## Pacifica International, LLC

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February 7, 2005

To: Stan Lyles

FCC Application Processing Branch

Re: FCC ID SNY-GP850A Applicant: Pacifica International

Correspondence Reference Number: 28379
731 Confirmation Number: EA529430

This letter responds to your questions in correspondence reference # 28379 on 1/28/05.

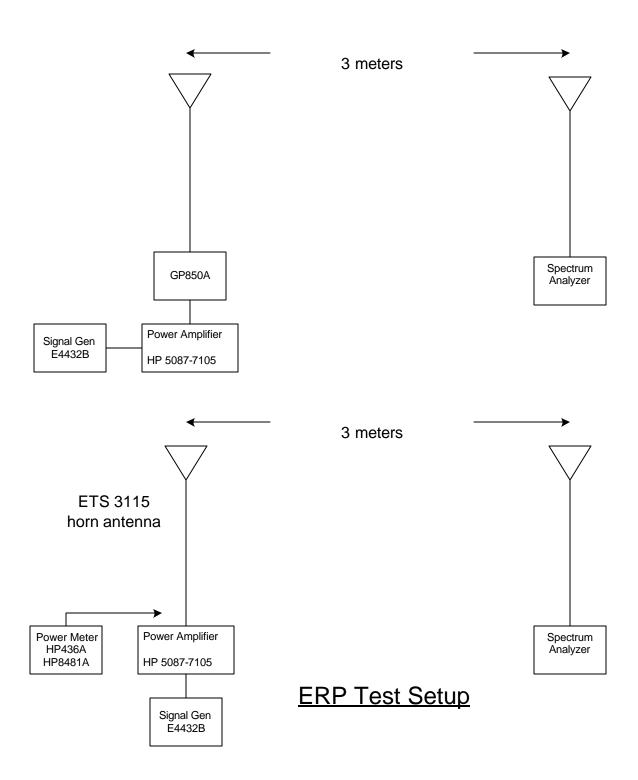
1.) As stated in corresp. 28328, 22H/24E devices with ERP above categ. excl. power levels of 2.1091 are subject to RF exposure routine evaluation, normally MPE test, 3D computational simulation, or other methods and procedures based on sound engineering practice. It is not clear that distance used in MPE estimate for FCC RF exposure compliance can always be ensured for consumer use of this device. Therefore please revise RF exposure as previously discussed.

Please see the ERP measurements below. The maximum ERP is 0.716 W.

2.) The EIRP output power in the 1900 MHz PCS band is over the 2.0 watt limit under Part 24.232(b) of the FCC rules. Please re-measure EIRP output power using the substitution method such as described in the ANSI/TIA/EIA-603-B-2002 document.

ERP and EIRP measurement for PCS band in accordance with ANSI/TIA/EIA-603-B-2002 section 2.2.17:

- 1. Measurements were first made with the EUT and the 3dBi EUT antenna transmitting to the ETS horn antenna on the antenna mast at 3 meters distance, height maximized for receive signal strength.
- 2. Then the EUT and EUT antenna were replaced with an HP 5087-7105 power amplifier and a second ETS horn antenna. The power from the signal generator was set so that the received signal at the receive antenna was the same level as when the EUT was transmitting (again height maximized for receive signal strength).
- 3. This power input into the cable connected to the transmit antenna from the HP 5087-7105 power amplifier was measured with a power meter, and the value was recorded into the first column of Table 1.
- 4. This value was then corrected for the cable loss between the HP amplifier and ETS horn antenna, and the antenna gain of the ETS horn antenna.



$$\begin{split} ERP\left(dBm\right) &= Output\ power\left(dBm\right) - Cable\ loss\left(\ dB\ \right) + Antenna\ gain\left(\ dBd\ \right) \\ EIRP\left(dBm\right) &= Output\ power\left(dBm\right) - Cable\ loss\left(\ dB\ \right) + Antenna\ gain\left(\ dBi\ \right) \\ EIRP(dBm) &= ERP\left(dBm\right) + 2.15\left(dB\right) \end{split}$$

**Table 1:** Measurement and calculations

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Frequency	Power	Cable loss	Gain	EIRP	EIRP	ERP	ERP
MHz	dBm	dB	dBi	dBm	$\mathbf{W}$	dBm	$\mathbf{W}$
1850	25.9	3.7	8.5	30.7	1.175	28.55	0.716
1880	25.5	3.7	8.5	30.3	1.072	28.15	0.653
1910	24.5	3.7	8.5	29.3	0.851	27.15	0.519

## Therefore:

The maximum ERP = 0.716 W The maximum EIRP = 1.175 W

Please let me know if you need any additional information. Your consideration in this matter is appreciated.

Sincerely yours,

Udom Vanich Engineering Manager

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