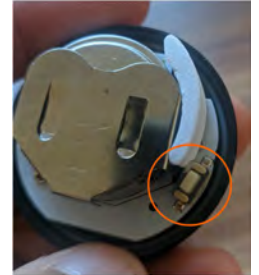


Tx power (=calibration factor) of a beacon

Version 2.1.0:

By default (on insertion of the battery) it will be at 0dB

- TX Power (= Calibration factor) can be adjusted to change the strength of the BLE casting of a beacon. To optimize battery drainage levels and indoor location tracking accuracy, follow the instructions underneath.
- When you press the button once, it will go to -4 dB. (you will see a RED LED while it processes)
- You can repeat this, to cycle the Tx power between these values: 4, 0, -4, -8, -12, -16, -20, -40.
- A TX Power of 4 will have the largest coverage area but will drain the beacon's battery faster. We advise to place all beacons on -20.
- If the current TX Power is at -40 dB, the next value after a press on the button will be 4 dB again.
- Beacons only update their information 1 time per day. To speed up the information update of the beacon, simply put a wearable device in alarm modus. Stand under (if installed) or walk close to the beacons. The wearable will automatically capture the messages of the beacon and pass them on to the cloud via the gateway or mobile data
- The information of the beacons can be found in the installer dashboard: <https://installer.ixicare.com/device-overview/>



Select site								
Nikolai								
Wearables	Buttons	Beacons	Gateways	Device Finder				
MAC ADDRESS	DESCRIPTION	CREATED AT	BATTERY LEVEL	INSTALLATION ZONE	CALIBRATION FACTOR	LAST SEEN	MAP	
ED:74:BE:25:A0:38	Living room House Nikolai beacon	17/05/2025	HIGH	Living room House Nikolai	-20	! 01/12/2025		
ED:2E:93:E3:2B:64	Bedroom 1 House Nikolai beacon	17/05/2025	HIGH	Bedroom 1 House Nikolai	-20	! 19/11/2025		
EC:3D:C8:85:68:CE	Kitchen House Nikolai beacon	17/05/2025	HIGH	-	-20	! 23/11/2025		

TX power vs. estimated range

TX power	Relative power	Estimated radius (open space)	Ideal use case & characteristics
-40 dBm	Very Low	< 1 meter (< 3 feet)	Near-touch applications. Useful for "tap-to-interact" scenarios where the wearable must be very close to the beacon. Extremely low battery use.
-20 dBm	Low	3 - 5 meters (10 - 16 feet)	Single Room Accuracy. Excellent starting point for standard hotel/office rooms. Good signal containment and low power consumption.
-16 dBm	Medium-Low	5 - 8 meters (16 - 26 feet)	Large Rooms. A good alternative for larger rooms or spaces where -20 dBm is slightly too weak to cover the corners reliably.
-12 dBm	Medium	8 - 12 meters (26 - 40 feet)	Open-plan areas or small zones. Signal may start to bleed through standard walls, potentially confusing adjacent room detection.
-8 dBm	Medium-High	12 - 20 meters (40 - 65 feet)	Zone-level accuracy. Useful for covering a large area or a group of cubicles. Not suitable for single-room separation.
-4 dBm	High	20 - 30 meters (65 - 100 feet)	Long-range presence detection. Good for knowing if a wearable is in a large hall or on a specific floor.
0 dBm	Very High	30 - 50 meters (100 - 165 feet)	Area-wide coverage. The signal will penetrate multiple walls. Use this when you need maximum range and containment is not a concern.
+4 dBm	Maximum	50 - 80+ meters (165 - 260+ feet)	Maximum possible range. For outdoor use or very large open indoor spaces like warehouses. Consumes the most power.