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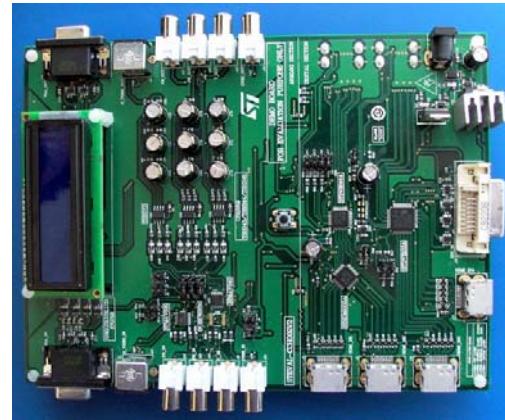
# STEVAL-CCH002V2

## HDMI and video switches demonstration board

Data brief

### Features

- 16-character x 2-line alphanumeric backlit LCD
- VGA input and output connectors
- S-video input and output connectors
- Y Pb Pr input and output connector sets
- CVBS input and output connectors
- DVI-I input connector
- Analog and digital switch selection jumper sets
- Power supply section
- Reset switch
- RoHS compliant



STEVAL-CCH002V2

### Description

The STEVAL-CCH002V2 demonstrates the functions and performance of STMicroelectronics' STHDMI002A, STDVE103A, STDVE001A, STMAV340, and STHDMI002A digital switches/equalizers, and STMAV335 and STMAV340 analog switches.

The purpose of the board is to demonstrate the capabilities of ST's video switches and buffers (while providing an example of the appropriate use of signal line protection devices in all I/O lines) for both standard analog or high-speed TMDS (transition minimized differential signaling) digital signals.

The board consists of several input/output connectors and supports VGA (RGB), Y Pb Pr (component video), DVI-I analog, CVBS (composite video) and S-video analog formats, as well as HDMI and DVI-I digital formats.

Demonstration of the various devices is achieved by setting the appropriate jumpers on the demonstration board.

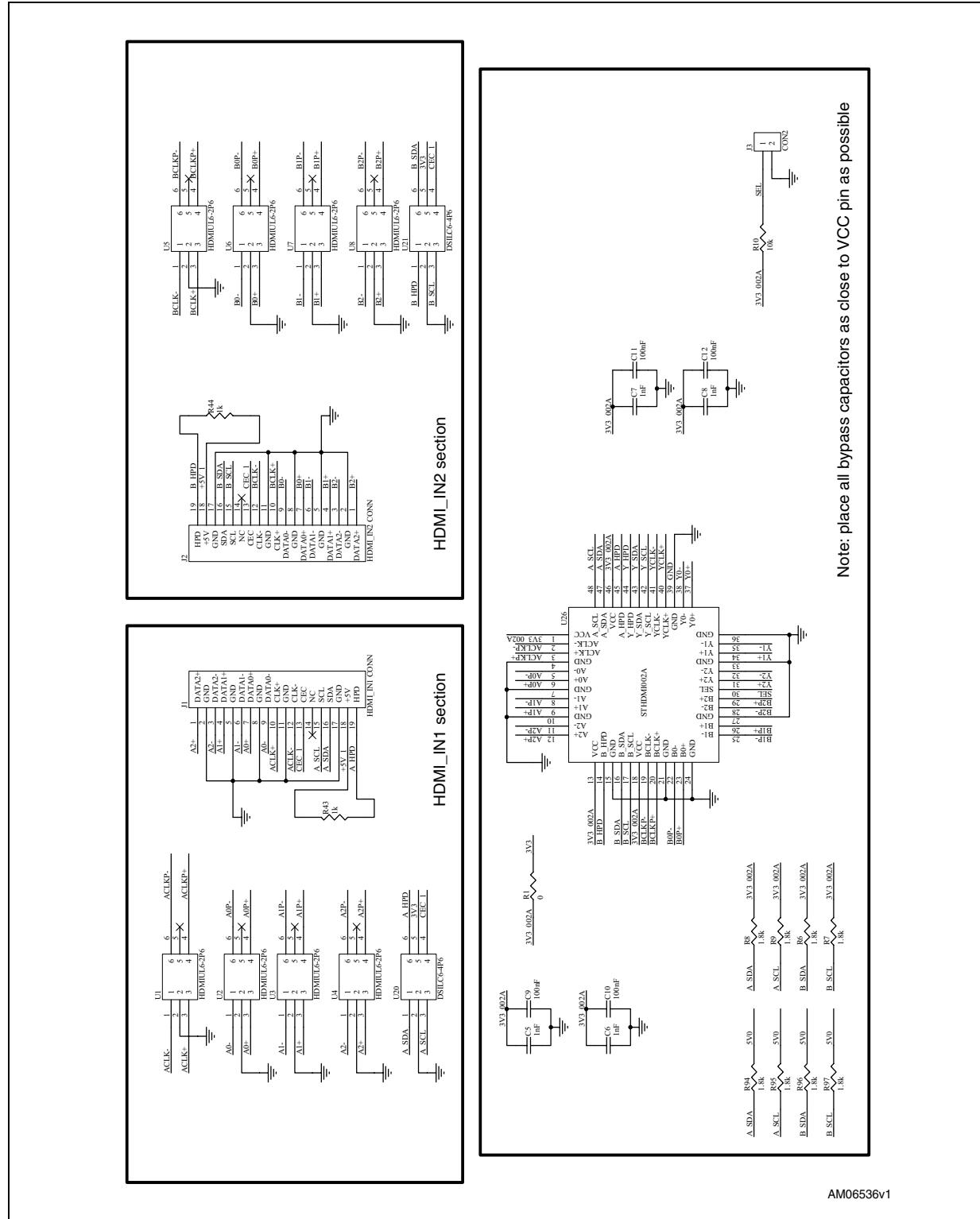
Also included is a 2-line backlit LCD with 16 characters-per-line, which displays the selection status as well as the control signals sensed by the preprogrammed microcontroller.

## Schematic diagrams

STEVAL-CCH002V2

## 1 Schematic diagrams

**Figure 1. STEVAL-CCH002V2 circuit schematics (1 of 6)**

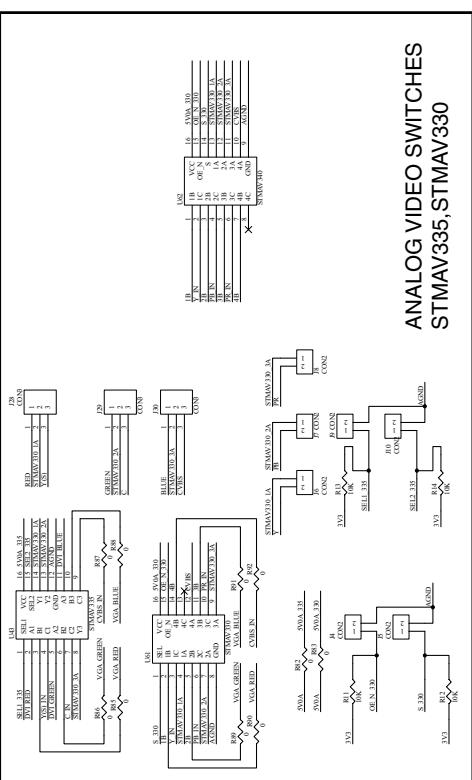


Note: place all bypass capacitors as close to VCC pin as possible

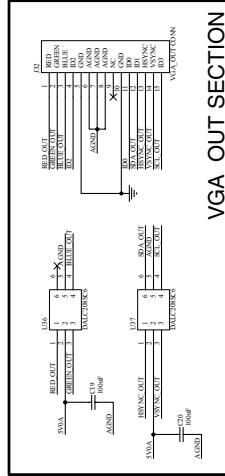
## STEVAL-CCH002V2

## Schematic diagrams

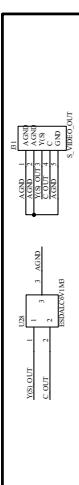
Figure 2. STEVAL-CCH002V2 circuit schematics (2 of 6)



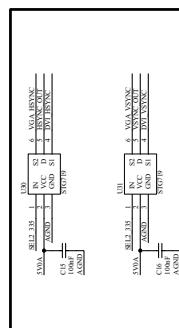
ANALOG VIDEO SWITCHES  
STMAV335, STMAV330



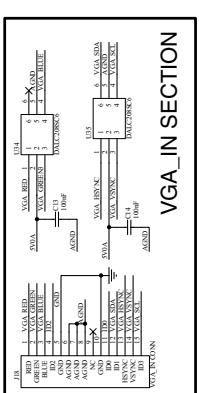
S-VIDEO OUT SECTION



COMPONENT VIDEO AND CVBS  
IN SECTION



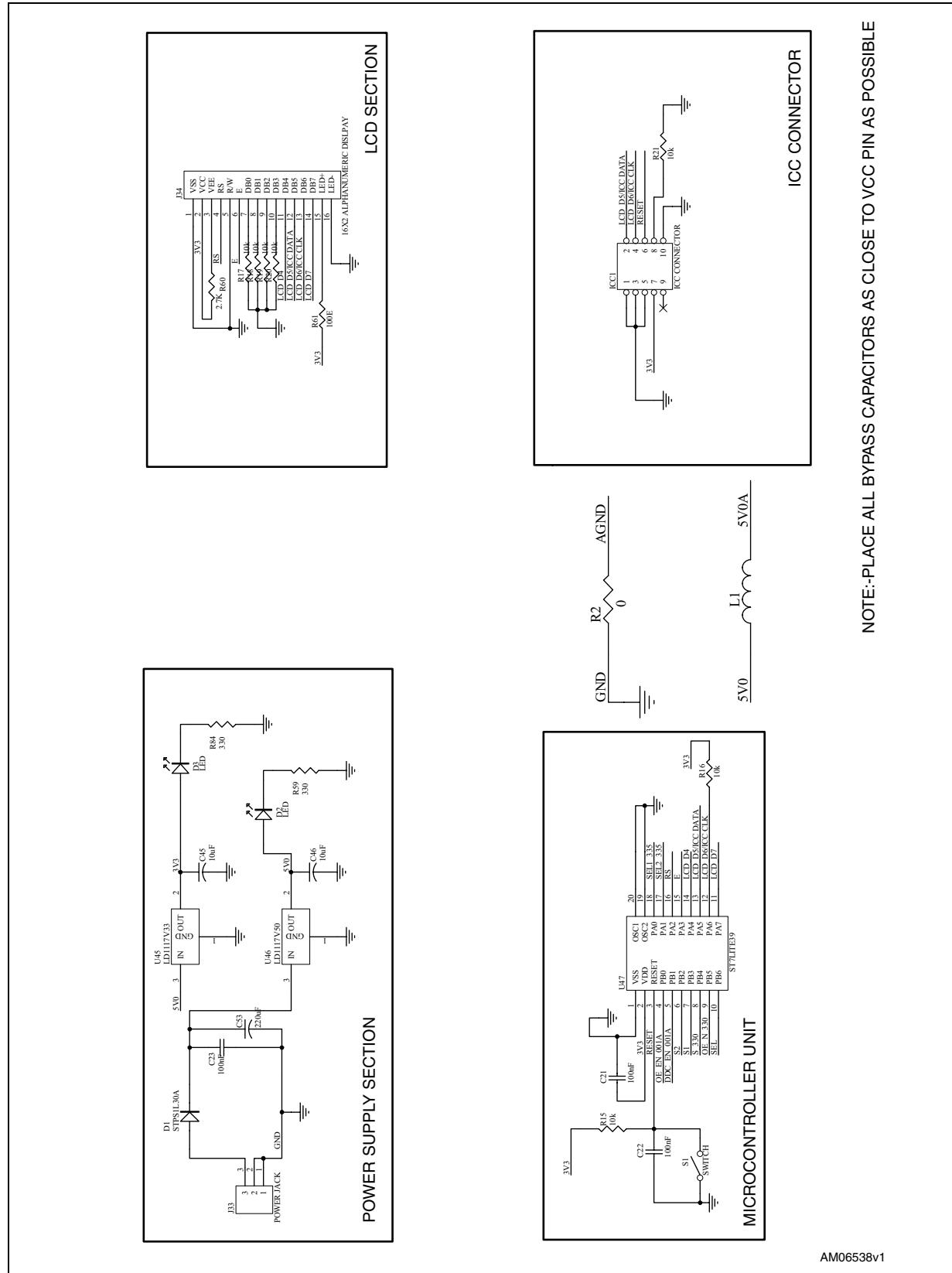
SPDT SWITCHES FOR  
SWITCHING SYNC AND DDC  
INFORMATION



## Schematic diagrams

STEVAL-CCH002V2

**Figure 3. STEVAL-CCH002V2 circuit schematics (3 of 6)**



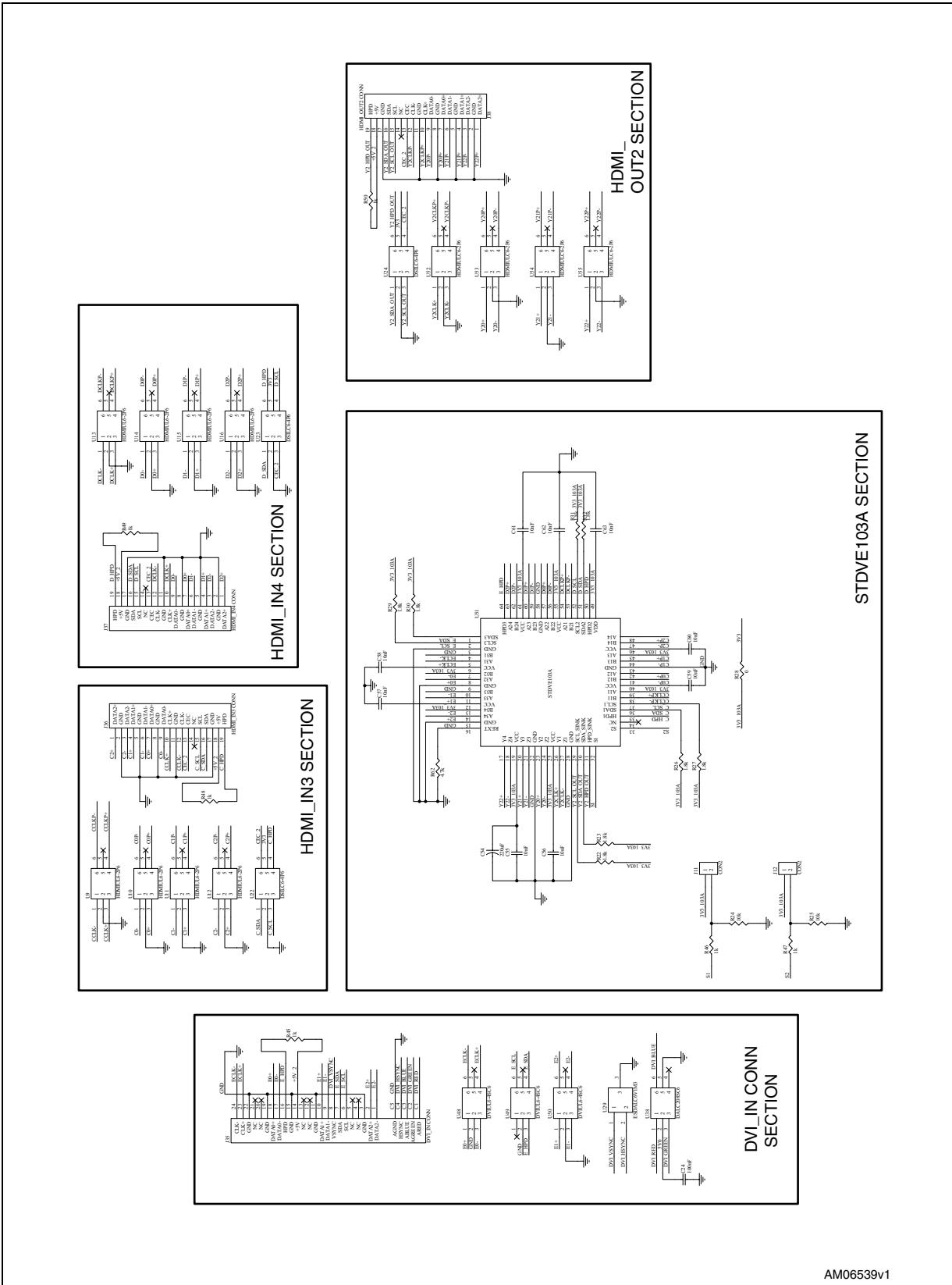
NOTE:-PLACE ALL BYPASS CAPACITORS AS CLOSE TO VCC PIN AS POSSIBLE

AM06538v1

## STEVAL-CCH002V2

## Schematic diagrams

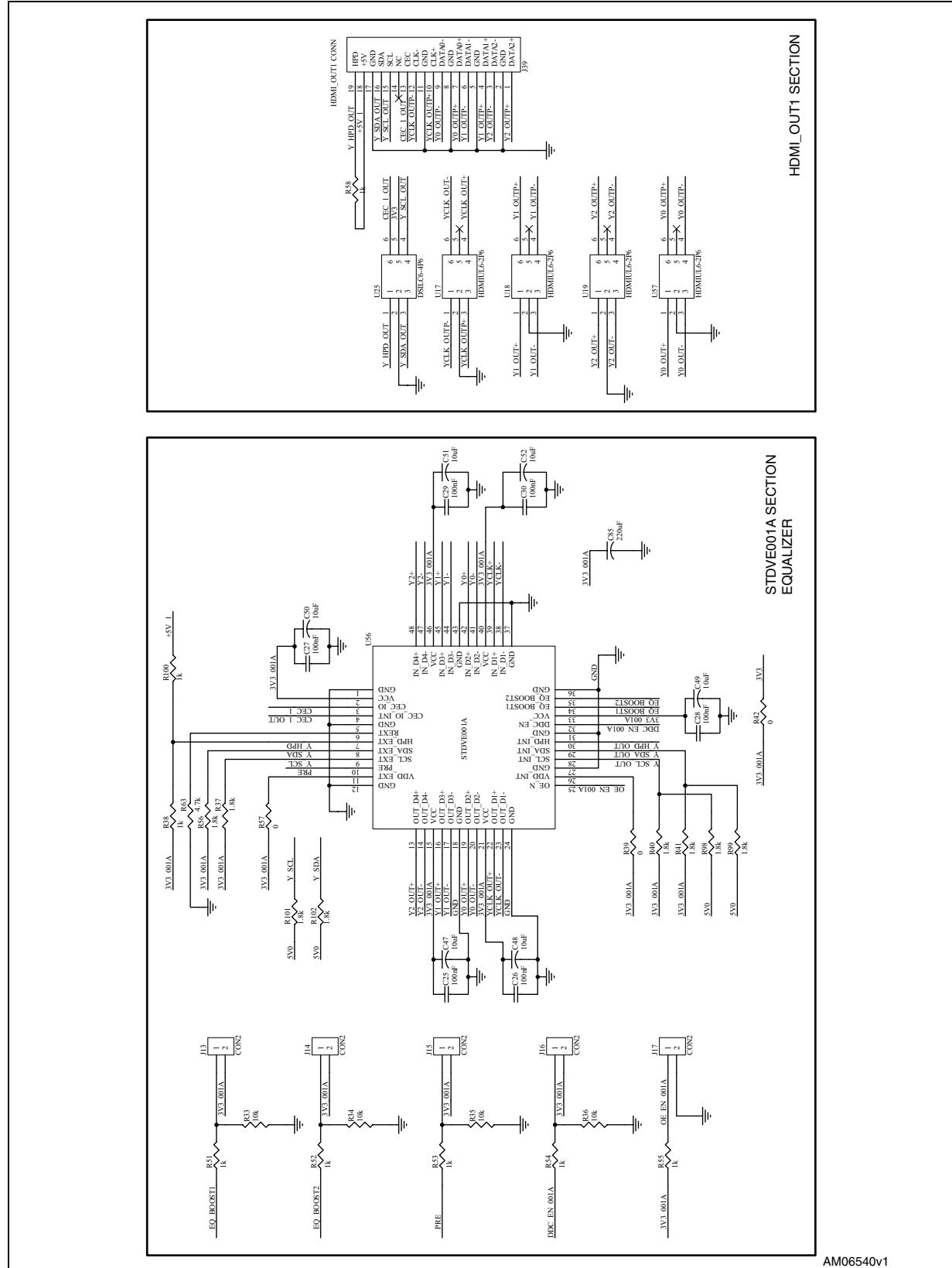
Figure 4. STEVAL-CCH002V2 circuit schematics (4 of 6)



## Schematic diagrams

STEVAL-CCH002V2

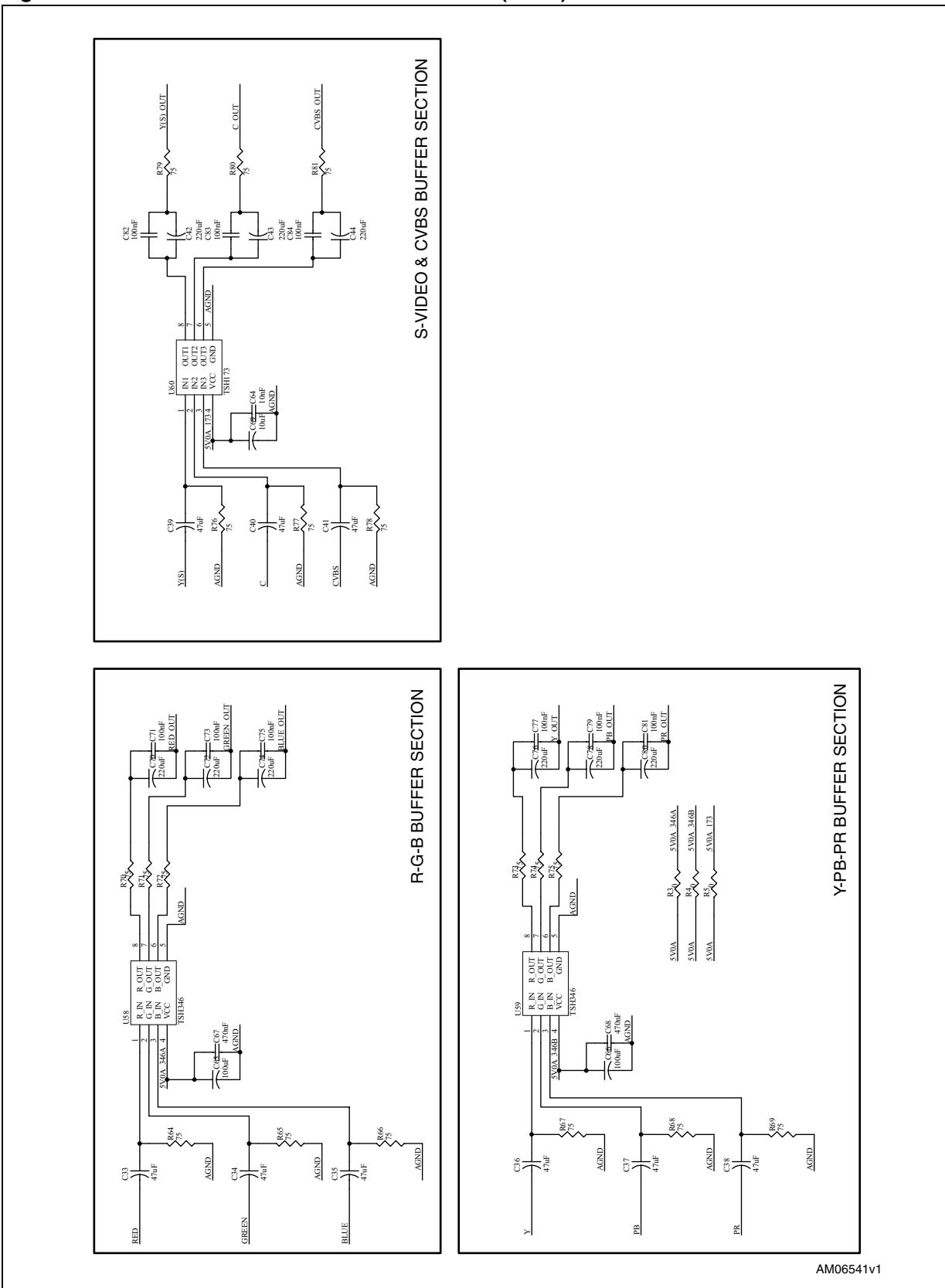
**Figure 5. STEVAL-CCH002V2 circuit schematics (5 of 6)**



## STEVAL-CCH002V2

## Schematic diagrams

Figure 6. STEVAL-CCH002V2 circuit schematics (6 of 6)



AM06541v1

**Revision history****STEVAL-CCH002V2****2 Revision history****Table 1. Document revision history**

Date	Revision	Changes
04-May-2010	1	Initial release.

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