



Metnet 60G

mmWave (60GHz) CPE



Gigabit



Mesh



PoE



Low TCO

Benefits

- Enterprise Fixed Wireless Access
- Residential Fixed Wireless Access
- Gigabit-Capable Campus LAN Extension

Overview

The Adtran Metnet 60G mesh mmWave backhaul and access mesh technology enables operators and service providers to rapidly deliver Gigabit services to residential and enterprise customers at a fraction of the cost and speed of rolling out fiber networks. The Metnet 60G next-generation customer premises equipment (CPE) connects automatically to the Metnet 60GHz multipoint mesh network extending fiber-like connectivity to customers in an easy-to-deploy, small form factor, low-cost device.

Fiber Extension Faster

The Metnet 60G CPE is part of the Adtran Metnet 60G mesh mmWave fixed wireless access and backhaul solution that operates in the license-free 60GHz band (57GHz-71GHz). The Metnet 60G CPE is a low-cost, environmentally hardened (IP-65 rating) unit that complements fiber-to-the-home (FTTH) services to extend gigabit services up to 500m (1,640ft.) into homes and businesses in locations that are hard to reach with fiber. The Metnet 60G CPE can also be utilized for cost-effective campus LAN extension applications to connect multiple buildings.

Faster Deployment

The Metnet 60G CPE has a built-in electronic beamforming antenna that automatically scans and connects to the Metnet 60G mesh nodes network, resulting in rapid and simple deployment in less than 30 minutes. Flexible mounting options (wall or pole mount) and support for Power over Ethernet allows for anywhere installation, speeding customer acquisition at a low cost per customer add.

Industry-first, Self-Organizing Network

The Metnet 60G system (consisting of nodes and CPE) is built on the industry's first mmWave self-organizing and self-healing network (SON) technology delivering advanced interference avoidance to continuously optimize network performance. Metnet 60G nodes connect autonomously to form Multipoint-to-Multipoint mesh links with neighboring nodes, enabling rapid time-to-market with broadband services. When new nodes are added, the system automatically reorganizes and realigns, enabling faster scaling of the network. In addition, self-organizing, self-healing links automatically reroute traffic in the event of node failure or line-of-sight obstacles providing higher resiliency and redundancy.

METNET 60G

Product Specifications

Mesh Radio Specifications	
Frequency Band	57GHz to 71GHz band
Antenna	Beamforming Phase array 21dBi gain
Channels	802.11ad WiGig Channels 1 to 6
Modulation and encoding	13 levels of adaptive encoding MCS 0 – 12 up to 4.6Gbps
Transmitter and EIRP	40dBm EIRP
Number of sectors	4
Radio capacity	3.8Gbps per sector (15.2Gbps per node)
Performance & Attributes	
Beam angle	Horizontal 300° electronic steerable, 6° beam width; Vertical fixed, 18 degree
Topologies	Multipoint-to-Multipoint with SON / Point-to-Multipoint, Point-to-Point
Range	Up to 1,640 ft (500m) per Node or CPE Dependent on location, availability, and capacity
Interfaces	Up to 4 Ethernet interfaces • 2 x Fixed RJ45 100/1000 Base-T • 2 x optional 10G or 1G SFP optical
Max connections (per node)	120 CPE or mesh nodes
Ethernet Services	Native Ethernet based data service delivery • Tagged/untagged subscriber traffic classification • Single and double tagging w/ 802.1Q, 802.1ad QinQ • 802.1p, DSCP based prioritization • Strict Priority, WFQ scheduling • DHCP Option 82 Insertion • 802.1x Port Authentication • Bidirectional per subscriber rate limiting
Redundancy	• High availability via interference-aware SON mesh network • Network uplink redundancy via multiple nodes
Management	In-band management • Web GUI • MS w/ complete FCAPS support • Secure communication w/nodes • Zero-touch on-boarding of nodes • Radio link budget calculator • Topology based network view • Configuration management, fault management, performance management • Software upgrades and configuration backup/restore • REST/SNMPv2 NBI

Physical Specifications	
Dimensions	10.6" x 6" x 4.5" (269mm x 150mm x 114mm) (H x W x D)
Weight	7.3lbs (3.3kg)
Power	<ul style="list-style-type: none"> • 100-240V AC Mains • 48V DC or 802.3bt 60W
Environmental	-40°F to +131°F (-40°C to +55°C) operating temperature IP-65 ingress protection rated
Regulatory Compliance	Radio: US FCC 47 CFR Part15.255 and EN 302 567, EN 303 413 EMC: US FCC 47 CFR Part15B and EN 301 489 Safety: IEC62368-1:2014/2018, IEC 62368-3:2017, IEC 60529:2013, IEC 60950-22:2016, EN50385:2017
Warranty	1 Year

Ordering Information

Equipment	Part No.
Adtran Metnet 60G 1Gbps CPE, 90degree antenna, Grey (includes PoE injector with US power cord)	419326203F2US
Metnet EMS License (required)	
Adtran Metnet 60G EMS Software and Yr-1 License (up to 50 devices).	119310902F1
Adtran Metnet 60G EMS Annual License (1-50 Devices).	119310902F2*
Adtran Procure (required)	
Adtran ProCare for Metnet 60G CPE	1100AMFW10M1T1

*Additional license tiers available for quote. Please contact support@adtran.com.



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