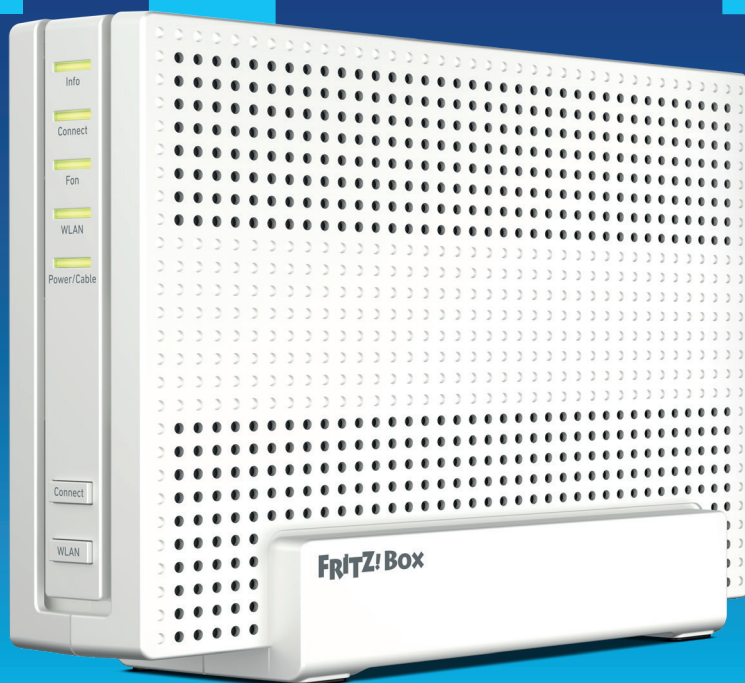


FRITZ!

FRITZ!Box 6690 Pro



The High-End cable FRITZ!Box with Wi-Fi 7

The FRITZ!Box 6690 Pro sets new standards for cable connectivity. Equipped with Triband Wi-Fi 7, it delivers ultra-fast wireless speeds.

Thanks to integrated DOCSIS 3.1 support, the FRITZ!Box 6690 Pro achieves cable speeds of up to 6 Gbps. With a 2.5-gigabit LAN port and additional 1-gigabit LAN ports, it is perfectly suited for demanding network environments.

Seamless Zigbee integration enables smart home devices to connect effortlessly to the home network and be managed through the intuitive FRITZ!Box operating system. Regular updates and top-tier security standards ensure reliable and secure performance.

Product highlights



Integrated modem for cable connection with DOCSIS 3.1 access



Triband Wi-Fi 7: High-speed Wi-Fi up to 5760 Mbit/s + 5760 Mbit/s + 688 Mbit/s



Smart Home functions for the intelligent home with DECT and Zigbee devices



Mesh Wi-Fi: an intelligent Wi-Fi system for the home network



FRITZ!OS: Media server, NAS, MyFRITZ!, auto update



Technical specifications

Interfaces

- 1x cable internet access via F-type connector 75 Ω
- Wi-Fi 7 on 6GHz, 5GHz and 2.4 GHz simultaneously
- 1x 2.5 gigabit LAN, 3x 1 gigabit LAN
- 2x a/b port for analog phones, fax and answering machine
- DECT base station for up to 6 cordless telephones
- Smart home applications via DECT ULE and Zigbee
- 2x USB 3.0 port for printers and storage in the network
- VPN Support (IPSec and WireGuard) + VPN passthrough

Cable/Routing

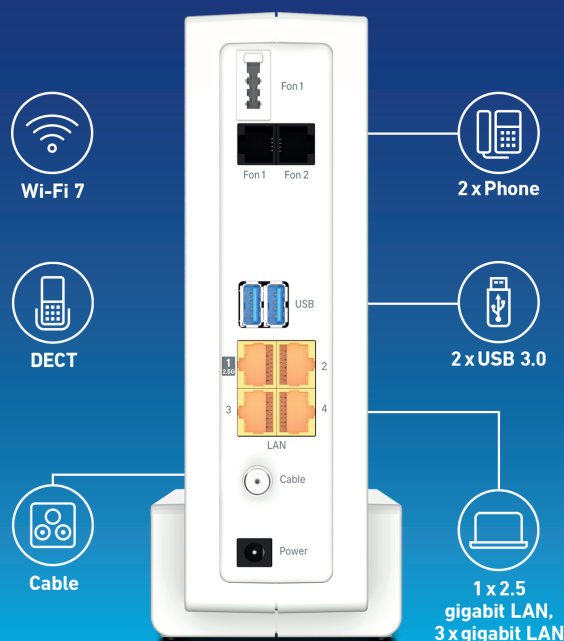
- **RF-Parameter: OFDM / OFDMA (DOCSIS 3.1)**
- Channel bonding: up to 2 OFDM-Channels per direction
- Modulation: 16 - 4096 QAM (Receive), BPSK, QPSK, 4 - 4096 QAM (Send)
- Channel bandwidth: 24 - 192 MHz (Receive), 6.4 - 96 MHz (Send)
- Frequency Range (configurable diplexer): 108 - 1218 / 258 - 1218 MHz (Receive), 5 - 85 / 5 - 204 MHz (Send)
- **RF-Parameter: SC-QAM (DOCSIS 3.0 & 3.1)**
- Channel bonding: up to 32 SC-QAM (Receive), up to 8 SC-QAM (Send)
- Modulation: 64 - 256 QAM (Receive), QPSK, 8-64 QAM (Send)
- Channel bandwidth: 8 MHz (Receive), 200 kHz, 400 kHz, 800 kHz, (Send) 1.6 MHz, 3.2 MHz, 6.4 MHz (Send)
- Frequency range: 108 - 1002 MHz (Receive), 5 - 85 MHz (Send)

Wi-Fi

- Wi-Fi 7 access point, backward compatible to the IEEE 802.11.a/g/n/ac/ax wireless standards:
- 6 GHz (2x2) up to 5760 Mbit/s
- 5 GHz (4x4) up to 5760 Mbit/s
- 2.4 GHz (2x2) up to 688 Mbit/s
- Supports Multi-Link Operation (MLO) and puncturing
- Wi-Fi Network encryption with WPA3/WPA2
- Mesh Wi-Fi - simply combine several FRITZ! products into one intelligent Wi-Fi network and extend the home network
- Wi-Fi protected Setup (WPS)
- Wi-Fi can be turned on and off via button, connected telephones, or schedule
- Wi-Fi guest access - secure surfing for guests

LAN

- LAN 1: 2.5 gigabit Ethernet, 10/100/1000/2500 NBase-T
- LAN 2-4: 1 gigabit Ethernet, 10/100/1000 Base-T



Telephony / DECT

- DECT base station for up to 6 cordless phones
- Encrypted voice transmission enabled by default
- Supports HD telephony for natural sound quality
- 5 integrated answering machines, including voice-to-mail
- Fax function with email forwarding (fax-to-mail)
- Extensive telephony functions such as call forwarding, internal calls, three-way call, call diversion, call blocking, alarm, baby monitor, VIP calls, and call blocking
- Internet telephony SIP-compliant in accordance with RFC 3261
- Registration of IP phones (LAN/Wi-Fi) according to SIP standard
- FRITZ!App Fon for Apple iOS and Google Android
- DECT Eco: Deactivate DECT radio network for maximum ergonomics

Network

- IR-069 (TR-069/104/140) support including documentation of the data model in accordance with the Broadband Forum TR-106
- TR-369 support for real-time monitoring with multi-controller support including rights management
- Speed test via iPerf and TR-471 (depending on the platform)
- SPI firewall, DoS protection
- IPv6 and IPv4 dual stack including DS Lite with PCP support
- 802.1Q support for WAN connections
- Multiservice (e.g. HSI, VoIP, TR-069, IPTV) WAN connection type with DHCP
- Public subnet configuration (up to /28) for addressing clients publicly in the LAN
- Exposed Host / Port Forwarding
- VPN support (IPSec and WireGuard), VPN passthrough
- No vendor lock-in. Platform and data remain with ISP (Internet Service Provider)
- ACS-URL via DHCP Option 43
- IGMP proxy (v3 and backward)

- DNSSEC and eDNS0 support
- Stateful packet inspection firewall with port release for secure browsing

FRITZ!OS

- Offers a clear browser-based user interface that's easy to use.
- User interface protected by pre-configured and device-specific password
- Sensitive user settings protected by 2FA, including support for authenticator apps
- Multilingual user interface
- Secure remote access to your FRITZ!Box with MyFRITZ!
- Convenient features like push service, cloud contacts, online storage
- Parental controls with time budget, browser-based user interface that's easy to use.
- Wake on LAN over the internet
- Wi-Fi calls in the home network with iPhone and Android smartphones
- FRITZ!Box interface specially designed for smartphones and tablets
- Home network overview, help function with full-text search, and much more
- Free updates add new features: <https://en.avm.de/products/fritzos/>
- Free FRITZ!Apps for telephony, smart home, remote access to the FRITZ!Box, and Wi-Fi optimization
- Security assistant with diagnostic tool and auto-update

Device Properties

Dimensions in mm (W x H x D):

84 x 206 x 277 mm

FRITZ!

Why?



Direct contacts in Sales, PreSales, and Engineering



Training sessions with FRITZ! staff for engineering and support



Technical support (also on site) and sales consultation



In-house hardware and software development in Berlin



Real-time monitoring with the open TR-069 & TR-369 standards



Regular updates with security as top priority

FRITZ!OS

FRITZ!OS is the genius of the FRITZ! family. With this smart operating system, the FRITZ! team opens up a broad spectrum of possibilities in your customers' home networks. Your FRITZ!Box uses the most advanced technologies while providing for the right balance between exciting features and simple operation.

Software updates

FRITZ!OS, our router operating system, is updated regularly to implement new features and to guarantee long product life cycles. And all updates are offered to our customers free of charge.

Device management

The FRITZ!Box supports not only OMCI management but also offers comprehensive support for TR-069 and USP (TR-369), right out of the box. The use of open standards puts a broad palette of ISP-relevant management parameters at your disposal, no matter which technology you use.

Cable Expertise

With our cable development in Berlin, you benefit from direct access to key project management and development contacts. Many cable features, including packet processing optimizations and energy-saving mechanisms, are in-house developments. The FRITZ!Box 6690 Pro supports basic PacketCable 2.0 functionality along with vendor-specific MIB extensions, ensuring compatibility with diverse network management systems.

Eco design

FRITZ! products are characterized by low power consumption and configurable energy-saving modes. Production in Europe means short transport routes, secure labor conditions, and the use of environmentally sustainable materials. Many years of software updates with expanded functions, bug fixes, and security updates ensure long life cycles.

Product quality

Developed and produced in Germany and Europe, our FRITZ!Box fulfills its market promise to its end customers, by ensuring proven reliability with success in the field. Before being launched on the market, the products run through extensive lab phases which offer customers the opportunity to evaluate new features in advance.

An all-in-one device

A FRITZ!Box is a joint router, installed directly at the internet connection. This saves power, while ensuring convenient operation and simplifying device management. Internet, Wi-Fi, streaming, telephony, smart home, and much more – combined in a single device.

fritz.com

FRITZ! GmbH • Alt-Moabit 95 • 10559 Berlin, Germany • Phone +49 30 399 76-0 • info@fritz.com