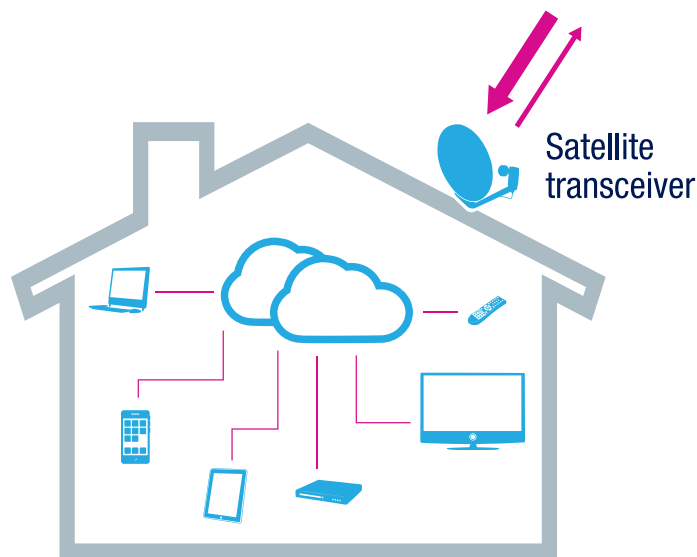


# STiD337

## satellite transceiver



### ARM Cortex-based SoC with integrated DVB-S2/S2X forward link and IQ-streamer for return link

The STiD337 is a system-on-chip (SoC) for bidirectional interactive satellite applications. The forward link comprises an integrated demodulator and data demultiplexer. The compute platform is based on a dual ARM® Cortex®-A9 architecture with Neon coprocessors and multiple ST231 DSP offload processors. The return link implements an IQ streamer which streams a linked list of pre-calculated data to the integrated DACs for IQ output to external up-converters. Accurate Network Clock Recovery (NCR) with precision real-time control is implemented for the most demanding applications. A full range of interfaces and peripherals are provided to achieve very low cost solutions.

#### KEY FEATURES & BENEFITS

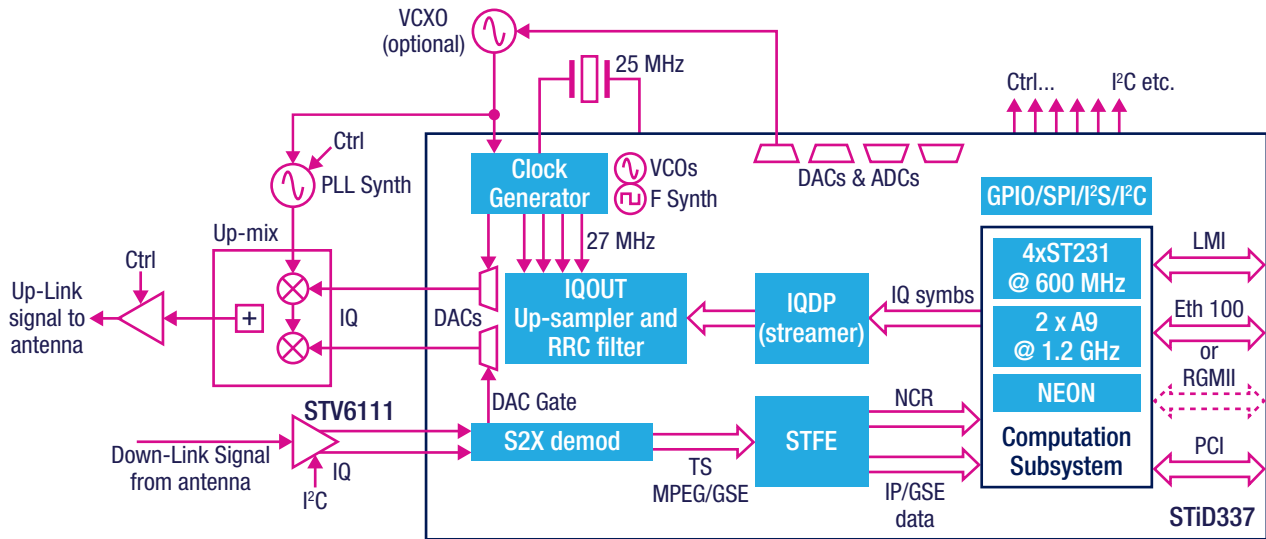
- Best in class power consumption exploiting 28 nm FDSOI process
- Integrated DVB-S/S2/S2X demodulator up to 60 Msps
- Dual-core ARM® Cortex®-A9 application CPU: with NEON™ accelerator
- Quad ST231 offload CPUs to ensure sufficient compute for the most demanding applications
- High quality return channel processing including integrated FIR filters and dual 10 bit DACs.
- Range of peripherals
  - High-precision DACs, ADCs, USB, PCIe, SD card, eMMC, I²C, UART, etc.
  - Integrated Ethernet PHY
- Secure version with safe-boot and preloaded keys

#### KEY APPLICATIONS

- Outdoor 'Smart LNBS'
- Low-cost satellite modems
- Feeder and back-haul satellite infrastructure solutions
- Internet of Things (IoT) machine-to-machine (M2M) satellite comms
- Point-to-point telecoms



## STiD337 BLOCK DIAGRAM



### Supplies, power

- Consumption  $\leq 3.5$  W
- Temperature range: -40 to 85 °C

### ICs & package

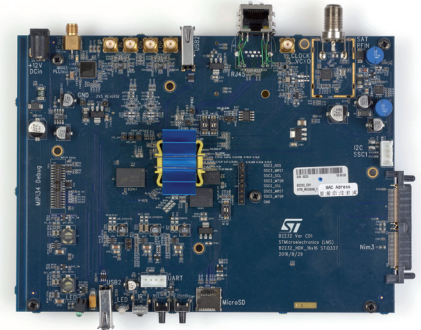
16 x 16 mm FCBGA with 0.65 mm pitch and 552 balls

### REFERENCE DESIGN

- Hardware design kit
- Schematic – Layout

### SOFTWARE DEVELOPMENT KIT

- ST-Linux
- SDK2-lite



## HARDWARE AND SOFTWARE RESOURCES

Order code	Description
STiD337-YCB	Samples, precision real time control enabled, non-secure version
STiD337-32C15YB	B2232C Hardware design kit, STiD337-YCB version, precision real time control enabled, non-secure

Available through ST sales under NDA



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