



SAR REFERENCE DIPOLE CALIBRATION REPORT

Ref: ACR.329.17.21.BES.A

7.3 BODY LIQUID MEASUREMENT

Frequency MHz	Relative permittivity (\mathbf{s}_{r}')		Conductivity (σ) S/m	
	required	m easured	required	measured
5200	49.0 ±10 %	45.50	5.30 ±10 %	5.63
5300	48.9 ±10 %		5.42 ±10 %	
5400	48.7 ±10 %	44.78	5.53 ±10 %	5.95
5500	48.6 ±10 %		5.65 ±10 %	
5600	48.5 ±10 %	44.85	5.77 ±10 %	6.26
5800	48.2 ±10 %	44.45	6.00 ±10 %	6.58

7.4 SAR MEASUREMENT RESULT WITH BODY LIQUID

C. Arrona	OPENSAR V5			
Software				
Phantom	SN 13/09 SAM68			
Probe	SN 41/18 EPGO333			
Liquid	Body Liquid Values 5200 MHz: eps':45.50 sigma: 5.63 Body Liquid Values 5400 MHz: eps':44.78 sigma: 5.95 Body Liquid Values 5600 MHz: eps':44.85 sigma: 6.26 Body Liquid Values 5800 MHz: eps':44.45 sigma: 6.58			
Distance between dipole and liquid	10 mm			
Area scan resolution	dx=8mm/dy=8mm			
Zoon Scan Resolution	dx=4mm/dy=4m/dz=2mm			
Frequency	5200 MHz 5400 MHz 5600 MHz 5800 MHz			
Input power	20 dBm			
Liquid Temperature	20 +/- 1 °C			
Lab Temperature	20 +/- 1 °C			
Lab Humidity	30-70 %			

Frequency (MHz)	1 g SAR (W/kg)	10 g SAR (W/kg)	
SECTION SECTIO	measured	measured	
5200	73.02 (7.30)	20.58 (2.06)	
5400	77.86 (7.79)	21.85 (2.19)	
5600	79.90 (7.99)	22.73 (2.27)	
5800	71.90 (7.19)	20.50 (2.05)	

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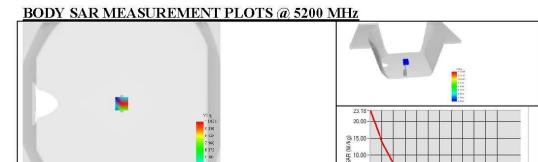
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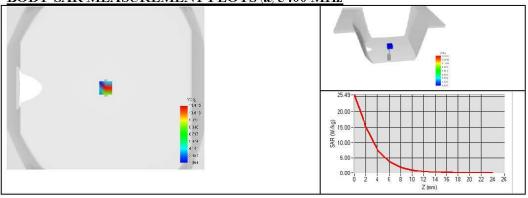


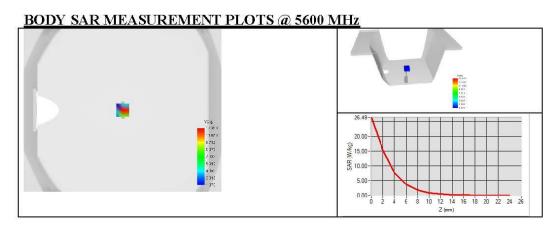
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BODY SAR MEASUREMENT PLOTS @ 5400 MHz





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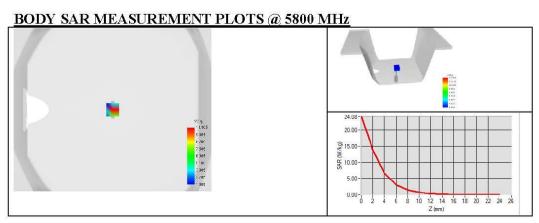
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8 LIST OF EQUIPMENT

Equipment Summary Sheet							
Equipment Description	Manufacturer / Model	Identification No.	Current Calibration Date	Next Calibration Date			
SAM Phantom	MVG	L SN 13/19 SAM68	Validated. No cal required.	Validated. No cal required.			
COMOSAR Test Bench	Version 3	NA	Validated. No cal required.	Validated. No cal required.			
Network Analyzer	Rohde & Schwarz ZVM	100203	08/2021	08/2024			
Network Analyzer	Agilent 8753ES	MY40003210	10/2019	10/2022			
Network Analyzer – Calibration kit	Rohde & Schwarz ZV-Z235	101223	05/2019	05/2022			
Network Analyzer – Calibration kit	HP 85033D	3423A08186	06/2021	06/2027			
Calipers	Mitutoyo	SN 0009732	10/2019	10/2022			
Reference Probe	MVG	SN 41/18 EPGO333	10/2021	10/2022			
Multimeter	Keithley 2000	1160271	02/2020	02/2023			
Signal Generator	Rohde & Schwarz SMB	106589	04/2019	04/2022			
Amplifier	MVG	MODU-023-C-0002	Characterized prior to test. No cal required.	Characterized prior to test. No cal required.			
Power Meter	NI-USB 5680	170100013	06/2021	06/2024			
Power Meter	Rohde & Schwarz NRVD	832839-056	11/2019	11/2022			
Directional Coupler	Krytar 158020	131467	Characterized prior to test. No cal required.	Characterized prior to test. No cal required.			
Temperature / Humidity Sensor	Testo 184 H1	44225320	06/2021	06/2024			

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17. EUT Photographs

EUT Front View



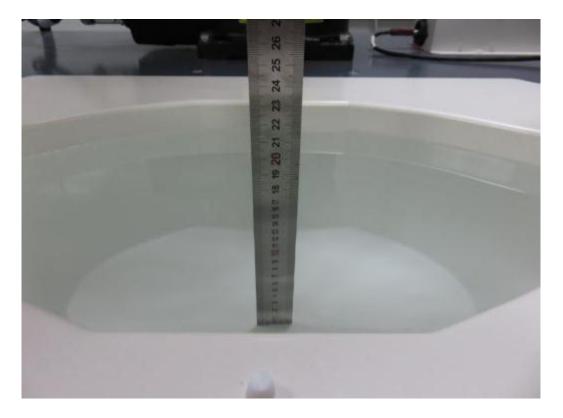
EUT Back View



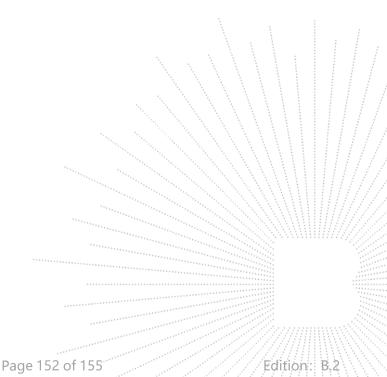
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18. Photographs Of The Liquid



Photograph of the depth in the Body Phantom (600-10000MHz, depth >15cm)

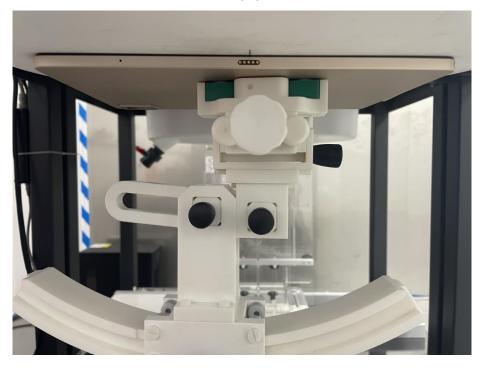


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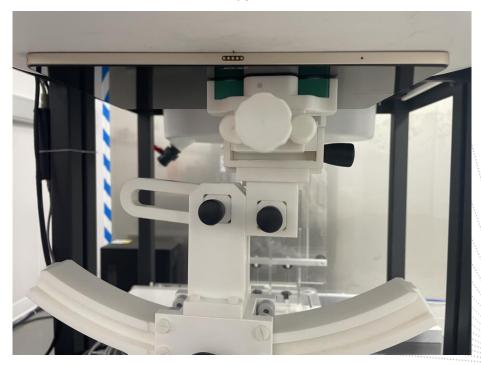


19. EUT Test Setup Photographs

Front



Back



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STATEMENT

- 1. The equipment lists are traceable to the national reference standards.
- 2. The test report can not be partially copied unless prior written approval is issued from our lab.
- 3. The test report is invalid without the "special seal for inspection and testing".
- 4. The test report is invalid without the signature of the approver.
- 5. The test process and test result is only related to the Unit Under Test.
- 6. Sample information is provided by the client and the laboratory is not responsible for its authenticity.
- 7. The quality system of our laboratory is in accordance with ISO/IEC17025.
- 8. If there is any objection to this test report, the client should inform issuing laboratory within 15 days from the date of receiving test report.

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**** END ****

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