

Bluetooth Dual-mode Access Point



Product Brief Bluetooth Dual-mode Access Point RBE221s

The connectBlue Bluetooth Dual-mode Access Point RBE221s is a complete Bluetooth Access Point which connects up to seven Bluetooth devices to the 10/100 Base-T Ethernet network. The RBE221 is suitable for tough applications where you need a robust and maintenance-free Bluetooth connection. Configuration is made easy via the SMART-button system, web interface or SNMP. The RBE221 features Low Emission Mode® which solves potential interference between Bluetooth and Wireless LAN that is not handled by Adaptive Frequency Hopping.

- Bluetooth v4.0 with low energy and Classic Bluetooth
- 7 simultaneous connected clients (including mix of low energy and Classic Bluetooth clients)
- Aggregated throughput of 1 Mbps
- Range up to 300 meters
- Ethernet interface 10/100Base-T
- Gateway for Bluetooth low energy
- Easy configuration either via SMART “button-push” method or via web configuration
- Low Emission Mode® - unique method to handle potential wireless interference
- Radio type approved for Europe, US, Japan and Canada
- Compliant with EMC, Safety and Medical standards
- UL/cUL Class 1 Div 2 Hazardous location certified
- DHCP server and client
- Configurable to optimize for Profinet
- External antenna with RPSMA connector
- Operating temperature range -30°C to +65°C
- Small form factor, 91x66x36 mm

Technical Data - Bluetooth Dual-mode Access Point RBE221s

Wireless Standard

Bluetooth low energy technology and Classic Bluetooth technology

Standard Specification

Bluetooth v4.0 with low energy and Classic Bluetooth (Qualified and Listed as Product)

Supported Bluetooth profiles and services:

- Personal Area Networking Profile (PAN) roles PANU & NAP
- Generic Bluetooth low energy GATT based services

Radio, Chipset and Stack

Approximate max range: 300 m

Max output power including antenna: 13 dBm

Radio: Texas Instruments CC2564

Stack: connectBlue Embedded Bluetooth Stack

Type Approvals

Europe (ETSI R&TTE)

US (FCC/CFR 47 part 15 unlicensed modular transmitter approval)

Canada (IC RSS)

Japan (MIC - formerly TELEC)

Hazardous location UL/cUL Class 1 Div 2

Interface

Ethernet Interface: 10/100BASE-T with automatic MDI/MDIX cross-over

External Input/Output: 9-30 V I/O pin to trigger configurable event, e.g. roaming

Features

Configurable via AT commands

Simple, push the button method & Web based configuration

Bluetooth low energy gateway for accessing any GATT service via web page or web application

IP

TCP

UDP

LLDP

HTTP

ARP

DHCP Client / Server

DNS support

SNMP

User management and access control

Profinet optimizations

Maximum number of slaves: 7 (possible to mix

Bluetooth low energy and Classic Bluetooth clients)

connectBlue Low Emission Mode® for not disrupting

other 2.4GHz radios

Simple Pairing

Quality of Service (QoS)

Use cases:

- Wireless Access Point (NAP)
- Wireless Ethernet Bridge
- Personal Area Network User (PANU)
- Gateway for Bluetooth low energy (GATT)

Power

Power supply voltage: 9 - 30 VDC

Current consumption (minimum): 35 mA @30V

Current consumption (average Tx): 43 mA @30V

Connectors

M12 connector for power supply and external trigger

M12 connector for Ethernet

RPSMA connector for the external antenna (antenna included)

Mechanical

Operating temperature: -30°C to +65°C

Mounting holes

Housing: Plastic

Dimensions: 91x66x36.2 mm (excluding antenna)

Certifications and Compliance

R&TTE Directive 1999/5/EC:

- Effective use of frequency spectrum: EN 300 328
- EMC: EN 301 489-1, EN 301 489-17, EN 61000-6-2
- Health and safety: EN 50371, EN 60950-1 and/or IEC 60950-1

Article numbers

For article number descriptions, please see

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