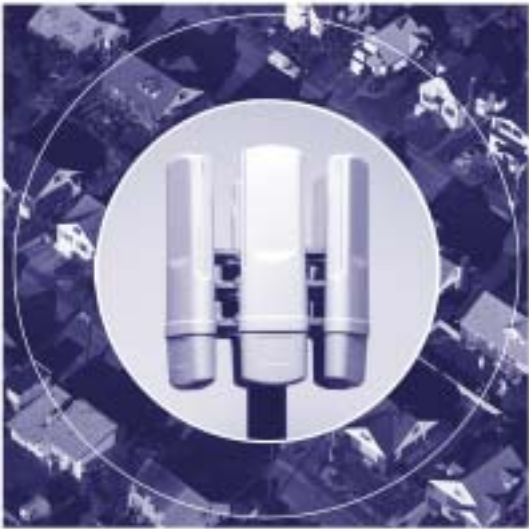MOTOROLA
intelligence everywhere™

*THE SHORTEST
DISTANCE BETWEEN
YOU AND HIGH-SPEED
INTERNET DELIVERY*

**Motorola Canopy™
Broadband Wireless
Internet Platform**

CANOPY

A New Spectrum of Broadband Wireless Internet Service

In today's broadband communications environment, the demands on service providers can be overwhelming. From purchasing spectrum licenses to installing and operating cumbersome networks that sometimes fail to meet expectations to competing in an extremely challenging environment while striving to satisfy ever-demanding consumers, it's enough to drive smaller entrepreneurs to other business opportunities. That is until now!

Motorola's new wireless broadband offering, the Canopy™ system makes delivering low-cost broadband wireless Internet to consumers and businesses alike faster and easier than ever before. That's because the Motorola Canopy Broadband Wireless Internet Platform solution is easily deployed and extremely cost-effective, so service providers can focus on delivering high-speed, high-quality service to their customers.

The Motorola Canopy solution delivers wireless broadband service, while also minimizing costs normally associated with large communications networks.

With Canopy, Motorola brings radio technology to the Internet Service Provider market place. It's simply the best solution for providing high-speed Internet to customers in the last mile.

An Affordable Solution

The Canopy wireless Internet solution operates in the Unlicensed National Information Infrastructure (U-NII) spectrum at 5.25-5.35 GHz and the Industrial, Scientific, and Medical (ISM) spectrum at 5.725 - 5.850 GHz. There is no need for spectrum acquisition or site licensing. Because the Canopy solution is wireless, start-up costs are more affordable than any other connectivity options. The Canopy system also eliminates the need to go through existing phone or cable networks.

Simple Installation and Network Configurations

A simple network design makes this solution easy to install. There is no need to run overhead or in-ground wire, install microwave or software – the equipment is streamlined, with built-in installation and deployment assistance, making it easier to get up and running faster. A single-site Motorola Canopy system can begin serving a surrounding two-mile community quickly in the 5.2 GHz band and up to 10-miles using a passive reflector in the 5.7 GHz band. What's more, the Canopy Access Point Modules include all the network management, and diagnostic capabilities you'll need to remotely control and monitor the network.

Inherent Flexibility and Scalability

The Canopy solution can be adapted to serve the needs of many customer communities. The Point-to-Multipoint application can serve households and small businesses. Or, use the Backhaul application as a dedicated data link for small business enterprises.

Intelligent protocols make the deployment and operation of large wireless network easy and cost-effective. When your capacity needs increase, the Canopy solution is scalable to accommodate changing needs, wider geographic areas, larger populations, and higher traffic volumes. With its high tolerance for interference and directional antennas, adding new transmitters creates more capacity – not more interference.

Motorola Canopy™ Broadband Wireless Solution is the shortest route to reaching your customer.

Your customers demand fast, dependable broadband service.

Unlike the myriad of solutions available today, the Motorola Canopy solution can deliver with ease. With upload and download speeds as fast or faster than virtually every other service available today, the Canopy system can offer more than 6Mbps (aggregate data rates) to your customers now. Of course, upload and download speeds are affected by several factors so actual speeds may vary, but the potential to offer an incredible Internet experience is possible with the Motorola Canopy solution.

The Motorola Canopy Subscriber Module (SM) is small and easy to install at the customer's site, there's no obtrusive equipment. The Canopy Access Point Module (AP) easily interfaces with your existing Local Area Network (LAN) equipment via standard Ethernet. The Access Point and Subscriber Modules are compact and can be mounted outdoors, so there is no need to run overhead and in-ground wire or microwave. And there's no additional software for your customer to install, further limiting exposure to customer error.

The Canopy solution also delivers superior performance using a modulation scheme that improves the quality of data delivery and mitigates interference from other systems. Motorola's Canopy platform offers security with over-the-air encryption that scrambles data bits and helps prevent interception so, data delivery with the Canopy solution is very reliable.

WITH CANOPY, INSTALLATION IS AS EASY AS 1-2-3-

1. Install the Canopy AP Cluster. A six-AP-Module site includes six (AP) Modules and Cluster Management Module (CMM) for up to six AP Modules and two Backhaul Modules, as well as a GPS receiver, antenna, and built-in Ethernet switch for easy connection to your network.

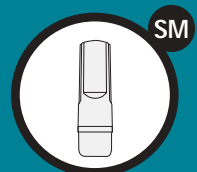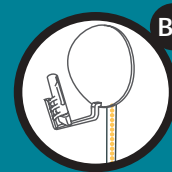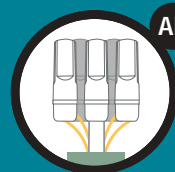**2.** Install Canopy Backhaul Modules (if needed) for remote network feed.

3. Install the Subsciber Module at the customer site. The Subsciber Module includes a simple indoor AC adapter, and a direct Ethernet connection to a home computer or network.

Actual size of the *Canopy Subscriber Module (SM) Unit*

The Canopy solution is the latest broadband wireless Internet solution from Motorola. It has been rigorously tested and is currently in service in the Americas. Visit the Motorola website, at **http://www.motorola.com/canopy**, to find out more about bringing broadband wireless Internet to your customers, today.

CANOPY EQUIPMENT IS SURPRISINGLY SIMPLE.

For Service Providers, the basic building blocks are: the **Canopy AP Cluster** which includes the **Access Point (AP) Modules** and a **Cluster Management Module**. When it's needed, a **Canopy Backhaul (BH) Module** delivers an Internet connection to your AP Cluster from a remote location. A Cluster with six units can serve up to 1,200 **Subscriber Modules (SM)** — in all directions. The Canopy Subscriber Module is used at the customer's premise.

AP   BH   SM

MOTOROLA CANOPY WIRELESS BROADBAND

RF Operational Characteristics:

Frequency range:	5.250 - 5.350 GHz and 5.725 - 5.850 GHz
Modulation:	High Index BFSK or 4FSK (optimized for interference rejection)
Carrier to interference:	3 dB 10^{-4} BER@-65 dbm
Data rate:	10 Mbps Multipoint
	10 Mbps and 20 Mbps Point-to-Point Backhaul
Operating range:	Up to 2 Miles with integrated antenna in 5.2 GHz
	Up to 10 miles with passive reflector in 5.7 GHz

Electrical:

Power supply:	Power over Ethernet (POE)
	24 VDC @ 0.3AMP (Active State)
Interface:	RJ45 Auto Detect 10/100 BaseT— Half / Full Duplex
	Rate Auto Negotiated (802.3 Compliant)

Environmental:

Operating temperature:	-30ºC to +55ºC (-40ºF to + 131ºF)
Operating humidity:	100% condensing
Wind survival:	190km/hour

Dimensions:

11.75″H x 3.4″W x 1.1″D, 3.4″D
(29.9cm x 8.6cm x 8.6cm)

Weight:

0.5 Kg

5.2 GHz:

FCC ID #: ABZ89FC3789

5.7 GHz:

FCC ID #: ABZ89FC4816 and ABZ89FC5804

No FCC license is required for all components.

1008CK - Cluster Management Module

Includes-
GPS Receiver
GPS Antenna for automatic AP synchronization
Built-in Ethernet Switch
AC Power Supply for up to 8 Canopy Transceivers

5200AP / 5700AP - Canopy AP Module

Measures 11.75″ x 3.4″ x 3.4″
10/100baseT Ethernet connection
UL-approved

5200SM / 5700SM - Canopy SM Module

Measures 11.75″ x 3.4″ x 3.4″
Single cable – standard RJ45, 8-pin Ethernet
Simple indoor AC adapter
UL-approved

5700BH - Canopy Backhaul Module

BH Unit @ 5.7 GHz, non-interfering with 5200AP to 5200SM link
10/100baseT Ethernet connection
UL-approved

300SS – Canopy Surge Supressor

Optional surge suppressor for Ethernet cable connection.
Outdoor mountable, and includes connection for a grounding tap.

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www.motorola.com/canopy

For more information please contact us :
1-866-515-5825

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