

APPROVAL SHEET

CUSTOMER : 中磊電子股份有限公司
SerComm Corp.

MODEL NO. : IWM-144-105

DESCRIPTION : 2.4GHz Flying Lead
Swivel Antenna

Customer Approval

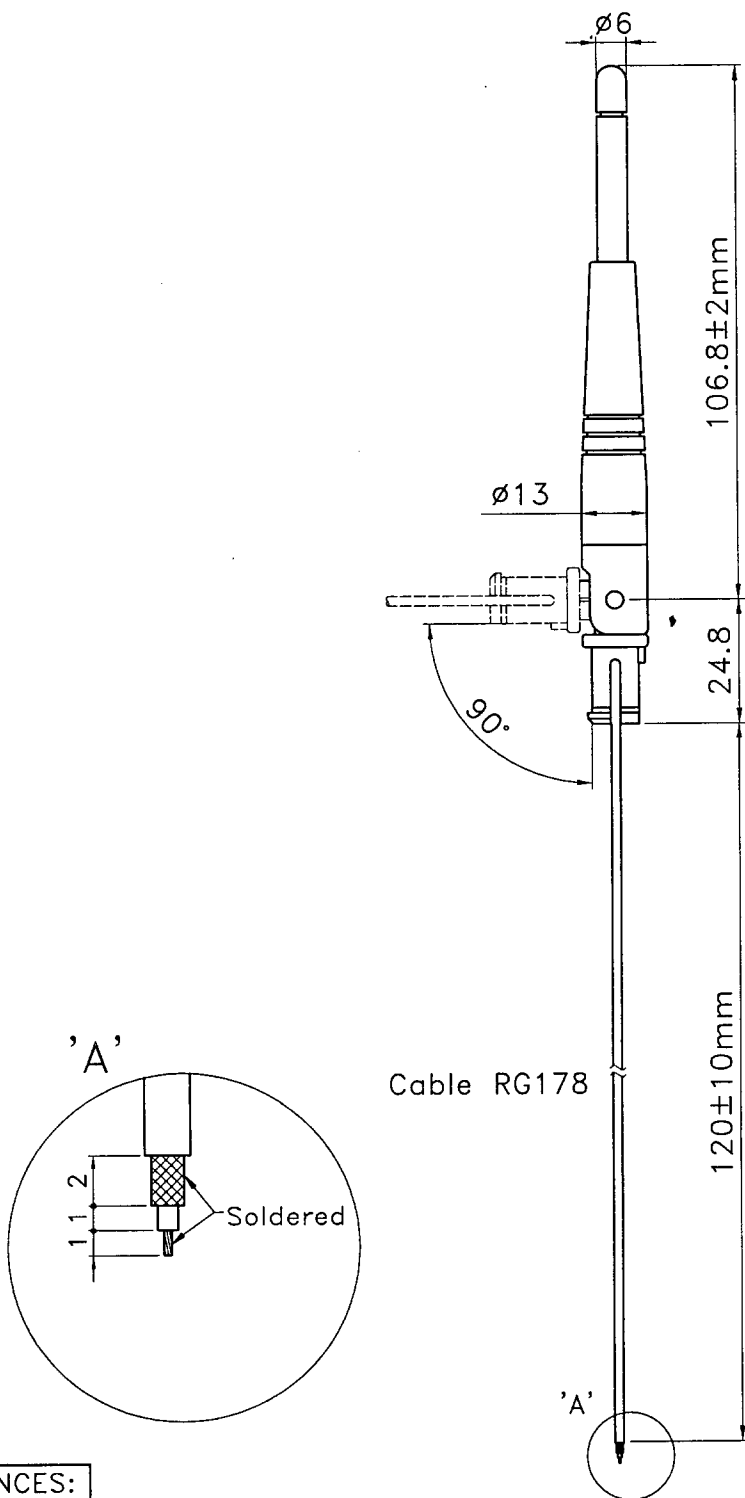
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士誼科技事業有限公司
JOYMAX ELECTRONICS CORP.

桃園縣平鎮市新榮路 63 巷 17 號
17, Hsin-Jung Rd., Ping-Chen, Tao-Yuan, Taiwan, R.O.C.
Tel: +886-3-4931401 Fax: +866-3-4931126
E-Mail : ericlai@joymax.com.tw





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

REV DESCRIPTION		MATERIAL	MODEL: IWM-144-105
		FINISH	NAME: Swivel Antenna
		UNIT: mm	PART No: IWM-144-105
		SCALE: 1/ 1.5 DATE: 01/16/2003	DESIGN K.Y.Liu
			APPROVE 鄧美蘭 92.1.16
			REV 00

QP0502-01-02



JOYMAX ELECTRONICS CORP.

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 SWR.....	≤ 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

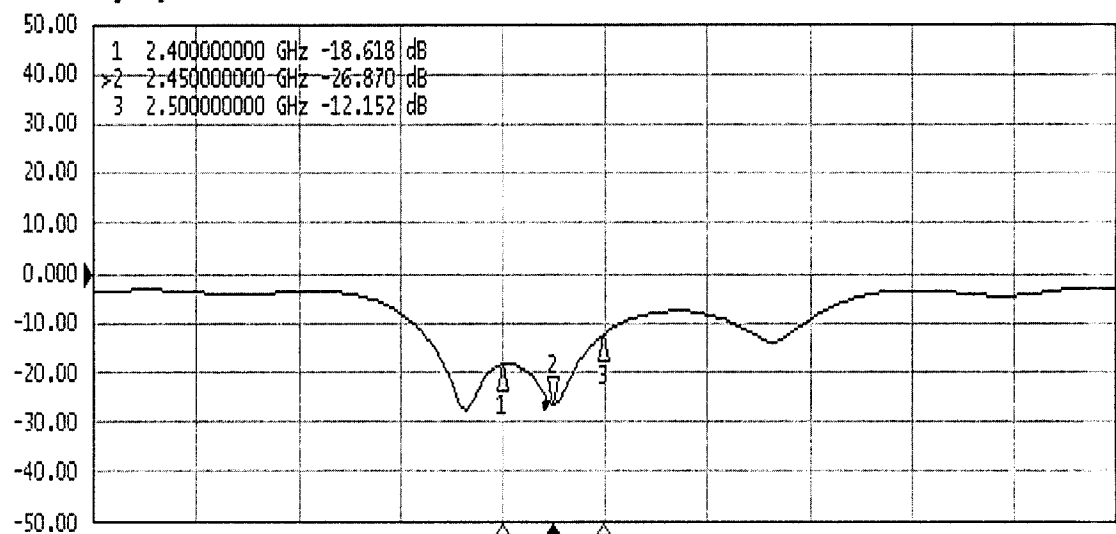
3. Mechanical Properties :

3-1 Cable.....	M17/93-RG178
3-2 Antenna Cover.....	Polyurethane
Antenna Base.....	Polycarbonate
3-3 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.
3-4 Attachment Strength.....	2.0 Kg-cm

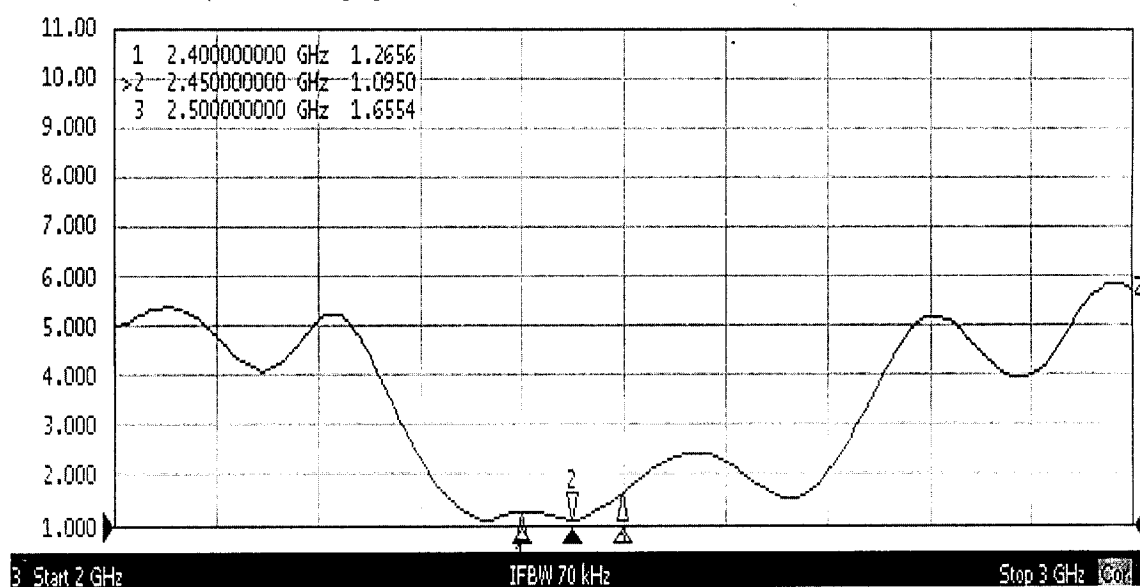


**Return
Loss**

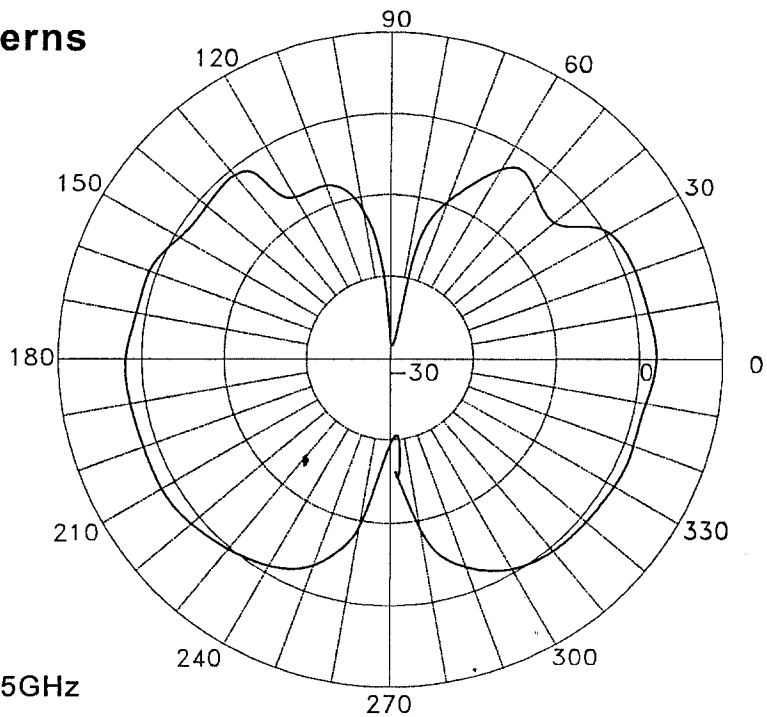
Tr1 S22 Log Mag 10.00dB/ Ref 0.000dB [R0]

**SWR**

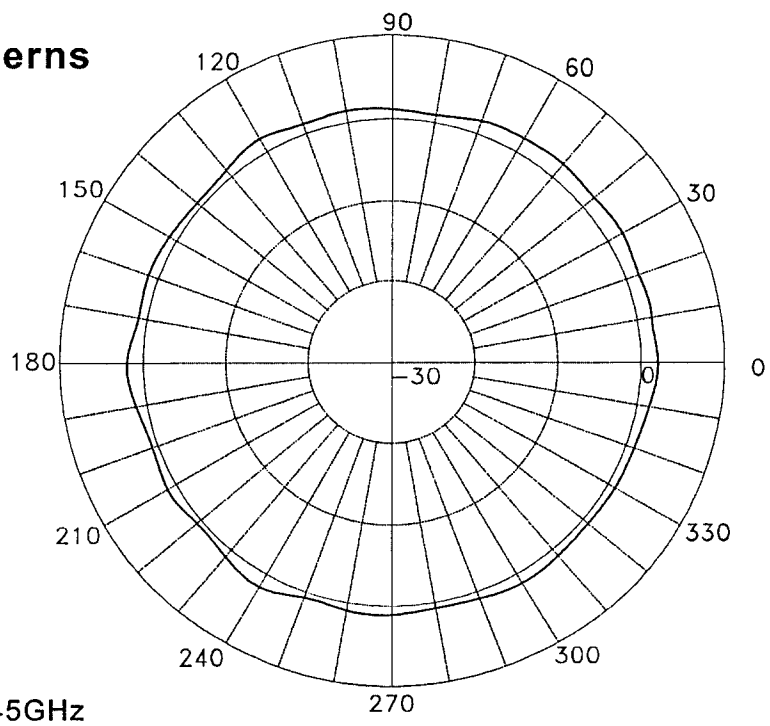
Tr2 S22 SWR 1.000/ Ref 1.000 [R0]



E-Plane Field Patterns

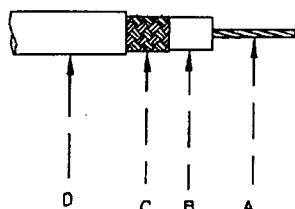


H-Plane Field Patterns



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Rev	Change	Date

Construction:

A) Center Conductor:
30 7/38 SPCW
OD .012" $\pm$.001"

B) Dielectric:
Extruded PTFE
OD .033" $\pm$.002"

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

D) Jacket:
FEP - Brown Tint
OD .071" $\pm$.004"
Surface Printed: "RG178HF HARBOUR INDUSTRIES 27478"

Electricals:

Impedance: 50 $\pm$ 2 Ohms
Capacitance: 32 pF/ft Max.
Velocity of Prop.: 70% Nom.
Cut off Frequency: 116 GHz

Physical Properties:

Weight per 1000 ft: 6.3 lbs Max.
Minimum Bend Radius: .35"
Operating Temperature Range: -55°C to 200°C

Attenuation:

1.0 GHz	45.0 dB/100ft.
2.0 GHz	64.4 dB/100ft.
3.0 GHz	79.7 dB/100ft.
4.0 GHz	92.7 dB/100ft.
5.0 GHz	104.3 dB/100ft.
6.0 GHz	115.0 dB/100ft.

Harbour Industries		
Date: 12/17/01	Scale: None	Drawn By: MTPiner
Drawing Name: RG178HF		Approved By: JTL/Plamen
Part Number: TBD		Rev: Sheet 1 of 1
		Drawing Number: 121701_1

