KIOT-CN

IoT UNITARY CONTROLLER

The KIOT-CN Room Controller is an extension of LOYTEC's technology that provides a diverse range of interfaces, including wired, wireless, and electrical connections. It was developed to facilitate sophisticated hotel room, apartment, and villa automation applications. The Zigbee 3.0 and Bluetooth Mesh (SIG) interface is the most important aspect of this product since it allows for the integration of Zigbee and Bluetooth Mesh sensors, luminaires, and other actuators. The device is designed to address the requirement for a decrease in the amount of wiring in both new buildings and retrofit situations. Additionally, the KIOT-CN Room Controller is capable of integrating without any complications with native BACnet/IP networks as well as MODBUS Systems at the controller level. Together with the software known as node red, it is possible to develop flexible room solutions that can be easily altered to changing requirements during the course of the project with minimal work. A web-based room operation that is accomplished through a LWEB-802/803 dashboard is an essential component of the KIOT-CN system. Additionally, the system may automatically generate visuals for the L-VIS / L-PAD Touch Panel, which is used for local operation.
The room controllers that we offer offer all of the standard interfaces. The USBs, HDMI, and Ethernet cables. When it comes to lighting, heating, cooling, ventilation, and sunblinds, our room automation library offers pre-built function modules for their respective functions. The room automation system is equipped with a built-in TLS encryption, which guarantees for its secure functioning.

One Controller

The powerful KIOT-CN Controller offers connectivity functions that allow for the simultaneous integration of wired protocols BACnet, KNX, Modbus, and OPC and wireless protocols BLE 5.0, Zigbee 3.0, 2.4G/5G Dual Band Wifi. These systems can be integrated using Ethernet/IP communications.

It is possible to communicate data between all of the communication technologies that are present on the device thanks to the gateway capability. Different data points pertaining to technology are mapped on the device by means of the Local Connections capability. Global Connections provides help for the mapping of various technological data points on devices that are scattered throughout multiple locations.

Two Ethernet connector, which may be linked to a Wide Area Network (WAN) with HTTPS enabled are included in each KIOT Controller. Additionally, there are 2 USB 2.0 Type A , 2 USB 3.0 Type A ports and 2xmicro HDMI ports (up to 4Kp60) HDMI port, both of which are capable of supporting 4K 30 frames per second output. One can easily set up a virtual private network (VPN) and gain secure access to remote locations using the built-in VPN capability.
While the KIOT-CN is capable of providing fully fledged ASTM functionality (including Alarming, Scheduling, and Trending), it can also be perfectly integrated into the L-WEB System by the user.

IoT Integration

Using the Internet of Things (IoT) function, which is built on Nodes.js it is possible to connect the system to virtually any cloud service. This can be done for a variety of purposes, including the uploading of historical data to analytics services, the use of MQTT for telemetry, the transmission of alarm messages to alarm processing services, or the operation of certain components of the control system through a cloud service (for example, scheduling based on Web calendars or booking systems). Additionally, it is feasible to process information from the Internet, such as weather data, in order to perform forecast-based control. Last but not least, the JavaScript kernel also makes it possible to build serial protocols to non-standard equipment in primary plant control.

Specifications

Processor:	64-bit 1.5GHz Quad-core Processor
RAM:	2GB
Power Input:	USB-C 5V/3A
Dimension:	102.5*68.6*38.4 mm
Networking:	Gigabit Ethernet RJ45 connector.
USB:	USB 2.0 Type A × 2, USB 3.0 Type A × 2
Interface:	1*Ethernet (100Base-T), Web Services (OPC XML-DA/UA, BACNET IP, MODBUS TCP, HTTP, HTTPS, FTP, SSH, VNC, SNMP, BLE 5.0, ZIGBEE 3.0. 2.4G/5G Dual-Band WIFI
RTC:	Real-time clock with battery socket
Fan Header:	allows speed adjustment, 5V
Indicator:	Power indicator × 1, PCB status indicator × RS485 communication indicator × 8
Temperature:	0 - 40 C
Humidity:	10-90% relative, non condensing