

How To Connect a DigiMod 1000NPS to a DigiMod 500/1000/1000 IS



I Introduction

I.1 Preliminary considerations

The DigiMod 1000NPS is an exact replica of the DigiMod 1000 output stage (2-channel bridgeable, 2x500W on 4 Ω , 1x1000W on 8 Ω), which can be used in combination with DigiMod 500/1000/1000 IS to extend the range of possible multi-channel configurations and power 3-way active loudspeakers. In order to make this connection possible, the DigiMod 1000NPS *must* be equipped with an optional DSP-C board.

Related Products:

- ▶ DigiMod 1000NPS*
- ▶ DigiMod 500
- ▶ DigiMod 1000
- ▶ DigiMod 1000 IS

* with DSP

I.2 Tools Needed:

- ▶ 1 male MOLEX 3-pin connector
- ▶ 1 female MOLEX 3-pin connector
- ▶ 1 male PHOENIX 5-pin connector (MSTB, 2.5/5-ST-5.08)
- ▶ Balanced cable (low impedance)
- ▶ Soldering iron and solder
- ▶ Powersoft CB000098 cable or equivalent (10 pole 8/10 mm cable, with 2 MOLEX Micro-Fit 3.0 connectors)
- ▶ pliers for electronic use

2 Procedure

2.1 Connect the Power supply



FIGURE 1: DigiMod 500 power supply connector position



FIGURE 2: DigiMod 1000 power supply connector position

FIGURE 3: DigiMod 1000 IS power supply connector position

Use the CB000098 Powersoft cable to connect the DigiMod 500/I000/I000 IS power supply to the DigiMod I000NPS.

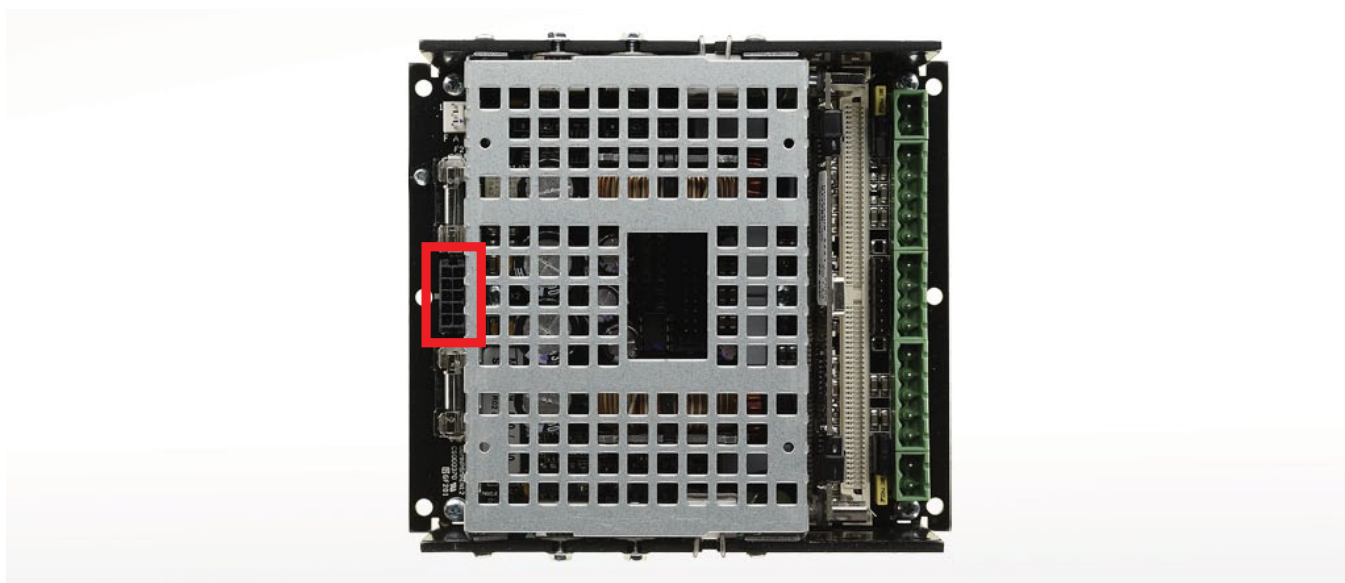


FIGURE 4: The DigiMod 1000NPS power supply connector

2.2 Master or Slave

Powersoft recommends using the module with a DSP on board as master module, while the module without a DSP should be used as a slave¹. In this particular case, the DigiMod I000NPS will act as master module with its on board DSP, while the DigiMod 500/I000 will be the slave module. DigiMod I000 IS modules come equipped with a DSP board that must be removed in order to configure the module as a slave module.

The onboard DSP has 4 outputs:

Channels 1 and 2 output directly from the DSP board. These two channels could be used, for example, to drive the first two ways of a three way system.

Channels 3 and 4 are used to carry the input signal over to the DigiMod 500/I000/I000 IS slave module through a MOLEX connector on the DSP board itself. The DigiMod 500/I000/I000 IS will therefore receive channels 3 and 4 as input. In this configuration, the slave module's

¹Please note that this configuration is compatible with all presets Powersoft makes available to the public. Any other configuration is not guaranteed as compatible with Powersoft presets.

output can be used, for example, in a bridged configuration to drive a subwoofer requiring more power.

2.3 How To Set Master And Slave Modules

Locate the jumpers on the modules

To set the module with DSP as MASTER: remove the jumpers in the pins BY22-BY33 in CN18 and BY31-BY21 in CN17 (the innermost jumpers). Use pliers to aid in the removal (see Section FIGURE 5)

To set the other module (the one without DSP) as SLAVE: leave the jumper configuration as factory set.

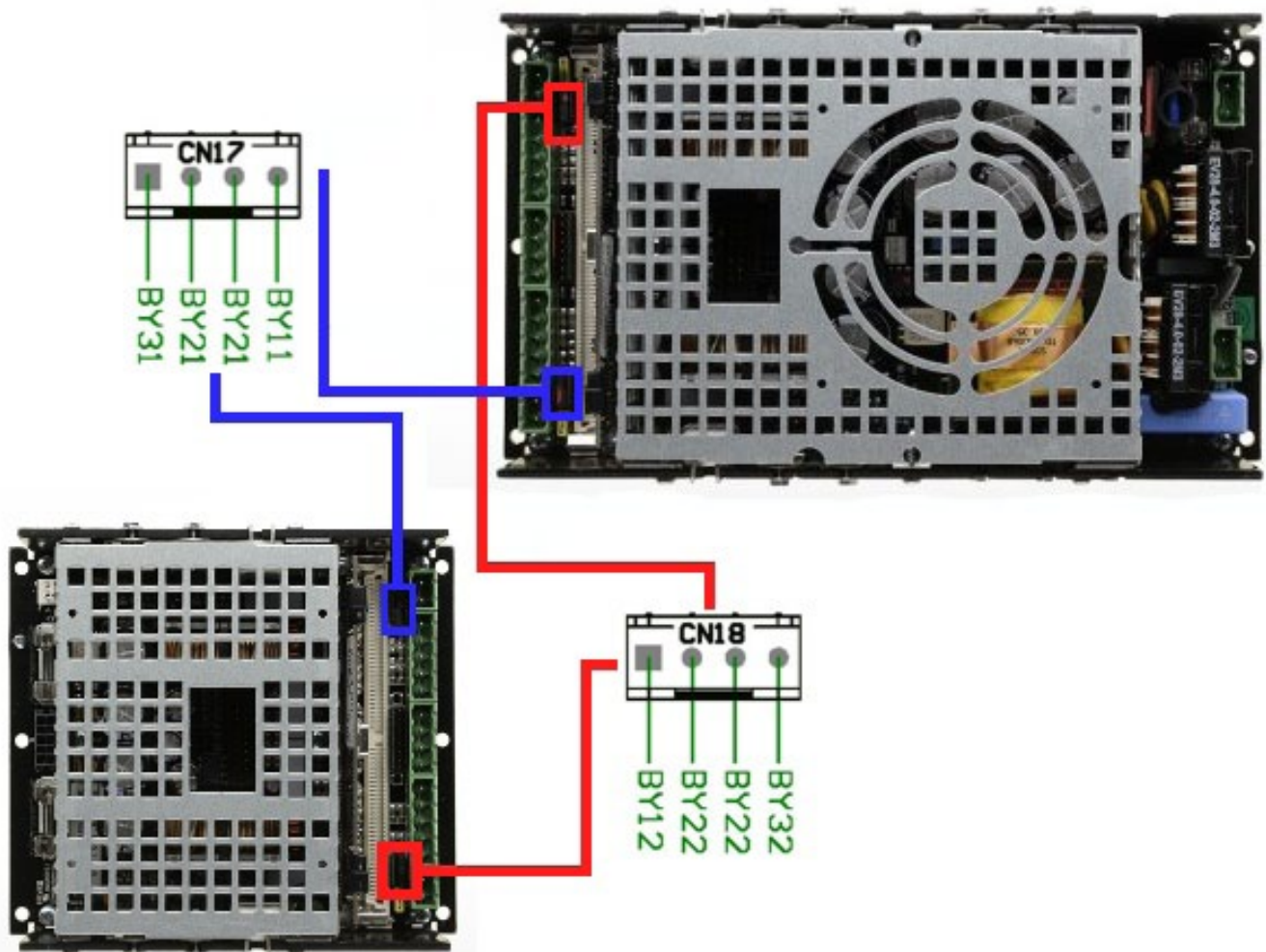


FIGURE 5: Jumpers for setting a module as master or slave

3.3 Connecting the DigiMod I000NPS To The DigiMod 500/I000/I000 IS

In order to connect the master module's output channels (DigiMod I000NPS) 3 and 4 from the DSP so they become inputs for the DigiMod 500/I000/I000 IS:

1. Remove the DSP from the DigiMod I000NPS module
2. Take the male MOLEX 3-pin connector and solder this connector in the DSP board as seen in the picture below²

²Some DSP modules are equipped with a MOLEX connector at production time

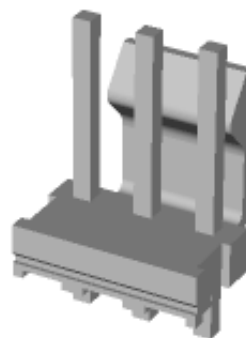
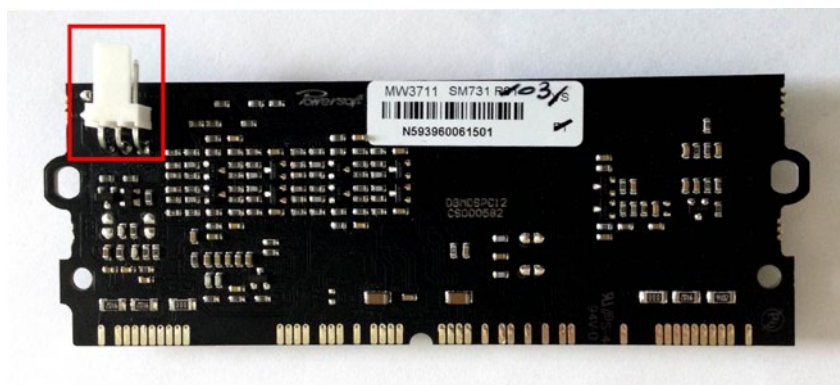


FIGURE 6: DSP with soldered MOLEX connector and three pin male MOLEX connector

3. Make the following cable so it connects DSP output channels 3 and 4 from the MOLEX connector to the DigiMod I000NPS Phoenix inputs. The cable will be balanced, low impedance and will have the following connectors:
 - ▶ 1 3-pin female MOLEX
 - ▶ 2 5-pin male Phoenix
4. Use the figure below as a connector pin soldering diagram.

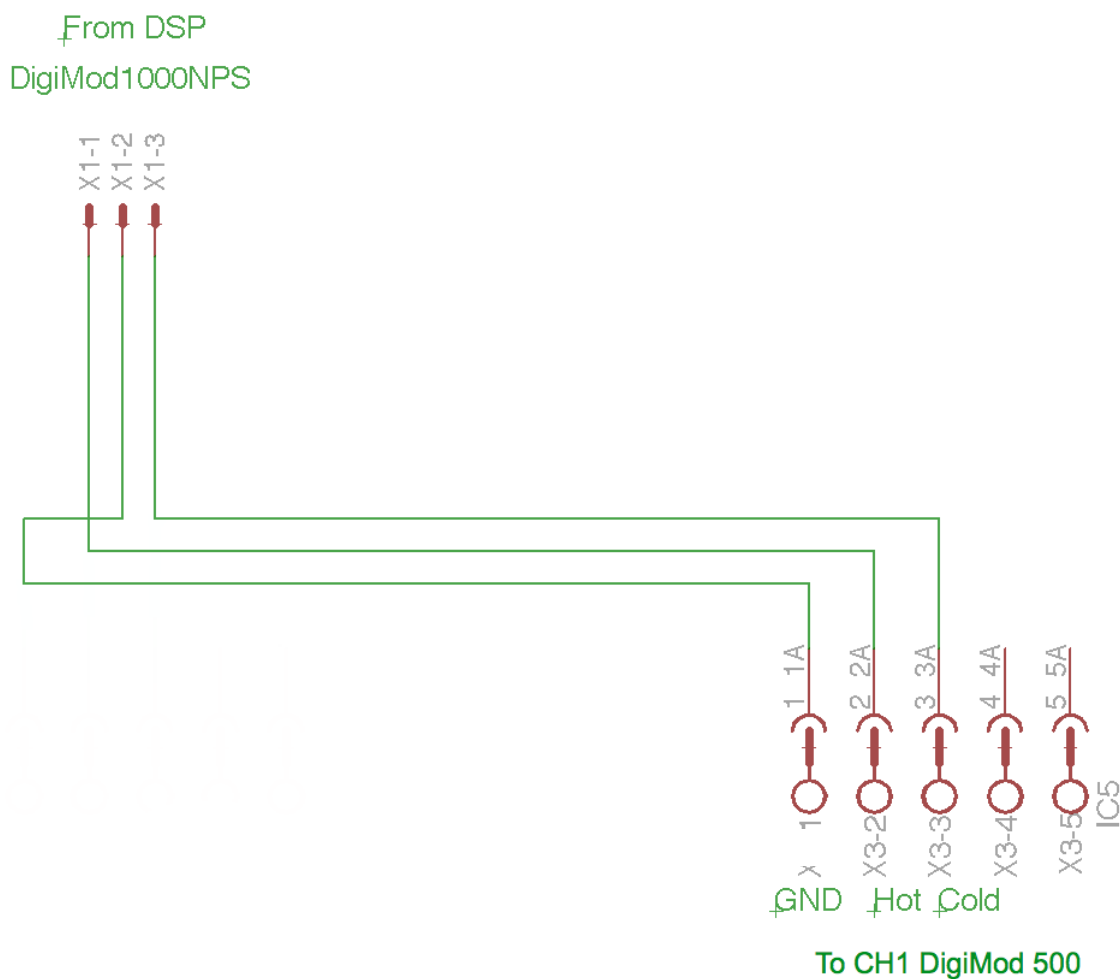


FIGURE 7: Connector pin diagram

3-pin female MOLEX connector:

- Pin 1: Cold pole
- Pin 2: GND
- Pin 3: Hot pole

5-pin male Phoenix

- Pin 1: GND
- Pin 2: Hot Pole
- Pin 3: Cold Pole
- Pins 4 & 5: unused

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In case of ground loop problems, remove the GND wire connection in the cable.

In order to connect the master module outputs to the slave module inputs:

1. Connect the cable that you've just made to the DSP in the DigiMod 1000NPS master module (with the MOLEX 3-pin connector).
2. Connect the other end of the cable with its two Phoenix 5-pin connectors to the slave module's input connectors as seen in the figure below:



FIGURE 8: DigiMod 500 Phoenix input connector



FIGURE 9: DigiMod 1000 Phoenix input connector (DigiMod 1000 IS is identical)