

Deuteron Technology's Wireless Neural Loggers

Feature comparison table

	Ratlog-64	Mouselog-16	Mouselog-LP	Spikelog-16 (Previously called Neurolog-16)
Introduced	2015	2015	2015	2013
Configuration	Modular	Single board	Single board	Single board
Neural inputs	16, 32, 64	16	8	16
Sampling rate	32kHz	29.3kHz	4kHz	29.3kHz
Resolution	16-bit	12-bit	16-bit	12-bit
Input range	± 5mV	± 5mV	± 5mV	± 5mV
Noise rms	2.4μV	2.2μV	1μV	2.2μV
Analog Bandwidth, high limit	30Hz-10kHz, Software controlled	7kHz	400Hz	7kHz
Analog bandwidth, low limit	0.2-500Hz Software controlled	1Hz or 300Hz	0.2Hz or 10Hz	1Hz or 300Hz
Electrical stimulus channels	Optional 7	none	none	7
9-Axis motion sensor	Optional	no	no	Optional
Audio recording	Optional	no	no	no
Memory type	Micro-SD	Micro-SD	Micro-SD	Fixed with USB
Data memory capacity	64GB	64GB	64GB	8GB
Memory limit of recording time	5 Hours (64 channel) 10 Hours (32-channel)	20 hours	11 days	2.5 hours
Recording time with 3-gram battery	3.3 hours (32 channel) 2 hours (64 channel)	4.5 hours	20 hours	2.5 hours
Board size	15x24mm	17x24mm	17x24mm	22x30mm
Board mass	Processor board: 1.92g 4.8g total for 64 channel system	1.6g	1.6g	4.0g
Headstage size	13x13 standard wired 15x22 +audio, stacked	none	none	none
Connector	36+4 Omnetics A79025-001	18+2 Omnetics A79043-001 or low cost Molex		18+2 Omnetics
Designed for / used with	rats	mice	mice, marmosets	bats, rats, fish