



AU8503 Product Brief

ATSC HDTV Demodulator

AU8503 is a sophisticated and highly integrated IC for digital ATSC 8-VSB TV transmission and analog BTSC decoding, builds on Auvitek's powerful and efficient demodulator algorithm and adaptable filter blocks technology. AU8503 is an ideal device for HD/SDTV, STB and digital tuner products.

AU8523 FEATURES

Dual I²C Bus support Digital TV Demodulation:

- ◆ Built-in 30dB range analog AGC and 12-bit ADC
- ◆ Built-in Tuner RF and IF AGC controllers
- ◆ Programmable IF frequency
- ◆ ATSC compliant 8-VSB demodulation
- ◆ Transport Stream or Program Stream input/output in parallel or serial format

Bus and Interface:

- ◆ I2S for audio output
- ◆ I2C Bus support(slave mode)
- ◆ GPIO support

Analog TV Processor:

- ◆ NTSC analog demodulation and audio/video separation filters
- ◆ TV decoder with 2-D comb filter
- ◆ VBI data slicer
- ◆ Supports up to four analog video inputs: CVBS and S-video
- ◆ Control of brightness, contrast, saturation and hue
- ◆ Three levels of Macrovision copy protection detection according to Macrovision detection specification Rev.1
- ◆ Adaptive anti-alias filtering and versatile filter bandwidth selection
- ◆ Video output in ITU656 format

Audio Processor:

- ◆ BTSC TV sound decoder
- ◆ Mono/stereo/SAP audio input support
- ◆ Digital/analog output format configurable
- ◆ On-chip MCLK(512*Fs) output

Package: 128 pin LQFP

APPLICATIONS

- 1) HD/SDTV
- 2) Set-top boxes
- 3) NIM tuner

AU8503 BLOCK DIAGRAM

