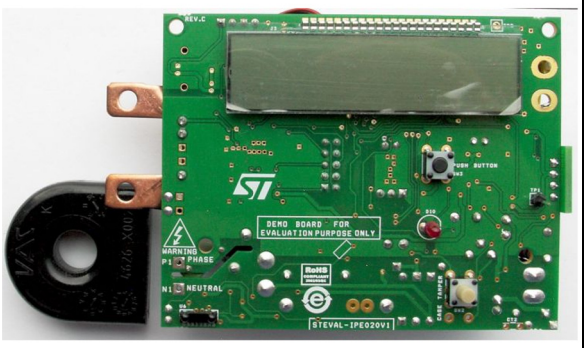
STEVAL-IPE020V1

Single phase electricity meter with dual EEPROM M24LR64 and STPM10 and STM8L152

Data brief – preliminary data

Features

- Accuracy: class 1 with dynamic range 200:1
- Nominal voltage: 240 V
- Nominal current: 10 A (I_{TYP})
- Maximum current: 80 A (I_{MAX})
- Operating range: 0.6 Vb to 1.2 Vb
- Meter constant: 3200 impulses/kWh
- Power frequency range: 45 Hz to 65 Hz
- Sensor: primary side CT and secondary side Shunt
- Communication interface: IrDA
- RoHS compliant



STEVAL-IPE020V1

Description

The STEVAL-IPE020V1 demonstration board implements a single-phase energy meter based on the STPM10 metering IC and STM8L152 microcontroller.

The demonstration board is a fully functional single-phase solution with parameter display, tamper management, maximum demand (MD) calculation, EEPROM data logging, and low power management.

The metering data stored in the dual EEPROM can be read using the RFID reader.

1 Schematic

Figure 1. Schematic (1 of 4)

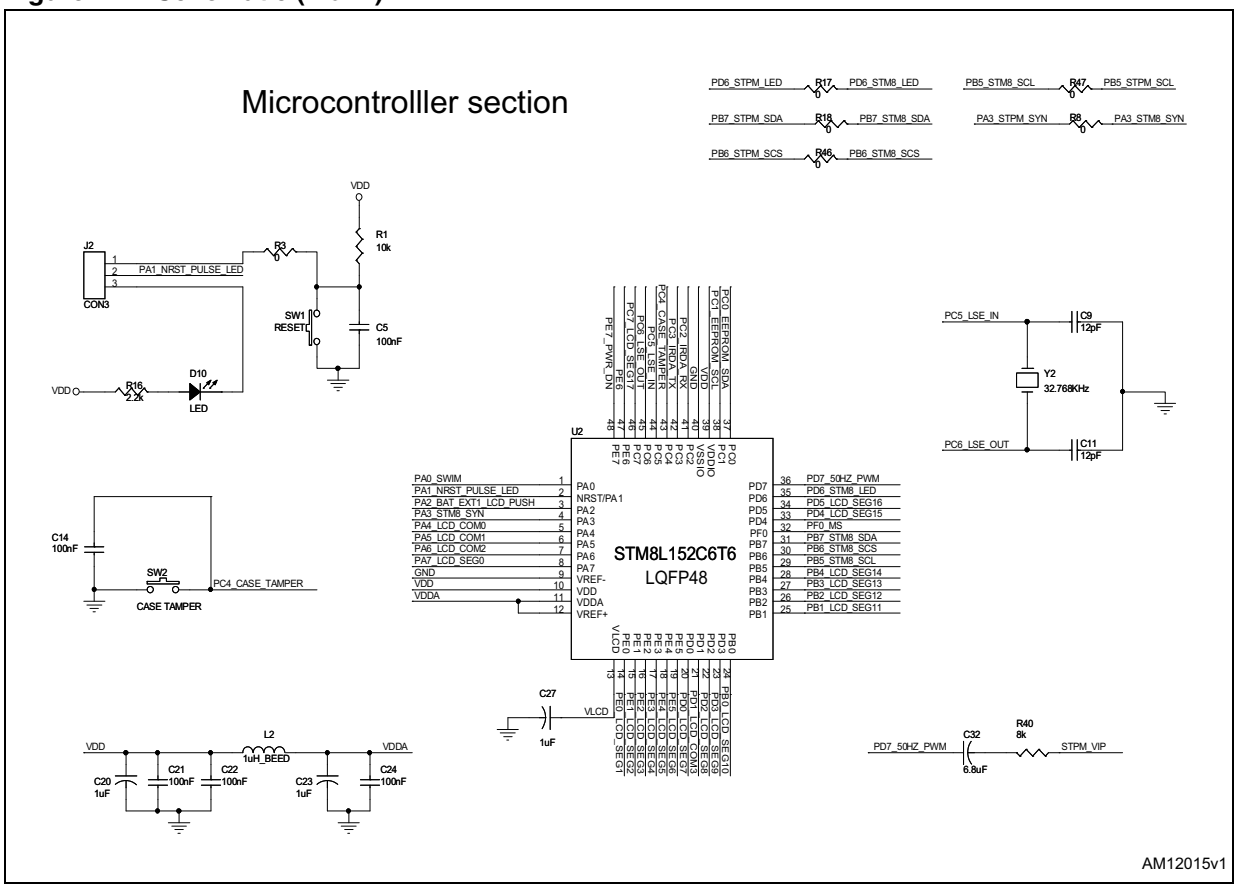


Figure 2. Schematic (2 of 4)

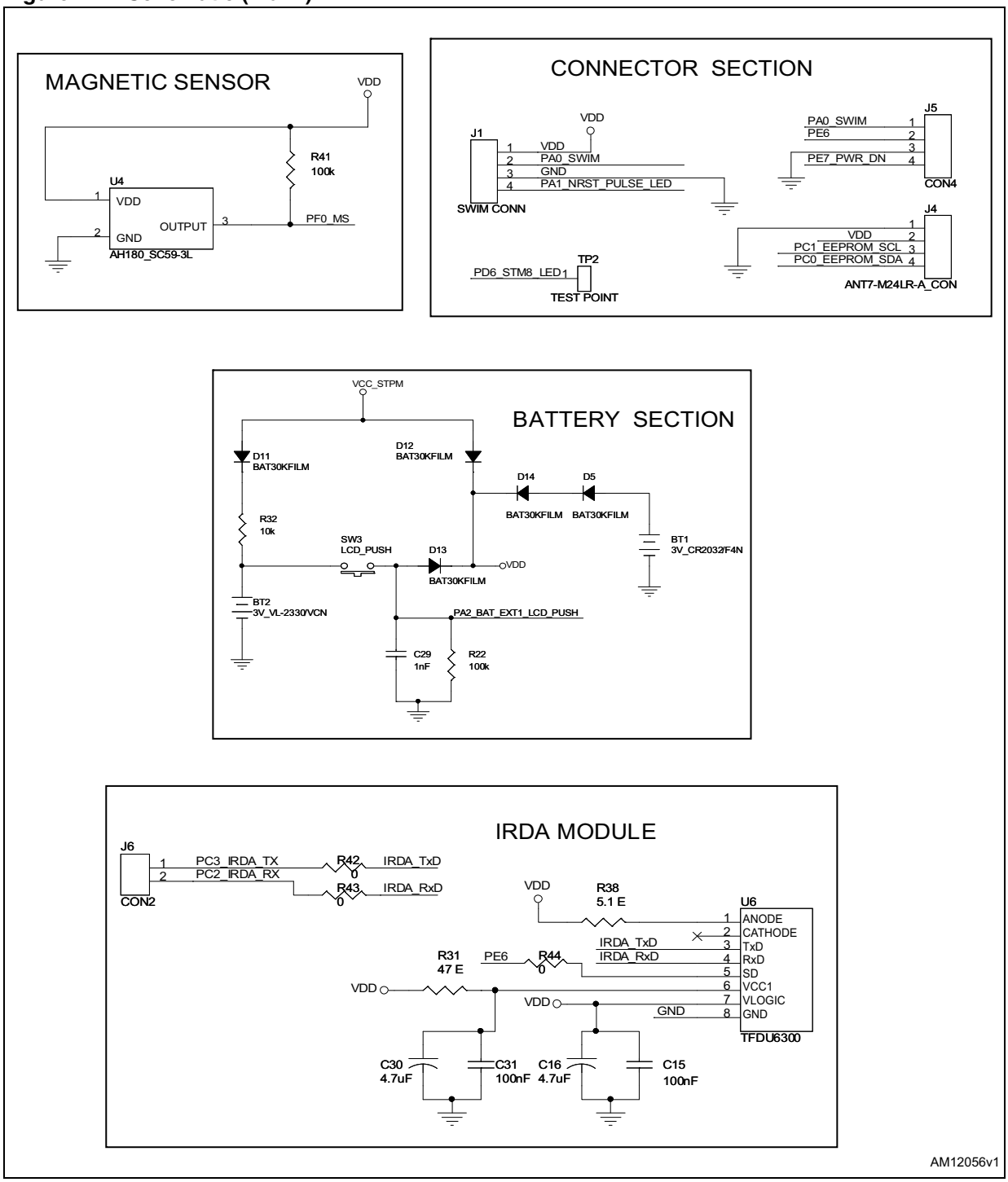


Figure 3. Schematic (3 of 4)

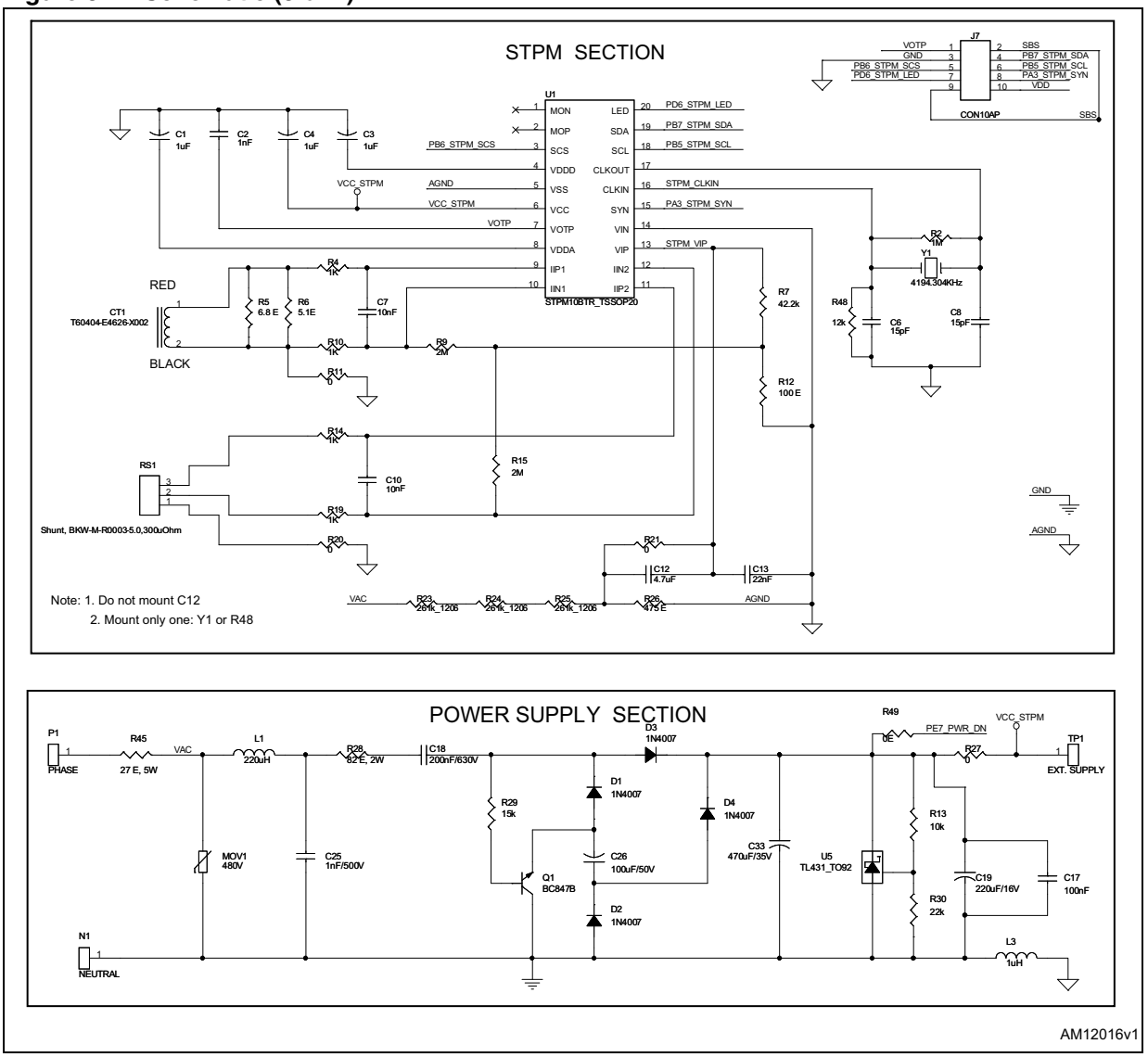
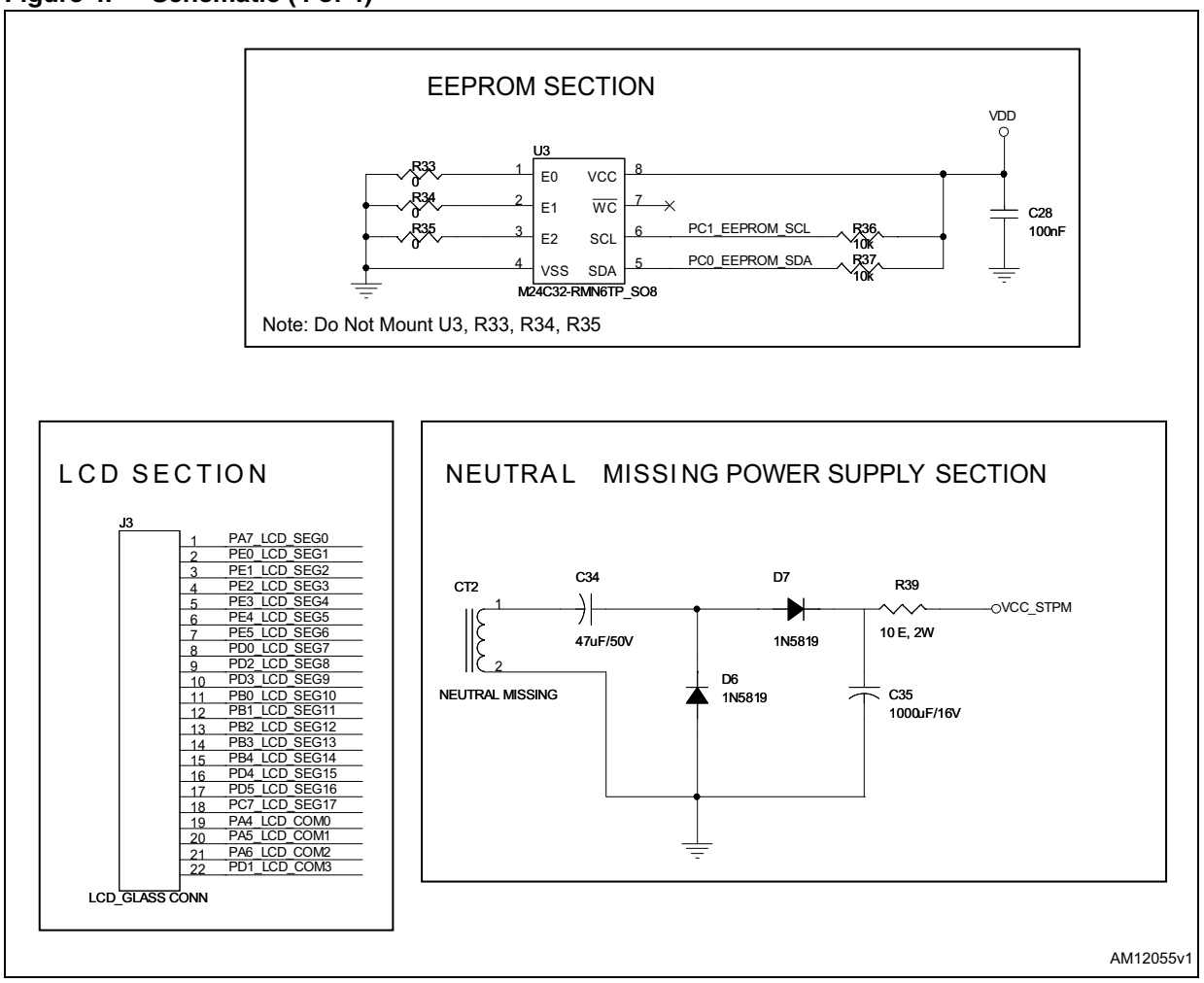


Figure 4. Schematic (4 of 4)



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
13-Mar-2012	1	Initial release.

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