

RAA279971

Automotive Analog High Definition Link Encoder

The [RAA279971](#) is a high-definition analog video encoder that is designed for automotive applications. It accepts digital video inputs using a 2-lane MIPI-CSI2, DVP, or a Pseudo BT.656 parallel interface and supports multiple high-definition resolutions up to 720p/60 or 1080p/30. The RAA279971 uses a built-in 10-bit video DAC that encodes the incoming video stream into an analog composite format that is transmitted to a [RAA279972](#) decoder as a single-ended or differential signal over up to 30 meters of coax or twisted pair cables.

**Applications**

- Automotive backup camera display
- Automotive surround vision camera display

**Features**

- Analog Video Encoder
  - Software selectable control allows for single-ended, differential, and pseudo differential CVBS
  - 10-bit DAC
  - Integrated PLL
  - Internal test pattern generator
  - Independent amplitude adjustment for luminance and chrominance
- MIPI Input
  - MIPI CSI2 1.1 compliant unidirectional output format
  - YUV 422 input format, 2 lane
  - DVP / MIPI pin sharing for minimum pin count
  - Supports 720p 30fps, 720p 60fps, 1080p 30fps, and wide resolutions for e-mirror applications
- Digital Inputs
  - 10/8-bit Digital Video Port parallel interface
  - 10/8-bit Pseudo BT.656 parallel interface
  - Supports 720p 30fps, 720p 60fps, 1080p 30fps, and wide resolutions for e-mirror applications
- Miscellaneous
  - Low power consumption
  - Power Save and Power Down modes
  - Bi-directional two-wire digital control channel
  - Two-wire control interface
  - Single 27MHz crystal for all operations
  - 3.3V or 1.8V selectable I/O
  - 32 Ld SQFN (5x5mm QFN with step cut leads)
  - [AEC-Q100](#) qualified

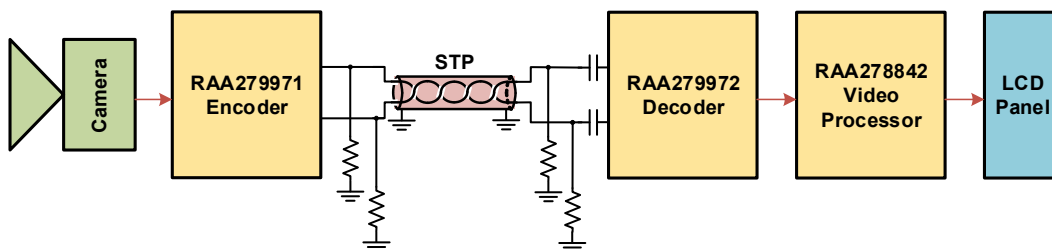


Figure 1. Typical Applications Diagram

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