| | | | | | | | | | _ |
|------|-------------------------|----------------------------|----------------------------------|---------------------------|-------------------------------|-----------------------------|----------------------------|-----------------------------|---------|
| PGNs | 230 | 234 | 235 | 254 | 32613 | 32614 | 32616 | 32618 | 1 |
| | | section status to AOG from | | AutoSteer Data to RC from | rate applied from arduino | | | Switch Positions to RC from | 1 |
| | VR data to RC from AGIO | RC | section widths from AOG | AGIO | to RC | settings to arduino from RC | PID to arduino from RC | switch box | 4 |
| 0 | 128 | 128 | 128 | 128 | 101 | 102 | 104 | 106 | 1 |
| 1 | 129 | 129 | 129 | 129 | 127 | 127 | 127 | 127 | 1 |
| | | | | | rate sensor ID low 4 bits, | rate sensor ID low 4 bits, | rate sensor ID low 4 bits, | auto, Mstr On, Mstr | ı |
| 2 | source | source | source | source | arduino ID high 4 bits | arduino ID high 4 bits | arduino ID high 4 bits | Off,Rate Up, Rate Down | 1 |
| | | | | | rate applied Lo, 1000 X | | | sw0, sw1, sw2, sw3, sw4, | ı |
| 3 | AGIO PGN 0xE6 (230) | AGIO PGN 0xEA (234) | AGIO PGN 0xEB (235) | AGIO PGN 0xFE (254) | actual | relay Lo, 0-7 | Кр | sw5, sw6, sw7 | 1 |
| | | | | | | | | sw8, sw9, sw10, sw11, | ı |
| 4 | length | length | length | length | rate applied Mid | relay Hi, 8-15 | MinPWM | sw12, sw13, sw14, sw15 | 1 |
| | | | | | | | | | |
| 5 | rate 0 Lo | Main | bytes 5-36 sections 0-15 | speed Lo - kmh X 10 | rate applied Hi | rate set Lo, 1000 X actual | LowMax | CRC | \perp |
| | | | | | | | | | |
| 6 | rate 0 Hi | - | 2 bytes per section, width in cm | speed Hi | acc. Quantity Lo, 10 X actual | rate set Mid | HighMax | | |
| | | | | | | | | | |
| 7 | rate 1 Lo | - | byte 37 # of sections | status | acc. Quantity Mid | rate set Hi | Deadband | | |
| | | | | | | | | | |
| 8 | rate 1 Hi | Number of sections | byte 38 CRC | steer angle Lo | acc. Quantity Hi | flow Cal Lo, 1000 X actual | BrakePoint | | |
| | | | | | | | | | |
| 9 | rate 2 Lo | On Group 0 | | steer angle Hi | PWM Lo | flow cal Mid | TimedAdjustment | | |
| | | | | | | | | | |
| 10 | rate 2 Hi | Off Group 0 | | - | PWM Hi | flow Cal Hi | Ki | | |
| | | | | | | | | | |
| 11 | rate 3 Lo | On Group 1 | | Relay Lo | Status byte | Commands | CRC | | |
| | | | | | | | | | |
| 12 | rate 3 Hi | Off Group 1 | | Relay Hi | CRC | power relay Lo, 0-7 | | | |
| | | | | | | | | | |
| 13 | rate 4 Lo | CRC | | CRC | byte 11 | power relay Hi, 8-15 | | | |
| | | | | | | | | | |
| 14 | rate 4 Hi | | | | bit 0, sensor 0 connected | Calibration PWM | | | |
| | | | | | | | | | |
| 15 | CRC | | | | bit 1, sensor 1 connected | CRC | | | |
| | | | | | | | | | |
| 16 | | | | | | byte 11 | | | |
| | | | | | | | | | |
| | | | | | | bit 0, reset acc. Quantity | | | |
| | | | | | | | | | |
| | | | | | | bit 1/2, control type 0-3 | | | |
| | | | | | | | | | |
| | | | | | | bit 3, simulate flow | | | |
| | | | | | | | | | |
| | | | | | | bit 4, pulses to measure | | | |

| PGNs | 32621 | 32622 | 32623 | 32624 | 32625 | 32626 | 32627 | 32628 | 32500 | 32501 | 32502 | 32503 |
|------|---------------------------------|--|--------------------|--------------------|-----------------|-----------------------------|---------------------------|------------------------------|---------------------------|--|-------------------|-------------------------------|
| | pressures to RC from arduino | Teensy Config | Teensy Config 2 | Teensy Pins | Nano Config | Nano Pins | Switchbox Pins | Wemos D1 Mini analog read | Teensy RC, receive config | weight from scale | IP addresses | Wifi status |
| 0 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 244 | 245 | 246 | 247 |
| 1 | 127 | 127 | 127 | 127 | 127 | 127 | 127 | 127 | 126 | 126 | 126 | 126 |
| 2 | arduino ID | Receiver, 0 none, 1 SimpleRTK2B, 2 Sparkfun | Minimum speed | Steer DIR | ModuleID | Flow1 | Auto | AIN0 Lo | ID | rate sensor ID low 4 bits, arduino ID high 4 bits | Ethernet IP part2 | RSSI |
| 3 | sensor 0, Lo | NMEA serial port | Maximum speed | Steer PWM | SensorCount | Flow2 | Master On | AIN0 Hi | SensorCount | weight byte 0 | Ethernet IP part3 | Status |
| 4 | sensor 0, Hi | RTCM serial port | Pulse Cal X 10, Lo | Steer switch | IP address | Dir1 | Master Off | AIN1 Lo | IPpart3 | weight byte 1 | Wifi IP part2 | DebugVal1 |
| 5 | sensor 1, Lo | RTCM UDP port #, Lo | pulse Cal X 10, HI | Wheel angle sensor | Commands | Dir2 | Rate Up | AIN1 Hi | Relay On Signal | weight byte 2 | Wifi IP part3 | CRC |
| 6 | sensor 1, Hi | RTCM UDP port #, Hi | Analog Method | Steer relay | CRC | PWM1 | Rate Down | AIN2 Lo | Flow On Direction | weight byte 3 | CRC | Byte 3 - bit 0 wifi connected |
| 7 | sensor 2, Lo | IMU, 0 none, 1 Sparkfun, 2 CMPS14, 3 Adafruit, 4 serial | RS485 port number | Work switch | Byte 5: | PWM2 | IP address | AIN2 Hi | Relay Control Type 0-5 | CRC | | |
| 8 | sensor 2, Hi | IMU read delay | Module ID | Current sensor | UseMCP23017 | Relay Pins 0-15, bytes 8-24 | switches 0-15, bytes 8-24 | AIN3 Lo | Wemos Serial Port | | - | |
| 9 | sensor 3, Lo | IMU report interval | Commands | Pressure sensor | Relay on signal | byte 25, CRC | byte 25, CRC | AIN3 Hi | Sensor 0, Flow pin | | | |

bit 5, Auto On bit 6, Debug On bit 7, calibration on

bit 0, Use rate control Rate PWM bit 1, use TB6612 Speed pulse RS485 send enable bit 2, Relay on signal bit 3, flow on signal CRC bit 4, Swap pitch for roll bit 5, Invert roll

flow on signal

Encoder

Rate DIR

10

12

13

14

15

16

sensor 3, Hi

CRC

WAS zero offset, Lo

WAS zero offset, Hi

RelayControl

IP address

CRC

CRC

Byte 9:

bit 6, GyroOn bit 7, Use Actuator

Sensor 1, Flow pin Sensor 1, Dir pin Sensor 1, PWM pin Relay Pins 0-15, bytes 15-30

Sensor 0, Dir pin

Sensor 0, PWM pin

CRC

32619

Wemos D1 mini switches

107

127

Master On

sw0, sw1, sw2, sw3, sw4,

sw5, sw6, sw7

sw8, sw9, sw10, sw11,

sw12, sw13, sw14, sw15

CRC

byte 31, CRC