IoT GATEWAY HARDWARE PLATFORM
conga-iot

- Highly Flexible IoT Gateway
- Based on Intel® Atom™ Architecture
- Application Ready Platform
- Easily Customizable for Rapid Field Deployment
- Highly Configurable Utilizing Standard Wireless and Cellular add-on cards
- Flexible and Scalable:
  - Computing Performance
  - Wireless Connectivity
  - Software Integration

Form Factor
Hexagon, outside dimension approx. 220 x 225.5mm (without antennas)

CPU
conga-QAS Qseven Module
Based on Intel® Apollo Lake Processor series
Intel® Atom™ x7-E3950, 2.0 GHz Quad Core, L2 cache 2MB, 12W TDP
Scalable from dual core Intel® Atom™ x5-E3930 to quad core Intel® Atom™ x7-E3950

DRAM
Dual channel 4 GByte (optional 8 GByte) DDR3L memory

Mass Storage
eMMC 32 GByte (optional up to 128 GByte) MLC Flash

External I/O Interfaces
2x LAN 10/100/1000 (Intel® i211AT), 1x Power over Ethernet support
Connector for external PSU - 19V DC | power button
4x RP-SMA antenna connectors
4x SMA antenna connectors

Internal I/O Interfaces
2x USB 2.0
1x M.2 card slot (for 3G/LTE cellular)
4x miniPCIe (USB 2.0) optional, for wireless extension cards i.e. 3G, LTE, Narrow Band IOT, Zigbee, ...
2x mSATA

Diagnostic I/O Interfaces
1x DisplayPort max. resolution 2560x1600
1x USB 2.0
1x SD card slot
1x Micro SIM (for 3G/LTE cellular)

On-board functionality
1x EEPROM (8k)
2x temperature sensor
RTC battery
TPM 2.0
3x multicolor LEDs

Cooling
Integrated in housing

congatec Board controller
Multi Stage Watchdog | non-volatile User Data Storage | Manufacturing and Board Information | Board Statistics | BIOS Setup Data | Backup PC bus (fast mode | 400 kHz | multi-master) | Power Loss Control

Embedded BIOS Features
AMI Aptio® UEFI 2.x firmware | congatec Embedded BIOS features
(OEM Logo | OEM CMOS Defaults | LCD Control | Display Auto Detection | Backlight Control | Flash Update)

Software Support
Windows 10 IoT Enterprise, Yocto, Linux

Input Voltage
DC 19V or Power over Ethernet (PoE)

Temperature
Operating: 0 to +40°C
Commercial: 0 to +40°C
Extended: -20 to +50°C

Humidity
Operating: 10 to 90% r. H. non cond.
Storage: 5 to 95% r. H. non cond.
conga-IoT | Dimensions

A

B

C

Power
Connect
Status

225.5 mm

200 mm

- 2x Gb Ethernet (1x PoE)
- DC Power Input

- DisplayPort
- USB 2.0
- SD Card
- SIM Card

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conga-ioT | Order Information

<table>
<thead>
<tr>
<th>Article</th>
<th>PN</th>
<th>Description</th>
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<tbody>
<tr>
<td>conga-CGW01 IoT Gateway (QA5i)</td>
<td>020300X</td>
<td>conga-CGW01 IoT Gateway Assembly contains: - QA5i, Q7 CPU module - conga-CGW01, carrier board - conga-CGW02, extension board - WiFi I, LTE modem - conga-CGW01 QA5i Mechanical assembly - commercial temperature components (0-60°C)</td>
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<tbody>
<tr>
<td>Power Supply</td>
<td>10000170</td>
<td>19V NB power supply, 3.42A, 65W, straight plug 7.4x5.1x12.5mm</td>
</tr>
<tr>
<td>LTE Antenna</td>
<td>10000182</td>
<td>LTE SMA Antenna, 5 dBi, omnidirectional with flexible joint, black</td>
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<tr>
<td>WLAN Antenna</td>
<td>10000183</td>
<td>WLAN SMA Antenna RP-SMA 802.11 ac/a/h/b/g/n, 5 dBi, omnidirectional with flexible joint, black</td>
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<tr>
<td>Mounting Kit</td>
<td>56000063</td>
<td>Wallmount bracket</td>
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