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SN 1556	03-Jan-24(CTTL-SPEAG, No.24J02Z80002)	Jan-25
		Scheduled Calibration
ID #	Cal Date (Calibrated by Certificate No.)	
ID #	Cal Date (Calibrated by, Certificate No.)	
MY49071430	25-Dec-23 (CTTL, No. J23X13426)	Dec-24
		Dec-24 Dec-24
MY49071430 MY46110673	25-Dec-23 (CTTL, No. J23X13426) 25-Dec-23 (CTTL, No. J23X13425)	Dec-24 Dec-24 Jan-25
MY49071430 MY46110673 1040	25-Dec-23 (CTTL, No. J23X13426) 25-Dec-23 (CTTL, No. J23X13425) 22-Jan-24(SPEAG, No.OCP-DAK3.5-1040_Jan24)	Dec-24 Dec-24
MY49071430 MY46110673 1040 Name	25-Dec-23 (CTTL, No. J23X13426) 25-Dec-23 (CTTL, No. J23X13425) 22-Jan-24(SPEAG, No.OCP-DAK3.5-1040_Jan24) Function	Dec-24 Dec-24 Jan-25
MY49071430 MY46110673 1040 Name Zhao Jing	25-Dec-23 (CTTL, No. J23X13426) 25-Dec-23 (CTTL, No. J23X13425) 22-Jan-24(SPEAG, No.OCP-DAK3.5-1040_Jan24) Function SAR Test Engineer	Dec-24 Dec-24 Jan-25
	M&TE critical fo ID # 106276 101369 SN 7464	106276 17-May-24 (CTTL, No. J24X04107) 101369 17-May-24 (CTTL, No. J24X04107) SN 7464 22-Jan-24(SPEAG, No. EX-7464_Jan24)

Certificate No: 24J02Z000517

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Report No. : TESA2502000142EN Page: 27 of 49





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Glossarv:

TSL ConvF N/A

tissue simulating liquid sensitivity in TSL / NORMx,y,z not applicable or not measured

Calibration is Performed According to the Following Standards:

- a) IEC/IEEE 62209-1528, "Measurement Procedure for The Assessment of Specific Absorption Rate of Human Exposure to Radio Frequency Fields from Hand-held and Body-mounted Wireless Communication Devices- Part 1528: Human Models, Instrumentation and Procedures (Frequency range of 4 MHz to 10 GHz)", October 2020 b) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

c) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions: Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL: The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss: These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay: One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured: SAR measured at the stated antenna input power.
- SAR normalized: SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters: The measured TSL parameters are used to calculate the nominal SAR result

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%.

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Measurement Conditions

DASY system configuration, as far as not given on page 1. DASY Version DASY52 52.10.4 Extrapolation Advanced Extrapolation Triple Flat Phantom 5.1C Phantom **Distance Dipole Center - TSL** 10 mm with Spacer Zoom Scan Resolution dx, dy, dz = 5 mm

Head TSL parameters

Frequency

he following parameters and calculations were applied.				
	Temperature	Permittivity	Conductivity	
Nominal Head TSL parameters	22.0 °C	39.5	1.67 mho/m	
Measured Head TSL parameters	(22.0 ± 0.2) °C	40.3 ± 6 %	1.63 mho/m ± 6 %	
Head TSL temperature change during test	<1.0 °C			

2300 MHz ± 1 MHz

SAR result with Head TSL

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	12.2 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	49.7 W/kg ± 18.8 % (k=2)
SAR averaged over 10 cm^3 (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	5.91 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	23.9 W/kg ± 18.7 % (k=2)

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Appendix (Additional assessments outside the scope of CNAS L0570)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	46.6Ω- 1.65jΩ
Return Loss	- 28.1dB

General Antenna Parameters and Design

Electrical Delay (one direction) 1.0	75 ns
--------------------------------------	-------

After long term use with 100W radiated power, only a slight warming of the dipole near the feed-point can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard. No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feed-point may be damaged.

Additional EUT Data

Manufactured by	SPEAG
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Date: 2024-08-22

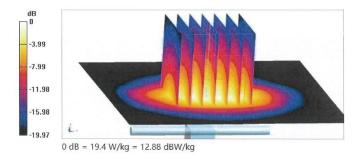
DASY5 Validation Report for Head TSL Test Laboratory: CTTL, Beijing, China DUT: Dipole 2300 MHz; Type: D2300V2; Serial: D2300V2 - SN: 1009 Communication System: UID 0, CW; Frequency: 2300 MHz Medium parameters used: f = 2300 MHz; $\sigma = 1.628$ S/m; $\epsilon_r = 40.31$; $\rho = 1000$ kg/m³ Phantom section: Right Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 SN7464; ConvF(7.46, 7.6, 7.77) @ 2300 MHz; Calibrated: 2024-01-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1556; Calibrated: 2024-01-03
- Phantom: MFP_V5.1C (20deg probe tilt); Type: QD 000 P51 Cx; Serial: 1062
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Dipole Calibration/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 98.33 V/m; Power Drift = -0.03 dB Peak SAR (extrapolated) = 23.3 W/kg

SAR(1 g) = 12.2 W/kg; SAR(10 g) = 5.91 W/kg Smallest distance from peaks to all points 3 dB below = 8.9 mm Ratio of SAR at M2 to SAR at M1 = 53.5% Maximum value of SAR (measured) = 19.4 W/kg



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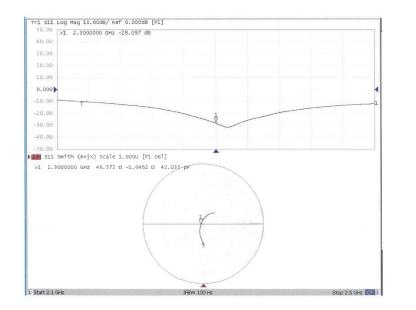






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Impedance Measurement Plot for Head TSL



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			ation Procedures for dipole validation kits	1.45
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	All calibrations have been humidity<70%.	conducted in	the closed laboratory facility: environment te	emperature (22±3)°C and
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-	humidity<70%.			Scheduled Calibration
-	humidity<70%. Calibration Equipment used Primary Standards Power Meter NRP2	(M&TE critical 1 ID # 106276	for calibration) Cal Date (Calibrated by, Certificate No.) 17-May-24 (CTTL, No. J24X04107)	
-	humidity<70%. Calibration Equipment used Primary Standards Power Meter NRP2 Power sensor NRP6A	(M&TE critical 1 ID # 106276 101369	for calibration) Cal Date (Calibrated by, Certificate No.) 17-May-24 (CTTL, No. J24X04107) 17-May-24 (CTTL, No. J24X04107)	Scheduled Calibration May-25 May-25
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-	humidity<70%. Calibration Equipment used Primary Standards Power Meter NRP2 Power sensor NRP6A Reference Probe EX3DV4	(M&TE critical 1 ID # 106276 101369	for calibration) Cal Date (Calibrated by, Certificate No.) 17-May-24 (CTTL, No. J24X04107) 17-May-24 (CTTL, No. J24X04107)	Scheduled Calibration May-25 May-25
-	humidity<70%. Calibration Equipment used Primary Standards Power Meter NRP2 Power sensor NRP6A Reference Probe EX3DV4 DAE4 Secondary Standards	(M&TE critical f 10 # 106276 101369 SN 7464 SN 1556 ID #	for calibration) Cal Date (Calibrated by, Certificate No.) 17-May-24 (CTTL, No. J24X04107) 17-May-24 (CTTL, No. J24X04107) 22-Jan-24 (CTTL-SPEAG, No. EX-7464_Jan24) 03-Jan-24 (CTTL-SPEAG, No.24J02Z80002) Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration May-25 May-25 Jan-25
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Report No. : TESA2502000142EN Page: 33 of 49





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Glossary:



tissue simulating liquid sensitivity in TSL / NORMx,y,z not applicable or not measured

Calibration is Performed According to the Following Standards:

- a) IEC/IEEE 62209-1528, "Measurement Procedure for The Assessment of Specific Absorption Rate of Human Exposure to Radio Frequency Fields from Hand-held and Body-mounted Wireless Communication Devices- Part 1528: Human Models, Instrumentation and
- Procedures (Frequency range of 4 MHz to 10 GHz)", October 2020 b) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

c) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions: Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL: The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss: These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay: One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured: SAR measured at the stated antenna input power.
- SAR normalized: SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters: The measured TSL parameters are used to calculate the nominal SAR result.

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%.

Certificate No: 24J02Z000519

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Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY52	52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Triple Flat Phantom 5.1C	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2600 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.0	1.96 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	39.8 ± 6 %	2.01 mho/m ± 6 %
Head TSL temperature change during test	<1.0 °C		

SAR result with Head TSL

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	13.8 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	54.8 W/kg ± 18.8 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	6.25 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	24.9 W/kg ± 18.7 % (k=2)

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Appendix (Additional assessments outside the scope of CNAS L0570)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	46.9Ω- 2.96jΩ
Return Loss	- 27.1dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.058 ns	
----------------------------------	----------	--

After long term use with 100W radiated power, only a slight warming of the dipole near the feed-point can be measured

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some connected to the second arm of the dipole. The antenna is therefore short-circuited for UC-signals. On son of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard. No excessive force must be applied to the dipole arms, because they might bend or the soldered connections provide fixed asian they be demond connections near the feed-point may be damaged.

Additional EUT Data

Manufactured by	SPEAG
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DASY5 Validation Report for Head TSL

Date: 2024-08-21

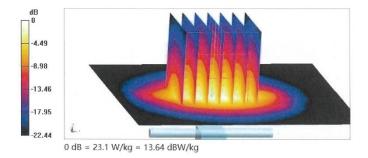
Test Laboratory: CTTL, Beijing, China DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2 - SN: 1014 Communication System: UID 0, CW; Frequency: 2600 MHz Medium parameters used: f = 2600 MHz; $\sigma = 2.01 \text{ S/m}$; $\epsilon_r = 39.82$; $\rho = 1000 \text{ kg/m}^3$ Phantom section: Right Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 SN7464; ConvF(7.34, 7.45, 7.58) @ 2600 MHz; Calibrated: 2024-01-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- . Electronics: DAE4 Sn1556; Calibrated: 2024-01-03
- Phantom: MFP_V5.1C (20deg probe tilt); Type: QD 000 P51 Cx; Serial: 1062
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Dipole Calibration/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 101.8 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 28.5 W/kg SAR(1 g) = 13.8 W/kg; SAR(10 g) = 6.25 W/kg Smallest distance from peaks to all points 3 dB below = 8.5 mm Ratio of SAR at M2 to SAR at M1 = 49.6% Maximum value of SAR (measured) = 23.1 W/kg



Certificate No: 24J02Z000519

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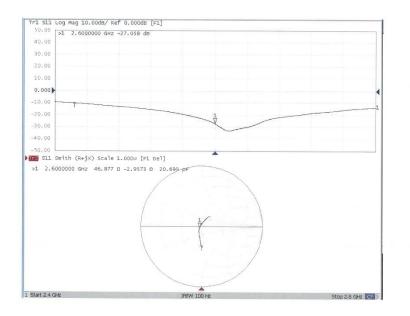
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Impedance Measurement Plot for Head TSL



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Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORMx,y,z
N/A	not applicable or not measured

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Additional Documentation:

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- Electrical Delay: One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured: SAR measured at the stated antenna input power.
- SAR normalized: SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters: The measured TSL parameters are used to calculate the nominal SAR result.

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%.

Certificate No: 24J02Z000793

Page 2 of 6

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Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY52	52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Triple Flat Phantom 5.1C	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy = 4 mm, dz = 1.4 mm	Graded Ratio = 1.4 (Z direction)
Frequency	3500 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	37.9	2.91 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	38.0 ± 6 %	2.92 mho/m ± 6 %
Head TSL temperature change during test	<1.0 °C		

SAR result with Head TSL

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	6.60 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	66.0 W/kg ± 24.4 % (<i>k</i> =2)
SAR averaged over 10 cm^3 (10 g) of Head TSL	Condition	
SAR measured	100 mW input power	2.58 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	25.8 W/kg ± 24.2 % (k=2)

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Appendix (Additional assessments outside the scope of CNAS L0570)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	55.5Ω- 3.79jΩ	
Return Loss	- 24.0dB	

General Antenna Parameters and Design

Electrical Delay (one direction) 1.038 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feed-point can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard. No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feed-point may be damaged.

Additional EUT Data

Manufactured by SPEAG

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DASY5 Validation Report for Head TSL

Date: 2024-09-26

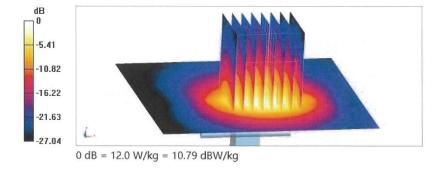
Test Laboratory: CTTL, Beijing, China DUT: Dipole 3500 MHz; Type: D3500V2; Serial: D3500V2 - SN: 1009 Communication System: UID 0, CW; Frequency: 3500 MHz Medium parameters used: f = 3500 MHz; σ = 2.923 S/m; ϵ_r = 38.02; ρ = 1000 kg/m³ Phantom section: Right Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007) **DASY5** Configuration:

- Probe: EX3DV4 SN7464; ConvF(6.73, 6.82, 6.94) @ 3500 MHz; Calibrated: 2024-01-22
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1556; Calibrated: 2024-01-03
- Phantom: MFP_V5.1C (20deg probe tilt); Type: QD 000 P51 Cx; Serial: 1062
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Dipole Calibration /Pin=100mW, d=10mm, f=3500 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 53.08 V/m; Power Drift = 0.02 dB Peak SAR (extrapolated) = 16.2 W/kg SAR(1 g) = 6.6 W/kg; SAR(10 g) = 2.58 W/kg Smallest distance from peaks to all points 3 dB below = 8.2 mm Ratio of SAR at M2 to SAR at M1 = 77.6% Maximum value of SAR (measured) = 12.0 W/kg





Certificate No: 24J02Z000793

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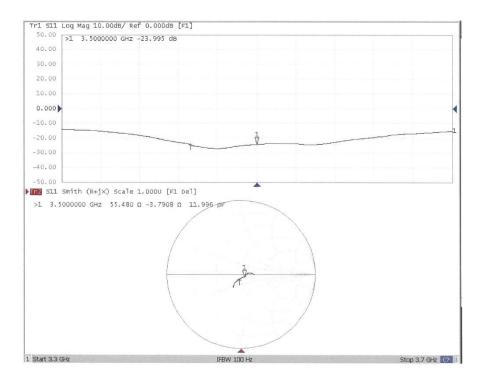
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Impedance Measurement Plot for Head TSL



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	Client SGS			4J02Z000932
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	Object	D3700	V2 - SN: 1057	
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	pages and are part of the con- All calibrations have been humidity<70%. Calibration Equipment used Primary Standards Power Meter NRP2 Power sensor NRP6A Reference Probe EX3DV4 DAE4 Secondary Standards Signal Generator E4438C NetworkAnalyzer E5071C OCP DAK-3.5(weighted)	ertificate. conducted in a a (M&TE critical f 106276 101369 SN 7517 SN 1588 ID # MY49071430 MY46110673 1040 Name	the closed laboratory facility: environment the closed laboratory facility: environment the corcalibration) Cal Date (Calibrated by, Certificate No.) 17-May-24 (CTTL, No. J24X04107) 17-May-24 (CTTL, No. J24X04107) 21-Feb-24(CTTL-SPEAG, No. 24J02280008) 13-Sep-24(CTTL-SPEAG, No. 24J0228000713) Cal Date (Calibrated by, Certificate No.) 25-Dec-23 (CTTL, No. J23X13426) 25-Dec-23 (CTTL, No. J23X13425) 22-Jan-24(SPEAG, No.OCP-DAK3.5-1040_Jan24) Function	temperature (22±3)°C and Scheduled Calibration May-25 May-25 Feb-25 Sep-25 Scheduled Calibration Dec-24 Dec-24 Jan-25

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Glossary:

TSL ConvF N/A

tissue simulating liquid sensitivity in TSL / NORMx,y,z not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEC/IEEE 62209-1528, "Measurement Procedure for The Assessment of Specific Absorption Rate of Human Exposure to Radio Frequency Fields from Hand-held and Body-mounted

- Wireless Communication Devices- Part 1528: Human Models, Instrumentation and Procedures (Frequency range of 4 MHz to 10 GHz)", October 2020
- b) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

c) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions: Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL: The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss: These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay: One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured: SAR measured at the stated antenna input power.
- SAR normalized: SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters: The measured TSL parameters are used to calculate the nominal SAR result.

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%.

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Measurement Conditions

DASY Version	DASY52	52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Triple Flat Phantom 5.1C	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy = 4 mm, dz = 1.4 mm	Graded Ratio = 1.4 (Z direction)
Frequency	3700 MHz ± 1 MHz	

Head TSL parameters at 3700 MHz

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	37.7	3.12 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	36.9 ± 6 %	3.03 mho/m ± 6 %
Head TSL temperature change during test	<1.0 °C		

المعالمة

SAR result with Head TSL at 3700 MHz

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	6.74 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	67.5 W/kg ± 24.4 % (k=2)
SAR averaged over 10 cm^3 (10 g) of Head TSL	Condition	
SAR measured	100 mW input power	2.46 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	24.5 W/kg ± 24.2 % (k=2)

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Appendix (Additional assessments outside the scope of CNAS L0570)

Antenna Parameters with Head TSL at 3700 MHz

Impedance, transformed to feed point	51.5Ω+ 3.52jΩ	
Return Loss	- 28.5dB	

General Antenna Parameters and Design

Electrical Delay (one direction)	1.042 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feed-point can be measured

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard. No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feed-point may be damaged. connections near the feed-point may be damaged.

Additional EUT Data

Manufactured by	SPEAG
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Report No. : TESA2502000142EN Page: 48 of 49





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DASY5 Validation Report for Head TSL

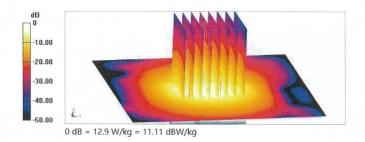
Date: 2024-11-21

Test Laboratory: CTTL, Beijing, China DUT: Dipole 3700 MHz; Type: D3700V2; Serial: D3700V2 - SN: 1057 Communication System: UID 0, CW; Frequency: 3700 MHz; Medium parameters used: f = 3700 MHz; σ = 3.032 S/m; ϵ r = 36.89; ρ = 1000 kg/m³ Phantom section: Right Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007) **DASY5** Configuration:

- Probe: EX3DV4 SN7517; ConvF(6.56, 6.56, 6.56) @ 3700 MHz; Calibrated: 2024-02-21
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1588; Calibrated: 2024-09-13
- Phantom: MFP_V5.1C (20deg probe tilt); Type: QD 000 P51 Cx; Serial: .
- 1062
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Dipole Calibration /Pin=100mW, d=10mm, f=3700 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm Reference Value = 69.51 V/m; Power Drift = -0.05 dB Peak SAR (extrapolated) = 18.1 W/kg SAR(1 g) = 6.74 W/kg; SAR(10 g) = 2.46 W/kg Smallest distance from peaks to all points 3 dB below = 8 mm Ratio of SAR at M2 to SAR at M1 = 75.4% Maximum value of SAR (measured) = 12.9 W/kg



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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.

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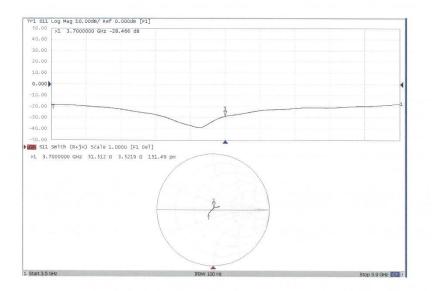
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Impedance Measurement Plot for Head TSL



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- End of report -

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