



## LM505 USB Adapter

### Bluetooth HCI USB Nano Adapter with Broadcom Chip

Product: LM505  
Part No: 505-0511  
Datasheet Rev 1.0/25-07-12

#### 1 Features

- Compatible with Bluetooth v2.1+EDR specification. Backward compatible with Bluetooth 2.0 + EDR devices
- Support Maximum Asynchronous Data Rate 3 Mbps
- Provide data access via USB 2.0 interface
- Low power consumption
- 2.4 - 2.4835 GHz ISM Band Operation
- Very small Size (23 mm x 20 mm)
- Class 2 adapter with upto 10 m in open space
- Wide range of Bluetooth profiles supported (like HF, A2DP, OPP, FTP, DUN, PAN, SPP profiles etc)
- Eliminates the need of cable between your computer and other Bluetooth Devices
- Stereo Audio supported. VoIP calls over Bluetooth also supported
- Interoperable with PDAs, Phones
- Supported by Windows XP, VISTA & 7 Bluetooth Driver. No need for an additional driver



BT v2.1 USB Adapter

#### 2 Description

**LM505 EDR Nano USB Adapter is one of the world's smallest adapter which fits discreetly into the USB port of a Laptop or PC. This is a very small form factor and high performance adapter which allows you to connect to upto 7 Bluetooth devices simultaneously.**

The adapter integrates high performance Bluetooth Radio, Baseband, Link Manager, Host Controller Interface and can be used with Widcomm Software or Windows Bluetooth Driver which offers a huge range of Bluetooth profiles for variety of connectivity applications. The adapter is ideally suited for Bluetooth connectivity to serial adapter, laptops, PC, Mono and stereo headsets.

Due to its small size, high performance, low power consumption and high sensitivity this adapter is ideally suited for Bluetooth connectivity applications where the adapter can fit discreetly into portable devices that have USB port. This adapter can also be embedded in other products in modular form by removing the housing and USB connector. LM Technologies also produces the modular form of this product called LM505 Module.



### 3 Packaging Options

AO - Adapter Only

Part No 505-0511

1x Bluetooth USB Adapter

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### 4 General Specification

| Specification       | Description                                                                                   |
|---------------------|-----------------------------------------------------------------------------------------------|
| Product Name        | LM505 Bluetooth USB Nano Adapter                                                              |
| Chipset             | Broadcom BCM2046                                                                              |
| Bluetooth Standard  | Bluetooth v2.1 + EDR                                                                          |
| Frequency Band      | 2.4 - 2.4835 GHz ISM Band                                                                     |
| Modulation Method   | GFSK for 1 Mbps, $\pi/4$ -DQPSK for 2 Mbps, 8-DPSK for 3 Mbps                                 |
| Spread Spectrum     | FHSS (Frequency Hopping Spread Spectrum)                                                      |
| Transfer Rate (Max) | 3 Mbps enhanced data rate                                                                     |
| RF Output Power     | Class 2                                                                                       |
| Working Distance    | 10 m - 25 m in open space                                                                     |
| Rx Sensitivity      | -80 dBm at 0.1 % BER                                                                          |
| Input Voltage       | DC 5V (via USB port)                                                                          |
| I/O Interface       | USB 2.0                                                                                       |
| LED indicator       | Power/Active                                                                                  |
| OS Support          | Win XP/VISTA/7                                                                                |
| Size                | 23(L) x 19(W) x 8(H) mm                                                                       |
| Software/Drivers    | Windows XP/VISTA/7, Widcomm                                                                   |
| Bluetooth Profiles  | GAP,SPP,HSP, HFP, DUN, FTP, FAX, PAN, LAN, HID, SYNC, HCRP, A2DP, AVRCP, BIP, GOEP, SDAP, OPP |

### 5 FCC Regulation Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1) This device may not cause harmful interference, and
- 2) This device must accept any interference received, including interference that may cause undesired operation

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Installation and use of this device must be in strict accordance with the instructions included in the user documentation provided with the product. Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment. The manufacturer is not responsible for any radio or



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television interference caused by unauthorized modification of this device, or the substitution of the connecting cables and equipment other than manufacturer specified. It is the responsibility of the user to correct any interference caused by such unauthorized modification, substitution or attachment.

Manufacturer and its authorized resellers or distributors will assume no liability for any damage or violation of government regulations arising from failing to comply with these guidelines.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

**The FCC ID of the device is VVXLM505U.**