



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



BT Audio click

From MikroElektronika Documentation

BT Audio click features Microchip's RN52 Bluetooth audio module capable of streaming high quality audio. The module combines class 2 Bluetooth radio and an embedded DSP processor, controlled and configured by simple ASCII commands and GPIO. The board has two audio jacks, input (microphone) and line out (for connecting speakers).

Contents

- 1 Features and usage notes
 - 1.1 1. BT Audio click can stream audio files
 - 1.2 2. Quality of sound over Bluetooth
 - 1.3 3. Connectivity to Apple devices
 - 1.4 4. Bluetooth range
- 2 Key features
- 3 Pinout diagram
- 4 Resources

Features and usage notes

1. BT Audio click can stream audio files

DSP, or digital signal processor, is what makes this module special, because the module can actually stream audio – it converts and compresses the radio waves sent from your phone or computer into digital data, and then sends it to your speakers or headphones.

2. Quality of sound over Bluetooth

You can be glad to know that the module supports aptX, audio codec for high quality stereo audio streaming over a Bluetooth connection. So the quality of the sound is not something you will have to compromise on, as aptX encodes a CD-quality (16-bit / 44.1kHz) audio stream.

3. Connectivity to Apple devices

The module also supports iAP profile discovery for connecting BT Audio click to Apple devices like iPods, iPhones or MAC computers.

- The RN52 supports HSP/HFP, A2DP, AVRCP and SPP, as well as digital I/O, stereo speaker output, stereo microphone input, up to 11 General Purpose I/O's, and 2 LED status outputs.
- The HSP/HFP stands for Hands-Free Profile and Headset Profile for an audio connection between Bluetooth on your phone and the headset.

4. Bluetooth range

The BT Audio click has a 10m range in open space, but it might be less indoors, because of all the walls and other kinds of barriers. But it is enough range to cover your house or apartment, so you can move your phone to the kitchen without losing the connection to the speakers.

BT Audio click communicates with the target board MCU through MikroBUS UART. A green LED indicates that power is on.

The BT Audio click runs on 3.3V power supply only.

Key features

The demo is a GUI application made for the mikromedia+ for STM32F7 with a shield. The Application uses BT Audio library to interface between the touch screen and click board to play music and make phone calls.

```

1 void play_btnOnClick()
2 {
3     connection_status_t connection;
4
5     bt_audio_query_connection_status( &connection );
6     if( !connection.A2DP_connection )
7         return;
8     if( music_state_t == PAUSED )

```

BT Audio click



BT Audio click

IC/Module	RN52 (http://ww1.microchip.com/downloads/en/DeviceDoc/70005120A.pdf)
Interface	UART
Power supply	3.3V
Product page	www.mikroe.com/click/bt-audio (http://www.mikroe.com/click/bt-audio)
Schematic	BT Audio click schematic (http://cdn-docs.mikroe.com/images/b/b0/BT-Audio-click-schematic_v100.pdf)

```


9  {
10     bt_audio_pause_play_track();
11     music_state_t = PLAYING;
12     if( first_song )
13     {
14         get_track_data();
15         first_song = false;
16     }
17 }
18 }

```

The complete project is available on Libstock (<http://libstock.mikroe.com/projects/view/1947/bt-audio-click>).

Pinout diagram

This table shows how the pinout on BT Audio click corresponds to the pinout on the mikroBUS™ socket.

Notes	Pin	 mikroBUS™		Pin	Notes
Defines baud rate of module	BAUD	1 AN	PWM	16	CMD Puts module in command/data operation
		2 RST	INT	15	FIRST Factory reset
Powers up the module	POWER_EN	3 CS	TX	14	RX
		4 SCK	RX	13	TX
		5 MISO	SCL	12	
		6 MOSI	SDA	11	
+3.3V power input	+3.3V	7 +3.3V	+5V	10	NC <i>This click supports 3.3V only</i>
Ground	GND	8 GND	GND	9	GND Ground

Resources

- Data sheet (<http://ww1.microchip.com/downloads/en/DeviceDoc/70005120A.pdf>)
- BT Audio URL Demo code / Library (<http://libstock.mikroe.com/projects/view/1947/bt-audio-click>)
- Learn link Multimedia Station Tutorial (<http://learn.mikroe.com/m52-media-station>)
- mikroBUS™ standard specifications (<http://www.mikroe.com/mikrobus/>)

Retrieved from "http://docs.mikroe.com/index.php?title=BT_Audio_click&oldid=1972"

Category: Home page

- This page was last modified on 10 November 2016, at 17:45.
- Content is available under Creative Commons Attribution unless otherwise noted.