



STEVAL-PCC008V1

TFT display demonstration board with Ethernet connectivity based on the STR91

Data brief

Features

- Embedded Ethernet web client based on the STR91 system package
- Board fitted with TFT, microSD card, and keypad
- System pre-programmed
- Can display images from the web
- Includes set of sample images to work with web server
- RoHS compliant

Description

The STEVAL-PCC008V1 demonstration board implements the functionality of an embedded Ethernet web client system, which is based on the STR91xFAW ARM966E-S™ 16/32-Bit Flash MCU with Ethernet microcontroller.

The system is designed to view/monitor JPEG images taken from an HTTP web server or from an IP camera on the network. The images are displayed on the TFT screen, demonstrating the surveillance capability. The system is compatible with web servers which do not require secure socket layer (SSL) support. It uses specific programmed requests to capture images from the specific web servers.

The display is a 2.4" TFT screen which displays images captured from the network by converting them into bitmaps through a JPEG decompression algorithm.

A six-button keypad is provided for navigating through menus.

The availability of a microSD card on the board aids in the handling of large chunks of data from the network.



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Figure 1. Microcontroller circuit schematic

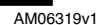
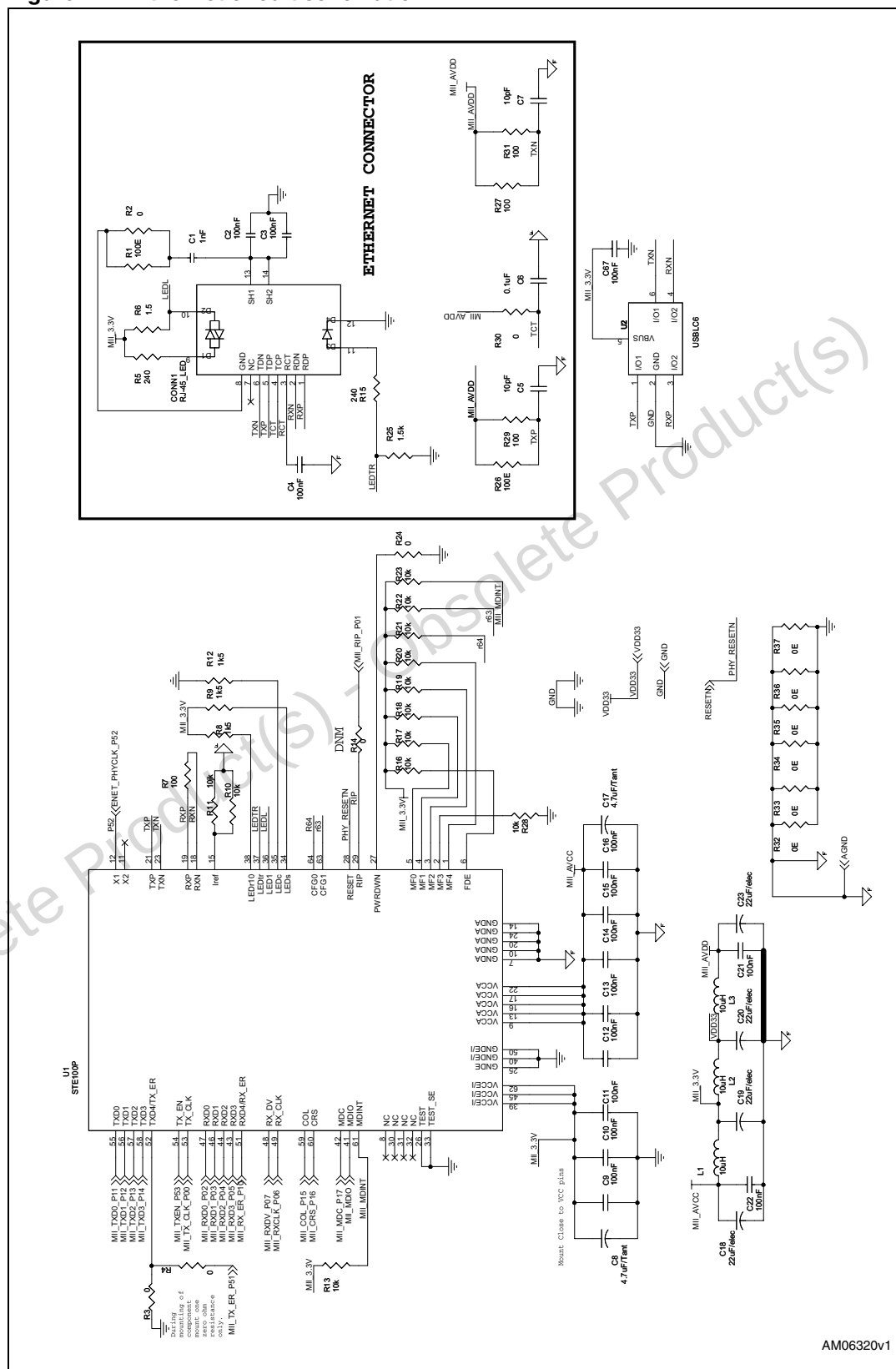


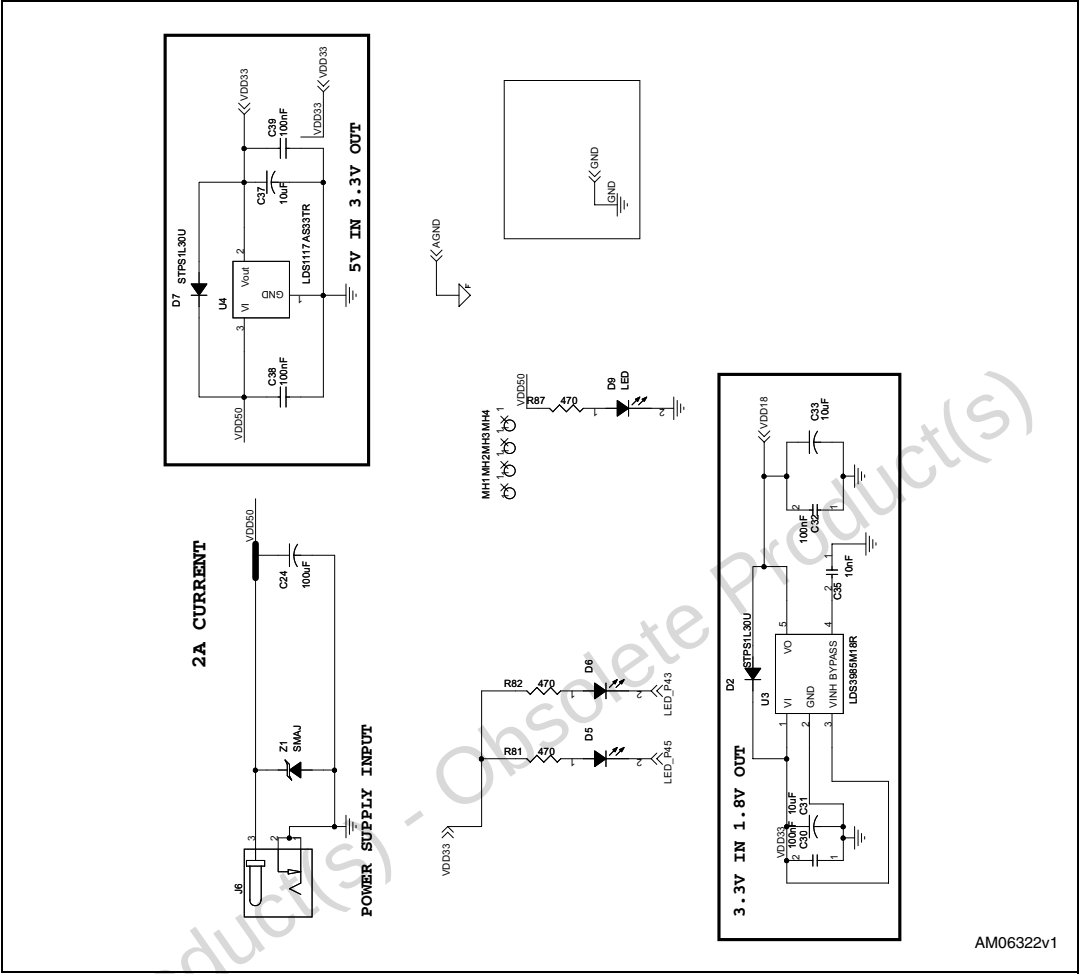
Figure 2. Ethernet circuit schematic



The schematic diagram illustrates the internal connections of the Zigbee module. It includes the following components and connections:

- EEPROM:** U10 (M24C01) is connected to VDD33 and GND. It has a 100nF capacitor (C71) on its VDD33 pin. The data bus is connected to the MMC_CS_P27 pin of the main module.
- CONFIG. JUMPER:** J19 and J20 are used to configure the module. J19 is connected to VDD33 and GND. J20 is connected to VDD33 and GND. The configuration is controlled by the CFG0_P47 pin.
- KEY BOARD CONNECTOR:** J24 and J25 are used for keyboard input. J24 is connected to VDD33 and GND. J25 is connected to VDD33 and GND. The keyboard input is controlled by the SW_P56 pin.
- LCD CONNECTOR:** J26 and J27 are used for LCD input. J26 is connected to VDD33 and GND. J27 is connected to VDD33 and GND. The LCD input is controlled by the SW_P56 pin.
- Other Components:** The diagram also shows the connection of the MMC_CON_USD_CONN. (U11), the ZBEE_WAKE_P57 pin, and the ZBEE_WAKE_P57 pin.

Figure 4. Power management circuit schematic



AM06322v1

2 Revision history

Table 1. Document revision history

Date	Revision	Changes
05-Mar-2010	1	Initial release.

Obsolete Product(s) - Obsolete Product(s)

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