

Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
Tel: +86-10-62304633-2117
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DASY/EASY – Parameters of Probe: EX3DV4 – SN:3767

Calibration Parameter Determined in Head Tissue Simulating Media

f [MHz] ^C	Relative Permittivity ^F	Conductivity (S/m) ^F	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unct. (k=2)
750	41.9	0.89	9.84	9.84	9.84	0.16	1.29	± 12.7%
835	41.5	0.90	9.50	9.50	9.50	0.16	1.37	± 12.7%
900	41.5	0.97	9.44	9.44	9.44	0.17	1.32	± 12.7%
1450	40.5	1.20	8.55	8.55	8.55	0.22	1.02	± 12.7%
1750	40.1	1.37	8.30	8.30	8.30	0.25	1.05	± 12.7%
1900	40.0	1.40	8.05	8.05	8.05	0.25	1.04	± 12.7%
2000	40.0	1.40	8.07	8.07	8.07	0.23	1.10	± 12.7%
2300	39.5	1.67	7.85	7.85	7.85	0.65	0.66	± 12.7%
2450	39.2	1.80	7.60	7.60	7.60	0.64	0.68	± 12.7%
2600	39.0	1.96	7.44	7.44	7.44	0.65	0.68	± 12.7%
3300	38.2	2.71	7.12	7.12	7.12	0.53	0.84	± 13.9%
3500	37.9	2.91	6.92	6.92	6.92	0.47	0.97	± 13.9%
3700	37.7	3.12	6.72	6.72	6.72	0.43	1.04	± 13.9%
3900	37.5	3.32	6.62	6.62	6.62	0.35	1.35	± 13.9%
4100	37.2	3.53	6.52	6.52	6.52	0.40	1.15	± 13.9%
4400	36.9	3.84	6.32	6.32	6.32	0.40	1.25	± 13.9%
4600	36.7	4.04	6.26	6.26	6.26	0.35	1.40	± 13.9%
4800	36.4	4.25	6.25	6.25	6.25	0.40	1.40	± 13.9%
4950	36.3	4.40	5.90	5.90	5.90	0.45	1.25	± 13.9%
5200	36.0	4.66	5.50	5.50	5.50	0.40	1.45	± 13.9%
5300	35.9	4.76	5.32	5.32	5.32	0.40	1.45	± 13.9%
5500	35.6	4.96	4.93	4.93	4.93	0.45	1.40	± 13.9%
5600	35.5	5.07	4.85	4.85	4.85	0.45	1.40	± 13.9%
5800	35.3	5.27	4.91	4.91	4.91	0.50	1.30	± 13.9%

^C Frequency validity above 300 MHz of ±100MHz only applies for DASY v4.4 and higher (Page 2), else it is restricted to ±50MHz. The uncertainty is the RSS of ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

^F At frequency up to 6 GHz, the validity of tissue parameters (ϵ and σ) can be relaxed to ±10% if liquid compensation formula is applied to measured SAR values. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

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

Certificate No: 24J02Z000483

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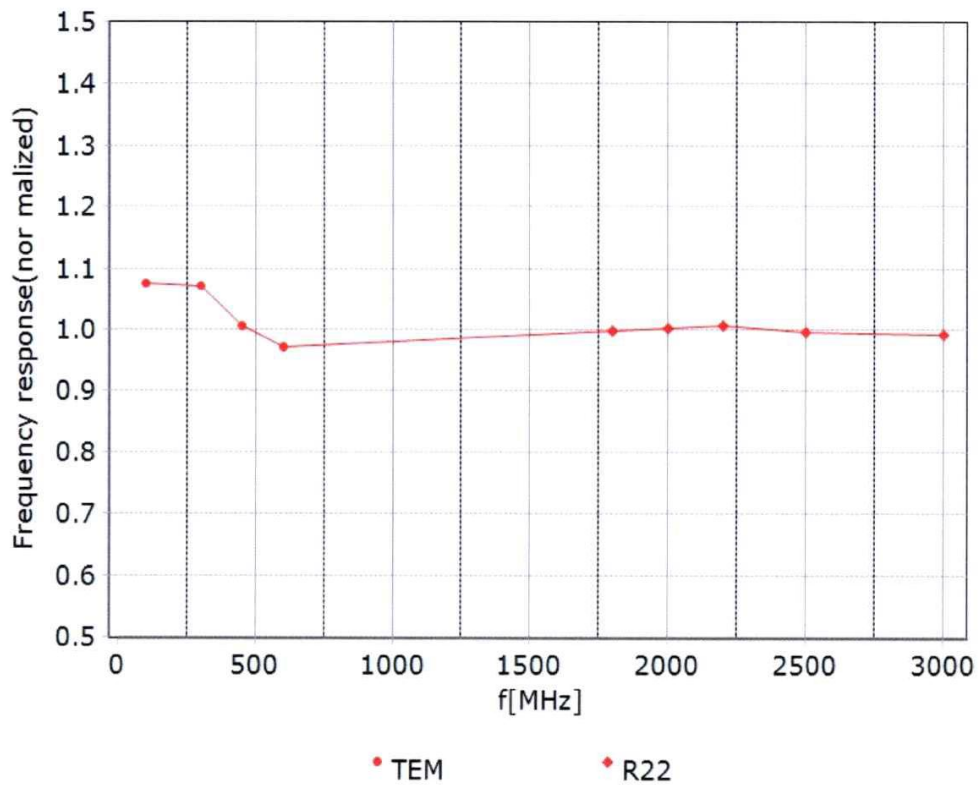


In Collaboration with
s p e a g
CALIBRATION LABORATORY

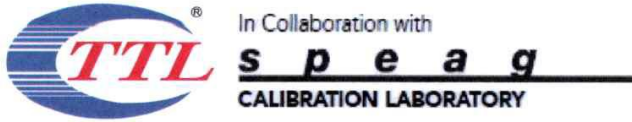


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Frequency Response of E-Field (TEM-Cell: ifi110 EXX, Waveguide: R22)



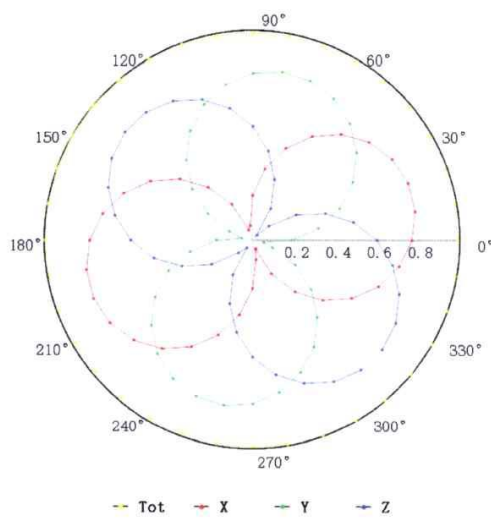
Uncertainty of Frequency Response of E-field: $\pm 7.4\%$ ($k=2$)



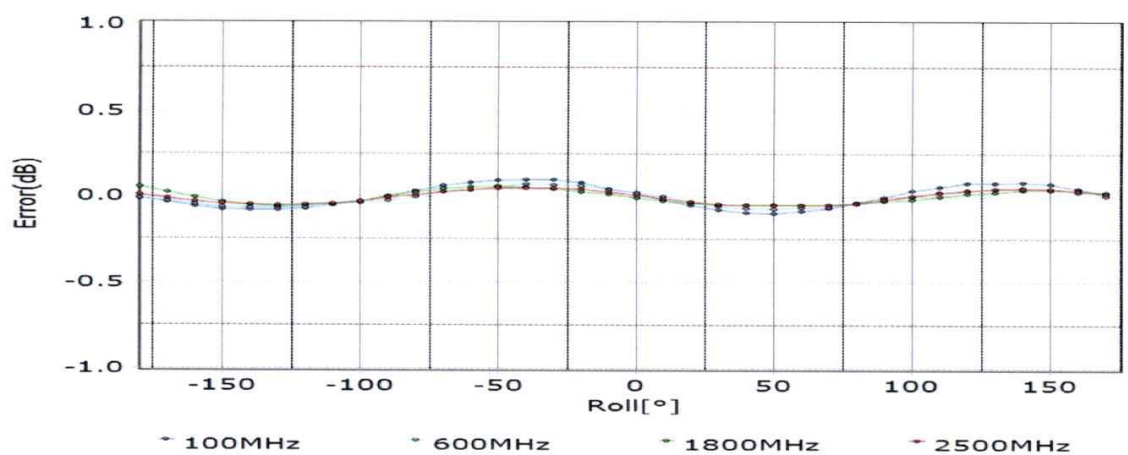
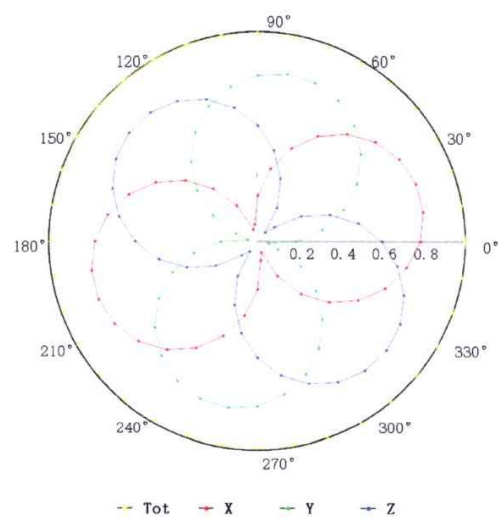
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Receiving Pattern (Φ), $\theta=0^\circ$

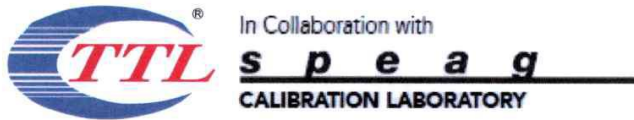
f=600 MHz, TEM



f=1800 MHz, R22

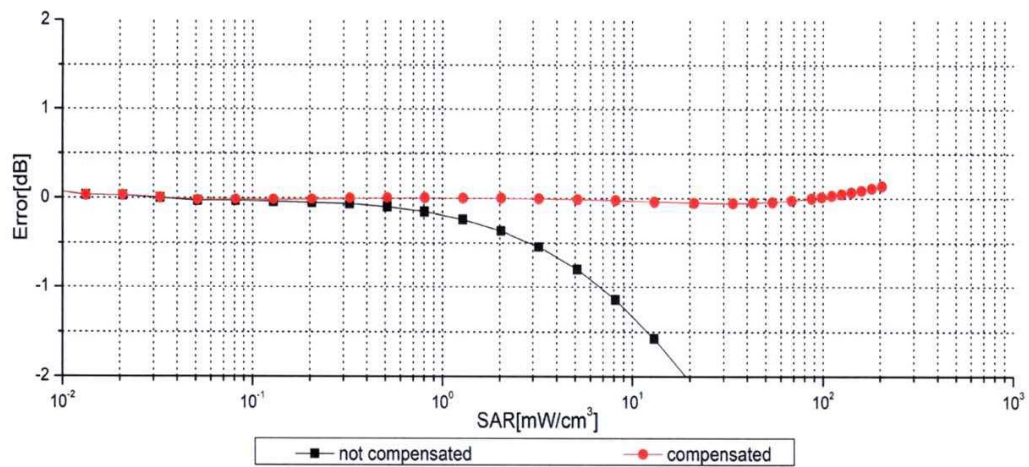
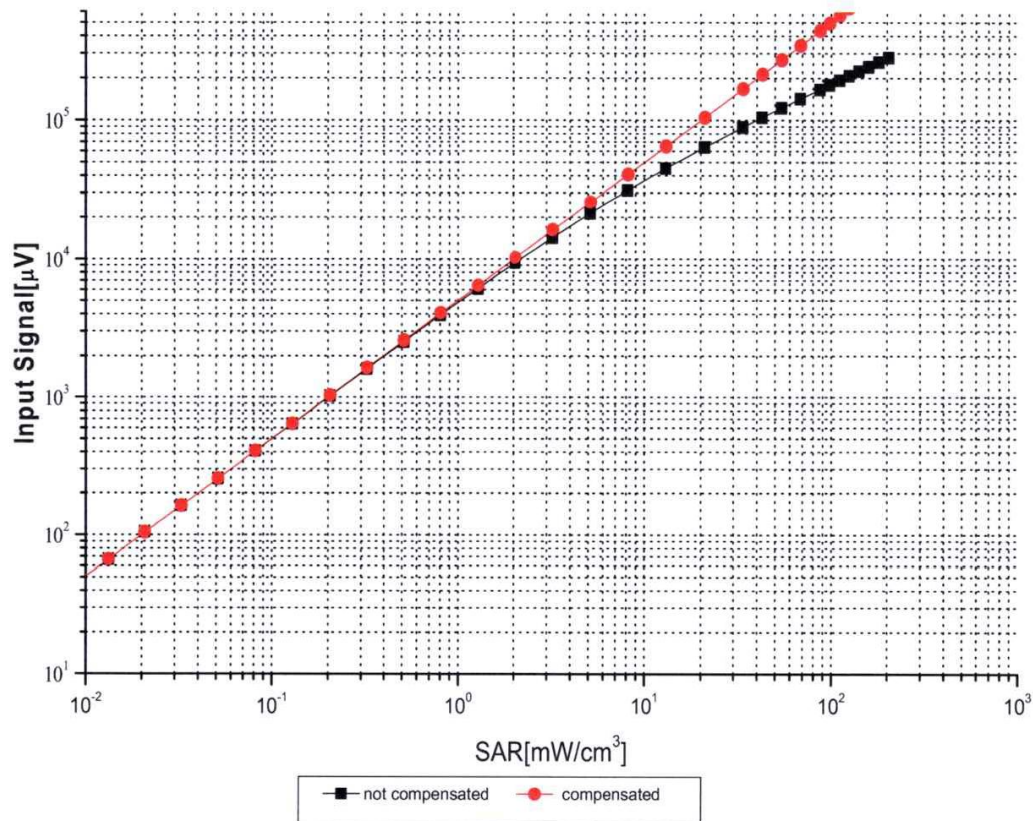


Uncertainty of Axial Isotropy Assessment: $\pm 1.2\%$ ($k=2$)

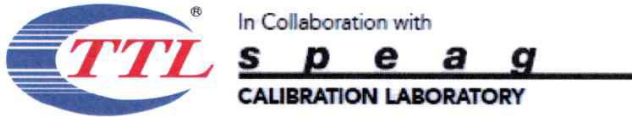


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Dynamic Range f(SAR_{head}) (TEM cell, f = 900 MHz)



Uncertainty of Linearity Assessment: $\pm 0.9\%$ ($k=2$)

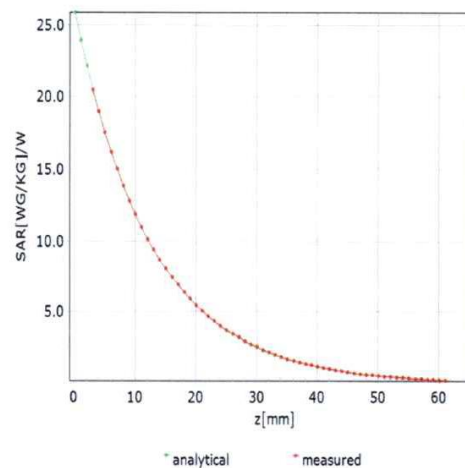
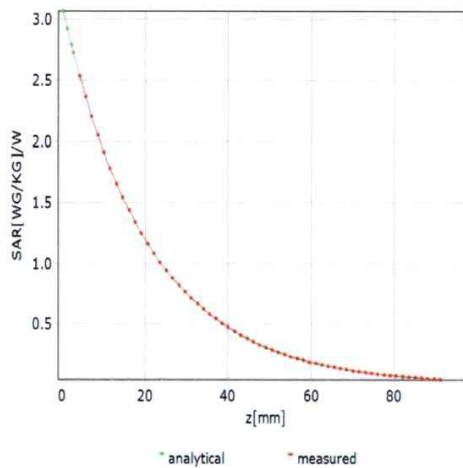


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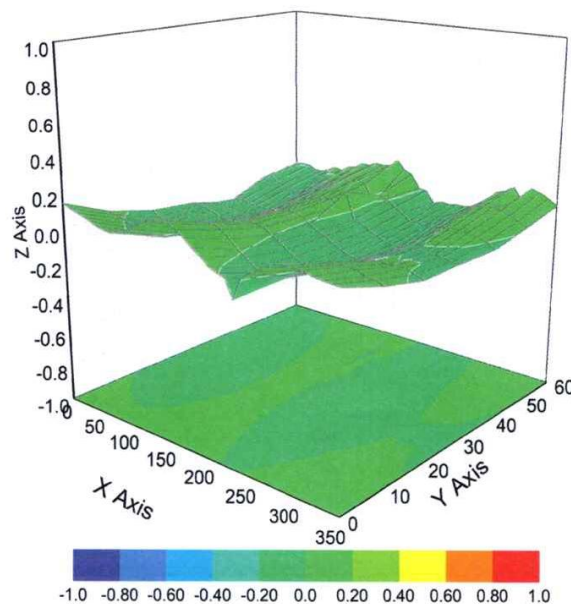
Conversion Factor Assessment

f=750 MHz,WGLS R9(H_convF)

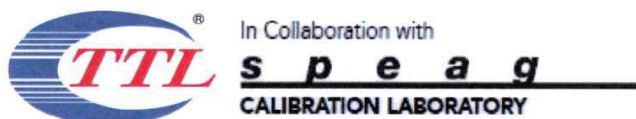
f=1750 MHz,WGLS R22(H_convF)



Deviation from Isotropy in Liquid



Uncertainty of Spherical Isotropy Assessment: $\pm 3.2\%$ ($k=2$)



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Other Probe Parameters

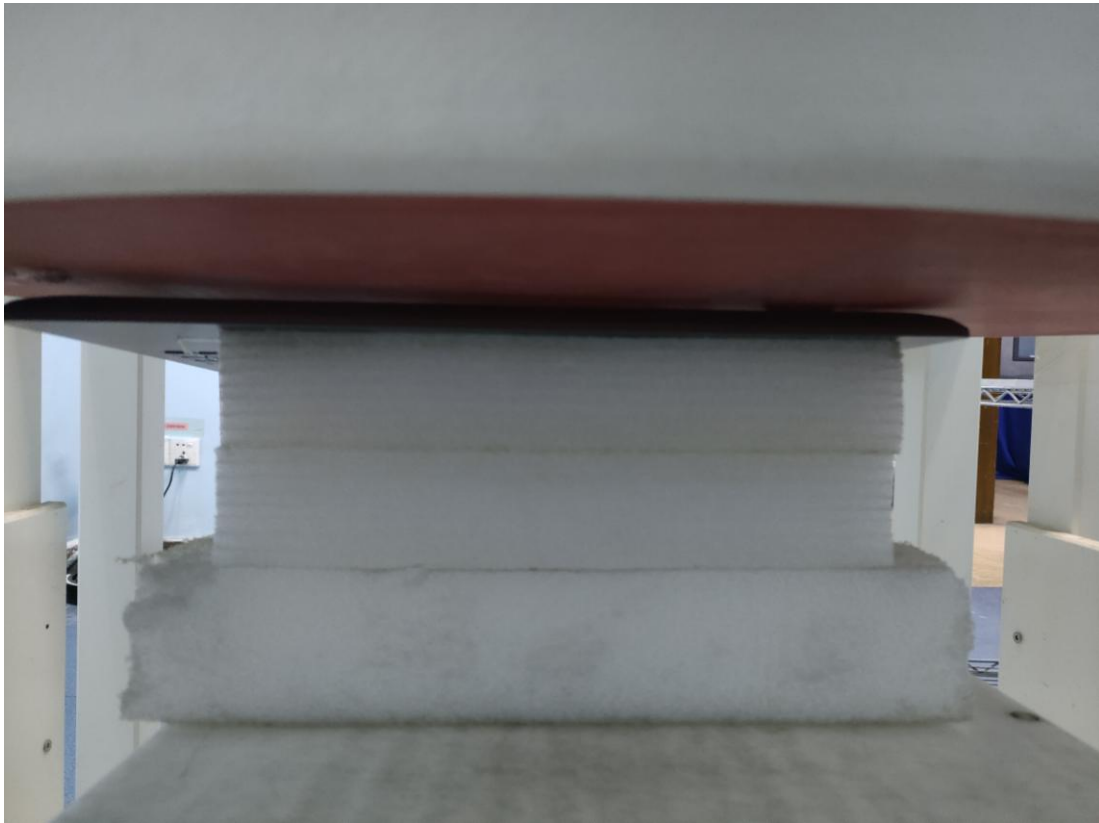
Sensor Arrangement	Triangular
Connector Angle (°)	151.2
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disable
Probe Overall Length	337mm
Probe Body Diameter	10mm
Tip Length	9mm
Tip Diameter	2.5mm
Probe Tip to Sensor X Calibration Point	1mm
Probe Tip to Sensor Y Calibration Point	1mm
Probe Tip to Sensor Z Calibration Point	1mm
Recommended Measurement Distance from Surface	1.4mm

APPENDIX C

Test Setup Photos

Body

Back Side



Bottom Side



APPENDIX D

Photos of the EUT

Figure 1
General Appearance of the EUT

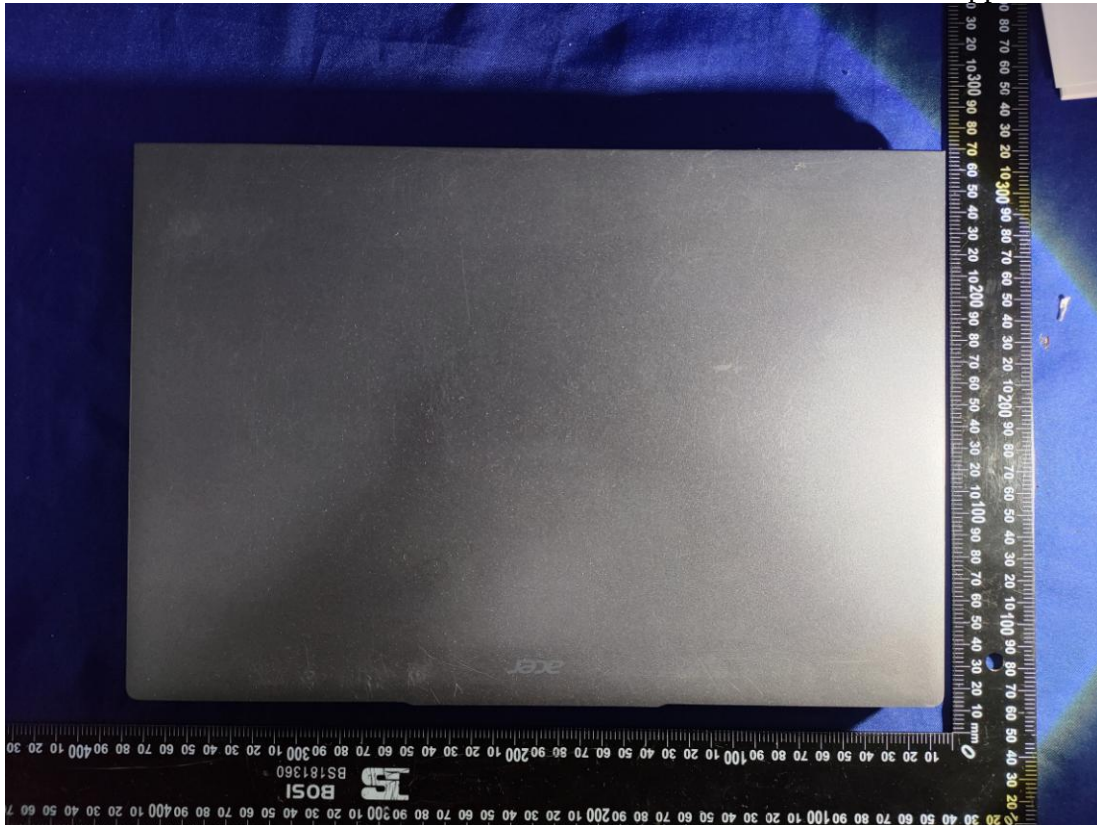


Figure 2
General Appearance of the EUT



Figure 3
General Appearance of the EUT



Figure 4
General Appearance of the EUT



Figure 5
General Appearance of the EUT



Figure 6
General Appearance of the EUT



Figure 7

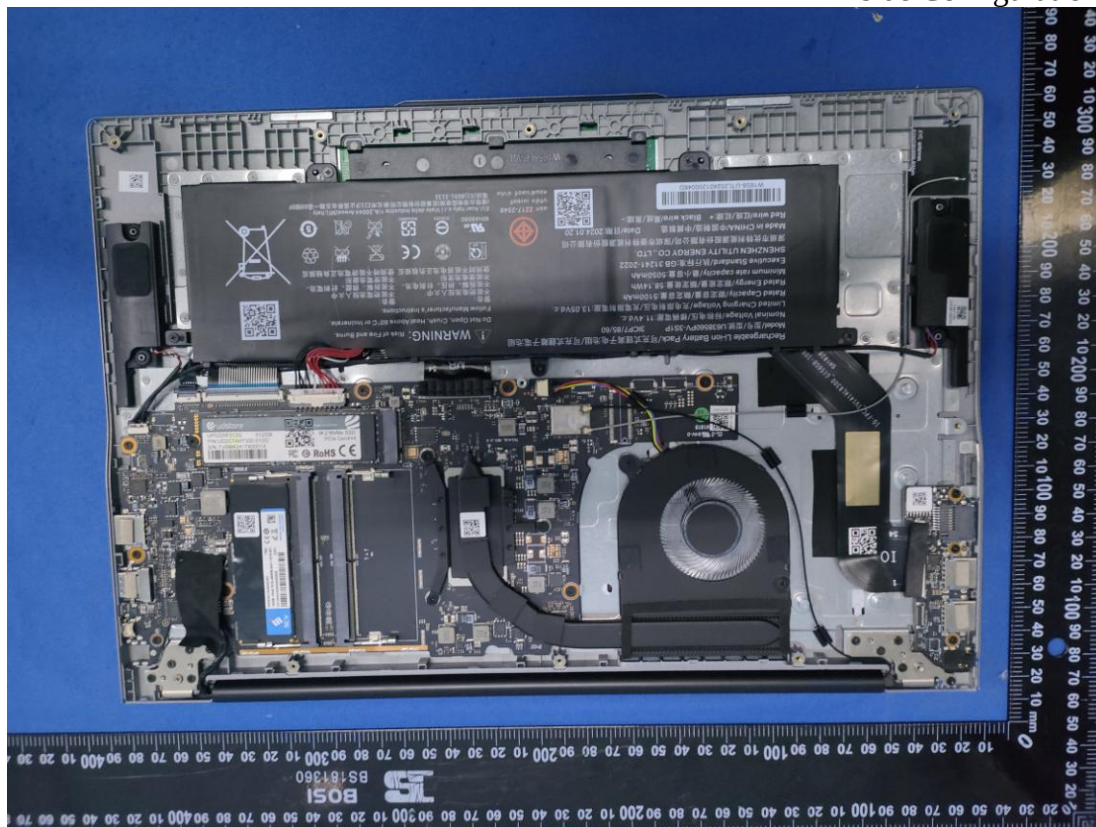


Figure 8



Figure 9
Inside Configuration of the EUT

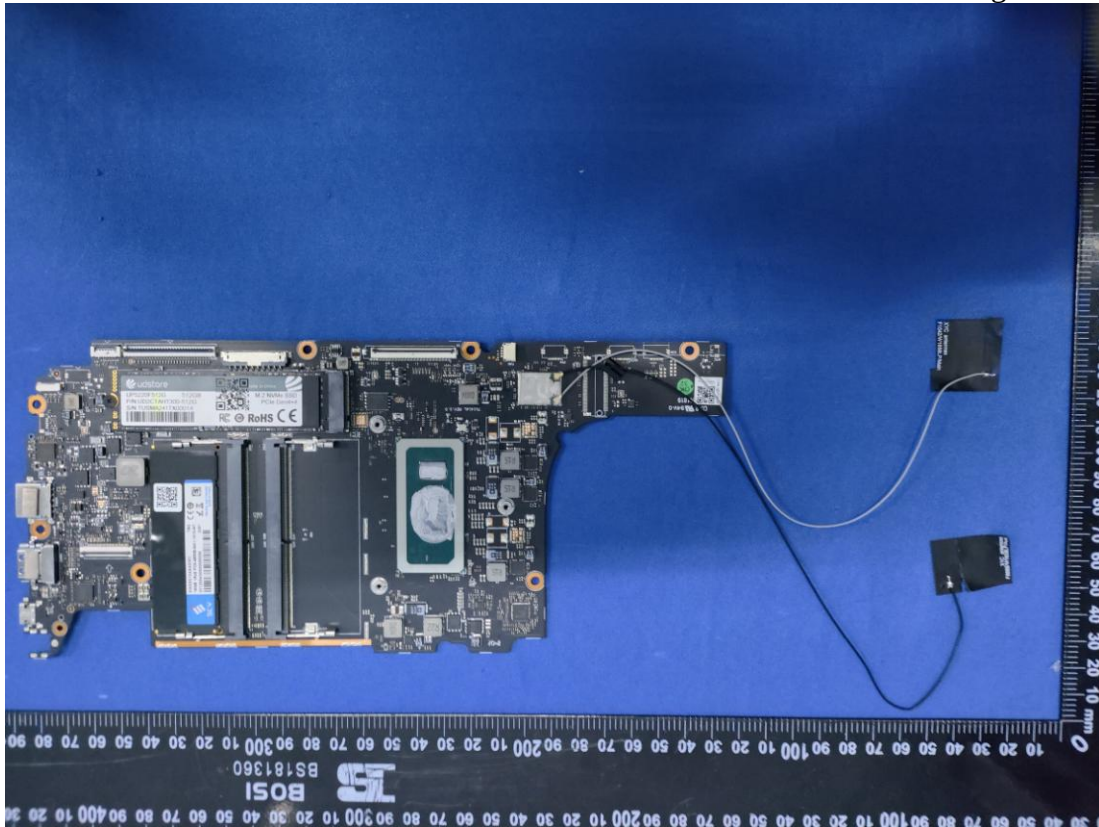


Figure 10
Inside Configuration of the EUT

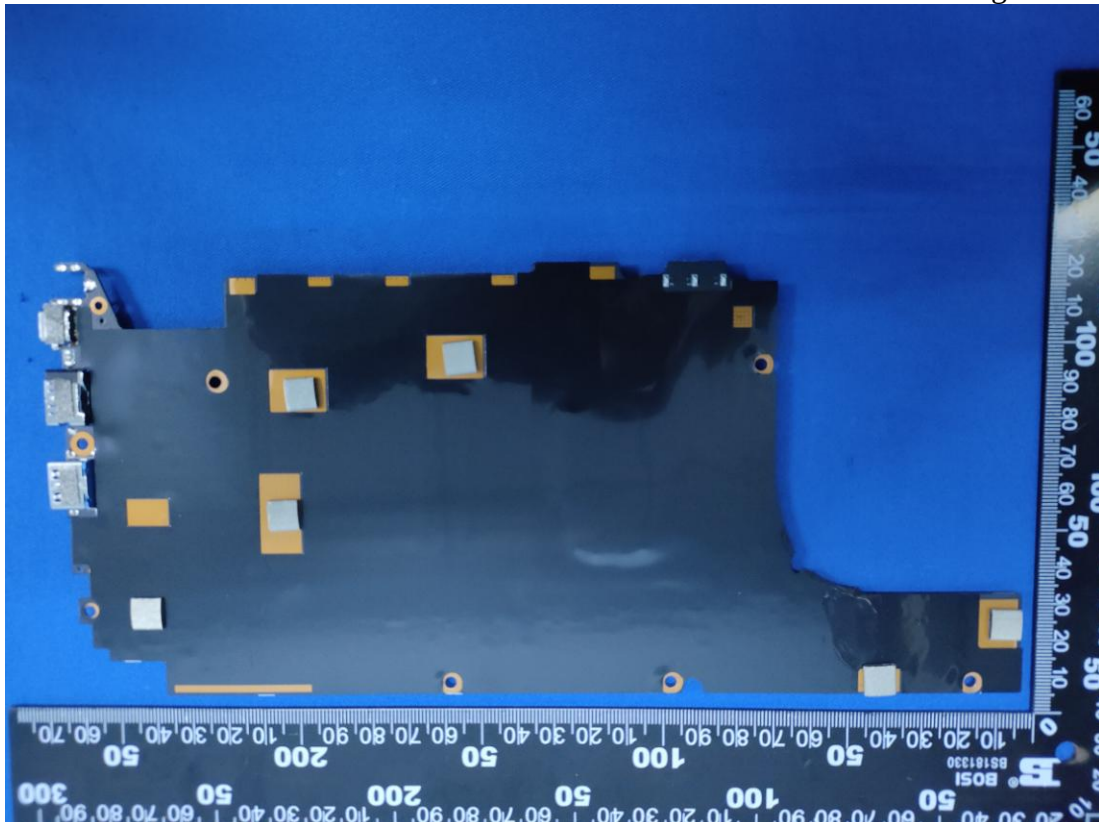


Figure 11
Inside Configuration of the EUT



Figure 12
Inside Configuration of the EUT

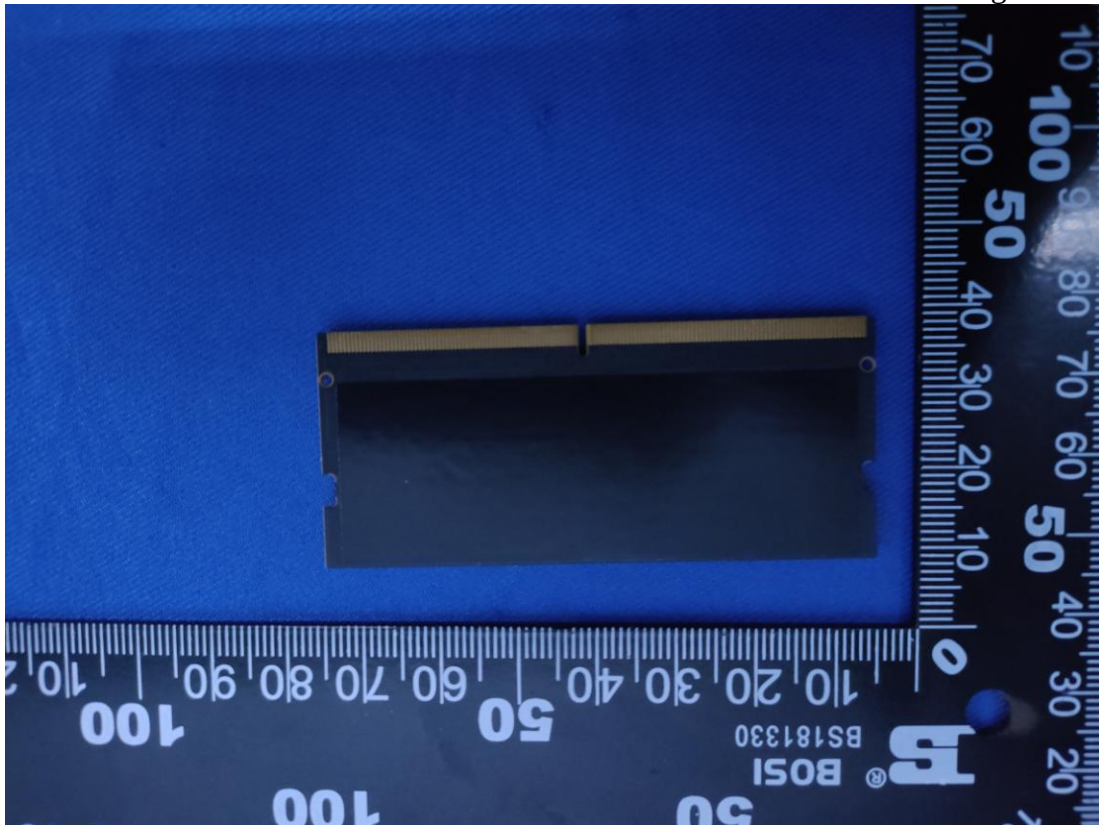


Figure 13
Inside Configuration of the EUT



Figure 14
Inside Configuration of the EUT

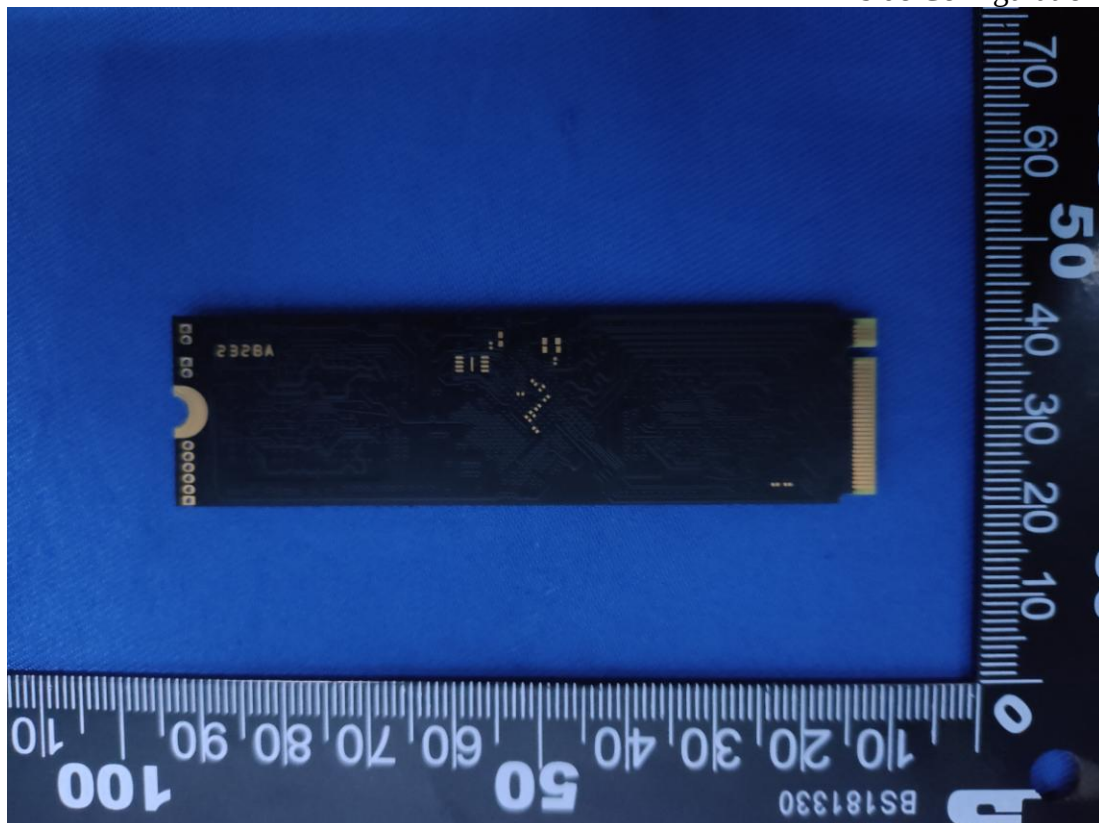


Figure 15
Antenna

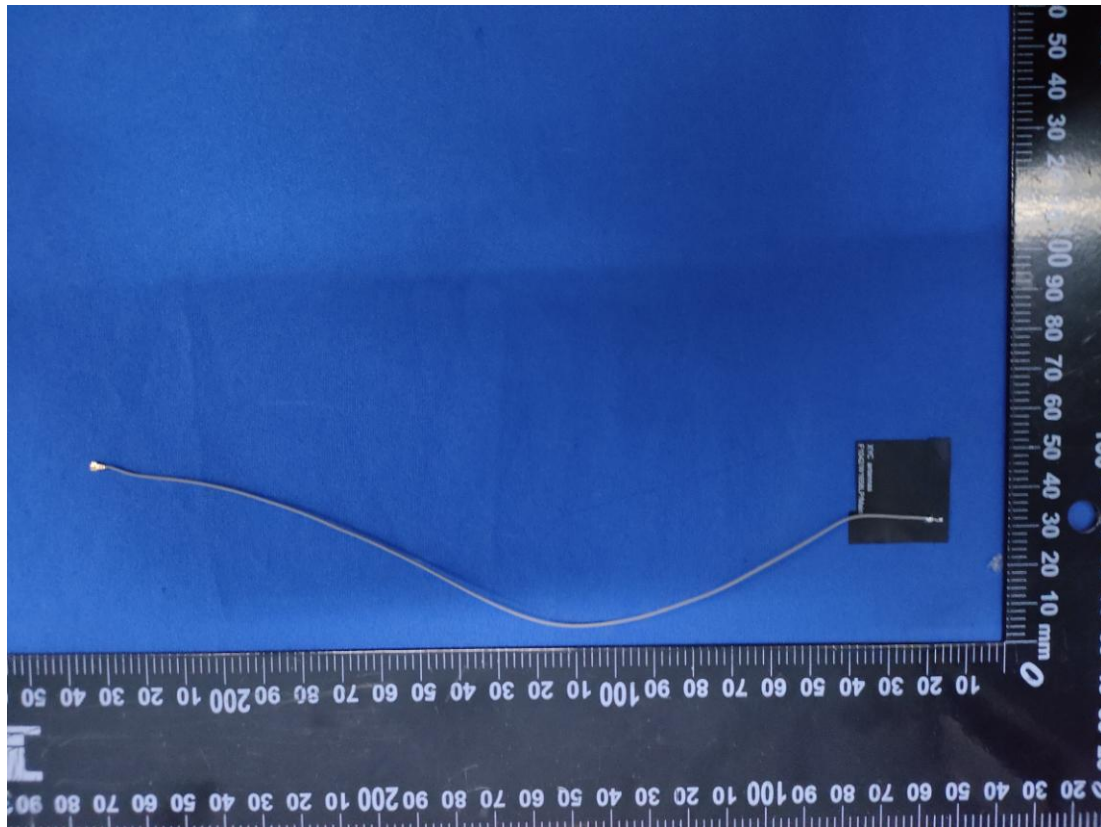


Figure 16
Antenna

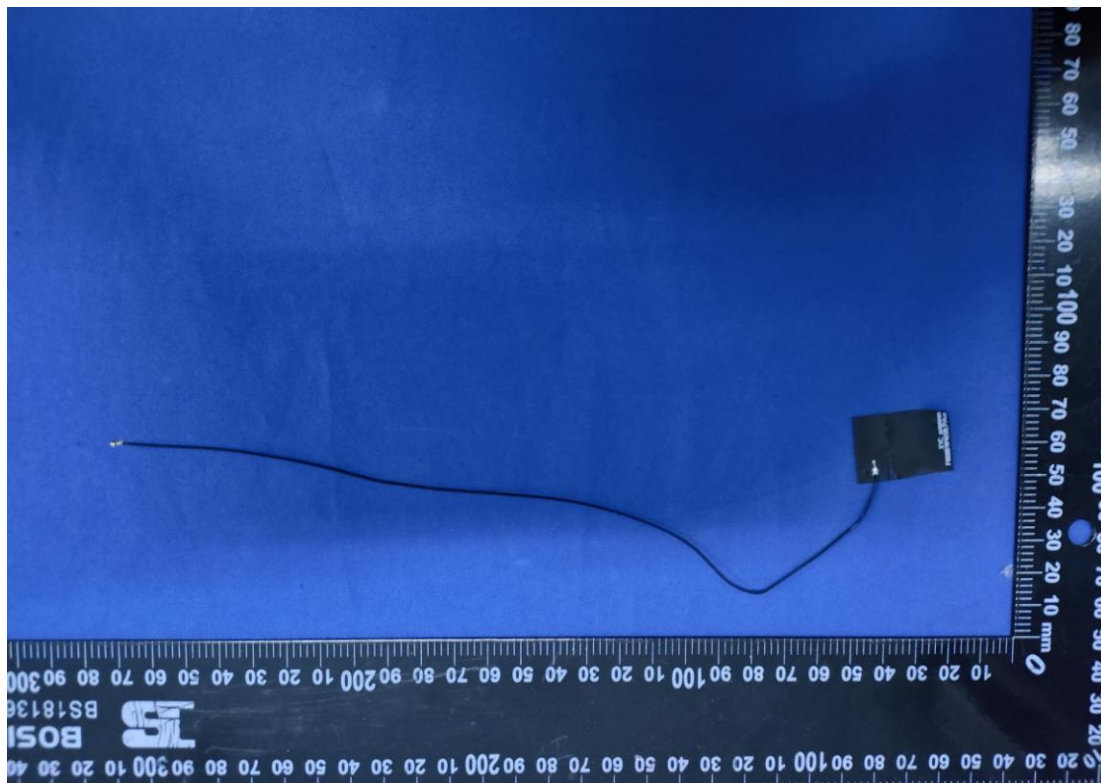


Figure 17
Inside Configuration of the EUT

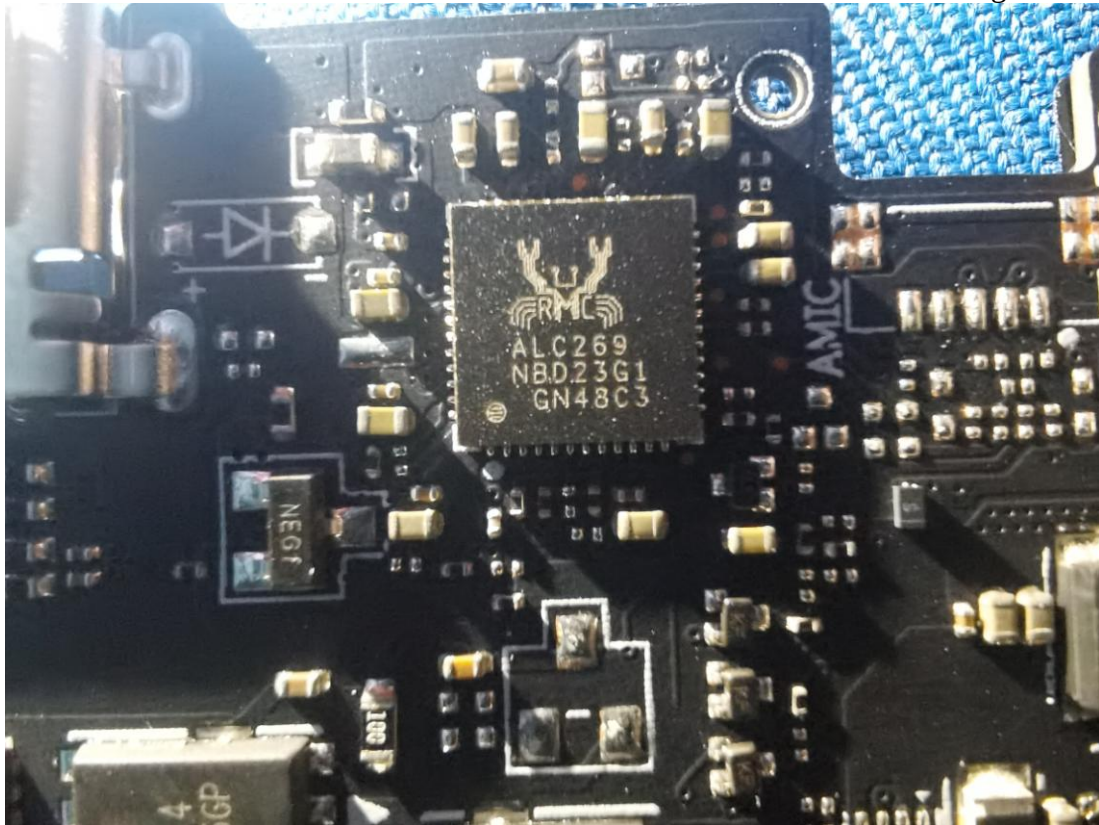


Figure 18
Inside Configuration of the EUT

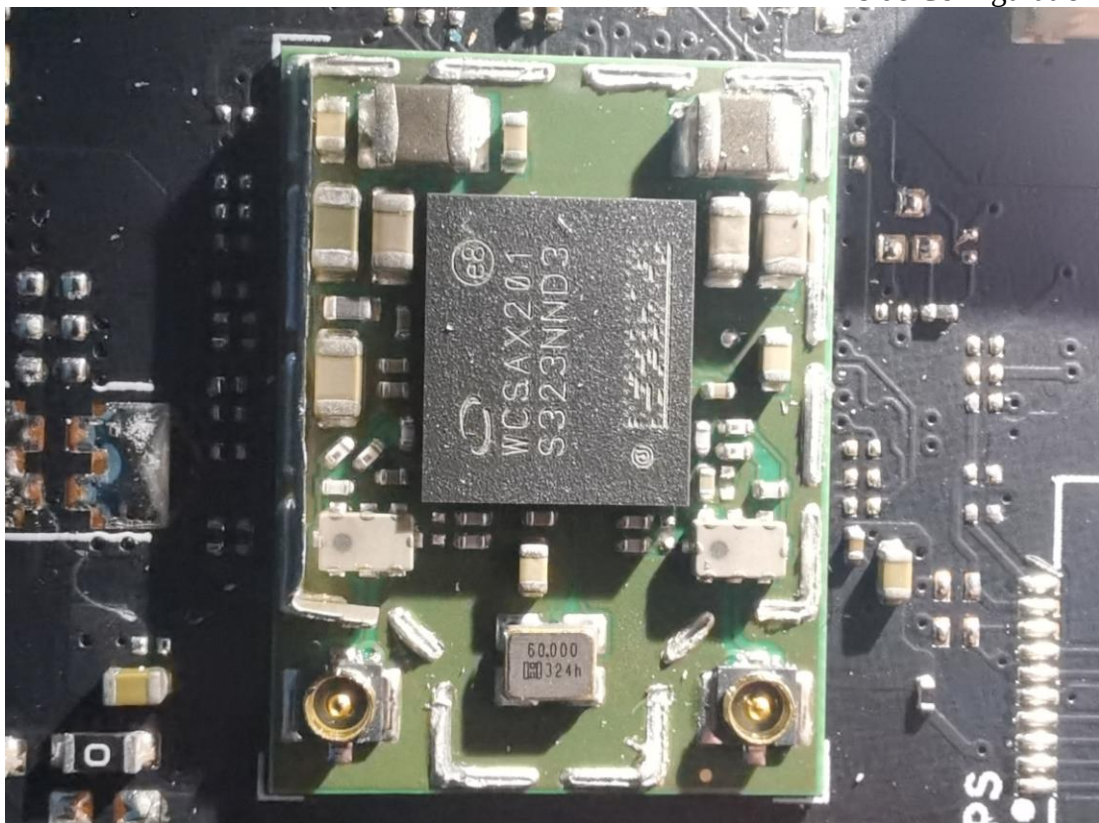
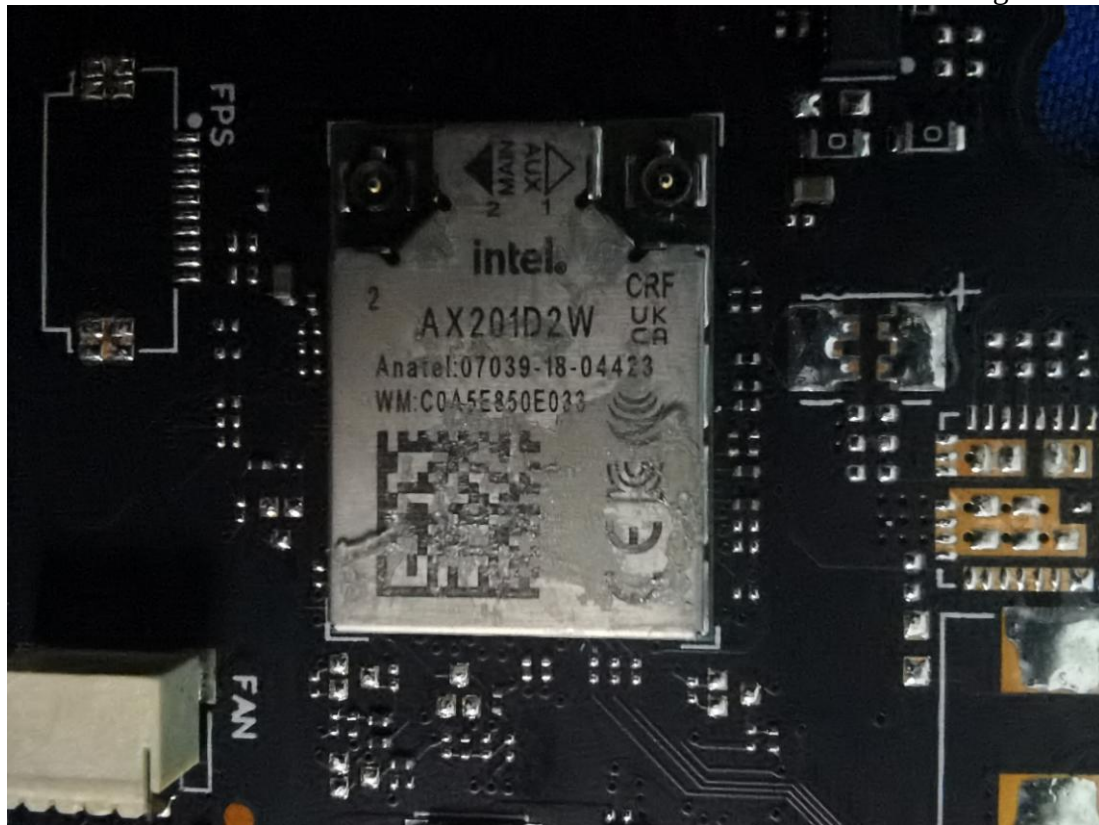


Figure 19
Inside Configuration of the EUT



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