

# 承認書

## Product Specification

客戶名稱：Unitech Electronics Co., Ltd  
CUSTOMER

適用機種：Baldr  
APPLICATION

廠 商：Ethertronics Inc.  
SUPPLIER

客戶料號：204242G  
PART NUMBER

Ethertronics 料號：5000753  
PART NUMBER

承認日期：May , 2012  
APPROVAL DATE

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INNOVATE

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## **Revision History**

Rev. A	Initial Product Specification.
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## **1. Purpose and Scope**

The purpose of this document is to establish a design specification for the antenna product that Ethertronics is developing for the wireless AP. Any changes or additions to this specification can affect schedule, cost or the product and should be negotiated between Ethertronics and Unitech before being incorporated into the specification. Upon agreement of this specification, Ethertronics will make no changes without the written approval from Unitech. Any changes requested by Unitech will be given to Ethertronics with sufficient time to evaluate the cost impact and reach as required.

## **2. Abbreviations and Definitions**

AVG	Average
°	Degree
°C	Celsius (degrees Centigrade)
cm	Centimeter
G	Gravitational Force
g	Grams
Hz	Hertz
In	Inches
IQC	Incoming Quality Control
MHz	Megahertz
m	Meter
mm	Millimeter
N	Newton
PCB	Printed Circuit Board
TX	Transmit Band
RH	Relative Humidity
RX	Receive Band
VSWR	Voltage Standing Wave Ratio
W	Watt

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### 3. Electrical Specification For " BT & Wi-Fi AUX "

#### 3.1 Frequency Band

Mode	Frequency Band (MHz)
BT & Wi-Fi AUX	2400-2500

#### 3.2 Electrical Characteristics

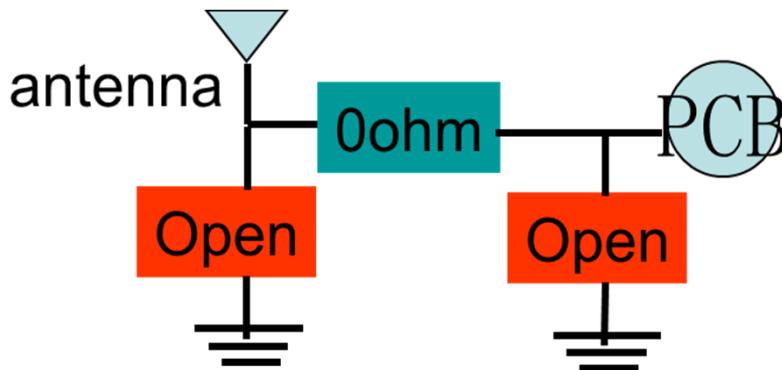
##### 3.2.1 VSWR

##### 3.2.2 S11

##### 3.2.3 Passive Measurement

Please refer to the next few pages.

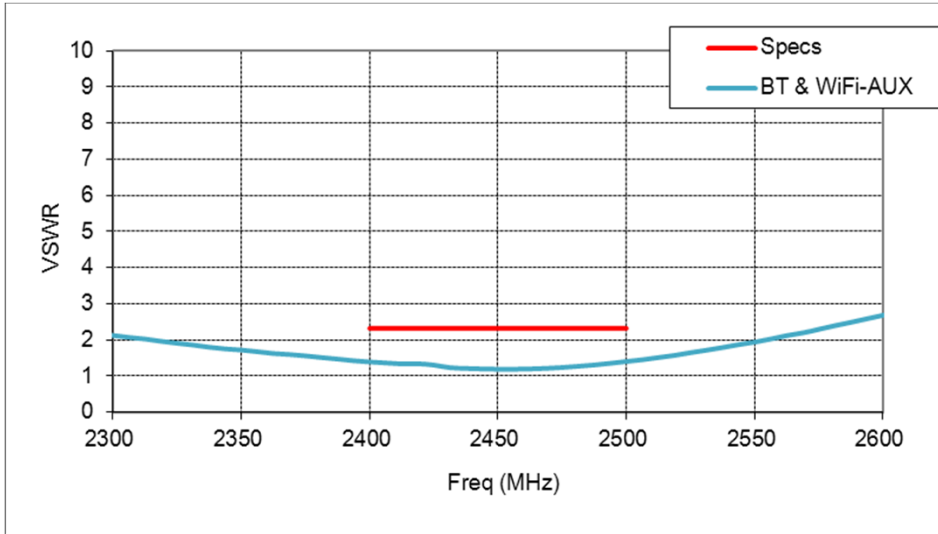
#### 3.3 Matching Requirements



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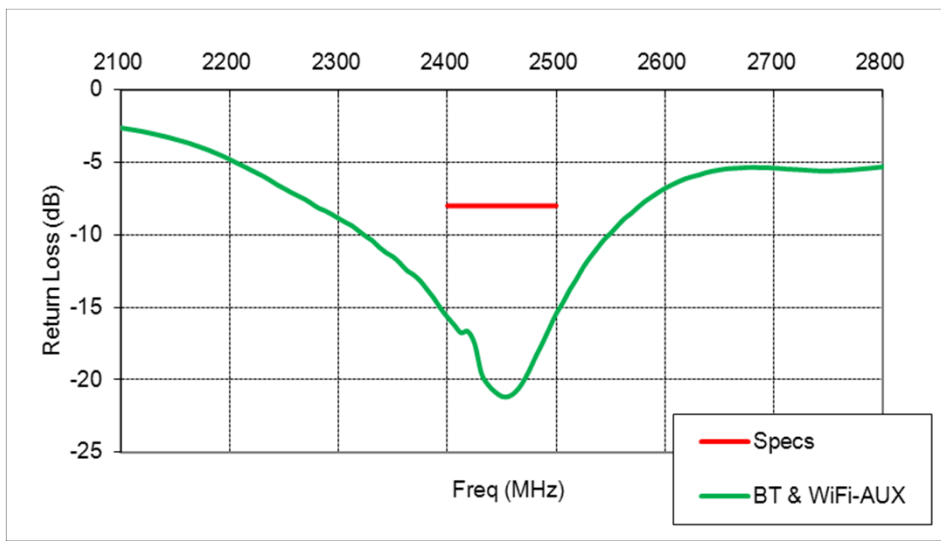
### 3.2.1 VSWR



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### 3.2.2 S11



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### 3.2.3 Passive Measurement

Baldr	BT & Wi-Fi-AUX		
Pattern	X03-23		
Frequency	Efficiency(%)	Efficiency(dB)	Peak gain(dBi)
2400	55.0	-2.6 dB	2.3 dBi
2410	56.5	-2.5 dB	2.3 dBi
2420	51.5	-2.9 dB	1.8 dBi
2430	54.2	-2.7 dB	1.9 dBi
2440	59.3	-2.3 dB	2.3 dBi
2450	60.8	-2.2 dB	2.5 dBi
2460	61.5	-2.1 dB	2.5 dBi
2470	60.6	-2.2 dB	2.4 dBi
2480	58.9	-2.3 dB	2.2 dBi
2490	55.8	-2.5 dB	2.0 dBi
2500	51.7	-2.9 dB	1.7 dBi

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## 4. Drawing and Materials

### 4.1 Drawing of Internal Antenna

Please refer to the next page.

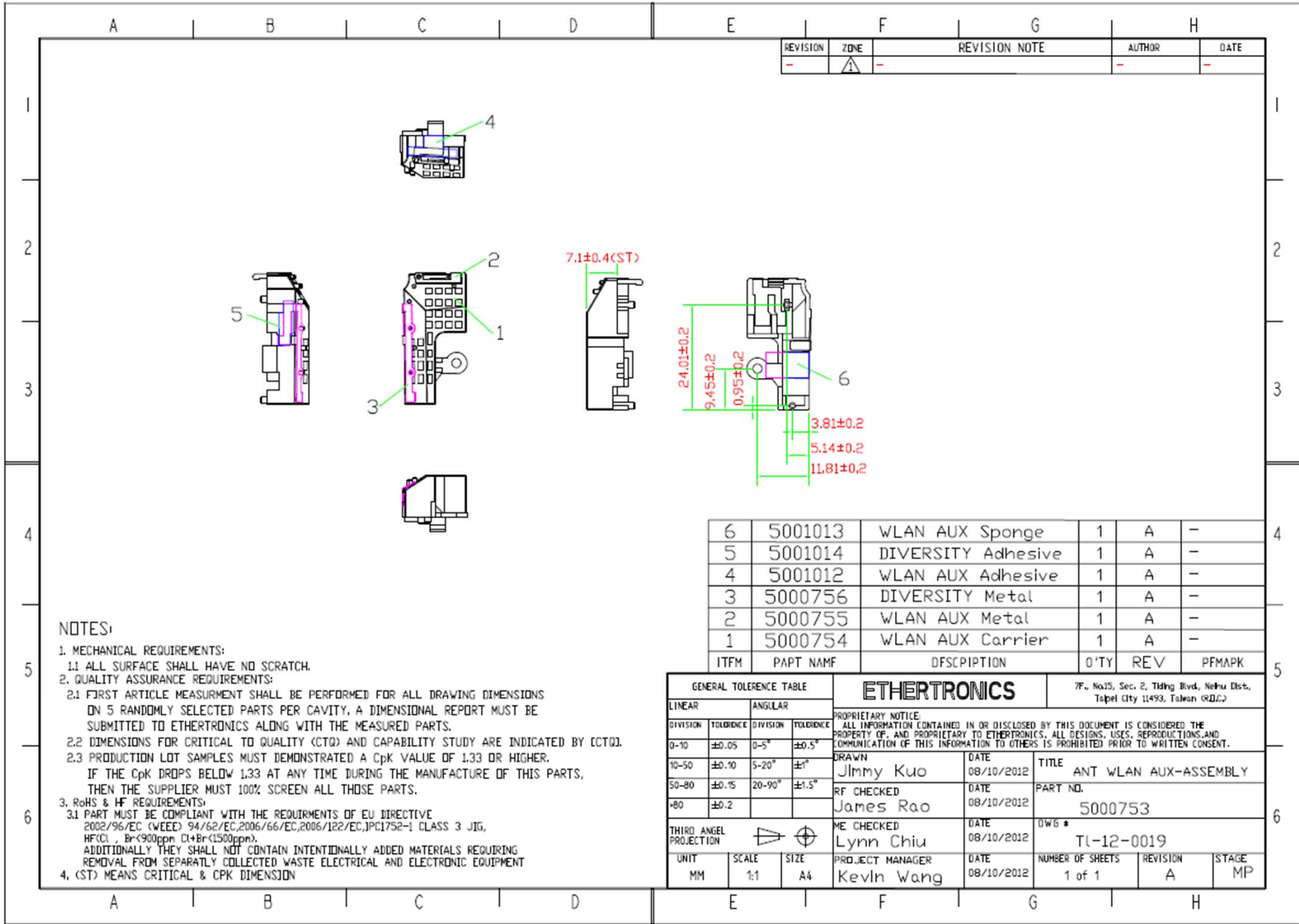
### 4.2 Part List

Part Name	Material	ET P/N	Type	Finish	Q'ty
ANTENNA ASSEMBLY P/N: 5000753	Carrier	5000754	Black	Ethertronics	1
	Metal , WLAN AUX	5000755	sus304 1/2H 0.2T		
	Metal , Div	5000756	sus304 1/2H 0.2T		
	Adhesive , WLAN AUX	5001012			
	Sponge	5001013			
	Adhesive , Div.	5001014			

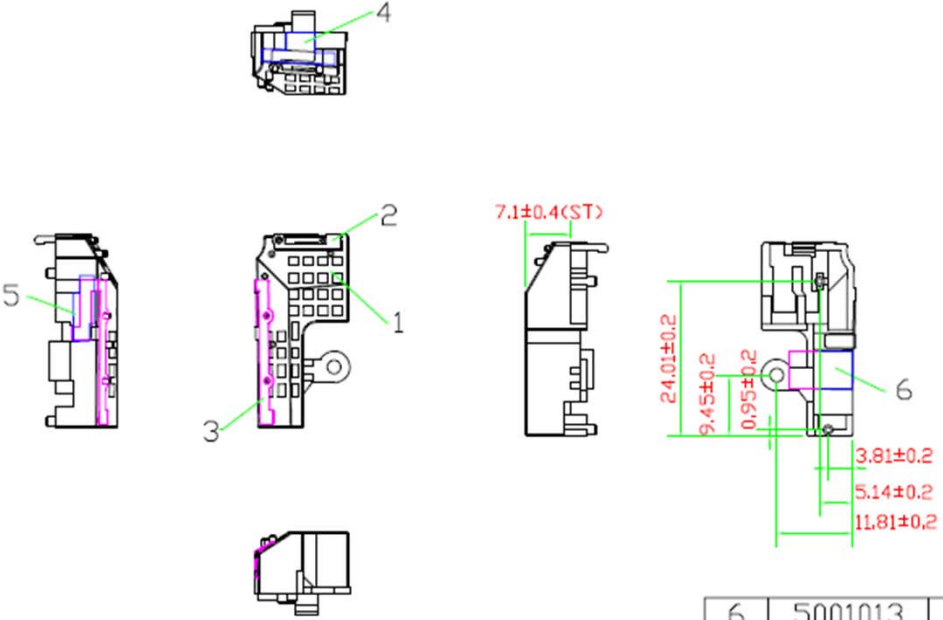
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# 4.1 Drawing of Internal Antenna



REVISION	ZONE	REVISION NOTE	AUTHOR	DATE
-	△	-	-	-



6	5001013	WLAN AUX Sponge	1	A	-
5	5001014	DIVERSITY Adhesive	1	A	-
4	5001012	WLAN AUX Adhesive	1	A	-
3	5000756	DIVERSITY Metal	1	A	-
2	5000755	WLAN AUX Metal	1	A	-
1	5000754	WLAN AUX Carrier	1	A	-
ITFM	PAPT NMF	DFSCPIPTION	Q'TY	REV	PFMAPK

### NOTES:

- MECHANICAL REQUIREMENTS:
  - ALL SURFACE SHALL HAVE NO SCRATCH.
- QUALITY ASSURANCE REQUIREMENTS:
  - FIRST ARTICLE MEASUREMENT SHALL BE PERFORMED FOR ALL DRAWING DIMENSIONS ON 5 RANDOMLY SELECTED PARTS PER CAVITY. A DIMENSIONAL REPORT MUST BE SUBMITTED TO ETHERTRONICS ALONG WITH THE MEASURED PARTS.
  - DIMENSIONS FOR CRITICAL TO QUALITY (CTQ) AND CAPABILITY STUDY ARE INDICATED BY (CTQ).
  - PRODUCTION LOT SAMPLES MUST DEMONSTRATED A C<sub>pk</sub> VALUE OF 1.33 OR HIGHER. IF THE C<sub>pk</sub> DROPS BELOW 1.33 AT ANY TIME DURING THE MANUFACTURE OF THIS PARTS, THEN THE SUPPLIER MUST 100% SCREEN ALL THOSE PARTS.
- RoHS & HF REQUIREMENTS:
  - PART MUST BE COMPLIANT WITH THE REQUIREMENTS OF EU DIRECTIVE 2002/96/EC (WEEE) 94/62/EC, 2006/66/EC, 2006/122/EC, IPC1752-1 CLASS 3 JIG, HF(Cl) , Br<900ppm Cl+Br<1500ppm. ADDITIONALLY THEY SHALL NOT CONTAIN INTENTIONALLY ADDED MATERIALS REQUIRING REMOVAL FROM SEPARATELY COLLECTED WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT
- (ST) MEANS CRITICAL & CPK DIMENSION

GENERAL TOLERANCE TABLE		ETHERTRONICS		7F, No.25, Sec. 2, Tiding Blvd, Neihu Dist., Taipei City 11493, Taiwan (R.O.C)	
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DIVISION	TOLERANCE	DIVISION	TOLERANCE	DRAWN	DATE
0-10	±0.05	0-5°	±0.5°	Jimmy Kuo	08/10/2012
10-50	±0.10	5-20°	±1°	RF CHECKED	DATE
50-80	±0.15	20-90°	±1.5°	James Rao	08/10/2012
+80	±0.2			ME CHECKED	DATE
				Lynn Chiu	08/10/2012
UNIT	SCALE	SIZE	PROJECT MANAGER	DATE	NUMBER OF SHEETS
MM	1:1	A4	Kevln Wang	08/10/2012	1 of 1
					REVISION
					A
					STAGE
					MP

DATE	TITLE
08/10/2012	ANT WLAN AUX-ASSEMBLY
DATE	PART NO.
08/10/2012	5000753
DATE	DWG #
08/10/2012	TL-12-0019



**Product Specification**  
**Part Number : 5000753**

## **5. ROHS**

Please refer to the ROHS reports.

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