

ELITE

**VSX-49TX**

**RS-232C Protocol**

## Physical Cable Connection

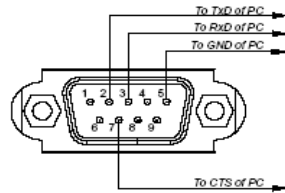
### Connector

RS232C DB9 Male

Pin	AV Receiver
1	*1
2	RXD
3	TXD
4	*1
5	GND
6	*1
7	RTS(BUSY)
8	NC
9	NC

\*1 Pin 1&4&6 are shorted each other.

PC Control Connector (D-Sub 9P)



### Communication

Communication Speed : 9600bps

Protocol type : 8data bits,1stop bit,no parity

**VSX-49TX RS-232C Commands List****Automatic Feedback**

When the input or function status is changed using knobs on the front panel or the remote control of the receiver, the receiver will send it's new status automatically. (VOLXX,PQRX,MUTX,FUNXX,SRXXXX,LMXXX

(For example) The user changes a function on the front panel.  
Receiver sends: FUNXX<CR+LF>

X:Argument:ASC II code

**Status Request Commands**

Command	Command Name	Argument	operation	Answer
?V<CR>	VOLUME LEVEL STATUS REQUEST		Return the VOLUME LEVEL	VOLXX<CR+LF> *1
?P<CR>	POWER STATUS REQUEST		Return the POWER status	PWRX<CR+LF> *2
?M<CR>	MUTE STATUS REQUEST		Return the MUTE status	MUTX<CR+LF> *2
?F<CR>	FUNCTION MODE REQUEST		Return the FUNCTION MODE	FUNXX<CR+LF> *3
?S<CR>	LISTENING MODE SETTING REQUEST		Return the L.M SETTING	SRXXXX<CR+LF> *4
?L<CR>	LISTENING MODE REQUEST		Return the L.M	LMXXX<CR+LF> *5

**Operation Commands**

Command	Command Name	Argument	Operation	Answer
VU<CR>	VOLUME UP		VOLUME UP	VOLXX<CR+LF> *1
VD<CR>	VOLUME DOWN		VOLUME DOWN	VOLXX<CR+LF> *1
XXVL<CR>	VOLUME SET	00-93 *1	Set the VOLUME level	VOLXX<CR+LF> *1
PO<CR>	POWER ON		POWER ON	PWRX<CR+LF> *2
PF<CR>	POWER OFF		POWER OFF	PWRX<CR+LF> *2
MO<CR>	MUTE ON		MUTE ON	MUTX<CR+LF> *2
MF<CR>	MUTE OFF		MUTE OFF	MUTX<CR+LF> *2
XXFN<CR>	FUNCTION MODE SET	*3	Set the FUNCTION MODE	FUNXX<CR+LF> *3
FU<CR>	FUNCTION MODE UP		Change the FUNCTION MODE	FUNXX<CR+LF> *3
XXX(X)SR<CR>	LISTENING MODE SET	*4	Change the LISTENING MODE	SRXXX(X)<CR+LF> *4

**Error message**

Error Message	Error Name	Meaning
E04<CR+LF>	COMMAND ERROR	Inappropriate Command line detected
E06<CR+LF>	ARGUMENT ERROR	Inappropriate Factor

**Explanation of arguments****\*1 VOLUME LEVEL [2byte]**

93VL<CR>	+12dB
81VL<CR>	0dB
01VL<CR>	-80dB
00VL<CR>	-- (same as mute)

**Example1**

Command ?V<CR>  
Answer VOL93<CR+LF>

Request Volume Level.  
Volume is set to +12dB.

**\*2 ON/OFF Status Reply [1byte]**

0	ON
1	OFF

**Example2**

Command ?M<CR>  
Answer MUT0<CR+LF>

Request Mute Status.  
Mute is On.

**\*3 FUNCTION MODE Command NO. [2byte]**

00FN<CR>	PHONO
01FN<CR>	CD
02FN<CR>	TUNER
03FN<CR>	CDR
04FN<CR>	DVD
05FN<CR>	TV
06FN<CR>	SAT
07FN<CR>	VCR1
08FN<CR>	VCR2
09FN<CR>	VCR3
10FN<CR>	VIDEO or VIDEO1

**Example3**

Command 04FN<CR>  
Answer FUN04<CR+LF>

Change to source 04(DVD).

**Example4**

Command in respect of "?F<CR>"  
Answer FUN04<CR+LF>

Request Current Source.  
Source 04 is selected(DVD).

#### \*4 LISTENING MODE SET, LISTENING MODE SETTING REQUEST [4byte]

When you set the "Listening Mode" with the receiver's front panel keys and knobs, you use the "LISTENING MODE SELECTOR" knob along with "LISTENING CH SELECT" button. Depending on the source signal there are some modes which are not available. There is automatic detection for 2ch and 6.1ch, but that too is source dependent (flags) and may not appear to work properly

With the "SR" command, you can select whichever mode you wish.

Also, you can confirm your selection with the "SR" command by using "?S" command query.

When a LISTENING MODE is changed, the set will dispatch an ANSWER to let the controller know the current set status automatically without receiving a LISTENING MODE SETTING REQUEST. (Automatic Feedback)

[2-4byte]:data for mode setting.

Below the are the commands for selecting a LISTENING MODE.

##### STANDARD

0000SR<CR>	PRO LOGIC II MOVIE 5.1
0001SR<CR>	PRO LOGIC II MUSIC 5.1
0002SR<CR>	PRO LOGIC 5.1
0003SR<CR>	Neo:6 CINEMA 5.1
0004SR<CR>	Neo:6 MUSIC 5.1
0005SR<CR>	PRO LOGIC II MOVIE 7.1
0006SR<CR>	PRO LOGIC II MUSIC 7.1
0007SR<CR>	PRO LOGIC 7.1
0008SR<CR>	Neo:6 CINEMA 7.1
0009SR<CR>	Neo:6 MUSIC 7.1
0010SR<CR>	PRO LOGIC II MOVIE AUTO
0011SR<CR>	PRO LOGIC II MUSIC AUTO
0012SR<CR>	PRO LOGIC AUTO
0013SR<CR>	Neo:6 CINEMA AUTO
0014SR<CR>	Neo:6 MUSIC AUTO

##### ADVANCED CINEMA

0032SR<CR>	ACTION 5.1
0033SR<CR>	SCI FI 5.1
0034SR<CR>	DRAMA 5.1
0035SR<CR>	MUSICAL 5.1
0036SR<CR>	MONOFILM 5.1
0037SR<CR>	5D-THEATER 5.1
0038SR<CR>	ACTION 7.1
0039SR<CR>	SCI FI 7.1
0040SR<CR>	DRAMA 7.1
0041SR<CR>	MUSICAL 7.1
0042SR<CR>	MONOFILM 7.1
0043SR<CR>	5D-THEATER 7.1
0044SR<CR>	ACTION AUTO
0045SR<CR>	SCI FI AUTO
0046SR<CR>	DRAMA AUTO
0047SR<CR>	MUSICAL AUTO
0048SR<CR>	MONOFILM AUTO
0049SR<CR>	XD-THEATER AUTO

##### THX

0064SR<CR>	PRO LOGIC II MOVIE 5.1
0065SR<CR>	PRO LOGIC 5.1
0066SR<CR>	Neo:6 CINEMA 5.1
0067SR<CR>	PRO LOGIC II MOVIE 7.1
0068SR<CR>	PRO LOGIC 7.1
0069SR<CR>	Neo:6 CINEMA 7.1
0070SR<CR>	PRO LOGIC II MOVIE AUTO
0071SR<CR>	PRO LOGIC AUTO
0072SR<CR>	Neo:6 CINEMA AUTO

## ADVANCED CONCERT

0096SR<CR>	CLASSICAL 5.1
0097SR<CR>	CHAMBER 5.1
0098SR<CR>	JAZZ 5.1
0099SR<CR>	ROCK 5.1
0100SR<CR>	DANCE 5.1
0101SR<CR>	5CH-STEREO 5.1
0102SR<CR>	CLASSICAL 7.1
0103SR<CR>	CHAMBER 7.1
0104SR<CR>	JAZZ 7.1
0105SR<CR>	ROCK 7.1
0106SR<CR>	DANCE 7.1
0107SR<CR>	7CH-STEREO 7.1
0108SR<CR>	CLASSICAL AUTO
0109SR<CR>	CHAMBER AUTO
0110SR<CR>	JAZZ AUTO
0111SR<CR>	ROCK AUTO
0112SR<CR>	DANCE AUTO
0113SR<CR>	XCH-STEREO AUTO

## STEREO

0128SR<CR>	STEREO
0129SR<CR>	DIRECT

## MULTI-CH

0256SR<CR>	MULTI-CH DIRECT
0512SR<CR>	MULTI-CH ADJUST

[1byte]:2-4byte is for the additional selection available only in THX or STANDARD or MULTI-CH setting

Additional Setting for THX mode:Only applicable 2-4byte is 067-069

0	CINEMA
1	SURROUND EX
2	THX ULTRA2 CINEMA
3	MUSIC

Additional Setting for STANDARD mode:Only applicable 2-4byte is 005-009

0	STANDARD EX
1	STANDARD SX

Additional Setting for MOVIE mode:Only applicable 2-4byte is 003-005

0	STANDARD EX
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Additional Setting for MULTI-CH:Only applicable 2-4byte is 256,512.

0	MULTI-CH 8ch
1	MULTI-CH 2ch

## Example5

Command 0006SR<CR>  
Answer SR0006<CR+LF>

0 : STANDARD EX  
006 : PRO LOGIC II MUSIC

## Example6

Command ?S<CR>  
Answer SR2067<CR+LF>

2 :THX ULTRA2 CINEMA  
067 :PRO LOGIC II MOVIE

## Example7

Answer SR1512<CR+LF>

1 :MULTI-CH 2ch  
512 :MULTI-CH ADJUST

## \*5 LISTENING (DECODE) MODE REQUEST [3byte]

Below is the list Indicating the combination of the LISTENING MODE selected by "SR" command and the LISTENING MODE determined by the input source signal.

When the LISTENING MODE is set and the format for the source signal is confirmed, the receiver will send an ANSWER COMMAND to the controller to let it know the LISTENING MODE status. It replies automatically and does not need to receive a LISTENING MODE REQUEST.

(Automatic Feedback)

LISTENING MODE shows the current signal format the receiver is detecting or the surround mode which has been added to the original signal LM\*\*\*

## STEREO

LM128	STEREO
LM129	DIRECT

**STANDARD**

LM002	PRO LOGIC
LM000	PRO LOGIC II MOVIE
LM001	PRO LOGIC II MUSIC
LM003	Neo:6 CINEMA
LM004	Neo:6 MUSIC

LM031	PCM
LM300	PCM 88.2KHz
LM015	PCM 96KHz
LM302	PCM 176.4KHz
LM303	PCM 192KHz
LM327	PCM +SX

LM016	DOLBY DIGITAL
LM018	DOLBY DIGITAL SX

LM019	DTS
LM021	DTS-SX
LM022	DTS-ES DISC 6.1
LM023	DTS-ES MTRX 6.1
LM030	DTS 96/24

LM024	MPEG BC
LM026	MPEG BC SX

LM027	MPEG-2 AAC
LM029	MPEG-2 AAC SX

LM017	DOLBY DIGITAL TX
LM025	MPEG BC TX
LM028	MPEG-2 AAC TX

**ADVANCED CINEMA**

LM032	ACTION
LM033	SCIFI
LM034	DRAMA
LM035	MUSICAL
LM036	MONOFILM
LM037	5D-THEATER
LM043	7D-THEATER

**ADVANCED CONCERT**

LM096	CLASSICAL
LM097	CHAMBER
LM098	JAZZ
LM099	ROCK
LM100	DANCE
LM101	5CH-STEREO
LM107	7CH-STEREO

**THX**

LM080	THX CINEMA
LM081	THX SURROUND EX
LM082	THX ULTRA2 CINEMA
LM083	THX MUSIC MODE
LM084	DTS-ES + THX

**MULTI-CH**

LM257	MULTI-CH DIRECT 8
LM513	MULTI-CH ADJUST 8
LM258	MULTI-CH DIRECT 2
LM514	MULTI-CH ADJUST 2