Nokia Industrial 5G fieldrouter FRRx502e

Nokia Industrial 5G fieldrouter FRRx502e is an indoor ruggedized router that enables efficient traffic for machine communications and other business critical applications. Supporting a wide range of spectrum bands in both 4G and 5G, the fieldrouter FRRx502e integrates to your private wireless network, allowing you to get the most out of your existing systems, machines and infrastructure.

With anti-vibration design, this highly ruggedized router is ideal for industrial environments, especially manufacturing, logistics and other indoor scenarios. This router offers industrial-grade environmental qualifications, while providing high speed data services for video and other bandwidth-intensive applications.

Benefits

- Qualcomm SDX55 single chip solution
- 5G NR and LTE-A CAT16 dual mode
- Support both SA and NSA
- Ruggedized and anti-vibration design
- Powerful software features
- Support USB 3.1, serial ports and GE ports
- Web, TR069 and SNMP based device management

Technical specifications

Dimensions and weight

- Height: 51.5mm
- Width: 187mm
- Depth: 110mm
- Weight: <1Kg

Environmental

- Operating temperature: -40~70ºC
- Storage temperature: -40~85ºC
- Humidity: 5% ~ 95%
- Operating voltage: DC 12V~36V

Hardware specifications

Module	Fibocom FG150-AE	
Chipset	Qualcomm SDX55	
Technical standard	WAN • 5G NR/LTE/WCDMA LAN • IEEE 802.3/802.3u	
Cellular bands	5G NR n1/n3/n5/n7/n8/n20/n28/n38/n40/n41/n77/n78/n79 WCDMA • B1/B3/B5/B8/B19	LTE • B1/B3/B5/B7/B8/B18/B19/B20/B28/B32/B38/B40/B41/B42/B43
External port	• 4 x RJ45 Gigabit Ethernet ports • 2 x SIM Slots (4FF, Dual SIM Single Standby) • 2 x DI/DO • 1 x RS485 • 1 x RS232 • 1 x USB 3.0	
Antenna	6 SMA antenna ports	
MIMO	LTE/NR DL 4x4 MIMO, UL 2x2 MIMO	
LED indicators	• 1 x Power indicator • 1 x Network status indicator • 1 x SIM indicator • 3 x Signal strength indicators	
Button	1 x Reset or Restore Button	
Carrier aggregation	• LTE 3CA and UL intra-band CA	
Maximum data rate	5G SA Sub-6 GHz Data Rate • Uplink: 900 Mbps • Downlink: 1 Gbps LTE Data Rate • Uplink: 150 Mbps • Downlink: 1 Gbps	5G NSA Sub-6 GHz Data Rate • Uplink: 600 Mbps • Downlink: 1 Gbps WCDMA Data • Uplink: 5.76 Mbps • Downlink: 42 Mbps
Maximum transmit power	5G NR sub 6 bands • Class 3 -- 23dBm 4G LTE • Class 3 -- 23dBm	5G NR n41/n77/n78/n79 • Class 2 -- 26dBm (HPUE mode) WCDMA • Class 3 -- 23dBm
Power consumption	<24W	

Software specifications

Data services	• 4 x APNs (two for data, one for voice, one for management) • Multi PDN (up to 16 PDNs) • IPV4/IPV6 compliance	
LAN	• DHCPV4/DHCPV6 server/client • DNS and DNS proxy • DMZ • UPNP • ALG (optional) • Multicast • MAC address Filtering	
Management	Version management • Image checksum • Active version and backup version • Rollback mechanism when upgrade fail WebGUI/CLI • Different level of user login priority and different limitation and display • Encryption backup current settings and restore the backup settings • Export of current diagnosis results and operation logs • Statistics of LAN link status, transmit and receive traffic and up time Diagnostics SNMP HTTP/FTP Auto Upgrade(FOTA) USIM PIN management and card authentication USIM activation	TR069 • Upload/Download the ACS specified file • Download the configuration file • Configure & Queries parameters • Remote upgrade • Remote debugging operations • Cycle monitor
VPN and Routing	• Bridge mode/Bypass mode • NAT mode • Port mirror • ARP • IPV4/IPV6 dual stack	• Port forwarding • IPSec • PPTP • GRE tunnel • L2TP V2/V3 • VPN pass-through
Security	• Firewall • Mac address filtering • IP address filtering • URL filtering • Access control • HTTPS Login from WAN • DDOS attach protection • Hierarchical user management	

Compliance specifications

Certification compliance	CE
Environment compliance	• Cold: IEC 60068-2-1 • Dry heat: IEC 60068-2-2 • Damp heat cyclic: IEC 60068-2-30 • Change of temperature: IEC 60068-2-14 • Shock: IEC60068-2-27 • Free Fall: IEC60068-2-32 • Vibration: IEC60068-2-6

EN-DC and CA combination

For the EN-DC and CA combination table, refer the below link:

- EN-DC and CA combination table

Antenna details

For the Full-band Rubber Antenna details, refer the below link:

- Full-band rubber antenna

About Nokia

At Nokia, we create technology that helps the world act together.

As a B2B technology innovation leader, we are pioneering the future where networks meet cloud to realize the full potential of digital in every industry.

Through networks that sense, think and act, we work with our customers and partners to create the digital services and applications of the future.

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