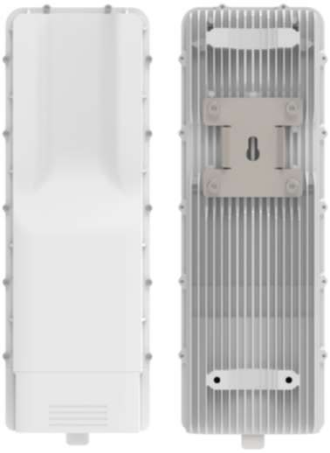
DUNE

Product Brief
60 GHz FWA Radio
DN170G/L
2025-07-02

Overview



DN170G/L

The Dense Urban Network Environment (DUNE) mmWave system provides Fixed Wireless Access for areas where other wireless solutions will not work due to congestion, poor infrastructure or cost.

Utilizing the license-free and interference-free 60 GHz band, it provides users with premium multi-gigabit service and can simultaneously distribute Wi-Fi services.

Utilizing the license-free, 60 GHz frequency band, DUNE is not impacted by Wi-Fi or 4G/5G interference and provides a highly reliable capacity of up to 2.5 Gbits/s at ranges over 500m.

DUNE supports point-to-multipoint networks with up to 48 clients per sector. Peraso's unique network access protocol ensures fair traffic balancing for all users.

DUNE terminals are very energy efficient and can be powered by solar, or with battery backup for continuous service in areas with unreliable power. Models are currently available with two beamforming antenna options allowing selection of gain and field-of-view matching installation requirements.

60 GHz Features

- Unlicensed 57 to 71 GHz band
- 2.5 Gbps peak sector capacity
- Field of view options of 120˚ or 40˚
- Point-to-Multipoint sector range up to 750m
- Dynamic beamforming facilitates installation
- AP sectors support 32 client CPE
- 6 channels at 2.16 GHz or 13 channels at 1.08 GHz
- Automatic rate adaptation
- WPA3 security (128-bit data encryption)
- 40dBm EIRP [1]
- Automatic Transmit Power Control

System Features

- 2.5Gbit or 1Gbit Ethernet port (G or L model)
- Passive POE input
- DC 48V power input terminal
- Solar and battery backup capable
- Polycarbonate and aluminum enclosure
- 5 to 95% noncondensing humidity
- IP66 water resistance
- FCC, CE certifications
- Pole or wall mount fixture options
- -30°C to 60°C operation

System Features

- Either model configurable as AP or STA
- Data bridge between ports
- HTML Web Interface
- SNMP V2/3 and RESTful API management
- DHCP snooping
- Status indicator LEDs

Key Specifications

DUNE Common Terminal Features	
Parameter	**Value**
Frequency band	57 – 71 GHz (may vary according to regulatory region)
Channel BW	2.16 or 1.08 GHz
Operating channels	1 -6 (full BW), 1-13 (half BW)
EIRP	40dBm max (regulatory limit)
Maximum throughput	2.5 Gbit/s total bi-directional traffic at AP
Point-to-Multipoint Operation	Up to 48 connections. Dynamic scheduling.
Latency (one way)	Point-to-multipoint, typical values. bi-directional traffic: 4 STA: 1 ms 16 STA: 4 ms
Data Ports	2.5Gbit Ethernet RJ-45 (G model), 1 Gbit Ethernet RJ-45 (L model)
Power Input Interfaces	38-52 VDC. RJ-45, passive PoE (2 or 4 pair)
Power Consumption	17W without PoE output
Dimensions	Height: 28 cm, Width: 10.2 cm, Depth: 5.1 cm
Weight	695 g
Operating Temperature Range	-30°C to 60°C
Accessories	Pole mount, passive POE injector
Model DN170G	
Application	Access Point (typically) or CPE
Antenna gain and polarization	20dBi (max), Vertical
3D Beamforming Field of View (-3dB)	120˚ (± 60˚) Azimuth, 50˚ (± 25˚) Elevation, 64 codebook vectors
Half Power Beamwidth (HPBW)	23° azimuth x 12° elevation (typical)
Model DN170L	
Application	CPE (typically) or Access Point
Antenna gain and polarization	22dBi (max), Vertical
3D Beamforming Field of View (-3dB)	40˚ (± 20˚) Azimuth, 40˚ (± 20˚) Elevation, 64 codebook vectors
Half Power Beamwidth (HPBW)	12° azimuth x 12° elevation (typical)
Management and Software	
Management	Web interface, SNMP v2 & v3, SNMP traps, & Restful API
Data and access security	WPA-PSK, WPA-Enterprise (WPA/WPA2/WPA3) , AES 128 GCMP
IP modes	IPV4, IPV6
Max MTU	7900 bytes
Networking mode	Transparent Bridge
DHCP snooping	STA mode: DHCP Option 82 injection, rogue DHCP server blocking
VLAN	VLAN passthrough, Management VLAN, STA Data VLAN
Services	Ping watchdog, remote syslog, local log, device discovery, speed test, ping, traceroute, NTP

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