

EX3DV4 - SN:7346

March 30, 2022

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7346

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm (μV/V/m) ²	0.46	0.47	0.61	± 10.1 %
DCP (mV) ³	101.4		106.9	

Calibration Results for Modulation Response

UID	Communication System Name	A dB	B dB-μV	C dB	D dB	VR mV	Max dev.	Max Unc ¹ (k=2)
0	CW	X: 0.00 Y: 0.00 Z: 0.00	0.00 0.00 0.00	1.00 1.00 1.00		143.5 139.3 138.0	± 3.0 %	± 1.7 %
1003-AAA	Pulse Waveform (200Hz, 10%)	X: 3.33 Y: 4.03 Z: 1.63	68.90 70.70 61.25	11.66 12.35 6.76		10.00 60.0 60.0	± 3.5 %	± 9.6 %
1003S-AAA	Pulse Waveform (200Hz, 20%)	X: 3.00 Y: 11.51 Z: 0.83	70.65 81.32 69.00	11.31 14.72 5.11	6.99	85.0 85.0 85.0	± 2.4 %	± 9.6 %
1003A-AAA	Pulse Waveform (200Hz, 40%)	X: 7.41 Y: 26.00 Z: 0.18	79.85 81.62 138.38	12.51 15.51 0.01	3.98	95.0 95.0 95.0	± 2.7 %	± 9.6 %
1003S-AAA	Pulse Waveform (200Hz, 60%)	X: 2.27 Y: 20.90 Z: 7.84	71.13 91.58 138.51	9.52 16.29 16.87	2.22	120.0 120.0 120.0	± 1.7 %	± 9.6 %
1003T-AAA	GP8K Waveform, 1 MHz	X: 1.47 Y: 0.45 Z: 0.45	64.88 67.88 67.88	13.82 11.05 11.05	1.00	0.00 0.00 0.00	± 4.2 %	± 9.6 %
1008-AAA	GP8K Waveform, 10 MHz	X: 0.96 Y: 2.06 Z: 2.06	66.37 67.33 67.33	14.65 15.38 15.38	0.00	100.0 100.0 100.0	± 1.1 %	± 9.6 %
1009-AAA	64-QAM Waveform, 100 kHz	X: 2.43 Y: 1.70 Z: 1.70	68.51 64.72 64.72	18.25 15.99 15.99	3.01	100.0 100.0 100.0	± 1.0 %	± 9.6 %
1009S-AAA	64-QAM Waveform, 40 kHz	X: 3.38 Y: 2.70 Z: 2.70	68.82 65.72 65.72	15.25 14.74 14.74	0.00	100.0 100.0 100.0	± 2.0 %	± 9.6 %
1014-AAA	WLAN CDF, 64-QAM, 40MHz	X: 4.11 Y: 4.70 Z: 3.83	69.35 65.54 66.18	15.27 15.41 15.28	0.00	100.0 100.0 100.0	± 3.6 %	± 9.6 %

Note: For details on UID parameters see Appendix

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%.

* The uncertainties of Norm X, Y, Z do not affect the E-field uncertainty inside TSL (see Pages 5 and 6).

* Numerical limitation parameter, uncertainty not required.

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

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DASY/EASY - Parameters of Probe: EX3DV4 - SN:7346

Sensor Model Parameters

	C1 IP	C2 IP	α V ¹	T1 ms.V ¹	T2 ms.V ¹	T3 ms	T4 V ¹	T5 V ¹	T6 V ¹
X	59.3	291.80	35.10	5.63	0.03	5.02	1.42	0.12	1.01
Y	37.1	270.84	34.12	6.29	0.00	5.01	1.82	0.05	1.01
Z	9.7	69.74	33.37	4.96	0.00	4.94	0.61	0.00	1.00

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	-166.1
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

Note: Measurement distance from surface can be increased to 3-4 mm for an Area Scan job.

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DASY/EASY - Parameters of Probe: EX3DV4 - SN:7346

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz)	Relative Permittivity ¹	Conductivity (S/m) ²	ConvF X	ConvF Y	ConvF Z	Alpha ³	Depth ⁴ (mm)	Unc (k=2)
750	41.9	0.89	10.56	10.56	10.56	0.55	0.85	± 12.0 %
835	41.5	0.90	10.12	10.12	10.12	0.42	0.96	± 12.0 %
900	41.5	0.97	10.10	10.10	10.10	0.53	0.80	± 12.0 %
1450	40.5	1.20	9.26	9.26	9.26	0.50	0.80	± 12.0 %
1750	40.1	1.37	8.83	8.83	8.83	0.34	0.86	± 12.0 %
1900	40.0	1.40	8.48	8.48	8.48	0.35	0.86	± 12.0 %
2000	40.0	1.40	8.35	8.35	8.35	0.34	0.86	± 12.0 %
2300	39.5	1.67	7.86	7.86	7.86	0.39	0.90	± 12.0 %
2450	39.2	1.80	7.63	7.63	7.63	0.41	0.90	± 12.0 %
2800	39.0	1.96	7.33	7.33	7.33	0.44	0.90	± 12.0 %
3300	38.2	2.71	7.15	7.15	7.15	0.30	1.35	± 13.1 %
3500	37.8	2.81	7.14	7.14	7.14	0.30	1.35	± 13.1 %
3700	37.7	3.12	6.85	6.85	6.85	0.30	1.35	± 13.1 %
3900	37.5	3.32	6.71	6.71	6.71	0.40	1.60	± 13.1 %
4100	37.2	3.53	6.58	6.58	6.58	0.40	1.60	± 13.1 %
4200	37.1	3.63	6.30	6.30	6.30	0.40	1.70	± 13.1 %
4400	36.9	3.84	6.24	6.24	6.24	0.40	1.70	± 13.1 %
4600	36.7	4.04	6.11	6.11	6.11	0.40	1.70	± 13.1 %
4800	36.4	4.25	6.08	6.08	6.08	0.40	1.80	± 13.1 %
4950	36.3	4.40	5.84	5.84	5.84	0.40	1.80	± 13.1 %
5200	36.0	4.66	5.25	5.25	5.25	0.40	1.80	± 13.1 %
5300	35.9	4.76	5.12	5.12	5.12	0.40	1.80	± 13.1 %
5500	35.6	4.96	4.85	4.85	4.85	0.40	1.80	± 13.1 %
5600	35.5	5.07	4.70	4.70	4.70	0.40	1.80	± 13.1 %
5800	35.3	5.27	4.75	4.75	4.75	0.40	1.80	± 13.1 %

* Frequency validity above 300 MHz is ± 100 MHz only applies for DASY v4.4 and higher (see Page 2); else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

* At frequencies 5-10 GHz, the validity of tissue parameters (ρ and σ) can be related to ± 10% if liquid compensation formula is applied to measured S₁₁ values. This uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

* Alpha/Depth are determined during calibration. SPCAD warns that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz, below ± 2% for frequencies between 3-6 GHz, and below ± 4% for frequencies between 6-10 GHz at any distance larger than half the probe tip diameter from the boundary.

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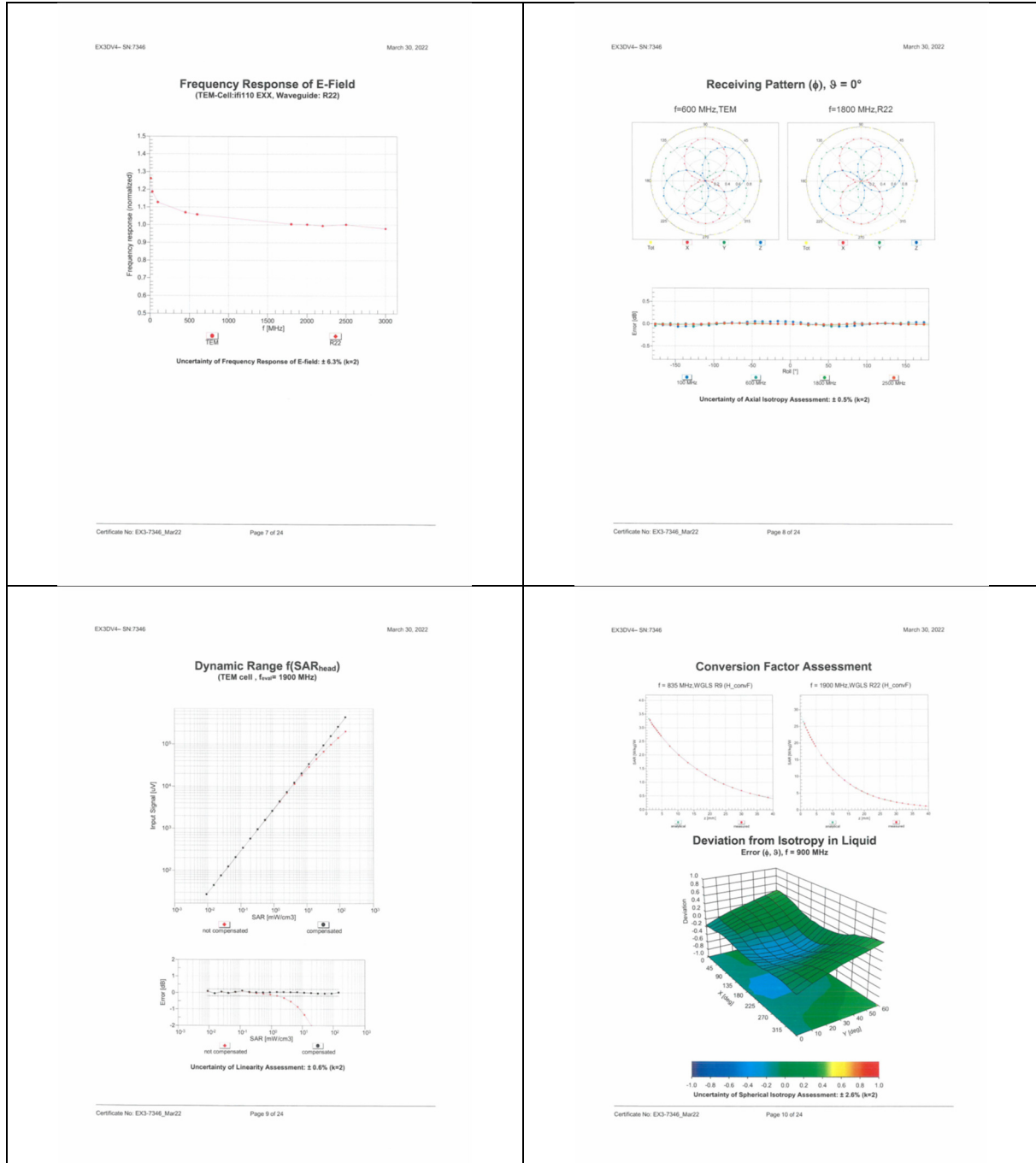
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10414	AAA	WLAN CDF 64-QAM 40MHz	Generic	8.54	± 0.6 %	10489	AAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.31	± 0.6 %
10415	AAA	IEEE 802.11b WFI 2.4 GHz (DSSS, 1 Mbps, WEP, dc)	WLAN	1.54	± 0.6 %	10490	AAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.54	± 0.6 %
10416	AAA	IEEE 802.11g WFI 2.4 GHz (DSSS-OFDM, 6 Mbps, WEP, dc)	WLAN	8.23	± 0.6 %	10491	AAB	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL, Sub)	LTE-TDD	7.74	± 0.6 %
10417	AAC	IEEE 802.11n WFI 5 GHz (OFDM, 6 Mbps, WEP, dc)	WLAN	8.23	± 0.6 %	10492	AAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.41	± 0.6 %
10418	AAA	IEEE 802.11g WFI 2.4 GHz (DSSS-OFDM, 6 Mbps, WEP, Long)	WLAN	8.14	± 0.6 %	10493	AAB	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.55	± 0.6 %
10419	AAA	IEEE 802.11g WFI 2.4 GHz (DSSS-OFDM, 6 Mbps, WEP, Short)	WLAN	8.19	± 0.6 %	10494	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL, Sub)	LTE-TDD	7.74	± 0.6 %
10422	AAC	IEEE 802.11n HT Overhead, 7.2 Mbps, WEP, dc	WLAN	8.32	± 0.6 %	10495	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.37	± 0.6 %
10423	AAC	IEEE 802.11n HT Overhead, 6.3 Mbps, 16-QAM, UL, Sub	WLAN	8.47	± 0.6 %	10496	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.44	± 0.6 %
10424	AAC	IEEE 802.11n HT Overhead, 7.2 Mbps, 64-QAM, UL, Sub	WLAN	8.40	± 0.6 %	10497	AAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL, Sub)	LTE-TDD	7.67	± 0.6 %
10425	AAC	IEEE 802.11n HT Overhead, 18 Mbps, WEP, dc	WLAN	8.41	± 0.6 %	10498	AAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.40	± 0.6 %
10426	AAC	IEEE 802.11n HT Overhead, 18 Mbps, 16-QAM, UL, Sub	WLAN	8.45	± 0.6 %	10499	AAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.68	± 0.6 %
10427	AAC	IEEE 802.11n HT Overhead, 18 Mbps, 64-QAM, UL, Sub	WLAN	8.41	± 0.6 %	10500	AAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL, Sub)	LTE-TDD	7.67	± 0.6 %
10430	AAD	LTE-FDD (OFDMA, 5 MHz, E-TRP 3.1)	LTE-FDD	8.28	± 0.6 %	10501	AAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.44	± 0.6 %
10431	AAD	LTE-FDD (OFDMA, 10 MHz, E-TRP 3.1)	LTE-FDD	8.38	± 0.6 %	10502	AAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.52	± 0.6 %
10432	AAC	LTE-FDD (OFDMA, 15 MHz, E-TRP 3.1)	LTE-FDD	8.34	± 0.6 %	10503	AAF	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL, Sub)	LTE-TDD	7.72	± 0.6 %
10433	AAC	LTE-FDD (OFDMA, 20 MHz, E-TRP 3.1)	LTE-FDD	8.34	± 0.6 %	10504	AAF	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.31	± 0.6 %
10434	AAA	WCDMA (BS Test Model 1, 64 QPSK)	WCDMA	8.80	± 0.6 %	10505	AAF	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.34	± 0.6 %
10435	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL, Sub)	LTE-TDD	7.82	± 0.6 %	10506	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL, Sub)	LTE-TDD	7.74	± 0.6 %
10437	AAD	LTE-FDD (OFDMA, 5 MHz, E-TRP 3.1, Clipping 44%)	LTE-FDD	7.56	± 0.6 %	10507	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.36	± 0.6 %
10448	AAD	LTE-FDD (OFDMA, 10 MHz, E-TRP 3.1, Clipping 44%)	LTE-FDD	7.53	± 0.6 %	10508	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.35	± 0.6 %
10449	AAC	LTE-FDD (OFDMA, 15 MHz, E-TRP 3.1, Clipping 44%)	LTE-FDD	7.51	± 0.6 %	10509	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL, Sub)	LTE-TDD	7.99	± 0.6 %
10450	AAF	LTE-FDD (OFDMA, 20 MHz, E-TRP 3.1, Clipping 44%)	LTE-FDD	7.48	± 0.6 %	10510	AAB	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.49	± 0.6 %
10451	AAA	WCDMA (BS Test Model 1, 64 QPSK, Clipping 44%)	WCDMA	7.59	± 0.6 %	10511	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.51	± 0.6 %
10453	AAD	Validation (Square, 10ms, 1ms)	Test	10.00	± 0.6 %	10512	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL, Sub)	LTE-TDD	7.74	± 0.6 %
10456	AAC	IEEE 802.11ac WFI (160MHz, 64-QAM, WEP, dc)	WLAN	8.63	± 0.6 %	10513	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.42	± 0.6 %
10457	AAA	UMTS-FDD (DC-HSPA)	WCDMA	6.62	± 0.6 %	10514	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.45	± 0.6 %
10458	AAA	COMA2000 (1xEV-DO, Rev. B, 3 carriers)	COMA2000	6.55	± 0.6 %	10515	AAA	IEEE 802.11b WFI 2.4 GHz (DSSS, 2 Mbps, WEP, dc)	WLAN	1.58	± 0.6 %
10459	AAA	COMA2000 (1xEV-DO, Rev. B, 3 carriers)	COMA2000	8.25	± 0.6 %	10516	AAA	IEEE 802.11b WFI 2.4 GHz (DSSS, 5.5 Mbps, WEP, dc)	WLAN	1.57	± 0.6 %
10460	AAA	UMTS-FDD (WCDMA, AUR)	WCDMA	2.39	± 0.6 %	10517	AAA	IEEE 802.11b WFI 2.4 GHz (DSSS, 11 Mbps, WEP, dc)	WLAN	1.58	± 0.6 %
10461	AAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL, Sub)	LTE-TDD	7.82	± 0.6 %	10518	AAC	IEEE 802.11ac WFI 5 GHz (OFDM, 9 Mbps, WEP, dc)	WLAN	8.23	± 0.6 %
10462	AAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.30	± 0.6 %	10519	AAC	IEEE 802.11ac WFI 5 GHz (OFDM, 12 Mbps, WEP, dc)	WLAN	8.39	± 0.6 %
10463	AAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL, Sub)	LTE-TDD	8.36	± 0.6 %	10520	AAC	IEEE 802.11ac WFI 5 GHz (OFDM, 18 Mbps, WEP, dc)	WLAN	8.12	± 0.6 %
10464	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL, Sub)	LTE-TDD	7.82	± 0.6 %	10521	AAC	IEEE 802.11ac WFI 5 GHz (OFDM, 24 Mbps, WEP, dc)	WLAN	7.97	± 0.6 %
10465	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.32	± 0.6 %	10522	AAC	IEEE 802.11ac WFI 5 GHz (OFDM, 36 Mbps, WEP, dc)	WLAN	8.45	± 0.6 %
10466	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL, Sub)	LTE-TDD	8.37	± 0.6 %	10523	AAC	IEEE 802.11ac WFI 5 GHz (OFDM, 48 Mbps, WEP, dc)	WLAN	8.48	± 0.6 %
10467	AAF	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL, Sub)	LTE-TDD	7.82	± 0.6 %	10524	AAC	IEEE 802.11ac WFI 5 GHz (OFDM, 54 Mbps, WEP, dc)	WLAN	8.27	± 0.6 %
10468	AAF	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.32	± 0.6 %	10525	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.36	± 0.6 %
10469	AAF	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL, Sub)	LTE-TDD	8.56	± 0.6 %	10526	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.42	± 0.6 %
10470	AAF	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL, Sub)	LTE-TDD	7.82	± 0.6 %	10527	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.21	± 0.6 %
10471	AAF	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.32	± 0.6 %	10528	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.39	± 0.6 %
10472	AAF	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL, Sub)	LTE-TDD	8.57	± 0.6 %	10529	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.36	± 0.6 %
10473	AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL, Sub)	LTE-TDD	7.82	± 0.6 %	10530	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.36	± 0.6 %
10474	AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.32	± 0.6 %	10531	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.43	± 0.6 %
10475	AAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL, Sub)	LTE-TDD	8.57	± 0.6 %	10532	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.29	± 0.6 %
10476	AAF	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.32	± 0.6 %	10533	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.38	± 0.6 %
10477	AAF	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL, Sub)	LTE-TDD	8.57	± 0.6 %	10534	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.45	± 0.6 %
10478	AAF	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.57	± 0.6 %	10535	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.45	± 0.6 %
10479	AAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL, Sub)	LTE-TDD	7.74	± 0.6 %	10536	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.32	± 0.6 %
10480	AAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.18	± 0.6 %	10537	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.44	± 0.6 %
10481	AAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL, Sub)	LTE-TDD	8.45	± 0.6 %	10538	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.34	± 0.6 %
10482	AAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL, Sub)	LTE-TDD	7.71	± 0.6 %	10539	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.39	± 0.6 %
10483	AAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.39	± 0.6 %	10540	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.46	± 0.6 %
10484	AAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL, Sub)	LTE-TDD	8.47	± 0.6 %	10541	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.65	± 0.6 %
10485	AAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL, Sub)	LTE-TDD	7.59	± 0.6 %	10542	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.69	± 0.6 %
10486	AAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL, Sub)	LTE-TDD	8.38	± 0.6 %	10543	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.47	± 0.6 %
10487	AAF	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL, Sub)	LTE-TDD	8.60	± 0.6 %	10544	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.55	± 0.6 %
10488	AAF	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL, Sub)	LTE-TDD	7.70	± 0.6 %	10545	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.35	± 0.6 %

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10547	AAC	IEEE 802.11ac WFI (80MHz, MCS1, WEP, dc)	WLAN	8.49	± 0.6 %	10605	AAC	IEEE 802.11n HT Muxed, 40MHz, MCS1, WEP, dc)	WLAN	8.57	± 0.6 %
10548	AAC	IEEE 802.11ac WFI (80MHz, MCS1, WEP, dc)	WLAN	8.37	± 0.6 %	10606	AAC	IEEE 802.11n HT Muxed, 40MHz, MCS1, WEP, dc)	WLAN	8.62	± 0.6 %
10550	AAC	IEEE 802.11ac WFI (80MHz, MCS1, WEP, dc)	WLAN	8.39	± 0.6 %	10607	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.64	± 0.6 %
10551	AAC	IEEE 802.11ac WFI (80MHz, MCS1, WEP, dc)	WLAN	8.39	± 0.6 %	10608	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.77	± 0.6 %
10552	AAC	IEEE 802.11ac WFI (80MHz, MCS1, WEP, dc)	WLAN	8.42	± 0.6 %	10609	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.57	± 0.6 %
10553	AAC	IEEE 802.11ac WFI (80MHz, MCS1, WEP, dc)	WLAN	8.45	± 0.6 %	10610	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.78	± 0.6 %
10554	AAD	IEEE 802.11ac WFI (160MHz, MCS1, WEP, dc)	WLAN	8.48	± 0.6 %	10611	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.70	± 0.6 %
10555	AAD	IEEE 802.11ac WFI (160MHz, MCS1, WEP, dc)	WLAN	8.47	± 0.6 %	10612	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.77	± 0.6 %
10556	AAD	IEEE 802.11ac WFI (160MHz, MCS1, WEP, dc)	WLAN	8.50	± 0.6 %	10613	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.84	± 0.6 %
10557	AAD	IEEE 802.11ac WFI (160MHz, MCS1, WEP, dc)	WLAN	8.52	± 0.6 %	10614	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.59	± 0.6 %
10558	AAD	IEEE 802.11ac WFI (160MHz, MCS1, WEP, dc)	WLAN	8.61	± 0.6 %	10615	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.62	± 0.6 %
10560	AAD	IEEE 802.11ac WFI (160MHz, MCS1, WEP, dc)	WLAN	8.73	± 0.6 %	10616	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.62	± 0.6 %
10561	AAD	IEEE 802.11ac WFI (160MHz, MCS1, WEP, dc)	WLAN	8.56	± 0.6 %	10617	AAC	IEEE 802.11ac WFI (20MHz, MCS1, WEP, dc)	WLAN	8.81	± 0.6 %
10562	AAD	IEEE 802									

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EXCIV4-SN 7346 March 30, 2022 15985 AAA SG NR DL (CP-QPOM, TM 3.1, 40 MHz, 64-QAM, 30 MHz) SG NR PR1 TOD 9.54 ± 0.6 % 15986 AAA SG NR DL (CP-QPOM, TM 3.1, 50 MHz, 64-QAM, 30 MHz) SG NR PR1 TOD 9.50 ± 0.6 % 15987 AAA SG NR DL (CP-QPOM, TM 3.1, 60 MHz, 64-QAM, 30 MHz) SG NR PR1 TOD 9.50 ± 0.6 % 15988 AAA SG NR DL (CP-QPOM, TM 3.1, 70 MHz, 64-QAM, 30 MHz) SG NR PR1 TOD 9.38 ± 0.6 % 15989 AAA SG NR DL (CP-QPOM, TM 3.1, 80 MHz, 64-QAM, 30 MHz) SG NR PR1 TOD 9.33 ± 0.6 % 15990 AAA SG NR DL (CP-QPOM, TM 3.1, 90 MHz, 64-QAM, 30 MHz) SG NR PR1 TOD 9.52 ± 0.6 % ¹ Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value. Certificate No: EX3-7346_Mar22 Page 23 of 24	EXCIV4-SN 7346 March 30, 2022 15985 AAA SG NR DL (CP-QPOM, TM 3.1, 40 MHz, 64-QAM, 30 MHz) SG NR PR1 TOD 9.54 ± 0.6 % 15986 AAA SG NR DL (CP-QPOM, TM 3.1, 50 MHz, 64-QAM, 30 MHz) SG NR PR1 TOD 9.50 ± 0.6 % 15987 AAA SG NR DL (CP-QPOM, TM 3.1, 60 MHz, 64-QAM, 30 MHz) SG NR PR1 TOD 9.50 ± 0.6 % 15988 AAA SG NR DL (CP-QPOM, TM 3.1, 70 MHz, 64-QAM, 30 MHz) SG NR PR1 TOD 9.38 ± 0.6 % 15989 AAA SG NR DL (CP-QPOM, TM 3.1, 80 MHz, 64-QAM, 30 MHz) SG NR PR1 TOD 9.33 ± 0.6 % 15990 AAA SG NR DL (CP-QPOM, TM 3.1, 90 MHz, 64-QAM, 30 MHz) SG NR PR1 TOD 9.52 ± 0.6 % ¹ Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value. Certificate No: EX3-7346_Mar22 Page 24 of 24
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4 Impedance and return loss

Dipole CLA150 SN 4025				
Head Liquid				
Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)	$\Delta\Omega$
2021/4/26	-31.4	/	47.8	/
Dipole D450V3 SN 1103				
Head Liquid				
Date of Measurement	Return Loss(dB)	Δ %	Impedance (Ω)	$\Delta\Omega$
2021/4/21	-23	/	57.1	/



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