



# BRIGHTHABITAT DATA SHEET



## Universal IoE Controller

Bright Habitat Universal Internet of Everything Controller is specifically designed to offer smart solutions that maximize the performance of Smart Building services.

### Description:

The controller is an integrated multi-radio hardware and software system that acts as a gateway to connect networks of devices, collect data in real-time, and monitor devices off-site from a smartphone app or web portal.

The controller supports:

- ✓ Wifi
- ✓ Bluetooth
- ✓ EnOcean
- ✓ AllJoyn compliant
- ✓ Project Haystack compatible
- ✓ Wireless mesh mode

This makes it perfect for vendor agnostic integration within any IoT infrastructure, and paired with any edge devices.

Whatever process needs to be automated or optimized, our solutions use data points gathered by the controller to deduce context and trigger actions.

The Controller can process data locally, but also communicates with VizLore's cloud analytics platform for IoT applications. It offers big data analysis for real-time IoT data. It also provides endpoint management and high speed messaging.

### Applications and benefits:

The plug and play controller enables enhanced processes and workflows within a space. It supports several use cases using BTLE and iBeacon :

- Asset tracking
- Access control
- Informed digital display messaging
- Remote management of lighting infrastructure

Building a customizable IoT infrastructure is now possible, and cost efficient. Data is secured through state of the art security protocols, and the VizLore cloud platform provides dynamic solution implementation and management through a dedicated turnkey portal.

Current VizLore services include but are not limited to: Smart Access, WiOcean, and WiBlue.

- Smart Access is an access control solution composed of the controller, a user app, and a manager portal - it grants access to secured areas through a simple swipe on the smart access app.
- WiOcean is a wifi to enOcean bridge that enables enOcean sensors and devices to communicate through the controller and relay data for enhanced automation options
- WiBlue is an iBeacon service that detects presence and proximity of devices, collects data, and sends notifications in real-time about events.



# SPECIFICATIONS

<b>Power:</b>	Universal input (85~264 Vac / 100~370 Vdc)
<b>Physical size:</b>	107mm x 90mm x 58mm (W x H x D)
<b>SoC:</b>	Broadcom BCM2837
<b>CPU:</b>	4× ARM Cortex-A53, 1.2GHz
<b>GPU:</b>	Broadcom VideoCore IV, OpenGL ES 2.0,OpenVG 1080p60 H.264 high-profile encode/decode, 400 MHz
<b>RAM:</b>	1GB LPDDR2 (900 MHz)
<b>Networking:</b>	10/100 Ethernet, 2.4GHz 802.11n wireless, Bluetooth 4.1 Classic, Bluetooth Low Energy, EnOcean 902 RF MODULE, TRANSCEIVER, FSK, 902MHZ, 125KBPS
<b>Storage:</b>	microSD (8GB by default)
<b>Ports:</b>	<ul style="list-style-type: none"><li>• 1x 10/100 Ethernet</li><li>• 4× USB 2.0</li><li>• HDMI video/audio connector</li><li>• TRS connector, 3.5mm analogue audio-video jack</li><li>• Camera Serial Interface (CSI)</li><li>• Display Serial Interface (DSI)</li><li>• Low level peripherals:</li><li>• 40 General Purpose Input/Output (GPIO) pins, Serial Peripheral Interface Bus (SPI), I<sup>2</sup>C, I<sup>2</sup>S,[5] I2C IDC Pins at 3.3V</li><li>• Important note:</li><li>• Not all 40 pins are available:</li><li>• Pins 14 (UART0_TXD), 15 (UART0_RXD) used by EnOcean transceiver</li><li>• Pins 29 (GPIO5), 31 (GPIO12) used for driving relays</li><li>• All remaining pins are available for usage</li></ul>
<b>Relays:</b>	<p>2x embedded relays:</p> <ul style="list-style-type: none"><li>• Relay 1: terminators 1 to 3</li><li>• Relay 2: terminators 4 to 6</li></ul> <p>Nominal switching capacity (resistive load)</p> <ul style="list-style-type: none"><li>• N.O. side: 10 A 125 V AC, 5 A 250 V AC, 5 A 30 V DC</li><li>• N.C. side: 3 A 125 V AC, 2 A 250 V AC, 1 A 30 V DC</li></ul> <p>Max. switching power (resistive load)</p> <ul style="list-style-type: none"><li>• N.O. side: 150 W, 1,250 VA</li><li>• N.C. side: 30 W, 500 VA</li></ul> <p>Max. switching voltage 250 V AC, 30 V DC</p> <p>Max. switching current</p> <ul style="list-style-type: none"><li>• N.O.: 10 A (125V AC),</li><li>• N.C.: 3 A (125V AC)</li><li>• Expected life: Mechanical Min. 107 (at 180 times/min.)</li></ul>
<b>Environmental:</b>	Operating temperature: 0°C to 70°C
<b>Mounting:</b>	EN50022 DIN rails
<b>Power consumption:</b>	<b>Boot:</b> Max: 3.75W Avg: 1.75W <b>Idle:</b> 1.5W <b>Stress:</b> Max: 6.7W Avg: 4.25W
<b>Configuration:</b>	Local Web User Interface (HTTP/S), CLI (Telnet/SSH), Cloud/Web based management and configuration
<b>Monitoring:</b>	Cloud/Web based monitoring
<b>Software updates:</b>	Over the air (OTA) updates
<b>Frameworks and protocols:</b>	AllJoyn, Project Haystack, SIP, Wireless mesh routing protocol - B.A.T.M.A.N. Advanced
<b>Compliance:</b>	UL listed, RoHS compliant / CE, cULus, EN, IEC / BS EN ISO9001:2008 / ANSI/ESD S20.20:2007 / BS EN 61340-5-1:2007