Description

M88SPD5118 is a DDR5 Serial Presence Detect EEPROM with Hub function (SPD5 Hub) and integrated Temperature Sensor (TS). It is fully compatible with industrial standard I^2C/I3C interface and compliant with JEDEC SPD5118 Hub Spec.

M88SPD5118 is designed for memory module applications in most PC and Server platforms. The Hub enables communication between the host and local devices over the I^2C/I3C serial bus. Non-volatile EEPROM stores the configuration information for the DIMM, DRAMs, and other on-DIMM devices. The integrated TS monitors the temperature at the SPD.

Available in 9-contact thermally enhanced DFN package, 2 mm x 3 mm, the device saves space and costs for DIMM manufacturers.

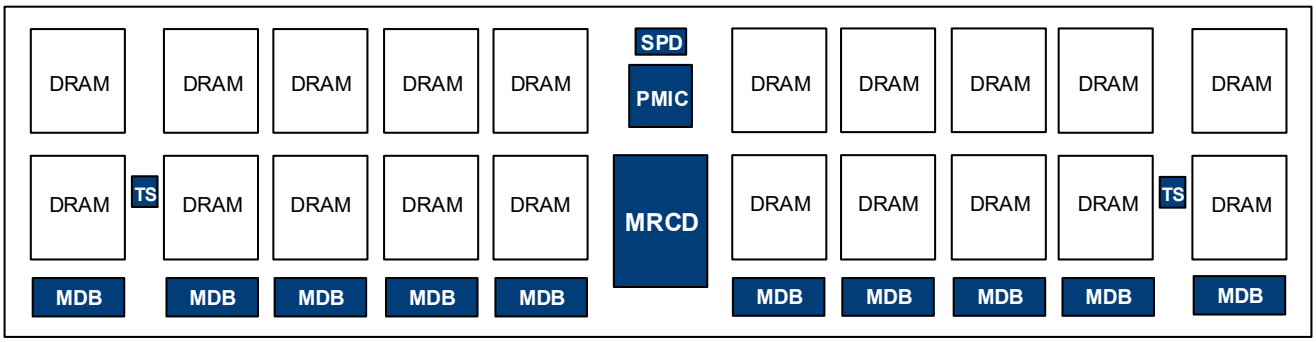
Features

- Compliant with JEDEC SPD5118 Hub Spec
- Supply voltages: 1.8V VDDSPD, 1.0V VDDIO
- 1.0V Push-pullI/O levels
- 1.0V, 1.1V, 1.2V, 1.8V, 2.5V and 3.3V Open-drain I/O levels
- Two-wire I^2C or I3C bus serial interface
- Single device load on the host bus
- Speed up to 1 MHz on a 1.0V to 3.3V I^2C bus and 12.5 MHz on a 1.0V I3C bus
- 8Kbit EEPROM:
  - 1024 bytes of non-volatile memory (NVM): 16 blocks x 64 bytes per block
  - Optional write-protection on each block of NVM via software command
- Hub Function:
  - Interfaces to I^2C/I3C buses
  - Uniquely addressed with fixed addressing on the same bus
- Integrated Temperature Sensor
  - Thermal sensing capability
  - Monitoring of the ambient temperature ranging from -40°C to 125°C
  - Default temperature resolution: 0.25°C
- Packet Error Check (PEC) function
- Parity Error check function
- In Band Interrupt (IBI)
- Green package: 9-contact thermally enhanced DFN
- RoHS compliant

Applications

- DDR5 DIMM modules
- PC, Server platforms, etc.
- Industrial temperature monitors

MRDIMM Application Example



For more information on the product, please contact globalsales@montage-tech.com