



STEVAL-PCC010V2

Ethernet with ST802RT1A and STM32F207 demonstration board

Data brief

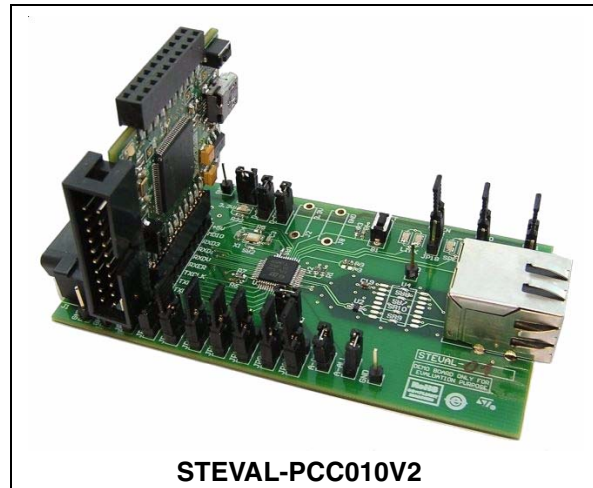
Features

ST802RT1A Ethernet PHY demonstration board:

- ST802RT1A Fast Ethernet physical layer transceiver
- Onboard 3.3 V LDO regulator
- Onboard 25 MHz crystal
- 12 jumpers for boot-strap configuration (MII address, auto-negotiation, loopback, power down, and MII/RMII configuration)
- Several GND test points and jumpers for power consumption measurement
- Connectors
 - 20-pin full pitch header connector for debug purposes (compatible with the STM32F207 controller board)
 - RJ45 connector with embedded transformer
 - 40-pin connector footprint compatible with the spirent communications SmartBits 200/2000 (SMB-200/ SMB-2000) analysis system (connector is not assembled)

STM32F207 controller demonstration board:

- STM32F207 Connectivity Line Cortex-m3 based microcontroller with embedded Ethernet MAC
- Onboard 3.3 V LDO regulator
- Onboard 25 MHz crystal
- Reset button, power LED, general-purpose button, and two LEDs
- Connectors:
 - 20-pin full pitch header connector for debug purposes and compatibility with the ST802RT1A demonstration board
 - 20-pin JTAG connector
 - Additional general purpose 20-pin full pitch header connector
 - USB device connector (+5 V0 Power supply)



- RoHS compliant

Description

The STEVAL-PCC010V2 demonstration board is an evolution of the STEVAL-PCC010V1 and was designed to allow evaluation of the ST802RT1A, Fast Ethernet physical layer (PHY) interface supporting 100BASE-TX and 10BASE-T applications.

The PHY provides a media independent interface (MII) and reduced media independent interface (RMII) for easy attachment to a 10/100 media access controllers (MAC).

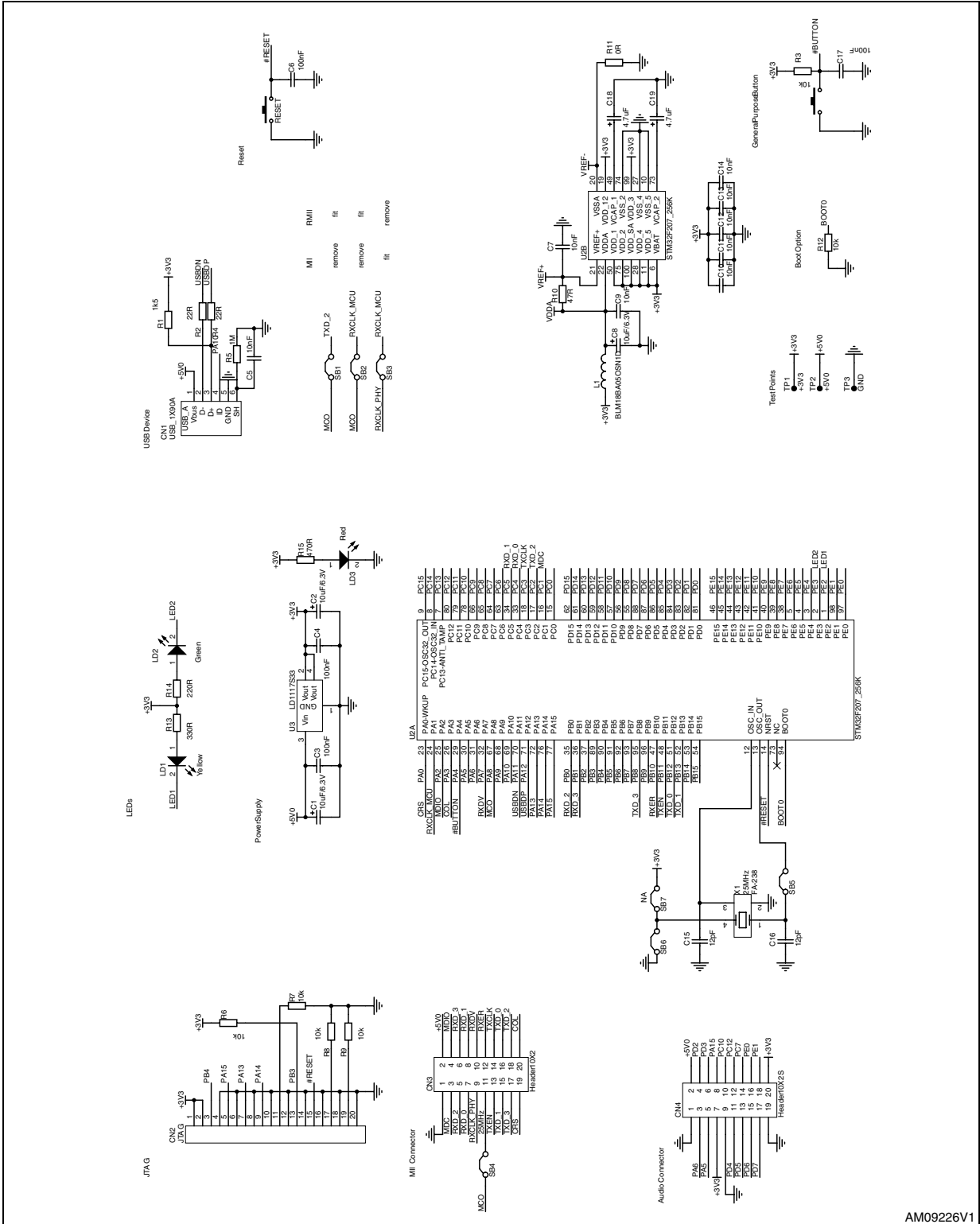
Many jumpers, test points, and connectors on the demonstration board enable to test the features provided by the ST802RT1A Ethernet PHY. An additional header connector allows connection to the STM32F207 controller demonstration board for an immediate evaluation of the complete application – microcontroller and the physical layer.

The controller board is pre-flashed with a web server demo.

The STM32F207 controller demonstration board is part of the STEVAL-PCC010V2 package delivery.

1 Schematics

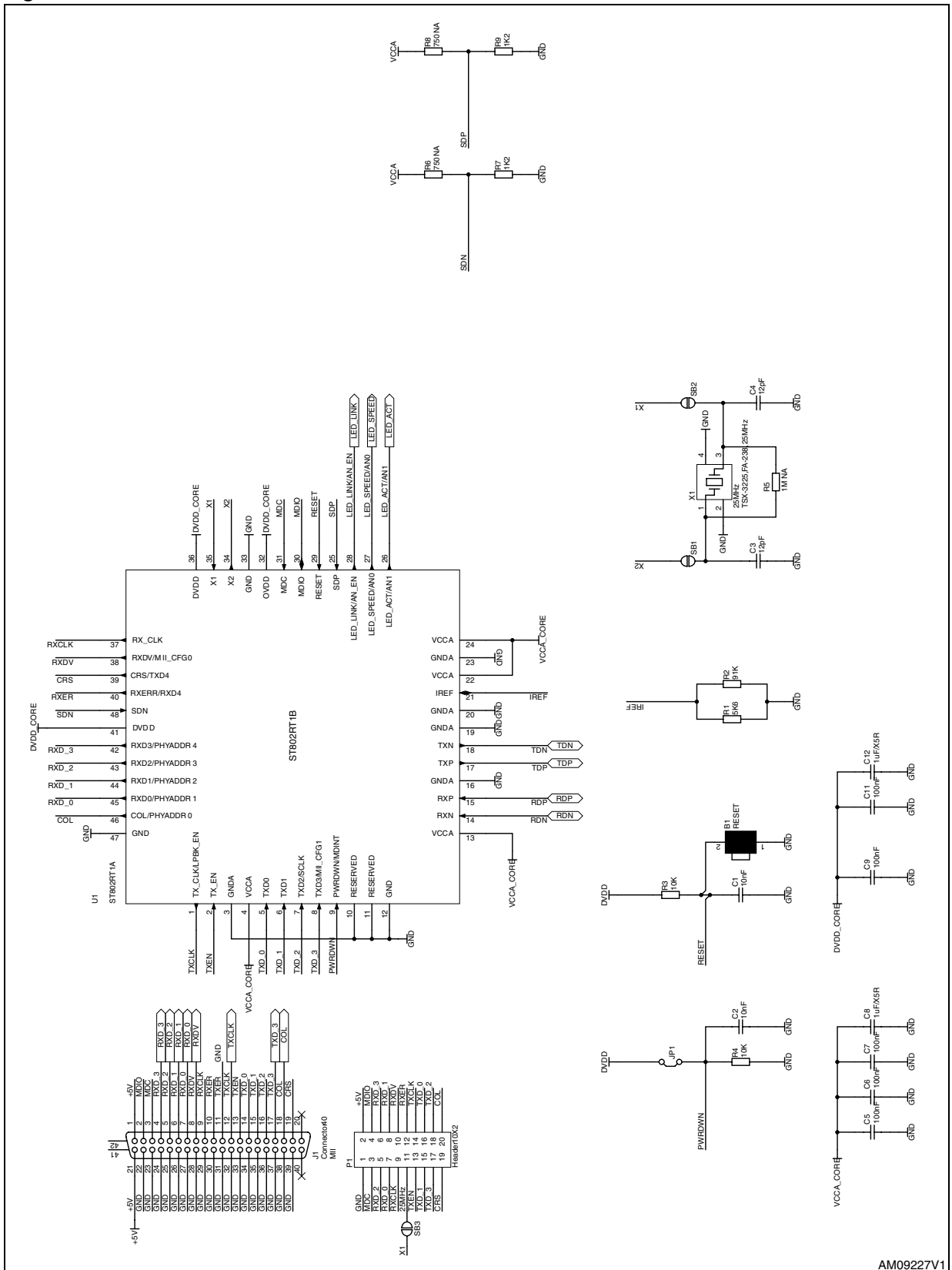
Figure 1. Schematic 1/4



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Figure 2. Schematic 2/4



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Figure 3. Schematic circuit 3/4

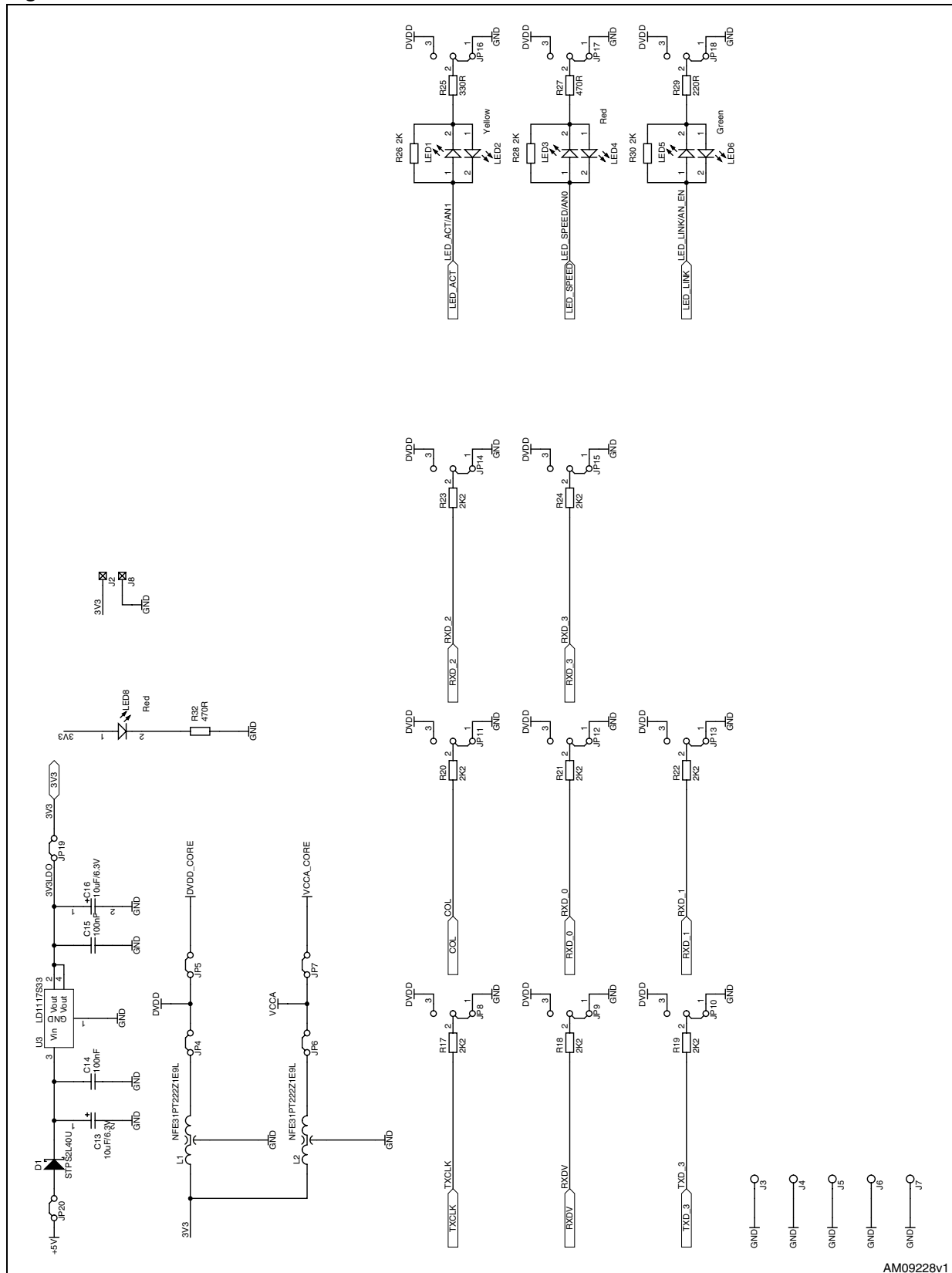
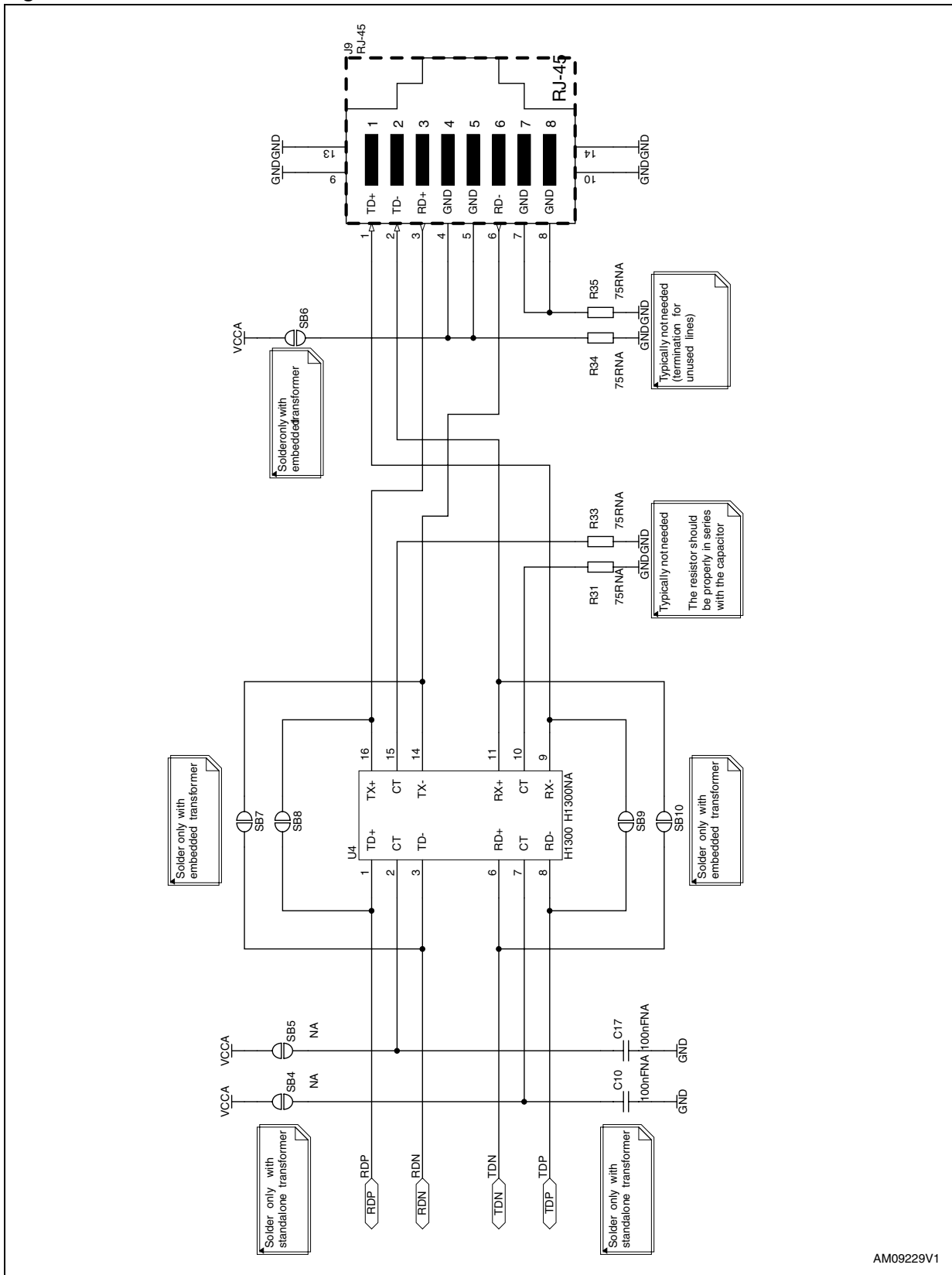


Figure 4. Schematic circuit 4/4



AM09229V1

2 Revision history

Table 1. Document revision history

Date	Revision	Changes
23-Feb-2011	1	Initial release.

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