Firmware Troubleshooting

Apps

dout_buttons

dout_enc

enc_speed

iic_midi_sw_loopback

jitter_mon

lcd_interconnection_test

mbfm_interconnection_test

mbfm_testtone

mbsid_interconnection_test

A CORE→SID Module Interconnection Test

This application allows you to check the interconnections to the SID module with a multimeter. You can control the SID pins by sending a Modulation Wheel event to your MIDIbox SID - just connect a keyboard or use MIDI-Ox (View→Control Panel), or the MIOS MIDI Keyboard (click on the modulation wheel and use the cursor keys up/down).

By default all unselected pins are 0V, except for the CS# pin which is 5V

The Pins are mapped to following Modulation Wheel Values:

```
# 0: Pin A0 = 5V
# 1: Pin A1 = 5V
# 2: Pin A2 = 5V
# 3: Pin A3 = 5V
```

```
# 4: Pin A4 = 5V
# 5: Pin RES# = 5V
# 6: Pin D0 = 5V
# 7: Pin D1 = 5V
# 8: Pin D2 = 5V
# 9: Pin D3 = 5V
#10: Pin D4 = 5V
#11: Pin D5 = 5V
#12: Pin D6 = 5V
#13: Pin D7 = 5V
#14: Pin CS# = 0V
```

The current pin name selected will show on the LCD (if connected).

The pins are identified on the MB SID schematic: http://www.ucapps.de/mbhp/mbhp_sid_v3.pdf

i.e.

- RES# is pin 5 (anti-clockwise from the top left)
- CS# is pin 8
- A0 is pin 9
- A4 is pin 13
- D0 is pin 15
- D7 is pin 22

To measure the voltage (and test the connection to that pin is good), connect your multimeter's red lead to the pin and the black lead to ground and select the pin using the modulation wheel.

For 2 SIDs running from one core (e.g. in MB-6582), both SIDs will be mirrored.

mbsid_led_matrix_test

mbsid_testtone

SID Testtone generator

This MIOS application generates a simple 1kHz triangle testtone on the SID. There is no “MIDI Note On” event required to start the sound, you should hear it immediately after the MIOS bootphase

In addition, a 1 kHz pulse will be generated on the CS lines to the two SIDs. This feature allows you to test the output amplifier of the SID module (unplug SID, connect socket pin #8 with #27)

mf_calibration

mf_direct_control

revision_id

srio_interconnection_test

Hints

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