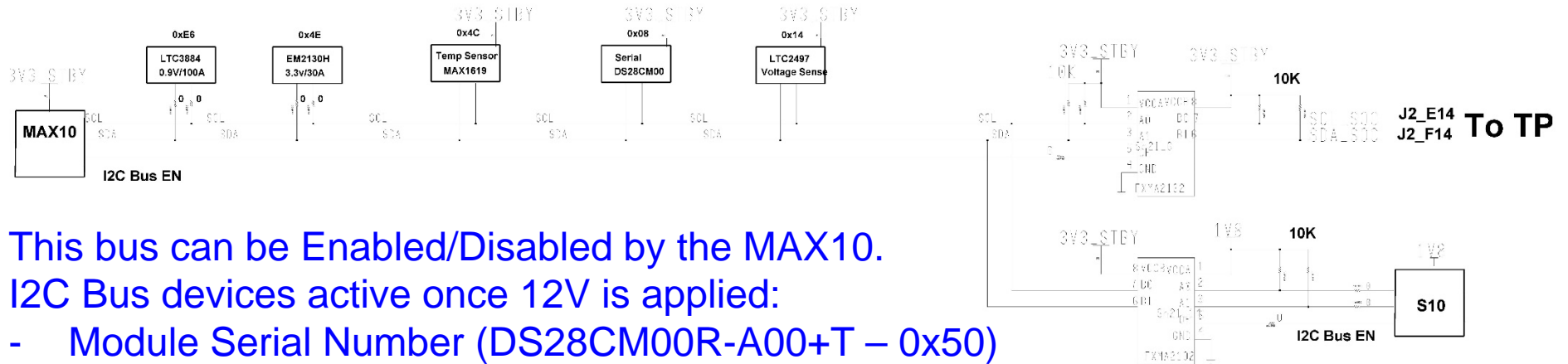


TFM – I2C

6/16/2020

Mircea Bogdan

# TFM- I2C Chain to TP-SOC



This bus can be Enabled/Disabled by the MAX10.

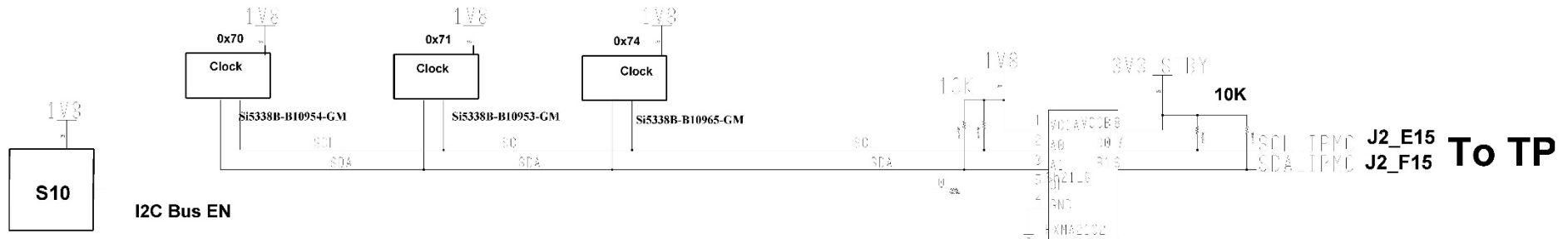
I2C Bus devices active once 12V is applied:

- Module Serial Number (DS28CM00R-A00+T – 0x50)
- Temperature Sensor connected to S10Mx (MAX1619MEE+T – 0x4C)
- ADC chip for: VCCERAM, VCCT, VCCH, VCCRL (LTC2497CUHF#PBF – 0x14)
  - ADC Chip measures 0V until POWER\_ON is applied.
- MAX10 FPGA can also be part of the I2C Bus.
  - All power control signals can be read out via the I2C Bus.

I2C Bus devices active after POWER\_ON is applied:

- 3.3V Intermediate Supply (EM2130H01QI - 0x4E)
  - This device connects to I2C Bus via 0 Ohm resistors, and can be removed from I2C Bus.
- 0.9V Core VCC Supply (LTC3884EUK#PBF – 0x47)
  - This device connects to I2C Bus via 0 Ohm resistors, and can be removed from I2C Bus.
- Stratix10Mx can also be part of this I2C Bus.

# TFM- I2C Chain to TP - IPMC



I2C Bus devices active after POWER\_ON is applied and 1.8V is OK.

- Clock (Si5338B-B10953-GM - 0x71)
- Clock (Si5338B-B10954-GM - 0x70)
- Clock (Si5338B-B10965-GM - 0x74)

All clocks are pre-programmed from factory.

Clock frequency can be changed via the I2C Bus, if needed.

This bus can be enabled/disabled by the S10Mx.

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