

12-3 Liquid Parameters

SAR D room (DASY 4)

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit \pm (%)	
7/20/2011	Head 1900	e'	40.2261	Relative Permittivity (ϵ_r):	40.23	40.00	0.57	5
		e''	12.9875	Conductivity (σ):	1.37	1.40	-1.99	5
7/21/2011	Head 1900	e'	39.2754	Relative Permittivity (ϵ_r):	39.28	40.00	-1.81	5
		e''	12.9814	Conductivity (σ):	1.37	1.40	-2.04	5
7/22/2011	Head 1900	e'	39.6963	Relative Permittivity (ϵ_r):	39.70	40.00	-0.76	5
		e''	12.9260	Conductivity (σ):	1.37	1.40	-2.46	5
7/25/2011	Head 2450	e'	39.0157	Relative Permittivity (ϵ_r):	39.02	39.20	-0.47	5
		e''	12.8340	Conductivity (σ):	1.75	1.80	-2.87	5
7/25/2011	Head 1900	e'	38.8537	Relative Permittivity (ϵ_r):	38.85	40.00	-2.87	5
		e''	13.4303	Conductivity (σ):	1.42	1.40	1.35	5
7/26/2011	Head 1900	e'	39.0478	Relative Permittivity (ϵ_r):	39.05	40.00	-2.38	5
		e''	13.1613	Conductivity (σ):	1.39	1.40	-0.68	5
7/28/2011	Head 1900	e'	38.9729	Relative Permittivity (ϵ_r):	38.97	40.00	-2.57	5
		e''	12.8476	Conductivity (σ):	1.36	1.40	-3.05	5
8/1/2011	Head 1900	e'	38.9035	Relative Permittivity (ϵ_r):	38.90	40.00	-2.74	5
		e''	12.8887	Conductivity (σ):	1.36	1.40	-2.74	5
8/2/2011	Head 1900	e'	38.9778	Relative Permittivity (ϵ_r):	38.98	40.00	-2.56	5
		e''	12.7833	Conductivity (σ):	1.35	1.40	-3.54	5
8/19/2011	Head 2450	e'	38.2652	Relative Permittivity (ϵ_r):	38.27	39.20	-2.38	5
		e''	13.7359	Conductivity (σ):	1.87	1.80	3.96	5
8/22/2011	Head 835	e'	43.1625	Relative Permittivity (ϵ_r):	43.16	41.50	4.01	5
		e''	19.3010	Conductivity (σ):	0.90	0.90	-0.43	5

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
7/23/2011	Body 1900	e'	52.1401	Relative Permittivity (ϵ_r):	52.14	53.30	-2.18	5
		e"	14.0724	Conductivity (σ):	1.49	1.52	-2.19	5
7/24/2011	Body 1900	e'	51.8925	Relative Permittivity (ϵ_r):	51.89	53.30	-2.64	5
		e"	14.2716	Conductivity (σ):	1.51	1.52	-0.81	5
7/26/2011	Body 1900	e'	52.6178	Relative Permittivity (ϵ_r):	52.62	53.30	-1.28	5
		e"	14.1294	Conductivity (σ):	1.49	1.52	-1.80	5
7/27/2011	Body 1900	e'	53.2375	Relative Permittivity (ϵ_r):	53.24	53.30	-0.12	5
		e"	14.1512	Conductivity (σ):	1.50	1.52	-1.64	5
7/28/2011	Body 2450	e'	50.5952	Relative Permittivity (ϵ_r):	50.60	52.70	-3.99	5
		e"	14.8222	Conductivity (σ):	2.02	1.95	3.55	5
8/1/2011	Body 1900	e'	53.3902	Relative Permittivity (ϵ_r):	53.39	53.30	0.17	5
		e"	14.2865	Conductivity (σ):	1.51	1.52	-0.70	5
8/2/2011	Body 1900	e'	51.9610	Relative Permittivity (ϵ_r):	51.96	53.30	-2.51	5
		e"	14.0171	Conductivity (σ):	1.48	1.52	-2.58	5
8/3/2011	Body 1900	e'	51.9610	Relative Permittivity (ϵ_r):	51.96	53.30	-2.51	5
		e"	14.0171	Conductivity (σ):	1.48	1.52	-2.58	5
8/8/2011	Body 1900	e'	51.7659	Relative Permittivity (ϵ_r):	51.77	53.30	-2.88	5
		e"	13.9889	Conductivity (σ):	1.48	1.52	-2.77	5
8/8/2011	Body 2450	e'	51.1435	Relative Permittivity (ϵ_r):	51.14	52.70	-2.95	5
		e"	14.4471	Conductivity (σ):	1.97	1.95	0.93	5
8/10/2011	Body 2450	e'	54.0862	Relative Permittivity (ϵ_r):	54.09	52.70	2.63	5
		e"	14.7221	Conductivity (σ):	2.01	1.95	2.85	5
8/12/2011	Body 1900	e'	53.9131	Relative Permittivity (ϵ_r):	53.91	53.30	1.15	5
		e"	13.8675	Conductivity (σ):	1.47	1.52	-3.62	5
8/19/2011	Body 2450	e'	52.6476	Relative Permittivity (ϵ_r):	52.65	52.70	-0.10	5
		e"	14.5434	Conductivity (σ):	1.98	1.95	1.60	5
8/22/2011	Body 835	e'	54.4577	Relative Permittivity (ϵ_r):	54.46	55.20	-1.34	5
		e"	21.0976	Conductivity (σ):	0.98	0.97	0.98	5

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
9/29/2011	Body 1900	e'	52.8701	Relative Permittivity (ϵ_r):	52.87	53.30	-0.81	5
		e"	14.2014	Conductivity (σ):	1.50	1.52	-1.29	5

SAR C room (DASY 5)

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit \pm (%)	
7/21/2011	Head 835	e'	43.0057	Relative Permittivity (ϵ_r):	43.01	41.50	3.63	5
		e''	18.6417	Conductivity (σ):	0.87	0.90	-3.83	5
7/22/2011	Head 835	e'	43.3546	Relative Permittivity (ϵ_r):	43.35	41.50	4.47	5
		e''	18.7042	Conductivity (σ):	0.87	0.90	-3.51	5
7/23/2011	Head 835	e'	43.3036	Relative Permittivity (ϵ_r):	43.30	41.50	4.35	5
		e''	18.7229	Conductivity (σ):	0.87	0.90	-3.41	5
8/1/2011	Head 835	e'	41.6791	Relative Permittivity (ϵ_r):	41.68	41.50	0.43	5
		e''	18.4844	Conductivity (σ):	0.86	0.90	-4.64	5
8/8/2011	Head 835	e'	43.3696	Relative Permittivity (ϵ_r):	43.37	41.50	4.51	5
		e''	18.5447	Conductivity (σ):	0.86	0.90	-4.33	5

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit \pm (%)	
7/24/2011	Body 835	e'	54.6912	Relative Permittivity (ϵ_r):	54.69	55.20	-0.92	5
		e''	20.8175	Conductivity (σ):	0.97	0.97	-0.36	5
7/25/2011	Body 835	e'	54.5596	Relative Permittivity (ϵ_r):	54.56	55.20	-1.16	5
		e''	21.0481	Conductivity (σ):	0.98	0.97	0.75	5
7/26/2011	Body 835	e'	56.2859	Relative Permittivity (ϵ_r):	56.29	55.20	1.97	5
		e''	21.2729	Conductivity (σ):	0.99	0.97	1.82	5
7/27/2011	Body 835	e'	53.7297	Relative Permittivity (ϵ_r):	53.73	55.20	-2.66	5
		e''	20.6801	Conductivity (σ):	0.96	0.97	-1.02	5
7/28/2011	Body 835	e'	54.6929	Relative Permittivity (ϵ_r):	54.69	55.20	-0.92	5
		e''	20.5994	Conductivity (σ):	0.96	0.97	-1.40	5
7/29/2011	Body 835	e'	54.1109	Relative Permittivity (ϵ_r):	54.11	55.20	-1.97	5
		e''	20.9564	Conductivity (σ):	0.97	0.97	0.31	5
8/2/2011	Body 835	e'	53.1957	Relative Permittivity (ϵ_r):	53.20	55.20	-3.63	5
		e''	20.5387	Conductivity (σ):	0.95	0.97	-1.69	5
8/8/2011	Body 835	e'	53.4484	Relative Permittivity (ϵ_r):	53.45	55.20	-3.17	5
		e''	20.9714	Conductivity (σ):	0.97	0.97	0.38	5
8/12/2011	Body 835	e'	55.3952	Relative Permittivity (ϵ_r):	55.40	55.20	0.35	5
		e''	20.7869	Conductivity (σ):	0.97	0.97	-0.50	5
Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit \pm (%)	
9/29/2011	Body 835	e'	54.9561	Relative Permittivity (ϵ_r):	54.96	55.20	-0.44	5
		e''	21.3361	Conductivity (σ):	0.99	0.97	2.12	5