

# ePMP™ 1000 Sector Antenna

A **wireless broadband communication** system has many components; each one contributes to the overall performance and ultimately affects operator revenues. One of the principal considerations in a communications system is antennas. Their impact is enormous - using the wrong antenna will degrade the overall performance of an otherwise well engineered system, resulting in customer dissatisfaction.

At Cambium Networks, our antennas are engineered to address most typical network and terrain challenges and are built to the highest level of quality and reliability. The 5 GHz ePMP 1000 90 and 120 degree sector antennas are connectorized and specifically designed for use with the ePMP platform. These antennas provide high front-to-back ratio required for optimized performance with maximized frequency reuse.

As a result, connectivity is delivered to a larger subscriber base with less channels and equipment, ultimately improving revenue.



Sector Antenna

ePMP 1000 GPS Sync Radio  
Integrated with a Sector Antenna

## Main Differentiators

- » **MAXIMIZED SPECTRAL EFFICIENCY** is enabled by the **front-to-back** ratio in the ePMP 1000 antennas portfolio in combination with **power control** provided by APs. This allows the signal from subscriber modules to arrive at the AP with the same receive power level, enabling frequency reuse, maximized spectral efficiency in congested areas and an increased number of subscribers with improved quality of service.
- » **EASY INSTALLATION OPTIONS** allow for cost-effective swapping and adding of new equipment, as site density increases and traffic loading peaks.
- » **VALIDATED PERFORMANCE** ensured by rigorous system testing guarantees predictable link budget results for the whole network. Customers can start improving revenue margins immediately.

## Powerful Features

The 5 GHz **ePMP 1000 Sector Antenna** offers an ideal array of features - spectral efficiency, the capability to overcome environmental challenges and higher signal strengths. This antenna covers the 5 GHz band.

**2x2 Multiple Input and Multiple Output (MIMO)** gives the ePMP 1000 antennas the benefits of dual stream operation, provides interference mitigation by enabling the radios to select the best signal quality and allows for successful deployment of wireless networks in difficult environments.

**Easy Configuration** is supported by adjustable hardware and a simple one-step connection with the radio. As an added bonus, a dedicated place is designed for a GPS antenna, providing more flexibility.

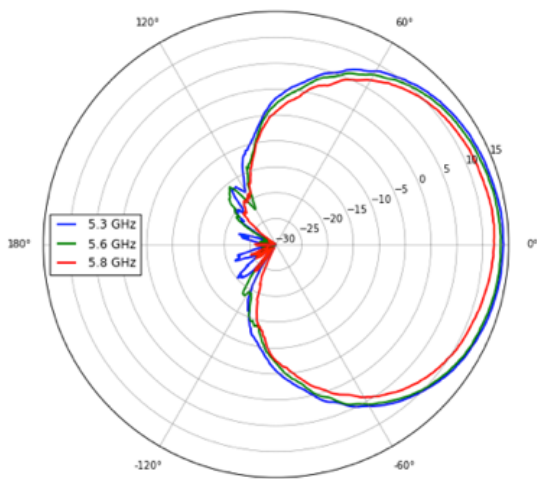
ePMP 1000 Antennas are **outdoor-rated**. Cambium Networks perform a rigorous set of environmental tests. We validate and guarantee the specifications and ensure their consistency with real life conditions.

SPECIFICATIONS	C050900D003A 90 DEGREE SECTOR	C050900D002A 120 DEGREE SECTOR
FREQUENCY RANGE	5150 – 5875 MHZ	
ANTENNA TYPE	ACCESS POINT SECTOR	
GAIN	15 DBI	14 DBI
VSWR	1.6:1 MAX	1.7:1 MAX
PORT TO PORT ISOLATION	25 DB	
6DB BEAMWIDTH-AZIMUTH	90°	120°
3DB BEAMWIDTH-AZIMUTH	65°	90°
3DB BEAMWIDTH-ELEVATION	8°	12°
POLARIZATION	Dual Linear, Horizontal / Vertical	
MAXIMUM INPUT POWER	5 W	
INPUT IMPEDANCE	50 Ohms	
FRONT-TO-BACK RATIO	>32 dB	
CROSS POLARIZATION	>18 dB	
MECHANICAL SIZE (MM)	827h x 161w x 59d (excl AP & bracket) 827h x 161w x 231d (incl AP & bracket)	
ANTENNA WEIGHT	3.1 kg (6.8 lb), w/o bracket kit	
MOUNTED ANT WEIGHT (W/ AP)	5.5 kg (12.1 lb)	
ANTENNA CONNECTOR	2 x male RP-SMA	
WIND SURVIVAL	190 km/h (118 mph)	
WIND LOADING (@216 KM/H)	FRONT: 318 N (72 LBF) SIDE: 160 N (36 LBF)	
POLE MOUNTING HARDWARE	QUICK RELEASE, 1.5" TO 4.5" DIA. POLE	
MECHANICAL DOWNTILT	-3° TO 12°	

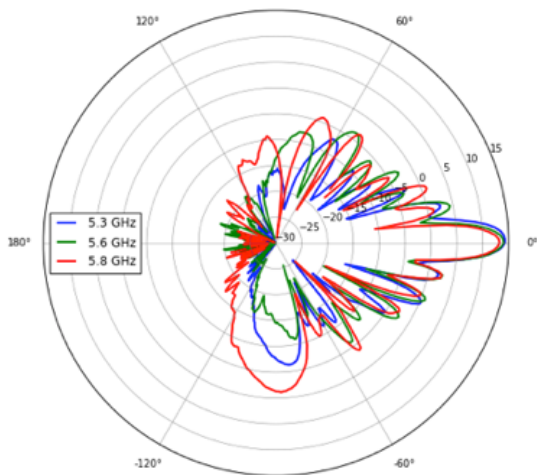
# 120 Degree Sector Antenna

## Azimuth and Elevation Patterns

120 DEG SECTOR AZIMUTH GAIN (dBi) FOR ZERO ELEVATION



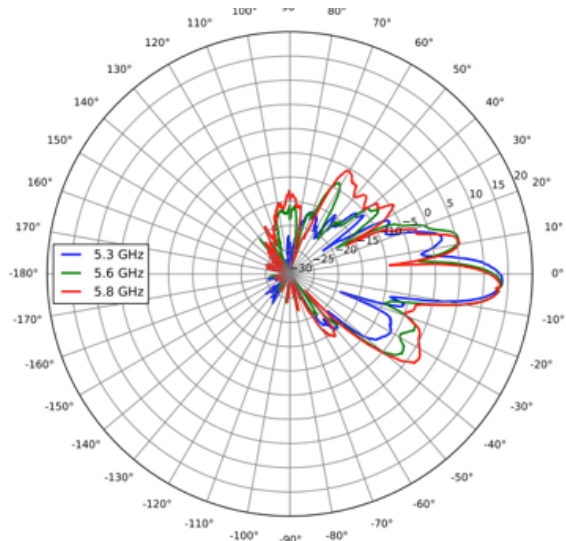
120 DEG SECTOR ELEVATION GAIN (dBi) FOR ZERO AZIMUTH



# 90 Degree Sector Antenna

## Azimuth and Elevation Patterns

90 DEG SECTOR ELEVATION GAIN (dBi) FOR ZERO AZIMUTH



90 DEG SECTOR AZIMUTH GAIN (dBi) FOR ZERO ELEVATION

