minidsp

miniDSP Balanced Kit

FEATURES

Hardware
- 28/56bit DSP Engine
- 24-bit ADC/DAC conversion
- 48kHz sampling rate
- I2S inputs/outputs
- Nichicon Muse audiophile Caps
- Volume control by potentiometer
- All signals on headers
- Terminal block connectors
- Jumper toggles max sensitivity of inputs from 2.5 to 5.6Vmax

Audio Processing
- Upgradeable firmware
- Low/High pass filters
- Graphic & Parametric equalizers
- Matrix mixer
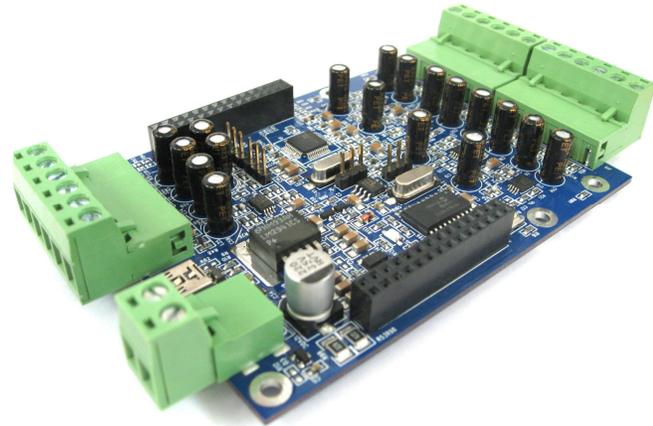- Level, Mute, polarity
- RMS Meters for inputs/outputs

Control
- Software configurable
- Plug & Play USB driver
- WinXP/Vista/7 and Mac OS X compatible

Power
- 12VDC via terminal block

Applications
- System Equalization
- Digital crossover
- Car audio signal processing
- Live Sound
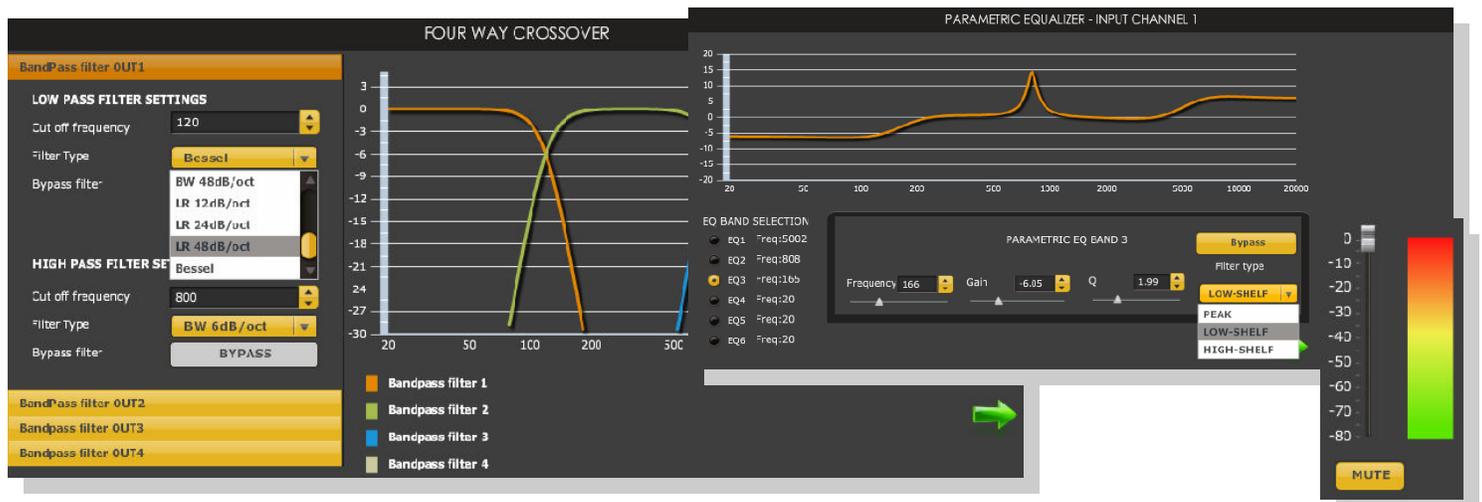- Custom Pro Audio projects

miniDSP Balanced kit is an innovative low cost and low power Digital Signal Processor in a pocket size form factor. With our revolutionary "one platform, many configuration" concept, miniDSP kits gives un-paralleled flexibility to engineers, A/V designers and DIYers at a fraction of the cost of typical alternatives. May it be a source mixer, a multi-way digital cross-over or an I2S digital audio interface, it's really up to your imagination to configure it the way you see fit.

Targeting balanced audio applications, the miniDSP kits along with our wide range of plug-ins provides DSP algorithms such as Graphic/ Parametric equalizers, mixers, crossovers, delay.. Built and engineered with a combination of low noise electronic parts along with double precision audio algorithms, the end results is a kit standing by its performance and not its price.

Compared to its little brother, miniDSP Balanced allows for balanced input & output connectivity and higher output gain. In order to fit most gain configurations, a single jumper change is all it takes to toggle the input sensitivity from 0.9Vrms to 2Vrms.

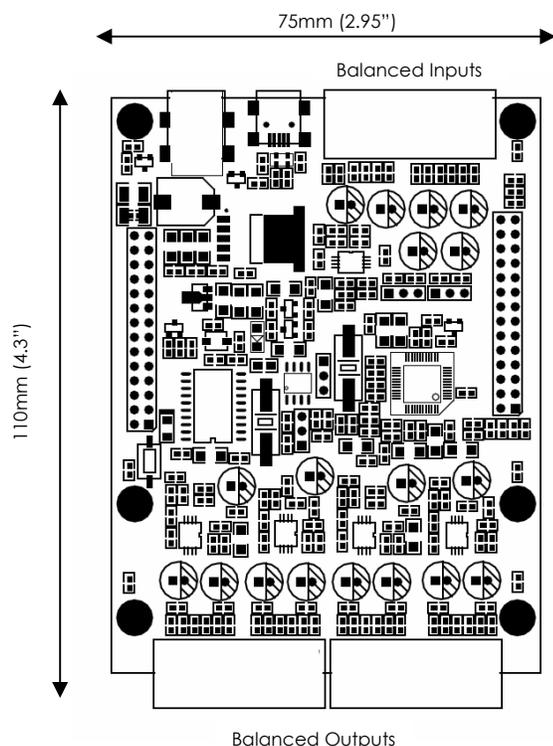*miniDSP kits, innovative and low cost Digital Signal Processors.*

Template screenshots of miniDSP plug-ins

TECHNICAL SPECIFICATIONS

Item	Description
Digital Signal Processor Engine	28/56 bit Digital Signal Processor Engine / Double precision processing
Host Processor	48MHz microcontroller
Digital audio sample rate	48kHz standard - (available in 92/192kHz for OEM configurations only)
ADC/DAC Data resolution	24 bits
Analog Audio Input	Balanced inputs, plug-in terminal block type
Maximum input level <1% THD	Input sensitivity configurable by jumpers from 0.9Vrms(2.5Vpp) to 2Vrms(5.6Vpp)
Dynamic range, un-weighted	>98dB
Analog Audio Output	Balanced output, plug-in terminal block type
Maximum output level <1% THD	2Vrms (5.6Vpp) from + to ground, i.e. 14dBu in balanced mode
Dynamic range, un-weighted	>98dB
Expansion connector signals	4 x I2S in/ 4 x I2S out / Analog INx2 / Analog Out x 4/ Volume control on 10k potentiometer
Power supply	12VDC supply (Max 200mA)
Dimensions (H x W x D)	16mm x 75mm x 110mm

MECHANICAL SPECIFICATIONS & EXPANSION CONNECTOR PIN OUT

75mm (2.95")

Balanced Inputs

110mm (4.3")

Balanced Outputs

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	IS2_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	I2S_DATA_IN3&4	25	GND
12	Potentiometer input/ I2S_DATA_IN5&6	26	GND
13	I2S_DATA_IN7&8	27	Analog In #1
14	I2S_IN_LRCK	28	Analog In #2

ORDERING

SKU	Description
601-124	MiniDSP kit with 2 x inputs, 4 x outputs - Balanced inputs, balanced outputs