

Antenna Report

Project Name :	Excalibur	Date:	06/07/2006
Project Manager:	Jesse_Hsu	Author	Stanley Wang

Countersign:

Stanley Wang _____

PROPRIETARY NOTE

THIS DOCUMENT CONTAINS INFORMATION CONFIDENTIAL AND PROPRIETARY TO HIGH TECH COMPUTER CORP. AND SHALL NOT BE REPRODUCED OR TRANSFERRED TO OTHER DOCUMENTS OR DISCLOSED TO OTHERS OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT WAS OBTAINED WITHOUT THE EXPRESSED WRITTEN CONSENT OF HIGH TECH COMPUTER CORP.

HTC CONFIDENTIAL

CONTENTS

Embedded Quad-Band ,WLAN and Bluetooth Antenna Test Results	P.3
--	------------

PROPRIETARY NOTE

THIS DOCUMENT CONTAINS INFORMATION CONFIDENTIAL AND PROPRIETARY TO HIGH TECH COMPUTER CORP. AND SHALL NOT BE REPRODUCED OR TRANSFERRED TO OTHER DOCUMENTS OR DISCLOSED TO OTHERS OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT WAS OBTAINED WITHOUT THE EXPRESSED WRITTEN CONSENT OF HIGH TECH COMPUTER CORP.

HTC CONFIDENTIAL

Embedded Quad-Band Antenna

1. Overview

The document is the specification of the embedded Quad-band antenna for phone applications. Quad -band includes GSM850, GSM900, DCS1800, PCS1900,.

1.1 Denotations

dBi: Decibel relative isotropic antenna
VSWR: Voltage Standing Wave Ratio
Tx: Transmit frequency
Rx: Receive frequency
GSM: Global Service for Mobile communication
PCS: Personal Communication System
DCS: Digital Communication System
SAR: Specific Absorption Rate
Peak Gain: The peak value of the antenna gain
Average Gain: The average value of the antenna gain

1.2 Antenna Type

EDGE : shorting monopole type
WLAN : shorting monopole type
BT : PIFA type

1.3 Antenna Brand

EDGE : HTC
WLAN : HTC
BT : HTC

1.4 Antenna Model name

EDGE : D00031388
WLAN : 36H00417-00M
BT : D00031818

PROPRIETARY NOTE

THIS DOCUMENT CONTAINS INFORMATION CONFIDENTIAL AND PROPRIETARY TO HIGH TECH COMPUTER CORP. AND SHALL NOT BE REPRODUCED OR TRANSFERRED TO OTHER DOCUMENTS OR DISCLOSED TO OTHERS OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT WAS OBTAINED WITHOUT THE EXPRESSED WRITTEN CONSENT OF HIGH TECH COMPUTER CORP.

HTC CONFIDENTIAL

2. Gain measurements

2.1 EDGE 3D Antenna Gain Measurement Result

Frequency (MHz)	824	894	960	1710	1850	1990
Peak Gain (dBi)	-1.9	-0.96	-3.98	-1.42	+1.68	-0.07
Average Gain (dBi)	-4.16	-4.65	-7.54	-4.52	-1.55	-3.66

2.2 Bluetooth 2D Antenna Gain Measurement Result

Frequency (MHz)	2402	2441	2480
Peak Gain (dBi)	+0.54	+1.51	+1.13
Average Gain (dBi)	-2.98	-2.76	-2.02

2.3 WLAN 2D Antenna Gain Measurement Result

Frequency (MHz)	2412	2442	2472
Peak Gain (dBi)	+0.99	+1.48	+0.09
Average Gain (dBi)	-4.08	-2.73	-4.57

PROPRIETARY NOTE

THIS DOCUMENT CONTAINS INFORMATION CONFIDENTIAL AND PROPRIETARY TO HIGH TECH COMPUTER CORP. AND SHALL NOT BE REPRODUCED OR TRANSFERRED TO OTHER DOCUMENTS OR DISCLOSED TO OTHERS OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT WAS OBTAINED WITHOUT THE EXPRESSED WRITTEN CONSENT OF HIGH TECH COMPUTER CORP.

HTC CONFIDENTIAL

2.4 EDGE EIRP and EIS Measurement Result

GSM850	Channel	128	189	251
	EIRP (dBm)	30.30	32.10	32.40
	Cell power (dBm)	-108	-107.5	-106
EGSM	Channel	975	42	124
	EIRP (dBm)	28.48	28.86	28.79
	Cell power (dBm)	-104.5	-106	-104.5
DCS	Channel	512	698	885
	EIRP (dBm)	26.87	27.27	28.64
	Cell power (dBm)	-107	-107.5	-108
PCS	Channel	512	661	810
	EIRP (dBm)	30.17	30.70	31.56
	Cell power (dBm)	-108	-108	-109

2.5 Bluetooth EIRP and EIS Measurement Result

Channel	0	39	78
EIRP (dBm)	+1.26	+1.92	+3.21
Sensitivity (dBm)	-80.8	-80.3	-82

2.6 WLAN EIRP Measurement Result

Channel	0	39	78
EIRP (dBm)	13.8	12.5	11.5

3. Antenna Materials

The antenna can not have the materials of plumbum (Pb), halogen and mercury (Hg).

PROPRIETARY NOTE

THIS DOCUMENT CONTAINS INFORMATION CONFIDENTIAL AND PROPRIETARY TO HIGH TECH COMPUTER CORP. AND SHALL NOT BE REPRODUCED OR TRANSFERRED TO OTHER DOCUMENTS OR DISCLOSED TO OTHERS OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT WAS OBTAINED WITHOUT THE EXPRESSED WRITTEN CONSENT OF HIGH TECH COMPUTER CORP.

HTC CONFIDENTIAL