ZYXEL
COMMUNICATIONS

NR7302

5G NR Outdoor Router

The Zyxel NR7302 5G NR Outdoor Router supports the latest 3GPP Release 16 standard for competitive 5G Fixed Wireless Access (FWA) network deployments. The device delivers high capacity and ultra-fast performance, making it a perfect choice for premium broadband services in suburban areas. Equipped with a compact form factor and a multi-type mounting kit, the NR7302 provides easy installation across a range of deployment locations. With eSIM service* support, users can easily activate their eSIM service and start enjoying seamless internet surfing instantly.

Benefits

Lightning-fast internet connectivity with SA/NSA dual-mode

The NR7302 supports a broad range of spectrum with 5G NR speeds up to 4.0 Gbps/900 Mbps** (DL/UL) and 4G LTE DL speeds up to 1.6 Gbps**, increasing network performance. Compliant with both Standalone (SA) and Non-Standalone (NSA) architectures, the NR7302 facilitates your deployments during 5G migration for faster service rollouts.

High-gain 4G/5G antenna for optimized signal coverage

Built-in 4x4 MIMO high-gain antennas of up to 9 dBi per element, the NR7302 can work under a near non-line-of-sight deployment scenario. With carrier aggregation, you can utilize the available spectrum resource to provide optimal signal coverage.

3GPP Rel.16 5G NR, up to 4 Gbps/900 Mbps (DL/UL)** with the support of NSA & SA mode

DL 4x4 MIMO, built-in four high-gain 4G/5G antennas of up to 9 dBi per element

Standard 802.3af/at 2.5GbE PoE PD

Bridge and router modes, IPv4/IPv6 dual-stack

FOTA and remote management via TR-069/TR369 (TR-181 and TR-143 speed test) HTTP/web GUI

IP67 hardened enclosure with industrial grade components

Zyxel Air app (iOS and Android)

Sustainable packaging design

5G

Easy network setup and management with Zyxel Air

The NR7302 comes with a subscriber app – Zyxel Air. The intuitive user interface of Zyxel Air provides your customers with the necessary assistance from device setup to routine management, minimizing service calls while enhancing user satisfaction.

Scan to Download

Zyxel Air

Download on the
App Store

GET IT ON
Google Play

Environmental durability

IP67-compliant K.21 6 KV/300 A lightning protection ensures longer device life even in harsh weather or other challenging environments. The NR7302 can operate within a wide range of temperatures and humidity, whether services are deployed in urban, suburban, or rural areas close to serving bases stations.

Remote management and upgrade

The NR7302 4G/5G radio interfaces support TR-069, TR-369, MQTT, and remote GUI for complete configuration. Firmware Over-The-Air (FOTA) enables remote firmware upgrades and troubleshooting through operator-initiated events.

Sustainable packaging design

Zyxel commits to a greener planet and improves the community's environmental well-being. The NR7302's packaging is made from 80% recycled paper with soy ink for Volatile Organic Compounds (VOC)-free printing.

Specifications

System specifications

IP networking
- Supports IPv4/IPv6 dual stack (NDP IPv6) & IPv6 464XLAT
- DHCP server
- ICMP supported
- Virtual Private Network (VPN) pass-through
- Multiple APNs with VLAN mapping

NAT
- Supports NAT/NAPT
- Supports NAT enable
- Supports DMZ
- Supports ALG
- Supports port forwarding
- Supports port triggering

Routing
- Supports bridge/router mode
- Supports dynamic DNS for first APNs
- Supports remote management under bridge mode
- Supports static/dynamic route setting for RIP v1/v2

IP firewall
- Firewall can be enabled or disabled via GUI
- Dos attack detection
- Supports SPI
- Application-level firewall (LAN to WAN such as FTP, HTTP, Telnet, Ping)
- Filters LAN MAC address (Black/white list)
- Filters LAN IP address
- Filters URLs

Management
- Supports local/remote device management and firmware via HTTP/HTTPS and WebGUI
- Supports TR-069 and TR-369 remote firmware upgrade management with TR-098/TR-181 data model
- APN management
- PIN/PUK management
- MQTT monitoring
- Network selection
- Network preference
- Operating frequency band selection
- SSH (local and remote SSH access)
- Supports UPNP IGD
- FOTA
- Supports restful API to support APPs
- Supports remote throughput testing by TR143 or TR471
- Supports Zyxel Air app (iOS and Android) for easy installation and local management

Hardware specifications

5G NR interface
- Standard-compliant: 3GPP Release 16
- Supports both 5G NSA and SA modes
- Supports frequencies: n1/n3/n5/n7/n8/n20/n28/n38/n40/n41/n75/n76/n77/n78
  - FDD: n1/n3/n5/n7/n8/n20/n28/n75/n76
  - TDD: n38/n40/n41/n77/78
- DL 4×4 MIMO:
  - 5G NR: n1/n3/n7/n38/n40/n41/n75/n76/n77/n78

- Data rates:
  - 5G SA: DL 4.0 Gbps; UL 900 Mbps**
  - 5G NSA: DL 4.0 Gbps; UL 550 Mbps**
- Supports DL modulation QPSK, 16-QAM, 64-QAM, and 256-QAM
- Support UL modulation QPSK, 16-QAM, 64-QAM, and 256-QAM
- Output power:
  - Class 2 (26 dBm) for 5G n38/n41/n77/n78
  - Class 3 (23 dBm) for 5G n1/n3/n5/n7/n8/n20/n28/n38/n40

4G LTE interface
- Standard-compliant: 3GPP UE Category 20
  - Supports up to UL CA Cat. 18.
  - Supports up to DL CA Cat. 20.
- Supports frequencies:
  - LTE-FDD: B1/B3/B5/B7/B8/B20/B28/B32/B71
  - LTE-TDD: B38/B40/B41/B42/B43
- Peak data rates: DL 1.6 Gbps/UL 200 Mbps**
- Supports DL 4x4 MIMO: B1/B3/B7/B38/B40/B41/B42/B43/B71
- 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 3 (23 dBm) for FDD/TDD LTE bands

5G/4G antennas
- Four embedded directional antennas
- Ultra-high band: up to 9 dBi peak gain
- High band: up to 8 dBi peak gain
- Middle band: up to 7 dBi peak gain
- Low band: up to 2 dBi peak gain

Management WiFi AP Features (ODU)***
- 802.11 n/g/b, 2.4 GHz, N150**
- Hidden SSID
- MAC address filtering

Hardware interface
- One 2.5GbE RJ-45 PoE LAN port
- Two LEDs indicators:
  - Device status (Power/internet/WiFi status)
  - Signal strength
- One 3FF/Micro SIM card slot
- One reboot/reset button

Power consumption
- < 16 Watt

Physical specifications
- Item dimensions (WxDxH): 200 x 120 x 35 mm (7.87" x 4.73" x 1.38")
- Item weight: 665 g (1.47 lb.)
- Packing dimensions (WxDxH): 241 x 168.5 x 90 mm (9.49" x 6.63" x .3.54")
- Packing weight: 1395 g (3.08 lb.)

Environmental specifications

Operating environment
- Temperature: -30°C to 55°C (-22°F to 131°F)
- Humidity: 5% to 95% RH (non-condensing)

Storage environment
- Temperature: -40°C to 65°C (-40°F to 149°F)
- Humidity: 5% to 95% (non-condensing)

Ingress protection rating
- IP67

Lightning protection
- K.21 enhanced mode, 6 KV

Wind load testing
- GR 487 issue 4 (2013) standard complaint
- Beaufort scale level 12 wind force
- Wind speed 36 m/sec (~ 133 km/hr)

Certification
- CE
- UKCA
- 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 December 20, 1994 on packaging and packaging waste
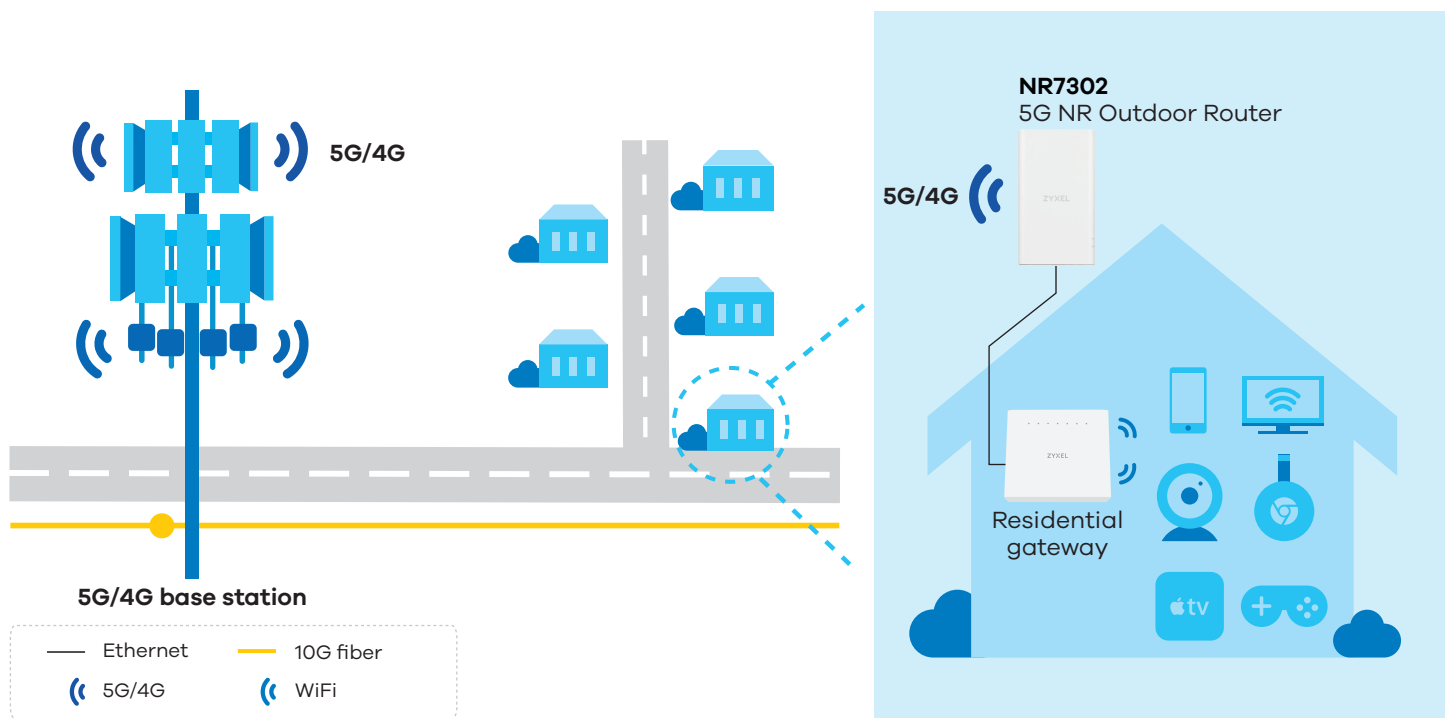
Package contents
- Standard 802.3af/at 2.5G Power of Ethernet (PoE) injector
- 10 m flat Ethernet cable white 8P8C
- Ethernet cable 1.8 m 8P8C
- Quick Start Guide
- Safety warning
- Wall/Pole/glass mounting kit

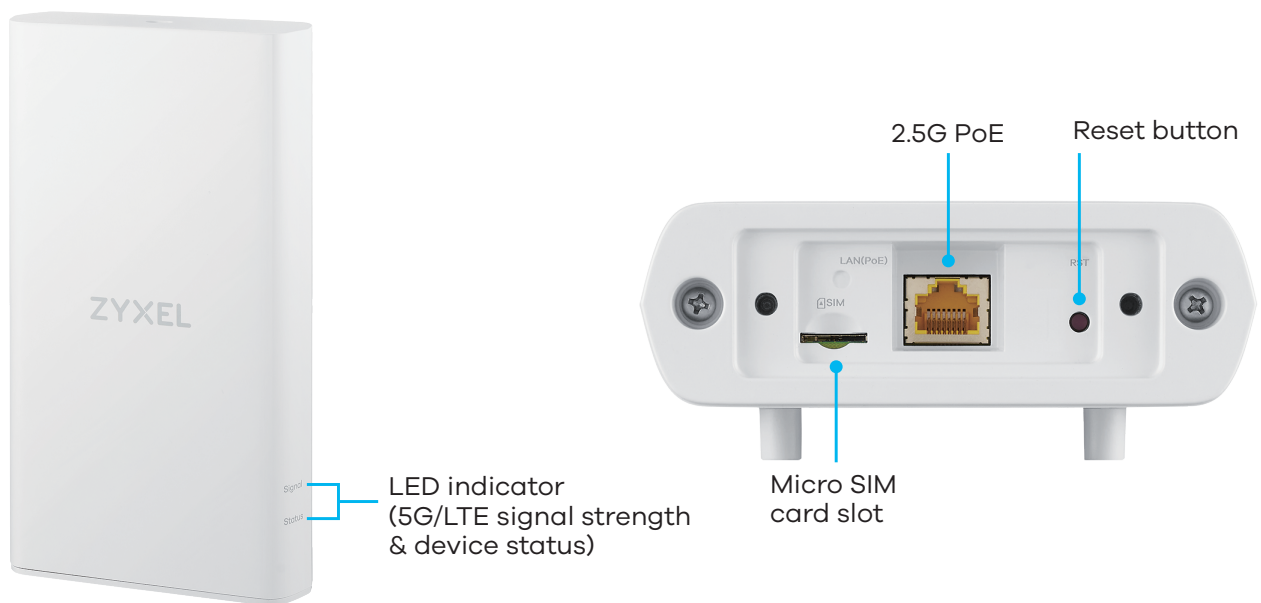* We offer eSIM service to our customers upon request.
** The maximum data rate is a theoretical value. The actual data rate depends on the operator.
*** WiFi interface is used for local management purposes only.

Application diagram

5G/4G

NR7302
5G NR Outdoor Router

5G/4G

Residential gateway

5G/4G base station

- Ethernet
- 10G fiber
- 5G/4G
- WiFi

Hardware description

2.5G PoE

Reset button

LAN(PoE)

SIM

RST

LED indicator
(5G/LTE signal strength
& device status)

Micro SIM
card slot

Datasheet NR7302

03/10/23