SUMMIT SEMICONDUCTOR LLC
Model No.: 444-2213
FCC ID: UA9400

USER MANUAL

Issue Date: 27 October, 2011
Revision: 1.0

Revision History

Rev. No.	History	Issue Date	Remarks
1.0	Draft Release	27 October, 2011	Pending FCC Grant

Model No. 444-2213   22867 NW Bennett St., Suite 200
www.summitsemi.com   Hillsboro, OR 97124
                                                                        TEL (503) 615 7734
                                                                        FAX: (503) 615 4432

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1.0 Regulatory Statement

The United States Federal Communication Commission has established certain rules governing the use of electronic equipment.

1.1 FCC Certification

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 device 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 when the equipment is operated in a residential installation. This equipment generates, uses, and radiates radio frequency energy and if not installed and used in accordance with the instruction guide, may cause harmful interference to radio communications.

CAUTION: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This radio is compliant with FCC RF Exposure requirements for mobile devices. Users are cautioned to maintain 20 cm from the transmitter to ensure compliance.

CAUTION: The operation of this radio in the 5.15-5.25 GHz frequency band is restricted to indoor use only.

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2.0 Introduction:

The 444-2213 Wireless Audio Client device is a production ready module designed for active speakers in Summit Semiconductor's wireless audio technology. The module mounts to the top interior wall of a typical speaker. The module includes a patented, low cost, high gain quad diversity PCB antenna integrated in the module to provide superior wireless performance without external antennas. A 40 pin interface provides, I2S digital audio outputs, power, I2C and GPIO signals for control of the amplifier and power supply.

FRONT SIDE
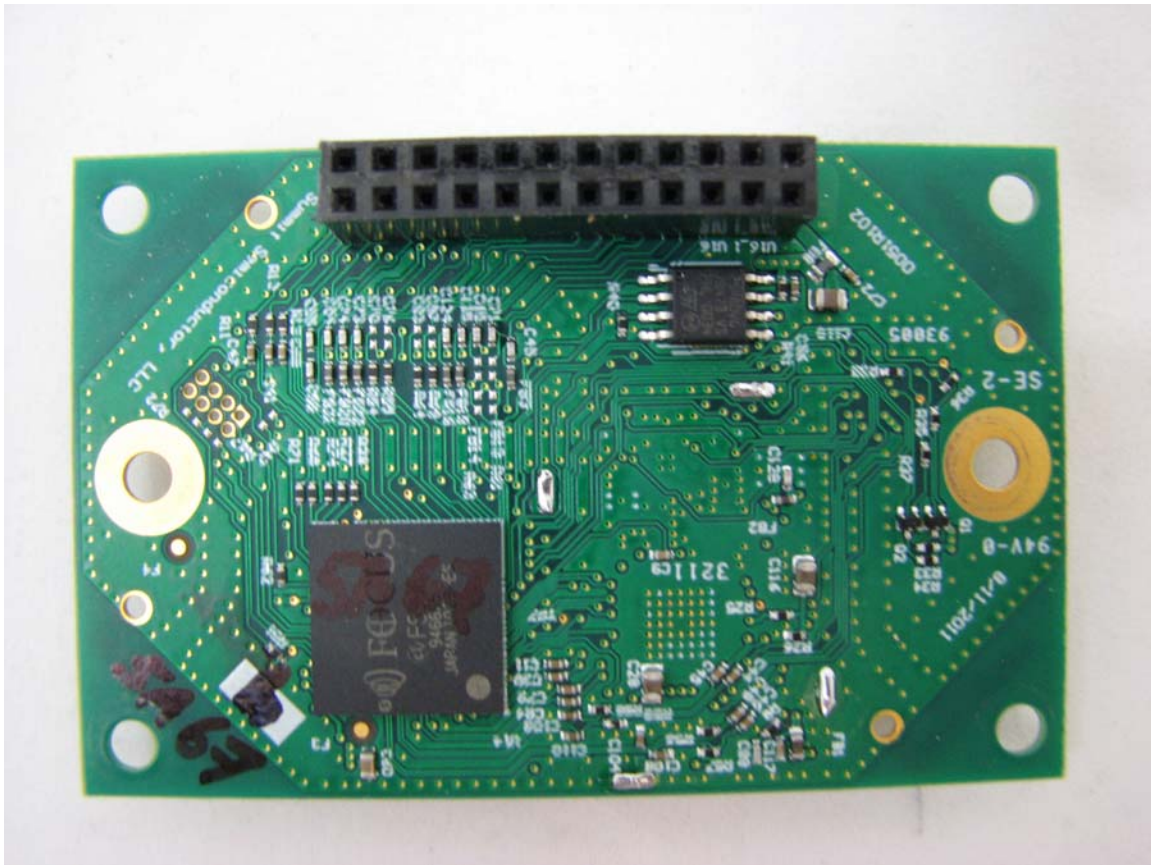
BACK SIDE

CAUTION: DO NOT TRY TO REPLACE THE ANTENNAS

3.0 Installation and Test Procedure

A host interface board is used to provide the necessary regulated power supply to the 444-2213 Wireless Audio Client device.

The set up is as shown in the picture below.

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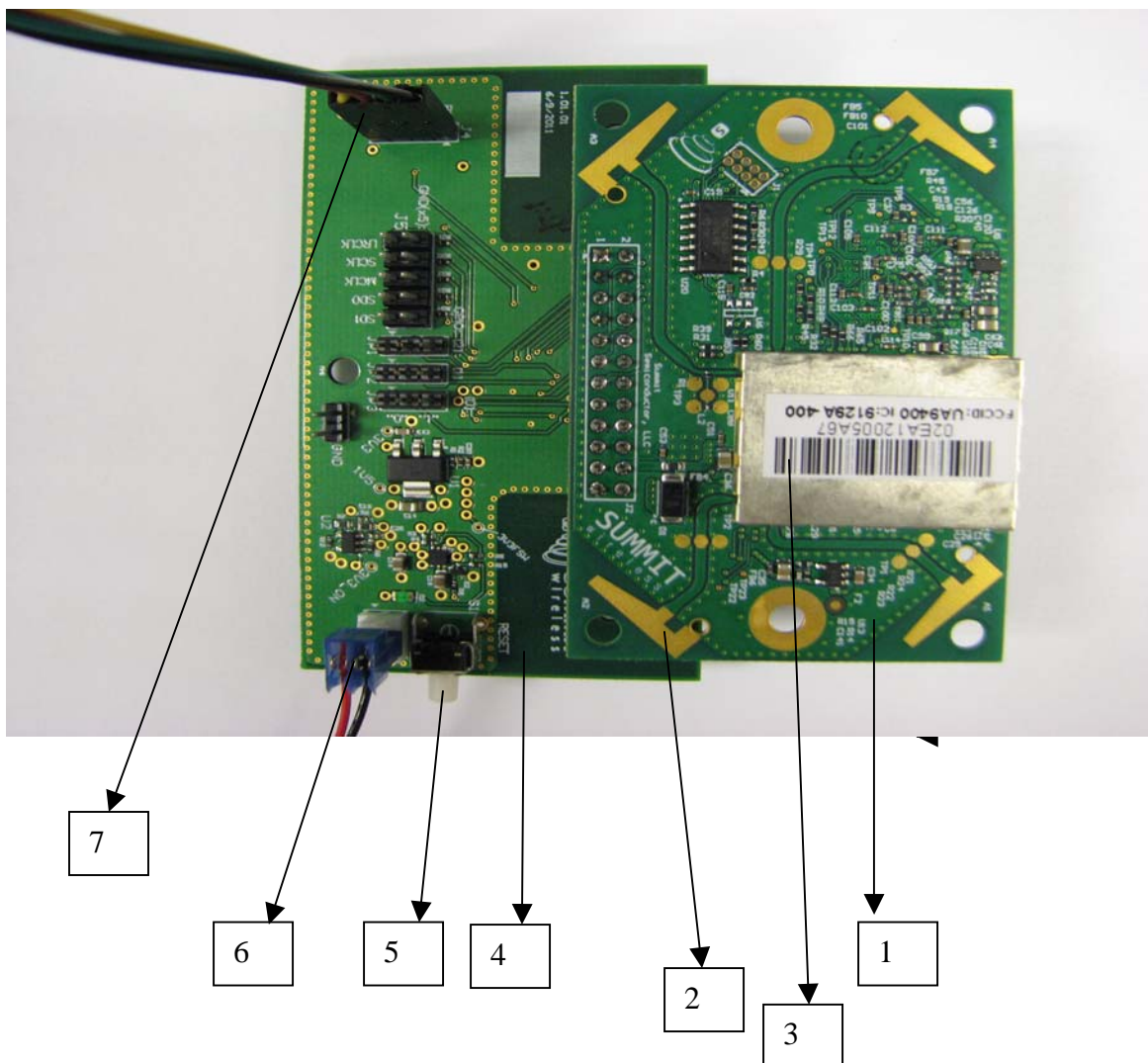
1	Wireless Audio Client device
2	Integrated Antenna
3	RF Can
4	Mikkalo(Interface Board)
5	Reset Button
6	Power Input 3.3V
7	RS232 interface

3.1 Boot:

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Download Summit Semiconductor's Hood_BIST_156 software onto your computer.

➢ Connect Mikkalo (interface board) to 444-2213 Wireless Audio Client device as shown in the picture.

➢ Connect a 3.3V DC supply to Mikkalo (interface board) from a variable or a fixed source.

➢ Connect the RS232 interface from J4 of the interface board to the serial cable.

➢ Connect the serial cable to the computer's COM port.

➢ Press the reset button for the DUT to boot. Your screen should look as below.

3.2 Setting Channel, data rate and transmit power

The following transmit command is used to set the transmitter in a particular channel and to start transmitting.

tx -1 1 d 4 8 255

The parameters in the command are explained below.

-1	Transmit continuous control
1	Antenna selected control (A1)
d	Data rate selection (6Mbps)
4	Transmit Power Control
8	Channel selection (5180 MHz)
255	Time out control

Please refer the table below to change frequencies in the transmit command.

Channel No in Transmit Command	Frequency
8	5180
10	5200
12	5220
14	5240
15	5260
16	5280
17	5300
18	5320
19	5500
20	5520
21	5540
22	5560
23	5580
27	5660
28	5680
29	5700
30	5745
31	5765
32	5785
33	5805
34	5825

Example:

1) tx -1 1 d 4 8 255 ; The DUT transmits in frequency 5180 MHz
2) tx -1 1 d 4 30 255; The DUT transmits in frequency 5745 MHz

Note: This device will not operate in 5600 MHz - 5650 MHz band.

3.3 Stop transmitting

The following command is used to stop the DUT from transmitting.

stoptx

4.0 System Requirements

Operation:
  PC with COM ports

Programming:
  Windows XP and higher