



APPLICATION NOTE

BLUETOOTH Interface

Revision: 002
Date: December 2005



wavocom[®]
Make it wireless

Author:	WAVECOM S.A.						Date:	December 06, 2005						
APN Content Level	BASIC		INTERMEDIATE	X	ADVANCED		Confidentiality	Public	X	Private				
Software Compatibility*	OS:	6.55	Open AT®:		Internet or TCP/IP:		Compiler Used:		Reference Hardware	Yes				
		6.60							Reference Software	no				
* refer to software compatibility matrix section for more detail														
Hardware Compatibility	Modems:	M1206B		M1306B		M2106B								
	Quik (CDMA):	Q2358C		Q2438F		Q2438R								
	Quik (GSM):	Q2400A		Q2403A		Q2406A		Q2406B	X	Q2501B	X	Q2686H	X	Q2687H

1 INTRODUCTION

This APN (Application Note) is provided to Wavecom distributors and clients to aid more rapid development of embedded applications using the Wavecom port folio of cellular solutions. To request a new application note, contact your regional Wavecom Product Marketing Manager.

2 APPLICATION DESCRIPTION

The goal of this document is to describe a solution to interface WAVECOM module Q24xx or Q2501 or Q2686 with a Bluetooth Module to offer a Complete Solution GSM/GPRS/BT (+GPS for Q2501*) with an applicative single interface.

*For Q2501, GPS is only available in external mode.

3 FEATURES SUPPORTED

The Bluetooth interface provided in this application note is compatible with Bluetooth V1.2. It's compatible with HCI commands format for Bluetooth. It was tested with a BT Module integrated CSR Bluecore 03. Wavecom recommends to use CSR's core.

Only SAP profile is supported: Audio is unavailable.

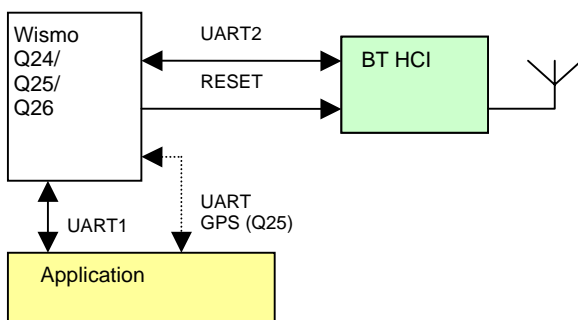
4 CUSTOM AT COMMANDS

The specific AT commands that are required for BT are included in the document: « *Specific Bluetooth AT Commands Interface Guide For AT x55 & x60* » (WM_ASW_BLU_001). Contact your regional Wavecom Product Marketing Manager.

5 STANDARD AT COMMANDS

Contact your regional Wavecom Product Marketing Manager.

6 REFERENCE HARDWARE



UART2 is used for driving the Bluetooth module. UART2 carry the commands compatible with HCI protocol. The type of UART2 is 4 wires with flow control. Speed* and format can be tuned to adapt with BT Chipset type.

*Up to 115.2kbps.

BT HCI: This component must be compatible with HCI protocol for UART. Wavecom recommends using component with CSR's core Bluecore 03. The BT's reset must be connected on Wismo module (cf. Affectionation Table). Reset's polarity could be chosen to adjust with polarity BT's reset.

Host Application: The host application drives block of functions GSM/GPRS/BT (+GPS for Q2501*) by the UART1.

*For Q2501, GPS is only available in external mode.

Affectionation Table:

	Q24xx	Q2501	Q2686
RESET BT	GPO1	GPIO1	GPIO22

7 DOCUMENTATION

This application note.

Examples of schematic in APPENDIX.

8 SUPPORT

Wavecom provides Wismo module thus software include GSM/GPRS/BT (+GPS for Q2501) functionalities, but doesn't provide others components described here and it doesn't support them.

For direct clients: contact your Wavecom FAE

For distributor clients: contact your distributor FAE

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9 DOCUMENT HISTORY

Level	Date	History	Author
001	14/10/2005	First Edition	LDE

10 ABBREVIATIONS

BT: Bluetooth

UART: Universal Asynchronous Receiver Transmitter

HCI: Host Controller Interface

11 LEGAL NOTICE

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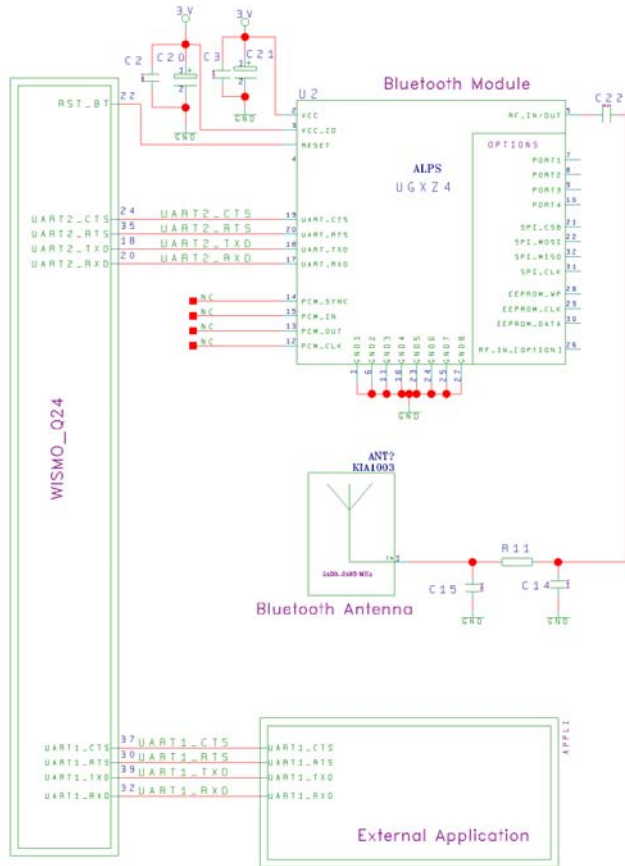
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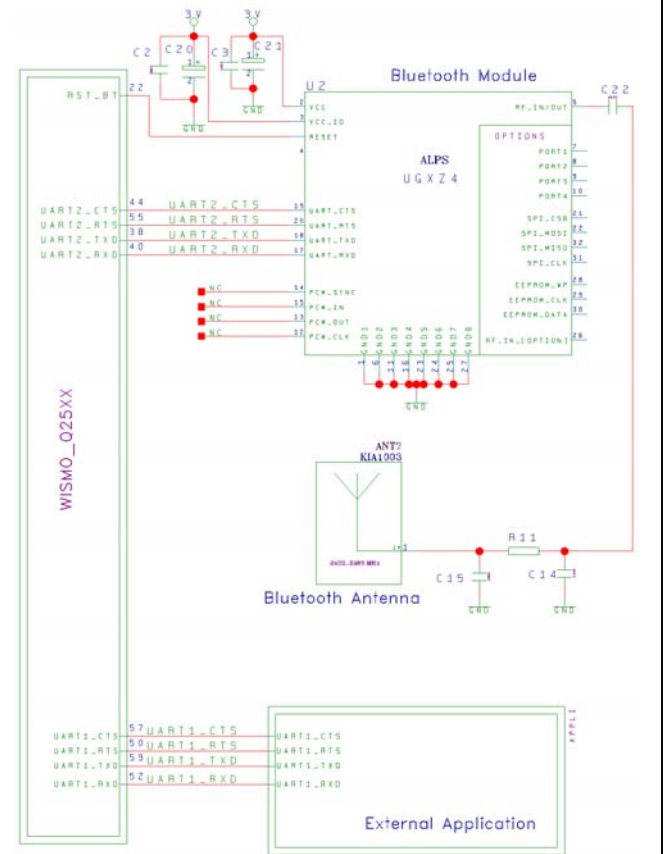
12 APPENDIX

12.1 Applications Examples

12.1.1 Use with Q24XX



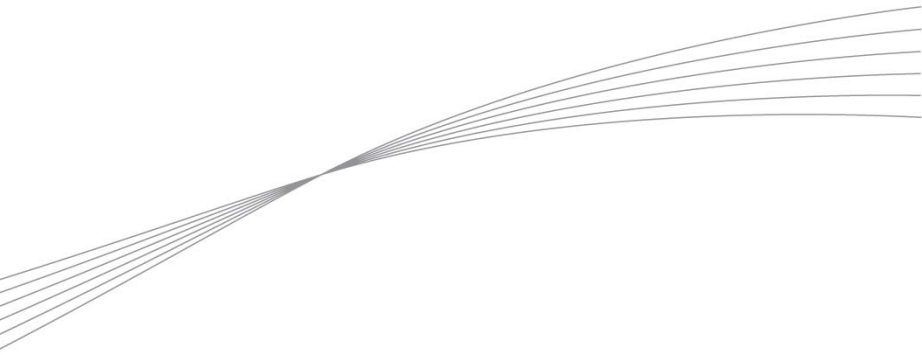
12.1.2 Use with Q25XX



Components used :

In these examples, the Bluetooth module used is a UGXZ4 by [ALPS](#). This module basis of Bluecore03© need few externals components. UGXZ4 and UGXZ2 have the same technical characteristics but UGXZ4 is qualified for automotive use.

<END OF DOCUMENT>



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