

Daughter Board - 9

Technical Reference

Voltage Protection PCB

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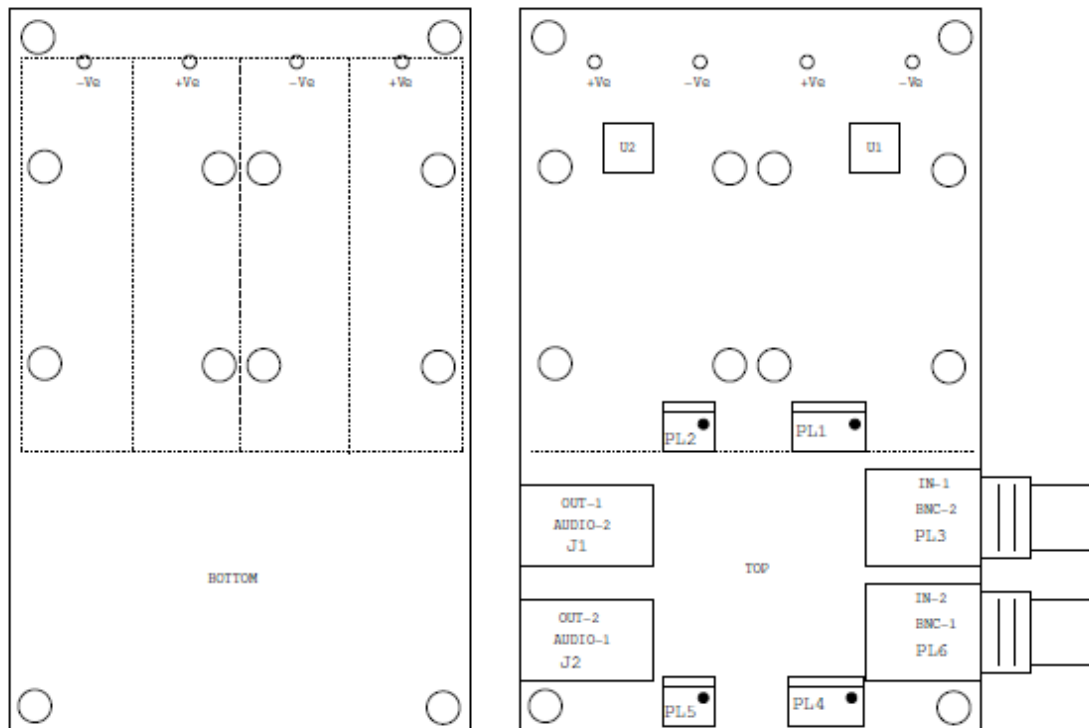
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Introduction:

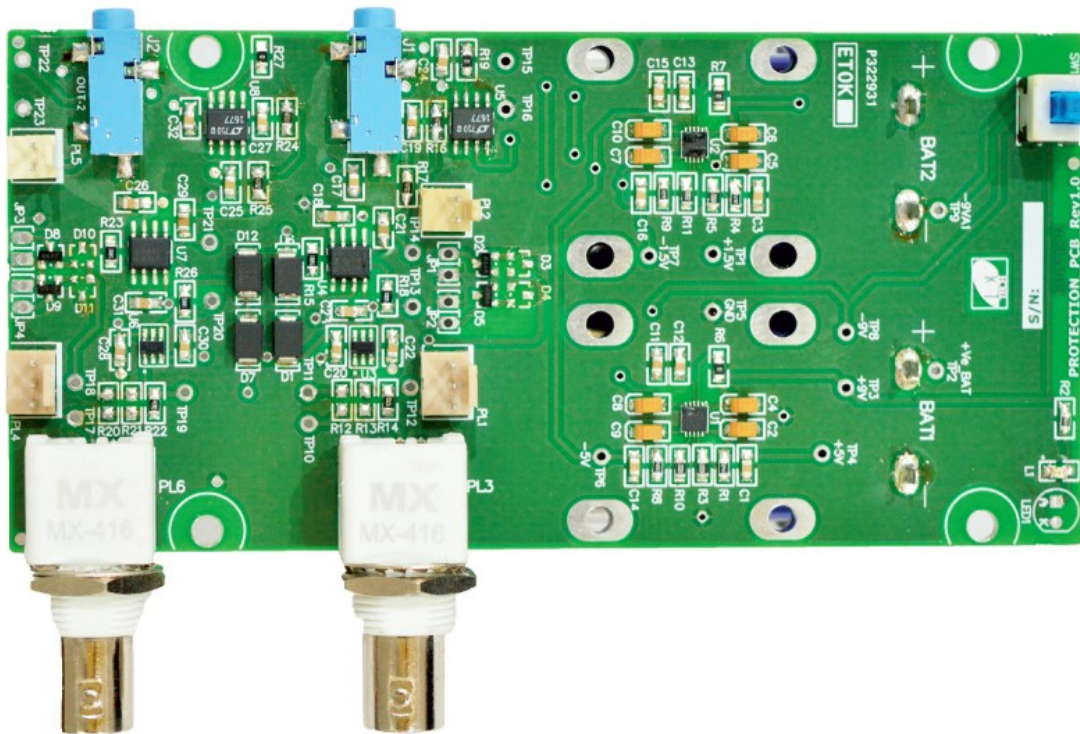
The Voltage Protection PCB specially designed to protect audio codec of DSP training kit from high input signals typically from function generator. It is designed to ensure minimum signal loss so that performance can't be degraded.

Features:

- It restricts 3V peak to peak input signal to the DSP kit.
- It operates on two 9V pluggable battery mounted on the kit itself
- Two BNC connector for supply input signal to the kit.
- Two audio jack connector for output signal to be connected to the DSP kit using Aux cable
- Power on switch for easy operation and for battery saving
- Power on LED indication.

Block Diagram:

Voltage Protection PCB



Block Description:

BAT1 and BAT2 are battery socket connector mounted on back side of PCB. +9V battery are used to power ON the kit.

SW1 is Power ON switch for easy operation and for battery saving and used to power ON kit.

PL3 and PL6 are two BNC connector supply input signal to the kit. Maximum input voltage that can be applied to these connectors are of 20Vpp i.e. maximum from function generator.

J1 and J2 are two audio jack connector for output signal to be connected to the DSP kit using Aux cable. These connector's output will be of maximum 2.84v peak to peak and if input voltage from function generator is more than 3Vpp, output at these connectors will start clipping its output voltage at 2.84 volt.

Power on LED L1/ LED1 are used for POWER ON condition.

PL1 and PL4 are again supply input signal connectors of 3 pin relimate type. These are basically replica of two BNC connector.

PL2 and PL5 are again 2 pin relimate type connector for output signal. These are again replica connectors of two audio jack connectors.

Test Point Details:

TP2 = +Ve Batt
TP9 = -Ve Batt
TP3 = +9V
TP8 = -9V
TP4 = +5V
TP5 = -5V
TP1 = + 1.5V
TP7 = - 1.5V
GND = TP5

Connector Details:**PL1 and PL4 Connector:**

Pin Connection	PL3 Connector
1	Input
2	NC
3	GND

PL2 and PL5 Connector:

Pin Connection	PL2 Connector
1	Output
2	GND