

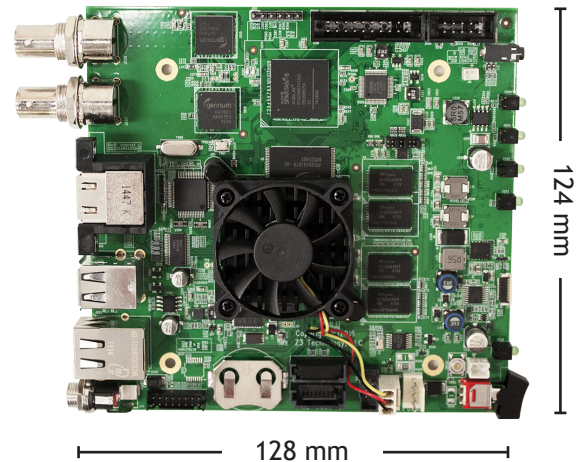


**Z3**  
Technology®

# Z3-SBE264-25

Single Board Encoder

The Z3-SBE264-25 is a single board encoder featuring on-board 3G-SDI, ASI, and HDMI interfaces supporting H.264 encode/decode in resolutions up to 1080p at 60 fps. This production-ready system is designed to simplify the overall system design by reducing time-to-market and overall costs. The versatile design makes this system ideal for applications such as broadcast video encoding and decoding, medical and industrial video, MCUs and high definition embedded video sub-systems. With the single board design, the system designer is able to focus on the end application, with confidence that the Z3-SBE264-25 will handle all audio and video media operations required.



## BENEFITS

- 3G-SDI, ASI, or 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

Industrial Video

Medical Video

Customized Applications\*

**\*Contact Z<sup>3</sup> Technology for  
Licensing and Customized  
Product Options**

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## Hardware

Module	Z3-SBE264-25	
Processor	DSP + ARM Cortex A8	
Video Codecs	H.264	
Interfaces	3G-SDI/ASI HDMI USB 2.0	GigE SATA2 UART
Audio Codecs	AAC or PCM	
Memory	DDR3: 1GB Flash: 256 MB	

**Note:** The same jack serves as SDI or ASI. ASI output is available for encoder mode only. In decoder mode the jack is SDI output. ASI input is available for decode mode only. In encoder mode the BNC jack is SDI input.

## Software

Software Development*	Texas Instruments® RDK, Z <sup>3</sup> Technology software components for RDK, Z <sup>3</sup> 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
Output Formats	RTP, RTSP, RTMP, RTMPS, TSRTSP, and MPEG-2 TS
Decoding Resolutions	H.264 video up to 1080p60
Video Frame Rates (SD)	25i, 29.97i and 30i
Video Frame Rates (HD)	24p, 25p, 30p, 50p, 59.94i, 60i and 60p
Input Formats	RTP, RTSP, and MPEG-2 TS

## Features

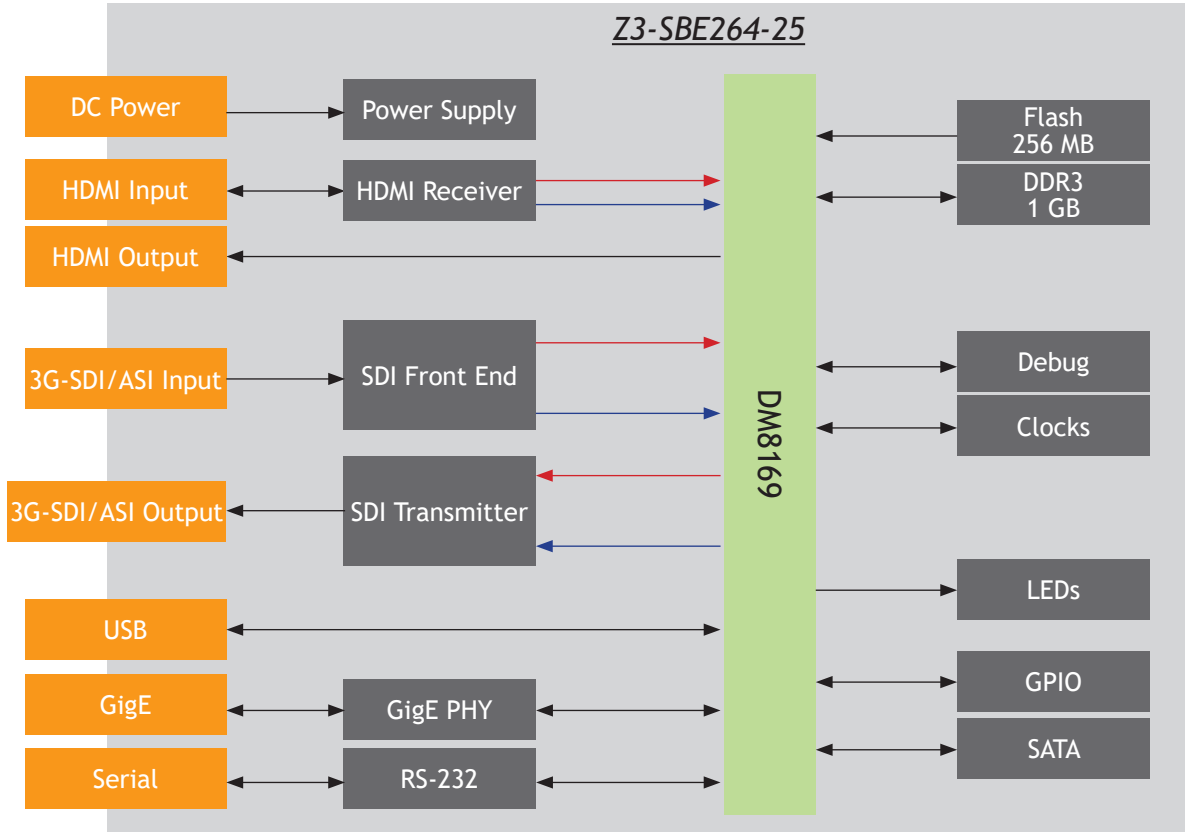
- Advanced video processing features such as scan, format and rate conversion  
1920 x 1080 resolution
- Fully controllable parameters: resolution, max bitrate, GOP and on-the-fly bitrate control
- EIA 608 and EIA 708 Closed captions
- Unicast and Multicast
- Send one input to two different destinations or dual input streaming when using the HDMI and 3G-SDI input

## Specifications

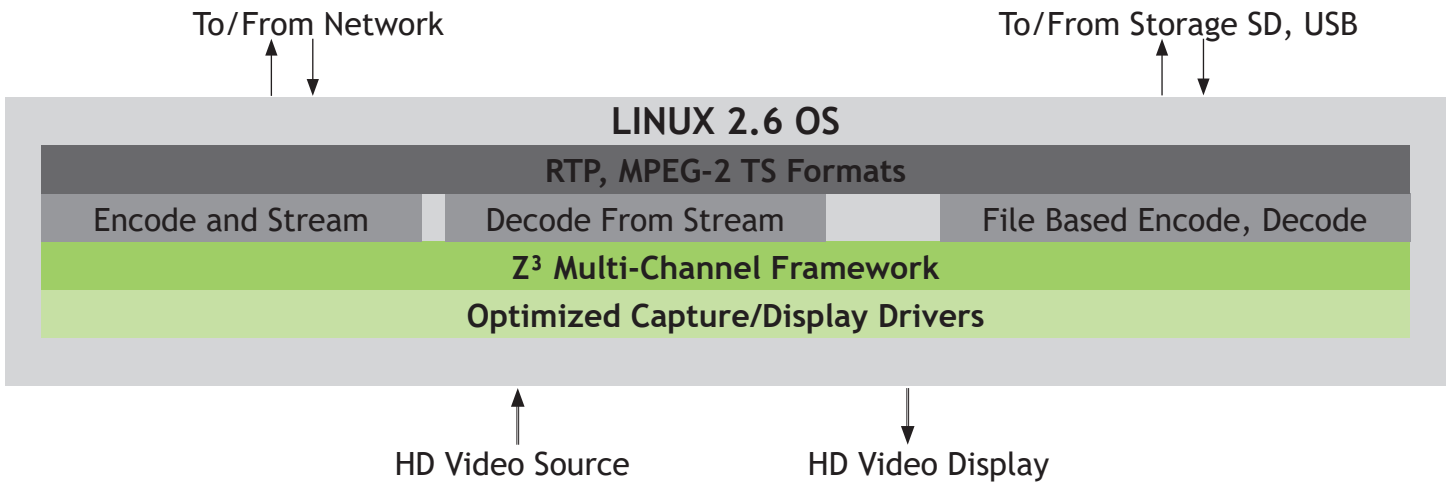
Module Size	(L x W x H) 5.03 x 4.87 x 1.22 in (L x W x H) 127.7 x 123.6 x 31 mm
Power Supply	12V
Typical Power Consumption	15W

# HW Block Diagram

# Z3-SBE264-25



# SW Block Diagram



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