

Huawei Wi-Fi 7 CloudCampus – Intelligentes WLAN für die Zukunft der Unternehmenskommunikation

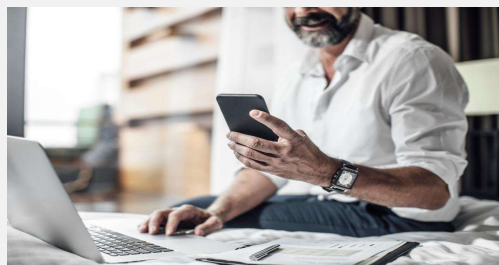


Content

- Warum Wi-Fi 7?
- Huawei Wi-Fi 7 – Die bessere Wahl
- Huawei Campus – Innovation trifft Praxis

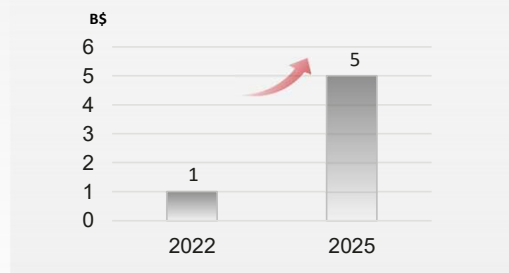
Next-Level Campus – Vorbereitet auf das Datenzeitalter

Terminals: 1 → 3+



Smart phone, PAD, PC

The number of terminals change



Terminals: 1 → 3~5 pcs

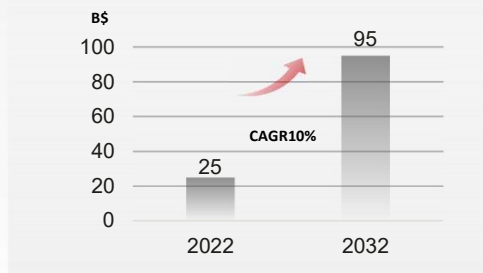
Campus Wireless Connections **10x** ↑

Video Conferences: 720P → 1080P/4K

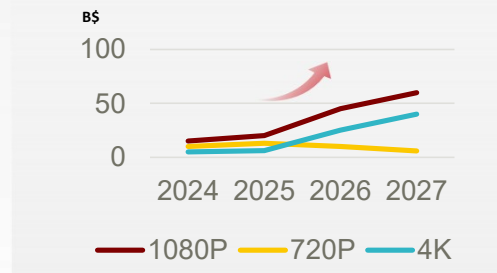


1080P, 4K video conference

Video conference market size



HD Video conferences growth



Number of video conferences **10%** ↑

1080P become mainstream

Video conferences Market size **4x** ↑

4K video conferences **4x** ↑

Moderne Büros brauchen mehr: Bandbreite, Sicherheit & Erlebnis

Open office



Hybrid business concurrency



Terminals/AP 20+ → **60+**

Insufficient Wi-Fi Bandwidth
Video freezes, uploading and downloading take a long time

0 lag for hybrid concurrency

Confidential office



Information security



Key info requires absolute security

The wireless signal can be connected outside the building, there are still hidden risks.

No data for signal capture

R&D office



Collaborative office



Coding package: 1GB → **20GB**

Network performance is limited,
Large file uploads and downloads take a long time

20GB files transfer in mins

HD conference room



HD conference



Definition: 720P → **1080P/4K**

The number of concurrencies is limited, and high-definition video are freezing.

0 freezing for 1080P/4K video

Wi-Fi 5/6 stösst an Grenzen – Wi-Fi 7 ist bereit für moderne Büros



Open Office Area

30-channel video, 500M transfer < 10s



HD Conference Room

Bandwidth: 20M~50Mbps, latency < 100ms



R&D Office Area

20GB coding package transfer < 5min

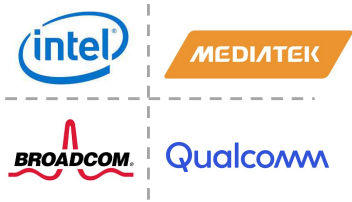
Wi-Fi Evolution, Enabling More Innovative Application Scenarios

Scenario	Application	Bandwidth	Latency	Terminals	Wi-Fi 5	Wi-Fi 6/6E	Wi-Fi 7
HD Conference Room	720P	2~4Mbps	50ms	30~50	✓	✓	✓
	1080P	4~6Mbps	50ms	30~50	✗	✓	✓
	4K	20~50Mbps	50ms	30~50	✗	✗	✓
R&D Office	AI collaboration	500Mbps	10-20ms	15~30	✗	✗	✓
Open Office	Hybrid Business	30-channel 1080P+500Mbps cloud disk Synchronization			✗	✗	✓
Confidential Office	Security	data 0 leakage, E2E MACSec, security warning			✗	✗	✓
VIP Office	VIP Assurance	Dedicated lane for VIP, high priority anytime and anywhere			✗	✗	✓
Green Office	Energy-saving	Equipment-level, architecture-level, system-level			✗	✗	✓

Wi-Fi 7 im Aufschwung – 60+ Länder bereit, Wachstum startet jetzt

Fast Construction of Wi-Fi 7 Ecosystem

Matured Chips



now: **20+** chips supported Wi-Fi 7

Matured Terminals



iPhone 16 Series



PICO 4 Ultra



MSI Bravo17



Samsung PAD



Xiaomi

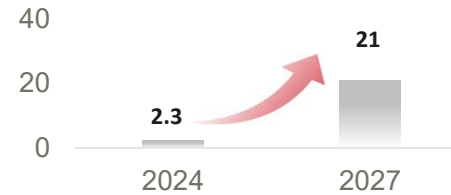


Lenovo LEGION

50+ phones/PC supported Wi-Fi 7

Wi-Fi 7 terminals shipments **10x ↑ in 3 years**

Unit: 100Mpcs



Wi-Fi 7 terminals shipments

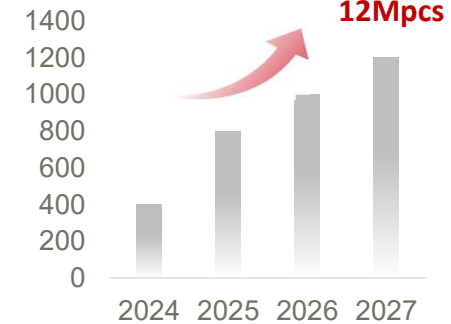
Wi-Fi 7 terminals **10x ↑**

@2024~2027

Source: Gartner & ABI Research

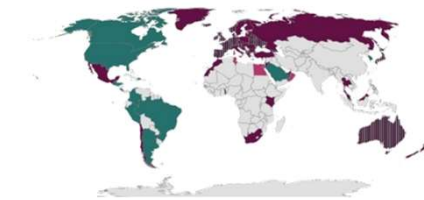
Wi-Fi 7 AP shipments **3x ↑ in 3 years**

Unit: 10Kpcs



Wi-Fi 7 AP shipments

Adopted 5925-6425 MHz
Adopted 5925-7125 MHz
Considering 5925-6425 MHz

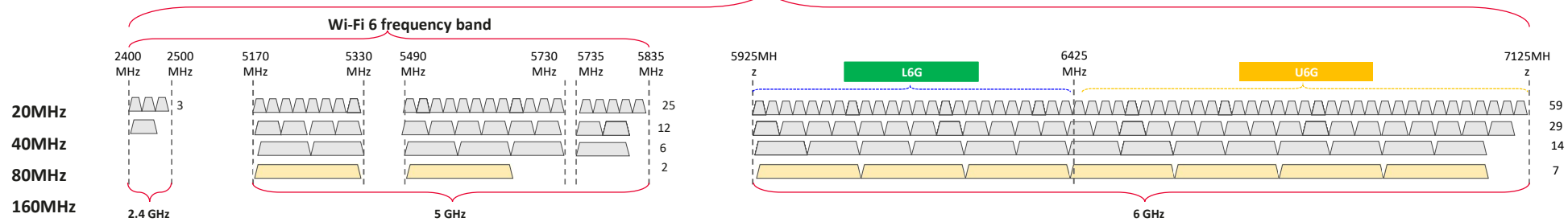


60+ countries allocated 6GHz spectrum

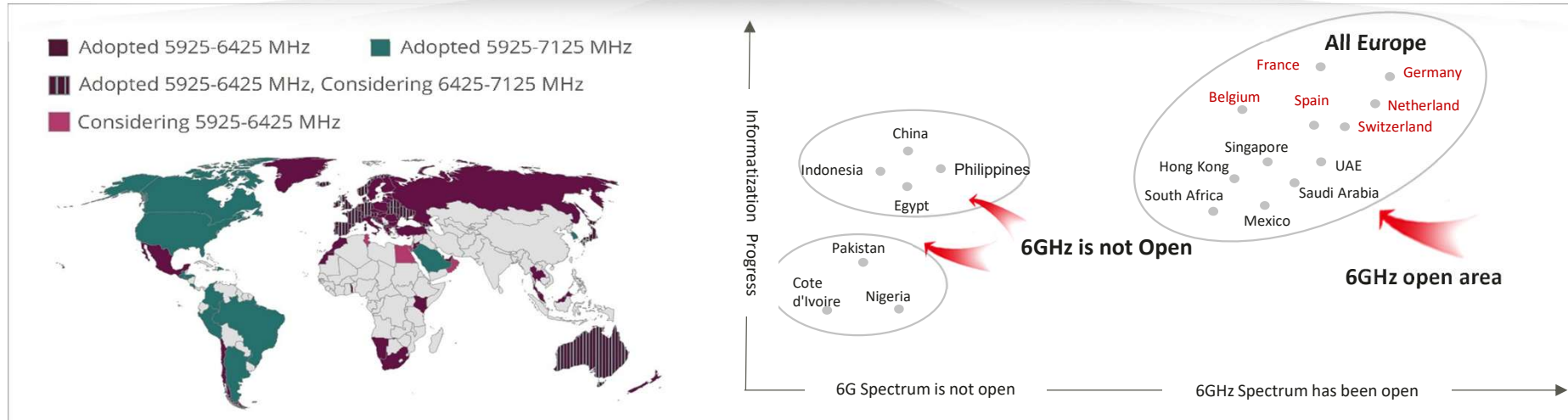
Source: ABI Research

Wi-Fi 7 öffnet das 6-GHz-Band – für schnelleres und stabileres WLAN

Wi-Fi 7 frequency band



Global adoption of the 6 GHz frequency band



*ource: <https://www.wi-fi.org/countries-enabling-wi-fi-in-6-ghz-wi-fi-6e>, until March 2024

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Huawei Wi-Fi 7 – High-End-Campus für die digitale Ära

Trends & Challenges

Efficient O&M



One person managing a 1000-person campus
Electricity cost increases every year

Video conference office



Increase in the number of video conferences
VIPs have had poor experiences

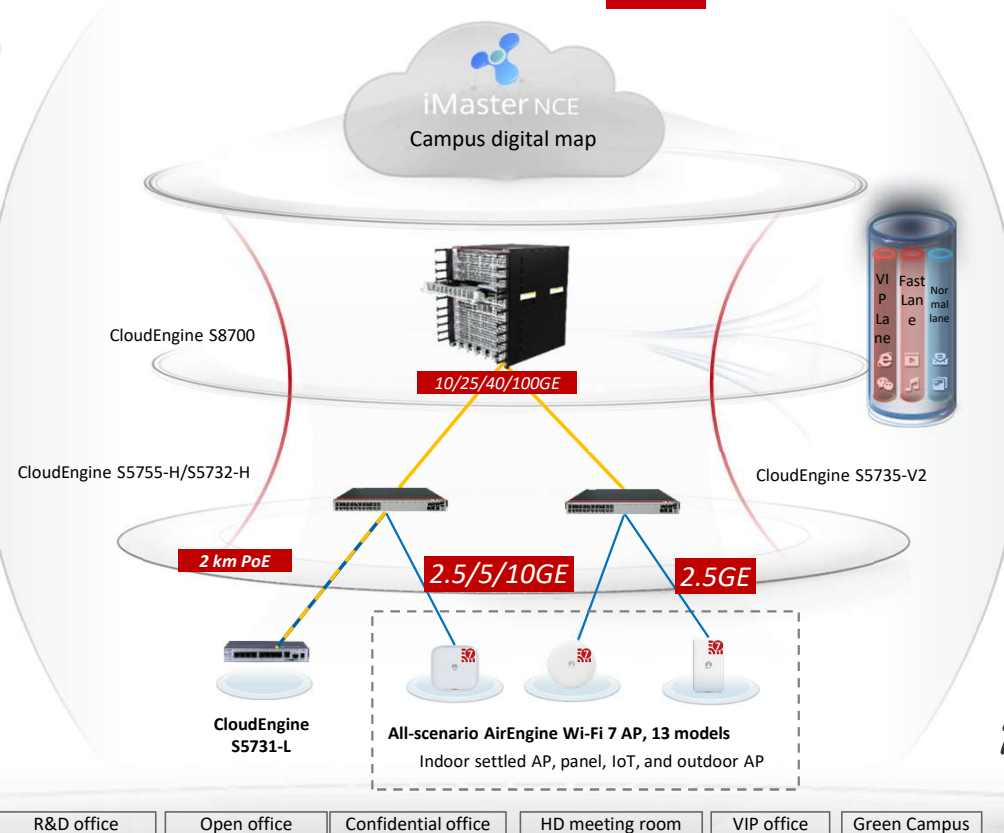
High-density office

- Terminal/AP 20 → 60
- Video: 720p → 1080p



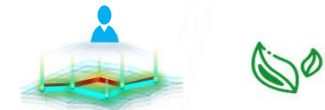
2024 Gartner Magic Quadrant

Leaders



Solution Value

O&M experience upgrade



one person managing a 10000-person campus
AI energy saving: 30%

Application experience upgrade



0 frame freezing **0 damaged**
10k people Audio and Video Conference
VIP first

Wireless experience upgrade

- Networking: 13.2 Gbit/s **20% > industry average**
- User rate: 4.5 Gbit/s **20% > industry average**

Open Office ohne Grenzen – dank Wi-Fi 7

Scenario Application



Hybrid high-density office



60 concurrent terminals

10 Mbps/terminal → 50 Mbps/terminal



Large lecture hall



1080p HD video

30-Channel → 120-Channel

Huawei Wi-Fi 7 Unique Values

	Maximum Rate/Radio	Frequency band	Bandwidth	Modulation mode	Multi-RU	Multi-link
Wi-Fi 6	9.6Gbps (5G radio)	2.4GHz 5GHz	160 MHz	1024-QAM	S-RU per user	Single-link
Wi-Fi 6E	9.6Gbps (5/6G radio)	2.4GHz 5GHz 6GHz	160 MHz	1024-QAM	S-RU per user	Single-link
Wi-Fi 7	23Gbps (6G radio)	2.4GHz 5GHz 6GHz	320MHz 2x	4096-QAM 20%+	Multi-RU per user	Multi-link

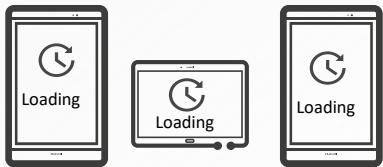
1.2 times higher than industry Wi-Fi 7

20 GB in paar Minuten. Maximale Performance. Dank Wi-Fi 7

Scenario Application



Software package upload and download



10 terminals, 20 GB software package downloading

1 hour → **10 minutes**

20Mbps 200Mbps



Vehicle-mounted software loading



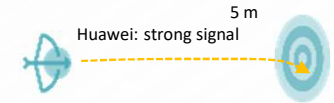
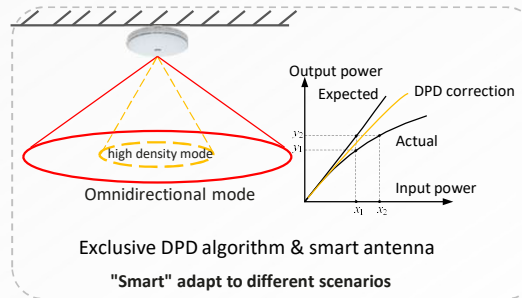
8 vehicles, 10 GB in-vehicle software downloading

1 hour → **5 minutes**

20Mbps 200Mbps

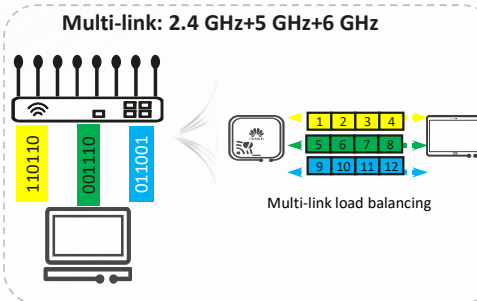
Huawei Wi-Fi 7 Unique Values

Smart Antenna 3.0



High-bandwidth coverage: 5 m (> 2 Gbps) vs. industry average: 1 m

MLO



Multi-Frequency Concurrency Coordination, bandwidth 2x ↑ 1.2 times higher than industry Wi-Fi 7

Datensicherheit auf höchstem Niveau – mit Wi-Fi Shield von Huawei

As-Is

No security protection policy is available for the system



Hacker spoofing, private connection

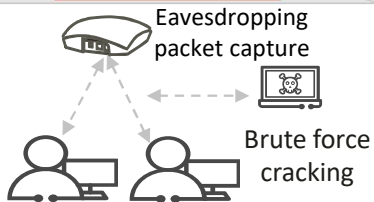
No end-to-end encryption policy on the network

MACsec



Only some devices support MACsec encryption

Diffuse propagation of Wi-Fi signals



Huawei Wi-Fi 7 Unique Values

Industry's first Wi-Fi shield technology



This is our demo for Wi-Fi shield.

0 eavesdropping by malicious users, changing from unintelligible to unheard

To-Be

System-level security

Terminal identification



100%

Abnormality statistics Block isolation

Secure access

Anti-spoofing and anti-illegal connection

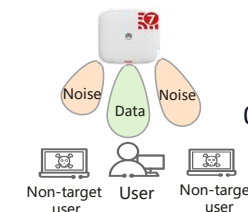
Network-level security

MACsec MACsec



E2E MACsec, Ensuring data security

Device-level security



Wi-Fi Shield
0 leakage of key data

Flüssige Konferenzen – Priorisierung für mehr Produktivität

Application Scenario



Video conference

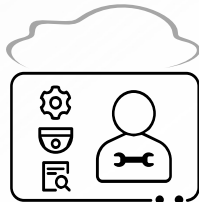


Poor experience, due to bandwidth occupation by file download, cloud disk synchronization, system update, etc.

Freezing sometimes → **0 freezing**



large-scale activities
Network assurance

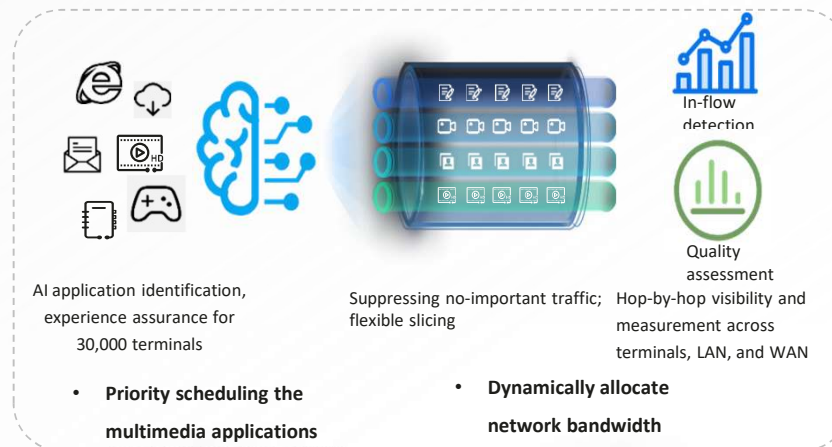


Network assurance (by dozens of IT engineers) two weeks in advance, while still uncontrollable network performance

10 person-days → **0 person-day**

Huawei Wi-Fi 7 Unique Values

Industry's first XNA engine



Audio and video



One person guarantee 10,000 people network

Exklusiv für VIPs – Priorisierte Verbindungen, maximale Zufriedenheit

Application Scenario



Video conference



VIP office



Voice and video calls of VIP users



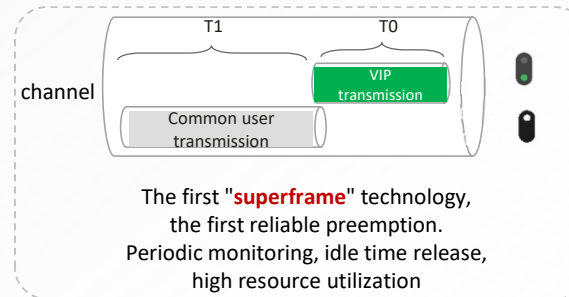
VIP user experience assurance

Packet loss @ 90% users → 0 packet loss

Difficult to close complaints → Proactive care for VIP users

Huawei Wi-Fi 7 Unique Values

VIP dedicated lane

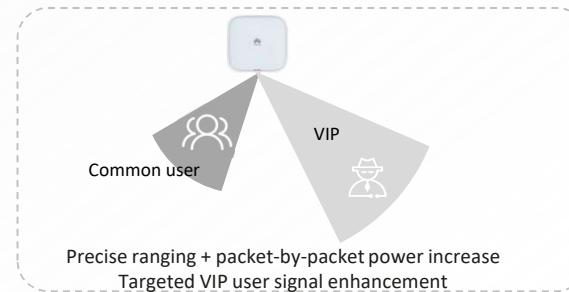


Priority in anytime, anywhere



Service delay during congestion

< 50 ms VS industry > 200 ms



Bandwidth

Huawei-only

Targeted VIP users optimization, Network moves with people

Green Campus – Intelligentes Management für nachhaltige Effizienz

As-Is

The system has no energy saving policy

Industry Energy saving mode

Energy consumption blind box
network/site/building/floor

Energy Saving Policy
By manual experience

Repeated network construction for multiple services

Separate deployment of multiple services, and repeated network construction

Low integration and high power consumption

Traditional five-layer AP design, low integration

AI network energy saving

Multidimensional energy consumption visualization
100% Energy consumption visualization
Four-dimensional visualization vs. AP only

tidal dynamic energy saving
30% ↓ Energy consumption reduction
30% vs. 10% (industry)

Key Service Assurance
0 Key Applications Interruption
Assurance AP vs. None (industry)

To-Be

System-level energy saving

Identifying Problems
Policy implementation
Policy Self-Recommendation
30%

Visualized energy saving and Smart energy saving policies
AI energy saving: 8 hours/day

Architecture-level energy saving

Internet of Things
Security.net
Office network
35%

One network for multiple services
Power consumption of simplified architecture

Device-level energy saving

Integrated Cable-free smart antennas
19%

Power consumption of a single AP

Huawei AirEngine Wi-Fi 7 – Ihre Lösung für digitale Höchstleistung

Outdoor high-density scenario
High protection, high performance



AirEngine 6776L, 8T8R

Indoor high-density scenario
Triple-radio, improving by 50%



AirEngine 6776, 8T8R

IoT scenario
Built-in and external on-demand expansion



AirEngine 6776-58TI, 8T8R

Dense room scenario
Gigabit Wired On Demand Connectivity



AirEngine 5773, 4T4R

Large-scale campus indoor model
10G Wireless Drives Innovation and Exploration



AirEngine 8771-X1T, 12T12R

Medium-sized campus indoor model
High performance and cost-effectiveness



AirEngine 6776, 8T8R
AirEngine 5776, 6T6R

Small-scale campus indoor model
Optoelectronics on demand



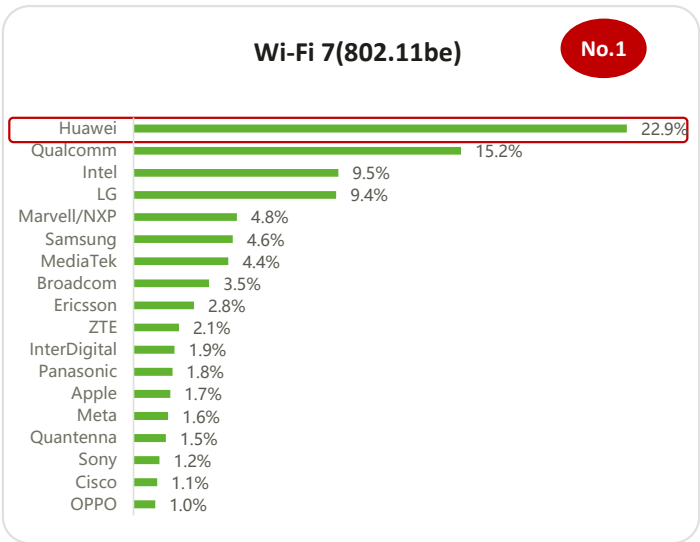
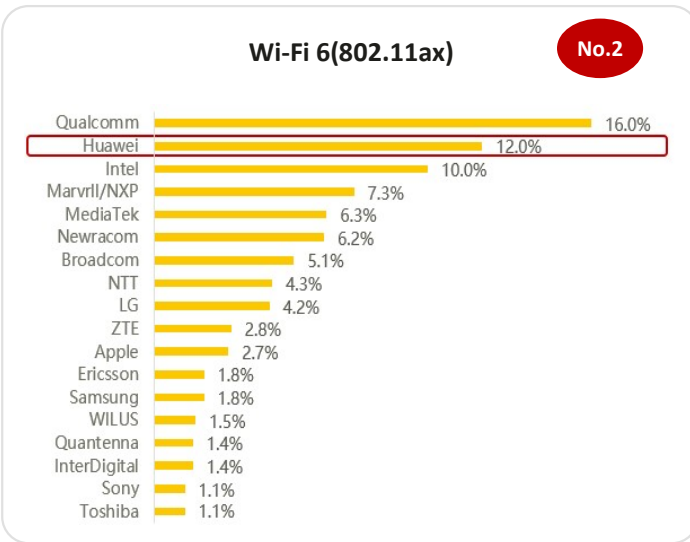
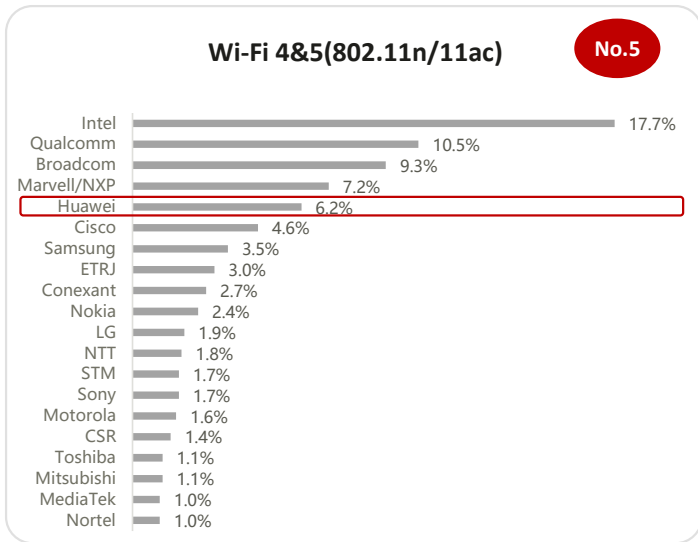
AirEngine 5773, 4T4R

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Huawei Wi-Fi 7: Führend mit 22,9 % Beitrag zur Standardisierung

Top 20 Wi-Fi Standard Contribution Rankings





2017

Huawei Launches
the Industry's First Wi-Fi 6 AP



2023

Huawei Launches
Industry's First Enterprise-Class Wi-Fi 7



2024

Huawei Launches
All-Scenario Wi-Fi 7

Source: NGB

Huawei als Leader im Gartner Magic Quadrant 2024 für LAN- und WLAN-Infrastruktur

Continuous Innovation and Advancement



Magic Quadrant™ for Enterprise Wired and Wireless LAN Infrastructure

Named a **Leader** for strong Wi-Fi 7 portfolio, and network assurance capabilities for high-quality experience in key applications and VIP users.

Huawei strengths

- **Strong product portfolio:** Huawei has a robust wired and wireless product portfolio that continuously monitors connectivity to increase performance and stability.
- **Experience-centric network configuration and management:** The iMaster NCE-Campus network management platform provides experience-centric wired and wireless LAN service quality and network assurance services.

2024Gartner MQ report

Huawei Wi-Fi 7 – Globale Anerkennung und Einsatz bei 160+ führenden Unternehmen



Thank you.

把数字世界带入每个人, 每个家庭,
每个组织, 构建万物互联的智能世界。

Bring digital to every person, home and
organization for a fully connected,
intelligent world.

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