

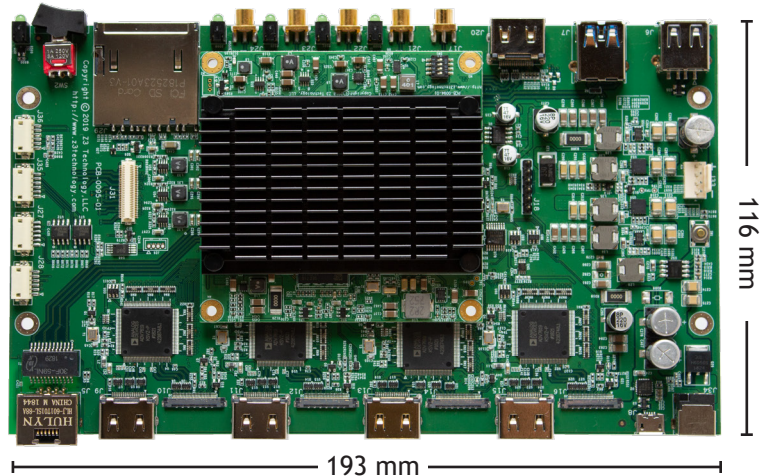


**Z3**  
Technology®

# Z3-HE4320-RPS

## H.265 4Kp30 Starter Kit

The Z3-HE4320-RPS starter kit allows 4 channels of H.265 encoding in up to 4Kp30 or multiple lower resolution streams. It consists of a hardware package and software SDK bundle designed to enable rapid development of multimedia applications. The hardware consists of one Z3-HE4320-MOD-0x System on Module card and one Z3-HE4320-APP-0x Application (I/O) Board. The Z3-HE4320-MOD-0x is a compact system-on-module which supports up to 2160p30 encode or decode in streaming or storage mode. The application board uses the I/O expansion capability of the Z3-HE4320-MOD to implement additional I/O functions required by the user application. The software bundle consists of the necessary components for developing advanced multimedia, graphics, AI, and DSP applications.



### BENEFITS

- > HEVC/H.265 High Efficiency encode through HDMI, and 6G-SDI interfaces
- > Compact design ideal for quick implementation in customized solutions
- > Ready to use, out-of-the-box commands for encoding and streaming

### APPLICATIONS

- Medical Video Applications
- Video Security and Surveillance
- Industrial Video Applications
- Government/Military Applications
- Broadcast Video Encoding
- Customized Applications\*

### Hardware

Module	Z3-HE4320-MOD-0x
Application Board	Z3-HE4320-APP-0x
Processor	5-core: 2x A73 at 1.8GHz, 2x A53 at 1.2GHz, 1x A53 at 1 GHz Dual core ARM Mali G71 Dual core Neural Network acceleration NNIE at 840 MHz
Video Inputs	6G-SDI, HDMI
Video Codecs	H.265, H.264, MJPEG
Audio Interfaces**	Embedded HDMI, Embedded SDI
Audio Codecs**	<ul style="list-style-type: none"> <li>• HE-AAC, HEv2-AAC, AAC-LC</li> <li>• Input from analog or embedded digital</li> </ul>
Interfaces	<ul style="list-style-type: none"> <li>• 4x 6G/3G-SDI Inputs</li> <li>• 4x HDMI 1.4b inputs</li> <li>• 4x KEL jack for 4K camera input</li> <li>• Composite video input for camera synchronization</li> <li>• UART, I2C, SPI, GPIO, etc</li> <li>• Micro-USB Console</li> <li>• Line level audio**</li> </ul>

### Software

Operating System	Embedded Linux (root file-system, NAND boot, tool chain and flash programming tool), u-boot
Encoding Resolutions	<ul style="list-style-type: none"> <li>• Multi-stream H.265 and/or H.264 encoding at up to UHD 4K at 30 fps</li> <li>• 4x 3840x2160@30fps + 3840x2160@2fps snapshot</li> </ul>
Output Formats	RTP, RTSP, MPEG-2 TS over UDP, RTMP, TSRTSP, MPTS and TS File
Features	<ul style="list-style-type: none"> <li>• Low Latency</li> <li>• Fully controllable parameters; resolution, max bitrate, GOP and on the fly bitrate control</li> <li>• Real time genlock, and streaming of up to four 4K cameras</li> <li>• Neural net accelerator engine for video analytics</li> <li>• FPGA on video path</li> </ul>

### Specifications

Module Size	77 x 77 mm (2.28 x 2.28 in)
Application Board Size	193 x 116 mm (5.59 x 2.99 in)
Board Weight	151g
Power Supply	19V/3.42A
Power Consumption	TBD

\*\*Available in 1Q2020

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

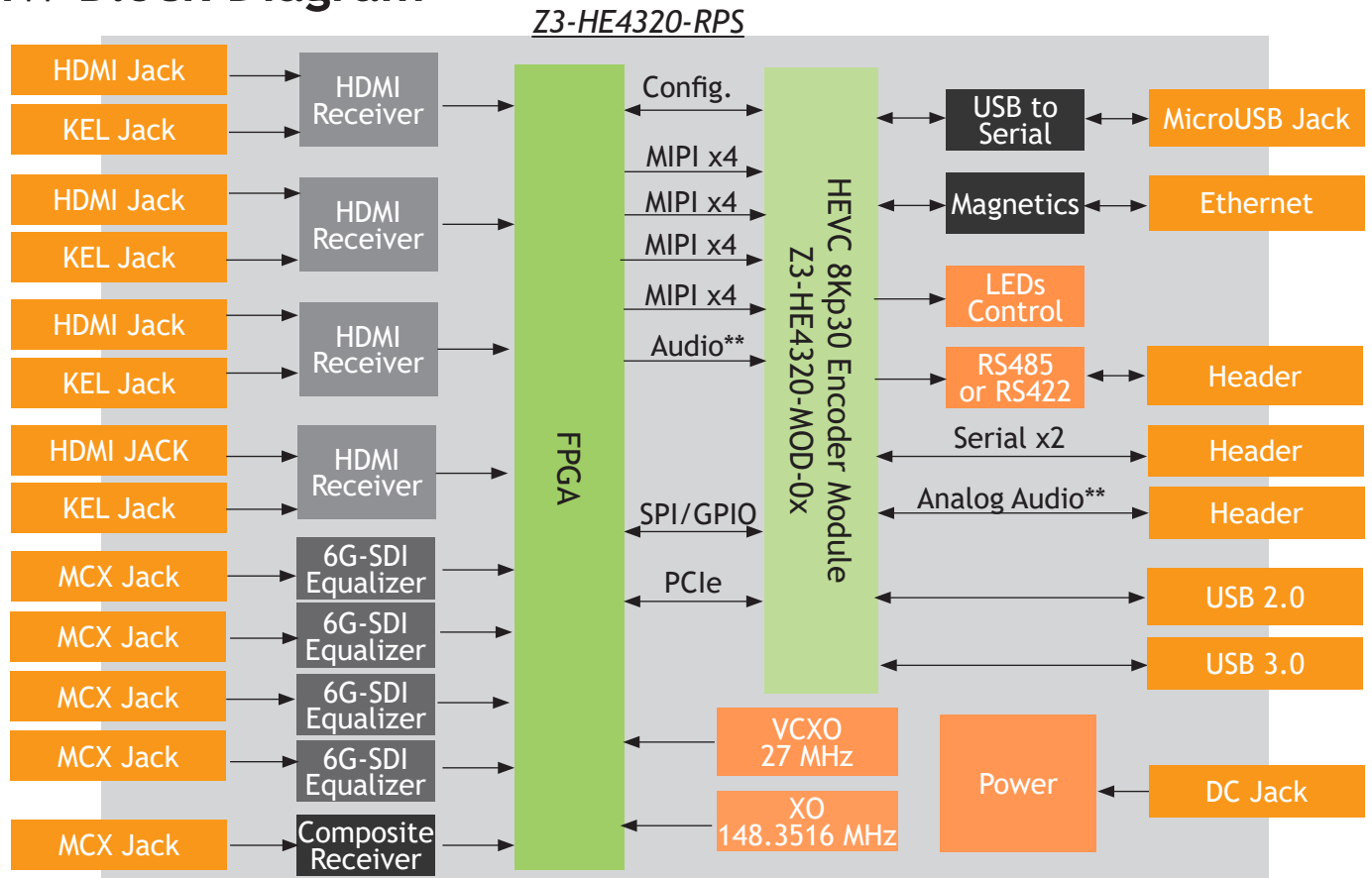
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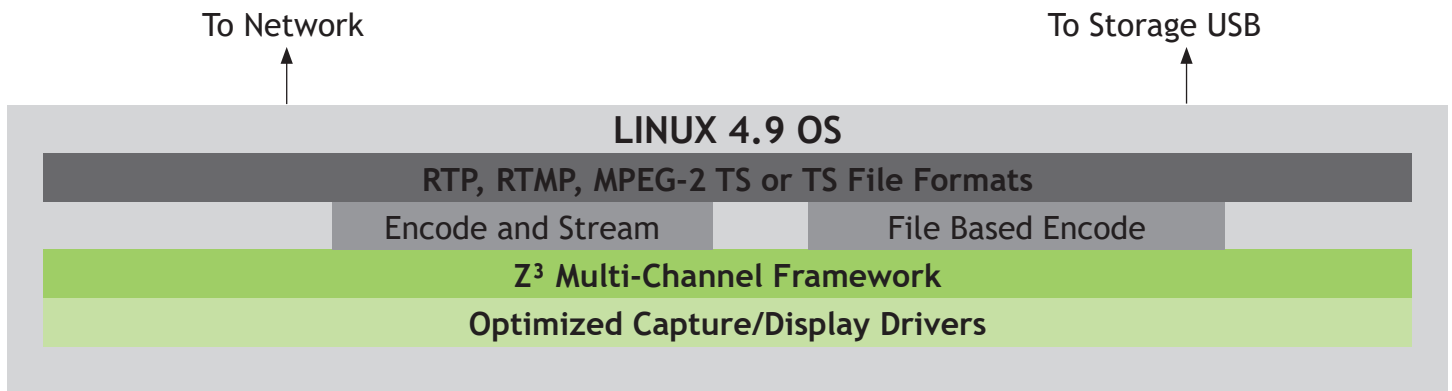
# HW Block Diagram

# Z3-HE4320-RPS



# SW Block Diagram

\*\*Available in 2Q2020



**\*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.

