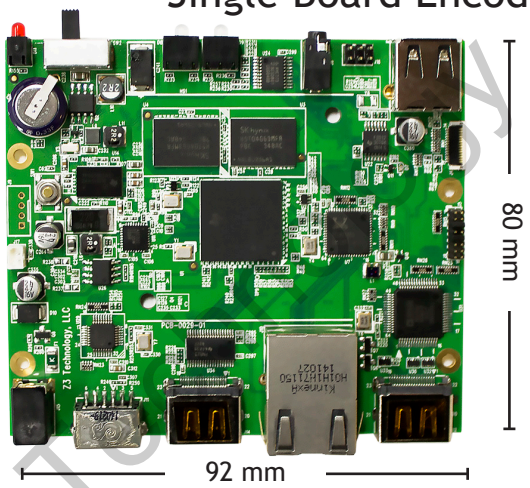
Z3-SBE264-01

Single Board Encoder



The production-ready Z3-SBE264-01 is designed to simplify the overall system design while reducing time-to-market and overall costs. The Z3-SBE264-01 is a single board encoder supporting H.264 encode/decode in resolutions up to 1080p60. On-board HDMI and composite interfaces allow for immediate access to encoding capabilities. This compact system is the ideal solution for applications such as broadcast video encoding, digital signage and video kiosks, medical and industrial video, MCUs and high definition embedded video sub-systems. The versatile design allows the system designer to focus on the end application, with confidence that the Z3-SBE264-01 will handle all audio and video media operations required.

BENEFITS

- HDMI H.264 Encoder
- Production-proven, fully integrated hardware and software audio/video system
- H.264 encode/decode in resolutions up to 1080p60
- High density connectors to interface to all signals
- Versatile design geared to reduce time-to-market and overall costs
- Linux-based system, easy to customize if needed

APPLICATIONS

Broadcast Video

Video Security and Industrial Video

Digital Signage and Video Kiosks

Medical Video

Customized Applications*

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Hardware

Module	Z3-SBE264-01	
Processor	ARM Cortex A8 + Video Acceleration	
Video Codecs	H.264	
Interfaces	HDMI Composite USB 2.0	GigE UART
Audio Codecs	AAC or PCM	
Memory	DDR3: 1GB Flash: 256 MB	

Software

Software Development*	Texas Instruments® RDK, Z³ Technology software components for RDK, Z³ Applications
Operating System*	Linux 2.x (root file-system, NAND boot, tool chain and flash programming tool), u-boot
Encoding Resolutions	H.264 video up to 1080p60 Dual channel encoding up to 1x1080i + 1x 480i
Output Formats	RTP, RTMP, RTSP, TSRTP, TS File and MPEG-2 TS over UDP
Decoding Resolutions	H.264 video up to 1080p60
Input Formats	RTP, TS File and MPEG-2 TS
Features	•Closed Captioning (EIA-608, EIA-708) •Pro-MPEG FEC Forward Error Correction for decode •Advanced video processing features such as scan, format and rate conversion •3D graphics and advanced display capabilities at up to 1920 x 1080 resolution •Fully controllable parameters: resolution, max bitrate, GOP and on-the-fly bitrate control

Specifications

Size	(L x W) 3.14 x 3.62 in (L x W) 80 x 92 mm
Power Supply	5V
Typical Power Consumption	5W

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HW Block Diagram

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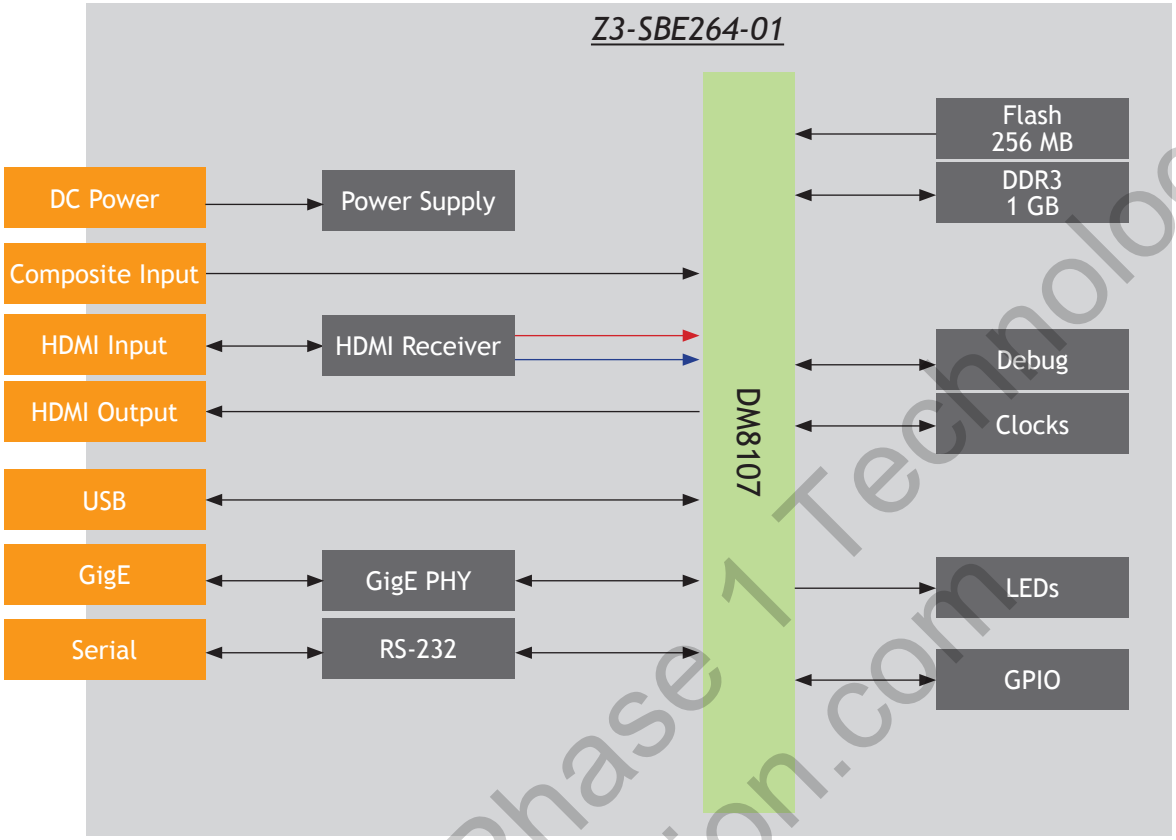
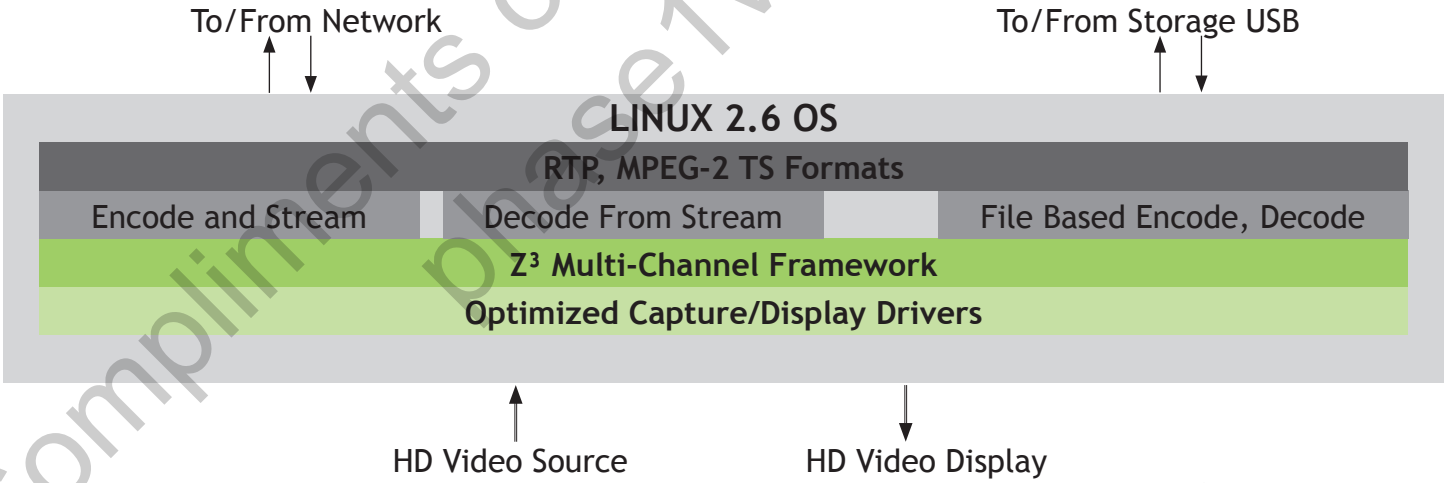


SW Block Diagram



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Z³ Technology is the market leader in providing production-ready embedded multimedia solutions and systems. From our founders to our world-class engineers to our sales and customer service team, we understand your requirements and speak your language. Our experience allows us to provide cost-effective solutions to meet your multimedia product requirements. With the assistance of our robust worldwide distribution and sales networks, we can provide a simple solution for your multimedia needs.

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