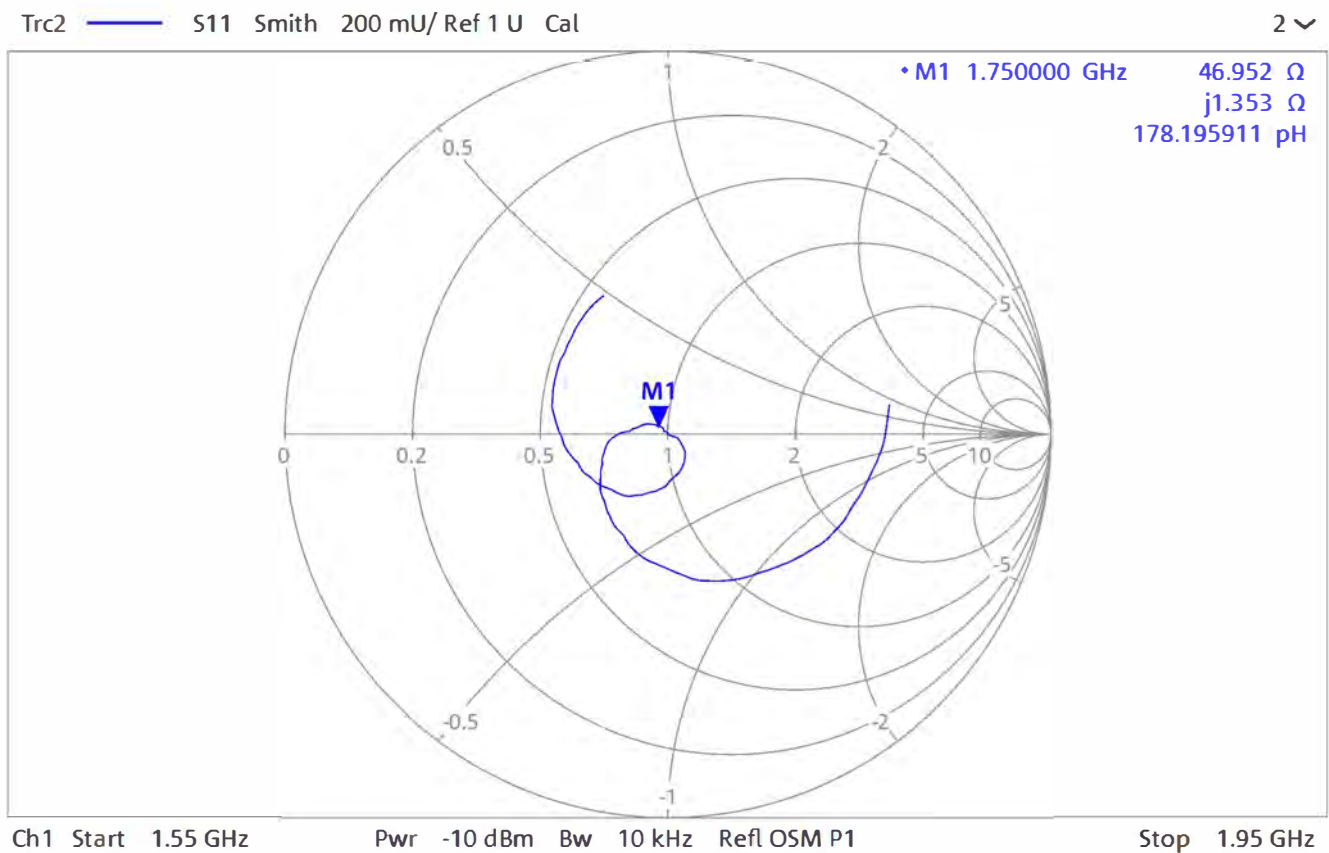
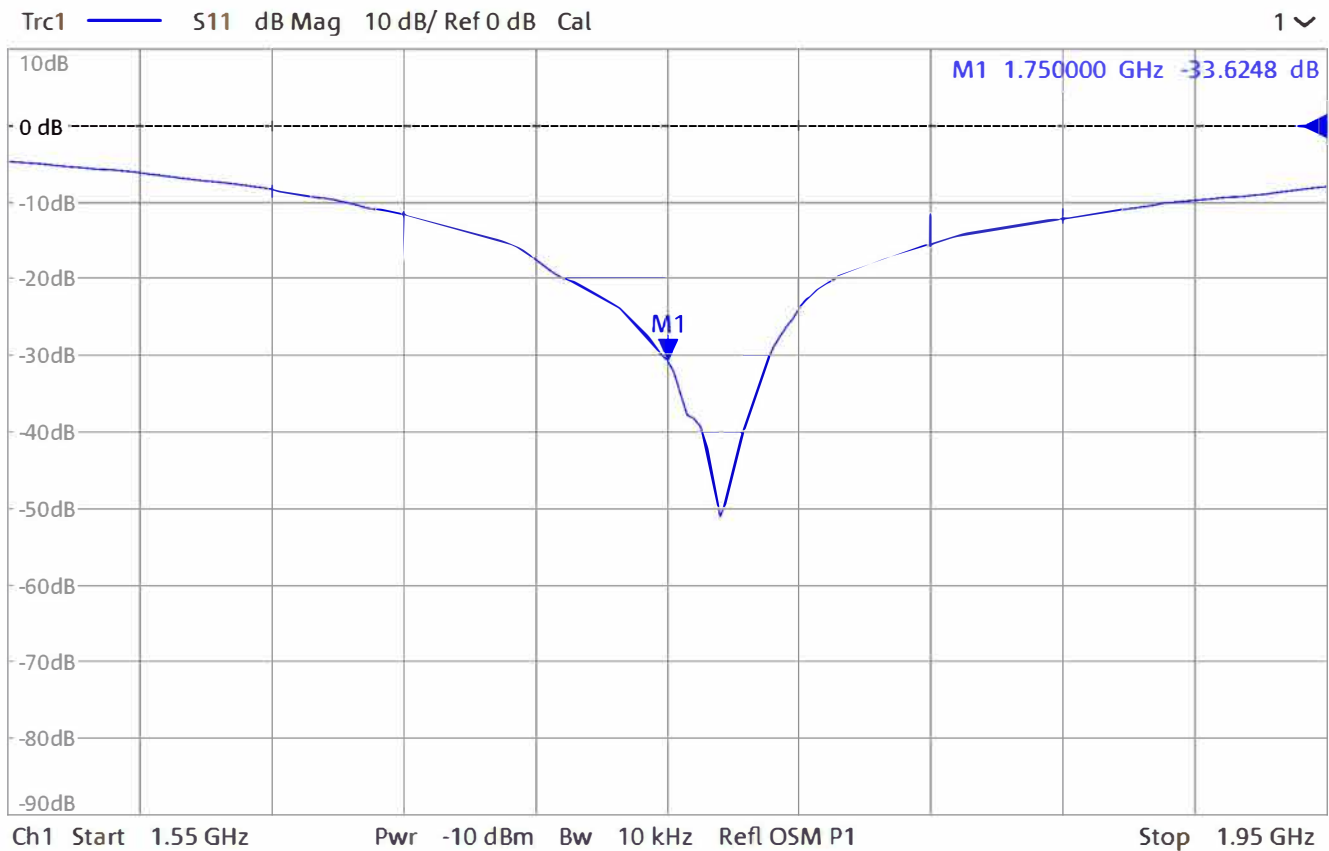


<Dipole Verification Data>
Head 1750MHz _2025/11/5



Client: 7layers

Certificate No: 24J02Z000857

CALIBRATION CERTIFICATE

Object D1950V3 - SN: 1229

Calibration Procedure(s) FF-Z11-003-01
Calibration Procedures for dipole validation kits

Calibration date: November 7, 2024

This calibration Certificate documents the traceability to national standards, which realize the physical units of measurements (SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22±3)°C and humidity<70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRP2	106276	17-May-24 (CTTL, No. J24X04107)	May-25
Power sensor NRP6A	101369	17-May-24 (CTTL, No. J24X04107)	May-25
Reference Probe EX3DV4	SN 7517	21-Feb-24(CTTL-SPEAG, No. 24J02Z80008)	Feb-25
DAE4	SN 1588	13-Sep-24(CTTL-SPEAG, No. 24J02Z000713)	Sep-25
Secondary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Signal Generator E4438C	MY49071430	25-Dec-23 (CTTL, No. J23X13426)	Dec-24
NetworkAnalyzer E5071C	MY46110673	25-Dec-23 (CTTL, No. J23X13425)	Dec-24
OCP DAK-3.5(weighted)	1040	22-Jan-24(SPEAG, No.OCP-DAK3.5-1040_Jan24)	Jan-25

	Name	Function	Signature
Calibrated by:	Zhao Jing	SAR Test Engineer	
Reviewed by:	Lin Jun	SAR Test Engineer	
Approved by:	Qi Dianyuan	SAR Project Leader	

Issued: November 15, 2024

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Tel: +86-10-62304633-2117
E-mail: cttl@chinattl.com <http://www.caict.ac.cn>

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM _{x,y,z}
N/A	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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<http://www.caict.ac.cn>**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	1950 MHz $\pm$ 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	40.0	1.40 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	40.7 $\pm$ 6 %	1.39 mho/m $\pm$ 6 %
Head TSL temperature change during test	<1.0 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	10.1 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	40.8 W/kg $\pm$ 18.8 % (k=2)
SAR averaged over 10 cm³ (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	5.18 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	20.9 W/kg $\pm$ 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	$47.3\Omega + 2.24j\Omega$
Return Loss	- 28.9dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.098 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: 2024-11-07

Test Laboratory: CTTL, Beijing, China

DUT: Dipole 1950 MHz; Type: D1950V2; Serial: D1950V2 - SN: 1229

Communication System: UID 0, CW; Frequency: 1950 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 1950$ MHz; $\sigma = 1.385$ S/m; $\epsilon_r = 40.68$; $\rho = 1000$ kg/m³

Phantom section: Right Section

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7517; ConvF(7.95, 7.95, 7.95) @ 1950 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/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 103.1 V/m; Power Drift = 0.00 dB

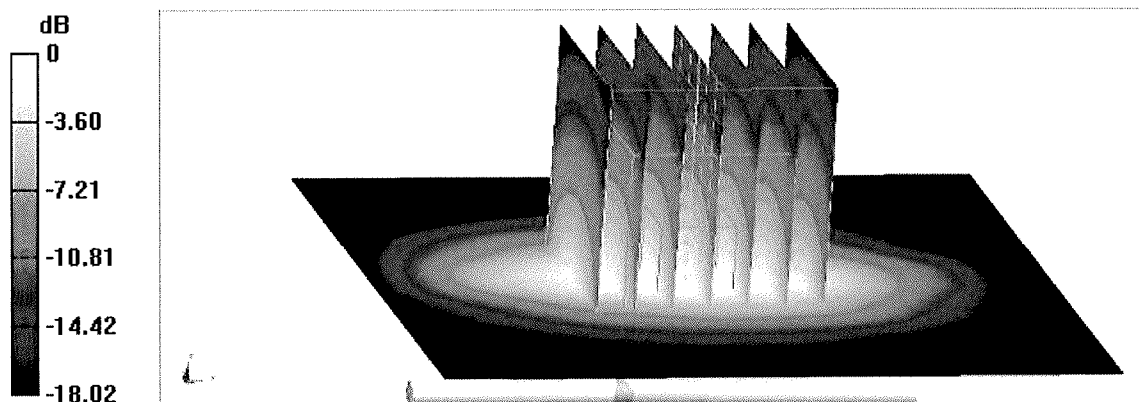
Peak SAR (extrapolated) = 19.3 W/kg

SAR(1 g) = 10.1 W/kg; SAR(10 g) = 5.18 W/kg

Smallest distance from peaks to all points 3 dB below = 9.1 mm

Ratio of SAR at M2 to SAR at M1 = 53.3%

Maximum value of SAR (measured) = 15.9 W/kg





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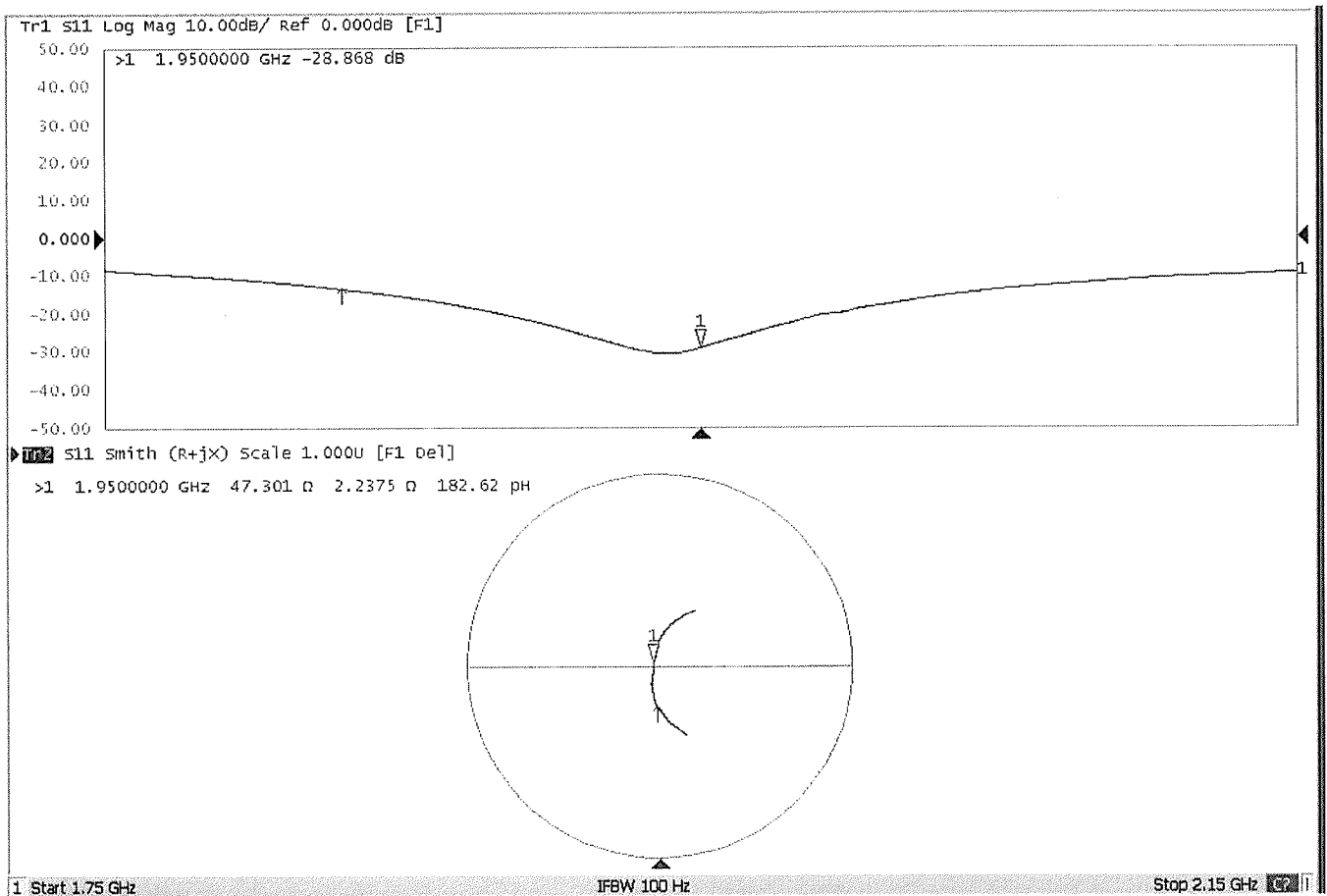
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Impedance Measurement Plot for Head TSL



D1950V3 – SN: 1229 Extended Dipole Calibrations

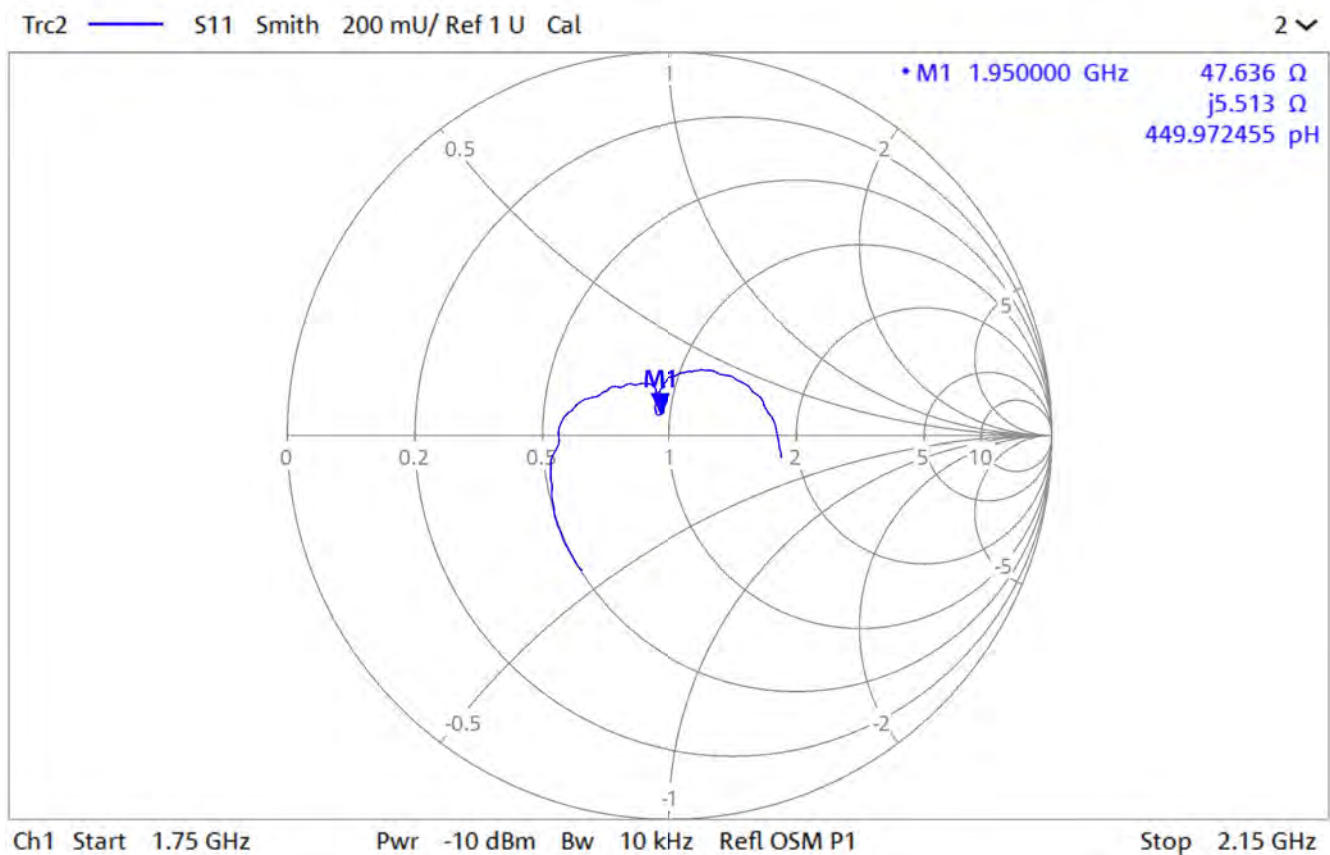
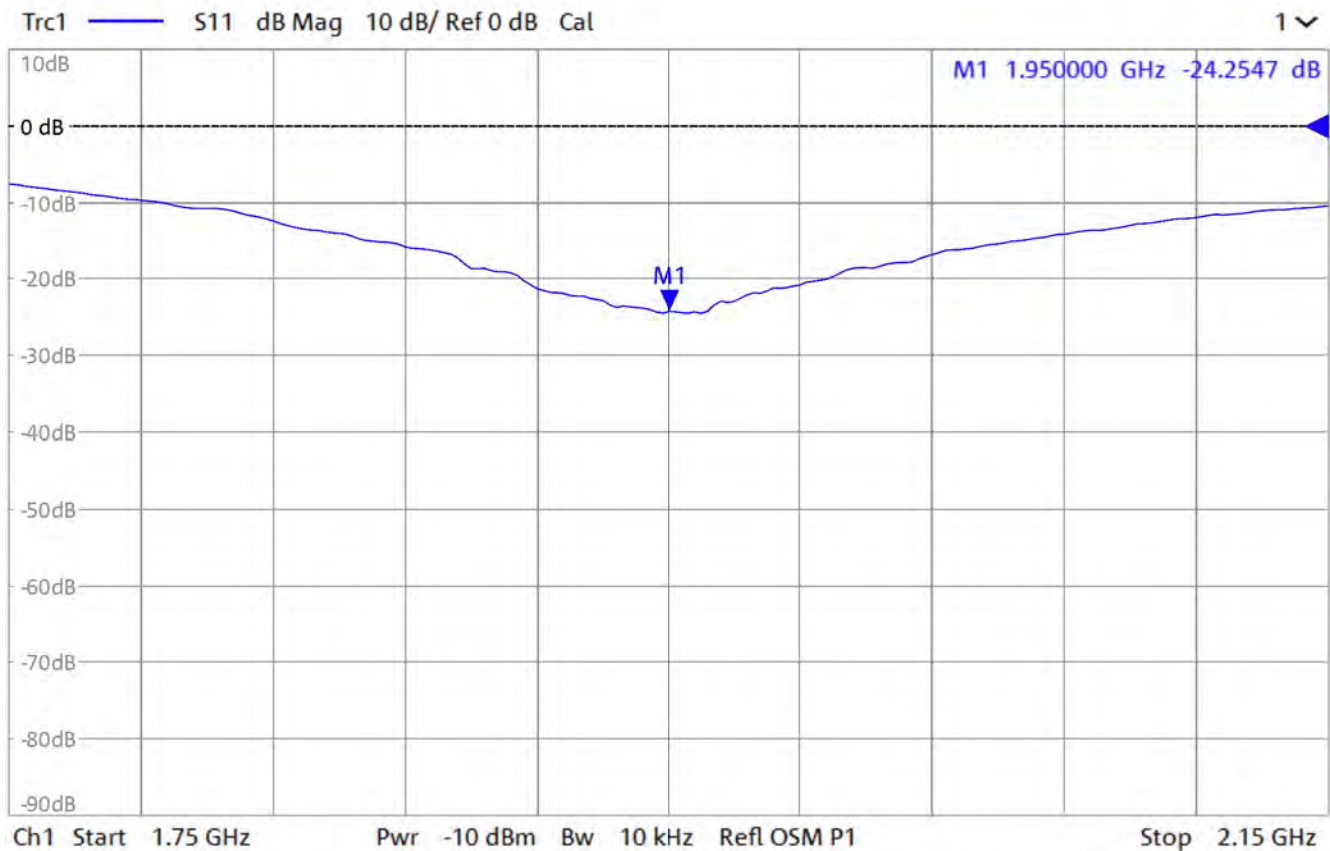
Referring to KDB 865664 D01, if dipoles are verified in return loss ($\leq -20\text{dB}$, within 20% of prior calibration), and in impedance (within 5 ohm of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

D1950V3 – SN: 1229						
1950MHz						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
2024/11/7	-28.87		47.30		2.24	
2025/11/6	-24.25	-15.98	47.64	0.34	5.51	3.28

<Justification of the extended calibration>

The return loss is $\leq -20\text{dB}$, within 20% of prior calibration; the impedance is within 5 ohm of prior calibration. Therefore the verification result should support extended calibration.

<Dipole Verification Data>
Head 1950MHz _2025/11/6



Client: **7layers**

Certificate No: **24J02Z000858**

CALIBRATION CERTIFICATE

Object **D2300V2 - SN: 1110**

Calibration Procedure(s) **FF-Z11-003-01**
Calibration Procedures for dipole validation kits

Calibration date: **November 7, 2024**

This calibration Certificate documents the traceability to national standards, which realize the physical units of measurements (SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

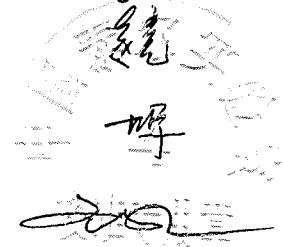
All calibrations have been conducted in the closed laboratory facility: environment temperature $(22\pm3)^{\circ}\text{C}$ and humidity $<70\%$.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRP2	106276	17-May-24 (CTTL, No. J24X04107)	May-25
Power sensor NRP6A	101369	17-May-24 (CTTL, No. J24X04107)	May-25
Reference Probe EX3DV4	SN 7517	21-Feb-24(CTTL-SPEAG, No. 24J02Z80008)	Feb-25
DAE4	SN 1588	13-Sep-24(CTTL-SPEAG, No. 24J02Z000713)	Sep-25
Secondary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Signal Generator E4438C	MY49071430	25-Dec-23 (CTTL, No. J23X13426)	Dec-24
NetworkAnalyzer E5071C	MY46110673	25-Dec-23 (CTTL, No. J23X13425)	Dec-24
OCP DAK-3.5(weighted)	1040	22-Jan-24(SPEAG, No.OCP-DAK3.5-1040_Jan24)	Jan-25

	Name	Function
Calibrated by:	Zhao Jing	SAR Test Engineer
Reviewed by:	Lin Jun	SAR Test Engineer
Approved by:	Qi Dianyuan	SAR Project Leader

Signature



Issued: November 15, 2024

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Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM _{x,y,z}
N/A	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	
Phantom	Triple Flat Phantom 5.1C	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2300 MHz $\pm$ 1 MHz	

Head TSL parameters

The 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 $\pm$ 0.2) °C	39.3 $\pm$ 6 %	1.65 mho/m $\pm$ 6 %
Head TSL temperature change during test	<1.0 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (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	49.1 W/kg $\pm$ 18.8 % (k=2)
SAR averaged over 10 cm³ (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	5.78 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	23.2 W/kg $\pm$ 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	47.9Ω+ 3.82jΩ
Return Loss	- 27.1dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.071 ns
----------------------------------	----------

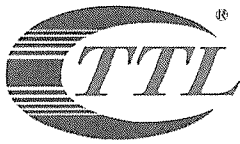
After long term use with 100W radiated power, only a slight warming of the dipole near the feed-point can be measured.

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

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DASY5 Validation Report for Head TSL

Date: 2024-11-07

Test Laboratory: CTTL, Beijing, China

DUT: Dipole 2300 MHz; Type: D2300V2; Serial: D2300V2 - SN: 1110

Communication System: UID 0, CW; Frequency: 2300 MHz

Medium parameters used: $f = 2300$ MHz; $\sigma = 1.648$ S/m; $\epsilon_r = 39.33$; $\rho = 1000$ kg/m³

Phantom section: Right Section

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7517; ConvF(7.66, 7.66, 7.66) @ 2300 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/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 105.1 V/m; Power Drift = -0.03 dB

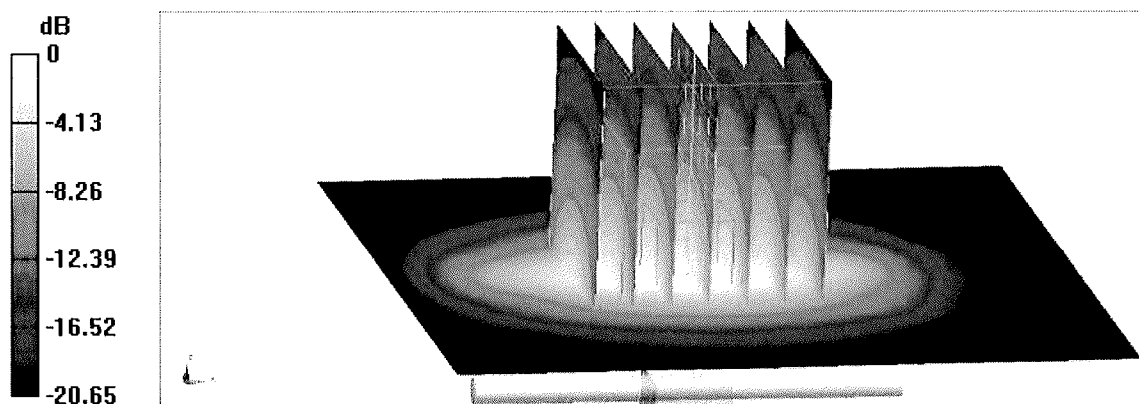
Peak SAR (extrapolated) = 24.4 W/kg

SAR(1 g) = 12.2 W/kg; SAR(10 g) = 5.78 W/kg

Smallest distance from peaks to all points 3 dB below = 8.9 mm

Ratio of SAR at M2 to SAR at M1 = 50.7%

Maximum value of SAR (measured) = 20.0 W/kg



0 dB = 20.0 W/kg = 13.01 dBW/kg



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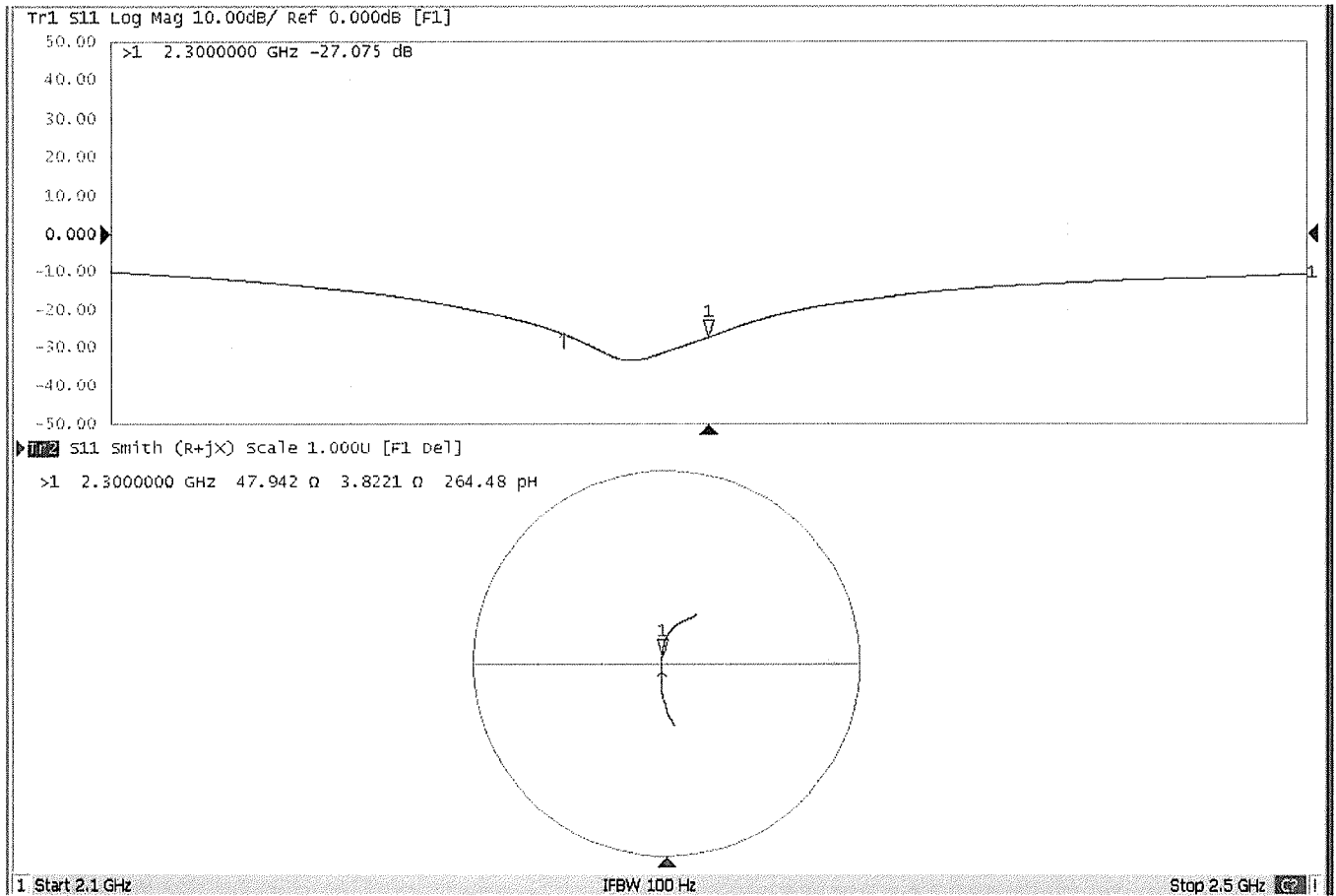
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Tel: +86-10-62304633-2117

E-mail: emf@caict.ac.cn

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Impedance Measurement Plot for Head TSL



D2300V2 – SN: 1110 Extended Dipole Calibrations

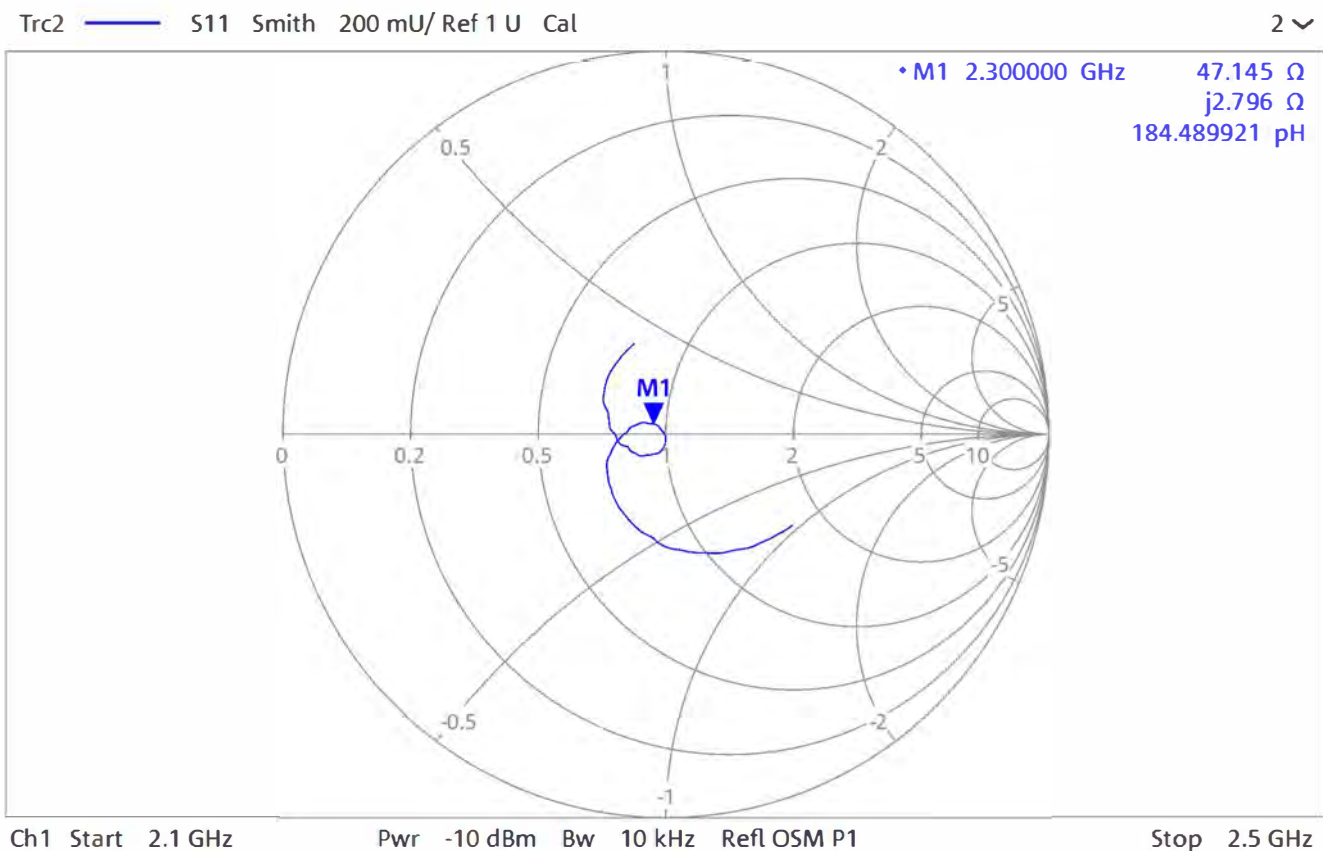
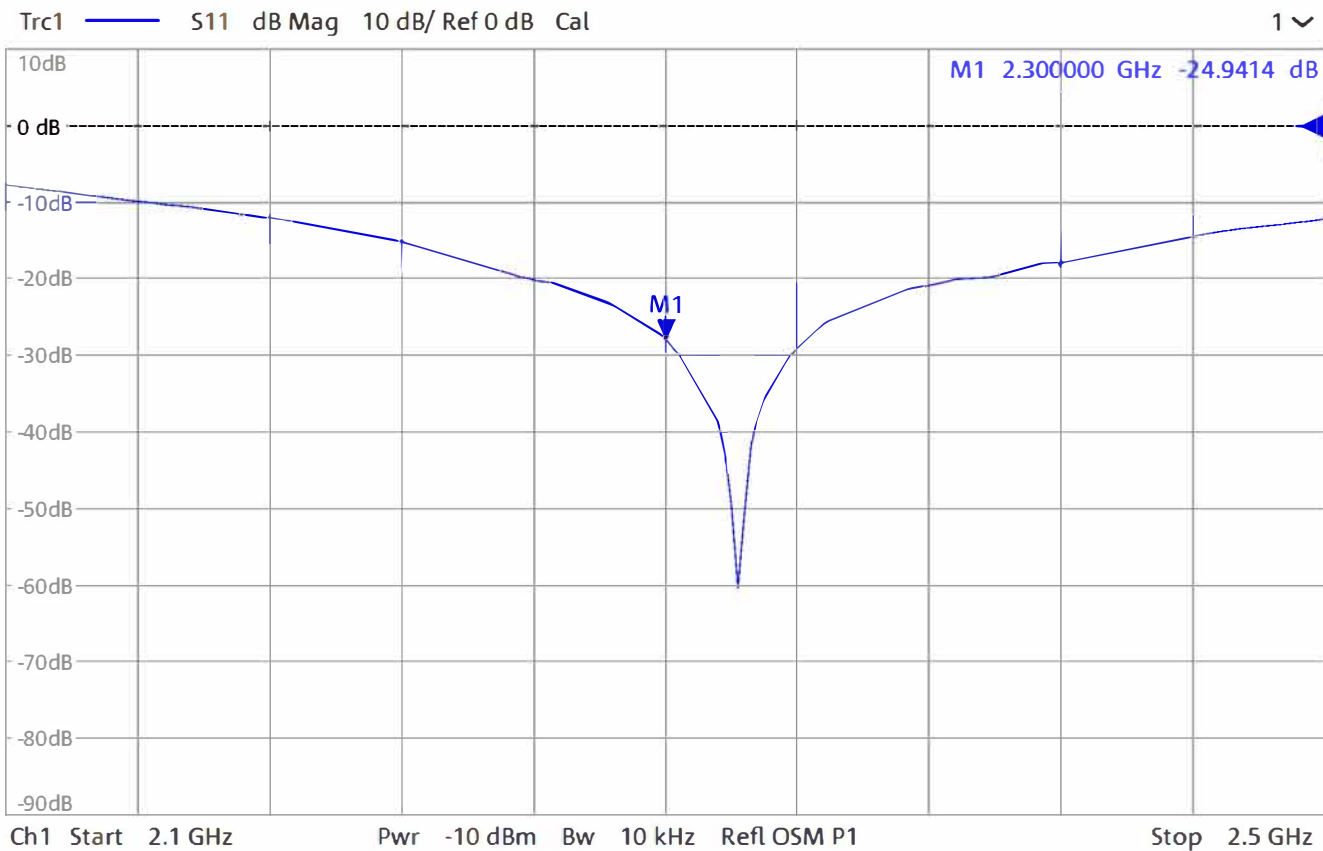
Referring to KDB 865664 D01, if dipoles are verified in return loss ($\leq -20\text{dB}$, within 20% of prior calibration), and in impedance (within 5 ohm of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

D2300V2 – SN: 1110						
2300MHz						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
2024/11/7	-27.08		47.94		3.82	
2025/11/6	-24.94	-7.88	47.15	-0.80	2.80	-1.03

<Justification of the extended calibration>

The return loss is $\leq -20\text{dB}$, within 20% of prior calibration; the impedance is within 5 ohm of prior calibration. Therefore the verification result should support extended calibration.

<Dipole Verification Data>
Head 2300MHz _2025/11/6



Client **7layers**

Certificate No: **24J02Z000859**

CALIBRATION CERTIFICATE

Object D2450V2 - SN: 1048

Calibration Procedure(s) FF-Z11-003-01
Calibration Procedures for dipole validation kits

Calibration date: November 6, 2024

This calibration Certificate documents the traceability to national standards, which realize the physical units of measurements (SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

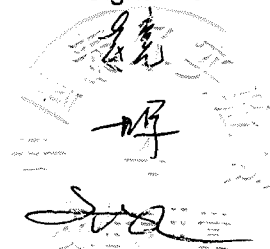
All calibrations have been conducted in the closed laboratory facility: environment temperature (22±3)°C and humidity<70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRP2	106276	17-May-24 (CTTL, No. J24X04107)	May-25
Power sensor NRP6A	101369	17-May-24 (CTTL, No. J24X04107)	May-25
Reference Probe EX3DV4	SN 7517	21-Feb-24(CTTL-SPEAG, No. 24J02Z80008)	Feb-25
DAE4	SN 1588	13-Sep-24(CTTL-SPEAG, No. 24J02Z000713)	Sep-25
Secondary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Signal Generator E4438C	MY49071430	25-Dec-23 (CTTL, No. J23X13426)	Dec-24
NetworkAnalyzer E5071C	MY46110673	25-Dec-23 (CTTL, No. J23X13425)	Dec-24
OCP DAK-3.5(weighted)	1040	22-Jan-24(SPEAG, No.OCP-DAK3.5-1040_Jan24)	Jan-25

	Name	Function
Calibrated by:	Zhao Jing	SAR Test Engineer
Reviewed by:	Lin Jun	SAR Test Engineer
Approved by:	Qi Dianyuan	SAR Project Leader

Signature



Issued: November 15, 2024

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Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM _{x,y,z}
N/A	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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E-mail: cttl@chinattl.com

<http://www.caict.ac.cn>**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	2450 MHz $\pm$ 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.2	1.80 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	40.1 $\pm$ 6 %	1.81 mho/m $\pm$ 6 %
Head TSL temperature change during test	<1.0 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	13.3 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	53.3 W/kg $\pm$ 18.8 % (<i>k</i>=2)
SAR averaged over 10 cm³ (10 g) of Head TSL	Condition	
SAR measured	250 mW input power	6.14 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	24.6 W/kg $\pm$ 18.7 % (<i>k</i>=2)



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Appendix (Additional assessments outside the scope of CNAS L0570)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	47.4Ω+ 9.16jΩ
Return Loss	- 20.2dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.059 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

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DASY5 Validation Report for Head TSL

Date: 2024-11-06

Test Laboratory: CTTL, Beijing, China

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN: 1048

Communication System: UID 0, CW; Frequency: 2450 MHz

Medium parameters used: $f = 2450$ MHz; $\sigma = 1.809$ S/m; $\epsilon_r = 40.08$; $\rho = 1000$ kg/m³

Phantom section: Right Section

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7517; ConvF(7.37, 7.37, 7.37) @ 2450 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/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 107.2 V/m; Power Drift = 0.00 dB

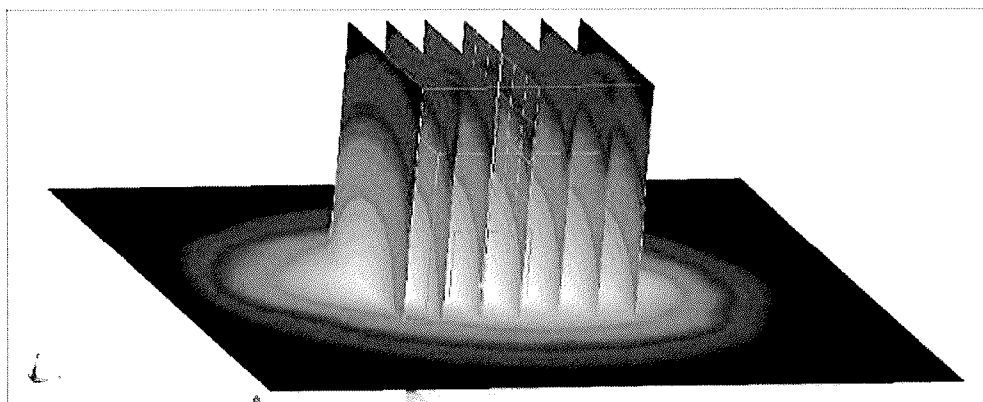
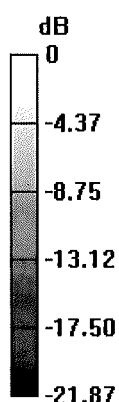
Peak SAR (extrapolated) = 27.1 W/kg

SAR(1 g) = 13.3 W/kg; SAR(10 g) = 6.14 W/kg

Smallest distance from peaks to all points 3 dB below = 8.5 mm

Ratio of SAR at M2 to SAR at M1 = 49.5%

Maximum value of SAR (measured) = 22.1 W/kg



0 dB = 22.1 W/kg = 13.44 dBW/kg



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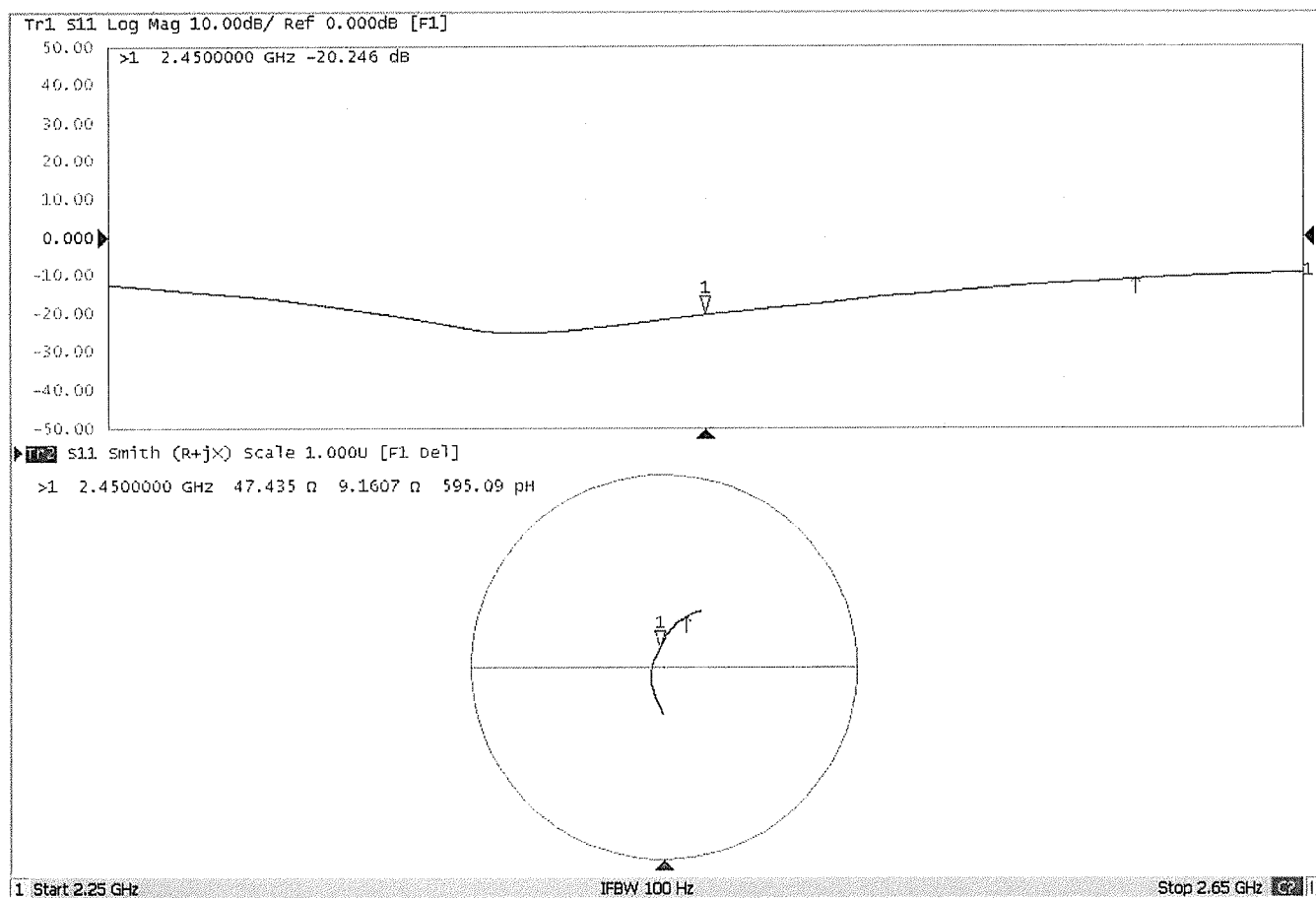
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Impedance Measurement Plot for Head TSL



D2450V2 – SN: 1048 Extended Dipole Calibrations

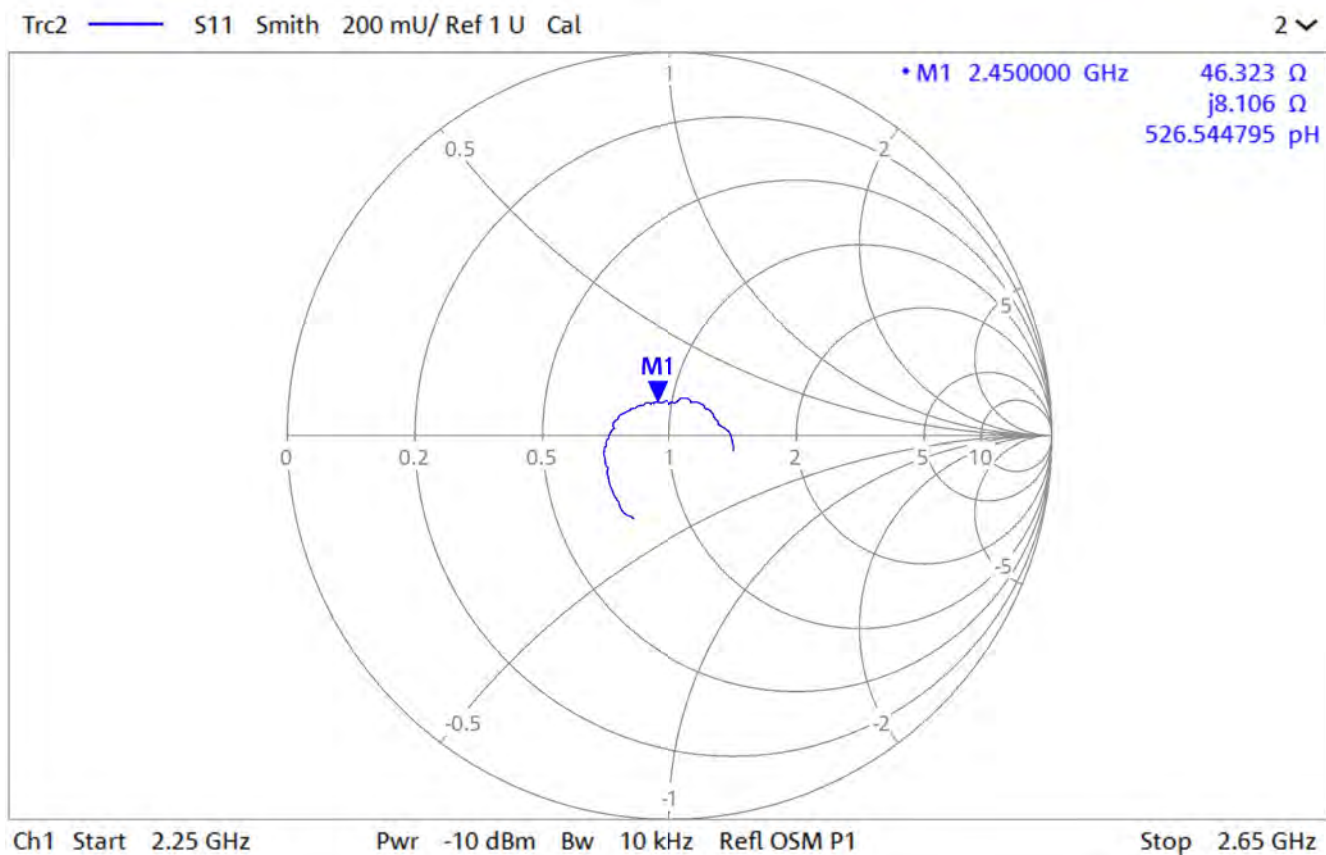
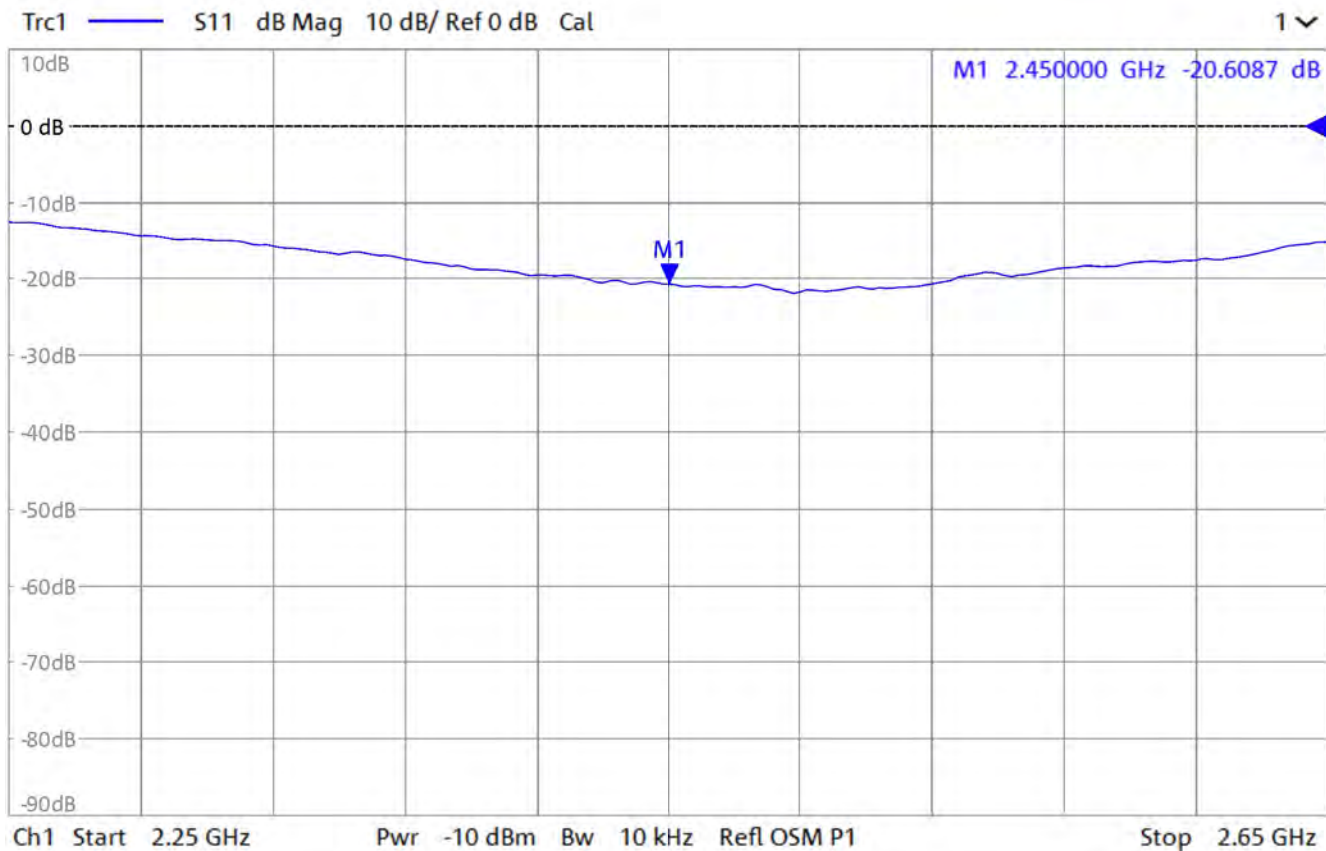
Referring to KDB 865664 D01, if dipoles are verified in return loss ($\leq -20\text{dB}$, within 20% of prior calibration), and in impedance (within 5 ohm of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

D2450V2 – SN: 1048						
2450MHz						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
2024/11/6	-20.25		47.44		9.16	
2025/11/5	-20.61	1.79	46.32	-1.11	8.11	-1.05

<Justification of the extended calibration>

The return loss is $\leq -20\text{dB}$, within 20% of prior calibration; the impedance is within 5 ohm of prior calibration. Therefore the verification result should support extended calibration.

<Dipole Verification Data>
Head 2450MHz _2025/11/5





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Accreditation No.: **SCS 0108**

Client

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Certificate No.

D2550V2-1022_Jul25

CALIBRATION CERTIFICATE

Object **D2550V2 - SN: 1022**

Calibration procedure(s) **QA CAL-05.v12**
Calibration Procedure for SAR Validation Sources between 0.7 - 3 GHz

Calibration date **July 4, 2025**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
 The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature $(22 \pm 3)^{\circ}\text{C}$ and humidity $< 70\%$.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Cal
Power Sensor R&S NRP-33T	SN: 100967	26-Mar-25 (No. 217-04290)	Mar-26
Power Sensor R&S NRP18A	SN: 101859	06-Feb-25 (No. 4030A315009541)	Feb-26
Spectrum Analyzer R&S FSV40	SN: 101832	29-Jan-25 (No. 4030A315009658)	Jan-26
3.5mm mismatch combination	SN: 1152	24-Mar-25 (No. 217-04293)	Mar-26
OCP DAK-12	SN: 1016	24-Sept-24 (No. OCP-DAK12-1016_Sep24)	Sep-25
OCP DAK-3.5	SN: 1249	23-Sept-24 (No. OCP-DAK3.5-1249_Sep24)	Sep-25
Reference Probe EX3DV4	SN: 7349	10-Jan-25 (No. EX3-7349_Jan25)	Jan-26
DAE4ip	SN: 1836	17-Apr-25 (No. DAE4ip-1836_Apr25)	Apr-26

Secondary Standards	ID	Check Date (in house)	Scheduled Check
ACAD Setup 1	SN: 1000	27-May-25 (No. 675-ACAD_Source_Box-250527)	May-26
Signal Generator R&S SMB100A	SN: 182081	27-May-25 (No. 675-CAL16-S4588-250527)	May-26
Mismatch; SMA	SN: 1102	24-Apr-25 (No. 675-Mismatch_SMA-250424)	Apr-26
OCP DAK-12	SN: 1029	27-Feb-25 (No. OCP-DAK12-1029_Feb25)	Feb-26
OCP DAK-3.5	SN: 1336	09-Dec-24 (No. OCP-DAK3.5-1336_Dec24)	Dec-25

	Name	Function	Signature
Calibrated by	Jeffrey Katzman	Laboratory Technician	
Approved by	Sven Kühn	Technical Manager	

Issued: July 4, 2025

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Accreditation No.: SCS 0108

Glossary

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

Calibration is Performed According to the Following Standards

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

Additional Documentation

- DASY 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%.

Measurement Conditions

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

DASY Version	DASY8 Module SAR	16.4.0
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with spacer
Zoom Scan Resolution	dx, dy = 5mm, dz = 1.5mm	Graded Ratio = 1.5 mm (Z direction)
Frequency	2550MHz $\pm$ 1MHz	

HSL parameters at 2550 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal HSL parameters	22.0 °C	39.1	1.91 mho/m
Measured HSL parameters	(22.0 $\pm$ 0.2)°C	38.2 $\pm$ 6%	1.93 mho/m $\pm$ 6%
HSL temperature change during test	< 0.5 °C		

SAR result with HSL at 2550 MHz

SAR averaged over 1 cm³ (1 g) of HSL	Condition	
SAR for nominal HSL parameters	24 dBm input power	13.9 W/kg
SAR for nominal HSL parameters	normalized to 1W	55.3 W/kg $\pm$ 17.0% (k = 2)

SAR averaged over 10 cm³ (10 g) of HSL	Condition	
SAR for nominal HSL parameters	24 dBm input power	6.41 W/kg
SAR for nominal HSL parameters	normalized to 1W	25.5 W/kg $\pm$ 16.5% (k = 2)

Appendix (Additional assessments outside the scope of SCS 0108)**Antenna Parameters with HSL at 2550 MHz**

Impedance	49.4 Ω – 2.6 j Ω
Return Loss	-31.5 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.157 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint 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 feedpoint may be damaged.

Additional EUT Data

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System Performance Check Report

Summary

Dipole	Frequency [MHz]	TSL	Power [dBm]
D2550V2 - SN1022	2550	HSL	24

Exposure Conditions

Phantom Section, TSL	Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat	10		CW, 0--	2550, 0	7.29	1.93	38.2

Hardware Setup

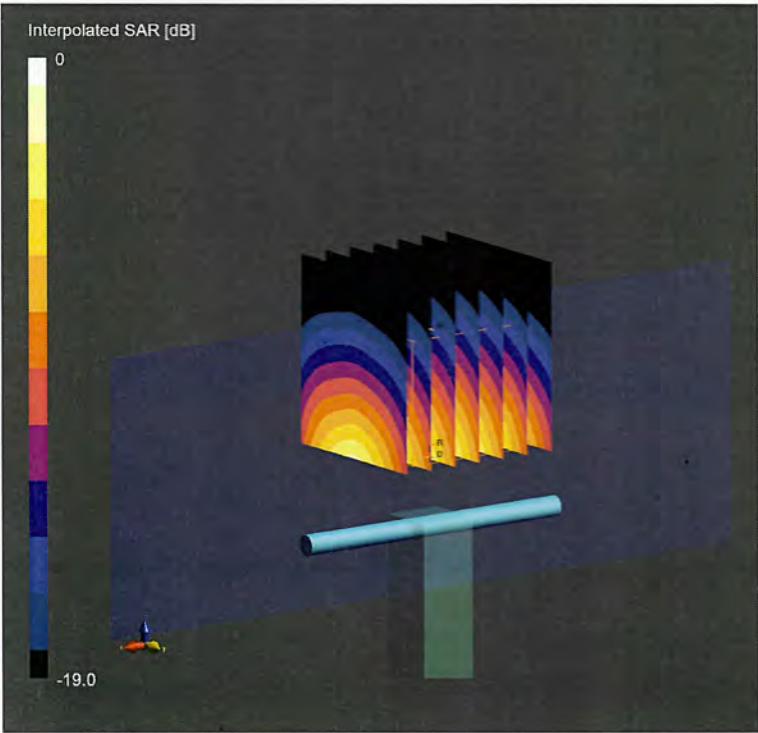
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
MFP V8.0 Center	HSL, 2025-07-04	EX3DV4 - SN7349, 2025-01-10	DAE4ip Sn1836, 2025-04-17

Scans Setup

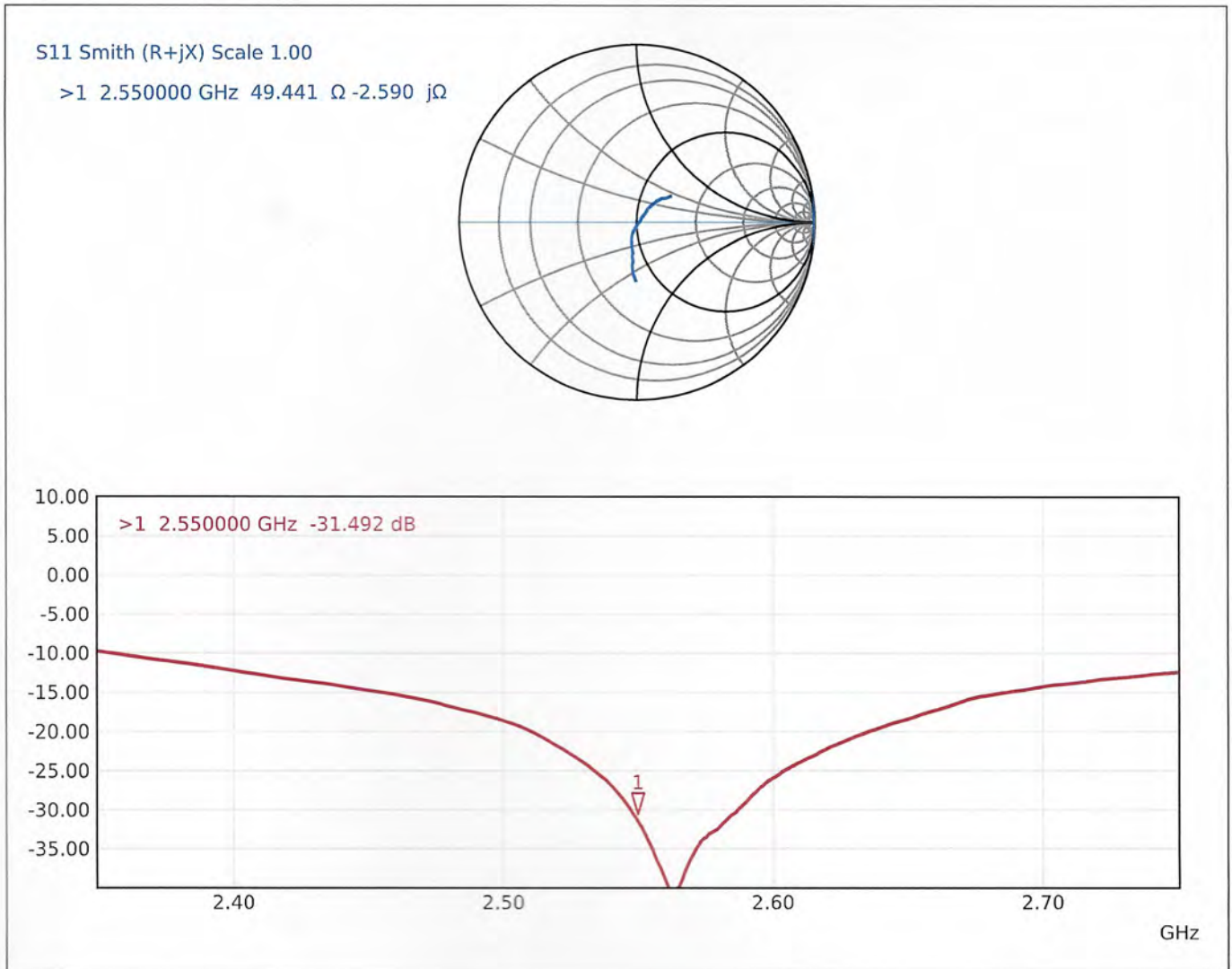
	Zoom Scan
Grid Extents [mm]	30 x 30 x 30
Grid Steps [mm]	5.0 x 5.0 x 1.5
Sensor Surface [mm]	1.4
Graded Grid	Yes
Grading Ratio	1.5
MAIA	N/A
Surface Detection	VMS + 6p
Scan Method	Measured

Measurement Results

	Zoom Scan
Date	2025-07-04
psSAR1g [W/Kg]	13.9
psSAR10g [W/Kg]	6.41
Power Drift [dB]	0.02
Power Scaling	Disabled
Scaling Factor [dB]	
TSL Correction	Positive / Negative



Impedance Measurement Plot for HSL



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Client

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Certificate No: 24J02Z000865

CALIBRATION CERTIFICATE

Object D5GHzV2 - SN: 1315

Calibration Procedure(s) FF-Z11-003-01
Calibration Procedures for dipole validation kits

Calibration date: November 5, 2024

This calibration Certificate documents the traceability to national standards, which realize the physical units of measurements (SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

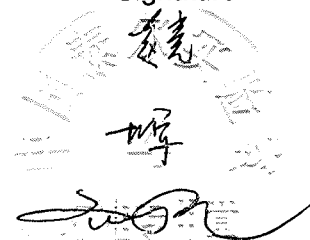
All calibrations have been conducted in the closed laboratory facility: environment temperature (22±3)°C and humidity<70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRP2	106276	17-May-24 (CTTL, No. J24X04107)	May-25
Power sensor NRP6A	101369	17-May-24 (CTTL, No. J24X04107)	May-25
Reference Probe EX3DV4	SN 7517	21-Feb-24(CTTL-SPEAG, No. 24J02Z80008)	Feb-25
DAE4	SN 1588	13-Sep-24(CTTL-SPEAG, No. 24J02Z000713)	Sep-25
Secondary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Signal Generator E4438C	MY49071430	25-Dec-23 (CTTL, No. J23X13426)	Dec-24
NetworkAnalyzer E5071C	MY46110673	25-Dec-23 (CTTL, No. J23X13425)	Dec-24
OCP DAK-3.5(weighted)	1040	22-Jan-24(SPEAG, No.OCP-DAK3.5-1040_Jan24)	Jan-25

	Name	Function
Calibrated by:	Zhao Jing	SAR Test Engineer
Reviewed by:	Lin Jun	SAR Test Engineer
Approved by:	Qi Dianyuan	SAR Project Leader

Signature



Issued: November 15, 2024

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Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM _{x,y,z}
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

- 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
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

- 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	
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	5250 MHz $\pm$ 1 MHz 5600 MHz $\pm$ 1 MHz 5750 MHz $\pm$ 1 MHz	

Head TSL parameters at 5250MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.9	4.71 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	35.8 $\pm$ 6 %	4.70 mho/m $\pm$ 6 %
Head TSL temperature change during test	<1.0 °C	----	----

SAR result with Head TSL at 5250MHz

SAR averaged over 1	(1 g) of Head TSL	Condition	
SAR measured		100 mW input power	7.73 W/kg
SAR for nominal Head TSL parameters		normalized to 1W	77.3 W/kg $\pm$ 24.4 % (k=2)
SAR averaged over 10	(10 g) of Head TSL	Condition	
SAR measured		100 mW input power	2.16 W/kg
SAR for nominal Head TSL parameters		normalized to 1W	21.6 W/kg $\pm$ 24.2 % (k=2)



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Head TSL parameters at 5600MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.5	5.07 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	35.2 ± 6 %	5.08 mho/m ± 6 %
Head TSL temperature change during test	<1.0 °C	----	----

SAR result with Head TSL at 5600MHz

SAR averaged over 1 (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.18 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	81.7 W/kg ± 24.4 % (k=2)
SAR averaged over 10 (10 g) of Head TSL	Condition	
SAR measured	100 mW input power	2.27 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	22.7 W/kg ± 24.2 % (k=2)

Head TSL parameters at 5750MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.4	5.22 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	35.0 ± 6 %	5.24 mho/m ± 6 %
Head TSL temperature change during test	<1.0 °C	----	----

SAR result with Head TSL at 5750MHz

SAR averaged over 1 (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	7.73 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	77.1 W/kg ± 24.4 % (k=2)
SAR averaged over 10 (10 g) of Head TSL	Condition	
SAR measured	100 mW input power	2.13 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	21.2 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 5250MHz

Impedance, transformed to feed point	49.2Ω- 1.60jΩ
Return Loss	- 34.8dB

Antenna Parameters with Head TSL at 5600MHz

Impedance, transformed to feed point	53.2Ω+ 4.15jΩ
Return Loss	- 25.9dB

Antenna Parameters with Head TSL at 5750MHz

Impedance, transformed to feed point	49.3Ω+ 4.49jΩ
Return Loss	- 26.8dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.099 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

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DASY5 Validation Report for Head TSL

Date: 2024-11-05

Test Laboratory: CTTL, Beijing, China

DUT: Dipole 5GHz; Type: D5GHzV2; Serial: D5GHzV2 - SN: 1315

Communication System: CW; Frequency: 5250 MHz, Frequency: 5600 MHz,

Frequency: 5750 MHz

Medium parameters used: $f = 5250$ MHz; $\sigma = 4.698$ S/m; $\epsilon_r = 35.84$; $\rho = 1000$ kg/m³

Medium parameters used: $f = 5600$ MHz; $\sigma = 5.077$ S/m; $\epsilon_r = 35.24$; $\rho = 1000$ kg/m³

Medium parameters used: $f = 5750$ MHz; $\sigma = 5.241$ S/m; $\epsilon_r = 35.02$; $\rho = 1000$ kg/m³

Phantom section: Right Section

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

DASY5 Configuration:

- Probe: EX3DV4 - SN7517; ConvF(5.43, 5.43, 5.43) @ 5250 MHz; ConvF(4.83, 4.83, 4.83) @ 5600 MHz; ConvF(4.95, 4.95, 4.95) @ 5750 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=5250 MHz/Zoom Scan,

dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 61.02 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 32.1 W/kg

SAR(1 g) = 7.73 W/kg; SAR(10 g) = 2.16 W/kg

Smallest distance from peaks to all points 3 dB below = 7.2 mm

Ratio of SAR at M2 to SAR at M1 = 64.4%

Maximum value of SAR (measured) = 18.7 W/kg

Dipole Calibration /Pin=100mW, d=10mm, f=5600 MHz/Zoom Scan,

dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 60.79 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 38.0 W/kg

SAR(1 g) = 8.18 W/kg; SAR(10 g) = 2.27 W/kg

Smallest distance from peaks to all points 3 dB below = 7.2 mm

Ratio of SAR at M2 to SAR at M1 = 60.8%

Maximum value of SAR (measured) = 20.4 W/kg



In Collaboration with

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**Dipole Calibration /Pin=100mW, d=10mm, f=5750 MHz/Zoom Scan,
dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm**

Reference Value = 59.50 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 37.3 W/kg

SAR(1 g) = 7.73 W/kg; SAR(10 g) = 2.13 W/kg

Smallest distance from peaks to all points 3 dB below = 7.2 mm

Ratio of SAR at M2 to SAR at M1 = 59.4%

Maximum value of SAR (measured) = 19.7 W/kg



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Impedance Measurement Plot for Head TSL

D5GHzV2 – SN: 1315 Extended Dipole Calibrations

Referring to KDB 865664 D01, if dipoles are verified in return loss ($\leq -20\text{dB}$, within 20% of prior calibration), and in impedance (within 5 ohm of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

D5GHzV2 – SN: 1315						
5250MHz						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
2024/11/5	-34.80		49.20		-1.60	
2025/11/4	-37.08	6.55	49.84	0.64	-0.08	1.52

D5GHzV2 – SN: 1315						
5600MHz						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
2024/11/5	-25.90		53.20		4.15	
2025/11/4	-23.44	-9.50	49.94	-3.26	5.59	1.44

D5GHzV2 – SN: 1315						
5750MHz						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
2024/11/5	-26.80		49.30		4.49	
2025/11/4	-26.29	-1.91	47.13	-2.17	3.20	-1.29

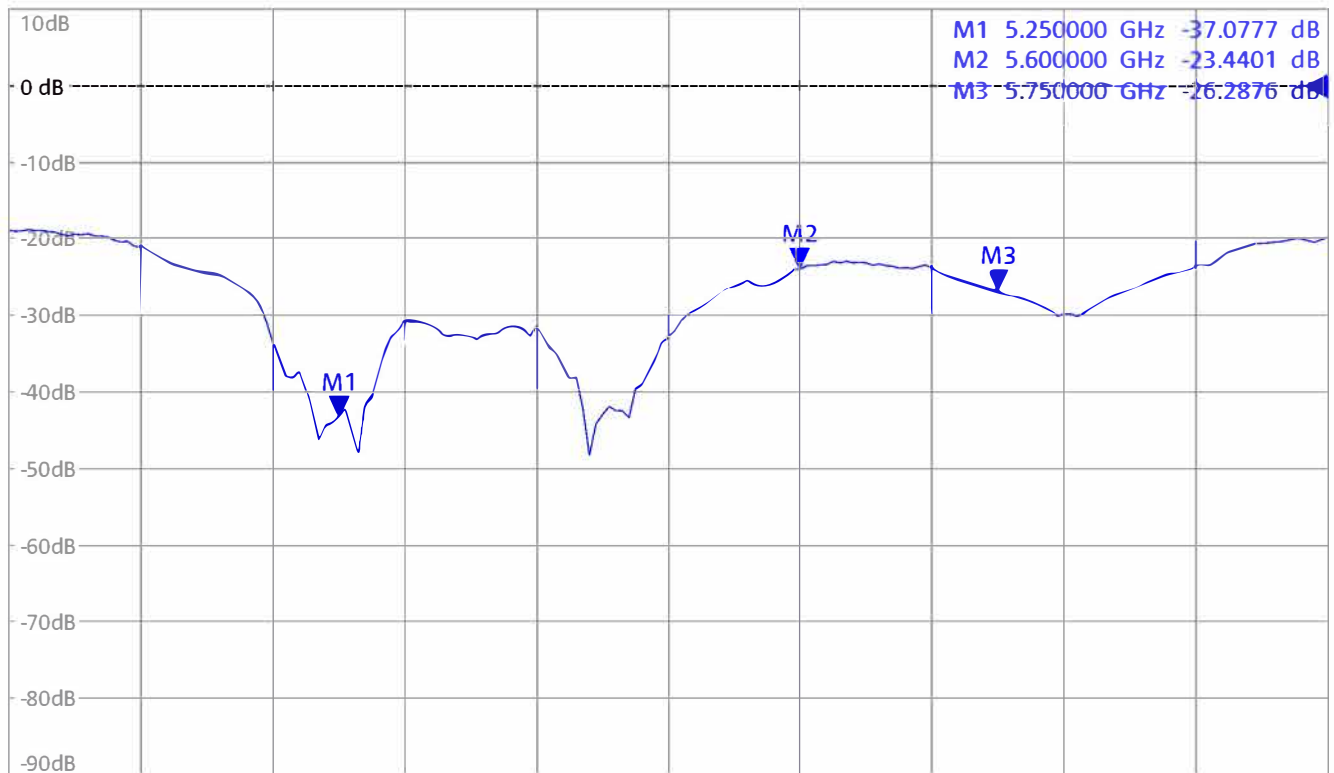
<Justification of the extended calibration>

The return loss is $\leq -20\text{dB}$, within 20% of prior calibration; the impedance is within 5 ohm of prior calibration. Therefore the verification result should support extended calibration.

<Dipole Verification Data>
Head 5250MHz _2025/11/4
Head 5600MHz _2025/11/4
Head 5750MHz _2025/11/4

Trc1 — S11 dB Mag 10 dB/ Ref 0 dB Cal

1

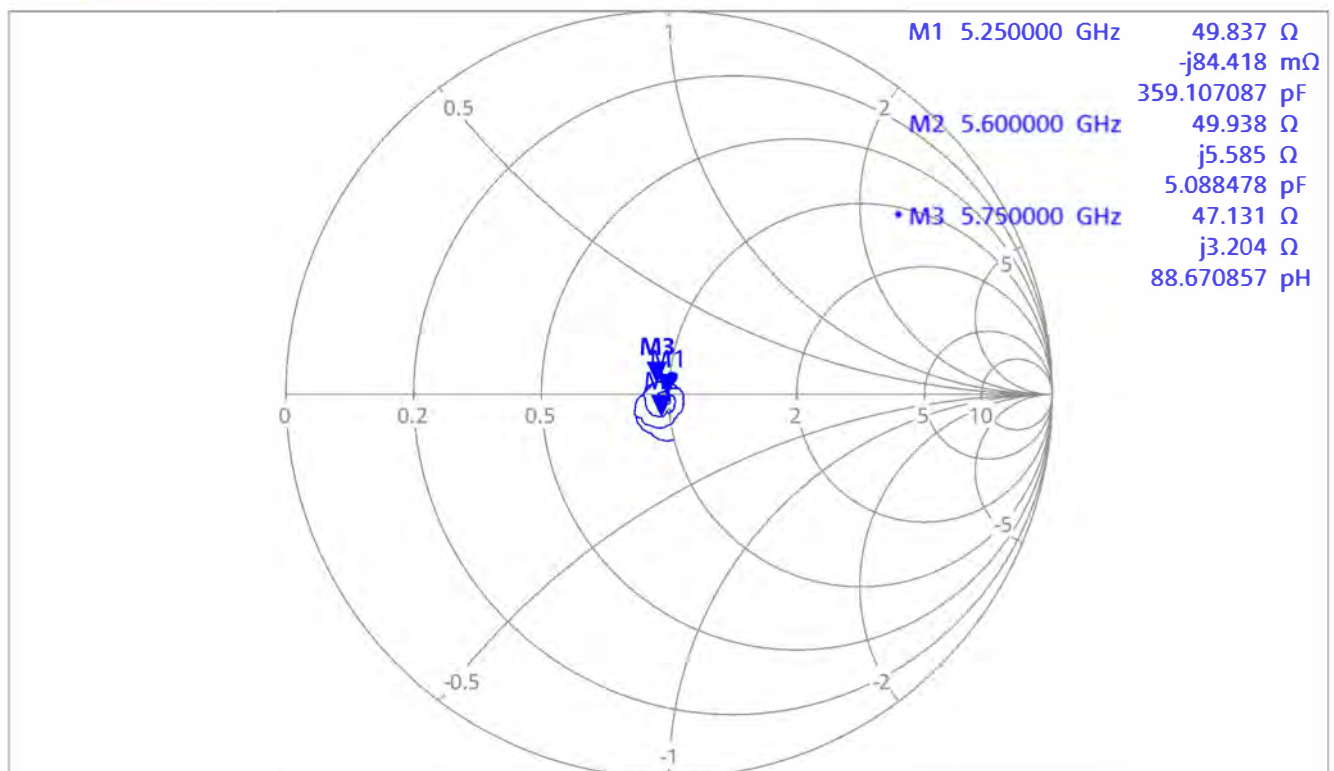


Ch1 Start 5 GHz Pwr -10 dBm Bw 10 kHz Refl OSM P1

Stop 6 GHz

Trc2 — S11 Smith 200 mU/ Ref 1 U Cal

2



Ch1 Start 5 GHz Pwr -10 dBm Bw 10 kHz Refl OSM P1

Stop 6 GHz

Appendix D. Conducted Power Result

Full Power_GSM&WCDMA

Band	GSM850						
	Burst Averaged Power			Max. Tune-up Power (dBm)	Frame Averaged Power		
Channel	128	189	251		128	189	251
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8
GSM	31.22	31.17	31.40	32.00	22.22	22.17	22.40
GPRS 1Tx Slot	31.27	31.17	31.49	32.00	22.27	22.17	22.49
GPRS 2Tx Slot	30.16	30.14	30.17	30.50	24.16	24.14	24.17
GPRS 3Tx Slot	27.37	27.38	27.47	28.00	23.11	23.12	23.21
GPRS 4Tx Slot	24.89	24.83	24.93	25.50	21.89	21.83	21.93
EDGE 1Tx Slot	25.94	25.98	25.95	26.50	16.94	16.98	16.95
EDGE 2Tx Slot	23.84	23.99	23.96	25.00	17.84	17.99	17.96
EDGE 3Tx Slot	21.63	21.73	21.60	23.00	17.37	17.47	17.34
EDGE 4Tx Slot	19.57	19.64	19.60	20.50	16.57	16.64	16.60

Band	GSM1900						
	Burst Averaged Power			Max. Tune-up Power (dBm)	Frame Averaged Power		
Channel	512	661	810		512	661	810
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8
GSM	28.39	28.39	28.53	29.50	19.39	19.39	19.53
GPRS 1Tx Slot	28.42	28.43	28.57	29.50	19.42	19.43	19.57
GPRS 2Tx Slot	27.12	27.07	27.13	28.00	21.12	21.07	21.13
GPRS 3Tx Slot	25.02	24.94	25.09	26.50	20.76	20.68	20.83
GPRS 4Tx Slot	22.97	22.84	22.98	24.50	19.97	19.84	19.98
EDGE 1Tx Slot	24.78	24.80	24.83	26.00	15.78	15.80	15.83
EDGE 2Tx Slot	22.37	22.31	22.46	24.00	16.37	16.31	16.46
EDGE 3Tx Slot	20.08	20.01	20.14	22.00	15.82	15.75	15.88
EDGE 4Tx Slot	19.15	19.25	19.28	21.00	16.15	16.25	16.28

Band	WCDMA II				WCDMA IV			
TX Channel	9262	9400	9538	Max. Tune-up Power (dBm)	1312	1413	1513	Max. Tune-up Power (dBm)
Rx Channel	9662	9800	9938		1537	1638	1738	
Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6	
RMC 12.2K	21.75	21.69	21.71	22.00	21.40	21.38	21.41	21.50
HSDPA Subtest-1	20.50	20.42	20.45	21.00	20.33	20.35	20.37	20.50
HSDPA Subtest-2	20.55	20.49	20.52	21.00	20.31	20.30	20.33	20.50
HSDPA Subtest-3	19.95	19.89	19.92	20.50	19.88	19.85	19.86	20.00
HSDPA Subtest-4	20.03	20.00	20.01	20.50	19.86	19.84	19.85	20.00
DC-HSDPA Subtest-1	20.45	20.43	20.48	21.00	20.31	20.29	20.36	20.50
DC-HSDPA Subtest-2	20.52	20.53	20.50	21.00	20.33	20.29	20.32	20.50
DC-HSDPA Subtest-3	19.91	19.86	19.95	20.50	19.89	19.87	19.82	20.00
DC-HSDPA Subtest-4	20.00	20.02	19.98	20.50	19.89	19.86	19.87	20.00
HSUPA Subtest-1	20.44	20.42	20.47	21.00	20.32	20.33	20.31	20.50
HSUPA Subtest-2	19.47	19.45	19.46	20.00	19.33	19.35	19.32	19.50
HSUPA Subtest-3	20.46	20.44	20.43	21.00	20.31	20.34	20.35	20.50
HSUPA Subtest-4	19.46	19.42	19.44	20.00	19.37	19.36	19.34	19.50
HSUPA Subtest-5	20.44	20.45	20.48	21.00	20.33	20.30	20.32	20.50

Band	WCDMA V			
	TX Channel	4132	4182	4233
Rx Channel	4357	4407	4458	Max. Tune-up Power (dBm)
Frequency (MHz)	826.4	836.4	846.6	
RMC 12.2K	23.31	23.34	23.32	24.00
HSDPA Subtest-1	22.17	22.31	22.24	23.00
HSDPA Subtest-2	22.24	22.28	22.22	23.00
HSDPA Subtest-3	21.73	21.77	21.71	22.50
HSDPA Subtest-4	21.69	21.75	21.66	22.50
DC-HSDPA Subtest-1	22.33	22.41	22.40	23.00
DC-HSDPA Subtest-2	22.33	22.35	22.28	23.00
DC-HSDPA Subtest-3	21.69	21.81	21.69	22.50
DC-HSDPA Subtest-4	21.76	21.80	21.68	22.50
HSUPA Subtest-1	22.24	22.36	22.34	23.00
HSUPA Subtest-2	21.28	21.39	21.30	22.00
HSUPA Subtest-3	22.28	22.34	22.28	23.00
HSUPA Subtest-4	21.29	21.33	21.32	22.00
HSUPA Subtest-5	22.41	22.42	22.28	23.00

Full Power_LTE

LTE Band 2									
BW [MHz]	Modulation	RB Size	RB Offset	Low	Mid	High	3GPP MPR [dB]	Max. Tune-up [dBm]	
		Channel		18700	18800	19100			
20	QPSK	Frequency (MHz)		1860	1880	1900			
		1	0	21.26	21.19	21.33	0	21.5	
		1	50	21.16	21.21	21.21	0	21.5	
		1	99	21.09	21.11	21.18	0	21.5	
		50	0	20.28	20.31	20.38	1	20.5	
		50	25	20.17	20.09	20.35	1	20.5	
		50	50	20.06	20.06	20.16	1	20.5	
		100	0	20.12	20.16	20.36	1	20.5	
		1	0	19.13	20.12	20.24	1	20.5	
		1	50	20.35	20.31	20.47	1	20.5	
20	16QAM	1	99	20.10	20.01	19.68	1	20.5	
		50	0	19.15	19.05	19.31	2	19.5	
		50	25	19.24	19.13	19.25	2	19.5	
		50	50	19.10	19.02	19.03	2	19.5	
		100	0	19.21	19.08	19.24	2	19.5	
		1	0	18.01	19.21	19.44	2	19.5	
		1	50	19.27	19.23	19.36	2	19.5	
		1	99	18.93	19.01	19.24	2	19.5	
		50	0	18.21	18.00	18.35	3	18.5	
		50	25	18.11	18.07	18.16	3	18.5	
20	64QAM	50	50	18.04	18.08	18.05	3	18.5	
		100	0	18.15	18.00	18.29	3	18.5	
BW [MHz]	Modulation	Channel		18675	18800	19125	3GPP MPR [dB]	Max. Tune-up [dBm]	
		Frequency (MHz)		1867.5	1880	1902.5			
15	QPSK	1	0	21.12	21.16	21.22	0	21.5	
		1	37	21.11	21.10	21.06	0	21.5	
		1	74	21.08	21.02	21.14	0	21.5	
		36	0	20.14	20.17	20.30	1	20.5	
		36	19	20.09	20.07	20.25	1	20.5	
		36	39	19.92	19.99	20.16	1	20.5	
		75	0	20.05	20.07	20.29	1	20.5	
		1	0	19.02	20.02	20.19	1	20.5	
		1	37	20.29	20.19	20.46	1	20.5	
		1	74	20.08	19.93	19.62	1	20.5	
15	16QAM	36	0	19.13	18.95	19.29	2	19.5	
		36	19	18.12	18.98	18.81	2	19.5	
		36	39	18.99	18.96	18.89	2	19.5	
		75	0	19.12	18.99	19.10	2	19.5	
		1	0	17.97	19.09	19.34	2	19.5	
		1	37	19.22	19.11	19.24	2	19.5	
		1	74	18.88	18.95	19.20	2	19.5	
		36	0	18.09	17.97	18.33	3	18.5	
		36	19	18.10	18.09	18.08	3	18.5	
		36	39	18.02	17.97	18.02	3	18.5	
15	64QAM	75	0	18.14	17.89	18.16	3	18.5	
BW [MHz]	Modulation	Channel		18660	18800	19180	3GPP MPR [dB]	Max. Tune-up [dBm]	
		Frequency (MHz)		1866	1880	1906			
10	QPSK	1	0	21.20	21.12	21.26	0	21.5	
		1	24	21.08	21.01	21.06	0	21.5	
		1	49	21.03	21.07	21.09	0	21.5	
		25	0	20.15	20.26	20.29	1	20.5	
		25	12	20.05	20.02	20.33	1	20.5	
		25	25	19.99	19.94	20.12	1	20.5	
		50	0	19.98	20.01	20.24	1	20.5	
		1	0	19.99	20.03	20.21	1	20.5	
		1	24	20.20	20.18	20.38	1	20.5	
		1	49	20.08	19.91	19.65	1	20.5	
10	16QAM	25	0	19.14	19.04	19.30	2	19.5	
		25	12	19.09	19.05	19.16	2	19.5	
		25	25	18.99	18.98	18.91	2	19.5	
		50	0	19.08	18.96	19.11	2	19.5	
		1	0	17.93	19.13	19.40	2	19.5	
		1	24	19.12	19.10	19.36	2	19.5	
		1	49	18.76	18.93	19.23	2	19.5	
		25	0	18.20	17.94	18.34	3	18.5	
		25	12	18.03	17.96	18.09	3	18.5	
		25	25	17.92	18.07	17.91	3	18.5	
10	64QAM	50	0	18.12	17.89	18.18	3	18.5	
BW [MHz]	Modulation	Channel		18625	18800	19175	3GPP MPR [dB]	Max. Tune-up [dBm]	
		Frequency (MHz)		1862.5	1880	1907.5			
5	QPSK	1	0	21.19	21.17	21.19	0	21.5	
		1	12	21.17	21.15	21.19	0	21.5	
		1	24	21.03	21.01	21.10	0	21.5	
		12	0	20.13	20.26	20.29	1	20.5	
		12	6	20.15	19.97	20.27	1	20.5	
		12	13	19.99	19.93	20.06	1	20.5	
		25	0	20.03	20.13	20.23	1	20.5	
		1	0	19.07	19.99	20.16	1	20.5	
		1	12	20.31	20.27	20.38	1	20.5	
		1	24	20.04	19.97	19.60	1	20.5	
5	16QAM	12	0	19.12	19.00	19.28	2	19.5	
		12	6	19.15	19.06	19.16	2	19.5	
		12	13	18.96	18.97	18.97	2	19.5	
		25	0	19.11	19.00	19.19	2	19.5	
		1	0	17.99	19.16	19.41	2	19.5	
		1	12	19.19	19.13	19.34	2	19.5	
		1	24	18.82	18.96	19.11	2	19.5	
		12	0	18.13	17.93	18.23	3	18.5	
		12	6	17.98	18.01	18.01	3	18.5	
		12	13	17.92	18.07	18.02	3	18.5	
5	64QAM	25	0	18.03	17.99	18.27	3	18.5	
BW [MHz]	Modulation	Channel		18615	18800	19185	3GPP MPR [dB]	Max. Tune-up [dBm]	
		Frequency (MHz)		1861.5	1880	1908.5			
3	QPSK	1	0	21.16	21.11	21.30	0	21.5	
		1	7	21.04	21.11	21.12	0	21.5	
		1	14	21.05	21.10	21.12	0	21.5	
		8	0	20.14	20.21	20.28	1	20.5	
		8	3	20.14	20.01	20.32	1	20.5	
		8	7	19.97	19.95	20.11	1	20.5	
		15	0	19.99	20.03	20.36	1	20.5	
		1	0	19.02	20.06	20.14	1	20.5	
		1	7	20.21	20.19	20.45	1	20.5	
		1	14	20.08	19.96	19.60	1	20.5	
3	16QAM	8	0	19.13	18.92	19.16	2	19.5	
		8	3	19.19	19.07	19.10	2	19.5	
		8	7	19.00	18.92	18.94	2	19.5	
		15	0	19.19	19.05	19.15	2	19.5	
		1	0	17.93	19.13	19.43	2	19.5	
		1	7	19.19	19.19	19.32	2	19.5	
		1	14	18.88	18.87	19.16	2	19.5	
		8	0	18.14	17.91	18.33	3	18.5	
		8	3	18.10	17.94	18.13	3	18.5	
		8	7	18.01	18.04	17.91	3	18.5	
3	64QAM	15	0	18.13	17.88	18.15	3	18.5	
BW [MHz]	Modulation	Channel		18607	18800	19193	3GPP MPR [dB]	Max. Tune-up [dBm]	
		Frequency (MHz)		1860.7	1880	1909.3			
1.4	QPSK	1	0	21.16	21.16	21.21	0	21.5	
		1	2	21.05	21.04	21.13	0	21.5	
		1	5	21.04	21.06	21.09	0	21.5	
		3	0	21.05	20.98	21.13	0	21.5	
		3	1	20.98	20.86	21.14	0	21.5	
		3	3	20.76	20.74	20.90	0	21.5	
		6	0	19.97	20.14	20.35	1	20.5	
		1	0	19.00	20.04	20.23	1	20.5	
		1	2	20.32	20.26	20.38	1	20.5	
		1	5	20.09	19.97	19.57	1	20.5	
1.4	16QAM	3	0	19.97	19.86	20.08	1	20.5	
		3	1	19.97	19.84	19.99	1	20.5	
		3	3	19.88	19.80	19.81	1	20.5	
		6	0	19.18	18.99	19.22	2	19.5	
		1	0	17.88	19.11	19.37	2	19.5	
		1	2	19.17	19.17	19.23	2	19.5	
		1	5	18.89	18.88	19.17	2	19.5	
		3	0	18.89	18.69	19.09	2	19.5	
		3	1	18.79	18.83	18.85	2	19.5	
		3	3	18.72	18.84	18.86	2	19.5	
1.4	64QAM	6	0	18.08	17.97	18.17	3	18.5	

LTE Band 4									
BW [MHz]	Modulation	RB Size	RB Offset	Low	Mid	High	3GPP MPR [dB]	Max. Tune-up [dBm]	
		Channel		20950	20755	20300			
20									
QPSK	16QAM	1	0	20.60	20.41	20.52	0	21	
		1	50	20.54	20.36	20.49	0	21	
		1	99	20.42	20.31	20.46	0	21	
		50	25	19.56	19.45	19.54	3	18	
		50	25	19.65	19.52	19.60	1	20	
		50	50	19.58	19.50	19.53	1	20	
		100	0	19.67	19.48	19.57	1	20	
		1	0	19.43	19.49	19.60	1	20	
		1	50	19.85	19.91	19.83	1	20	
		1	99	19.63	19.64	19.61	1	20	
64QAM	16QAM	50	0	18.49	18.52	18.48	2	19	
		50	25	18.67	18.65	18.64	2	19	
		50	50	18.61	18.70	18.64	2	19	
		100	0	18.67	18.52	18.50	2	19	
		1	0	18.47	18.44	18.52	2	19	
		1	50	18.62	18.79	18.80	2	19	
		1	99	18.73	18.57	18.61	2	19	
		50	0	17.48	17.58	17.65	3	18	
		50	25	17.69	17.61	17.54	3	18	
		50	50	17.53	17.69	17.70	3	18	
15									
QPSK	16QAM	1	0	17.16	17.32	17.47	5	18	
		1	0	20.56	20.37	20.39	0	21	
		1	37 <td>20.50</td> <td>20.24</td> <td>20.47</td> <td>0</td> <td>21</td>	20.50	20.24	20.47	0	21	
		1	74 <td>20.38</td> <td>20.21</td> <td>20.32</td> <td>0</td> <td>21</td>	20.38	20.21	20.32	0	21	
		36	0	19.55	19.33	19.39	1	20	
		36	19	19.57	19.42	19.51	1	20	
		36	39	19.49	19.41	19.50	1	20	
		75	0	19.64	19.37	19.51	1	20	
		1	0	19.41	19.30	19.56	1	20	
		1	37	19.81	19.90	19.77	1	20	
64QAM	16QAM	1	74	19.60	19.50	19.45	1	20	
		36	36	18.36	18.57	18.33	2	19	
		36	19	18.60	18.58	18.57	2	19	
		36	39	18.59	18.64	18.56	2	19	
		75	0	18.52	18.42	18.43	2	19	
		1	0	18.33	18.40	18.41	2	19	
		1	37	18.73	18.67	18.73	2	19	
		1	74	18.71	18.77	18.53	2	19	
		38	0	17.35	17.57	17.47	3	18	
		36	19	17.66	17.46	17.51	3	18	
BW [MHz]									
Modulation	Channel		20950	20755	20300	3GPP MPR [dB]	Max. Tune-up [dBm]		
	Frequency (MHz)		17.15	17.32	17.50				
10									
QPSK	16QAM	1	0	20.45	20.31	20.46	0	21	
		1	24 <td>20.50</td> <td>20.28</td> <td>20.36</td> <td>0</td> <td>21</td>	20.50	20.28	20.36	0	21	
		1	49 <td>20.40</td> <td>20.29</td> <td>20.35</td> <td>0</td> <td>21</td>	20.40	20.29	20.35	0	21	
		25	0	19.45	19.41	19.51	1	20	
		25	12	19.56	19.49	19.53	1	20	
		25	25	19.48	19.45	19.39	1	20	
		50	0	19.63	19.38	19.47	1	20	
		1	0	19.33	19.42	19.55	1	20	
		1	24	18.64	18.90	18.69	1	20	
		1	49	19.52	19.55	19.56	1	20	
64QAM	16QAM	25	0	18.35	18.42	18.36	2	19	
		25	12	18.63	18.52	18.63	2	19	
		25	25	18.54	18.63	18.49	2	19	
		50	0	18.61	18.41	18.44	2	19	
		1	0	18.30	18.30	18.37	2	19	
		1	24	18.75	18.76	18.67	2	19	
		1	49	18.61	18.56	18.55	2	19	
		25	0	17.48	17.46	17.38	3	18	
		25	12	17.61	17.57	17.39	3	18	
		25	24	17.44	17.58	17.65	3	18	
BW [MHz]									
Modulation	Channel		19975	20175	20375	3GPP MPR [dB]	Max. Tune-up [dBm]		
	Frequency (MHz)		17.12	17.35	17.62				
5									
QPSK	16QAM	1	0	20.59	20.36	20.37	0	21	
		1	12	20.45	20.28	20.45	0	21	
		1	24	20.35	20.28	20.32	0	21	
		12	0	19.47	19.36	19.46	1	20	
		12	6	19.56	19.47	19.52	1	20	
		12	13	19.55	19.47	19.49	1	20	
		25	0	19.52	19.48	19.51	1	20	
		1	0	19.32	19.30	19.56	1	20	
		1	12	19.75	19.82	19.70	1	20	
		1	24 <td>19.51</td> <td>19.58</td> <td>19.49</td> <td>1</td> <td>20</td>	19.51	19.58	19.49	1	20	
64QAM	16QAM	12	0	18.43	18.46	18.41	2	19	
		12	6	18.56	18.64	18.57	2	19	
		12	13	18.46	18.60	18.54	2	19	
		25	0	18.62	18.46	18.43	2	19	
		1	0	18.36	18.31	18.40	2	19	
		1	12	18.67	18.71	18.79	2	19	
		1	24	18.62	18.45	18.59	2	19	
		12	0	17.47	17.53	17.48	3	18	
		12	6	17.64	17.57	17.50	3	18	
		12	13	17.45	17.68	17.58	3	18	
BW [MHz]									
Modulation	Channel		19985	20175	20385	3GPP MPR [dB]	Max. Tune-up [dBm]		
	Frequency (MHz)		17.13	17.32	17.53				
3									
QPSK	16QAM	1	0	20.54	20.25	20.46	0	21	
		1	14 <td>20.33</td> <td>20.25</td> <td>20.36</td> <td>0</td> <td>21</td>	20.33	20.25	20.36	0	21	
		8	0	19.46	19.32	19.51	1	20	
		8	3	18.60	18.40	18.49	1	20	
		8	7	18.57	18.45	18.47	1	20	
		15	0	19.52	19.42	19.47	1	20	
		1	0	19.42	19.31	19.57	1	20	
		1	7	19.76	19.84	19.81	1	20	
		1	14	19.54	19.60	19.58	1	20	
		8	0	18.38	18.45	18.55	2	19	
64QAM	16QAM	8	3	18.60	18.50	18.59	2	19	
		8	7	18.48	18.57	18.53	2	19	
		15	0	18.60	18.48	18.44	2	19	
		1	0	18.43	18.34	18.40	2	19	
		1	7	18.81	18.66	18.75	2	19	
		1	14	18.64	18.48	18.46	2	19	
		8	0	17.36	17.43	17.41	3	18	
		8	3	17.56	17.52	17.44	3	18	
		8	7	17.51	17.59	17.59	3	18	
		15	0	17.37	17.48	17.56	3	18	
BW [MHz]									
Modulation	Channel		19987	20175	20393	3GPP MPR [dB]	Max. Tune-up [dBm]		
	Frequency (MHz)		17.17	17.35	17.54				
1.4									
QPSK	16QAM	1	0	20.53	20.27	20.51	0	21	
		1	2	20.46	20.25	20.41	0	21	
		1	5	20.27	20.18	20.32	0	21	
		3	0	20.27	20.36	20.21	0	21	
		3	1	20.39	20.26	20.29	0	21	
		3	3	20.25	20.17	20.30	0	21	
		6	0	19.52	19.46	19.49	1	20	
		1	0	19.33	19.28	19.46	1	20	
		1	7	19.76	19.75	19.75	1	20	
		1	5	19.48	19.61	19.57	1	20	
64QAM	16QAM	3	0	18.18	19.32	19.17	1	20	
		3	1	18.44	19.44	19.39	1	20	
		3	3	19.40	19.47	19.44	1	20	
		6	0	18.58	18.47	18.47	2	19	
		1	0	18.33	18.43	18.50	2	19	
		1	2	18.76	18.66	18.65	2	19	
		1	5	18.59	18.52	18.53	2	19	
		3	0	18.18	18.38	18.20	2	19	
		3	3	18.48	18.42	18.29	2	19	
		3	3	18.25	18.45	18.40	2	19	
BW [MHz]									
Modulation	Channel		19997	20175	20393	3GPP MPR [dB]	Max. Tune-up [dBm]		
	Frequency (MHz)		17.17	17.47	17.54				
1.4									
QPSK	16QAM	6	0	17.47	17.44	17.54	3	18	

LTE Band 5							
BW [MHz]	Modulation	RB Size	RB Offset	Low	Mid	High	3GPP MPR [dB]
		Channel		20450	20525	20600	
		Frequency (MHz)		829	836.5	844	
10	QPSK	1	0	23.19	22.89	23.14	0
		1	24	23.14	22.74	22.76	0
		1	49	23.37	23.05	23.33	0
		25	0	22.36	22.01	22.22	1
		25	12	22.16	21.83	22.11	1
		25	25	22.14	21.87	22.07	1
		50	0	21.86	21.86	21.85	1
		50	0	21.86	21.86	21.85	1
	16QAM	1	0	22.33	22.09	22.24	1
		1	24	22.19	21.96	22.06	1
		1	49	22.36	22.05	22.34	1
		25	0	20.99	20.86	20.92	2
		25	12	21.16	20.93	21.01	2
		25	25	21.11	20.81	21.06	2
		50	0	21.02	20.85	20.89	2
		50	0	21.02	20.85	20.89	2
	64QAM	1	0	21.34	21.06	21.30	2
		1	24	21.22	20.96	21.02	2
		1	49	21.36	21.09	21.28	2
		25	0	20.03	19.88	19.98	3
		25	12	20.16	19.93	20.14	3
		25	25	20.26	19.97	20.14	3
		50	0	20.24	19.92	20.11	3
		50	0	20.24	19.92	20.11	3
BW [MHz]	Modulation	Channel	20426	20525	20626	3GPP MPR [dB]	Max. Tune-up [dBm]
		Frequency (MHz)		826.5	836.5	846.5	
		Frequency (MHz)		826.5	836.5	846.5	
5	QPSK	1	0	23.11	22.75	23.10	0
		1	12	23.10	22.71	22.67	0
		1	24	23.34	23.01	23.20	0
		12	0	22.26	22.00	22.15	1
		12	6	22.02	21.80	22.02	1
		12	13	22.04	21.83	21.96	1
		25	0	21.90	21.85	21.82	1
		25	0	21.90	21.85	21.82	1
	16QAM	1	0	22.18	22.07	22.17	1
		1	12	22.12	21.95	21.97	1
		1	24	22.30	21.93	22.28	1
		12	0	20.87	20.73	20.85	2
		12	6	21.13	20.89	20.88	2
		12	13	21.07	20.72	20.94	2
		25	0	20.96	20.81	20.80	2
		25	0	21.32	21.03	21.18	2
	64QAM	1	0	21.18	20.91	20.93	2
		1	24	21.31	21.07	21.16	2
		12	0	19.91	19.74	19.91	3
		12	6	20.09	19.79	20.11	3
		12	13	20.19	19.84	20.05	3
		25	0	20.14	19.87	20.00	3
		25	0	20.14	19.87	20.00	3
		25	0	20.14	19.87	20.00	3
BW [MHz]	Modulation	Channel	20416	20525	20636	3GPP MPR [dB]	Max. Tune-up [dBm]
		Frequency (MHz)		826.5	836.5	847.5	
		Frequency (MHz)		826.5	836.5	847.5	
3	QPSK	1	0	23.06	22.88	23.10	0
		1	7	22.99	22.69	22.69	0
		1	14	23.24	22.98	23.27	0
		8	0	22.26	21.95	22.12	1
		8	3	22.07	21.82	22.04	1
		8	7	22.12	21.74	21.99	1
		15	0	21.97	21.81	21.86	1
		1	0	22.21	22.00	22.14	1
	16QAM	1	7	22.06	21.81	21.95	1
		1	14	22.30	21.90	22.28	1
		8	0	20.85	20.72	20.80	2
		8	3	21.15	20.87	20.98	2
		8	7	20.98	20.66	21.04	2
		15	0	20.99	20.70	20.81	2
		1	0	21.23	20.94	21.29	2
		1	7	21.07	20.91	20.92	2
	64QAM	1	14	21.24	21.04	21.21	2
		8	0	19.85	19.73	19.85	3
		8	3	20.11	19.87	20.04	3
		8	7	20.16	19.84	20.00	3
		15	0	20.21	19.77	20.03	3
		15	0	20.21	19.77	20.03	3
		15	0	20.21	19.77	20.03	3
		15	0	20.21	19.77	20.03	3
BW [MHz]	Modulation	Channel	20407	20525	20640	3GPP MPR [dB]	Max. Tune-up [dBm]
		Frequency (MHz)		834.7	836.5	846.3	
		Frequency (MHz)		834.7	836.5	846.3	
1.4	QPSK	1	0	23.06	22.81	23.07	0
		1	2	23.10	22.70	22.75	0
		1	5	23.22	22.97	23.19	0
		3	0	23.03	22.81	22.91	0
		3	1	22.92	22.64	22.82	0
		3	3	22.85	22.60	22.81	0
		6	0	21.89	21.79	21.75	1
		6	0	21.89	21.79	21.75	1
	16QAM	1	0	22.20	22.08	22.23	1
		1	2	22.13	21.95	22.02	1
		1	5	22.30	21.98	22.33	1
		3	0	21.73	21.53	21.62	1
		3	1	21.93	21.74	21.74	1
		3	3	21.90	21.68	21.75	1
		6	0	20.93	20.75	20.84	2
		6	0	20.93	20.75	20.84	2
	64QAM	1	0	21.19	21.01	21.26	2
		1	2	21.16	20.88	20.99	2
		1	5	21.27	20.95	21.23	2
		3	0	20.74	20.59	20.66	2
		3	1	20.90	20.64	20.87	2
		3	3	21.01	20.77	20.94	2
		6	0	20.21	19.81	19.98	3
		6	0	20.21	19.81	19.98	3

LTE Band 7							
BW [MHz]	Modulation	RB Size	RB Offset	Low	Mid	High	3GPP MPR [dB]
		Channel		20850	21100	21350	
		Frequency (MHz)		2519	2536	2560	
20	QPSK	1	0	21.55	21.73	21.71	0
		1	50	21.52	21.60	21.59	0
		1	99	21.46	21.47	21.45	0
		50	0	20.83	20.89	20.88	1
		50	25	20.52	20.57	20.55	1
		50	50	20.67	20.75	20.74	1
		100	0	20.55	20.74	20.71	1
		100	0	20.55	20.74	20.71	1
	16QAM	1	0	20.68	20.84	21.00	1
		1	50	20.84	20.96	20.99	1
		1	99	20.50	20.64	20.34	1
		50	0	19.66	19.74	19.84	2
		50	25	19.60	19.72	19.77	2
		50	50	19.68	19.70	19.78	2
		100	0	19.75	19.82	19.83	2
		100	0	19.75	19.82	19.83	2
	64QAM	1	0	19.44	19.94	19.98	2
		1	50	19.96	19.97	19.99	2
		1	99	19.67	19.69	19.46	2
		50	0	18.69	18.75	18.84	3
		50	25	18.65	18.74	18.80	3
		50	50	18.55	18.63	18.76	3
		100	0	18.46	18.56	18.71	3
		100	0	18.46	18.56	18.71	3
BW [MHz]	Modulation	Channel	20925	21100	21375	3GPP MPR [dB]	Max. Tune-up [dBm]
		Frequency (MHz)		2597.5	2536	2562.5	
		Frequency (MHz)		2597.5	2536	2562.5	
15	QPSK	1	0	21.54	21.72	21.77	0
		1	37	21.48	21.58	21.69	0
		1	74	21.33	21.44	21.45	0
		36	0	20.81	20.76	20.87	1
		36	19	20.41	20.49	20.62	1
		36	39	20.65	20.68	20.64	1
		75	0	20.59	20.69	20.84	1
		75	0	20.59	20.69	20.84	1
	16QAM	1	0	20.86	20.91	20.91	1
		1	37	20.80	20.90	20.85	1
		1	74	20.41	20.55	20.30	1
		36	0	19.62	19.65	19.83	2
		36	19	19.47	19.60	19.72	2
		36	39	19.60	19.55	19.69	2
		75	0	19.65	19.70	19.69	2
		75	0	19.30	19.88	19.94	2
	64QAM	1	0	19.32	19.89	19.94	2
		1	37	19.92	19.89	19.94	2
		1	74	19.55	19.62	19.38	2
		36	0	18.63	18.70	18.79	3
		36	19	18.52	18.66	18.74	3
		36	39	18.41	18.56	18.69	3
		75	0	18.31	18.41	18.68	3
		75	0	18.31	18.41	18.68	

LTE Band 12								
BW [MHz]	Modulation	RB Size	RB Offset	Low	Mid	High	3GPP MPR [dB]	Max. Tune-up [dBm]
		Channel		23060	23095	23130		
		Frequency (MHz)		704	707.5	711		
10	QPSK	1	0	22.15	22.28	22.52	0	23.5
		1	24	22.27	22.21	22.47	0	23.5
		1	49	22.47	22.57	22.55	0	23.5
		25	0	21.71	21.70	21.63	1	22.5
		25	12	21.65	21.67	21.51	1	22.5
		25	25	21.53	21.62	21.47	1	22.5
	16QAM	50	0	21.68	21.58	21.52	1	22.5
		1	0	21.51	21.53	21.56	1	22.5
		1	24	21.49	21.61	21.59	1	22.5
		1	49	21.67	21.66	21.62	1	22.5
		25	0	20.61	20.65	20.71	2	21.5
		25	12	20.65	20.58	20.68	2	21.5
	64QAM	25	25	20.52	20.59	20.62	2	21.5
		50	0	20.52	20.44	20.46	2	21.5
		1	0	20.31	20.42	20.49	2	21.5
		1	24	20.29	20.38	20.57	2	21.5
		1	49	20.69	20.66	20.53	2	21.5
		25	0	19.71	19.51	19.72	3	20.5
5	QPSK	25	12	19.46	19.32	19.58	3	20.5
		25	25	19.41	19.55	19.56	3	20.5
		50	0	19.49	19.43	19.55	3	20.5
		Channel		23035	23095	23105	3GPP MPR [dB]	Max. Tune-up [dBm]
		Frequency (MHz)		701.5	707.5	713.5		
		1	0	22.08	22.19	22.51	0	23.5
5	QPSK	1	12	22.18	22.15	22.38	0	23.5
		1	24	22.43	22.48	22.45	0	23.5
		12	0	21.64	21.61	21.60	1	22.5
		12	6	21.53	21.61	21.38	1	22.5
		12	13	21.38	21.53	21.36	1	22.5
		25	0	21.56	21.45	21.47	1	22.5
	16QAM	1	0	21.38	21.46	21.51	1	22.5
		1	12	21.36	21.46	21.57	1	22.5
		1	24	21.60	21.62	21.49	1	22.5
		12	0	20.57	20.52	20.60	2	21.5
		12	6	20.51	20.50	20.57	2	21.5
		12	13	20.48	20.44	20.53	2	21.5
	64QAM	25	0	20.50	20.40	20.31	2	21.5
		1	0	20.17	20.33	20.46	2	21.5
		1	12	20.19	20.35	20.54	2	21.5
		1	24	20.57	20.56	20.42	2	21.5
		12	0	19.60	19.50	19.59	3	20.5
		12	6	19.45	19.19	19.43	3	20.5
3	QPSK	12	13	19.34	19.53	19.55	3	20.5
		25	0	19.39	19.34	19.40	3	20.5
		15	0	19.48	19.31	19.46	3	20.5
		Channel		23025	23095	23165	3GPP MPR [dB]	Max. Tune-up [dBm]
		Frequency (MHz)		706.5	707.5	714.5		
		1	0	22.01	22.26	22.50	0	23.5
3	QPSK	1	7	22.23	22.10	22.32	0	23.5
		1	14	22.35	22.55	22.49	0	23.5
		8	0	21.64	21.67	21.55	1	22.5
		8	3	21.62	21.60	21.43	1	22.5
		8	7	21.43	21.59	21.37	1	22.5
		15	0	21.62	21.46	21.41	1	22.5
	16QAM	1	0	21.49	21.39	21.52	1	22.5
		1	7	21.38	21.52	21.55	1	22.5
		1	14	21.66	21.51	21.61	1	22.5
		8	0	20.50	20.53	20.59	2	21.5
		8	3	20.50	20.52	20.67	2	21.5
		8	7	20.42	20.48	20.48	2	21.5
	64QAM	15	0	20.51	20.39	20.41	2	21.5
		1	0	20.28	20.29	20.41	2	21.5
		1	7	20.23	20.26	20.54	2	21.5
		1	14	20.66	20.65	20.50	2	21.5
		8	0	19.66	19.36	19.70	3	20.5
		8	3	19.33	19.29	19.44	3	20.5
1.4	QPSK	8	7	19.29	19.53	19.55	3	20.5
		15	0	19.48	19.31	19.46	3	20.5
		Channel		23017	23075	23173	3GPP MPR [dB]	Max. Tune-up [dBm]
		Frequency (MHz)		699.2	707.5	715.3		
		1	0	22.12	22.18	22.49	0	23.5
		1	2	22.20	22.06	22.43	0	23.5
	16QAM	1	5	22.46	22.52	22.50	0	23.5
		3	0	22.12	22.05	22.06	0	23.5
		3	1	21.94	22.01	21.88	0	23.5
		3	3	21.90	21.93	21.88	0	23.5
		6	0	21.64	21.45	21.37	1	22.5
		1	0	21.42	21.38	21.51	1	22.5
	64QAM	1	2	21.42	21.59	21.58	1	22.5
		1	5	21.66	21.65	21.57	1	22.5
		3	0	21.37	21.53	21.48	1	22.5
		3	1	21.52	21.36	21.48	1	22.5
		3	3	21.31	21.47	21.42	1	22.5
		1	0	20.50	20.41	20.45	2	21.5
1.4	QPSK	1	0	20.24	20.36	20.36	2	21.5
		1	2	20.21	20.29	20.56	2	21.5
		1	5	20.67	20.60	20.38	2	21.5
		3	0	20.51	20.26	20.46	2	21.5
		3	1	20.25	20.05	20.39	2	21.5
		3	3	20.25	20.42	20.36	2	21.5
1.4	QPSK	6	0	19.36	19.42	19.52	3	20.5

LTE Band 13								
BW [MHz]	Modulation	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up (dBm)
		Channel		23230	23230	23230		
		Frequency (MHz)		782	782	782		
10	QPSK	1	0	22.94	22.97	22.95	0	24
		1	24	22.80	22.77	22.79	0	24
		1	49	22.94	22.94	22.94	0	24
		25	0	21.81	21.84	21.79	1	23
		25	12	21.81	21.84	21.79	1	23
		50	0	21.81	21.84	21.79	1	23
	16QAM	1	0	22.15	22.15	22.15	1	23
		1	24	22.05	22.05	22.05	1	23
		1	49	22.02	22.02	22.02	1	23
		25	0	21.21	21.21	21.21	2	22
		25	12	21.02	21.02	21.02	2	22
		25	25	21.04	21.04	21.04	2	22
	64QAM	50	0	21.01	21.01	21.01	2	22
		1	0	21.20	21.20	21.20	2	22
		1	24	21.12	21.12	21.12	2	22
		1	49	21.11	21.11	21.11	2	22
		25	0	20.09	20.09	20.09	3	21
		25	12	20.11	20.11	20.11	3	21
5	QPSK	25	25	20.10	20.10	20.10	3	21
		50	0	20.15	20.15	20.15	3	21
		Channel		23205	23230	23255	3GPP MPR (dB)	Max. Tune-up (dBm)
		Frequency (MHz)		778.5	782	784.5		
		1	0	22.94	22.97	22.95	0	24
		1	12	22.80	22.77	22.79	0	24
	16QAM	1	24	22.92	22.93	22.82	0	24
		12	0	21.94	21.96	21.99	1	23
		12	6	21.81	21.84	21.79	1	23
		12	13	21.81	21.73	21.79	1	23
		25	0	21.83	21.82	21.76	1	23
		1	0	22.11	22.08	22.02	1	23
	64QAM	1	12	22.03	21.94	21.99	1	23
		1	24	22.01	21.89	21.97	1	23
		12	0	21.18	21.06	21.11	2	22
		12	6	20.93	21.01	20.95	2	22
		12	13	20.94	20.98	20.93	2	22
		25	0	20.96	21.00	20.89	2	22
1.4	QPSK	1	0	21.06	21.05	21.19	2	22
		1	12	21.11	21.07	21.08	2	22
		1	24	21.00	21.04	20.96	2	22
		12	0	19.94	20.02	20.04	3	21
		12	6	20.05	20.00	20.10	3	21
		12	13	20.08	20.06	20.06	3	21
	16QAM	25	0	20.04	20.11	20.13	3	21

LTE Band 14										
BW [MHz]	Modulation	RB Size	RB Offset	Low	Mid	High	3GPP MPR [dB]	Max. Tune-up [dBm]		
		Channel		2330						
		Frequency (MHz)		793						
10	QPSK	1	0		22.77		0	24		
		1	24		22.76		0	24		
		1	49		22.72		0	24		
		25	0		22.21		1	23		
		25	12		22.04		1	23		
		25	25		21.79		1	23		
	16QAM	50	0		21.84		1	23		
		1	0		21.89		1	23		
		1	24		22.08		1	23		
		1	49		22.04		1	23		
		25	0		21.11		2	22		
		25	12		21.05		2	22		
	64QAM	25	25		20.87		2	22		
		50	0		20.82		2	22		
		1	0		20.86		2	22		
		1	24		21.08		2	22		
		1	49		21.06		2	22		
		25	0		20.05		3	21		
	5	QPSK	25	12		19.92		3	21	
			25	25		20.01		3	21	
			50	0		20.02		3	21	
			16QAM	Channel		23305	23330	23355	3GPP MPR [dB]	Max. Tune-up [dBm]
				Frequency (MHz)		790.5	793	795.5		
				1	0	22.75	22.71	22.76	0	24
1	12	22.72		22.70	22.70	0	24			
1	24	22.57		22.58	22.68	0	24			
12	0	22.19		22.11	22.16	1	23			
64QAM	12	6	22.00	21.99	22.02	1	23			
	12	13	21.71	21.70	21.78	1	23			
	25	0	21.75	21.76	21.82	1	23			
	1	0	21.87	21.87	21.79	1	23			
	1	12	22.04	22.01	22.07	1	23			
	1	24	21.96	21.97	21.94	1	23			
16QAM	12	0	21.07	21.02	21.04	2	22			
	12	6	20.96	20.93	21.02	2	22			
	12	13	20.74	20.74	20.75	2	22			
	25	0	20.76	20.75	20.68	2	22			
	1	0	20.71	20.64	20.73	2	22			
	1	12	21.03	21.01	21.01	2	22			
64QAM	1	24	20.96	20.99	20.95	2	22			
	12	0	20.03	20.04	19.94	3	21			
	12	6	19.79	19.83	19.86	3	21			
	12	13	19.97	19.92	19.93	3	21			
	25	0	19.97	20.01	19.90	3	21			

LTE Band 17									
BW [MHz]	Modulation	RB Size	RB Offset	Low	Mid	High	3GPP MPR [dB]	Max. Tune-up [dBm]	
		Channel		2370	23790	23800			
		Frequency (MHz)		7069	710	711			
10	QPSK	1	0	21.95	21.88	21.83	0	23.5	
		1	24	22.45	22.38	22.48	0	23.5	
		1	49	21.93	21.82	21.89	0	23.5	
		25	0	21.78	21.75	21.68	1	22.5	
		25	12	21.46	21.26	21.39	1	22.5	
		25	25	21.25	21.16	21.41	1	22.5	
	16QAM	50	0	20.93	20.98	21.35	1	22.5	
		1	0	21.29	21.27	21.26	1	22.5	
		1	24	21.46	21.48	21.45	1	22.5	
		1	49	21.37	21.38	21.40	1	22.5	
		25	0	20.86	20.57	20.68	2	21.5	
		25	12	20.56	20.51	20.55	2	21.5	
	64QAM	25	25	20.60	20.45	20.65	2	21.5	
		50	0	20.17	20.34	20.21	2	21.5	
		1	0	20.09	20.12	20.73	2	21.5	
		1	24	20.35	20.72	20.79	2	21.5	
		1	49	20.57	20.11	20.13	2	21.5	
		25	0	19.68	19.65	19.66	3	20.5	
5	QPSK	25	12	19.64	19.61	19.41	3	20.5	
		25	25	19.61	19.42	19.44	3	20.5	
		50	0	19.28	19.62	19.51	3	20.5	
		16QAM	Channel		23780	23790	23825	3GPP MPR [dB]	Max. Tune-up [dBm]
			Frequency (MHz)		706.5	710	713.5		
			1	0	21.85	21.82	21.70	0	
1	12		22.36	22.27	22.42	0	23.5		
1	24		21.82	21.76	21.85	0	23.5		
12	0		21.72	21.61	21.61	1	22.5		
64QAM	12	6	21.44	21.15	21.37	1	22.5		
	12	13	21.23	21.08	21.37	1	22.5		
	25	0	20.59	20.73	21.13	1	22.5		
	1	0	21.19	21.23	21.24	1	22.5		
	1	12	21.38	21.45	21.49	1	22.5		
	1	24	21.31	21.31	21.38	1	22.5		
16QAM	12	0	20.77	20.54	20.84	2	21.5		
	12	6	20.44	20.37	20.50	2	21.5		
	12	13	20.53	20.30	20.60	2	21.5		
	25	0	20.10	20.20	20.20	2	21.5		
	1	0	19.99	19.97	20.70	2	21.5		
	1	12	20.25	20.68	20.73	2	21.5		
64QAM	1	24	20.44	19.99	20.04	2	21.5		
	12	0	19.57	19.54	19.55	3	20.5		
	12	6	19.61	19.57	19.39	3	20.5		
	12	13	19.48	19.34	19.38	3	20.5		
	25	0	19.20	19.99	19.45	3	20.5		

LTE Band 25									
BW [MHz]	Modulation	RB Size	RB Offset	Low	Mid	High	3GPP MPR [dB]	Max. Tune-up [dBm]	
		Channel		26140	26365	26590			
		Frequency (MHz)		1860	1882.5	1905			
20	QPSK	1	0	20.35	20.77	20.65	0	21.5	
		1	50	20.33	20.68	20.58	0	21.5	
		1	99	20.34	20.35	20.11	0	21.5	
		50	0	19.62	19.68	19.66	1	20.5	
		50	25	19.78	19.77	19.72	1	20.5	
		50	50	19.72	19.75	19.59	1	20.5	
		100	0	19.67	19.77	19.71	1	20.5	
		1	0	19.60	19.90	19.83	1	20.5	
		1	50	20.10	19.98	19.89	1	20.5	
		1	99	19.74	19.55	19.51	1	20.5	
	16QAM	50	0	18.74	18.79	18.62	2	19.5	
		50	25	18.79	18.60	18.76	2	19.5	
		50	50	18.81	18.76	18.73	2	19.5	
		100	0	18.70	18.74	18.57	2	19.5	
		1	0	18.69	18.89	18.90	2	19.5	
		1	50	18.82	18.90	18.94	2	19.5	
		1	99	18.60	18.55	18.46	2	19.5	
		50	0	17.69	17.74	17.65	3	18.5	
		50	25	17.73	17.72	17.67	3	18.5	
		50	50	17.75	17.71	17.62	3	18.5	
15	QPSK	Channel		26115	26365	26615	3GPP MPR [dB]	Max. Tune-up [dBm]	
		Frequency (MHz)		1887.5	1882.5	1907.5			
		1	0	20.31	20.74	20.64	0	21.5	
		1	37	20.31	20.67	20.53	0	21.5	
		1	74	20.20	20.25	19.97	0	21.5	
		36	0	19.52	19.56	19.52	1	20.5	
		36	19	19.67	19.63	19.66	1	20.5	
		36	39	19.66	19.68	19.58	1	20.5	
		75	0	19.54	19.71	19.69	1	20.5	
		1	0	19.56	19.87	19.72	1	20.5	
	16QAM	1	37	19.96	19.97	19.81	1	20.5	
		1	74	19.66	19.40	19.50	1	20.5	
		36	0	18.61	18.73	18.54	2	19.5	
		36	19	18.71	18.55	18.67	2	19.5	
		36	39	18.75	18.61	18.59	2	19.5	
		75	0	18.69	18.66	18.43	2	19.5	
		1	0	18.68	18.77	18.79	2	19.5	
		1	37	18.73	18.83	18.89	2	19.5	
		1	74	18.52	18.51	18.34	2	19.5	
		36	0	17.54	17.62	17.51	3	18.5	
64QAM	36	19	17.63	17.70	17.58	3	18.5		
	36	39	17.70	17.65	17.53	3	18.5		
	75	0	17.57	17.67	17.65	3	18.5		
	Channel		26090	26365	26640	3GPP MPR [dB]	Max. Tune-up [dBm]		
	Frequency (MHz)		1885	1882.5	1910				
	1	0	20.33	20.69	20.55	0	21.5		
	1	24	20.22	20.66	20.56	0	21.5		
	1	49	20.30	20.21	20.07	0	21.5		
	25	0	19.56	19.54	19.53	1	20.5		
	25	12	19.67	19.76	19.64	1	20.5		
25	25	19.62	19.71	19.53	1	20.5			
50	0	19.59	19.71	19.58	1	20.5			
10	QPSK	1	0	19.47	19.87	19.71	1	20.5	
		1	24	20.05	19.86	19.86	1	20.5	
		1	49	19.63	19.49	19.49	1	20.5	
		25	0	18.59	18.75	18.56	2	19.5	
		25	12	18.66	18.50	18.75	2	19.5	
		25	25	18.73	18.67	18.66	2	19.5	
		50	0	18.69	18.69	18.49	2	19.5	
		1	0	18.64	18.85	18.76	2	19.5	
		1	24	18.73	18.79	18.89	2	19.5	
		1	49	18.45	18.54	18.41	2	19.5	
	16QAM	25	0	17.60	17.61	17.59	3	18.5	
		25	12	17.67	17.68	17.65	3	18.5	
		25	25	17.73	17.62	17.54	3	18.5	
		50	0	17.59	17.71	17.57	3	18.5	
		Channel		26065	26365	26665	3GPP MPR [dB]	Max. Tune-up [dBm]	
		Frequency (MHz)		1882.5	1882.5	1912.5			
		1	0	20.28	20.62	20.50	0	21.5	
		1	12	20.29	20.59	20.55	0	21.5	
		1	24	20.22	20.20	20.07	0	21.5	
		12	0	19.49	19.66	19.58	1	20.5	
12	6	19.67	19.65	19.64	1	20.5			
5	QPSK	12	13	19.65	19.73	19.68	1	20.5	
		25	0	19.53	19.71	19.62	1	20.5	
		1	0	19.48	19.83	19.70	1	20.5	
		1	12	20.02	19.87	19.84	1	20.5	
		1	24	19.70	19.53	19.44	1	20.5	
		12	0	18.64	18.69	18.52	2	19.5	
		12	6	18.71	18.52	18.75	2	19.5	
		12	13	18.76	18.63	18.71	2	19.5	
		25	0	18.71	18.59	18.54	2	19.5	
		1	0	18.63	18.82	18.88	2	19.5	
	16QAM	1	12	18.74	18.78	18.81	2	19.5	
		1	24	18.45	18.41	18.37	2	19.5	
		12	0	17.60	17.67	17.52	3	18.5	
		12	6	17.60	17.71	17.55	3	18.5	
		12	13	17.67	17.70	17.56	3	18.5	
		25	0	17.63	17.63	17.53	3	18.5	
		Channel		26035	26365	26675	3GPP MPR [dB]	Max. Tune-up [dBm]	
		Frequency (MHz)		1881.5	1882.5	1913.5			
		1	0	20.32	20.75	20.64	0	21.5	
		1	7	20.27	20.62	20.53	0	21.5	
1	14	20.23	20.34	20.07	0	21.5			
3	QPSK	8	0	19.58	19.57	19.62	1	20.5	
		8	3	19.61	19.65	19.69	1	20.5	
		8	7	19.67	19.61	19.54	1	20.5	
		15	0	19.65	19.64	19.56	1	20.5	
		1	0	19.50	19.82	19.73	1	20.5	
		1	7	19.97	19.96	19.79	1	20.5	
		1	14	19.67	19.52	19.50	1	20.5	
		8	0	18.71	18.66	18.59	2	19.5	
		8	3	18.76	18.59	18.62	2	19.5	
		8	7	18.71	18.70	18.72	2	19.5	
	16QAM	15	0	18.67	18.70	18.48	2	19.5	
		1	0	18.58	18.79	18.83	2	19.5	
		1	7	18.78	18.80	18.92	2	19.5	
		1	14	18.51	18.42	18.32	2	19.5	
		8	0	17.60	17.64	17.61	3	18.5	
		8	3	17.67	17.67	17.56	3	18.5	
		8	7	17.73	17.60	17.53	3	18.5	
		15	0	17.59	17.71	17.65	3	18.5	
		Channel		26047	26365	26683	3GPP MPR [dB]	Max. Tune-up [dBm]	
		Frequency (MHz)		1880.7	1882.5	1914.3			
1	0	20.27	20.68	20.59	0	21.5			
1.4	QPSK	1	2	20.31	20.65	20.50	0	21.5	
		1	5	20.23	20.33	20.08	0	21.5	
		3	0	20.41	20.45	20.36	0	21.5	
		3	1	20.56	20.50	20.45	0	21.5	
		3	3	20.46	20.46	20.36	0	21.5	
		6	0	19.59	19.69	19.60	1	20.5	
		1	0	19.51	19.87	19.81	1	20.5	
		1	2	19.98	19.94	19.74	1	20.5	
		1	5	19.60	19.49	19.36	1	20.5	
		3	0	19.51	19.52	19.39	1	20.5	
	16QAM	3	1	19.55	19.28	19.48	1	20.5	
		3	3	19.62	19.46	19.47	1	20.5	
		6	0	18.70	18.62	18.43	2	19.5	
		1	0	18.60	18.88	18.76	2	19.5	
		1	2	18.77	18.77	18.93	2	19.5	
		1	5	18.48	18.43	18.32	2	19.5	
		3	0	18.47	18.52	18.42	2	19.5	
		3	1	18.42	18.45	18.36	2	19.5	
		3	3	18.45	18.41	18.37	2	19.5	
		6	0	17.60	17.72	17.63	3	18.5	

EIRP FCC Part22 & IC RSS-132 LTE Band 26									
BW [MHz]	Modulation	RB Size	RB Offset	Low	Mid	High	3GPP MPR [dB]	Max. Tune-up [dBm]	
		Channel		26865	26915	26965			
		Frequency (MHz)		831.5	836.5	841.5			
15	QPSK	1	0	23.08	23.08	23.09	0	24.5	
		1	37	22.82	22.77	22.88	0	24.5	
		1	74	23.18	23.29	22.55	0	24.5	
		36	0	22.11	22.21	22.24	1	23.5	
		36	19	21.92	21.97	21.98	1	23.5	
		36	39	21.90	21.75	21.91	1	23.5	
		75	0	21.55	21.83	21.85	1	23.5	
		75	0	20.62	20.78	20.86	2	22.5	
	16QAM	1	0	22.12	22.23	22.07	1	23.5	
		1	37	22.01	22.11	21.77	1	23.5	
		1	74	22.29	22.04	22.01	1	23.5	
		36	0	21.17	21.06	20.97	2	22.5	
		36	19	21.00	20.87	20.72	2	22.5	
		36	39	20.78	20.73	20.53	2	22.5	
		75	0	20.62	20.78	20.86	2	22.5	
		75	0	21.17	21.09	21.08	2	22.5	
	64QAM	1	37	20.97	21.02	20.96	2	22.5	
		1	74	21.26	21.16	20.86	2	22.5	
		36	0	20.11	20.05	20.02	3	21.5	
		36	19	19.95	19.84	19.71	3	21.5	
		36	39	19.90	19.77	19.69	3	21.5	
		75	0	19.89	19.83	19.90	3	21.5	
		75	0	20.62	20.78	20.86	2	22.5	
		75	0	21.17	21.09	21.08	2	22.5	
BW [MHz]	Modulation	Channel	26860	26915	26990	3GPP MPR [dB]	Max. Tune-up [dBm]		
		Frequency (MHz)		829	836.5	844			
				829	836.5	844			
10	QPSK	1	0	23.07	23.00	22.99	0	24.5	
		1	24	22.67	22.68	22.74	0	24.5	
		1	49	23.09	23.19	22.51	0	24.5	
		25	0	21.88	22.20	22.17	1	23.5	
		25	12	21.77	21.83	21.91	1	23.5	
		25	25	21.77	21.71	21.83	1	23.5	
		50	0	21.65	21.76	21.71	1	23.5	
		50	0	22.08	22.20	22.05	1	23.5	
	16QAM	1	24	21.82	22.06	21.71	1	23.5	
		1	49	22.24	21.99	21.91	1	23.5	
		25	0	21.05	20.95	20.91	2	22.5	
		25	12	20.85	20.79	20.68	2	22.5	
		25	25	20.67	20.70	20.62	2	22.5	
		50	0	20.68	20.84	20.76	2	22.5	
		50	0	21.13	20.94	20.94	2	22.5	
		50	0	21.13	20.94	20.94	2	22.5	
	64QAM	1	24	20.89	20.94	20.87	2	22.5	
		1	49	21.14	21.13	20.57	2	22.5	
		25	0	20.00	20.02	19.99	3	21.5	
		25	12	19.90	19.86	19.66	3	21.5	
		25	25	19.85	19.74	19.66	3	21.5	
		50	0	19.84	19.79	19.73	3	21.5	
		50	0	19.84	19.79	19.73	3	21.5	
		50	0	19.84	19.79	19.73	3	21.5	
BW [MHz]	Modulation	Channel	26816	26915	27015	3GPP MPR [dB]	Max. Tune-up [dBm]		
		Frequency (MHz)		826.5	836.5	846.5			
				826.5	836.5	846.5			
5	QPSK	1	0	22.93	23.03	23.06	0	24.5	
		1	12	22.76	22.64	22.76	0	24.5	
		1	24	23.06	23.24	22.54	0	24.5	
		12	0	22.08	22.19	22.12	1	23.5	
		12	6	21.85	21.86	21.92	1	23.5	
		12	13	21.76	21.72	21.82	1	23.5	
		25	0	21.57	21.82	21.76	1	23.5	
		25	0	22.11	22.12	21.96	1	23.5	
	16QAM	1	12	21.96	22.08	21.65	1	23.5	
		1	24	22.20	21.93	21.97	1	23.5	
		12	0	21.15	21.00	20.85	2	22.5	
		12	6	20.84	20.74	20.62	2	22.5	
		12	13	20.69	20.63	20.53	2	22.5	
		25	0	20.53	20.63	20.74	2	22.5	
		25	0	21.14	21.07	21.05	2	22.5	
		25	0	21.14	21.07	21.05	2	22.5	
	64QAM	1	12	20.89	20.89	20.83	2	22.5	
		1	24	21.13	21.04	20.51	2	22.5	
		12	0	20.04	19.94	19.96	3	21.5	
		12	6	19.94	19.80	19.68	3	21.5	
		12	13	19.86	19.67	19.59	3	21.5	
		25	0	19.88	19.82	19.76	3	21.5	
		25	0	19.88	19.82	19.76	3	21.5	
		25	0	19.88	19.82	19.76	3	21.5	
BW [MHz]	Modulation	Channel	26866	26915	27000	3GPP MPR [dB]	Max. Tune-up [dBm]		
		Frequency (MHz)		836.5	836.5	847.5			
				836.5	836.5	847.5			
3	QPSK	1	0	22.96	22.96	23.00	0	24.5	
		1	7	22.71	22.75	22.80	0	24.5	
		1	14	23.05	23.24	22.52	0	24.5	
		8	0	22.03	22.08	22.20	1	23.5	
		8	3	21.87	21.82	21.93	1	23.5	
		8	7	21.80	21.61	21.87	1	23.5	
		15	0	21.53	21.72	21.72	1	23.5	
		15	0	22.10	22.15	21.92	1	23.5	
	16QAM	1	7	21.97	21.96	21.63	1	23.5	
		1	14	22.24	21.90	21.94	1	23.5	
		8	0	21.04	21.04	20.84	2	22.5	
		8	3	20.88	20.84	20.60	2	22.5	
		8	7	20.69	20.68	20.54	2	22.5	
		15	0	20.57	20.68	20.80	2	22.5	
		15	0	21.13	20.95	21.05	2	22.5	
		15	0	20.91	20.87	20.91	2	22.5	
	64QAM	1	14	21.15	21.06	20.52	2	22.5	
		8	0	20.10	20.01	19.89	3	21.5	
		8	3	19.80	19.80	19.57	3	21.5	
		8	7	19.84	19.75	19.62	3	21.5	
		15	0	19.78	19.78	19.75	3	21.5	
		15	0	19.78	19.78	19.75	3	21.5	
		15	0	19.78	19.78	19.75	3	21.5	
		15	0	19.78	19.78	19.75	3	21.5	
BW [MHz]	Modulation	Channel	26787	26915	27033	3GPP MPR [dB]	Max. Tune-up [dBm]		
		Frequency (MHz)		824.7	836.5	848.3			
				824.7	836.5	848.3			
1.4	QPSK	1	0	22.94	22.97	23.03	0	24.5	
		1	2	22.70	22.74	22.87	0	24.5	
		1	5	23.11	23.26	22.51	0	24.5	
		3	0	22.86	22.99	22.91	0	24.5	
		3	1	22.62	22.68	22.77	0	24.5	
		3	3	22.69	22.55	22.59	0	24.5	
		6	0	21.54	21.68	21.81	1	23.5	
		1	0	21.97	22.13	21.92	1	23.5	
	16QAM	1	2	21.90	22.06	21.75	1	23.5	
		1	5	22.28	21.92	21.98	1	23.5	
		3	0	21.97	21.87	21.76	1	23.5	
		3	1	21.80	21.68	21.57	1	23.5	
		3	3	21.55	21.57	21.54	1	23.5	
		6	0	20.54	20.75	20.71	2	22.5	
		6	0	21.02	21.05	21.02	2	22.5	
		6	0	20.96	20.99	20.81	2	22.5	
	64QAM	1	5	21.14	21.02	20.60	2	22.5	
		3	0	20.86	20.77	20.72	2	22.5	
		3	1	20.69	20.52	20.57	2	22.5	
		3	3	20.71	20.57	20.53	2	22.5	
		6	0	19.84	19.70	19.85	3	21.5	
		6	0	19.84	19.70	19.85	3	21.5	
		6	0	19.84	19.70	19.85	3	21.5	
		6	0	19.84	19.70	19.85	3	21.5	

EIRP Part90 LTE Band 26													
BW [MHz]	Modulation	RB Size	RB Offset	Low	Mid	High	3GPP MPR [dB]	Max. Tune-up [dBm]					
		Channel		2640									
10													
		Frequency (MHz)		818									
QPSK		1	0		22.51		0	24.5					
		1	24		22.87		0	24.5					
		1	49		23.07		0	24.5					
		25	0		22.12		1	23.5					
		25	12		21.81		1	23.5					
		25	25		21.84		1	23.5					
		50	0		22.09		2	22.5					
		50	1		21.55		1	23.5					
		1	24		22.20		1	23.5					
		1	49		22.32		1	23.5					
16QAM		25	0		21.07		2	22.5					
		25	12		20.82		2	22.5					
		25	25		20.90		2	22.5					
		50	0		21.10		2	22.5					
		1	0		20.52		2	22.5					
		1	24		21.06		2	22.5					
64QAM		1	49		21.23		2	22.5					
		25	0		20.04		3	21.5					
		25	12		19.97		3	21.5					
		25	25		19.90		3	21.5					
		50	0		20.14		3	21.5					
					20.48		26766						
5													
		Channel		26715	26740	26766	3GPP MPR [dB]	Max. Tune-up [dBm]					
		Frequency (MHz)		815.5	818	821.5							
QPSK		1	0	22.65	22.61	22.64	0	24.5					
		1	12	22.86	22.85	22.78	0	24.5					
		1	24	23.02	23.00	23.01	0	24.5					
		12	0	22.11	22.03	22.05	1	23.5					
		12	12	21.76	21.66	21.75	1	23.5					
		12	13	21.76	21.78	21.81	1	23.5					
		25	0	21.97	22.00	22.05	1	23.5					
		16QAM		1	0	21.66	21.64	21.64	1	23.5			
				1	12	22.05	22.07	22.08	1	23.5			
				1	24	22.26	22.25	22.25	1	23.5			
12	0			21.00	21.01	20.93	2	22.5					
12	6			20.75	20.74	20.71	2	22.5					
12	13			20.88	20.84	20.85	2	22.5					
64QAM		25	0	20.96	21.08	21.03	2	22.5					
		1	0	20.59	20.53	20.58	2	22.5					
		1	12	20.96	20.95	20.99	2	22.5					
		1	24	21.17	21.12	21.09	2	22.5					
		12	0	19.99	19.91	19.96	3	21.5					
		12	6	19.93	19.86	19.86	3	21.5					
BW [MHz]													
		Channel		26705	26740	26776	3GPP MPR [dB]	Max. Tune-up [dBm]					
		Frequency (MHz)		815.5	818	822.5							
QPSK		1	0	22.64	22.59	23.87	0	24.5					
		1	7	22.82	22.73	24.00	0	24.5					
		1	14	22.92	22.87	23.72	0	24.5					
		8	0	22.08	21.96	22.97	1	23.5					
		8	3	21.63	21.51	22.88	1	23.5					
		8	7	21.70	21.73	22.21	1	23.5					
		15	0	21.83	21.86	22.93	1	23.5					
		1	1	21.65	21.52	22.90	1	23.5					
		1	7	21.94	22.01	23.01	1	23.5					
		1	14	22.16	22.15	22.93	1	23.5					
16QAM		8	0	20.92	20.92	21.82	2	22.5					
		8	69	3	20.73	21.98	3	21.5					
		8	7	20.74	20.72	21.77	2	22.5					
		15	0	20.86	20.94	21.82	2	22.5					
		1	0	20.52	20.60	22.16	2	22.5					
		1	7	20.88	20.80	22.45	2	22.5					
64QAM		1	14	21.03	21.11	22.21	2	22.5					
		8	0	19.85	19.81	20.86	3	21.5					
		8	3	19.79	19.79	21.05	3	21.5					
		8	7	19.71	19.81	20.78	3	21.5					
		15	0	20.11	19.89	20.81	3	21.5					
					20.89	20.76	20.76						
3													
		Channel		814.2	815	823.3	3GPP MPR [dB]	Max. Tune-up [dBm]					
		Frequency (MHz)											
QPSK		1	0	22.57	22.53	22.55	0	24.5					
		1	2	22.83	22.81	22.87	0	24.5					
		1	5	22.98	22.98	22.91	0	24.5					
		3	0	22.86	22.70	22.80	0	24.5					
		3	46	3	22.46	22.54	0	24.5					
		3	3	22.49	22.55	22.62	0	24.5					
		16QAM		6	0	21.91	21.89	22.04	1	23.5			
				1	0	21.61	21.54	21.63	1	23.5			
				1	2	21.97	22.06	22.03	1	23.5			
				5	0	21.23	21.25	22.22	1	23.5			
3	0			21.72	21.69	21.65	1	23.5					
3	1			21.51	21.41	21.44	1	23.5					
64QAM		3	3	21.61	21.60	21.63	1	23.5					
		0	0	20.85	21.03	20.94	2	22.5					
		1	0	20.55	20.52	20.61	2	22.5					
		1	2	20.95	20.80	20.88	2	22.5					
		1	5	21.07	21.01	21.04	2	22.5					
		3	0	20.76	20.70	20.73	2	22.5					
1.4													
		Channel		20.56	20.56	20.56	3GPP MPR [dB]	Max. Tune-up [dBm]					
		Frequency (MHz)											
QPSK		3	0	20.66	20.58	20.58	2	22.5					
		3	3	20.57	20.56	20.57	2	22.5					
		6	0	20.06	19.97	19.98	3	21.5					
		16QAM		1	0	20.55	20.52	20.61	2	22.5			
				1	2	20.95	20.80	20.88	2	22.5			
				1	5	21.07	21.01	21.04	2	22.5			
				64QAM		3	0	20.76	20.70	20.73	2	22.5	
						3	0	20.56	20.56	20.56	2	22.5	
						3	3	20.57	20.56	20.57	2	22.5	
		6	0			20.06	19.97	19.98	3	21.5			

LTE Band 30							
BW [MHz]	Modulation	RB Size	RB Offset	Low	Mid	High	3GPP MPR [dB]
		Channel					
10	QPSK	Frequency (MHz)			2310		
		1	0		23.05		0
		1	24		22.55		0
		1	49		22.49		0
		25	0		21.89		1
		25	12		21.49		1
		25	25		21.37		1
		50	0		21.55		1
	16QAM	1	0		21.88		1
		1	24		21.69		1
		1	49		21.64		1
		25	0		20.55		2
		25	12		20.49		2
		25	25		20.42		2
		50	0		20.52		2
		1	0		20.81		2
		1	24		20.75		2
		1	49		20.76		2
5	QPSK	25	0		19.53		3
		25	12		19.52		3
		25	25		19.55		3
		50	0		19.57		3
	16QAM	1	0		21.86		1
		1	12		21.55		1
		1	24		21.55		1
		12	0		20.54		2
		12	6		20.38		2
		12	13		20.28		2
		25	0		20.38		2
		1	0		20.70		2
		1	12		20.63		2
		1	24		20.73		2
5	QPSK	12	0		19.50		3
		12	6		19.45		3
		12	13		19.43		3
		25	0		19.49		3
	16QAM	1	0		21.86		1
		1	12		21.55		1
		1	24		21.55		1
		12	0		20.54		2
		12	6		20.38		2
		12	13		20.28		2
		25	0		20.38		2
		1	0		20.70		2
		1	12		20.63		2
		1	24		20.73		2
5	QPSK	12	0		19.50		3
		12	6		19.45		3
		12	13		19.43		3
		25	0		19.49		3
	16QAM	1	0		21.86		1
		1	12		21.55		1
		1	24		21.55		1
		12	0		20.54		2
		12	6		20.38		2
		12	13		20.28		2
		25	0		20.38		2
		1	0		20.70		2
		1	12		20.63		2
		1	24		20.73		2

LTE Band 38							
BW [MHz]	Modulation	RB Size	RB Offset	Low	Mid	High	3GPP MPR [dB]
		Channel					
20	QPSK	Frequency (MHz)			2380	2395	2410
		1	0		22.06	22.10	22.07
		1	50		22.07	22.11	22.09
		1	99		22.10	22.12	22.10
		50	0		21.32	21.34	21.24
		50	25		21.35	21.38	21.28
		50	50		21.25	21.26	21.19
		100	0		21.25	21.35	21.22
	16QAM	1	0		21.62	21.54	21.43
		1	50		21.54	21.49	21.44
		1	99		21.64	21.50	21.40
		50	0		20.55	20.50	20.46
		50	25		20.51	20.44	20.42
		50	50		20.48	20.40	20.36
		100	0		20.57	20.43	20.37
		1	0		20.28	20.13	20.11
		1	50		20.18	20.17	20.09
		1	99		20.04	20.00	19.96
15	QPSK	50	0		19.58	19.51	19.54
		50	25		19.47	19.36	19.46
		50	50		19.42	19.39	19.33
		100	0		19.55	19.41	19.53
	16QAM	1	0		21.61	21.44	21.38
		1	37		21.50	21.41	21.36
		1	74		21.60	21.37	21.36
		36	0		20.53	20.41	20.39
		36	19		20.37	20.36	20.38
		36	39		20.34	20.39	20.31
		75	0		20.48	20.35	20.34
		1	0		20.19	20.12	20.04
		1	37		20.11	20.04	20.02
		1	74		19.90	19.89	19.92
10	QPSK	36	0		19.56	19.50	19.51
		36	19		19.44	19.27	19.36
		36	39		19.31	19.34	19.19
		75	0		19.42	19.38	19.51
	16QAM	1	0		22.00	22.01	22.02
		1	24		21.98	21.96	21.99
		1	49		21.89	22.11	21.95
		25	0		21.17	21.19	21.19
		25	12		21.19	21.18	21.13
		25	25		21.20	21.23	21.14
		50	0		21.19	21.21	21.19
		1	0		21.48	21.42	21.34
		1	24		21.46	21.41	21.39
		1	49		21.58	21.49	21.36
5	QPSK	25	0		20.51	20.49	20.44
		25	12		20.48	20.43	20.39
		25	25		20.34	20.32	20.28
		50	0		20.52	20.39	20.28
	16QAM	1	0		20.22	20.06	20.06
		1	24		20.03	20.11	19.94
		1	49		19.99	19.89	19.93
		25	0		19.57	19.39	19.53
		25	12		19.46	19.33	19.39
		25	25		19.36	19.35	19.24
		50	0		19.45	19.36	19.43
	64QAM	1	0		21.79	21.66	21.75
		1	12		21.44	21.48	21.29
		1	24		21.56	21.41	21.33
		12	0		20.47	20.42	20.39
		12	6		20.45	20.38	20.34
		12	13		20.47	20.30	20.34
		25	0		20.51	20.40	20.31
		1	0		20.17	20.12	19.98
		1	12		20.14	20.11	19.98
		1	24		19.89	19.98	19.81

LTE Band 41												
BW [MHz]	Modulation	RB Size	RB Offset	Channel							3GPP MPR [dB]	Max. Tune-up [dBm]
		Channel	39790	39750	40185	40620	41055	41490				
		Frequency (MHz)	2510	2506	2548.5	2593	2636.5	2680				
20	QPSK	1	0	22.17	22.27	22.32	22.42	22.63	22.35	0	23	
		1	50	22.15	22.25	22.31	22.40	22.01	22.31	0	23	
		1	99	21.85	22.03	22.15	22.17	22.00	21.74	0	23	
		50	0	21.37	21.32	21.50	21.52	21.46	21.80	1	22	
		50	25	21.34	21.28	21.45	21.49	21.42	21.45	1	22	
		50	50	21.17	21.11	21.43	21.44	21.37	21.42	1	22	
		100	0	21.12	21.10	21.50	21.53	21.36	21.52	1	22	
		1	0	21.44	21.49	21.88	21.64	21.58	21.87	1	22	
		1	50	21.43	21.47	21.88	21.62	21.92	21.99	1	22	
		1	99	21.35	21.32	21.66	21.56	21.42	21.02	1	22	
	16QAM	50	0	20.41	20.27	20.67	20.59	20.54	20.80	2	21	
		50	25	20.38	20.43	20.71	20.82	20.52	20.83	2	21	
		50	50	20.35	20.22	20.54	20.40	20.44	20.70	2	21	
		100	0	20.23	20.28	20.61	20.41	20.50	20.75	2	21	
		1	0	20.10	20.20	20.38	20.31	20.10	20.40	2	21	
		1	50	20.12	20.22	20.40	20.32	20.14	20.47	2	21	
		1	99	19.85	19.88	19.81	19.66	19.98	19.55	2	21	
		50	0	18.94	18.88	19.17	19.05	18.94	19.26	3	20	
		50	25	18.83	18.80	19.15	18.88	19.00	19.25	3	20	
		50	50	18.84	18.71	19.01	18.85	18.90	19.15	3	20	
15	QPSK	Channel		39728	39728	40172.5	40620	41067.5	41515	3GPP MPR [dB]	Max. Tune-up [dBm]	
		Frequency (MHz)		2507.5	2503.5	2548.25	2593	2637.75	2682.5			
		1	0	22.16	22.12	22.21	22.36	21.91	22.34	0	23	
		1	37	22.10	22.13	22.16	22.25	21.91	22.29	0	23	
		1	74	21.70	21.89	22.06	22.04	21.93	21.63	0	23	
		36	0	21.32	21.27	21.48	21.42	21.40	21.76	1	22	
		36	18	21.32	21.15	21.30	21.42	21.39	21.39	1	22	
		36	39	21.05	20.98	21.42	21.41	21.29	21.28	1	22	
		75	0	21.02	20.97	21.42	21.49	21.21	21.46	1	22	
		1	0	21.36	21.47	21.87	21.49	21.52	21.74	1	22	
	16QAM	1	37	21.60	21.37	21.60	21.59	21.62	21.67	1	22	
		1	74	21.31	21.27	21.60	21.53	21.40	20.96	1	22	
		36	0	20.35	20.15	20.52	20.56	20.46	20.76	2	21	
		36	19	20.34	20.30	20.59	20.61	20.46	20.74	2	21	
		36	39	20.29	20.08	20.42	20.35	20.33	20.59	2	21	
		75	0	20.08	20.21	20.60	20.31	20.42	20.64	2	21	
		1	0	20.00	20.18	20.36	20.16	20.02	20.33	2	21	
		1	37	20.11	20.21	20.27	20.26	20.05	20.45	2	21	
		1	74	19.81	19.81	19.77	19.63	19.88	19.42	2	21	
		36	0	18.90	18.77	19.12	18.98	18.93	19.16	3	20	
64QAM	36	19	18.90	18.67	19.09	18.67	18.68	19.14	3	20		
	36	36	18.75	18.69	18.99	18.78	18.79	19.08	3	20		
	75	0	18.72	18.63	19.01	18.63	18.84	19.10	3	20		
	Channel		39740	39700	40160	40620	41080	41540	3GPP MPR [dB]	Max. Tune-up [dBm]		
	Frequency (MHz)		2505	2501	2547	2593	2639	2685				
	1	0	22.07	22.12	22.26	22.34	21.96	22.28	0	23		
	1	24	22.09	22.23	22.29	22.37	22.00	22.26	0	23		
	1	49	21.72	22.00	22.09	22.13	21.99	21.67	0	23		
	25	0	21.28	21.22	21.48	21.49	21.44	21.66	1	22		
	25	12	21.26	21.19	21.35	21.47	21.41	21.40	1	22		
10	QPSK	25	25	21.07	21.05	21.40	21.38	21.33	21.32	1	22	
		50	0	21.03	21.01	21.39	21.40	21.32	21.59	1	22	
		1	0	21.40	21.38	21.80	21.52	21.57	21.74	1	22	
		1	24	21.36	21.41	21.76	21.59	21.83	21.95	1	22	
		1	49	21.29	21.24	21.53	21.47	21.33	20.87	1	22	
		25	0	20.35	20.22	20.63	20.51	20.51	20.70	2	21	
		25	12	20.28	20.30	20.57	20.59	20.48	20.72	2	21	
		25	25	20.30	20.17	20.43	20.25	20.31	20.61	2	21	
		50	0	20.13	20.18	20.57	20.35	20.49	20.65	2	21	
		1	0	19.99	20.05	20.30	20.29	20.04	20.25	2	21	
	16QAM	1	24	20.05	20.11	20.29	20.18	20.07	20.35	2	21	
		1	49	19.75	19.81	19.75	19.61	19.97	19.47	2	21	
		25	0	18.84	18.82	19.05	18.94	18.83	19.14	3	20	
		25	12	18.78	18.79	19.14	18.75	18.95	19.13	3	20	
		25	25	18.80	18.70	18.91	18.70	18.88	19.10	3	20	
		50	0	18.77	18.66	18.93	18.63	18.77	19.17	3	20	
		Channel		39675	39675	40147.5	40620	41092.5	41560	3GPP MPR [dB]	Max. Tune-up [dBm]	
		Frequency (MHz)		2502.5	2498.5	2544.75	2593	2640.25	2687.5			
		1	0	22.11	22.24	22.31	22.39	21.90	22.21	0	23	
		1	12	22.10	22.20	22.25	22.29	21.98	22.18	0	23	
5	QPSK	1	24	21.74	22.01	22.00	22.12	21.88	21.64	0	23	
		12	0	21.33	21.29	21.42	21.41	21.42	21.74	1	22	
		12	6	21.19	21.16	21.39	21.42	21.37	21.34	1	22	
		12	13	21.07	21.03	21.29	21.33	21.31	21.41	1	22	
		25	0	21.03	21.03	21.45	21.41	21.29	21.50	1	22	
		1	0	21.33	21.45	21.84	21.62	21.50	21.74	1	22	
		1	12	21.39	21.33	21.83	21.53	21.88	21.92	1	22	
		1	24	21.21	21.22	21.65	21.43	21.37	20.94	1	22	
		12	0	20.27	20.22	20.60	20.45	20.43	20.74	2	21	
		12	6	20.27	20.41	20.64	20.57	20.42	20.75	2	21	
	16QAM	12	13	20.31	20.20	20.50	20.30	20.43	20.68	2	21	
		25	0	20.18	20.19	20.48	20.32	20.48	20.71	2	21	
		1	0	19.98	20.08	20.36	20.19	20.00	20.38	2	21	
		1	12	20.11	20.14	20.33	20.30	20.07	20.43	2	21	
		1	24	19.78	19.83	19.66	19.59	19.85	19.54	2	21	
		12	0	18.90	18.75	19.14	19.03	18.79	19.21	3	20	
		12	6	18.68	18.69	19.12	18.61	18.91	19.20	3	20	
		12	13	18.72	18.61	18.98	18.78	18.77	19.06	3	20	
		25	0	18.72	18.68	19.01	18.79	18.79	19.13	3	20	

LTE Band 71									
BW [MHz]	Modulation	RB Size	RB Offset	Low	Mid	High	3GPP MPR (dB)	Max. Tune-up (dBm)	
		Channel		133222	133322	133372			
		Frequency (MHz)		673	683	688			
20	QPSK	1	0	22.00	22.06	22.01	0	23	
		1	50	22.31	22.45	22.22	0	23	
		1	99	21.66	21.70	21.65	0	23	
		50	0	21.51	21.55	21.45	1	22	
		50	25	21.55	21.56	21.46	1	22	
		50	50	21.45	21.51	21.34	1	22	
		100	0	21.63	21.72	21.64	1	22	
		1	0	21.21	21.33	21.20	1	22	
		1	50	21.02	21.65	21.00	1	22	
		1	99	21.21	20.84	21.15	1	22	
	16QAM	50	0	20.74	20.54	20.50	2	21	
		50	25	20.61	20.77	20.57	2	21	
		50	50	20.73	20.43	20.47	2	21	
		100	0	20.79	20.81	20.73	2	21	
		1	0	20.14	20.21	20.36	2	21	
		1	50	20.03	20.46	20.00	2	21	
		1	99	20.56	20.35	20.33	2	21	
		50	0	19.60	19.57	19.49	3	20	
		50	25	19.68	19.91	19.65	3	20	
		50	50	19.67	19.71	19.50	3	20	
	64QAM	100	0	19.75	19.78	19.61	3	20	
		Channel		133197	133297	133297	3GPP MPR	Max. Tune-up	
		Frequency (MHz)		676.5	686.5	690.5			
		1	0	21.92	21.93	21.95	0	23	
		1	37	22.26	22.42	22.11	0	23	
		1	74	21.58	21.62	21.54	0	23	
		36	0	21.36	21.47	21.36	1	22	
		36	19	21.53	21.53	21.31	1	22	
		36	39	21.38	21.40	21.23	1	22	
		75	0	21.51	21.63	21.63	1	22	
15	QPSK	1	0	21.09	21.27	21.05	1	22	
		1	37	20.91	21.62	20.97	1	22	
		1	74	21.19	20.76	21.03	1	22	
		36	0	20.65	20.50	20.37	2	21	
		36	19	20.49	20.75	20.48	2	21	
		36	39	20.67	20.40	20.34	2	21	
		75	0	20.74	20.73	20.72	2	21	
		1	0	20.01	20.13	20.25	2	21	
		1	37	19.88	20.39	19.93	2	21	
		1	74	20.47	20.27	20.30	2	21	
	16QAM	36	0	19.53	19.52	19.40	3	20	
		36	19	19.53	19.50	19.62	3	20	
		36	39	19.66	19.69	19.47	3	20	
		75	0	19.66	19.73	19.60	3	20	
		Channel		133172	133297	133422	3GPP MPR	Max. Tune-up	
		Frequency (MHz)		668	680.5	693			
		1	0	21.97	21.91	21.93	0	23	
		1	24	22.22	22.35	22.14	0	23	
		1	49	21.65	21.69	21.60	0	23	
		25	0	21.49	21.41	21.40	1	22	
10	QPSK	25	12	21.43	21.52	21.32	1	22	
		25	25	21.38	21.46	21.30	1	22	
		50	0	21.55	21.60	21.56	1	22	
		1	0	21.07	21.18	21.07	1	22	
		1	24	20.99	21.63	20.95	1	22	
		1	49	21.13	20.76	21.04	1	22	
		25	0	20.73	20.42	20.45	2	21	
		25	12	20.51	20.64	20.48	2	21	
		25	25	20.66	20.42	20.34	2	21	
		50	0	20.77	20.69	20.71	2	21	
	16QAM	1	0	20.00	20.07	20.21	2	21	
		1	24	19.93	20.37	19.85	2	21	
		1	49	20.54	20.26	20.28	2	21	
		25	0	19.53	19.51	19.48	3	20	
		25	12	19.64	19.84	19.51	3	20	
		25	25	19.65	19.65	19.47	3	20	
		50	0	19.70	19.69	19.51	3	20	
		Channel		133147	133297	133447	3GPP MPR	Max. Tune-up	
		Frequency (MHz)		665.5	680.5	684.5			
		1	0	21.95	22.04	21.98	0	23	
5	QPSK	1	12	22.19	22.39	22.09	0	23	
		1	24	21.51	21.63	21.60	0	23	
		12	0	21.50	21.45	21.32	1	22	
		12	6	21.49	21.41	21.42	1	22	
		12	13	21.39	21.48	21.32	1	22	
		25	0	21.49	21.66	21.50	1	22	
	16QAM	1	0	21.07	21.26	21.05	1	22	
		1	12	21.00	21.50	20.99	1	22	
		1	24	21.17	20.78	21.06	1	22	
		12	0	20.71	20.40	20.45	2	21	
		12	6	20.53	20.63	20.45	2	21	
		12	13	20.62	20.42	20.42	2	21	
		25	0	20.70	20.75	20.63	2	21	
		1	0	20.04	20.14	20.23	2	21	
		1	12	20.02	20.39	19.97	2	21	
		1	24	20.46	20.21	20.21	2	21	
	64QAM	12	0	19.47	19.42	19.44	3	20	
		12	6	19.65	19.84	19.50	3	20	
		12	13	19.64	19.66	19.49	3	20	
		25	0	19.60	19.76	19.55	3	20	

Full Power_ ULCA

CA_7C									
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)	Max Tune-up (dBm)
			RB Size	RB offset	RB Size	RB offset			
20850	21048	QPSK	1	99	1	0	1	21.68	22
		16QAM	1	99	1	0	1	20.93	21
		64QAM	1	99	1	0	1	19.96	20
21100	21298	QPSK	1	99	1	0	1	21.73	22
		16QAM	1	99	1	0	1	20.96	21
		64QAM	1	99	1	0	1	19.94	20
21350	21152	QPSK	1	99	1	0	1	21.76	22
		16QAM	1	99	1	0	1	20.98	21
		64QAM	1	99	1	0	1	19.99	20

Conducted Power

2.4GHz WLAN					
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit
	802.11b 1Mbps	1	2412		13.50
		6	2437		14.50
		11	2462	15.21	15.50

5GHz WLAN					
5.2GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit
	802.11a 6Mbps	36	5180		14.00
		40	5200		16.00
		44	5220		16.00
		48	5240	14.62	16.00

5GHz WLAN					
5.3GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit
	802.11a 6Mbps	52	5260		16.00
		56	5280		16.00
		60	5300	15.20	16.00
		64	5320		16.00

5GHz WLAN					
5.5GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit
	802.11a 6Mbps	100	5500		15.00
		116	5580		15.00
		124	5620		17.00
		132	5660		17.00
		140	5700		15.00
		144	5720	16.35	17.00

5GHz WLAN					
5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit
	802.11a 6Mbps	149	5745	17.41	18.00
		157	5785	17.43	18.00
		165	5825		17.00

BT	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit
BR/EDR	GFSK	0	2402		4.00
		39	2441		4.00
		78	2480	5.02	6.00

Appendix E. Simultaneous Multi-band Transmission Evaluation

The simultaneous transmission evaluation and analysis is shown as below.

Simultaneous Transmission analysis Head SAR

WWAN Band	Test Position	1	2	3	4	1+2 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)
		WWAN	2.4GHz WLAN	5GHz WLAN	Bluetooth		
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM850	Right Cheek	0.43	0.13	0.62	0.02	0.56	1.07
	Right Tilted	0.24	0.08	0.58	0.02	0.31	0.84
	Left Cheek	0.34	0.15	1.17	0.08	0.49	1.59
	Left Tilted	0.22	0.15	0.74	0.03	0.38	0.99
GS1900	Right Cheek	0.15	0.13	0.62	0.02	0.28	0.79
	Right Tilted	0.07	0.08	0.58	0.02	0.15	0.67
	Left Cheek	0.13	0.15	1.17	0.08	0.28	1.38
	Left Tilted	0.11	0.15	0.74	0.03	0.27	0.88
WCDMA II	Right Cheek	0.12	0.13	0.62	0.02	0.25	0.76
	Right Tilted	0.05	0.08	0.58	0.02	0.12	0.65
	Left Cheek	0.09	0.15	1.17	0.08	0.24	1.34
	Left Tilted	0.07	0.15	0.74	0.03	0.22	0.84
WCDMA IV	Right Cheek	0.15	0.13	0.62	0.02	0.28	0.79
	Right Tilted	0.10	0.08	0.58	0.02	0.17	0.70
	Left Cheek	0.12	0.15	1.17	0.08	0.27	1.37
	Left Tilted	0.09	0.15	0.74	0.03	0.24	0.86
WCDMA V	Right Cheek	0.53	0.13	0.62	0.02	0.66	1.17
	Right Tilted	0.31	0.08	0.58	0.02	0.39	0.91
	Left Cheek	0.42	0.15	1.17	0.08	0.57	1.67
	Left Tilted	0.31	0.15	0.74	0.03	0.46	1.08
LTE Band 5	Right Cheek	0.39	0.13	0.62	0.02	0.52	1.03
	Right Tilted	0.34	0.08	0.58	0.02	0.42	0.94
	Left Cheek	0.48	0.15	1.17	0.08	0.63	1.73
	Left Tilted	0.29	0.15	0.74	0.03	0.45	1.06
LTE Band 7	Right Cheek	0.10	0.13	0.62	0.02	0.23	0.74
	Right Tilted	0.04	0.08	0.58	0.02	0.11	0.64
	Left Cheek	0.24	0.15	1.17	0.08	0.39	1.49
	Left Tilted	0.06	0.15	0.74	0.03	0.21	0.83
LTE Band 12	Right Cheek	0.24	0.13	0.62	0.02	0.37	0.88
	Right Tilted	0.18	0.08	0.58	0.02	0.25	0.78
	Left Cheek	0.36	0.15	1.17	0.08	0.51	1.61
	Left Tilted	0.22	0.15	0.74	0.03	0.37	0.99
LTE Band 13	Right Cheek	0.34	0.13	0.62	0.02	0.47	0.98
	Right Tilted	0.27	0.08	0.58	0.02	0.35	0.87
	Left Cheek	0.36	0.15	1.17	0.08	0.51	1.61
	Left Tilted	0.25	0.15	0.74	0.03	0.41	1.02
LTE Band 14	Right Cheek	0.37	0.13	0.62	0.02	0.50	1.01
	Right Tilted	0.23	0.08	0.58	0.02	0.31	0.83
	Left Cheek	0.33	0.15	1.17	0.08	0.48	1.58
	Left Tilted	0.21	0.15	0.74	0.03	0.37	0.98
LTE Band 25	Right Cheek	0.15	0.13	0.62	0.02	0.28	0.79
	Right Tilted	0.04	0.08	0.58	0.02	0.12	0.64
	Left Cheek	0.10	0.15	1.17	0.08	0.25	1.35
	Left Tilted	0.07	0.15	0.74	0.03	0.23	0.84
LTE Band 26	Right Cheek	0.42	0.13	0.62	0.02	0.55	1.06
	Right Tilted	0.28	0.08	0.58	0.02	0.35	0.88
	Left Cheek	0.44	0.15	1.17	0.08	0.59	1.69
	Left Tilted	0.23	0.15	0.74	0.03	0.38	1.00
LTE Band 30	Right Cheek	0.17	0.13	0.62	0.02	0.30	0.81
	Right Tilted	0.06	0.08	0.58	0.02	0.14	0.66
	Left Cheek	0.23	0.15	1.17	0.08	0.38	1.48
	Left Tilted	0.08	0.15	0.74	0.03	0.24	0.85
LTE Band 41	Right Cheek	0.06	0.13	0.62	0.02	0.19	0.70
	Right Tilted	0.04	0.08	0.58	0.02	0.12	0.64
	Left Cheek	0.16	0.15	1.17	0.08	0.31	1.41
	Left Tilted	0.050	0.15	0.74	0.03	0.20	0.82
LTE Band 66	Right Cheek	0.22	0.13	0.62	0.02	0.35	0.86
	Right Tilted	0.08	0.08	0.58	0.02	0.16	0.68
	Left Cheek	0.12	0.15	1.17	0.08	0.27	1.37
	Left Tilted	0.09	0.15	0.74	0.03	0.24	0.86
LTE Band 71	Right Cheek	0.31	0.13	0.62	0.02	0.44	0.95
	Right Tilted	0.20	0.08	0.58	0.02	0.27	0.80
	Left Cheek	0.31	0.15	1.17	0.08	0.46	1.56
	Left Tilted	0.18	0.15	0.74	0.03	0.34	0.95

Simultaneous Transmission analysis Body SAR

WWAN Band	Test Position	1	2	3	4	1+2 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)
		WWAN	2.4GHz WLAN	5GHz WLAN	Bluetooth		
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM850	Front	0.20	0.05	0.36	0.02	0.25	0.59
	Back	0.56	0.07	0.86	0.02	0.63	1.44
GSM1900	Front	0.68	0.05	0.36	0.02	0.73	1.07
	Back	1.19	0.07	0.86	0.02	1.26	2.07
WCDMA II	Front	0.62	0.05	0.36	0.02	0.67	1.01
	Back	1.15	0.07	0.86	0.02	1.22	2.03
WCDMA IV	Front	0.46	0.05	0.36	0.02	0.51	0.85
	Back	1.14	0.07	0.86	0.02	1.21	2.02
WCDMA V	Front	0.35	0.05	0.36	0.02	0.40	0.74
	Back	0.58	0.07	0.86	0.02	0.65	1.46
LTE Band 5	Front	0.33	0.05	0.36	0.02	0.38	0.72
	Back	0.43	0.07	0.86	0.02	0.50	1.31
LTE Band 7	Front	0.97	0.05	0.36	0.02	1.02	1.36
	Back	0.99	0.07	0.86	0.02	1.06	1.87
LTE Band 12	Front	0.28	0.05	0.36	0.02	0.33	0.67
	Back	0.34	0.07	0.86	0.02	0.41	1.22
LTE Band 13	Front	0.25	0.05	0.36	0.02	0.30	0.64
	Back	0.34	0.07	0.86	0.02	0.41	1.22
LTE Band 14	Front	0.26	0.05	0.36	0.02	0.31	0.65
	Back	0.31	0.07	0.86	0.02	0.38	1.20
LTE Band 25	Front	0.64	0.05	0.36	0.02	0.69	1.03
	Back	1.01	0.07	0.86	0.02	1.08	1.89
LTE Band 26	Front	0.30	0.05	0.36	0.02	0.35	0.69
	Back	0.55	0.07	0.86	0.02	0.62	1.43
LTE Band 30	Front	0.82	0.05	0.36	0.02	0.87	1.21
	Back	0.72	0.07	0.86	0.02	0.79	1.60
LTE Band 41	Front	0.57	0.05	0.36	0.02	0.62	0.96
	Back	0.60	0.07	0.86	0.02	0.67	1.49
LTE Band 66	Front	0.43	0.05	0.36	0.02	0.48	0.82
	Back	1.17	0.07	0.86	0.02	1.24	2.05
LTE Band 71	Front	0.29	0.05	0.36	0.02	0.34	0.68
	Back	0.46	0.07	0.86	0.02	0.53	1.35

Simultaneous Transmission analysis Hotspot SAR

WWAN Band	Test Position	1	2	3	4	1+2	1+3+4
		WWAN	2.4GHz WLAN	5GHz WLAN	Bluetooth	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM850	Front Face at 1cm	0.20	0.08	0.31	0.02	0.28	0.53
	Rear Face at 1cm	0.56	0.07	0.71	0.02	0.63	1.28
	Left Side at 1cm	0.16				0.16	0.16
	Right Side at 1cm	0.30	0.07	1.06	0.03	0.37	1.39
	Top Side at 1cm	0.26	0.04	0.15	0.01	0.04	0.16
	Bottom Side at 1cm	0.26				0.26	0.26
GSM1900	Front Face at 1cm	0.68	0.08	0.31	0.02	0.76	1.01
	Rear Face at 1cm	1.19	0.07	0.71	0.02	1.26	1.91
	Left Side at 1cm	0.09				0.09	0.09
	Right Side at 1cm	0.16	0.07	1.06	0.03	0.23	1.25
	Top Side at 1cm		0.04	0.15	0.01	0.04	0.16
	Bottom Side at 1cm	0.71				0.71	0.71
WCDMA II	Front Face at 1cm	0.62	0.08	0.31	0.02	0.70	0.95
	Rear Face at 1cm	1.15	0.07	0.71	0.02	1.22	1.87
	Left Side at 1cm	0.07				0.07	0.07
	Right Side at 1cm	0.12	0.07	1.06	0.03	0.19	1.21
	Top Side at 1cm		0.04	0.15	0.01	0.04	0.16
	Bottom Side at 1cm	0.72				0.72	0.72
WCDMA IV	Front Face at 1cm	0.46	0.08	0.31	0.02	0.54	0.79
	Rear Face at 1cm	1.14	0.07	0.71	0.02	1.21	1.86
	Left Side at 1cm	0.06				0.06	0.06
	Right Side at 1cm	0.12	0.07	1.06	0.03	0.19	1.21
	Top Side at 1cm		0.04	0.15	0.01	0.04	0.16
	Bottom Side at 1cm	0.64				0.64	0.64
WCDMA V	Front Face at 1cm	0.35	0.08	0.31	0.02	0.43	0.68
	Rear Face at 1cm	0.58	0.07	0.71	0.02	0.65	1.30
	Left Side at 1cm	0.22				0.22	0.22
	Right Side at 1cm	0.34	0.07	1.06	0.03	0.41	1.43
	Top Side at 1cm		0.04	0.15	0.01	0.04	0.16
	Bottom Side at 1cm	0.32				0.32	0.32
LTE Band 5	Front Face at 1cm	0.33	0.08	0.31	0.02	0.41	0.66
	Rear Face at 1cm	0.43	0.07	0.71	0.02	0.50	1.15
	Left Side at 1cm	0.20				0.20	0.20
	Right Side at 1cm	0.35	0.07	1.06	0.03	0.42	1.44
	Top Side at 1cm		0.04	0.15	0.01	0.04	0.16
	Bottom Side at 1cm	0.33				0.33	0.33
LTE Band 7	Front Face at 1cm	0.97	0.08	0.31	0.02	1.05	1.30
	Rear Face at 1cm	1.05	0.07	0.71	0.02	1.12	1.77
	Left Side at 1cm	0.25				0.25	0.25
	Right Side at 1cm	0.17	0.07	1.06	0.03	0.24	1.26
	Top Side at 1cm		0.04	0.15	0.01	0.04	0.16
	Bottom Side at 1cm	1.17				1.17	1.17
LTE Band 12	Front Face at 1cm	0.28	0.08	0.31	0.02	0.36	0.61
	Rear Face at 1cm	0.34	0.07	0.71	0.02	0.41	1.06
	Left Side at 1cm	0.28				0.28	0.28
	Right Side at 1cm	0.43	0.07	1.06	0.03	0.50	1.62
	Top Side at 1cm		0.04	0.15	0.01	0.04	0.16
	Bottom Side at 1cm	0.14				0.14	0.14
LTE Band 13	Front Face at 1cm	0.25	0.08	0.31	0.02	0.33	0.58
	Rear Face at 1cm	0.34	0.07	0.71	0.02	0.41	1.06
	Left Side at 1cm	0.15				0.15	0.15
	Right Side at 1cm	0.32	0.07	1.06	0.03	0.39	1.41
	Top Side at 1cm		0.04	0.15	0.01	0.04	0.16
	Bottom Side at 1cm	0.27				0.27	0.27
LTE Band 14	Front Face at 1cm	0.26	0.08	0.31	0.02	0.34	0.59
	Rear Face at 1cm	0.31	0.07	0.71	0.02	0.38	1.03
	Left Side at 1cm	0.14				0.14	0.14
	Right Side at 1cm	0.29	0.07	1.06	0.03	0.36	1.38
	Top Side at 1cm		0.04	0.15	0.01	0.04	0.16
	Bottom Side at 1cm	0.20				0.20	0.20
LTE Band 26	Front Face at 1cm	0.64	0.08	0.31	0.02	0.72	0.97
	Rear Face at 1cm	1.01	0.07	0.71	0.02	1.08	1.73
	Left Side at 1cm	0.07				0.07	0.07
	Right Side at 1cm	0.12	0.07	1.06	0.03	0.19	1.21
	Top Side at 1cm		0.04	0.15	0.01	0.04	0.16
	Bottom Side at 1cm	0.77				0.77	0.77
LTE Band 28	Front Face at 1cm	0.30	0.08	0.31	0.02	0.38	0.63
	Rear Face at 1cm	0.55	0.07	0.71	0.02	0.62	1.27
	Left Side at 1cm	0.29				0.29	0.29
	Right Side at 1cm	0.40	0.07	1.06	0.03	0.47	1.49
	Top Side at 1cm		0.04	0.15	0.01	0.04	0.16
	Bottom Side at 1cm	0.31				0.31	0.31
LTE Band 30	Front Face at 1cm	0.62	0.08	0.31	0.02	0.69	1.15
	Rear Face at 1cm	0.88	0.07	0.71	0.02	0.95	1.60
	Left Side at 1cm	0.21				0.21	0.21
	Right Side at 1cm	0.12	0.07	1.06	0.03	0.19	1.21
	Top Side at 1cm		0.04	0.15	0.01	0.04	0.16
	Bottom Side at 1cm	0.36				0.36	0.36
LTE Band 41	Front Face at 1cm	0.57	0.08	0.31	0.02	0.65	0.90
	Rear Face at 1cm	0.60	0.07	0.71	0.02	0.67	1.32
	Left Side at 1cm	0.17				0.17	0.17
	Right Side at 1cm	0.09	0.07	1.06	0.03	0.16	1.18
	Top Side at 1cm		0.04	0.15	0.01	0.04	0.16
	Bottom Side at 1cm	0.63				0.63	0.63
LTE Band 66	Front Face at 1cm	0.43	0.08	0.31	0.02	0.51	0.76
	Rear Face at 1cm	1.17	0.07	0.71	0.02	1.24	1.89
	Left Side at 1cm	0.19				0.19	0.19
	Right Side at 1cm	0.09	0.07	1.06	0.03	0.16	1.18
	Top Side at 1cm		0.04	0.15	0.01	0.04	0.16
	Bottom Side at 1cm	0.61				0.61	0.61
LTE Band 71	Front Face at 1cm	0.29	0.08	0.31	0.02	0.37	0.62
	Rear Face at 1cm	0.46	0.07	0.71	0.02	0.53	1.18
	Left Side at 1cm	0.13				0.13	0.13
	Right Side at 1cm	0.29	0.07	1.06	0.03	0.36	1.38
	Top Side at 1cm		0.04	0.15	0.01	0.04	0.16
	Bottom Side at 1cm	0.16				0.16	0.16

Simultaneous Transmission analysis Extremity SAR

WWAN Band	Test Position	1	2	3	4	1+2 Summed 10g SAR (W/kg)	1+3+4 Summed 10g SAR (W/kg)
		WWAN	2.4GHz WLAN	5GHz WLAN	Bluetooth		
		10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)		
LTE Band 7	Front Face at 0cm			0.54		0.00	0.54
	Rear Face at 0cm			1.03		0.00	1.03
	Right Side at 0cm			1.94		0.00	1.94
	Top Side at 0cm			0.23		0.00	0.23
	Bottom Side at 0cm	2.40				2.40	2.40

Appendix F. Photographs of EUT and SAR Setup