

Advantages LANCOM LX-6400 vs. LANCOM LX-6200



Advantages of the LANCOM LX-6400 in high-density scenarios

The LANCOM LX-6400 makes optimal use of the advantages offered by the Wi-Fi 6 standard:

Twice the total throughput

With 4×4 MU-MIMO, it achieves twice the total throughput of the 2×2 MU-MIMO with the LX-6200. The higher available data rates mean that the radio medium is used more effectively and the data is transmitted in a shorter time. This cuts the load on the medium and enables a greater concurrent volume of transferable data.

The greater total throughput offers more capacity to more clients, which is particularly interesting when operating limited channel widths. One example is the limit of 20 MHz, which is commonly used in HD scenarios to avoid the multiple use of channels.

Ideal for high-density scenarios

Furthermore, the utilization of radio-field capacities is fully optimized—especially in high-density scenarios—by OFDMA, a technology that uses sub-carriers of a Wi-Fi channel to transport data packets for different clients. The Wi-Fi experience is improved by the simultaneous transport of numerous small data packets, especially in installations with large numbers of clients or high concurrent data-traffic volumes.

More efficient 2.4 GHz

The advantages of 4×4 MU-MIMO technology in combination with OFDMA are most apparent in the highly congested 2.4-GHz spectrum. Particularly in this frequency band, the high speeds and concurrent service to multiple clients improves the user experience as the end devices are more responsive.

This makes the LANCOM LX-6400 the ideal access point for high-density environments such as in classrooms and lecture halls, but also in offices with numerous notebooks.

The data rates that can be achieved and the Wi-Fi technology that enables them are shown by the tool under <https://www.lancom-systems.com/products/wireless-lan/wi-fi-data-rates/>.

A direct comparison of the technical characteristics

	LX-6400	LX-6200
Wi-Fi 6 MU-MIMO	4×4 (2.4 GHz) + 4×4 (5 GHz)	2×2 (2.4 GHz) + 2×2 (5 GHz)
Max. channel bandwidth	160 MHz @ 2×2 5 GHz	80 MHz
Ethernet ports	1× 2.5 Gigabit (PoE) + 1× 1 Gigabit	1× 1 Gigabit (PoE)
Download (DL) MU-MIMO	✓	✓
Upload (UL) MU-MIMO	✓	—
DL/UL OFDMA	37/37 users	8/4 users
SSIDs	32	32
Clients per access point	512	512
Bluetooth (BLE)	✓	✓
USB	3.0	2.0
Power consumption	24 W max.	17.3 W max.
Variant with ext. antennas available	✓ (LX-6402)	—

More information on Wi-Fi 6 technology is available in this white paper:
https://www.lancom-systems.com/download/whitepaper/WP_Wi-Fi-6_EN.pdf