承　　認　　書

APPROVAL SHEET

CUSTOMER :富貴科技股份有限公司

CUSTOMER MODEL NO.:

JOYMAX MODEL NO.: **IFF-811XIPXX-439**

DESCRIPTION: **2.4 GHz Flying Lead Wireless Antenna**

REV.: **00**

DATE.: **2004/6/23**

Customer Approval	Joymax Approval

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Modification History:

Rev.	Date	Content
00	2004/6/23	

Model. IFF-811XIPXX-439

Antenna Specifications

• Description

1) This is an uncover and flying lead antenna.
It is embedded in notebook for W-LAN (IEEE 802. 11b).

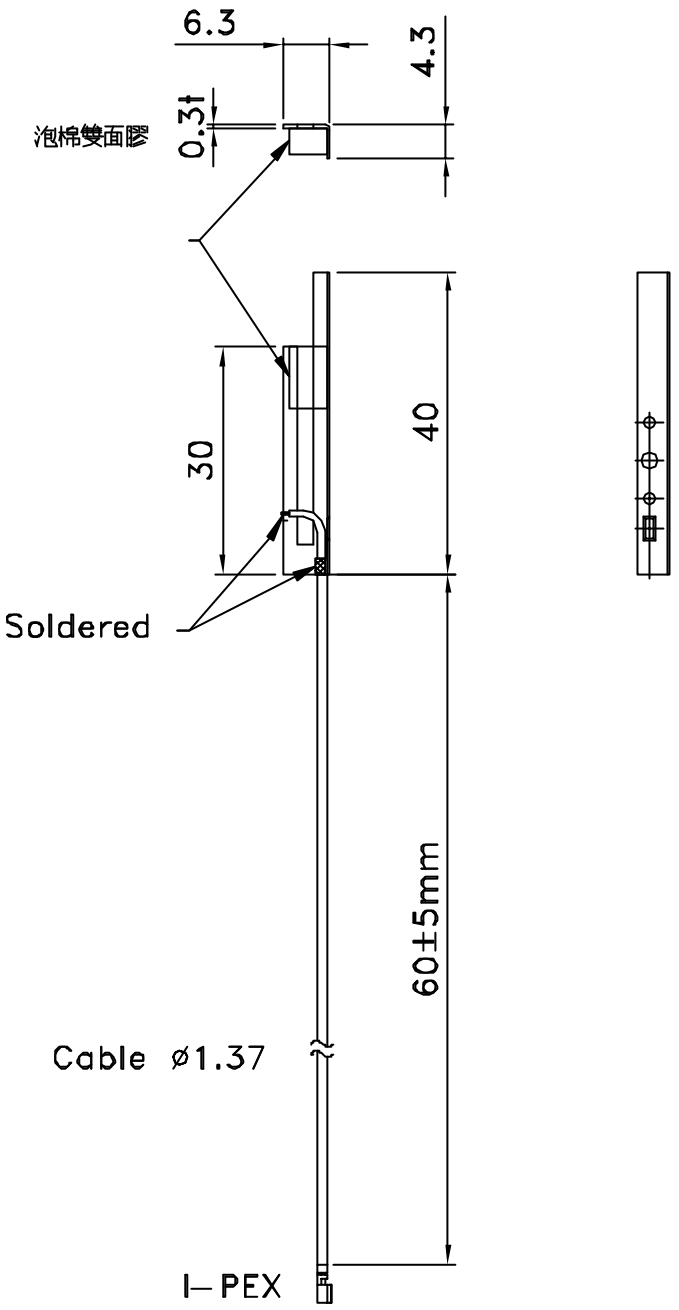
• Electrical Properties

1) Frequency Range	2.4~2.4835GHz
2) Impedance	50 ohm nominal
3) V.S.W.R.	≦2.0
4) Return Loss	≦-10dB
5) Gain	2.5 dBi (peak)
6) Polarization	Vertical

• Mechanical Properties

1) Apperance	See. Fig.1
2) Connector	I-PEX
3) Cable	ϕ 1.37
4) Attachment Strength	Soldered: ≦ 0.5 kg

工程／部品圖



TOLERANCES:	
X	± 1
X.X	± 0.5
X.XX	± 0.25
ANG.	± 2.0°

REV	DESCRIPTION

MATERIAL

FINISH

UNIT: mm

SCALE: 1/ 1

DATE: 6/18/2004

MODEL: *IFF-811XIPXX-439*

NAME: Wireless Antenna

PART No: IFF-811XIPXX-439

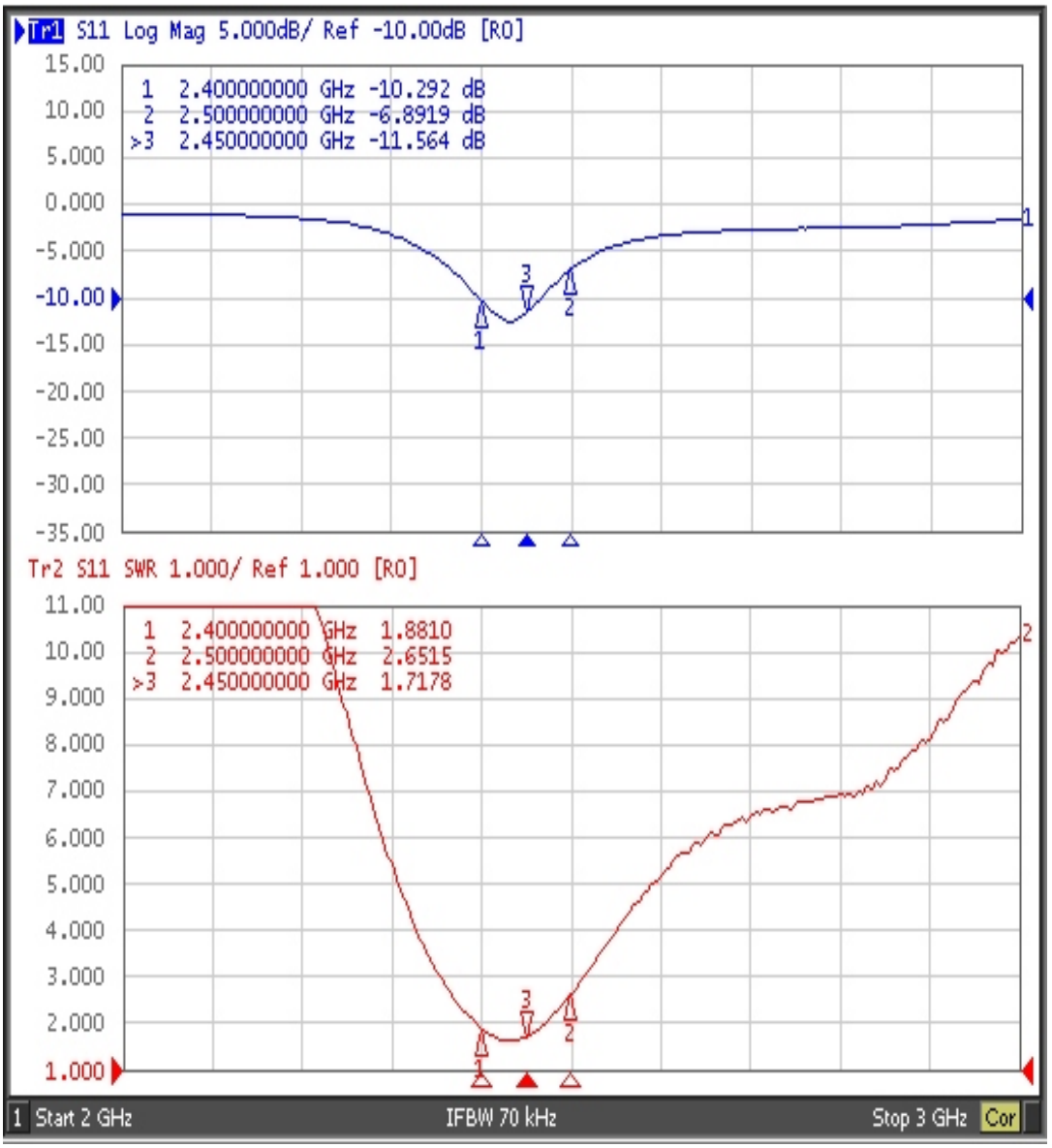
DESIGN	APPROVE	REV
LYNN		*00*

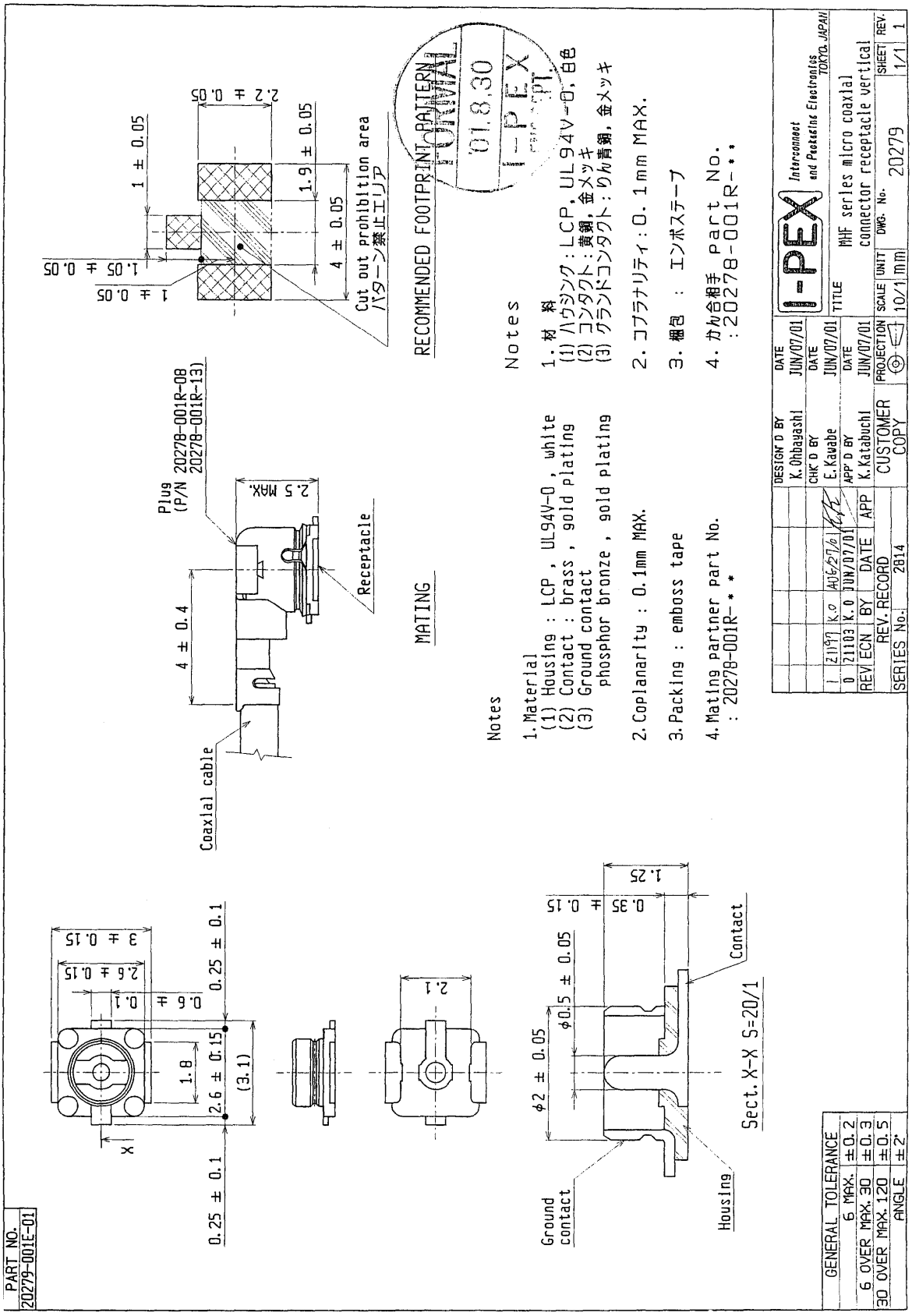
QP0502-01-02

JOYMAX ELECTRONICS CORP.

Return loss

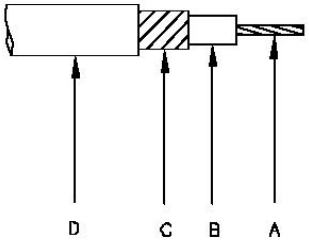
V.S.W.R.




RECOMMENDED FOOTPRINT PATTERN
Cut out prohibition area
パターン禁止エリア
Notes
1. 材 料
(1) ハウジング：LCP, UL94V-0, 白色
(2) コンタクト：黄銅, 金メッキ
(3) グランドコンタクト：りん青銅, 金メッキ
2. コプラナリティ：0.1mm MAX.
3. 梱包 ： エンボステープ
4. カム合相手 part No.
：20278-001R-**
MATING
Notes
1. Material
(1) Housing : LCP , UL94V-0 , white
(2) Contact : brass , gold plating
(3) Ground contact
phosphor bronze , gold plating
2. Coplanarity : 0.1mm MAX.
3. Packing : emboss tape
4. Mating partner part No.
: 20278-001R-**
Plug
(P/N 20278-001R-08
20278-001R-13)
Receptacle
Coaxial cable
Ground contact
Housing
Contact
Sect. X-X S=20/1
PART NO.
20279-001E-01
GENERAL TOLERANCE
6 MAX. ±0.2
6 OVER MAX. 30 ±0.3
30 OVER MAX. 120 ±0.5
ANGLE ±2°
I-PEX
Interconnect and Packaging Electronics
TOKYO, JAPAN
TITLE
MHF series micro coaxial connector receptacle vertical
DWG. No. 20279
SHEET 1/1
REV. 1
SCALE 10/1
UNIT mm
PROJECTION
CUSTOMER COPY
DESIGN'D BY K.Ohbayashi DATE JUN/07/01
CHK'D BY E.Kawabe DATE JUN/07/01
APP'D BY K.Katabuchi DATE JUN/07/01
REV. ECN BY DATE APP
I E1197 K.O AUG/27/01
D 21103 K.O JUN/07/01
REV. RECORD
SERIES No. 2814

allldata\drawings\black

Rev	Change	By	Date



Scope:

This specification presents a FEP jacketed COAXIAL cable AWG30, 1.37 mm O.D. for internal wiring of electronic equipment,such as Computer/Notebook with wireless communication systems. [UL1745:90°C,30V] under File No.E45046 and Category No.AVLV2.

Construction:

A) Inner Conductor:
Silver Plated Copper
OD 0.304mm

B) Dielectric:
Extruded PTFE
OD 0.89mm

C) Outer Conductor:
Silver Plated Copper
OD 1.11mm

D) Outer Jacket:
Extruded FEP
OD 1.37±0.1mm

Electricals:

Characteristic Impedance:	50±2 Ohms
Inner Conductor Resistance @20°C:	349 nom. Ω/km
Capacitance:	96.5 PF/m

Nom. Attenuation:

1.0 GHz	1.5 dB/m
2.0 GHz	2.2 dB/m
3.0 GHz	2.6 dB/m
4.0 GHz	3.0 dB/m
5.0 GHz	3.5 dB/m
6.0 GHz	3.9 dB/m

Date: 12/18/2003	Scale: None	Drawn By: Anna	
Drawing Name: J137		Rev:	Sheet 1 of 1

Packing

泡殼
紙箱

4

1

1.使用泡殼擺放天線
2.完成外箱包裝
3.以膠帶封箱
4.外箱包裝完成

2

3

MI-3600 Analysis Results

Value being computed	*Min*	*Result*	*Max*	*Units*

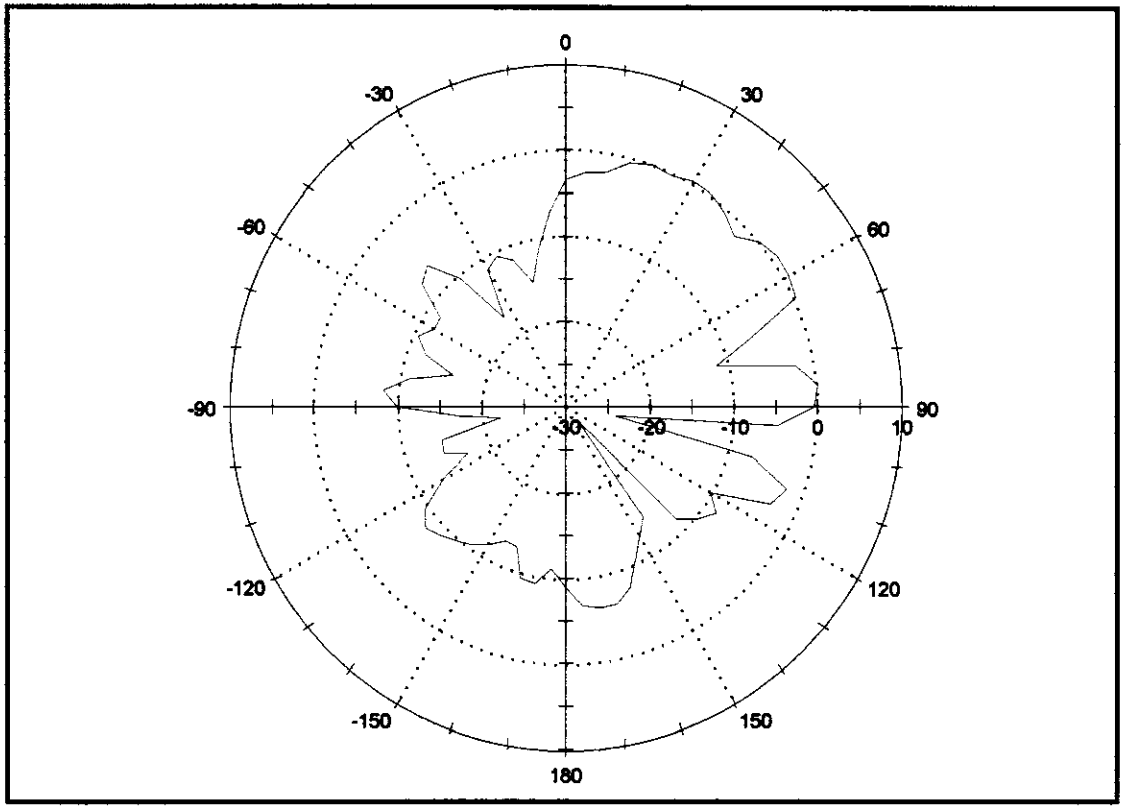
Gain Measurement Analysis

Antenna Gain (dBi) at f = 2.450 **0.80**

Gain Analysis of file
E:\tommy_patch_24\AcquiredData\pifa_24_xy_e_0.MDB

Analysis performed on AUT measurements of:
all frequencies
a linearly polarized range and AUT
all channels
and Gain Standard measurements:
from file E:\tommy_patch_24\AcquiredData\cal_24_0.MDB
assuming gain standard '* Double Ridge Horn Model 3115'
on the Amp A channel

Plot 1 title
File is pifa_24_xy_e_0 // Date is 9/22/2004 11:22:33 AM



User Name = Joymax
Antenna Gain (dBi) at f = 2.450 is 0.799

(Disabled axis):0.0 Freq: 2.450 GHz

None

MI-3600 Analysis Results

Value being computed	*Min*	*Result*	*Max*	*Units*

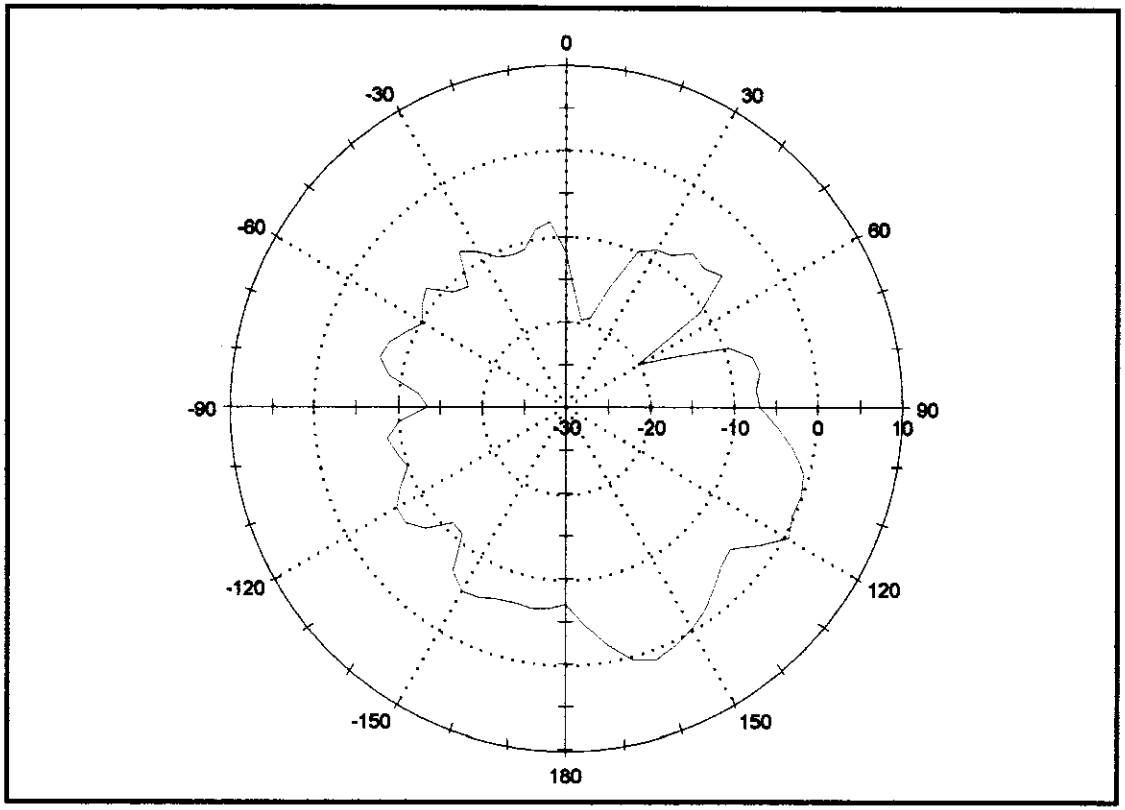
Gain Measurement Analysis

Antenna Gain (dBi) at f = 2.450 **1.37**

Gain Analysis of file
E:\tommy_patch_24\AcquiredData\pifa_24_xy_h_0.MDB

Analysis performed on AUT measurements of:
all frequencies
a linearly polarized range and AUT
all channels
and Gain Standard measurements:
from file E:\tommy_patch_24\AcquiredData\cal_24_0.MDB
assuming gain standard '" Double Ridge Horn Model 3115'
on the Amp A channel

Plot 1 title
File is pifa_24_xy_h_0 // Date is 9/22/2004 11:24:31 AM



User Name = Joymax
Antenna Gain (dBi) at f = 2.450 is 1.368

(Disabled axis):0.0 Freq: 2.450 GHz

None

MI-3600 Analysis Results

Value being computed	*Min*	*Result*	*Max*	*Units*

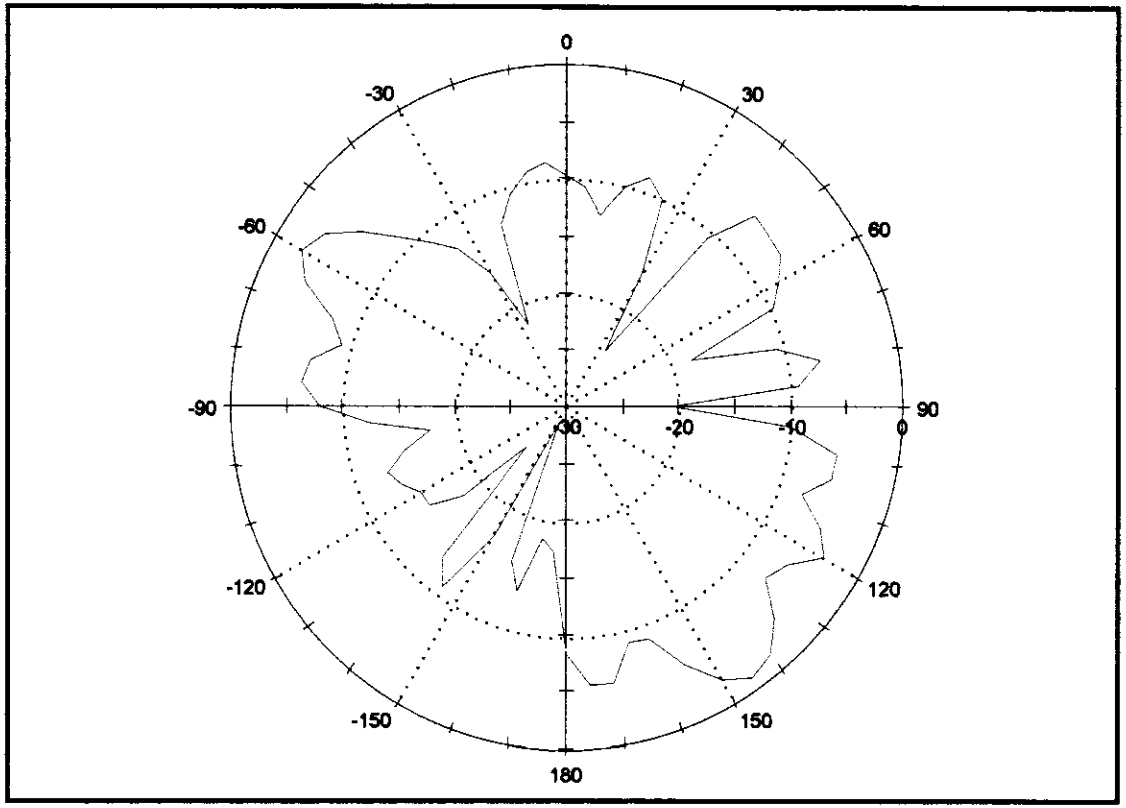
Gain Measurement Analysis

Antenna Gain (dBi) at f = 2.450 **-1.02**

Gain Analysis of file
E:\tommy_patch_24\AcquiredData\pifa_24_xz_e_0.MDB

Analysis performed on AUT measurements of:
all frequencies
a linearly polarized range and AUT
all channels
and Gain Standard measurements:
from file E:\tommy_patch_24\AcquiredData\cal_24_0.MDB
assuming gain standard '* Double Ridge Horn Model 3115'
on the Amp A channel

Plot 1 title
File is pifa_24_xz_e_0 // Date is 9/22/2004 11:27:28 AM



User Name = Joymax
Antenna Gain (dBi) at f = 2.450 is -1.021

(Disabled axis):0.0 Freq: 2.450 GHz

None

MI-3600 Analysis Results

Value being computed	*Min*	*Result*	*Max*	*Units*

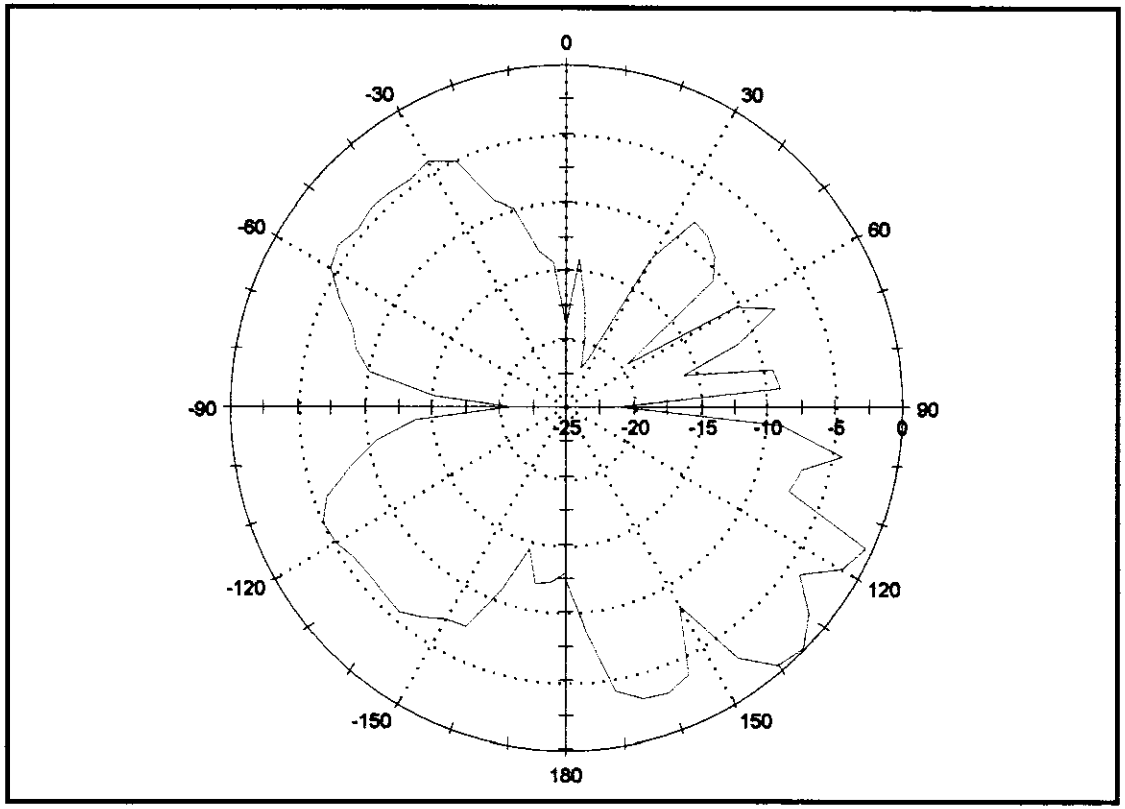
Gain Measurement Analysis

Antenna Gain (dBi) at f = 2.450 **-0.06**

Gain Analysis of file
E:\tommy_patch_24\AcquiredData\pifa_24_xz_h_0.MDB

Analysis performed on AUT measurements of:
all frequencies
a linearly polarized range and AUT
all channels
and Gain Standard measurements:
from file E:\tommy_patch_24\AcquiredData\cal_24_0.MDB
assuming gain standard '* Double Ridge Horn Model 3115'
on the Amp A channel

Plot 1 title
File is pifa_24_xz_h_0 // Date is 9/22/2004 11:29:27 AM



User Name = Joymax
Antenna Gain (dBi) at f = 2.450 is -0.058

(Disabled axis):0.0 Freq: 2.450 GHz

None