



ReThink

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RAV-EX-U70-TxRx

RS-232 Control Commands

RAV-EX-U70-TxRx

18Gb USB-C and HDMI & USB 2.0 over HDBaseT 3.0

Osiris family of extenders



RS-232 Connection

Baud rate: 115,200 (Fixed)

Data bits: 8

Stop bits: 1

Parity: None

Flow control: None

Connect the SERVICE port of the transmitter to a PC or control system with a USB-C cable.

RS-232 Commands

ASCII Commands				
SERVICE (USB-C port with virtual RS-232) communication protocol (Connect to laptop) Baud rate: 115200 (Fixed), Data bit: 8, Stop bit: 1, Parity bit: none The end mark of command is "<CR><LF>"				
Command	Function	Example	Feedback	Default
?	Get the list of all commands	?	List all commands	
help	Get the list of all commands	help	List all commands	
get fw version	Get the firmware version	get fw version	FW V1.00.00	

Command	Function	Example	Feedback	Default
set reboot	Reboot the device	set reboot	Reboot... System Initializing... Initialization Finished! FW V1.00.00	
set reset	Reset to factory defaults	set reset	Sure to RESET to default settings? Type "Yes" after next prompt to confirm...	
get status	Get system status	get status	Please refer to the note for "get status".	

set tx source x	Set TX input source(x=0~3) x=0: OFF x=1: USB-C input x=2: AVMUTE x=3: Internal pattern	set tx source 1 set tx source 0	Set TX source to USB-C Set TX source to OFF	1
get tx source	Get TX input source	get tx source	USB-C	
set tx pattern x y	Set TX internal pattern generator resolution (x=1~7) pattern (y=1~12) x=01: 1080P60Hz x=02: 4K60Hz x=03: 4K30Hz x=04: 4K25Hz x=05: 4K24Hz x=06: 720P60Hz x=07: 480P60Hz y=01: Black y=02: Checkboard y=03: Strip y=04: Red y=05: Green y=06: Blue y=07: White y=08: Ramp y=09: Red ramp y=10: Green ramp y=11: Blue ramp y=12: PRBS	set tx pattern 1 2	Set TX pattern 1080P60Hz checkboard	
get tx pattern	Get TX internal pattern generator output resolution and pattern	get tx pattern	TX pattern 1080P60Hz checkboard	
set tx input hdcp y	Set TX input HDCP to (y=0~2) y=0: HDCP OFF y=1: HDCP 1.4 y=2: HDCP 2.2	set tx input hdcp 2 set tx input hdcp 0	Set TX input HDCP 2.2 Set TX input HDCP OFF	HDCP 2.2

Command	Function	Example	Feedback	Default
get tx input hdcv	Get TX input HDCP status	get tx input hdcv	TX input HDCP 2.2	
set tx output hdcv y	Set TX output HDCP mode to (y=0~4) y=0: Reserved y=1: Follow sink (default) y=2: Follow source y=3: Force HDCP 1.4 y=4: Force HDCP 2.2	set tx output hdcv 1	Set TX output HDCP to follow sink	1
get tx output hdcv	Get TX output HDCP mode	get tx output hdcv	Follow sink	
get tx usbc5v	Get TX USB-C host input 5V	get tx usbc5v	On	
set tx edid to y	Set TX input EDID to (y=0~18) y=00: Copy EDID from RX HDMI output (default) y=01: 1920x1080p60Hz, Audio 2CH PCM y=02: 1920x1080p60Hz, Audio 5.1CH DTS/DOLBY y=03: 1920x1080p60Hz, Audio 7.1CH DTS/DOLBY/HD y=04: 3840x2160p30Hz 4:4:4, Audio 2CH PCM y=05: 3840x2160p30Hz 4:4:4, Audio 5.1CH DTS/DOLBY y=06: 3840x2160p30Hz 4:4:4, Audio 7.1CH DTS/DOLBY/HD y=07: 3840x2160p60Hz 4:2:0, Audio 2CH PCM y=08: 3840x2160p60Hz 4:2:0, Audio 5.1CH DTS/DOLBY y=09: 3840x2160p60Hz 4:2:0, Audio 7.1CH DTS/DOLBY/HD y=10: 3840x2160p60Hz 4:4:4, Audio 2CH PCM y=11: 3840x2160p60Hz 4:4:4, Audio 5.1CH	set tx edid to 0	Set TX input EDID to 00_Copy EDID from RX HDMI output (default)	0

	DTS/DOLBY y=12: 3840x2160p60Hz 4:4:4, Audio 7.1CH DTS/DOLBY/HD y=13: WUXGA 1920x1200p 60Hz, Audio 2CH PCM y=14: DVI 1280x1024p60Hz, Audio None y=15: DVI 1920x1080p60Hz, Audio None y=16: DVI 1920x1200p60Hz, Audio None y=17: User Defined 1 y=18: User Defined 2			
Command	Function	Example	Feedback	Default
get tx edid	Get TX input EDID	get tx edid	TX input EDID to 00_ Copy EDID from RX HDMI output (default)	
get tx edid data	Get TX input EDID data	get tx edid data	TX input EDID <00 FF FF FF....>	
set user edid x <y>	Set user defined EDID (x=0~2) to y x=0: User Defined 1 and User Defined 2 x=1: User Defined 1 x=2: User Defined 2 y=00 FF FF FF (y is 256 bytes EDID data)	set user edid 1 <00 FF FF FF....>	User defined 1 EDID is loaded	
get user edid x	Get user defined EDID (x=0~2) data x=0: User Defined 1 and User Defined 2 x=1: User Defined 1 x=2: User Defined 2	get user edid 1	User defined 1 EDID <00 FF FF FF....>	
set hdbt update	Set SERVICE to HDBT UART for FW update	set hdbt update	HDBT update...	

Note: The feedback of the command of “get status” is as following. (The middle line ends with <LF> <CR> and the last line ends with <CR><LF>.)

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===== Status Info USB-C Extender over HDBT FW V1.00.00

Input   Cable      HDCP      EDID
USB-C   Connected   HDCP 2.2   00_Copy EDID from RX HDMI output (default)

Output  Cable      Resolution    Colour Space  Colour Depth  HDCP
HDMI    Connected  3840x2160p60Hz  YUV 4:4:4    8bit          HDCP 2.2
=====
=====
```