

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.

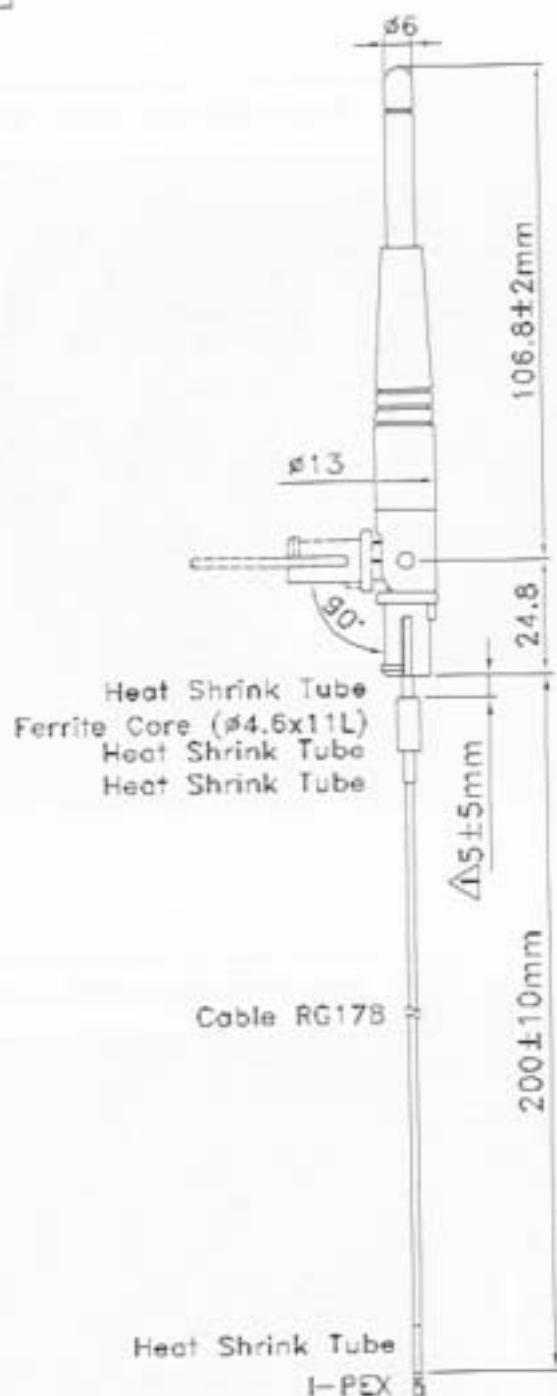
2. Electrical Properties

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	Mey Lee		01

QP0502-01-02

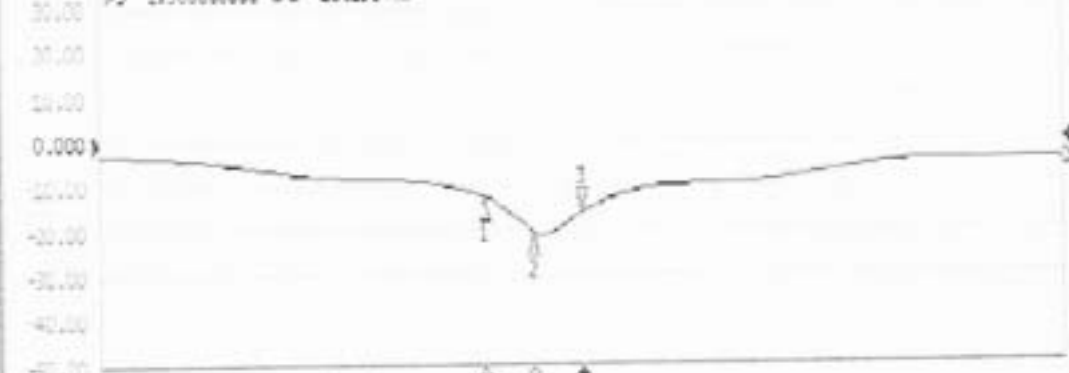


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Return
Loss

Tr1 S11 Log Mag 10.00dB/ Ref 0.00dB [F1]

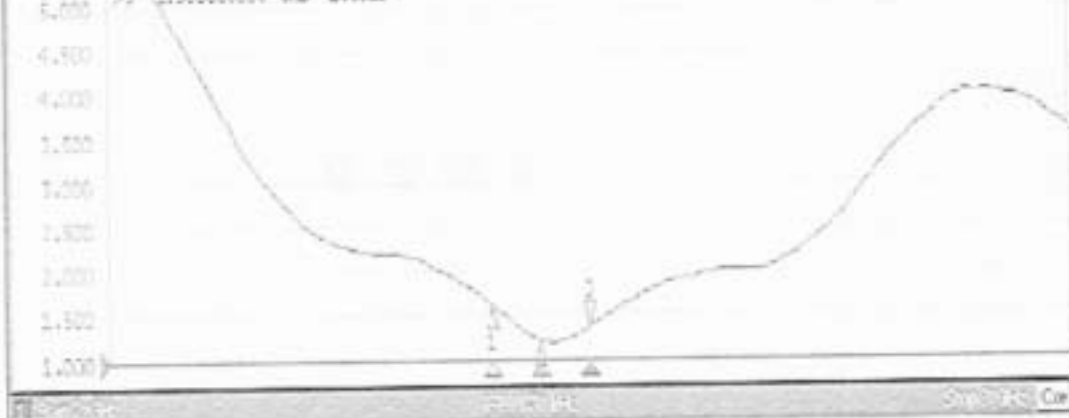
1	2.400000000 GHz	-12.810 dB
2	2.450000000 GHz	-20.389 dB
3	2.500000000 GHz	-26.293 dB



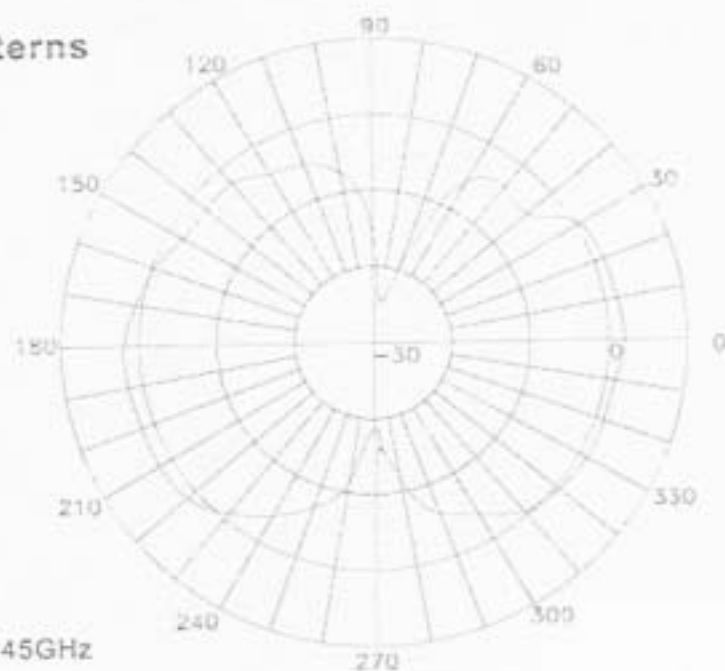
S.W.R.

SWR S11 SWR 500.0m/ Ref 1.000 [F1]

1	2.400000000 GHz	1.4015
2	2.450000000 GHz	1.2115
3	2.500000000 GHz	1.3019

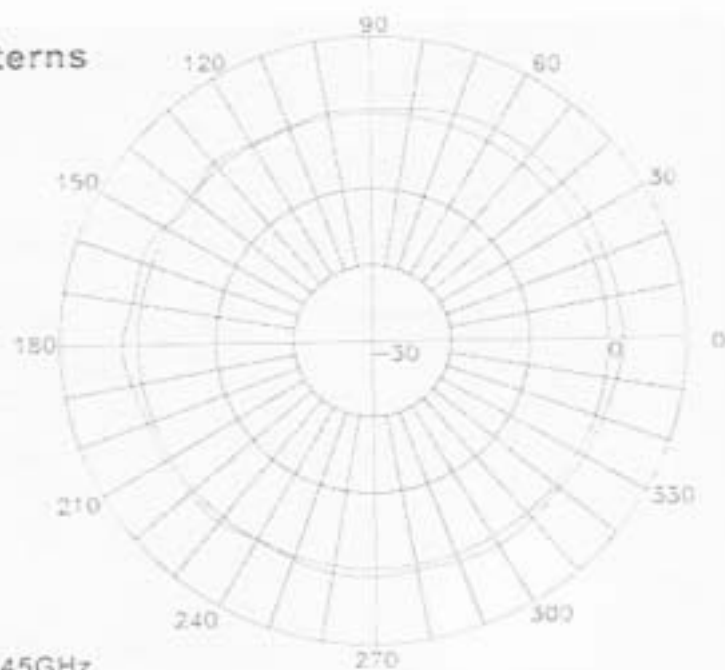

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E-Plane Field Patterns



Frequency: 2.45GHz

H-Plane Field Patterns



Frequency: 2.45GHz

1945-1946

What is

1. Material:
(1) Housing - PBF, 08940-0, black
(2) Contact
phosphor bronze
solder plating
(3) Ground contact
phosphor bronze - solder plating
2. Packing - reel
3. Plating partner part No.
- 20279-001E-01

1. 材料
(1) ハウジング: PBT, UL94V-0, 黒色
(2) リング: 銅

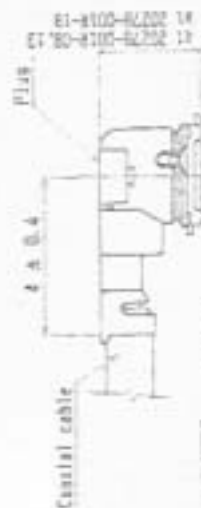
- A. Permissible load of cable at nation



5. Substitutions for seating & unseating operation.

5-1. Matins.

3-4 notes.
Please note the connector straining in vertical direction as such as possible, adjusting the mating axis of plug and receptacle.
An excessive strain while mating may break the connector, please don't do it.



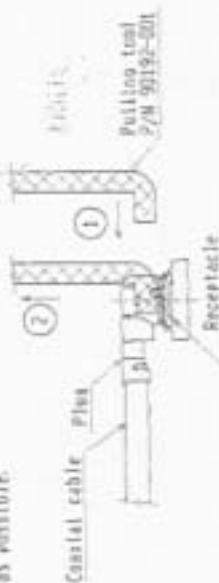
- ち、ウキウキさん色紙および器書展の開催

5-1 コネクト導入後

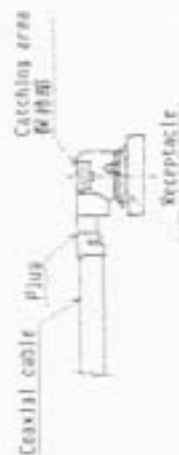
[illegible]

4-2 Limiting-

- (c) In case of unloading by pulling toni, please use the pulling tool as the following drawing, and please pull along to vertical direction as directly as possible.



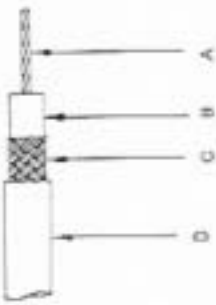
- (2) In case of unloading directly by hand, please catch the catchline area of pins, and please pull pin in vertical direction as directly as possible.



110654000

[illegible]

Rev	Change	By	Date
A	General Update	aw	03/04/04



Construction: A) Center Conductor: 30 7/32 SPCW* OD .012" ± .001" B) Dielectric: Extruded PTFE OD .033" ± .002" C) Shield: 38 AWG SPC* OD .051" Nom. D) Jacket: FEP - Green Tint OD .071" ± .004" Surface Printed: *801/84F HARBOUR INDUSTRIES 2747B*	Dielectric: Impedance: 50 ± 2 Ohms Capacitance: 32 pF/ft Max. Velocity of Prop: 70% Nom. Cut off Frequency: 118 GHz VSWR(10 - 6.0 GHz): 1.20:1 Max Return Loss(dB): 0.10GHz: 1.10:1 6.00GHz: 1.40:1	Attenuation: 0.10 GHz 0.40 GHz 1.00 GHz 2.00 GHz 3.45 GHz 3.00 GHz 4.00 GHz 5.00 GHz 6.00 GHz 14.0 dB/100ft. 28.2 dB/100ft. 45.0 dB/100ft. 64.4 dB/100ft. 71.0 dB/100ft. 79.7 dB/100ft. 92.7 dB/100ft. 104.3 dB/100ft. 115.0 dB/100ft.
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Physical Properties:	
Weight per 1000 ft.	6.3 lbs Max
Minimum Bend Radius:	.35"
Operating Temperature Range:	-55°C to 200°C
Conductor Break Strength:	4.6 lbs.

* Silver plating thickness is a minimum of 40µ".
 Per MIL-C-17 and ASTM B275

Harbour Industries	
Date: 12/17/01	Drawn By: MTP/aw
Drawn Name: MTP/aw	Approved By: MTP/aw
Rev: A	Drawn 3 of 1
Part Number: 1182	Drawing Number: 121731-1





RH-04-Core