

### STEVAL-PCC005V1

# Hard disk drive (HDD) bridge demonstration board based on the STR9 microcontroller

Data Brief

#### **Features**

- Based on the STR912 (ARM966E-S) microcontroller with in-build external memory interface (EMI)
- USB interface available for USB hard disk application
- Acts as mass-storage device using native Microsoft Windows<sup>®</sup> OS drivers
- On-board power supply for hard disk
- Option of using external power supply
- On-board JTAG connector for microcontroller firmware upgrade and changes
- Additional ESD protection device on USB
- LED indication for power, read and write operation and system health check



The STEVAL-PCC005V1 works as a USB-based hard disk implemented using the STR912FAW44 microcontroller. The board consists of two main sections: 1) the interface of the hard-disk to the STR912FAW44 through an external memory interface (EMI), and 2) the hard disk, appearing as a removable drive on the PC, which is made possible by USB mass-storage implementation.

The on-board power supply unit can be used for powering the hard disk. The board functions with a PC as the USB host. In addition to the on-board power supply, a separate SMPS power supply can be used to power the board and the hard disk.

The LEDs available on the demonstration board indicate read or write operation.

The board also features a JTAG interface for debugging purpose.

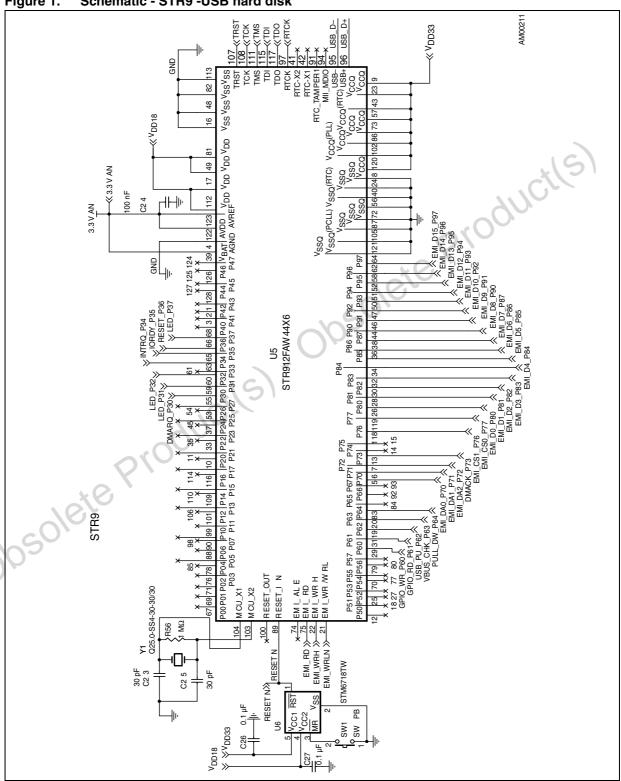


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STEVAL-PCC005V1 **Block diagram** 

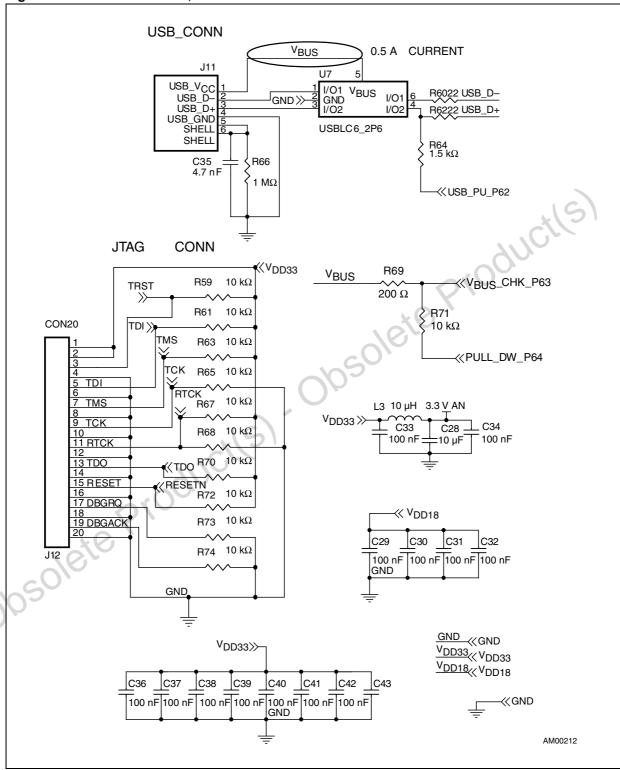
#### **Block diagram** 1

Figure 1. Schematic - STR9 -USB hard disk



STEVAL-PCC005V1 Block diagram

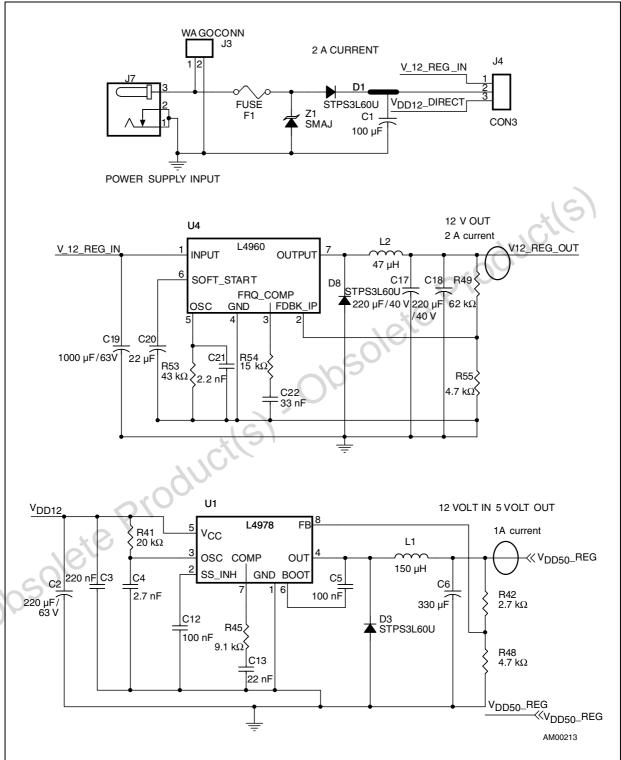
Figure 2. Schematic - USB, JTAG connectors



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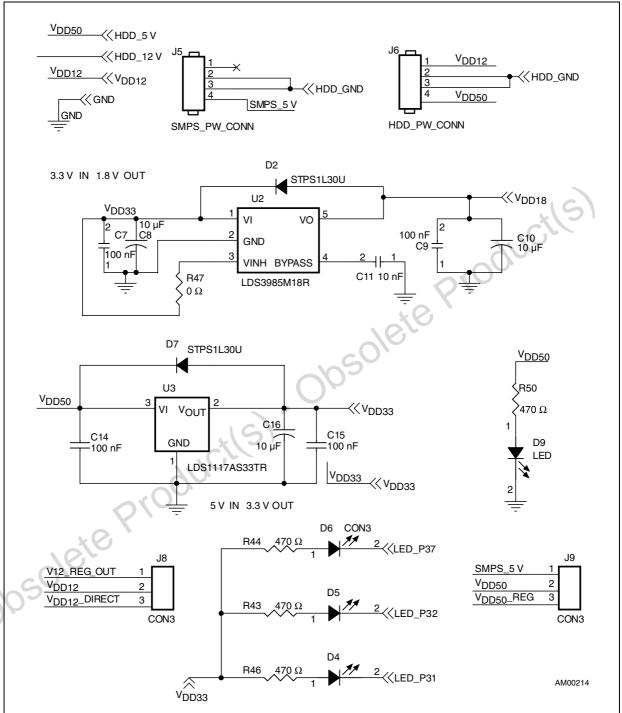
Block diagram STEVAL-PCC005V1

Figure 3. Schematic - STR9 hard disk interface



STEVAL-PCC005V1 Block diagram

Figure 4. Schematic - STR9 hard disk interface



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Block diagram STEVAL-PCC005V1

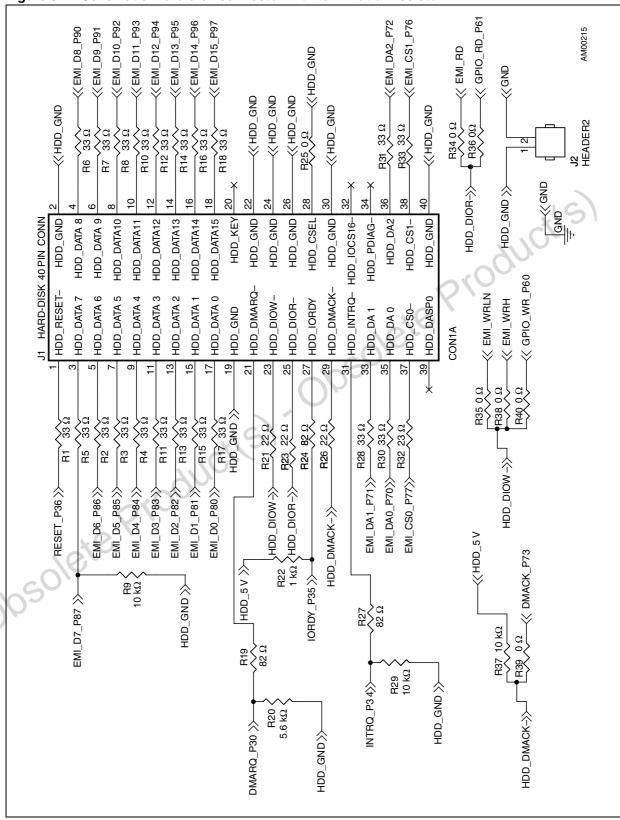


Figure 5. Schematic -hard disk connector with termination resistor

STEVAL-PCC005V1 Revision history

## 2 Revision history

Table 1. Document revision history

Date	Revision	Changes
02-Sep-2008	1	Initial release

Obsolete Product(s). Obsolete Product(s)

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