Specifications Sheet

Object	Stubby Antenna	REV.	IR	Page	1 of 8
Model Name	Parani-Stub Antenna	Date	March 11. 2004		
System	Bluetooth, WLAN	Written by	W. I. Kawk		

Electrical Specifications	
Frequency	2400 ~ 2485 (MHz)
Band Width	85 (MHz)
V.S.W.R	1.9 : 1
Gain (max)	Within 2.14 (dBi)
Input Impedance	50 (Ω)
Polarization	Linear, Vertical

Mechanical Specifications	
Size	30mm X 9mm (W x D)
Weight	3.5(g)
Radiator Material	Copper
Operation Temperature	-30 ~ 90 (℃)
Operation Humidity	10 ~ 90 (%)

Option	
Remarks	

KRD01-00A05-01IR

Fig 1. VSWR

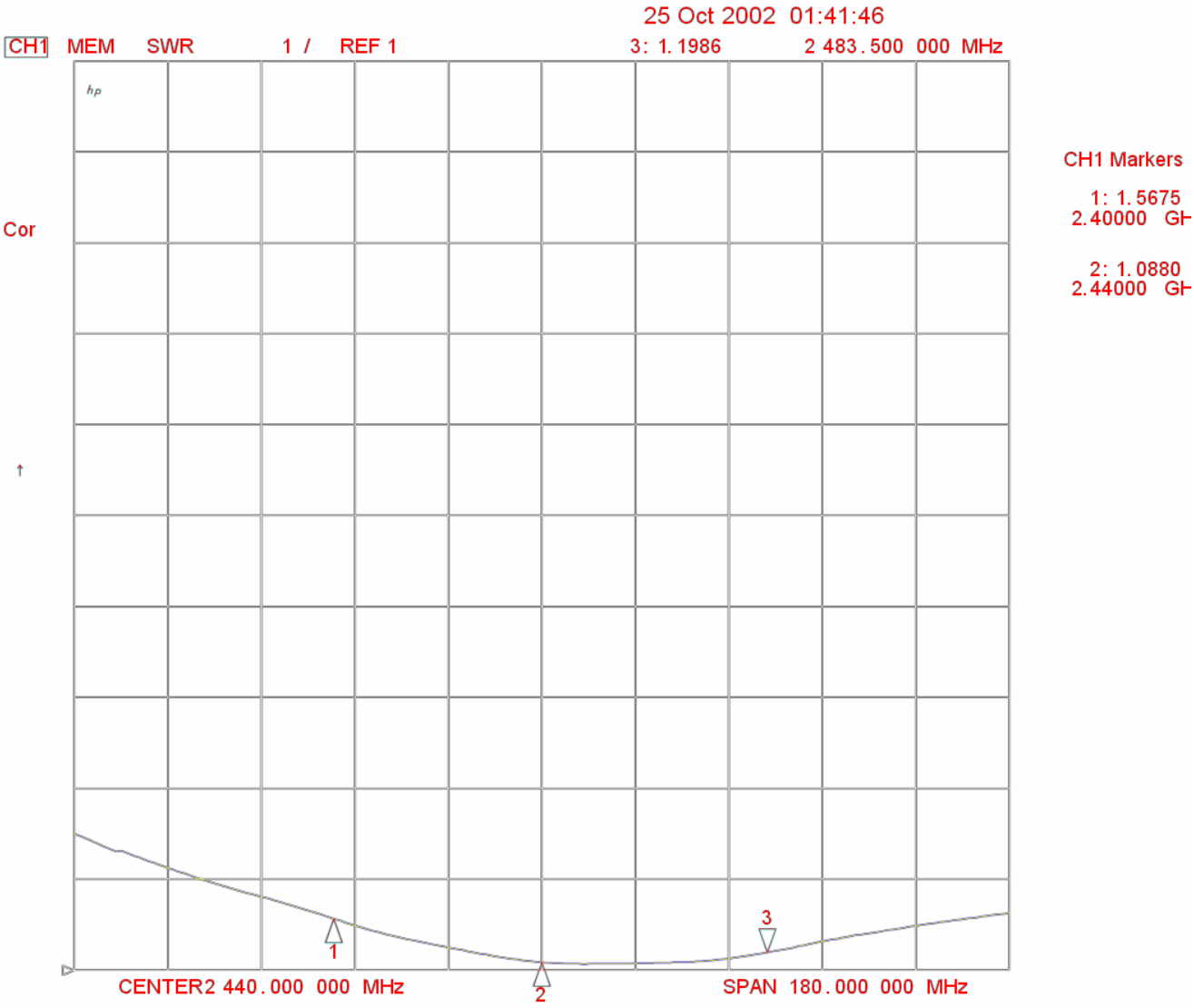

25 Oct 2002 01:41:46
CH1 MEM SWR 1 / REF 1
3: 1.1986
2 483.500 000 MHz
CH1 Markers
1: 1.5675
2.40000 GH
2: 1.0880
2.44000 GH
Cor
1
2
3
CENTER2 440.000 000 MHz
SPAN 180.000 000 MHz

Fig 2. Return loss

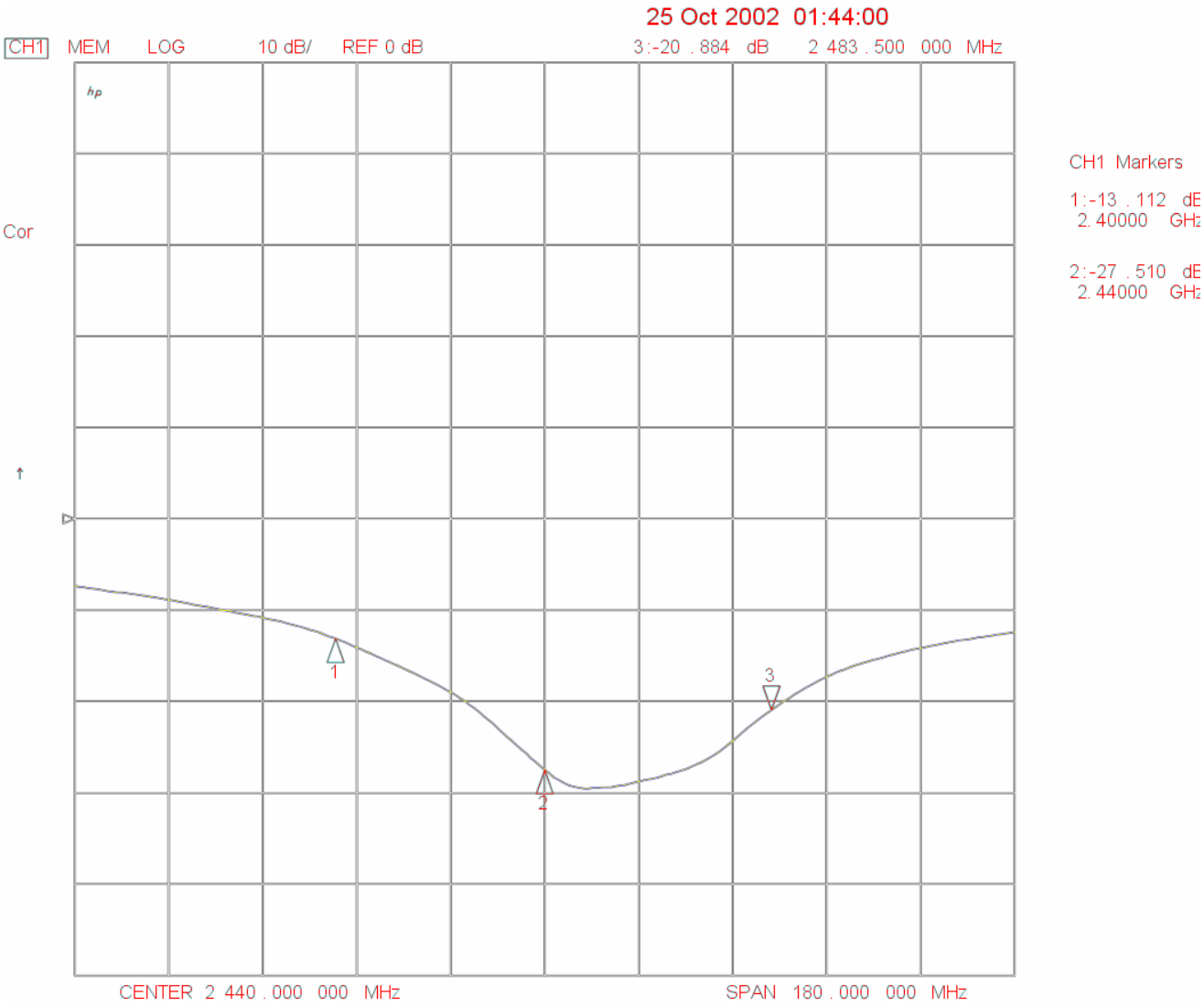


Fig 3. Smith Chart

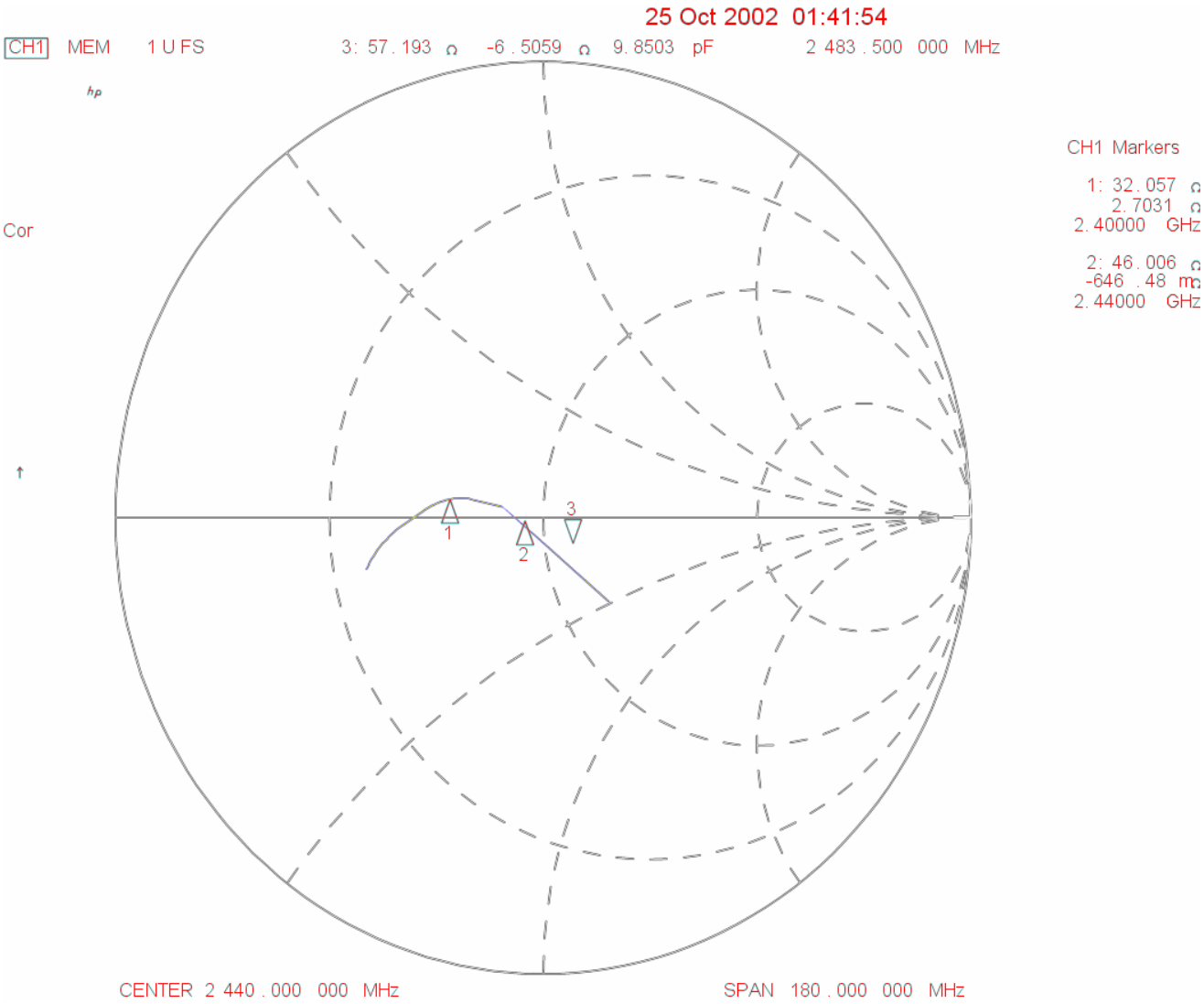
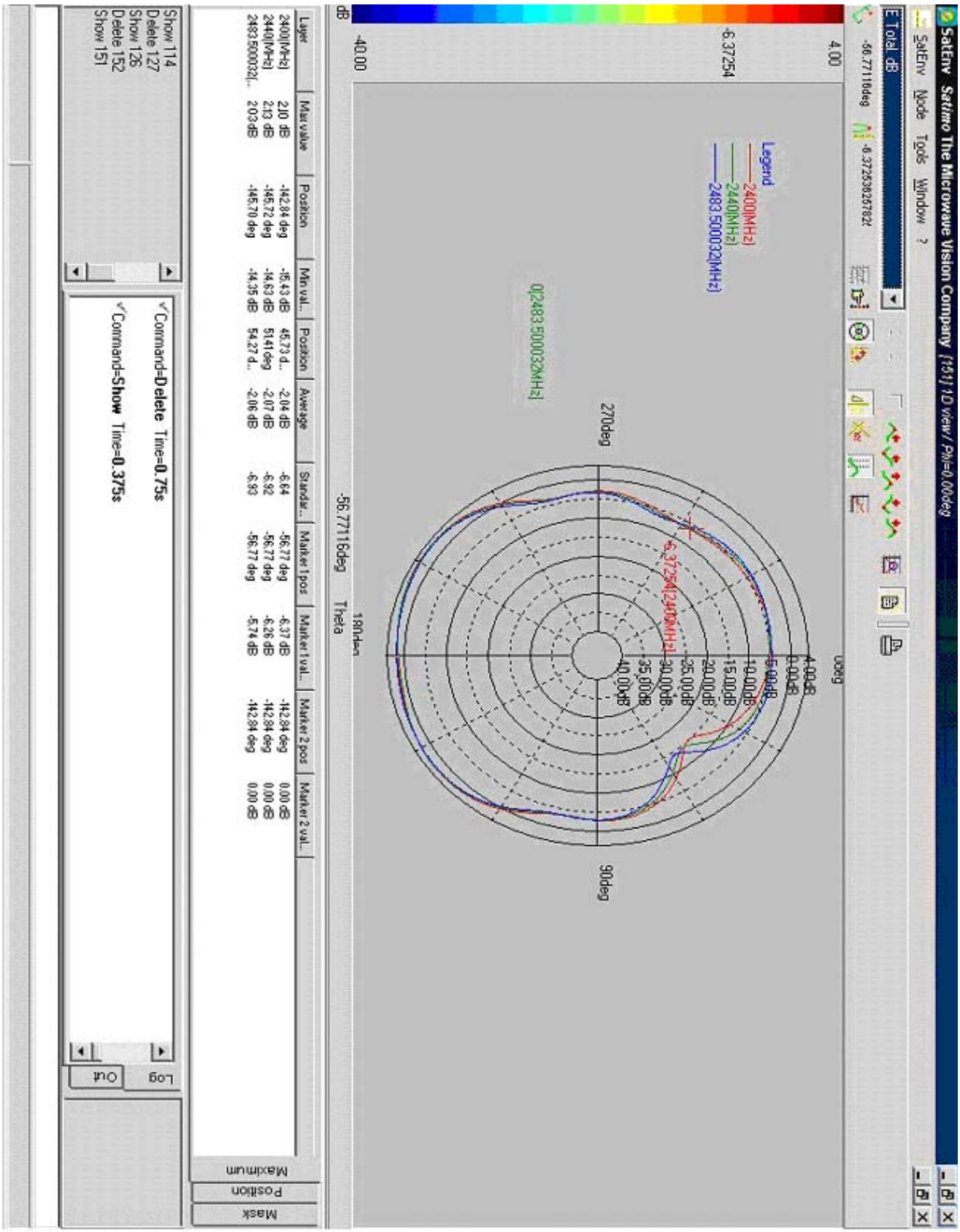


Fig 4. Radiation Pattern

Elevation



Azimuth

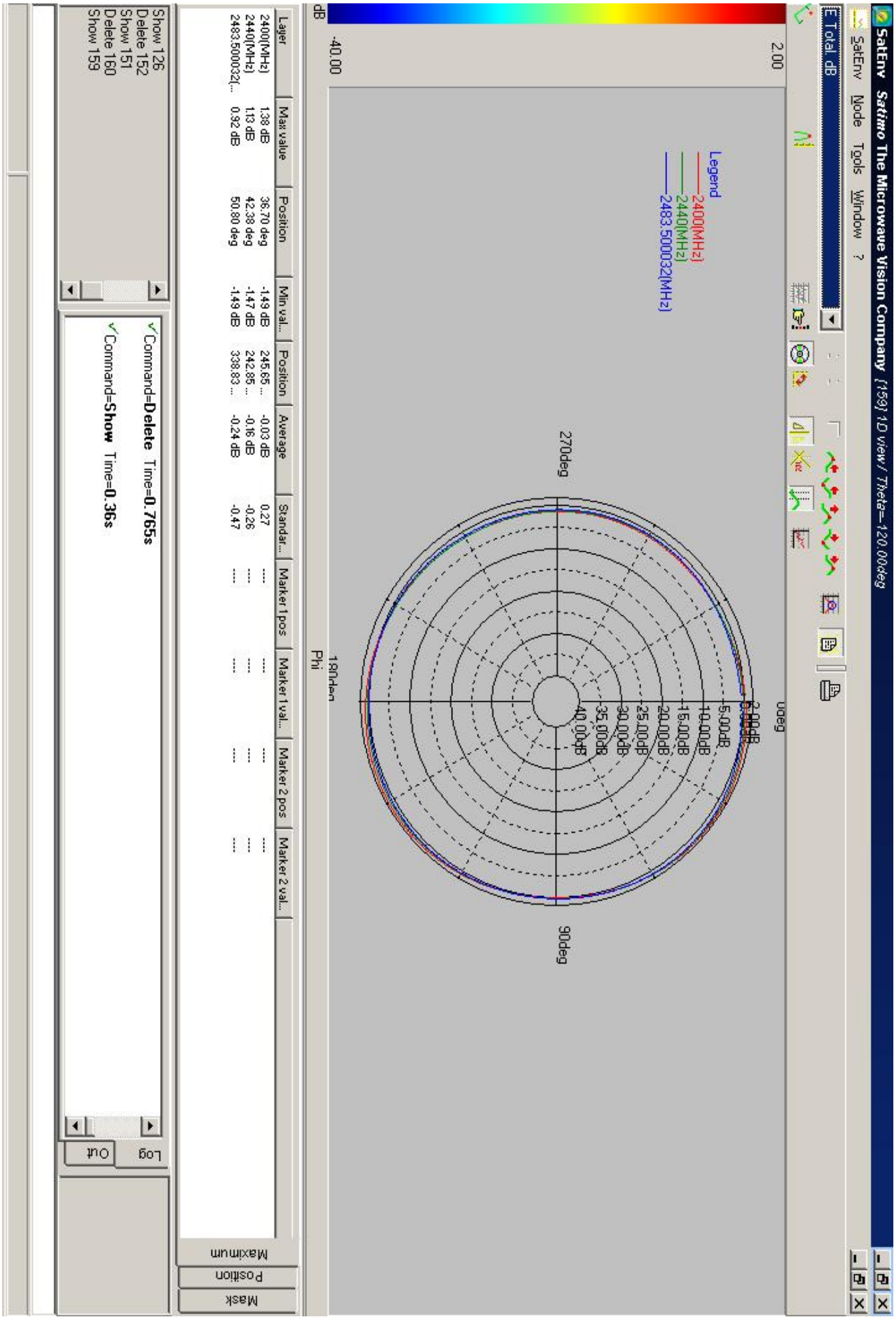
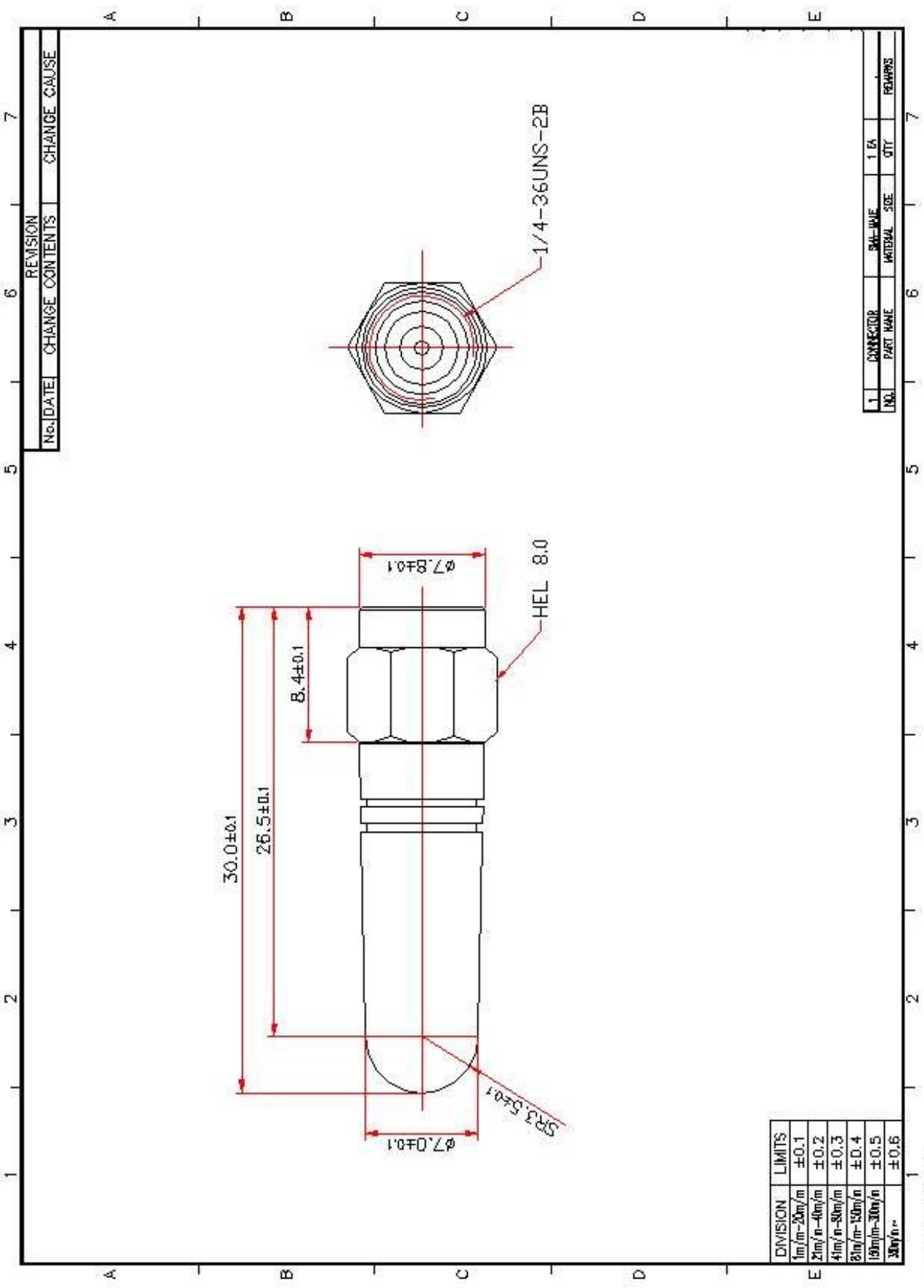

SatEnv Satimo The Microwave Vision Company [159] 1D view / Theta=120.00deg
SatEnv Node Tools Window ?
E Total dB
2.00
-40.00
dB
Legend
2400(MHz)
2440(MHz)
2483.500032(MHz)
0deg
90deg
180deg
270deg
Phi
5.00dB
10.00dB
15.00dB
20.00dB
25.00dB
30.00dB
35.00dB
40.00dB
Layer
Max value
Position
Min val...
Position
Average
Standar...
Marker 1 pos
Marker 1 val...
Marker 2 pos
Marker 2 val...
2400(MHz) 1.38 dB 36.70 deg -1.49 dB 245.65 ... -0.03 dB 0.27
2440(MHz) 1.13 dB 42.38 deg -1.47 dB 242.85 ... -0.16 dB -0.26
2483.500032(... 0.92 dB 50.80 deg -1.49 dB 338.83 ... -0.24 dB -0.47
Mask
Position
Maximum
Log
Out
Command=Delete Time=0.765s
Command=Show Time=0.36s
Show 126
Delete 152
Show 151
Delete 160
Show 159

Fig 5. Mechanical Drawing



Specifications Sheet

Object	Dipole Antenna	Rev.	IR	Page	1 of 7
Model name	Parani-Dipole Antenna	Date	March 5, 2004		
System	Bluetooth / WLAN	Written by	W.I.Kwak		

Electrical Specifications

Frequency	2400 ~ 2483.5 (MHz)
Bandwidth	83.5 (MHz)
V.S.W.R	1.9 : 1
Gain (max)	Within 2.14(dBi)
Input Impedance	50 (Ω)
Polarization/ Directional	Linear / Omni-directional

Mechanical Specifications

Size	124 ± 2.0 (mm)
Connector	**SMA Male**
Weight	12g
Radiator Material	Copper
Operation Temperature	-30 ~ 90 (℃)
Operation Humidity	10 ~ 90 (%)

Option	
Remarks	

Fig. 1. VSWR

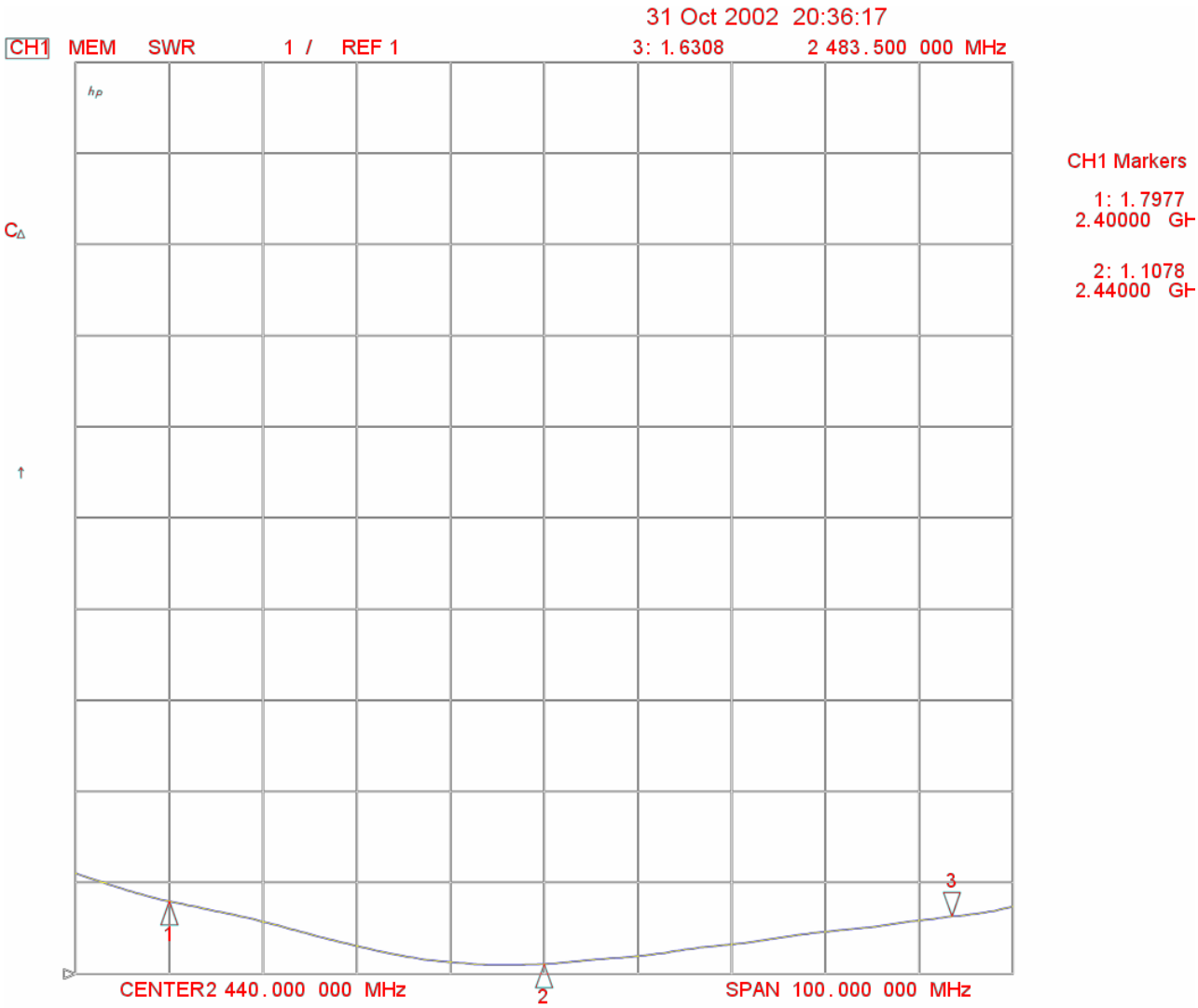

31 Oct 2002 20:36:17
CH1 MEM SWR 1 / REF 1
3: 1.6308
2 483.500 000 MHz
CH1 Markers
1: 1.7977
2.40000 GH
2: 1.1078
2.44000 GH
CENTER2 440.000 000 MHz
SPAN 100.000 000 MHz
1
2
3

Fig. 2. Return Loss

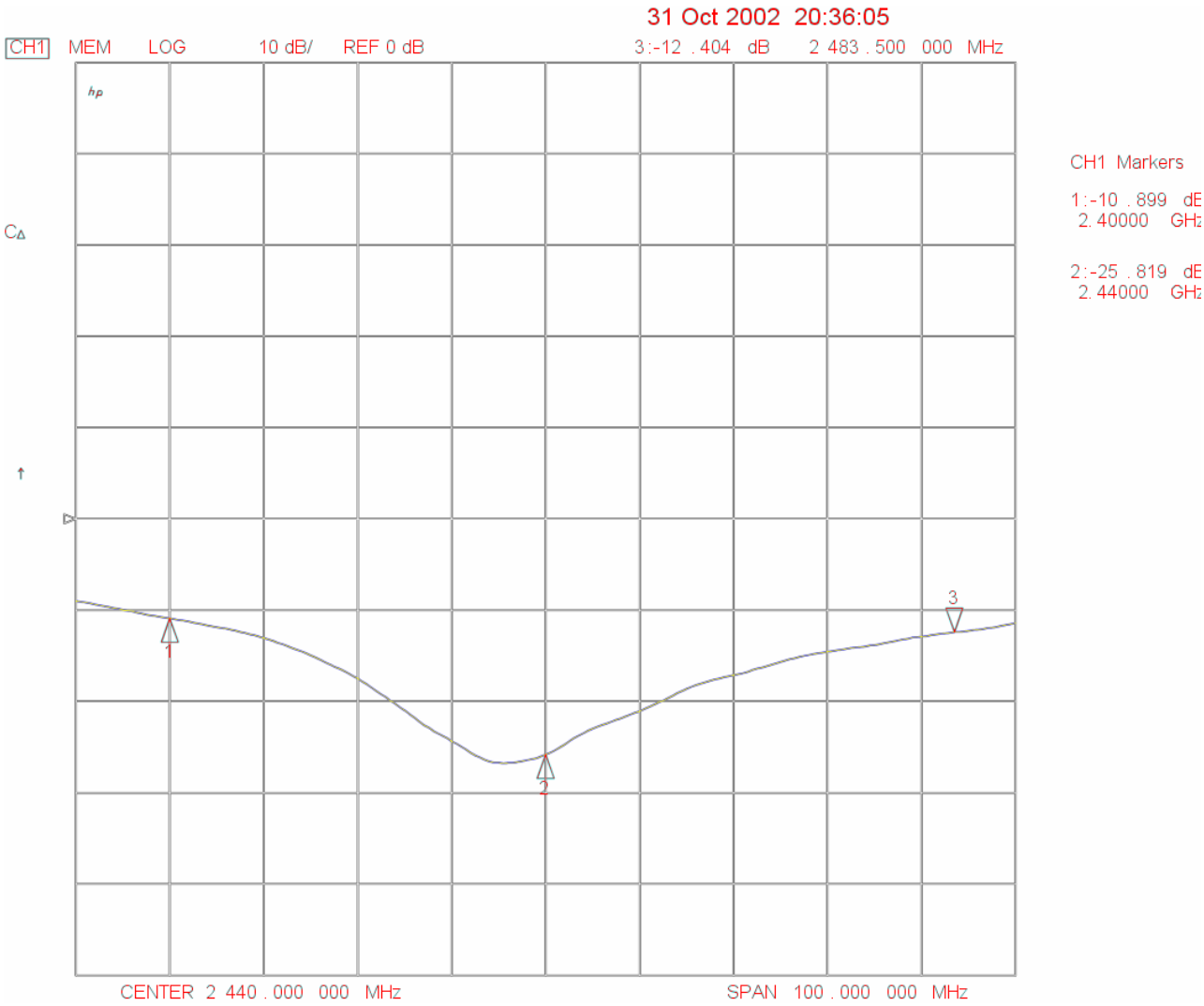


Fig. 3. Smith Chart

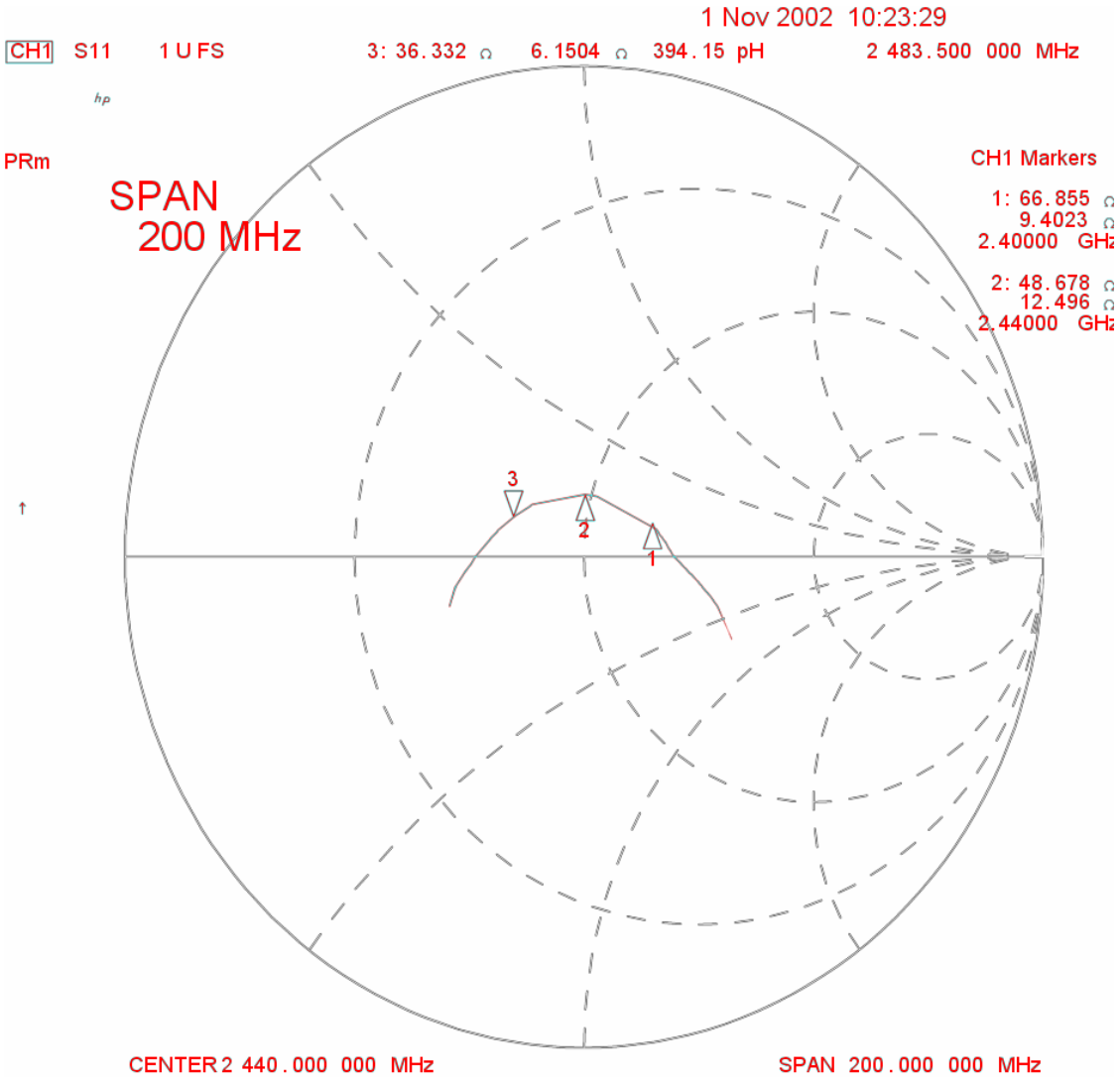
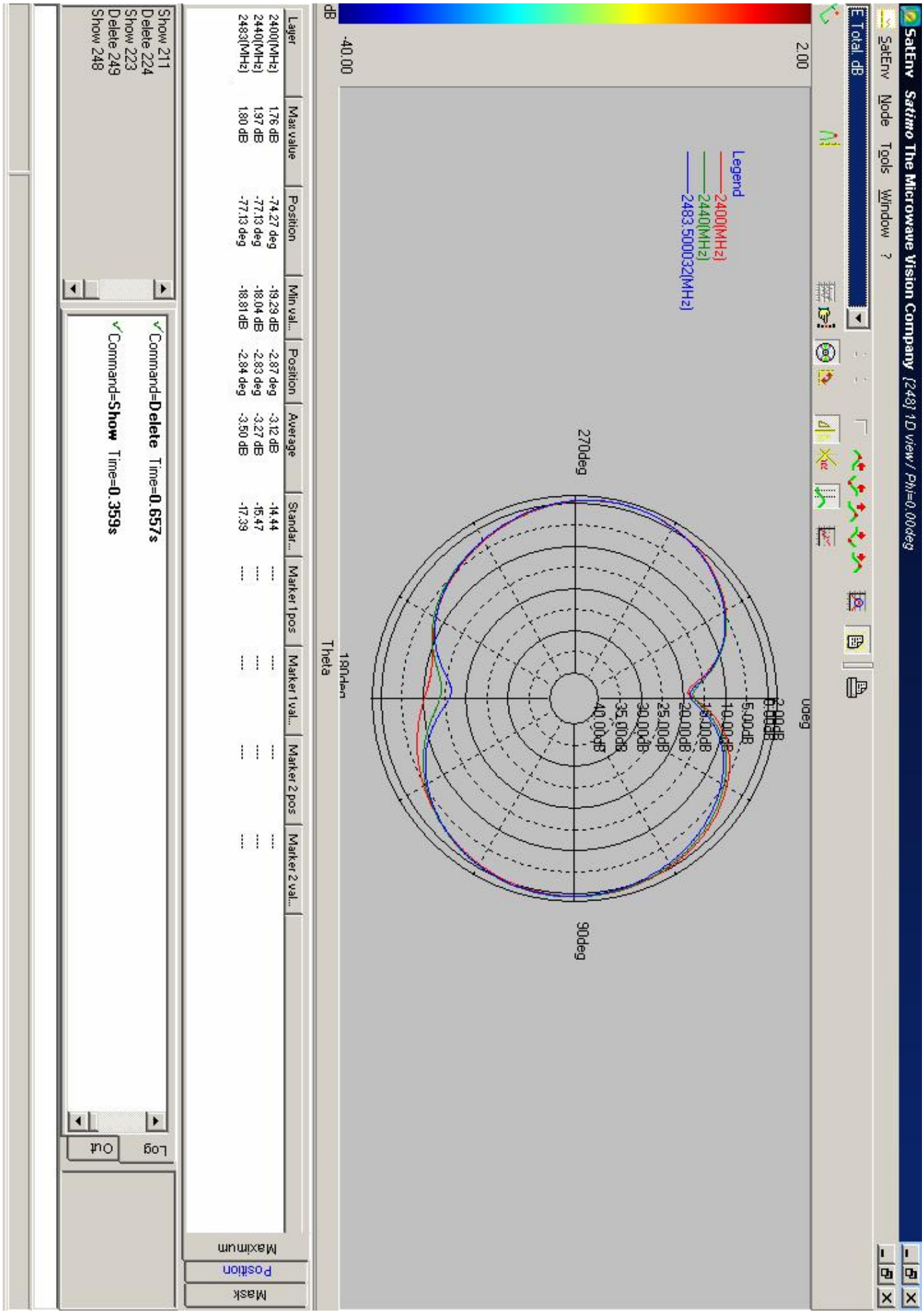


Fig. 4. Radiation Pattern



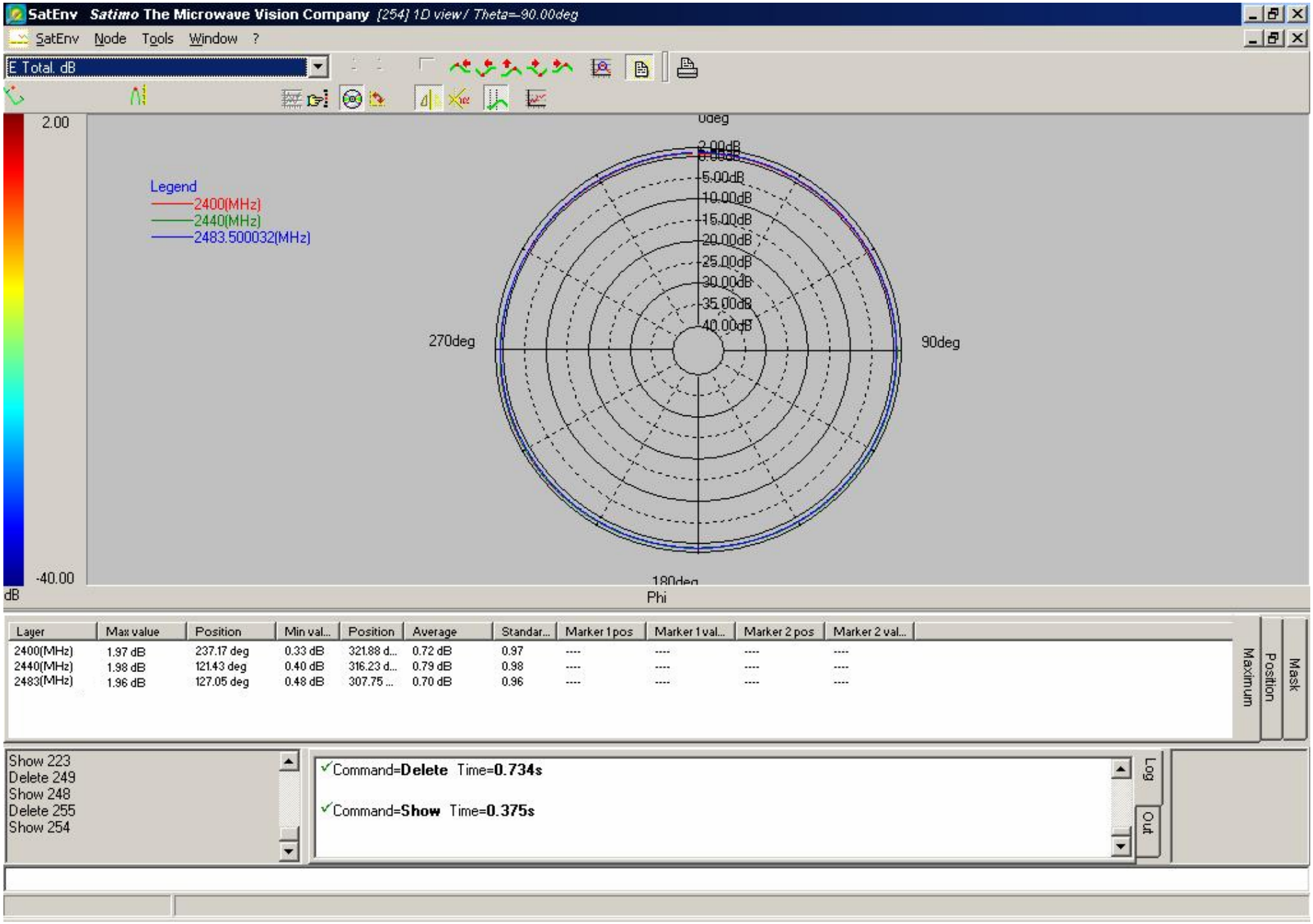
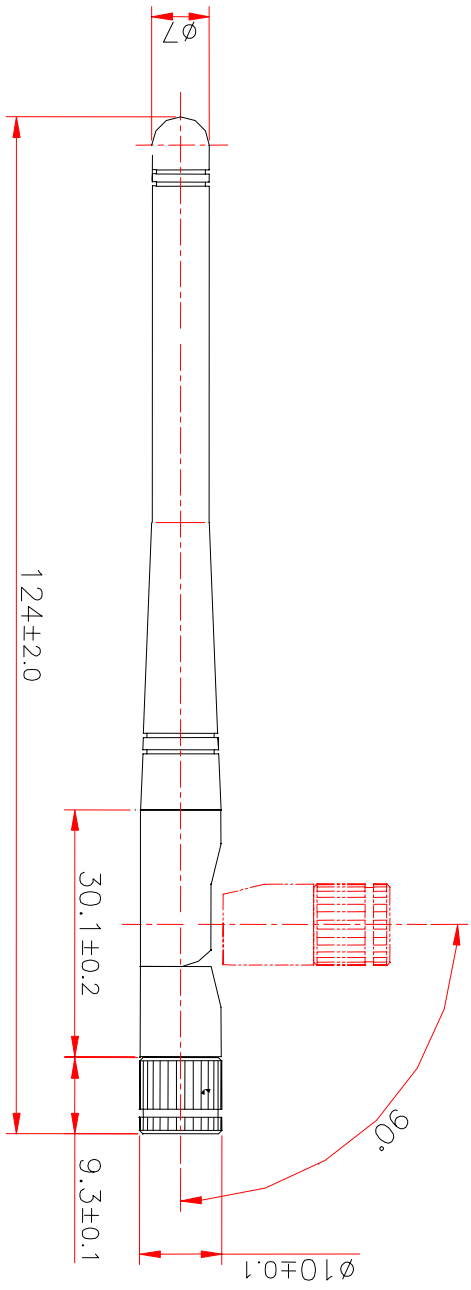

SatEnv Satimo The Microwave Vision Company [254] 1D view / Theta=-90.00deg
SatEnv Node Tools Window ?
E Total, dB
2.00
-40.00
dB
Legend
2400(MHz)
2440(MHz)
2483.500032(MHz)
0deg
5.00dB
10.00dB
15.00dB
20.00dB
25.00dB
30.00dB
35.00dB
40.00dB
270deg
90deg
180deg
Phi
Layer
Max value
Position
Min val...
Position
Average
Standar...
Marker 1 pos
Marker 1 val...
Marker 2 pos
Marker 2 val...
2400(MHz) 1.97 dB 237.17 deg 0.33 dB 321.88 d... 0.72 dB 0.97 ---- ---- ---- ----
2440(MHz) 1.98 dB 121.43 deg 0.40 dB 316.23 d... 0.79 dB 0.98 ---- ---- ---- ----
2483(MHz) 1.96 dB 127.05 deg 0.48 dB 307.75 ... 0.70 dB 0.96 ---- ---- ---- ----
Maximum
Position
Mask
Show 223
Delete 249
Show 248
Delete 255
Show 254
Command=Delete Time=0.734s
Command=Show Time=0.375s
Log
Out

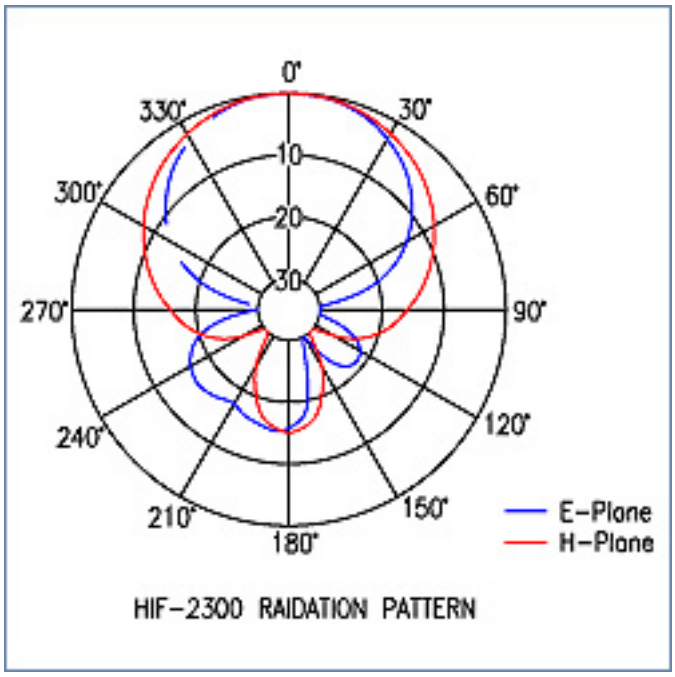
Fig. 5. Mechanical Drawing



Parani-Patch Antenna 2.4 GHz PATCH ANTENNA

:: Electrical specifications

Item	Specifications
Frequency Range	2400-2500MHz
Gain	8.5 dBi
Front to Back Ratio	15 dB
3dB Beam width	E-Plane55° H-Plane 70°
V.S.W.R (Max.)	1. 5 : 1
Impedance	50 ohms (nominal)
Polarization	Vertical
Power Input(Max.)	50 W



:: Mechanical specifications

Item	Specification
Dimensions	W : 90 mm, H : 127 mm, D : 68 mm
Weight	160 g
Connector Type	SMA - R/A Female
Articulation Angle	- 60 ° ~ + 60 °
Operating Temperature	- 30 ℃ ~ + 60 ℃

Parani-Patch Antenna 2.4 GHz PATCH ANTENNA

< Out line drawing >