



# DDR2\_1x2

## DDR2 SDRAM Daughter Board



Part of the Confirma™ ASIC/ASSP Verification Platform

DDR2\_1x2 is daughter board in the HAPS family with two sockets for 64 bit wide, 214-pin MicroDIMM DDR2-SDRAM modules, allowing for a total capacity of 8 Gbytes (when 4 GByte modules are available).

The board is powered from an external 5V source and runs on HAPS connectors with 1.8V VCCO.

### Features

- Form factor: 1x2 (occupies 2 HAPS connectors)
- Two 214-pin MicroDIMM connectors allowing a total memory size of 8 Gbytes when 4 GByte modules are available. Default on delivery is 2 x 512 Mbyte.
- 64 bit wide data bus
- Supported standards:
  - DDR2 MicroDIMM according to JEDEC standard No. 21C
  - MicroDIMM sockets according to JEDEC standard SO-004A
- Length matched signals
- Runs on a HAPS system with VCCO of 1.8V
- Onboard voltage regulators from an external 5V
- Onboard termination and VREF

### HAPS Connectors

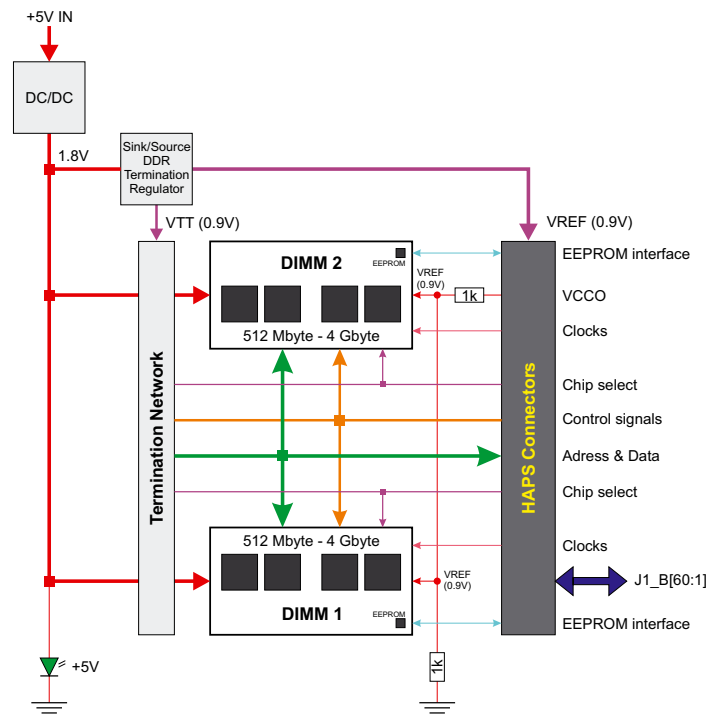
Length matched signals from two HAPS connectors interface to the MicroDIMM sockets. In one of the connectors, half of the pins are unused. These pins are connected straight through to a HAPS connector on the top side of the board. Custom boards, running on +1.8V and using only these pins, can utilize this and be stacked on top of the DDR2\_1x2 board.

### MicroDIMM sockets

The two 214-pin MicroDIMM sockets follow JEDEC standard No. 21C. Any compatible DDR2-SDRAM modules can be used.

By default the DDR2\_1x2 board is delivered with two 512 Mbyte modules, secured onto the board with screws.

The signals to the HAPS connectors are length matched in two groups, one for each connector, both with a skew less than 10 ps.



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