

## Data packet format

uint8 cmd					Description	Mode	Reply
uint8 'R'	uint8 addr				<u>R</u> ead register	NA	uint8 value
uint8 'W'	uint8 addr	uint8 value			<u>W</u> rite register	NA	
uint8 'F'	int32 fluidics_delay_us				Set <u>F</u> luidics injection delay (if negative - before imaging)	CS	OK\n
uint8 'L'	uint8 active	uint8 idle	bool ALEX		Set <u>L</u> aser shutter states	CS	OK\n
uint8 'I'	uint32 interframe_time_us				Set <u>I</u> nterframe time	CS	OK\n
uint8 'E'	uint32 strobe_duration_us				Set strobe flash duration (laser <u>E</u> xposure)	S	OK\n
uint8 'A'	uint32 ALEX_cycle_delay_us				Set delay between <u>A</u> LEX cycles	S	OK\n
uint8 'C'	uint32 n_frames				Start <u>C</u> ontinuous imaging	C	OK\n
uint8 'S'	uint32 n_frames				Start <u>S</u> troboscopic imaging	S	OK\n
uint8 'Q'					Stop ( <u>Q</u> uit)	CS	OK\n

i

01234

i    0        1        2        3        4

### Legend

Normal font shows data type (uint8, uint16).

Bold font shows member names.

Gray hatched areas are filled with ZERO.

Modes: C - continuous, S - stroboscopic (includes ALEX and timelapse)

### Notes

Each data packet is always 5 byte long. If shorter than that, pad it with zeros.

On startup, the system prints *Arduino is ready. Firmware version: <x.y.z>\n*

Wrong formatted packets are silently ignored (wrong command or too short data packet).

If a command has wrong argument values, the reply is *ERR\n*

Once the data acquisition is completed, the reply is *DONE\n*