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10081-CAB	CDMA2000 (1xRTT, RC3)	X	0.59	62.75	9.56	0.00	150.0	± 9.6 %
		Y	0.65	64.53	10.51		150.0	
		Z	0.46	60.97	7.61		150.0	
10082-CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	X	0.74	60.00	2.70	4.77	80.0	± 9.6 %
		Y	0.57	60.00	3.13		80.0	
		Z	7.11	60.20	1.61		80.0	
10090-DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	X	100.00	104.60	21.25	6.56	60.0	± 9.6 %
		Y	100.00	104.15	20.91		60.0	
		Z	100.00	103.36	20.66		60.0	
10097-CAB	UMTS-FDD (HSDPA)	X	1.67	66.79	14.90	0.00	150.0	± 9.6 %
		Y	1.80	68.52	15.58		150.0	
		Z	1.62	66.81	14.63		150.0	
10098-CAB	UMTS-FDD (HSUPA, Subtest 2)	X	1.63	66.73	14.86	0.00	150.0	± 9.6 %
		Y	1.76	68.45	15.56		150.0	
		Z	1.58	66.75	14.59		150.0	
10099-DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	X	6.67	86.62	31.13	9.56	60.0	± 9.6 %
		Y	5.94	84.72	30.30		60.0	
		Z	5.89	83.61	29.83		60.0	
10100-CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	2.92	69.35	16.13	0.00	150.0	± 9.6 %
		Y	2.92	70.13	16.62		150.0	
		Z	2.81	69.09	16.02		150.0	
10101-CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	3.10	66.93	15.61	0.00	150.0	± 9.6 %
		Y	3.06	67.45	15.78		150.0	
		Z	3.01	66.78	15.51		150.0	
10102-CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	3.20	66.94	15.73	0.00	150.0	± 9.6 %
		Y	3.17	67.48	15.89		150.0	
		Z	3.11	66.81	15.64		150.0	
10103-CAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	5.17	73.60	19.83	3.98	65.0	± 9.6 %
		Y	5.10	74.07	19.75		65.0	
		Z	4.93	73.19	19.67		65.0	
10104-CAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	5.21	71.41	19.65	3.98	65.0	± 9.6 %
		Y	5.03	71.45	19.28		65.0	
		Z	4.96	70.87	19.38		65.0	
10105-CAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	5.00	70.39	19.49	3.98	65.0	± 9.6 %
		Y	4.91	70.75	19.26		65.0	
		Z	4.79	69.92	19.24		65.0	
10108-CAF	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	2.54	68.68	15.97	0.00	150.0	± 9.6 %
		Y	2.51	69.42	16.42		150.0	
		Z	2.42	68.47	15.85		150.0	
10109-CAF	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	2.74	66.77	15.45	0.00	150.0	± 9.6 %
		Y	2.71	67.43	15.64		150.0	
		Z	2.64	66.65	15.31		150.0	
10110-CAF	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	2.03	67.78	15.47	0.00	150.0	± 9.6 %
		Y	2.01	68.63	15.89		150.0	
		Z	1.92	67.57	15.24		150.0	
10111-CAF	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	2.44	67.51	15.59	0.00	150.0	± 9.6 %
		Y	2.47	68.77	15.93		150.0	
		Z	2.34	67.48	15.35		150.0	

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10112-CAF	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	2.87	66.81	15.54	0.00	150.0	± 9.6 %
		Y	2.84	67.53	15.73		150.0	
		Z	2.77	66.72	15.41		150.0	
10113-CAF	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	2.59	67.71	15.76	0.00	150.0	± 9.6 %
		Y	2.62	68.96	16.07		150.0	
		Z	2.49	67.71	15.54		150.0	
10114-CAC	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	X	5.04	66.97	16.40	0.00	150.0	± 9.6 %
		Y	4.89	67.20	16.30		150.0	
		Z	4.93	66.85	16.34		150.0	
10115-CAC	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	X	5.32	67.08	16.47	0.00	150.0	± 9.6 %
		Y	5.13	67.24	16.31		150.0	
		Z	5.20	66.98	16.42		150.0	
10116-CAC	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	X	5.13	67.14	16.41	0.00	150.0	± 9.6 %
		Y	4.97	67.37	16.31		150.0	
		Z	5.02	67.06	16.38		150.0	
10117-CAC	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	X	4.99	66.77	16.32	0.00	150.0	± 9.6 %
		Y	4.89	67.15	16.29		150.0	
		Z	4.92	66.79	16.33		150.0	
10118-CAC	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	X	5.41	67.33	16.61	0.00	150.0	± 9.6 %
		Y	5.18	67.38	16.39		150.0	
		Z	5.30	67.26	16.57		150.0	
10119-CAC	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	X	5.12	67.12	16.41	0.00	150.0	± 9.6 %
		Y	4.97	67.37	16.32		150.0	
		Z	5.02	67.07	16.39		150.0	
10140-CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	3.23	66.94	15.64	0.00	150.0	± 9.6 %
		Y	3.19	67.50	15.80		150.0	
		Z	3.14	66.81	15.55		150.0	
10141-CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	3.36	67.07	15.83	0.00	150.0	± 9.6 %
		Y	3.32	67.68	16.00		150.0	
		Z	3.27	66.98	15.76		150.0	
10142-CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	1.78	67.53	14.86	0.00	150.0	± 9.6 %
		Y	1.77	68.63	15.24		150.0	
		Z	1.65	67.14	14.35		150.0	
10143-CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	2.24	67.81	14.90	0.00	150.0	± 9.6 %
		Y	2.28	69.30	15.14		150.0	
		Z	2.08	67.39	14.24		150.0	
10144-CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	2.02	65.54	13.26	0.00	150.0	± 9.6 %
		Y	1.92	66.03	12.98		150.0	
		Z	1.85	64.95	12.48		150.0	
10145-CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	X	0.91	62.24	9.28	0.00	150.0	± 9.6 %
		Y	0.77	61.67	8.20		150.0	
		Z	0.71	60.43	7.26		150.0	
10146-CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	1.45	63.33	9.63	0.00	150.0	± 9.6 %
		Y	0.91	60.17	6.18		150.0	
		Z	1.08	61.22	7.63		150.0	
10147-CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	1.59	64.37	10.30	0.00	150.0	± 9.6 %
		Y	0.95	60.47	6.43		150.0	
		Z	1.15	61.74	8.02		150.0	

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10149-CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	2.75	66.84	15.50	0.00	150.0	± 9.6 %
		Y	2.72	67.50	15.70		150.0	
		Z	2.65	66.71	15.36		150.0	
10150-CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	2.88	66.86	15.58	0.00	150.0	± 9.6 %
		Y	2.85	67.59	15.78		150.0	
		Z	2.78	66.78	15.46		150.0	
10151-CAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	5.30	75.86	20.87	3.98	65.0	± 9.6 %
		Y	5.16	76.15	20.64		65.0	
		Z	5.02	75.44	20.68		65.0	
10152-CAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	4.74	71.30	19.29	3.98	65.0	± 9.6 %
		Y	4.54	71.27	18.76		65.0	
		Z	4.49	70.75	18.93		65.0	
10153-CAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	5.06	72.26	20.11	3.98	65.0	± 9.6 %
		Y	4.90	72.40	19.65		65.0	
		Z	4.83	71.84	19.82		65.0	
10154-CAF	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	2.08	68.18	15.72	0.00	150.0	± 9.6 %
		Y	2.05	69.01	16.13		150.0	
		Z	1.96	67.95	15.48		150.0	
10155-CAF	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	2.44	67.53	15.61	0.00	150.0	± 9.6 %
		Y	2.48	68.82	15.96		150.0	
		Z	2.34	67.51	15.37		150.0	
10156-CAF	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	1.60	67.30	14.38	0.00	150.0	± 9.6 %
		Y	1.59	68.38	14.67		150.0	
		Z	1.44	66.60	13.59		150.0	
10157-CAF	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	1.83	65.75	13.01	0.00	150.0	± 9.6 %
		Y	1.72	66.23	12.67		150.0	
		Z	1.62	64.84	11.96		150.0	
10158-CAF	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	2.60	67.78	15.81	0.00	150.0	± 9.6 %
		Y	2.63	69.06	16.13		150.0	
		Z	2.50	67.79	15.59		150.0	
10159-CAF	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	1.91	66.11	13.26	0.00	150.0	± 9.6 %
		Y	1.81	66.60	12.89		150.0	
		Z	1.69	65.10	12.15		150.0	
10160-CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	2.61	68.18	15.94	0.00	150.0	± 9.6 %
		Y	2.54	68.68	16.16		150.0	
		Z	2.52	68.16	15.85		150.0	
10161-CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	2.77	66.80	15.48	0.00	150.0	± 9.6 %
		Y	2.74	67.57	15.65		150.0	
		Z	2.67	66.72	15.32		150.0	
10162-CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	2.88	66.98	15.61	0.00	150.0	± 9.6 %
		Y	2.85	67.81	15.81		150.0	
		Z	2.78	66.94	15.47		150.0	
10166-CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	X	3.38	69.13	19.05	3.01	150.0	± 9.6 %
		Y	3.08	68.69	18.48		150.0	
		Z	3.21	69.15	19.25		150.0	
10167-CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	4.04	71.66	19.32	3.01	150.0	± 9.6 %
		Y	3.67	71.80	19.02		150.0	
		Z	3.74	71.67	19.52		150.0	

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10168-CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	X	4.54	74.22	20.83	3.01	150.0	± 9.6 %
		Y	4.19	74.66	20.67		150.0	
		Z	4.28	74.71	21.29		150.0	
10169-CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	2.71	67.87	18.52	3.01	150.0	± 9.6 %
		Y	2.52	67.48	17.92		150.0	
		Z	2.50	67.19	18.42		150.0	
10170-CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	3.55	73.26	20.73	3.01	150.0	± 9.6 %
		Y	3.37	73.78	20.55		150.0	
		Z	3.15	72.53	20.76		150.0	
10171-AAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	2.92	69.16	17.84	3.01	150.0	± 9.6 %
		Y	2.71	69.36	17.52		150.0	
		Z	2.59	68.30	17.69		150.0	
10172-CAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	5.18	84.51	26.75	6.02	65.0	± 9.6 %
		Y	3.39	77.79	23.56		65.0	
		Z	4.09	81.34	25.92		65.0	
10173-CAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	9.93	93.58	27.87	6.02	65.0	± 9.6 %
		Y	5.88	85.89	24.46		65.0	
		Z	7.84	91.70	27.70		65.0	
10174-CAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	7.95	88.37	25.51	6.02	65.0	± 9.6 %
		Y	4.51	80.74	22.04		65.0	
		Z	5.38	83.91	24.39		65.0	
10175-CAF	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	2.68	67.57	18.26	3.01	150.0	± 9.6 %
		Y	2.50	67.21	17.68		150.0	
		Z	2.47	66.89	18.16		150.0	
10176-CAF	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	3.55	73.28	20.74	3.01	150.0	± 9.6 %
		Y	3.38	73.80	20.56		150.0	
		Z	3.16	72.55	20.77		150.0	
10177-CAH	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	2.70	67.72	18.36	3.01	150.0	± 9.6 %
		Y	2.51	67.32	17.76		150.0	
		Z	2.49	67.02	18.25		150.0	
10178-CAF	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	X	3.52	73.08	20.63	3.01	150.0	± 9.6 %
		Y	3.35	73.65	20.48		150.0	
		Z	3.13	72.36	20.66		150.0	
10179-CAF	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	3.20	71.07	19.14	3.01	150.0	± 9.6 %
		Y	3.00	71.42	18.89		150.0	
		Z	2.84	70.28	19.08		150.0	
10180-CAF	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	X	2.91	69.10	17.80	3.01	150.0	± 9.6 %
		Y	2.71	69.32	17.49		150.0	
		Z	2.58	68.25	17.65		150.0	
10181-CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	2.69	67.70	18.35	3.01	150.0	± 9.6 %
		Y	2.51	67.31	17.75		150.0	
		Z	2.48	67.01	18.24		150.0	
10182-CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	3.51	73.05	20.61	3.01	150.0	± 9.6 %
		Y	3.35	73.62	20.46		150.0	
		Z	3.13	72.33	20.65		150.0	
10183-AAD	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	X	2.91	69.07	17.79	3.01	150.0	± 9.6 %
		Y	2.70	69.30	17.48		150.0	
		Z	2.58	68.23	17.64		150.0	

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10184-CAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	2.70	67.74	18.37	3.01	150.0	± 9.6 %
		Y	2.52	67.35	17.77		150.0	
		Z	2.49	67.05	18.26		150.0	
10185-CAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	X	3.53	73.13	20.65	3.01	150.0	± 9.6 %
		Y	3.37	73.70	20.50		150.0	
		Z	3.14	72.41	20.69		150.0	
10186-AAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	X	2.92	69.14	17.82	3.01	150.0	± 9.6 %
		Y	2.72	69.36	17.51		150.0	
		Z	2.59	68.29	17.68		150.0	
10187-CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	2.71	67.80	18.44	3.01	150.0	± 9.6 %
		Y	2.53	67.43	17.85		150.0	
		Z	2.50	67.12	18.34		150.0	
10188-CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	X	3.64	73.78	21.05	3.01	150.0	± 9.6 %
		Y	3.47	74.34	20.88		150.0	
		Z	3.24	73.08	21.10		150.0	
10189-AAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	2.98	69.54	18.10	3.01	150.0	± 9.6 %
		Y	2.78	69.76	17.79		150.0	
		Z	2.64	68.69	17.96		150.0	
10193-CAC	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	X	4.40	66.31	16.02	0.00	150.0	± 9.6 %
		Y	4.32	66.93	16.03		150.0	
		Z	4.31	66.34	15.97		150.0	
10194-CAC	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	X	4.57	66.61	16.15	0.00	150.0	± 9.6 %
		Y	4.45	67.15	16.16		150.0	
		Z	4.46	66.61	16.11		150.0	
10195-CAC	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	X	4.61	66.65	16.17	0.00	150.0	± 9.6 %
		Y	4.49	67.15	16.16		150.0	
		Z	4.50	66.64	16.13		150.0	
10196-CAC	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	X	4.40	66.36	16.03	0.00	150.0	± 9.6 %
		Y	4.30	66.92	16.01		150.0	
		Z	4.30	66.36	15.97		150.0	
10197-CAC	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	X	4.58	66.63	16.17	0.00	150.0	± 9.6 %
		Y	4.46	67.15	16.16		150.0	
		Z	4.47	66.62	16.12		150.0	
10198-CAC	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	X	4.61	66.66	16.19	0.00	150.0	± 9.6 %
		Y	4.48	67.15	16.16		150.0	
		Z	4.49	66.65	16.14		150.0	
10219-CAC	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	X	4.35	66.37	15.99	0.00	150.0	± 9.6 %
		Y	4.26	66.96	15.99		150.0	
		Z	4.25	66.38	15.93		150.0	
10220-CAC	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	X	4.58	66.60	16.15	0.00	150.0	± 9.6 %
		Y	4.45	67.11	16.14		150.0	
		Z	4.46	66.59	16.11		150.0	
10221-CAC	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	X	4.62	66.59	16.17	0.00	150.0	± 9.6 %
		Y	4.49	67.10	16.15		150.0	
		Z	4.51	66.59	16.13		150.0	
10222-CAC	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	X	4.97	66.78	16.31	0.00	150.0	± 9.6 %
		Y	4.86	67.13	16.27		150.0	
		Z	4.89	66.76	16.31		150.0	

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10223-CAC	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	X	5.30	67.10	16.50	0.00	150.0	± 9.6 %
		Y	5.10	67.27	16.35		150.0	
		Z	5.19	67.05	16.48		150.0	
10224-CAC	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	X	5.01	66.89	16.29	0.00	150.0	± 9.6 %
		Y	4.90	67.26	16.26		150.0	
		Z	4.92	66.85	16.28		150.0	
10225-CAB	UMTS-FDD (HSPA+)	X	2.65	65.62	14.90	0.00	150.0	± 9.6 %
		Y	2.61	66.40	14.83		150.0	
		Z	2.55	65.54	14.59		150.0	
10226-CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	X	10.73	95.13	28.48	6.02	65.0	± 9.6 %
		Y	6.31	87.21	25.01		65.0	
		Z	8.52	93.39	28.36		65.0	
10227-CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	X	10.72	93.53	27.25	6.02	65.0	± 9.6 %
		Y	6.15	85.53	23.69		65.0	
		Z	9.01	92.94	27.46		65.0	
10228-CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	X	6.04	88.03	28.16	6.02	65.0	± 9.6 %
		Y	3.71	79.59	24.30		65.0	
		Z	4.70	84.61	27.30		65.0	
10229-CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	X	10.01	93.70	27.92	6.02	65.0	± 9.6 %
		Y	5.94	86.01	24.51		65.0	
		Z	7.91	91.83	27.75		65.0	
10230-CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	X	9.92	92.09	26.70	6.02	65.0	± 9.6 %
		Y	5.72	84.29	23.19		65.0	
		Z	8.24	91.25	26.83		65.0	
10231-CAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	5.78	87.07	27.72	6.02	65.0	± 9.6 %
		Y	3.59	78.90	23.95		65.0	
		Z	4.51	83.68	26.86		65.0	
10232-CAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	X	9.99	93.68	27.91	6.02	65.0	± 9.6 %
		Y	5.92	85.99	24.50		65.0	
		Z	7.89	91.80	27.74		65.0	
10233-CAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	X	9.89	92.06	26.69	6.02	65.0	± 9.6 %
		Y	5.70	84.25	23.18		65.0	
		Z	8.20	91.19	26.81		65.0	
10234-CAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	X	5.59	86.26	27.30	6.02	65.0	± 9.6 %
		Y	3.50	78.34	23.60		65.0	
		Z	4.38	82.95	26.45		65.0	
10235-CAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	10.01	93.72	27.93	6.02	65.0	± 9.6 %
		Y	5.92	86.01	24.51		65.0	
		Z	7.91	91.84	27.76		65.0	
10236-CAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	10.03	92.27	26.75	6.02	65.0	± 9.6 %
		Y	5.77	84.41	23.23		65.0	
		Z	8.33	91.42	26.87		65.0	
10237-CAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	X	5.78	87.12	27.75	6.02	65.0	± 9.6 %
		Y	3.58	78.91	23.95		65.0	
		Z	4.51	83.71	26.87		65.0	
10238-CAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	9.97	93.65	27.90	6.02	65.0	± 9.6 %
		Y	5.91	85.96	24.49		65.0	
		Z	7.87	91.77	27.73		65.0	

10239-CAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	X	9.85	92.02	26.68	6.02	65.0	± 9.6 %
		Y	5.67	84.20	23.16		65.0	
		Z	8.17	91.14	26.80		65.0	
10240-CAE	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	X	5.76	87.07	27.73	6.02	65.0	± 9.6 %
		Y	3.58	78.89	23.95		65.0	
		Z	4.50	83.67	26.86		65.0	
10241-CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	6.61	78.35	24.54	6.98	65.0	± 9.6 %
		Y	6.11	78.98	24.28		65.0	
		Z	6.23	78.49	24.73		65.0	
10242-CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	X	6.19	76.96	23.85	6.98	65.0	± 9.6 %
		Y	5.67	77.56	23.63		65.0	
		Z	5.84	77.14	24.05		65.0	
10243-CAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	X	5.09	73.64	23.28	6.98	65.0	± 9.6 %
		Y	4.70	73.92	22.95		65.0	
		Z	4.85	73.65	23.39		65.0	
10244-CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	4.44	72.93	17.21	3.98	65.0	± 9.6 %
		Y	2.90	67.00	12.63		65.0	
		Z	3.80	70.96	15.75		65.0	
10245-CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	X	4.32	72.21	16.83	3.98	65.0	± 9.6 %
		Y	2.85	66.55	12.35		65.0	
		Z	3.67	70.17	15.32		65.0	
10246-CAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	X	3.89	74.77	18.15	3.98	65.0	± 9.6 %
		Y	2.97	70.94	15.34		65.0	
		Z	3.14	71.70	16.19		65.0	
10247-CAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	X	3.85	71.08	17.30	3.98	65.0	± 9.6 %
		Y	3.38	69.48	15.40		65.0	
		Z	3.44	69.60	16.06		65.0	
10248-CAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	X	3.86	70.56	17.03	3.98	65.0	± 9.6 %
		Y	3.34	68.83	15.08		65.0	
		Z	3.44	69.08	15.79		65.0	
10249-CAE	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	4.99	78.80	20.90	3.98	65.0	± 9.6 %
		Y	4.32	76.69	19.15		65.0	
		Z	4.43	77.15	19.82		65.0	
10250-CAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	4.67	73.58	20.28	3.98	65.0	± 9.6 %
		Y	4.48	73.43	19.48		65.0	
		Z	4.42	73.08	19.83		65.0	
10251-CAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	4.51	71.61	18.98	3.98	65.0	± 9.6 %
		Y	4.23	71.23	18.06		65.0	
		Z	4.22	70.93	18.41		65.0	
10252-CAE	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	5.27	78.46	21.90	3.98	65.0	± 9.6 %
		Y	5.00	78.20	21.26		65.0	
		Z	4.94	77.90	21.54		65.0	
10253-CAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	4.65	70.83	19.03	3.98	65.0	± 9.6 %
		Y	4.49	70.95	18.50		65.0	
		Z	4.43	70.37	18.67		65.0	
10254-CAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	4.95	71.71	19.76	3.98	65.0	± 9.6 %
		Y	4.80	71.91	19.25		65.0	
		Z	4.73	71.34	19.44		65.0	

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10255-CAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	X	5.03	75.08	20.77	3.98	65.0	± 9.6 %
		Y	4.91	75.42	20.48		65.0	
		Z	4.79	74.74	20.56		65.0	
10256-CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	X	3.19	68.10	13.80	3.98	65.0	± 9.6 %
		Y	2.05	63.08	9.32		65.0	
		Z	2.56	65.56	11.82		65.0	
10257-CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	X	3.11	67.38	13.33	3.98	65.0	± 9.6 %
		Y	2.03	62.73	9.03		65.0	
		Z	2.51	64.94	11.39		65.0	
10258-CAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	X	2.71	69.18	14.66	3.98	65.0	± 9.6 %
		Y	1.97	65.27	11.40		65.0	
		Z	2.10	65.90	12.28		65.0	
10259-CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	X	4.19	72.13	18.43	3.98	65.0	± 9.6 %
		Y	3.83	71.16	16.98		65.0	
		Z	3.85	71.09	17.52		65.0	
10260-CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	X	4.23	71.87	18.31	3.98	65.0	± 9.6 %
		Y	3.85	70.89	16.84		65.0	
		Z	3.88	70.82	17.39		65.0	
10261-CAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	X	4.83	77.74	20.97	3.98	65.0	± 9.6 %
		Y	4.43	76.68	19.74		65.0	
		Z	4.43	76.71	20.22		65.0	
10262-CAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	4.66	73.52	20.23	3.98	65.0	± 9.6 %
		Y	4.46	73.35	19.42		65.0	
		Z	4.41	73.00	19.77		65.0	
10263-CAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	4.50	71.59	18.98	3.98	65.0	± 9.6 %
		Y	4.22	71.21	18.05		65.0	
		Z	4.21	70.91	18.40		65.0	
10264-CAE	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	5.21	78.25	21.79	3.98	65.0	± 9.6 %
		Y	4.95	77.98	21.14		65.0	
		Z	4.88	77.68	21.42		65.0	
10265-CAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	4.74	71.30	19.29	3.98	65.0	± 9.6 %
		Y	4.54	71.27	18.76		65.0	
		Z	4.49	70.75	18.93		65.0	
10266-CAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	5.06	72.25	20.09	3.98	65.0	± 9.6 %
		Y	4.90	72.39	19.64		65.0	
		Z	4.82	71.83	19.81		65.0	
10267-CAE	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	5.29	75.81	20.85	3.98	65.0	± 9.6 %
		Y	5.15	76.10	20.62		65.0	
		Z	5.01	75.39	20.65		65.0	
10268-CAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	X	5.36	71.31	19.71	3.98	65.0	± 9.6 %
		Y	5.21	71.51	19.38		65.0	
		Z	5.13	70.87	19.47		65.0	
10269-CAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	X	5.37	70.93	19.58	3.98	65.0	± 9.6 %
		Y	5.24	71.21	19.27		65.0	
		Z	5.14	70.52	19.35		65.0	
10270-CAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	5.33	73.33	19.93	3.98	65.0	± 9.6 %
		Y	5.25	73.82	19.83		65.0	
		Z	5.10	72.98	19.79		65.0	

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10274-CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	X	2.44	65.94	14.76	0.00	150.0	± 9.6 %
		Y	2.46	67.02	14.92		150.0	
		Z	2.36	65.96	14.51		150.0	
10275-CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	X	1.44	66.78	14.60	0.00	150.0	± 9.6 %
		Y	1.51	68.07	15.31		150.0	
		Z	1.37	66.58	14.29		150.0	
10277-CAA	PHS (QPSK)	X	1.64	59.99	5.54	9.03	50.0	± 9.6 %
		Y	1.31	58.91	4.10		50.0	
		Z	1.56	59.49	4.99		50.0	
10278-CAA	PHS (QPSK, BW 884MHz, Rolloff 0.5)	X	3.36	68.45	12.95	9.03	50.0	± 9.6 %
		Y	2.43	64.41	9.76		50.0	
		Z	2.80	65.60	11.02		50.0	
10279-CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	X	3.49	68.82	13.20	9.03	50.0	± 9.6 %
		Y	2.50	64.64	9.95		50.0	
		Z	2.89	65.88	11.23		50.0	
10290-AAB	CDMA2000, RC1, SO55, Full Rate	X	1.04	65.08	11.18	0.00	150.0	± 9.6 %
		Y	0.99	65.85	11.23		150.0	
		Z	0.79	62.87	9.16		150.0	
10291-AAB	CDMA2000, RC3, SO55, Full Rate	X	0.58	62.61	9.47	0.00	150.0	± 9.6 %
		Y	0.64	64.33	10.38		150.0	
		Z	0.45	60.87	7.53		150.0	
10292-AAB	CDMA2000, RC3, SO32, Full Rate	X	0.69	65.12	11.11	0.00	150.0	± 9.6 %
		Y	0.97	69.91	13.43		150.0	
		Z	0.51	62.53	8.75		150.0	
10293-AAB	CDMA2000, RC3, SO3, Full Rate	X	1.02	69.87	13.83	0.00	150.0	± 9.6 %
		Y	3.04	84.16	19.15		150.0	
		Z	0.71	65.95	10.97		150.0	
10295-AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	X	11.23	88.47	24.36	9.03	50.0	± 9.6 %
		Y	12.59	88.61	22.96		50.0	
		Z	15.56	91.71	24.45		50.0	
10297-AAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	2.55	68.78	16.04	0.00	150.0	± 9.6 %
		Y	2.53	69.53	16.49		150.0	
		Z	2.44	68.57	15.92		150.0	
10298-AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	X	1.25	65.18	12.07	0.00	150.0	± 9.6 %
		Y	1.15	65.40	11.69		150.0	
		Z	1.02	63.53	10.46		150.0	
10299-AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	X	2.10	67.21	12.74	0.00	150.0	± 9.6 %
		Y	1.38	63.27	9.21		150.0	
		Z	1.69	65.36	11.19		150.0	
10300-AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	X	1.62	63.40	10.09	0.00	150.0	± 9.6 %
		Y	1.13	61.02	7.29		150.0	
		Z	1.31	62.01	8.67		150.0	
10301-AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	X	4.48	64.69	17.03	4.17	50.0	± 9.6 %
		Y	4.13	64.54	16.62		50.0	
		Z	4.35	64.85	16.99		50.0	
10302-AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)	X	5.00	65.50	17.84	4.96	50.0	± 9.6 %
		Y	4.67	65.46	17.49		50.0	
		Z	4.87	65.51	17.69		50.0	

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10303-AAA	IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	X	4.74	65.08	17.64	4.96	50.0	± 9.6 %
		Y	4.42	65.05	17.25		50.0	
		Z	4.66	65.58	17.81		50.0	
10304-AAA	IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	X	4.56	64.99	17.15	4.17	50.0	± 9.6 %
		Y	4.27	65.10	16.85		50.0	
		Z	4.44	65.03	17.00		50.0	
10305-AAA	IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	X	4.09	66.47	18.87	6.02	35.0	± 9.6 %
		Y	3.64	65.29	17.60		35.0	
		Z	4.05	66.89	18.66		35.0	
10306-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)	X	4.46	65.76	18.65	6.02	35.0	± 9.6 %
		Y	4.07	65.09	17.75		35.0	
		Z	4.39	66.07	18.52		35.0	
10307-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)	X	4.34	65.84	18.57	6.02	35.0	± 9.6 %
		Y	3.93	65.00	17.59		35.0	
		Z	4.27	66.11	18.41		35.0	
10308-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	X	4.32	66.01	18.70	6.02	35.0	± 9.6 %
		Y	3.90	65.13	17.71		35.0	
		Z	4.25	66.31	18.55		35.0	
10309-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)	X	4.51	65.96	18.79	6.02	35.0	± 9.6 %
		Y	4.08	65.13	17.82		35.0	
		Z	4.42	66.21	18.63		35.0	
10310-AAA	IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)	X	4.41	65.79	18.62	6.02	35.0	± 9.6 %
		Y	4.01	65.09	17.71		35.0	
		Z	4.34	66.12	18.49		35.0	
10311-AAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	X	2.90	68.03	15.73	0.00	150.0	± 9.6 %
		Y	2.89	68.82	16.17		150.0	
		Z	2.79	67.80	15.63		150.0	
10313-AAA	iDEN 1:3	X	2.09	68.77	14.05	6.99	70.0	± 9.6 %
		Y	2.40	70.98	15.20		70.0	
		Z	1.90	67.78	13.55		70.0	
10314-AAA	iDEN 1:6	X	3.77	77.94	20.59	10.00	30.0	± 9.6 %
		Y	4.31	81.06	22.07		30.0	
		Z	3.77	77.68	20.34		30.0	
10315-AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	X	0.95	62.79	14.48	0.17	150.0	± 9.6 %
		Y	1.05	63.70	14.88		150.0	
		Z	0.93	62.71	14.34		150.0	
10316-AAB	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)	X	4.45	66.34	16.16	0.17	150.0	± 9.6 %
		Y	4.33	66.78	16.06		150.0	
		Z	4.35	66.34	16.11		150.0	
10317-AAC	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	X	4.45	66.34	16.16	0.17	150.0	± 9.6 %
		Y	4.33	66.78	16.06		150.0	
		Z	4.35	66.34	16.11		150.0	
10400-AAD	IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)	X	4.56	66.67	16.15	0.00	150.0	± 9.6 %
		Y	4.40	67.11	16.11		150.0	
		Z	4.43	66.64	16.10		150.0	
10401-AAD	IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	X	5.35	67.10	16.48	0.00	150.0	± 9.6 %
		Y	5.06	66.88	16.11		150.0	
		Z	5.18	66.82	16.32		150.0	

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10402-AAD	IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)	X	5.53	67.14	16.36	0.00	150.0	± 9.6 %
		Y	5.41	67.49	16.31		150.0	
		Z	5.44	67.08	16.33		150.0	
10403-AAB	CDMA2000 (1xEV-DO, Rev. 0)	X	1.04	65.08	11.18	0.00	115.0	± 9.6 %
		Y	0.99	65.85	11.23		115.0	
		Z	0.79	62.87	9.16		115.0	
10404-AAB	CDMA2000 (1xEV-DO, Rev. A)	X	1.04	65.08	11.18	0.00	115.0	± 9.6 %
		Y	0.99	65.85	11.23		115.0	
		Z	0.79	62.87	9.16		115.0	
10406-AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	X	96.97	123.11	30.74	0.00	100.0	± 9.6 %
		Y	100.00	111.80	24.81		100.0	
		Z	100.00	124.50	30.74		100.0	
10410-AAE	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4)	X	100.00	126.40	31.66	3.23	80.0	± 9.6 %
		Y	4.28	82.74	18.79		80.0	
		Z	100.00	130.38	33.03		80.0	
10415-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	X	0.90	62.23	13.99	0.00	150.0	± 9.6 %
		Y	1.01	63.27	14.54		150.0	
		Z	0.88	62.18	13.87		150.0	
10416-AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)	X	4.41	66.35	16.10	0.00	150.0	± 9.6 %
		Y	4.31	66.90	16.09		150.0	
		Z	4.31	66.36	16.05		150.0	
10417-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	X	4.41	66.35	16.10	0.00	150.0	± 9.6 %
		Y	4.31	66.90	16.09		150.0	
		Z	4.31	66.36	16.05		150.0	
10418-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preambule)	X	4.40	66.51	16.12	0.00	150.0	± 9.6 %
		Y	4.30	67.11	16.15		150.0	
		Z	4.30	66.55	16.09		150.0	
10419-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preambule)	X	4.42	66.46	16.12	0.00	150.0	± 9.6 %
		Y	4.32	67.03	16.13		150.0	
		Z	4.32	66.49	16.09		150.0	
10422-AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	X	4.53	66.46	16.14	0.00	150.0	± 9.6 %
		Y	4.42	67.01	16.14		150.0	
		Z	4.43	66.48	16.11		150.0	
10423-AAB	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	X	4.69	66.76	16.25	0.00	150.0	± 9.6 %
		Y	4.54	67.25	16.22		150.0	
		Z	4.56	66.75	16.20		150.0	
10424-AAB	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	X	4.61	66.71	16.22	0.00	150.0	± 9.6 %
		Y	4.48	67.20	16.20		150.0	
		Z	4.49	66.70	16.18		150.0	
10425-AAB	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	X	5.24	67.07	16.46	0.00	150.0	± 9.6 %
		Y	5.08	67.30	16.34		150.0	
		Z	5.14	67.03	16.44		150.0	
10426-AAB	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	X	5.29	67.23	16.54	0.00	150.0	± 9.6 %
		Y	5.09	67.35	16.36		150.0	
		Z	5.19	67.20	16.52		150.0	

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10427-AAB	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	X	5.27	67.11	16.48	0.00	150.0	± 9.6 %
		Y	5.06	67.20	16.28		150.0	
		Z	5.14	66.97	16.40		150.0	
10430-AAC	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	X	4.12	70.76	18.01	0.00	150.0	± 9.6 %
		Y	4.25	72.67	18.35		150.0	
		Z	4.08	71.33	18.00		150.0	
10431-AAC	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	X	4.06	66.87	16.01	0.00	150.0	± 9.6 %
		Y	3.92	67.48	15.96		150.0	
		Z	3.92	66.87	15.88		150.0	
10432-AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	X	4.37	66.76	16.14	0.00	150.0	± 9.6 %
		Y	4.24	67.31	16.13		150.0	
		Z	4.25	66.76	16.08		150.0	
10433-AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	X	4.63	66.74	16.24	0.00	150.0	± 9.6 %
		Y	4.49	67.24	16.22		150.0	
		Z	4.51	66.73	16.20		150.0	
10434-AAA	W-CDMA (BS Test Model 1, 64 DPCH)	X	4.20	71.51	17.85	0.00	150.0	± 9.6 %
		Y	4.38	73.62	18.16		150.0	
		Z	4.13	71.96	17.69		150.0	
10435-AAE	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	126.12	31.53	3.23	80.0	± 9.6 %
		Y	4.03	81.88	18.46		80.0	
		Z	100.00	130.04	32.87		80.0	
10447-AAC	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	X	3.31	66.68	15.06	0.00	150.0	± 9.6 %
		Y	3.16	67.27	14.80		150.0	
		Z	3.14	66.51	14.65		150.0	
10448-AAC	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	X	3.90	66.64	15.86	0.00	150.0	± 9.6 %
		Y	3.79	67.29	15.84		150.0	
		Z	3.78	66.65	15.74		150.0	
10449-AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)	X	4.19	66.57	16.03	0.00	150.0	± 9.6 %
		Y	4.09	67.15	16.04		150.0	
		Z	4.08	66.58	15.97		150.0	
10450-AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	X	4.40	66.50	16.08	0.00	150.0	± 9.6 %
		Y	4.30	67.03	16.09		150.0	
		Z	4.30	66.49	16.04		150.0	
10451-AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	X	3.16	66.66	14.50	0.00	150.0	± 9.6 %
		Y	2.94	66.96	14.01		150.0	
		Z	2.94	66.25	13.89		150.0	
10456-AAB	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	X	6.15	67.69	16.66	0.00	150.0	± 9.6 %
		Y	5.98	67.78	16.47		150.0	
		Z	6.14	67.82	16.75		150.0	
10457-AAA	UMTS-FDD (DC-HSDPA)	X	3.69	64.99	15.80	0.00	150.0	± 9.6 %
		Y	3.69	65.69	15.82		150.0	
		Z	3.64	65.05	15.76		150.0	
10458-AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	X	3.78	70.47	16.98	0.00	150.0	± 9.6 %
		Y	3.68	71.34	16.55		150.0	
		Z	3.58	70.23	16.35		150.0	
10459-AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	X	4.97	68.48	18.10	0.00	150.0	± 9.6 %
		Y	4.80	69.29	17.72		150.0	
		Z	4.87	68.90	18.01		150.0	

10460-AAA	UMTS-FDD (WCDMA, AMR)	X	0.75	66.65	14.62	0.00	150.0	± 9.6 %
		Y	0.87	68.18	15.92		150.0	
		Z	0.71	66.46	14.27		150.0	
10461-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	130.73	33.74	3.29	80.0	± 9.6 %
		Y	1.60	72.60	16.48		80.0	
		Z	100.00	135.78	35.59		80.0	
10462-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	1.13	63.41	10.01	3.23	80.0	± 9.6 %
		Y	0.65	60.00	6.61		80.0	
		Z	0.77	61.25	8.68		80.0	
10463-AAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	0.81	60.00	7.75	3.23	80.0	± 9.6 %
		Y	0.68	60.00	5.92		80.0	
		Z	0.69	60.00	7.34		80.0	
10464-AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	127.11	31.91	3.23	80.0	± 9.6 %
		Y	1.20	68.95	14.32		80.0	
		Z	100.00	131.81	33.57		80.0	
10465-AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	1.01	62.34	9.44	3.23	80.0	± 9.6 %
		Y	0.65	60.00	6.54		80.0	
		Z	0.71	60.46	8.21		80.0	
10466-AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	0.81	60.00	7.69	3.23	80.0	± 9.6 %
		Y	0.69	60.00	5.87		80.0	
		Z	0.69	60.00	7.28		80.0	
10467-AAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	127.52	32.08	3.23	80.0	± 9.6 %
		Y	1.26	69.56	14.62		80.0	
		Z	100.00	132.33	33.80		80.0	
10468-AAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	1.04	62.62	9.59	3.23	80.0	± 9.6 %
		Y	0.65	60.00	6.56		80.0	
		Z	0.73	60.69	8.35		80.0	
10469-AAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	0.81	60.00	7.69	3.23	80.0	± 9.6 %
		Y	0.69	60.00	5.87		80.0	
		Z	0.69	60.00	7.28		80.0	
10470-AAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	127.55	32.08	3.23	80.0	± 9.6 %
		Y	1.25	69.56	14.62		80.0	
		Z	100.00	132.38	33.80		80.0	
10471-AAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	1.03	62.54	9.54	3.23	80.0	± 9.6 %
		Y	0.65	60.00	6.55		80.0	
		Z	0.72	60.62	8.30		80.0	
10472-AAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	0.81	60.00	7.67	3.23	80.0	± 9.6 %
		Y	0.69	60.00	5.85		80.0	
		Z	0.69	60.00	7.26		80.0	
10473-AAD	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	100.00	127.50	32.06	3.23	80.0	± 9.6 %
		Y	1.25	69.52	14.59		80.0	
		Z	100.00	132.33	33.78		80.0	
10474-AAD	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	1.03	62.51	9.52	3.23	80.0	± 9.6 %
		Y	0.64	60.00	6.54		80.0	
		Z	0.72	60.60	8.28		80.0	
10475-AAD	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	0.81	60.00	7.67	3.23	80.0	± 9.6 %
		Y	0.69	60.00	5.85		80.0	
		Z	0.69	60.00	7.26		80.0	

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10477-AAE	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	1.00	62.26	9.38	3.23	80.0	± 9.6 %
		Y	0.65	60.00	6.51		80.0	
		Z	0.70	60.39	8.15		80.0	
10478-AAE	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	0.81	60.00	7.66	3.23	80.0	± 9.6 %
		Y	0.69	60.00	5.84		80.0	
		Z	0.69	60.00	7.25		80.0	
10479-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	9.46	91.48	24.78	3.23	80.0	± 9.6 %
		Y	3.33	76.56	18.50		80.0	
		Z	49.04	117.41	31.52		80.0	
10480-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	6.58	80.33	18.98	3.23	80.0	± 9.6 %
		Y	1.92	66.30	12.10		80.0	
		Z	12.44	88.66	21.03		80.0	
10481-AAA	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	4.50	74.79	16.62	3.23	80.0	± 9.6 %
		Y	1.49	63.34	10.33		80.0	
		Z	5.06	76.82	16.81		80.0	
10482-AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	1.98	67.76	14.56	2.23	80.0	± 9.6 %
		Y	1.44	64.53	12.12		80.0	
		Z	1.52	64.87	12.53		80.0	
10483-AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.26	70.54	15.38	2.23	80.0	± 9.6 %
		Y	1.36	60.95	9.17		80.0	
		Z	2.59	68.02	13.65		80.0	
10484-AAB	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.03	69.33	14.88	2.23	80.0	± 9.6 %
		Y	1.35	60.67	9.01		80.0	
		Z	2.38	66.73	13.09		80.0	
10485-AAD	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.48	70.55	16.98	2.23	80.0	± 9.6 %
		Y	2.07	68.76	15.53		80.0	
		Z	2.20	69.39	16.05		80.0	
10486-AAD	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	2.46	66.77	14.69	2.23	80.0	± 9.6 %
		Y	2.03	65.11	12.96		80.0	
		Z	2.12	65.26	13.41		80.0	
10487-AAD	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	2.47	66.43	14.51	2.23	80.0	± 9.6 %
		Y	2.03	64.76	12.76		80.0	
		Z	2.13	64.93	13.22		80.0	
10488-AAD	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.86	70.33	17.81	2.23	80.0	± 9.6 %
		Y	2.53	69.32	17.02		80.0	
		Z	2.66	69.85	17.47		80.0	
10489-AAD	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	2.92	67.32	16.46	2.23	80.0	± 9.6 %
		Y	2.73	67.17	15.82		80.0	
		Z	2.76	67.05	16.11		80.0	
10490-AAD	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.01	67.22	16.42	2.23	80.0	± 9.6 %
		Y	2.80	67.07	15.77		80.0	
		Z	2.85	66.95	16.07		80.0	
10491-AAD	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.16	69.14	17.47	2.23	80.0	± 9.6 %
		Y	2.88	68.54	16.92		80.0	
		Z	2.98	68.75	17.25		80.0	
10492-AAD	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.30	66.80	16.60	2.23	80.0	± 9.6 %
		Y	3.11	66.77	16.14		80.0	
		Z	3.15	66.59	16.39		80.0	

10493-AAD	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.37	66.71	16.57	2.23	80.0	± 9.6 %
		Y	3.17	66.68	16.10		80.0	
		Z	3.22	66.50	16.35		80.0	
10494-AAE	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.39	70.48	17.89	2.23	80.0	± 9.6 %
		Y	3.05	69.63	17.32		80.0	
		Z	3.17	69.97	17.66		80.0	
10495-AAE	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.32	67.11	16.79	2.23	80.0	± 9.6 %
		Y	3.13	66.97	16.34		80.0	
		Z	3.17	66.85	16.59		80.0	
10496-AAE	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.41	66.91	16.74	2.23	80.0	± 9.6 %
		Y	3.22	66.84	16.31		80.0	
		Z	3.26	66.68	16.55		80.0	
10497-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	1.27	62.44	10.81	2.23	80.0	± 9.6 %
		Y	0.91	60.00	8.32		80.0	
		Z	0.96	60.00	8.60		80.0	
10498-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	1.23	60.00	8.39	2.23	80.0	± 9.6 %
		Y	1.08	60.00	6.99		80.0	
		Z	1.15	60.00	7.44		80.0	
10499-AAA	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	1.25	60.00	8.24	2.23	80.0	± 9.6 %
		Y	1.10	60.00	6.82		80.0	
		Z	1.17	60.00	7.29		80.0	
10500-AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.61	70.29	17.27	2.23	80.0	± 9.6 %
		Y	2.26	69.03	16.15		80.0	
		Z	2.39	69.59	16.64		80.0	
10501-AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	2.68	67.20	15.47	2.23	80.0	± 9.6 %
		Y	2.37	66.35	14.26		80.0	
		Z	2.44	66.36	14.63		80.0	
10502-AAB	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	2.74	67.08	15.35	2.23	80.0	± 9.6 %
		Y	2.40	66.19	14.09		80.0	
		Z	2.48	66.19	14.48		80.0	
10503-AAD	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	2.83	70.14	17.71	2.23	80.0	± 9.6 %
		Y	2.51	69.14	16.92		80.0	
		Z	2.63	69.65	17.37		80.0	
10504-AAD	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	2.90	67.23	16.40	2.23	80.0	± 9.6 %
		Y	2.71	67.07	15.76		80.0	
		Z	2.75	66.94	16.04		80.0	
10505-AAD	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.00	67.13	16.37	2.23	80.0	± 9.6 %
		Y	2.79	66.98	15.71		80.0	
		Z	2.83	66.85	16.01		80.0	
10506-AAD	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.36	70.34	17.82	2.23	80.0	± 9.6 %
		Y	3.03	69.50	17.25		80.0	
		Z	3.15	69.82	17.58		80.0	
10507-AAD	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.30	67.05	16.75	2.23	80.0	± 9.6 %
		Y	3.12	66.91	16.30		80.0	
		Z	3.16	66.79	16.55		80.0	

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10508-AAD	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.40	66.84	16.70	2.23	80.0	± 9.6 %
		Y	3.21	66.77	16.26		80.0	
		Z	3.25	66.61	16.50		80.0	
10509-AAD	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.75	69.35	17.42	2.23	80.0	± 9.6 %
		Y	3.49	68.98	17.06		80.0	
		Z	3.56	68.94	17.25		80.0	
10510-AAD	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.80	66.91	16.82	2.23	80.0	± 9.6 %
		Y	3.60	66.82	16.46		80.0	
		Z	3.65	66.63	16.66		80.0	
10511-AAD	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.86	66.71	16.77	2.23	80.0	± 9.6 %
		Y	3.68	66.70	16.43		80.0	
		Z	3.72	66.47	16.63		80.0	
10512-AAE	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	X	3.85	70.67	17.81	2.23	80.0	± 9.6 %
		Y	3.53	69.97	17.35		80.0	
		Z	3.62	70.08	17.58		80.0	
10513-AAE	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	X	3.67	67.09	16.90	2.23	80.0	± 9.6 %
		Y	3.49	66.90	16.50		80.0	
		Z	3.53	66.76	16.72		80.0	
10514-AAE	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	X	3.72	66.74	16.80	2.23	80.0	± 9.6 %
		Y	3.55	66.64	16.43		80.0	
		Z	3.58	66.45	16.64		80.0	
10515-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	X	0.86	62.38	14.01	0.00	150.0	± 9.6 %
		Y	0.97	63.43	14.59		150.0	
		Z	0.84	62.32	13.88		150.0	
10516-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	X	0.48	68.87	15.07	0.00	150.0	± 9.6 %
		Y	0.57	69.35	16.87		150.0	
		Z	0.46	68.87	14.72		150.0	
10517-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	X	0.70	64.01	14.29	0.00	150.0	± 9.6 %
		Y	0.81	65.05	15.14		150.0	
		Z	0.67	63.88	14.09		150.0	
10518-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	X	4.40	66.43	16.07	0.00	150.0	± 9.6 %
		Y	4.30	67.01	16.08		150.0	
		Z	4.30	66.45	16.03		150.0	
10519-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	X	4.57	66.65	16.19	0.00	150.0	± 9.6 %
		Y	4.44	67.16	16.16		150.0	
		Z	4.45	66.64	16.14		150.0	
10520-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	X	4.42	66.59	16.10	0.00	150.0	± 9.6 %
		Y	4.30	67.09	16.08		150.0	
		Z	4.31	66.57	16.04		150.0	
10521-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	X	4.36	66.57	16.08	0.00	150.0	± 9.6 %
		Y	4.23	67.05	16.06		150.0	
		Z	4.24	66.54	16.02		150.0	
10522-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	X	4.42	66.70	16.19	0.00	150.0	± 9.6 %
		Y	4.27	67.14	16.13		150.0	
		Z	4.30	66.68	16.13		150.0	

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10523-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)	X	4.31	66.56	16.03	0.00	150.0	± 9.6 %
		Y	4.22	67.21	16.10		150.0	
		Z	4.21	66.61	16.01		150.0	
10524-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	X	4.36	66.61	16.15	0.00	150.0	± 9.6 %
		Y	4.23	67.13	16.15		150.0	
		Z	4.24	66.61	16.11		150.0	
10525-AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)	X	4.36	65.66	15.74	0.00	150.0	± 9.6 %
		Y	4.27	66.29	15.79		150.0	
		Z	4.26	65.68	15.72		150.0	
10526-AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)	X	4.51	66.00	15.88	0.00	150.0	± 9.6 %
		Y	4.38	66.53	15.89		150.0	
		Z	4.40	65.99	15.84		150.0	
10527-AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 99pc duty cycle)	X	4.44	65.96	15.82	0.00	150.0	± 9.6 %
		Y	4.32	66.51	15.84		150.0	
		Z	4.32	65.94	15.77		150.0	
10528-AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 99pc duty cycle)	X	4.45	65.97	15.85	0.00	150.0	± 9.6 %
		Y	4.33	66.53	15.87		150.0	
		Z	4.34	65.96	15.81		150.0	
10529-AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)	X	4.45	65.97	15.85	0.00	150.0	± 9.6 %
		Y	4.33	66.53	15.87		150.0	
		Z	4.34	65.96	15.81		150.0	
10531-AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)	X	4.44	66.05	15.85	0.00	150.0	± 9.6 %
		Y	4.29	66.53	15.84		150.0	
		Z	4.31	66.00	15.79		150.0	
10532-AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 99pc duty cycle)	X	4.30	65.90	15.78	0.00	150.0	± 9.6 %
		Y	4.18	66.40	15.78		150.0	
		Z	4.19	65.85	15.71		150.0	
10533-AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 99pc duty cycle)	X	4.46	66.03	15.84	0.00	150.0	± 9.6 %
		Y	4.34	66.61	15.88		150.0	
		Z	4.34	66.03	15.81		150.0	
10534-AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	X	5.01	66.09	15.95	0.00	150.0	± 9.6 %
		Y	4.89	66.48	15.92		150.0	
		Z	4.92	66.06	15.93		150.0	
10535-AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	X	5.09	66.31	16.06	0.00	150.0	± 9.6 %
		Y	4.92	66.56	15.97		150.0	
		Z	4.97	66.23	16.02		150.0	
10536-AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)	X	4.95	66.24	15.99	0.00	150.0	± 9.6 %
		Y	4.82	66.60	15.96		150.0	
		Z	4.85	66.19	15.97		150.0	
10537-AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	X	5.01	66.20	15.98	0.00	150.0	± 9.6 %
		Y	4.88	66.60	15.96		150.0	
		Z	4.91	66.17	15.97		150.0	
10538-AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 99pc duty cycle)	X	5.09	66.21	16.03	0.00	150.0	± 9.6 %
		Y	4.94	66.54	15.96		150.0	
		Z	4.99	66.16	16.01		150.0	
10540-AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)	X	5.04	66.26	16.07	0.00	150.0	± 9.6 %
		Y	4.87	66.51	15.97		150.0	
		Z	4.91	66.12	16.00		150.0	

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10541-AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 99pc duty cycle)	X	5.00	66.09	15.97	0.00	150.0	± 9.6 %
		Y	4.87	66.46	15.93		150.0	
		Z	4.88	65.99	15.92		150.0	
10542-AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)	X	5.16	66.18	16.04	0.00	150.0	± 9.6 %
		Y	5.01	66.54	15.98		150.0	
		Z	5.05	66.12	16.01		150.0	
10543-AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	X	5.22	66.21	16.08	0.00	150.0	± 9.6 %
		Y	5.08	66.60	16.04		150.0	
		Z	5.13	66.20	16.07		150.0	
10544-AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 99pc duty cycle)	X	5.34	66.20	15.95	0.00	150.0	± 9.6 %
		Y	5.24	66.56	15.91		150.0	
		Z	5.26	66.13	15.93		150.0	
10545-AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)	X	5.55	66.70	16.16	0.00	150.0	± 9.6 %
		Y	5.37	66.89	16.04		150.0	
		Z	5.47	66.67	16.16		150.0	
10546-AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	X	5.39	66.39	16.01	0.00	150.0	± 9.6 %
		Y	5.26	66.66	15.94		150.0	
		Z	5.29	66.27	15.97		150.0	
10547-AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	X	5.47	66.46	16.04	0.00	150.0	± 9.6 %
		Y	5.33	66.76	15.98		150.0	
		Z	5.39	66.42	16.03		150.0	
10548-AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)	X	5.76	67.53	16.55	0.00	150.0	± 9.6 %
		Y	5.43	67.23	16.19		150.0	
		Z	5.61	67.30	16.45		150.0	
10550-AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	X	5.44	66.51	16.08	0.00	150.0	± 9.6 %
		Y	5.30	66.80	16.02		150.0	
		Z	5.38	66.53	16.11		150.0	
10551-AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	X	5.42	66.45	16.02	0.00	150.0	± 9.6 %
		Y	5.25	66.63	15.90		150.0	
		Z	5.30	66.28	15.95		150.0	
10552-AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 99pc duty cycle)	X	5.34	66.25	15.92	0.00	150.0	± 9.6 %
		Y	5.25	66.70	15.93		150.0	
		Z	5.26	66.21	15.91		150.0	
10553-AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	X	5.42	66.27	15.97	0.00	150.0	± 9.6 %
		Y	5.30	66.63	15.92		150.0	
		Z	5.32	66.18	15.93		150.0	
10554-AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	X	5.76	66.58	16.06	0.00	150.0	± 9.6 %
		Y	5.65	66.87	15.98		150.0	
		Z	5.69	66.50	16.03		150.0	
10555-AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle)	X	5.89	66.91	16.20	0.00	150.0	± 9.6 %
		Y	5.73	67.05	16.06		150.0	
		Z	5.80	66.80	16.16		150.0	
10556-AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle)	X	5.91	66.95	16.21	0.00	150.0	± 9.6 %
		Y	5.76	67.14	16.10		150.0	
		Z	5.84	66.88	16.19		150.0	
10557-AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle)	X	5.87	66.82	16.17	0.00	150.0	± 9.6 %
		Y	5.73	67.07	16.08		150.0	
		Z	5.78	66.71	16.13		150.0	

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10558-AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)	X	5.91	66.98	16.26	0.00	150.0	± 9.6 %
		Y	5.73	67.10	16.11		150.0	
		Z	5.80	66.82	16.20		150.0	
10560-AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	X	5.90	66.82	16.22	0.00	150.0	± 9.6 %
		Y	5.76	67.05	16.12		150.0	
		Z	5.81	66.71	16.18		150.0	
10561-AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	X	5.84	66.83	16.26	0.00	150.0	± 9.6 %
		Y	5.68	67.01	16.13		150.0	
		Z	5.75	66.73	16.22		150.0	
10562-AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	X	5.94	67.14	16.42	0.00	150.0	± 9.6 %
		Y	5.73	67.16	16.21		150.0	
		Z	5.81	66.90	16.31		150.0	
10563-AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)	X	6.07	67.17	16.40	0.00	150.0	± 9.6 %
		Y	5.83	67.13	16.16		150.0	
		Z	5.93	66.94	16.30		150.0	
10564-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)	X	4.72	66.49	16.23	0.46	150.0	± 9.6 %
		Y	4.60	66.99	16.19		150.0	
		Z	4.62	66.50	16.19		150.0	
10565-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle)	X	4.94	66.95	16.56	0.46	150.0	± 9.6 %
		Y	4.79	67.40	16.51		150.0	
		Z	4.82	66.93	16.52		150.0	
10566-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle)	X	4.78	66.77	16.37	0.46	150.0	± 9.6 %
		Y	4.63	67.20	16.31		150.0	
		Z	4.66	66.74	16.31		150.0	
10567-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle)	X	4.80	67.16	16.73	0.46	150.0	± 9.6 %
		Y	4.67	67.62	16.70		150.0	
		Z	4.69	67.15	16.70		150.0	
10568-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle)	X	4.69	66.55	16.13	0.46	150.0	± 9.6 %
		Y	4.51	66.86	16.00		150.0	
		Z	4.56	66.49	16.05		150.0	
10569-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle)	X	4.77	67.28	16.81	0.46	150.0	± 9.6 %
		Y	4.66	67.86	16.84		150.0	
		Z	4.67	67.34	16.82		150.0	
10570-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle)	X	4.80	67.14	16.74	0.46	150.0	± 9.6 %
		Y	4.66	67.62	16.72		150.0	
		Z	4.68	67.15	16.72		150.0	
10571-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	X	1.00	63.09	14.71	0.46	130.0	± 9.6 %
		Y	1.09	63.79	14.93		130.0	
		Z	0.97	62.96	14.53		130.0	
10572-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	X	1.00	63.60	15.04	0.46	130.0	± 9.6 %
		Y	1.09	64.27	15.26		130.0	
		Z	0.98	63.46	14.87		130.0	
10573-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 90pc duty cycle)	X	1.18	78.99	19.90	0.46	130.0	± 9.6 %
		Y	1.02	75.98	19.89		130.0	
		Z	1.08	77.95	19.25		130.0	
10574-AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	X	1.03	68.65	17.66	0.46	130.0	± 9.6 %
		Y	1.11	68.80	17.78		130.0	
		Z	0.99	68.46	17.48		130.0	

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10575-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)	X	4.50	66.26	16.27	0.46	130.0	± 9.6 %
		Y	4.37	66.68	16.15		130.0	
		Z	4.39	66.26	16.21		130.0	
10576-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)	X	4.52	66.43	16.34	0.46	130.0	± 9.6 %
		Y	4.40	66.90	16.25		130.0	
		Z	4.42	66.46	16.29		130.0	
10577-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)	X	4.72	66.73	16.51	0.46	130.0	± 9.6 %
		Y	4.56	67.12	16.39		130.0	
		Z	4.60	66.72	16.46		130.0	
10578-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)	X	4.61	66.87	16.61	0.46	130.0	± 9.6 %
		Y	4.47	67.27	16.51		130.0	
		Z	4.50	66.86	16.56		130.0	
10579-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)	X	4.37	66.09	15.87	0.46	130.0	± 9.6 %
		Y	4.21	66.40	15.72		130.0	
		Z	4.25	66.02	15.78		130.0	
10580-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)	X	4.42	66.16	15.91	0.46	130.0	± 9.6 %
		Y	4.23	66.42	15.72		130.0	
		Z	4.29	66.10	15.82		130.0	
10581-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)	X	4.51	66.89	16.54	0.46	130.0	± 9.6 %
		Y	4.38	67.37	16.49		130.0	
		Z	4.40	66.91	16.51		130.0	
10582-AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle)	X	4.31	65.87	15.66	0.46	130.0	± 9.6 %
		Y	4.13	66.14	15.49		130.0	
		Z	4.18	65.79	15.56		130.0	
10583-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	X	4.50	66.26	16.27	0.46	130.0	± 9.6 %
		Y	4.37	66.68	16.15		130.0	
		Z	4.39	66.26	16.21		130.0	
10584-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	X	4.52	66.43	16.34	0.46	130.0	± 9.6 %
		Y	4.40	66.90	16.25		130.0	
		Z	4.42	66.46	16.29		130.0	
10585-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	X	4.72	66.73	16.51	0.46	130.0	± 9.6 %
		Y	4.56	67.12	16.39		130.0	
		Z	4.60	66.72	16.46		130.0	
10586-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	X	4.61	66.87	16.61	0.46	130.0	± 9.6 %
		Y	4.47	67.27	16.51		130.0	
		Z	4.50	66.86	16.56		130.0	
10587-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	X	4.37	66.09	15.87	0.46	130.0	± 9.6 %
		Y	4.21	66.40	15.72		130.0	
		Z	4.25	66.02	15.78		130.0	
10588-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	X	4.42	66.16	15.91	0.46	130.0	± 9.6 %
		Y	4.23	66.42	15.72		130.0	
		Z	4.29	66.10	15.82		130.0	
10589-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	X	4.51	66.89	16.54	0.46	130.0	± 9.6 %
		Y	4.38	67.37	16.49		130.0	
		Z	4.40	66.91	16.51		130.0	
10590-AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	X	4.31	65.87	15.66	0.46	130.0	± 9.6 %
		Y	4.13	66.14	15.49		130.0	
		Z	4.18	65.79	15.56		130.0	

10591-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	X	4.65	66.34	16.39	0.46	130.0	± 9.6 %
		Y	4.53	66.80	16.29		130.0	
		Z	4.55	66.36	16.35		130.0	
10592-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	X	4.80	66.67	16.52	0.46	130.0	± 9.6 %
		Y	4.64	67.06	16.41		130.0	
		Z	4.68	66.66	16.48		130.0	
10593-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)	X	4.71	66.56	16.38	0.46	130.0	± 9.6 %
		Y	4.56	66.93	16.26		130.0	
		Z	4.59	66.53	16.33		130.0	
10594-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)	X	4.77	66.73	16.55	0.46	130.0	± 9.6 %
		Y	4.61	67.12	16.43		130.0	
		Z	4.65	66.72	16.50		130.0	
10595-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	X	4.73	66.68	16.44	0.46	130.0	± 9.6 %
		Y	4.58	67.09	16.34		130.0	
		Z	4.62	66.68	16.40		130.0	
10596-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	X	4.67	66.67	16.44	0.46	130.0	± 9.6 %
		Y	4.50	67.03	16.32		130.0	
		Z	4.55	66.65	16.39		130.0	
10597-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)	X	4.62	66.55	16.30	0.46	130.0	± 9.6 %
		Y	4.46	66.90	16.17		130.0	
		Z	4.50	66.51	16.24		130.0	
10598-AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)	X	4.60	66.78	16.57	0.46	130.0	± 9.6 %
		Y	4.46	67.16	16.46		130.0	
		Z	4.49	66.75	16.51		130.0	
10599-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	X	5.35	66.93	16.66	0.46	130.0	± 9.6 %
		Y	5.19	67.17	16.50		130.0	
		Z	5.28	66.99	16.69		130.0	
10600-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	X	5.53	67.52	16.93	0.46	130.0	± 9.6 %
		Y	5.24	67.37	16.58		130.0	
		Z	5.43	67.53	16.93		130.0	
10601-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	X	5.39	67.16	16.76	0.46	130.0	± 9.6 %
		Y	5.19	67.30	16.57		130.0	
		Z	5.29	67.16	16.76		130.0	
10602-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS3, 90pc duty cycle)	X	5.52	67.31	16.76	0.46	130.0	± 9.6 %
		Y	5.25	67.22	16.44		130.0	
		Z	5.42	67.30	16.74		130.0	
10603-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	X	5.57	67.56	17.01	0.46	130.0	± 9.6 %
		Y	5.32	67.52	16.73		130.0	
		Z	5.52	67.72	17.10		130.0	
10604-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)	X	5.41	67.09	16.76	0.46	130.0	± 9.6 %
		Y	5.20	67.13	16.51		130.0	
		Z	5.40	67.35	16.89		130.0	
10605-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)	X	5.51	67.40	16.92	0.46	130.0	± 9.6 %
		Y	5.25	67.29	16.59		130.0	
		Z	5.40	67.34	16.89		130.0	
10606-AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)	X	5.20	66.52	16.33	0.46	130.0	± 9.6 %
		Y	5.06	66.82	16.20		130.0	
		Z	5.15	66.63	16.37		130.0	

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10607-AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)	X	4.50	65.65	16.00	0.46	130.0	± 9.6 %
		Y	4.38	66.16	15.95		130.0	
		Z	4.40	65.68	15.97		130.0	
10608-AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	X	4.67	66.04	16.17	0.46	130.0	± 9.6 %
		Y	4.51	66.46	16.08		130.0	
		Z	4.55	66.03	16.13		130.0	
10609-AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	X	4.56	65.87	15.99	0.46	130.0	± 9.6 %
		Y	4.40	66.29	15.90		130.0	
		Z	4.44	65.85	15.94		130.0	
10610-AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	X	4.61	66.03	16.16	0.46	130.0	± 9.6 %
		Y	4.46	66.47	16.08		130.0	
		Z	4.49	66.02	16.12		130.0	
10611-AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	X	4.52	65.83	16.00	0.46	130.0	± 9.6 %
		Y	4.37	66.25	15.91		130.0	
		Z	4.40	65.81	15.95		130.0	
10612-AAB	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	X	4.52	65.98	16.04	0.46	130.0	± 9.6 %
		Y	4.35	66.34	15.94		130.0	
		Z	4.40	65.95	15.99		130.0	
10613-AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)	X	4.52	65.84	15.91	0.46	130.0	± 9.6 %
		Y	4.34	66.16	15.78		130.0	
		Z	4.39	65.77	15.84		130.0	
10614-AAB	IEEE 802.11ac WiFi (20MHz, MCS7, 90pc duty cycle)	X	4.47	66.03	16.15	0.46	130.0	± 9.6 %
		Y	4.33	66.42	16.05		130.0	
		Z	4.36	66.00	16.10		130.0	
10615-AAB	IEEE 802.11ac WiFi (20MHz, MCS8, 90pc duty cycle)	X	4.52	65.66	15.77	0.46	130.0	± 9.6 %
		Y	4.35	66.07	15.67		130.0	
		Z	4.40	65.64	15.71		130.0	
10616-AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 90pc duty cycle)	X	5.16	66.14	16.24	0.46	130.0	± 9.6 %
		Y	5.00	66.40	16.11		130.0	
		Z	5.06	66.09	16.22		130.0	
10617-AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 90pc duty cycle)	X	5.25	66.40	16.34	0.46	130.0	± 9.6 %
		Y	5.03	66.47	16.12		130.0	
		Z	5.14	66.32	16.31		130.0	
10618-AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 90pc duty cycle)	X	5.12	66.36	16.34	0.46	130.0	± 9.6 %
		Y	4.95	66.57	16.19		130.0	
		Z	5.03	66.34	16.32		130.0	
10619-AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 90pc duty cycle)	X	5.14	66.15	16.17	0.46	130.0	± 9.6 %
		Y	4.97	66.40	16.03		130.0	
		Z	5.04	66.14	16.16		130.0	
10620-AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	X	5.22	66.19	16.24	0.46	130.0	± 9.6 %
		Y	5.03	66.37	16.07		130.0	
		Z	5.12	66.16	16.22		130.0	
10621-AAB	IEEE 802.11ac WiFi (40MHz, MCS5, 90pc duty cycle)	X	5.23	66.33	16.43	0.46	130.0	± 9.6 %
		Y	5.06	66.54	16.28		130.0	
		Z	5.12	66.25	16.40		130.0	
10622-AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 90pc duty cycle)	X	5.24	66.50	16.51	0.46	130.0	± 9.6 %
		Y	5.04	66.60	16.30		130.0	
		Z	5.12	66.38	16.45		130.0	

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10623-AAB	IEEE 802.11ac WiFi (40MHz, MCS7, 90pc duty cycle)	X	5.12	66.00	16.13	0.46	130.0	± 9.6 %
		Y	4.94	66.19	15.96		130.0	
		Z	4.99	65.84	16.04		130.0	
10624-AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 90pc duty cycle)	X	5.31	66.22	16.31	0.46	130.0	± 9.6 %
		Y	5.13	66.43	16.14		130.0	
		Z	5.20	66.15	16.27		130.0	
10625-AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	X	5.63	67.10	16.80	0.46	130.0	± 9.6 %
		Y	5.20	66.53	16.26		130.0	
		Z	5.34	66.46	16.48		130.0	
10626-AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	X	5.48	66.20	16.21	0.46	130.0	± 9.6 %
		Y	5.34	66.44	16.08		130.0	
		Z	5.39	66.13	16.18		130.0	
10627-AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)	X	5.75	66.91	16.53	0.46	130.0	± 9.6 %
		Y	5.53	66.93	16.29		130.0	
		Z	5.68	66.91	16.54		130.0	
10628-AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	X	5.50	66.28	16.14	0.46	130.0	± 9.6 %
		Y	5.33	66.39	15.95		130.0	
		Z	5.40	66.13	16.08		130.0	
10629-AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 90pc duty cycle)	X	5.59	66.37	16.18	0.46	130.0	± 9.6 %
		Y	5.41	66.54	16.02		130.0	
		Z	5.51	66.36	16.19		130.0	
10630-AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 90pc duty cycle)	X	6.10	68.11	17.05	0.46	130.0	± 9.6 %
		Y	5.56	67.19	16.36		130.0	
		Z	5.90	67.73	16.87		130.0	
10631-AAB	IEEE 802.11ac WiFi (80MHz, MCS5, 90pc duty cycle)	X	5.90	67.63	17.01	0.46	130.0	± 9.6 %
		Y	5.60	67.43	16.67		130.0	
		Z	5.76	67.43	16.92		130.0	
10632-AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 90pc duty cycle)	X	5.72	66.98	16.70	0.46	130.0	± 9.6 %
		Y	5.54	67.13	16.53		130.0	
		Z	5.67	67.06	16.76		130.0	
10633-AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 90pc duty cycle)	X	5.55	66.41	16.24	0.46	130.0	± 9.6 %
		Y	5.36	66.50	16.04		130.0	
		Z	5.45	66.32	16.21		130.0	
10634-AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	X	5.54	66.44	16.31	0.46	130.0	± 9.6 %
		Y	5.39	66.71	16.20		130.0	
		Z	5.44	66.36	16.28		130.0	
10635-AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)	X	5.41	65.76	15.70	0.46	130.0	± 9.6 %
		Y	5.24	65.91	15.52		130.0	
		Z	5.30	65.62	15.63		130.0	
10636-AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	X	5.91	66.59	16.31	0.46	130.0	± 9.6 %
		Y	5.77	66.77	16.15		130.0	
		Z	5.84	66.52	16.29		130.0	
10637-AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	X	6.08	67.05	16.52	0.46	130.0	± 9.6 %
		Y	5.86	67.00	16.25		130.0	
		Z	5.99	66.93	16.48		130.0	
10638-AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle)	X	6.08	67.01	16.48	0.46	130.0	± 9.6 %
		Y	5.89	67.09	16.28		130.0	
		Z	6.00	66.94	16.46		130.0	

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10639-AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)	X	6.03	66.88	16.46	0.46	130.0	± 9.6 %
		Y	5.86	67.00	16.27		130.0	
		Z	5.95	66.78	16.43		130.0	
10640-AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)	X	6.04	66.89	16.41	0.46	130.0	± 9.6 %
		Y	5.81	66.85	16.14		130.0	
		Z	5.93	66.73	16.34		130.0	
10641-AAC	IEEE 802.11ac WiFi (160MHz, MCS5, 90pc duty cycle)	X	6.11	66.89	16.43	0.46	130.0	± 9.6 %
		Y	5.90	66.91	16.19		130.0	
		Z	6.04	66.84	16.42		130.0	
10642-AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 90pc duty cycle)	X	6.12	67.06	16.69	0.46	130.0	± 9.6 %
		Y	5.94	67.17	16.49		130.0	
		Z	6.03	66.98	16.66		130.0	
10643-AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	X	5.98	66.80	16.45	0.46	130.0	± 9.6 %
		Y	5.78	66.82	16.20		130.0	
		Z	5.89	66.71	16.41		130.0	
10644-AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	X	6.10	67.16	16.65	0.46	130.0	± 9.6 %
		Y	5.83	67.00	16.32		130.0	
		Z	5.95	66.89	16.52		130.0	
10645-AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	X	6.30	67.42	16.74	0.46	130.0	± 9.6 %
		Y	5.95	67.03	16.29		130.0	
		Z	6.25	67.45	16.77		130.0	
10646-AAE	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	X	10.67	100.12	34.89	9.30	60.0	± 9.6 %
		Y	6.20	89.57	30.87		60.0	
		Z	7.99	94.69	33.32		60.0	
10647-AAE	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)	X	9.30	97.49	34.14	9.30	60.0	± 9.6 %
		Y	5.37	86.69	29.91		60.0	
		Z	7.00	92.14	32.55		60.0	
10648-AAA	CDMA2000 (1x Advanced)	X	0.49	61.01	8.00	0.00	150.0	± 9.6 %
		Y	0.50	61.89	8.49		150.0	
		Z	0.40	60.00	6.46		150.0	
10652-AAC	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	X	3.22	65.65	15.94	2.23	80.0	± 9.6 %
		Y	3.11	66.12	15.63		80.0	
		Z	3.10	65.59	15.71		80.0	
10653-AAC	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	X	3.77	65.16	16.23	2.23	80.0	± 9.6 %
		Y	3.68	65.57	16.01		80.0	
		Z	3.67	65.10	16.10		80.0	
10654-AAC	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	X	3.77	64.82	16.25	2.23	80.0	± 9.6 %
		Y	3.71	65.21	16.06		80.0	
		Z	3.69	64.74	16.15		80.0	
10655-AAD	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	X	3.84	64.80	16.30	2.23	80.0	± 9.6 %
		Y	3.79	65.13	16.10		80.0	
		Z	3.76	64.68	16.20		80.0	
10658-AAA	Pulse Waveform (200Hz, 10%)	X	4.64	72.37	13.55	10.00	50.0	± 9.6 %
		Y	3.94	70.35	12.12		50.0	
		Z	3.87	70.02	12.55		50.0	
10659-AAA	Pulse Waveform (200Hz, 20%)	X	5.15	75.45	13.36	6.99	60.0	± 9.6 %
		Y	7.32	78.11	13.80		60.0	
		Z	2.43	68.56	10.74		60.0	

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10660-AAA	Pulse Waveform (200Hz, 40%)	X	1.22	66.15	8.39	3.98	80.0	± 9.6 %
		Y	100.00	99.93	18.14		80.0	
		Z	0.57	61.12	5.87		80.0	
10661-AAA	Pulse Waveform (200Hz, 60%)	X	0.28	60.00	4.15	2.22	100.0	± 9.6 %
		Y	100.00	104.01	18.88		100.0	
		Z	0.27	60.00	3.62		100.0	
10662-AAA	Pulse Waveform (200Hz, 80%)	X	3.28	320.06	49.16	0.97	120.0	± 9.6 %
		Y	100.00	121.64	24.36		120.0	
		Z	0.85	198.47	10.44		120.0	

[F] Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

Attachment 7. – Dipole Calibration Data

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **HCT (Dymstec)**

Certificate No: **D835V2-4d165_Sep18**

CALIBRATION CERTIFICATE

결재	담 당 자	확 인 자
직위/성명	SW / 조재훈	CJ / 최윤혁
일 자	2018 / 10. 05	2018 / 10. 5

Object: D835V2 - SN:4d165

Calibration procedure(s): QA CAL-05.v10
Calibration procedure for dipole validation kits above 700 MHz

Calibration date: September 18, 2018

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-18 (No. 217-02672/02673)	Apr-19
Power sensor NRP-Z91	SN: 103244	04-Apr-18 (No. 217-02672)	Apr-19
Power sensor NRP-Z91	SN: 103245	04-Apr-18 (No. 217-02673)	Apr-19
Reference 20 dB Attenuator	SN: 5058 (20k)	04-Apr-18 (No. 217-02682)	Apr-19
Type-N mismatch combination	SN: 5047.2 / 06327	04-Apr-18 (No. 217-02683)	Apr-19
Reference Probe EX3DV4	SN: 7349	30-Dec-17 (No. EX3-7349_Dec17)	Dec-18
DAE4	SN: 601	26-Oct-17 (No. DAE4-601_Oct17)	Oct-18

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter EPM-442A	SN: GB37480704	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-16)	In house check: Oct-18
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-17)	In house check: Oct-18

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: September 19, 2018

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Certificate No: D835V2-4d165_Sep18 Page 1 of 8

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.1
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	835 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	41.5	0.90 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	40.8 ± 6 %	0.91 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	---	---

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.38 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**9.41 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.53 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**6.06 W/kg ± 16.5 % (k=2)**

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	55.2	0.97 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	55.4 ± 6 %	0.99 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	---	---

SAR result with Body TSL

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	2.41 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**9.50 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	1.57 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**6.21 W/kg ± 16.5 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	50.5 Ω - 5.3 jΩ
Return Loss	- 25.5 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	45.5 Ω - 7.6 jΩ
Return Loss	- 20.7 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.436 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	December 28, 2012

DASY5 Validation Report for Head TSL

Date: 18.09.2018

Test Laboratory: SPEAG, Zurich, Switzerland

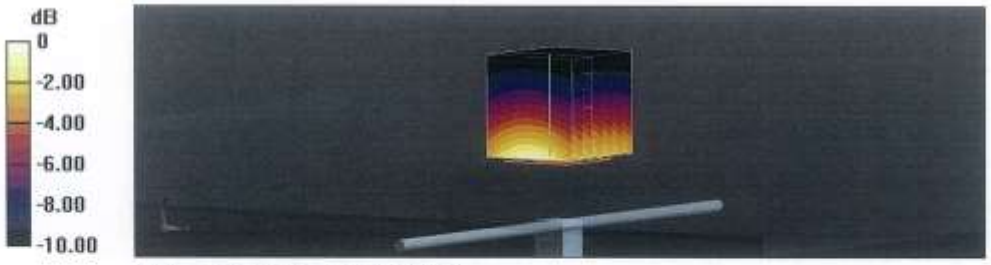
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d165

Communication System: UID 0 - CW; Frequency: 835 MHz
Medium parameters used: f = 835 MHz; σ = 0.91 S/m; ε_r = 40.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

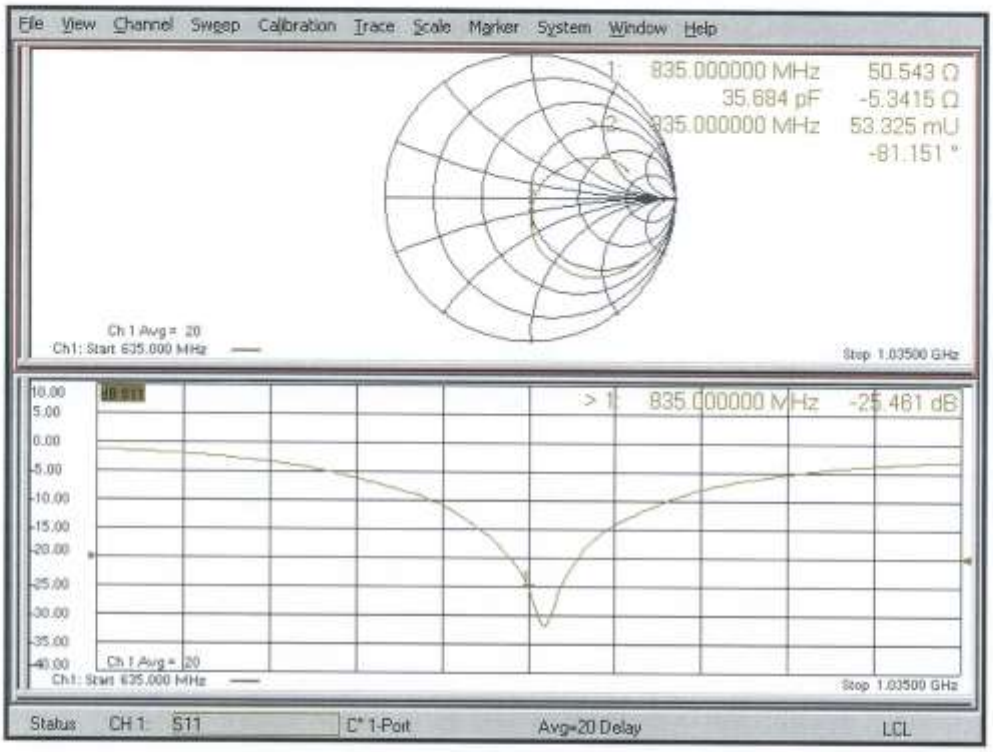
- Probe: EX3DV4 - SN7349; ConvF(9.9, 9.9, 9.9) @ 835 MHz; Calibrated: 30.12.2017
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 26.10.2017
- Phantom: Flat Phantom 4.9 (front); Type: QD 00L P49 AA; Serial: 1001
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

Dipole Calibration for Head Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 65.64 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 3.70 W/kg
SAR(1 g) = 2.38 W/kg; SAR(10 g) = 1.53 W/kg
Maximum value of SAR (measured) = 3.24 W/kg



0 dB = 3.24 W/kg = 5.11 dBW/kg

Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 18.09.2018

Test Laboratory: SPEAG, Zurich, Switzerland

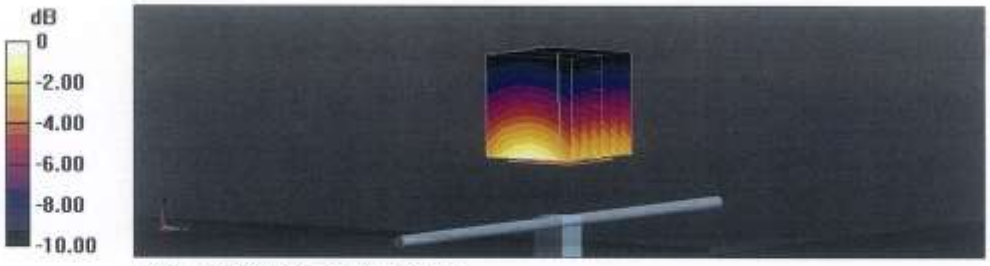
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d165

Communication System: UID 0 - CW; Frequency: 835 MHz
Medium parameters used: f = 835 MHz; σ = 0.99 S/m; ε_r = 55.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

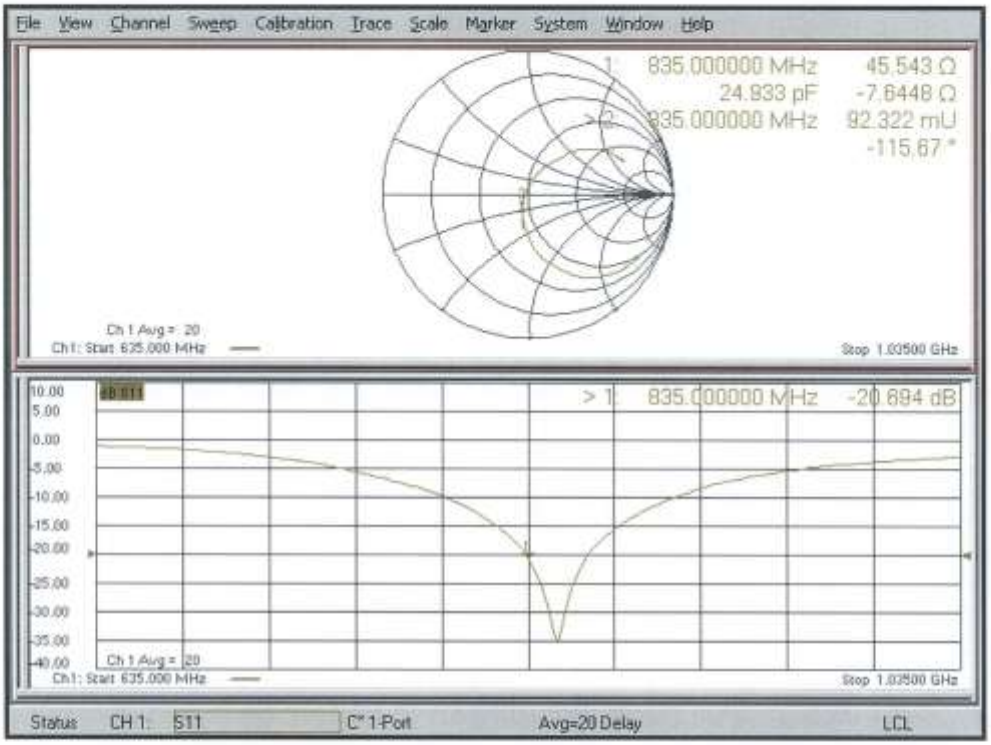
- Probe: EX3DV4 - SN7349; ConvF(10.05, 10.05, 10.05) @ 835 MHz; Calibrated: 30.12.2017
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 26.10.2017
- Phantom: Flat Phantom 4.9 (Back); Type: QD 00R P49 AA; Serial: 1005
- DASY52 52.10.1(1476); SEMCAD X 14.6.11(7439)

Dipole Calibration for Body Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 60.86 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 3.62 W/kg
SAR(1 g) = 2.41 W/kg; SAR(10 g) = 1.57 W/kg
Maximum value of SAR (measured) = 3.22 W/kg



0 dB = 3.22 W/kg = 5.08 dBW/kg

Impedance Measurement Plot for Body TSL



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Accreditation No.: **SCS 0108**

Client **HCT (Dymstec)**

Certificate No: **D1900V2-5d032_Feb19**

CALIBRATION CERTIFICATE

결재	담당자	확인자
직위/성명	SW / 강***	GTJ / 하***
일자	2019 / 03. 13	2019 / 03. 13

Object	D1900V2 - SN:5d032
Calibration procedure(s)	QA CAL-05.v11 Calibration Procedure for SAR Validation Sources between 0.7-3 GHz
Calibration date:	February 21, 2019

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-18 (No. 217-02672/02673)	Apr-19
Power sensor NRP-Z91	SN: 103244	04-Apr-18 (No. 217-02672)	Apr-19
Power sensor NRP-Z91	SN: 103245	04-Apr-18 (No. 217-02673)	Apr-19
Reference 20 dB Attenuator	SN: 5058 (20k)	04-Apr-18 (No. 217-02682)	Apr-19
Type-N mismatch combination	SN: 5047.2 / 06327	04-Apr-18 (No. 217-02683)	Apr-19
Reference Probe EX3DV4	SN: 7349	31-Dec-18 (No. EX3-7349_Dec18)	Dec-19
DAE4	SN: 601	04-Oct-18 (No. DAE4-601_Oct18)	Oct-19

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB39512475	07-Oct-15 (in house check Feb-19)	In house check: Oct-20
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-18)	In house check: Oct-20
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-18)	In house check: Oct-19

	Name	Function	Signature
Calibrated by:	Manu Seitz	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: February 21, 2019

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

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S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.2
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	1900 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	40.0	1.40 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	40.9 ± 6 %	1.38 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	9.87 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**40.0 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	5.17 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**20.9 W/kg ± 16.5 % (k=2)**

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	53.3	1.52 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	53.6 ± 6 %	1.47 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	----	----

SAR result with Body TSL

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	9.71 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**39.7 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	5.13 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**20.8 W/kg ± 16.5 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	49.8 Ω + 6.6 jΩ
Return Loss	- 23.6 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	46.6 Ω + 6.7 jΩ
Return Loss	- 22.2 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.198 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG

DASY5 Validation Report for Head TSL

Date: 21.02.2019

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d032

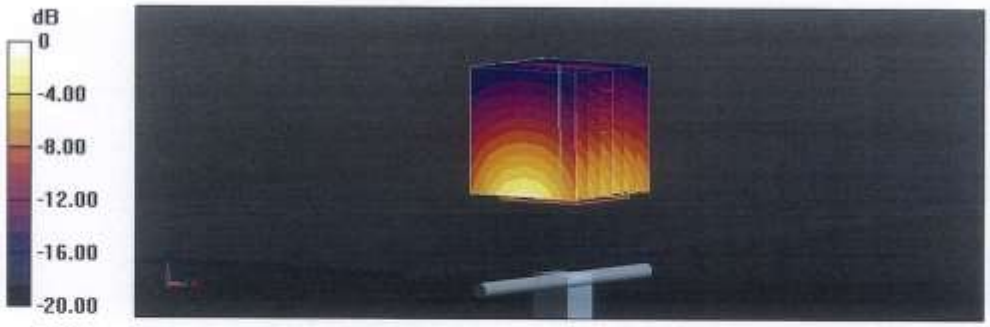
Communication System: UID 0 - CW; Frequency: 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.38 S/m; ε_r = 40.9; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(8.26, 8.26, 8.26) @ 1900 MHz; Calibrated: 31.12.2018
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.10.2018
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

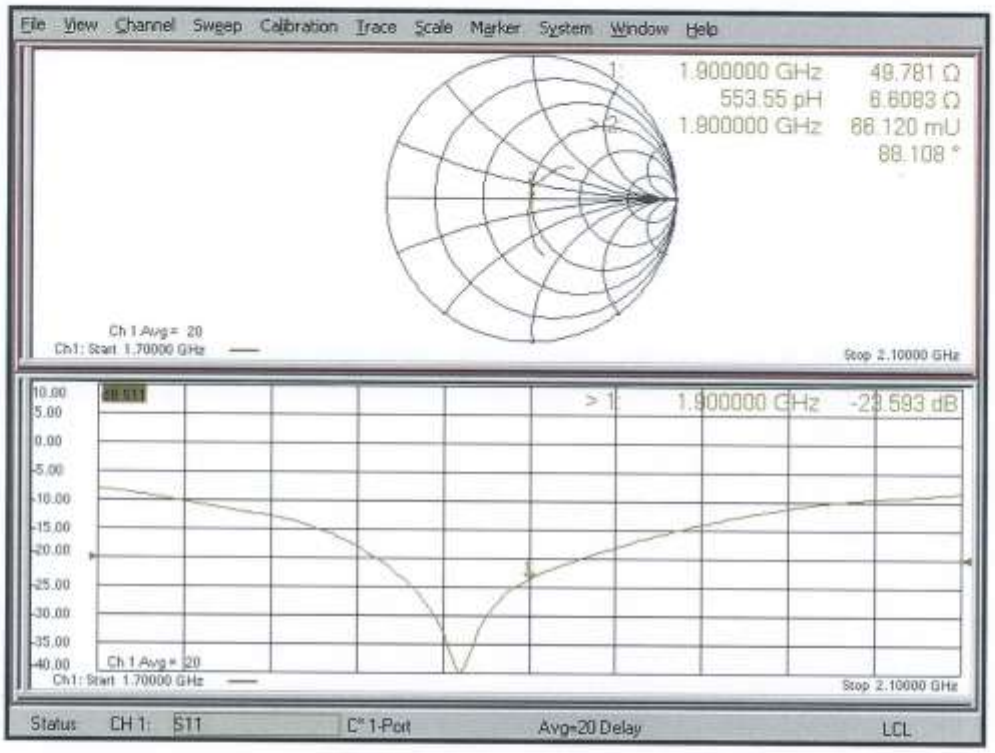
Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 109.8 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 18.2 W/kg
SAR(1 g) = 9.87 W/kg; SAR(10 g) = 5.17 W/kg
Maximum value of SAR (measured) = 15.3 W/kg



0 dB = 15.3 W/kg = 11.85 dBW/kg

Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 21.02.2019

Test Laboratory: SPEAG, Zurich, Switzerland

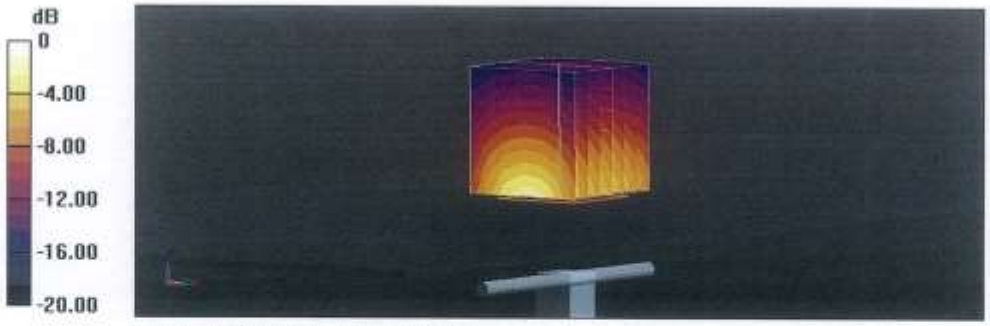
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d032

Communication System: UID 0 - CW; Frequency: 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.47 S/m; ε_r = 53.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

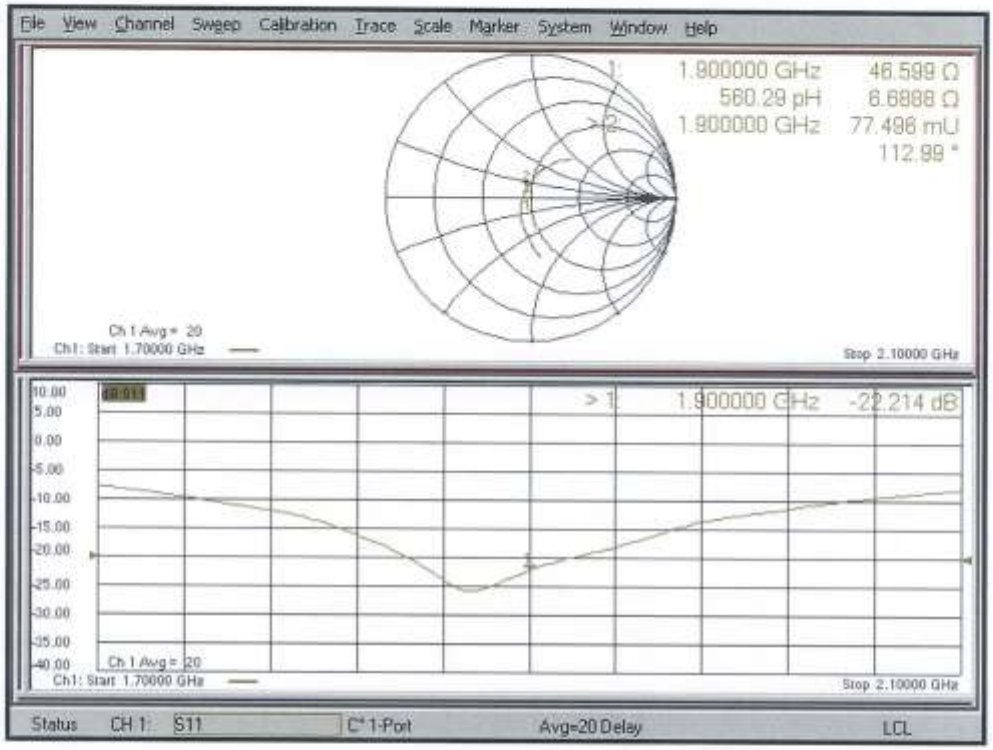
- Probe: EX3DV4 - SN7349; ConvF(8.23, 8.23, 8.23) @ 1900 MHz; Calibrated: 31.12.2018
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.10.2018
- Phantom: Flat Phantom 5.0 (back); Type: QD 000 P50 AA; Serial: 1002
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 104.5 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 17.3 W/kg
SAR(1 g) = 9.71 W/kg; SAR(10 g) = 5.13 W/kg
Maximum value of SAR (measured) = 14.6 W/kg



0 dB = 14.6 W/kg = 11.64 dBW/kg

Impedance Measurement Plot for Body TSL



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Accreditation No.: **SCS 0108**

Client **HCT (Dymstec)**

Certificate No: **D2450V2-743_Jan19**

CALIBRATION CERTIFICATE

결재	담당자	확인자
직위/성명	SW / 강찬수	61 / 최동영
일자	2019/2.15	2019/2.15

Object	D2450V2 - SN:743
Calibration procedure(s)	QA CAL-05.v11 Calibration Procedure for SAR Validation Sources between 0.7-3 GHz
Calibration date:	January 28, 2019

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-18 (No. 217-02672/02673)	Apr-19
Power sensor NRP-Z91	SN: 103244	04-Apr-18 (No. 217-02672)	Apr-19
Power sensor NRP-Z91	SN: 103245	04-Apr-18 (No. 217-02673)	Apr-19
Reference 20 dB Attenuator	SN: 5058 (20k)	04-Apr-18 (No. 217-02682)	Apr-19
Type-N mismatch combination	SN: 5047.2 / 06327	04-Apr-18 (No. 217-02683)	Apr-19
Reference Probe EX3DV4	SN: 7349	31-Dec-18 (No. EX3-7349_Dec18)	Dec-19
DAE4	SN: 601	04-Oct-18 (No. DAE4-601_Oct18)	Oct-19

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter EPM-442A	SN: GB37480704	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-18)	In house check: Oct-20
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-18)	In house check: Oct-19

	Name	Function	Signature
Calibrated by:	Manu Seitz	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: January 28, 2019

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

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Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.2
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2450 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.2	1.80 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	37.8 ± 6 %	1.87 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	13.3 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**51.8 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	6.14 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**24.2 W/kg ± 16.5 % (k=2)**

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	52.7	1.95 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	51.1 ± 6 %	2.03 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	----	----

SAR result with Body TSL

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	12.8 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**49.9 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	5.94 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**23.4 W/kg ± 16.5 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	53.6 Ω + 5.5 jΩ
Return Loss	- 24.0 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	50.2 Ω + 7.9 jΩ
Return Loss	- 22.1 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.161 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG

DASY5 Validation Report for Head TSL

Date: 28.01.2019

Test Laboratory: SPEAG, Zurich, Switzerland

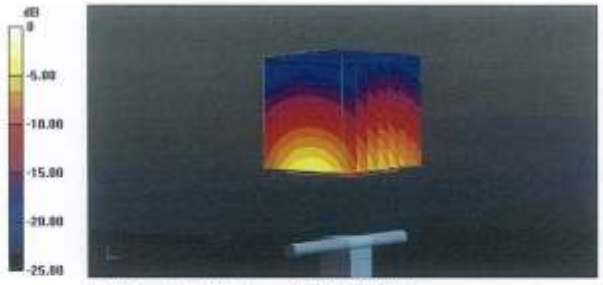
DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:743

Communication System: UID 0 - CW; Frequency: 2450 MHz
Medium parameters used: f = 2450 MHz; σ = 1.87 S/m; ε_r = 37.8; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

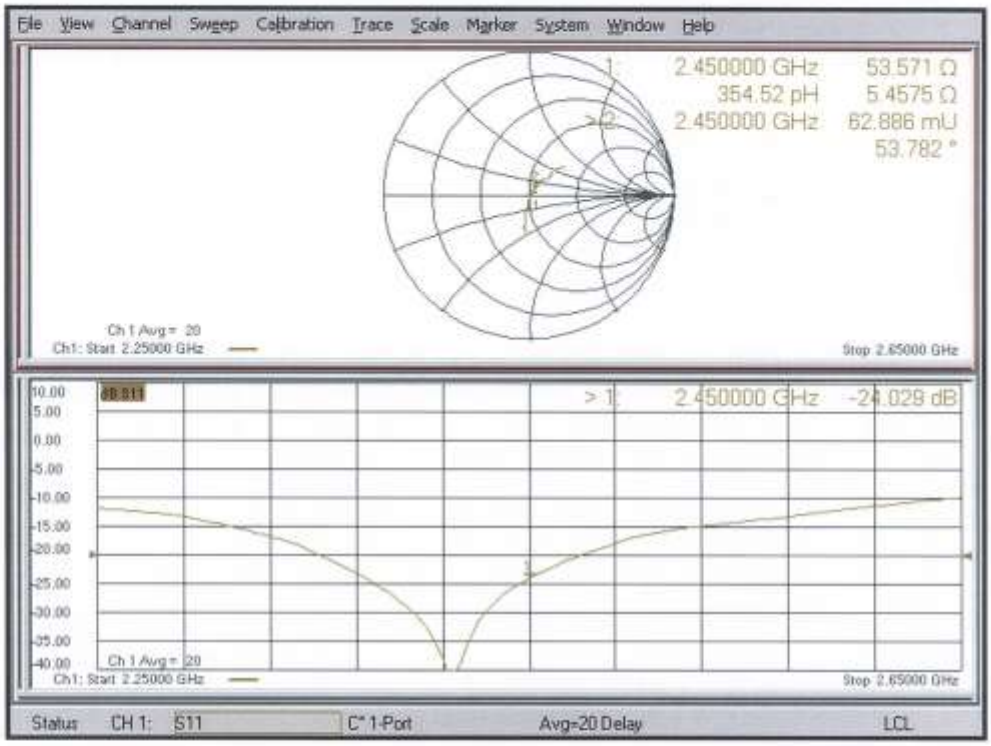
- Probe: EX3DV4 - SN7349; ConvF(7.96, 7.96, 7.96) @ 2450 MHz; Calibrated: 31.12.2018
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.10.2018
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 116.5 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 26.6 W/kg
SAR(1 g) = 13.3 W/kg; SAR(10 g) = 6.14 W/kg
Maximum value of SAR (measured) = 22.1 W/kg



0 dB = 22.1 W/kg = 13.44 dBW/kg

Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 28.01.2019

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN:743

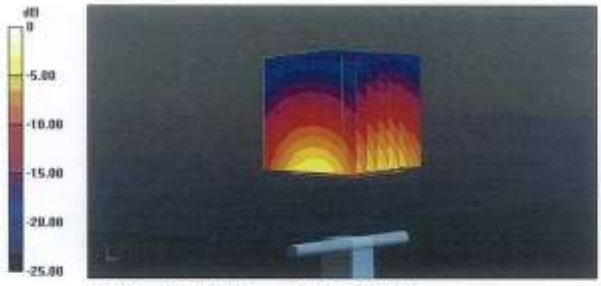
Communication System: UID 0 - CW; Frequency: 2450 MHz
Medium parameters used: f = 2450 MHz; σ = 2.03 S/m; ε_r = 51.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(8.09, 8.09, 8.09) @ 2450 MHz; Calibrated: 31.12.2018
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.10.2018
- Phantom: Flat Phantom 5.0 (back); Type: QD 000 P50 AA; Serial: 1002
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

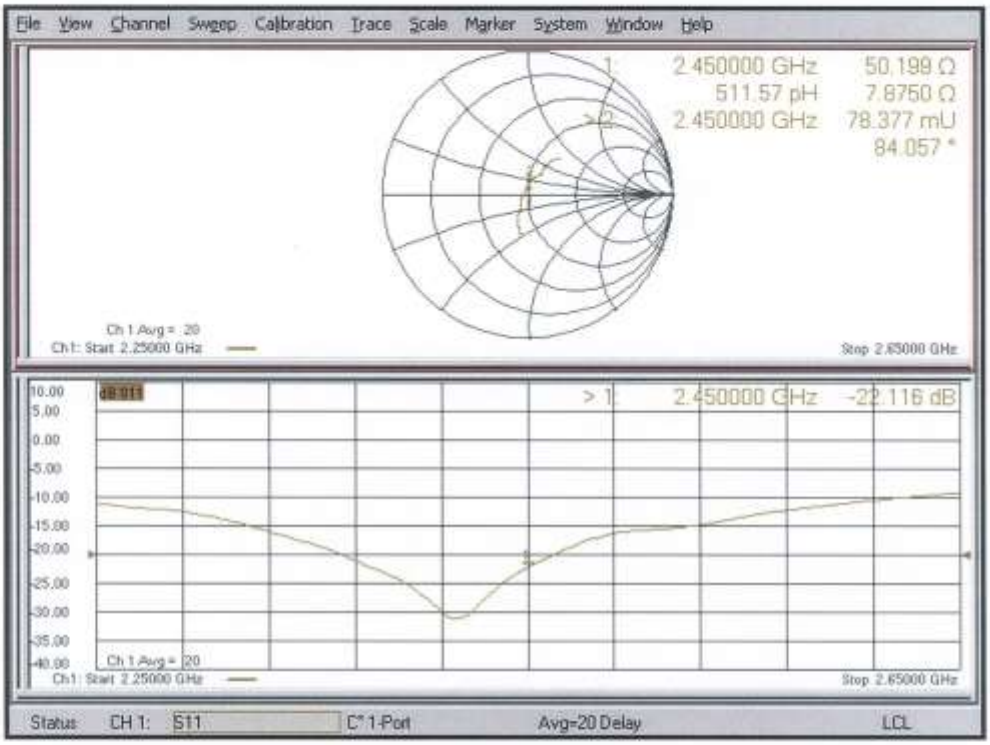
Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 107.2 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 25.5 W/kg
SAR(1 g) = 12.8 W/kg; SAR(10 g) = 5.94 W/kg
Maximum value of SAR (measured) = 20.7 W/kg



0 dB = 20.7 W/kg = 13.16 dBW/kg

Impedance Measurement Plot for Body TSL



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Accreditation No.: SCS 0108

Client HCT (Dymstec)

Certificate No: D2600V2-1015_Nov18

CALIBRATION CERTIFICATE

	담당자	확인자
결재		
직위/성명	SW 대리	GJ 대리
일자	2018/12.03	2018/12.03

Object D2600V2 - SN:1015

Calibration procedure(s) QA CAL-05.v10
Calibration procedure for dipole validation kits above 700 MHz

Calibration date: November 20, 2018

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-18 (No. 217-02672/02673)	Apr-19
Power sensor NRP-Z91	SN: 103244	04-Apr-18 (No. 217-02672)	Apr-19
Power sensor NRP-Z91	SN: 103245	04-Apr-18 (No. 217-02673)	Apr-19
Reference 20 dB Attenuator	SN: 5058 (20k)	04-Apr-18 (No. 217-02682)	Apr-19
Type-N mismatch combination	SN: 5047.2 / 06327	04-Apr-18 (No. 217-02683)	Apr-19
Reference Probe EX3DV4	SN: 7349	30-Dec-17 (No. EX3-7349_Dec17)	Dec-18
DAE4	SN: 601	04-Oct-18 (No. DAE4-601_Oct18)	Oct-19

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter EPM-442A	SN: GB37480704	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-18)	In house check: Oct-20
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-18)	In house check: Oct-19

	Name	Function	Signature
Calibrated by:	Leif Klysner	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: November 20, 2018

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Accreditation No.: SCS 0108

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.2
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2600 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.0	1.96 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	37.3 ± 6 %	2.03 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	14.9 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**58.1 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	6.63 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**26.1 W/kg ± 16.5 % (k=2)**

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	52.5	2.16 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	50.9 ± 6 %	2.20 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	----	----

SAR result with Body TSL

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	13.9 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**54.8 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	6.14 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**24.3 W/kg ± 16.5 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	49.6 Ω - 4.1 jΩ
Return Loss	- 27.6 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	45.8 Ω - 2.8 jΩ
Return Loss	- 25.5 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.150 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	October 30, 2007

DASY5 Validation Report for Head TSL

Date: 16.11.2018

Test Laboratory: SPEAG, Zurich, Switzerland

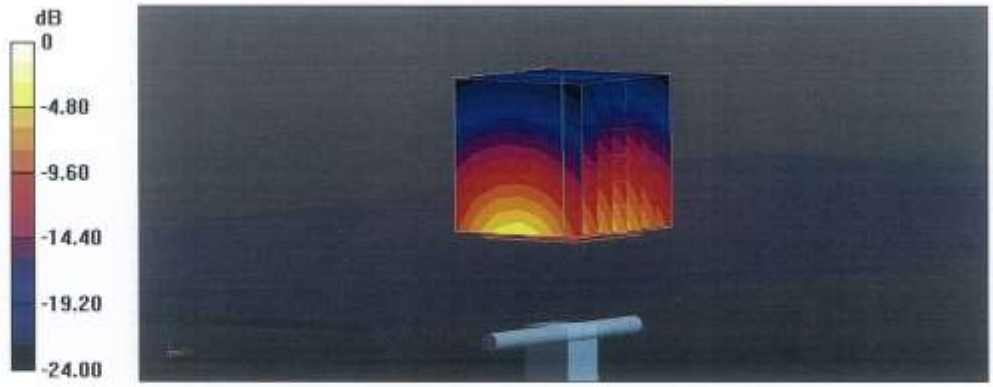
DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2 - SN:1015

Communication System: UID 0 - CW; Frequency: 2600 MHz
Medium parameters used: f = 2600 MHz; σ = 2.03 S/m; ε_r = 37.3; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

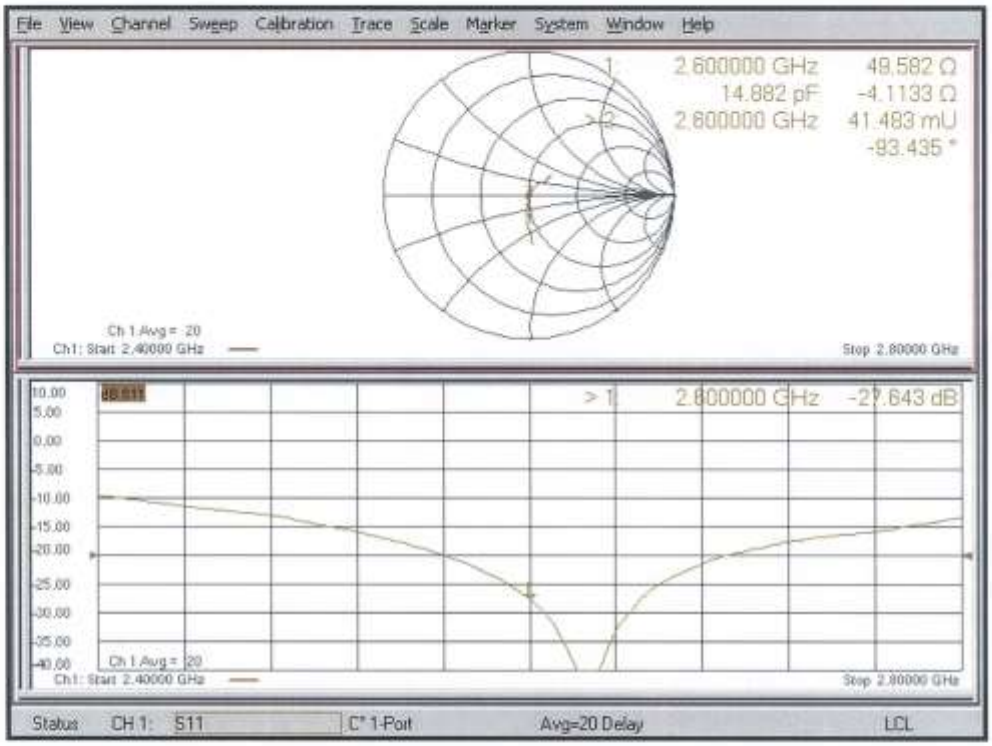
- Probe: EX3DV4 - SN7349; ConvF(7.7, 7.7, 7.7) @ 2600 MHz; Calibrated: 30.12.2017
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.10.2018
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 121.3 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 30.2 W/kg
SAR(1 g) = 14.9 W/kg; SAR(10 g) = 6.63 W/kg
Maximum value of SAR (measured) = 25.0 W/kg



0 dB = 25.0 W/kg = 13.98 dBW/kg

Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 20.11.2018

Test Laboratory: SPEAG, Zurich, Switzerland

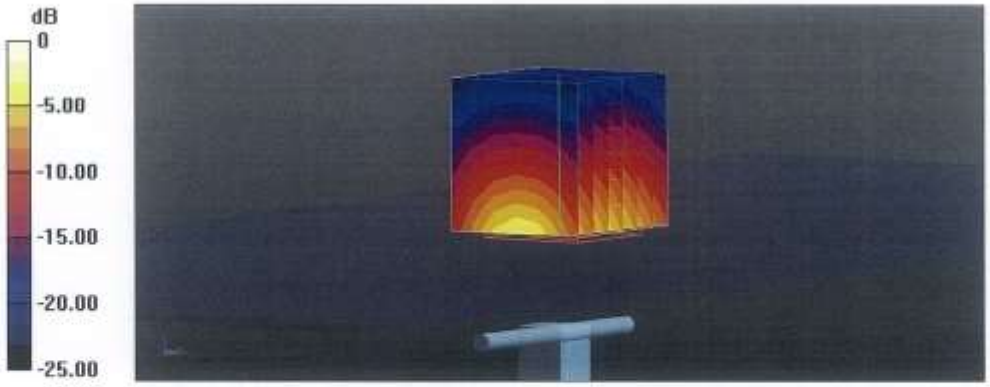
DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2 - SN:1015

Communication System: UID 0 - CW; Frequency: 2600 MHz
Medium parameters used: f = 2600 MHz; σ = 2.2 S/m; ε_r = 50.9; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

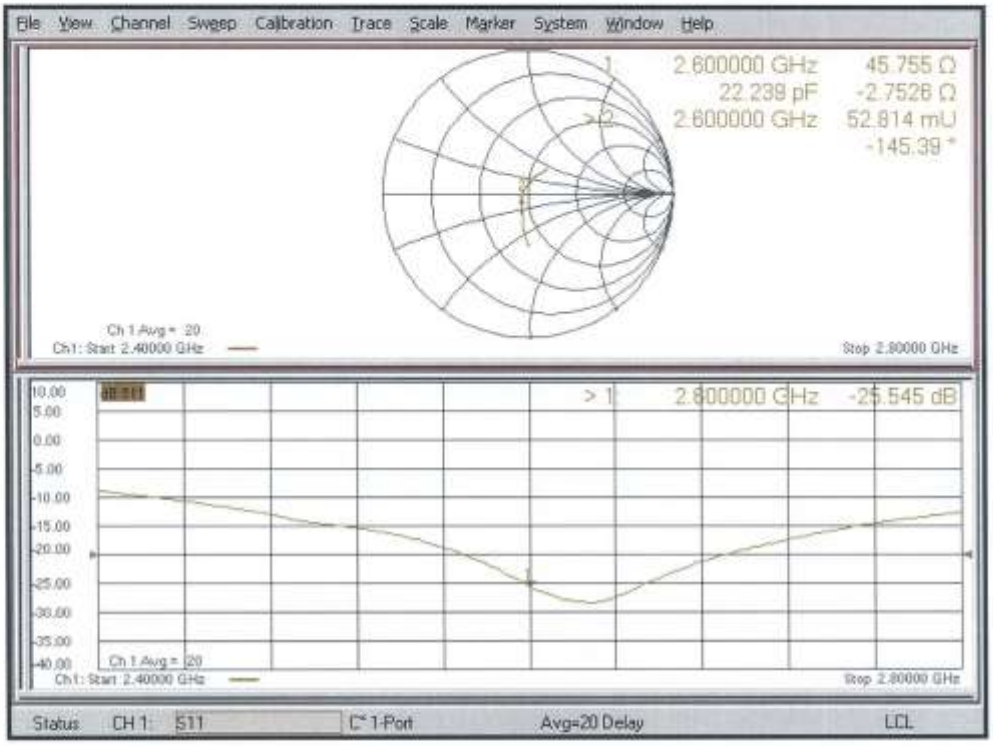
- Probe: EX3DV4 - SN7349; ConvF(7.81, 7.81, 7.81) @ 2600 MHz; Calibrated: 30.12.2017
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.10.2018
- Phantom: Flat Phantom 5.0 (back); Type: QD 000 P50 AA; Serial: 1002
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 108.5 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 28.6 W/kg
SAR(1 g) = 13.9 W/kg; SAR(10 g) = 6.14 W/kg
Maximum value of SAR (measured) = 23.1 W/kg



0 dB = 23.1 W/kg = 13.64 dBW/kg

Impedance Measurement Plot for Body TSL



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Accreditation No.: SCS 0108

Client HCT (Dymstec)

Certificate No: D5GHzV2-1253_Nov18

CALIBRATION CERTIFICATE

결재	담당자	확인자
직위/성명		
일 자		

Object	D5GHzV2 - SN:1253
Calibration procedure(s)	QA CAL-22.v3 Calibration procedure for dipole validation kits between 3-6 GHz
Calibration date:	November 22, 2018

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-18 (No. 217-02672/02673)	Apr-19
Power sensor NRP-Z91	SN: 103244	04-Apr-18 (No. 217-02672)	Apr-19
Power sensor NRP-Z91	SN: 103245	04-Apr-18 (No. 217-02673)	Apr-19
Reference 20 dB Attenuator	SN: 5058 (20k)	04-Apr-18 (No. 217-02682)	Apr-19
Type-N mismatch combination	SN: 5047.2 / 06327	04-Apr-18 (No. 217-02683)	Apr-19
Reference Probe EX3DV4	SN: 3503	30-Dec-17 (No. EX3-3503_Dec17)	Dec-18
DAE4	SN: 601	04-Oct-18 (No. DAE4-601_Oct18)	Oct-19

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter EPM-442A	SN: GB37480704	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-18)	In house check: Oct-20
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-18)	In house check: Oct-20
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-18)	In house check: Oct-19

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: November 22, 2018

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

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Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
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Accreditation No.: SCS 0108

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.2
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V5.0	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy = 4.0 mm, dz = 1.4 mm	Graded Ratio = 1.4 (Z direction)
Frequency	5250 MHz ± 1 MHz 5600 MHz ± 1 MHz 5750 MHz ± 1 MHz	

Head TSL parameters at 5250 MHz

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	35.9	4.71 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	36.2 ± 6 %	4.50 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 5250 MHz

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.20 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**82.0 W/kg ± 19.9 % (k=2)**

SAR averaged over 10 cm^3 (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.34 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**23.4 W/kg ± 19.5 % (k=2)**

Head TSL parameters at 5600 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.5	5.07 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	35.7 ± 6 %	4.84 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 5600 MHz

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.39 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**83.8 W / kg ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.39 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**23.9 W/kg ± 19.5 % (k=2)**

Head TSL parameters at 5750 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.4	5.22 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	35.5 ± 6 %	5.10 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 5750 MHz

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.23 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**82.3 W/kg ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.34 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**23.4 W/kg ± 19.5 % (k=2)**

Body TSL parameters at 5250 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	48.9	5.36 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	47.5 ± 6 %	5.46 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	---	---

SAR result with Body TSL at 5250 MHz

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	100 mW input power	7.84 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**78.0 W/kg ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	100 mW input power	2.17 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**21.6 W/kg ± 19.5 % (k=2)**

Body TSL parameters at 5600 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	48.5	5.77 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	46.8 ± 6 %	5.94 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	---	---

SAR result with Body TSL at 5600 MHz

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	100 mW input power	8.21 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**81.6 W/kg ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	100 mW input power	2.28 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**22.6 W/kg ± 19.5 % (k=2)**

Body TSL parameters at 5750 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	48.3	5.94 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	46.6 ± 6 %	6.15 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	----	----

SAR result with Body TSL at 5750 MHz

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	100 mW input power	7.77 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**77.3 W/kg ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	100 mW input power	2.16 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**21.4 W/kg ± 19.5 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL at 5250 MHz

Impedance, transformed to feed point	49.2 Ω - 4.2 jΩ
Return Loss	- 27.4 dB

Antenna Parameters with Head TSL at 5600 MHz

Impedance, transformed to feed point	52.7 Ω + 2.7 jΩ
Return Loss	- 28.6 dB

Antenna Parameters with Head TSL at 5750 MHz

Impedance, transformed to feed point	54.1 Ω + 4.0 jΩ
Return Loss	- 25.2 dB

Antenna Parameters with Body TSL at 5250 MHz

Impedance, transformed to feed point	49.4 Ω - 2.0 jΩ
Return Loss	- 33.6 dB

Antenna Parameters with Body TSL at 5600 MHz

Impedance, transformed to feed point	52.5 Ω + 3.1 jΩ
Return Loss	- 28.2 dB

Antenna Parameters with Body TSL at 5750 MHz

Impedance, transformed to feed point	56.5 Ω + 3.8 jΩ
Return Loss	- 23.0 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.195 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	January 22, 2016

DASY5 Validation Report for Head TSL

Date: 15.11.2018

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1253

Communication System: UID 0 - CW; Frequency: 5250 MHz, Frequency: 5600 MHz, Frequency: 5750 MHz
Medium parameters used: f = 5250 MHz; σ = 4.5 S/m; ε_r = 36.2; ρ = 1000 kg/m^3 ,
Medium parameters used: f = 5600 MHz; σ = 4.84 S/m; ε_r = 35.7; ρ = 1000 kg/m^3 ,
Medium parameters used: f = 5750 MHz; σ = 5.1 S/m; ε_r = 35.5; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

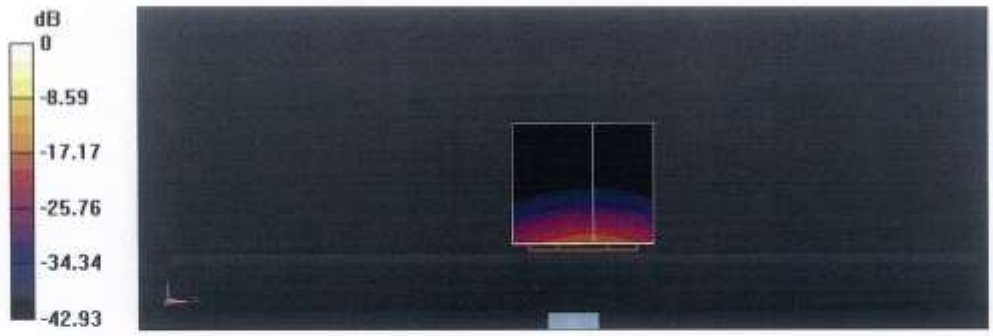
DASY52 Configuration:

- Probe: EX3DV4 - SN3503; ConvF(5.51, 5.51, 5.51) @ 5250 MHz,
  ConvF(5.05, 5.05, 5.05) @ 5600 MHz,
  ConvF(4.98, 4.98, 4.98) @ 5750 MHz; Calibrated: 30.12.2017
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601 (5G); Calibrated: 04.10.2018
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7446)

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5250 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 80.61 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 27.6 W/kg
SAR(1 g) = 8.2 W/kg; SAR(10 g) = 2.34 W/kg
Maximum value of SAR (measured) = 18.3 W/kg

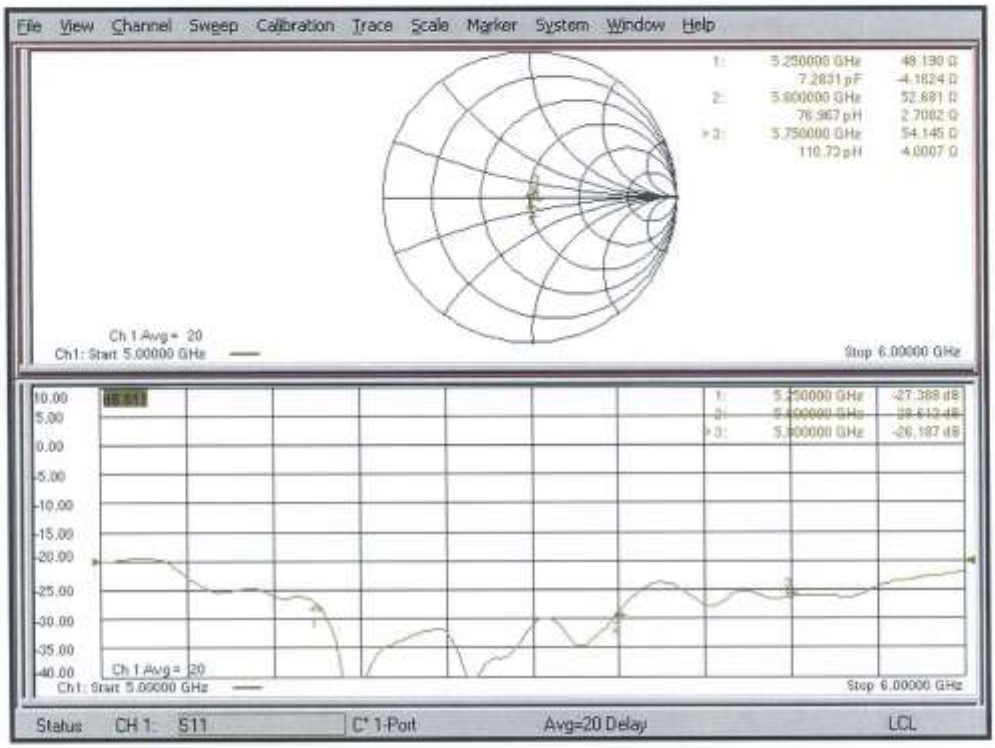
Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5600 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 77.68 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 30.8 W/kg
SAR(1 g) = 8.39 W/kg; SAR(10 g) = 2.39 W/kg
Maximum value of SAR (measured) = 19.6 W/kg

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5750 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 75.48 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 30.7 W/kg
SAR(1 g) = 8.23 W/kg; SAR(10 g) = 2.34 W/kg
Maximum value of SAR (measured) = 19.2 W/kg



0 dB = 18.5 W/kg = 12.67 dBW/kg

Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 22.11.2018

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1253

Communication System: UID 0 - CW; Frequency: 5250 MHz, Frequency: 5600 MHz, Frequency: 5750 MHz
Medium parameters used: f = 5250 MHz; σ = 5.46 S/m; ε_r = 47.5; ρ = 1000 kg/m^3 ,
Medium parameters used: f = 5600 MHz; σ = 5.94 S/m; ε_r = 46.8; ρ = 1000 kg/m^3 ,
Medium parameters used: f = 5750 MHz; σ = 6.15 S/m; ε_r = 46.6; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN3503; ConvF(5.26, 5.26, 5.26) @ 5250 MHz,
  ConvF(4.65, 4.65, 4.65) @ 5600 MHz,
  ConvF(4.57, 4.57, 4.57) @ 5750 MHz; Calibrated: 30.12.2017
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601 (5G); Calibrated: 04.10.2018
- Phantom: Flat Phantom 5.0 (back); Type: QD 000 P50 AA; Serial: 1002
- DASY52 52.10.2(1495); SEMCAD X 14.6.12(7450)

Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5250 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 69.32 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 30.5 W/kg
SAR(1 g) = 7.84 W/kg; SAR(10 g) = 2.17 W/kg
Maximum value of SAR (measured) = 18.6 W/kg

Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5600 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 69.85 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 34.8 W/kg
SAR(1 g) = 8.21 W/kg; SAR(10 g) = 2.28 W/kg
Maximum value of SAR (measured) = 20.3 W/kg

Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5750 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 67.21 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 33.5 W/kg
SAR(1 g) = 7.77 W/kg; SAR(10 g) = 2.16 W/kg
Maximum value of SAR (measured) = 19.3 W/kg

0 dB = 18.6 W/kg = 12.70 dBW/kg

Impedance Measurement Plot for Body TSL