Date:	September 2, 2010
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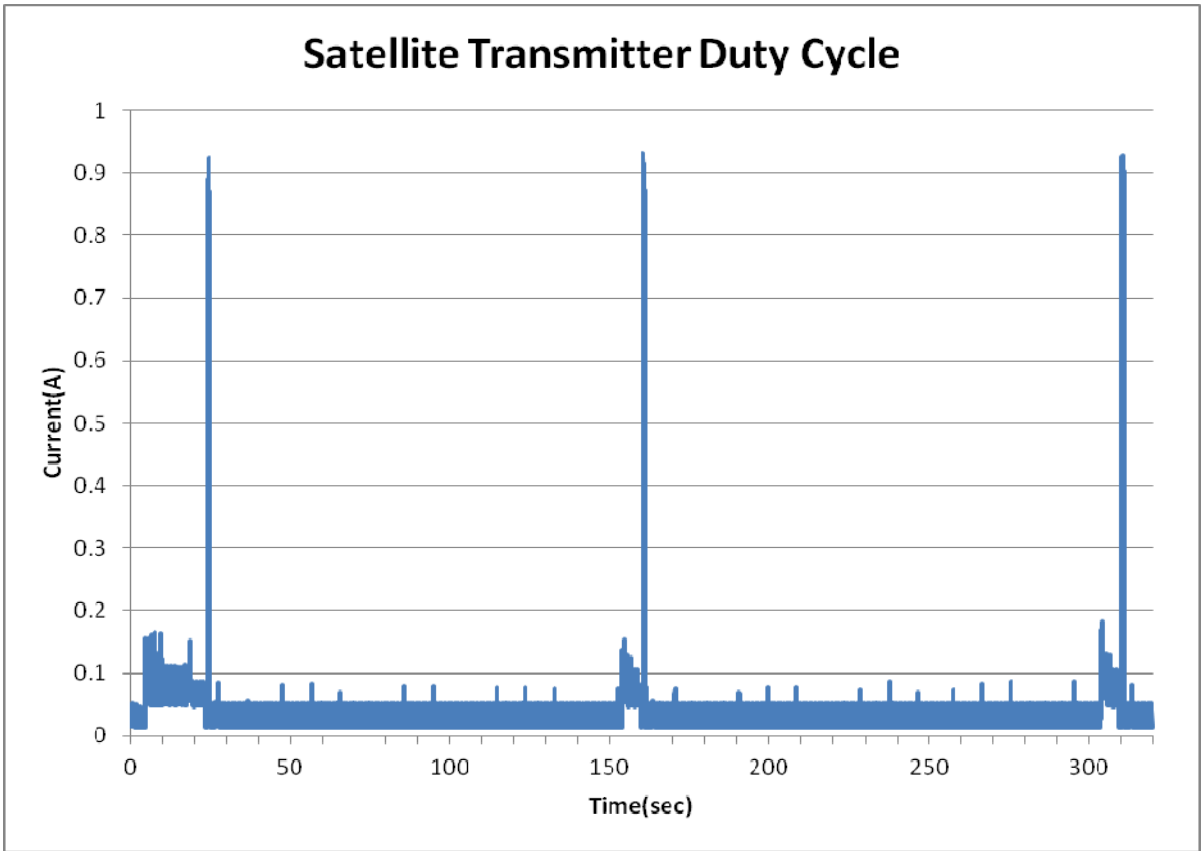
Equipment:	SMTPH
FCC ID:	L2V-SMTPH
FCC Rules:	Radio Frequency Radiation Exposure Limits 47 CFR 1.1307

SAR Analysis Report without SAR measurements.

The SMTPH is a standalone device that connects wirelessly via *Bluetooth* to other SmartPhones (iPhone, Droid, Blackberry, etc) to facilitate sending SPOT message packets over the Globalstar simplex network. It processes signals from the GPS satellites to determine your location and time in ordinary and emergency situations. The messages contain various data and are transmitted over the Globalstar satellite network to the Globalstar Simplex Remote Telemetry BackOffice where the data is forwarded to the end user or their designated recipient(s).

Satellite Transmitter Duty Cycle

As a standalone device, the satellite transmitter's worst case duty-cycle is in SOS mode. There is a 1.4 second pulse train and there are 300 seconds between transmissions. This gives the unit a duty-cycle of 0.46% (D.C. = 1.4 sec pulse train / 301.4 sec between transmissions). When the SMTPH is synced up with a SmartPhone, the worst-case would be an 8.64 sec pulse train / 308.64 sec between transmissions, for a duty-cycle of 2.8%. The following diagram illustrates this.

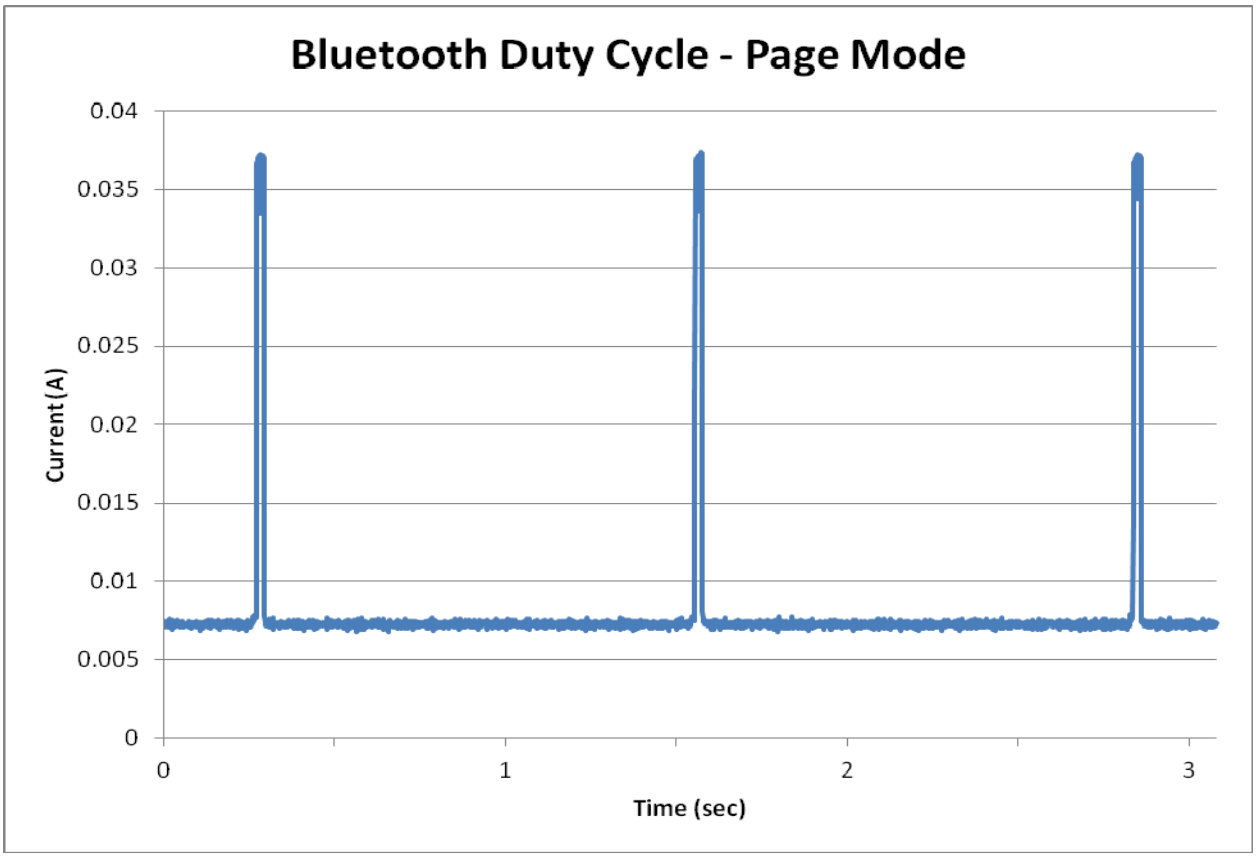


Source Time Based Power calculation for 1611.25 – 1618.75 MHz Satellite Transmitter

Threshold = 60/ f GHz
60/1.61875 = 37.06 mW
Source time based power = average output power * duty cycle
This is a portable device

Frequency GHz	Average Power mW	Satellite Duty Cycle 2.88%	Source time based power mW	Limit mW
1.61125	169.824	0.0288	4.755072	37.06
1.61375	165.959	0.0288	4.646852	37.06
1.61625	162.181	0.0288	4.541068	37.06
1.61875	154.882	0.0288	4.336696	37.06

Bluetooth Transmitter Duty Cycle
For Bluetooth operation, the worst case duty cycle is during 'Page and Inquiry' scan. There is a 21 milli-second pulse train and 1.3 sec between pings, giving it a duty-cycle of 1.6%. (D.C = 21 mS pulse train / 1.321 sec between pings). The following diagram illustrates this.



Source Time Based Power calculation for 2402 - 2480 MHz Wi-Fi Transmitter

Threshold = 60/ f GHz
60/2.480 = 24.19 mW
Source time based power = average output power * duty cycle
This is a portable device

		Bluetooth		
Frequency	Average Power	Duty Cycle	Source time based power	Limit
GHz	mW	1.60%	mW	mW
2.401	0.000098	0.016	0.000001568	24.19
2.441	0.000093	0.016	0.000001488	24.19
2.840	0.000032	0.016	0.000000512	24.19

Photo of Satellite Transmitter antenna w/ unit dimensions

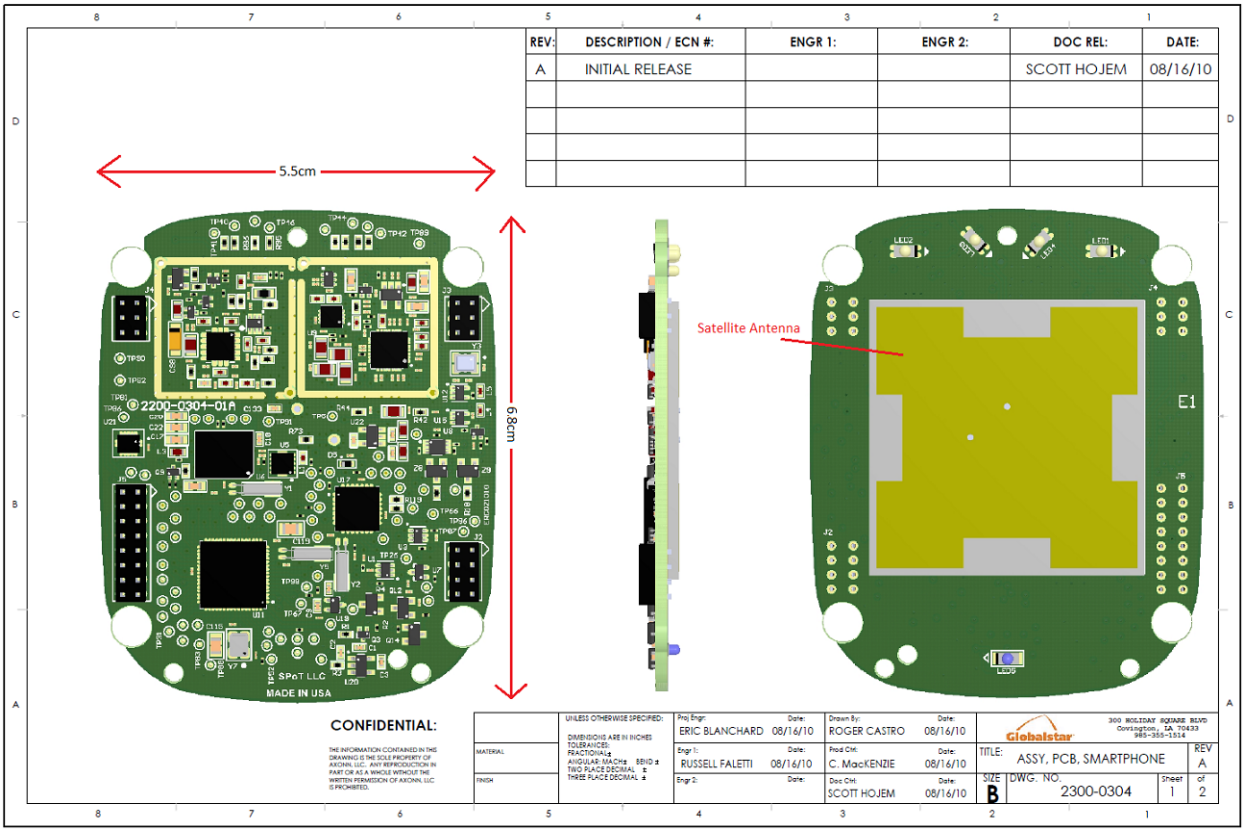


Photo of Bluetooth antenna location with unit dimensions