



STEVAL-ILL040V1

High brightness RGB LED array with LED error detection based on the STP24GPL05 and STM32

Data brief

Features

- Two STP24DP05 devices (TQFP48 package) connected to 3 X 16 RGB high brightness LEDs
- STM32 microcontroller
- Use of 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 to aid laboratory evaluation
- Buttons and knob to control the board
- Error and overtemperature 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 voltage 7.5 V - 18 V, input current 0.7 A
- RoHS compliant



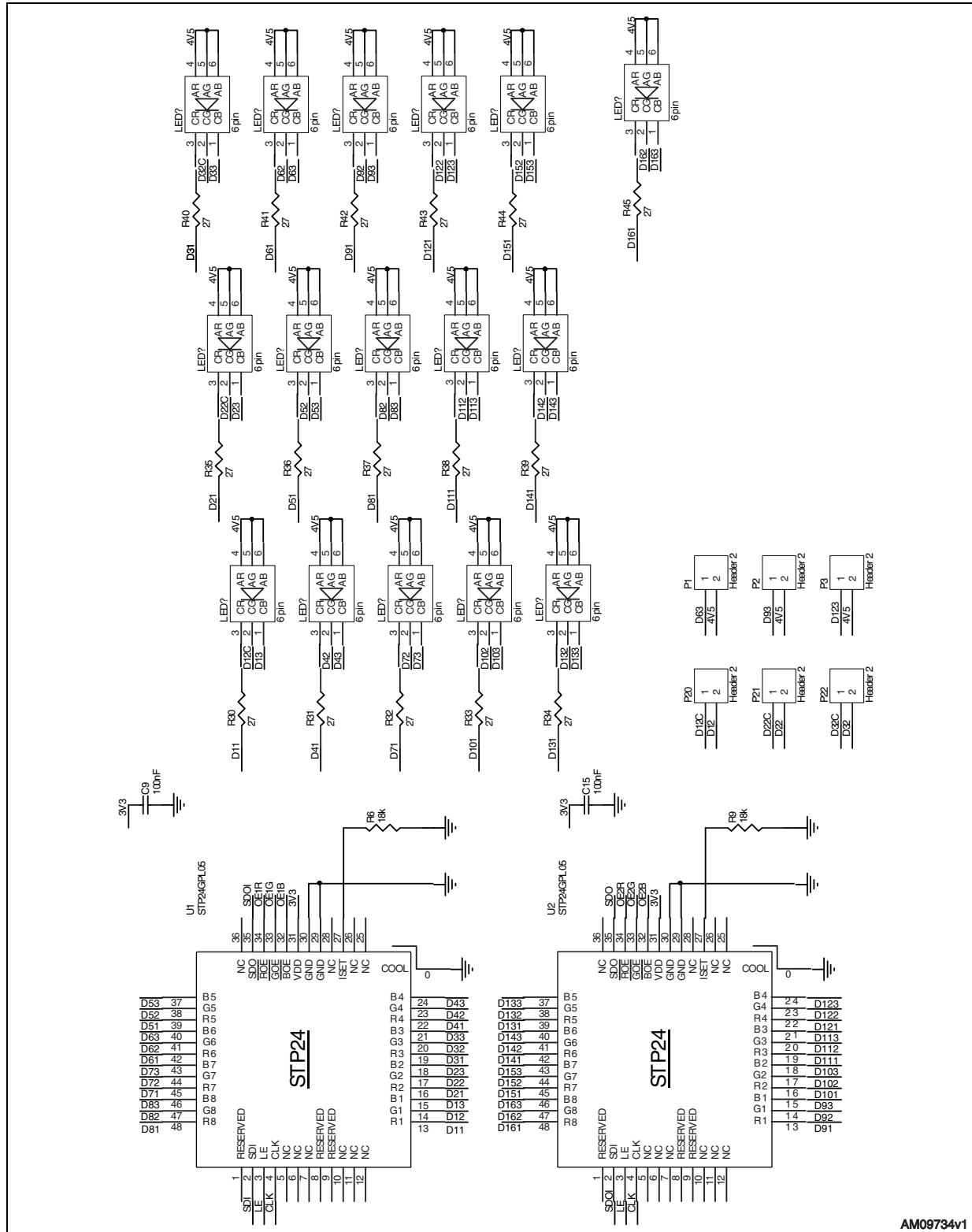
Description

The STEVAL-ILL040V1 demonstration board provides a platform for the testing and evaluation of STMicroelectronics' Power Logic LED driver STP24GPL05.

The STP24GPL05 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 costs are important.

1 Circuit schematics

Figure 1. Cortex dimming



AM09734v1

2 Revision history

Table 1. Document revision history

Date	Revision	Changes
12-May-2011	1	Initial release.
09-Nov-2011	2	Updated <i>Figure 1: Cortex dimming</i> . Inserted <i>Figure 2: Cortex processor</i> .

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