

SEC413G/513G IoT Edge Computing

The SMANEX SEC413G/513G IoT Edge Computing Gateway is a 4G/5G programmable network device equipped with essential protocols and Linux platform for software development. It features a robust CPU and NPU based on the embedded firmware, optimizing applications in smart energy, oil and gas, traffic, and industrial automation. Additionally, it provides various interfaces and connectivity such as Ethernet, RS232/485, DI/O, WiFi, and MQTT/HTTPS protocols, all compatible with AWS and Azure platforms that helps for time-to-market in cost-effective solutions.



Hardware Spec

Characteristics	CPU	Quad-core ARM Cortex-A55 up to 2.0GHz
	NPU/GPU	1 TOPS/ ARM G52 2EE
	RAM	512MB
	eMMC	32GB
Interfaces	Ethernet	1*WAN/LAN, 4*LAN 10/100/1000Mbps
	Serial Port	RS232*2, RS485*2
	Console	RS232
	HDMI	1* HDMI 2.0, 4K@60Hz
	SD Socket	1* Micro SD slot, 32G Max
	SSD	4T Max
	USB	1*USB2.0
	SD socket	1*Micro SD slot, 32G Max
	SIM	2
	WiFi	IEEE802.11a/b/g/n/ac
	Antenna	3G/4G: SMA*2 5G: SMA*4
	GPS (optional)	SAM*1
Power	Power Input	DC12-48V, POE (optional)
	Consumption (operation)	350mA@12VDC (3/4G) 500mA@12VDC (5G)
	Consumption (stand-by)	260mA@12VDC
Ambient Temperature	Relative humidity	≤ 95% (no condensation)
	Operating Temperature	-40 ~ +75℃
	Storage Temperature	-40 ~ +85℃

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Edge Computing Gateway

Software Spec

Network	Connectivity	3G/4G/5G
	WAN	Static IP, DHCP, PPPoE
Network Protocols	IP Routing	Static Router, RIP, OSPF (optional)
	DDNS	DYDNS, CHANGEIP, 88ip, 3322
Security	Firewall	NAT, PAT, DMZ, Port Forwarding, Virtual Server
	VPN	IPSec VPN, L2TP, PPTP, GRE, OPENVPN
Reliability	Redundancy	Dual SIM
	Link On-line Detection	Keep Session
		ICMP, Internet Control Message Protocol
	Embedded Watch Dog	Hardware Watch Dog
Industrial Protocol	Northbound	Modbus TCP, IEC104, BACnet IP, MQTT
	Southbound	Modbus RTU/ASCII, Modbus TCP, DL/T645, IEC101, IEC104, BACnet IP, BACnet, MS/TP , PLC
	PLC Brand	Siemens, Schneider, AB, Delta, OMRON, Mitsubishi, Panasonic
Operating System		Ubuntu 22.04
Management	Configuration	Local or Remote HTTP, HTTPS, Telnet, SSH
		Parameter Backup and Recovery
		SNMP v2
		Configuration via cloud platform
	Upgrade	Local upgrade
		Remote upgrade via WEB/TFTP/FTP
		Upgrade via cloud server
	Log Management	Local and remote log management
	Reboot	Remote reboot with scheduling
Certificate	EMC	PING
		Internet diagnosis
		EN61000-4-2, level 4 EN61000-4-3, level 3
		EN61000-4-4, level 4 EN61000-4-6, level 3
		EN61000-4-8, >level 4

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