

APPROVAL SHEET

CUSTOMER : 神腦國際企業股份有限公司
SENAO INTERNATIONAL CO., LTD.

MODEL NO. : IWM-144F-101(Rev.01)

DESCRIPTION : **2.4GHz Tri-Band Flying Lead (Core)
Swivel Antenna**

Customer Approval

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士誼科技事業股份有限公司
JOYMAX ELECTRONICS CO.,LTD.

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1. Description:

The antenna is a flying lead swivel and $1/4 \lambda$ dipole antenna. It's useful for the ISM Band of 2.4~2.5 GHz.

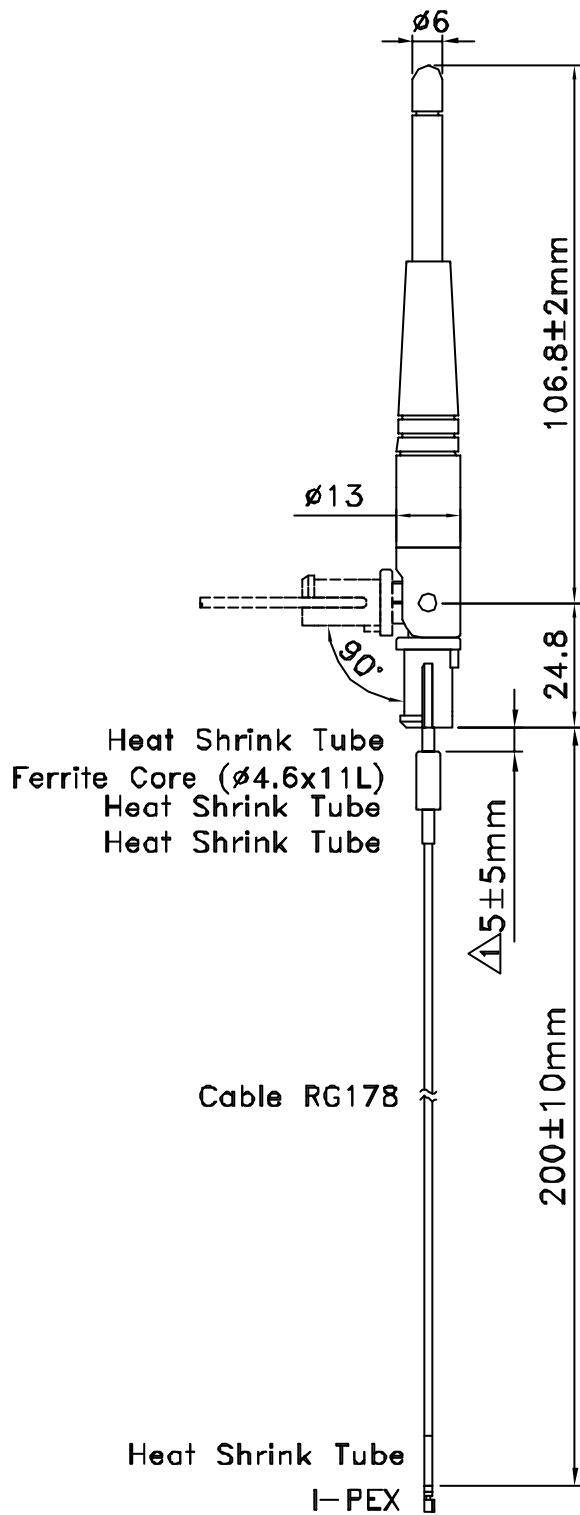
2. Electrical Properties

2-1 Frequency Range.....	2.4~2.4835GHz
2-2 Impedance.....	50 Ohms nominal
2-3 S.W.R.	≤ 2.0
2-4 Return Loss.....	≤ -10 dB
2-5 Gain.....	2 dBi
2-6 Polarization.....	Vertical
2-7 Admitted Power.....	1W
2-8 Electrical Wave.....	$1/4 \lambda$ Dipole

3. Mechanical Properties :

3-1 Connector.....	I-PEX MHF
3-2 Cable.....	RG178
3-3 Antenna Cover.....	Polyurethane
Antenna Base.....	Polycarbonate
3-4 Ferrite Core.....	RH-04
3-5 Rotating Test.....	1.0 Kg-cm, After 2000 cycles with the rate of 30 cycles/minute (max.). It shall be possible to remain it's position.
3-6 Attachment Strength.....	2.0 Kg (30 minutes)





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

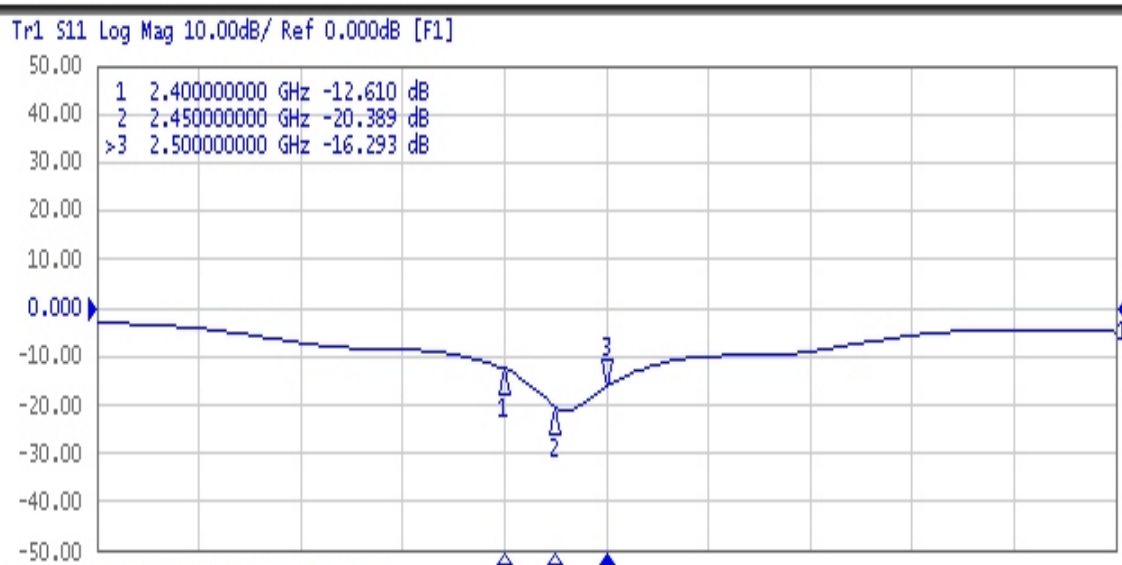
REV DESCRIPTION	⚠ Move Core Position 70→5	MATERIAL	MODEL: IWM-144F-101		
		FINISH	NAME: Swivel Antenna		
		UNIT: mm	PART No: IWM-144F-101		
		SCALE: 1/ 1.5	DESIGN	APPROVE	REV
		DATE: 12/15/2003	Meg Lee		01

QP0502-01-02

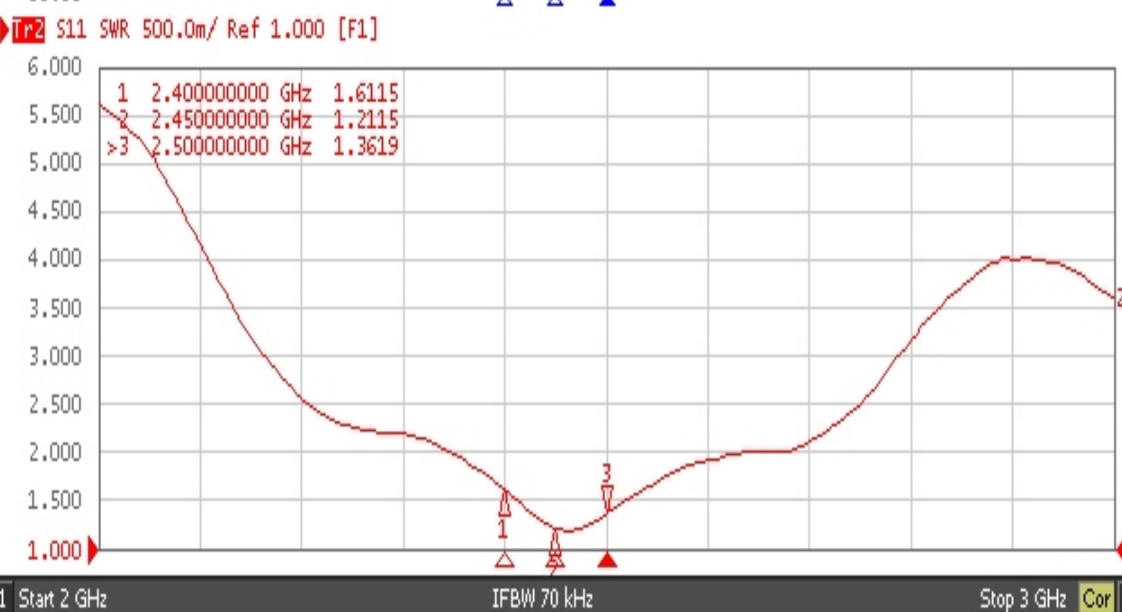


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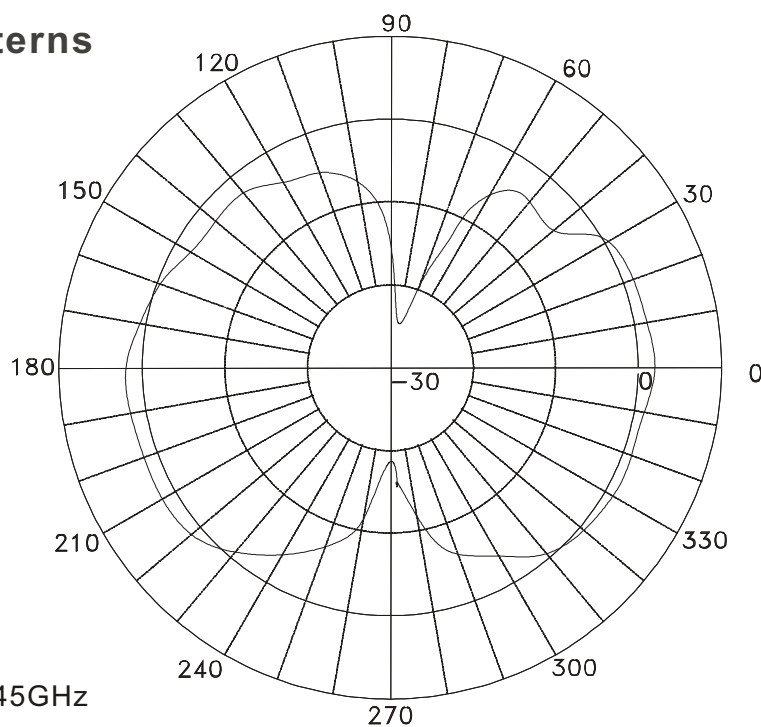
Return Loss



S.W.R.

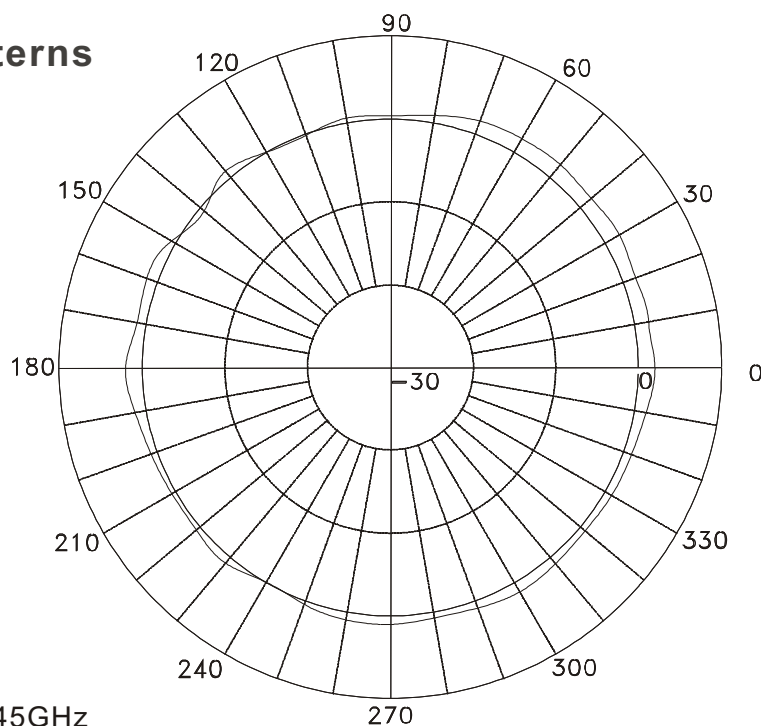


E-Plane Field Patterns



Frequency: 2.45GHz

H-Plane Field Patterns



Frequency: 2.45GHz



Rev	Change	By	Date
A	General Update	MTP	03/04/02

A: Center Conductor
B: Dielectric
C: Shield
D: Jacket

Attenuation:

0.10 GHz	14.0 dB/100ft.
0.40 GHz	28.2 dB/100ft.
1.00 GHz	45.0 dB/100ft.
2.00 GHz	64.4 dB/100ft.
2.45 GHz	71.6 dB/100ft.
3.00 GHz	79.7 dB/100ft.
4.00 GHz	92.7 dB/100ft.
5.00 GHz	104.3 dB/100ft.
6.00 GHz	115.0 dB/100ft.

Construction:

A) Center Conductor:
30 7/38 SPCW*
OD .012" ± .001"

B) Dielectric:
Extruded PTFE
OD .033" ± .002"

C) Shield:
38 AWG SPC*
OD .051" Nom.

D) Jacket:
FEP - Brown Tint
OD .071" ± .004"
Surface Printed:
"RG178HF HARBOUR INDUSTRIES 2747B"

Electricals:

Impedance:
50 ± 2 Ohms

Capacitance:
32 pF/ft Max.

Velocity of Prop.:
70% Nom.

Cut off Frequency:
116 GHz

VSWR(.10 - 6.0 GHz):
1.20:1 Mean

Ramp Function:
0.10GHz: 1.10:1
6.00GHz: 1.40:1

Physical Properties:

Weight per 1000 ft:
6.3 lbs Max.

Minimum Band Radius:
.35"

Operating Temperature Range:
-55°C to 200°C

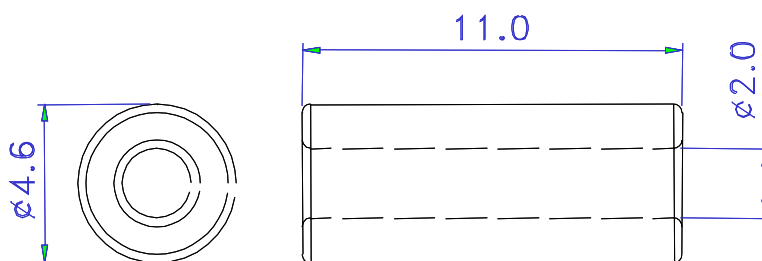
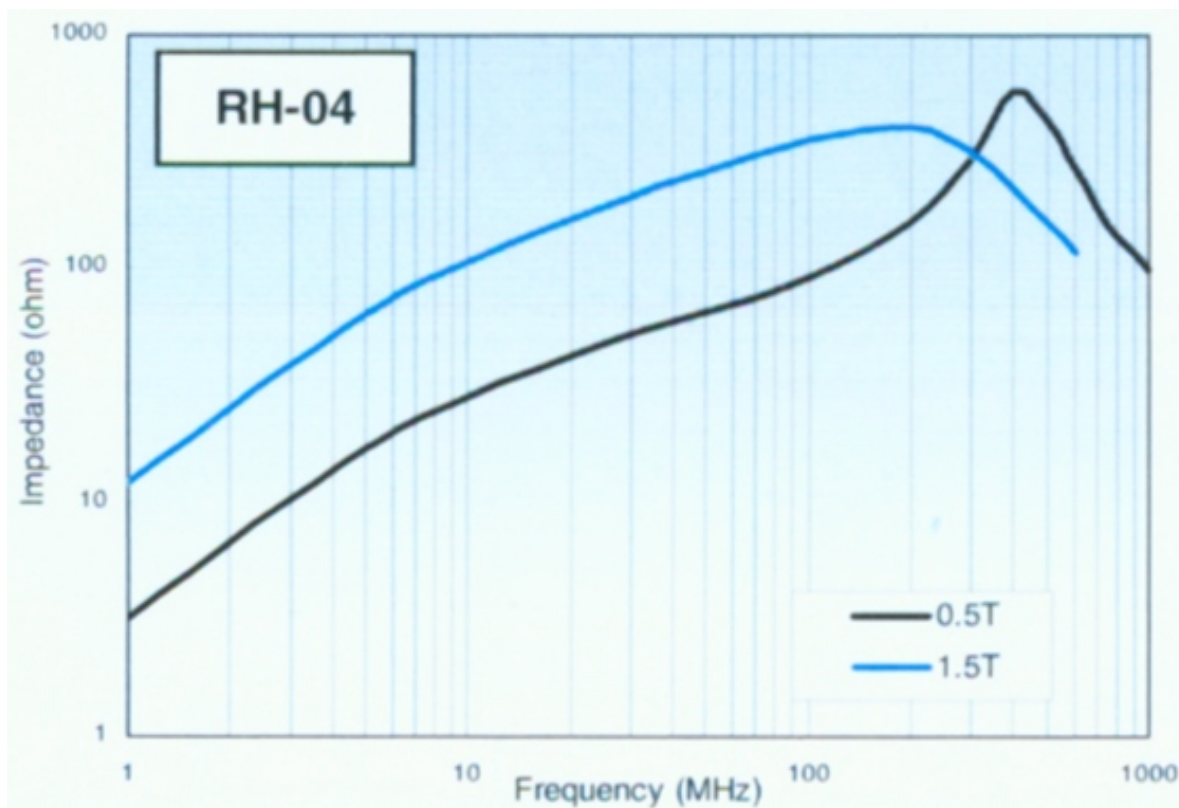
Conductor Break Strength:
4.6 lbs.

Harbour Industries

Date:	12/17/01	Scale:	None
Drawn By:	MTP:ner	Approved By:	MTP:ner
Drawing Name:	RG178HF	Rev:	A
Part Number:	TBD	Drawing Number:	121701_1

alldoc\crawing\block





RH-04-Core

