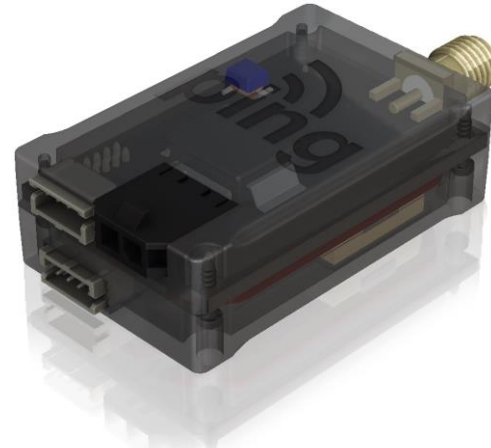


Overview

PING™ is the world's smallest, lightest and most affordable full range, dual link ADS-B transceiver. At just 20 grams, it implements 'Sense and Avoid' for Drone operations in the national airspace. ADS-B-In on both 1090ES and 978UAT. ADS-B-Out on 1090MHz. No deviations from the Minimum Performance Standards of DO-260B Class A0 apart from minimum transmit power.



Actual Size



Features

- Detects commercial aircraft threats on 1090MHz and 978MHz within a 100 statute mile radius in real time.
- Reports threats from commercial aircraft in a programmable spherical radius.
- Transmits ADS-B DF-18 on 1090MHz.
- Meets MOPS DO-260B Class A0.
- Navigation Source (GPS and Baro) PingNav option.
- SMA Antenna Connector
- GDL90 combined UAT and 1090ES traffic reports
- US Patents Pending

Regulatory

- Meets FCC 47CFR part 87.
- CAP 1391 "Basic Device"

Technical Specifications

Specification	Value
Input Power	6-14V 500mW Ave. 30W Peak (400us)
Size	25x39x12mm
Weight	20grams
SDA	2
Receiver	
MTL 1090MHz	-88dBm
Dynamic Range	-79 to 0dBm
MTL 978MHz	-93dBm
Dynamic Range	-90 to -3dBm
Supported Interfaces	
Host Serial	57600bps
Nav Serial	115200bps
Transmit	
1090MHz	20W (43dBm)
Modulation	PAM
Options	
<ul style="list-style-type: none"> • PingNav DO-229D GPS with Barometer 	

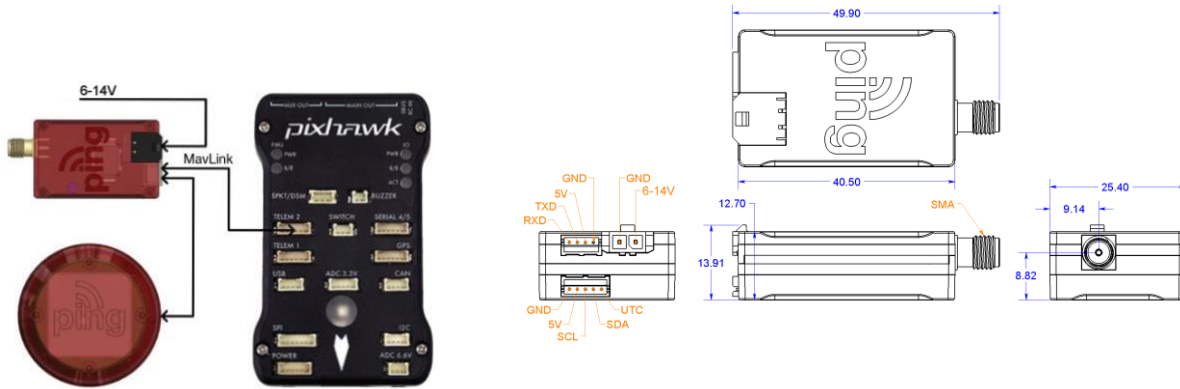
Quality Standards and Procedures

Designed and assembled in the USA, HALT and HASS tested, IPC-610 class II soldering, production functional testing. Software D.A. to DO-178B, Hardware D.A. to DO-252 Class C.

Electrical Specification

Navigation Source Interface				Power Interface			
Pin	Type			Pin	Type		
1	Input	UTC		1	Power	6-14V	
2	Input	RXD	MavLink	2	Ground		
3	Output	TXD	GDL90	Mating Connector: Molex 0436450200 Pins: 0462350001			
4	Power	5V		Data Interface			
5	Ground	Ground		Pin	Type		
Mating Connector: JST ZHR-5 Pins: SZH-002T-P0.5				1	Input	RXD/SDA	MavLink
Indicators				2	Output	TXD/SCL	MavLink
				3	Power	5V	
LED	ON	FLASHING		4	Ground		
BLUE		1090ES Traffic		Mating Connector: JST ZHR-4 Pins: SZH-002T-P0.5			
GREEN		UAT Traffic					
RED	FAULT	Testing					

Mechanical Specification



Any antenna certified to TSO-C66, TSO-C74, TSO-C112 with a peak gain of 4 dBi or less, an omni-directional radiation pattern, and a VSWR of 1.8 or less at 978MHz is approved for use with this device and will ensure conformance to all applicable standards for RF emissions. Ensure that the polarization of the antenna is as near vertical as possible.

Modifications and use outside of intended scope

This device has been design and tested to conform to all applicable standards in the original form and when configured with the components shipped with the device. It's not permissible to modify the device, use the device for any use outside of the intended scope, or use the device with any antenna other than the one shipped with the device.

Important Pilot Advisory Note Regarding Safety of Radio Frequency Energy

Safe use of this device requires care as to the placement of the antenna. Place the antenna at least 4cm away from any part of your body or that of other cabin occupants. To stop all RF emissions, remove power from the equipment. Only handle the antenna when power is disconnected. Advise your passenger(s) to avoid contact with the antenna while power is applied to the equipment. Retain these instructions with your maintenance logs/files and for future reference.

FCC RF Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits (Table 1 of 47Pt1 (i) 1.1310) set forth for a Public/Uncontrolled environment.

Mode-S or ATRCBS

If the aircraft has an operating Mode-S transponder or ATRCBS beacon, the Transceiver must be deactivated.

Proximity to other equipment

Mount the Transceiver so that it does not compromise the operation of any other proximate communication or navigation antenna or system.

Altitude Cross Check

The reported altitude must be cross-checked against the aircraft's altimeter during pre-flight.

Harmful Interference

It is the responsibility of the pilot to ensure that the Transceiver causes no harmful interference to other on-board equipment and systems.

Configurable Options

Accessing or altering configurable options not intended to operated may cause pilot distraction.

See and Avoid

This Transceiver is intended to be an aid to 'see and avoid'. Maneuvers to regain adequate separation should not be based on alerts issued by this device alone.

Approvals

Approvals do not cover adaptations to the aircraft necessary to accommodate ancillary equipment such as power provisions, mounting devices or external antennas, such items must still be approved under existing minor modification/change processes applicable to the aircraft.

Warning: This transceiver is to be used to improve pilot situational awareness only and as a navigational aid. It is not intended for use in IFR flight conditions. uAvionix is not responsible for the transceiver's end use and will not be held liable for any events occurring from its use.