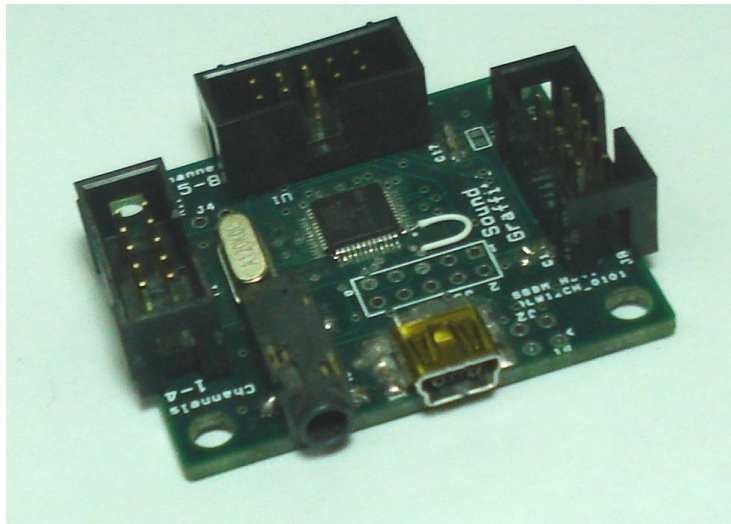


SoundGraffiti Dimmer Pack 4.1 BM

Base Module



SoundGraffiti Dimmer Pack 4.1 Base Module – a standalone device operating with the SoundGraffiti algorithm. The device converts input sound signal to output signals (pulse width modulation or UART) for light dimmers on base LEDs, triac and so on.

Specifications:

- On base microcontroller ATSAM3S4A (core Cortex M3)
- Up to 12 channels output (3.3V, 3mA)
- Sound signal input (1.5V – standard headphone output PC, plug 3.5mm)
- Upgradeable firmware .
- Change/save parameters of algorithm on PC and record it to the device (program “**SG_DP4_Firmware_Update.exe**”).
- Receive data direct from PC program (“**SoundGraffiti Dimmer 1.0.exe**”)
- Drivers for Windows 2000/XP/Vista
- supply voltages: 5V DC (mini USB connector)

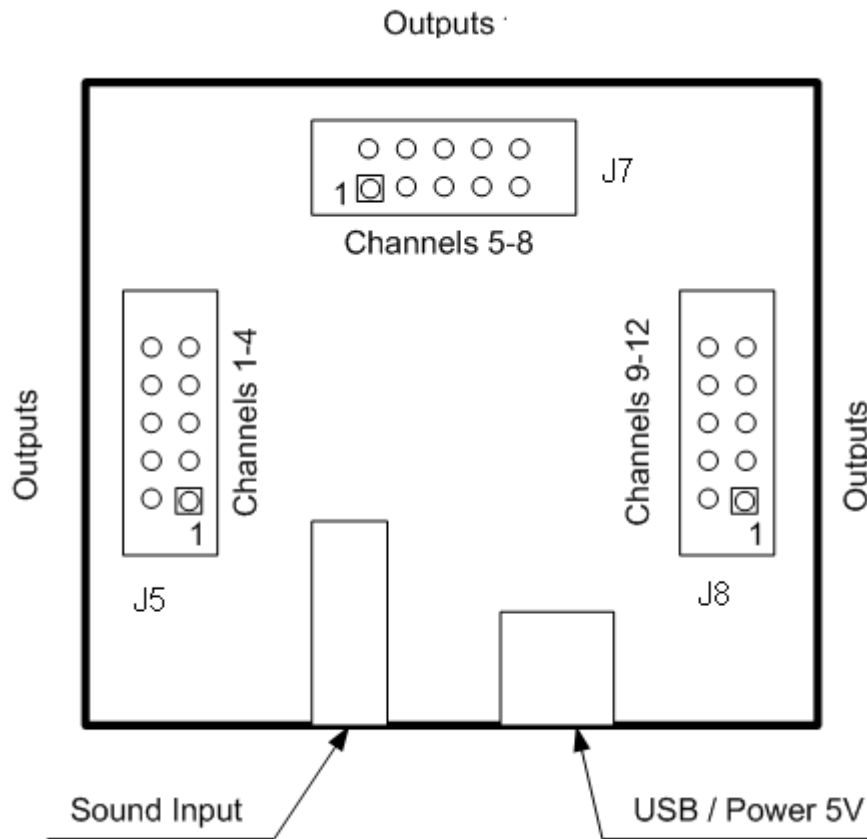


Fig 1. Connectors.

Sound Input:

- Amplitude to 1.5 Volt (standard headphone output of computers)
- Standard stereo plug 3.5mm.

USB / Power 5V:

- External power supply 5 V / 100 mA
- Standard miniUSB socket
- Use receive data and also for update firmware and change parameters from computer.

Optputs:

- 3 standard connectors (J5, J7 ,J8). Rectangular headers, Male Pins 10POS, 2.54MM

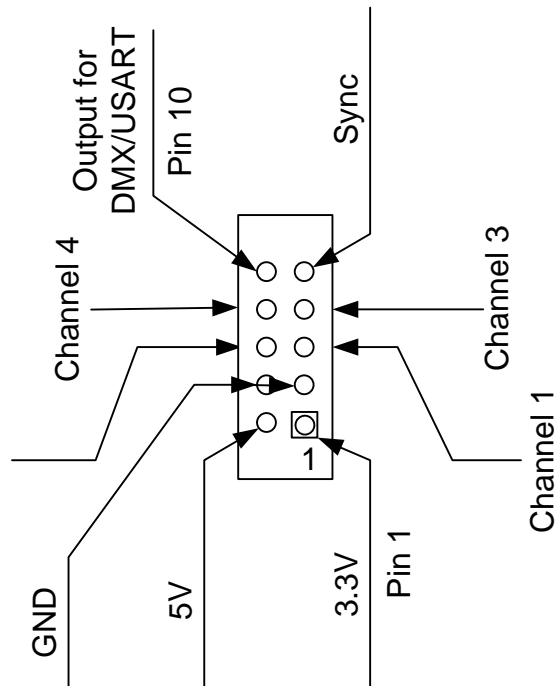


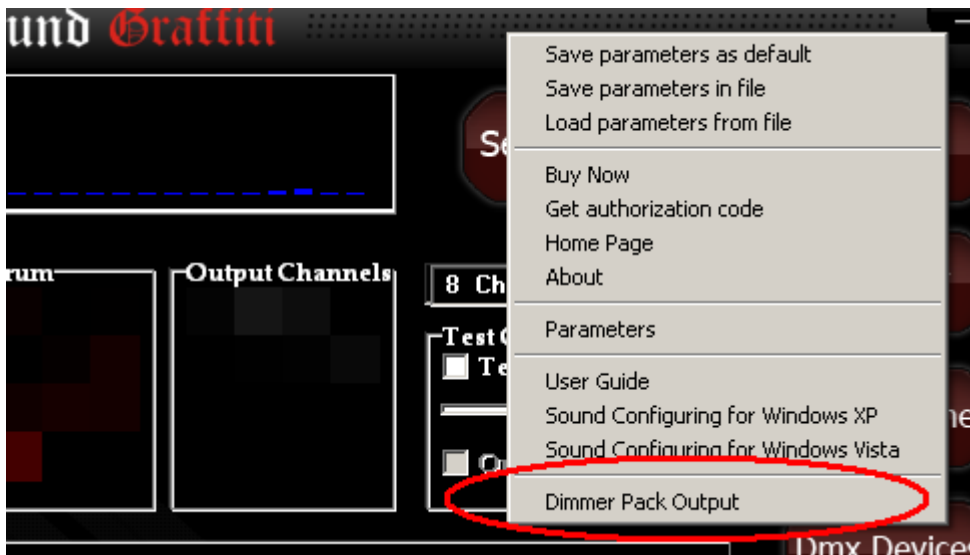
Fig 2. Pinout output connectors:

Outputs connectors Pins:

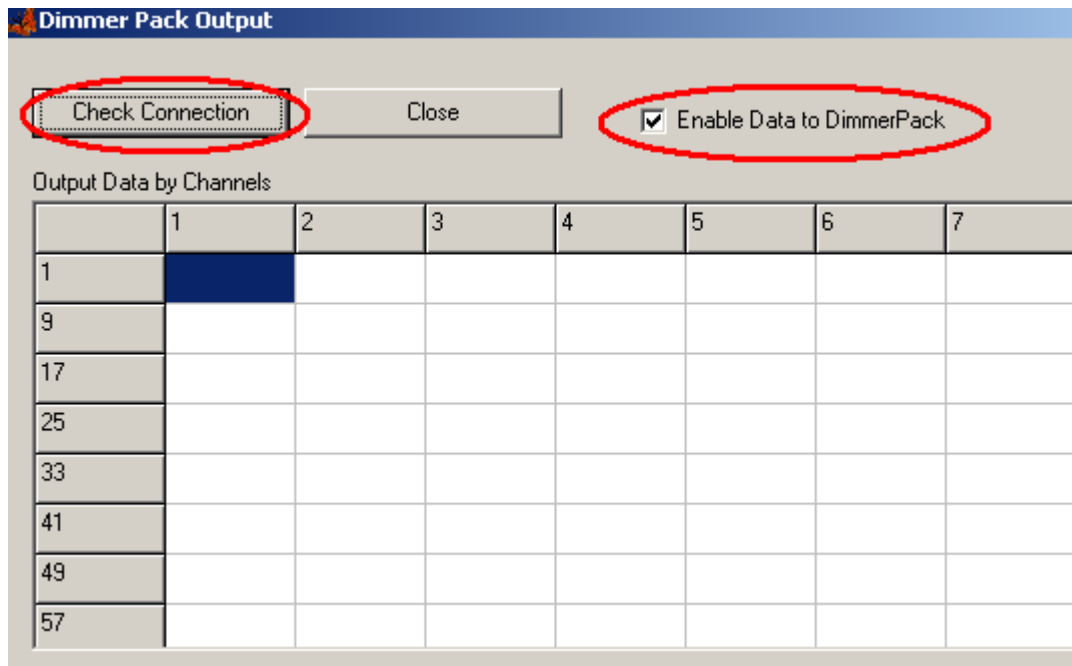
1. Output power 3.3 V
2. Output power 5 V
3. Ground
4. Ground
5. Channel 1 (J5), 5 (J7), 9 (J8).
6. Channel 2 (J5), 6 (J7), 10 (J8)
7. Channel 3 (J5), 7 (J7), 11 (J8)
8. Channel 4 (J5), 8 (J7), 12 (J8)
9. TX UART (3.3 V)
10. For J5 connector – synchronization signal (for triac only)

Outputs may be:

1. Without synchronization signal (**pin 9, J5 connect on GND**), Base Module send to output channels pulse width modulation signal (3.3v) for LEDs, frequency near 100 Hz. (0 Volt – OFF, 3.3 Volt –ON).
2. Signal 3.3V for DMX512 (break + UART frame) (pin 10, J5),.
3. In case synchronization signal on input (pin 9, J5 / 50-60Hz) - pulse width modulation signal for triacs .
4. From computer's program "SoundGraffiti Dimmer"



- 4.1. Run program "SoundGraffiti Dimmer"
- 4.2. In pop-up menu select "Dimmer Pack Output"



- 4.3. In Form “Dimmer Pack Output” set “Enable Data to Dimmer Pack”
- 4.4. Press button “Check Connection”



Pulse width modulation signal outputs (channels) on base module

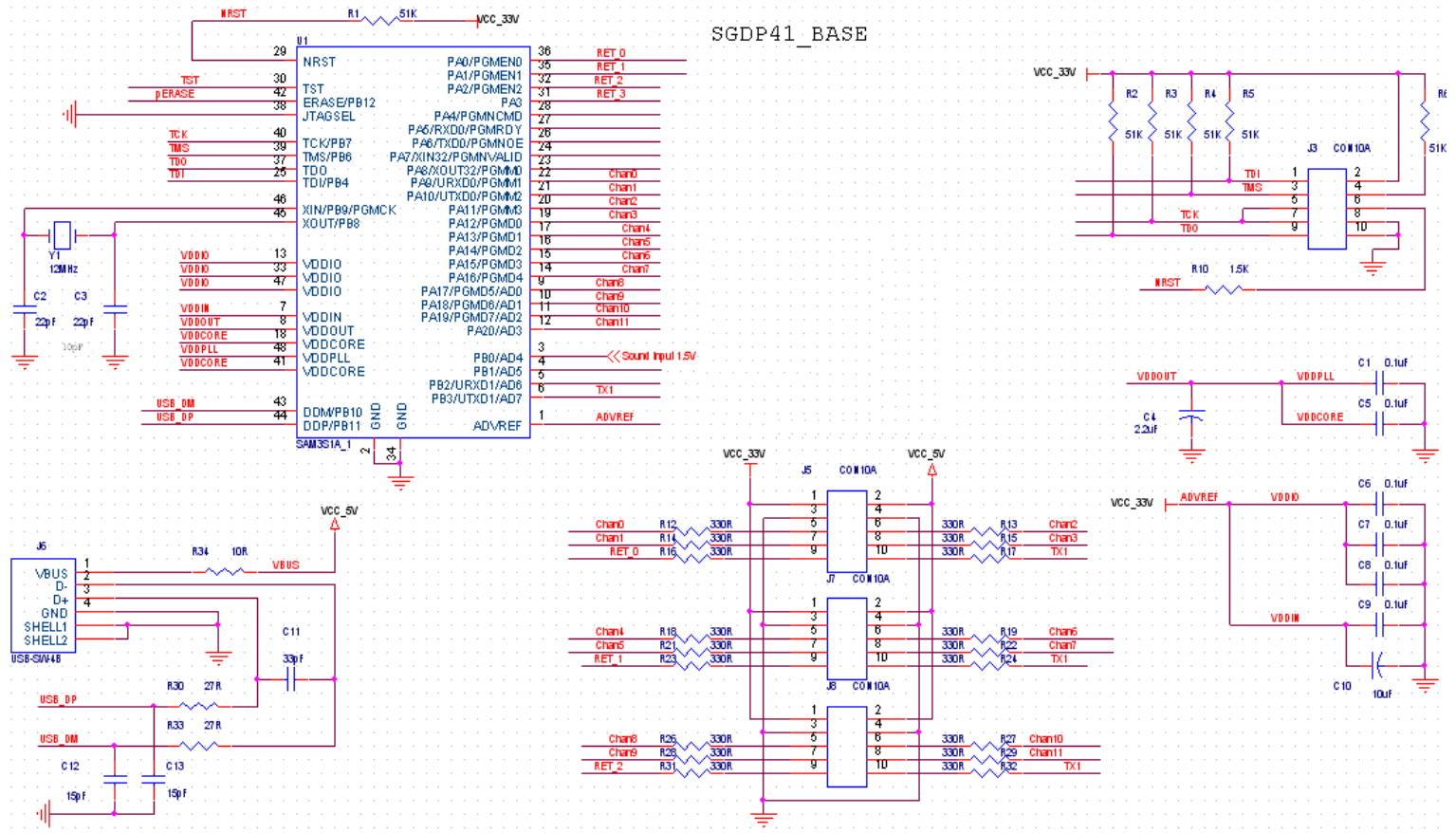


Fig 3. Schematic SoundGraffiti Dimmer Pack 4.1 Base Module

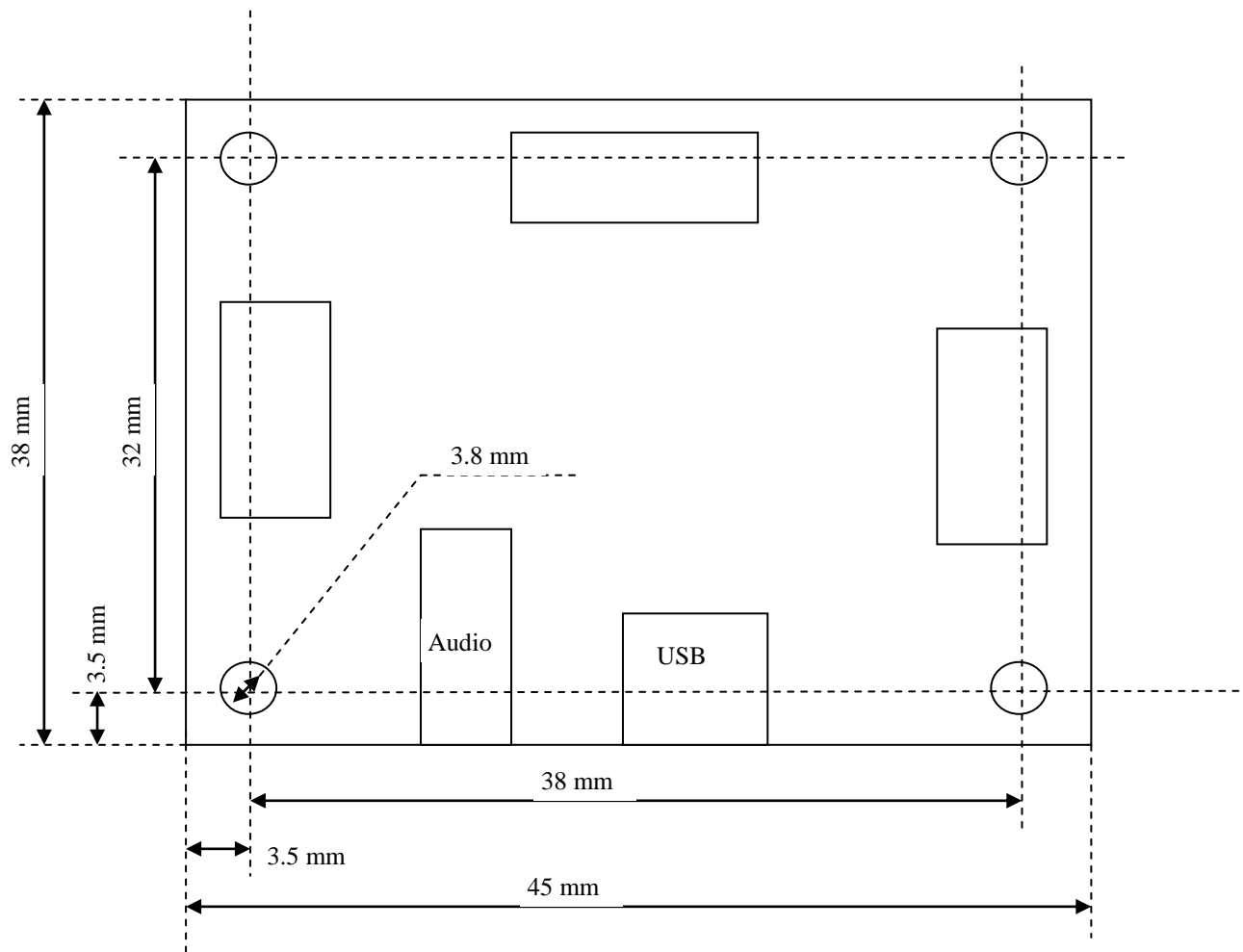


Fig 4. Dimentions

www.soundgraffiti.net