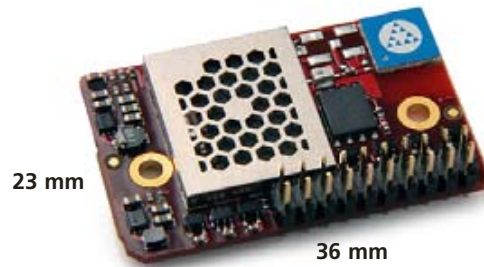




## Wireless LAN



## Product Brief OWLAN211g

The WIRELESS LAN MODULE™ from connectBlue has been developed for integration in industrial devices providing state of the art low power features. The software driver works as the interface between the TCP/IP stack in the device and the module. The module minimizes the work needed to implement Wireless LAN (IEEE 802.11b/g) in a device as it provides all hardware, type approval, EMC certification etc. It is developed for reliable, high demanding industrial devices and applications.

The Wireless LAN Module together with the driver software package makes a complete Wireless LAN implementation. The driver is available for Linux and may be adapted for any micro controller. The Wireless LAN module has the same form factor and interface layout as the Bluetooth modules from connectBlue, which enables customers to prepare their device for both Bluetooth and/or Wireless LAN.

### Key Features

- Supports both 802.11b and 802.11g
- Software driver available or adaptable for any device.
- Bluetooth co-location with PTA (Packet Traffic Arbitration) support
- Radio type approved for Europe
- Radio type approved for US and Canada
- Compliant with EMC standards
- Industrial temperature range -30 to +85 C
- No host processor load
- Low power requirements
- Supports security features WEP64, WEP128, WPA, WPA2 (TKIP/AES)
- Quality of Service: 802.11e and WMM
- Ad-hoc and infrastructure mode
- Internal or dual external antennas (diversity supported)

**connectBlue™**

# Technical Data

## SPECIFICATIONS

### 802.11 specification

Quality of Service: Supports 802.11e and WMM  
Security: Supports 802.11e & WPA/WPA2 (802.11i)  
Multidomain Capability: 802.11d

### PHY/MAC

802.11b and 802.11g  
Extended rate protection  
Regulatory domain support  
Advanced power management  
Antenna Diversity  
Wake-on-Wireless  
Fast roaming  
WPS (WiFi Protected Setup)  
Dynamic Transmit Power Adaptation

### Operational modes

BSS (infrastructure)  
IBSS (ad-hoc)

### Security

WEP64  
WEP128  
WPA-EAP-TLS, WPA-PSK  
WPA2-EAP-TLS, WPA2-PSK  
TKIP  
CCMP (AES)

### Quality of Service

802.11e  
WMM

### Additional Features

Zero host load  
TX power calibration  
Link adaptation  
Fragmentation  
DTIM based power management  
Pre-authentication

### Host Interfaces

SPI up to 60 MHz

### Connector

20 pin header connector  
Board to board connector

### Antennas

Internal or single and dual external (diversity)

### Bluetooth co-location

Supports IEEE 802.15.2 Packet Traffic Arbitration (PTA)

### Power

3.3-5.5 VDC  
Deep sleep mode: 0.2mA @ 3.6 VDC  
Sleep mode: 0.8 mA @ 3.6 VDC  
Active mode, TX: 170mA @ 3.6 VDC

### Host reference driver

Linux 2.4/2.6

### Dimensions

23 x 36 x 3.1 mm

### Weight

3.6 g

### Type Approval

R&TTE (Europe)  
FCC/CFR 47 part 15 unlicensed modular transmitter approval  
IC (Industrie Canada)

### Environmental

Maximum operating temperature: -30 - +85 °C  
Storage temperature: -40 - +85°C  
Humidity RH 5-90% non-condensing  
Shock and vibration: IEC 61131-2

### Certifications and Compliance

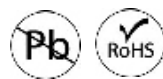
**R&TTE Directive 1999/5/EC**  
EN 300 328 V1.6.1 (2004-11)

**EMC Directive: 89/336/EEC**

EN 301 489-1 V1.4.1 (2002-08)  
EN 301 489-17 V1.2.1 (2002-08)  
EN 61000-6-2 (2001)

### Safety Compliance

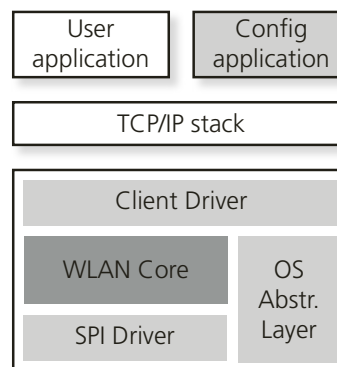
EN 60950-1:2001 and/or IEC 60950-1:2001 (1st Edition)  
EN 60950-1/A11:2004 + Corrigendum:2004



### Order Number

cB-OWLAN211gi-02	OEM WLAN module Internal Antenna and Standard J1 Connector
cB-OWLAN211gi-04	OEM WLAN module Internal Antenna (no J1 Connector)
cB-OWLAN211gx-02	OEM WLAN module External Antenna and Standard J1 Connector
cB-OWLAN211gx-04	OEM WLAN module External Antenna (no J1 Connector)

### Software Stack



# connectBlue™

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