

Pakedge Wireless System

Unleash Your Network

Set up your wireless network with a high performance enterprise class system from Pakedge, the 2013, 2014 & 2015 CEPro Brand Leader for networking. Our wireless access points provide up to 5x the throughput of previous generation access points while adapting to local site conditions. The NK-1-CG1 Wireless Controller synchronizes and manages multiple access points in real-time to ensure easy deployment and maintenance while continuously optimizing wireless performance.



WK Series



WX Series



NK-1-CG1

3 to 5x faster

2x more clients

Longer effective range

Architectural aesthetics

Simple management interface

Full range of models for every application

WK Series



Indoor



Outdoor



In Ceiling

WX Series



Indoor



Outdoor



In Ceiling

WK-1

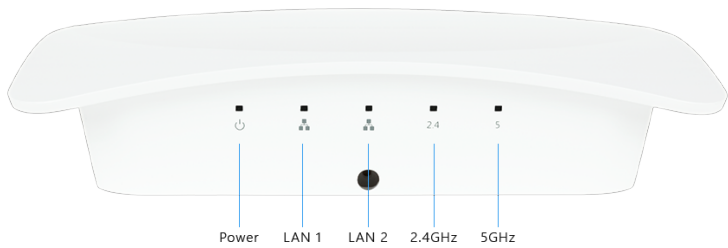
2x2 AC Wireless Access Point

High Powered AC Wireless

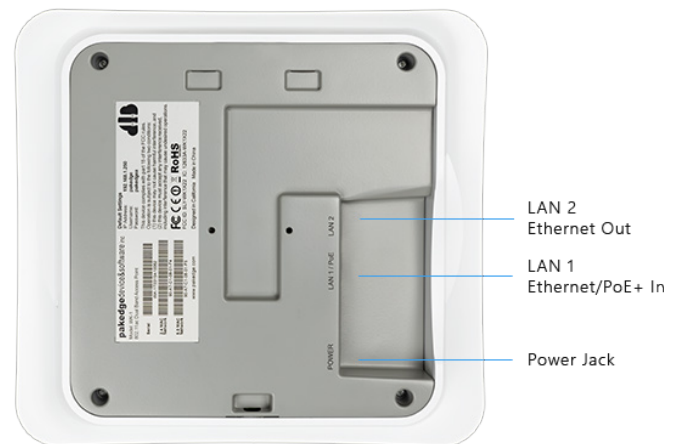
The WK-1 2x2 AC wireless access point provides high-speed, long-range wireless AC networking. Because it is designed with dual-LAN ports, users can daisy chain WK-1s for easy installation, even without access to network ports. Its 2x2 high powered technology brings blazing fast speeds, even at long ranges.



Front



Bottom



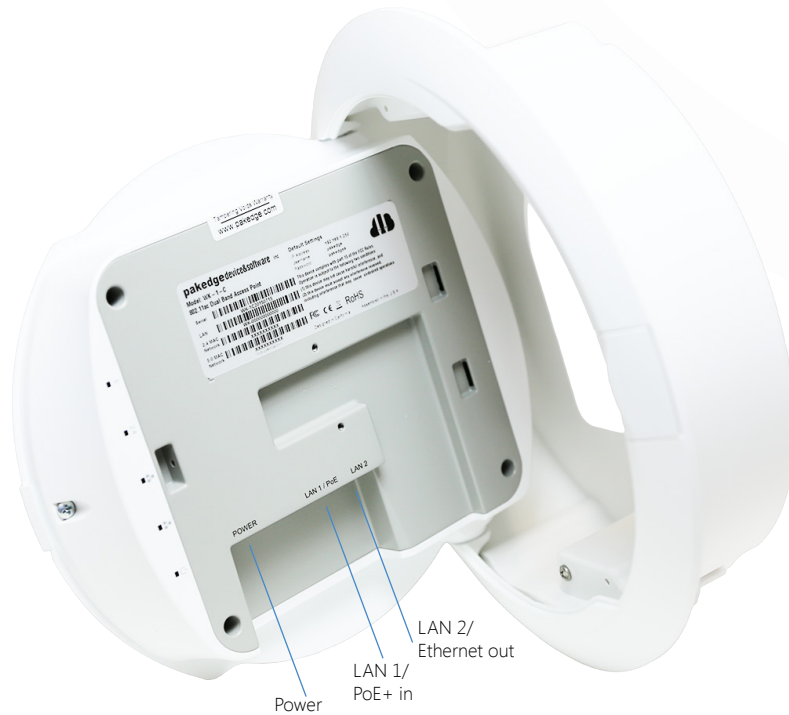
Side



WK-1-C

2x2 AC In-Ceiling Wireless Access Point

The WK-1-C Provides all the features plus functionality of the WK-1 in a convenient in-ceiling mounting option. The WK-1-C mounts flush into the ceiling - creating a clean finish.



Side



Top



WK-1-O

2x2 AC Outdoor Wireless Access Point

The WK-1-O is a 2x2 AC outdoor wireless access point built with an IP-67 rated aluminum housing to withstand even the harshest outdoor environments.



Ethernet in/
PoE+ in



Angled

Top



Side



Ethernet in/
PoE+ in

WK-2

3x3 AC Wireless Access Point

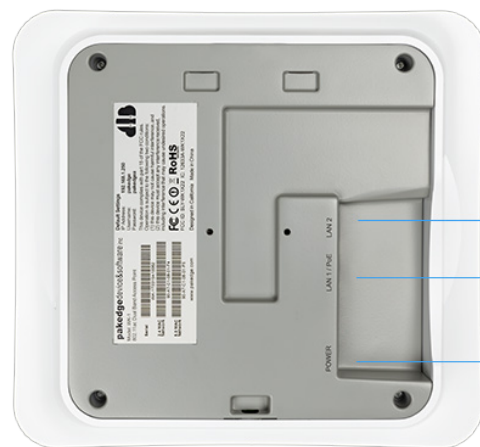
The WK-2 3x3 AC wireless access point provides high-speed, long-range wireless AC networking. Because it is designed with dual-LAN ports, users can daisy chain WK-2s for easy installation, even without access to network ports.



Front



Angled



Bottom

- LAN 2
Ethernet Out
- LAN 1
Ethernet/PoE+ In
- Power Jack

WX-1

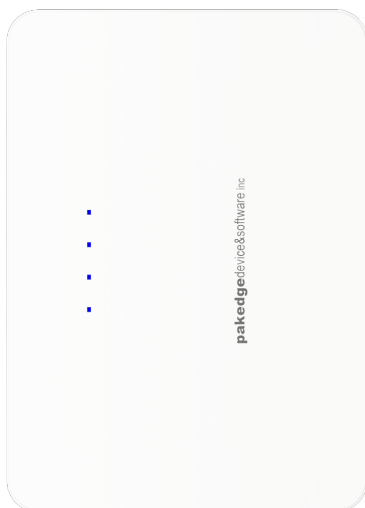
3x3 AC Wireless Access Point

The Next Level of AC Wireless

The WX-1 boasts the features and functionality of the WK-1, while bringing Pakedge AC wireless to the next level. An additional radio stream enables higher throughput, perfect for dense urban or corporate environments, while the ability to flush-mount the AP into a wall or ceiling removes the need for a separate in-ceiling AP entirely. High-powered gigabit wireless networking ensures high-speed wireless networking with less need for roaming for a skip-free, lag-free wireless experience. It is plenum rated (UL2043) and ideal for use in commercial projects in compliance with building codes.



Top



Angled



Side



Power Ethernet in/
PoE+ in

WX-1 With In-ceiling Mounting Bracket

3x3 AC In-Ceiling Wireless Access Point

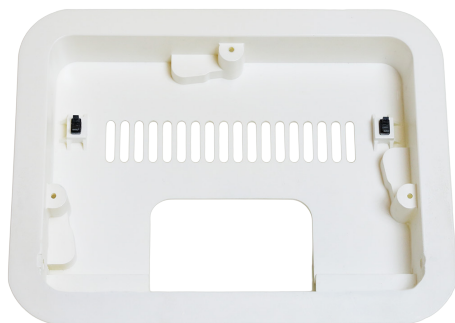
The WX-1 supports an optional in-ceiling mounting bracket to allow users to mount the WX-1 directly into any wall or ceiling. The in-ceiling bracket allows a full flush mount for a clean look. It is plenum rated (UL2043) and ideal for use in commercial projects in compliance with building codes.



Mounted



Bracket



Open



WX-1-O

3x3 AC Outdoor Wireless Access Point

The WX-1-O is an outdoor 3x3 AC wireless access point built with an IP-67 rated aluminum housing to withstand even the harshest outdoor environments.



Ethernet in/
PoE+ in



Assembled



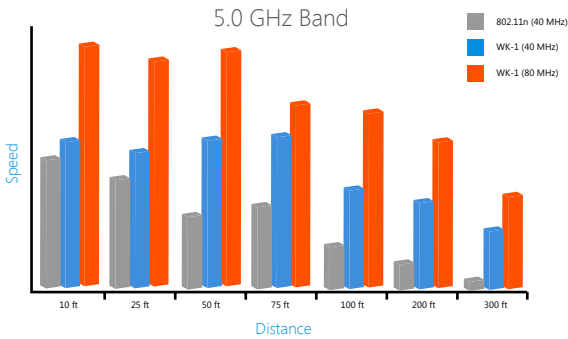
Angled



Side

Ethernet in/
PoE+ in

Wireless Features

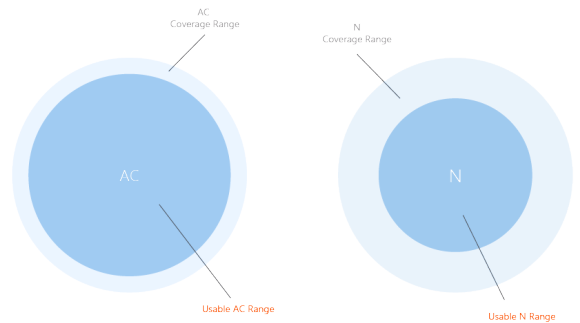
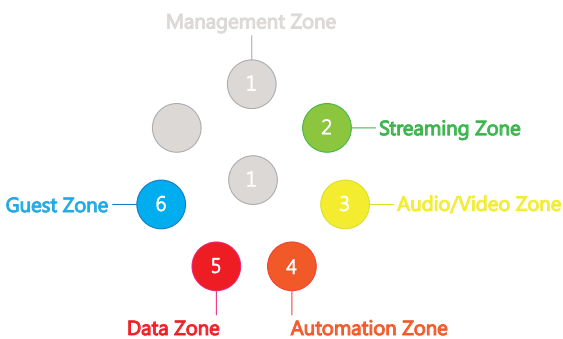


Up to 5x Faster

The 802.11ac WK-1 is 3x faster than previous generation N wireless, while the WX-1 displays speeds up to 5x of the generation N wireless. Dual or triple radios in a MIMO configuration enable traffic to be routed through both the 2.4 + 5.0GHz bands simultaneously while the wider 80 MHz channel enables more information to be transmitted.

Longer Effective Range

AC Wireless Access Points incorporate Packedge SectorMaxx™ wireless technology to provide higher throughput and greater usable range. This reduces the number of access points needed for a project.

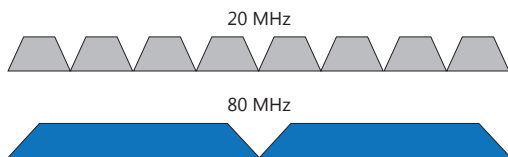
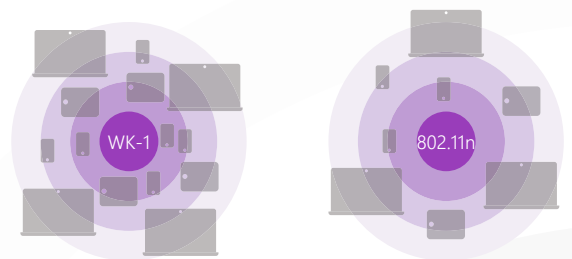


Packedge Zone Passthrough

WK-1 and WX-1 APs allow individual SSIDs to be tagged to Packedge Zones™ on the network - enabling segmented traffic, network prioritization, and greater security.

More Clients

AC Access Points support 4x as many signals, thereby increasing channel capacity. Each wireless-AC WAP supports twice as many clients.



More Bandwidth

AC Access Points support channels that are four times as wide (80 MHz), allowing it to carry more information to be transmitted at the same time - improving performance.

Seamless Voice and Video Streaming

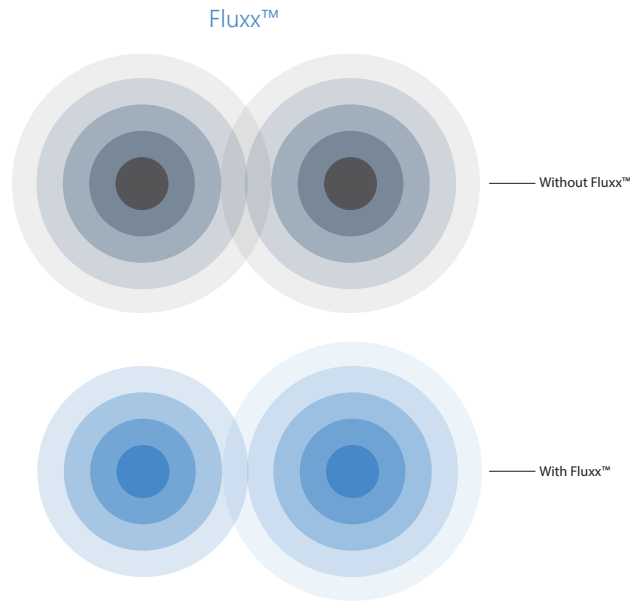
AC Access Points incorporate Packedge TruStream™ technology to automatically recognize and prioritize latency sensitive voice and video ahead of other network traffic for seamless performance.



Features Continued

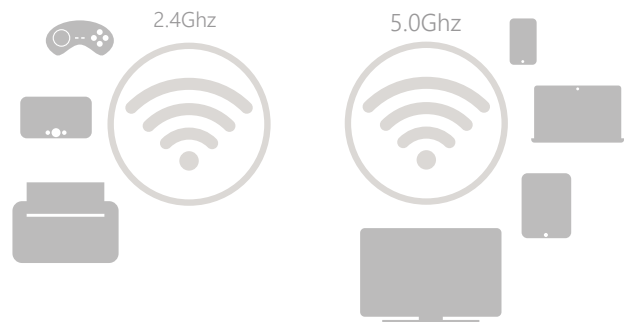
Power Optimization

AC Access Points incorporate Packedge Fluxx™ technology to automatically recognize and adjust transmit power levels to minimize interference in zones covered by multiple access points. This improves overall wireless performance and provides a higher quality wireless connection.



Optimized Band Management

The Access Points incorporate band steering technology to improve throughput and minimize interference. Band Steering detects 5GHz capable wireless devices and automatically connects them to the less congested 5GHz band – improving performance.

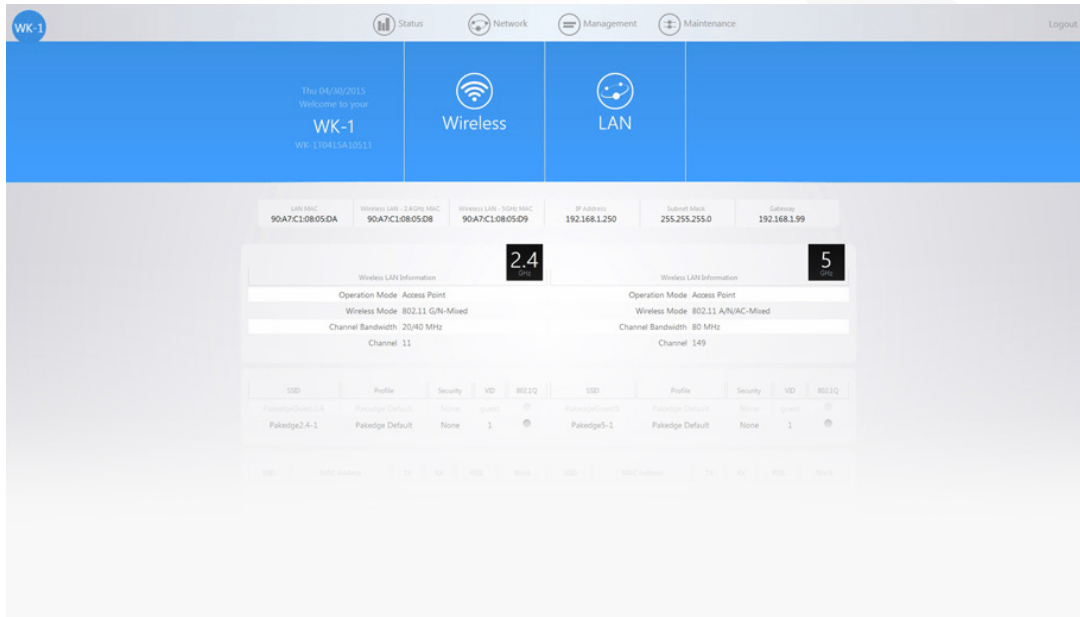


Secure Signal Encryption

The WK-1 and the WX-1 incorporate the latest security encryption standards for truly secure wireless networking, including WPA PSK, WPA2 PSK, WPA Enterprise and WPA2 Enterprise.

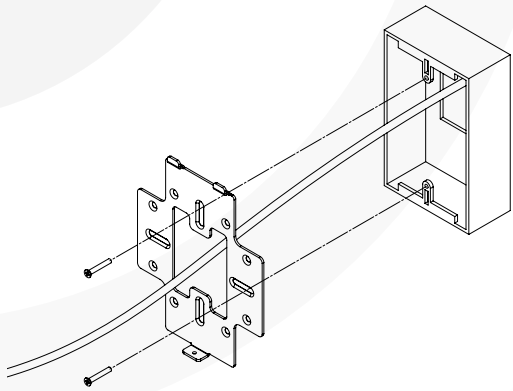
Complexity Simplified

An intuitive GUI based menu simplifies access point setup and maintenance. The menu design is similar across Pakedge devices for a simplified installation and management experience.



Architectural Aesthetics





Easy Wall or Ceiling Mount

Wall and ceiling mount brackets allow the WK-1 and WX-1 to quickly and easily mount to standard or drop-tile style ceilings and walls. With just a few screws, the WK-1 and WX-1 can be easily and safely secured in moments.



In-Wall or In-Ceiling

With the In-Ceiling bracket (sold separately), the WAP can be mounted flush with any wall or ceiling for a nearly invisible look without loss of performance.



Custom Engineering

The WK-1 and WX-1 are Pakedge Custom Engineering-ready, allowing dealers to create their own, customized configurations and co-branding for a simple, plug-and-play out of the box experience. Contact sales@pakedge.com for more information.

WAP Summary

Decide what's right for you

Model	Radio Configuration	Antenna Style	House Material	Plenum Rating (UL 2043)	Housing Color	Power Method	Mounting Style	2nd Port	Application	Throughput (vs N)	SSIDs	Guest SSIDs
WK-1	2 x 2	Internal	Polycarbonate	-	White, Black	PoE+ or AC	Bracket and t-bar mounts	Yes	Residential, Light Commercial	3x	8 per band	2
WK-1-C	2 x 2	Internal	Polycarbonate	✓ ¹	White	PoE+	Ceiling mount - flush	Yes	Residential, Light Commercial, In ceiling	3x	8 per band	2
WK-1-O	2 x 2	External-4	Aluminum	-	White	PoE+	Wall mount	No	Residential, Light Commercial, Outdoor	3x	8 per band	2
WK-2	3 x 3	Internal	Polycarbonate	-	White, Black	PoE+ or AC	Bracket and t-bar mounts	Yes	Residential, Light Commercial	5x	8 per band	2
WX-1 ²	3 x 3	Internal	Polycarbonate	✓	White	PoE+ or AC	Bracket and t-bar mounts, Ceiling mount - flush ⁴	No	Commercial ³	5x	8 per band	2
WX-1-O	3 x 3	External-6	Aluminum	-	White	PoE+	Wall mount	No	Commercial ³ , Outdoor	5x	8 per band	2

1. Pending confirmation of test results
2. WX-1 in ceiling is created by ordering WX-1 and the optional ceiling bracket
3. WAP contains features for commercial applications, including RADIUS based authentication protocols
4. With in ceiling mounting bracket (sold seperately)

Accessories

Power Injector

PI-05



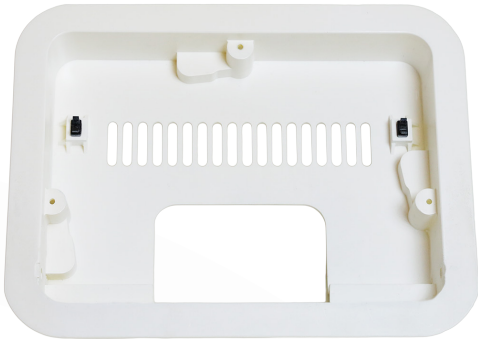
The PI-05 is an upgrade from the PI-04, converting a line of ordinary Ethernet line into PoE+ to power compatible devices. The PI-05 can be used to power both PoE and PoE+ devices.

Use with:

WK Series & WX Series

In Ceiling Bracket

B-WX-1



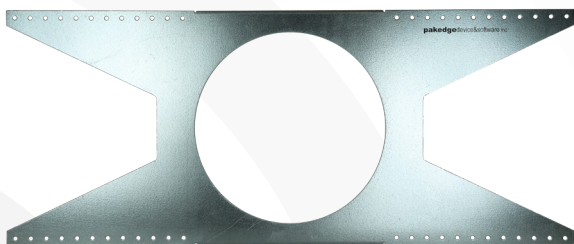
The WX-1 in ceiling bracket is an alternative mounting option. This bracket allows for a flush finish within any wall or ceiling - creating a clean look for any home.

Use with:

WX-1

Pre-construction Bracket

PB-04



The WK-1-C pre construction bracket is used when specking out a job before building begins. This bracket helps plan for future placement of the WK-1-C .

Use with:

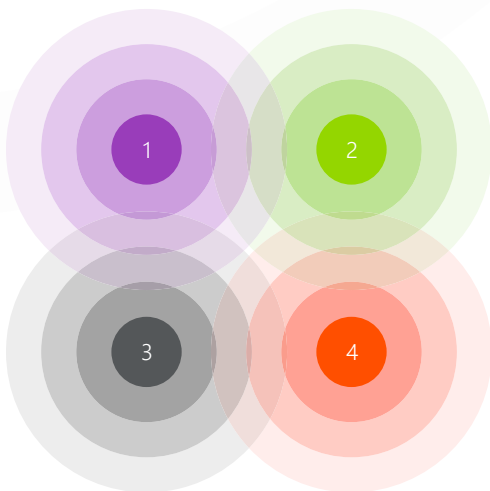
WK-1-C

NK-1-CG1 Wireless Controller

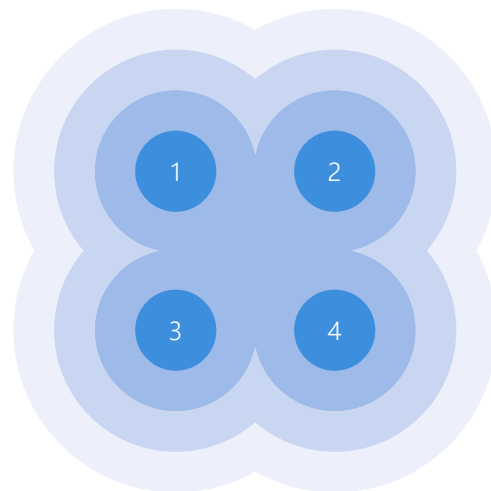
True Wireless Harmony

In a network without a wireless controller, the wireless access points are unaware of each other and act independently - resulting in sub-optimal network performance, coverage gaps, and unreliable connectivity. AP settings may not be applied consistently throughout the network - leading to incompatible policy application and enforcement, and potential problems with rogue access points and devices.

The NK-1-CG1 eliminates these problems by working in conjunction with up to 30 Pakedge Wireless Access Points. The NK-1-CG1 Wireless Controller serves as the command, coordination, and control center of a wireless network with multiple access points. It provides seamless, scalable, reliable wireless network access by managing each access point and optimizing wireless coverage with a suite of performance enhancing technologies.



Without NK-1-CG1



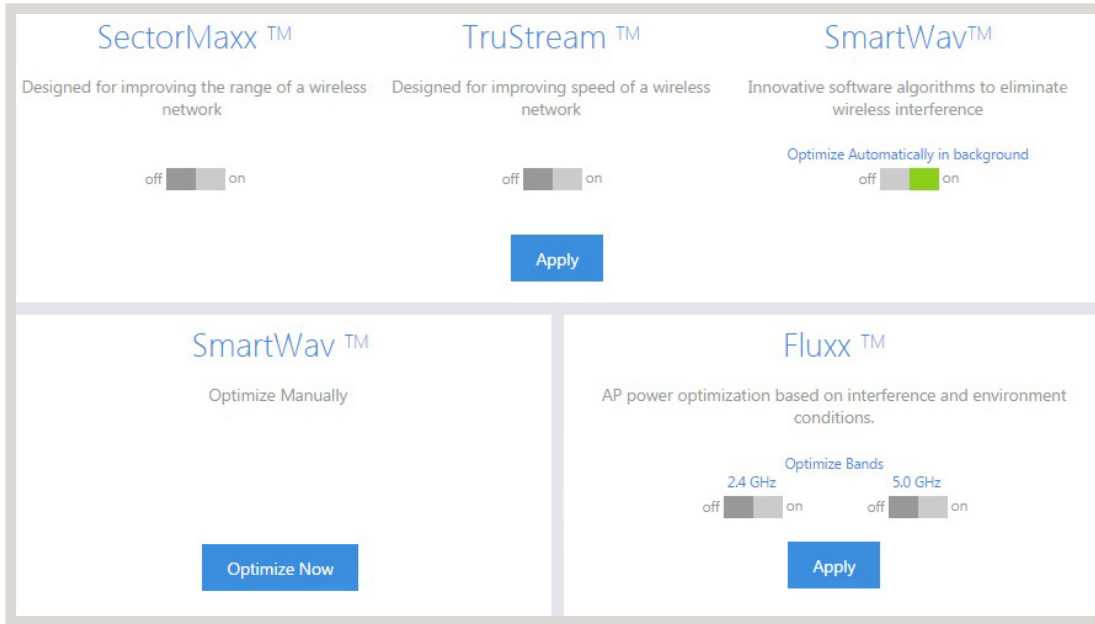
With NK-1-CG1

Unified, Seamless Coverage

The NK-1-CG1 utilizes adaptive wireless technologies to allow a unified team of access points to work in conjunction with one another, creating a more seamless wireless environment with fewer dead zones between APs. Pakedge SmartWav™ technology mitigates interference, enabling higher effective ranges with greater throughput and alleviates connectivity issues that occur when wireless signals overlap. With fewer handoffs, users will enjoy a wireless experience with fewer dropped connections.



Key Features



Optimized Wireless

The NK-1-CG1 continuously scans the local environment to adapt and optimize wireless performance, using TruStream™, SectorMaxx™, SmartWav™ and Fluxx™ technologies. This enhances speed and coverage while mitigating interference across the entire site.

Simple Management

Configure and manage up to 30 APs from any device on the network, all on one page. Setup, manage and maintain the network in minutes.

Fast Synchronized Deployment

Automatic detection and configuration of APs, site surveys, a GUI wizard, heat maps, and visualization tools make deploying expanding a network simple.

Enhanced Security

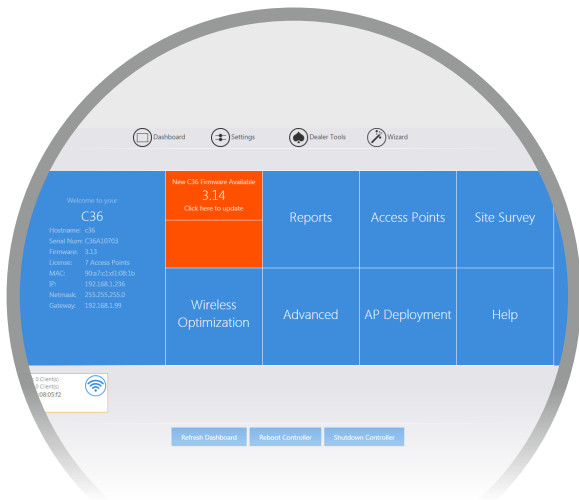
The ability to establish, push, and manage security settings across the network, integrated individual device blocking, guest access and Wi-Fi broadcast scheduling prevents security holes and provides a unified, secure wireless network.

Centralized Reporting

Quickly and easily obtain information about any access point or client device on the network, including device and system logging. The NK-1-CG1 Integrates with the Packedge Cloud Management System for visibility and management using any device, anywhere, anytime.



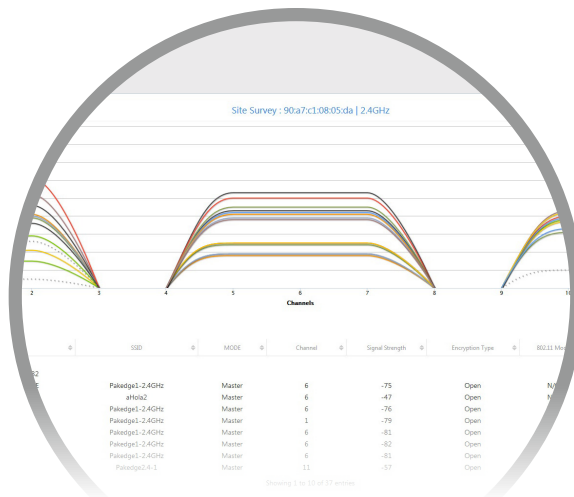
Advanced Features



Firmware Update Via Cloud



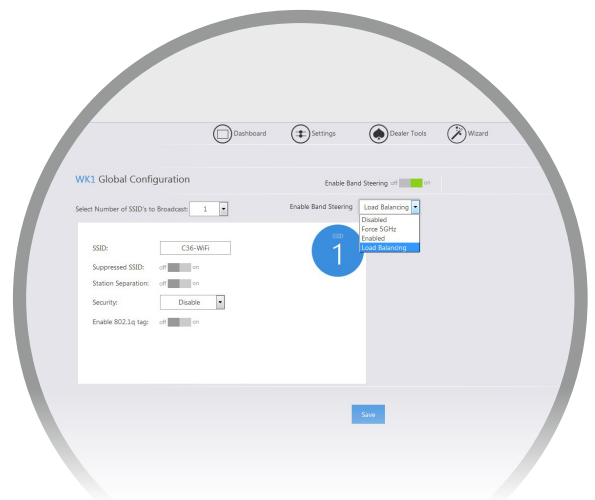
Intuitive Setup Wizard



Site Survey



Heat Map



Band Steering



Device Blocking



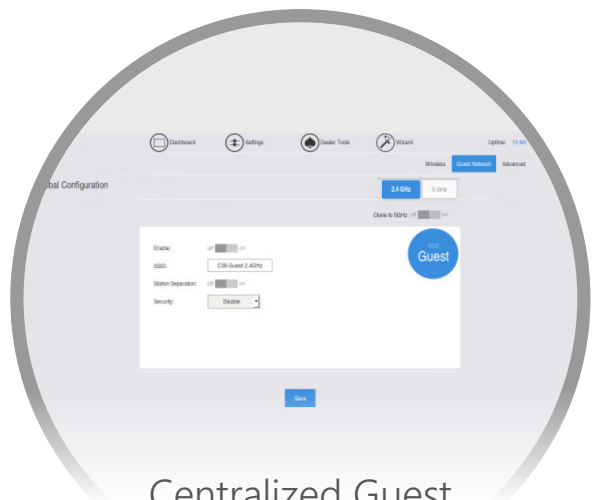
One Step Backup and Restore



Wireless Scheduling



MAC Filtering



Centralized Guest Maintenance

Access Point Specifications

Access Point	WK-1	WK-1-C	WK-1-O	WK-2	WX-1	WX-1-O
Wireless Protocols	802.11ac/a/b/g/n	802.11ac/a/b/g/n	802.11ac/a/b/g/n	802.11ac/a/b/g/n	802.11ac/a/b/g/n	802.11ac/a/b/g/n
Wireless Band	2.4, 5GHz	2.4, 5GHz	2.4, 5GHz	2.4, 5GHz	2.4, 5GHz	2.4, 5GHz
Max SSIDs	8 per band	8 per band	8 per band	8 per band	8 per band	8 per band
Guest SSIDs	2	2	2	2	2	2
NK-1-CG1 Compatible	✓	✓	✓	✓	✓	✓
Transmit Power	29dBm on 2.4Ghz, 29dBm on 5Ghz	29dBm on 2.4Ghz, 29dBm on 5Ghz	29dBm on 2.4Ghz, 29dBm on 5Ghz	29dBm on 2.4Ghz, 29dBm on 5Ghz	29dBm on 2.4Ghz, 29dBm on 5Ghz	29dBm on 2.4Ghz, 29dBm on 5Ghz
Receive Sensitivity	-91dBm	-91dBm	-91dBm	-91dBm	-87dBm	-87dBm
Antenna Configuration	2x2	2x2	2x2	3x3	3x3	3x3
Ports	2x LAN, Power	2x LAN, Power	2x LAN, Power	2x LAN, Power	LAN, Power	LAN, Power
Encryption Options	WPA PSK, WPA2 PSK	WPA PSK, WPA2 PSK	WPA PSK, WPA2 PSK	WPA PSK, WPA2 PSK	WPA Enterprise, WPA2 Enterprise	WPA Enterprise, WPA2 Enterprise
Power Consumption (Max)	13.10w	13.10w	13.10w	15.84w	18.72w	18.72w
Power Consumption (Average)	10.99w	10.99w	10.99w	13.49w	11.64w	11.64
Input Power	PoE+ 802.3at or 12V/1.5A with included PSU	PoE+ 802.3at	PoE+ 802.3at	PoE+ 802.3at or 12V/2A with included PSU	PoE+ 802.3at or 12V/2A with included PSU	PoE+ 802.3at
Operating Temperature	0° - 45°C (32° - 113°F)	0° - 45°C (32° - 113°F)	0° - 45°C (32° - 113°F)	0° - 45°C (32° - 113°F)	0° - 45°C (32° - 113°F)	0° - 45°C (32° - 113°F)
Storage Temperature	-20° - 60°C (-4° - 140°F)	-20° - 60°C (-4° - 140°F)	-20° - 60°C (-4° - 140°F)	-20° - 60°C (-4° - 140°F)	-20° - 60°C (-4° - 140°F)	-20° - 60°C (-4° - 140°F)
Humidity	10%-90% non-condensing	10%-90% non-condensing	10%-90% non-condensing	10%-90% non-condensing	10%-90% non-condensing	10%-90% non-condensing
Mounting Options	Wall Bracket, Ceiling T-Bar	In Ceiling	Outdoors	Wall Bracket, Ceiling T-Bar	Wall Bracket, Ceiling T-Bar	Outdoors
Dimensions (LxWxH)	8.02" x 7.47" Depth: 1.49" Base: 6.10" x 5.95"	10.29" x 3" Radius 4.5"	10.59" x 9.41"x 3.26" Wingspan 25.22"	8.02" x 7.47" Depth: 1.49" Base: 6.10" x 5.95"	9.80" x 7.05" x 1.43" Base 7.76" x 5.55"	10.59" x 9.41"x 3.26" Wingspan 26.39"
Buttons	Reset	Reset	Reset	Reset	Reset	Reset
LEDs	Power, 2x Ethernet, 2.4GHz, 5GHz	Power, 2x Ethernet, 2.4GHz, 5GHz	Power, 2x Ethernet, 2.4GHz, 5GHz	Power, 2x Ethernet, 2.4GHz, 5GHz	Power, Ethernet, 2.4GHz, 5GHz	Power, Ethernet, 2.4GHz, 5GHz
Weight (lbs)	4	5	9	4	4	9
Certifications	FCC, CE, IC, RoHS	FCC, CE, IC, RoHS, UL60950	FCC, CE, RoHS	FCC, CE, IC, RoHS	FCC, CE, IC, RoHS, UL 2043, 60950	FCC, CE, RoHS,
Colors	White, Black	White	White	White, Black	White	White
Form Factors	Surface Mount	In Ceiling	Outdoors	Surface Mount	In-ceiling*, Surface Mount	Outdoors

*With in ceiling mounting bracket

Package Contents

WK-1: WK-1 Access Point, Ethernet Cable, Power Supply Adapter, RJ45 clip, Torx screw driver, Rubber feet, Wall mount kit, T-bar mounting adapter, Quick Start Guide

WX-1: WX-1 Access Point, Ethernet cable, Power supply adapter, RJ45 clip, Torx screw driver, Rubber feet, Wall mount kit, T-bar mounting adapter, Quick Start Guide

WK-1-C: In ceiling Access Point, Ethernet Cable, How to open label, QuickStart Guide

WK-1-O/ WX-1-O: Ethernet Cable, Mounting Brackets/Kit, Enclosure Kit Guide, Quick Start Guide

NK-1-CG1 Specifications

Interface

Total Network Interfaces	2
Auto MDIX auto-sensing 10/100/1000 (Copper, RJ-45)	1
Console Port (Copper, RJ-45)	1
Console Port (Copper, RJ-45)	1
USB Interfaces	1 (USB 3.0)

Dimensions

Height x Width x Depth	12 x 7.5 x 1.75 cm (4.25 x 43.25 x 9.20 cm)
Weight	6 lbs
1U Rack Mountable	Yes

System Performance

Managed APs	Up to 30
WLANs	Depends on AP

Multimedia & Quality of Service

802.11e/WMM	Supported
Client Load Balancing	Supported (v2)
Client Capacity Limit	Supported (v2)
Suppressed SSIDs	Supported

Environment

Power Input	110-240v AC
Power Consumption	55w
Operating Temp	0°- 40°C (32°-104° F)
Operating Humidity	95% non-condensing
Storage Temp	-20°- 80°C (-4°-176° F)
Storage Humidity	95% non-condensing

Management

Configuration	Web user interface, CLI, SNMP v1, v2, v3
AAA	RADIUS (v2)
AP Provisioning	Auto-upgrade, Auto channel & power optimization, VLAN tagging, Spanning Tree, Heat Map (v2)
Centralized Management	Supported
Centralized Reporting	Supported

Security

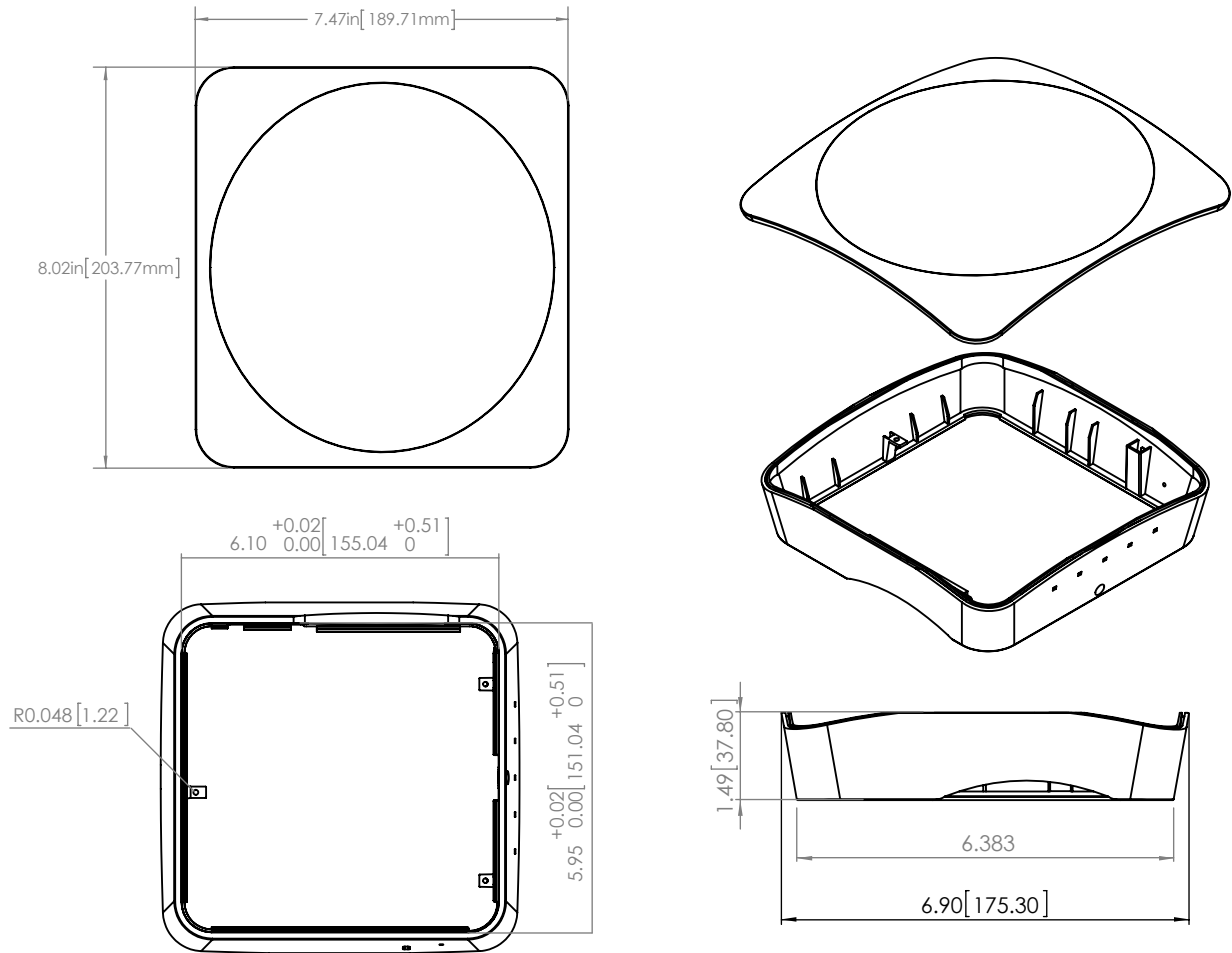
Standards	WEP, WPA, WPA2, IPv4, IPv6, PSK (v2), AES
Intrusion Detection	Rogue AP Detection
MAC Filtering	Supported
Guest Network	Supported

Package Contents

Wireless Controller, Console Cable, Rack Mounting Hardware, Power Cable and Quick Start Guide

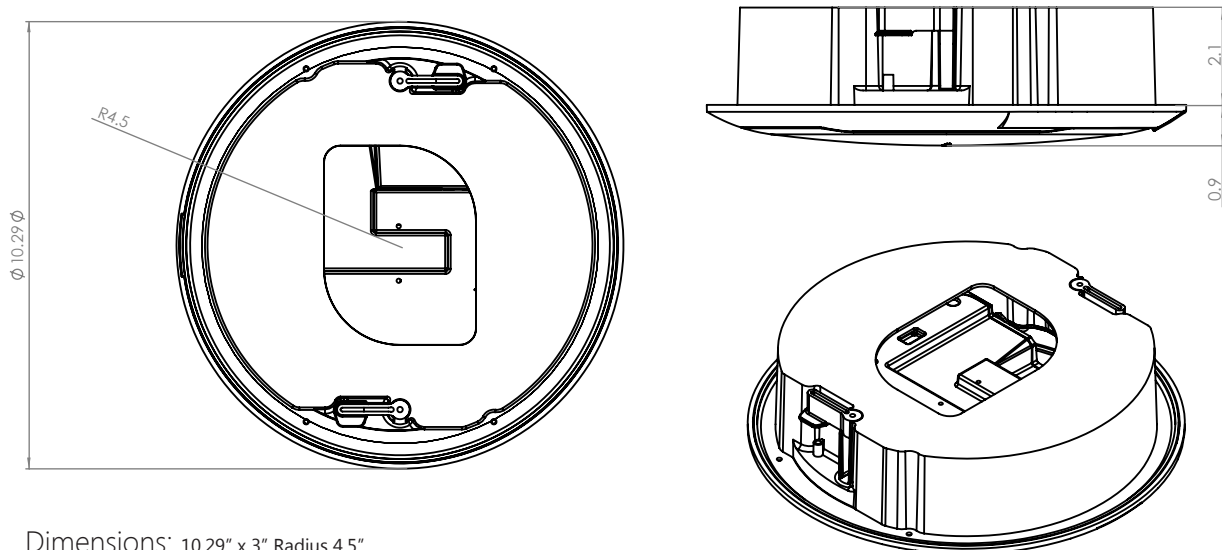
Access Point Dimensions

WK-1



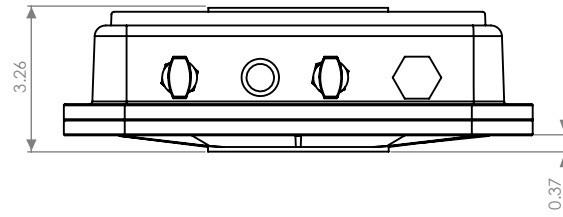
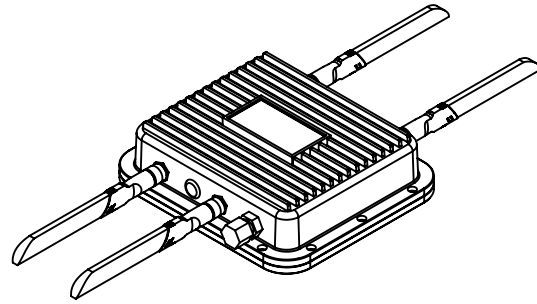
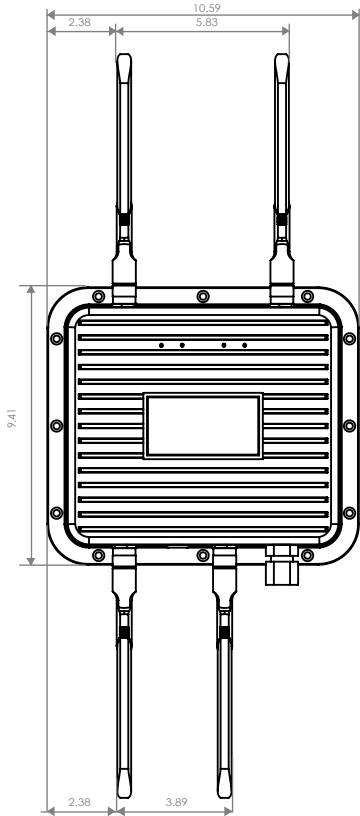
Dimensions: 8.02" x 7.47" Depth: 1.49" Base: 6.10" x 5.95"

WK-1-C



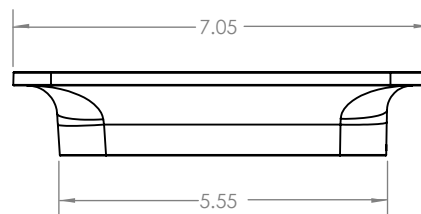
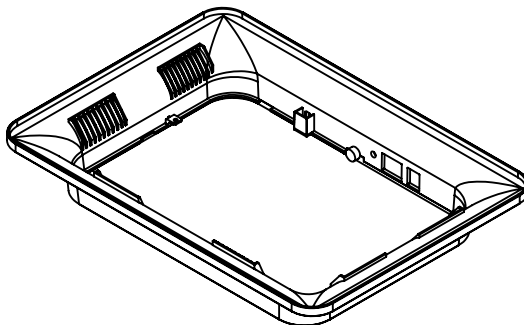
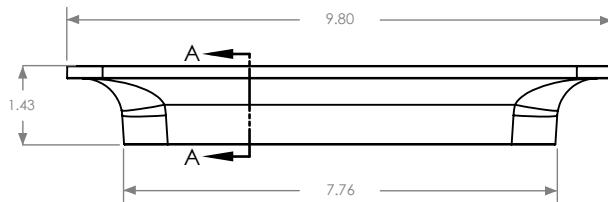
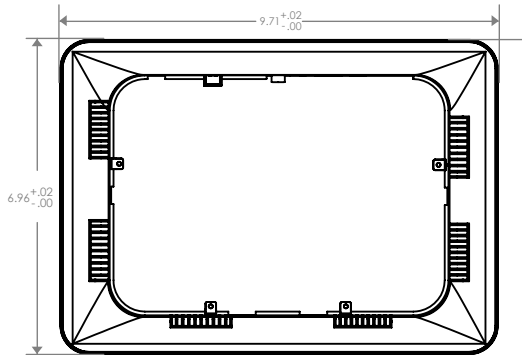
Dimensions: 10.29" x 3" Radius 4.5"

WK-1-O



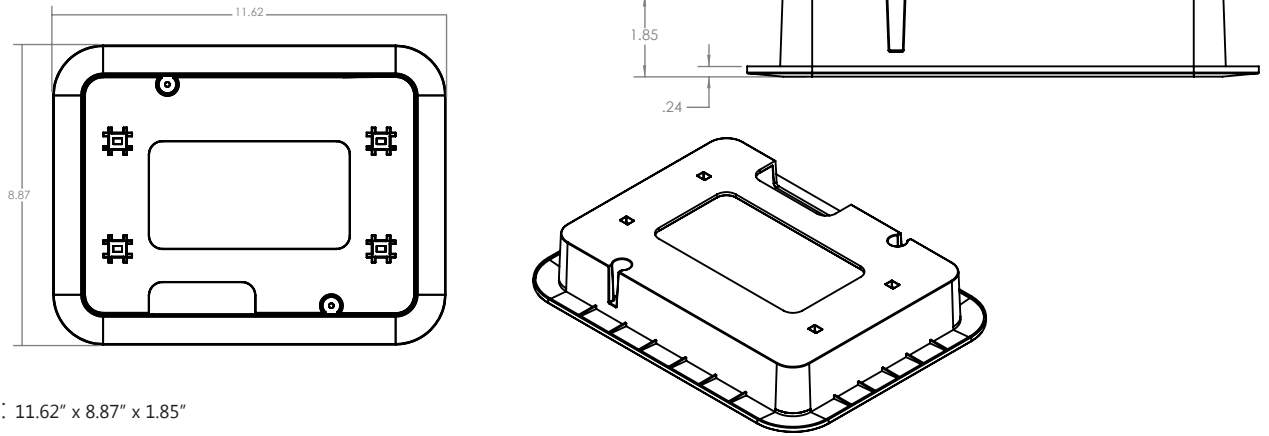
Dimensions: 10.59" x 9.41" x 3.26" Wingspan 25.22"

WX-1



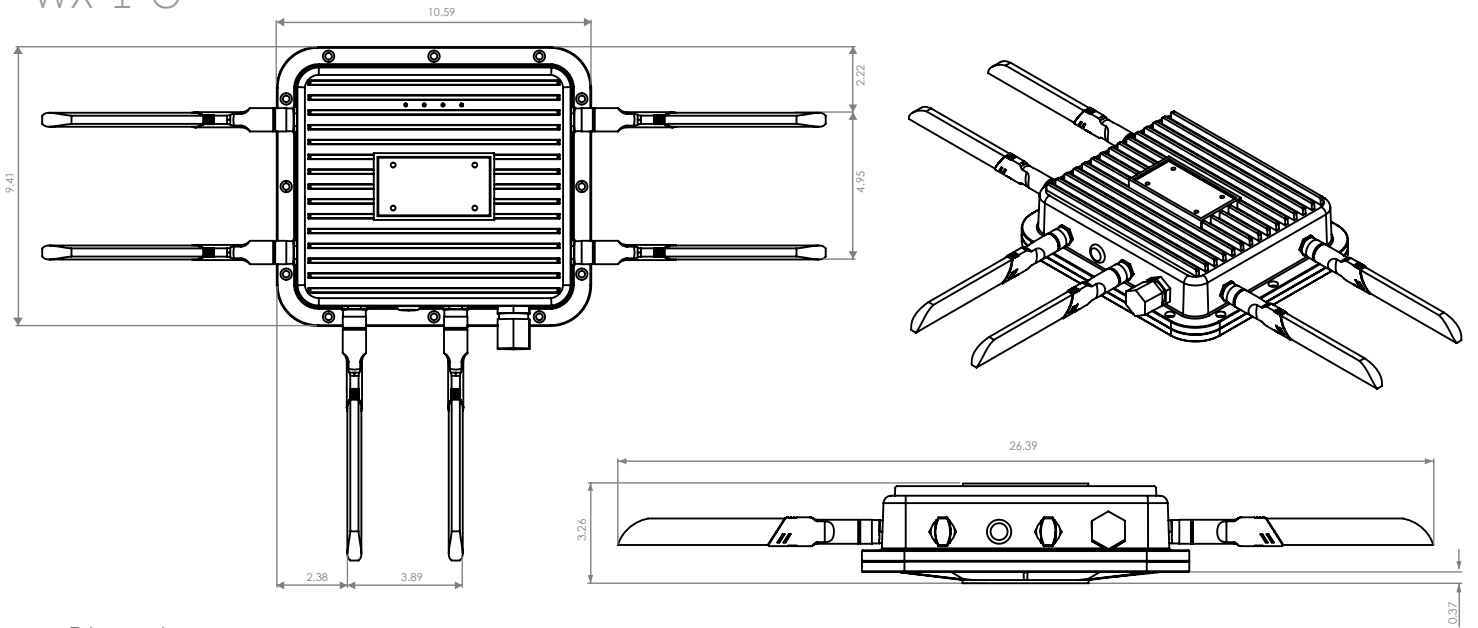
Dimensions: 9.80" x 7.05" x 1.43" Base 7.76" x 5.55"

WX-1 Ceiling Bracket



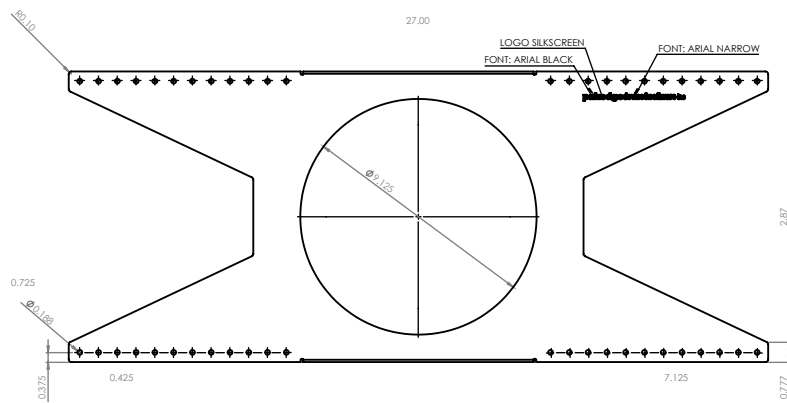
Dimensions: 11.62" x 8.87" x 1.85"

WX-1-O

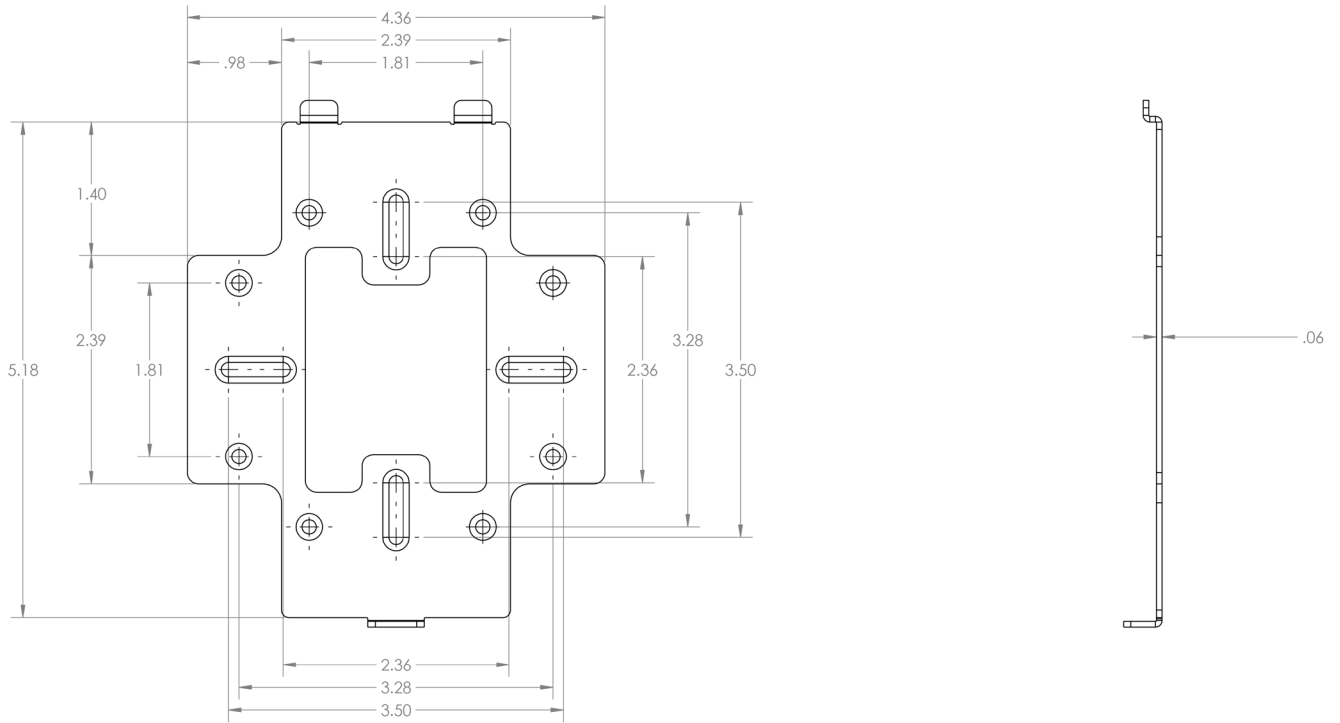


Dimensions: 10.59" x 9.41" x 3.26" Wingspan 26.39"

WK-1-C Pre-construction Bracket

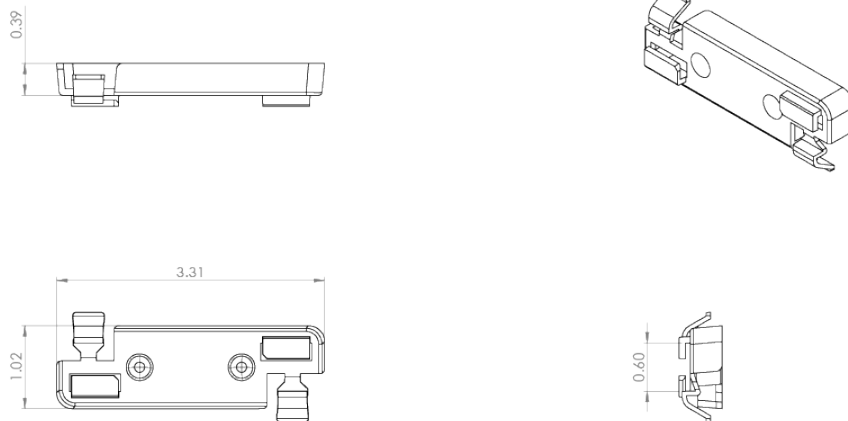


Wall Mounting Bracket Specifications

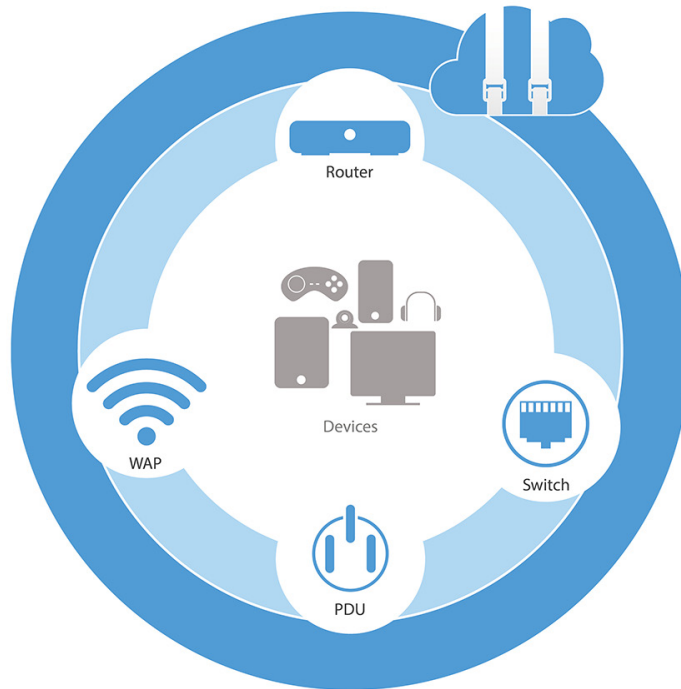


Dimensions in Inches

Drop Ceiling T-Bar Mount



Dimensions in Inches



Connect+ Certified

The Pakedge Connect+ Platform is a carefully integrated system of switches, routers, wireless, power management and software technologies, designed specifically to work with each other to deliver seamless, scalable, and reliable multimedia networking performance. When unified with the BakPak Cloud Management System, the functionality of the Pakedge Connect+ Platform is extended with cloud-enabled services such as monitoring and management of all connected devices anywhere, any time, and from any device.

Why Pakedge?

- Purpose-built for A/V networking applications
- Enterprise-level performance
- Seamless, scalable, and reliable
- End-to-end network system solutions
- Free lifetime technical support
- Free lifetime firmware updates and functionality support

Warranty


Pakedge Device & Software offers a 3-year limited warranty. Pakedge Device & Software will repair or replace products that do not perform as specified within 3 years of the date of purchase due to a defect in materials, workmanship, or functionality.




About Pakedge Device & Software

Pakedge is an industry leading manufacturer of high performance end-to-end networking platforms for residential and commercial A/V applications. Recognized by industry peers and winner of the prestigious CEPro Brand Leader award for Networking in 2013 and 2014, Pakedge specializes in integrating high performance engineering innovations, operational simplicity, and systems engineering to develop technology that enables customers to unleash the power of their network.

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