

# Audio/Video Control Serial Interface



## Ultra 8 RS232 Commands and Serial Port Pinouts

List of Commands and Their Function:

<b>A/V Command</b>	<b>Function</b>
PON	Power On
POFF	Power Off
VGA	Select VGA Video Output at current VGA resolution
VGA1	Select VGA Video Output at 640x480
VGA2	Select VGA Video Output at 800x600
VGA3	Select VGA Video Output at 1024x768
HDMI	Select HDMI Video Output at current HDMI resolution
HDMI1	Select HDMI Video Output at 1280x720
HDMI2	Select HDMI Video Output at 1920x1080
ZOOM+	Increase Zoom value by 10
ZOOM-	Decrease Zoom value by 10
ZOOM <i>val</i>	Set Zoom value to <i>val</i> from 0 to 100
PAN+	Increase Pan value by 10
PAN-	Decrease Pan value by 10
PAN <i>val</i>	Set Pan value to <i>val</i> from -100 to +100
TILT+	Increase Tilt value by 10
TILT-	Decrease Tilt value by 10
TILT <i>val</i>	Set Tilt value to <i>val</i> from -100 to +100

ROT	Toggle Video Rotation
ROT0	Set Video Rotation to 0 degrees
ROT1	Set Video Rotation to 180 degrees
AFEN	Auto Focus Enable
AFLOCK	Auto Focus Lock

**Serial Communication:**

<b>Port Type:</b>	RS-232	<b>Parity:</b>	None
<b>Baud Rate:</b>	9600	<b>Stop Bits:</b>	1
<b>Data Bits:</b>	8	<b>Flow Control:</b>	None

**Pin Assignments:**

mini-DIN 8P to RS232-DB9

mini-DIN 8P	RS232-DB9
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signal	pin	→	signal	pin
TxD	1	→	RxD	2
RxD	7	→	TxD	3
GND	4	→	GND	5



## ● Interface format

- 1 Communication method RS-232C, 9600bps, No Parity, Data Length: 8 bits;  
Stop Bit Length: 1 bit
- 2 Communication format 

STX (02h)	Command (3Byte)	ETX (03h)
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Only 1 command valid per communication.
- 3 Data format For input commands, only ASCII-compliant all-uppercase alphanumeric characters supported.
- 4 Replies
 

Acknowledge	ACK (06h)	CR (0Dh)	Data	... Normally ended
	ACK (06h)	ESC (1Bh)		... Aborted
No acknowledge	NAK (15h)			

If commands are to be sent consecutively, wait for the response from the projector before sending the next command.

Sample command string:

**Serial port settings**

<p>Port configuration</p> <p>Port: <span style="border: 1px solid gray; padding: 2px;">COM9</span></p> <p>Baud rate: <span style="border: 1px solid gray; padding: 2px;">9600</span></p> <p>Data bits: <span style="border: 1px solid gray; padding: 2px;">8</span></p> <p>Stop bits: <span style="border: 1px solid gray; padding: 2px;">1</span></p> <p>Parity: <span style="border: 1px solid gray; padding: 2px;">none</span></p> <p>Flow control: <span style="border: 1px solid gray; padding: 2px;">none</span></p> <p>Forward: <span style="border: 1px solid gray; padding: 2px;">none</span></p>	<p>Transmitted text</p> <p><input type="radio"/> Append nothing</p> <p><input type="radio"/> Append CR</p> <p><input checked="" type="radio"/> Append LF</p> <p><input type="radio"/> Append CR-LF</p> <p><input checked="" type="checkbox"/> Local echo</p>	<p>Options</p> <p><input type="checkbox"/> Stay on top</p> <p><input checked="" type="checkbox"/> Quit on Escape</p> <p><input checked="" type="checkbox"/> Autocomplete edit line</p> <p><input type="checkbox"/> Close port when inactive</p>
<p>Received text</p> <p>Font: <span style="border: 1px solid gray; padding: 2px;">default</span></p> <p><input type="checkbox"/> Word wrap</p>	<p>Plug-ins</p> <p><input type="checkbox"/> Function Keys</p> <p><input checked="" type="checkbox"/> Hex View</p> <p><input type="checkbox"/> Highlight</p> <p><input type="checkbox"/> Log File</p>	

User interface language: English (en) Cancel OK

**HexView filter settings**

Enable entry of hexadecimal values OK

Send low byte first for multi-byte value Cancel

Prefix: \X

Display received data in hexadecimal Help

Bytes per line: 16

