HUAWEI AR530 Series Agile Gateway Brochure

HUAWEI TECHNOLOGIES CO., LTD.

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Overview

The AR530 series agile gateways, named industrial switching routers, are designed to work in harsh environments of Internet of Things (IoT) applications. They integrate routing, switching, security, and Advanced Metering Infrastructure (AMI) functions and provide various extensions.

The AR530 is available in the following models: AR531-2C-H, AR531-F2C-H, AR531GR-U-H, AR531GPe-U-H and AR531G-U-D-H.

AR531-2C-H

AR531-F2C-H

AR531GR-U-H

AR531GPe-U-H

AR531G-U-D-H

Key Features and Values

Applications Integrated in One Device, Reducing Total Cost of Operation

- Integrates routing and data collection functions and provides various types of interfaces, such as FE, GE, 3rd Generation (3G), Power Line Carrier (PLC), Radio Frequency (RF) , ZigBee and RS485.
- Supports switching and Smart Ethernet Protection (SEP), implementing millisecond-level protection switch-over.
- Has a built-in, zone-based firewall, ensuring production security.

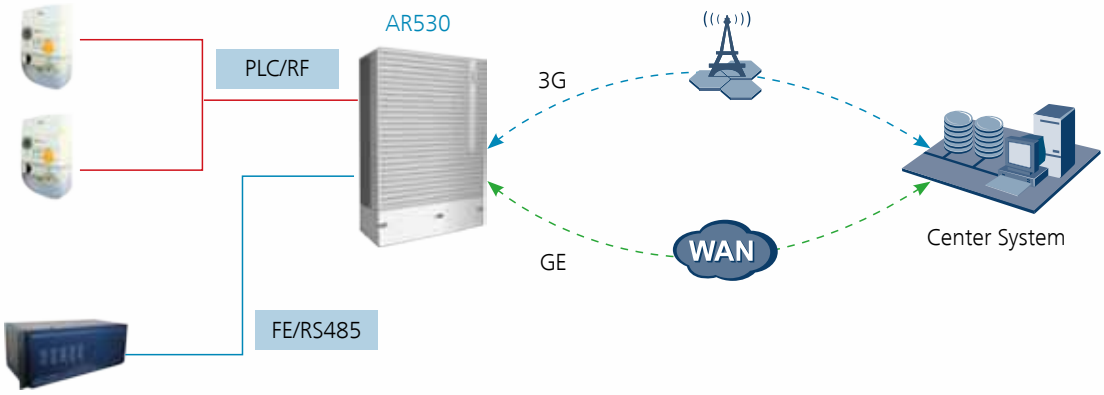
Better Experience with Industry-class Design

- Complies with substation environment standard IEC61850-3/IEEE1613.
- Provides IP51 and is dustproof and waterproof.
- Uses a fanless design and works in a wide temperature range.
- Works normally in environments that have strong electro-magnetic interference.
- Hawei-developed PLC technology with multi-carrier modulation of Orthogonal Frequency Division Multiplexing (OFDM), allowing Megabit-level transmission rate.

Open Interface to Improve IoT Applications Integration

- Open protocol standards: Complies with IEC 62056 (DLMS/COSEM), Modbus, and inter-operates easily with other devices.
- Flexible configuration and management: flexibility to configure data collection services of IoT terminals to meet customized user requirements.

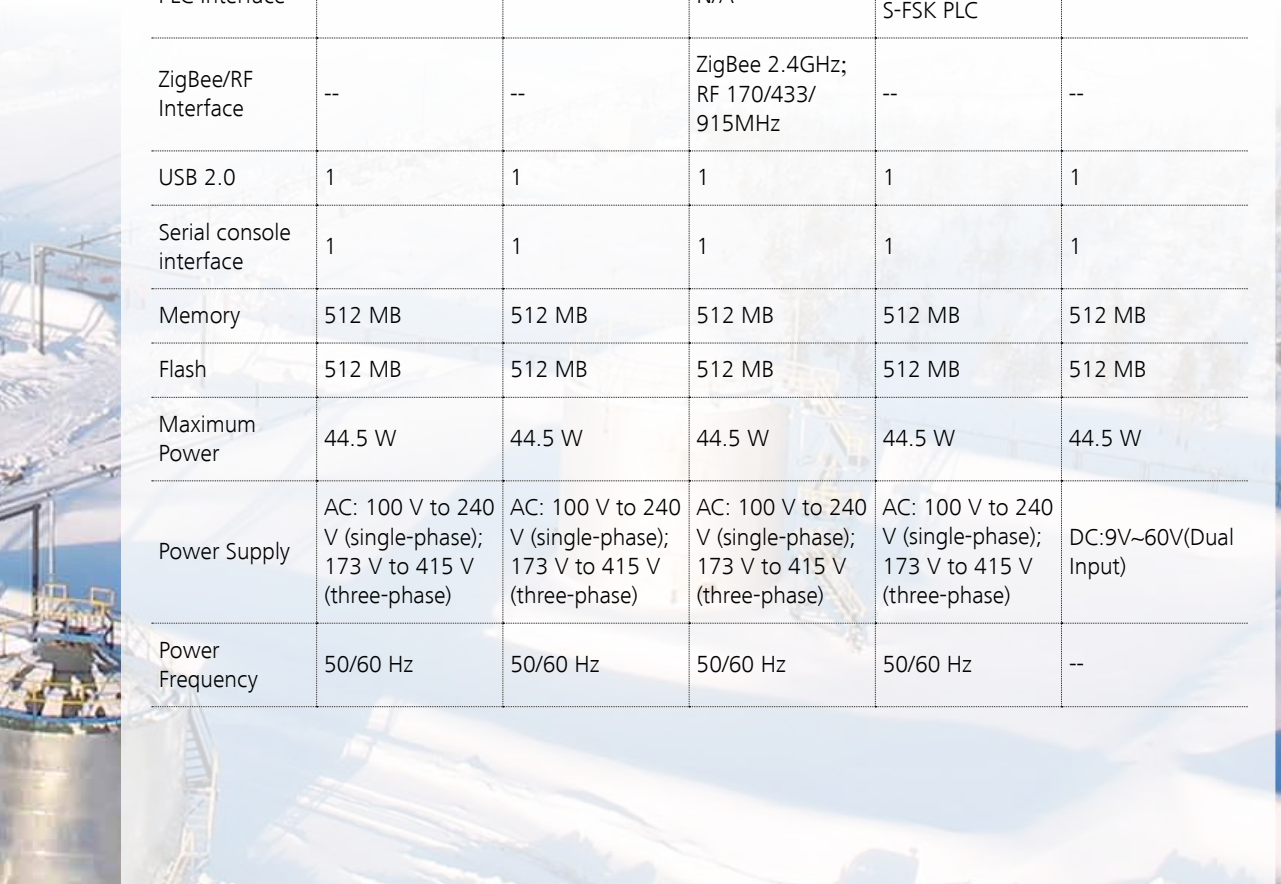
Typical Applications



Product Specifications

The following table lists the specifications of the AR530.

Specifications	AR531-2C-H	AR531-F2C-H	AR531GR-U-H	AR531GPe-U-H	AR531G-U-D-H
Hardware Specifications					
L2 Switching Capacity	5.6Gbps	5.6Gbps	5.2Gbps	5.2Gbps	5.2Gbps
L2 Forwarding Performance	4.2Mpps	4.2Mpps	3.9Mpps	3.9Mpps	3.9Mpps
WAN Speed With Services	150 Mbps	150 Mbps	150Mbps	150Mbps	150Mbps
Fixed Ethernet Interface	2 x GE SFP + 6 x FE RJ45 + 2 x FE combo	2 x GE SFP + 6 x FE SFP + 2 x FE combo	2 x GE SFP + 6 x FE RJ45	2 x GE SFP + 6 x FE RJ45	2 x GE SFP + 6 x FE RJ45
RS485 Interface	2-channel	2-channel	2-channel	2-channel	2-channel
DI Interface	2-channel	2-channel	2-channel	2-channel	2-channel
WCDMA Support	--	--	• UMTS/HSDPA (2100/900MHz) • GSM/GPRS/EDGE(850/900/1800/1900MHz)		
Dual SIM Support	--	--	2 SIM slots, Main and Backup		
PLC Interface	--	--	N/A	Hi-PLC (OFDM) S-FSK PLC	--
ZigBee/RF Interface	--	--	ZigBee 2.4GHz; RF 170/433/ 915MHz	--	--
USB 2.0	1	1	1	1	1
Serial console interface	1	1	1	1	1
Memory	512 MB	512 MB	512 MB	512 MB	512 MB
Flash	512 MB	512 MB	512 MB	512 MB	512 MB
Maximum Power	44.5 W	44.5 W	44.5 W	44.5 W	44.5 W
Power Supply	AC: 100 V to 240 V (single-phase); 173 V to 415 V (three-phase)	AC: 100 V to 240 V (single-phase); 173 V to 415 V (three-phase)	AC: 100 V to 240 V (single-phase); 173 V to 415 V (three-phase)	AC: 100 V to 240 V (single-phase); 173 V to 415 V (three-phase)	DC:9V~60V(Dual Input)
Power Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	--



Weight	≤5 kg	≤5 kg	≤5 kg	≤5 kg	≤5 kg
Dimensions (H x W x D)	88 mm x 220 mm x 250 mm				
Storage Temperature	-40°C to +80°C				
Installation method	Wall-mounted, DIN rail mount				
Operating temperature	–40°C to +70°C	–40°C to +70°C	–40°C to +60°C	–40°C to +60°C	–40°C to +60°C
Relative humidity	5% RH to 95% RH (non-condensing)				
Protection level	IP51				

Specifications	AR531-2C-H	AR531-F2C-H	AR531GR-U-H	AR531GPe-U-H	AR531G-U-D-H
Software Specifications					
Industrial Communication Protocol	IEC62056, Modbus				
Basic Features	DHCP server/client/relay, PPPoE server/client, NAT, sub-interface management				
LAN	IEEE 802.1p, IEEE 802.1q, IEEE 802.3, VLAN management, MAC address management				
Ring Network Protocols	SEP, STP, RSTP, MSTP				
IPv4 Routing	Routing policies, static routes, RIP, OSPF, IS-IS, BGP				
IPv6 Routing	Routing policies, static routes, RIPng, OSPFv3, IS-ISv6, BGP4+				
Multicast	IGMP v1/v2/v3, PIM SM, PIM DM, MSDP				
VPN	IPSec VPN, GRE VPN, DSVPN, L2TP VPN				
QoS	Differentiated service model, priority mapping, traffic policing (CAR), traffic shaping, congestion avoidance (IP-precedence/DSCP-based WRED), congestion management (LAN interfaces: SP/WRR/SP+WRR; WAN interfaces: PQ/CBWFQ), MQC (traffic classifier, traffic behavior, and traffic policy), HQoS, Smart Application Control (SAC)				
Security	Access Control List (ACL), firewall, 802.1x authentication, AAA authentication, RADIUS authentication, HWTACACS authentication, broadcast storm suppression, ARP security, ICMP attack defense, Unicast Reverse Path Forwarding (URPF), CPCAR, Public Key Infrastructure (PKI)				
Management and Maintenance	Upgrade management, device management, SNMP (v1/v2c/v3), RMON, NTP, USB-based deployment, network configuration, CLI				

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HUAWEI TECHNOLOGIES CO.,LTD.
Huawei Industrial Base
Bantian Longgang
Shenzhen 518129,P.R.China
Tel: +86 755 28780808

www.huawei.com