

## Handheld point-of-sale (POS) based on the STM32F107VC

**Data brief**

### Features

- Operating voltage: 5 V DC
- Built-in thermal printer
- External barcode scanner
- Memory interface
- LCD display
- Rechargeable battery supply system
- RoHS compliant

### Description

The STEVAL-IPC004V1 demonstration board works in a similar way to a typical POS. It captures item information using a USB-based barcode scanner and, after processing the barcode information, adds it to the transaction record.

To complete the transaction, there is the option of payment using a smartcard/magnetic card interface over GPRS or by entering the cash amount using a keypad.

The internal thermal printer is used to print the sales report and the sales record is recorded in the onboard memory.

The STEVAL-IPC004V1 operates from a 5 V adaptor which is connected to the board through the power jack provided.

The system also comes with a PC-based server application which has various access levels to control STEVAL-IPC004V1 activities such as registration, the loading of item allotment tables in the internal memory, and the obtaining of sales data for future reference. The server keeps sales data in the database for future reference for up to 2 months and it also monitors the STEVAL-IPC004V1 health status and accordingly enables/disables its functioning.



STEVAL-IPC004V1

For human interaction, there is a keypad which has 16 keys, allowing a flexible interface.

It is also possible to customize the system to include interfaces such as a smartcard, GPRS, etc., as per customer requirements.

## 1 Schematics

**Figure 1. Schematic diagram (1 of 11)**

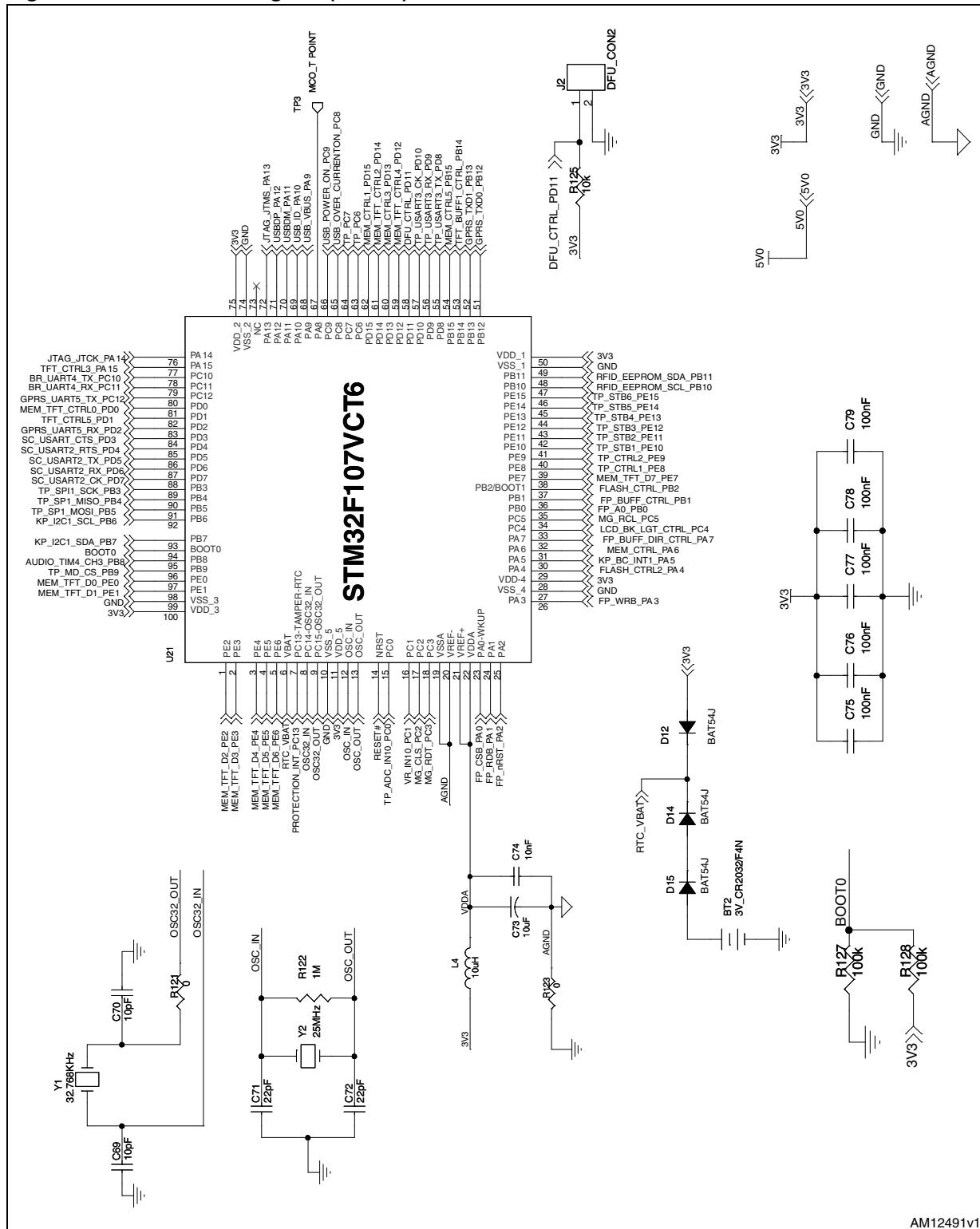


Figure 2. Schematic diagram (2 of 11)

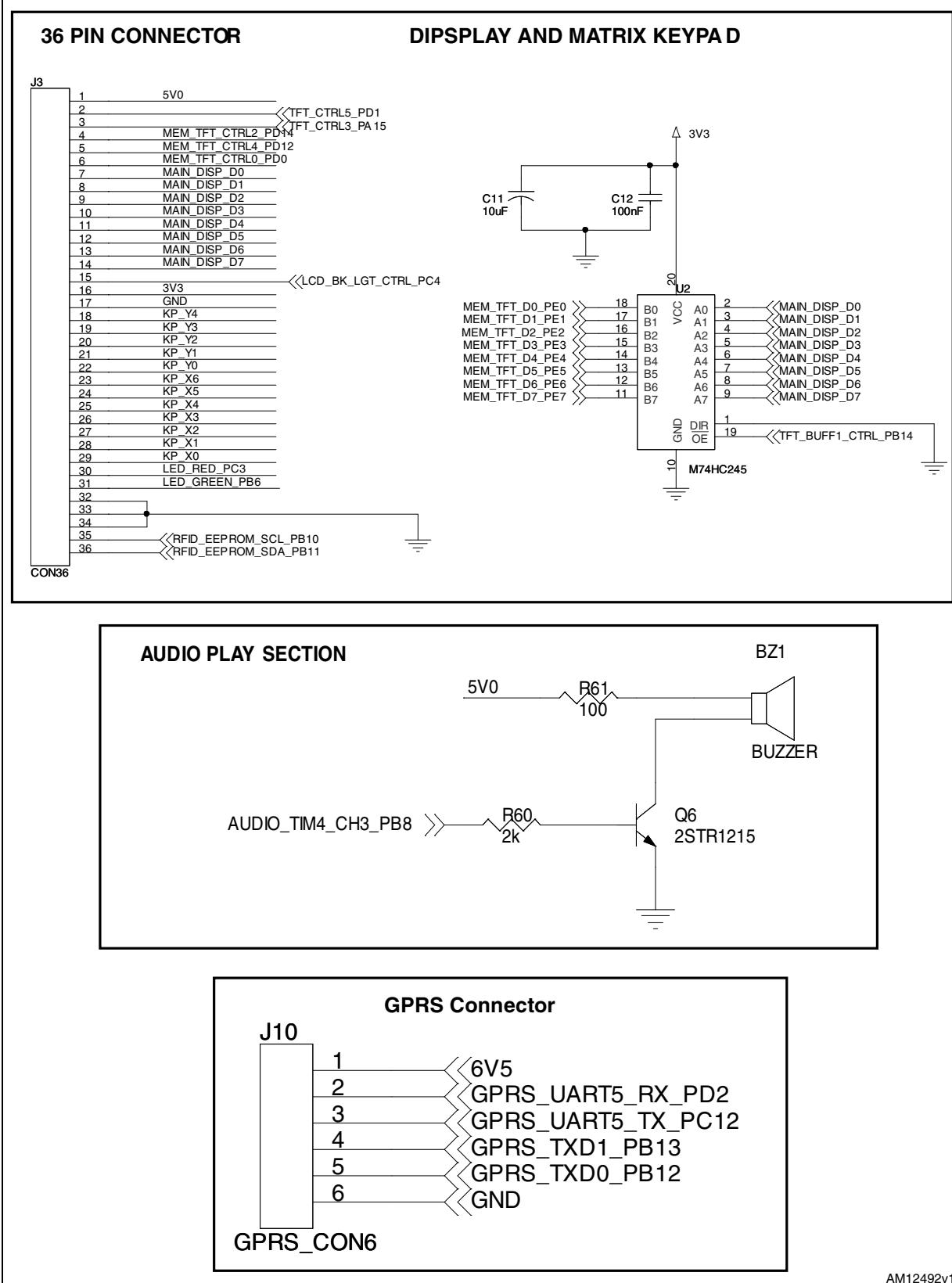


Figure 3. Schematic diagram (3 of 11)

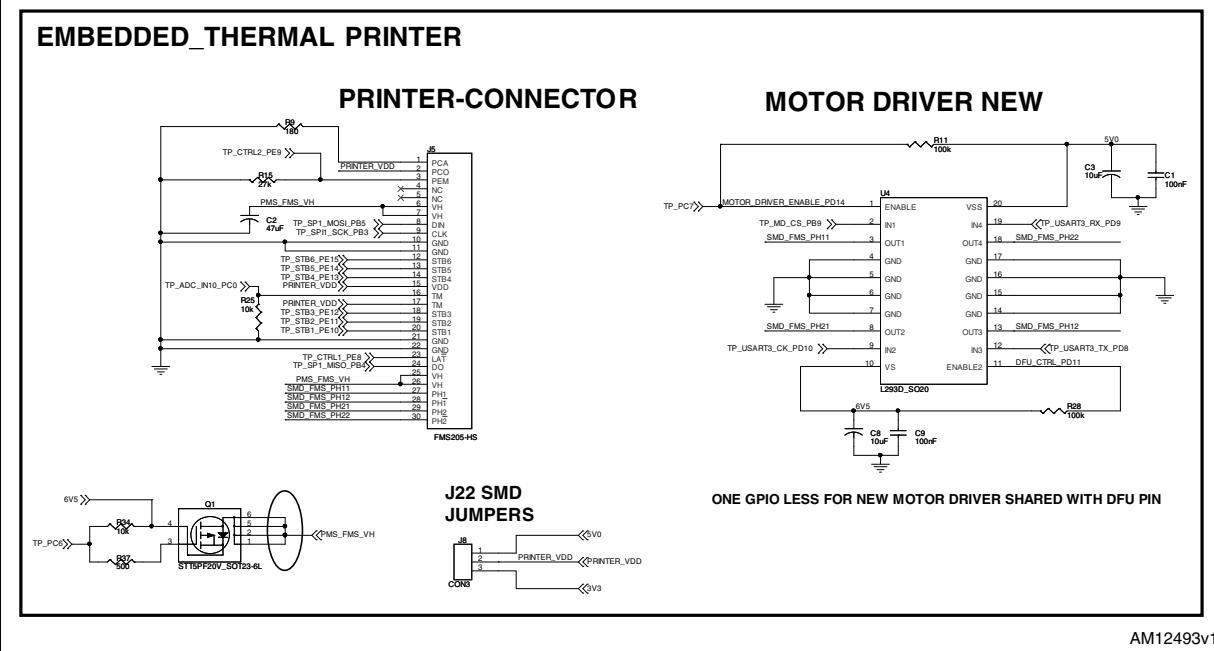
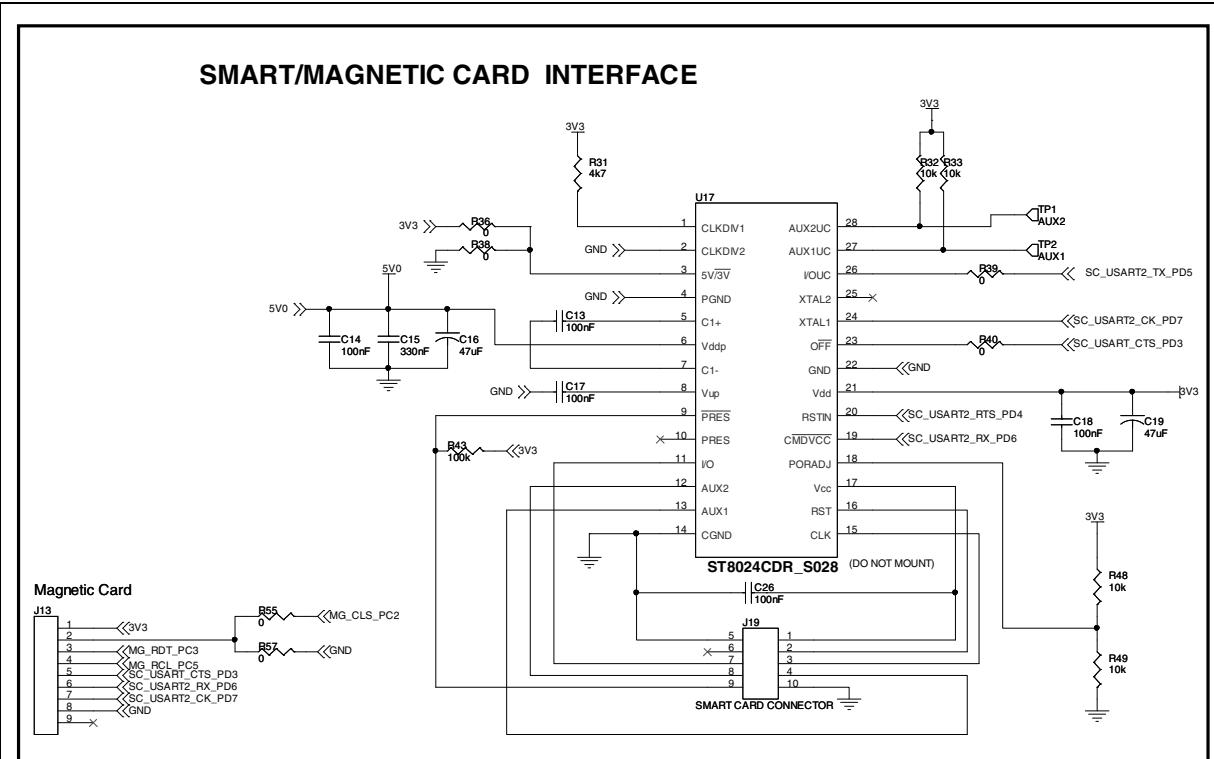
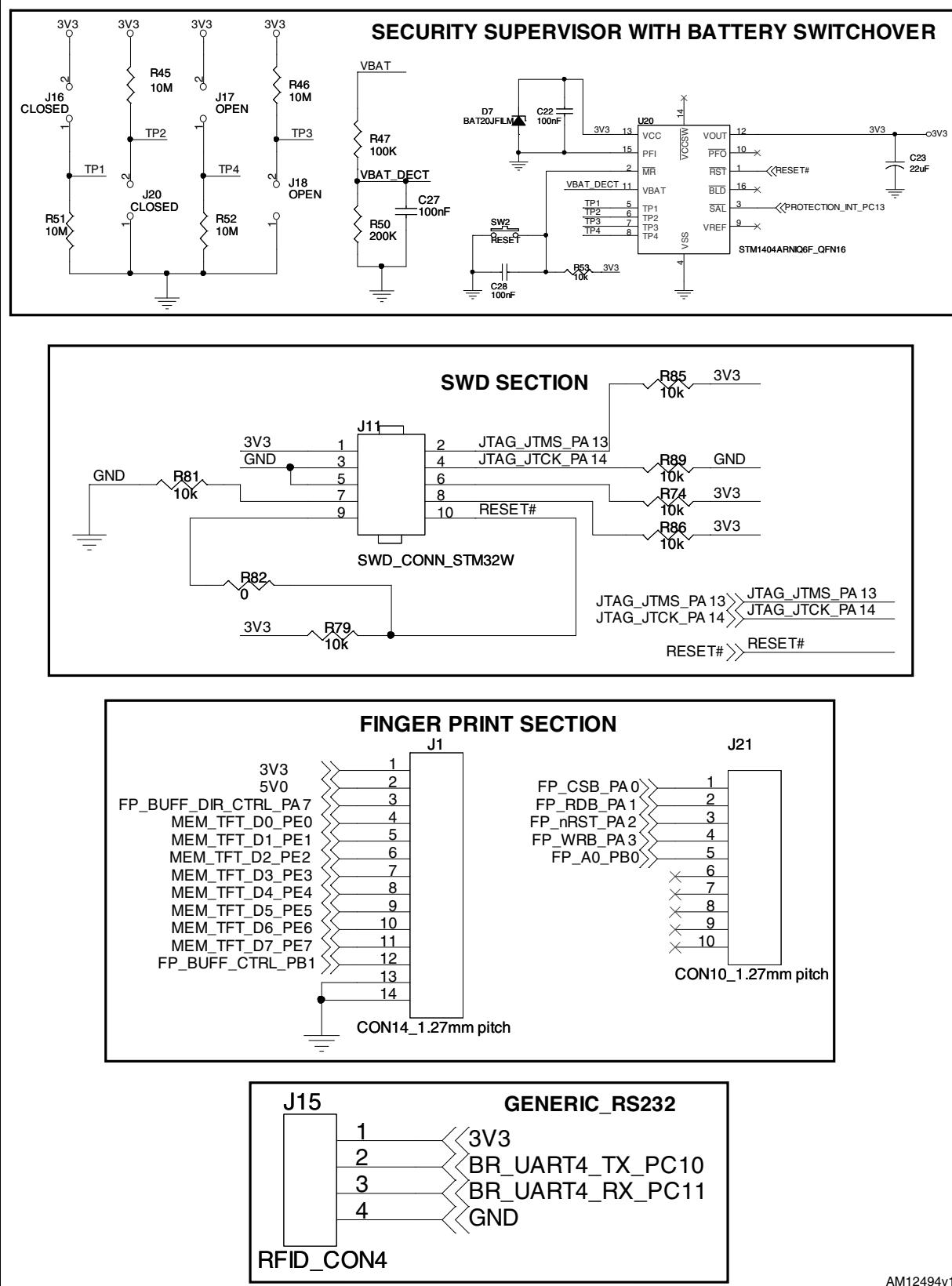
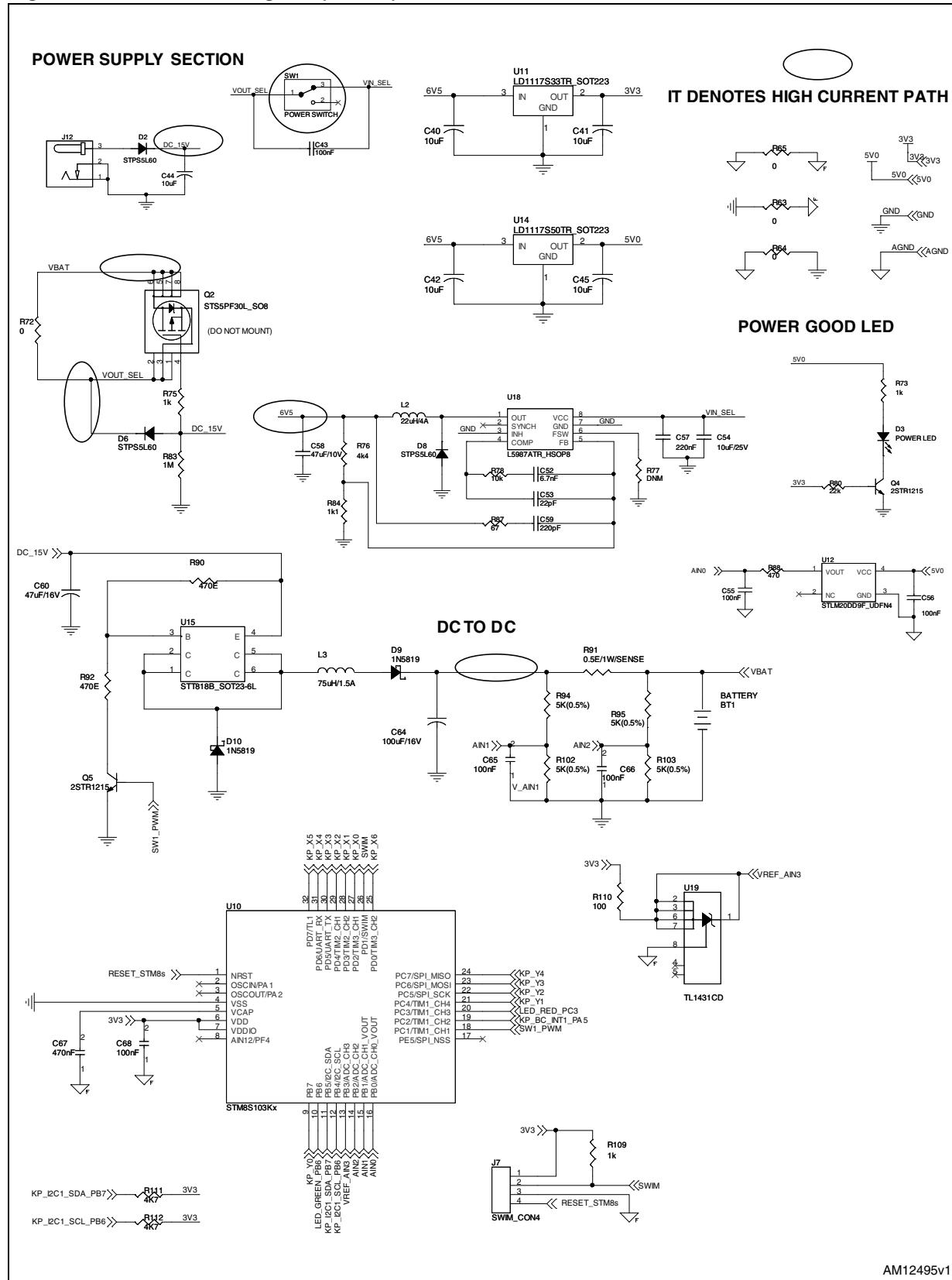


Figure 4. Schematic diagram (4 of 11)



AM12494v1

**Figure 5. Schematic diagram (5 of 11)**



**Figure 6. Schematic diagram (6 of 11)**

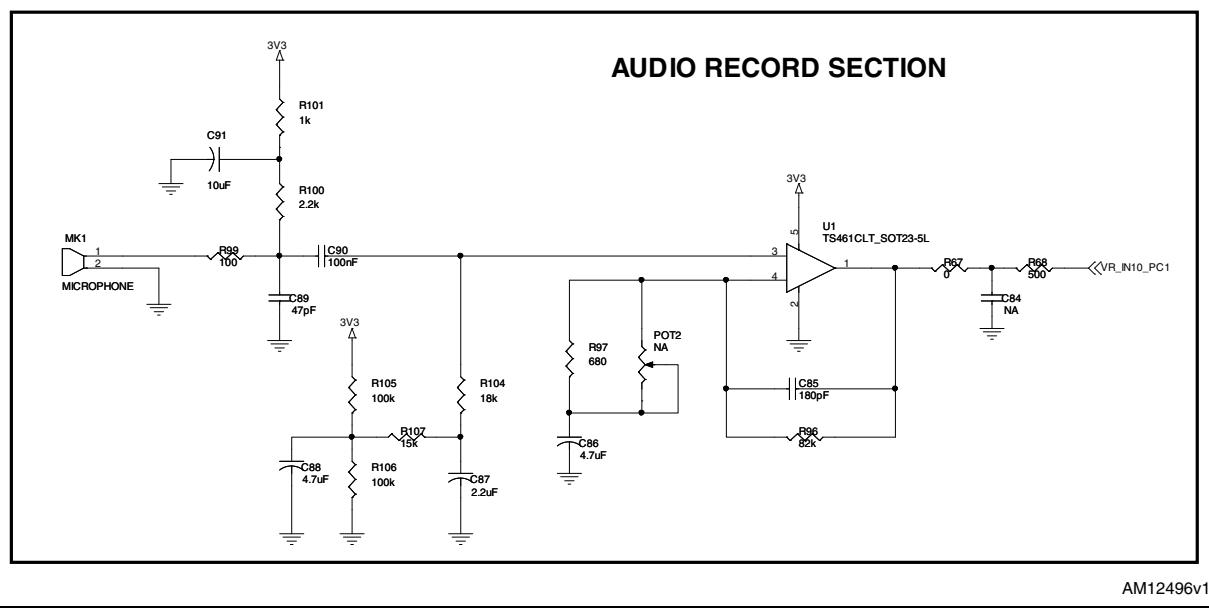
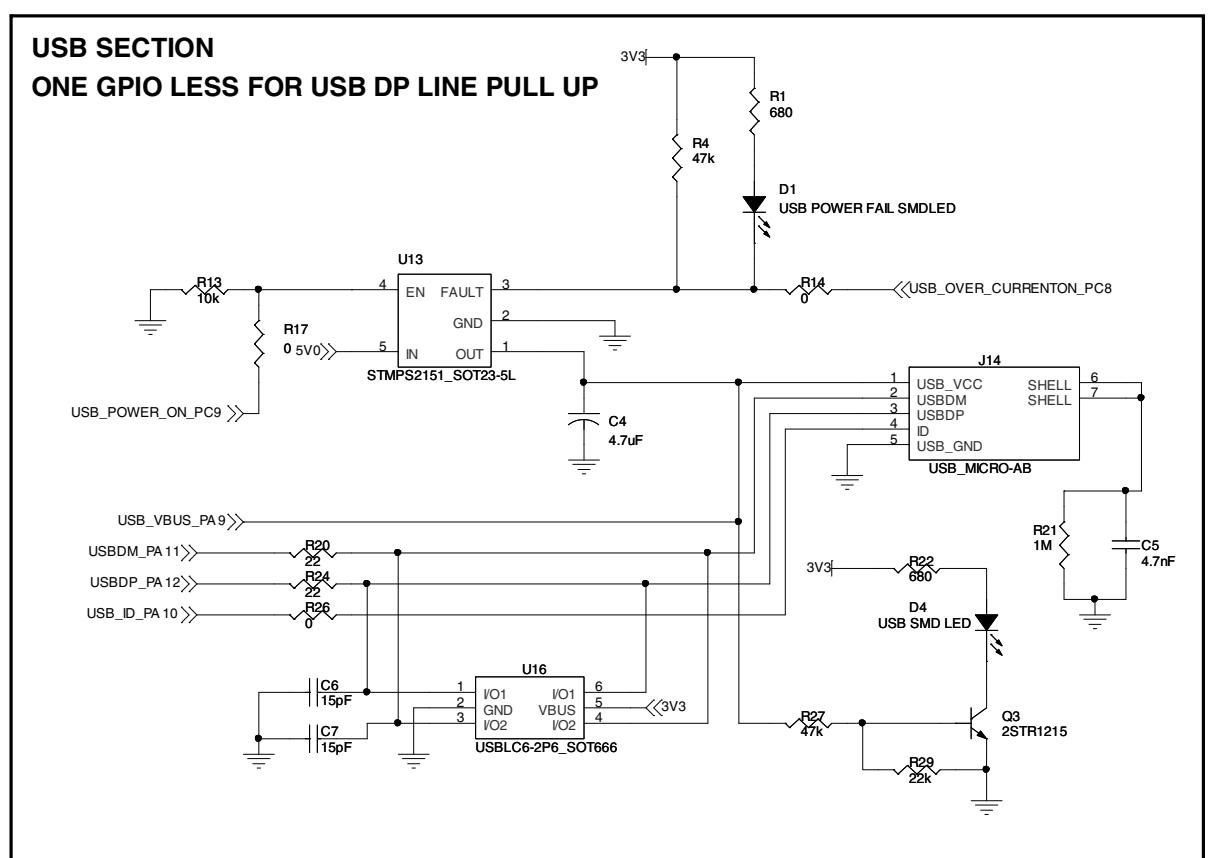
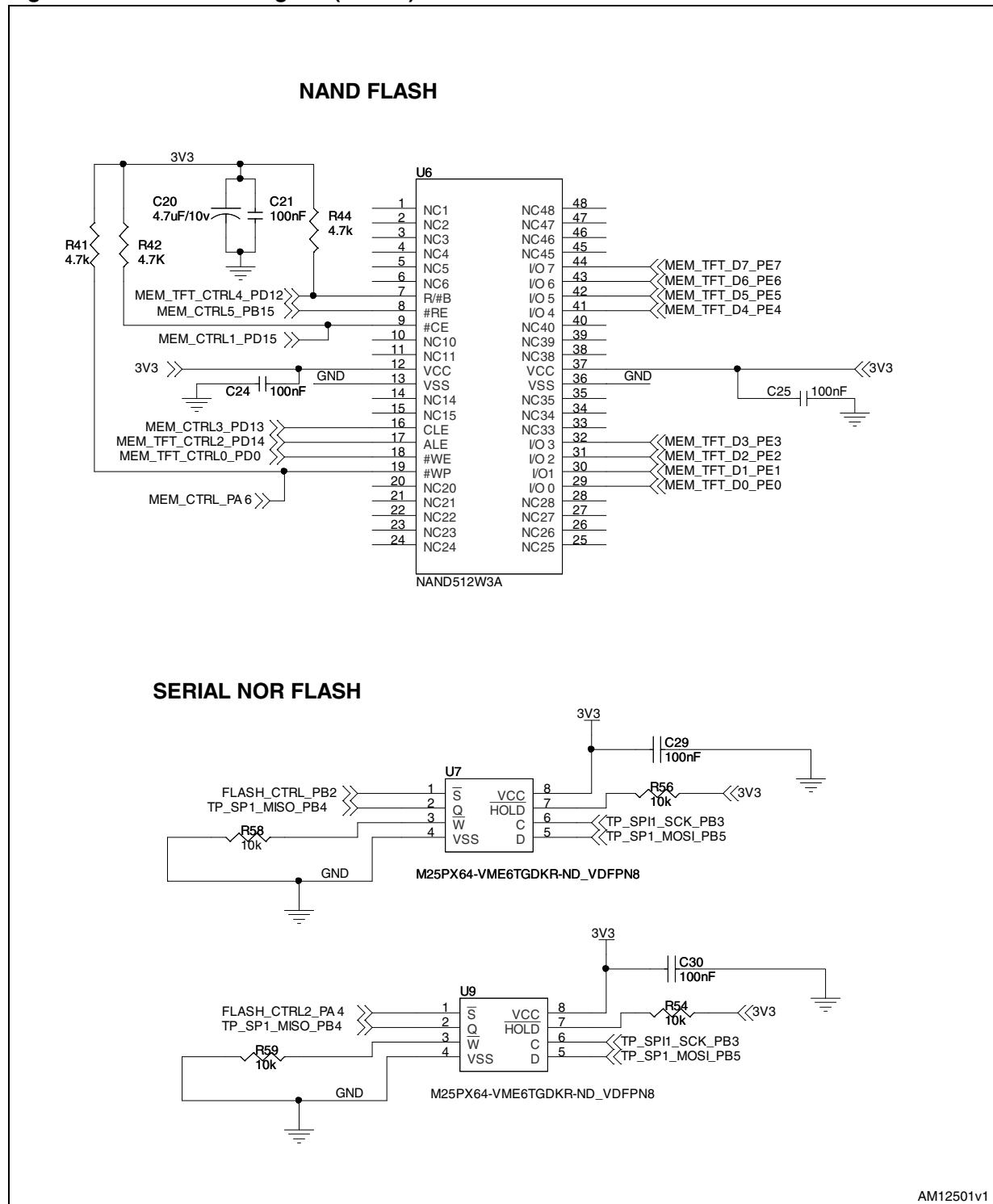
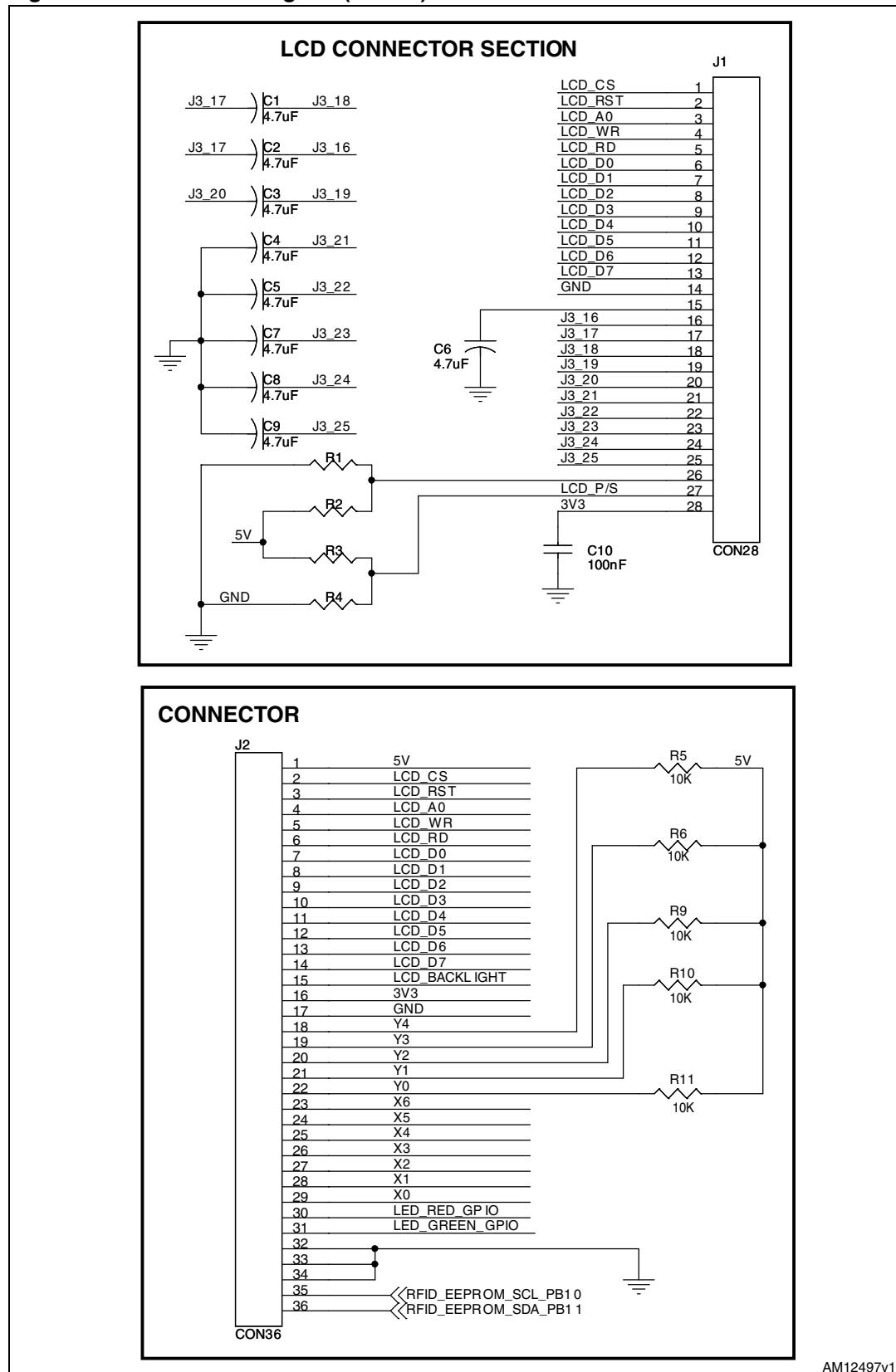


Figure 7. Schematic diagram (7 of 11)



AM12501v1

Figure 8. Schematic diagram (8 of 11)



AM12497v1

Figure 9. Schematic diagram (9 of 11)

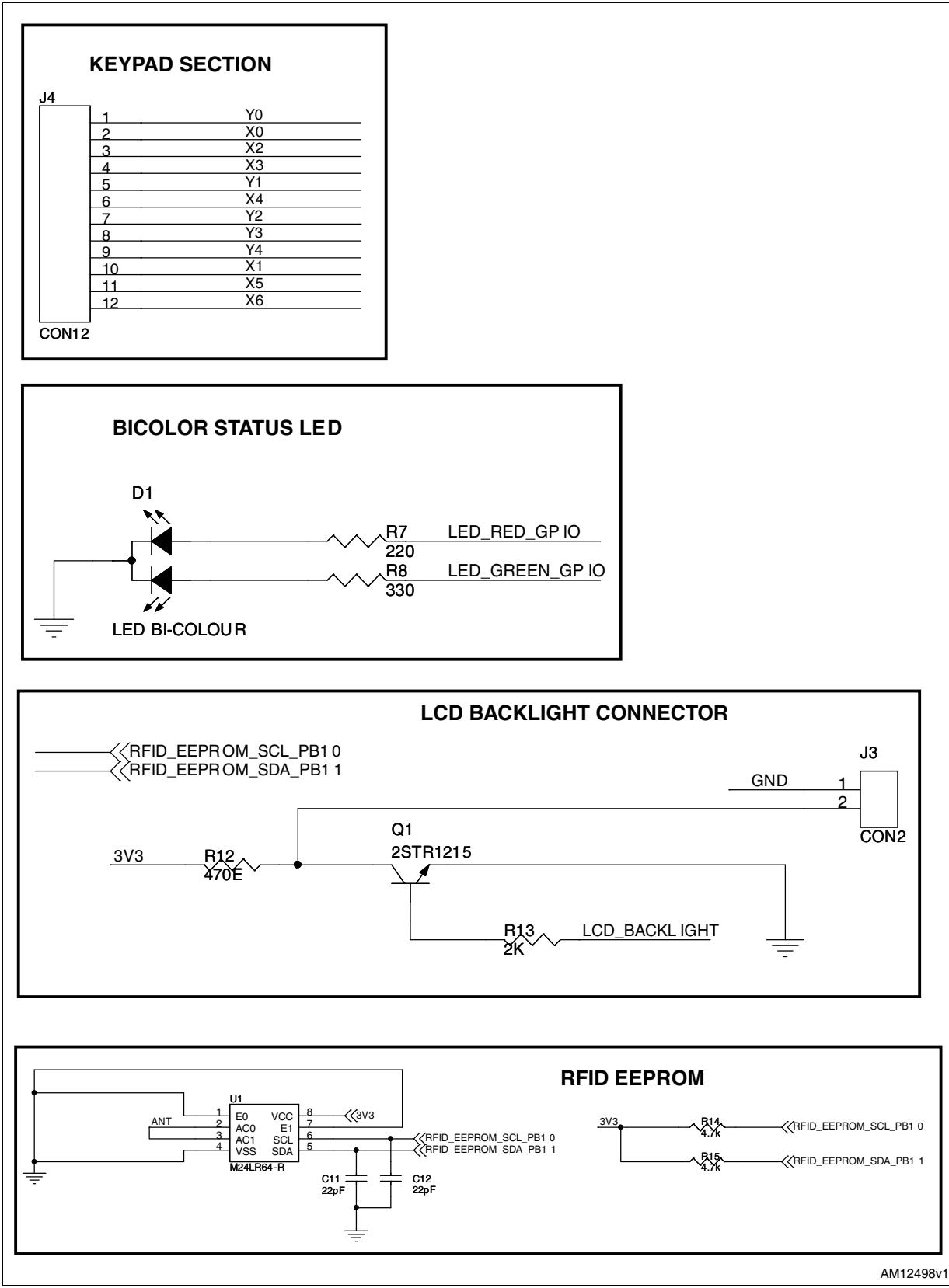
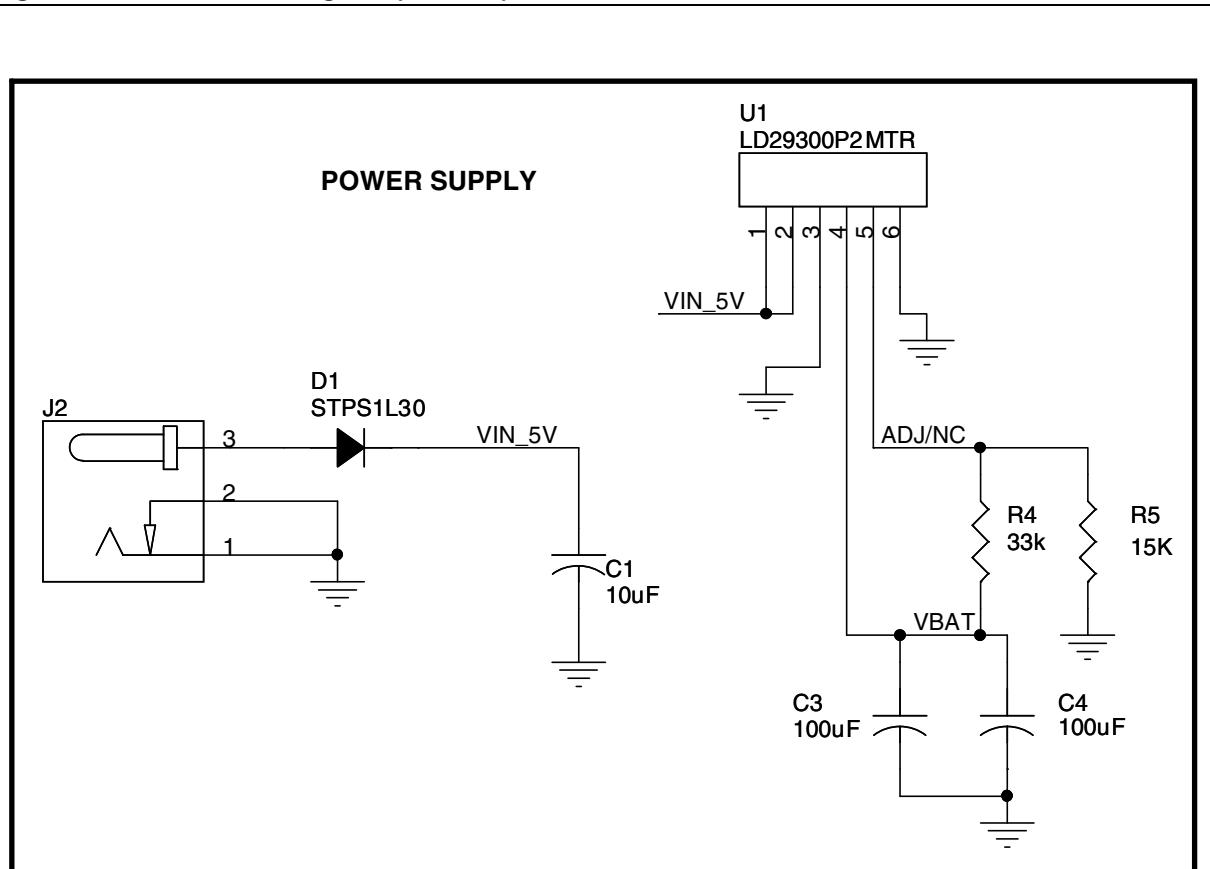
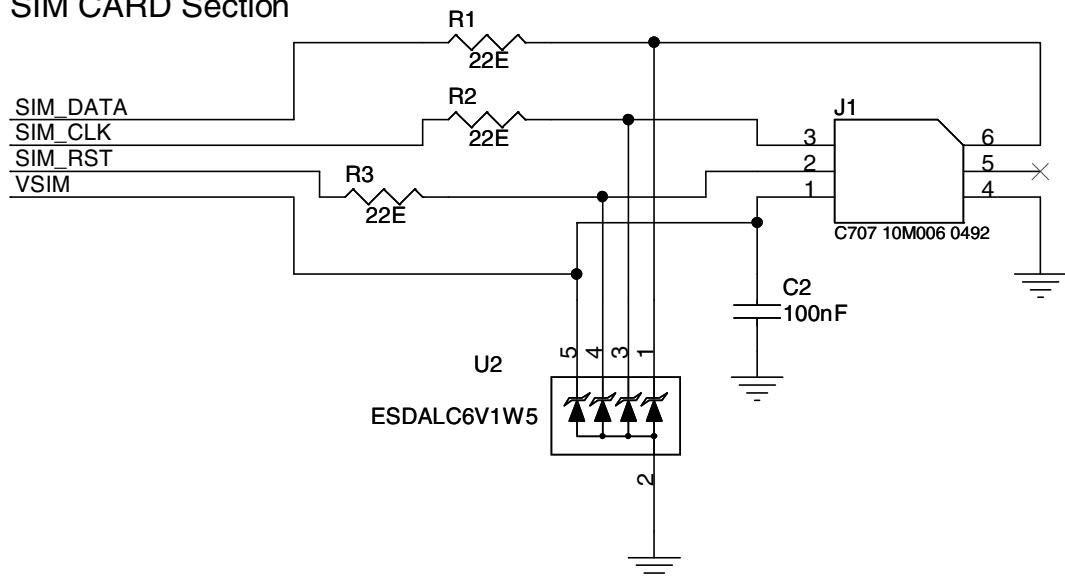


Figure 10. Schematic diagram (10 of 11)



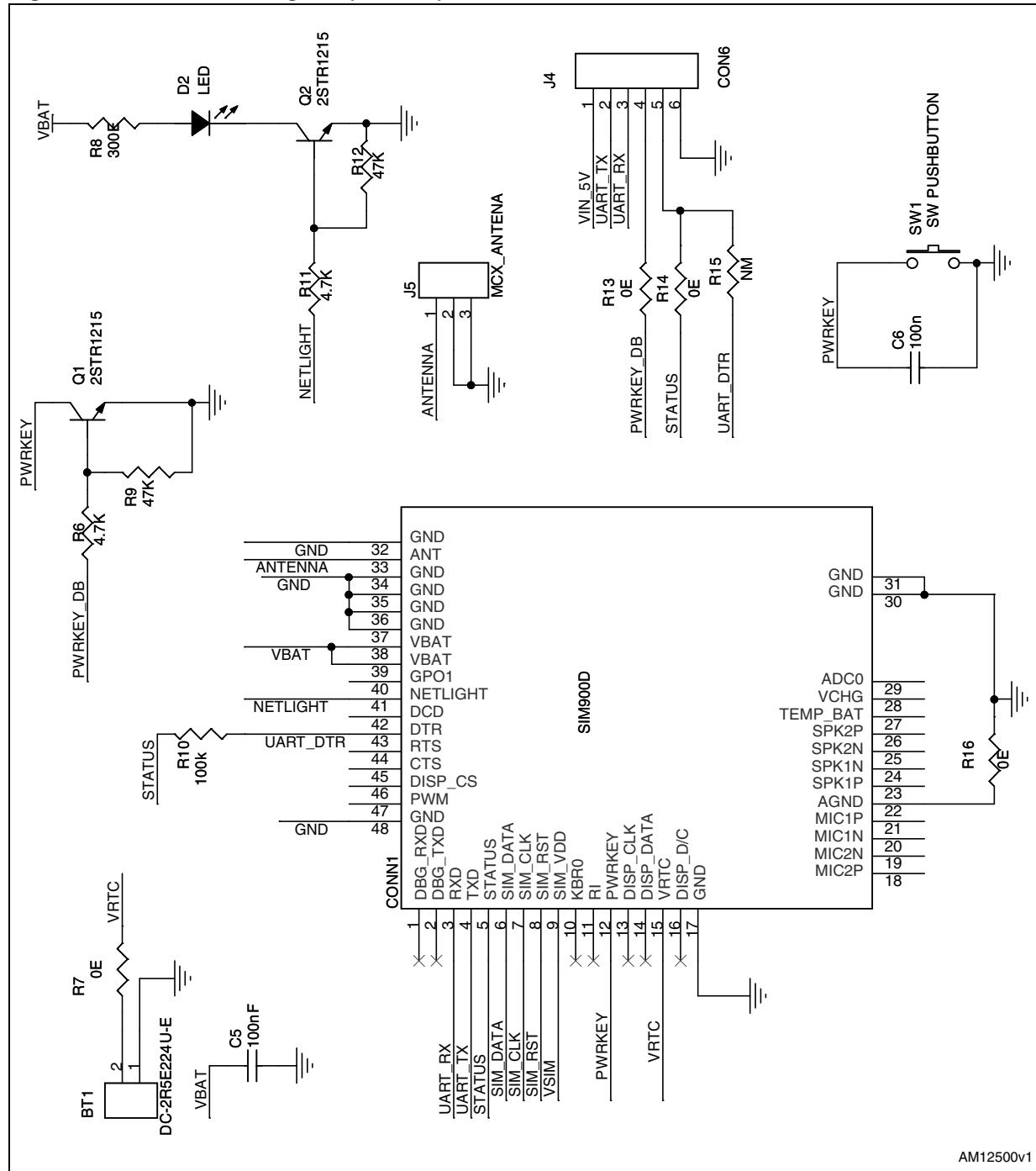
This section must be placed very near to GSM pin connector

### SIM CARD Section



AM12499v1

**Figure 11. Schematic diagram (11 of 11)**



## 2 Revision history

**Table 1. Document revision history**

Date	Revision	Changes
29-Oct-2012	1	Initial release.

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