



# 鑫丰磁业 能源转换专家

XINFENG MAGNET Expert of Energy Transformation



# 企业文化

## ENTERPRISE CULTURE

- Honesty, Positive , Cautious, Responsibility, Love.
- 诚、正、慎、责、爱



# 企业愿景

## ENTERPRISE VISION

- Leader of highly sophisticated in applications of rare earth material.
- Top Choice partner for cost effective magnetic material.
- 高尖端稀土磁材应用领域领导者
- 高性价比磁材首选合作伙伴



- 2004年  
工厂成立  
In year 2004 Ningbo Xinfeng Magnet Industry Co., Ltd was established .
- 2007年  
产能规模达到800吨/年  
In year 2007 the production capacity reached 800 tons / year.
- 2008年  
确定电子及电机领域战略地位；  
高性能磁体产能规模达到1200吨/年；  
通过ISO9001管理体系认证  
In year 2008 determined the strategic position of electronic and motor fields;  
High performance magnet production reached 1200 tons / year;  
ISO9001 certification approved.
- 2009年  
建立机加工事业部；  
政府批准成立区级工程中心；  
与西北工业大学建立高性能磁体研发合作关系及建立联合实验室；  
独立成立对外贸易子公司  
In year 2009 the establishment of Machining Department;  
The establishment of district-level engineer center was approved by the government;  
The establishment of high performance magnet R & D cooperation relationship with  
Northwestern Polytechnical University and the establishment of the Joint Laboratory;  
The establishment of an independent foreign trade subsidiary .
- 2011年  
启动烧结钕铁硼辐射环项目；  
启动磁路设计及组件事业部；  
通过TUV莱茵TS16949  
In year 2011 start-up sintered radiation project;  
Develop the circuit and component design division;  
TS 16949 of TUV certification approved.
- 2014年  
批量生产烧结钕铁硼辐射环项目；  
西北工业大学电机学院电机方案设计合作；  
通过市级企业工程（技术）中心  
In year 2014 mass production for sintered NdFeB radiation ring;  
Cooperated with Northwestern Poly technical University about the motor design project;  
Municipal enterprise engineer center approved.



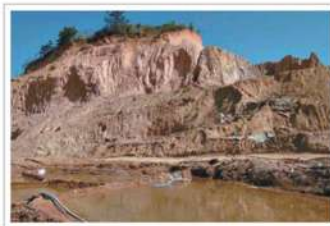
## 公司简介 ABOUT US

宁波鑫丰磁业有限公司成立于2004年是一家从事稀土烧结钕铁硼NdFeB永磁材料的研发、生产、销售、服务及应用开发为一体的高新技术型公司。专业生产各种牌号性能的稀土烧结钕铁硼材料，年生产量约1200吨。钕铁硼材料具有环保、节能、高效等特点广泛应用于新能源汽车、高速节能电梯、工业控制电机、永磁直流电机、无线通讯产品、航空、DVD/数码电子、医疗仪器等领域。

公司执行ISO/TS16949:2009质量体系，以“品质、共赢”为经营理念，产品远销欧、美、亚州等世界各国，赢得良好的国际信誉。

Ningbo Xinfeng Magnet Industry Co., Ltd was a high-tech company established in year 2004, which specializes in researching, manufacturing and application of sintered NdFeB permanent magnet, with annual output reaches to 1200tons. Material has the characteristics of eco-friendly, energy saving, high efficiency which is widely used in new energy vehicles, high-speed energy-saving elevator, industrial control motor, permanent magnet DC motor, wireless communication products, aviation, DVD/ digital electronics, medical equipment and many other fields.

ISO/TS16949:2009 is our quality system, with the business philosophy “quality, win-win situation”, our product are exported to Europe, America, Asia and so on, which gained a good reputation among the world.



鑫丰磁业

[www.xf-magnet.com](http://www.xf-magnet.com)



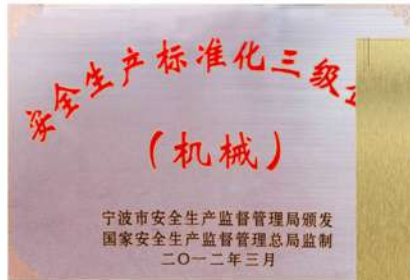
FMAGNET 鑫丰磁业 宁波鑫丰磁业有限公司  
NINGBO XINFENG MAGNET INDUSTRY CO., LTD

研究 / 生产 / 销售 / 服务 / 应用  
Research / Manufacture / Sales / Service / Application





# 资格认证 QUALIFIED CERTIFICATION





**High cost-effective**

- ▶ 满足客户性能使用需求，去Dy/降Dy含量工艺。  
Technology for reducing removing dysprosium percent to meet customer's demand.



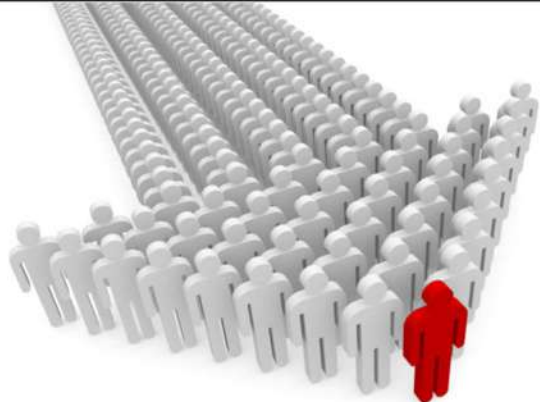
**Production and design integration**

- ▶ 更多应用端领域的专业知识，磁路诊断及设计能力,方案多样优化一体。  
More professional knowledge on application fields, magnetic circuit diagnosis and design ability, development of various optimization scheme.



**High performance**

- ▶ 高性能、高一一致性、低失重、高精度机加工。  
The processing of high performance, high consistency, low weight loss, high precision machining.



## 品质控制 QUALITY CONTROL

IS/ISO16949:2009体系  
IS/ISO16949:2009 system



激光粒度分布仪  
Laser particle size distribution instrument



岛津ICPS稀土含量光谱仪  
SHIMADZU ICPS content of rare earth spectroscopy



高低温磁测仪  
High and low temperature magnetic tester





日立-扫描电子显微镜  
Hitachi - scanning electron microscope



激光无损镀层测厚仪  
Laser nondestructive coating thickness gauge



影像测量仪  
Image measuring instrument



PCT高压试验箱  
PCT high voltage test box



HAST高压低失重测试仪  
HAST high pressure and low weight loss tester



氧氮分析仪  
Oxygen nitrogen analyzer

## 烧结钕铁硼 SINTERED NdFeB

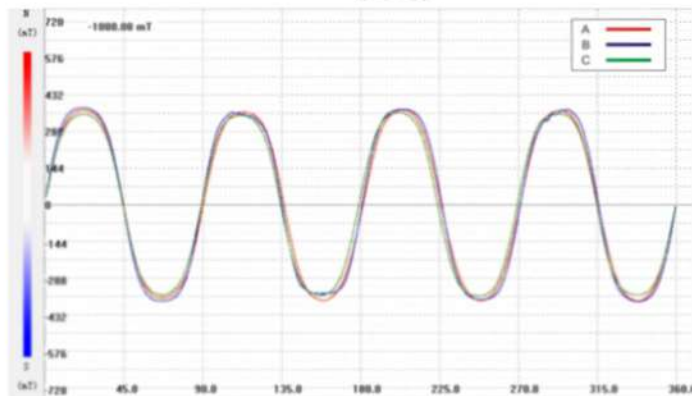
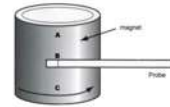
烧结钕铁硼产品具有高磁能积、高矫顽力、高一致性等特性，而且具有良好的机械性，拥有当代磁王之称。本公司先后研发生产出N/H/SH/UH/EH等系列的各种方块、环形、瓦性及各种异型500多种规格型号的产品，广泛应用于电机、喇叭、风力发电、通讯设备、医疗器材等领域。

Sintered NdFeB magnet has many properties, such as lower weight loss, high consistency, coercivity and energy, the favorable mechanical prosperities allowed it to be made in different shapes. Our factory has developed grades of N/H/SH/UH/EH series with various shapes gradually. Such as arc, block, disc, ring and irregular shape, totally more than 500 different items, which are widely used in motor, computer, wind power, speakers and medical equipments and so on.



# 辐射环 RADIATION RING

磁场强度及分布对比分析：  
Analysis of magnetic field intensity and distribution of contrast:



探头在磁环A、B、C三个不同的检测点，测试波形形状接近，一致性高。  
Probe in the magnetic ring A, B, C three different detection points, the test waveform shape close, high consistency.

辐射环电机使用优势 Advantages of using radiation ring motor:

- 1、装配方便，装配工艺简单，减少工艺变差引起的品质波动。
  - 2、辐射环相比于贴瓦式装配具有更好的同心度，电机的动平衡性能更好。
  - 3、静音效果好。
  - 4、不需要转子护套，工作气隙均匀，可以设计更小的工作气隙增加功率密度。
  - 5、高速性能好，减少内部结构磁涡流，降低发热量。
- 1、 Easily to assemble, simply assembly process, reducing quality fluctuations caused by process variation
  - 2、 Better concentricity and better dynamic balance of the motor while comparing to arc magnet assembly.
  - 3、 Good mute
  - 4、 Without rotor sleeve, well-distributed working air gap, smaller working air gap to increase the power density
  - 5、 High-speed performance, reduced internal structure of magnet eddy-current, reduced calorific value







## 电机类应用 MOTOR APPLICATIONS

钕铁硼永磁电机是钕铁硼磁体最大的应用领域，约占磁体总量的一半以上。稀土永磁电机高效节能，平均节电率高达10%。钕铁硼被大量使用在直流同步永磁电机，直线电机，伺服电机等领域中。因此，我们的目标是：致力于成为中国最专业的电机磁铁解决方案专家。

NdFeB permanent magnet motor is the largest application area of NdFeB material, accounting for more than half. Of the total magnet Rare-earth permanent magnet motor is in high efficiency and energy saving, the average saving rate is as high as 10%. NdFeB are widely used in Permanent magnet synchronous motor, linear motors, servo motors and other areas. Thus, we aimed to becoming the most professional solution expert of motor magnets in china.



高一一致性、高精度、低温度系数、低失重。

High consistency, high precision, bottom temperature coefficient, low weight loss.



# 高精度微型产品 HIGH PRECISION MINISIZED PRODUCTS



随着钕铁硼的能积不断地提高，为数字产品的小型化提供了可能。因此在钕铁硼广泛应用的电子领域产品的升级换代变得异常迅速（如数码相机，手机震动磁铁，监控设备，CD-Rom）。为满足电子领域应用产品精度高、规格小且不规则的特点，公司通过自主设计的加工成产工艺，解决并满足了传统工艺无法完成的产品规格和精度要求。

It offers the possibility to miniaturize the size of digital products with the constant enhancement of NdFeB Energy ,thus ,the upgrading in the area of Digital products has become very fast where the NdFeB magnet is applied. (such as digital cameras, vibrator magnet in the mobile phone, monitoring equipment, CD-Rom)To meet the requirement of high precession, small size and irregular shape in electronic products, the company has designed its own processing technology which cannot be finished by the traditional technology.

融合了30年机械加工经验--以小见大，见微知著。  
30 years of precision machining experience---Small pieces make us brilliant.

<<< 应用于 Apply in



## 喇叭类应用 LOUDSPEAKER APPLICATIONS

一般而言，要求体积小功率大的喇叭必须使用钕铁硼。在低音喇叭单元和汽车音响领域，钕铁硼的使用量非常巨大。随着钕铁硼稳定性和耐高温系数的提高，逐渐替换掉一部分铁氧体喇叭磁将成为一种趋势。

Generally speaking, NdFeB is required to be used in the small size of high-power speakers. Among loudspeakers units and car audio field, the demands of NdFeB is very large. It will be a trend that the NdFeB material replace part of the ferrite magnet used in speakers with the improvement of stability and high temperature coefficient of NdFeB.



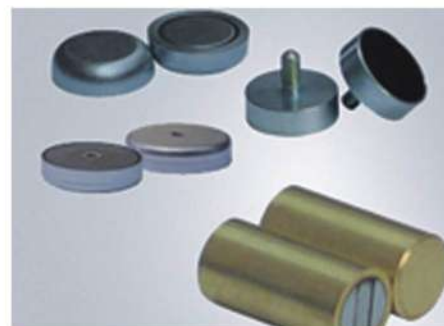


# 磁性组件 MAGNETIC ASSEMBLY



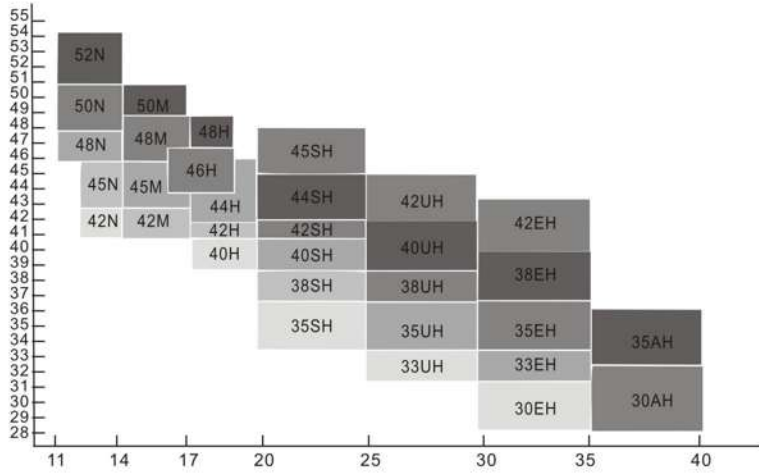
公司通过与西北工业大学材料研究所等知名院校的合作，结合自身的机械加工能力，可为客户提供一整套磁路设计、组件配套加工服务。

XF MAG provide solutions & designs for customers on magnetic circuit design and magnetic assembly, in favor of cooperating with the Material Institute of Northwest Polytechnic University.

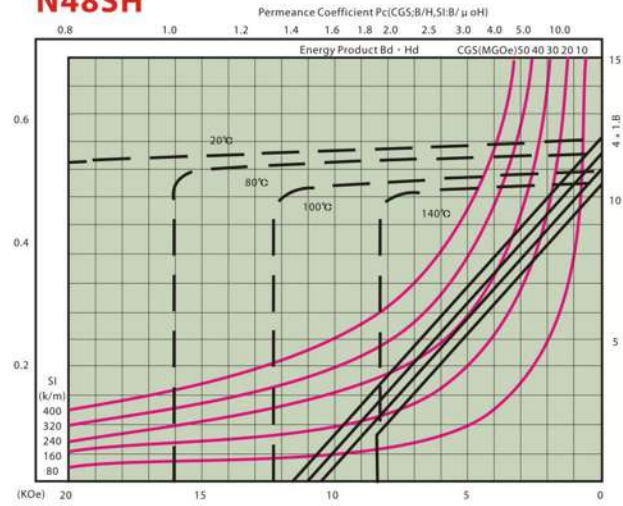




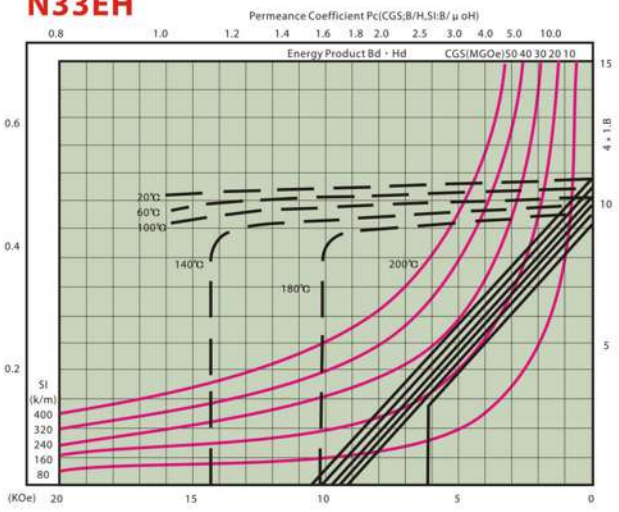
# 典型曲线 MASTER CURVE



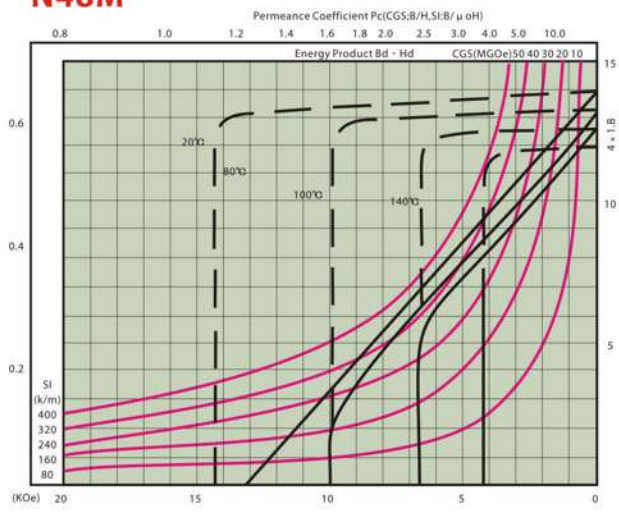
## N48SH



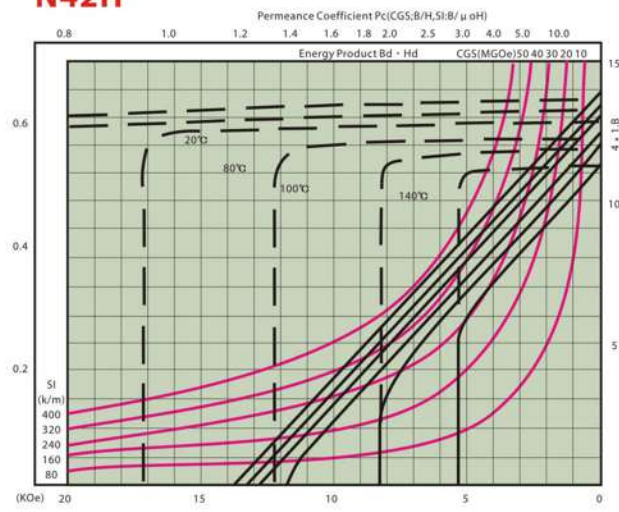
## N33EH



## N48M



## N42H





# 磁性能表 MAGNETIC CHARACTERISTICS OF SINTERED NDFEB



牌号 Grade	剩磁Br				矫顽力HcB		内禀矫顽力Hcj		最大磁能积(BH)max				推荐最高 工作温度 Max Working temperature
	Kgs		T		KOe	KA/m	Koe	KA/m	MGOe		KJ/m <sup>3</sup>		L/D≥0.7
	Max	Min	Max	Min	Min	Min	Min	Min	Max	Min	Max	Min	℃
N35	12.3	11.8	1.23	1.18	≥10.9	≥868	≥12	≥955	36	33	287	263	≤80
N38	12.6	12.3	1.26	1.23	≥11.3	≥899	≥12	≥955	39	36	311	287	≤80
N40	12.9	12.6	1.29	1.26	≥11.4	≥907	≥12	≥955	41	38	327	302	≤80
N42	13.3	12.9	1.33	1.29	≥11.5	≥915	≥12	≥955	43	40	342	318	≤80
N45	13.7	13.3	1.37	1.33	≥11.0	≥876	≥12	≥955	46	43	366	342	≤80
N48	14.1	13.7	1.41	1.37	≥10.5	≥836	≥11	≥876	49	45	390	358	≤80
N50	14.5	14.0	1.45	1.4	≥10.5	≥836	≥11	≥876	51	47	406	374	≤60
N52	14.8	14.3	1.48	1.43	≥10.5	≥836	≥11	≥876	53	49	422	390	≤60
35M	12.3	11.8	1.23	1.18	≥10.9	≥868	≥14	≥1114	36	34	287	271	≤100
38M	12.6	12.3	1.26	1.23	≥11.3	≥899	≥14	≥1114	39	36	311	287	≤100
40M	12.9	12.6	1.29	1.26	≥11.6	≥923	≥14	≥1114	41	38	327	302	≤100
42M	13.3	12.9	1.33	1.29	≥12.0	≥955	≥14	≥1114	43	40	342	318	≤100
45M	13.7	13.3	1.37	1.33	≥12.5	≥995	≥14	≥1114	46	43	366	342	≤100
48M	14.1	13.7	1.41	1.37	≥12.9	≥1027	≥14	≥1114	49	45	390	358	≤100
50M	14.5	14.0	1.45	1.40	≥13.0	≥1033	≥14	≥1114	51	47	406	374	≤100
35H	12.3	11.8	1.23	1.18	≥10.9	≥868	≥17	≥1353	36	33	287	263	≤120
38H	12.6	12.3	1.26	1.23	≥11.3	≥899	≥17	≥1353	39	36	311	287	≤120
40H	12.9	12.6	1.29	1.26	≥11.6	≥923	≥17	≥1353	41	38	327	302	≤120
42H	13.3	12.9	1.33	1.29	≥12.0	≥955	≥17	≥1353	43	40	342	318	≤120
45H	13.7	13.3	1.37	1.33	≥12.3	≥979	≥17	≥1353	46	43	366	342	≤120
48H	14.1	13.7	1.41	1.37	≥12.5	≥995	≥17	≥1353	49	46	390	366	≤120
35SH	12.3	11.8	1.23	1.18	≥11.0	≥876	≥20	≥1592	36	33	287	263	≤150
38SH	12.6	12.3	1.26	1.23	≥11.4	≥907	≥20	≥1592	39	36	311	287	≤150
40SH	12.9	12.6	1.29	1.26	≥11.6	≥939	≥20	≥1592	41	38	326	302	≤150
42SH	13.3	12.9	1.33	1.29	≥12.4	≥987	≥20	≥1592	43	40	342	318	≤150
45SH	13.7	13.2	1.37	1.32	≥12.6	≥1003	≥20	≥1592	46	42	366	334	≤150
33UH	11.8	11.4	1.18	1.14	≥10.7	≥852	≥25	≥1989	34	31	271	247	≤180
35UH	12.3	11.8	1.23	1.18	≥10.8	≥860	≥25	≥1989	36	33	287	263	≤180
38UH	12.6	12.3	1.26	1.23	≥11.3	≥899	≥25	≥1989	39	36	311	287	≤180
40UH	12.9	12.5	1.29	1.25	≥11.3	≥899	≥25	≥1989	41	38	326	302	≤180
33EH	11.8	11.4	1.18	1.14	≥10.3	≥820	≥30	≥2388	34	31	271	247	≤200
35EH	12.3	11.7	1.23	1.17	≥10.5	≥836	≥30	≥2388	36	33	287	263	≤200
38EH	12.6	12.2	1.26	1.22	≥11.3	≥899	≥30	≥2388	39	35	311	278	≤200

注：以上磁性能参数是在20℃~23℃室温条件下测试。 Remark: All the data is tested in room temperature 20℃~23℃.





烧结钕铁硼适用镀层  
Available Coating for Sintered NdFeB Magnets

Surface Types / 类型	Coating Structure / 镀层	Thickness(um) / 厚度	Color(s) / 颜色		SST(hours)/盐雾试验	PCT(hours)/压力试验
Nickel 镍	Ni+Ni	10-20	Silver	银白色	>24-72	>24-72
	Ni-Cu-Ni		Black	亮黑色		
Zinc 锌	Zn	8-15	Blue	蓝白色	>16-48	>12
	Color Zn		Multicolor	彩色	>36-72	
Sn 锡	Ni+Cu+Sn	10-20	Silver	银色	>36-72	>48
Au 金	Ni+Cu+Ni+Au	10-15	Gold	金色	>12	>48
Ag 银	Ni+Cu+Ni+Ag	10-15	Silver	银色	>12	>48
Epoxy 环氧	Epoxy	10-20	Black/Gray 黑色/灰色		>48	>12
	Ni+Cu+Epoxy	15-30			>72-108	>24
	Zn+Epoxy	15-25			>72-108	>12
Passivation 钝化	/	1-3	Dark Gray	黑灰色	Temporary Protection 临时保护	/
Phosphated 磷化	/	1-3	Dark Gray	黑灰色	Temporary Protection 临时保护	/
Parylene 帕利灵	Parylene	5-25	Transparent	透明色	Superior Corrosion & Salt Spray Resistance 极好的耐腐蚀和耐盐雾能力	

## 应用领域 APPLICATION FIELD

鑫丰磁业的产品已经广泛应用于工业，农业，石化，仪器仪表，风力发电，电动汽车，电子设备，计算机，各类电机，音响系统，汽车等领域。

XFMAG are widely used in the field of computer science, electronic devices, instruments and meters, wind power automobile motors, motors, speaker systems, auto motors and so on.



WIND POWER TECHNOLOGY



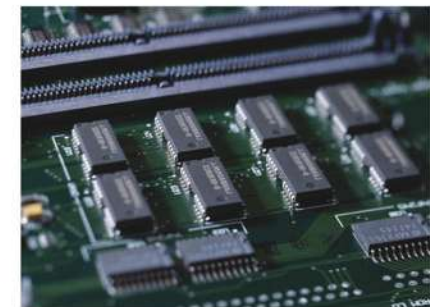
MAGNETIC THERAPY



ELEVATOR



ELECTRIC AUTOMOBILE



Electronic equipment



## 宁波鑫丰磁业有限公司

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