



# Company Introduction

Stock Code : 300123.SZ

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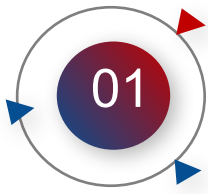
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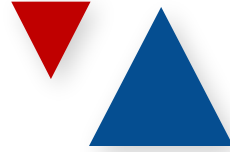
01

YAGUANG TECHNOLOGY GROUP





# About Us



**Company Name:**

**YAGUANG Technology Group Company Limited**

**Business Scope:**

**Research and Development, Manufacturing, Sales and After-sales Service of Military Electronics and Vessels**

**Registered Capital:**

**One(1) Billion RMB**

**Website: [www.ygkjgroup.com](http://www.ygkjgroup.com)**

**Production Bases:**

- **Changsha Head Office**
- **Chendu Microwave Electronic Production Base**
- **Zhuhai Smart Yacht Park**
- **Yiyang Zhonghai Manufacturing Shipyard**





# Create and Lead a Smart Future

One Core

Two Modules

Three Applications

Military Electronics

Smart Vessels



Aerospace

Satellites, spacecraft, space stations, probes

Chip semiconductors, components, assemblies, microsystems



Aviation

Radar, guidance, jamming, communications

Chip semiconductors, components, assemblies, microsystems

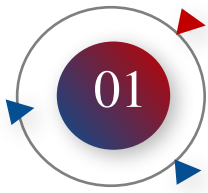


Maritime

Platforms, boats, buoys, submersibles

Chip semiconductors, components, assemblies, microsystems



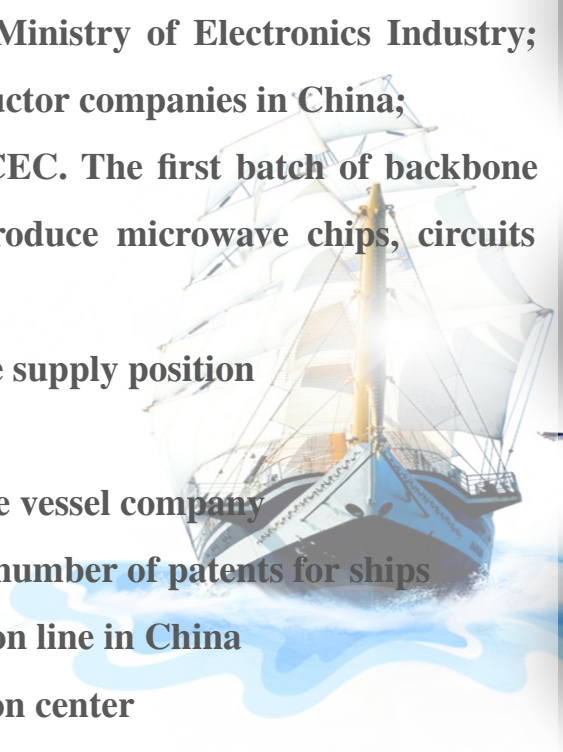


# YaGuang Group



The backbone of the former Ministry of Electronics Industry;  
 One of the first two semi-conductor companies in China;  
 Shares the same status with CEC. The first batch of backbone enterprises to develop and produce microwave chips, circuits and devices;

Dozens of products in exclusive supply position



- The first domestic listed private vessel company
- Ranks the first in terms of the number of patents for ships
- The first smart yacht production line in China
- The first small boat mobilization center
- The first specialized technical center for yachts
- The first postdoctoral workstation for yachts
- The first yacht industry design center



Two major businesses:  
 military electronics and smart vessels  
 Two platforms: microwave electronic  
 Two major segments: military products, civilian products (boats and electronics)



Four bases in three cities: Hunan, Guangdong and Chengdu  
 Three application areas: aerospace, aviation, and marine  
 AAA credit rating enterprise



Four certificates of military production  
 Four production bases



Five national military standard production lines (microwave PIN diodes, crystal transistors, microwave circuits, microwave control circuits, microwave hybrid integrated circuits)  
 Five standardized boat production lines





## Chengdu Microwave Electronics Park

Address:

No. 66, Donghong Road, Chenghua District, Chengdu

Products:

Production of various types of chip semiconductors, components, modules, assemblies and microsystems used for signal transceiving and transmitting for naval, ground, starboard, airborne and missile-launched platforms, providing support for aerospace, aviation, weapons and naval engineering.





**Yiyang Zhonghai Base**



**Zhuhai Base**



### **Changsha Group R&D Headquarters**

**Address: Lugu High-tech Industrial Park, Changsha**

**Products: Intelligent boats and electronic products modules, micro systems, small whole machines**



# Enterprise Honors



## China Manned Space Engineering Office Important Contribution Award

Award for supporting contribution to the development of Shenzhou VI, Shenzhou VII and launch vehicles.

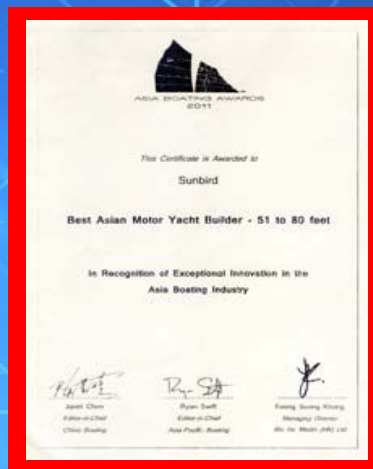
Won the honor of excellent supplier from Aerospace Science and Technology, Aerospace Science and Industry, CEC, China Arms and other units for many times.

Sichuan Best Benefit Top 20, Sichuan Top Three Largest Scale, Excellent Security Product, Chengdu Military-Civilian Integration Enterprise, President's Special Award, Local Famous Product, Sichuan Key Technology

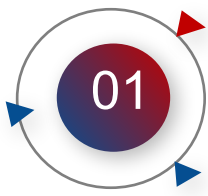
Innovation Project, Contract-keeping and Credit Enterprise, Excellent



# Enterprise Honors







# Production



Chengdu Yaguang electronic  
module micro-assembly line  
has more than 3000 square  
meters of clean and dust-free  
3D assembly line



01

# Yacht Showroom

The first domestic 4S experience showroom:  
accepting reservations, test drives, after-sales  
service, maintenance and other corresponding  
services.

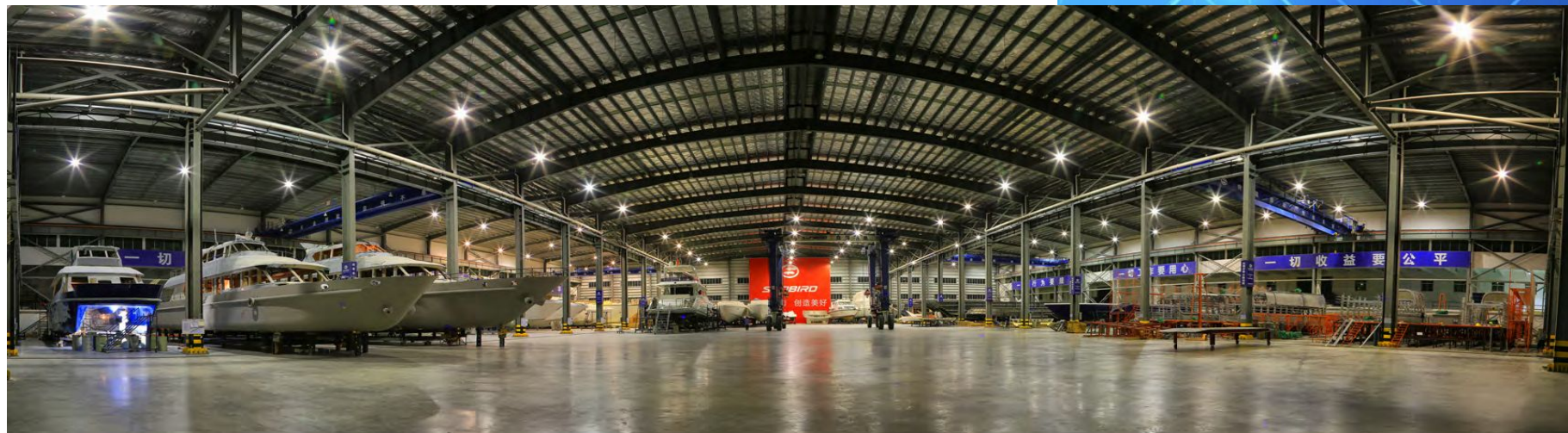




# Production



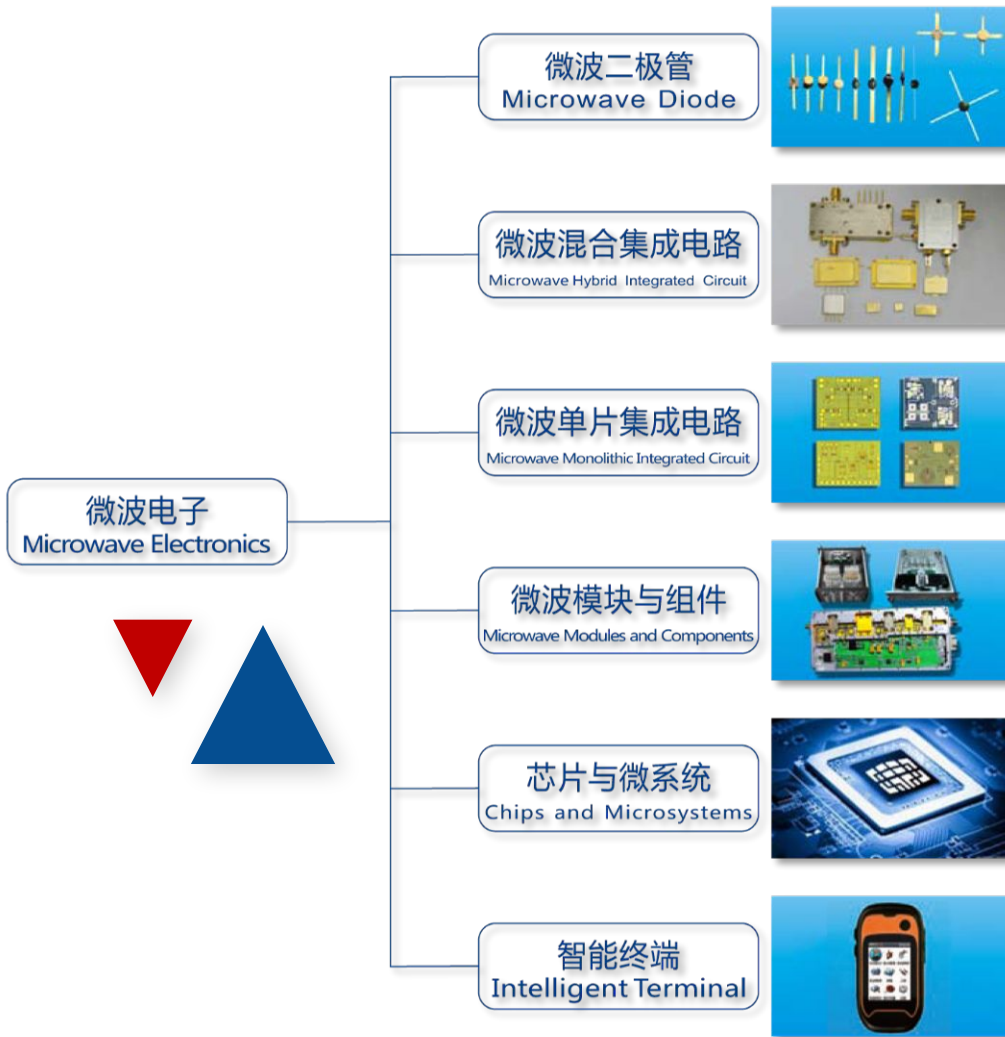
Hunan yacht modular  
Construction of  
assembly line  
workshop



The first production  
line of variable batch,  
large scale and  
modular boats in  
China

Workshops for  
customizing in  
Zhuhai



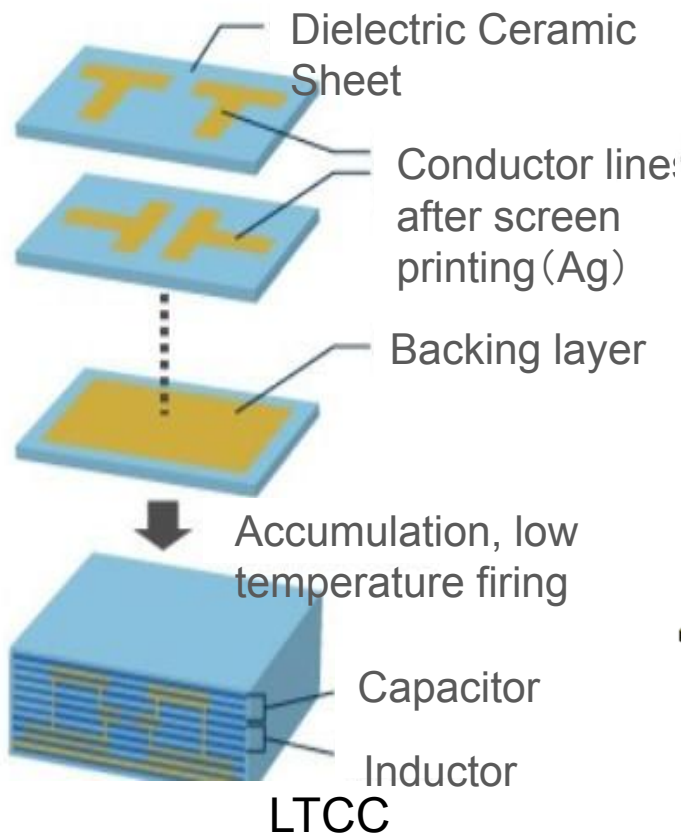




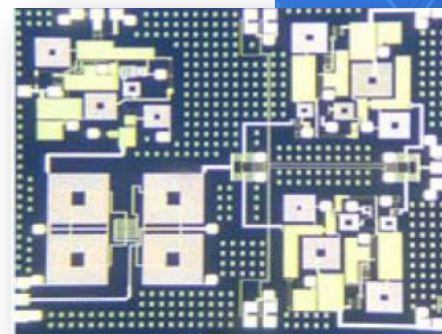
02

# CORE TECHNOLOGY

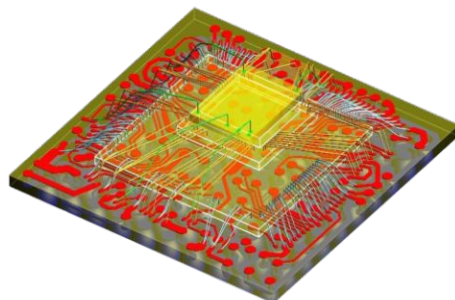




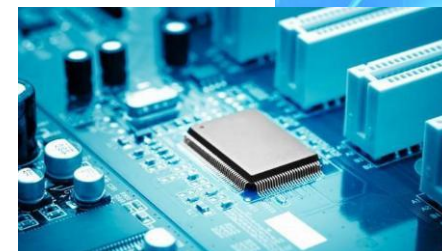
MCM



SOC



SIP



MEMS

In the field of LTCC, MCM, SIP, SOC, MEMS and other microwave circuit frontier technologies, we have made certain achievements, and have always been at the forefront of the domestic military RF microwave industry.

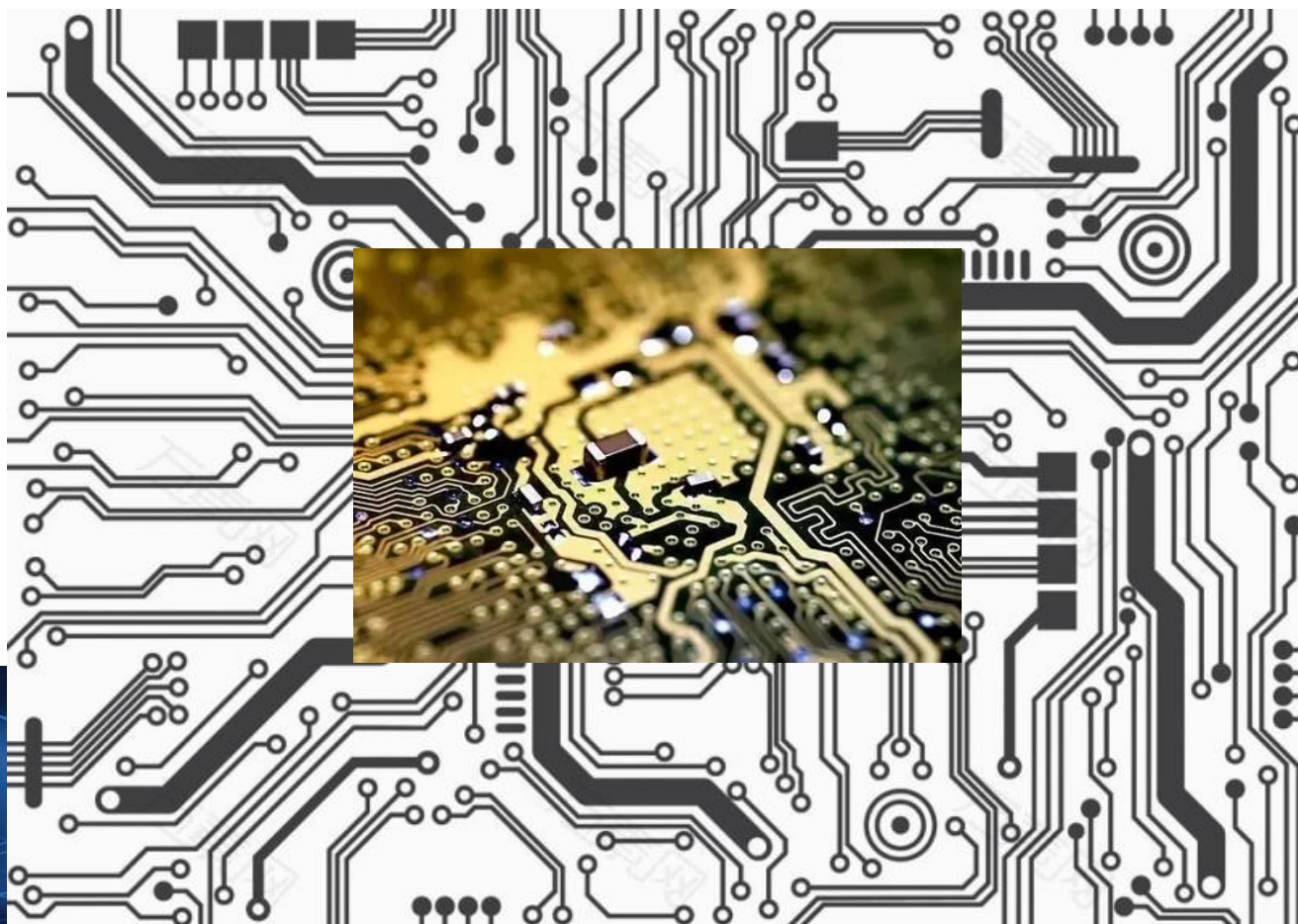
Research projects of the type spectrum series

- 1、Microwave power distribution synthesizer
- 2、Small Microwave Double Balance Mixer
- 3、Modular Broadband Dual/Triple Balance Mixer
- 4、Threshold detection circuit
- 5、Broadband microwave power splitter
- 6、Broadband I/Q Modulator/Demodulator
- 7、Wideband ultra-low noise amplifier
- 8、8mm low noise amplifier
- 9、Analog phase shifter



Semiconductor design technology, microwave hybrid integrated circuit design technology, microwave monolithic integrated circuit design technology, micro-assembly technology, interconnection conversion technology, test technology, environmental test technology as the core technology system

The products cover frequencies from tens of MHz to 100 GHz, achieving full frequency coverage, product coverage, and application platform coverage, and have undertaken many national key strategic and tactical engineering projects, military electronic components research and production tasks for weapons and equipment. The company has provided thousands of products for **manned spacecraft, early-warning aircraft, China's divine shield, J-20 warplanes, East Wind series missiles, super cruise missiles, Beidou satellites and national network stars**, and other major weapons and equipment projects.





- 1 Taking 5G/6G RF front-end chips and optical communication chips as a breakthrough to accelerate the expansion of civil chip design services**
- 2 Successful development of millimeter wave communication power amplifier chip for 5G communication in 2017 and small volume production of GaN power amplifier**
- 3 2019 newly developed L/C/X-band frequency conversion series sets and S/C/X-band GaN T/R and other sets have been mass-produced**
- 4 YaGuang is the main production of China's military microwave circuit fixed-point manufacturers**
- 5 Provide independent and controllable products for aerospace**







Strong design team: we can design superyachts, medium and large yachts, super speed boats, special boats, business boats, new energy boats, unmanned boats, engineering boats; team of aluminum alloy boats, composite boats, metal boats. Familiar with CCS, Rina, CE, BV and other certification norms, we can provide system intelligent boat system integration solutions.





# Vessels

The company has 300 patents and is the first post-doctoral workstation in the industry with the largest number of patents in the domestic counterparts in terms of intellectual property layout.

- 1 Industry-university research on the development of new composite boats.
- 2 Strategic-medium-sized boat vibration and noise reduction and motion mapping research
- 3 Ministry of Industry and Information Technology - 185ft large catamaran luxury yacht design and construction technology
- 4 Large-scale green key technology research and development
- 5 55kn ultra-high speed patrol boat research and development
- 6 Unmanned boat design and application

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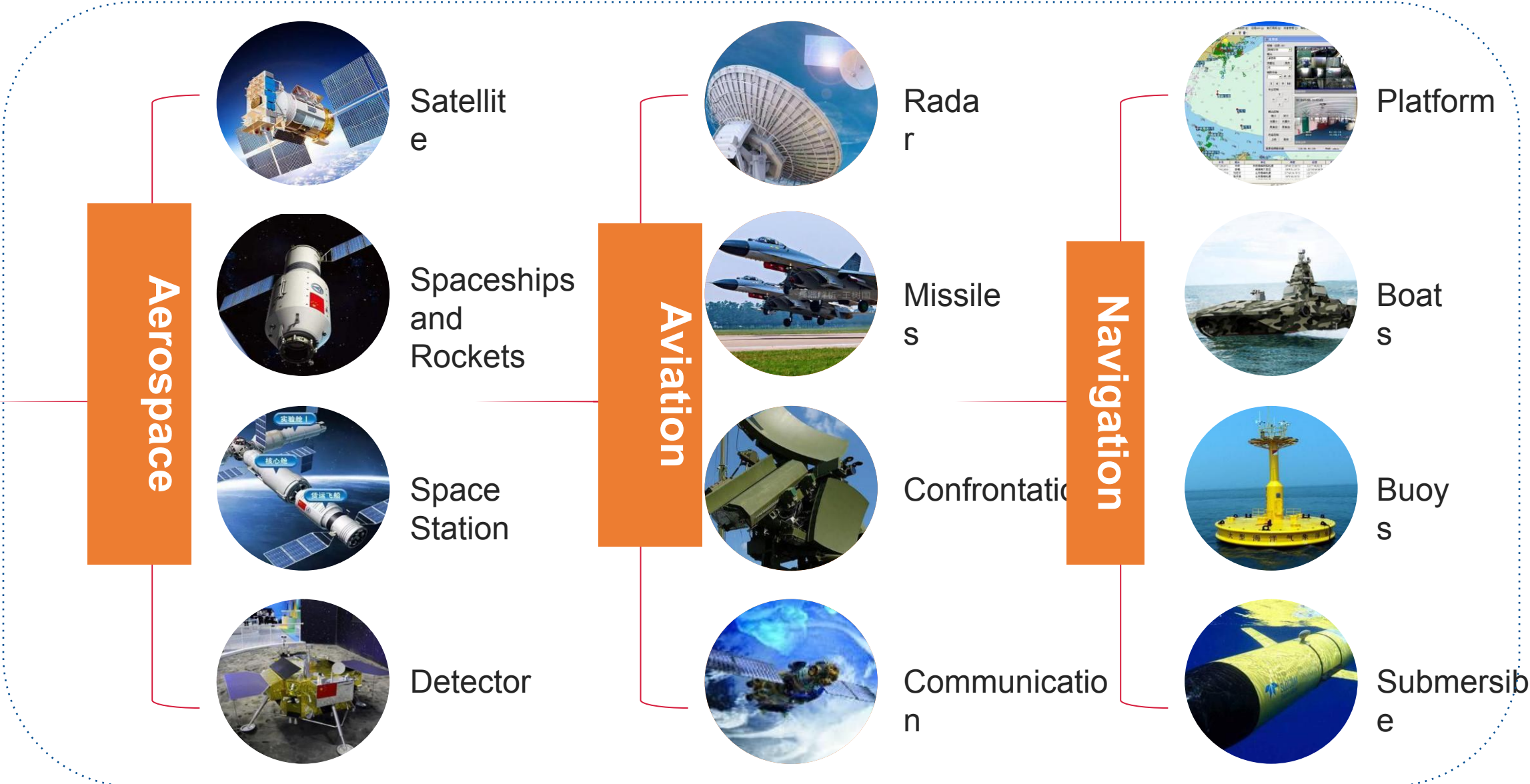




03

# BUSINESS SCOPE









中电科技集团



航天科工集团



航天科技集团



中航工业集团



兵器工业集团



中船工业集团



中国核建集团



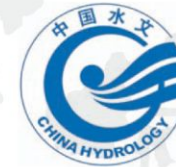
中国核电集团



中国兵器集团



中船重工集团



中华人民共和国民政部  
Ministry of Civil Affairs of the People's Republic of China



湛江港集团  
ZHANJIANG PORT GROUP



CITIC Pacific Limited  
中信泰富有限公司



宋城集团  
WORLDLAND



万达集团  
WANDA GROUP



**Image Radar**

Power divider, mixer, filter, coupler, attenuator, phase shifter, switch, amplifier, limiting low noise amplifier, detection module, frequency synthesis components, security gate microwave components, millimeter wave multi-channel receiver, detection components, diode, triode, etc.

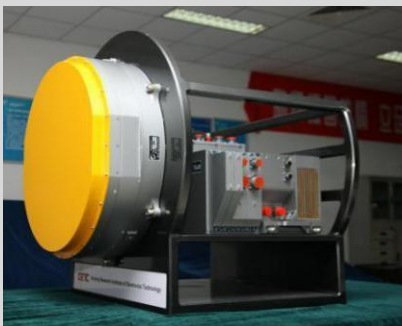


**Meteorological Radar**





Missile Load



Ground



Onboard



Airborne



## Guidance Radar

Power divider, mixer, coupler, filter, attenuator, limiter, phase shifter, switch, high-power switch, high-power limiter, amplifier, detection module, switching filter assembly, frequency synthesis assembly, receiving front-end, limiting low-noise amplifier assembly, multi-channel frequency conversion assembly, multi-function module, millimeter-wave multi-channel transceiver assembly, millimeter-wave amplifier, diode, transistor, etc

## Fire Control Radar





Ground



Onboard



Airborne



Shipboard

## Alarm Warning Radar

Power divider, mixer, coupler, filter, attenuator, limiter, phase shifter, switch, high power switch, high power limiter, amplifier, detection module, delay line assembly, frequency synthesis assembly, multi-channel transceiver assembly, amplifier module, receiver front-end, limiting low noise amplifier assembly, multi-channel frequency conversion assembly, multi-function module, T/R assembly, full-array drive stage assembly, sub-array drive stage assembly, diode, Triode, etc.





## □ Yachts and Super Yachts:

We are the China very first listed yacht company. After we bought IAG Yachts, we are able to provide yachts from 14 feet to 70 feet and superyachts that are over 100 feet. We have sailed 132 feet and 112 feet superyachts to the United States, Europe and Dubai.





### Work boats:

Including transportation boats, tour boats, law enforcement boats and other types of vessels. FRP, steel, aluminum alloy and other different materials shall be used to construct the vessels.

### Major Achievements

More than 200 patents for work boats





#### □ **New energy boats:**

The most technologically advanced and the most widely used in China. At present, we have achieved good results in safety and endurance.

#### □ **Main power form:**

Lithium iron phosphate battery

Supercapacitor

Hybrid power

Natural gas

Hydrogen power





### ▣ Vessels for Special Purposes

We provided about 2000 boats for the armed police, China Customs, maritime surveillance department, public security, border defense, fire fighting department, port and navigation administrative department, water administration department, fishery administration and other departments.

### ▣ Main Performance

High Speed - up to 70 knots

Outstanding Sea-keeping

Customization according to requirement





### □ **Aluminium Vessels:**

In the area of designing and building aluminium vessels, we have one of the most outstanding teams in China. We have delivered more than thirty-five(35) Aluminium vessels with the operating purposes of transporting passengers, vehicles and goods in world wide, among which CC447(Zanzibar 2) was awarded as “World Best Medium Ferry in 2020”

We currently have three(3) aluminium patrol vessels under construction, and they are estimated to be delivered to Hong Kong Government in July, 2022.





### □ YaGuang Unmanned Boat:

Our unmanned boat has been provided to many companies and departments, and it won the first place in the China Naval Sample Boat Competition. We are proud to announce that we are the very first domestic private company which can apply unmanned boat technology to the yachts.

### □ Application areas

Environmental monitoring, sampling, nuclear radiation, ecological surveys, water meteorology, flow rate and flow, hydrographic mapping, emergency rescue, marine, military, other and personal (fish exploration, recreation, water aerial photography, etc.)





❑ **Zhonghai Engineering vessels:**  
Most of the engineering, tugboats and rescue vessels in the Yangtze River waterway were built in Zhonghai Base.

❑ **Main Products**

Dredger

Tug boats

Engineering Vessels

Operation and Maintenance Vessel

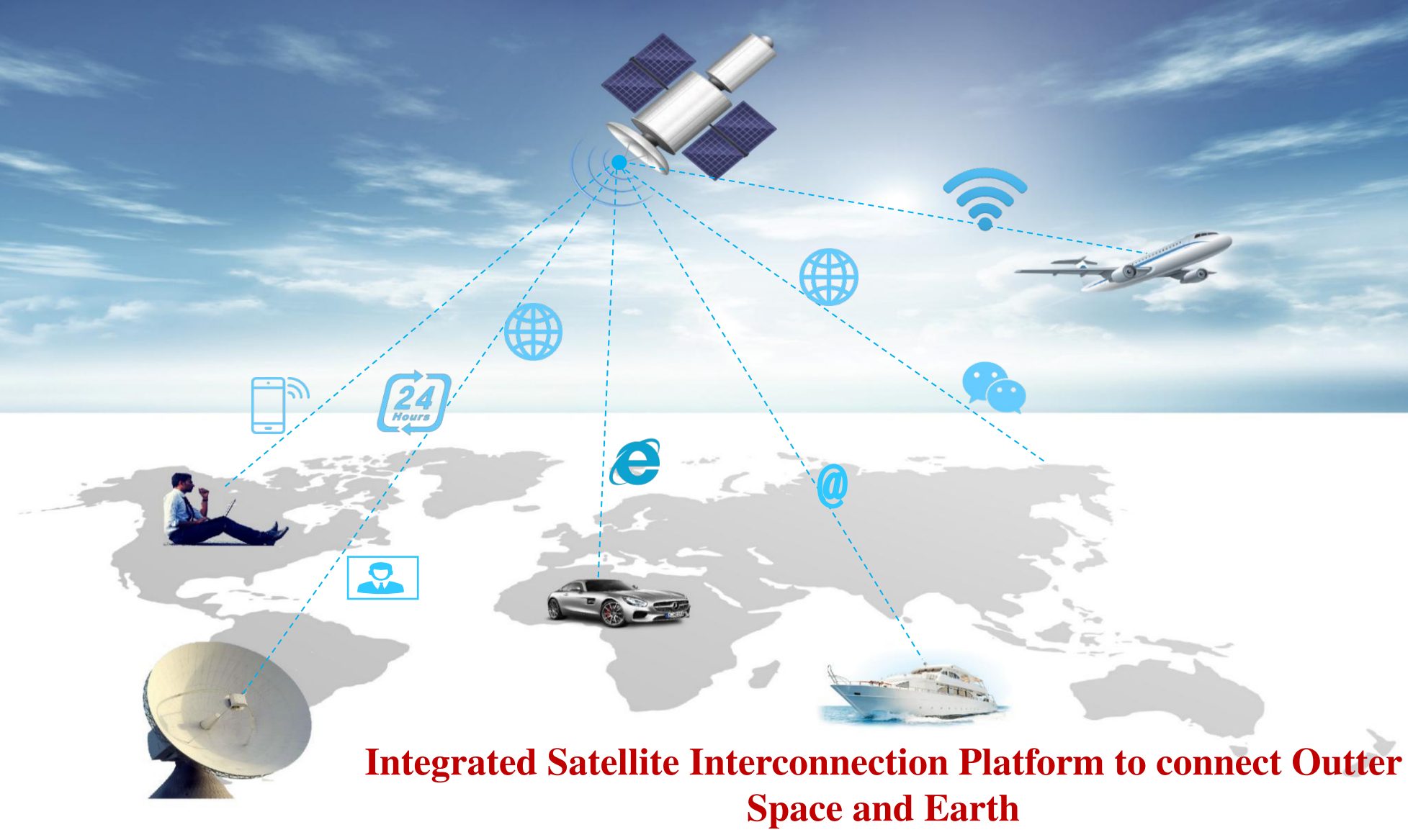


04

# Further Application



# Further Application



**Integrated Satellite Interconnection Platform to connect Outer Space and Earth**



## Smart Maritime Intelligent Management Platform Intelligent Driving System

- 1、Vessel positioning
- 2、Working condition monitoring
- 3、Alarm monitoring
- 4、Basic information of vessel
- 5、Liquid leveler
- 6、CCTV Monitor

序号	时间	船名	卡号	船长	单位	纬度	经度	航速	航向	报警	长度	宽度	吨位	船型
1	2012-07-26 14:08:32	中铁渤海3号	13371362671	中铁	中铁渤海铁路轮渡	38°48'55.66"N	121°7'48.92"E	0.0	114.0	否	183.0	25.0	20000	铁路轮渡
2	2012-07-26 14:08:31	生生1	13396312654	李楠	威海海大客运	38°9'31.55"N	121°58'46.86"E	15.0	162.0	否	120.0	20.0	10800	客滚轮
3	2012-07-26 14:08:31	渤海明珠	13381225674	刘云才	山东渤海轮渡	37°49'54.79"N	121°31'52.17"E	15.0	12.0	否	163.9	25.0	20403	客滚轮
4	2012-07-26 14:08:37	渤海玉珠	13311429487	张凤良	山东渤海轮渡	39°0'40.50"N	121°41'58.67"E	0.0	359.3	否	163.9	25.0	20403	客滚轮





**Thank you !**