

Sync device data packet format

01234				DescriptionModeReply		
uint8 cmd				Set <u>A</u> cquisition period between frames/bursts	S	OK\n
uint8 'A'	uint32 acq_period_us			Start <u>C</u> ontinuous imaging	C	OK\n
uint8 'C'	uint32 n_frames			Set shutter <u>D</u> elay	CS	OK\n
uint8 'D'	uint32 shutter_delay_us			Set laser <u>E</u> xposure time	CS	OK\n
uint8 'E'	uint32 exp_time_us			Set frame for micro <u>f</u> luidic trigger	CS	OK\n
uint8 'F'	uint32 fluidics_frame			Set camera readout <u>I</u> nterval	CS	OK\n
uint8 'I'	uint32 cam_readout_us			Set <u>L</u> aser shutter states	CS	OK\n
uint8 'L'	uint8 lasers	bool ALEX		<u>M</u> anually open laser shutters	NA	OK\n
uint8 'M'				Stop acquisition (<u>Q</u> uit)	CS	OK\n
uint8 'Q'				<u>R</u> ead register	NA	uint8 value
uint8 'R'	uint8 addr			Start <u>S</u> troboscopic imaging	S	OK\n
uint8 'S'	uint32 n_frames			<u>W</u> rite register	NA	
uint8 'W'	uint8 addr	uint8 value				
01234						

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 *Synchronization device 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* (NOT IMPLEMENTED)

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