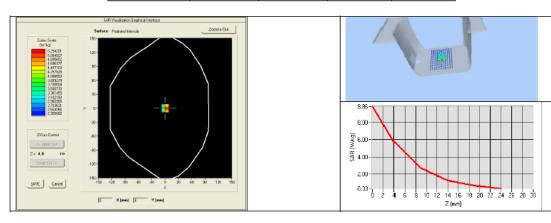




SAR REFERENCE DIPOLE CALIBRATION REPORT

Ref: ACR.156.9.15.SATU.A

1900	39.7		20.5	
1950	40.5		20.9	
2000	41.1		21.1	
2100	43.6		21.9	
2300	48.7		23.3	
2450	52.4	53.26 (5.38)	24	24.15 (2.49)
2600	55.3		24.6	
3000	63.8		25.7	
3500	67.1		25	



7.3 BODY LIQUID MEASUREMENT

Frequency MHz	Relative per	Relative permittivity (ε _r ')		ity (σ) S/m
	required	measured	required	measured
150	61.9 ±5 %		0.80 ±5 %	
300	58.2 ±5 %		0.92 ±5 %	
450	56.7 ±5 %		0.94 ±5 %	
750	55.5 ±5 %		0.96 ±5 %	
835	55.2 ±5 %		0.97 ±5 %	
900	55.0 ±5 %		1.05 ±5 %	
915	55.0 ±5 %		1.06 ±5 %	
1450	54.0 ±5 %		1.30 ±5 %	
1610	53.8 ±5 %		1.40 ±5 %	
1800	53.3 ±5 %		1.52 ±5 %	
1900	53.3 ±5 %		1.52 ±5 %	
2000	53.3 ±5 %		1.52 ±5 %	
2100	53.2 ±5 %		1.62 ±5 %	
2450	52.7 ±5 %	PASS	1.95 ±5 %	PASS

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SAR REFERENCE DIPOLE CALIBRATION REPORT

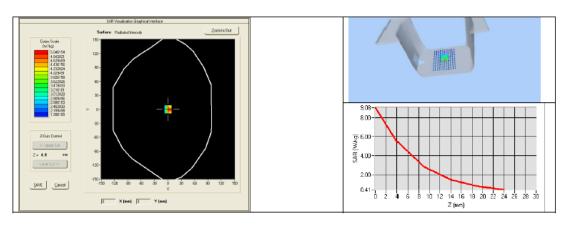
Ref: ACR.156.9.15.SATU.A

2600	52.5 ±5 %	2.16 ±5 %	
3000	52.0 ±5 %	2.73 ±5 %	
3500	51.3 ±5 %	3.31 ±5 %	
5200	49.0 ±10 %	5.30 ±10 %	
5300	48.9 ±10 %	5.42 ±10 %	
5400	48.7 ±10 %	5.53 ±10 %	
5500	48.6 ±10 %	5.65 ±10 %	
5600	48.5 ±10 %	5.77 ±10 %	
5800	48.2 ±10 %	6.00 ±10 %	

7.4 SAR MEASUREMENT RESULT WITH BODY LIQUID

Software	OPENSAR V4
Phantom	SN 20/09 SAM71
Probe	SN 18/11 EPG122
Liquid	Body Liquid Values: eps' : 52.7 sigma : 1.94
Distance between dipole center and liquid	10.0 mm
Area scan resolution	dx=8mm/dy=8mm
Zoon Scan Resolution	dx=5mm/dy=5mm/dz=5mm
Frequency	2450 MHz
Input power	20 dBm
Liquid Temperature	21 °C
Lab Temperature	21 °C
Lab Humidity	45 %

Frequency MHz	1 g SAR (W/kg/W)	10 g SAR (W/kg/W)
	measured	measured
2450	50.63 (5.01)	23.40 (2.37)



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SAR REFERENCE DIPOLE CALIBRATION REPORT

Ref: ACR.156.9.15.SATU.A

8 LIST OF EQUIPMENT

	Equipment Summary Sheet			
Equipment Manufacturer / Description Model		Identification No.	Current Calibration Date	Next Calibration Date
SAM Phantom	MVG	SN-20/09-SAM71		Validated. No cal required.
COMOSAR Test Bench	Version 3	NA		Validated. No cal required.
Network Analyzer	Rhode & Schwarz ZVA	SN100132	02/2018	02/2021
Calipers	Carrera	CALIPER-01	02/2018	02/2021
Reference Probe	MVG	EPG122 SN 18/11	02/2018	02/2019
Multimeter	Keithley 2000	1188656	02/2018	02/2021
Signal Generator	Agilent E4438C	MY49070581	02/2018	02/2021
Amplifier	Aethercomm	SN 046	Characterized prior to test. No cal required.	
Power Meter	HP E4418A	US38261498	02/2018	02/2021
Power Sensor	HP ECP-E26A	US37181460	02/2018	02/2021
Directional Coupler	Narda 4216-20	01386	Characterized prior to test. No cal required.	Characterized prior to test. No cal required.
Temperature and Humidity Sensor	Control Company	11-661-9	02/2018	02/2021

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SAR Reference Dipole Calibration Report

Ref: ACR.156.10.15.SATU.A

SHENZHEN TONGCE TESTING LAB.

TCT TESTING INDUSTRIAL PARK, FUQIAO 5TH INDUSTRIAL ZONE, FUHAI STREET, BAOAN DISTRICT, SHENZHEN GUANGDONG, 518103, PEOPLES REPUBLIC OF CHINA

MVG COMOSAR REFERENCE DIPOLE

FREQUENCY: 2600 MHZ SERIAL NO.: SN 16/15 DIP 2G600-375

Calibrated at MVG US 2105 Barrett Park Dr. - Kennesaw, GA 30144



Calibration Date: 06/05/2018

Summary:

This document presents the method and results from an accredited SAR reference dipole calibration performed in MVG USA using the COMOSAR test bench. All calibration results are traceable to national metrology institutions.





SAR REFERENCE DIPOLE CALIBRATION REPORT

Ref: ACR.156.10.15.SATU.A

	Name	Function	Date	Signature
Prepared by :	Jérôme LUC	Product Manager	06/05/2018	JES
Checked by:	Jérôme LUC	Product Manager	06/05/2018	J35
Approved by:	Kim RUTKOWSKI	Quality Manager	06/05/2018	them Prethowski

	Customer Name
Distribution ·	SHENZHEN TONGCE
Distribution:	TESTING LAB

Issue	Date	Modifications
A	06/05/2018	Initial release

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SAR REFERENCE DIPOLE CALIBRATION REPORT

Ref: ACR.156.10.15.SATU.A

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Ref: ACR.156.10.15.SATU.A

1 INTRODUCTION

This document contains a summary of the requirements set forth by the IEEE 1528, FCC KDBs and CEI/IEC 62209 standards for reference dipoles used for SAR measurement system validations and the measurements that were performed to verify that the product complies with the fore mentioned standards.

2 DEVICE UNDER TEST

Device Under Test		
Device Type	COMOSAR 2600 MHz REFERENCE DIPOLE	
Manufacturer	MVG	
Model SID2600		
Serial Number SN 16/15 DIP 2G600-375		
Product Condition (new / used) Used		

A yearly calibration interval is recommended.

3 PRODUCT DESCRIPTION

3.1 GENERAL INFORMATION

MVG's COMOSAR Validation Dipoles are built in accordance to the IEEE 1528, FCC KDBs and CEI/IEC 62209 standards. The product is designed for use with the COMOSAR test bench only.



Figure 1 - MVG COMOSAR Validation Dipole

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SAR REFERENCE DIPOLE CALIBRATION REPORT

Ref: ACR.156.10.15.SATU.A

4 MEASUREMENT METHOD

The IEEE 1528, FCC KDBs and CEI/IEC 62209 standards provide requirements for reference dipoles used for system validation measurements. The following measurements were performed to verify that the product complies with the fore mentioned standards.

4.1 RETURN LOSS REQUIREMENTS

The dipole used for SAR system validation measurements and checks must have a return loss of -20 dB or better. The return loss measurement shall be performed against a liquid filled flat phantom, with the phantom constucted as outlined in the fore mentioned standards.

4.2 MECHANICAL REQUIREMENTS

The IEEE Std. 1528 and CEI/IEC 62209 standards specify the mechanical components and dimensions of the validation dipoles, with the dimensions frequency and phantom shell thickness dependent. The COMOSAR test bench employs a 2 mm phantom shell thickness therefore the dipoles sold for use with the COMOSAR test bench comply with the requirements set forth for a 2 mm phantom shell thickness.

5 MEASUREMENT UNCERTAINTY

All uncertainties listed below represent an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2, traceable to the Internationally Accepted Guides to Measurement Uncertainty.

5.1 RETURN LOSS

The following uncertainties apply to the return loss measurement:

Frequency band	Expanded Uncertainty on Return Loss
400-6000MHz	0.1 dB

5.2 <u>DIMENSION MEASUREMENT</u>

The following uncertainties apply to the dimension measurements:

Length (mm)	Expanded Uncertainty on Length	
3 - 300	0.05 mm	

5.3 VALIDATION MEASUREMENT

The guidelines outlined in the IEEE 1528, FCC KDBs, CENELEC EN50361 and CEI/IEC 62209 standards were followed to generate the measurement uncertainty for validation measurements.

Scan Volume	Expanded Uncertainty
1 g	20.3 %

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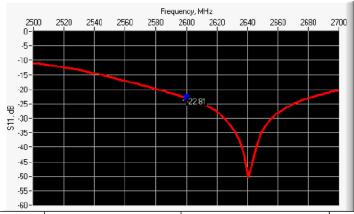
SAR REFERENCE DIPOLE CALIBRATION REPORT

Ref: ACR.156.10.15.SATU.A

10 g	20.1 %

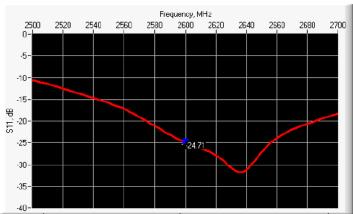
6 CALIBRATION MEASUREMENT RESULTS

6.1 RETURN LOSS AND IMPEDANCE IN HEAD LIQUID



Frequency (MHz)	Return Loss (dB)	Requirement (dB)	Impedance
2600	-22.81	-20	55.3 Ω - 5.1 jΩ

6.2 RETURN LOSS AND IMPEDANCE IN BODY LIQUID



Frequency (MHz)	Return Loss (dB)	Requirement (dB)	Impedance
2600	-24.71	-20	51.5 Ω - 5.5 jΩ

6.3 MECHANICAL DIMENSIONS

Frequency MHz	L mm		equency MHz L mm h mm		d mm	
	required	measured	required	measured	required	measured
300	420.0 ±1 %.		250.0 ±1 %.		6.35 ±1 %.	

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450	290.0 ±1 %.		166.7 ±1 %.		6.35 ±1 %.	
750	176.0 ±1 %.		100.0 ±1 %.		6.35 ±1 %.	
835	161.0 ±1 %.		89.8 ±1 %.		3.6 ±1 %.	
900	149.0 ±1 %.		83.3 ±1 %.		3.6 ±1 %.	
1450	89.1 ±1 %.		51.7 ±1 %.		3.6 ±1 %.	
1500	80.5 ±1 %.		50.0 ±1 %.		3.6 ±1 %.	
1640	79.0 ±1 %.		45.7 ±1 %.		3.6 ±1 %.	
1750	75.2 ±1 %.		42.9 ±1 %.		3.6 ±1 %.	
1800	72.0 ±1 %.		41.7 ±1 %.		3.6 ±1 %.	
1900	68.0 ±1 %.		39.5 ±1 %.		3.6 ±1 %.	
1950	66.3 ±1 %.		38.5 ±1 %.		3.6 ±1 %.	
2000	64.5 ±1 %.		37.5 ±1 %.		3.6 ±1 %.	
2100	61.0 ±1 %.		35.7 ±1 %.		3.6 ±1 %.	
2300	55.5 ±1 %.		32.6 ±1 %.		3.6 ±1 %.	
2450	51.5 ±1 %.		30.4 ±1 %.		3.6 ±1 %.	
2600	48.5 ±1 %.	PASS	28.8 ±1 %.	PASS	3.6 ±1 %.	PASS
3000	41.5 ±1 %.		25.0 ±1 %.		3.6 ±1 %.	
3500	37.0±1 %.		26.4 ±1 %.		3.6 ±1 %.	
3700	34.7±1 %.		26.4 ±1 %.		3.6 ±1 %.	
	-		+		+	

7 VALIDATION MEASUREMENT

The IEEE Std. 1528, FCC KDBs and CEI/IEC 62209 standards state that the system validation measurements must be performed using a reference dipole meeting the fore mentioned return loss and mechanical dimension requirements. The validation measurement must be performed against a liquid filled flat phantom, with the phantom constructed as outlined in the fore mentioned standards. Per the standards, the dipole shall be positioned below the bottom of the phantom, with the dipole length centered and parallel to the longest dimension of the flat phantom, with the top surface of the dipole at the described distance from the bottom surface of the phantom.

7.1 HEAD LIQUID MEASUREMENT

Frequency MHz	Relative permittivity (ε _r ')		Conductiv	ity (σ) S/m
	required	measured	required	measured
300	45.3 ±5 %		0.87 ±5 %	
450	43.5 ±5 %		0.87 ±5 %	
750	41.9 ±5 %		0.89 ±5 %	
835	41.5 ±5 %		0.90 ±5 %	
900	41.5 ±5 %		0.97 ±5 %	
1450	40.5 ±5 %		1.20 ±5 %	
1500	40.4 ±5 %		1.23 ±5 %	
1640	40.2 ±5 %		1.31 ±5 %	
1750	40.1 ±5 %		1.37 ±5 %	

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SAR REFERENCE DIPOLE CALIBRATION REPORT

Ref: ACR.156.10.15.SATU.A

1800	40.0 ±5 %		1.40 ±5 %	
1900	40.0 ±5 %		1.40 ±5 %	
1950	40.0 ±5 %		1.40 ±5 %	
2000	40.0 ±5 %		1.40 ±5 %	
2100	39.8 ±5 %		1.49 ±5 %	
2300	39.5 ±5 %		1.67 ±5 %	
2450	39.2 ±5 %		1.80 ±5 %	
2600	39.0 ±5 %	PASS	1.96 ±5 %	PASS
3000	38.5 ±5 %		2.40 ±5 %	
3500	37.9 ±5 %		2.91 ±5 %	

7.2 SAR MEASUREMENT RESULT WITH HEAD LIQUID

The IEEE Std. 1528 and CEI/IEC 62209 standards state that the system validation measurements should produce the SAR values shown below (for phantom thickness of 2 mm), within the uncertainty for the system validation. All SAR values are normalized to 1 W forward power. In bracket, the measured SAR is given with the used input power.

Software	OPENSAR V4
Phantom	SN 20/09 SAM71
Probe	SN 18/11 EPG122
Liquid	Head Liquid Values: eps': 38.2 sigma: 1.93
Distance between dipole center and liquid	10.0 mm
Area scan resolution	dx=8mm/dy=8mm
Zoon Scan Resolution	dx=5mm/dy=5mm/dz=5mm
Frequency	2600 MHz
Input power	20 dBm
Liquid Temperature	21 °C
Lab Temperature	21 °C
Lab Humidity	45 %

Frequency MHz	1 g SAR (W/kg/W)		10 g SAR ((W/kg/W)
	required	measured	required	measured
300	2.85		1.94	
450	4.58		3.06	
750	8.49		5.55	
835	9.56		6.22	
900	10.9		6.99	
1450	29		16	
1500	30.5		16.8	
1640	34.2		18.4	
1750	36.4		19.3	
1800	38.4		20.1	

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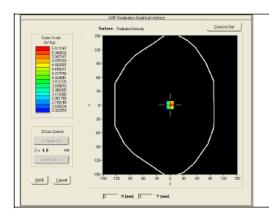


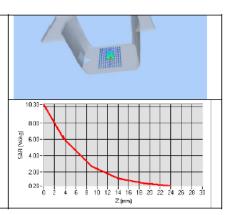


SAR REFERENCE DIPOLE CALIBRATION REPORT

Ref: ACR.156.10.15.SATU.A

1900	39.7		20.5	
1950	40.5		20.9	
2000	41.1		21.1	
2100	43.6		21.9	
2300	48.7		23.3	
2450	52.4		24	
2600	55.3	54.31 (5.36)	24.6	24.14 (2.42)
3000	63.8		25.7	
3500	67.1		25	





7.3 BODY LIQUID MEASUREMENT

Frequency MHz	Relative per	mittivity (ε _r ')	Conductiv	ity (σ) S/m
	required	measured	required	measured
150	61.9 ±5 %		0.80 ±5 %	
300	58.2 ±5 %		0.92 ±5 %	
450	56.7 ±5 %		0.94 ±5 %	
750	55.5 ±5 %		0.96 ±5 %	
835	55.2 ±5 %		0.97 ±5 %	
900	55.0 ±5 %		1.05 ±5 %	
915	55.0 ±5 %		1.06 ±5 %	
1450	54.0 ±5 %		1.30 ±5 %	
1610	53.8 ±5 %		1.40 ±5 %	
1800	53.3 ±5 %		1.52 ±5 %	
1900	53.3 ±5 %		1.52 ±5 %	
2000	53.3 ±5 %		1.52 ±5 %	
2100	53.2 ±5 %		1.62 ±5 %	
2450	52.7 ±5 %		1.95 ±5 %	

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SAR REFERENCE DIPOLE CALIBRATION REPORT

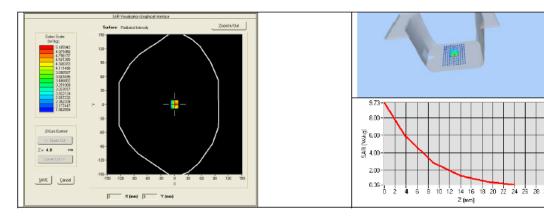
Ref: ACR.156.10.15.SATU.A

2600	52.5 ±5 %	PASS	2.16 ±5 %	PASS
3000	52.0 ±5 %		2.73 ±5 %	
3500	51.3 ±5 %		3.31 ±5 %	
5200	49.0 ±10 %		5.30 ±10 %	
5300	48.9 ±10 %		5.42 ±10 %	
5400	48.7 ±10 %		5.53 ±10 %	
5500	48.6 ±10 %		5.65 ±10 %	
5600	48.5 ±10 %		5.77 ±10 %	
5800	48.2 ±10 %		6.00 ±10 %	

7.4 SAR MEASUREMENT RESULT WITH BODY LIQUID

Software	OPENSAR V4
Phantom	SN 20/09 SAM71
Probe	SN 18/11 EPG122
Liquid	Body Liquid Values: eps': 51.6 sigma: 2.21
Distance between dipole center and liquid	10.0 mm
Area scan resolution	dx=8mm/dy=8mm
Zoon Scan Resolution	dx=5mm/dy=5mm/dz=5mm
Frequency	2600 MHz
Input power	20 dBm
Liquid Temperature	21 °C
Lab Temperature	21 °C
Lab Humidity	45 %

Frequency MHz	1 g SAR (W/kg/W)	10 g SAR (W/kg/W)
	measured	measured
2600	53.26 (5.12)	23.89 (2.30)



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SAR REFERENCE DIPOLE CALIBRATION REPORT

Ref: ACR.156.10.15.SATU.A

8 LIST OF EQUIPMENT

	Equipment Summary Sheet											
Equipment Description	Manufacturer / Model	Identification No.	Current Calibration Date	Next Calibration Date								
SAM Phantom	MVG	SN-20/09-SAM71	Validated. No cal required.	Validated. No cal required.								
COMOSAR Test Bench	Version 3	NA	Validated. No cal required.	Validated. No cal required.								
Network Analyzer	Rhode & Schwarz ZVA	SN100132	02/2018	02/2021								
Calipers	Carrera	CALIPER-01	02/2018	02/2021								
Reference Probe	MVG	EPG122 SN 18/11	9/2017	9/2018								
Multimeter	Keithley 2000	1188656	12/2017	12/2020								
Signal Generator	Agilent E4438C	MY49070581	12/2017	12/2020								
Amplifier	Aethercomm	SN 046	Characterized prior to test. No cal required.	Characterized prior to test. No cal required.								
Power Meter	HP E4418A	US38261498	12/2017	12/2020								
Power Sensor	HP ECP-E26A	US37181460	12/2017	12/2021								
Directional Coupler	Narda 4216-20	01386	Characterized prior to test. No cal required.	Characterized prior to test. No cal required.								
Temperature and Humidity Sensor	Control Company	11-661-9	9/2017	9/2018								

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15. Appendix E: SAR SYSTEM VALIDATION

Per FCC KDB 865664 D02v01, SAR system validation status should be documented to confirm measurement accuracy. The SAR systems (including SAR probes, system components and software versions) used for this device were validated against its performance specifications prior to the SAR measurements. Reference dipoles were used with the required tissue- equivalent media for system validation, according to the procedures outlined in FCC KDB 865664 D01 v01 and IEEE 1528-2013. Since SAR probe calibrations are frequency dependent, each probe calibration point was validated at a frequency within the valid frequency range of the probe calibration point, using the system that normally operates with the probe for routine SAR measurements and according to the required tissue-equivalent media.

A tabulated summary of the system validation status including the validation date(s), measurement frequencies, SAR probes and tissue dielectric parameters has been included.

SAR System Validation Summary

(.C.)			.C. `	SAR S	stem vai	idation Sum	ımary				.C.Y
				COND. PERM.	COND. PERM.	CM	/ Validation	1	Мо	od. Valida	tion
Date	Freq. [MHz]	Probe S/N	Tissu e type	(σ)	(εr)	sensitivity	Probe linearity	Probe isotropy	Mod. type	Duty factor	Peak to average power ratio
05/12/2021	835	SN 07/15 EP248	Head	42.3	0.89	PASS	PASS	PASS	GMSK	PASS	N/A
05/13/2021	835	SN 07/15E P248	Body	55.13	0.95	PASS	PASS	PASS	GMSK	PASS	N/A
05/12/2021	1800	SN 07/15E P248	Head	40.57	1.36	PASS	PASS	PASS	GMSK	PASS	N/A
05/13/2021	1800	SN 07/15E P248	Body	53.60	1.50	PASS	PASS	PASS	GMSK	PASS	N/A
05/12/2021	1900	SN 07/15E P248	Head	40.31	1.38	PASS	PASS	PASS	GMSK	PASS	N/A
05/13/2021	1900	SN 07/15E P248	Body	53.11	1.56	PASS	PASS	PASS	GMSK	PASS	N/A
05/12/2021	2450	SN 07/15E P248	Head	38.99	1.88	PASS	PASS	PASS	OFDM	PASS	N/A
05/13/2021	2450	SN 07/15E P248	Body	52.10	2.01	PASS	PASS	PASS	OFDM	PASS	N/A
05/12/2021	2600	SN 07/15E P248	Head	39.00	1.96	PASS	PASS	PASS	OFDM	PASS	N/A
05/13/2021	2600	SN 07/15E P248	Body	52.50	2.16	PASS	PASS	PASS	OFDM	PASS	N/A

NOTE: While the probes have been calibrated for both a CW and modulated signals, all measurements were performed using communication systems calibrated for CW signals only. Modulations in the table above represent test configurations for which the measurement system has been validated per FCC KDB Publication 865664 D01v01 for scenarios when CW probe calibrations are used with other signal types. SAR systems were validated for modulated signals with a periodic duty cycle, such as OFDM according to KDB 865664.

Report No.: TCT210414E022



16. Appendix F: The Check Data of Impedance and Return Loss

The information are included in the SAR report to qualify for the three-year extended calibration interval;

	Impedance in head liquid Date: 05/12/20											
Frog (MHz)	Temp	Dipole	Impedan	ce Re(z)	D	ipole Impedance I	m(z)					
Freq. (MHz)	(℃)	measured	Target	\triangle (\pm 5 Ω)	measured	Target	△ (±5Ω)					
835	22	52.30	51.60	0.7	2.30	1.70	0.6					
1800	22	46.50	48.60	-2.1	0.60	-0.50	1.1					
1900	22	50.30	51.70	-1.4	4.20	4.90	-0.7					
2450	22	45.90	46.50	-0.6	-0.36	-0.20	-0.1					
2600	22	54.7	55.1	-0.4	5.00	5.10	-0.1					

			Impedance in body liquid				Date: 05/13/2021	
Frog (MHz)	Temp	Dipole	Impedan	ice Re(z)	Dipole Impedance Im(z)			
Freq. (MHz)	(℃)	measured	Target	\triangle (±5 Ω)	measured	Target	\triangle (±5 Ω)	
835	22	49.3	47.1	2.2	6.3	5.60	0.7	
1800	22	46.5	47.2	-0.7	-6.1	-5.10	-1.0	
1900	22	50.3	48.1	2.2	5.3	6.40	-1.1	
2450	22	45.9	48.7	-2.8	0.6	-1.90	2.5	
2600	22	52.3	51.8	0.5	5.7	5.5	0.2	

(,c)	(.c)	Return loss in hea	ad liquid	Date: 05/12/2021	
Frog (MHz)	Temp		Return loss(dB)		
Freq. (MHz)	(℃)	measured	Target	△ (±20%)	
835	22	-30.35	-32.78	-7.41	
1800	22	-37.89	-36.92	2.63	
1900	22	-24.33	-25.64	-5.11	
2450	22	-30.95	-29.05	6.54	
2600	22	-22.01	-22.81	-3.51	

		Return loss in t	oody liquid	Date: 05/13/2021
Frog (MUz)	Temp	(c)	Return loss(dB)	(c)
Freq. (MHz)	(℃)	measured	Target	△ (±20%)
835	22	-25.99	-23.99	8.34
1800	22	-23.66	-24.67	-4.09
1900	22	-21.65	-23.50	-7.87
2450	22	-34.65	-32.86	5.45
2600	22	-23.56	-24.71	-4.65

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liquid	Freq. Temp		mp εr / relative permittivity			σ(s	ρ		
liquid	(MHz)	(℃)	measured	Target	△(±5%)	measured	Target	△ (±5%)	(kg/m3)
	835	22	42.30	41.50	1.93	0.89	0.90	-1.11	1000
(.c)	1800	22	40.50	40.00	1.25	1.36	1.40	-2.86	1000
Head	/ 1900	22	40.31	40.00	0.78	1.38	1.40	-1.43	1000
	2450	22	38.99	39.20	-0.54	1.88	1.80	4.44	1000
	2600	22	38.85	39.00	-0.38	1.93	1.96	-1.53	1000
	835	22	55.13	55.20	-0.13	0.95	0.97	-2.06	1000
	1800	22	53.60	53.30	0.56	1.50	1.52	-1.32	1000
Body	1900	22	53.11	53.30	-0.36	1.56	1.52	2.63	1000
	2450	22	52.10	52.70	-1.14	2.01	1.95	4.00	1000
(.c.	2600	22	52.31	52.50	-0.36	2.12	2.16	-1.85	1000

				Calibration		
Test Equipment	Manufacturer	Model	Serial Number	Calibration Date (D.M.Y)	Calibration Due (D.M.Y)	
Signal Generator	Angilent	N5182A	MY47070282	Sep. 28, 2020	Sep. 27, 2021	
Multimeter	Keithley	Multimeter 2000	4078275	Sep. 28, 2020	Sep. 27, 2021	
Network Analyzer	Agilent	8753E	US38432457	Sep. 28, 2020	Sep. 27, 2021	
Power Meter	Agilent	E4418B	GB43312526	Sep. 28, 2020	Sep. 27, 2021	
Power Sensor	Agilent	E9301A	MY41497725	Sep. 28, 2020	Sep. 27, 2021	
Power Amplifier	PE	PE15A4019	112342	N/A	N/A	
Temperature / Humidity Sensor	Control company	TH101B	152470214	Sep. 28, 2020	Sep. 27, 2021	



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