

# sTEM

## Technical specifications



## System Configurations

	<b>sSTEM</b>	<b>sSTEM+</b>
Dual moment	Yes	Yes
Low moment current	1 A	1 A
High moment current	5 A	10 A
Number of RX channels	1	1
Real-time inversion	Medio 2024	Medio 2024
TX loop options	20x20 m, 40x40 m	20x20 m, 40x40 m
Waveform recording	Pre recorded	Pre recorded
Damping resistor	330 Ohm	330 Ohm
Control app	iOS, Android	iOS, Android

## TX Characteristics

Pulse on / off times	Pre-defined
Duty cycle	Variable, default LM: 46% HM: 30%
Service and upgrades	Via Internet

## Rx Characteristics

Sample rate	4 MHz
Dynamic range	>24 bit
Onboard computer	NUC12 or better
Internal RAM	8 GB or more
Harddisk capacity	SSD, 256 GB or more
Operating system	Windows
I/O interface	WiFi
GPS receiver	Built-in GPS
Service and upgrades	Via internet

## Transmitter Coil

40x40 m	Flexible transmitter loop
Dimensions, effective area	40x40 m (single turn), 4 mm <sup>2</sup> , 1600 m <sup>2</sup>
Weight	Approx. 8.7 kg

20x20 meters	Flexible transmitter loop
Dimensions, effective area	20x20 m (single turn), 2.5 mm <sup>2</sup> , 400 m <sup>2</sup>
Weight	Approx. 5.2 kg

## Receiver Coil

R-36 Flex	Receiver coil
Bandwidth	200 KHz
Dimensions, effective area	3x3 m, 36 m <sup>2</sup>
Weight	Approx. 5.3 kg (incl. lead-in)

## Physical Specs

Casing	ABS, IP65
Power	2x Li-on batteries, (14.4V, 6.8Ah, 99.4Wh)
Dimensions	36x27x14 cm
Operating temperature	-20 °C to -50 °C

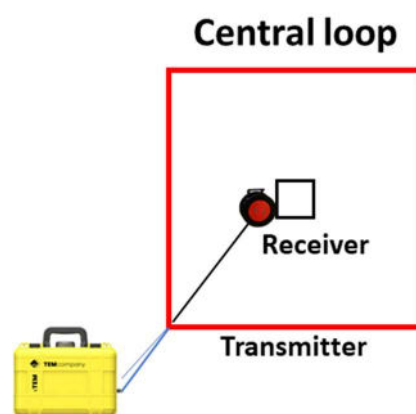


Figure 1: Sketch of the central loop STEM coil configuration

## Transmitter Turn Off

LM	7 us
HM	13 us

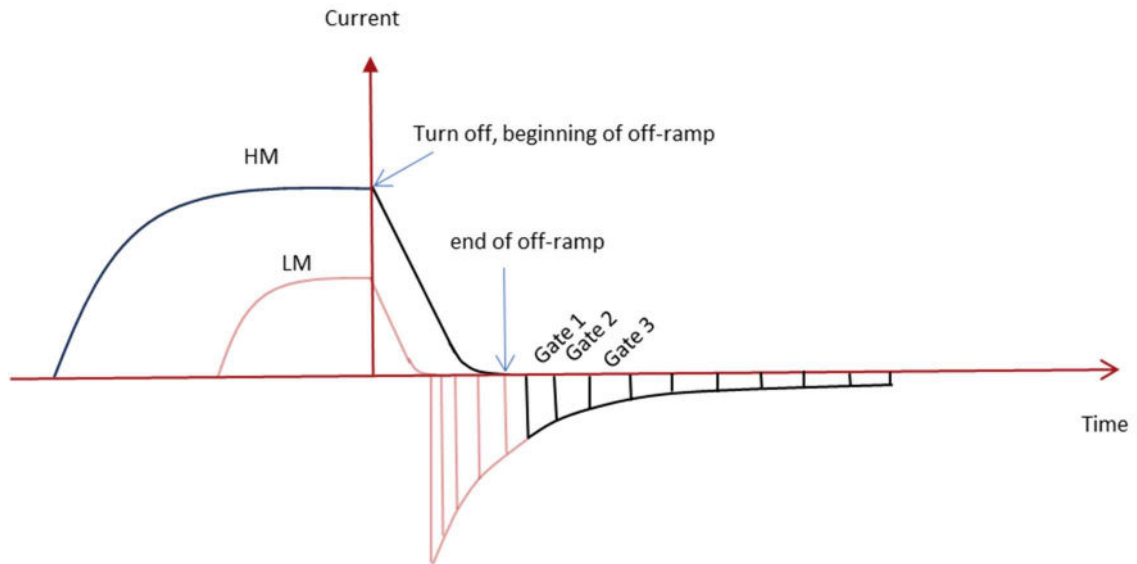


Figure 2: Idealized visualization of the waveform, turn-off ramp and gates. Not to scale.

## Gate Times\*

	Gate open	Gate center	Gate close
LM, first gate (after turn-off)	10 us	11.2 us	12.5 us
LM, first gate (after end of off-ramp)	3 us	4.2 us	5.5 us
LM, last gate	794 us	891 us	999 us
HM, first gate (after turn-off)	25.5 us	28.7 us	32 us
HM, first gate (after end of off-ramp)	12.5 us	15.7 us	19 us
HM, last gate	11050 us	12415 us	13940 us

\*in 40 x 40 m loop, standard measurement script