Description

The M88TS5110 is a high-accuracy thermal sensor compliant with JEDEC DDR5 thermal sensor TS5110 specification.

The device incorporates thermal sensing capability controlled and supports a two-wire I3C Basic bus (up to 12.5MHz) or I^2C bus (up to 1MHz). It operates with 1.8V nominal power supply and a 1.0V nominal power supply.

The TS is an important component of DIMMs for DDR5 servers. Current mainstream DIMMs are expected to be equipped with two TS chips per DIMM. The server CPU can communicate with the TS via the SPD Hub to manage the temperature of the memory module.

Features

- Compatible with JEDEC specification
- Thermal sensor with high accuracy
- Two-wire bus serial interface (I^2C and I3C Basic operation modes)
- Two unique addresses selected by the SA pin
- Packet Error Check (PEC) Function
- Parity Error Check Function
- Bus Reset Function
- In-Band Interrupt (IBI)
- 6-ball WLCSP package

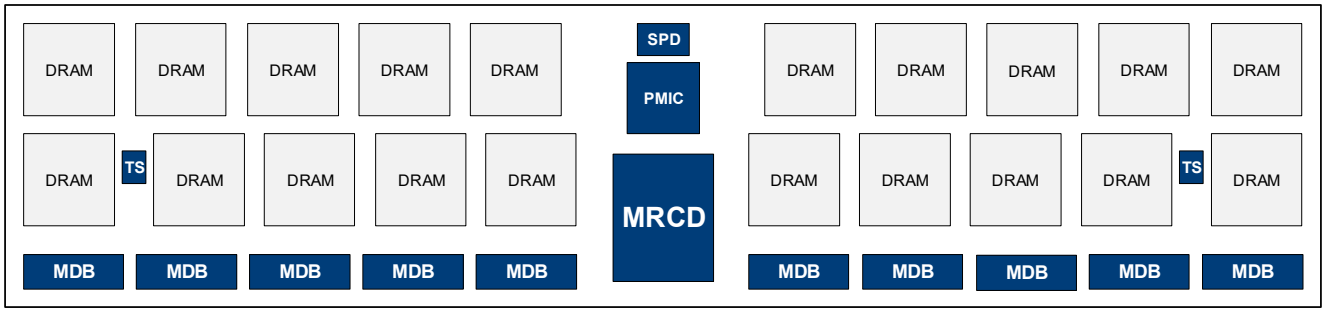
Key Specifications

- Supply Voltage: 1.8V
- IO pin (SCL,SDA) Supply Voltage: 1.0V
- Temperature Accuracy
  - +75°C ~ +95°C, ±1°C (max)
  - +40°C ~ +125°C, ±2°C (max)
  - -40°C ~ +125°C, ±3°C (max)

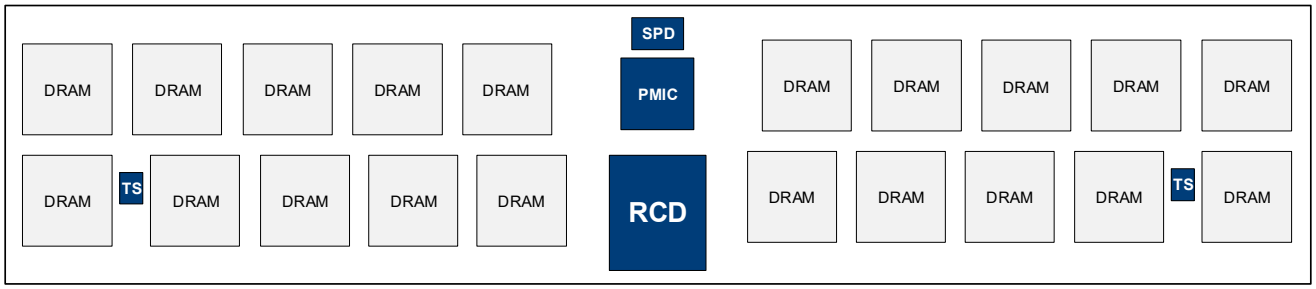
Applications

- DDR5 Server MRDIMM / MCRDIMM, RDIMM and LRDIMM

Application Example (for MRDIMM)



Application Example (for RDIMM)



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