

# STRIX

Stabilized Rocket Information exchange

Lightweight, compact, fast protocol for half-duplex radio controlled ground control stations and precision guided munitions

## Uplink ICD

Byte	Field	Type	Description
1	Header	uint8_t	Always 0xAA
2	Command ID	uint8_t	0x00=Abort, 0x03=Launch, 0x10=Arm Warhead, 0x23=Telemetry Request
3–32	Reserved	uint8_t	Fill with 0x00, master only sends requests or commands, no need for extra parameters

- The id of the sender/receiver is not required in the ICD since the nrf24 datalink layer initialization handles the connection using unique IDs

## Downlink ICD

Byte	Field	Type	Description
1	Header	uint8_t	Always 0xBA
2	Response Type	uint8_t	0x01=Data Response 0x02 = command ack (next icd)
3	Servo motor 1 position	uint8_t	0x00-0xFF
4	Servo motor 2 position	uint8_t	0x00-0xFF
5	Servo motor 3 position	uint8_t	0x00-0xFF
6	Servo motor 4 position	uint8_t	0x00-0xFF

7-9	Accelerometer x axis	short	-32,768 -> 32,768
10-11	Accelerometer y axis	short	-32,768 -> 32,768
12-13	Accelerometer z axis	short	-32,768 -> 32,768
14-15	Gyro x axis	short	-32,768 -> 32,768
16-17	Gyro y axis	short	-32,768 -> 32,768
18-19	Gyro z axis	short	-32,768 -> 32,768
20-21	Mag x axis	Short	-32,768 -> 32,768
22-23	Mag y axis	Short	-32,768 -> 32,768
24-25	Mag z axis	Short	-32,768 -> 32,768
26-27	Temperature on IMU	short	-32,768 -> 32,768
28-32	CRC-32	uint32_t	Checksum to check corrupted sensor values OTA