FINGER iLINK

边缘计算型数字网关
产品介绍

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Digital Gateway with Edge Computing

PRODUCT
INTRODUCTION
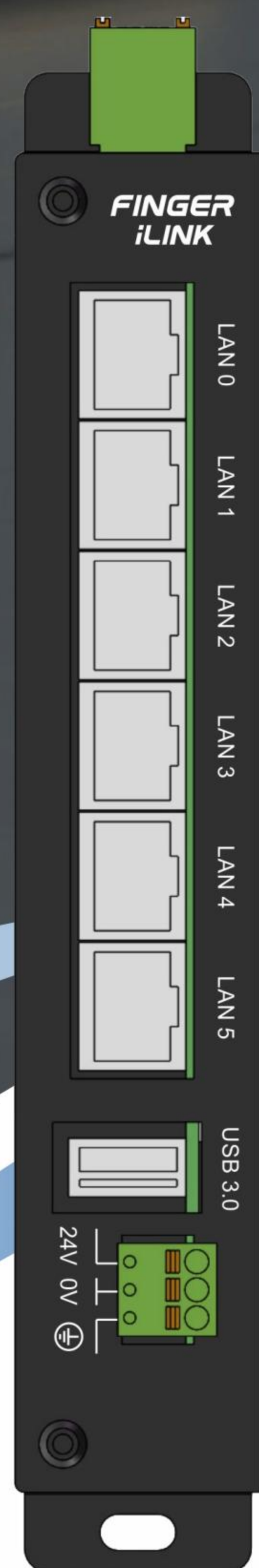
FINGER iLINK

# 边缘计算型数字网关
Digital Gateway with Edge Computing

边缘计算型数字网关产品
是一款嵌入式高性能的工业级产品

Digital Gateway with Edge Computing Product is an Embedded High-Performance Industrial-Grade Solution.

▶ 产品简介 / Product Introduction

◆ 具备丰富的通讯接口和高性能的运算处理与高速数据通讯能力。
Rich communication interfaces and high-performance computing with high-speed data communication capabilities.

◆ 支持集成数字网关产品功能,包括多种方式实现边缘采集、数据中转功能、设备对时和断线数据缓存等功能。
Supports integrated digital gateway product functions, including various methods to achieve edge collection, data transfer functions, device timing, and offline data caching.

◆ 支持西门子、欧姆龙、GE等产品的专用数据采集通讯功能。
Supports dedicated data acquisition communication functions for products such as Siemens, Omron, GE, etc.

◆ 支持多种Linux工具,用户可动态部署依赖模块,安装组建二次开发环境。
Supports various Linux tools, allowing users to dynamically deploy dependent modules and install component secondary development environments.

◆ 客户可自由部署应用程序,例如OPEN CV、数据库、PYTHON执行器等。
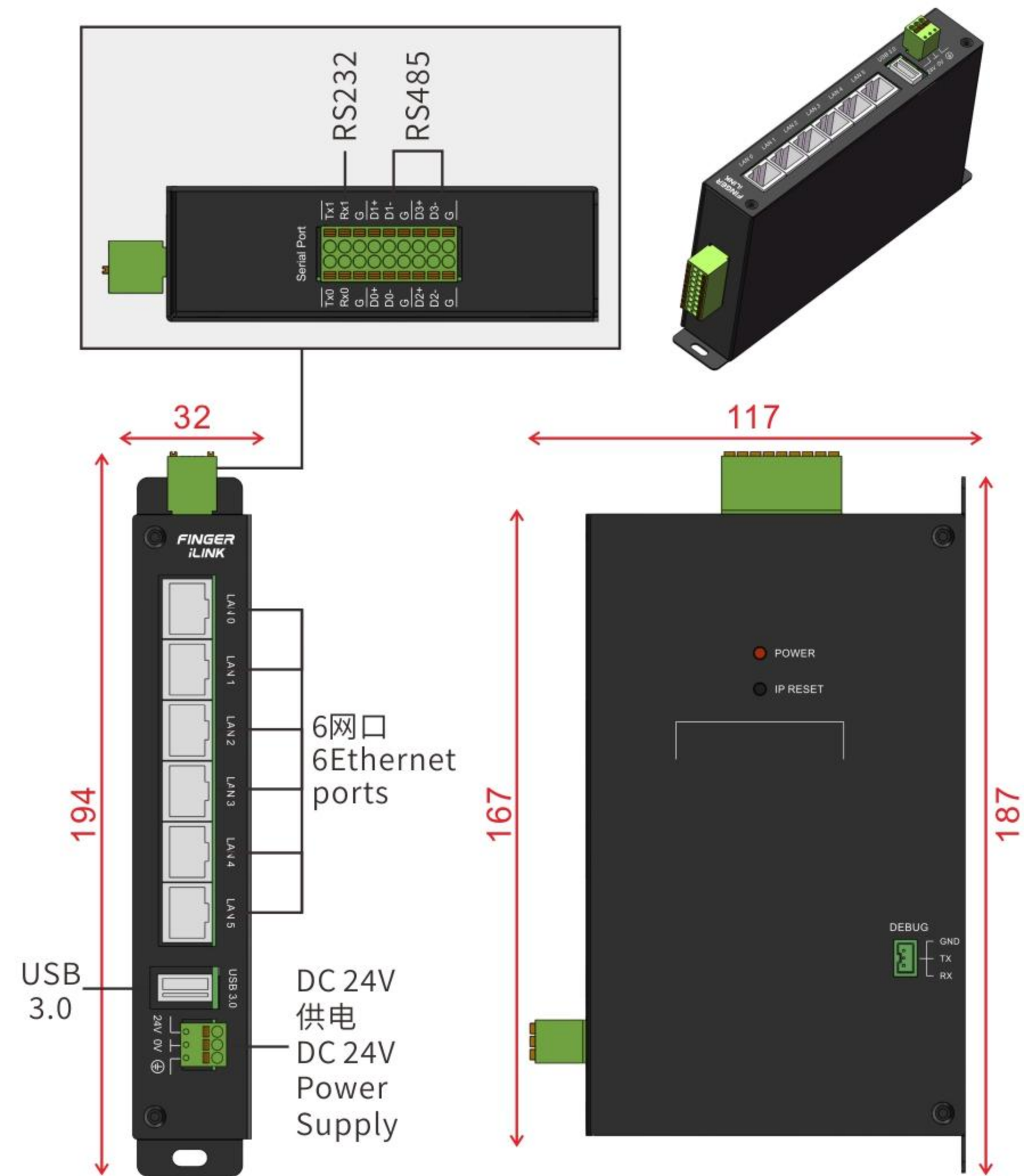
▶ 产品参数 / Product Parameter

基本参数 Basic Specifications			
芯片架构 Chip Architecture	ARM A55 双核架构 ARM A55 Dual Core Architecture	CPU主频 CPU Frequency	单核算力 2.0GHz Single Core Performance: 2.0GHz
RAM	2GB/4GB LPDDR4	存储 Storage	8GB/64GB EMMC5.0
通讯接口 Communication Interface			
串口 Serial Port	6路串口通讯,其中包含2路RS232接口和4路RS485接口 6 Serial communication ports, including 2 RS232 interfaces and 4 RS485 interfaces		
以太网 Ethernet	5路 100Mbps自适应网口,1路100Mbps网络配置端口 5-port 100Mbps adaptive network interface, 1-port 100Mbps network configuration port.		
工业级防护 Industrial Grade Protection			
EMC	4.5KV(电源,耦合) 4.5KV (Power, Coupling)		
振动(工作/存储) Vibration (Work/Storage)	7mm@2~9Hz;2g@10~500Hz		
工作温度 Operating Temperature	-20~85℃	存储温度 Storage Temperature	-20~85℃
供电功耗 Power Supply Power Consumption			
供电电压 Power Supply Voltage	24 VDC		
功耗 Power Dissipation	10W	散热方式 Cooling Method	自散热 Passive Cooling
安装尺寸 Installation Dimensions			
安装方式 Installation Method	自由安装 Free Installation	尺寸 Dimensions	158*108*30 mm
重量(KG) Weight (KG)	0.6	材质外观 Material and Appearance	深灰色 Dark Grey
软件系统 Software System			
软件平台 Software Platform	Finger GateWay Link IDE	采集接口库 Acquisition Interface Library	6种 可扩展 6 Expandable Options
数据处理能力 Data-handling Capacity	20000点 20000 Points		
操作系统 Operating System	Debian 11	转发接口库 Forwarding Interface Library	3种 可扩展 3 Expandable Options

产品特点 / Product Features

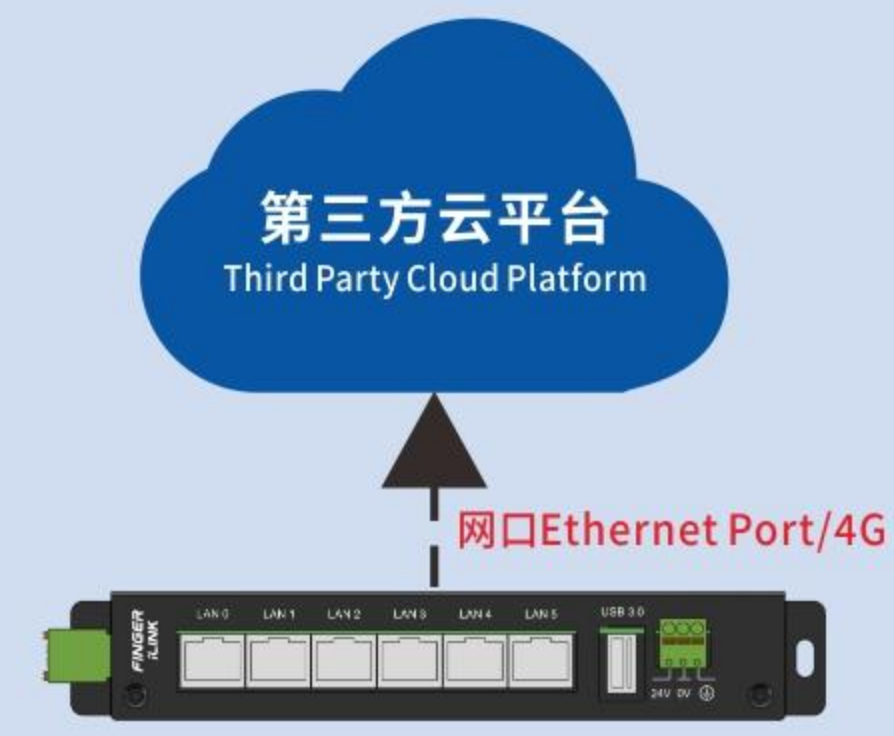|	
PLC控制器 PLC Controller	
仪器仪表 Instrumentation	
水环保设备 Water Environmental Protection Equipment	
电力设备 Power Equipment	
CNC机床 CNC Machine Tools	
机器手臂 Robotic Arms	

用户部署便捷
Convenient User Deployment

支持Linux工具，大大降低了运维人员部署环境的难度，只需要通过使用提供的工具按需进行动态部署。用户可以根据自己需求部署vsftp文件传输、Java、Python、opencv等环境。

By supporting Linux tools, it significantly reduces the difficulty for operations and maintenance personnel to deploy environments. Users can dynamically deploy environments based on their needs using the provided tools. They can deploy environments such as vsftp file transfer, Java,

边缘计算功能
Edge Computing Capabilities

1. 支持各种边缘计算功能：智能采集、数据过滤、公式计算、数据分组策略。

   Supports various edge computing functionalities: intelligent data acquisition, data filtering, formula calculations, and data grouping strategies.

2. 可实现不同设备数据标准化，极大节省开发成本。

边缘计算
Edge Computing

搭载轻量级linux系统
Equipped with a lightweight Linux system

第三方云平台
Third Party Cloud Platform

网口Ethernet Port/4G

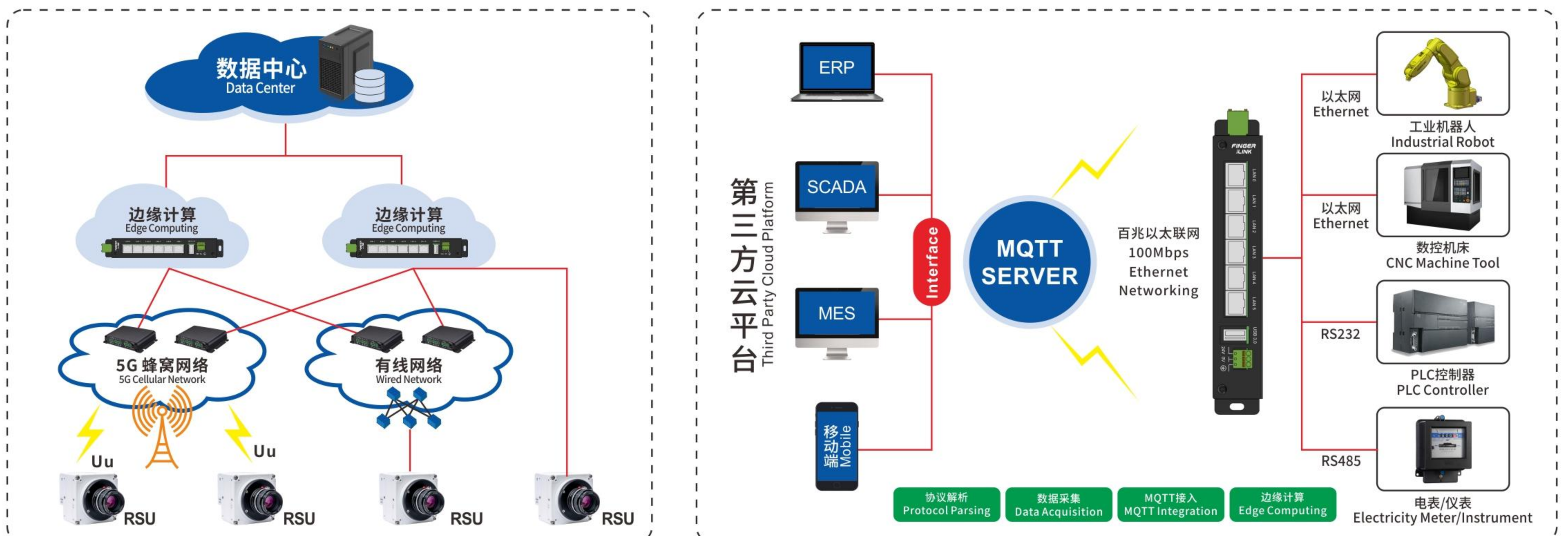系统在保证通用性和用户使用方便性的同时兼顾系统高执行效率、低冗余和占用系统资源尽可能少等特性，在通用性与效率找到一个平衡点。

The system ensures both versatility and user-friendliness while balancing high execution efficiency, low redundancy, and minimal utilization of system resources. It strikes a balance

集成数字网关产品功能
Integrated digital gateway product functionality

1. 丰富的数据采集协议。

   Rich data acquisition protocols.

2. 支持多种协议接入云平台：(MQTT、MODBUS、HTTP(s)等)。

   Supports multiple protocols for cloud platform integration, such as MQTT, MODBUS, HTTP(s), etc.

3. 支持协议定制化适配。

   Supports customized protocol adaptation.

4. 支持采集工程配置、设备维护、采集转发数据实时监看的功能。

   Supports functions such as engineering configuration acquisition, equipment maintenance, and

数据缓存
Data Caching

异常处理
Exception Handling

设备对时
Device Timing

应用场景 / Application Scenarios

数据中心
Data Center

边缘计算
Edge Computing

边缘计算
Edge Computing

5G 蜂窝网络
5G Cellular Network

有线网络
Wired Network

Uu

Uu

RSU

RSU

RSU

RSU

第三方云平台
Third Party Cloud Platform

ERP

SCADA

MES

移动端
Mobile

Interface

MQTT SERVER

百兆以太联网
100Mbps
Ethernet
Networking

以太网
Ethernet

工业机器人
Industrial Robot

以太网
Ethernet

数控机床
CNC Machine Tool

RS232

PLC控制器
PLC Controller

RS485

电表/仪表
Electricity Meter/Instrument

协议解析 Protocol Parsing | 数据采集 Data Acquisition | MQTT接入 MQTT Integration | 边缘计算 Edge Computing

广州亿达科技有限公司于2018年建立，旨在打造性能卓越的开放式数控系统，让自动化开发变得更简单。作为中国高性能控制器制造商之一，亿达科技专注于客户需求，不断突破技术研发边界，构建完善的自动化关键技术生态系统，为客户提供全面的解决方案和便捷服务。

亿达科技持续聚焦于工业领域的自动化、数字化、智能化，专注数控系统、运动控制器、边缘控制器、Open CNC开发平台、CAD/CAM技术、机器视觉技术、机械手控制技术、工业物联网技术的研发。领先行业的Open CNC开发平台，以快速为客户提供个性化的自动化解决方案为经营理念，让机器设备的软件客制化开发变得更简单，为客户创造专属的产品价值。

借助卓越的产品开放性和通用性，亿达科技产品广泛应用于不同领域，特别是在多轴联动插补、RTCP五轴联动控制、多轴多通道控制、电子凸轮、卷绕、张力等技术领域，为客户提供了更多的解决方案，并不断努力、超越自我、创造卓越。

专注需求、关注结果、追求卓越、服务客户是亿达科技创立以来所秉持的经营理念和企业价值。一直以来，我们坚持初心，砥砺前行，不断研发值得客户信赖的高性能的自动化产品，并将Open CNC理念做到客户终端，成就客户专属价值，助力产业持续升级。

Guangzhou Finger Technology Co., Ltd. was established in 2018 with the aim of creating an outstanding open CNC system to simplify automation development. As one of China's high-performance controller manufacturers, Finger Technology focuses on customer needs, continuously pushes the boundaries of technology research and development, builds a comprehensive automation key technology ecosystem, and provides comprehensive solutions and convenient services to customers.

Finger Technology continues to focus on automation, digitization, and intelligence in the industrial field, specializing in research and development of CNC systems, motion controllers, edge controllers, Open CNC development platforms, CAD/CAM technology, machine vision technology, robotic control technology, and IIoT technology. With the leading Open CNC development platform, the company's operating philosophy is to quickly provide personalized automation solutions to customers, making customized software development for machinery easier and creating exclusive product value for customers.

With outstanding product openness and versatility, Finger Technology products are widely used in various fields, especially in multi-axis linkage interpolation, RTCP five-axis linkage control, multi-axis multi-channel control, electronic cams, winding, tension, and other technical fields. The company provides more solutions to customers and continuously strives to surpass itself, creating excellence.

Focusing on customer needs, emphasizing results, pursuing excellence, and serving customers are the operating principles and corporate values that Finger Technology has upheld since its establishment. We have always adhered to our original aspirations, forged ahead, continuously developed high-performance automation products worthy of customer trust, and implemented the Open CNC concept at the customer's end, creating exclusive value for customers and