

AVER VISCA

Specification

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 Baud rate: 2400, 4800, 9600 (default), 115200 bps..... 3

 Date bits: 8 3

 Start bit: 1..... 3

 Stop bit: 1..... 3

 Parity: None 3

 Flow control: None. 3

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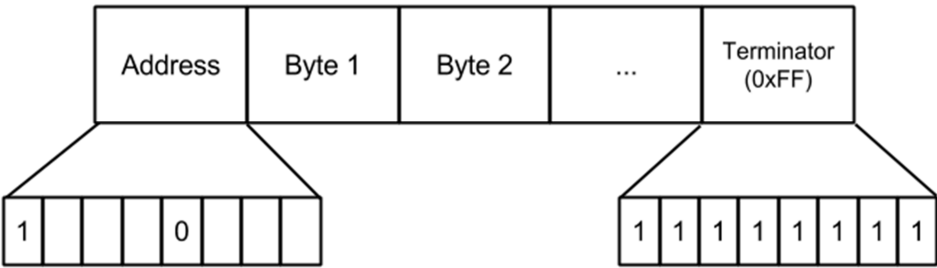
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1 Introduction

AVER VISCA protocol provides an interface through RS232 for remote devices to communicate with the conference camera. This document contains information about the use of AVER VISCA protocol, and is intended for system integrators.

2 RS232

- Baud rate: 2400, 4800, 9600 (default), 115200 bps.
- Data bits: 8
- Start bit: 1
- Stop bit: 1
- Parity: None
- Flow control: None.

3 VISCA message format

3.1 Commands and responses format

The minimum length of any command or response is 3 bytes:

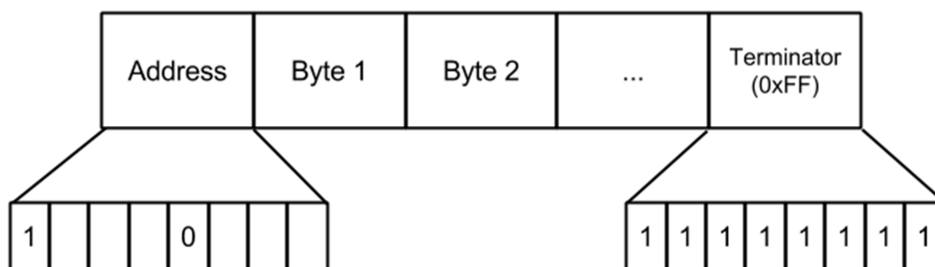
- Address byte (1)
 - Command:

The most significant 4 bits are sender address, and the least significant 4 bits are receiver address. We only support one host; the sender address must always be 0x8X. 7 receiver address supported, start from 1. (I.e. address 1: 0x81, address 2: 0x82 ...). Command address presents as 8x (see bellow command table).
 - Reply:

Only most significant 4 bits are used as reply address. (I.e. address 1: 0x90, address 2: 0xa0, ...). Reply address presents as y0 (see bellow command table).
- Message bytes (1..14)

You may get more information from bellow command table.
- Terminator byte (1)

All message must be terminated with 0xFF.



3.2 Command

Command	Command Message	Reply Message	Comments
Network change		y0 38 FF	Network change.
Address_Set	88 30 01 FF	88 30 02 FF	Always broadcasted.
IF_Clear(broadcast)	88 01 00 01 FF	88 01 00 01 FF	The same command is returned.
IF_Clear	8x 01 00 01 FF	y0 50 FF	Ack.
CAM_VersionInq	8x 09 00 02 FF	y0 50 GG GG HH HH JJ JJ KK FF	GGGG = Vender ID HHHH = Model ID JJJJ = Version KK = Maximum socket #
PT_Pos_Inq	8x 09 06 12 FF	y0 50 0Y 0Y 0Y 0Y 0V 0V 0V 0V FF	0Y 0Y 0Y 0Y: Pan position ¹ 0V 0V 0V 0V: Tilt position ¹
Zoom_Pos_Inq	8x 09 04 47 FF	y0 50 0Y 0Y 0Y 0Y FF	0Y 0Y 0Y 0Y: Zoom position ¹
PT_Stop	8x 01 06 01 00 00 03 03 FF	y0 50 FF	
PT_Up	8x 01 06 01 00 00 03 01 FF		
PT_Down	8x 01 06 01 00 00 03 02 FF		
PT_Left	8x 01 06 01 00 00 01 03 FF		
PT_Right	8x 01 06 01 00 00 02 03 FF		
PT_Direct	8x 01 06 02 00 00 0Y 0Y 0Y 0Y 0V 0V 0V 0V FF		0Y 0Y 0Y 0Y: Pan position ¹ 0V 0V 0V 0V: Tilt position ¹
Zoom_Stop	8x 01 04 07 00 FF		
Zoom_Tele	8x 01 04 07 20 FF		
Zoom_Wide	8x 01 04 07 30 FF		
Zoom_Direct	8x 01 04 47 0Y 0Y 0Y 0Y FF		0Y 0Y 0Y 0Y: Zoom position ¹
CAM_Memory	8x 01 04 3F 01 YY FF		Set YY: id
CAM_Memory	8x 01 04 3F 02 YY FF		Recall YY: id
CAM_Power_ON	8x 01 04 00 02 FF		
CAM_Power_OFF	8x 01 04 00 03 FF		
CAM_Track_Trigger	8x 01 04 7D 00 00 FF		CAM540, VB342+, CAM/VC520 Pro: Framing start

CAM_Track_ON	8x 01 04 7D 02 00 FF		CAM540, VB342+, CAM520Pro, VC520 Pro: Auto framing mode
CAM_Track_OFF	8x 01 04 7D 03 00 FF		CAM540, VB342+, CAM520Pro, VC520 Pro: Manual framing mode
CAM_Track_Audio	8x 01 04 7D 04 00 FF		VB342+: Audio tracking mode
CAM_Track_Audio_F rame	8x 01 04 7D 05 00 FF		VB342+: Audio frame mode
CAM_Track_Audio_P reset	8x 01 04 7D 06 00 FF		VB342+: Audio Preset tracking mode

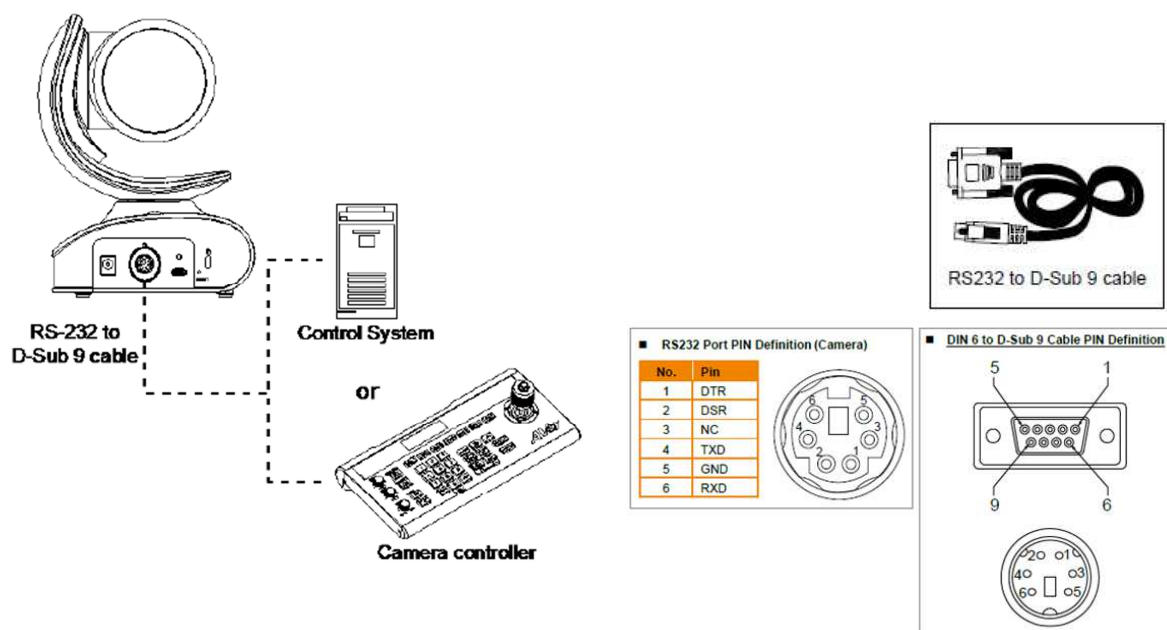
1. Position is separate into 0Y 0Y 0Y 0Y, user may assemble back as YYYY. (I.e. 0x1234 → 01 02 03 04)

4 Revision History

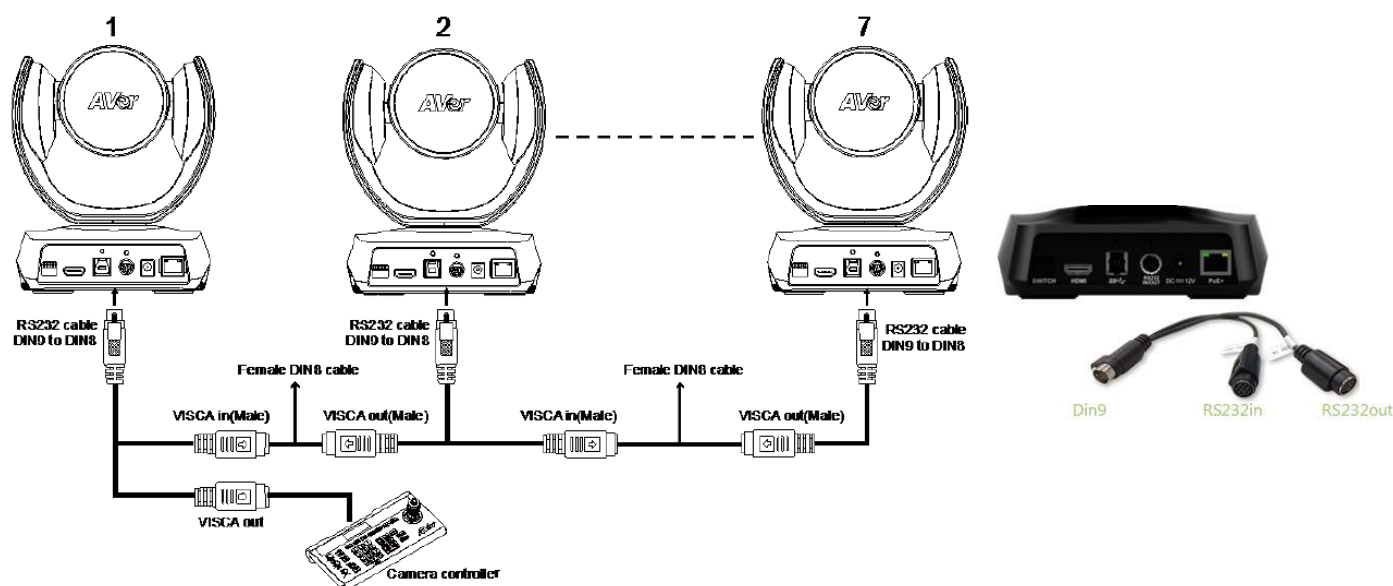
Date	Rev.	Author	Content
2015.07.31	1.0	Drama	Draft
2016.02.23	1.1	Drama	Modified. Zoom_Tele & Zoom_Wide.
2018.09.25	1.2	William	Add. CAM_Power_ON & CAM_Power_OFF
2019.10.08	1.3	William	Add. CAM_Track Command
2019.12.24	1.4	Drama	Add. CAM520Pro/VC520 Pro

5 RS232 connection

Model: CAM520,VC520+, CAM540, VB342+

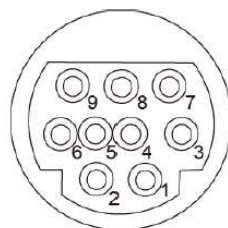


Model: CAM520 Pro/ VC520 Pro



■ RS232 port Pin Definition (Camera)

PIN #	I/O Type	Description
1	Output	VISCA IN Data Terminal Ready
2	Input	VISCA IN Data Set Ready
3	Output	VISCA IN TXD
4	Input	VISCA OUT Data Set Ready
5	---	Not connect
6	Input	VISCA IN RXD
7	Output	VISCA OUT Data Terminal Ready
8	Output	VISCA OUT TXD
9	Input	VISCA OUT RXD



MINI-DIN8 Pin Definition

● RS232 Port Pin definition

No.	Pin
1	DTR
2	DSR
3	TXD
4	GND
5	RXD
6	GND
7	NC
8	NC

