STiD135

Dual, 500 Mbaud, DVB-S2X Annex-M, satellite demodulator with integrated tuners

Data brief

Features

- Two high-symbol-rate (HSR)[(1)] demodulators:
  - Maximum baud rate 500 Msymbol/s
  - Up to two slices each
  - DVB-S2/S2X and Annex M compliant
- Up to 8 multi-standard demodulators:
  - S/S2/S2X/DTV
- Four integrated full-band tuners and ADCs
- High-speed digital multiplexer to connect any tuner to any demodulator
- Network clock recovery (NCR) support
- Flexible transport stream processor:
  - PID filtering, PCR re-stamping and re-labelling, GSE label filtering
  - TS merger (multiplex)
  - Channel bonding
- Low power consumption
- Wake-on-network PID or GSE label
- Fast auto scan
- Signal monitoring, spectral analysis, bit error rate test and reporting
- Interfaces:
  - Crystal oscillator
  - I2C serial bus interface, including private repeater for optional LNA
  - Transport stream output: 8 serial, 2 parallel or multiplexed
  - JTAG for boundary scan
  - DiSEqC 1.x and DiSEqC2.x compatible receiver, 22-kHz
  - FSK modem
  - Flexible GPIOs and interrupts
- Technology:
  - Single rail supply with inbuilt SMPSs
  - Fine-grained power management
  - VQFPN-mr 13x13 mm2 package, RoHS
  - Temperature range -40 to +85 °C ambient

Description

The STiD135 has been designed for Satellite Broadband applications, leveraging Ka-band and multi-spot beam technology carried by the latest high-throughput satellites (HTSs).

The STiD135 has been designed to enable single-carrier usage of HTS transponders. The device implements two high-symbol-rate (HSR) demodulators compliant with Annex M of the DVB-S2/S2X specification, and provides full hardware support for network clock recovery (NCR) in order to enable external return-channel modulators.

The STiD135 may be used in standard broadcast environments as an 8-channel DVB-S2/S2X receiver enabling multi-channel distribution and/or fast channel change scenarios.

Acknowledgement

(1) The HSR feature was designed in partnership with the CNES

Revision history

Table 1. Document revision history

Date	Revision	Changes
22-Apr-2015	1	Initial release.
14-Feb-2017	2	Updated Title and Features.

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