Re: FCC ID: HD59500LUPE

Applicant: Hand Held Products Inc
Correspondence Reference Number: 30533
731 Confirmation Number: TC628111
Date of Original Email: 07/27/2006

Response to item 1)
Tim Harrington of the FCC was consulted regarding item 1. He provided 3 documents with information related to this item. These 3 documents are attached with this response. The applicable portions are shown below in blue.

From: Tim Harrington
Sent: Monday, March 18, 2002 8:47 AM
Subject: Re: Flat Baths
In general wavelength in liquid considerations should dictate. Phantom must be large enough to encompass all major peaks of SAR distribution. Elliptical footprint phantoms may provide better strength. Some applicants use external ridges or support plates with cut-outs to reduce sag. Setup photos and SAR distribution plots in filings should reveal size problems if there are any. We and SCC34 prefer not to relax the thickness spec above 800 MHz.

The body SAR plots all show a clearly defined peak that is located near the center of the SAR scan.

Questions from Feb04 TCB training:
Wednesday 2/18/04
Question 21 - Kevin Hall: Size of phantom, should it be 2x the size of the laptop.
Answer 21 - Tim, no generally not, but at least significantly larger than the Tx device and its antenna.

The phantom is significantly larger than the antenna. The phantom is also significantly larger than area of the EUT that contains the radio modules and the antennas. This area is fully covered in the SAR scans.

From draft 62209-2 version
Flat phantom shall be 20% larger than each of the width or length of the device including the antenna and shall encompass the DUT with at least a 10% margin in all directions.

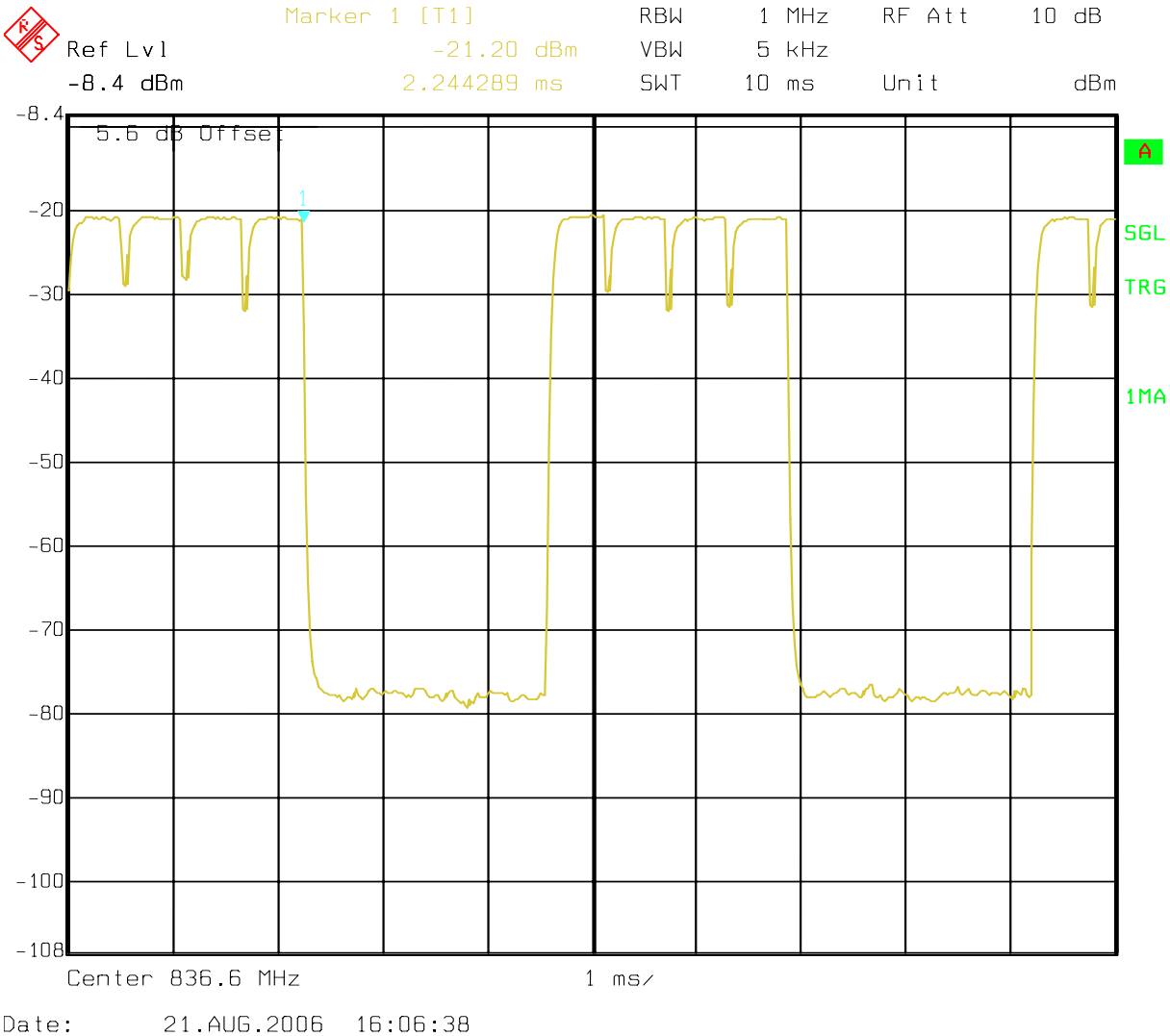
Response to item 2)
The ERP/EIRP values were measured in an anechoic chamber to precisly measure the EUT's output power. ERP/EIRP is a peak measurement therefore it was measured with 1 uplink timeslot, which has the highest peak power. During SAR testing a basestation simulator monitors the radiated power. The basestation simulator can monitor the power level of each of the 8 available timeslots. The EUT was connected via an RF cable to the basestation simulator in order to determine the reduction values during multiple timeslot transmission. The peak power was measured for 1, 2, 3 and 4 uplink timeslots. The measured reduction for 2 timeslots was 1.45 dB,

for 3 timeslots was 4.3 dB and for 4 timeslots was 5.6 dB. The reduction values were then used to determine the highest time averaged power levels.

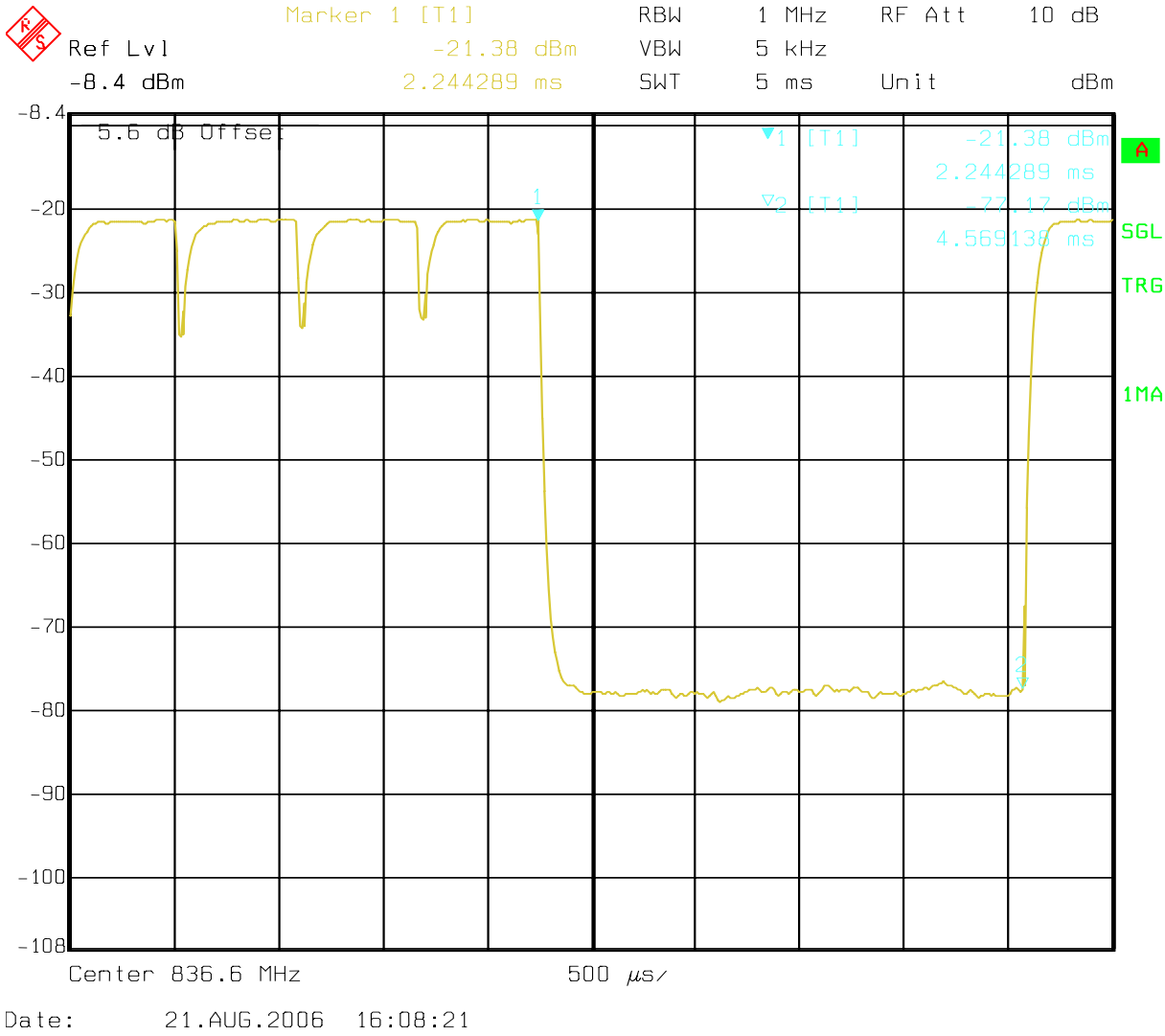
GSM/GPRS uses time division multiplexing with 8 available timeslots. Transmission with 1 timeslot has a 1/8 duty cycle. To calculate the time averaged power the duty cycle is converted to dB then subtracted from the peak power. The calculation of 824.2 MHz with 2 timeslots is shown below as an example.

$23.31_{(ERP)} - 1.45_{(reduction\ value)} - 6_{(duty\ cycle)} = 15.86\ dBm$

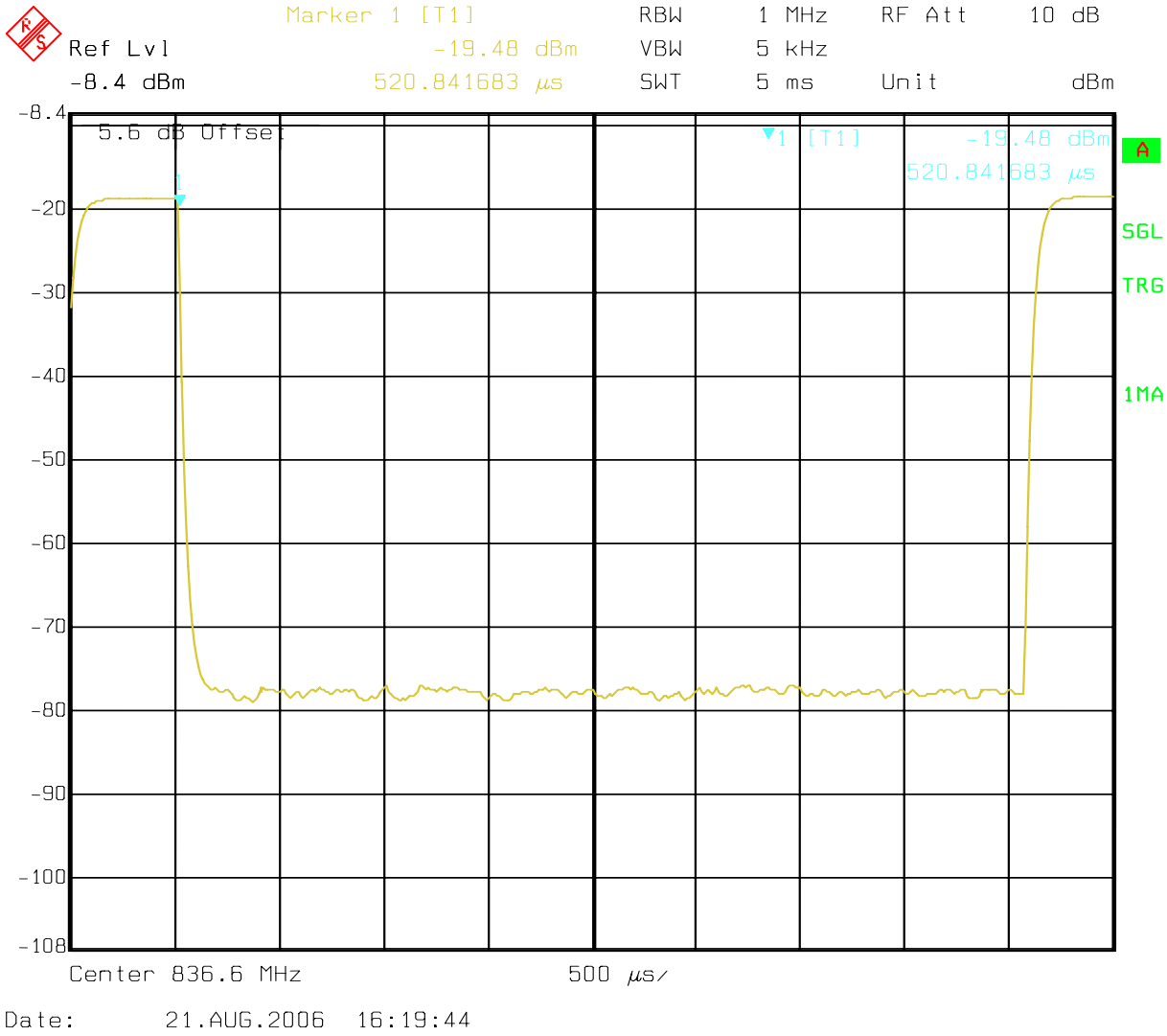
Example spectrum analyzer plots with zero span are shown below. Plots are to show the duty cycle of the GPRS signal. No power reduction is being shown in these plots. Power reduction values were measured with a basestation simulator.



GPRS with 4 uplink timeslots



GPRS with 4 uplink timeslots



GPRS with 1 uplink timeslot