1-1-2007

Armstrong i-ceilings - Wireless Systems

Purdue ECT Team
Purdue University, ectinfo@ecn.purdue.edu

DOI: 10.5703/1288284315828

Follow this and additional works at: <https://docs.lib.purdue.edu/ectfs>

Part of the [Civil Engineering Commons](#), and the [Construction Engineering and Management Commons](#)

Recommended Citation

ECT Team, Purdue, "Armstrong i-ceilings - Wireless Systems" (2007). *ECT Fact Sheets*. Paper 117.
<http://dx.doi.org/10.5703/1288284315828>

This document has been made available through Purdue e-Pubs, a service of the Purdue University Libraries.
Please contact epubs@purdue.edu for additional information.

ARMSTRONG I-CEILINGS - WIRELESS SYSTEMS

THE NEED

It is sometimes inconvenient to use cell phones with laptop computers in many buildings, especially in a room with no windows or on the basement floors. Cell phone or wireless equipment coverage is limited in many buildings due to the lack of technical support to the wireless service. It has required installing many small antennas in a building.

THE TECHNOLOGY

Armstrong's new i-ceilings Wireless Systems Antenna Panel is a standard Armstrong ceiling panel with the antenna already imbedded inside. They have the same physical properties as the ceiling panels in which they are embedded, with the following exceptions:

Dimensions: The height of the Antenna Panel is 12.5mm or 0.49 inches higher than the height of the ceiling tile which it is embedded.

Fire ratings: All Antenna Panels meet the UL 2043 rating.

Warranties: Five-year limited warranty on antennas for materials and workmanship. Limited warranty on panel equal to that given for the Armstrong ceiling material.

Armstrong's WL2 Series of Antenna Panels is the recommended in-building solution for typical applications. This series provides complete wireless capability for voice and data connectivity as well as maximum flexibility for use with multiple wireless system and service providers.

The WL2 series panels include one 850/1900 Mhz dual band voice antenna, one 1900 Mhz voice antenna that can be used alone or as a diversity element with the dual band, and two 2400 Mhz antennas in a diversity configuration. Other series with different antenna configurations are also available.

The WL2 series is compatible with all wireless voice and data standards, including the IEEE 802.11b standard and the Bluetooth standard. Its unique dual band 850/1900 Mhz antenna used in voice applications enables operation with either voice band without additional panels.

THE BENEFITS

Enables wireless communications that enhance employee mobility and workplace effectiveness. They provide superior aesthetics over traditional antennas because the antennas are not visible from below. It also eliminates sensitivity to health and oversight concerns. They are also quick and easy to install, just like a standard ceiling panel.

STATUS

The ceiling panels made by Armstrong World Industries Inc. were made available to the industry on February 1st, 2001.

BARRIERS

Antennas are specifically tuned and tested to perform in Armstrong ceilings. They also cost \$.10 - \$.15 more per square foot on an average ceiling installation.

POINTS OF CONTACT

Armstrong World Industries, Inc.

Tel: (877) 276-7876, Website: http://www.armstrong.com/commceilingsna/contact_us.jsp

Laurie Haines, Armstrong's Commercial Ceiling Dept.

Tel: (717) 396-5199 Email: Laurie.C.Haines@armstrong.com

REFERENCES

1. <http://www.armstrong.com>
2. <http://www.i-ceilings.com>
3. <http://www.construction.com>

REVIEWERS

Peer reviewed as an emerging construction technology

DISCLAIMER

Purdue University does not endorse this technology or represents that the information presented can be relied upon without further investigation.

PUBLISHER

Emerging Construction Technologies, Division of Construction Engineering and Management, Purdue University, West Lafayette, Indiana