EnGenius

EnSky Solution Brochure

Versatile On-premises Central Management

EnSky's suite of tools helps you deploy managed Wi-Fi to integrate with an existing on-site network or build customized networks from scratch. Users can remotely access the platform to configure, monitor, and manage networks in a centralized web interface or via mobile app.

Powerful Technologies in the EnSky Series

Wi-Fi 6

Next-generation Wi-Fi technology for SMBs

EnJet

Time-based management for maximum throughput

Business Mesh

Enterprise-level Mesh for smart networking

An Innovative Total Solution for Your Business

Device Configuration

WLAN configuration and group settings for APs and switches

Network Management

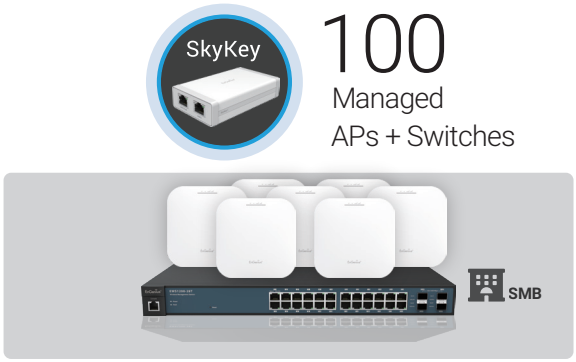
Multi-tenant system maintenance and real-time event notification

Visualized Monitoring

Monitor and provide visualizations for AP status

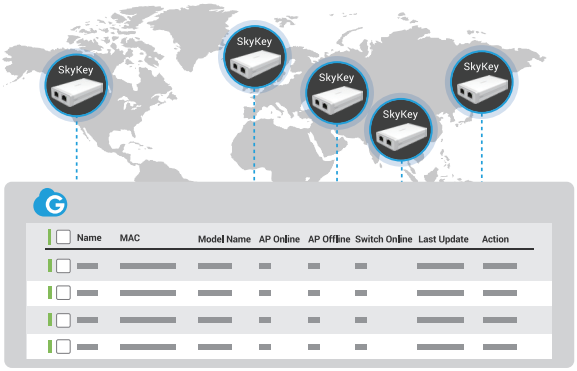
Flexible and Scalable Network Deployments

Local network on single site



Users can deploy their devices onto the SkyKey web interface, which then becomes available for selection to a user-created project for further customization.

Remote access of multiple sites



Multiple EnSky controllers can be deployed for cross-network management on a single interface, no matter how many SkyKey-based devices are in your network.

Versatile Management and Product Lines of EnSky

Management Platforms

Controller - SkyKey

Software - ezMaster

Mobile app - EnWiFi

Managed Devices

Indoor wireless

Outdoor wireless

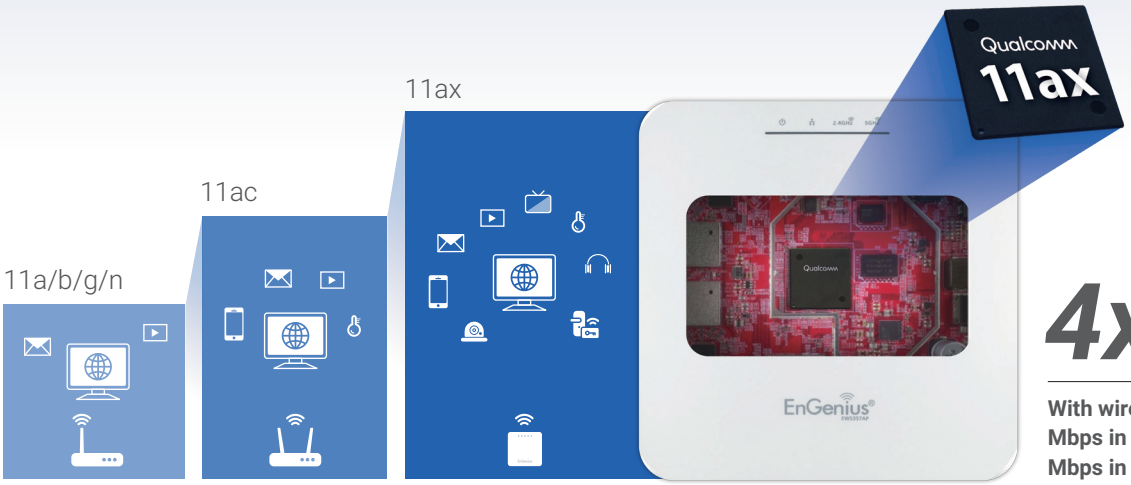
PoE switches

Wi-Fi 6

Next-Generation Wi-Fi Featuring Higher Capacity, Greater Efficiency, and Improved Performance

The Game Changing Product - 11ax Access Points

802.11ax (Wi-Fi 6) technology improves upon real-world deployment of 802.11ac. As the next-generation Wi-Fi, 802.11ax brings speed improvements along with greater stability and efficiency in wireless connections.



4x *Increased Capacity*

With wireless speed up to 2,400 Mbps in 5 GHz band and 1,148 Mbps in 2.4 GHz band

Innovative Features of Wi-Fi 6

Greater Capacity

Serves more devices simultaneously

8x8 MU-MIMO
Increases capacity up to 4x

OFDMA
Enables more clients to transmit simultaneously

BSS Coloring
Allows access points be placed closer together

Higher Efficiency

Handles simultaneous connections without slowdown

OFDMA
Reduces payload and latency

BSS Coloring
Reuses the channel and improves interference

Target Wake Time
Saves the battery life of devices

Improved Performance

Increases throughput with new modulation scheme

8x8 MU-MIMO
Receives data from multiple antennas, doubling bandwidth

1024QAM
Increases data rates by 25%

Target Wake Time
Reduces the latency from contention of clients

Scenarios Where 802.11ax Can Boost Your Wi-Fi Performance

Heavy Interference

Environment : **Office, enterprise environments**

802.11ax's spatial reuse feature, through BSS coloring, reduces co-channel interference and improves simultaneous transmissions. This cuts through RF congestion in office environments for greater network efficiency.

Dense Usage

Environment : **Stations, libraries, and shopping malls**

802.11ax's uplink and downlink of MU-MIMO provides greater network efficiency and focuses radio energy on specific users. Capable of handling demand-heavy environments with many devices, such as airports, gas stations, libraries, and shopping malls, with lots of client devices.

Multiple Devices

Environment : **Smart home (IoT)**

The explosive growth of IoT devices, such as smart TVs, smart appliances, and smart lighting in a progressively connected world. Features in 802.11ax extend the number of client devices that can be associated with access points in smart homes and offices.

11ax Featured Models	Indoor AP		Outdoor AP
Access Points	EWS357 AP	EWS377 AP	EWS850AP
MU-MIMO	2 x 2	4 x 4	2 x 2
5 GHz Max Rate	1,200 Mbps	2,400 Mbps	1,201 Mbps
2.4 GHz Max Rate	574 Mbps	1,148 Mbps	574 Mbps

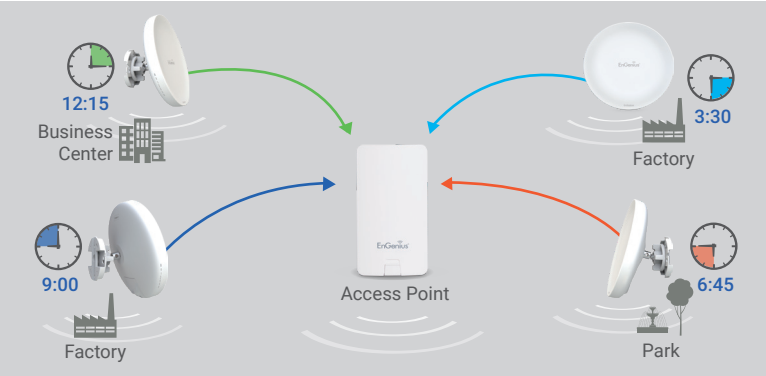
EnJet

Achieve Maximum Throughput for Outdoor Wi-Fi Deployment

How EnJet Improves Outdoor Wi-Fi

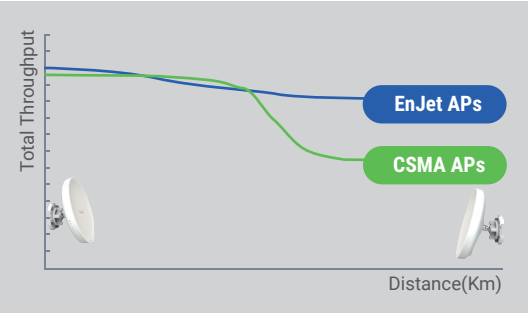
When an outdoor network spans large distances, its access points or stations are unable to detect each other's transmissions. Frequent collisions will occur when multiple points transmit simultaneously. EnJet features PtP and PtMP technology, which allocates transmissions from remote locations into slots for efficient time-based management.

Time-based management improves transmission



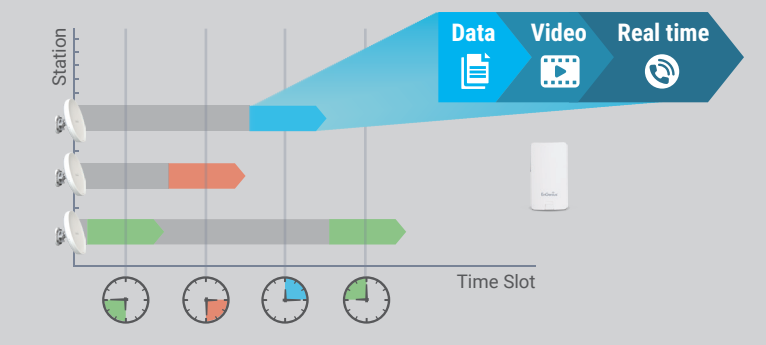
EnJet provides steady maximum throughput & high link reliability to every client—even when bandwidth demands increase & devices are added.

Maximize throughput at distances



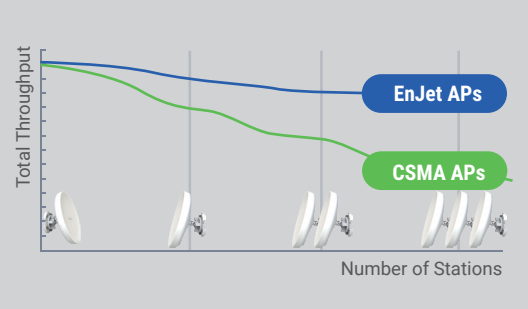
By assigning a pre-determined time slot to each connected station, EnJet achieves stable throughput in distance scenarios and avoids the increasing latency found in CSMA.

Prioritize the transmission of important data



EnJet achieves the speed your network needs for its most critical applications. For example, real-time voice transmissions are latency-intensive and slotted at a higher priority than video recordings.

Keep consistent performance at scale



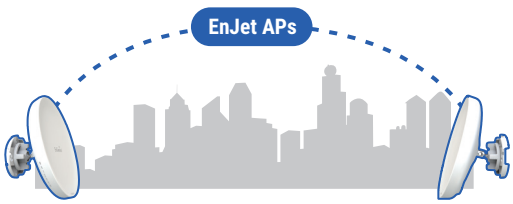
EnJet coordinates the order of data transmissions from multiple sources , thereby increasing the number of access points/stations in your network does not dramatically diminish performance.

The Ideal Usage Scenarios of EnJet Technology

Optimized for flexible outdoor wireless deployment

Point-to-Point

EnJet provides a more consistently stable throughput than standard CSMA connections by ordering transmissions into different time slots.

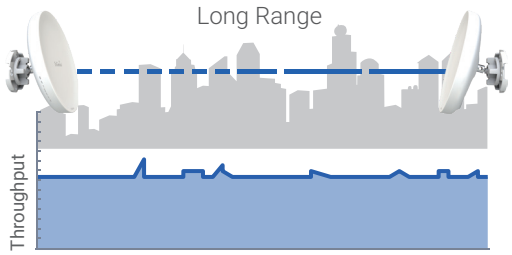


Point-to-Multipoint

EnJet Solution features time-division to avoid the hidden node problem commonly found in multi-point transmissions.

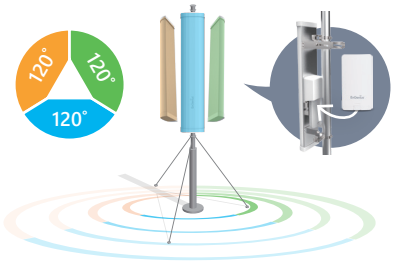
Long-Range

In long range deployments, EnJet ensures high throughput with high-gain antennas (EnStation5-AC/ EnStationAC), while traditional CSMA networks suffer from increasing latency at distance and network size.



360° Coverage

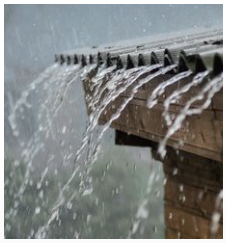
ENS500EXT-AC supports the use of external antennas to extend coverage to 120 degrees. For an omnidirectional network, install three ENS500EXT-AC with EnGenius sector antenna SA5219 to cover 360° outdoor point-to-multipoint deployments.



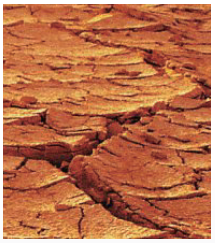
Outdoor Access Points Perform Better in Harsh Environments

EnJet is protected from prolonged exposure to sunlight, cold, frost, snow, rain, hail, heat, and humidity to ensure your network operates in extreme outdoor climates and environment.

-20°C to 60°C



Waterproof IP55



Anti UV

EnJet Featured Models				
Outdoor Access Points	ENS500EXT-AC	ENS500-AC	EnStation5-AC	EnStationAC
Antenna Gain	2 x 5dBi	14 dBi	19 dBi	19 dBi
Coverage	360°	30°	30°	30°
Range	1 KM (Recommended)	3 KM (Recommended)	5 KM (Recommended)	5 KM (Recommended)

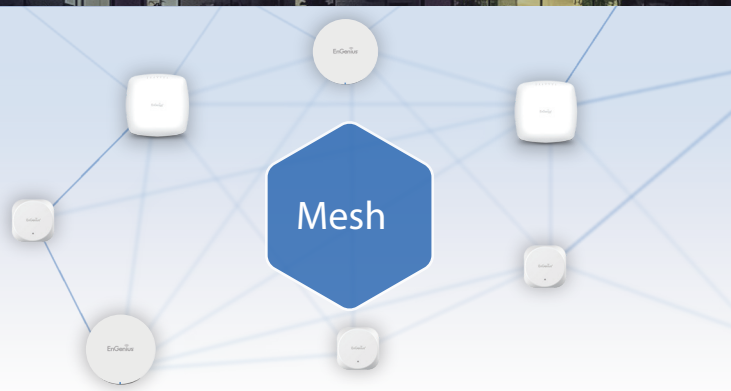
Outdoor Access Points	ENH500
Antenna Gain	16 dBi
Coverage	35°
Range	4KM (Recommended)

Business Mesh

A Smarter Way to True Wireless

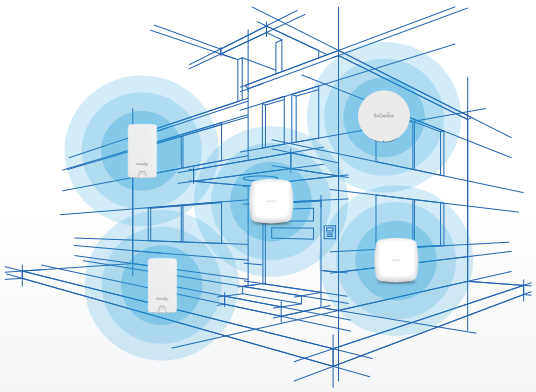
Optimized Mesh Technology Brings You Wi-Fi without Dead Spots

Place EnGenius Mesh devices where you need coverage and let EnGenius Mesh technology automatically connect them to your network.



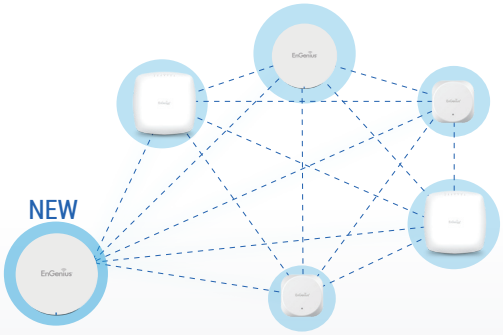
Extend Wi-Fi coverage without cabling hassles

Provides all-encompassing coverage in your home or office without any cables required.



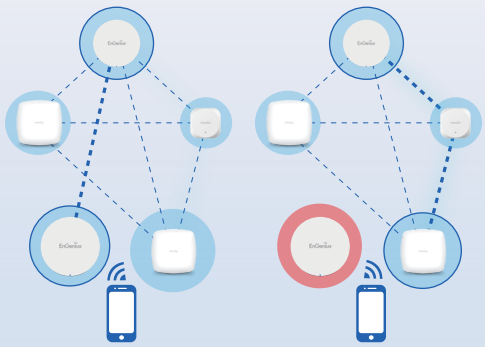
Smart webbing by Enterprise-grade Mesh

The network automatically link up the nodes to the existing structure without needing manual adjustments.



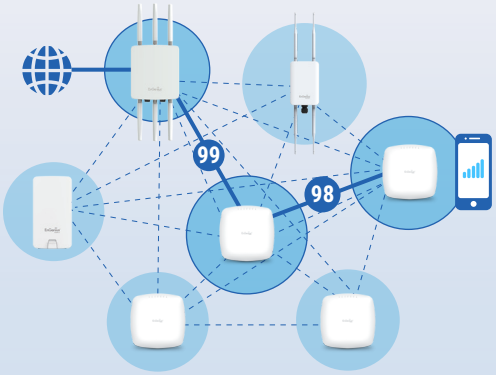
Smart healing when a wireless link is lost

Recalculate link quality to find the best path whenever a node loses connection.



Smart routing for consistently high quality

Constantly optimize path selection on each device by enterprise-grade mesh algorithms.



Industrial Case Studies of Mesh Technology

Warehouse/Industrial Areas

Challenges

- **Insufficient cabling connections.**
- **Wireless signals are blocked by moving obstacles.**

EnGenius Mesh solution

- Mesh APs are flexible to deploy with wall, ceiling, and pole mount options.
- Fewer wiring constraints makes it easy to place access points based on desired coverage area with minimal environment modification.

Hospitality & Heritage

Challenges

- **Installation without remodeling existing structures or disrupting business.**
- **Off-the-grid locations are difficult for high-speed internet service providers.**

EnGenius Mesh solution

- Mesh access points can be powered by DC Input or PoE on existing power sources.
- High flexibility of network deployment with mesh nodes that can be easily added or removed.

Concert, Fairs, and Gatherings

Challenges

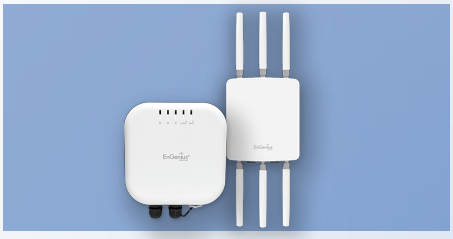
- **Significant coverage and capacity requirements of internet connectivity.**
- **Flexible deployment for different activities requirements.**

EnGenius Mesh solution

- Network deployment for more than 1,000 devices across large areas remotely.
- Mesh technology enables flexible and mobile deployment.

Mesh Featured Models

EnSky Indoor Access Points Series*



EnSky Outdoor Access Points Series*

*Not all EnSky access points support Mesh technology.

On-Premises Network Management

Empower Local or Remote Management

Experience the Unprecedented Convenience of Management

EnGenius EnSky's on-premises network management platform consists of SkyKey hardware and ezMaster management software. The platform empowers you to monitor, manage, and troubleshoot an indoor or outdoor network remotely.

EnSky On-Premises Management Platform

Software

ezMaster

ezMaster software lets you easily configure and maintain thousands of devices. You can manage up to 10,000 devices using the ezMaster VM for local sites or AWS-deployed version for multiple sites with remote access.

Hardware

SkyKey I

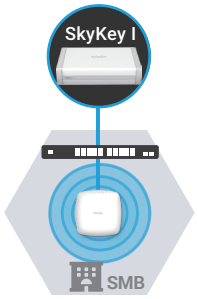
SkyKey I is the on-premises network controller with built-in ezMaster that manages up to 100 devices, With the plug and play and installation free controller, you can easily deploy network without complex configuration.

Manage Networks Smarter with EnSky Solution

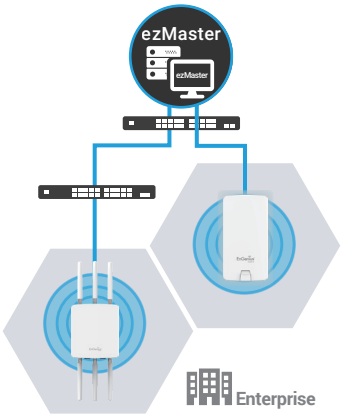
ezMaster network management platform empowers you to setup and maintain multiple customer sites to save time and reduce the operational costs of site visits.

Choose the best options to manage your network

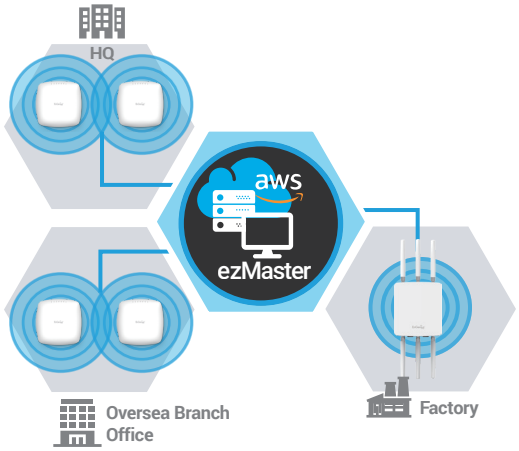
Unlimited Flexibility



Same Subnet



Cross-subnet

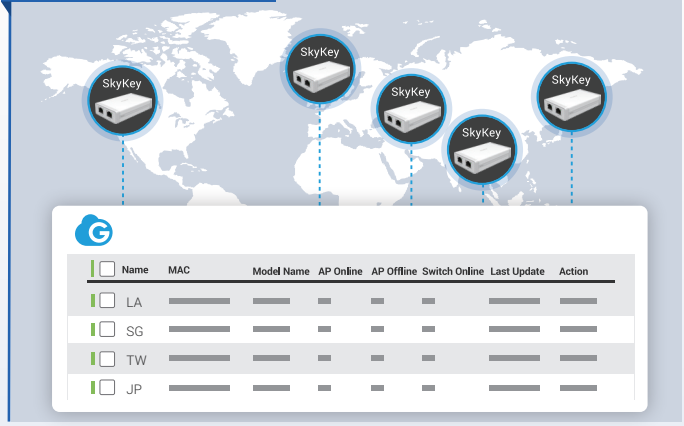


Over Internet

	Same Subnet	Cross-subnet	Over Internet
Deployment	Single site	Multiple sites	Remote sites
Management platform	SkyKey controller	ezMaster with local server	ezMaster with AWS
Suggested No. of AP	≤ 100 APs	≤ 5,000 APs	≤ 10,000 APs
Target consumer	Budget hotel, office, and wired campus	Large campuses, multi-network deployments, and chain stores	Citywide hotspots, international hubs, and chain offices

Remote management for distributed networks

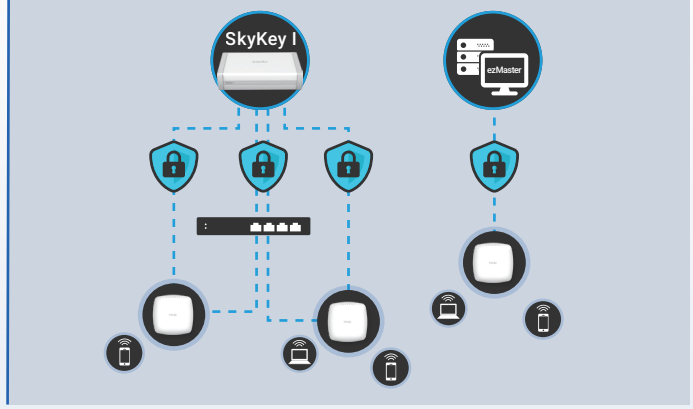
Complete Scalability



SkyKey devices allow for centralized network management, no matter how widely distributed.

Secure tunnel connection for managed networks

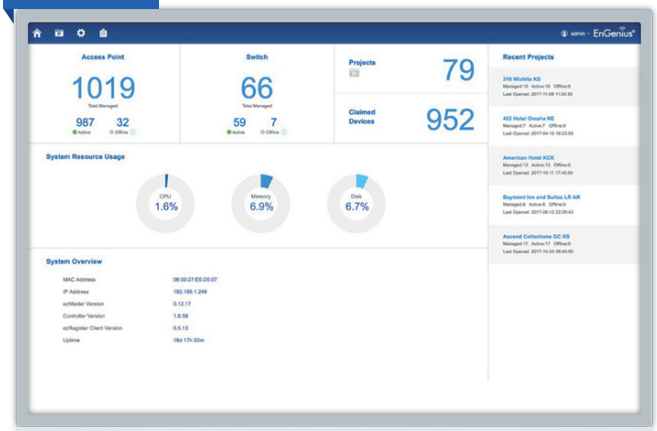
Comprehensive Secured



Control packets are encrypted when transmitting between ezMaster and managed devices.

Rich Reporting & Analytics

Dashboard

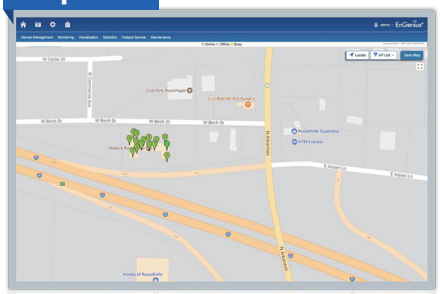


Get insights at a glance into your network's health. Drill down to discover potential problem areas with switches, access points, or client devices.

Wi-Fi Coverage

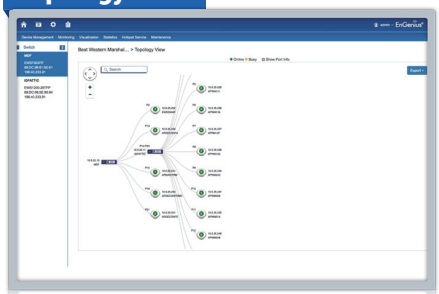
Pinpoint and address potential problems before they affect users with invaluable reporting, analytics, and real-time monitoring tools.

Map View



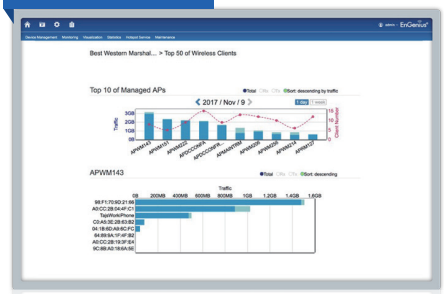
Upload floor plans and drop markers to represent real and prospective locations for your access points in the real world.

Topology View



The topology view automatically maps your network deployment and creates a visualization of device relationships and physical connections.

Statistics View



Indicates the coverage of indoor access points for Wi-Fi planning purposes, and displays the reference signal strength.

Quick Deployment with SkyKey Controller

The plug-and-play SkyKey I can manage up to 100 EnGenius access points or switches directly with built-in ezMaster software.

- **No computer or server required**
- **No installation with built-in software**
- **No complex configuration**
- **Plug & play with Power-over-Ethernet**

EnWiFi App

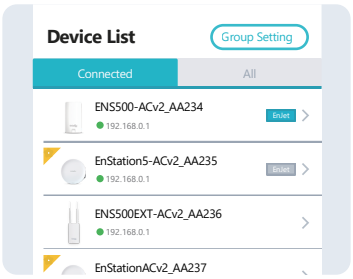
Quick Deployment for Wireless Networks

Outstanding Features for Managing Network On-the-Go

EnWiFi is a simple Wi-Fi configuration and management tool for EnGenius outdoor and indoor Wi-Fi devices. Users can configure devices on-site and monitor the installed or deployed devices on their smart phones or tablets.

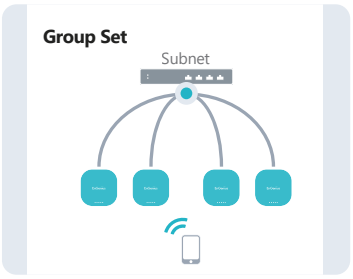
Auto-discover devices

Support for all EnGenius indoor and outdoor models



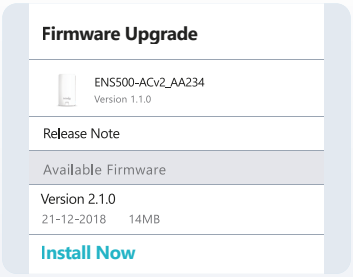
Group settings

Configuration for single or group of devices



Firmware upgrades

Auto-detection and upgrades of new firmware



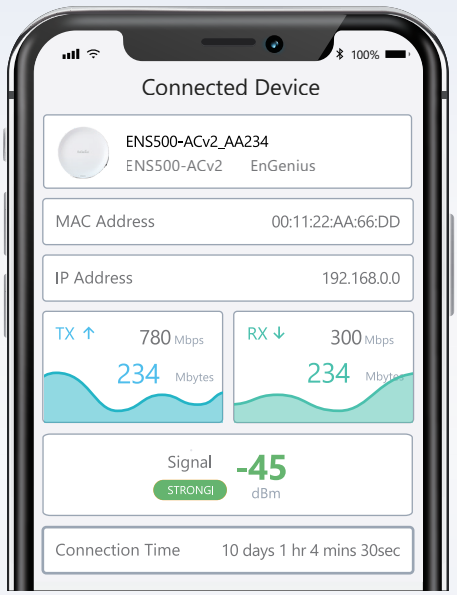
Real-time performance

Get detail of signal level and performance of devices

EnWiFi

GET IT ON Google Play

Download on the App Store



Features of EnWiFi Mobile App

Deployment

- Auto-discover devices
- Group configuration
- Initial settings
- Operation mode switch

Management

- Backup configuration
- Group management
- Reboot network
- New firmware detection

Monitoring

- Monitor real-time throughput
- Get RSSI signal level details
- Find root cause of issues
- Login or kick out devices

EnSky - Indoor Access Points

Indoor Access Points

	ax (Wi-Fi 6)		ac Wave 2	
	EWS357AP	EWS377AP	EWS385AP	EWS330AP
Wi-Fi Standard	802.11a/b/g/n/ac/ax	802.11a/b/g/n/ac/ax	802.11a/b/g/n/ac	802.11a/b/g/n/ac
Radio	2.4 GHz & 5 GHz	2.4 GHz & 5 GHz	2.4 GHz & 5 GHz	2.4 GHz & 5 GHz
Max. Data Rate on 2.4 GHz	574 Mbps	1,148 Mbps	400 Mbps	400 Mbps
Max. Data Rate on 5 GHz	1,200 Mbps	2,400 Mbps	867 + 867 Mbps	867 Mbps
Radio Chains/ Spatial Streams	2 x 2:2	4 x 4:4	2 x 2:2	2 x 2:2
Transmit Power	Up to 20 dBm on 2.4 GHz Up to 20 dBm on 5 GHz	Up to 23 dBm on 2.4 GHz Up to 23 dBm on 5 GHz	Up to 22 dBm on 2.4 GHz Up to 22 dBm on 5 GHz	Up to 26 dBm on 2.4 GHz Up to 25 dBm on 5 GHz
Antenna	2 x 3 dBi (2.4 GHz) 2 x 3 dBi (5 GHz)	4 x 3 dBi (2.4 GHz) 4 x 3 dBi (5 GHz)	2 x 5 dBi (2.4 GHz) 2 x 5 dBi (5 GHz)	2 x 5 dBi (2.4 GHz) 2 x 5 dBi (5 GHz)
Power-over-Ethernet	802.3af/at	802.3at	802.3af	802.3af
Ethernet Ports	1 x 10/100/1000 Ethernet Port	1 x 10/100/1000/2500 Ethernet Port	2 x 10/100/1000 Ethernet Ports	1 x 10/100/1000 Ethernet Port
Dimensions	160 x 160 x 26.9 mm	205 x 205 x 33.2 mm	200 x 200 x 45 mm	Φ132.4 x 37.44 mm
Mounting Type	Ceiling / Wall	Ceiling / Wall	Ceiling / Wall	Ceiling / Wall
Mesh Technology	●	●	●	●
On-premise management (ezMaster)	●	●	●	●
Mobile app (EnWiFi App)	●	●	-	●

Indoor Access Points

	ac Wave 2		
	EWS355AP	EWS550AP	EAP1250
Wi-Fi Standard	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n/ac
Radio	2.4 GHz & 5 GHz	2.4 GHz & 5 GHz	2.4 GHz & 5 GHz
Max. Data Rate on 2.4 GHz	400 Mbps	400 Mbps	400 Mbps
Max. Data Rate on 5 GHz	867 Mbps	867 Mbps	867 Mbps
Radio Chains/ Spatial Streams	2 x 2:2	2 x 2:2	2 x 2:2
Transmit Power	Up to 23 dBm on 2.4 GHz Up to 23 dBm on 5 GHz	Up to 21 dBm on 2.4 GHz Up to 20 dBm on 5 GHz	Up to 23 dBm on 2.4 GHz Up to 22 dBm on 5 GHz
Antenna	2 x 5 dBi (2.4 GHz) 2 x 5 dBi (5 GHz)	2 x 4 dBi (2.4 GHz) 2 x 6 dBi (5 GHz)	2 x 5 dBi (2.4 GHz) 2 x 5 dBi (5 GHz)
Power-over-Ethernet	802.3af	802.3af/at	802.3af
Ethernet Ports	1 x 10/100/1000 Ethernet Port	3 x 10/100/1000 Ethernet Ports	1 x 10/100/1000 Ethernet Port
Dimensions	161.5 x 41.6 mm	188 x 125 x 26 mm	Φ132.4 x 37.44 mm
Mounting Type	Ceiling / Wall	Wall Plate	Ceiling / Wall
Mesh Technology	●	●	●
On-premise management (ezMaster)	●	●	●
Mobile app (EnWiFi App)	-	●	●

Indoor Access Points

	ac Wave 2			11ac
	EAP1300EXT	EAP1300	EAP2200	EWS360AP
Wi-Fi Standard	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n/ac
Radio	2.4 GHz & 5 GHz	2.4 GHz & 5 GHz	2.4 GHz & 5 GHz	2.4 GHz & 5 GHz
Max. Data Rate on 2.4 GHz	400 Mbps	400 Mbps	400 Mbps	450 Mbps
Max. Data Rate on 5 GHz	867 Mbps	867 Mbps	867Mbps + 867Mbps	1,300 Mbps
Radio Chains/ Spatial Streams	2 x 2:2	2 x 2:2	2 x 2:2	3 x 3:3
Transmit Power	Up to 23 dBm on 2.4 GHz Up to 23 dBm on 5 GHz	Up to 23 dBm on 2.4 GHz Up to 23 dBm on 5 GHz	Up to 22 dBm on 2.4 GHz Up to 22 dBm on 5 GHz	Up to 28 dBm on 2.4 GHz Up to 26 dBm on 5 GHz
Antenna	2 x 5 dBi (2.4 GHz) 2 x 5 dBi (5 GHz)	2 x 5 dBi (2.4 GHz) 2 x 5 dBi (5 GHz)	2 x 5 dBi (2.4 GHz) 2 x 5 dBi (5 GHz)	3 x 3 dBi (2.4 GHz) 3 x 5 dBi (5 GHz)
Power-over-Ethernet	802.3af	802.3af	802.3af	802.3at
Ethernet Ports	1 x 10/100/1000 Ethernet Port	1 x 10/100/1000 Ethernet Port	2 x 10/100/1000 Ethernet Port	1 x 10/100/1000 Ethernet Port
Dimensions	Φ161.5 x 41.6 mm	Φ161.5 x 41.6 mm	200 x 200 x 45 mm	161.5 x 161.5 x 41.5 mm
Mounting Type	Ceiling / Wall	Ceiling / Wall	Ceiling / Wall	Ceiling / Wall
Mesh Technology	-	-	-	●
On-premise management (ezMaster)	●	●	●	●
Mobile app (EnWiFi App)	●	●	-	●

EnSky - Outdoor Access Points

Outdoor Access Points

	ax (Wi-Fi 6)	ac Wave 2		
	EWS850AP	EWS860AP	ENH1350EXT	ENH1750EXT
Wi-Fi Standard	802.11a/b/g/n/ac/ax	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n/ac
Operating Radio	2.4 GHz & 5 GHz	2.4 GHz & 5 GHz	2.4 GHz & 5GHz	2.4 GHz & 5GHz
Management Radio	-	-	-	-
Max. Data Rate on 2.4 GHz	574 Mbps	450 Mbps	400 Mbps	400 Mbps
Max. Data Rate on 5 GHz	1,201 Mbps	1,300 Mbps	867 Mbps	1,300 Mbps
Radio Chains / Streams	2 x 2:2	3 x 3:3	2 x 2:2	3 x 3:3
Transmit Power	Up to 23 dBm on 2.4 GHz Up to 23 dBm on 5 GHz	Up to 29 dBm on 2.4 GHz Up to 29 dBm on 5 GHz	Up to 23 dBm on 2.4 GHz Up to 23 dBm on 5 GHz	Up to 29 dBm on 2.4 GHz Up to 29 dBm on 5 GHz
Integrated Antenna	-	-	-	-
External Antenna	4 x 5 dBi	3 x 5 dBi (2.4 GHz) 3 x 7 dBi (5 GHz)	4 x 5 dBi	3 x 5 dBi (2.4 GHz) 3 x 7 dBi (5 GHz)
Power-over-Ethernet	802.3af/at	802.3at (at in + af out)	802.3af/at	802.3at (at in + af out)
Ethernet Ports	1 x 10/100/1000 Ethernet Port	2 x 10/100/1000 Ethernet Ports	1 x 10/100/1000 Ethernet Port	2 x 10/100/1000 Ethernet Ports
IP Rating	IP67	IP68	IP67	IP68
Dimensions	111.2 x 173.6 x 30.29 mm	285 x 217.93 x 53.34 mm	173.6 x 111.2 x 30.29 mm	285 x 217.93 x 53.34 mm
Mesh Technology	●	●	●	●
EnJet Technology	-	-	-	-
On-premise management (ezMaster)	●	●	●	●
Mobile app (EnWiFi App)	●	●	●	-

Outdoor Access Points

	ac Wave 2			
	EnStationAC	EnStation5-AC	ENS500-AC	ENS500EXT-AC
Wi-Fi Standard	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n/ac
Operating Radio	5 GHz	5 GHz	5 GHz	5 GHz
Management Radio	2.4 GHz	2.4 GHz	2.4 GHz	2.4 GHz
Max. Data Rate on 2.4 GHz	-	-	-	-
Max. Data Rate on 5 GHz	867 Mbps	867 Mbps	867 Mbps	867 Mbps
Radio Chains / Streams	2 x 2:2	2 x 2:2	2 x 2:2	2 x 2:2
Transmit Power	Up to 26 dBm on 5 GHz	Up to 26 dBm on 5 GHz	Up to 23 dBm on 5 GHz	Up to 23 dBm on 5 GHz
Integrated Antenna	19 dBi (5GHz)	19 dBi (5GHz)	14 dBi (5GHz)	-
External Antenna	-	-	-	2 x 5 dBi (5 GHz)
Power-over-Ethernet	802.3at (at in + af out)	24V Proprietary	24V Proprietary	24V Proprietary
Ethernet Ports	2 x 10/100/1000 Ethernet Ports	2 x 10/100/1000 Ethernet Ports	2 x 10/100/1000 Ethernet Ports	2 x 10/100/1000 Ethernet Ports
IP Rating	IP55	IP55	IP55	IP55
Dimensions	Φ190 x 38 mm	Φ190 x 38 mm	100 x 185 x 27 mm	100 x 185 x 27 mm
Mesh Technology	-	-	-	-
EnJet Technology	●	●	●	●
On-premise management (ezMaster)	●	●	●	●
Mobile app (EnWiFi App)	●	●	●	-

Outdoor Access Points

	ac Wave 2		
	ENH500	ENS610EXT	ENS620EXT
Wi-Fi Standard	802.11a/b/g/n/ac	802.11a/b/g/n/ac	802.11a/b/g/n/ac
Operating Radio	5 GHz	2.4 GHz & 5 GHz	2.4 GHz & 5GHz
Management Radio	2.4 GHz	-	-
Max. Data Rate on 2.4 GHz	-	400 Mbps	400 Mbps
Max. Data Rate on 5 GHz	867 Mbps	867 Mbps	867 Mbps
Radio Chains / Streams	2 x 2:2	2 x 2:2	2 x 2:2
Transmit Power	Up to 27 dBm on 5 GHz	Up to 23 dBm on 2.4 GHz Up to 23 dBm on 5 GHz	Up to 27 dBm on 2.4 GHz Up to 27 dBm on 5 GHz
Integrated Antenna	16 dBi (5GHz)	-	-
External Antenna	-	4 x 5 dBi	4 x 5 dBi
Power-over-Ethernet	24V Proprietary	24V Proprietary	24V Proprietary
Ethernet Ports	2 x 10/100/1000 Ethernet Ports	2 x 10/100/1000 Ethernet Ports	2 x 10/100/1000 Ethernet Ports
IP Rating	IP55	IP55	IP55
Dimensions	186 x 100 x 29 mm	186 x 100 x 29 mm	191.6 x 114.3 x 47.7 mm
Mesh Technology	-	-	●
EnJet Technology	●	-	-
On-premise management (ezMaster)	●	●	●
Mobile app (EnWiFi App)	●	-	●

Outdoor Access Points

	11n		
	EnStation5	ENS202	ENS202EXT
Wi-Fi Standard	802.11a/n	802.11b/g/n	802.11b/g/n
Operating Radio	5GHz	2.4 GHz	2.4 GHz
Management Radio	2.4 GHz	-	-
Max. Data Rate on 2.4 GHz	-	300 Mbps	300 Mbps
Max. Data Rate on 5 GHz	867 Mbps	-	-
Radio Chains / Streams	2 x 2:2	2 x 2:2	2 x 2:2
Transmit Power	Up to 26 dBm on 5 GHz	Up to 26 dBm on 2.4 GHz	Up to 26 dBm on 5 GHz
Integrated Antenna	19 dBi (5GHz)	8 dBi (5GHz)	-
External Antenna	-	-	2 x 5 dBi (2.4 GHz)
Power-over-Ethernet	24V Proprietary	24V Proprietary	24V Proprietary
Ethernet Ports	2 x 10/100/1000 Ethernet Ports	2 x 10/100/1000 Ethernet Ports	2 x 10/100/1000 Ethernet Ports
IP Rating	IP55	IP55	IP55
Dimensions	Φ190 x 38 mm	186 x 100 x 29 mm	186 x 100 x 29 mm
Mesh Technology	-	●	●
EnJet Technology	-	-	-
On-premise management (ezMaster)	●	●	●
Mobile app (EnWiFi App)	-	●	●

EnSky PoE Switches

PoE Switches

	PoE Switches			
	EWS2908P	EWS2910P	EWS5912FP	EWS1200-28TFP
Switch Class	Layer 2	Layer 2	Layer 2	Layer 2
Gigabit Ports	8	8	10	24
Multi-G Ports	0	0	0	0
SFP Ports	0	2	2	4
SFP+ Ports	0	0	0	0
RJ45 Console Port	-	-	Yes	Yes
PoE Capable Port	Ports 1 - 8	Ports 1 - 8	Ports 1 - 8	Ports 1 - 24
Powe-over-Ethernet	802.3af	802.3af	802.3af/at	802.3af/at
Total PoE Budget	55W	55W	130W	410W
Form Factor	9.45 (Desktop)	9.45 (Desktop)	13”1U	19”1U
Switching Capacity	16Gbps	20 Gbps	24 Gbps	56 Gbps
MAC Address Table Size	8K	8K	8K	8K
Dimensions	240 x 105 x 27 mm	240 x 105 x 27 mm	330 x 230 x 44 mm	440 x 310 x 44 mm
Cloud Managed	-	-	-	-

PoE Switches

	PoE Switches			
	EWS7926EFP	EWS7928P	EWS7952FP	EWS7952P
Switch Class	Layer 2	Layer 2	Layer 2	Layer 2
Gigabit Ports	24	24	48	48
Multi-G Ports	0	0	0	0
SFP Ports	0	4	4	4
SFP+ Ports	2	0	0	0
RJ45 Console Port	Yes	Yes	Yes	Yes
PoE Capable Port	Ports 1 - 24	Ports 1 - 24	Ports 1 - 48	Ports 1 - 48
Powe-over-Ethernet	802.3af/at	802.3af/at	802.3af/at	802.3af/at
Total PoE Budget	410W	185W	740W	410W
Form Factor	19”1U	19”1U	19”1U	19”1U
Switching Capacity	88 Gbps	56 Gbps	104 Gbps	104 Gbps
MAC Address Table Size	16K	8K	16K	16K
Dimensions	440 x 260 x 44 mm	440 x 260 x 44 mm	440 x 410 x 44 mm	440 x 410 x 44 mm
Cloud Managed	-	-	-	-

Cloud-enabled Switches

Cloud-enabled Switches	Cloud-enabled Switches				
	ECS1008P	ECS1112FP	ECS1528	ECS1528FP	ECS1552
Switch Class	Layer 2+	Layer 2+	Layer 2+	Layer 2+	Layer 2+
Gigabit Ports	8	10	24	24	48
Multi-G Ports	0	0	0	0	0
SFP Ports	0	2	0	0	0
SFP+ Ports	0	0	4	4	4
RJ45 Console Port	-	Yes	Yes	Yes	Yes
PoE Capable Port	Ports 1 - 8	Ports 1 - 8	-	Ports 1 - 24	-
Powe-over-Ethernet	802.3af	802.3af/at	-	802.3af/at	-
Total PoE Budget	55W	130W	-	410W	-
Form Factor	9.45 (Desktop)	13”1U	19”1U	19”1U	19”1U
Switching Capacity	16 Gbps	24 Gbps	128 Gbps	128 Gbps	176 Gbps
MAC Address Table Size	8K	8K	16K	16K	32K
Dimensions	240 x 105 x 27 mm	330 x 230 x 44 mm	440 x 200 x 44 mm	440 x 260 x 44 mm	440 x 260 x 44 mm

Cloud-enabled Switches	Cloud-enabled Switches				
	ECS1552FP	ECS2512	ECS2512FP	ECS5512	ECS5512FP
Switch Class	Layer 2+	Layer 2+	Layer 2+	Layer 2+	Layer 2+
Gigabit Ports	48	0	0	0	0
Multi-G Ports	0	8 x 2.5G	8 x 2.5G	8 x 10G	8 x 10G
SFP Ports	0	0	0	0	0
SFP+ Ports	4	4	4	4	4
RJ45 Console Port	Yes	Yes	Yes	Yes	Yes
PoE Capable Port	Ports 1 - 48	-	Ports 1 - 8	-	Ports 1 - 8
Powe-over-Ethernet	802.3af/at	-	802.3af/at/bt	-	802.3af/at/bt
Total PoE Budget	740W	-	240W	-	420W
Form Factor	19”1U	13”1U	13”1U	13”1U	13”1U
Switching Capacity	176 Gbps	120 Gbps	120 Gbps	240 Gbps	240 Gbps
MAC Address Table Size	32K	16K	16K	32K	32K
Dimensions	440 x 310 x 44 mm	330 x 230 x 44 mm	330 x 230x 44 mm	330 x 230x 44 mm	330 x 230x 44 mm

EnSky Accessories

Sector Antennas

	Sector Antennas			
	SA5219	SA5315	SA2312	SA2216
Frequency	4.9~6GHz	4.9~6 GHz	2.3~2.7GHz	2.3~2.7GHz
Antenna Gain	19 dBi	15 dBi	12 dBi	16 dBi
Polarization	Dual	H-H-V	V-V-H	Dual
Vertical Angle	9˚	9˚	9˚	9˚
Horizontal Angle	120˚ (6dB)	120˚ (6 dB)	120˚ (6dB)	120˚ (6dB)
VSWR	2:1 MAX	2:1 MAX	2:1 MAX	2:1 MAX
Isolation	25 dB	25 dB	25 dB	25 dB
Antenna Connector	2˚ N-Type Plus	3˚ N-Type Plus	3˚ N-Type Plus	2˚ N-Type Plus
Dimensions	740 x 150 x 66mm	740 x 150 x 66 mm	740 x 150 x 66mm	740 x 150 x 66mm
Mounting	Universal Pole Mount	Universal Pole Mount	Universal Pole Mount	Universal Pole Mount
Wind Resistance	125 Mph	125 Mph	125 Mph	125 Mph

Transceiver Modules

	SFP + Switch Module		SFP Switch Module	
	SFP3213-10	SFP3185-03	SFP2213-10	SFP2185-05
Data Rate	10G bps	10G bps	1.25G bps	1.25G bps
Wave Length	1310 nm	850 nm	1310 nm	850 nm
Max Transmission Dist.	10 km	0.3 km	10 km	0.5 km

PoE Converters

	PoE Converters
	EPD-4824
PoE System	24V Proprietary
Max Output Power	24W
Powered LAN	2*10/100/1000

Surge Arrestors

	Surge Arrestors	
	ESA-7500	ESA7600G
Ethernet Cable Support	10/100 Base-T Cat 5	10/100/1000 Base-T Cat 5/6
Lightning Protection	2kV	6kV

PoE Adapters

	PoE Adapters			
	EPA5012GP	EPA5006GP	EPA5006GR	EPA5006GAT
Input Voltage	100V~240V AC	100V~240V AC	100V~240V AC	100V~240V AC
Input Current	1.12A @ 120V AC	0.8A @ 120V AC	0.8A @ 120V AC	0.8A @ 120V AC
Power-over-Ethernet	54V Proprietary	54V Proprietary	54V Proprietary	802.3at
Max Output Power	60W	32.8W	32.8W	30W
Ethernet Ports Std.	10/100/1000 Mbit/s	10/100/1000 Mbit/s	10/100/1000 Mbit/s	10/100/1000 Mbit/s
Dimension	100 x 58.4 x 33.4 mm	100 x 58.4 x 33.4 mm	100 x 58.4 x 33.4 mm	100 x 58.4 x 33.4 mm
Temperature	Operation: 0 ~ 40°C (42 ~ 140 °F)	Operation: 0 ~ 40°C (42 ~ 140 °F)	Operation: 0 ~ 40°C (42 ~ 140 °F)	Operation: 0 ~ 40°C (42 ~ 140 °F)

PoE Adapters

	PoE Adapters			
	EPA2410GP	EPA2406FP	EPA2406GP	EPA2406GR
Input Voltage	100V~240V AC	100V~240V AC	100V~240V AC	100V~240V AC
Input Current	0.7A @ 120V A	0.4A @ 120V AC	0.4A @ 120V AC	0.4A @ 120V AC
Power-over-Ethernet	24V Proprietary	24V Proprietary	24V Proprietary	24V Proprietary
Max Output Power	24W	14.4W	14.4W	14.4W
Ethernet Ports Std.	10/100/1000 Mbit/s	10/100 Mbit/s	10/100/1000 Mbit/s	10/100/1000 Mbit/s
Dimension	100 x 58.4 x 33.4 mm	100 x 58.4 x 33.4 mm	100 x 58.4 x 33.4 mm	100 x 58.4 x 33.4 mm
Temperature	Operation: 0 ~ 40°C (42 ~ 140 °F)	Operation: 0 ~ 40°C (42 ~ 140 °F)	Operation: 0 ~ 40°C (42 ~ 140 °F)	Operation: 0 ~ 40°C (42 ~ 140 °F)

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