

The Z3-DM8107-SDI-RPS is a development system that allows H.264 encode and decode of HD video in resolutions up to 1080p at 60fps. This system consists of a hardware package and software bundle designed to enable rapid development of multimedia applications. The hardware consists of one Z3-DM8107-MOD-0x System on Module card and one Z3-DM8107-APP-1x board. The Z3-DM8107-MOD-0x is a compact OEM module which supports up to 1080p60 H.264 encode/ decode in streaming or storage mode. It is especially suited for power-sensitive applications requiring a single video stream. The application board uses the I/O expansion capability of the Z3-DM8107-MOD-0x to implement additional functions not present in the base module. The software bundle consists of the necessary components for developing advanced multimedia, graphics, and DSP applications.

**Audio Codecs** 

Additional Interfaces

**Power Consumption** 

### **BENEFITS**

- > Versatile encoding modes such as: low latency, low bitrate and high quality
- > Production-proven, fully integrated hardware and software audio/video system
- >Easily controlled through RS-232 or an HTTP-based GUI
- >Full A/V synchronization even after hours of recording
- >Optional Support for KLV\*
- Ready to use, out-of-the-box commands for encoding, decoding and streaming

#### **APPLICATIONS**

Video Security and Surveillance

Industrial Video Applications

**Broadcast Encoding** 

Satellite Uplink

**Customized Applications\*** 

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

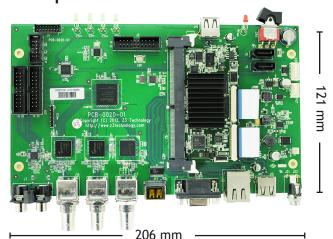
sales@Z3technology.com

+1.402.323.0702

www.Z3technology.com

# **Z3-DM8107-SDI-RPS**

### Rapid Production Starter Kit



Hardware		F© (€
Module	Z3-DM8107-MOD-0x	
Application Board	Z3-DM8107-APP-1x	
Processor	ARM Cortex A8	
Video Inputs	2x HD-SDI, Composite and ASI	
Video Outputs	3G-SDI, HDMI and ASI	
Video Codecs	H.264	
Audio Interfaces	Analog Stereo and Embedded SDI	

AAC, G.711\* and PCM\*

GigE, 2x SATA, 2x USB 2.0 and Serial

Software	
Software Development	Texas Instruments® RDK, Z³ Technology software components for RDK, Z³ Applications
Operating System	Linux 2.6 (root file-system, NAND boot, tool chain and flash programming tool), u-boot
Encoding Resolutions	H.264 video from QCIF to 1080p/i at 60 fps Dual Channel encode of up to 1x 1080i and 1x 720p60
Output Formats	RTP, MPEG-2 TS, RTMP, MPTS* and TS File
Decoding Resolutions	H.264 video from QCIF to 1080p/i at 60 fps
Input Formats	RTP, MPEG-2 TS and TS File
	<ul> <li>Closed Captioning (EIA-608, EIA-708)</li> <li>Supports encode of one source to up to three streams</li> <li>Low latency mode</li> </ul>
	<ul> <li>Flexible resizer to allow full frame display of smaller</li> </ul>

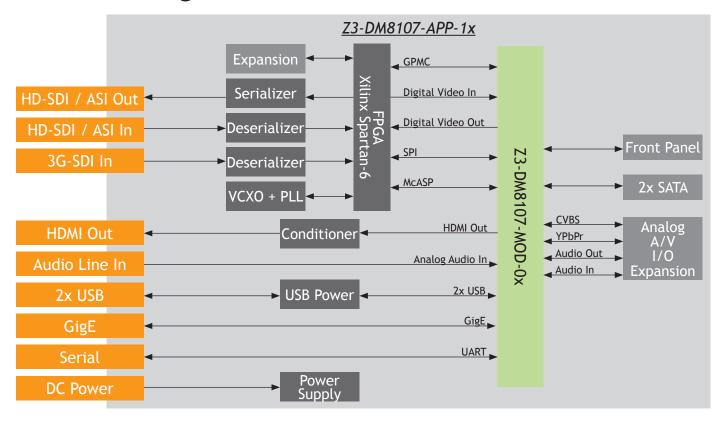
Features	<ul> <li>Flexible resizer to allow full frame display of smaller resolutions</li> </ul>
	<ul> <li>Fully controllable parameters: resolution</li> </ul>

- Fully controllable parameters: resolution, max bitrate, GOP and on-the-fly bitrate control
- SDI KLV capture & KLV synchronous transport available\*
- Source code license available\*

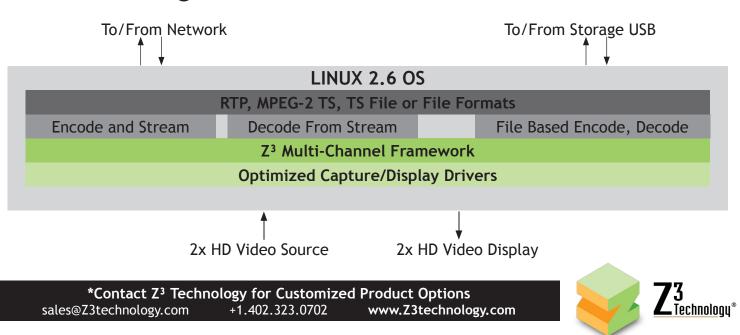
Specifications	
Module Size	82 x 43 mm (3.23 x 1.69 in)
Application Board Size	206 x 121 mm (8.11 x 4.76 in)
Power Supply	12V

6W

## **HW Block Diagram**



# **SW Block Diagram**



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.

