Xylem Service Italia S.r.l.

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Company	: Xylem Service Italia S.r.l.
Project	: HVX
Product	: Variable speed control, with Bluetooth® wireless technology, for electric motors (on-board installation)
FCC	
Registration Number (FRN)	: 0030242630
Grantee Code	: 2AYCG
Expected ID	: 2AYCGXSI02, 2AYCGXSI03
ISED	
Company number (IC)	: 26881
Expected IC	: 26881-XSI02, 26881-XSI03

Antenna

A	17 May 2023	First edition	Mauro Caldarde	R&D
rev.	Date	Description	Prepared by	Department

A	Checked by	Enrico Marodin Engineering Manager (Drivers & Controls)	file name: Antenna HVX.docx

Contents

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1. HVX Antenna *(Low Tier)*

Contextually to the integration of the antenna with *Low Tier* products, the maximum peak antenna gain is 7.9 dBi.

The measured radiation lobes related to the device frontal half-sphere are reproduced below:

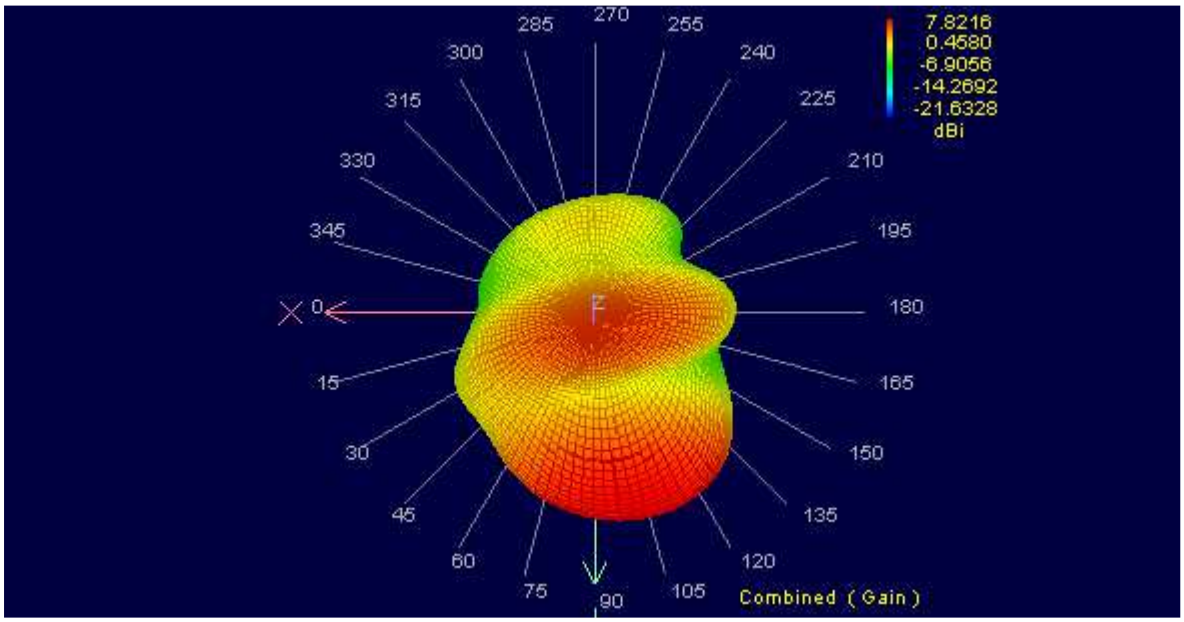

Figure 1.1-1 (2402 MHz)

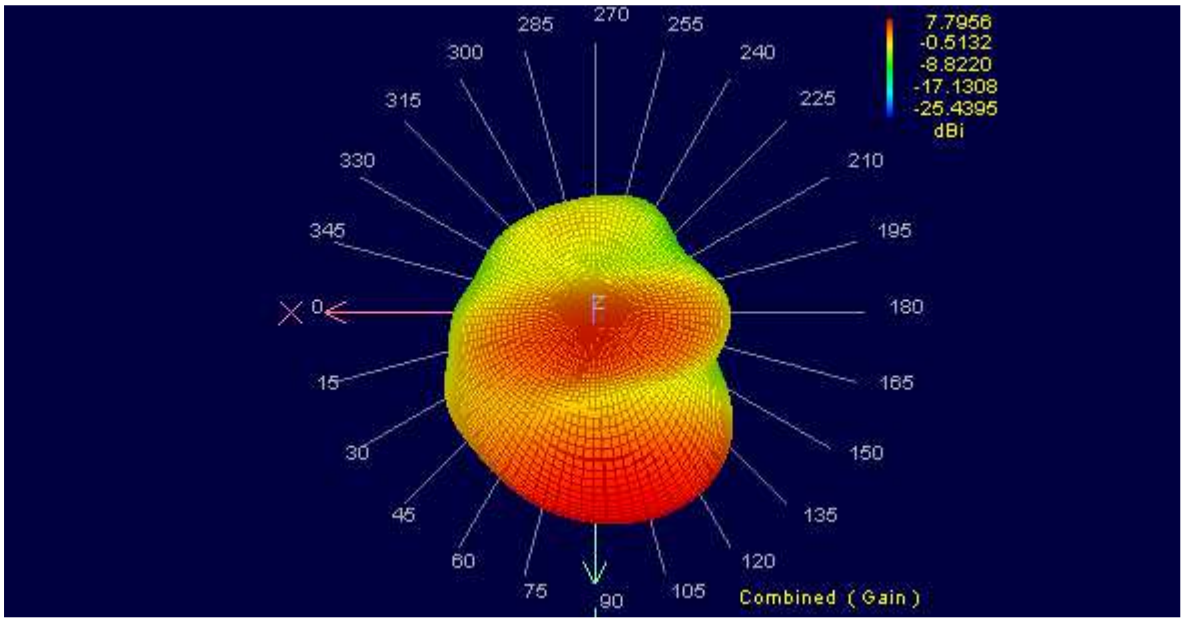

Figure 1.1-2 (2440 MHz)

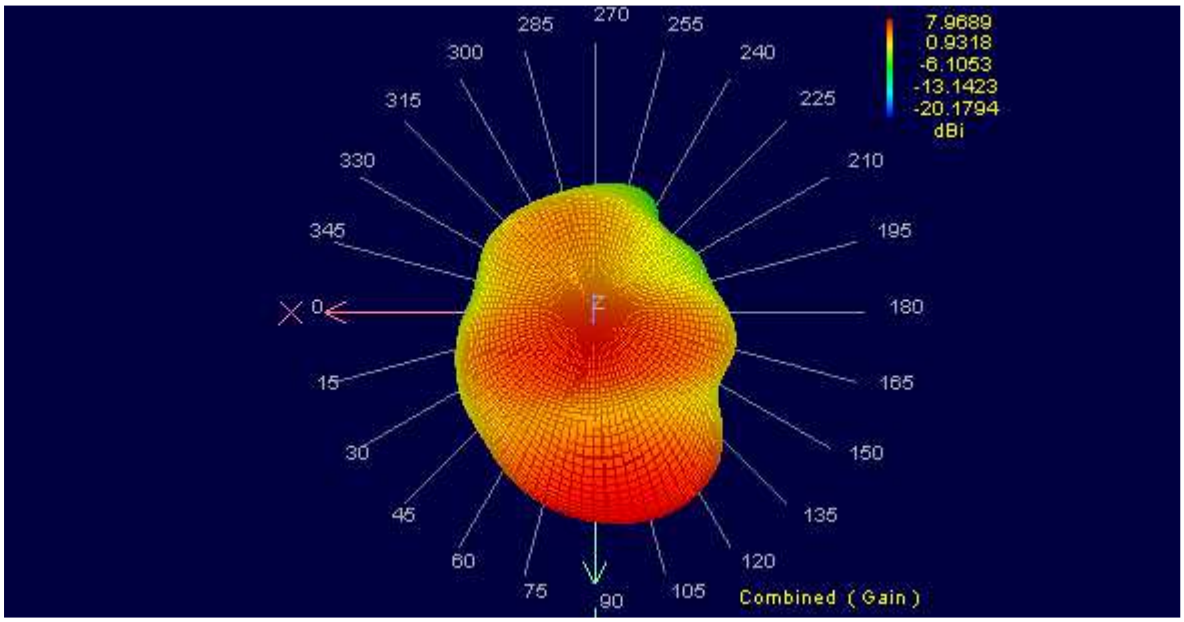

Figure 1.1-3 (2480 MHz)

The device has a single transmitter and a single antenna.

The RF matching circuit is designed to adapt the original antenna impedance to the impedance expected by the RF port of the chip BlueNRG-LP.

The max nominal conducted power is 8dBm ± 2dB.

2. HVX+ Antenna *(High Tier)*

Contextually to the integration of the antenna with *High Tier* products, the maximum antenna gain is -1.8 dBi.

The measured radiation lobes related to the device frontal half-sphere are reproduced below:

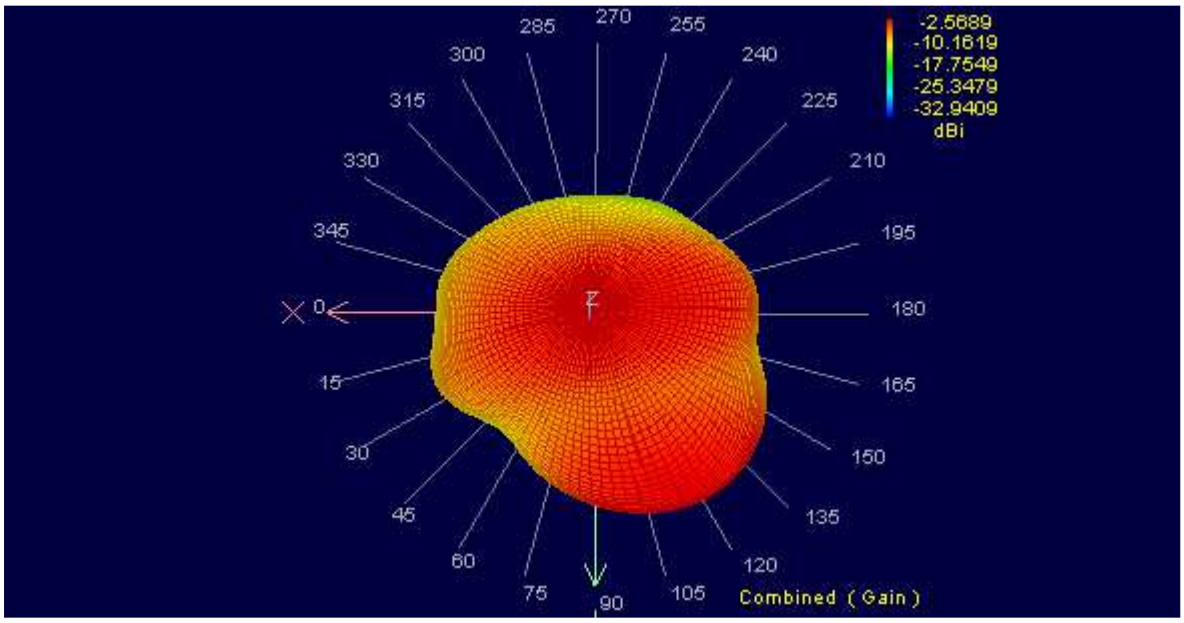

Figure 1.2-1 (2402 MHz)

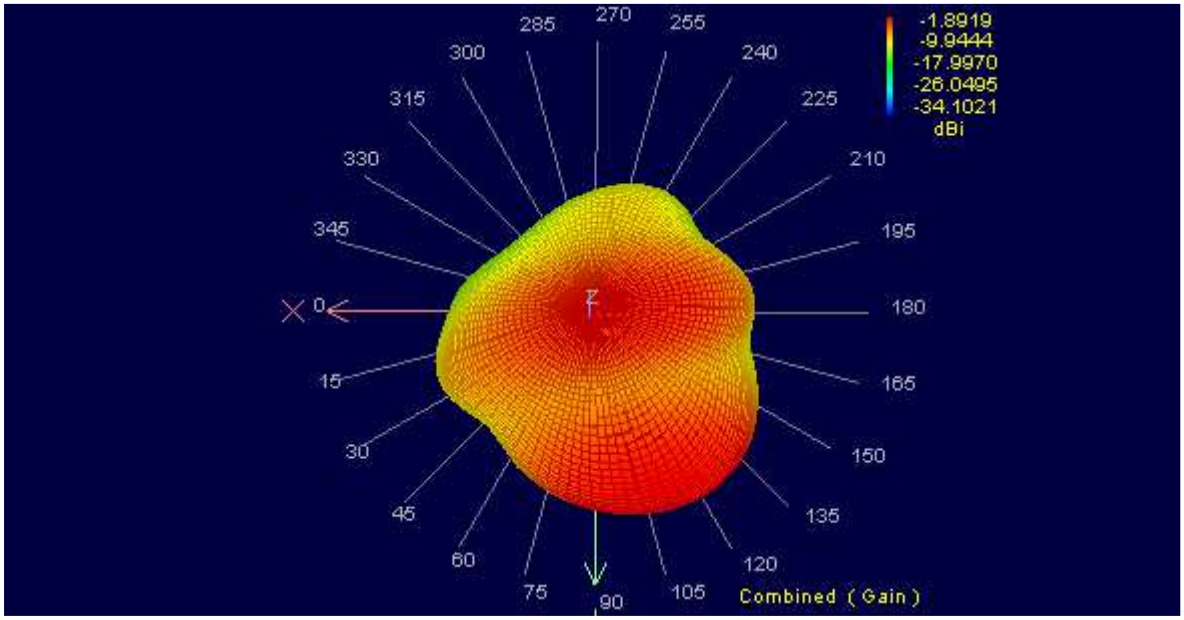

Figure 1.2-2 (2440 MHz)

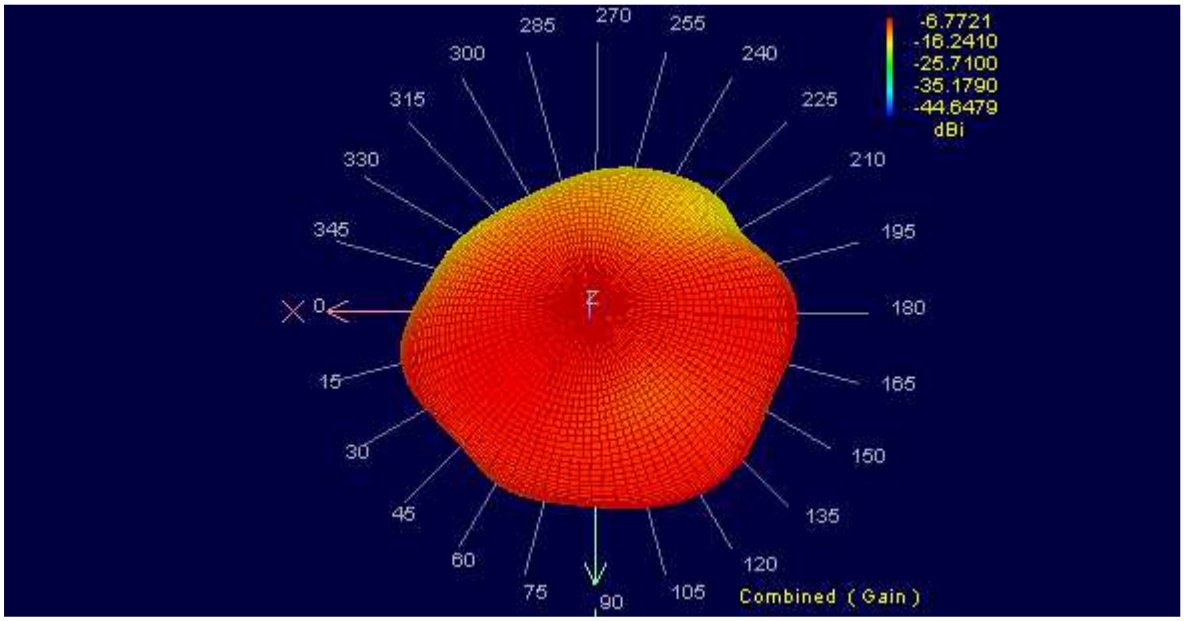

Figure 1.2-3 (2480 MHz)

The device has a single transmitter and a single antenna.

The RF matching circuit is designed to adapt the original antenna impedance to the impedance expected by the RF port of the chip BlueNRG-LP.

The max nominal conducted power is 8 dBm ± 2 dB.

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