

ePMP[™] 2000 Smart Beamforming Antenna

Cambium Networks ePMP Product line has set the standard for high performance, scalability and reliability in harsh interference environments all at a compelling price. The ePMP 2000 is the next generation Access Point that brings Interference Tolerance to a whole new level with Cambium's unique HypureTM Technology which combines *Intelligent Filtering* and *Smart Beamforming*. The ePMP 2000 Access Point System consists of a high performance, GPS Synchronized Access Point Radio with *Intelligent Filtering*, a new compact high performance Access Point Antenna and an optional *Smart Beamforming* Antenna.

The *Intelligent Filtering* of the Access Point works for both receive and transmit. It protects any channel from noise from off-channel interferers with a filter that dynamically moves around the channel. On the transmit side, it protects the RF environment by reducing off-channel transmission noise.

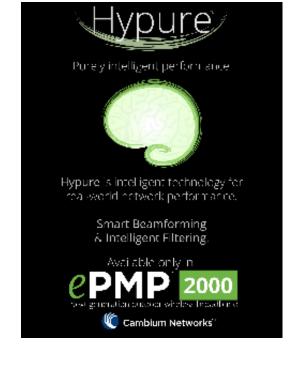
The *Smart Beamforming* capability works to mitigate the effects of on-channel interference. The System learns the locations of each served Subscriber Module and forms a narrow beam towards the desired Subscriber Module while that radio is transmitting in the uplink. This reduces the gain on the uplink for on-channel interferers that are transmitting at an azimuth angle different than the Subscriber Module. Detailed information on beam forming is on the Cambium web site

This specification sheet is for the ePMP 2000 Smart Beamforming Antenna.



KEY ADVANTAGES:

- Reduce Impacts of Uplink Interference: Beamforming algorithms maximize the Received Signal Strength Indication (RSSI) and Error Vector Magnitude (EVM) of the radio uplink
- Maintain low latency and high throughput in high interference environments: By mitigating the effects of uplink interference, packet retransmissions are kept to a minimum which allows for high throughputs and avoids the extra latency of retransmissions.
- Improvement in both Uplink and Downlink Throughputs: An
 increase in throughput and reduction in retransmissions on the uplink
 can also increase downlink throughputs for TCP traffic which relies on
 efficient transmission of acknowledgements for optimal performance.



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Specifications

PRODUCT	
Model #	C050900D020A
SPECTRUM	
Frequency Range	5150 – 5970 MHz (exact frequencies as allowed by local regulations)
PHYSICAL	
Connectors to Access Point	2 x 50 ohm, RP (Reverse Polarity) SMA, DC Coupled (powering antenna)
Mounting Hardware	Included for mounting to ePMP 5 GHz Sector Antenna (C050900D021A) Included for mounting to mast diameters 2" to 4" (5 cm to 10 cm)
Physical Dimensions	13.1" (L) x 8.4" (W) x 1.8" (H) (33.3 cm x 21.3 cm x 4.6 cm) Without Mounting Brackets
Weight	3.2 lbs. (1.5 kg) Without Mounting Brackets
Environmental	IP65
Radome Material	UV Protected ABS
Operating Temp	-40°C to 60°C (-40°F to 140°F)
Power Consumption	2.5 W [1]

Notes:

[1] This power is provided by the ePMP 2000 Access Point but does not add to the maximum power consumption of the Access Point. This is because the Beamforming Antenna draws its power during the uplink cycle when the Access Point power consumption is below its maximum value.