



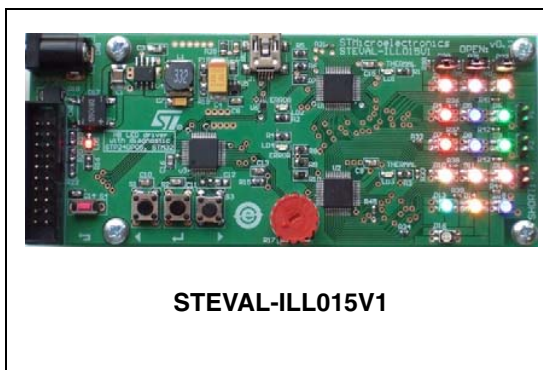
STEVAL-ILL015V1

High brightness RGB LED array with LED error detection
based on the STP24DP05 and STM32

Data Brief

Features

- Two STP24DP05 devices (TQFP48 package) connected to 3 X 16 RGB high brightness LEDs
- STM32 microcontroller
- Using a cost-effective internal HS oscillator.
- JTAG interface for microcontroller firmware changes/updates
- Mini USB connector for interconnection with a PC GUI.
- Test points on the board for each important signal aide laboratory evaluation
- Buttons and knob to control the board
- Error and over-temperature flag for each LED driver
- 3 jumpers to simulate the disconnection of 3 LEDs
- 3 jumpers to simulate the shorting of 3 LEDs
- Highly efficient ST1S010 DC-DC switching power supply
- Input 7.5 V - 18 V, current 0.7 A



Description

The STEVAL-ILL015V1 demonstration board provides a platform for the testing and evaluation of STMicroelectronics' Power Logic LED driver STP24DP05.

The STP24DP05 device is a 24-bit constant current LED sink driver with output error detection, suitable for applications such as large-area displays and full-color board panels where improvement in RGB LED resolution and reduction of system cost are important.

Figure 1. Schematic - connectors, buttons, LEDs, CAN

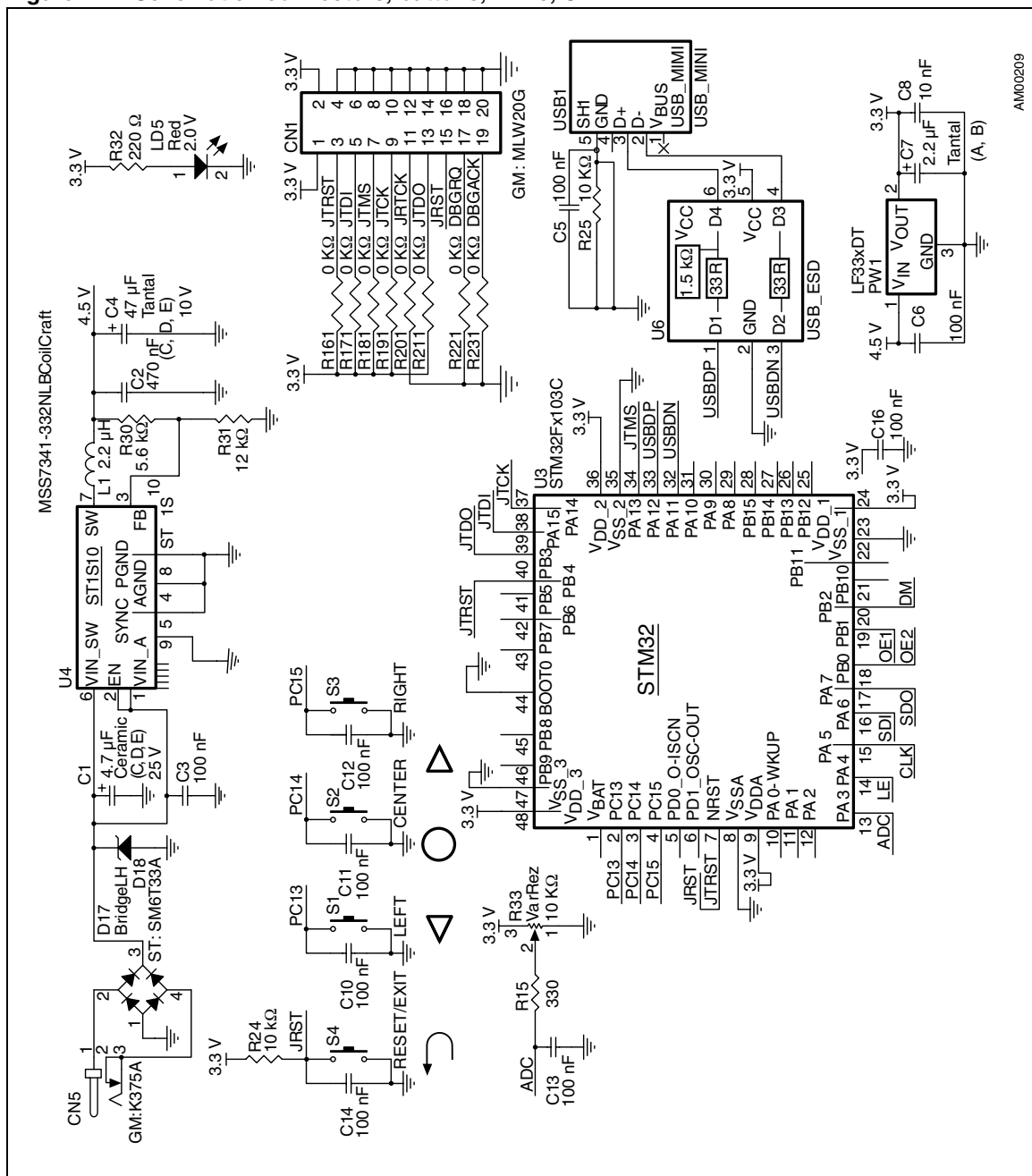
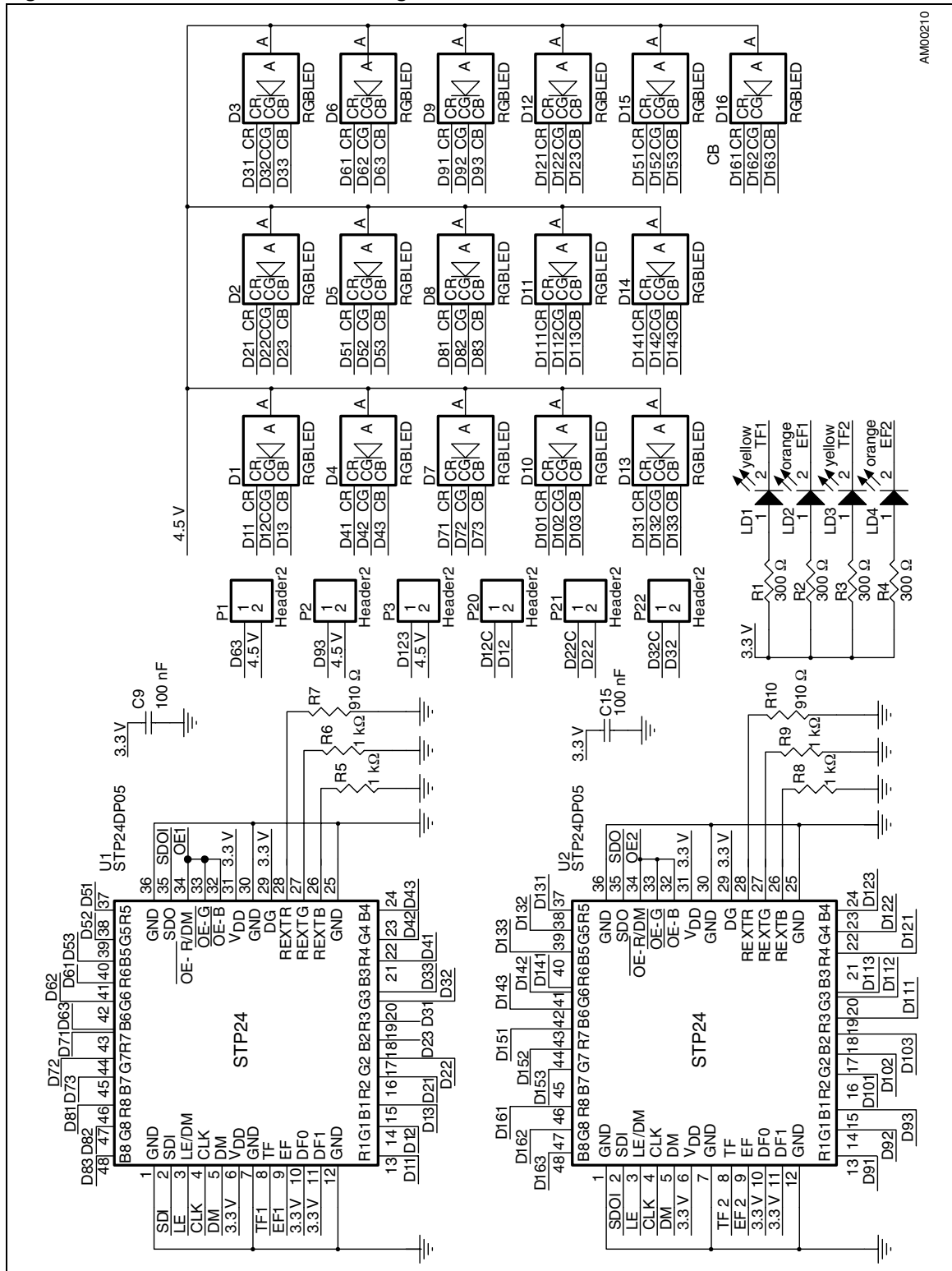


Figure 2. Schematic Cortex™ dimming



2 Revision history

Table 1. Document revision history

| Date | Revision | Changes |
|-------------|----------|------------------|
| 15-Jan-2009 | 1 | Initial release. |

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