FreeMile 60
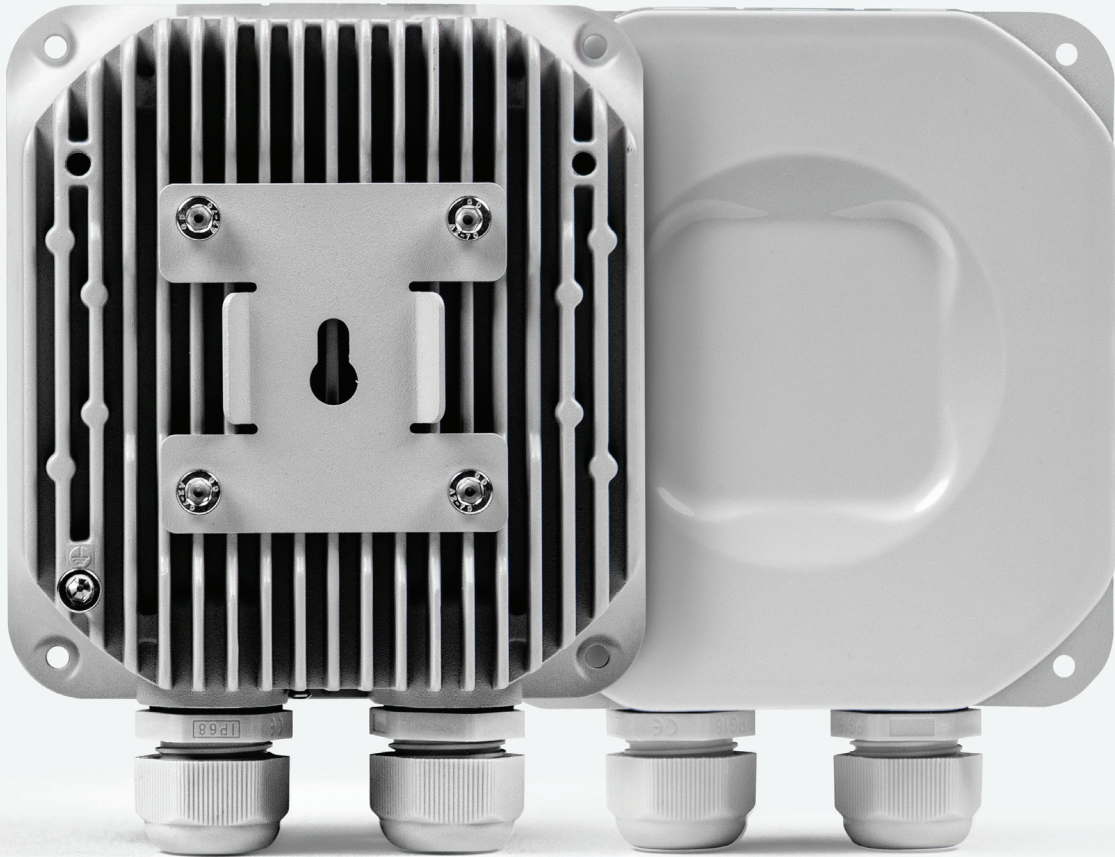## Datasheet

Freemile 60 is a solution designed to efficiently utilize 60 GHz spectrum, crucial for reducing interference and maximizing coverage. Freemile 60 stands out for ability to deliver fiber-like, multi-Gigabit speeds to a significant number of users per area, all at a fraction of the cost associated with fiber deployments.

Additionally, Freemile 60 is ideally suited for creating high-speed point-to-point connections in urban environments, making it versatile for various networking needs. A key feature is proprietary TDMA scheduling protocol, which is especially beneficial for networks that require high-capacity upload bandwidth. This combination of benefits makes Freemile 60 a comprehensive solution for enhancing wireless network performance and efficiency.

FreeMile

Technical Specification

Design	
Modular	Outdoor unit + optional antenna kit

Radio	
Operating Modes	Access Point; Station
Max STA count per AP	Up to 32 stations
Max EIRP	Outdoor unit: 38 dBm; 100 mm antenna kit 55 dBm; 300 mm antenna kit 64 dBm
Frequency Range (GHz)	57 – 71 (Channels: 1 - 6)
Channel Size	Full: 2.16 GHz; Half: 1.08 GHz
Outdoor Unit	Beamforming 90º x 50º (azimuth x elevation); Antenna gain: 16 dBi
100 mm Antenna Kit	Beamforming 6º x 6º (azimuth x elevation); Gain: 33 dBi
150 mm Antenna Kit	Beamforming 4ºx4º; Gain: 37 dBi
300 mm Antenna Kit	Beamforming 2º x 2º; Gain: 42 dBi
45° Scanning Antenna Kit	Beamforming 45º x 10º; Gain: 30 dBi
90° Scanning Antenna Kit	Beamforming 90º x 10º; Gain: 30 dBi
Range	PTP: up to 6 km (300 mm antenna kit)
	PTMP: up to 1.6 km (Station with 100 mm antenna kit)
Modulation	MCS1-MCS12
Encryption	AES + GCMP
Station Scheduling	TDMA: dynamic scheduling mechanism
Duplexing	TDD

Ethernet Data Parameters	
Number Of Ports	1x 10/1000/2500 Eth. (RJ-45) (PoE-In)
	1x 10/100/1000 Eth. (RJ-45) (PoE-Out)
VLAN	Data & Management VLAN
Max MTU size	7900 B
Management	HTTP/HTTPS, SSH, SNMP v1(traps only)/v2/v3; RESTful API
In-band Management	Via LAN
GUI	Web Based
Ethernet Data Throughput	Up to 2.3 Gbps (aggregated)

Mechanical	
Dimensions	130 x 120 x 55 mm
Ports	2x RJ-45
Temperature	-30 °C to +55 °C / -22 °F to +131 °F
Weight	425 g

Power	
Power Consumption	8-17 W, and 41 W with PoE out in use
Power Input	Active PoE 38-57 VDC (passive injector included)
PoE-Output Power	Passive PoE out w/max 0.5A
Lightning Protection	IEC 61000-4-5

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