

Amphenol-Socapex

TELECOM BUSINESS UNIT

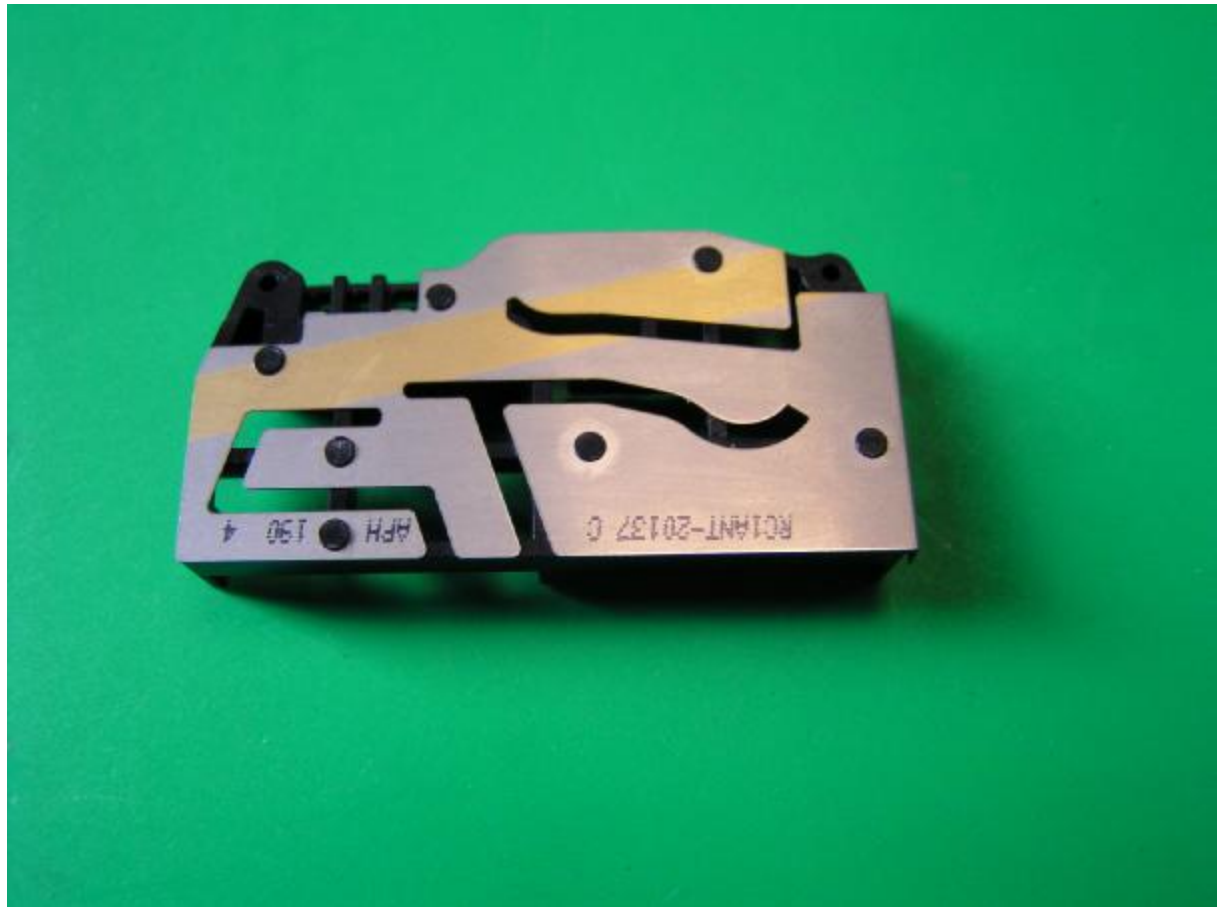
Antennas Activity

Annabi Ayoub
Ph.D.
RF Engineer

BP 349 - 39105- Dole Cedex France

Tel.:+33 (0) 3 84 82 89 04
Fax : +33 (0) 3 84 82 94 53
antennas@amphenol-socapex.fr

ANTENNA PRODUCT



GSM 850/900 _ 1800 MHz
Quad Band internal antenna
for Ricola Cellular PC card

UMTS 1900/2100

OPTION

Specification
File under Antenna Products, 3E 542 01

2004 July 8

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[Publication Version]

Amphenol – Socapex Dole

Features

- This quad-band internal antenna has been designed using Amphenol patented technology, providing superior efficiency and gain directivity in a very small volume.
- Designed for GSM and UMTS frequency bands (multiband operation)
- Omni directional
- PIFA technology
- One plastic support antenna and only two contacts (feeder & short circuit).

Electrical Specifications

Frequency range	825 MHz - 890 MHz AMPS 880 MHz – 960 MHz EGSM 1.71 GHz – 1.88 GHz DCS 1.91 GHz – 1.99 GHz UMTS FDD 2110 MHz – 2170 MHz UMTS FDD
Nominal Impedance	50 Ohms
Peak Gain	1 to 4 dBi
Radiation pattern	Omni-directional
Polarization	Linear

VSWR	< 3.14 :1 across all bands
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Connector Type

2 flexible contacts

Mechanical Specifications

Radiating Element Size without radome	46 x 22 x 6.2 mm
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Physical Mass

3 grams

Temperature Range

-40° C to +80° C

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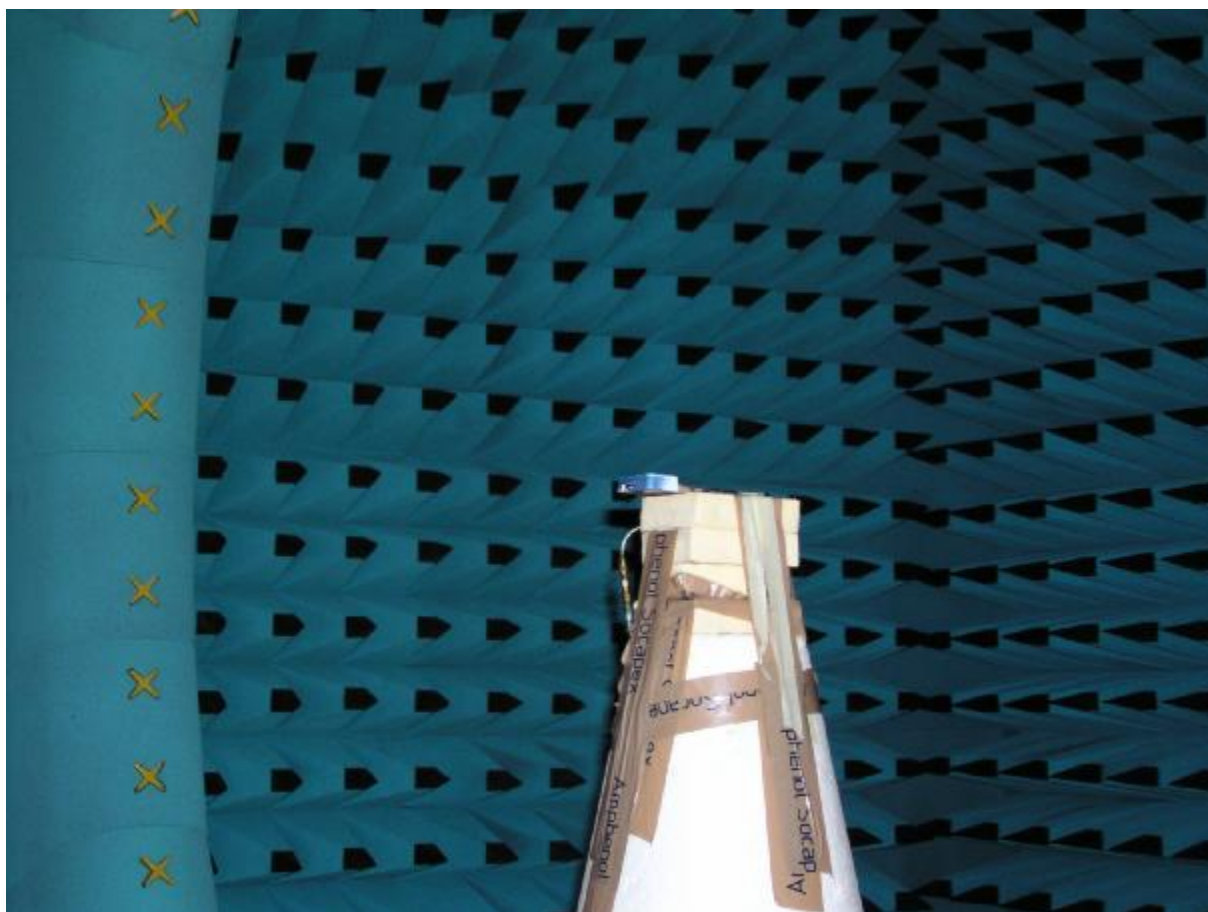
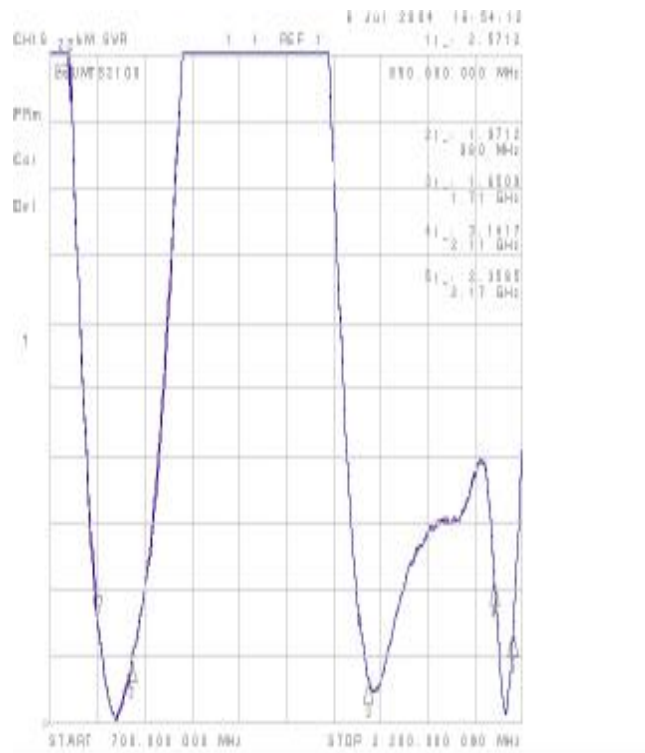
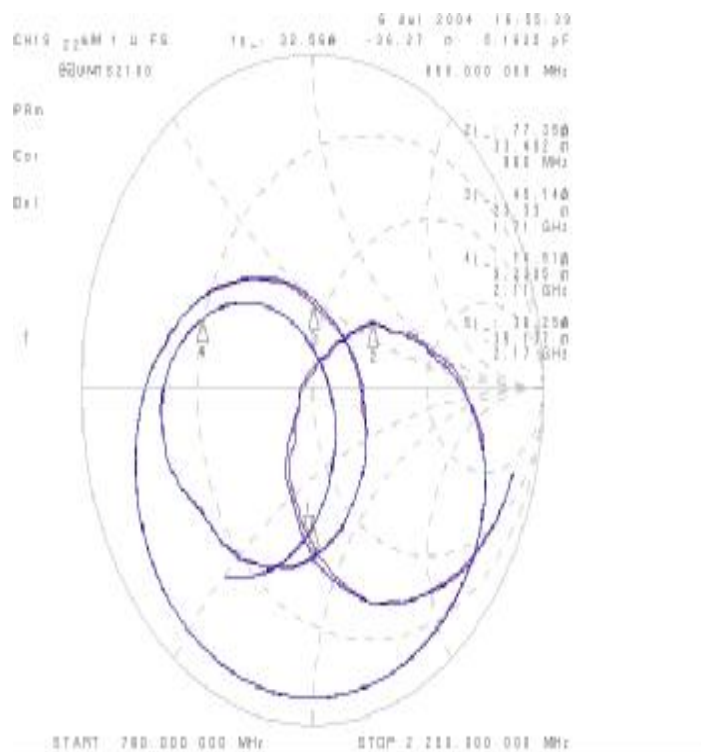


Figure I: Ricola Cellular PC card in horizontal position during the measurements in anechoic chamber.



- VSWR graph.

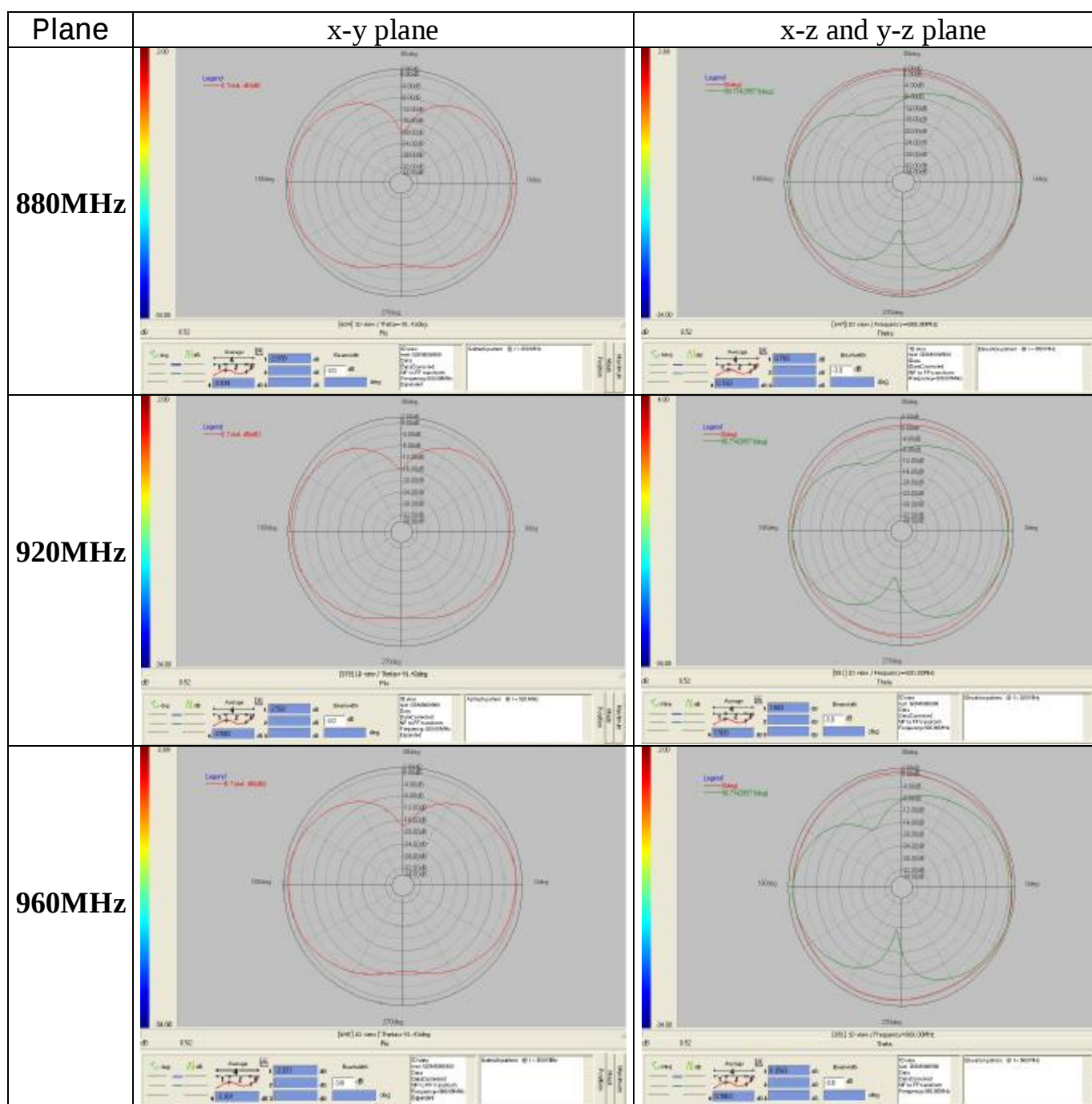


- Smith chart.

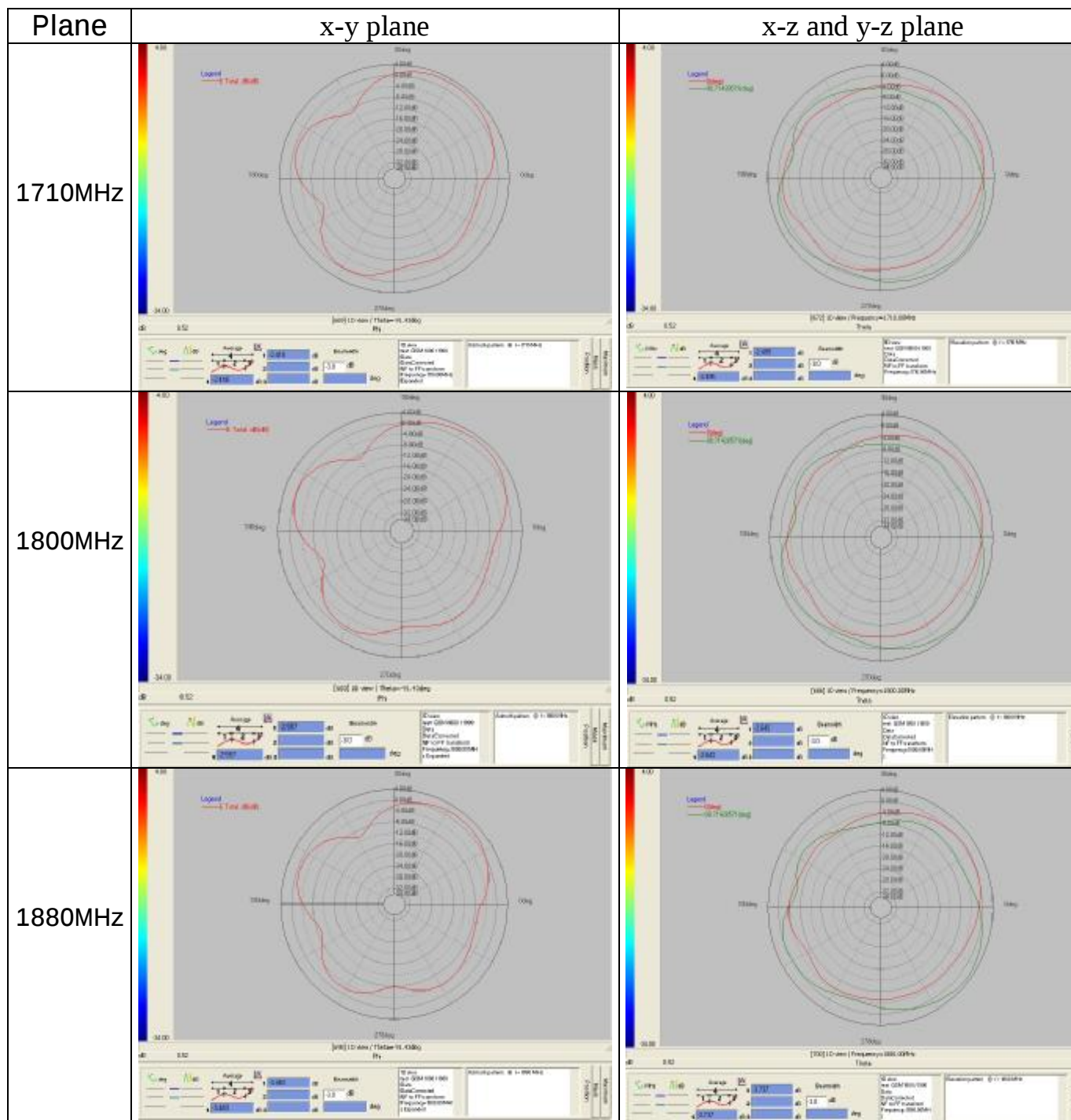
**Figure II : Electrical characteristics
 VSWR & Smith chart.**

Radiation Pattern Polar Plot

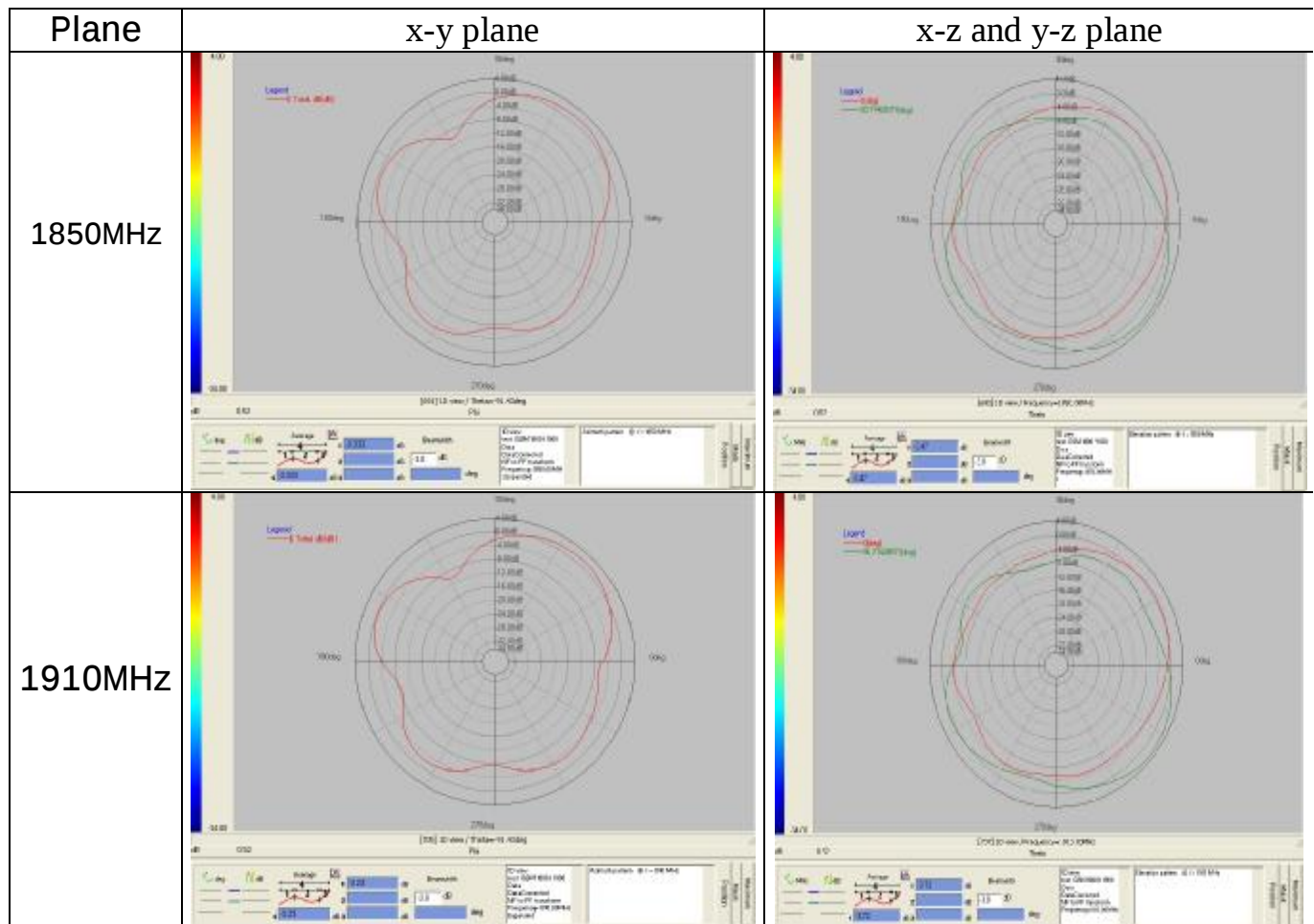
EGSM 900



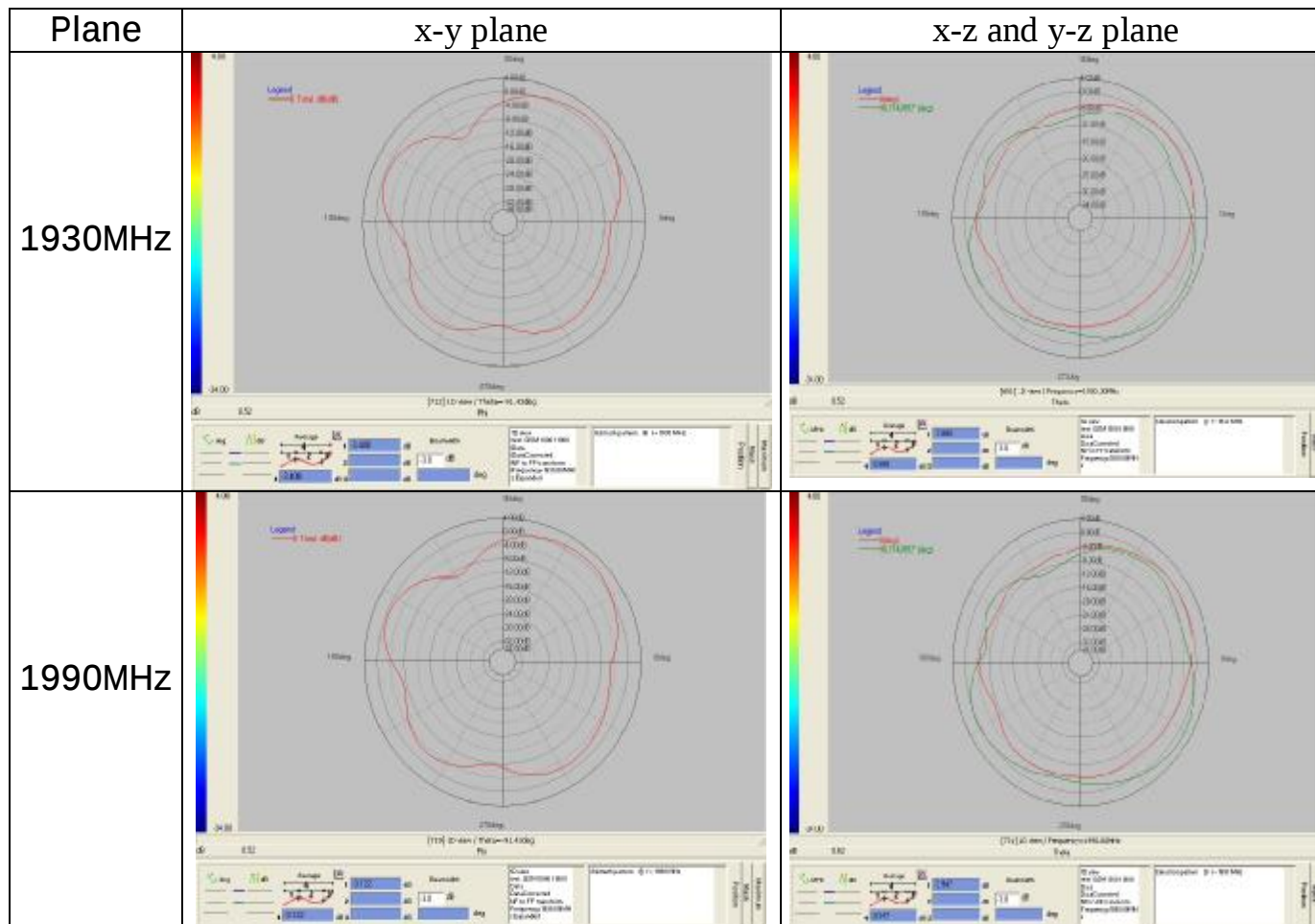
GSM 1800 DCS Frequency band



UMTS1900 Frequency band UL



UMTS2100 Frequency band UL



UMTS2100 Frequency band DL

