# **ATS SS400 Acoustic Transmitter**

₩World's Most Reliable Transmitters and Tracking Systems



## The New Fourth Generation model SS400 Acoustic Tag allows for easy insertion into the fish, and is JSATS compatible.

The Juvenile Salmonid Acoustic Telemetry System (JSATS) was developed by the Army Corps of Engineers and its partners to study fish behavior in freshwater and marine environments. ATS has been the acoustic micro transmitter (AMT's) supplier for the JSATS program since 2007. The cylindrical form factor used in this design allows you to more quickly insert the tag into the fish, which will save time and expense during fish tagging operations and improve survival.

The JSATS system uses a binary phase shift keyed (BPSK) code pulse to achieve a code set of over 65,000 individual ID's. The pulse rate interval (PRI), code ID, and duty cycling (sleep/delayed activation) are user configurable through the use of the highly portable ATS Pinger Dish. The pulse train contains a 7-bit Barker code, 16-bit tag ID code, and 8-bit cyclic redundancy check (CRC). The message is only 744 milliseconds in length, so the short on-time saves power and reduces signal collisions as compared to other standard timing code sets on the market.

ATS manufactures JSATS transmitters using strict process control procedures and part traceability, so you can be assured that you will receive a reliable product.

- Part of a complete Tracking System includes Tags, Tag Programmer, and Receiving Equipment
- Cylindrical form factor allows tag to be quickly inserted into fishes body cavity
- Smallest acoustic tag available that meets life and output requirements of the JSATS Program
- User activated and configurable using the portable Pinger Dish
- Model SS400
  - Weighs 210 mg
  - Size 15.0 x 3.30 mm

TRANSMITTERS RECEIVERS GPS SYSTEMS



ANTENNA SYSTEMS CODED ID SYSTEMS CONSULTING

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### ATS SS400 Acoustic Transmitter

PHYSICAL SS400

Battery Type	Weight	Size	Interval (sec)	Expected run time (days)
BR306	210 mg	15.0 x 3.3 mm	3 5 10	48 71 111
379 (2)	1.0 g	17.5 x 6.3 mm	3 5 10	108 159 247
392 (2)	2.2 g	20 x 8.5 mm	3 5 10	302 446 694

#### GENERAL

- Code set:
- Frequency:
- Power output, typical:Biocompatible coating:
- Pulse rate interval (PRI):
- On/off:
- Label:
- Code ID:
- Duty cycling:
- Temperature:

416.7 kHz ± 0.5% +156 dB re: 1uPa @ 1 meter Parylene C, 25 micron thickness Factory or user configurable with Pinger Dish Acoustic coded with Pinger Dish 4 place alphanumeric code ID Factory or user configurable with Pinger Dish Factory or user configurable with Pinger Dish 0 to 31° C

65,536 individual BPSK codes

## ATS Pinger Dish IV

The ATS Pinger Dish IV is designed to be an inexpensive, field-portable unit to activate and deactivate AMT's (acoustic micro-tags). When a tag is activated in the pinger dish, the integrated display shows the tag frequency, code ID, CRC (cyclical redundancy check) and the PRI (pulse rate interval).

The model IV features a durable and robust design, making high volume field operations easy and efficient. With specialized decoding algorithms and a high energy programming control signal, communications between tag and reader are highly reliable. The display uses a large 16 character by 3 line LCD for easy readability.

The dish operates on 12 VDC, and is powered by an included converter that utilizes 120 VAC. Connecting the Pinger Dish IV to a PC via a RS232 serial cable allows the PRI, code ID, temperature, and duty cycling parameters to be user configurable.

The included Sonic Tag Integrator software may be used on the PC side to control tag activation, and to create a database of activation and tagging activities.

#### WARRANTY

• One year parts and labor on materials and workmanship



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