

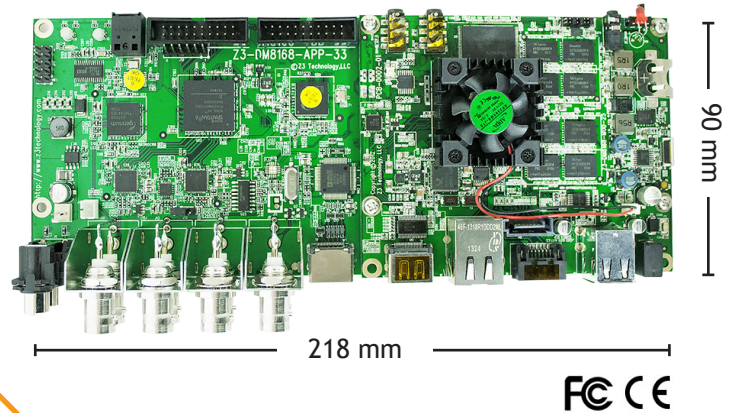


**Z3**  
Technology®

# Z3-DM8169-VI-RPS

## Rapid Production Starter Kit

The Z3-DM8169-VI-RPS is a starter kit that allows encode and decode of up to two channels of H.264 video in resolutions up to 1080p60 from multiple sources and to a variety of outputs. Encode can be to stream and decode can be from stream (upgrades for file I/O also available). The Z3-DM8169-VI-RPS consists of a hardware package and software bundle designed to enable rapid development of multimedia applications. The hardware consists of one Z3-DM816x-MOD-2x System on Module card and one Z3-DM8168-APP-3x Application (I/O) Board. The software bundle consists of the necessary components for developing advanced multimedia, graphics, and DSP applications. The application board uses the I/O expansion capability of the Z3-DM816x-MOD-2x to implement additional functions not present in the base module.



### 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

- Broadcast Video
- Digital Signage and Video Kiosks
- Medical and Industrial Video
- Video Security and Surveillance
- Video Conference Terminals
- Customized Applications\*

**\*Contact Z3 Technology for Customized Product Options**

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### Hardware

Module	Z3-DM816x-MOD-2x
Application Board	Z3-DM8168-APP-3x
Processor	DSP + ARM Cortex A8
Video Inputs	3G-SDI, HDMI, Component and ASI
Video Outputs	ASI, 3G-SDI and HDMI
Video Codecs	H.264 and MPEG-2
Audio Interfaces	Analog Stereo, Embedded HDMI and Embedded SDI
Audio Codecs	AAC, G.711* and PCM*
Additional Interfaces	GigE, SATA2, 2x USB and Serial

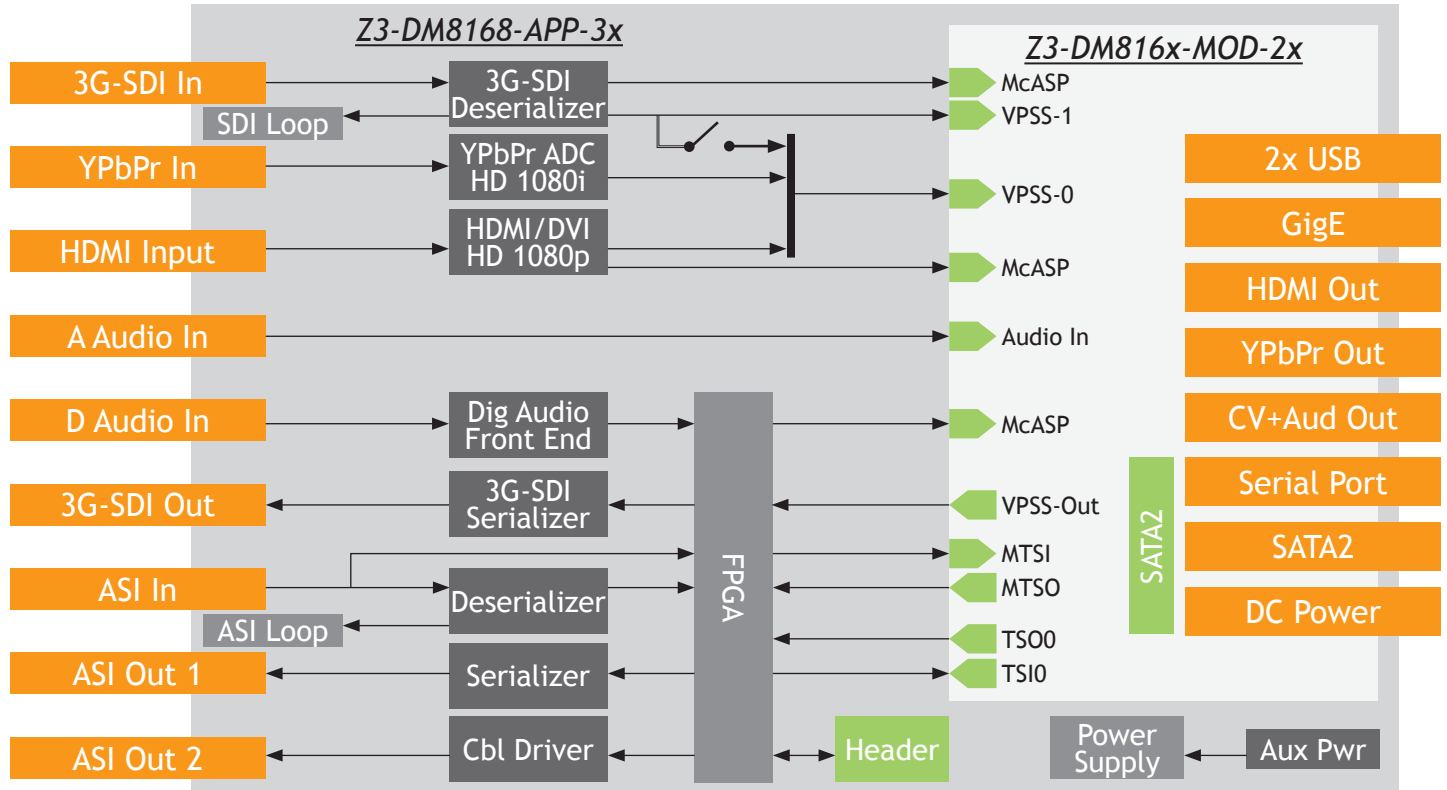
### Software

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 Multi-channel encode up to 2x 1080p60
Output Formats	RTP and MPEG-2 TS
Decoding Resolutions	H.264 video from QCIF to 1080p/i at 60 fps
Input Formats	RTP and MPEG-2 TS
Features	<ul style="list-style-type: none"> <li>• Closed Captioning (EIA-608, EIA-708)</li> <li>• Low latency mode</li> <li>• Flexible resizer to allow full frame display of smaller resolutions</li> <li>• Fully controllable parameters: resolution, max bitrate, GOP and on-the-fly bitrate control</li> <li>• Includes FPGA Firmware</li> <li>• SDI KLV capture &amp; KLV synchronous transport available*</li> <li>• File-based transcoder in H.264 and MPEG-2 available*</li> <li>• Source code license available*</li> </ul>

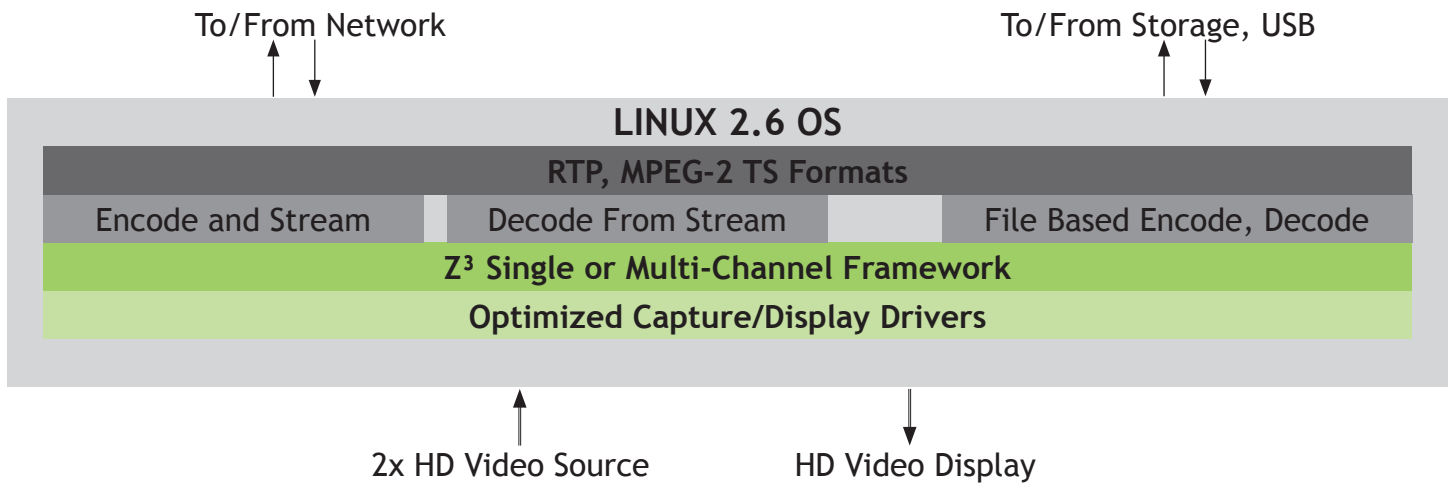
### Specifications

Module Size	108 x 88 mm (4.25 x 3.46 in)
Application Board Size	218 x 90 mm (8.58 x 3.54 in)
Power Supply	12V
Power Consumption	14W

## HW Block Diagram



## 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.