

# RELIABLE SECURE CONNECTIVITY

**ConnectGate** modular  
Smart Industrial IoT Gateway





## ConnectGate modular Smart Industrial IoT Gateway



### FEATURE HIGHLIGHTS

- Worldwide LTE Cat 4 Programmable Multicarrier Gateway with 3G fallback
- Ruggedized design with industrial grade temperature ranges
- Timed wake-up & ignition sensing
- Highly customizable with 2 expansion card slots
- Industrial and building automation protocol converter
- Secure Remote Access
- Optional battery



### PRODUCT DESCRIPTION

#### Highly customizable & flexible to integrate and deploy

The ConnectGate modular gateway provides unique flexibility that allows customers and system integrators to tailor the product to their solution or even site specific requirements.

It incorporates two hardware expansion slots that allow the ConnectGate to be enhanced with additional radio and/or wired interfaces.

The expansion cards are simple and quick to install, allowing the field upgrade of the device when new functionality is required.

#### Available expansion cards include:

- WLAN expansion card
- Telematics expansion card with extended IO and CAN
- BLE expansion card
- Smart Metering expansion card

#### ConnectGate R4 next generation

ConnectGate R4 IoT gateways were designed with ConnectGate's signature features; including ruggedized design housing, industrial grade temperature ranges, timed wake-up and ignition sensing, sim connection, passive and active GPS antenna support and all are NodeX-RED enabled. NEW! ConnectGate R4 next generation IoT gateways now feature world-wide connectivity, optional Li-ion battery, and micro-SD holder.





## SPECIFICATION

Technical Specifications	
Model Name	ConnectGate modular
WWAN Modem LTE	
Supported frequency bands	LTE FDD: B1, B2, B3, B4, B5, B7, B8, B12, B13, B18, B19, B20, B26, B28 TDD: 38/39/40/41
Max. Connectivity speeds	LTE DL 150 Mbps, UL50 Mbps
WWAN Modem 3G/2G	
Supported frequency bands	GSM/GPRS/EDGE: 850/900/1800/1900 MHz (B2, B3, B5, B8) UMTS/HSDPA/HSUPA/HSPA+: 800-850/900/AWS (1700/2100)/1800/1900/2100 MHz (B1, B2, B4, B5, B6, B8, B19)
Max. Connectivity speeds	DC-HSPA+ DL 42 Mbps, UL 5.76 Mbps
RX Diversity	Simultaneous Equalization and Rx Diversity on all bands
WWAN antenna	
Antenna connector	1 × SMA: WWAN Main 1 × SMA: WWAN MIMO/Div/GPS
SIM	
USIM/SIM connection – Class B and Class C	Micro-SIM (3FF)
CPU	
i.MX280 (ARM926EJ-S @ 450 MHz) Memory available for customer apps 512 MB Flash (20 MB for data, 30 MB for application, 372 MB extra data partition)	
GPS	
Standalone GPS, Assisted GPS, GPS XTRA Wideband GPS processing (20MHz) for improved measurement accuracy Passive/active GPS antenna support	
Ethernet (IEEE 802.3)	
10/100Mb/s	2x RJ45 Connector (LAN/WAN or LAN/LAN)
MicroSD card holder	
on main PCB	
Power control	
Available	Timed wakeup. Ignition sensing (with extra 3rd pin on DC power connector)
Power consumption	
The power consumption figures are given per functionality, to calculate the total power consumption of the ConnectGate add all different functionalities. All numbers shown below are typical values and assume the ConnectGate is powered with a 12V power supply.	
Ignition sense	
Sleep mode	2.4 mA
Note	This feature is only available on the ConnectGate LTE. It allows the ConnectGate to go in deep sleep mode and wake up again by pulling high the ignition sense input on the power connector.
Idle mode	
2G	170 mA
3G	220 mA
LTE	260 mA
Note	This is the power consumption when the radio is listening to the mobile network but no connection is setup yet. Idle mode can be achieved by disabling the 3G/4G radio interface in the WebGUI of the ConnectGate.



Data traffic	
2G	210 mA
3G	260 mA
LTE	300 mA
GPS active	20 mA (by default the GPS is disabled on the ConnectGate)
Ethernet	25 mA
Note	This is the power consumption measured for the talk time test according to the DG.09 specifications. Data traffic current already includes the idle current. You should not add them to calculate the total data traffic current.
Battery	
Optional	Li-Ion battery: optional last gasp function (up to 1h with limited functionality) Battery backup RTC (7 days)
Power input	
9-33V DC	DC input voltage: 9-33 V DC Connector: Micro-Fit 3.0TM, Dual row, 4-position; DC, GND sensing input
USB	
with optional expansion card	
Rear Expansion card	
with optional expansion card	
Front Expansion card	
with optional expansion card	
Aluminium Case	
Dimensions	115 × 106 × 45 mm 4.52 × 4.17 × 1.77 in
Weight	285 g / 10.05 oz
ConnectGate mounting	Mounting, Bulkhead, 6xM4 holes, DINrail with adapter
System status LED	
Environmentals	
Operating temperature	-30°C to +70°C / -22°F to to 158°F
Storage temperature	-40°C to +85°C / -40°F to to 185°F
Humidity	5% - 95%
Certifications	
CE, FCC, PTCRB, ISED	
Std. compliance	
ROHS, Reach, WEEE	





## ORDERING INFORMATION



Order numbers differ per model

Product	PN
ConnectGate modular R4	XCGD-ST-135
ConnectGate modular R4 with integrated battery	XCGD-IB-198





## 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.

### Agatel Ltd

1st Floor, Apex House  
Calthorpe Road, Edgbaston  
Birmingham B15 1TR  
United Kingdom

Tel: +44 121 809 8855

E-mail: [info@agatel.co.uk](mailto:info@agatel.co.uk)

Website: [www.agatel.co.uk](http://www.agatel.co.uk)

