Etron 鈺創科技

Etron Technology, Inc.

EJ512 Datasheet

USB2.0 Video Capture IC

Revision 0.97

1. Introduction

EJ512 is an USB 2.0 capture IC. It can support MJPEG compression to provide high video quality on USB 2.0 limit bandwidth.

EJ512 can record original contents from various sources such as smart device, camcorder, set-top box, DVD/BD player and game console.

EJ512 uses OS native UVC and UAC drivers and is compatible with Microsoft Windows, Mac OS and Linux. It can fit in different media capture and streaming applications. It is the optimal solution for capturing high definition videos and post production.

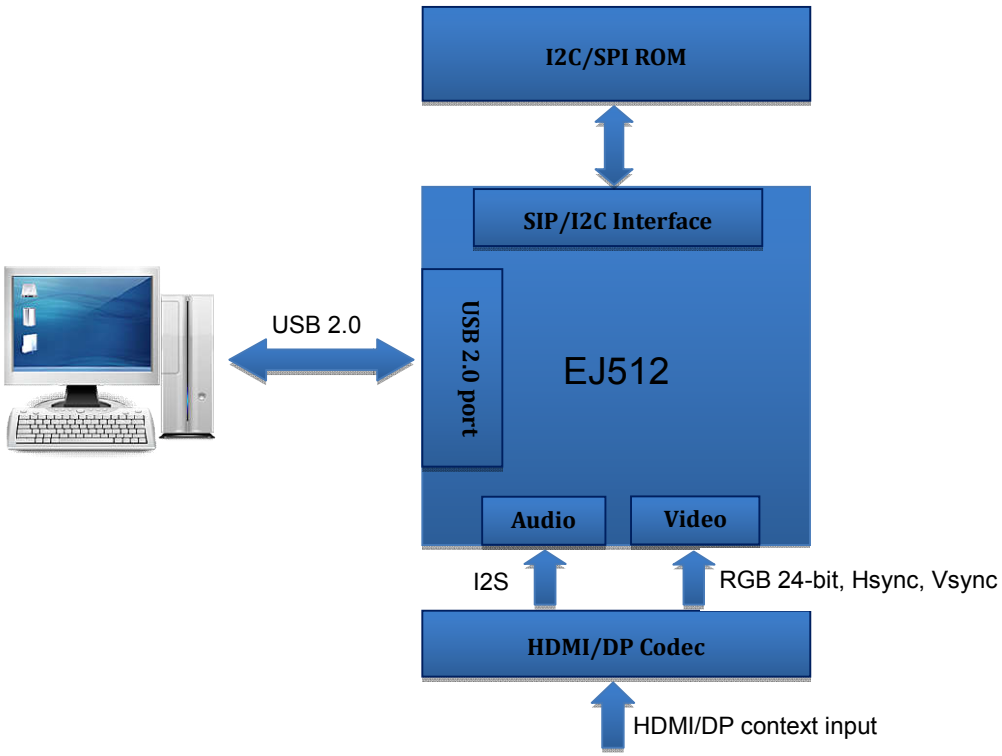

Figure 1-1. Application Diagram

2. Features

- Support USB 2.0 device
- Support standard USB Video Class (UVC)
- Support standard USB Audio Class (UAC)
- Support MJPEG format only
- Support video output MJPEG format and resolution up to 1920x1080p @60Hz in USB2.0
- Support 44.1KHz and 48KHz PCM stereo audio output
- Support digital video input interface: RGB 24-bit, Hsync, Vsync, Data Enable
- Support digital audio input interface: I^2S, Data formats of 16-bit, 16-bit stereo (Two channels)
- Support SPI / I2C interface
- Supports In System Programming (ISP) Firmware Update by USB port
- It is compatible with Windows 7, 8, 8.1, 10 or later, Linux OS, Mac OS

3. Specifications

- Host Interface
  - USB2.0 : 40MB/s transfer bandwidth
- Audio and Video capture
  - Complies with UVC (USB video class) specifications
  - Complies with UAC (USB audio class) specifications
- Video Receiver Interface
  - RGB 24-bit,
  - Hsync
  - Vsync
  - Data Enable
  - Pixel Clock : 150MHz (Max)
- Audio Receive interface
  - I2S interface
  - Data formats of 16-bit
  - 16-bit stereo (Two channels)
- ROM interface
  - SPI or I2C interface
- Compression
  - Hardware Motion JPEG (MJPEG) compression
- Resolution / Frame rate
  - Resolution up to 1920x1080p
  - Frame rate up to 60Hz
- Upgrade Firmware
  - Upgradeable by USB
- Operating System : x86 and x64
  - Windows 7, 8, 8.1, 10 and later …
  - Linux
  - Mac OS

4. Pin Assignment and Pin Description

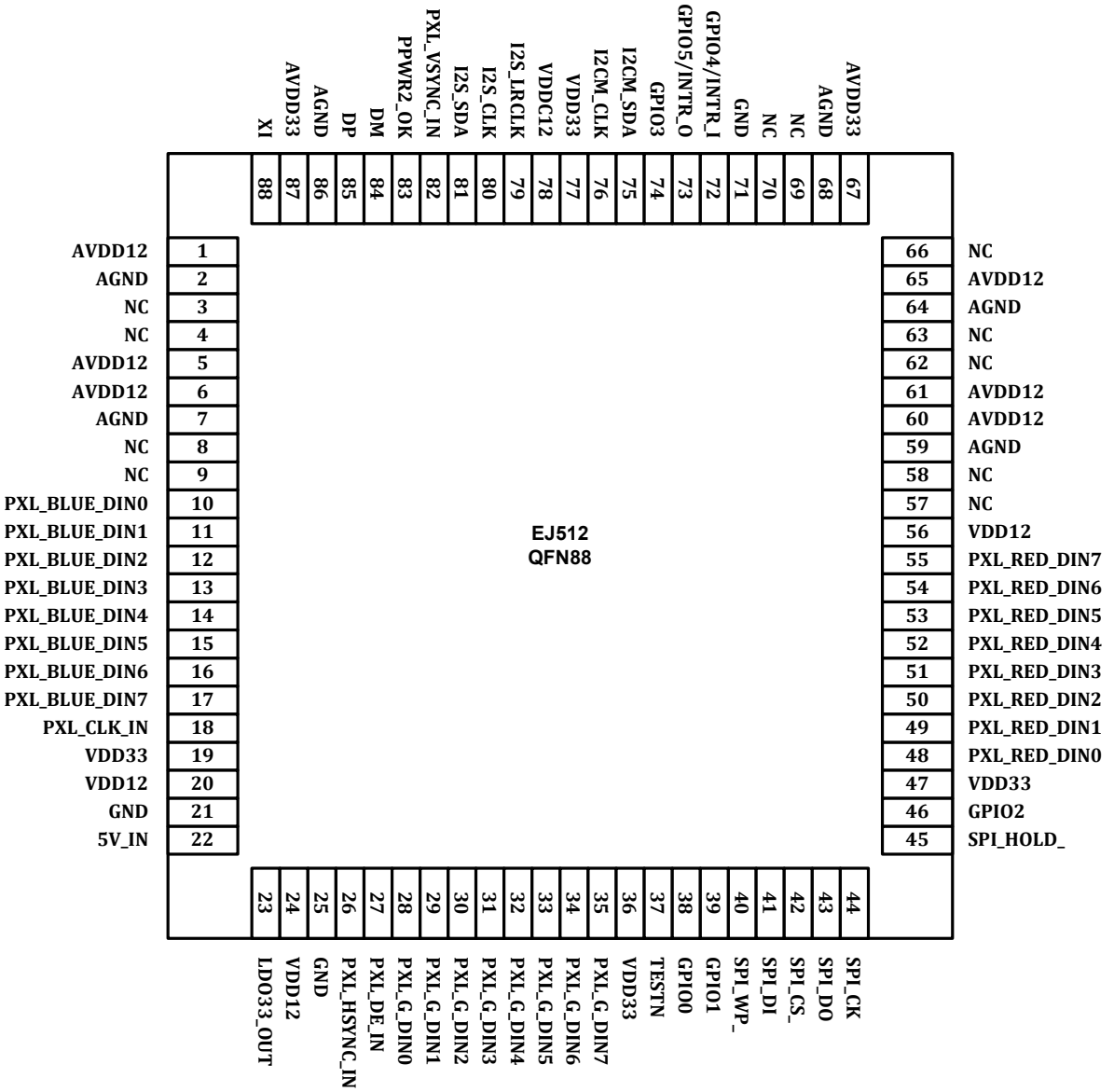

Figure 4-1. EJ511 (QFN88) Pin Assignment