公司简介

Company Introduction

广东风华高新科技股份有限公司

gdong Fenghua Advanced Technology Holding Co.,Ltd.

公司概况 Company profile

创业 Established：1984

公司地址Company address：广东省肇庆市风华路18号

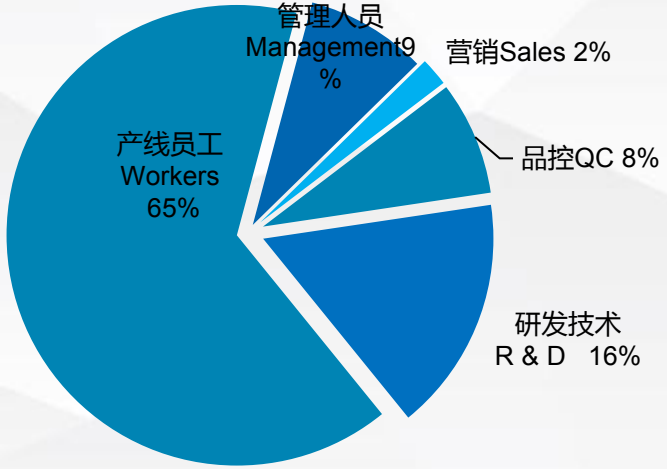
No.18 Fenghua Road, Zhaoqing City, Guangdong Province

上市Listed on the Shenzhen Stock Exchange ：1996

(股票代码code: 000636)

总资产Total Assets (till Dec.2016)：RMB 66.88亿元 (USD 1 Billion)

员工人数Total Employees (Dec.2016)：7,137



公司发展历程Company development history

1984

公司创立
Established

1985

率先从美国引进国际先进水平独石电容器的生产线
Introduced First MLCC Production Line from USA

1996

深交所上市
Listed on the Shenzhen Stock Exchange

2008

公司重组
Company Reorganization

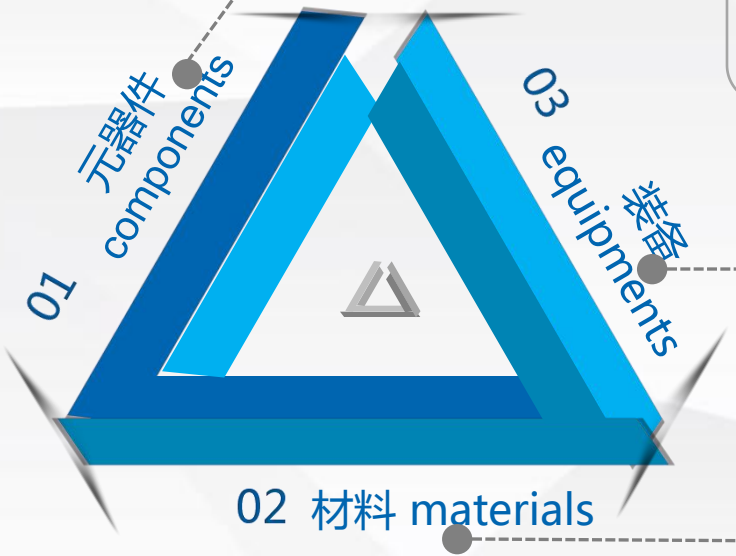
2015

收购珠海奈电
Acquisition of Netron Tech Zhuhai

2016

收购台湾光颉
Acquisition of Taiwan Viking

产业体系Industrial system



元器件 components

电容器 MLCC　　敏感元器件 Sensitive Components
电阻器 Resistor　　半导体器件 Semi-conductor
电感器 Inductor　　软磁铁氧体 Soft Ferrite

装备 equipments

激光调阻机
Laser Trimming Machine
全自动流延机
Casting machine
全自动丝网印刷机
Silk printing machine
恒温等静压机
Isostatic press machine
电子窑炉
Electronic kiln

材料 materials

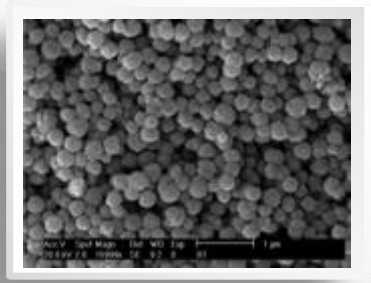
单分散钯银粉体
Pd/Ag powder
介质陶瓷材料
Dielectric Ceramic Material
高性能电子浆料
Electronic Paste
基础化工材料
Basic Chemical Materials

风华围绕电子元器件、电子材料及电子专用设备等产业领域，形成国内唯一实现新型电子元器件“三位一体”的产业体系。

Focusing on components, materials and special equipment, FH has formed the featured “three in one” industrial system in China.

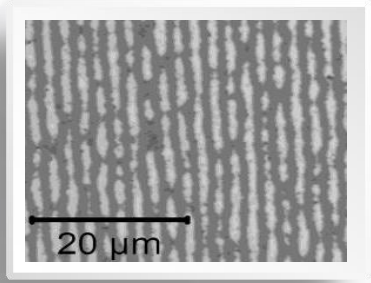
研发体系 R&D system

研发平台 R&D Platform



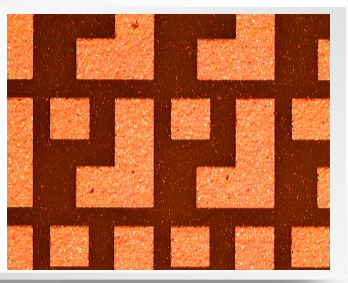
材料实验室
Material Lab.

纳米材料
Nanometer Materials
介质材料
Dielectric Materials
敏感材料
Sensitive Material
电子浆料
Electronic Paste



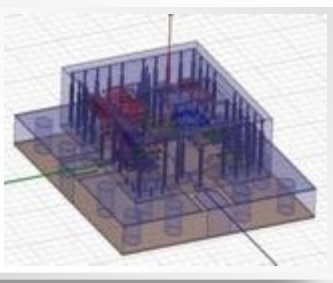
厚膜实验室
Thick film Lab.

小于1 μm膜片
＜1 μm film
传统元件片式化
Chip Components
系统集成工艺
Systematic Integrated Technology
射频器件及模块
RF components & Module



薄膜实验室
Thin film Lab.

真空镀膜技术
Vacuum Plating Film
微细加工技术
Micro-fine Processing
薄膜元件
Thin Film Components
薄膜电路
Thin Film Circuit



可靠性实验室
Reliability Lab.

电路设计与仿真
Circuit Design & Simulation
整机分析与测试
Analysis & Testing
元器件测试分析
Components Test Analysis
元器件设计与仿真
Components Design & Simulation

检测平台 Test Platform

■同行业内唯一一家通过CNAS、CMA双重认证的第三方检测机构
The only 3rd party test agency passed CNAS, CMA dual certification in the industry.

■可提供从材料成分、结构、物性到器件性能的一站式检测服务
Can provide one-stop service from material structure to component property

■检测参数2800余项，针对行业特点，建立实验室专有专业检测方法161个
Can test 2800 items of parameters, focus on the characteristics of industry, lab forms professional 161 test ways.

■2017年内建成风华联合元器件可靠性试验中心，针对工业控制、汽车电子、军工等领域
Establish Reliability Test Center of components, focus on industrial control, automotive electronic, and military fields etc. in 2017.

■主持制定行业标准《介电陶瓷材料锆钛酸钡 锆、钛和钡含量的测定 X射线荧光光谱法 JC/T 2213-2014》，于2014年10月1日起实施
Presided on formulating the industry standards “dielectric ceramic materials, barium zirconium titanate, titanium and barium content determination of X - ray fluorescence spectrometry 2213-2014 JC/T”, was implemented from October 1st, 2014.

技术实力 Technical Strength

1997
被认定为“国家新型电子元器件工程技术研究中心”
Recognized as “National New Type Engineering Technology Research Center for Electronic Components”

1998
建立国家首批博士后流动工作站
Establish First Post Doctoral Working Station of State Level

2000
被认定为全国19家技术创新试点单位之一，被列为国家“863”计划新型元器件及材料成果转化及产业化国家基地。
Identified as one of 19 pilot units of national technical innovation. Listed as the national base of new components and materials transformation and industrialization of "863" plan

2001
风华研究院成立
FH Research Institute established

2015
被认定“新型电子元器件关键材料与工艺国家重点实验室”
Recognized as “State Key Laboratory of Advanced Electronic Component Key Material and Technology ”

2016
获得国家知识产权示范企业称号
Win the title of “National Intellectual Property Demonstration Enterprise”

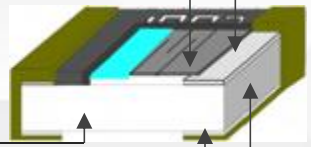
◆每年的科技投入占销售收入的4%
◆Annual science & technology investment account for 4% of annual sales revenue.

◆截止到2016年底，累计获得专利504件
◆At the end of 2016, acquired 504 patents in China.

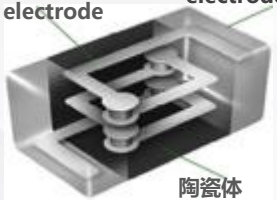
技术荣誉 Technical Honor

技术规划 Technical Roadmap

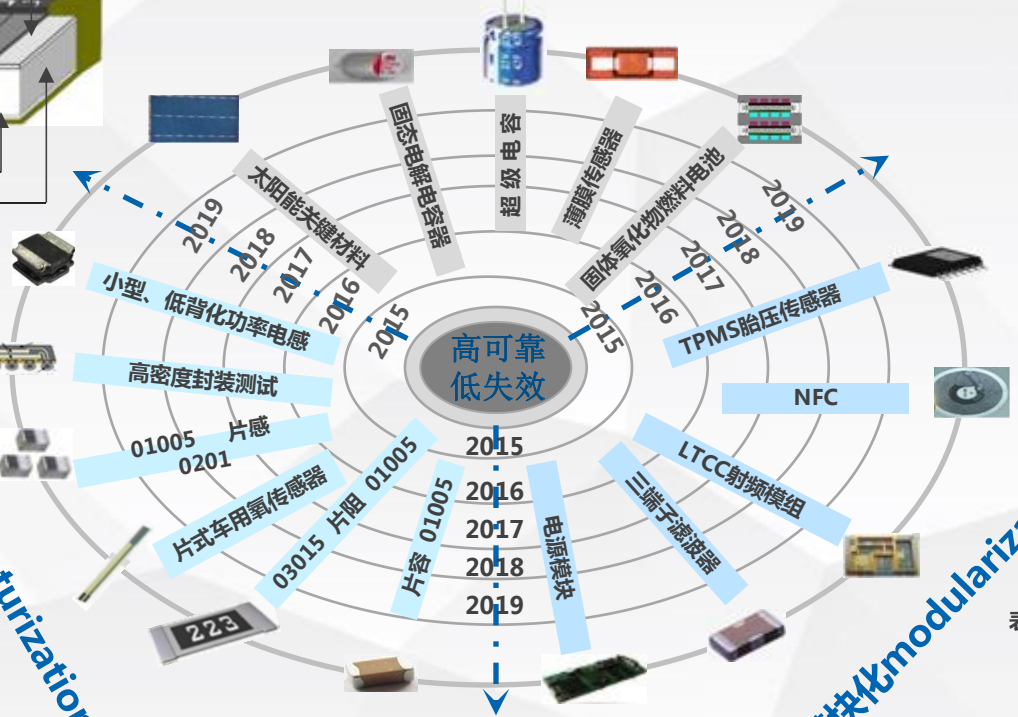
面电极
face electrode
电阻体
Resistor body
陶瓷基片
Ceramic substrate
背电极
Back electrode
端电极
Terminal electrode

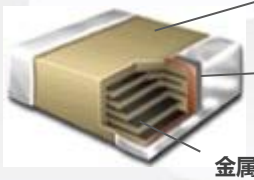


内电极
Inner electrode
外电极
Outer electrode
陶瓷体
Ceramic body

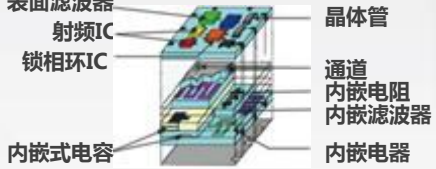


新产业 New Products

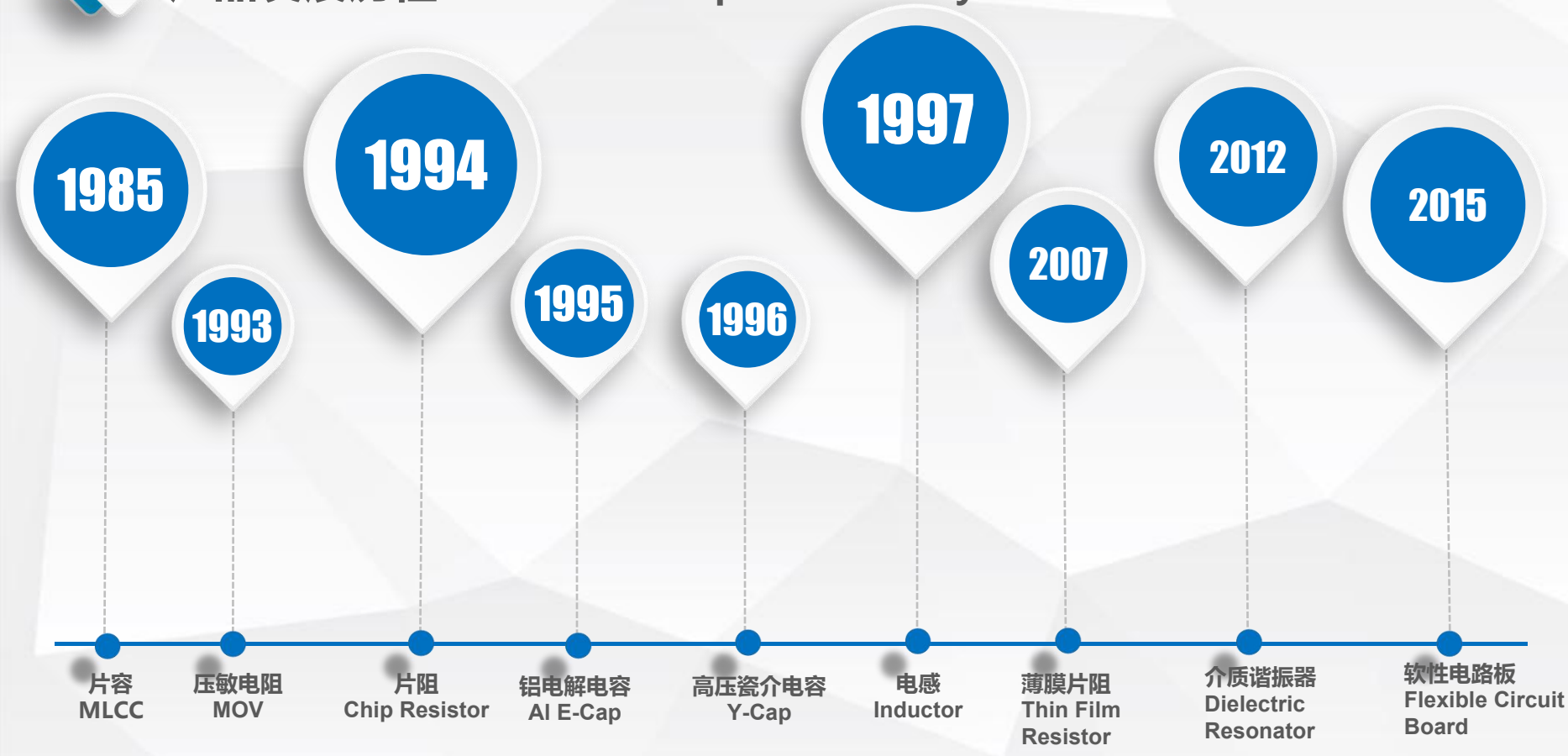




陶瓷体
Ceramic body
三层外电极
Three lays' outer electrode
金属镍内电极
Ni inner electrode



产品发展历程Product Development History



产品家族 Product Family

片容
MLCC

排容
Chip C-arrays

三端滤波器
Three Terminal EMI Filter

色环电容
Axial Color Code MLCC

径向引线
Radial Leads MLCC

轴向引线
Axial Leads MLCC

瓷介电容
Ceramic Disc Capacitor

引线排容
Leads Network Capacitor

铝电解电容
Al E-cap

贴片铝电解
SMD Al E-cap

固态电容
Solid Al C-cap

超级电容
Super Capacitor

厚膜片阻
Thick Film Resistor

片式排阻
Resistor Array

薄膜片阻
Thin Film Resistor

合金片阻
Metal Strip Resistor

引线排阻
Leads Resistor Array

高压电阻
High Voltage Resistor

片式压敏
Chip Varistor

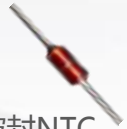
环型压敏
Ring varistor

压敏电阻
Zinc Oxide Varistor

片式NTC
Chip NTC

NTC热敏电阻
NTC Thermistor

AT型NTC
AT Type NTC



玻封NTC
Glass Sealed Thermistor

温度传感器
Temperature Sensor

PTC热敏电阻
PTC Thermistor

厚膜电路
Thick Film Circuit

产品家族 Product Family


叠层片感
MLCI


线电感
Wire Wound Inductor


共模电感
Common Mode Inductor


功率电感
SMD Power Inductor


色码电感
Color Code Inductor


立式电感
Vertical Fixed Inductor


片式磁珠
Chip Bead

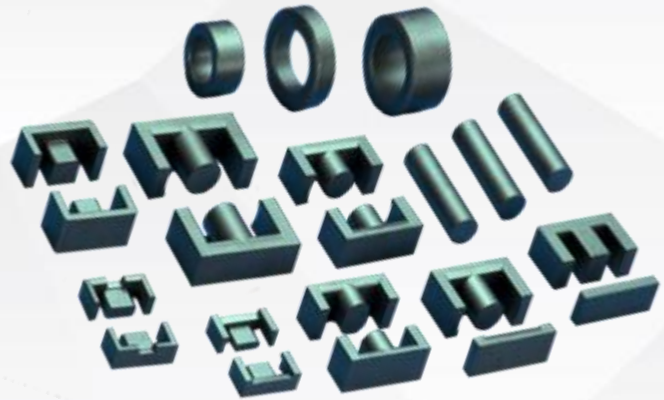

穿芯磁珠
RH Type Bead Core Inductor


共模滤波器
Common Code Filter


变压器
Transformer


电流互感器
Current Transformer

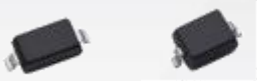

磁环线圈
Toroidal Coil


软磁铁氧体Soft Ferrite


SOT series


SOP series

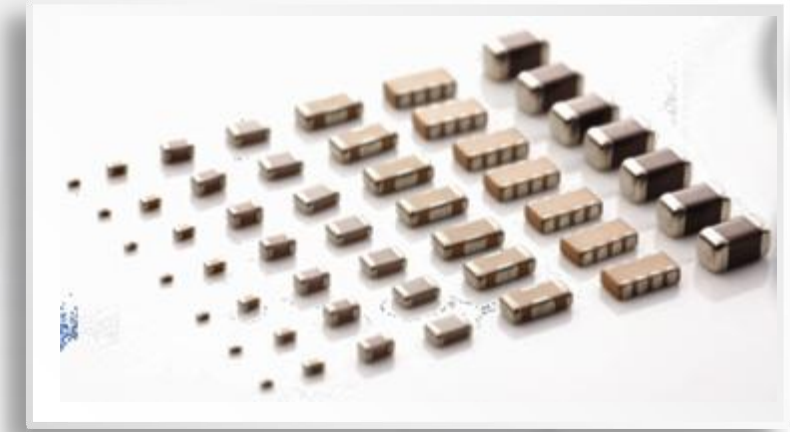

TO series


SOD series


粉体及浆料
Powder & Paste

电子装备
Electronic Equipment

主要产品--电容器 MLCC



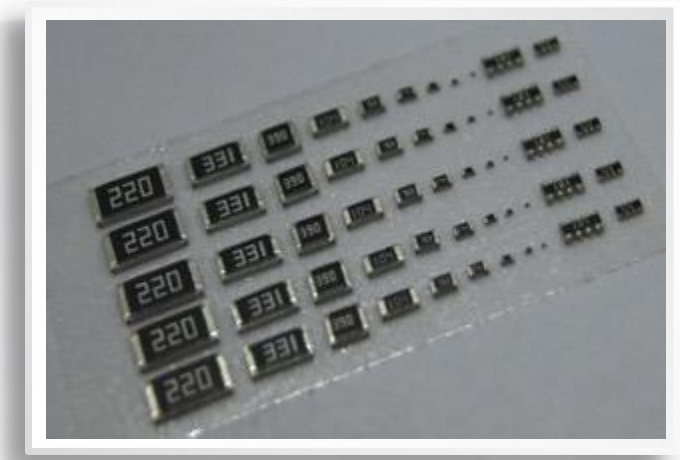
●目前产能150亿只/月；
15 billion PCS per monthly capacity
●新增0201规格50亿；
5 billion PCS for 0201 size per monthly capacity

●绝大部分材料自己研发自己生产；
Most of materials by self-developed and self-produced
●高容50亿每月；
5 billion Pcs for high capacitance per monthly capacity

●介质材料最小粒度D_{50}小于50nm。
Dielectric material PSD $D_{50=}$50nm

●介质厚度可精确控制0.8±0.1 μm 。
Dielectric thickness can be controlled to 0.8±0.1 μm

主要产品—片式电阻器Chip Resistor



产能300亿只/月

30 billion PCS per monthly capacity

01005规格产能4亿只/月；

400 million PCS for 01005 size per monthly capacity

0201+0402产品185亿/月。

18.5 billion PCS for 0201 & 0402 per monthly capacity

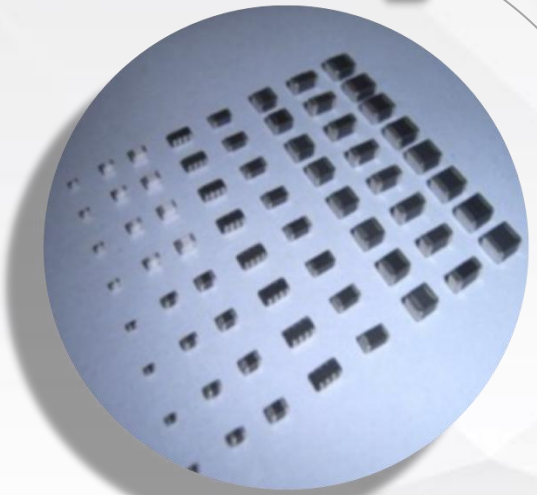
低阻值(1mΩ)、高精度(±0.01%)、低温漂(±2ppm/°C)。

Low resistance value(1mΩ), high precision tolerance (±0.01%), low temperature shift (±2ppm/°C).

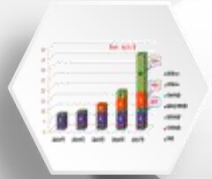
ISO9001、TS16949质保体系，符合AEC-Q200汽车级标准；

Passed ISO9001, TS16949 etc. certification system, meeting the standard of AEC-Q200

主要产品--电感器 Inductor

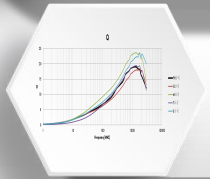


1



●片式磁珠和铁氧体电感6亿只每月。
600 million PCS for Chip bead and ferrite inductor per monthly capacity
●2520/2016功率电感2亿只每月；
200 million PCS for 2520 & 2016 power inductor per monthly capacity

2

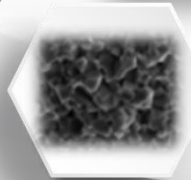


●0201+0402规格12亿只每月；
1.2 billion PCS for 0201& 0402 size inductor per monthly capacity

3

●黄光工艺，装备与工艺全球最先进；
Photo process technology, the most advanced equipments and technology in the world.

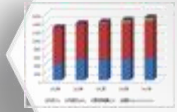
4



●国家“863”计划项目；National “863” plan project；
●材料自主研发20年Self-developed materials for 20 years

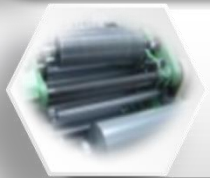
主要产品--铝电解 Al E-Cap

1



●目前产能1.6亿只/月；
160 million PCS per monthly capacity
●新增固铝规格600万只每月；
6 million PCS per monthly capacity for solid Al E-cap

2



●核心技术-电解液自主研发；
Key technology—electrolytic solution self-developed
●与清华研究院合作开发。
Cooperated with Tshinghua University

3

●生产设备先进，产品规格齐全；
Advanced production equipment, complete product specification.

4

●新型全自动老练测试机，保证产品质量。
Automatic aging test machine, ensure the product quality.

主要产品—敏感器件 Sensitive Components

认证及体系 Agency Approvals

Agency	Agency File Number
	E325462
	40008242
	CQC03001004433

●目前产能60KK只/月；
60000K per monthly capacity
●新增启动用热敏PTC电阻 与防雷用压敏电阻系列；
New type start-up PTC & lightning protection varistor
●投入自动化生产设备。
Automatic production equipment

●绝大部分材料自研生产；
Most of material are self-developed
●新增高温型（105℃、125℃）压敏电阻系列。
Newly increased high temperature 105℃, 125℃ varistor

●生产设备国内领先；
Advanced production equipments
●产品性能可靠稳定，全检出货。
Reliable product properties, 100% testing output

●各类工夹具增加防错和纠错。
Various types of fixtures to prevent errors and error correction
●有完善的防雷测试设备仪器。
Complete lightning protection test equipments

主要产品—瓷介安规电容器 Safety Ceramic Disc Capacitor

●2017年产能36KK/月；
36KK Pcs per monthly capacity
●到2020年扩产至58KK/月；
By 2020, 58000K Pcs per monthly capacity

●绝大部分材料自研生产；
Most of material are self-developed.& self-produced
●通过多项安规测试认证。
Passed many safety test certifications

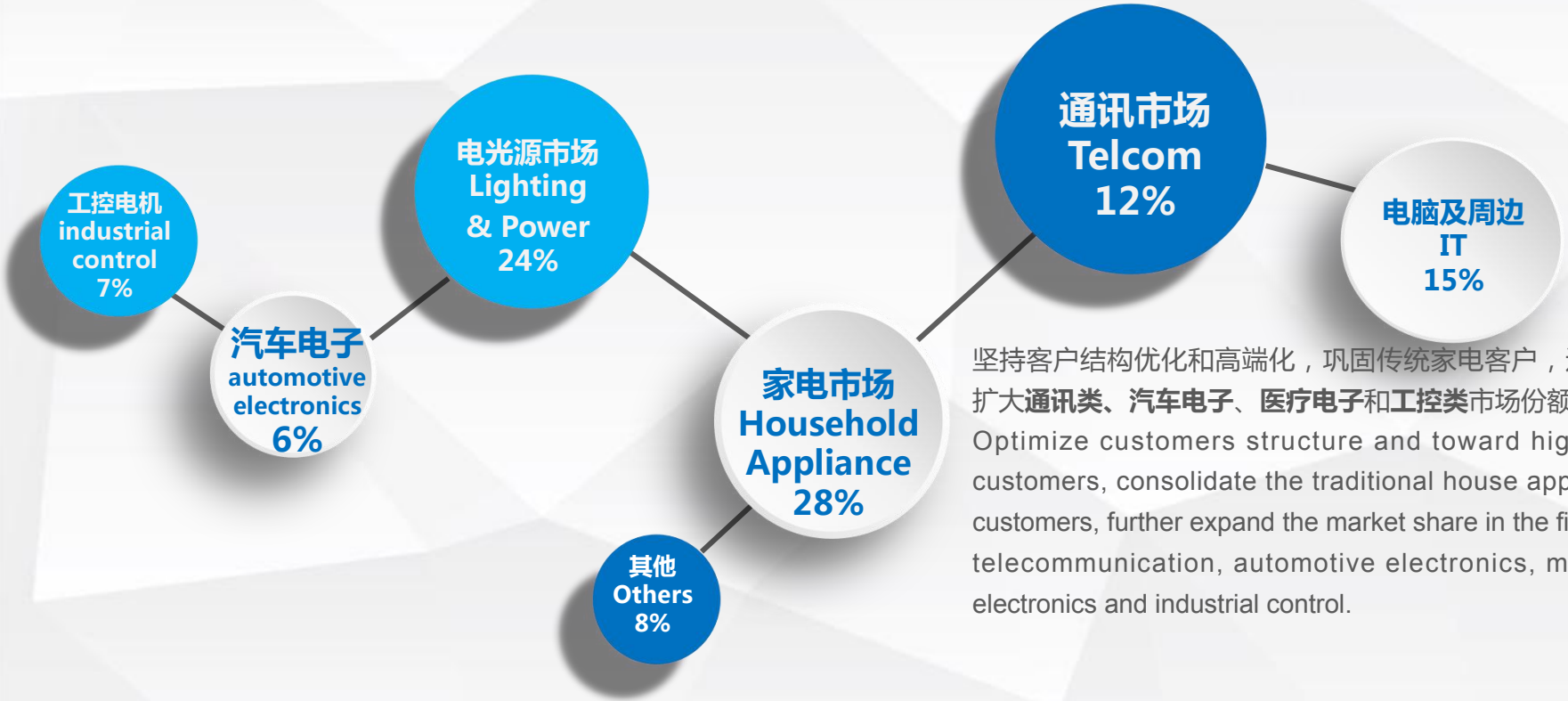
●国内最先进生产设备
Advanced production equipments
●全长60米无间断全自动生产线
Full length 60 meters uninterrupted automatic production line

●在线防错和纠错控制。
Online error proofing and error correction control

认证体系 Certification

项目 Items	片容 MLCC	片阻 Resistor	电感器 Inductor	半导体 Semi-conductor	瓷介电容 Ceramic disc	压敏电阻 Varistor	热敏电阻 Thermistor	软磁铁氧体磁芯 Soft Magnetic	铝电解电容 Al E-cap
RoHS									
ISO9001									
ISO14001									
TS16949									
AEC-Q200									
UL									
VDE									
CQC									
CB									
REACH									

市场分布



坚持客户结构优化和高端化，巩固传统家电客户，进一步扩大**通讯类、汽车电子**、**医疗电子**和**工控类**市场份额。

Optimize customers structure and toward high-end customers, consolidate the traditional house appliance customers, further expand the market share in the field of telecommunication, automotive electronics, medical electronics and industrial control.

营业收入Sales Revenue

2014：22.48亿元
（2.248 Billion ）

2015 ：19.40亿元
（1.940 Billion ）

2016：27.80亿元
（2.780 Billion ）

2017：35.00亿元
（3.500 Billion ）

2018：49.53亿元
（4.953 Billion ）

营销网络 Sales Networks

广东风华高新科技股份有限公司苏州分公司
Suzhou branch

电话：+86-512-68252369
传真：+86-512-68252059
地址：苏州新区狮山路88号金河国际中心17楼1708室
Room 1708,Jinhe International Center，No.88
Shishan road，Suzhou City ,Jiangsu Province, PRC.

青岛办事处
Qingdao office

电话：+86-532-85975431
传真：+86-532-85975431
地址：山东省青岛市市南区宁国一路30号1单元201室
Shinan District, Qingdao City, Shandong

西南办事处
Southwest office

电话：+86-028-62038136-806
传真：+86-028-62038126-809
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社会责任Social Responsibility

质量方针：科技创新、持续改进、符合要求、顾客满意

环保方针： 遵守法规、预防污染、节能降耗、持续改进、提高意识

EICC:已经通过EICC认证

Our quality policy: Technology innovation, continuous improvement, conformity to product requirement, customer satisfaction.

Our environment protection policy: obey the regulations, prevent pollution, reduce the consumption of energy and resource, improve continuously, enhance the consciousness of environment protection.

EICC: passed EICC certification.

企业理念Company Concept

诚信赢得发展Faith wins the development

创新引领未来Innovation leads the future

专注成就品质Focus achieves quality

卓越奉献价值First contributes to value

总体思路General idea

双轮驱动，外延、内延并举
Two wheels driven

实现公司净资产与营业收入双100亿元的目标
To achieve the target of net asset and sales revenue double RMB 10 billion.

市场为导向
研发为驱动
生产为支撑
Market oriented
R&D driven
Production as support

科技引领、资本助力
创新驱动、管理支撑
Science and technology leading Capital boost
Innovation driven
Management support

三大元件产品做强做大电子材料及设备做专做精，其他产品做实做优
Three kinds of major components to be stronger and larger, electronic materials and equipment to be professional and specialized, other products to be optimized.

THANKS

谢谢聆听