

OnAccess G4224

Two Slot Line Card Type Long Reach PoE+ Managed Switch

Overview



OnAccess G4224 enables all enterprises, integrator, network service providers to set up an IP infrastructure in a remote location where 802.3af/at/bt PoE compliant powered devices can receive both data and power via OnAccess G4224 Long Reach PoE++ managed switch, but not limited to the normal 100 meters.

Power over Any Wire is an effective tool for powering Ethernet devices that need to be located in areas where power is not currently available and would be difficult or costly to install. In such cases, power can be provided over existing cable, such as twisted-pair, coaxial cabling, UTP, which simplifies installation, saves time, and eliminates the cost of new wiring.

OnAccess G4224 series products allowing upgrades from analog cameras to high-quality digital IP cameras in security and surveillance applications, interconnection of communication equipment in cellular backhaul applications, and interconnection of wireless equipment in WAN/LAN networks, all without the high cost of replacing the existing cable.

System Description

	Model	Description
Chassis	G4224	2 *SFP or SFP+, Support 1/10Gbps 2 *10/100/1000-BT RJ-45 2 *BNC port for synchronization 1 *RJ45 or Type-C USB combo console port Built-in two 300W power modules Built-in ten powerful FANs Dual AC Input, 100~240VAC, 50/60Hz 2 * 2-PIN connectors, DC IN and DC OUT: 48VDC to 56VDC
Line Card	G4224-12BP	12*BNC Connector Data rate up to Gigabit 10* 802.3at(30W) and 2*802.3bt(90W) over coax with 500m reach
	G4224-12CP	12*F female Connector Data rate up to Gigabit

		10* 802.3at(30W) and 2*802.3bt(90W) over coax with 500m reach
	G4224-12TP	12*RJ45 Connector Data rate up to Gigabit 10* 802.3at(30W) and 2*802.3bt(90W) over twisted-pair with 600m reach
	G4224-12EP	12*RJ45 Connector Data rate is Gigabit 10* 802.3at(30W) and 2*802.3bt(90W) over Cat5E/Cat6 with 100m reach

Application

Long Reach Power over Any Wire Solution:



Business Benefits

- Super-fast speed over existing 2 wire copper, 4 wire copper, coaxial cable
- Reduce time to service and save over 40% vs. pulling new cables
- Accelerate your return on investment by reducing infrastructure costs
- Simplify your IP modernization, collapsing planning and deployment time
- Eliminate infrastructure barriers, risks, disruption and costs
- Create a robust plug-and-play IP platform that is easy to deploy and manage
- Be environmentally responsible during your IP upgrades

Product Highlights

➤ Speed, Reach and Power

OnAccess G4224 delivers rate up to gigabit and 30W(with two port up to 90W) over existing cable, with 1-Pair twisted-pair cable up to 300m reach, with 2-Pair twisted-pair cable up to 600m reach, with coaxial cable up to 600m reach. It is designed to provide highest speeds and furthest power over any wire distance.

- **Centralized Power Management**
OnAccess G4224 eliminates the need for an additional remote site power while allowing a single power source to provide power to both Long Reach PoE+ devices and the PoE powered devices at long range. The long reach PoE+ capabilities provided help to reduce installation time and deployment costs for network devices as a result of freeing from restrictions of power outlet locations.
- **Power Sharing for Redundancy**
Four OnAccess G4224 can be stacked together for power sharing, load balancing and power redundancy.
- **PoE Usage Monitoring**
Via the power usage table in the web management interface, OnAccess G4224 enables the administrator to monitor the status of the power usage of the connected PDs in real time. Thus, it greatly enhances the management efficiency of the facilities.
- **Power Transfer Safety**
IEEE 802.3af/at/bt compliant and will negotiate power requirements with IP device.
- **Robust Layer2 Features**
First Mile LRP managed switch can be programmed for advanced switch management functions such as dynamic port link aggregation, 802.1Q VLAN and Q-in-Q VLAN, multiple spanning tree protocol (MSTP), loop and BPDU guard, IGMP Snooping and MLD Snooping.

Specification

Hardware															
Interfaces	2 * Slots for hot-swappable G.hn or standard Ethernet, power over cable line cards 2 * 1000-X/2500-X/10000-X SFP/SFP+ ports 2 * 10/100/1000BT RJ45 ports 2 * SYNC BNC ports 1 * RS232 console port(RJ45 or Type-C USB combo connector, USB port preferred)														
Line Card	G4224-12BP: <table border="1"> <tr> <td>Interface</td> <td>12 * BNC female connectors BNC center pole: DC- BNC shield: DC+</td> </tr> <tr> <td>Power Output</td> <td>48VDC to 56VDC, Port1-Port10 30 watts max. and Port11-Port12 90 watts max.</td> </tr> <tr> <td>Total Power Budget</td> <td>520 watts (max.)</td> </tr> <tr> <td>LED</td> <td>Link Indicator and PoE Indicator</td> </tr> <tr> <td>Cabling</td> <td>Coaxial cable: 75 ohm</td> </tr> <tr> <td>Long Reach Ethernet Standard</td> <td>G.hn</td> </tr> <tr> <td>Security</td> <td>128-bit AES encryption</td> </tr> </table>	Interface	12 * BNC female connectors BNC center pole: DC- BNC shield: DC+	Power Output	48VDC to 56VDC, Port1-Port10 30 watts max. and Port11-Port12 90 watts max.	Total Power Budget	520 watts (max.)	LED	Link Indicator and PoE Indicator	Cabling	Coaxial cable: 75 ohm	Long Reach Ethernet Standard	G.hn	Security	128-bit AES encryption
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Cabling	Coaxial cable: 75 ohm														
Long Reach Ethernet Standard	G.hn														
Security	128-bit AES encryption														

Frequency Band	3~200MHz
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G4224-12CP:

Interface	12 * F female connectors F center pole: DC- F shield: DC+
Power Output	48VDC to 56VDC, Port1-Port10 30 watts max. and Port11-Port12 90 watts max.
Total Power Budget	520 watts (max.)
LED	Link Indicator and PoE Indicator
Cabling	Coaxial cable: 75 ohm
Long Reach Ethernet Standard	G.hn
Security	128-bit AES encryption
Frequency Band	3~200MHz

G4224-12TP:

Interface	12 * RJ45 connectors RJ45 Pins 1,2,3,4: DC+ RJ45 Pins 5,6,7,8: DC-
Power Output	48VDC to 56VDC, Port1-Port10 30 watts max. and Port11-Port12 90 watts max.
Total Power Budget	520 watts (max.)
LED	Link Indicator and PoE Indicator
Cabling	1-Pair, 2-Pair, 4-Pair twisted-pair
Long Reach Ethernet Standard	G.hn
Security	128-bit AES encryption
Frequency Band	3~200MHz

G4224-12EP:

Interface	12 * 10/100/1000Base-T RJ45 802.3af, 802.3at: RJ45 Pins 1,2 : DC+; 3,6: DC- 802.3 bt: RJ45 Pins 1,2,4,5: DC+; 3,6,7,8: DC-
Power Output	48VDC to 56VDC, Port1-Port10 30 watts max. and Port11-Port12 90 watts max. Compliance with 802.3af/at/bt standards
Total Power Budget	520 watts(max.)
Maximum distance	100m
LED	Link Indicator and PoE Indicator

	Cabling	Cat5E, Cat6
Power Supply	Dual AC Input, 100 ~ 240VAC / 50 ~ 60Hz, auto-sensing Each AC Power output: 300W max at 110VAC	
Power sharing	2 * 2-PIN connectors, DC IN and DC OUT: 48VDC to 56VDC Up to a max. of 4 units for power/load sharing	
FAN	Built-in ten powerful FANs Cooling: from left to right	
LED	Power, System Active, SYNC, Alarm, SFP and RJ45 port link/active	
Button	1 * Reset Button, Press more than 10s, reset to factory configuration	
Physical Dimension (W*D*H)	440mm*300mm*44mm, 1U high Support 19" Rack Mount	
Weight	<4.2 KG	
Enclosure	Metal	
Power consumption	600 watts	
Environment Conditions		
Operating temperature	0°C ~ 40°C	
Storage temperature	-25°C ~ 70°C	
Operating humidity	10% ~ 90% non-condensing	
G.hn performances & Specification		
Line Modulation Way	OFDM (Orthogonal Frequency Division Multiplexing)	
G.hn Specification	2 ~ 200 MHz for Baseband (2~200MHz SISO, 2-100MHz MIMO) Support 2wire SISO and 4wire MIMO, coaxial cable Power Mask Notching Dynamic PSD NDIM (Neighbor Domain Interface Mitigation) Radio Band Notching function NEXT (Near End Crosstalk) Mitigation	
Software		
MAC Address	16K	
VLAN Numbers	4K, 256 VLAN groups	
Layer 2	802.1W STP, RSTP, PVSTP 802.1D Spanning Tree Protocol 802.1Q VLAN and VLAN Trunk 802.3ad Link Aggregation(MAX 8 Groups & 8 members for each group) Jumbo Frame up to 9K	
Management	Web-based management GUI CLI Syslog, SNMP v1/v2c/v3,SNMP trap, RMON, TFTP FTP, SNTF, TCP DUMP, Port Mirroring Security by using password for log-in via Console and Telnet Factory restore Reboot Firmware upgrade	

	Configuration backup and restore
Multicast	IGMP Snooping V1/V2 Multicast Group up to 512 Multicast Traffic Block / Filtering Protection of malicious multicast traffic from subscriber port
DHCP	Private DHCP server blocking DHCP Broadcast Traffic Blocking forwarded by interface DHCP message Filtering DHCP broadcast traffic protection DHCP Request Flooding protection(DHCP snooping rate-limiting) DHCP Option 82 Circuit-ID: port information user connected Remote-ID: MAC address information of Relay device
Security	DLF, Broadcast, TCP-SYN, IGMP Attack protection DHCP Filtering, Mac Filtering, NetBEUI, NetBIOS Filtering, NBT Packet filtering based on IP address and TCP, UDP port MAC spoofing, flooding protection(static MAC, MAC count) Multicast/Broadcast flooding protection Theft protection of Gateway IP address(GARP) Service classifying for the Control Packet (Ping, Telnet, SNMP, FTP, TFTP etc.) NetBIOS/ NetBEUI/ NBT filtering 8 CPU queue, Rate-limit to CPU traffic IP/TCP/UDP Port Filtering
QoS / ACL	Layer 2(Source/Destination MAC Address, VLAN ID, COS Field) Layer 3(Source/Destination IP Address, DSCP Field) Priority/Parameter based QoS 4 queue per port SPQ, WRR, SPQ + SDWRR, Egress Rate-shaping : port , queue DSCP marking/remarking Ingress ACL: 128

Order Information

Available Models	Description
G4224	Chassis with two slot
G4224-12BP	Line card used with G4224, 12*BNC connector, ITU-T G.hn standard
G4224-12CP	Line card used with G4224, 12*F connector, ITU-T G.hn standard
G4224-12TP	Line card used with G4224, 12*RJ45 connector, ITU-T G.hn standard
G4224-12EP	Line card used with G4224, 12*RJ45 connector, IEEE Ethernet standard