## **ANTENNA**

#### ■ Electrical characteristics

1. Frequency: 824 - 960MHz, 1920 - 2170MHz

1575.42MHz

2. Max Return Loss: -6[dB], GSM/WCDMA

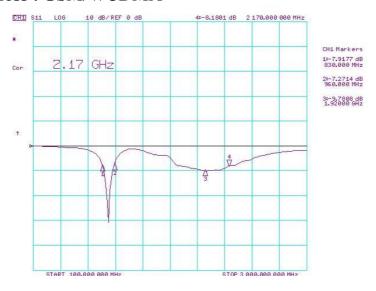
-9.54[dB], GPS/GLONASS

3. Max VSWR: 3:1, GSM/WCDMA

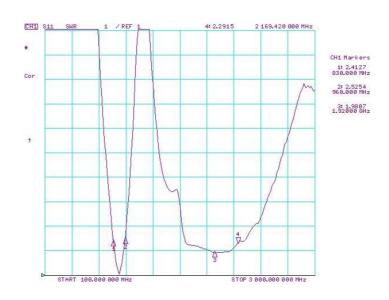
2:1, GPS

### ■ Electrical performance

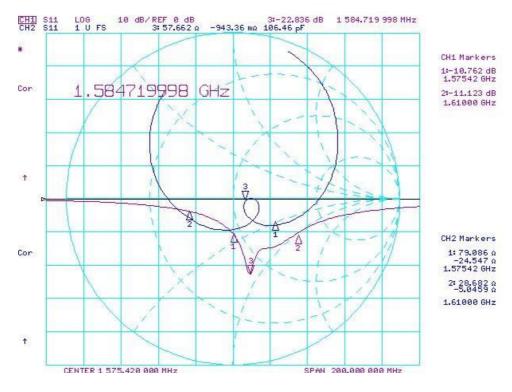
1. Return Loss: GSM/WCDMA



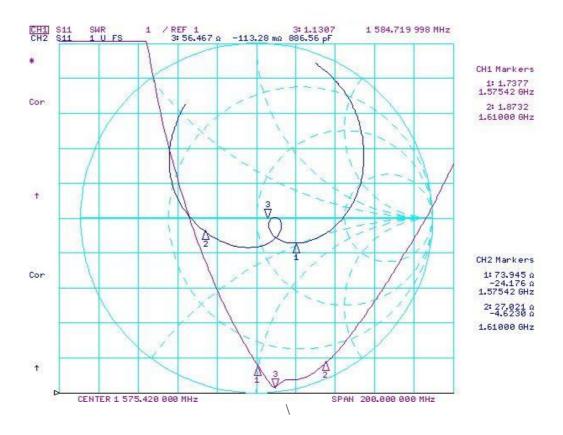
#### 2. VSWR: GSM/WCDMA



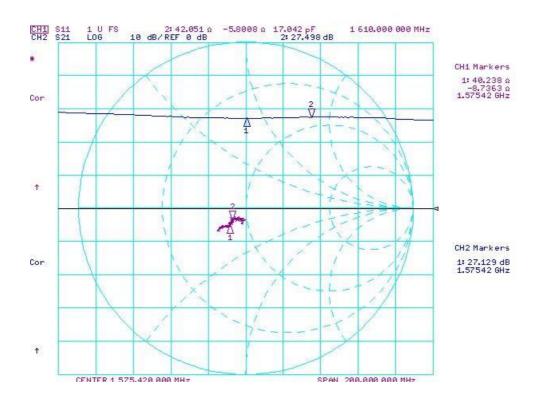
#### 3. Return Loss: GPS



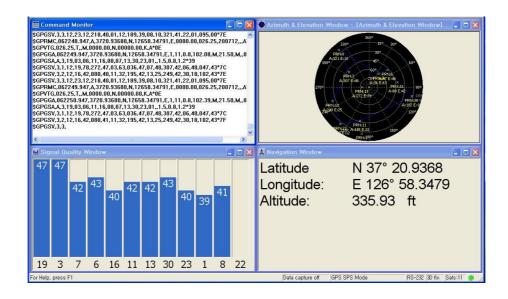
### 4. VSWR: GPS



### 5. Gain: GPS



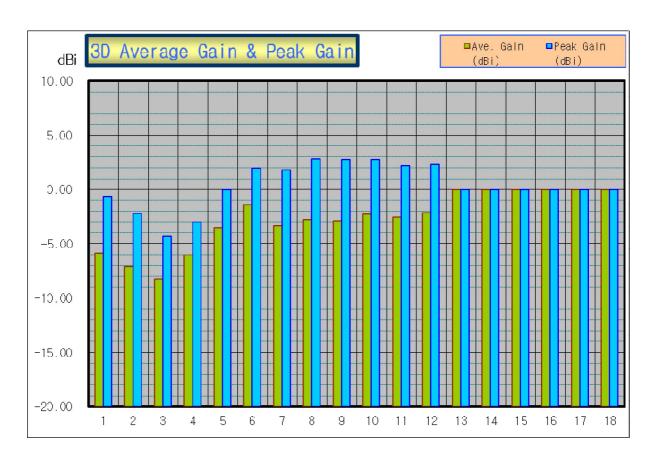
#### 6. SNR: GPS



## 7. Gain

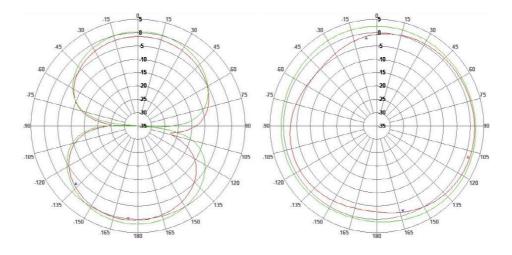
#### 7.1 GSM/WCDMA

Frequency	Eff. (%)	Ave. Gain (dBi)	Peak Gain (dBi)	Directivity (dBi)
824 MHz	26	-5.90	-0.69	5.21
846 MHz	19	-7.11	-2.22	4.89
868 MHz	15	-8.24	-4.28	3.96
912 MHz	25	-6.04	-2.97	3.07
934 MHz	45	-3.51	0.00	3.51
960 MHz	72	-1.44	1.96	3.40
1920 MHz	47	-3.31	1.79	5.10
1950 MHz	53	-2.75	2.84	5.59
1985 MHz	52	-2.86	2.80	5.66
2040 MHz	60	-2.24	2.77	5.01
2070 MHz	56	-2.52	2.19	4.71
2100 MHz	61	-2.14	2.30	4.44

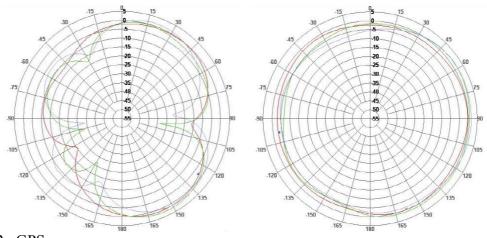


# 8. Pattern

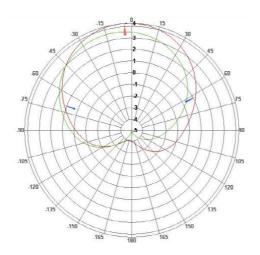
### 8.1 GSM



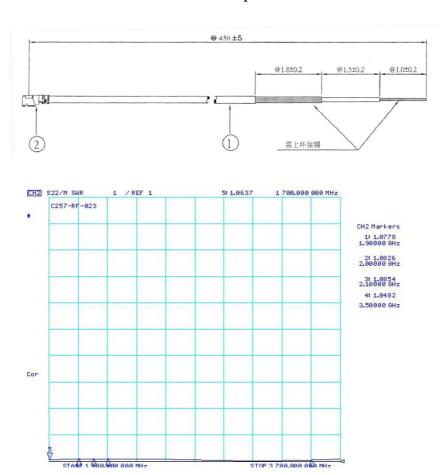
## 8.2 WCDMA



8.2 GPS



# 9. RF Coaxial Cable: UFL + Cable + Open



■ 참고사항 : 안테나는 bear board 상태에서 측정된 데이터입니다. 몰딩시 주파수 이동과 측정값이 달라질 수 있습니다.