

EMC Solutions

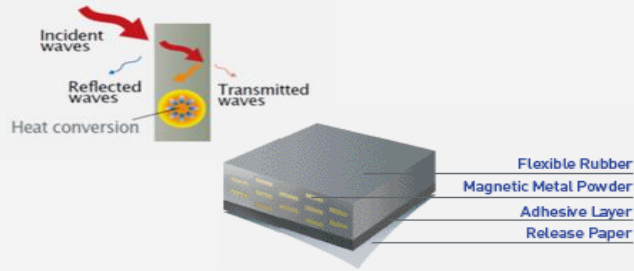


EMI Sheet Applications

EMI Sheet Applications

전자파 흡수체

Structure

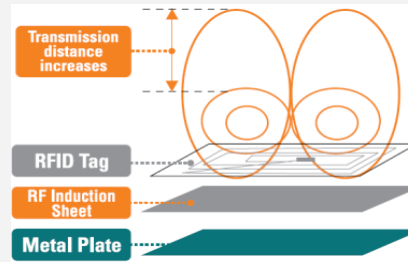


Applications



인덕션 시트

Structure

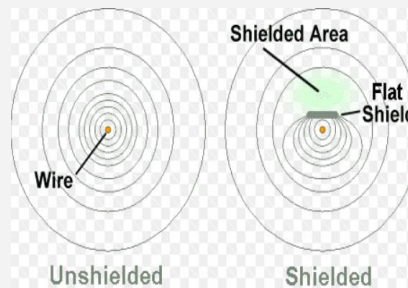


Applications

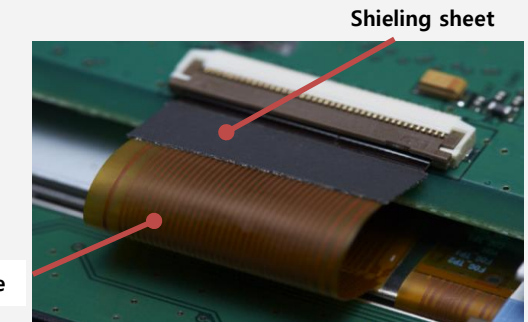


마그네틱 실딩

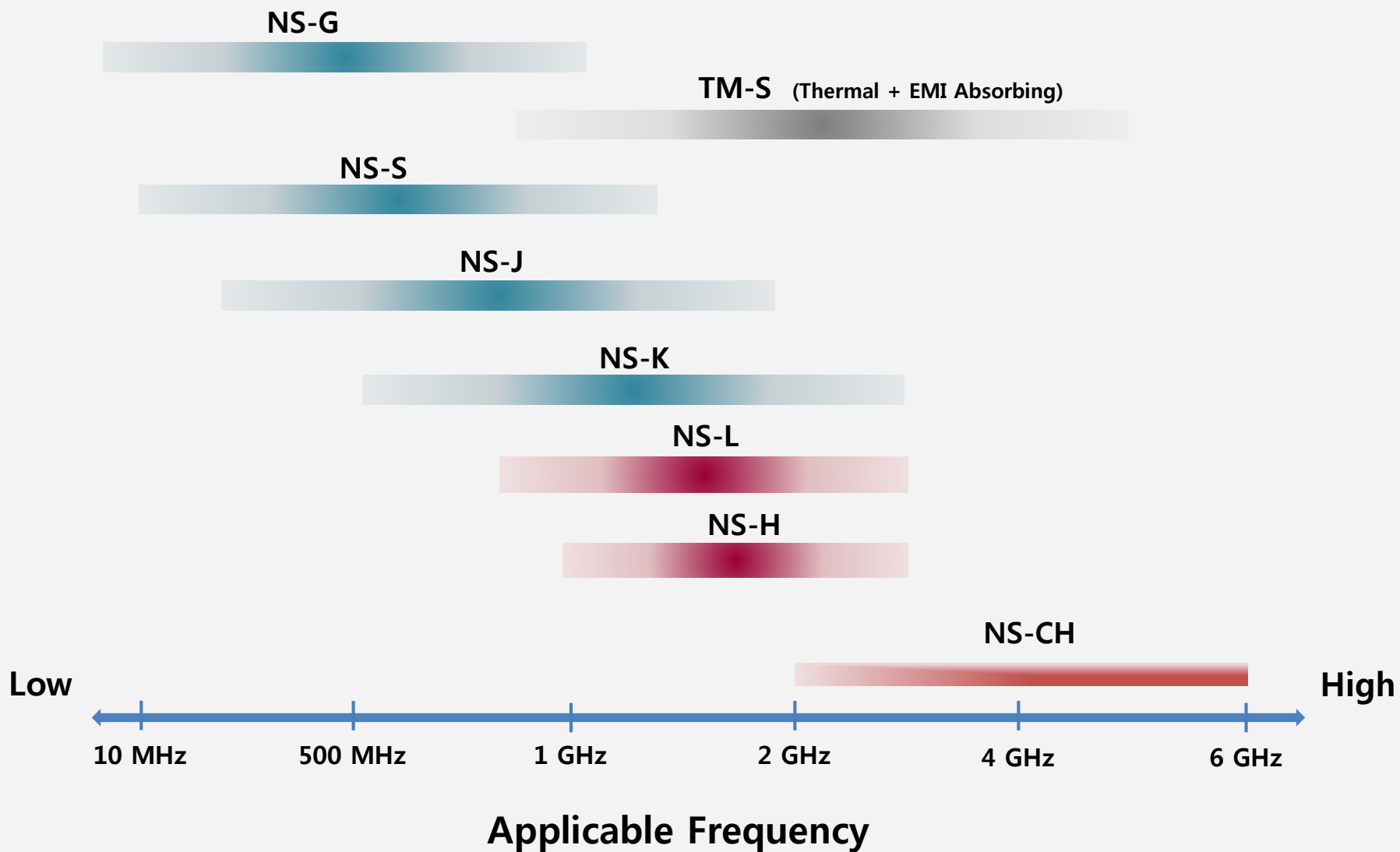
Structure



Applications

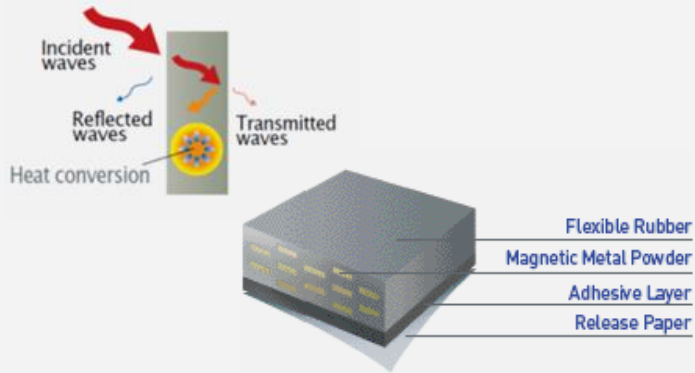


Applicable Frequency



EMI Absorber Sheet

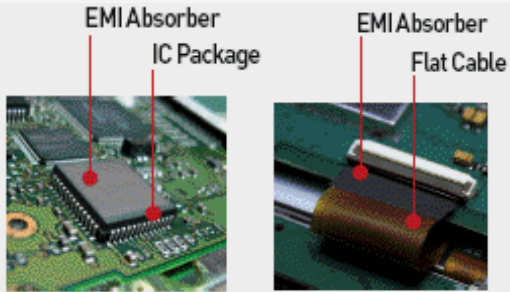
Structure



Features

- 자체 자성재료 개발을 통한 다양한 EMI noise 문제해결
- 주파수에 따른 다양한 대응제품 (10MHz~6Ghz)
- 우수한 절연성
- 제품 친환경 (Halogen Free)

Applications



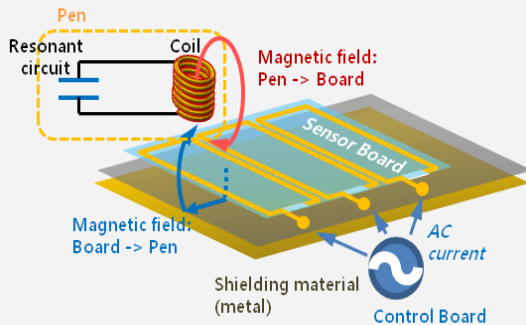
Specification

Item	NS-H	NS-L	NS-K	NS-J	NS-S	NS-G	RF-U	NS-CH
Permeability (3MHz)	30	45	100	130	150	200	180	20
Frequency	10MHz~6GHz						13.56MHz	~10GHz
Use Temp. (°C)	-40 ~ +105							
Standard Thickness (mm)	0.1 ~ 1.0		0.03 ~ 0.5					
Standard Size	Sheet (210x297mm) or Roll type (변동 가능)							Sheet
Volume Resistivity (Ω · cm)	1 x 10 ⁸							
Remark	High Freq. ← → Low Freq.						NFC	Special High Freq.

Metal Sheet for Digitizer

Structure

Sensitivity Improved Digitizer



Features

- 디지털러 펜 인식율 향상
- 박막기술로 표면의 균일한 특성 구현
- 주변의 자기장 영향 최소화 (자기포화밀도)
- 롤타입으로 대량 양산 가능



Applications



[Smart Phone]



[Tablet]

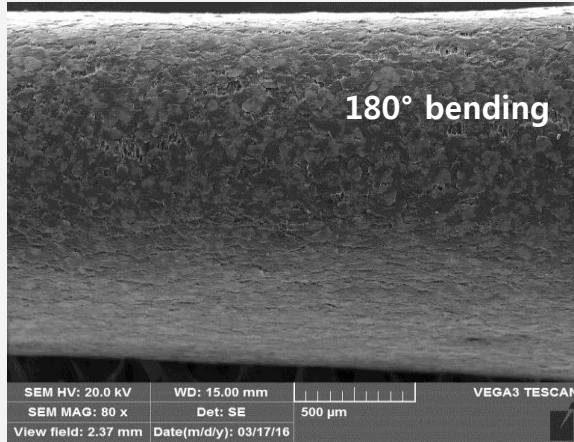


Specification

Item	NS-K	NS-J	NS-S	NS-G
Permeability (3MHz)	100	130	150	200
Frequency	100MHz~6GHz			
Use Temp. (°C)	-25 ~ +105			
Standard Thickness (mm)	0.02 ~ 0.05			
Standard Size	Roll type available (Width : 500mm)			
Volume Resistivity (Ω · cm)	1 x 10 ⁸			
Remark	Halogen Free			

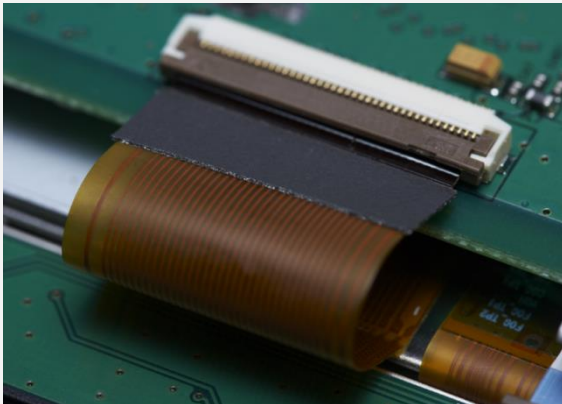
Flexible EMI Absorber Sheet

■ Structure



■ Applications

- 유연성이 필요한 고속 전송케이블
- 공간 EMI (케이스, 안테나후면, 기타 사출물 등)



■ Features

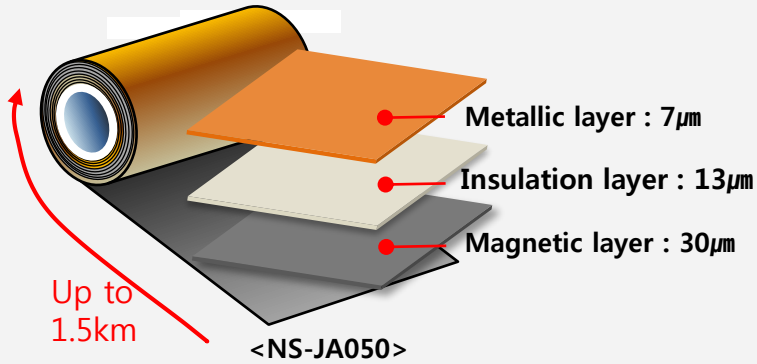
- 우수한 유연성
- 자체 자성재료 개발을 통한 다양한 EMI noise 문제해결
- Red-P, Sb₂O₃ 등 규제 대상 혹은 잠재적 규제 대상 물질 배제
- 전제품 Halogen Free
- 난연 UL94 V-0

■ Specification

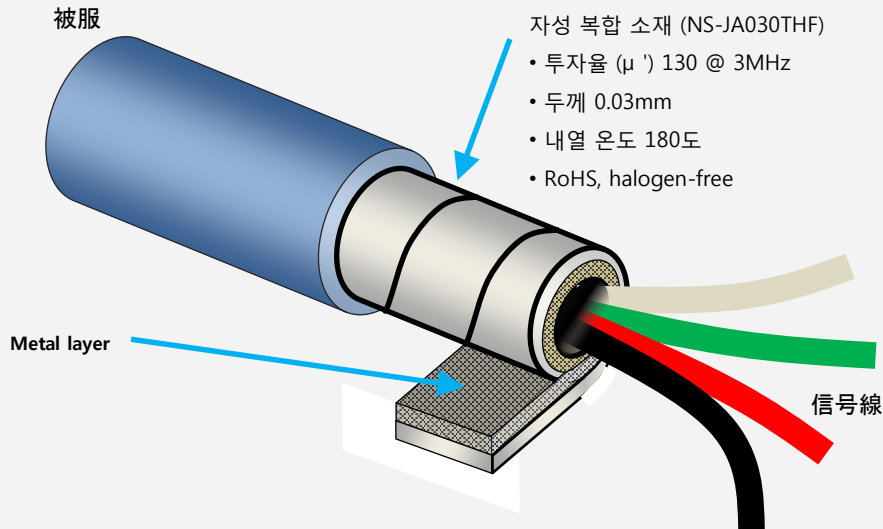
Item	NS-JYHF
Permeability (3MHz)	130
Frequency	10MHz~6GHz
Use Temp. (°C)	-40 ~ +105
Standard Thickness (mm)	0.02 ~ 0.1
Standard Size	Sheet Roll type (max 640*540mm)
Surface resistance (Ω/□)	1 x 10 ⁹
Tensile strength (Mpa)	15.7
Red-P	free
Halogen	free
Flame retardant	UL94 V-0

케이블용 복합자성필름

Structure

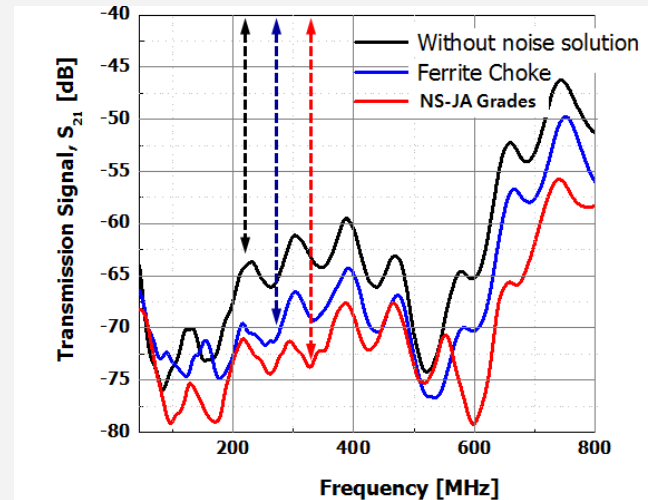


Specification



Features

- Differential signal Impedance Matching
- 고속충전 데이터 케이블 (USB Cable, HDMI Cable, SSD Cableなど)
- 휴대용 기기 전면 버튼 EMI Sheilding
- 지속적인 케이블 생산에 유리 (우수한 작업성)

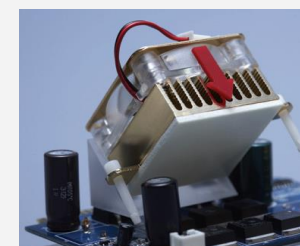


- 동일한 부피의 ferrite choke보다 높은 성능

TIM (열전도 시트)

■ Thermal Interface Material – Sheet Type

Grade	Color	Size (mm)	Thickness (mm)	Hardness (Asker C)	Thermal Conductivity (W/mK)	Tensile Strength (MPa)	Breakdown Voltage (kV)	Volume Resistivity ($\Omega \cdot \text{cm}$)	Flame Resistance (UL94)	Note
TP-S15	Gray	300 x 300	0.2 ~ 8.0	25	1.5	> 0.2	> 5	> 10^{13}	V-0	Soft
TP-S25	Purple	300 x 300	0.3 ~ 8.0	25	2.5	> 0.2	> 5	> 10^{13}	V-0	Soft
TP-S60	Pink	300 x 300	1.0 ~ 3.0	35	6.0	> 0.2	> 5	> 10^{13}	V-0	Soft
TP-US15	Gray	300 x 300	0.5 ~ 5.0	5	1.5	> 0.1	> 5	> 10^{13}	V-0	Ultra Soft
TP-H10	Blue	300 x 300	0.2 ~ 3.0	40	1.0	> 1.0	> 5	> 10^{13}	V-0	Hard



■ Thermal Interface Material – Dual Sheet Type

Grade	Color	Size (mm)	Thickness (mm)	Hardness (Asker C)	Thermal Conductivity (W/mK)	Tensile Strength (MPa)	Breakdown Voltage (kV)	Volume Resistivity ($\Omega \cdot \text{cm}$)	* Power Loss	Note
TM-S15	Black	300 x 300	0.5 ~ 3.0	25	1.5	> 0.2	> 0.25	> 10^{10}	25	Dual
TM-S25	Dark Gray	300 x 300	0.5 ~ 3.0	25	2.5	> 0.2	> 3.0	> 10^{12}	30	Dual



* Power Loss @ 1 GHz, 1 mm(t)

■ Liquid Molding Compound Type

Grade	A/B Mixing Ratio (wt%)	Viscosity (cps)	Density (g/cm^3)	Hardness (Asker C)	Thermal Conductivity (W/mK)	Breakdown Voltage (kV)	Volume Resistivity ($\Omega \cdot \text{cm}$)	Flame Resistance (UL94)	Curing Condition ($^{\circ}\text{C}/\text{min}$)
TC-M10	100 : 100	9,000	1.68	50	1.0	> 5	> 10^{13}	V-0	120/30
TC-M20	100 : 100	2,6000	2.65	50	2.0	> 5	> 10^{13}	V-0	120/30



The End

감사합니다.