PING-200SR MODE S ADS-B Transponder

UAX-90023-01

Overview

PING-200SR is a complete system designed to meet the conspicuity requirements for operating Unmanned Aircraft Systems (UAS) in controlled airspace. This system includes an integrated, high integrity Satellite Based Augmentation System (SBAS) Global Positioning Sensor (GPS) sensor derived from uAvionix's Technical Standard Order (TSO) C-199 Class B FYX technology, and a precision, temperature controlled, barometric sensor with accuracy beyond 80,000ft.

Features

- Mode S transponder
- ADS-B 1090ES DF17 transmitter
- Integrated SBAS GPS
- Integrated static pressure sensor
- Meets the ADS-B OUT equipment performance requirements of 14 CFR 91.227
- Meets the minimum performance requirements of the following RTCA specifications:
  - DO-181E Level 2els, Class 1
  - DO-260B Class B1S
- GPS/SBAS augmentation system. Receiver Autonomous Integrity Monitoring (RAIM) layer for Fault Detection and Exclusion (FDE)
- Temperature controlled static pressure sensor accurate to 80,000ft.
- Battery backed GPS for fast Time-to-First-Fix (TTFF)
- DO-160G environmental Cat B2
- GDL90 compatible CONTROL serial input. Compatible with popular autopilots.
- GDL90 ownship and altitude packets
- Integrated GPS receiver
- SMA 1030/1090MHz Antenna Connector
- Remote GPS antenna included

Regulatory

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

Technical Specifications

Specification	Value
Input Power	11-33V 2W Ave On/Alt. 1W Standby
Size	91x57x17mm
Weight	76 grams
SIL/SDA	1/1
Operating Temp	-45 to 80°C
Transponder	
MTL 1030MHz	-74±3dBm
1090 Transmit Power	250W Nominal
WAAS GPS	
Augmentation	SBAS
Sensitivity	-167dBm
Altimeter	
Range	-1000 to 80,000ft
Fitting	3mm FESTO
Interfaces	
Control	
Control	57600bps GDL 90
Ownship	57600bps GDL90
Programming	
Programming	115200bps GDL 90
Options	
Wi-Fi Programmer Adapter	
1030/1090MHz Transponder Antenna	

Electrical Specification

Host Interface

Pin	Type	Physical	Protocol
1	Ground		
2	NC	No Connection	
3	Aircraft Power	11-33V	
4	COM1 TX	RS232 57600bps	GDL 90 Ownship
5	COM1 RX	RS232 57600bps	GDL 90 Control
6	RS232 Ground		

Mating Connector: Molex 0436450600, Pins: 0462350001

Programming Interface

Pin	Type	Physical	Protocol
1	COM2 TX	3.3V Serial 115200bps	GDL 90
2	COM2 RX	3.3V Serial 115200bps	GDL 90
3	Power	5V Out	
4	Ground		

Mating Connector: JST ZHR-4, Pins: SZH-002T-P0.5

Indicators

LED	ON	FLASHING
GREEN	Powered	Receiving Interrogation
RED	FAULT	Reply / Transmit

Mechanical Specification