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NETWORKS

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NR5101
5G NR Indoor Router

Get a head start on building your smart home and office. It's time to upgrade your network to constant reliable 5G connectivity, improve your network capacity to handle a greater number of connected devices. Empower your future with NR5101, let it be your backbone of your network and begin to live a smarter life!

Benefits

Speed, the Cornerstone for Future Life

5G offers the capacity to enable additional smart home and office capabilities that require high-bandwidth and low-latency. This assists the Internet of Things (IoT) expand rapidly. 5G coverage of the network is proliferating, which is destined to transform the tech in your home and office. NR5101 has 5G downlink speeds of up to 5 Gbps*, which can be the cornerstone of your smart life construction.

5G NR — 5G NR with up to 5 Gbps* download rate

Built in 6 high-gain 5G/LTE antennas + 2 external antenna ports

AX 802.11 — Sharable WiFi 6 with up to 64 devices

Failover function

Bridge and router mode

Easy management

5G EMPOWER THE FUTURE

Datasheet NR5101

Next-Gen Connectivity

When 5G meets WiFi 6, they can boost larger bandwidth and capacity than legacy solutions. These two cutting edge technologies come together in the NR5101, bringing new heights to performance and capacity for mobile users and IoT devices in homes and commercial buildings. With AX1800 WiFi 6, NR5101 can deliver up to 4x the speed compared to WiFi 5. Your networking power will stronger than ever!

Multifunction Router, All Up to You

NR5101 is not only a simple network router, but it also combines WLAN AP, LAN gateway, and USB 2.0 all into one box. Its WiFi 6 can share up to 64 wireless devices simultaneously. Operates both in bridge and router mode, making the device easy to deploy and integrate into your existing environment. NR5101 offers more than just 5G, the variety of usages are entirely up to you!

Non-Stop Connectivity

NR5101 is equipped with the highest-level 5G technology, connections for downlink speeds can go up to 5 Gbps* with 6 built-in 5G/LTE/3G antennas. It's designed for those who need a consistent high-speed connection when traditional wired broadband is slow, spotty or unavailable. Its failover capability ensures that you'll have internet access even during a network outage, which you can make it serve as a primary or backup option for your internet. Its external antenna ports also allow you to improve signal reception.

Security without Compromise

Protect your smart home and office. When these places are full of connected network devices, they become possible entry points for cybercriminals. NR5101 is shipped with essential security features.
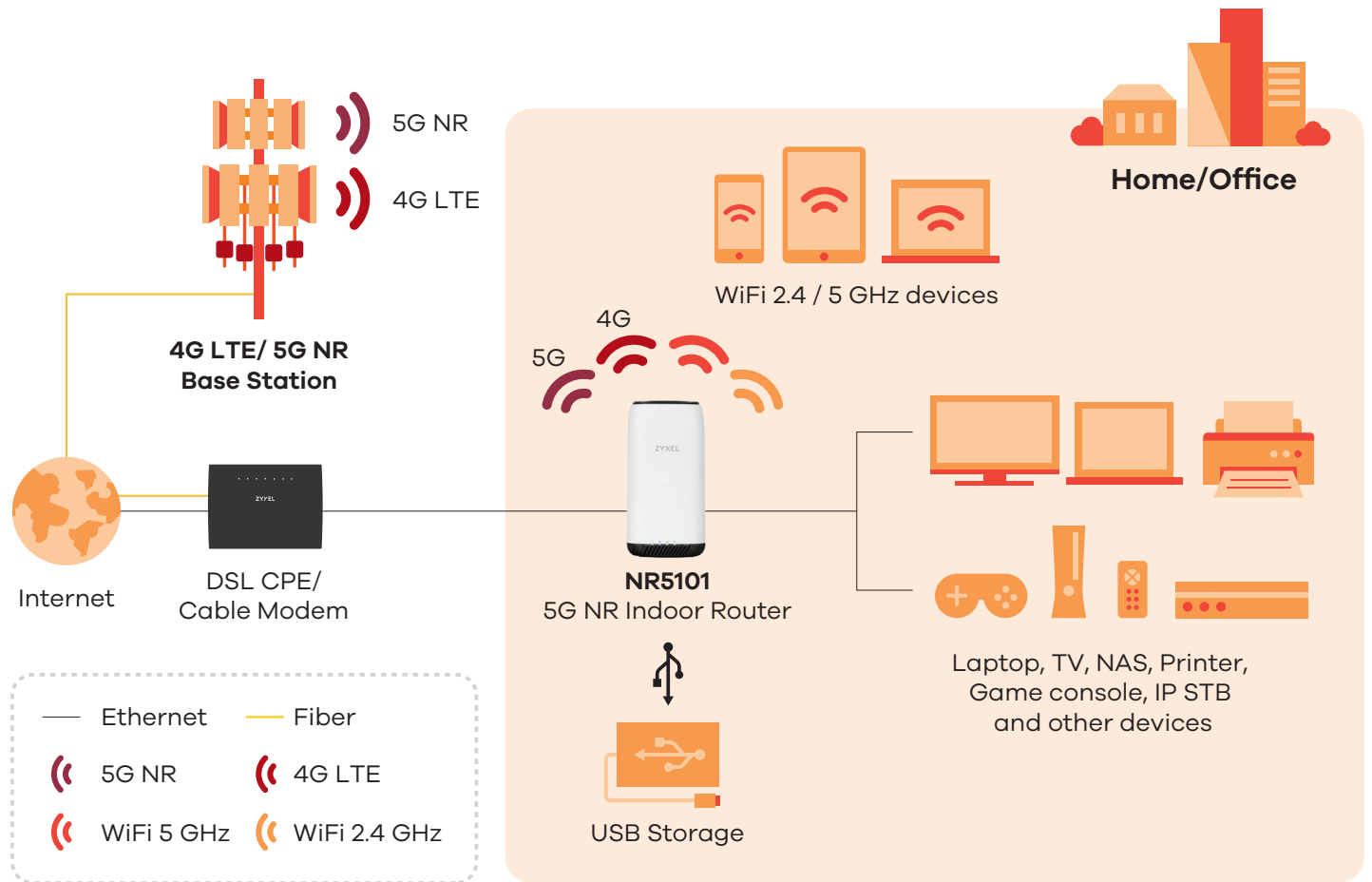
- Multiple SSIDs/hide SSIDs
- NAT/NAPT firewall
- DoS attack detection
- WPA2 and WPA3
- Application-level firewall
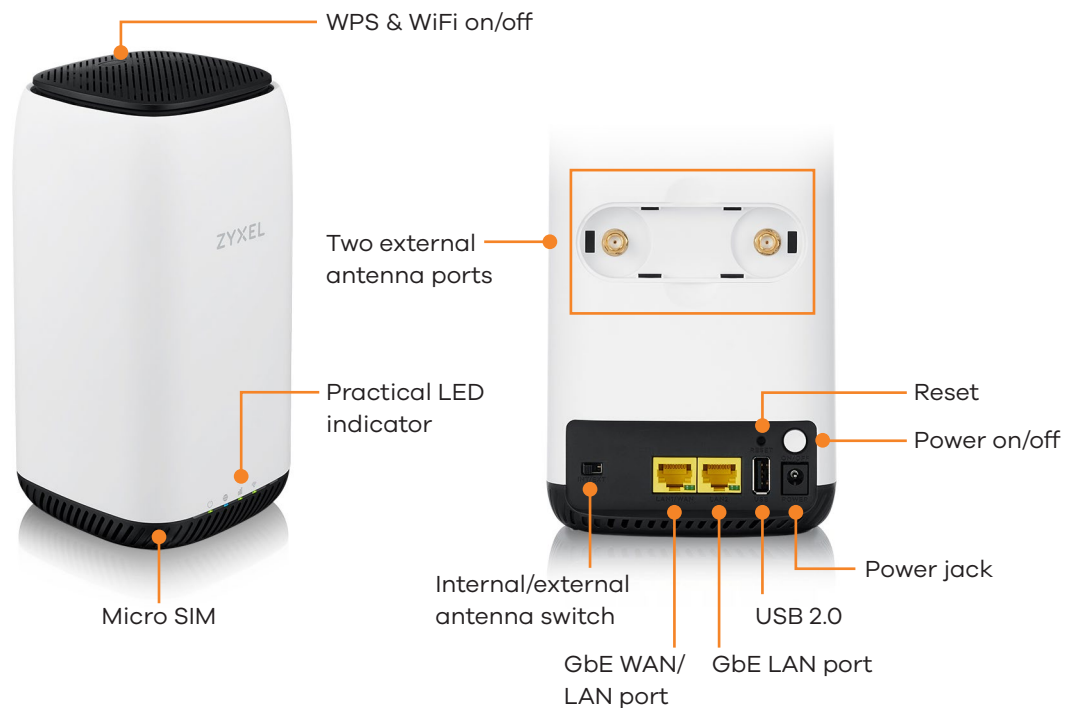- LAN MAC/IP filtering
- URL filtering
- SPI

Easy App & Web Management

NR5101 is designed with smooth, elegant exterior with a discreet, sleek design making it both durable and stylish. Its plug-and-surf capability and intuitive free app combination offers an enjoyable, easy-to-use management experience through either a mobile device or desktop. NR5101 makes your networking life easier and smarter!

Application Diagram

4G LTE/ 5G NR Base Station

5G NR

4G LTE

Internet

DSL CPE/ Cable Modem

NR5101
5G NR Indoor Router

USB Storage

5G
4G
WiFi 2.4 / 5 GHz devices

Home/Office

Laptop, TV, NAS, Printer, Game console, IP STB and other devices

—— Ethernet	—— Fiber	
5G NR	4G LTE	
WiFi 5 GHz	WiFi 2.4 GHz	

Interface Description

WPS & WiFi on/off

Two external antenna ports

Practical LED indicator

Micro SIM

Internal/external antenna switch

GbE WAN/ LAN port

GbE LAN port

USB 2.0

Reset

Power on/off

Power jack

Specifications

Hardware Specifications

5G NR interface
- 3GPP Release 15 standard-compliant
- Supports both NSA and SA modes
- Supports frequencies: n1/n3/n5/n7/n8/n20/n28/n41/n77/n78/n38/n40
- DL 4×4 MIMO: n1/n3/n7/n38/n40/n41/n77/n78
- Data rates:
  - 5G SA: DL 4.2 Gbps; UL 900 Mbps*
  - 5G NSA: DL 5 Gbps; UL 650 Mbps*
  Supports DL modulation QPSK, 16-QAM, 64-QAM and 256-QAM
- Supports UL modulation QPSK, 16-QAM, 64-QAM and 256-QAM
- Output power:
  - Class 2 (26 dBm) for 5G NR n41/n77/n78
  - Class 3 (23 dBm) for 5G NR n1/n3/n5/n7/n8/n20/n28/n38/n40

4G LTE interface
- 3GPP UE Category 20 standard-compliant
- Supports frequencies:
  - LTE-FDD: B1/B3/B5/B7/B8/B20/B28/B32/B38/B39
  - LTE-TDD: B40/B41/B42
- DL 4×4 MIMO:
  - LTE-FDD: B1/B3/B7
  - LTE-TDD: B38/B40/B41/B42
- Peak data rates:
  - Max. DL 2 Gbps/UL 200 Mbps*
- 4 internal antennas
- Supports DL modulation QPSK, 16-QAM, 64-QAM and 256-QAM
- Supports UL modulation QPSK, 16-QAM, 64-QAM and 256-QAM
- Output power:
  - Class 2 (26 dBm) for LTE B38/B40/B41/B42
  - Class 3 (23 dBm) for FDD/TDD LTE bands

UMTS/EDGE/GPRS/GSM Air interface
- Standard-compliant: DC-HSDPA/HSPA+ compliant
- DC-HSDPA/HSPA+ standards-compliant
- Supports frequencies: B1/3/5/8

- Peak data rates:
  - DC-HSPA+ downlink data rates up to 42 Mbps*
  - HSUPA uplink data rates up to 5.76 Mbps*
  - UMTS data rates up to 384 Kbps*

WiFi Air Interface
- Wireless standard: IEEE 802.11 b/g/n/a/ac/ax
- Wireless speeds:
  - Link rates up to 573 Mbps* for 2.4 GHz
  - Link rates up to 1.2 Gbps* for 5 GHz
- Internal WiFi antenna:
  - Dual-band & concurrent 2x2 + 2x2
- WiFi antenna gain:
  - ~3 dBi for 2.4 GHz
  - ~5 dBi for 5 GHz

5G/4G/3G antennas
- 2 SMA connectors for external antennas
- 6 embedded omni-directional antennas
- Ultra-high band:
  - Up to 4 dBi peak gain
- High band and middle band:
  - Up to 4 dBi peak gain
- Low band:
  - Up to 2 dBi peak gain

Hardware interface
- Two 10/100/1000 Mbps Ethernet RJ-45 LAN ports, LAN1 can be configured for Ethernet WAN port
- LEDs:
  - Power indication
  - LTE connection status
  - LTE signal status
  - WiFi connection status
  - USB host status
  - LAN status
- Two external antenna connectors (SMA type)
- One 3FF/Micro SIM card slot
- One power on/off button
- One WPS/WiFi on/off button
- One LED on/off button
- One reset button
- One USB 2.0 host port for file sharing

Power consumption
- 24 W (peak)

Physical Specifications
- Item dimensions (WxDxH): 100 x 100 x 205 mm (3.94" x 3.94" x 8.07")
- Item weight: 600 g (1.32 lb.)
- Packing dimensions (WxDxH): 247 x 170 x 120 mm (9.72" x 6.7" x 4.73")
- Packing weight: 1600 g (3.54 lb.)

Environmental Specifications

Operating Environment
- Temperature: 0°C to 40°C (32°F to 104°F)
- Humidity: 10% to 90% (Non-condensing)

Storage Environment
- Temperature: -30°C to 70°C (-22°F to 158°F)
- Humidity: 5% to 95% (non-condensing)

Certification
- CE
- WEEE (Waste Electrical and Electronic Equipment) Directive certification
- RoHS (Restriction of Hazardous Substances) Directive certification
- HSF (Hazardous Substance Free)
- European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste

Package Contents
- Multiple-plug power adaptor
- Ethernet cable 1.8 m 8P8C
- Quick Start Guide
- Warranty card
- DoC
- Safety warranty

* The maximum data rates is a theoretical value. The actual data rates depend on the network environment.

Datasheet NR5101

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