

# The CAFT Series

## Coded Acoustic Fish Transmitters



**Whether you require small size, enhanced longevity or high signal strength, Lotek has the transmitter for your application.**

From miniature transmitters (CAFT8\_5; 8mm x 32mm) to enhanced longevity (CAFT16\_2; 1318 days), enhanced signal strength (CAFT16\_3; 161 dB) or acoustics combined with radio (CART), Lotek has the transmitter features for your fish monitoring or tracking application.

Our new acoustic tag design offers longer operational life with equivalent range performance. These transmitters are designed to operate within Lotek's powerful family of Coded telemetry systems, which allow up to 212 unique identifiers on a single acoustic frequency. This capability significantly reduces the need for additional frequencies, with a corresponding reduction in total scan time over

conventional pulsed or code extended systems. Spatial and temporal resolution are enhanced accordingly.

If your interests include species which move between marine (salt) and fresh water environments, our Combined Acoustic and Radio Transmitting (CART) tag enables researchers to monitor the migration of these species with a single transmitter and receiver.

All Lotek tags are encased with a biocompatible material to help minimize any impact of surgical implantation or external attachment system. CAFT / CART tags are supplied fully assembled with an easy to use on/off activation switch.

### Options

B - "Beeper" pulse rate coding expressed as beats per minute (bpm)

E - External attachment w/ hardware (requires an additional 2-4mm to length)

D - Non-functioning "Dummy" test tag



- Receivers
- Dataloggers
- Radio transmitters

- Acoustic transmitters
- Archival tags
- GPS systems

- Hydrophones
- Wireless hydrophones
- 2D/3D Position systems

- Sensor transmitters
- Accessories
- Consulting

# CAFT Series

## Specifications

The uniquely small size and low weight of the CAFT8 series enable them to be successfully inserted into the body cavity of small fish. The maximum detectable range of the tag is dependent upon the conditions in which it is operated and can vary widely. Acoustic signals are detected using a wired or wireless hydrophone linked to an SRX\_400 receiver/datalogger. A wired hydrophone allows active tracking or datalogging when connected to an SRX\_400 with a sonic up-converter. For site situations where detection range needs to be increased or in long base line studies, the optimal solution is often to deploy Lotek's specially designed wireless hydrophones (WHS series). The wireless hydrophone system detects the acoustic signal and re-transmits it as a radio signal to an SRX\_400 receiver/ datalogger. Many wireless hydrophones may be monitored by a single SRX\_400 base station, facilitating deployment of an extensive network of detection cells. See our brochures covering the SRX\_400 series and the Wireless Hydrophone System.

Model	Size(mm)	Longevity(days)	Wt(g) in Salt Water	Wt(g) in Air	Frequency (kHz)	Acoustic Power (dB)
CAFT8_5	8.5 x 32	39	2.0	4.0	76.8	149
CAFT11_2	11 x 40	92	3.8	7.5	76.8	150
CAFT11_3	11 x 46	229	4.2	8.4	76.8	150
CAFT11_4	11 x 55	327	5.1	10.0	76.8	150
CAFT16_1	16 x 54	719	18.9	24.3	65.5/76.8	155/156
CAFT16_2s	16 x 65	980	17.0	30.0	65.5/76.8	155/156
CAFT16_2	16 x 82	1569	18.1	34.2	65.5/76.8	155/156
CAFT16_3s	16 x 84	495	20.0	36.5	65.5/76.8	161/162
CAFT16_3	16 x 97	675	20.5	39.3	65.5/76.8	161/162
CAFT32_1s	32 x 101	5556	37.7	94.5	65.5/76.8	155/156

## Notes on specifications

1. Acoustic power output is an average expressed in dB re 1 $\mu$ P @ 1meter (nominal).
2. All dimensions are for internal attachment with the exception of the CAFT32\_1s.
3. Longevities vary, based in part upon environmental conditions to which they are subjected. For this reason, longevity is defined as 80% of the specified value at time of order. Calculations are based on the battery manufacturer's specifications at a code burst interval of 5 seconds.
4. All tags are guaranteed to meet stated specifications upon shipment. Any Lotek tags found to be defective, with respect to material or workmanship, will be repaired or replaced.
5. Periodic design modifications to individual models may alter specifications. Selection of external attachment design or other options may further affect stated specifications. It is recommended that specifications be confirmed when placing an order.

