RS232 SPECIFICATION

I3CONNECT WALNUT W1

Models: W1-138, W1-165 & W1-220

Version	Date	Changes		Author(s)
1.0	28-08-2026	Initial release	P&D	Willem Jan van der Meer

Introduction

This document explains a RS232 protocol that can be used to control the i3CONNECT Walnut W1 LED screen via an RS232 cable. It includes settings, the protocol format and specific commands supported and allowed values.

Protocol

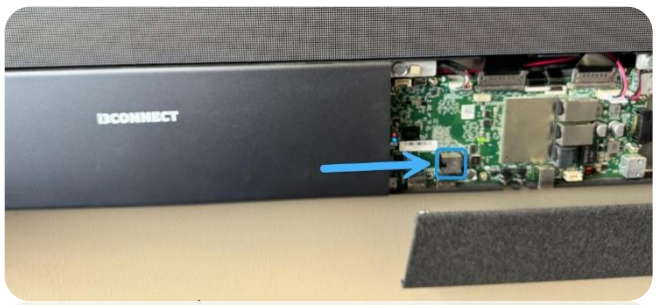
USB to RS232 console cable: RJ45 serial console port to USB Type A:

RJ45 Male Pin Mapping (Top View)

Communication parameter

- Baud Rate: 115200bps
- Data bit: 8 bits
- Parity: None
- Stop bit: 1
- LAN: Local IP address + UDP Port 8600 (e.g. 192.168.1.2:8600)

RJ45 RS232 Connector on Walnut W1 (behind front panel cover):



UDP Network control (RS232 over IP)

1. Ensure that Walnut W1 and the external control device are on the same local area network (with a communication port number of 8600).

2. The external device sends a broadcast "Request Device Status" command via UDP.

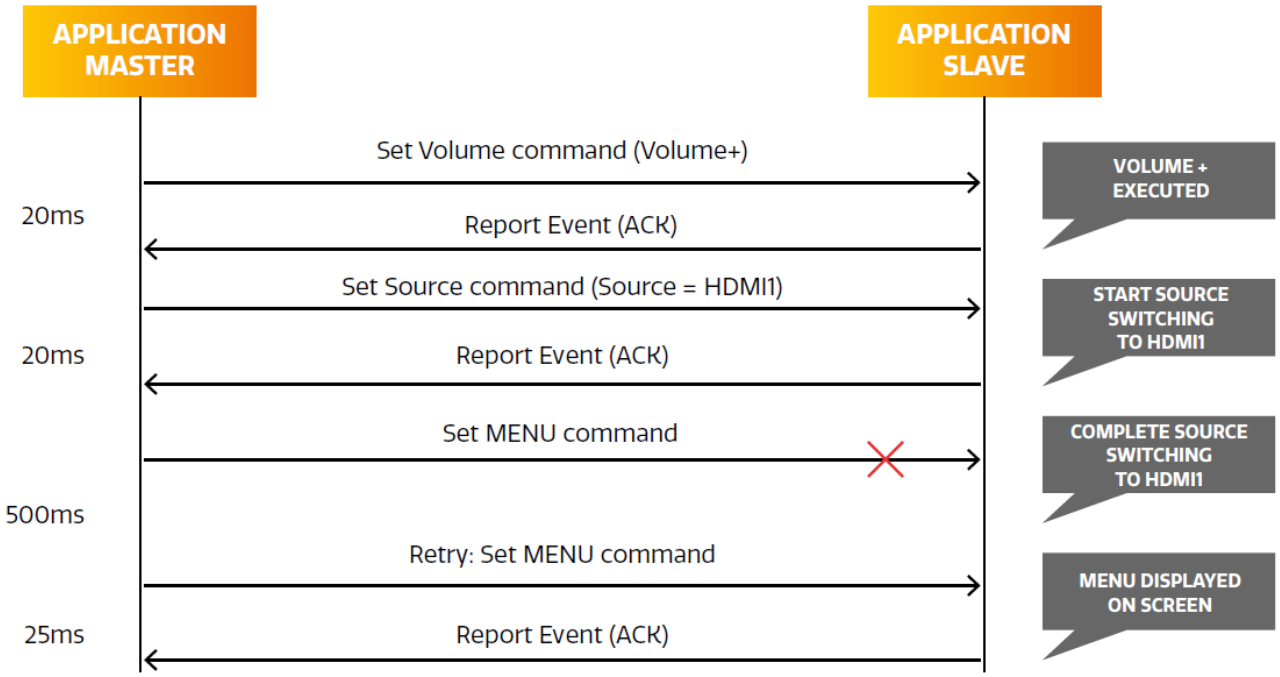
3. Walnut W1 on the local network, sends the external device a reply code of "Idle, Ready to Receive Commands". Walnut W1 cannot be controlled over IP when powered off. Switch on in the power off state can be done via WoL. To make this possible, Remote wake-up service must be enabled (Settings → Device Management → Remote wake-up service).

4. The external device can control Walnut W1 by sending commands to its IP address.

RJ45 LAN Connector on Walnut W1 (behind front panel cover):

Communication Procedure

A new command should not be sent until the previous command is acknowledged. However, if a response is not received within 500 milliseconds, a retry may be triggered. This case is true if commands are sent during the screen busy state and the screen set decides that the processing of commands cannot be carried out. As a result, no acknowledgement will be sent. An example would be the application sends a set OSD command while the screen is still performing source switching. No fixed retry mechanism is mandated by RS232 Serial communication and it's up to the application to decide upon if a retry I needed for command integrity. Overall, no new command should be sent before receiving an acknowledgement on its previous command. If no acknowledgement is received, the application can only send the next command (or retry the failed command) after the 500ms timeout is over. The sequence diagram below illustrates the communication procedure.



Packet format specification

OFFSET	BYTES	MEANING
1–14	*55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1* *55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0*	*Fixed (Set)* *Fixed (Reply)*
15-16	*2 Bytes*	*Command code*
17–37	*00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00*	*Fixed*
38	*Data length byte*	*00 for a query (no value),* *01 for a single-byte set value* *02 for a 2-byte value (e.g. status code)*
39	*00*	*Fixed*
40 - 41	*Data*	*Byte 38 = 00, no data* *Byte 38 = 01, only byte 40 is data, byte 41 is Checksum* *Byte 38 – 02, byte 40 & 41 data, byte 42 is Checksum*
Last byte	*Checksum*	*The least-significant byte of the calculated checksum*

Checksum Calculation Method:

Starting from the 9th byte (inclusive) to the second-to-last byte (inclusive), sum all bytes in this range. The least-significant byte of the result becomes the final checksum byte.

Example:

55 55 55 55 55 55 55 C0 ***01 03 01 D0 00 D1 01 C0 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 00 00 56***

*Checksum = 0x**01** + 0x**03** + 0x**01** + 0x**0D** … + 0x**00** = 0x13**56** → Checksum Byte: 0x**56***

Request and response format:

Set request:

Bytes 1-14	*Command 1 byte 15*	*Command 2 byte 16*	*Bytes 17-37*	*Length byte 38*	*Fixed byte 39*	*Data 1 byte 40*	*Data 2 (optional)*	*Checksum*
Fixed	0xXX	0xXX	Fixed	0xXX	0x00	0x3X	0x3X	0xXX

Get request:

Bytes 1-14	*Command 1 byte 15*	*Command 2 byte 16*	*Bytes 17-37*	*Length byte 38*	*Fixed byte 39*	*Data 1 byte 40*	*Checksum*
Fixed	0xXX	0xXX	Fixed	0x00	0x00	0x00	0xXX

Acknowledge:

Bytes 1-14	*Command 1 byte 15*	*Command 2 byte 16*	*Bytes 17-37*	*Length byte 38*	*Fixed byte 39*	*Data 1 byte 40*	*Data 2 byte 41*	*Checksum byte 42*
Fixed	0x04	0xC2	Fixed	0x02	0x00	0x01	0x00	0x5E

Negative acknowledge (unspecified reason):

Bytes 1-14	*Command 1 byte 15*	*Command 2 byte 16*	*Bytes 17-37*	*Length byte 38*	*Fixed byte 39*	*Data 1 byte 40*	*Data 2 byte 41*	*Checksum byte 42*
Fixed	0x04	0xC2	Fixed	0x02	0x00	0x02	0x00	0xXX

Response data options acknowledge (2 bytes):

- 0x0001 **Success**
- 0x0002 **Failure** – Unspecified reason
- 0x0003 **Failure** – Serial port not found
- 0x0004 **Failure** – No response
- 0x8001 **Failure** – Busy
- 0x8002 **Failure** – Occupied (e.g., long-file transfer or firmware upgrade in progress)

Command overview

Function	Description	Instruction Description	External Device Request Code (Hexadecimal Bytes)
Request device status	Idle	Set Command Code: 0xC001 Response Command Code: 0xC002 Response Data (2 bytes): - 0x0001 Idle – ready to accept commands - 0x0002 Busy – not accepting commands - 0x0003 Device fault	55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 01 C0 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 00 00 56
	Busy		
	Device Exception		
Power	Power On	Only via serial port, not via UDP	AA BB CC 01 00 00 01 DD EE FF
	Sleep	Set Command Code: 0xC003 Set Data (1 byte): - 0x5F Sleep - 0x5E Power On	55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 03 C0 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 5F B8
	Wake Up		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 03 C0 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 5E B7
Standby & restart	Standby (Power Off State)	Set Command Code: 0xC007 Response Command Code: 0xC008	55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 07 C0 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 00 00 5C
	True Standby Query	Set Command Code: 0xC020 Response Command Code: 0xC021 Response Data (1 byte) : 0x00 True Standby 0x01 False Standby / Normal Operation	55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 20 C0 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 00 00 75
	Restart	Set Command Code: 0xC009 Response Command Code: 0xC00A	55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 09 C0 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 00 00 5E
Set Volume	0	Set Command Code: 0xC203 Set Data (1 byte): 0x00–0x64 (decimal 0 ~ 100) Response Command Code: 0xC204	55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 03 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 5B
	10		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 03 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 0A 65
	20		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 03 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 14 6F
	30		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 03 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 1E 79
	40		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 03 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 28 83
	50		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 03 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 32 8D
	60		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 03 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 3C 97
	70		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 03 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 46 A1
	80		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 03 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 50 AB
	90		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 03 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 5A B5
	100		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 03 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 64 BF
Get Volume		Set Command Code: 0xC201 Response Command Code: 0xC202 Response Data (1 byte): 0x00–0x64 (decimal 0 ~ 100)	55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 01 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 00 00 58
Set Brightness	0	Set Command Code: 0xC21F Set Data (1 byte): 0x00–0x64 (decimal 0 ~ 100) Response Command Code: 0xC220	55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 1F C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 77
	10		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 1F C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 0A 81
	20		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 1F C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 14 8B
	30		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 1F C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 1E 95
	40		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 1F C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 28 9F
	50		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 1F C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 32 A9
	60		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 1F C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 3C B3
	70		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 1F C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 46 BD
	80		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 1F C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 50 C7
	90		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 1F C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 5A D1
	100		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 1F C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 64 DB
Get Brightness		Set Command Code: 0xC21D Response Command Code: 0xC21E Response Data (1 byte): 0x00–0x64 (decimal 0 ~ 100)	55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 1D C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 00 00 74
Set Saturation	0	Set Command Code: 0xC259 Set Data (1 byte): 0x00–0x64 (decimal 0 ~ 100) Response Command Code: 0xC25A	55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 59 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 B1
	10		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 59 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 0A BB
	20		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 59 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 14 C5
	30		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 59 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 1E CF
	40		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 59 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 28 D9
	50		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 59 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 32 E3
	60		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 59 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 3C ED
	70		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 59 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 46 F7
	80		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 59 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 50 01
	90		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 59 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 5A 0B
	100		55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 59 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 64 15
Get Saturation		Set Command Code: 0xC257 Response Command Code: 0xC258 Response Data (1 byte): 0x00–0x64 (decimal 0 ~ 100)	55 55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 57 c2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 00 00 AE

Function	Description	Instruction Description	External Device Request Code (Hexadecimal Bytes)
Set Hue	-50	Set Command Code: 0xC262 Set Data (1 byte): 0x00–0x64 (decimal 0 ~ 100, mapped to –50 ~ 50 on the UI) Response Command Code: 0xC263	55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 62 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 BA
	-40		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 62 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 0A C4
	-30		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 62 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 14 CE
	-20		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 62 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 1E D8
	-10		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 62 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 28 E2
	0		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 62 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 32 EC
	10		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 62 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 3C F6
	20		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 62 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 46 00
	30		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 62 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 50 0A
	40		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 62 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 5A 14
	50		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 62 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 64 1E
Get Hue		Set Command Code: 0xC264 Response Command Code: 0xC265 Response Data (1 byte): 0x00–0x64 (decimal 0 ~ 100, mapped to –50 ~ 50 on the UI)	55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 64 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 00 00 BB
Set Source	Android	Set Command Code: 0xC213 Set Data (1 byte): - 0x00 Android - 0x01 Windows - 0x02 HDMI1 - 0x03 HDMI2 - 0x04 HDMI3 - 0x06 HDMI4 Response Command Code: 0xC214	55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 13 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 6B
	PC Reserved		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 13 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 01 6C
	HDMI1		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 13 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 02 6D
	HDMI2		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 13 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 03 6E
	HDMI3		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 13 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 04 6F
	HDMI4		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 13 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 06 71
Get Video Source		Set Command Code: 0xC211 Response Command Code: 0xC212	55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 11 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 00 00 68
Set Contrast	0	Set Command Code: 0xC217 Set Data (1 byte): 0x00–0x64 (decimal 0 ~ 100) Response Command Code: 0xC218	55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 17 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 6F
	25		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 17 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 19 88
	50		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 17 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 32 A1
	75		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 17 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 4B BA
	100		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 17 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 64 D3
Get Contrast		Set Command Code: 0xC215 Response Command Code: 0xC216 Response Data (1 byte): 0x00–0x64 (decimal 0 ~ 100)	55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 15 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 00 00 6C
Set Color Temperature	Standard	Set Command Code: 0xC21B Set Data (1 byte): - 0x01 Standard - 0x02 Warm - 0x03 Cool - 0x04 User-defined Response Command Code: 0xC21C	55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 1B C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 01 74
	Warm		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 1B C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 02 75
	Cool		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 1B C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 03 76
	User Defined		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 1B C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 04 77
Set Split screen mode	Full Screen	Set Command Code: 0xC249 Set Data (1 byte): - 0x00 Full-screen mode - 0x01 Center mode - 0x02 Dual-screen mode - 0x03 Quad-screen mode - 0x05 Five-screen mode Response Command Code: 0xC24A	55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 49 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 A1
	Dual Screen		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 49 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 02 A3
	Center		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 49 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 01 A2
	Quad Screen		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 49 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 03 A4
	Five Screen		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 49 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 05 A6
Set Scene Mode	Conference	Set Command Code: 0xC245 Set Data (1 byte): - 0x00 Meeting Mode - 0x01 Standard Mode - 0x02 Eco Mode - 0x03 Custom mode - 0x05 Cinema Mode Response Command Code: 0xC246	55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 45 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 9D
	Standard		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 45 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 01 9E
	Eco		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 45 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 02 9F
	Custom		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 45 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 03 A0
	Cinema		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 45 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 05 A2
Get Scene Mode		Set Command Code: 0xC243 Response Command Code: 0xC244	55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 43 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 00 00 9A

Function	Description	Instruction Description	External Device Request Code (Hexadecimal Bytes)
Set Red Gain	0	Set Command Code: 0xC223 Set Data (1 byte): 0x00–0x64 (decimal 0 ~ 100) Response Command Code: 0xC224	55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 23 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 7B
	25		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 23 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 19 94
	50		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 23 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 32 AD
	75		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 23 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 4B C6
	100		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 23 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 64 DF
Get Red Gain		Set Command Code: 0xC221 Response Command Code: 0xC222 Response Data (1 byte): 0x00–0x64 (decimal 0 ~ 100)	55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 21 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 00 00 78
Set Green Gain	0	Set Command Code: 0xC227 Set Data (1 byte): 0x00–0x64 (decimal 0 ~ 100) Response Command Code: 0xC228	55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 27 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 7F
	25		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 27 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 19 98
	50		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 27 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 32 B1
	75		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 27 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 4B CA
	100		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 27 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 64 E3
Get Green Gain		Set Command Code: 0xC225 Response Command Code: 0xC226 Response Data (1 byte): 0x00–0x64 (0 to 100 in decimal)	55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 25 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 00 00 7C
Set Blue Gain	0	Set Command Code: 0xC225 Set Data (1 byte): 0x00–0x64 (decimal 0–100) Response Command Code: 0xC22C	55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 2B C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 83
	25		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 2B C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 19 9C
	50		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 2B C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 32 B5
	75		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 2B C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 4B CE
	100		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 2B C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 64 E7
Get Blue Gain		Set Command Code: 0xC229 Response Command Code: 0xC22A Response Data (1 byte): 0x00–0x64 (decimal 0–100)	55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 29 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 00 00 80
Screen Display Settings	4:3	Set Command Code:0xC20F Set Data (1 byte): 0x01：4:3 0x02：16:9 0x03：Full-screen 0x04：Original 0x07：1:1 Response Command Code: 0xC210	55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 0F C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 01 68
	16:9		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 0F C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 02 69
	Full-screen		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 0F C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 03 6A
	Original		55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 0F C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 04 6B
Get Aspect Ratio		Set Command Code: 0xC20D Response Command Code: 0xC20E	55 55 55 55 55 55 55 C0 01 03 01 D0 00 D1 0D C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 00 00 64

Reply example overview

Function	Description	Instruction Description	Android Reply Code (Hexadecimal Bytes)
Request device status	Idle	Set Command Code: 0xC001 Response Command Code: 0xC002	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 02 C0 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 5A
	Busy	Response Data (2 bytes): - 0x0001 Idle – ready to accept commands - 0x0002 Busy – not accepting commands - 0x0003 Device fault	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 02 C0 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 02 00 5B
	Device Exception		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 02 C0 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 03 00 5C
Power	Power On	Only via serial port, not via UDP	
	Sleep	Set Command Code: 0xC003 Set Data (1 byte): - 0x5F Sleep - 0x5E Power On	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 04 C0 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 5F B9
	Wake Up		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 04 C0 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 5E B8
Standby & restart	Standby (Power Off State)	Set Command Code: 0xC007 Response Command Code: 0xC008	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 08 C0 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 00 00 5D
	True Standby Query	Set Command Code: 0xC020 Response Command Code: 0xC021 Response Data (1 byte) : 0x00 True Standby 0x01 False Standby / Normal Operation	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 21 C0 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 01 78
	Restart	Set Command Code: 0xC009 Response Command Code: 0xC00A	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 0A C0 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 00 00 5F
Set Volume	0	Set Command Code: 0xC203 Set Data (1 byte): 0x00–0x64 (decimal 0 ~ 100) Response Command Code: 0xC204	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 04 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 5E
	10		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 04 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 5E
	20		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 04 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 5E
	30		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 04 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 5E
	40		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 04 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 5E
	50		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 04 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 5E
	60		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 04 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 5E
	70		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 04 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 5E
	80		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 04 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 5E
	90		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 04 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 5E
	100		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 04 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 5E
Get Volume		Set Command Code: 0xC201 Response Command Code: 0xC202 Response Data (1 byte): 0x00–0x64 (decimal 0 ~ 100)	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 02 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 14 6E
Set Brightness	0	Set Command Code: 0xC21F Set Data (1 byte): 0x00–0x64 (decimal 0 ~ 100) Response Command Code: 0xC220	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 20 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 7A
	10		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 20 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 7A
	20		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 20 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 7A
	30		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 20 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 7A
	40		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 20 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 7A
	50		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 20 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 7A
	60		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 20 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 7A
	70		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 20 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 7A
	80		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 20 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 7A
	90		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 20 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 7A
	100		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 20 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 7A
Get Brightness		Set Command Code: 0xC21D Response Command Code: 0xC21E Response Data (1 byte): 0x00–0x64 (decimal 0 ~ 100)	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 1E C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 64 DA
Set Saturation	0	Set Command Code: 0xC259 Set Data (1 byte): 0x00–0x64 (decimal 0 ~ 100) Response Command Code: 0xC25A	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 5A C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 B4
	10		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 5A C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 B4
	20		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 5A C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 B4
	30		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 5A C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 B4
	40		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 5A C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 B4
	50		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 5A C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 B4
	60		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 5A C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 B4
	70		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 5A C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 B4
	80		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 5A C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 B4
	90		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 5A C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 B4
	100		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 5A C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 B4
Get Saturation		Set Command Code: 0xC257 Response Command Code: 0xC258 Response Data (1 byte): 0x00–0x64 (decimal 0 ~ 100)	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 58 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 64 14

Function	Description	Instruction Description	Android Reply Code (Hexadecimal Bytes)
Set Hue	-50	Set Command Code: 0xC262 Set Data (1 byte): 0x00–0x64 (decimal 0 ~ 100, mapped to –50 ~ 50 on the UI) Response Command Code: 0xC263	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 63 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 BD
	-40		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 63 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 BD
	-30		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 63 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 BD
	-20		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 63 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 BD
	-10		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 63 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 BD
	0		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 63 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 BD
	10		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 63 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 BD
	20		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 63 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 BD
	30		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 63 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 BD
	40		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 63 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 BD
	50		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 63 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 BD
Get Hue		Set Command Code: 0xC264 Response Command Code: 0xC265 Response Data (1 byte): 0x00–0x64 (decimal 0 ~ 100, mapped to –50 ~ 50 on the UI)	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 65 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 64 21
Set Source	Android	Set Command Code: 0xC213 Set Data (1 byte): - 0x00 Android - 0x01 Windows - 0x02 HDMI1 - 0x03 HDMI2 - 0x04 HDMI3 - 0x06 HDMI4 Response Command Code: 0xC214	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 14 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 6E
	PC Reserved		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 14 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 6E
	HDMI1		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 14 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 6E
	HDMI2		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 14 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 6E
	HDMI3		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 14 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 6E
	HDMI4		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 14 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 6E
Get Video Source		Set Command Code: 0xC211 Response Command Code: 0xC212	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 12 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 6A
Set Contrast	0	Set Command Code: 0xC217 Set Data (1 byte): 0x00–0x64 (decimal 0 ~ 100) Response Command Code: 0xC218	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 18 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 72
	25		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 18 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 72
	50		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 18 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 72
	75		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 18 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 72
	100		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 18 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 72
Get Contrast		Set Command Code: 0xC215 Response Command Code: 0xC216 Response Data (1 byte): 0x00–0x64 (decimal 0 ~ 100)	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 16 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 32 A0
Set Color Temperature	Standard	Set Command Code: 0xC21B Set Data (1 byte): - 0x01 Standard - 0x02 Warm - 0x03 Cool - 0x04 User-defined Response Command Code: 0xC21C	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 1C C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 76
	Warm		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 1C C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 76
	Cool		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 1C C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 76
	User Defined		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 1C C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 76
Set Split screen mode	Full Screen	Set Command Code: 0xC249 Set Data (1 byte): - 0x00 Full-screen mode - 0x01 Center mode - 0x02 Dual-screen mode - 0x03 Quad-screen mode - 0x05 Five-screen mode Response Command Code: 0xC24A	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 4A C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 A4
	Dual Screen		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 4A C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 A4
	Center		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 4A C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 A4
	Quad Screen		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 4A C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 A4
	Five Screen		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 4A C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 A4
Set Scene Mode	Conference	Set Command Code: 0xC245 Set Data (1 byte): - 0x00 Meeting Mode - 0x01 Standard Mode - 0x02 Eco Mode - 0x03 Custom mode - 0x05 Cinema Mode Response Command Code: 0xC246	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 46 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 A0
	Standard		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 46 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 A0
	Eco		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 46 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 A0
	Custom		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 46 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 A0
	Cinema		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 46 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 A0
Get Scene Mode		Set Command Code: 0xC243 Response Command Code: 0xC244	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 44 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 00 9C

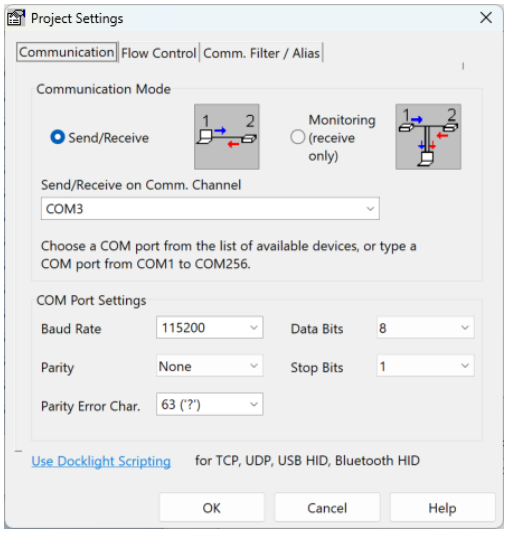
Function	Description	Instruction Description	Android Reply Code (Hexadecimal Bytes)
Set Red Gain	0	Set Command Code: 0xC223 Set Data (1 byte): 0x00–0x64 (decimal 0 ~ 100) Response Command Code: 0xC224	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 24 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 7E
	25		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 24 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 7E
	50		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 24 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 7E
	75		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 24 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 7E
	100		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 24 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 7E
Get Red Gain		Set Command Code: 0xC221 Response Command Code: 0xC222 Response Data (1 byte): 0x00–0x64 (decimal 0 ~ 100)	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 22 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 46 C0
Set Green Gain	0	Set Command Code: 0xC227 Set Data (1 byte): 0x00–0x64 (decimal 0 ~ 100) Response Command Code: 0xC228	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 28 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 82
	25		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 28 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 82
	50		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 28 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 82
	75		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 28 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 82
	100		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 28 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 82
Get Green Gain		Set Command Code: 0xC225 Response Command Code: 0xC226 Response Data (1 byte): 0x00–0x64 (0 to 100 in decimal)	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 26 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 64 E2
Set Blue Gain	0	Set Command Code: 0xC225 Set Data (1 byte): 0x00–0x64 (decimal 0–100) Response Command Code: 0xC22C	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 2C C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 86
	25		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 2C C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 86
	50		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 2C C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 86
	75		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 2C C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 86
	100		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 2C C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 86
Get Blue Gain		Set Command Code: 0xC229 Response Command Code: 0xC22A Response Data (1 byte): 0x00–0x64 (decimal 0–100)	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 2A C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 64 E6
Screen Display Settings	4:3	Set Command Code:0xC20F Set Data (1 byte): 0x01：4:3 0x02：16:9 0x03：Full-screen 0x04：Original 0x07：1:1 Response Command Code: 0xC210	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 10 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 6A
	16:9		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 10 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 6A
	Full-screen		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 10 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 6A
	Original		55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 10 C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 02 00 01 00 6A
Get Aspect Ratio		Set Command Code: 0xC20D Response Command Code: 0xC20E	55 55 55 55 55 55 55 55 C0 01 03 00 D1 01 D0 0E C2 00 00 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF 00 01 00 03 69

Appendix: Tools and testing

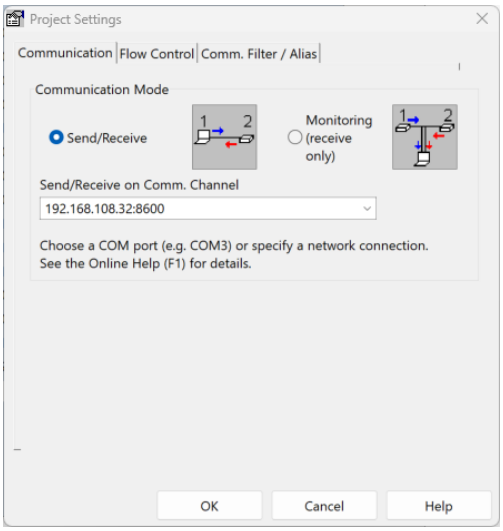
To be able to test your configuration, you can use all kind of tools. The one we recommend is Docklight (Scripting) since we made a pre-configured file that you can use with it.

Docklight can be downloaded via https://docklight.de/ and can be used without a license (free version). Only if you would like to edit and store configurations, you will need a full version. Our pre-configured file for RS232 is configured for COM3.

Project Settings RS232:



Project Settings RS232 over IP (Docklight Scripting required):



Example screenshot with commands and communication/log window: