G600 Bluetooth
Antenna test report

2007/4/13

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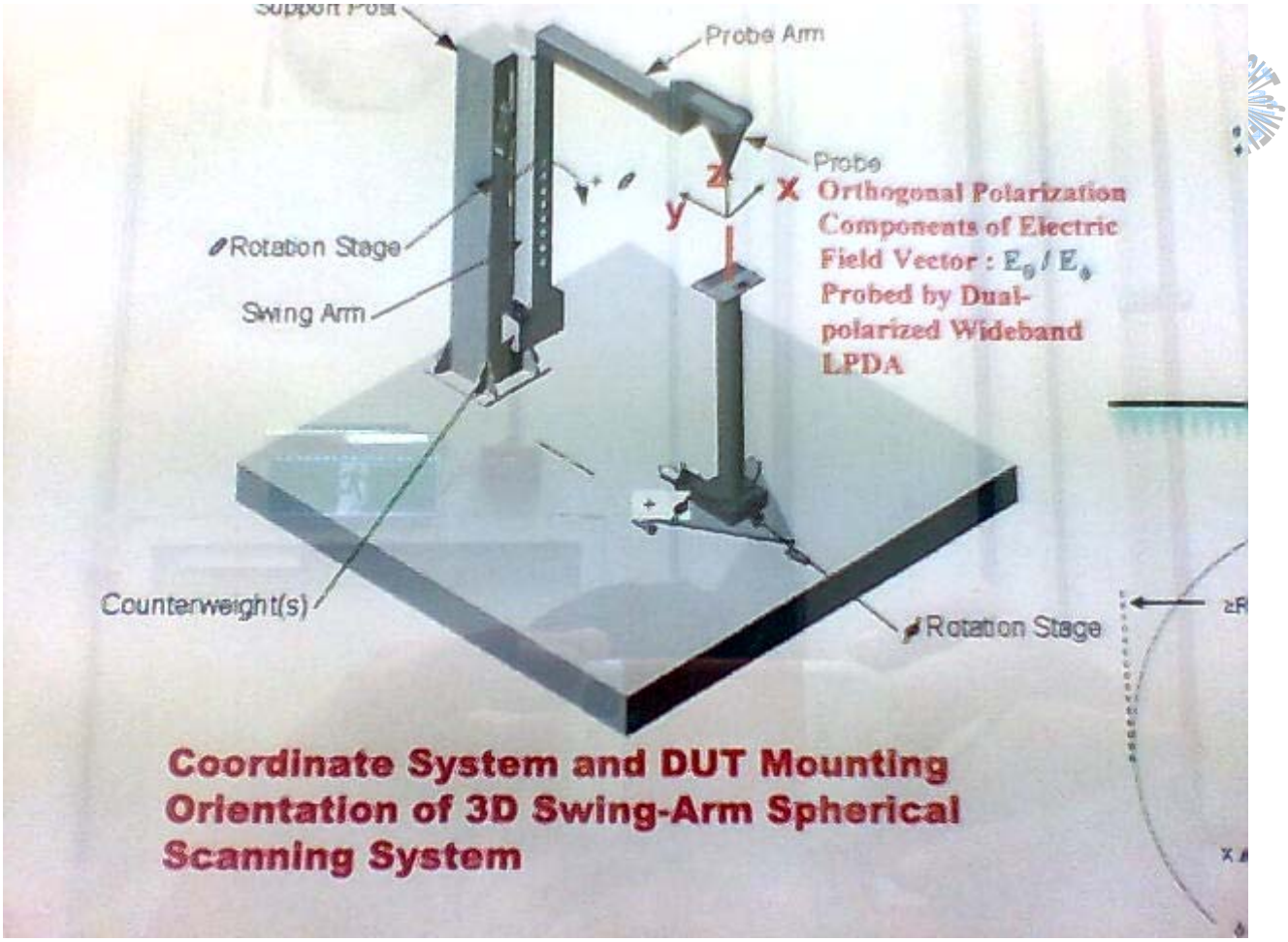
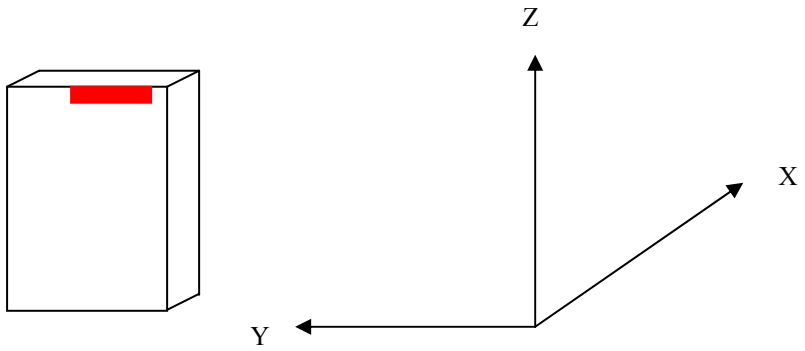
NOT FOR PUBLIC RELEASE

1. **Test purpose:**
   G600 Bluetooth antenna in housing pattern measurement.

2. **Test setting:**





BT antenna Location

3. Test item:

S11 return loss, SWR, Impedance, Antenna Gain, Radiation Pattern.

S11 return loss:

Frequency (GHz)	2.4 (Mark 2)	2.441(Mark 1)	2.5(Mark 3)
Return loss (dB)	-15.620	-29.263	-14.107

Table 1

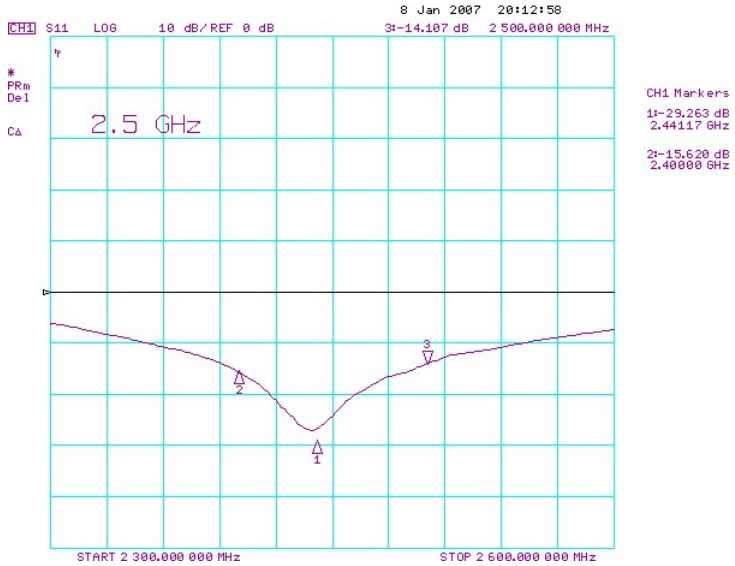


Fig. 2 return loss

SWR (modify bandwidth in 2.4~2.5)

Frequency (GHz)	2.4 (Mark 2)	2.441(Mark 1)	2.5(Mark 3)
SWR	1.3265	1.0161	1.3663

Table 2

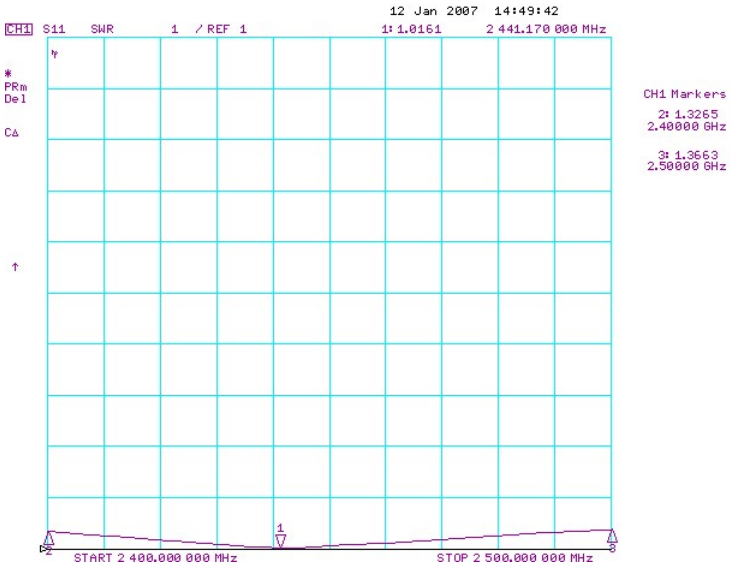
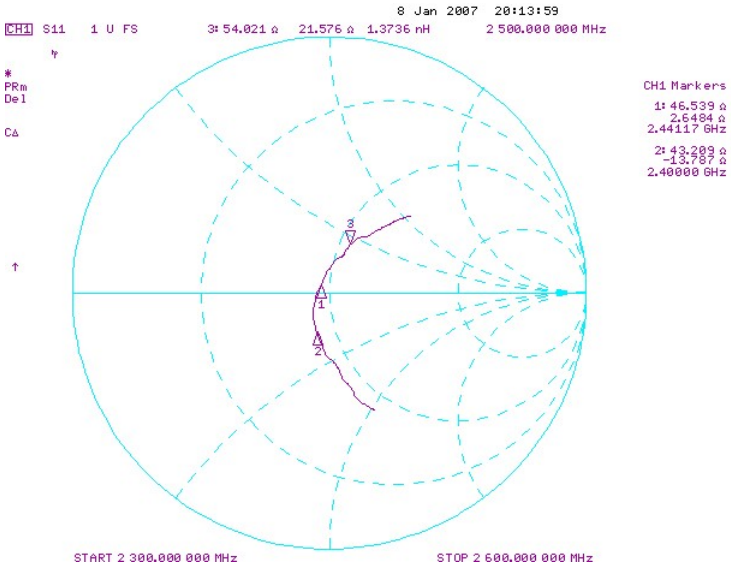


Fig. 3 SWR

Impedance

Frequency (GHz)	2.4 (Mark 2)	2.45(Mark 1)	2.5(Mark 3)
imprdance	43.209-j13.787	46.539+j2.6484	54.021+j2.6484

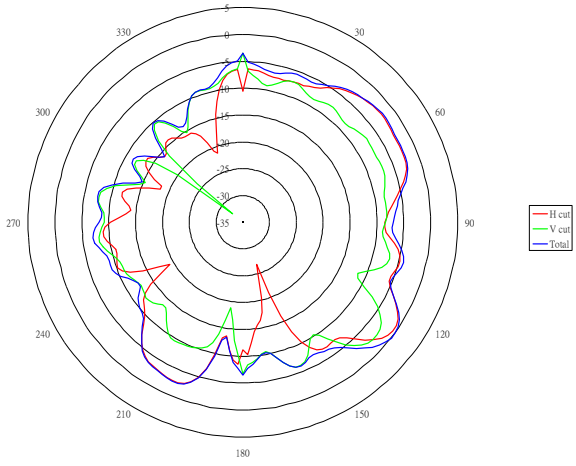
Table 3



4. Pattern:

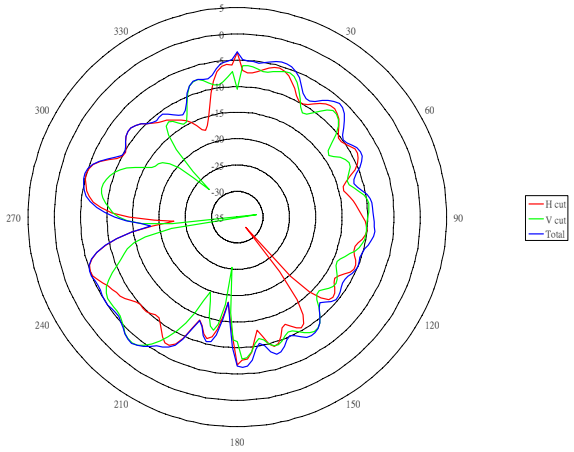
2.4G Hz:

X-Z plane



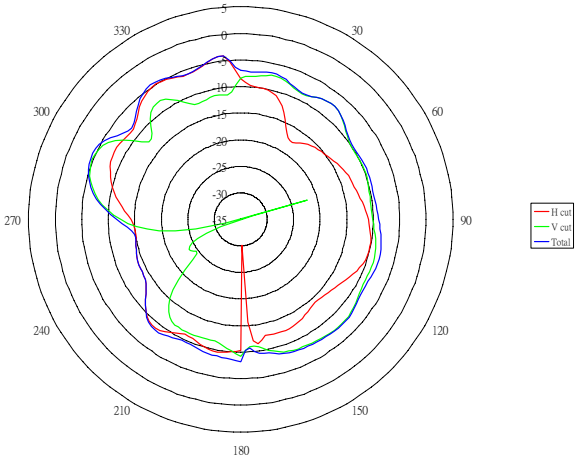
Average gain	-6.5dBi
Peak gain	0.08dBi
Efficiency	29.77%

Y-Z plane



Average gain	-7.7dBi
Peak gain	-3.49dBi
Efficiency	29.77%

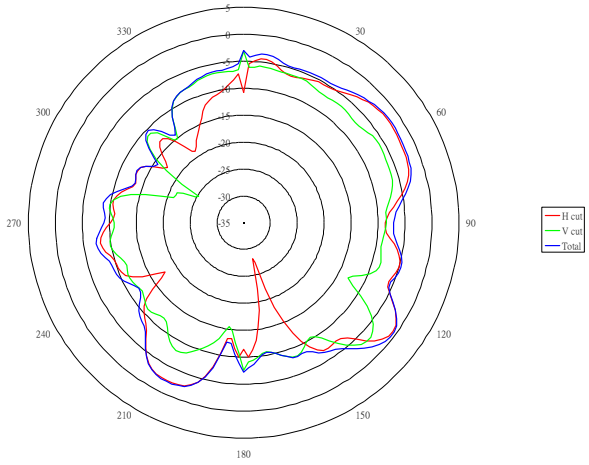
X-Y plane



Average gain	-7.9 dBi
Peak gain	-4.01dBi
Efficiency	29.77%

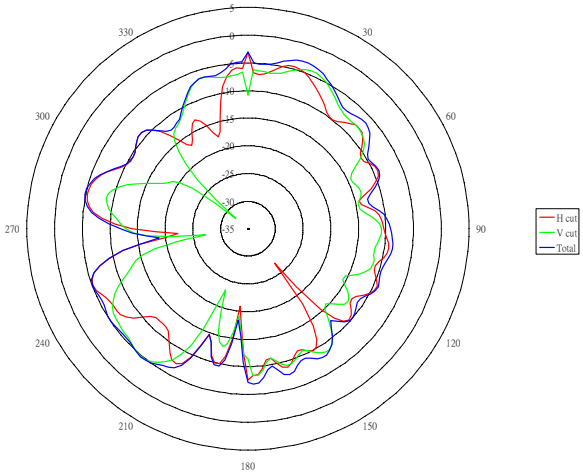
2.45G Hz

X-Z plane



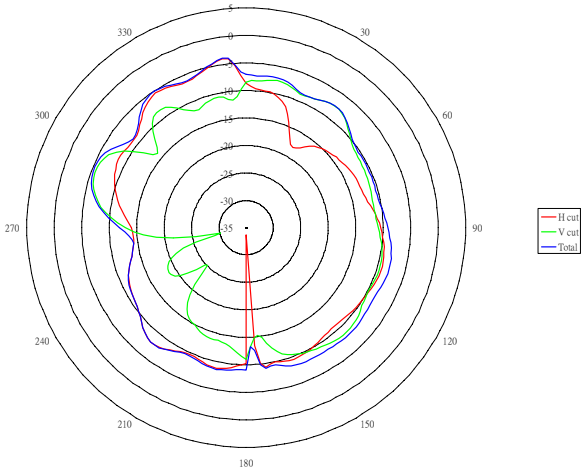
Average gain	-5.5dBi
Peak gain	-0.43dBi
Efficiency	30.05%

Y-Z plane



Average gain	-7.48dBi
Peak gain	-3.08dBi
Efficiency	30.05%

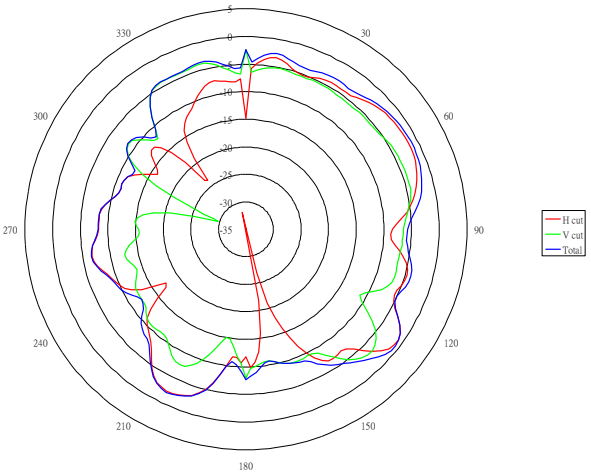
X-Y plane



Average gain	-8.1dBi
Peak gain	-3.88dBi
Efficiency	30.05%

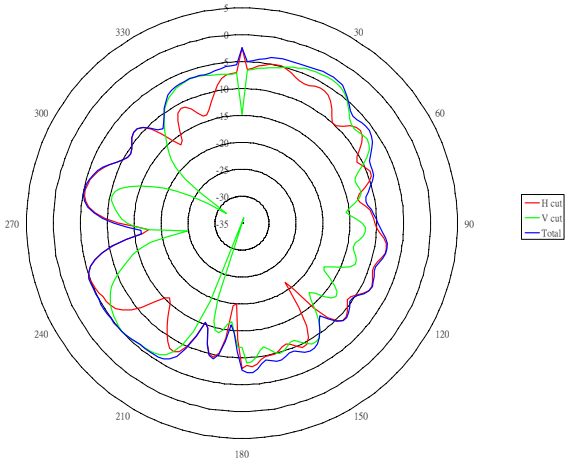
2.5G Hz

X-Z plane



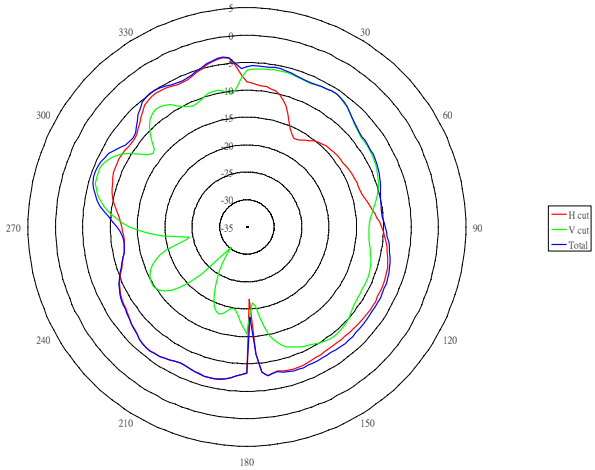
Average gain	**-4.79dBi**
Peak gain	**-0.62dBi**
Efficiency	**34.42%**

Y-Z plane



Average gain	**-6.97dBi**
Peak gain	**-2.41dBi**
Efficiency	**34.42%**

X-Y plane



Average gain	**-7.19dBi**
Peak gain	**-3.67dBi**
Efficiency	**34.42%**