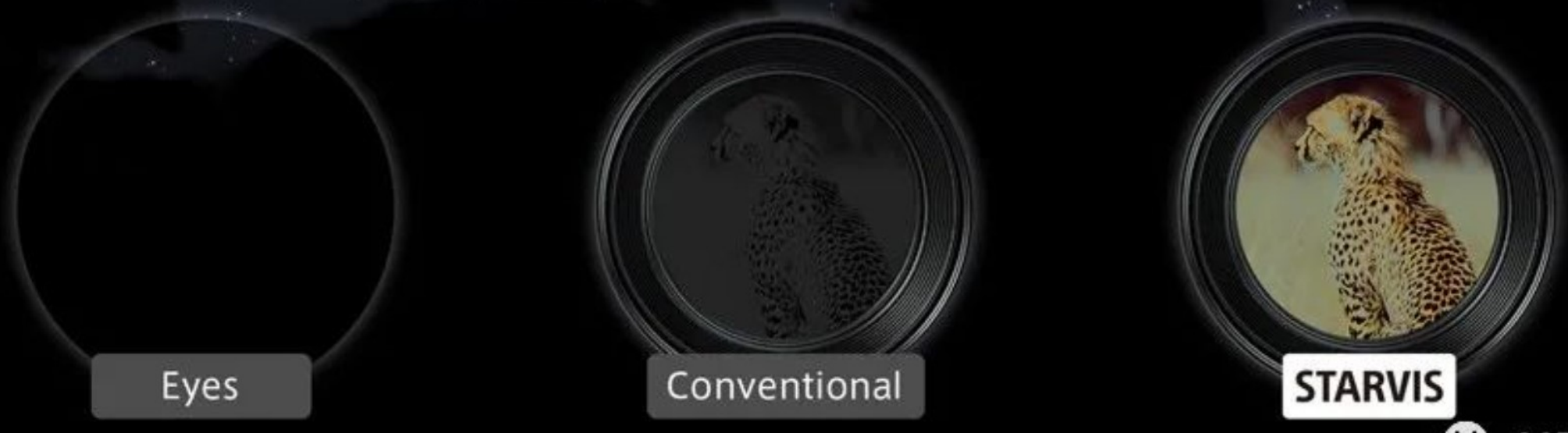
Starlight Night Vision Full Color Smart IP Camera

STARVIS Outstanding Visibility under the Starlight

The STARVIS is back-illuminated pixel technology used in CMOS image sensors for surveillance camera applications. It features a sensitivity of 2000 mV* or more per 1 μm² (color product, when imaging with a 706 cd/m² light source, F5.6 in 1s accumulation equivalent), and realizes high picture quality in the visible-light and near infrared light regions.

* 2 times of the definition of EXview HAD CCD II

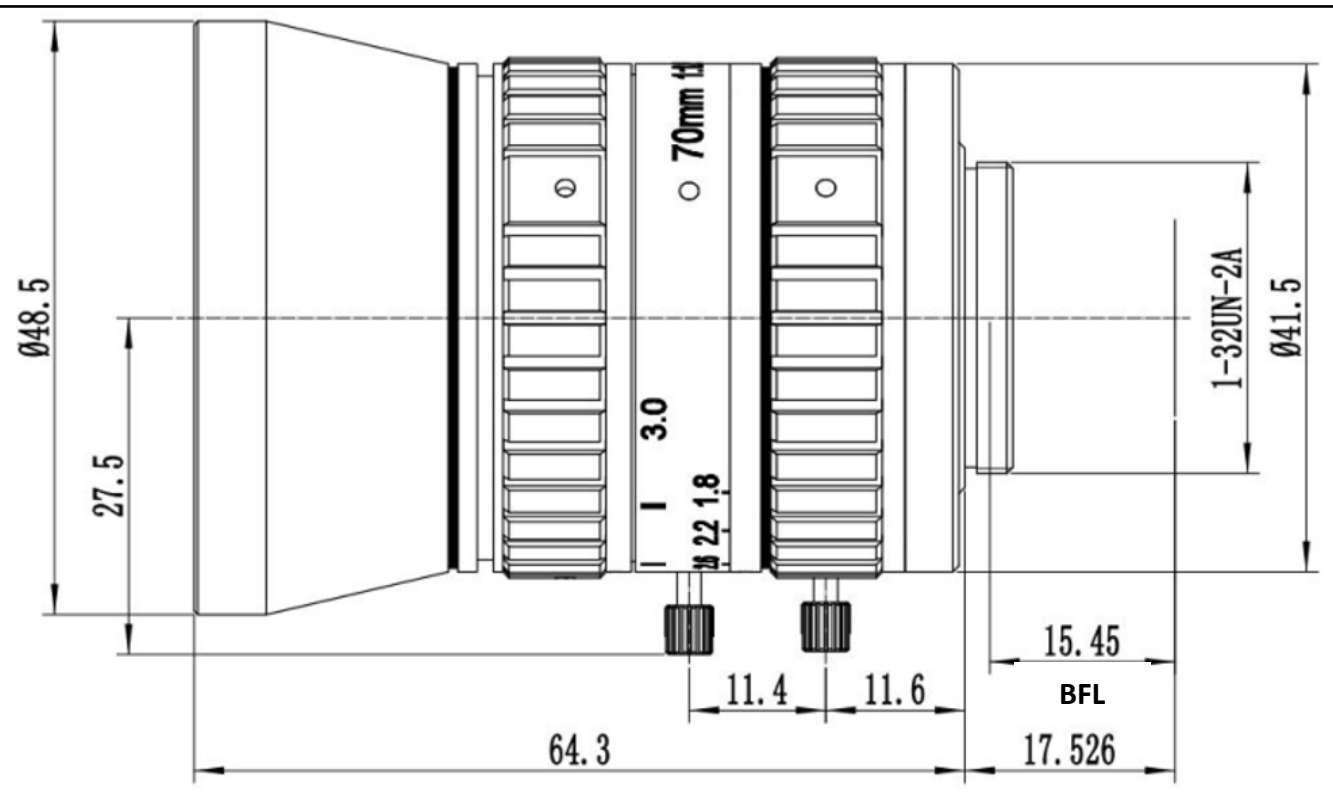


Hardware Parameters

Soc	**HI3516AV300**
Image Sensor	**SONY IMX585（Type 1/1.2 CMOS, 8.0 M Effective Pixels）**
Lens	**CS mounts, 70mm Fix Focal Length ,1-Type Image format， 8Megapiexal**
Flash and	**NAND Flash, 512MB** **RAM DDR3, 1GB**
ETH	**10/100Mbps (RJ45)**
WIFI	**2.4GHz, Support 802.11b/g/n, BL-M8189FS6(VC) Module**
Display	**HDMI1.4**
SD Card	**Support SD card to store video data, the maximum capacity is 128G**
Audio	**Support MIC input, one audio input, one audio output, HDMI audio, support dual-channel stereo**
Others Peripheral interface	**1x USB2.0** **1x UART2** **1x UART0(Debug)** **1x RS485** **1x Alarm Input and Alarm Output**
OS	**Linux-Ubuntu, Openhisilicon (http://hiview-tech.cn/)**
Power Supply	**DC12V**
Size	**14.3cm*8.0cm*5.8cm**

Resolution	8 Megapixel
Image format	1 “
Focal length	70mm
Aperture	F1.8
Mount	C
Field Angle(D x H x V)	12.8 x 10.2 x 7.7
Optical Distortion	0.13%
CRA	≤ 7.57°
M.O.D	3m
IR Correction	No
Dimension	Φ48.5 x 68.3mm
Weight	223g
Flange BFL	17.526mm
BFL	15.45mm
MBF	13.5mm
Iris	Manual
Focus	Manual
Operating temperature	-20℃ ~+60℃

Size



Size tolerance	0-10±0.05	10-30±0.10	30-120±0.20
Angle tolerance	±2°		

HIVIEW


70mm 1:1.8 1" CBM


RS232
RS485
ALARM
ALARM OUT
UART0
RX,TX
TX+,TX-
GND,IN
A,B
RX,TX
AUDIO OUT
AUDIO IN
USB2.0
HDMI OUT
SD CARD
UPDATE KEY
LAN
DC 12V

SONY IMX585

- **1/1.2-Type 4K resolution CMOS Image Sensor**

  approximately 8 times that of conventional model in a single exposure which suppresses artifacts during image capture

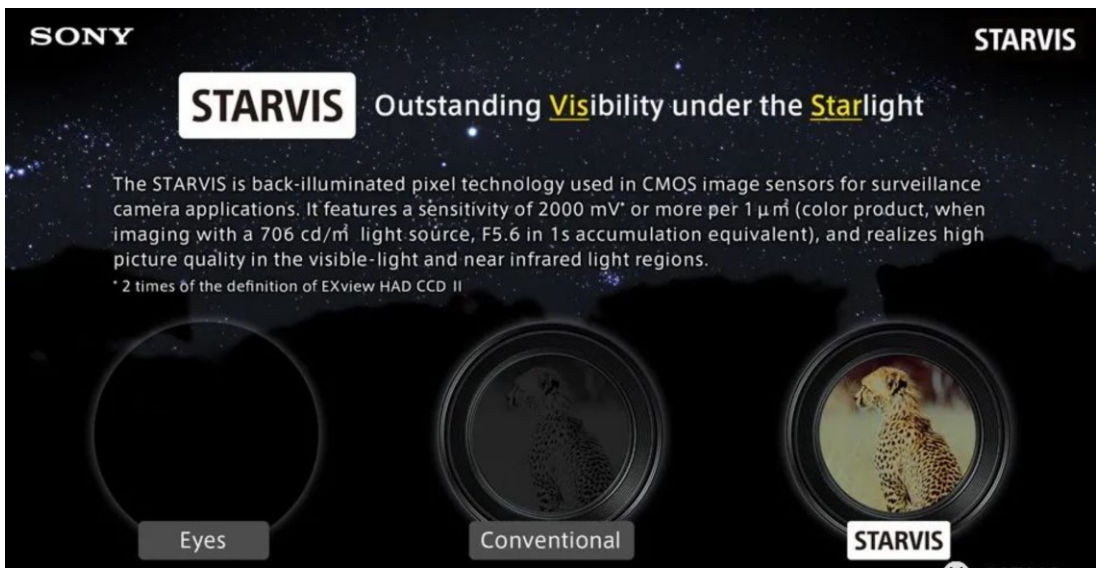
- **Sony's proprietary "STARVIS 2" technology**

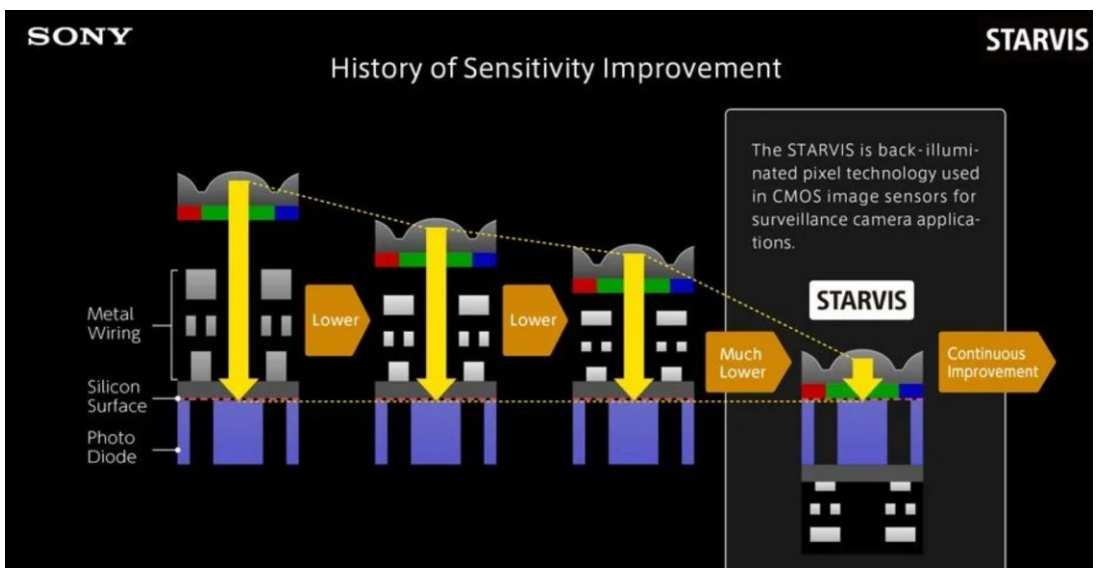
➢ **Improved sensitivity in the near infrared range**

The image sensor comes with an original device structure that employs a light incidence plane with irregularities on its surface. This design refracts incident light, thereby enhancing the absorption rate of invisible near infrared light, resulting in enhanced sensitivity approximately 1.7 times that of conventional model. As a result, the image sensor can capture high-quality images even in the near infrared range, Which is often necessary for dark scenes at night.

➢ **HDR approximately 8 times that of conventional model in a single exposure**

employs Sony's proprietary "STARVIS 2" technology, which leverages original process technology to increase the light receiving area despite pixel size limitations, thereby resulting in a higher dynamic range. This design delivers a HDR of 88 dB. It can also be used in multi-exposure mode, delivering a HDR of 106 dB. The product offers versatile usage modes for various environments, enabling high-precision monitoring.





HI3516AV300

Processor Core

- Dual-core ARM Cortex-A7@ 900 MHz, 32 KB I-cache,32 KB D-cache, 256 KB L2 cache
- Neon acceleration and integrated FPU

VEDU

- H.264 BP/MP/HP
- H.265 MP
- I-/P-frames and Smart P reference.
- MJPEG/JPEG baseline

VEDU Performance

- Up to 3840-pixel wide and 3840 x 2160 resolution for H.264/H.265 encoding and decoding. Only the decoding of self-encoded streams is supported
- Real-time multi-stream H.264/H.265 encoding and decoding:
  - 3840 x 2160@30 fps encoding +1920x1080@30fps encoding
  - 3840 x 2160@30 fps encoding +1024 x576@30 fps encoding + 640 x 360@30 fps encoding
  - 3840 x 2160@30 fps decoding
- JPGE encoding and decoding performance: 16M (4608 x 3456) @10 fps
- Five bit rate control modes (CBR, VBR, FixQp, AVBR, and QpMap)
- Up to 50 Mbit/s output bit rate
- Up to 8-ROI encoding

Smart Video Analysis

- Neural network acceleration engine with processing performance up to 1.0 TOPS
- Smart computing acceleration engine (including tracking and face image correction)

HI3516AV300

Video Interface

- VI
- 2-channel VI

Up to 3840-pixel wide and 3840 x 2160 resolution for input of the first channel

Up to 2560-pixel wide and 2560 x 1440 resolution for input of the second channel

- 8-/10-/12-/14-bit RGB Bayer DC timing VI
- BT.601, BT.656, and BT.1120 VI interfaces
- MIPI, LVDS/sub-LVDS, and HiSPi
- Compatibility with mainstream HD CMOS sensors provided by vendors such as Sony,OV, Panasonic
- Compatibility with the electrical specifications of parallel and differential interfaces of various sensors
- Programmable sensor clock output

- VO

- One BT.656/BT.1120 VO interface
- 6-/8-bit RGB serial LCD VO and 16-/18-/24-bit RGB parallel LCD VO
- 4-lane MIPI-DSI VO
- HDMI 1.4 output with a maximum resolution of 3840x2160@30fps

ISP

- 3A functions (AE, AF, and AWB), supporting third-party 3A algorithms
- FPN removal and DPC
- LSC, LDC, and purple fringing correction
- Multi-level NR (including BayerNR and 3DNR), detail enhancement, and sharpening enhancement
- Gamma correction, DCI, and color management and enhancement
- Sensor built-in WDR and 2F WDR (line-based/frame-based/DCG)
- ISP tuning tools for the PC

Audio Encoding and Decoding

- Multi-protocol audio encoding and decoding (G.711,G.726, and ADPCM) by using software
- Audio 3A functions (AEC, ANR, and ALC)

Github

https://github.com/openhisilicon/HIVIEW

master ▾ | 4 branches | 0 tags | Go to file | Code ▾

openhisilicon V7 version tag; 96385ef 17 days ago 238 commits

bin	clean /bin/xxx/* files	8 months ago
build	1, MPP/CODEC add 4K decoder support;	17 days ago
fw	fw check c++ compile error;	3 months ago
inc	add srts mod for srt-live-transmit;	5 months ago
lib	1, CODEC modify gsf_lenstype_t => gsf_lenscfg_t (support lens-type, i...	2 months ago
mod	1, MPP/CODEC add 4K decoder support;	17 days ago
res	No commit message	last month
tools	add ins.sh gen .upg file for http upgrade;	16 months ago
Makefile	add srts mod for srt-live-transmit;	5 months ago
README.TXT	V7 version tag;	17 days ago
README.md	No commit message	last month
ins.sh	add rebuild lib/exe;	10 months ago

About

Multi-process software framework for hisilicon (海思) ipc/dvr/nvr/ebox

hiview-tech.cn

hisilicon hi3518e hi3516 hi35xx hi3516ev300 hi3516dv300 hi3536 hi3516av300 hi3559v200 hi3559a hi3519a hi3531 hi3531dv200

Readme
220 stars
19 watching
101 forks

Releases

No releases published

master ▾ HIVIEW / mod /

Go to file

openhisilicon 1, MPP/CODEC add 4K decoder support; ... 6e24fd8 17 days ago History

..		
app	1, MPP/CODEC add 4K decoder support;	17 days ago
bsp	Makefile add depend on .h files;	last month
codec	1, MPP/CODEC add 4K decoder support;	17 days ago
mpp	1, MPP/CODEC add 4K decoder support;	17 days ago
onvif	Makefile add depend on .h files;	last month
rec	MOD modify MAX_FRAME_SIZE (1000*1024) support 100MBPS bitrate;	last month
rtmps	MOD modify MAX_FRAME_SIZE (1000*1024) support 100MBPS bitrate;	last month
rtsps	MOD modify MAX_FRAME_SIZE (1000*1024) support 100MBPS bitrate;	last month
sample	Makefile add depend on .h files;	last month
sips	MOD modify MAX_FRAME_SIZE (1000*1024) support 100MBPS bitrate;	last month
srts	MOD modify MAX_FRAME_SIZE (1000*1024) support 100MBPS bitrate;	last month
svp	Makefile add depend on .h files;	last month
uvc	MOD modify MAX_FRAME_SIZE (1000*1024) support 100MBPS bitrate;	last month
webs	1, MPP/CODEC add 4K decoder support;	17 days ago