

UART MANUAL

AIR COMMANDER V2

UART PROTOCOL DESCRIPTION | LAB.AIRPIXEL.CZ

COMMUNICATION INFO

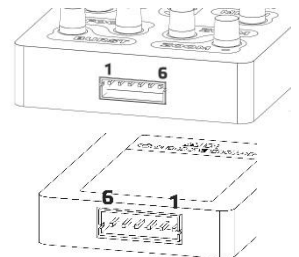
Air Commander Receiver and Transmitter accept incoming commands via UART bus pins in power connector. Protocol is for both devices the same. Transmitter sends UART commands wirelessly to the receiver. Receiver executes UART commands directly immediately. Protocol is standard UART at 115200 baud/s and no flow control.

PROTOCOL PARAMETERS

- Baud rate 115200
- Data bits 8
- Parity none
- Stop bits 1
- Handshake none

CONNECTOR PINOUT

1. GND
2. VCC
3. DO NOT CONNECT
4. DO NOT CONNECT
5. TX
6. RX



PACKET FORMAT

Air Commander accept 5 Byte long command frames as per next description:

SYNC Byte 1	SYNC Byte 2	COMMAND	PARAMETER	CHECKSUM
0xCD	0xA5	B1	B2	B1 XOR B2

Each command is started by two synchronization bytes 0xCD and 0xA5. After these two bytes must be valid command as described next in this document. Command is followed by one byte of Parameter. For commands without defined parameter purpose Byte can have any value. Checksum is simply result of Exclusive OR between Command byte and Parameter value. Each frame must be followed at least 100ms communication pause.

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SYNC COMMAND - 0xFA

Command Value - **0xFA**

If Air Commander is ready to accept commands, Sync Command is replied by one byte length response with value 0x00 as Sync confirmation.

MENU COMMAND - 0xA0

Command Value - **0xA0**

Command opens or closes MENU of the Camera.

ZOOM+ COMMAND - 0xA1

Command Value - **0xA1**

Command starts ZOOM IN. Depends on state of camera if zoom into reviewed photo or optical / digital zoom will be executed.

ZOOM- COMMAND - 0xA2

Command Value - **0xA2**

Command starts ZOOM OUT. Depends on state of camera if zoom into reviewed photo or optical / digital zoom will be executed.

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PHOTO COMMAND - 0xA3

Command Value - 0xA3

Command will trigger photo via IR command (AF+Photo at once).

VIDEO COMMAND - 0xA4

Command Value - 0xA4

Command will START or STOP video recording.

DISPLAY COMMAND - 0xA5

Command Value - 0xA5

Command toggle display mode.

PLAY- COMMAND - 0xA6

Command Value - 0xA6

Command toggles Review (Play) mode of camera.

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DOWN COMMAND - 0xA7

Command Value - 0xA7

Command will remotely press "down arrow" at round control wheel.

VIDEO COMMAND - 0xA8

Command Value - 0xA8

Command will remotely press "up arrow" at round control wheel.

DISPLAY COMMAND - 0xA9

Command Value - 0xA9

Command will remotely press "right arrow" at round control wheel.

PLAY- COMMAND - 0xAA

Command Value - 0xAA

Command will remotely press "left arrow" at round control wheel.

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OK COMMAND - 0xAB

Command Value - 0xAB

Command will remotely press "center button" inside of round control wheel.

APERTURE- COMMAND - 0x10

Command Value - 0x10

Command will remotely rotate APERTURE wheel left.

APERTURE+ COMMAND - 0x11

Command Value - 0x11

Command will remotely rotate APERTURE wheel right.

SPEED- COMMAND - 0x20

Command Value - 0x20

Command will remotely rotate SHUTTER SPEED wheel left.

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SPEED+ COMMAND - 0x21

Command Value - 0x21

Command will remotely rotate SHUTTER SPEED wheel right.

AF COMMAND - 0xF1

Command Value - 0xF1
Parameter Value - **length** x10 ms

Command will remotely trigger HALF press of shutter button for time defined in parameter. Length of press is defined in parameter as value x10.
Parameter value "10" will make press 100ms long.

AF/MF COMMAND - 0xAF

Command Value - 0xAF

Command will remotely toggle press of AF/MF button and hold or release until new AF/MF command is received.

C1 COMMAND - 0xC1

Command Value - 0xC1
Parameter Value - **length** x10 ms

Command will remotely trigger C1 press of custom button for time defined in parameter. Length of press is defined in parameter as value x10.
Parameter value "20" will make press 200ms long.

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C2 COMMAND - 0xC2

Command Value – **0xC2**
Parameter Value – **length** x10 ms

Command will remotely trigger C2 press of custom button for time defined in parameter. Length of press is defined in parameter as value x10.
Parameter value “25” will make press 250ms long.

C3 COMMAND - 0xC3

Command Value – **0xC3**
Parameter Value – **length** x10 ms

Command will remotely trigger C3 press of custom button for time defined in parameter. Length of press is defined in parameter as value x10.
Parameter value “100” will make press 1s long.