

DVD and DVB decoder for video and audio with DVD audio support

DATA BRIEF

DESCRIPTION

The demand for more entertainment in automobiles is steadily increasing. Not only high-end, but also mid- and low-range cars are being equipped with multimedia systems.

STMicroelectronics helps meeting this demand with the STe5588, a highly integrated audio & video decoder for automotive DVD and DVB applications.

The STe5588 is ready for lead-free manufacturing and its quality targets meet automotive standards. As a result, the STe5588 offers a reliable, cost effective solution with rapid time-to-market.

Embedded peripherals include an advanced audio processor, video and sub-picture decoders with OSD support, and a multiformat video encoder.

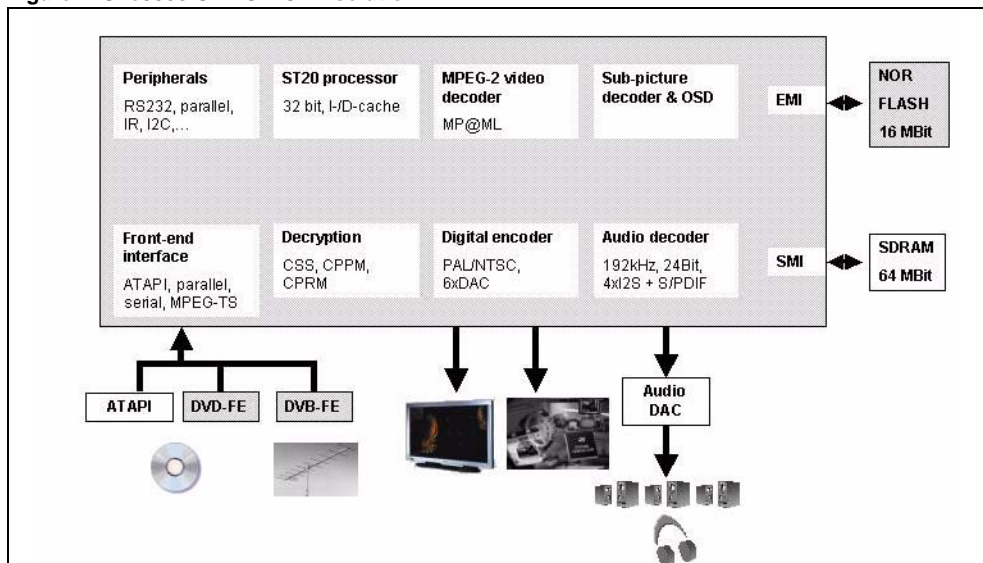
The host CPU and the available drivers help to develop powerful applications for the automobile in the short term.

Development platforms and ST worldwide support are available as part of ST's solutions.

Figure 1. Package (208 pin PQFP package)



Figure 2. STe5588 OMEGA-CAR solution



FEATURES

- 32-bit ST20 processor
 - Instruction and data cache
- Supported formats:
 - DVD-video, SVCD, VCD
 - JPEG picture decoding
 - DVD-audio, various audio codecs
- Video decoder and graphics
 - MPEG-2 and MPEG-1 MP@ML
 - Fully programmable zoom-in and zoom-out
 - High performance on-screen display with 2 to 8 bits per pixel
 - Anti-flicker, anti-flutter and anti-aliasing filters
 - Sub-picture decoder
 - 5 display planes
- Audio decoder (192 kHz, 24 bit)
 - DTS®
 - 5.1 channel Dolby® Digital
 - MPEG multichannel
 - LPCM multichannel with 192 kHz sampling frequency
 - MLP lossless
 - SRS®, TruSurround®, CircleSurround®, TruBass™
 - 9-band equalizer, 256-band spectrum analyser
- 6-channel level meter
- Karaoke with scoring, echo, pitch shift, microphone inputs, voice cancellation
- Video output
 - CVBS, Y/C, RGB and YUV with 10-bit DACs running at 27 or 54 MHz
 - PAL/NTSC/SECAM encoder
 - Progressive scan (525p)
 - Macrovision® 7.1 and 1.03 (525p)
 - ITU-R BT 601 and 656 digital video output
- Audio output
 - 4 x 2-channel PCM outputs
 - S/PDIF IEC60958 & IEC61937 digital audio output
- Decryption
 - CSS, CPPM, CPRM, 4C/Verance watermarking
- Drive
 - ATAPI
 - Serial drives
- Memory interfaces
 - Shared memory SDRAM up to 128 MBit
 - Programmable CPU memory interface for SDRAM, ROM and other peripherals
- Lead-free 208 pin PQFP package

PART NUMBERING

Table 1. Order Codes

Part Number	Description
STe5588SVB	Lead-free MPEG decoder

REVISION HISTORY

Table 2. Revision history

Date	Revision	Description of changes
December-2004	2	First issue

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 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 of America

www.st.com