

ANTENNA MEASUREMENT

Report

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About this document

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Version History

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

Table of contents

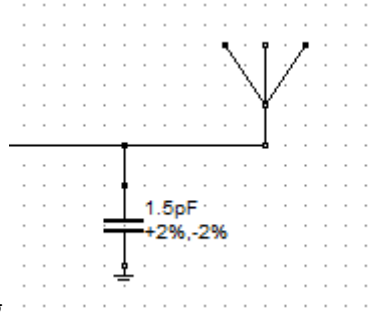
1	USED MEASUREMENT EQUIPMENT REFERENCES.....	3
2	PRODUCT OVERVIEW	3
3	ANTENNA MEASUREMENT SETUP	3
4	MEASUREMENT RESULTS	4
4.1	DUT IN FREE SPACE	4
4.1.1	<i>S11</i>	5
4.1.2	<i>Efficiency free space</i>	5
4.1.3	<i>Pattern Elevation 1 free space.....</i>	6
4.1.4	<i>Pattern Elevation 2 free space.....</i>	6
4.1.5	<i>Pattern Azimuth free space.....</i>	7
4.1.6	<i>Peak Gain free space</i>	7
4.2	DUT ON ARTIFICIAL HAND	8
4.2.1	<i>S11</i>	9
4.2.2	<i>Efficiency artificial hand</i>	9
4.2.3	<i>Pattern Elevation 1 artificial hand</i>	10
4.2.4	<i>Pattern Elevation 2 artificial hand</i>	10
4.2.5	<i>Pattern Azimuth artificial hand</i>	11
4.2.6	<i>Peak Gain artificial hand</i>	11
5	CONCLUSIONS AND REMARKS	12
6	REFERENCES	12

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

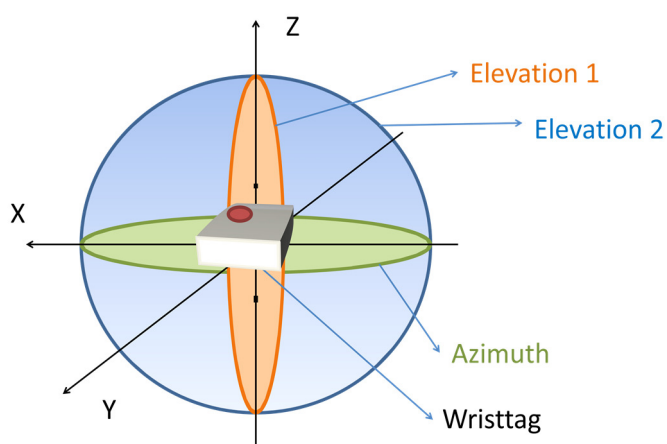
Fig. 1



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.

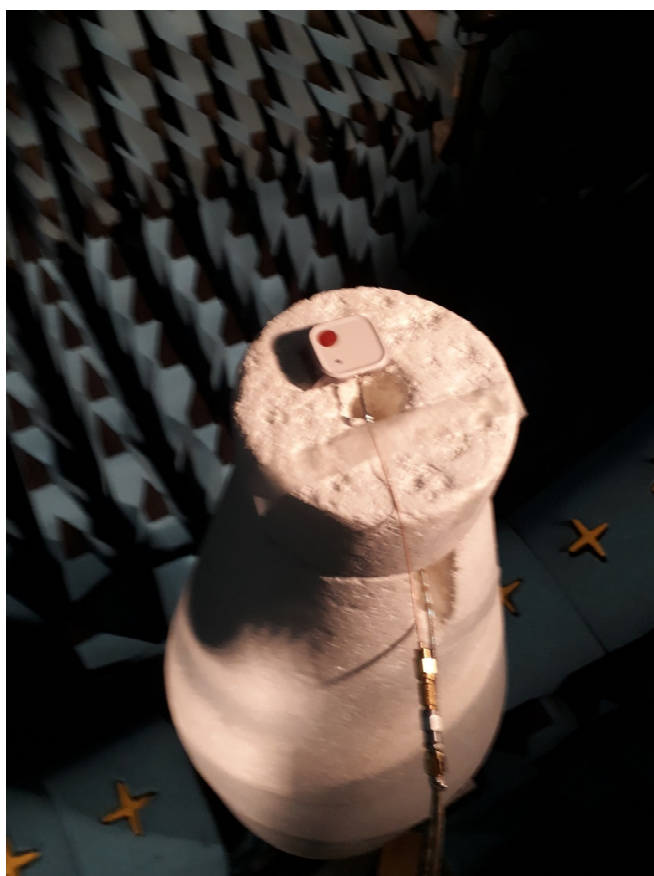
Fig. 2



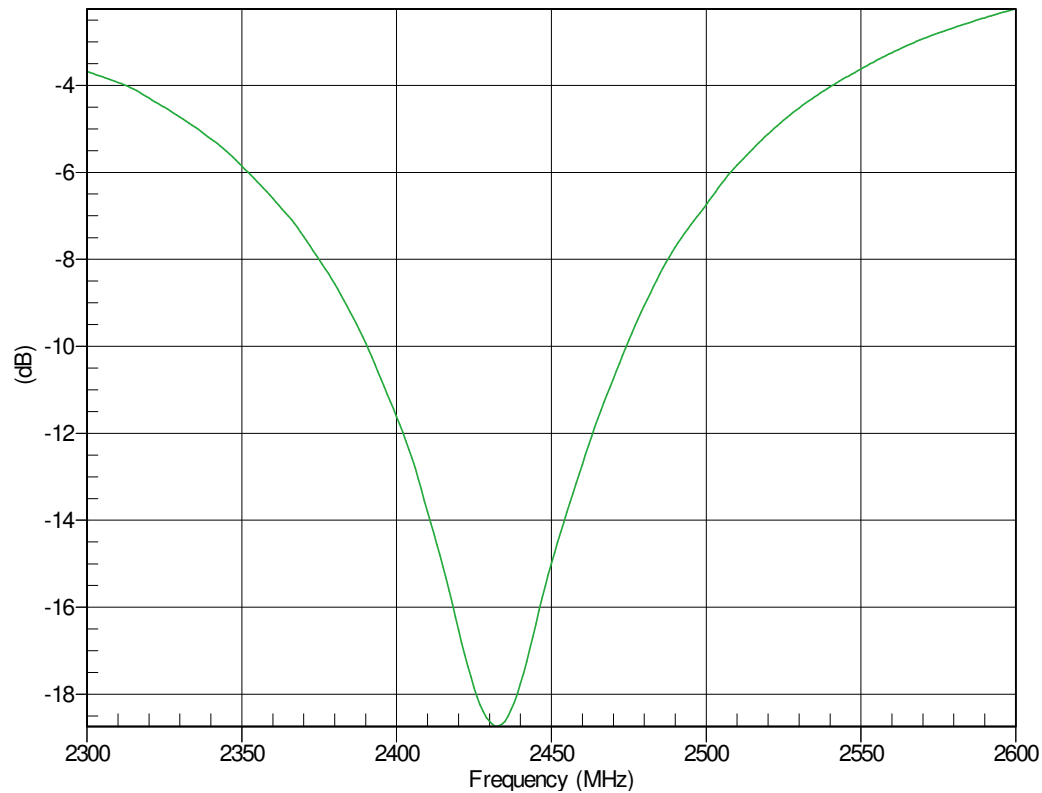
4 MEASUREMENT RESULTS

4.1 DUT in free space

Fig. 3



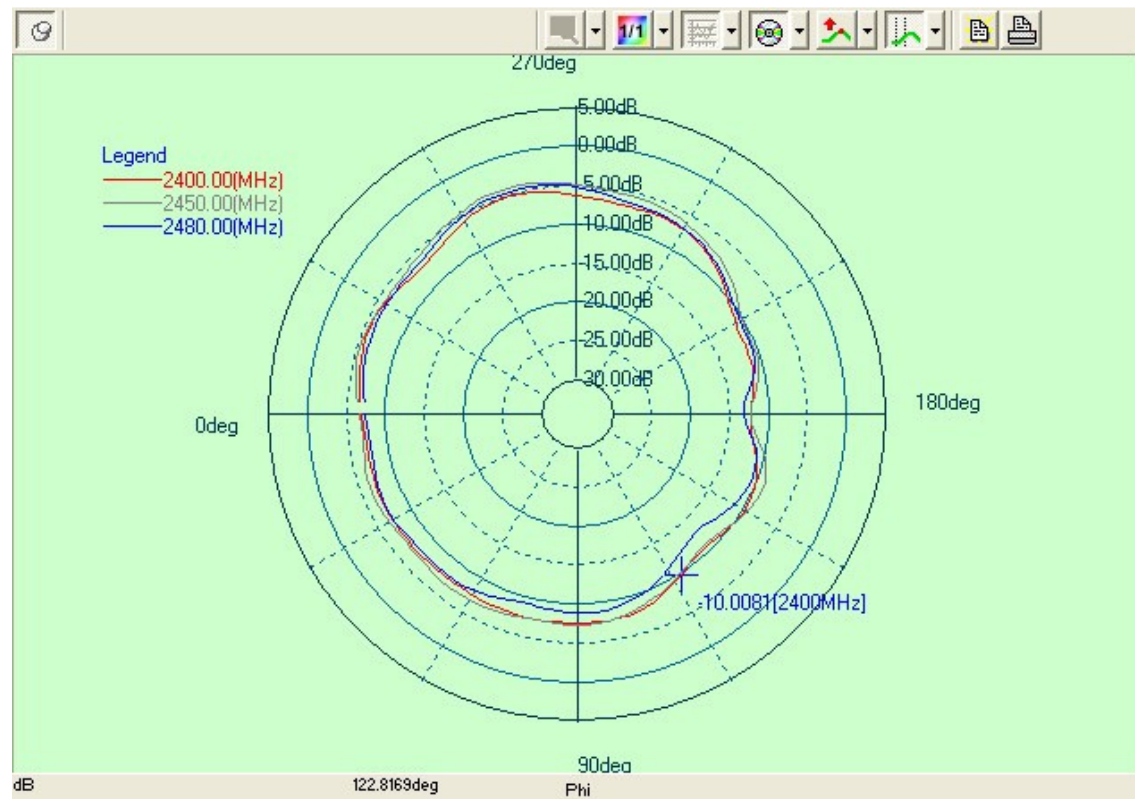
4.1.1 S11



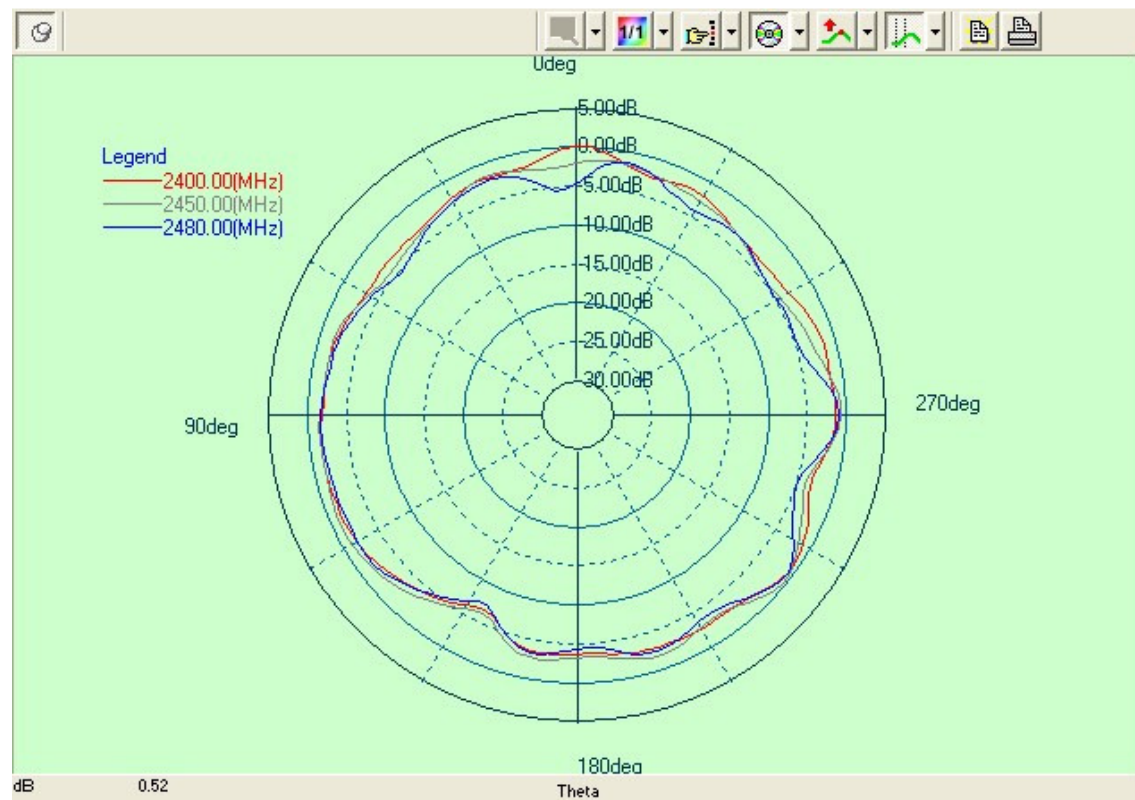
4.1.2 Efficiency free space



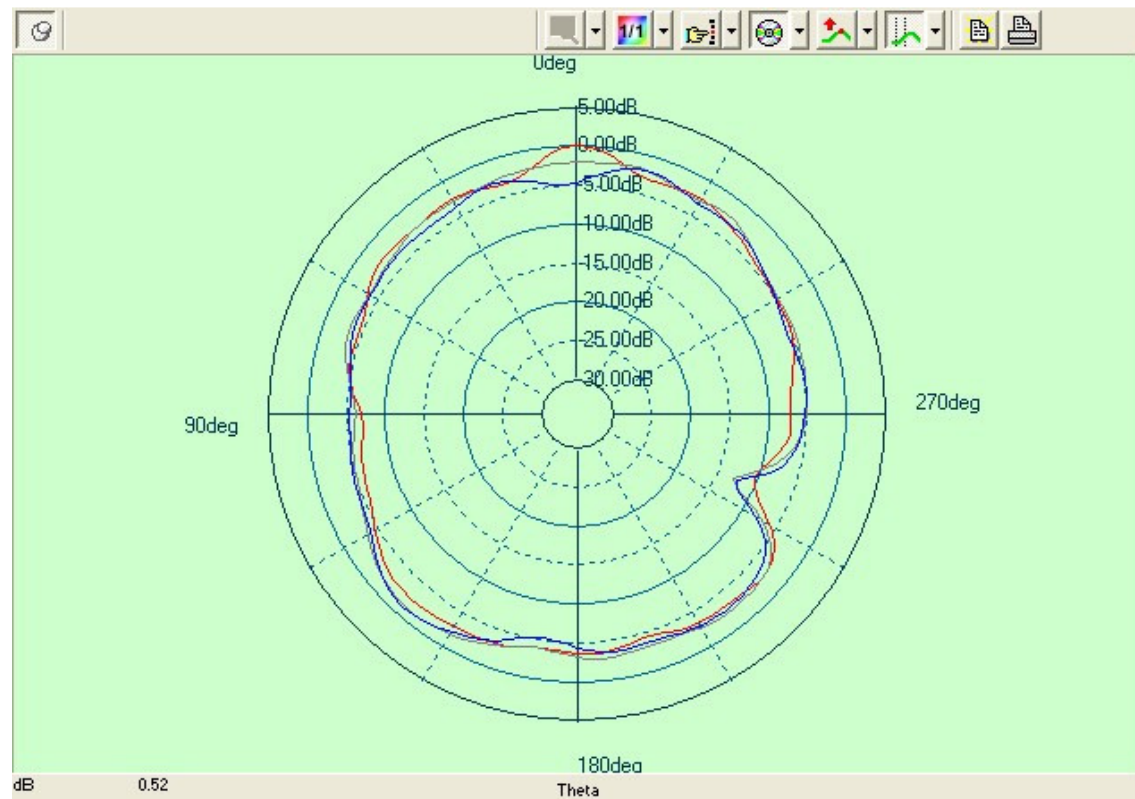
4.1.3 Pattern Elevation 1 free space



4.1.4 Pattern Elevation 2 free space



4.1.5 Pattern Azimuth free space



4.1.6 Peak Gain free space

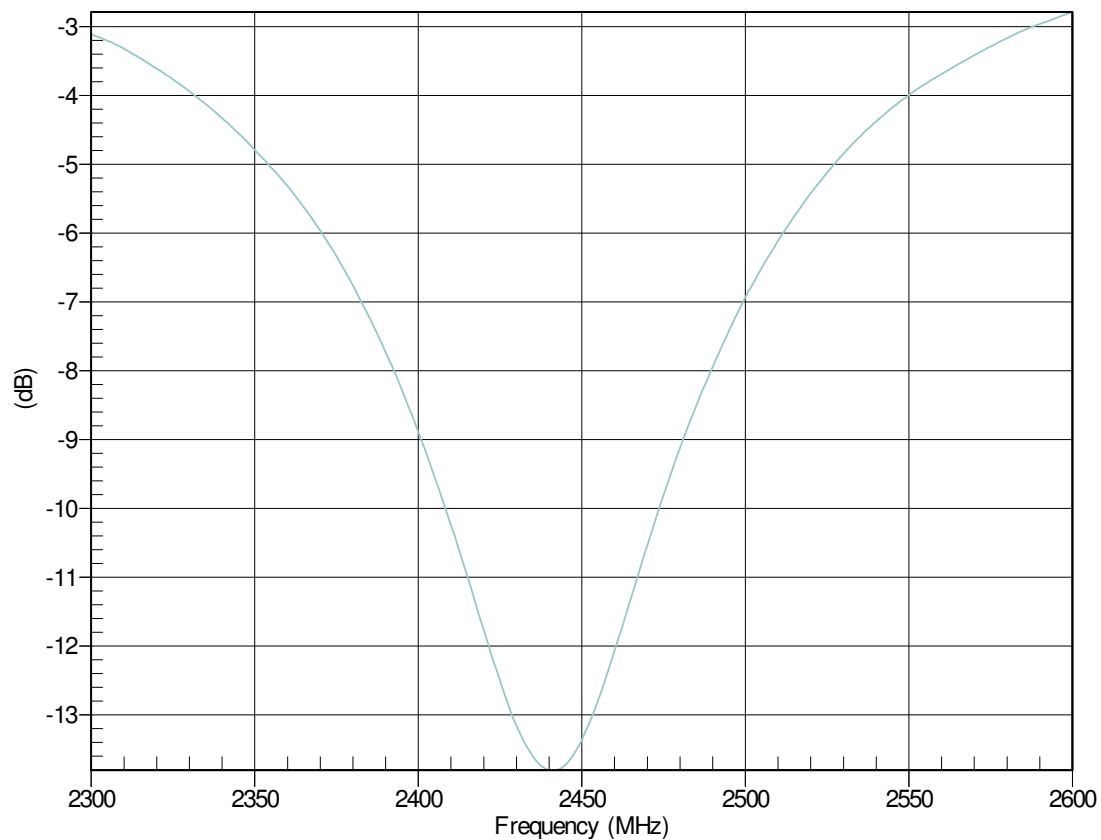


4.2 DUT on artificial hand

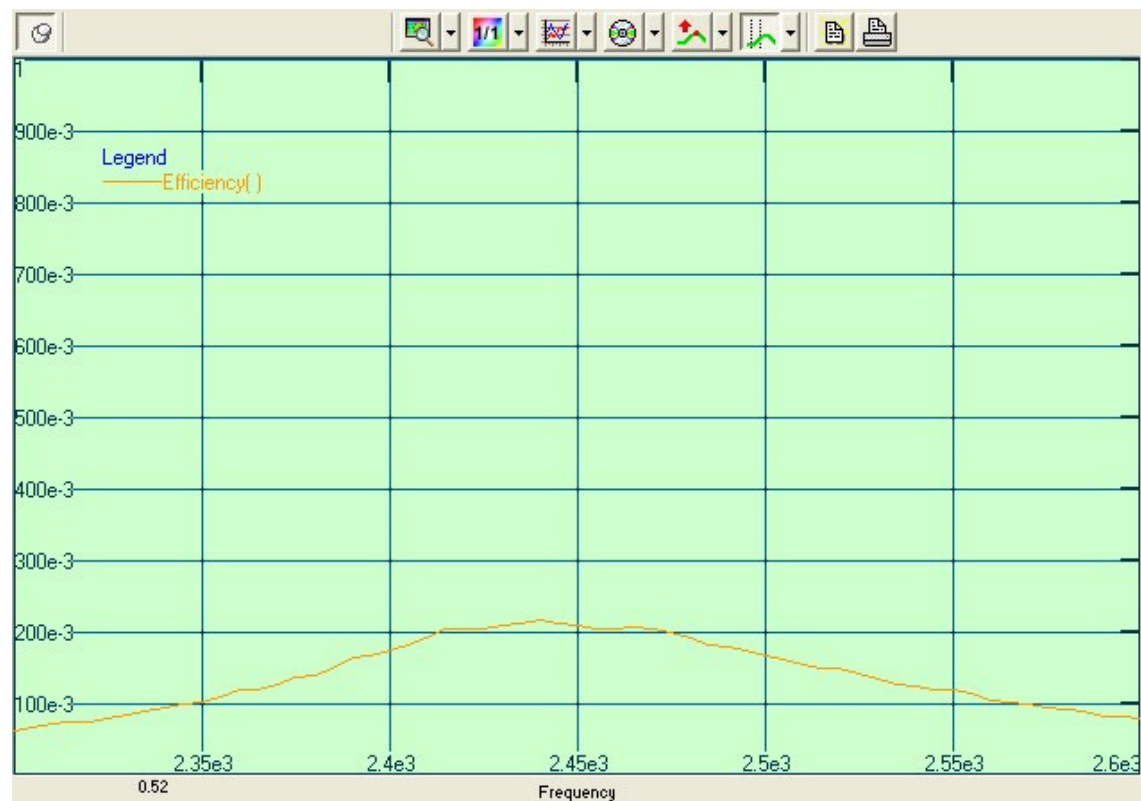
Fig. 4



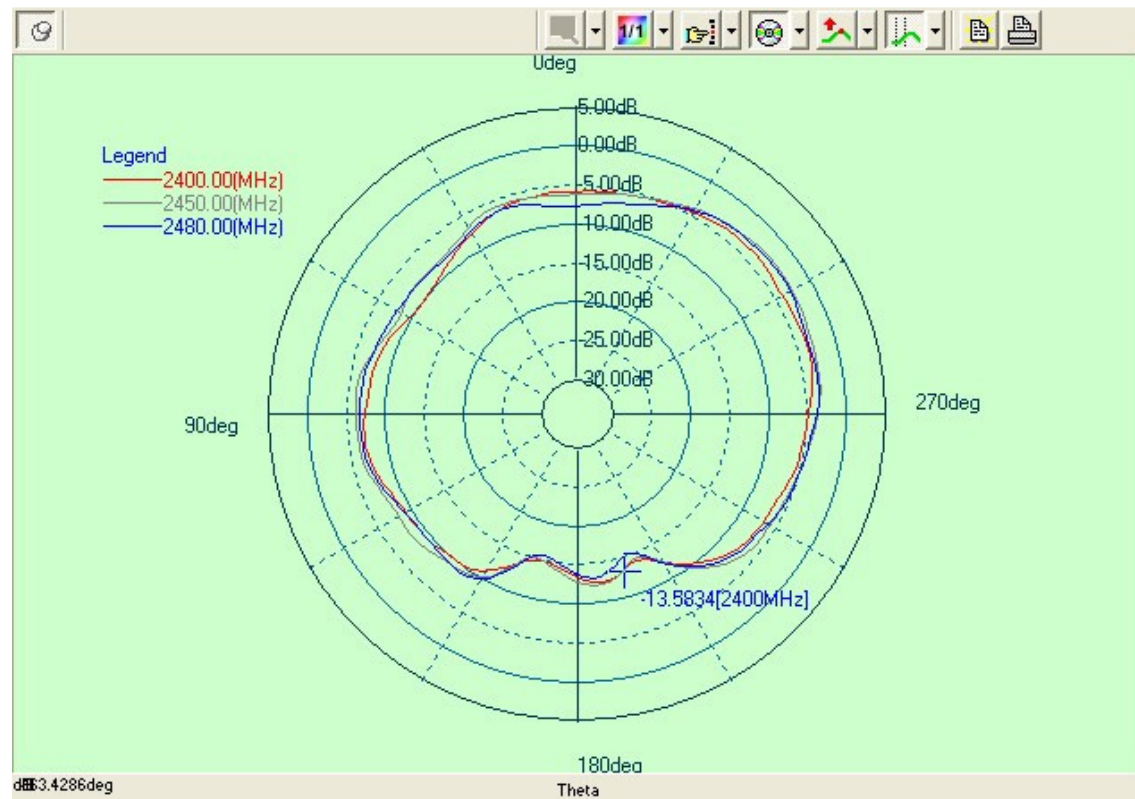
4.2.1 S11



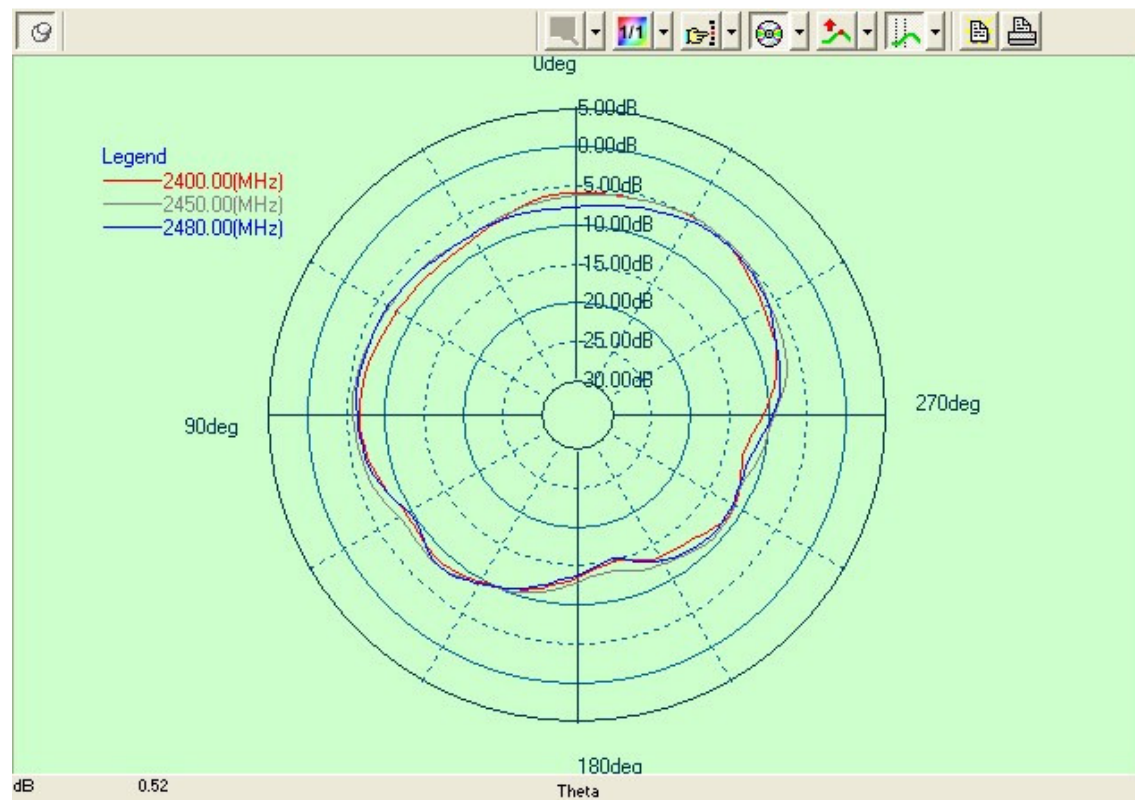
4.2.2 Efficiency artificial hand



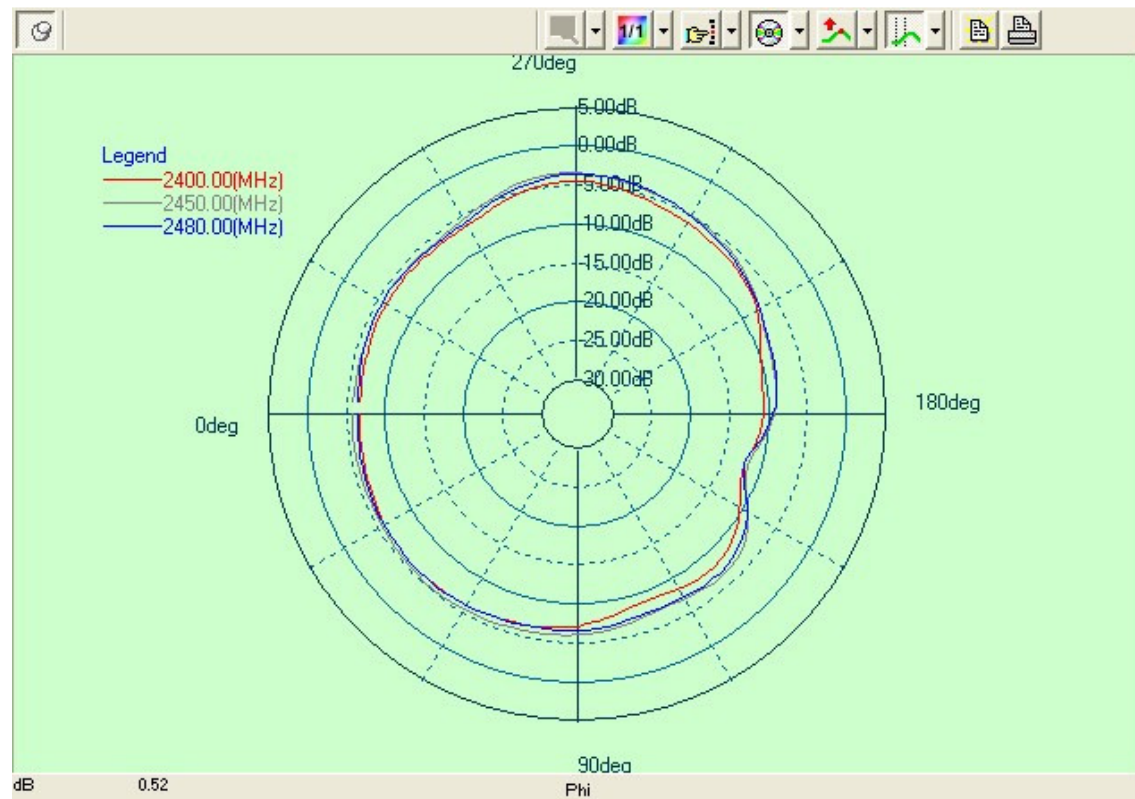
4.2.3 Pattern Elevation 1 artificial hand



4.2.4 Pattern Elevation 2 artificial hand



4.2.5 Pattern Azimuth artificial hand



4.2.6 Peak Gain artificial hand



5 CONCLUSIONS AND REMARKS

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

6 REFERENCES

Ref	Reference documents	Owner