

To make Runic chips active in every corner of the electronic product world!



# NEW ENERGY APPLICATION PROGRAM



Official website



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To achieve carbon peaking and carbon neutrality goals



In Sept.2020, China announced at the United Nations General Assembly it aims to: peak carbon dioxide emissions before 2030 and achieve carbon neutrality before 2060, lower its carbon intensity by over 65 percent by 2030 from the 2005 level. As the "world's factory", China's industrial chain is improving day by day, and its domestic manufacturing and processing capabilities are increasing day by day. To achieve carbon peaking and carbon neutrality goals while economic growth and energy demand increase will pose a severe test to China's energy security.

Endeavors to peak carbon dioxide emissions and achieve carbon neutrality must be incorporated into the overall economic and social development framework. In this way, we aim to effect a comprehensive green transformation in respect of economic and social development, with a special focus on the development of green and low-carbon energy, with a view to expediting the development of industrial structures, production modes, living patterns, and spatial zones that will conserve resources and protect the environment.

## ENTERPRISE INTRODUCTION

Jiangsu Runic Technology Co., Ltd. is a high-tech semiconductor enterprise focusing on the research, development and sale of high-performance and high-quality analog / mixed signal integrated circuits. At present, it has completed the chip design and development of many categories.

Our main products included precision operational amplifiers, high-speed operational amplifiers, general operational amplifiers, low-noise operational amplifiers, micro power operational amplifiers, micro power comparators, analog switches, power management, data converters, level switch, voltage reference source etc., which are widely used in various fields, such as industrial control, medical equipment, security monitoring equipment, instruments, automotive electronics, smart home and consumer electronics etc.

Our headquarter is at Wuxi City, Jiangsu Province, rooted in China, serving the world. Relying on Wuxi's good integrated circuit industry environment, integrating upstream and downstream resources. Our company committed to R & D and design of IOT sensor, medical electronics, industrial electronics and consumer electronics, and has successfully launched hundreds of products.

Runic has set up sales and technical service centers in Shenzhen, and has resided related staff in Beijing, Shanghai, Tianjin, Guangzhou, Zhengzhou, Hangzhou, Korea and other places to provide all-round services nearby. Through several years of hard work, we have gradually formed a more mature domestic and overseas market sales system and a sound and perfect technical service system pre-sales, sales and after-sales, win many domestic and overseas industry benchmark enterprise customers. Meanwhile, we also have established a rapid response mechanism to understand customer needs, market prospects and industry trends at first time.

Runic technology always adheres "independent innovation, quality first, unity and cooperation, and customer achievement" as our core value. Continuously promotes analog / mixed signal chip products with stronger competitiveness and good market prospect, develops together with customers, creates mutual brilliance. To make Runic chips active in every corner of the electronic product world, and determined to become a world first-class analog chip company!

## By the Central Committee of the Communist Party of China (CPC)

《Working guidance for carbon dioxide peaking and carbon neutrality in full and faithful implementation of the new development philosophy》

**By 2025**, China will have created an initial framework for a green, low-carbon and circular economy and greatly improved the energy efficiency of key industries. Energy consumption per unit of GDP will be lowered by 13.5% from the 2020 level; carbon dioxide (CO<sub>2</sub>) emissions per unit of GDP will be lowered by 18% from the 2020 level; the share of non-fossil energy consumption will have reached around 20%; the forest coverage rate will have reached 24.1%, and the forest stock volume will have risen to 18 billion cubic meters. All the above will lay a solid foundation for carbon dioxide peaking and carbon neutrality.

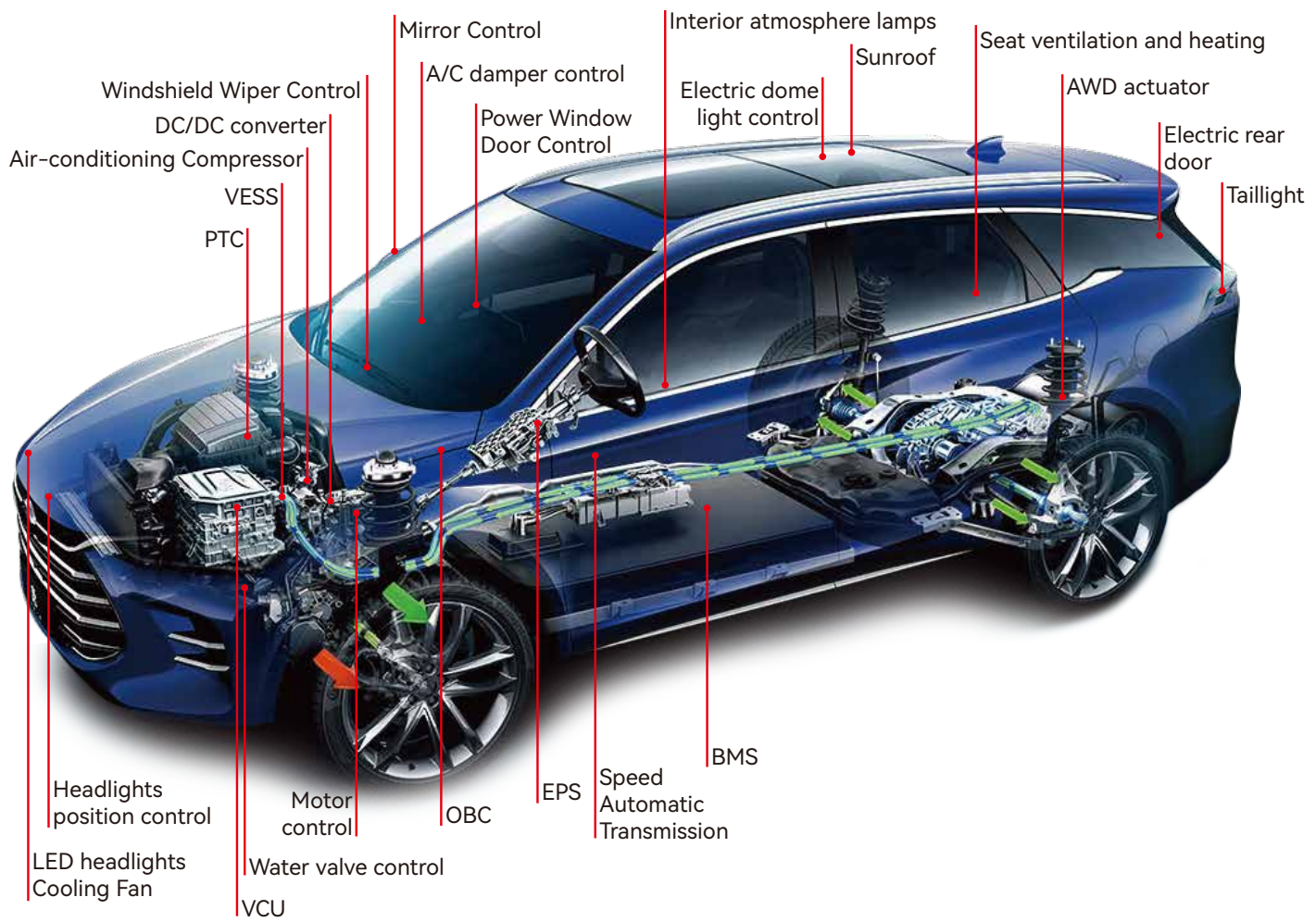
**By 2030**, China will see significant accomplishments from the comprehensive green transformation in economic and social development, with energy efficiency in key energy-consuming industries reaching advanced international levels. Energy consumption per unit of GDP will have declined significantly; CO<sub>2</sub> emissions per unit of GDP will have dropped by more than 65% compared with the 2005 level; the share of non-fossil energy consumption will have reached around 25%, with the total installed capacity of wind power and solar power reaching over 1200 gigawatts; the forest coverage rate will have reached about 25%, and the forest stock volume will have reached 19 billion cubic meters. CO<sub>2</sub> emissions will reach peak and stabilization and then decline.

**By 2060**, China will have fully established a green, low-carbon and circular economy and a clean, low-carbon, safe and efficient energy system. Energy efficiency will be at the advanced international level, and the share of non-fossil energy consumption will be over 80%. China will be carbon neutral, and it will have achieved fruitful results in ecological civilization and reached a new level of harmony between humanity and nature.

# — Chip Drives Future —



Jiangsu Runic Technology provides a series of high precision and high reliability products in power system, in-vehicle infotainment, instrument panel,body control electronics,car sensors etc fields.



Cabin Parts

Infotainment、Instrument cluster、Head unit & Amplifier、Digital Cockpit、T-BOX(V2X)



Intelligent cockpit

- ▶ High-precision LDO RS3236
- ▶ High Voltage LDO RS73xx-1 / RS3007
- ▶ Level Converter RS010X / RS2T45 / RS4T245
- ▶ Analog Switch RS2227 / RS2228
- ▶ Load Switch RS2588
- ▶ Low Noise Operational Amplifier RS62X

GPS Tracker

- ▶ Low-power comparators RS8901
- ▶ High Voltage LDO RS3221/RS3236
- ▶ High-precision Op-amp RS8511

Mobile wireless charging

- ▶ High Voltage LDO RS73xx-1
- ▶ General-purpose Op-amp LM358

Driving recorder

- ▶ High Voltage LDO RS3236
- ▶ High Voltage LDO RS73xx-1 / RS3007
- ▶ Level Converter RS010X / RS2T45 / RS4T245
- ▶ Analog Switch RS2227 / RS2228
- ▶ Load Switch RS2588
- ▶ Low Noise Operational Amplifier RS62X

Car Body Parts

BCM、Door & Window、Lighting、Seats、Steering wheel、Heating & cooling、Mirrors



HVAC Compressor

- ▶ Low Offset Voltage Operational Amplifier RS721P / RS722P / RS724P
- ▶ General-purpose Op-amp LM358
- ▶ High-precision Op-amp RS8551
- ▶ High Voltage general Op-amp RS8411P / RS8412
- ▶ High-speed Comparator RS393
- ▶ High Voltage Comparator LM2901 / LM2903
- ▶ Shunt Voltage Reference RS431 / RS432
- ▶ Small Logic RS4G125 / RS1G126

Door module

- ▶ Low Noise Operational Amplifier RS721 / RS722
- ▶ General-purpose Op-amp RS358A / LM358
- ▶ High Voltage general Op-amp RS8412 / RS8422
- ▶ High-speed Comparator RS331
- ▶ High Voltage Comparator LM2901 / LM2903

BCM

- ▶ Low Noise Operational Amplifier RS722
- ▶ General-purpose Op-amp RS321 / RS324 / RS358A RS6331 / RS6334 / LM358
- ▶ High Voltage general Op-amp RS841X / RS842X
- ▶ High-speed Comparator RS331
- ▶ High Voltage Comparator LM2901 / LM2903
- ▶ Shunt Voltage Reference RS31XX
- ▶ Analog Switcg RS2057 / RS225X
- ▶ Level Converter RS2T45 / RS0204 / RS0108
- ▶ Small Logic RS1G17 / RS1G125 / RS4G125 RS1G126 / RS1G07

Power Parts

VCU、OBC&DC-DC、BMS、Inverter & motor control、Gear Box、EPS



VCU

- ▶ Low offset Op-amp RS721P / RS722P / RS724P
- ▶ General-purpose Op-amp RS321 / RS358 / RS324 LM358
- ▶ High Voltage general Op-amp RS8412 / RS8414
- ▶ High Voltage Comparator LM393 / LM331 / LM2903
- ▶ Shunt Voltage Reference RS431 / RS432
- ▶ Level Converter RS2T45 / RS8T245
- ▶ Small Logic RS4G00 / RS1G08 / RS2G08 RS0108 / RS8T245

Motor Ctrol

- ▶ Low offset Op-amp RS721P / RS722P / RS724P
- ▶ General-purpose Op-amp RS321 / RS358 / RS324 LM358
- ▶ High Voltage general Op-amp RS8411 / RS8412 / RS8414
- ▶ High Voltage Comparator LM393 / LM331 / LM2903
- ▶ Shunt Voltage Reference RS431 / RS432
- ▶ Level Converter RS2T45 / RS8T245
- ▶ Small Logic RS4G00 / RS1G08 / RS2G08 RS4G08 / RS1G17 / RS1G125

Gear box

- ▶ Low offset Op-amp RS721P / RS722P / RS724P
- ▶ General-purpose Op-amp RS321 / RS358 / RS324 LM358
- ▶ High Voltage general Op-amp RS8411 / RS8412 / RS8414
- ▶ High-precision Op-amp RS8551
- ▶ High Voltage Comparator LM331 / LM2903
- ▶ Shunt Voltage Reference RS431 / RS432
- ▶ Small Logic RS4G00 / RS1G08 / RS2G08 RS4G08 / RS1G17 / RS1G125

BMS

- ▶ Low offset Op-amp RS721P / RS722P / RS724P
- ▶ General-purpose Op-amp RS321P / RS358 / LM358
- ▶ High Voltage general Op-amp RS8411 / RS8412 / RS8414
- ▶ High-precision Op-amp RS855X
- ▶ High-speed Comparator RS331 / RS393
- ▶ High Voltage Comparator LM331 / LM2901 / LM2903
- ▶ Shunt Voltage Reference RS431 / RS432
- ▶ Level Converter RS2T45 / RS0204 / RS0108
- ▶ Small Logic RS4G00 / RS1G08 / RS2G08 RS4G08 / RS1G17 / RS1G125

OBC

- ▶ Low offset Op-amp RS721P / RS722P / RS724P RS821P
- ▶ General-purpose Op-amp RS321 / RS358 / LM358
- ▶ High Voltage general Op-amp RS8411 / RS8412 / RS8414
- ▶ High-precision Op-amp RS855X
- ▶ High-speed Comparator RS331 / RS393
- ▶ High Voltage Comparator LM331 / LM2901 / LM2903
- ▶ Shunt Voltage Reference RS431 / RS432
- ▶ Analog Switcg RS2251 / RS2166 / RS2057

DC/DC converter

- ▶ Low offset Op-amp RS721P / RS722P / RS724P RS6331P
- ▶ General-purpose Op-amp RS321 / RS358 / LM358
- ▶ High Voltage general Op-amp RS8411 / RS8412 / RS8414
- ▶ High-precision Op-amp RS8551
- ▶ High-speed Op-amp RS8751 / RS8752
- ▶ High-speed Comparator RS331 / RS393
- ▶ High Voltage Comparator LM331 / LM2901 / LM2903
- ▶ Shunt Voltage Reference RS431 / RS432

EPS

- ▶ Low offset Op-amp RS721P / RS722P / RS724P
- ▶ General-purpose Op-amp RS321 / RS358 / LM358
- ▶ High Voltage general Op-amp RS8411 / RS8412 / RS8414
- ▶ High-precision Op-amp RS8551
- ▶ High-speed Comparator RS331 / RS393
- ▶ High Voltage Comparator LM331 / LM2901 / LM2903
- ▶ Analog Switcg RS2057
- ▶ Small Logic RS1G08 / RS2G08 / RS1G125

VESS

- ▶ Low offset Op-amp RS721P / RS722P / RS724P
- ▶ General-purpose Op-amp RS321 / RS358 / LM358
- ▶ High Voltage general Op-amp RS8411 / RS8412 / RS8414
- ▶ High-speed Comparator RS331
- ▶ High Voltage Comparator LM331 / LM2903
- ▶ Level Converter RS2T45 / RS0102 / RS0202



Application of Runic Products Energy Storage

In 2020,China commits ,to peak carbon dioxide emissions before 2030 and achieve carbon neutrality before 2060.Wind and Solar power will become the center of the China energy system.

Jiangsu Runic Technology’s low-offset voltage operational amplifiers, high-voltage general-purpose operational amplifiers, high-voltage comparators, level conversion, analog switches, voltage reference sources, small logic, reset and other series of chips are used in the field of new energy photovoltaics, energy storage, and outdoor power supplies.



- Busbar Voltage/Current/ Temperature monitoring

► High VoltageGeneral-purpose Op-amp  
RS845x / RS841x / RS845xP  
RS841xP
- Voltage Reference

► Shunt Voltage Reference  
RS431 / RS432
- Comparator Circuit/ Over Current Protection

► High Voltage Comparator  
LM2903 / LM2901
- DSP/FPGA Communication with the driver

► Level Converter  
RS010x / RS020x / RSxT245  
RSxT45
- DSP/FPGA Voltage Monitoring

► Voltage Detection and Reset  
RS706 / RS809
- Sequential & Shaping Circui

► Small Logic  
RS1G14 / RS6G14 / RS1G08  
RS4G08 / RS6G07 / RS244/5

Jiangsu Runic Technology’s low-offset voltage operational amplifiers, high-voltage general-purpose operational amplifiers, high-voltage comparators, level conversion, analog switches, voltage reference sources, small logic, reset and other series of chips are used in the field of rectifier of the wind power system .



- Wind Speed/Location/Temp/ Voltage Detection

► High VoltageGeneral-purpose Op-amp  
RS845x / RS842x
- Comparator Circuit/ Over Current Protection

► High Voltage Comparator  
LM2903 / LM2901
- Sequential & Shaping Circuit

► Shunt Voltage Reference  
RS431 / RS432
- DSP/FPGA Voltage Monitoring

► Voltage Detection and Reset  
RS706 / RS809
- DSP/FPGA Communication with the driver

► Level Converter  
RS010x / RS020x / RSxT245  
RSxT45
- Sequential & Shaping Circuit

► Small Logic  
RS1G14 / RS6G14 / RS1G08  
RS4G08 / RS6G07 / RS244/5

Energy storage has been viewed as a key component of the new energy revolution, Jiangsu Runic Technology's precision operational amplifier, high voltage genral-purpose operational amplifier, high voltage comparators, level converter, voltage reference, LDO etc IC are wildly used in concentrated energy storage and portable power.

Concentrated solar power (CSP) is particularly suitable for high power and long-term power supply scenarios to dispatch electricity generation, which requires high ability to adjust, control and plan in the operation management centralized scheduling of electric power system.

Portable power gets rid of "wire" restrictions,electrical devices can be powered by lightweight, portable,high capacity,high power standby power station, which are applied to outdoor travelling,emergency rescue,medical equipment power supply fields.

- Energy Storage

► High precision general-purpose Op-amp  
RS8539 / RS8557

► High Voltage Comparator  
LM2901 / LM2903 / LM393

► Low-offset Operational Amplifier  
RS72xP

► Low Noise Operational Amplifier  
RS72x
- LDO  
RS7533 / RS7550

► Voltage Reference  
RS431 / RS432

► Level Converter  
RS010x / RS020x / RSxT245  
RSxT45



"New Infrastructure" spurs new-energy vehicle charging stations. And, this greatly makes the charging stations more accessible for the electric vehicle. Meanwhile the electric vehicle will promotoe EV charging station's revolution. Kinds of analog chips are wildly used in AC/DC charging point's high voltage leakage detection, CP/CC detection, voltage/current/ temperature sample test, liquid-cooled charging gun's and it's temperature test.



- Charging Station

► low Noise Operational Amplifier  
RS72x

► High Voltage General-purpose Op-amp  
RS842x / RS845xP / RS841x

► High Voltage Precision Operation Op-amp  
RS865x

► High Voltage Comparator  
LM2903 / LM2901

► Level Converter  
RS010x / RS020x / RSxT245  
RSxT45
- Analog Switch  
RS2251 / RS2252 / RS2257  
RS2102

► Voltage Reference  
RS431 / RS432

► Logic IC  
RS1G14 / RS6G14 / RS6G07  
RS4G08 / RS245

► Reset  
RS809 / RS706

- AC-DC

► General-purpose Op-amp  
LM358 / RS358 / RS633x

► High Voltage General-purpose Op-amp  
RS84xx / RS845x

► High Voltage Comparator  
LM2903 / LM2901
- High Voltage General-purpose Op-amp  
RS84xx / RS845x

► Low-offset Voltage Operational Amplifier  
RS62xP / RS633xP
- Low Noise Operational Amplifier  
RS62x
- Logic IC  
RS2G17 / RS2G14 / RS1G00  
RS244 / RS245
- Analog Switch  
RS2251