



## AU8522 Product Brief

### VSB/QAM DTV and NTSC ATV Demodulator

The AU8522 is a DTV demodulation IC for ATSC, digital cable, and legacy TV applications. Internally, the AU8522 consists of a fully compliant ATSC A/74 8-VSB demodulator, a 64/256 QAM demodulator, a complete NTSC analog TV demodulator and video decoder, and a BTSC/A2/FM audio decoder. The AU8522 directly accepts IF or low IF from the RF tuner section via a 12-bit internal Analog-to-Digital Converter, and following demodulation and error correction, outputs MPEG-2 transport stream. The AU8522 utilizes Auvitek's proprietary demodulation algorithms and adaptive signal-tracking architecture to offer market-leading receiver performance. The AU8522 is ideally suited for any DTV or PC-TV system that requires full support for legacy TV broadcast alongside DTV reception.

## AU8522 FEATURES

- ◆ ATSC A/74 compliant 8-VSB demodulation
- ◆ OpenCable, ANSI/SCTE DVS-031, ITU-T J.83 Annex B, and DOCSIS compliant 64/256 QAM demodulation
- ◆ EIA/CEA-909 Smart Antenna IF
- ◆ Integrated 12-bit ADC
- ◆ Integrated -30dB range analog RF and IF AGC controllers
- ◆ Fully programmable IF frequency
- ◆ TS and PS MPEG inputs and outputs
- ◆ Dual I<sup>2</sup>C Bus support

## Audio TV Decoder:

- ◆ NTSC/PAL demodulation and separation
- ◆ VBI data slicer
- ◆ Color controls
- ◆ Macrovision support
- ◆ BTSC/A2/FM compliant decoding
- ◆ 3-band audio EQ

**Package:** 128-pin LQFP

## APPLICATIONS

- 1) HDTV and STB receivers
- 2) PC peripherals

**AU8522 BLOCK DIAGRAM**

