

# AT76C551-BLSNK

## BLUETOOTH™ BLSNAKE KIT

### ATMEL'S BLUETOOTH MONITORING TOOL



## Overview

The BlueSnake Kit is an HCI-based multi-purpose scripting and monitoring tool that supports the design and testing of custom communication applications with point-to-point or point-to-multipoint Bluetooth links (including scatternets). It is v1.1 compliant and can ideally be used for scripting scenarios and logging information (evidence) to be used as part of a qualification process in a BQB. Additionally, it can be used as a 100 percent reliable protocol analyzer ("sniffer") for links where the Bluetooth device of the kit participates either as a slave or a master.

The BlueSnake Kit comprises of an Atmel Bluetooth PCMCIA card and the BlueSnake application software running on a personal computer. The PCMCIA card runs a special firmware version (Bluetooth v1.1 compliant) which in cooperation with the software provides all the information for tracking the details of the various Bluetooth links in which the card participates. The BlueSnake application is a functional kernel easily expandable with scripts that are conveniently available as menu options. These scripts are written in Python with the help of the integrated or any other text editor. Python is an open-source interpreted, interactive, object-oriented scripting language often compared to Tcl, Perl, Scheme or Java.



## Capabilities

The available kernel functionality provides the following monitoring and/or logging capabilities:

- Baseband packet statistics (types, error rate, etc.) and contents (headers and payload)
- Piconet clock-based representation of baseband packet exchange sequence
- LMPDU exchange sequence and contents
- HCI command/event sequence and contents
- HCI ACL packet payload data
- A number of off-the-shelf scenarios are already available so that users can immediately start using the kit even for collecting qualification evidence, including:
  - Inquiry/InquiryScan
  - Simple connection establishment
  - Connection establishment with advanced features (master/slave switch)
  - Data transfer (file transfer, chat, etc.)
  - The BlueSnake application provides all the required environment for issuing individual HCI commands to a Bluetooth device
  - A limited version of the BlueSnake application that only monitors baseband packet statistics is contained in Atmel's AT76C55X-DK Bluetooth Development Kit

## Firmware

The firmware running on the AT76C551 controller is an augmented version of Atmel's Bluetooth v1.1 compliant firmware and implements the following Bluetooth layers:

- Link Controller (LC)
- Link Manager (LM)
- Host Controller Interface (HCI)
- HCI Transport Layer (PCMCIA)

Additionally, it contains all the necessary functionality to support the monitoring features of the BlueSnake kit.

## Drivers

The BlueSnake application is accompanied with drivers for Windows® 98/2000.

## System Requirements

- Desktop PC or notebook PC with CD-ROM drive
- Operating systems: Windows 98/2000
- ISA or compatible PCI-to-PCMCIA controller in case of a desktop PC
- PCMCIA Type II or Type III card slot in case of a notebook PC

## Ordering Information

Part Number: AT76C551-BLSNK  
Description: BlueSnake Kit  
Cards/Kit: 1 PCMCIA Card



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