

# Product Specification

Model:XHT-BT06H

Thank you for purchasing this device USB BLUETOOTH DONGLE 4.0!

The dongle used bluetooth chip BCM20705

## The BCM20705 Bluetooth 4.0 Dual-Mode Smart Ready (BLE) USB Adapter

The BCM20705 Bluetooth 4.0 Dual-Mode Smart Ready (BLE) USB Adapter combines Classic Bluetooth 2.0, 2.1 and 3.0 EDR standards along with the Bluetooth Low Energy (BLE) SMART standard, enabling the adapter to communicate with both traditional Bluetooth Classic and Bluetooth Low-Energy (BLE) SMART-enabled devices.

The BCM20705 utilises a Broadcom IC and can be supplied with or without Widcomm Windows drivers, which support a wide-range of Bluetooth profiles such as: HFP, A2DP, OPP, FTP, DUN, PAN, SPP, HCRP, SYNC, BTLE etc. The adapter will plug-and-play with Windows' own Bluetooth Stack when used with Windows XP, VISTA, Windows 7 and Windows 8.

## USB BLUETOOTH DONGLE 4.0 Technical Overview

The XHT-BT06H is a ROM-based HCI adapter and as such requires a PC or external host running a compatible stack. BLUETOOTH Technologies has been able to reduce the overall footprint and package-size the LM506 Bluetooth 4.0 BLE USB adapter, achieving a small Form Factor of 19.5mm x 16.0mm x 8.1 mm. The Bluetooth 4.0 BLE USB Adapter will support a data rate of 3 Mbps in Bluetooth Classic EDR Mode and up to 250 Kbps in BLE Mode.

The Bluetooth 4.0 BLE USB adapter is a Class 2 adapter with a maximum distance of 110m in open space. The Bluetooth 4.0 BLE USB Adapter has an output of 6dbm, which exceeds the Class 2 requirements set forth in the Bluetooth SIG standards, which state that any device with an output above 4dBm is categorised as a Class 2 device.

### Features

1. Bluetooth 4.0 USB Adapter with Bluetooth Low Energy (BLE) support
  2. 80 m range in open space
  3. Small Size Nano Adapter : 19.47(L) x 16(W) x 8.1(H) mm
  4. Stereo audio supported. VoIP calls over Bluetooth also supported
  5. Supports up to 7 ACL link and 3 SCO links
- 6.Downloadable Windows Driver, Widcomm Software support for Windows XP, VISTA, 7. BlueZ support on Linux

### Manufacturer

Chipset	Broadcom	BCM20705
---------	----------	----------

Power Classification	Class 2
Adapter Type	USB Adapter
Interface	USB 2.0
Bluetooth Specification	Core 4.0 backward compatible with BT3.0/BT2.1 and BT2.0 + EDR
Frequency	2402 – 2480 MHz 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)
Operating Temperature	0°C to +60°C
Storage Temperature	-10°C to +70°C
Humidity	5~90% non-condensing
Data Transfer Rates (Max)	3 Mbps enhanced data rate, 250 Kbps Low Energy mode data rate
Range	Maximum 80 m in open space
Tx Power	Class 2 (+4dBm)
Input Voltage	DC 5V (via USB port)
Antenna	Internal
Rx Sensitivity	< -82 dBm at <0.1 % BER
LED Indicator	Power/Active (BLUE)
OS Support	Windows XP/VISTA/7/8, Linux (BlueZ 4.98 and above)
Default Firmware	Broadcom HCI ROM Firmware
Software	Broadcom Widcomm software and BlueZ support on Linux
Size	22(L) x 15(W) x 6(H) mm
Weight	2g
Bluetooth Profile	GAP,SPP,HSP, HFP, DUN, FTP, FAX, PAN, LAN, HID, SYNC, HCRP, A2DP, AVRCP, BIP, GOEP, SDAP, OPP, Bluetooth Low Energy, Bluetooth Proximity Profile
USB VID/PID	VID: 0X0A5C      PID"0X21E8

NOTE: 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.

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.

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.