LEAGRID™

Product Model

LGS2000-ICS

Product Image

Product Overview

LGS2000-ICS series industrial IoT gateway is based on Allwinner A40I processor to realize real-time acquisition, analysis and processing, logic control and data return function of industrial IoT field data. With various interface types, rich protocols, high reliability and strong environmental adaptability, it can be used as a data access node of large IOT system to complete real-time acquisition, edge control and data return of PLC, sensors, intelligent equipment and automation system operation status information, which is widely used in smart factory, smart city, intelligent transportation, petroleum and petrochemical and other industrial IOT application scenarios.

Technical Specification

Fully localized, based on Allwinner A40I processor
(4 cores 1.2G), 1G memory, 8G/16G Flash, expandable 64G SD card.

Support Ethernet, serial port, analog/digital IO and other data access methods
Support TCP/UDP/Modbus RTU/Modbus TCP and other field data communication protocols,
Provide MQTT/OPC UA/custom data return interface
Support SM2/SM3/SM4 national security
Support BeiDou, GPS and GLONASS satellite absolute time reference
Fanless natural heat dissipation, -40~85℃ wide working temperature range
EMC level 3 protection, adapt to various field applications EMC requirements Industrial grade devices to meet the reliability requirements of various harsh environments

Lights

Run

PWR

Link/ACT,Speed

Environment

Operating temperature:-40℃～+85℃

Storage temperature:-40℃～+85℃

Relative Humidity:5～95%No condensation

Power supply

Input Voltage：18-36V DC

Power input/ 220V AC

Wattage< 10W

Warranty

MTBF:346889h

Warranty Period:5 years

Software Features

Function	secondary function	function requirement
communication	IOT protocol	MQTT client、HTTP、OPC-UA
		MODBUS-TCP、MODBUS-ASCII、ûMODBUS-RTU、OPC-UA
		TCP pass-through（server/client）、
		UDP pass-through
	device communication protocol	The identification data to be transmitted is temporarily stored in data transit and automatically cleaned up after transmission is completed to avoid data loss due to abnormalities such as network abnormality, Disconnection of transmission due to network failure, power failure, etc., and data transmission at the first time when the connection is successful to compensate for missed data.
	data transit	Support custom configuration of data communication transmission frequency and data reporting rules.
	Discontinued transmission	
Transmission	Transmission rules	
Alarm	Drop Alarm	Device drop alarm.
	Network anomaly alarm	Network signal abnormal alarm.
	Data over limit alarm	Insufficient data storage space alarm.
Collection Management	Data assignment	Unique identification of the data is assigned.
	Collection frequency	Support custom configuration of data collection frequency rules and automated data collection pause and start according to the rules.
	Pre-processing	Configuration and calculation of pre-processing rules for quadratic/non-reciprocal operations on collected data.
Data Processing	Edge Computing	Support remote OTA upgrade of edge computing algorithm package to realize different application scenarios to develop edge computing algorithm package and configure rules for data format conversion, transmission conditions, acquisition frequency and sending instructions for acquisition.
	Data Storage	Temporary secure storage of incomplete transmission identification data.
Online monitoring	Heartbeat Pack	Maintain real-time online detection with the platform through a heartbeat detection mechanism.
	Dormancy Strategy	Customized hibernation policy configuration for device or mushing chain data collection, edge computing, connection communication, and data transmission, and automatic wake-up operations according
	Base station positioning	Radio communication network based on telecommunication and mobile operators
	Watchdog	Reset for abnormal work of the mushing chain, such as: deadlock, dead loop, abnormal operation of the program.
Others	OTA firmware upgrade	

Product specifications

ports

Item	Descption	Note
Electricity supply	12VDC(9-36V)	Choose one of two
	220V AC	2 x 3PIN 5.08 Phoenix terminals
	1 x FE	RJ45
	1 x GE	RJ45
	4 x 485/422Interfaces （vk2124）	Double Layer 3.81 Phoenix Terminal
	2 x Serial ports(A40I)	Double Layer 3.81 Phoenix Terminal
		SMA
	4G Modules	4G card front panel to leave the card port
	GNSS	SMA Interface
Interface	4 x DIO	Digital input and output

Customized / Optional

Item	Descption	Note
	Up to 8 analog inputs as standard	
	Bluetooth 5.1	
	Wifi 802.1 Currently there is no localization program	
	Multi-way 232/485/422 (can support up to 32 ways)	
Interface	2-way CAN	
Memory	Optional SD card, can support up to 256G	
Software	Support software customization	