

### Features

- Pocket size low cost DSP module
- Live control from Mac/PC
- Easy to use

### Hardware

- 28/56bit DSP Engine
- 24-bit ADC/DAC conversion
- 48kHz sampling rate
- I2S inputs/outputs
- Master volume control on pot
- All signals on headers
- Gold plated audio connectors

### Software Control

- DSP tuning from GUI
- Win & Mac compatible
- Firmware upgradeable

### Power

- USB powered
- Wide range DC input option (4.5 ~ 24VDC)

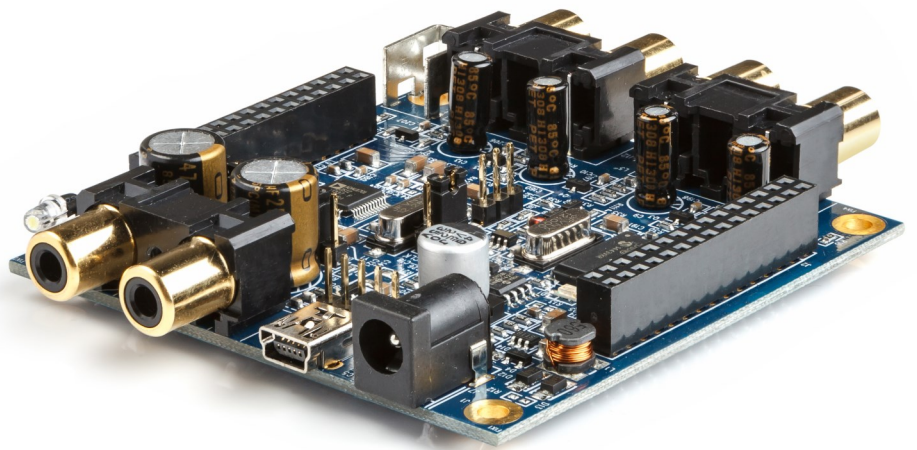
### Applications

- Room equalization
- Multi-way speaker crossover
- Car audio tuning
- Subwoofer tuning
- DIY/Custom projects

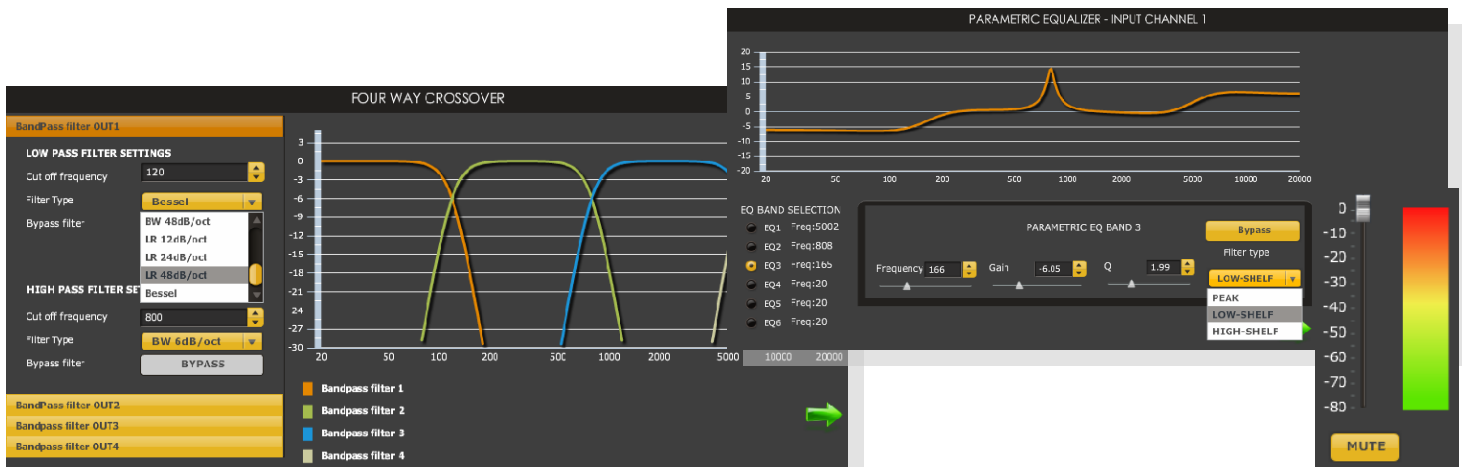
The miniDSP 2x4 kit is a low cost audio processing module featuring Digital Signal Processing (DSP) and onboard DAC/ADC. Fitting between your source and your amplifier, this pocket size module packs all the filter tools you need to get started with tuning your 2way, 4way, subwoofer.

At the core of the miniDSP 2x4 kit solution is the combination of intelligent onboard firmware combined with our flexible software plug-in. At miniDSP, we believe in making DSP programming easy thanks to our intuitive Graphic User Interface (GUI). May it be a PC or Mac, the first step will involve programming the device over the driverless USB 2.0 port. Using the onboard Digital Signal Processor (DSP), one can configure the onboard parametric/graphic equalizers (PEQ), crossovers, levels and time alignment and hear live changes. Flash the onboard memory and you can disconnect your PC/Laptop as the configuration is now saved in the internal flash memory forever.

Finally, our “one platform, many configuration” concept gives great flexibility to engineers, A/V designers and DIYers at a fraction of the cost of typical alternatives to tune their audio system. May it be a multi-way digital crossover, tuning your subwoofer room and simple room correction, it's up to your imagination.



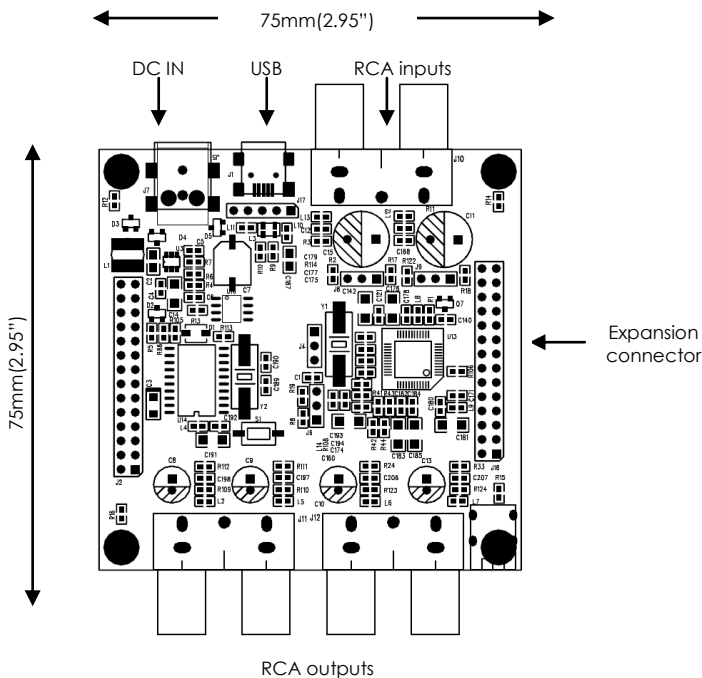
## SOFTWARE SCREENSHOTS



## HARDWARE SPECIFICATIONS

Item	Description
Digital Signal Processor Engine	28/56 bit Digital Signal Processor Engine / Double precision processing
Sample rate	48kHz
ADC/DAC Data resolution	24 bits
Analog Audio Input	Unbalanced input, gold plated RCA terminated
Maximum input level	0.9Vrms / 2Vrms selectable by jumper configuration
Dynamic range, un-weighted	>98dB
Input Impedance	0.9Vrms position = 9kOhms / 2Vrms position = 20k Ohms
Analog Audio Output	Unbalanced input, gold plated RCA terminated
Maximum level, unbalanced	0.9Vrms (2.5Vpp)
Dynamic range, un-weighted	>98dB
Output Impedance	560ohms
Expansion connector signals	2ch x I2S in/ 4ch x I2S out / Analog INx2 / Analog Out x 4/ 3pin connector for volume control on 10k linear potentiometer 5pin USB header for panel mount USB connector
Power supply	USB powered and/or 4.5~24Vdc input via header (150mA @ 5V) 2.1mm round DC plug
Dimensions (H x W x D)	75mm x 75mm

## MECHANICAL SPECIFICATIONS



Expansion Connector pin out

Pin	Description	Pin	Description
1	Analog out #4	15	I2S_IN_BCLK
2	Analog out #3	16	I2S_DATA_OUT1&2
3	Analog out #2	17	I2S_DATA_OUT3&4
4	Analog out #1	18	I2S_DATA_OUT5&6
5	GND	19	I2S_DATA_OUT7&8
6	GND	20	I2S_OUT_LRCK
7	GND	21	I2S_OUT_BCLK
8	GND	22	3.3V
9	MCLKIN	23	5V - 300mA from USB
10	I2S_DATA_IN1&2	24	3.3V
11	n/a	25	GND
12	Potentiometer input	26	GND
13	n/a	27	Analog In #1
14	I2S_IN_LRCK	28	Analog In #2