STM3 OUTDOOR DISPLAYS

Outdoor Displays
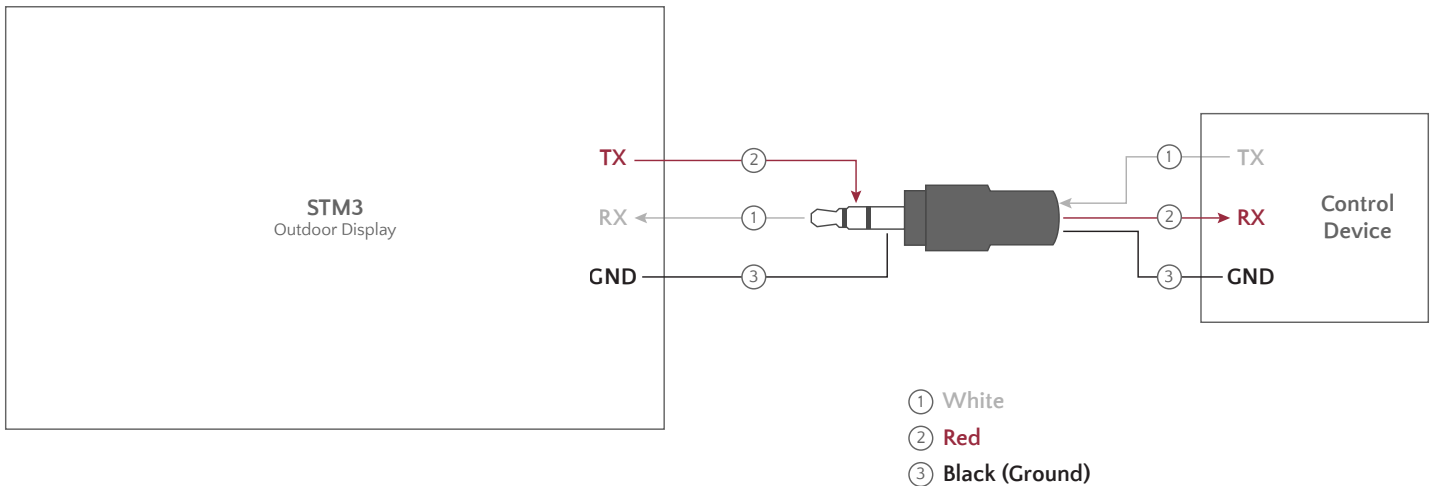
RS232 TXD and RXD

Synchronization Method	Asynchronous
Baud Rate	19200
Parity	None
Character Length	8 Bits
Flow Control	None
Start Bits	1
Stop Bits	1

COMPATIBLE SKUS:

STM3-49-S	STM3-49-U
STM3-55-S	STM3-55-U
STM3-65-S	STM3-65-U
STM3-86-S	STM3-86-U

Basic Format for Control

The Transmission of data from the Controller (Computer or A/V Controller) starts with an STX [0x02] signal, followed by the command, then the parameters, and lastly an ETX [0x03] signal. If there are no parameters, then the parameter does not need to be sent. A colon separates the commands from the parameters.

All Commands start with STX [0x02] and end with ETX [0x03]. Any data not contained between the STX and ETX commands will be ignored by the TV. **STX and ETX <u>must</u> be sent as hex commands; all other data <u>must</u> be sent as ASCII characters.**

NOTE: The brackets [ ] in the rest of this document do not get sent or returned in the command/query. They are there to indicate characters to be sent in hex.

All responses from the TV to Queries start with STX [0x02] and end with ETX [0x03]. Any data not contained between the STX and ETX commands must be ignored by the controller. **STX and ETX <u>must</u> be sent as hex commands; all other data <u>must</u> be sent as ASCII characters.**

Optional ID number: Three ASCII digits ranging from 000-255. Each TV will have the option in the Factory Menu of setting a Unit ID Number.
A Semicolon (;) separates the ID Number from the Command.

The ID number may be set on the TV in the Service Menu. ID number 000 sends to all devices regardless of the ID number of individual devices (global command).

Contact Séura Technical Support for instructions on accessing the Service Menu at 800-957-3872 or techsupport@seura.com

Each command is a string of ASCII characters plus a Parameter
A colon separates the Command from the Parameter.

The Parameter is 1 to 5 ASCII characters long.

After each command is received, the TV shall send back an acknowledgment.
For most commands, this will be a simple STX[0x02] , the ASCII letters "OK", and an ETX[0x03]

If there is an error, the TV shall return STX [0x02], the ASCII letters "ER", and ETX [0x03]. There may be parameters added after a colon if more details are possible.

If a command is sent to a TV that does not support this command, i.e. a tuner command for a monitor, the set shall return STX [0x02], the ASCII letters "INVALID" and ETX [0x03].

POWER (PWD)

	COMMAND	RESPONSE	QUERY	RESPONSE
OFF	[0x02]PWD:0[0x03]	[0x02]Power(OK)[0x03] [0x02]Power(0)[0x03] [1]	[0x02]PWD:?[0x03]	[0x02]Power(0)[0x03]
ON	[0x02]PWD:1[0x03]	[0x02]Power(OK)[0x03] [0x02]Power(1)[0x03] [1] [0x02]Input(X)[0x03] [1,2]	[0x02]PWD:?[0x03]	[0x02]Power(1)[0x03]
TOGGLE	[0x02]PWD:3[0x03]	[0x02]Power(OK)[0x03] [0x02]Power(X)[0x03] [1,2] [0x02]Input(X)[0x03] [1,2,3]	N/A	N/A

[1] Response is sent during state change
[2] X represents the power state or input number
[3] Message is only generated during power on

INPUT (INP)

	COMMAND	RESPONSE	QUERY	RESPONSE
HDMI1	[0x02]INP:1[0x03]	[0x02]Input(OK)[0x03] [0x02]Input(1)[0x03] [1]	[0x02]INP:?[0x03]	[0x02]Input(1)[0x03]
HDMI2	[0x02]INP:6[0x03]	[0x02]Input(OK)[0x03] [0x02]Input(6)[0x03] [1]	[0x02]INP:?[0x03]	[0x02]Input(6)[0x03]
HDMI3	[0x02]INP:9[0x03]	[0x02]Input(OK)[0x03] [0x02]Input(9)[0x03] [1]	[0x02]INP:?[0x03]	[0x02]Input(9)[0x03]
DISPLAY PORT	[0x02]INP:10[0x03]	[0x02]Input(OK)[0x03] [0x02]Input(10)[0x03] [1]	[0x02]INP:?[0x03]	[0x02]Input(10)[0x03]
COMPONENT	[0x02]INP:7[0x03]	[0x02]Input(OK)[0x03] [0x02]Input(7)[0x03] [1]	[0x02]INP:?[0x03]	[0x02]Input(7)[0x03]
HDBASET	[0x02]INP:11[0x03]	[0x02]Input(OK)[0x03] [0x02]Input(11)[0x03] [1]	[0x02]INP:?[0x03]	[0x02]Input(11)[0x03]

[1] Response is sent during state change

VOLUME (VOL)

	COMMAND	RESPONSE	QUERY	RESPONSE
SET VOLUME	[0x02]VOL:XXX[0x03] [1]	[0x02]Volume(OK)[0x03]	[0x02]VOL:?[0x03]	[0x02]Volume(XXX)[0x03] [2]
VOL UP	[0x02]VOL:+[0x03]	[0x02]Volume(OK)[0x03]	[0x02]VOL:?[0x03]	[0x02]Volume(XXX)[0x03]
VOL DOWN	[0x02]VOL:-[0x03]	[0x02]Volume(OK)[0x03]	[0x02]VOL:?[0x03]	[0x02]Volume(XXX)[0x03]

[1] XXX is the desired volume level ranging from 0-100. Leading zeros for volume level are optional
[2] XXX represents the current volume level ranging from 0-100. Leading zeros are truncated from the response.

MUTE (MUT)

	COMMAND	RESPONSE	QUERY	RESPONSE
MUTE	[0x02]MUT:1[0x03]	[0x02]Mute(OK)[0x03]	[0x02]MUT:?[0x03]	[0x02]Mute(1)[0x03]
UN-MUTE	[0x02]MUT:0[0x03]	[0x02]Mute(OK)[0x03]	[0x02]MUT:?[0x03]	[0x02]Mute(0)[0x03]