



# *wi4 Fixed*

5 GHz Canopy® 400 Series



# THE END OF OUT-OF-SIGHT, OUT-OF-MIND.

**The Canopy® 400 Series from Motorola delivers Near Line-of-Sight (nLOS) and Non-Line-of-Sight (NLOS) connectivity, coupled with high throughput, increased range and exceptionally low cost of ownership.**

High-speed wireless broadband connectivity is fast becoming the preferred communications system for enterprises, municipalities and service providers all over the world. Some users or subscribers, however, have remained out of reach literally because they are out of sight—due to lack of Line-of-Sight (LOS) link paths.

Now, with Canopy 400 Series Access Points (AP) and Subscriber Modules (SM), those out-of-sight users can become top-of-mind, offering increased opportunities for new productivity and new revenue streams. In addition, along with nLOS and NLOS wireless broadband access, the 400 Series also provides the Canopy system's highest throughput for longer distances.

**High-Speed nLOS and NLOS Access.** The Canopy 400 Series uses Orthogonal Frequency Division Multiplexing (OFDM) technology to deliver exceptional nLOS/NLOS coverage in locations where foliage, tall buildings or other obstructions limit wireless broadband access. These capabilities enable operators to deploy networks that can penetrate foliage and reach around buildings and other obstructions to serve previously unreachable users and customers. The results can be crucial—maximized communications, increased productivity, important new revenue streams and strengthened bottom lines.

**Enhanced Throughput.** The Canopy 400 Series delivers throughput of up to 21 Mbps based on its underlying OFDM technology. This high-end throughput supports today's most promising sources for increased productivity and improved revenue generation: popular new bandwidth-intensive

applications such as Voice Over Internet Protocol (VoIP), video surveillance, high-speed Internet access, multiple voice connections, and many more.

**Long Range Connectivity.** In addition, the Canopy 400 Series extends your network's connectivity ranges to distances of five miles (eight kilometers) or more per AP cluster. This increased geographic coverage is powered in part by the 400 Series' high gain antennas and rate adaptive modulation schemes.

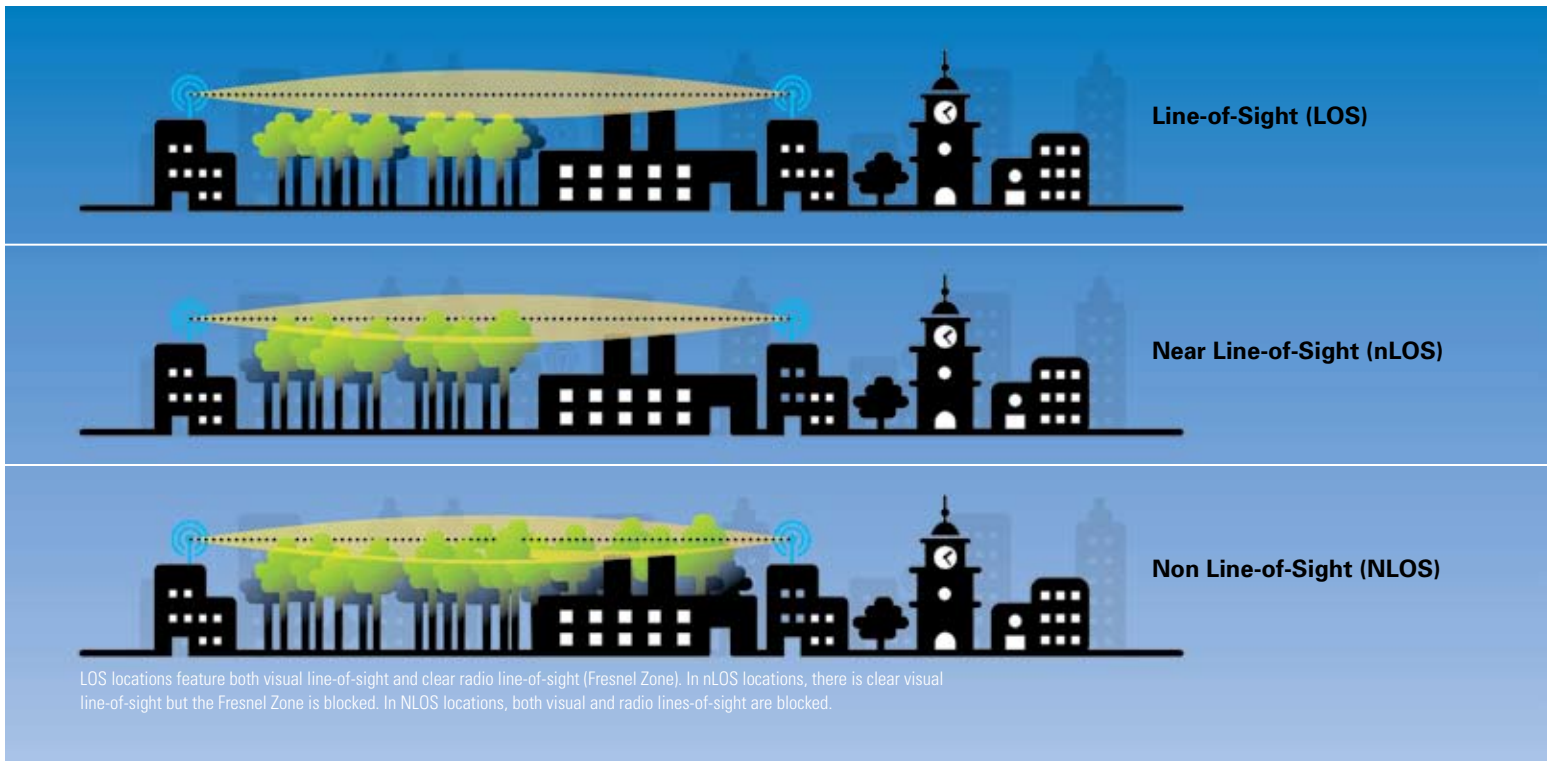
**Low Cost of Ownership.** Whether you are a new operator or an existing Canopy network provider, the Canopy 400 Series can provide one of the lowest costs of ownership in the industry. For current Canopy users, the 400 Series' cost-effectiveness is driven by its ability to co-locate with other Canopy equipment to provide either network extension or a network overlay. For new operators, the system provides a globally proven all-outdoor solution, with reduced power consumption, fast, simple deployment, high reliability and low-cost ongoing operation.

## OFDM TECHNOLOGY MADE SIMPLE

At its most basic level, OFDM technology enables Broadband Wireless Access (BWA) in areas where typical BWA signals are unable to penetrate foliage or go around buildings and other obstructions. OFDM offers a solution to this challenge by allowing robust reception of blocked and reflected wireless broadband signals.







## HELPING OPERATORS EXPAND INTO 5 GHZ.

**GPS synchronization and co-location capabilities allow operators to deploy the Canopy 400 Series as a new network, a network extension or a network overlay.**

The Canopy 400 Series AP and SM products operate in the 5.4 GHz spectrum. In many parts of the world, this newly available spectrum gives operators 255 MHz of usable frequency band—that's almost double the amount available in the 5.7 GHz band. The Canopy 400 Series offers a fast, cost-conscious way to enter this exciting and advantageous spectrum.

**GPS Synchronization.** The 400 Series is equipped with powerful GPS synchronization that significantly reduces self-interference, allowing for co-location applications with existing Canopy networks. Co-location capability enables the system to be deployed as a 5.4 GHz frequency band overlay network.

**Deployment Options.** The standard Canopy 400 configuration uses an integrated 60-degree antenna. In addition, the Canopy 400 Series is also available as a connectorized solution, allowing operators of overlay, expanded or greenfield networks to choose the antennas they prefer.

**Common Canopy Environment.** The 400 Series can lower the cost of ownership for existing Canopy network operators because the 400 Series APs and SMs use the same Release 8.x application software. They also use the same power supplies, brackets, surge suppressors, and Cluster Management Module (CMM) as other Canopy components—reducing training, support and inventory costs. For simplified network management, 400 Series products are also compatible with the Prizm Element Management System.

**Dynamic Frequency Selection (DFS).** Because the 5.4 GHz frequency band is shared with certain government radar systems, networks operating in the band must have DFS capabilities for resolution of conflicts. Canopy 400 Series APs and SMs meet ETSI DFS Standard for Europe and Brazil, and the FCC Standard for the United States and IC Standard for Canada.

For more information on how the Canopy 400 Series can help you reach new subscribers, provide high throughput and reap new productivity and revenue benefits, contact your Motorola representative, or visit [www.motorola.com/canopy](http://www.motorola.com/canopy).

CANOPY SOLUTIONS ARE PROVEN WORLDWIDE

The wi4 Fixed Point-to-Multipoint Canopy solutions are proven reliable in the real world's toughest environments. Powering high-speed wireless networks in more than 4,000 systems in 120 countries around the world, Canopy solutions are facilitating mission critical applications such as 24/7 video surveillance systems, advanced mobile communications networks for enhanced productivity, safety and security, easy-to-deploy backbone networks for nationwide high-speed connectivity, and many more.



### **MOTOwi4™ WIRELESS BROADBAND SOLUTIONS**

Canopy solutions are part of the MOTOwi4 portfolio—a comprehensive portfolio of wireless broadband solutions and services that provides high-speed connectivity, enabling a broad range of applications in a host of environments. The MOTOwi4 portfolio also includes wi4 WiMAX, wi4 Mesh and wi4 Indoor solutions for public and private networks.



**MOTOROLA**

**Motorola, Inc.** 1301 E. Algonquin Road, Schaumburg, Illinois 60196 U.S.A.

**[www.motorola.com/motowi4](http://www.motorola.com/motowi4)**

MOTOROLA and the stylized M Logo are registered in the U.S. Patent and Trademark Office. All other products or service names are the property of their registered owners.

© Motorola, Inc. 2008