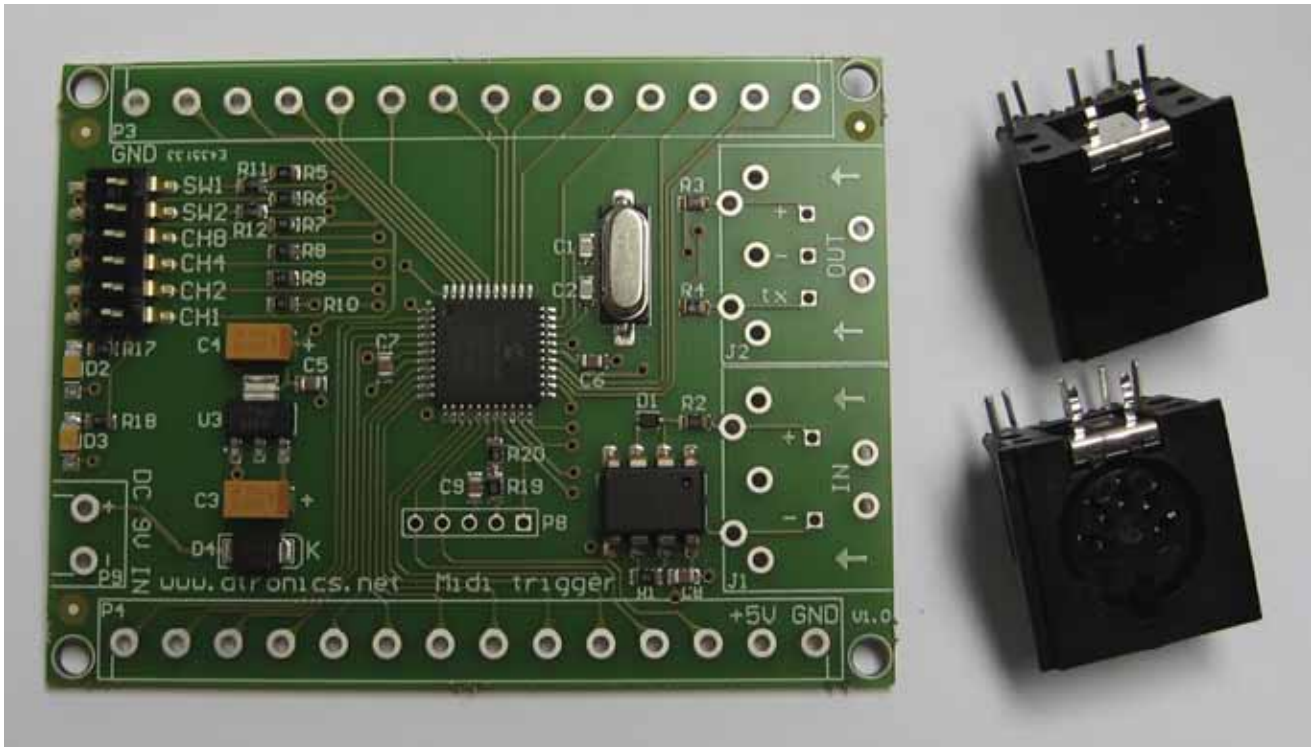


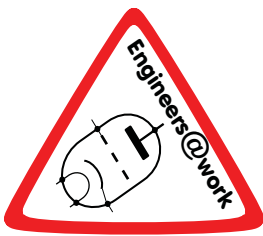
Midi to Trigger interface

V4.2



Change log:

03-june-2012 - changed the numbers of the trigger outputs.



Midi to Trigger interface V4

Features:

- Has Midi input and midi thru connectors
- Has 24 trigger outputs (5 volt positive puls, selectable 1ms, 10ms per pulse or note on/off)
- Has 1 master trigger output (triggers always when 1 of the 24 outputs are triggered)
- Triggers notes 36 to 59 (c2 to b3)

When you play a note , the corresponding trigger output will generate a pulse of 1ms or 10ms, or will be high as long as the note is on (set with dipswitch)

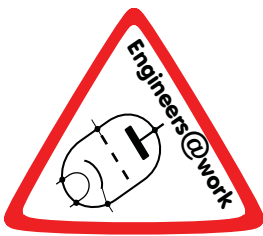


Ideal for your D.I.Y. synthesizer / drumcomputer project.

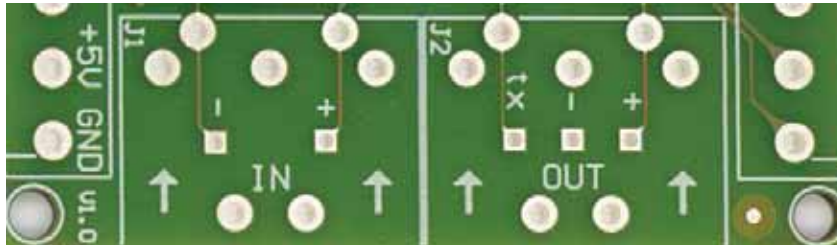
- Can be set from channel 1 to 16 with a dipswitch
 - 1ms ,10ms or note on/off selectable with jumper.
 - Trigger outputs are available on 2 14pin headers.
 - Can be set to midi monitor mode.

Input: 8 to 12VDC

Size: 80x60mm



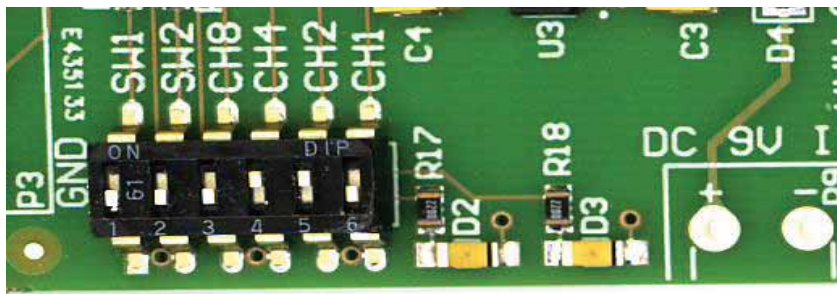
Turn the Midi to Trigger interface on



Midi connector

The midi trigger interface comes with 2 separate midi connectors you can solder yourself to the board if required. Or solder wires to the midi in/out pins.

Use + and - for input and +, -, tx for output. The midi output will work as a midi thru.



Led D2 Led D3 Power

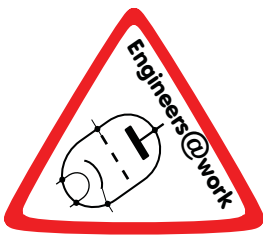
Power

Connect a 8 to 12Volt DC supply to the power connector P9. Make sure you connect the right polarity.

LED's

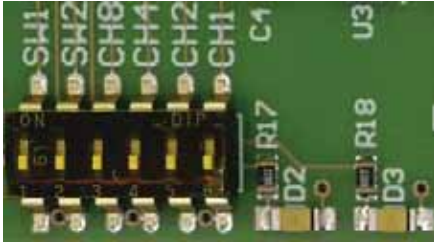
On startup LED D2 will flash a few times, showing the software version.
e.g. 3 Times + 1 Time for version 3.1

When LED D2 stops flashing, LED D3 will flash to indicate the midi channel.
eg. 5 flashes = midi chanel 5



Setting the Midi channel:

The dipswitch is covered by a foil. Please remove the foil.



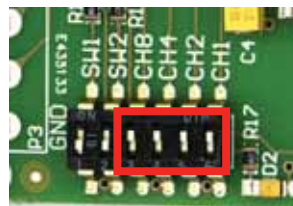
You can set the midi channel with 4 dipswitches. (ch8,ch4,ch2,ch1)

The midi channel is set to 16 from factory.

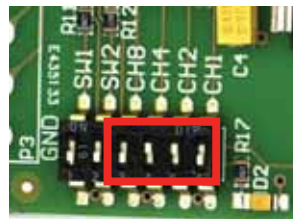
0 = switch up (on position)

1 = switch down

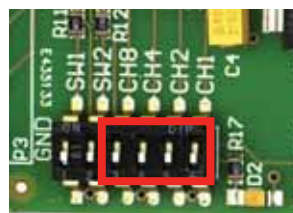
- 0000 = CH1
- 0001 = CH2
- 0010 = CH3
- 0011 = CH4
- 0100 = CH5
- 0101 = CH6
- 0110 = CH7
- 0111 = CH8
- 1000 = CH9
- 1001 = CH10
- 1010 = CH11
- 1011 = CH12
- 1100 = CH13
- 1101 = CH14
- 1110 = CH15
- 1111 = CH16



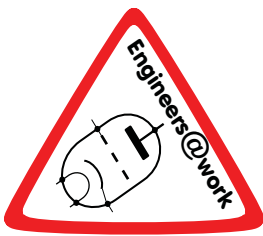
CH1



CH10

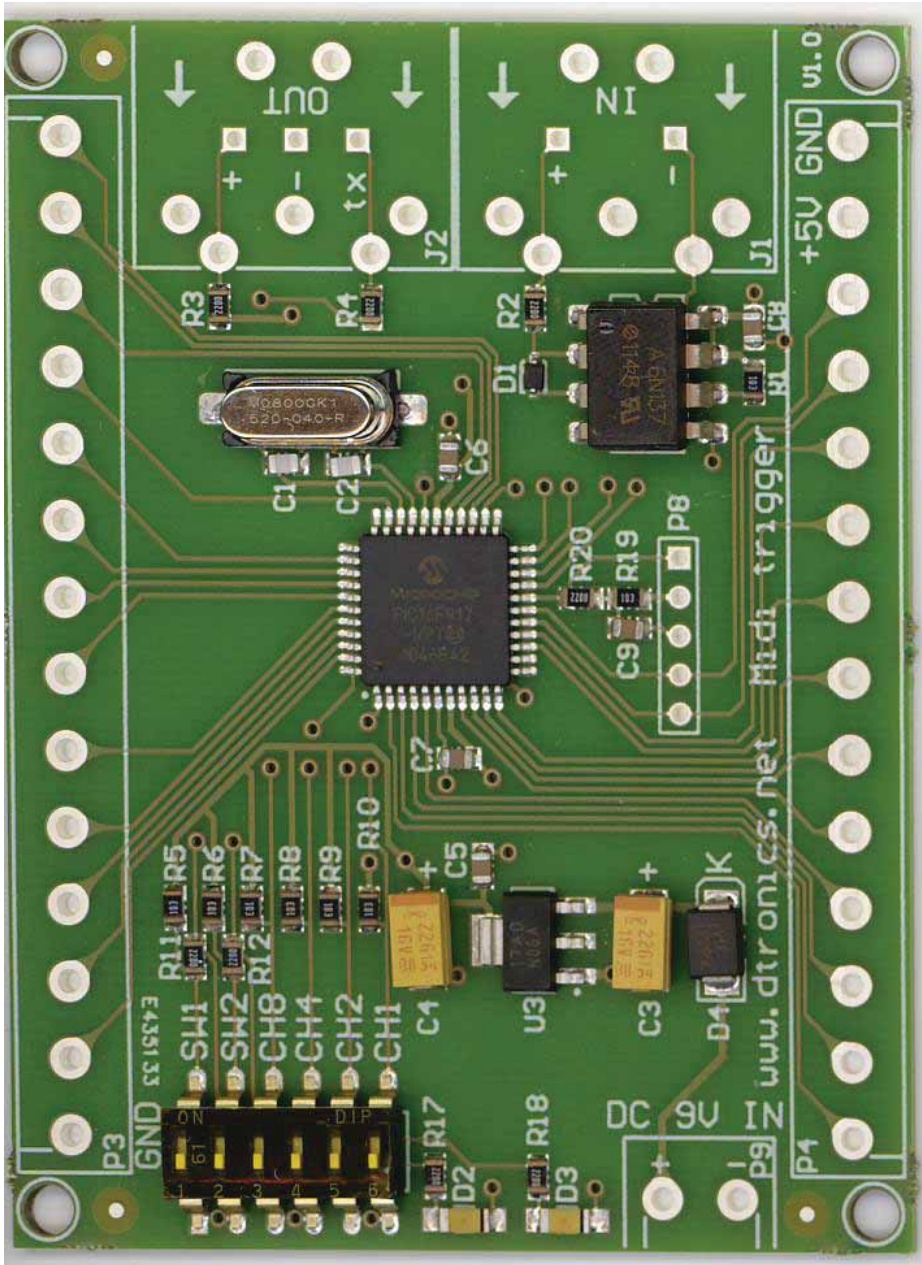


CH16



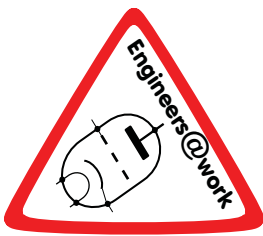
The trigger outputs:

P3
48
49
50
51
52
53
54
55
56
57
58
59
60/ALL
GND



P4
GND
+5Volt (via solder jumper on bottom)
47
46
45
44
43
42
41
40
39
38
37
36

This product is still in development, all information in this datasheet is preliminary and can be changed by engineers@work at any time without notice.

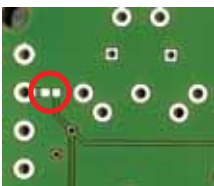


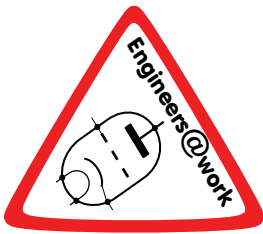
Trigger numbers according to the following general-midi drums:

- 36 Bass Drum 1**
- 37 Side Stick**
- 38 Acoustic Snare**
- 39 Hand Clap**
- 40 Electric Snare**
- 41 Low Floor Tom**
- 42 Closed Hi-Hat**
- 43 High Floor Tom**
- 44 Pedal Hi-Hat**
- 45 Low Tom**
- 46 Open Hi-Hat**
- 47 Low-Mid Tom**
- 48 Hi-Mid Tom**
- 49 Crash Cymbal 1**
- 50 High Tom**
- 51 Ride Cymbal 1**
- 52 Chinese Cymbal**
- 53 Ride Bell**
- 54 Tambourine**
- 55 Splash Cymbal**
- 56 Cowbell**
- 57 Crash Cymbal 2**
- 58 Vibraslap**
- 59 Ride Cymbal2**

ALL: master trigger output (triggers always when 1 of the 24 outputs are triggered)

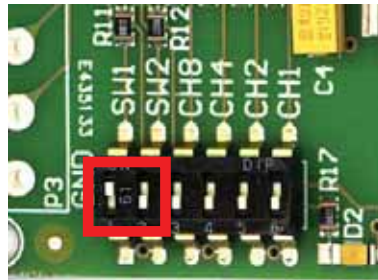
- Triggers will be at GND level.**
- When triggering, the level will be +5Volts**
- Maximum output: 20mA per trigger.**
- The 5 Volt pin on P4 can be enabled by shorting the solderjumper on the bottom of the pcb.**





Mode setting:

SW1	SW2	FUNCTION
off	off	1ms triggers
on	off	10ms triggers
off	on	note on/off triggers
on	on	midi monitor



10ms trigger

Midi monitor:

When set to midi monitor. The first 16 outputs (note 36 to 52) will show midi traffic per channel.

So note 36 will go high when data on midi channel 1 is present. Note 37 for channel 2 and so on.

Note 59 will go high when a midi clock is present.

Note 60 will go high when another realtime message is present.

You can connect LEDs to the trigger inputs with a 470ohm series resistor to ground for this function.

If switched to midi monitor both Led's will flash.