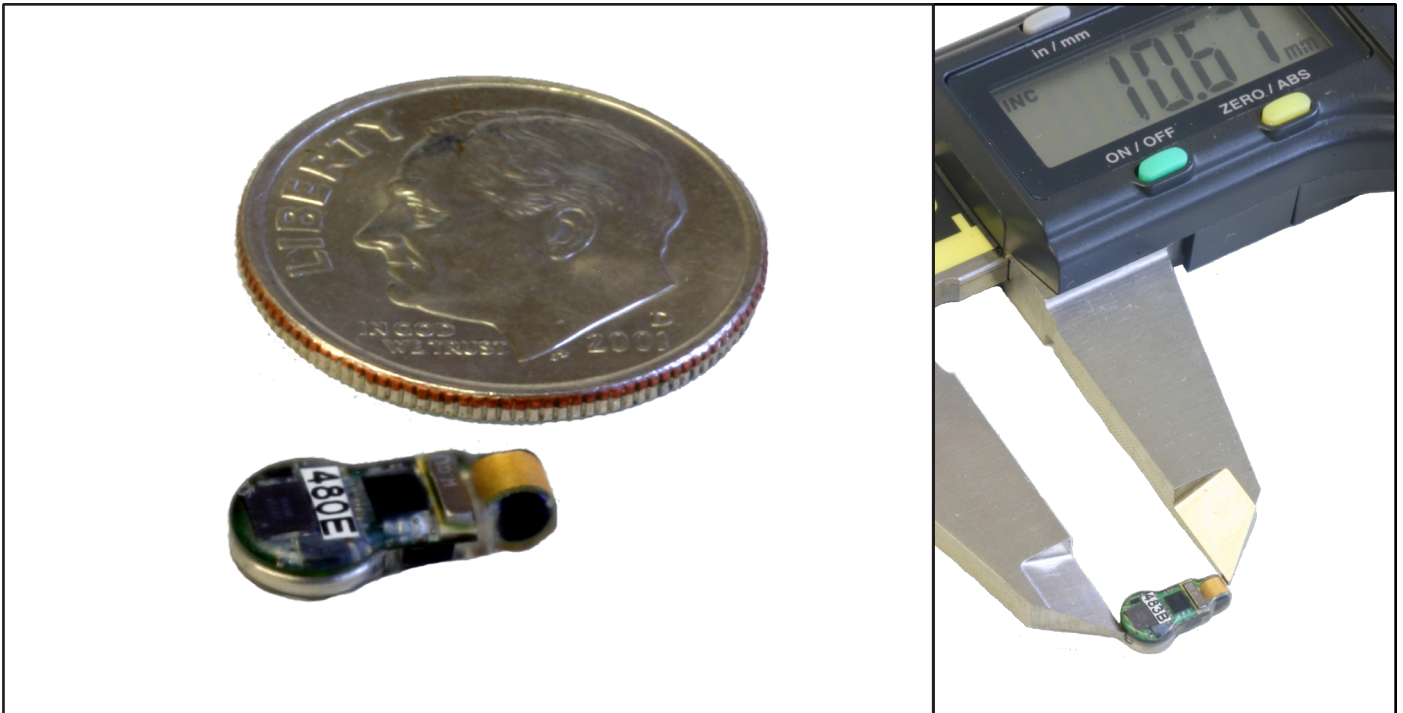# ATS SS300 Acoustic Micro Transmitter

〰〰〰**World's Most Reliable Transmitters and Tracking Systems**

The New Third Generation model SS300 Acoustic Tag is Significantly Smaller in Size Without Sacrificing Life or Signal Strength.

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 manufacturing large numbers (more than 10,000 tags per year) of acoustic micro transmitters (AMT's) for the JSATS program since 2007. Through our innovative designs, the JSATS transmitter has significantly decreased in size, increased in power output, and become easier to deploy in the field. We've achieved these improvements while still offering another ATS trademark - low cost!

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
- Smallest Acoustic Tag Available that meets Life and Output Requirements of the JSATS Program
- User Configurable
- Model SS300
  - Weighs 300 mg
  - Size 10.7 x 5.0 x 2.8 mm

ATS

ADVANCED TELEMETRY SYSTEMS

ATS SS300 Acoustic Micro Transmitter

PHYSICAL
SS300

Battery	Size	Weight	Interval (sec)	Expected run time (days)
337	10.7 x 5.0 x 2.8 mm	300 mg	3	23
			5	37
			10	68
379	11.9 x 6.3 x 3.7 mm	430 mg	3	45
			5	73
			10	136
392	14.4 x 8.5 x 5.3 mm	965 mg	3	81
			5	151
			10	240

GENERAL

• Code set:	65,536 individual BPSK codes
• Frequency:	416.7 kHz ± 0.5%
• Power output, typical:	+156 dB re: 1uPa @ 1 meter
• Biocompatible coating:	Parylene C, 25 micron thickness
• Pulse rate interval (PRI):	Factory or user configurable with Pinger Dish
• On/off:	Acoustic coded with Pinger Dish
• Label:	4 place alphanumeric code ID
• Code ID:	Factory or user configurable with Pinger Dish
• Duty cycling:	Factory or user configurable with Pinger Dish

ATS Pinger Dish III

The ATS Pinger Dish III 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 improved model III features a more durable and robust design, making high volume field operations easier and more efficient. Decoding algorithms have been improved, and the programming control signal is now four times stronger than the previous model, making communications between tag and reader highly reliable. Pulse rate interval resolution displayed on the screen has increased from 0.01 to 0.001 seconds, and the LCD display size has increased from 2 lines x 16 characters, to 4 lines x 16 characters.

The dish operates on 12 VDC, and is powered by an included converter that utilizes 120 VAC. Connecting the Pinger Dish III to a PC via a RS232 serial cable allows the PRI, code ID, 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