

USE LINK ENTERPRISE CO.,LTD.

THAI USE LINK ENTERPRISE CO.,LTD.

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SPECIFICATION FOR APPROVAL

PARTS NAME : **Wireless WAN Antenna**

TYPE NO : **UC-150-1**

CUSTOMER P/N :

DATE : **October.05,2005**

CUSTOMER APPROVAL & COMMENT

FULL NAME	POSITION	SIGNATURE	COMPANY STAMP	COMMENT
		DATE :		
RECOGNIZED	ENGINEERING			QC CHECK

USE LINK ENTERPRISE CO.,LTD.

ANTENNA SPECIFICATIONS FOR APPROVAL

1 GENERAL DESCRIPTION

1.1 Type No. : UC-150-1

1.2 Customer P/N :

2 DESCRIPTION & APPLICATION

This antenna assembly is designed for use in portable.

Communications equipment over a temperature range.

Of -20 °C to +70 °C in an indoor / outdoor environment.

3 ELECTRICAL CHARACTERISTICS

3.1 Frequency Range : 2400 ~ 2500 MHz / 5150 ~ 5350 MHz

3.2 Marker : 2.4 / 2.5 / 5.15 / 5.25 / 5.35 GHz

3.3 Connector : SMA (Male)

3.4 Return Loss : -9.5 dB Maximum

3.5 V.S.W.R : 2.0:1.0 or less

3.6 Impedance : 50 Ω Nominal

3.7 Gain : 2.0 dBi (Typ)

3.8 Polarization : Vertical

3.9 Radiation Pattern : Near omni-directional in the horizontal plane

3.10 Admitted Power : 1W

3.11 Electrical Wave : $1/2\lambda$ Dipole

4 ENVIRONMENTAL CHARACTERISTICS

4.1 High temperature/Humidity Operating test

4.1.1 Temperature : +60 °C \pm 2 °C

4.1.2 Humidity : 90 ~ 95% RH

4.1.3 Time : 24hrs

4.2 Low temperature/Humidity Operating test

4.2.1 Temperature : -20 °C \pm 2 °C

4.2.2 Humidity : 0% RH

4.2.3 Time : 24hrs

4.3 High temperature/Humidity Storage

4.3.1 Temperature : +70 \pm 2 °C

4.3.2 Humidity : 90 ~ 95% RH

4.3.3 Time : 88hrs

4.4 Low temperature/Humidity Storage

4.4.1 Temperature : -20 \pm 2 °C

4.4.2 Humidity : 0% RH

4.4.3 Time : 28hrs

4.5 Temperature Cycle Operating Test

4.5.1 temperature : $-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$

4.5.2 Duration : ● 88 Hours

● 45min/dwelling@ -40°C ,

● 10°C per min./transition from -20°C to 70°C

● 45min/dwelling@ 70°C ,

4.6 Temperature Shock Test

4.6.1 Temperature : $-20 \pm^{\circ}\text{C} \sim +70^{\circ}\text{C}$

4.6.2 Time : 30 min/dwelling , 5 min/dwelling , 24 cycles

5 QUALIFICATION TESTING

5.1 Qualification testing, all product shall be able to withstand the following testing.

5.2 Physical dimensions identified within this specification.

6 INSPECTION STANDARD

6.1 Dimension to use the special inspection level of S-4 , AQL 1.0 .

6.2 Appearance to use MIL-STD-105DII AQL1.0 .

6.3 Mechanical Capability : Per lot Sampling, $n=5$, Ac 0 , Re 1 .

6.4 Environmental test : Per lot Sampling, $n=3$, Ac 0, Re 1 .

7 PACKING STYLE

If customer has no specific request by the customer, all according to our standard Packing specification.

8 OTHERS

Any changes in this specification should be agreed by both parties.

Wireless WAN Antenna

For 2.4~2.5&5.15~5.35GHz

Type No : UC-150-1

Electrical Specification

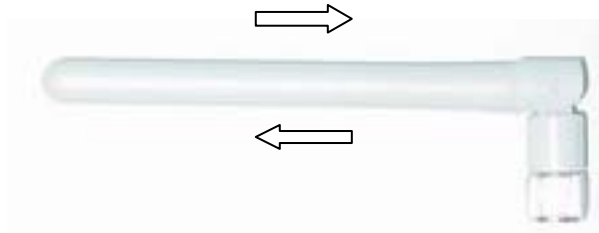
<i>Frequency range</i>	<i>2.4~2.5GHz 5.15~5.35GHz</i>
<i>Marker</i>	<i>2.4/2.5/5.15/5.25/5.35</i>
<i>Connector</i>	<i>SMA Male</i>
<i>Return Loss</i>	<i>-9.5dB Maximum</i>
<i>V.S.W.R</i>	<i>2.0:1.0 or less</i>
<i>Impedance</i>	<i>50 Ω Nominal</i>
<i>Gain</i>	<i>2.0dBi (Typ)</i>
<i>Polarization</i>	<i>Vertical</i>
<i>Radiation Pattern</i>	<i>Near omni-directional in the horizontal plane</i>
<i>Admitted Power</i>	<i>1W</i>
<i>Electrical Wave</i>	<i>1/2λ Dipole</i>
<i>Weight</i>	<i>9.5g</i>
<i>Dimensions</i>	<i>10.0x109.0 mm</i>



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TEST REPORT

- 1.*MODEL:* *UC-150-1*
- 2.*QUANTITY:* *5 Pcs*
- 3.*DATE OF TESTING:* *October.05,2005*
- 4.*TESTING ITEM:* *PULL TEST*
- 5.*TESTING EQUIPMENT:* *UB-016 (PUSH-PULL SCALE FB30K)*
- 6.*TESTING CONDITIONS:* *Antenna must withstand a 3 kgf tensile*
Load applied to tube for 30 seconds.
No part of the antenna may be pulled out of
The assembly or from the housing.



7.*TESTING RESULT:*

<i>SAMPLE</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
<i>OK or NG</i>	<i>OK</i>	<i>OK</i>	<i>OK</i>	<i>OK</i>	<i>OK</i>

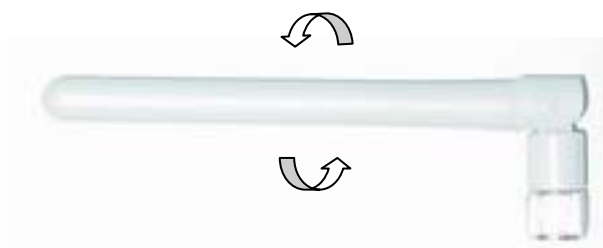
APPROVED:

TESTER:

USE LINK ENTERPRISE CO.,LTD.

TEST REPORT

1. MODEL: UC-150-1
2. QUANTITY: 5 Pcs
3. DATE OF TESTING: October.05,2005
4. TESTING ITEM: TORQUE TEST
5. TESTING EQUIPMENT: UB-001 (MECHANICAL TORQUE METER 2-TM30)
6. TESTING CONDITIONS: 3 kgf-cm no damage happened.



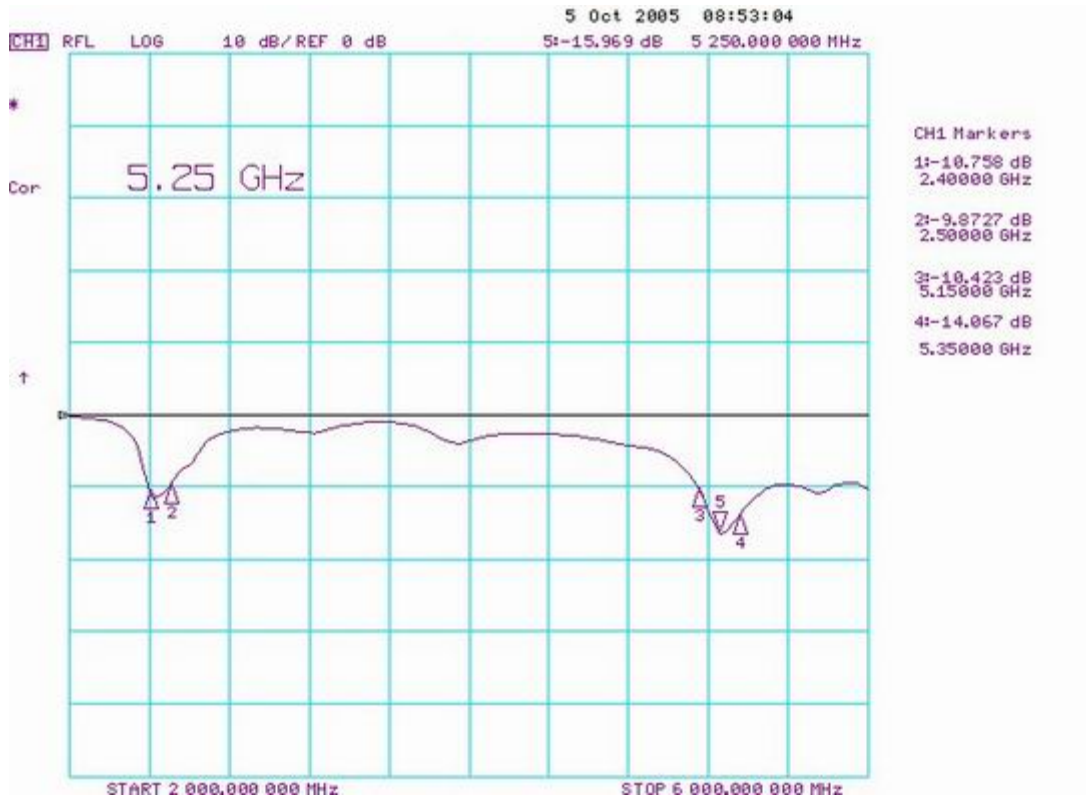
7. TESTING RESULT:

SAMPLE	1	2	3	4	5
OK or NG	OK	OK	OK	OK	OK

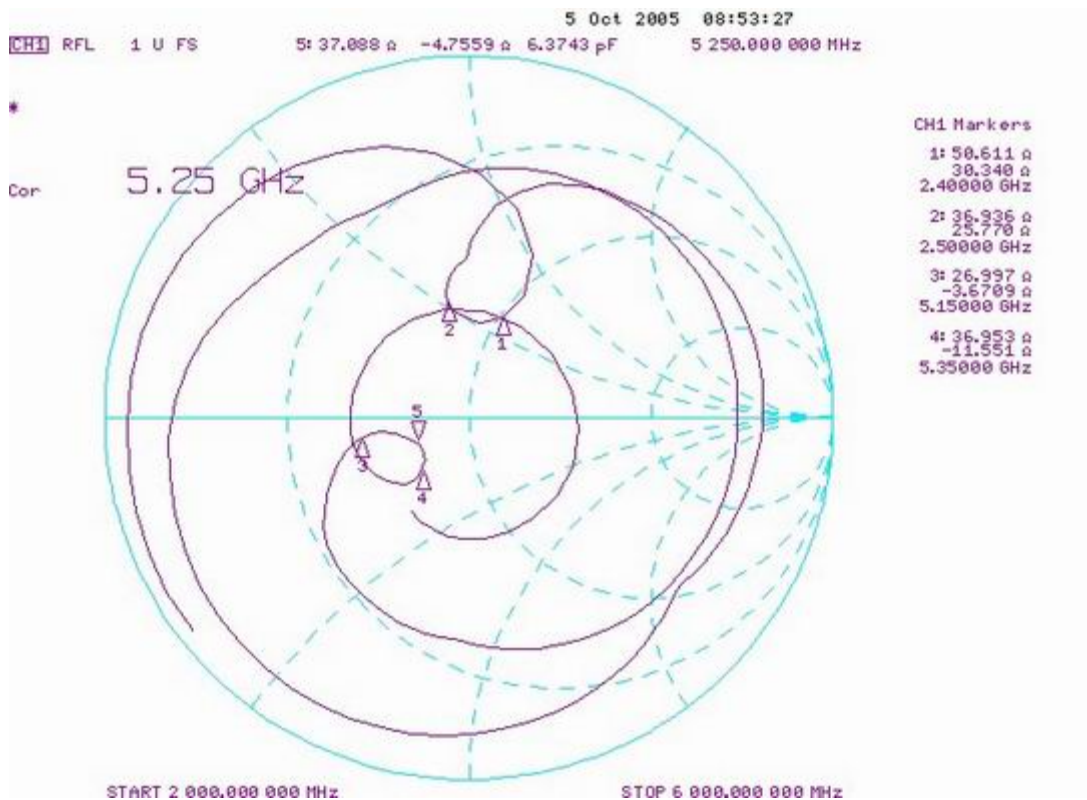
APPROVED:

TESTER:

Return Loss



Smith Chart



V.S.W.R

