

Approval Sheet

Product Type	Bluetooth Antenna
Model Name	Crete DA05
Revision	X01
Part No. / Yageo / BT Antenna	CAN4313573022501B

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Multi Band Antenna with Cable & Connector	CAN4313573022501B	R00	Sept. 20, 06
		R01	Oct. 03, 06
		R03	Mar.07, 07
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1. Specifications

1.1 Specifications for Bluetooth Antenna

Frequency Range (GHz)	2.40 ~ 2.50
VSWR	2.50 max
Peak Gain (dBi)	-3.10
MiniPCI Connector	Hirose U.FL (or Compatible)
Impedance	50Ω
Operating Temperature	-40~90°C
Maximum Power	1W
Polarization	Linear
Radiation Pattern	Omni-directional

1.2 Antenna Dimension / Cable Length / Cable Diameter

Product	Crete /DA05 Antenna
Bluetooth Antenna Cable	Length=80mm, Color=White / OD=1.13mm

1.3 Packing Spec.

Product	For Example
Inner Tray	60
Carton Box	265*100



1.4 Antenna Picture



2. Test Methodology

2.1 Test Equipment

The equipment for the antenna measurement we used is as follows.

- A. Agilent 8753ET / 8719D Network Analyzer to measure the VSWR and input impedance.
- B. Three-dimensional anechoic chamber to measure the gain
(Standard dipole and horn were used to calibrate the chamber)
- C. Digital caliper to measure the dimensions.
- D. Climatic chamber for mechanical tests.

2.2 Test Setup

2.2.1 Frequency Range

Bluetooth: 2.40 ~ 2.50GHz

2.2.2 Antenna Configuration

The antenna basically has two parts; the stamping and the cable assembly with the connector on one side. The detailed drawing is attached.

2.2.3 VSWR

The VSWR is measured with Agilent 8753ET / 8719D network analyzer. All the measurements are performed with the customer provided fixture. Figure 1 shows the schematic diagram for measuring VSWR.

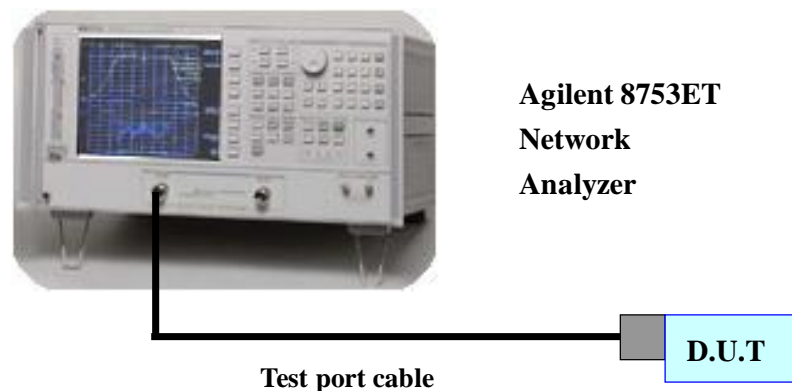


Figure 1. The schematic diagram for measuring VSWR

2.2.4 Radiation Pattern and Gain

The radiation pattern must have the omni-directional characteristic in both positions. The radiation pattern measurements are performed in the three-dimensional anechoic chamber. The chamber provides less than -30dB reflectivity from 800MHz through 8GHz. The chamber is calibrated using

both standard dipole and horn antenna. The gain here is expressed as dBi that standardizes the isotropic antenna. The gain measurements are also performed in the same chamber described previously. Figure 2 shows the schematic diagram for measuring radiation pattern and gain.

Anechoic Chamber

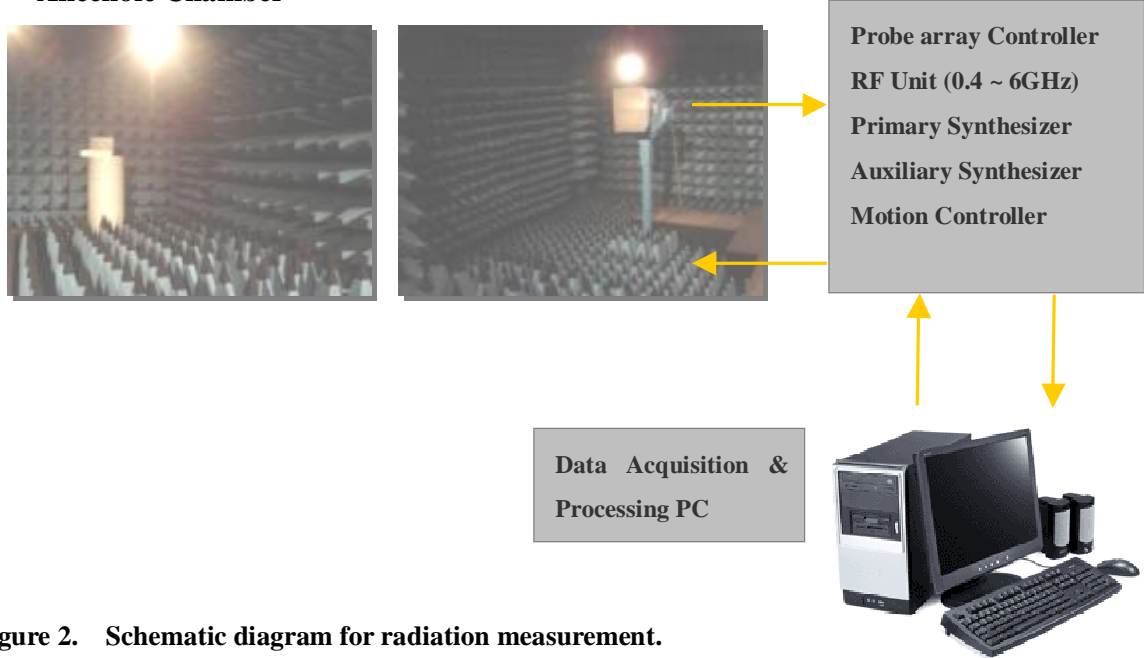
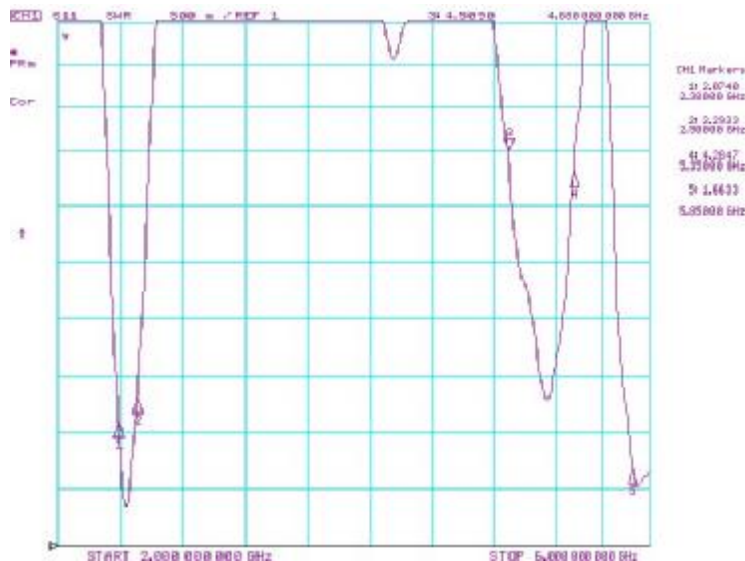


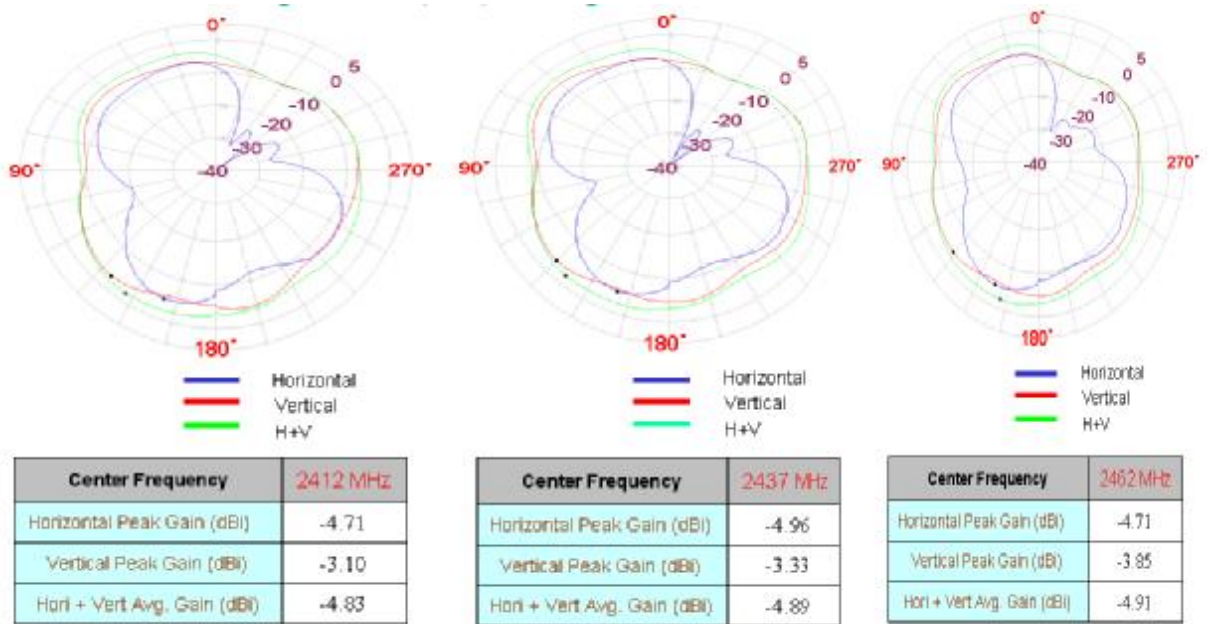
Figure 2. Schematic diagram for radiation measurement.

3. Performance Data

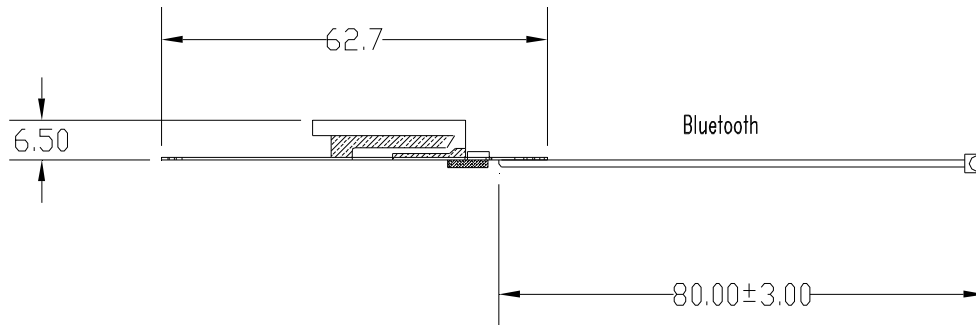
VSWR Measurement



Radiation Pattern & Gain



4. Antenna Drawing



5. Reliability Data For Antenna Patch (Reference To IEC)

IEC 384-10/ CECC 32 100 CLAUSE	IEC 60068-2 TEST METHOD	TEST	PROCEDURE	REQUIREMENTS
4.12	4(Na)	Rapid change of temperature	-40 °C (30 minutes) to +90 °C (30 minutes); 5 cycles	No visible damage Central Freq. Change ± 6%
4.14	3(Ca)	Damp heat	500 ± 12 hours at 40 °C; 90 to 95 % RH	No visible damage 2 hours recovery Central Freq. Change ± 6%
4.15		Endurance	500 ± 12 hours at 90 °C;	No visible damage 2 hours recovery Central Freq. Change ± 6%

6. Ordering Information: Yageo Ordering P/N Code

The antennas may be ordered by using the Yageo P/N ordering code. These code numbers can be determined by the following rules:

CAN4313 5 73 02 250 1B
F C MS T A P

F. Family Code

CAN43 = Antenna

C. Packing Type Code

13 = Bulk (1000 pcs)

M. Materials Code

5 = High Frequency Material

S. Size/Series Code

73 = Da05 Antenna

T. Tolerance/Cable

02 = BT

A. Working Frequency

252 = 2.45 GHz Band

P. Packing

1B = 1000 pcs packing

7. Revision Control

Document Revision	Date	Content	Remark
R00	Sept. 20, 2006	New Issued	N/A
R01	Oct. 03, 2006	Revised Cable Length of GPRS BT ant.	N/A
R02	Mar. 07, 2007	Cancel GPRS antenna.	N/A