



MM Series

Technology:  Acoustic

Product:  Tag

Sockeye salmon (*Oncorhynchus nerka*)



Multi-Mode Acoustic Transmitters and Sensor Transmitters

As in other areas of fish and wildlife monitoring, Lotek is continuously expanding the boundaries of acoustic telemetry with a range of innovative options, including transmitters that combine multiple technologies for use in multiple habitats. Multi-mode technology provides the means to track animals throughout a variety of applications or environments that may not be compatible with a single technology. With the sensor option (motion, temperature, pressure), one can monitor fish depth, temperature and mobile state.

Options

- Sensors: Motion, Temperature, Pressure
- Sensor transmitters offer a variety of depth ranges
- Flexible duty cycle between transmission modes
- Also available in single and tri-mode operation

Features:



Temperature



Depth



Activity

Compatible with multiple acoustic receiving systems:
Including MAP, SRX and R-Code within a single device thereby eliminating the need to double tag.

Cost effective solution:
For multiple technology deployments.

Rapid transmission rates:
(5 seconds) for efficient mobile tracking

Product Applications

Migration activity of anadromous species from ocean through to spawning site, Studies of lake dwellers moving between shallow and deep freshwater, Micro-habitat utilization and species interaction 2D/3D, Monitoring of fish entrainment around hydro facilities.

Model	Physical specifications ^[1]		Expected life ^[2] (days) (Std / HP)	
	Size (ØxL) (mm)	Weight (g)	M = 5s / R = 60s	M = 10s / R = 120s
MR-series	Dual Mode Operation - MAP Acoustic + R-code Acoustic			
MM-MR-8-SO	8.5 x 42	5.5	19	37
MM-MR-11-SO	11 x 38	6.6	19	37
MM-MR-11-28	12 x 60	10.5	91 / 24	181 / 48
MM-MR-11-45	12 x 73	14.5	142 / 37	281 / 74
MM-MR-16-25	16 x 57	26.0	178 / 47	354 / 94
MM-MR-16-33	16 x 64	29.0	243 / 64	483 / 128
MM-MR-16-50	16 x 80	35.0	389 / 103	773 / 205
			M = 5s / S = 5s	M = 10s / S = 10s
MS-series	Dual Mode Operation - MAP Acoustic + SRX Acoustic			
MM-MS-8-SO	8.5 x 42	5.5	16	31
MM-MS-11-SO	11 x 38	6.6	16	31
MM-MS-11-28	12 x 60	11	78 / 20	154 / 41
MM-MS-11-45	12 x 73	15	121 / 32	239 / 63
MM-MS-16-25	16 x 57	26	151 / 40	301 / 79
MM-MS-16-33	16 x 64	29	206 / 54	410 / 108
MM-MS-16-50	16 x 80	35	330 / 87	656 / 173
			M = 5s / S = 60s	M = 10s / S = 120s
SR-series	Dual Mode Operation - SRX Acoustic + R-code Acoustic			
MM-SR-8-SO	8.5 x 42	5.5	52	100
MM-SR-11-SO	11 x 38	6.6	52	100
MM-SR-11-28	12 x 60	11	256 / 69	495 / 137
MM-SR-11-45	12 x 73	15	398 / 107	770 / 212
MM-SR-16-25	16 x 57	26	508 / 132	994 / 263
MM-SR-16-33	16 x 64	29	693 / 180	1356 / 358
MM-SR-16-50	16 x 80	35	1109 / 288	2169 / 573
Transmitter options	Additional (ØxL) (mm)	Additional ^[3] (g)	Derating (days)	
Motion	0 x 0	0.0	< 1%	
Temp+Press	0 x 5	0.5 - 3.0	< 1%	
Press+Motion	0 x 5	0.5 - 3.0	< 1%	

Tolerance on all specifications is ± 5%

1. Sensor length and weight are in addition to the ID-only specifications.
2. HP = High Power - Acoustic Mode Only
3. Sensor weight increase 0.5g for 8.5 mm diameter tag and 3g for 16 mm diameter tag.

Features and specifications subject to change without notice.

Warranty

MM tags are warranted to be free of defects in materials and workmanship under Normal Use for a duration of 80% of Estimated Life to a Maximum of 3 years. For Warranty terms and conditions, please review our [Warranty Statement](#).