



96 MATERIAL

WIRELESS CHARGING FERRITE PLATES

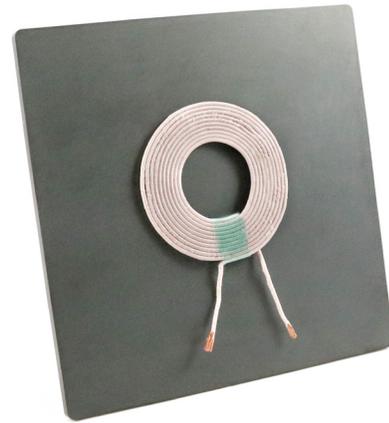
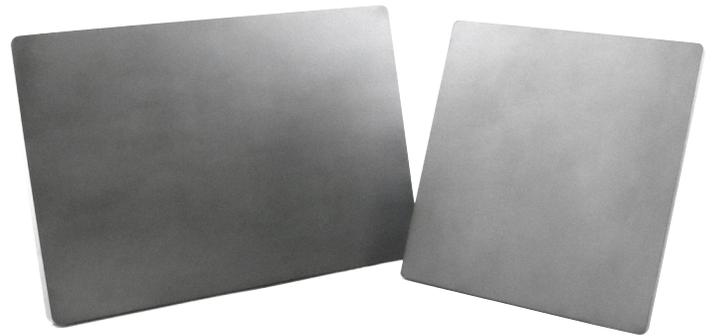
Ferrite plates play a vital role in improving the efficiency of wireless power transfer (WPT) systems. Their high relative permeability allows them to concentrate and channel electromagnetic fields more effectively compared to air. In a WPT system, a ferrite plate acts like a guide for the electromagnetic field generated by the transmitter coil. It focuses this field towards the receiver coil, maximizing directed energy transfer. By reflecting the electromagnetic field within a defined path, ferrite plates minimize leakage flux. This leakage represents wasted energy radiating outwards and not contributing to power transfer. Minimizing leakage not only improves overall system efficiency but also reduces electromagnetic interference (EMI). Ferrite plates offer a significant advantage in WPT systems by channeling electromagnetic flux, improving efficiency, and reducing power loss. Their properties allow for tailoring WPT systems to specific applications.

Applications

- Industrial Automation
- Smartphone and Consumer Electronics Charging
- Automotive Wireless Charging
- Medical Devices
- Integrated Wireless Charging

Key Benefits

- Increased Charging Efficiency
- Compatibility with High Power WPT Systems
- Improved System Design
- Reduced Power Loss
- Low Loss Medium for Flux



Winding shown for demonstrative purposes only.

PART NUMBER	LENGTH (mm)	WIDTH (mm)	PLATE THICKNESS	WT. (g)	RECOMMENDED SYSTEM POWER (VA) @ 85 kHz
3596000501	100 +/- 2.5	100 +/- 2.5	3 +/- 0.25	143	5500
3596000511	100 +/- 2.5	100 +/- 2.5	4 +/- 0.25	191	8000
3596004801	100 +/- 2.5	100 +/- 2.5	5 +/- 0.25	238	11000
3596000521	100 +/- 2.5	100 +/- 2.5	8 +/- 0.25	381	16000
3596000531	150 +/- 4.0	100 +/- 2.5	3 +/- 0.25	215	5500
3596000541	150 +/- 4.0	100 +/- 2.5	4 +/- 0.25	286	8000
3596004901	150 +/- 4.0	100 +/- 2.5	5 +/- 0.25	358	11000
3596000551	150 +/- 4.0	100 +/- 2.5	8 +/- 0.25	572	16000

VA recommendations are based limiting flux density to prevent core heating above 5°C.

Other materials available

Available to customize into any shape

FIELD SHAPING WITH PLATE EXAMPLE

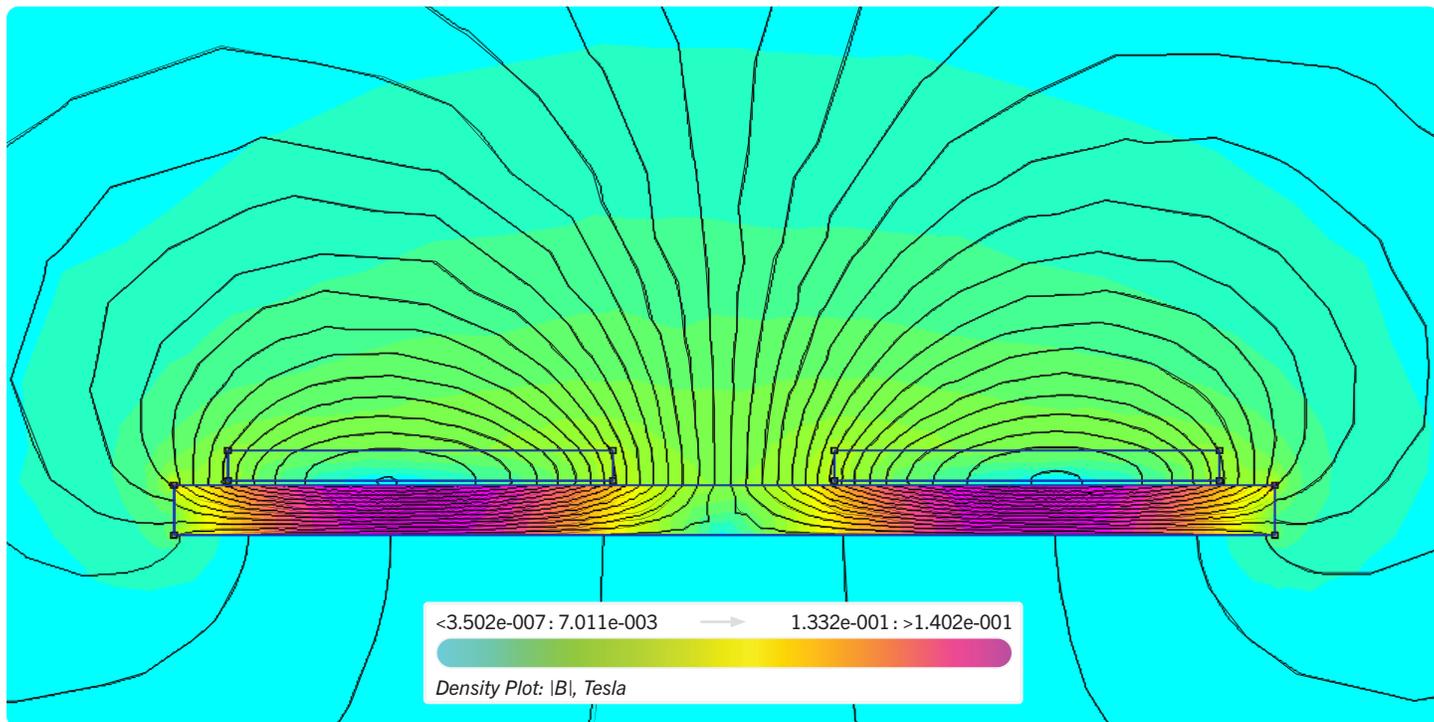
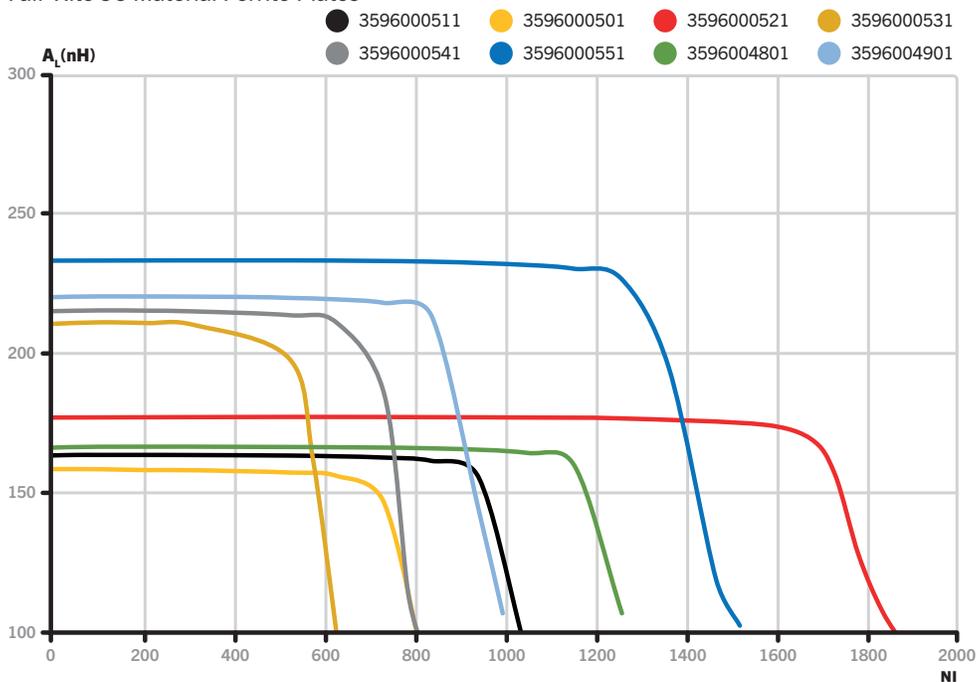


PLATE THICKNESS VS SATURATION CURRENT

Fair-Rite 96 Material Ferrite Plates



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☎ (888) 324.7748 / (845) 895.2055
 📠 (888) FERRITE / (845) 895.2629
 ✉ Ferrites@fair-rite.com

📍 P.O. Box 288, One Commercial Row, Wallkill, NY 12589-0288
 🌐 FAIR-RITE.COM