

1. Introduction:

QUALCOMM proposes to conduct experiments with an aircraft to ground link using CDMA 1xEV-DO technology. This experiment is in support of the industry initiative to provide high-speed data to/from an aircraft during flight.

2. Experiment Description

A business jet will be fitted with an antenna with the pattern shown in Section 6. A PCS (Part 24) 1xEV-DO mobile device will be connected to the antenna to provide a data link with a CDMA base station located on a Qualcomm building in San Diego. A single RF CDMA channel selected after frequency coordination efforts will be used during the testing. The plane will be flown within a 60km radius of the base station while the data link performance is monitored. It is expected that multiple test flights of 2-3 hours duration will be performed in 2005.

3. Duration

Dec 1, 2004 to Dec 31, 2005

4. Test Frequencies and Equipment Information

Freq Band	Unit	Freq (MHz)	# Units	BW (MHz)	Power (EIRP)	Power (ERP)	Experimental
PCS	Mobile	1850-1910	1	1.25	33 dBm (2 W)	30.8 dBm (1.213 W)	No
PCS	Fixed	1930-1990	1	1.25	47 dBm (50 W)	44.82 dBm (30.337 W)	No

5. Location

A single airborne mobile device will be flown within a 60 km radius of the fixed base station location detailed below.

Address	Lat	Long
5775 Morehouse Drive San Diego, CA 92108	32-53-42.9 N	117-11-43.74 W

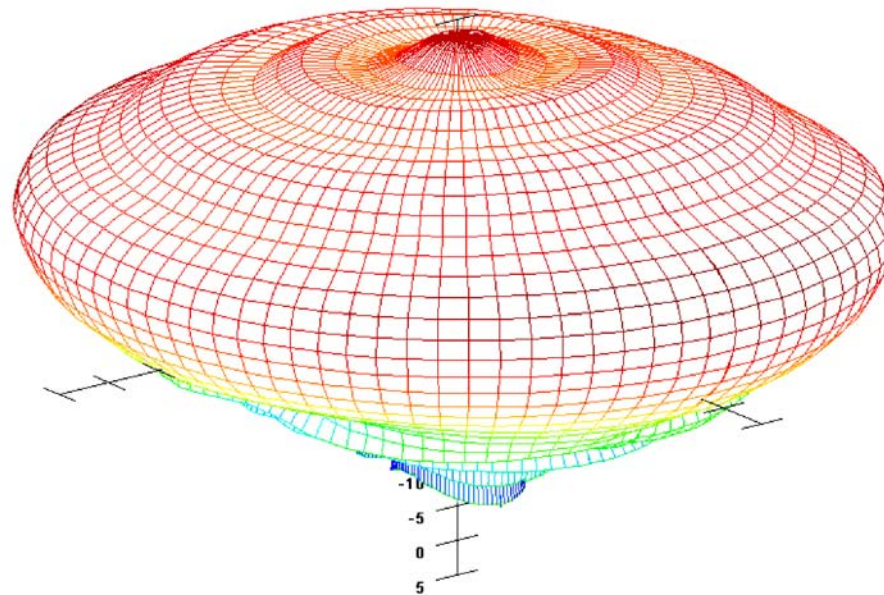
6. Antenna Pattern

Gain (dBi)



AeroAntenna Technology #5001 on 39.5" ground plane, aut=RCP

bsy035.asc / Frequency = 1.850 GHz



Total Power Max= 4.69 dBi, Loss= 1.496 dB

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