

APR ISSUE

WILLAS-ARRAY™

Willas-Array Electronics (Holdings) Limited  
威雅利電子(集團)有限公司



公司簡介  
COMPANY  
BROCHURE

2020



# Milestones 发展里程

## 2018-2020

进一步于福州、沈阳、锦州、西安、南京、武汉、杭州、合肥及成都增加当地支援服务点，提升集团在市面上的位置。

Established local service area in major cities in China: Fuzhou, Shenyang, Jinzhou, Xian, Nanjing, Wuhan, Hangzhou, Hefei and Chengdu.

## 2008-2010

集团投资国内物业，于深圳设立南中国区的总部，并于上海设立北中国区的总部，巩固授权代理商的领先地位。

Setup the headquarters offices of Southern and Northern China respectively in the company owned premises in Shenzhen and Shanghai. We become one of the top notch electronic components distributors within the region.

## 2002-2003

先后于上海及深圳成立分公司，并于外高桥设立保税仓，为客户提供更多增值服务。

Willas-Array established subsidiaries in Shanghai and Shenzhen. Also established a bonded warehouse in Waigaoqiao Free Trade Zone.

## 1993-2000

把业务拓展至中国主要城市，于深圳，上海及北京设立办事处，正式重组架构为威雅利电子(集团)有限公司。

The sales network was extended to Shenzhen, Shanghai and Beijing, and restructure group to Willas-Array Electronics (Holdings) Limited.

## 1990

成立雅利电子(中国)有限公司开拓中国内地市场。

Established Array Electronics (China) Limited for China market development.

## 2013

香港交易所主板成功上市(股份代号: 854)。

Listed on the Main Board of the Stock Exchange of Hong Kong (SEHK: 854).

## 2005

业务迅速发展至整个大中华区，成立台湾办事处。

Business expanded rapidly in the Greater China Area and established the Taiwan Office.

## 2001

新加坡交易所主板成功上市(股份代号: BDR)，同时成立首支香港及国内的应用设计团队，全力加强客户在市面上的竞争力。

Listed on the Main Board of the Singapore Exchange (SGX: BDR). Willas-Array built the Technical Division in Hong Kong and China.

## 1992

威伦与雅利合并成立威雅利(集团)有限公司。

Merger of Willas and Array forming Willas-Array (Holdings) Limited.

## 1981-1982

创办威伦企业有限公司及雅利电子有限公司，代理国际知名电子元器件品牌。

Established Willas Company Limited and Array Electronics Limited, distributing reputable brands of electronic components.

# Business Structure 业务架构

## WILLAS-ARRAY™

Willas-Array Electronics (Holdings) Limited  
威雅利电子(集团)有限公司

### Greater China 大中华





## 业务扩展 掌握先机 Business Expansion to Asia-Pacific Region

威雅利电子(集团)有限公司成立于1981年,39年来集团紧贴全球市场发展趋势,透过公司内部的一致团结,以及与合作伙伴的紧密合作,业务由香港迅速发展至整个大中华地区,并以这些地区为核心再将业务扩展至全亚洲,与世界各地多家享负盛名的供应商建立了紧密而长远的合作关系,在电子元器件经销领域屹立于领导地位。

Founded in 1981, Willas-Array Electronics (Holdings) Limited has developed as one of the industry leaders of electronic components distribution in Hong Kong. The Group has always been keeping up with the market needs and trends throughout the last 39 years. By further combining the factors of dedicated staff-force with the close cooperation with business partners, Willas-Array demonstrated an extensive and rapid growth from Hong Kong to the Greater China area. The Group further expanded its core to the Asia-Pacific region, and established long term partnerships with reputable world-wide suppliers.



## 内外并进 携手创新 Developing Insightful Design and Solution

集团对内部管理及外部发展均十分重视。除了提高员工效率及竞争力,并以创新、精益求精为共同目标,完善内部系统及工作流程,以提高各部门的效率,增强整体的竞争力,将服务更为优化,不但提供了多元化的电子元器件,同时开拓了最全面可靠的参考方案,以最佳的成本效益,满足客户、供应商和雇员的需求,成为供应商及客户信赖的伙伴。

因此,今年集团继续走在市场尖端,与合作伙伴及客户携手一同与时俱进,开拓创新的设计意念,提供高性价比的参考设计,将客户的需求迅速转换成产品,以强化客户在市场上的优势,共同实现企业及客户双赢的局面。

Willas-Array values internal enhancement as much as the external development. With the strong desire to strengthen the Group's creativity and productivity, Willas-Array is constantly improving the internal operation procedures, resulting in enhanced and extensive competitiveness and performance. On top of the comprehensive range of electronic components that Willas-Array offers, the Group creates reference solutions with optimal cost in order to suffice the customers, suppliers and staff.

Willas-Array continues to lead the market in the year of 2020. By developing insightful strategies with partners and customers, we converts customer needs into turn-key products via value added design and reference solution. Willas-Array will together with the customers, strive stronger superiority in the market.



威雅利电子(集团)有限公司于2001年在新加坡交易所主板成功上市(SGX 股份代号: BDR),并于2013年在香港交易所主板上市(SEHK 股份代号: 854)。

Willas-Array Electronics (Holdings) Limited was listed on Main Board of the Singapore Exchange (SGX stock code: BDR) in 2001, then further listed on Main Board of the Stock Exchange of Hong Kong (stock code: 854) in year 2013.



## 供应商 Manufacturers

威雅利电子(集团)有限公司十分重视和珍惜与供应商之合作关系，我们把供应商视作最亲密的伙伴，与部分遍布欧美日的国际知名供应商更是合作超过三十载的岁月。这密切的关系有助我们针对客户的不同成本及功能需求提供稳定、充裕及多元化的货源，灵活多变的选择帮助客户赢得市场份额，同时令集团在市场上的领导地位得以更加牢固。

Willas-Array Electronics (Holdings) Limited is well-positioned as a premier distributor for reasons including the strong bond and relationship with every valuable partner. With more than three decades of business partnership with some of the most reputable international principals, the close ties between Willas-Array and manufacturers ensure a reliable and comprehensive supply of world-class quality lines.

## 客户 Customers

威雅利电子(集团)有限公司的客户来自不同的行业，通过互相信赖、体谅和承诺，与客户建立了长远、稳固且可贵的伙伴关系，并得到他们的信赖。我们以客户的最佳利益为依托，同时这也是威雅利不断进步的动力，配合来自不同业界的客户，我们竭力研发，提供多元化产品及方案，满足他们所需，成为他们最佳的选择。

Willas-Array Electronics (Holdings) Limited serves a wide range of customers with focus of offering the best for customers' interest. Together with the trusts earned throughout the long term relationship with customers, Willas-Array develops and provides extensive solution and product portfolio for the best of her customers. The Group treats the success of customer as one of the key motivations for improvement.

## 放眼亚洲 The Asia Vision

发挥集团在大中华地区的稳固基础和销售网路的优势，以庞大的规模和专业的服务，发掘与亚洲区各地的合作机会，立志成为亚太区首屈一指的电子元器件经销商之一。

Leveraging on the solid core in the Greater China Area, Willas-Array continues to expand its blueprint in Asia Pacific, and become one of the top notch electronic components distributor within the region.



## 优化服务 Service Optimization

积极的力求创新及服务优化，透过上下一心的团队来提升公司价值，成为更多供应商与客户最值得信赖和合作的伙伴。

Actively look for improvement and optimization, and in parallel enhancing the Group value from top to bottom. As a result, Willas-Array becomes one of the most trusted and reliable partners of manufacturers and customers.

## 增强效率 Efficiency Advancement

内部系统及流程虽然已经成熟，但我们仍不断追求更卓越的竞争力，提高各部门效率，将人力及资源最优化，于短期内完成研发并满足不同客户的技术要求，巩固及提升集团在市场中的位置，从而拓展销售及市场业务。

To optimize all resources with constantly-improving logistics. Willas-Array strives to strengthen competitiveness and performance by advancing the efficiency inside out, leading to solidified positioning in market with an upside to further expand.

## 推动未来 Insightful Ideas

强大的技术部门始终与客户站在一起，从客户的角度出发，针对他们的成本及功能需求，致力将崭新的开发理念融入高增值的市场需求和预算当中，提高系统设计能效，为客户推动具成本效益的设计方案。

The highly skilled technical division bases on the needs of customer, integrates insightful ideas into optimal value-added execution. Bringing customers with high performance solutions alongside with better cost efficiency.

## 抱负 Our Vision

创新潜能拓展未来·瞻望中华掌握先机  
Convert Tomorrow's Innovation into Today's Opportunity

### 信赖伙伴 Trust

致力为供应商及客户建立信赖及承诺，搜罗更丰富的尖端产品供应，发掘更新更灵活的参考方案，共同面对市场上的种种挑战。

Building trust with manufacturers and customers by constantly sourcing and providing wider range of top notch innovative product and solutions. Such practice improves the agility of Willas-Array and partner to strive for more advanced position in the dynamic market.

### 以人为本 Human Orientation

集团拥有高素质及经验丰富的员工，既珍惜这些难能可贵人才，也鼓励前线员工坦诚开放和创新意念，在不断学习的过程中快速地成长和进步。

Always treasure the highly skilled and experienced staff as one of the most important assets. The Group encourages openness and creative thinking, promote rapid development in constant learning environment.

### 创造机会 Opportunities

视员工和客户为我们的内部和外部不可或缺的重要伙伴，除了主动预期及满足他们各项多变的需求外，并为他们提供全方位的资讯服务，给予优势、弹性和成功机会。

Willas-Array values employees as much as the customers. The Group continuously strive to fulfill their best interests by anticipating their wide range of needs and providing them with well-rounded information, flexibility and opportunities.

### 坚守承诺 Integrity

坚守对顾客、合作伙伴及员工的承诺，以开放和忠诚的态度作为经营之道。力求创新的同时，并重视优良的品质保证，不论是产品或参考方案，都为客户提供高于期望的优质产品，建立良好的品质及服务信誉。

Willas-Array stands firm on all commitments to customers, business partners and employees. With strong believe in credible, open and honest relationship, the Group respects the importance to both creativity and quality, always strive to provide better than what customer anticipated. Willas-Array believes this is the true way to develop long-term reputation in the market.

## 多元化的代理产品 Wide Range of Products

现今电子产业的发展日新月异，标准要求也越来越高，而每位客户对于技术要求也不尽相同。集团提供多元化的产品线，满足各行各业所需，包括汽车电子、信息娱乐、物联网应用、电机驱动、开关电源及智能照明等等应有尽有。发掘高性价比的参考设计，让客户拥有灵活多变的选择，以强大的适应性配合市场，率先占领行业先机。

The Group offers a massive range of product to facilitate customers to deal with nowadays dynamic business environment. That includes: Automotive, Infotainment, Internet of Things, Motor Control, SMPS and Smart LED etc. The product portfolio provides good base for high value design and solution for customer to be agile enough to meet with their business needs.



## 专业的参考方案 Reference Solutions

作为行业的领导者，除了密切留意市场最新动向，为不同的客户提供高端的电子元器件之外，集团高素质工程师队伍一直努力不懈地开拓崭新的参考方案，提升产品应用技术，力求在短期内完成研发并满足不同客户的技术要求，缩短客户研发周期，大大加快推出市场的时间，强化客户在市场的竞争力。

As one of the industry leaders, Willas-Array does more than just distribute electronic components. The Group assists customers to sustain their competitive advantages by offering reference solutions, and integrating concept into application in short period of lead time. The swift solutions help customer to save previous time on development stage, and accelerate their go-to-market plan in the most agile and flexible fashion.

## 卓越的增值服务 Value-Added Services

我们深信优质服务至为重要，并竭力为客户提供增值服务。为进一步提升集团的营运效率，利用企业管理整合系统 SAP，再配合资讯科技部门不断改良，提升供应链管理、存货、销售和风险管理运作；加上专业后勤及物流人员的配合，确保我们在现今激烈竞争的环境下，集团仍能一贯地为客户提供快捷准时的送货服务。

At Willas-Array, we believe service excellence is of utmost importance. We strive to deliver premium value-added services to customers. To further enhance the Group's operational efficiency, we have adopted a set of well-known ERP system – SAP. By refining the SAP to better suit our business environment, Willas-Array implemented a premium platform of Supply Chain Management, Inventory Management, and Sales & Operation Management. Together with professional logistics staff as the driver of the system, the Group ensures quick turnaround and swift delivery for the customers.







## ABLIC Inc.

天线诊断 ICs、复合 ICs、便利型定时器、EDLC 保护 ICs、车载用电池保护 ICs、磁性传感器 IC(霍尔 IC) CMOS 运算放大器、实时时钟、串行 EEPROMs(SPI, I2C, Microwire)、电压检测器(Reset ICs)、电压稳压器(LDO)、看门狗定时器

Antenna Diagnosis ICs, Composite ICs, Convenience Timer, EDLC Protection ICs, Li-ion Battery Protection ICs, Magnetic Sensor ICs (Hall Effect ICs), Operational Amplifiers, Real-Time Clock ICs, Serial EEPROMs (SPI, I2C, Microwire), Voltage Detectors (Reset ICs), Voltage Regulators (LDO), Watchdog Timer



## Allystar Technology Ltd.

单晶片 GNSS 解决方案  
SOC GNSS Solution



## Asahi Kasei Microdevices Corporation

模拟编码器芯片、音频数据转换器、音频数位信号处理器、自动对焦及光学影像驱动器、电流传感器、电子指南针(罗盘)、霍尔 IC / 霍尔元件、红外线感应器

Analog Encoder Chip, Audio Data Converter, Audio DSP, Auto Focus and OIS Driver, Current Sensor, E-Compass, Hall IC & Hall Element, Infrared Sensors



## ARM Ltd.

提供全球网络设备连接、安全连接及云服务  
Provides global connectivity for network device, security and the cloud service



## BELDEN Incorporation

提供高附加值的定制化产品和服务，尤其应用汽车及工业机械人的电缆  
Provides high value-added customized products and services, especially professional cables for automotive and industrial robots.



## Shanghai BroadMobi Communication Technology Co Ltd.

产品方案技术覆盖了 5G、LTE、NB-IoT 以及 WiFi，使用的平台方案包括 Qualcomm, Marvell 等，产品类型包括 LTE 无线通讯模组，NB-IoT 无线通讯模组，WiFi 通讯模组等，为客户提供整体解决设计方案  
Professional products include 5G, LTE, NB-IoT, WiFi, Qualcomm and Marvell platform solution. Product categories include LTE wireless communication module, NB-IoT wireless communication module, WiFi communication module and tailor made total solution.



## Dexerials

导方向性电胶膜、防反光膜、光学伸缩性合成树脂  
Anisotropic Conductive Film (ACF), AR-Film, Optical Elasticity Resin (SVR)



## eSOL Co Ltd.

实时操作系统、应用中间件、汽车软件、工厂自动化 / 机器人、工程服务、专业和咨询服务  
Real-Time Operating Systems, Application Middleware, Automotive Software, Factory Automation / Robotic, Engineering Services, Professional Services & Consulting



## Fibocom Wireless Inc.

产品全面涵盖 5G、LTE、SoC、NB-IoT/eMTC、HSPA+ 及 GSM/GPRS 无线通信模组，为电子消费类终端、POS、电力、表计、安防、家电、汽车等行业客户提供更完善的 IoT 物联网和 IoV 车联网解决方案  
The main product lines include 5G, LTE, SoC, NB-IoT/eMTC, HSPA+ and GSM/GPRS wireless modules. Empowering customers from industries of consumer electronics, wireless payment, metering, security surveillance and connected cars



## GPI International Ltd.

一次性电池：碱性、碳性、9V 电池；(CR、SR 及 LR 钮型电池) 充电电池：镍氢、锂离子、18650 充电电池  
Primary Battery: Alkaline, Carbon Zinc, Lithium 9V Battery ; (CR, SR & LR Coin Battery)  
Rechargeable Battery: NiMH, Li-ion, 18650 Rechargeable Battery



## HTC

电压调节器、稳压器(LDO / VLDO / ULDO)、直流 - 直流转换器、DDR 端子稳压、运算放大器 / 比较器、转换器 / 控制器、USB 电源分流开关  
Voltage Reference, Linear Regulators (LDO / VLDO / ULDO), DC-DC Converters, DDR Termination Regulators, OP Amps & Comparators, Converter & Controllers, USB Power Distribution Switches

# Brands of Components 元器件品牌



## Iriso Electronics Co Ltd.

板对板连接器、软板连接器、柔性扁平排线连接器、汽车电源介面  
B to B Connector, FPC, FFC, Automotive Interface



## Isahaya Electronics Corporation

DC-DC 直流变压器、IGBT 驱动器、多功能晶体管、小讯号电晶体管、小讯号 MOSFET  
DC-DC Converter, IGBT Driver, Multi Function Transistors (MFT), Small Signal Transistor, Small Signal MOSFET



## Micro Commercial Components Corporation (Taiwan)

二极管、晶体管、稳压器、MOSFETS、保护设备  
Diodes, Transistors, Voltage Regulators, MOSFETS, Protection Devices



## Microchip

8 位/16 位/32 位 PIC 微处理器、放大器与线性器件、数据转换器、介面电路产品、LED 驱动器、存储器、触控和输入检测、安全/安防、温度管理、无线  
8bit/16bit/32bit PIC Microcontrollers, Amplifiers and Linear, Data Converters, Interface Circuit Products, LED Driver, Memory, Touch and Input Detection, Security, Temperature Management, Wireless



## Murata Manufacturing Co Ltd.

电容器、电感器、降噪元件/EMI 降噪滤波器、电阻器、时钟元件、声象机器及通信设备用滤波器、射频元件/模块、传感器、热敏电阻、电源、声音元件、微型机电产品。陶瓷应用产品、负离子产生器、臭氧产生器、硬币型二氧化锰锂电池  
Capacitors, Inductors (Coils), Noise Suppression Products/EMI Suppression Filters, Resistors, Timing Devices, Filters for Audio Visual & Communication Equipment, RF Components/Modules, Sensors, Thermistors, Power Supplies, Sound Components, Micromechatronics, Ceramic Applied Products, Ionissimo®, Ozone Generator, Coin Manganese Dioxide Lithium Batteries.



## Nippon Chemi-Con Corporation

铝电解电容器、导电性高分子回体铝电解电容器、导电性高分子混合型铝电解电容器、超级电容器、薄膜电容器、陶瓷压敏电阻器、纳米结晶合金/非晶/压粉扼流线圈  
Aluminum Electrolytic Capacitors, Conductive Polymer Aluminum Solid Capacitors, Conductive Polymer Hybrid Aluminum Electrolytic Capacitors, Electric Double Layer Capacitors, Film Capacitors, Metal Oxide Varistors, Nanocrystalline/Amorphous/Dust Choke Coils



New Japan Radio Co., Ltd.

## New Japan Radio Co Ltd.

运算放大器及比较器、音频及视频 IC、电源 IC、电动机 IC、通讯 IC、GaAs 开关及放大器、LED 驱动器、LCD 驱动器、晶体振荡器 IC、光电半导体、脉搏及血氧反射式光电传感器、MEMS 麦克风放大器及传感器  
Operational Amplifiers & Comparators, Audio & Video IC, Power IC, Motor IC, Communication IC, GaAs Switches & LNA, LED Drivers, LCD Drivers, Quartz Crystal Oscillator IC, Optoelectronic Devices, Reflective Type Optical Sensor for Pulse Oximeter and Heart Beat Monitors, MEMS Microphone Amplifier and Transducer



## Oike & Co Ltd.

功能性转印膜 (金属转印膜及功能性转印膜)、金属箔粉 (金属加饰膜及金属 Leaf Powder)  
Metallic Molding Film (Step Film), Metallic Powder (LG Neo & Leaf Powder)



## Rectron Ltd.

桥式整流器、高效率二极管、肖特基二极管、整流二极管  
Bridge Rectifier, High Efficiency Rectifier, Schottky Barrier Rectifier, Silicon Rectifier



## Sanken Electric Co Ltd.

汽车驱动及电源 IC、IGBT、智能功率模块、马达控制 IC、功率快恢二极管、电源管理 IC、功率晶体管、碳化矽 (SiC) 肖特基二极管、TVS 二极管  
Automotive Driver ICs, IGBTs, IPMs, Motor Control ICs, Power FRD, Power Management ICs, Power Transistors, SiC Schottky Diodes, TVS Diode



## SCHOTT Japan Corporation

汽车、压缩机密封端子、频率控制、大型密封馈通件、光通信、特殊玻璃和温度保险丝  
Automotive, Compressor Seals, Frequency Control, Large-Scale Feedthroughs, Opto-Electronics, Specialty Glass, Thermal Cutoffs



### SMK Corporation

车载电子、连接器、插头插座、手机配件、遥控器、端子、触控面板、开关  
Automotive Electronics, Connectors, Jacks, Telecom, Remote Controls, Terminals, Touch Panels, Switches



### Sony Corporation of Hong Kong Ltd.

CMOS 图像感应器  
CMOS Sensor



### STMicroelectronics

交流 - 直流转换器、直流 - 直流转换器、AM/FM 调谐 IC、音频功率放大器、音效处理器、双极电晶体、汽车音响和汽车专用 IC、低功耗蓝牙(BLE) 晶片、CD 伺服器、电子抹除式可复写唯读记忆体、静电保护器、卫星定位导航处理器、家用音响、绝缘栅双极电晶体、智慧功率模组、照明控制 IC (电子镇流器、节能灯、LED)、微机电系统传感器、微机电麦克风、微处理器及嵌入式微处理器、金属半场效晶体管、马达控制 IC 和 IGBT / 驱动器、近场通信 / 射频识别、运算放大器、汽车等级 32 位微处理器、整流器、传感器、碳化矽 (SiC) 场效应晶体管、双向可控矽、高侧功率驱动晶片、稳压器、无线充电 SoC  
AC-DC, DC-DC, AM/FM Tuner IC, Audio Power Amplifier, Audio Processor, Bipolar, Car Audio and Automotive ICs, Bluetooth (BLE) IC, CD Servo IC, EEPROM, ESD Protection, GPS Processor, Home Audio, IGBT, IPM, Lighting ICs (Ballast, CFL, LED), MEMS, MEMS Microphone, Microcontrollers and Embedded Microprocessors, MOSFET, Motor Control IC and IGBT/Driver, NFC/RFID Operational Amplifier, Power PC MCU, Rectifier, Sensors, Silicon Carbide (SiC) MOSFET, Triac VIPOWER, Voltage Regulator, Wireless Charging SoC



### Stanley

LED 器件、光敏晶体管、红外发光二极管、反射传感器、液晶显示模组  
LED Device, Photo Transistor, IRED, Reflector Sensor, LCD Module



### Susumu Co Ltd.

薄膜片式高精度电阻器、电流检测用片式低电阻器、功率电感、高频衰减器  
Thinfilm Surface Mount High Precision Resistor, Current Sensing Surface Mount Resistors, Power Choke Coils, High Frequency Surface Mount Components



### Tamura Corporation of China Ltd.

电流传感器、IGBT/SiC/MOSFET 驱动器模组、电源模块  
Current Sensor, IGBT/SiC/MOSFET Driver Module, Power Supply Module



### TOMOHO Technology Ltd.

警报器、探测器、温湿度传感器、传感器  
Alarm, Detector, Temperature and Humidity Sensors, Sensor



### Torex Semiconductor Ltd.

电池充电 IC、电荷泵、DC/DC 转换器、二极管、负载开关、MOSFETs、振荡器 IC、PLL 时钟产生器、温度传感器、电压检测器、电压调整器  
Battery Charge IC, Charge Pump, DC/DC Converters, Diodes, Load Switches, MOSFETs, Oscillator IC, PLL Clock Generator, Temperature Sensor, Voltage Detectors, Voltage Regulators



### Vishay Intertechnology Inc.

铝电解电容、桥式整流器、安规电容、强电流功率电容、薄膜电容、红外发射 / 接收、极高压电阻、MicroBUCK 稳压器、MLCC、MOSFETs、光传感器、光耦、功率 IC、电源模组、Power Matel Strip 电阻、肖特基二极管、钽电容、薄膜 / 厚膜电阻、热敏电阻、功率电感器、TVS 二极管、快恢复二极管  
Aluminum Capacitor, Bridge Rectifier, Ceramic Safety Capacitor, ESTA, Film Capacitor, IR Emitter / Receiver, MCB, MicroBUCK Regulator, MLCC, MOSFETs, Optical Sensor, Opto Coupler, Power IC, Power Modules, Power Matel Strip Resistor, Schottley Diode, Tantalum Capacitor, Thin/Thick Resistor, Thermistor, Inductor, TVS Diode, Ultrafast Recovery Diode



### Xian CRRC Yonge Electric Co Ltd.

高压 IGBT 模组、高压晶闸管和整流器等电力半导体器件、逆变电源、变流装置、电力电子控制装置、电传动系统集成  
IGBT Module, IPM, High Voltage Thyristor and Rectifier, Rectifier Power Supply, Inverter, Power Electronic Control Equipment and Electric Transmission System



## 汽车电子 / 信息娱乐方案 Automotive / Infotainment Solution

### BMS 系统 BMS System

#### 方案特色 Features:

- E9963/L9963高精度AFE 提供精准电芯电压采集  
E9963/L9963 high precision AFE provides precise cell voltage
- SPC58高性能MCU 提供强大运算能力  
SPC58 high performance MCU provides powerful computing power
- VIPower 智能MOS 提供可靠负载驱动能力  
VIPower intelligent MOS provides reliable load driving capability



#### 应用范围 Target Applications:

- 新能源汽车 EV-CAR

### 车门域控制系统 Door Zone Control

#### 方案特色 Features:

- 高集成度，包括开关和控制单元都布置在车门内部，车门之间通过总线进行通信，有效降低产品的总体成本。  
Highly integrated and cost reductions in electronic components
- 集成 Fail safe 模式以及热保护功能  
Integrated fail safe mode. Thermal shutdown protection
- 集成可编程 soft-start 功能，有效的限制了冲击电流对负载的影响  
Programmable soft-start function to drive loads with higher inrush currents as current
- 自动恢复功能 与VBAT强制 standby 功能，使产品更加智能  
Forced VBAT standby and auto recovery



#### 应用范围 Target Applications:

- 乘用车 Passenger vehicle

### 新能源矢量冷凝风扇 FOC Cooling Fan for New EV

#### 方案特色 Features:

- 高性能SPC560P系列MCU  
High-performance MCU SPC560P series
- 智慧型具有故障诊断系统的半桥驱动L9907/8  
Intelligent half-bridge driver L9907/8 with full diagnostic
- 低损耗的MOSFET  
MOSFET with very low Rds-on



#### 应用范围 Target Applications:

- 新能源车动力电池散热  
E-car power battery heat dissipation
- 驱动电机电控散热  
E-car motor driver heat dissipation
- 汽车空调系统散热  
Automotive air conditioning system

### 无刷变频水泵 BLDC Water Pump

#### 方案特色 Features:

- 8位车规级MCU，成本低  
8-bit MCU with low cost
- 具有BEMF检测和硬件保护功能的半桥驱动L99ASC03  
The half-bridge driver L99ASC03 with BEMF detection and hardware protection
- 体积小，低损耗MOSFET  
The MOSFET with small size and low Rds-on



#### 应用范围 Target Applications:

- 车用小型直流无刷风扇，水泵，油泵控制  
For automotive application, such as small BLDC fan, water pump and oil pump

### CMOS 镜头 CMOS Sensor Camera

#### 方案特色 Features:

- ISX019
- 120万像素，1/4"，2.9um，背照式，单芯片  
1.2M, 1/4", 2.9um, BI, SoC
- 高动态范围120dB (30fps @ DOL 3F)  
High dynamic range 120dB (30fps@DOL 3F)
- 出色的低感光度  
Excellent low light sensitivity
- 超级对比度/分辨率提高可见度  
Super contrast/resolution improve visibility
- 低功耗250mw (Typ)  
Low power consumption 250mw(Typ)
- 符合AEC-Q100 2级标准  
Qualification AEC-Q100 grade2



#### 应用范围 Target Applications:

- 360环视 360 surround view
- 流媒体后视镜 Streaming rearview mirror
- 盲点监视 Blind spot surveillance
- 车内监视 Interior surveillance
- 行车记录仪 Driving recorder

### 数字收音机 + 音效 + 功放 Digital Car Tuner + DSP + AMP

#### 方案特色 Features:

- AK7765 是一款高性能、低成本的DSP，适用于带Radio、音频处理包括ADC和DAC的汽车娱乐系统应用。  
AK7765 is a high-performance, low-cost DSP for automotive infotainment system applications with Radio, audio processing including ADCs and DACs.



#### 应用范围 Target Applications:

- 汽车导航系统 Car navigation systems
- 汽车音响 Car audio
- 汽车相关的音频系统 Car-related audio systems



## 物联网应用方案 Internet of Things Solution

### ZigBee / BLE 模组 (STM32WB) ZigBee / BLE Module (STM32WB)

#### 方案特色 Features:

基于STM32WB的ZigBee & BLE 多模无线通讯模块  
ZigBee & BLE Multiprotocol wireless module based on STM32WB

- 支援蓝牙 BLE 5.0 MESH 无线通讯协议  
Support Bluetooth 5.0 MESH protocol
- 支援 ZigBee 3.0 无线通讯协议  
Support ZigBee 3.0 protocol
- 支持 MAC 802.15.4 无线通讯协议  
Support MAC 802.15.4 protocol



#### 应用范围 Target Applications:

- 智能家居 Smart home
- 工业智能网 Industrial networking
- 电子门锁 Electronic door lock

### BLE 模组 (BlueNRG) BLE Module (BlueNRG)

#### 方案特色 Features:

- 内置 ST BlueNRG-1/2 BLE 单芯片  
Embedded with ST BlueNRG-1/2 BLE SoC
- 符合蓝牙 V4.2/V5.0 低功耗规范  
Fully Qualified Bluetooth Smart V4.2/V5.0 specification
- Cortex M0 MCU 内核带 160kB/256kB 闪存 · 24kB RAM  
Cortex M0 MCU core with 160kB/256kB flash memory, 24k RAM
- 支持 2 主 3 从连接  
Support up to 2 masters and 3 slaves connections
- 适合使用纽扣型电池的 2.0V – 3.6V 工作电压  
Coin battery friendly 2.0V – 3.6V operation
- 低功耗  
Low power consumption
- 内置 PCB 天线  
Build-in PCB antenna



#### 应用范围 Target Applications:

- 低功耗物联网产品 Low power consumption IoT device
- 医疗保健监控 Healthcare monitoring
- 体育和健身器材 Sports and fitness equipment



### 蓝牙断路器 Bluetooth Circuit

#### 方案特色 Features:

- BlueNRG-LP 蓝牙® 5.0 低功耗无线系统芯片  
BlueNRG-LP Bluetooth® 5.0 low energy wireless system-on-chip
- VIPER16LD 低功耗开关电源解决方案  
VIPER16LD low-power switching power supply solution
- STM8S003xx 系列 MCU 提供高性能和降低系统成本  
STM8S003xx series MCU provides high performance and reduced system cost



#### 应用范围 Target Applications:

- 电表 Electric meter

### 4G 模组 4G Module

基于广和通的 4G 无线模块实现 ARM Pelion 部署  
Deploy the ARM Pelion cloud based on Fibocom's 4G wireless Module

### NB-IoT 模组 NB-IoT Module

基于广和通的 NB-IoT 无线模块实现 ARM Pelion 部署  
Deploy the ARM Pelion iCloud based on Fibocom's NB-IoT wireless Module

#### 方案特色 Features:

- 透过广和通的 4G 模块 (NL668-CN) 通过 ARM Pelion 物联网平台可以帮助企业用户在日趋复杂的碎片化场景下实现混合环境下的端到端物联网连接、设备和数据管理，并能使用户专注于业务逻辑和产品开发  
Through Fibocom's 4G LTE Module and ARM Pelion IoT platform, enterprise users can realize end-to-end Internet of things connection, device and data management in a mixed environment in the increasingly complex fragmentation scenario, and focus on business logic and product development
- Pelion 可以帮助您轻松地 从设备获取资料而不需要牺牲安全性。Pelion Connectivity Management 允许通过单一的全球移动合同，在多个网路标准上实现物联网设备在全球任何地方完成部署  
Pelion helps you to get from device to data easily without compromising on security. Pelion Connectivity Management allows IoT devices to be deployed anywhere in the world over multiple network standards through a single global mobile contract



#### 应用范围 Target Applications:

- 智能家居 Smart home
- 固定资产管理 Fixed-assets management
- 工业 IoT Industry IoT Network



## 电机驱动方案 Motor Control Solution

### 无位置检测滚筒洗衣机 Sensorless Front Load Washing Machine

#### 方案特色 Features:

- 使用STM32F301K8最有性价比的CortexM4去驱动无传感的洗衣机，功率部分使用STM SLLIMM 2nd IPM STGIB8CH60TS-L  
Use the most cost-effective CortexM4 of the STM32F301K8 to drive the sensorless washing machine, the power stage use STM SLLIMM 2nd IPM STGIB8CH60TS-L



#### 应用范围 Target Applications:

- 无位置检测滚筒洗衣机 Washing machine
- 商用搅拌机 Blender
- 工业水泵 Industrial water pump

### IPM 电机驱动 IPM Motor Drive

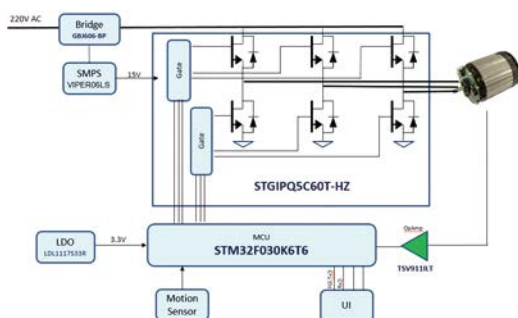
#### 方案特色 Features:

- 使用STM32F030K6和ST SLLIMM™ nano 2nd IPM，单电阻采样无霍尔传感FOC方案  
Using the STM32F030K6 and ST SLLIMM™ nano 2nd IPM, One shunt for current sensing without hall FOC Solution



#### 应用范围 Target Applications:

- 空调风机/空气净化器风机 Air conditioner fan/ Air cleaner
- 冰箱压缩机 Refrigerator compressor
- 洗碗机热水泵 Dish washer
- 风筒 Hair dryer



### 高速低压矢量电机驱动 High-Speed Low-Voltage FOC Motor Driver

#### 方案特色 Features:

- 基于STSPIN32F0的低压高速电机驱动，最大限度的节省外围元件和成本  
Based on STSPIN32F0, high speed and low voltage motor drive maximize the savings of peripheral components and cost



#### 应用范围 Target Applications:

- 洗碗机 Dishwasher
- 低压风扇 Low voltage fan
- 低压水泵 Low voltage water pump
- 电动工具 Power tools
- 工业过程电机控制 Industrial process motor
- 无线吸尘器 Wireless vacuum cleaner

### 高压集成控制电机驱动 High Voltage Integrated Control Motor Driver

#### 方案特色 Features:

- 基于STSPIN32F0601的高压高速电机驱动，最大限度的节省外围元件和成本  
Based on STSPIN32F0601, high speed and high voltage motor drive maximize the savings of peripheral components and cost



#### 应用范围 Target Applications:

- 空调风机/空气净化器风机 Air conditioner fan/ Air cleaner
- 冰箱压缩机 Refrigerator compressor
- 洗碗机热水泵 Dish washer
- 风筒 Hair dryer





## 电机开关电源 / 智能照明方案 SMPS/Smart LED Solution

### 智能电表电源 Smart Meter SMPS

#### 方案特色 Features:

- 以智能电表为基础构建的智能计量系统，能够支持智能电网对负荷管理、分散式电源接入、能源效率、电网调度、电力市场交易和减少排放等方面的要求，因此智能电表的应用越来越普遍，对智能电表所采用的电源的可靠性和性能的要求也越来越高，传统的工频变压器已经很难胜任这一任务，然而ST最新开发的1050V耐压的VIPER系列开关电源可以很好地胜任这个应用。

The intelligent metering system built on smart meters can fulfill the requirements of smart power grids for load management, distributed power access, energy efficiency, grid dispatching, electricity market transactions and emission reduction. Generally, the requirements for the reliability and performance of the power supply used by smart meters are becoming higher and higher. Traditional power frequency transformers have been difficult to perform this task. However, the latest 1050V VIPER series SMPS developed by ST can be well qualified for this application.



#### 应用范围 Target Applications:

- 单相 / 三相智能电表电源  
Power supply for 1 and 3-phase smart energy meters
- 三相工业电器系统辅助电源 3-phase industrial systems
- 宽电压大功率 Ultra-wide voltage range
- LED照明电源 High power LED lighting
- 空调系统电源 Air conditioning

### 数字电源 Digital Power

#### 方案特色 Features:

- 数字控制，内置固件，无需编程  
Digital control, Controller built-in firmware. No programming is required.
- PFC部分 PFC section:
  - 斜坡增强固定导通时间，带有高速和低速数字控制环路，双环控制，极佳的THD  
Ramp Enhanced Constant On Time with high speed digital loop and low speed digital loop, Double loop control, Perfect THD
  - 多模式操作 @ 中 / 重载，@ 轻负载，@ 特别轻负载  
Multi-mode operation @ medium / high loads, @ low load, @ very low load
- 半桥部分 Half bridge section:
  - LLC或LCC，电流模式，时间偏移控制，增强保护特性，可编程突发模式  
LLC or LCC, current-mode operation, Time-shift control, Advanced protections, Programmable Burst mode
- FTP (NVM) 存储器允许更改IC内部参数去满足不同的应用场合包括在生产过程中  
FTP (NVM) memory allows adapting the IC to different applications by programming several K-parameters during manufacturing



#### 应用范围 Target Applications:

- 智能照明控制 Intelligent lighting control

### 数字可编程调光器

### Digital Programmable Dimmer

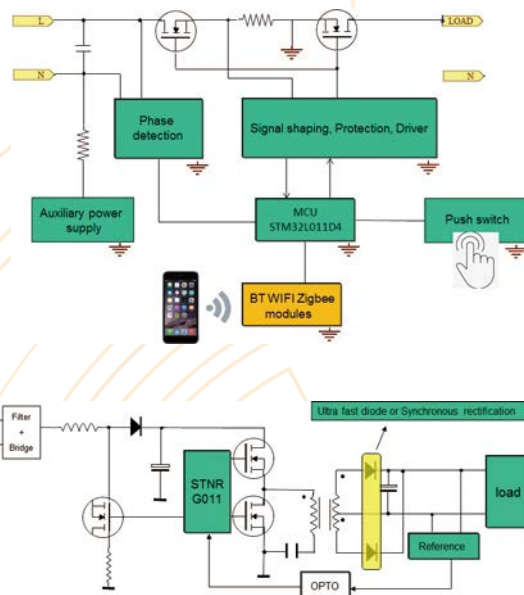
#### 方案特色 Features:

- MCU+MOSFET拓扑结构，相容R,L,C负载  
MCU+ MOSFET topology, Compatible with R, L, C loads
- 具备UART通信口，采用涂鸦智能的通信协议，相容BT WIFI Zigbee 模组，可采用App操控  
Programmable phase angle setting, Intelligent control of phase angle in start period, Soft start
- 具备PUSH开关远距离操控功能  
Push switch remote control function
- 全数位化，抗干扰能力强，具备各种保护  
Digital control, Strong anti-interference capability and protection



#### 应用范围 Target Applications:

- 高效率照明控制 High efficiency and energy saving lighting control
- 智能照明控制 Intelligent lighting control





## 电机开关电源 / 智能照明方案 SMPS/Smart LED Solution

### 多功能调光 LED 驱动 Multi-Function Dimming LED Driver

#### 方案特色 Features:

多功能 Multiply function:

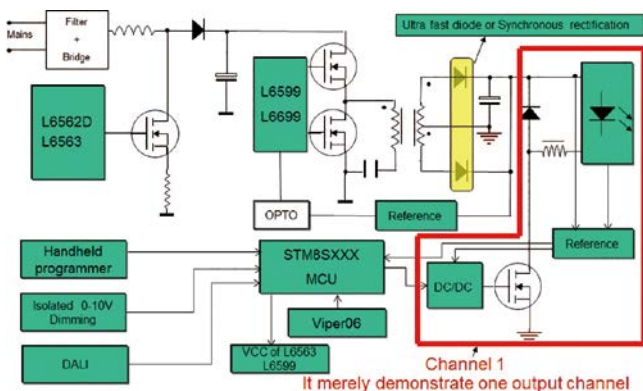
- 二通道输出  
Two-channel output
- 手持 程器调整输出参数  
Handheld programmer adjusts output parameters
- 内置多条调光曲线，可以对每个通道的调光曲线进行独立编程  
Built - in multiple dimming curves, Reprogrammable two independent dimming curve, one per channel.
- DALI · 0-10V 调光信号控制，记录工作时间  
DALI · 0-10V Dimming, Record working hours
- 可以设定过温保护曲线以及 NTC 曲线  
Setting over temperature protection curve and NTC curve
- 可以扩展 Wi-Fi BT RF Zigbee  
Wi-Fi BT RF Zigbee can be extended

性能 Performance:

- 符合 Class2 要求  
Meet Class2 specification
- 兼容有源/无源调光器，符合 ANSI E1.3 - 2001 (R2011) 0-10V 调光接口标准  
Support active and passive dimmer ANSI E1.3 - 2001 (R2011) 0 to 10 V analog control specification
- DALI2  
Meet DALI2
- CV 或者 CC 模式  
CV or CC mode
- 完善的保护，UL LISTED，CLASS P  
Perfect protection: UL LISTED, CLASS P

#### 应用范围 Target Applications:

- 智能照明控制 Intelligent lighting control



### 带 NFC 控制 LED 调光驱动 LED Dimming Driver w/NFC Interface

#### 方案特色 Features:

速度，灵活性

Speedy, Flexibility:

- 可以在任何时间场合通过 NFC 介面设定输出参数  
Setting output parameter through NFC interface at any stage
- 采用高速读写卡器读写，不需要复杂的机械  
Programing fixtures faster without complex mechanics

安全性

Security:

- 可以设置和保护专门的识别信息，也可以根据存储的信息方便地找到替换品  
Set and protect proprietary info. Find correct replacement driver

降低成本

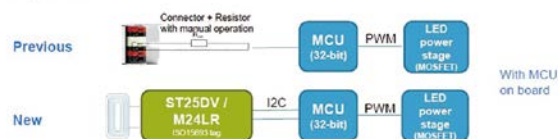
Reduced cost:

- 可以满足不同的客户快速，方便地调整产品的输出参数  
Meet a diverse set of customer Easily adjust devices

#### 应用范围 Target Applications:

- 智能照明控制 Intelligent lighting control

#### High-end segment



#### Low-end segment





## 香港 Hong Kong


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Gridlines 5017W-5020W and 5023W-5027W,  
5/F, ATL Logistics Centre B, Berth No. 3,  
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Kwai Chung, New Territories, Hong Kong

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## 南中国 Southern China

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当地支援服务地区 Local Service Area  
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## 北中国 Northern China

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