

Product Brief

Zoran Corporation
1390 Kifer Road
Sunnyvale, CA 94086-5305

Tel 408.523.6500
Fax 408.523.6501
www.zoran.com



Description

Zoran's SupraHD-640 ATSC reference design is a complete hardware and software solution for building a low-cost ATSC DTV Module that upgrades an existing NTSC Television to be ATSC compliant. The reference design consists of a hardware module ready for manufacturing and a TV application with complete middleware software stack, including closed-caption support. The hardware module accepts all the ATSC formats (480i, 480p, 720p, 1080i) and outputs 480i to a NTSC TV.

The SupraHD-640 DTV System IC is highly integrated, consisting of an MPEG-2 HD decoder, high-performance CPU, power graphics engine and video scaler. It also supports a variety of system interfaces, such as an infrared receiver, flash memory and DDR SDRAM interfaces. The decoded ATSC video stream can be output in component (YPbPr), composite (CVBS), and S-video (Y/C) formats. Audio can be output via an SPDIF interface or in analog format (L/R) using the chip's integrated audio DAC. Designed to use the minimum external components, the SupraHD-640 requires only memory, ATSC demodulator, ATSC tuner, and a small number of passive components to build a complete ATSC DTV Module.

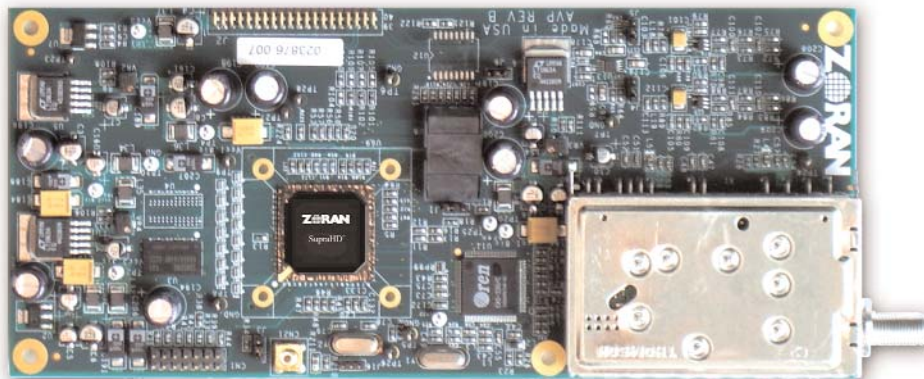
Key Hardware Features

- SupraHD-640 DTV System IC
- NOR Flash Memory: 4MByte
- DDR SDRAM: 32MByte
- ATSC Tuner
- Zoran 8VSB Demodulator
- Video In: ATSC
- Video Out: YPbPr
- Audio Out: L/R Channels
- IR Remote, I2C, RS-232, and EJTAG interfaces

System Software Features

- ATSC DTV application software
- PSIP Parsing for channel map
- Digital Closed-Captioning (EIA-608)
- Transport, Video Decode (single MP@HL), Audio Decode (AC-3, MPEG Layer 1/2/3), Graphics, and Display drivers
- Peripheral drivers for Tuner and Demodulator
- Thread-X royalty-free operating system

Zoran's ATSC DTV Module

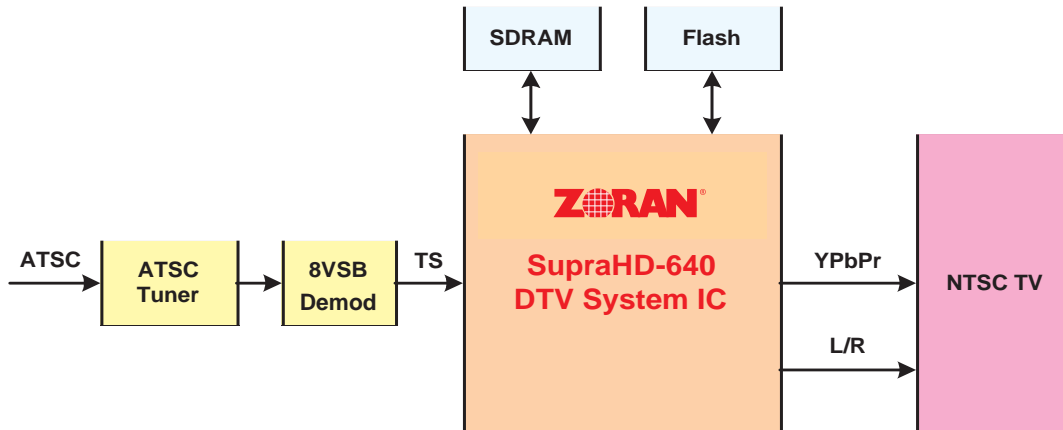


Reference Design

Product Brief



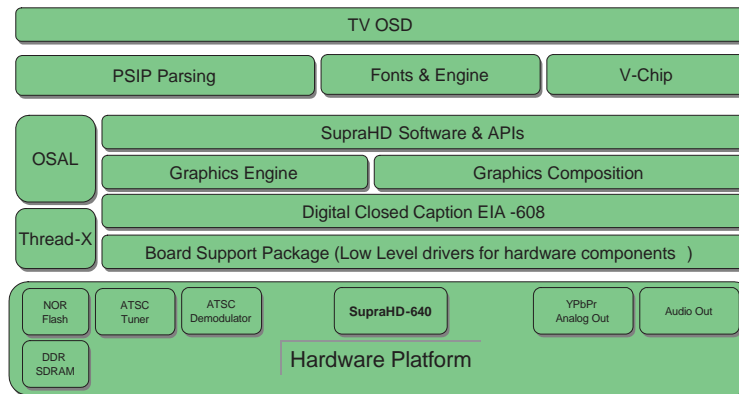
System Block Diagram



Package Contents

- DTV hardware reference board
- Power adapter, remote control, and necessary cables
- Pre-loaded ATSC software on flash memory
- Complete documentation for reference design, software, and IC on a CD-ROM

System Architecture



Export Classification Control Number (ECCN): 5A992 Product Order Code: ZR839640-ATSC-ATVX

For more information, contact Zoran's Sunnyvale office or the office nearest you:

Shanghai, China	Shenzhen, China	Hong Kong	Israel	Japan	Korea	Taiwan
Zoran China Office	Zoran China Office	Zoran Asia Pacific Ltd.	Zoran Microelectronics Ltd.	Zoran Japan Office	Zoran Korea Office	Zoran Taiwan Office
Tel: 86-21-6469-9799	Tel: 86-755-8281-5777	Tel: +852-2620-5838	Tel: +972-4-8545-777	Tel: +81-3-5475-1051	Tel: +82-2-761-7471	Tel: +886-2-2659-9797
Fax: 86-21-6427-0545	Fax: 86-755-8322-0889	Fax: +852-2620-5238	Fax: +972-4-8551-550	Fax: +81-3-5475-1053	Fax: +82-2-761-7472	Fax: +886-2-2659-9595

© Copyright 2005 Zoran Corporation. All rights reserved. Zoran, the Zoran logo, and SupraHD are trademarks of Zoran Corporation. All other brand product names and company names are trademarks of their respective owners. The information in this document is believed to be reliable, however, Zoran Corporation makes no guarantee or warranty concerning the accuracy of said information and shall not be responsible for any loss or damage of whatever nature resulting from the use of, or reliance upon it. Zoran Corporation does not guarantee that the use of any information contained herein will not infringe upon patent, trademark, copyright, or rights of third parties. Zoran Corporation reserves the right to make changes in the product and/or specifications, or both, presented in this publication at any time without notice.