60 GHz cnWave Fixed Wireless Solution



cnWave multi-gigabit wireless multipoint connectivity provides outdoor access to business and residential locations in urban and dense areas. Achieve fiber-like performance and reliability in dense environments at a fraction of the cost of trenching fiber.







Cambium offers a complete wireless connectivity solution including backhaul, distribution and access networks. Manage the entire end-to-end wireless network from a single pane of glass with the cnMaestro $^{\mathsf{TM}}$ management system.

Cambium Networks Solution Advantages										
	Cambium Networks	IgniteNet	Radwin	MikroTik	Siklu	Ubiquiti				
60 GHz and End-to-End Wireless Solution	Cambium Networks offers a complete portfolio of wireless technology solutions, all field proven to interoperate. Long range backhaul and licensed microwave Licensed and unlicensed multipoint wide area networks Indoor and outdoor Wi-Fi Local Area Networks	Not ay; No mesh; No channel bonding	No channel bonding	Not ay; No mesh; No channel bonding	Not ay; No mesh; No channel bonding	Not ay; No PMP; No mesh; Not TG certified No channel bonding				
Centralized Cloud Management	cnMaestro cloud or on-premises management provides secure, end-to-end network control. View and perform a full suite of wireless network management functions in real time. Optimize system availability, maximize throughput, and meet emerging needs of business and residential customers.				Partial network coverage					
Network Planning and Design Tools	With tens of thousands of links deployed successfully worldwide, LINKPlanner quickly designs networks for optimal deployment and cost effectiveness with ease. cnHeat is built on Cambium Networks' expertise in fixed wireless RF planning, propagation, and modeling. Integrated with GIS data down to one-meter precision, cnHeat generates highly accurate RF predictions and derivative services that accurately represent the reality of the RF world.	No heat mapping	No heat mapping	No heat mapping	No heat mapping	No heat mapping				
Superior Warranty and Support	Cambium Networks provides a 3-Year warranty on all outdoor equipment and a 5-year warranty on indoor equipment and 24/7 support. Supported by a global network of more than 6,000 resellers.				5x8 phone support, extended warranty	Crowd source support				

cnWave Technology



Wireless ISP Association (WISPA) members voted Cambium Networks as Manufacturer of the Year three years in a row



Satisfied Network Operators – Cambium Networks solutions are installed in more than 10,000 service provider networks around the world

"We're excited about finally being able to acquire fiber-like broadband performance and reliability at a fraction of the cost of fiber. Until now, it required an expensive construction project to retrofit a congested, existing infrastructure. Now, we can significantly compress the time involved to achieve multi-gigabit connectivity without breaking the bank." - Cameron Kilton, Chief Technology Officer of NextLink

"What really excites me about our partnership with Cambium Networks is that we are able to dramatically improve the quality of experience for our customers, while at the same time improving our own ROI." - Corné de Villiers, CEO HeroTel

"What sets the Medusa apart is that its pushing almost a Gig capacity and that's just super spectrally efficient. It's amazing to see how this product has flipped our industry on its head in terms of allowing us to catch up and surpass a lot of the incumbent providers out there because it does allow you to provide these massive, massive services." – Nathan Stooke, CEO of Wisper Internet

"Our decision to choose Cambium Networks boils down to technology innovation, excellent customer support and amazingly low cost of ownership." - Josh Romandia, CEO, Montana Internet

"These multi-year warranties reduce my business risk. I also appreciate Cambium Networks' 24x7 call center – it is nice to have a human pick-up a call. My techs rely on the Cambium Networks Community for new ideas and solutions to old problems. It really is a complete support solution from Cambium Networks," said Chris Bay, CEO, <u>Bays-ET</u>.

Technology Competitive Positioning								
	Mesh	PMP	PTP	Position cnWave value against competition				
Cambium cnWave V5000 – Dual Sector V3000 – High Gain V1000 – Mid Gain	Y	Y	Y	 Lower TCO through V5000 dual sector design, mid-gain V1000 and high gain V3000, auto beamforming of easy installation Channel Bonding H/W ready, double the capacity with F/W upgrade Support up to 15 Gbps per V5000 with channel bonding High dense deployment, V5000 supports up to 30 CNs or 26 CNs + 4 DNs cnMaestro – one panel for NMS. Easy Planning, LINKPlanner and Advanced Network Planning IP 66/67 rated 				
Siklu MultiHaul PtMP MultiHaul cTU	N	Υ	Υ	 802.11ad technology; no mesh support or channel bonding; lower throughput (up to 1.8 Gbps per BT); lower BT/CT ratio (up to 8 CTs per BT); high price (cTU \$439.00) 				
IgniteNet MetroLinq	N	Υ	Υ	 802.11ad technology; no mesh support or channel bonding, support tri- band support (2.4, 5 and 60 GHz); lower throughput (up to 2.5 Gbps); lower AP/SM ratio (up to 8 SM per AP); IP 55 rated 				
MikroTik wAP 60G LHG 60G Cube Lite60	N	Υ	Υ	 802.11ad technology; no mesh support or channel bonding; support only CH1 to CH3; lower throughput (up to 2.0 Gbps); lower AP/SM ratio (up to 8 SM per AP); no SFP+ interface 				
Radwin Terrawin	Y	Y	Y	802.11ay based; no channel bonding; same radio for both DN and CN, high cost on CN; high TCO with 90-degree sector DN, required extra router for data pass between sectors; no SFP+ interface, limited to 2.5 Gbps for Ethernet connectivity;				
Ubiquiti AirFiber 60	N	N	Υ	 802.11ad technology; limited to PTP only, no channel bonding; support CH1 to CH6; limited to 1 Gbps; no SFP+ interface; no auto beamforming 				