

# Wireless OEM modules & accessories







OEM Module  
OWSPA311g



OEM Module  
OWLAN211g



OEM Module  
OZS311

Wireless LAN		Wireless LAN		IEEE 802.15.4	
-	-	-	-	-	-
-	-	-	-	-	-
802.11b+g (54 Mbit/s)		802.11b+g (54 Mbit/s)			
Int. Note 1	Ext. Note 1	Int. Note 1	Ext. Note 1	Internal	External
20 dBm	20 dBm	20 dBm	20 dBm	2.5 dBm	4 dBm
400 m	400 m	400 m	400 m	200 m	200 m
Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
Yes	-	-	-	Yes	-
Option Note 3	-	-	-	-	-
-	-	-	-	-	-
2.7 M	-	-	-	57.6 k	-
Yes	-	-	-	Yes	-
-	Max 60 MHz	-	-	-	-
Yes	-	-	-	Yes	-
7	-	-	-	1	-
-	-	-	-	-	-
WEP WPA WPA2	WEP WPA WPA2	WEP WPA WPA2	WPA2	Yes	-
-	802.11e	-	-	-	-
Point-to-point	Point-to-point	Point-to-point	Point-to-point	Point-to-point	Point-to-point
Point-to-multipoint	Point-to-multipoint	Point-to-multipoint	Point-to-multipoint	Point-to-multipoint	Point-to-multipoint
3.3 - 5.5 VDC	3.3 - 5.5 VDC	3.3 - 5.5 VDC	3.3 - 5.5 VDC	3.3 - 5.5 VDC	3.3 - 5.5 VDC
0.9 mA @3.3V	0.2 mA @3.3V	0.2 mA @3.3V	0.2 mA @3.3V	27 mA	27 mA
15 mA @3.3V	170 mA @3.3V	170 mA @3.3V	170 mA @3.3V	27 mA	27 mA
	(full TX, 24 Mbps)				
Yes	Yes	Yes	Yes	Yes	Yes
-	Option	-	-	-	-
Option	-	-	-	Option	-
-	-	-	-	-	-
Yes	-	-	-	Yes	-
-30 to +85° C	-30 to +85° C	-30 to +85° C	-30 to +85° C	-40 to +85° C	-40 to +85° C
Yes	-	-	-	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
23x36x3.1	23x36x3.1	23x36x3.1	23x36x3.1	23x36x3.1	23x36x3.1
cB-ACC-24	-	-	-	cB-ACC-24	cB-ACC-24
cB-ACC-34	-	-	-	cB-ACC-34	cB-ACC-34



## WIRELESS SNIFFERS & PROTOCOL ANALYZERS

connectBlue offers Wireless Sniffers & Analyzers by Frontline Test Equipment. The Bluetooth sniffer is a Multi-mode Bluetooth Protocol Analyzer that sniffs both radio traffic and high speed UART HCI packages. It is the only product on the market to handle Bluetooth up to v2.1+EDR.

connectBlue also offers the MeshDecoder which is a real-time debugging, verification and network display analyzer, that simplifies the understanding of IEEE 802.15.4 / ZigBee networks by simultaneously capturing, decoding, displaying and filtering data, and also detecting errors. The product range of Sniffers and Protocol Analyzers also includes Wireless LAN solutions.

With these tools, you get faster commissioning and development times, and thus also reduced engineering costs. The sniffers and analyzers can be used in combination with the following:

- Industrial communication network analyzer
- Serial, async-only protocol analyzer
- Serial, sync/async protocol analyzer



## READY-TO-USE WIRELESS PRODUCTS

connectBlue also offers a wide range of Bluetooth, Wireless LAN and IEEE 802.15.4 / ZigBee ready-to-use products in industrial housings. For more information, see [www.connectblue.com](http://www.connectblue.com) or request data sheets.

 **Certified and pre-tested**

Benefit from the advantages of low-power modules, fully certified and pre-tested



	Bluetooth	Bluetooth	Wireless LAN	-
<b>WIRELESS STANDARD</b>	Bluetooth	Bluetooth	Wireless LAN	-
<b>STANDARD SPECIFICATION</b>				
Bluetooth qualification	-	-	-	-
Wireless LAN version	-	-	802.11g	-
<b>CONTENTS</b>				
Wireless module	OEMSPA311i	2x OEMSPA311i	OWSPA311gi	-
Development/adaptor board	RS232   USB	12 I/Os + RS232	RS232   USB	RS232   USB
USB extension cable	-   Yes	-	-   Yes	-   Yes
9-pin Dsub serial cable	Yes   -	Yes, 2 cables	Yes   -	Yes   -
USB power cable	Yes   -	Yes, 2 cables	Yes   -	Yes   -
Documentation & configuration	Yes   Yes	Yes	Yes   Yes	Yes   Yes
<b>COMPATIBLE MODULES</b>				
Bluetooth, OHCI406i/x	-	-	-	-
Bluetooth, OHCI411i/x	Yes	-	Yes	Yes
Bluetooth, OEMSPA310i	Yes	Yes	Yes	Yes
Bluetooth, OEMSPA311i/x	Yes (included)	Yes (2 included)	Yes	Yes
Bluetooth, OEMSPA331i/x	Yes	Yes	Yes	Yes
Bluetooth, OEMSPA312i/x	Yes	Yes	Yes	Yes
Bluetooth, OEMSPA332i/x	Yes	Yes	Yes	Yes
Bluetooth, OEMSPA333i/x	Yes	-	Yes	Yes
Wireless LAN, OWSPA311gi/x	Yes	-	Yes (included)	Yes
Wireless LAN, OWLAN211gi/x	-	-	-	-
802.15.4, OZS311i/x	Yes	-	Yes	Yes



OEM RS232  
Module Adapter3



OEM USB  
Module Adapter

	OEM RS232 Module Adapter3	OEM USB Module Adapter	Power Supply & Cables
<b>POWER</b>			
Power supply	5.0 VDC	5.0 VDC	RSPA / RWSPA power connector
Power connector	2.1 mm pin conn.	USB	Power Adapter 5VDC
<b>MECHANICAL</b>			Power Cable EU plug
Module connector	Board-to-board	Board-to-board	Power Cable UK plug
Host connector	9-pin Dsub male	USB	Power Cable US plug
Mounting holes	Yes	-	USB Power Cable
Dimensions (mm)	76x58	24x47	USB Extension Cable
			Serial Cable
<b>COMPATIBLE MODULES</b>			<b>Miscellaneous</b>
Bluetooth, OHCI406i/x	-	-	Board-to-board Connector
Bluetooth, OHCI411i/x	Yes	Yes	DIN rail mount kit
Bluetooth, OEMSPA310i	Yes	Yes	
Bluetooth, OEMSPA311i/x	Yes	Yes	
Bluetooth, OEMSPA331i/x	Yes	Yes	
Bluetooth, OEMSPA312i/x	Yes	Yes	
Bluetooth, OEMSPA332i/x	Yes	Yes	
Bluetooth, OEMSPA333i/x	Yes	Yes	
Wireless LAN, OWSPA311gi/x	Yes	Yes	
Wireless LAN, OWLAN211gi/x	-	-	
802.15.4, OZS311i/x	Yes	Yes	
<b>COMPATIBLE MODULES</b>			<b>Explanations on Table Notes</b>
Order number	cB-ACC-24	cB-ACC-34	1 Diversity supported
			2 Approximate range measures in line-of-sight
			3 Via external transceiver
			4 Special multipoint firmware for 3 or 7 slaves available
			5 Encryption and Link level authentication on/off
			6 Dependent on used Bluetooth host stack
			7 Applies to OHCI411 only
			* In progress

## Compatible and futuresafe

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



	1/2 wave length antenna	Rugged Puck antenna	Rugged Stub antenna	1/4 wave length stub antenna
<b>MECHANICAL</b>				
Type	½ wave dipole	Patch antenna	½ wave dipole	¼ wave dipole
Polarization	Vertical	-	Vertical	Vertical
Gain	+2.5 dBi	+1 dBi	+2 dBi	0 dBi
Dimensions (mm)	Ø10 x 100	Ø76 x 20.7	Ø14.3 x 61.1	Ø9 x 26
IP classification	-	IP67	IP54	-
Mounting	-	M16x13.6 mm	-	-
Cable Length	-	3 m	-	-
Cable Loss	-	-	-	-
Manufacturer	Centurion	Reel (Reel planTec)	Radiall/Larsen	Mobile Mark Communications
<b>CONNECTOR OPTIONS</b>				
SMA male (order number)	Yes (ACC-16)	Yes (ACC-17)	Yes (ACC-21)	Yes (ACC-23)
RPSMA male (order number)	Yes (ACC-36)	Yes (ACC-37)	-	-
U.FL. (order number)	-	-	-	-



	Antenna Cable U.FL-SMA/RPSMA	1/2 wave length antenna with u.fl.	1/2 wave length antenna with u.fl.	NanoBlue PCB antenna with u.fl.
<b>MECHANICAL</b>				
Type	-	½ wave dipole	½ wave dipole	PCB antenna
Polarization	-	Vertical	Vertical	Linear
Gain	-	+2 dBi	+2 dBi	+2 dBi
Dimensions (mm)	-	Ø10 x 108	Ø10 x 108	48 x 13 x 0.8
Housing	-	-	-	-
Mounting	-	Snap-in	Snap-in	-
Cable Length	12 cm	10 cm	25 cm	10 cm
Cable Loss	Less than 0.5 dB	-	-	-
Manufacturer	-	Centurion	Centurion	Centurion
<b>CONNECTOR OPTIONS</b>				
SMA male (order number)	Yes (ACC-18)	-	-	-
RPSMA male (order number)	Yes (ACC-38)	-	-	-
U.FL. (order number)	Yes (mandatory)	Yes (ACC-27)	Yes (ACC-29)	Yes (ACC-28)

# Maximum throughput and robustness ready to embed

For nearly a decade, connectBlue has helped some of the world's most demanding brands to exploit the new possibilities of wireless technology. By applying a connectBlue wireless mindset, and by adapting that to their specific environment, companies achieve improved productivity, logistics and safety. Now comes the next phase in the wireless revolution: the demand for greater data throughput and reliability. All modules presented in this folder comply with connectBlue quality standards with outstanding performance in range, data capacity and field proven robustness.

**connectBlue**<sup>™</sup>

*The strongest connection in a wireless world*

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