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Product Name : **Patch Antenna for 2.4GHz Wireless LAN**

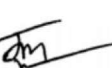
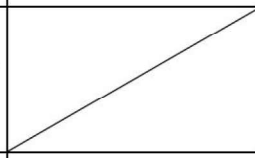
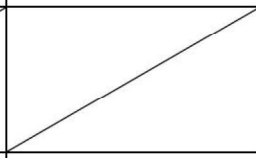
MODEL : HIF-2400 (Code : 15B-11-004)

Delivery Line : Standard

Management department : 3 development teams



[Revision history]

NO		my dragon		note
2	2002.07.12	Form modified		
1	2001.07.12	Radiation pattern Beam Width modified		
0	2000.03.15	Draft		
Distributor		Production Management, Sales, Purchasing, QC part		
Approval	write	check	examine	approval
	김정영 			나병국 
Approval date		2002-07-12		2002-07-12

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1. Application

This specification specifies patch antenna for wireless LAN used in 2.4~2.5GHz band.

2. Conditions for using Antenna

γ Mobile γ Fixed γ Mobile γ Outdoor γ Indoor γ Others

3. Antenna shape

4 Page drawing reference

4. Electrical Characteristics and

Performance Satisfy the following under actual conditions of use or appropriate conditions corresponding thereto.

item	Characteristics/Performance	note
Antenna Type	Patch	
Frequency range	2.4-2.5 GHz	Center Frequency = 2.45 GHz
Bandwidth	100 MHz	
Impedance	50γ	Nominal
VSWR	less than 1.5	
Gain	8.5 dBi	
Polarization	Vertical	
Radiation Pattern	Directional	
Half Power Beamwidth	Azimuth: 70° Elevation: 55°	
Front to Back Ratio	15 dB	
Power Input	50W	Maximum

5. Mechanical specifications and characteristics

item	Specifications/Characteristics	note
Dimensions (W×H×D)	90 × 127 × 68 mm	
Weight	160 g (only ANT.)	240g (with individual box and install kit)
Connector	SMA Female R/A	
Mount Type	Wall Mount	
Articulation Angle	-60° to +60°	
Op. Temperature	-30~+60γ	

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6. Other Performance and Characteristics

6.1 Anti-Seismic

Resistance When the antenna is in the finished product state, vibration that changes by dividing the total amplitude of 1mm and the frequency of 5~55Hz for 1 minute is applied for 2 hours in the up-down, left-right, and front-back directions, and then measured. There should be no abnormality such as deviation, and the characteristics and performance of paragraph 4 shall be satisfied.

6.2 Temperature resistance

After leaving the antenna at -30y and 60y for 96 hours, respectively, measure it so that there is no abnormality such as deviation or deformation of each part, and the characteristics and performance of paragraph 4 are satisfied.

6.3 Moisture resistance

After leaving the antenna at an ambient temperature of 40y and a relative humidity of 90~95% for 96 hours, it is measured under normal temperature and humidity conditions, and there is no abnormality in the appearance and structure of each part, and the characteristics and performance of paragraph 4 are satisfied.

7. Measurement and Inspection

Follow the requirements set forth in this specification and the approval authority, and conform to our quality control regulations. However, the items in paragraph 6 can be omitted by consultation with the owner.

8. Packaging

Product packaging is individually packaged and then collectively packaged in an appropriate box so that there is no flow.

9. Warranty

This product is obliged to repair or replace it immediately free of charge if a defect that is judged to be a defect in design or manufacturing occurs within one year after delivery.

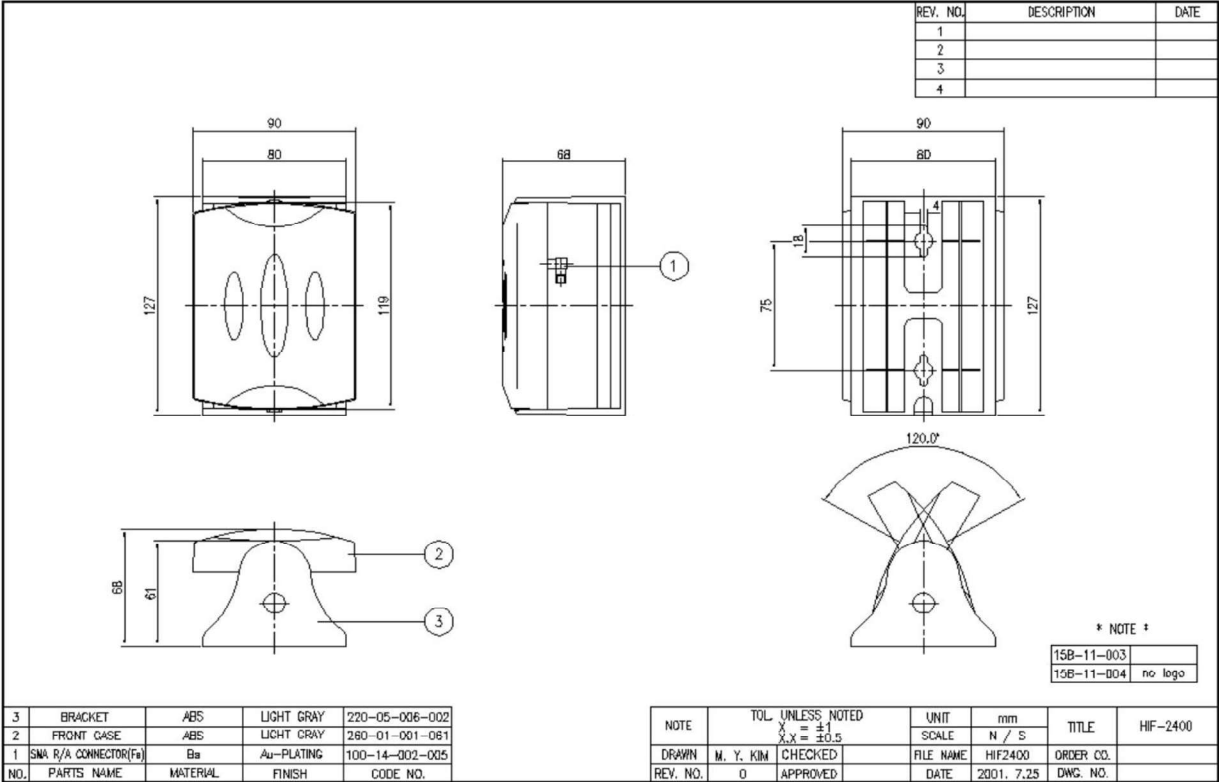
10. Attached Documents

- 1) Antenna standard drawing
- 2) Antenna characteristic data

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[Attachment 1] Antenna specifications drawing

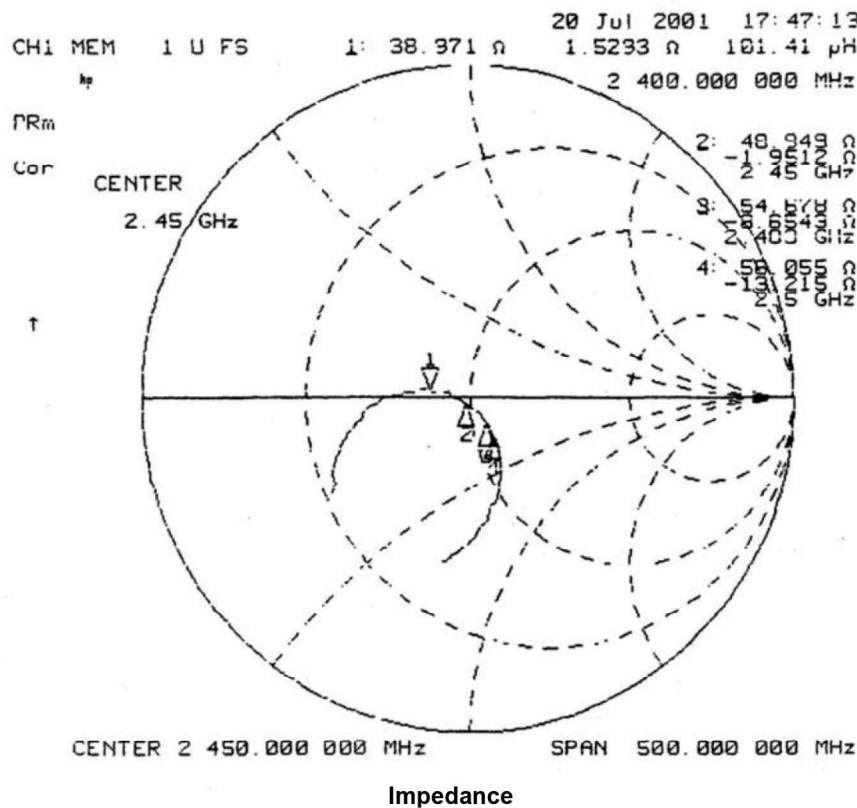
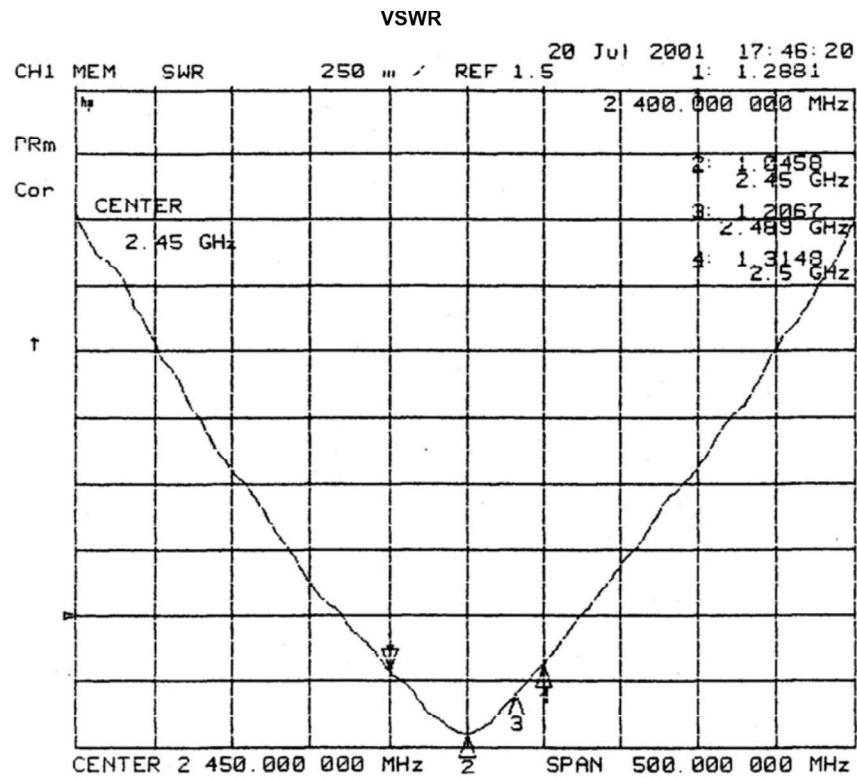
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[Attachment 2] Antenna characteristic data



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Antenna Characteristic Data : Radiation Pattern

VC-2400P

- ◆ Compact Size
- ◆ Easy Installation
- ◆ 2.4GHz~2.483GHz

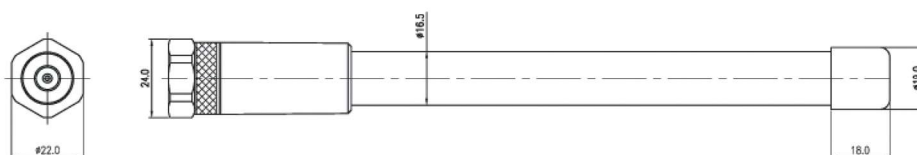


◆ Electrical Specifications

Item	Specification
Frequency Range	2.4 ~ 2.483GHz
Gain	4.37dBi
3dB BeamWidth	38°
V.S.W.R(Max.)	Less than 1.5
Impedance	50 Ω (Norminal)
Polarization	Vertical
Power Input(max.)	25W

◆ Mechanical

Item	Specification
Dimensions	Max HEX: Ø22.0mm Length : 224mm
Weight	90g
Connector Type	N-Type Male
Operating Temperature	-30° ~ +60° C



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Antenna Characteristic Data : Radiation Pattern

		PwrSum					H(Theta=)				E1(Phi=0)				E2(Phi=90)				
No.	Freq.	Eff.[%]	Avg.[dBi]	Peak[dBi]	Theta(c)	Phi(deg)	Avg.[dBi]	Peak[dBi]	Phi(deg)	BW[deg]	Avg.[dBi]	Peak[dBi]	Theta(c)	BW[deg]	Avg.[dBi]	Peak[dBi]	Theta(c)	BW[deg]	
1	2400.000	65.39	-1.84	3.87	140.00	340.00	-3.92	1.77	355.00	63.59	1.02	3.34	140.00	153.75	-4.20	0.75	0.00	49.44	
2	2420.000	61.67	-2.10	3.82	140.00	345.00	-3.92	1.99	355.00	62.86	0.79	3.35	125.00	153.57	-4.46	0.51	-5.00	49.50	
3	2440.000	72.98	-1.37	4.29	140.00	345.00	-2.98	1.91	355.00	66.50	1.57	3.56	140.00	161.51	-3.65	1.41	0.00	48.03	
4	2460.000	77.20	-1.12	4.28	135.00	190.00	-2.73	2.22	190.00	50.24	1.83	4.05	-130.00	45.80	-3.12	1.91	0.00	50.21	
5	2480.000	76.77	-1.15	4.37	140.00	335.00	-2.71	2.09	190.00	52.59	1.81	3.95	-135.00	52.71	-3.02	2.03	-5.00	51.66	
6	2484.000	74.68	-1.27	4.12	145.00	330.00	-2.81	2.19	190.00	49.36	1.66	3.74	-135.00	52.45	-3.13	1.89	5.00	52.51	

