



## EL-20-3050-32GB (rev. 2.0)

Intel® Bear Ridge IoT Gateway Solution

### Key Features

- Intel® Celeron® processor N3060
- 2 x SO-DIMM DDR3L slots
- 2 x GbE LAN ports (Realtek RTL8111HS)
- 32GB onboard eMMC memory
- 1 x Full-size Mini-PCIe slot for 3G module or mSATA storage
- 1 x SDXC card slot
- Supports Windows 7/ 8.1/ 10 and Android 5.1

### Application

- IoT applications
- Commercial PC System
- Embedded & Industrial Applications

## SPECIFICATION

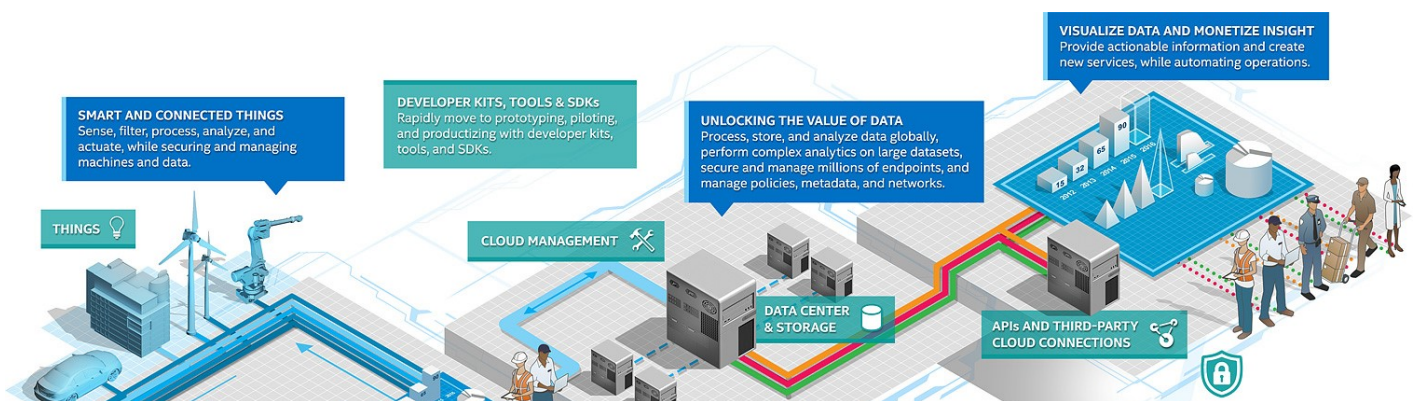
### EL-20 IoT Gateway System Overview



### Simple Devices for the IoT Era

Being an associate member of the [Intel IoT Solutions Alliance](#) GIGAIPC (GIGABYTE Group) is at the heart of the booming Internet of Things computing market. We create reference designs for Intel's new platforms, and develop them further into a large range of professional IoT products and customer-optimized solutions.

The EL-20 series is one of those products, developed as the reference design for Intel's Bear Ridge platform. It is a small form factor (SFF) industrial computer with leading performance and security, robust build quality and the Input/output (I/O) flexibility required of the perfect IoT gateway solution. Business deploying the EL-20 series IoT gateways can quickly establish and future-proof their environments. By using it as a solution to bridge unconnected legacy system, aggregate data output or establish secure data flow between edge devices and the cloud.





## Specification

<b>Operating Properties</b>	<p>Operating temperature: 0°C to 40°C</p> <p>Operating humidity: 0%-90% (non-condensing)</p> <p>Non-operating temperature: -20°C to 60°C</p> <p>Non-operating humidity: 0%-95% (non-condensing)</p>
<b>CPU</b>	<p>Intel® Celeron® processor N3060</p> <p>2 cores, 2 threads</p> <p>1.6 - 2.48 GHz</p> <p>2MB L2 cache</p> <p>6W max. TDP</p>
<b>Socket</b>	1 x BGA 1170
<b>Memory</b>	<p>2 x SO-DIMM slots</p> <p>1.35V DDR3L memory</p> <p>Up to 8GB</p> <p>1333/1600MHz</p>
<b>Flash Memory</b>	32GB eMMC
<b>LAN</b>	2 x GbE LAN ports (Realtek RTL8111HS)
<b>Video</b>	<p>Intel HD Graphics supports dual display</p> <p>Max. resolution via HDMI ports:</p> <p>3840 x 2160 @ 30Hz or</p> <p>2560 x 1600 @ 60Hz with 2 memory installed</p> <p>Max. resolution via eDP:</p> <p>2560 x 1440 @ 60Hz with 2 memory installed</p>
<b>Audio</b>	<p>Realtek ALC255 controller</p> <p>Supports 2/4/5.1/7.1 channel configurations via HDMI</p>
<b>Expansion Slots</b>	<p>1 x Full-size Mini-PCIe slot (for 3G module or mSATA storage)</p> <p>1 x Half-size Mini-PCIe slot (for pre-installed WiFi+BT module)</p> <p>3G module in option</p> <p>Pre-installed:</p> <ul style="list-style-type: none"> <li>- 1 x WiFi + Bluetooth card</li> <li>- Intel Dual Band Wireless-AC 3160 - Supports IEEE 802.11b/g/n/ac</li> </ul>

	<ul style="list-style-type: none"> <li>- Supports Bluetooth 4.0</li> <li>- Bluetooth function does not support under Windows 7 embedded OS</li> </ul>
<b>Rear I/O</b>	<ul style="list-style-type: none"> <li>1 x DC-in</li> <li>2 x HDMI v1.4b</li> <li>2 x RJ45</li> </ul>
<b>TPM</b>	1 x TPM header
<b>OS Compatibility</b>	<ul style="list-style-type: none"> <li>Windows 10 64bit</li> <li>Windows 8.1 64bit</li> <li>Windows 7 32bit / 64bit</li> <li>Ubuntu 15.10</li> <li>Ubuntu 16.04 LTS</li> <li>Android 5.1</li> </ul> <p>- Please download the "Windows USB Installation Tool" from GIGABYTE's website and install it before installing Windows 7</p>
<b>Power Supply</b>	<ul style="list-style-type: none"> <li>AC 100~240V</li> <li>19V DC-in</li> <li>65W/3.42A</li> </ul>
<b>Packaging Content</b>	<ul style="list-style-type: none"> <li>1 x Quick start guide</li> <li>1 x EL-20-3050-32GB</li> <li>1 x Intel Dual Band Wireless-AC 3160 card</li> <li>1 x 19V AC/DC power adapter</li> <li>2 x WiFi antennas</li> <li>1 x 3G antenna</li> </ul>
<b>Ordering Information</b>	6BTCV7WMR-00
<b>Storage</b>	1 x SDXC card slot
<b>Front I/O</b>	<ul style="list-style-type: none"> <li>4 x USB 3.0</li> <li>1 x SDXC card slot</li> <li>1 x Headphone-out / MIC-in</li> <li>1 x Power button with LED</li> <li>1 x HDD activity LED</li> <li>3 x LEDs reserved for user configuration</li> </ul>
<b>System Fans</b>	Fanless
<b>Dimension</b>	140.8 x 107.5 x 27 mm
<b>Motherboard</b>	MZBSWIP
<b>Weight</b>	560g
<b>Side I/O</b>	<ul style="list-style-type: none"> <li>1 x Micro-B USB 2.0</li> <li>1 x Micro-B 5-pin *RS232 full-duplex port ( TxD, RxD, CTS, RTS, GND)</li> </ul> <p>*[NOTE]: 1. Please check the pin definition and ensure the port is suitable for your</p>

	peripherals. 2. The serial driver GIGABYTE provided for Windows 10 and 8 is a trial version, please contact your peripheral vendor to get the correct driver.
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<b>TPM</b>	1 x TPM header
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