

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



## I Introduction

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### I.1 Preliminary considerations

The DigiMod 1000NPS is an exact replica of the DigiMod 1000 output stage (2-channel bridgeable, 2x500W on 4Ω, 1x1000W on 8Ω), 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

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### 2.1 Connect the Power supply



FIGURE 1: DigiMod 500 power supply connector position

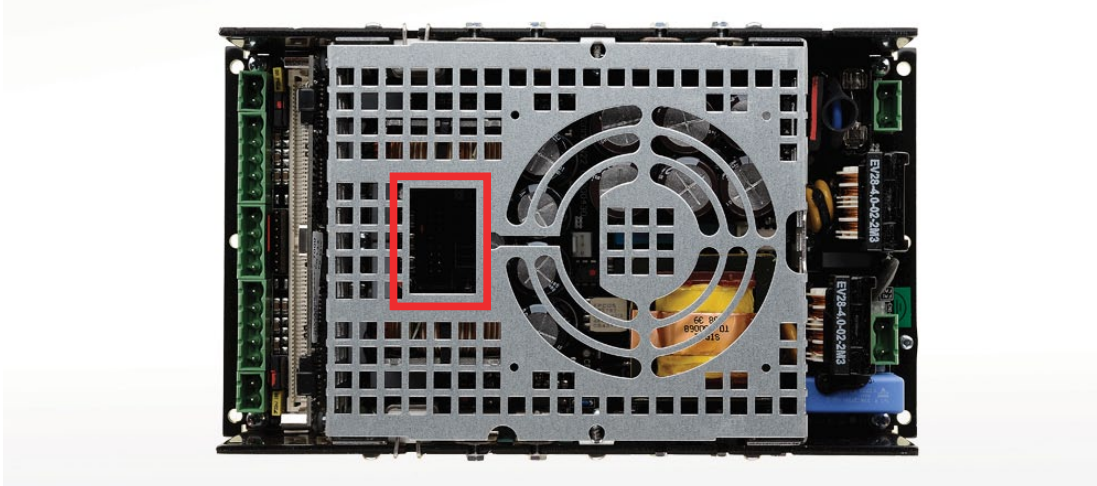


FIGURE 2: DigiMod 1000 power supply connector position

FIGURE 3: DigiMod 1000 IS power supply connector position

Use the CB000098 Powersoft cable to connect the DigiMod 500/1000/1000 IS power supply to the DigiMod1000NPS.

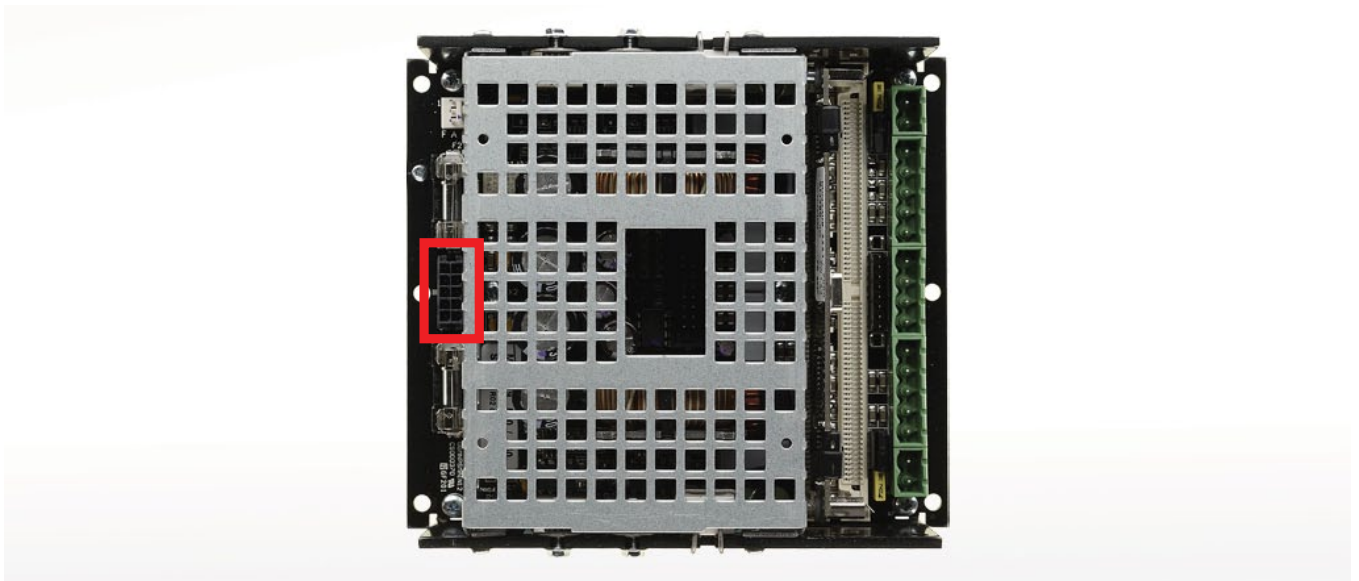


FIGURE 4: The DigiMod 1000NPS power supply connector

### 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 slave<sup>1</sup>. In this particular case, the DigiMod 1000NPS will act as master module with its on board DSP, while the DigiMod 500/1000 will be the slave module. DigiMod 1000 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 500/1000/1000 IS slave module through a MOLEX connector on the DSP board itself. The DigiMod 500/1000/1000 IS will therefore receive channels 3 and 4 as input. In this configuration, the slave module's

<sup>1</sup>Please 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.

## How To Connect a DigiMod 1000NPS to a DigiMod 500

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.

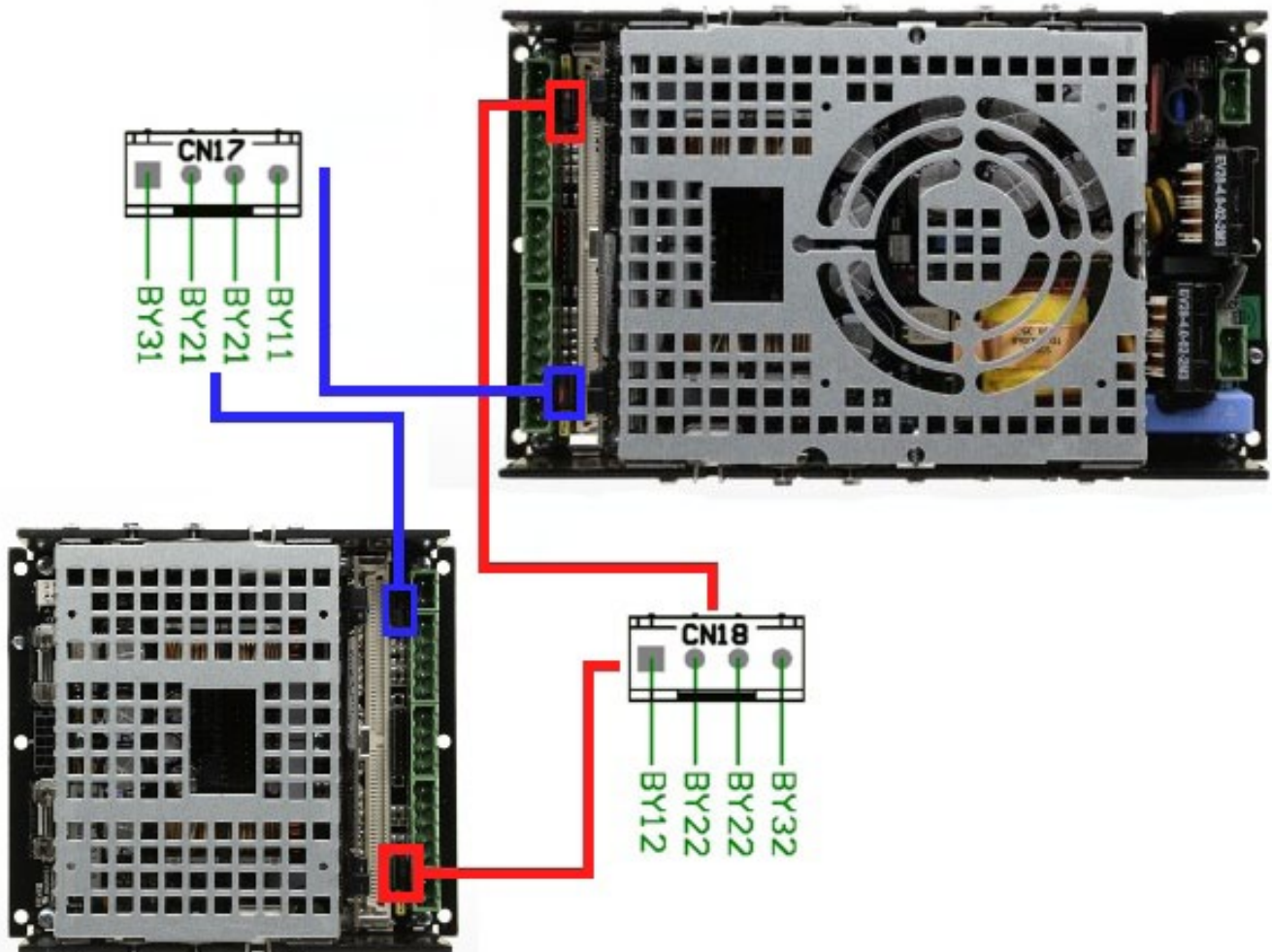


FIGURE 5: Jumpers for setting a module as master or slave

### 3.3 Connecting the DigiMod 1000NPS To The DigiMod 500/1000/1000 IS

In order to connect the master module's output channels (DigiMod 1000NPS) 3 and 4 from the DSP so they become inputs for the DigiMod 500/1000/1000 IS:

1. Remove the DSP from the DigiMod 1000NPS module
2. Take the male MOLEX 3-pin connector and solder this connector in the DSP board as seen in the picture below<sup>2</sup>

<sup>2</sup>Some DSP modules are equipped with a MOLEX connector at production time

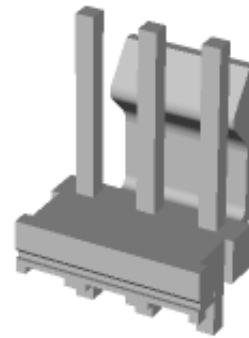
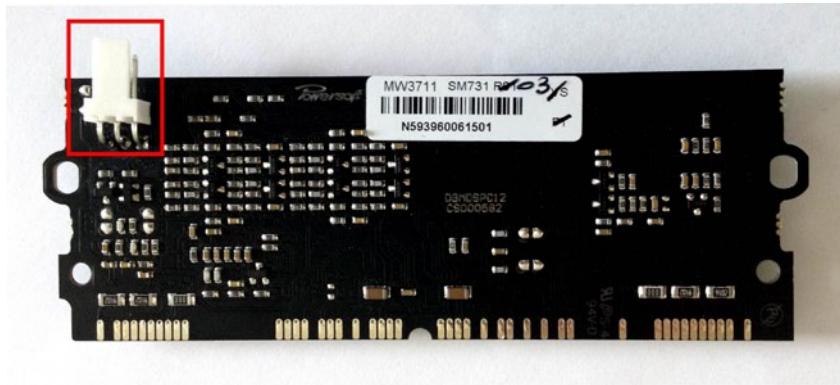


FIGURE 6: DSP with soldered MOLEX connector and three pin male MOLEX connector

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.

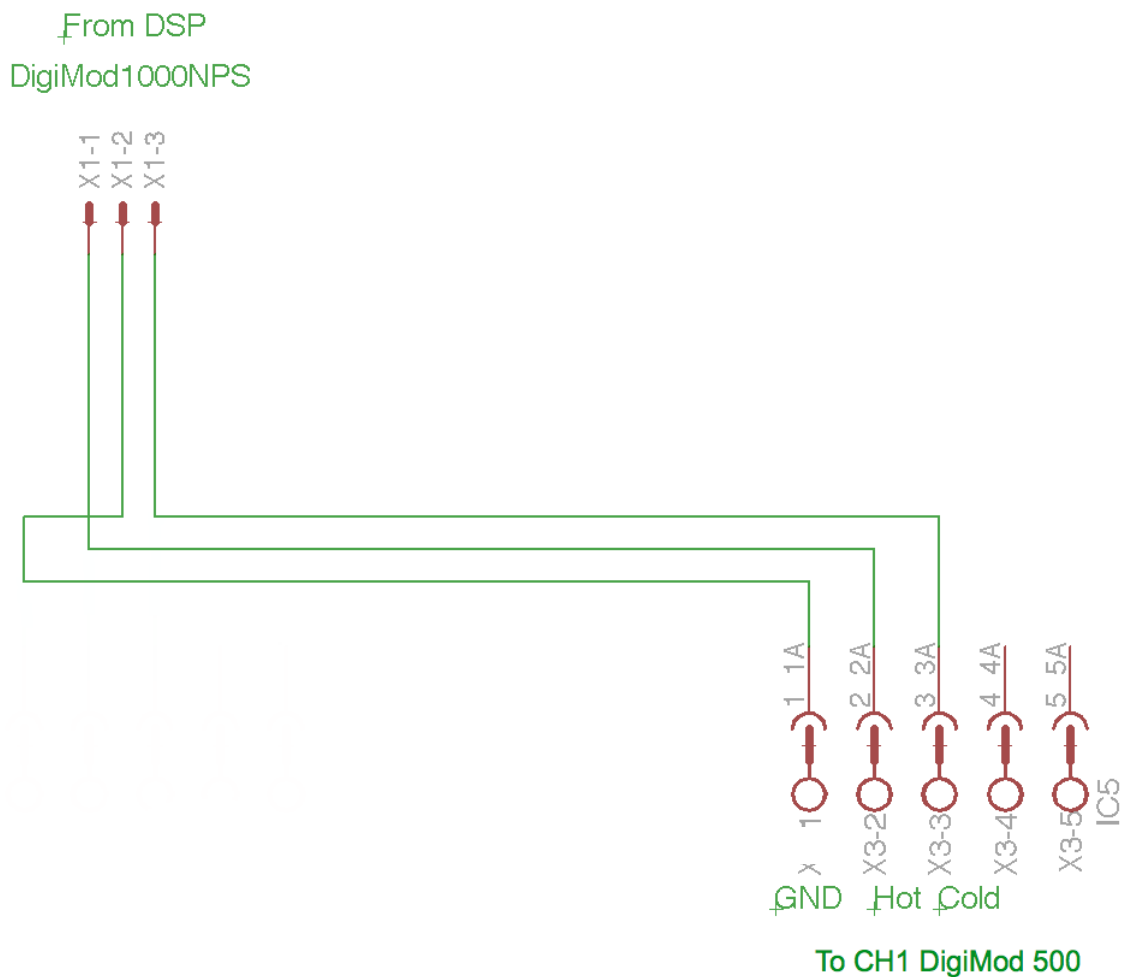


FIGURE 7: Connector pin diagram

**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

## How To Connect a DigiMod 1000NPS to a DigiMod 500

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)