

Approval Number		Approval Issue	1.0	Product Issue	1.0
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Approval Sheet

PROJECT NAME	Antenna
MODEL No.	ASW-800
ITEM No.	

Songiltelecom	MECHANIC	Person in Charge	Examined by	Approved by
	ELECTRONIC	Person in Charge	Examined by	Approved by

Aceon	MECHANIC	Person in Charge	Examined by	Approved by
	ELECTRONIC	Person in Charge	Examined by	Approved by

I hereby submit a proposal as follows and ask for the confirmation of approval.

March 15, 2005

429-010, 303-6 Daeya-dong, Shihe-shi, Kyunggi-do

Aceon Co., CEO, jong hun, Kim

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2. Outline

2.1. Outline

2.2. Such outline was described for the usage of ASW-800

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3. Specification

3.1. General Standard

General specification	
Model name	ASW-800
Antenna type	Half Wavelength Antenna

3.2. Electrical Standard

Electrical specification	
Frequency range	824 ~ 894MHz
V.S.W.R	1.9 : 1 Max.
Gain(dBi)	2±0.5
Radiation pattern	Omni-directional
Polarization	Vertical
Max Power(W)	5W Max.
Impedance	50Ω Normalizer

3.3. Mechanical Standard

Mechanical specification	
Connector type	TNC Male
Cover material	Urethane
Color	Black not bright
Temperature range	-30℃ ~ 70℃
Weight	37 ± 2g
Dimension	TBD

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4. Test Procedure & Measurement

4.1. External Test

To check the unity Antenna's exterior, size, connector and etc. with the exterior indicated in item #6.

4.2. Electrical Feature Inspection

4.2.1. Materials

Equipment	Model	Quantity	Standard
Network Analyzer	HP8752C Or equipment with the equivalent	1EA	· Freq. Range : 300KHz ~ 3GHz · Accuracy : <5ppm · Dynamic Range : 105dB · Trace at ± 200dB · Resolution : 1Hz · Impedance : 50Ω
Adaptor		1EA	· N(M)-TNC(F)
Calibration Kit	HP85032B	1Set	· DC ~ 6GHz (N-Type)

4.2.2. Inspection

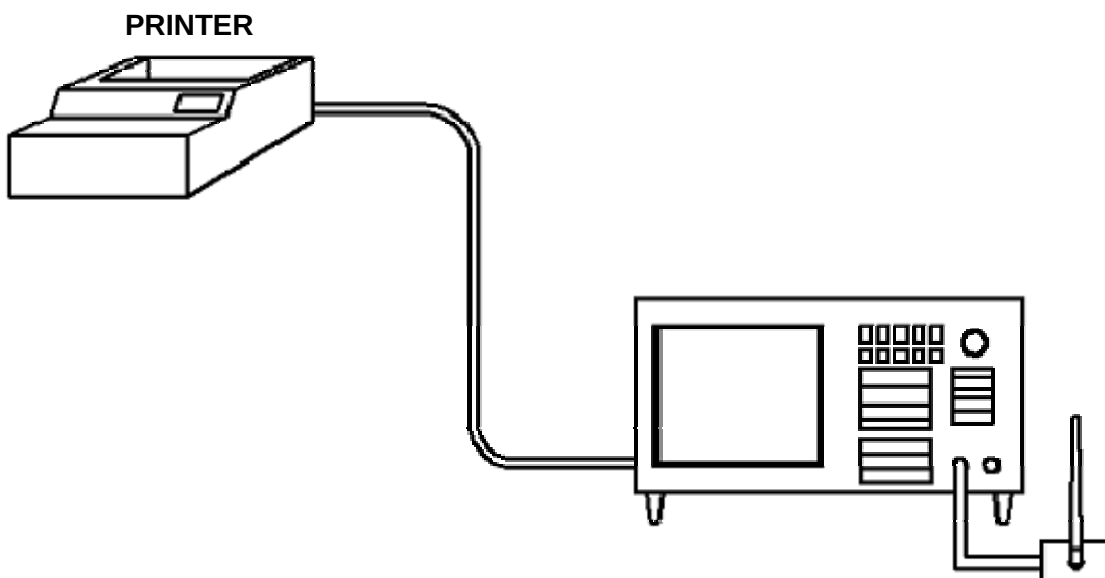


Figure 1. This how Network Analyzer is connected when inspecting the Network Analyzer

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4.2.2.1. Inspection

가. Equipment Setting and Calibration

㉠ Equipment Setting

- ㉠ Bandwidth : Center Frequency: 860.0MHz, Span :200.0MHz
- ㉠ Source Power : 10dBm,
- ㉠ IF Bandwidth : 1000Hz
- ㉠ Number of Point : 401

㉡ Calibration

Using N-Type Cal Kit applying O.S.L. method, Calibrate Port number 1.

- ㉠ S_{11} Calibration : Open Port #1, Calibrate after connecting the Load short.

㉢ Calibration Check

- ㉠ Connect Load to Port #1 to check S_{11} , V.S.W.R is less than 1.02 : 1
- ㉠ Connect Load to Port #1 to check S_{21} is less than -80.0dB.

If not satisfied with the result, repeat procedure ㉡' s Calibration.

나. Inspection Method and Contents

Item	Inspection Method	Standard
VSWR	Connect ANT to the positioner and measure the S_{11} within Operating Band, as shown above on Figure 2.	1.9:1 Max.
Impedance	Connect ANT to the positioner and measure the S_{11} that' s on Smith Chart within the Operating Band, as shown above on Figure w.	$50 \pm 20\Omega$

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4.3. Beam Pattern

4.3.1. Materials

Name of the Equipment	Model	Quantity	Standard
Near Field Chamber	32 gate satimo	1EA	· Freq. Range:800MHz~6GHz · Measurement Speed : Radiation Pattern Cuts: Real Time Full sphere far-field : < 20 secs · Measurement Accuracy : Dynamic Range: 70 dB Cross-polar isolation < -45 dB · Gain Accuracy : 1 – 6GHz < ±0.75dB 0.8 – 1 GHz < ±1 dB · Pattern Accuracy : < ± 2 dB @-20dB
Adaptor		1EA	· N(M)-TNC(F)
Computer		1EA	· Data for Measurement

4.3.2. Inspection

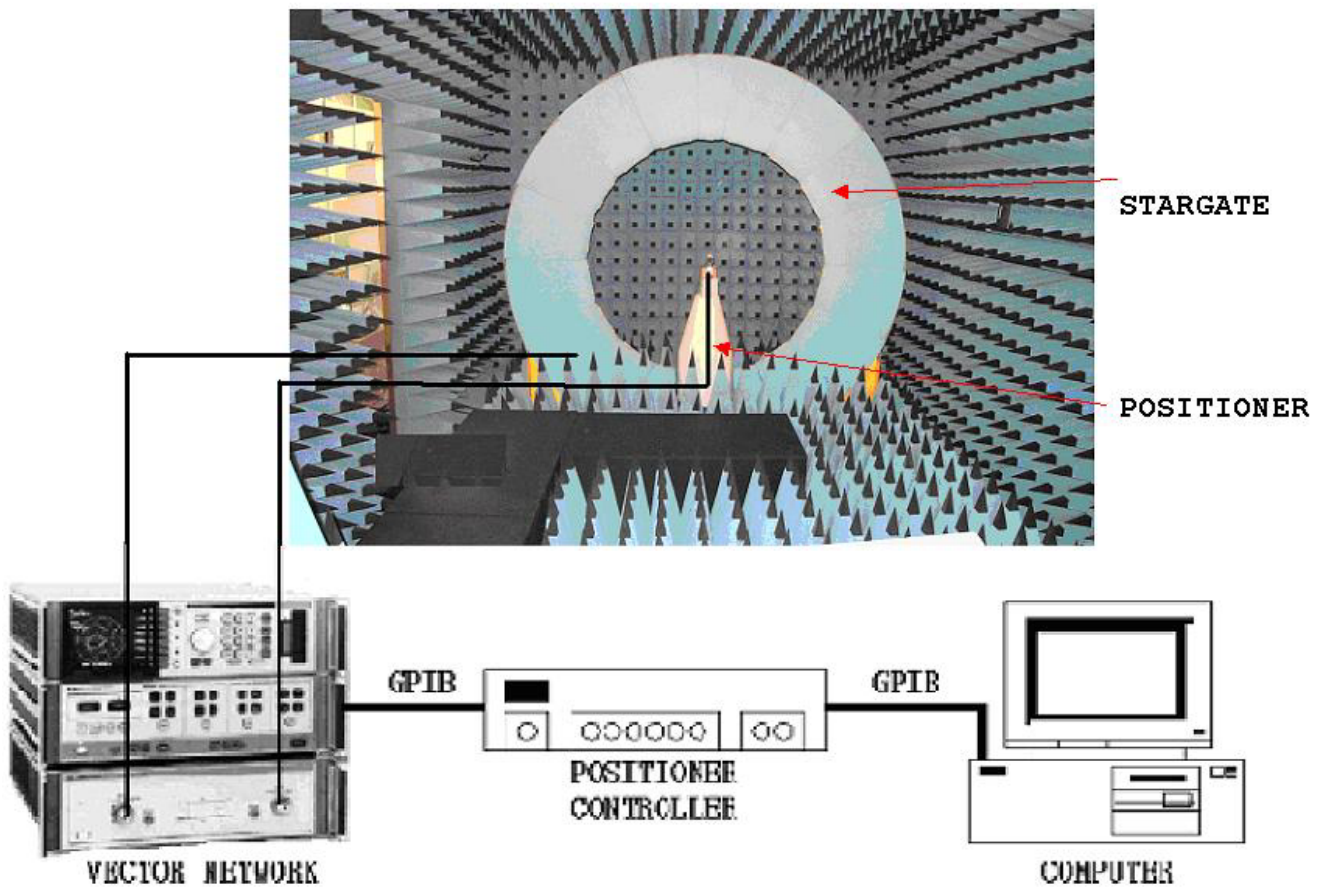


Figure 2. This how Net work analyzer is connected when inspecting the Beam Patten

4.3.2.1. Inspection

A. Equipment Setting and Measurement

① Network Analyzer Setting

- ② Calibrate Chamber System for Gain Measurement Using Stargate 32 senso. At the Same Time Set Up Software Program fir Chamber System Control.
 - Frequency Setting : 824MHz, 859MHz, 894MHz
- ③ Change Over from a Stargate 32 Sensor to the Chip Antenna(KBI-115F-141) on Target Positioner.
- ④ Start a Software Program for Chamber System Control & Measuring.
- ⑤ Measurement Data.

B. Inspection Method and Contents

Item	Inspection Method	Standard
Beam Pattern	Connect ANT to the positioner and measure the S_{11} within the Near Field Chamber, as shown above, on Figure 2.	$2.0 \pm 0.5 \text{dBi}$

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Packing, Shipping, Handling

4.4. Exterior Option

가. Both ordering enterprise and producer' s names should be indicated.

나. Name, Serial number and quantity of the Model should be indicated.

4.5. Packing

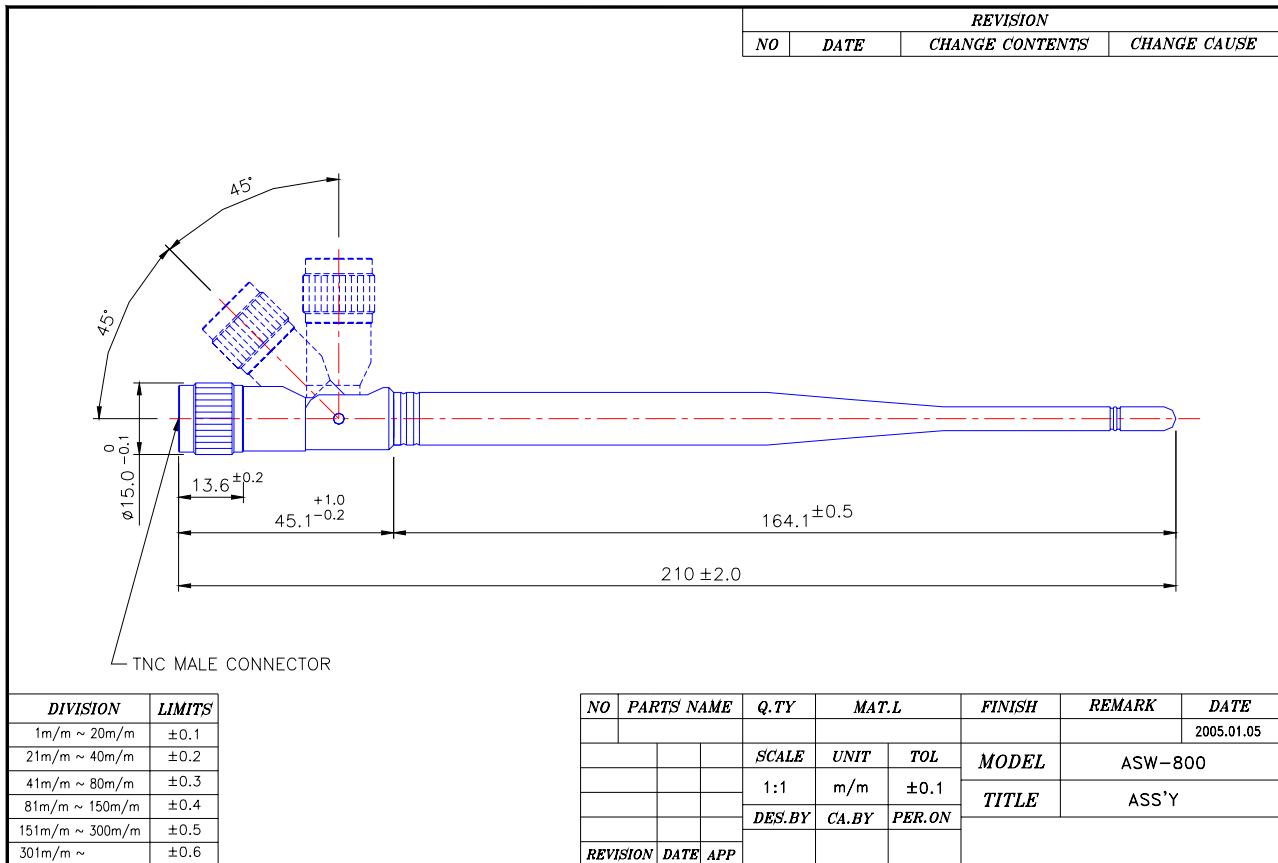
가. The product should be carefully packed and should be safe from impact or shock that could occur from shipping and handling.

나. Packing material should be paper box(DW2), which id the kind that won' t damage the product inside of the box.

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5. Exterior

No.	DWG No.	Product Name	REV.	Page	Note.
1	DK031223001	ASS' Y	1.0	1/1	



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6. Test Data Sheet

Parameter	Specification	Data
		25℃
V.S.W.R	1.9 : 1 Max.	1.56 : 1
Beam Pattern	2.0 ± 0.5dBi	3.25dBi
Impedance	50 ± 20Ω	49

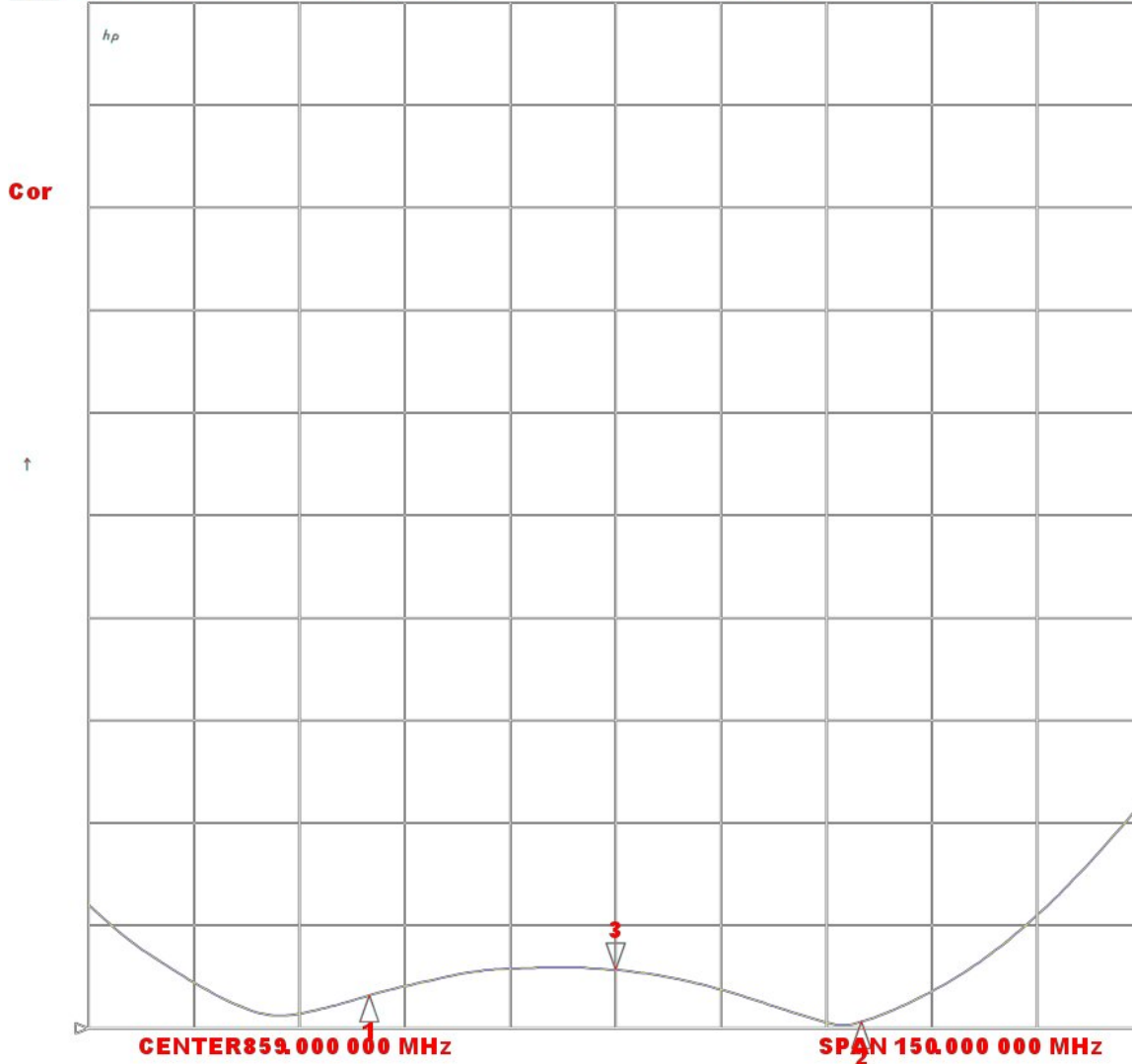
7. Data Sheet

7.1. V.S.W.R

13 May 2003 23:22:24

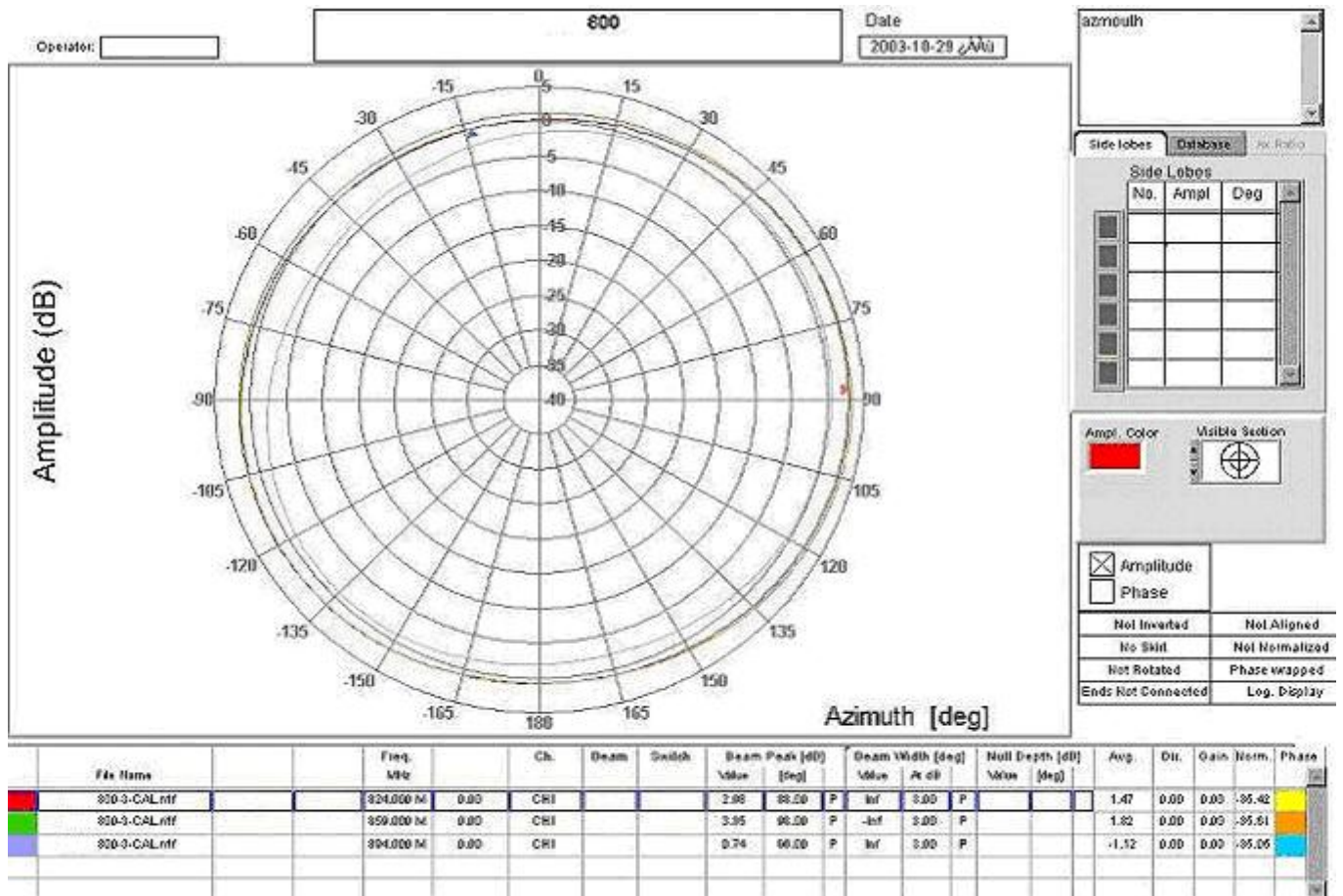
CH1 MEM SWR 1 / REF 1

3: 1.5697 858.985 000 MHz

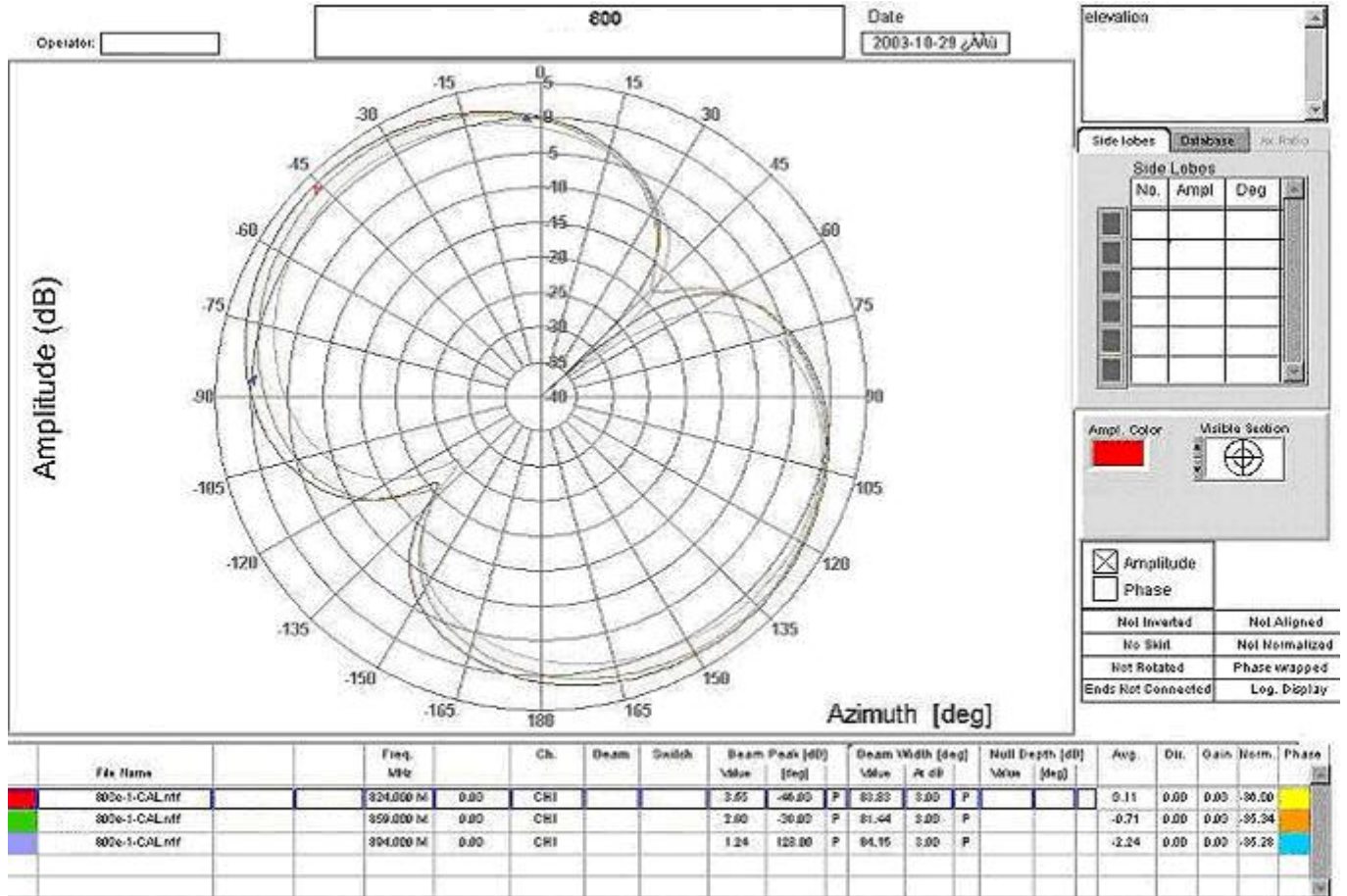


7.2. Beam pattern

7.2.1. Azimuth



7.2.2. Elevation



7.3. Impedance

