



In Collaboration with

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CALIBRATION LABORATORY

Add: No.51 Xueyuan Road, Haidian District, Beijing, 100191, China

Tel: +86-10-62304633-2079

Fax: +86-10-62304633-2504

E-mail: cttl@chinattl.com

http://www.chinattl.cn

DASY5 Validation Report for Body TSL

Date: 06.13.2019

Test Laboratory: CTTL, Beijing, China

DUT: Dipole 2300 MHz; Type: D2300V2; Serial: D2300V2 - SN: 1054

Communication System: UID 0, CW; Frequency: 2300 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2300$ MHz; $\sigma = 1.824$ S/m; $\epsilon_r = 52.63$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY5 Configuration:

- Probe: EX3DV4 - SN7514; ConvF(7.25, 7.25, 7.25) @ 2300 MHz; Calibrated: 8/27/2018
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1556; Calibrated: 8/20/2018
- Phantom: MFP_V5.1C ; Type: QD 000 P51CA; Serial: 1062
- Measurement SW: DASY52, Version 52.10 (2); SEMCAD X Version 14.6.12 (7470)

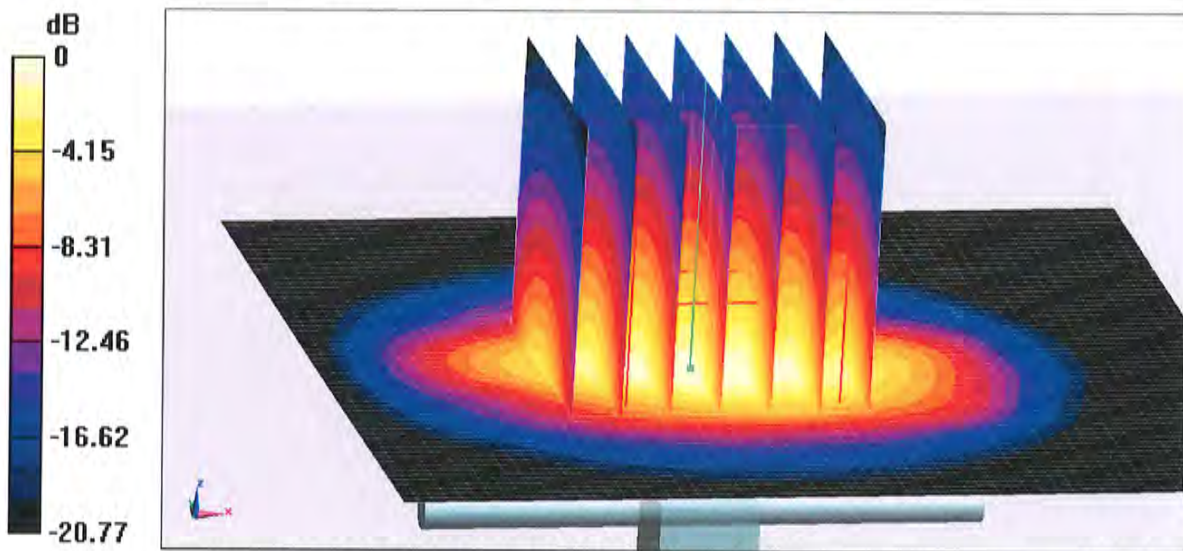
Dipole Calibration/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 93.69 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 23.9 W/kg

SAR(1 g) = 11.8 W/kg; SAR(10 g) = 5.63 W/kg

Maximum value of SAR (measured) = 19.2 W/kg



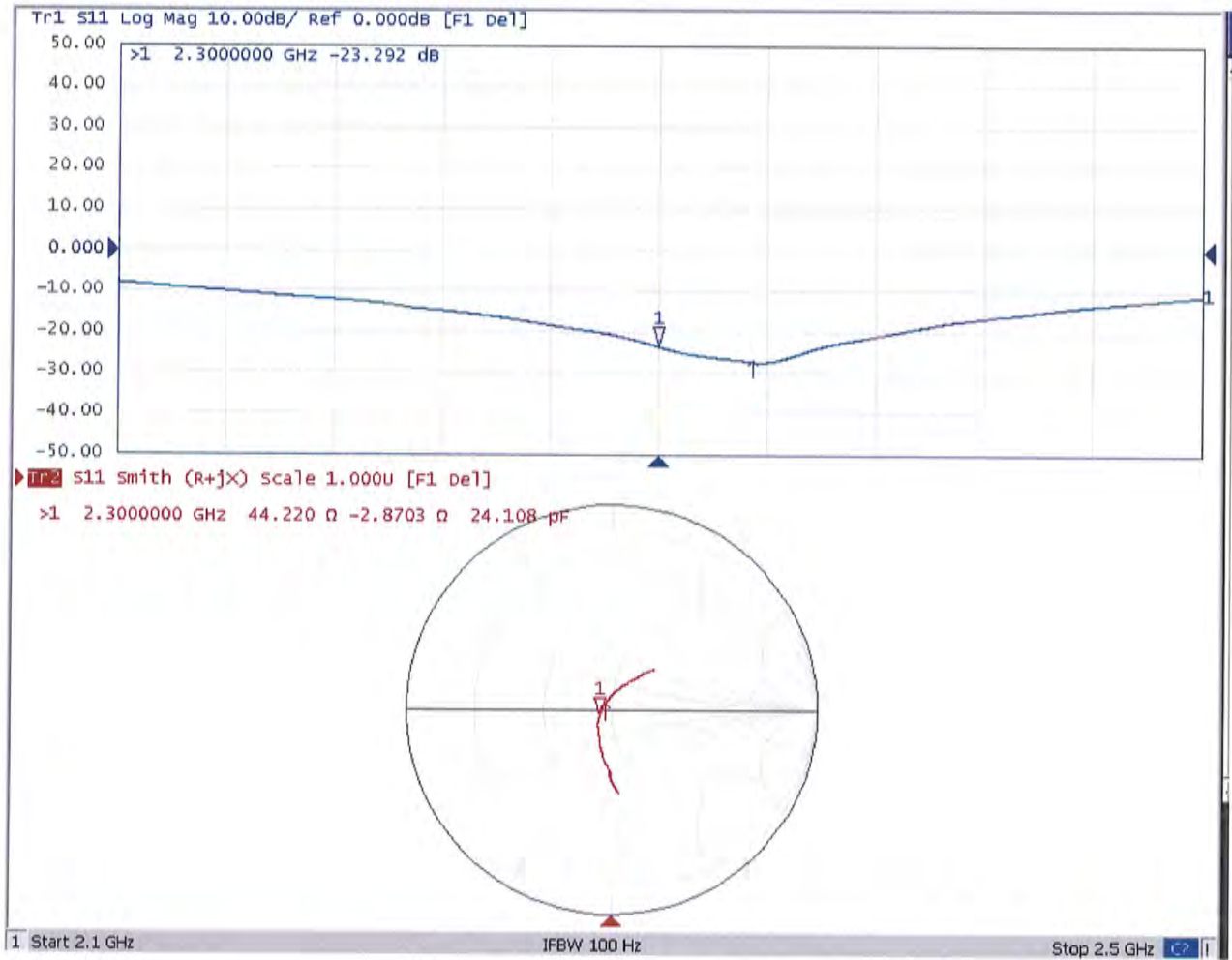
0 dB = 19.2 W/kg = 12.83 dBW/kg



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Impedance Measurement Plot for Body TSL





Dipole Internal Calibration Record

Asset No. :	E-433	Model No. :	D2300V2	Serial No. :	1054
Environmental	23°C, 52 %	Original Cal. Date :	June 13, 2019	Next Cal. Date :	June 12, 2021

Standard List

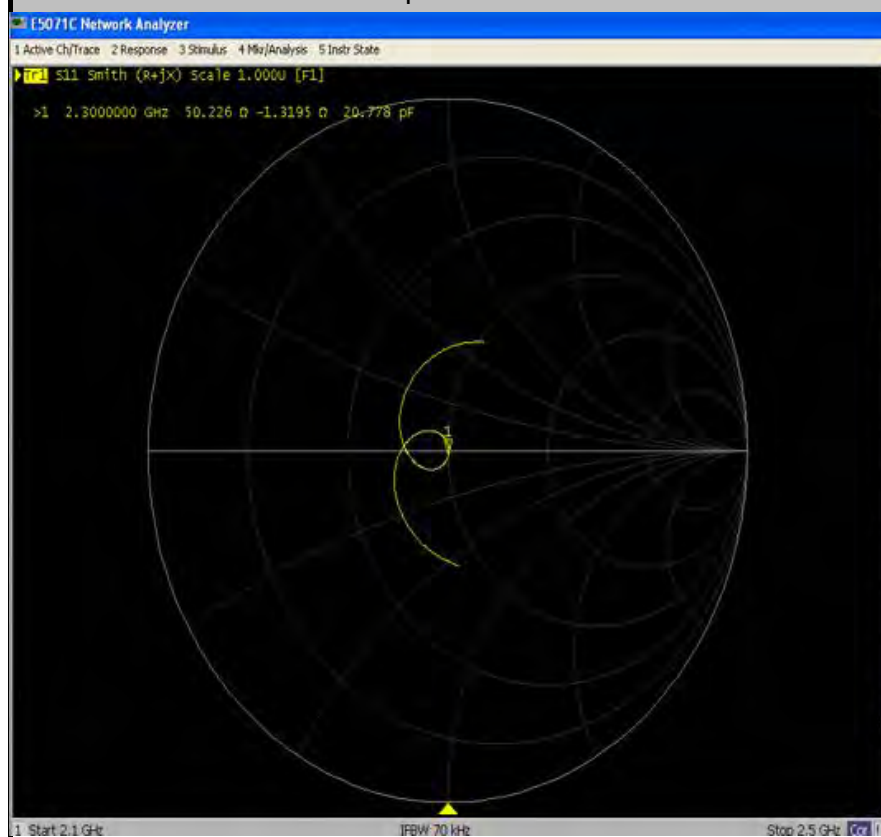
1	IEEE Std 1528-2013	IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption
2	IEC 62209-2	Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body(frequency range of 30 MHz to 6 GHz), March 2010
3	KDB865664	SAR Measurement Requirements for 100 MHz to 6 GHz

Equipment Information

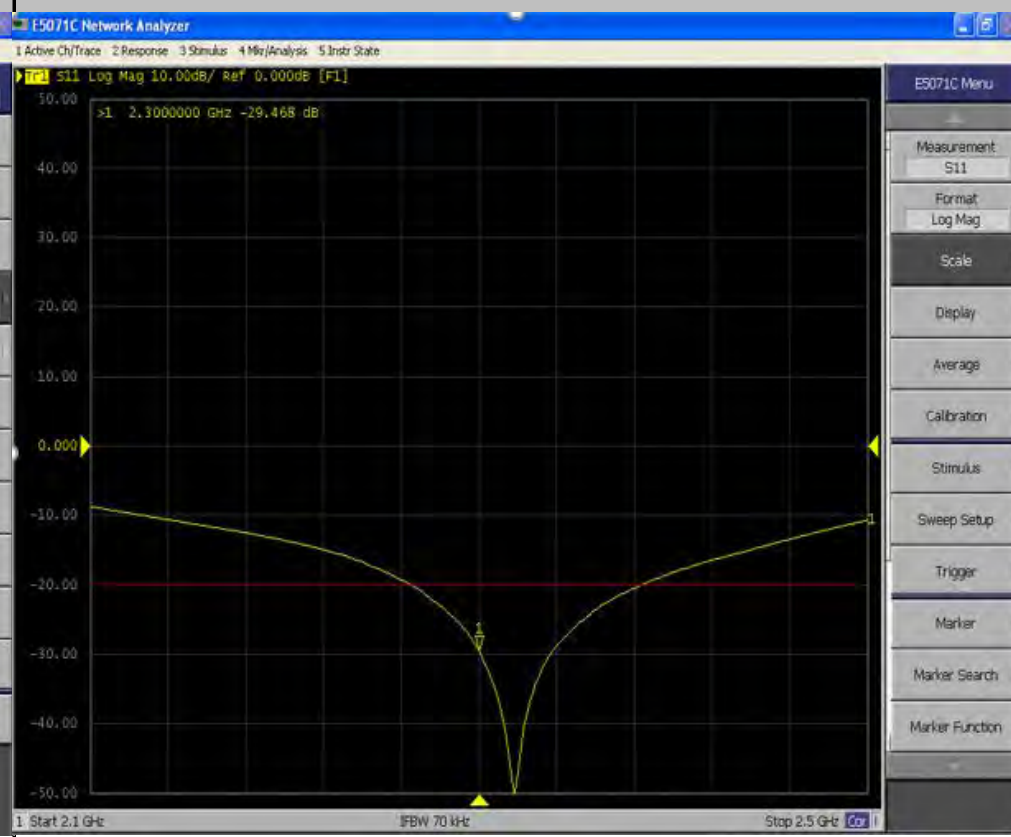
Equipment :	Manufacturer :	Model No. :	Serial No. :	Cal.Organization :	Cal. Date :
Power Amplifier	Mini-Circuits	ZHL-42W+	QA1333003	N/A	March 10, 2020
DC Source meter	Iteck	IT6154	006104126768201001	N/A	July 25, 2020
Power Meter	Anritsu	ML2495A	1128008	N/A	June 11, 2020
Power Sensor	Anritsu	MA2411B	1126001	N/A	June 11, 2020
Power Meter	Anritsu	MA2487A	6K00004714	N/A	September 3, 2020
Power Sensor	Anritsu	MA2491A	1725282	N/A	September 3, 2020
Directional Coupler	Woken	TS-PCC0M-05	107090019	N/A	March 1, 2020
Signal Generator	R & S	N5172B	MY53051229	N/A	June 20, 2020
ENA Network Analyzer	Agilent	E5071C	MY46524658	N/A	April 7, 2020

Model No	For Head Tissue				
D2300V2	Item	Original Cal. Result	Verified on 2020/6/21	Deviation	Result
	Impedance, transformed to feed point	48.4Ω-3.49jΩ	50.2Ω-1.32jΩ	<5Ω	Pass
	Return Loss(dB)	-28.2	-29.468	4.5%	Pass
	SAR Value for 1g(mW/g)	12.2	12.1	-0.8%	Pass
	SAR Value for 10g(mW/g)	5.76	5.72	-0.7%	Pass

Impedance Test-Head



Return Loss-Head



Test Laboratory: BTL

Date: 2020/6/11

System Check_H2300

Frequency: 2300 MHz; Duty Cycle: 1:1; Room Ambient Temperature: 23.0°C; Liquid Temperature: 22.0°C

Medium parameters used: $f = 2300$ MHz; $\sigma = 1.627$ S/m; $\epsilon_r = 39.436$; $\rho = 1000$ kg/m³

DASY5 Configuration:

- Area Scan Setting: Find Secondary Maximum Within: 2.0 dB and with a peak SAR value greater than 0.0012W/kg
- Electronics: DAE4 Sn1486; Calibrated: 2020/6/4
- Probe: EX3DV4 - SN7369; ConvF(7.92, 7.92, 7.92) @ 2300 MHz; Calibrated: 2020/5/29
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Phantom: ELI V5.0 (20deg probe tilt); Type: QD OVA 002 AA; Serial: 1240

Configuration/Pin=250mW/Area Scan (9x9x1): Measurement grid: dx=12mm, dy=12mm

Maximum value of SAR (measured) = 16.9 W/kg

Configuration/Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 104.0 V/m; Power Drift = 0.02 dB

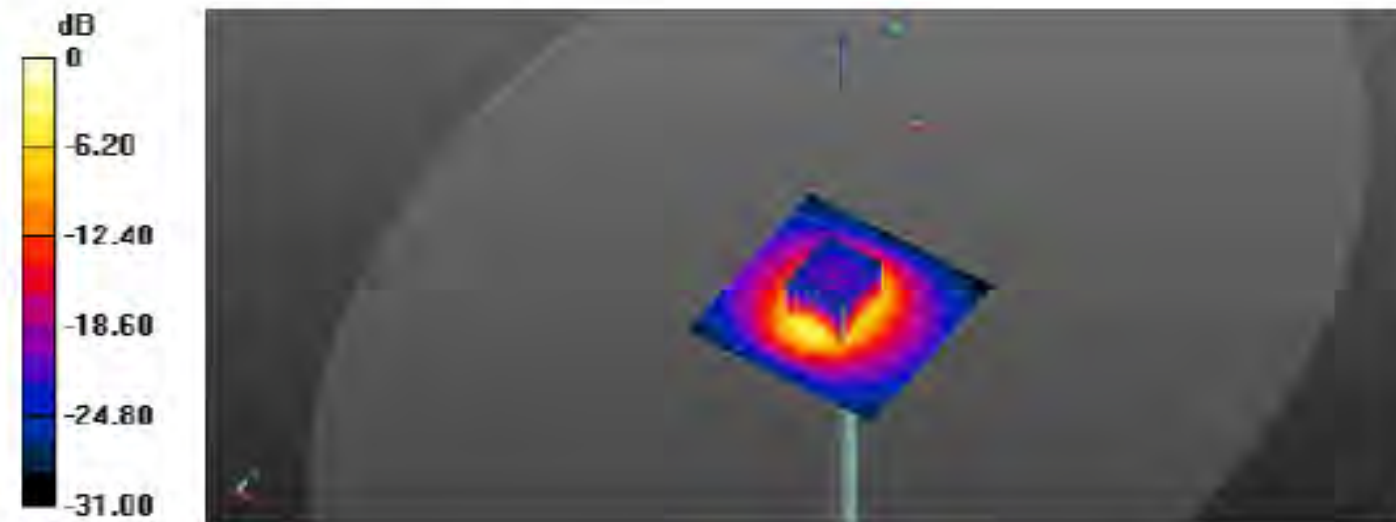
Peak SAR (extrapolated) = 23.7 W/kg

SAR(1 g) = 12.1 W/kg; SAR(10 g) = 5.76 W/kg

Smallest distance from peaks to all points 3 dB below = 9.2 mm

Ratio of SAR at M2 to SAR at M1 = 51.3%

Maximum value of SAR (measured) = 18.0 W/kg



Calibrator:

Aven Jo

Approver:

Peter Chen