ANTENNA TEST REPORT

1 ANTENNA SPECIFICATION

Typical CoreTag antenna parameters with the enclosures are presented on Table 1.

Table 1 Antenna parameters.

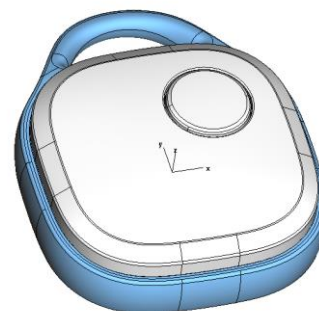| Operating frequency	2.400GHz-2.484GHz	
Antenna type	Integral trace antenna	
Antenna gain (with enclosure)	Beam up	Beam down
	-1dBi	-2dBi
Polarization	Circular	
Return loss in CHW3121	15dB (as seen through CHW3121 front-end), beam up & beam down	
Front-to-back ratio	12dB (beam up) & 3dB (beam down)	

2 ANTENNA MEASUREMENTS

Figure 2 shows antenna realized-gain patterns at low, mid, and high channels (2.402GHz, 2.442GHz, and 2.480GHz, respectively) in beam up and beam down configurations. Z-axis is faxing up, x axis is horizontal, and y axis is vertical direction with respect to the fronts of the products (see Figure 1).
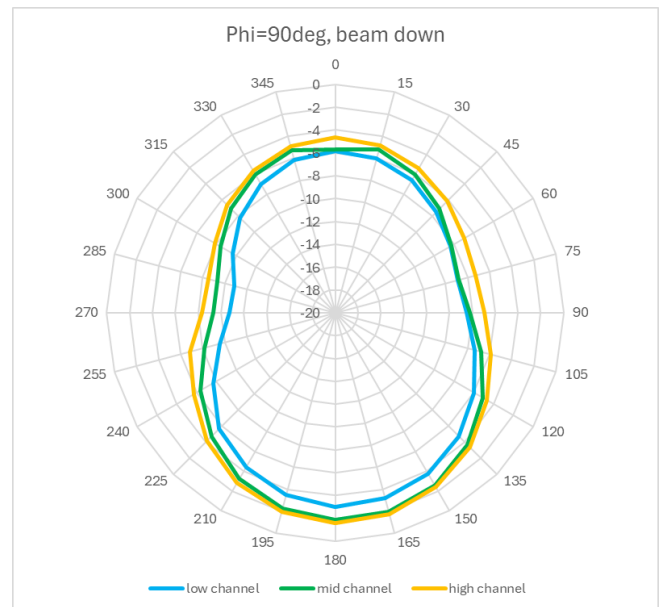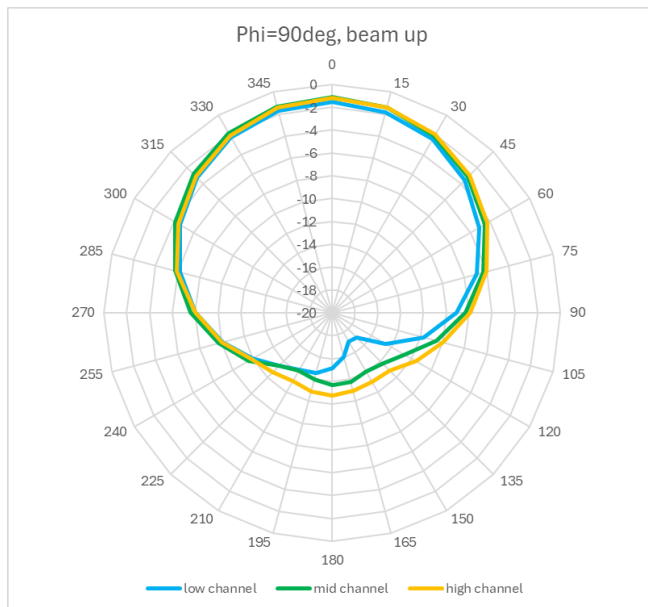

CHW-TAG4000 Asset Tag   CHW-TAG4001 Wrist Tag   CHW-TAG4002 Lanyard Tag

Figure 1 CoreTag products.

Information furnished by CoreHW is believed to be accurate and reliable. However, no responsibility is assumed by CoreHW for its use, nor for any infringements of patents or other rights of third parties that may result from its use. Specifications subject to change without notice. No license is granted by implication or otherwise under any patent or patent rights of CoreHW. Trademarks and registered trademarks are the property of their respective owners.

CoreHW   www.corehw.com
Visiokatu 1, 33720 Tampere, FINLAND
©2025 CoreHW.   All rights reserved.

CoreHW

CoreTag CHW-TAG400x Series

ANTENNA TEST REPORT

Phi=0deg, beam up

low channel mid channel high channel

Phi=0deg, beam down

low channel mid channel high channel

Phi=90deg, beam up

low channel mid channel high channel

Phi=90deg, beam down

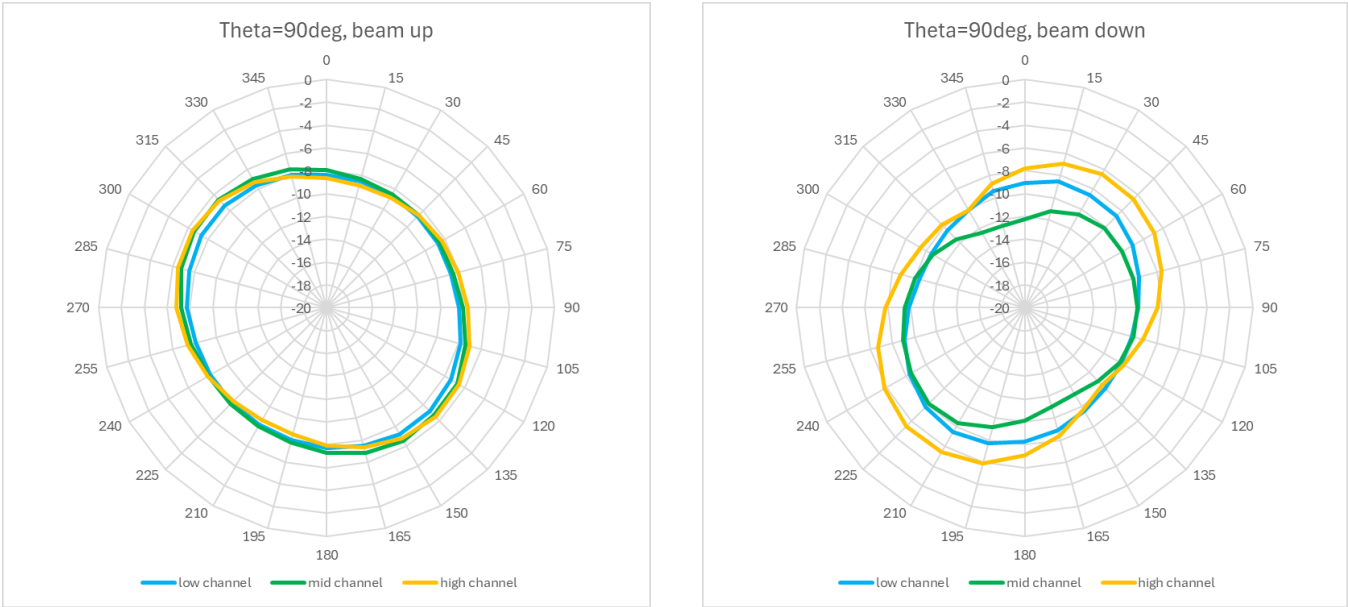low channel mid channel high channel

CoreHW

ANTENNA TEST REPORT

Figure 2 Antenna realized-gain patterns in dBi at low, middle, and high channels.

3   CHANGE HISTORY

PCB version	Description	Date
CHT245 0.2.0.1	Antenna measurement at CoreHW Antenna Lab2	2025-03-06

ANTENNA TEST REPORT

CONTACT DETAILS

CoreHW Oy
Visiokatu 1
33720 Tampere
Finland

www.corehw.com

Disclaimer

The contents of this document are subject to change without prior notice. CoreHW makes no representation or warranty of any nature whatsoever (neither expressed nor implied) with respect to the matters addressed in this document, including but not limited to warranties of merchantability or fitness for a particular purpose, interpretability or interoperability or, against infringement of third party intellectual property rights, and in no event shall CoreHW be liable to any party for any direct, indirect, incidental and or consequential damages and or loss whatsoever (including but not limited to monetary losses or loss of data), that might arise from the use of this document or the information in it.

Information furnished by CoreHW is believed to be accurate and reliable. However, no responsibility is assumed by CoreHW for its use, nor for any infringements of patents or other rights of third parties that may result from its use. Specifications subject to change without notice. No license is granted by implication or otherwise under any patent or patent rights of CoreHW. Trademarks and registered trademarks are the property of their respective owners.

CoreHW   www.corehw.com
Visiokatu 1, 33720 Tampere, FINLAND
©2025 CoreHW.   All rights reserved.