

Tissue Parameters

Recipe for liquids below 1 GHz:

Water 35-58%
 Sugar 40-60%
 Salt 0-6%
 Hydroxyethyl-cellulose <0.3%
 Preventol-D7 0.1-0.7%

Recipe for liquids 1-3 GHz:

Water 52-75%
 DGBE 25-48%
 Salt <1.0%

SAR measurements were made within 24 hours of the measurement of liquid parameters.

850MHz Body Liquid:

Date	Freq. (MHz)	Rel. Perm.	Condy (S/m)
6-4-12	824.2	54.09	0.985
	836.6	53.9	1
	848.8	53.74	1.01
6-5-12	824.2	54.09	0.986
	836.6	53.92	0.999
	848.8	53.76	1.01
6-6-12	824.2	53.68	0.98
	836.6	53.47	0.994
	848.8	53.29	1.006
6-7-12	824.2	53.66	0.982
	836.6	53.46	0.996
	848.8	53.3	1.008
6-8-12	824.2	53.16	1.004
	836.6	53.09	0.993
	848.8	52.87	1.004
6-11-12	824.2	53.02	0.975
	836.6	52.89	0.989
	848.8	52.72	1
6-13-12	824.2	52.93	0.947
	835	52.88	0.961
	836.6	52.84	0.964
	848.8	52.67	0.977
6-29-12	824.2	53.53	0.982
	835	53.37	0.994
	836.6	53.34	0.995
	848.8	53.18	1.006

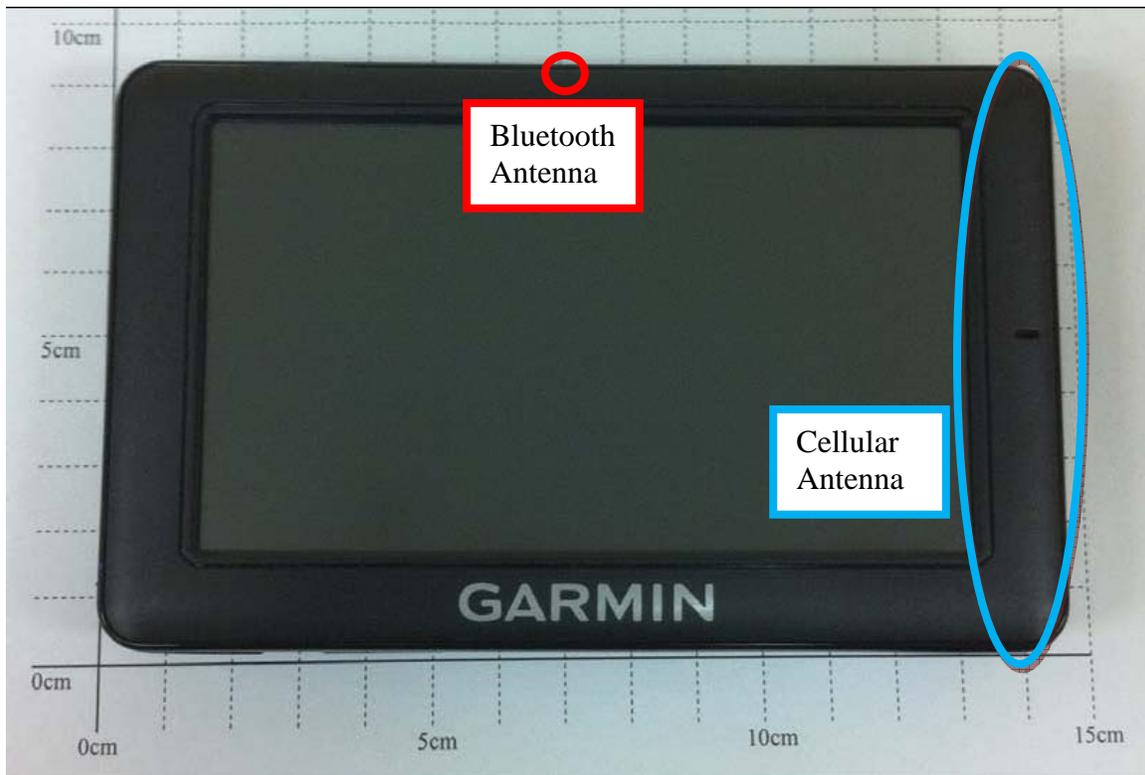
1750MHz Body Liquid:

Date	Freq. (MHz)	Rel. Perm.	Condy (S/m)
6-12-12	1712.4	54.76	1.391
	1732.6	54.57	1.418
	1752.6	54.42	1.468
6-13-12	1712.4	54.6	1.39
	1732.6	54.62	1.426
	1752.6	54.45	1.465

1900MHz Body Liquid:

Date	Freq. (MHz)	Rel. Perm.	Condy (S/m)
6-13-12	1850.2	51.5	1.511
	1880	51.03	1.536
	1900	50.8	1.533
	1909.8	50.72	1.535
6-15-12	1850.2	51.49	1.476
	1880	51.18	1.503
	1900	50.9	1.497
	1909.8	50.87	1.49
6-18-12	1850.2	51.52	1.497
	1880	50.98	1.532
	1900	50.7	1.526
	1909.8	50.63	1.521
6-29-12	1850.2	51.93	1.474
	1880	51.33	1.49
	1900	50.82	1.484
	1909.8	50.78	1.472

Antenna Locations



Minimum separation distances:

Bluetooth antenna to cellular antenna: 60 mm

Cellular antenna to top edge of enclosure: 9 mm

Cellular antenna to right edge of enclosure: 4 mm

Cellular antenna to bottom edge of enclosure: 5 mm

Cellular antenna to left edge of enclosure: 126 mm

Test Equipment

SAR1 Lab

Instrument description	Supplier / Manufacturer	Model	Serial No.	Calibration (date)	Calibration Due (date)
Robot	Staubli	TX90	F10/5D3NA 1/A/01	N/A	N/A
SAM Twin Phantom	SPEAG	SM 000 T01 DA	1592	N/A	N/A
Elliptical Phantom	SPEAG	QD OVA 001 BB	1092	N/A	N/A
Software	SPEAG	Dasy52.6.2.482	N/A	N/A	N/A
Device Holder	SPEAG	SD 000H01	N/A	N/A	N/A
Data Acquisition Electronics	SPEAG	DAE4	1233	2010/10/13	2013/10/13
SAR Probe	SPEAG	ES3DV3	3244	2011/10/25	2012/10/25

SAR 3 Lab

Instrument description	Supplier / Manufacturer	Model	Serial No.	Calibration (date)	Calibration Due (date)
Robot	Staubli	TX90	F11/5G2MA 1/C/01	N/A	N/A
SAM Twin Phantom	SPEAG	SM 000 T01 DA	1637	N/A	N/A
SAM Twin Phantom	SPEAG	SM 000 T01 DA	1638	N/A	N/A
Elliptical Phantom	SPEAG	QD OVA 001 BB	1124	N/A	N/A
Software	SPEAG	Dasy52.6.2.482	N/A	N/A	N/A
Device Holder	SPEAG	SD 000H01	N/A	N/A	N/A
Data Acquisition Electronics	SPEAG	DAE4	1266	2011/05/30	2014/05/30
SAR Probe	SPEAG	ES3DV3	3261	2012/04/20	2013/04/20

Shared Equipment

Instrument description	Supplier / Manufacturer	Model	Serial No.	Calibration (date)	Calibration Due (date)
850 MHz Body Tissue Simulant	SPEAG	MSL 900	110518-7	2012/06/04 – 2012/06/29	N/A
850 MHz Body Tissue Simulant	SPEAG	MSL 900	100818-1	2012/06/13	N/A
1750 MHz Body Tissue Simulant	SPEAG	MSL 1750	100824-2	2012/06/12 – 2012/06/13	N/A
1900 MHz Body Tissue Simulant	SPEAG	MSL 1900	100824-3	2012/06/13 – 2012/06/29	N/A
835 MHz Dipole	SPEAG	D835V2	4D113	2011-01-10	2013-01-10
1750 MHz Dipole	SPEAG	D1750V2	1045	2011-01-05	2013-01-05
1900 MHz Dipole	SPEAG	D1900V2	5D135	2011-01-05	2013-01-05
Network Analyzer	Agilent	E753ES	US39172511	2011/06/22	2012/06/22
Calibration Kit	HP	85052D	2830A00748	2011/03/22	2012/03/22
Directional coupler	Werlatone	C6529	11249	N/A	N/A
RF Amplifier	Vectawave	VTL5400	N/A	N/A	N/A
Dielectric Measurement Kit	IndexSAR	Di-Line	N/A	N/A	N/A
Synthesized CW Generator	Agilent	8371213	US37101255	N/A	N/A
Power Meter	Agilent	E4419B	MY45101996	2011/07/29	2012/07/29
Power Sensor	Agilent	E9300A	MY41498484	2011/08/05	2012/08/05
Power Sensor	Agilent	E9300A	MY41498492	2011/08/05	2012/08/05