POINT-TO-MULTIPOINT 430 ACCESS POINT AND SUBSCRIBER MODULE

The Motorola Wireless Broadband Point-to-Multipoint (PMP) 430 Access Point and Subscriber Module is the ideal solution for developing, enhancing and extending advanced broadband networks with more than 45 Mbps of total aggregate throughput for data transfer, voice and video applications. The PMP 430 Access Point and Subscriber Module provide wireless Line of Sight (LOS) and near Line of Sight (nLOS) broadband connectivity in the 5.4 and 5.7 GHz spectrum.

Motorola Wireless Broadband products combine field-proven toughness with exceptional performance, security, ease-of-use and cost effectiveness. PMP 430 Series Access Point and Subscriber Modules are available with total throughputs greater than 40 Mbps for data, video and voice applications. PMP 430 Subscriber Modules can be purchased with throughputs of 4, 10, 20 or 40 Mbps and throughput can be enhanced to existing modules via a fixed software license.

The PMP 430 Access Point can be co-located on the same tower location with other Motorola PMP Access Point solutions. The user guide provides details on co-location planning and network design considerations.

PMP 430

Frequency – 5.4 GHz OFDM

FEATURE	AP SPECIFICATION	SM SPECIFICATION
FREQUENCY RANGE	5470 - 5725 MHz	
CHANNEL WIDTH	5 MHz, 10 MHz or 20 MHz	
CHANNEL SPACING	Configurable on 2.5 MHz increments for 5 MHz Channel Configurable on 5 MHz increments for 10 and 20 MHz Channels	
ANTENNA GAIN	17 dBi (w/ included sector antenna)	10 dBi
TRANSMIT POWER (NOTE 1)	-30 to +21 dBm (to EIRP limit by region) (1dBm interval)	Auto transmit power control up to EIRP limit
MAX TRANSMIT POWER	21 dBm	19 dBm
EIRP	30 dBm FCC, ETSI (20MHz) 27 dBm FCC, ETSI (10MHz) 24 dBm FCC, ETSI (5MHz)	30 dBm FCC, ETSI (20MHz) 27 dBm FCC, ETSI (10MHz) 24 dBm FCC, ETSI (5MHz)
ANTENNA BEAM WIDTH	4 sector application (actual 3 dB antenna pattern: 60° horizontal 5° elevation; null fill)	55° horizontal 55° elevation 3 dB antenna pattern
ANTENNA CONNECTION	50 ohm N-type	N/A
MODULATION LEVELS (ADAPTIVE)	1X=QPSK, 2X=16QAM, 3X=64QAM	
FORWARD ERROR CORRECTION	¾ Reed-Solomon block coding	
PHYSICAL LAYER	OFDM 256FFT	
MAC (MEDIA ACCESS CONTROL) LAYER	Motorola Proprietary	
CYCLIC PREFIX	1/4, 1/8 or 1/16 fixed	
PPS	15,000	4,800
GPS SYNCHRONIZATION	Yes	
# OF SUBSCRIBERS PER SECTOR	Up to 200	N/A
ARQ	Yes	
QUALITY OF SERVICE	DiffServ QoS	
MAXIMUM DEPLOYMENT RANGE (W/ REFLECTOR DISH ON SM, LOS)	1X: 30 mi. (48 km), 2X: 30 mi. (48 km), 3X: 11 mi. (16 km)	
MAXIMUM AGGREGATE (UP+DOWN) THROUGHPUT PER SECTOR (@5MHZ CHANNEL)	1X: 3.5 Mbps, 2X: 7 Mbps, 3X: 10.5 Mbps	
MAXIMUM AGGREGATE (UP+DOWN) THROUGHPUT PER SECTOR (@10MHZ CHANNEL)	1X: 8 Mbps, 2X: 16.5Mbps, 3X: 24.5Mbps	
MAXIMUM AGGREGATE (UP+DOWN) THROUGHPUT PER SECTOR (@20MHZ CHANNEL)	1X: 16.5 Mbps, 2X: 32 Mbps, 3X: >45 Mbps	
LATENCY	5-7 ms round trip	
ENCRYPTION	DES, FIPS 197 Certified AES Option	
Nominal Receive Sensitivity (w/ FEC) @ 5 MHz CHANNEL	1X: -93 dBm, 2X: -86 dBm, 3X: -79 dBm	
NOMINAL RECEIVE SENSITIVITY (W/ FEC) @ 10MHZ CHANNEL	1X: -90 dBm, 2X: -83 dBm, 3X: -76 dBm	
NOMINAL RECEIVE SENSITIVITY (W/ FEC) @ 20MHZ CHANNEL	1X: -87 dBm, 2X: -80 dBm, 3X: -73 dBm	
ETHERNET INTERFACE	10/100BaseT, half/full duplex, rate auto negotiated (802.3 compliant)	
PROTOCOLS USED	IPv4, UDP, TCP, IP, ICMP, Telnet, SNMP, HTTP, FTP	
NETWORK MANAGEMENT	HTTP, Telnet, FTP, SNMPv2c Prizm 3.3 and One Point Wireless Manager 2.2	
VLAN	802.1ad (DVLAN Q-in-Q), 802.1Q with 802.1p priority, dynamic port VID	
CE	EN302 502 v1.2.1	
TEMPERATURE	-40°C to +55°C (-40°F to +131°F) 0% – 95% relative humidity, non-condensing	
WIND SURVIVAL	190 km/hour (118 mi/hour)	190 km/hour (118 mi/hour)
WIND LOADING	90 lbs.	45 lbs.
DIMENSIONS (H X W X D)	71 x 21 x 28 cm (28.75" x 8.25" x 11")	30 x 9 x 9 cm (11.75" x 3.4" x 3.4")
WEIGHT	6.1 kg (13.5 lbs.) (w/ antenna) 2.8 kg (6.1 lbs.) (w/o antenna)	0.45kg (1 lb.)
MAX POWER CONSUMPTION	19W	10W
INPUT VOLTAGE	24 to 59 V	24 to 30 V
COLLOCATION WITH PMP 52100	Yes	
COLLOCATION WITH PMP 54100	Yes, 10MHz guard band separation or 5MHz with 3 ft vertical required; synchronization required	
COLLOCATION WITH PMP 54400	Interoperable when using 10 MHz channel and 1/4 cyclic prefix	
COLLOCATION WITH PMP 58100	Yes	

Frequency – 5.7 GHz OFDM

FEATURE	AP SPECIFICATION	SM SPECIFICATION
FREQUENCY RANGE	5725-5875 MHz	
CHANNEL WIDTH	5 MHz, 10 MHz or 20 MHz	
CHANNEL SPACING	Configurable on 2.5 MHz increments for 5 MHz Channel Configurable on 5 MHz increments for 10 and 20 MHz Channels	
ANTENNA GAIN	17 dBi (w/ included sector antenna)	10 dBi
TRANSMIT POWER (NOTE 1)	-30 to +21 dBm (to EIRP limit by region) (1dBm interval)	Auto transmit power control up to EIRP limit
MAX TRANSMIT POWER	21 dBm	19 dBm
EIRP	36 dBm FCC 36 dBm ETSI (20 MHz) 33 dBm ETSI (10 MHz) 30 dBm ETSI (5MHz)	Unregulated by FCC 36 dBm ETSI (20 MHz) 33 dBm ETSI (10 MHz) 30 dBm ETSI (5MHz
ANTENNA BEAM WIDTH	4 sector application (actual 3 dB antenna pattern: 60° horizontal 5° elevation; null fill)	55° horizontal 55° elevation 3 dB antenna pattern
ANTENNA CONNECTION	50 ohm N-type	N/A
MODULATION LEVELS (ADAPTIVE)	1X=QPSK, 2X=16QAM, 3X=64QAM	
FORWARD ERROR CORRECTION	¾ Reed-Solomon block coding	
PHYSICAL LAYER	OFDM 256FFT	
MAC (MEDIA ACCESS CONTROL) LAYER	Motorola Proprietary	
CYCLIC PREFIX	1/4, 1/8 or 1/16 fixed	
PPS	15,000	4,800
GPS SYNCHRONIZATION	Yes	
# OF SUBSCRIBERS PER SECTOR	Up to 200	N/A
ARQ	Yes	
QUALITY OF SERVICE	DiffServ QoS	
MAXIMUM DEPLOYMENT RANGE (W/ REFLECTOR DISH ON SM, LOS)*	1X: 30 mi. (48 km), 2X: 30 mi. (48 km), 3X: 11 mi. (16 km)	
MAXIMUM AGGREGATE (UP+DOWN) THROUGHPUT PER SECTOR (@5MHZ CHANNEL)	1X: 3.5 Mbps, 2X: 7 Mbps, 3X: 10.5 Mbps	
MAXIMUM AGGREGATE (UP+DOWN) THROUGHPUT PER SECTOR (@10MHZ CHANNEL)	1X: 8 Mbps, 2X: 16.5Mbps, 3X: 24.5Mbps	
MAXIMUM AGGREGATE (UP+DOWN) THROUGHPUT PER SECTOR (@20MHZ CHANNEL)	1X: 16.5 Mbps, 2X: 32 Mbps, 3X: >45 Mbps	
LATENCY	5-7 ms round trip	
ENCRYPTION	DES, FIPS 197 Certified AES Option	
Nominal Receive Sensitivity (w/ FEC) @ 5 MHz CHANNEL	1X: -93 dBm, 2X: -86 dBm, 3X: -79 dBm	
NOMINAL RECEIVE SENSITIVITY (W/ FEC) @ 10MHZ CHANNEL	1X: -90 dBm, 2X: -83 dBm, 3X: -76 dBm	
NOMINAL RECEIVE SENSITIVITY (W/ FEC) @ 20MHZ CHANNEL	1X: -87 dBm, 2X: -80 dBm, 3X: -73 dBm	
ETHERNET INTERFACE	10/100BaseT, half/full duplex, rate auto negotiated (802.3 compliant)	
PROTOCOLS USED	IPv4, UDP, TCP, IP, ICMP, Telnet, SNMP, HTTP, FTP	
NETWORK MANAGEMENT	HTTP, Telnet, FTP, SNMPv2c Prizm 3.3 and One Point Wireless Manager 2.2	
VLAN	802.1ad (DVLAN Q-in-Q), 802.1Q with 802.1p priority, dynamic port VID	
CE	EN302 502 v1.2.1	
FCC ID	ABZ89FT7634	ABZ89FT7635
INDUSTRY CANADA CERT	109W-5780	109W-5790
TEMPERATURE	-40°C to +55°C (-40°F to +131°F) 0% – 95% relative humidity, non-condensing	
WIND SURVIVAL	190 km/hour (118 mi/hour)	190 km/hour (118 mi/hour)
WIND LOADING	90 lbs.	45 lbs.
DIMENSIONS (H X W X D)	71 x 21 x 28 cm (28.75" x 8.25" x 11")	30 x 9 x 9 cm (11.75" x 3.4" x 3.4")
WEIGHT	6.1 kg (13.5 lbs.) (w/ antenna) 2.8 kg (6.1 lbs.) (w/o antenna)	0.45kg (1 lb.)
MAX POWER CONSUMPTION	19W	10W
INPUT VOLTAGE	24 to 59 V	24 to 30 V
COLLOCATION WITH PMP 52100	Yes	
COLLOCATION WITH PMP 54100	Yes, 10MHz guard band separation or 5MHz with 3 ft vertical required; synchronization required	
COLLOCATION WITH PMP 58100	Yes, 10MHz guard band required or 5MHz with 3 ft vertical required; synchronization required	