EJ521D

4K2K 60FPS

Proprietary and Confidential

1. Overview

EJ521D is a Capture Device of the USB3.2 Gen1 with Embedded DDR3 DRAM.

The capture function supports 4K2K@60FPS Ultra High Definition (UHD) video through RGB/YCbCr interface and Audio through I2S interface. It can support H.264/H.265 compression to provide high video quality with limited bandwidth.

EJ521D can record original contents from various sources such as smart device, camcorder, set-top box, DVD/BD player and game console.

EJ521D 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 Ultra high definition videos and post production.

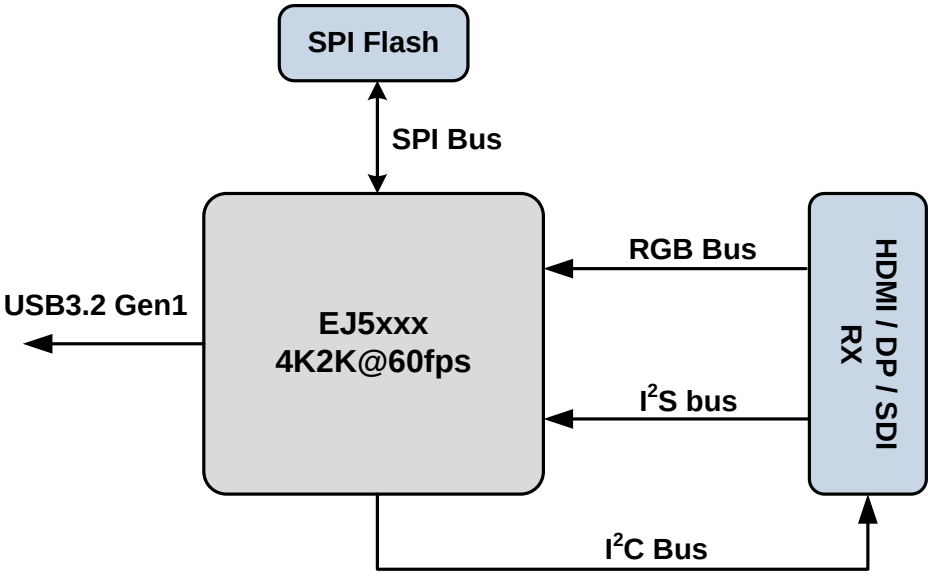


Figure 1 Application Diagram

3. Features

Embedded ARM M3 CPU

AV Input Interface

- Digital video input interface:
  - RGB or YCbCr, Hsync, Vsync, Data Enable
  - RGB or YCbCr with Double Data Rate
  - RGB or YCbCr 8-bits, 10-bits
  - Resolution up to 4K2K@60fps
- Digital audio input interface:
  - I^2S, Data formats 16-bits, 24-bits

Video Processor

- Compressed with H.264/H.265 encoder
  - Resolution up to 4K2K@60fps
  - High dynamic range (HDR10)
  - Standard dynamic range (SDR) videos
  - Color space conversion: BT.601 or BT.709 or BT2020
- HEVC (H.265)
  - ITU-T Rec. H.265,
  - Main Profile, Level 5.1, High Tier
  - Main10 profile, Level 5.1, High Tier
  - Main Still Profile
- AVC (H.264)
  - ITU-T Rec. H.264
  - Baseline Profile, levels 1 - 5.2
  - Main Profile, levels 1 - 5.2
  - High Profile, levels 1 - 5.2
  - High 10 Profile, levels 1 - 5.2

Audio Processor

- Data formats 16-bits, 24-bits
- Audio up to 5.1 c bit bit

- Operating System : x86 and x64
  Windows 7, 10, 11 and later …
  Linux / Mac OSX, Android 4.0 and later…

System in package with DDR3 DRAM

Package

- aHSLFBGA
- 27 x 27 mm, 1024 Ball