Z³ Technology®

CAMERA SOLUTIONS

H.265/H.264 Encoder OEM Kits
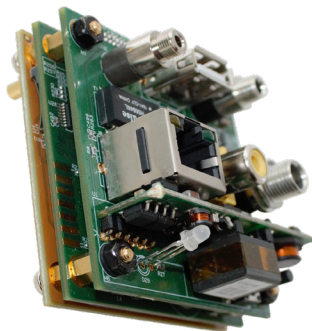
EXPAND YOUR REACH

Z3's Camera Solutions bring you the latest video compression technology to solve the dilemma of high quality video requiring too much bandwidth. Never before has integrating H.265 video in resolutions up to 4K been so simple and cost-effective.

Our camera solutions provide the highest quality image at the lowest bandwidth, latency and power. These robust systems bring together video encoding, integrated remote camera configuration and control, while supporting multiple input formats including LVDS, Composite, SDI and HDMI.

Video with this clarity is a perfect fit for UGV, UAV, inspection, remote monitoring, security and surveillance, video conferencing and more. Upgrade to H.265 and expand your reach with Z3's Camera Solutions.

Lightweight   Full-Feature

H.265
H.264

H.265/H.264 Encoded Video

Choose to output highly efficient H.265 compressed video or industry standard H.264 video.

Display Features

Resize your video into lower resolutions while maintaining full field of view. View multiple cameras with PIP display.

ONVIF® | ST

ONVIF Profile S & T Compliant

ONVIF® Profile S adds additional remote camera control options and easy integration into existing surveillance infrastructures.
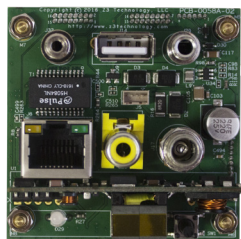
Remote Camera Control

Our Camera Solutions feature remote control via VMS, webserver, SSH or API. PTZ via RS-485 and integrated control/configuration support for cameras including Sony VISCA®, DRS, FLIR® and others over the IP network.

HE4K-DCK-1x
Compact 4K Camera Dock

- Natively integrates with FCB-ER8300/8530/8550 and ES8230 Sony 4K Block Cameras
- Pass VISCA™ Camera Control Commands over IP
- Integrates with ultra low-light Sony UMC-S3CA camera via Micro HDMI Input
- Low Bandwidth, Low Latency Video Encoding
- Simultaneous encode of H.265 and H.264

ONVIF® | **S** **T**

Technical

Interfaces	Video from Sony 4K block cameras via KEL ribbon cable[1], GigE, USB 2.0, Audio Input, RS-232, RS-485, Composite Output, Micro HDMI Input
Video Codecs	H.265, H.264 and MJPEG
Encoding Resolutions	4K UHD & HD up to 30 fps (2160p, 1080p, 720p & lower)
Output Formats	RTP, RTSP, MPEG-2 TS, RTMP and TS File
Features	• Pass Visca™ Camera Control Commands over IP • Easy-to-Use HTTP/HTTPS web GUI with live video preview • ONVIF® Profile S and T • Simultaneous Stream and Record to SD Card or USB • PoE • Overlay of GPS or NTP Data • Pelco D PTZ Support • Absolute PTZ Positioning • Optional Chassis for Camera and Encoder Board • Compatible with HE265-DEC decoder

Specifications

Encoder Board Size	58 x 58 x 13mm (2.28 x 2.28 x 0.51in)
Weight	87.9 g (3.10 oz)
Temperature	-5°C to 70°C[+]
Power Consumption	4.5W typical (not including camera)

Ordering Options

HE4K-DCK-1x
OEM Production Set
HE4K-DCK-1x Encoder Boards and Documentation

HE4K-DCK-RPS
OEM Starter Kit
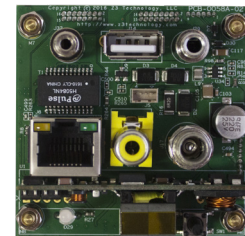*HE4K-DCK-1x Encoder Boards, KEL Ribbon Cable, Power Supply, Software SDK and Documentation*

[1]*KEL ribbon cable sold separately*

[+]*Assumes proper thermal design is implemented to dissipate heat adequately to support the temperature rating*

HE2K-DCK-1x
Compact HD Camera Dock

- Natively integrates with FCB-EV7520(A), R10 and QX30 Sony Block Cameras
- Pass VISCA™ Camera Control Commands over IP
- High Quality Efficient H.265 Video Encoding
- Low Bandwidth, Low Latency Video Encoding
- Simultaneous encode of H.265 and H.264

ONVIF® | **S** **T**

Technical

Interfaces	Video from Sony FCB-EV7520(A) block camera via KEL ribbon cable[1], GigE, USB 2.0, Audio Input, RS-232, RS-485, Micro-HDMI Passthrough, Composite Output
Video Codecs	H.265, H.264 and MJPEG
Encoding Resolutions	60, 59.94, 50, 30, 29.97, 25 @1080p and 720p
Output Formats	RTP, RTSP, MPEG-2 TS, RTMP and TS File
Features	• Pass VISCA™ Camera Control Commands over IP • Easy-to-Use HTTP/HTTPS web GUI with live video preview • ONVIF® Profile S and T • Simultaneous Stream and Record • PoE • Overlay of GPS or NTP Data • Pelco D PTZ Support • Absolute PTZ Positioning • Optional Chassis for Camera and Encoder Board • Compatible with ZEUS® decoders

Specifications

Encoder Board Size	58 x 58 x 13mm (2.28 x 2.28 x 0.51in)
Weight	93 g (3.28 oz)
Temperature	-5°C to 70°C[+]
Power Consumption	4.5W typical (not including camera)

Ordering Options

HE2K-DCK-1x
OEM Production Set
HE2K-DCK-1x Encoder Boards and Documentation

HE2K-DCK-RPS
OEM Starter Kit
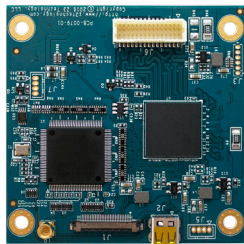*HE2K-DCK-1x Encoder Boards, KEL Ribbon Cable, Power Supply, Software SDK and Documentation*

[1]*KEL ribbon cable sold separately*

[+]*Assumes proper thermal design is implemented to dissipate heat adequately to support the temperature rating*

FV4K-DCK-1x
Dual Camera 4K Video Encoder

- H.265/H.264 Dual Camera Video Streaming
- Interfaces with Sony 4K Block and Thermal Cameras
- High Quality Low Latency Encoding Pass Camera Control Commands over IP

ONVIF® S T

Technical

Interfaces

Visible Camera Formats	Sony FCB-ER8300/8530/8550 via KEL ribbon cable[1] and Micro HDMI
Thermal Camera Formats	FLIR® Tau®2 (digital), DRS Tamarisk (digital), LVDS, Composite
Recording	USB or Micro SD
Additional Interfaces	GigE, Audio Input, RS-485, Composite Output, Serial

Video Codecs	H.265, H.264 and MJPEG
Encoding Resolutions	4Kp30, 1080p (up to 60fps), 720p, NTSC/PAL, VGA, CIF and QVGA
Output Formats	RTP, RTSP, MPEG-2 TS, RTMP and TS File
Features	• Low Latency, Low Power • Ability to Resize 4Kp30 Input • Output two independent encoded streams or Picture-in-Picture stream • Pass Camera Control Commands over IP • PoE • Easy-to-Use HTTP/HTTPS web server • ONVIF® Profile S and T • Compatible with HE265-DEC and other ZEUS® decoders

Specifications

Encoder Board Size	58 x 58 x 13mm (2.28 x 2.28 x 0.51in)
Weight	92 g (3.25 oz)
Temperature	-5°C to 70°C[+]
Power Consumption	4.5W typical (not including camera)

Ordering Options

FV4K-DCK-1x
OEM Production Set
FV4K-DCK-1x Encoder Boards and Documentation

FV4K-DCK-RPS
OEM Starter Kit
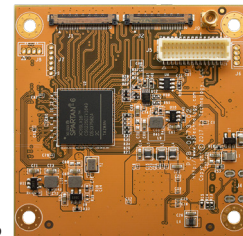*FV4K-DCK-1x Encoder Boards, KEL Ribbon Cable, Power Supply, Software SDK, Serial Cable and Documentation*

[1]*KEL ribbon cable sold separately*

[+]*Assumes proper thermal design is implemented to dissipate heat adequately to support the temperature rating*

FV2K-DCK-1x
Dual Camera Full HD Video Encoder

- H.265/H.264 Dual Camera Video Streaming
- Interfaces with Sony FCB-EV7520(A) and Thermal Cameras
- Supports Two HD Visible Cameras or HD Visible and Thermal Camera Combination
- High Quality Low Latency Encoding Pass Camera Control Commands over IP

ONVIF® S T

Technical

Interfaces

Visible Camera Formats	Sony FCB-EV7520(A) via KEL ribbon cable[1], LVDS, Composite
Thermal Camera Formats	FLIR® Tau®2 (digital), DRS Tamarisk (digital), LVDS, Composite
Recording	USB or Micro SD
Additional Interfaces	GigE, Audio Input, RS-485, Micro-HDMI Output, Composite Output, Serial

Video Codecs	H.265, H.264 and MJPEG
Encoding Resolutions	1080p (up to 60fps), 720p, NTSC/PAL, VGA, CIF and QVGA
Output Formats	RTP, RTSP, MPEG-2 TS, RTMP and TS File
Features	• Low Latency, Low Power • Ability to Resize HD Camera Input • Output two independent encoded streams or Picture-in-Picture stream • Pass Camera Control Commands over IP • PoE • Easy-to-Use HTTP/HTTPS web server • ONVIF® Profile S and T • Compatible with ZEUS® decoders

Specifications

Encoder Board Size	58 x 58 x 13mm (2.28 x 2.28 x 0.51in)
Weight	89 g (3.14 oz)
Temperature	-5°C to 70°C[+]
Power Consumption	4.5W typical (not including camera)

Ordering Options

FV2K-DCK-1x
OEM Production Set
FV2K-DCK-1x Encoder Boards and Documentation

FV2K-DCK-RPS
OEM Starter Kit
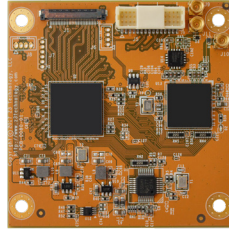*FV2K-DCK-1x Encoder Boards, KEL Ribbon Cable, Power Supply, Software SDK and Documentation*

[1]*KEL ribbon cable sold separately*

[+]*Assumes proper thermal design is implemented to dissipate heat adequately to support the temperature rating*

FSDI-DCK-1x
Full HD Dual Camera SDI Encoder

- H.265/H.264 Dual Camera Video Streaming
- Interfaces with Sony EV7520(A), SDI and Thermal Cameras
- Supports Two Visible/Thermal Cameras or HD Visible and Thermal Camera Combination
- High Quality Low Latency Encoding Pass Camera Control Commands over IP

ONVIF® | S T

Technical

Interfaces

Visible Camera Formats	3G-SDI, Sony FCB-EV7520(A) via KEL ribbon cable[1], LVDS, Composite (x2)
Thermal Camera Formats	FLIR® Tau®2 (digital), DRS Tamarisk (digital), LVDS, Composite
Recording	USB or Micro SD
Additional Interfaces	GigE, Audio Input, RS-485, Composite Output, 3G-SDI Passthrough, Serial
Video Codecs	H.265, H.264 and MJPEG
Encoding Resolutions	1080p (up to 60fps), 1080i, 720p, NTSC/PAL, VGA, CIF and QVGA
Output Formats	RTP, RTSP, MPEG-2 TS and RTMP
Features	• Low Latency, Low Power • SDI camera input with simultaneous stream and real-time passthrough of SDI output • Output two independent encoded streams or Picture-in-Picture stream • Pass Camera Control Commands over IP • PoE • Easy-to-Use HTTP/HTTPS web server • ONVIF® Profile S and T • Compatible with ZEUS® decoders

Specifications

Encoder Board Size	58 x 58 x 13mm (2.28 x 2.28 x 0.51in)
Weight	87.9 g (3.10 oz)
Temperature	-5°C to 70°C[+]
Power Consumption	4.5W typical (not including camera)

Ordering Options

FSDI-DCK-1x
OEM Production Set
FSDI-DCK-1x Encoder Boards and Documentation

FSDI-DCK-1x-RPS
OEM Starter Kit
FSDI-DCK-1x Encoder Boards, Power Supply, Software SDK, Documentation, Serial Cable, MMCX to BNC Cable

[1]*KEL ribbon cable sold separately*

CIB-FT2-02
FLIR® Tau®2 Digital LVDS Output Board

- Attaches to the FLIR® Tau2® Camera Body
- LVDS Digital Video Output
- NTSC/PAL Analog Video Output
- FlexIO™ connector with power, video and control for direct connection to Z3's FV2K, FV4K, FSDI dual camera encoders
- USB 2.0 for power & configuration

Specifications

Encoder Board Size	38 x 38 mm (1.50 x 1.50 in)
Weight	8 g (0.28 oz)
Ordering Options	**CIB-FT2-02** *Camera interface board for the FLIR® Tau®2[*]*

CIB-BOS-01
FLIR® Boson™ Digital LVDS Output Board

- Attaches to the FLIR® Boson™ Camera Body
- LVDS Digital Video Output
- NTSC/PAL Analog Video Output
- FlexIO™ connector with power, video and control for direct connection to Z3's FV2K, FV4K, FSDI dual camera encoders

Specifications

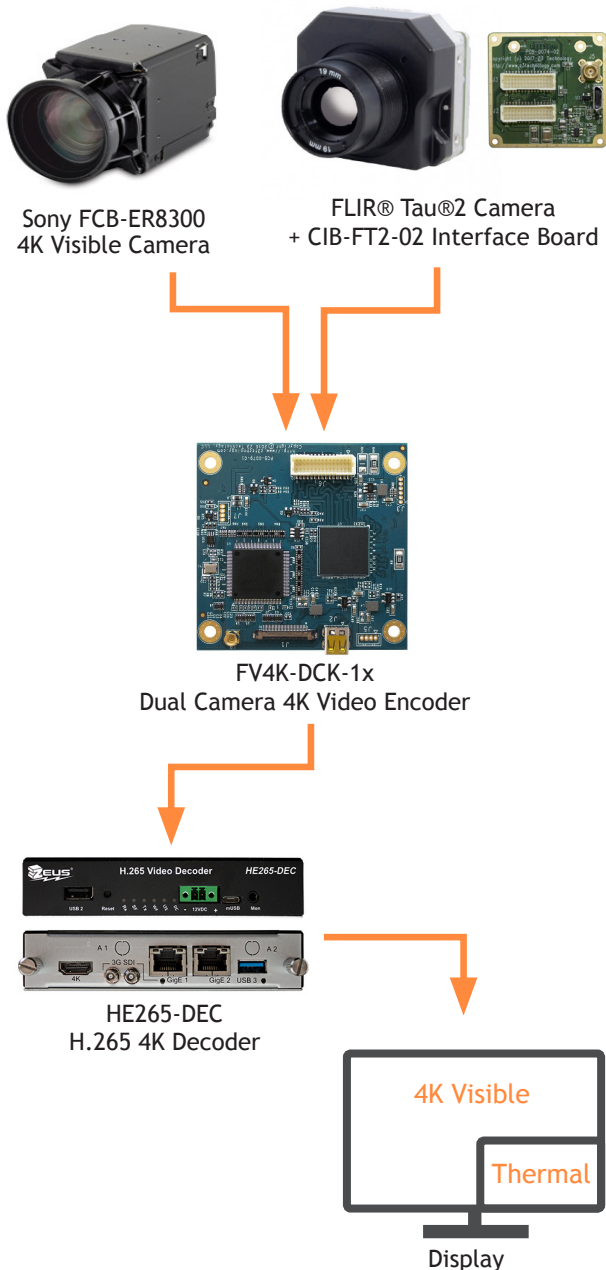|	
Encoder Board Size	21 x 13 x 26 mm (0.83 x 0.51 x 1.02 in)
Weight	2.83g (0.1oz)
Ordering Options	**CIB-BOS-01** *Camera interface board for the FLIR® Boson™**

[*]*FLIR® Tau2 and Boson cameras sold separately*

[+]*Assumes proper thermal design is implemented to dissipate heat adequately to support the temperature rating*

USE CASE

The diagram below demonstrates an example of our cameras in action. Video is being supplied by the Sony FCB-ER8300 4K visible camera and a FLIR® Tau®2 Camera connected to our CIB-FT2-02 Interface board. The FV4K-DCK-1x is encoding the video and sending it over IP to be decoded and displayed on a TV.

Sony FCB-ER8300
4K Visible Camera

FLIR® Tau®2 Camera
+ CIB-FT2-02 Interface Board

FV4K-DCK-1x
Dual Camera 4K Video Encoder

HE265-DEC
H.265 4K Decoder

4K Visible

Thermal

Display

CAMERA SOLUTIONS MATRIX

	HE4K-DCK-1x	HE2K-DCK-1x	FV2K-DCK-1x	FV4K-DCK-1x	FSDI-DCK-1x
	Compact 4K Camera Dock	Compact HD Camera Dock	Dual Camera HD Encoder	Dual Camera Full 4K Encoder	Dual Camera SDI Encoder
Sony EV7520(A)		1	2		1
Sony ER8300/85xx	1			1	
Analog NTSC/PAL			Yes	Yes	Yes
FLIR Tau 2 Analog			Yes	Yes	Yes
FLIR Tau 2 Digital			Yes with additional interface board option	Yes with additional interface board option	Yes with additional interface board option
FLIR Boson Digital			Yes with additional interface board option	Yes with additional interface board option	Yes with additional interface board option
DRS Tamerisk Digital			Yes	Yes	Yes
Thermal Analog Video			Yes	Yes	Yes
Thermal Digital Video			Yes, multiple formats supported with additional interface board option	Yes, multiple formats supported with additional interface board option	Yes, multiple formats supported with additional interface board option
HDMI Input	1			1	
3G-SDI Input					Yes
SDI Loop Out					Yes
HDMI Output		Yes	Yes		

DISTRIBUTORS

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Israel

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Website: www.gs-tech.co.il

ABOUT Z3

Z^3 Technology is an industry-leading, USA-based manufacturer of production-ready embedded multimedia solutions and IP camera 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 product requirements. With the assistance of our robust worldwide distribution and sales networks, we can provide a simple solution for your multimedia needs.

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