

POSSIBLE WILDLIFE TRANSMITTERS CONFIGURATIONS

Model	Weight with battery	Category	Autonomy		Type & capacity	Battery's voltage	Peak current	Output power	Sort of battery
			Min	Max					
MD2-6700-20	180	9-10	1,7 years	4,1 years	Li / 6700	3,6 V	20 mA	13 dBm	Cylindrical
MD2-3600-20	75	9-10	11 months	2,2 years	Li / 3600	3,6 V	20 mA	13 dBm	Cylindrical
MD2-1800-20	35	9-10	5,5 months	1,1 years	Li / 1800	3,6 V	20 mA	13 dBm	Cylindrical
MD1-1800-6	32	8	1,4 years	3,5 years	Li / 1800	3,6 V	6 mA	-5 dBm	Cylindrical
MD1-1800-3	32	7	2,9 years	6,5 years	Li / 1800	3,6 V	3 mA	-10 dBm	Cylindrical
MD1-1000-6	24	8	10 months	1,9 years	Li / 1000	3,0 V	6 mA	-5 dBm	Flat
MD1-1000-3	24	7	2,2 years	3,7 years	Li / 1000	3,0 V	3 mA	-10 dBm	Flat
MD1-850-6	15	8	8,5 months	1,6 years	Li / 850	3,6 V	6 mA	-5 dBm	Cylindrical
MD1-850-3	15	7	1,4 years	3 years	Li / 850	3,6 V	3 mA	-10 dBm	Cylindrical
MD1-850-1,5	15	6	2,6 years	5,5 years	Li / 850	3,6 V	1,5 mA	-15 dBm	Cylindrical
MD1-500-6	13	8	5 months	1 year	Li / 500	3,0 V	6 mA	-7 dBm	Flat
MD1-500-1,5	13	6	1,5 years	3,6 years	Li / 500	3,0 V	1,5 mA	-17 dBm	Flat

MD1-410-6	10	8	4 months	9,7 months	Li / 410	3,6 V	6 mA	-5 dBm	Cylindrical
MD1-410-1,5	10	6	1,2 years	2,6 years	Li / 410	3,6 V	1,5 mA	-15 dBm	Cylindrical
MD1-160-6	8	8	48 days	3,8 months	Li / 160	3,0 V	6 mA	-7 dBm	Cylindrical
MD1-200-6	7	8	60 days	4,8 months	Li / 200	3,0 V	6 mA	-7 dBm	Flat
MD1-200-3	7	7	4 months	9 months	Li / 200	3,0 V	3 mA	-12 dBm	Flat
MD1-200-1.5	7	6	7,5 months	1,3 years	Li / 200	3,0 V	1,5 mA	-17 dBm	Flat
MD1-165-6	5	6	51 days	4,1 months	Ag / 165	1,55 V	6 mA	-15 dBm	Button cell
MD1-165-3	5	5	3,3 months	8 months	Ag / 165	1,55 V	3 mA	-20 dBm	Button cell
MD1-165-1.5	5	3	6,6 months	1,3 years	Ag / 165	1,55 V	1,5 mA	-25 dBm	Button cell
MD1-75-6	3,5	6	23 days	56 days	Ag / 75	1,55 V	6 mA	-15 dBm	Button cell
MD1-75-3	3,5	5	45 days	3,6 months	Ag / 75	1,55 V	3 mA	-20 dBm	Button cell
MD1-75-1.5	3,5	3	3 months	7 months	Ag / 75	1,55 V	1,5 mA	-25 dBm	Button cell
Model	Weight with battery	Category	Autonomy Min Max		Type & capacity	Battery's voltage	Peak current	Output power	Sort of battery

This list enables a first approximate selection which could change depending on the transmitter format (collar, harness, etc.), the minimum operation duration, the suggested maximum weight, etc.

All the necessary variables to manufacture a specific model are exposed in the features configuration chart.

In the following chart, we classify the range into ten categories.

The measurements were done for a -145dBm signal with a 3 elements Yagi antenna and a ¼ wavelength transmitter antenna. Each category has been divided into three columns to emphasize how important the height of the antenna is. The power performance may be lower when the need to reduce the size of the transmitter's antenna is under a ¼ wavelength.

Range's category	Higher	3-4 meters high	1,5-2 meters high
1	200 – 1000 m	50 – 200 m	20 – 100 m
2	1 – 5 km	200 – 1000 m	100 – 500 m
3	5 – 10 km	1 – 2 km	500 – 1200 m
4	8 – 15 km	1,5 – 3 km	800 – 1500 m
5	10 – 20 km	2 – 4 km	1 – 2 km
6	15 – 30 km	3 – 6 km	1,5 – 3 km
7	20 – 40 km	4 – 8 km	2 – 4 km
8	30 – 60 km	6 – 12 km	3 – 6 km
9	40 – 70 km	12 – 28 km	6 – 12 km
10	50 – 80 km	28 – 50 km	15 – 28 km

Finally, there is a chart with the autonomy that is directly influenced by the beats per minute (bpm) used and their duration.

- If we use a few bpm and short pulse duration, the autonomy increases but it will be harder to locate the animal.
- If we use a lot of bpm and long pulse duration, the autonomy decreases but the finding of the animal is easier.

Autonomy	Beats per minute (bpm)	Beat duration in milliseconds (ms)
Higher	60	30
Lower	45	10