



**Sensata**  
Technologies

## Antenna Isotropic Peak Gain Pattern Ebike sensor



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## i. ABBREVIATIONS / GLOSSARY

<i>TERM</i>	<i>EXPANSION/MEANING</i>
<i>dBi</i>	Decibel Isotropic

## ii. SUPPORTING DOCUMENTS

<i>REFERENCE</i>	<i>ISSUE</i>

## iii. DOCUMENT HISTORY AND STORAGE

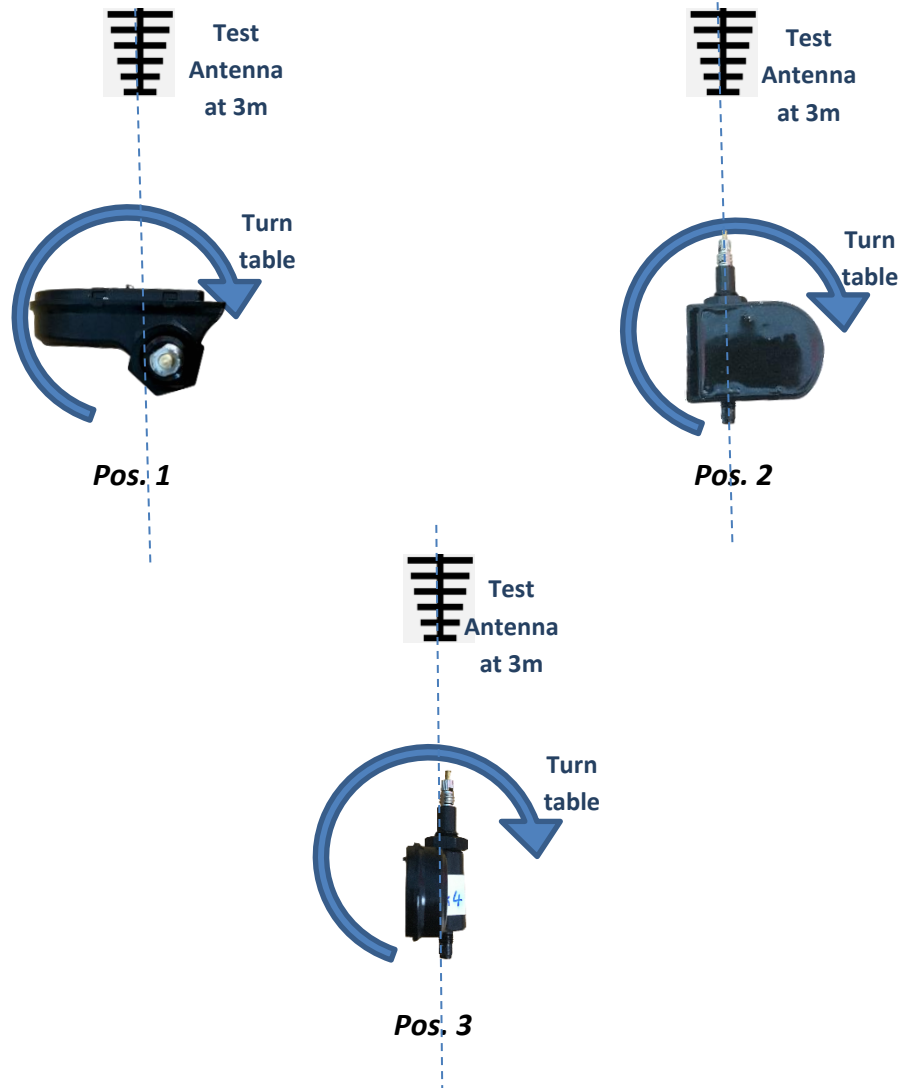
<i>DOCUMENT NAME</i>	<i>LOCATION</i>

## 1. Introduction

This document shows the antenna pattern and antenna gain of **Ebike BLE** transmitters.

### Description of transmitter positioning:

All measurements are done in Anechoic Chamber at 3m with TX on table in 3 positions as follow:





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## 2. Antenna gain

### Test equipment used:

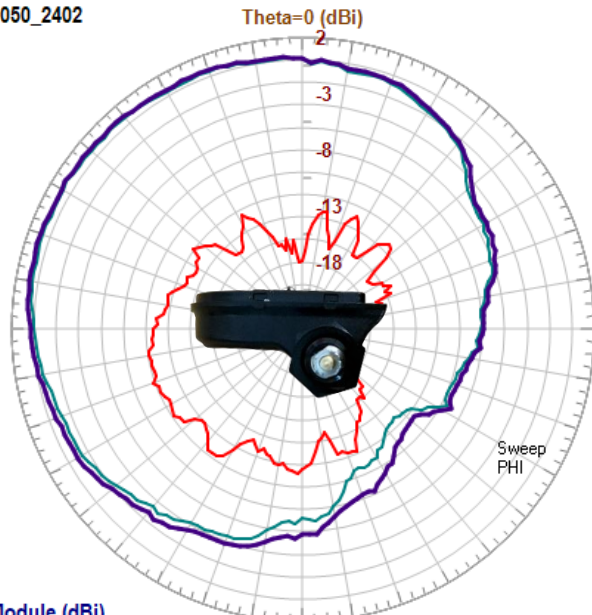
Category	Mark	Type
Anechoic Test Site	Sensata	
Spectrum analyser	Agilent	E4404B
Coaxial cable		RG214U 50 Ohm 11m
Open Boundary Quad-Ridged Horns antenna	ETS Lindgren	3164-06

### Conditions:

The test is performed in anechoic test site. The Transmitter is placed on a turntable in continuous transmitted emission.

*Gain in dBi Position1 polarisations V, H and Module*  
***Ebike sensor***

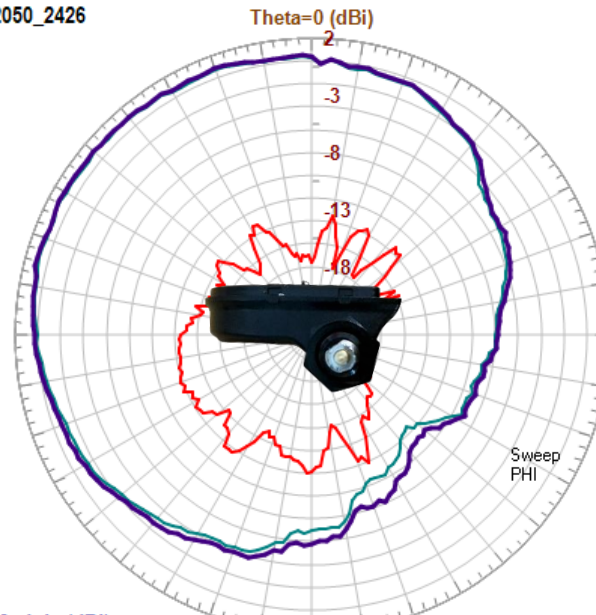
2050\_2402



**Module (dBi)**  
Min / Max  
-11.3 / 1.0

— V — H — Module 2402MHz

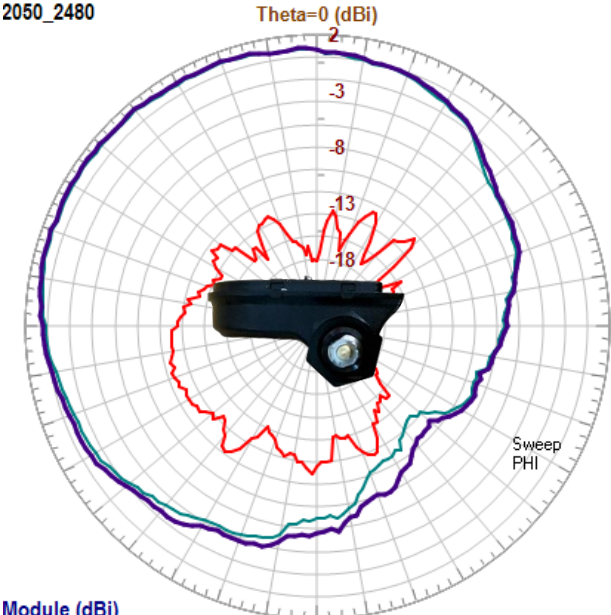
2050\_2426



**Module (dBi)**  
Min / Max  
-11.0 / 1.1

— V — H — Module 2426MHz

2050\_2480

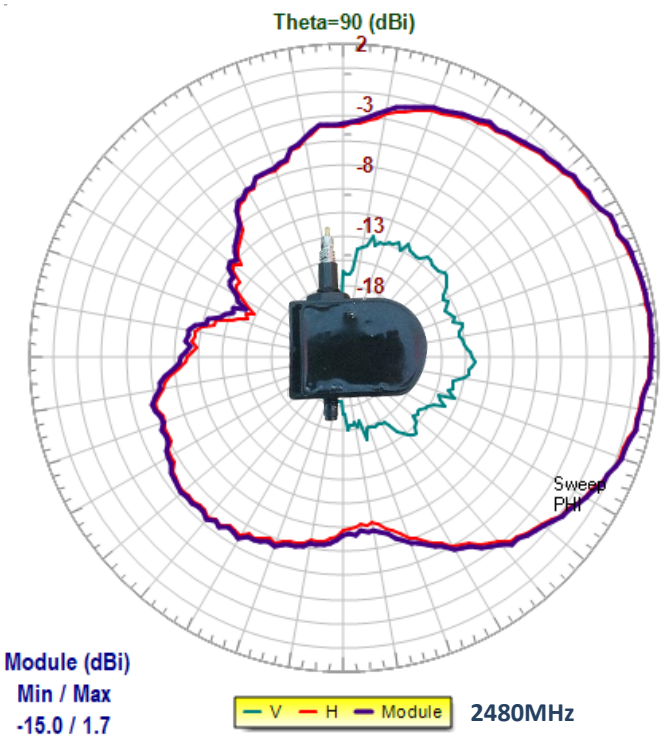
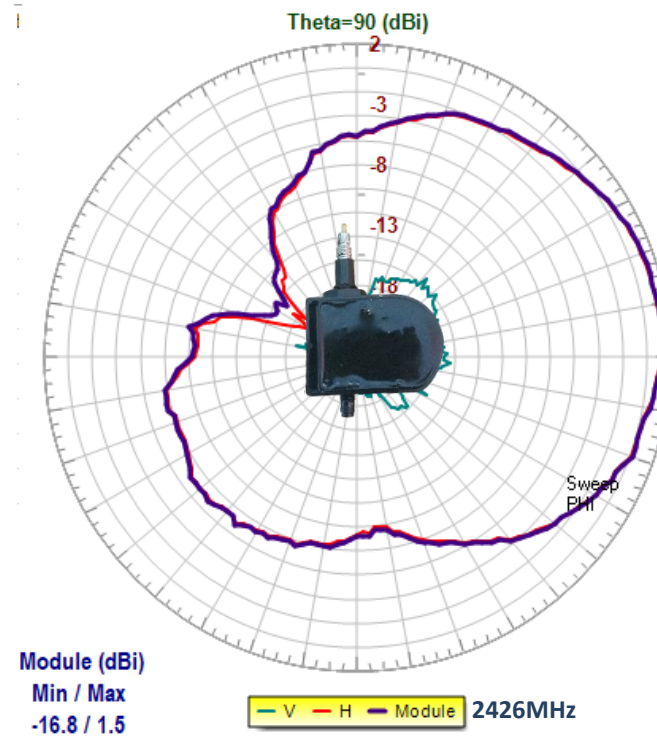
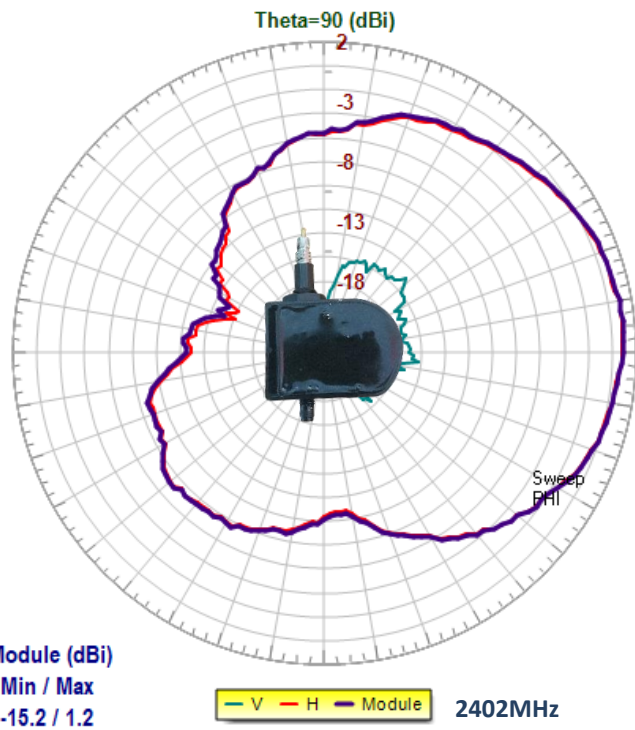


**Module (dBi)**  
Min / Max  
-10.8 / 1.3

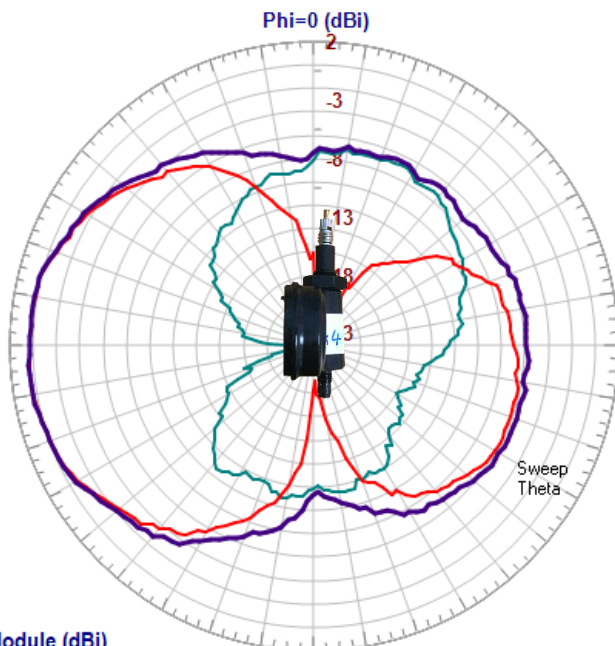
— V — H — Module 2480MHz

*Gain in dBi Position2 polarisations V, H and Module*

***Ebike sensor***

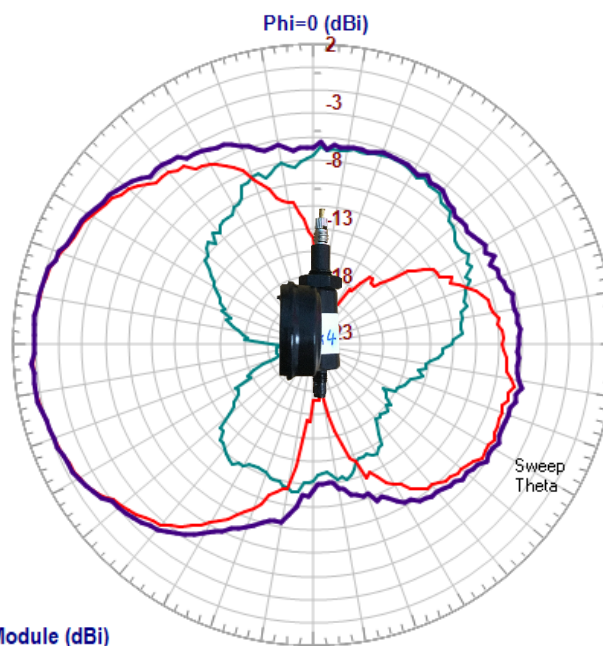


*Gain in dBi Position3 polarisations V, H and Module*  
***Ebike sensor***



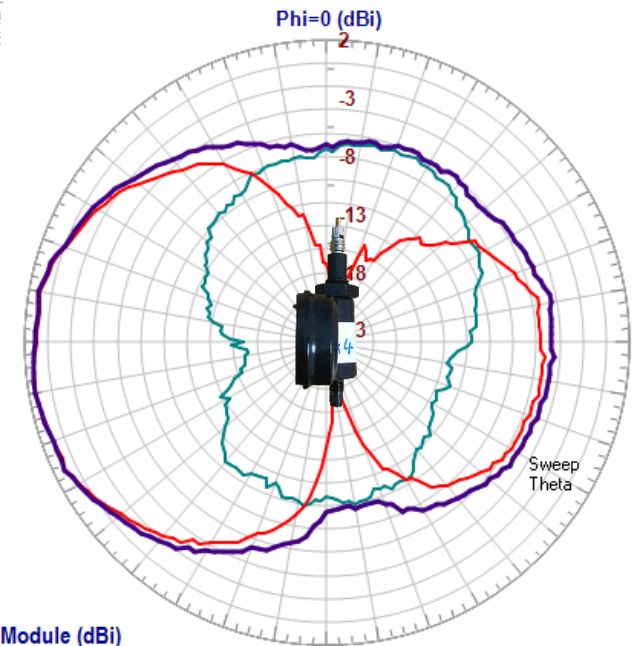
Module (dBi)  
Min / Max  
-11.4 / 0.4

— V — H — Module 2402MHz



Module (dBi)  
Min / Max  
-11.9 / 0.4

— V — H — Module 2426MHz



Module (dBi)  
Min / Max  
-9.7 / 1.5

— V — H — Module 2480MHz





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**Peak antenna gain: 1.7dBi**