NS5334 DP Receiver

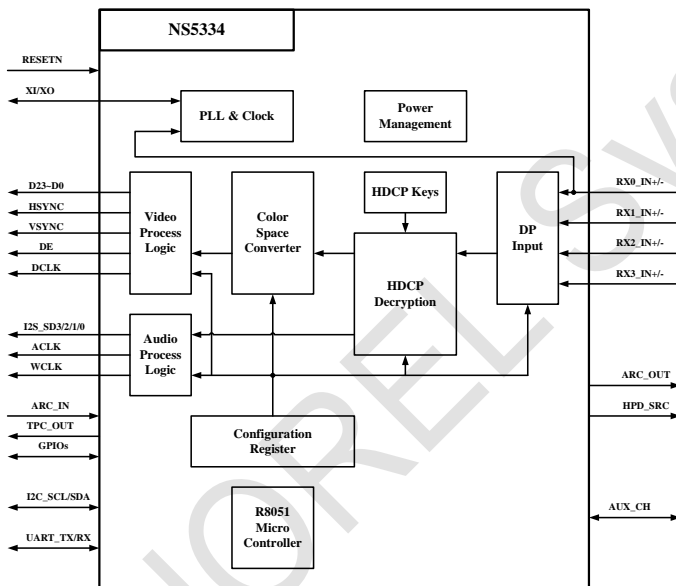## 1.Introduction

NS5334 is a DP(Display Prot) receiver compatible with DP1.2.NS5334 supports video formats up to 4Kx2K 60Hz/2K144Hz/1080P240Hz. NS5334 contains HDCP1.3/2.2 decryption engine.

NS5334 includes a flexible 24-bit video data interface compatible with CEA-861 using separate sync signals or BT1120 using embedded sync. NS5334 support 4 audio output signals configurable as either SPDIF or I2S. NS5334 supports multi-channel Dolby Digital, DTS, AAC and 8-channel PCM formats with up to 192KHz sample rate.

NS5334 also supports two-way pass through of GPIO, UART, IR signaling.

2.Block Diagram

3.Features

3.1 Video Input

- Supports DP1.2 compatible input.

- Supports DP interface up to 21.6Gb/s.

- Supports video formats up to 4Kx2K 60Hz/2K144Hz/1080P240Hz.

3.2 HDCP

- Built in HDCP 1.3 /HDCP 2.2 decryption engine.

3.3 Color Depth

- Supports 24/30/36 color depth.

3.4 Video Output

- Support 24-bit CEA-861 interface with separate syncs and 16-bit BT-1120 interface with embedded syncs.

- Flexible 24-bit video data interface with arbitrary bit-mapping capability.

- Supports 24/30/36 color depth(DP) convert to 24-bit CEA-861 interface or 16-bit BT-1120 interface.

3.5 Video Format Conversion

- Integrated Color Space Converter (CSC) capable of converting among 8/10/12-bit RGB 4:4:4, YUV 4:4:4 and YUV 4:2:2 pixel formats.

- Supports 8/10/12-bit RGB 4:4:4, YUV 4:4:4 and YUV 4:2:2 to YUV 4:2:0 conversion.

3.6 HDR

- Supports static HDR.

3.7 Audio

- Supports 4 audio output signals as either SPDIF or I2S.

- Supports up to 192 kHz 8-channel PCM and compressed audio formats such as Dolby Digital, DTS, AAC.

- Supports high bit rate (HBR) audio output up to 768 kHz.

3.8 Host Interface

- Serial Peripheral Interface (SPI).

- Support bi-directional transfer of GPIO, UART, IR, I2C, ARC signaling with remote end.

3.9. Microprocessor

- Built-in enhanced microprocessor.

3.10.Packaging

- Provided in 88-pin QFN package.