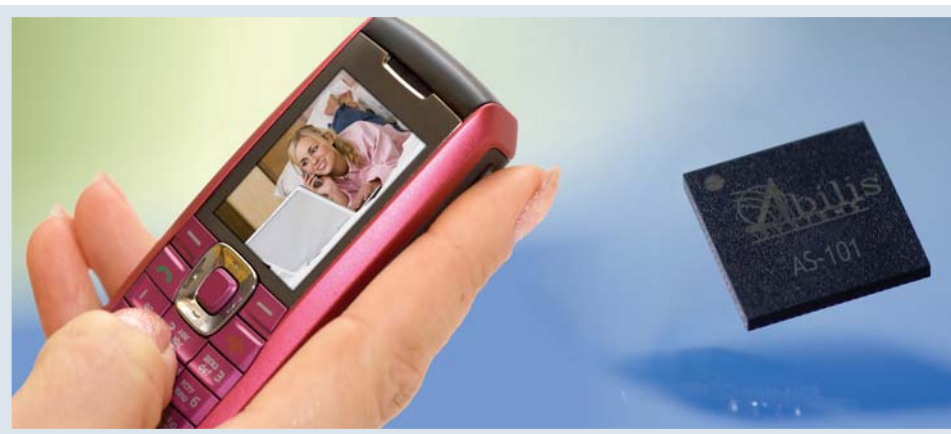


AS-101 Mobile Digital TV Receiver System-On-Chip

AS-101

Overview

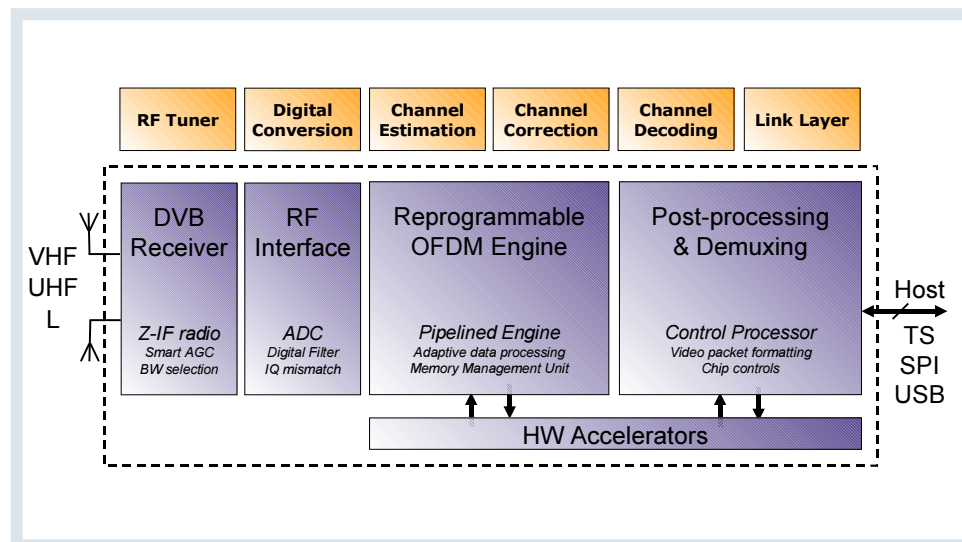
The AS-101 is a highly integrated RF System-on-Chip (RFSOC) for Mobile Digital TV (MDTV) reception. It provides a complete flexible, multi standard, multi band, solution from the antenna to the MPEG transport stream data and the IP datacasting services.



The AS-101 is implemented in state of the art 90nm CMOS technology to achieve lowest cost, lowest power and smallest system footprint.

The AS-101 is based on “Software Defined Radio” (SDR) techniques, using adaptive algorithmic techniques to maintain highest video quality while minimizing powerconsumption.

Abilis Systems delivers pre-certified references designs, HW schematics and software source code for phone-centric, and for PC-centric applications.



Applications

- Mobile phones
- Portable Media Players
- Handheld TV sets
- PCs, laptops, PDAs
- TV add-on cards
- USB sticks
- Set Top Boxes

Key features

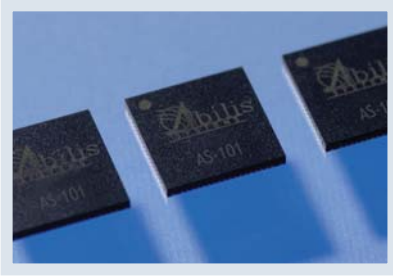
- Standards supported
 - DVB-H
 - DVB-T
- Frequencies supported
 - VHF III (170-240 MHz)
 - UHF (470-860 MHz)
- Single chip
 - Lowest cost
 - Lowest footprint
- High performance
 - High sensitivity
 - Doppler compensation
 - Programmability
 - EICTA/MBRAI and
 - Nordig compliant
- System interfaces
 - USB, SDIO, SPI
 - Serial-TS
- Low power
 - <35mW (DVB-H mode)
- Package
 - CSP
 - QFN

Reference designs

- HW design
- SW source code
- Turnkey designs

Software Defined Radio

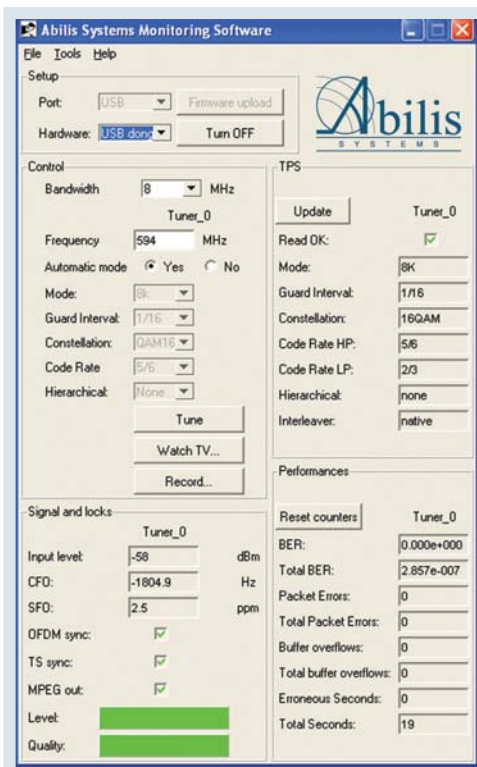
Abilis Systems has invented a low power software defined radio (SDR) technology to address the challenging requirements of digital TV.



This enables re-programmability, which has numerous benefits: on-the-fly algorithm selection, continuous algorithm improvement following field trial experience, fast upgrades to accommodate the regional versions of a standard and faster product roadmap.

The unique combination of software flexibility and dedicated hardware blocks developed by Abilis Systems is key to achieving high performance, low power solutions for digital TV applications.

Abilis Systems provides the software stacks customized for each application.



Evaluation Board

An evaluation board provides the ability to test chip performances in your lab or in the field. Software is also provided to easily set-up the chip in any condition and to display performance data, such as BER, PER and so on.



RF tuner

- Zero-IF architecture
- Multi-band coverage
 - VHF, UHF, L-Band
- Filter bandwidth
 - 5/6/7/8 MHz
- High sensitivity
 - Full chain NF < 3 dB
- Superior adjacent channel rejection
- Input clock frequencies
 - 8 to 63 MHz
 - 19.2 MHz

OFDM demodulator

- Proprietary DSP
- Pipelined, multi-DSP architecture
- Self adaptive behaviour to input signal characteristics.
- 2k, 4k, 8k FFT
- QPSK, 16QAM, 64QAM
- I/Q mismatch compensation
- Frequency and Phase offset compensation
- Advanced noise cancellation algorithm
- Doppler compensation
- Integrated Viterbi and Reed-Solomon decoders
- MPE-FEC for DVB-H compliance

About Abilis Systems - digital TV on a chip

Abilis Systems, a Kudelski Group company, provides true single-chip solutions for receiving digital TV broadcasts on any electronics device with a display. Our unique 'antenna-to-digital' solution is easily integrated to output a digital TV video stream ready for decoding and display. By utilizing software-defined radio architectures to guarantee the highest quality of service in all reception conditions, combined with the latest low power technology, Abilis Systems enables a small footprint, low power television receiver which can support mobile and digital TV standards worldwide. Abilis Systems also actively co-operates with our sister companies of the Kudelski Group to develop complete hardware/software packages for highly secured conditional access systems.

Abilis Systems HQ

18, chemin des Aulx, CH-1228 Plan-Les-Ouates, Geneva, Switzerland

PHONE
+41 22 706 1900

WEB
www.abilis.com

EMAIL
geninfo@abilis.com