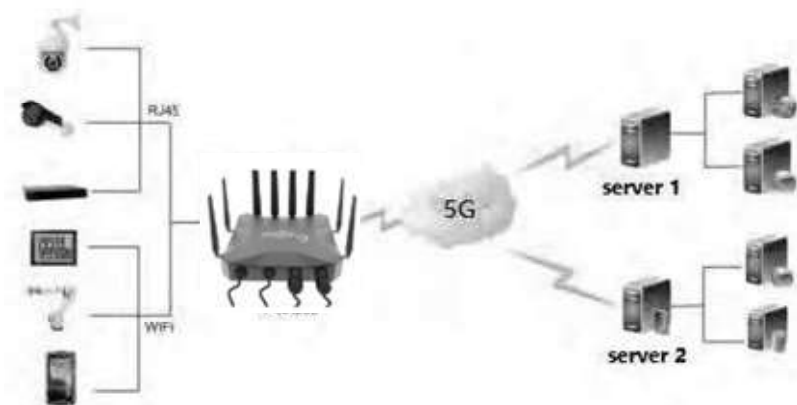# Starship 512

Specifications

StarShip 512 is a SG industrial CPE that uses public 3G/4G/5G networks to provide users with wireless long-distance big data transmission functions.

The product uses high-performance industrial-grade 32-bit communication processors and industrial-grade wireless modules, with embedded real-time operating system as the software support platform, and provides 1 RS232 (or RS485), 1 Ethernet LAN, and 1 Ethernet WAN, 1 optical fiber interface and support WIFI function, can connect serial device, Ethernet device and WIFI device at the same time, realize data transparent transmission and routing function.

This product has been widely used in the M2M industry in the Internet of Things industry chain, such as smart grid, smart transportation supply chain automation, public safety, environmental protection, meteorology, digital medical treatment, remote sensing survey, military, forestry, water, coal, petrochemical and other fields .

Application

Features

Industrial Design

◆ High-performance industrial-grade wireless module
◆ High-performance industrial-grade 32-bit communication processor
◆ Metal shell, protection grade IP68,Metal housing and system safety isolation
◆ Wide power input DC 9~36V

Reliable

◆ WDT Watchdog design to ensure system stability
◆ Adopt a complete anti-drop mechanism to ensure that the data terminal is always online
◆ Built-in 1.5KV electromagnetic isolation protection for Ethernet interface
◆ RS232/RS485 interface power and data isolation, in line with CSA, UL and IEC standards
◆ SIM/UIM card interface built-in 15KV ESD protection
◆ Built-in reverse phase protection and over voltage protection for power interface

Standard

◆ Standard RS232、RS485、Ethernet and WIFI Interface
◆ Standard WAN port,support PPPOE protocol, which can be directly connected to ADSL equipment
◆ Intelligent data terminal, can enter data transmission state after power on
◆ Easy to use, flexible, multiple working mode options
◆ Convenient system configuration and maintenance interface (WEB /CLI)
◆ Support wall-mounted, pole-mounted installation

Function

♦ Multiple WAN connection methods, include Static IP/DHCP/PPPOE/DHCP-4G/5G
♦ 3G/4G/5G and wired WAN dual link backup(optional)
♦ VPN Tunnel: PPTP/L2TP/IPSEC/OPENVPN/GRE
♦ Remote management:SYSLOG,SNMP,TELNET,SSH,HTTPS
♦ Support firmware local upgrade and remote upgrade
♦ Support Import and export configuration files
♦ **NTP** and Built-in RTC
♦ MAC address clone
♦ 2.4G WIFI support 802.11b/g/n, 5.8G WIFI support 802.11ac
♦ Support WIFI AP mode,Client mode,bridge mode(optional)
♦ WIFI support WEP,WPA,WPA2 encryption
♦ Support multiple online and offline trigger modes
♦ Support APN/Private APN
♦ Support DHCP server/client,DHCP binding MAC,DDNS,NAT,DMZ,QOS,Traffic statistics.real-time display of data transmission rate
♦ Support TCP/IP,UDP,FTP,HTTP and other network protocols
♦ Support SPI firewall.access control.URL filter
♦ Support IPV6/IPV4

Spec

e Wireless

Project	Content
Module	Industrial grade wireless module
Frequency	SG NR: n1/n2/n3/n5/n7/n8/n20/n28/n41/n66/n71/n77/n78/n79 LTE:B1/B2/B3/B4(66)/B5(18/19/26)/B7/B8/B12(17)/B13/B14/B20/B25/B26/ B28/B29/B30/B38/B39/B40/B41/B42/B43/ B46/ B48/B71 Remarks: Different modules support different network standards
Bandwidth	SG NR: DL 3.4Gbps, UL 350Mbps LTE Cat20: DL 2.0Gbps , UL IS0Mbps HSPA+: DL 42Mpbs, UL 5.76Mbps
Power	<23dBm
Sensitive	<-97dBm

e WIFI Specification

Project	Content
Standard	IEEE802.llb/g/n,2.4G,AP mode,Station mode(option) IEEE802.llac,5.8G,AP mode,Station mode(option)
Bandwidth	IEEE802.llb/g: 54Mbps IEEE802.lln: 300Mbps I EEE80 2.ll ac: 866Mbps
Security	WEP,WPA,WPA2 encryption, WPS(optional)
Power	26dBm(1lb)21dBm,(1lac/MCS7/HT40)20dBm,(1lac/MCS9/HT80)
Sensitive	<-72dBm@54Mpbs

e Hardware

Project	Content
CPU	Industrial-grade 32-bit communication processor
FLASH	Nor flash 16MB, NAND flash 128MB
DDR3	512MB

e Interface

Project	Content
WAN	1 x 1ODOM ETH port(RJ45water proof),auto adapt MDI/MDIX.built in 1.5KV ESD
LAN	1 x 1ODOM ETH port(RJ45water proof),auto adapt MDI/MDIX,built in 1.5KV ESD
Optical fiber	1 x 1000M fiber interface(External all-plastic waterproof interface) Auto adapt MDI/MDIX,built in 1.5KV ESD
Serial	1 x RS232/RS485 serial port(External all-plastic waterproof interface),built in 1.SKV ESD

	Data bit :,5 6, ,7 8
	Stop bit:1,1.S(optional),2
	Check: NONE,ODD,EVEN,SPACE(optional) and MARK(optional)
	Baud rate:2400~115200bits/s
Indicators	"PWR", "SYS", "2.4G","5.8G", "Online","Signal"
	Remarks: Built-in indicator light
Antenna	Cellular: 4 x waterproof SMA female antenna, characteristic impedance 50 ohms
	WIFI: 4 x waterproof SMA male antenna, characteristic impedance 50 ohms
SIM/UIM	Standard drawer type, 1.8V/3V SIM/UIM card, built-in 15KV ESD protection
Power	Terminal interface, built-in power reverse protection
USB	USB2.0 (Built-in)
Reset button	Through this button, the parameter configuration can be restored to the factory

Power Supply

Project	Content
Standard	DC 12V/1.5A and Support POE(802.3af) power supply
Range	DC 9~36V
Operating	<1.2A (12V)

e Physical

Project	Content
Shell	Metal shell, protection grade IP68
Size	259x259x45 mm (Does not include antenna and mounting parts)
Weight	2480g

e Others

Project	Content
Operating temperature	-35~＋75°C(-31~＋167°F)
Storage temperature	-40~+85°C(-40~+185°F)
Relative humidity	95%(No condensation)

Order Info

Model	Content
Starship 512	Cellular (5G),2.4G/5G WIFI,SIM*l