

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：204241G
PART NUMBER

Ethertronics 料號：5000750
PART NUMBER

承認日期：May , 2012
APPROVAL DATE

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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

3.1 Frequency Band

Mode	Frequency Band (MHz)
GSM850	824-894
EGSM	880-960
DCS	1710-1880
PCS	1850-1990
UMTS	1920 - 2170

3.2 Electrical Characteristics

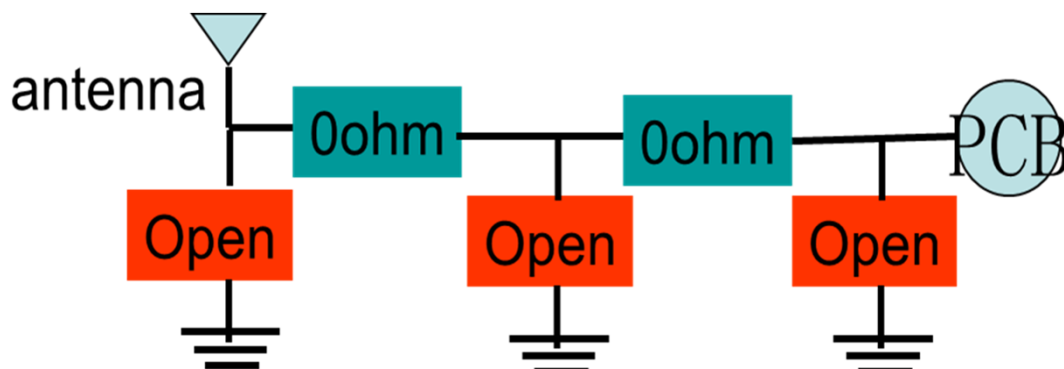
3.2.1 VSWR

3.2.2 S11

3.2.3 Passive Measurement

Please refer to the next few pages.

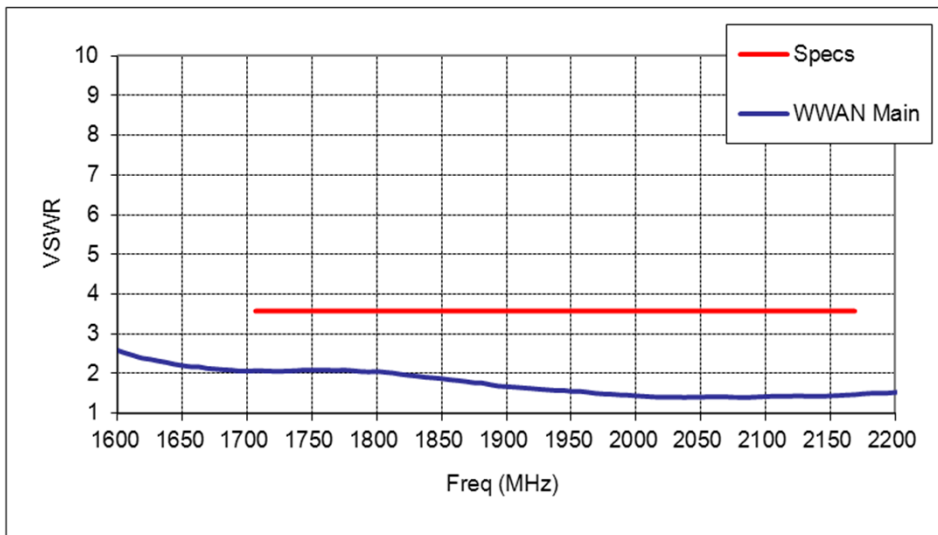
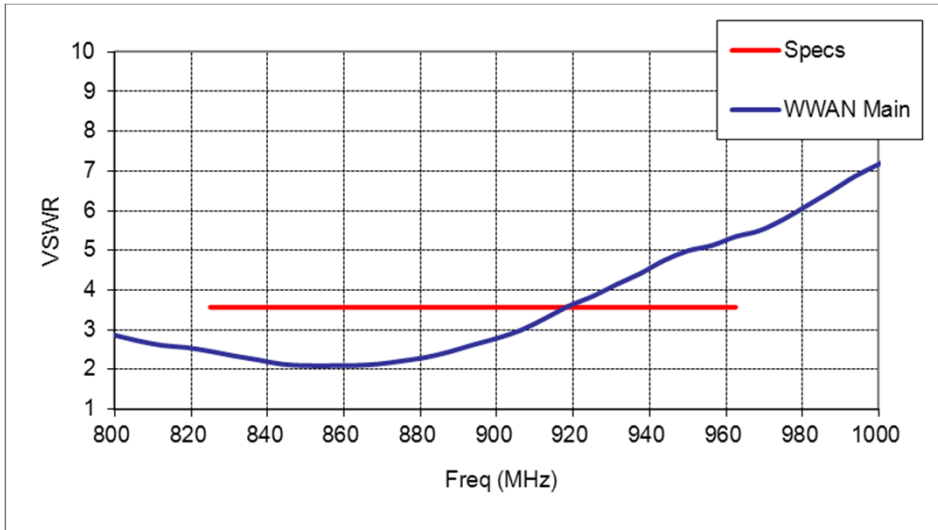
3.3 Matching Requirements



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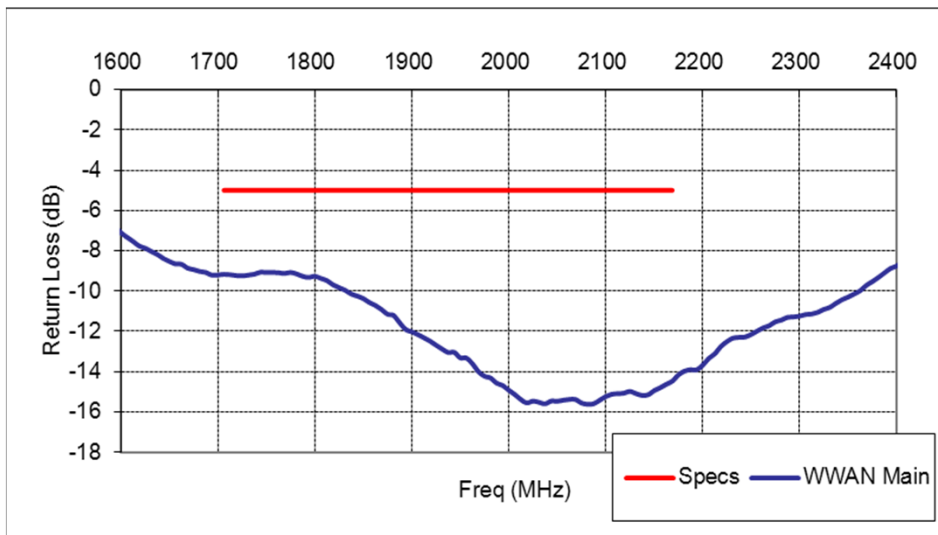
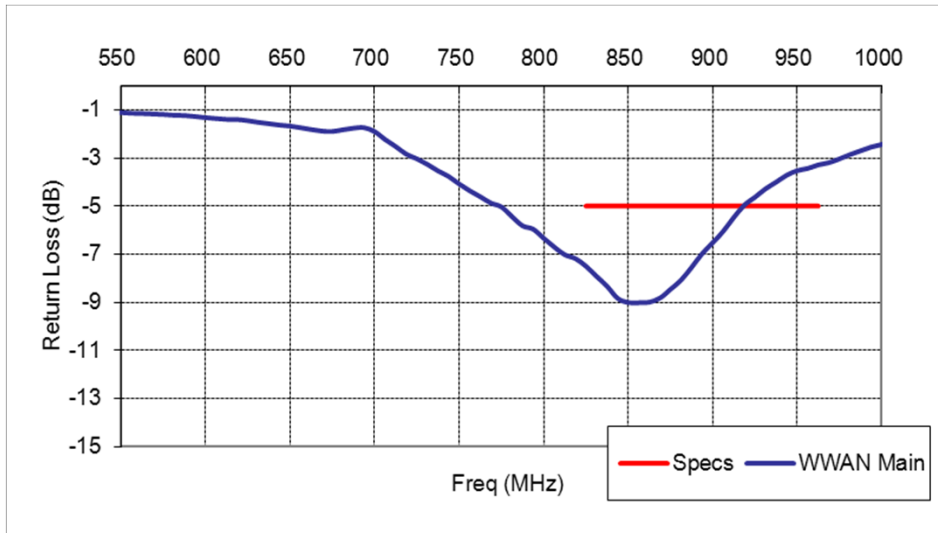
3.2.1 VSWR



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3.2.2 S11



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3.2.3 Passive Measurement

Baldr	WWAN Main		
Pattern	X06-39		
Frequency	Efficiency(%)	Efficiency(dB)	Peak gain(dBi)
824	50.5	-3.0 dB	2.3 dBi
836	55.5	-2.6 dB	2.6 dBi
849	55.1	-2.6 dB	2.4 dBi
869	51.8	-2.9 dB	2.3 dBi
880	50.7	-3.0 dB	2.2 dBi
894	50.3	-3.0 dB	2.1 dBi
915	45.4	-3.4 dB	1.5 dBi
925	36.0	-4.4 dB	0.4 dBi
940	23.0	-6.4 dB	-1.7 dBi
960	26.3	-5.8 dB	-1.3 dBi
1710	63.3	-2.0 dB	2.9 dBi
1750	59.9	-2.2 dB	2.8 dBi
1785	60.9	-2.2 dB	2.7 dBi
1805	63.2	-2.0 dB	2.6 dBi
1850	64.7	-1.9 dB	2.3 dBi
1880	64.1	-1.9 dB	2.6 dBi
1910	71.7	-1.4 dB	2.9 dBi
1920	69.1	-1.6 dB	2.9 dBi
1930	67.7	-1.7 dB	2.9 dBi
1950	69.5	-1.6 dB	2.8 dBi
1980	78.6	-1.1 dB	2.9 dBi
1990	70.9	-1.5 dB	2.7 dBi
2110	66.7	-1.8 dB	2.9 dBi
2140	59.0	-2.3 dB	2.7 dBi
2170	59.2	-2.3 dB	2.2 dBi

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4. Drawing and Materials

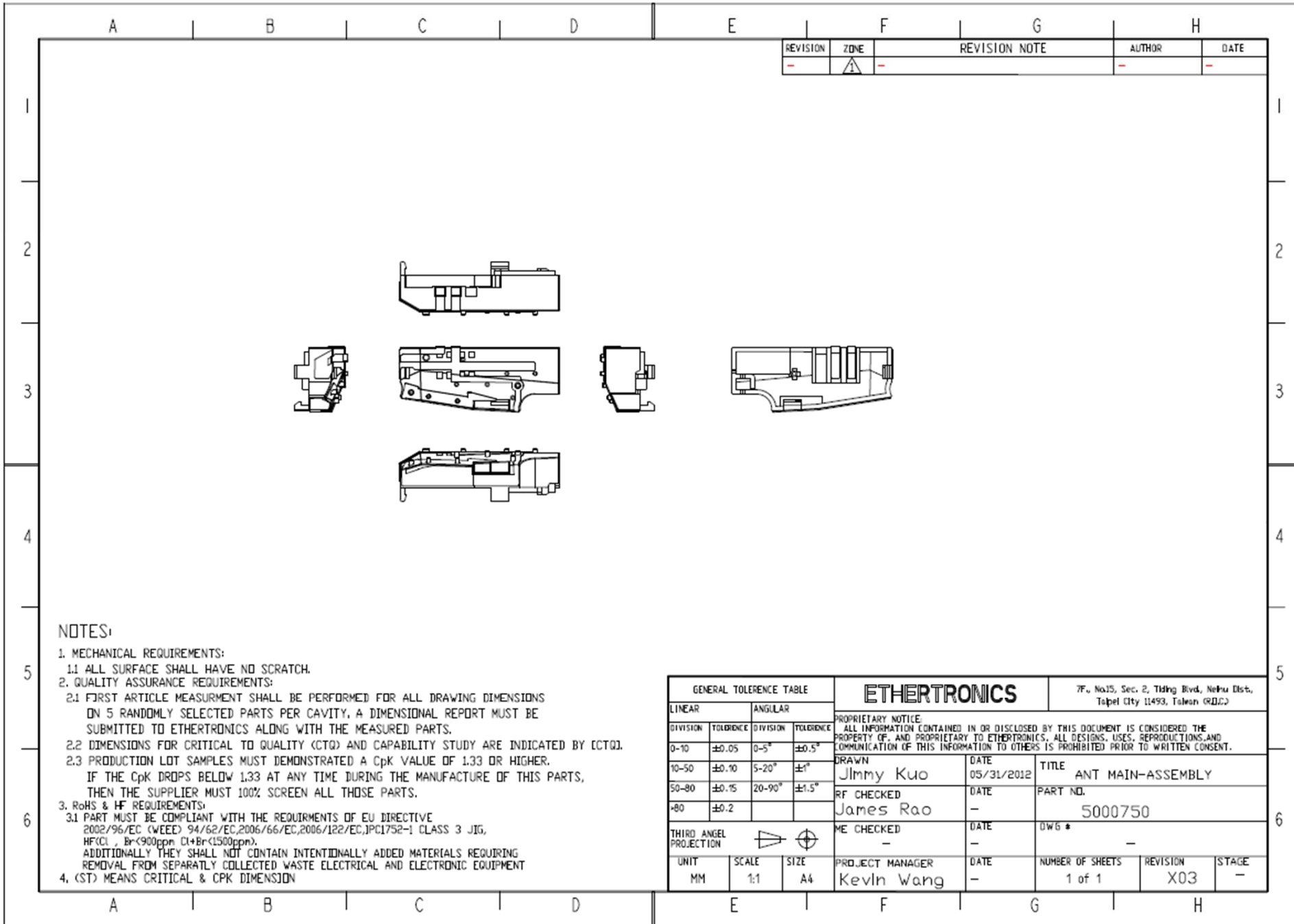
4.1 Drawing of Internal Antenna

Please refer to the next page.

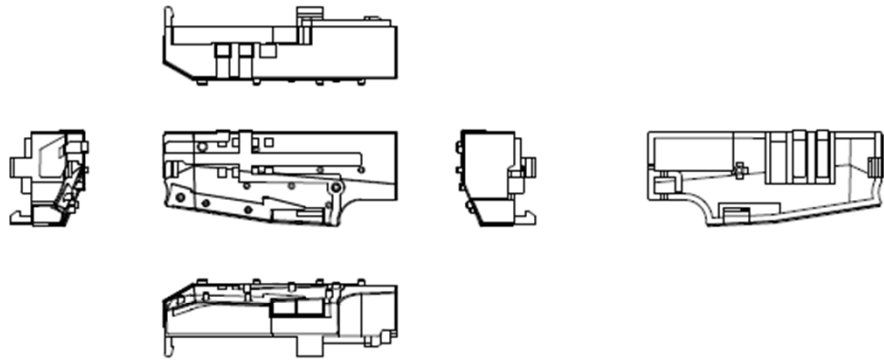
4.2 Part List

Part Name	Material	ET P/N	Type	Finish	Q'ty
ANTENNA ASSEMBLY P/N: 5000750	Carrier	5000751	Black	Ethertronics	1
	Metal	5000752			

4.1 Drawing of Internal Antenna



REVISION	ZONE	REVISION NOTE	AUTHOR	DATE
-	△	-	-	-



NOTES:

1. MECHANICAL REQUIREMENTS:
 - 1.1 ALL SURFACE SHALL HAVE NO SCRATCH.
2. QUALITY ASSURANCE REQUIREMENTS:
 - 2.1 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.
 - 2.2 DIMENSIONS FOR CRITICAL TO QUALITY (CTQ) AND CAPABILITY STUDY ARE INDICATED BY [CTQ].
 - 2.3 PRODUCTION LOT SAMPLES MUST DEMONSTRATED A CpK VALUE OF 1.33 OR HIGHER. IF THE CpK DROPS BELOW 1.33 AT ANY TIME DURING THE MANUFACTURE OF THIS PARTS, THEN THE SUPPLIER MUST 100% SCREEN ALL THOSE PARTS.
3. RoHS & HF REQUIREMENTS:
 - 3.1 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(CI) , Br<900ppm Cl+Br<1500ppm). ADDITIONALLY THEY SHALL NOT CONTAIN INTENTIONALLY ADDED MATERIALS REQUIRING REMOVAL FROM SEPARATELY COLLECTED WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT
4. (ST) MEANS CRITICAL & CPK DIMENSION

GENERAL TOLERANCE TABLE				ETHERTRONICS		7F, No.15, Sec. 2, Tiding Blvd, Neihu Dist, Taipei City 11493, Taiwan (R.O.C)		
LINEAR		ANGULAR		PROPRIETARY NOTICE: ALL INFORMATION CONTAINED IN OR DISCLOSED BY THIS DOCUMENT IS CONSIDERED THE PROPERTY OF, AND PROPRIETARY TO ETHERTRONICS. ALL DESIGNS, USES, REPRODUCTIONS, AND COMMUNICATION OF THIS INFORMATION TO OTHERS IS PROHIBITED PRIOR TO WRITTEN CONSENT.				
DIVISION	TOLERANCE	DIVISION	TOLERANCE	DRAWN	DATE	TITLE		
0-10	±0.05	0-5°	±0.5°	Jimmy Kuo	05/31/2012	ANT MAIN-ASSEMBLY		
10-50	±0.10	5-20°	±1°	RF CHECKED	DATE	PART NO.		
50-80	±0.15	20-90°	±1.5°	James Rao	-	5000750		
>80	±0.2			ME CHECKED	DATE	DWG #		
THIRD ANGLE PROJECTION				-	-	-		
UNIT	SCALE	SIZE	PROJECT MANAGER	DATE	NUMBER OF SHEETS	REVISION	STAGE	
MM	1:1	A4	Kevin Wang	-	1 of 1	X03	-	



Product Specification
Part Number : 5000750

5. ROHS

Please refer to the ROHS reports.

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