



INTERNATIONAL



SPIDER OFF
2MB/JPEG



SPIDER ON
1MB/JPEG

SPIDER

GIZMO INTERNATIONAL PRODUCT INFORMATION



SPIDER OFF
3MB/JPEG



SPIDER ON
1MB/JPEG

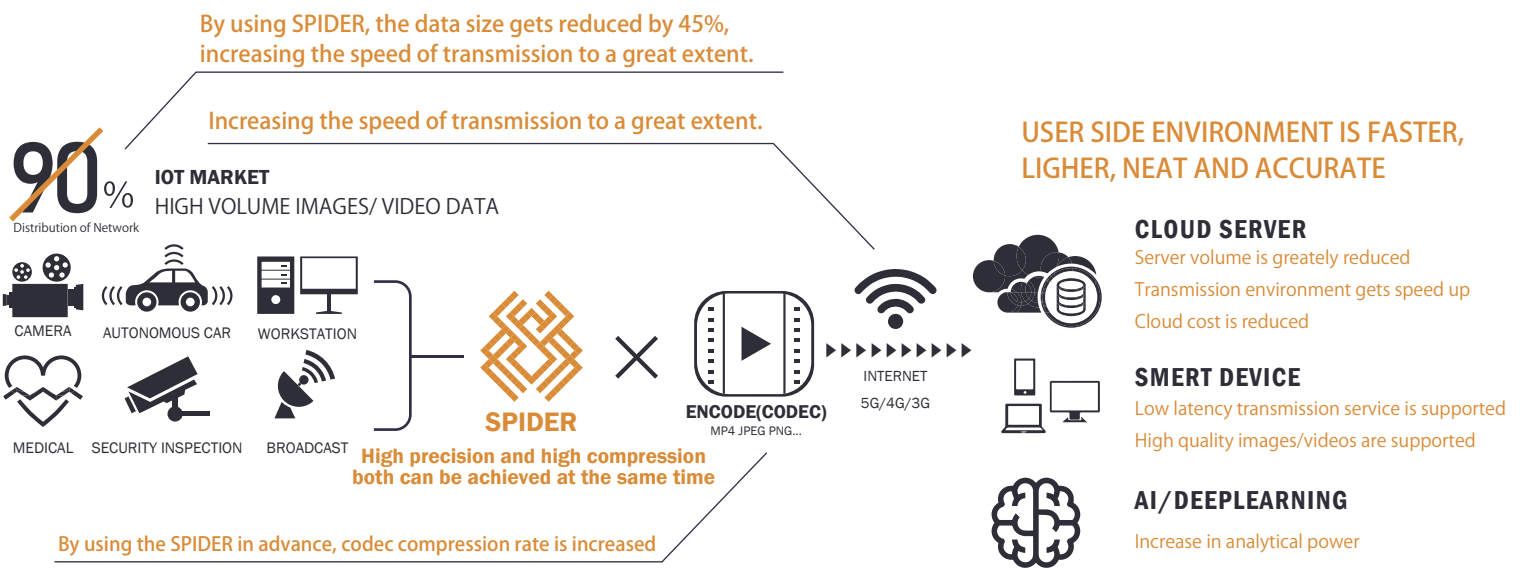
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SPIDER

SPIDER is a technology that increases the quality of images/videos, reduces their size while controlling image/video degradation even when they are processed with reduced bit rate. This can be achieved even for processing images/videos of 4k/60FPS encoding. By using SPIDER, data compression of less than 50% is achieved by maintaining high quality, hence, its perfect for applications such as IOT/OTT, image/video transmission and analysis. For some codecs, it preserves the resolution even in case of reduced bit rate of less than 50%. We have also achieved results with new codecs like H265, VP9, proving that it could also work with latest technologies.

It addresses infrastructural issues arising from increasing traffic and data transmission from IOT applications by speeding up data transfer and also helps reduce transmission costs.



50%
Data reduction of 50% or more

WHEN USING SAME CODEC, DATA RATE OF 50% CAN BE ACHIEVED

SPIDER, has close affinity with the encoding technology. It is possible to achieve low bit rate of more than 50%, by using special algorithm for same codec. We have also achieved results with new codecs like H265, VP9, proving that it could also work with latest technologies. We are already catering to real time 4K, VR quality videos and HD, SD quality image archives.

2倍
Transmission speed of more than 2 times

WE HAVE ACHIEVED SPEED UP FOR CDN OR SEND/RECEIVE TRANSMISSION

Since, data size reduction can be achieved for existing encoders, performance of existing internet traffic can be improved. Because of this optimization, we can also address the issues faced by image/video processing of IOT/OTT applications. SPIDER technology can also be used in AI or deep learning technology to increase the responsiveness or speed of data analysis.

4K 60fps
LIVE
Real Time Processing

REDUCTION IN LEARNING COST AND INCREASE IN DATA TRANSMISSION SPEED TRANSMISSION

Using SPIDER, content rate is decreased to half, which can help reduce already purchased server cost or data transmission cost. For big servers, data size can be reduced to a great extent and Edge server transmission speed and sending system performance can be improved.

4K SPIDER

NEXT GENERATION UPSCALE TECHNOLOGY

高精彩化
+
圧縮劣化抑止

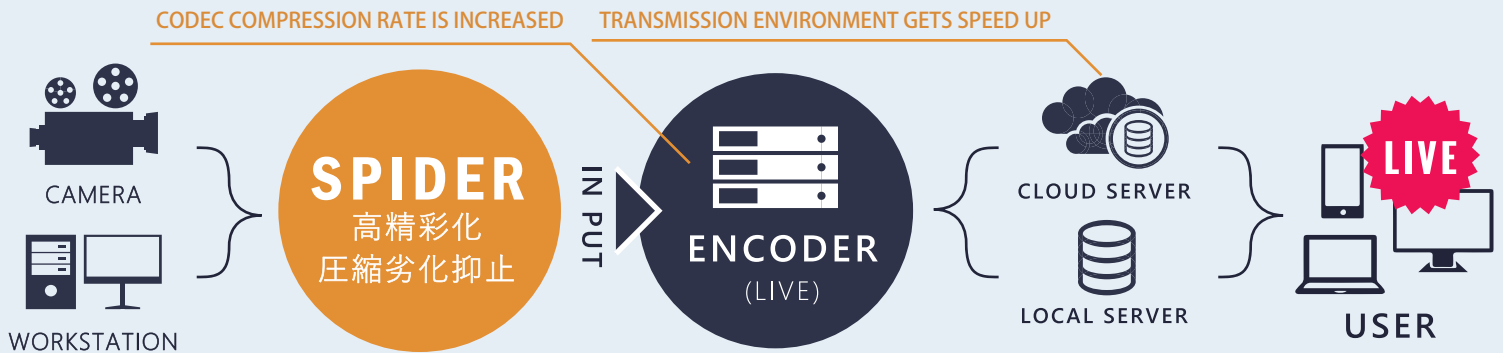
データ圧縮

SPIDERにより両立が可能

SPIDER4K, is essentially a SPIDER technology created to process HD content etc, having high features for video processing. Since, the high features for processing 4K videos/images can be used for upscaling and down sizing both, it is perfect for transmission and broadcasting industry as well as it can be used for content archives.

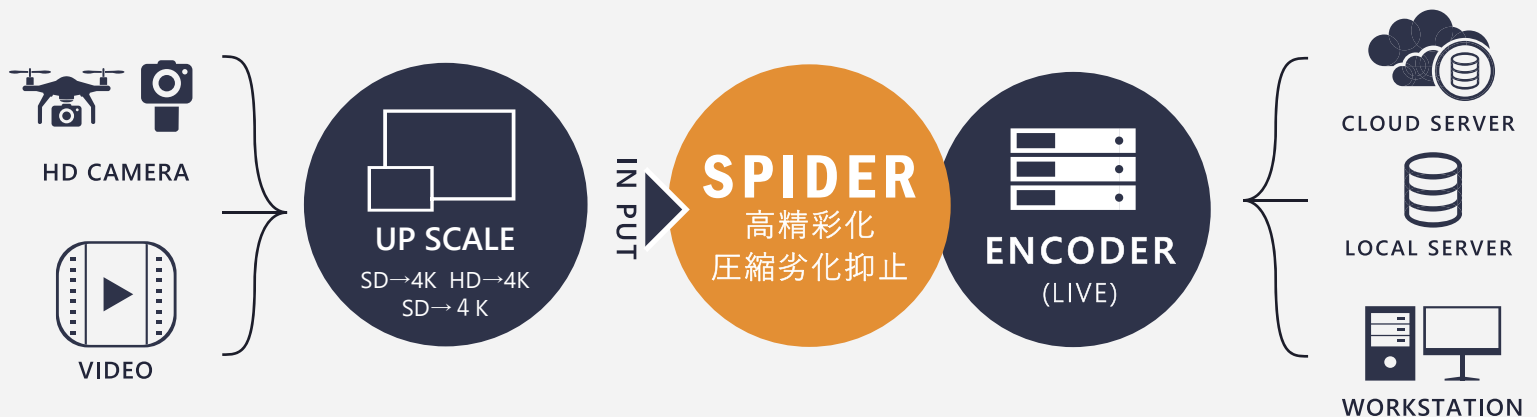
SPIDER+ENCODE

- Codec compression rate is increased due to preventing image degradation.
- It can be used on content with existing encoding and combination of existing workflow.
- Along with increasing the quality of encoding, it also improves the quality of existing network.



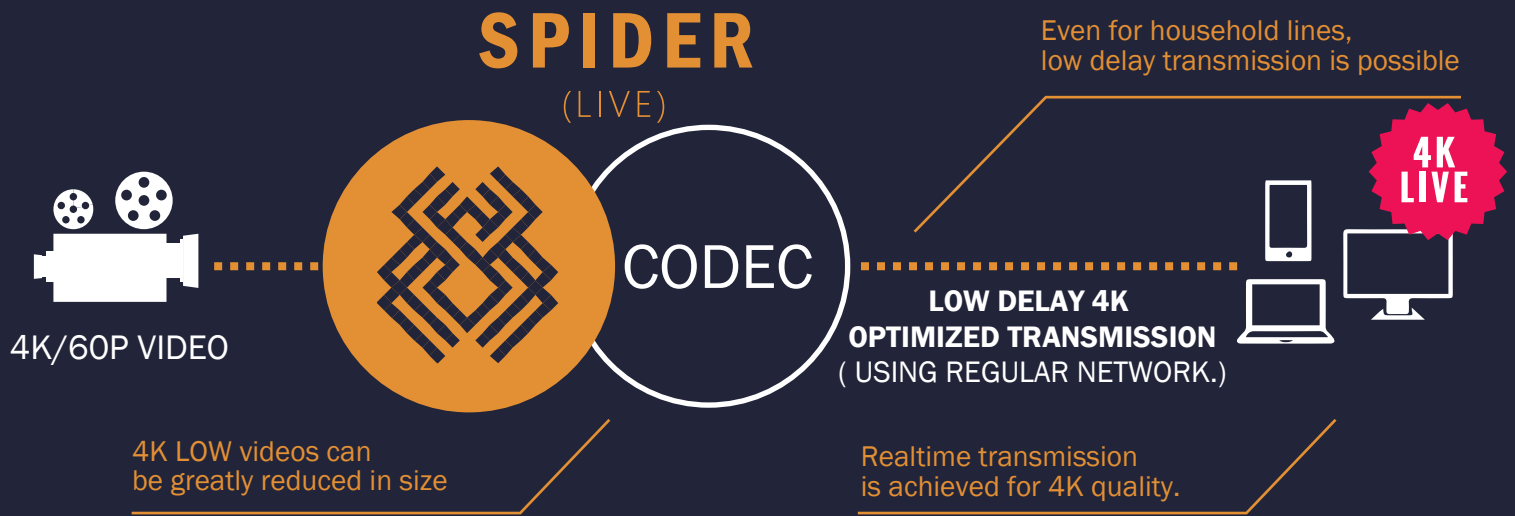
SPIDER+UPSCARE+WORKFLOW

- When converting from HD to 4K, it greatly reduces the degradation problems like fading and data loss.
- For resolutions below HD, image/video quality can be increased to a great extent to 4K.
- For HD Content, the transmission/broadcasting 4K conversion can be done in real time.



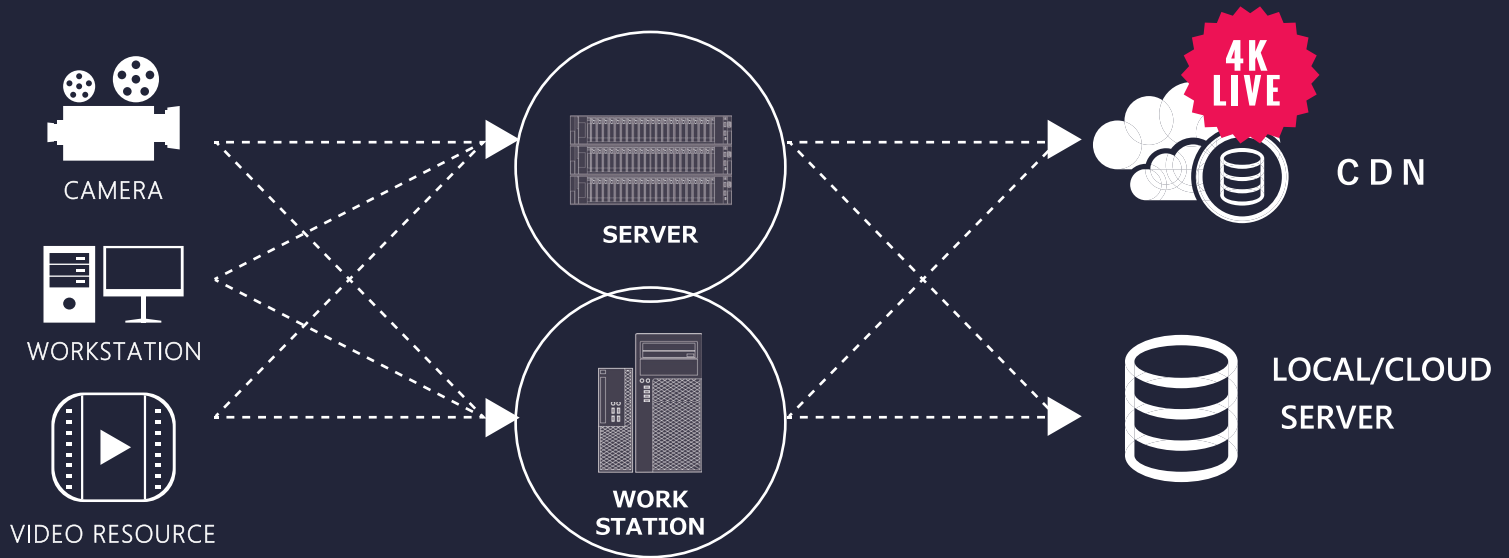
SPIDER 4K LIVE TRANSMISSING

Low rate, low delay 4K optimized transmission can be done using regular network.



WORK FLOW

Since it can be added into existing workflow, it helps optimize existing work or helps increase performance of a service.



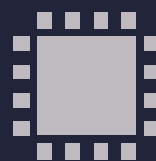
BROADCAST VOD



CLOUD CDN



SECURITY INSPECTION



DIVICE



MEDICAL

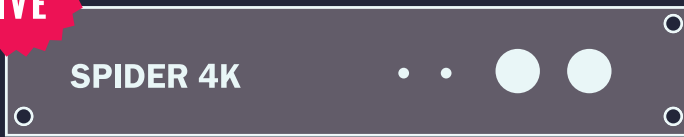


VR

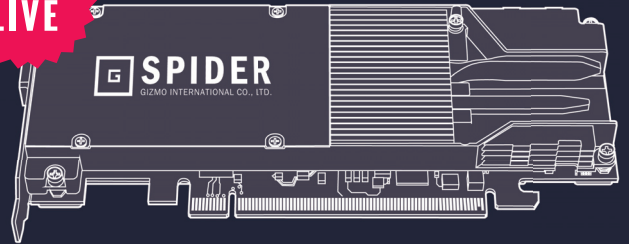
SPIDER EDGE

Using SPIDER PAC SOLUTION, it can be used along with existing workflow.

4K
LIVE

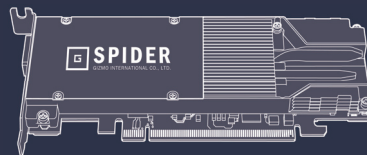
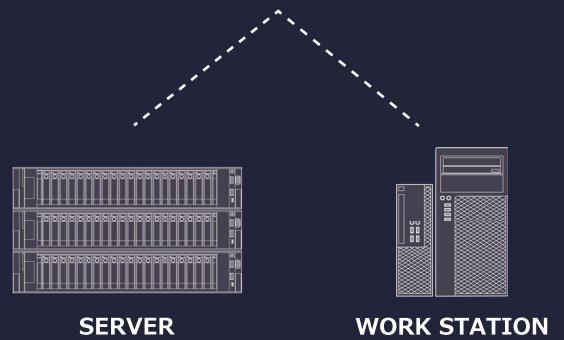
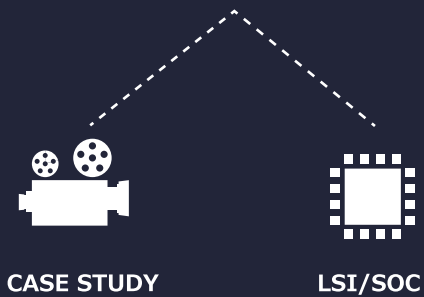


4K
LIVE

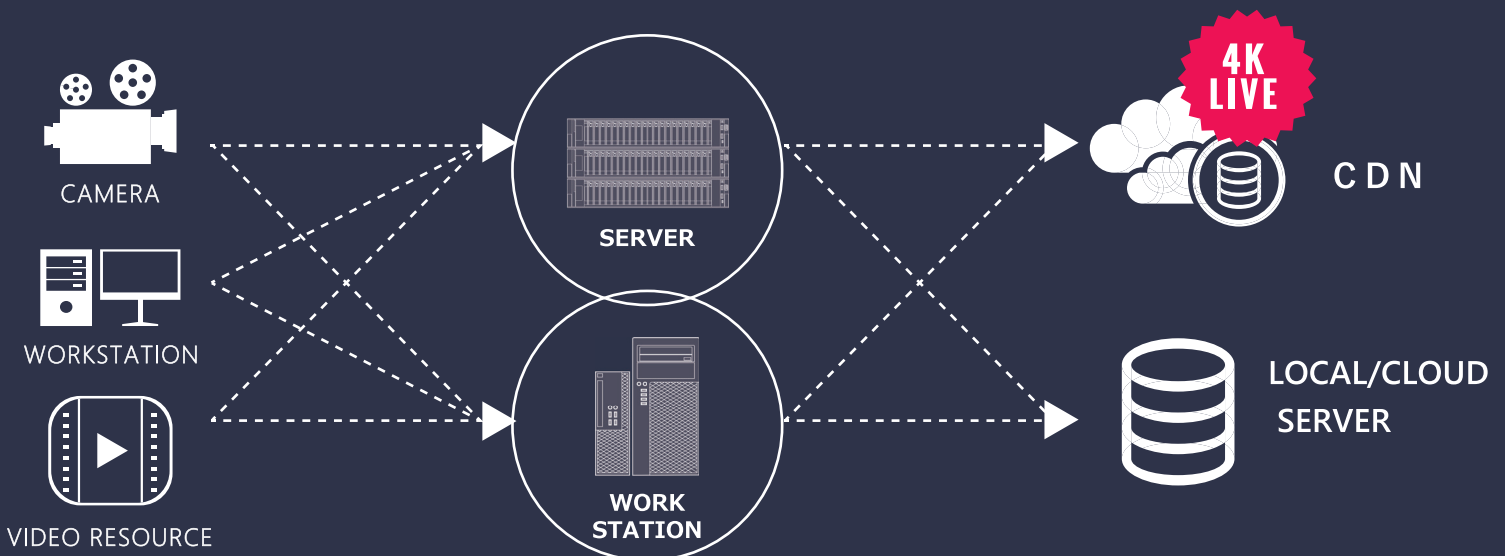


SPIDER BOX

SPIDER ACCELERATION CARD



Using Intel FPGA acceleration, it can be used on multiple files simultaneously.

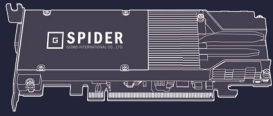


インテル®FPGA アクセラレーションを用いた
SPIDER ソリューションワークフロー

SPIDER EDGE FAMILY

ACCELERATION

SPIDER CAN BE USED BY EMBEDDING IN EXISTING SERVER OR WORKSTATION.



- Process ability: Processing can be done on videos till 4K60P.
- Setting for high precision and degradation prevention can be done at the SDK level simultaneously.
- Supported by license model.

SERVER

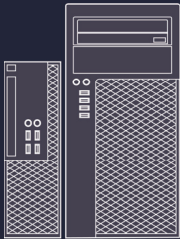
BY EMBEDDING IN EXISTING SERVER, IT CAN BE USED IN LIVE TRANSMISSION OR FILE BASED PROCESS.



- Processing capacity: 1-8 (Max processing ability, 192h/day)
- 4K/60P realtime transmission.
- 4K/60P file base processing.

WORKSTATION

BY EMBEDDING IN WORKSTATION, IT CAN BE USED IN LIVE TRANSMISSION OR FILE BASED PROCESS.



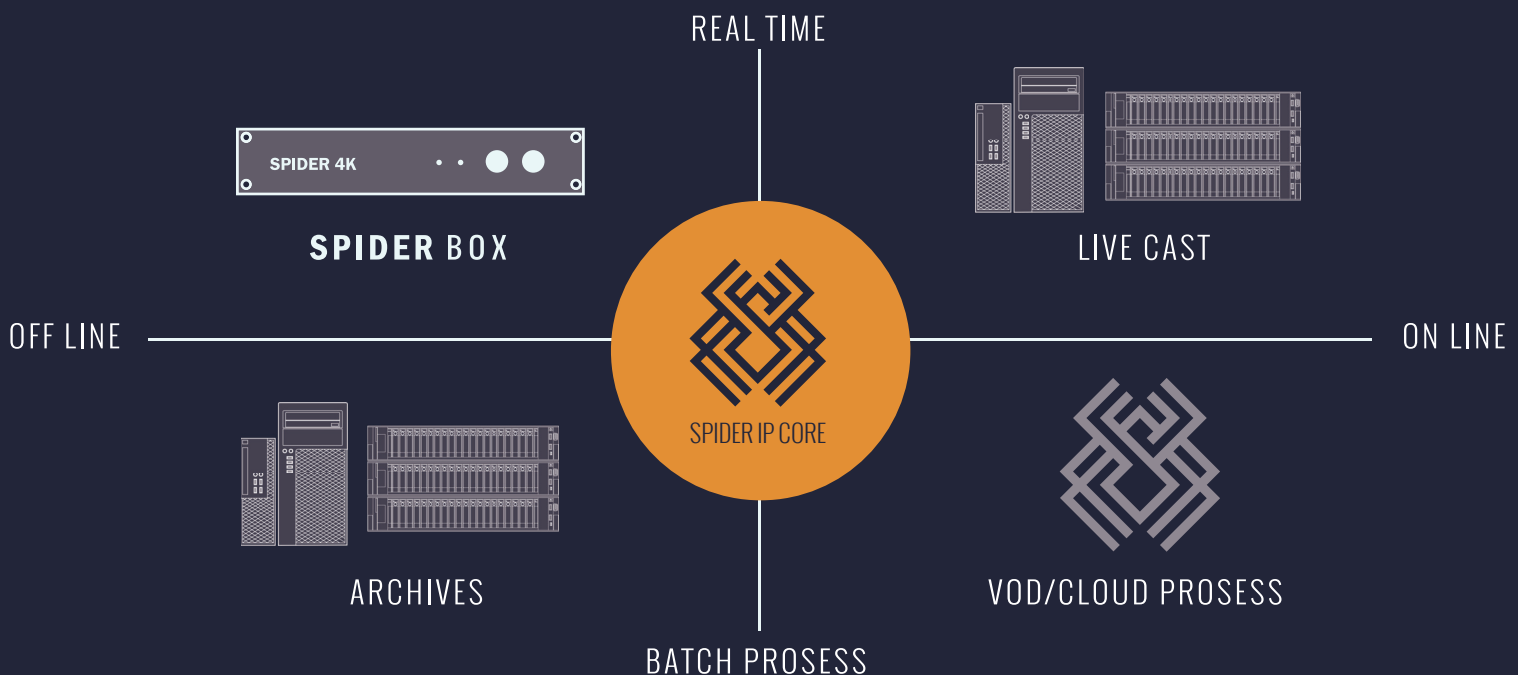
- Processing capacity: 1-2 (Max processing ability, 48h/day)
- 4K/60P realtime transmission.
- 4k/60P file base processing.



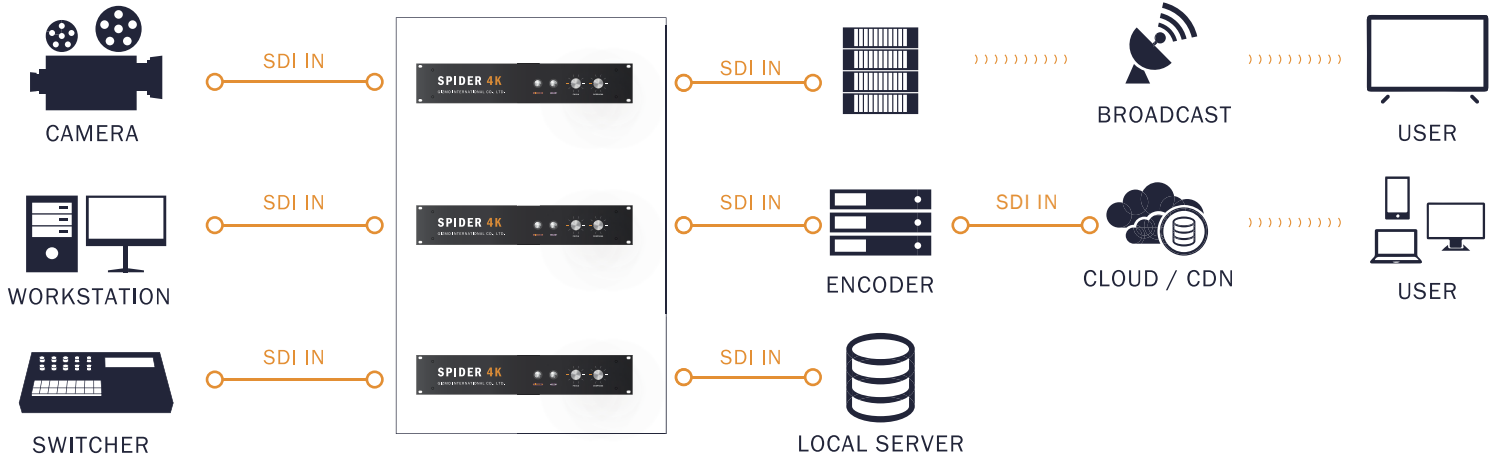
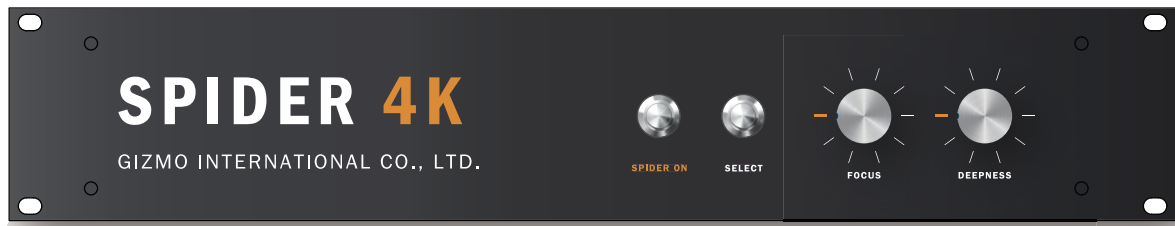
API/CLOUD

BY INCREASING THE QUALITY OF TRANSCODING, CDN ENVIRONMENT CAN BE MADE HIGHLY RESPONSIVE.

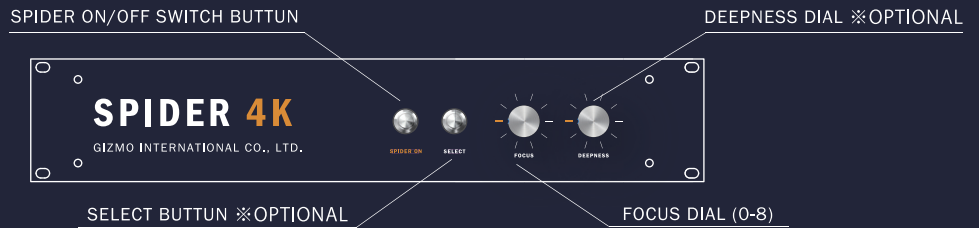
- Service performance can be increased to a great extent, and video quality and delays get improved.
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SPIDER BOX



SPIDER BOX



SPIDER Ver. SPIDER 2.0

SDI IN PUT ※1	4K Video Format 2160p29.97, 2160p59.94	HD Video Format 1080p59.94, 1080p29.97	FULL HD Video Format 1080i 50	※OPTIONAL
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SDI OUT PUT ※2	4K Video Format 2160p29.97, 2160p59.94	HD Video Format 1080p59.94, 1080p29.97	FULL HD Video Format 1080i 50	※OPTIONAL
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Optional IN PUT/ OUT PUT

4K Video Format
2160p23.98, 2160p24, 2160p25, 2160p30, 2160p50, 2160p60
HD Video Format
720p50, 720p59.94, 720p60,
1080p23.98, 1080p24, 1080p25, 1080p30, 1080p50, 1080p60, 1080p23.98, 1080p24, 1080p25,
1080p29.97, 1080p30, 1080i50, 1080i59.94, 1080i60

Custom Correspondence

Supports Video Format, HDMI input/output, Ethernet input/output, PCI Express plug-in, Equipment installation customization

Interface SDI12G ※3

Optional Encoding Encoding from uncompressed data h.264, h.265, VP9 etc ※4

Gizmo International Co., Ltd.

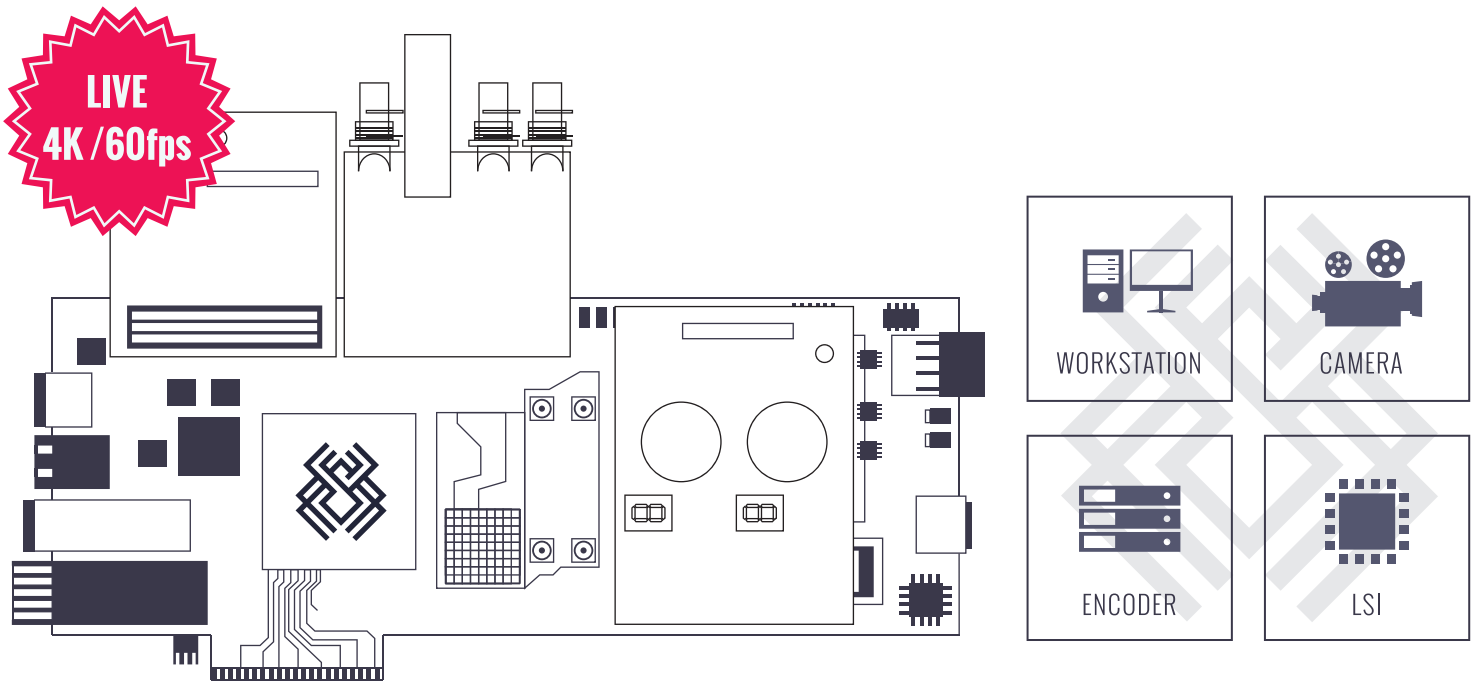
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SPIDER Evaluation Board

Customers who wish to use SPIDER can apply for various product types / applications by applying to the license program.

If you want to incorporate it into verification and workflow, you can not only verify the effectiveness of SPIDER by installing the FPGA evaluation board, but also customize the device according to the usage and usage of the customer. By combining with existing formats, EncodeIP, DecodeIP, you can feel unlimited effect.

Since the license program is supposed to be incorporated not only in hardware but also in software and customer's products, flexible licensing is enabled.



Evaluation Board Technical Specification

SDI IN PUT ^{※1}
 4K Video Format
 2160p29.97, 2160p59.94
 HD Video Format
 1080p59.94, 1080p29.97

SDI OUT PUT ^{※2}
 4K Video Format
 2160p29.97, 2160p59.94
 HD Video Format
 1080p59.94, 1080p29.97

Optional IN PUT/ OUT PUT
 4K Video Format
 2160p23.98, 2160p24, 2160p25, 2160p30, 2160p50, 2160p60
 HD Video Format
 720p50, 720p59.94, 720p60,
 1080p23.98, 1080p24, 1080p25, 1080p30, 1080p50, 1080p60, 1080p23.98, 1080p24, 1080p25,
 1080p29.97, 1080p30, 1080i50, 1080i59.94, 1080i60

Custom Correspondence
 Supports Video Format, HDMI input/output, Ethernetinput/output, PCI Express plug-in, Equipment installation customization

Interface
 SDI12G ^{※3}

Optional Encoding
 Encording from uncompressed data h.264,h.265,VP9 etc ^{※4}