ANTENNA MEASUREMENT

Report

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Version History

Date	Version	Author	Revision	Remarks
December 8, 2017	V001	Chris De Vos		First draft

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1 USED MEASUREMENT EQUIPMENT REFERENCES

Equipment	ser number	
Antenna chamber Satimo SG32		
Network analyser R&S ZVB-8		

2 PRODUCT OVERVIEW

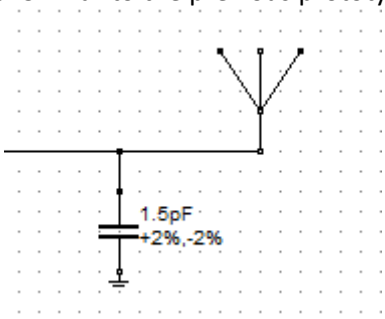
The measurements were carried out on the final antenna in final plastics Fig. 1 . PCB is rev4 board. Lens for the LED is added. Similar to the previous prototype 1p5F was added to optimize the antenna matching 

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Fig. 1

3 ANTENNA MEASUREMENT SETUP

Fig. 2 illustrates the near-field coordinate system and orientations. Fig. 3 shows the device in free space Fig. 4 shows the device mounted on an artificial hand.

Fig. 2

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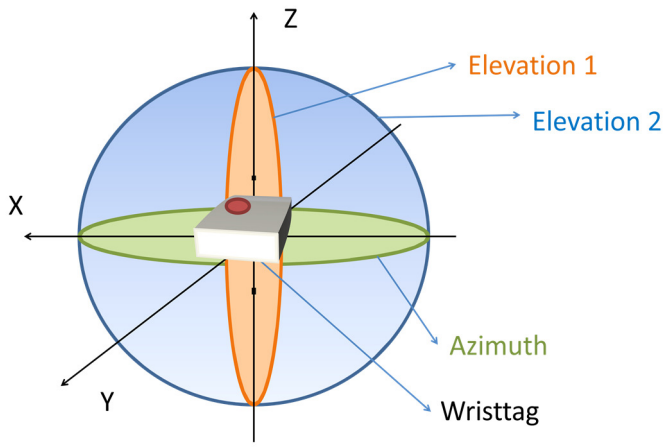

4 MEASUREMENT RESULTS

4.1 DUT in free space

Fig. 3

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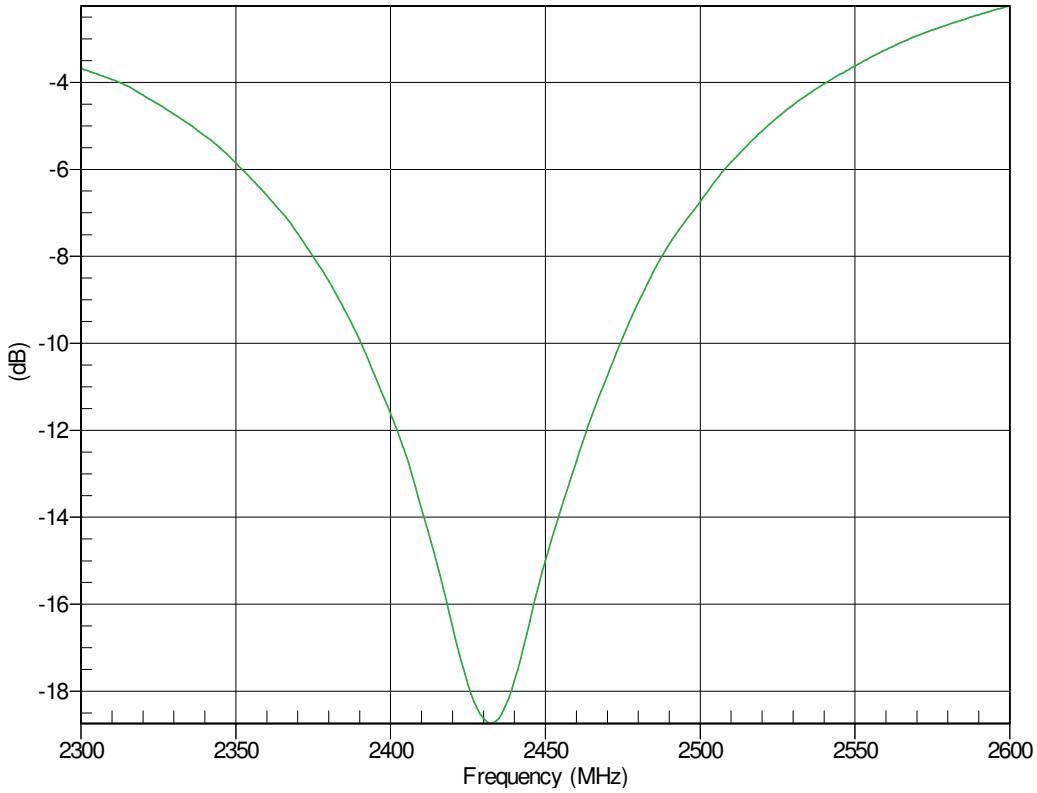
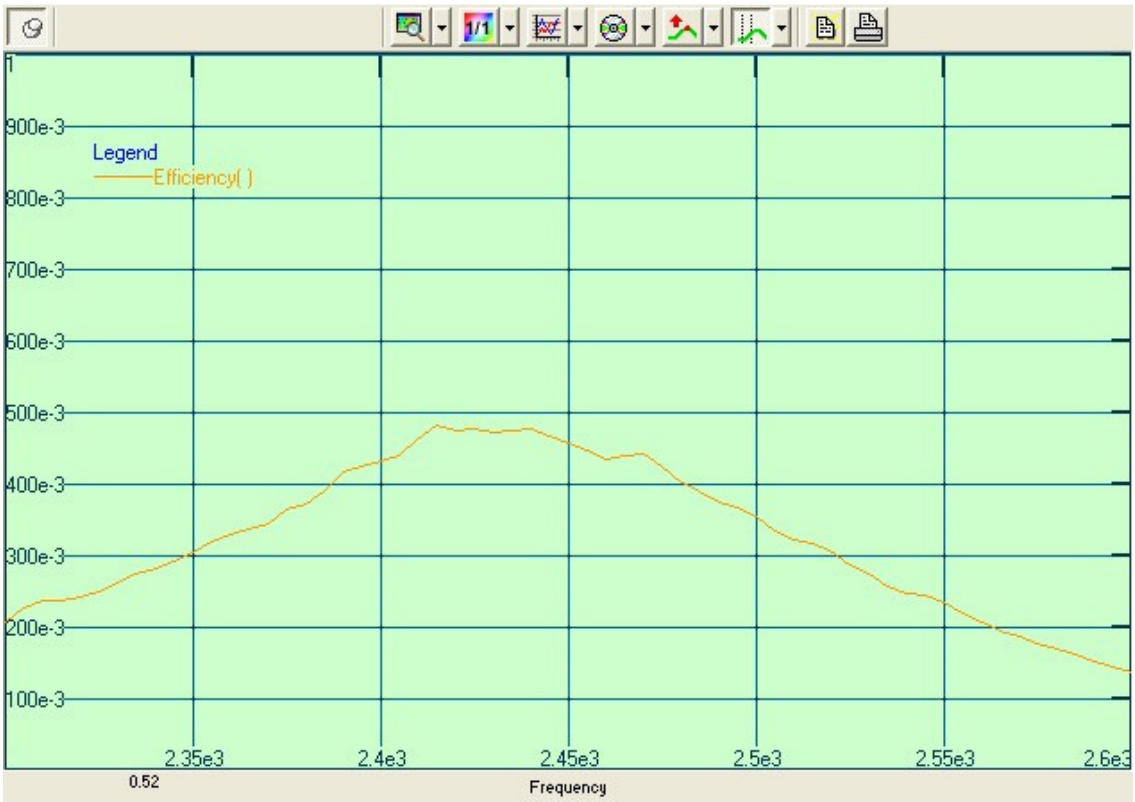
4.1.1 S11



4.1.2 Efficiency free space



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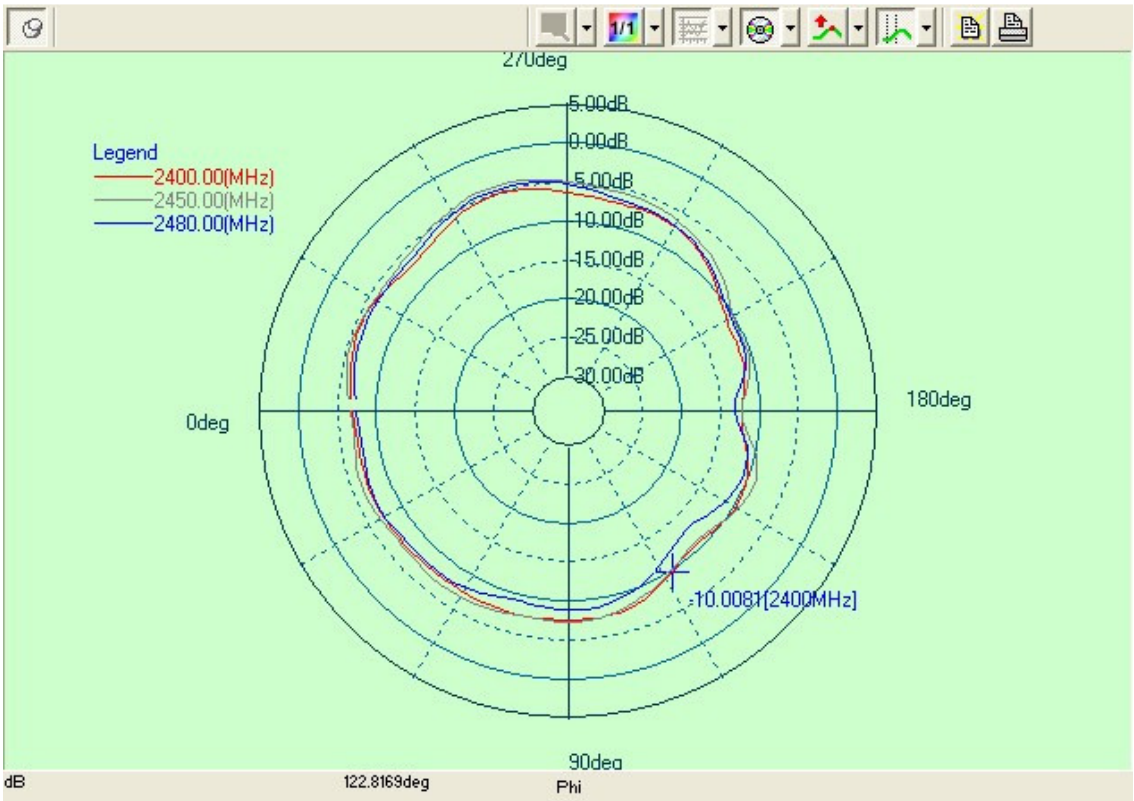
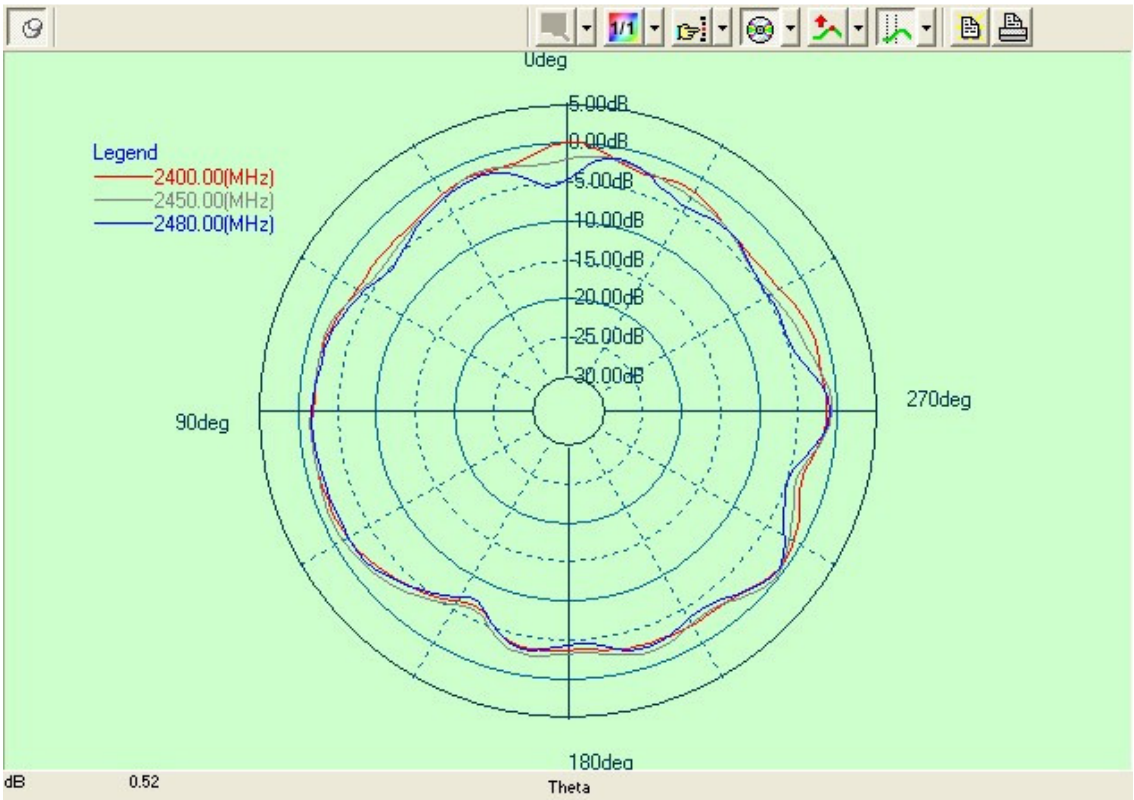
4.1.3 Pattern Elevation 1 free space



4.1.4 Pattern Elevation 2 free space



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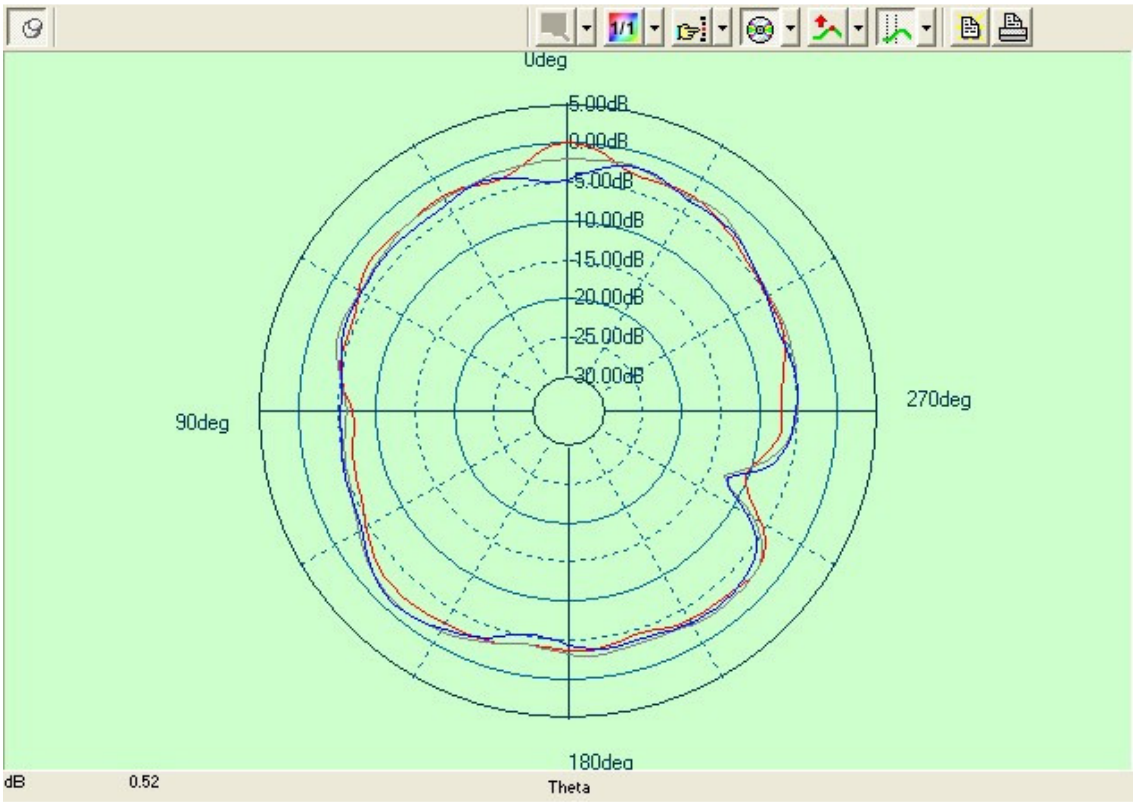
4.1.5 Pattern Azimuth free space



4.1.6 Peak Gain free space

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4.2 DUT on artificial hand

Fig. 4

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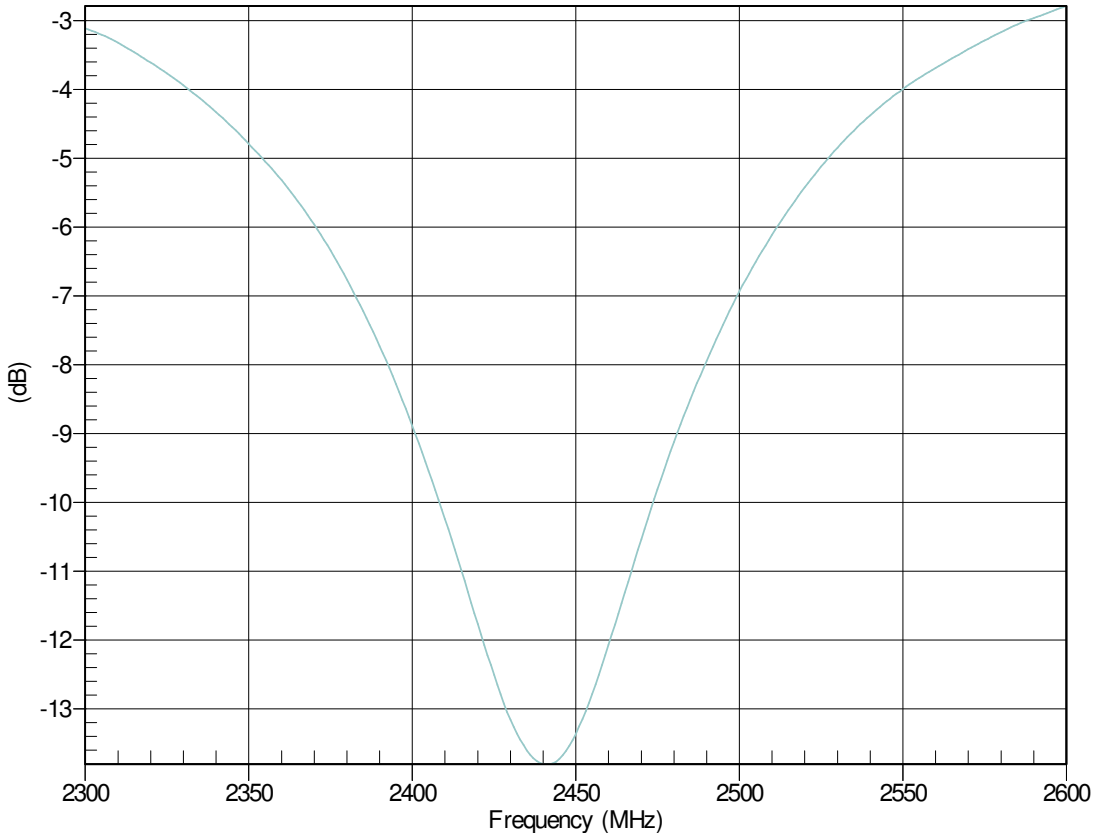
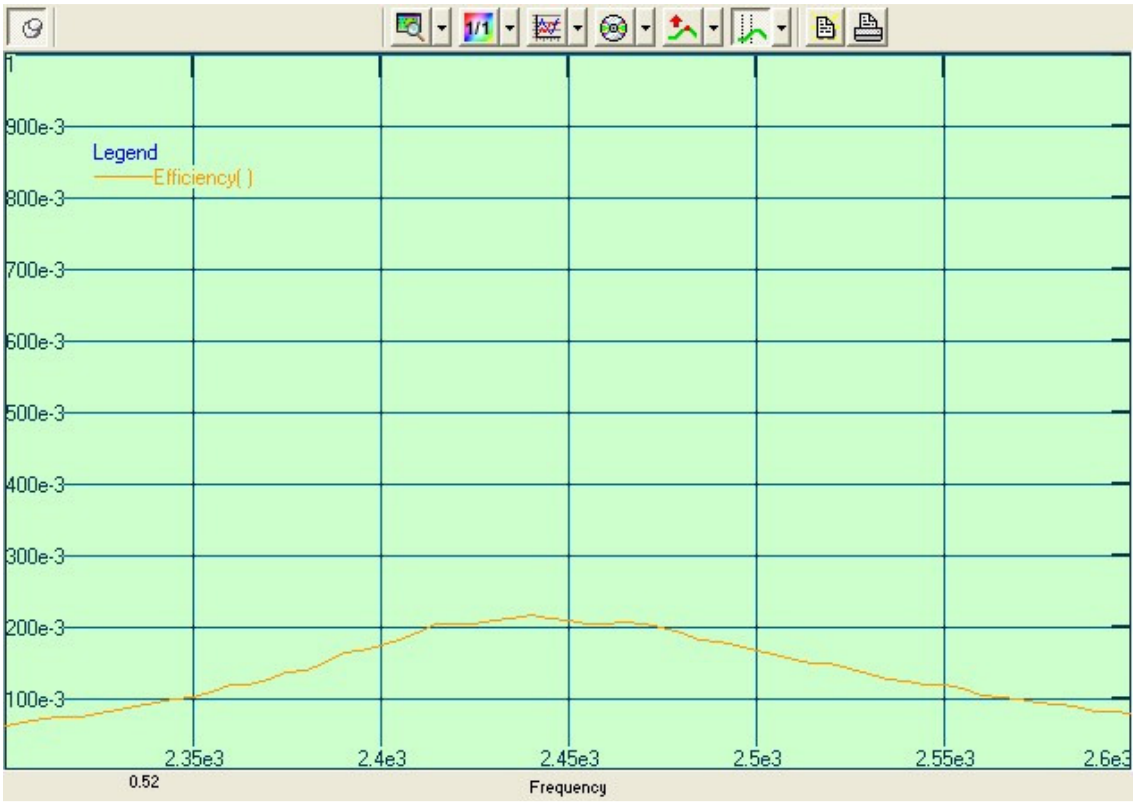
4.2.1 S11



4.2.2 Efficiency artificial hand



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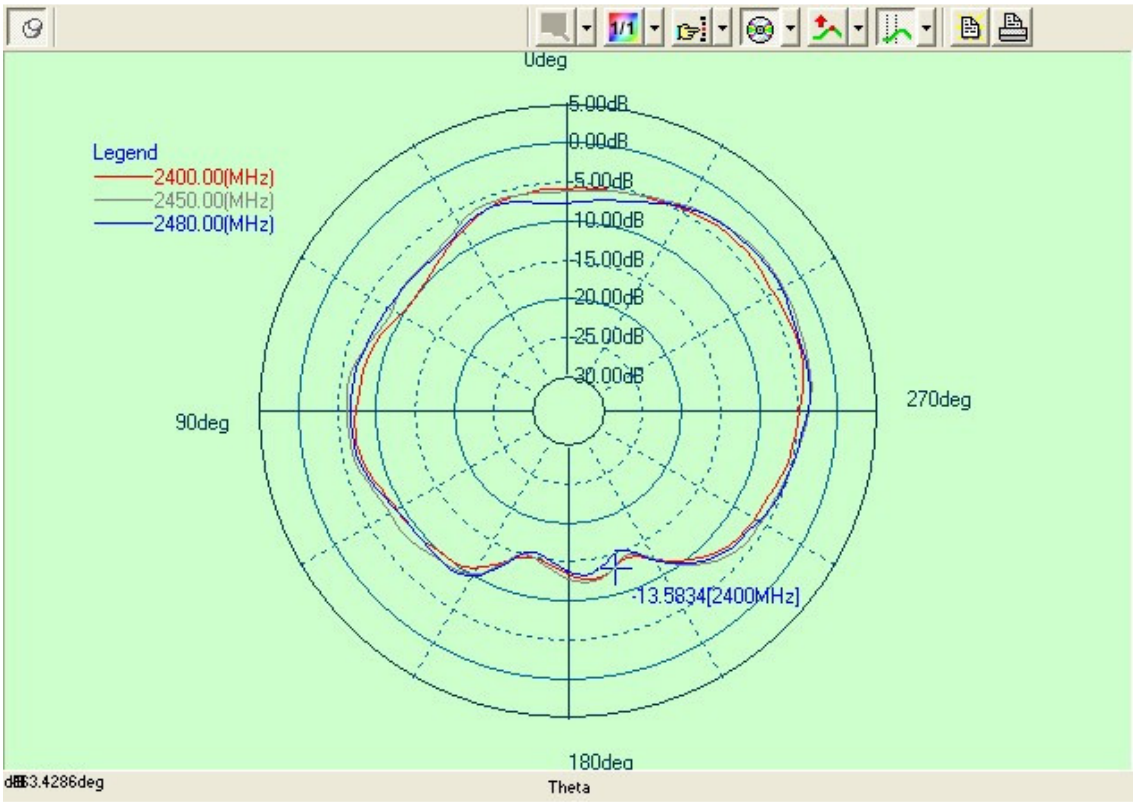
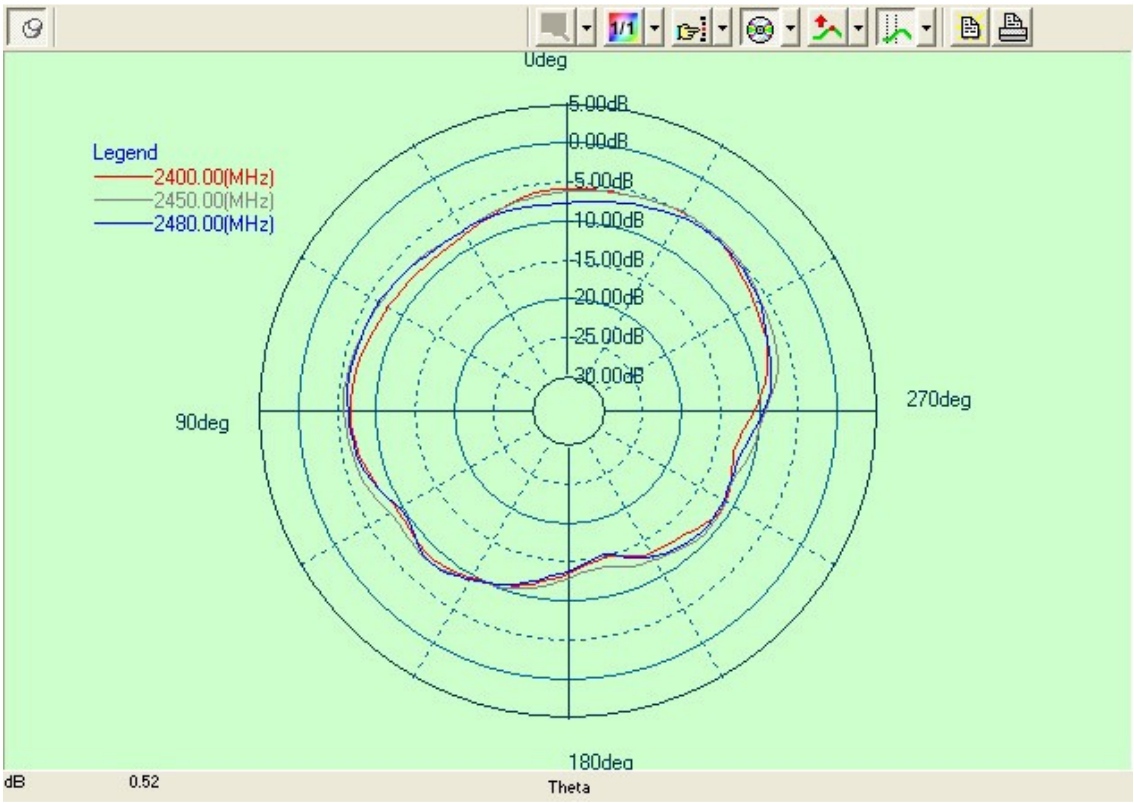
4.2.3 Pattern Elevation 1 artificial hand



4.2.4 Pattern Elevation 2 artificial hand



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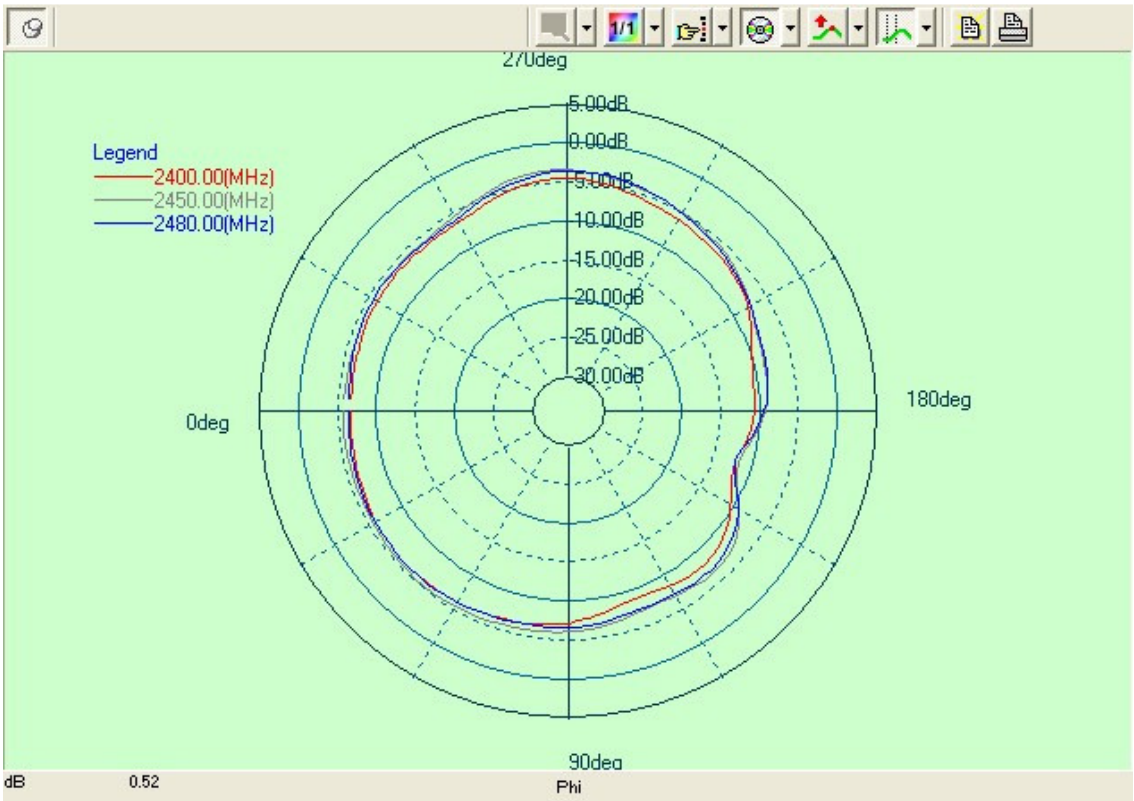
4.2.5 Pattern Azimuth artificial hand



4.2.6 Peak Gain artificial hand

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5 CONCLUSIONS AND REMARKS

Measurements still on old board revison (newer board should have bigger antenna pads). No matching on the antenna additional 1p5F parallel antenna was mounted

6 REFERENCES

Ref	Reference documents	Owner

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