

This document is designed to provide general information for use of the Audio Wireless Transceiver Module WTX1010.

### EMI/EMC Compliance Guidelines

#### FCC Compliance

*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 not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.*

#### IC Compliance

*This device complies with Canadian RSS-210.*

When integrating the WTX1010 module into your own product, you must:

1. Use only the provided chip antenna.
2. Operate the module according to the specifications listed in this data sheet.
3. Include a label clearly visible on the exterior of the product which states: **“Contains FCC ID: WUO-WTX1010 / IC: 7985A-WTX1010”.**
4. It is mandatory that you consult all FCC and IC documentation for use of a modular approved product, and comply with all listed guidelines and additional testing that may be required.

### Specifications

#### WTX1010 functional block diagrams

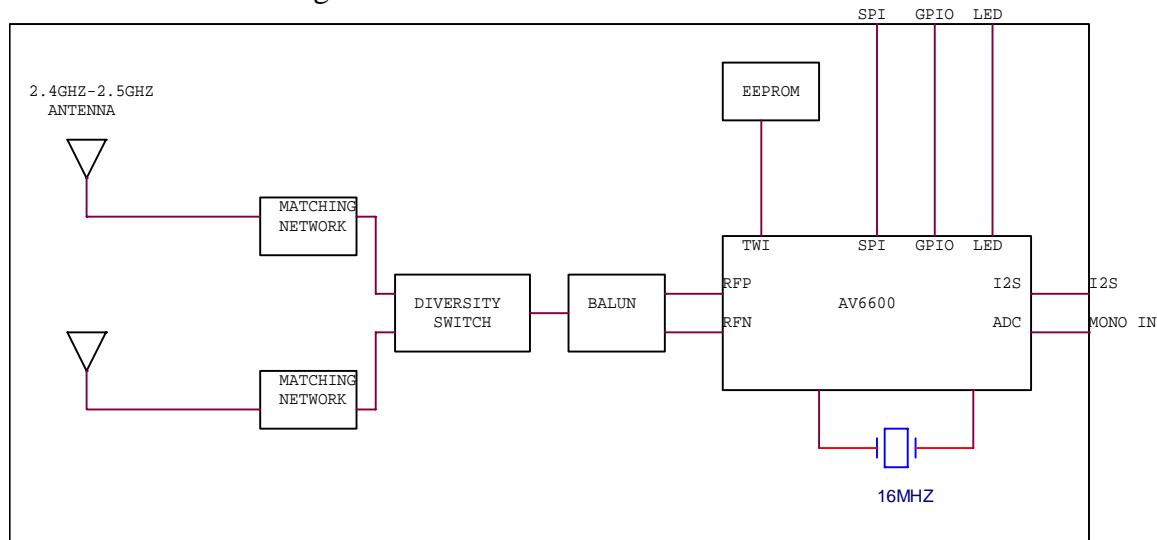


Figure 1

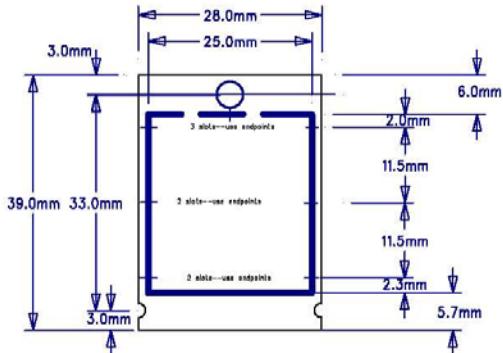
#### RF Performance:

Outdoor range (LOS) 15m.

Maximum Transmitting RF Power - 0 dBm.

Frequency ISM 2.405 - 2.477 GHz.

## Physical Dimensions



## Electrical Parameters

Absolute maximum Supply Voltage Range 3.0 - 3.6 VDC

Nominal Supply voltage – 3.3VDC

Current Requirements - 400mA

Operating Temperature Range - 0 to 70 °C / 32 to 158 °F

## PCB Material and layout considerations

The PCB material for the base PCB should be FR4 glass epoxy.

All supply pins should have decoupling electrolytic capacitors and ferrite beads positioned as close to the supply pins as possible.

No components or traces should be located close to the antenna. Recommended minimum distance is 1sm.

## Firmware

Sonavox provides the firmware on the module for our customers.

## Other features

The module is RoHS compliant.

The module is FCC approved (documentation available on request).

The module is IC approved (documentation available on request).

## Module Pin-out

Pin Number	Pin Name	Pin Description
1	LINE_IN_COM2	Audio section ground
2	LINE_IN_COM	Audio section ground
3	LINE_IN	Audio section input
4	NOT CONNECTED	
5	NOT CONNECTED	
6	GND	Digital section ground
7	V3.3	Main power supply (3.3V)
8	ADAT(GPIO1	I2S digital audio data output, GPIO
9	LRCLK(GPIO2	I2S digital audio frame clock input, GPIO
10	BCLK(GPIO3	I2S digital audio bit clock input, GPIO
11	LED	LED drive line
12	RESET_N	Active low Reset input
13	CMP	Comparator input
14	S_MOSI/S_CLK(GPIO12	SPI slave serial data input, I2C slave clock, GPIO
15	S_MISO/S_SDA(GPIO13	SPI slave serial data output, I2C slave data, GPIO
16	S_SCLK(GPIO14	SPI slave clock, GPIO
17	S_SSB(GPIO15	SPI slave select, GPIO
18	UART_RX(GPIO6	UART receive, GPIO
19	UART_TX(GPIO7	UART, transmit, GPIO
20	M_MOSI/M_SDA(GPIO4	SPI master serial data output, I2C master clock, GPIO
21	M_MISO/M_SDA(GPIO6	SPI master serial data input, I2C master data, GPIO
22	M_SCLK(GPIO8	SPI master serial clock, GPIO
23	M_SSB(GPIO9	SPI master serial select, GPIO
24	GND	Digital section ground