ISDB-T / SBTVD-T 13 Segment Channel Decoder

μPD61628 (Channel Decoder)

μPD61628 is a high performance, cost effective stand alone ISDB-T/SBTVD-T channel decoder. It is targeted at both Japanese and Latin America markets and it provides state of the art demodulation, filtering algorithms and error correction which will enable reliable reception in the field. This product is based on Renesas strong track record in the ISDB-T market in both the mobile and stationary/portable reception fields.

Enhanced MultiMedia Architecture
EMMA
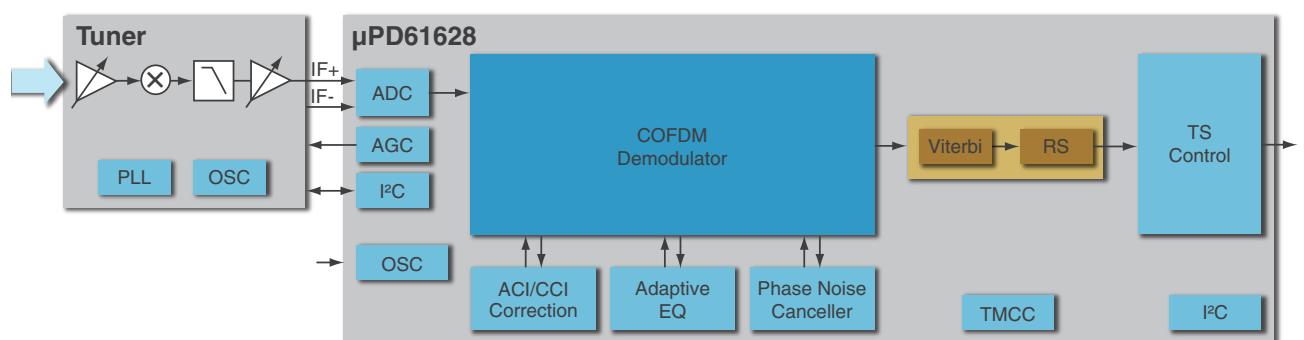
Renesas
R-Home

Applications

μPD61628 is to be used in set-top boxes and TVs in conjunction with Renesas EMMA and R-Home series of MPEG Decoders. This device provides low power consumption (180 mW typical in clear channel conditions) to help achieve low operating system power consumption and simplify designers' work to achieve power regulations. It can accept IF input at low IF or standard 57 MHz IF provided either by a CAN tuner or a silicon tuner. All memory required for ISDB-T demodulation is embedded in order to reduce the bill of material. The transport stream output can be configured as serial or parallel and put in high impedance state in case multiple front-ends need to be connected to the same back-end input.

Renesas is able to provide customers with an evaluation board and control software as part of the EMMA and future R-Home reference boards. Reference schematics & layout as well as embedded C driver available from Renesas will ease the design effort together with Renesas local support in Europe.

Block Diagram

Key Features

µPD61628

- ISDB-T 13 segment/SBTVD-T support
- Differential IF input supporting low and standard 57 MHz IF
- Built-in de-interleave memory
- Automatic detection of phase noise and guard interval
- I²C bus interface with dedicated tuner gateway
- Tri-state capable serial or parallel Transport Stream output
- Low operating and standby power consumption
- Power supply rails: 1.2 V/2.5 V/3.3 V
- 48-pin VQFN 7 x 7 mm package

Ordering Information

Device	Part Number	Package
ISDB-T 13 Segment/SBTVD-T Demodulator	µPD61628K8-BAA-A	48-pin VQFN

Before purchasing or using any Renesas Electronics products listed herein, please refer to the latest product manual and/or data sheet in advance.

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