

Overview

Ping200X is a complete system designed to meet the Transponder and Automatic Dependent Surveillance – Broadcast (ADS-B) requirements for operating Unmanned Aviation Systems (UAS) in controlled airspace. The system is fully configurable as any combination of Mode A, Mode C, Mode S transponder and Extended Squitter ADS-B transmitter and includes a barometric sensor with accuracy beyond 60,000ft.



TSO Certification Pending (TSOA June 2019)

- TSO-C88b internal altitude sensor
- TSO-C112e Level 2els, Class 1 Mode S transponder
- TSO-C166b Class B1S Extended Squitter transmitter
- Fully configurable as Mode A/C only, Mode S only, ES only, Mode AC + ES, Mode S + ES and Mode AC + S + ES
- Waterproofness to DO-160G category S
- Meets the U.S. ADS-B Out equipment performance requirements of 14 CFR 91.227
- Static pressure sensor accurate to 60,000ft.
- GDL90 ownship and altitude packets
- SMA 1030/1090MHz Antenna Connector

Conformity

- DO-181E Level 2els, Class 1
- DO-260B Class B1S
- DO-178C Level C
- DO-254 Level C
- DO-160G

Regulatory

- FAA transmit license - manned aircraft and unmanned aircraft operating above 500ft AGL
- FCC 47 CFR Part 87 ID 2AFFTP200S

Technical Specifications

Specification	Value
Input Power	11-34V (3S-8S LiPo) 1.5W Continuous On/Alt. 4W Peak (8ms maximum)
Size	47x54x9mm
Weight	50 grams
SIL/SDA	3/2
Operating Temp	-45 to 70°C
Transponder	
MTL 1030MHz	-74dBm ±3dBm
1090 Transmit Power	250W Nominal
Altimeter	
Range	-1000 to 60,000ft
Interfaces	
Control	
Baudrate	1200-2Mbps
Protocol	GDL90+
Position	
Baudrate	115200bps
Protocol	MAVLINK
Options	
1030/1090MHz Transponder Antenna	

Electrical Specification

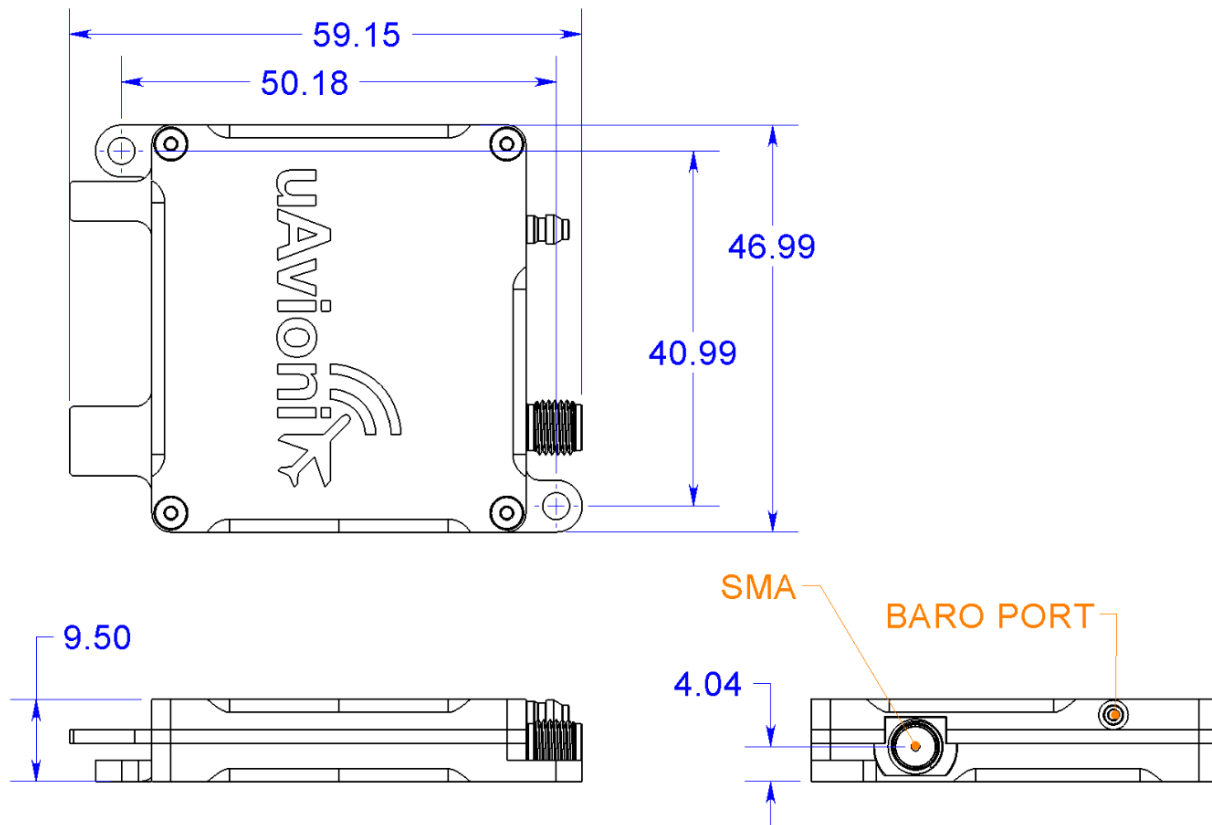
Interface

Pin	Type	Physical	Protocol
Black	22AWG	Aircraft Ground	
Red	22AWG	Aircraft Power	
Orange	24AWG	AP RXD	GDL90+
Gray	24AWG	AP TXD	GDL90+
White	24AWG	RXD	MAVLINK

Environmental

Condition	DO-160G	Category
Temperature	4.0	B2
Temperature Variation	5.0	B
Humidity	6.0	A
Operational Shock	7.0	B
Vibration	8.0	Type 5 level M
Waterproofness	10.0	S
Magnetic Field	15.0	Z
Power Input	16.0	BX
Voltage Spike	17.0	B
AF Conducted Susceptibility	18.0	B
Induced Signal Susceptibility	19.0	AC
RF Susceptibility	20.0	TT
RF Emissions	21.0	B
Lightning Induced Transient Susceptibility	22.0	A2G2L2
ESD	25.0	A

Mechanical Specification



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