connectBlue™

WLAN 802.11a/b/g/n Development Kits Description

Revision
1.1

Date
24/02/2010

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Important Notice

Please note that a mandatory Software License Agreement has to be signed with connectBlue prior to delivery of any of the Development Kits with source code drivers described in this paper. For kits with binary drivers only no SLA is required.

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cB-WDK-01-A
OWL222a (SDIO) WinCE (ARM) Evaluation kit

The evaluation kit consist of the following parts:

- 1 cB-ACC-49 SDIO Module Adapter
- 1 cB-OWL222ai connectBlue wireless LAN OEM module
- Binary driver for WinCE 5.0/6.0 (ARM) for cB-OWL222a module
- 12 months driver upgrades on ftp.connectblue.se
- Getting started document
- Electrical and mechanical data sheets

Binary driver via FTP download

Customer needs to use own SD card capable computer or embedded system.

cB-WDK-02
OWL222a (SDIO) WinCE (ARM) binary driver

The SW driver package consists of the following downloadable deliverables

- Binary driver for WinCE 5.0/6.0 (ARM) for cB-OWL222a module
- 12 months driver upgrades on ftp.connectblue.se
- Getting started document
- Electrical and mechanical data sheets

Binary driver via FTP download

cB-WDK-08
OWL221a/OWL222a Support package for binary code

Support package for Wireless LAN binary driver kits.
Included in the delivery:

- 5 hours e-mail and telephone technical support within 3 months from order

5h technical support

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cB-WDK-03-A
OWL221a (SPI) and cB-OWL222a (SDIO) WinCE Evaluation system

The evaluation system consist of the following parts:

- 1 Keith & Koep Trizeps IV (Marvell PXA270) (WinCE 6.0 image)
- 1 Keith & Koep µConXS
- 1 cB-ACC-50 µConXS Module Adapter
- 1 cB-OWL221ai connectBlue wireless LAN OEM module
- 1 cB-ACC-49 SDIO Module Adapter
- 1 cB-OWL222ai connectBlue wireless LAN OEM module
- 1 SD memory card with WinCE 6.0 drivers in binary format
- 12 months driver upgrades on ftp.connectblue.se
- Test software for radio evaluation and approvals
- Extra tools for performance, radio, and power consumption tests
- Getting started document
- Electrical and mechanical data sheets

cB-WDK-04-A
OWL221a (SPI) Linux Evaluation system

The evaluation system consist of the following parts:

- 1 Keith & Koep Trizeps IV (Marvell PXA270) (Linux 2.6 image)
- 1 Keith & Koep µConXS
- 1 cB-ACC-50 µConXS Module Adapter
- 1 cB-OWL221ai connectBlue wireless LAN OEM module
- 1 SD memory card with Linux 2.6 drivers in binary format
- 12 months driver upgrades on ftp.connectblue.se
- Test software for radio evaluation and approvals
- Extra tools for performance, radio, and power consumption tests
- Getting started document
- Electrical and mechanical data sheets

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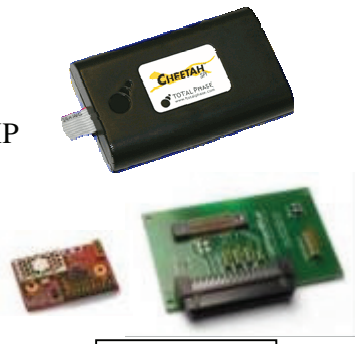
cB-WDK-10-A
OWL221a (SPI) Embedded Driver Evaluation System



Included in the delivery:

- connectBlue Embedded Wireless LAN Driver and application for Windows XP in binary code (x86)
- 1 Total Phase Cheetah USB-SPI host dongle
- 1 cB-ACC-50 µConXS Module Adapter
- 1 cB-OWL221ai connectBlue wireless LAN OEM module
- 12 months driver upgrades on ftp.connectblue.se
- Documentation
    - Electrical and mechanical data sheets
    - Getting started document

Binary driver via FTP download

cB-WDK-08
OWL221a/OWL222a Support package for binary code

Support package for Wireless LAN binary driver kits.
Included in the delivery:

- 5 hours e-mail and telephone technical support within 3 months from order

5h technical support

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cB-WDK-05
OWL221a (SPI) and OWL222a (SDIO) WinCE driver source code

connectBlue will deliver a driver in source code for WinCE 6.0. The SW driver is delivered for the Keith & Koep Trizeps IV + µConXS platform. The customer has to do adaptation, porting of the delivered drivers to run in their own environment.

Included in the delivery:

- Reference driver for WinCE 6.0 ported to the Keith & Koep Trizeps IV (Marvell PXA270) + µConXS platform in source code consisting of:
  - WinCE top level adaptation layer
  - WLAN driver core
  - Example of SPI driver
  - Example of SDIO driver
- The driver is developed to run in "little endian" configurations
- Module firmware included in the driver code as binary image
- 10 hours advanced technical support within 6 months from driver delivery
- 12 months driver upgrades on ftp.connectblue.se
- Test software for radio evaluation and approvals
- Extra tools for performance, radio, and power consumption tests
- Documentation:
  - Electrical and mechanical data sheets
  - Product overview
  - Programming API
  - cB-OWL22x Electrical and mechanical data sheet

Source code driver via FTP download

10h technical support

Software License Agreement must be signed.

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cB-WDK-06
OWL221a (SPI) and OWL222a (SDIO) Linux driver source code

connectBlue will deliver a driver in source code for Linux 2.6. The SW driver is delivered for the Keith & Koep Trizeps IV + µConXS platform. The customer has to do adaptation, porting of the delivered drivers to run in their own environment.

Included in the delivery:

- Reference driver for Linux2.6 ported to the Keith & Koep Trizeps IV (Marvell PXA270) + µConXS platform in source code consisting of:
  - Linux top level adaptation layer
  - WLAN driver core
  - Example of SPI driver
  - Example of SDIO driver
- The driver is developed to run in "little endian" configurations
- Module firmware included in the driver code as binary image
- 10 hours advanced technical support within 6 months from SW driver delivery
- 12 months driver upgrades on ftp.connectblue.se
- Test software for radio evaluation and approvals
- Extra tools for performance, radio, and power consumption tests
- Documentation:
  - Electrical and mechanical data sheets
  - Product overview
  - Programming API
  - cB-OWL22x Electrical and mechanical data sheet

Source code driver via FTP download

10h technical support

Software License Agreement must be signed.

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cB-WDK-09
OWL221a (SPI) Embedded Driver source code

Delivery of the connectBlue Embedded Wireless LAN Driver for the connectBlue 802.11 a/b/g/n Wireless LAN modules cB-OWL221a.

This Embedded Driver is delivered in source code and is OS and host controller independent. It requires a host controller running in Little Endian mode and enough system resources left. Note that the Embedded Driver doesn't include any TCP/IP Stack, Supplicant SW, or similar software components. The customer has to do adaptation, porting of the delivered drivers to run in their own environment.

Included in the delivery:

- connectBlue Embedded Wireless LAN driver in source code (standard ANSI C)
- Examples of ports to Linux 2.6 ARM (Keith & Koep Trizeps IV) and Windows with developer studio (Developer studio not included)
- Lower and upper level MAC FW in binary format
- 5 hours advanced technical support within 6 months from SW driver delivery
- 12 months driver upgrades on ftp.connectblue.se
- Documentation
  - Electrical and mechanical data sheets
  - Porting guide
  - Driver API documentation

Source code driver via FTP download

10h technical support

Software License Agreement must be signed.

cB-WDK-07
OWL221a and OWL222a Support package extension for driver source code, and driver updates

Included in the delivery:

- 10 hours e-mail and telephone technical support within 6 months from order
- 12 months driver upgrades on ftp.connectblue.se

10h technical support

Supported features SW driver functions

- SPI host interface support up to 80MHz
- SDIO version 2.0 support up to 50 MHz
- Bluetooth coexistence protocol
- Hardware support for IEEE 802.15.2 Packet Traffic Arbitration
- Support of 802.11e (WMM Quality of Service)
- Support of 802.11i (MAC security enhancements)
- WEP64, WEP128
- TKIP, AES (CCMP)
- PEAP
- WPA-EAP-TLS, WPA-PSK
- WPA2-EAP-TLS, WPA2-PSK
- Advanced power save mode
- Infrastructure/Ad-hoc modes (no support for Access Point mode)
- The driver requires 300 KB of flash and 100 KB of RAM in the host system.
- Low host requirements: 150 kB driver, 150 kB firmware and 50 kB RAM

Related Documents

- cB-OWL22x Electrical and Mechanical Data Sheet
- cB-OWL22x Software License Agreement
- cB-OWL22x Product Brief
- connectBlue overview brochure – *Ready-to-Embed Wireless Modules*