

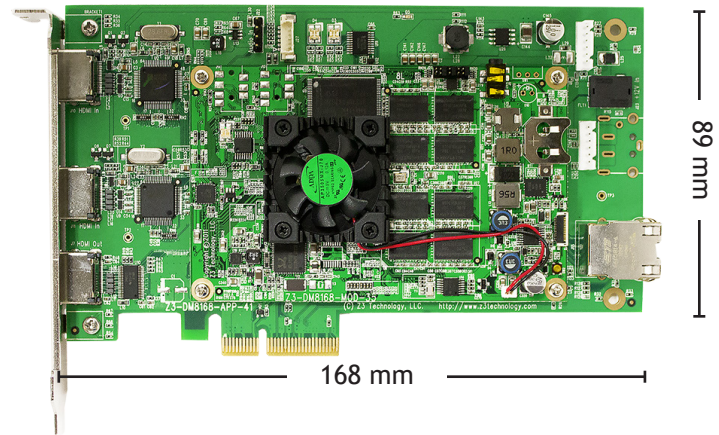


**Z3**  
Technology®

# Z3-DM8168-PCI2-RPS

## Rapid Production Starter Kit

The Z3-DM8168-PCI2-RPS is a development system that allows dual encode and single decode of 1080p60 video on media-centric PCI Express applications. The hardware consists of one Z3-DM816x-MOD-3x System on Module card with one Z3-DM8168-APP-4x PCI Express Application Board. The software consists of Linux kernel and application packages to allow users to develop their own advanced multimedia, graphics and DSP applications. In order to make custom hardware and software development easier, the Z3-DM8168-PCI2-RPS is designed to allow standalone operation so that the system can be developed and tested independently of any hosts. To allow this, the Z3-DM8168-APP-4x contains independent power and Ethernet jacks, allowing for direct connection without any hosts.



### BENEFITS

- > Versatile encoding modes such as: low latency, low bitrate and high quality
- > Standalone operation independent of PCIe host makes an easy development environment
- > Easily controlled through RS-232 or an HTTP-based GUI
- > Fully integrated hardware and software audio/video system
- > Ready to use, out-of-the-box commands for encoding, decoding and streaming

### APPLICATIONS

Broadcast Encoding  
Digital Signage  
Video Conference Terminal  
Video Security and Surveillance  
Medical and Industrial Video  
Customized Applications\*

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

[sales@Z3technology.com](mailto:sales@Z3technology.com)

+1.402.323.0702

[www.Z3technology.com](http://www.Z3technology.com)

### Hardware

Module	Z3-DM816x-MOD-3x
Application Board	Z3-DM8168-APP-4x
Processor	DSP + ARM Cortex-A8
Video Inputs	2x HDMI
Video Outputs	HDMI
Video Codecs	H.264
Audio Interfaces	Embedded HDMI
Audio Codecs	AAC, G.711* and PCM*
Additional Interfaces	GigE, PCIe 2.0 and Serial

### Software

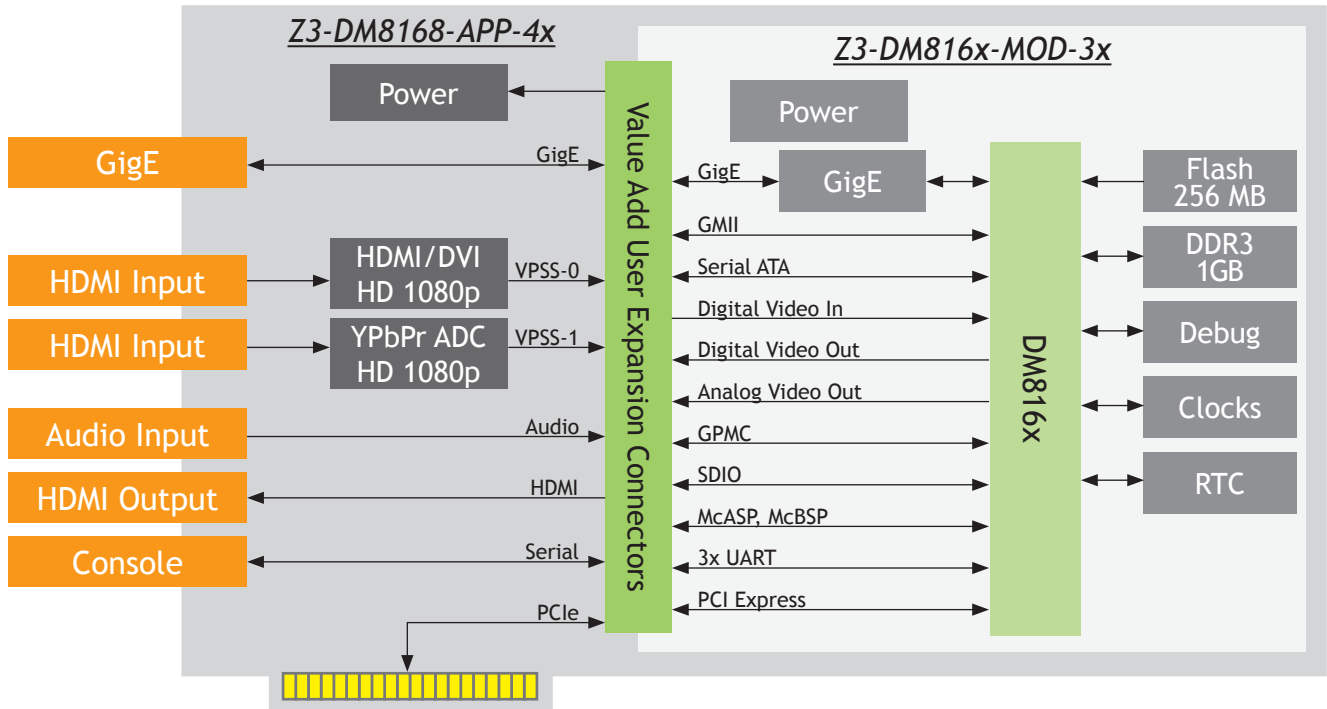
Software Development	Texas Instruments® RDK, Z3 Technology software components for RDK, Z3 Applications
Operating System	Linux 2.6 (root file-system, NAND boot, tool chain and flash programming tool), u-boot
Encoding Resolutions	H.264 video from QCIF to 1080p/i at up to 60 fps Dual channel encode up to 1080p/i at 60 fps
Output Formats	RTP, MPEG-2 TS and TS File
Decoding Resolutions	H.264 video from QCIF to 1080p/i at up to 60 fps
Input Formats	RTP and MPEG-2 TS
Features	<ul style="list-style-type: none"><li>• Fully controllable parameters: resolution, max bitrate, GOP and on-the-fly bitrate control</li><li>• Low latency mode</li><li>• Flexible resizer to allow full frame display of smaller resolutions</li><li>• Includes FPGA Firmware</li><li>• File-based transcoder in H.264 and MPEG-2 available*</li><li>• Source code license available*</li></ul>

### Specifications

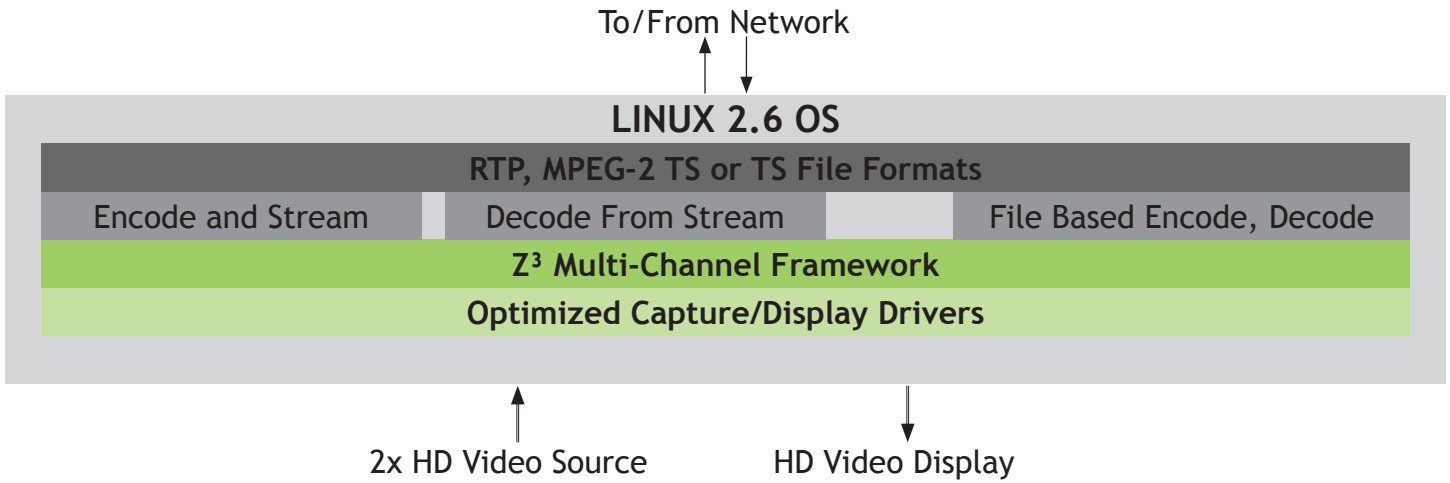
Module Size	108 x 68 mm (4.25 x 2.67 in)
Application Board Size	168 x 89 mm (6.61 x 3.50 in)
Power Supply	12V
Power Consumption	12W

# HW Block Diagram

# Z3-DM8168-PCI2-RPS



# SW Block Diagram



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[sales@Z3technology.com](mailto:sales@Z3technology.com)    +1.402.323.0702    [www.Z3technology.com](http://www.Z3technology.com)



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