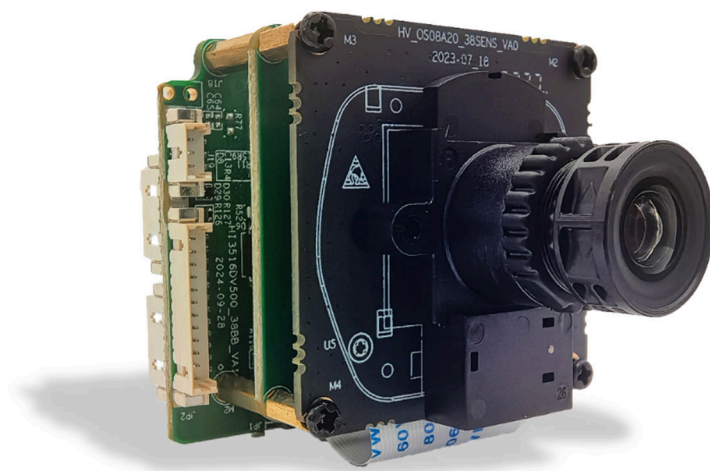**HIVIEW-TECH**
海 视 通

SHENZHEN HIVIEW SCIENCE AND TEHCNOLOGY CO., LTD
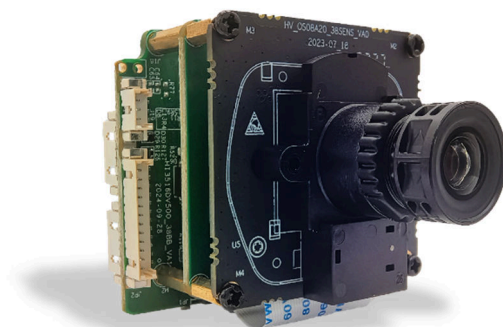

Intelligent HD Network Camera Module

Version: VA1

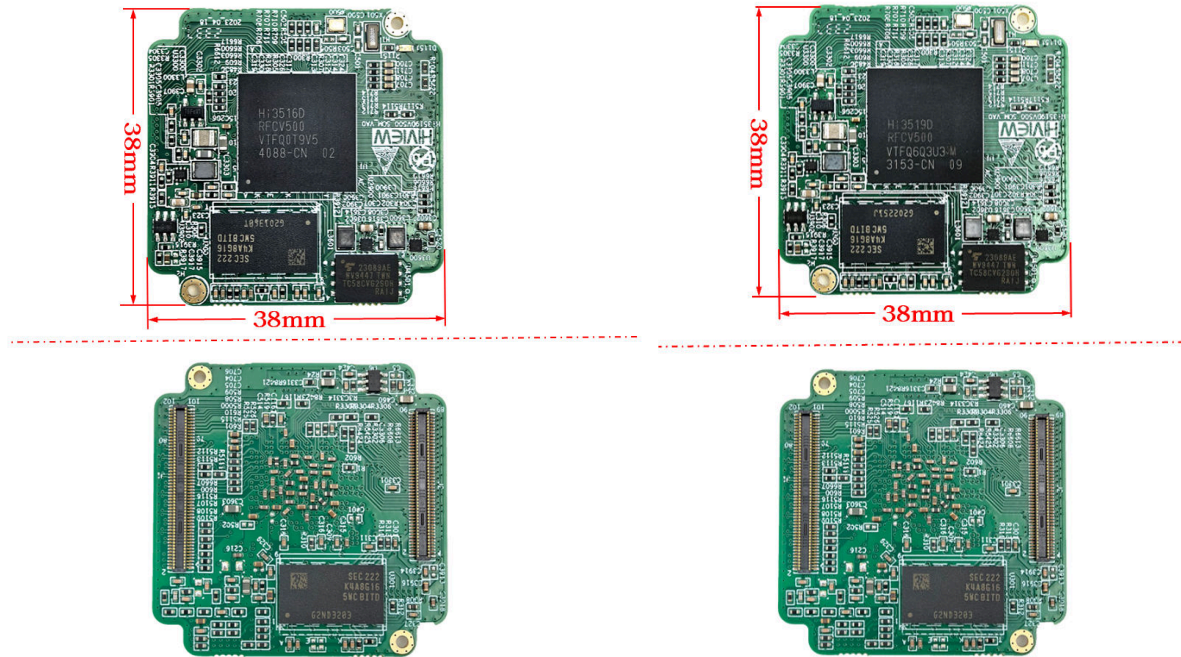Date: 2025-04-22

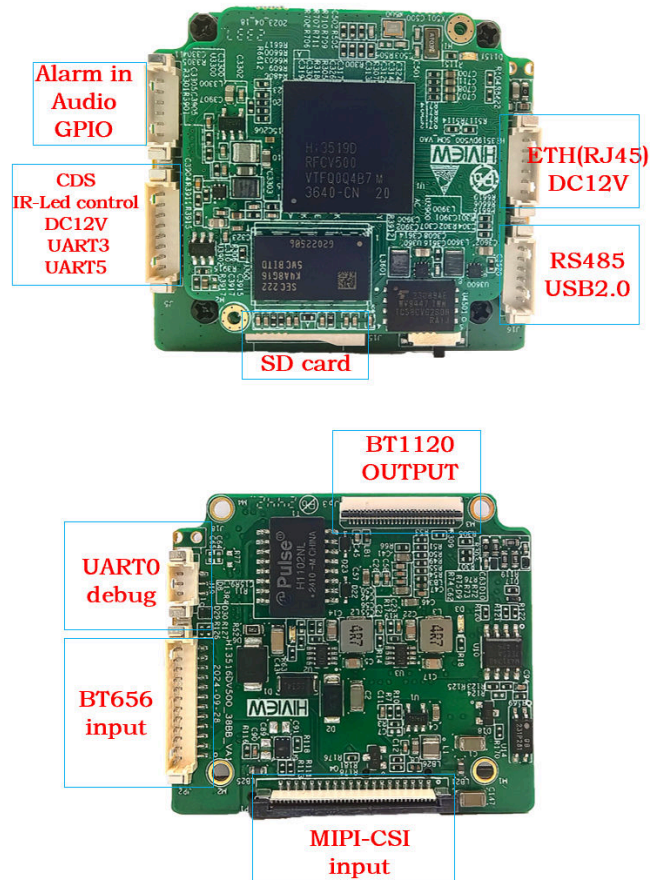Editor：Michael

1.Key Specifications：

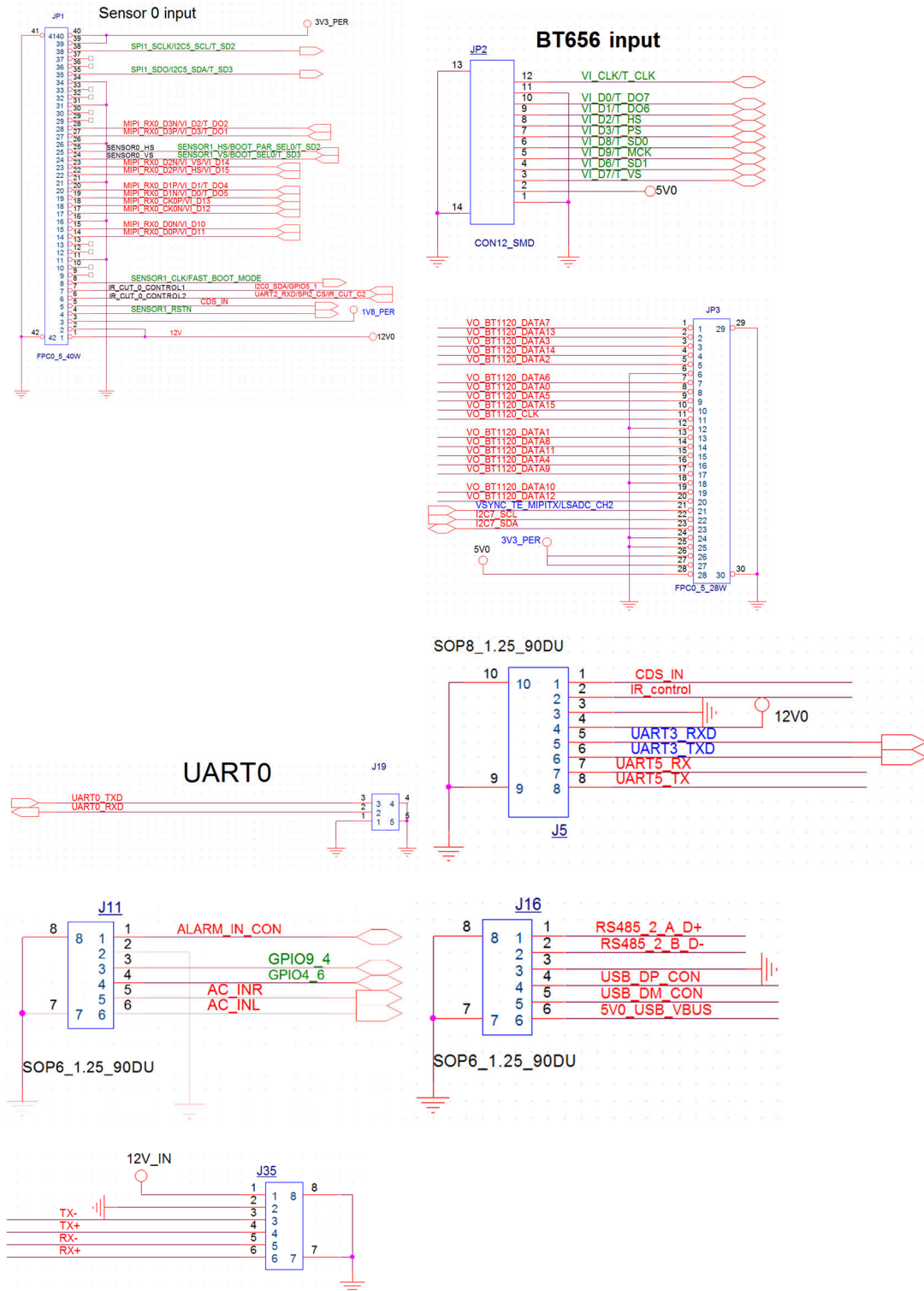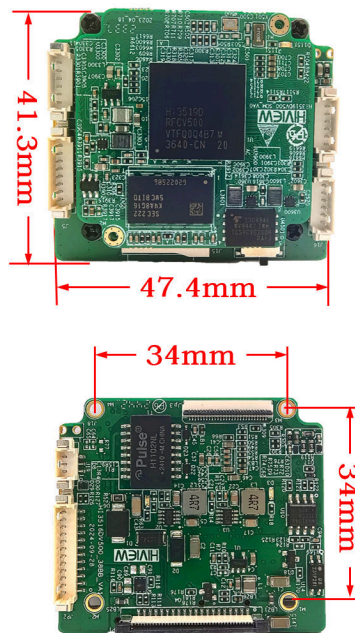| Model	HV-19MD08	HV-16MD04
SOC	HI3519DV500	HI3516DV500
Processor Core	Dual-core ARM Cortex-A55@ 1000MHz，32KB I-Cache，32KB D-Cache 256KB L3 cache. Neon acceleration and integrated FPU	Dual-core ARM Cortex-A55@ 850MHz，32KB I-Cache，32KB D-Cache 256KB L3 cache. Neon acceleration and integrated FPU
Smart Video Analysis	Neural network acceleration engine with processing performance up to 2.5 TOPS. Support yolov5, yolov8 demo	Neural network acceleration engine with processing performance up to 2.0 TOPS. Support yolov5, yolov8 demo
Sensor	OMIVISION OS08A20，1/1.8" CMOS, 8M Pixels	OMIVISION OS04A10，1/1.8" CMOS, 4M Pixels
LENS	6mm Focal Length, 1/1.8" ,8M Pixels	
Max. Resolution	4K@30fps	4M@30fps
Video Compression	H.264/H.265	
Flash and RAM	NAND Flash 512MB；RAM DDR4 2GB	
ETH	RJ45,10/100Mbps	
Network protocols	DHCP, NTP, RTSP, TCP, UDP, ARP, DNS, SRT	
Network API	ONVIF，GB28181	
SD Card	TF card holder, support storage video, maximum support 2T capacity	
Software Firmware	Linux (Ubuntu), Openhisilicon (https://github.com/openhisilicon/HIVIEW)	
POE	Optional, not configured by default	
HDMI OUTPUT	Optional, not configured by default	
AHD OUTPUT	Optional, not configured by default	
Power	DC12V	
Peripheral Interface	Alarm IN , GPIO, IR LED Control, CDS, Uart3, Uart5, RS485, USB2.0, BT656 Digital video signal input and BT1120 Digital video signal output	

2. Core Board

3. Function base Board

Alarm in
Audio
GPIO

CDS
IR-Led control
DC12V
UART3
UART5

ETH(RJ45)
DC12V

RS485
USB2.0

SD card

BT1120
OUTPUT

UART0
debug

BT656
input

MIPI-CSI
input

4. Interface Detailed Definition

Sensor 0 input (JP1 — FPC0_5_40W)

Pin	Signal
	SPI1_SCLK/I2C5_SCL/T_SD2
	SPI1_SDO/I2C5_SDA/T_SD3
	MIPI_RX0_D3N/VI_D2/T_DO2
	MIPI_RX0_D3P/VI_D3/T_DO1
	SENSOR0_HS — SENSOR1_HS/BOOT_PAR_SEL0/T_SD2
	SENSOR0_VS — SENSOR1_VS/BOOT_SEL0/T_SD3
	MIPI_RX0_D2N/VI_VS/VI_D14
	MIPI_RX0_D2P/VI_HS/VI_D15
	MIPI_RX0_D1P/VI_D1/T_DO4
	MIPI_RX0_D1N/VI_D0/T_DO5
	MIPI_RX0_CK0P/VI_D13
	MIPI_RX0_CK0N/VI_D12
	MIPI_RX0_D0N/VI_D10
	MIPI_RX0_D0P/VI_D11
	SENSOR1_CLK/FAST_BOOT_MODE
	IR_CUT_0_CONTROL1 — I2C0_SDA/GPIO5_1
	IR_CUT_0_CONTROL2 — UART2_RXD/SPI2_CS/IR_CUT_C2
	SENSOR1_RSTN — CDS_IN
	12V

BT656 input (JP2 — CON12_SMD)

Pin	Signal
12	VI_CLK/T_CLK
10	VI_D0/T_DO7
9	VI_D1/T_DO6
8	VI_D2/T_HS
7	VI_D3/T_PS
6	VI_D8/T_SD0
5	VI_D9/T_MCK
4	VI_D6/T_SD1
3	VI_D7/T_VS
2	5V0

(JP3 — FPC0_5_28W)

Pin	Signal
1	VO_BT1120_DATA7
2	VO_BT1120_DATA13
3	VO_BT1120_DATA3
4	VO_BT1120_DATA14
5	VO_BT1120_DATA2
7	VO_BT1120_DATA6
8	VO_BT1120_DATA0
9	VO_BT1120_DATA5
10	VO_BT1120_DATA15
11	VO_BT1120_CLK
14	VO_BT1120_DATA1
15	VO_BT1120_DATA8
16	VO_BT1120_DATA11
17	VO_BT1120_DATA4
18	VO_BT1120_DATA9
20	VO_BT1120_DATA10
21	VO_BT1120_DATA12
22	VSYNC_TE_MIPITX/LSADC_CH2
23	I2C7_SCL
	I2C7_SDA
	5V0 / 3V3_PER

UART0 (J19)

Pin	Signal
3	UART0_TXD
2	UART0_RXD
1	

J5 (SOP8_1.25_90DU)

Pin	Signal
1	CDS_IN
2	IR_control
3	
4	12V0
5	UART3_RXD
6	UART3_TXD
7	UART5_RX
8	UART5_TX

J11 (SOP6_1.25_90DU)

Pin	Signal
1	ALARM_IN_CON
2	
3	GPIO9_4
4	GPIO4_6
5	AC_INR
6	AC_INL

J16 (SOP6_1.25_90DU)

Pin	Signal
1	RS485_2_A_D+
2	RS485_2_B_D-
3	
4	USB_DP_CON
5	USB_DM_CON
6	5V0_USB_VBUS

J35

Pin	Signal
1	12V_IN
3	TX-
4	TX+
5	RX-
6	RX+

5. Board Size

unit：mm

6. IE video preview

Default IP Adress：http://192.168.0.2
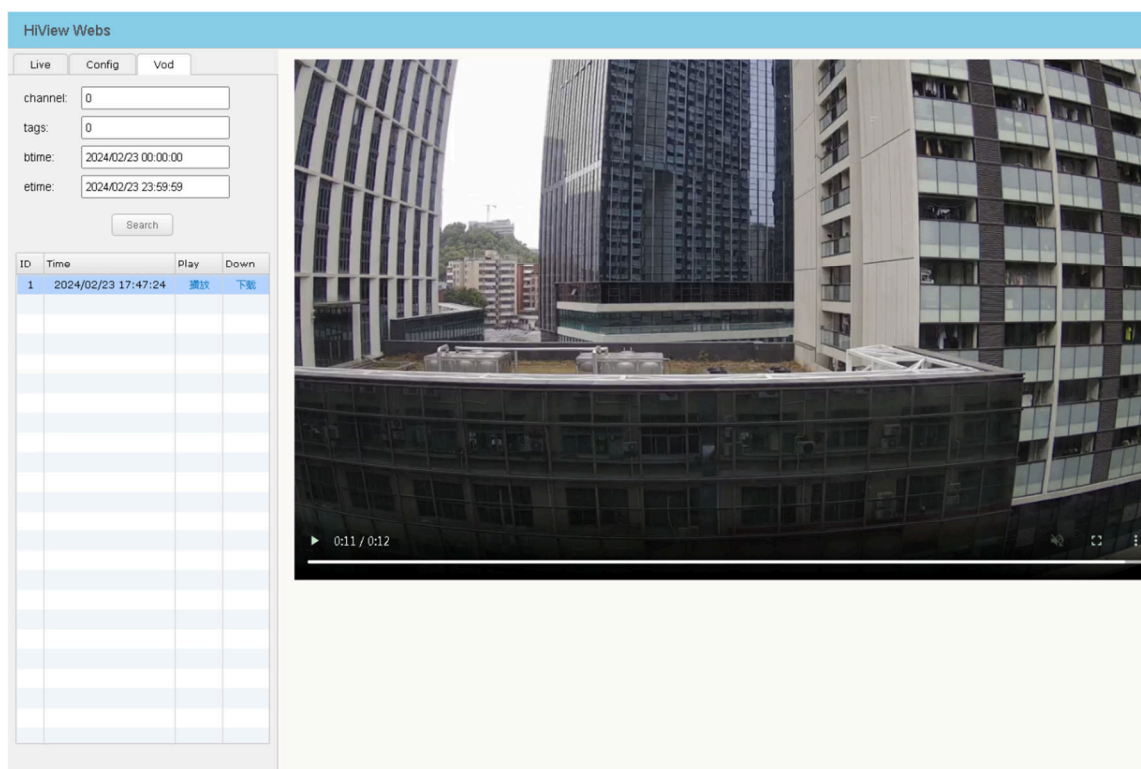
1). Video Preview Window
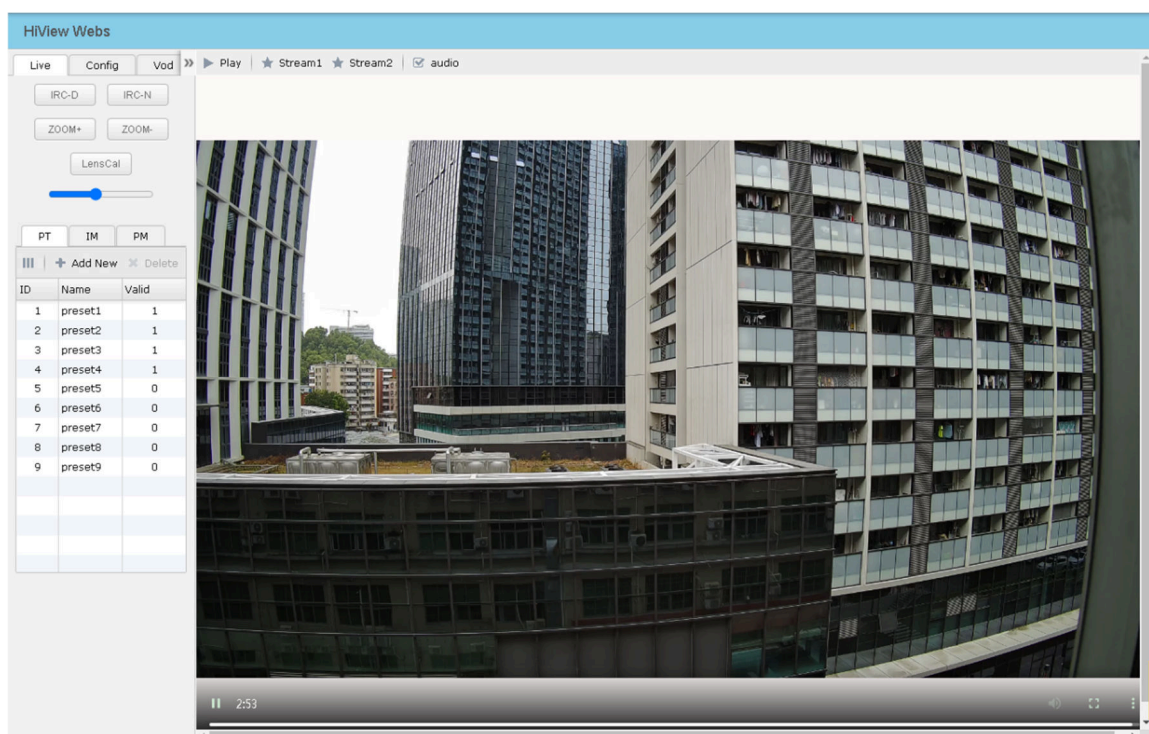
2). Parameter Configuration Window
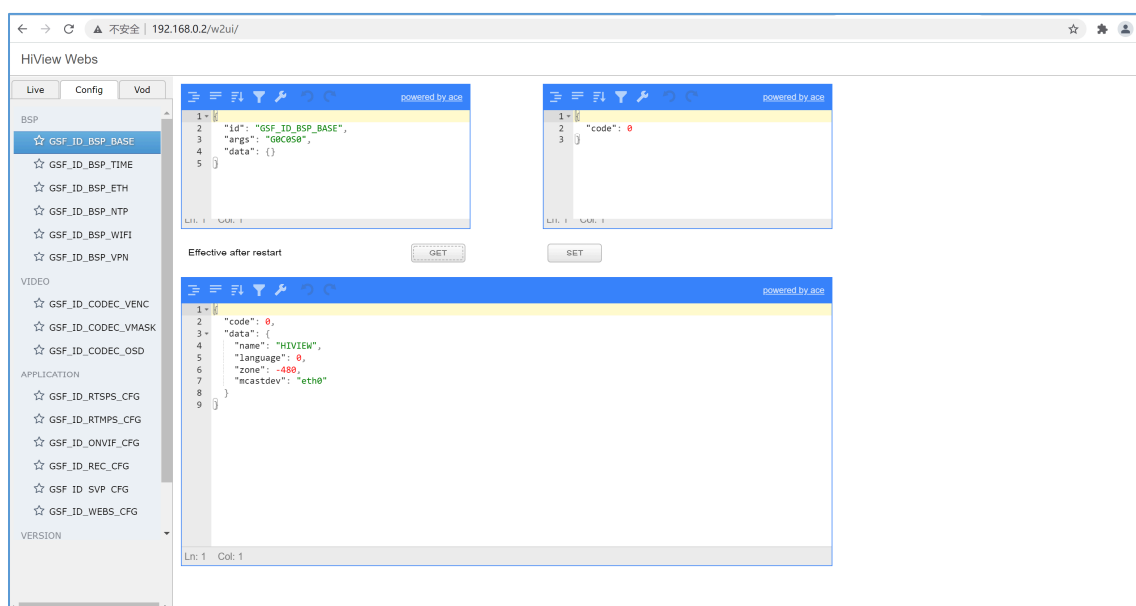
Operation tips: first <get> parameter, set the parameter, and then press <set> to set the parameter.

3). SD card Video Playback Window

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7. Source Code

Provides open source code with Hisilicon's SDK package, documentation details
http://hiview-tech.cn.
The latest code at Github（https://github.com/openhisilicon/HIVIEW）