>	<b>25mm 이상</b>	<b>20mm 이상</b>	<b>35mm 이상</b>	<b>5mm 이상</b>	<b>15mm 이상</b>
Nanocrystal (5Layer)	14.10MHz	35.1Ω	30mm	27mm	18mm	42mm	12mm	15mm
Mn-Zn Ferrite	14.10MHz	34.9Ω	32mm	30mm	21mm	41mm	15mm	17mm

\*\*NFC standard of LG Mobile and tested by vendor of LG Mobile

Sheet	Reader Mode			
	Type 1 – Topaz	Type2 – Ultralight	Type2 – Ultralight C	Type 4 Desfire
Nano 5 Layer	42mm	45mm	18mm	21mm
Mn-Zn Ferrite 100	49mm	47mm	22mm	26mm

\*\*NFC standard of Samsung Mobile and tested by vendor of Samsung Mobile



# Physical structure & Dimension

ferrie sheet (um)	50	60	80	100	150	200	300	400	500
cover film (um)	6	10	10	10	20	20	50	50	50
adhesive (um)	6	10	10	10	20	20	30	50	50
total thickness (um)	62	80	100	120	190	240	380	500	600
maximum width (mm)	64	125	150	150	150	150	150	150	150
maximum length (mm)	110	125	150	150	150	150	150	150	150