

FEATURES

- C²B transmits video and bidirectional control data over a differential pair cable up to 30 meters or single-ended cable up to 15 meters
- The parallel video input formats supported include
 - 8-/10-/12-bit interleaved Y/C data up to 148.5 MHz
 - 2 × 8-bit separate Y/C data up to 74.25 MHz
 - Embedded (SAV/EAV codes), separate HS/VS/DE or ISP line/frame valid type external timing signals
- HD video formats supported up to 2 megapixels at 30 Hz or 1 megapixel at 60 Hz
- Bidirectional control channel embedded in the C²B link for control and status data between C²B receiver and C²B transmitter
- Enables remote configuration from the C²B receiver
- Bidirectional GPIO with either local or remote interfacing possibilities
- On-chip high resolution, high speed DAC, buffer and filtering blocks for video and control channel path
- Transmission of frame count data from ISP to enable the back-end ECU or head unit to detect stuck or skipped frames
- Video test pattern generator for simplified system testing
- Protection from high voltages encountered during short to battery (STB) fault condition
- Tested to industry standards for automotive EMC/EMI/ESD robustness

General

- 2-wire serial microprocessor unit (MPU) interface (compatible with I²C) capable of operating in master or slave mode
- −40°C to +105°C temperature grade
- 32-lead and 40-lead LFCSP packages
- AEC-Q100 qualified for automotive applications

APPLICATIONS

- Automotive camera modules
- Automotive camera ECUs
- Automotive infotainment head units

SIMPLIFIED FUNCTIONAL BLOCK DIAGRAM

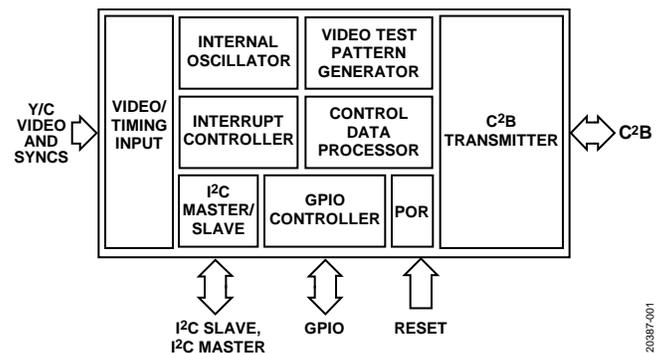


Figure 1.

Complete technical specifications are available for the C²B transmitters and receivers. Contact c2b_web_support@analog.com to complete the nondisclosure agreement (NDA) required to receive additional product information.

C²B U.S. patents 10,623,692 B2; 10,645,337 B1; and 10,462,413 B1.



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NOTES

I²C refers to a communications protocol originally developed by Philips Semiconductors (now NXP Semiconductors).