

RS-232C and RJ-45 Command table v1.1

Note: Baud rate is 115200

command	PROTOCOL (data format)									
	Header (5 bytes)					Payload (4 bytes or more for some special commands)				Checksum (1byte)
	Prefix code #0	Prefix code #1	Set ID	Payload Type	# of payload bytes	Command	data #0	data #1	data #2	CS #0
Set Power	0xCC	0x33		0	4	0x10	0 : Off 1 : On	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Power	0xCC	0x55		0	4	0x10	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Set Input Source	0xCC	0x33		0	4	0x11	0x30 : VGA1 0x50 : HDMI1 0x51 : HDMI2 0x52 : HDMI3 0x60 : Composite1 0x70 : YPbPr1 0xA0 : HDMI-UHD60 0xB0 : OPS	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Input Source	0xCC	0x55		0	4	0x11	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Input Source	0xCC	0x33		1	4	0x11	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Input Source	0xCC	0x55		1	4	0x11	0xE0 : OK 0xE1 : NG	0x30 : VGA1 0x50 : HDMI1 0x51 : HDMI2 0x52 : HDMI3 0x60 : Composite1 0x70 : YPbPr1 0xA0 : HDMI-UHD60 0xB0 : OPS	reserved (0xFF)	Header XOR Payload
Set Screen Mute	0xCC	0x33		0	4	0x12	0 : mute off 1 : mute on	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Screen Mute	0xCC	0x55		0	4	0x12	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Screen Mute	0xCC	0x33		1	4	0x12	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Screen Mute	0xCC	0x55		1	4	0x12	0xE0 : OK 0xE1 : NG	0 : mute off 1 : mute on	reserved (0xFF)	Header XOR Payload
Set Remote Controller Key	0xCC	0x33		0	4	0x14	0x08 : POWER 0x43 : MENU 0x0B : INPUT 0x40 : UP 0x41 : DOWN 0x07 : LEFT 0x06 : RIGHT 0x50 : OK 0x51 : INFO 0x52 : BACK 0x53 : EXIT 0x54 : VOL UP 0x55 : VOL DOWN 0x59 : - 0x5A : MUTE 0x5B : SLEEP 0x5C : FR 0x5D : PLAY 0x5E : FF 0x5F : MULTIMEDIA 0x60 : PAUSE 0x61 : STOP 0x63 : WIDE 0x64 : AUDIO ONLY 0x80-0x89 : 0-9	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Remote Controller Key	0xCC	0x55		0	4	0x14	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Set SleepTime	0xCC	0x33		0	4	0x19	0 : off 1 : 30 min 2 : 60 min 3 : 90 min 4 : 120 min 5 : 180 min	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set SleepTime	0xCC	0x55		0	4	0x19	0xE0 : OK 0xE1 : NG	reserved (0x00)	reserved (0x00)	Header XOR Payload
Read SleepTime	0xCC	0x33		1	4	0x19	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read SleepTime	0xCC	0x55		1	4	0x19	0xE0 : OK 0xE1 : NG	0 : off 1 : 30 min 2 : 60 min 3 : 90 min 4 : 120 min 5 : 180 min	remain time to sleep in minute	Header XOR Payload
Set VGA Horz. Size	0xCC	0x33		0	4	0x20	0-255	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set VGA Horz. Size	0xCC	0x55		0	4	0x20	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read VGA Horz. Size	0xCC	0x33		1	4	0x20	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read VGA Horz. Size	0xCC	0x55		1	4	0x20	0xE0 : OK 0xE1 : NG	0-255	reserved (0xFF)	Header XOR Payload
Set Color Temp. Reset	0xCC	0x33		0	4	0x21	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Color Temp.	0xCC	0x55		0	4	0x21	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Set Picture Mode	0xCC	0x33		0	4	0x30	0 : Dynamic 1 : Normal(Natural) 3 : Usermild (Custom) 5 : Movie (Cinema) 6 : Game 8 : Sport	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Picture Mode	0xCC	0x55		0	4	0x30	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Picture Mode	0xCC	0x33		1	4	0x30	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload

Ack Read Picture Mode	0xCC	0x55		1	4	0x30	0xE0 : OK 0xE1 : NG	0 : Dynamic 1 : Normal(Natural) 3 : Usermild (Custom) 5 : Movie (Cinema) 6 : Game 8 : Sport	reserved (0xFF)	Header XOR Payload
Set Brightness	0xCC	0x33		0	4	0x31	0~100	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Brightness	0xCC	0x55		0	4	0x31	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Brightness	0xCC	0x33		1	4	0x31	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Brightness	0xCC	0x55		1	4	0x31	0xE0 : OK 0xE1 : NG	0~100	reserved (0xFF)	Header XOR Payload
Set Contrast	0xCC	0x33		0	4	0x32	0~100	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Contrast	0xCC	0x55		0	4	0x32	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Contrast	0xCC	0x33		1	4	0x32	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Contrast	0xCC	0x55		1	4	0x32	0xE0 : OK 0xE1 : NG	0~100	reserved (0xFF)	Header XOR Payload
Set Sharpness	0xCC	0x33		0	4	0x33	0~12	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Sharpness	0xCC	0x55		0	4	0x33	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Sharpness	0xCC	0x33		1	4	0x33	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Sharpness	0xCC	0x55		1	4	0x33	0xE0 : OK 0xE1 : NG	0~12	reserved (0xFF)	Header XOR Payload
Set Backlight	0xCC	0x33		0	4	0x34	0~100	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Backlight	0xCC	0x55		0	4	0x34	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Backlight	0xCC	0x33		1	4	0x34	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Backlight	0xCC	0x55		1	4	0x34	0xE0 : OK 0xE1 : NG	0~100	reserved (0xFF)	Header XOR Payload
Set Color Temp Mode	0xCC	0x33		0	4	0x35	0 : Cool (9300K) 1 : Medium (6500K) 2 : Warm (5500K) 3 : User (Custom) 5 : 3200K	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Color Temp Mode	0xCC	0x55		0	4	0x35	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Color Temp Mode	0xCC	0x33		1	4	0x35	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Color Temp Mode	0xCC	0x55		1	4	0x35	0xE0 : OK 0xE1 : NG	0 : Cool (9300K) 1 : Medium (6500K) 2 : Warm (5500K) 3 : User (Custom) 5 : 3200K	reserved (0xFF)	Header XOR Payload
Set Color Temp Red Gain	0xCC	0x33		0	4	0x36	0 ~ 255	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Color Temp Red Gain	0xCC	0x55		0	4	0x36	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Color Temp Red Gain	0xCC	0x33		1	4	0x36	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Color Temp Red Gain	0xCC	0x55		1	4	0x36	0xE0 : OK 0xE1 : NG	0 ~ 255	reserved (0xFF)	Header XOR Payload
Set Color Temp Green Gain	0xCC	0x33		0	4	0x37	0 ~ 255	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Color Temp Green Gain	0xCC	0x55		0	4	0x37	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Color Temp Green Gain	0xCC	0x33		1	4	0x37	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Color Temp Green Gain	0xCC	0x55		1	4	0x37	0xE0 : OK 0xE1 : NG	0 ~ 255	reserved (0xFF)	Header XOR Payload
Set Color Temp Blue Gain	0xCC	0x33		0	4	0x38	0 ~ 255	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Color Temp Blue Gain	0xCC	0x55		0	4	0x38	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Color Temp Blue Gain	0xCC	0x33		1	4	0x38	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Color Temp Blue Gain	0xCC	0x55		1	4	0x38	0xE0 : OK 0xE1 : NG	0 ~ 255	reserved (0xFF)	Header XOR Payload
Set VGA Adjust Auto Mode	0xCC	0x33		0	4	0x3A	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set VGA Adjust Auto Mode	0xCC	0x55		0	4	0x3A	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Set VGA Adjust H Position	0xCC	0x33		0	4	0x3B	0~100	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set VGA adjust H Position	0xCC	0x55		0	4	0x3B	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read VGA Adjust H Position	0xCC	0x33		1	4	0x3B	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read VGA Adjust H Position	0xCC	0x55		1	4	0x3B	0xE0 : OK 0xE1 : NG	0~100	reserved (0xFF)	Header XOR Payload
Set VGA Adjust V Position	0xCC	0x33		0	4	0x3C	0~100	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set VGA Adjust V Position	0xCC	0x55		0	4	0x3C	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read VGA Adjust V Position	0xCC	0x33		1	4	0x3C	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read VGA Adjust V Position	0xCC	0x55		1	4	0x3C	0xE0 : OK 0xE1 : NG	0~100	reserved (0xFF)	Header XOR Payload
Set VGA Adjust Phase	0xCC	0x33		0	4	0x3E	0~31	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set VGA Adjust Phase	0xCC	0x55		0	4	0x3E	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read VGA Adjust Phase	0xCC	0x33		1	4	0x3E	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read VGA Adjust Phase	0xCC	0x55		1	4	0x3E	0xE0 : OK 0xE1 : NG	0~31	reserved (0xFF)	Header XOR Payload
Set Picture Reset	0xCC	0x33		0	4	0x3F	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload

Ack Set Picture Reset	0xCC	0x55		0	4	0x3F	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Set Color	0xCC	0x33		0	4	0x40	0~100	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Color	0xCC	0x55		0	4	0x40	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Color	0xCC	0x33		1	4	0x40	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Color	0xCC	0x55		1	4	0x40	0xE0 : OK 0xE1 : NG	0~100	reserved (0xFF)	Header XOR Payload
Set Tint	0xCC	0x33		0	4	0x41	0 : -50 ... 50 : 0 ... 100 : 50	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Tint	0xCC	0x55		0	4	0x41	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Tint	0xCC	0x33		1	4	0x41	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Tint	0xCC	0x55		1	4	0x41	0xE0 : OK 0xE1 : NG	0 : -50 ... 50 : 0 ... 100 : 50	reserved (0xFF)	Header XOR Payload
Set non-VGA Horz. Position	0xCC	0x33		0	4	0x42	0~64	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set non-VGA Horz. Position	0xCC	0x55		0	4	0x42	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read non-VGA Horz. Position	0xCC	0x33		1	4	0x42	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read non-VGA Horz. Position	0xCC	0x55		1	4	0x42	0xE0 : OK 0xE1 : NG	0~64	reserved (0xFF)	Header XOR Payload
Set non-VGA Vert. Position	0xCC	0x33		0	4	0x43	0~32	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set non-VGA Vert. Position	0xCC	0x55		0	4	0x43	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read non-VGA Vert. Position	0xCC	0x33		1	4	0x43	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read non-VGA Vert. Position	0xCC	0x55		1	4	0x43	0xE0 : OK 0xE1 : NG	0~32	reserved (0xFF)	Header XOR Payload
Set non-VGA Horz. Size	0xCC	0x33		0	4	0x44	0~100	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set non-VGA Horz. Size	0xCC	0x55		0	4	0x44	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read non-VGA Horz. Size	0xCC	0x33		1	4	0x44	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read non-VGA Horz. Size	0xCC	0x55		1	4	0x44	0xE0 : OK 0xE1 : NG	0~100	reserved (0xFF)	Header XOR Payload
Set non-VGA Vert. Size	0xCC	0x33		0	4	0x45	0~100	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set non-VGA Vert. Size	0xCC	0x55		0	4	0x45	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read non-VGA Vert. Size	0xCC	0x33		1	4	0x45	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read non-VGA Vert. Size	0xCC	0x55		1	4	0x45	0xE0 : OK 0xE1 : NG	0~100	reserved (0xFF)	Header XOR Payload
Set Color Temp Red Offset	0xCC	0x33		0	4	0x46	0 ~ 255	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Color Temp Red Offset	0xCC	0x55		0	4	0x46	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Color Temp Red Offset	0xCC	0x33		1	4	0x46	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Color Temp Red Offset	0xCC	0x55		1	4	0x46	0xE0 : OK 0xE1 : NG	0 ~ 255	reserved (0xFF)	Header XOR Payload
Set Color Temp Green Offset	0xCC	0x33		0	4	0x47	0 ~ 255	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Color Temp Green Offset	0xCC	0x55		0	4	0x47	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Color Temp Green Offset	0xCC	0x33		1	4	0x47	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Color Temp Green Offset	0xCC	0x55		1	4	0x47	0xE0 : OK 0xE1 : NG	0 ~ 255	reserved (0xFF)	Header XOR Payload
Set Color Temp Blue Offset	0xCC	0x33		0	4	0x48	0 ~ 255	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Color Temp Blue Offset	0xCC	0x55		0	4	0x48	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Color Temp Blue Offset	0xCC	0x33		1	4	0x48	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Color Temp Blue Offset	0xCC	0x55		1	4	0x48	0xE0 : OK 0xE1 : NG	0 ~ 255	reserved (0xFF)	Header XOR Payload
Set Dynamic Contrast	0xCC	0x33		0	4	0x4B	0 : Off 1 : Low 2 : Medium 3 : High 4 : Extend	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Dynamic Contrast	0xCC	0x55		0	4	0x4B	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Dynamic Contrast	0xCC	0x33		1	4	0x4B	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Dynamic Contrast	0xCC	0x55		1	4	0x4B	0xE0 : OK 0xE1 : NG	0 : Off 1 : Low 2 : Medium 3 : High 4 : Extend	reserved (0xFF)	Header XOR Payload
Set Local Dimming	0xCC	0x33		0	4	0x4C	0 : Off 1 : On	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Local Dimming	0xCC	0x55		0	4	0x4C	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Local Dimming	0xCC	0x33		1	4	0x4C	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Local Dimming	0xCC	0x55		1	4	0x4C	0xE0 : OK 0xE1 : NG	0 : Off 1 : On	reserved (0xFF)	Header XOR Payload
Set Noise Reduction	0xCC	0x33		0	4	0x4D	0 : Off 1 : Low 2 : Medium 3 : High	reserved (0x00)	reserved (0x00)	Header XOR Payload

Ack Set Noise Reduction	0xCC	0x55		0	4	0x4D	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Noise Reduction	0xCC	0x33		1	4	0x4D	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Noise Reduction	0xCC	0x55		1	4	0x4D	0xE0 : OK 0xE1 : NG	0 : Off 1 : Low 2 : Medium 3 : High	reserved (0xFF)	Header XOR Payload
Set Digital NR	0xCC	0x33		0	4	0x4E	0 : Off 1 : Low 2 : Medium 3 : High	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Digital NR	0xCC	0x55		0	4	0x4E	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Digital NR	0xCC	0x33		1	4	0x4E	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Digital NR	0xCC	0x55		1	4	0x4E	0xE0 : OK 0xE1 : NG	0 : Off 1 : Low 2 : Medium 3 : High	reserved (0xFF)	Header XOR Payload
Set Film Mode	0xCC	0x33		0	4	0x4F	0 : Off 1 : Auto	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Film Mode	0xCC	0x55		0	4	0x4F	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Film Mode	0xCC	0x33		1	4	0x4F	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Film Mode	0xCC	0x55		1	4	0x4F	0xE0 : OK 0xE1 : NG	0 : Off 1 : Auto	reserved (0xFF)	Header XOR Payload
Set Balance	0xCC	0x33		0	4	0x56	0 : L10 ~ 9 : L1 10 : 0 11 : R1 ~ 20 : R10	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Balance	0xCC	0x55		0	4	0x56	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Balance	0xCC	0x33		1	4	0x56	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Balance	0xCC	0x55		1	4	0x56	0xE0 : OK 0xE1 : NG	0 : L10 ~ 9 : L1 10 : 0 11 : R1 ~ 20 : R10	reserved (0xFF)	Header XOR Payload
Set Volume	0xCC	0x33		0	4	0x58	0~100	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Volume	0xCC	0x55		0	4	0x58	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Volume	0xCC	0x33		1	4	0x58	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Volume	0xCC	0x55		1	4	0x58	0xE0 : OK 0xE1 : NG	0~100	reserved (0xFF)	Header XOR Payload
Set Sound Reset	0xCC	0x33		0	4	0x59	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Sound Reset	0xCC	0x55		0	4	0x59	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Set XinemaSound 3D	0xCC	0x33		0	4	0x60	0 : Off 1 : On	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set XinemaSound 3D	0xCC	0x55		0	4	0x60	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read XinemaSound 3D	0xCC	0x33		1	4	0x60	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read XinemaSound 3D	0xCC	0x55		1	4	0x60	0xE0 : OK 0xE1 : NG	0 : Off 1 : On	reserved (0xFF)	Header XOR Payload
Set XinemaSound Leveler	0xCC	0x33		0	4	0x61	0 : Off 1 : On	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set XinemaSound Leveler	0xCC	0x55		0	4	0x61	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read XinemaSound Leveler	0xCC	0x33		1	4	0x61	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read XinemaSound Leveler	0xCC	0x55		1	4	0x61	0xE0 : OK 0xE1 : NG	0 : Off 1 : On	reserved (0xFF)	Header XOR Payload
Set Bass	0xCC	0x33		0	4	0x62	0 : -12 ... 12 : 0 ... 24 : 12	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Bass	0xCC	0x55		0	4	0x62	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Bass	0xCC	0x33		1	4	0x62	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Bass	0xCC	0x55		1	4	0x62	0xE0 : OK 0xE1 : NG	0 : -12 ... 12 : 0 ... 24 : 12	reserved (0xFF)	Header XOR Payload
Set Treble	0xCC	0x33		0	4	0x63	0 : -12 ... 12 : 0 ... 24 : 12	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Treble	0xCC	0x55		0	4	0x63	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Treble	0xCC	0x33		1	4	0x63	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Treble	0xCC	0x55		1	4	0x63	0xE0 : OK 0xE1 : NG	0 : -12 ... 12 : 0 ... 24 : 12	reserved (0xFF)	Header XOR Payload
Set Lip Sync	0xCC	0x33		0	4	0x64	0~22	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Lip Sync	0xCC	0x55		0	4	0x64	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload

Read Lip Sync	0xCC	0x33		1	4	0x64	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Lip Sync	0xCC	0x55		1	4	0x64	0xE0 : OK 0xE1 : NG	0-22	reserved (0xFF)	Header XOR Payload
Set Speakers	0xCC	0x33		0	4	0x65	0 : Off 1 : On	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Speakers	0xCC	0x55		0	4	0x65	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Speakers	0xCC	0x33		1	4	0x65	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Speakers	0xCC	0x55		1	4	0x65	0xE0 : OK 0xE1 : NG	0 : Off 1 : On	reserved (0xFF)	Header XOR Payload
Set Audio Only	0xCC	0x33		0	4	0x66	0 : Off 1 : On	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Audio Only	0xCC	0x55		0	4	0x66	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Audio Only	0xCC	0x33		1	4	0x66	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Audio Only	0xCC	0x55		1	4	0x66	0xE0 : OK 0xE1 : NG	0 : Off 1 : On	reserved (0xFF)	Header XOR Payload
Set Digital Audio Out	0xCC	0x33		0	4	0x67	0 : Off 1 : Dolby 2 : PCM	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Digital Audio Out	0xCC	0x55		0	4	0x67	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Digital Audio Out	0xCC	0x33		1	4	0x67	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Digital Audio Out	0xCC	0x55		1	4	0x67	0xE0 : OK 0xE1 : NG	0 : Off 1 : Dolby 2 : PCM	reserved (0xFF)	Header XOR Payload
Set Analog Audio Out	0xCC	0x33		0	4	0x68	0 : Fixed 1 : Variable	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Analog Audio Out	0xCC	0x55		0	4	0x68	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Analog Audio Out	0xCC	0x33		1	4	0x68	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Analog Audio Out	0xCC	0x55		1	4	0x68	0xE0 : OK 0xE1 : NG	0 : Fixed 1 : Variable	reserved (0xFF)	Header XOR Payload
Set Equalizer	0xCC	0x33		0	4	0x69	0 : 120Hz 1 : 500Hz 2 : 1.5KHz 3 : 5KHz 4 : 10KHz	0 : -12 ... 12: 0 ... 24: 12	reserved (0x00)	Header XOR Payload
Ack Set Equalizer	0xCC	0x55		0	4	0x69	0xE0 : OK 0xE1 : NG	0 : 120Hz 1 : 500Hz 2 : 1.5KHz 3 : 5KHz 4 : 10KHz	reserved (0xFF)	Header XOR Payload
Read Equalizer	0xCC	0x33		1	4	0x69	0 : 120Hz 1 : 500Hz 2 : 1.5KHz 3 : 5KHz 4 : 10KHz	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Equalizer	0xCC	0x55		1	4	0x69	0xE0 : OK 0xE1 : NG	0 : 120Hz 1 : 500Hz 2 : 1.5KHz 3 : 5KHz 4 : 10KHz	0 : -12 ... 12: 0 ... 24: 12	Header XOR Payload
Set OSD Language	0xCC	0x33		0	4	0x70	0 : English 1 : French 2 : Spanish	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set OSD Language	0xCC	0x55		0	4	0x70	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read OSD Language	0xCC	0x33		1	4	0x70	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read OSD Language	0xCC	0x55		1	4	0x70	0xE0 : OK 0xE1 : NG	0 : English 1 : French 2 : Spanish	reserved (0xFF)	Header XOR Payload
Set ID Setup	0xCC	0x33		0	4	0x73	1-100	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set ID Setup	0xCC	0x55		0	4	0x73	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Set Key Lock	0xCC	0x33		0	4	0x74	0 : Off (Front key unlock)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Key Lock	0xCC	0x55		0	4	0x74	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Key Lock	0xCC	0x33		1	4	0x74	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Key Lock	0xCC	0x55		1	4	0x74	0xE0 : OK 0xE1 : NG	0 : Off (Front key unlock) 1 : On (Front key lock)	reserved (0xFF)	Header XOR Payload
Set Power Indicator	0xCC	0x33		0	4	0x76	0 : Off 1 : On	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Power Indicator	0xCC	0x55		0	4	0x76	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Power Indicator	0xCC	0x33		1	4	0x76	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Power Indicator	0xCC	0x55		1	4	0x76	0xE0 : OK 0xE1 : NG	0 : Off 1 : On	reserved (0xFF)	Header XOR Payload
Set Factory Reset	0xCC	0x33		0	4	0x79	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Factory Reset	0xCC	0x55		0	4	0x79	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Set ID	0xCC	0x33		1	4	0x90	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Set ID	0xCC	0x55		1	4	0x90	0xE0 : OK 0xE1 : NG	1-100	reserved (0xFF)	Header XOR Payload
Read F/W Version	0xCC	0x33		1	4	0x91	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read F/W Version	0xCC	0x55		1	4	0x91	0xE0 : OK 0xE1 : NG	F/WLeft part	F/W Right part	Header XOR Payload
Read Input Resolution	0xCC	0x33		1	4	0xA3	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Input Resolution	0xCC	0x55		1	4	0xA3	Hwidth bit(11:4)	bit(7:4) Hwidth bit(3:0) bit(3:0) Vheight bit(11:8)	Vheight bit(7:0)	Header XOR Payload

Set CEC	0xCC	0x33		0	4	0xA5	0 : Off 1 : On	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set CEC	0xCC	0x55		0	4	0xA5	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read CEC	0xCC	0x33		1	4	0xA6	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read CEC	0xCC	0x55		1	4	0xA6	0xE0 : OK 0xE1 : NG	0 : Off 1 : On	reserved (0xFF)	Header XOR Payload
Set CEC Device Search	0xCC	0x33		0	4	0xA8	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set CEC Device Search	0xCC	0x55		0	4	0xA8	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read CEC Devices	0xCC	0x33		1	4	0xA8	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack CEC Device	0xCC	0x55		1	4+	0xA8	bit(7:4) : 0 for OK, others NG bit(3:0) : device number	byte1 : LA of device1 byte2-N : OSD name of device1(0 for end) byteN+1 : LA of device2		Header XOR Payload
Set Reset All Settings	0xCC	0x33		0	4	0xAB	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Reset All Settings	0xCC	0x55		0	4	0xAB	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Set DHCP	0xCC	0x33		0	4	0xAC	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set DHCP	0xCC	0x55		0	4	0xAC	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Set Static IP	0xCC	0x33		0	21	0xAD	20 bytes (IP + Subnet Mask + Gateway + DNS1 + DNS2)			Header XOR Payload
Ack Set Static IP	0xCC	0x55		0	4	0xAD	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Static IP	0xCC	0x33		1	4	0xAD	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Static IP	0xCC	0x55		1	22	0xAD	0xE0 : OK 0xE1 : NG	20 bytes (IP + Subnet Mask + Gateway + DNS1 + DNS2)		Header XOR Payload
Read Ethernet Status	0xCC	0x33		1	4	0xAE	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Ethernet Status	0xCC	0x55		1	4	0xAE	0xE0 : OK 0xE1 : NG	0: Disconnected 1: Connected	0: DHCP 1: Static IP	Header XOR Payload
Set Wide Mode	0xCC	0x33		0	4	0xC2	0 : Normal/Full 1 : Wide 2 : Zoom 3 : Stretch/Panoramic	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Set Wide Mode	0xCC	0x55		0	4	0xC2	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Wide Mode	0xCC	0x33		1	4	0xC2	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Wide Mode	0xCC	0x55		1	4	0xC2	0xE0 : OK 0xE1 : NG	0 : Normal/Full 1 : Wide 2 : Zoom 3 : Stretch/Panoramic	reserved (0x00)	Header XOR Payload
Set Gamma	0xCC	0x33		0	4	0xCB	0: 2.2 1: 2.4 2: 2.6	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Ack Set Gamma	0xCC	0x55		0	4	0xCB	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read Gamma	0xCC	0x33		1	4	0xCB	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read Gamma	0xCC	0x55		1	4	0xCB	0xE0 : OK 0xE1 : NG	0: 2.2 1: 2.4 2: 2.6	reserved (0x00)	Header XOR Payload
Set MEMC	0xCC	0x33		0	4	0xCC	0 : Off 1 : On	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Ack Set MEMC	0xCC	0x55		0	4	0xCC	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Read MEMC	0xCC	0x33		1	4	0xCC	reserved (0x00)	reserved (0x00)	reserved (0x00)	Header XOR Payload
Ack Read MEMC	0xCC	0x55		1	4	0xCC	0xE0 : OK 0xE1 : NG	0 : Off 1 : On	reserved (0x00)	Header XOR Payload
Set IR remote lock	0xCC	0x33		0	4	0xCD	0: unlock 1: lock	reserved (0xFF)	reserved (0xFF)	Header XOR Payload
Ack Set IR remote lock	0xCC	0x55		0	4	0xCD	0xE0 : OK 0xE1 : NG	reserved (0xFF)	reserved (0xFF)	Header XOR Payload

Communication Parameter

- ⇒ Baud Rate: 115200
- ⇒ Data Length: 8 Bit
- ⇒ Parity Bit: None
- ⇒ Stop Bit: 1 Bit
- ⇒ Flow Control: None
- ⇒ Communication Code: Hex Code