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Title: ***Ponto4-45 Antenna Specification***

Owner: ***Rasmus Simling Kristensen,rmkr***

Reviewed by (Name, Initials, Date, Time):

[Jensen, Gert (gjen) 02-May-2019 11:05:21 CEST]

Approved by (Name, Initials, Date, Time):

[Thomas H. Nielsen (thhn) 02-May-2019 11:26:03 CEST]

Released by (Name, Initials, Date, Time):

[Rasmus Simling Kristensen (rmkr) 02-May-2019 11:28:59 CEST]

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Antenna specification (Japan) - Ponto 4-45.docx ver.1,Doc-00064510.docx ver.6

1 CHANGE LOG

Revision	Reason
0	Issued

2 PONTO 4-45 ANTENNA SPECIFICATION

This document contains the Antenna Specification of the Ponto 4-45, as received from the external Antenna Designer from Oticon A/S.

Please refer to the Antenna Specification in the appendix to this document.

Title:

Antenna Specification for - Ponto 4-45

FCC ID: 2AHJWPONTO4
IC: 21199-PONTO4
PMN: PONTO 4
HVIN: PONTO 4

Written by:

Name	Title/Function	Signature	Date
Oleksandr Rybalko	Antenna Developer, HW Electronics	OLRY	2019-04-29

Reviewed by:

Name	Title/Function	Signature	Date
Rune Sø	Antenna Developer, HW Electronics	RSOE	2019-04-30
Ole Myrtue	Regulatory Affairs Officer	OLMY	2019-05-01

Approved by:

Name	Title/Function	Signature	Date
Thomas Nielsen	Senior Project Manager, R&D, Oticon Medical	THHN	2019-05-01

Change log:

Revision	Date	Author	Change
1.0	2019-04-29	OLRY	Initial draft.
1.1	2019-04-29	OLRY	Updated with comments from antenna team review (minor corrections).
1.2	2019-04-30	RSOE	Reviewed without comments.
1.3	2019-05-01	OLMY	Reviewed. No comments.
2.0	2019-05-01	THHN	Approved
2.1	2019-06-18	OLMY	FCC and IC identities added

Contents

1. Purpose

The purpose of this document is to describe all the antennas for a product not falling below the Extremely Week Power Equipment (EWPE) requirements – for instance products containing Bluetooth functionality (BT, BLE, or OBLE) or stronger FM transmitters.

2. Scope

This document contains location of the antenna and basic information about the antenna such as:

- Antenna type
- Directivity
- Gain
- Frequencies

3. Documentation

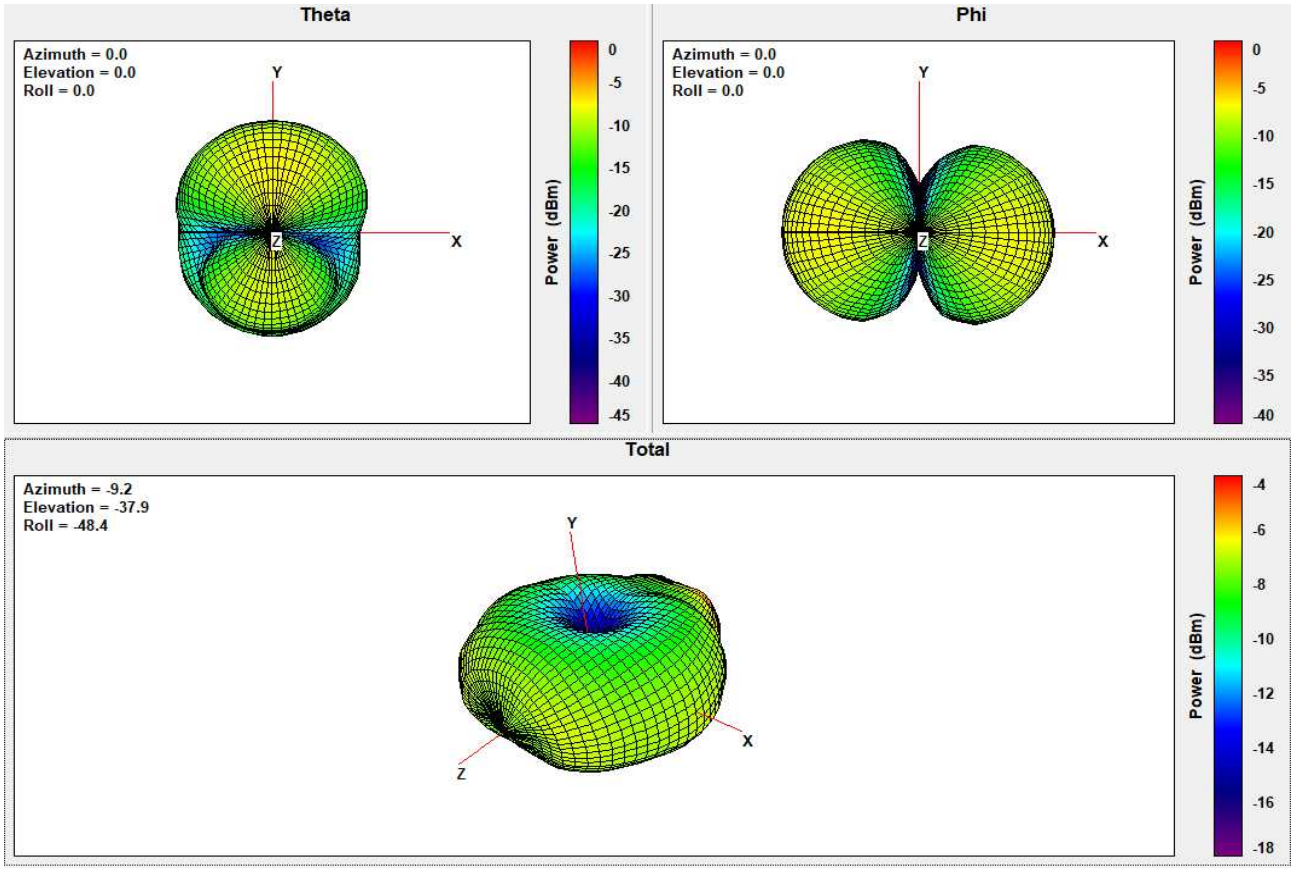
3.1 Information

Antenna type	Monopole antenna on PCB		
Channel	Lowest channel	Medium channel	Highest channel
Frequencies	2402MHz	2442MHz	2448MHz
Max. Directivity (dBi)	4,0	4,1	4,0
Typ. Gain (dBi)	-1,7	-0,5	-0,1
Max. Gain (dBi)	-0,7	-0,4	0,0

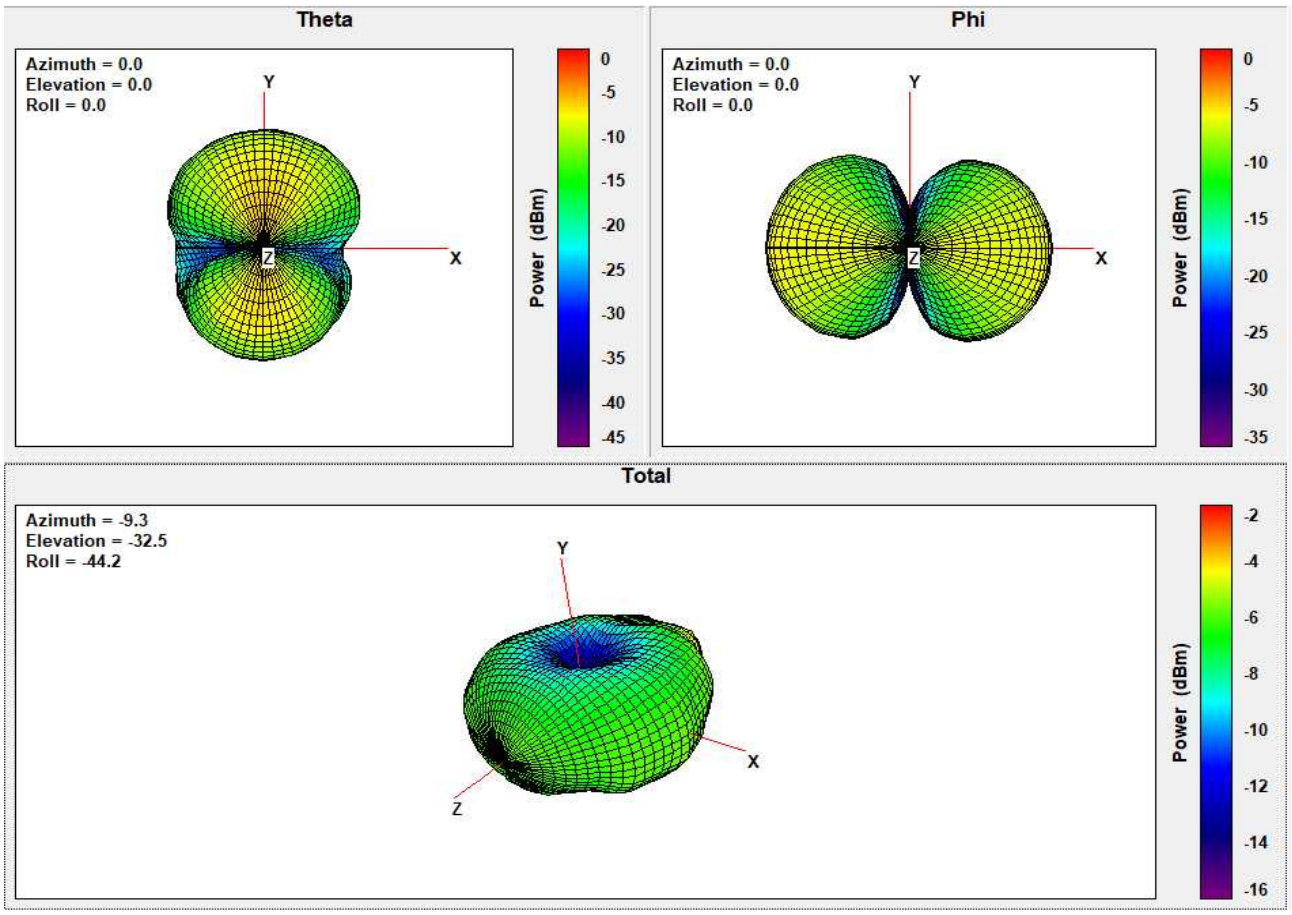
3.2 Plots with Radiation Patterns

In the following the measured antenna radiation patterns of the Ponto 4-45 at the lowest, medium and highest channels: 2402, 2442 and 2480 MHz respectively, can be seen. Then the antenna gains have in all cases been calculated from the difference between the radiated and conducted power per channel.

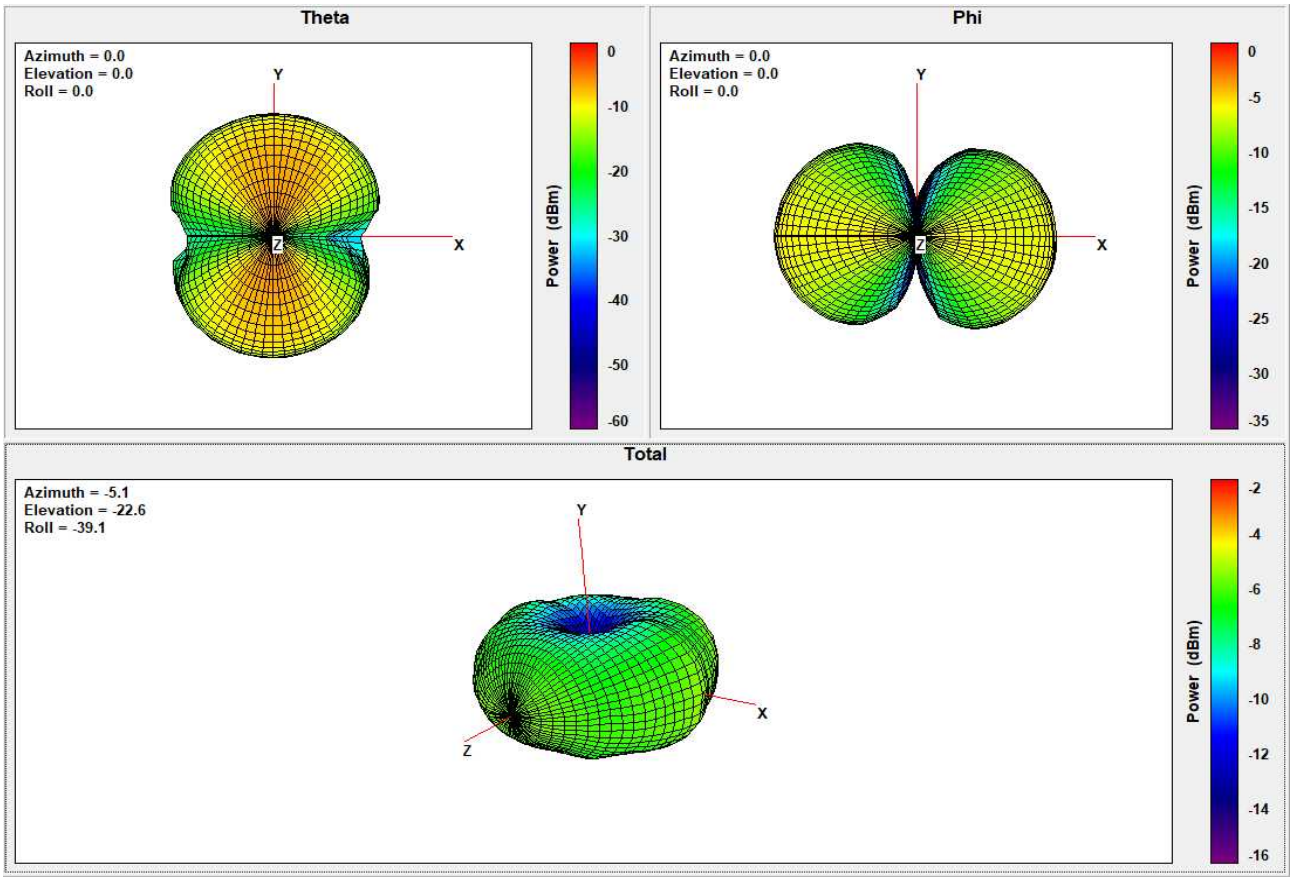
Plot lowest channel



Plot mid channel



Plot highest channel



3.3 Antenna Location

The antenna is printed on the top-side of the PCB and is located just beneath the top shell of the product, as shown in the photo below.

End of document