FCC 47 CFR § 2.1093
IEEE Std 1528-2013

SAR EVALUATION REPORT
(Class II permissive change)

FOR

GSM/WCDMA/LTE/5G NR Phone + BT/BLE, DTS/UNII a/b/g/n/ac/ax, NFC, WPT and UWB

MODEL NUMBER: SM-S908B/DS

FCC ID: A3LSMS908B

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IAS ACCREDITED

Testing Laboratory

TL-637

Revision History

Rev.	Date	Revisions	Revised By
V1	3/15/2022	Initial Issue	--
V2	3/22/2022	Added Output power of NR Band n77-Lower Band in Sec.9.1.	Sunghoon.kim

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1. Attestation of Test Results

Applicant Name		SAMSUNG ELECTRONICS CO.,LTD.			
FCC ID		A3LSMS908B			
Model Number		SM-S908B/DS			
Applicable Standards		FCC 47 CFR § 2.1093 IEEE Std 1528-2013 Published RF exposure KDB procedures			
Exposure Category		SAR Limits (W/Kg)			
		Peak spatial-average (1g of tissue)		Product Specific 10g (10g of tissue)	
General population / Uncontrolled exposure		1.6		4.0	
RF Exposure Conditions		Equipment Class - The Highest Reported SAR (W/kg)			
		PCE	DTS	NII	DSS
Head		1.08	0.32	0.32	0.18
Body-worn		0.60	0.20	1.14	0.18
Hotspot		0.69	0.41	1.29	0.44
Product Specific 10g		1.10	N/A	2.98	N/A
Simultaneous TX	Head	1.38	1.38	1.26	1.26
	Body-worn	1.57	1.44	1.57	1.57
	Hotspot	1.59	1.59	1.59	1.57
	Product Specific 10g	1.10	N/A	2.12	N/A
Date Tested		1/26/2022 to 3/22/2022			
Test Results		Pass			

UL Korea, Ltd. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Korea, Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Korea, Ltd. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Korea, Ltd. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by IAS, any agency of the Federal Government, or any agency of any government.

Approved & Released By:	Prepared By:
Justin Park Operations Leader UL Korea, Ltd. Suwon Laboratory	Sunghoon Kim Senior Test Engineer UL Korea, Ltd. Suwon Laboratory

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1.1. Spot-check results

Antenna	Test Band	RF Exposure Conditions	Mode	Pwr Back-off	Test distance (mm)	Test Position	Ch	Freq(MHz)	RB Allocation	RB Offset	Power		Version.1 1-g SAR (W/kg) or 10-g SAR (W/kg)		Version.2 1-g SAR (W/kg) or 10-g SAR (W/kg)		Version.3 1-g SAR (W/kg) or 10-g SAR (W/kg)	
											Tune-up Limit	Meas	Meas.	Scaled	Meas.	Scaled	Meas.	Scaled
Main 1 Ant.	NR Bn25	Head	DFT-s-OFDM (QPSK)	Off	0	Right Touch	372000	1860.0	50	28	24.0	23.7	0.025	0.027	0.061	0.066	0.073	0.079
		Body-worn	DFT-s-OFDM (QPSK)	Off	15	Rear	372000	1860.0	50	28	24.0	23.7	0.477	0.516	0.501	0.542	0.553	0.598
		Hotspot	DFT-s-OFDM (QPSK)	On	10	Edge 3	372000	1860.0	50	28	20.5	20.2	0.578	0.616	0.631	0.673	0.645	0.687
		Product Specific 10-g	DFT-s-OFDM (QPSK)	On	0	Edge 3	372000	1860.0	1	1	20.5	20.2	1.030	1.103	0.964	1.033	0.975	1.045
AntJ	NR Bn41	Head	DFT-s-OFDM (QPSK)	N/A	0	Left Tilt	518598	2593.0	1	271	25.5	24.6	0.877	1.080	0.627	0.772	0.529	0.651
		Body-worn	DFT-s-OFDM (QPSK)	N/A	15	Rear	518598	2593.0	1	271	25.5	24.6	0.084	0.103	0.032	0.040	0.022	0.027
		Hotspot	DFT-s-OFDM (QPSK)	N/A	10	Edge 1	518598	2593.0	1	271	25.5	24.6	0.306	0.377	0.167	0.206	0.141	0.174
Ant.F	NR Bn77	Head	DFT-s-OFDM (QPSK)	On	0	Right Touch	662000	3930.0	135	69	21.5	21.1	0.234	0.254	0.192	0.209	0.134	0.146
		Body-worn	DFT-s-OFDM (QPSK)	Off	15	Rear	662000	3930.0	135	69	25.0	24.3	0.119	0.140	0.105	0.123	0.087	0.102
		Hotspot	DFT-s-OFDM (QPSK)	Off	10	Edge 4	662000	3930.0	135	69	25.0	24.3	0.415	0.488	0.348	0.409	0.261	0.307

Note(s):

This device has 3 versions. Spot-check were tested at worst configuration for each versions (Version.1 & Version.2 & Version.3), and Full SAR test were performed using the worst sample version for each RF exposure conditions.

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2. Test Specification, Methods and Procedures

The tests documented in this report were performed in accordance with FCC 47 CFR § 2.1093, IEEE STD 1528-2013, ANSI C63.26-2015 the following FCC Published RF exposure KDB procedures:

- 248227 D01 802.11 Wi-Fi SAR v02r02
- 447498 D01 General RF Exposure Guidance v06
- 648474 D04 Handset SAR v01r03
- 690783 D01 SAR Listings on Grants v01r03
- 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04
- 865664 D02 RF Exposure Reporting v01r02
- 941225 D01 3G SAR Procedures v03r01
- 941225 D05 SAR for LTE Devices v02r05
- 941225 D05A LTE Rel.10 KDB Inquiry Sheet v01r02
- 941225 D06 Hotspot Mode v02r01
- 941225 D07 UMPC Mini Tablet v01r02
- 971168 D01 Power Meas License Digital System v03r01

In addition to the above, the following information was used:

- TCB workshop October, 2014; RF Exposure Procedures Update (Overlapping LTE Bands)
- TCB workshop October, 2014; RF Exposure Procedures Update (Other LTE Considerations)
- TCB workshop October, 2016; RF Exposure Procedures (Bluetooth Duty Factor)
- TCB workshop October, 2016; RF Exposure Procedures (DUT Holder Perturbations)
- TCB workshop May, 2017; RF Exposure Procedures (LTE Test Conditions)
- TCB workshop May, 2017; RF Exposure Procedures (LTE Band 41 Power Class 2)
- TCB workshop November, 2017; RF Exposure Procedures (LTE UL/DL Carrier Aggregation SAR)
- TCB workshop April, 2018; RF Exposure Procedures (LTE DL CA SAR Test Exclusion Update)
- TCB workshop April, 2018; RF Exposure Procedures (LTE Inter-Band Uplink Carrier Aggregation – Interim Procedures)
- TCB workshop April, 2019; RF Exposure Procedures (Tissue Simulating Liquids (TSL))
- TCB workshop November, 2019; RF Exposure Procedures (SPLSR Hotspot Combination)
- TCB workshop October, 2020; 5G RFX Policies (Intra-band and Inter-band NSA-EN-DC evaluation)

3. Facilities and Accreditation

The test sites and measurement facilities used to collect data are located at

Suwon
SAR 1 Room
SAR 2 Room
SAR 3 Room
SAR 4 Room
SAR 5 Room

UL Korea, Ltd. is accredited by IAS, Laboratory Code TL-637.
The full scope of accreditation can be viewed at https://www.iasonline.org/wp-content/uploads/2017/05/TL-637-cert-New.pdf.

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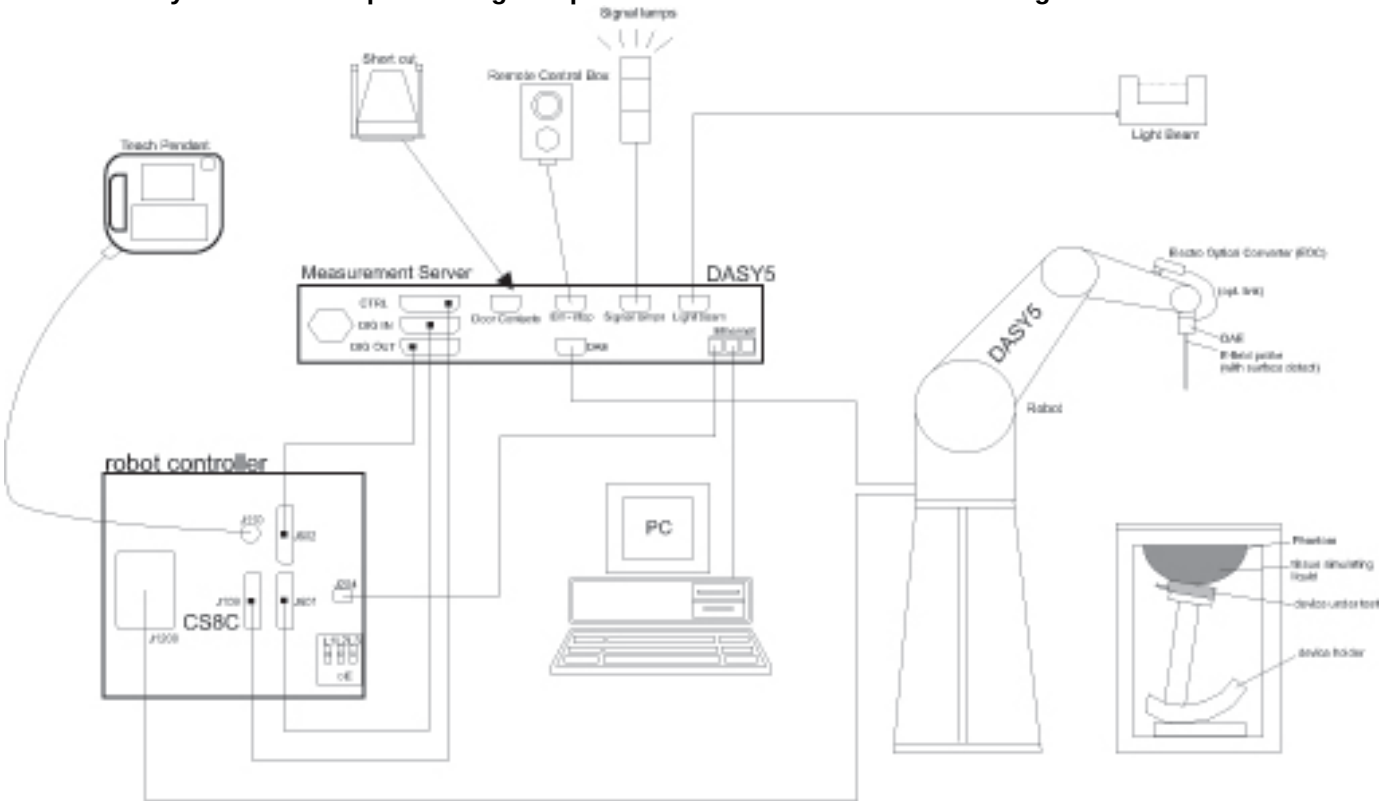
4. SAR Measurement System & Test Equipment

4.1. SAR Measurement System

The DASY5 system used for performing compliance tests consists of the following items:



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP or Win7 and the DASY5 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

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4.2. SAR Scan Procedures

Step 1: Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. The minimum distance of probe sensors to surface is 2.1 mm. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

Step 2: Area Scan

The Area Scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum locations even in relatively coarse grids. When an Area Scan has measured all reachable points, it computes the field maximal found in the scanned area, within a range of the global maximum. The range (in dB) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE Standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan). If only one Zoom Scan follows the Area Scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of Zoom Scans has to be increased accordingly.

Area Scan Parameters extracted from KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	½·δ·ln(2) ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

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Step 3: Zoom Scan

Zoom Scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 g and 10 g of simulated tissue. The Zoom Scan measures points (refer to table below) within a cube whose base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the Zoom Scan evaluates the averaged SAR for 1 g and 10 g and displays these values next to the job's label.

Zoom Scan Parameters extracted from KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.

* When zoom scan is required and the *reported* SAR from the *area scan based 1-g SAR estimation* procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

Step 4: Power drift measurement

The Power Drift Measurement measures the field at the same location as the most recent power reference measurement within the same procedure, and with the same settings. The Power Drift Measurement gives the field difference in dB from the reading conducted within the last Power Reference Measurement. This allows a user to monitor the power drift of the device under test within a batch process. The measurement procedure is the same as Step 1.

Step 5: Z-Scan (FCC only)

The Z Scan measures points along a vertical straight line. The line runs along the Z-axis of a one-dimensional grid. In order to get a reasonable extrapolation the extrapolated distance should not be larger than the step size in Z-direction.

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4.3. Test Equipment

The measuring equipment used to perform the tests documented in this report has been calibrated in accordance with the manufacturers' recommendations, and is traceable to recognized national standards.

Dielectric Property Measurements

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Network Analyzer	Agilent	E5071C	MY46522054	8-6-2022
Dielectric Assessment Kit	SPEAG	DAK-3.5	1196	7-21-2022
Shorting block	SPEAG	DAK-3.5 Short	SM DAK 200 BA	N/A
Thermometer	LKM	DTM3000	3851	8-4-2022

System Check

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
MXG Analog Signal Generator	Agilent	N5181A	MY50145882	8-4-2022
Power Sensor	Agilent	U2000A	MY54260007	8-4-2022
Power Sensor	Agilent	U2000A	MY60180020	8-4-2022
Power Amplifier	EXODUS	1410025-AMP2027-10003	10003	8-4-2022
Directional Coupler	Agilent	772D	MY52180193	8-3-2022
Directional Coupler	Agilent	778D	MY52180432	8-3-2022
Low Pass Filter	FILTRON	L14012FL	1410003S	8-3-2022
Low Pass Filter	MICROLAB	LA-60N	3942	8-4-2022
Attenuator	MINI-CIRCUITS	BW-N3W5+	N/A	8-4-2022
Attenuator	Agilent	8491B/003	MY39272275	8-17-2022
Attenuator	Agilent	8491B/010	MY39272011	8-4-2022
Attenuator	Agilent	8491B/020	MY39271973	8-4-2022
E-Field Probe	SPEAG	EX3DV4	7314	5-31-2022
E-Field Probe	SPEAG	EX3DV4	7646	4-23-2022
E-Field Probe	SPEAG	EX3DV4	7645	4-15-2022
E-Field Probe	SPEAG	EX3DV4	7376	7-30-2022
E-Field Probe	SPEAG	EX3DV4	7651	5-18-2022
E-Field Probe	SPEAG	EX3DV4	7330	1-28-2023
Data Acquisition Electronics	SPEAG	DAE4	1343	2022-08-23
Data Acquisition Electronics	SPEAG	DAE4	1447	2022-03-23
Data Acquisition Electronics	SPEAG	DAE4	1468	9-27-2022
Data Acquisition Electronics	SPEAG	DAE4	1591	3-26-2022
Data Acquisition Electronics	SPEAG	DAE4	1494	7-27-2022
System Validation Dipole	SPEAG	D1750V2	1180	4-27-2023
System Validation Dipole	SPEAG	D1900V2	5d199	3-19-2022
System Validation Dipole	SPEAG	D2450V2	960	3-20-2022
System Validation Dipole	SPEAG	D2600V2	1178	4-23-2023
System Validation Dipole	SPEAG	D3500V2	1121	4-21-2023
System Validation Dipole	SPEAG	D3700V2	1036	5-21-2023
System Validation Dipole	SPEAG	D3900V2	1069	4-21-2023
System Validation Dipole	SPEAG	D5GHzV2	1184	12-3-2022
Thermometer	Lutron	MHB-382SD	AH.50213	8-4-2022
Thermometer	Lutron	MHB-382SD	AH.50215	8-4-2022
Thermometer	Lutron	MHB-382SD	AJ.45903	8-3-2022
Thermometer	Lutron	MHB-382SD	AK.12123	8-3-2022

Others

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Base Station Simulator	R & S	CMW500	169801	8-3-2022
UXM 5G Wireless Test Platform	Keysight	E7515B	MY57510596	8-6-2022

Note(s):

1. For System Validation Dipole, Calibration interval applied every 2 years according to referencing KDB 865664 guidance.
2. Refer to Appendix F that mentioned about justification for Extended SAR Dipole Calibrations. (for blue box items)
3. All equipments were used until Cal.Due data.

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5. Measurement Uncertainty

Per KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is < 3.75 W/kg. The expanded SAR measurement uncertainty must be ≤ 30%, for a confidence interval of k = 2. If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval.

5.1. DECISION RULE

Decision rule for statement(s) of conformity is based on Procedures 1, Clause 4.4.2 in IEC Guide 115:2007.

6. Device Under Test (DUT) Information

6.1. DUT Description

Device Dimension	Refer to Appendix A.
Back Cover	☒ The Back Cover is not removable.
Battery Options	☒ The rechargeable battery is not user accessible
Wireless Router (Hotspot)	Wi-Fi Hotspot mode permits the device to share its cellular data connection with other Wi-Fi-enabled devices. ☒ Mobile Hotspot (Wi-Fi 2.4 GHz) ☒ Mobile Hotspot (Wi-Fi 5.8 GHz)
Wi-Fi Direct	Wi-Fi Direct enabled devices transfer data directly between each other ☒ Wi-Fi Direct (Wi-Fi 2.4 GHz) ☒ Wi-Fi Direct (Wi-Fi 5.2 GHz_UNII-1, Wi-Fi 5.8 GHz_UNII-3)
Test Sample Information	**Version.1** **No. S/N Notes** 1 R3CR80ABDAL Main Conducted 2 R3CR80AB3CM SAR 3 R3CR80AB3BA SAR 4 R3CRA0HCAHN SAR 5 R3CR06LSLL SAR **Version.2** 1 R3CRB0V317Y SAR 1 R3CRB0V31DB SAR **Version.3** 1 R3CRB0V2YPF SAR 2 R3CRB0V2Z5R SAR

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6.2. Wireless Technologies

Wireless technologies	Frequency bands	Operating mode		Duty Cycle used for SAR testing
GSM	850 1900	Voice (GMSK) GPRS (GMSK) EGPRS (8PSK)	GPRS Multi-Slot Class: ☐ Class 8 - 1 Up, 4 Down ☐ Class 10 - 2 Up, 4 Down ☐ Class 12 - 4 Up, 4 Down ☒ Class 33 - 4 Up, 5 Down	GSM Voice: 12.5% (E)GPRS: 1 Slot: 12.5% 2 Slots: 25% 3 Slots: 37.5% 4 Slots: 50%
	Does this device support DTM (Dual Transfer Mode)? ☐ Yes ☒ No			
W-CDMA (UMTS)	Band II Band IV Band V	UMTS Rel. 99 (Voice & Data) HSDPA (Category 24) HSUPA (Category 6) DC-HSDPA (Category 24) HSPA+ (DL only)		100%
LTE	FDD Band 2, FDD Band 4 FDD Band 5, FDD Band 12 FDD Band 13, FDD Band 17 FDD Band 25, FDD Band 26 TDD Band 41 Power Class 3 TDD Band 41 Power Class 2 FDD Band 66 **Uplink inter-band Carrier Aggregation(2CC)** CA_2A-4A, CA_4A-5A CA_4A-12A, CA_5A-66A CA_12A-66A	QPSK 16QAM 64QAM 256QAM Rel. 15 Carrier Aggregation (2 Uplink and 5 Downlinks)		100% (FDD) 63.3% (TDD) Power Class 3 43.3% (TDD) Power Class 2
	Does this device support SV-LTE (1xRTT-LTE)? ☐ Yes ☒ No			
5G NR (Sub 6) FDD Bands	NR Band n2 NR Band n5 NR Band n25 NR Band n66	DFT-s-ODFM: ■ π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-ODFM: ■QPSK, 16QAM, 64QAM, 256QAM		100%
5G NR (Sub 6) TDD Bands	NR Band n41 NR Band n77	DFT-s-ODFM: ■ π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-ODFM: ■QPSK, 16QAM, 64QAM, 256QAM		NR TDD bands (Voice/Data/SRS0 = 23.0%) (SRS1/2/3) = 28.6%)
Wi-Fi	2.4 GHz	802.11b, 802.11g 802.11n (HT20), 802.11ax (HE20)		SISO mode : 99.5% (802.11b) MIMO mode : 96.4% (802.11g)
	5 GHz	802.11a 802.11n (HT20) & (HT40) 802.11ac (VHT20)&(VHT40)&(VHT80) & (VHT160) 802.11ax (HE20) & (HE40) & (HE80) & (HE160)		MIMO mode 96.4% (802.11a) 96.2% (802.11n (HT20)) 94.4% (802.11ac (VHT80))
	Does this device support bands 5.60 ~ 5.65 GHz? ☒ Yes ☐ No			
	Does this device support Band gap channel(s)? ☒ Yes ☐ No			
Bluetooth	2.4 GHz	Version 5.0 LE		77.1% (DH5)
NFC	13.56 MHz	Type A/B/F		N/A[4]
UWB	6.24 – 8.24 GHz	BPM-BPSK		N/A[4]

Notes:

1. The Bluetooth protocol is considered source-based averaging. Bluetooth GFSK (DH5) was verified to have the highest duty cycle of 77.1% and was considered and used for SAR Testing.
2. Duty cycle for Wi-Fi is referenced from the DTS and UNII report.
3. This device supports Power Class 2(HPUE) and Power Class 3 for LTE Band 41.
4. Measured Duty Cycle is not required due to SAR test exemption.
5. This device supports UL CA inter-band.
6. For NR TDD Bands, Voice/Data/SRS0 were tested at about 23.0% duty cycle using Call simulator. And SRS1/2/3 were tested at 28.6% duty cycle using FTM mode. Duty cycle plot refer to Section 9.1 in Report.

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6.3. Nominal and Maximum Output Power

KDB 447498 sec.4.1. at the maximum rated output power and within the tune-up tolerance range specified for the product, but not more than 2 dB lower than the maximum tune-up tolerance limit

NR FDD Bands

RF Air interface	Antenna	Mode	Max. RF Output Power (dBm)	Reduced. RF Output Power (dBm)		
				Hotspot back-off	Proximity sensor Earjack back-off	RCV back-off
NR Band n2	Main 1 Ant.	DFT-s-OFDM QPSK	**24.0**	**20.5**	**20.5**	
NR Band n25	Main 1 Ant.	DFT-s-OFDM QPSK	**24.0**	**20.5**	**20.5**	

NR TDD Bands

RF Air interface	Antenna	Mode	Max. RF Output Power (dBm)		Reduced. RF Output Power (dBm) -RCV Back-off-	
			Tune-up Limit	Frame Pwr	Tune-up Limit	Frame Pwr
NR Band n41 (Voice/data/SRS0)	Ant.J	DFT-s-OFDM QPSK	**25.5**	**19.1**		
NR Band n41-SRS1	Ant.B	DFT-s-OFDM QPSK	**22.0**	**16.6**		
NR Band n41-SRS2	Ant.E	DFT-s-OFDM QPSK	**20.0**	**14.6**		
NR Band n41-SRS3	Ant.D	DFT-s-OFDM QPSK	**19.5**	**14.1**		
NR Band n77 (Voice/data/SRS0)	Ant.F	DFT-s-OFDM QPSK	**25.0**	**18.6**	**21.5**	**15.1**
NR Band n77-SRS1	Ant.C	DFT-s-OFDM QPSK	**16.5**	**11.1**		
NR Band n77-SRS2	Ant.L	DFT-s-OFDM QPSK	**24.2**	**18.8**		
NR Band n77-SRS3	Ant.D	DFT-s-OFDM QPSK	**15.0**	**9.6**		

Notes:

1. Frame Pwr is Tune-up limit X TDD duty cycle in NR TDD Bands. Duty cycle refer to Sec.6.2.
2. Ant.J equals Main 3 Ant. in Original report.

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6.4. Power Back-off Operation

This device supports multiple power back-off modes: WWAN (Hotspot), WWAN (Proximity sensor), WWAN (ear-jack) WWAN (RCV) and WLAN (RCV). Each of the power back-off operates within specific exposure conditions for certain technologies. For full details on how each power back-off mode operates, refer to the Operational Description.

Power Back-off mode	Technologies Supported	Exposure Conditions Active			
		Head	Body-worn	Hotspot	Product Specific 10-g
WWAN (Hotspot)	NR Band n2 & n25	N/A	N/A	✓	N/A
WWAN (Proximity sensor)	NR Band n2 & n25	N/A	N/A	N/A	✓
WWAN (Ear-jack)	NR Band n2 & n25	N/A	✓	N/A	✓
WWAN (RCV)	NR Band n77 (Ant.F)	✓	N/A	N/A	N/A

Note(s):

1. WWAN Back-off priority: RCV → Ear-jack → Proximity Sensor → Hotspot
2. Body-worn SAR with ear-jack connected is not required due to Body-worn measured at max power is not over 1.2 W/kg.

Product Specific 10g Adjusted SAR Calculation

Wireless technologies	Max Tune-up Limit (dBm)	Reduced Tune-Up Limit (dBm)	Pow er Factor	Reported SAR Limit (W/kg)
NR Band n2	24.0	20.5	2.24	0.536
NR Band n25	24.0	20.5	2.24	0.536

Note(s):

1. Hotspot mode supports power reduction. When the measured SAR is scaled to the maximum tune-up limit, the adjusted SAR is < 1.2 W/kg. Therefore, Extremity SAR testing is not required for this band in accordance with KDB 648474 §2.5 b. Refer to §10 for Reported SAR results. If the Reported SAR 1g value in §10 is less than the Reported SAR Limit listed above, then Extremity SAR is not required.
2. For Reported SAR limit in above table, it was calculated using Max tune-up Limit & Reduced Tune-up limit & Reported SAR 1.2 W/kg. (Reported SAR Limit = 1.2 W/kg / Power factor, Power factor = 10^((Max tune-up limit – Reduced tune-up limit)/10)

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6.5. NR (Sub 6GHz) SAR Test and Reporting Considerations

Item	Description													
Frequency range, Channel Bandwidth, Numbers and Frequencies	Band n2	Frequency range: 1850 - 1910 MHz												
		Channel Bandwidth (MHz)												
		100	90	80	70	60	50	40	30	25	20	15	10	5
	Low										372000 /1860	371500 /1857.5	371000 /1855	370500 /1852.5
	Mid										376000 /1880	376000 /1880	376000 /1880	376000 /1880
	High										380000 /1900	380500 /1902.5	381000 /1905	381500 /1907.5
	Band n25	Frequency range: 1850 - 1915 MHz												
		Channel Bandwidth (MHz)												
		100	90	80	70	60	50	40	30	25	20	15	10	5
	Low										372000 /1860	371500 /1857.5	371000 /1855	370500 /1852.5
	Mid										376500 /1882.5	376500 /1882.5	376500 /1882.5	376500 /1882.5
	High										381000 /1905	381500 /1907.5	382000 /1910	382500 /1912.5
	Band n41	Frequency range: 2496 - 2690 MHz												
		Channel Bandwidth (MHz)												
		100	90	80	70	60	50	40	30	25	20	15	10	5
	Low	509202 /2546.01	508200 /2541	507204 /2536.02		505200 /2526	504204 /2512.02	503202 /2516.01	502200 /2511.00		501204 /2506.02	501204 /2506.02	501204 /2506.02	
	Low-Mid							513468 /2567.34	510402 /2552.01		509898 /2549.49	509898 /2549.49	509898 /2549.49	
	Mid	518598 /2592.99				518598 /2592.99	518598 /2592.99		518598 /2592.99		518598 /2592.99	518598 /2592.99	518598 /2592.99	
	Mid-High	528000 /2640	528996 /2644.98	529998 /2649.99		531996 /2659.98	532998 /2664.99	523734 /2618.67	526800 /2634.00		527298 /2636.49	527298 /2636.49	527298 /2636.49	
	High							534000 /2670	534996 /2674.98		535998 /2679.99	535998 /2679.99	535998 /2679.99	
	Band n77 -Lower Band-	Frequency range: 3450 - 3550 MHz												
		Channel Bandwidth (MHz)												
		100	90	80	70	60	50	40	30	25	20	15	10	5
	Low						631668 /3475.02	631334 /3470.01	631000 /3465		630668 /3460.02	630500 /3457.5	60334 /3445.01	
	Mid	633334 /3500.01	633334 /3500.01	633334 /3500.01	633334 /3500.01	633334 /3500.01			633334 /3500.01		633334 /3500.01	633334 /3500.01	633334 /3500.01	
	High						635000 /3525	635332 /3529.98	635666 /3534.99		636000 /3540	636166 /3542.49	636332 /3544.98	
	Band n77 -Upper Band-	Frequency range: 3700 - 3980 MHz												
		Channel Bandwidth (MHz)												
		100	90	80	70	60	50	40	30	25	20	15	10	5
	Low	650000 /3750	649668 /3745.02	649334 /3740.01	649000 /3735	648668 /3730.02	648334 /3725.01	648000 /3720	647668 /3715.02		647334 /3710.01	647168 /3707.52	647000 /3705	
	Low-Mid				653666 /3804.99	653556 /3803.34	652166 /3782.49	651200 /3768	651000 /3765		650800 /3762	650700 /3760.5	650600 /3759	
	Mid-A		656000 /3840	656000 /3840			656000 /3840	654400 /3816	654334 /3815.01		654266 /3813.99	654234 /3813.51	654200 /3813	
	Mid-B							657600 /3864	657666 /3864.99		657734 /3866.01	657766 /3866.49	678000 /3867	
	Mid-High	662000 /3930	662332 /3934.98	662666 /3939.99	658334 /3875.01	658444 /3876.66	659834 /3897.51	660800 /3912	661000 /3915		661200 /3918	661300 /3919.5	661400 /3921	
	High				663000 /3945	663332 /3949.98	663666 /3954.99	664000 /3960	664332 /3964.98		664666 /3969.99	664832 /3972.48	665000 /3975	

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NR (Sub 6GHz) SAR Test and Reporting Considerations (Continued)

Item	Description
SCS	NR FDD Bands: 15 kHz, NR TDD Bands: 30 kHz
Modulations Supported in UL	DFT-s-OFDM: π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM
A-MPR (Additional MPR) disabled for SAR Testing?	Yes
EN-DC Carrier Aggregation Possible Combinations	
LTE Anchor Bands for NR Band n2	LTE Band 5 / 12 / 13
LTE Anchor Bands for NR Band n25	LTE Band 12 / 13
LTE Anchor Bands for NR Band n41	LTE Band 4 / 12 / 66
LTE Anchor Bands for NR Band n77	LTE Band 2 / 5 / 12 / 13 / 25 / 66

Notes:

1. SAR test for NR bands and LTE anchor Bands were performed separately due to limitations in SAR probe calibration factors. And, Due to test setup limitations, SAR testing for NR was performed using test mode software to establish the connection.
2. NR configurations of SAR test were determined according to Section 5.2 of KDB 941225 D05.
3. All NR Bands has supports both SA and NSA.

6.5.1. NR TDD Band (Sub 6GHz) Duty Considerations

This device supports NR TDD Bands (n41 and n77). Both NR TDD bands can operates up to 100% duty cycle. The manufacturer has implemented it so that it can operate with a specific target power(burst target power) for each duty cycle range. Please below table;

Target power of each Scenarios

Band	Scenario	Duty Cycle (%)	Maximum Duty Cycle (%)	Maximum Burst power (dBm)	Maximum Averaged power (dBm)
NR Band n41	**Case.1**	**0 - 23 %**	**23**	**25.50**	**19.12**
	Case.2	23 - 30 %	30	24.30	19.07
	Case.3	30 - 50 %	50	22.00	18.99
	Case.4	50 - 70 %	70	20.50	18.95
	Case.5	70 - 90 %	90	19.40	18.94
	Case.6	90 - 100 %	100	18.90	18.90
NR Band n77	**Case.1**	**0 - 23 %**	**23**	**25.00**	**18.62**
	Case.2	23 - 30 %	30	23.80	18.57
	Case.3	30 - 50 %	50	21.50	18.49
	Case.4	50 - 70 %	70	20.00	18.45
	Case.5	70 - 90 %	90	18.90	18.44
	Case.6	90 - 100 %	100	18.40	18.40
*Maximum Averaged power = Maximum Duty Cycle (each scenarios) X Maximum burst power					

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Measured power of each Scenarios

Band	BW	Modul	Mode	Ch.	RB size	RB Offset	Call box test										FTM mode test			
							Case.1		Case.2		Case.3		Case.4		Case.5		Case.5		Case.6	
							0 - 23 %	Maiximum	23 - 30 %	Maiximum	30 - 50 %	Maiximum	50 - 70 %	Maiximum	70 - 90 %	Maiximum	70 - 90 %	Maiximum	90 - 100%	Maiximum
NR Bn41 -Full-	100	DFT	BPSK	518598	1	1	24.5	25.5	23.5	24.3	21.1	22.0	19.5	20.5	18.5	19.4	18.0	19.4	17.4	18.9
			QPSK	518598	1	1	24.6	25.5	23.5	24.3	21.2	22.0	19.5	20.5	18.5	19.4	18.0	19.4	17.4	18.9
			16QAM	518598	1	1	23.6	24.5	22.6	23.3	20.3	21.0	18.7	19.5	17.8	18.4	16.9	18.4	16.4	17.9
			64QAM	518598	1	1	22.1	23.0	21.3	21.8	18.8	19.5	17.2	18.0	16.3	16.9	15.4	16.9	14.9	16.4
			256QAM	518598	1	1	20.1	21.0	19.1	19.8	16.9	17.5	15.3	16.0	14.2	14.9	13.4	14.9	12.9	14.4
		CP	QPSK	518598	1	1	23.1	24.0	21.9	22.8	19.7	20.5	18.2	19.0	17.1	17.9	16.4	17.9	15.9	17.4
	90	DFT	QPSK	528996	1	1	24.0	25.5	23.5	24.3	21.1	22.0	19.5	20.5	18.5	19.4	17.5	19.4	17.1	18.9
	80	DFT	QPSK	529998	1	1	23.9	25.5	23.7	24.3	21.2	22.0	19.6	20.5	18.5	19.4	17.5	19.4	17.0	18.9
	60	DFT	QPSK	518598	1	1	24.2	25.5	23.3	24.3	20.9	22.0	19.4	20.5	18.3	19.4	17.7	19.4	17.3	18.9
	50	DFT	QPSK	518598	1	1	24.2	25.5	23.7	24.3	21.2	22.0	19.6	20.5	18.6	19.4	18.1	19.4	17.6	18.9
	40	DFT	QPSK	534000	1	1	24.2	25.5	23.5	24.3	21.2	22.0	19.5	20.5	18.4	19.4	17.4	19.4	17.0	18.9
	30	DFT	QPSK	518598	1	1	24.5	25.5	23.5	24.3	20.9	22.0	19.5	20.5	18.3	19.4	18.1	19.4	17.6	18.9
	20	DFT	QPSK	518598	1	1	24.4	25.5	23.5	24.3	21.1	22.0	19.4	20.5	18.3	19.4	18.1	19.4	17.6	18.9
	15	DFT	QPSK	518598	1	1	24.2	25.5	23.5	24.3	21.0	22.0	19.4	20.5	18.5	19.4	18.1	19.4	17.6	18.9
	10	DFT	QPSK	518598	1	1	24.8	25.5	23.5	24.3	21.1	22.0	19.5	20.5	18.4	19.4	18.1	19.4	17.6	18.9
NR Bn77 -Full-	100	DFT	BPSK	662000	1	1	24.6	25.0	23.4	23.8	20.9	21.5	19.3	20.0	18.3	18.9	18.5	18.9	17.3	18.4
			QPSK	662000	1	1	24.6	25.0	23.5	23.8	21.0	21.5	19.2	20.0	18.2	18.9	18.4	18.9	17.3	18.4
			16QAM	662000	1	1	23.7	24.0	22.3	22.8	19.9	20.5	18.6	19.0	17.3	17.9	17.5	17.9	16.4	17.4
			64QAM	662000	1	1	22.1	22.5	21.1	21.3	18.5	19.0	17.3	18.5	15.9	16.4	15.6	16.4	15.1	15.9
			256QAM	662000	1	1	20.0	20.5	19.3	19.3	16.7	17.0	15.0	15.5	14.1	14.4	13.5	14.4	13.2	13.9
		CP	QPSK	662000	1	1	23.0	23.5	22.0	22.3	19.6	20.0	17.9	18.5	16.8	17.4	16.7	17.4	16.1	16.9
	90	DFT	QPSK	662332	1	1	24.2	25.0	23.3	23.8	20.8	21.5	19.0	20.0	18.2	18.9	17.2	18.9	16.5	18.4
	80	DFT	QPSK	662666	1	1	24.0	25.0	23.0	23.8	20.4	21.5	18.4	20.0	17.8	18.9	17.2	18.9	16.5	18.4
	70	DFT	QPSK	658334	1	1	23.7	25.0	22.7	23.8	20.3	21.5	18.5	20.0	17.7	18.9	17.3	18.9	16.4	18.4
	60	DFT	QPSK	658444	1	1	24.0	25.0	22.9	23.8	20.5	21.5	18.9	20.0	17.8	18.9	17.7	18.9	16.4	18.4
	50	DFT	QPSK	659834	1	1	24.4	25.0	23.3	23.8	20.8	21.5	19.2	20.0	18.3	18.9	17.8	18.9	17.0	18.4
	40	DFT	QPSK	660800	1	1	24.2	25.0	24.1	23.8	20.6	21.5	19.0	20.0	18.1	18.9	17.8	18.9	17.0	18.4
	30	DFT	QPSK	661000	1	1	24.6	25.0	23.4	23.8	20.9	21.5	19.2	20.0	18.2	18.9	17.8	18.9	16.9	18.4
	20	DFT	QPSK	661200	1	1	24.2	25.0	23.2	23.8	20.6	21.5	19.0	20.0	18.1	18.9	17.7	18.9	16.8	18.4
	15	DFT	QPSK	661300	1	1	24.5	25.0	23.3	23.8	20.6	21.5	18.9	20.0	18.1	18.9	17.7	18.9	16.9	18.4
	10	DFT	QPSK	661400	1	1	24.0	25.0	23.5	23.8	20.5	21.5	18.9	20.0	18.1	18.9	17.7	18.9	16.9	18.4
NR Bn77 -RCV-	100	DFT	BPSK	662000	1	1	21.1	21.5	20.0	20.3	17.6	18.0	16.0	16.5	14.9	15.4	[redacted]			
			QPSK	662000	1	1	21.2	21.5	20.1	20.3	17.5	18.0	15.9	16.5	14.8	15.4	[redacted]			
			16QAM	662000	1	1	21.1	21.5	20.0	20.3	17.5	18.0	16.0	16.5	14.8	15.4	[redacted]			
			64QAM	662000	1	1	21.1	21.5	20.1	20.3	17.5	18.0	15.8	16.5	14.7	15.4	[redacted]			
			256QAM	662000	1	1	20.1	20.5	19.1	19.3	16.7	17.0	15.1	15.5	13.7	14.4	[redacted]			
		CP	QPSK	662000	1	1	20.9	21.5	20.0	20.3	17.5	18.0	15.9	16.5	14.8	15.4	[redacted]			

Notes:

Due to limitation of Equipment, Verifications performed until Case.5 (71.1%) using Call box. Above Case.5 (71.1%), There were verified using FTM mode provided by manufacturer.

So NR TDD SAR evaluated at Case.1, because Case.1 is maximum averaged power of All Cases.

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6.5.2. NR TDD Band – SRS Considerations

This device supports SRS (sounding reference signal) 0 , 1, 2, 3 mode for NR TDD bands. For each SRS 1, 2 and 3, Conducted power and SAR measurement were performed through FTM mode provide by the manufacturer. SRS 0 was considered Data/Voice test.

7. RF Exposure Conditions (Test Configurations)

Refer to Appendix A for the specific details of the antenna-to-antenna and antenna-to-edge(s) distances.

Wireless technologies	RF Exposure Conditions	Antenaa	DUT-to-User Separation	Test Position	Antenna-to-edge/surface	SAR Required	Note
WWAN	Head	All Main Antennas	0 mm	Left Touch	N/A	Yes	
				Left Tilt (15°)	N/A	Yes	
				Right Touch	N/A	Yes	
				Right Tilt (15°)	N/A	Yes	
	Body	All Main Antennas	15 mm	Rear	N/A	Yes	
				Front	N/A	Yes	
	Hotspot	Main 1 Ant.	10 mm	Rear	< 25 mm	Yes	
				Front	< 25 mm	Yes	
				Edge 1 (Top)	> 25 mm	No	1
				Edge 2 (Right)	< 25 mm	Yes	
				Edge 3 (Bottom)	< 25 mm	Yes	
				Edge 4 (Left)	< 25 mm	Yes	
	Hotspot	Ant.J	10 mm	Rear	< 25 mm	Yes	
				Front	< 25 mm	Yes	
				Edge 1 (Top)	< 25 mm	Yes	
				Edge 2 (Right)	< 25 mm	Yes	
				Edge 3 (Bottom)	> 25 mm	No	1
				Edge 4 (Left)	> 25 mm	No	1
	Hotspot	Ant.B & Ant.C	10 mm	Rear	< 25 mm	Yes	
				Front	< 25 mm	Yes	
				Edge 1 (Top)	> 25 mm	No	1
				Edge 2 (Right)	< 25 mm	Yes	
				Edge 3 (Bottom)	< 25 mm	Yes	
				Edge 4 (Left)	> 25 mm	No	1
	Hotspot	Ant.E & Ant.F & Ant.L	10 mm	Rear	< 25 mm	Yes	
				Front	< 25 mm	Yes	
				Edge 1 (Top)	< 25 mm	Yes	
				Edge 2 (Right)	> 25 mm	No	1
				Edge 3 (Bottom)	> 25 mm	No	1
				Edge 4 (Left)	< 25 mm	Yes	
	Hotspot	Ant.D	10 mm	Rear	< 25 mm	Yes	
				Front	< 25 mm	Yes	
				Edge 1 (Top)	> 25 mm	No	1
				Edge 2 (Right)	> 25 mm	No	1
				Edge 3 (Bottom)	< 25 mm	Yes	
				Edge 4 (Left)	< 25 mm	Yes	
	Product Specific 10-g	All Main Antennas	0 mm	Rear	Refer to notes 2 & 3		
				Front			
				Edge 1 (Top)			
				Edge 2 (Right)			
				Edge 3 (Bottom)			
				Edge 4 (Left)			

Notes:

1. SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hot Spot SAR.
2. For Phablet devices: When hotspot mode applies, Product specific 10-g SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.
3. For Phablet devices: When hotspot mode applies and power reduction applies to hotspot mode, Product specific 10-g SAR is required for each test position that has and adjusted SAR to maximum power that is > 1.2 W/kg.

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8. Dielectric Property Measurements & System Check

8.1. Dielectric Property Measurements

The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within ± 2°C of the temperature when the tissue parameters are characterized.

The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after each 3 – 4 days of use; or earlier if the dielectric parameters can become out of tolerance; for example, when the parameters are marginal at the beginning of the measurement series.

Tissue dielectric parameters were measured at the low, middle and high frequency of each operating frequency range of the test device.

Tissue Dielectric Parameters

FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

Target Frequency (MHz)	Head		Body	
	ε_r	σ (S/m)	ε_r	σ (S/m)
150	52.3	0.76	61.9	0.80
300	45.3	0.87	58.2	0.92
450	43.5	0.87	56.7	0.94
835	41.5	0.90	55.2	0.97
900	41.5	0.97	55.0	1.05
915	41.5	0.98	55.0	1.06
1450	40.5	1.20	54.0	1.30
1610	40.3	1.29	53.8	1.40
1800 – 2000	40.0	1.40	53.3	1.52
2450	39.2	1.80	52.7	1.95
3000	38.5	2.40	52.0	2.73
5000	36.2	4.45	49.3	5.07
5100	36.1	4.55	49.1	5.18
5200	36.0	4.66	49.0	5.30
5300	35.9	4.76	48.9	5.42
5400	35.8	4.86	48.7	5.53
5500	35.6	4.96	48.6	5.65
5600	35.5	5.07	48.5	5.77
5700	35.4	5.17	48.3	5.88
5800	35.3	5.27	48.2	6.00

SAR test were performed in All RF exposure conditions using Head tissue according to TCB workshop note of April. 2019.

IEEE Std 1528-2013

Refer to Table 3 within the IEEE Std 1528-2013

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Dielectric Property Measurements Results:
SAR 1 Room

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2-10-2022	Head 2600	e'	38.1500	Relative Permittivity (ε_r):	38.15	39.01	-2.21	5
		e"	13.8100	Conductivity (σ):	2.00	1.96	1.75	5
	Head 2500	e'	38.3700	Relative Permittivity (ε_r):	38.37	39.14	-1.96	5
		e"	13.7800	Conductivity (σ):	1.92	1.85	3.32	5
	Head 2700	e'	37.9400	Relative Permittivity (ε_r):	37.94	38.88	-2.43	5
		e"	13.9100	Conductivity (σ):	2.09	2.07	0.87	5
2-15-2022	Head 2600	e'	38.7500	Relative Permittivity (ε_r):	38.75	39.01	-0.67	5
		e"	13.1900	Conductivity (σ):	1.91	1.96	-2.82	5
	Head 2500	e'	38.9200	Relative Permittivity (ε_r):	38.92	39.14	-0.55	5
		e"	13.1800	Conductivity (σ):	1.83	1.85	-1.18	5
	Head 2700	e'	38.5900	Relative Permittivity (ε_r):	38.59	38.88	-0.76	5
		e"	13.2100	Conductivity (σ):	1.98	2.07	-4.21	5
2-17-2022	Head 2600	e'	38.0700	Relative Permittivity (ε_r):	38.07	39.01	-2.41	5
		e"	13.6800	Conductivity (σ):	1.98	1.96	0.79	5
	Head 2500	e'	38.1900	Relative Permittivity (ε_r):	38.19	39.14	-2.42	5
		e"	13.6500	Conductivity (σ):	1.90	1.85	2.34	5
	Head 2700	e'	37.9100	Relative Permittivity (ε_r):	37.91	38.88	-2.51	5
		e"	13.7800	Conductivity (σ):	2.07	2.07	-0.07	5
2-21-2022	Head 1750	e'	40.8300	Relative Permittivity (ε_r):	40.83	40.08	1.86	5
		e"	14.3100	Conductivity (σ):	1.39	1.37	1.71	5
	Head 1710	e'	40.8800	Relative Permittivity (ε_r):	40.88	40.15	1.83	5
		e"	14.4100	Conductivity (σ):	1.37	1.35	1.76	5
	Head 1755	e'	40.8200	Relative Permittivity (ε_r):	40.82	40.08	1.85	5
		e"	14.3000	Conductivity (σ):	1.40	1.37	1.72	5
2-21-2022	Head 2600	e'	39.5200	Relative Permittivity (ε_r):	39.52	39.01	1.31	5
		e"	13.6200	Conductivity (σ):	1.97	1.96	0.35	5
	Head 2500	e'	39.6500	Relative Permittivity (ε_r):	39.65	39.14	1.31	5
		e"	13.5700	Conductivity (σ):	1.89	1.85	1.74	5
	Head 2700	e'	39.3500	Relative Permittivity (ε_r):	39.35	38.88	1.20	5
		e"	13.6800	Conductivity (σ):	2.05	2.07	-0.80	5

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SAR 2 Room

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2-16-2022	Head 5180	e'	36.4500	Relative Permittivity (ε_r):	36.45	36.01	1.21	5
		e''	15.5900	Conductivity (σ):	4.49	4.63	-3.03	5
	Head 5200	e'	36.4200	Relative Permittivity (ε_r):	36.42	35.99	1.19	5
		e''	15.6100	Conductivity (σ):	4.51	4.65	-2.96	5
	Head 5600	e'	35.7000	Relative Permittivity (ε_r):	35.70	35.53	0.47	5
		e''	15.9700	Conductivity (σ):	4.97	5.06	-1.73	5
	Head 5800	e'	35.3200	Relative Permittivity (ε_r):	35.32	35.30	0.06	5
		e''	16.1700	Conductivity (σ):	5.21	5.27	-1.05	5
	Head 5825	e'	35.2800	Relative Permittivity (ε_r):	35.28	35.30	-0.06	5
		e''	16.1700	Conductivity (σ):	5.24	5.27	-0.62	5
2-17-2022	Head 2450	e'	38.9800	Relative Permittivity (ε_r):	38.98	39.20	-0.56	5
		e''	13.0000	Conductivity (σ):	1.77	1.80	-1.61	5
	Head 2400	e'	39.0800	Relative Permittivity (ε_r):	39.08	39.30	-0.55	5
		e''	13.0100	Conductivity (σ):	1.74	1.75	-0.88	5
	Head 2480	e'	38.9400	Relative Permittivity (ε_r):	38.94	39.16	-0.57	5
		e''	13.0200	Conductivity (σ):	1.80	1.83	-2.02	5
2-22-2022	Head 3750	e'	36.7500	Relative Permittivity (ε_r):	36.75	37.64	-2.38	5
		e''	15.3300	Conductivity (σ):	3.20	3.17	0.92	5
	Head 3800	e'	36.6600	Relative Permittivity (ε_r):	36.66	37.59	-2.47	5
		e''	15.3900	Conductivity (σ):	3.25	3.22	1.03	5
	Head 3900	e'	36.5300	Relative Permittivity (ε_r):	36.53	37.47	-2.52	5
		e''	15.3900	Conductivity (σ):	3.34	3.32	0.50	5
	Head 3930	e'	36.4700	Relative Permittivity (ε_r):	36.47	37.44	-2.59	5
		e''	15.4400	Conductivity (σ):	3.37	3.35	0.67	5
	Head 3950	e'	36.4300	Relative Permittivity (ε_r):	36.43	37.42	-2.64	5
		e''	15.4800	Conductivity (σ):	3.40	3.37	0.83	5

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SAR 3 Room

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
1-26-2022	Head 1900	e'	41.0800	Relative Permittivity (ε_r):	41.08	40.00	2.70	5
		e''	13.3700	Conductivity (σ):	1.41	1.40	0.89	5
	Head 1850	e'	41.1400	Relative Permittivity (ε_r):	41.14	40.00	2.85	5
		e''	13.4300	Conductivity (σ):	1.38	1.40	-1.32	5
	Head 1910	e'	41.0700	Relative Permittivity (ε_r):	41.07	40.00	2.68	5
		e''	13.3600	Conductivity (σ):	1.42	1.40	1.35	5
2-7-2022	Head 2600	e'	39.4700	Relative Permittivity (ε_r):	39.47	39.01	1.18	5
		e''	13.0300	Conductivity (σ):	1.88	1.96	-4.00	5
	Head 2500	e'	39.7100	Relative Permittivity (ε_r):	39.71	39.14	1.46	5
		e''	12.8500	Conductivity (σ):	1.79	1.85	-3.66	5
	Head 2700	e'	39.4300	Relative Permittivity (ε_r):	39.43	38.88	1.40	5
		e''	13.2500	Conductivity (σ):	1.99	2.07	-3.92	5
2-10-2022	Head 2600	e'	39.4400	Relative Permittivity (ε_r):	39.44	39.01	1.10	5
		e''	13.4600	Conductivity (σ):	1.95	1.96	-0.83	5
	Head 2500	e'	39.6200	Relative Permittivity (ε_r):	39.62	39.14	1.23	5
		e''	13.4700	Conductivity (σ):	1.87	1.85	0.99	5
	Head 2700	e'	39.2700	Relative Permittivity (ε_r):	39.27	38.88	0.99	5
		e''	13.5100	Conductivity (σ):	2.03	2.07	-2.03	5
2-15-2022	Head 3500	e'	38.6000	Relative Permittivity (ε_r):	38.60	37.93	1.77	5
		e''	14.7000	Conductivity (σ):	2.86	2.91	-1.74	5
	Head 3560	e'	38.4600	Relative Permittivity (ε_r):	38.46	37.86	1.58	5
		e''	14.7800	Conductivity (σ):	2.93	2.97	-1.59	5
	Head 3600	e'	38.4000	Relative Permittivity (ε_r):	38.40	37.82	1.55	5
		e''	14.8000	Conductivity (σ):	2.96	3.01	-1.70	5
	Head 3690	e'	38.2400	Relative Permittivity (ε_r):	38.24	37.71	1.40	5
		e''	14.8400	Conductivity (σ):	3.04	3.11	-1.97	5
	Head 3700	e'	38.2300	Relative Permittivity (ε_r):	38.23	37.70	1.40	5
		e''	14.8500	Conductivity (σ):	3.06	3.12	-1.96	5
2-15-2022	Head 3600	e'	38.4000	Relative Permittivity (ε_r):	38.40	37.82	1.55	5
		e''	14.8000	Conductivity (σ):	2.96	3.01	-1.70	5
	Head 3650	e'	38.3100	Relative Permittivity (ε_r):	38.31	37.76	1.46	5
		e''	14.8200	Conductivity (σ):	3.01	3.07	-1.87	5
	Head 3700	e'	38.2300	Relative Permittivity (ε_r):	38.23	37.70	1.40	5
		e''	14.8500	Conductivity (σ):	3.06	3.12	-1.96	5
	Head 3750	e'	38.1100	Relative Permittivity (ε_r):	38.11	37.64	1.24	5
		e''	14.9000	Conductivity (σ):	3.11	3.17	-1.91	5
	Head 3800	e'	38.0300	Relative Permittivity (ε_r):	38.03	37.59	1.18	5
		e''	14.9500	Conductivity (σ):	3.16	3.22	-1.86	5
2-15-2022	Head 3750	e'	38.1100	Relative Permittivity (ε_r):	38.11	37.64	1.24	5
		e''	14.9000	Conductivity (σ):	3.11	3.17	-1.91	5
	Head 3800	e'	38.0300	Relative Permittivity (ε_r):	38.03	37.59	1.18	5
		e''	14.9500	Conductivity (σ):	3.16	3.22	-1.86	5
	Head 3900	e'	37.9000	Relative Permittivity (ε_r):	37.90	37.47	1.14	5
		e''	15.0200	Conductivity (σ):	3.26	3.32	-1.92	5
	Head 3930	e'	37.8500	Relative Permittivity (ε_r):	37.85	37.44	1.10	5
		e''	15.0300	Conductivity (σ):	3.28	3.35	-2.00	5
	Head 3950	e'	37.8100	Relative Permittivity (ε_r):	37.81	37.42	1.05	5
		e''	15.0500	Conductivity (σ):	3.31	3.37	-1.97	5
2-18-2022	Head 3500	e'	38.0500	Relative Permittivity (ε_r):	38.05	37.93	0.32	5
		e''	14.8200	Conductivity (σ):	2.88	2.91	-0.94	5
	Head 3560	e'	37.9300	Relative Permittivity (ε_r):	37.93	37.86	0.18	5
		e''	14.9100	Conductivity (σ):	2.95	2.97	-0.73	5
	Head 3600	e'	37.8600	Relative Permittivity (ε_r):	37.86	37.82	0.12	5
		e''	14.9500	Conductivity (σ):	2.99	3.01	-0.71	5
	Head 3690	e'	37.6700	Relative Permittivity (ε_r):	37.67	37.71	-0.11	5
		e''	15.0300	Conductivity (σ):	3.08	3.11	-0.71	5
	Head 3700	e'	37.6600	Relative Permittivity (ε_r):	37.66	37.70	-0.11	5
		e''	15.0300	Conductivity (σ):	3.09	3.12	-0.77	5

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SAR 3 Room (Continued)

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2-18-2022	Head 3600	e'	37.8600	Relative Permittivity (ε_r):	37.86	37.82	0.12	5
		e''	14.9500	Conductivity (σ):	2.99	3.01	-0.71	5
	Head 3650	e'	37.7300	Relative Permittivity (ε_r):	37.73	37.76	-0.08	5
		e''	15.0000	Conductivity (σ):	3.04	3.07	-0.68	5
	Head 3700	e'	37.6600	Relative Permittivity (ε_r):	37.66	37.70	-0.11	5
		e''	15.0300	Conductivity (σ):	3.09	3.12	-0.77	5
	Head 3750	e'	37.5500	Relative Permittivity (ε_r):	37.55	37.64	-0.25	5
		e''	15.0600	Conductivity (σ):	3.14	3.17	-0.86	5
	Head 3800	e'	37.4400	Relative Permittivity (ε_r):	37.44	37.59	-0.39	5
		e''	15.1500	Conductivity (σ):	3.20	3.22	-0.54	5
2-18-2022	Head 3750	e'	37.5500	Relative Permittivity (ε_r):	37.55	37.64	-0.25	5
		e''	15.0600	Conductivity (σ):	3.14	3.17	-0.86	5
	Head 3800	e'	37.4400	Relative Permittivity (ε_r):	37.44	37.59	-0.39	5
		e''	15.1500	Conductivity (σ):	3.20	3.22	-0.54	5
	Head 3900	e'	37.3000	Relative Permittivity (ε_r):	37.30	37.47	-0.46	5
		e''	15.1800	Conductivity (σ):	3.29	3.32	-0.87	5
	Head 3930	e'	37.2400	Relative Permittivity (ε_r):	37.24	37.44	-0.53	5
		e''	15.2200	Conductivity (σ):	3.33	3.35	-0.77	5
	Head 3950	e'	37.2100	Relative Permittivity (ε_r):	37.21	37.42	-0.55	5
		e''	15.2400	Conductivity (σ):	3.35	3.37	-0.74	5
2-21-2022	Head 3500	e'	38.9900	Relative Permittivity (ε_r):	38.99	37.93	2.80	5
		e''	14.6800	Conductivity (σ):	2.86	2.91	-1.88	5
	Head 3560	e'	38.8700	Relative Permittivity (ε_r):	38.87	37.86	2.66	5
		e''	14.8900	Conductivity (σ):	2.95	2.97	-0.86	5
	Head 3600	e'	38.7800	Relative Permittivity (ε_r):	38.78	37.82	2.55	5
		e''	14.8400	Conductivity (σ):	2.97	3.01	-1.44	5
	Head 3690	e'	38.5200	Relative Permittivity (ε_r):	38.52	37.71	2.14	5
		e''	15.0400	Conductivity (σ):	3.09	3.11	-0.65	5
	Head 3700	e'	38.5200	Relative Permittivity (ε_r):	38.52	37.70	2.17	5
		e''	15.0400	Conductivity (σ):	3.09	3.12	-0.71	5
2-21-2022	Head 3600	e'	38.7800	Relative Permittivity (ε_r):	38.78	37.82	2.55	5
		e''	14.8400	Conductivity (σ):	2.97	3.01	-1.44	5
	Head 3650	e'	38.5000	Relative Permittivity (ε_r):	38.50	37.76	1.96	5
		e''	14.9500	Conductivity (σ):	3.03	3.07	-1.01	5
	Head 3700	e'	38.5200	Relative Permittivity (ε_r):	38.52	37.70	2.17	5
		e''	15.0400	Conductivity (σ):	3.09	3.12	-0.71	5
	Head 3750	e'	38.3000	Relative Permittivity (ε_r):	38.30	37.64	1.74	5
		e''	14.9500	Conductivity (σ):	3.12	3.17	-1.58	5
	Head 3800	e'	38.0500	Relative Permittivity (ε_r):	38.05	37.59	1.23	5
		e''	15.2200	Conductivity (σ):	3.22	3.22	-0.08	5
2-21-2022	Head 3750	e'	38.3000	Relative Permittivity (ε_r):	38.30	37.64	1.74	5
		e''	14.9500	Conductivity (σ):	3.12	3.17	-1.58	5
	Head 3800	e'	38.0500	Relative Permittivity (ε_r):	38.05	37.59	1.23	5
		e''	15.2200	Conductivity (σ):	3.22	3.22	-0.08	5
	Head 3900	e'	37.8400	Relative Permittivity (ε_r):	37.84	37.47	0.98	5
		e''	15.3000	Conductivity (σ):	3.32	3.32	-0.09	5
	Head 3930	e'	37.7700	Relative Permittivity (ε_r):	37.77	37.44	0.88	5
		e''	15.4700	Conductivity (σ):	3.38	3.35	0.86	5
	Head 3950	e'	37.8200	Relative Permittivity (ε_r):	37.82	37.42	1.08	5
		e''	15.5700	Conductivity (σ):	3.42	3.37	1.41	5
3-2-2022	Head 3500	e'	38.8400	Relative Permittivity (ε_r):	38.84	37.93	2.40	5
		e''	15.0600	Conductivity (σ):	2.93	2.91	0.66	5
	Head 3560	e'	38.7100	Relative Permittivity (ε_r):	38.71	37.86	2.24	5
		e''	15.2400	Conductivity (σ):	3.02	2.97	1.47	5
	Head 3600	e'	38.7100	Relative Permittivity (ε_r):	38.71	37.82	2.37	5
		e''	15.2700	Conductivity (σ):	3.06	3.01	1.42	5
	Head 3690	e'	38.4300	Relative Permittivity (ε_r):	38.43	37.71	1.90	5
		e''	15.3600	Conductivity (σ):	3.15	3.11	1.47	5
	Head 3700	e'	38.4100	Relative Permittivity (ε_r):	38.41	37.70	1.88	5
		e''	15.4000	Conductivity (σ):	3.17	3.12	1.67	5

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SAR 4 Room

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2-7-2022	Head 3500	e'	37.8200	Relative Permittivity (ε_r):	37.82	37.93	-0.29	5
		e''	15.2700	Conductivity (σ):	2.97	2.91	2.06	5
	Head 3560	e'	37.6200	Relative Permittivity (ε_r):	37.62	37.86	-0.64	5
		e''	15.3300	Conductivity (σ):	3.03	2.97	2.07	5
	Head 3600	e'	37.5100	Relative Permittivity (ε_r):	37.51	37.82	-0.81	5
		e''	15.3200	Conductivity (σ):	3.07	3.01	1.75	5
	Head 3690	e'	37.2500	Relative Permittivity (ε_r):	37.25	37.71	-1.23	5
		e''	15.4100	Conductivity (σ):	3.16	3.11	1.80	5
	Head 3700	e'	37.2300	Relative Permittivity (ε_r):	37.23	37.70	-1.25	5
		e''	15.4100	Conductivity (σ):	3.17	3.12	1.74	5
2-7-2022	Head 3600	e'	37.5100	Relative Permittivity (ε_r):	37.51	37.82	-0.81	5
		e''	15.3200	Conductivity (σ):	3.07	3.01	1.75	5
	Head 3650	e'	37.3400	Relative Permittivity (ε_r):	37.34	37.76	-1.11	5
		e''	15.3600	Conductivity (σ):	3.12	3.07	1.71	5
	Head 3700	e'	37.2300	Relative Permittivity (ε_r):	37.23	37.70	-1.25	5
		e''	15.4100	Conductivity (σ):	3.17	3.12	1.74	5
	Head 3750	e'	37.0700	Relative Permittivity (ε_r):	37.07	37.64	-1.53	5
		e''	15.4200	Conductivity (σ):	3.22	3.17	1.51	5
	Head 3800	e'	36.8100	Relative Permittivity (ε_r):	36.81	37.59	-2.07	5
		e''	15.4700	Conductivity (σ):	3.27	3.22	1.56	5
2-7-2022	Head 3750	e'	37.0700	Relative Permittivity (ε_r):	37.07	37.64	-1.53	5
		e''	15.4200	Conductivity (σ):	3.22	3.17	1.51	5
	Head 3800	e'	36.8100	Relative Permittivity (ε_r):	36.81	37.59	-2.07	5
		e''	15.4700	Conductivity (σ):	3.27	3.22	1.56	5
	Head 3900	e'	36.2900	Relative Permittivity (ε_r):	36.29	37.47	-3.16	5
		e''	15.4400	Conductivity (σ):	3.35	3.32	0.82	5
	Head 3930	e'	36.0800	Relative Permittivity (ε_r):	36.08	37.44	-3.63	5
		e''	15.4200	Conductivity (σ):	3.37	3.35	0.54	5
	Head 3950	e'	35.9100	Relative Permittivity (ε_r):	35.91	37.42	-4.03	5
		e''	15.3800	Conductivity (σ):	3.38	3.37	0.18	5
2-10-2022	Head 3500	e'	38.0900	Relative Permittivity (ε_r):	38.09	37.93	0.42	5
		e''	14.4200	Conductivity (σ):	2.81	2.91	-3.62	5
	Head 3560	e'	37.9800	Relative Permittivity (ε_r):	37.98	37.86	0.31	5
		e''	14.4600	Conductivity (σ):	2.86	2.97	-3.72	5
	Head 3600	e'	37.9200	Relative Permittivity (ε_r):	37.92	37.82	0.28	5
		e''	14.4800	Conductivity (σ):	2.90	3.01	-3.83	5
	Head 3690	e'	37.7800	Relative Permittivity (ε_r):	37.78	37.71	0.18	5
		e''	14.5300	Conductivity (σ):	2.98	3.11	-4.02	5
	Head 3700	e'	37.7700	Relative Permittivity (ε_r):	37.77	37.70	0.18	5
		e''	14.5400	Conductivity (σ):	2.99	3.12	-4.01	5
2-10-2022	Head 3600	e'	37.9200	Relative Permittivity (ε_r):	37.92	37.82	0.28	5
		e''	14.4800	Conductivity (σ):	2.90	3.01	-3.83	5
	Head 3650	e'	37.8400	Relative Permittivity (ε_r):	37.84	37.76	0.22	5
		e''	14.5000	Conductivity (σ):	2.94	3.07	-3.99	5
	Head 3700	e'	37.7700	Relative Permittivity (ε_r):	37.77	37.70	0.18	5
		e''	14.5400	Conductivity (σ):	2.99	3.12	-4.01	5
	Head 3750	e'	37.6800	Relative Permittivity (ε_r):	37.68	37.64	0.09	5
		e''	14.5600	Conductivity (σ):	3.04	3.17	-4.15	5
	Head 3800	e'	37.6000	Relative Permittivity (ε_r):	37.60	37.59	0.03	5
		e''	14.6100	Conductivity (σ):	3.09	3.22	-4.09	5
2-10-2022	Head 3750	e'	37.6800	Relative Permittivity (ε_r):	37.68	37.64	0.09	5
		e''	14.5600	Conductivity (σ):	3.04	3.17	-4.15	5
	Head 3800	e'	37.6000	Relative Permittivity (ε_r):	37.60	37.59	0.03	5
		e''	14.6100	Conductivity (σ):	3.09	3.22	-4.09	5
	Head 3900	e'	37.4400	Relative Permittivity (ε_r):	37.44	37.47	-0.09	5
		e''	14.6800	Conductivity (σ):	3.18	3.32	-4.14	5
	Head 3930	e'	37.4000	Relative Permittivity (ε_r):	37.40	37.44	-0.10	5
		e''	14.6900	Conductivity (σ):	3.21	3.35	-4.22	5
	Head 3950	e'	37.3600	Relative Permittivity (ε_r):	37.36	37.42	-0.15	5
		e''	14.7000	Conductivity (σ):	3.23	3.37	-4.25	5

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SAR 4 Room (Continued)

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2-15-2022	Head 3500	e'	38.1900	Relative Permittivity (ε_r):	38.19	37.93	0.69	5
		e''	14.8100	Conductivity (σ):	2.88	2.91	-1.01	5
	Head 3560	e'	38.0200	Relative Permittivity (ε_r):	38.02	37.86	0.42	5
		e''	14.9100	Conductivity (σ):	2.95	2.97	-0.73	5
	Head 3600	e'	37.9200	Relative Permittivity (ε_r):	37.92	37.82	0.28	5
		e''	14.9700	Conductivity (σ):	3.00	3.01	-0.58	5
	Head 3690	e'	37.7100	Relative Permittivity (ε_r):	37.71	37.71	-0.01	5
		e''	15.0400	Conductivity (σ):	3.09	3.11	-0.65	5
	Head 3700	e'	37.6800	Relative Permittivity (ε_r):	37.68	37.70	-0.06	5
		e''	15.0500	Conductivity (σ):	3.10	3.12	-0.64	5
2-15-2022	Head 3600	e'	37.9200	Relative Permittivity (ε_r):	37.92	37.82	0.28	5
		e''	14.9700	Conductivity (σ):	3.00	3.01	-0.58	5
	Head 3650	e'	37.8000	Relative Permittivity (ε_r):	37.80	37.76	0.11	5
		e''	15.0100	Conductivity (σ):	3.05	3.07	-0.61	5
	Head 3700	e'	37.6800	Relative Permittivity (ε_r):	37.68	37.70	-0.06	5
		e''	15.0500	Conductivity (σ):	3.10	3.12	-0.64	5
	Head 3750	e'	37.5400	Relative Permittivity (ε_r):	37.54	37.64	-0.28	5
		e''	15.1300	Conductivity (σ):	3.15	3.17	-0.40	5
	Head 3800	e'	37.4100	Relative Permittivity (ε_r):	37.41	37.59	-0.47	5
		e''	15.2000	Conductivity (σ):	3.21	3.22	-0.21	5
2-15-2022	Head 3750	e'	37.5400	Relative Permittivity (ε_r):	37.54	37.64	-0.28	5
		e''	15.1300	Conductivity (σ):	3.15	3.17	-0.40	5
	Head 3800	e'	37.4100	Relative Permittivity (ε_r):	37.41	37.59	-0.47	5
		e''	15.2000	Conductivity (σ):	3.21	3.22	-0.21	5
	Head 3900	e'	37.2100	Relative Permittivity (ε_r):	37.21	37.47	-0.70	5
		e''	15.2800	Conductivity (σ):	3.31	3.32	-0.22	5
	Head 3930	e'	37.1400	Relative Permittivity (ε_r):	37.14	37.44	-0.80	5
		e''	15.3100	Conductivity (σ):	3.35	3.35	-0.18	5
	Head 3950	e'	37.0900	Relative Permittivity (ε_r):	37.09	37.42	-0.87	5
		e''	15.3300	Conductivity (σ):	3.37	3.37	-0.15	5
2-18-2022	Head 3500	e'	37.9800	Relative Permittivity (ε_r):	37.98	37.93	0.13	5
		e''	14.7200	Conductivity (σ):	2.86	2.91	-1.61	5
	Head 3560	e'	37.8700	Relative Permittivity (ε_r):	37.87	37.86	0.02	5
		e''	14.8300	Conductivity (σ):	2.94	2.97	-1.26	5
	Head 3600	e'	37.8000	Relative Permittivity (ε_r):	37.80	37.82	-0.04	5
		e''	14.8600	Conductivity (σ):	2.97	3.01	-1.31	5
	Head 3690	e'	37.6200	Relative Permittivity (ε_r):	37.62	37.71	-0.25	5
		e''	14.9800	Conductivity (σ):	3.07	3.11	-1.05	5
	Head 3700	e'	37.6000	Relative Permittivity (ε_r):	37.60	37.70	-0.27	5
		e''	14.9900	Conductivity (σ):	3.08	3.12	-1.04	5
2-18-2022	Head 3600	e'	37.8000	Relative Permittivity (ε_r):	37.80	37.82	-0.04	5
		e''	14.8600	Conductivity (σ):	2.97	3.01	-1.31	5
	Head 3650	e'	37.6700	Relative Permittivity (ε_r):	37.67	37.76	-0.23	5
		e''	14.9300	Conductivity (σ):	3.03	3.07	-1.14	5
	Head 3700	e'	37.6000	Relative Permittivity (ε_r):	37.60	37.70	-0.27	5
		e''	14.9900	Conductivity (σ):	3.08	3.12	-1.04	5
	Head 3750	e'	37.5000	Relative Permittivity (ε_r):	37.50	37.64	-0.38	5
		e''	15.0300	Conductivity (σ):	3.13	3.17	-1.06	5
	Head 3800	e'	37.4200	Relative Permittivity (ε_r):	37.42	37.59	-0.45	5
		e''	15.1000	Conductivity (σ):	3.19	3.22	-0.87	5
2-18-2022	Head 3750	e'	37.5000	Relative Permittivity (ε_r):	37.50	37.64	-0.38	5
		e''	15.0300	Conductivity (σ):	3.13	3.17	-1.06	5
	Head 3800	e'	37.4200	Relative Permittivity (ε_r):	37.42	37.59	-0.45	5
		e''	15.1000	Conductivity (σ):	3.19	3.22	-0.87	5
	Head 3900	e'	37.2800	Relative Permittivity (ε_r):	37.28	37.47	-0.52	5
		e''	15.1600	Conductivity (σ):	3.29	3.32	-1.01	5
	Head 3930	e'	37.2300	Relative Permittivity (ε_r):	37.23	37.44	-0.56	5
		e''	15.1900	Conductivity (σ):	3.32	3.35	-0.96	5
	Head 3950	e'	37.1900	Relative Permittivity (ε_r):	37.19	37.42	-0.60	5
		e''	15.2100	Conductivity (σ):	3.34	3.37	-0.93	5

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SAR 5 Room

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
2-16-2022	Head 2600	e'	40.5700	Relative Permittivity (ε_r):	40.57	39.01	4.00	5
		e''	13.4900	Conductivity (σ):	1.95	1.96	-0.61	5
	Head 2500	e'	40.8200	Relative Permittivity (ε_r):	40.82	39.14	4.30	5
		e''	13.5000	Conductivity (σ):	1.88	1.85	1.22	5
	Head 2700	e'	40.4100	Relative Permittivity (ε_r):	40.41	38.88	3.92	5
		e''	13.4500	Conductivity (σ):	2.02	2.07	-2.47	5
2-24-2022	Head 2600	e'	38.1200	Relative Permittivity (ε_r):	38.12	39.01	-2.28	5
		e''	13.4100	Conductivity (σ):	1.94	1.96	-1.20	5
	Head 2500	e'	38.2400	Relative Permittivity (ε_r):	38.24	39.14	-2.29	5
		e''	13.3400	Conductivity (σ):	1.85	1.85	0.02	5
	Head 2700	e'	37.9400	Relative Permittivity (ε_r):	37.94	38.88	-2.43	5
		e''	13.5300	Conductivity (σ):	2.03	2.07	-1.89	5

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8.2. System Check

SAR system verification is required to confirm measurement accuracy, according to the tissue dielectric media, probe calibration points and other system operating parameters required for measuring the SAR of a test device. The system verification must be performed for each frequency band and within the valid range of each probe calibration point required for testing the device. The same SAR probe(s) and tissue-equivalent media combinations used with each specific SAR system for system verification must be used for device testing. When multiple probe calibration points are required to cover substantially large transmission bands, independent system verifications are required for each probe calibration point. A system verification must be performed before each series of SAR measurements using the same probe calibration point and tissue-equivalent medium. Additional system verification should be considered according to the conditions of the tissue-equivalent medium and measured tissue dielectric parameters, typically every three to four days when the liquid parameters are re-measured or sooner when marginal liquid parameters are used at the beginning of a series of measurements.

System Performance Check Measurement Conditions:

- The measurements were performed in the flat section of the TWIN SAM or ELI phantom, shell thickness: 2.0 ±0.2 mm (bottom plate) filled with Body or Head simulating liquid of the following parameters.
- The depth of tissue-equivalent liquid in a phantom must be ≥ 15.0 cm for SAR measurements ≤ 3 GHz and ≥ 10.0 cm for measurements > 3 GHz.
- The DASY system with an E-Field Probe was used for the measurements.
- The dipole was mounted on the small tripod so that the dipole feed point was positioned below the center marking of the flat phantom section and the dipole was oriented parallel to the body axis (the long side of the phantom). The standard measuring distance was 10 mm (above 1 GHz) and 15 mm (below 1 GHz) from dipole center to the simulating liquid surface.
- The coarse grid with a grid spacing of 15 mm was aligned with the dipole.
  For 5 GHz band - The coarse grid with a grid spacing of 10 mm was aligned with the dipole.
- Special 7x7x7 (below 3 GHz) and/or 8x8x7 (above 3 GHz) fine cube was chosen for the cube.
- Distance between probe sensors and phantom surface was set to 2.5 mm.
  For 5 GHz band - Distance between probe sensors and phantom surface was set to 1.4 mm
- The dipole input power (forward power) was 100 mW.
- The results are normalized to 1 W input power.

Reference Target SAR Values

The reference SAR values can be obtained from the calibration certificate of system validation dipoles.

System Dipole	Serial No.	Cal. Date	Cal. Due Date	Target SAR Values (W/kg)	
				1g/10g	Head
D1750V2	1180	4-27-2021	4-27-2023	1g	36.40
				10g	19.10
D1900V2	5d199	3-19-2020	3-19-2022	1g	40.50
				10g	21.00
D2450V2	960	3-20-2020	3-20-2022	1g	53.20
				10g	24.80
D2600V2	1178	4-23-2021	4-23-2023	1g	56.60
				10g	25.40
D3500V2	1121	4-21-2021	4-21-2023	1g	66.30
				10g	25.00
D3700V2	1036	5-21-2021	5-21-2023	1g	67.90
				10g	24.30
D3900V2	1069	4-21-2021	4-21-2023	1g	70.10
				10g	24.30
D5GHzV2 (5750)	1184	12-3-2020	12-3-2022	1g	79.90
				10g	22.60

Note(s):

1. For System Validation Dipole, Calibration interval applied every 2 years according to referencing KDB 865664 guidance.
2. Refer to Appendix F that mentioned about justification for Extended SAR Dipole Calibrations.
3. All equipments were used until Cal.Due data.

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System Check Results

The 1-g and 10-g SAR measured with a reference dipole, using the required tissue-equivalent medium at the test frequency, must be within 10% of the manufacturer calibrated dipole SAR target.

SAR 1 Room

Date Tested	System Dipole		T.S. Liquid		Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.
	Type	Serial #			Zoom Scan to 100 mW	Normalize to 1 W			
2-10-2022	D2600V2	1178	Head	1g	5.88	58.8	56.60	3.89	
				10g	2.69	26.9	25.40	5.91	
2-15-2022	D2600V2	1178	Head	1g	5.96	59.6	56.60	5.30	
				10g	2.73	27.3	25.40	7.48	
2-17-2022	D2600V2	1178	Head	1g	5.67	56.7	56.60	0.18	
				10g	2.58	25.8	25.40	1.57	
2-21-2022	D1750V2	1180	Head	1g	3.54	35.4	36.40	-2.75	1,2
				10g	1.93	19.3	19.10	1.05	
2-21-2022	D2600V2	1178	Head	1g	5.97	59.7	56.60	5.48	
				10g	2.74	27.4	25.40	7.87	

SAR 2 Room

Date Tested	System Dipole		T.S. Liquid		Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.
	Type	Serial #			Zoom Scan to 100 mW	Normalize to 1 W			
2-16-2022	D5GHzV2	1184	Head	1g	8.31	83.1	79.90	4.01	3,4
				10g	2.41	24.1	22.60	6.64	
2-17-2022	D2450V2	960	Head	1g	5.17	51.7	53.20	-2.82	5,6
				10g	2.42	24.2	24.80	-2.42	
2-22-2022	D3900V2	1069	Head	1g	7.10	71.0	70.10	1.28	
				10g	2.59	25.9	24.30	6.58	

SAR 3 Room

Date Tested	System Dipole		T.S. Liquid		Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.
	Type	Serial #			Zoom Scan to 100 mW	Normalize to 1 W			
1-26-2022	D1900V2	5d199	Head	1g	4.14	41.4	40.50	2.22	7,8
				10g	2.19	21.9	21.00	4.29	
2-7-2022	D2600V2	1178	Head	1g	5.97	59.7	56.60	5.48	
				10g	2.76	27.6	25.40	8.66	
2-10-2022	D2600V2	1178	Head	1g	5.64	56.4	56.60	-0.35	
				10g	2.58	25.8	25.40	1.57	
2-15-2022	D3500V2	1121	Head	1g	6.35	63.5	66.30	-4.22	
				10g	2.41	24.1	25.00	-3.60	
2-15-2022	D3700V2	1036	Head	1g	6.50	65.0	67.90	-4.27	
				10g	2.37	23.7	24.30	-2.47	
2-15-2022	D3900V2	1069	Head	1g	6.46	64.6	70.10	-7.85	9,10
				10g	2.27	22.7	24.30	-6.58	
2-18-2022	D3500V2	1121	Head	1g	6.50	65.0	66.30	-1.96	
				10g	2.45	24.5	25.00	-2.00	
2-18-2022	D3700V2	1036	Head	1g	6.68	66.8	67.90	-1.62	
				10g	2.43	24.3	24.30	0.00	
2-18-2022	D3900V2	1069	Head	1g	6.74	67.4	70.10	-3.85	
				10g	2.37	23.7	24.30	-2.47	
2-21-2022	D3500V2	1121	Head	1g	6.78	67.8	66.30	2.26	
				10g	2.67	26.7	25.00	6.80	
2-21-2022	D3700V2	1036	Head	1g	6.63	66.3	67.90	-2.36	
				10g	2.51	25.1	24.30	3.29	
2-21-2022	D3900V2	1069	Head	1g	6.79	67.9	70.10	-3.14	
				10g	2.47	24.7	24.30	1.65	
3-2-2022	D3500V2	1121	Head	1g	6.54	65.4	66.30	-1.36	
				10g	2.58	25.8	25.00	3.20	

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SAR 4 Room

Date Tested	System Dipole		T.S. Liquid		Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.
	Type	Serial #			Zoom Scan to 100 mW	Normalize to 1 W			
2-7-2022	D3500V2	1121	Head	1g	6.56	65.6	66.30	-1.06	
				10g	2.50	25.0	25.00	0.00	
2-7-2022	D3700V2	1036	Head	1g	6.82	68.2	67.90	0.44	
				10g	2.53	25.3	24.30	4.12	
2-7-2022	D3900V2	1069	Head	1g	6.73	67.3	70.10	-3.99	
				10g	2.38	23.8	24.30	-2.06	
2-10-2022	D3500V2	1121	Head	1g	6.10	61.0	66.30	-7.99	11,12
				10g	2.34	23.4	25.00	-6.40	
2-10-2022	D3700V2	1036	Head	1g	6.81	68.1	67.90	0.29	
				10g	2.54	25.4	24.30	4.53	
2-10-2022	D3900V2	1069	Head	1g	7.00	70.0	70.10	-0.14	
				10g	2.48	24.8	24.30	2.06	
2-15-2022	D3500V2	1121	Head	1g	6.39	63.9	66.30	-3.62	
				10g	2.44	24.4	25.00	-2.40	
2-15-2022	D3700V2	1036	Head	1g	6.56	65.6	67.90	-3.39	
				10g	2.42	24.2	24.30	-0.41	
2-15-2022	D3900V2	1069	Head	1g	6.85	68.5	70.10	-2.28	
				10g	2.40	24.0	24.30	-1.23	
2-18-2022	D3500V2	1121	Head	1g	6.24	62.4	66.30	-5.88	
				10g	2.39	23.9	25.00	-4.40	
2-18-2022	D3700V2	1036	Head	1g	6.45	64.5	67.90	-5.01	13,14
				10g	2.39	23.9	24.30	-1.65	
2-18-2022	D3900V2	1069	Head	1g	6.81	68.1	70.10	-2.85	
				10g	2.41	24.1	24.30	-0.82	

SAR 5 Room

Date Tested	System Dipole		T.S. Liquid		Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.
	Type	Serial #			Zoom Scan to 100 mW	Normalize to 1 W			
2-16-2022	D2600V2	1178	Head	1g	5.18	51.8	56.60	-8.48	15,16
				10g	2.34	23.4	25.40	-7.87	
2-24-2022	D2600V2	1178	Head	1g	5.42	54.2	56.60	-4.24	
				10g	2.42	24.2	25.40	-4.72	

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9. Conducted Output Power Measurements

9.1. NR (Sub 6GHz)

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS 138.521-1 specification.

UE Power Class: 3 (23 +/- 2dBm). The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS138.521-1.

Table 6.2.2.3-1: Maximum Power Reduction (MPR) for Power 3

Modulation	MPR (dB)		
	Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM PI/2 BPSK	≤ 3.5[1]	≤ 1.2[1]	≤ 0.2[1]
	≤ 0.5[2]		0[2]
DFT-s-OFDM QPSK	≤ 1		0
DFT-s-OFDM 16 QAM	≤ 2		≤ 1
DFT-s-OFDM 64 QAM	≤ 2.5		
DFT-s-OFDM 256 QAM	≤ 4.5		
CP-OFDM QPSK	≤ 3		≤ 1.5
CP-OFDM 16 QAM	≤ 3		≤ 2
CP-OFDM 64 QAM	≤ 3.5		
CP-OFDM 256 QAM	≤ 6.5		

NOTE 1: Applicable for UE operating in TDD mode with PI/2 BPSK modulation and UE indicates support for UE capability *powerBoosting-pi2BPSK* and if the IE *powerBoostPi2BPSK* is set to 1 and 40 % or less slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79. The reference power of 0dB MPR is 26dBm.

NOTE 2: Applicable for UE operating in FDD mode, or in TDD mode in bands other than n40, n41, n77, n78 and n79 and if the IE *powerBoostPi2BPSK* is set to 0 and if more than 40% of slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79.

The allowed A-MPR values specified below in Table 6.2.3.3.1-1 of 3GPP TS138.521-1 are in addition to the allowed MPR requirements. All the measurements below were performed with A-MPR disabled, by using Network Signaling Value of "NS_01"

Table 6.2.3.3.1-1: Additional maximum power reduction (A-MPR)

Network Signalling label	Requirements (subclause)	NR Band	Channel bandwidth (MHz)	Resources Blocks (N_{RB})	A-MPR (dB)
NS_01		Table 5.2-1	5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	Table 5.3.2-1	N/A

Uplink RB allocations were used to Table 6.1-1 of the 3GPP TS 138.521-1.

Channel Bandwidth	SCS(kHz)	OFDM	RB allocation							
			Edge_Full_Left	Edge_Full_Right	Edge_1RB_Left	Edge_1RB_Right	Outer_Full	Inner_Full	Inner_1RB_Left	Inner_1RB_Right
5MHz	15	DFT-s	2@0	2@23	1@0	1@24	25@0	12@6	1@1	1@23
		CP	2@0	2@23	1@0	1@24	25@0	13@6	1@1	1@23
	30	DFT-s	2@0	2@9	1@0	1@10	10@0	5@2[1]	1@1	1@9
		CP	2@0	2@9	1@0	1@10	11@0	5@2[1]	1@1	1@9
	60	DFT-s	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		CP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10MHz	15	DFT-s	2@0	2@50	1@0	1@51	50@0	25@12	1@1	1@50
		CP	2@0	2@50	1@0	1@51	52@0	26@13	1@1	1@50
	30	DFT-s	2@0	2@22	1@0	1@23	24@0	12@6	1@1	1@22
		CP	2@0	2@22	1@0	1@23	24@0	12@6	1@1	1@22
	60	DFT-s	2@0	2@9	1@0	1@10	10@0	5@2[1]	1@1	1@9
		CP	2@0	2@9	1@0	1@10	11@0	5@2[1]	1@1	1@9
15MHz	15	DFT-s	2@0	2@77	1@0	1@78	75@0	36@18	1@1	1@77
		CP	2@0	2@77	1@0	1@78	79@0	39@19[1]	1@1	1@77
	30	DFT-s	2@0	2@36	1@0	1@37	36@0	18@9	1@1	1@36
		CP	2@0	2@36	1@0	1@37	38@0	19@9	1@1	1@36
	60	DFT-s	2@0	2@16	1@0	1@17	18@0	9@4	1@1	1@16
		CP	2@0	2@16	1@0	1@17	18@0	9@4	1@1	1@16
20MHz	15	DFT-s	2@0	2@104	1@0	1@105	100@0	50@25	1@1	1@104
		CP	2@0	2@104	1@0	1@105	106@0	53@26	1@1	1@104
	30	DFT-s	2@0	2@49	1@0	1@50	50@0	25@12	1@1	1@49
		CP	2@0	2@49	1@0	1@50	51@0	25@12[1]	1@1	1@49
	60	DFT-s	2@0	2@22	1@0	1@23	24@0	12@6	1@1	1@22
		CP	2@0	2@22	1@0	1@23	24@0	12@6	1@1	1@22

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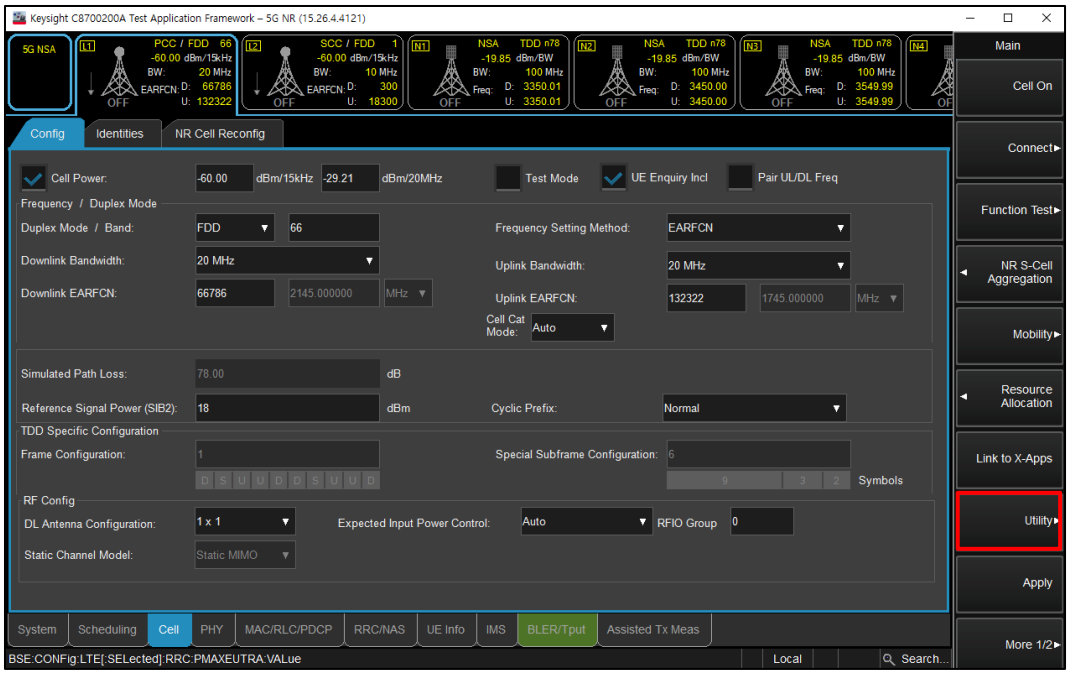
Procedures used to establish power measurement for NR Bands

Switching to NSA mode or SA mode

- Click the “Utility” button in the right of Test application screen
- Select “5G NR NSA” in the “TA Mode Switch” for NSA mode
- Select “5G NR Standalone” in the “TA Mode Switch” for SA mode



(Figure 1-1)

(Figure 1-2)

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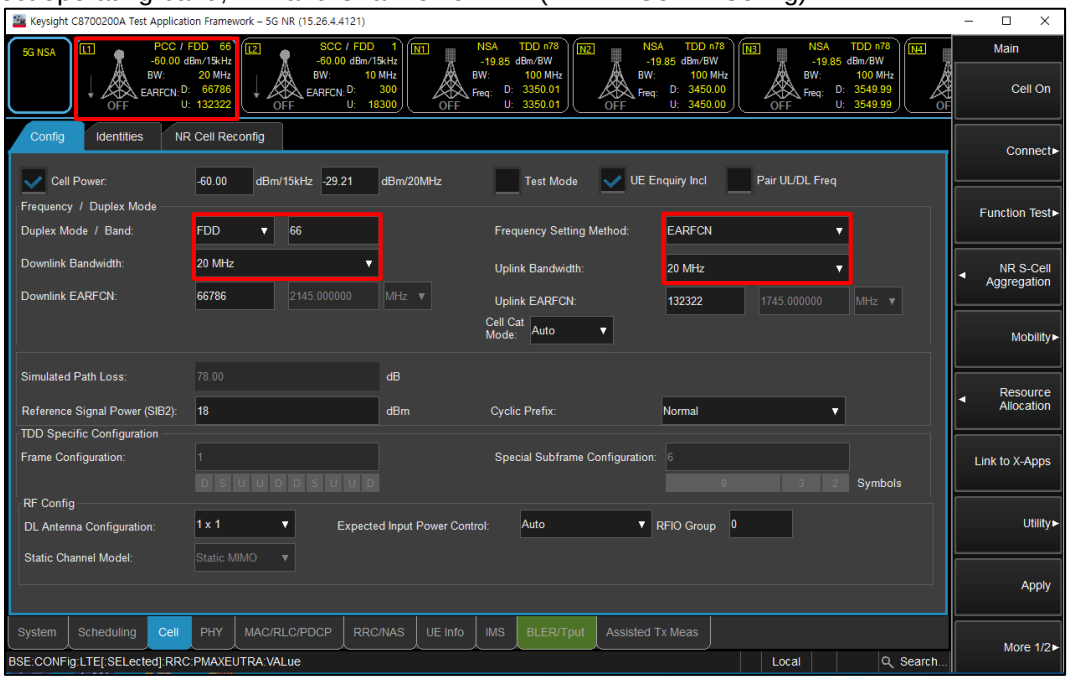
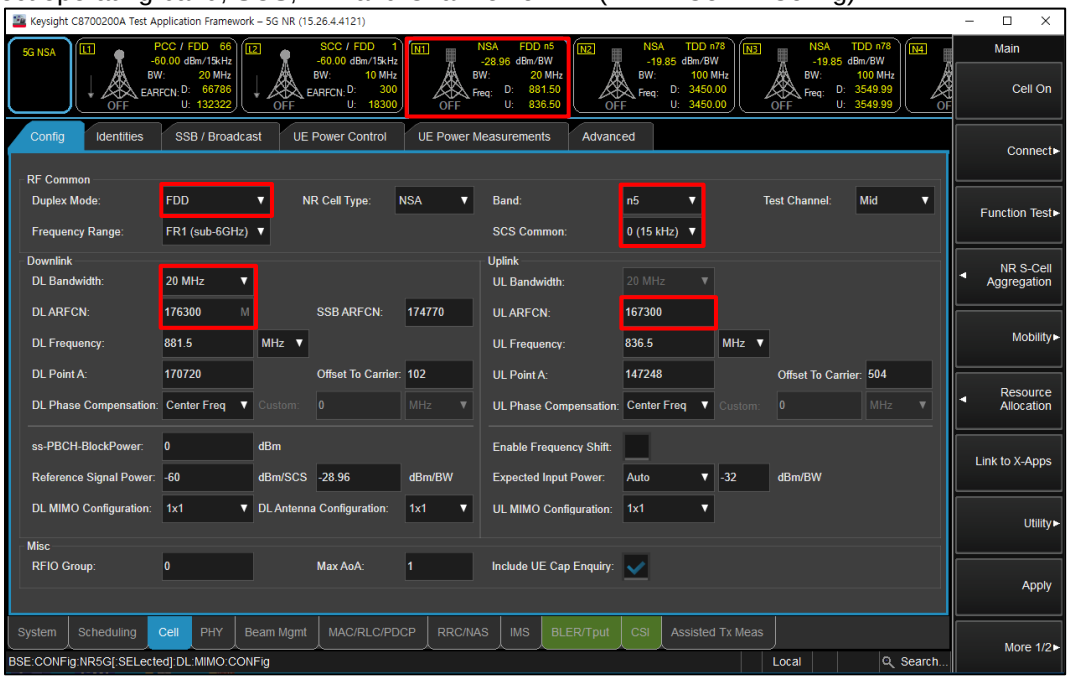
NSA Mode

- Select operating band, BW and Channel for LTE (LTE -> Cell -> Config)



(Figure 2-1)

- Select operating band, SCS, BW and Channel for NR (NR -> Cell -> Config)



(Figure 2-2)

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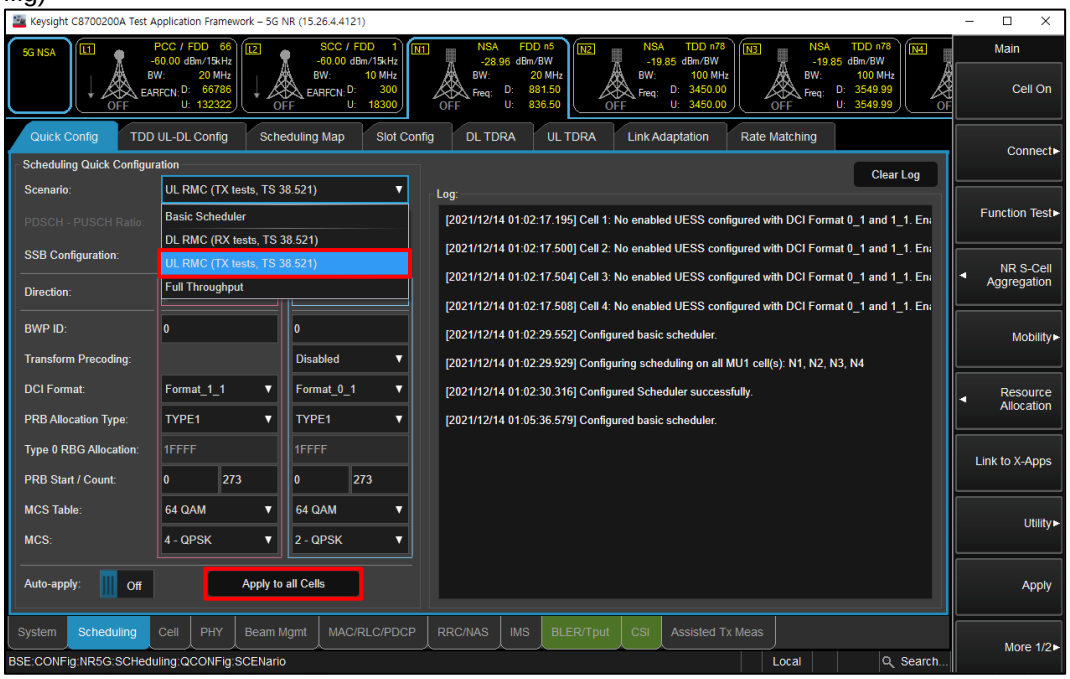
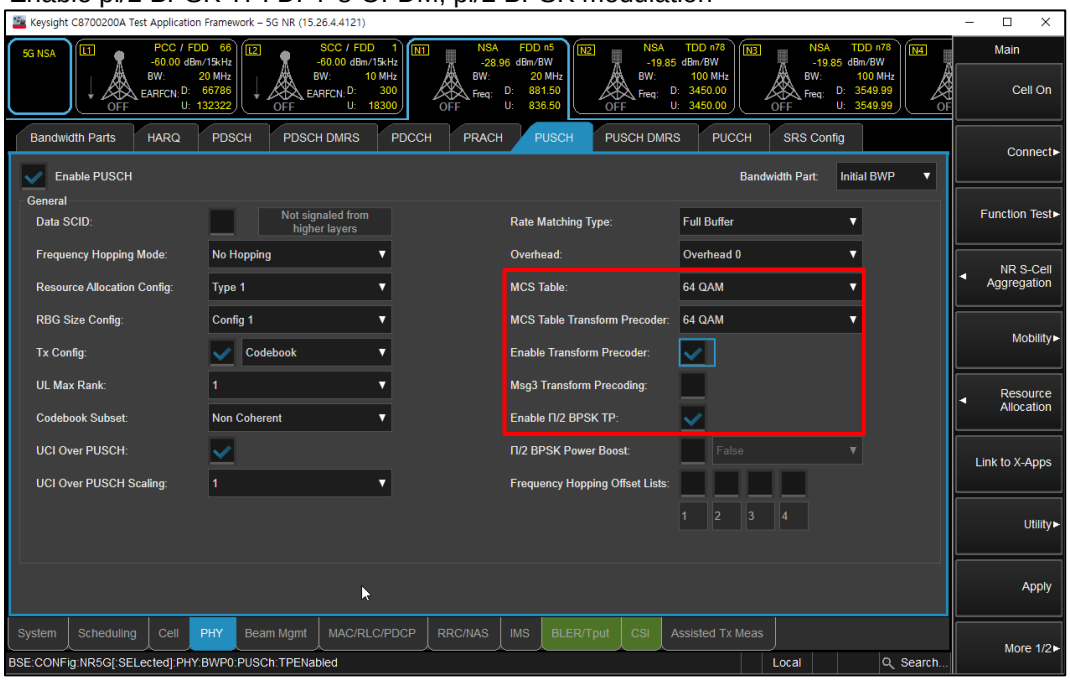
- Select “UL RMC (TX tests, TS 38.521)” for maximum power RB scheduling (NR -> Scheduling -> Quick Config)



(Figure 2-3)

- To set waveform for NR Band (NR -> PHY -> PUSCH)
  - Select highest modulation in the MCS Table and MCS Table Transform Precoder
  - Enable Transform Precoder: DFT-s-OFDM / disable for CP-OFDM
  - Enable pi/2 BPSK TP: DFT-s-OFDM, pi/2 BPSK modulation



(Figure 2-4)

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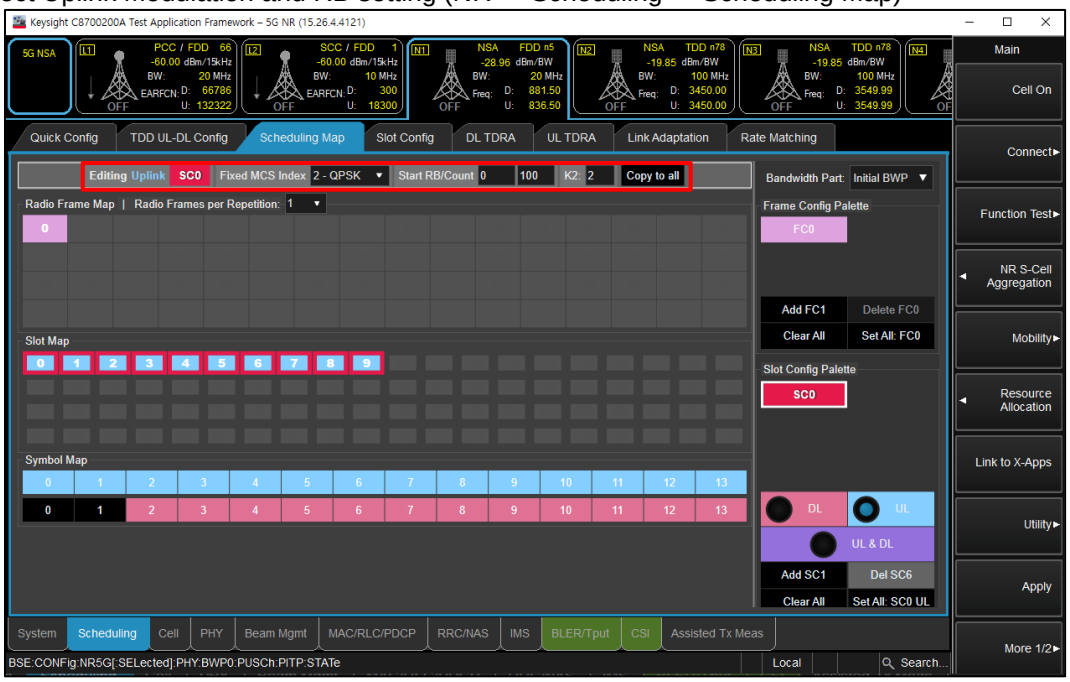
- Select Uplink Modulation and RB setting (NR -> Scheduling -> Scheduling Map)



(Figure 2-5)

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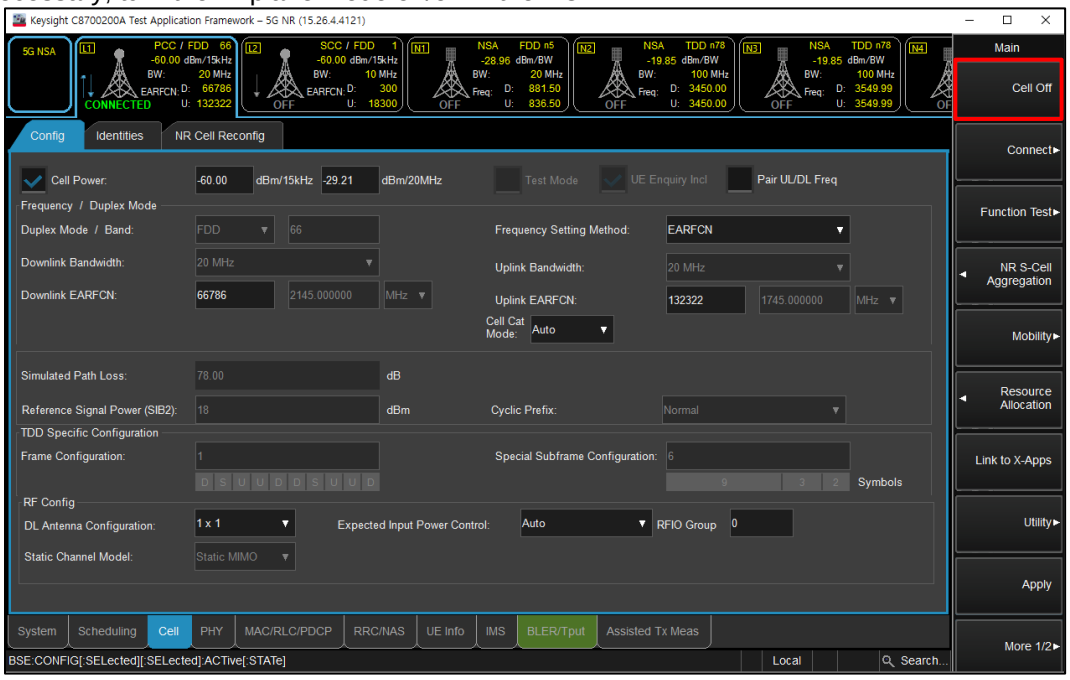
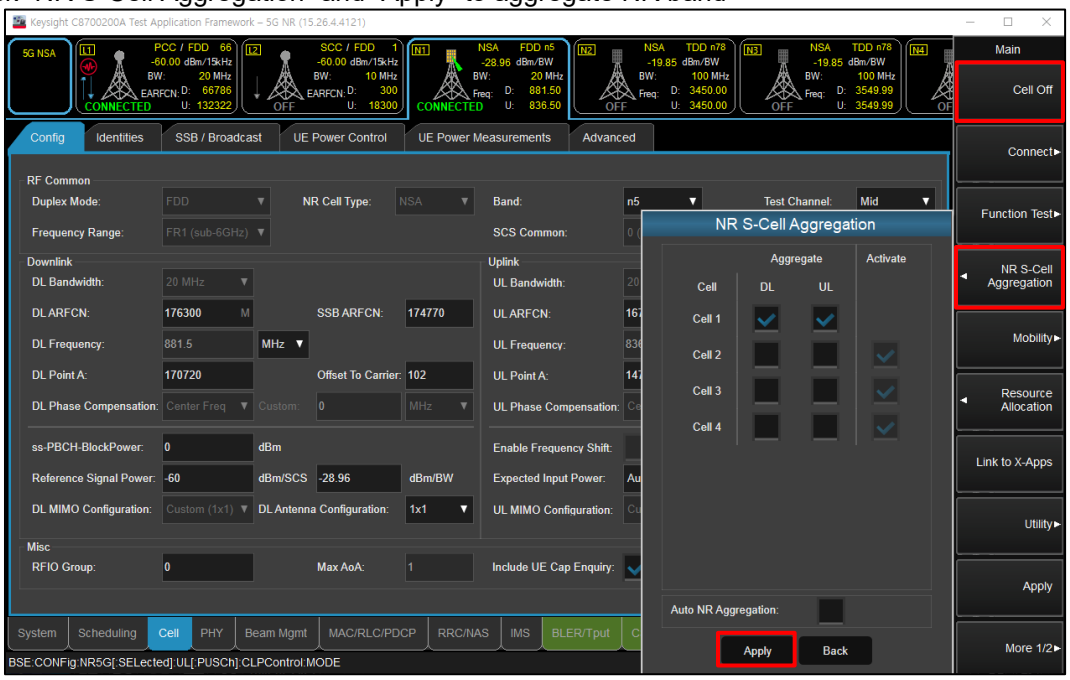
- Click “Cell On” button in the right of Test application screen in the LTE tab
- If necessary, turn the Airplane Mode on/off in the DUT



(Figure 2-6)

- Click “Cell On” button in the right of Test application screen in the NR tab
- Click “NR S-Cell Aggregation” and “Apply” to aggregate NR band



(Figure 2-7)

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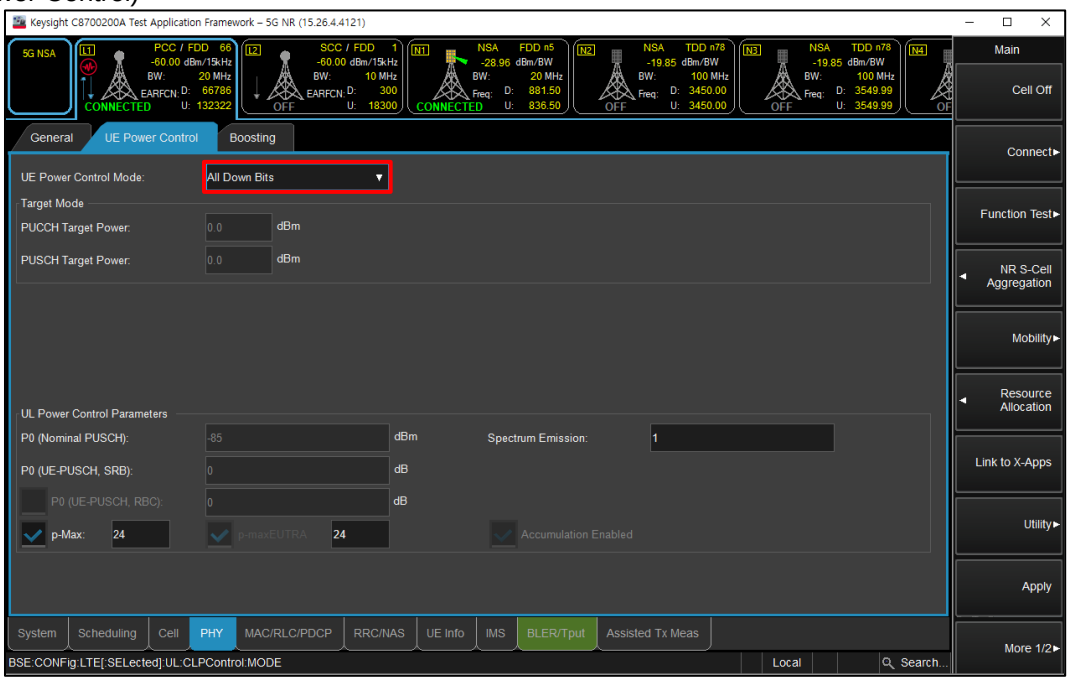
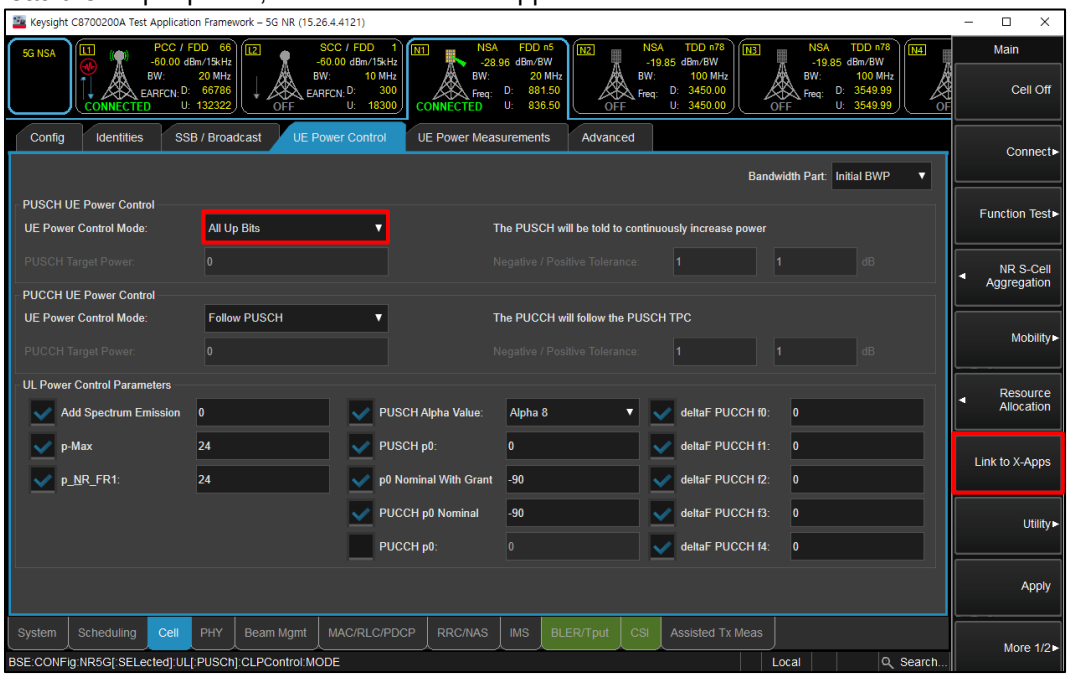
- Select “All Down Bits” of UL Power control Mode in LTE tab for NR maximum power (LTE -> PHY -> UE Power Control)



(Figure 2-8)

- Select “All Up Bits” of UL Power control Mode in NR tab for NR maximum power (NR -> Cell -> UE Power Control)
- To read the output power, click the “Link to X-Apps”



(Figure 2-9)

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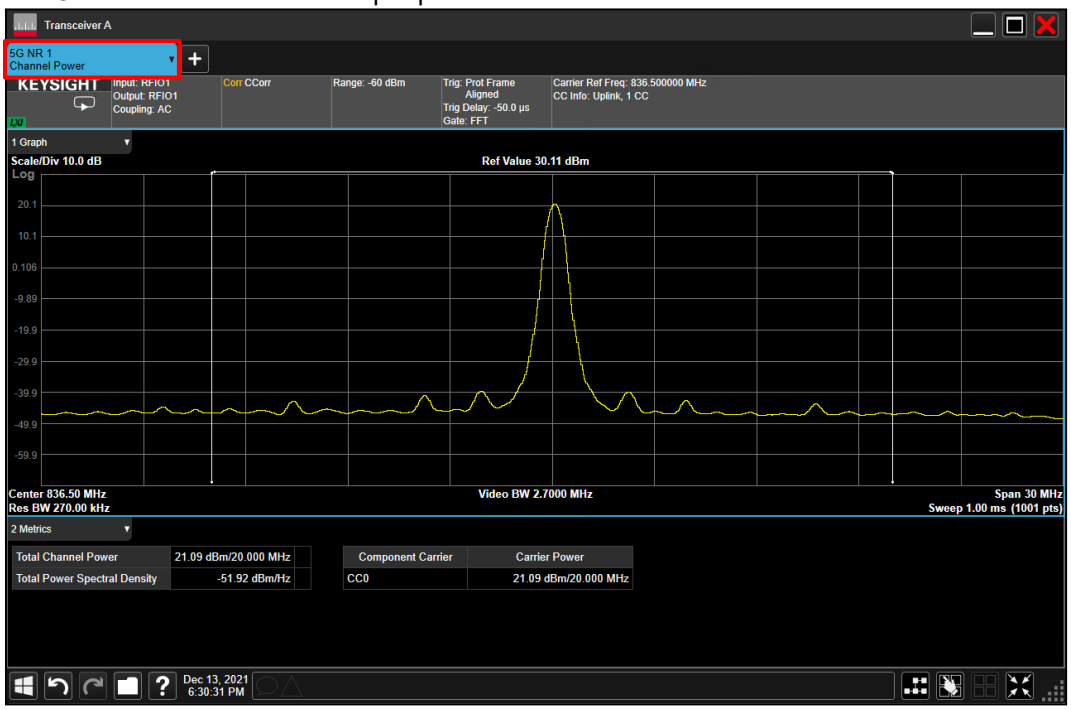
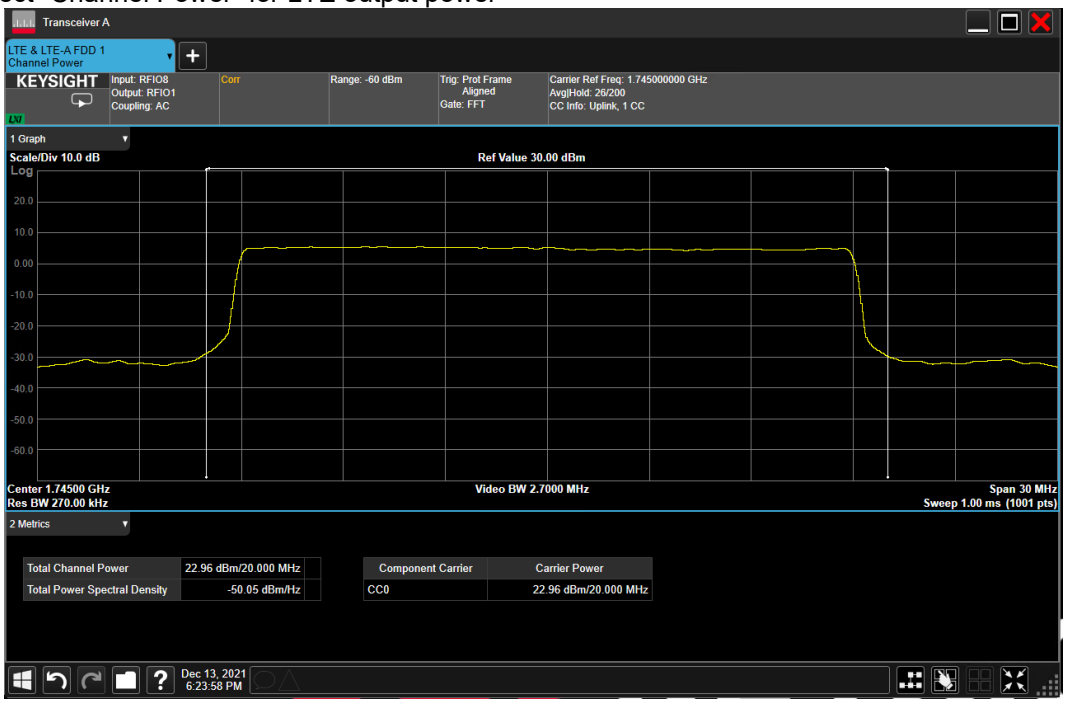
- Select “Channel Power” for NR output power



(Figure 2-10)

- Select “Channel Power” for LTE output power



(Figure 2-11)

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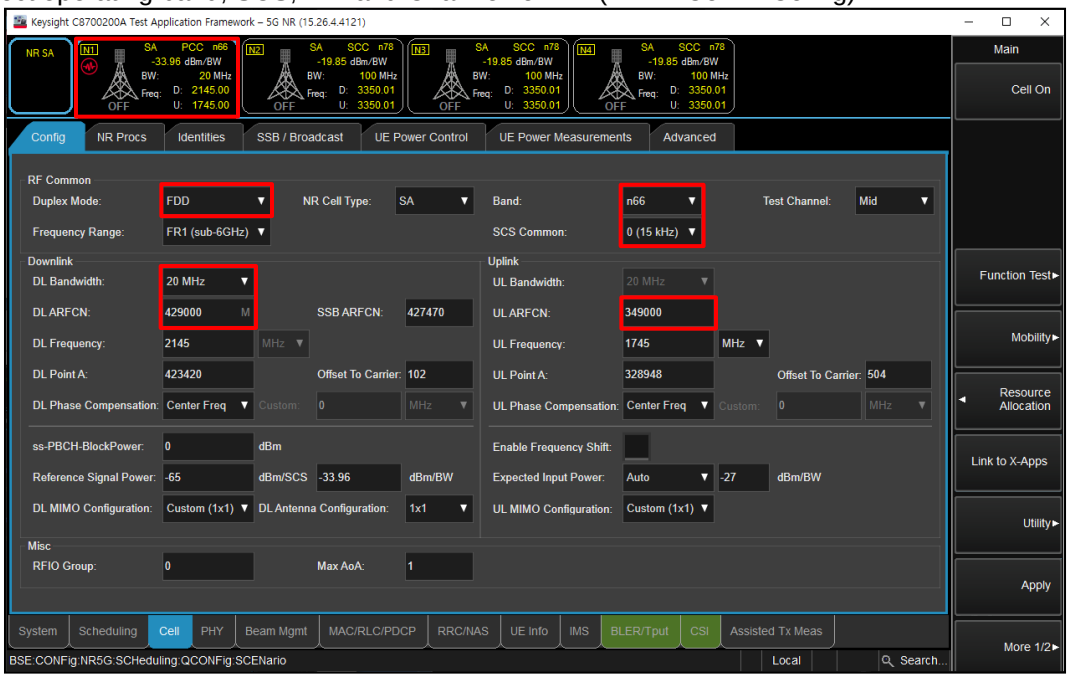
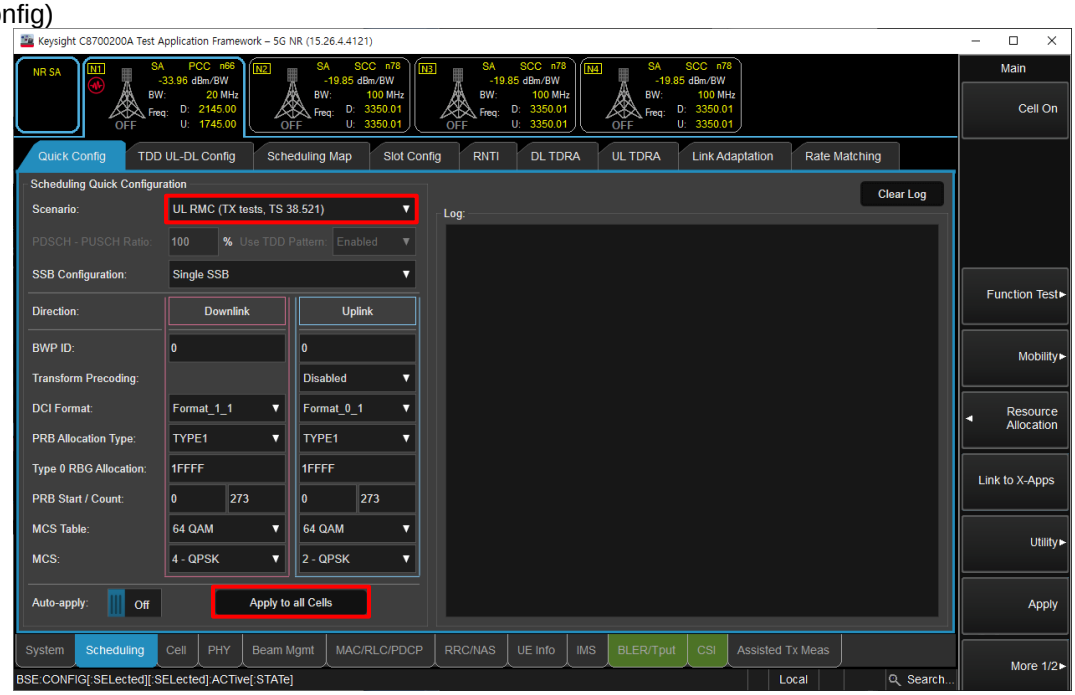
SA Mode

- Select operating band, SCS, BW and Channel for NR (NR -> Cell -> Config)



(Figure 3-1)

- Select "UL RMC (TX tests, TS 38.521)" for maximum power RB scheduling (NR -> Scheduling -> Quick Config)



(Figure 3-2)

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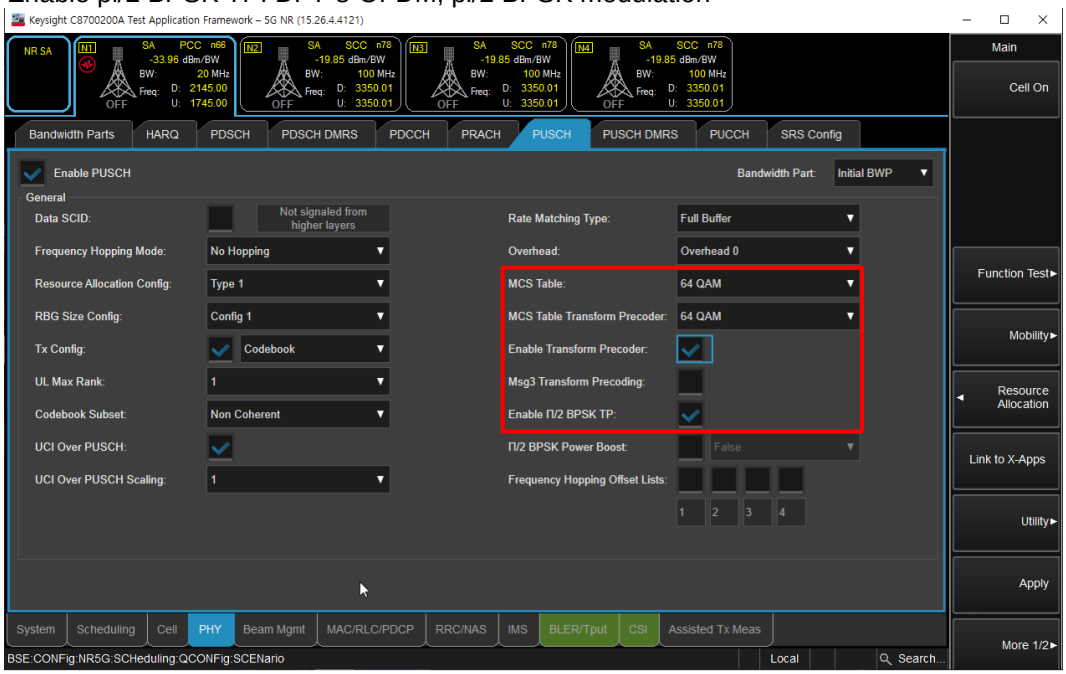
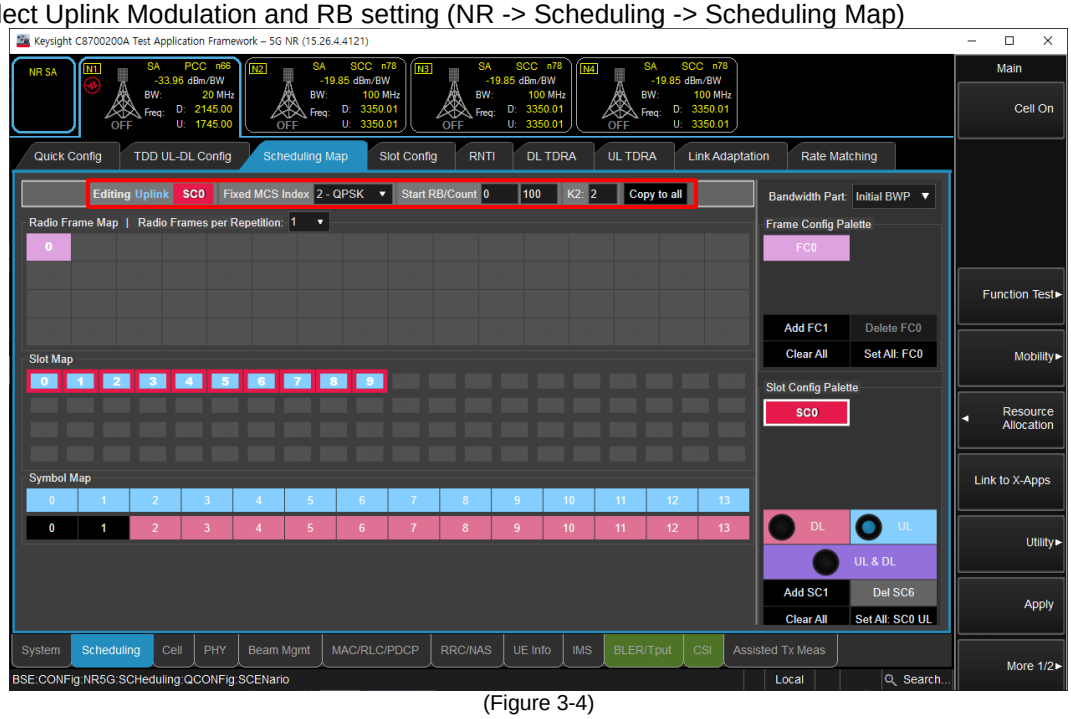
- To set waveform for NR Band (NR -> PHY -> PUSCH)
  - Select highest modulation in the MCS Table and MCS Table Transform Precoder
  - Enable Transform Precoder: DFT-s-OFDM / disable for CP-OFDM
  - Enable pi/2 BPSK TP: DFT-s-OFDM, pi/2 BPSK modulation



(Figure 3-3)

- Select Uplink Modulation and RB setting (NR -> Scheduling -> Scheduling Map)



(Figure 3-4)

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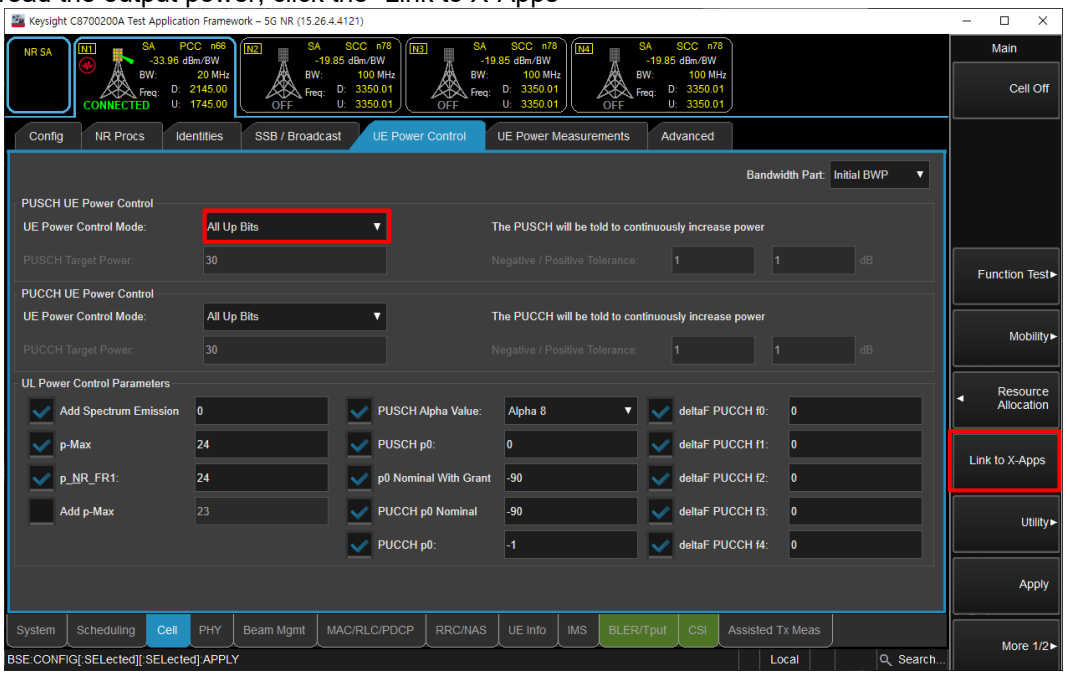
- Click “Cell On” button in the right of Test application screen
- If necessary, turn the Airplane Mode on/off in the DUT
- Select “All Up Bits” of UL Power control Mode (Cell -> UE Power Control)
- To read the output power, click the “Link to X-Apps”



(Figure 3-5)

- Select “Channel Power”

(Figure 3-6)

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NR Band n25 Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)					Reduced Average Power (dBm) Hotspot back-off					Reduced Average Power (dBm) Proximity sensor back-off				
					Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					372000	376500	381000			372000	376500	381000			372000	376500	381000		
					1860 MHz	1882.5 MHz	1905 MHz			1860 MHz	1882.5 MHz	1905 MHz			1860 MHz	1882.5 MHz	1905 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.7	23.6	23.5	0.0	24.0	20.2	20.2	20.1	0.0	20.5	20.2	20.2	20.1	0.0	20.5
			1	53	23.7	23.6	23.5	0.0	24.0	20.2	20.2	20.1	0.0	20.5	20.2	20.2	20.1	0.0	20.5
			1	104	23.6	23.5	23.5	0.0	24.0	20.0	20.0	20.1	0.0	20.5	20.0	20.0	20.1	0.0	20.5
			50	0	23.3	23.1	23.0	0.5	23.5	20.2	20.2	20.1	0.0	20.5	20.2	20.2	20.1	0.0	20.5
			50	28	23.6	23.6	23.5	0.0	24.0	20.1	20.1	20.1	0.0	20.5	20.1	20.1	20.1	0.0	20.5
			50	56	23.1	23.0	23.0	0.5	23.5	20.0	20.0	20.1	0.0	20.5	20.1	20.0	20.1	0.0	20.5
			100	0	23.1	23.1	23.0	0.5	23.5	20.1	20.1	20.1	0.0	20.5	20.1	20.1	20.0	0.0	20.5
		QPSK	1	1	23.7	23.6	23.5	0.0	24.0	20.2	20.1	20.0	0.0	20.5	20.2	20.1	20.1	0.0	20.5
			1	53	23.7	23.5	23.6	0.0	24.0	20.1	20.2	20.1	0.0	20.5	20.1	20.2	20.1	0.0	20.5
			1	104	23.5	23.4	23.5	0.0	24.0	20.0	20.0	20.1	0.0	20.5	20.0	20.0	20.1	0.0	20.5
			50	0	22.8	22.6	22.6	1.0	23.0	20.2	20.2	20.1	0.0	20.5	20.2	20.2	20.1	0.0	20.5
			50	28	23.7	23.6	23.6	0.0	24.0	20.2	20.2	20.1	0.0	20.5	20.2	20.1	20.1	0.0	20.5
			50	56	22.6	22.5	22.6	1.0	23.0	20.0	20.1	20.0	0.0	20.5	20.1	20.0	20.1	0.0	20.5
			100	0	22.6	22.6	22.5	1.0	23.0	20.1	20.1	20.1	0.0	20.5	20.1	20.1	20.1	0.0	20.5
		16QAM	1	1	22.8	22.6	22.6	1.0	23.0	20.2	20.1	20.0	0.0	20.5	20.2	20.1	20.0	0.0	20.5
		64QAM	1	1	21.2	21.2	21.1	2.5	21.5	20.2	20.1	20.0	0.0	20.5	20.3	20.2	20.1	0.0	20.5
		256QAM	1	1	19.0	18.9	18.8	4.5	19.5	20.2	20.1	20.1	0.0	20.5	20.1	20.1	20.1	0.0	20.5
	CP-OFDM	QPSK	1	1	22.2	22.1	22.0	1.5	22.5	20.2	20.0	20.0	0.0	20.5	20.2	20.0	20.0	0.0	20.5
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					371500	376500	381500			371500	376500	381500			371500	376500	381500		
					1857.5 MHz	1882.5 MHz	1907.5 MHz			1857.5 MHz	1882.5 MHz	1907.5 MHz			1857.5 MHz	1882.5 MHz	1907.5 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.7	23.7	23.6	0.0	24.0	20.3	20.2	20.2	0.0	20.5	20.3	20.2	20.1	0.0	20.5
			1	40	23.6	23.5	23.5	0.0	24.0	20.1	20.1	20.0	0.0	20.5	20.1	20.1	20.0	0.0	20.5
			1	77	23.5	23.5	23.6	0.0	24.0	20.1	20.1	20.1	0.0	20.5	20.1	20.1	20.2	0.0	20.5
			36	0	23.3	23.2	23.1	0.5	23.5	20.3	20.2	20.2	0.0	20.5	20.3	20.2	20.2	0.0	20.5
			36	22	23.7	23.7	23.6	0.0	24.0	20.2	20.2	20.1	0.0	20.5	20.2	20.2	20.1	0.0	20.5
			36	43	23.1	23.1	23.2	0.5	23.5	20.1	20.1	20.2	0.0	20.5	20.2	20.1	20.2	0.0	20.5
			75	0	23.2	23.2	23.1	0.5	23.5	20.2	20.2	20.1	0.0	20.5	20.2	20.2	20.1	0.0	20.5
		QPSK	1	1	23.7	23.6	23.5	0.0	24.0	20.3	20.2	20.1	0.0	20.5	20.3	20.2	20.1	0.0	20.5
			1	40	23.5	23.5	23.4	0.0	24.0	20.1	20.1	20.0	0.0	20.5	20.1	20.0	20.0	0.0	20.5
			1	77	23.5	23.5	23.6	0.0	24.0	20.1	20.0	20.1	0.0	20.5	20.1	20.0	20.1	0.0	20.5
			36	0	22.8	22.7	22.6	1.0	23.0	20.3	20.2	20.2	0.0	20.5	20.3	20.2	20.1	0.0	20.5
			36	22	23.7	23.6	23.6	0.0	24.0	20.2	20.2	20.1	0.0	20.5	20.2	20.2	20.1	0.0	20.5
			36	43	22.6	22.6	22.7	1.0	23.0	20.2	20.1	20.2	0.0	20.5	20.1	20.1	20.2	0.0	20.5
			75	0	22.7	22.7	22.6	1.0	23.0	20.2	20.2	20.1	0.0	20.5	20.2	20.2	20.1	0.0	20.5
		16QAM	1	1	22.8	22.7	22.6	1.0	23.0	20.3	20.2	20.1	0.0	20.5	20.2	20.2	20.1	0.0	20.5
		64QAM	1	1	21.3	21.2	21.1	2.5	21.5	20.3	20.2	20.1	0.0	20.5	20.2	20.1	20.1	0.0	20.5
		256QAM	1	1	18.9	18.8	18.7	4.5	19.5	18.9	18.9	18.7	0.0	20.5	18.9	18.8	18.8	0.0	20.5
	CP-OFDM	QPSK	1	1	22.3	22.2	22.0	1.5	22.5	20.2	20.1	20.0	0.0	20.5	20.2	20.1	20.0	0.0	20.5

Note(s):

1. For NR Band n2 and NR Band n25, NR Band n2 is covered by NR Band n25.

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NR Band n25 Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					371000	376500	382000			371000	376500	382000			371000	376500	382000		
					1855 MHz	1882.5 MHz	1910 MHz			1855 MHz	1882.5 MHz	1910 MHz			1855 MHz	1882.5 MHz	1910 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.8	23.7	23.6	0.0	24.0	20.3	20.3	20.2	0.0	20.5	20.3	20.3	20.2	0.0	20.5
			1	26	23.7	23.7	23.7	0.0	24.0	20.4	20.3	20.2	0.0	20.5	20.4	20.3	20.3	0.0	20.5
			1	50	23.6	23.6	23.7	0.0	24.0	20.2	20.1	20.2	0.0	20.5	20.2	20.2	20.2	0.0	20.5
			25	0	23.2	23.2	23.1	0.5	23.5	20.3	20.2	20.1	0.0	20.5	20.3	20.2	20.1	0.0	20.5
			25	14	23.7	23.7	23.6	0.0	24.0	20.3	20.2	20.2	0.0	20.5	20.3	20.2	20.2	0.0	20.5
			25	27	23.2	23.1	23.2	0.5	23.5	20.2	20.2	20.2	0.0	20.5	20.2	20.2	20.2	0.0	20.5
			50	0	23.3	23.2	23.1	0.5	23.5	20.3	20.1	20.2	0.0	20.5	20.3	20.2	20.2	0.0	20.5
		QPSK	1	1	23.8	23.7	23.6	0.0	24.0	20.3	20.2	20.2	0.0	20.5	20.3	20.2	20.1	0.0	20.5
			1	26	23.8	23.7	23.6	0.0	24.0	20.4	20.3	20.2	0.0	20.5	20.4	20.2	20.2	0.0	20.5
			1	50	23.6	23.6	23.7	0.0	24.0	20.2	20.1	20.3	0.0	20.5	20.1	20.1	20.2	0.0	20.5
			25	0	22.7	22.7	22.6	1.0	23.0	20.3	20.2	20.1	0.0	20.5	20.3	20.2	20.1	0.0	20.5
			25	14	23.8	23.7	23.6	0.0	24.0	20.3	20.2	20.2	0.0	20.5	20.3	20.2	20.2	0.0	20.5
			25	27	22.7	22.6	22.7	1.0	23.0	20.2	20.1	20.2	0.0	20.5	20.2	20.2	20.2	0.0	20.5
			50	0	22.8	22.7	22.7	1.0	23.0	20.3	20.2	20.2	0.0	20.5	20.3	20.2	20.2	0.0	20.5
		16QAM	1	1	22.7	22.7	22.6	1.0	23.0	20.3	20.3	20.1	0.0	20.5	20.3	20.2	20.2	0.0	20.5
		64QAM	1	1	21.4	21.2	21.1	2.5	21.5	20.4	20.3	20.1	0.0	20.5	20.3	20.1	20.2	0.0	20.5
		256QAM	1	1	19.0	18.9	18.8	4.5	19.5	18.9	18.9	18.7	0.0	20.5	18.9	18.9	18.8	0.0	20.5
	CP-OFDM	QPSK	1	1	22.3	22.1	22.2	1.5	22.5	20.3	20.1	20.2	0.0	20.5	20.3	20.2	20.1	0.0	20.5

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					370500	376500	382500			370500	376500	382500			370500	376500	382500		
					1852.5 MHz	1882.5 MHz	1912.5 MHz			1852.5 MHz	1882.5 MHz	1912.5 MHz			1852.5 MHz	1882.5 MHz	1912.5 MHz		
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.8	23.8	23.7	0.0	24.0	20.3	20.2	20.2	0.0	20.5	20.3	20.2	20.2	0.0	20.5
			1	13	23.6	23.6	23.6	0.0	24.0	20.2	20.1	20.2	0.0	20.5	20.2	20.1	20.2	0.0	20.5
			1	23	23.7	23.7	23.7	0.0	24.0	20.3	20.2	20.2	0.0	20.5	20.3	20.2	20.2	0.0	20.5
			12	0	23.2	23.2	23.2	0.5	23.5	20.3	20.2	20.2	0.0	20.5	20.3	20.2	20.2	0.0	20.5
			12	7	23.7	23.7	23.7	0.0	24.0	20.3	20.2	20.2	0.0	20.5	20.2	20.2	20.2	0.0	20.5
			12	13	23.2	23.2	23.2	0.5	23.5	20.3	20.2	20.2	0.0	20.5	20.3	20.2	20.2	0.0	20.5
			25	0	23.2	23.2	23.2	0.5	23.5	20.2	20.2	20.2	0.0	20.5	20.3	20.2	20.2	0.0	20.5
		QPSK	1	1	23.7	23.7	23.6	0.0	24.0	20.3	20.2	20.2	0.0	20.5	20.3	20.2	20.2	0.0	20.5
			1	13	23.6	23.6	23.6	0.0	24.0	20.2	20.1	20.1	0.0	20.5	20.2	20.1	20.1	0.0	20.5
			1	23	23.7	23.7	23.6	0.0	24.0	20.2	20.1	20.2	0.0	20.5	20.2	20.1	20.2	0.0	20.5
			12	0	22.8	22.7	22.7	1.0	23.0	20.3	20.2	20.2	0.0	20.5	20.3	20.2	20.2	0.0	20.5
			12	7	23.7	23.7	23.7	0.0	24.0	20.3	20.2	20.2	0.0	20.5	20.3	20.2	20.2	0.0	20.5
			12	13	22.8	22.7	22.7	1.0	23.0	20.3	20.2	20.2	0.0	20.5	20.3	20.2	20.2	0.0	20.5
			25	0	22.8	22.7	22.7	1.0	23.0	20.3	20.2	20.2	0.0	20.5	20.3	20.1	20.2	0.0	20.5
		16QAM	1	1	22.8	22.6	22.6	1.0	23.0	20.3	20.3	20.2	0.0	20.5	20.3	20.2	20.2	0.0	20.5
		64QAM	1	1	21.3	21.2	21.2	2.5	21.5	20.2	20.1	20.3	0.0	20.5	20.3	20.2	20.2	0.0	20.5
		256QAM	1	1	19.0	18.8	18.8	4.5	19.5	19.0	18.8	18.8	0.0	20.5	18.9	18.9	18.8	0.0	20.5
	CP-OFDM	QPSK	1	1	22.3	22.2	22.2	1.5	22.5	20.3	20.2	20.1	0.0	20.5	20.3	20.2	20.2	0.0	20.5

Note(s):

1. For NR Band n2 and NR Band n25, NR Band n2 is covered by NR Band n25.

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NR Band n41 (Voice/Data/SRS0) Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)						
					Measured Pwr (dBm)					MPR	Tune-up Limit
					509202		518598		528000		
					2546.01 MHz		2592.99 MHz		2640 MHz		
100 MHz	DFT-s-OFDM	π/2 BPSK	1	1			24.5			0.0	25.5
			1	137			24.6			0.0	25.5
			1	271			24.6			0.0	25.5
			135	0			24.6			0.5	25.0
			135	69			24.5			0.0	25.5
			135	138			24.6			0.5	25.0
			270	0			24.6			0.5	25.0
		QPSK	1	1			24.6			0.0	25.5
			1	137			24.6			0.0	25.5
			1	271			24.6			0.0	25.5
			135	0			23.7			1.0	24.5
			135	69			24.6			0.0	25.5
			135	138			23.6			1.0	24.5
			270	0			23.7			1.0	24.5
		16QAM	1	1			23.6			1.0	24.5
		64QAM	1	1			22.1			2.5	23.0
		256QAM	1	1			20.1			4.5	21.0
	CP-OFDM	QPSK	1	1			23.1			1.5	24.0

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
					508200				528996		
					2541 MHz				2644.98 MHz		
90 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.0				24.1	0.0	25.5
			1	123	24.5				24.0	0.0	25.5
			1	243	24.5				24.1	0.0	25.5
			120	0	24.5				24.0	0.5	25.0
			120	63	24.5				24.1	0.0	25.5
			120	125	24.5				24.0	0.5	25.0
			243	0	24.5				24.1	0.5	25.0
		QPSK	1	1	24.5				24.1	0.0	25.5
			1	123	24.5				24.1	0.0	25.5
			1	243	24.5				24.1	0.0	25.5
			120	0	24.5				24.1	1.0	24.5
			120	63	24.5				24.1	0.0	25.5
			120	125	24.5				24.1	1.0	24.5
			243	0	24.5				24.1	1.0	24.5
		16QAM	1	1	23.1				23.2	1.0	24.5
		64QAM	1	1	21.5				21.8	2.5	23.0
		256QAM	1	1	19.4				19.5	4.5	21.0
	CP-OFDM	QPSK	1	1	22.3				22.1	1.5	24.0

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NR Band n41 (Voice/Data/SRS0) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
					507204				529998		
					2536.02 MHz				2649.99 MHz		
80 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.9				24.1	0.0	25.5
			1	109	24.4				24.0	0.0	25.5
			1	215	24.4				24.0	0.0	25.5
			108	0	24.4				24.0	0.5	25.0
			108	55	24.4				24.1	0.0	25.5
			108	109	24.4				24.0	0.5	25.0
			216	0	24.4				24.0	0.5	25.0
		QPSK	1	1	24.4				24.0	0.0	25.5
			1	109	24.4				24.0	0.0	25.5
			1	215	24.4				24.0	0.0	25.5
			108	0	24.4				24.0	1.0	24.5
			108	55	24.4				24.0	0.0	25.5
			108	109	24.4				24.0	1.0	24.5
			216	0	24.4				24.0	1.0	24.5
		16QAM	1	1	23.0				23.0	1.0	24.5
		64QAM	1	1	21.5				21.7	2.5	23.0
		256QAM	1	1	19.4				19.6	4.5	21.0
	CP-OFDM	QPSK	1	1	22.2				22.1	1.5	24.0

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
					505200		518598		531996		
					2526 MHz		2592.99 MHz		2659.98 MHz		
60 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.2		24.3		24.0	0.0	25.5
			1	81	24.3		24.6		24.0	0.0	25.5
			1	160	24.2		24.5		23.9	0.0	25.5
			81	0	24.2		23.6		24.0	0.5	25.0
			81	41	24.2		24.6		23.9	0.0	25.5
			81	81	24.2		24.2		24.0	0.5	25.0
			162	0	24.2		24.2		24.0	0.5	25.0
		QPSK	1	1	24.2		24.5		24.0	0.0	25.5
			1	81	24.2		24.6		24.0	0.0	25.5
			1	160	24.2		24.5		24.0	0.0	25.5
			81	0	24.2		23.6		24.0	1.0	24.5
			81	41	24.2		24.6		24.0	0.0	25.5
			81	81	24.2		23.7		24.0	1.0	24.5
			162	0	24.2		23.7		24.0	1.0	24.5
		16QAM	1	1	23.1		23.3		23.0	1.0	24.5
		64QAM	1	1	21.7		21.9		21.6	2.5	23.0
		256QAM	1	1	19.6		19.7		19.5	4.5	21.0
	CP-OFDM	QPSK	1	1	22.5		22.1		22.4	1.5	24.0

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NR Band n41 (Voice/Data/SRS0) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
					504204		518598		532998		
					2521.02 MHz		2592.99MHz		2664.99 MHz		
50 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.2		24.7		24.3	0.0	25.5
			1	67	24.2		24.6		24.0	0.0	25.5
			1	131	24.3		24.6		24.0	0.0	25.5
			64	0	24.2		23.9		23.6	0.5	25.0
			64	35	24.2		24.6		24.0	0.0	25.5
			64	69	24.2		23.6		23.5	0.5	25.0
			128	0	24.2		24.1		23.5	0.5	25.0
		QPSK	1	1	24.2		24.7		24.3	0.0	25.5
			1	67	24.3		24.6		24.0	0.0	25.5
			1	131	24.3		24.6		24.0	0.0	25.5
			64	0	24.2		23.5		23.0	1.0	24.5
			64	35	24.3		24.6		24.0	0.0	25.5
			64	69	24.2		23.6		23.0	1.0	24.5
			128	0	24.2		23.6		23.0	1.0	24.5
		16QAM	1	1	23.1		23.6		23.3	1.0	24.5
		64QAM	1	1	21.9		22.2		21.7	2.5	23.0
		256QAM	1	1	19.5		20.1		19.7	4.5	21.0
	CP-OFDM	QPSK	1	1	22.4		22.4		22.7	1.5	24.0

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
					503202	513468		523734	534000		
					2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz		
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.2	24.8		24.7	24.1	0.0	25.5
			1	53	24.3	24.6		24.5	24.0	0.0	25.5
			1	104	24.3	24.5		24.5	24.3	0.0	25.5
			50	0	24.4	24.5		24.2	23.5	0.5	25.0
			50	28	24.3	24.6		24.5	24.0	0.0	25.5
			50	56	24.3	23.5		23.8	23.5	0.5	25.0
			100	0	24.3	24.0		24.0	23.6	0.5	25.0
		QPSK	1	1	24.3	24.8		24.7	24.1	0.0	25.5
			1	53	24.3	24.7		24.6	24.0	0.0	25.5
			1	104	24.2	24.5		24.2	23.9	0.0	25.5
			50	0	24.2	23.5		23.7	22.6	1.0	24.5
			50	28	24.2	24.6		24.5	24.0	0.0	25.5
			50	56	24.2	23.5		23.3	23.0	1.0	24.5
			100	0	24.2	23.6		23.6	23.0	1.0	24.5
		16QAM	1	1	23.0	23.7		23.5	22.8	1.0	24.5
		64QAM	1	1	21.6	22.3		22.4	21.5	2.5	23.0
		256QAM	1	1	19.5	20.2		20.1	19.5	4.5	21.0
	CP-OFDM	QPSK	1	1	22.4	22.7		23.1	22.6	1.5	24.0

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NR Band n41 (Voice/Data/SRS0) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
					502200	510402	518598	526800	534996		
					2511 MHz	2552.01 MHz	2592.99 MHz	2634 MHz	2674.98 MHz		
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.1	24.5	24.5	24.6	24.0	0.0	25.5
			1	39	24.1	24.7	24.6	24.2	23.9	0.0	25.5
			1	76	24.2	24.7	24.6	24.2	24.0	0.0	25.5
			36	0	24.2	24.2	24.6	23.9	24.0	0.5	25.0
			36	21	24.1	24.7	24.6	24.2	24.0	0.0	25.5
			36	42	24.1	24.2	24.6	23.6	24.0	0.5	25.0
			75	0	24.1	24.2	24.6	23.7	24.0	0.5	25.0
		QPSK	1	1	24.1	24.7	24.6	24.7	23.9	0.0	25.5
			1	39	24.1	24.7	24.6	24.2	23.9	0.0	25.5
			1	76	24.1	24.6	24.6	24.1	24.0	0.0	25.5
			36	0	24.1	23.6	23.5	23.4	23.9	1.0	24.5
			36	21	24.1	24.7	24.6	24.2	24.0	0.0	25.5
			36	42	24.1	23.7	23.7	23.1	23.0	1.0	24.5
			75	0	24.1	23.7	23.6	23.2	23.0	1.0	24.5
		16QAM	1	1	23.0	23.5	23.5	23.6	22.8	1.0	24.5
		64QAM	1	1	21.5	22.1	22.1	22.0	21.6	2.5	23.0
		256QAM	1	1	19.5	20.0	19.9	20.0	19.5	4.5	21.0
	CP-OFDM	QPSK	1	1	22.3	22.3	22.4	22.3	22.4	1.5	24.0

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
					501204	509898	518598	527298	535998		
					2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.3	24.6	24.4	24.4	24.0	0.0	25.5
			1	26	24.2	24.6	24.6	24.2	24.0	0.0	25.5
			1	49	24.3	24.7	24.6	24.1	24.0	0.0	25.5
			25	0	24.3	24.7	24.6	23.8	24.0	0.5	25.0
			25	13	24.2	24.6	24.6	24.2	24.0	0.0	25.5
			25	26	24.2	24.7	24.6	23.6	24.0	0.5	25.0
			50	0	24.3	24.7	24.6	23.7	24.0	0.5	25.0
		QPSK	1	1	24.3	24.7	24.7	24.4	24.0	0.0	25.5
			1	26	24.2	24.7	24.7	24.2	24.0	0.0	25.5
			1	49	24.2	24.7	24.7	24.2	24.0	0.0	25.5
			25	0	24.3	23.6	23.7	23.3	24.0	1.0	24.5
			25	13	24.2	24.6	24.7	24.2	24.0	0.0	25.5
			25	26	24.2	23.6	23.6	23.1	24.0	1.0	24.5
			50	0	24.2	23.6	23.6	23.2	24.0	1.0	24.5
		16QAM	1	1	23.1	23.6	23.4	23.4	23.2	1.0	24.5
		64QAM	1	1	21.5	22.2	22.1	22.0	21.6	2.5	23.0
		256QAM	1	1	19.4	20.1	19.9	19.8	19.4	4.5	21.0
	CP-OFDM	QPSK	1	1	22.5	22.6	22.8	22.6	22.2	1.5	24.0

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NR Band n41 (Voice/Data/SRS0) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
					501204	509898	518598	527298	535998		
					2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.2	24.6	24.2	24.3	24.1	0.0	25.5
			1	19	24.3	24.8	24.4	24.2	24.0	0.0	25.5
			1	36	24.4	24.8	24.3	24.2	24.0	0.0	25.5
			18	0	23.8	24.3	23.2	23.7	23.5	0.5	25.0
			18	10	24.2	24.8	24.2	24.3	24.0	0.0	25.5
			18	20	23.8	24.3	23.2	23.8	23.5	0.5	25.0
			36	0	23.7	24.3	23.2	23.8	23.5	0.5	25.0
		QPSK	1	1	24.2	24.8	24.1	24.3	24.1	0.0	25.5
			1	19	24.3	24.9	24.2	24.2	24.0	0.0	25.5
			1	36	24.3	24.8	24.2	24.2	23.9	0.0	25.5
			18	0	23.2	23.7	23.2	23.3	23.1	1.0	24.5
			18	10	24.3	24.7	24.3	24.2	24.0	0.0	25.5
			18	20	23.3	23.8	23.3	23.2	23.0	1.0	24.5
			36	0	23.2	23.8	23.3	23.2	23.1	1.0	24.5
		16QAM	1	1	23.1	23.7	23.5	23.3	22.9	1.0	24.5
		64QAM	1	1	21.6	22.0	22.2	21.8	21.6	2.5	23.0
		256QAM	1	1	19.4	19.9	19.9	19.8	19.3	4.5	21.0
	CP-OFDM	QPSK	1	1	22.6	23.1	23.2	22.9	22.4	1.5	24.0

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit
					501204	509898	518598	527298	535998		
					2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.9	24.6	24.8	24.2	24.0	0.0	25.5
			1	12	24.0	24.7	24.7	24.2	24.1	0.0	25.5
			1	22	24.1	24.7	24.7	24.1	24.1	0.0	25.5
			12	0	23.5	24.2	24.2	23.7	23.6	0.5	25.0
			12	6	24.1	24.7	24.6	24.2	24.1	0.0	25.5
			12	12	23.6	24.2	24.2	24.2	23.6	0.5	25.0
			24	0	23.6	24.2	24.2	23.7	23.6	0.5	25.0
		QPSK	1	1	24.1	24.6	24.6	24.3	24.1	0.0	25.5
			1	12	24.0	24.7	24.7	24.2	24.2	0.0	25.5
			1	22	24.2	24.7	24.8	24.3	24.1	0.0	25.5
			12	0	23.0	23.6	23.6	23.2	23.2	1.0	24.5
			12	6	24.1	24.6	24.6	24.2	24.1	0.0	25.5
			12	12	23.2	23.7	23.6	23.2	23.1	1.0	24.5
			24	0	23.1	23.7	23.8	23.3	23.1	1.0	24.5
		16QAM	1	1	23.1	23.5	23.4	23.4	23.1	1.0	24.5
		64QAM	1	1	21.2	22.2	22.1	21.9	21.8	2.5	23.0
		256QAM	1	1	19.5	20.0	20.0	19.6	19.6	4.5	21.0
	CP-OFDM	QPSK	1	1	22.5	23.1	23.3	22.8	22.6	1.5	24.0

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NR Band n41 (SRS1/SRS2/SRS3) Measured Results

BW (MHz)	Mode	Maximum Average Power (dBm) -SRS 1-						Maximum Average Power (dBm) -SRS 2-						Maximum Average Power (dBm) -SRS 3-					
		Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		509202		518598		528000		509202		518598		528000		509202		518598		528000	
		2546.01 MHz		2592.99 MHz		2640 MHz		2546.01 MHz		2592.99 MHz		2640 MHz		2546.01 MHz		2592.99 MHz		2640 MHz	
100 MHz	SRS/CW			20.9			22.0			19.6			20.0			18.4			19.5
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		508200				528996		508200				528996		508200				528996	
		2541 MHz				2644.98 MHz		2541 MHz				2644.98 MHz		2541 MHz				2644.98 MHz	
90 MHz	SRS/CW	20.4				20.1	22.0	19.3				18.6	20.0	18.0				17.7	19.5
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		507204				529998		507204				529998		507204				529998	
		2536.02 MHz				2649.99 MHz		2536.02 MHz				2649.99 MHz		2536.02 MHz				2649.99 MHz	
80 MHz	SRS/CW	20.3				20.1	22.0	19.3				18.6	20.0	17.9				17.6	19.5
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		505200		518598		531996		505200		518598		531996		505200		518598		531996	
		2526 MHz		2592.99 MHz		2659.98 MHz		2526 MHz		2592.99 MHz		2659.98 MHz		2526 MHz		2592.99 MHz		2659.98 MHz	
60 MHz	SRS/CW	20.2		20.8		20.0	22.0	19.1		19.5		18.5	20.0	17.8		18.3		17.6	19.5
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		504204		518598		532998		504204		518598		532998		504204		518598		532998	
		2521.02 MHz		2592.99MHz		2664.99 MHz		2521.02 MHz		2592.99MHz		2664.99 MHz		2521.02 MHz		2592.99MHz		2664.99 MHz	
50 MHz	SRS/CW	20.0		20.7		20.0	22.0	19.0		19.5		18.4	20.0	17.7		18.3		17.5	19.5
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		503202	513468		523734	534000		503202	513468		523734	534000		503202	513468		523734	534000	
		2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz		2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz		2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz	
40 MHz	SRS/CW	20.1	20.5		20.4	19.9	22.0	19.0	19.4		18.9	18.4	20.0	17.7	18.1		17.8	17.5	19.5
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		502200	510402	518598	526800	534996		502200	510402	518598	526800	534996		502200	510402	518598	526800	534996	
		2511 MHz	2552.01 MHz	2592.99 MHz	2634 MHz	2674.98 MHz		2511 MHz	2552.01 MHz	2592.99 MHz	2634 MHz	2674.98 MHz		2511 MHz	2552.01 MHz	2592.99 MHz	2634 MHz	2674.98 MHz	
30 MHz	SRS/CW	20.1	20.5	20.7	20.1	19.9	22.0	19.0	19.4	19.4	18.6	18.4	20.0	17.6	18.0	18.2	17.6	17.5	19.5
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		501204	509898	518598	527298	535998		501204	509898	518598	527298	535998		501204	509898	518598	527298	535998	
		2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz		2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz		2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz	
20 MHz	SRS/CW	20.1	20.5	20.7	20.1	19.9	22.0	19.0	19.4	19.5	18.6	18.3	20.0	17.7	18.0	18.2	17.6	17.5	19.5
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		501204	509898	518598	527298	535998		501204	509898	518598	527298	535998		501204	509898	518598	527298	535998	
		2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz		2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz		2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz	
15 MHz	SRS/CW	20.1	20.5	20.7	20.1	19.9	22.0	19.1	19.4	19.4	18.5	18.3	20.0	17.7	18.0	18.2	17.6	17.5	19.5
BW (MHz)	Mode	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit	Measured Pwr (dBm)					Tune-up Limit
		501204	509898	518598	527298	535998		501204	509898	518598	527298	535998		501204	509898	518598	527298	535998	
		2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz		2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz		2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz	
10 MHz	SRS/CW	20.1	20.1	20.7	20.1	20.0	22.0	19.1	19.4	19.4	18.6	18.3	20.0	17.7	18.1	18.2	17.6	17.4	19.5

Note(s):

SRS1, SRS2 and SRS3 were measured output power through FTM mode provided by manufacturer.

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NR Band n77-Lower Band- (Voice/Data/SRS0) Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)								Reduced Average Power (dBm) RCV sensor back-off							
					Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
							633334								633334					
							3500.01 MHz								3500.01 MHz					
100 MHz	DFT-s-OFDM	π/2 BPSK	1	1			23.2				0.0	25.0			19.6				0.0	21.5
			1	137			24.2				0.0	25.0			20.5				0.0	21.5
			1	271			24.2				0.0	25.0			20.5				0.0	21.5
			135	0			24.2				0.5	24.5			20.6				0.0	21.5
			135	69			24.2				0.0	25.0			20.6				0.0	21.5
			135	138			24.1				0.5	24.5			20.5				0.0	21.5
			270	0			24.1				0.5	24.5			20.5				0.0	21.5
		QPSK	1	1			23.4				0.0	25.0			20.5				0.0	21.5
			1	137			24.1				0.0	25.0			20.5				0.0	21.5
			1	271			24.1				0.0	25.0			20.5				0.0	21.5
			135	0			22.9				1.0	24.0			20.6				0.0	21.5
			135	69			24.0				0.0	25.0			20.5				0.0	21.5
			135	138			23.6				1.0	24.0			20.5				0.0	21.5
			270	0			23.1				1.0	24.0			20.6				0.0	21.5
		16QAM	1	1			22.1				1.0	24.0			20.9				0.0	21.5
			1	137			22.8				1.0	24.0								
			1	271			23.3				1.0	24.0								
		64QAM	1	1			20.8				2.5	22.5			19.8				0.0	21.5
		256QAM	1	1			18.8				4.5	20.5			18.8				1.0	20.5
	CP-OFDM	QPSK	1	1			21.6				1.5	23.5			19.5				0.0	21.5
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
							633334								633334					
							3500.01 MHz								3500.01 MHz					
90 MHz	DFT-s-OFDM	π/2 BPSK	1	1			23.1				0.0	25.0			19.8				0.0	21.5
			1	123			24.0				0.0	25.0			20.7				0.0	21.5
			1	243			24.3				0.0	25.0			21.1				0.0	21.5
			120	0			23.4				0.5	24.5			20.9				0.0	21.5
			120	63			24.2				0.0	25.0			20.8				0.0	21.5
			120	125			23.7				0.5	24.5			21.2				0.0	21.5
			243	0			23.7				0.5	24.5			20.8				0.0	21.5
		QPSK	1	1			23.0				0.0	25.0			19.8				0.0	21.5
			1	123			24.0				0.0	25.0			20.7				0.0	21.5
			1	243			24.3				0.0	25.0			21.1				0.0	21.5
			120	0			23.3				1.0	24.0			20.8				0.0	21.5
			120	63			24.2				0.0	25.0			20.8				0.0	21.5
			120	125			23.6				1.0	24.0			21.2				0.0	21.5
			243	0			23.3				1.0	24.0			20.7				0.0	21.5
		16QAM	1	1			21.9				1.0	24.0			19.6				0.0	21.5
			1	123			23.0				1.0	24.0								
			1	243			23.5				1.0	24.0								
		64QAM	1	1			20.6				2.5	22.5			19.8				0.0	21.5
		256QAM	1	1			18.8				4.5	20.5			18.5				1.0	20.5
	CP-OFDM	QPSK	1	1			21.7				1.5	23.5			19.7				0.0	21.5

Note(s):

For Orange box data, The Output power additionally measured for RF test.

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NR Band n77-Lower Band- (Voice/Data/SRS0) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
							633334								633334					
							3500.01 MHz								3500.01 MHz					
80 MHz	DFT-s-OFDM	π/2 BPSK	1	1			23.3				0.0	25.0			19.8				0.0	21.5
			1	109			24.1				0.0	25.0			20.7				0.0	21.5
			1	215			24.5				0.0	25.0			21.0				0.0	21.5
			108	0			23.8				0.5	24.5			20.9				0.0	21.5
			108	55			24.2				0.0	25.0			20.9				0.0	21.5
			108	109			24.0				0.5	24.5			21.1				0.0	21.5
			216	0			23.7				0.5	24.5			20.8				0.0	21.5
		QPSK	1	1			23.4				0.0	25.0			19.9				0.0	21.5
			1	109			24.1				0.0	25.0			20.7				0.0	21.5
			1	215			24.5				0.0	25.0			21.2				0.0	21.5
			108	0			23.3				1.0	24.0			20.9				0.0	21.5
			108	55			24.3				0.0	25.0			20.8				0.0	21.5
			108	109			23.5				1.0	24.0			21.1				0.0	21.5
			216	0			23.2				1.0	24.0			20.7				0.0	21.5
		16QAM	1	1			22.1				1.0	24.0			19.9				0.0	21.5
			1	109			22.8				1.0	24.0								
			1	215			23.3				1.0	24.0								
		64QAM	1	1			20.7				2.5	22.5			19.7				0.0	21.5
		256QAM	1	1			19.2				4.5	20.5			19.0				1.0	20.5
	CP-OFDM	QPSK	1	1			21.8				1.5	23.5			19.9				0.0	21.5

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
							633334								633334					
							3500.01 MHz								3500.01 MHz					
70 MHz	DFT-s-OFDM	π/2 BPSK	1	1			23.6				0.0	25.0			20.1				0.0	21.5
			1	95			24.1				0.0	25.0			20.7				0.0	21.5
			1	187			24.5				0.0	25.0			21.0				0.0	21.5
			90	0			23.7				0.5	24.5			20.8				0.0	21.5
			90	50			24.2				0.0	25.0			20.7				0.0	21.5
			90	99			23.9				0.5	24.5			21.0				0.0	21.5
			180	0			23.6				0.5	24.5			20.6				0.0	21.5
		QPSK	1	1			23.6				0.0	25.0			20.2				0.0	21.5
			1	95			24.1				0.0	25.0			20.7				0.0	21.5
			1	187			24.4				0.0	25.0			21.1				0.0	21.5
			90	0			23.3				1.0	24.0			20.8				0.0	21.5
			90	50			24.2				0.0	25.0			20.7				0.0	21.5
			90	99			23.4				1.0	24.0			21.0				0.0	21.5
			180	0			23.2				1.0	24.0			20.6				0.0	21.5
		16QAM	1	1			22.6				0.0	25.0			20.0				0.0	21.5
			1	95			23.0				1.0	24.0								
			1	187			23.4				1.0	24.0								
		64QAM	1	1			21.1				2.5	22.5			20.3				0.0	21.5
		256QAM	1	1			19.4				4.5	20.5			19.3				1.0	20.5
	CP-OFDM	QPSK	1	1			22.1				1.5	23.5			20.1				0.0	21.5

Note(s):

For Orange box data, The Output power additionally measured for RF test.

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NR Band n77-Lower Band- (Voice/Data/SRS0) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
							633334								633334					
							3500.01 MHz								3500.01 MHz					
60 MHz	DFT-s-OFDM	π/2 BPSK	1	1			23.9				0.0	25.0			20.5				0.0	21.5
			1	81			24.2				0.0	25.0			20.7				0.0	21.5
			1	160			24.7				0.0	25.0			21.2				0.0	21.5
			81	0			23.9				0.5	24.5			20.9				0.0	21.5
			81	41			24.2				0.0	25.0			20.8				0.0	21.5
			81	81			23.9				0.5	24.5			21.0				0.0	21.5
			162	0			23.8				0.5	24.5			20.8				0.0	21.5
		QPSK	1	1			23.9				0.0	25.0			20.5				0.0	21.5
			1	81			24.2				0.0	25.0			20.8				0.0	21.5
			1	160			24.7				0.0	25.0			21.3				0.0	21.5
			81	0			23.3				1.0	24.0			20.9				0.0	21.5
			81	41			24.3				0.0	25.0			20.8				0.0	21.5
			81	81			23.4				1.0	24.0			20.9				0.0	21.5
			162	0			23.3				1.0	24.0			20.8				0.0	21.5
		16QAM	1	1			23.1				1.0	24.0			20.4				0.0	21.5
			1	81			23.0				1.0	24.0								
			1	160			23.7				1.0	24.0								
		64QAM	1	1			21.6				2.5	22.5			20.4				0.0	21.5
		256QAM	1	1			19.6				4.5	20.5			19.6				1.0	20.5
	CP-OFDM	QPSK	1	1			22.5				1.5	23.5			20.5				0.0	21.5

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
					631668					635000			631668					635000		
					3475.02 MHz					3525 MHz			3475.02 MHz					3525 MHz		
50 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.6					23.6	0.0	25.0	20.1					20.0	0.0	21.5
			1	67	24.0					24.0	0.0	25.0	20.6					20.5	0.0	21.5
			1	131	24.2					24.1	0.0	25.0	20.7					20.6	0.0	21.5
			64	0	23.3					23.2	0.5	24.5	20.3					20.2	0.0	21.5
			64	35	24.1					24.1	0.0	25.0	20.6					20.5	0.0	21.5
			64	69	23.8					23.7	0.5	24.5	20.8					20.8	0.0	21.5
			128	0	23.6					23.5	0.5	24.5	20.6					20.6	0.0	21.5
		QPSK	1	1	23.5					23.6	0.0	25.0	20.2					20.1	0.0	21.5
			1	67	24.0					24.0	0.0	25.0	20.6					20.5	0.0	21.5
			1	131	24.1					24.1	0.0	25.0	20.8					20.7	0.0	21.5
			64	0	22.8					22.8	1.0	24.0	20.3					20.3	0.0	21.5
			64	35	24.1					24.1	0.0	25.0	20.6					20.5	0.0	21.5
			64	69	23.3					23.2	1.0	24.0	20.8					20.8	0.0	21.5
			128	0	23.1					23.0	1.0	24.0	20.6					20.5	0.0	21.5
		16QAM	1	1	22.6					22.7	1.0	24.0	20.2					20.1	0.0	21.5
			1	81	23.2					23.7	1.0	24.0								
			1	160	23.1					23.2	1.0	24.0								
		64QAM	1	1	21.2					21.3	2.5	22.5	20.2					20.4	0.0	21.5
		256QAM	1	1	19.4					19.2	4.5	20.5	19.2					19.2	1.0	20.5
	CP-OFDM	QPSK	1	1	22.2					22.1	1.5	23.5	20.1					20.1	0.0	21.5

Note(s):

For Orange box data, The Output power additionally measured for RF test.

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NR Band n77-Lower Band- (Voice/Data/SRS0) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
					631334					635332			631334					635332		
					3470.01 MHz					3529.98 MHz			3470.01 MHz					3529.98 MHz		
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.6					24.4	0.0	25.0	20.0					21.1	0.0	21.5
			1	53	24.0					24.7	0.0	25.0	20.5					21.3	0.0	21.5
			1	104	24.2					24.3	0.0	25.0	20.8					20.9	0.0	21.5
			50	0	23.1					24.2	0.5	24.5	20.1					21.2	0.0	21.5
			50	28	24.0					24.7	0.0	25.0	20.5					21.3	0.0	21.5
			50	56	23.8					24.0	0.5	24.5	20.8					21.0	0.0	21.5
			100	0	23.4					24.4	0.5	24.5	20.5					21.4	0.0	21.5
		QPSK	1	1	23.5					24.5	0.0	25.0	20.1					21.0	0.0	21.5
			1	53	23.9					24.6	0.0	25.0	20.5					21.3	0.0	21.5
			1	104	24.3					24.3	0.0	25.0	20.9					20.8	0.0	21.5
			50	0	22.6					23.7	1.0	24.0	20.1					21.2	0.0	21.5
			50	28	23.9					24.7	0.0	25.0	20.4					21.3	0.0	21.5
			50	56	23.3					23.5	1.0	24.0	20.7					21.0	0.0	21.5
			100	0	23.0					23.8	1.0	24.0	20.4					21.3	0.0	21.5
		16QAM	1	1	22.6					23.4	1.0	24.0	20.1					21.0	0.0	21.5
			1	53	22.3					23.6	1.0	24.0								
			1	104	22.6					23.1	1.0	24.0								
		64QAM	1	1	21.3					22.3	2.5	22.5	20.0					20.0	0.0	21.5
		256QAM	1	1	19.4					20.3	4.5	20.5	19.1					20.3	1.0	20.5
	CP-OFDM	QPSK	1	1	22.0					23.1	1.5	23.5	20.0					21.0	0.0	21.5

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
					631000		633334			635666			631000		633334			635666		
					3465 MHz		3500.01 MHz			3534.99 MHz			3465 MHz		3500.01 MHz			3534.99 MHz		
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.5		24.4			24.6	0.0	25.0	20.1		20.9			21.3	0.0	21.5
			1	39	23.7		24.2			24.6	0.0	25.0	20.2		20.7			21.2	0.0	21.5
			1	76	24.1		24.3			24.2	0.0	25.0	20.6		20.9			20.8	0.0	21.5
			36	0	23.1		23.8			24.4	0.5	24.5	20.1		20.9			21.4	0.0	21.5
			36	21	23.8		24.3			24.6	0.0	25.0	20.2		20.8			21.2	0.0	21.5
			36	42	23.5		23.8			24.0	0.5	24.5	20.5		20.8			21.0	0.0	21.5
			75	0	23.3		23.8			24.2	0.5	24.5	20.2		20.8			21.3	0.0	21.5
		QPSK	1	1	23.5		24.4			24.6	0.0	25.0	20.1		21.0			21.4	0.0	21.5
			1	39	23.7		24.3			24.7	0.0	25.0	20.3		20.8			21.2	0.0	21.5
			1	76	24.2		24.4			24.3	0.0	25.0	20.7		20.9			20.8	0.0	21.5
			36	0	22.6		23.4			23.9	1.0	24.0	20.0		20.8			21.4	0.0	21.5
			36	21	23.8		24.3			24.7	0.0	25.0	20.2		20.8			21.3	0.0	21.5
			36	42	23.0		23.3			23.5	1.0	24.0	20.4		20.9			21.0	0.0	21.5
			75	0	22.8		23.3			23.7	1.0	24.0	20.2		20.7			21.3	0.0	21.5
		16QAM	1	1	22.4		23.4			23.8	1.0	24.0	19.9		20.7			21.1	0.0	21.5
			1	39	22.7		22.9			23.4	1.0	24.0								
			1	76	23.0		22.9			23.9	1.0	24.0								
		64QAM	1	1	21.3		21.9			22.3	2.5	22.5	19.9		20.8			21.3	0.0	21.5
		256QAM	1	1	19.5		20.1			20.5	4.5	20.5	19.2		20.1			20.4	1.0	20.5
	CP-OFDM	QPSK	1	1	22.0		22.9			23.2	1.5	23.5	20.0		20.9			21.2	0.0	21.5

Note(s):

For Orange box data, The Output power additionally measured for RF test.

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NR Band n77-Lower Band- (Voice/Data/SRS0) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					630668	633334	636000			630668	633334	636000		
					3460.02 MHz	3500.01 MHz	3540 MHz			3460.02 MHz	3500.01 MHz	3540 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.5	24.2	24.6	0.0	25.0	19.9	20.7	21.2	0.0	21.5
			1	26	23.5	24.1	24.4	0.0	25.0	19.8	20.6	20.9	0.0	21.5
			1	49	23.8	24.1	24.2	0.0	25.0	19.6	20.7	20.7	0.0	21.5
			25	0	23.0	23.7	24.1	0.5	24.5	19.6	20.8	21.0	0.0	21.5
			25	13	23.6	24.2	24.4	0.0	25.0	19.7	20.8	20.9	0.0	21.5
			25	26	23.3	23.7	23.8	0.5	24.5	19.8	20.8	20.9	0.0	21.5
			50	0	23.1	23.6	23.9	0.5	24.5	19.6	20.7	21.0	0.0	21.5
		QPSK	1	1	23.5	24.3	24.6	0.0	25.0	19.0	20.8	21.2	0.0	21.5
			1	26	23.6	24.2	24.4	0.0	25.0	19.6	20.7	20.9	0.0	21.5
			1	49	23.9	24.2	24.3	0.0	25.0	19.4	20.7	20.7	0.0	21.5
			25	0	22.5	23.2	23.6	1.0	24.0	19.4	20.8	21.1	0.0	21.5
			25	13	23.6	24.2	24.4	0.0	25.0	19.6	20.6	20.9	0.0	21.5
			25	26	22.8	23.2	23.3	1.0	24.0	19.6	20.8	20.8	0.0	21.5
			50	0	22.6	23.2	23.4	1.0	24.0	19.5	20.7	21.0	0.0	21.5
		16QAM	1	1	22.5	23.0	23.7	1.0	24.0	19.8	20.6	21.2	0.0	21.5
			1	26	22.1	22.8	23.4	1.0	24.0					
			1	49	22.4	22.8	23.1	1.0	24.0					
		64QAM	1	1	21.2	22.0	22.4	2.5	22.5	19.7	20.8	21.4	0.0	21.5
		256QAM	1	1	19.5	20.2	20.1	4.5	20.5	19.6	19.8	20.3	1.0	20.5
	CP-OFDM	QPSK	1	1	21.9	22.9	23.1	1.5	23.5	19.9	20.9	21.1	0.0	21.5

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					630500	633334	636166			630500	633334	636166		
					3457.5 MHz	3500.01 MHz	3542.49 MHz			3457.5 MHz	3500.01 MHz	3542.49 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.4	24.3	24.5	0.0	25.0	20.2	20.8	21.2	0.0	21.5
			1	19	23.4	24.1	24.4	0.0	25.0	19.9	20.7	20.9	0.0	21.5
			1	36	23.7	24.2	24.2	0.0	25.0	20.1	20.9	20.8	0.0	21.5
			18	0	22.9	23.8	24.1	0.5	24.5	19.9	20.9	21.1	0.0	21.5
			18	10	23.5	24.3	24.5	0.0	25.0	20.1	20.8	21.0	0.0	21.5
			18	20	23.1	23.8	23.8	0.5	24.5	20.1	20.8	20.9	0.0	21.5
			36	0	23.0	23.7	24.0	0.5	24.5	20.0	20.8	20.9	0.0	21.5
		QPSK	1	1	23.5	24.3	24.7	0.0	25.0	20.1	20.8	21.1	0.0	21.5
			1	19	23.5	24.3	24.5	0.0	25.0	20.0	20.9	21.0	0.0	21.5
			1	36	23.7	24.4	24.3	0.0	25.0	20.1	20.9	20.7	0.0	21.5
			18	0	22.5	23.4	23.6	1.0	24.0	20.0	20.8	21.0	0.0	21.5
			18	10	23.4	24.3	24.5	0.0	25.0	19.9	20.8	21.1	0.0	21.5
			18	20	22.5	23.3	23.4	1.0	24.0	20.1	20.9	20.9	0.0	21.5
			36	0	22.4	23.3	23.5	1.0	24.0	20.0	20.8	20.9	0.0	21.5
		16QAM	1	1	22.2	23.3	24.0	1.0	24.0	20.0	20.8	21.2	0.0	21.5
			1	19	22.2	22.8	23.2	1.0	24.0					
			1	36	22.0	22.8	22.9	1.0	24.0					
		64QAM	1	1	21.1	21.8	22.3	2.5	22.5	20.0	20.9	21.2	0.0	21.5
		256QAM	1	1	19.2	20.1	20.4	4.5	20.5	19.0	19.9	20.0	1.0	20.5
	CP-OFDM	QPSK	1	1	22.0	22.9	23.2	1.5	23.5	19.9	20.9	21.1	0.0	21.5

Note(s):

For Orange box data, The Output power additionally measured for RF test.

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NR Band n77-Lower Band- (Voice/Data/SRS0) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
					630334		633334			636332			630334		633334			636332		
					3445.01 MHz		3500.01 MHz			3544.98 MHz			3445.01 MHz		3500.01 MHz			3544.98 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.5		24.3			24.5	0.0	25.0	20.0		20.8			21.0	0.0	21.5
			1	12	23.3		24.3			24.4	0.0	25.0	20.0		20.8			20.9	0.0	21.5
			1	22	23.5		24.4			24.4	0.0	25.0	20.0		20.8			20.8	0.0	21.5
			12	0	23.0		23.8			23.9	0.5	24.5	20.0		20.8			20.9	0.0	21.5
			12	6	23.4		24.3			24.4	0.0	25.0	20.0		20.8			20.9	0.0	21.5
			12	12	23.0		23.9			23.8	0.5	24.5	20.0		20.9			20.9	0.0	21.5
			24	0	22.9		23.8			23.9	0.5	24.5	20.0		20.8			20.9	0.0	21.5
		QPSK	1	1	23.6		24.4			24.5	0.0	25.0	20.0		20.9			20.9	0.0	21.5
			1	12	23.5		24.4			24.4	0.0	25.0	19.9		20.8			20.9	0.0	21.5
			1	22	23.5		24.3			24.3	0.0	25.0	20.0		20.8			20.9	0.0	21.5
			12	0	22.5		23.3			23.5	1.0	24.0	20.0		20.8			21.0	0.0	21.5
			12	6	23.5		24.3			24.4	0.0	25.0	19.9		20.8			21.0	0.0	21.5
			12	12	22.5		23.4			23.4	1.0	24.0	20.0		20.8			20.9	0.0	21.5
			24	0	22.4		23.3			23.4	1.0	24.0	19.9		20.7			20.9	0.0	21.5
		16QAM	1	1	22.4		23.3			23.4	1.0	24.0	20.1		20.9			21.0	0.0	21.5
			1	12	22.0		23.1			23.1	1.0	24.0								
			1	22	22.1		23.0			23.1	1.0	24.0								
		64QAM	1	1	21.2		22.0			21.9	2.5	22.5	20.0		20.9			20.8	0.0	21.5
		256QAM	1	1	19.1		19.8			20.0	4.5	20.5	19.0		19.6			19.9	1.0	20.5
	CP-OFDM	QPSK	1	1	22.0		22.9			22.9	1.5	23.5	19.9		20.9			21.0	0.0	21.5

Note(s):

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NR Band n77-Lower Band- (SRS1/SRS2/SRS3) Measured Results

BW (MHz)	Mode	Maximum Average Power (dBm) -SRS 1-							Maximum Average Power (dBm) -SRS 2-							Maximum Average Power (dBm) -SRS 3-						
		Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit
				633334							633334							633334				
				3500.01 MHz							3500.01 MHz							3500.01 MHz				
100 MHz	SRS/CW			16.1				16.5			23.7				24.2			14.7				15.0
BW (MHz)	Mode	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit
				633334							633334							633334				
				3500.01 MHz							3500.01 MHz							3500.01 MHz				
90 MHz	SRS/CW			16.0				16.5			23.6				24.2			14.7				15.0
BW (MHz)	Mode	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit
				633334							633334							633334				
				3500.01 MHz							3500.01 MHz							3500.01 MHz				
80 MHz	SRS/CW			16.0				16.5			23.6				24.2			14.7				15.0
BW (MHz)	Mode	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit
				633334							633334							633334				
				3500.01 MHz							3500.01 MHz							3500.01 MHz				
70 MHz	SRS/CW			16.0				16.5			23.7				24.2			14.6				15.0
BW (MHz)	Mode	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit
				633334							633334							633334				
				3500.01 MHz							3500.01 MHz							3500.01 MHz				
60 MHz	SRS/CW			16.0				16.5			23.6				24.2			14.6				15.0
BW (MHz)	Mode	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit
		631668					635000		631668					635000		631668					635000	
		3475.02 MHz					3525 MHz		3475.02 MHz					3525 MHz		3475.02 MHz					3525 MHz	
50 MHz	SRS/CW	15.7					16.0	16.5	23.2					23.6	24.2	14.3					14.7	15.0
BW (MHz)	Mode	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit
		631334					635332		631334					635332		631334					635332	
		3470.01 MHz					3529.98 MHz		3470.01 MHz					3529.98 MHz		3470.01 MHz					3529.98 MHz	
40 MHz	SRS/CW	15.8					15.9	16.5	23.3					23.6	24.2	14.3					14.7	15.0
BW (MHz)	Mode	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit
		631000		633334			635666		631000		633334			635666		631000		633334			635666	
		3465 MHz		3500.01 MHz			3534.99 MHz		3465 MHz		3500.01 MHz			3534.99 MHz		3465 MHz		3500.01 MHz			3534.99 MHz	
30 MHz	SRS/CW	15.9		16.0			15.6	16.5	23.4		23.6			23.4	24.2	14.4		14.6			14.5	15.0
BW (MHz)	Mode	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit
		630668		633334			636000		630668		633334			636000		630668		633334			636000	
		3460.02 MHz		3500.01 MHz			3540 MHz		3460.02 MHz		3500.01 MHz			3540 MHz		3460.02 MHz		3500.01 MHz			3540 MHz	
20 MHz	SRS/CW	15.9		15.6			15.6	16.5	23.4		23.5			23.4	24.2	14.4		14.6			14.4	15.0
BW (MHz)	Mode	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit
		630500		633334			636166		630500		633334			636166		630500		633334			636166	
		3457.5 MHz		3500.01 MHz			3542.49 MHz		3457.5 MHz		3500.01 MHz			3542.49 MHz		3457.5 MHz		3500.01 MHz			3542.49 MHz	
15 MHz	SRS/CW	15.9		15.9			15.5	16.5	23.4		23.5			23.2	24.2	14.4		14.5			14.4	15.0
BW (MHz)	Mode	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit
		630334		633334			636332		630334		633334			636332		630334		633334			636332	
		3445.01 MHz		3500.01 MHz			3544.98 MHz		3445.01 MHz		3500.01 MHz			3544.98 MHz		3445.01 MHz		3500.01 MHz			3544.98 MHz	
10 MHz	SRS/CW	15.8		16.0			15.5	16.5	23.3		23.5			23.3	24.2	14.3		14.6			14.3	15.0

Note(s):

SRS1, SRS2 and SRS3 were measured output power through FTM mode provided by manufacturer.

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NR Band n77-Upper Band- (Voice/Data/SRS0) Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)								Reduced Average Power (dBm) RCV sensor back-off							
					Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
					650000		656000		662000				650000		656000		662000			
					3750 MHz		3840 MHz		3930 MHz				3750 MHz		3840 MHz		3930 MHz			
100 MHz	DFT-s-OFDM	π/2 BPSK	1	1	22.7				24.6		0.0	25.0	19.1				21.1		0.0	21.5
			1	137	24.2				24.1		0.0	25.0	20.5				20.6		0.0	21.5
			1	271	24.2				24.5		0.0	25.0	20.4				21.0		0.0	21.5
			135	0	24.2				24.2		0.5	24.5	20.4				21.2		0.0	21.5
			135	69	24.2				24.2		0.0	25.0	20.4				20.7		0.0	21.5
			135	138	24.2				23.9		0.5	24.5	20.5				20.9		0.0	21.5
			270	0	24.2				23.8		0.5	24.5	20.5				20.8		0.0	21.5
		QPSK	1	1	24.2				24.6		0.0	25.0	20.4				21.1		0.0	21.5
			1	137	24.2				24.1		0.0	25.0	20.5				20.6		0.0	21.5
			1	271	24.2				24.5		0.0	25.0	20.5				21.1		0.0	21.5
			135	0	23.0				23.7		1.0	24.0	20.4				21.1		0.0	21.5
			135	69	24.3				24.3		0.0	25.0	20.4				21.1		0.0	21.5
			135	138	23.2				23.4		1.0	24.0	20.4				21.0		0.0	21.5
			270	0	23.3				23.3		1.0	24.0	20.4				20.8		0.0	21.5
		16QAM	1	1	21.8				23.7		1.0	24.0	19.2				21.1		0.0	21.5
		64QAM	1	1	20.4				22.1		2.5	22.5	19.4				21.1		0.0	21.5
		256QAM	1	1	18.5				20.0		4.5	20.5	18.3				20.1		1.0	20.5
	CP-OFDM	QPSK	1	1	21.3				23.0		1.5	23.5	19.3				20.9		0.0	21.5

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
					649668		656000		662332				649668		656000		662332			
					3745.02 MHz		3840 MHz		3934.981 MHz				3745.02 MHz		3840 MHz		3934.981 MHz			
90 MHz	DFT-s-OFDM	π/2 BPSK	1	1	22.5		23.7		24.5		0.0	25.0	19.1		20.3		20.8		0.0	21.5
			1	123	24.1		24.2		23.8		0.0	25.0	20.7		21.0		20.3		0.0	21.5
			1	243	24.2		24.5		24.2		0.0	25.0	20.9		21.1		20.6		0.0	21.5
			120	0	23.4		24.3		23.9		0.5	24.5	20.4		21.2		20.8		0.0	21.5
			120	63	24.2		24.4		23.9		0.0	25.0	20.8		20.9		20.4		0.0	21.5
			120	125	23.5		24.2		23.6		0.5	24.5	20.5		21.2		20.6		0.0	21.5
			243	0	23.7		24.0		23.6		0.5	24.5	20.7		21.0		20.5		0.0	21.5
		QPSK	1	1	22.6		23.8		24.2		0.0	25.0	19.1		20.4		20.8		0.0	21.5
			1	123	24.3		24.4		23.8		0.0	25.0	20.5		21.0		20.4		0.0	21.5
			1	243	24.4		24.5		24.2		0.0	25.0	20.8		21.0		20.7		0.0	21.5
			120	0	23.0		23.8		23.3		1.0	24.0	20.4		21.2		20.8		0.0	21.5
			120	63	24.3		24.5		24.0		0.0	25.0	20.7		20.9		20.5		0.0	21.5
			120	125	23.0		23.6		23.1		1.0	24.0	20.5		21.2		20.6		0.0	21.5
			243	0	23.3		23.4		23.0		1.0	24.0	20.7		20.9		20.5		0.0	21.5
		16QAM	1	1	21.6		23.1		23.0		1.0	24.0	19.0		20.3		20.8		0.0	21.5
		64QAM	1	1	20.2		21.7		21.8		2.5	22.5	19.5		20.3		20.7		0.0	21.5
		256QAM	1	1	18.3		19.7		20.0		4.5	20.5	18.2		19.3		19.6		1.0	20.5
	CP-OFDM	QPSK	1	1	21.2		22.2		22.9		1.5	23.5	19.2		20.1		20.8		0.0	21.5

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NR Band n77-Upper Band- (Voice/Data/SRS0) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
					649334		656000		662666				649334		656000		662666			
					3740.01 MHz		3840 MHz		3939.99 MHz				3740.01 MHz		3840 MHz		3939.99 MHz			
80 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.0		23.7		24.2		0.0	25.0	19.5		20.2		20.5		0.0	21.5
			1	109	24.5		24.2		24.5		0.0	25.0	21.0		20.8		20.6		0.0	21.5
			1	215	24.5		24.2		24.4		0.0	25.0	21.1		20.7		20.7		0.0	21.5
			108	0	23.7		24.0		23.8		0.5	24.5	20.6		21.0		20.7		0.0	21.5
			108	55	24.6		24.3		24.2		0.0	25.0	21.0		20.8		20.7		0.0	21.5
			108	109	23.8		24.1		23.6		0.5	24.5	20.8		21.1		20.7		0.0	21.5
			216	0	24.0		23.8		23.7		0.5	24.5	21.0		20.8		20.7		0.0	21.5
		QPSK	1	1	23.0		23.7		24.0		0.0	25.0	19.6		20.2		20.5		0.0	21.5
			1	109	24.6		24.2		24.0		0.0	25.0	21.1		20.8		20.7		0.0	21.5
			1	215	24.7		24.2		24.2		0.0	25.0	21.2		20.7		20.7		0.0	21.5
			108	0	23.3		23.7		23.2		1.0	24.0	20.6		21.0		20.8		0.0	21.5
			108	55	24.6		24.3		24.2		0.0	25.0	20.9		20.8		20.7		0.0	21.5
			108	109	23.3		23.7		23.2		1.0	24.0	20.8		21.1		20.8		0.0	21.5
			216	0	23.5		23.3		23.2		1.0	24.0	21.1		20.9		20.8		0.0	21.5
		16QAM	1	1	21.9		22.5		22.7		1.0	24.0	19.3		19.7		20.4		0.0	21.5
		64QAM	1	1	20.7		20.9		21.7		2.5	22.5	20.0		20.0		20.5		0.0	21.5
		256QAM	1	1	18.7		19.6		19.7		4.5	20.5	18.4		19.5		19.6		1.0	20.5
	CP-OFDM	QPSK	1	1	21.5		22.4		22.5		1.5	23.5	19.4		20.3		20.5		0.0	21.5

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
					649000	653666			658334	663000			649000	653666			658334	663000		
					3735 MHz	3804.99 MHz			3875.01 MHz	3945 MHz			3735 MHz	3804.99 MHz			3875.01 MHz	3945 MHz		
70 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.0	23.9			23.6	24.0	0.0	25.0	19.2	20.5			20.2	20.5	0.0	21.5
			1	95	24.2	24.4			24.0	24.2	0.0	25.0	20.5	20.9			20.6	20.8	0.0	21.5
			1	187	23.9	24.3			24.1	24.1	0.0	25.0	20.6	20.8			20.7	20.7	0.0	21.5
			90	0	23.2	23.1			24.2	23.7	0.5	24.5	20.2	21.1			21.2	20.8	0.0	21.5
			90	50	24.1	24.5			24.1	24.4	0.0	25.0	20.6	21.0			20.7	20.7	0.0	21.5
			90	99	23.6	23.9			23.6	23.9	0.5	24.5	20.6	20.9			20.5	20.9	0.0	21.5
			180	0	23.1	24.0			23.7	23.9	0.5	24.5	20.7	20.9			20.7	21.0	0.0	21.5
		QPSK	1	1	22.8	24.0			23.7	24.1	0.0	25.0	19.4	20.5			20.3	20.7	0.0	21.5
			1	95	24.1	24.5			24.0	24.3	0.0	25.0	20.5	20.9			20.6	20.8	0.0	21.5
			1	187	24.2	24.2			24.0	24.2	0.0	25.0	20.7	20.8			20.6	20.8	0.0	21.5
			90	0	22.7	23.4			23.7	23.2	1.0	24.0	20.2	21.0			21.3	20.6	0.0	21.5
			90	50	24.1	24.4			24.1	24.4	0.0	25.0	20.6	20.9			20.7	20.9	0.0	21.5
			90	99	23.1	23.3			23.0	23.4	1.0	24.0	20.6	20.8			20.6	20.9	0.0	21.5
			180	0	23.1	23.5			23.3	23.4	1.0	24.0	20.6	20.9			20.7	21.0	0.0	21.5
		16QAM	1	1	21.5	22.8			23.0	23.0	1.0	24.0	19.1	20.4			20.0	20.6	0.0	21.5
		64QAM	1	1	20.5	21.5			21.3	21.6	2.5	22.5	19.1	20.8			20.6	20.6	0.0	21.5
		256QAM	1	1	18.7	19.8			19.7	19.6	4.5	20.5	18.5	19.5			19.5	19.5	1.0	20.5
	CP-OFDM	QPSK	1	1	21.2	22.3			22.3	22.4	1.5	23.5	19.1	20.4			20.2	20.5	0.0	21.5

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NR Band n77-Upper Band- (Voice/Data/SRS0) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
					648668	653556			658444	663332			648668	653556			658444	663332		
					3730.02 MHz	3803.34 MHz			3876.66 MHz	3949.98 MHz			3730.02 MHz	3803.34 MHz			3876.66 MHz	3949.98 MHz		
60 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.0	24.1			24.1	23.6	0.0	25.0	19.8	20.4			20.5	20.2	0.0	21.5
			1	81	24.1	24.5			24.3	24.1	0.0	25.0	20.8	20.8			20.7	20.7	0.0	21.5
			1	160	24.2	24.2			24.5	23.9	0.0	25.0	21.0	20.6			20.8	20.6	0.0	21.5
			81	0	24.1	24.2			24.1	23.6	0.5	24.5	20.7	21.0			21.2	20.6	0.0	21.5
			81	41	23.8	24.6			24.3	24.1	0.0	25.0	21.0	20.9			20.8	20.8	0.0	21.5
			81	81	23.7	24.1			23.6	23.6	0.5	24.5	21.3	20.9			20.6	20.6	0.0	21.5
			162	0	23.4	24.1			23.7	23.7	0.5	24.5	21.0	20.8			20.8	20.7	0.0	21.5
		QPSK	1	1	22.7	24.3			24.0	23.7	0.0	25.0	19.8	20.4			20.6	20.1	0.0	21.5
			1	81	23.9	24.5			24.2	24.1	0.0	25.0	20.9	20.8			20.7	20.6	0.0	21.5
			1	160	24.1	24.3			24.2	24.0	0.0	25.0	21.2	20.5			20.7	20.5	0.0	21.5
			81	0	22.6	23.7			23.7	23.1	1.0	24.0	20.4	21.0			21.2	20.6	0.0	21.5
			81	41	23.8	24.4			24.2	24.1	0.0	25.0	20.6	20.9			20.9	20.7	0.0	21.5
			81	81	23.2	23.5			23.1	23.2	1.0	24.0	20.9	21.0			20.6	20.7	0.0	21.5
			162	0	22.9	23.4			23.3	23.1	1.0	24.0	20.6	20.9			20.8	20.7	0.0	21.5
		16QAM	1	1	21.9	22.8			23.0	22.8	1.0	24.0	19.4	20.3			20.4	20.2	0.0	21.5
		64QAM	1	1	20.3	21.5			21.6	21.4	2.5	22.5	19.7	20.2			20.8	20.2	0.0	21.5
		256QAM	1	1	18.8	19.4			19.7	19.3	4.5	20.5	18.7	19.3			19.5	19.3	1.0	20.5
	CP-OFDM	QPSK	1	1	21.4	22.4			22.6	22.2	1.5	23.5	19.5	20.3			20.5	20.2	0.0	21.5

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
					648334	652166	656000		659834	663666			648334	652166	656000		659834	663666		
					3725.01 MHz	3782.49 MHz	3840 MHz		3897.51 MHz	3954.99 MHz			3725.01 MHz	3782.49 MHz	3840 MHz		3897.51 MHz	3954.99 MHz		
50 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.0	24.3	24.5		24.4	24.1	0.0	25.0	20.5	20.9	21.1		20.9	20.6	0.0	21.5
			1	67	24.1	24.3	24.3		24.3	24.0	0.0	25.0	20.5	20.8	20.8		20.8	20.6	0.0	21.5
			1	131	24.7	24.4	24.5		24.0	24.0	0.0	25.0	20.4	20.9	21.1		20.6	20.5	0.0	21.5
			64	0	23.6	24.0	23.8		23.6	23.6	0.5	24.5	20.3	21.0	21.0		20.6	20.7	0.0	21.5
			64	35	24.2	24.4	24.3		24.4	24.1	0.0	25.0	20.5	20.9	21.0		20.9	20.6	0.0	21.5
			64	69	24.1	23.9	24.2		23.7	23.5	0.5	24.5	20.9	20.9	21.2		20.8	20.5	0.0	21.5
			128	0	23.8	23.8	23.8		24.0	23.7	0.5	24.5	20.4	20.9	20.9		21.0	20.7	0.0	21.5
		QPSK	1	1	23.9	24.4	24.6		24.4	24.1	0.0	25.0	20.2	20.8	21.1		20.9	20.6	0.0	21.5
			1	67	24.2	24.3	24.4		24.4	24.1	0.0	25.0	20.4	20.8	21.0		21.1	20.6	0.0	21.5
			1	131	24.7	24.5	24.6		24.1	24.0	0.0	25.0	20.9	20.9	21.1		20.7	20.5	0.0	21.5
			64	0	23.1	23.6	23.3		23.2	23.2	1.0	24.0	20.3	20.9	21.0		20.6	20.7	0.0	21.5
			64	35	24.3	24.4	24.3		24.4	24.1	0.0	25.0	20.4	20.9	20.9		21.0	20.7	0.0	21.5
			64	69	23.7	23.4	23.6		23.3	23.0	1.0	24.0	20.8	20.9	21.2		20.8	20.5	0.0	21.5
			128	0	23.2	23.4	23.4		23.5	23.2	1.0	24.0	20.4	20.8	20.9		21.0	20.7	0.0	21.5
		16QAM	1	1	23.1	23.2	23.3		23.5	23.0	1.0	24.0	20.2	20.8	20.9		21.0	20.5	0.0	21.5
		64QAM	1	1	21.4	22.0	22.2		22.1	21.6	2.5	22.5	20.1	20.9	21.1		21.1	20.8	0.0	21.5
		256QAM	1	1	19.4	19.9	19.9		19.9	19.6	4.5	20.5	19.1	19.8	20.0		20.0	19.8	1.0	20.5
	CP-OFDM	QPSK	1	1	22.4	22.9	23.1		22.9	22.7	1.5	23.5	20.4	20.8	21.1		20.9	20.7	0.0	21.5

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NR Band n77-Upper Band- (Voice/Data/SRS0) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
					648000	651200	654400	657600	660800	664000			648000	651200	654400	657600	660800	664000		
					3720 MHz	3768 MHz	3816 MHz	3864 MHz	3912 MHz	3960 MHz			3720 MHz	3768 MHz	3816 MHz	3864 MHz	3912 MHz	3960 MHz		
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.9	24.0	24.4	24.7	24.2	24.0	0.0	25.0	20.0	21.1	21.0	21.1	20.8	21.0	0.0	21.5
			1	53	24.1	24.4	24.6	24.6	24.0	24.5	0.0	25.0	20.2	20.9	21.0	21.1	20.8	21.0	0.0	21.5
			1	104	24.2	24.3	24.3	24.4	23.8	24.2	0.0	25.0	20.6	20.8	20.8	20.8	20.5	20.8	0.0	21.5
			50	0	23.0	23.9	23.6	24.5	24.1	24.1	0.5	24.5	20.1	21.0	21.0	21.3	21.0	21.1	0.0	21.5
			50	28	23.8	24.5	24.6	24.8	24.3	24.5	0.0	25.0	20.4	21.0	21.0	21.1	20.8	21.1	0.0	21.5
			50	56	23.5	23.9	23.4	24.0	23.4	23.9	0.5	24.5	20.5	20.8	20.9	20.9	20.4	20.9	0.0	21.5
			100	0	23.2	23.8	23.5	24.4	23.8	24.1	0.5	24.5	20.3	20.8	21.0	21.2	20.8	21.1	0.0	21.5
		QPSK	1	1	23.4	24.5	24.6	24.8	24.2	24.6	0.0	25.0	20.1	21.0	21.2	21.2	20.8	21.2	0.0	21.5
			1	53	23.6	24.3	24.6	24.8	24.2	24.5	0.0	25.0	20.4	21.0	21.1	21.3	20.7	21.1	0.0	21.5
			1	104	24.2	24.3	24.3	24.5	24.0	24.3	0.0	25.0	20.8	20.9	20.9	20.9	20.4	20.9	0.0	21.5
			50	0	22.6	23.4	23.5	23.8	23.5	23.5	1.0	24.0	20.1	21.0	21.1	21.3	21.0	21.1	0.0	21.5
			50	28	23.8	24.4	24.5	24.6	24.3	24.6	0.0	25.0	20.3	20.9	21.1	21.3	20.8	21.1	0.0	21.5
			50	56	23.0	23.4	23.5	23.3	22.9	23.4	1.0	24.0	20.4	20.9	20.9	20.9	20.4	20.9	0.0	21.5
			100	0	22.8	23.4	23.6	23.7	23.2	23.5	1.0	24.0	20.3	20.8	21.0	21.3	20.7	21.0	0.0	21.5
		16QAM	1	1	22.7	23.5	23.4	23.7	22.4	23.4	1.0	24.0	19.9	20.8	20.9	21.2	20.5	21.1	0.0	21.5
		64QAM	1	1	21.1	22.2	22.0	22.3	21.9	22.3	2.5	22.5	20.0	21.0	21.0	21.2	20.5	20.9	0.0	21.5
		256QAM	1	1	19.2	20.1	19.9	20.1	20.1	20.1	4.5	20.5	19.4	19.9	20.0	20.2	19.9	20.1	1.0	20.5
	CP-OFDM	QPSK	1	1	22.0	23.0	21.6	23.0	21.2	23.1	1.5	23.5	19.9	21.0	21.0	21.0	20.7	21.2	0.0	21.5

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
					647668	651000	654334	657666	661000	664332			647668	651000	654334	657666	661000	664332		
					3715.02 MHz	3765 MHz	3815.01 MHz	3864.99 MHz	3915 MHz	3964.98 MHz			3715.02 MHz	3765 MHz	3815.01 MHz	3864.99 MHz	3915 MHz	3964.98 MHz		
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.4	24.7	24.6	24.8	24.4	24.2	0.0	25.0	19.9	21.2	21.2	21.3	21.0	20.7	0.0	21.5
			1	39	23.6	24.4	24.5	24.6	24.2	24.1	0.0	25.0	20.1	20.9	21.2	21.1	20.6	20.6	0.0	21.5
			1	76	23.9	24.5	24.4	24.2	23.9	24.0	0.0	25.0	20.4	21.0	21.0	20.8	20.4	20.6	0.0	21.5
			36	0	23.0	24.2	24.2	24.3	23.9	23.7	0.5	24.5	20.1	21.2	21.2	21.4	20.8	20.8	0.0	21.5
			36	21	23.7	24.5	24.7	24.7	24.3	24.2	0.0	25.0	20.2	21.0	21.2	21.2	20.7	20.8	0.0	21.5
			36	42	23.4	24.2	24.1	23.8	23.3	23.5	0.5	24.5	20.3	21.1	21.1	20.9	20.4	20.6	0.0	21.5
			75	0	23.2	24.0	24.2	24.1	23.8	23.7	0.5	24.5	20.2	21.1	21.3	21.2	20.8	20.7	0.0	21.5
		QPSK	1	1	23.5	24.7	24.6	24.8	24.6	24.2	0.0	25.0	20.0	21.2	21.2	21.3	21.0	20.8	0.0	21.5
			1	39	23.7	24.5	24.8	24.5	24.2	24.2	0.0	25.0	20.2	21.1	21.2	21.1	20.8	20.7	0.0	21.5
			1	76	23.8	24.6	24.5	24.2	23.9	24.0	0.0	25.0	20.4	21.1	21.0	20.7	20.4	20.6	0.0	21.5
			36	0	22.7	23.7	23.7	23.8	23.3	23.2	1.0	24.0	20.1	21.1	21.2	21.3	20.9	20.7	0.0	21.5
			36	21	23.7	24.5	24.7	24.7	24.3	24.2	0.0	25.0	20.2	21.0	21.3	21.2	20.7	20.7	0.0	21.5
			36	42	22.8	23.6	23.6	23.4	23.0	23.1	1.0	24.0	20.3	21.2	21.0	20.9	20.4	20.6	0.0	21.5
			75	0	22.7	23.5	23.8	23.7	23.2	23.2	1.0	24.0	20.1	21.0	21.2	21.2	20.7	20.7	0.0	21.5
		16QAM	1	1	22.5	23.5	23.5	23.7	23.5	23.0	1.0	24.0	20.1	21.2	21.2	21.3	21.2	20.6	0.0	21.5
		64QAM	1	1	21.0	22.3	22.1	22.1	22.1	22.1	2.5	22.5	20.1	21.1	21.1	21.2	21.1	20.8	0.0	21.5
		256QAM	1	1	19.5	20.4	20.3	20.4	20.0	20.1	4.5	20.5	19.3	20.1	20.3	20.3	20.1	19.8	1.0	20.5
	CP-OFDM	QPSK	1	1	21.9	23.2	23.2	22.3	22.9	22.8	1.5	23.5	19.8	21.1	21.2	21.3	20.9	20.7	0.0	21.5

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NR Band n77-Upper Band- (Voice/Data/SRS0) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
					647334	650800	654266	657734	661200	664666			647334	650800	654266	657734	661200	664666		
					3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz	3918 MHz	3969.99 MHz			3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz	3918 MHz	3969.99 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.4	24.5	24.4	24.7	24.1	24.5	0.0	25.0	19.9	20.9	20.9	21.1	20.7	21.0	0.0	21.5
			1	26	23.5	24.1	24.4	24.5	23.9	24.3	0.0	25.0	20.0	20.8	20.9	20.9	20.4	20.9	0.0	21.5
			1	49	23.4	24.3	24.4	24.3	23.8	24.3	0.0	25.0	20.2	20.9	20.8	20.7	20.3	20.8	0.0	21.5
			25	0	23.0	23.9	24.0	24.2	23.7	24.0	0.5	24.5	20.1	20.9	20.9	21.0	20.6	21.0	0.0	21.5
			25	13	23.5	24.3	24.4	24.6	24.0	24.4	0.0	25.0	20.1	20.8	21.0	21.0	20.6	20.9	0.0	21.5
			25	26	23.1	23.7	24.0	23.7	23.3	23.8	0.5	24.5	20.1	20.8	21.0	20.6	20.3	21.0	0.0	21.5
			50	0	23.0	23.8	24.0	24.0	23.5	23.9	0.5	24.5	20.1	20.7	21.1	20.9	20.6	21.0	0.0	21.5
		QPSK	1	1	23.4	24.5	24.5	24.6	24.2	24.5	0.0	25.0	19.9	20.9	21.1	21.1	20.8	21.1	0.0	21.5
			1	26	23.5	24.3	24.5	24.4	24.0	24.4	0.0	25.0	20.0	20.7	21.0	20.9	20.6	20.9	0.0	21.5
			1	49	23.7	24.4	24.4	24.2	23.7	24.4	0.0	25.0	20.2	20.8	20.8	20.6	20.3	20.9	0.0	21.5
			25	0	22.4	23.4	23.5	23.5	23.1	23.5	1.0	24.0	20.0	20.9	20.9	21.0	20.6	21.0	0.0	21.5
			25	13	23.5	24.3	24.5	24.4	24.0	24.3	0.0	25.0	20.1	20.8	20.9	21.0	20.6	20.9	0.0	21.5
			25	26	22.6	23.3	23.4	23.1	22.8	23.4	1.0	24.0	20.1	20.7	20.8	20.8	20.4	20.9	0.0	21.5
			50	0	22.5	23.2	23.6	23.5	23.0	23.4	1.0	24.0	20.1	20.8	20.9	20.9	20.5	20.9	0.0	21.5
		16QAM	1	1	22.6	23.4	23.3	23.8	23.0	23.6	1.0	24.0	19.9	20.9	20.7	21.1	20.5	21.0	0.0	21.5
		64QAM	1	1	21.0	22.3	22.2	22.2	21.8	22.0	2.5	22.5	20.2	21.0	20.8	21.2	20.8	21.2	0.0	21.5
		256QAM	1	1	19.2	20.2	19.9	20.2	20.0	20.3	4.5	20.5	19.1	19.9	19.7	20.1	19.8	19.9	1.0	20.5
	CP-OFDM	QPSK	1	1	22.1	23.0	22.9	23.1	22.6	23.1	1.5	23.5	19.9	20.9	20.9	21.1	20.7	21.0	0.0	21.5

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
					647168	650700	654234	657766	661300	664832			647168	650700	654234	657766	661300	664832		
					3707.52 MHz	3760.5 MHz	3813.51 MHz	3866.49 MHz	3919.5 MHz	3972.48 MHz			3707.52 MHz	3760.5 MHz	3813.51 MHz	3866.49 MHz	3919.5 MHz	3972.48 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.5	24.6	24.3	24.8	24.4	23.9	0.0	25.0	19.9	21.1	20.9	21.3	21.0	20.4	0.0	21.5
			1	19	23.5	24.4	24.3	24.6	24.3	24.0	0.0	25.0	20.0	20.8	20.8	21.1	20.8	20.4	0.0	21.5
			1	36	23.6	24.4	24.4	24.3	24.1	24.0	0.0	25.0	20.1	20.9	20.9	21.0	20.6	20.5	0.0	21.5
			18	0	23.0	24.0	23.9	24.3	24.0	23.5	0.5	24.5	20.0	21.0	20.9	21.3	21.0	20.5	0.0	21.5
			18	10	23.5	24.5	24.4	24.7	24.4	24.1	0.0	25.0	20.1	21.0	20.9	21.2	20.9	20.5	0.0	21.5
			18	20	23.0	24.0	23.9	24.0	23.6	23.5	0.5	24.5	20.1	20.9	20.9	21.0	20.6	20.5	0.0	21.5
			36	0	23.0	23.9	23.9	24.2	23.9	23.6	0.5	24.5	20.0	21.0	20.9	21.2	20.9	20.6	0.0	21.5
		QPSK	1	1	23.4	24.6	24.4	24.8	24.5	24.1	0.0	25.0	19.9	21.1	21.0	21.3	21.0	20.5	0.0	21.5
			1	19	23.4	24.3	24.4	24.7	24.5	24.0	0.0	25.0	20.0	21.0	20.9	21.1	21.0	20.6	0.0	21.5
			1	36	23.6	24.4	24.4	24.4	24.2	24.0	0.0	25.0	20.1	21.0	20.9	20.8	20.6	20.6	0.0	21.5
			18	0	22.3	23.6	23.3	23.8	23.4	23.0	1.0	24.0	20.0	21.1	20.9	21.3	20.9	20.4	0.0	21.5
			18	10	23.5	24.4	24.4	23.7	24.4	24.0	0.0	25.0	20.0	21.0	20.9	21.2	20.9	20.5	0.0	21.5
			18	20	22.5	23.4	23.4	23.5	23.2	23.0	1.0	24.0	20.1	20.9	20.9	21.0	20.6	20.5	0.0	21.5
			36	0	22.5	23.4	23.4	23.6	23.4	23.0	1.0	24.0	20.1	21.0	21.0	21.2	20.9	20.5	0.0	21.5
		16QAM	1	1	22.5	23.5	23.3	23.8	23.5	23.0	1.0	24.0	20.0	20.9	21.0	21.2	20.7	20.5	0.0	21.5
		64QAM	1	1	21.0	22.2	22.0	22.2	22.0	21.5	2.5	22.5	20.1	21.2	20.8	21.1	21.0	20.7	0.0	21.5
		256QAM	1	1	19.4	20.3	20.3	20.5	20.2	19.8	4.5	20.5	19.3	20.0	20.3	20.4	19.9	19.6	1.0	20.5
	CP-OFDM	QPSK	1	1	21.9	23.2	22.9	23.3	23.0	22.5	1.5	23.5	19.8	21.1	20.9	21.3	20.9	20.5	0.0	21.5

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NR Band n77-Upper Band- (Voice/Data/SRS0) Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	Measured Pwr (dBm)						MPR	Tune-up Limit
					647000	650600	654200	657800	661400	665000			647000	650600	654200	657800	661400	665000		
					3705 MHz	3759 MHz	3813 MHz	3867 MHz	3921 MHz	3975 MHz			3705 MHz	3759 MHz	3813 MHz	3867 MHz	3921 MHz	3975 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.7	24.3	24.6	24.7	24.0	24.0	0.0	25.0	20.1	20.7	21.1	21.2	20.4	20.8	0.0	21.5
			1	12	23.7	24.1	24.5	24.5	23.7	24.0	0.0	25.0	20.2	20.5	21.2	21.0	20.3	20.7	0.0	21.5
			1	22	23.8	24.2	24.6	24.4	23.7	24.0	0.0	25.0	20.3	20.6	21.1	20.9	20.3	20.8	0.0	21.5
			12	0	23.2	23.9	24.1	24.1	23.5	23.4	0.5	24.5	20.2	20.9	21.1	21.2	20.5	20.5	0.0	21.5
			12	6	23.8	24.3	24.7	24.5	23.8	23.8	0.0	25.0	20.3	20.8	21.1	21.0	20.3	20.3	0.0	21.5
			12	12	23.3	23.7	24.2	23.9	23.2	23.3	0.5	24.5	20.4	20.8	21.1	20.9	20.3	20.4	0.0	21.5
			24	0	23.3	23.8	24.2	24.0	23.2	23.3	0.5	24.5	20.3	20.7	21.1	20.9	20.2	20.3	0.0	21.5
		QPSK	1	1	23.7	24.3	24.6	24.7	24.0	24.1	0.0	25.0	20.2	20.8	21.1	21.3	20.5	20.9	0.0	21.5
			1	12	23.8	24.0	24.7	24.4	23.8	23.8	0.0	25.0	20.4	20.7	21.2	20.9	20.4	20.8	0.0	21.5
			1	22	23.7	24.1	24.5	24.3	23.7	24.0	0.0	25.0	20.4	20.6	21.1	21.0	20.3	20.8	0.0	21.5
			12	0	22.8	23.5	23.7	23.7	22.9	23.0	1.0	24.0	20.2	20.9	21.2	21.1	20.4	20.5	0.0	21.5
			12	6	23.7	23.2	24.6	24.3	23.8	23.9	0.0	25.0	20.2	20.8	21.1	21.0	20.3	20.4	0.0	21.5
			12	12	22.8	23.3	23.7	23.4	22.6	23.9	1.0	24.0	20.3	20.8	21.1	21.0	20.2	20.3	0.0	21.5
			24	0	22.7	23.3	23.7	23.4	22.8	22.9	1.0	24.0	20.3	20.8	21.2	20.9	20.2	20.4	0.0	21.5
		16QAM	1	1	22.8	23.7	23.5	23.6	22.9	22.8	1.0	24.0	20.2	20.9	21.1	21.2	20.5	20.5	0.0	21.5
		64QAM	1	1	21.0	22.0	22.3	22.3	21.4	21.2	2.5	22.5	20.4	21.3	21.1	21.3	20.5	20.4	0.0	21.5
		256QAM	1	1	19.5	20.4	20.4	20.5	19.8	20.0	4.5	20.5	19.2	20.0	20.2	20.3	19.4	19.7	1.0	20.5
	CP-OFDM	QPSK	1	1	22.2	23.0	23.2	23.3	22.6	22.4	1.5	23.5	20.3	20.9	21.1	21.2	20.5	20.3	0.0	21.5

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NR Band n77-Upper Band- (SRS1/SRS2/SRS3) Measured Results

BW (MHz)	Mode	Maximum Average Power (dBm) -SRS 1-							Maximum Average Power (dBm) -SRS 2-							Maximum Average Power (dBm) -SRS 3-						
		Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit
		650000		656000		662000			650000		656000		662000			650000		656000		662000		
		3750 MHz		3840 MHz		3930 MHz			3750 MHz		3840 MHz		3930 MHz			3750 MHz		3840 MHz		3930 MHz		
100 MHz	SRS/CW	15.6				15.8		16.5	23.3				24.0		24.2	14.4				13.6		15.0
BW (MHz)	Mode	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit
		649668		656000		662332			649668		656000		662332			649668		656000		662332		
		3745.02 MHz		3840 MHz		3934.981 MHz			3745.02 MHz		3840 MHz		3934.981 MHz			3745.02 MHz		3840 MHz		3934.981 MHz		
90 MHz	SRS/CW	15.5		16.2		16.0		16.5	23.1		23.9		23.9		24.2	14.3		14.3		13.9		15.0
BW (MHz)	Mode	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit
		649334		656000		662666			649334		656000		662666			649334		656000		662666		
		3740.01 MHz		3840 MHz		3939.99 MHz			3740.01 MHz		3840 MHz		3939.99 MHz			3740.01 MHz		3840 MHz		3939.99 MHz		
80 MHz	SRS/CW	15.7		16.2		15.9		16.5	23.2		23.9		23.9		24.2	14.4		14.3		13.8		15.0
BW (MHz)	Mode	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit
		649000	653666			658334	663000		649000	653666			658334	663000		649000	653666			658334	663000	
		3735 MHz	3804.99 MHz			3875.01 MHz	3945 MHz		3735 MHz	3804.99 MHz			3875.01 MHz	3945 MHz		3735 MHz	3804.99 MHz			3875.01 MHz	3945 MHz	
70 MHz	SRS/CW	15.6	16.1			16.1	15.9	16.5	23.3	23.8			23.9	23.9	24.2	14.3	14.4			14.1	13.8	15.0
BW (MHz)	Mode	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit
		648668	653556			658444	663332		648668	653556			658444	663332		648668	653556			658444	663332	
		3730.02 MHz	3803.34 MHz			3876.66 MHz	3949.98 MHz		3730.02 MHz	3803.34 MHz			3876.66 MHz	3949.98 MHz		3730.02 MHz	3803.34 MHz			3876.66 MHz	3949.98 MHz	
60 MHz	SRS/CW	15.6	16.0			16.2	16.1	16.5	23.2	23.7			23.9	23.9	24.2	14.4	14.3			14.0	13.8	15.0
BW (MHz)	Mode	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit
		648334	652166	656000		659834	663666		648334	652166	656000		659834	663666		648334	652166	656000		659834	663666	
		3725.01 MHz	3782.49 MHz	3840 MHz		3897.51 MHz	3954.99 MHz		3725.01 MHz	3782.49 MHz	3840 MHz		3897.51 MHz	3954.99 MHz		3725.01 MHz	3782.49 MHz	3840 MHz		3897.51 MHz	3954.99 MHz	
50 MHz	SRS/CW	15.6	15.9	16.2		16.1	15.9	16.5	23.2	23.6	23.7		23.9	23.9	24.2	14.3	14.3	14.2		13.9	13.7	15.0
BW (MHz)	Mode	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit
		648000	651200	654400	657600	660800	664000		648000	651200	654400	657600	660800	664000		648000	651200	654400	657600	660800	664000	
		3720 MHz	3768 MHz	3816 MHz	3864 MHz	3912 MHz	3960 MHz		3720 MHz	3768 MHz	3816 MHz	3864 MHz	3912 MHz	3960 MHz		3720 MHz	3768 MHz	3816 MHz	3864 MHz	3912 MHz	3960 MHz	
40 MHz	SRS/CW	15.3	15.8	15.9	16.1	16.0	15.9	16.5	23.0	23.5	23.6	24.0	23.8	23.9	24.2	14.2	14.3	14.1	14.2	13.8	13.6	15.0
BW (MHz)	Mode	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit
		647668	651000	654334	657666	661000	664332		647668	651000	654334	657666	661000	664332		647668	651000	654334	657666	661000	664332	
		3715.02 MHz	3765 MHz	3815.01 MHz	3864.99 MHz	3915 MHz	3964.98 MHz		3715.02 MHz	3765 MHz	3815.01 MHz	3864.99 MHz	3915 MHz	3964.98 MHz		3715.02 MHz	3765 MHz	3815.01 MHz	3864.99 MHz	3915 MHz	3964.98 MHz	
30 MHz	SRS/CW	15.4	15.7	16.0	16.0	16.2	15.9	16.5	22.9	23.4	23.5	24.0	23.9	23.9	24.2	14.2	14.2	14.0	14.2	13.9	13.6	15.0
BW (MHz)	Mode	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit
		647334	650800	654266	657734	661200	664666		647334	650800	654266	657734	661200	664666		647334	650800	654266	657734	661200	664666	
		3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz	3918 MHz	3969.99 MHz		3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz	3918 MHz	3969.99 MHz		3710.01 MHz	3762 MHz	3813.99 MHz	3866.01 MHz	3918 MHz	3969.99 MHz	
20 MHz	SRS/CW	15.5	15.8	15.8	16.0	16.2	15.7	16.5	23.0	23.3	23.4	24.0	24.0	23.8	24.2	14.3	14.2	14.0	14.2	13.9	13.3	15.0
BW (MHz)	Mode	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit
		647168	650700	654234	657766	661300	664832		647168	650700	654234	657766	661300	664832		647168	650700	654234	657766	661300	664832	
		3707.52 MHz	3760.5 MHz	3813.51 MHz	3866.49 MHz	3919.5 MHz	3972.48 MHz		3707.52 MHz	3760.5 MHz	3813.51 MHz	3866.49 MHz	3919.5 MHz	3972.48 MHz		3707.52 MHz	3760.5 MHz	3813.51 MHz	3866.49 MHz	3919.5 MHz	3972.48 MHz	
15 MHz	SRS/CW	15.4	15.6	15.8	16.1	16.1	15.6	16.5	23.1	23.3	23.5	24.0	24.0	23.7	24.2	14.3	14.3	14.0	14.2	13.9	13.3	15.0
BW (MHz)	Mode	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit	Measured Pwr (dBm)						Tune-up Limit
		647000	650600	654200	657800	661400	665000		647000	650600	654200	657800	661400	665000		647000	650600	654200	657800	661400	665000	
		3705 MHz	3759 MHz	3813 MHz	3867 MHz	3921 MHz	3975 MHz		3705 MHz	3759 MHz	3813 MHz	3867 MHz	3921 MHz	3975 MHz		3705 MHz	3759 MHz	3813 MHz	3867 MHz	3921 MHz	3975 MHz	
10 MHz	SRS/CW	15.5	15.6	15.8	16.1	16.2	15.6	16.5	23.1	23.4	23.5	23.8	24.0	23.8	24.2	14.3	14.3	14.0	14.0	14.0	13.3	15.0

Note(s):

SRS1, SRS2 and SRS3 were measured output power through FTM mode provided by manufacturer.

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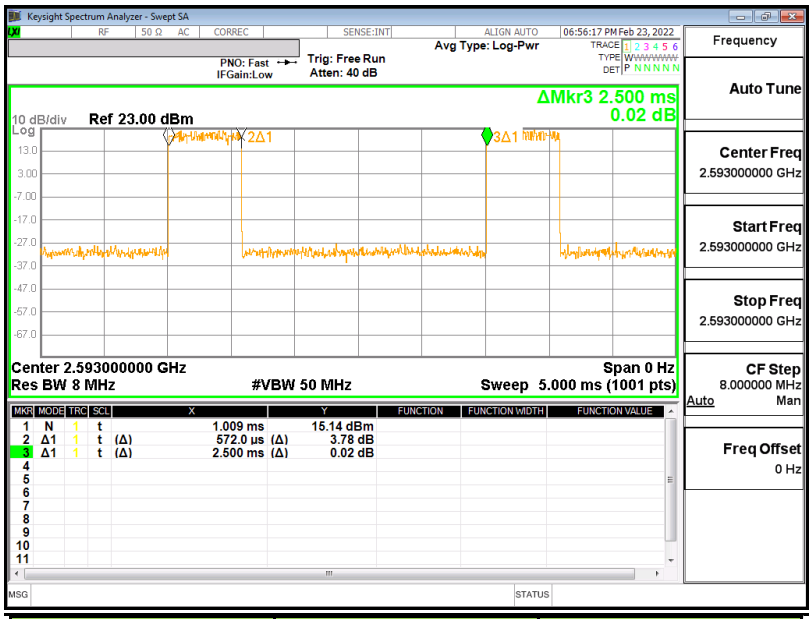
NR TDD Bands Duty Cycle plots

NR TDD Band n41 (Voice/Data/SRS0)



T on (us)	Period (us)	Duty Cycle
572.0	2500.0	22.9%

NR TDD Band n41 (SRS1/ SRS2/SRS3)

T on (us)	Period (us)	Duty Cycle
142.6	498.3	28.6%

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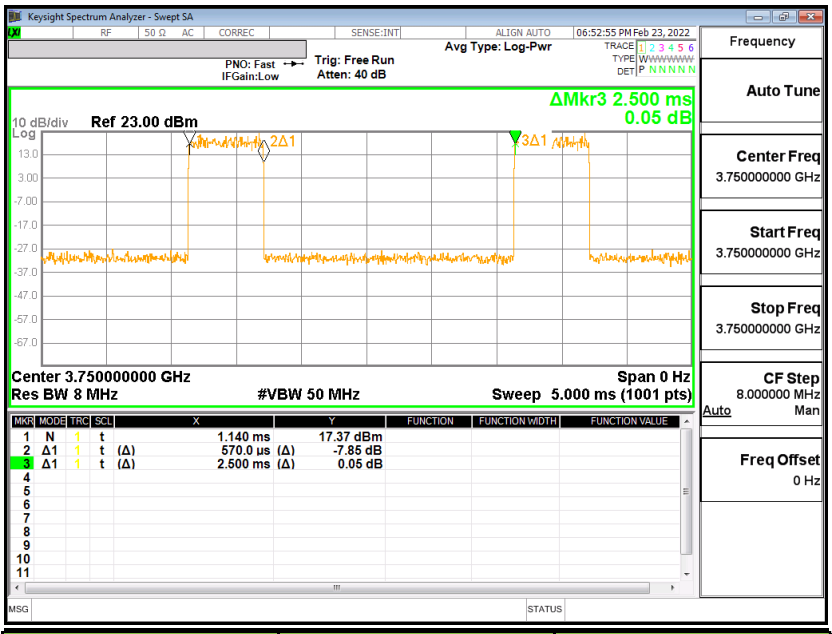
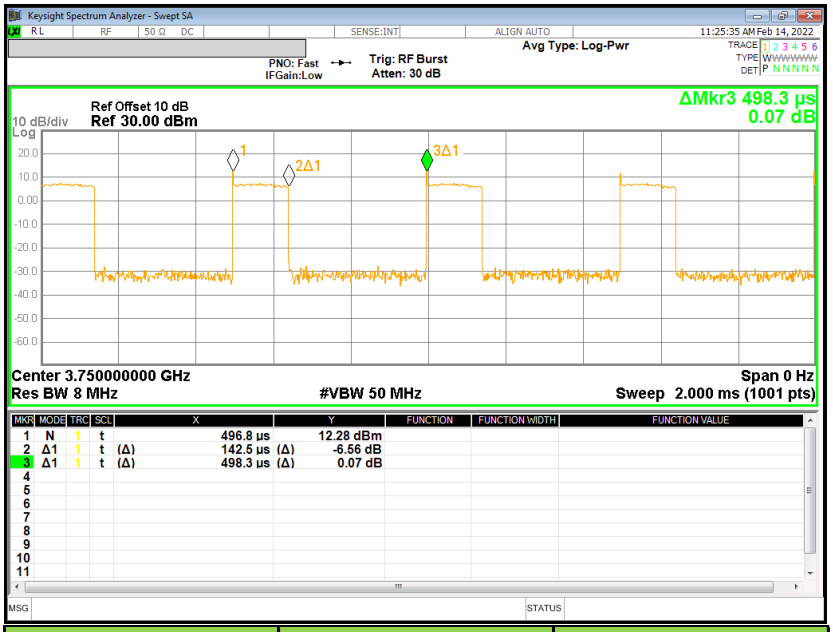
NR TDD Bands Duty Cycle plots

NR TDD Band n77 (Voice/Data/SRS0)



T on (us)	Period (us)	Duty Cycle
570.0	2500.0	22.8%

NR TDD Band n77 (SRS1/ SRS2/SRS3)



T on (us)	Period (us)	Duty Cycle
142.5	498.3	28.6%

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9.2. Wi-Fi 5GHz (U-NII Bands)

Normal WLAN MIMO Ant.1 output power Results (continued)

Antenna	Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	WLAN mode power		
						Max. Average Power		
						Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)
5GHz MIMO Ant.1	5.8 (UNII 3)	802.11a	6 Mbps	149	5745	16.1	18.0	Yes
				157	5785	16.1		
				165	5825	16.0		
		802.11n (HT20)	6.5 Mbps	149	5745	16.2	18.0	Yes
		802.11n (HT40)	13.5 Mbps	Not Required			17.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			18.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			17.0	No
		802.11ac (VHT80)	29.3 Mbps	155	5775.0	Not Required	16.0	No
		802.11ax (HE20)	7.3 Mbps	Not Required			18.0	No
		802.11ax (HE40)	14.6 Mbps	Not Required			17.0	No
		802.11ax (HE80)	36.0 Mbps	Not Required			16.0	No

Normal WLAN MIMO Ant.2 output power Results

Antenna	Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	WLAN mode power		
						Max. Average Power		
						Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	SAR Test (Yes/No)
5GHz MIMO Ant.2	5.8 (UNII 3)	802.11a	6 Mbps	149	5745	16.9	18.0	Yes
				157	5785	17.1		
				165	5825	17.2		
		802.11n (HT20)	6.5 Mbps	149	5745	16.8	18.0	Yes
		802.11n (HT40)	13.5 Mbps	Not Required			17.0	No
		802.11ac (VHT20)	6.5 Mbps	Not Required			18.0	No
		802.11ac (VHT40)	13.5 Mbps	Not Required			17.0	No
		802.11ac (VHT80)	29.3 Mbps	155	5775.0	Not Required	16.0	No
		802.11ax (HE20)	7.3 Mbps	Not Required			18.0	No
		802.11ax (HE40)	14.6 Mbps	Not Required			17.0	No
		802.11ax (HE80)	36.0 Mbps	Not Required			16.0	No

Note(s):

1. Additional testing required in order satisfying FCC simultaneous transmission limit criteria in Hotspot exposure condition.

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10. Measured and Reported (Scaled) SAR Results

SAR Test Reduction criteria are as follows:

- Reported SAR(W/kg) for WWAN= Measured SAR *Tune-up Scaling Factor
- Reported SAR(W/kg) for Wi-Fi and Bluetooth= Measured SAR * Tune-up scaling factor * Duty Cycle scaling factor
- Duty Cycle scaling factor = 1 / Duty cycle (%)

KDB 447498 D01 General RF Exposure Guidance:

Testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:

- ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
- ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
- ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

KDB 648474 D04 Handset SAR:

With headset attached, when the reported SAR for body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

KDB 648474 D04 Handset SAR (Phablet Only):

For smart phones, with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm.
When hotspot mode does not apply, 10-g extremity SAR is required for all surfaces and edges with an antenna located at ≤ 25mm From that surface or edge in direct contact with a flat phantom, to address interactive hand use exposure conditions. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg; However, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, Including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.

Additional 1-g SAR testing at 5 mm is not required when hotspot mode 10-g extremity SAR is not required for the surfaces and edges; since all 1-g reported SAR < 1.2 W/kg.

KDB 941225 D05 SAR for LTE Devices:

SAR test reduction is applied using the following criteria:

- Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB, and 50% RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel.
- When the reported SAR is > 0.8 W/kg, testing for other Channels is performed at the highest output power level for 1RB, and 50% RB configuration for that channel.
- Testing for 100% RB configuration is performed at the highest output power level for 100% RB configuration across the Low, Mid and High Channel when the highest reported SAR for 1 RB and 50% RB are > 0.8 W/kg. Testing for the remaining required channels is not needed because the reported SAR for 100% RB Allocation < 1.45 W/kg.
- Testing for 16-QAM modulation is not required because the reported SAR for QPSK is < 1.45 W/Kg and its output power is not more than 0.5 dB higher than that of QPSK.
- Testing for the other channel bandwidths is not required because the reported SAR for the highest channel bandwidth is < 1.45 W/Kg and its output power is not more than 0.5 dB higher than that of the highest channel bandwidth.
- For LTE bands that do not support at least three non-overlapping channels in certain channel bandwidths, test the available non-overlapping channels instead. When a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing; therefore, the requirement for H, M and L channels may not fully apply.

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10.1. NR Band n25 (20MHz Bandwidth)

Antenna	RF Exposure Conditions	Modulation	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
											Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Head	DFT-s-OFDM	QPSK	Off	0	Left Touch	372000	1860.0	1	1	24.0	23.7	0.013	0.013	
									50	28	24.0	23.7	0.015	0.017	
						Left Tilt	372000	1860.0	1	1	24.0	23.7	0.007	0.008	
									50	28	24.0	23.7	0.008	0.008	
						Right Touch	372000	1860.0	1	1	24.0	23.7	0.073	0.078	
									50	28	24.0	23.7	0.073	0.079	1
						Right Tilt	372000	1860.0	1	1	24.0	23.7	0.019	0.020	
									50	28	24.0	23.7	0.021	0.023	
		CP-OFDM	QPSK	Off	0	Right Touch	372000	1860.0	1	1	22.5	22.2	0.008	0.009	
	Body-worn	DFT-s-OFDM	QPSK	Off	15	Rear	372000	1860.0	1	1	24.0	23.7	0.458	0.487	
									50	28	24.0	23.7	0.553	0.598	2
						Front	372000	1860.0	1	1	24.0	23.7	0.320	0.340	
									50	28	24.0	23.7	0.335	0.363	
		CP-OFDM	QPSK	Off	15	Rear	372000	1860.0	1	1	22.5	22.2	0.276	0.296	
	Hotspot	DFT-s-OFDM	QPSK	On	10	Rear	372000	1860.0	1	1	20.5	20.2	0.315	0.337	
									50	28	20.5	20.2	0.315	0.336	
						Front	372000	1860.0	1	1	20.5	20.2	0.247	0.264	
									50	28	20.5	20.2	0.255	0.272	
						Edge 2	372000	1860.0	1	1	20.5	20.2	0.030	0.033	
									50	28	20.5	20.2	0.030	0.032	
						Edge 3	372000	1860.0	1	1	20.5	20.2	0.522	0.558	
									50	28	20.5	20.2	0.645	0.687	3
						Edge 4	372000	1860.0	1	1	20.5	20.2	0.027	0.029	
									50	28	20.5	20.2	0.028	0.030	
		CP-OFDM	QPSK	On	10	Edge 3	372000	1860.0	1	1	20.5	20.2	0.570	0.613	
Antenna	RF Exposure Conditions	Modulation	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		10-g SAR (W/kg)		Plot No.
											Tune-up limit	Meas.	Meas.	Scaled	
Main 1 Ant.	Product Specific 10-g	DFT-s-OFDM	QPSK	Off	12	Edge 3	372000	1860.0	1	1	24.0	23.7	0.536	0.570	
									50	28	24.0	23.7	0.556	0.602	
				On	0	Edge 3	372000	1860.0	1	1	20.5	20.2	1.030	1.103	4
									50	28	20.5	20.2	1.030	1.095	
		CP-OFDM	QPSK	On	0	Edge 3	372000	1860.0	1	1	20.5	20.2	1.020	1.099	

10.2. NR Band n41 – Ant.J (100MHz Bandwidth)

Ant.J (Voice/Data/SRS 0)

Antenna	RF Exposure Conditions	Modulation	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
											Tune-up limit	Meas.	Meas.	Scaled	
Ant.J	Head	DFT-s-OFDM	QPSK	N/A	0	Left Touch	518598	2592.99	1	271	25.5	24.6	0.686	0.844	
									135	69	25.5	24.6	0.603	0.743	
						Left Tilt	518598	2592.99	1	271	25.5	24.6	0.877	1.080	5
									135	69	25.5	24.6	0.867	1.069	
									270	0	24.5	23.7	0.636	0.768	
						Right Touch	518598	2592.99	1	271	25.5	24.6	0.239	0.294	
									135	69	25.5	24.6	0.267	0.329	
						Right Tilt	518598	2592.99	1	271	25.5	24.6	0.417	0.513	
									135	69	25.5	24.6	0.380	0.468	
		CP-OFDM	QPSK	N/A	0	Left Tilt	518598	2592.99	1	1	24.0	23.1	0.517	0.639	
	Body-worn	DFT-s-OFDM	QPSK	N/A	15	Rear	518598	2592.99	1	271	25.5	24.6	0.084	0.103	6
									135	69	25.5	24.6	0.075	0.093	
						Front	518598	2592.99	1	271	25.5	24.6	0.043	0.052	
									135	69	25.5	24.6	0.033	0.040	
		CP-OFDM	QPSK	N/A	15	Rear	518598	2592.99	1	1	24.0	23.1	0.051	0.063	
	Hotspot	DFT-s-OFDM	QPSK	N/A	10	Rear	518598	2592.99	1	271	25.5	24.6	0.113	0.139	
									135	69	25.5	24.6	0.096	0.119	
						Front	518598	2592.99	1	271	25.5	24.6	0.085	0.105	
									135	69	25.5	24.6	0.074	0.091	
						Edge 1	518598	2592.99	1	271	25.5	24.6	0.306	0.377	7
									135	69	25.5	24.6	0.273	0.337	
						Edge 2	518598	2592.99	1	271	25.5	24.6	0.035	0.043	
									135	69	25.5	24.6	0.035	0.043	
		CP-OFDM	QPSK	N/A	10	Edge 1	518598	2592.99	1	1	24.0	23.1	0.191	0.236	

Note(s):

1. CP-OFDM mode were evaluated at worst configuration of DFT-s-OFDM in standalone exposure conditions.

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10.3. NR Band n41 – Ant.B & Ant.E & Ant.D (100MHz Bandwidth)

Ant.B (SRS 1)

Antenna	RF Exposure Conditions	Modulation	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Ant.B	Head	CW	N/A	0	Left Touch	518598	2592.99	22.0	20.9	0.009	0.012	
					Left Tilt	518598	2592.99	22.0	20.9	0.013	0.016	
					Right Touch	518598	2592.99	22.0	20.9	<0.001	<0.001	
					Right Tilt	518598	2592.99	22.0	20.9	0.003	0.004	
	Body-worn	CW	N/A	15	Rear	518598	2592.99	22.0	20.9	0.104	0.135	
					Front	518598	2592.99	22.0	20.9	0.083	0.107	
	Hotspot	CW	N/A	10	Rear	518598	2592.99	22.0	20.9	0.166	0.215	
					Front	518598	2592.99	22.0	20.9	0.147	0.190	
					Edge 2	518598	2592.99	22.0	20.9	0.119	0.154	
					Edge 3	518598	2592.99	22.0	20.9	0.364	0.471	8

Ant.E (SRS 2)

Antenna	RF Exposure Conditions	Modulation	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Ant.E	Head	CW	N/A	0	Left Touch	518598	2592.99	20.0	19.6	0.222	0.244	
					Left Tilt	518598	2592.99	20.0	19.6	0.199	0.219	
					Right Touch	518598	2592.99	20.0	19.6	0.362	0.398	9
					Right Tilt	518598	2592.99	20.0	19.6	0.338	0.371	
	Body-worn	CW	N/A	15	Rear	518598	2592.99	20.0	19.6	0.018	0.020	
					Front	518598	2592.99	20.0	19.6	0.032	0.035	
	Hotspot	CW	N/A	10	Rear	518598	2592.99	20.0	19.6	0.047	0.051	
					Front	518598	2592.99	20.0	19.6	0.060	0.066	
					Edge 1	518598	2592.99	20.0	19.6	0.048	0.053	
					Edge 4	518598	2592.99	20.0	19.6	<0.001	<0.001	

Ant.D (SRS 3)

Antenna	RF Exposure Conditions	Modulation	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Ant.D	Head	CW	N/A	0	Left Touch	518598	2592.99	19.5	18.4	0.003	0.003	
					Left Tilt	518598	2592.99	19.5	18.4	0.002	0.003	
					Right Touch	518598	2592.99	19.5	18.4	<0.001	<0.001	
					Right Tilt	518598	2592.99	19.5	18.4	0.002	0.002	
	Body-worn	CW	N/A	15	Rear	518598	2592.99	19.5	18.4	0.035	0.045	
					Front	518598	2592.99	19.5	18.4	0.010	0.013	
	Hotspot	CW	N/A	10	Rear	518598	2592.99	19.5	18.4	0.088	0.113	10
					Front	518598	2592.99	19.5	18.4	0.014	0.018	
					Edge 3	518598	2592.99	19.5	18.4	0.035	0.045	
					Edge 4	518598	2592.99	19.5	18.4	<0.001	<0.001	

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10.4. NR Band n77 – Ant.F (100MHz Bandwidth)

Ant.F (Voice/Data/SRS 0)

Antenna	RF Exposure Conditions	Modulation	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Note.	Plot No.
											Tune-up limit	Meas.	Meas.	Scaled		
Ant.F	Head	DFT-s-OFDM	QPSK	On	0	Left Touch	662000	3930.00	1	1	21.5	21.1	0.072	0.079		
									135	69	21.5	21.1	0.074	0.081		
						Left Tilt	662000	3930.00	1	1	21.5	21.1	0.071	0.077		
									135	69	21.5	21.1	0.073	0.080		
						Right Touch	662000	3930.00	1	1	21.5	21.1	0.223	0.242		
									135	69	21.5	21.1	0.234	0.254		
						Right Tilt	662000	3930.00	1	1	21.5	21.1	0.095	0.103		
									135	69	21.5	21.1	0.118	0.128		
			QPSK	On	0	Right Touch	633334	3500.01	135	69	21.5	20.5	0.209	0.261	1	11
		CP-OFDM	QPSK	On	0	Right Touch	662000	3930.00	1	1	21.5	20.9	0.188	0.217	2	
	Body-worn	DFT-s-OFDM	QPSK	Off	15	Rear	662000	3930.00	1	1	25.0	24.6	0.097	0.105		
									135	69	25.0	24.3	0.119	0.140		
						Front	662000	3930.00	1	1	25.0	24.6	0.047	0.051		
									135	69	25.0	24.3	0.050	0.059		
			QPSK	Off	15	Rear	633334	3500.01	135	69	25.0	24.0	0.118	0.148	1	12
		CP-OFDM	QPSK	Off	15	Rear	662000	3930.00	1	1	23.5	23.0	0.069	0.078	2	
	Hotspot	DFT-s-OFDM	QPSK	Off	10	Rear	662000	3930.00	1	1	25.0	24.6	0.191	0.208		
									135	69	25.0	24.3	0.219	0.257		
						Front	662000	3930.00	1	1	25.0	24.6	0.103	0.112		
									135	69	25.0	24.3	0.112	0.132		
						Edge 1	662000	3930.00	1	1	25.0	24.6	0.065	0.071		
									135	69	25.0	24.3	0.067	0.079		
						Edge 4	650000	3750.00	1	1	25.0	24.2	0.294	0.351		
									135	69	25.0	24.3	0.360	0.428		
							662000	3930.00	1	1	25.0	24.6	0.379	0.412		
									135	69	25.0	24.3	0.415	0.488		13
			QPSK	Off	10	Edge 4	633334	3500.01	135	69	25.0	24.0	0.309	0.386	1	
		CP-OFDM	QPSK	Off	10	Edge 4	662000	3930.00	1	1	23.5	23.0	0.281	0.317	2	

Note(s):

1. NR Band n77-Lower Band- are tested at worst configuration of NR Band n77-Upper band.
2. CP-OFDM mode were evaluated at worst configuration of DFT-s-OFDM in standalone exposure conditions.

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10.5. NR Band n77 – Ant.C & Ant.L & Ant.D (100MHz Bandwidth)

Ant.C (SRS 1)

Antenna	RF Exposure Conditions	Modulation	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Note.	Plot No.
								Tune-up limit	Meas.	Meas.	Scaled		
Ant.C	Head	CW	N/A	0	Left Touch	662000	3930.00	16.5	15.8	<0.001	<0.001		
					Left Tilt	662000	3930.00	16.5	15.8	<0.001	<0.001		
					Right Touch	633334	3500.01	16.5	16.1	<0.001	<0.001	1	
						662000	3930.00	16.5	15.8	<0.001	<0.001		
					Right Tilt	662000	3930.00	16.5	15.8	<0.001	<0.001		
	Body-worn	CW	N/A	15	Rear	633334	3500.01	16.5	16.1	0.011	0.013	1	
						662000	3930.00	16.5	15.8	0.004	0.005		
					Front	662000	3930.00	16.5	15.8	0.004	0.004		
	Hotspot	CW	N/A	10	Rear	662000	3930.00	16.5	15.8	0.013	0.016		
					Front	662000	3930.00	16.5	15.8	0.009	0.010		
					Edge 2	633334	3500.01	16.5	16.1	0.044	0.049		14
						662000	3930.00	16.5	15.8	0.038	0.044	1	
					Edge 3	662000	3930.00	16.5	15.8	0.032	0.038		

Note(s):

1. NR Band n77-Lower Band- are tested at worst configuration of NR Band n77-Upper band.

Ant.L (SRS 2)

NR Ban n77-Lower Band

Antenna	RF Exposure Conditions	Modulation	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Note.	Plot No.
								Tune-up limit	Meas.	Meas.	Scaled		
Ant.L	Head	CW	N/A	0	Left Touch	633334	3500.01	24.2	23.7	0.146	0.165		
					Left Tilt	633334	3500.01	24.2	23.7	0.088	0.100		
					Right Touch	633334	3500.01	24.2	23.7	0.168	0.190		
					Right Tilt	633334	3500.01	24.2	23.7	0.152	0.172		
	Body-worn	CW	N/A	15	Rear	633334	3500.01	24.2	23.7	0.107	0.121		
					Front	633334	3500.01	24.2	23.7	0.006	0.006		
	Hotspot	CW	N/A	10	Rear	633334	3500.01	24.2	23.7	0.341	0.385		15
					Front	633334	3500.01	24.2	23.7	0.026	0.030		
					Edge 1	633334	3500.01	24.2	23.7	0.024	0.027		
					Edge 4	633334	3500.01	24.2	23.7	0.015	0.017		

NR Ban n77-Upper Band

Antenna	RF Exposure Conditions	Modulation	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Note.	Plot No.
								Tune-up limit	Meas.	Meas.	Scaled		
Ant.L	Head	CW	N/A	0	Left Touch	662000	3930.00	24.2	24.0	<0.001	<0.001		
					Left Tilt	662000	3930.00	24.2	24.0	0.005	0.005		
					Right Touch	662000	3930.00	24.2	24.0	<0.001	<0.001		
					Right Tilt	662000	3930.00	24.2	24.0	0.003	0.003		
	Body-worn	CW	N/A	15	Rear	662000	3930.00	24.2	24.0	0.041	0.043		
					Front	662000	3930.00	24.2	24.0	<0.001	<0.001		
	Hotspot	CW	N/A	10	Rear	662000	3930.00	24.2	24.0	0.160	0.168		
					Front	662000	3930.00	24.2	24.0	<0.001	<0.001		
					Edge 1	662000	3930.00	24.2	24.0	0.014	0.015		
					Edge 4	662000	3930.00	24.2	24.0	0.007	0.007		

Note(s):

1. Both NR Band n77-Lower Band and NR Band n77-Upper band are evaluated in Ant.L (SRS 2).

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NR Band n77 – Ant.C & Ant.L & Ant.D (100MHz Bandwidth) (Continued)

Ant.D (SRS 3)

Antenna	RF Exposure Conditions	Modulation	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Note.	Plot No.
								Tune-up limit	Meas.	Meas.	Scaled		
Ant.L	Head	CW	N/A	0	Left Touch	633334	3500.01	15.0	14.7	<0.001	<0.001	1	
						650000	3750.00	15.0	14.4	<0.001	<0.001		
					Left Tilt	650000	3750.00	15.0	14.4	<0.001	<0.001		
					Right Touch	650000	3750.00	15.0	14.4	<0.001	<0.001		
					Right Tilt	650000	3750.00	15.0	14.4	<0.001	<0.001		
	Body-worn	CW	N/A	15	Rear	633334	3500.01	15.0	14.7	0.029	0.031	1	
						650000	3750.00	15.0	14.4	0.043	0.050		
					Front	650000	3750.00	15.0	14.4	<0.001	<0.001		
	Hotspot	CW	N/A	10	Rear	633334	3500.01	15.0	14.7	0.067	0.071	1	
						650000	3750.00	15.0	14.4	0.088	0.102		16
					Front	650000	3750.00	15.0	14.4	<0.001	<0.001		
					Edge 3	650000	3750.00	15.0	14.4	0.021	0.024		
					Edge 4	650000	3750.00	15.0	14.4	0.002	0.003		

Note(s):

1. NR Band n77-Lower Band- are tested at worst configuration of NR Band n77-Upper band.

10.6. Wi-Fi (U-NII Bands)

Normal U-NII 3 Results

Antenna	Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Area Scan Max. SAR (W/kg)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		Note	Plot No.
											Tune-up limit	Meas.	Meas.	Scaled		
WLAN MIMO Ant.1	5.8 GHz U-NII 3	802.11a 6 Mbps	Hotspot	Off	10	Edge 1	149	5745.0	0.411	96.4%	18.0	16.1	0.096	0.155	1	17
WLAN MIMO Ant.2	5.8 GHz U-NII 3	802.11a 6 Mbps	Hotspot	Off	10	Edge 1	149	5745.0	0.411	96.4%	18.0	16.9				

Note(s):

1. Additional testing required in order satisfying FCC simultaneous transmission limit criteria in Hotspot exposure condition.

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11. SAR Measurement Variability

In accordance with published RF Exposure KDB 865664 D01 SAR measurement 100 MHz to 6 GHz. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

1) Repeated measurement is not required when the original highest measured SAR is <0.8 or 2 W/kg (1-g or 10-g respectively); steps 2) through 4) do not apply.
2) When the original highest measured SAR is ≥ 0.8 or 2 W/kg (1-g or 10-g respectively), repeat that measurement once.
3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 or 3.6 W/kg (~ 10% from the 1-g or 10-g respective SAR limit).
4) Perform a third repeated measurement only if the original, first, or second repeated measurement is ≥ 1.5 or 3.75 W/kg (1-g or 10-g respectively) and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

Peak spatial-average (1g of tissue)

Frequency Band (MHz)	Air Interface	RF Exposure Conditions	Test Position	Repeated SAR (Yes/No)	Highest Measured SAR (W/kg)	Repeated Measured SAR (W/kg)	Largest to Smallest SAR Ratio
1900	NR Band n25	Hotspot	Edge 3	No	0.645	N/A	N/A
2600	NR Band n41	Head	Left Tilt	Yes	0.877	0.872	1.01
3700	NR Band n77	Hotspot	Edge 4	No	0.415	N/A	N/A
5800	Wi-Fi 802.11a/n	Hotspot	Edge 1	No	0.096	N/A	N/A

Peak spatial-average (10g of tissue)

Frequency Band (MHz)	Air Interface	RF Exposure Conditions	Test Position	Repeated SAR (Yes/No)	Highest Measured SAR (W/kg)	Repeated Measured SAR (W/kg)	Largest to Smallest SAR Ratio
1900	NR Band n25	Product Specific 10-g	Edge 3	No	1.030	N/A	N/A

Note(s):

Second Repeated Measurement is not required since the ratio of the largest to smallest SAR for the original and first repeated measurement is not > 1.20.

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12. Simultaneous Transmission SAR Analysis

Simultaneous Transmission Condition

RF Exposure Condition	Item	Capable Transmit Configurations							
Head & Body-worn & Hotspot & Phablet-10g	1	WWAN (2G/3G/LTE/NR)	+	DTS Ant.1	or	DTS Ant.2			Non-RSDB Scenarios
	2	WWAN (2G/3G/LTE/NR)	+	DTS MIMO					
	3	WWAN (2G/3G/LTE/NR)	+	UNII MIMO					
	4	WWAN (2G/3G/LTE/NR)	+	BT Ant.1	or	BT Ant.2			
	5	WWAN (2G/3G/LTE/NR)	+	BT MIMO					
	6	WWAN (2G/3G/LTE/NR)	+	UNII MIMO	+	BT Ant.1	or	BT Ant.2	
	7	WWAN (2G/3G/LTE/NR)	+	UNII MIMO	+	BT MIMO			
	8	WWAN (2G/3G/LTE/NR)	+	UNII MIMO	+	DTS Ant.1	or	DTS Ant.2	RSDB Scenarios
	9	WWAN (2G/3G/LTE/NR)	+	UNII MIMO	+	DTS MIMO			
	10	WWAN (ENDC(LTE+NR)	+	DTS Ant.1	or	DTS Ant.2			Non-RSDB Scenarios
	11	WWAN (ENDC(LTE+NR)	+	DTS MIMO					
	12	WWAN (ENDC(LTE+NR)	+	UNII MIMO					
	13	WWAN (ENDC(LTE+NR)	+	BT Ant.1	or	BT Ant.2			
	14	WWAN (ENDC(LTE+NR)	+	BT MIMO					
	15	WWAN (ENDC(LTE+NR)	+	UNII MIMO	+	BT Ant.1	or	BT Ant.2	
	16	WWAN (ENDC(LTE+NR)	+	UNII MIMO	+	BT MIMO			
	17	WWAN (ENDC(LTE+NR)	+	UNII MIMO	+	DTS Ant.1	or	DTS Ant.2	RSDB Scenarios
	18	WWAN (ENDC(LTE+NR)	+	UNII MIMO	+	DTS MIMO			
	19	WWAN (LTE ULCA(PCC+SCC)	+	DTS Ant.1	or	DTS Ant.2			Non-RSDB Scenarios
	20	WWAN (LTE ULCA(PCC+SCC)	+	DTS MIMO					
	21	WWAN (LTE ULCA(PCC+SCC)	+	UNII MIMO					
	22	WWAN (LTE ULCA(PCC+SCC)	+	BT Ant.1	or	BT Ant.2			
	23	WWAN (LTE ULCA(PCC+SCC)	+	BT MIMO					
	24	WWAN (LTE ULCA(PCC+SCC)	+	UNII MIMO	+	BT Ant.1	or	BT Ant.2	
	25	WWAN (LTE ULCA(PCC+SCC)	+	UNII MIMO	+	BT MIMO			
	26	WWAN (LTE ULCA(PCC+SCC)	+	UNII MIMO	+	DTS Ant.1	or	DTS Ant.2	RSDB Scenarios
	27	WWAN (LTE ULCA(PCC+SCC)	+	UNII MIMO	+	DTS MIMO			

Notes:

1. DTS supports Wi-Fi Direct, Hotspot and VoIP.
2. U-NII supports Wi-Fi Direct, Hotspot and VoIP.
3. U-NII only supports MIMO mode.
4. GPRS, W-CDMA, LTE, NR supports Hotspot and VoIP
5. U-NII Radio can transmit simultaneously with Bluetooth Radio.
6. DTS Radio cannot transmit simultaneously with Bluetooth Radio.
7. DTS Radio can transmit simultaneously with U-NII Radio in only RSDB Scenarios
8. NR Radio support to both SA and NSA(ENDC) Radio.
9. BT tethering is considered about each RF exposure conditions.
10. LTE support UL CA interband configurations.

Note(s):

For SRS mode of NR TDD Band, There are operates at very low duty cycle in online mode. So we expect SAR hotspot is located near Voice/data antennas during SRS mode operating of online mode. So Each SRS antennas consider about Simultaneous transmission with WLAN/BT Antenna, Simultaneous transmission with NR TDD Band (Voice/data) or LTE anchor of EN-DC were not considered.

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Simultaneous transmission SAR test exclusion considerations

KDB 447498 D01 General RF Exposure Guidance provides two procedures for determining simultaneous transmission SAR test exclusion: Sum of SAR and SAR to Peak Location Ratio (SPLSR)

Sum of SAR

To qualify for simultaneous transmission SAR test exclusion based upon Sum of SAR the sum of the reported standalone SARs for all simultaneously transmitting antennas shall be below the applicable standalone SAR limit. If the sum of the SARs is above the applicable limit then simultaneous transmission SAR test exclusion may still apply if the requirements of the SAR to Peak Location Ratio (SPLSR) evaluation are met.

SAR to Peak Location Ratio (SPLSR)

KDB 447498 D01 General RF Exposure Guidance explains how to calculate the SAR to Peak Location Ratio (SPLSR) between pairs of simultaneously transmitting antennas:

$$SPLSR = (SAR_1 + SAR_2)^{1.5} / Ri$$

Where:

SAR_1 is the highest reported or estimated SAR for the first of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition

SAR_2 is the highest reported or estimated SAR for the second of a pair of simultaneous transmitting antennas, in the same test operating mode and exposure condition as the first

Ri is the separation distance between the pair of simultaneous transmitting antennas. When the SAR is measured, for both antennas in the pair, it is determined by the actual x, y and z coordinates in the 1-g SAR for each SAR peak location, based on the extrapolated and interpolated result in the zoom scan measurement, using the formula of

$$[(x_1-x_2)^2 + (y_1-y_2)^2 + (z_1-z_2)^2]$$

In order for a pair of simultaneous transmitting antennas with the sum of 1-g SAR > 1.6 W/kg to qualify for exemption from Simultaneous Transmission SAR measurements, it has to satisfy the condition of:

$$(SAR_1 + SAR_2)^{1.5} / Ri \leq 0.04$$

When an individual antenna transmits at on two bands simultaneously, the sum of the highest *reported* SAR for the frequency bands should be used to determine SAR_1.or SAR_2. When SPLSR is necessary, the smallest distance between the peak SAR locations for the antenna pair with respect to the peaks from each antenna should be used.

The antennas in all antenna pairs that do not qualify for simultaneous transmission SAR test exclusion must be tested for SAR compliance, according to the enlarged zoom scan and volume scan post-processing procedures in KDB Publication 865664 D01

The antennas for the unlicensed transmitters are closely situated. As a result, the associated SAR hotspots are also closely situated. Some of the sum of SAR calculations yielded results over 1.6 W/kg. The SPSLR calculations for these situations were performed by treating the unlicensed SAR values as a single transmitter. The most conservative distance between all the unlicensed hotspots to the licensed hotspot was used for the value of *d* in the SPSLR calculation.

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Simultaneous transmission SAR measurement

When simultaneous transmission SAR measurements are required in different frequency bands not covered by a single probe calibration point then separate tests for each frequency band are performed. The tests are performed using enlarged zoom scans which are processed, by means of superposition, using the DASY5 volume scan postprocessing procedures to determine the 1-g SAR for the aggregate SAR distribution.

The spatial resolution used for all enlarged zoom scans is the same as used for the most stringent zoom scans. I.E. the scan parameters required for the highest frequency assessed are used for all enlarged zoom scans. The scans cover the complete area of the device to ensure all transmitting antennas and radiating structures are assessed.

DASY5 provides the ability to perform Multiband Evaluations according to the latest standards using the Volume Scan job as well as appropriate routines for the Post-processing.

In order to extract and process measurements within different frequency bands, the SEMCAD X Post-processor performs the combination and subsequent superposition of these measurement data via DASY5= Combined MultiBand Averaged SAR.

Combined Multi Band Averaged SAR allows - in addition to the data extraction - an evaluation of the 1 g, 10 g and/or arbitrary averaged mass SAR.
Power Scaling Factor is used to allow the volume scans to be scaled by a value other than "1", this is important when the results need to be scaled to different maximum power levels. The Power Scaling Factor is applied to each individual point of the scan. When power scaling is used in multi-band combinations the scaling factor is applied to each individual point of the first scan, the second factor is then applied to each individual point of the second scan and so on. The scans are then combined.

SPLSR Hotspot Combination

Per November 2019 TCB Workshop Notes, SPLSR Hotspot Combination procedure can be applied to evaluate to simultaneous transmission SAR analysis.
Hybrid SPLSR and enlarged zoom scan (Volume scan) can be applied when Simultaneous transmission SAR is over 1.6 or 4.0 W/kg (1-g or 10-g respectively), it does not meet SPLSR criteria, and antenna pair is co-located. Antenna co-location means that SAR distributions overlap because the antennas are not significantly spatially separated.

Test procedure

Step.1 Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR.

Step.2 Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair.

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12.1. Sum of the SAR for NR Band n25 & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)													
		WWAN	Non-RSDB scenarios								WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO	WWAN + UNII MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)														
		1	2	3	4	5	6	7	8	9	1 + 2	1 + 3	1 + 4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9
Head (1-g SAR)	Left Touch	0.017	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.114	0.295	0.392	0.121	0.167	0.138	0.118	0.271	0.242	0.222	0.035	0.185	0.156	0.136
	Left Tilt	0.008	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.068	0.061	0.121	0.044	0.063	0.025	0.030	0.099	0.061	0.066	0.024	0.079	0.041	0.046
	Right Touch	0.079	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.222	0.395	0.538	0.397	0.262	0.239	0.209	0.580	0.557	0.527	0.151	0.334	0.311	0.281
	Right Tilt	0.023	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.166	0.339	0.482	0.341	0.126	0.066	0.085	0.444	0.384	0.403	0.046	0.149	0.089	0.108
Body-Worn (1-g SAR)	Rear	0.598	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.654	0.802	0.705	1.735	0.640	0.775	0.648	1.777	1.912	1.785	0.820	0.862	0.997	0.870
	Front	0.363	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.419	0.567	0.470	0.468	0.370	0.476	0.393	0.475	0.581	0.498	0.365	0.372	0.478	0.395
Hotspot (1-g SAR)	Rear	0.337	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.520	0.703	0.548	1.625	0.472	0.728	0.478	1.760	2.016	1.766				
	Front	0.272	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.455	0.685	0.483	0.481	0.289	0.527	0.346	0.498	0.736	0.555				
	Edge 1		0.183		0.211	0.155	0.023		0.013															
	Edge 2	0.033																						
	Edge 3	0.687																						
	Edge 4	0.030	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.213	0.443	0.241	0.672	0.048	0.472	0.126	0.690	1.114	0.768				
Product Specific 10-g (10-g SAR)	Rear					2.978				0.377														
	Front					0.449				0.048														
	Edge 1					2.978				0.026														
	Edge 2																							
	Edge 3	1.103																						
	Edge 4					1.576				0.214														

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)						
		1	2	3	4	5	6	7	8	9						
Body-Worn (1-g SAR)	Rear	0.598				1.137					1 + 5	1.735	158.9	0.01	No	1
Body-Worn (1-g SAR)	Rear	0.598				1.137	0.042				1 + 5+ 6	1.777				
		0.598				1.137					1 + 5	1.735	162.1	0.01	No	
		0.598					0.042				1 + 6	0.640	158.4	0.00	No	
						1.137	0.042				5 + 6	1.179	5.8	0.22	Yes	
Hybrid SPLSR Note.4		0.598				1.110					1 + (5 + 6)	1.708	161.8	0.01	No	1-a
Body-Worn (1-g SAR)	Rear	0.598				1.137		0.177			1 + 5+ 7	1.912				2
		0.598				1.137					1 + 5	1.735	162.1	0.01	No	
		0.598						0.177			1 + 7	0.775	125.8	0.01	No	
						1.137		0.177			5 + 7	1.314	41.2	0.04	No	
Body-Worn (1-g SAR)	Rear	0.598				1.137			0.050		1 + 5+ 8	1.785				3
		0.598				1.137					1 + 5	1.735	162.1	0.01	No	
		0.598							0.050		1 + 8	0.648	124.9	0.00	No	
						1.137			0.050		5 + 8	1.187	42.2	0.03	No	
Hotspot (1-g SAR)	Rear	0.337				1.288					1 + 5	1.625	157.0	0.01	No	4
Hotspot (1-g SAR)	Rear	0.337				1.288	0.135				1 + 5 + 6	1.760				
		0.337				1.288					1 + 5	1.625	157.0	0.01	No	
		0.337					0.135				1 + 6	0.472	158.3	0.00	No	
						1.288	0.135				5 + 6	1.423	9.4	0.18	Yes	
Hybrid SPLSR Note.4		0.337				1.270					1 + (5 + 6)	1.607	157.0	0.01	No	4-a
Hotspot (1-g SAR)	Rear	0.337				1.288		0.391			1 + 5 + 7	2.016				5
		0.337				1.288					1 + 5	1.625	157.0	0.01	No	
		0.337						0.391			1 + 7	0.728	121.8	0.01	No	
						1.288		0.391			5 + 7	1.679	44.0	0.05	Yes	
Hybrid SPLSR Note.4		0.337				1.300					1 + (5 + 7)	1.637	157.0	0.01	No	5-a
Hotspot (1-g SAR)	Rear	0.337				1.288			0.141		1 + 5 + 8	1.766				6
		0.337				1.288					1 + 5	1.625	157.0	0.01	No	
		0.337							0.141		1 + 8	0.478	150.2	0.00	No	
						1.288			0.141		5 + 8	1.429	15.2	0.11	Yes	
Hybrid SPLSR Note.4		0.337				1.250					1 + (5 + 8)	1.587	157.0	0.01	No	6-a

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. Red values means “FCC limit over” or “SPLSR limit over”.
6. WiFi/BT & Volume scan results were referred to Original report.

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RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)							
		WWAN	RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UMII MIMO)
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)								
		1	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.017	0.048	0.065	0.113	0.104	0.018	0.169	0.186	0.234	0.217	0.083	0.100	0.148	0.131
	Left Tilt	0.008	0.029	0.008	0.037	0.036	0.016	0.073	0.052	0.081	0.073	0.053	0.032	0.061	0.053
	Right Touch	0.079	0.064	0.009	0.073	0.318	0.072	0.461	0.406	0.470	0.391	0.215	0.160	0.224	0.145
	Right Tilt	0.023	0.064	0.065	0.129	0.318	0.023	0.405	0.406	0.470	0.447	0.110	0.111	0.175	0.152
Body-Worn (1-g SAR)	Rear	0.598	0.056	0.204	0.107	0.297	0.222	0.951	1.099	1.002	0.404	0.876	1.024	0.927	0.329
	Front	0.363	0.056	0.204	0.107	0.023	0.002	0.442	0.590	0.493	0.130	0.421	0.569	0.472	0.109
Hotspot (1-g SAR)	Rear	0.337	0.183	0.366	0.211	1.288		1.808	1.991	1.836	1.499				
	Front	0.272	0.183	0.413	0.211	0.209		0.664	0.894	0.692	0.420				
	Edge 1		0.183		0.211	0.155									
	Edge 2	0.033													
	Edge 3	0.687													
	Edge 4	0.030	0.183	0.413	0.211	0.642		0.855	1.085	0.883	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN	RSDB scenarios										
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)						
		1-a	2	3	4	5	6						
Hotspot (1-g SAR)	Rear	0.337	0.183			1.288		1 + 2 + 5	1.808				7
		0.337	0.183					1 + 2	0.520	160.3	0.00	No	
		0.337				1.288		1 + 5	1.625	157.0	0.01	No	
			0.183			1.288		2 + 5	1.471	9.3	0.19	Yes	
Hybrid SPLSR Note.4		0.337	1.270					1+(2+5)	1.607	157.0	0.01	No	7-a
Hotspot (1-g SAR)	Rear	0.337		0.366		1.288		1 + 3 + 5	1.991				8
		0.337		0.366				1 + 3	0.703	124.8	0.00	No	
		0.337				1.288		1 + 5	1.625	157.0	0.01	No	
				0.366		1.288		3 + 5	1.654	39.4	0.05	Yes	
Hybrid SPLSR Note.4		0.337		1.310				1+(3+5)	1.647	157.0	0.01	No	8-a
Hotspot (1-g SAR)	Rear	0.337			0.211	1.288		1 + 4 + 5	1.836				9
		0.337			0.211			1 + 4	0.548	159.3	0.00	No	
		0.337				1.288		1 + 5	1.625	157.0	0.01	No	
					0.211	1.288		4 + 5	1.499	8.4	0.22	Yes	
Hybrid SPLSR Note.4		0.337			1.300			1+(4+5)	1.637	157.0	0.01	No	9-a

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. Red values means “FCC limit over” or “SPLSR limit over”.
6. WiFi/BT & Volume scan results were referred to Original report.

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12.2. Sum of the SAR for NR Band n41(Ant.J) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)													
		WWAN	Non-RSDB scenarios								WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO	WWAN + UNII MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)														
		1	2	3	4	5	6	7	8	9	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9
Head (1-g SAR)	Left Touch	0.844	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.941	1.122	1.219	0.948	0.994	0.965	0.945	1.098	1.069	1.049	0.862	1.012	0.983	0.963
	Left Tilt	1.080	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	1.140	1.133	1.193	1.116	1.135	1.097	1.102	1.171	1.133	1.138	1.096	1.151	1.113	1.118
	Right Touch	0.329	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.472	0.645	0.788	0.647	0.512	0.489	0.459	0.830	0.807	0.777	0.401	0.584	0.561	0.531
	Right Tilt	0.513	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.656	0.829	0.972	0.831	0.616	0.556	0.575	0.934	0.874	0.893	0.536	0.639	0.579	0.598
Body-Worn (1-g SAR)	Rear	0.103	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.159	0.307	0.210	1.240	0.145	0.280	0.153	1.282	1.417	1.290	0.325	0.367	0.502	0.375
	Front	0.052	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.108	0.256	0.159	0.157	0.059	0.165	0.082	0.164	0.270	0.187	0.054	0.061	0.167	0.084
Hotspot (1-g SAR)	Rear	0.139	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.322	0.505	0.350	1.427	0.274	0.530	0.280	1.562	1.818	1.568				
	Front	0.105	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.288	0.518	0.316	0.314	0.122	0.360	0.179	0.331	0.569	0.388				
	Edge 1	0.377	0.183		0.211	0.155	0.023		0.013		0.560		0.588	0.532	0.400		0.390	0.555		0.545				
	Edge 2	0.043																						
	Edge 3																							
	Edge 4		0.183	0.413	0.211	0.642	0.018	0.442	0.096															

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No)	Figure
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)						
		1	2	3	4	5	6	7	8	9						
Hotspot (1-g SAR)	Rear	0.139				1.288		0.391			1 + 5 + 7	1.818				10
		0.139				1.288					1 + 5	1.427	31.4	0.05	Yes	
		0.139						0.391			1 + 7	0.530	47.9	0.01	No	
						1.288		0.391			5 + 7	1.679	44.0	0.05	Yes	
Volume scan test results Note.3		1.420									(1 + 5 + 7)	1.420				Note.4

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. Perform enlarged zoom scan (Volume scan) for Simultaneous scenario (1+5+7) in Rear of Hotspot exposure condition. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. Volume scan result's figure refer to Appendix I.
5. Red values means "FCC limit over" or "SPLSR limit over".
6. WiFi/BT results were referred to Original report.

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RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)							
		WWAN	RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UMII MIMO)
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)								
		1	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.844	0.048	0.065	0.113	0.104	0.018	0.996	1.013	1.061	0.217	0.910	0.927	0.975	0.131
	Left Tilt	1.080	0.029	0.008	0.037	0.036	0.016	1.145	1.124	1.153	0.073	1.125	1.104	1.133	0.053
	Right Touch	0.329	0.064	0.009	0.073	0.318	0.072	0.711	0.656	0.720	0.391	0.465	0.410	0.474	0.145
	Right Tilt	0.513	0.064	0.065	0.129	0.318	0.023	0.895	0.896	0.960	0.447	0.600	0.601	0.665	0.152
Body-Worn (1-g SAR)	Rear	0.103	0.056	0.204	0.107	0.297	0.222	0.456	0.604	0.507	0.404	0.381	0.529	0.432	0.329
	Front	0.052	0.056	0.204	0.107	0.023	0.002	0.131	0.279	0.182	0.130	0.110	0.258	0.161	0.109
Hotspot (1-g SAR)	Rear	0.139	0.183	0.366	0.211	1.288		1.610	1.793	1.638	1.499				
	Front	0.105	0.183	0.413	0.211	0.209		0.497	0.727	0.525	0.420				
	Edge 1	0.377	0.183		0.211	0.155									
	Edge 2	0.043													
	Edge 3														
	Edge 4		0.183	0.413	0.211	0.642					0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No)	Figure
		WWAN	RSDB scenarios										
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)						
		1-a	2	3	4	5	6						
Hotspot (1-g SAR)	Rear	0.139	0.183			1.288		1 + 2 + 5	1.610				11
		0.139	0.183					1 + 2	0.322	40.0	0.00	No	
		0.139				1.288		1 + 5	1.427	31.4	0.05	Yes	
			0.183			1.288		2 + 5	1.471	9.3	0.19	Yes	
Volume scan test results Note.3		1.390						(1+2+5)	1.390				Note.4
Hotspot (1-g SAR)	Rear	0.139		0.366		1.288		1 + 3 + 5	1.793				12
		0.139		0.366				1 + 3	0.505	43.9	0.01	No	
		0.139				1.288		1 + 5	1.427	31.4	0.05	Yes	
				0.366		1.288		3 + 5	1.654	39.4	0.05	Yes	
Volume scan test results Note.3		1.420						(1+3+5)	1.420				Note.4
Hotspot (1-g SAR)	Rear	0.139			0.211	1.288		1 + 4 + 5	1.638				13
		0.139			0.211			1 + 4	0.350	38.9	0.01	No	
		0.139				1.288		1 + 5	1.427	31.4	0.05	Yes	
					0.211	1.288		4 + 5	1.499	8.4	0.22	Yes	
Volume scan test results Note.3		1.410						(1+4+5)	1.410				Note.4

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. Perform enlarged zoom scan (Volume scan) for Simultaneous scenario (1+2+5 & 1+3+5 & 1+4+5) in Rear of Hotspot exposure condition. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. Volume scan result's figure refer to Appendix I.
5. Red values means "FCC limit over" or "SPLSR limit over".
6. WiFi/BT results were referred to Original report.

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12.3. Sum of the SAR for NR Band n41(Ant.B) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)													
			Non-RSDB scenarios																					
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)	WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO	WWAN + UNII MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO
		1	2	3	4	5	6	7	8	9	1 + 2	1 + 3	1 + 4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9
Head (1-g SAR)	Left Touch	0.012	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.109	0.290	0.387	0.116	0.162	0.133	0.113	0.266	0.237	0.217	0.030	0.180	0.151	0.131
	Left Tilt	0.016	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.076	0.069	0.129	0.052	0.071	0.033	0.038	0.107	0.069	0.074	0.032	0.087	0.049	0.054
	Right Touch	0.001	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.144	0.317	0.460	0.319	0.184	0.161	0.131	0.502	0.479	0.449	0.073	0.256	0.233	0.203
	Right Tilt	0.004	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.147	0.320	0.463	0.322	0.107	0.047	0.066	0.425	0.365	0.384	0.027	0.130	0.070	0.089
Body-Worn (1-g SAR)	Rear	0.135	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.191	0.339	0.242	1.272	0.177	0.312	0.185	1.314	1.449	1.322	0.357	0.399	0.534	0.407
	Front	0.107	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.163	0.311	0.214	0.212	0.114	0.220	0.137	0.219	0.325	0.242	0.109	0.116	0.222	0.139
Hotspot (1-g SAR)	Rear	0.215	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.398	0.581	0.426	1.503	0.350	0.606	0.356	1.638	1.894	1.644				
	Front	0.190	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.373	0.603	0.401	0.399	0.207	0.445	0.264	0.416	0.654	0.473				
	Edge 1		0.183		0.211	0.155	0.023		0.013															
	Edge 2	0.154																						
	Edge 3	0.471																						
	Edge 4		0.183	0.413	0.211	0.642	0.018	0.442	0.096															

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)						
		1	2	3	4	5	6	7	8	9						
Hotspot (1-g SAR)	Rear	0.215				1.288	0.135				1 + 5 + 6	1.638				14
		0.215				1.288					1 + 5	1.503	151.4	0.01	No	
		0.215					0.135				1 + 6	0.350	151.3	0.00	No	
						1.288	0.135				5 + 6	1.423	9.4	0.18	Yes	
Hybrid SPLSR Note.4		0.215				1.270					1 + (5 + 6)	1.485	151.4	0.01	No	14-a
Hotspot (1-g SAR)	Rear	0.215				1.288		0.391			1 + 5 + 7	1.894				15
		0.215				1.288					1 + 5	1.503	151.4	0.01	No	
		0.215						0.391			1 + 7	0.606	112.2	0.00	No	
						1.288		0.391			5 + 7	1.679	44.0	0.05	Yes	
Hybrid SPLSR Note.4		0.215				1.300					1 + (5 + 7)	1.515	151.4	0.01	No	15-a
Hotspot (1-g SAR)	Rear	0.215				1.288			0.141		1 + 5 + 8	1.644				16
		0.215				1.288					1 + 5	1.503	151.4	0.01	No	
		0.215							0.141		1 + 8	0.356	142.6	0.00	No	
						1.288			0.141		5 + 8	1.429	15.2	0.11	Yes	
Hybrid SPLSR Note.4		0.215				1.250					1 + (5 + 8)	1.465	151.4	0.01	No	16-a

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. Red values means “FCC limit over” or “SPLSR limit over”.
6. WiFi/BT & Volume scan results were referred to Original report.

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RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)							
		WWAN	RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UMII MIMO)
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)								
		1	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.012	0.048	0.065	0.113	0.104	0.018	0.164	0.181	0.229	0.217	0.078	0.095	0.143	0.131
	Left Tilt	0.016	0.029	0.008	0.037	0.036	0.016	0.081	0.060	0.089	0.073	0.061	0.040	0.069	0.053
	Right Touch	0.001	0.064	0.009	0.073	0.318	0.072	0.383	0.328	0.392	0.391	0.137	0.082	0.146	0.145
	Right Tilt	0.004	0.064	0.065	0.129	0.318	0.023	0.386	0.387	0.451	0.447	0.091	0.092	0.156	0.152
Body-Worn (1-g SAR)	Rear	0.135	0.056	0.204	0.107	0.297	0.222	0.488	0.636	0.539	0.404	0.413	0.561	0.464	0.329
	Front	0.107	0.056	0.204	0.107	0.023	0.002	0.186	0.334	0.237	0.130	0.165	0.313	0.216	0.109
Hotspot (1-g SAR)	Rear	0.215	0.183	0.366	0.211	1.288		1.686	1.869	1.714	1.499				
	Front	0.190	0.183	0.413	0.211	0.209		0.582	0.812	0.610	0.420				
	Edge 1		0.183		0.211	0.155									
	Edge 2	0.154													
	Edge 3	0.471													
	Edge 4		0.183	0.413	0.211	0.642					0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN	RSDB scenarios										
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)						
		1-a	2	3	4	5	6						
Hotspot (1-g SAR)	Rear	0.215	0.183			1.288		1 + 2 + 5	1.686				17
		0.215	0.183					1 + 2	0.398	153.3	0.00	No	
		0.215				1.288		1 + 5	1.503	151.4	0.01	No	
			0.183			1.288		2 + 5	1.471	9.3	0.19	Yes	
Hybrid SPLSR Note.4		0.215	1.270					1+(2+5)	1.485	151.4	0.01	No	17-a
Hotspot (1-g SAR)	Rear	0.215		0.366		1.288		1 + 3 + 5	1.869				18
		0.215		0.366				1 + 3	0.581	115.8	0.00	No	
		0.215				1.288		1 + 5	1.503	151.4	0.01	No	
				0.366		1.288		3 + 5	1.654	39.4	0.05	Yes	
Hybrid SPLSR Note.4		0.215	1.310					1+(3+5)	1.525	151.4	0.01	No	18-a
Hotspot (1-g SAR)	Rear	0.215			0.211	1.288		1 + 4 + 5	1.714				19
		0.215			0.211			1 + 4	0.426	152.5	0.00	No	
		0.215				1.288		1 + 5	1.503	151.4	0.01	No	
					0.211	1.288		4 + 5	1.499	8.4	0.22	Yes	
Hybrid SPLSR Note.4		0.215	1.300					1+(4+5)	1.515	151.4	0.01	No	19-a

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. Red values means “FCC limit over” or “SPLSR limit over”.
6. WiFi/BT & Volume scan results were referred to Original report.

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12.4. Sum of the SAR for NR Band n41(Ant.E) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)													
		WWAN	Non-RSDB scenarios								WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO	WWAN + UNII MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)														
		1	2	3	4	5	6	7	8	9	1 + 2	1 + 3	1 + 4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9
Head (1-g SAR)	Left Touch	0.244	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.341	0.522	0.619	0.348	0.394	0.365	0.345	0.498	0.469	0.449	0.262	0.412	0.383	0.363
	Left Tilt	0.219	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.279	0.272	0.332	0.255	0.274	0.236	0.241	0.310	0.272	0.277	0.235	0.290	0.252	0.257
	Right Touch	0.387	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.530	0.703	0.846	0.705	0.570	0.547	0.517	0.888	0.865	0.835	0.459	0.642	0.619	0.589
	Right Tilt	0.371	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.514	0.687	0.830	0.689	0.474	0.414	0.433	0.792	0.732	0.751	0.394	0.497	0.437	0.456
Body-Worn (1-g SAR)	Rear	0.020	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.076	0.224	0.127	1.157	0.062	0.197	0.070	1.199	1.334	1.207	0.242	0.284	0.419	0.292
	Front	0.035	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.091	0.239	0.142	0.140	0.042	0.148	0.065	0.147	0.253	0.170	0.037	0.044	0.150	0.067
Hotspot (1-g SAR)	Rear	0.051	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.234	0.417	0.262	1.339	0.186	0.442	0.192	1.474	1.730	1.480				
	Front	0.066	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.249	0.479	0.277	0.275	0.083	0.321	0.140	0.292	0.530	0.349				
	Edge 1	0.053	0.183		0.211	0.155	0.023		0.013		0.236		0.264	0.208	0.076		0.066	0.231		0.221				
	Edge 2																							
	Edge 3																							
	Edge 4	0.001	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.184	0.414	0.212	0.643	0.019	0.443	0.097	0.661	1.085	0.739				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No)	Figure
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)						
		1	2	3	4	5	6	7	8	9						
Hotspot (1-g SAR)	Rear	0.051				1.288		0.391			1 + 5 + 7	1.730				20
		0.051				1.288					1 + 5	1.339	7.4	0.21	Yes	
		0.051						0.391			1 + 7	0.442	50.7	0.01	No	
						1.288		0.391			5 + 7	1.679	44.0	0.05	Yes	
Volume scan test result Note.3		1.350									(1 + 5 + 7)	1.350				Note.4

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)							
		WWAN	RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UMII MIMO)
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)								
		1	2	3	4	5	6	1 + 2 + 5	1 + 3 + 5	1 + 4 + 5	4 + 5	1 + 2 + 6	1 + 3 + 6	1 + 4 + 6	4 + 6
Head (1-g SAR)	Left Touch	0.244	0.048	0.065	0.113	0.104	0.018	0.396	0.413	0.461	0.217	0.310	0.327	0.375	0.131
	Left Tilt	0.219	0.029	0.008	0.037	0.036	0.016	0.284	0.263	0.292	0.073	0.264	0.243	0.272	0.053
	Right Touch	0.387	0.064	0.009	0.073	0.318	0.072	0.769	0.714	0.778	0.391	0.523	0.468	0.532	0.145
	Right Tilt	0.371	0.064	0.065	0.129	0.318	0.023	0.753	0.754	0.818	0.447	0.458	0.459	0.523	0.152
Body-Worn (1-g SAR)	Rear	0.020	0.056	0.204	0.107	0.297	0.222	0.373	0.521	0.424	0.404	0.298	0.446	0.349	0.329
	Front	0.035	0.056	0.204	0.107	0.023	0.002	0.114	0.262	0.165	0.130	0.093	0.241	0.144	0.109
Hotspot (1-g SAR)	Rear	0.051	0.183	0.366	0.211	1.288		1.522	1.705	1.550	1.499				
	Front	0.066	0.183	0.413	0.211	0.209		0.458	0.688	0.486	0.420				
	Edge 1	0.053	0.183		0.211	0.155									
	Edge 2														
	Edge 3														
	Edge 4	0.001	0.183	0.413	0.211	0.642		0.826	1.056	0.854	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No)	Figure
		WWAN	RSDB scenarios										
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)						
		1-a	2	3	4	5	6						
Hotspot (1-g SAR)	Rear	0.051		0.366		1.288		1 + 3 + 5	1.705				21
		0.051		0.366				1 + 3	0.417	46.1	0.01	No	
		0.051				1.288		1 + 5	1.339	7.4	0.21	Yes	
				0.366		1.288		3 + 5	1.654	39.4	0.05	Yes	
Volume scan test results Note.3		1.350						(1+3+5)	1.350				Note.4

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. Perform enlarged zoom scan (Volume scan) for Simultaneous scenario (1+5+7 & 1+3+5) in Rear of Hotspot exposure condition. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. Volume scan result's figure refer to Appendix I.
5. Red values means "FCC limit over" or "SPLSR limit over".
6. WiFi/BT results were referred to Original report.

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12.5. Sum of the SAR for NR Band n41(Ant.D) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)													
		WWAN	Non-RSDB scenarios								WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO	WWAN + UNII MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)														
		1	2	3	4	5	6	7	8	9	1 + 2	1 + 3	1 + 4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9
Head (1-g SAR)	Left Touch	0.003	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.100	0.281	0.378	0.107	0.153	0.124	0.104	0.257	0.228	0.208	0.021	0.171	0.142	0.122
	Left Tilt	0.003	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.063	0.056	0.116	0.039	0.058	0.020	0.025	0.094	0.056	0.061	0.019	0.074	0.036	0.041
	Right Touch	0.001	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.144	0.317	0.460	0.319	0.184	0.161	0.131	0.502	0.479	0.449	0.073	0.256	0.233	0.203
	Right Tilt	0.002	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.145	0.318	0.461	0.320	0.105	0.045	0.064	0.423	0.363	0.382	0.025	0.128	0.068	0.087
Body-Worn (1-g SAR)	Rear	0.045	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.101	0.249	0.152	1.182	0.087	0.222	0.095	1.224	1.359	1.232	0.267	0.309	0.444	0.317
	Front	0.013	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.069	0.217	0.120	0.118	0.020	0.126	0.043	0.125	0.231	0.148	0.015	0.022	0.128	0.045
Hotspot (1-g SAR)	Rear	0.113	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.296	0.479	0.324	1.401	0.248	0.504	0.254	1.536	1.792	1.542				
	Front	0.018	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.201	0.431	0.229	0.227	0.035	0.273	0.092	0.244	0.482	0.301				
	Edge 1		0.183		0.211	0.155	0.023		0.013															
	Edge 2																							
	Edge 3	0.045																						
	Edge 4	0.001	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.184	0.414	0.212	0.643	0.019	0.443	0.097	0.661	1.085	0.739				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)						
		1	2	3	4	5	6	7	8	9						
Hotspot (1-g SAR)	Rear	0.113				1.288		0.391			1 + 5 + 7	1.792				22
		0.113				1.288					1 + 5	1.401	138.7	0.01	No	
		0.113						0.391			1 + 7	0.504	101.2	0.00	No	
						1.288		0.391			5 + 7	1.679	44.0	0.05	Yes	
Hybrid SPLSR Note.4		0.113				1.300					1 + (5 + 7)	1.413	138.7	0.01	No	22-a

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)							
		WWAN	RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UMII MIMO	WWAN + DTS Ant.2 + UMII MIMO	WWAN + DTS MIMO + UMII MIMO	RSDB Sum (DTS MIMO + UMII MIMO)
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)								
		1	2	3	4	5	6	1 + 2 + 5	1 + 3 + 5	1 + 4 + 5	4 + 5	1 + 2 + 6	1 + 3 + 6	1 + 4 + 6	4 + 6
Head (1-g SAR)	Left Touch	0.003	0.048	0.065	0.113	0.104	0.018	0.155	0.172	0.220	0.217	0.069	0.086	0.134	0.131
	Left Tilt	0.003	0.029	0.008	0.037	0.036	0.016	0.068	0.047	0.076	0.073	0.048	0.027	0.056	0.053
	Right Touch	0.001	0.064	0.009	0.073	0.318	0.072	0.383	0.328	0.392	0.391	0.137	0.082	0.146	0.145
	Right Tilt	0.002	0.064	0.065	0.129	0.318	0.023	0.384	0.385	0.449	0.447	0.089	0.090	0.154	0.152
Body-Worn (1-g SAR)	Rear	0.045	0.056	0.204	0.107	0.297	0.222	0.398	0.546	0.449	0.404	0.323	0.471	0.374	0.329
	Front	0.013	0.056	0.204	0.107	0.023	0.002	0.092	0.240	0.143	0.130	0.071	0.219	0.122	0.109
Hotspot (1-g SAR)	Rear	0.113	0.183	0.366	0.211	1.288		1.584	1.767	1.612	1.499				
	Front	0.018	0.183	0.413	0.211	0.209		0.410	0.640	0.438	0.420				
	Edge 1		0.183		0.211	0.155									
	Edge 2														
	Edge 3	0.045													
	Edge 4	0.001	0.183	0.413	0.211	0.642		0.826	1.056	0.854	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN	RSDB scenarios										
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)						
		1-a	2	3	4	5	6						
Hotspot (1-g SAR)	Rear	0.113		0.366		1.288		1 + 3 + 5	1.767				23
		0.113		0.366				1 + 3	0.479	104.5	0.00	No	
		0.113				1.288		1 + 5	1.401	138.7	0.01	No	
				0.366		1.288		3 + 5	1.654	39.4	0.05	Yes	
Hybrid SPLSR Note.4		0.113		1.310				1+(3+5)	1.423	138.7	0.01	No	23-a
Hotspot (1-g SAR)	Rear	0.113			0.211	1.288		1 + 4 + 5	1.612				24
		0.113			0.211			1 + 4	0.324	140.3	0.00	No	
		0.113				1.288		1 + 5	1.401	138.7	0.01	No	
					0.211	1.288		4 + 5	1.499	8.4	0.22	Yes	
Hybrid SPLSR Note.4		0.113			1.300			1+(4+5)	1.413	138.7	0.01	No	24-a

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. Red values means “FCC limit over” or “SPLSR limit over”.
6. WiFi/BT & Volume scan results were referred to Original report.

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12.6. Sum of the SAR for NR Band n77(Ant.F) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)													
			Non-RSDB scenarios																					
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)	WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO	WWAN + UNII MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO
		1	2	3	4	5	6	7	8	9	1 + 2	1 + 3	1 + 4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9
Head (1-g SAR)	Left Touch	0.081	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.178	0.359	0.456	0.185	0.231	0.202	0.182	0.335	0.306	0.286	0.099	0.249	0.220	0.200
	Left Tilt	0.080	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.140	0.133	0.193	0.116	0.135	0.097	0.102	0.171	0.133	0.138	0.096	0.151	0.113	0.118
	Right Touch	0.261	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.404	0.577	0.720	0.579	0.444	0.421	0.391	0.762	0.739	0.709	0.333	0.516	0.493	0.463
	Right Tilt	0.128	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.271	0.444	0.587	0.446	0.231	0.171	0.190	0.549	0.489	0.508	0.151	0.254	0.194	0.213
Body-Worn (1-g SAR)	Rear	0.148	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.204	0.352	0.255	1.285	0.190	0.325	0.198	1.327	1.462	1.335	0.370	0.412	0.547	0.420
	Front	0.059	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.115	0.263	0.166	0.164	0.066	0.172	0.089	0.171	0.277	0.194	0.061	0.068	0.174	0.091
Hotspot (1-g SAR)	Rear	0.257	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.440	0.623	0.468	1.545	0.392	0.648	0.398	1.680	1.936	1.686				
	Front	0.132	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.315	0.545	0.343	0.341	0.149	0.387	0.206	0.358	0.596	0.415				
	Edge 1	0.079	0.183		0.211	0.155	0.023		0.013															
	Edge 2																							
	Edge 3																							
	Edge 4	0.488	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.671	0.901	0.699	1.130	0.506	0.930	0.584	1.148	1.572	1.226				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No)	Figure
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)						
		1	2	3	4	5	6	7	8	9						
Hotspot (1-g SAR)	Rear	0.257				1.288	0.135				1 + 5 + 6	1.680				25
		0.257				1.288					1 + 5	1.545	16.5	0.12	Yes	
		0.257					0.135				1 + 6	0.392	7.4	0.03	No	
						1.288	0.135				5 + 6	1.423	9.4	0.18	Yes	
Volume scan test results Note.3		1.390									(1 + 5 + 6)	1.390				Note.4
Hotspot (1-g SAR)	Rear	0.257				1.288		0.391			1 + 5 + 7	1.936				26
		0.257				1.288					1 + 5	1.545	16.5	0.12	Yes	
		0.257						0.391			1 + 7	0.648	37.4	0.01	No	
						1.288		0.391			5 + 7	1.679	44.0	0.05	Yes	
Volume scan test results Note.3		1.420									(1 + 5 + 7)	1.420				Note.4
Hotspot (1-g SAR)	Rear	0.257				1.288			0.141		1 + 5 + 8	1.686				27
		0.257				1.288					1 + 5	1.545	16.5	0.12	Yes	
		0.257							0.141		1 + 8	0.398	7.5	0.03	No	
						1.288			0.141		5 + 8	1.429	15.2	0.11	Yes	
Volume scan test results Note.3		1.360									(1 + 5 + 8)	1.360				Note.4

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. Perform enlarged zoom scan (Volume scan) for Simultaneous scenario (1+5+6 &1+5+7 & 1+5+8 & 1+2+5 & 1+3+5 & 1+4+5) in Rear of Hotspot exposure condition. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. Volume scan result's figure refer to Appendix I.
5. Red values means "FCC limit over" or "SPLSR limit over".
6. WiFi/BT results were referred to Original report.

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RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)							
		WWAN	RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UMII MIMO)
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)								
		1	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.081	0.048	0.065	0.113	0.104	0.018	0.233	0.250	0.298	0.217	0.147	0.164	0.212	0.131
	Left Tilt	0.080	0.029	0.008	0.037	0.036	0.016	0.145	0.124	0.153	0.073	0.125	0.104	0.133	0.053
	Right Touch	0.261	0.064	0.009	0.073	0.318	0.072	0.643	0.588	0.652	0.391	0.397	0.342	0.406	0.145
	Right Tilt	0.128	0.064	0.065	0.129	0.318	0.023	0.510	0.511	0.575	0.447	0.215	0.216	0.280	0.152
Body-Worn (1-g SAR)	Rear	0.148	0.056	0.204	0.107	0.297	0.222	0.501	0.649	0.552	0.404	0.426	0.574	0.477	0.329
	Front	0.059	0.056	0.204	0.107	0.023	0.002	0.138	0.286	0.189	0.130	0.117	0.265	0.168	0.109
Hotspot (1-g SAR)	Rear	0.257	0.183	0.366	0.211	1.288		1.728	1.911	1.756	1.499				
	Front	0.132	0.183	0.413	0.211	0.209		0.524	0.754	0.552	0.420				
	Edge 1	0.079	0.183		0.211	0.155									
	Edge 2														
	Edge 3														
	Edge 4	0.488	0.183	0.413	0.211	0.642		1.313	1.543	1.341	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No)	Figure
		WWAN	RSDB scenarios										
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)						
		1-a	2	3	4	5	6						
Hotspot (1-g SAR)	Rear	0.257	0.183			1.288		1 + 2 + 5	1.728				28
		0.257	0.183					1 + 2	0.440	8.5	0.03	No	
		0.257				1.288		1 + 5	1.545	16.5	0.12	Yes	
			0.183			1.288		2 + 5	1.471	9.3	0.19	Yes	
Volume scan results Note.3		1.400						(1+2+5)	1.400				Note.4
Hotspot (1-g SAR)	Rear	0.257		0.366		1.288		1 + 3 + 5	1.911				29
		0.257		0.366				1 + 3	0.623	33.4	0.01	No	
		0.257				1.288		1 + 5	1.545	16.5	0.12	Yes	
				0.366		1.288		3 + 5	1.654	39.4	0.05	Yes	
Volume scan results Note.3		1.430						(1+3+5)	1.430				Note.4
Hotspot (1-g SAR)	Rear	0.257			0.211	1.288		1 + 4 + 5	1.756				30
		0.257			0.211			1 + 4	0.468	8.8	0.04	No	
		0.257				1.288		1 + 5	1.545	16.5	0.12	Yes	
					0.211	1.288		4 + 5	1.499	8.4	0.22	Yes	
Volume scan results Note.3		1.420						(1+4+5)	1.420				Note.4

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. Perform enlarged zoom scan (Volume scan) for Simultaneous scenario (1+5+6 &1+5+7 & 1+5+8 & 1+2+5 & 1+3+5 & 1+4+5) in Rear of Hotspot exposure condition. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. Volume scan result's figure refer to Appendix I.
5. Red values means "FCC limit over" or "SPLSR limit over".
6. WiFi/BT results were referred to Original report.

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12.7. Sum of the SAR for NR Band n77(Ant.C) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)													
		WWAN	Non-RSDB scenarios								WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO	WWAN + UNII MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)														
		1	2	3	4	5	6	7	8	9	1 + 2	1 + 3	1 + 4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9
Head (1-g SAR)	Left Touch	0.001	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.098	0.279	0.376	0.105	0.151	0.122	0.102	0.255	0.226	0.206	0.019	0.169	0.140	0.120
	Left Tilt	0.001	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.061	0.054	0.114	0.037	0.056	0.018	0.023	0.092	0.054	0.059	0.017	0.072	0.034	0.039
	Right Touch	0.001	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.144	0.317	0.460	0.319	0.184	0.161	0.131	0.502	0.479	0.449	0.073	0.256	0.233	0.203
	Right Tilt	0.001	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.144	0.317	0.460	0.319	0.104	0.044	0.063	0.422	0.362	0.381	0.024	0.127	0.067	0.086
Body-Worn (1-g SAR)	Rear	0.013	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.069	0.217	0.120	1.150	0.055	0.190	0.063	1.192	1.327	1.200	0.235	0.277	0.412	0.285
	Front	0.004	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.060	0.208	0.111	0.109	0.011	0.117	0.034	0.116	0.222	0.139	0.006	0.013	0.119	0.036
Hotspot (1-g SAR)	Rear	0.016	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.199	0.382	0.227	1.304	0.151	0.407	0.157	1.439	1.695	1.445				
	Front	0.010	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.193	0.423	0.221	0.219	0.027	0.265	0.084	0.236	0.474	0.293				
	Edge 1		0.183		0.211	0.155	0.023		0.013															
	Edge 2	0.049																						
	Edge 3	0.038																						
	Edge 4		0.183	0.413	0.211	0.642	0.018	0.442	0.096															

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)						
		1	2	3	4	5	6	7	8	9						
Hotspot (1-g SAR)	Rear	0.016				1.288		0.391			1 + 5 + 7	1.695				31
		0.016				1.288					1 + 5	1.304	145.6	0.01	No	
		0.016						0.391			1 + 7	0.407	120.5	0.00	No	
						1.288		0.391			5 + 7	1.679	44	0.05	Yes	
Hybrid SPLSR Note.4		0.016				1.300					1 + (5 + 7)	1.316	145.6	0.01	No	31-a

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)							
		WWAN	RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UMII MIMO)
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)								
		1	2	3	4	5	6	1 + 2 + 5	1 + 3 + 5	1 + 4 + 5	4 + 5	1 + 2 + 6	1 + 3 + 6	1 + 4 + 6	4 + 6
Head (1-g SAR)	Left Touch	0.001	0.048	0.065	0.113	0.104	0.018	0.153	0.170	0.218	0.217	0.067	0.084	0.132	0.131
	Left Tilt	0.001	0.029	0.008	0.037	0.036	0.016	0.066	0.045	0.074	0.073	0.046	0.025	0.054	0.053
	Right Touch	0.001	0.064	0.009	0.073	0.318	0.072	0.383	0.328	0.392	0.391	0.137	0.082	0.146	0.145
	Right Tilt	0.001	0.064	0.065	0.129	0.318	0.023	0.383	0.384	0.448	0.447	0.088	0.089	0.153	0.152
Body-Worn (1-g SAR)	Rear	0.013	0.056	0.204	0.107	0.297	0.222	0.366	0.514	0.417	0.404	0.291	0.439	0.342	0.329
	Front	0.004	0.056	0.204	0.107	0.023	0.002	0.083	0.231	0.134	0.130	0.062	0.210	0.113	0.109
Hotspot (1-g SAR)	Rear	0.016	0.183	0.366	0.211	1.288		1.487	1.670	1.515	1.499				
	Front	0.010	0.183	0.413	0.211	0.209		0.402	0.632	0.430	0.420				
	Edge 1		0.183		0.211	0.155									
	Edge 2	0.049													
	Edge 3	0.038													
	Edge 4		0.183	0.413	0.211	0.642					0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN	RSDB scenarios										
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)						
		1-a	2	3	4	5	6						
Hotspot (1-g SAR)	Rear	0.016		0.366		1.288		1 + 3 + 5	1.670				32
		0.016		0.366				1 + 3	0.382	122.1	0.00	No	
		0.016				1.288		1 + 5	1.304	145.6	0.01	No	
				0.366		1.288		3 + 5	1.654	39.4	0.05	Yes	
Hybrid SPLSR Note.4		0.016		1.310				1+(3+5)	1.326	145.6	0.01	No	32-a

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. Red values means “FCC limit over” or “SPLSR limit over”.
6. WiFi/BT & Volume scan results were referred to Original report.

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12.8. Sum of the SAR for NR Band n77(Ant.L) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)													
		WWAN	Non-RSDB scenarios								WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO	WWAN + UNII MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)														
		1	2	3	4	5	6	7	8	9	1 + 2	1 + 3	1 + 4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9
Head (1-g SAR)	Left Touch	0.165	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.262	0.443	0.540	0.269	0.315	0.286	0.266	0.419	0.390	0.370	0.183	0.333	0.304	0.284
	Left Tilt	0.100	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.160	0.153	0.213	0.136	0.155	0.117	0.122	0.191	0.153	0.158	0.116	0.171	0.133	0.138
	Right Touch	0.190	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.333	0.506	0.649	0.508	0.373	0.350	0.320	0.691	0.668	0.638	0.262	0.445	0.422	0.392
	Right Tilt	0.172	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.315	0.488	0.631	0.490	0.275	0.215	0.234	0.593	0.533	0.552	0.195	0.298	0.238	0.257
Body-Worn (1-g SAR)	Rear	0.121	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.177	0.325	0.228	1.258	0.163	0.298	0.171	1.300	1.435	1.308	0.343	0.385	0.520	0.393
	Front	0.006	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.062	0.210	0.113	0.111	0.013	0.119	0.036	0.118	0.224	0.141	0.008	0.015	0.121	0.038
Hotspot (1-g SAR)	Rear	0.385	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.568	0.751	0.596	1.673	0.520	0.776	0.526	1.808	2.064	1.814				
	Front	0.030	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.213	0.443	0.241	0.239	0.047	0.285	0.104	0.256	0.494	0.313				
	Edge 1	0.027	0.183		0.211	0.155	0.023		0.013		0.210		0.238	0.182	0.050		0.040	0.205		0.195				
	Edge 2																							
	Edge 3																							
	Edge 4	0.017	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.200	0.430	0.228	0.659	0.035	0.459	0.113	0.677	1.101	0.755				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No)	Figure
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)						
		1	2	3	4	5	6	7	8	9						
Hotspot (1-g SAR)	Rear	0.385				1.288	0.135				1 + 5 + 6	1.808				33
		0.385				1.288					1 + 5	1.673	12.7	0.17	Yes	
		0.385					0.135				1 + 6	0.520	20.8	0.02	No	
						1.288	0.135				5 + 6	1.423	9.4	0.18	Yes	
Volume scan results Note.3		1.480									(1 + 5 + 6)	1.480				Note.4
Hotspot (1-g SAR)	Rear	0.385				1.288		0.391			1 + 5 + 7	2.064				34
		0.385				1.288					1 + 5	1.673	12.7	0.17	Yes	
		0.385						0.391			1 + 7	0.776	42.5	0.02	No	
						1.288		0.391			5 + 7	1.679	44.0	0.05	Yes	
Volume scan results Note.3		1.520									(1 + 5 + 7)	1.520				Note.4
Hotspot (1-g SAR)	Rear	0.385				1.288			0.141		1 + 5 + 8	1.814				35
		0.385				1.288					1 + 5	1.673	12.7	0.17	Yes	
		0.385							0.141		1 + 8	0.526	22.1	0.02	No	
						1.288			0.141		5 + 8	1.429	15.2	0.11	Yes	
Volume scan results Note.3		1.470									(1 + 5 + 8)	1.470				Note.4

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. Perform enlarged zoom scan (Volume scan) for Simultaneous scenario (1+5 & 1+5+6 &1+5+7 & 1+5+8 & 1+2+5 & 1+3+5 & 1+4+5) in Rear of Hotspot exposure condition. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. Volume scan result's figure refer to Appendix I.
5. Red values means "FCC limit over" or "SPLSR limit over".
6. WiFi/BT results were referred to Original report.

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RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)							
		WWAN	RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UMII MIMO)
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)								
		1	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.165	0.048	0.065	0.113	0.104	0.018	0.317	0.334	0.382	0.217	0.231	0.248	0.296	0.131
	Left Tilt	0.100	0.029	0.008	0.037	0.036	0.016	0.165	0.144	0.173	0.073	0.145	0.124	0.153	0.053
	Right Touch	0.190	0.064	0.009	0.073	0.318	0.072	0.572	0.517	0.581	0.391	0.326	0.271	0.335	0.145
	Right Tilt	0.172	0.064	0.065	0.129	0.318	0.023	0.554	0.555	0.619	0.447	0.259	0.260	0.324	0.152
Body-Worn (1-g SAR)	Rear	0.121	0.056	0.204	0.107	0.297	0.222	0.474	0.622	0.525	0.404	0.399	0.547	0.450	0.329
	Front	0.006	0.056	0.204	0.107	0.023	0.002	0.085	0.233	0.136	0.130	0.064	0.212	0.115	0.109
Hotspot (1-g SAR)	Rear	0.385	0.183	0.366	0.211	1.288		1.856	2.039	1.884	1.499				
	Front	0.030	0.183	0.413	0.211	0.209		0.422	0.652	0.450	0.420				
	Edge 1	0.027	0.183		0.211	0.155									
	Edge 2														
	Edge 3														
	Edge 4	0.017	0.183	0.413	0.211	0.642		0.842	1.072	0.870	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No)	Figure
		WWAN	RSDB scenarios										
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)						
		1-a	2	3	4	5	6						
Hotspot (1-g SAR)	Rear	0.385	0.183			1.288		1 + 2 + 5	1.856				36
		0.385	0.183					1 + 2	0.568	21.4	0.02	No	
		0.385				1.288		1 + 5	1.673	12.7	0.17	Yes	
			0.183			1.288		2 + 5	1.471	9.3	0.19	Yes	
Volume scan test results Note.3		1.470						(1+2+5)	1.470				Note.4
Hotspot (1-g SAR)	Rear	0.385		0.366		1.288		1 + 3 + 5	2.039				37
		0.385		0.366				1 + 3	0.751	37.9	0.02	No	
		0.385				1.288		1 + 5	1.673	12.7	0.17	Yes	
				0.366		1.288		3 + 5	1.654	39.4	0.05	Yes	
Volume scan test results Note.3		1.520						(1+3+5)	1.520				Note.4
Hotspot (1-g SAR)	Rear	0.385			0.211	1.288		1 + 4 + 5	1.884				38
		0.385			0.211			1 + 4	0.596	20.3	0.02	No	
		0.385				1.288		1 + 5	1.673	12.7	0.17	Yes	
					0.211	1.288		4 + 5	1.499	8.4	0.22	Yes	
Volume scan test results Note.3		1.510						(1+4+5)	1.510				Note.4

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. Perform enlarged zoom scan (Volume scan) for Simultaneous scenario (1+5 & 1+5+6 &1+5+7 & 1+5+8 & 1+2+5 & 1+3+5 & 1+4+5) in Rear of Hotspot exposure condition. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. Volume scan result's figure refer to Appendix I.
5. Red values means "FCC limit over" or "SPLSR limit over".
6. WiFi/BT results were referred to Original report.

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12.9. Sum of the SAR for NR Band n77(Ant.D) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg)												
		WWAN	Non-RSDB scenarios								WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO	WWAN + UNII MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)														
		1	2	3	4	5	6	7	8	9	1 + 2	1 + 3	1 + 4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9
Head (1-g SAR)	Left Touch	0.001	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.098	0.279	0.376	0.105	0.151	0.122	0.102	0.255	0.226	0.206	0.019	0.169	0.140	0.120
	Left Tilt	0.001	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.061	0.054	0.114	0.037	0.056	0.018	0.023	0.092	0.054	0.059	0.017	0.072	0.034	0.039
	Right Touch	0.001	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.144	0.317	0.460	0.319	0.184	0.161	0.131	0.502	0.479	0.449	0.073	0.256	0.233	0.203
	Right Tilt	0.001	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.144	0.317	0.460	0.319	0.104	0.044	0.063	0.422	0.362	0.381	0.024	0.127	0.067	0.086
Body-Worn (1-g SAR)	Rear	0.050	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.106	0.254	0.157	1.187	0.092	0.227	0.100	1.229	1.364	1.237	0.272	0.314	0.449	0.322
	Front	0.001	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.057	0.205	0.108	0.106	0.008	0.114	0.031	0.113	0.219	0.136	0.003	0.010	0.116	0.033
Hotspot (1-g SAR)	Rear	0.102	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.285	0.468	0.313	1.390	0.237	0.493	0.243	1.525	1.781	1.531				
	Front	0.001	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.184	0.414	0.212	0.210	0.018	0.256	0.075	0.227	0.465	0.284				
	Edge 1		0.183		0.211	0.155	0.023		0.013															
	Edge 2																							
	Edge 3	0.024																						
	Edge 4	0.003	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.186	0.416	0.214	0.645	0.021	0.445	0.099	0.663	1.087	0.741				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)									Sum of SAR (W/kg) (1-g or 10-g)	Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN	DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)					
		1	2	3	4	5	6	7	8	9					
Hotspot (1-g SAR)	Rear	0.102				1.288		0.391			1 + 5 + 7	1.781			
		0.102				1.288					1 + 5	1.390	136.2	0.01	No	39
		0.102						0.391			1 + 7	0.493	97.4	0.00	No	
						1.288		0.391			5 + 7	1.679	44.0	0.05	Yes	
Hybrid SPLSR Note.4		0.102				1.300					1 + (5 + 7)	1.402	136.2	0.01	No	39-a

RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg)							
		WWAN	RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UMII MIMO)
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)								
		1	2	3	4	5	6	1 + 2 + 5	1 + 3 + 5	1 + 4 + 5	4 + 5	1 + 2 + 6	1 + 3 + 6	1 + 4 + 6	4 + 6
Head (1-g SAR)	Left Touch	0.001	0.048	0.065	0.113	0.104	0.018	0.153	0.170	0.218	0.217	0.067	0.084	0.132	0.131
	Left Tilt	0.001	0.029	0.008	0.037	0.036	0.016	0.066	0.045	0.074	0.073	0.046	0.025	0.054	0.053
	Right Touch	0.001	0.064	0.009	0.073	0.318	0.072	0.383	0.328	0.392	0.391	0.137	0.082	0.146	0.145
	Right Tilt	0.001	0.064	0.065	0.129	0.318	0.023	0.383	0.384	0.448	0.447	0.088	0.089	0.153	0.152
Body-Worn (1-g SAR)	Rear	0.050	0.056	0.204	0.107	0.297	0.222	0.403	0.551	0.454	0.404	0.328	0.476	0.379	0.329
	Front	0.001	0.056	0.204	0.107	0.023	0.002	0.080	0.228	0.131	0.130	0.059	0.207	0.110	0.109
Hotspot (1-g SAR)	Rear	0.102	0.183	0.366	0.211	1.288		1.573	1.756	1.601	1.499				
	Front	0.001	0.183	0.413	0.211	0.209		0.393	0.623	0.421	0.420				
	Edge 1		0.183		0.211	0.155									
	Edge 2														
	Edge 3	0.024													
	Edge 4	0.003	0.183	0.413	0.211	0.642		0.828	1.058	0.856	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)						Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN	RSDB scenarios										
			DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)						
		1-a	2	3	4	5	6						
Hotspot (1-g SAR)	Rear	0.102		0.366		1.288		1 + 3 + 5	1.756				
		0.102		0.366				1 + 3	0.468	100.9	0.00	No	40
		0.102				1.288		1 + 5	1.390	136.2	0.01	No	
				0.366		1.288		3 + 5	1.654	39.4	0.05	Yes	
Hybrid SPLSR Note.4		0.102		1.310				1+(3+5)	1.412	136.2	0.01	No	40-a
Hotspot (1-g SAR)	Rear	0.102			0.211	1.288		1 + 4 + 5	1.601				
		0.102			0.211			1 + 4	0.313	137.4	0.00	No	41
		0.102				1.288		1 + 5	1.390	136.2	0.01	No	
					0.211	1.288		4 + 5	1.499	8.4	0.22	Yes	
Hybrid SPLSR Note.4		0.102			1.300			1+(4+5)	1.402	136.2	0.01	No	41-a

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. Red values means “FCC limit over” or “SPLSR limit over”.
6. WiFi/BT & Volume scan results were referred to Original report.

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12.10. Sum of the SAR for ENDC(LTE B5 + NR Bn2) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)										Sum of SAR (W/kg)													
		WWAN		Non-RSDB scenarios								WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO	WWAN + UNII MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)														
		1-a (LTE)	1-b (NR)	2	3	4	5	6	7	8	9	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9
Head (1-g SAR)	Left Touch	0.208	0.017	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.322	0.503	0.600	0.329	0.375	0.346	0.326	0.479	0.450	0.430	0.243	0.393	0.364	0.344
	Left Tilt	0.085	0.008	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.153	0.146	0.206	0.129	0.148	0.110	0.115	0.184	0.146	0.151	0.109	0.164	0.126	0.131
	Right Touch	0.123	0.079	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.345	0.518	0.661	0.520	0.385	0.362	0.332	0.703	0.680	0.650	0.274	0.457	0.434	0.404
	Right Tilt	0.073	0.023	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.239	0.412	0.555	0.414	0.199	0.139	0.158	0.517	0.457	0.476	0.119	0.222	0.162	0.181
Body-Worn (1-g SAR)	Rear	0.341	0.598	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.995	1.143	1.046	2.076	0.981	1.116	0.989	2.118	2.253	2.126	1.161	1.203	1.338	1.211
	Front	0.225	0.363	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.644	0.792	0.695	0.693	0.595	0.701	0.618	0.700	0.806	0.723	0.590	0.597	0.703	0.620
Hotspot (1-g SAR)	Rear	0.680	0.337	0.183	0.366	0.211	1.288	0.135	0.391	0.141		1.200	1.383	1.228	2.305	1.152	1.408	1.158	2.440	2.696	2.446				
	Front	0.373	0.272	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.828	1.058	0.856	0.854	0.662	0.900	0.719	0.871	1.109	0.928				
	Edge 1			0.183		0.211	1.288	0.023		0.013															
	Edge 2	0.082	0.033																						
	Edge 3	0.297	0.687																						
	Edge 4	0.167	0.030	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.380	0.610	0.408	0.839	0.215	0.639	0.293	0.857	1.281	0.935				
Product Specific 10-g (10-g SAR)	Rear						2.978				0.377														
	Front						0.449				0.048														
	Edge 1						2.978				0.026														
	Edge 2																								
	Edge 3		1.103																						
	Edge 4						1.576				0.214														

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)										Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN		DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)						
		1-a	1-b	2	3	4	5	6	7	8	9						
Body-Worn (1-g SAR)	Rear	0.341	0.598				1.137	0.042				1a+1b+5+6	2.118				42
		0.341	0.598				1.110					1a+1b+(5+6	2.049				
		0.341	0.598									1a+1b	0.939	27.7	0.03	No	
		0.341					1.110					1a+(5+6)	1.451	149.4	0.01	No	
			0.598				1.110					1b+(5+6)	1.708	161.8	0.01	No	
Hybrid SPLSR Note.4							1.110					(5+6)					
Body-Worn (1-g SAR)	Rear	0.341	0.598				1.137		0.177			1a+1b+5+7	2.253				43
		0.341	0.598				1.120					1a+1b+(5+7	2.059				
		0.341	0.598									1a+1b	0.939	27.7	0.03	No	
		0.341					1.120					1a+(5+7)	1.120	149.4	0.01	No	
			0.598				1.120					1b+(5+7)	1.718	161.8	0.01	No	
Hybrid SPLSR Note.4							1.120					(5+7)					
Body-Worn (1-g SAR)	Rear	0.341	0.598				1.137			0.050		1a+1b+5+8	2.126				44
		0.341	0.598				1.100					1a+1b+(5+8	2.039				
		0.341	0.598									1a+1b	0.939	27.7	0.03	No	
		0.341					1.100					1a+(5+8)	1.441	149.4	0.01	No	
			0.598				1.100					1b+(5+8)	1.698	161.8	0.01	No	
Hybrid SPLSR Note.4							1.100					(5+8)					
Hotspot (1-g SAR)	Rear	0.680	0.337				1.288	0.135				1a+1b+5+6	2.440				45
		0.680	0.337				1.270					1a+1b+(5+6	2.287				
		0.680	0.337									1a+1b	1.017	26.9	0.04	No	
		0.680					1.270					1a+(5+6)	1.950	147.7	0.02	No	
			0.337				1.270					1b+(5+6)	1.607	157.0	0.01	No	
Hybrid SPLSR Note.4							1.270					(5+6)					
Hotspot (1-g SAR)	Rear	0.680	0.337				1.288		0.391			1a+1b+5+7	2.696				46
		0.680	0.337				1.300					1a+1b+(5+7	2.317				
		0.680	0.337									1a+1b	1.017	26.9	0.04	No	
		0.680					1.300					1a+(5+7)	1.980	147.7	0.02	No	
			0.337				1.300					1b+(5+7)	1.637	157.0	0.01	No	
Hybrid SPLSR Note.4							1.300					(5+7)					
Hotspot (1-g SAR)	Rear	0.680	0.337				1.288			0.141		1a+1b+5+8	2.446				47
		0.680	0.337				1.250					1a+1b+(5+8	2.267				
		0.680	0.337									1a+1b	1.017	26.9	0.04	No	
		0.680					1.250					1a+(5+8)	1.930	147.7	0.02	No	
			0.337				1.250					1b+(5+8)	1.587	157.0	0.01	No	
Hybrid SPLSR Note.4							1.250					(5+7)					

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. NR Band n2 is subset of NR Band n25, So NR Band n25 was used to do Simultaneous transmission analysis.
6. LTE Band 5 is subset of LTE Band 26, So LTE Band 26 was used to do Simultaneous transmission analysis.
7. Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
8. Red values means “FCC limit over” or “SPLSR limit over”.
9. WiFi/BT/LTE & Volume scan results were referred to Original report.

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RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)							Sum of SAR (W/kg)							
		WWAN		RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UMII MIMO)
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)								
		1-a(LTE)	1-b(NR)	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.208	0.017	0.048	0.065	0.113	0.104	0.018	0.377	0.394	0.442	0.217	0.291	0.308	0.356	0.131
	Left Tilt	0.085	0.008	0.029	0.008	0.037	0.036	0.016	0.158	0.137	0.166	0.073	0.138	0.117	0.146	0.053
	Right Touch	0.123	0.079	0.064	0.009	0.073	0.318	0.072	0.584	0.529	0.593	0.391	0.338	0.283	0.347	0.145
	Right Tilt	0.073	0.023	0.064	0.065	0.129	0.318	0.023	0.478	0.479	0.543	0.447	0.183	0.184	0.248	0.152
Body-Worn (1-g SAR)	Rear	0.341	0.598	0.056	0.204	0.107	0.297	0.222	1.292	1.440	1.343	0.404	1.217	1.365	1.268	0.329
	Front	0.225	0.363	0.056	0.204	0.107	0.023	0.002	0.667	0.815	0.718	0.130	0.646	0.794	0.697	0.109
Hotspot (1-g SAR)	Rear	0.680	0.337	0.183	0.366	0.211	1.288		2.488	2.671	2.516	1.499				
	Front	0.373	0.272	0.183	0.413	0.211	0.209		1.037	1.267	1.065	0.420				
	Edge 1			0.183		0.211	1.288									
	Edge 2	0.082	0.033													
	Edge 3	0.297	0.687													
	Edge 4	0.167	0.030	0.183	0.413	0.211	0.642		1.022	1.252	1.050	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)							Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN		RSDB scenarios										
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)						
		1-a(LTE)	1-b(NR)	2	3	4	5	6						
Hotspot (1-g SAR)	Rear	0.680	0.337	0.183			1.288		1a+1b+2+5	2.488				48
		0.680	0.337	1.270					1a+1b+(2+5	2.287				
		0.680	0.337						1a+1b	1.017	26.9	0.04	No	
		0.680		1.270					1b+(2+5)	1.950	147.7	0.02	No	
			0.337	1.270					1b+(2+5)	1.607	157.0	0.01	No	
Hybrid SPLSR Note.4				1.270					(2+5)					
Hotspot (1-g SAR)	Rear	0.680	0.337		0.366		1.288		1a+1b+3+5	2.671				49
		0.680	0.337		1.310				1a+1b+(3+5	2.327				
		0.680	0.337						1a+1b	1.017	26.9	0.04	No	
		0.680			1.310				1b+(3+5)	1.990	147.7	0.02	No	
			0.337		1.310				1b+(3+5)	1.647	157.0	0.01	No	
Hybrid SPLSR Note.4					1.310				(3+5)					
Hotspot (1-g SAR)	Rear	0.680	0.337			0.211	1.288		1a+1b+4+5	2.516				50
		0.680	0.337			1.300			1a+1b+(4+5	2.317				
		0.680	0.337						1a+1b	1.017	26.9	0.04	No	
		0.680				1.300			1b+(4+5)	1.980	147.7	0.02	No	
			0.337			1.300			1b+(4+5)	1.637	157.0	0.01	No	
Hybrid SPLSR Note.4						1.300			(4+5)					

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. NR Band n2 is subset of NR Band n25, So NR Band n25 was used to do Simultaneous transmission analysis.
6. LTE Band 5 is subset of LTE Band 26, So LTE Band 26 was used to do Simultaneous transmission analysis.
7. Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
8. Red values means “FCC limit over” or “SPLSR limit over”.
9. WiFi/BT/LTE & Volume scan results were referred to Original report.

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12.11. Sum of the SAR for ENDC(LTE B12 + NR Bn25) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)										Sum of SAR (W/kg)													
		WWAN		Non-RSDB scenarios								WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO	WWAN + UNII MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)														
		1-a (LTE)	1-b (NR)	2	3	4	5	6	7	8	9	1 + 2	1 + 3	1 + 4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9
Head (1-g SAR)	Left Touch	0.161	0.017	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.275	0.456	0.553	0.282	0.328	0.299	0.279	0.432	0.403	0.383	0.196	0.346	0.317	0.297
	Left Tilt	0.070	0.008	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.138	0.131	0.191	0.114	0.133	0.095	0.100	0.169	0.131	0.136	0.094	0.149	0.111	0.116
	Right Touch	0.108	0.079	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.330	0.503	0.646	0.505	0.370	0.347	0.317	0.688	0.665	0.635	0.259	0.442	0.419	0.389
	Right Tilt	0.054	0.023	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.220	0.393	0.536	0.395	0.180	0.120	0.139	0.498	0.438	0.457	0.100	0.203	0.143	0.162
Body-Worn (1-g SAR)	Rear	0.181	0.598	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.835	0.983	0.886	1.916	0.821	0.956	0.829	1.958	2.093	1.966	1.001	1.043	1.178	1.051
	Front	0.181	0.363	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.600	0.748	0.651	0.649	0.551	0.657	0.574	0.656	0.762	0.679	0.546	0.553	0.659	0.576
Hotspot (1-g SAR)	Rear	0.335	0.337	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.855	1.038	0.883	1.960	0.807	1.063	0.813	2.095	2.351	2.101				
	Front	0.193	0.272	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.648	0.878	0.676	0.674	0.482	0.720	0.539	0.691	0.929	0.748				
	Edge 1			0.183		0.211	1.288	0.023		0.013															
	Edge 2	0.195	0.033																						
	Edge 3	0.090	0.687																						
	Edge 4	0.141	0.030	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.354	0.584	0.382	0.813	0.189	0.613	0.267	0.831	1.255	0.909				
Product Specific 10-g (10-g SAR)	Rear						2.978				0.377														
	Front						0.449				0.048														
	Edge 1						2.978				0.026														
	Edge 2																								
	Edge 3		1.103																						
	Edge 4						1.576				0.214														

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)										Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN		DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)						
		1-a	1-b	2	3	4	5	6	7	8	9						
Body-Worn (1-g SAR)	Rear	0.181	0.598				1.137	0.042				1a+1b+5+6	1.958				51
		0.181	0.598				1.110					1a+1b+(5+6	1.889				
		0.181	0.598									1a+1b	0.779	26.7	0.03	No	
		0.181					1.110					1a+(5+6)	1.291	147.0	0.01	No	
			0.598				1.110					1b+(5+6)	1.708	161.8	0.01	No	
Hybrid SPLSR Note.4							1.110					(5+6)					
Body-Worn (1-g SAR)	Rear	0.181	0.598				1.137		0.177			1a+1b+5+7	2.093				52
		0.181	0.598				1.120					1a+1b+(5+7	1.899				
		0.181	0.598									1a+1b	0.779	26.7	0.03	No	
		0.181					1.120					1a+(5+7)	1.120	147.0	0.01	No	
			0.598				1.120					1b+(5+7)	1.718	161.8	0.01	No	
Hybrid SPLSR Note.4							1.120					(5+7)					
Body-Worn (1-g SAR)	Rear	0.181	0.598				1.137			0.050		1a+1b+5+8	1.966				53
		0.181	0.598				1.100					1a+1b+(5+8	1.879				
		0.181	0.598									1a+1b	0.779	26.7	0.03	No	
		0.181					1.100					1a+(5+8)	1.281	147.0	0.01	No	
			0.598				1.100					1b+(5+8)	1.698	161.8	0.01	No	
Hybrid SPLSR Note.4							1.100					(5+8)					
Hotspot (1-g SAR)	Rear	0.335	0.337				1.288	0.135				1a+1b+5+6	2.095				54
		0.335	0.337				1.270					1a+1b+(5+6	1.942				
		0.335	0.337									1a+1b	0.672	22.0	0.03	No	
		0.335					1.270					1a+(5+6)	1.605	151.3	0.01	No	
			0.337				1.270					1b+(5+6)	1.607	157.0	0.01	No	
Hybrid SPLSR Note.4							1.270					(5+6)					
Hotspot (1-g SAR)	Rear	0.335	0.337				1.288		0.391			1a+1b+5+7	2.351				55
		0.335	0.337				1.300					1a+1b+(5+7	1.972				
		0.335	0.337									1a+1b	0.672	22.0	0.03	No	
		0.335					1.300					1a+(5+7)	1.635	151.3	0.01	No	
			0.337				1.300					1b+(5+7)	1.637	157.0	0.01	No	
Hybrid SPLSR Note.4							1.300					(5+7)					
Hotspot (1-g SAR)	Rear	0.335	0.337				1.288			0.141		1a+1b+5+8	2.101				56
		0.335	0.337				1.250					1a+1b+(5+8	1.922				
		0.335	0.337									1a+1b	0.672	22.0	0.03	No	
		0.335					1.250					1a+(5+8)	1.585	151.3	0.01	No	
			0.337				1.250					1b+(5+8)	1.587	157.0	0.01	No	
Hybrid SPLSR Note.4							1.250					(5+7)					

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
6. (ENDC LTE B12 + NR Bn2) is subset of (ENDC LTE B12 + NR Bn25).
7. Red values means “FCC limit over” or “SPLSR limit over”.
8. WiFi/BT/LTE & Volume scan results were referred to Original report.

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RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)							Sum of SAR (W/kg)							
		WWAN		RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UMII MIMO)
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)								
		1-a(LTE)	1-b(NR)	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.161	0.017	0.048	0.065	0.113	0.104	0.018	0.330	0.347	0.395	0.217	0.244	0.261	0.309	0.131
	Left Tilt	0.070	0.008	0.029	0.008	0.037	0.036	0.016	0.143	0.122	0.151	0.073	0.123	0.102	0.131	0.053
	Right Touch	0.108	0.079	0.064	0.009	0.073	0.318	0.072	0.569	0.514	0.578	0.391	0.323	0.268	0.332	0.145
	Right Tilt	0.054	0.023	0.064	0.065	0.129	0.318	0.023	0.459	0.460	0.524	0.447	0.164	0.165	0.229	0.152
Body-Worn (1-g SAR)	Rear	0.181	0.598	0.056	0.204	0.107	0.297	0.222	1.132	1.280	1.183	0.404	1.057	1.205	1.108	0.329
	Front	0.181	0.363	0.056	0.204	0.107	0.023	0.002	0.623	0.771	0.674	0.130	0.602	0.750	0.653	0.109
Hotspot (1-g SAR)	Rear	0.335	0.337	0.183	0.366	0.211	1.288		2.143	2.326	2.171	1.499				
	Front	0.193	0.272	0.183	0.413	0.211	0.209		0.857	1.087	0.885	0.420				
	Edge 1			0.183		0.211	1.288									
	Edge 2	0.195	0.033													
	Edge 3	0.090	0.687													
	Edge 4	0.141	0.030	0.183	0.413	0.211	0.642		0.996	1.226	1.024	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)							Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN		RSDB scenarios										
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)						
		1-a(LTE)	1-b(NR)	2	3	4	5	6						
Hotspot (1-g SAR)	Rear	0.335	0.337	0.183			1.288		1a+1b+2+5	2.143				57
		0.335	0.337	1.270					1a+1b+(2+5	1.942				
		0.335	0.337						1a+1b	0.672	22.0	0.03	No	
		0.335		1.270					1b+(2+5)	1.605	151.3	0.01	No	
			0.337	1.270					1b+(2+5)	1.607	157.0	0.01	No	
Hybrid SPLSR Note.4				1.270					(2+5)					
Hotspot (1-g SAR)	Rear	0.335	0.337		0.366		1.288		1a+1b+3+5	2.326				58
		0.335	0.337		1.310				1a+1b+(3+5	1.982				
		0.335	0.337						1a+1b	0.672	22.0	0.03	No	
		0.335			1.310				1b+(3+5)	1.645	151.3	0.01	No	
			0.337		1.310				1b+(3+5)	1.647	157.0	0.01	No	
Hybrid SPLSR Note.4					1.310				(3+5)					
Hotspot (1-g SAR)	Rear	0.335	0.337			0.211	1.288		1a+1b+4+5	2.171				59
		0.335	0.337			1.300			1a+1b+(4+5	1.972				
		0.335	0.337						1a+1b	0.672	22.0	0.03	No	
		0.335				1.300			1b+(4+5)	1.635	151.3	0.01	No	
			0.337			1.300			1b+(4+5)	1.637	157.0	0.01	No	
Hybrid SPLSR Note.4						1.300			(4+5)					

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
6. (ENDC LTE B12 + NR Bn2) is subset of (ENDC LTE B12 + NR Bn25).
7. Red values means “FCC limit over” or “SPLSR limit over”.
8. WiFi/BT/LTE & Volume scan results were referred to Original report.

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12.12. Sum of the SAR for ENDC(LTE B13 + NR Bn25) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)										Sum of SAR (W/kg)													
		WWAN		Non-RSDB scenarios								WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO	WWAN + UNII MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)														
		1-a (LTE)	1-b (NR)	2	3	4	5	6	7	8	9	1 + 2	1 + 3	1 + 4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9
Head (1-g SAR)	Left Touch	0.171	0.017	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.285	0.466	0.563	0.292	0.338	0.309	0.289	0.442	0.413	0.393	0.206	0.356	0.327	0.307
	Left Tilt	0.078	0.008	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.146	0.139	0.199	0.122	0.141	0.103	0.108	0.177	0.139	0.144	0.102	0.157	0.119	0.124
	Right Touch	0.137	0.079	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.359	0.532	0.675	0.534	0.399	0.376	0.346	0.717	0.694	0.664	0.288	0.471	0.448	0.418
	Right Tilt	0.091	0.023	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.257	0.430	0.573	0.432	0.217	0.157	0.176	0.535	0.475	0.494	0.137	0.240	0.180	0.199
Body-Worn (1-g SAR)	Rear	0.236	0.598	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.890	1.038	0.941	1.971	0.876	1.011	0.884	2.013	2.148	2.021	1.056	1.098	1.233	1.106
	Front	0.217	0.363	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.636	0.784	0.687	0.685	0.587	0.693	0.610	0.692	0.798	0.715	0.582	0.589	0.695	0.612
Hotspot (1-g SAR)	Rear	0.576	0.337	0.183	0.366	0.211	1.288	0.135	0.391	0.141		1.096	1.279	1.124	2.201	1.048	1.304	1.054	2.336	2.592	2.342				
	Front	0.325	0.272	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.780	1.010	0.808	0.806	0.614	0.852	0.671	0.823	1.061	0.880				
	Edge 1			0.183		0.211	1.288	0.023		0.013															
	Edge 2	0.208	0.033																						
	Edge 3	0.180	0.687																						
	Edge 4	0.231	0.030	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.444	0.674	0.472	0.903	0.279	0.703	0.357	0.921	1.345	0.999				
Product Specific 10-g (10-g SAR)	Rear						2.978				0.377														
	Front						0.449				0.048														
	Edge 1						2.978				0.026														
	Edge 2																								
	Edge 3		1.103																						
	Edge 4						1.576				0.214														

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)										Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN		DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)						
		1-a	1-b	2	3	4	5	6	7	8	9						
Body-Worn (1-g SAR)	Rear	0.236	0.598				1.137	0.042				1a+1b+5+6	2.013				60
		0.236	0.598				1.110					1a+1b+(5+6	1.944				
		0.236	0.598									1a+1b	0.834	27.8	0.03	No	
		0.236					1.110					1a+(5+6)	1.346	145.5	0.01	No	
			0.598				1.110					1b+(5+6)	1.708	161.8	0.01	No	
Hybrid SPLSR Note.4							1.110					(5+6)					
Body-Worn (1-g SAR)	Rear	0.236	0.598				1.137		0.177			1a+1b+5+7	2.148				61
		0.236	0.598				1.120					1a+1b+(5+7	1.954				
		0.236	0.598									1a+1b	0.834	27.8	0.03	No	
		0.236					1.120					1a+(5+7)	1.120	145.5	0.01	No	
			0.598				1.120					1b+(5+7)	1.718	161.8	0.01	No	
Hybrid SPLSR Note.4							1.120					(5+7)					
Body-Worn (1-g SAR)	Rear	0.236	0.598				1.137			0.050		1a+1b+5+8	2.021				62
		0.236	0.598				1.100					1a+1b+(5+8	1.934				
		0.236	0.598									1a+1b	0.834	27.8	0.03	No	
		0.236					1.100					1a+(5+8)	1.336	145.5	0.01	No	
			0.598				1.100					1b+(5+8)	1.698	161.8	0.01	No	
Hybrid SPLSR Note.4							1.100					(5+8)					
Hotspot (1-g SAR)	Rear	0.576	0.337				1.288	0.135				1a+1b+5+6	2.336				63
		0.576	0.337				1.270					1a+1b+(5+6	2.183				
		0.576	0.337									1a+1b	0.913	23.3	0.04	No	
		0.576					1.270					1a+(5+6)	1.846	146.3	0.02	No	
			0.337				1.270					1b+(5+6)	1.607	157.0	0.01	No	
Hybrid SPLSR Note.4							1.270					(5+6)					
Hotspot (1-g SAR)	Rear	0.576	0.337				1.288		0.391			1a+1b+5+7	2.592				64
		0.576	0.337				1.300					1a+1b+(5+7	2.213				
		0.576	0.337									1a+1b	0.913	23.3	0.04	No	
		0.576					1.300					1a+(5+7)	1.876	146.3	0.02	No	
			0.337				1.300					1b+(5+7)	1.637	157.0	0.01	No	
Hybrid SPLSR Note.4							1.300					(5+7)					
Hotspot (1-g SAR)	Rear	0.576	0.337				1.288			0.141		1a+1b+5+8	2.342				65
		0.576	0.337				1.250					1a+1b+(5+8	2.163				
		0.576	0.337									1a+1b	0.913	23.3	0.04	No	
		0.576					1.250					1a+(5+8)	1.826	146.3	0.02	No	
			0.337				1.250					1b+(5+8)	1.587	157.0	0.01	No	
Hybrid SPLSR Note.4							1.250					(5+7)					

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
6. (ENDC LTE B13 + NR Bn2) is subset of (ENDC LTE B13 + NR Bn25).
7. Red values means “FCC limit over” or “SPLSR limit over”.
8. WiFi/BT/LTE & Volume scan results were referred to Original report.

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RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)							Sum of SAR (W/kg)							
		WWAN		RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UMII MIMO)
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)								
		1-a(LTE)	1-b(NR)	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.171	0.017	0.048	0.065	0.113	0.104	0.018	0.340	0.357	0.405	0.217	0.254	0.271	0.319	0.131
	Left Tilt	0.078	0.008	0.029	0.008	0.037	0.036	0.016	0.151	0.130	0.159	0.073	0.131	0.110	0.139	0.053
	Right Touch	0.137	0.079	0.064	0.009	0.073	0.318	0.072	0.598	0.543	0.607	0.391	0.352	0.297	0.361	0.145
	Right Tilt	0.091	0.023	0.064	0.065	0.129	0.318	0.023	0.496	0.497	0.561	0.447	0.201	0.202	0.266	0.152
Body-Worn (1-g SAR)	Rear	0.236	0.598	0.056	0.204	0.107	0.297	0.222	1.187	1.335	1.238	0.404	1.112	1.260	1.163	0.329
	Front	0.217	0.363	0.056	0.204	0.107	0.023	0.002	0.659	0.807	0.710	0.130	0.638	0.786	0.689	0.109
Hotspot (1-g SAR)	Rear	0.576	0.337	0.183	0.366	0.211	1.288		2.384	2.567	2.412	1.499				
	Front	0.325	0.272	0.183	0.413	0.211	0.209		0.989	1.219	1.017	0.420				
	Edge 1			0.183		0.211	1.288									
	Edge 2	0.208	0.033													
	Edge 3	0.180	0.687													
	Edge 4	0.231	0.030	0.183	0.413	0.211	0.642		1.086	1.316	1.114	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)							Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN		RSDB scenarios										
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)						
		1-a(LTE)	1-b(NR)	2	3	4	5	6						
Hotspot (1-g SAR)	Rear	0.576	0.337	0.183			1.288		1a+1b+2+5	2.384				66
		0.576	0.337	1.270					1a+1b+(2+5	2.183				
		0.576	0.337						1a+1b	0.913	23.3	0.04	No	
		0.576		1.270					1b+(2+5)	1.846	146.3	0.02	No	
			0.337	1.270					1b+(2+5)	1.607	157.0	0.01	No	
Hybrid SPLSR Note.4				1.270					(2+5)					
Hotspot (1-g SAR)	Rear	0.576	0.337		0.366		1.288		1a+1b+3+5	2.567				67
		0.576	0.337		1.310				1a+1b+(3+5	2.223				
		0.576	0.337						1a+1b	0.913	23.3	0.04	No	
		0.576			1.310				1b+(3+5)	1.886	146.3	0.02	No	
			0.337		1.310				1b+(3+5)	1.647	157.0	0.01	No	
Hybrid SPLSR Note.4					1.310				(3+5)					
Hotspot (1-g SAR)	Rear	0.576	0.337			0.211	1.288		1a+1b+4+5	2.412				68
		0.576	0.337			1.300			1a+1b+(4+5	2.213				
		0.576	0.337						1a+1b	0.913	23.3	0.04	No	
		0.576				1.300			1b+(4+5)	1.876	146.3	0.02	No	
			0.337			1.300			1b+(4+5)	1.637	157.0	0.01	No	
Hybrid SPLSR Note.4						1.300			(4+5)					

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
6. (ENDC LTE B13 + NR Bn2) is subset of (ENDC LTE B13 + NR Bn25).
7. Red values means “FCC limit over” or “SPLSR limit over”.
8. WiFi/BT/LTE & Volume scan results were referred to Original report.

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12.13. Sum of the SAR for ENDC(LTE B12 + NR Bn41(Ant.J)) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)										Sum of SAR (W/kg)													
		WWAN		Non-RSDB scenarios								WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO	WWAN + UNII MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)														
		1-a (LTE)	1-b (NR)	2	3	4	5	6	7	8	9	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9
Head (1-g SAR)	Left Touch	0.161	0.844	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	1.102	1.283	1.380	1.109	1.155	1.126	1.106	1.259	1.230	1.210	1.023	1.173	1.144	1.124
	Left Tilt	0.070	1.080	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	1.210	1.203	1.263	1.186	1.205	1.167	1.172	1.241	1.203	1.208	1.166	1.221	1.183	1.188
	Right Touch	0.108	0.329	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.580	0.753	0.896	0.755	0.620	0.597	0.567	0.938	0.915	0.885	0.509	0.692	0.669	0.639
	Right Tilt	0.054	0.513	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.710	0.883	1.026	0.885	0.670	0.610	0.629	0.988	0.928	0.947	0.590	0.693	0.633	0.652
Body-Worn (1-g SAR)	Rear	0.181	0.103	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.340	0.488	0.391	1.421	0.326	0.461	0.334	1.463	1.598	1.471	0.506	0.548	0.683	0.556
	Front	0.181	0.052	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.289	0.437	0.340	0.338	0.240	0.346	0.263	0.345	0.451	0.368	0.235	0.242	0.348	0.265
Hotspot (1-g SAR)	Rear	0.335	0.139	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.657	0.840	0.685	1.762	0.609	0.865	0.615	1.897	2.153	1.903				
	Front	0.193	0.105	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.481	0.711	0.509	0.507	0.315	0.553	0.372	0.524	0.762	0.581				
	Edge 1		0.377	0.183		0.211	0.155	0.023		0.013															
	Edge 2	0.195	0.043																						
	Edge 3	0.090																							
	Edge 4	0.141		0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.324	0.554	0.352	0.783	0.159	0.583	0.237	0.801	1.225	0.879				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)										Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN		DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)						
		1-a	1-b	2	3	4	5	6	7	8	9						
Body-worn (1-g SAR)	Rear	0.181	0.103				1.137		0.177			1a+1b+5+7	1.598				69
		0.181	1.170									1a+(1b+5+7)	1.351	147	0.01	No	
Hybrid SPLSR Note.4			1.170									(1b+5+7)					
Head (1-g SAR)	Left Touch	0.161	0.844									1a+1b	1.005	85.6	0.01	No	70
Head (1-g SAR)	Left Tilt	0.070	1.080									1a+1b	1.150	44.1	0.03	No	71
Hotspot (1-g SAR)	Rear	0.335	0.139				1.288	0.135				1a+1b+5+6	1.897				72
		0.335	1.380									1a+(1b+5+6)	1.715	151.3	0.01	No	
Hybrid SPLSR Note.4			1.380									(1b+5+6)					
Hotspot (1-g SAR)	Rear	0.335	0.139				1.288		0.391			1a+1b+5+7	2.153				73
		0.335	1.420									1a+(1b+5+7)	1.755	151.3	0.02	No	
Hybrid SPLSR Note.4			1.420									(1b+5+7)					
Hotspot (1-g SAR)	Rear	0.335	0.139				1.288			0.141		1a+1b+5+8	1.903				74
		0.335	1.360									1a+(1b+5+8)	1.695	151.3	0.01	No	
Hybrid SPLSR Note.4			1.360									(1b+5+8)					

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
6. Red values means “FCC limit over” or “SPLSR limit over”.
7. WiFi/BT/LTE & Volume scan results were referred to Original report.

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RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)							Sum of SAR (W/kg)							
		WWAN		RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UMII MIMO)
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)								
		1-a(LTE)	1-b(NR)	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.161	0.844	0.048	0.065	0.113	0.104	0.018	1.157	1.174	1.222	0.217	1.071	1.088	1.136	0.131
	Left Tilt	0.070	1.080	0.029	0.008	0.037	0.036	0.016	1.215	1.194	1.223	0.073	1.195	1.174	1.203	0.053
	Right Touch	0.108	0.329	0.064	0.009	0.073	0.318	0.072	0.819	0.764	0.828	0.391	0.573	0.518	0.582	0.145
	Right Tilt	0.054	0.513	0.064	0.065	0.129	0.318	0.023	0.949	0.950	1.014	0.447	0.654	0.655	0.719	0.152
Body-Worn (1-g SAR)	Rear	0.181	0.103	0.056	0.204	0.107	0.297	0.222	0.637	0.785	0.688	0.404	0.562	0.710	0.613	0.329
	Front	0.181	0.052	0.056	0.204	0.107	0.023	0.002	0.312	0.460	0.363	0.130	0.291	0.439	0.342	0.109
Hotspot (1-g SAR)	Rear	0.335	0.139	0.183	0.366	0.211	1.288		1.945	2.128	1.973	1.499				
	Front	0.193	0.105	0.183	0.413	0.211	0.209		0.690	0.920	0.718	0.420				
	Edge 1		0.377	0.183		0.211	0.155									
	Edge 2	0.195	0.043													
	Edge 3	0.090														
	Edge 4	0.141		0.183	0.413	0.211	0.642		0.966	1.196	0.994	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)							Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN		RSDB scenarios										
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)						
		1-a(LTE)	1-b(NR)	2	3	4	5	6						
Hotspot (1-g SAR)	Rear	0.335	0.139	0.183			1.288		1a+1b+2+5	1.945				75
		0.335	1.390						1a+(1b+2+5)	1.725	151.3	0.01	No	
Hybrid SPLSR Note.4			1.390						(1b+2+5)					
Hotspot (1-g SAR)	Rear	0.335	0.139		0.366		1.288		1a+1b+3+5	2.128				76
		0.335	1.420						1a+(1b+3+5)	1.755	151.3	0.02	No	
Hybrid SPLSR Note.4			1.420						(1b+3+5)					
Hotspot (1-g SAR)	Rear	0.335	0.139			0.211	1.288		1a+1b+4+5	1.973				77
		0.335	1.410						1a+(1b+4+5)	1.745	151.3	0.02	No	
Hybrid SPLSR Note.4			1.410						(1b+4+5)					

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
6. Red values means “FCC limit over” or “SPLSR limit over”.
7. WiFi/BT/LTE & Volume scan results were referred to Original report.

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12.14. Sum of the SAR for ENDC(LTE B66 + NR Bn41(Ant.J)) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)										Sum of SAR (W/kg)													
		WWAN		Non-RSDB scenarios								WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO	WWAN + UNII MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)														
		1-a(LTE)	1-b(NR)	2	3	4	5	6	7	8	9	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9
Head (1-g SAR)	Left Touch	0.066	0.844	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	1.007	1.188	1.285	1.014	1.060	1.031	1.011	1.164	1.135	1.115	0.928	1.078	1.049	1.029
	Left Tilt	0.040	1.080	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	1.180	1.173	1.233	1.156	1.175	1.137	1.142	1.211	1.173	1.178	1.136	1.191	1.153	1.158
	Right Touch	0.030	0.329	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.502	0.675	0.818	0.677	0.542	0.519	0.489	0.860	0.837	0.807	0.431	0.614	0.591	0.561
	Right Tilt	0.039	0.513	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.695	0.868	1.011	0.870	0.655	0.595	0.614	0.973	0.913	0.932	0.575	0.678	0.618	0.637
Body-Worn (1-g SAR)	Rear	0.490	0.103	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.649	0.797	0.700	1.730	0.635	0.770	0.643	1.772	1.907	1.780	0.815	0.857	0.992	0.865
	Front	0.424	0.052	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.532	0.680	0.583	0.581	0.483	0.589	0.506	0.588	0.694	0.611	0.478	0.485	0.591	0.508
Hotspot (1-g SAR)	Rear	0.477	0.139	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.799	0.982	0.827	1.904	0.751	1.007	0.757	2.039	2.295	2.045				
	Front	0.404	0.105	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.692	0.922	0.720	0.718	0.526	0.764	0.583	0.735	0.973	0.792				
	Edge 1		0.377	0.183		0.211	0.155	0.023		0.013															
	Edge 2	0.069	0.043																						
	Edge 3	0.977																							
	Edge 4	0.049		0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.232	0.462	0.260	0.691	0.067	0.491	0.145	0.709	1.133	0.787				
Product Specific 10-g (10-g SAR)	Rear						2.978				0.377														
	Front						2.978				0.048														
	Edge 1						2.978				0.026														
	Edge 2																								
	Edge 3	1.697																							
	Edge 4						1.576				0.214														

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)										Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN		DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)						
		1-a	1-b	2	3	4	5	6	7	8	9						
Head (1-g SAR)	Left Touch	0.066	0.844									1a+1b	0.910	100.1	0.01	No	78
Body-Worn (1-g SAR)	Rear	0.490	0.103				1.137	0.042				1a+1b+5+6	1.772				79
		0.490	1.160									1a+(1b+5+6)	1.650	159.8	0.01	No	
Hybrid SPLSR Note.4			1.160									(1b+5+6)					
Body-Worn (1-g SAR)	Rear	0.490	0.103				1.137		0.177			1a+1b+5+7	1.907				80
		0.490	1.170									1a+(1b+5+7)	1.660	159.8	0.01	No	
Hybrid SPLSR Note.4			1.170									(1b+5+7)					
Body-Worn (1-g SAR)	Rear	0.490	0.103				1.137			0.050		1a+1b+5+8	1.780				81
		0.490	1.160									1a+(1b+5+8)	1.650	159.8	0.01	No	
Hybrid SPLSR Note.4			1.160									(1b+5+8)					
Hotspot (1-g SAR)	Rear	0.477	0.139				1.288	0.135				1a+1b+5+6	2.039				82
		0.477	1.380									1a+(1b+5+6)	1.857	156.9	0.02	No	
Hybrid SPLSR Note.4			1.380									(1b+5+6)					
Hotspot (1-g SAR)	Rear	0.477	0.139				1.288		0.391			1a+1b+5+7	2.295				83
		0.477	1.420									1a+(1b+5+7)	1.897	156.9	0.02	No	
Hybrid SPLSR Note.4			1.420									(1b+5+7)					
Hotspot (1-g SAR)	Rear	0.477	0.139				1.288			0.141		1a+1b+5+8	2.045				84
		0.477	1.360									1a+(1b+5+8)	1.837	156.9	0.02	No	
Hybrid SPLSR Note.4			1.360									(1b+5+8)					

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
6. (ENDC LTE B4 + NR Bn41) is subset of (ENDC LTE B66 + NR Bn41).
7. For Blue box in Non-RSDB scenarios, Enlarged zoom scan were evaluated for each LTE anchor and NR band by TCB workshop guide(Oct.2020 : 5G RFX Policies (Intra-band and Inter-band NSA-EN-DC evaluation)). Please refer to Sec 12.20.
8. Red values means “FCC limit over” or “SPLSR limit over”.
9. WiFi/BT/LTE results were referred to Original report.

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RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)							Sum of SAR (W/kg)							
		WWAN		RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UMII MIMO)
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)								
		1-a(LTE)	1-b(NR)	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.066	0.844	0.048	0.065	0.113	0.104	0.018	1.062	1.079	1.127	0.217	0.976	0.993	1.041	0.131
	Left Tilt	0.040	1.080	0.029	0.008	0.037	0.036	0.016	1.185	1.164	1.193	0.073	1.165	1.144	1.173	0.053
	Right Touch	0.030	0.329	0.064	0.009	0.073	0.318	0.072	0.741	0.686	0.750	0.391	0.495	0.440	0.504	0.145
	Right Tilt	0.039	0.513	0.064	0.065	0.129	0.318	0.023	0.934	0.935	0.999	0.447	0.639	0.640	0.704	0.152
Body-Worn (1-g SAR)	Rear	0.490	0.103	0.056	0.204	0.107	0.297	0.222	0.946	1.094	0.997	0.404	0.871	1.019	0.922	0.329
	Front	0.424	0.052	0.056	0.204	0.107	0.023	0.002	0.555	0.703	0.606	0.130	0.534	0.682	0.585	0.109
Hotspot (1-g SAR)	Rear	0.477	0.139	0.183	0.366	0.211	1.288		2.087	2.270	2.115	1.499				
	Front	0.404	0.105	0.183	0.413	0.211	0.209		0.901	1.131	0.929	0.420				
	Edge 1		0.377	0.183		0.211	0.155									
	Edge 2	0.069	0.043													
	Edge 3	0.977														
	Edge 4	0.049		0.183	0.413	0.211	0.642		0.874	1.104	0.902	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)							Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN		RSDB scenarios										
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)						
		1-a(LTE)	1-b(NR)	2	3	4	5	6						
Hotspot (1-g SAR)	Rear	0.477	0.139	0.183			1.288		1a+1b+2+5	2.087				85
		0.477	1.390						1a+(1b+2+5)	1.867	156.9	0.02	No	
Hybrid SPLSR Note.4			1.390						(1b+2+5)					
Hotspot (1-g SAR)	Rear	0.477	0.139		0.366		1.288		1a+1b+3+5	2.270				86
		0.477	1.420						1a+(1b+3+5)	1.897	156.9	0.02	No	
Hybrid SPLSR Note.4			1.420						(1b+3+5)					
Hotspot (1-g SAR)	Rear	0.477	0.139			0.211	1.288		1a+1b+4+5	2.115				87
		0.477	1.410						1a+(1b+4+5)	1.887	156.9	0.02	No	
Hybrid SPLSR Note.4			1.410						(1b+4+5)					

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
6. (ENDC LTE B4 + NR Bn41) is subset of (ENDC LTE B66 + NR Bn41).
7. For Blue box in Non-RSDB scenarios, Enlarged zoom scan were evaluated for each LTE anchor and NR band by TCB workshop guide(Oct.2020 : 5G RFX Policies (Intra-band and Inter-band NSA-EN-DC evaluation)). Please refer to Sec 12.20.
8. Red values means “FCC limit over” or “SPLSR limit over”.
9. WiFi/BT/LTE results were referred to Original report.

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12.15. Sum of the SAR for ENDC(LTE B5 + NR Bn77(Ant.F)) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)										Sum of SAR (W/kg)													
		WWAN		Non-RSDB scenarios								WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO	WWAN + UNII MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)														
		1-a (LTE)	1-b (NR)	2	3	4	5	6	7	8	9	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9
Head (1-g SAR)	Left Touch	0.208	0.081	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.386	0.567	0.664	0.393	0.439	0.410	0.390	0.543	0.514	0.494	0.307	0.457	0.428	0.408
	Left Tilt	0.085	0.080	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.225	0.218	0.278	0.201	0.220	0.182	0.187	0.256	0.218	0.223	0.181	0.236	0.198	0.203
	Right Touch	0.123	0.261	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.527	0.700	0.843	0.702	0.567	0.544	0.514	0.885	0.862	0.832	0.456	0.639	0.616	0.586
	Right Tilt	0.073	0.128	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.344	0.517	0.660	0.519	0.304	0.244	0.263	0.622	0.562	0.581	0.224	0.327	0.267	0.286
Body-Worn (1-g SAR)	Rear	0.341	0.148	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.545	0.693	0.596	1.626	0.531	0.666	0.539	1.668	1.803	1.676	0.711	0.753	0.888	0.761
	Front	0.225	0.059	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.340	0.488	0.391	0.389	0.291	0.397	0.314	0.396	0.502	0.419	0.286	0.293	0.399	0.316
Hotspot (1-g SAR)	Rear	0.680	0.257	0.183	0.366	0.211	1.288	0.135	0.391	0.141		1.120	1.303	1.148	2.225	1.072	1.328	1.078	2.360	2.616	2.366				
	Front	0.373	0.132	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.688	0.918	0.716	0.714	0.522	0.760	0.579	0.731	0.969	0.788				
	Edge 1		0.079	0.183		0.211	0.155	0.023		0.013															
	Edge 2	0.082																							
	Edge 3	0.297																							
	Edge 4	0.167	0.488	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.838	1.068	0.866	1.297	0.673	1.097	0.751	1.315	1.739	1.393				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)										Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN		DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)						
		1-a	1-b	2	3	4	5	6	7	8	9						
Body-Worn (1-g SAR)	Rear	0.341	0.148				1.137	0.042				1a+1b+5+6	1.668				
		0.341	1.230									1a+(1b+5+6)	1.571	149.4	0.01	No	88
Hybrid SPLSR Note.4			1.230									(1b+5+6)					
Body-Worn (1-g SAR)	Rear	0.341	0.148				1.137		0.177			1a+1b+5+7	1.803				
		0.341	1.230									1a+(1b+5+7)	1.571	149.4	0.01	No	89
Hybrid SPLSR Note.4			1.230									(1b+5+7)					
Body-Worn (1-g SAR)	Rear	0.341	0.148				1.137			0.050		1a+1b+5+8	1.676				
		0.341	1.210									1a+(1b+5+8)	1.551	149.4	0.01	No	90
Hybrid SPLSR Note.4			1.210									(1b+5+8)					
Hotspot (1-g SAR)	Rear	0.680	0.257				1.288	0.135				1a+1b+5+6	2.360				
		0.680	1.390									1a+(1b+5+6)	2.070	151.3	0.02	No	91
Hybrid SPLSR Note.4			1.390									(1b+5+6)					
Hotspot (1-g SAR)	Rear	0.680	0.257				1.288		0.391			1a+1b+5+7	2.616				
		0.680	1.420									1a+(1b+5+7)	2.100	151.3	0.02	No	92
Hybrid SPLSR Note.4			1.420									(1b+5+7)					
Hotspot (1-g SAR)	Rear	0.680	0.257				1.288			0.141		1a+1b+5+8	2.366				
		0.680	1.360									1a+(1b+5+8)	2.040	151.3	0.02	No	93
Hybrid SPLSR Note.4			1.360									(1b+5+8)					
Hotspot (1-g SAR)	Edge 4	0.167	0.488				0.642		0.442			1a+1b+5+7	1.739				
		0.167	1.250									1a+(1b+5+7)	1.417	57.9	0.03	No	94
Hybrid SPLSR Note.4			1.250									(1b+5+7)					

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. LTE Band 5 is subset of LTE Band 26, So LTE Band 26 was used to do Simultaneous transmission analysis.
6. Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
7. Red values means “FCC limit over” or “SPLSR limit over”.
8. WiFi/BT/LTE results were referred to Original report.

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RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)							Sum of SAR (W/kg)							
		WWAN		RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UMII MIMO)
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)								
		1-a(LTE)	1-b(NR)	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.208	0.081	0.048	0.065	0.113	0.104	0.018	0.441	0.458	0.506	0.217	0.355	0.372	0.420	0.131
	Left Tilt	0.085	0.080	0.029	0.008	0.037	0.036	0.016	0.230	0.209	0.238	0.073	0.210	0.189	0.218	0.053
	Right Touch	0.123	0.261	0.064	0.009	0.073	0.318	0.072	0.766	0.711	0.775	0.391	0.520	0.465	0.529	0.145
	Right Tilt	0.073	0.128	0.064	0.065	0.129	0.318	0.023	0.583	0.584	0.648	0.447	0.288	0.289	0.353	0.152
Body-Worn (1-g SAR)	Rear	0.341	0.148	0.056	0.204	0.107	0.297	0.222	0.842	0.990	0.893	0.404	0.767	0.915	0.818	0.329
	Front	0.225	0.059	0.056	0.204	0.107	0.023	0.002	0.363	0.511	0.414	0.130	0.342	0.490	0.393	0.109
Hotspot (1-g SAR)	Rear	0.680	0.257	0.183	0.366	0.211	1.288		2.408	2.591	2.436	1.499				
	Front	0.373	0.132	0.183	0.413	0.211	0.209		0.897	1.127	0.925	0.420				
	Edge 1		0.079	0.183		0.211	0.155									
	Edge 2	0.082														
	Edge 3	0.297														
	Edge 4	0.167	0.488	0.183	0.413	0.211	0.642		1.480	1.710	1.508	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)							Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN		RSDB scenarios										
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)						
		1-a(LTE)	1-b(NR)	2	3	4	5	6						
Hotspot (1-g SAR)	Rear	0.680	0.257	0.183			1.288		1a+1b+2+5	2.408				95
		0.680	1.400						1a+(1b+2+5)	2.080	151.3	0.02	No	
Hybrid SPLSR Note.4		1.400							(1b+2+5)					
Hotspot (1-g SAR)	Rear	0.680	0.257		0.366		1.288		1a+1b+3+5	2.591				96
		0.680	1.430						1a+(1b+3+5)	2.110	151.3	0.02	No	
Hybrid SPLSR Note.4		1.430							(1b+3+5)					
Hotspot (1-g SAR)	Rear	0.680	0.257			0.211	1.288		1a+1b+4+5	2.436				97
		0.680	1.420						1a+(1b+4+5)	2.100	151.3	0.02	No	
Hybrid SPLSR Note.4		1.420							(1b+4+5)					
Hotspot (1-g SAR)	Edge 4	0.167	0.488		0.413		0.642		1a+1b+3+5	1.710				98
		0.167	1.200						1a+(1b+3+5)	1.367	57.9	0.03	No	
Hybrid SPLSR Note.4		1.200							(1b+3+5)					

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. LTE Band 5 is subset of LTE Band 26, So LTE Band 26 was used to do Simultaneous transmission analysis.
6. Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
7. Red values means “FCC limit over” or “SPLSR limit over”.
8. WiFi/BT/LTE results were referred to Original report.

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12.16. Sum of the SAR for ENDC(LTE B12 + NR Bn77(Ant.F)) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)										Sum of SAR (W/kg)													
		WWAN		Non-RSDB scenarios								WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO	WWAN + UNII MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)														
		1-a (LTE)	1-b (NR)	2	3	4	5	6	7	8	9	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9
Head (1-g SAR)	Left Touch	0.161	0.081	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.339	0.520	0.617	0.346	0.392	0.363	0.343	0.496	0.467	0.447	0.260	0.410	0.381	0.361
	Left Tilt	0.070	0.080	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.210	0.203	0.263	0.186	0.205	0.167	0.172	0.241	0.203	0.208	0.166	0.221	0.183	0.188
	Right Touch	0.108	0.261	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.512	0.685	0.828	0.687	0.552	0.529	0.499	0.870	0.847	0.817	0.441	0.624	0.601	0.571
	Right Tilt	0.054	0.128	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.325	0.498	0.641	0.500	0.285	0.225	0.244	0.603	0.543	0.562	0.205	0.308	0.248	0.267
Body-Worn (1-g SAR)	Rear	0.181	0.148	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.385	0.533	0.436	1.466	0.371	0.506	0.379	1.508	1.643	1.516	0.551	0.593	0.728	0.601
	Front	0.181	0.059	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.296	0.444	0.347	0.345	0.247	0.353	0.270	0.352	0.458	0.375	0.242	0.249	0.355	0.272
Hotspot (1-g SAR)	Rear	0.335	0.257	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.775	0.958	0.803	1.880	0.727	0.983	0.733	2.015	2.271	2.021				
	Front	0.193	0.132	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.508	0.738	0.536	0.534	0.342	0.580	0.399	0.551	0.789	0.608				
	Edge 1		0.079	0.183		0.211	0.155	0.023		0.013															
	Edge 2	0.195																							
	Edge 3	0.090																							
	Edge 4	0.141	0.488	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.812	1.042	0.840	1.271	0.647	1.071	0.725	1.289	1.713	1.367				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)										Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN		DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)						
		1-a	1-b	2	3	4	5	6	7	8	9						
Body-Worn (1-g SAR)	Rear	0.181	0.148				1.137		0.177			1a+1b+5+7	1.643				99
		0.181	1.230									1a+(1b+5+7)	1.411	147.0	0.01	No	
Hybrid SPLSR Note.4			1.230									(1b+5+7)					
Hotspot (1-g SAR)	Rear	0.335	0.257				1.288	0.135				1a+1b+5+6	2.015				100
		0.335	1.390									1a+(1b+5+6)	1.725	151.3	0.01	No	
Hybrid SPLSR Note.4			1.390									(1b+5+6)					
Hotspot (1-g SAR)	Rear	0.335	0.257				1.288		0.391			1a+1b+5+7	2.271				101
		0.335	1.420									1a+(1b+5+7)	1.755	151.3	0.02	No	
Hybrid SPLSR Note.4			1.420									(1b+5+7)					
Hotspot (1-g SAR)	Rear	0.335	0.257				1.288			0.141		1a+1b+5+8	2.021				102
		0.335	1.360									1a+(1b+5+8)	1.695	151.3	0.01	No	
Hybrid SPLSR Note.4			1.360									(1b+5+8)					
Hotspot (1-g SAR)	Edge 4	0.141	0.488				0.642		0.442			1a+1b+5+7	1.713				103
		0.141	1.250									1a+(1b+5+7)	1.391	63.9	0.03	No	
Hybrid SPLSR Note.4			1.250														

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
6. Red values means “FCC limit over” or “SPLSR limit over”.
7. WiFi/BT/LTE results were referred to Original report.

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RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)							Sum of SAR (W/kg)							
		WWAN		RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UMII MIMO)
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)								
		1-a(LTE)	1-b(NR)	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.161	0.081	0.048	0.065	0.113	0.104	0.018	0.394	0.411	0.459	0.217	0.308	0.325	0.373	0.131
	Left Tilt	0.070	0.080	0.029	0.008	0.037	0.036	0.016	0.215	0.194	0.223	0.073	0.195	0.174	0.203	0.053
	Right Touch	0.108	0.261	0.064	0.009	0.073	0.318	0.072	0.751	0.696	0.760	0.391	0.505	0.450	0.514	0.145
	Right Tilt	0.054	0.128	0.064	0.065	0.129	0.318	0.023	0.564	0.565	0.629	0.447	0.269	0.270	0.334	0.152
Body-Worn (1-g SAR)	Rear	0.181	0.148	0.056	0.204	0.107	0.297	0.222	0.682	0.830	0.733	0.404	0.607	0.755	0.658	0.329
	Front	0.181	0.059	0.056	0.204	0.107	0.023	0.002	0.319	0.467	0.370	0.130	0.298	0.446	0.349	0.109
Hotspot (1-g SAR)	Rear	0.335	0.257	0.183	0.366	0.211	1.288		2.063	2.246	2.091	1.499				
	Front	0.193	0.132	0.183	0.413	0.211	0.209		0.717	0.947	0.745	0.420				
	Edge 1		0.079	0.183		0.211	0.155									
	Edge 2	0.195														
	Edge 3	0.090														
	Edge 4	0.141	0.488	0.183	0.413	0.211	0.642		1.454	1.684	1.482	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)							Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN		RSDB scenarios										
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)						
		1-a(LTE)	1-b(NR)	2	3	4	5	6						
Hotspot (1-g SAR)	Rear	0.335	0.257	0.183			1.288		1a+1b+2+5	2.063				104
		0.335	1.400						1a+(1b+2+5)	1.735	151.3	0.02	No	
Hybrid SPLSR Note.4			1.400						(1b+2+5)					
Hotspot (1-g SAR)	Rear	0.335	0.257		0.366		1.288		1a+1b+3+5	2.246				105
		0.335	1.430						1a+(1b+3+5)	1.765	151.3	0.02	No	
Hybrid SPLSR Note.4			1.430						(1b+3+5)					
Hotspot (1-g SAR)	Rear	0.335	0.257			0.211	1.288		1a+1b+4+5	2.091				106
		0.335	1.420						1a+(1b+4+5)	1.755	151.3	0.02	No	
Hybrid SPLSR Note.4			1.420						(1b+4+5)					
Hotspot (1-g SAR)	Edge 4	0.141	0.488		0.413		0.642		1a+1b+3+5	1.684				107
		0.141	1.200						1a+(1b+3+5)	1.341	63.9	0.02	No	
Hybrid SPLSR Note.4			1.200						(1b+3+5)					

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
6. Red values means “FCC limit over” or “SPLSR limit over”.
7. WiFi/BT/LTE results were referred to Original report.

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12.17. Sum of the SAR for ENDC(LTE B13 + NR Bn77(Ant.F)) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)										Sum of SAR (W/kg)													
		WWAN		Non-RSDB scenarios								WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO	WWAN + UNII MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)														
		1-a (LTE)	1-b (NR)	2	3	4	5	6	7	8	9	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9
Head (1-g SAR)	Left Touch	0.171	0.081	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.349	0.530	0.627	0.356	0.402	0.373	0.353	0.506	0.477	0.457	0.270	0.420	0.391	0.371
	Left Tilt	0.078	0.080	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.218	0.211	0.271	0.194	0.213	0.175	0.180	0.249	0.211	0.216	0.174	0.229	0.191	0.196
	Right Touch	0.137	0.261	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.541	0.714	0.857	0.716	0.581	0.558	0.528	0.899	0.876	0.846	0.470	0.653	0.630	0.600
	Right Tilt	0.091	0.128	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.362	0.535	0.678	0.537	0.322	0.262	0.281	0.640	0.580	0.599	0.242	0.345	0.285	0.304
Body-Worn (1-g SAR)	Rear	0.236	0.148	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.440	0.588	0.491	1.521	0.426	0.561	0.434	1.563	1.698	1.571	0.606	0.648	0.783	0.656
	Front	0.217	0.059	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.332	0.480	0.383	0.381	0.283	0.389	0.306	0.388	0.494	0.411	0.278	0.285	0.391	0.308
Hotspot (1-g SAR)	Rear	0.576	0.257	0.183	0.366	0.211	1.288	0.135	0.391	0.141		1.016	1.199	1.044	2.121	0.968	1.224	0.974	2.256	2.512	2.262				
	Front	0.325	0.132	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.640	0.870	0.668	0.666	0.474	0.712	0.531	0.683	0.921	0.740				
	Edge 1		0.079	0.183		0.211	0.155	0.023		0.013															
	Edge 2	0.208																							
	Edge 3	0.180																							
	Edge 4	0.231	0.488	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.902	1.132	0.930	1.361	0.737	1.161	0.815	1.379	1.803	1.457				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)										Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN															
		1-a	1-b	2	3	4	5	6	7	8	9						
Body-Worn (1-g SAR)	Rear	0.236	0.148				1.137		0.177			1a+1b+5+7	1.698				108
		0.236	1.230									1a+(1b+5+7)	1.466	145.5	0.01	No	
Hybrid SPLSR Note.4		1.230										(1b+5+7)					
Hotspot (1-g SAR)	Rear	0.576	0.257				1.288	0.135				1a+1b+5+6	2.256				109
		0.576	1.390									1a+(1b+5+6)	1.966	146.3	0.02	No	
Hybrid SPLSR Note.4		1.390										(1b+5+6)					
Hotspot (1-g SAR)	Rear	0.576	0.257				1.288		0.391			1a+1b+5+7	2.512				110
		0.576	1.420									1a+(1b+5+7)	1.996	146.3	0.02	No	
Hybrid SPLSR Note.4		1.420										(1b+5+7)					
Hotspot (1-g SAR)	Rear	0.576	0.257				1.288			0.141		1a+1b+5+8	2.262				111
		0.576	1.360									1a+(1b+5+8)	1.936	146.3	0.02	No	
Hybrid SPLSR Note.4		1.360										(1b+5+8)					
Hotspot (1-g SAR)	Edge 4	0.231	0.488				0.642		0.442			1a+1b+5+7	1.803				112
		0.231	1.250									1a+(1b+5+7)	1.481	62.4	0.03	No	
Hybrid SPLSR Note.4		1.250															

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
6. Red values means “FCC limit over” or “SPLSR limit over”.
7. WiFi/BT/LTE results were referred to Original report.

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RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)							Sum of SAR (W/kg)							
		WWAN		RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UMII MIMO)
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)								
		1-a(LTE)	1-b(NR)	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.171	0.081	0.048	0.065	0.113	0.104	0.018	0.404	0.421	0.469	0.217	0.318	0.335	0.383	0.131
	Left Tilt	0.078	0.080	0.029	0.008	0.037	0.036	0.016	0.223	0.202	0.231	0.073	0.203	0.182	0.211	0.053
	Right Touch	0.137	0.261	0.064	0.009	0.073	0.318	0.072	0.780	0.725	0.789	0.391	0.534	0.479	0.543	0.145
	Right Tilt	0.091	0.128	0.064	0.065	0.129	0.318	0.023	0.601	0.602	0.666	0.447	0.306	0.307	0.371	0.152
Body-Worn (1-g SAR)	Rear	0.236	0.148	0.056	0.204	0.107	0.297	0.222	0.737	0.885	0.788	0.404	0.662	0.810	0.713	0.329
	Front	0.217	0.059	0.056	0.204	0.107	0.023	0.002	0.355	0.503	0.406	0.130	0.334	0.482	0.385	0.109
Hotspot (1-g SAR)	Rear	0.576	0.257	0.183	0.366	0.211	1.288		2.304	2.487	2.332	1.499				
	Front	0.325	0.132	0.183	0.413	0.211	0.209		0.849	1.079	0.877	0.420				
	Edge 1		0.079	0.183		0.211	0.155									
	Edge 2	0.208														
	Edge 3	0.180														
	Edge 4	0.231	0.488	0.183	0.413	0.211	0.642		1.544	1.774	1.572	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)							Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN		RSDB scenarios										
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)						
		1-a(LTE)	1-b(NR)	2	3	4	5	6						
Hotspot (1-g SAR)	Rear	0.576	0.257	0.183			1.288		1a+1b+2+5	2.304				113
		0.576	1.400						1a+(1b+2+5)	1.976	146.3	0.02	No	
Hybrid SPLSR Note.4			1.400						(1b+2+5)					
Hotspot (1-g SAR)	Rear	0.576	0.257		0.366		1.288		1a+1b+3+5	2.487				114
		0.576	1.430						1a+(1b+3+5)	2.006	146.3	0.02	No	
Hybrid SPLSR Note.4			1.430						(1b+3+5)					
Hotspot (1-g SAR)	Rear	0.576	0.257			0.211	1.288		1a+1b+4+5	2.332				115
		0.576	1.420						1a+(1b+4+5)	1.996	146.3	0.02	No	
Hybrid SPLSR Note.4			1.420						(1b+4+5)					
Hotspot (1-g SAR)	Edge 4	0.231	0.488		0.413		0.642		1a+1b+3+5	1.774				116
		0.231	1.200						1a+(1b+3+5)	1.431	62.4	0.03	No	
Hybrid SPLSR Note.4			1.200						(1b+3+5)					

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
6. Red values means “FCC limit over” or “SPLSR limit over”.
7. WiFi/BT/LTE results were referred to Original report.

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12.18. Sum of the SAR for ENDC(LTE B25 + NR Bn77(Ant.F)) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)										Sum of SAR (W/kg)													
		WWAN		Non-RSDB scenarios								WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO	WWAN + UNII MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)														
		1-a (LTE)	1-b (NR)	2	3	4	5	6	7	8	9	1 + 2	1 + 3	1 + 4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9
Head (1-g SAR)	Left Touch	0.096	0.081	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.274	0.455	0.552	0.281	0.327	0.298	0.278	0.431	0.402	0.382	0.195	0.345	0.316	0.296
	Left Tilt	0.057	0.080	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.197	0.190	0.250	0.173	0.192	0.154	0.159	0.228	0.190	0.195	0.153	0.208	0.170	0.175
	Right Touch	0.074	0.261	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.478	0.651	0.794	0.653	0.518	0.495	0.465	0.836	0.813	0.783	0.407	0.590	0.567	0.537
	Right Tilt	0.049	0.128	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.320	0.493	0.636	0.495	0.280	0.220	0.239	0.598	0.538	0.557	0.200	0.303	0.243	0.262
Body-Worn (1-g SAR)	Rear	0.722	0.148	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.926	1.074	0.977	2.007	0.912	1.047	0.920	2.049	2.184	2.057	1.092	1.134	1.269	1.142
	Front	0.547	0.059	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.662	0.810	0.713	0.711	0.613	0.719	0.636	0.718	0.824	0.741	0.608	0.615	0.721	0.638
Hotspot (1-g SAR)	Rear	0.620	0.257	0.183	0.366	0.211	1.288	0.135	0.391	0.141		1.060	1.243	1.088	2.165	1.012	1.268	1.018	2.300	2.556	2.306				
	Front	0.546	0.132	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.861	1.091	0.889	0.887	0.695	0.933	0.752	0.904	1.142	0.961				
	Edge 1		0.079	0.183		0.211	0.155	0.023		0.013															
	Edge 2	0.068																							
	Edge 3	1.222																							
	Edge 4	0.054	0.488	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.725	0.955	0.753	1.184	0.560	0.984	0.638	1.202	1.626	1.280				
Product Specific 10-g (10-g SAR)	Rear	1.744					2.978				0.377				4.722							2.121			
	Front	1.421					0.449				0.048				1.870							1.469			
	Edge 1						2.978				0.026														
	Edge 2																								
	Edge 3	1.721																							
	Edge 4						1.576				0.214														

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)										Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN		DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)						
		1-a	1-b	2	3	4	5	6	7	8	9						
Body-Worn (1-g SAR)	Rear	0.722	0.148				1.137	0.042				1a+1b+5+6	2.049				117
		0.722	1.230									1a+(1b+5+6)	1.952	159.6	0.02	No	
Hybrid SPLSR Note.4		1.230										(1b+5+6)					
Body-Worn (1-g SAR)	Rear	0.722	0.148				1.137		0.177			1a+1b+5+7	2.184				118
		0.722	1.230									1a+(1b+5+7)	1.952	159.6	0.02	No	
Hybrid SPLSR Note.4		1.230										(1b+5+7)					
Body-Worn (1-g SAR)	Rear	0.722	0.148				1.137			0.050		1a+1b+5+8	2.057				119
		0.722	1.210									1a+(1b+5+8)	1.932	159.6	0.02	No	
Hybrid SPLSR Note.4		1.210										(1b+5+8)					
Hotspot (1-g SAR)	Rear	0.620	0.257				1.288	0.135				1a+1b+5+6	2.300				120
		0.620	1.390									1a+(1b+5+6)	2.010	156.5	0.02	No	
Hybrid SPLSR Note.4		1.390										(1b+5+6)					
Hotspot (1-g SAR)	Rear	0.620	0.257				1.288		0.391			1a+1b+5+7	2.556				121
		0.620	1.420									1a+(1b+5+7)	2.040	156.5	0.02	No	
Hybrid SPLSR Note.4		1.420										(1b+5+7)					
Hotspot (1-g SAR)	Rear	0.049	0.128				0.318			0.062		1a+1b+5+8	0.557				122
		0.049	1.360									1a+(1b+5+8)	1.409	156.5	0.01	No	
Hybrid SPLSR Note.4		1.360										(1b+5+8)					
Hotspot (1-g SAR)	Edge 4	0.054	0.488				0.642		0.442			1a+1b+5+7	1.626				123
		0.054	1.250									1a+(1b+5+7)	1.304	125.2	0.01	No	
Hybrid SPLSR Note.4		1.250										(1b+5+7)					
Product Specific 10-g (10-g SAR)	Rear	1.744					2.978					1 + 5	4.722	140.4	0.07	No	124

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
6. Red values means “FCC limit over” or “SPLSR limit over”.
7. WiFi/BT/LTE results were referred to Original report.

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RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)							Sum of SAR (W/kg)							
		WWAN		RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UMII MIMO)
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)								
		1-a(LTE)	1-b(NR)	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.096	0.081	0.048	0.065	0.113	0.104	0.018	0.329	0.346	0.394	0.217	0.243	0.260	0.308	0.131
	Left Tilt	0.057	0.080	0.029	0.008	0.037	0.036	0.016	0.202	0.181	0.210	0.073	0.182	0.161	0.190	0.053
	Right Touch	0.074	0.261	0.064	0.009	0.073	0.318	0.072	0.717	0.662	0.726	0.391	0.471	0.416	0.480	0.145
	Right Tilt	0.049	0.128	0.064	0.065	0.129	0.318	0.023	0.559	0.560	0.624	0.447	0.264	0.265	0.329	0.152
Body-Worn (1-g SAR)	Rear	0.722	0.148	0.056	0.204	0.107	0.297	0.222	1.223	1.371	1.274	0.404	1.148	1.296	1.199	0.329
	Front	0.547	0.059	0.056	0.204	0.107	0.023	0.002	0.685	0.833	0.736	0.130	0.664	0.812	0.715	0.109
Hotspot (1-g SAR)	Rear	0.620	0.257	0.183	0.366	0.211	1.288		2.348	2.531	2.376	1.499				
	Front	0.546	0.132	0.183	0.413	0.211	0.209		1.070	1.300	1.098	0.420				
	Edge 1		0.079	0.183		0.211	0.155									
	Edge 2	0.068														
	Edge 3	1.222														
	Edge 4	0.054	0.488	0.183	0.413	0.211	0.642		1.367	1.597	1.395	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)							Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN		RSDB scenarios										
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)						
		1-a(LTE)	1-b(NR)	2	3	4	5	6						
Hotspot (1-g SAR)	Rear	0.620	0.257	0.183			1.288		1a+1b+2+5	2.348				125
		0.620	1.400						1a+(1b+2+5)	2.020	156.5	0.02	No	
Hybrid SPLSR Note.4		1.400							(1b+2+5)					
Hotspot (1-g SAR)	Rear	0.620	0.257		0.366		1.288		1a+1b+3+5	2.531				126
		0.620	1.430						1a+(1b+3+5)	2.050	156.5	0.02	No	
Hybrid SPLSR Note.4		1.430							(1b+3+5)					
Hotspot (1-g SAR)	Rear	0.620	0.257			0.211	1.288		1a+1b+4+5	2.376				127
		0.620	1.420						1a+(1b+4+5)	2.040	156.5	0.02	No	
Hybrid SPLSR Note.4		1.420							(1b+4+5)					
Hotspot (1-g SAR)	Edge 4	0.054	0.488		0.413		0.642		1a+1b+3+5	1.597				128
		0.054	1.200						1a+(1b+3+5)	1.254	125.2	0.01	No	
Hybrid SPLSR Note.4		1.200							(1b+3+5)					

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
6. Red values means “FCC limit over” or “SPLSR limit over”.
7. WiFi/BT/LTE results were referred to Original report.

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12.19. Sum of the SAR for ENDC(LTE B66 + NR Bn77(Ant.F)) & Wi-Fi & BT

Non-RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)										Sum of SAR (W/kg)													
		WWAN		Non-RSDB scenarios								WWAN + DTS Ant.1	WWAN + DTS Ant.2	WWAN + DTS MIMO	WWAN + UNII MIMO	WWAN + BT Ant.1	WWAN + BT Ant.2	WWAN + BT MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO	WWAN + UNII MIMO	WWAN + UNII MIMO + BT Ant.1	WWAN + UNII MIMO + BT Ant.2	WWAN + UNII MIMO + BT MIMO
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)														
		1-a(LTE)	1-b(NR)	2	3	4	5	6	7	8	9	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+5+6	1+5+7	1+5+8	1+9	1+6+9	1+7+9	1+8+9
Head (1-g SAR)	Left Touch	0.066	0.081	0.097	0.278	0.375	0.104	0.150	0.121	0.101	0.018	0.244	0.425	0.522	0.251	0.297	0.268	0.248	0.401	0.372	0.352	0.165	0.315	0.286	0.266
	Left Tilt	0.040	0.080	0.060	0.053	0.113	0.036	0.055	0.017	0.022	0.016	0.180	0.173	0.233	0.156	0.175	0.137	0.142	0.211	0.173	0.178	0.136	0.191	0.153	0.158
	Right Touch	0.030	0.261	0.143	0.316	0.459	0.318	0.183	0.160	0.130	0.072	0.434	0.607	0.750	0.609	0.474	0.451	0.421	0.792	0.769	0.739	0.363	0.546	0.523	0.493
	Right Tilt	0.039	0.128	0.143	0.316	0.459	0.318	0.103	0.043	0.062	0.023	0.310	0.483	0.626	0.485	0.270	0.210	0.229	0.588	0.528	0.547	0.190	0.293	0.233	0.252
Body-Worn (1-g SAR)	Rear	0.490	0.148	0.056	0.204	0.107	1.137	0.042	0.177	0.050	0.222	0.694	0.842	0.745	1.775	0.680	0.815	0.688	1.817	1.952	1.825	0.860	0.902	1.037	0.910
	Front	0.424	0.059	0.056	0.204	0.107	0.105	0.007	0.113	0.030	0.002	0.539	0.687	0.590	0.588	0.490	0.596	0.513	0.595	0.701	0.618	0.485	0.492	0.598	0.515
Hotspot (1-g SAR)	Rear	0.477	0.257	0.183	0.366	0.211	1.288	0.135	0.391	0.141		0.917	1.100	0.945	2.022	0.869	1.125	0.875	2.157	2.413	2.163				
	Front	0.404	0.132	0.183	0.413	0.211	0.209	0.017	0.255	0.074		0.719	0.949	0.747	0.745	0.553	0.791	0.610	0.762	1.000	0.819				
	Edge 1		0.079	0.183		0.211	0.155	0.023		0.013															
	Edge 2	0.069																							
	Edge 3	0.977																							
	Edge 4	0.049	0.488	0.183	0.413	0.211	0.642	0.018	0.442	0.096		0.720	0.950	0.748	1.179	0.555	0.979	0.633	1.197	1.621	1.275				
Product Specific 10-g (10-g SAR)	Rear						2.978				0.377														
	Front						2.978				0.048														
	Edge 1						2.978				0.026														
	Edge 2																								
	Edge 3	1.697																							
	Edge 4						1.576				0.214														

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)										Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN		DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	BT Ant.1	BT Ant.2	BT MIMO	UNII MIMO (6GHz)						
		1-a	1-b	2	3	4	5	6	7	8	9						
Body-Worn (1-g SAR)	Rear	0.490	0.148				1.137	0.042				1a+1b+5+6	1.817				129
		0.490	1.230									1a+(1b+5+6)	1.720	159.8	0.01	No	
Hybrid SPLSR Note.4		1.230										(1b+5+6)					
Body-Worn (1-g SAR)	Rear	0.490	0.148				1.137		0.177			1a+1b+5+7	1.952				130
		0.490	1.230									1a+(1b+5+7)	1.720	159.8	0.01	No	
Hybrid SPLSR Note.4		1.230										(1b+5+7)					
Body-Worn (1-g SAR)	Rear	0.490	0.148				1.137			0.050		1a+1b+5+8	1.825				131
		0.490	1.210									1a+(1b+5+8)	1.700	159.8	0.01	No	
Hybrid SPLSR Note.4		1.210										(1b+5+8)					
Hotspot (1-g SAR)	Rear	0.477	0.257				1.288	0.135				1a+1b+5+6	2.157				132
		0.477	1.390									1a+(1b+5+6)	1.867	156.9	0.02	No	
Hybrid SPLSR Note.4		1.390										(1b+5+6)					
Hotspot (1-g SAR)	Rear	0.477	0.257				1.288		0.391			1a+1b+5+7	2.413				133
		0.477	1.420									1a+(1b+5+7)	1.897	156.9	0.02	No	
Hybrid SPLSR Note.4		1.420										(1b+5+7)					
Hotspot (1-g SAR)	Rear	0.477	0.257				1.288			0.141		1a+1b+5+8	2.163				134
		0.477	1.360									1a+(1b+5+8)	1.837	156.9	0.02	No	
Hybrid SPLSR Note.4		1.360										(1b+5+8)					
Hotspot (1-g SAR)	Edge 4	0.049	0.488				0.642		0.442			1a+1b+5+7	1.621				135
		0.049	1.250									1a+(1b+5+7)	1.299	112.2	0.01	No	
Hybrid SPLSR Note.4		1.250										(1b+5+7)					

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
6. Red values means “FCC limit over” or “SPLSR limit over”.
7. WiFi/BT/LTE results were referred to Original report.

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RSDB scenarios

RF Exposure	Test Position	Standalone SAR (W/kg)							Sum of SAR (W/kg)							
		WWAN		RSDB scenarios					WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UNII MIMO)	WWAN + DTS Ant.1 + UNII MIMO	WWAN + DTS Ant.2 + UNII MIMO	WWAN + DTS MIMO + UNII MIMO	RSDB Sum (DTS MIMO + UMII MIMO)
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)								
		1-a(LTE)	1-b(NR)	2	3	4	5	6	1+2+5	1+3+5	1+4+5	4+5	1+2+6	1+3+6	1+4+6	4+6
Head (1-g SAR)	Left Touch	0.066	0.081	0.048	0.065	0.113	0.104	0.018	0.299	0.316	0.364	0.217	0.213	0.230	0.278	0.131
	Left Tilt	0.040	0.080	0.029	0.008	0.037	0.036	0.016	0.185	0.164	0.193	0.073	0.165	0.144	0.173	0.053
	Right Touch	0.030	0.261	0.064	0.009	0.073	0.318	0.072	0.673	0.618	0.682	0.391	0.427	0.372	0.436	0.145
	Right Tilt	0.039	0.128	0.064	0.065	0.129	0.318	0.023	0.549	0.550	0.614	0.447	0.254	0.255	0.319	0.152
Body-Worn (1-g SAR)	Rear	0.490	0.148	0.056	0.204	0.107	0.297	0.222	0.991	1.139	1.042	0.404	0.916	1.064	0.967	0.329
	Front	0.424	0.059	0.056	0.204	0.107	0.023	0.002	0.562	0.710	0.613	0.130	0.541	0.689	0.592	0.109
Hotspot (1-g SAR)	Rear	0.477	0.257	0.183	0.366	0.211	1.288		2.205	2.388	2.233	1.499				
	Front	0.404	0.132	0.183	0.413	0.211	0.209		0.928	1.158	0.956	0.420				
	Edge 1		0.079	0.183		0.211	0.155									
	Edge 2	0.069														
	Edge 3	0.977														
	Edge 4	0.049	0.488	0.183	0.413	0.211	0.642		1.362	1.592	1.390	0.853				

SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure	Test Position	Standalone SAR (W/kg)							Sum of SAR (W/kg) (1-g or 10-g)		Calculated Distance (mm)	1-g SPLSR (=<0.04) or 10-g SPSLR (=<0.10)	Volume Scan (Yes/No) Note.3	Figure
		WWAN		RSDB scenarios										
				DTS Ant.1	DTS Ant.2	DTS MIMO	UNII MIMO (5GHz)	UNII MIMO (6GHz)						
		1-a(LTE)	1-b(NR)	2	3	4	5	6						
Hotspot (1-g SAR)	Rear	0.477	0.257	0.183			1.288		1a+1b+2+5	2.205				136
		0.477	1.400						1a+(1b+2+5)	1.877	156.9	0.02	No	
Hybrid SPLSR Note.4			1.400						(1b+2+5)					
Hotspot (1-g SAR)	Rear	0.477	0.257		0.366		1.288		1a+1b+3+5	2.388				137
		0.477	1.430						1a+(1b+3+5)	1.907	156.9	0.02	No	
Hybrid SPLSR Note.4			1.430						(1b+3+5)					
Hotspot (1-g SAR)	Rear	0.477	0.257			0.211	1.288		1a+1b+4+5	2.233				138
		0.477	1.420						1a+(1b+4+5)	1.897	156.9	0.02	No	
Hybrid SPLSR Note.4			1.420						(1b+4+5)					

Note(s):

1. Green value is estimated SAR value.
2. Blue values are summation of DTS Ant.1 and DTS Ant.2
3. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.20 for detailed Volume Scan Result.
4. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
5. Simultaneous transmission scenarios (1+5) are subset of (1+5+7) scenarios.
6. Red values means “FCC limit over” or “SPLSR limit over”.
7. WiFi/BT/LTE results were referred to Original report.

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12.20. Volume Scan Results

Volume Scan Results

RF Exposure	Test Position	Configuration	Band	Sample	Original Measured SAR (W/kg)	Volume Scan Result	Plot No.	Multi-Band Combined factor	Multi-Band Combined Result	Plot No.
Body-worn	Rear 15mm	UNII MIMO + Bluetooth Ant 1 + NR Band n41 (Ant.J)	UNII MIMO	Version.1	0.718	0.688		1.584	1.160	13,14
			Bluetooth Ant 1	Version.1	0.032	0.029		1.306		
			NR Band n41	Version.1	0.084	0.033	1	3.129		
		UNII MIMO + Bluetooth Ant 2 + NR Band n41 (Ant.J)	UNII MIMO	Version.1	0.718	0.688		1.584	1.170	15,16
			Bluetooth Ant 2	Version.1	0.087	0.063		2.027		
			NR Band n41	Version.1	0.084	0.033		3.129		
		UNII MIMO + Bluetooth MIMO + NR Band n41 (Ant.J)	UNII MIMO	Version.1	0.718	0.688		1.584	1.160	17,18
			Bluetooth MIMO	Version.1	0.032	0.029		1.556		
			NR Band n41	Version.1	0.084	0.033		3.129		
		UNII MIMO + Bluetooth Ant 1 + NR Band n77 (Ant.F)	UNII MIMO	Version.1	0.718	0.688		1.584	1.230	19,20
			Bluetooth Ant 1	Version.1	0.032	0.029		1.306		
			NR Band n77	Version.1	0.118	0.110	2	1.250		
		UNII MIMO + Bluetooth Ant 2 + NR Band n77 (Ant.F)	UNII MIMO	Version.1	0.718	0.688		1.584	1.230	21,22
			Bluetooth Ant 2	Version.1	0.087	0.063		2.027		
			NR Band n77	Version.1	0.118	0.110		1.250		
		UNII MIMO + Bluetooth MIMO + NR Band n77 (Ant.F)	UNII MIMO	Version.1	0.718	0.688		1.584	1.210	23,24
			Bluetooth MIMO	Version.1	0.032	0.029		1.556		
			NR Band n77	Version.1	0.118	0.110		1.250		
Hotspot	Rear 10mm	UNII MIMO + Bluetooth Ant 1 + NR Band n41 (Ant.J)	UNII MIMO	Version.3	0.798	0.759		1.614	1.380	25,26
			Bluetooth Ant 1	Version.1	0.103	0.079		1.306		
			NR Band n41	Version.1	0.113	0.112	3	1.231		
		UNII MIMO + Bluetooth Ant 2 + NR Band n41 (Ant.J)	UNII MIMO	Version.3	0.798	0.759		1.614	1.420	27,28
			Bluetooth Ant 2	Version.1	0.193	0.123		2.027		
			NR Band n41	Version.1	0.113	0.112		1.231		
		UNII MIMO + Bluetooth MIMO + NR Band n41 (Ant.J)	UNII MIMO	Version.3	0.798	0.759		1.614	1.360	29,30
			Bluetooth MIMO	Version.1	0.091	0.069		1.556		
			NR Band n41	Version.1	0.113	0.112		1.231		
		UNII MIMO + DTS Ant 1 + NR Band n41 (Ant.J)	UNII MIMO	Version.3	0.798	0.759		1.614	1.390	31,32
			DTS Ant 1	Version.1	0.139	0.137		1.316		
			NR Band n41	Version.1	0.113	0.112		1.231		
		UNII MIMO + DTS Ant 2 + NR Band n41 (Ant.J)	UNII MIMO	Version.3	0.798	0.759		1.614	1.420	33,34
			DTS Ant 2	Version.1	0.281	0.216		1.301		
			NR Band n41	Version.1	0.113	0.112		1.231		
		UNII MIMO + DTS MIMO + NR Band n41 (Ant.J)	UNII MIMO	Version.3	0.798	0.759		1.614	1.410	35,36
			DTS MIMO	Version.1	0.160	0.136		1.303		
			NR Band n41	Version.1	0.113	0.112		1.231		
		UNII MIMO + Bluetooth Ant 2 + NR Band n41 (Ant.E)	UNII MIMO	Version.3	0.798	0.759		1.614	1.350	37,38
			Bluetooth Ant 2	Version.1	0.193	0.123		2.027		
			NR Band n41	Version.1	0.047	0.048	4	1.099		
		UNII MIMO + DTS Ant 2 + NR Band n41 (Ant.E)	UNII MIMO	Version.3	0.798	0.759		1.614	1.350	39,40
			DTS Ant 2	Version.1	0.281	0.216		1.301		
			NR Band n41	Version.1	0.047	0.048		1.099		
		UNII MIMO + Bluetooth Ant 1 + NR Band n77 (Ant.F)	UNII MIMO	Version.3	0.798	0.759		1.614	1.390	41,42
			Bluetooth Ant 1	Version.1	0.103	0.079		1.306		
			NR Band n77	Version.1	0.219	0.186	5	1.175		
		UNII MIMO + Bluetooth Ant 2 + NR Band n77 (Ant.F)	UNII MIMO	Version.3	0.798	0.759		1.614	1.420	43,44
			Bluetooth Ant 2	Version.1	0.193	0.123		2.027		
			NR Band n77	Version.1	0.219	0.186		1.175		
		UNII MIMO + Bluetooth MIMO + NR Band n77 (Ant.F)	UNII MIMO	Version.3	0.798	0.759		1.614	1.360	45,46
			Bluetooth MIMO	Version.1	0.091	0.069		1.556		
			NR Band n77	Version.1	0.219	0.186		1.175		
		UNII MIMO + DTS Ant 1 + NR Band n77 (Ant.F)	UNII MIMO	Version.3	0.798	0.759		1.614	1.400	47,48
			DTS Ant 1	Version.1	0.139	0.137		1.316		
			NR Band n77	Version.1	0.219	0.186		1.175		
		UNII MIMO + DTS Ant 2 + NR Band n77 (Ant.F)	UNII MIMO	Version.3	0.798	0.759		1.614	1.430	49,50
			DTS Ant 2	Version.1	0.281	0.216		1.301		
			NR Band n77	Version.1	0.219	0.186		1.175		
		UNII MIMO + DTS MIMO + NR Band n77 (Ant.F)	UNII MIMO	Version.3	0.798	0.759		1.614	1.420	51,52
			DTS MIMO	Version.1	0.160	0.136		1.303		
			NR Band n77	Version.1	0.219	0.186		1.175		

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Volume Scan Results (Continued)

RF Exposure	Test Position	Configuration	Band	Sample	Original Measured SAR (W/kg)	Volume Scan Result	Plot No.	Multi-Band Combined factor	Multi-Band Combined Result	Plot No.
Hotspot	Rear 10mm	UNII MIMO + Bluetooth Ant 1 + NR Band n77 (Ant.L)	UNII MIMO	Version.3	0.798	0.759		1.614	1.480	53,54
			Bluetooth Ant 1	Version.1	0.103	0.079		1.306		
			NR Band n77	Version.1	0.341	0.340	6	1.130		
		UNII MIMO + Bluetooth Ant 2 + NR Band n77 (Ant.L)	UNII MIMO	Version.3	0.798	0.759		1.614	1.520	55,56
			Bluetooth Ant 2	Version.1	0.193	0.123		2.027		
			NR Band n77	Version.1	0.341	0.340		1.130		
		UNII MIMO + Bluetooth MIMO + NR Band n77 (Ant.L)	UNII MIMO	Version.3	0.798	0.759		1.614	1.470	57,58
			Bluetooth MIMO	Version.1	0.091	0.069		1.556		
			NR Band n77	Version.1	0.341	0.340		1.130		
		UNII MIMO + DTS Ant 1 + NR Band n77 (Ant.L)	UNII MIMO	Version.3	0.798	0.759		1.614	1.470	59,60
			DTS Ant 1	Version.1	0.139	0.137		1.316		
			NR Band n77	Version.1	0.341	0.340		1.130		
		UNII MIMO + DTS Ant 2 + NR Band n77 (Ant.L)	UNII MIMO	Version.3	0.798	0.759		1.614	1.520	61,62
			DTS Ant 2	Version.1	0.281	0.216		1.301		
			NR Band n77	Version.1	0.341	0.340		1.130		
		UNII MIMO + DTS MIMO + NR Band n77 (Ant.L)	UNII MIMO	Version.3	0.798	0.759		1.614	1.510	63,64
			DTS MIMO	Version.1	0.160	0.136		1.303		
			NR Band n77	Version.1	0.341	0.340		1.130		
	Edge 4 10mm	UNII MIMO + Bluetooth Ant 2 + NR Band n77 (Ant.F)	UNII MIMO	Version.3	0.398	0.354	7	1.614	1.250	65,66
			Bluetooth Ant 2	Version.1	0.218	0.202	8	2.030		
			NR Band n77	Version.1	0.415	0.307	9	1.175		
		UNII MIMO + DTS Ant 2 + NR Band n77 (Ant.F)	UNII MIMO	Version.3	0.398	0.354		1.614	1.200	67,68
			DTS Ant. 2	Version.1	0.317	0.299	10	1.301		
			NR Band n77	Version.1	0.415	0.307		1.175		
Head	Left tilt	LTE Band 66 + NR Band n41 (Ant.J)	LTE Band 66	Version.1	0.030	0.013	11	1.316	0.914	69,70
			NR Band n41	Version.1	0.877	0.743	12	1.231		

Note(s):

1. Multi-band Combined factor is the compensation value of power and duty.
2. For Volume Scan plot number in this section, please refer to the Appendix I.

Conclusion:

Simultaneous Transmission SAR analysis results is satisfied the FCC Limit requirement according to follow procedures with “Sum of SAR” or “SPLSR” or “SPLSR Hotspot combination(including Volume Scan)”.

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Appendixes

Refer to separated files for the following appendixes.

4790270388-S1 FCC Report SAR_App A_Photos & Ant. Locations

4790270388-S1 FCC Report SAR_App B_Highest SAR Test Plots

4790270388-S1 FCC Report SAR_App C_System Check Plots

4790270388-S1 FCC Report SAR_App D_SAR Tissue Ingredients

4790270388-S1 FCC Report SAR_App E_Probe Cal. Certificates

4790270388-S1 FCC Report SAR_App F_Dipole Cal. Certificates

4790270388-S1 FCC Report SAR_App G_Proximity Sensor feature

4790270388-S1 FCC Report SAR_App H_SPLSR criteria plots

4790270388-S1 FCC Report SAR_App I_Volume Scan Results

END OF REPORT

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