SIM2 xTV4k Remote control IR and RF codes

Document version   1.1

Remote Control
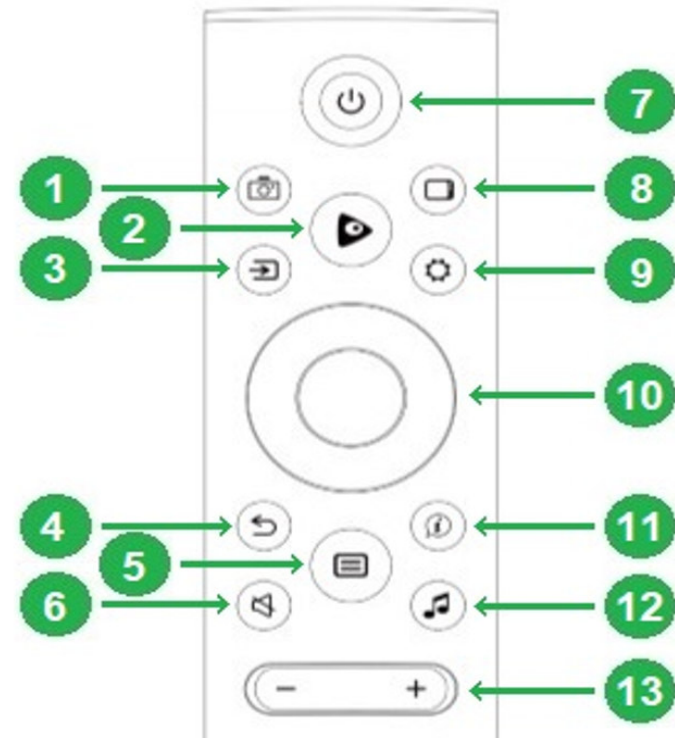
1	Screen shot	Capture and store on key pen inserted on a USB port the current image on the screen
2	Media	Recall the Media menu
3	Source selection	Select the input signal source
4	Return	Return to previous menu
5	Home main menu	Recall the main menu
6	Audio Mute	Set volume in mute status and restore the audio level
7	Power on/off	Turn on and off the unit
8	Display mode	Change sequentially the "Image Mode" (see Image chapter)
9	Settings	Enter in Settings menù
10	D-pad	Up, down, left, right and Ok buttons for navigation in the menù
11	Info Menu	Recall the Info page
12	Audio settings	Change sequentially the "Sound Mode" (see "Audio" chapter.)
13	Volume + and -	Increase and decrease the volume level

IR code format, syntax and protocol =   NEC
Castom code =   0x6897

			IR Code (Hex)		RF Code (Hex)
1	Screen shot		9E		3A
2	Media		CE		AB
3	Source selection		12		BB
4	Return		48		71
5	Home main menu		14		72
6	Audio Mute		0E		7F
7	Power on/off		0D		66
8	Display mode		90		AA
9	Settings		0F		EF
10	D-pad	UP	16		52
10	D-pad	Down	17		51
10	D-pad	Left	19		50
10	D-pad	Right	18		4F
10	D-pad	OK	15		28
11	Info Menu		D5		B6
12	Audio settings		94		3D
13	Volume +		44		80
13	Volume -		43		81

Start matching   D3   ---   Keep press menu 3 sec

below 2 examples for the IR codes.
Power On   68 97 0D F2
Settings   68 97 0F F0

The NEC protocol has:
2 bytes for the address: 0x6897
1 byte for command
1 byte equal of before command, but bit-inverted

Power On cmd   =   0x0D = 0000 1101   conversion from Hex to binary
The bit invention becomes   1111 0010   = 0xF2

There are many web pages, on the internet, to help in the hex to binary conversion or vice-versa.
https://www.rapidtables.com/convert/number/hex-to-binary.html

Below the complete hex codes for any parameter

		IR Code (Hex)			
1	Screen shot		68	97	9E	6F
2	Media		68	97	CE	31
3	Source selection		68	97	12	ED
4	Return		68	97	48	B7
5	Home main menu		68	97	14	EB
6	Audio Mute		68	97	0E	F1
7	Power on/off		68	97	0D	F2
8	Display mode		68	97	90	6F
9	Settings		68	97	0F	F0
10	D-pad	UP	68	97	16	E9
10	D-pad	Down	68	97	17	E8
10	D-pad	Left	68	97	19	E6
10	D-pad	Right	68	97	18	E7
10	D-pad	OK	68	97	15	EA
11	Info Menu		68	97	D5	2A
12	Audio settings		68	97	94	6B
13	Volume +		68	97	44	BB
13	Volume -		68	97	43	BC