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RELIABLE SECURE CONNECTIVITY

XIG4100 Series

Low Power industrial LTE Cat-1 Dual SIM, Cellular gateway



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FEATURE HIGHLIGHTS

- LTE Cat-1 cellular gateway
- Superb low power consumption at standby (< 40mW)
- Dual SIMs for redundancy
- 1x RS 232/422/485 COM ports
- 2x 10/100 BaseTx RJ45 Lan ports
- 1x external USB 2.0; 1x internal SD slot for flexible storage expansion
- Optional GPS and BT function for flexible application
- Compact Size Design. Metal housing with IP30 protection
- Operating Temperature -40 ~75 °C
- Multi-WAN Failover
- Secure VPN and Firewall Isolation
- IEC62443-4-2 Cybersecurity Compliance (coming soon)

PRODUCT DESCRIPTION

Agatel XIG4200 Industrial LTE-1 Gateway is an ultra-low power consumption LTE Cat-1 gateway providing highly reliable, long-distance wireless connectivity for remote monitoring applications. In addition to high EMC protection, wide-temperature operation, and rugged metal housing, XIG4200 series provides configurable power management mechanism to save device's power consumption.

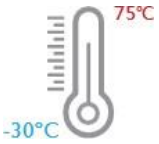
The ultra-low power consumption design makes XIG4200 ideal for deployment in power-constrained long-distance wireless networks, while its industrial-grade security and rugged design provides reliable data communications for serial and Ethernet devices connected to cellular networks. Operating on LTE Cat-1 provides better power consumption than standard LTE connectivity.

As governments continue to implement smart city infrastructure initiatives, the XIG4200 gateway with its smart power saving features make it ideal for use in solar-powered smart city applications. This gateway can simplify the process of transforming legacy lighting systems into smart energy-conserving systems by offering low-power seamless LTE connectivity in a rugged wireless device.

Cellular LTE Cat-1
LTE Cat-1 provides better power consumption than other LTE standards. With extended idle and sleep modes, XIG4200 provides more power efficiency than regular LTE equipment. Lower than 40mW power consumption at sleep mode allows you to easily deploy the device to power-concern environment.

Security
Integrating Firewall, Zone forwarding, and VPN, AGATEL XIG4200 allows you to connect your industrial network to the internet without fearing intrusions in your organization data.

Expandable SD Storage
An internal SD slot is available on platform. XIG4200 reserves the flexibility to extend the storage capacity. Expandable storage space enlarge the amount of reserved data records on LTE-1 gateway.



Harsh environments
AGATEL XIG4200 is proven to run at its maximum loading in the harshest EMC and climate environments.

APPLICATIONS

As a Low Power Consumption Industrial LTE-1 Gateway
XIG4100 is capable to act as a low power consumption gateway. It's very suitable to deploy it in a low power consumption required operating environment, such as the solar power battery system. Through the smart power management mechanism, it allowed devices to switch to idle mode or sleep mode during non-service phases. The devices can then be woken up via SMS or schedule management policy to activate the system to serve function. The power saving modes save system power consumption and make the battery application become more reality.

As a Cyber Security Gateway
XIG4100 is designed to act as a cyber security gateway. Un-secured network access will be denied by the firewall protection. Secured VPN tunnels enhance the security of your data transmission during network communication. Security and encryption are the fundamental functions by the XIG4200 .

SPECIFICATIONS

Cellular Interfaces			
Standards	**LTE Cat M1, HSPA**		
Modules			
	4G LTE Cat M1/NB2 (Global)		
	Modules	Dual SIM Support	
	BG95	Yes	
Frequency Bands			
	4G LTE Cat M1/NB2 (Global)		
	Cat M1	B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/ B20/B25/B26/B27/B28/B66/B85	
	Cat NB2	B1/B2/B3/B4/B5/B8/ B12/B13/B18/B19/B20/ B25/B28/B66/B71/B85	
Ethernet Interfaces			
Standards	**802.3u**		
Ports	**2 x RJ-45 10/100 BaseT(X), 1.5kV isolation**		

Serial Interfaces	
Connector Type	9-Pin D-Sub or 5-Pin Terminal Block
Ports	1 x RS-232/RS422/RS-485, software selectable
Baud Rate	1200~460,800 bps
Parity	None, Odd, Even
Data Bits	5, 6, 7, 8, software selectable
Stop Bits	1, 2, software selectable
Flow Control	None, Xon/Xoff, RTS/CTS (RS-232 only)
Terminal Resistor	-
Antennas	
Cellular	2 x Antennas for Better Signal reception
GNSS (Optional)	1 x Wide-Band GNSS 1559 ~ 1606 MHz (Not available for XIG4200 -C1-TB-EG version)
Bluetooth 5.1 (Optional)	1 x BT Antenna, 2.4 GHz
USB Interfaces	
Connector Type	USB Type A
Speed	USB 2.0
I/O Interfaces (Not available for XIG4200 -C1-TB-EG version)	
Digital Input	1 x DI, Photo coupled isolated (5VDC)
Digital Output	1 x DO, Digital Relay Output (1A@24VDC)
Power Characteristics	
Connector Type	Terminal Block
Input Voltage	9 ~ 36 VDC
Power Consumption	Idle < 2W; Sleep < 1.6W; Hibernate < 40mW
Power Redundancy	-
Reverse Polarity Protection	Yes
Physical Characteristics	
Housing	Metal housing, IP30 Protection
Dimension (W x H x D)	30 x 100 x 90 mm
Weight	TBD
Installation	DIN-Rail, Wall mount
Reset Button	Yes

Environmental Limits	
Operating Temperature	-40 ~ 75 °C
Storage Temperature	-40 ~ 85 °C
Ambient Relative Humidity	5 ~ 95 % (non-condensing)

Software Specifications	
Protocols	TCP/IP, UDP, ARP, DHCP, SMTP, Https, SNMP v1/v2/v3
Security	OpenVPN, IPSEC, L2TP
Management	WEB, SSH, Telnet, Syslog, SMS, Power saving
Firewall	ACL, NAT, Port-forwarding

REGULATORY APPROVALS

Regulatory Approvals		
Safety	UL/IEC 62368-1, EN62368-1	
EMC	EN55032, EN61000-6-4, EN55024, EN61000-6-2, FCC Part 15B, FCC Part 18	
Radio	Cellular	EN301489-1/-17/-52, EN301908-1 RSE for LTE EN301511 for GSM
	BT	EN300328, EN301489-1/-17
	GPS	EN303413, EN301489-1/-3
FCC (US)	FCC Part 15B, FCC Part 18, FCC part15C (15.247) Part 24E/27L/27H for WCDMA Part 22H/24E/27L/27H/27F/27M/90R for LTE	
NCC (TW)	Cellular	LTE: PLMN 10
	BT	LP0002 3.10.1

Test	Item		Value	Level
IEC 61000-4-2	ESD	Contact Discharge Air Discharge	±6KV ±8KV	3 3
IEC 61000-4-3	RS	Enclosure Port	10 (V/m) , 80-1000MHz 3 (V/m), 1.4-2.0GHz 1 (V/m), 2.0~2.7GHz	3 3 3
IEC 61000-4-4	EFT	DC Power Port Signal Port	±2.0KV@5.0kHz ±1.0KV @5.0kHz	3 3
IEC 61000-4-5	Surge	DC Power Port Signal Port	Line-to Line ±1KV Line-to Earth ±2KV Line-to Earth±2.0KV	3 3 3
IEC 61000-4-6	CS	DC Power Port Signal Port	10V, 150KHz~80MHz, 80%AM 10V, 150KHz~80MHz, 80%AM	3 3
IEC 61000-4-8	PFMF	Enclosure	30A/m (r.m.s), 50Hz or 60Hz	4
Shock	IEC 60068-2-27			
Freefall	IEC 60068-2-32			
Vibration	IEC60068-2-64			
RoHS	Yes			
MTBF	TBD			
Warranty	5 years			

ORDER INFORMATION

Model	Description
XIG4120-M1-DB-EU	industrial LTE Cat.M1 or NB2 cellular gateway, 2*10/100 T(X), 1* RS-485 (DB9), 1* DI/DO
XIG4120-M1-DB-EU -GP	industrial LTE Cat.M1 or NB2 cellular gateway, 2*10/100 T(X), 1* RS-485(DB9), 1* DI/DO, GNSS
XIG4120-M1-TB-EU	industrial LTE Cat.M1 or NB2 cellular gateway, 2*10/100 T(X), 1* RS-485 (TB), 1* DI/DO
XIG4120-M1-TB-EU -GP	industrial LTE Cat.M1 or NB2 cellular gateway, 2*10/100 T(X), 1* RS-485(TB), 1* DI/DO, GNSS

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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