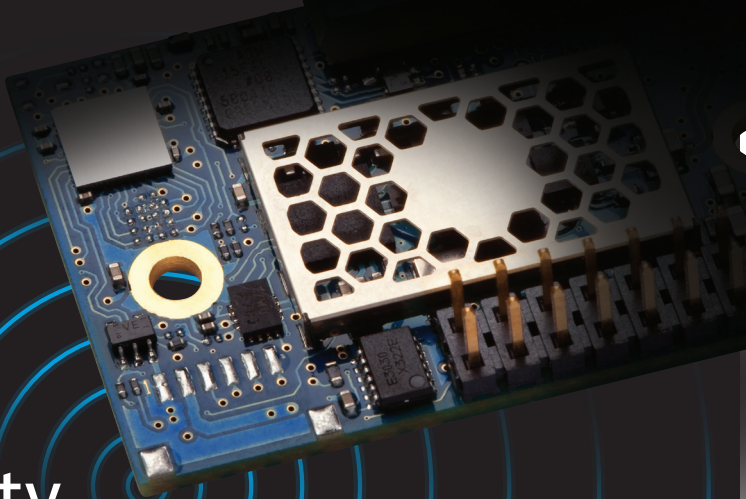


Wireless Selection Guide



Reliability
Performance
Future proof
Interchangeability
Long-term availability





Defining and leading wireless

With reliable and highly robust communication

Wireless Choices

“Wireless” is not a technology – it’s a commitment. It’s not about what works. It’s about how well it works. For over a decade, we have worked with state-of-the art Industrial and Medical Ready wireless solutions, designed and tested for demanding applications and environments. We drive the wireless technology evolution and thereby we define what will be the wireless future.

Based on Classic Bluetooth technology, Bluetooth low energy technology, Wireless LAN and IEEE 802.15.4 / ZigBee, we provide ready-to-embed wireless modules as well as ready-to-use products and custom design solutions.

Why choose connectBlue?

Fanciful sales talk is easy, but we prefer to stick to facts. And there are some clear facts that set us apart from any other wireless provider on the market.

Long-term Availability

Since the start in 2000, our offering has continuously evolved and yet our form factor has remained unchanged with consistent electrical, mechanical,

software and antenna interfaces. In fact, we have customers who have shipped products for 11 years with a minimum of software changes and no hardware changes on their Printed Circuit Board (PCB).

Outstanding Reliability

Our products are tailored to fit the toughest of situations; the products offer an extended temperature range (-40° to +85°C), have a built-in watchdog timer for secure system design, and operate faultless 24/7 regardless of EMC conditions, dust, humidity, temperature variations, and rapid movement changes.

Best Performance

We own, develop and maintain our Bluetooth stack and Wireless LAN software drivers. Not only do we own these, over the years we have used them for several different chipset manufacturers and designs, tuning and expanding them to get the best performance and controlled latency, throughput and power consumption. The products have customizable configuration parameters and are radio type approved for European, US, Canadian, Japanese markets as well as are compliant with EMC, Safety and Medical standards, and the Bluetooth qualification program.





Wireless Technology Comparison

WIRELESS STANDARD	Classic Bluetooth technology	Bluetooth low energy technology	ZigBee / IEEE 802.15.4	Wireless LAN
Data throughput	+/-	-	-	++
Robustness	++	++	+/-	+/-
Range	10-1000m	10-250m	10-200m+mesh	50-300m
Local system density	++	++	+	-
Roaming	+	N/A	N/A	++
Large scale network	-	+	++	+/-
Low latency	+++	++	+	+/-
Connection set-up speed	-	++	++	+/-
Power consumption	+	+++	++	-
Cost	+	++	+	-

+ = Good
 ++ = Strong
 +++ = Very strong
 +/- = Average
 - = Weak

Interchangeability

The connectBlue standard form factor and connectors allow for interchangeability between Bluetooth technology, Wireless LAN, IEEE 802.15/ZigBee. But that is not all; you can also change products within a product family seamlessly. In other words, you get complete system design flexibility.

Quality Manufacturing & Support

Our head office lies in the wireless epicenter of Southern Sweden. There, we also utilize the resources from external, high quality manufacturing facilities (ISO9001:2008, ISO13485:2003, etc.) where each product is individually tested and tuned for consistent performance. We have local German and US sales offices and first-line support backed by the European technical team allowing for a virtually 24 hour coverage.

Future-proof Dependability

We drive the technology development in the wireless standard forums. We track and even promote the new standards within our product portfolio.

Which wireless technology fits you the best?

One wireless technology cannot offer all the features and strengths that fit the various application require-

ments. We help you find the solution that best fit your needs.

- Choose Classic Bluetooth technology for robust communication in rough environments. Robust features include Adaptive Frequency Hopping (AFV) and high system density (several connections in the same radio space).
- Choose Bluetooth low energy technology when you want to connect to battery-operated small devices, smart phones, PADs, gateways, etc.
- Choose IEEE 802.15.4 / ZigBee if you want to build large networks with mesh functionality for small devices with low demands on data throughput.
- Choose Wireless LAN 802.11a/b/g/n if you want to connect to an existing LAN / Wireless LAN infrastructure or create high throughput ad-hoc networks.

WIRELESS ADVANTAGES

- Greater mobility & freedom of movement
- Bypassing long distances and "cable problematic territory"
- Fast and easy installations & commissioning
- High flexibility if modifying an installation
- Increased personal safety
- Easy integration of devices into the network



Interchangeable and future safe

All products share the connectBlue standard for form factor and fitting, connectors, antennas as well as configuration and control software tools

Where does “wireless” fit you?

Wireless Serial Communication

Developed to meet tough demands, connectBlue products handle robust serial communication (UART, RS232/422/485) with point-to-point, multi-point cable replacement or multi drop functionality.

Wireless Ethernet Communication

The connectBlue Rugged Ethernet Port Adapters are especially well-suited for replacing Ethernet cables either in point-to-point applications or in a wireless infrastructure where seamless roaming is important. For those that prefer to embed modules in host devices, the connectBlue Wireless LAN SPI / SDIO modules provide fully radio type approved dual-band solutions.

Wireless Signal Acquisition and I/O

Digital or analog signals can be wirelessly mirrored or controlled from a Bluetooth equipped device using the connectBlue I/O modules.

Wireless Customer Specific Software Development Platforms

The connectBlue platforms offer a possibility to embed customer specific software in the modules to save development cost, time to market, and product cost.

Wireless Custom Design Development

Often, our custom design development is based on available connectBlue software and hardware solutions but it could also be a completely new design if so required.

What “wireless” solution should you buy?

Based on your particular use case, connectBlue has a solution that fits you. Choose between ready-to-embed wireless modules or ready-to-use wireless products – all developed to satisfy industrial and medical needs on robustness, time-to-market and performance.

Ready-to-Use Products

If you wish to implement a complete wireless product, we offer a wide range of ready-to-use industrial products that all improve production, economy and safety. With these products, you can be up and running quickly and as they have an IP65-classed housing, they operate flawlessly 24/7 under the harshest of conditions.



Ready-to-Embed Modules

By embedding our modules, you save on cost and time compared to if you develop the wireless solution on your own. Developing your own solution takes 6-18 months and costs 150-500kEUR depending on technology, frequencies/channels, test system, radio type approvals, etc. And 3-5 years later when the chipset reaches its last time buy, you have to do it all over again. connectBlue offers a wide range of modules, fully certified and pre-tested as well as a full range of accessories.



Ready-to-Customize Platforms

If you have a certain wireless need that you cannot fulfill with an off-the-shelf module, we can help you custom design your solution. You can also embed your own applications in the modules using our platforms. For this product category, you need to contact us for a suitable solution.



Useful connectBlue features

This guide covers all the features of the connectBlue product range, but there are some of these that we want to cover in depth.

Seamless Roaming & Redundancy

With a variety of wireless technologies operating in the same radio space, the performance on the existing wireless connections can be affected or even terminated during the necessary scanning for new wireless networks.



With the connectBlue seamless roaming, the actual switch-over takes place in just a few milliseconds using standard access points. Another advantage is the opportunity to combine roaming with redundancy.

Further, since connectBlue offers solutions across various technologies, we can offer the most robust solution for a particular use case scenario.

2.4 and 5GHz Dual-band Support

Besides Wireless LAN IEEE 802.11b/g/n, other wireless technologies like Bluetooth technology, IEEE 802.15.4/ ZigBee/Wireless HART and several proprietary technologies operate in the 2.4GHz band. To make sure that the Wireless LAN solution is robust, one can focus on IEEE 802.11a (5GHz) for the manufacturing and M2M communication. connectBlue offers dual-band functionality and an expanded frequency channel range in the 5GHz ISM band. See support details in the tables.

iPhone/Android Support

connectBlue offers Wireless LAN and Bluetooth module support for Android/ Apple iPhone/iPod touch/iPad connectivity which makes data handling easier in industrial and medical applications. The modules are tested and approved by Apple. See support details in the tables.

USEFUL HOW-TO-DO'S

connectBlue's website features 15+ in depth articles and white papers that detail the possibilities as well as best practices in different wireless technologies in tough industrial and medical environments.

Visit www.connectblue.com/about-us for more information.





Ready-to-use products for the robust need

Products that improve production, economy and safety

IP65 classed housing, fully certified and tested

Wireless Products in Housings



Rugged Serial Port Adapter
RBS433



Rugged Ethernet Port Adapter
RBE231



Rugged Serial Port Adapter
RZS311s



Rugged Serial Port Adapter
RWS451s*

	Classic Bluetooth technology	Classic Bluetooth technology	IEEE 802.15.4	Wireless LAN
WIRELESS STANDARD	Classic Bluetooth technology	Classic Bluetooth technology	IEEE 802.15.4	Wireless LAN
STANDARD SPECIFICATION				
Bluetooth qualification	2.1+EDR	2.1+EDR	-	-
Bluetooth profiles	SPP DUN PAN	PAN	-	-
Wireless LAN version	-	-	-	802.11abgn (2.4 GHz + 5 GHz)
RADIO				
Antenna	External	Internal	External	External
Max output power	17 dBm	17 dBm	4 dBm	20 dBm
Range ^{Note 2}	1000 m	1000 m	200 m	400 m
2.4 GHz channels	1-79	1-79	11-26	1-13
5 GHz channels	-	-	-	36-140 (U-NII Band 1, 2, 2e)
TYPE APPROVALS				
Europe (R&TTE)	Yes	Yes	Yes	Yes
US (FCC)	Yes	Yes	Yes	Yes
Canada (IC)	Yes	Yes	Yes	Yes
Hazardous location UL/CSA Class 1 Div 2	-	Yes	-	-
INTERFACE				
RS232	Yes	-	Yes	Yes
RS422/485	Yes	-	-	Yes
Max baudrate	460.8 k	-	57.6 k	460.8 k
Flow control on/off	Yes	-	Yes	Yes
Ethernet	-	Yes	-	-
SOFTWARE FEATURES				
AT command support	Yes	Yes	Yes	Yes
Web configuration	-	Yes	-	-
Max number of slaves	7	1	1	7
Extended Data Mode protocol	Yes	-	-	-
Security	Simple Pairing	Simple Pairing	Yes	WPA2, Enterprise, PEAP, LEAP Yes
Quality of Service (QoS)	Yes	Yes	-	-
Software features	Point-to-point Point-to-multipoint Repeater	Wireless Ethernet Bridge, Personal Area Network User (PANU)	Point-to-point	Point-to-point Point-to-multipoint
POWER				
Power supply voltage	8 - 30 VDC	9-30 VDC	8 - 30 VDC	8 - 30 VDC
Current cons. (min)	TBA	35 mA @30V	7 mA @30V	TBA
Current cons. (average Tx)	TBA	43 mA @30V	9 mA @30V	TBA
CONNECTORS				
9-pin D-SUB	Yes	-	Yes	Yes
RJ45	-	-	-	-
M12	-	Yes	-	-
MECHANICAL				
Operating temperature	-40 to +85° C	-30 to +65° C	-40 to +85° C	-40 to +85° C
Mounting holes	Yes	Yes	Yes	Yes
Housing	Metal, IP 65	Plastic, IP65	Metal, IP 65	Metal, IP 65
Dimensions (mm)	76x85x35	91x66x36.2	76 x 85 x 35	76x85x35





Rugged Ethernet Port Adapter RWE231i

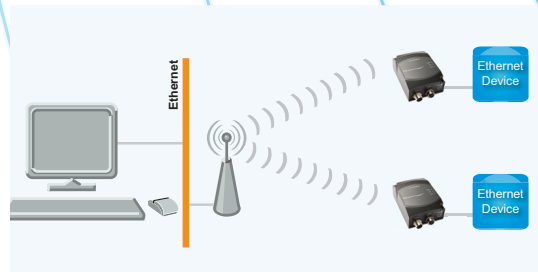


Rugged Ethernet Port Adapter RWE241i

Wireless LAN	Wireless LAN
-	-
-	-
802.11bgn (2.4 GHz)	802.11an (5 GHz)
Internal	Internal
20 dBm	20 dBm
400 m	200 m
1-13	-
-	36-48, 52-140* (U-NII Band 1, 2*, 2e*)
Yes	Yes
Yes	Yes
Yes	Yes
Yes	Yes
-	-
-	-
-	-
-	-
Yes	Yes
Yes	Yes
Yes	Yes
1	1
-	-
WPA2, Enterprise, PEAP, LEAP	WPA2, Enterprise, PEAP, LEAP
-	-
Wireless Ethernet Bridge, Wireless LAN Client, Seamless Roaming, Redundancy	Wireless Ethernet Bridge, Wireless LAN Client, Seamless Roaming, Redundancy
9 - 30 VDC	9 - 30 VDC
47 mA @30V	47 mA @30V
59 mA @30V	59 mA @30V
-	-
-	-
Yes	Yes
-30 to +65° C	-30 to +65° C
Yes	Yes
Plastic, IP 65	Plastic, IP 65
91x66x36.2	91x66x36.2



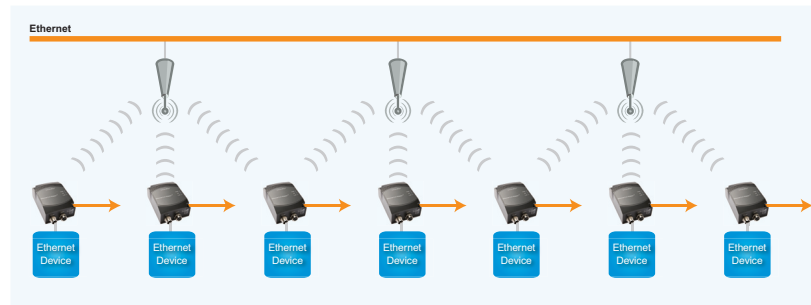
Serial Port Adapters (SPA) replacing the serial cables with wireless connections in point-to-point and multidrop setups.



Wireless LAN Ethernet Port Adapters (EPA) for connecting ethernet devices to an ethernet infrastructure via a Wireless LAN Access Point.



Ethernet Port Adapters (EPA) replacing the ethernet cable with wireless connection. The connection between the EPAs is point-to-point in Bluetooth technology and ad-hoc in Wireless LAN.



Wireless LAN Ethernet Port Adapter (EPA) or Bluetooth Ethernet Port Adapter connecting to an ethernet infrastructure via multiple Access Points. The Ethernet Port Adapter supports several modes of superior roaming between available Access Points, including seamless roaming.

Ready-to-embed modules that are certified and fully tested

Benefit from the advantages of low-power modules that are fully certified and tested

Wireless OEM Modules



Serial Port Adapter
OBS410

Serial Port Adapter
OBS411

Serial Port Adapter
OBS421

Serial Port Adapter
OBS433

iPhone Accessory
OBS414 ^{Note 4}

I/O Module
OBI411

	Serial Port Adapter OBS410	Serial Port Adapter OBS411	Serial Port Adapter OBS421	Serial Port Adapter OBS433	iPhone Accessory OBS414 ^{Note 4}	I/O Module OBI411
WIRELESS STANDARD	Classic Bluetooth technology					
STANDARD SPECIFICATION	Classic Bluetooth technology					
Bluetooth qualification	2.1 (3.0 ready)	2.1+EDR (3.0 ready)	2.1+EDR (4.0 ready)	2.1+EDR (3.0 ready)	2.1+EDR (3.0 ready)	2.1+EDR (3.0 ready)
Bluetooth profiles ^{Note 4}	SPP DUN	SPP DUN PAN	SPP DUN PAN	SPP DUN PAN	SPP PAN	SPP
Wireless LAN version	-	-	-	-	-	-
RADIO	Classic Bluetooth technology					
Antenna type	Internal External	Internal External	Internal External	Internal External	Internal External	Internal External
Max output power incl. antenna	5 dBm 6 dBm	5 dBm 6 dBm	11 dBm 13 dBm	17 dBm 17 dBm	5 dBm 6 dBm	5 dBm 6 dBm
Range	75 m 150 m	75 m 150 m	300 m 300 m	800 m 1000 m	75 m 150 m	75 m 150 m
2.4 GHz channels	1-79	1-79	1-79	1-79	1-79	1-79
5 GHz channels	-	-	-	-	-	-
TYPE APPROVALS	Classic Bluetooth technology					
Europe (R&TTE)	Yes	Yes	Yes	Yes	Yes	Yes
US (FCC)	Yes	Yes	Yes	Yes	Yes	Yes
Canada (IC)	Yes	Yes	Yes	Yes	Yes	Yes
Japan	Yes	Yes	Yes	Yes	Yes	Yes
INTERFACE	Classic Bluetooth technology					
UART Logic-level	Yes	Yes	Yes	Yes	Yes	Yes
RS232	Option ^{Note 3}	Option ^{Note 3}	Option ^{Note 3}	Yes	Option ^{Note 3}	Option ^{Note 3}
RS422/485	Option ^{Note 3}	Option ^{Note 3}	Option ^{Note 3}	Option ^{Note 3}	-	Option ^{Note 3}
Max baudrate	460.8 k	1.25 M	1.5 M	1.5 M	1.25 M	1.25 M
Flow control on/off	Yes	Yes	Yes	Yes	Yes	Yes
SPI	-	-	-	-	-	-
SDIO	-	-	-	-	-	-
I/O pins	9 digital	9 digital	9 digital	9 digital	9 digital	16 dig, 4 AD conv
FEATURES	Classic Bluetooth technology					
Throughput	350 kbps	950 kbps	1.3 Mbps	1.4 Mbps	950 kbps	950 kbps
AT command support	Yes	Yes	Yes	Yes	Yes	Yes
Max number of slaves	1	3	7	7	3	3
Extended Data Mode protocol	-	Yes	Yes	Yes	Yes	Yes
Security	Simple Pairing	Simple Pairing	Simple Pairing	Simple Pairing	Simple Pairing	Simple Pairing
Quality of Service (QoS)	Yes	Yes	Yes	Yes	Yes	Yes
Customer application platform	-	Yes	Yes	Yes	-	-
Android support	Yes	Yes	Yes	Yes	Yes	Yes
iPhone/iPad support ^{Note 4}	-	Yes (via I ² C)	Yes (via host)	Yes (via host)	Yes (on board)	Yes (via host)
Software features	Point-to-point	Point-to-point Point-to-multipoint Repeater	Point-to-point Point-to-multipoint Repeater	Point-to-point Point-to-multipoint Repeater	Point-to-point Point-to-multipoint Repeater	Point-to-point Point-to-multipoint
POWER	Classic Bluetooth technology					
Power supply voltage	3.0 - 6.0 VDC	3.0 - 6.0 VDC	3.0 - 6.0 VDC	3.3 - 6.0 VDC	3.0 - 6.0 VDC	3.0 - 6.0 VDC
Current cons. (min)	14 mA @3.0V	0.6 mA @3.0V	0.6 mA @3.0V	0.5 mA @3.3V	2 mA @3.0V	0.6 mA @3.0V
Current cons. (average Tx)	25 mA @3.0V	25 mA @3.0V	44 mA @3.0V	50 mA @3.3V	27 mA @3.0V	25 mA @3.0V
CONNECTORS	Classic Bluetooth technology					
Board-to-board	Yes	Yes	Yes	Yes	Yes	Yes
20 pin header	-	-	-	Option	-	-
JST (6-pol)	-	Option	Option	Option	-	-
Solder pads	Yes	Yes	Yes	Option	Yes	Yes
MECHANICAL	Classic Bluetooth technology					
Operating temperature	-30 to +85° C	-30 to +85° C	-30 to +85° C	-40 to +85° C	-30 to +85° C	-30 to +85° C
Machine mountable	Yes	Yes	Yes	Yes	Yes	Yes
Mounting holes	Yes	Yes	Yes	Yes	Yes	Yes
Dimensions (mm)	16x36x3	16x36x3	16x36x3	23x36x4	23x36x4	16x36x3



Low Energy Platform
OLP425



Serial Port Adapter
OZS311



Serial Port Adapter
OWS451



LAN Module
OWL221

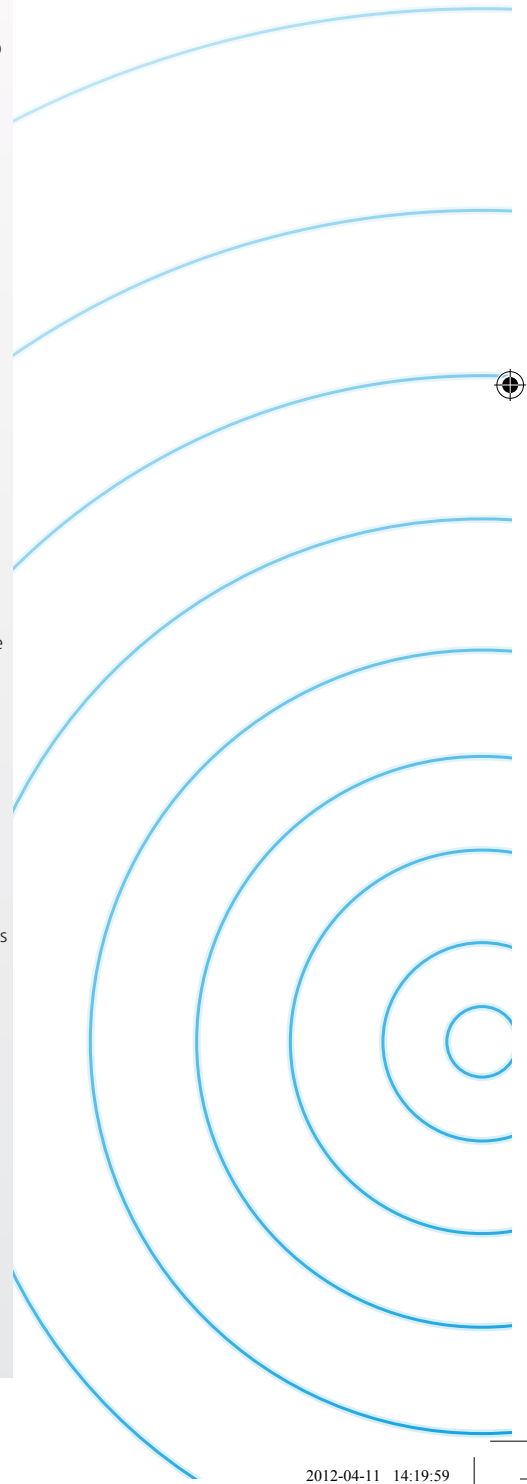


LAN Module
OWL222



LAN Module
OWL253

Bluetooth low energy technology (Bluetooth smart)	IEEE 802.15.4	Wireless LAN	Wireless LAN	Wireless LAN	Wireless LAN
4.0 - -	- - -	- - 802.11 a/b/g/n (dual band, 65 Mbit/s)	- - 802.11 a/b/g/n (dual band, 65 Mbit/s)	- - 802.11 a/b/g/n (dual band, 65 Mbit/s)	- - 802.11 a/b/g/n (dual band, 65 Mbit/s)
Internal External 3 dBm 6 dBm 150 m 200 m	Internal External 2.5 dBm 4 dBm 200 m 200 m	Int. Ext. ^{Note 1} 20 dBm 20 dBm 400 m 400 m	Int. Ext. ^{Note 1} 20 dBm 20 dBm 400 m 400 m	Int. Ext. ^{Note 1} 20 dBm 20 dBm 400 m 400 m	Int. Ext. ^{Note 1} 20 dBm 20 dBm 400 m 400 m
1-39 -	11-26 -	1-13 36-140 (U-NII Band 1, 2, 2e)	1-13 36-48 (U-NII Band 1)	1-13 36-48 (U-NII Band 1)	1-13 36-140 (U-NII Band 1, 2, 2e)
Yes Yes Yes -	Yes Yes Yes -	Yes Yes Yes Yes	Yes Yes Yes Yes	Yes Yes Yes Yes	Yes Yes Yes Yes
Yes -	Yes -	Yes Option ^{Note 3} Option ^{Note 3}	- - -	- - -	- - -
115.2 k Yes Yes -	57.6 k Yes - -	1.5 M Yes - -	Max 80 MHz -	Max 50 MHz -	Max 80 MHz -
18 dig, 4 AD conv	-	-	-	-	-
TBD - 3 -	50 kbps Yes 1 -	500 kbps* Yes 7 -	20 Mbps - - -	25 Mbps - - -	20 Mbps - - -
Simple Pairing No Yes Yes Yes	Yes - - -	WPA2, Enterprise Yes - Yes Yes	WPA2, Enterprise Yes - Yes Yes	WPA2, Enterprise Yes - Yes Yes	WPA2, Enterprise Yes - Yes Yes
Mounting options: battery holder, temperature sensor, accelerometers, etc.	Point-to-point Optional ZigBee stack available Platform for custom designs	Point-to-point Point-to-multipoint Embedded TCP/IP stack DHCP server/client DNS resolver	Infrastructure Ad-hoc Driver support: Linux WinCE Embedded systems	Infrastructure Ad-hoc Driver support: Linux WinCE	Infrastructure Ad-hoc Driver support: Linux WinCE Embedded systems
2.0 - 3.6 VDC TBD TBD	3.3 - 5.5 VDC 27 mA @3.3V 27 mA @3.3V	3.3 - 5.5 VDC 7 mA @3.3V 180 mA @3.3V	3.3 - 5.5 VDC 5 mA @3.3V 150 mA @3.3V	3.1 - 3.6 VDC 5 mA @3.1V 150 mA @3.1V	3.3 - 5.5 VDC 11 mA @3.3V 230 mA @3.3V
- - Option Yes	Yes - Option Yes	Yes - Option Yes	Yes Option - -	Yes Option - -	Yes - - Yes
-40 to +85° C Yes Yes	-40 to +85° C Yes Yes	-40 to +85° C Yes Yes	-30 to +85° C - Yes	-30 to +85° C - Yes	-40 to +85° C - Yes
15x22x3	23x36x3	23x36x3	23x36x3	23x36x3	23x36x3





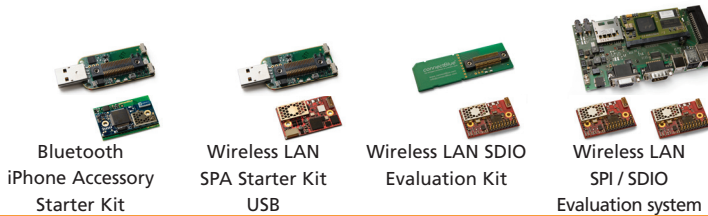
Get started smoothly

Acquire valuable understanding of the wireless module's functionality, configuration options, performance etc.

Starter / Evaluation Kits



	Bluetooth SPA Starter Kit USB	Bluetooth SPA Starter Kit RS232	I/O Development Kit OBI411	SPA Accessory Kit RS232	SPA Accessory Kit USB
WIRELESS STANDARD	Classic Bluetooth technology	Classic Bluetooth technology	Classic Bluetooth technology	-	-
CONTENTS	Wireless module Development/adaptor board Others	Wireless module Development/adaptor board Others	Wireless module Development/adaptor board Others	Wireless module Development/adaptor board Others	Wireless module Development/adaptor board Others
COMPATIBLE MODULES	Classic Bluetooth technology, OBS410i/x Classic Bluetooth technology, OBS411i/x Classic Bluetooth technology, OBS421i/x Classic Bluetooth technology, OBS433i/x Classic Bluetooth technology, OBS414i/x Classic Bluetooth technology, OBI411i/x Wireless LAN, OWS451i/x Wireless LAN, OWL221i/x Wireless LAN, OWL222i/x Wireless LAN, OWL253i/x IEEE 802.15.4 / ZigBee, OZS311i/x	Classic Bluetooth technology, OBS410i/x Classic Bluetooth technology, OBS411i/x Classic Bluetooth technology, OBS421i/x Classic Bluetooth technology, OBS433i/x Classic Bluetooth technology, OBS414i/x Classic Bluetooth technology, OBI411i/x Wireless LAN, OWS451i/x Wireless LAN, OWL221i/x Wireless LAN, OWL222i/x Wireless LAN, OWL253i/x IEEE 802.15.4 / ZigBee, OZS311i/x	Classic Bluetooth technology, OBS410i/x Classic Bluetooth technology, OBS411i/x Classic Bluetooth technology, OBS421i/x Classic Bluetooth technology, OBS433i/x Classic Bluetooth technology, OBS414i/x Classic Bluetooth technology, OBI411i/x Wireless LAN, OWS451i/x Wireless LAN, OWL221i/x Wireless LAN, OWL222i/x Wireless LAN, OWL253i/x IEEE 802.15.4 / ZigBee, OZS311i/x	Classic Bluetooth technology, OBS410i/x Classic Bluetooth technology, OBS411i/x Classic Bluetooth technology, OBS421i/x Classic Bluetooth technology, OBS433i/x Classic Bluetooth technology, OBS414i/x Classic Bluetooth technology, OBI411i/x Wireless LAN, OWS451i/x Wireless LAN, OWL221i/x Wireless LAN, OWL222i/x Wireless LAN, OWL253i/x IEEE 802.15.4 / ZigBee, OZS311i/x	Classic Bluetooth technology, OBS410i/x Classic Bluetooth technology, OBS411i/x Classic Bluetooth technology, OBS421i/x Classic Bluetooth technology, OBS433i/x Classic Bluetooth technology, OBS414i/x Classic Bluetooth technology, OBI411i/x Wireless LAN, OWS451i/x Wireless LAN, OWL221i/x Wireless LAN, OWL222i/x Wireless LAN, OWL253i/x IEEE 802.15.4 / ZigBee, OZS311i/x
ORDER NUMBER	cB-OBS411i-04-B	cB-OBS411i-04-A	cB-OBI411i-04-A	cB-ACC-26	cB-ACC-41



	Bluetooth iPhone Accessory Starter Kit	Wireless LAN SPA Starter Kit USB	Wireless LAN SDIO Evaluation Kit	Wireless LAN SPI / SDIO Evaluation system
WIRELESS STANDARD	Classic Bluetooth technology	Wireless LAN	Wireless LAN	Wireless LAN
CONTENTS	Wireless module Development/adaptor board Others	Wireless module Development/adaptor board Others	Wireless module Development/adaptor board Others	Wireless module Development/adaptor board Others
COMPATIBLE MODULES	Classic Bluetooth technology, OBS410i/x Classic Bluetooth technology, OBS411i/x Classic Bluetooth technology, OBS421i/x Classic Bluetooth technology, OBS433i/x Classic Bluetooth technology, OBS414i/x Classic Bluetooth technology, OBI411i/x Wireless LAN, OWS451i/x Wireless LAN, OWL221i/x Wireless LAN, OWL222i/x Wireless LAN, OWL253i/x IEEE 802.15.4 / ZigBee, OZS311i/x	Wireless LAN, OWS451i/x Wireless LAN, OWL221i/x Wireless LAN, OWL222i/x Wireless LAN, OWL253i/x IEEE 802.15.4 / ZigBee, OZS311i/x	Wireless LAN, OWL222ai/x Wireless LAN, OWL221i/x Wireless LAN, OWL222i/x Wireless LAN, OWL253i/x IEEE 802.15.4 / ZigBee, OZS311i/x	Wireless LAN, OWL222ai/x Wireless LAN, OWL221i/x Wireless LAN, OWL222i/x Wireless LAN, OWL253i/x IEEE 802.15.4 / ZigBee, OZS311i/x
ORDER NUMBER	cB-OBS414i-06-B cB-OBS414x-06-B	cB-OWS451i-04-B	cB-WDK-01-A	cB-WDK-03-A / 04-A

Explanations on Table Notes

- Diversity supported
- Approximate maximum range
- Via external transceiver
- Special licensing & production requirements applies for the Bluetooth products
- SDIO driver for WinCE (ARM). SPI driver for WinCE (ARM) or Linux (ARM).

* Increase in progress

FOR DETAILS ON ACCESSORIES, PLEASE VISIT WWW.CONNECTBLUE.COM





Your business. Our total wireless expertise. One wireless product.

This is what we do. We provide a safe step into the wireless future.

Our Wireless Background

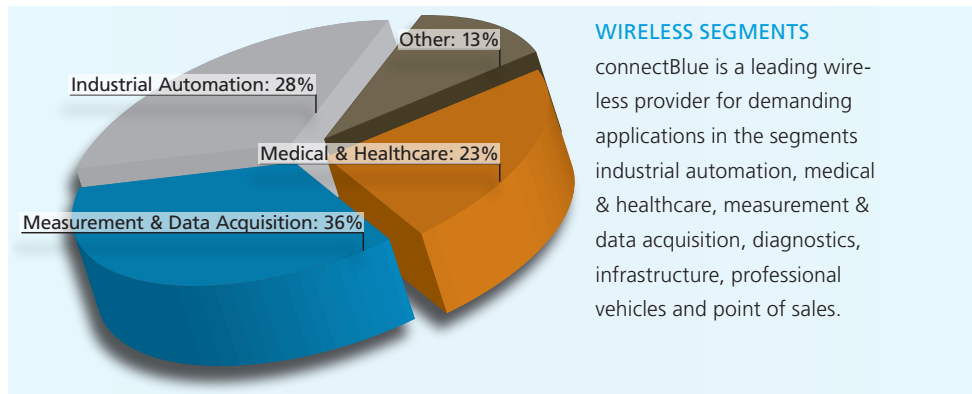
Imagine equipment that is in constant rapid motion at -30° C; it is monitored, maintained, updated and operated wirelessly from a distance, massively increasing up-time and personal safety. Or, imagine a sensitive gene duplication sequence where the whole gene process is performed in a 100% sterile environment due to high-speed reliable wireless solutions. This is the essence of connectBlue - wireless solutions based on tough industrial and medical demands on robustness, lead-times and performance.

Together with our clients, we create solutions that improve, not only production economy and safety, sometimes we help push the limits of science as well. And all this using a seamless nerve-system that cuts through walls, floors and ceilings.

Working with connectBlue isn't just about buying a wireless product. It's combining forces to find the best wireless solution. The mix of combined expertise is filtered through a toolbox of software, hardware and industry-specific specialists and poured into a wireless product that is provoked, tested, stressed, certified, and then tested over and over again.

connectBlue was founded in 2000. From years of experience within industries with tough demands, connectBlue focused on a few key requirements: compatibility, extended life cycles and performance. Still today, these requirements are the focus of the connectBlue delivery.

Today, we employ 35 experts where 20+ are wireless engineers with deep know-how from key segments. Our head office lies in Sweden and our top-notch external production facilities are also Sweden. We have local sales and support from the offices in Germany and the USA. And, on top of that, connectBlue has distributors in 60+ countries.



Working at connectBlue means working with some of the world's most demanding brands and industries (look at our list of clients). They in themselves represent the highest standard of innovation in their industry segments. This is why we have to excel at what we do. We employ and develop staff with great experience from tough demands on lead-times, performance and technical documentation as well as young and innovative brains that can define the future of wireless technology.

Together we solve issues of today using the technology of tomorrow.



Wireless is not a technology. It's a commitment.

We have been in wireless since back in 2000 when we launched the world's first wireless serial port adapter. Based on Classic Bluetooth technology, Bluetooth low energy technology, Wireless LAN (WLAN) and IEEE 802.15.4 / ZigBee, we provide ready-to-use products and modules as well as custom design solutions.

Our head office lies in the wireless epicenter of Southern Sweden. There, we also utilize the resources from external, high quality manufacturing facilities where each product is individually tested and tuned for consistent performance. We have local German and US sales offices and first-line support backed by the European technical team allowing for a virtually 24 hour coverage.

For more than a decade, we have helped some of the world's most demanding brands to exploit new possibilities of wireless technologies. Our wireless solutions are designed and tested for the most demanding applications and environments in industrial automation, medical & healthcare, measurement & data acquisition, professional vehicles, and point of sales.

**Our product strategy is simple.
State-of-the-art solutions. Nothing less.**

connectBlueTM
The strongest connection in a wireless world

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