



EL-20-3700-32GB (rev. 2.0)

Intel® Bear Ridge IoT Gateway Solution

Key Features

- Intel® Pentium® processor N3710
- 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

SPECIFICATION

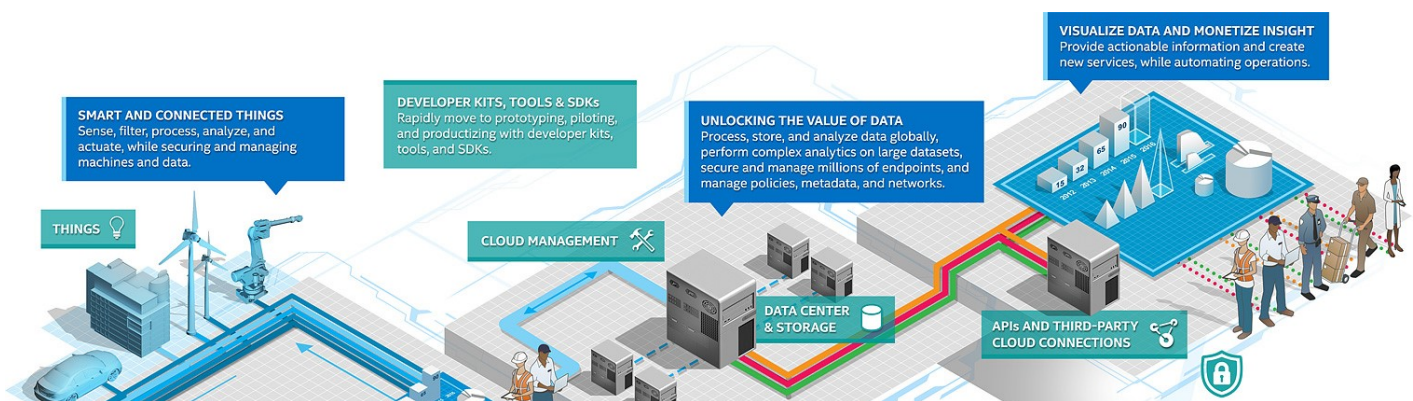
EL-20 IoT Gateway System Overview

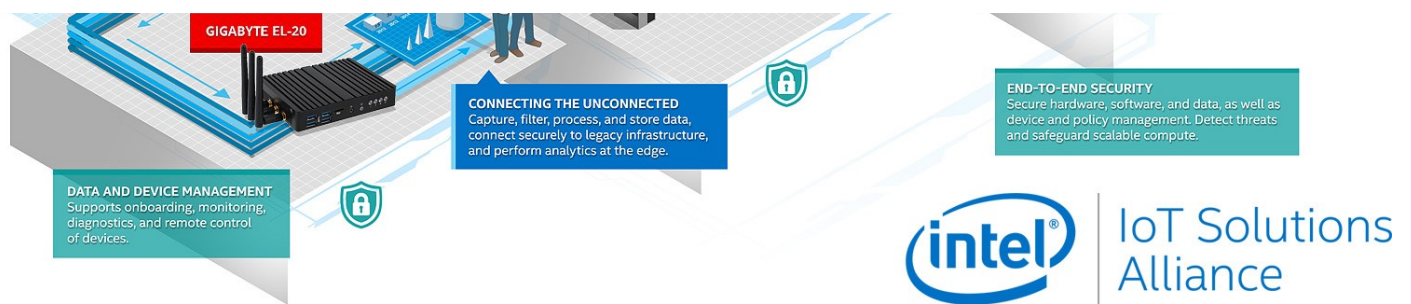


Simple Devices for the IoT Era

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

Operating Properties	Operating temperature: 0°C to 40°C Operating humidity: 0%-90% (non-condensing) Non-operating temperature: -20°C to 60°C Non-operating humidity: 0%-95% (non-condensing)
CPU	Intel® Pentium® processor N3710 4 cores, 4 threads 1.6 - 2.56 GHz 2MB L2 cache 6W max. TDP
Socket	1 x BGA 1170
Memory	2 x SO-DIMM slots 1.35V DDR3L memory Up to 8GB 1333/1600MHz
Flash Memory	32GB eMMC
LAN	2 x GbE LAN ports (Realtek RTL8111HS)
Video	Intel HD Graphics supports dual display Max. resolution via HDMI ports: 3840 x 2160 @ 30Hz or 2560 x 1600 @ 60Hz with 2 memory installed Max. resolution via eDP: 2560 x 1440 @ 60Hz with 2 memory installed
Audio	Realtek ALC255 controller Supports 2/4/5.1/7.1 channel configurations via HDMI
Expansion Slots	1 x Full-size Mini-PCIe slot (for 3G module or mSATA storage) 1 x Half-size Mini-PCIe slot (for pre-installed WiFi+BT module)

	<p>3G module in option</p> <p>Pre-installed:</p> <ul style="list-style-type: none">- 1 x WiFi + Bluetooth card- Intel Dual Band Wireless-AC 3160 - Supports IEEE 802.11b/g/n/ac- Supports Bluetooth 4.0- Bluetooth function does not support under Windows 7 embedded OS
Rear I/O	<p>1 x DC-in</p> <p>2 x HDMI v1.4b</p> <p>2 x RJ45</p>
TPM	<p>1 x TPM header</p>
OS Compatibility	<p>Windows 10 64bit</p> <p>Windows 8.1 64bit</p> <p>Windows 7 32bit / 64bit</p> <p>Ubuntu 15.10</p> <p>Ubuntu 16.04 LTS</p> <p>Android 5.1</p> <p>- Please download the "Windows USB Installation Tool" from GIGABYTE's website and install it before installing Windows 7</p>
Power Supply	<p>AC 100~240V</p> <p>19V DC-in</p> <p>65W/3.42A</p>
Packaging Content	<p>1 x Quick start guide</p> <p>1 x EL-20-3700</p> <p>1 x Intel Dual Band Wireless-AC 3160 card</p> <p>1 x 19V AC/DC power adapter</p> <p>2 x WiFi antennas</p> <p>1 x 3G antenna</p>
Ordering Information	<p>6BTCV5WMR-00</p>
Storage	<p>1 x SDXC card slot</p>
Front I/O	<p>4 x USB 3.0</p> <p>1 x SDXC card slot</p> <p>1 x Headphone-out / MIC-in</p> <p>1 x Power button with LED</p> <p>1 x HDD activity LED</p> <p>3 x LEDs reserved for user configuration</p>
System Fans	<p>Fanless</p>
Dimension	<p>140.8 x 107.5 x 27 mm</p>
Motherboard	<p>MZBSWFP</p>
Weight	<p>560g</p>

Side I/O	<p>1 x Micro-B USB 2.0 1 x Micro-B 5-pin *RS232 full-duplex port (TxD, RxD, CTS, RTS, GND)</p> <p>*[NOTE]: 1. Please check the pin definition and ensure the port is suitable for your 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.</p>
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