



SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

SZSAR-TRF-01 Rev. A/2

Report No.: SZCR260400149902

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SAR TEST REPORT PART 2

(Test Under Dynamic Transmission Condition)

Application No.: SZCR2604001499WM
Applicant: Motorola Mobility LLC
Address of Applicant: 222 W Merchandise Mart Plaza, Chicago, IL 60654 USA
Manufacturer: Motorola Mobility LLC
Address of Manufacturer: 222 W Merchandise Mart Plaza, Chicago IL 60654 USA
Product Name: Mobile Cellular Phone
Model No.: XT2625-10
Trade Mark: Motorola
FCC ID: IHDT56AX3
Date of Receipt: 2026-02-03(for original report SZCR260200054302)
Date of Test: 2026-02-25 to 2026-03-10(for original report SZCR260200054302)
2026-04-23 to 2026-04-27(for new report SZCR260400149902)
Date of Issue: 2026-03-18(for original report SZCR260200054302)
2026-04-30(for new report SZCR260400149902)

Test conclusion:	PASS
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Keny Xu
EMC Laboratory Manager



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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2026-04-30		Original

Authorized for issue by:				
		Darren Yuan		
		Darren Yuan/Project Engineer		
		Roman Pan		
		Roman Pan / Reviewer		



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1 Introduction

The equipment under test (EUT) is a portable handset, it supports 2G/3G/4G/5G NR/BT/WLAN/NFC bands, but only 2G/3G/4G/5G NR are enabled with MEDIATEK TAS feature to control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is in compliance with the FCC requirement. For device using TAS feature, we verification the applicable cases in part2.

This purpose of the Part 2 report is to demonstrate the EUT complies with FCC RF exposure requirement under Tx varying transmission scenarios, thereby validity of MEDIATEK TAS feature for FCC equipment authorization.

The P_{limit} used in this report is determined in Part 0 and Part 1 report. Refer to Part 1 SAR report, for product description and terminology used in this report.

1.1 Bibliography

Report Type	Report No.
Part 0_ SZCR260400149903 FCC_SAR Report	SZCR260400149903
Part 1_ SZCR260400149901 FCC_SAR Report	SZCR260400149901

Remark for report SZCR260400149902:

This test report (Report No.: SZCR260400149902 issue on 2026-04-30) is based on the original test report (Report No.: SZCR260200054302, issued on 2026-03-18).

Review this report and original report, this report just changing the parts according to the declaration letter from client.

Therefore, only LTE Band 42, NR Band n77 and NR Band n78 are newly tested in this report. All other test data are referenced from the previous Report No. SZCR260200054302, issued on 2026-03-18.



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2 General Information

2.1 General Description of EUT

The detailed description of EUT can refer to SAR TEST REPORT PART 1.

2.1.1 DUT Antenna Locations (Back View)

The DUT Antenna Locations (Back View) can refer to SAR TEST REPORT PART 1.

2.1.2 Simultaneous SAR test evaluation

The Simultaneous SAR test evaluation can refer to SAR TEST REPORT PART 1.

2.2 Test Location

All tests were performed at:

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Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

2.3 Test Engineer

Test Engineer: Grace Li, Messi Chen, Vito Wang, Ahway Zhi



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2.4 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **A2LA (Certificate No. 3816.01)**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

- **VCCI (Member No. 1937)**

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen EMC laboratory have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

- **FCC –Designation Number: CN1336**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1336. Test Firm Registration Number: 787754.

- **Innovation, Science and Economic Development Canada**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

3 Laboratory Environment

Temperature	Min. = 18°C, Max. = 25 °C
Relative humidity	Min. = 30%, Max. = 70%
Ground system resistance	< 0.5 Ω
Ambient noise is checked and found very low and in compliance with requirement of standards.	
Reflection of surrounding objects is minimized and in compliance with requirement of standards.	



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4 Tx Varying Transmission Test Cases and Test Proposal

For the completeness of verifying that the proposed TA-SAR algorithm can realize FCC compliance regarding RF exposure, several test scenarios are constructed as below:

Scenario 1: test under different TA-SAR parameters to verify that the TA-SAR algorithm meets compliance requirements with different combinations of operating parameters.

Scenario 2: test under time-varying TX power to verify that the TA-SAR algorithm ensures SAR compliance through dynamic TX power.

Scenario 3: test under call drop and re-establishment conditions to ensure the TA-SAR algorithm control continuity and SAR compliance.

Scenario 4: test under RAT/band handover to ensure the TA-SAR algorithm control continuity and correctness.

Scenario 5: test under different ECIs (Exposure Condition Index) to ensure the TA-SAR algorithm control behaves as expected during ECI switching from one ECI to another. (e.g., head to body worn)

Scenario 6: test under different transmission antennae to ensure the TA-SAR algorithm control works correctly during antenna switching from one antenna to another.

Scenario 7: test under different time windows to ensure the TA-SAR algorithm control functions correctly during time window switching from one time window setting to another. (e.g., time window 100s → 60s)

Scenario 8: test under SAR exposure switching between two active radios (radio#1 only, radio#1+radio#2, and radio#2 only) to ensure the TA-SAR algorithm control continuity and SAR compliance.

To demonstrate that TA-SAR algorithm performs as expected under various operating scenarios, Table lists the test proposal and expected test sequences to validate TA-SAR algorithm in these scenarios.

Test scenarios		Test sequences	Description
1	Range of TA-SAR parameters	0	Adjust parameters
2	Time-varying TX power	1 and 2	Test under time-varying
3	Call disconnection and re-establishment	0	Test call drop and re-establishment
4	Band handover	0	Test band change
5	ECI (Exposure Condition Index) change	0	Test under ECI transition (e.g., head → body worn)
6	Antenna switching	0	Change antenna
7	Time window switching	0	Switch frequency bands with larger frequency separation (e.g., time window 100s → 60s)
8	SAR exposure switching	0	Switch RATs when



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5 Time Averaging Validation Test Procedures

This chapter provides the test plan and test procedure for validating TAS feature for sub-6 transmission. The 100 seconds time window for operating $f < 3\text{GHz}$ is used as an example to detail the test procedures in this chapter.

5.1 Test sequence determination for validation

Following the FCC recommendation, three test sequences having possibly time-varying TX power are predefined for TA-SAR validation:

- Test sequence 0: EUT's TX power is requested to be maximum.
- Test sequence 1: EUT's TX power is requested to be at power less than PLowThresh for 300s, then at maximum power for 200s, and finally at PLowThresh -2dB for the remaining time.
- Test sequence 2: EUT's TX power to vary with time. This sequence is generated relative to measured PUE_max, measured Psub6_limit and calculated PUE_backoff (= measured Psub6_limit in dBm - PUE_backoff_offset in dB) of EUT based on measured Psub6_limit.

Test sequence is generated based on below parameters of the EUT:

- A. Measured maximum power (PUE_max)
- B. Measured Tx_power_at_SAR_design_limit (Psub6_limit)
- C. Threshold of dynamic power reduction status determination: reserve hysteresis margin for instantaneous power (PLowThresh)
- D. SAR_time_window (FCC: 100s for $f < 3\text{GHz}$, 60s for $3\text{GHz} < f < 6\text{GHz}$)

The details for generating these two test sequences is described and listed in Appendix A.

NOTE: For test sequence generation, “measured Plimit” and “measured Pmax” are used instead of the “Plimit” specified in EFS entry and “Pmax” specified for the device, because TAS feature operates against the actual power level of the “Plimit” that was calibrated for the EUT. The “measured Plimit” accurately reflects what the feature is referencing to, therefore, it should be used during feature validation testing. The RF tune up and device-to-device variation are already considered in Part 0 report prior to determining Plimit.



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5.2 Test configuration selection for conducted power validation

This section provides general conducted power measurement procedures to perform compliance test under dynamic transmission scenarios described in Section 4. In practice, an adjustment can be made in these procedures. The justification/clarification may be provided.

5.2.1 Scenario 1: Range of TA-SAR Parameters via Conducted Power Measurements

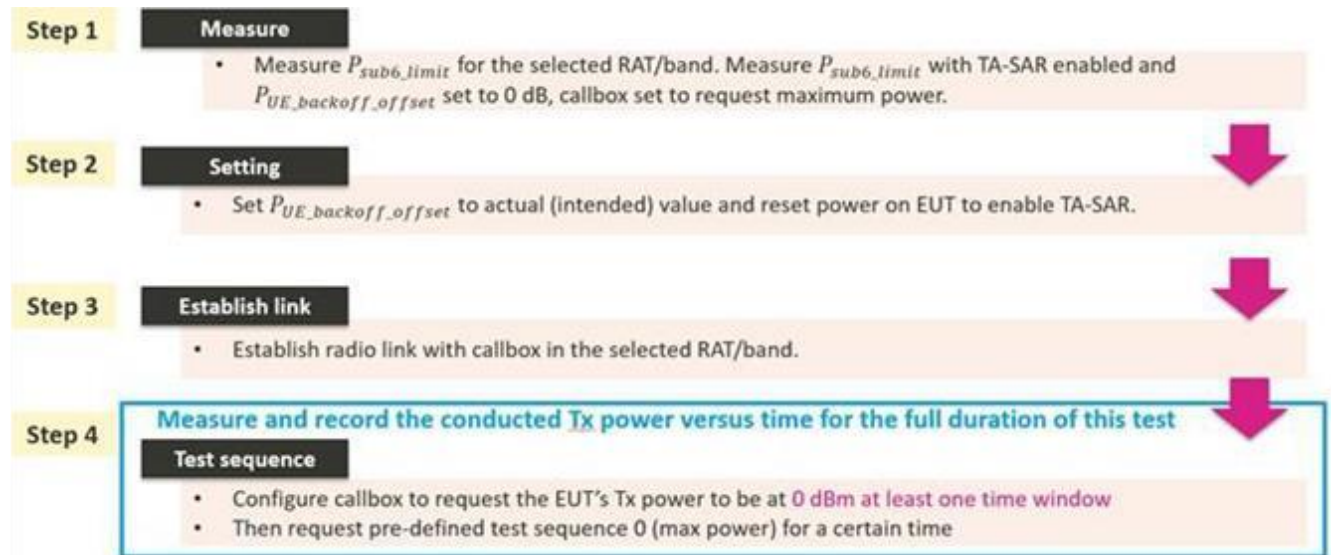
Configuration

This test is performed by changing the parameters ($P_{LowThesdh_offset}$, $P_{UE_back_offset}$, $P_{UE_max_cust_offset}$) for the selected RAT (Radio Access Technologies) and band. Since Mediatek's TA algorithm operation is independent of RATs/bands/channels, any one RAT can be selected for this test and the selected band of the RAT has the least P_{sub6_limit} . In principle, two sets of the parameters are determined for this test (if applicable). If the parameters of the EUT are fixed (without a support of dynamic change), only the set of the default parameters needs to be tested.

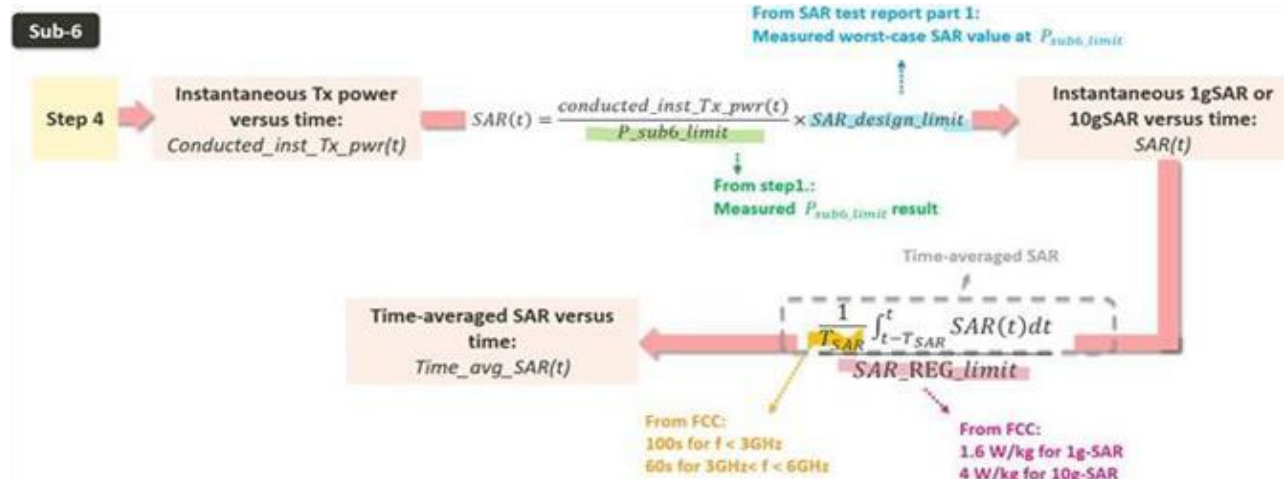
Procedure

TX power is measured, recorded, and processed by the following steps:

- Step 1~4: measure and record TX power versus time for test scenario 1



- Step 5: convert the measured conducted TX power into SAR
Convert the measured conducted TX power from step 4 into 1gSAR or 10gSAR value using the following equation. Perform the running time average to power and 1gSAR 10g SAR to determine time-averaged value versus time as follows,



- Step 6: plot results
 - A- Make one power perspective plot containing
 - 1) Instantaneous TX power
 - 2) Requested power
 - 3) Calculated time-averaged power
 - 4) Calculated time-averaged power limits
 - B- Make one SAR perspective plot containing
 - 1) Calculated time-averaged 1gSAR or 10g SAR
 - 2) FCC limit of 1.6 W/kg (1gSAR) or 4.0 W/kg (10gSAR)



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5.2.2 Scenario 2: Time-Varying TX Power via Conducted Power Measurements

Configuration

Since Mediatek's TA-SAR feature operation is independent of bands and channels for a given RAT, selecting one band per RAT is sufficient to validate this feature. Two bands per RAT are proposed for this test. The criteria for band selection for each RAT is based on the P_{sub6_limit} values (corresponding to SAR_{design_limit}) and is described as below:

- Select two bands, among the ones whose P_{sub6_limit} values are below P_{UE_max} , which correspond to least and highest P_{sub6_limit} values respectively.

Only one band needs to be tested if all the bands have same P_{sub6_limit} .

Only one band needs to be tested if only the band has P_{sub6_limit} below P_{UE_max} .

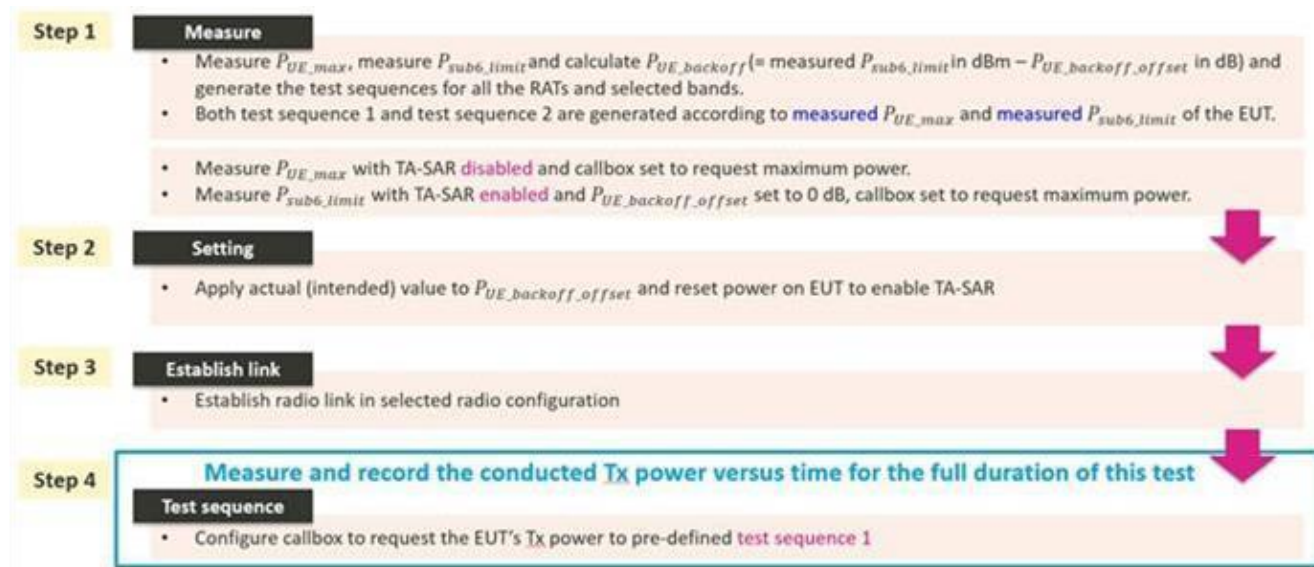
If the same least P_{sub6_limit} applies to multiple bands, select the band with the highest measured 1gSAR at P_{sub6_limit} .

If P_{sub6_limit} values of all bands are all over P_{UE_max} (i.e., TA-SAR feature is not enabled), there is no need to test this RAT.

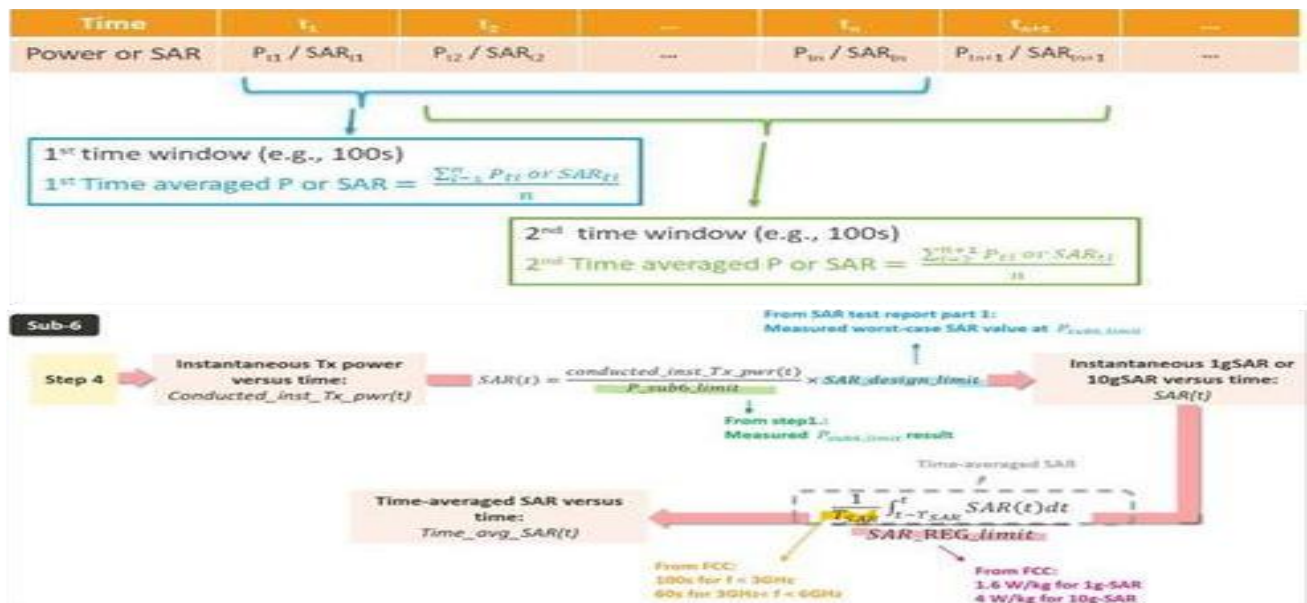
Procedure

TX power is measured, recorded, and processed by the following steps:

- Step 1~4: measure and record TX power versus time for test scenario



- Step 5: convert the measured conducted TX power into SAR
Convert the measured conducted TX power from step 4 into 1gSAR or 10gSAR value using the following equation. Perform the running time average to power and 1gSAR or 10g SAR to determine time-averaged value versus time as follows



- Step 6: plot results
 - A- Make one power perspective plot containing
 - 1) Instantaneous TX power
 - 2) Requested power
 - 3) Calculated time-averaged power
 - 4) Calculated time-averaged power limits
 - B- Make one SAR perspective plot containing
 - 1) Calculated time-averaged 1gSAR or 10g SAR
 - 2) FCC limit of 1.6 W/kg (1gSAR) or 4.0 W/kg (10gSAR)
- Step 7: repeat steps 2~6 for test sequence 2
Repeat steps 2 ~ 6 for pre-defined test sequence 2 and replace test sequence 1 in step 4 with test sequence 2.
- Step 8: repeat steps 2~7 for different bands

5.2.3 Scenario 3: Call Disconnection and Re-establishment via Conducted Power Measurements

Configuration

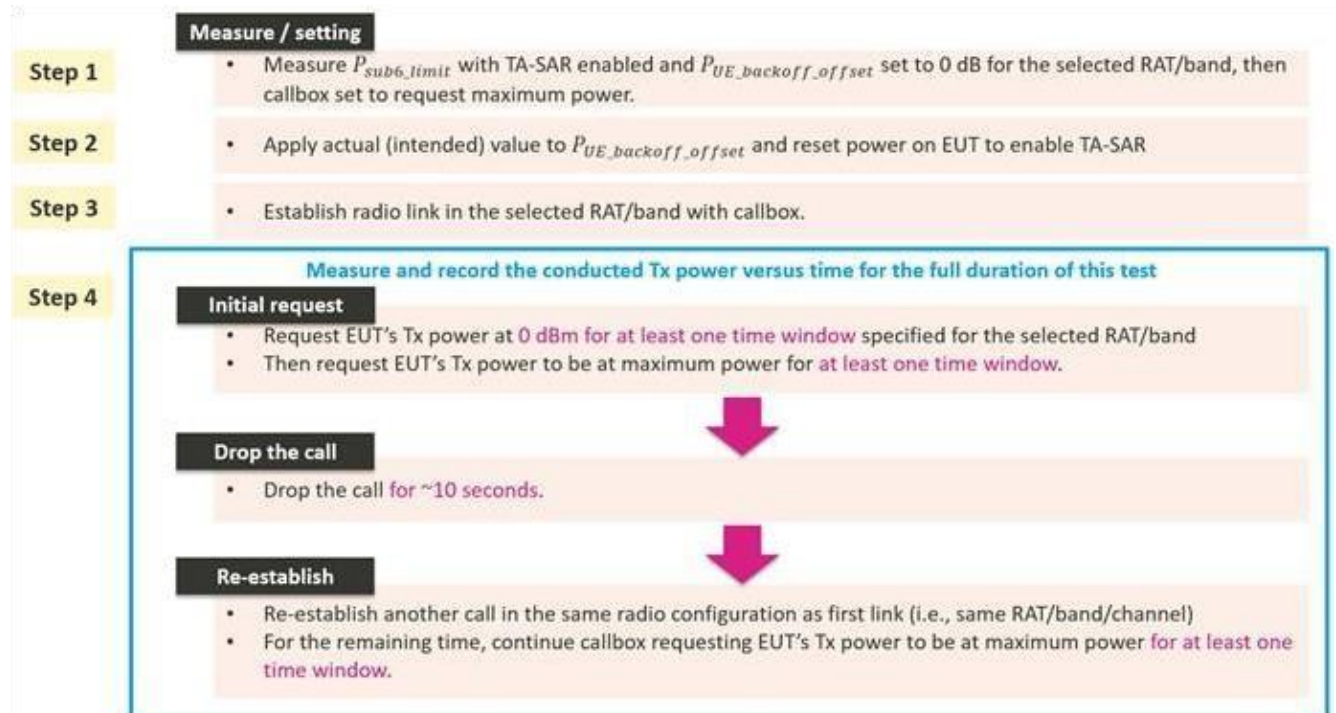
For call disconnection measurement, the criteria of selecting the test configuration is:

- Select the RAT/band with least P_{sub6_limit} among all supported RATs/bands.
- Select the RAT/band having the highest measured 1gSAR at P_{sub6_limit} if multiple RATs/bands having same least P_{sub6_limit} .
- Select the radio configuration in this RAT/band that corresponds to the highest measured 1gSAR at P_{sub6_limit} .

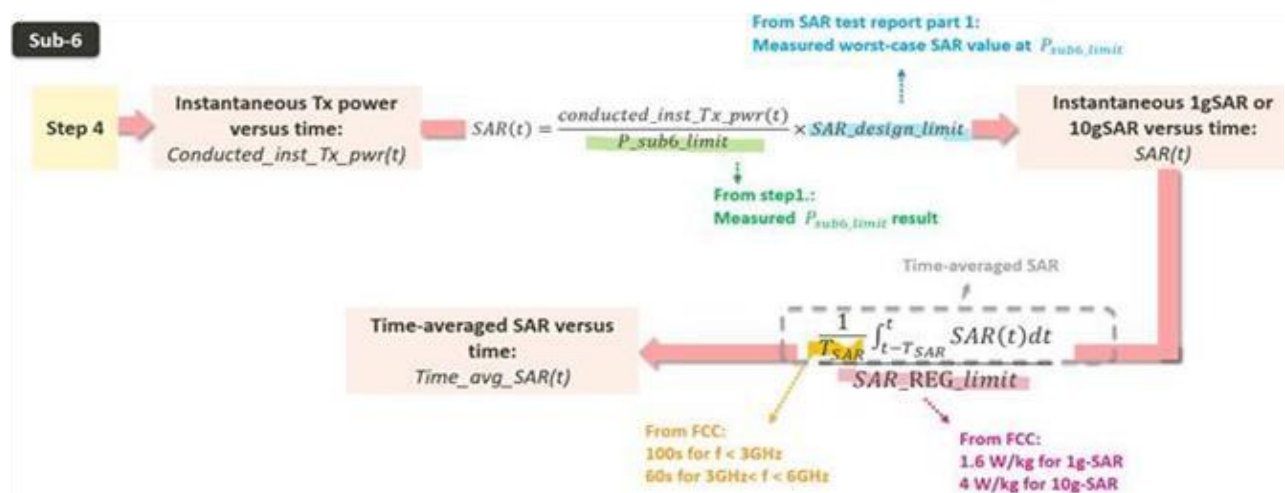
Procedure

TX power is measured, recorded, and processed by the following steps:

- Step 1~4: measure and record TX power versus time for test scenario



- Step 5: convert the measured conducted TX power into SAR
Convert the measured conducted TX power from step 4 into 1gSAR or 10gSAR value using the following equation. Perform the running time average to power and 1gSAR or 10g SAR to determine time-averaged value versus time as follows



- Step 6: plot results
 - A- Make one power perspective plot containing
 - 1) Instantaneous TX power
 - 2) Requested power
 - 3) Calculated time-averaged power
 - 4) Calculated time-averaged power limits
 - B- Make one SAR perspective plot containing
 - 1) Calculated time-averaged 1gSAR or 10g SAR
 - 2) FCC limit of 1.6 W/kg (1gSAR) or 4.0 W/kg (10gSAR)

5.2.4 Scenario 4: Band Handover via Conducted Power Measurements

Configuration

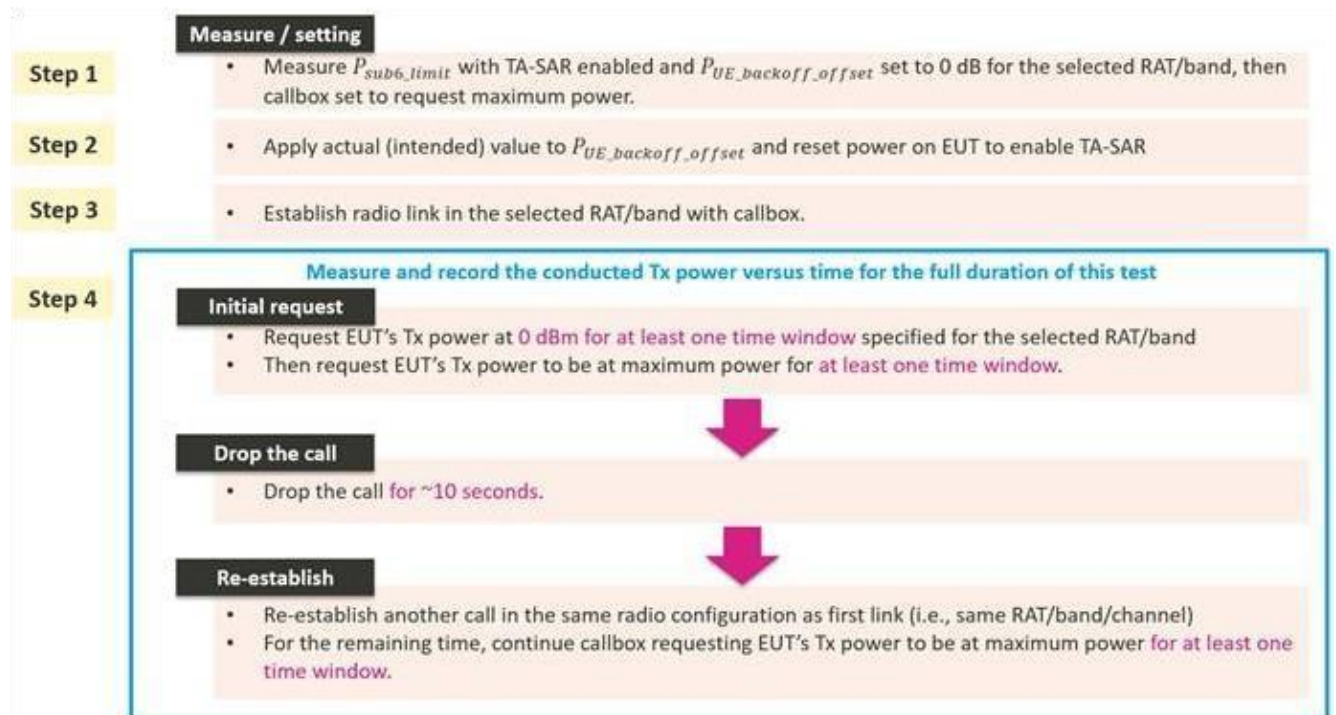
For a given TX antenna, select a RAT/band with the lowest P_{sub6_limit} and the other RAT/band with the highest P_{sub6_limit} . Both of them have P_{sub6_limit} values less than P_{UE_max} if possible.

- Select the RAT/band having the highest measured 1gSAR at P_{sub6_limit} if multiple RATs/bands have the same lowest P_{sub6_limit} .
- Select the RAT/band having the lowest measured 1gSAR at P_{sub6_limit} if multiple RATs/bands have the same highest P_{sub6_limit} .

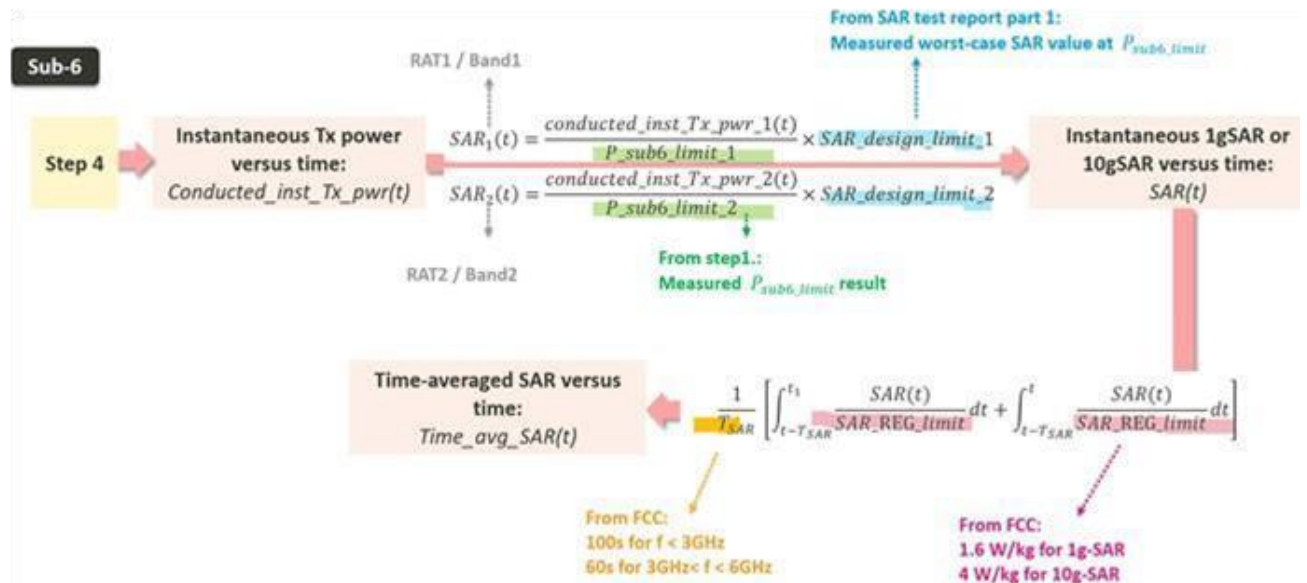
Procedure

TX power is measured, recorded, and processed by the following steps:

- Step 1~4: measure and record TX power versus time for test scenario



- Step 5: convert the measured conducted TX power into SAR
Convert the measured conducted TX power from step 4 into 1gSAR or 10gSAR value using the following equation. Perform the running time average to power and 1gSAR or 10g SAR to determine time-averaged value versus time as follows



- Step 6: plot results
 - A- Make one power perspective plot containing
 - 1) Instantaneous TX power
 - 2) Requested power
 - 3) Calculated time-averaged power
 - 4) Calculated time-averaged power limits
 - B- Make one SAR perspective plot containing
 - 1) Calculated time-averaged 1gSAR or 10g SAR
 - 2) FCC limit of 1.6 W/kg (1gSAR) or 4.0 W/kg (10gSAR)
 - 3) Normalized time-averaged 1gSAR/1.6 or 10gSAR/4.0

5.2.5 Scenario 5: Exposure Condition Index (ECI) Change via Conducted Power Measurements

Configuration

Select any one RAT/band, which has at least two ECIs whose Psub6_limit values are different and are below PUE_max.

Procedure

The test procedure is identical to section 5.2.4 except the following 2 changes:

- Replace band switch operation with ECI switch.
- In Step 4, the second ECI switching is arranged after the first one lasts for at least one time window, i.e., switch the second ECI back to the first ECI, and then continue with callbox requesting EUT's Tx power to be at maximum power for at least one time window.

It is noted that the following operations are done as well for this scenario:

- The correct power control is controlled by TA_SAR during ECI switches from one ECI to another.
- The validation criteria are, at all times, the time-averaged 1gSAR or 10gSAR versus time shall not exceed FCC limit of 1.6 W/kg for 1gSAR or 4.0 W/kg for 10gSAR.



5.2.6 Scenario 6: Antenna Switching via Conducted Power Measurements

Configuration

Among RATs/bands supporting TX antenna switches, select the RAT/band with the highest

P_{sub6_limit} difference between a pair of supported TX antennas.

- Select the RAT/band having the highest measured 1gSAR at P_{sub6_limit} if multiple RATs/bands having the same P_{sub6_limit} difference between the supported TX antennas.
- Antenna selection order o Select the configuration with two antennas having P_{sub6_limit} values less than PUE_{max} .
 - 1) If the previous configuration does not exist, select the configuration with one antenna having P_{sub6_limit} value less than PUE_{max} .
 - 2) If the above two cannot be found, select one configuration with the two antennas having the least difference between their P_{sub6_limit} and PUE_{max} (i.e., P_{sub6_limit} can be greater than PUE_{max}).

Procedure

The test procedure is identical to section 5.2.4 except the following 2 changes:

- Replace band switch operation with antenna switch.
- In Step 4, the second antenna switching is arranged after the first one lasts for at least one time window, i.e., switch the second antenna back to the first antenna, and then continue with callbox requesting EUT's Tx power to be at maximum power for at least one time window.

It is noted that the following operations are done as well for this scenario:

- The correct power control is controlled by TA_SAR during antenna switches from one antenna to another.
- The validation criteria are, at all times, the time-averaged 1gSAR or 10gSAR versus time shall not exceed FCC limit of 1.6 W/kg for 1gSAR or 4.0 W/kg for 10gSAR.



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5.2.7 Scenario 7: Time Window Switching via Conducted Power Measurements

Configuration

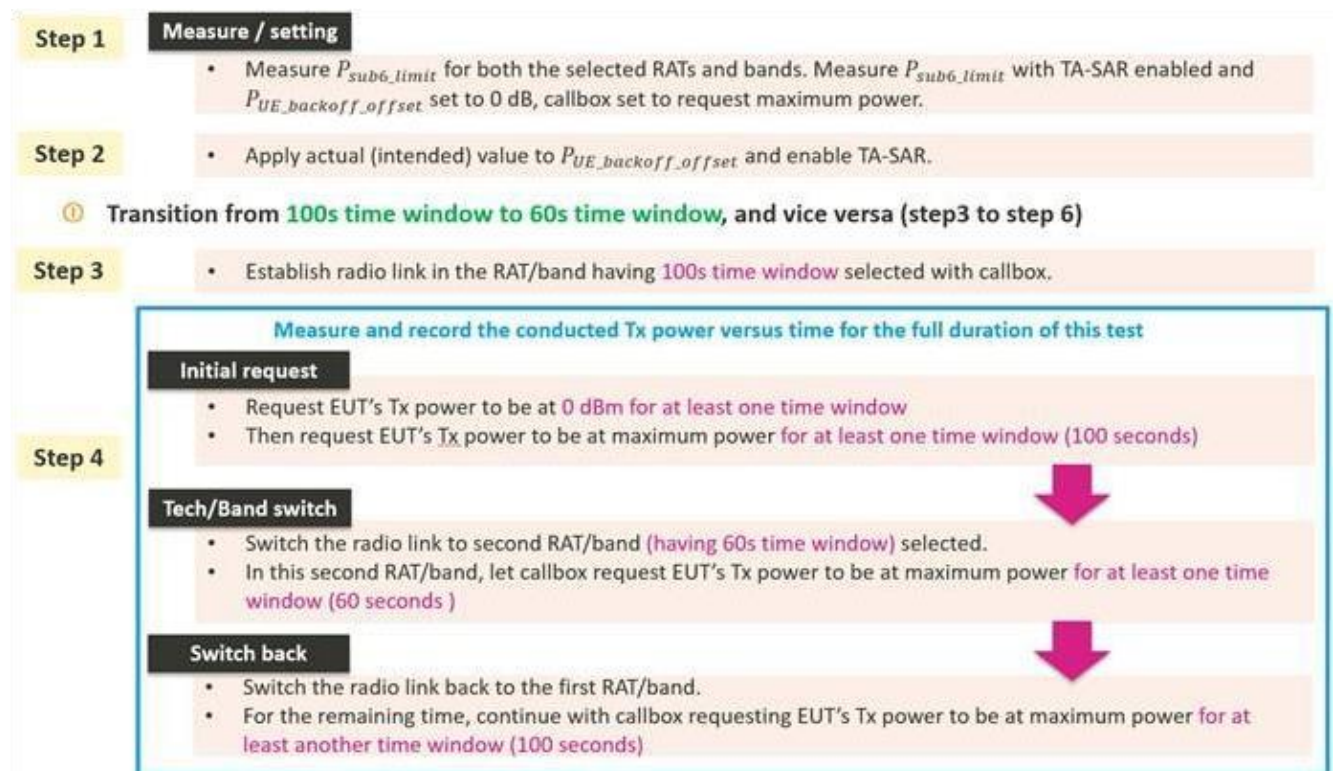
Select one RAT/band with 60-second time averaging window, and the other RAT/band with 100- second time averaging window. Both of them have P_{sub6_limit} values less than P_{UE_max} if possible.

- At least one of the selected RAT/band has its P_{sub6_limit} less than P_{UE_ma}

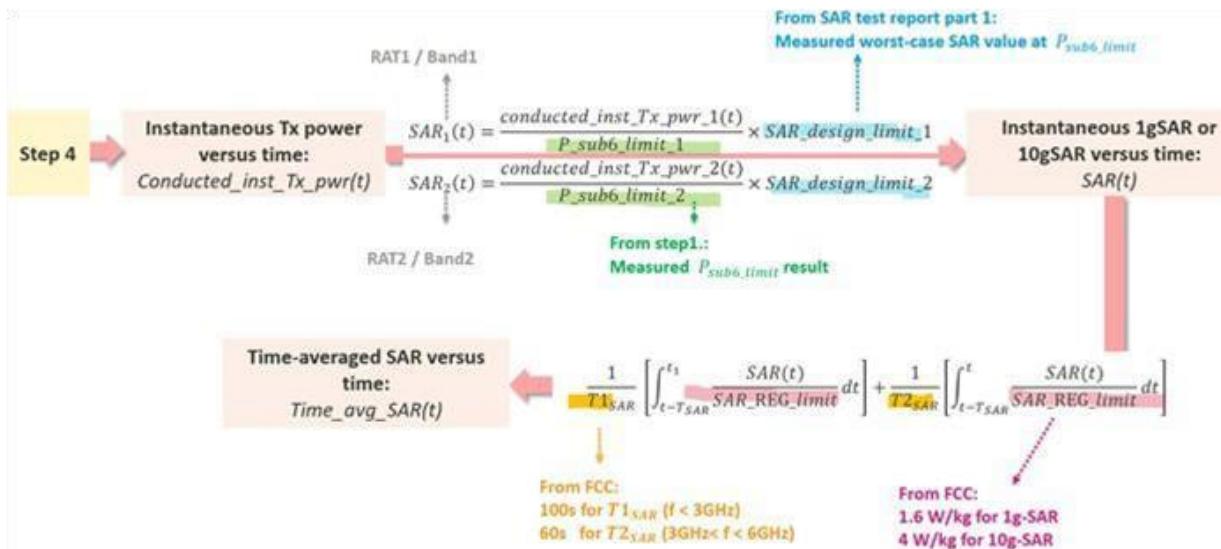
Procedure

TX power is measured, recorded, and processed by the following steps:

- Step 1~4: measure and record TX power versus time for test scenario



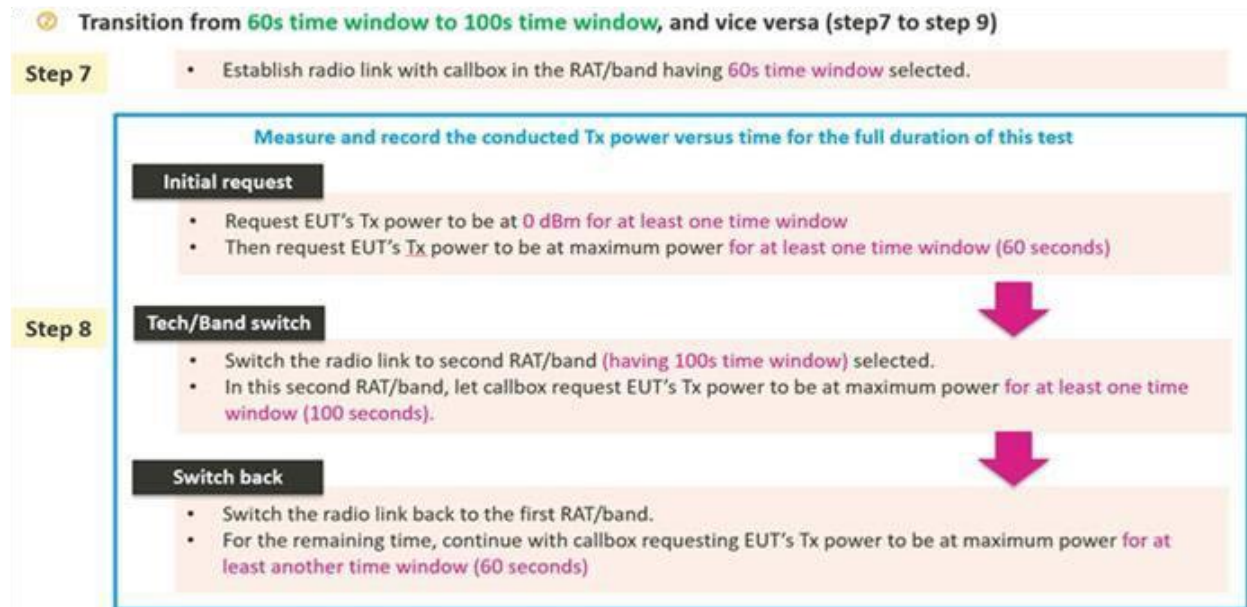
- Step 5: convert the measured conducted TX power into SAR
Convert the measured conducted TX power from step 4 into 1gSAR or 10gSAR value using the following equation. Perform the running time average to power and 1gSAR or 10g SAR to determine time-averaged value versus time as follows



- Step 6: plot results
 - A- Make one power perspective plot containing
 - 1) Instantaneous TX power
 - 2) Requested power
 - 3) Calculated time-averaged power
 - 4) Calculated time-averaged power limits
 - B- Make one SAR perspective plot containing
 - 1) Calculated time-averaged 1gSAR or 10g SAR
 - 2) FCC limit of 1.6 W/kg (1gSAR) or 4.0 W/kg (10gSAR)
 - 3) Normalized time-averaged 1gSAR/1.6 or 10gSAR/4.0



- Step 7~8: measure and record TX power versus time in another time window change

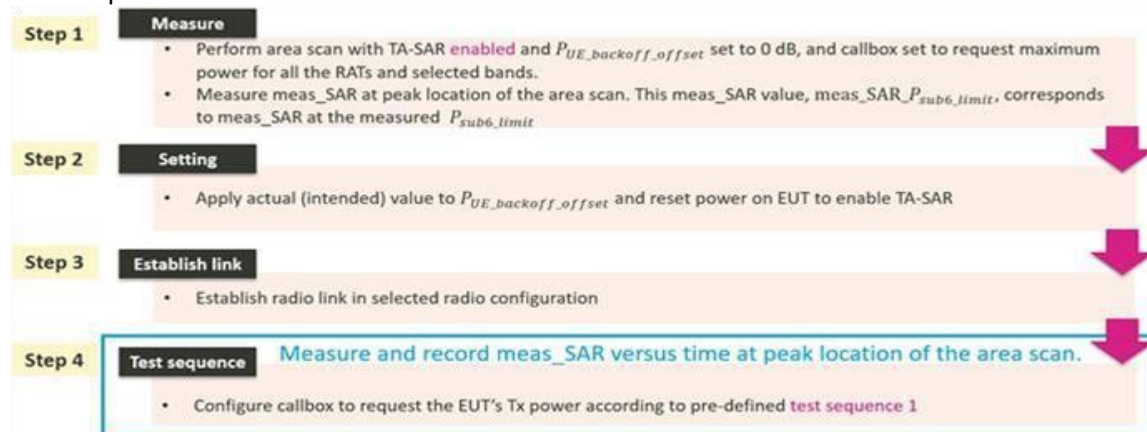


- Step 9: convert the measurement and plot results
Convert the measured conducted TX power from step 8 into 1gSAR or 10gSAR value using the equation in step 5.
Repeat step 6 to generate the plots.

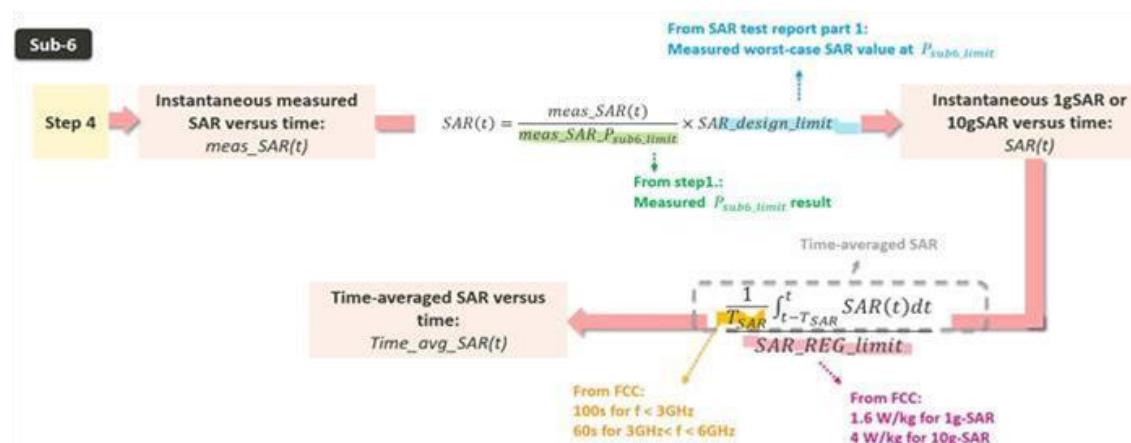
5.3 Test procedure for time-varying SAR validation

SAR is measured and recorded by the following steps:

- Step 1~4: measure and record SAR versus time



- Step 5: convert the measured SAR into time-averaged SAR
Convert the instantaneous measured SAR from step 4 into 1gSAR or 10gSAR value. Perform the running time average to 1gSAR or 10g SAR to determine time-averaged value versus time as follows,





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where, meas_SAR_Psub6_limit is the value determined in step 1, and meas_SAR(t) is the instantaneous measured SAR measured in step 4.

- Step 6: plot results
 - A. Calculated time-averaged 1gSAR or 10Gsar
 - B. FCC limit of 1.6 W/kg (1gSAR) or 4.0 W/kg (10gSAR)
- Step 7: repeat steps 2 ~ 6 for pre-defined test sequence 2
Repeat steps 2 ~ 6 for pre-defined test sequence 2 and replace test sequence 1 in step 4 with test sequence 2.
- Step 8: repeat steps 2 ~ 7 for all the selected bands

The time-averaged SAR versus time shall not exceed FCC limit at all times.



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6 Test Configurations

6.1 WWAN (sub-6) transmission

The Plimit values, corresponding to SAR_design_target, for technologies and bands supported by EUT are derived in Part 0 report and summarized in Table 6-1.

Table 6-1: Plimit for supported technologies and bands

Band	Mode	Antenna	Pmax* (burst)	Pmax* (average)	Uncertainty	Plimit (average)							
						Head	Body&Extremity (Front&Back sides)Sensor on	Body&Extremity (All sides)Sensor off	Hotspot	Body&Extremity (Right&Bottom sides)Sensor on	Body&Extremity (Left&Bottom sides)Sensor on	Body&Extremity (Left&Top sides)Sensor on	Body&Extremity (Top side)Sensor on
						ECI 2	ECI 3	ECI 4	ECI 7	ECI 9	ECI 10	ECI 11	ECI 12
GSM 850	GPRS 3TS	0#	30.0	25.7	1.5	25.7	21.2	25.7	21.2	25.7	/	/	/
GSM 1900	GPRS 4TS	0#	26.0	23.0	1.5	23.0	17.0	23.0	16.0	20.5	/	/	/
WCDMA_B2	RMC	0#	23.0	23.0	1.5	23.0	18.0	23.0	17.0	21.5	/	/	/
WCDMA_B4	RMC	0#	23.0	23.0	1.5	23.0	18.0	23.0	16.5	19.5	/	/	/
WCDMA_B5	RMC	0#	23.0	23.0	1.5	23.0	21.0	23.0	21.0	23.0	/	/	/
LTE_B2	QPSK	0#	23.0	23.0	1.5	23.0	18.0	23.0	17.0	21.5	/	/	/
LTE_B4	QPSK	0#	23.0	23.0	1.5	23.0	16.5	23.0	15.0	19.0	/	/	/
LTE_B5	QPSK	0#	23.0	23.0	1.5	23.0	21.0	23.0	21.0	23.0	/	/	/
LTE_B7	QPSK	1#	23.0	23.0	1.5	23.0	17.5	23.0	17.5	/	19.5	/	/
LTE_B12	QPSK	0#	23.0	23.0	1.5	23.0	23.0	23.0	23.0	23.0	/	/	/
LTE_B17	QPSK	0#	23.0	23.0	1.5	23.0	23.0	23.0	23.0	23.0	/	/	/
LTE_B26	QPSK	0#	23.0	23.0	1.5	23.0	21.0	23.0	21.0	23.0	/	/	/
LTE_B38	QPSK	4#	23.0	21.0	1.5	16.0	13.5	21.0	12.0	/	/	19.5	/
LTE_B41-PC2	QPSK	4#	26.0	22.5	1.5	18.0	16.5	22.5	15.0	/	/	21.0	/
LTE_B41-PC3	QPSK	1#	23.0	21.0	1.5	21.0	15.0	21.0	15.0		17.0	/	
	QPSK	4#	23.0	21.0	1.5	17.5	16.0	21.0	14.5	/	/	21.0	/
LTE_B42	QPSK	5#	23.0	21.0	1.5	14.0	12.0	21.0	10.5	/	/	/	18.5
NR5G_N77 PC3	QPSK	1#	21.5	21.5	1.5	21.5	18.5	21.5	17.5	/	20.0	/	/
	QPSK	2#	21.5	21.5	1.5	21.5	18.0	21.0	16.5	/	/	/	/



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	QPSK	5#	23.0	23.0	1.5	11.5	10.5	19.5	9.0	/	/	/	15.5
	QPSK	8#	22.0	22.0	1.5	22.0	17.5	22.0	16.0	/	/	/	/
NR5G_N77 PC2	QPSK	1#	21.5	21.5	1.5	21.5	18.5	21.5	17.5	/	20.0	/	/
	QPSK	2#	21.5	21.5	1.5	21.5	18.0	21.0	16.5	/	/	/	/
	QPSK	5#	26.0	26.0	1.5	14.5	13.5	22.5	12.0	/	/	/	18.5
	QPSK	8#	22.5	22.5	1.5	22.5	18.0	22.5	16.5	/	/	/	/
NR5G_N78 PC3	QPSK	1#	21.5	21.5	1.5	21.5	18.5	21.5	17.5	/	20.0	/	/
	QPSK	2#	21.5	21.5	1.5	21.5	18.0	21.0	16.5	/	/	/	/
	QPSK	5#	23.0	23.0	1.5	11.5	10.5	19.5	9.0	/	/	/	15.5
	QPSK	8#	22.0	22.0	1.5	22.0	17.5	22.0	16.0	/	/	/	/
NR5G_N78 PC2	QPSK	1#	21.5	21.5	1.5	21.5	18.5	21.5	17.5	/	20.0	/	/
	QPSK	2#	21.5	21.5	1.5	20.5	18.0	21.0	16.5	/	/	/	/
	QPSK	5#	26.0	26.0	1.5	13.5	13.5	22.5	12.0	/	/	/	18.5
	QPSK	8#	22.5	22.5	1.5	22.5	18.0	22.5	16.5	/	/	/	/

Note:

- 1) $P_{\max}$ is used for RF tune up procedure. The maximum allowed output power is equal to $P_{\max}$ + Total uncertainty.
- 2) If P_{limit} is higher than $P_{\max}$, the device output power will be $P_{\max}$ instead.
- 3) Note that WLAN operations are not enabled with TAS.
- 4) The following table is duty cycle and factor used for calculating time average power.

Mode	Duty Cycle	Time Average calculation Factor
GSM 1TX	12.5%	-9.0
GSM 2TX	25.0%	-6.0
GSM 3TX	37.5%	-4.3
GSM 4TX	50.0%	-3.0
LTE FDD	100.0%	0.0
LTE TDD	63.3%	-2.0
LTE TDD HPUE	43.3%	-3.5
NR FDD	100.0%	0.0
NR TDD	100.0%	0.0
NR TDD HPUE	100.0%	0.0



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To account for total uncertainty, SAR_design_target should be determined as:

$$SAR_{design_target} < SAR_{regulatory_limit} \times 10^{\frac{-total\ uncertainty}{10}}$$

Exposure position	Frequency band	SAR_Regulatory_Limit W/kg_1g	SAR design target (1-g) Top Ant	SAR design target (1-g) Bottom Ant
Head	WWAN	1.6	0.74	1.03
Body worn /Hotspot	WWAN	1.6	0.74	1.03
Exposure position	Frequency band	SAR_Regulatory_Limit W/kg_10g	SAR_design_target W/kg_10g Top Ant	SAR_design_target W/kg_10g Bottom Ant
Extremity	WWAN	4.0	1.98	2.55

Trigger Conditions	Position	Ant	ECI
Receiver on	Left cheek/tilted & Right cheek/tilted	Ant0/1/2/4/5/8/6	ECI2
Receiver off Sensor of Hotspot on	All Sides	Ant0/1/2/4/5/8/6	ECI7
Receiver off Sensor on	Front & Back side 5mm	Ant0/1/2/4/5/8/6	ECI3
Receiver off Sensor off	Front & Back side 5mm	Ant0/1/2/4/5/8/6	ECI4
Receiver off Sensor on Limbs	All Sides	Ant0	ECI9
	All Sides	Ant1	ECI10
	All Sides	Ant4	ECI11
	All Sides	Ant5	ECI12
	All Sides	Ant6	/
	All Sides	Ant0	ECI4
Receiver off Sensor off Limbs	All Sides	Ant1	ECI4
	All Sides	Ant4	ECI4
	All Sides	Ant5	ECI4
	All Sides	Ant2/8	ECI4
	All Sides	Ant6	/
	All Sides	Ant0	ECI4



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Table 6-2: Radio configurations selected for Part 2 test

Test Case	Test Scenario	Test band	BW (MHz)	Modulation	RB size	RB offset	Test Position	Gap (mm)	ANT	ECI	UL Channel	UL Freq (MHz)	Part 1, SAR@Plimit 1-g SAR&10-g SAR (W/kg)
0	1. Range of TA-SAR	LTE Band 4	20	QPSK	1	0	Bottom	5	0	7	20175	1732.5	0.667
1	2. Time-varying TX power	GPRS 850	NA	GMSK	NA	NA	Back	5	0	7	128	824.2	0.827
2		GPRS 1900	NA	GMSK	NA	NA	Bottom	5	0	7	810	1909.8	0.727
3		WCDMA Band 2	NA	RMC	NA	NA	Back	0	0	9	9400	1880	2.03
4		WCDMA Band 4	NA	RMC	NA	NA	Bottom	5	0	7	1312	1712.4	0.748
5		LTE Band 4	20	QPSK	1	0	Bottom	5	0	7	20175	1732.5	0.667
6		LTE Band 38	20	QPSK	1	0	Back	5	4	7	38000	2595	0.317
7		FR1 n77	100	QPSK	1	1	Back	/	5	4	633334	3500	0.450
8		FR1 n77	100	QPSK	1	1	Back	5	5	7	633334	3500	0.279
9		GPRS 850	NA	GMSK	NA	NA	Back	5	0	7	128	824.2	0.827
10		GPRS 1900	NA	GMSK	NA	NA	Bottom	5	0	7	810	1909.8	0.727
11		WCDMA Band 2	NA	RMC	NA	NA	Back	0	0	9	9400	1880	2.03
12		WCDMA Band 4	NA	RMC	NA	NA	Bottom	5	0	7	1312	1712.4	0.748
13		LTE Band 4	20	QPSK	1	0	Bottom	5	0	7	20175	1732.5	0.667
14		LTE Band 38	20	QPSK	1	0	Back	5	4	7	38000	2595	0.317
15		FR1 n77	100	QPSK	1	1	Back	/	5	4	633334	3500	0.450
16		FR1 n77	100	QPSK	1	1	Back	5	5	7	633334	3500	0.279
17	3.Call disconnect an re-establish	FR1 n77	100	QPSK	1	1	Back	5	5	7	633334	3500	0.279
18	4.Band handover	LTE Band 7	20	QPSK	1	0	Back	5	1	7	21350	2560	0.705
		LTE Band 41	20	QPSK	1	0					41055	2636.5	0.486
19	5.Exposure condition index (ECI) change	LTE Band 38	20	QPSK	1	0	Right tilted	/	4	7	38000	2595	0.606
							Back	5					0.317
20	6.Antenna change	LTE Band 7	20	QPSK	1	0	Back	5	1	7	21350	2560	0.705
		LTE Band 41	20	QPSK	1	0					41055	2636.5	0.486
21	7.Time window switching (same RAT)	LTE Band 4	20	QPSK	1	0	Bottom	5	0	7	20175	1732.5	0.667
		LTE Band 42	20	QPSK	1	50	Back				42990	3540	0.289
		LTE Band 42	20	QPSK	1	50	Back				42990	3540	0.289
22		LTE Band 4	20	QPSK	1	0	Bottom	5	0	7	20175	1732.5	0.667



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The radio configurations used in Part 2 test for selected technologies, bands, ECIs and antennas are listed in Table 6-2. The corresponding worst-case radio configuration 1gSAR or 10gSAR values for selected technology/band/ECl are extracted from Part 1 report and are listed in the last column of Table 6-2. Part 2 testing outcome is normalized quantity, which implies that it can be applied to any radio configuration within a selected technology/band/ECl. Thus, as long as applying the worst-case SAR obtained from the worst radio configuration in Part 1 testing to calculate time-varying SAR exposure, the accuracy in compliance demonstration remains the same.



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7 Conducted Power Test Results for TAS Feature Validation

7.1 Measurement setup

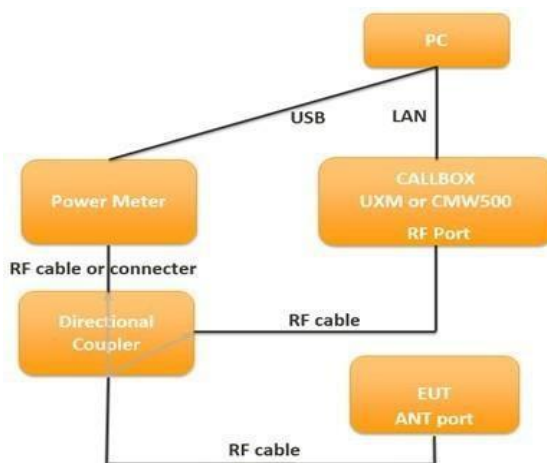
The call boxes KeySight UXM (supporting sub6 NR and LTE) and Rohde & Schwarz CMW500 (supporting LTE, WCDMA, C2K and 2G) are used to validate the proposed TA-SAR mechanism. Figure 7-1(a) shows the block diagram of the measurement bench, which supports the following test scenarios.

- Test scenario 1: range of TA-SAR parameters
- Test scenario 2: time-varying TX power
- Test scenario 3: call disconnection and re-establishment
- Test scenario 5: ECI change

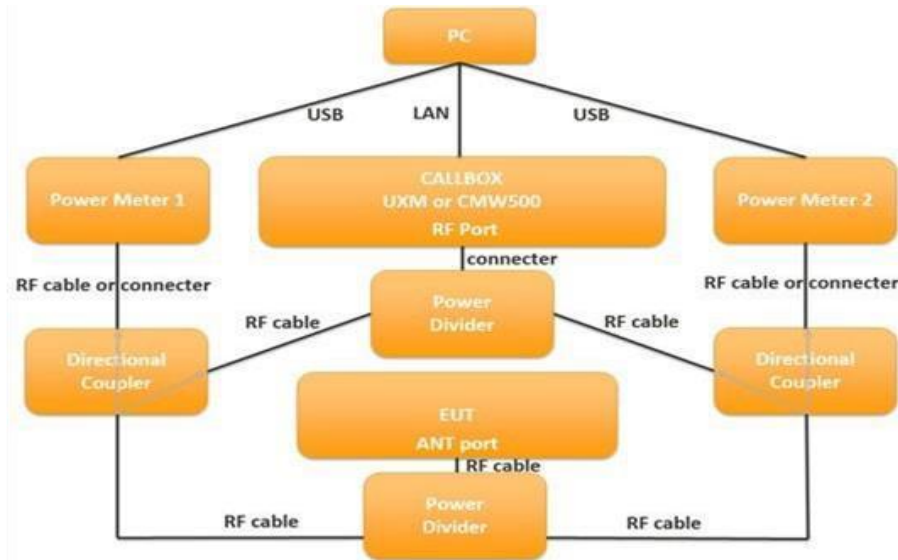
For these measurements, RF port of the call box is connected to the EUT's antenna port, and the call box establishes a connection link through the test script console tool and the power meter measures the conducted output power of the EUT.

Figure 7-1(b) shows the block diagram of the measurement bench, which support test scenario 4 (band handover) and scenario 7 (time window switching). For these measurements, the RF port of the call box is connected with a 1-to-2 power divider, which allows the call box to transmit/receive signals from the two different system configurations set in these two test scenarios. Figure 7-1(c) shows the setup, which is highly similar to Figure 7-1(b), to support test scenario 6 (antenna switching); as seen in the figure, two EUT's antenna ports are individually connected with a RF cable.

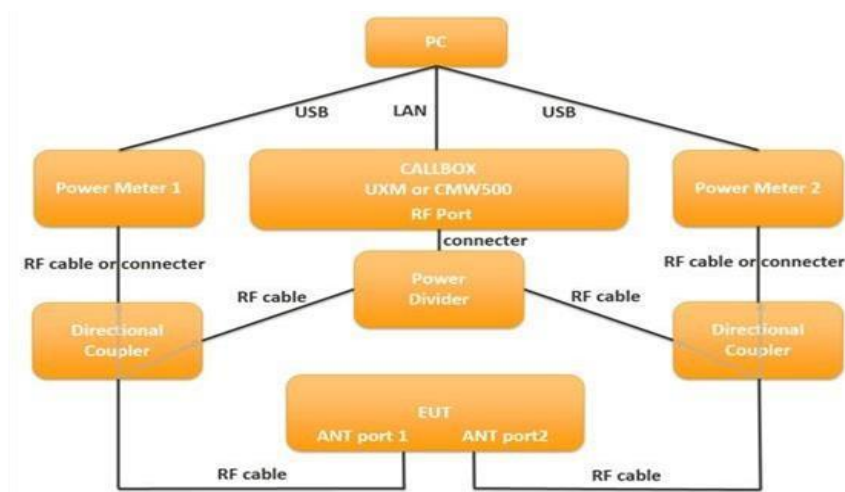
Figure 7-1(d) shows the setup for test scenario 4 (RAT handover) and scenario 8 (SAR exposure switching). Since two RATs need to be controlled in these two scenarios, RF port of RAT #1 and RF port of RAT #2 of the call box are individually connected to an antenna port of the EUT through a directional coupler. It is noted that each of the two RATs individually transmit signals though one antenna port.



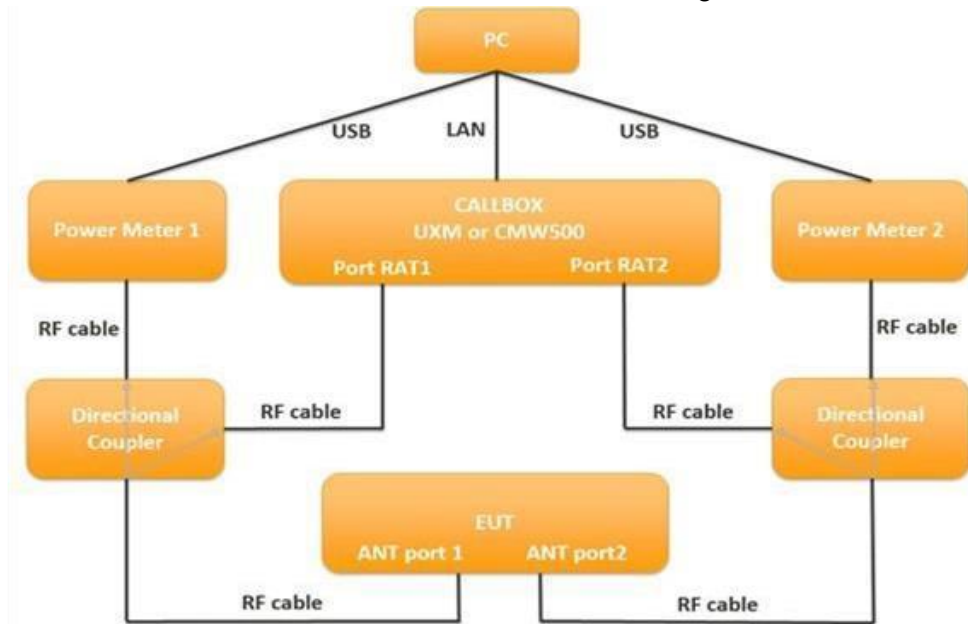
(a)



(b)



(c)



(d)

Figure 7-1 Conducted power measurement setup



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7.2 Plimit and Pmax measurement results

The measured *Plimit* for all the selected radio configurations given in Table 6-2 are listed in below Table. *Pmax* was also measured for radio configurations selected for testing time-varying Tx power transmission scenarios in order to generate test sequences following the test procedures in Section 5.

Table 7-1: Measured Plimit and Pmax of selected radio configurations

Test Case	Test Scenario	Test band	BW (MHz)	Modulation	RB size	RB offset	ANT	ECI	UL Channel	UL Freq (MHz)	Plimit, frame-averaged	Pmax, frame-averaged	Meas Plimit	Meas Pmax
0	1. Range of TA-SAR	LTE Band 4	20	QPSK	1	0	0	7	20175	1732.5	15.00	23.00	15.00	22.58
1	2. Time-varying TX power	GPRS 850	NA	GMSK	NA	NA	0	7	128	824.2	21.20	25.7	21.65	25.87
2		GPRS 1900	NA	GMSK	NA	NA	0	7	810	1909.8	16.00	23	16.19	23.27
3		WCDMA Band 2	NA	RMC	NA	NA	0	9	9400	1880	21.50	23	20.59	22.13
4		WCDMA Band 4	NA	RMC	NA	NA	0	7	1312	1712.4	16.50	23	15.50	22.38
5		LTE Band 4	20	QPSK	1	0	0	7	20175	1732.5	15.00	23	14.97	22.99
6		LTE Band 38	20	QPSK	1	0	4	7	38000	2595	12.00	21	12.03	21.13
7		FR1 n77	100	QPSK	1	1	5	4	633334	3500	22.50	26	22.23	25.68
8		FR1 n77	100	QPSK	1	1	5	7	633334	3500	12.00	26	10.98	25.68
9		GPRS 850	NA	GMSK	NA	NA	0	7	128	824.2	21.20	25.7	21.65	25.87
10		GPRS 1900	NA	GMSK	NA	NA	0	7	810	1909.8	16.00	23	16.19	23.27
11		WCDMA Band 2	NA	RMC	NA	NA	0	9	9400	1880	21.50	23	20.59	22.13
12		WCDMA Band 4	NA	RMC	NA	NA	0	7	1312	1712.4	16.50	23	15.50	22.38
13		LTE Band 4	20	QPSK	1	0	0	7	20175	1732.5	15.00	23	14.97	22.99
14		LTE Band 38	20	QPSK	1	0	4	7	38000	2595	12.00	21	12.03	21.13
15		FR1 n77	100	QPSK	1	1	5	4	633334	3500	22.50	26	22.23	25.68
16		FR1 n77	100	QPSK	1	1	5	7	633334	3500	12.00	26	10.98	25.68
17	3.Call disconnect an re-establish	FR1 n77	100	QPSK	1	1	5	7	633334	3500	12.00	26	10.98	/
18	4.Band handover	LTE Band 7	20	QPSK	1	0	1	7	21350	2560	17.50	23	16.76	/
		LTE Band 41	20	QPSK	1	0	4		41055	2636.5	14.50	21	15.02	/
19	5.Exposure condition index (ECI) change	LTE Band 38	20	QPSK	1	0	4	2 7	38000	2595	16.00	21	16.01	/
											12.00		12.01	/
20	6.Antenna change	LTE Band 7	20	QPSK	1	0	1	7	21350	2560	17.50	23	16.76	/
		LTE Band 41	20	QPSK	1	0	4		41055	2636.5	14.50	21	15.02	/
21	7.Time window switching (same RAT)	LTE Band 4	20	QPSK	1	0	0	7	20175	1732.5	15.00	23	14.78	/
		LTE Band 42	20	QPSK	1	50	5		42990	3540	10.50	21	10.10	/
		LTE Band 42	20	QPSK	1	50	5		42990	3540	10.50	21	10.10	/
22		LTE Band 4	20	QPSK	1	0	0	7	20175	1732.5	15.00	23	14.78	/



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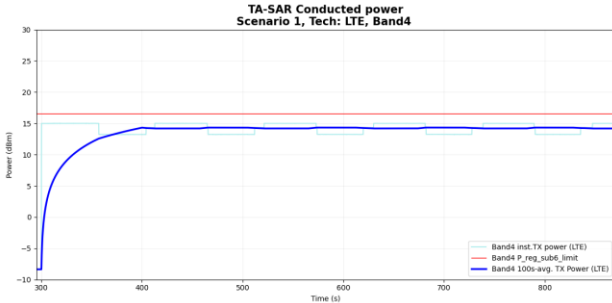
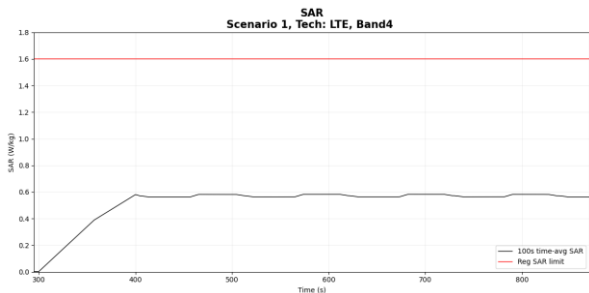
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7.3 Scenario 1: Range of TA-SAR Parameters measurement Results

Range of TA-SAR	
ConductedPower	SAR
	
Maximum norm. Total time-avg. SAR(Wkg)	0.583
Validated Result	PASS



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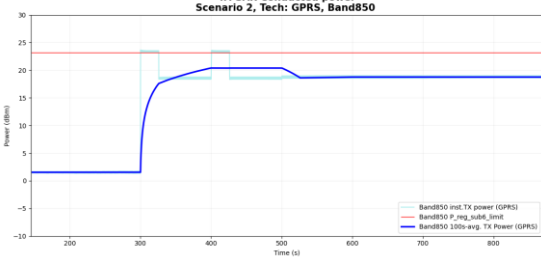
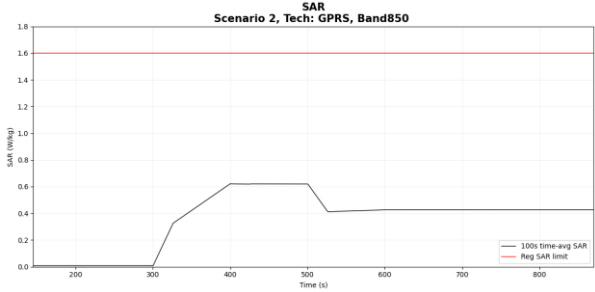
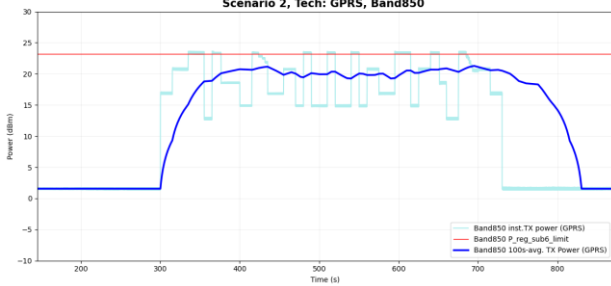
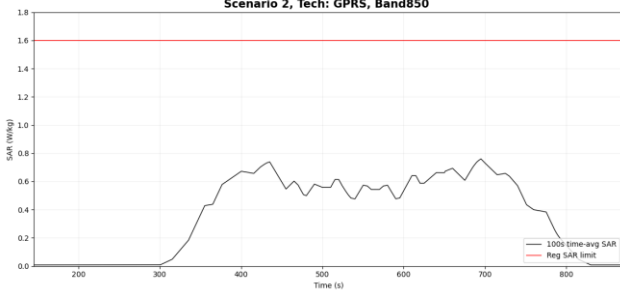
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7.4 Scenario 2: Time-Varying TX Power measurement Results

7.4.1 GSM850 band

GPRS 850 3TS	
Sequence 1	
ConductedPower	SAR
	
Maximum norm. Total time-avg. SAR(W/kg)	0.622
Validated Result	PASS
Sequence 2	
ConductedPower	SAR
	
Maximum norm. Total time-avg. SAR(W/kg)	0.76
Validated Result	PASS



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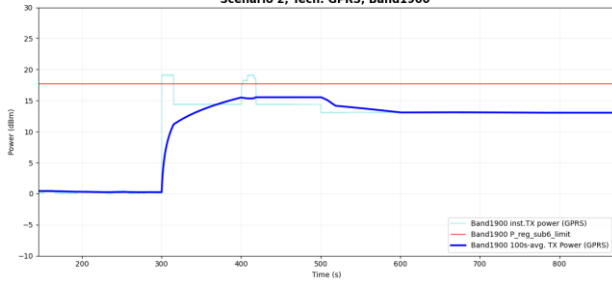
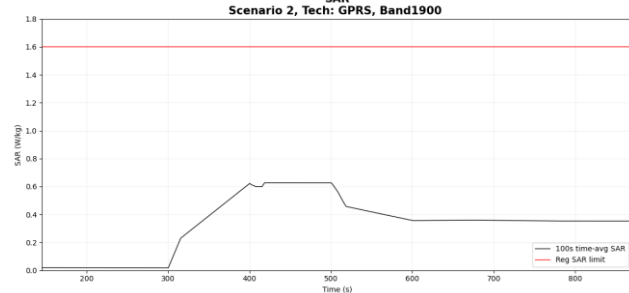
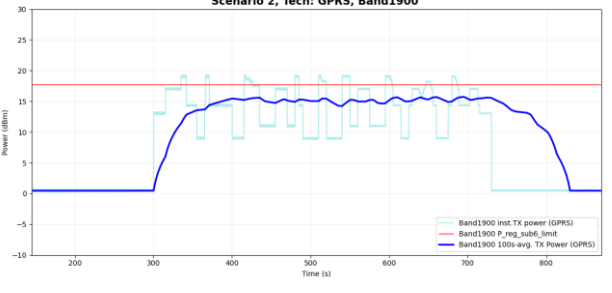
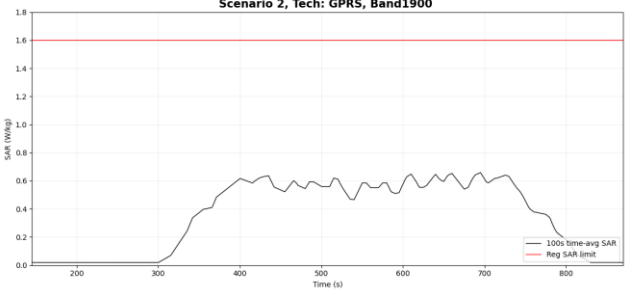
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7.4.2 GSM1900 band

GPRS 1900 4TS	
Sequence 1	
ConductedPower	SAR
<p>TA-SAR Conducted power Scenario 2, Tech: GPRS, Band1900</p> 	<p>SAR Scenario 2, Tech: GPRS, Band1900</p> 
Maximum norm. Total time-avg. SAR(W/kg)	0.627
Validated Result	PASS
Sequence 2	
ConductedPower	SAR
<p>TA-SAR Conducted power Scenario 2, Tech: GPRS, Band1900</p> 	<p>SAR Scenario 2, Tech: GPRS, Band1900</p> 
Maximum norm. Total time-avg. SAR(W/kg)	0.659
Validated Result	PASS



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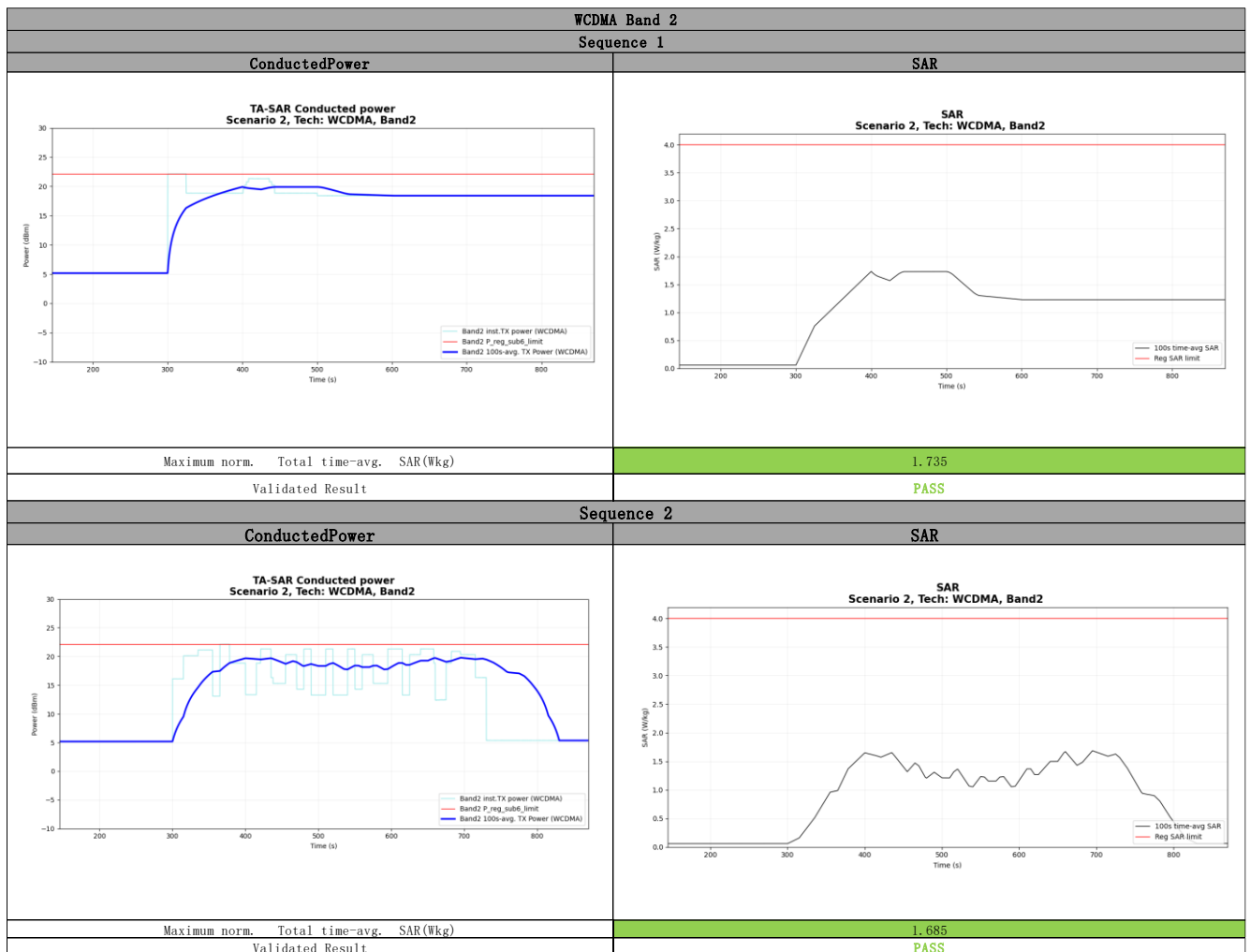
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7.4.3 WCDMA B2 band

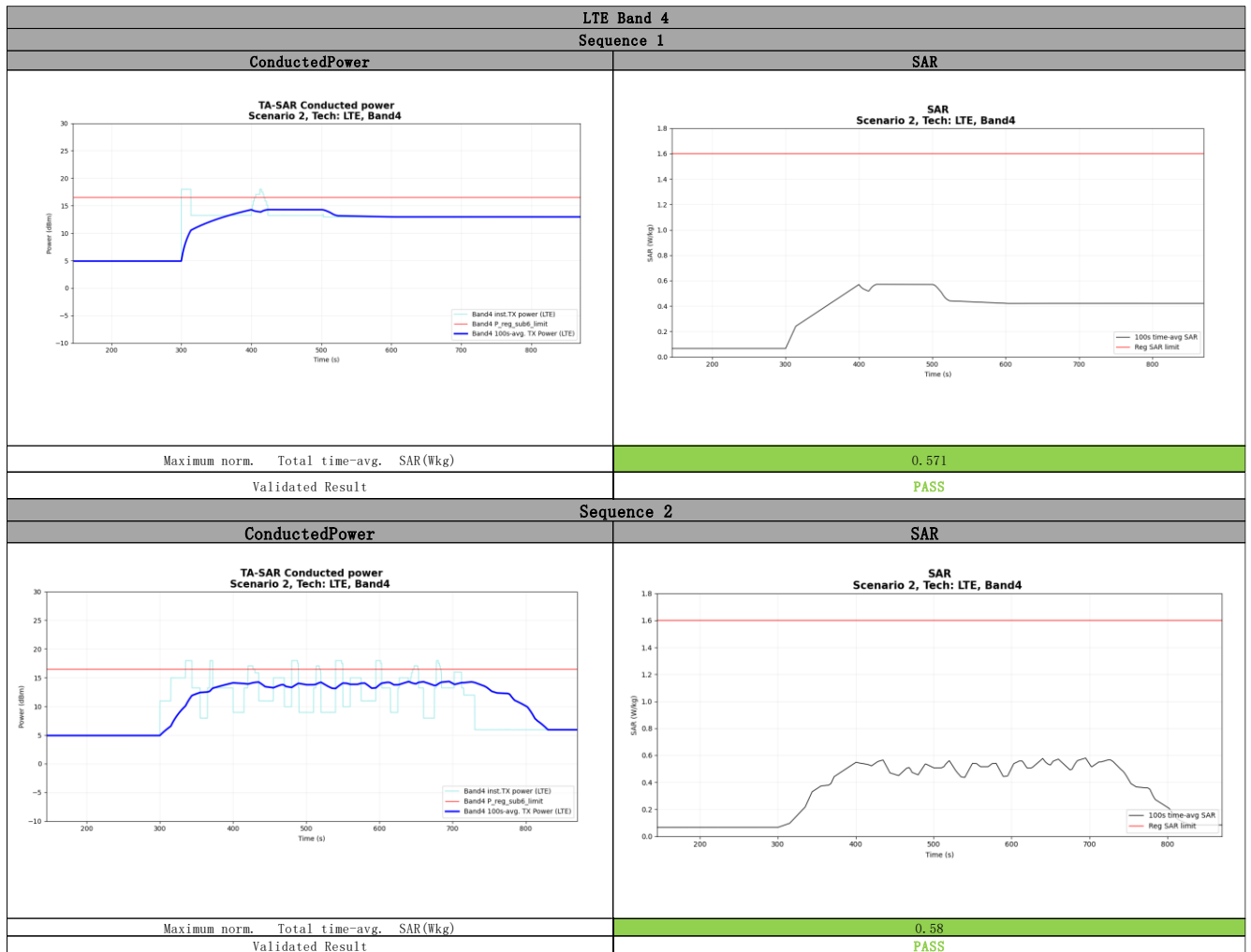


7.4.4 WCDMA B4 band

WCDMA Band 4	
Sequence 1	
ConductedPower	SAR
<p>TA-SAR Conducted power Scenario 2, Tech: WCDMA, Band4</p>	<p>SAR Scenario 2, Tech: WCDMA, Band4</p>
Maximum norm. Total time-avg. SAR(W/kg)	0.638
Validated Result	PASS
Sequence 2	
ConductedPower	SAR
<p>TA-SAR Conducted power Scenario 2, Tech: WCDMA, Band4</p>	<p>SAR Scenario 2, Tech: WCDMA, Band4</p>
Maximum norm. Total time-avg. SAR(W/kg)	0.652
Validated Result	PASS



7.4.5 LTE B4 band



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7.4.6 LTE B38 band

LTE Band 38	
Sequence 1	
ConductedPower	SAR
<p>TA-SAR Conducted power Scenario 2, Tech: LTE, Band38</p>	<p>SAR Scenario 2, Tech: LTE, Band38</p>
Maximum norm. Total time-avg. SAR(W/kg)	0.272
Validated Result	PASS
Sequence 2	
ConductedPower	SAR
<p>TA-SAR Conducted power Scenario 2, Tech: LTE, Band38</p>	<p>SAR Scenario 2, Tech: LTE, Band38</p>
Maximum norm. Total time-avg. SAR(W/kg)	0.293
Validated Result	PASS



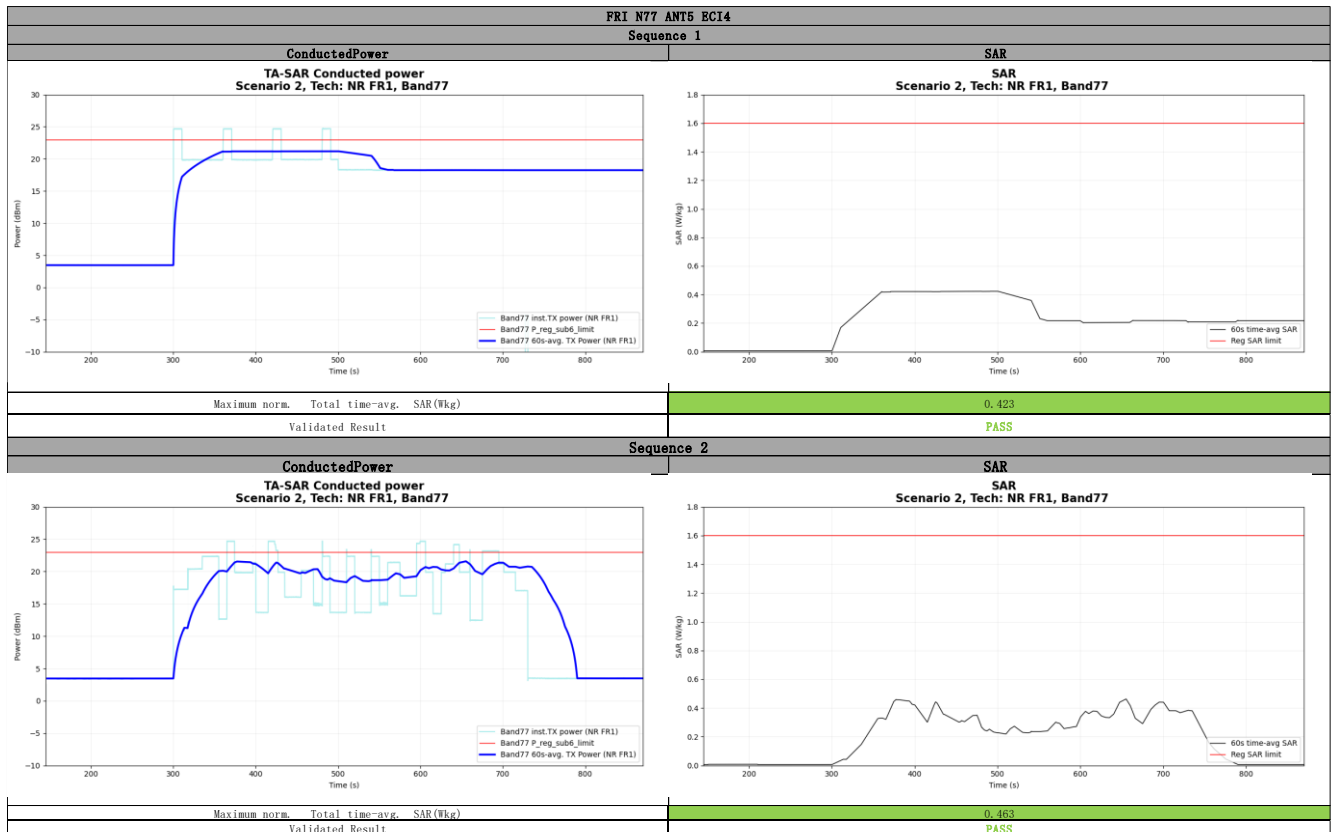
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7.4.7 NR n77 band



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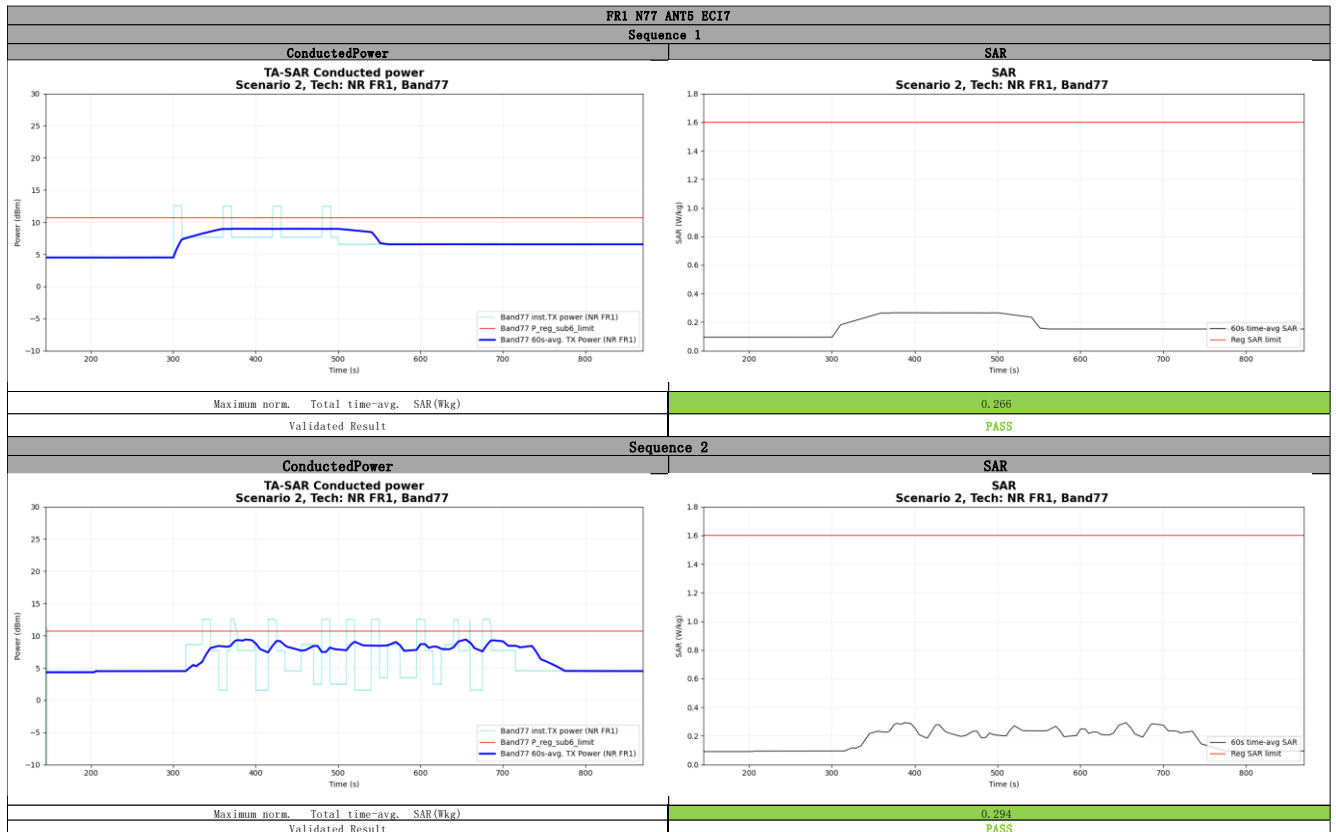


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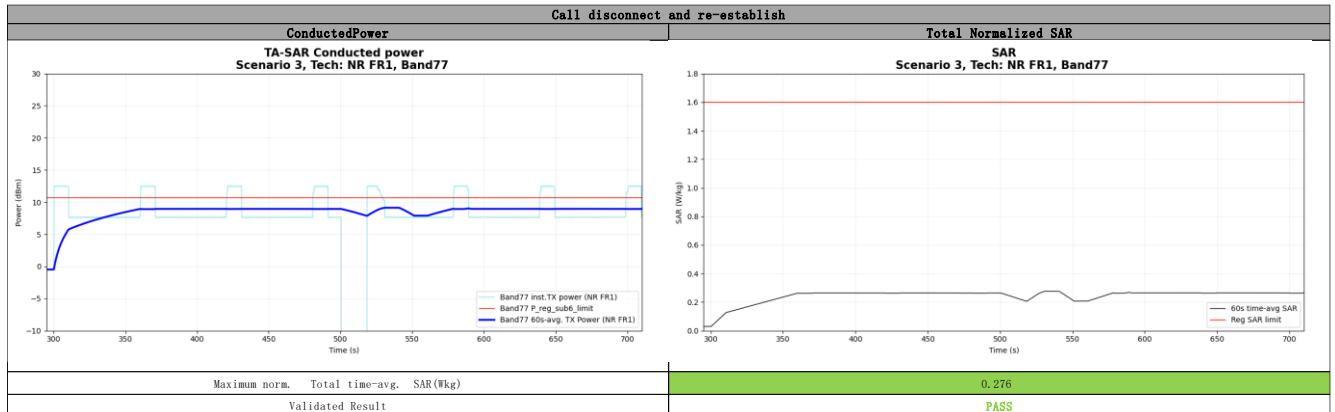
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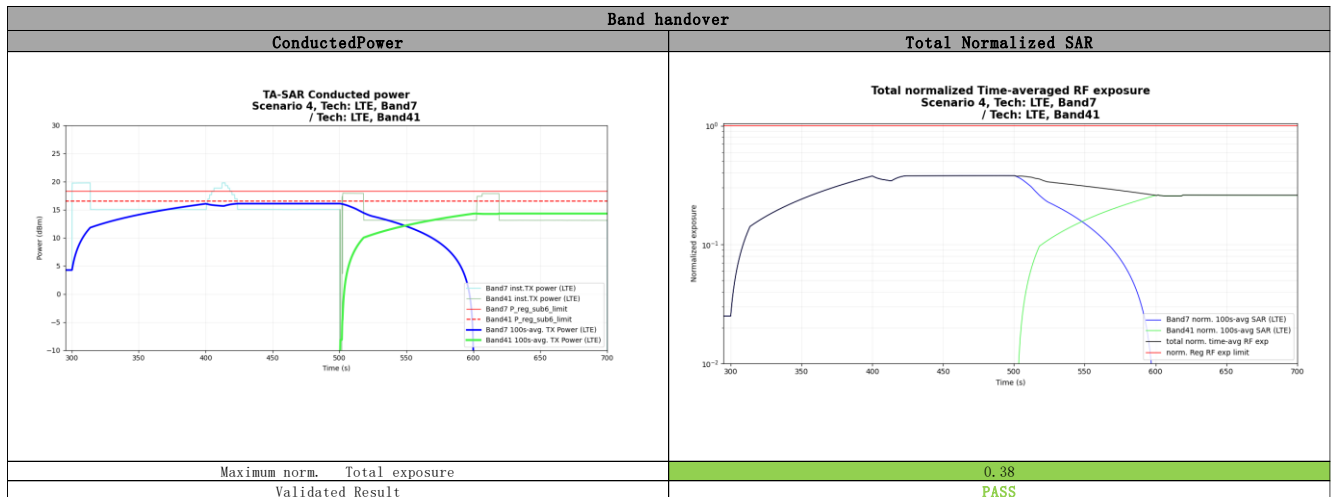
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7.5 Scenario 3: Call Disconnection and Re-establishment measurement Results



7.6 Scenario 4: Band Handover measurement Results



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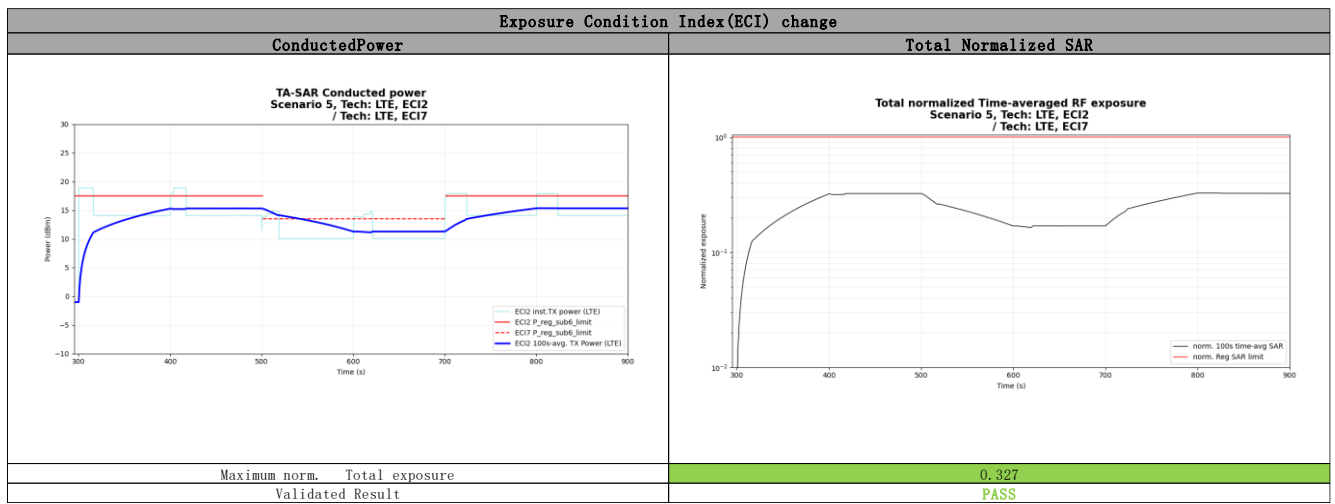
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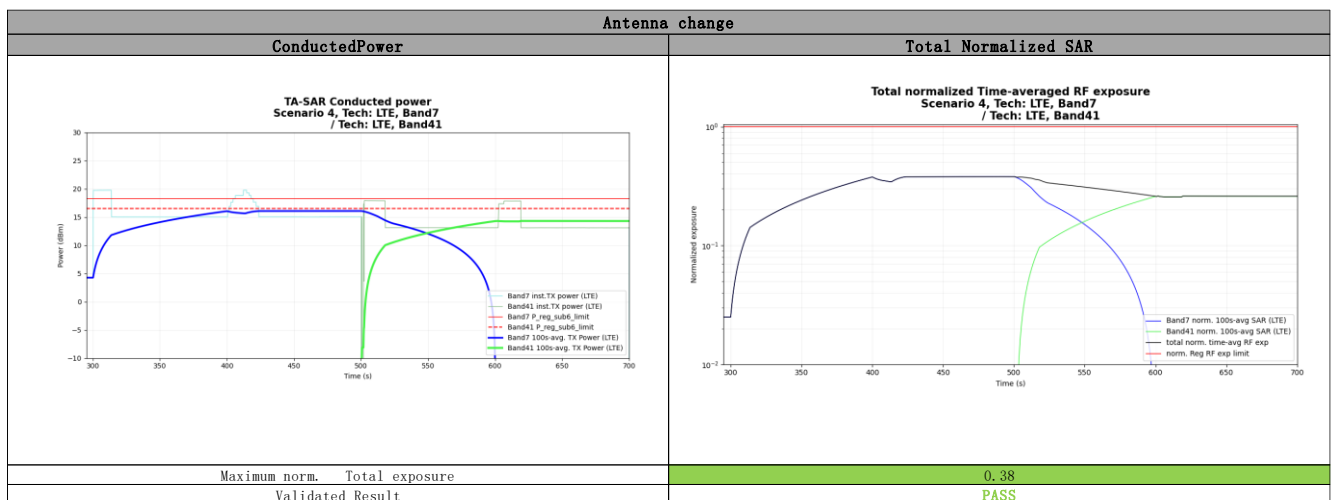
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7.7 Scenario 5: Exposure Condition Index (ECI) Change measurement Results



7.8 Scenario 6: Antenna Switching measurement Results



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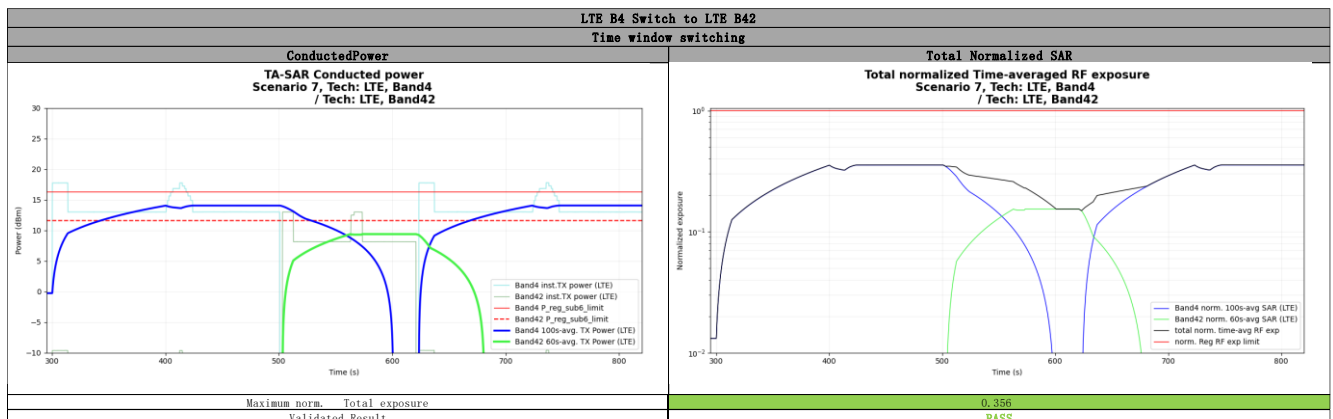
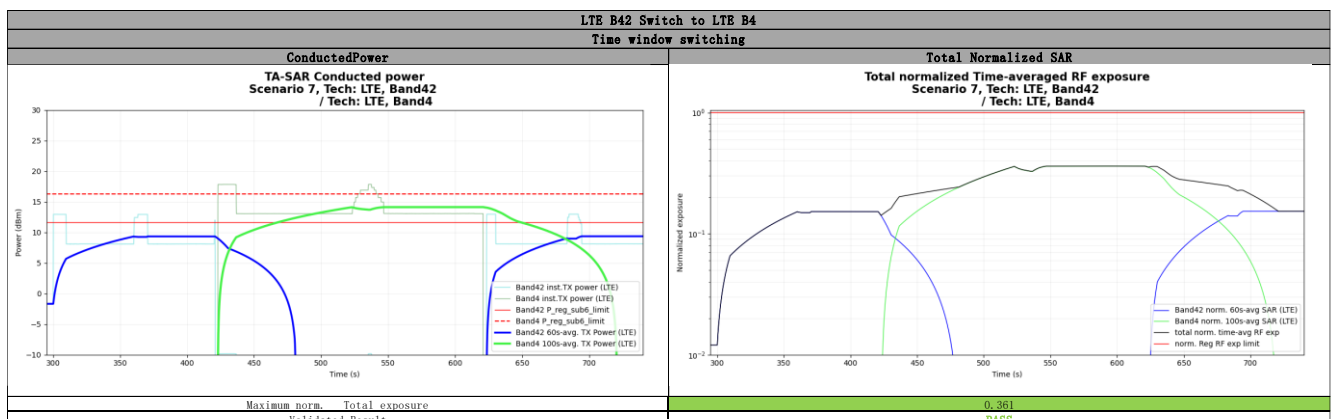
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7.9 Scenario 7: Time Window Switching Measurement Results



8 SAR Test Results for TAS Feature Validation

8.1 Measurement Setup

The measurement setup in Figure 7-1 is similar to normal SAR measurements. The difference in SAR measurement setup for time averaging feature validation is that the callbox is signaling in close loop power control mode (instead of requesting maximum power in open loop control mode) and callbox is connected to the PC using GPIB so that the test script executed on PC can send GPIB commands to control the callbox's requested power over time (test sequence). The same test script used in conducted setup for time-varying Tx power measurements is also used in this section for running the test sequences during SAR measurements, and the recorded values from the disconnected power meter by the test script were discarded.

As mentioned in Section 5.3, for EUT to follow TPC command sent from the callbox wirelessly, the "loss" between callbox antenna and the EUT needs to be very well calibrated. Since the SAR chamber is in uncontrolled environment, precautions must be taken to minimize the environmental influences on "loss". Similarly, in the case of time-varying SAR measurements in 5G NR (with LTE as anchor), "loss" between callbox antenna and the EUT needs to be carefully calibrated for both LTE link as well as for 5G NR link.

The EUT is placed in worst-case position according to Table 6-2.

8.2 SAR measurement results for time-varying Tx power transmission scenario

In this scenario, Mediatek's TA-SAR algorithm is tested under more dynamic power test sequences. The test sequence #1 and test sequence #2 is used for TA-SAR test. All the measurements are conduct by using DASY6 or DASY8. The high-level summary of the final validation results is given in the last column of the table, which concludes that Mediatek's TA-SAR algorithm can maintain the time-averaged SAR is always below the FCC requirement for all test cases. The following sections will demonstrate case-by-case to show how Mediatek's TA-SAR algorithm behaves for each RAT.



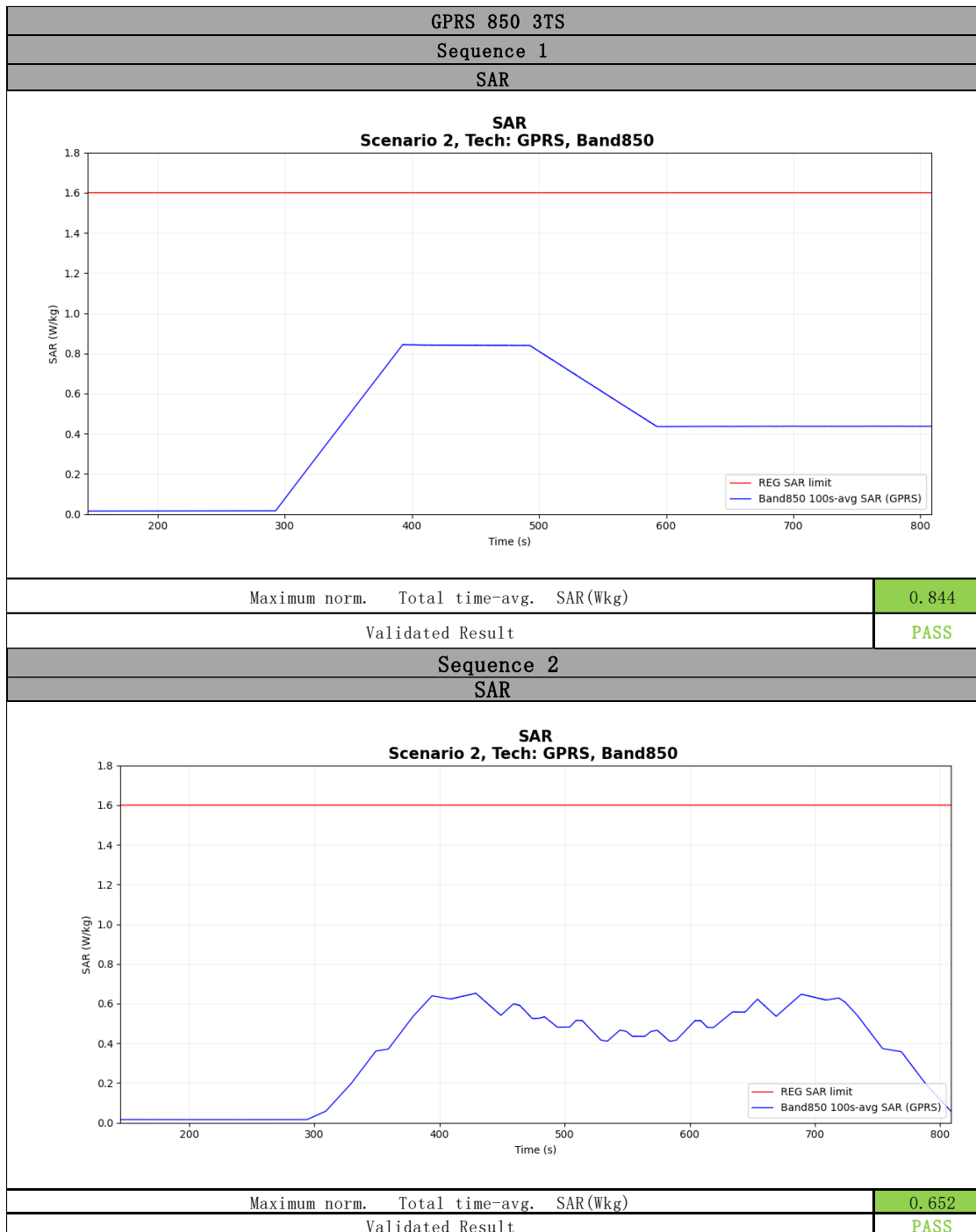
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8.2.1 GSM850 band



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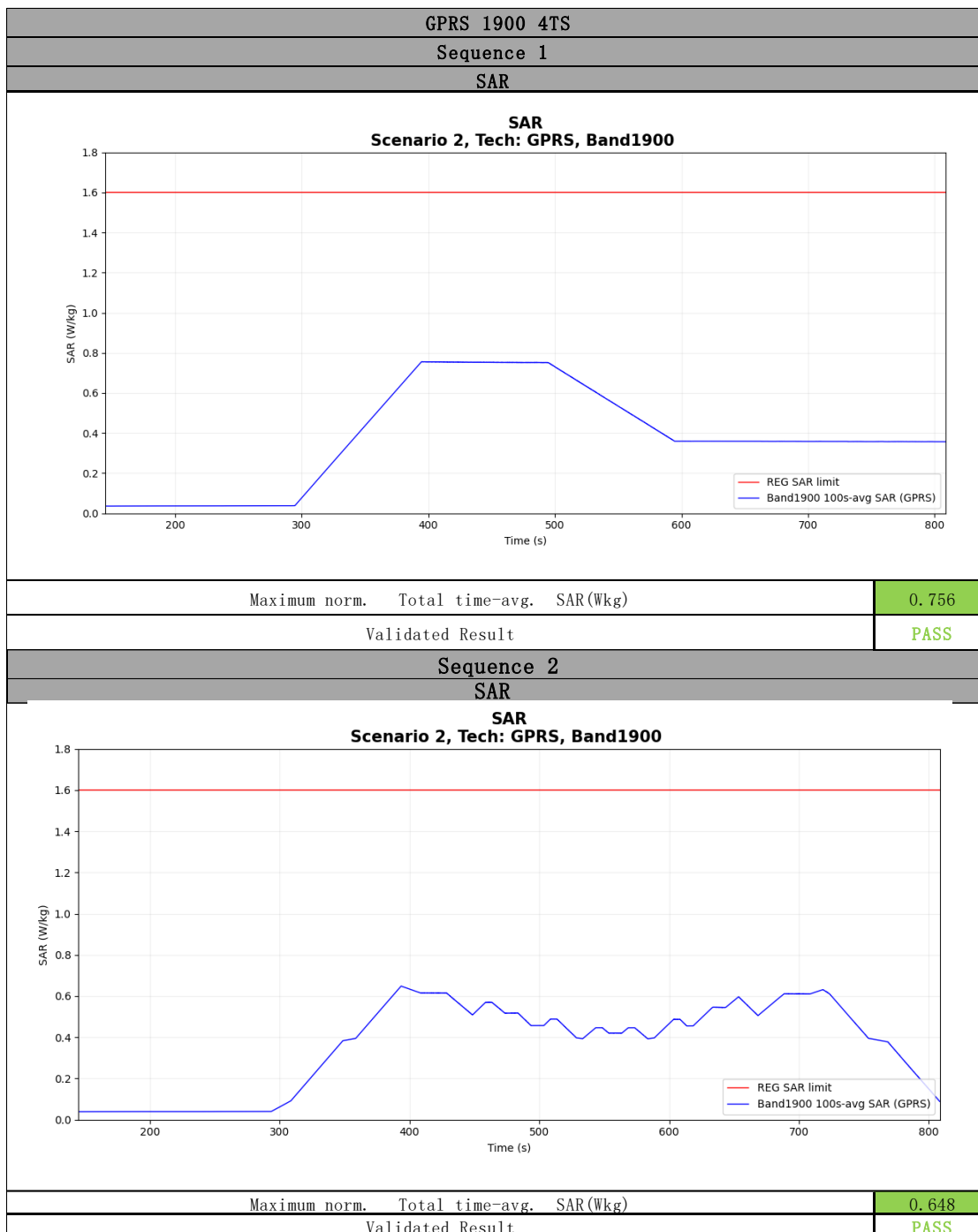
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8.2.2 GSM1900 band



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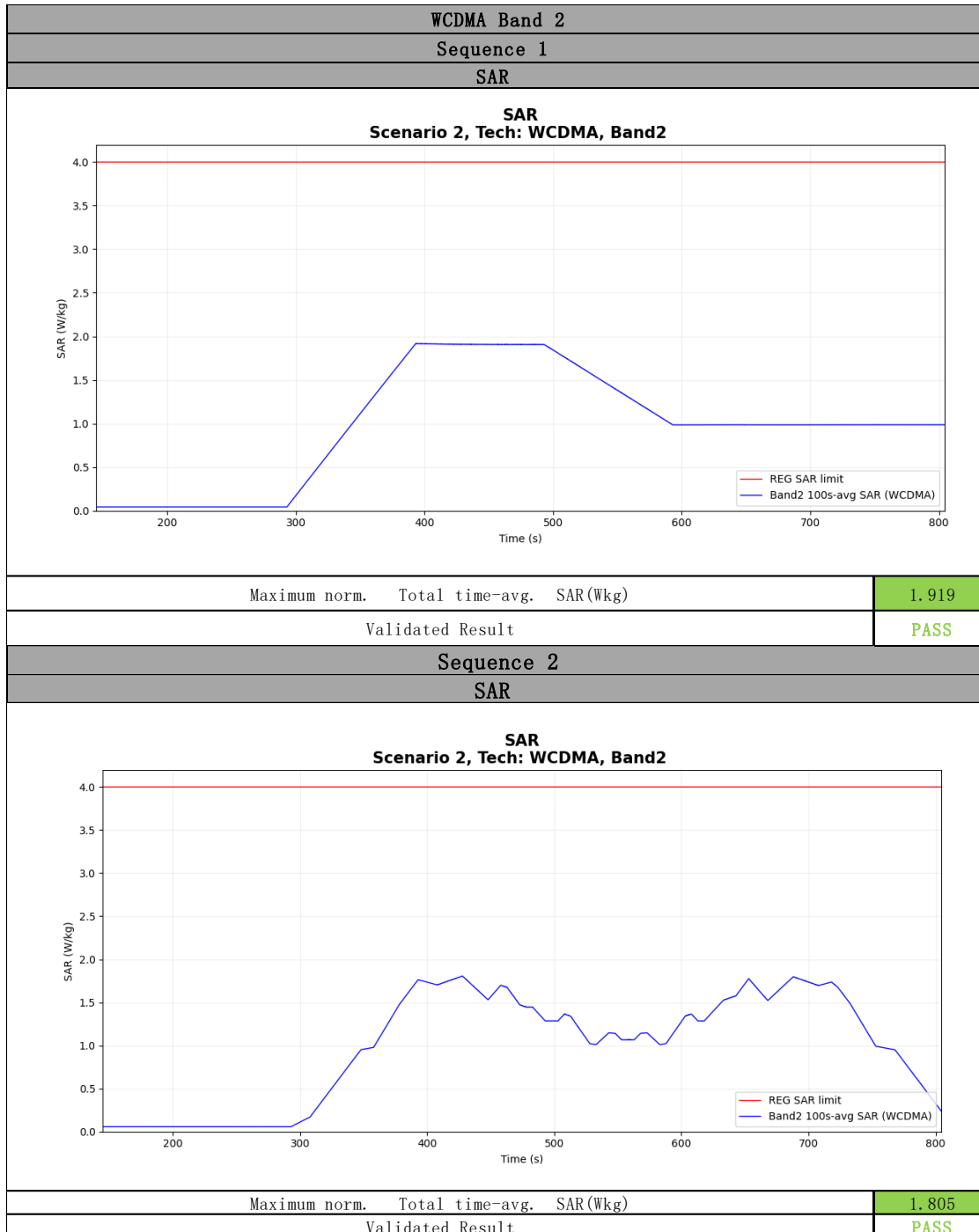
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8.2.3 WCDMA B2 band



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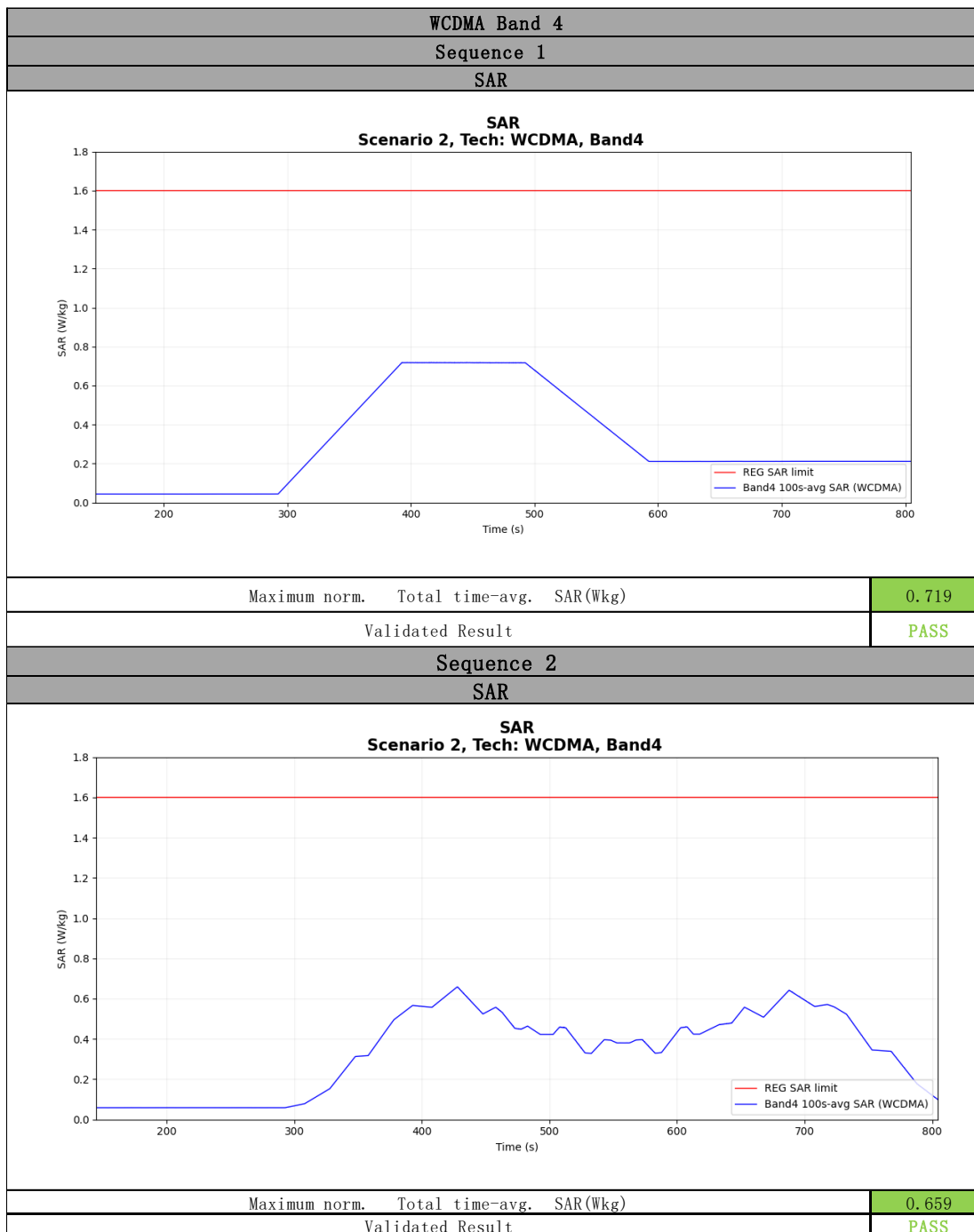
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8.2.4 WCDMA B4 band



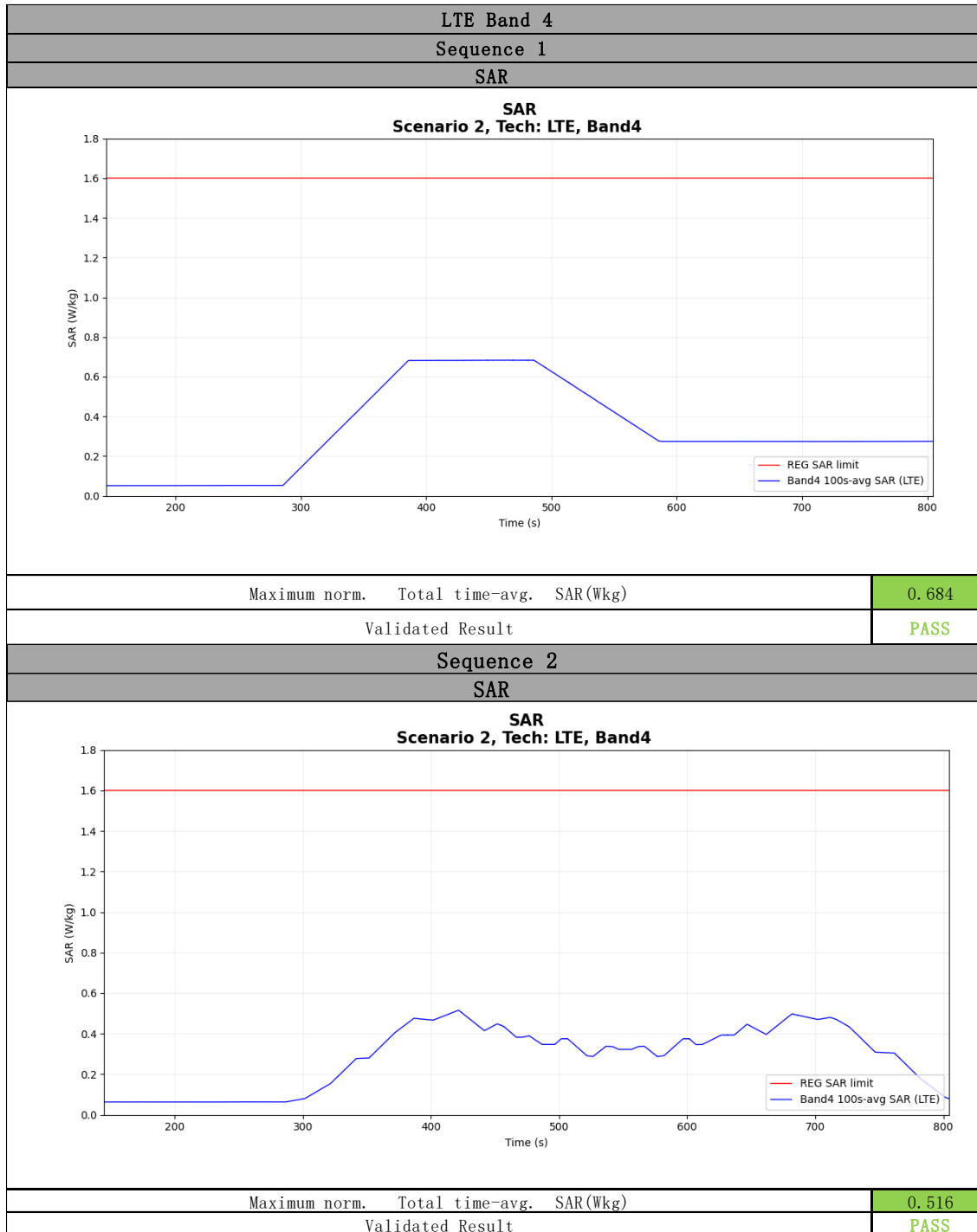
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8.2.5 LTE B4 band





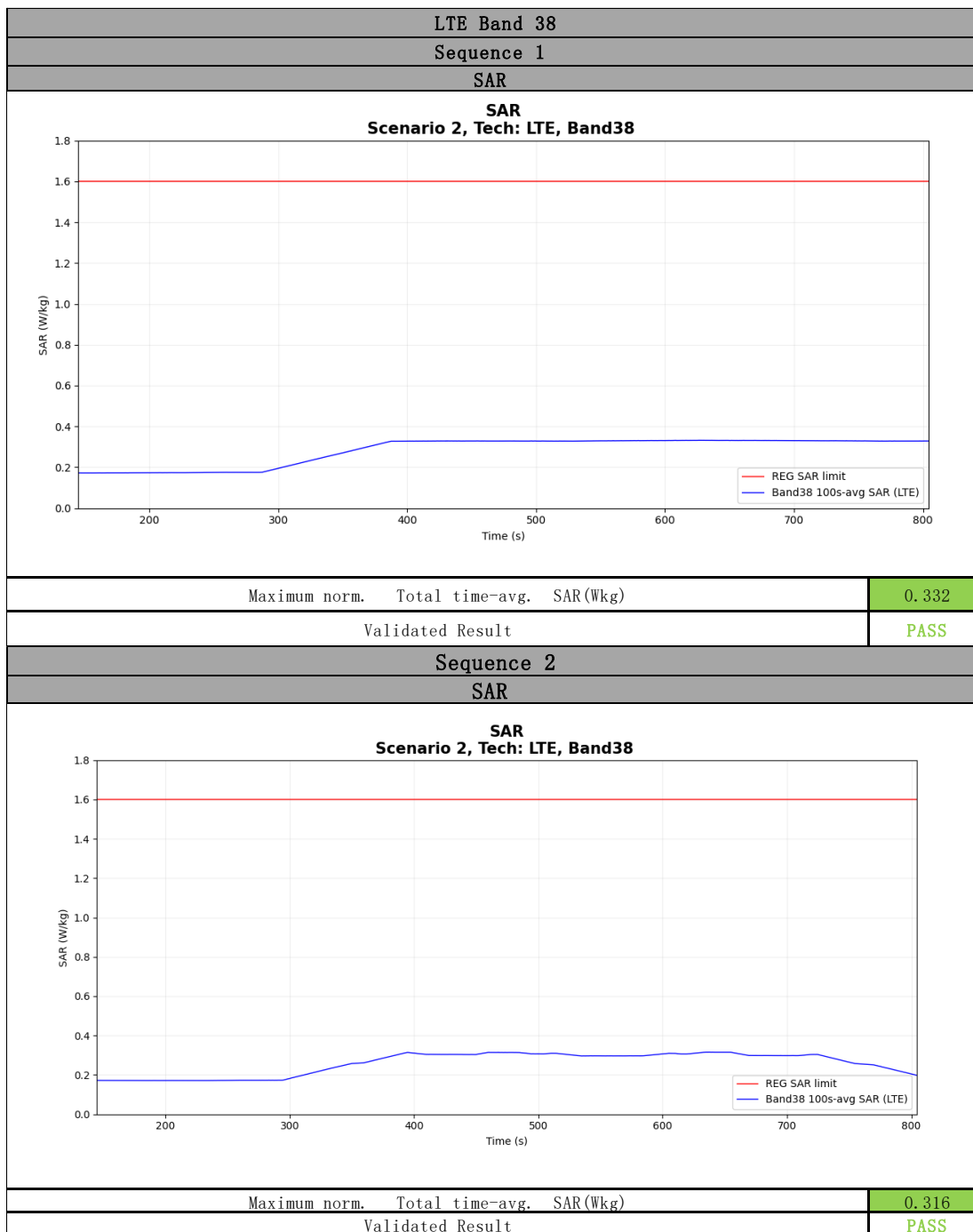
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8.2.6 LTE B38 band



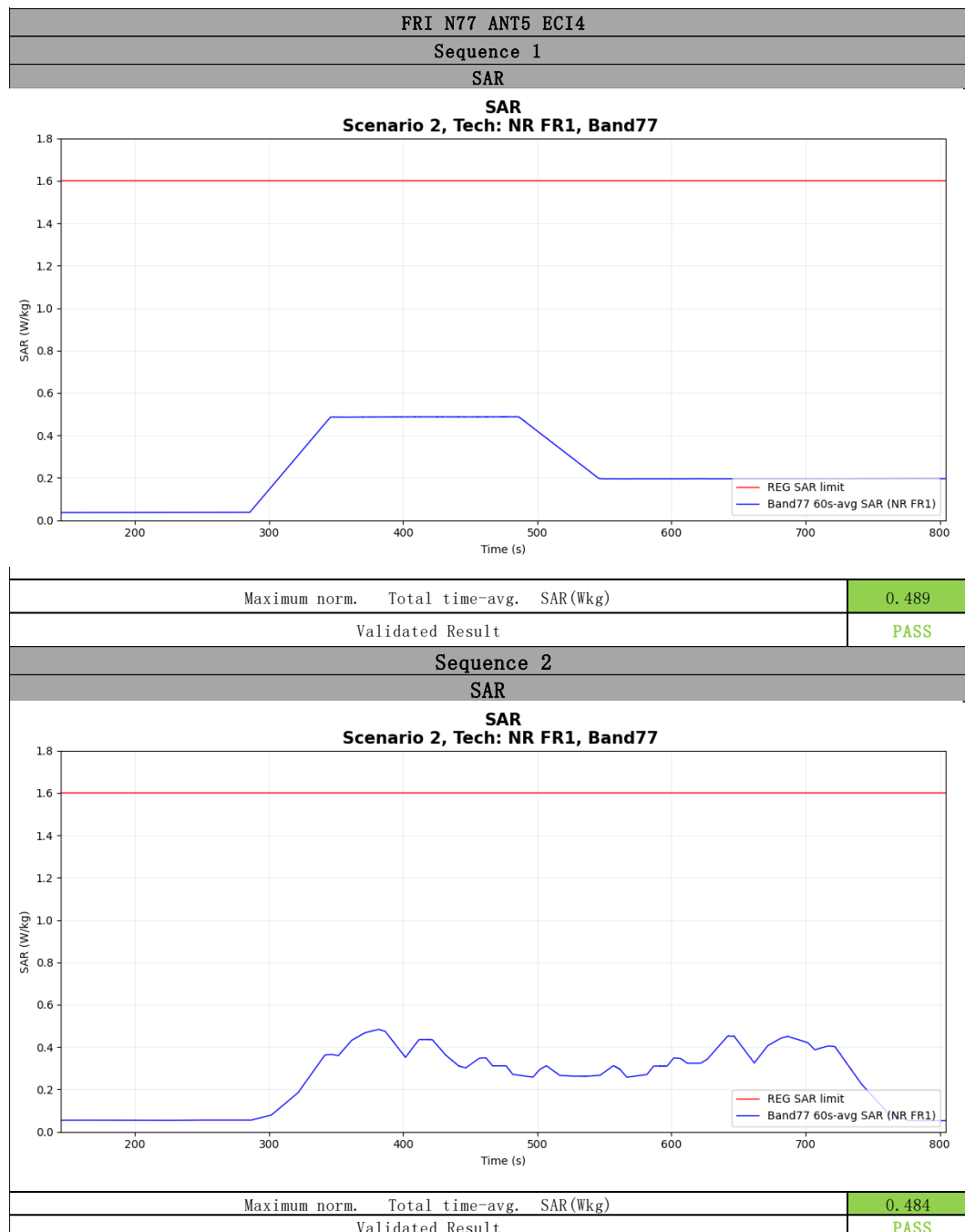
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8.2.7 NR n77 band



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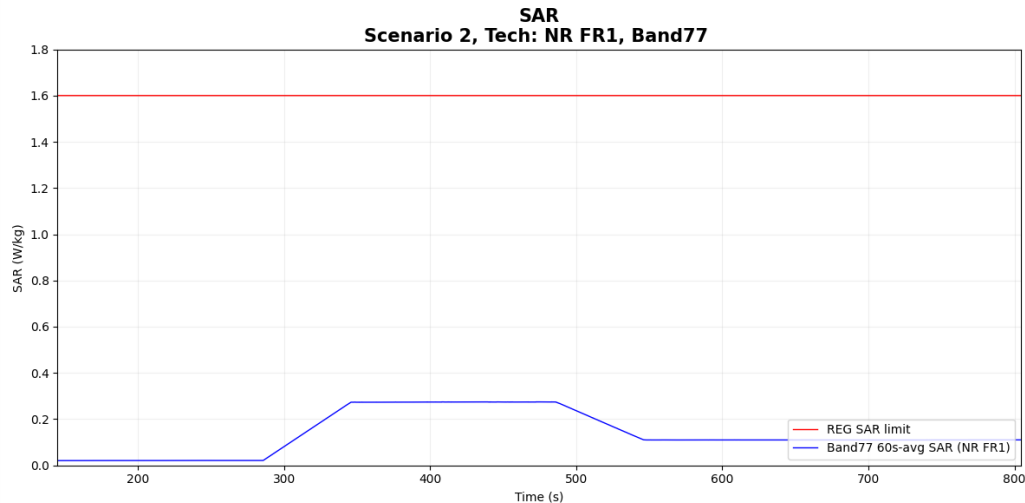
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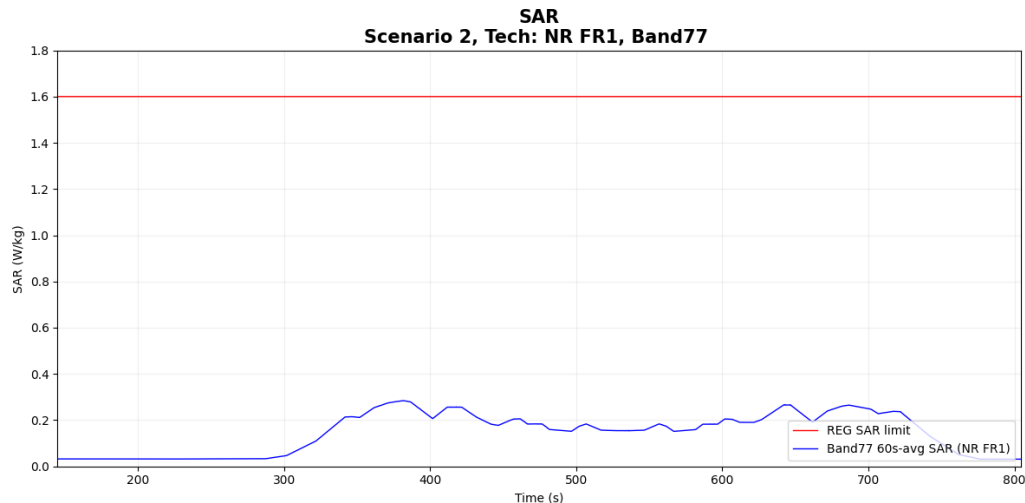
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FRI N77 ANT5 ECI7
Sequence 1
SAR



Maximum norm. Total time-avg. SAR (Wkg)	0.275
Validated Result	PASS

Sequence 2
SAR



Maximum norm. Total time-avg. SAR (Wkg)	0.285
Validated Result	PASS



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9 Conclusions

MEDIATEK TAS feature employed has been validated through the conducted power measurement, as well as SAR measurement. As demonstrated in this report, the power limiting enforcement is effective and the total normalized time-averaged RF exposure does not exceed 1.0 for all the transmission scenarios described in Section 4. Therefore, the EUT complies with FCC RF exposure requirement.



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10 Test Equipment List

Test Platform		SPEAG DASY Professional				
Software Reference		cDASY8 V16.4.0.5005				
Hardware Reference						
Equipment		Manufacturer	Model	Inventory No.	Calibration Date	Due date of calibration
☒	Test Phantom	SPEAG	SAM Twin	SZ-WSR-A-027	NCR	NCR
☒	DAE	SPEAG	DAE4ip	SZ-WSR-M-074	2025/8/15	2026/8/14
☒	E-Field Probe	SPEAG	EX3DV4	SZ-WSR-M-075	2025/10/14	2026/10/13
☒	Validation Kits	SPEAG	D3500V2	SZ-WSR-M-041	2025/10/15	2028/10/14
☒	Dielectric parameter probes	SPEAG	DAK-3.5	SZ-WSR-M-093	2025/11/16	2026/11/15
☒	Agilent Network Analyzer	Agilent	E5071C	SZ-WSR-M-067	2025/8/26	2026/8/25
☒	Universal Radio Communication Tester	R&S	CMW500	SZ-WSR-M-099	2025/12/16	2026/12/15
☒	UXM Wireless Test Platform	Keysight	E7515B	SZ-WSR-M-086	2025/7/23	2026/7/22
☒	Directional Coupler	Narda	4226-10	SZ-WSR-A-015	NCR	NCR
☒	Directional Coupler	Narda	4226-10	SZ-WSR-A-016	NCR	NCR
☒	Power Sensor	R&S	NRP8S	SZ-WSR-M-025	2025/12/16	2026/12/15
☒	Power Sensor	R&S	NRP8S	SZ-WSR-M-076	2025/12/16	2026/12/15
☒	RF Bi-Directional Coupler	Agilent	86205-60001	SZ-WSR-A-004	NCR	NCR
☒	Signal Generator	Agilent	N5171B	SZ-WSR-M-006	2025/12/16	2026/12/15
☒	Preamplifier	Mini-Circuits	ZHL-42W	SZ-WSR-A-001	NCR	NCR
☒	Preamplifier	Compliance Directions Systems Inc.	AMP28-3W	SZ-WSR-A-002	NCR	NCR
☒	Power Meter	Agilent	E4416A	SZ-WSR-M-007	2025/12/16	2026/12/15



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☒	Power Sensor	Agilent	8481H	SZ-WSR-M-008	2025/12/16	2026/12/15
☒	Power Sensor	R&S	NRP-Z92	SZ-WSR-M-009	2025/12/16	2026/12/15
☒	Attenuator	SHX	TS2-3dB	SZ-WSR-A-012	NCR	NCR
☒	Speed reading thermometer	Zhengzhou Boyang Instrument	TP3001	SZ-WSR-M-014	2025/05/19	2026/05/18
☒	Temperature	MingGao	T809	SZ-WSR-M-015	2025/05/19	2026/05/18
☒	Temperature	MingGao	T809	SZ-WSR-M-016	2025/05/19	2026/05/18
☒	Humidity and Temperature Indicator	CHIGAO	HTC-1	SZ-WSR-M-011	2025/5/16	2026/5/15

Note: All the equipment is within the valid period when the tests are performed.



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Appendix A. Test Sequences

Three test sequences having possibly time-varying TX power are predefined for TA-SAR validation:

- Test sequence 0: EUT's TX power is requested to be maximum.
- Test sequence 1: EUT's TX power is requested to be at power less than $P_{LowThresh}$ for 300s, then at maximum power for 200s, and finally at $P_{LowThresh} - 2\text{dB}$ for the remaining time.
- Test sequence 2: EUT's TX power to vary with time. This sequence is generated relative to measured PUE_{max} , measured P_{sub6_limit} and calculated $PUE_backoff$ (= measured P_{sub6_limit} in dBm - $PUE_backoff_offset$ in dB) of EUT based on measured P_{sub6_limit} .
- Test sequence is generated based on below parameters of the EUT:
 - A. Measured maximum power (PUE_{max})
 - B. Measured Tx power at SAR design limit (P_{sub6_limit})
 - C. Threshold of dynamic power reduction status determination: reserve hysteresis margin for instantaneous power ($P_{LowThresh}$)
 - D. SAR_time_window (FCC: 100s for $f < 3\text{GHz}$, 60s for $3\text{GHz} < f < 6\text{GHz}$)

The test sequence 0, 1, and 2 are illustrated in Figure A-1, Figure A-2, and Figure A-3, respectively.

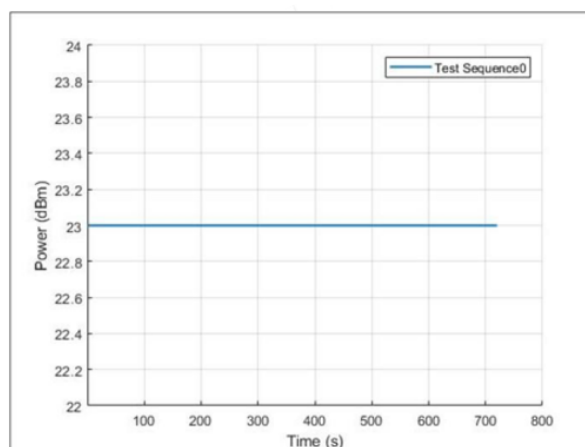


Figure 4-1 Test sequence 0

Time	Duration	Power (dBm)	Note
720	720	23	PUE_{max}



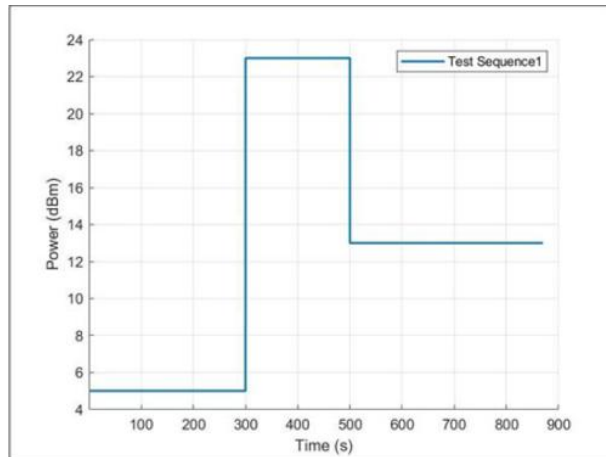


Figure 4-1 Test sequence 1

Time	Duration	Power (dBm)	Note
300	300	5	< PLowThresh
500	200	23	PUE_max
870	370	13	PLowThresh - 2dB

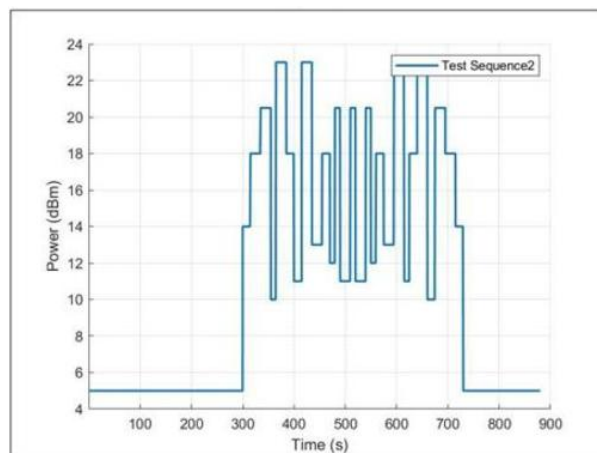


Figure 4-1 Test sequence 2

Time	Duration	Power (dBm)	Note
300	300	5	< PLowThresh
315	15	14	Psub6_limit - 4dB
335	20	18	Psub6_limit



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355	20	20.5	$(P_{sub6_limit} + P_{UE_max})/2$
365	10	10	$P_{sub6_limit} - 8dB$
385	20	23	P_{UE_max}
400	15	18	P_{sub6_limit}
415	15	11	$P_{sub6_limit} - 7dB$
435	20	23	P_{UE_max}
455	20	13	$P_{sub6_limit} - 5dB$
470	15	18	P_{sub6_limit}
480	10	12	$P_{sub6_limit} - 6dB$
490	10	20.5	$(P_{sub6_limit} + P_{UE_max})/2$
510	20	11	$P_{sub6_limit} - 7dB$
520	10	20.5	$(P_{sub6_limit} + P_{UE_max})/2$
540	20	11	$P_{sub6_limit} - 7dB$
550	10	20.5	$(P_{sub6_limit} + P_{UE_max})/2$
560	10	12	$P_{sub6_limit} - 6dB$
575	15	18	P_{sub6_limit}
595	20	13	$P_{sub6_limit} - 5dB$
615	20	23	P_{UE_max}
625	10	11	$P_{sub6_limit} - 7dB$
640	15	18	P_{sub6_limit}
660	20	23	P_{UE_max}
675	15	10	$P_{sub6_limit} - 8dB$
695	20	20.5	$(P_{sub6_limit} + P_{UE_max})/2$
715	20	18	P_{sub6_limit}
730	15	14	$P_{sub6_limit} - 4dB$
870	140	5	$< P_{LowThresh}$



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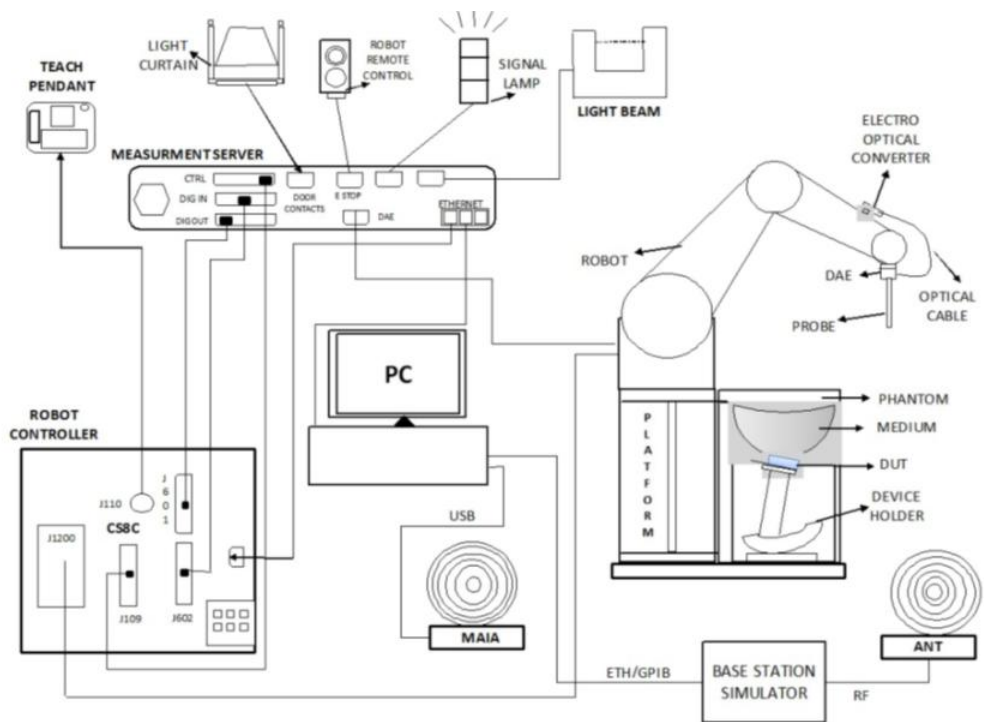
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Appendix B. DASY System Verification

The system to be used for SAR measurement

■ SPEAG DASY system





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SAR system verification and validation

Tissue Verification

The following tissue formulations are provided for reference only as some of the parameters have not been thoroughly verified. The composition of ingredients may be modified accordingly to achieve the desired target tissue parameters required for routine SAR evaluation.

The composition of the brain tissue simulating liquid is:

Broad-band head tissue simulating liquids	SPEAG Product	Frequency range (MHz)	Main Ingredients
	HBBL600-10000V6	600 - 10000	Water: 50-65% Mineral oil: 10-30% Emulsifiers: 8-25% Sodium salt: 0-1.5%

<Tissue Check Results>

Measurement for Tissue Simulate Liquid for System check									
Tissue Type	Measured Frequency (MHz)	Measured Tissue		Target Tissue (±5%)		Deviation (Within ±5%)		Liquid Temp. (°C)	Test Date
		ϵ_r	σ (S/m)	ϵ_r	σ (S/m)	ϵ_r	σ (S/m)		
835 Head	835	41.200	0.906	41.50	0.90	-0.72%	0.67%	21.9	2026/3/4
1750 Head	1750	40.100	1.410	40.10	1.37	0.00%	2.92%	22.1	2026/3/6
1900 Head	1900	40.000	1.430	40.00	1.40	0.00%	2.14%	22.3	2026/3/8
2600 Head	2600	39.300	1.980	39.00	1.96	0.77%	1.02%	22.0	2026/3/10
3500 Head	3500	38.400	3.020	37.90	2.91	1.32%	3.78%	22.2	2026/3/12

(for original report SZCR260200054302)

Measurement for Tissue Simulate Liquid for System check									
Tissue Type	Measured Frequency (MHz)	Measured Tissue		Target Tissue (±5%)		Deviation (Within ±5%)		Liquid Temp. (°C)	Test Date
		ϵ_r	σ (S/m)	ϵ_r	σ (S/m)	ϵ_r	σ (S/m)		
3500 Head	3500	38.100	2.990	37.90	2.91	0.53%	2.75%	22.1	2026/4/27

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System Check

Compared to the original SAR value provided by SPEAG, the verification data should be within its specification of 10 %. Below table shows the target SAR and measured SAR after normalized to 1W input power. The table below indicates the system performance check can meet the variation criterion and the plots can be referred to Part2 Appendix B.

<System Check Results>

Validation Kit	Measured SAR 250mW	Measured SAR 250mW	Measured SAR (normalized to 1W)	Measured SAR (normalized to 1W)	Target SAR (normalized to 1W)	Target SAR (normalized to 1W)	Deviation (Within ±10%)		Liquid Temp. (°C)	Test Date
	1g (W/kg)	10g (W/kg)	1g (W/kg)	10g (W/kg)	1-g(W/kg)	10-g(W/kg)	1-g(W/kg)	10- g(W/kg)		
D835V2_Head	2.59	1.72	10.36	6.88	9.67	6.43	7.14%	7.00%	21.9	2026/3/4
D1750V2_Head	9.78	5.23	39.12	20.92	36.20	19.10	8.07%	9.53%	22.1	2026/3/6
D1900V2_Head	10.9	5.59	43.60	22.36	39.90	21.10	9.27%	5.97%	22.3	2026/3/8
D2600V2_Head	14.30	6.67	57.20	26.68	55.30	24.70	3.44%	8.02%	22.0	2026/3/10
Validation Kit	Measured SAR 100mW	Measured SAR 100mW	Measured SAR (normalized to 1W)	Measured SAR (normalized to 1W)	Target SAR (normalized to 1W)	Target SAR (normalized to 1W)	Deviation (Within ±10%)		Liquid Temp. (°C)	Test Date
	1g (W/kg)	10g (W/kg)	1g (W/kg)	10g (W/kg)	1-g(W/kg)	10-g(W/kg)	1-g(W/kg)	10- g(W/kg)		
D3500V2_3.5GHz_Head	6.56	2.57	65.60	25.70	65.80	25.00	-0.30%	2.80%	22.2	2026/3/12

(for original report SZCR260200054302)

Validation Kit	Measured SAR 100mW	Measured SAR 100mW	Measured SAR (normalized to 1W)	Measured SAR (normalized to 1W)	Target SAR (normalized to 1W)	Target SAR (normalized to 1W)	Deviation (Within ±10%)		Liquid Temp. (°C)	Test Date
	1g (W/kg)	10g (W/kg)	1g (W/kg)	10g (W/kg)	1-g(W/kg)	10-g(W/kg)	1-g(W/kg)	10- g(W/kg)		
D3500V2_3.5GHz_Head	6.83	2.59	68.30	25.90	65.80	25.00	3.80%	3.60%	22.1	2026/4/27

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Appendix C. Calibration certificate

Please see the Part2 Appendix C.

- End of the Report -



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