

Twisted Pear Audio Opus WM8804 Receiver Module

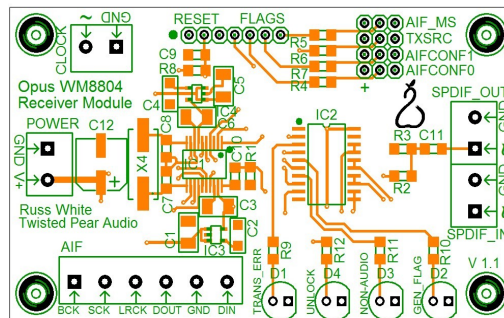
Version 1.0

This Opus Receiver Module is based on the Wolfson WM8804 receiver and is implemented in hardware mode to support single ended consumer S/PDIF. Connect the incoming SPDIF signal to the SPDIF_IN terminals.

The board also supports re-clocking SPDIF and you can wire the SPDIF output if you wish. The output SPDIF can be derived from the incoming SPDIF, or from incoming data from the AIF terminals. Please see the WM8804 data sheet if you wish to try this.

Also note the CLOCK terminal block. It is not generally used. It can be used in some advanced configurations. Refer to the data sheet and schematic for more information.

The module also has jumpers to set all of the hardware mode options. Notice that the polarity of the jumpers is marked with a “+” symbol which represents a logical “1” or “high”.



The module is particularly designed to mate easily with the Opus DAC. The I2S output terminals are arranged so that you can stack the two boards easily. Connect the signals from the AIF terminal block to the same signals on the DAC board.

The easiest way to use the receiver with the Opus is to configure it for I2S output.

The module requires a single 6.5 to 15V supply. It is common to utilize the same supply as the digital supply for the Opus DAC,

Errors and status flags are indicated by the LEDs. The GEN_FLAG can be run to the front of your case to indicate that the DAC is functioning correctly. If it is correctly receiving audio it will be green. If not it will be red.

The jumper settings are as follows with recommendations for Opus DAC for standard 44.1kHz 16 bit

playback and 24 bit I2S output:

Jumper Name	Recommended	Low	High
AIF_MS	high	SLAVE	MASTER
TXSRC	low	SPDIF	AIF
AIFCONF1	low	0(see next table)	1(see next table)
AIFCONF0	high	0(see next table)	1(see next table)

Jumper table

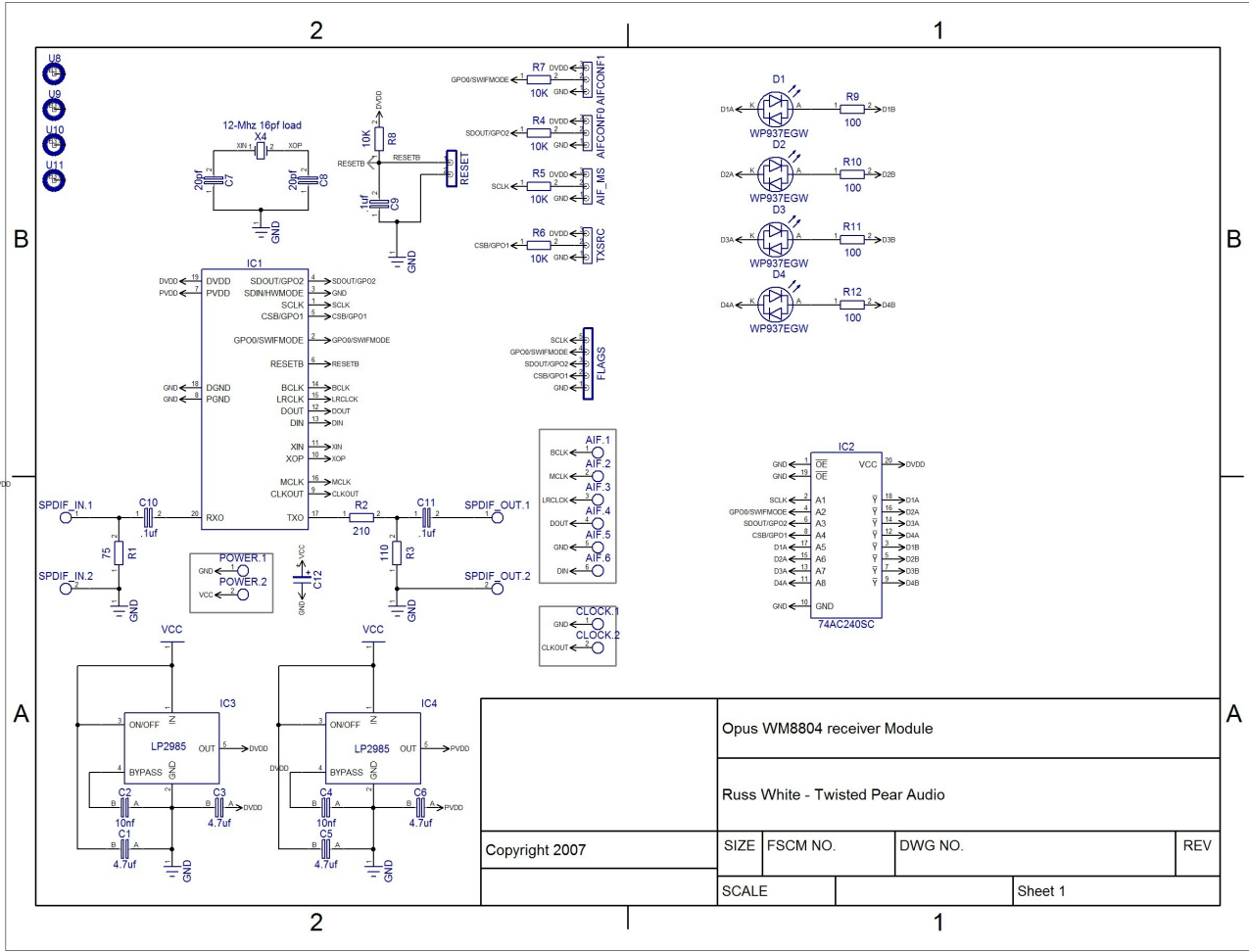
AIF Configuration Format[1:0]
00 - 16 bit I2S
01 - 24 bit I2S
10 – 24 bit right justified with flags
11 – 16 bit left justified.

Audio Interface Format Table

Important note: make sure that the receiver and the DAC are setup for the same Audio format or you will get some nasty noise.

We recommend 24-bit I2S as it is the most commonly supported, and it is also what is output by our USB receiver module making it easier to mix and match.

Enjoy!



Opus WM8804 receiver Module			
Russ White - Twisted Pear Audio			
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	SCALE		Sheet 1
			REV