

Sync device data packet format

0	1	2	3	4					
uint8 cmd					Description	Mode	Reply		
uint8 'A'	uint32 acq_period_us				Set <u>A</u> cquisition period between frames/bursts	S	OK\n		
uint8 'C'	uint32 n_frames				Start <u>C</u> ontinuous imaging	C	OK\n		
uint8 'D'	uint32 shutter_delay_us				Set shutter <u>D</u> elay	CS	OK\n		
uint8 'E'	uint32 exp_time_us				Set laser <u>E</u> xposure time	CS	OK\n		
uint8 'F'	int32 fluidics_frame				Set frame for micro <u>f</u> luidic trigger (-1 means no trigger)	CS	OK\n		
uint8 'I'	uint32 cam_readout_us				Set camera readout <u>I</u> nterval	CS	OK\n		
uint8 'L'	uint8 lasers	bool ALEX			Set <u>L</u> aser shutter states	CS	OK\n		
uint8 'M'					<u>M</u> anually open laser shutters	NA	OK\n		
uint8 'Q'					Stop acquisition (<u>Q</u> uit)	CS	OK\n		
uint8 'R'	uint8 addr				<u>R</u> ead register	NA	uint8 value		
uint8 'S'	uint32 n_frames				Start <u>S</u> troboscopic imaging	S	OK\n		
uint8 'W'	uint8 addr	uint8 value			<u>W</u> rite register	NA			
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 *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*