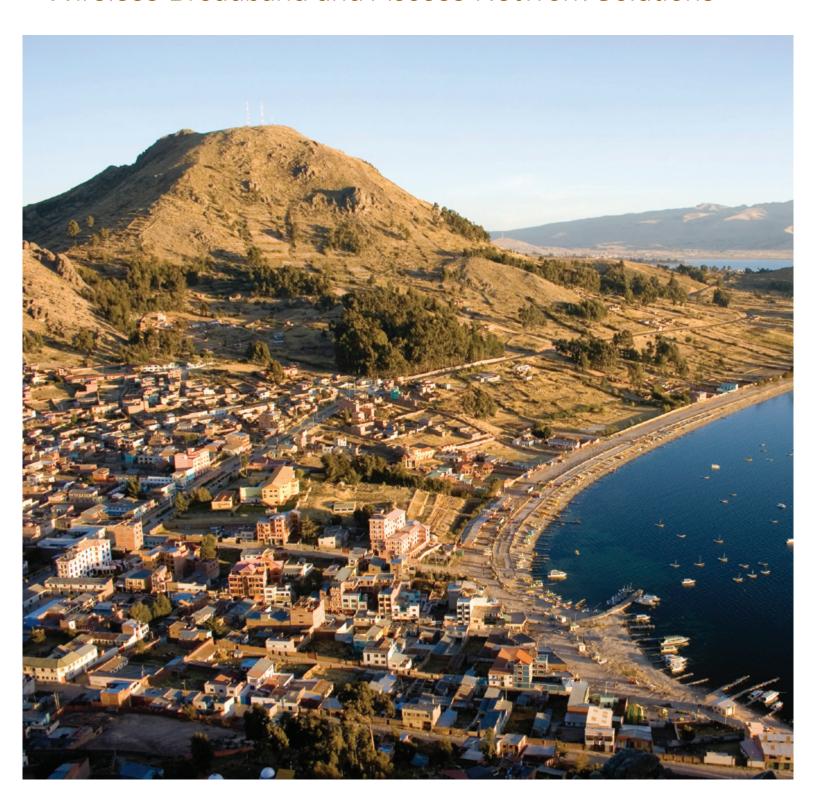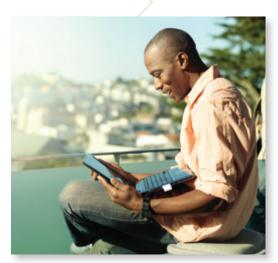# *Point-to-Multipoint 430*

Wireless Broadband and Access Network Solutions

EXTENDING YOUR WIRELESS BROADBAND ACCESS NETWORK OPTIONS WITH MORE FOR LESS

Choose the Motorola fixed wireless broadband PMP 430 for enhanced throughput and range with significantly less investment.

With the PMP 430, Motorola extends our Point-to-Multipoint (PMP) solutions portfolio to enable a wide variety of networks to take advantage of today's positive expansion opportunities. For service providers, enterprises and government organizations alike, the PMP 430 is the optimal solution for extending high-speed connectivity to unserved and hard-to-reach locations and customers.

The PMP 430 is a fixed wireless broadband solution that operates in the 5.4 GHz and 5.8 GHz frequency bands. The PMP 430 is equipped with OFDM technology to deliver outstanding throughput, long range and line of sight (LOS) and near-line of sight (nLOS) performance for reliable and secure data, voice and video connectivity. Most important, it delivers them with exceptional cost-effectiveness.

- **High Throughput.** The PMP 430 is raising the bar on throughput, offering more than 45 Mbps of total aggregate throughput per Access Point (AP) sector. When mounted on a typical four-sector tower, the system can deliver more than 180 Mbps of throughput to even the most difficult-to-reach locations, including multipath urban or rural areas.

- **Extended Range and Coverage.** Using higher gain antennas and OFDM technology, the PMP 430 provides extended ranges of up to 30 miles (48 km) when the Subscriber Module (SM) is configured with a passive LENS or reflector, and depending on channel and frequency.

- **Scalability.** As you add new customers based on demand, the PMP 430 network will continue to provide reliable service as it expands. With its GPS synchronization capabilities, self-interference is minimized. In addition, its QoS features manage the burst and sustained link rates as new subscribers are added.

- **Low Latency.** The PMP 430 also offers low one-way latency of less than 3.5 msec for sensitive voice and video services. Equally important, this low latency remains consistent as subscribers are added to the network.

- **Low-Cost Light Infrastructure.** The PMP 430 is an exceptionally affordable solution that uses low-cost light infrastructure to help lower equipment, deployment, installation and management costs. PMP 430 solutions allow users to achieve an exceptionally low Total Cost of Ownership.

- **Compatibility.** To help service providers leverage their existing infrastructure investments, Motorola has designed the PMP 430 for compatibility with other Motorola PMP networks. PMP 430 Access Points (APs) are interoperable with PMP 400 Subscriber Modules (SMs), and can be co-located on the same tower with existing PMP 100 series deployments to quickly and inexpensively add fixed capacity in a network overlay.

- **Rapid Deployment.** Because time-to-market is always of the essence in network deployment or expansion, installation of the PMP 430 is fast and simple. With installation time measured in days, providers can take fast advantage of today's expansion opportunities, increasing customer satisfaction and enabling faster revenue capture and return on investment.

- **Expandable SM Throughput.** Network operators can design the network to meet current connectivity requirements and expand capacity as demand increases. Software upgrades enable throughput increases without requiring a costly and time-consuming dispatch to the SM location.

WITH THE PMP 430, MOTOROLA EXTENDS OUR POINT-TO-MULTIPOINT (PMP) SOLUTIONS PORTFOLIO TO ENABLE A WIDE VARIETY OF NETWORKS TO TAKE ADVANTAGE OF TODAY'S POSITIVE EXPANSION OPPORTUNITIES

ON THE LEADING EDGE OF FIXED WIRELESS EXTENSION AND EXPANSION

By combining high performance and low cost, the PMP 430 enables service providers to stay on the leading edge of customer satisfaction and ROI.

MOTOROLA PMP 430 ACCESS POINT

In the wireless broadband residential and business marketplaces, the Motorola PMP 430 is big news. A field-proven, secure and flexible wireless broadband solution, the PMP 430 offers network operators new alternatives in terms of throughput, scalability, range, coverage and latency. Not to mention low-cost infrastructure equipment and installation.

New Networks

The solution is also aptly suited for building new networks, offering green field operators a significantly lower cost and higher return than many other solutions. Because it is an all-outdoor solution, there is no need for a costly environmentally controlled building or equipment cage at the bottom of the tower. And because peer-to-peer traffic remains at the tower, the need for backhaul capacity is greatly reduced. Simplified installation with minimal training requirements also reduces deployment and management costs.

- **10 and 20 MHz Channels.** Service providers and subscribers are always looking for higher throughput. The PMP 430 breaks new ground by offering two bandwidth channel options: a 10 MHz channel and a 20 MHz channel. The 20 MHz channel option effectively doubles the maximum sector capacity of the 10 MHz channel (20 Mbps) to 45 Mbps, providing exceptional performance and enhancing the customer experience while improving ROI.

- **SM Software Upgrades.** Service providers need to closely manage equipment and capacity. The PMP 430 offers simple over-the-air SM upgrades via a software key system. As bandwidth requirements increase, network operators can upgrade their customers' SMs from 4 Mbps to 40 Mbps with a single fixed software key.

- **GPS Synchronization.** The PMP 430 includes Motorola's GPS synchronization, which significantly reduces self-interference and allows modules to be co-located with other equipment on a tower or rooftop. GPS synchronization also enables the network to optimize signal and throughput reliability, perform with consistently low latency, and continue working at peak performance as it scales.

- **OFDM.** Utilizing OFDM (Orthogonal Frequency Division Multiplexing), the PMP 430 provides Line of Sight (LOS) and near Line of Sight (nLOS) connectivity. OFDM technology enables signals to connect in multipath environments, allowing for reliable coverage in rugged, significantly obstructed locations.

- **Security.** The PMP 430 offers powerful security capabilities, with FIPS 197 Certified 128-bit AES and 3DES encryption to protect data, voice and video transmissions against network intrusion.

PMP 430 PERFORMANCE	
TYPICAL AGGREGATE THROUGHPUT	> 45 Mbps
CHANNEL WIDTH	10 MHz & 20 MHz
EIRP	5.8 GHz: 36 dBm 5.4 GHz: 30 dBm
ENCRYPTION	FIPS 197 Certified AES
POWER CONSUMPTION	< 20 W per AP Sector

Proven Motorola Reliability

Today, there are currently more than 2.5 million Motorola Point-to-Multipoint modules working successfully and profitably in thousands of networks around the globe. Our PMP solutions are proven in more than 120 countries and in virtually every type of environment: dense urban areas, sprawling suburban areas and outlying communities located in rugged and difficult terrain.

MOTOROLA'S POINT-TO-MULTIPOINT SOLUTIONS OPTIONS

WIRELESS AGILITY FOR NETWORK OPERATORS

Broadband networks need to provide reliable data, video and voice connectivity wherever it is needed. Motorola's Wireless Broadband and our WLAN solutions provide and extend coverage both indoors and outdoors. The Motorola Wireless Broadband portfolio offers high-speed Point-to-Point, Point-to-Multipoint, Mesh Wide Area Networks, WiFi and WiMAX networks that support data, voice and video communications, enabling fixed and mobile applications for public and private systems.

Motorola Wireless Broadband systems offer flexible product design and allow network operators to tailor installations to efficiently meet the bandwidth demand of business, government and residential subscribers. The Motorola PMP equipment portfolio provides a range of solutions in both licensed and unlicensed frequencies. Our solutions meet the bandwidth demands of business and residential subscribers, providing high through-put services such as video and high-speed data. The portfolio includes the Motorola PMP 430, the PMP 400 series, the PMP 320 and the PMP 100 series, allowing deployment of equipment designed to meet specific business case requirements.

MOTOROLA PMP SOLUTIONS

	Speed Mbps	nLOS
PMP 430	45	✔
PMP 400	20	✔
PMP 320	45	✔
PMP 100	7/14	

For more information on how the PMP 430 can help you extend, expand or build a new PMP network with extraordinarily high throughput and exceptionally low cost-of-entry and ROI, contact your Motorola representative, or visit **www.motorola.com/pmp**.

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