# Project 10680-10

Prepared for:

GPS Industries, LLC 1074 N. Orange Ave. Sarasota, FL 34236

By

Professional Testing (EMI), Inc. 1601 N. A.W. Grimes Blvd., Suite B Round Rock, Texas 78665

May 26, 2010

MPE / RF Exposure Report Visage VDU YEY-VISAGE1-2010

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<sup>(3)</sup> The significance of this report is dependent on the representative character of the test sample submitted for evaluation and the results apply only in reference to the sample tested. The manufacturer must continuously implement the changes shown herein to attain and maintain the required degree of compliance.



Applicant: GPS Industries, LLC.

Applicant's Address: 1074 N. Orange Ave

Sarasota, FL 34236

FCC ID: YEY-VISAGE1-2010

IC Number: 8998A-VISAGE12010

Project Number: 10680-10

Test Dates: April 13-14, 2010 and May 5,7, and 10, 2010

I, Jason Anderson, for Professional Testing (EMI), Inc., being familiar with the FCC rules and test procedures have reviewed the test setup, measured data and this report. I believe them to be true and accurate.

Jason Anderson

**Director of Testing Services** 

This report has been reviewed and accepted by GPS Industries, LLC. The undersigned is responsible for ensuring that this device will continue to comply with the FCC and IC rules.

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# 1.0 MPE Prediction

Prediction of MPE limit at a given distance was made by using equation from page 18 of OET Bulletin 65, Edition 97-01.

In order to prove that SAR is not required we used the combined MPE calculation of the Wi-Fi device and the GPRS module. The data is contained in the worksheet below.

## 1.1 Evaluation Procedure

#### $S=PG/4\pi R^2$

Where: S = power density

P= power input to antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

#### 1.2 Evaluation Criteria

MPE limit for uncontrolled exposure at prediction frequency (mW/cm<sup>2</sup>): 1.0

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## **MPE Prediction Calculation**

PROJECT #	DATE	RULE	DISTANCE	ANTENNA	RBW	VBW	DETECTOR
10680-10	May 10, 2010	15.247	N/A	N/A	N/A	N/A	N/A

## **Calculations**

## $S=PG/4\pi R^2$

Where: S = power density

P= power input to antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

# **MPE Wi-Fi Transmitter**

Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)	Prediction Distance (cm)	Max Antenna Gain (dBi)	Max Antenna Gain (numeric)	Power Density at 20.0 cm (mW/cm²)
2412	24.82	303.4	20	2.0	1.585	.09571

## **MPE GPRS Transmitter**

Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)	Prediction Distance (cm)	Max Antenna Gain (dBi)	Max Antenna Gain (numeric)	Power Density at 20.0 cm (mW/cm <sup>2</sup> )
1900	30	974.99	20	3.0	3.0	.58190

NOTE: Antenna Gain is estimated worst case scenario.

 $.09571 + .58190 = .67761 \text{ mW/cm}^2$ 

**NOTE:** Client provides professional installation instructions which detail how to maintain the 20 cm separation distance.

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