

STiD135

Satellite Demodulator



Dual high symbol-rate, octo legacy satellite demodulators with quad integrated full-band tuners

Designed for high-end satellite broadband and hybrid broadband-broadcast applications, the STiD135 implements two high-symbol-rate (HSR) and up to eight narrow band demodulators, and provides full hardware support for network clock recovery (NCR).

The STiD135 optimizes the use of Ka-band and multi-spot beam technology carried by the latest high-throughput satellites (HTSs) by enabling single-carrier usage of these transponders providing a 30% increase in channel efficiency over multicarrier solutions.

KEY FEATURES & BENEFITS

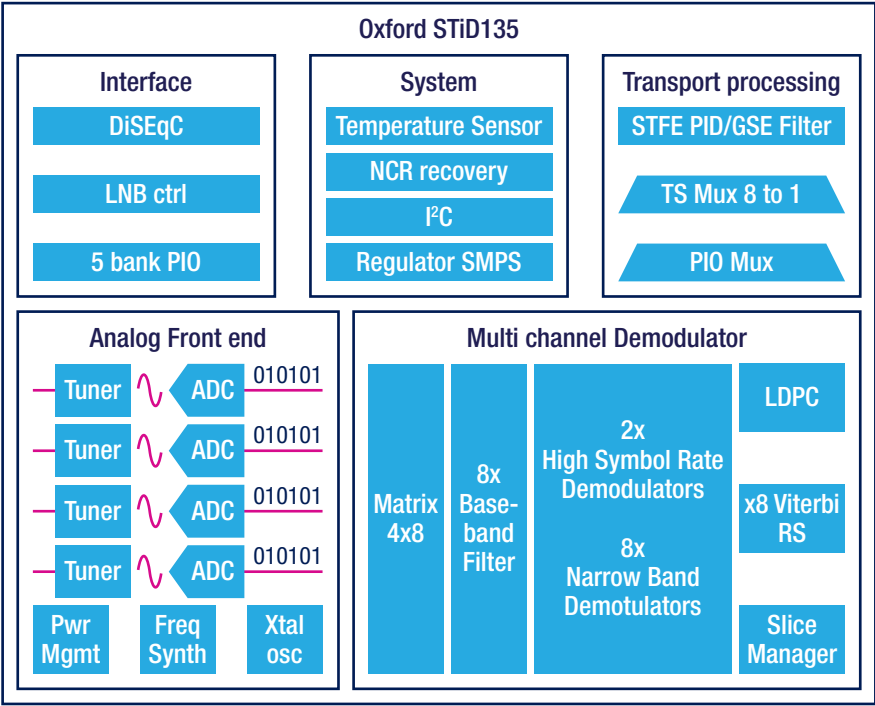
- Two high-symbol-rate (HSR) demodulators:
 - Maximum baud rate of 500 Msymbol/s
 - Up to two slices each
 - DVB-S2/S2X and Annex M compliant
- Up to 8 multi-standard demodulators (S/S2/S2X)
- Quad integrated full-band tuners and ADCs
- High-speed digital multiplexer to connect any tuner to any demodulator
- Single LDPC/BCH decoder with multiplexed input 720 Mbit/s
- NCR PLL support
- Flexible transport stream processor:
 - PID filtering, PCR re-stamping and re-labelling, GSE label filtering
 - TS merger (multiplex)
- Data throughput > 500 Mbit/s
- Low power consumption

KEY APPLICATIONS

- Multi-play broadband, broadcast multimedia servers
- Small Home Office VSAT applications
- Consumer broadband satellite modems
- Feeder and back-haul satellite infrastructure solutions
- Very high throughput for professional applications
- Avionics, mobile, etc.
- Outdoor 'Smart LNBs'



STiD135 BLOCK DIAGRAM



Supplies, power	<ul style="list-style-type: none">• Single power supply with internal SMPS• Consumption ≤ 3.5 W• Temperature range: -40 to 85 °C
IC & package	164 pin VQFP multi-row, 13 x 13 x 1 mm ³ package, RoHS compliant

REFERENCE DESIGN

- Schematic – Layout
- Evaluation board
- Compact NIM format

SOFTWARE DEVELOPMENT KIT

- Graphical User Interface (GUI)
- Low-level application driver (C)



Eval board



NIM board

HARDWARE AND SOFTWARE RESOURCES

Order code	Description
STiD135-WB	Samples
STiD135-61B15WB	B2261B-STiD135 Oxford cut2 fuse WB soldered validation board spacer stand alone
VPFE3R-49B135B	STNIM3R B2249B NIM front-end DVB-S/S2 x 8 STiD135 cut2 (Oxford) with 2 RF inputs

Available through ST sales under NDA



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