



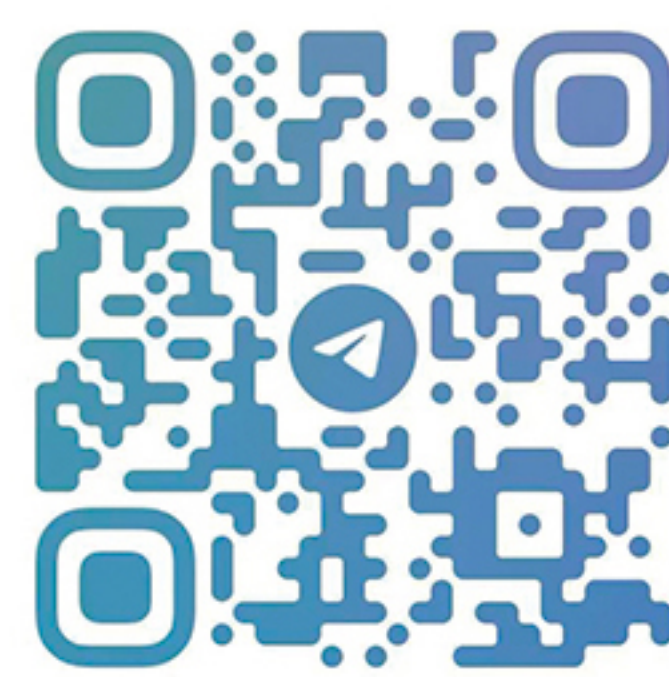
# CATALOGUE



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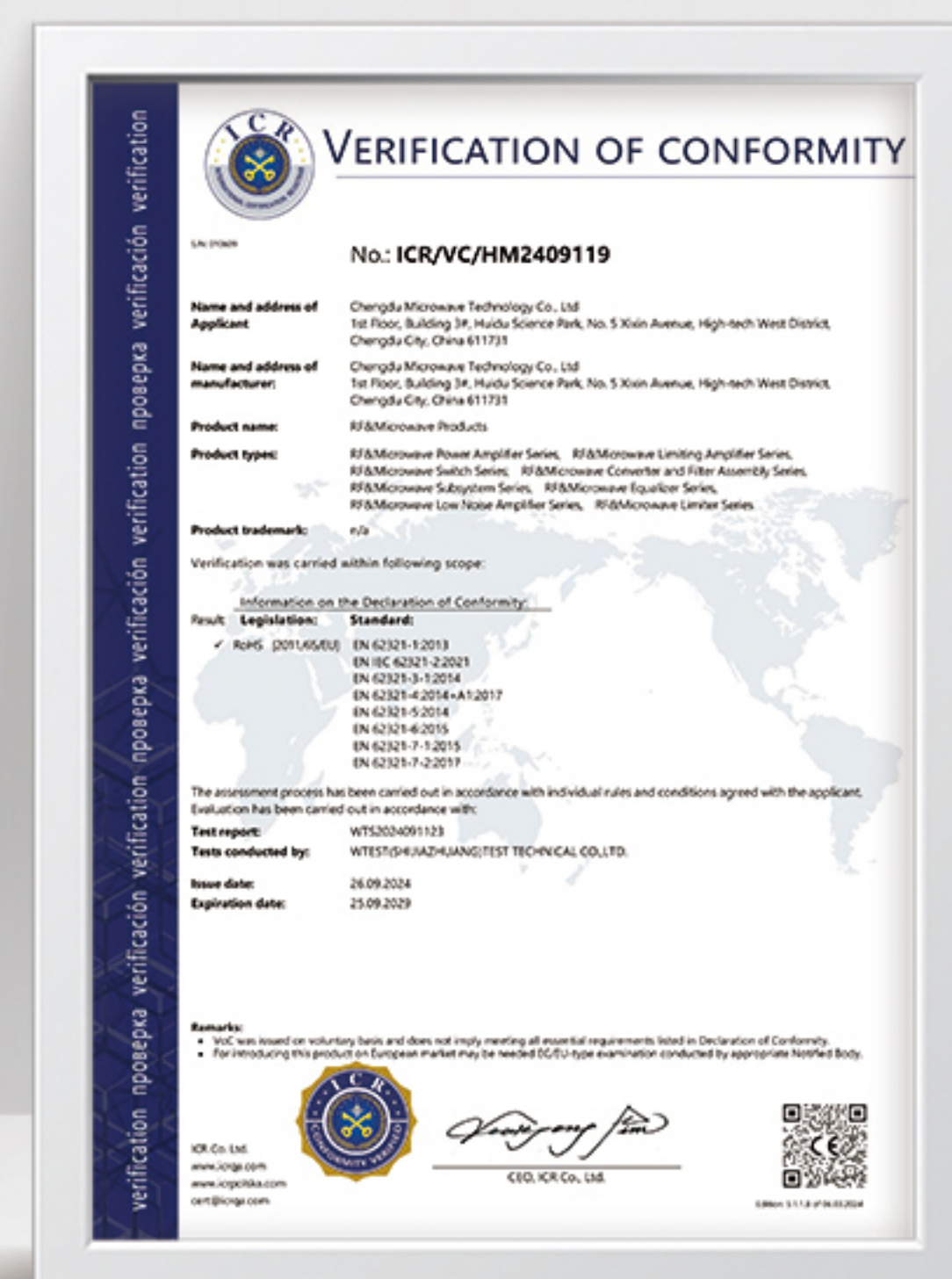
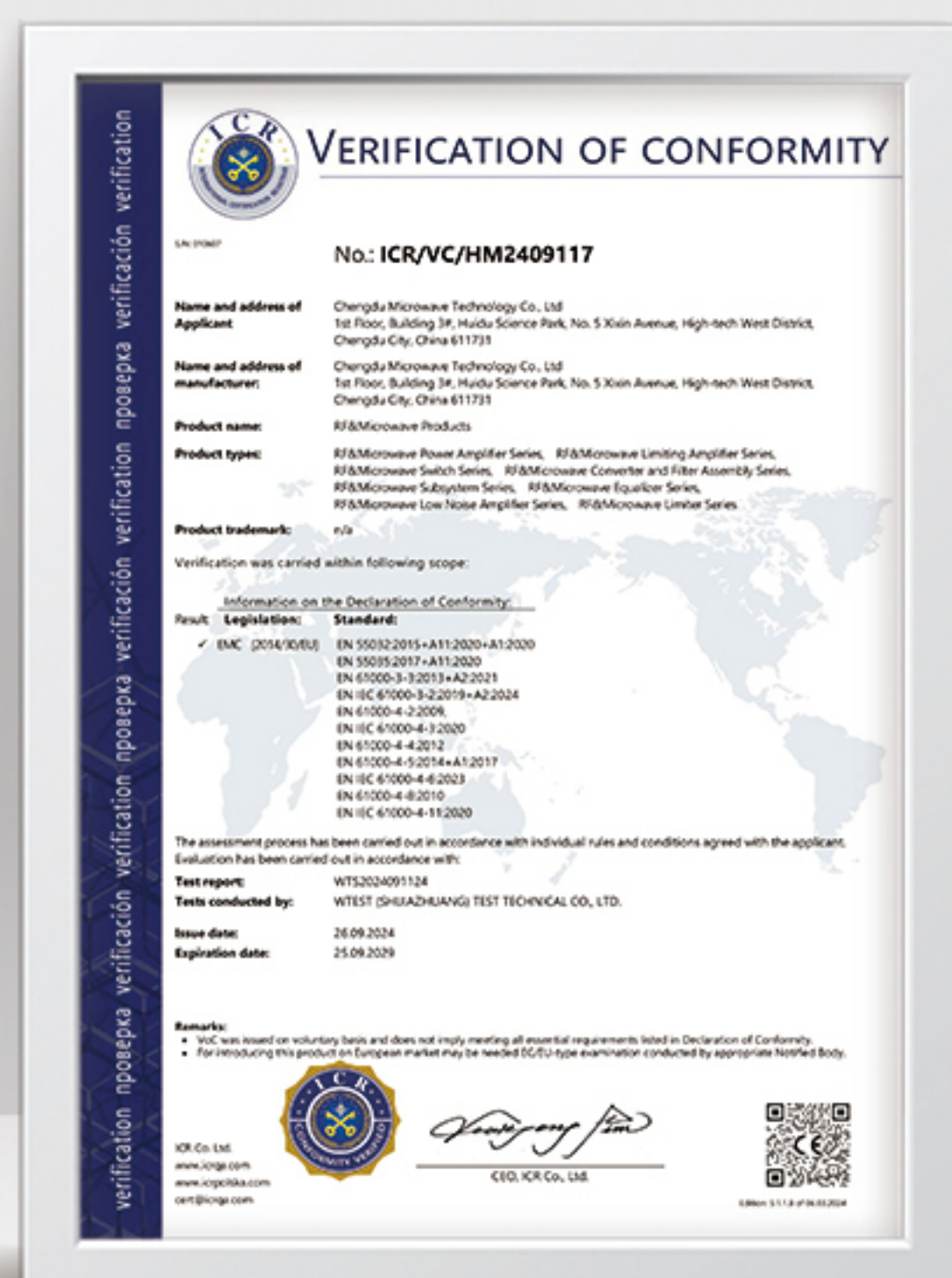
[www.mcwrf.com](http://www.mcwrf.com)

# Company Profile

Chengdu Microwave Technology Co., Ltd. (MCW) was established in June 2016 with a registered capital of RMB 1 million. The company has an office and production area of approximately 800 m<sup>2</sup>, equipped with a Class 100,000 standard cleanroom and a complete micro-assembly line. It boasts full production and testing capabilities for RF, microwave, millimeter-wave components, modules, complete systems, as well as optoelectronic hybrid integrated components and equipment.

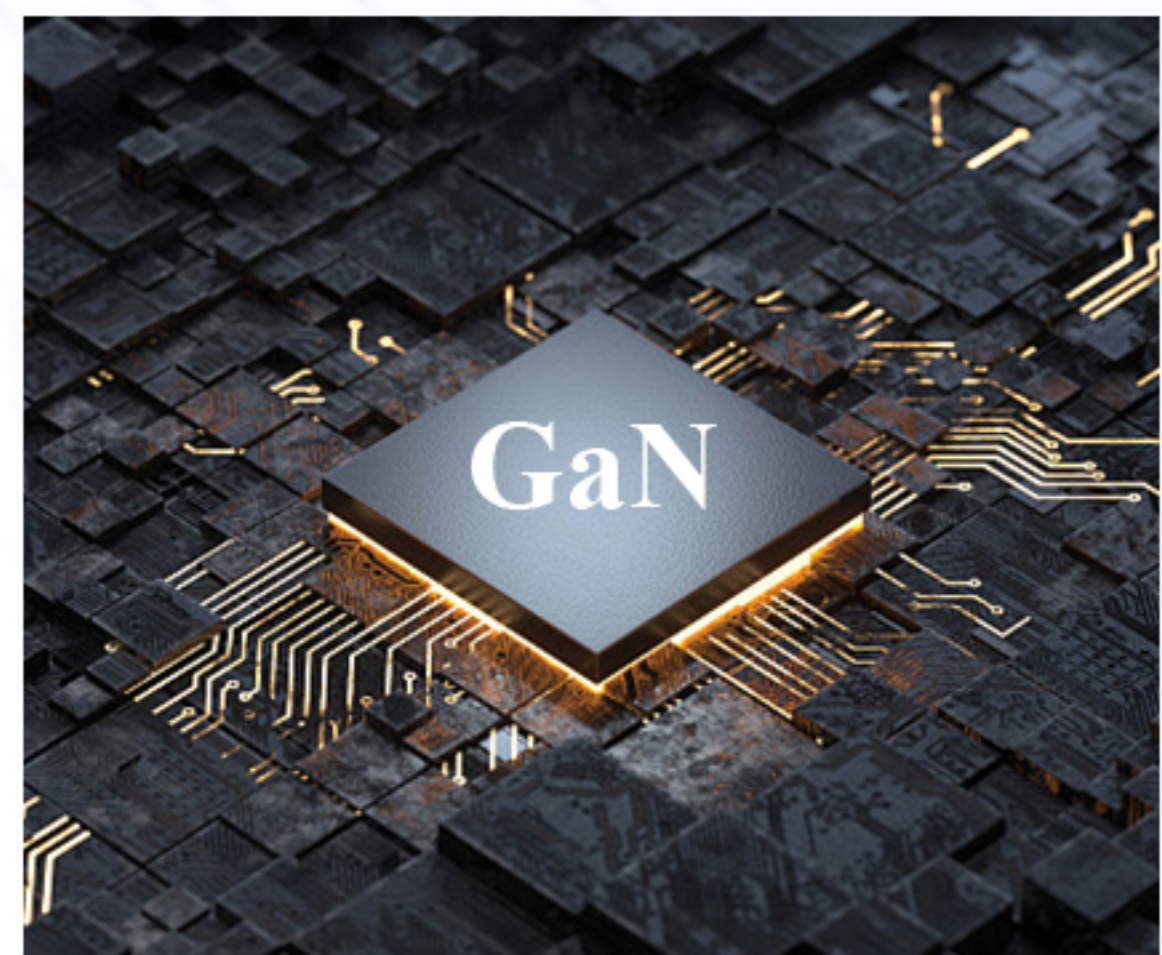
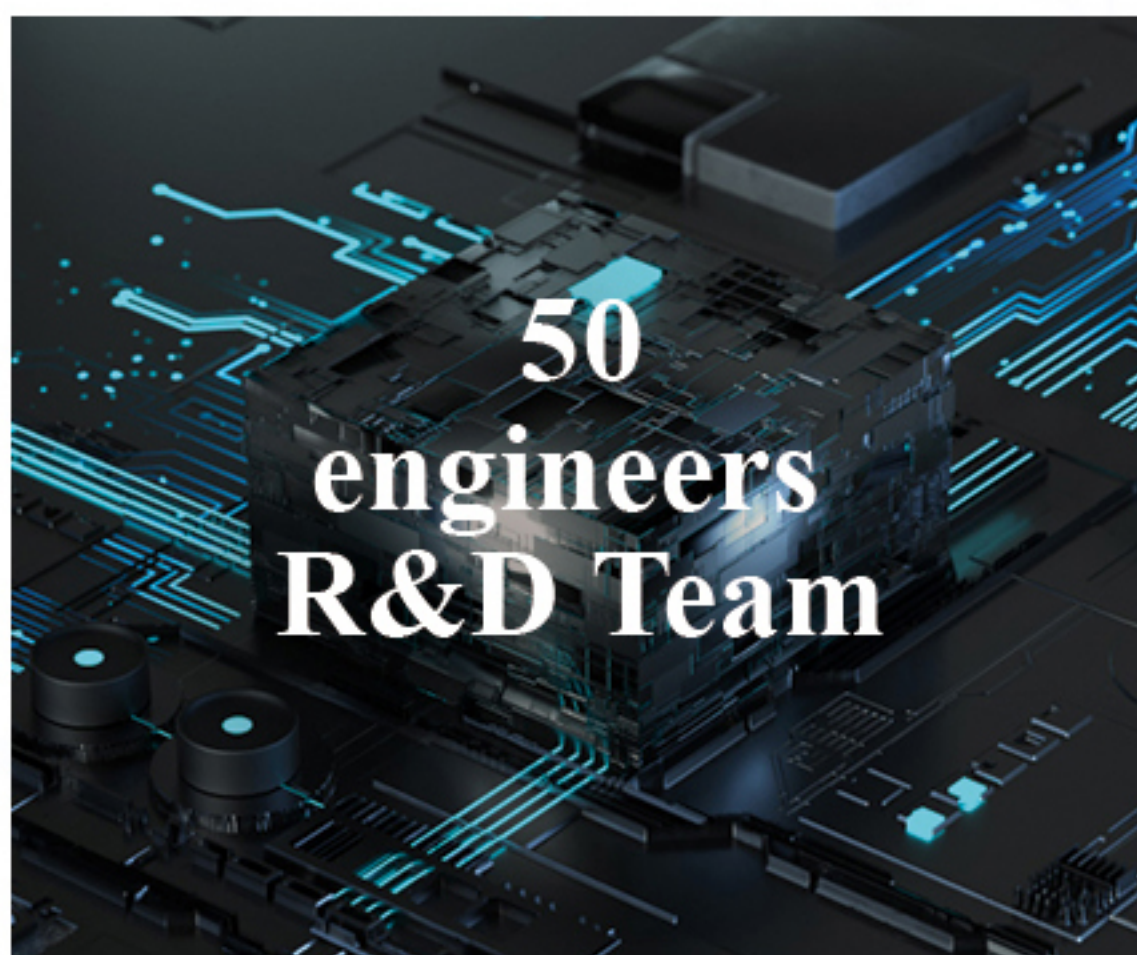
MCW RF factory is certified as a National High-Tech Enterprise, holds a Class 3 Military Confidentiality Certification, and is accredited with the Weapon Equipment Quality Management System Certification. Our products adopt hybrid integrated circuit technology, featuring small size, light weight and high reliability. We have built a standard unit circuit library, ensuring excellent versatility and interchangeability. Our products fully meet the requirements of different quality levels of national military standards and various application platform environments, and we provide flexible customized design services to satisfy customers' differentiated needs.

Our products are widely used in the design, production, sales and service of RF microwave components, modules, complete systems and subsystems in fields such as radar, electronic countermeasures (ECM), technical reconnaissance, communication, aerospace, monitoring, remote sensing and telemetry.



# R&D Team

- We have 50 engineers of R&D Team
- Chief engineers with 20+ Years' experience in designing RF Products
- Design with state-of-the-art GaN, GaAs, LDMOS and bipolar device technology



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## High Quality Control System

### ► Strong QC Team

We have a professional QC team of 23 technicians to guarantee our reputation and high performance of power amplifier

### ► Strict Inspection

We perform 100% visual / mechanical / electrical inspection on all incoming materials. Vendors and materials are continuously evaluated to ensure compliance to set quality standards. During and after production , strict inspection is also executed. Every data on our ATR is verified by QC technicians



# Production Capacity

- All production employees have relative technical certificates
- We have 2 production lines, which are well designed, wire bonding, initial electrical test & inspection, temperature cycling, burn-in test, low-high-normal temperature test to the last electrical test, each step strictly follows ISO 9001 quality management system and 6S standards



# Power Amplifier / Pulse Amplifier / RF Amplifiers Subsystem

## ▶ Product Feature

- High power output
- Stable performance
- Strong anti-interference
- Wide power adjustment
- Easy operation and integration
- Good quality components for long service life



## ▶ Application Field

Widely used in communication, radar, satellite, radio monitoring systems, supporting signal transmission

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## RF Microwave Components

Up-down converter, frequency source, switch matrix, receiving front-end, TR module, limiter, filter

## ▶ Frequency Range

10MHz - 60GHz

## ▶ Features

Adopting SPI and other processes, small size, light weight and high reliability

## ▶ Application Field and Platform

- Communication, aerospace, remote sensing and telemetry
- Airborne, vehicle-mounted, shipborne and ground-based



# Phased Array

## ► Introduction

Phased array antenna products launched the first generation in 2019, and have been iteratively upgraded to the fourth generation by 2025, with better performance and higher reliability

## ► Feature

Three RF port version (sum port, azimuth difference, elevation difference) (standard configuration)

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Four RF port version (one port per quadrant, digital sum and difference) (optional configuration)

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Transmit-receive beam wide-beam shaping(optional configuration)

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Real-time BIT monitoring

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Energy-saving management of heat dissipation system

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Ultra-high power tolerance, withstanding 37dBm continuous wave input per channel without burnout



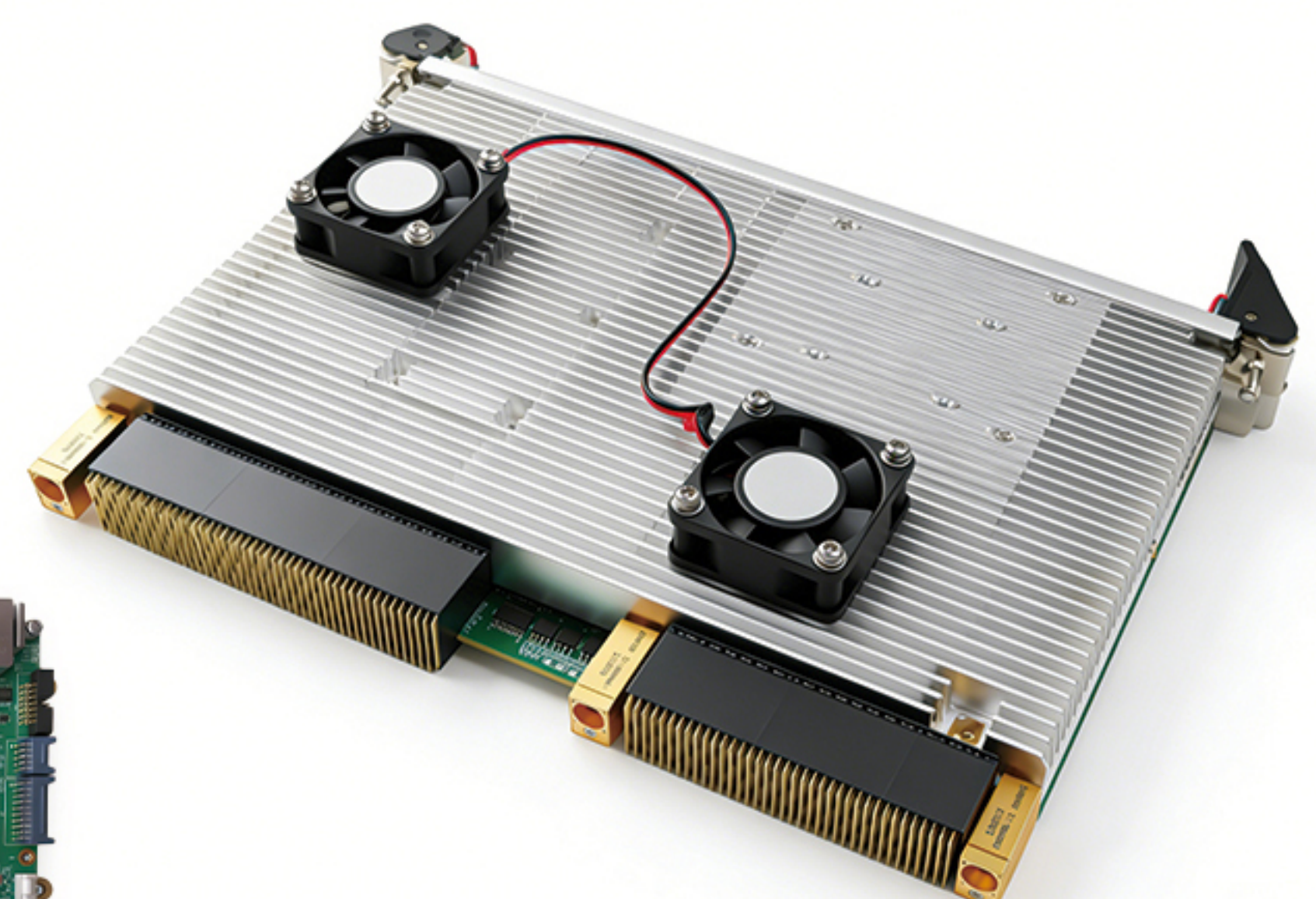
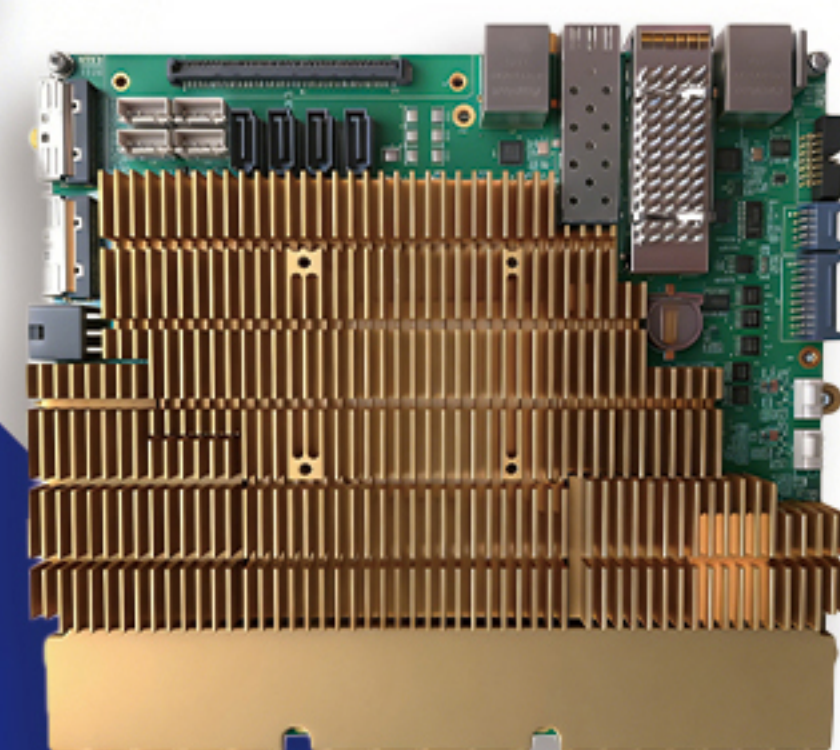
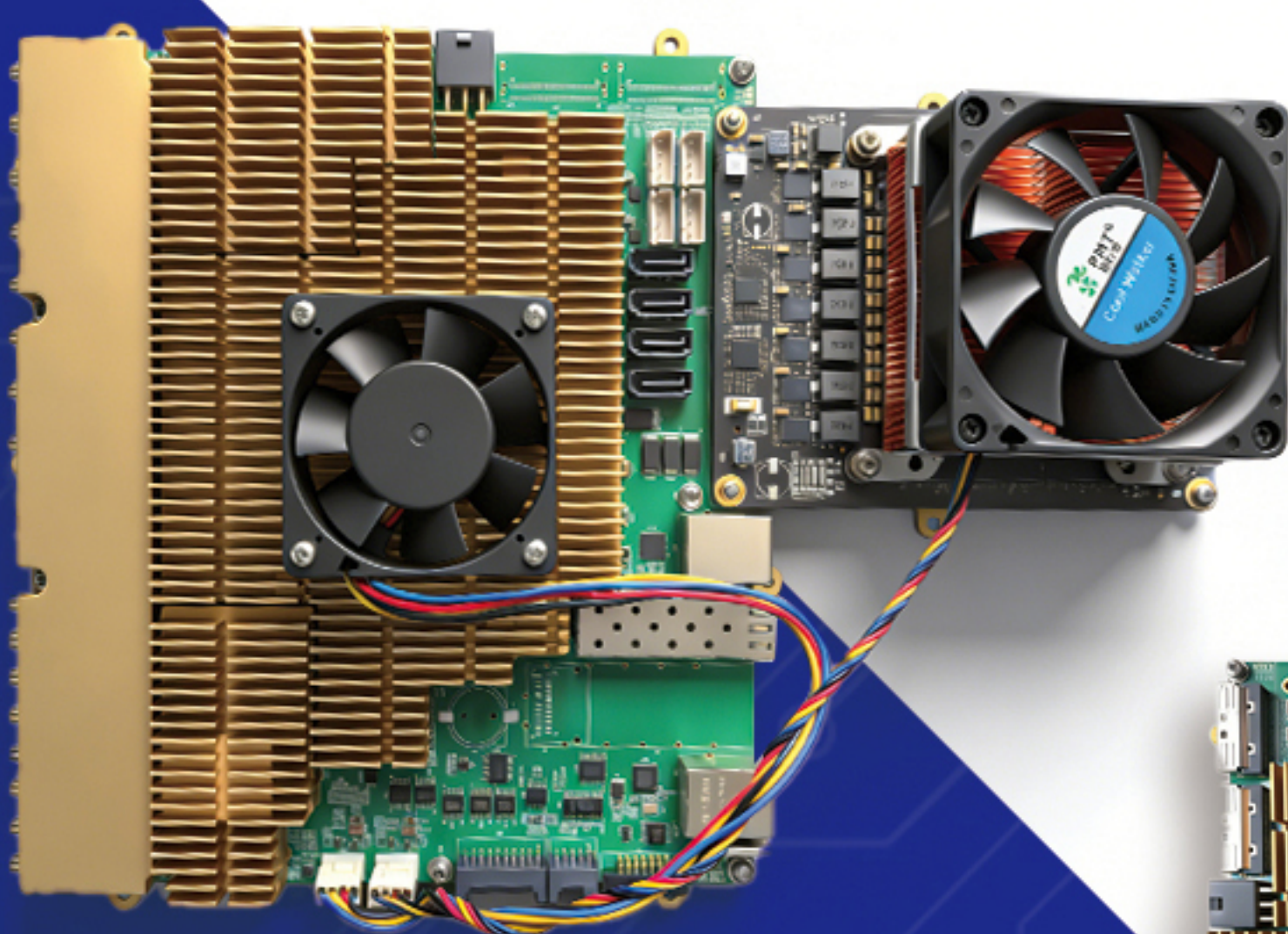
# Signal Processing Products

## ► Application

- Real-time processing of communication, satellite, and radar signals
- Radio signals such as ultra-short wave and microwave
- CPU main control

## ► Feature

- Can be inserted into standard VPX (air-cooled, conduction-cooled) chassis for use, or used independently
- Can be used alone as an FPGA signal processing board, a main control board, or a combination of both
- When equipped with FMC+ connector (default is FMC connector), the FPGA supports 16 pairs of GTH and full HPC interconnection
- The VPX backplane supports FMC LA[33:0] and 12 pairs of GTH
- Supports remote FPGA program update via network
- Supports remote power on/off operation via network
- Equipped with over-voltage and over-temperature detection and protection functions
- Adopts 100% localized design



# DIFM

## Digital Instantaneous Frequency Measurement

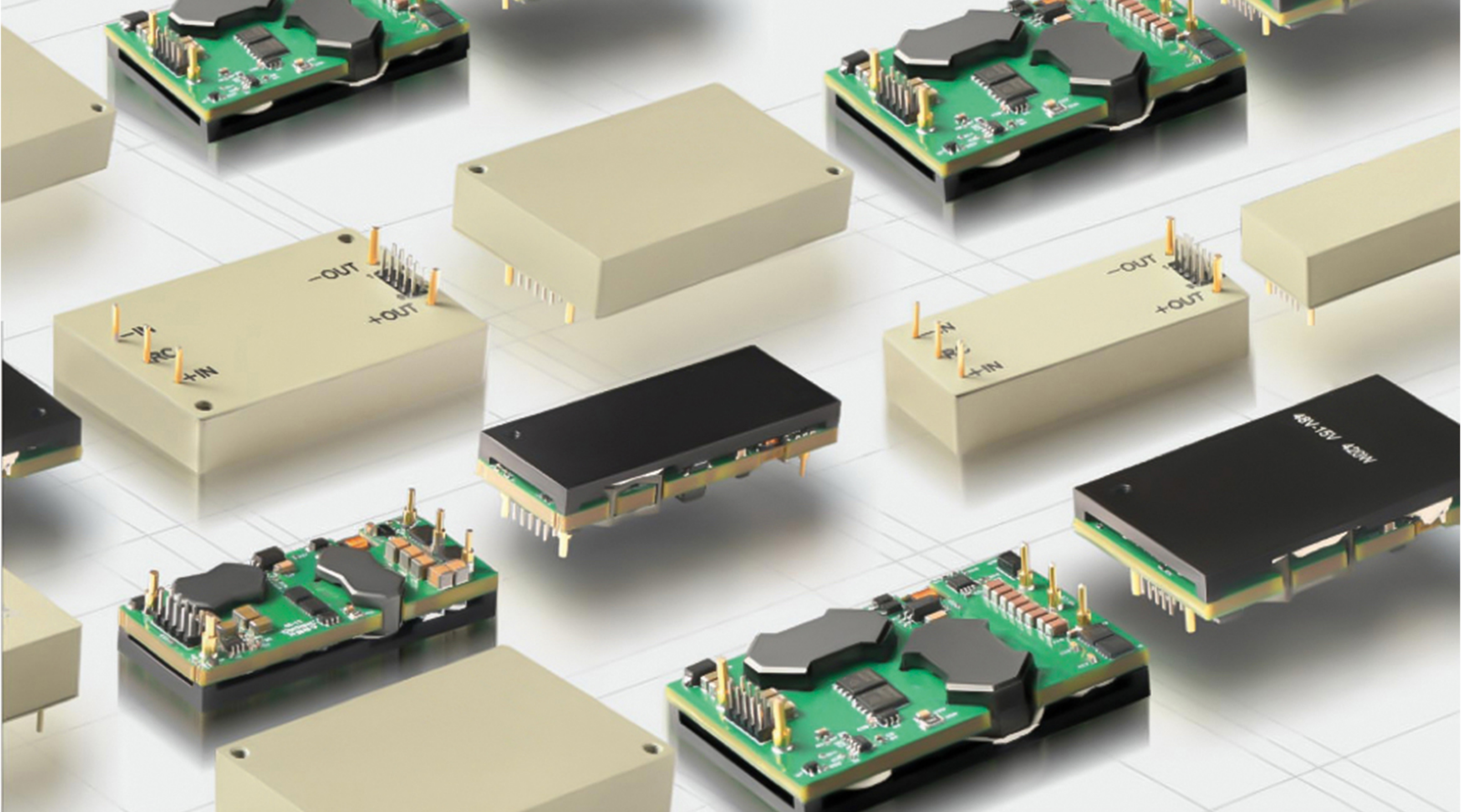
### ► Product Feature

- Ultra-wideband, fast and high-precision frequency measurement, with high sensitivity and strong anti-interference
- Compact size, light weight, easy integration and high reliability
- Supports real-time data output and remote monitoring, simple to operate and maintain

### ► Application Field

- Communication and radar systems
- Aerospace, airborne, shipborne and ground-based platforms
- Radio spectrum monitoring, military intelligence collection and equipment maintenance





# Programmable Digital Power Supply Module

This style feature a standard brick design and PMBus digital interface, which can adapt to performance requirements in various environments, meet diverse application needs

The algorithm-driven loop control method significantly enhances the reliability and stability of modular power supplies. The digital interface enables seamless system integration

## ► Application Field

Automotive  
Defense  
Naval Vessels

Space Exploration  
Communication  
Big Data

Artificial Intelligence  
Robotics  
Aerial Vehicles

# Radio Monitoring and Positioning System

## ► Product Features

- High positioning accuracy, fast response speed, strong anti-interference capability
- Compact structure, small size, easy integration with various platforms
- Adopts military-grade components, stable performance and high reliability
- Supports multi-signal positioning, wide coverage, adaptable to complex environments



## ► Application Fields

Border monitoring, field operation positioning, electronic reconnaissance

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### Aerospace & aviation

airborne/shipborne positioning, aircraft navigation

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### Communication & radar

signal source positioning, radio spectrum management

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### Emergency & security

emergency rescue positioning, public security patrol



# Optoelectronic Products

## ▶ Product Features

- High stability & reliability
- Wide bandwidth & low noise
- Compact & easy integration
- Military-grade compliance
- Customizable solutions



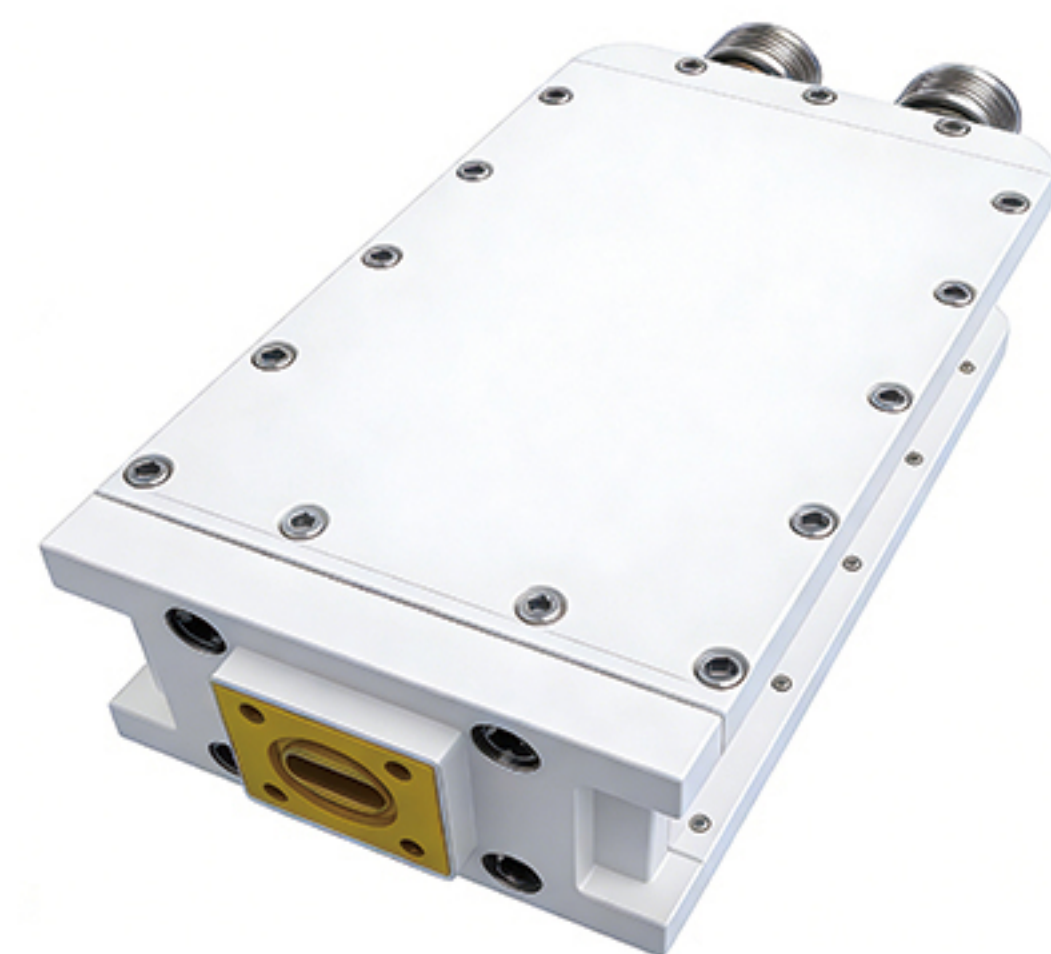
## ▶ Application Fields

- Radar & EW Systems
- Aerospace & Airborne Comm
- UAV Data Links
- RF Photonic Transmission
- Satellite Comm & Test Equipment



## ▶ Product Series

- Analog Optical Communication
- Low-noise Optical Terminal Equipment
- LNB Optical Terminal Equipment
- Matrix Open Series
- All-optical Switching Matrix Series



Full customization & reliable solutions from design to mass production



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