



**AVer USB API
(VB/VC/CAM Series)
Version 1.9
May 11, 2022**

Revision History

Version Number	Date	Author(s)	Remark
1.0	Sep. 1, 2018	Drama Lin	Preliminary Version
1.1	Oct. 15, 2018	William Lu	Add VCX_UCAM3_UVC_FACE_NUM, UVCX_UCAM3_UVC_STREAM_TIME
1.2	May 30, 2019	Drama Lin	Add UVCX_UCAM3_UVC_SMART_AUTO_FRAMING, UVCX_UCAM3_UVC_LOW_LIGHT_COMP
1.3	Aug 21, 2019	William Lu	Add audio track description in UVCX_UCAM3_UVC_SMART_AUTO_FRAMING
1.4	Dec 24, 2019	Drama Lin	Add VC520 Pro
1.5	Oct 26, 2020	Tzaumin Chiou	Add UVCX_UCAM2_PRESET_MSG
1.5.1	Nov 02, 2020	Tzaumin Chiou	Fix UVCX_UCAM2_PRESET_MSG length
1.6	Jul 14, 2021	Kevin Chen	Add CAM/VC520 Pro2, VB130 and CAM130. Add UVCX_UCAM3_UVC_TRACKING_SPEED UVCX_UCAM3_FOCUS_ONE_TRIGGLER UVCX_UCAM3_FILL_LIGHT_KEEP_SET UVCX_UCAM3_FILL_LIGHT_AUTO UVCX_UCAM3_FILL_LIGHT_COLOR_TEMP UVCX_UCAM3_FILL_LIGHT_BRIGHT UVCX_UCAM3_FILL_LIGHT_POWER_ON UVCX_UCAM3_FILL_LIGHT_ON_STM_ON UVCX_UCAM3_FILL_LIGHT_OFF_STM_OFF UVCX_UCAM3_UVC_FRAMING_SIZE
1.7	Apr 15, 2022	Kevin Chen	Add VB342 Pro
1.8	Apr 18, 2022	Max Yang	Add CAM550
1.9	May 11, 2022	Kevin Chen	Add CAM520 Pro



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1. Introduction

This document contains information about AVer USB VB/VC/CAM series API.

2. Vendor Id & Product Id

Model		Vendor Id	Product Id
VC520		0x2574	0x0901
VC322	UVC	0x2574	0x0950
	UAC	0x2574	0x0951
VB342	UVC	0x2574	0x0960
	UAC	0x2574	0x0961
VB342+	UVC	0x2574	0x0990
	UAC	0x2574	0x0991
CAM520 Pro	UVC	0x2574	0x09B0
VC520 Pro	UVC	0x2574	0x09C0
	UAC	0x2574	0c09C1
CAM520 Pro2	UVC	0x2574	0x0A30
VC520 Pro2	UVC	0x2574	0x0A40
	UAC	0x2574	0x0A41
VB130	UVC	0x2574	0x0A10
	UAC	0x2574	0x0A11
CAM130	UVC	0x2574	0x0A20
VB342 Pro	UVC	0x2574	0x0AB0
	UAC	0x2574	0x0AB1
CAM550	UVC	0x2574	0x0A90

3. Video

- (1) USB Video Class
 - (a) Camera Terminal
 - (i) Camera Terminal Control Selectors

Control Selector	Value
CT_CONTROL_UNDEFINED	0x00
CT_SCANNING_MODE_CONTROL	0x01
CT_AE_MODE_CONTROL	0x02
CT_AE_PRIORITY_CONTROL	0x03
CT_EXPOSURE_TIME_ABSOLUTE_CONTROL	0x04
CT_EXPOSURE_TIME_RELATIVE_CONTROL	0x05
CT_FOCUS_ABSOLUTE_CONTROL	0x06
CT_FOCUS_RELATIVE_CONTROL	0x07
CT_FOCUS_AUTO_CONTROL	0x08
CT_IRIS_ABSOLUTE_CONTROL	0x09
CT_IRIS_RELATIVE_CONTROL	0x0A
CT_ZOOM_ABSOLUTE_CONTROL	0x0B



CT_ZOOM_RELATIVE_CONTROL	0x0C
CT_PANTILT_ABSOLUTE_CONTROL	0x0D
CT_PANTILT_RELATIVE_CONTROL	0x0E
CT_ROLL_ABSOLUTE_CONTROL	0x0F
CT_ROLL_RELATIVE_CONTROL	0x10
CT_PRIVACY_CONTROL	0x11
<ul style="list-style-type: none"> Grey part not supported. 	

(ii) Focus (Absolute) Control

Control Selector		CT_FOCUS_ABSOLUTE_CONTROL		
Mandatory Requests		GET_CUR, GET_MIN, GET_MAX, GET_INFO, GET_DEF, GET_RES		
Optional Requests		SET_CUR		
wLength		2		
Offset	Field	Size	Value	Description
0	wFocusAbsolute	2	Number	The setting for the attribute of the addressed Focus (Absolute) Control.

(iii) Focus, Auto Control

Control Selector		CT_FOCUS_AUTO_CONTROL		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF		
wLength		1		
Offset	Field	Size	Value	Description
0	bFocusAuto	1	Boolean	The setting for the attribute of the addressed Focus Auto control.

(iv) Zoom (Absolute) Control

Control Selector		CT_ZOOM_ABSOLUTE_CONTROL		
Mandatory Requests		GET_CUR, GET_MIN, GET_MAX, GET_INFO, GET_DEF, GET_RES		
Optional Requests		SET_CUR		
wLength		2		
Offset	Field	Size	Value	Description
0	wObjectiveFocalLength	2	Number	The value of Z_{cur}

(v) Zoom (Relative) Control

Control Selector		CT_ZOOM_RELATIVE_CONTROL		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		3		
Offset	Field	Size	Value	Description
0	bZoom	1	Signed number	The setting for the attribute of the addressed Zoom Control: 0: Stop



				1: moving to telephoto direction 0xFF: moving to wide-angle direction
1	bDigitalZoom	1	Boolean	0: Digital Zoom OFF 1: Digital Zoom On
2	bSpeed	1	Number	Speed for the control change
<ul style="list-style-type: none"> Grey part not supported. 				

(vi) PanTilt (Absolute) Control

Control Selector		CT_PANTILT_ABSOLUTE_CONTROL		
Mandatory Requests		GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
Optional Requests		SET_CUR		
wLength		8		
Offset	Field	Size	Value	Description
0	dwPanAbsolute	4	Signed number	The setting for the attribute of the addressed Pan (Absolute) Control
4	dwTiltAbsolute	4	Signed Number	The setting for the attribute of the addressed Tilt (Absolute) Control

(vii) PanTilt (Relative) Control

Control Selector		CT_PANTILT_RELATIVE_CONTROL		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		4		
Offset	Field	Size	Value	Description
0	bPanRelative	1	Signed number	The setting for the attribute of the addressed Pan (Relative) Control: 0: Stop 1: moving to clockwise direction 0xFF: moving to counter clockwise direction
1	bPanSpeed	1	Number	Speed of the Pan movement
2	bTiltRelative	1	Signed number	The setting for the attribute of the addressed Tilt (Relative) Control: 0: Stop 1: point the imaging plane up 0xFF: point the imaging plane down
3	bTiltSpeed	1	Number	Speed for the Tilt movement
<ul style="list-style-type: none"> Grey part not supported. 				



(b) Processing Unit
 (i) Processing Unit Control Selectors

Control Selector	Value
PU_CONTROL_UNDEFINED	0x00
PU_BACKLIGHT_COMPENSATION_CONTROL	0x01
PU_BRIGHTNESS_CONTROL	0x02
PU_CONTRAST_CONTROL	0x03
PU_GAIN_CONTROL	0x04
PU_POWER_LINE_FREQUENCY_CONTROL	0x05
PU_HUE_CONTROL	0x06
PU_SATURATION_CONTROL	0x07
PU_SHARPNESS_CONTROL	0x08
PU_GAMMA_CONTROL	0x09
PU_WHITE_BALANCE_TEMPERATURE_CONTROL	0x0A
PU_WHITE_BALANCE_TEMPERATURE_AUTO_CONTROL	0x0B
PU_WHITE_BALANCE_COMPONENT_CONTROL	0x0C

● Grey part not supported.

(ii) Backlight Compensation Control

Control Selector		PU_BACKLIGHT_COMPENSATION_CONTROL		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		2		
Offset	Field	Size	Value	Description
0	wBacklightCompensation	2	Number	The setting for the attribute of the addressed Backlight Compensation control.

(iii) Brightness Control

Control Selector		PU_BRIGHTNESS_CONTROL		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		2		
Offset	Field	Size	Value	Description
0	wBrightness	2	Signed number	The setting for the attribute of the addressed Brightness control.

(iv) Contrast Control

Control Selector		PU_CONTRAST_CONTROL		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		2		



Offset	Field	Size	Value	Description
0	wContrast	2	Number	The setting for the attribute of the addressed Contrast control.

(v) Power Line Frequency Control

Control Selector		PU_POWER_LINE_FREQUENCY_CONTROL		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		1		
Offset	Field	Size	Value	Description
0	bPowerLineFrequency	1	Number	The setting for the attribute of the addressed Power Line Frequency control: 0: Disabled 1: 50 Hz 2: 60 Hz

(vi) Hue Control

Control Selector		PU_HUE_CONTROL		
Mandatory Requests		GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
Optional Requests		SET_CUR		
wLength		2		
Offset	Field	Size	Value	Description
0	wHue	2	Signed number	The setting for the attribute of the addressed Hue control

(vii) Saturation Control

Control Selector		PU_SATURATION_CONTROL		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		2		
Offset	Field	Size	Value	Description
0	wSaturation	2	Number	The setting for the attribute of the addressed Saturation control

(viii) Sharpness Control

Control Selector		PU_SHARPNESS_CONTROL		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		2		
Offset	Field	Size	Value	Description
0	wSharpness	2	Number	The setting for the attribute of the addressed Sharpness control

(ix) White Balance Temperature Control

Control Selector		PU_WHITE_BALANCE_TEMPERATURE_CONTROL		
Mandatory Requests		GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
Optional Requests		SET_CUR		
wLength		2		
Offset	Field	Size	Value	Description
0	wWhiteBalanceTemperature	2	Number	The setting for the attribute of the addressed White Balance Temperature control

(x) White Balance Temperature, Auto Control

Control Selector		PU_WHITE_BALANCE_TEMPERATURE_AUTO_CONTROL		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF		
wLength		1		
Offset	Field	Size	Value	Description
0	wWhiteBalanceTemperatureAuto	1	Number	The setting for the attribute of the addressed White Balance Temperature, Auto control



(c) Extension Unit – AVer XU1

(i) GUID
{366966CB-266E-47A0-8451-96ECF60330D6}

(ii) AVer XU1 Selectors

Control Selector	Value
UVCX_UCAM_NONE	0x00
UVCX_UCAM_FLIP	0x0f
UVCX_UCAM_MIRROR	0x10
UVCX_UCAM_PRESET	0x12

(iii) Flip Control

Control Selector		UVCX_UCAM_FLIP		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		1		
Offset	Field	Size	Value	Description
0	bFlip	1	Boolean	0: OFF 1: ON
<ul style="list-style-type: none"> VB342 not support this control. 				

(iv) Mirror Control

Control Selector		UVCX_UCAM_MIRROR		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		1		
Offset	Field	Size	Value	Description
0	bMirror	1	Boolean	0: OFF 1: ON
<ul style="list-style-type: none"> VC322, VB342 not support this control. 				

(v) Preset Control

Control Selector		UVCX_UCAM_PRESET		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		3		
Offset	Field	Size	Value	Description
0	bSaveRestore	1	Number	0: save 1: restore
1	wPresetId	2	Number	Preset Id (0~n), n depends on model.



(d) Extension Unit – AVer XU2

(i) GUID
 {36693AD0-130B-11E5-B939-0800200C9A66}

(ii) AVer XU2 Selectors

Control Selector	Value
UVCX_UCAM2_NONE	0x00
UVCX_UCAM2_PRESET_MSG	0x14

(iii)Preset Message On/Off

Control Selector		UVCX_UCAM2_PRESET_MSG		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		1		
Offset	Field	Size	Value	Description
1	bData	1	Number	0: On Screen Menu MSG Off 1: On Screen Menu MSG On 2: Load Preset MSG Off



(e) Extension Unit – AVer XU3

(i) GUID
{36692875-1BA4-4D5B-BF91-CA2965B36DFE}

(ii) AVer XU3 Selectors

Control Selector	Value
UVCX_UCAM3_NONE	0x00
UVCX_UCAM3_UVC_AUTO_FRAMING	0x06
UVCX_UCAM3_UVC_FACE_NUM	0x07
UVCX_UCAM3_UVC_STREAM_TIME	0x08
UVCX_UCAM3_UVC_SMART_AUTO_FRAMING	0x09
UVCX_UCAM3_UVC_LOW_LIGHT_COMP	0x0B
UVCX_UCAM3_UVC_TRACKING_SPEED	0x0F
UVCX_UCAM3_FOCUS_ONE_TRIGGLER	0x12
UVCX_UCAM3_FILL_LIGHT_KEEP_SET	0x13
UVCX_UCAM3_FILL_LIGHT_AUTO	0x14
UVCX_UCAM3_FILL_LIGHT_COLOR_TEMP	0x15
UVCX_UCAM3_FILL_LIGHT_BRIGHT	0x16
UVCX_UCAM3_FILL_LIGHT_POWER_ON	0x17
UVCX_UCAM3_FILL_LIGHT_ON_STM_ON	0x18
UVCX_UCAM3_FILL_LIGHT_OFF_STM_OFF	0x19
UVCX_UCAM3_UVC_FRAMING_SIZE	0x1D

(iii)Auto framing control

Control Selector	UVCX_UCAM3_UVC_AUTO_FRAMING			
Mandatory Requests	SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES			
wLength	1			
Offset	Field	Size	Value	Description
0	bTrigger	1	Number	1: Trigger
<ul style="list-style-type: none"> VC520 not support this control. 				

(iv)People counting

Control Selector	UVCX_UCAM3_UVC_FACE_NUM			
Mandatory Requests	SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES			
wLength	1			
Offset	Field	Size	Value	Description
0	wFaceNum	1	Number	0~254: People counting
<ul style="list-style-type: none"> VC520 not support this control. 				

(v) Meeting interval



Control Selector		UVCX_UCAM3_UVC_STREAM_TIME		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		4		
Offset	Field	Size	Value	Description
0	wStreamTime	4	Number	0~2 ³¹ : Meeting interval(Sec)
<ul style="list-style-type: none"> VC520 not support this control. 				

(vi) Smart Auto Framing

Control Selector		UVCX_UCAM3_UVC_SMART_AUTO_FRAMING		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		1		
Offset	Field	Size	Value	Description
0	bSmartAutoFraming	1	Signed number	0: Manual Frame 1: Audio Frame 2: Framing OFF 3: Preset tracking 4: Audio Tracking 5: Audio Frame 6: Audio Preset Tracking 7: Audio Presentation
<ul style="list-style-type: none"> VC520, VC322, VB342 not support this control. 				

(vii) Low Light Compensation

Control Selector		UVCX_UCAM3_UVC_LOW_LIGHT_COMP		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		1		
Offset	Field	Size	Value	Description
0	bLowLightCompensation	1	Boolean	0: OFF 1: ON
<ul style="list-style-type: none"> VC520, VC322, VB342 not support this control. 				

(viii) Tracking Speed

Control Selector		UVCX_UCAM3_UVC_TRACKING_SPEED		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		1		
Offset	Field	Size	Value	Description
0	bTrackingSpeed	1	Signed number	0: High speed 1: Middle speed 2: Slow speed
<ul style="list-style-type: none"> CAM520 Pro2, VC520 Pro2, VB130 ,CAM130 and CAM550 support this control. 				

(ix) Focus one trigger

Control Selector		UVCX_UCAM3_FOCUS_ONE_TRIGGLER		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		1		
Offset	Field	Size	Value	Description
0	bData	1	Boolean	0: Not trigger 1: Trigger once
<ul style="list-style-type: none"> CAM520 Pro2, VC520 Pro2 and CAM550 support this control. 				

(x) Remember fill light setting

Control Selector		UVCX_UCAM3_FILL_LIGHT_KEEP_SET		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		1		
Offset	Field	Size	Value	Description
0	bKeep	1	Boolean	0: Not keep 1: Keep the settings
<ul style="list-style-type: none"> VB130 and CAM130 support this control. 				

(xi) Intelligent or manual light

Control Selector		UVCX_UCAM3_FILL_LIGHT_AUTO		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		1		
Offset	Field	Size	Value	Description
0	bSwitch	1	Boolean	0: Intelligent light 1: Manual light
<ul style="list-style-type: none"> VB130 and CAM130 support this control. 				

(xii) Fill light color temperature

Control Selector		UVCX_UCAM3_FILL_LIGHT_COLOR_TEMP		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		1		
Offset	Field	Size	Value	Description
0	bTemp	1	Number	Range: 0 - 5 Default: 2
<ul style="list-style-type: none"> VB130 and CAM130 support this control. 				

(xiii) Fill light Bright

Control Selector	UVCX_UCAM3_FILL_LIGHT_BRIGHT
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Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		1		
Offset	Field	Size	Value	Description
0	bBright	1	Number	Range: 0 - 11 Default: 0
<ul style="list-style-type: none"> • VB130 and CAM130 support this control. 				

(xiv) Turn on light when camera is power on

Control Selector		UVCX_UCAM3_FILL_LIGHT_POWER_ON		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		1		
Offset	Field	Size	Value	Description
0	bPower	1	Boolean	0: Disable 1: Enable
<ul style="list-style-type: none"> • VB130 and CAM130 support this control. 				

(xv) Turn on light when video stream is on

Control Selector		UVCX_UCAM3_FILL_LIGHT_ON_STM_ON		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		1		
Offset	Field	Size	Value	Description
0	bStm	1	Boolean	0: Disable 1: Enable
<ul style="list-style-type: none"> • VB130 and CAM130 support this control. 				

(xvi) Turn off light when video stream is off

Control Selector		UVCX_UCAM3_FILL_LIGHT_OFF_STM_OFF		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		1		
Offset	Field	Size	Value	Description
0	bStm	1	Boolean	0: Disable 1: Enable
<ul style="list-style-type: none"> • VB130 and CAM130 support this control. 				

(xvii) Framing Size

Control Selector		UVCX_UCAM3_UVC_FRAMING_SIZE		
Mandatory Requests		SET_CUR, GET_CUR, GET_INFO, GET_DEF, GET_MIN, GET_MAX, GET_RES		
wLength		1		
Offset	Field	Size	Value	Description



0	bFrameSize	1	Signed number	0: Tight 1: Medium 2: Wide
<ul style="list-style-type: none"> CAM520 Pro2, VC520 Pro2 and CAM550 supports this control. 				

(2) Human Interface Devices
(a) Report Format

Report Format		
BYTE [0]	BYTE [1]	BYTE [2]
Report Id = 7	Key state	Key code

(b) Key State

Key state	Code (hex)
Single key	0x08
Repeat start	0x09
Repeat stop	0x0a

(c) Key code

Key function	Key code	Key code (hex)
OK	\n	0x0a
ESC	\e	0x1b
0	0	0x30
1	1	0x31
2	2	0x32
3	3	0x33
4	4	0x34
5	5	0x35
6	6	0x36
7	7	0x37
8	8	0x38
9	9	0x39
STAR	*	0x2a
POUND	#	0x23
DEL	\b	0x08
UP	^	0x5e
DOWN	v	0x76
LEFT	<	0x3c
RIGHT	>	0x3e
ZOOM_IN	+	0x2b
ZOOM_OUT	-	0x2d
FACE_DETECT (AUTO_FRAMING)	c	0x63
HOME	h	0x68
PRESET	@	0x40

4. Audio

- (1) USB Audio Class
 - (a) Feature Unit
 - (i) Mute Control

Control Selector		MUTE_CONTROL		
Mandatory Requests		SET_CUR, GET_CUR, GET_MIN, GET_MAX, GET_RES		
wLength		1		
Offset	Field	Size	Value	Description
0	bMute	1	Boolean	The setting for the addressed Mute Control's CUR attribute. Muted when TRUE, not muted when FALSE.

- (ii) Volume Control

Control Selector		VOLUME_CONTROL		
Mandatory Requests		SET_CUR, GET_CUR, GET_MIN, GET_MAX, GET_RES		
wLength		2		
Offset	Field	Size	Value	Description
0	wVolume	2	Number	The setting for the attribute of the addressed Volume Control: 0x7FFF: 127.9961 dB ... 0x0100: 1.0000 dB ... 0x0002: 0.0078 dB 0x0001: 0.0039 dB 0x0000: 0.0000 dB 0xFFFF: -0.0039 dB 0xFFFE: -0.0078 dB ... 0xFE00: -1.0000 dB ... 0x8002: -127.9922 dB 0x8001: -127.9961 dB 0x8000: -∞dB (CUR attribute only)

(2) Human Interface Devices

(a) Report Format
Same as 3.2.a

(b) Key State
Same as 3.2.b

(c) Key code

Key function	Key code	Key code (hex)
CALL	o	0x6f
HANGUP	x	0x78
VOL_UP]	0x5d
VOL_DOWN	[0x5b
MUTE	m	0x6d

5. Reference

- (1) USB Video Class v1.1
<https://usb.org/document-library/video-class-v11-document-set>
- (2) Device Class Definition for HID 1.11
<https://www.usb.org/document-library/device-class-definition-hid-111>
- (3) HID Usage Tables 1.12
<https://usb.org/document-library/hid-usage-tables-112>
- (4) Audio Device Class Spec for Basic Audio Devices v1.0
<https://usb.org/document-library/audio-device-class-spec-basic-audio-devices-v10-and-adopters-agreement>