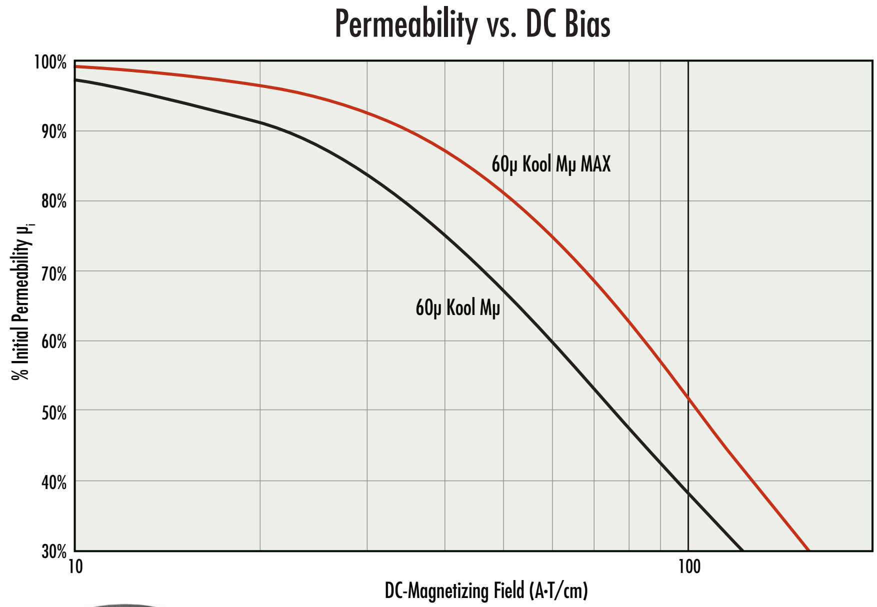
Kool Mμ® MAX Powder Cores

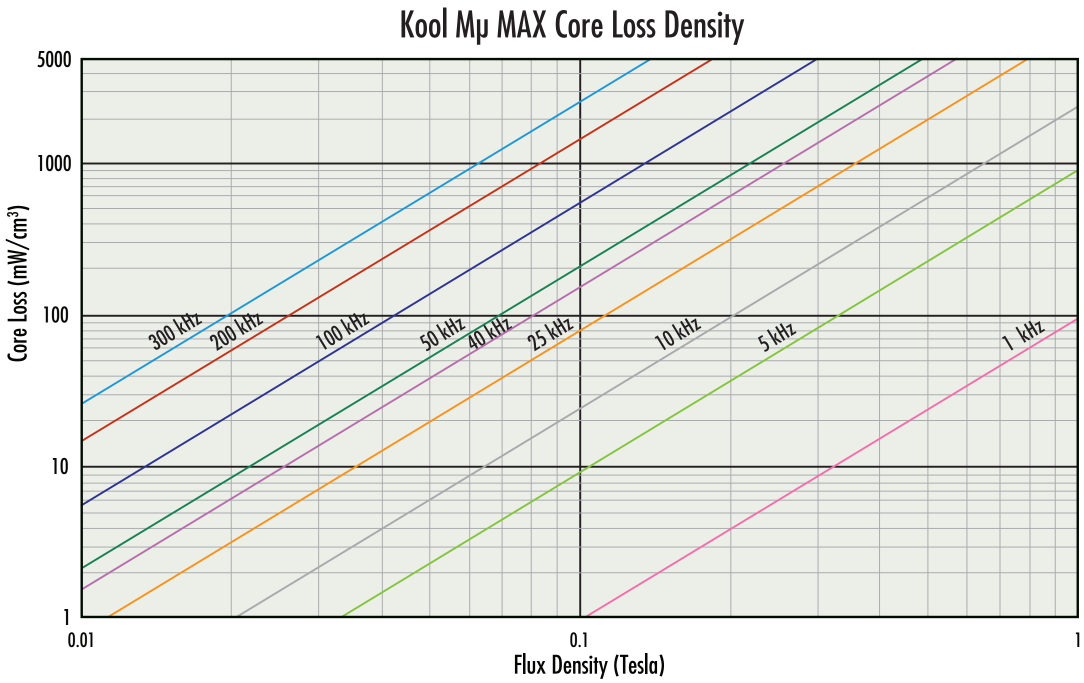
Kool Mμ® MAX is the next generation of sendust cores from Magnetics®, available in permeabilities 26μ, 40μ, and 60μ and in sizes 13.5mm OD through 134mm OD. We supercharged our low core loss Kool Mμ material with 50% better DC bias performance for better power handling. Use of copper wire is minimized by maintaining inductance using less turns, resulting in savings in overall component cost. With its super low losses, Kool Mμ MAX does not mimic the temperature rise problems found in iron powder cores. Improve inductor efficiency at a fraction of the cost of High Flux with Kool Mμ MAX.



Material	Alloy Composition	DC Bias	Core Loss	Relative Cost	Saturation Flux Density (Tesla)	Curie Temperature	Operating Temp. Range	60μ μ flat to...
XFlux®	FeSi	Highest	High	Low	1.6	700°C	-55 to 200°C	500 kHz
High Flux	FeNi	Highest	Moderate	High	1.5	500°C	-55 to 200°C	1 MHz
75-Series	FeSiAl	High	Moderate	Low	1.5	700°C	-55 to 200°C	500 kHz
Kool Mμ® MAX	**FeSiAl**	**High**	**Very Low**	**Medium**	**1.0**	**500°C**	**-55 to 200°C**	**900 kHz**
MPP	FeNiMo	High	Very Low	Highest	0.8	460°C	-55 to 200°C	2 MHz
Kool Mμ®	FeSiAl	Moderate	Low	Low	1.0	500°C	-55 to 200°C	900 kHz
Iron Powder	Fe	Moderate	Highest	Lowest	1.2 - 1.5	770°C	-30 to 75°C	500 kHz
Ferrite	Ceramic	Low	Lowest	Lowest	0.45	100 - 250°C	Variable	Variable

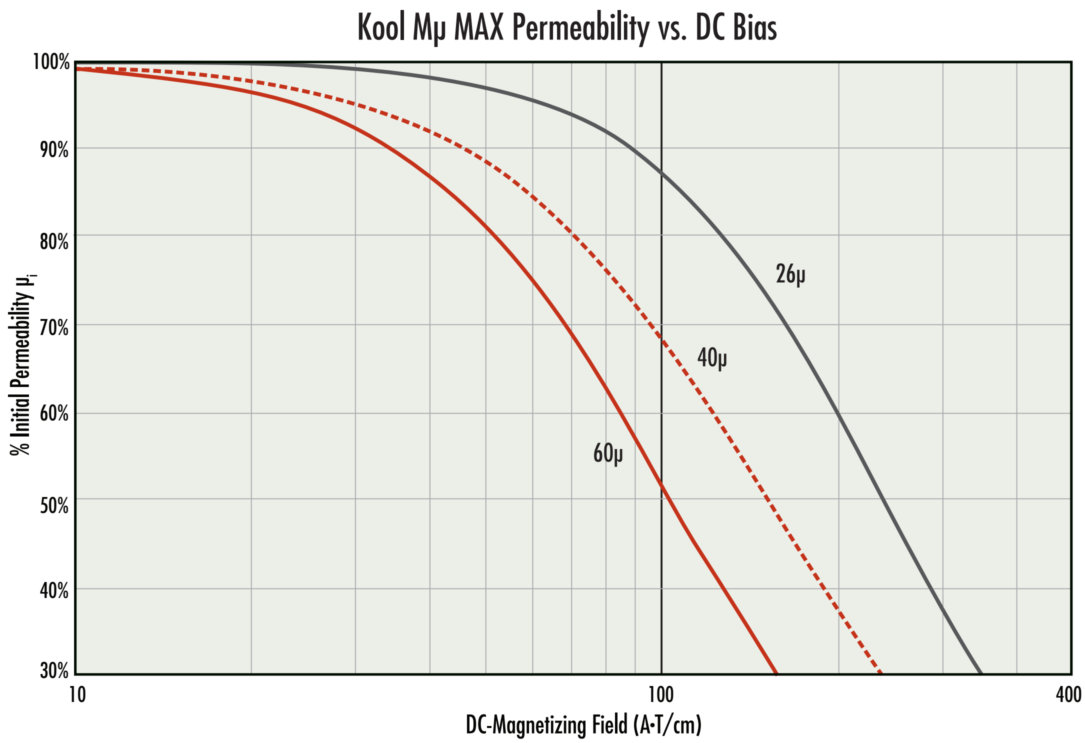
Core Loss Density

$P = a(B^b)(f^c)$ (B in Tesla, f in kHz)			
freq.	a	b	c
>10kHz	86.005	1.998	1.402
<10kHz	94.674	1.998	1.402



Permeability vs. DC Bias

$\% \text{ Initial Permeability} = \frac{1}{(a + bH^c)}$			
	a	b	c
26μ	0.01	5.70E-08	2.205
40μ	0.01	9.04E-07	1.855
60μ	0.01	9.34E-07	2.000



MAGNETICS®

HEADQUARTERS
110 Delta Drive
Pittsburgh, PA 15238
(p) **1.412.696.1333**
1.800.245.3984
magnetics@spang.com
www.mag-inc.com

MAGNETICS INTERNATIONAL
13/F 1-3 Chatham Road South
Tsim Sha Tsui, Kowloon, Hong Kong
(p) **+852.3102.9337**
+86.139.1147.1417
asiasales@spang.com
www.mag-inc.com.cn