

3 GHz 450b Subscriber and Backhaul



Cambium Networks 450 platform increases performance with the addition of the 450b Subscriber and Backhaul Module.

KEY FEATURES:

- Ultra-wide band radios support the entire band, from 3.3 to 3.9 GHz.
- Gigabit Ethernet Interface provides the maximum transfer rates to the device.
- 3.5 mm audio jack allows direct connection of headphones without any adapters.
- CBRS CBSD Category B device
- New System on a Chip (SoC) enhances Packet Processing Power more than 4x that of the 450 SM.
- Capable of up to 300 Mbps aggregate in a 40 MHz channel.
- Backhaul radios can function as a Point-to-Point (PTP) link or as a Subscriber Module (SM).
- "No Encryption" models only required for countries with export control license requirements.

SPECIFICATIONS

PRODUCT		HIGH GAIN (20 dBi)
Model Numbers	Global	C030045B021A
	No Encryption	C030045B025A
	4-pack Antenna Assembly	N030045D001A
SPECTRUM		
Channel Spacing	Configurable to 500 KHz increments	
Frequency Range	3300 - 3900 MHz	
Channel Width	5 MHz, 7 MHz, 10 MHz, 15 MHz, 20 MHz, 30 MHz, or 40 MHz	
INTERFACE		
MAC (Media Access Control) Layer	Cambium Networks proprietary	
Physical Layer	2x2 MIMO OFDM	
Ethernet Interface	100/1000BaseT, full duplex, rate auto negotiated, 802.3 compliant	
Protocols Used	IPv4, IPv6, UDP, TCP/IP, ICMP, Telnet, SNMP, HTTP, FTP	
Network Management	IPv4/IPv6 (dual stack), HTTP, HTTPS, Telnet, FTP, SNMPv2c and v3, Cambium Networks cnMaestro™	
MTU	1700 bytes	
VLAN	802.1ad (DVLAN Q-inQ), 802.1Q with 802.1p priority, dynamic port VID	

SPECIFICATIONS

SECURITY

Encryption	FIPS-197 128-bit AES, 256-bit AES (optional)
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PERFORMANCE

PPS	50,000
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ARQ	Yes
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Modulation Levels (Adaptive)	MCS	Signal to Noise Required (SNR, in dB)
2X	QPSK	10
4X	16-QAM	17
6X	64-QAM	24
8X	256-QAM	32

Ultimate Sensitivity	-94 dBm
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Maximum Deployment Range	Up to 40 miles (64 km) in PMP mode, Up to 186 miles (300km) in PTP mode
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Latency	3 - 5 ms, typical
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GPS Synchronization	Yes, synchronized by Access Point
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Quality of Service	Diffserve QoS
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LINK BUDGET

Transmit Power Range	56 dB dynamic range (to EIRP limit by region) (1 dB step)
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Maximum Transmit Power	Up to +29 dBm (MIMO, combined V+H)
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ANTENNA

Integrated Antenna Peak Gain	20 dBi
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3 dB Beamwidth - Azimuth	12°
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3 dB Beamwidth - Elevation	12°
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Polarization	Dual slant, +- 45
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Front-To-Back Isolation	>30 dB
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Cross Polarization	>20 dB
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PHYSICAL

Antenna Accessories	Optional Radome: N000900L021A
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Surge Suppression	EN 61000-4-5: 10x700us, 4Kv EN 61000-4-2: ESD 30kV contact / 30kV air
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Mean Time Between Failure	> 40 Years
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Environmental	IP 55
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Temperature / Humidity	-40°C to +60°C (-40°F to +140°F), 0-95% non-condensing
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Weight	3.1 kg (7 lb.) (includes mounting bracket)
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Wind Survival	200 km/hour (124 mi/hour)
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Dimensions (HxWxD) (including mount)	45 cm diameter x 28 cm (17.8" diameter x 11.2")
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Pole Diameter Range / Mechanical Tilt (w/ included mount)	2.5 - 7.6 cm (1" to 3") ± 20 degrees mechanical tilt
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Power Consumption	12 W nominal, 15 W peak
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Input Voltage	20 - 32 V DC
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CERTIFICATIONS

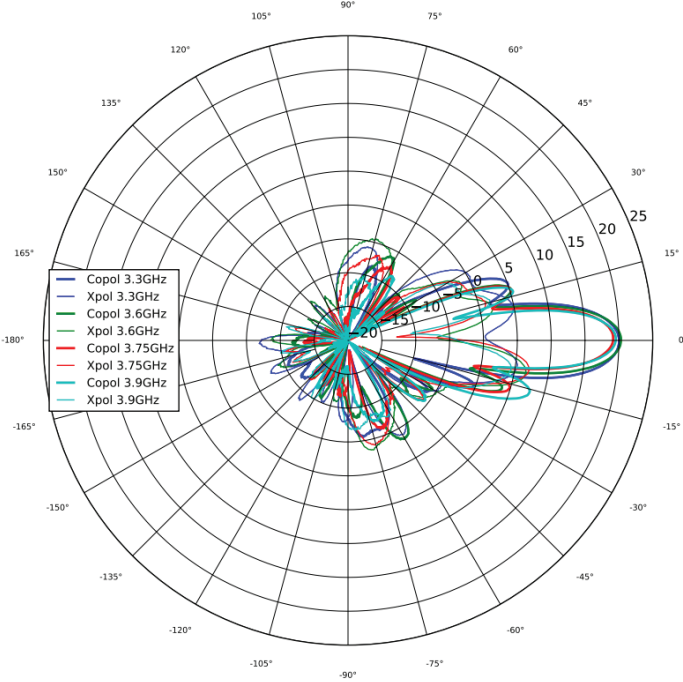
Canada (ISED)	109W-0053
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FCC ID	Z8H89FT0053
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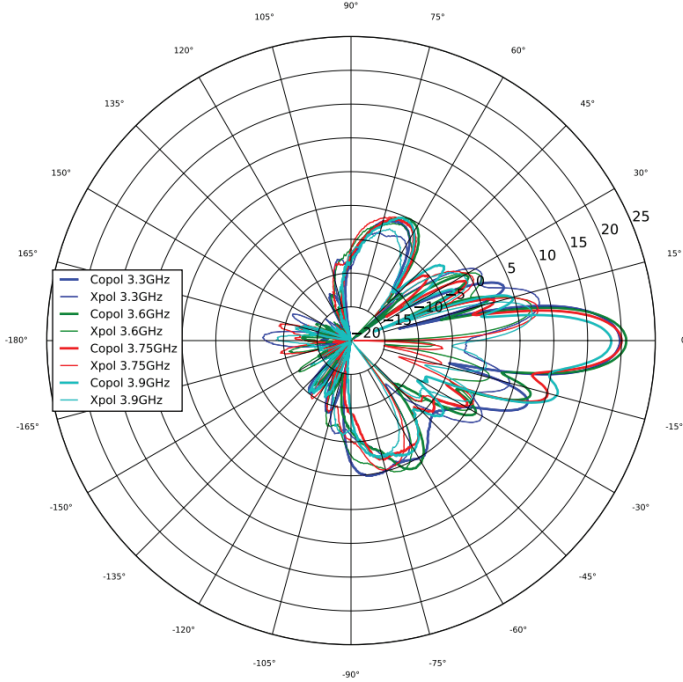
ETSI	EN 302 326-2
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3 GHz 450b HIGH GAIN ANTENNA PATTERNS

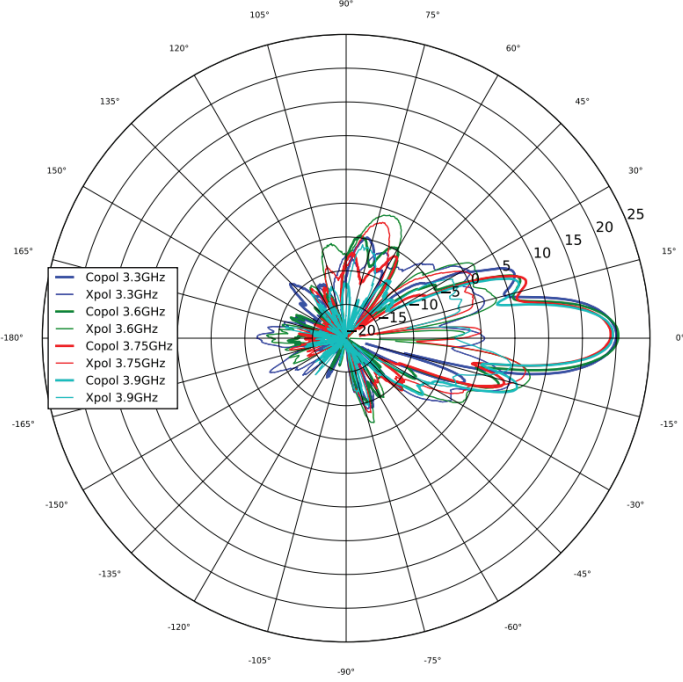
Azimuth, +45



Azimuth, -45



Elevation, +45



Elevation, -45

