



Worldwide Wireless USB Host Adapter Reference Design Kit (AL5604)

Add Wireless USB capability to any Windows XP or Vista based PC

Overview

The Alereon Worldwide Wireless USB Host Adapter Reference Design Kit (RDK) is a turn-key manufacturing kit designed to enable the rapid development of Certified Wireless USB Host adapters. This second generation design provides all the tools, software and design files required for the rapid deployment of a compact and cost effective solution. Based on an Alereon AL5000 Family chipset, the Worldwide Wireless USB Adapter assures worldwide capability and delivers the full potential of Certified Wireless USB.

Worldwide Compatibility

Global Companies require global solutions. Alereon offers the only Wireless USB reference design capable of delivering the full promise of Wireless USB while still meeting regulatory requirements around the globe. With an AL5000 family chipset, OEM/ODMs can ship a single Product/SKU without modification, anywhere in the world.* Featuring support for WiMedia band groups 1, 3, 4, and 6, users have full access to more than 10 channels in any country, enabling the full 480 Mbps throughput of Wireless USB for a true worldwide solution.

* Any country with approved UWB regulations

Highest Performance

Featuring an Alereon AL5000 chipset, the Worldwide Wireless USB Host Adapter exceeds WiMedia and Certified Wireless USB requirements. When connected with a Wireless USB Hub, the Worldwide Wireless USB Host Adapter will achieve up to 40 Mbps throughput enabling virtually any legacy wired USB device. When connected to native Wireless USB devices, the Worldwide Wireless USB Host Adapter achieves throughput of up to 150 Mbps (depending on the device class).

Complete Software Support

In addition to full design support, the Worldwide Wireless Host USB Adapter includes application software that provides a graphical install wizard, radio controls and configuration menus supporting Windows XP and Vista operating systems. Diagnostic software tools for design verification and test purposes are also provided to insure fast bring-up, validation, and quick time-to-market. All required drivers, design files, and documentation are included.

Ordering Information

Part Number	Description	Price
AL5604-EVB-00	Evaluation Board	Contact sales@alereon.com
AL5604-RDK-00*	Reference Design Kit	Contact sales@alereon.com



Features

- Complete production ready reference design for a Wireless USB HWA with a USB 2.0 high speed interface based on an Alereon AL5000 Family chipset
- WiMedia and Certified Wireless USB compliant to ensure quick certification
- Supports all WiMedia band groups, all TFCs and every data rate from 53.3Mbps to 480Mbps with a single SKU and without the need to populate different component configurations. (US: 36 channels, BGs 1, 3,4, & 6. EU/China: 19 channels, BGs 3 & 6, Japan/Korea: 17 channels, BGs 4 & 6).
- Fold-down whip antenna for longer range, more robust RF performance, and throughput
- Complete production-ready reference design kit includes
 - Software, device drivers and configuration scripts
 - Schematic and board layout design files
 - Complete bill of materials and documentation
 - FCC and Certified Wireless USB certifications, CE and TELEC compliant
- Microsoft XP and Vista support

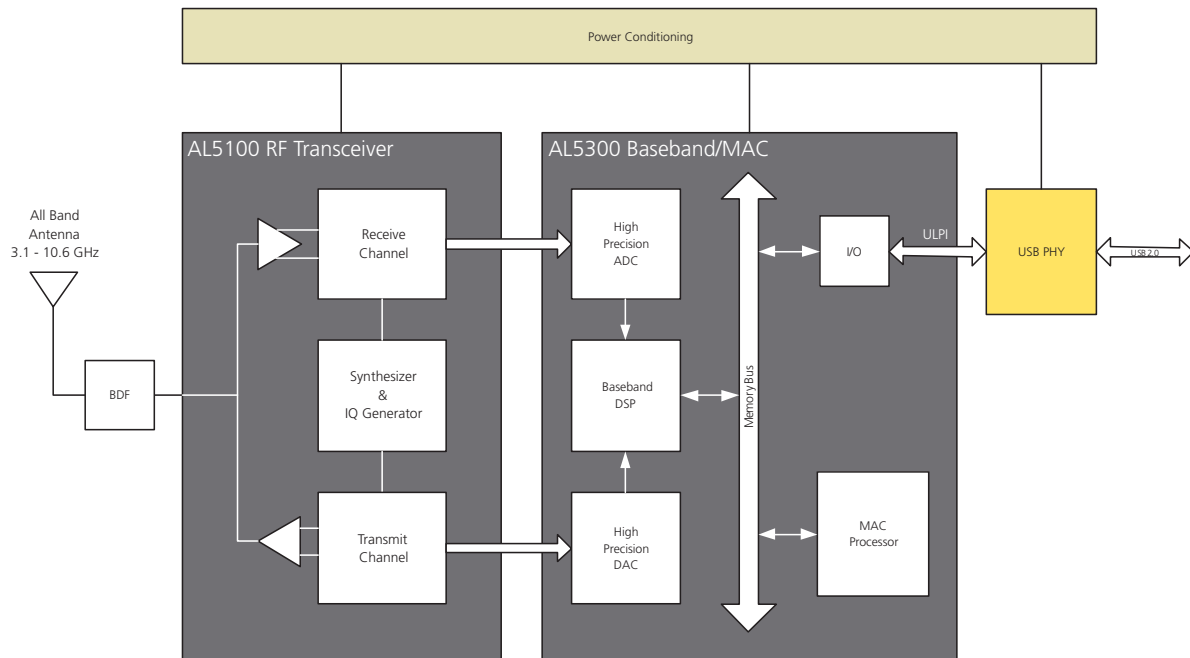
Applications

- Aftermarket host adapter for Certified Wireless USB hubs, docking stations, graphic adapters or any other Certified Wireless USB device

*The Worldwide Wireless USB Adapter RDK includes:

- > OrCAD schematic database
- > PADS PCB layout database
- > Bill of materials with approved vendor list
- > User application software, drivers and documentation

Worldwide Wireless USB Adapter Functional Block Diagram



Worldwide Wireless USB Adapter Key Specifications

Chipset	AL5100 RF Transceiver, AL5300 Baseband/MAC
Host Interface	USB 2.0
Data Rates (Mbps)	53.3, 80, 106.7, 160, 200, 320, 400, 480
Range	5 – 10 meters
Standards	WiMedia PHY version 1.1 and USB 2.0
Throughput	100 Mbps (typical to Native devices)
WiMedia Band Groups	1, 3, 4, 6 (3.1 – 10.6 GHz)
WiMedia Channels	TFC 1–10 (TFI, FFI, TFI2)

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For more information, register at <http://www.alereon.com/RegisterUserAccount>

About Alereon

Alereon, Inc. is a fabless semiconductor company using revolutionary Ultra Wideband (UWB) radio technology to develop high-bandwidth, low-power, low-cost Wireless USB and WiMedia UWB chipsets that are ideal for today's portable products, like digital cameras, mp3 players and cell phones. Our mission is to replace the complex tangle of wires that interconnect today's electronic devices with wireless links.

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