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DELTA Technical Memorandum

Reduction of radiated power on Babyalarm with Radicover Babyalarm Purse 2nd generation

Performed for RadiCover

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Title	Reduction of radiated power on Babyalarm with Radicover Babyalarm Purse 2nd generation
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1. Conclusion

Damping of radiated electromagnetic power was measured with Radicover Babyalarm Purse 2nd generation applied to babyalarm. The product did attenuate field strength with 97 %.

2. Introduction

RadiCover sells and market products for damping electromagnetic radiation from handheld devices, in order to reduce human exposure of electromagnetic field. In that context they contacted DELTA, to make measurements on the damping of radiated electromagnetic field of their Radicover Babyalarm Purse 2nd generation. The measurements have been done as free field measurements.

Fig. 2.1 Radicover Babyalarm Purse 2nd generation applied on a babyalarm.

3. Test results

The measurements were done as far field measurements and over the entire sphere around the babyalarm. During measurement an audio signal was constantly applied to the babyalarm to make the babyalarm continuously transmit.

First a reference measurement was done on the babyalarm without Radicover Babyalarm Purse 2nd generation. Afterwards the measurement was repeated with the same baby alarm with Radicover Babyalarm Purse 2nd generation applied and the babyalarm mounted in the same position. By comparing the results of these two measurements one can state an attenuation of the radiated field.

The scale used in the enclosed plots is all in dBm EIRP. To calculate the attenuation of the radiation in percentage, units should first be converted to a linear unit (e.g. Watt).

Radiated power was evaluated in the direction of the front and backside of the babyalarm.

	Reference [mW]	Radicover Babyalarm Purse 2nd generation [mW]	Attenuation [%]
Total radiated power	2.8	0.072	97.5
Front	4.49 EIRP	0.300 EIRP	93.3
Rare side	5.56 EIRP	0.0202 EIRP	99.6

For reference Fig. 3.1 gives the coordinate system used in the DELTA antenna facility. Positive Y direction is in front of the babyalarm, positive Z direction is towards the top of the babyalarm, and positive X direction is to the left of the babyalarm.

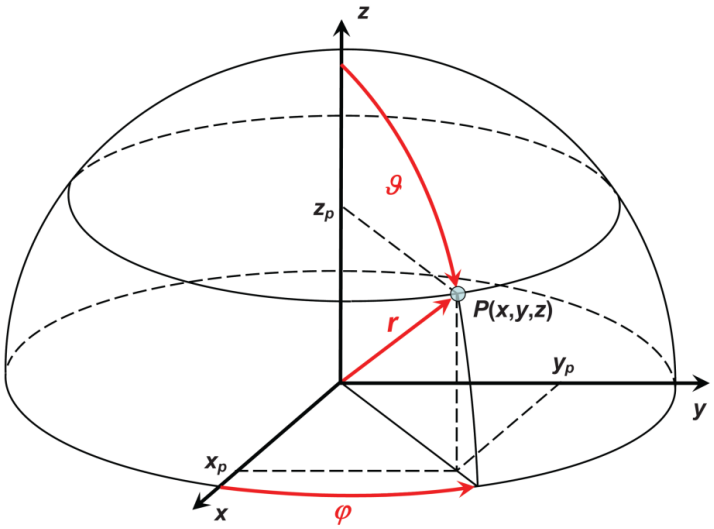

Fig. 3.1 Spherical coordinate system

3.1 Reference

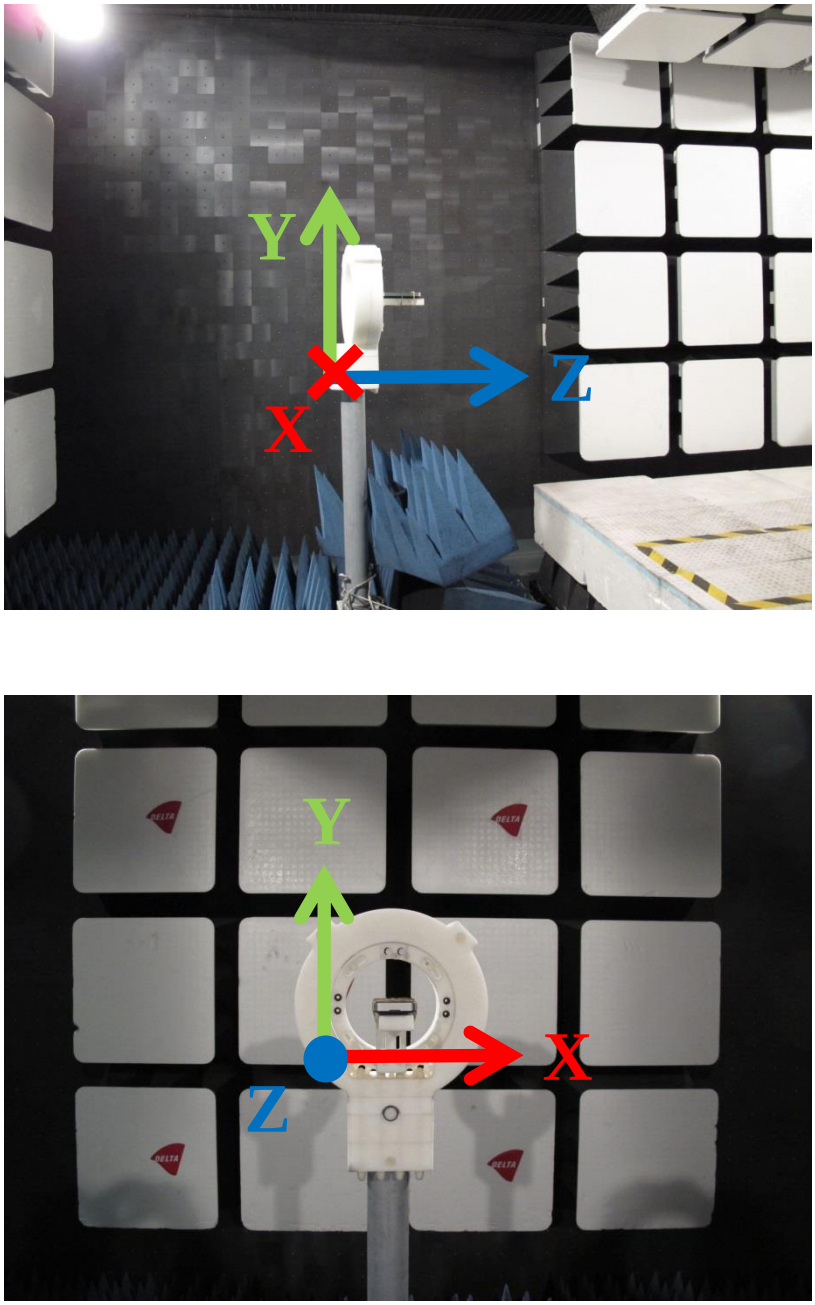

Fig. 3.2 Test setup for reference measurement on babyalarm.

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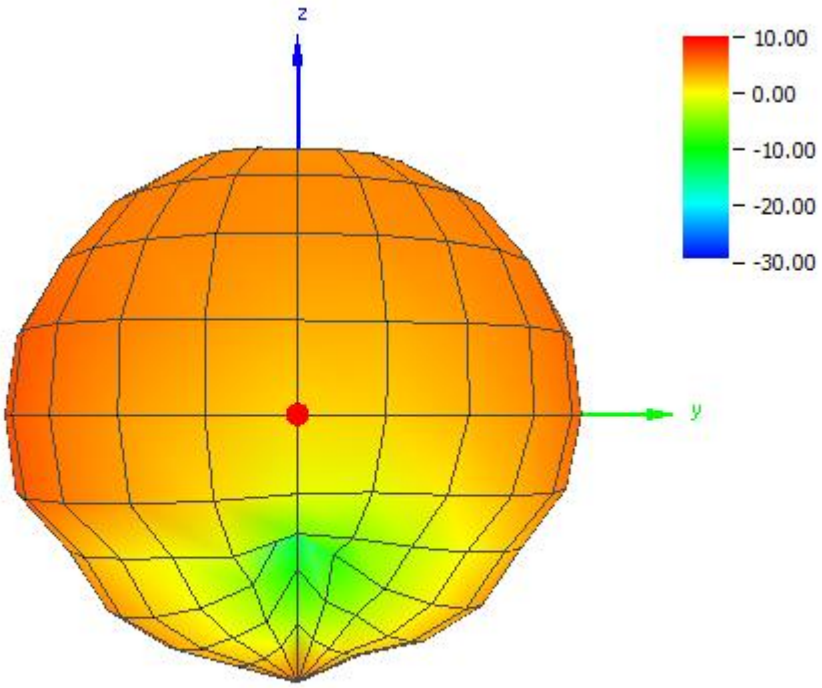

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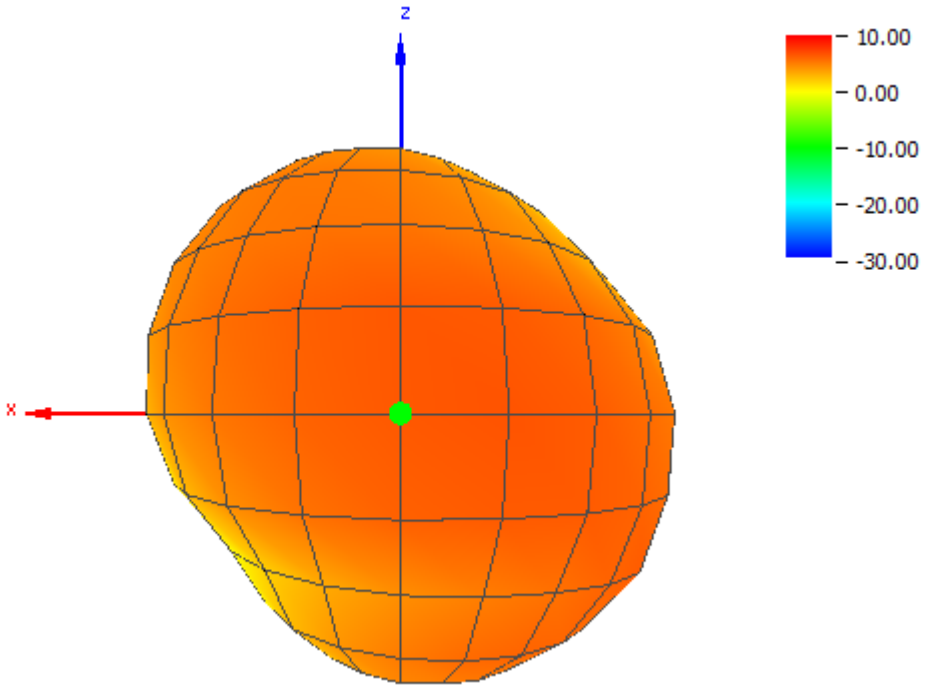

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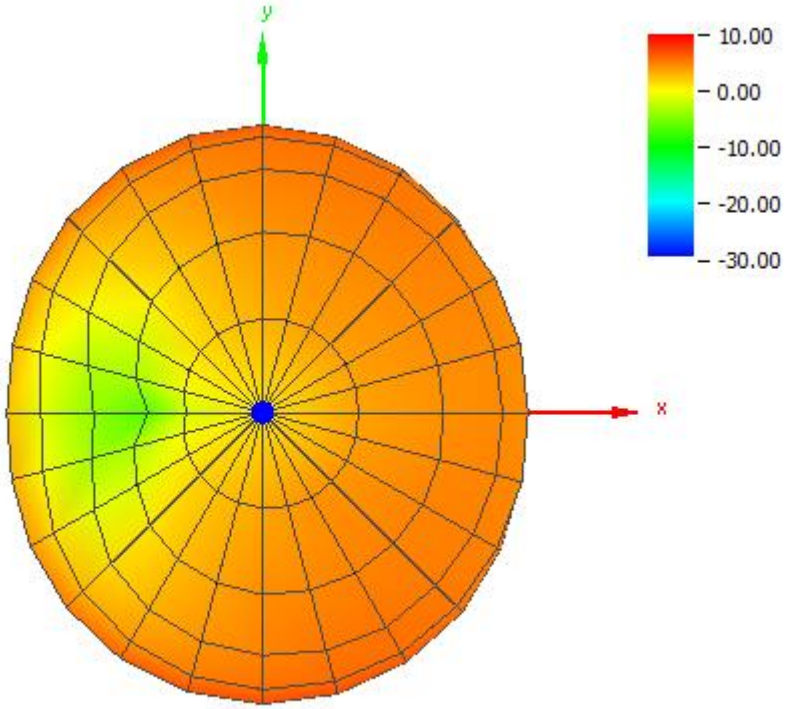

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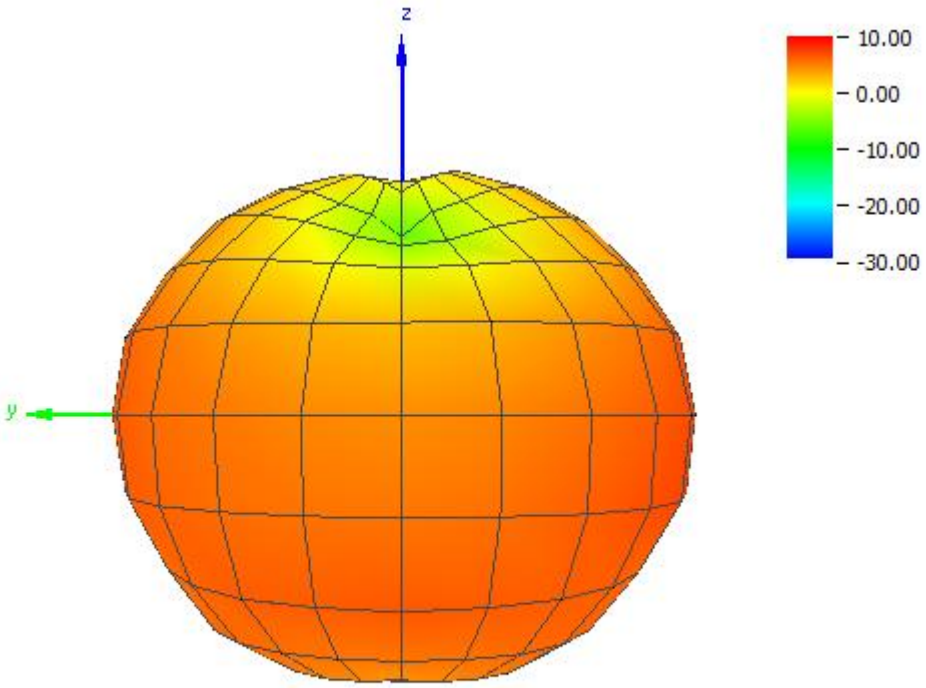

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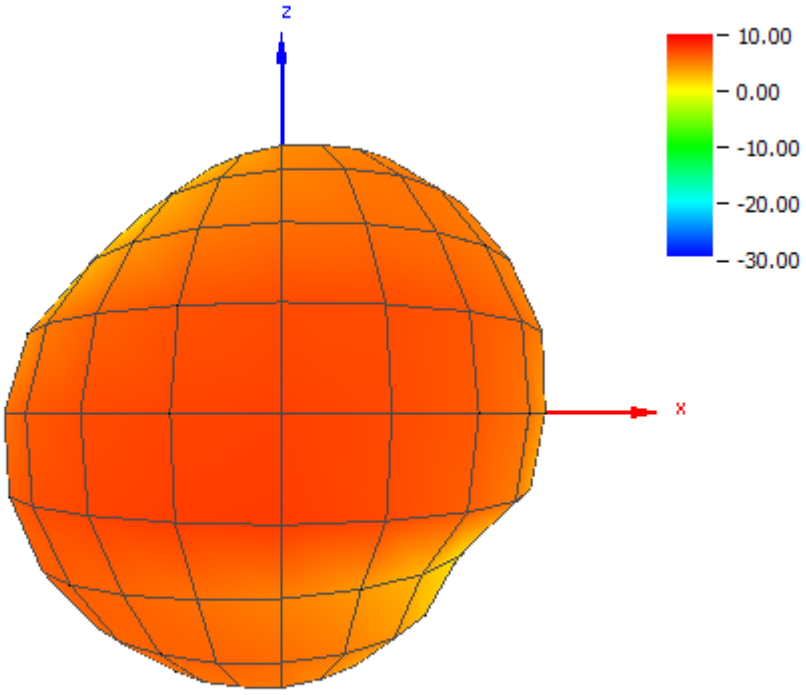

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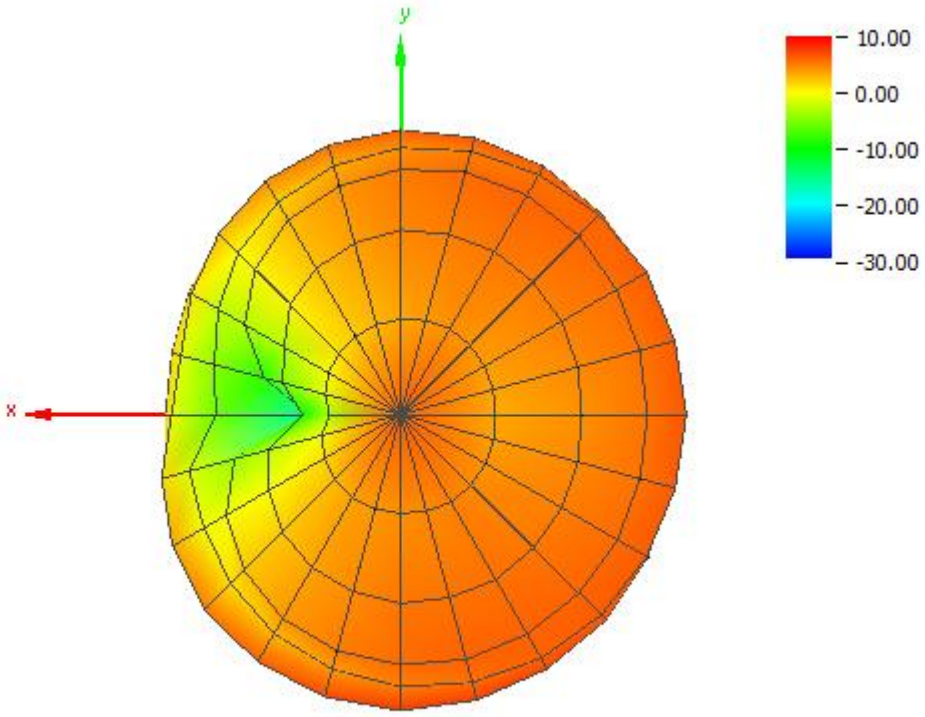
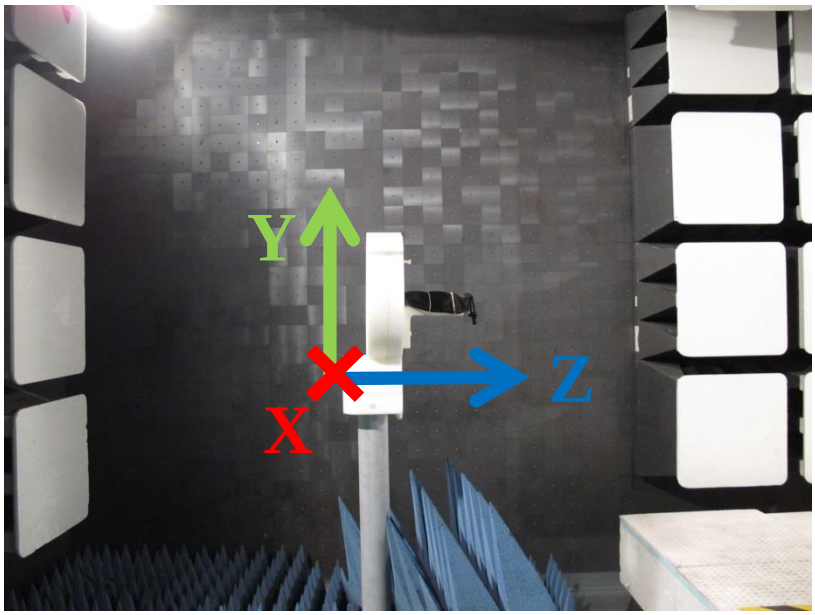


3.2 Radicover Babyalarm Purse 2nd generation



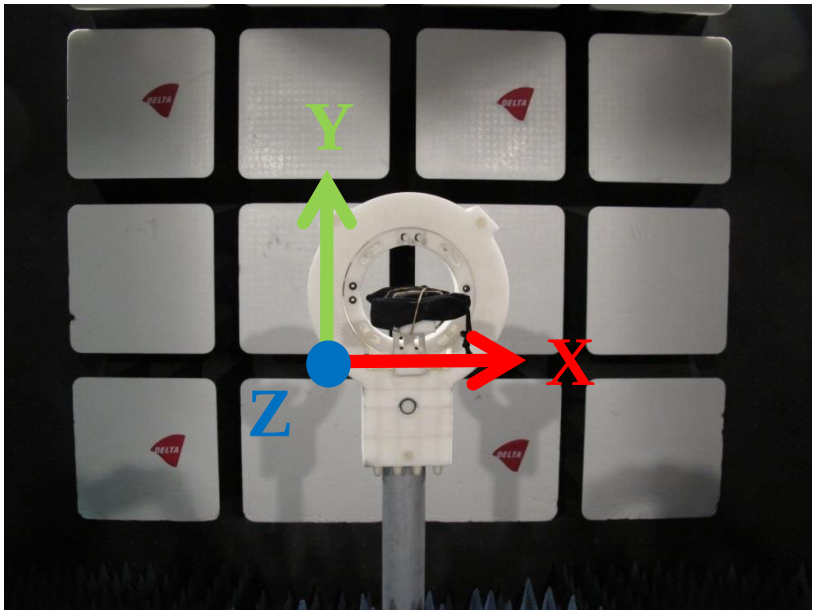


Fig. 3.2 Test setup for measurement on babyalarm with Radicover Babyalarm Purse 2nd generation applied.

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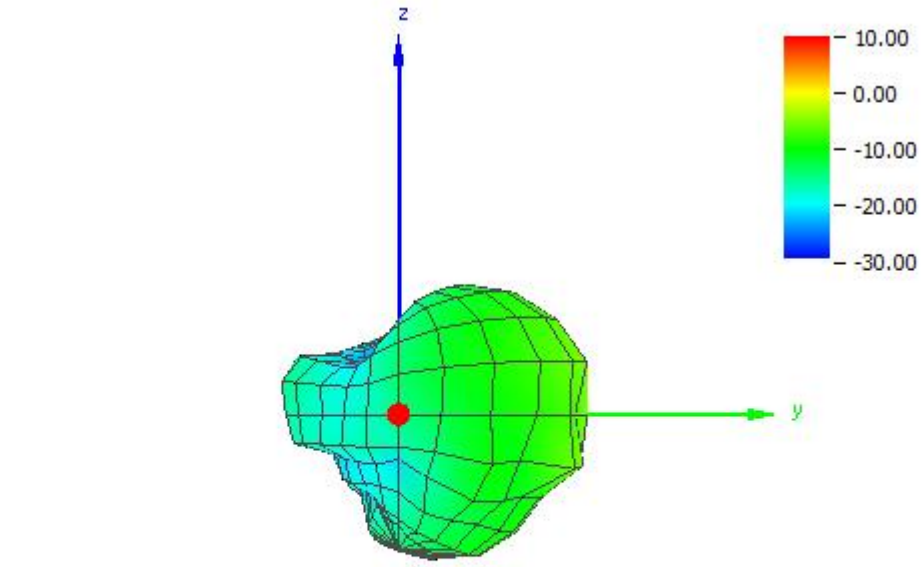

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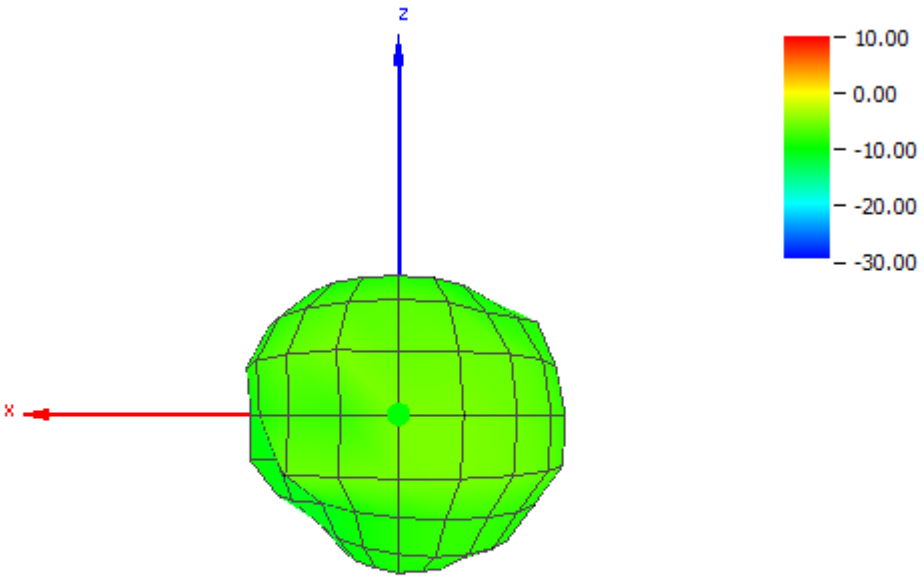

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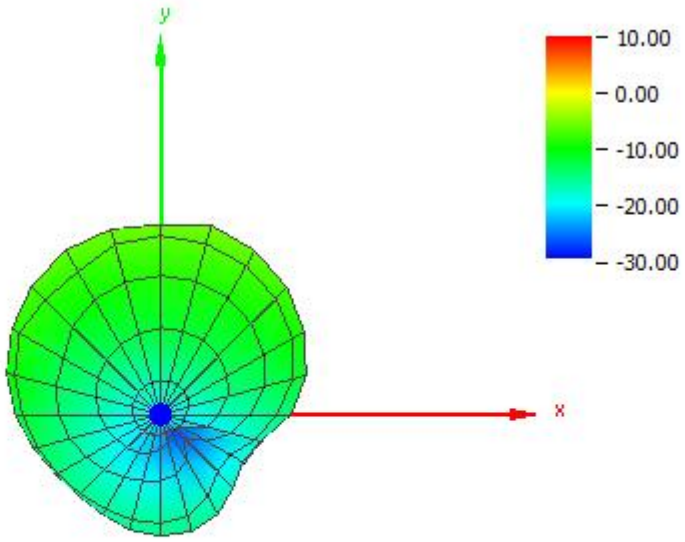

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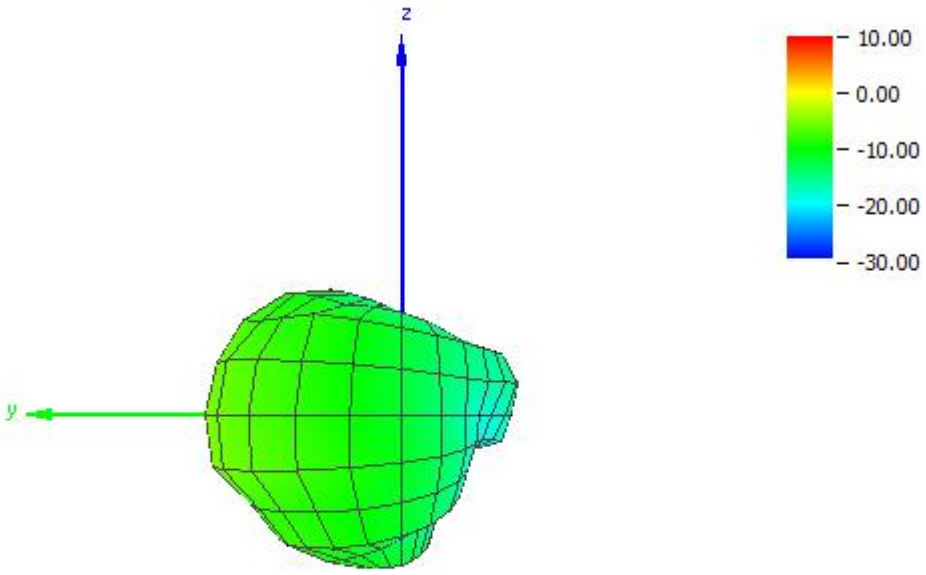

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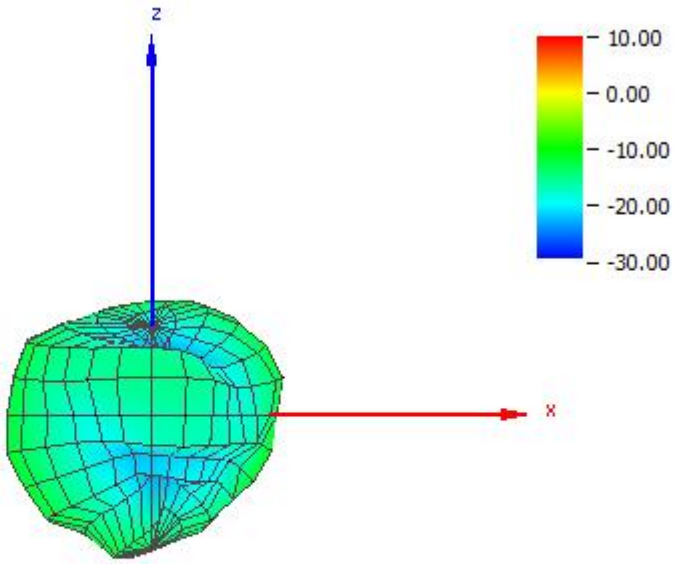

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