



# Industry-Specific Information

*Industry Compliance - Healthcare - Hospitality & Retail  
Education: K-12 - Higher Ed - Stadiums*



## Is Your Network Compliant with Industry Guidelines?

### National Electric Code (NEC)

In addition to providing added safety, convenience, and the security of a locked door, Oberon enclosures also help installations meet the National Electric Code (N.E.C.) article 300.22 requirements for installing equipment above a suspended ceiling.



### Payment Card Industry Data Security Standard (PCI-DSS)

Payment Card Industry Data Security Standard (PCI-DSS) requirement 9.1.3 states that the operator must “restrict physical access to wireless access points, gateways, and handheld devices,” and “verify that physical access to wireless access points, gateways, handheld devices, networking/communications hardware, and telecommunication lines is appropriately restricted.”

### Federal Information Processing Standard (FIPS)

Government/DoD Directive 8100.2 mandates FIPS 140-2 compliance, wherein FIPS 140-2 paragraph 4.5 requires “physical security mechanisms” to be applied. Oberon enclosures feature locking doors and are secured to the building structure, providing physical security while remaining virtually transparent to wireless signals for optimum performance.



### Infection Control Risk Assessment (ICRA)

The Joint Commission on Hospital Accreditation has established procedures for mitigating the spread of infectious disease and contamination. Infection Control Risk Assessment (ICRA) will have a serious impact on cabling installation, moves, adds, and changes. Oberon enclosures provide access to wireless LAN access points and telecom equipment without entering the air handling space, a key factor in risk mitigation.

### Health Insurance Portability and Accountability Act (HIPAA) Requirements

§ 164.310 Physical safeguards. ***A covered entity must, in accordance with 164.306: (a)(1) Standard: Facility access controls. Implement policies and procedures to limit physical access to its electronic information systems and the facility or facilities in which they are housed, while ensuring that properly authorized access is allowed.***

A healthcare facility's top objective is to protect patients. Dust, mold, and fungal spores found in the plenum space above a suspended ceiling are very dangerous to immunocompromised patients.

**Poking holes in, or lifting, ceiling tiles to pass antennas or cables is not acceptable in hospitals, as these openings in the ceiling readily pass dust and spores.** Wireless access points should be mounted in an enclosure which permits access to the equipment, and connection to the data cable, without lifting or penetrating the suspended ceiling.



The Joint Commission on Hospital Accreditation has developed procedures for mitigating the spread of infectious disease and contamination in hospitals. These **Infection Control Risk Assessment (ICRA)** procedures require that areas in which work is to be performed (such as pulling cable and lifting ceiling tiles) must have a barrier in place, and be negatively pressurized, such that dust and spores are not spread through the facility. These procedures will have a serious impact on cabling installation, moves, adds, and changes.

Oberon enclosures provide access to ceiling-mounted wireless LAN access points and networking equipment **without entering the air-handling "plenum" space**, helping to protect vulnerable patients from airborne contaminants, and simplifying ICRA procedures.

Oberon UL Listed enclosures also help installations meet the **National Electric Code (N.E.C.) article 300.22 and 300.23** requirements for installing equipment above a suspended ceiling. The enclosures are an effective smoke and fire barrier, helping to preserve the fire rating of the ceiling system.

Finally, Oberon's locking enclosures provide clear cut compliance with **HIPAA paragraph 164.310 Physical Safeguards** for securing all network endpoints.



**Don't use risky  
stop-gap measures.**



**Stop the gap - permanently.**

*Eliminate gaps in the ceiling tile by mounting WAPS in Oberon enclosure*

Healthcare environments must anticipate rapid growth in wireless and wired infra-structure. Oberon's wireless and zone enclosures can simplify wireless and structured cabling growth, moves, adds, and changes in healthcare facilities.

## BENEFITS

- Protect patients from airborne contaminants
- Simplify ICRA procedures
- National Electric Code compliance
- Physically secure equipment for clear cut HIPAA compliance
- Aesthetic, professional installation

## FEATURES

- UL Listed, OSHPD approved; designed to satisfy N.E.C. for installation in plenum space
- 2' x 2' steel and aluminum ceiling tile enclosure drops into standard suspended ceiling
- Attractive, textured, white powder coat finish
- Non-metallic domes are virtually transparent to wireless signals
- Interchangeable locking doors simplify moves, adds, and changes to new access points or antennas
- Solutions for virtually all vendor's wireless access points, DAS antennas, and telemetry sensors



## CONTACT



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Most hotels, restaurants, and retail spaces now have a Wi-Fi network for internal business processes and guest use. Wireless is mission-critical for inventory and order processing, and guests will expect reliable wireless Internet access. The speed and integrity of the Wi-Fi network is key for many businesses, and will only become more vitally important to the business in the future.

The wireless network should be professionally designed and installed with appropriate regard to wireless coverage and physical security. Due to highly publicized security breaches in retail, WAPs should be locked up to prevent unauthorized access. The Payment Card Industry Data Security Standard (PCI-DSS) requirement 9.1.3 states that the operator must "Restrict physical access to wireless access points, gateways, and handheld devices."

## HOTELS

Hotel Wi-Fi is very common and guests expect to find strong wireless signals in all rooms, lobbies, and meeting areas. Oberon offers a number of solutions for securing WAPs, including recess ceiling mounts (Model 1065), and suspended ceiling mounts.



## RESTAURANTS

WAPs are often installed throughout the restaurant to provide effective coverage. Oberon offers a number of solutions to help designer/installer blend the WAP into the environment, including paintable wall mount enclosures (Model 1016) and paintable vanity covers.



## RETAIL

Retail environments will see growth in their Wi-Fi traffic as point of sale applications grow and Facebook Wi-Fi becomes prevalent. Oberon offers a number of solutions for professional, secure placement of WAPs in retail environments, such as aesthetic suspended ceiling enclosures.

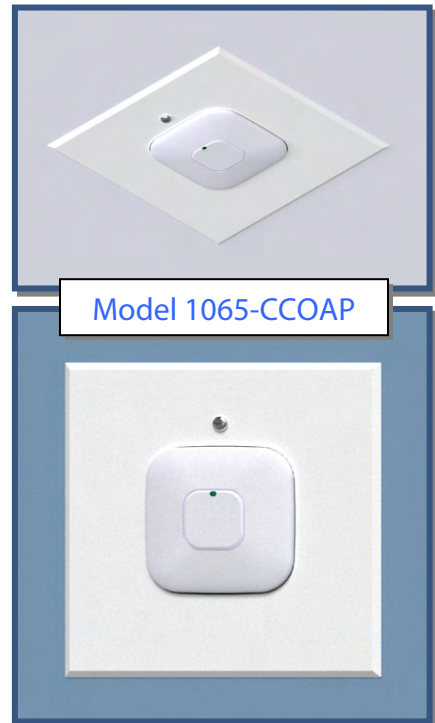


## BENEFITS

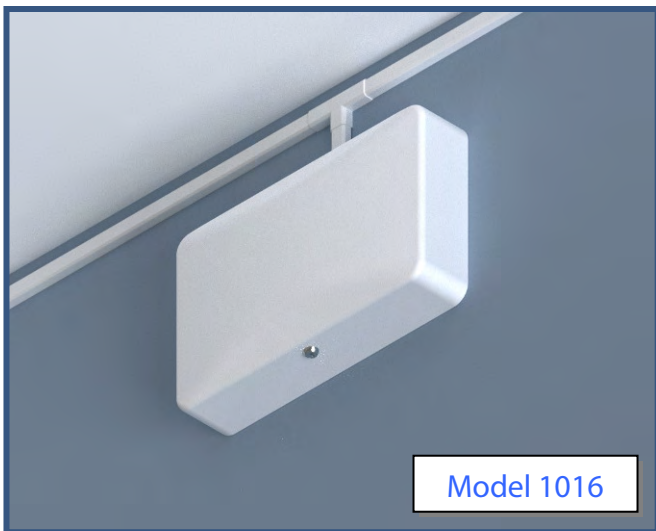
- Protect WAPs in hotels, restaurants, and retail environments
- Physically secure WAPS for PCI-DSS compliance
- Aesthetic, professional installation in architecturally sensitive areas
- National Electric Code compliance
- Solutions for virtually all vendors' wireless access points

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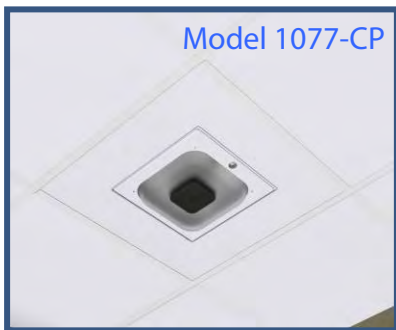


Wi-Fi and wireless networks are becoming ubiquitous in K-12 schools as students and teachers become more adept at using mobile devices for educational programming, instruction, and multimedia presentation. Recognizing that students and teachers are already using mobile devices as part of instruction in some schools, the FCC is moving to promote and fund ubiquitous Wi-Fi in all schools and libraries. In fact, the FCC is taking steps to modernize E-rate to include Wi-Fi funding. In July 2014, the FCC ordered an additional \$2 billion over the next two years for Wi-Fi build-out in schools, followed by \$1 billion a year for three years.

Additionally, most schools are using Apple TVs and similar Internet multimedia gateways with digital projectors in every classroom. These gateways will connect students' and teachers' mobile devices to the classroom presentation system.

As these systems become more embedded in day-to-day instruction, schools require a robust Wi-Fi network that will deliver all of the multimedia instruction and programming required every day and into the future.

**Are you prepared to help build your local school's Wi-Fi and multimedia A/V structure?**



Schools are a challenging environment for wireless installation. Some schools are older construction and require special consideration for installing and protecting Wi-Fi access points and the associated cabling. Wi-Fi access points and Apple TVs should be protected from theft, vandalism, accidental disconnects and moves, and the elements.

Access points should be mounted properly to provide optimum wireless signal coverage, and permit convenient, yet controlled, access without lifting ceiling tiles. Cabling suitable for the applications of today, and the future should be installed, terminated, and protected, at each Wi-Fi access point location.

Oberon's complete line of products are designed to provide a convenient, and aesthetic, way to secure and protect Wi-Fi access points in many venues including classrooms, auditoriums, libraries, administration offices, and outdoor courtyards.

*Secure - Convenient - Aesthetic*



**Model 1012**

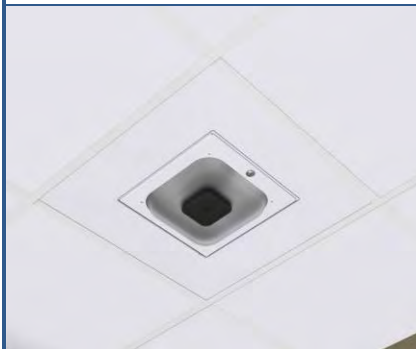
Locking right angle wall bracket for WAPs

**Model 1077-WA**

Suspended ceiling tile enclosure for WAPs

**Model 1015**

Surface mount non-metallic lock box for WAPs



**Model 1077-CP**

Suspended ceiling tile enclosure for Apple TV



**Model 1016**

Surface mount non-metallic lock box for WAPs with external antennas & multiple network components



**Model 1074-PROJ**

Suspended ceiling tile mount for multi-media projector, Apple TV, and other A/V gear

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All college campuses feature Wi-Fi networks throughout their facilities. Wireless is mission-critical for instructional content, classroom programming, and overall lifestyle. The speed and integrity of the Wi-Fi network is a key selling point for many campuses when they are recruiting students.

Campuses with many buildings of various ages and construction, and a mix of venues from large stadiums to individual residences, create unique challenges for wireless network designers. Typically, 100% wireless coverage and uptime is expected. Many of the building are essentially open to the public, so physically protecting WAPs is important.

### HIGH DENSITY WI-FI

Campuses will require High-Density Wi-Fi in stadiums, auditoriums, and larger classrooms where large numbers of users aggregate. A high-density design is comprised of a large number of WAPs to be installed, presenting the designer and installer with a challenge in placing and protecting WAPs. Oberon offers a number of solutions, including compact, non-metallic NEMA4 (waterproof) designs for installing WAPs beneath stadium and auditorium seats and numerous solutions for mounting WAPs and antennas on walls and pillars.

### RESIDENCE HALLS

Residence halls create a challenge to the wireless designer and installer, as they are typically block/brick wall and concrete construction. The wireless signal is greatly attenuated by this construction material, requiring careful placement of large numbers of WAPs to provide the necessary wireless coverage. The WAPs should also be protected from the rigors of residence hall activity. Oberon offers a number of solutions for this challenging environment, including non-metallic surface mount lock boxes and right angle wall brackets.



### HERITAGE BUILDINGS

Many campuses have older "heritage" buildings which require special consideration of an architectural and aesthetic nature. This can include museums, libraries, and administration buildings. Oberon offers a wide variety of products to help the WAP "blend in" to the environment, including recess wall mount enclosures and paintable vanity covers.

### A/V EQUIPMENT

Increasingly, campuses are using Apple TV® and other Internet Gateway products for enhanced multi-media capabilities in the classroom. These items should be secured along with projectors and A/V equipment. Oberon offers zone enclosures which are designed to secure Apple TV, projector, WAPs, and other A/V gear in the ceiling of the classroom where it is needed.

## BENEFITS

- Protect WAPs in high density Wi-Fi installations
- Physically secure WAPS in residence halls and public areas
- Aesthetic, professional installation in heritage buildings, museums, and libraries
- Protect Apple TV and other A/V equipment
- National Electric Code compliance
- NEMA4 enclosures protect WAPs in stadiums and outdoors

## FEATURES

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## NEMA Wireless Enclosures for Stadium Wi-Fi Deployments

Oberon offers compact NEMA-4 enclosures designed for challenging indoor/outdoor environments such as stadiums, auditoriums, retail centers, and college campuses.

These enclosures are designed to permit convenient and secure mounting of the access point in difficult or outdoor environments. Some enclosures include a universal mounting plate for access points from many vendors, "keyed alike" locks, and egress points for bulkhead mounted antennas and conduit. The enclosures are designed to the UL50 standard for enclosure integrity. With proper egress point seals, the enclosures are NEMA 4 compliant for water and dust resistance.



**The Model 1026-00** is a compact NEMA enclosure designed to protect wireless LAN access points from most vendors in challenging indoor/outdoor environments, such as stadiums. This rugged, polycarbonate enclosure protects the access point from weather, dust, and impacts, and is transparent to wireless signals, so access points with body integrated antennas or small detachable antennas may be protected. The enclosure has a fully hinged cover, molded-in padlock hasps for locking, and interior mounting plate for attaching access points. Convenient size options are available, ranging from 6" x 6" x 4" to 24" x 24" x 10".

Enclosure and door are light gray. Smoked, clear doors are also available.

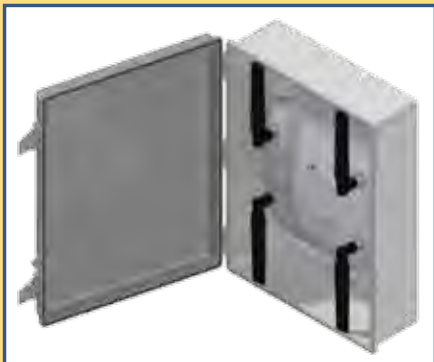


Oberon's impact-resistant  
ABS plastic doors are virtually  
transparent to wireless signals.

See our full line at [oberonwireless.com](http://oberonwireless.com)

The Model 1020-00 is a compact NEMA 4 enclosure designed specifically to protect wireless access points in challenging environments such as stadiums and auditoriums. This rugged polycarbonate enclosure protects the access point from weather, pressure spray, spilling liquids, dust, and impacts. It is transparent to wireless signals, so access points with body integrated antennas or small detachable antennas may be protected. This plastic is paintable so it can be more effectively concealed where appearance is important.

This is the smallest NEMA 4 enclosure for most access points and is ideal for under seating installation.



Model 1024-00 is a compact NEMA 4X enclosure designed to protect wireless LAN access points with internal or external antennas in challenging indoor/outdoor environments. This rugged polycarbonate enclosure protects the access point from weather, dust, and impacts, and is transparent to wireless signals, so access points with body integrated antennas or small detachable antennas may be protected. The enclosure has a hinged cover, molded-in padlock hasps for locking, and interior panel for attaching access points. Enclosure is paintable. Includes wall mounting hardware.

Enclosures with clear covers are also available.