# FRITZ!Box 5690

## Next-generation performance: The FRITZ!Box with Wi-Fi 7

The FRITZ!Box 5690 sets new standards for direct fiber optic connections. Equipped with innovative Wi-Fi 7, the FRITZ!Box 5690 enables Wi-Fi connections with transmission rates of up to 5760 Mbit/s (5 GHz) and 688 Mbit/s (2.4 GHz).
Thanks to advanced technology, even more users can now easily use the home network at the same time.
With the integrated 2.5-gigabit WAN/LAN and 2.5-gigabit LAN port, the FRITZ!Box 5690 is also ideal for operation behind a fiber optic modem (ONT).

The FRITZ!Box 5690 offers new smart home features:
With integrated DECT ULE features smart home devices can now be seamlessly integrated into the home network.
The FRITZ!OS operating system makes it easy to integrate and control these devices. In addition, the highest security standards (WPA3/WPA2) ensure increased protection.

## Product highlights

- Maximum speed for GPON and AON connections
- Innovative Wi-Fi 7: High-speed Wi-Fi up to 5760 Mbit/s + 688 Mbit/s
- Smart home features for the intelligent home with DECT
- Wi-Fi Mesh – Intelligent Wi-Fi system for the home network
- FRITZ!OS: Media server, NAS, MyFRITZ!, auto update

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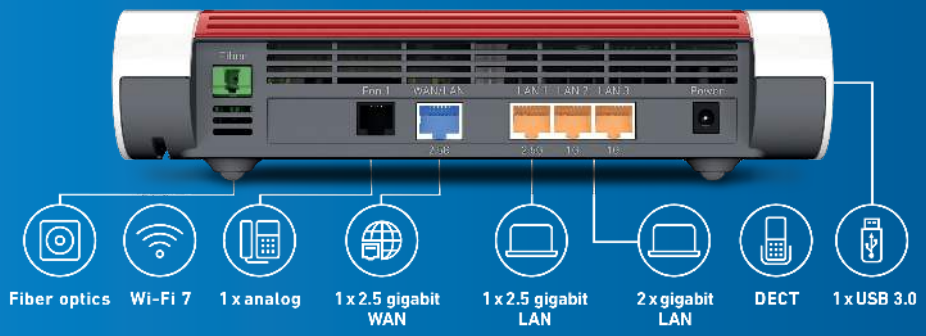
# Technical specifications




## Ports and interfaces

- Wireless router for fiber optic connections
- Supports a direct connection to fiber optics via GPON (ITU-T G.984) or AON (IEEE 1000BX-10)
- Router can be used with a fiber optic or cable modem, as well as with a mobile network dongle
- 1 x 2.5-gigabit WAN/LAN, 1 x 2.5-gigabit LAN, 2 x gigabit LAN
- Stateful Packet Inspection Firewall with port sharing for secure surfing
- Parental controls with time budget, youth protection module, blocklist and allowlist
- Complete support for IPv6 in the internet, home network and for telephony
- Secure remote access via the internet with VPN
- Security wizard with diagnostic tool and auto updates

## Wi-Fi

- Wireless access point with Wi-Fi 7 up to 5760 Mbit/s (5 GHz) and 688 Mbit/s (2.4 GHz)
- Dual-band concurrent Wi-Fi™ 7 (802.11be)
  - 2.4 GHz (2x2 MIMO) iFEM
    - 2.4 GHz frequency bands
      - 2400 - 2483.5 MHz - power up to 20 dBm
  - 5 GHz (4x4 MIMO) eFEM
    - 5 GHz Frequency bands
      - 5150 - 5250 MHz
      - 5250 - 5350 MHz with Dynamic Frequency Control - Transmission Power (max) = 23 dBm / 200 mW EIRP
- Extend the home network with Mesh Wi-Fi
- Compatible with IEEE 802.11a/g/n/ac/ax/be
- Wi-Fi network encryption with WPA3/WPA2
- Wi-Fi can be turned on/off by button, connected telephones or schedule
- Supports Multi-Link Operation (MLO) and puncturing
- Wi-Fi guest access – secure browsing for guests
- Can be mounted on a wall or table/desk

### Wifi Requencies

| Frequency | Frequency Range | max. transmitter power |
|---|---|---|
| 2,4 GHz | 2400 - 2483 MHz | 100 mW |
| 5 GHz | 5150 - 5350 MHz | 200 mW |
| | 5470 - 5725 MHz | 100 mW |

## WAN/ LAN

- Internet access via 2.5G Ethernet port; can be used as WAN or LAN port (switchable)
- LAN 1: 2.5 gigabit Ethernet, 10/100/1000BASE-T and 802.3bz-2016 (NBase-T), 2.5 Gbit/s
- LAN 2 + 3: Gigabit Ethernet, 10/100/1000 BASE-T, 1 Gbit/s

## Fiber

- LC APC, wavelength: TX 1310nm
- RX 1490 nm
- Class 1 laser

AON:

- EEE 802.3ah 2004 1000BASE-BX10
- Transmit power: -9 to -3 dBm
- Reception range: -23 to -3 dBm, Range: 10 km

GPON:

- Suitable for ITU-T G.984.2/984.5
- Supports rogue ONU detection
- Transmit power: 0.5 to 5 dBm
- Reception range: -28 to -3 dBm (Class B+)

## Telephony / DECT

- Telephone system for IP-based connections
- Integrated DECT base station for up to 6 cordless phones
- 5 integrated answering machines featuring voice-to-mail
- Fax function with fax-to-mail
- Internet telephony SIP-compliant (RFC 3261)
- Registration of IP telephones (LAN / SIP-compliant)
- Support for SIPTLS and SRTP
- FRITZ!App Fon for Apple iOS and Google Android

| Frequency | Frequency Range and Transmitter power |
|---|---|
| DECT | • Frequency Range: 1880 MHz - 1900 MHz<br>• Maximum transmitter power: 250 mW |

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## Networking

- TR-069 (TR-069/104/140) support including documentation of the data model in accordance with 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 PPPoE, DHCP, static IP, bridging encapsulation
- 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, or PPPoE (Zero Touch operation launch)
- IGMP proxy (v3 and backward)
- DNSSec and eDNS0 support

## FRITZ!OS

- FRITZ!Box: a clear, easy-to-use, browser-based user interface
- User interface protected by device-unique preconfigured password
- Sensitive user settings protected by 2FA
- including support for authenticator apps
- Multilingual user interface
- Access the FRITZ!Box securely and from anywhere with MyFRITZ!
- Convenience features such as parental controls, push service, cloud contacts, online storage
- Wake on LAN over the internet
- Wi-Fi telephone calls in the home network with iPhones and Android smartphones
- FRITZ!Box interface specially designed for smartphones and tablets
- Home network overview, help functions with full-text search and much more
- New features provided in free updates: avm.de/en/fritzos
- Free FRITZ!Apps for telephony, smart home, remote access to the FRITZ!Box and Wi-Fi connection optimization

## Physical specifications

Dimensions in mm (W x H x D): 250 x 184 x 69 mm

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# Why AVM?

- Direct contacts in Sales, PreSales, and Engineering
- Training sessions with AVM staff for engineering and support
- Technical support (including on site) and sales consultation
- In-house hardware and software development in Berlin
- Real-time monitoring with the open TR-069 & TR-369 standards
- Prepared for zero-touch operation launch

## Fiber optic expertise

With our fiber optic development in Berlin you benefit from direct contact to relevant contacts in project management and development. Many of the fiber features are in-house developments, including Listen before Talk, packet processing optimizations and energy-saving mechanisms.

## FRITZ!OS

FRITZ!OS is the genius of the FRITZ! family.
With the smart operating system, the FRITZ! team opens up a broad spectrum of possibilities in your customers‘ home networks. FRITZ!Box uses the most advanced technologies while ensuring the right balance between exciting features and ease-of-use.

## Software updates

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

## Device management

Besides OMCI management, the FRITZ!Box also masters comprehensive support for TR-069 and USP (TR-369), immediately right out of the box.
The use of open standards puts a broad palette of ISP-relevant management parameters at your disposal.

## 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, because our products are also available commercially. Before being launched on the market, the products are put through extensive lab phases, giving customers the opportunity to test drive new features in advance.

## An all-in-one device

A FRITZ!Box is a joint router and modem, 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 one single device.

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