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About this Manual
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Command Name	**Function**	**General Format** **netdebug memp {-i | -d <type> | -udp | -tcp | -raw |-conn}** **netdebug sock {-i | -d <idx>}**	**Parameter Description**
cd/cd ..	Enter/exit directory.	cd <dirName>	dirName： The name of directory to enter.
ls	Enter/exit directory.	ls [-l]	[-l]: List detailed information of files. It includes file name, permission, owner, file size, last modified time, etc.
pwd	Display current directory.	pwd [-L | -P]	[-L]: --logical. Displays current directory. When symbolic links are available, display the path with symbolic links. This is the default way if no option is specified. [-P]: --physical. Display current directory. Display the actual physical directory even though it contains symbolic links.
ifconfig	Output device IP address	ifconfig [-v] [-a] [-s] [<interface>]	[-a]: display all currently available interfaces. [-s]: display digest information. Interface: interface name
route	Print current system routing information	route [-CFvnee]	[-C]: Display the routing cache. [-F]: Display sent message. [-v]: Display processing details. [-n]: Do not parse name. [-ee]: Display more detailed information. [add]: Add a routing rule. [del]: Delete a routing rule. [-net]: The destination address is a network. [-host]: The destination address is a host. [target]: The destination network or host. [netmask]: The network mask of the destination address. [gw]: The gateway that the routing packets pass. [dev]: The network interface that is assigned to routing.
netstat	Print the information of the currently established network connections, e.g., if live view connection is established, if network congestion occurs.	netstat [<options>]	option: [-a]: list all network sockets [-n]: port name is not converted automatically for listed sockets
ping/ping6	Check if the network of the target IP address is normal Ping is used to check IPv4; ping6 is for IPv6	ping [options] <destination>	option: [-n]: Output value only. [-q]: Output the result of transmission and encapsulation. [-R]: Record the routing process. [-v]: Display detailed information of command execution. destination: destination IP address
ps	report a snapshot of the current processes	ps [<option>] [--help]	option: [-A]: list all processes [-w]: extend display width to show more information [%CPU]: usage of occupied CPU [%MEM]: usage of occupied memory [RSS]: size of occupied memory
taskShow	Print current task. When certain problems occurs, such as no image shown in live view or two-way audio failed, check if the task is activated.	taskShow	

df	Check the storage usage of the file system.	df [<options>] [FILE]	option:
free	Check memory usage of the device. If the total of the free memory, shared memory and buffers is decreasing, it indicates the memory leakage.	free [<option>]	option:
top	Display real-time resource occupation of processes in the system.	top [<option>]	option:
mpstat	Display real-time CPU occupation of the system.	mpstat [-P <cpu> | ALL] [<internal>] [<count>]]	[-P]: Specify CPU No. to see the utilization. Followed by a CPU No. or ALL. [cpu]: CPU No.. Value ranges from 0 to [Total CPU - 1]. [internal]: The report interval (unit: second) of CPU utilization. [Count]: The amount of reports to refresh.
dmesg	Display kernel information of the device. This command only outputs information from buffer. Output once instead of real-time refreshing. Similar to commands as cat, proc, kmsg.	dmesg [-cn][-s] [<buffSize>]	[-c]: Clear data in ring buffer after information displayed. [-n]: Set the level at which printing of messages is done to the console. [-s]: Set the buffer size. The default size is 8192 which is equal to that of the ring buffer. [buffSize]: Buffer size.
cat	Display file content.	cat/proc/interrupts	Display interrupts that occurs to device.
		cat /proc/meminfo	Display memory information. Used to check if there is memory leakage.
		cat /etc/resolv.conf	cat /etc/resolv.conf Display currently DNS in use, including preferred DNS address and backup DNS address.
		cat /proc/kmsg	cat /proc/kmsg Display real-time device kernel information. Press Ctrl + C to exit.
rm	Delete system file and folder. Used to test memory card auto recovery.	rm [options] <name>	option:
date	date: Get system time.	date [options] [--help] [+format]	[-set --date=<date_time>]: set hardware time date_time: date and time to set option: [-u]: Display current Greenwich Mean Time. [-d datestr]: Display the time set in datestr (not the system time). [-s] datestr: Set the system time as that in datestr. format: Set date format. Set date format.
mount	Display NAS information that is mounted to the device. Mount NAS to the device. The device program should support coredump. When problems occur on device, debug information is uploaded to NAS for trouble shooting.	mount	
iptables -L	Check IP addresses and ports that device allows and forbids.	iptables -L	

help	Get help of the command.	help	
reboot	Reboot the device.	reboot	
print/printenv	Check the environment variables of u-boot, such as, ipaddr and serverip of the device.	print/printenv	
set/setenv	Set the environment variables of u-boot, such as, ipaddr and serverip of the device.	set/setenv [variable] [val]	
sa/save	Save environment variables, such as, ipaddr and serverip.	sa/save	
format	Format flash. After formatting, the device can not work normally. Upgrading via TFTP is required to recovery the device.	format	
update	Upgrade the device via TFTP.	update	
upf	Upgrade the device after flash formatting.	upf	
updateb	Upgrade the device u-boot via TFTP.	updateb	
go	Encrypt device.	go	
reset	Restart u-boot.	reset	
prtHardInfo	Check basic information of device.	prtHardInfo	None
printPart	Check storage partition of device.	printPart	None
resetParam	Restore default settings.	resetParam	None
getModuleVer	Getting Print Level of Module	getModuleVer	None
debug	Enter debug mode and debugging log can be checked.	debug	None
setDebug	setDebug is used to set debug parameters. When troubleshooting a module, you can enable the debug information of the module to get more details.	setDebug -l [mode] -m [mode] -d [mode]	None
getDebug	Get the current debug status.	getDebug	None
outputOpen	Turn on SSH printing.	outputOpen	None
outputClose	Turn off SSH printing.	outputClose	None
gdbcfg	GDB coredump configuration.	gdbcfg {--password=<idx> --nfsmount=<idx> --open=<idx>, --path=<idx> --size=<idx> --wd=<idx>}	Password is rquired for GDB command operation. nfsmount: coredump saves the mount parameter in network file system. open: GDB switch parameter path: setting path size: core size wd: watchdog 1: off
getAutoDebug	Command for searching diagnostic information.	getAutoDebug	None
setLowDelayMode	Get and enable the shortest delay mode.	setLowDelayMode {enable=<type>}	If None is specified, it refers to get RTCP. If the parameter is specified as 0 or 1, it refers to enable or disable the shortest delay mode.
getSmartStateInfo	Check VCA status.	getSmartStateInfo {--type=<idx> }	--Type refers to VCA type
setIvsStatus	Set the behavior analysis status.	setIvsStatus {--module=<idx> --enable=<value> }	--module refers to index of behavior analysis module; --enable refers to the on/off status of the command.
setFaceFactor	Set the face scale ratio.	setFaceFactor {--Xfactor=<value> | --Yfactor=<value> |--Xoffset=<value> |--Yoffset=<value>}	Xfactor: scale ratio in X axis Yfactor: scale ratio in Y axis Xoffset: offset in X axis Yoffset: offset in Y axis
setFogDet	Set the smoke detection parameters.	setFogDet {-<mudule>=<value>}	<mudule>: module name <idx>: module value
setFireDet	Set the fire detection parameters.	setFireDet {-<mudule>=<value>}	<mudule>: module name <value>: module value
setSPTparam	Set the burning-prevention parameters.	setSPTparam setSPTparam {--grayValueThr=<value> --circularity=<value> --smallTargetNum=<value>}	grayValueThr: gray scale threshold to trigger alarm. circularity: circularity threshold value; smallTargetNum: Pixels number of minimum target;

setSptStatus	Set the burning-prevention status.	setSptStatus {-<mudule>=<value>}	<mudule>: module name <idx>: module value
setTempInfoDispParam	Set the temperature display.	setTempInfoDispParam {--pos=<value> | --max=<value> |--min=<value> |--avg=<value>}	pos: position of temperature information. max: display max. temperature or not. min: display min. temperature or not. avg: display average temperature or not.
setBodyCompTemp	Set the body temperature compensation.	setBodyCompTemp { --mode=<idx> --param1=<idx> --param2=<idx> --param3=<idx>}	--mode refers to temperature compensation mode. 0: manual mode; 1: auto mode. --param1 refers to environment temperature in auto correction mode. This value is invalid in manual mode. --param2 refers to the body temperature difference in manual mode or auto correction mode. --param3 refers to YUNNAN_TEST debug command line. 1: on; 0: off.
getBodyCompTemp	Get the body temperature compensation.	getBodyCompTemp	None
setWhiteSuppForPic	Command to control light supplement during taking snapshot.	setWhiteSuppForPic {--param1=<idx> --param2=<idx> --param3=<idx> --param4=<idx> --param5=<idx> --param6=<idx>}	Param1: switch of supplement light. 0: off, 1: on. param2: frequency of supplement light param3: duty ratio of supplement light param4: switch of light supplement during taking snapshot. 0: off, 1: on. Param5: threshold value for active alarm delay, unit: ms. Common value is 200 ms. param6: delay time for snapshot in the application layer, unit: ms.
setDspIntelPos	Enable or disable displaying VCA information on DSP.	setDspIntelPos {--enable=[0-1]}	Enable refers to enable or disable the function. 0: disable, 1: enable.
getAlarmStatus	Get the alarm exception information.	getAlarmStatus {--type=<value> }	Type: alarm type.
setAlarm	Set the alarm server.	setAlarm	None
sdDataCheck	Conduct data check to memory card. Create the test file and perform CRC32.	sdDataCheck	None
setFusionParam	Set the fusion calibration parameter.	1. When the command has 1 parameter: setFusionParam { --cmdr=<type>} 2. When the command has 5 parameters: setFusionParam { --idx=<idx> --param1=<idx> --param2=<idx> --param3=<idx> --param4=<idx>}	1.When the command has 1 parameter: --cmd refers to delete calibration file or enable the calibration parameter. Input “rmfile”to delete the calibration file. Input “cali” to enable the calibration parameter. "rmfile" and "cali" are only strings that are allowed when the command only has one parameter. 2. When the command has 5 parameters: --idx refers to the level, the range is 1-4; --param1 refers to the horizontal zoom ratio in this level, the normalization value is [12, 128].
getFusionParam	Get the fusion calibration parameter.	getFusionParam	None
setFusionPicRatio	Set the fusion ratio of visual and thermal image fusion.	setFusionPicRatio	--mode refers to fusion mode of thermographic cube camera. 0 refers to central mode, 1 refers to custom mode. When the mode value is 0: --param1 refers to width ratio of fusion mode. The value range is 0-100, default value is 100. --param2 refers to height ratio of fusion mode. The value range is 0-100, default value is 100. When the mode value is 1: --param1 refers to x-coordinate of the upper left corner in fusion mode, the range is 0-1000. Custom mode only. --Param2 refers to y-coordinate of the upper left corner in fusion mode, the range is 0-1000. Custom mode only. --param1 refers to width ratio of fusion mode. The range is 0-100, default value is 100.
GetCameraSerialId	Get the thermal module serial number ID.	GetCameraSerialId	None
getMovID	Get the comparison result of optical module ID and thermal module ID.	getMovID	None
camCmd	Send command to zoom camera module directly.	camCmd {<type>}	Transparent transmission command that is sent to the thermal module.
setRawdataAlarm	Set the method and time period for collecting raw data .	setRawdataAlarm {mode=<idx>before=<idx> after=<idx> }	Mode: 0 refers to the old raw data collection method; 1 refers to the new raw data collection method. before: set raw data collection time period before the alarm is triggered. The range is 3-10. after: set raw data collection time period after the alarm is triggered. The range is 3-30.
getisp	Get ISP parameter.	getisp {<type> <idx>}	The first parameter is the command No. which is transparently transmitted to ISP. The second parameter is the command parameter which is transparently transmitted to ISP.
setisp	Set ISP parameter.	setisp {<type> <idx>}	The first parameter is the command No. which is transparently transmitted to ISP. The second parameter is the command parameter which is transparently transmitted to ISP.

getThermalIspVersion	Get ISP version of optical channel (multi-channel device) and thermal channel.	getThermalIspVersion	None
setDoubleChanCali	Dual-channel image calibration command, used for body thermometry.	setDoubleChanCali {--param1=<idx> --param2=<idx> --param3=<idx> --param4=<idx>}	--param1 refers to the x-axis scale ratio of baseline channel. (Baseline channel refers to optical channel.) --param2 refers to the y-axis scale ratio of baseline channel. --param3 refers to the x-axis offset of baseline channel. --param4 refers to the y-axis offset of baseline channel.
setCaliDebugFlag	Enable the display of dual-channel image calibration debugging box.	setCaliDebugFlag {--enable=<idx>}	--enable=1: Enable image calibration debugging mode setting interface; 0: Disable image calibration debugging mode setting interface.
setRuleDialog	Set the position of dual-channel image calibration debugging box.	setRuleDialog {--param1=<idx> --param2=<idx> --param3=<idx> --param4=<idx>}	--param1 refers to the smallest x-coordinate value of the calibration box. --param2 refers to the smallest y-coordinate value of the calibration box. --param3 refers to the length of the calibration box along the x-axis. --param4 refers to the length of the calibration box along the y-axis.
dspStatus	Set the debugging printing level for DSP.	dspStatus {<type> <idx>}	The first parameter is the command number transmitted to the DSP. The second parameter is the command parameter transmitted to the DSP.
setDpCorrection	Correct single-point, vertical-line, and horizontal-line dead pixels. Applicable to F1 camera modules.	setDpCorrection{ --mode=<idx>}	--mode= refers to dead pixel correction mode; 0: correct one dead pixel; 1: correct a horizontal line of dead pixels; 2: correct a vertical line of dead pixels.
getFPGAVersionInfo	Get the version/build date of FPGA program.	getFPGAVersionInfo	None
setRawdataTest	Enable or disable real-time raw data.	setRawdataTest {enable=<type>}	Set parameters to enable or disable real-time raw data. Only "0" and "1" are allowed.
getThemCamVer	Get the information of thermal imaging camera module.	getThemCamVer	None
getCamVer	Get the optical camera module name, ID, and version.	getCamVer	None
getThmaf	Query for the information or parameters of thermal imaging focus.	getThmaf {--command=<idx> --param=<idx>}	command:--command=1 Get the position of the thermal imaging focus motor (current value, maximum value, and minimum value). 2: Get the position of the thermal imaging zoom motor (current value, maximum value, and minimum value). 3: Get the upper limit of thermal imaging minimum focus distance (applicable to surveillance devices only). 4: Get the lower limit of thermal imaging minimum focus distance (applicable to surveillance devices only). 5: Get the thermal imaging focus threshold (applicable to surveillance devices only). 6: Get the thermal imaging focus sensitivity. 7: Get the thermal imaging focus mode and patrol status (applicable to surveillance devices only). 8: Get the thermal imaging focal length (applicable to surveillance devices only). 9: Get the temperature value of temperature compensation for thermal imaging lens. 10: Get the on/off status of thermal imaging lens temperature compensation. 11: Get the reference temperature value of thermal imaging lens temperature compensation. 12: Get the calculation reference value of thermal imaging lens temperature compensation. 13: Get the operation times of the thermal imaging focus motor. 14: Get the focus position after thermal imaging lens normalization (applicable to industrial thermometry devices only). 15: Get the jump-off value of the focus potentiometer (applicable to surveillance devices only). 16: Get the jump-off value of the zoom potentiometer (applicable to surveillance devices only). 17: Get the mechanical end position of the thermal imaging focus motor, its maximum value and minimum value (applicable to surveillance devices only). 18: Get the mechanical end position of the thermal imaging zoom motor, its maximum value and minimum value (applicable to surveillance devices only). 19: Get the times of thermal imaging lens temperature compensation (applicable to surveillance devices only). 20: Get the basic information of thermal imaging focus, including focus version, focus library version, focus library platform, error code, thermal imaging camera module, lens initialization status (applicable to surveillance devices only), and AFD information. 21:--command=21 --param=0: Get the calibration result of thermal imaging minimum focus distance in infinite distance scenario (applicable to surveillance devices only). 22: Get the jump-off aging test result of focus potentiometer (applicable to surveillance devices only). 23: Get the jump-off aging test result of zoom potentiometer (applicable to surveillance devices only). 24: Get the minimal speed value of focus motor (applicable to surveillance devices only). 25: Get the minimal speed value of zoom motor (applicable to surveillance devices only). 26: Get the maximum value and minimum value of focus calibration expansion process (applicable to thermographic automation thermal camera 2.0 only).

setThmaf	Set the information or parameters of thermal imaging focus.	setThmaf {--command=<idx> --param=<idx>}	--command=1, --param=100: Set the focus threshold to 100 (applicable to surveillance devices only, recommended parameter range: 50 to 200). --command=2, --param=1000: Set the lower limit of minimum focus distance to 1000 (applicable to surveillance devices only, valid range: 0 to 0x4000). --command=3, --param=2000: Set the upper limit of minimum focus distance to 2000 (applicable to surveillance devices only, valid range: 0 to 0x4000). --command=4, --param=500: Set the thermal imaging focus value of industrial thermometry devices. (The valid range is determined by actual range.) --command=5, --param=0: Calibrate the minimum focus distance of surveillance devices at infinite distance. --command=5, --param=255: Clear the calibration result of the minimum focus distance of surveillance devices at infinite distance. --command=6, --param=0: Set focus sensitivity to low. --command=6, --param=1: Set focus sensitivity to medium. --command=6, --param=2: Set focus sensitivity to high. --command=7, --param=0: Set the current focus times to 0. (This command is usually used to reset the focus times. It can also be set to other value.) --command=8, --param=1000: Set the focus value of thermal imaging normalization for industrial thermometry devices (valid range: 0 to 4000). --command=9, --param=0: Calibrate the minimum focus distance of industrial thermometry devices in infinite distance scenario. --command=9, --param=10: Calibrate the minimum focus distance of industrial thermometry devices in close view. --command=9, --param=254: Verify the consistency of minimum focus distance calibration of industrial thermometry devices. --command=9, --param=255: Clear the result of minimum focus distance calibration of industrial thermometry devices. --command=10, --param=1: Enable temperature compensation. --command=10, --param=0: Disable temperature compensation.
setThmLensMotor	Control the thermal imaging focus and zoom motors.	setThmLensMotor{--lensctrl=<idx> --value=<idx>}	--lensctrl=: the motor under control --value=: motor speed setThmLensMotor --lensctrl=0 --value=500: Drive the zoom motor forward at the speed of 500. (Applicable to surveillance devices only. Valid range: 0 to 1000. Set the value to 0 to stop the motor.) setThmLensMotor --lensctrl=1 --value=500: Drive the zoom motor backwards at the speed of 500. (Applicable to surveillance devices only. Valid range: 0 to 1000. Set the value to 0 to stop the motor.) setThmLensMotor --lensctrl=4 --value=500: Drive the focus motor forward at the speed of 500. (Applicable to surveillance devices only. Valid range: 0 to 1000. Set the value to 0 to stop the motor.) setThmLensMotor --lensctrl=5 --value=500: Drive the focus motor backwards at the speed of 500. (Applicable to surveillance devices only. Valid range: 0 to 1000. Set the value to 0 to stop the motor.)
getViraf	Get the information or parameters of optical focus.	getViraf {--command=<idx>}	--command= 1: Get the basic information of optical focus, including the current position of focus motor, its maximum value and minimum value, the current position of zoom motor, its maximum value and minimum value, lens initialization status, error code, optical focus version, focus library version, lens type, optical camera model, AFD information, focus potentiometer jump-off times, zoom potentiometer jump-off times. (Only surveillance stable positioning systems and sphere positioning systems with 4026 camera modules can get all the parameters above. Surveillance stable positioning systems and sphere positioning systems with zoom camera modules can only get focus version and focus library version.) 2: Get optical focus threshold (applicable to surveillance stable positioning systems and sphere positioning systems with 4026 camera modules only). 3: Get optical focus mode and patrol status (applicable to surveillance stable positioning systems and sphere positioning systems with 4026 camera modules only). 4: Get the information of whether the optical focus version supports running zoom and focus positions at the same time (applicable to surveillance stable positioning systems and sphere positioning systems with 4026 camera modules only). 5: Get the zoom motor running times of zoom camera module. 6: Get the minimal speed value of optical focus motor. 7: Get the minimal speed value of optical zoom motor. 8: Get the on/off status of auto-focusing a detected fire source in the optical channel of 4026 camera module.
setViraf	Set the information or parameters of optical focus.	setViraf {--command=<idx> --param=<idx>}	--command=1, --param=100: Set the focus threshold to 100 (applicable to surveillance stable positioning systems and sphere positioning systems with 4026 camera modules only, recommended range: 10 to 2000). --command=2: Add production line ABF test (applicable to surveillance stable positioning systems and sphere positioning systems with 4026 camera modules only). --command=3, --param=100: Set the minimal speed value of optical focus motor to 100 (applicable to surveillance stable positioning systems and sphere positioning systems with 4026 camera modules only). -command=4, --param=100: Set the minimal speed value of optical zoom motor to 100 (applicable to surveillance stable positioning systems and sphere positioning systems with 4026 camera modules only). -command=5, --param=1: Set the status of auto-focusing a detected fire source in the optical channel of 4026 camera module to on. -command=5, --param=0: Set the status of auto-focusing a detected fire source in the optical channel of 4026 camera module to off.

setVirLensMotor	Control the optical focus and zoom motors.	setVirLensMotorr{--lensctrl=<idx> --value=<idx>}	--lensctrl=: the motor under control --value=: motor speed setVirLensMotor --lensctrl=0 --value=500: Drive the zoom motor forward at the speed of 500. (Applicable to surveillance stable positioning systems and sphere positioning systems with 4026 camera modules only. Valid range: 0 to 1000. Set the value to 0 to stop the motor.) setVirLensMotor --lensctrl=1 --value=500: Drive the zoom motor backwards at the speed of 500. (Applicable to surveillance stable positioning systems and sphere positioning systems with 4026 camera modules only. Valid range: 0 to 1000. Set the value to 0 to stop the motor.) setVirLensMotor --lensctrl=4 --value=500: Drive the focus motor forward at the speed of 500. (Applicable to surveillance stable positioning systems and sphere positioning systems with 4026 camera modules only. Valid range: 0 to 1000. Set the value to 0 to stop the motor.) setVirLensMotor --lensctrl=5 --value=500: Drive the focus motor backwards at the speed of 500. (Applicable to surveillance stable positioning systems and sphere positioning systems with 4026 camera modules only. Valid range: 0 to 1000. Set the value to 0 to stop the motor.)
getLaserPara	Get the information or parameters of laser.	getLaserPara{--command=<idx>}	--command= 1: Get the laser on/off status (applicable to surveillance stable positioning systems, sphere positioning systems, and positioning systems only). 2: Get the current of the laser (applicable to surveillance stable positioning systems, sphere positioning systems, and positioning systems only). 3: Get the position of the laser motor (applicable to surveillance stable positioning systems, sphere positioning systems, and positioning systems only).

setLaserMode	Set the information or parameters of laser.	setLaserMode{--command=<idx> --param=<idx>}	--command=1, --param=1: Enable the laser (applicable to surveillance stable positioning systems, sphere positioning systems, and positioning systems only). --command=1, --param=0: Disable the laser (applicable to surveillance stable positioning systems, sphere positioning systems, and positioning systems only). --command=2, --param=500: Set the laser current to 500 (applicable to surveillance stable positioning systems, sphere positioning systems, and positioning systems only, valid range: 0 to 1023). --command=3, --param=500: Set the laser motor position to 500. (Applicable to surveillance stable positioning systems, sphere positioning systems, and positioning systems only. Recommended range for stable positioning systems and sphere positioning systems: 500 to 7000. Recommended range for positioning systems: 500 to 3500.)
setSipDbgLev	State Grid Interface B Protocol--Set the debugging level of SIP library and SIP UA library.	setSipDbgLev {--sipLevel=<value> --sipuaLevel=<value>}	Parameter description: No parameter: get the debugging level of sip library and sipua library. Parameter: Set the level of printing library sipLevel: sip library printing level, parameter range: 0 to 8; sipLevel: sipua library printing level, parameter range: 0 to 4.
setID	State Grid Interface B Protocol--Get and set user ID.	setID {value=<type>}	None: Get user ID. Set a parameter to set the current user ID.
setPL	State Grid Interface B Protocol--Get and set the length of RTP packet.	setPL {value=<type>}	None: Get the length of the packet. Set a parameter to set the length of the current packet.
ChgStream	State Grid Interface B Protocol--Set the packet type.	ChgStream {enable=<type>}	Set the current packet type. Only "1" and "0" are allowed for the parameter. 0 for PS. 1 for RTP.
setAppwebDebug	Set the printing level for appweb.	setAppwebDebug {level=<idx>}	level: printing level. Range: [0, 9].
getAppwebStatus	Get appweb information.	getAppwebStatus	None
getDevState	Get device information.	getDevState {--type=<idx>}	type: the module index displayed, value range: 0 to 5. 0: device operation information 1: device system information 2: infrared light information 3: power on/off status of MX chip 4: environment temperature
setIrDutyCycle	Set the infrared light duty ratio of dual lens bullet cameras.	setIrDutyCycle {--far_duty=<value> --near_duty=<value> --frequency=<value>}	far_duty: duty ratio of far-range infrared light near_duty: duty ratio of close-range infrared light frequency: frequency of far-range and close-range infrared light
setFpgaPin	Set FPGA reset pin.	setFpgaPin {--rise=<value>}	rise: electrical level change of the pin
setIoctlcmd	Cube camera white light and buzzer debug command.	setFpgaPin {--id=<value> -- hz=<value> --duty==<value>}	id: light index value hz: frequency duty: duty ratio
agingParamConfig	Set and get aging parameters.	1. Set aging parameters: agingParamConfig {--mode=<value> --time=<value>} 2. Get aging parameters: agingParamConfig {--get=<value>}	1. Set aging parameters: mode: aging mode 0: Disable aging mode. 1: Enable ICR aging mode. 2: Enable ABF aging mode. 3: Enable EZoomLens aging mode. 4: Enable PT aging mode. time: aging interval, unit: s (The interval should be more than 10 s.) 2. Get aging parameters: get: Get aging parameters 0: Get the current aging mode. 1: Get the aging interval.
testThmShutter	Test thermal shutter.	testThmShutter	None
testICR	Test optical ICR.	testICR	None
testRTC	Test RTC.	testRTC	None

dm365	Set and get enable bit of alarm and RS-485 output.	dm365 {<value>}	0 to 1 refers to reading alarm input. 2 refers to reading alarm output. 3 refers to setting alarm output to 0 and low level. 4 refers to setting alarm output to 1 and high level. 5 refers to setting alarm output to output status and its value to 0 and low level. 6 refers to setting alarm output to output status and its value to 1 and high level. 9 refers to setting RS-485 output enable bit gpio 4 to output and low level. 10 refers to setting 485 output enable bit gpio 4 to output and high level. 11 refers to reading the status of RS-485 output enable bit gpio 4.
setIrcmd	Set the luminous intensity of IR light or white supplement light.	setIrcmd {<value1> <value2> <value3>}	Value 1 refers to the PWM intensity value of the first light. Value 2 refers to the PWM intensity value of the second light. Value 3 refers to the PWM intensity value of the third light.
setTempCtrlMode	Set heater control mode.	setTempCtrlMode {<value>}	0 refers to disabling heater. 1 refers to enabling heater.
baiguangModeConfig	Set and get white supplement light control mode.	1. When setting white supplement light control mode: baiguangModeConfig {-set=<value>} 3. When getting IR light control mode: baiguangModeConfig {-get}	1. When setting white supplement light control mode: set: Set white supplement light control mode. 1 refers to setting the control mode manually. 0 refers to setting the control mode automatically. 3. When getting white supplement light control mode:
getEnvironmentTemp	Get the environment temperature by db115 temperature and humidity sensor.	getEnvironmentTemp	None
getEnvTemp	Get the temperature information in temperature sensor.	getEnvTemp	None
getSelfcheckResult	Get self-check result.	getSelfcheckResult	None
setThmLowtempStatus	Set low temperature starting status for thermal focus MCU.	setThmLowtempStatus {--enable=<value>}	enable: Enable value.
setBeltHeatState	Set synchronous belt heating status.	setBeltHeatState {--enable=<value>}	enable: Enable value.
setMxPwrStatus	Set MX chip power on/off status.	setMxPwrStatus {--enable=<value>}	enable: Enable value.
setICR	Switch ICR status.	setICR {-stat=<value>}	stat: ICR status. 0 refers to night. 1 refers to day.
getExDevState	Get peripheral device status.	getExDevState {-type=<idx>}	type: The displayed module index. type=0 Get the status of infrared light for dual lens bullet cameras. type=1 Get the power on/off status of MX chip for MINI PTZ. type=2 Get the on/off status of deicing heater and focus motor heater. type=3 Set the low temperature starting status of thermal MCU. type=4 Get the related information of PTZ MCU. type=5 Get the status of focus MCU. type=6 Get the infrared light status of speed dome. type=7 Get the on/off status of PTZ deicing heater. type=8 Get the smart wiper MCU version No.. type=9 Get the on/off status of smart wiper. type=10 Get the version No. of alarm and GPS MCU.
setTempCtrlMode	Set defog heater controller.	setTempCtrlMode {<value>}	0 refers to disabling defog heater. 2 refers to enabling defog heater.
getMotion	Get the current dispatch status of movement.	getMotion	None
getMcuStateInfo	Search the current moving MCU status.	getMcuStateInfo {--cmd=<idx> | --subcmd=<idx>}	--cmd refers to main command No. --subcmd refers to sub-command No.

setZeroPos	Set PTZ zero point.	setZeroPos {-direction=<value>}	direction: Set the zero point of the selected direction. 0 refers to setting the zero point of horizontal direction. 1 refers to setting the zero point of vertical direction.
setmotorcurrent	Set PTZ drive current.	setmotorcurrent {-pan=<value> -tilt=<value>}	pan: Set the percentage of horizontal motor drive current, ranging from 0 to 100. tilt: Set the percentage of vertical motor drive current, ranging from 0 to 100.

exitMcuBoot	Exit PTZ Boot.	exitMcuBoot	None
selfCheckEnable	Set self-check and get self-check status.	1. When setting PTZ self-check: selfCheckEnable {-set=<value>} 2. When getting PTZ self-check status: selfCheckEnable -get	1. When setting PTZ self-check: set: Enable or disable PTZ self-check. 0 refers to startup with no self-check. 1 refers to startup with self-check. 2. When getting PTZ self-check status: get: Get PTZ self-check status.
setStm8MotDirect	Get the working status of motor on power board.	setStm8MotDirect {-direct=<value>}	direct: Set motor movement direction. 0: motor stops. 1: motor runs clockwise. 2: motor runs counter-clockwise.
ptOldEnable	Set and get PT aging status.	1. When setting PT aging status: pt12dEnable {-set=<value>} 2. When getting PT aging status: pt01Enable -get	1. When setting PT aging status: set: Start or end PT aging. 0: configuring PT aging ends. 1: configuring PT aging starts. 2. When getting PT aging status:
setLimitPos	Set PTZ limit.	setLimitPos {-tilt=<value>}	tilt: Enable or disable PTZ vertical limit. 0: setting PT vertical limit is invalid. 1: PT vertical limit takes effect.
setGateway	Set gateway.	setGateway {value=<type>}	Gateway
setV6ip	Set IPv6.	setV6ip {value=<type>}	IPv6
setMtu	Get and set MTU.	setMtu {value=<type>}	None refers to getting the current MTU information. Parameter refers to setting the current MTU (range: [100, 1500]).
setIp	Get and set IP address.	setIp {value=<type>}	None refers to getting the current IP address information. Parameter refers to setting the current IP address and mask.
getNetConnInfo	Get the number of network connection, live view, and playback connection.	getNetConnInfo	None
setRtcpStatus	Get and enable RTCP.	setRtcpStatus {enable=<type>}	None refers to getting RTCP type. Parameter refers to enabling or disabling RTCP. Parameter only supports 0 and 1.
getPreviewStatus_inner	Get live view and playback information or forced I-frame for internal debugging.	getPreviewStatus_inner {--force=<idx>}	--force: forced mode (range: [0, 1])
setPacketType	Get and set the packaging method.	setPacketType {value=<type>}	None refers to getting encapsulation type. Parameter refers to setting the current encapsulation type. Parameter only supports ps and rtp.
sensorHeatOn	Enable thermal module heater.	sensorHeatOn	None
sensorHeatOff	Disable thermal module heater.	sensorHeatOff	None
setPotenOldtest	Start potentiometer jump-off test manually.	runCount refers to running times. jumpCount refers to allowed jump-off times.	runCount refers to running times. jumpCount refers to allowed jump-off times.
dspCmd	Transparent transmission of debugging command to DSP.	None	None

dspCmd -setIvsPosInfo	Enable or disable behavior analysis IED algorithm internal debugging and uploading of positioning information.	dspCmd -setIvsPosInfo [chan] [enable]	Chan: For dual-channel device, 1 refers to thermal channel, and 0 refers to optical channel. For single channel device, 0 refers to thermal channel. Enable: 1 refers to ON, and 0 refers to OFF.
dspCmd -setIvsDspPosInfo	Enable or disable behavior analysis smart debugging and uploading of positioning information.	dspCmd -setIvsDspPosInfo [chan] [enable]	
dspCmd -setIvsMetadataStatus	Enable or disable uploading of behavior analysis metadata.	dspCmd -setIvsMetadataStatus [chan] [enable]	
dspCmd -setFilterParam	Enable or disable the exception size filter of animal.	dspCmd -setFilterParam [chan] [enable]	
dspCmd -setVideoClassify	Enable or disable video classification.	dspCmd -setVideoClassify [chan] [enable]	
dspCmd -setIvsDebug	Perimeter debugging interface	dspCmd -setIvsDebug [chan] [cmd]	
dspCmd -setPvConfig	Enable or disable video simulation.	dspCmd -setPvConfig [chan] [type] [enable] [index]	Chan: For dual-channel device, 1 refers to thermal channel, and 0 refers to optical channel. For single channel device, 0 refers to thermal channel. type: 4 refers to hardware decoding, 1 refers to YUV input without decoding. enable: 1 refers to ON, and 0 refers to OFF. index refers to the index No. of yuv_cfg.txt. PS: the format of yuv_cfg.txt configuration file is descried in docs directory in detail.
dspCmd -getFsAlarmStatus	Get the running process of fire and smoke detection.	dspCmd -getFsAlarmStatus	None
dspCmd -setFsPtzStatus	Set fire and smoke detection status, and change the running process.	dspCmd -setFsPtzStatus [ptzStatus]	ptzStatus: fire and smoke detection status
dspCmd -saveFsAlarmPic	Save the alarm capture of fire and smoke detection to device/tmp folder in jpg format .	dspCmd -saveFsAlarmPic [chan]	chan refers to camera channel No.
dspCmd -setFfdParms	Set fire detection parameters.	dspCmd -setFfdParms [enable] [sensitive] [searchMode] [fireDetectModel] [workScene]	enable refers to enable fire detection. sensitive refers to detection sensitivity. searchMode refers to algorithm search mode. fireDetectModel refers to fire detection mode. workScene refers to application scene.
dspCmd -setIsp	ISP parameters configuration interface, including sensor register configuration interface.	dspCmd -setIsp [key][value]	key refers to the ISP program internal index. value refers to setting value.
dspCmd -getIsp	ISP parameters acquisition interface, including sensor register reading interface.	dspCmd -getIsp [key]	key refers to the ISP program internal index.
dspCmd -SetSlfDebug	Track target, display target in thermal channel, and print algorithm information in smart linkage tracking system.	dspCmd -SetSlfDebug [mode]	mode refers to debugging mode
dspCmd -sendUartCmdForIsp	Send serial port command to thermal ISP.	dspCmd -sendUartCmdForIsp [u32InnerAddr] [u32InnerData]	u32InnerAddr refer to address u32InnerData refers to value.
dspCmd -setIfrIspConfig	Set thermal ISP.	dspCmd -setIfrIspConfig [key] [value]	key refers to index. value refers to setting value.
dspCmd -getIfrIspConfig	Get thermal ISP configuration.	dspCmd -getIfrIspConfig	Get the thermal ISP configuration.

dspCmd -setIfrIspBPC	BPC dead pixel calibration.	dspCmd -setIfrIspBPC [FrmCnt] [x] [y] [type]	FrmCnt refers to frame number. x, y refers to the coordinates of dead pixel. type refers to type.
dspCmd -setbufready	Save data files in channel 0.	dspCmd -setbufready [module]	module refers to module name.
dspCmd -setbufready1	Save data files in channel 1.	dspCmd -setbufready1 [module]	module refers to module name.
dspCmd -dumpLayerPic	Dump layer	dspCmd -dumpLayerPic [handle]	handle refers to layer’s handle No. belonging to HiSilicon.
bsp_hwdec	Hardware extraction of gzip format. Extract model file.	bsp_hwdec -xvf [src_files] -C [dst_path] to src to dst	None
bsp_swdec.sh	Software extraction of gzip format. Extract model file.	gzip_sw.sh [src_files] [dst_path]	None
btools	HiSilicon management tool boardtools, which contains himd.l.	btools -V : print version btools -h for more	None
coredump_helper.sh	Get coredump file for HEOP function.	coredump_helper.sh	None

cpup	Check the CPU usage information in last 10 s.	cpup	None
dns	Check DNS configuration information.	dns	None
excInfo	Check all of the thread information.	excInfo	None
findsym	Search the symbol information of certain handle.	findsym	None
format_ubifs_prt.sh	Format ubi partition.	format_ubifs_prt.sh [mtd_num] [ubi_num] [ubi_vol_name]	None
himd.l	Check memory information.	himd.l <address> [length]	None
himc	Clear specified memory information.	himc <address> <length> [value]	None
himm	Edit memory information.	himm <address> <Value>	None
hiddrs	Check DDR statistics.	hiddrs	None
himd	Check memory information.	himd <address>	None
hwi	Check hardware interrupts.	hwi	None
i2c_read	i2c communication, read command is used to debug i2c.	i2c_read <i2c_num> <dev_addr> <reg_addr> <reg_addr_end><reg_width> <data_width> <reg_step>	None
i2c_write	i2c communication, write command is used to debug i2c.	i2c_write <i2c_num> <dev_addr> <reg_addr> <value> <reg_width> <data_width>	None
initrun.sh	Start application script.	initrun.sh	None
lddrop	Uninstall dynamic load module.	lddrop	None
loadmods	Initialize Hikvision private driver modules.	loadmods	None
mclose	Close the handle of certain module.	mclose	None
mopen	Open the module of specified path.	mopen	None
mount_app	Mounting file system supports duplex system backup.	mount_app	None
mount_ubifs_prt.sh	Mount ubi partition.	mount_ubifs_prt.sh [mtd_num] [ubi_num] [mount_point]	None
part	Save the data of specified partition to certain file, or write certain file to specified partition.	part	None
partinfo	Check the information of device partition node.	partinfo	None
partition	Check the partition of file system.	partition [jffs | yaffs]	None
prepare_partition.sh	Mount the corresponding directories manually. (Used for dual system backup)	prepare_partition.sh	None
psh	Open psh manually. Perform the command which valid in psh.	psh	None
psx-test	HEOP test program, which used to create the test program for clearing sandbox.	psx-test -t <num> psx-test -h for more	None
readreg	Read the specified length of data of register address.	readreg	None
sandbox	Log in to the created sandbox in HEOP.	sandbox [name]	None
set_router	Packet forwarding in master slave communication.	set_router [on/off] [LANIP] [WANIP]	None
ssp_read	spi communication, read command is used to debug spi.	ssp_read <spi_num> <csn> <dev_addr> <reg_addr> [num_reg] [dev_width] [reg_width] [data_width] [reg_order] [data_order]	None
ssp_write	spi communication, write command is used to debug spi.	ssp_write <spi_num> <csn> <dev_addr> <reg_addr> <data> [dev_width] [reg_width] [data_width] [reg_order] [data_order]	None

swtmr	Check the information of system timer.	swtmr [ID]	None

uart_close	Close uart serial port of specified number.	uart_close	None
uart_config	Configure uart serial port of specified number.	uart_config	None
uart_read	Read data length of specified uart serial port of specified number.	uart_read	None
uart_write	Write data to uart serial port of specified number.	uart_write	None
umount_ubifs_prt.sh	Uninstall ubi partition.	umount_ubifs_prt.sh [mount_point] [ubi_num]	None
write_proc	Write data to the files in proc directory.	write_proc	None
writereg	Modify the data of certain register address.	writereg	None
sd_auto_update.sh	Upgrades SD card automatically. It is a command for internal use.	sd_auto_update.sh	None
guard.sh	Check if the application process exists.	guard.sh	None
iw_channel	Get the best Wi-Fi channel.	iw_channel <log_level> <config file>	None
help/sdk_help/?	Check the supported command list.	sdk_help	None
updateb	Upgrade uboot.	updateb	None
update	Upgrade digicap.	update	None
upf	Upgrade mImage&digicap	upf	None
format	Format file system partition.	format [name]	None
go	Encryption. 1. Cannot enter parameter. 2. Perform crc32 to burn which downloaded in sec file.	go <addr>	None
erase	Erase specified FLASH partition.	erase [name]	None
loadk	Load the kernel to memory.	loadk	None
bootm	Go to the kernel initial position of memory, and start kernel.	bootm <addr>	None
upbs	Support by default. Upgrade uboot via serial port Ymodem protocol.	upbs	None
loadm	Support by default. Load minimum system to memory from the storage media.	loadm	None
gpio	Support by default. Gpio configuration.	gpio set [bank] [pin] [ioconfig] [direct] (value) gpio for more	None
trspt	Configure the debugging port as transparent channel (common serial port) or not. Or get the debugging port status.	trspt	None
mmc erase/write	EMMC storage media, release for reading, do not support write or erase (mmc parameter do not support erase and write).	mmc erase/write	None
sf erase/write/update	SPI Flash storage media, release for reading, do not support write or erase.	sf erase/write/update	None
nand erase/write	Nand Flash storage media, release for reading, do not support write or erase.	nand erase/write	None
upm	Upgrade mImage.	upm	None
upk	Upgrade uImage.	upk	None
uplogo	Update boot screen. (Only applicable to handheld device.)	uplogo	None
playlogo	Display boot screen. (Only applicable to handheld device.)	playlogo	None
vgactl	Read and write register information of lcd display chip manually for debugging.	vgactl <write> <idx> <val> vgactl <read> <idx> <cnt>	idx: register's id val: value cnt: number of registers
mipi	Read and write register information of mipi convert chip manually for debugging.	mipi cmd <para> <data>	para: register's address data: data written to register
gos	Encrypt device via serial port.	gos	None
oled	Set the OLED screen brightness, etc. It is a command for debugging.	oled	None
voltage	Set the OLED negative voltage. It is a command for debugging.	voltage	None

[TAB]	Prints common commands. It is a prompt key.	[TAB]	None
getSensTemp	Get the lens temperature.	getSensTemp	None
setFocusArea	Set focus area for optical channel or thermal channel.	setFocusArea {--mode=<type> --chan=<idx> |--xstart=<idx> --xend=<idx> --ystart=<idx> --yend=<idx>}	Parameter description: --mode refers to mode; --chan refers to channel; --xstart refers to the beginning of X-coordinate; --xend refers to the end of X-coordinate; --ystart refers to the beginning of Y-coordinate; --yend refers to the end of Y-coordinate.
getAcceCalibInfo	Get the diagnosis information of acceleration calibration function.	getAcceCalibInfo	None
getInnerlensInfo	Get the built-in MCU information of lens, such as version.	getInnerlensInfo	None
powerMcuCfg	Get the information of voltage monitoring MCU.	powerMcuCfg --<type>=<value>	Parameter description: When type is voltage, value=0 refers to getting the current voltage of device power. E.g., powerMcuCfg --voltage=0 When type is version, value=0 refers to getting the current version of voltage monitoring MCU. E.g., powerMcuCfg --version=0 When type is table, value=0 refers to getting voltage exception information that not sent to main platform. Value=1 refers to getting the latest voltage exception information (max. 128 items). E.g., powerMcuCfg --table=0 powerMcuCfg --table=1 When type is clear, value=0 refers to clearing all the recorded voltage exception information. E.g., powerMcuCfg --clear=0
checkversion	Get version calibration information.	checkversion	None
setUsbMode	Switch to USB virtual terminal mode.	setUsbMode{<type>}	Parameter description: USB virtual terminal mode
getUsbMode	Get USB virtual terminal mode.	getUsbMode	None
setTimeDate	Set system time.	setTimeDate{<time>}	Parameter description: time refers to the system time.
dspDebug	DSP debug port	dspDebug{<name><argv...>}	Parameter description: The first parameter is DSP debug port name. The second parameter is DSP debug port parameter. The parameter length is variable according to port name.
nand_bad	Check NAND Flash bad block.	nand_bad	None
unit_test	Test function of BSP driver.	unit_test	None
cat_logmpp	Check HiSilicon SDK log.	cat_logmpp	None
hik_help	Check the supported command list.	hik_help	None
ldinit	Initialize dynamic load module.	ldinit	None
updatebsd	Upgrade uboot from memory card.	updatebsd	None

testWiFi	Test Wi-Fi function.	testWiFi	Parameter description: The default connected Wi-Fi parameters in test are: SSID=FactoryTest Password=12345678 KeyLen=8 Encrypt=0 Security=4 Refer to item setWiFiParam for detailed parameter description. setWiFiParam
setWiFiParam	Set Wi-Fi parameter.	setWiFiParam --SSID=[WiFi_name] --Password=[WiFi_password] --KeyLen=[password_lenth] --Encrypt=[encrypt_num] --Security=[security_num]	Parameter description: SSID refers to the Wi-Fi to be connected. Password refers to the Wi-Fi password. KeyLen refers to the password length. Encrypt refer to the encrypted algorithm, 0=AES，1=TKIP. Security refers to security mode. 0=Not-Encrypted 1=WEP 2=WPA-PSK 3=WPA-Enterprise 4=WPA2-PSK
getAfFocusMinMax	Get max. focus value, min. focus value, or current focus value of thermographic handheld camera.	getAfFocusMinMax	None
getThmStdLensAd	Get normalized focus value for thermographic handheld camera.	getThmStdLensAd	None
setThmStdLensAd	Set normalized focus value for thermographic handheld camera.	setThmStdLensAd <value>	Parameter description: Value refers to the target position of normalized focus value. The range is 0-6000. E.g. setThmStdLensAd 1000 refers to the coordinate of motor when the normalized target position is 1000.
setThmFocusCalibrate	Focus calibration command of thermographic handheld camera.	setThmFocusCalibrate <value>	Parameter description: Value refers the command No. of focus calibration. The range is 0-255. E.g. setThmFocusCalibrate 0 refers to calibrate when focusing to infinity. setThmFocusCalibrate 10 refers to calibrate when focusing on the nearest target. setThmFocusCalibrate 254 refers to validation of focus calibration. setThmFocusCalibrate 255 refers to clear data of focus calibration.
setThmFocusCounter	Set focus times for thermographic handheld camera.	setThmFocusCounter <value>	Parameter description: Value refers to setting times. The range is 0-255. setThmFocusCounter 0 refers to clear focus times.
getThmFocusCounter	Get focus times for thermographic handheld camera.	getThmFocusCounter	None
getDebugInfo	Get debug Information.	getDebugInfo --type=<value>	Parameter description: Value=1 refers to get startup log of APP. Value=2 refers to get startup log of DSP. Value=3 refers to get startup log of kernel.
getLaserDistance	Get distance via laser distance measurement function for handheld camera.	getLaserDistance	None
setTempSensParam	Get or set sensitivity level of temperature measurement.	setTempSensParam --command=<value> --param=<level>	Parameter description: --command= (0: get ; 1: set) --param= (0: high sensitivity 1: middle sensitivity 2: low sensitivity)

setTmBackComParam	Get or set background compensation status, gray level difference, etc.	setTmBackComParam --command=<value> --enable=<value> --slop=<value> --diffgray=<value> --graythr=<value>	Parameter description: --command= （0: Get; 1: set） --enable= （0: OFF; 1: ON） --slop=[0.0-1.0] refers to fitted curve slope --diffgray=[0-16383] refers to benchmark gray level difference --graythr=[0-16383] refers to gray scale difference threshold
setForeheadTemp	Get or set display mode of face temperature.	setForeheadTemp --command=<value> --param=<value>	Parameter description: --command= （0: Get; 1: set） --param= （1: mode 1 2: mode 2 3: mode 3）
dspCmd -setFdScale	Set the face scale ratio.	dspCmd -setFdScale [f32LeftCoeff] [f32RightCoeff] [f32TopCoeff] [f32BottomCoeff]	Parameter description: f32LeftCoeff: adjust proportionality coefficient of left boundary f32RightCoeff: adjust proportionality coefficient of right boundary f32TopCoeff: adjust proportionality coefficient of upper boundary f32BottomCoeff: adjust proportionality coefficient of bottom boundary The range of proportionality coefficient is [0,1]. The left and right boundary are width, and the upper and bottom boundary are height.
dspCmd -setFdHeadScale	Adjust the forehead area in face temperature measurement.	dspCmd -setFdHeadScale [f32LeftCoeff] [f32RightCoeff] [f32TopCoeff] [f32BottomCoeff]	Parameter description: f32LeftCoeff: adjust proportionality coefficient of left boundary, [0,1] f32RightCoeff: adjust proportionality coefficient of right boundary, [0,1] f32TopCoeff: adjust proportionality coefficient of upper boundary, [0,1] f32BottomCoeff: adjust proportionality coefficient of bottom boundary, [0,1]
dspCmd -setFaceTmModeAbililty	Set temperature measurement mode.	dspCmd -setFaceTmModeAbililty [mode]	Parameter description: Mode: temperature measurement mode 1: detect max. temperature of human face 2: detect temperature of eyebrow center 4: detect forehead temperature
dspCmd -setFaceDebugMode	Set face mode, such as display forehead area.	dspCmd -setFaceDebugMode [mode]	Parameter description: Mode: face mode 512: display forehead area
dspCmd -setFaceTmDisCal	Display distance, angle, etc.	dspCmd -setFaceTmDisCal [Enable]	Parameter description: Enable: display or not 1: display 0: OFF
getTmCaliFileInfo	Get the calibration file version.	getTmCaliFileInfo	None
getMemInfo	Get memory information.	getMemInfo	None
pmap	Analyze process memory.	pmap -xq <pid>	Parameter description: -x: Display extension format. -q: DO NOT display first line and last line. <pid>: Process No.

setFusionCompatVer	Set compatibility version of fusion.	setFusionCompatVer --command=<value> --ver=<value>	Parameter description: --command= （0：get；1：set） --ver= （0: Version 5.5.18; 1: Version 5.5.16）
setFireFilterEn	Enable high temperature target filter module.	setFireFilterEn --command=<value> --param=<value>	Parameter description: --command= （0：get；1：set） --param= （0：OFF; 1: ON）
AutoKeyTest	Go to the test interface of automation button.		None
setMessageBox	Test pop-up window.	setMessageBox <name>	Name: Name of Pop-up Window
setTempSens	Get or set the curve level of temperature measurement sensitivity.	setTempSens --command=<value> --param=<level>	Parameter description: --command= (1: set) --param= (0: High Sensitivity 1: Middle Sensitivity 2: Low Sensitivity)
setTempBack	Get or set temperature background compensation status, gray level difference, etc.	setTempBack --command=<value> --enable=<value> --slop=<value> --diffgray=<value> --graythr=<value>	Parameter description: --command= （1：set） --enable= （0：OFF；1：ON） --slop=[0.0-1.0] refers to fitted curve slope --diffgray=[0-16383] refers to benchmark gray level difference --graythr=[0-16383] refers to gray level difference threshold
setEzvizLog	Get or set the Hit-Connect log level.	setEzvizLog --value=<value>	Parameter description: -Value=[1:4] refers to setting Hik-Connect printing level. No value refers to getting the current Hik-Connect printing level.
ezvizshell	Get Hit-Connect information.	ezvizshell --command=<value>	Parameter description: --command= (1: Printing Information of Hik-Connect Server 2: Printing Information of Hik-Connect Verification Code 3: Printing Information of Hik-Connect Status 4: Printing Information of Hik-Connect Arming)
setTempCompensate	Set temperature compensation value.	setTempCompensate --command=<value> --param=<value>	Parameter description: --command= （0: get; 1: set） --param=[-8.0-8.0] the compensation temperature
getBattery	Get battery capacity.	getBattery	Parameter description: None
fat_fsck	Check the directory of the FAT file system.	fat_fsck [DEVICE]	Parameter description: Device: device name
lsfd	Check all opened device nodes.	lsfd	Parameter description: None
netdebug	Debug network.	netdebug memp {-i | -d <type> | -udp | -tcp | -raw |-conn} netdebug sock {-i | -d <idx>}	Parameter description: None

pppoe	Connect or manage PPPoE.	1、 pppoe start [Interface] [Username] [Password] 2、 pppoe stop [Interface]	Parameter description: Interface: network interface username: user name password: password
watch	Execute command automatically.	watch [options] command	Options: test options command: test command
getJxFlashCurve	Get the focus curve of optical camera module.	getJxFlashCurve	Parameter description: None
writeJxFlashCurve	Write the focus curve of optical camera module.	writeJxFlashCurve	Parameter description: None
iceOn	De-Icing ON	iceOn	None
iceOff	De-Icing OFF	iceOff	None
getViidInfo	Get the components status of image and video library.	getViidInfo --command=<value> --param=<value>	Parameter description: --command= (1: get) --param= (1: General Status 2: Task Status)
pidParamCfg	Get, set, or save the PID parameters.	pidParamCfg --dir=[1,2](1:pan,2:tilt) --func=1 get pid param pidParamCfg --dir=[1,2](1:pan,2:tilt) --func=2 --pidtype=[1,2,3](1:current,2:speed,3:position) --P=[0~655.35] --I=[0~655.35] --D=[0~655.35] pidParamCfg --dir=[1,2](1:pan,2:tilt) --func=3 save pid param to MCU flash	Parameter description: --dir= (Horizontal driver parameter or vertical driver parameter) --func= get, set, or save parameters --pidtype=pid type, position, speed, current --P= --I= --D=pid value
setLampBrightnessLevel	Set supplement light.	set_lamp_brightness_level num {num = 0,1,2,.....,99,100}	--num = level
getFpgaSerialNumber	Get the calibration file version and device serial No.	getFpgaSerialNumber	None
setFpgaSerialNumber	Set the calibration file version and device serial No.	setFpgaSerialNumber <value>	Set the serial No. for camera.
testDialCfg	Add ssh command for 4G module.	testDialCfg --getType={0,1,2,3} 0:dialCfg 1:dialStatus 2:dialSchedule 3:shmCfg	testDialCfg --getType=
getOrSetLowTempMcu	Interaction command between main platform and MCU that controls the device startup in low-temperature condition.	1. Get the parameter of MCU that controls the device startup in low-temperature condition. getOrSetLowTempMcu {-get=<value>} 2. Set the parameter of MCU that controls the device startup in low-temperature condition. getOrSetLowTempMcu {-set=<value> -status=<value>}	1. Get the parameter of MCU that controls the device startup in low-temperature condition. Parameter description: get: Get the parameter of MCU that controls the device startup in low-temperature condition. 0 Get the MCU version No.. 1 Get the temperature value. 2 Get the power-off time of main platform. 3 Get the enabling status of main platform power-off. 4 Get loss time of heartbeat timeout. 2. Set the parameter of MCU that controls the device startup in low-temperature condition: Parameter description: set: Set the parameter of MCU that controls the device startup in low-temperature condition. 0 Set the enabling status of main platform power-off. Status: Setting value. 0 Off 1 On
greyTrackDeviation			
hytTiltSelfCheckCfg	Set the self-test mode of stable positioning systems.	hyt_tilt_self_check_mode_cfg --func=[1,2](1:set,2:get) --mode=[0,1](0:aruond 45 degree,1:around -45 degree)	Parameter description: --func= (Set or Get) --mode= (Vertical self-test mode)
watchDogTest	Test the device watchdog command.	watchDogTest	None

bsp_dbg	BSP HAL layer debug, such as HAL layer printing information control…	bsp_dbg <cmd>	Parameter description: cmd: Supported commands are as follows. 0x0 —— Get the printing level. 0x1 [level] —— Set the printing level. 0x2 —— Export the log information (Non-Blocking). 0x3 —— Export the log information (Blocking). 0x6 —— Print the SVN version information of HAL layer. 0x7 —— Initialize libhal. 0x100 [module] —— Get the module setting information. 0x101 [module] —— Get the module ability information.
console	Check the console information of all tasks.	console	None
iperf	Network throughput test	iperf [-s|-c host] [options]	Parameter description: -s (Specify the server IP address) -c (Specify the client IP address)
getIP	Get IP address	getIP	None
setIntelStreamRecord	Set and get the on/off status of Intelligent Stream Record.	setIntelStreamRecord --command=[0,1] --enable=[0, 1]	command=0 Get the current parameter. 1 Set the current parameter. Enable=0 Off, 1 On.
setForkliftDetectionParam	Get and set forklift filtering algorithm parameter.	setForkliftDetectionParam --command=[0,1] --Sensitive=4 --BkgUpdateRate=4 --MinObjSize=4 --MODGenareteRate=1 --MODAxialMoveRate=2 --MODSceneMode=0 --FRCNNGenareteRate=1 --FRCNNAxialMoveRate=2 --FRCNNSceneMode=0	Command=0 Get current parameter. 1 Set current parameter. Parameter range and description: --Sensitive=[0-4] Target Detection Sensitivity, Default 4 --BkgUpdateRate=[0-4] Background Update Rate, Default 4 --MinObjSize=[0-4] Min. Target Size, Default 4 --MODGenareteRate=[0-4] Background Modeling Target Generation Speed, Default 1 --MODAxialMoveRate=[0-4] Background Modeling Axial Move Rate, Default 2 --MODSceneMode=[0-2] Background Modeling Scene Mode (0-Normal Scene, 1-Distant Scene, 2-Leaves Interference Scene), Default 0 --FRCNNGenareteRate=[0-4] Deep Learning Target Generation Speed, Default 1 --FRCNNAxialMoveRate=[0-4] Deep Learning Target Axial Move Rate, Default 2 --FRCNNSceneMode=[0-2] Deep Learning Scene Mode (0-Normal Scene, 1-Distant Scene, 2-Leaves Interference Scene), Default 0
encdrOutofStepCorrCfg	Set and get the encoder lost step correction parameter.	encdrOutofStepCorrCfg --func=[1,2](1:enable Cfg,2:get encoder Status or Error Code) --enable=[0,1](0-disable, 1-enable)	func=1 Set the enabling parameter of encoder lost step correction; Parameter range and description: --enable=[0,1] 0 refers to disabling the encoder out of step correction, 1 refers to enabling the encoder out of step correction. func=2 Get the state parameter of encoder out of step correction, including enabling, hardware ability, and magnetic field status of horizontal and vertical encoder; Parameter range and description: cap=[0,1] 0 means that encoder MCU layer has no hardware ability. 1 means that encoder MCU layer has hardware ability. enable=[0,1] 0 refers to disabling the encoder out of step correction, 1 refers to enabling the encoder out of step correction. Pan_mgn_status [0,1] 0 means that the magnetic field value of current horizontal encoder is normal, 1 means that the magnetic field value of current horizontal encoder may be abnormal.
get433Rssi	Get the scrambled electromagnetic wave signal strength that 433 RF receiver modules (433 modules) detected in the current air and data sending threshold set	get433Rssi	No Parameter