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RELIABLE SECURE CONNECTIVITY

XWR9450G Series

Highly Industrial Substation LTE Router



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FEATURE HIGHLIGHTS

Market leader

- IEC61850-3 Compliance
- Serial SCADA protocols
- SFP Interface
- Expansion ready – mPCIe

Performance

- 4G/5G NR NSA (Q1 2025), 3G/UMTS, 2G/EDGE, NB-IoT, LTE 450 MHz
- Dual SIM
- Static & Dynamic routing
- QoS

Security

- IPsec, OpenVPN
- RADIUS, SNMPv3
- Firewall, VLAN
- Digitally signed FW

Reliability

- Industrial hardened design
- Approved for Power Substations
- −40 to +70 °C
- MTBF > 100 years

PRODUCT DESCRIPTION

XWR9450G cellular routers are designed for SCADA & Telemetry applications at critical infrastructure like Power and Water Utilities and Oil & Gas. They are also well suited to other applications where high reliability is required, such as POS, ATM and Security.

The XWR9450G has been designed with attention to detail, performance, quality and reliability. All relevant state-of-the-art concepts have been carefully implemented, meeting current and future market needs. With one SFP and four 1 Gb/s Ethernets, it is a top-of-the-line device when a highly reliable and secure cellular network is required.

XWR9450G security features include: Advanced Physical, Management, Access control and Data security mechanisms maintain network integrity in line with the robust demands of cyber security; Management access options are available, based on customer preferences and allowing different levels of secure access to be set; Cryptographic end-to-end tunneling secures data transmissions and the firewall blocks all unwanted traffic at the network boundary.

PRODUCT SPECIFICATIONS

Cellular interface	
Frequency bands W	4G/5G NR NSA - Band 1 (2100 MHz), Band 2 (1900 MHz), Band 3 (1800 MHz), Band 4 (2100 MHz), Band 5 (850 MHz), Band 7 (2600 MHz), Band 8 (900 MHz), Band 12 (700 MHz), Band 13 (700 MHz), Band 18 (850 MHz), Band 19 (850 MHz), Band 20 (800 MHz), Band 26 (850 MHz), Band 28 (700 MHz), Band 38 (2600 MHz), Band 40 (2300 MHz), Band 41 (2500 MHz), Band 66 (2100 MHz)
	3G UMTS/HSDPA/HSUPA - Band 1 (2100 MHz), Band 2 (1900 MHz), Band 3 (1800 MHz), Band 4 (2100 MHz), Band 5 (850 MHz), Band 6 (850 MHz), Band 8 (900 MHz), Band 19 (850 MHz)
	2G GSM/GPRS/EDGE - GSM 850 MHz, E-GSM 900 MHz, DCS 1800 MHz, PCS 1900 MHz
	LTE 450 Cat M1, 3GPP Release 14: B1, B3, B8, B20, B28, B31, B72 LTE 450 Cat NB1/2, 3GPP Release 14: B1, B3, B8, B20, B28, B31, B72 LTE 450 Cat M1, 3GPP Release 14: B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B25, B26, B27, B28, B66, B85 LTE 450 Cat NB1/2, 3GPP Release 14: B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B25, B26, B28, B66, B71, B85
Data rates	Up to 150 Mb/s downlink; 50 Mb/s uplink
SIM slot	2× Micro SIM (3FF)
Electrical	
Primary power	10 – 50 VDC
Power consumption	Average 7W
Interfaces	
Ethernet	4× Ethernet 10/100/1000 Base-T, Auto MDX 4× RJ45 bridged or routed
SFP	1× 10/100/1000 Base or T/1000Base-SX or 1000Base-LX 1× SFP
Serial	1× RS232/RS485 SW configurable Terminals (5 pins) 600 b/s – 1 Mb/s
USB	1× USB 3.0 / Host A
Antenna	2× SMA female – receiver diversity
Optional Expansions	
PCI slot	Cellular module or 2× RS232
Environmental	
IP Code	IP40
MTBF	> 900 000 hours (> 100 years)
Operating temperature	−40 to +70 °C (−40 to +158 °F)
Operating humidity	5 to 95% non-condensing
Mechanical	
Casing	Metal
Dimensions	132 H × 43 W × 110 D mm (5.20 × 1.69 × 4.33 in) 125 H × 45 W × 110 D mm (4.9 × 1.8 × 4.3 in)
Weight	0.50 kg (1.1 lbs) 0.45 kg (1.0 lbs)
Mounting	DIN rail, optionally: Flat-bracket or L-bracket

Security	
Management	HTTPS (Web) HTTPS (Web), SSH (CLI)
Role-based access control (RBAC)	4 levels (Guest, Tech, SecTech, Admin) 2 levels (User, Admin)
Yes	Yes
Firewall	Layer 2 – MAC, Layer 3 – IP, Layer 4 – TCP/UDP, SMS filter
AAA protocol	RADIUS
FW	Digitally signed
HW tamper	Case opening evidence
Software	
Fallback management	Yes
Connection supervision	Yes
Automatic connect recovery	Yes
SMS management	Yes
Routing	Static / Dynamic
BGP/OSPF/BABEL	Yes/Yes/Yes
QoS	Yes
NAPT	Yes
User protocols on Ethernet	Yes
Serial SCADA protocols	DNP3, DF1, IEC101, Modbus RTU, PR2000, RDS, Siemens 3964(R), COMLI, SAIA S-bus, Mars-A, UNI, Async Link
Serial to IP convertors	DNP3 / DNP3 TCP, Modbus RTU / Modbus TCP, Terminal servers
VPN	IPsec, GRE
NTP	Client, Server
SNMP	v1, v2c, v3
Approvals	
CE	RED; RoHS; WEEE
Spectrum	ETSI EN 301 511 V12.5.1 ETSI EN 301 908-01 V13.1.1 ETSI EN 301 908-02 V11.1.2 ETSI EN 301 908-13 V13.1.1 ETSI EN 303 413 V1.1.1
EMC	ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-5 V3.2.1 ETSI EN 301 489-19 V2.1.0 ETSI EN 301 489-52 V1.1.0
Product safety	EN 62368-1:2014 + A11:2017
RF health safety	EN 62311:2008
Electric power substations	IEEE 1613:2009 IEEE 1613.1:2013 EN 61850-3:2014
Environmental	EN 61850-3: 2014
Vibration & shock	EN 60068-2-6:2008 ETS 300 019-2-3:1994, Class 3.4 EN 61850-3:2014
Cyber security	EN 62443-3-2 EN 62443-4-2
Seismic qualification	EN 60068-2-27:2010
IP rating	EN 60529:1993 + A1:2001 + A2:2014

ORDERING INFORMATION

Model	Cellular	Ethernet	SFP	Wi-Fi	SIM	GPS	I/O
XWR9450G	LTE Cat4/5G NR NSA	4	1	1	2	1	1
XWR9450G-W-N-O	LTE Cat4/5G NR NSA	4	1	1	2	0	0

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WHO WE ARE

Built on 20 years of experience in designing and manufacturing industrial networking products, **Agatel** was established from the UK to serve the infrastructure and industrial sectors in EMEA markets with reliable connectivity for mission-critical systems in demanding environments.

Experienced in hardware and software design and integration, we produce high-quality yet cost-effective industrial networking and communication products with great customization capabilities and robust implementations, equipping our customers for reliable secure industrial networks.

WHAT WE OFFER

The needs of our customers' industry are different from those of corporate IT environments – industrial operating environments are tough and the impact of failure in the field can lead to business threatening situations, hence our products will have lifetimes in excess of 20 years.

From entry-level to high-performance industry-certified hardware, **Agatel** offers a full solution spectrum to suit our customers' budgets and application requirements, with features such as industrial-grade reliability, integrated security, network redundancy, and advanced performance.

Our product solution profile includes industrial Ethernet switches, network time servers, media converters, industrial wireless devices, and serial device servers, covering a wide array of mission-critical applications such as automation, security, transport, water, oil and gas, and power grids.

WHY CHOOSE US

We help our customers reduce downtime and operational costs of their industrial applications in harsh environments. Leading system integrators in EMEA rely on our niche technical expertise and product quality to increase their applications' robustness, revenues, and competitive differentiation.

Agatel ruggedized high-quality solutions are designed to deliver zero-network-downtime for harsh project demands, allowing for reliable connectivity to keep people and assets safe and secure in harsh and hazardous environments, and allowing customers to focus on growing their business.

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