

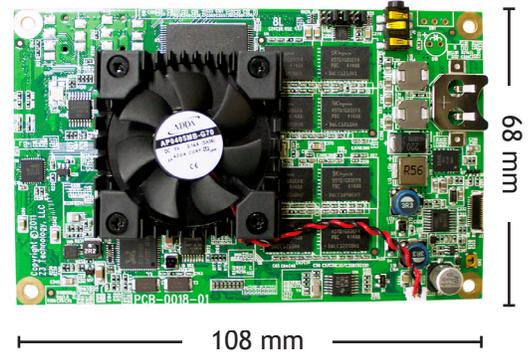


**Z3**  
Technology®

# Z3-DM816x-MOD-3x

## OEM Production-Ready Module

The production-ready Z3-DM816x-MOD-3x is designed to simplify the overall system design while reducing time-to-market and costs. The Z3-DM816x-MOD-3x is an OEM-ready module supporting H.264 encode/decode at up to two channels of 1080p at 60 fps in applications such as real time transcoding, broadcast video encoding and decoding, digital signage and video kiosks, medical and industrial video, video conference terminals and MCUs and high definition embedded video sub-systems. Its versatile design allows the system designer to focus on the end application, with confidence that the Z3-DM816x-MOD-3x will handle all audio and video media operations required.



FC CE

### BENEFITS

- > Robust display capabilities with HDMI component and composite video output
- > Production-proven, fully integrated hardware and software audio/video system
- > Dual channel 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\*

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

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### Hardware

Pre-loaded, OEM Ready Video Application Executable Commands License Available with RPS Development Kits

Module	Z3-DM816x-MOD-3x	
Processor	DSP + ARM Cortex A8	
Video Codecs	H.264 and MPEG-2	
Expansion Interface	<ul style="list-style-type: none"> <li>•Comprised of five high density connectors</li> <li>•80 or 100-pin connectors options*</li> </ul>	
Interfaces	Analog & Digital Video I/O	MMC/SD
<i>(Available via Expansion Connectors or Z3 Application Boards)</i>	Analog & Digital Audio	PCIe
	USB 2.0	UART
	GigE	I2C
	SATA2	SPI
Audio Codecs	AAC or PCM	
Memory	DDR3: 1GB	
	Flash: 256 MB	

### Software

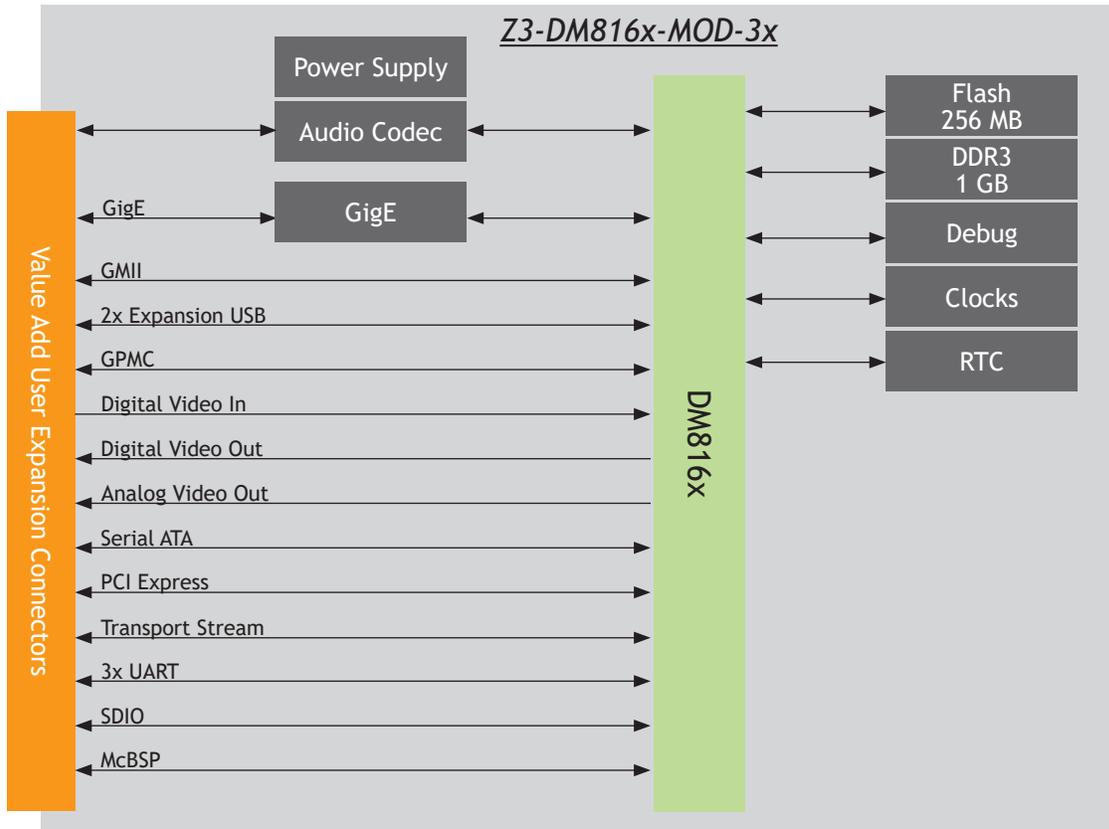
Software Development	Texas Instruments® RDK, Z3 Technology software components for RDK, Z3 Applications
Operating System	Linux 2.x (root file-system, NAND boot, tool chain and flash programming tool), u-boot
Encoding Resolutions	H.264 video up to 2x 1080p60
Output Formats	RTP, RTSP, RTMP and MPEG-2 TS
Decoding Resolutions	H.264 video up to 2x 1080p60
Input Formats	RTP and MPEG-2 TS
Features	<ul style="list-style-type: none"> <li>•Advanced video processing features such as scan, format and rate conversion</li> <li>•3D graphics and advanced display capabilities at up to 1920 x 1080 resolution</li> <li>•Fully controllable parameters: resolution, max bitrate, GOP and on-the-fly bitrate control</li> <li>• Source code license available*</li> </ul>

### Specifications

Module Size	108 x 68 mm (4.25 x 3.46 in)
Power Supply	12V
Typical Power Consumption	7W

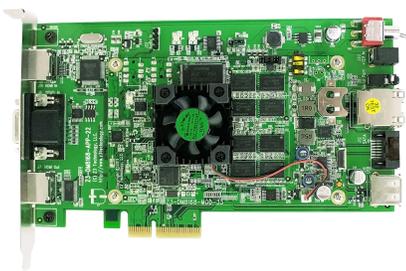
# HW Block Diagram

# Z3-DM816x-MOD-3x



## RPS Starter Kits

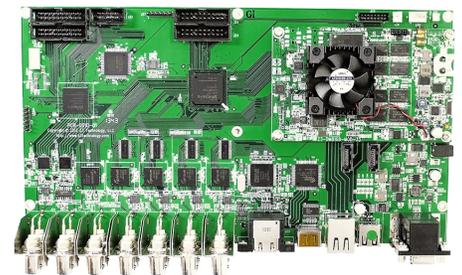
Starter Kits include the Z3-DM816x-MOD-3x, an Application (I/O Board), Pre-loaded Production Software and Documentation.



Z3-DM8168-PCI-RPS



Z3-DM8168-PCI2-RPS



Z3-DM8169-4CH-RPS

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