1200Mbps 802.11ac Dual Band Ceiling Mount Wireless Access Point

TAIWAN EXCELLENCE 2015

Brand-new 11ac Wireless Technology

The WDAP-C7200AC supports IEEE 802.11a/b/g/n/ac dual band standards with 2T2R MIMO technology; therefore, it provides the wireless speed up to 300+867Mbps, which is 16X faster than the 11a access point at 5GHz frequency and 5.5X faster than the 11g access point at 2.4GHz frequency. Moreover, the WDAP-C7200AC is equipped with Gigabit Ethernet Port. Compared with the general wireless APs, the WDAP-C7200AC offers faster transmission speed for the network applications and less interference to enhance data throughput. The incredible wireless speed makes it ideal for handling multiple HD movie streams, high-resolution on-line games, stereo music, VoIPs and data streams at the same time stably and smoothly.

11 n HT40 — 300Mbps
11 n HT20 — 150Mbps — 173Mbps
11 g — 54Mbps | 54Mbps

5.5X of 11g
16X of 11a

11 ac VHT80
11 ac VHT40 — 400Mbps — 867Mbps
11 ac VHT20 — 173Mbps
11 a

2.4GHz + 5GHz
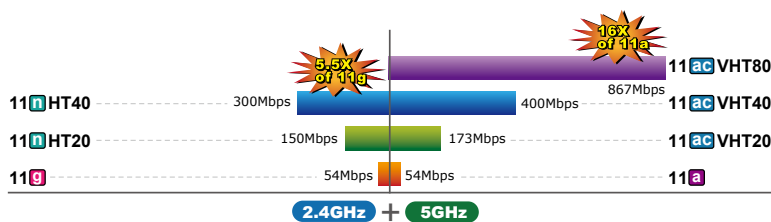
WDAP-C7200AC Data Transmission Rates 1200Mbps

11ac Innovations Bring Excellent Data Link Speed

The WDAP-C7200AC is built-in with high power amplifier and 4 highly-sensitive antennas which provide stronger signal and excellent coverage even in the wide-ranging or bad environment. With adjustable transmit power option, the administrator can flexibly reduce or increase the output power for various environments, thus reducing interference to achieve maximum performance. To provide extremely high-

Standard Compliant Hardware Interface

- Complies with IEEE 802.11ac (draft 2.0) and IEEE 802.11a/b/g/n standards
- 1 x 10/100/1000Base-TX Port with 1-port PoE (PD, Powered Device)
- IEEE 802.3at Power over Ethernet design

RF Interface Characteristics

- Features 2.4GHz (802.11b/g/n) and 5GHz (802.11a/n/ac) concurrent dual band for more efficiency of carrying high load traffic
- 2T2R MIMO technology for enhanced throughput and coverage
- Provides multiple adjustable transmit power control
- High speed up to 1.2Gbps (300Mbps for 2.4GHz + 867Mbps for 5GHz) wireless data rate

Comprehensive Wireless Advanced Features

- Multiple Wireless Modes: AP, Client, WDS PtP/ PtMP, WDS Repeater, Universal Repeater
- Supports up to 10 multiple-SSIDs (2.4GHz+5GHz) to allow users to access different networks through a single AP
- Supports VLAN function to limit the clients to access the specific internal network resource
- Supports WMM (Wi-Fi Multimedia) and wireless QoS to enhance the efficiency of multimedia application
- Supports IAPP (Inter Access Point Protocol) and wireless roaming to enable clients to roam across different wireless networks
- Supports 5-level Transmitting Power Control to adapt various environments
- Supports wireless schedule to automatically enable or disable the wireless function based on predefined schedule
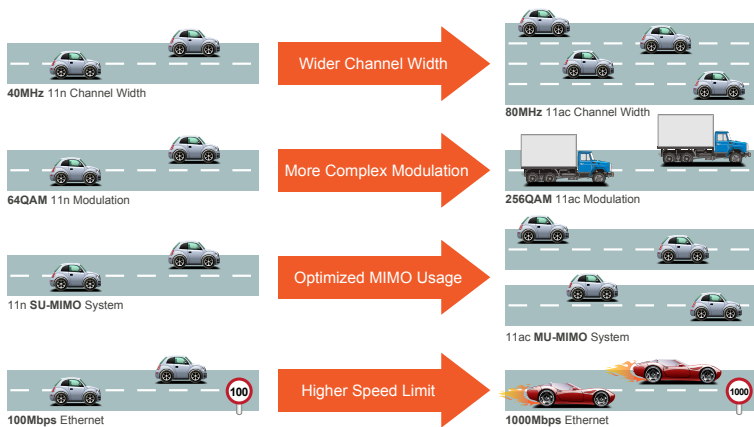
speed user experience, the WDAP-C7200AC adopts IEEE 802.11ac technology to extend the 802.11n 40MHz channel binding to 80MHz and the implementation of 256-QAM modulation where higher transmitting/receiving rates go up to 867Mbps in 5GHz less interference frequency band. In addition, the WDAP-C7200AC is equipped with Gigabit LAN port to eliminate the restriction of 100Mbps Fast Ethernet wired connection to let users fully enjoy the high speed provided by wireless. The IEEE 802.11ac also optimizes MU-MIMO (Multi-User MIMO) mechanism to serve multiple devices simultaneously.

Secure Network Connection

- Advanced security: 64/128-bit WEP, WPA / WPA2, WPA-PSK / WPA2-PSK (TKIP/AES encryption) and 802.1x Radius Authentication
- Supports MAC address filtering

Easy Installation & Management

- Flexible deployment with standard 802.3at PoE/ PD supported
- Web-based UI and Quick Setup Wizard for easy configuration
- Remote Management allows configuration from a remote site
- SNMP-based management interface
- System status monitoring includes DHCP Client and System Log

40MHz 11n Channel Width → Wider Channel Width → **80MHz** 11ac Channel Width

64QAM 11n Modulation → More Complex Modulation → **256QAM** 11ac Modulation

11n **SU-MIMO** System → Optimized MIMO Usage → 11ac **MU-MIMO** System

100Mbps Ethernet → Higher Speed Limit → **1000Mbps** Ethernet

Go faster in wired & wireless
Take Advantage of 11ac to Optimize Data Link Speed

Ceiling Mount Designed for Highly-efficient Wireless Coverage

Featuring attractive flying saucer appearance and ceiling-mount design, the WDAP-C7200AC can be firmly installed on the ceiling or the wall conveniently. The ceiling-mount design is smartly integrated into the environment. Its streamlined body without the protruding antennas also gives effects of embellishment in the surroundings. Moreover, the WDAP-C7200AC is compliant with the IEEE 802.3at PoE standard, so it is easy and flexible in client-side installation. It is definitely nice to have this eye-catching access point mount on the ceilings and walls of villas, hotels, exhibit halls, and other establishments.


2.4GHz b g n
300 Mbps

5GHz ac a n
867 Mbps

Full Support of Wireless Security Encryption and Wireless Value-added Features

In aspect of security, besides 64/128-bit WEP encryption, the WDAP-C7200AC is integrated with WPA / WPA2, WPA-PSK / WPA2-PSK and 802.1x Radius authority to secure and protect your wireless LAN. It provides the wireless MAC filtering and SSID broadcast control to consolidate the wireless network security and prevent unauthorized wireless connection. Being an access point, the WDAP-C7200AC supports the VLAN function to allow multiple SSIDs (10 sets of SSIDs) to access Internal VLAN topology. Moreover, its Wi-Fi Multimedia (WMM) mechanism provides enhanced QoS over wireless connection for better performance in multimedia transmission like on-line gaming and video streaming, which are classified as a top priority.
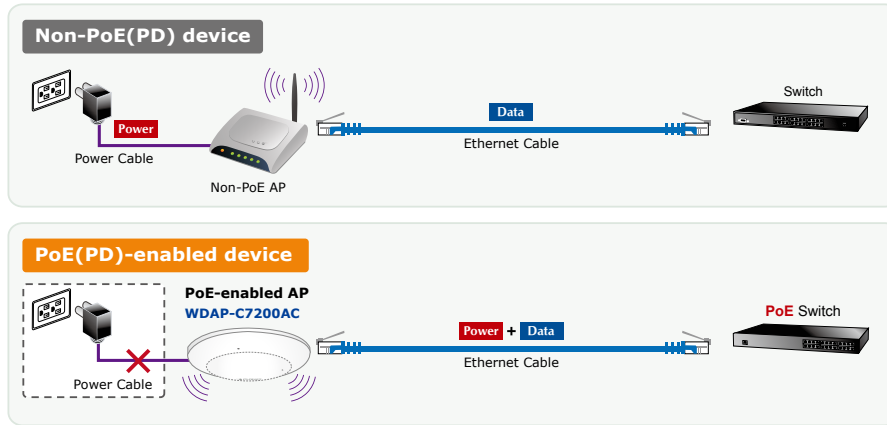

Multiple Operation Modes for Various Applications

The WDAP-C7200AC supports AP, Client, WDS Bridge, Repeater and Universal Repeater modes, through which it provides more flexibility for users when wireless network is established. Compared with general wireless access point, the WDAP-C7200AC offers more powerful and flexible capability for wireless clients.
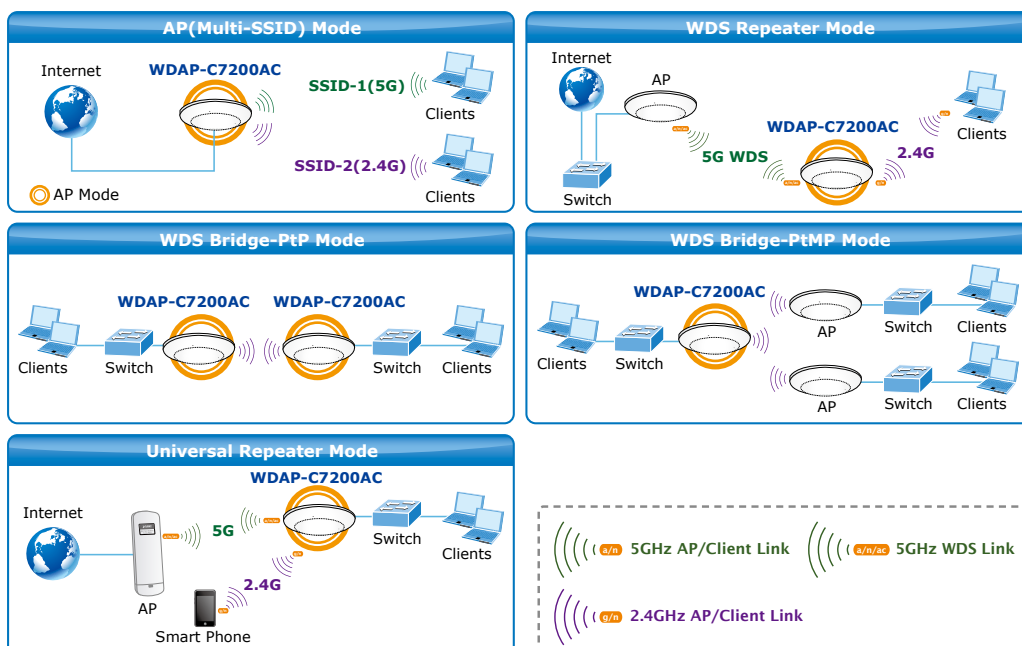
Flexible Deployment with PoE Feature

Compliant with the IEEE 802.3at Power over Ethernet standard, the WDAP-C7200AC can be powered and networked by a single UTP cable. It thus reduces the needs of extra cables and dedicated electrical outlets on the wall, ceiling or any other place where it is difficult to reach. The wireless network deployment becomes more flexible and worry-free from the power outlet locations.

Non-PoE(PD) device

Power Cable

Non-PoE AP

Data

Ethernet Cable

Switch

PoE(PD)-enabled device

PoE-enabled AP
WDAP-C7200AC

Power Cable

Power + Data

Ethernet Cable

PoE Switch

Easy Installation and Management

With user-friendly Web UI and step-by-step Quick Setup Wizard, the WDAP-C7200AC is easy to install, even for users who never experience setting up a wireless network. Furthermore, with SNMP-based management interface, the WDAP-C7200AC is convenient to be managed and configured remotely in a small business wireless network.
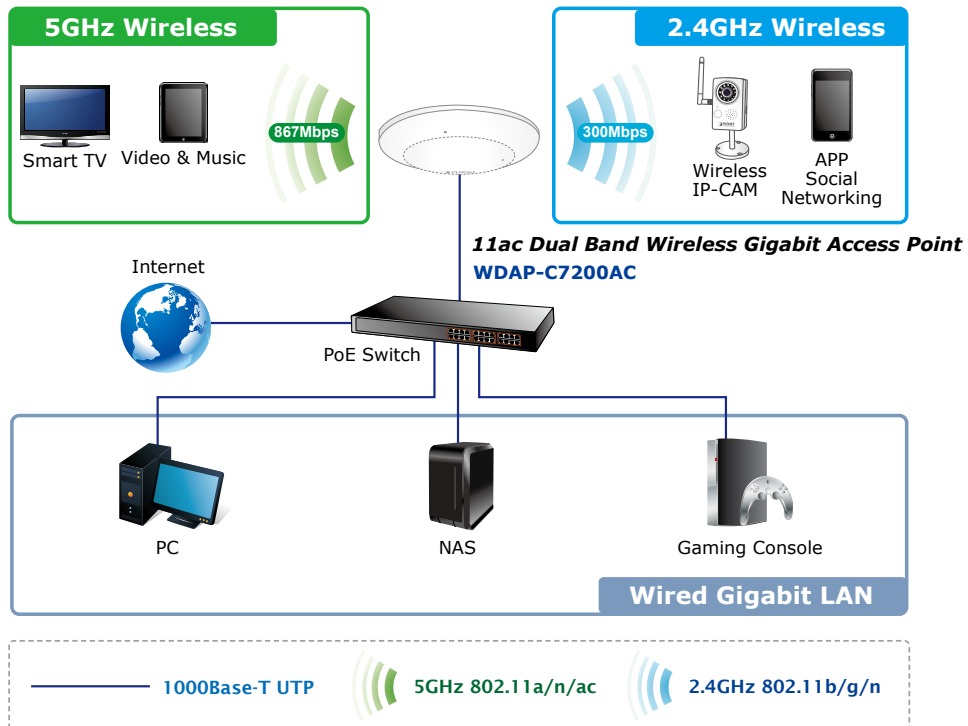
Application

Ceiling-mount design makes it more attractive in room installation

The WDAP-C7200AC adopts with the latest 802.11ac technology to provide extremely high speed wireless experience for users. With the stylish ceiling or wall-mount design, you don't need to spend extra time and cost to deploy the wireless network. Its fashionable flying saucer appearance adapted to the room can match any decor without affecting the original interior design. The WDAP-C7200AC supports standard 802.3at PoE power scheme, effectively reducing the cabling cost. The WDAP-C7200AC, with the Planet Smart Discovery Utility and SNMP supported, brings the most convenience to system administrators or machine operators. No expensive instruments or complex back-end subscriber managed systems are required for deployment.

WiFi Home Networking

WDAP-C7200AC

Smart Pad

PC

Printer

IP Camera

Stereo

Gaming Console

Apple TV

Laptop

2.4GHz 802.11b/g/n
» High power
» More compatibility
» Wider range of applications

5GHz 802.11a/n/ac
» Less interference
» More non-overlapping channels
» Stable connection

1000Base-T UTP

Extremely High-speed and Dual Band capability makes it more powerful in Wi-Fi transmission

The WDAP-C7200AC delivers the Dual Band technology to avoid signal interference and ensure the best Wi-Fi performance. It allows you to check e-mail and surf the Internet via the 2.4GHz band and simultaneously watch High-Definition (HD) video or any other multimedia application via 5GHz band. Moreover, the Gigabit Ethernet port of the WDAP-C7200AC offer ultra-fast wired connections that utilize the maximum wireless bandwidth; therefore, users will have real wireless speed over 100Mbps. With outstanding stability of high-speed wireless transmission, the WDAP-C7200AC can provide users with excellent experience in multimedia streaming with your mobile devices anywhere, anytime.

5GHz Wireless

Smart TV   Video & Music   867Mbps

2.4GHz Wireless

300Mbps   Wireless IP-CAM   APP Social Networking

11ac Dual Band Wireless Gigabit Access Point
WDAP-C7200AC

Internet

PoE Switch

PC   NAS   Gaming Console

Wired Gigabit LAN

1000Base-T UTP   5GHz 802.11a/n/ac   2.4GHz 802.11b/g/n

Specifications

Model	WDAP-C7200AC
	1200Mbps 802.11ac Dual Band Ceiling Mount Wireless Access Point
Hardware Specifications	
Interfaces	LAN	1 x 10/100/1000Base-T RJ45 port Auto-negotiation and Auto MDI/MDI-X
Antennas	Gain:	2 x 2.4GHz 2.5dBi PCB antenna 2 x 5GHz 4dBi PCB antenna
Reset Button	Reset button on the top cover Press over 7 seconds to reset the device to factory default
LED Indicators	PWR Allow LED to turn off via software control
Material	Plastic
Dimensions (Φ x H)	194 x 49 mm
Weight	300 ±5g
Power Requirements	802.3at PoE, 48-56V DC input
Power Consumption	20W (max.)
Mounting	Ceiling Mount
Wireless Interface Specifications	
Standard	IEEE 802.11ac (Draft 2.0) 5GHz IEEE 802.11a/n 5GHz IEEE 802.11b/g/n 2.4GHz
Antenna Structure	802.11ac: 2T2R MU-MIMO 802.11n: 2T2R MIMO
Modulation	DSSS
Data Modulation	802.11ac: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM) 802.11a/g/n: OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11b: DSSS (DBPSK / DQPSK / CCK)
Band Mode	2.4G / 5G concurrent mode
Frequency Range	2.4GHz	America/ FCC: 2.412~2.462GHz Europe/ ETSI: 2.412~2.484GHz
	5GHz	America/ FCC: 5.180~5.240GHz, 5.725~5.850GHz Europe/ ETSI: 5.180~5.240GHz
Operating Channels	2.4GHz	America/ FCC: 1~11 Europe/ ETSI: 1~13
	5GHz	**America/ FCC:** 36, 40, 44, 48, 149, 153, 157, 161, 165 **Europe/ ETSI:** 36, 40, 44, 48 5GHz channel list will vary in different countries according to their regulations.
Channel Width	802.11ac: 20/40/80MHz 802.11n: 20/40MHz
Data Transmission Rates	802.11ac (VHT20, Nss2-MCS8): Up to 173.3Mbps 802.11ac (VHT40, Nss2-MCS9): Up to 400Mbps 802.11ac (VHT80, Nss2-MCS9): Up to 867Mbps
	802.11n (HT40): 270/243/216/162/108/81/54/27Mbps 135/121.5/108/81/54/40.5/27/13.5Mbps (dynamic)
	802.11n (HT20): 130/117/104/78/52/39/26/13Mbps 65/58.5/52/39/26/19.5/13/6.5Mbps (dynamic)
	802.11g: 54/48/36/24/18/12/9/6Mbps (dynamic)
	802.11b: 11/5.5/2/1Mbps (dynamic)
Transmission Distance	802.11ac (draft): up to 30m 802.11n: up to 70m 802.11g: up to 30m The estimated transmission distance is based on the theory. The actual distance will vary in different environments.
Max. RF Power	**5GHz:** 802.11ac (VHT20): 22dBm 802.11ac (VHT40): 22dBm 802.11ac (VHT80): 22dBm 802.11n (HT20): 22dBm 802.11n (HT40): 22dBm 802.11a: 22dBm **2.4GHz:** 802.11n: 17 ±2.5dBm 802.11b/g: 20 ±2.5dBm

Receive Sensitivity	5GHz: 802.11ac (VHT20): -91dBm @ Nss1-MCS0, -64dBm @ Nss2-MCS8 802.11ac (VHT40): -89dBm @ Nss1-MCS0, -59dBm @ Nss2-MCS9 802.11ac (VHT80): -86dBm @ Nss1-MCS0, -56dBm @ Nss2-MCS9 802.11n (HT20): -92dBm @ MCS0, -71dBm @ MCS7 802.11n (HT40): -89dBm @ MCS0, -66dBm @ MCS15 802.11a: -93 @ 6Mbps, -75dBm @ 54Mbps
	2.4GHz: 802.11n 20MHz (MCS7): -69dBm @10% PER 802.11n 40MHz (MCS15): -66dBm @10% PER 802.11g (54Mbps): -74dBm @10% PER 802.11b (11Mbps): -88dBm @10% PER
Software Features	
Wireless Mode	■ Universal Repeater (AP+Client) ■ WDS PTP (Point to Point) ■ Repeater (WDS+AP) ■ WDS PTMP (Point to Multipoint) ■ AP (Access Point) ■ Client
Encryption Security	■ WEP (64/128-bit) encryption security ■ WPA / WPA2 (TKIP/AES) ■ WPA-PSK / WPA2-PSK (TKIP/AES)
Wireless Security	Provides wireless LAN ACL (Access Control List) filtering Wireless MAC address filtering Supports WPS (Wi-Fi Protected Setup) Enable/ Disable SSID Broadcast
Wireless Advanced	WMM (Wi-Fi Multimedia): 802.11e Wireless QoS Multiple SSID: up to 5 at 2.4GHz and 5GHz, respectively Wireless Isolation: Enables to isolate each connected wireless client from communicating with each other IAPP (Inter Access Point Protocol): 802.11f Wireless Roaming Provides Wireless Statistics
Max. Clients	Wire: 253 2.4GHz Wireless: 32 5GHz Wireless: 32
LAN	Built-in DHCP server supporting static IP address distributing Supports UPnP Supports 802.1d Spanning Tree Supports 802.1Q VLAN
System Management	Web-based (HTTP) management interface SNTP time synchronize Easy firmware upgrade Supports Scheduling Reboot Supports Smart Discovery Utility
Standards Conformance	
IEEE Standards	IEEE 802.11ac (Draft 2.0, 2T2R, up to 867Mbps) IEEE 802.11n (2T2R, up to 300Mbps) IEEE 802.11g IEEE 802.11b IEEE 802.11i IEEE 802.3 10Base-T IEEE 802.3u 100Base-TX IEEE 802.3ab 1000Base-T IEEE 802.3x Flow Control
Other Protocols and Standards	CSMA/CA, CSMA/CD, TCP/IP, DHCP, ICMP, SNTP
Environment & Certification	
Temperature	Operating: 0 ~ 50 degrees C Storage: -40 ~ 70 degrees C
Humidity	Operating: 10 ~ 90% (non-condensing) Storage: 5 ~ 90% (non-condensing)
Regulatory	FCC Part 15B & 15C, IC, RoHS

Ordering Information

WDAP-C7200AC	1200Mbps 802.11ac Dual Band Ceiling Mount Wireless Access Point

Related Wireless Products

WDRT-750AC	750Mbps 802.11ac Wireless Broadband Router
WDL-U600AC	433Mbps 802.11ac Dual Band Wireless USB Adapter
WDL-U700	300Mbps Dual Band 802.11n Wireless USB Adapter
WNL-U556M	300Mbps 802.11n Wireless Micro USB Adapter
WNL-U554A	802.11n Wireless USB 2.0 Adapter External 3dBi Antenna
WNL-9501	802.11n Wireless PCI Express Adapter

To have the best performance and wireless connection, we sincerely advise you to match with the above related products.

Related PoE Products

POE-161	IEEE 802.3at Gigabit High Power over Ethernet Injector (external power)
POE-163	IEEE 802.3at Gigabit High Power over Ethernet Injector (internal power)
WGSD-10020HP	8-Port 10/100/1000Mbps + 2 100/1000X SFP Managed 802.3at PoE Switch
WGSW-20160HP	16-Port 10/100/1000Mbps 802.3at PoE + 4-Port Gigabit TP / SFP Combo Managed Switch
WGSW-24040HP/ WGSW-24040HP4	24-Port 10/100/1000Mbps 802.3at PoE+ with 4 Shared SFP Managed Switch
WGSW-48040HP	L2+ 48-Port 10/100/1000T 802.3at PoE + 4-Port Shared 100/1000X SFP Managed Switch
SGSW-24040HP	24-Port 10/100/1000Mbps with 4 Shared SFP 802.3at PoE Managed Stackable Switch
GSW-1600HP	16-Port 10/100/1000Mbps 802.3at PoE+ Ethernet Switch
GSD-808HP	8-Port 10/100/1000bps 802.3at PoE Desktop Switch
GSD-808HP2	8-Port 10/100/1000Mbps 802.3at PoE Desktop Switch - 240W
HPOE-460	4-Port IEEE 802.3at High Power over Ethernet Injector Hub
IGS-10020HPT	Industrial 8-Port 10/100/1000T 802.3at PoE + 2-Port 100/1000X SFP Managed Switch with Wide Operating Temperature
IGS-504HPT	Industrial 5-Port Gigabit Switch w/ 4-Port 802.3at PoE+
IGS-624HPT	Industrial 4-Port 10/100/1000T 802.3at PoE+ w/ 2-Port 100/1000X SFP Ethernet Switch

2015-07