

Antenna Report

Model Name :	SAPP200	Date:	1/05/2009
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CONTENTS

Embedded GSM/WCDMA, WiFi / BT, GPS Antenna Test Results	P.3
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Embedded GSM/WCDMA, WiFi / BT, GPS Antenna

1. Overview

The document is the specification of the embedded GSM/WCDMA, WiFi / BT, GPS antenna for phone applications.

1.1 Denotations

dBi: Decibel relative isotropic antenna

Tx: Transmit frequency

Rx: Receive frequency

GSM: Global Service for Mobile communication

WCDMA: Wideband Code Division Multiple Access

Peak Gain: The peak value of the antenna gain

1.2 Antenna Type

GSM/WCDMA : PIFA type

WiFi / BT : PIFA type

GPS : PIFA type

1.3 Antenna Brand

GSM/WCDMA : HTC

WiFi / BT : HTC

GPS : HTC

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2 Gain measurements

2.1 GSM/WCDMA 3D Antenna Gain Measurement Result

Frequency (MHz)	824	894	1920	2170
Peak Gain (dBi)	-1.8	-2.8	-2.1	-1.7

2.2 WiFi / Bluetooth 3D Antenna Gain Measurement Result

Frequency (MHz)	2400	2450	2500
Peak Gain (dBi)	0.8	1.1	0.6

2.3 GPS 3D Antenna Gain Measurement Result

Frequency (MHz)	1575
Peak Gain (dBi)	-2.3

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3 Active measurements

GSM/WCDMA EIRP and EIS Measurement Result

GSM 850	Channel	128	189	251
	EIRP (dBm)	32	32.1	32.8
	Cell Power(dBm)	-109.5	-108.3	-108
GSM 900	Channel	975	42	124
	EIRP (dBm)	27	28.2	27.6
	Cell Power(dBm)	-105.5	-105.8	-106
DCS	Channel	512	698	885
	Cell Power(dBm)	-109.5	-108.3	-108
	Cell Power(dBm)	-111	-112.5	-113.2
PCS	Channel	512	661	810
	EIRP (dBm)	33.5	32.8	31.6
	Cell Power(dBm)	-112.3	-111.7	-111.2
WCDMA Band I	Channel	9612	9750	9888
	EIRP (dBm)	26	26.5	27
	Channel	10562	10700	10838
	Cell Power(dBm)	-113	-113	-112

WCDMA Band VI	Channel	812	837	4162	4175	4188
	EIRP (dBm)	23.6	23.8	23.6	23.8	23.6
	SPEC	18	18	18	18	18
	Channel	1037	1062	4387	4400	4413
	Cell Power(dBm)	-110.7	-110.7	-110.6	-110.7	-110.9
	SPEC	-104	-104	-104	-104	-104

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BT/WIFI EIRP and EIS Measurement Result

WLAN (11M)			
	CH1	CH7	CH13
EIRP (dBm)	22	21.7	21
Sensitivity(dBm)	-89	-89	-89
BT			
	CH0	CH39	CH78
EIRP (dBm)	2.6	2.9	1.8
Sensitivity (dBm)	-87	-88	-87

4. Antenna Materials

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

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