

QPSK DVB/DIRECTV™ direct conversion tuner IC

DATA BRIEF

Description

The **STB6000** ASIC is a highly integrated, low cost direct conversion (zero IF) tuner IC for digital broadcast satellite (DBS) television applications.

This device includes an LNA, down-converting mixers, baseband low pass filters, gain control, on chip VCO and a low noise PLL. Its wide gain control range is well suited for low symbol rate applications.

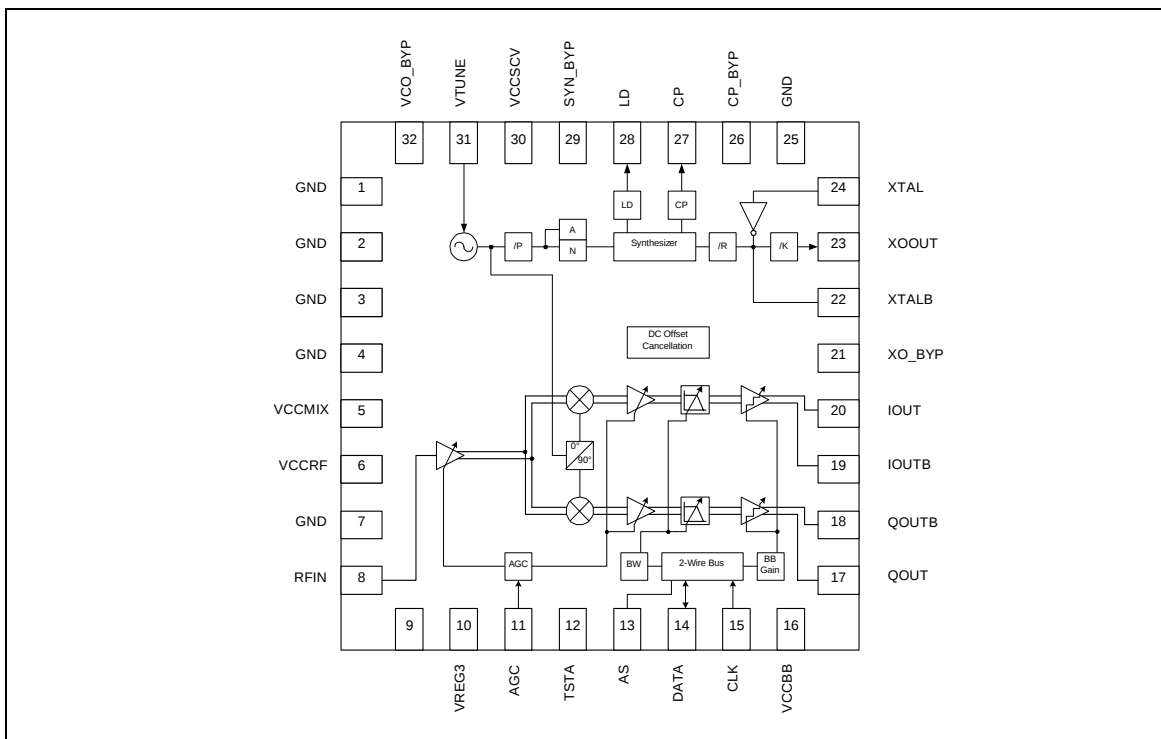
The STB6000 is controlled by a simple two wire interface and has been designed to minimize the external bill of materials to reduce manufacturing costs and to simplify the board layout. The reduced component count ensures greater system reliability leading to increase consumer satisfaction.

When used together, the STB6000 and ST's successful STV0299 BPSK/QPSK demodulator IC combine to form a highly cost effective complete

satellite front end that can seamlessly interface to ST's OMEGA range of set-top box decoders. Packaged in a small QFN 32-pin package, it is ideal for low cost DBS design.



Application: Integrated silicon tuner



Features

- Powered by RF Magic
- Direct conversion
- Input range 950 to 2150 MHz
- Supports 1 to 45 Msymbol/s
- Fully integrated LO and PLL
- Differential I/Q outputs
- Buffered XO output to clock other devices
- Low external component count
- Low power consumption
- QFN 32-pin package
- 2-wire I²C serial interface
- Low cost integrated ZIF tuner for DVB and DIRECTV, VSAT and Internet through satellite applications
- 8PSK/QPSK support
- Simple interface to ST's OMEGA MPEG decoder devices
- Low phase noise, excellent linearity and high LO harmonics rejection
- Small QFN-32 pin package.

Ordering information

Device number	Description
STB6000	Satellite silicon tuner

Information furnished is believed to be accurate and reliable. However, STMicroelectronics assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of STMicroelectronics. Specifications mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied. STMicroelectronics products are not authorized for use as critical components in life support devices or systems without the express written approval of STMicroelectronics.

The ST logo is a registered trademark of STMicroelectronics
All other names are the property of their respective owners

© 2004 STMicroelectronics - All Rights Reserved

STMicroelectronics Group of Companies

Australia - Belgium - Brazil - Canada - China - Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy
Japan - Malaysia - Malta - Morocco - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States

www.st.com