Canopy Backhaul Portfolio

Motorola's flexible MOTOwi4 backhaul solutions

MOTO wi 4

MOTOROLA

MOTOwi4 Backhaul Solutions Engineered for Simple-to-Complex Applications in Challenging Environments

With the introduction of its MOTOwi4 product portfolio, Motorola makes it easier and more cost effective to build 4th generation wireless networks for a wide range of applications. These systems will enable providers to increase revenue opportunities and customer loyalty by delivering today's—and tomorrow's—most innovative and in-demand broadband services.

Proven Canopy Platform

The MOTOwi4 portfolio builds on globally proven Canopy™ wireless broadband technology, now delivering successful high-speed solutions in more than 100 countries worldwide. The Canopy system's underlying technologies—based on Motorola's proprietary design as well as Orthogonal Frequency Division Multiplexing (OFDM)——offer the flexibility to deliver custom solutions for a wide range of consumer, enterprise, carrier and government markets and applications.

Canopy Backhaul Portfolio

The MOTOwi4 Canopy Backhaul Portfolio includes powerful backhaul technology that helps enterprise users, service providers and carriers establish highly reliable and secure point-to-point wireless backhaul links for bandwidth-intense applications. The portfolio includes products that cost-effectively deliver reliable links and higher throughput in Line-of-Sight (LoS), near-LoS and Non-LoS environments. The Canopy Backhaul Portfolio seamlessly integrates with the MOTOwi4 solutions including WiMAX, Metro WiFi and today's Canopy solutions.

Highly Reliable, Efficient Backhaul Solutions for the Most Challenging Locations and Applications

Motorola offers two series of Canopy backhaul technology developed to meet a variety of connectivity challenges. The Line-of-Sight 10 and 20 Mbps backhaul products are designed to operate in the 2.4, 5.1, 5.2, 5.4 and 5.7 GHz frequencies. The OFDM 30 Mbps, 60 Mbps and 300 Mbps models are designed for the 5.7 GHz frequency band. Operators use the systems' higher bandwidth to transmit IP data, video, VoIP and channelized voice for a variety of markets and applications.

Backhaul Benefits

The MOTOwi4 Backhaul Portfolio provides exceptional link reliability and performance, significantly reducing interference in noisy RF conditions and nLoS and NLoS environments. Small footprints and power over Ethernet reduce the amount of valuable tower space needed, and remote link management capabilities help lessen operating costs. Installation is fast and simple, with units designed to be easily mounted and adjusted even in the smallest of spaces.
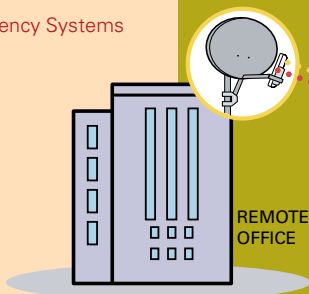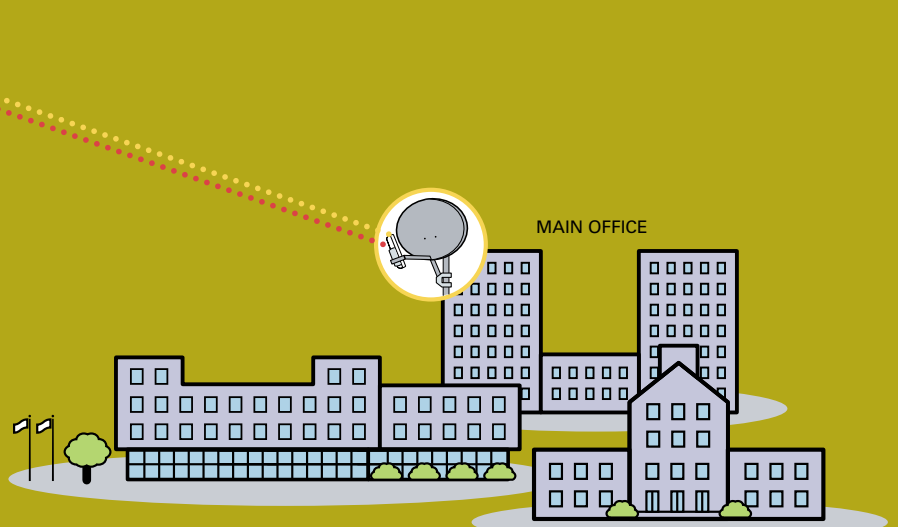
The Canopy Backhaul Portfolio

10 Mbps

MSRP	Starting at less than $2,000 USD Per Link
Frequencies	2.4 GHz, 5.1 GHz, 5.2 GHz, 5.4 GHz, 5.7 GHz
Range	LoS - Up to 35 Miles (56 Kilometers)
Usable Throughput	7.5 Mbps
Security	DES and AES Encryption
Technology	Proprietary
Unique Features	• Line-of-Sight • Highly Reliable • Weather Resistant • Compact & Rugged Design • Consistent Data Rates in Face of Interference • Reflector Available to Extend Range • Options for Solar and Wind Power

Ideal Applications
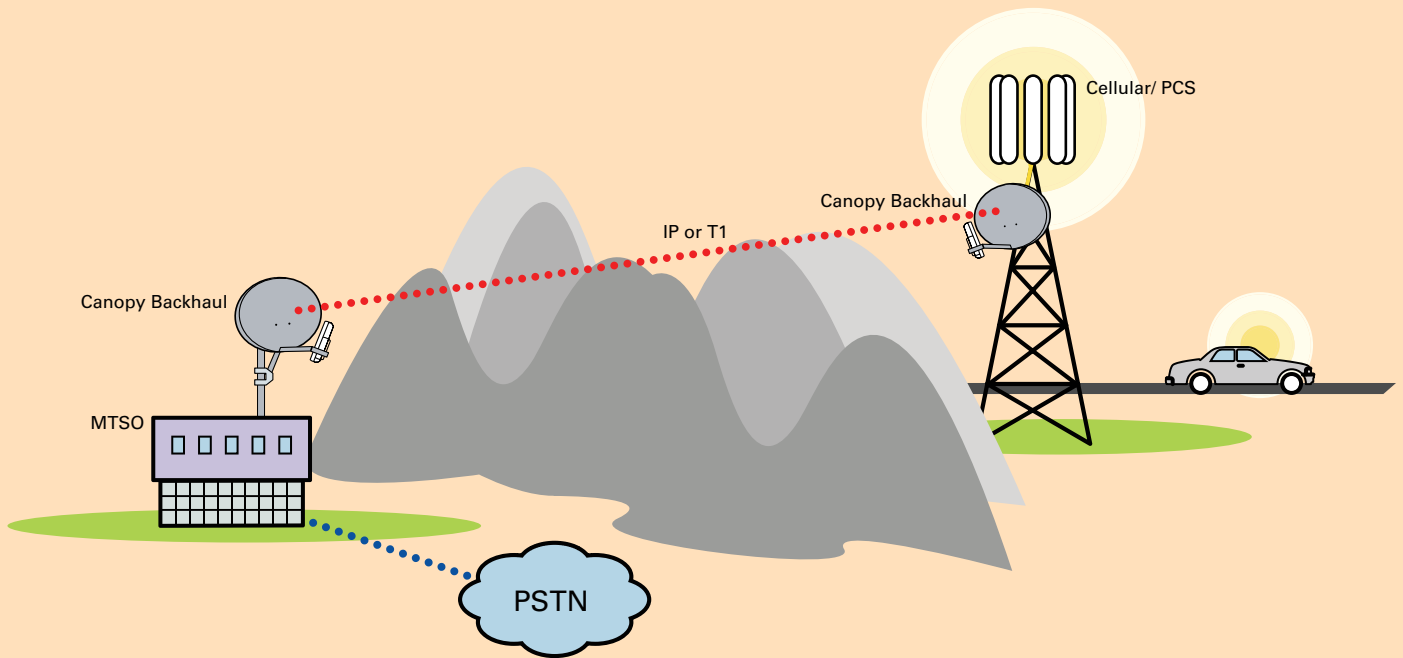
• Rural or Remote Locations

• Uniting Campuses

• Temporary & Emergency Systems

• Cellular Backhaul

• Video Surveillance

• Telemedicine

• E-Learning

• Banking

Uniting Campuses and Remote Facilities

REMOTE OFFICE

MAIN OFFICE

Backhauling Cellular and 3G IP Data

Cellular/ PCS

Canopy Backhaul

IP or T1

Canopy Backhaul

MTSO

PSTN

20 Mbps

MSRP	Starting at less than $4,000 USD Per Link
Frequencies	2.4 GHz, 5.1 GHz, 5.2 GHz, 5.4 GHz, 5.7 GHz
Range	LoS - Up to 35 Miles (56 Kilometers)
Usable Throughput	14 Mbps
Security	DES and AES Encryption
Technology	Proprietary
Unique Features	• Line-of-Sight
	• Highly Reliable
	• Weather Resistant
	• Compact & Rugged Design
	• Consistent Data Rates in Face of Interference
	• Reflector Available to Extend Range
	• Options for Solar and Wind Power

Ideal Applications

• Rural or Remote Locations

• Uniting Campuses

• Temporary & Emergency Systems

• Cellular Backhaul

• Video Surveillance

• Telemedicine

• E-Learning

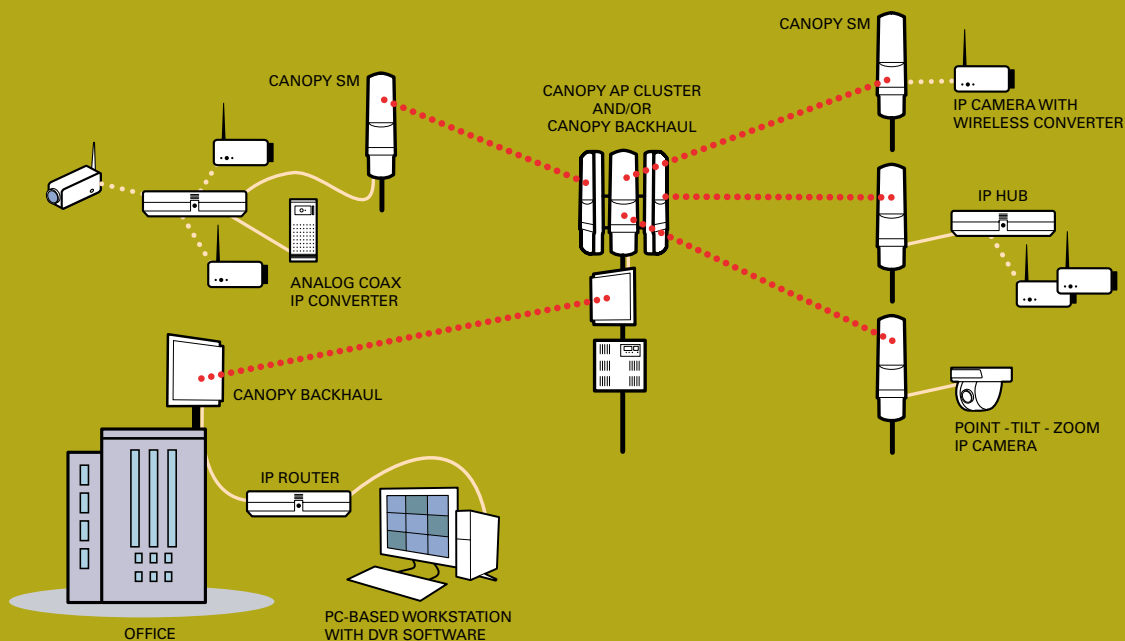• Backbone for Metro WiFi Networks

• Banking

30 Mbps

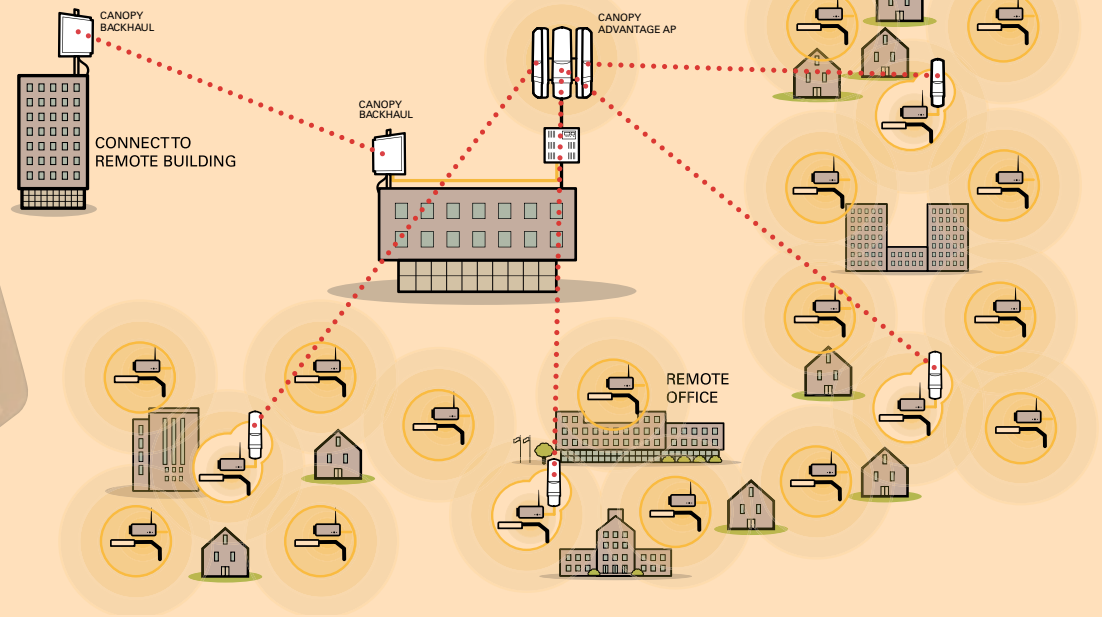|	
MSRP	$7,200 USD Per Link
Frequencies	5.7 GHz
Range	LoS - Up to 124 Miles (200 Kilometers) nLoS - Up to 25 Miles (40 Kilometers) NLoS - Up to 6 miles (10 Kilometers)
Usable Throughput	Dynamically variable modulation ranges from 1.5 Mbps to 21 Mbps
Security	Proprietary Scrambling Technique
Technology	OFDM
Unique Features	• Upgradeable to 60 Mbps • Line-of-Sight • NON and Near Line-of-Sight • Carrier Class Reliability • Weather Resistant • Compact & Rugged Design • Dual Polarized Antennas • Integrated & Connectorized Antenna Options • Adaptive Modulation • Dynamic Frequency Selection • Multibeam Space Time Coding • Redundant Power Supplies

Ideal Applications

- Urban/Suburban Locations
- Uniting Campuses with High Bandwidth Requirements
- Backbone for Metro WiFi Networks
- Government Installations
- Temporary & Emergency Systems
- Cellular Backhaul
- Video Surveillance
- Telemedicine
- E-Learning
- Banking

IP Video Surveillance Applications

CANOPY SM

CANOPY SM

CANOPY AP CLUSTER
AND/OR
CANOPY BACKHAUL

IP CAMERA WITH
WIRELESS CONVERTER

IP HUB

ANALOG COAX
IP CONVERTER

CANOPY BACKHAUL

POINT -TILT - ZOOM
IP CAMERA

IP ROUTER

OFFICE

PC-BASED WORKSTATION
WITH DVR SOFTWARE

Backbone for Metro Wi-Fi

CANOPY
BACKHAUL

CONNECT TO
REMOTE BUILDING

CANOPY
BACKHAUL

CANOPY
ADVANTAGE AP

REMOTE
OFFICE

60 Mbps

MSRP	$11,995 USD Per Link
Frequencies	5.7 GHz
Range	LoS - Up to 124 Miles (200 Kilometers)
	nLoS - Up to 25 Miles (40 Kilometers)
	NLoS - Up to 6 miles (10 Kilometers)
Usable Throughput	Dynamically variable modulation ranges
	from 3.0 Mbps to 43 Mbps
Security	Proprietary Scrambling Technique
Technology	OFDM
Unique Features	• Line-of-Sight
	• NON and Near Line-of-Sight
	• Carrier Class Reliability
	• Weather Resistant
	• Compact & Rugged Design
	• Dual Polarized Antennas
	• Integrated & Connectorized Antenna Options
	• Adaptive Modulation
	• Dynamic Frequency Selection
	• Multibeam Space Time Coding
	• Redundant Power Supplies

Ideal Applications

• Urban/Suburban Locations

• Uniting Campuses with High
  Bandwidth Requirements

• Backbone for Metro WiFi Networks

• Government Installations

• Temporary & Emergency Systems

• Cellular Backhaul

• Video Surveillance
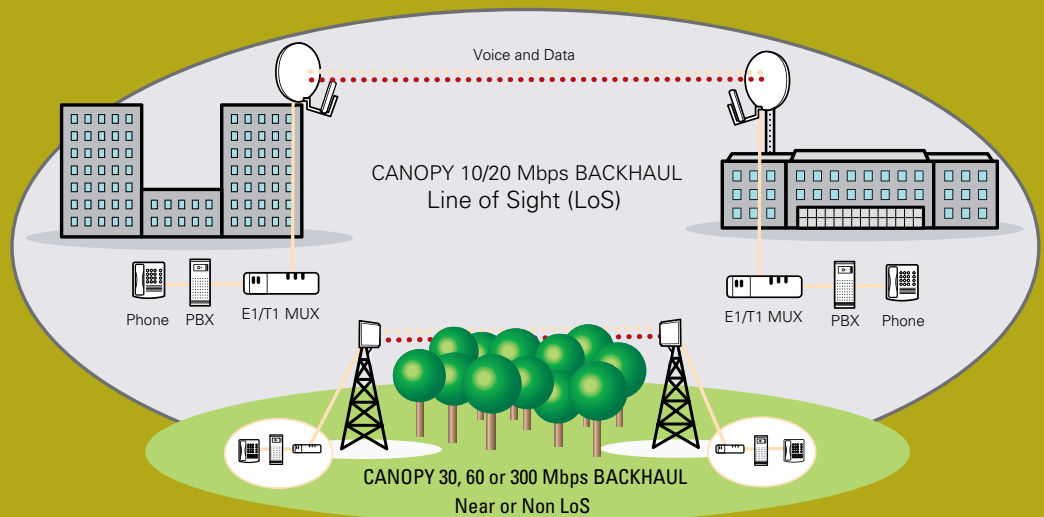
• Telemedicine

• E-Learning

• Banking

300 Mbps

MSRP	$19,995 USD Per Link
Frequencies	5.7 GHz
Range	LoS - Up to 124 Miles (200 Kilometers) nLoS - Up to 25 Miles (40 Kilometers) NLoS - Up to 6 miles (10 Kilometers)
Usable Throughput	Dynamically variable modulation ranges from 5 Mbps to 269 Mbps
Security	Proprietary Scrambling Technique
Technology	OFDM
Unique Features	• Line-of-Sight • NON and Near Line-of-Sight • Carrier Class Reliability • Weather Resistant • Compact & Rugged Design • Dual Polarized Antennas • Integrated & Connectorized Antenna Options • Adaptive Modulation • Dynamic Frequency Selection • Multibeam Space Time Coding • Built in E1/T1 • Redundant Power Supplies • Optional Fiber Optic Data Module

Ideal Applications

• Urban/Suburban Locations

• Fiber Replacement

• Uniting Campuses with High
  Bandwidth Requirements

• Backbone for Metro WiFi Networks

• Government Installations

• Temporary & Emergency Systems

• Cellular Backhaul

• Video Surveillance

• Telemedicine

• E-Learning

• Banking

E1/T1 Solutions for Carriers and Enterprise Applications

Voice and Data

CANOPY 10/20 Mbps BACKHAUL
Line of Sight (LoS)

Phone   PBX   E1/T1 MUX

E1/T1 MUX   PBX   Phone

CANOPY 30, 60 or 300 Mbps BACKHAUL
Near or Non LoS

For more information and detailed specifications about the MOTOwi4 Canopy Backhaul Solutions, call 866-515-5825 in the U.S. 800-795-1530 internationally, visit us online at www.motorola.com/canopy or contact your Authorized Canopy Solution Provider.

MOTOROLA

CANOPY
Motorola Wireless Broadband Platform