

Appendix D Probe, DAE and Dipole Calibration Certificates

Appendix D.1 Calibration certificate for Probe_SN3986

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Client: **SGS**
Gyeonggi-do, Republic of Korea

Certificate No.: **EX-3986_Jan24**

CALIBRATION CERTIFICATE

Object: **EX3DV4 - SN:3986**

Calibration procedure(s): **QA CAL-01.v10, QA CAL-12.v10, QA CAL-14.v7, QA CAL-23.v6,
QA CAL-25.v8**
Calibration procedure for dosimetric E-field probes

Calibration date: **January 24, 2024**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.
All calibrations have been conducted in the closed laboratory facility: environment temperature (22±3)°C and humidity < 70%.
Calibration Equipment used (M&PE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP2	SN: 104775	20-Mar-23 (No. 217-03804/03605)	Mar-24
Power sensor NRP-Z91	SN: 103244	30-Mar-23 (No. 217-03804)	Mar-24
OCF DAK-3.5 (weighted)	SN: 1249	05-Oct-23 (OCF-DAK3.5-1249_Oct23)	Oct-24
OCF DAK-12	SN: 1016	05-Oct-23 (OCF-DAK12-1016_Oct23)	Oct-24
Reference 20 dB Attenuator	SN: CC2552 (20x)	30-Mar-23 (No. 217-03809)	Mar-24
DAE4	SN: 690	16-Mar-23 (No. DAE4-690_Mar23)	Mar-24
Reference Probe EX3DV4	SN: 7349	03-Nov-23 (No. EX3-7349_Nov23)	Nov-24

Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: 0B41260874	08-Apr-16 (in house check Jun-22)	In house check: Jun-24
Power sensor E4412A	SN: MF41699367	09-Apr-16 (in house check Jun-22)	In house check: Jun-24
Power sensor E4412A	SN: 003110210	05-Apr-16 (in house check Jun-22)	In house check: Jun-24
RF generator HP 8448C	SN: US3843U01700	04-Aug-99 (in house check Jun-22)	In house check: Jun-24
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24

	Name	Function	Signature
Calibrated by	Jeton Kasztli	Laboratory Technician	<i>J. Kasztli</i>
Approved by	Sven Kälin	Technical Manager	<i>S. Kälin</i>

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Issued: January 25, 2024

Certificate No: EX-3986_Jan24

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S Schweizerischer Kalibrierdienst
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Accreditation No.: SCS 0108

Glossary

TSL	issue simulating liquid
NORM _{x,y,z}	sensitivity in free space
ConvF	sensitivity in TSL / NORM _{x,y,z}
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization θ	θ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\theta = 0$ is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

- IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices – Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- KDB 856664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORM_{x,y,z}: Assessed for E-field polarization $\theta = 0$ ($f \leq 900$ MHz in TEM-cell; $f > 1600$ MHz: R22 waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not affect the E²-field uncertainty inside TSL (see below ConvF).
- NORM₀(_{x,y,z}) = NORM_{x,y,z} * frequency_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP_{x,y,z}: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal. DCP does not depend on frequency nor media.
- PAR: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A_{x,y,z}; B_{x,y,z}; C_{x,y,z}; D_{x,y,z}; VR_{x,y,z}: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters: Assessed in flat phantom using E-field (or Temperature Transfer Standard for $f \leq 800$ MHz) and inside waveguide using analytical field distributions based on power measurements for $f > 800$ MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM_{x,y,z} * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- Spherical/isotropy (3D deviation from isotropy): in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle: The angle is assessed using the information gained by determining the NORM_x (no uncertainty required).

EX3DV4 - SN:3986

January 24, 2024

Parameters of Probe: EX3DV4 - SN:3986

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k = 2)
Norm ($\mu V/(V/m)^2$) ^A	0.51	0.54	0.48	±10.1%
DCP (mV) ^B	99.9	99.3	102.5	±4.7%

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dB $\sqrt{\mu V}$	C	D dB	V _{TH} mV	Max dev.	Max Unc ^C k = 2
0	CW	X	0.00	0.00	1.00	0.00	115.9	±2.9%	±4.7%
		Y	0.00	0.00	1.00		102.1		
		Z	0.00	0.00	1.00		111.6		
10352	Pulse Waveform (200Hz, 10%)	X	20.00	92.64	22.04	10.00	60.0	±2.5%	±9.6%
		Y	20.00	95.27	23.75		60.0		
		Z	20.00	92.28	21.73		60.0		
10353	Pulse Waveform (200Hz, 20%)	X	20.00	93.84	21.87	6.99	80.0	±1.1%	±9.8%
		Y	20.00	98.76	23.37		80.0		
		Z	20.00	95.44	22.45		80.0		
10354	Pulse Waveform (200Hz, 40%)	X	20.00	98.08	22.66	3.98	95.0	±1.4%	±9.6%
		Y	20.00	100.95	23.96		95.0		
		Z	20.00	105.58	26.26		95.0		
10355	Pulse Waveform (200Hz, 60%)	X	20.00	105.27	24.83	2.22	120.0	±1.5%	±9.6%
		Y	20.00	107.61	26.25		120.0		
		Z	20.00	125.17	34.15		120.0		
10367	QPSK Waveform, 1 MHz	X	1.76	66.44	16.40	1.00	150.0	±2.0%	±9.6%
		Y	1.80	66.02	16.36		150.0		
		Z	2.18	71.31	18.20		150.0		
10368	QPSK Waveform, 10 MHz	X	2.33	68.56	16.10	0.00	150.0	±0.9%	±9.6%
		Y	2.40	68.68	16.07		150.0		
		Z	2.93	73.29	18.77		150.0		
10396	64-QAM Waveform, 100 kHz	X	3.04	71.16	19.17	3.01	150.0	±0.7%	±9.6%
		Y	3.25	71.32	19.22		150.0		
		Z	3.58	75.83	21.75		150.0		
10399	64-QAM Waveform, 40 MHz	X	3.58	67.39	15.96	0.00	150.0	±0.9%	±9.6%
		Y	3.64	67.48	15.99		150.0		
		Z	3.62	68.99	17.06		150.0		
10414	WLAN CCDF, 64-QAM, 40 MHz	X	4.94	65.79	15.63	0.00	150.0	±2.1%	±9.6%
		Y	5.05	65.83	15.66		150.0		
		Z	5.04	66.61	16.20		150.0		

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor $k=2$, which for a normal distribution corresponds to a coverage probability of approximately 95%.

^A The uncertainties of Norm X, Y, Z do not affect the E₁-field uncertainty inside TSL (see Pages 5 and 6).

^B Linearization parameter uncertainty for maximum specified field strength.

^C Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

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January 24, 2024

Parameters of Probe: EX3DV4 - SN:3986

Sensor Model Parameters

	C1 IF	C2 IF	α V ⁻¹	T1 mV V ⁻²	T2 mV V ⁻¹	T3 mV	T4 V ⁻²	T5 V ⁻¹	T6
x	48.8	360.34	34.66	24.55	0.09	5.10	1.37	0.22	1.01
y	58.4	436.31	35.65	18.73	0.50	5.10	0.85	0.40	1.01
z	45.4	332.11	34.64	20.86	0.00	5.10	1.58	0.13	1.01

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle	-50.1°
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

Note: Measurement distance from surface can be increased to 3-4 mm for an Area Scan job.

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Parameters of Probe: EX3DV4 - SN:3986

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^E	Conductivity ^F (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k = 2)
600	42.7	0.88	10.92	10.92	10.92	0.10	1.25	±13.3%
750	41.9	0.89	9.57	9.37	10.19	0.42	1.27	±12.0%
835	41.5	0.90	10.14	9.75	9.24	0.37	1.27	±12.0%
900	41.5	0.97	9.65	9.26	9.76	0.38	1.27	±12.0%
1640	40.2	1.31	8.35	7.99	8.56	0.46	1.27	±12.0%
1750	40.1	1.37	8.64	8.22	8.75	0.27	1.27	±12.0%
1900	40.0	1.40	8.32	7.99	8.47	0.28	1.27	±12.0%
1950	40.0	1.40	8.25	7.92	8.41	0.28	1.27	±12.0%
2300	39.5	1.67	7.85	7.54	8.02	0.30	1.27	±12.0%
2450	39.2	1.80	7.54	7.26	7.70	0.30	1.27	±12.0%
2600	39.0	1.95	7.95	7.62	8.14	0.29	1.27	±12.0%
3300	38.2	2.71	7.36	7.07	7.52	0.36	1.27	±14.0%
3500	37.9	2.91	7.20	6.90	7.30	0.35	1.27	±14.0%
3700	37.7	3.12	7.18	6.88	7.30	0.35	1.27	±14.0%
3900	37.5	3.32	6.92	6.61	7.03	0.35	1.27	±14.0%
4100	37.2	3.53	6.84	6.57	6.97	0.35	1.27	±14.0%
4400	36.9	3.84	6.65	6.39	6.77	0.36	1.27	±14.0%
4600	36.7	4.04	6.74	6.26	6.91	0.36	1.27	±14.0%
4800	36.4	4.25	6.68	6.43	6.82	0.37	1.27	±14.0%
4950	36.3	4.40	6.41	6.07	6.47	0.42	1.36	±14.0%
5200	36.0	4.65	5.52	5.24	5.58	0.31	1.66	±14.0%
5300	35.9	4.76	5.24	5.01	5.37	0.33	1.66	±14.0%
5500	35.6	4.96	4.98	4.85	5.15	0.35	1.80	±14.0%
5600	35.5	5.07	4.81	4.66	4.96	0.40	1.87	±14.0%
5800	35.3	5.27	4.70	4.56	4.81	0.38	1.86	±14.0%
5850	35.2	5.32	4.65	4.46	4.77	0.42	1.70	±14.0%

^C Frequency validity above 330 MHz of ±100 MHz only applies for DASV v4.4 and higher (see Page 2), else it is restricted to ±50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 330 MHz is ±10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 126, 150 and 225 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-8 MHz, and ConvF assessed at 13 MHz is 6-19 MHz. Above 5 GHz frequency validity can be extended to ±110 MHz.

^E The probes are calibrated using tissue simulating liquids (TSL) that deviate for ϵ' and σ by less than ±5% from the target values (typically better than ±3%) and are valid for TSL with deviations of up to ±10%. If TSL with deviations from the target of less than ±5% are used, the calibration uncertainties are 11.1% for 0.7 - 3 GHz and 13.1% for 3 - 6 GHz.

^G Alpha Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ±1% for frequencies below 3 GHz and below ±2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

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Parameters of Probe: EX3DV4 - SN:3986

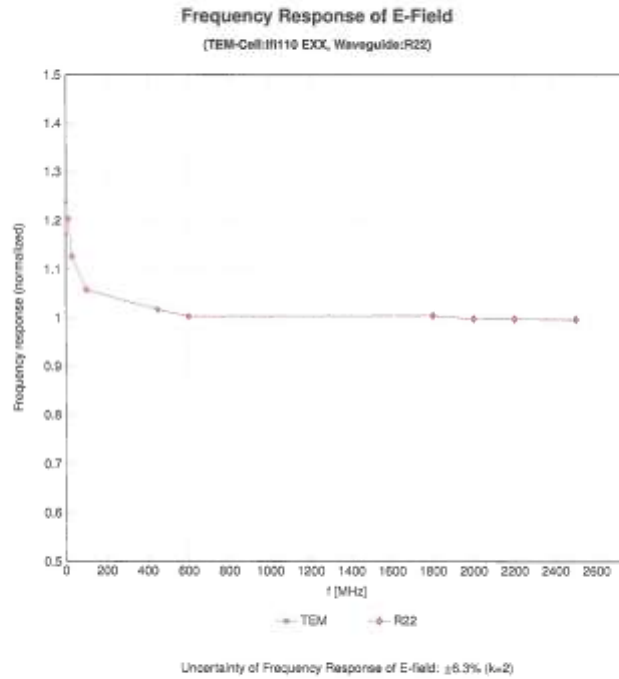
Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^D	Relative Permittivity ^F	Conductivity ^F (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc (k = 2)
6500	34.5	6.07	5.58	5.70	6.37	0.20	2.50	±18.0%
7000	33.9	6.65	5.80	5.82	6.36	0.20	2.00	±18.8%

^D Frequency validity at 6.5 GHz is -660~+700 MHz, and ±750 MHz at or above 7 GHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.
^F The probes are calibrated using tissue simulating liquids (TSL) that deviate for ϵ and σ by less than ±10% from the target values (typically better than ±6%) and are valid for TSL with deviations of up to ±10%.
^G Alpha/Depth are determined during calibration. SPGAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ±1% for frequencies below 3 GHz; below ±2% for frequencies between 3-6 GHz; and below ±4% for frequencies between 6-15 GHz at any distance larger than half the probe tip diameter from the boundary.

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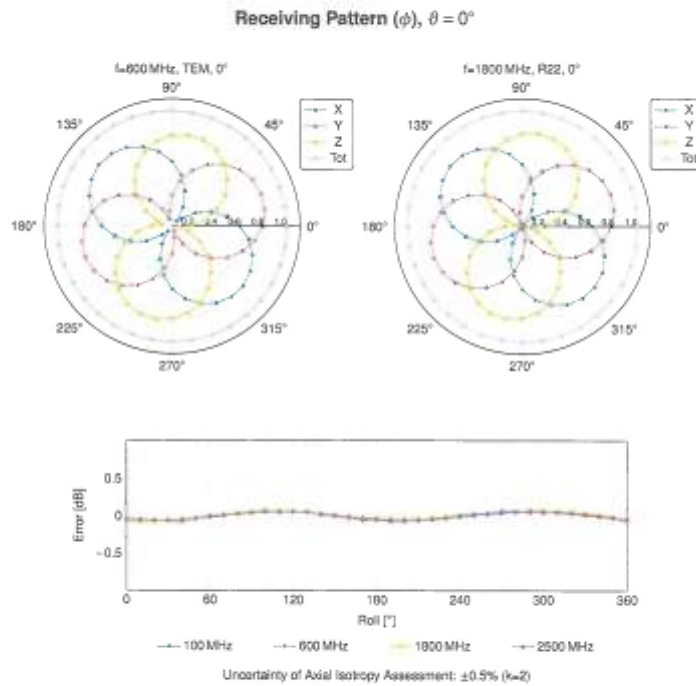


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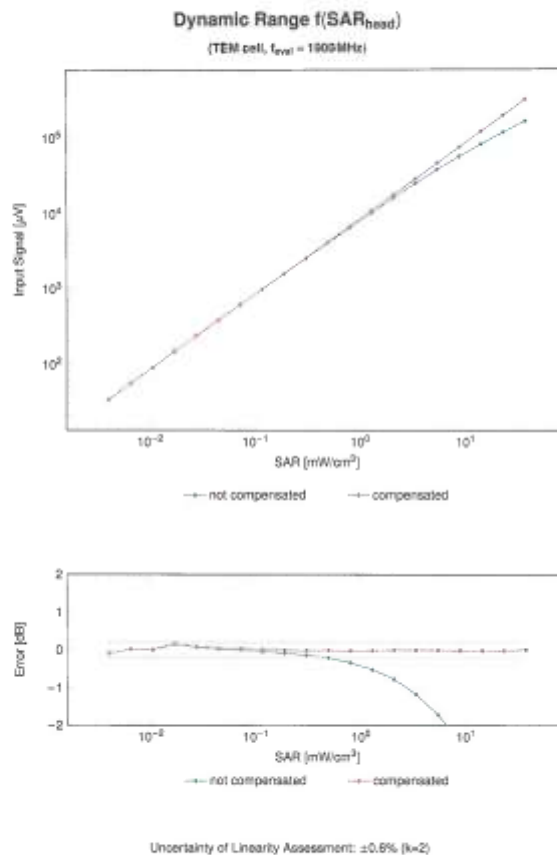


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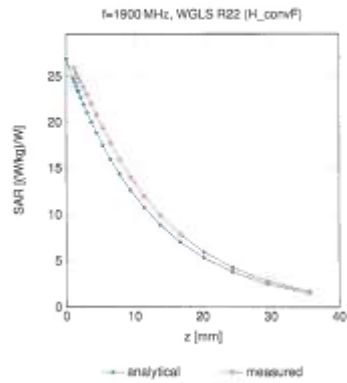
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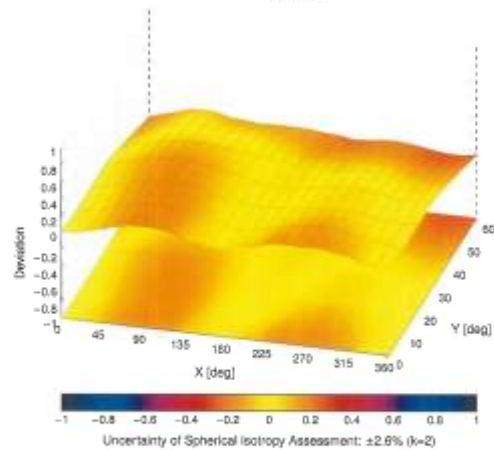
January 24, 2024

Conversion Factor Assessment



Deviation from Isotropy in Liquid

Error (ϕ, θ) , $f=900$ MHz



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Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name	Group	PAR (dB)	Unc ¹ k = 2
0		CW	CW	0.00	±4.7
10010	CAB	SAR Validation (Square, 100 ms, 10 ms)	Test	10.00	±0.0
10011	CAC	UMTS-FDD (WCDMA)	WCDMA	2.81	±0.0
10012	CAB	IEEE 802.11b WFI 2.4 GHz (DSSS, 1 Mbps)	WLAN	1.87	±0.0
10013	CAB	IEEE 802.11g WFI 2.4 GHz (DSSS-OFDM, 6 Mbps)	WLAN	3.48	±0.0
10021	DAC	GSM-FDD (TDMA, GMSK, TN 0)	GSM	2.38	±0.0
10023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	3.27	±0.0
10024	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	GSM	3.56	±0.0
10025	DAC	EDGE-FDD (TDMA, GMSK, TN 0)	GSM	12.62	±0.0
10026	DAC	EDGE-FDD (TDMA, GMSK, TN 0-1)	GSM	3.58	±0.0
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	4.60	±0.0
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	3.58	±0.0
10029	DAC	EDGE-FDD (TDMA, GMSK, TN 0-1-2)	GSM	7.78	±0.0
10030	CAB	IEEE 802.15.1 Bluetooth (GFSK, DH)	Bluetooth	5.30	±0.0
10031	CAB	IEEE 802.15.1 Bluetooth (GFSK, DH)	Bluetooth	1.07	±0.0
10032	CAB	IEEE 802.15.1 Bluetooth (GFSK, DH)	Bluetooth	1.16	±0.0
10033	CAB	IEEE 802.15.1 Bluetooth (FSK-DQPSK, DH)	Bluetooth	3.74	±0.0
10034	CAB	IEEE 802.15.1 Bluetooth (FSK-DQPSK, DH)	Bluetooth	4.53	±0.0
10035	CAB	IEEE 802.15.1 Bluetooth (FSK-DQPSK, DH)	Bluetooth	3.23	±0.0
10036	CAB	IEEE 802.15.1 Bluetooth (FSK-DQPSK, DH)	Bluetooth	8.01	±0.0
10037	CAB	IEEE 802.15.1 Bluetooth (FSK-DQPSK, DH)	Bluetooth	4.77	±0.0
10038	CAB	IEEE 802.15.1 Bluetooth (FSK-DQPSK, DH)	Bluetooth	4.10	±0.0
10039	CAB	CDMA2000 (1xRTT, RCH)	CDMA2000	4.57	±0.0
10040	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	7.70	±0.0
10041	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	0.30	±0.0
10042	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10043	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10044	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10045	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10046	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10047	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10048	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10049	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10050	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10051	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10052	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10053	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10054	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10055	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10056	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10057	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10058	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10059	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10060	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10061	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10062	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10063	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10064	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10065	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10066	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10067	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10068	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10069	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10070	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10071	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10072	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10073	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10074	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10075	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10076	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10077	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10078	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10079	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10080	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10081	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10082	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10083	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10084	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10085	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10086	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10087	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10088	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10089	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10090	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10091	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10092	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10093	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10094	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10095	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10096	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10097	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10098	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10099	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10100	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10101	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10102	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10103	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10104	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10105	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10106	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10107	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10108	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10109	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10110	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0
10111	CAB	IS-94 / IS-136 FDD (TDMA-FDM, PSK-DQPSK, Fullrate)	AMPS	13.90	±0.0

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SRP	Rev	Communication System Name	Group	PAR (dB)	Unc ² k=2
10112	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-FDD	6.99	±0.5
10113	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-FDD	6.92	±0.5
10114	CAG	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	WLAN	8.10	±0.5
10115	CAG	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	WLAN	8.40	±0.5
10116	CAG	IEEE 802.11n (HT Greenfield, 125 Mbps, 64-QAM)	WLAN	8.15	±0.5
10117	CAG	IEEE 802.11n (HT MIMO, 13.5 Mbps, BPSK)	WLAN	8.27	±0.5
10118	CAG	IEEE 802.11n (HT MIMO, 81 Mbps, 16-QAM)	WLAN	8.59	±0.5
10119	CAG	IEEE 802.11n (HT MIMO, 125 Mbps, 64-QAM)	WLAN	8.13	±0.5
10142	CAF	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-FDD	6.49	±0.5
10141	CAF	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-FDD	6.63	±0.5
10142	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-FDD	5.73	±0.5
10143	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-FDD	6.35	±0.5
10144	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-FDD	6.05	±0.5
10145	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-FDD	6.76	±0.5
10146	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.41	±0.5
10147	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.72	±0.5
10148	CAF	LTE-FDD (SC-FDMA, 50% RB, 30 MHz, 16-QAM)	LTE-FDD	6.42	±0.5
10150	CAF	LTE-FDD (SC-FDMA, 50% RB, 30 MHz, 64-QAM)	LTE-FDD	6.90	±0.5
10151	CAF	LTE-FDD (SC-FDMA, 50% RB, 30 MHz, QPSK)	LTE-FDD	9.30	±0.5
10152	CAH	LTE-TDD (SC-FDMA, 50% RB, 30 MHz, 16-QAM)	LTE-TDD	9.92	±0.5
10153	CAH	LTE-TDD (SC-FDMA, 50% RB, 30 MHz, 64-QAM)	LTE-TDD	10.05	±0.5
10154	CAH	LTE-TDD (SC-FDMA, 50% RB, 30 MHz, QPSK)	LTE-TDD	5.75	±0.5
10155	CAH	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	±0.5
10156	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-FDD	5.79	±0.5
10157	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-FDD	6.49	±0.5
10158	CAH	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-FDD	6.62	±0.5
10159	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-FDD	6.56	±0.5
10160	CAF	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-FDD	6.62	±0.5
10161	CAF	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-FDD	6.43	±0.5
10162	CAF	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-FDD	6.58	±0.5
10166	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-FDD	5.46	±0.5
10167	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.21	±0.5
10168	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.79	±0.5
10169	CAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-FDD	5.73	±0.5
10170	CAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-FDD	6.52	±0.5
10171	CAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-FDD	6.46	±0.5
10172	CAH	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-TDD	5.21	±0.5
10173	CAH	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-TDD	9.46	±0.5
10174	CAH	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-TDD	10.25	±0.5
10175	CAF	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-FDD	5.72	±0.5
10176	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-FDD	6.52	±0.5
10177	CAF	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-FDD	5.73	±0.5
10178	CAH	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-FDD	6.92	±0.5
10179	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-FDD	6.50	±0.5
10180	CAH	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-FDD	6.50	±0.5
10181	CAF	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-FDD	5.72	±0.5
10182	CAF	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-FDD	6.52	±0.5
10183	AAG	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-FDD	6.50	±0.5
10184	CAF	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-FDD	5.73	±0.5
10185	CAF	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-FDD	6.51	±0.5
10186	AAP	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-FDD	6.50	±0.5
10187	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-FDD	5.73	±0.5
10188	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.52	±0.5
10189	AAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.50	±0.5
10190	CAG	IEEE 802.11n (HT Greenfield, 4.5 Mbps, BPSK)	WLAN	8.09	±0.5
10194	CAG	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	WLAN	8.12	±0.5
10195	CAG	IEEE 802.11n (HT Greenfield, 89 Mbps, 64-QAM)	WLAN	8.21	±0.5
10196	CAG	IEEE 802.11n (HT MIMO, 4.5 Mbps, BPSK)	WLAN	8.15	±0.5
10197	CAG	IEEE 802.11n (HT MIMO, 39 Mbps, 16-QAM)	WLAN	8.13	±0.5
10198	CAG	IEEE 802.11n (HT MIMO, 89 Mbps, 64-QAM)	WLAN	8.27	±0.5
10216	CAF	IEEE 802.11n (HT MIMO, 7.2 Mbps, BPSK)	WLAN	8.08	±0.5
10220	CAG	IEEE 802.11n (HT MIMO, 43.3 Mbps, 16-QAM)	WLAN	8.13	±0.5
10221	CAG	IEEE 802.11n (HT MIMO, 72.2 Mbps, 64-QAM)	WLAN	8.27	±0.5
10222	CAG	IEEE 802.11n (HT MIMO, 15 Mbps, BPSK)	WLAN	6.06	±0.5
10223	CAG	IEEE 802.11n (HT MIMO, 90 Mbps, 16-QAM)	WLAN	8.46	±0.5
10234	CAG	IEEE 802.11n (HT MIMO, 150 Mbps, 64-QAM)	WLAN	8.08	±0.5

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UID	Rev	Communication System Name	Group	PAR (dB)	Unc ² k = 2
10225	DAE	UMTS-FDD (HSPA+)	WCDMA	5.97	±9.8
10226	DAE	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-TDD	5.40	±9.8
10227	DAE	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.30	±9.8
10228	DAE	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-TDD	9.32	±9.8
10229	DAE	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-TDD	9.48	±9.8
10230	DAE	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-TDD	10.35	±9.8
10231	DAE	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-TDD	8.16	±9.8
10232	CAH	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.40	±9.8
10233	CAH	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.25	±9.8
10234	CAH	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-TDD	9.21	±9.8
10235	CAH	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-TDD	9.40	±9.8
10236	CAH	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-TDD	10.35	±9.8
10237	CAH	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-TDD	9.21	±9.8
10238	CAH	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-TDD	9.48	±9.8
10239	CAH	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-TDD	10.25	±9.8
10240	CAH	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-TDD	9.21	±9.8
10241	CAH	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.42	±9.8
10242	CAH	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-TDD	9.88	±9.8
10243	CAH	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-TDD	9.42	±9.8
10244	CAE	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-TDD	10.06	±9.8
10245	CAE	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-TDD	10.06	±9.8
10246	CAE	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-TDD	9.36	±9.8
10247	CAH	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-TDD	9.91	±9.8
10248	CAH	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-TDD	10.06	±9.8
10249	CAH	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-TDD	9.36	±9.8
10250	CAH	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-TDD	9.81	±9.8
10251	CAH	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-TDD	10.11	±9.8
10252	CAH	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-TDD	9.34	±9.8
10253	CAH	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-TDD	9.90	±9.8
10254	CAH	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-TDD	10.14	±9.8
10255	CAH	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-TDD	9.30	±9.8
10256	CAH	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.90	±9.8
10257	CAH	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.09	±9.8
10258	CAH	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-TDD	9.34	±9.8
10259	CAE	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-TDD	9.90	±9.8
10260	CAE	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-TDD	9.97	±9.8
10261	CAE	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-TDD	9.34	±9.8
10262	CAH	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-TDD	9.83	±9.8
10263	CAH	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-TDD	10.18	±9.8
10264	CAH	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-TDD	9.33	±9.8
10265	CAH	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-TDD	9.92	±9.8
10266	CAH	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-TDD	10.27	±9.8
10267	CAH	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-TDD	9.30	±9.8
10268	CAH	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-TDD	10.08	±9.8
10269	CAH	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-TDD	10.13	±9.8
10270	CAH	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-TDD	9.38	±9.8
10271	CAH	UMTS-FDD (HSPA, Subclass 3, SC-FDMA, 16-QAM)	WCDMA	4.27	±9.8
10272	CAH	UMTS-FDD (HSPA, Subclass 3, SC-FDMA, 16-QAM)	WCDMA	3.96	±9.8
10273	CAH	PHS (QPSK)	PHS	11.61	±9.8
10274	CAH	PHS (QPSK, BW 884 MHz, Roll-off 0.35)	PHS	11.61	±9.8
10275	CAH	PHS (QPSK, BW 884 MHz, Roll-off 0.35)	PHS	12.18	±9.8
10276	ANB	CDMA2000, PC1, SC35, Full Rate	CDMA2000	3.91	±9.8
10277	ANB	CDMA2000, PC1, SC35, Full Rate	CDMA2000	3.46	±9.8
10278	ANB	CDMA2000, PC1, SC35, Full Rate	CDMA2000	3.36	±9.8
10279	ANB	CDMA2000, PC1, SC35, Full Rate	CDMA2000	3.60	±9.8
10280	ANB	CDMA2000, PC1, SC35, Full Rate	CDMA2000	12.48	±9.8
10281	ANB	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-FDD	5.01	±9.8
10282	ANB	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-FDD	5.72	±9.8
10283	ANB	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-FDD	6.36	±9.8
10284	ANB	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-FDD	6.60	±9.8
10285	AAA	IEEE 802.16e WIMAX (20-18, 5 ms, 10 MHz, QPSK, PUSC)	WIMAX	12.03	±9.8
10286	AAA	IEEE 802.16e WIMAX (20-18, 5 ms, 10 MHz, QPSK, PUSC, 3 [DFTL, symbols])	WIMAX	12.57	±9.8
10287	AAA	IEEE 802.16e WIMAX (20-18, 5 ms, 10 MHz, 64QAM, PUSC)	WIMAX	12.52	±9.8
10288	AAA	IEEE 802.16e WIMAX (20-18, 5 ms, 10 MHz, 64QAM, PUSC)	WIMAX	11.06	±9.8
10289	AAA	IEEE 802.16e WIMAX (20-18, 5 ms, 10 MHz, 64QAM, PUSC, 15 symbols)	WIMAX	15.34	±9.8
10290	AAA	IEEE 802.16e WIMAX (20-18, 5 ms, 10 MHz, 64QAM, PUSC, 15 symbols)	WIMAX	14.07	±9.8

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10307	AAA	IEEE 802.16e WMAN (20-18, 10ms, 10MHz, QPSK, PUSC, 16 symbols)	WMAN	14.49	±0.6
10308	AAA	IEEE 802.16e WMAN (20-18, 10ms, 10MHz, 16QAM, PUSC)	WMAN	14.46	±0.6
10309	AAA	IEEE 802.16e WMAN (20-18, 10ms, 10MHz, 16QAM, AMC 2x3, 16 symbols)	WMAN	14.56	±0.6
10310	AAA	IEEE 802.16e WMAN (20-18, 10ms, 10MHz, QPSK, AMC 2x3, 16 symbols)	WMAN	14.57	±0.6
10311	AAB	LTE-FDD (SC-FDMA, 100% RB, 15MHz, QPSK)	LTE-FDD	6.06	±0.6
10313	AAA	DEN 1.3	DEN	10.51	±0.6
10314	AAA	DEN 1.3	DEN	12.49	±0.6
10315	AAB	IEEE 802.11b WPAN 2.4GHz (DSSS, 1Mbps, 96pc duty cycle)	WLAN	1.71	±0.6
10316	AAB	IEEE 802.11g WPAN 2.4GHz (ERP-OFDM, 6Mbps, 96pc duty cycle)	WLAN	8.99	±0.6
10317	AAB	IEEE 802.11n WPAN 5GHz (OFDM, 6Mbps, 96pc duty cycle)	WLAN	8.30	±0.6
10352	AAA	Pulse Waveform (200Hz, 10%)	Generic	10.00	±0.6
10353	AAA	Pulse Waveform (200Hz, 20%)	Generic	6.99	±0.6
10354	AAA	Pulse Waveform (200Hz, 40%)	Generic	3.99	±0.6
10355	AAA	Pulse Waveform (200Hz, 60%)	Generic	3.33	±0.6
10356	AAA	Pulse Waveform (200Hz, 80%)	Generic	0.97	±0.6
10387	AAA	QPSK Waveform, 1MHz	Generic	5.10	±0.6
10388	AAA	QPSK Waveform, 10MHz	Generic	5.32	±0.6
10394	AAA	64-QAM Waveform, 100MHz	Generic	8.27	±0.6
10395	AAA	64-QAM Waveform, 40MHz	Generic	8.27	±0.6
10405	AAP	IEEE 802.11ac WPAN 5GHz (OFDM, 6Mbps, 96pc duty cycle)	WLAN	8.37	±0.6
10407	AAP	IEEE 802.11ac WPAN 5GHz (OFDM, 6Mbps, 96pc duty cycle)	WLAN	8.66	±0.6
10408	AAP	IEEE 802.11ac WPAN 5GHz (OFDM, 6Mbps, 96pc duty cycle)	WLAN	8.53	±0.6
10409	AAD	CDMA2000 (1xEV-DO, Rev. 3)	CDMA2000	5.76	±0.6
10404	AAB	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000	5.77	±0.6
10406	AAB	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000	5.22	±0.6
10410	AAB	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000	5.22	±0.6
10411	AAB	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000	5.22	±0.6
10412	AAB	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000	5.22	±0.6
10413	AAB	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000	5.22	±0.6
10414	AAB	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000	5.22	±0.6
10415	AAA	IEEE 802.11b WPAN 2.4GHz (DSSS, 1Mbps, 96pc duty cycle)	WLAN	1.54	±0.6
10416	AAA	IEEE 802.11g WPAN 2.4GHz (ERP-OFDM, 6Mbps, 96pc duty cycle)	WLAN	8.23	±0.6
10417	AAD	IEEE 802.11n WPAN 5GHz (OFDM, 6Mbps, 96pc duty cycle)	WLAN	8.23	±0.6
10418	AAA	IEEE 802.11g WPAN 2.4GHz (DSSS-OFDM, 6Mbps, 96pc duty cycle, Long preamble)	WLAN	8.14	±0.6
10419	AAA	IEEE 802.11g WPAN 2.4GHz (DSSS-OFDM, 6Mbps, 96pc duty cycle, Short preamble)	WLAN	8.19	±0.6
10422	AAD	IEEE 802.11n (HT Greenfield, 7.2Mbps, BPSK)	WLAN	8.32	±0.6
10423	AAD	IEEE 802.11n (HT Greenfield, 40.2Mbps, 16-QAM)	WLAN	8.47	±0.6
10424	AAD	IEEE 802.11n (HT Greenfield, 72.2Mbps, 64-QAM)	WLAN	8.40	±0.6
10425	AAD	IEEE 802.11n (HT Greenfield, 15Mbps, BPSK)	WLAN	8.41	±0.6
10426	AAD	IEEE 802.11n (HT Greenfield, 30Mbps, 16-QAM)	WLAN	8.45	±0.6
10427	AAD	IEEE 802.11n (HT Greenfield, 150Mbps, 64-QAM)	WLAN	8.41	±0.6
10430	AAB	LTE-FDD (OFDMA, 15MHz, E-TM 3.1)	LTE-FDD	8.38	±0.6
10431	AAB	LTE-FDD (OFDMA, 15MHz, E-TM 3.1)	LTE-FDD	8.38	±0.6
10432	AAD	LTE-FDD (OFDMA, 15MHz, E-TM 3.1)	LTE-FDD	8.34	±0.6
10433	AAD	LTE-FDD (OFDMA, 15MHz, E-TM 3.1)	LTE-FDD	8.34	±0.6
10434	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10435	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10436	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10437	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10438	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10439	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10440	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10441	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10442	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10443	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10444	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10445	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10446	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10447	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10448	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10449	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10450	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10451	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10452	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10453	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10454	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10455	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10456	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10457	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10458	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10459	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10460	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10461	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10462	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10463	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10464	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10465	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10466	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10467	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10468	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10469	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10470	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10471	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10472	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10473	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10474	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10475	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10476	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10477	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10478	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10479	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10480	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10481	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10482	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10483	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10484	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10485	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10486	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10487	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10488	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10489	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10490	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10491	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10492	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10493	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10494	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10495	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10496	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10497	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10498	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10499	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6
10500	AAB	W-CDMA (SS Test Model 1, 64 DPCCH)	WCDMA	8.85	±0.6

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10472	AAQ	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.6
10473	AAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.83	±9.6
10474	AAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.33	±9.6
10475	AAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.6
10477	AAQ	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±9.6
10479	AAQ	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.6
10479	AAQ	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6
10480	AAQ	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.18	±9.6
10481	AAQ	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.45	±9.6
10483	AAQ	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.71	±9.6
10483	AAQ	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.39	±9.6
10484	AAQ	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.47	±9.6
10485	AAQ	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.59	±9.6
10486	AAQ	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.38	±9.6
10487	AAQ	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.65	±9.6
10488	AAQ	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.75	±9.6
10489	AAQ	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.31	±9.6
10490	AAQ	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	±9.6
10491	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6
10492	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.41	±9.6
10493	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.58	±9.6
10494	AAQ	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6
10495	AAQ	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.27	±9.6
10496	AAQ	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.64	±9.6
10497	AAQ	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.67	±9.6
10498	AAQ	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.40	±9.6
10499	AAQ	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.69	±9.6
10500	AAQ	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.67	±9.6
10501	AAQ	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.44	±9.6
10502	AAQ	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.62	±9.6
10503	AAQ	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.72	±9.6
10504	AAQ	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.31	±9.6
10505	AAQ	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	±9.6
10506	AAQ	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6
10507	AAQ	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.38	±9.6
10508	AAQ	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.55	±9.6
10509	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.69	±9.6
10510	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.43	±9.6
10511	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.61	±9.6
10512	AAQ	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6
10513	AAQ	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.43	±9.6
10514	AAQ	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.48	±9.6
10515	AAA	IEEE 802.11a WLAN 2.4GHz (CCK55, 2Mbps, 90pc duty cycle)	WLAN	1.58	±9.6
10516	AAA	IEEE 802.11a WLAN 2.4GHz (CCK55, 5.5Mbps, 90pc duty cycle)	WLAN	1.57	±9.6
10517	AAA	IEEE 802.11a WLAN 2.4GHz (CCK55, 11Mbps, 90pc duty cycle)	WLAN	1.58	±9.6
10518	AAQ	IEEE 802.11a WLAN 5GHz (OFDM, 6Mbps, 90pc duty cycle)	WLAN	8.23	±9.6
10519	AAQ	IEEE 802.11a WLAN 5GHz (OFDM, 12Mbps, 90pc duty cycle)	WLAN	8.38	±9.6
10520	AAQ	IEEE 802.11a WLAN 5GHz (OFDM, 18Mbps, 90pc duty cycle)	WLAN	8.12	±9.6
10521	AAQ	IEEE 802.11a WLAN 5GHz (OFDM, 24Mbps, 90pc duty cycle)	WLAN	7.67	±9.6
10522	AAQ	IEEE 802.11a WLAN 5GHz (OFDM, 36Mbps, 90pc duty cycle)	WLAN	8.45	±9.6
10523	AAQ	IEEE 802.11a WLAN 5GHz (OFDM, 48Mbps, 90pc duty cycle)	WLAN	8.08	±9.6
10524	AAQ	IEEE 802.11a WLAN 5GHz (OFDM, 54Mbps, 90pc duty cycle)	WLAN	6.27	±9.6
10525	AAQ	IEEE 802.11a WLAN 5GHz (OFDM, 60Mbps, 90pc duty cycle)	WLAN	6.36	±9.6
10526	AAQ	IEEE 802.11a WLAN 5GHz (OFDM, 66Mbps, 90pc duty cycle)	WLAN	6.42	±9.6
10527	AAQ	IEEE 802.11a WLAN 5GHz (OFDM, 72Mbps, 90pc duty cycle)	WLAN	6.21	±9.6
10528	AAQ	IEEE 802.11a WLAN 5GHz (OFDM, 78Mbps, 90pc duty cycle)	WLAN	6.35	±9.6
10529	AAQ	IEEE 802.11a WLAN 5GHz (OFDM, 84Mbps, 90pc duty cycle)	WLAN	6.35	±9.6
10530	AAQ	IEEE 802.11a WLAN 5GHz (OFDM, 90Mbps, 90pc duty cycle)	WLAN	6.43	±9.6
10531	AAQ	IEEE 802.11a WLAN 5GHz (OFDM, 96Mbps, 90pc duty cycle)	WLAN	6.29	±9.6
10532	AAQ	IEEE 802.11a WLAN 5GHz (OFDM, 102Mbps, 90pc duty cycle)	WLAN	6.39	±9.6
10533	AAQ	IEEE 802.11a WLAN 5GHz (OFDM, 108Mbps, 90pc duty cycle)	WLAN	6.43	±9.6
10534	AAQ	IEEE 802.11a WLAN 5GHz (OFDM, 114Mbps, 90pc duty cycle)	WLAN	6.43	±9.6
10535	AAQ	IEEE 802.11a WLAN 5GHz (OFDM, 120Mbps, 90pc duty cycle)	WLAN	6.43	±9.6
10536	AAQ	IEEE 802.11a WLAN 5GHz (OFDM, 126Mbps, 90pc duty cycle)	WLAN	6.32	±9.6
10537	AAQ	IEEE 802.11a WLAN 5GHz (OFDM, 132Mbps, 90pc duty cycle)	WLAN	6.44	±9.6
10538	AAQ	IEEE 802.11a WLAN 5GHz (OFDM, 138Mbps, 90pc duty cycle)	WLAN	6.54	±9.6
10540	AAQ	IEEE 802.11a WLAN 5GHz (OFDM, 144Mbps, 90pc duty cycle)	WLAN	6.39	±9.6

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UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^k k = 2
10541	AAD	IEEE 802.11ac WiFi (43 MHz, MCS7, 96pc duty cycle)	WLAN	8.46	±0.5
10542	AAD	IEEE 802.11ac WiFi (43 MHz, MCS8, 96pc duty cycle)	WLAN	8.95	±0.5
10543	AAD	IEEE 802.11ac WiFi (43 MHz, MCS9, 96pc duty cycle)	WLAN	8.65	±0.5
10544	AAD	IEEE 802.11ac WiFi (86 MHz, MCS6, 96pc duty cycle)	WLAN	8.47	±0.5
10545	AAD	IEEE 802.11ac WiFi (86 MHz, MCS7, 96pc duty cycle)	WLAN	8.55	±0.5
10546	AAD	IEEE 802.11ac WiFi (86 MHz, MCS8, 96pc duty cycle)	WLAN	8.35	±0.5
10548	AAD	IEEE 802.11ac WiFi (86 MHz, MCS9, 96pc duty cycle)	WLAN	8.49	±0.5
10550	AAD	IEEE 802.11ac WiFi (172 MHz, MCS5, 96pc duty cycle)	WLAN	8.37	±0.5
10551	AAD	IEEE 802.11ac WiFi (172 MHz, MCS6, 96pc duty cycle)	WLAN	8.38	±0.5
10552	AAD	IEEE 802.11ac WiFi (172 MHz, MCS7, 96pc duty cycle)	WLAN	8.53	±0.5
10553	AAD	IEEE 802.11ac WiFi (172 MHz, MCS8, 96pc duty cycle)	WLAN	8.42	±0.5
10554	AAD	IEEE 802.11ac WiFi (172 MHz, MCS9, 96pc duty cycle)	WLAN	8.45	±0.5
10555	AAD	IEEE 802.11ac WiFi (160 MHz, MCS0, 96pc duty cycle)	WLAN	8.48	±0.5
10556	AAD	IEEE 802.11ac WiFi (160 MHz, MCS1, 96pc duty cycle)	WLAN	8.47	±0.5
10557	AAD	IEEE 802.11ac WiFi (160 MHz, MCS2, 96pc duty cycle)	WLAN	8.50	±0.5
10558	AAD	IEEE 802.11ac WiFi (160 MHz, MCS3, 96pc duty cycle)	WLAN	8.52	±0.5
10559	AAD	IEEE 802.11ac WiFi (160 MHz, MCS4, 96pc duty cycle)	WLAN	8.61	±0.5
10560	AAD	IEEE 802.11ac WiFi (160 MHz, MCS5, 96pc duty cycle)	WLAN	8.73	±0.5
10561	AAD	IEEE 802.11ac WiFi (160 MHz, MCS6, 96pc duty cycle)	WLAN	8.56	±0.5
10562	AAD	IEEE 802.11ac WiFi (160 MHz, MCS7, 96pc duty cycle)	WLAN	8.68	±0.5
10563	AAD	IEEE 802.11ac WiFi (160 MHz, MCS8, 96pc duty cycle)	WLAN	8.77	±0.5
10564	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 96pc duty cycle)	WLAN	8.26	±0.5
10565	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 96pc duty cycle)	WLAN	8.45	±0.5
10566	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 96pc duty cycle)	WLAN	8.15	±0.5
10567	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 96pc duty cycle)	WLAN	8.00	±0.5
10568	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 96pc duty cycle)	WLAN	8.37	±0.5
10569	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 96pc duty cycle)	WLAN	8.10	±0.5
10570	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 96pc duty cycle)	WLAN	8.30	±0.5
10571	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	WLAN	1.99	±0.5
10572	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 96pc duty cycle)	WLAN	1.99	±0.5
10573	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 96pc duty cycle)	WLAN	1.98	±0.5
10574	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 96pc duty cycle)	WLAN	1.96	±0.5
10575	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 96pc duty cycle)	WLAN	8.59	±0.5
10576	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 96pc duty cycle)	WLAN	8.60	±0.5
10577	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 96pc duty cycle)	WLAN	8.70	±0.5
10578	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 96pc duty cycle)	WLAN	8.43	±0.5
10579	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 96pc duty cycle)	WLAN	8.38	±0.5
10580	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 96pc duty cycle)	WLAN	8.79	±0.5
10581	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 96pc duty cycle)	WLAN	8.35	±0.5
10582	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 96pc duty cycle)	WLAN	8.67	±0.5
10583	AAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 9 Mbps, 96pc duty cycle)	WLAN	8.59	±0.5
10584	AAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 9 Mbps, 96pc duty cycle)	WLAN	8.60	±0.5
10585	AAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 12 Mbps, 96pc duty cycle)	WLAN	8.70	±0.5
10586	AAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 18 Mbps, 96pc duty cycle)	WLAN	8.49	±0.5
10587	AAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 24 Mbps, 96pc duty cycle)	WLAN	8.38	±0.5
10588	AAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 36 Mbps, 96pc duty cycle)	WLAN	8.79	±0.5
10589	AAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 48 Mbps, 96pc duty cycle)	WLAN	8.35	±0.5
10590	AAD	IEEE 802.11ah WiFi 5 GHz (OFDM, 54 Mbps, 96pc duty cycle)	WLAN	8.67	±0.5
10591	AAD	IEEE 802.11n (HT Mixed, 20 MHz, MCS0, 96pc duty cycle)	WLAN	8.63	±0.5
10592	AAD	IEEE 802.11n (HT Mixed, 20 MHz, MCS1, 96pc duty cycle)	WLAN	8.79	±0.5
10593	AAD	IEEE 802.11n (HT Mixed, 20 MHz, MCS2, 96pc duty cycle)	WLAN	8.64	±0.5
10594	AAD	IEEE 802.11n (HT Mixed, 20 MHz, MCS3, 96pc duty cycle)	WLAN	8.74	±0.5
10595	AAD	IEEE 802.11n (HT Mixed, 20 MHz, MCS4, 96pc duty cycle)	WLAN	8.74	±0.5
10596	AAD	IEEE 802.11n (HT Mixed, 20 MHz, MCS5, 96pc duty cycle)	WLAN	8.71	±0.5
10597	AAD	IEEE 802.11n (HT Mixed, 20 MHz, MCS6, 96pc duty cycle)	WLAN	8.72	±0.5
10598	AAD	IEEE 802.11n (HT Mixed, 20 MHz, MCS7, 96pc duty cycle)	WLAN	8.56	±0.5
10599	AAD	IEEE 802.11n (HT Mixed, 40 MHz, MCS0, 96pc duty cycle)	WLAN	8.79	±0.5
10600	AAD	IEEE 802.11n (HT Mixed, 40 MHz, MCS1, 96pc duty cycle)	WLAN	8.68	±0.5
10601	AAD	IEEE 802.11n (HT Mixed, 40 MHz, MCS2, 96pc duty cycle)	WLAN	8.62	±0.5
10602	AAD	IEEE 802.11n (HT Mixed, 40 MHz, MCS3, 96pc duty cycle)	WLAN	8.64	±0.5
10603	AAD	IEEE 802.11n (HT Mixed, 40 MHz, MCS4, 96pc duty cycle)	WLAN	9.03	±0.5
10604	AAD	IEEE 802.11n (HT Mixed, 40 MHz, MCS5, 96pc duty cycle)	WLAN	8.76	±0.5
10605	AAD	IEEE 802.11n (HT Mixed, 40 MHz, MCS6, 96pc duty cycle)	WLAN	8.97	±0.5
10606	AAD	IEEE 802.11n (HT Mixed, 40 MHz, MCS7, 96pc duty cycle)	WLAN	8.82	±0.5
10607	AAD	IEEE 802.11ac WiFi (25 MHz, MCS6, 96pc duty cycle)	WLAN	8.64	±0.5
10608	AAD	IEEE 802.11ac WiFi (25 MHz, MCS7, 96pc duty cycle)	WLAN	8.77	±0.5

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10609	AAD	IEEE 802.11ac WPI (20 MHz, MCS2, 90pc duty cycle)	WLAN	8.57	±0.6
10610	AAD	IEEE 802.11ac WPI (20 MHz, MCS3, 90pc duty cycle)	WLAN	8.79	±0.6
10611	AAD	IEEE 802.11ac WPI (20 MHz, MCS4, 90pc duty cycle)	WLAN	8.70	±0.6
10612	AAD	IEEE 802.11ac WPI (20 MHz, MCS6, 90pc duty cycle)	WLAN	8.77	±0.6
10613	AAD	IEEE 802.11ac WPI (20 MHz, MCS8, 90pc duty cycle)	WLAN	8.84	±0.6
10614	AAD	IEEE 802.11ac WPI (20 MHz, MCS7, 90pc duty cycle)	WLAN	8.59	±0.6
10615	AAD	IEEE 802.11ac WPI (20 MHz, MCS8, 90pc duty cycle)	WLAN	8.83	±0.6
10616	AAD	IEEE 802.11ac WPI (40 MHz, MCS0, 90pc duty cycle)	WLAN	8.62	±0.6
10617	AAD	IEEE 802.11ac WPI (40 MHz, MCS1, 90pc duty cycle)	WLAN	8.67	±0.6
10618	AAD	IEEE 802.11ac WPI (40 MHz, MCS2, 90pc duty cycle)	WLAN	8.68	±0.6
10619	AAD	IEEE 802.11ac WPI (40 MHz, MCS3, 90pc duty cycle)	WLAN	8.68	±0.6
10620	AAD	IEEE 802.11ac WPI (40 MHz, MCS4, 90pc duty cycle)	WLAN	8.87	±0.6
10621	AAD	IEEE 802.11ac WPI (40 MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±0.6
10622	AAD	IEEE 802.11ac WPI (40 MHz, MCS6, 90pc duty cycle)	WLAN	8.68	±0.6
10623	AAD	IEEE 802.11ac WPI (40 MHz, MCS7, 90pc duty cycle)	WLAN	8.82	±0.6
10624	AAD	IEEE 802.11ac WPI (40 MHz, MCS8, 90pc duty cycle)	WLAN	8.06	±0.6
10625	AAD	IEEE 802.11ac WPI (80 MHz, MCS0, 90pc duty cycle)	WLAN	8.96	±0.6
10626	AAD	IEEE 802.11ac WPI (80 MHz, MCS1, 90pc duty cycle)	WLAN	8.92	±0.6
10627	AAD	IEEE 802.11ac WPI (80 MHz, MCS2, 90pc duty cycle)	WLAN	8.98	±0.6
10628	AAD	IEEE 802.11ac WPI (80 MHz, MCS3, 90pc duty cycle)	WLAN	8.71	±0.6
10629	AAD	IEEE 802.11ac WPI (80 MHz, MCS4, 90pc duty cycle)	WLAN	8.85	±0.6
10630	AAD	IEEE 802.11ac WPI (80 MHz, MCS5, 90pc duty cycle)	WLAN	8.72	±0.6
10631	AAD	IEEE 802.11ac WPI (80 MHz, MCS6, 90pc duty cycle)	WLAN	8.81	±0.6
10632	AAD	IEEE 802.11ac WPI (80 MHz, MCS7, 90pc duty cycle)	WLAN	8.74	±0.6
10633	AAD	IEEE 802.11ac WPI (80 MHz, MCS8, 90pc duty cycle)	WLAN	8.03	±0.6
10634	AAD	IEEE 802.11ac WPI (80 MHz, MCS9, 90pc duty cycle)	WLAN	8.00	±0.6
10635	AAD	IEEE 802.11ac WPI (80 MHz, MCS10, 90pc duty cycle)	WLAN	8.91	±0.6
10636	AAD	IEEE 802.11ac WPI (160 MHz, MCS0, 90pc duty cycle)	WLAN	8.83	±0.6
10637	AAD	IEEE 802.11ac WPI (160 MHz, MCS1, 90pc duty cycle)	WLAN	8.70	±0.6
10638	AAD	IEEE 802.11ac WPI (160 MHz, MCS2, 90pc duty cycle)	WLAN	8.86	±0.6
10639	AAD	IEEE 802.11ac WPI (160 MHz, MCS3, 90pc duty cycle)	WLAN	8.85	±0.6
10640	AAD	IEEE 802.11ac WPI (160 MHz, MCS4, 90pc duty cycle)	WLAN	8.96	±0.6
10641	AAD	IEEE 802.11ac WPI (160 MHz, MCS5, 90pc duty cycle)	WLAN	9.06	±0.6
10642	AAD	IEEE 802.11ac WPI (160 MHz, MCS6, 90pc duty cycle)	WLAN	8.95	±0.6
10643	AAD	IEEE 802.11ac WPI (160 MHz, MCS7, 90pc duty cycle)	WLAN	8.89	±0.6
10644	AAD	IEEE 802.11ac WPI (160 MHz, MCS8, 90pc duty cycle)	WLAN	9.05	±0.6
10645	AAD	IEEE 802.11ac WPI (160 MHz, MCS9, 90pc duty cycle)	WLAN	9.11	±0.6
10646	AAD	IEEE 802.11ac WPI (160 MHz, MCS10, 90pc duty cycle)	WLAN	9.17	±0.6
10647	AAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.98	±0.6
10648	AAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.98	±0.6
10649	AAD	CDMA2000 (1x Advanced)	CDMA2000	3.45	±0.6
10650	AAD	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.91	±0.6
10651	AAD	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.42	±0.6
10652	AAD	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.96	±0.6
10653	AAD	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.31	±0.6
10654	AAD	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.31	±0.6
10655	AAD	Pulse Waveform (200Hz, 10%)	Test	10.90	±0.6
10656	AAD	Pulse Waveform (200Hz, 25%)	Test	8.99	±0.6
10657	AAD	Pulse Waveform (200Hz, 40%)	Test	3.95	±0.6
10658	AAD	Pulse Waveform (200Hz, 60%)	Test	2.22	±0.6
10659	AAD	Pulse Waveform (200Hz, 80%)	Test	0.97	±0.6
10660	AAD	Bluetooth Low Energy	Bluetooth	2.19	±0.6
10661	AAD	IEEE 802.11ax (20 MHz, MCS0, 90pc duty cycle)	WLAN	9.39	±0.6
10662	AAD	IEEE 802.11ax (20 MHz, MCS1, 90pc duty cycle)	WLAN	8.57	±0.6
10663	AAD	IEEE 802.11ax (20 MHz, MCS2, 90pc duty cycle)	WLAN	8.78	±0.6
10664	AAD	IEEE 802.11ax (20 MHz, MCS3, 90pc duty cycle)	WLAN	8.74	±0.6
10665	AAD	IEEE 802.11ax (20 MHz, MCS4, 90pc duty cycle)	WLAN	8.90	±0.6
10666	AAD	IEEE 802.11ax (20 MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±0.6
10667	AAD	IEEE 802.11ax (20 MHz, MCS6, 90pc duty cycle)	WLAN	8.73	±0.6
10668	AAD	IEEE 802.11ax (20 MHz, MCS7, 90pc duty cycle)	WLAN	8.78	±0.6
10669	AAD	IEEE 802.11ax (20 MHz, MCS8, 90pc duty cycle)	WLAN	8.89	±0.6
10670	AAD	IEEE 802.11ax (20 MHz, MCS9, 90pc duty cycle)	WLAN	8.63	±0.6
10671	AAD	IEEE 802.11ax (20 MHz, MCS10, 90pc duty cycle)	WLAN	8.62	±0.6
10672	AAD	IEEE 802.11ax (20 MHz, MCS11, 90pc duty cycle)	WLAN	8.83	±0.6
10673	AAD	IEEE 802.11ax (20 MHz, MCS12, 90pc duty cycle)	WLAN	8.42	±0.6
10674	AAD	IEEE 802.11ax (20 MHz, MCS13, 90pc duty cycle)	WLAN	8.28	±0.6
10675	AAD	IEEE 802.11ax (20 MHz, MCS14, 90pc duty cycle)	WLAN	8.33	±0.6
10676	AAD	IEEE 802.11ax (20 MHz, MCS15, 90pc duty cycle)	WLAN	8.28	±0.6

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10687	AAC	IEEE 802.11ax (20 MHz, MCS4, 90pc duty cycle)	WLAN	8.45	±0.8
10688	AAC	IEEE 802.11ax (20 MHz, MCS5, 90pc duty cycle)	WLAN	8.29	±0.8
10689	AAC	IEEE 802.11ax (20 MHz, MCS6, 90pc duty cycle)	WLAN	8.55	±0.8
10690	AAC	IEEE 802.11ax (20 MHz, MCS7, 90pc duty cycle)	WLAN	8.79	±0.8
10691	AAC	IEEE 802.11ax (20 MHz, MCS8, 90pc duty cycle)	WLAN	8.25	±0.8
10692	AAC	IEEE 802.11ax (20 MHz, MCS9, 90pc duty cycle)	WLAN	8.29	±0.8
10693	AAC	IEEE 802.11ax (20 MHz, MCS10, 90pc duty cycle)	WLAN	8.29	±0.8
10694	AAC	IEEE 802.11ax (20 MHz, MCS11, 90pc duty cycle)	WLAN	8.57	±0.8
10695	AAC	IEEE 802.11ax (40 MHz, MCS0, 90pc duty cycle)	WLAN	8.79	±0.8
10696	AAC	IEEE 802.11ax (40 MHz, MCS1, 90pc duty cycle)	WLAN	8.81	±0.8
10697	AAC	IEEE 802.11ax (40 MHz, MCS2, 90pc duty cycle)	WLAN	8.81	±0.8
10698	AAC	IEEE 802.11ax (40 MHz, MCS3, 90pc duty cycle)	WLAN	8.89	±0.8
10699	AAC	IEEE 802.11ax (40 MHz, MCS4, 90pc duty cycle)	WLAN	8.82	±0.8
10700	AAC	IEEE 802.11ax (40 MHz, MCS5, 90pc duty cycle)	WLAN	8.73	±0.8
10701	AAC	IEEE 802.11ax (40 MHz, MCS6, 90pc duty cycle)	WLAN	8.88	±0.8
10702	AAC	IEEE 802.11ax (40 MHz, MCS7, 90pc duty cycle)	WLAN	8.75	±0.8
10703	AAC	IEEE 802.11ax (40 MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±0.8
10704	AAC	IEEE 802.11ax (40 MHz, MCS9, 90pc duty cycle)	WLAN	8.56	±0.8
10705	AAC	IEEE 802.11ax (40 MHz, MCS10, 90pc duty cycle)	WLAN	8.65	±0.8
10706	AAC	IEEE 802.11ax (40 MHz, MCS11, 90pc duty cycle)	WLAN	8.66	±0.8
10707	AAC	IEEE 802.11ax (80 MHz, MCS0, 90pc duty cycle)	WLAN	8.32	±0.8
10708	AAC	IEEE 802.11ax (80 MHz, MCS1, 90pc duty cycle)	WLAN	8.55	±0.8
10709	AAC	IEEE 802.11ax (80 MHz, MCS2, 90pc duty cycle)	WLAN	8.33	±0.8
10710	AAC	IEEE 802.11ax (80 MHz, MCS3, 90pc duty cycle)	WLAN	8.39	±0.8
10711	AAC	IEEE 802.11ax (80 MHz, MCS4, 90pc duty cycle)	WLAN	8.39	±0.8
10712	AAC	IEEE 802.11ax (80 MHz, MCS5, 90pc duty cycle)	WLAN	8.57	±0.8
10713	AAC	IEEE 802.11ax (80 MHz, MCS6, 90pc duty cycle)	WLAN	8.33	±0.8
10714	AAC	IEEE 802.11ax (80 MHz, MCS7, 90pc duty cycle)	WLAN	8.20	±0.8
10715	AAC	IEEE 802.11ax (80 MHz, MCS8, 90pc duty cycle)	WLAN	8.45	±0.8
10716	AAC	IEEE 802.11ax (80 MHz, MCS9, 90pc duty cycle)	WLAN	8.30	±0.8
10717	AAC	IEEE 802.11ax (80 MHz, MCS10, 90pc duty cycle)	WLAN	8.48	±0.8
10718	AAC	IEEE 802.11ax (80 MHz, MCS11, 90pc duty cycle)	WLAN	8.24	±0.8
10719	AAC	IEEE 802.11ax (160 MHz, MCS0, 90pc duty cycle)	WLAN	8.61	±0.8
10720	AAC	IEEE 802.11ax (160 MHz, MCS1, 90pc duty cycle)	WLAN	8.87	±0.8
10721	AAC	IEEE 802.11ax (160 MHz, MCS2, 90pc duty cycle)	WLAN	8.78	±0.8
10722	AAC	IEEE 802.11ax (160 MHz, MCS3, 90pc duty cycle)	WLAN	8.58	±0.8
10723	AAC	IEEE 802.11ax (160 MHz, MCS4, 90pc duty cycle)	WLAN	8.70	±0.8
10724	AAC	IEEE 802.11ax (160 MHz, MCS5, 90pc duty cycle)	WLAN	8.90	±0.8
10725	AAC	IEEE 802.11ax (160 MHz, MCS6, 90pc duty cycle)	WLAN	8.74	±0.8
10726	AAC	IEEE 802.11ax (160 MHz, MCS7, 90pc duty cycle)	WLAN	8.72	±0.8
10727	AAC	IEEE 802.11ax (160 MHz, MCS8, 90pc duty cycle)	WLAN	8.66	±0.8
10728	AAC	IEEE 802.11ax (160 MHz, MCS9, 90pc duty cycle)	WLAN	8.66	±0.8
10729	AAC	IEEE 802.11ax (160 MHz, MCS10, 90pc duty cycle)	WLAN	8.64	±0.8
10730	AAC	IEEE 802.11ax (160 MHz, MCS11, 90pc duty cycle)	WLAN	8.67	±0.8
10731	AAC	IEEE 802.11ax (320 MHz, MCS0, 90pc duty cycle)	WLAN	8.42	±0.8
10732	AAC	IEEE 802.11ax (320 MHz, MCS1, 90pc duty cycle)	WLAN	8.46	±0.8
10733	AAC	IEEE 802.11ax (320 MHz, MCS2, 90pc duty cycle)	WLAN	8.49	±0.8
10734	AAC	IEEE 802.11ax (320 MHz, MCS3, 90pc duty cycle)	WLAN	8.25	±0.8
10735	AAC	IEEE 802.11ax (320 MHz, MCS4, 90pc duty cycle)	WLAN	8.33	±0.8
10736	AAC	IEEE 802.11ax (320 MHz, MCS5, 90pc duty cycle)	WLAN	8.27	±0.8
10737	AAC	IEEE 802.11ax (320 MHz, MCS6, 90pc duty cycle)	WLAN	8.38	±0.8
10738	AAC	IEEE 802.11ax (320 MHz, MCS7, 90pc duty cycle)	WLAN	8.43	±0.8
10739	AAC	IEEE 802.11ax (320 MHz, MCS8, 90pc duty cycle)	WLAN	8.29	±0.8
10740	AAC	IEEE 802.11ax (320 MHz, MCS9, 90pc duty cycle)	WLAN	8.48	±0.8
10741	AAC	IEEE 802.11ax (320 MHz, MCS10, 90pc duty cycle)	WLAN	8.45	±0.8
10742	AAC	IEEE 802.11ax (320 MHz, MCS11, 90pc duty cycle)	WLAN	8.43	±0.8
10743	AAC	IEEE 802.11ax (640 MHz, MCS0, 90pc duty cycle)	WLAN	8.94	±0.8
10744	AAC	IEEE 802.11ax (640 MHz, MCS1, 90pc duty cycle)	WLAN	8.18	±0.8
10745	AAC	IEEE 802.11ax (640 MHz, MCS2, 90pc duty cycle)	WLAN	8.95	±0.8
10746	AAC	IEEE 802.11ax (640 MHz, MCS3, 90pc duty cycle)	WLAN	9.11	±0.8
10747	AAC	IEEE 802.11ax (640 MHz, MCS4, 90pc duty cycle)	WLAN	9.04	±0.8
10748	AAC	IEEE 802.11ax (640 MHz, MCS5, 90pc duty cycle)	WLAN	8.95	±0.8
10749	AAC	IEEE 802.11ax (640 MHz, MCS6, 90pc duty cycle)	WLAN	8.90	±0.8
10750	AAC	IEEE 802.11ax (640 MHz, MCS7, 90pc duty cycle)	WLAN	8.70	±0.8
10751	AAC	IEEE 802.11ax (640 MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±0.8
10752	AAC	IEEE 802.11ax (640 MHz, MCS9, 90pc duty cycle)	WLAN	8.81	±0.8

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UID	Rev	Communication System Name	Group	PAR (dB)	Ume ² k = 2
10753	AAC	IEEE 802.11ax (160MHz, MCS10, 90pc duty cycle)	WLAN	8.00	±0.5
10754	AAC	IEEE 802.11ax (160MHz, MCS11, 90pc duty cycle)	WLAN	8.04	±0.5
10755	AAC	IEEE 802.11ax (160MHz, MCS5, 90pc duty cycle)	WLAN	8.04	±0.5
10756	AAC	IEEE 802.11ax (160MHz, MCS1, 90pc duty cycle)	WLAN	8.77	±0.5
10757	AAC	IEEE 802.11ax (160MHz, MCS2, 90pc duty cycle)	WLAN	8.77	±0.5
10758	AAC	IEEE 802.11ax (160MHz, MCS3, 90pc duty cycle)	WLAN	8.99	±0.5
10759	AAC	IEEE 802.11ax (160MHz, MCS4, 90pc duty cycle)	WLAN	8.95	±0.5
10760	AAC	IEEE 802.11ax (160MHz, MCS6, 90pc duty cycle)	WLAN	8.49	±0.5
10761	AAC	IEEE 802.11ax (160MHz, MCS7, 90pc duty cycle)	WLAN	8.50	±0.5
10762	AAC	IEEE 802.11ax (160MHz, MCS8, 90pc duty cycle)	WLAN	8.49	±0.5
10763	AAC	IEEE 802.11ax (160MHz, MCS9, 90pc duty cycle)	WLAN	8.53	±0.5
10764	AAC	IEEE 802.11ax (160MHz, MCS10, 90pc duty cycle)	WLAN	8.54	±0.5
10765	AAC	IEEE 802.11ax (160MHz, MCS11, 90pc duty cycle)	WLAN	8.54	±0.5
10766	AAC	IEEE 802.11ax (160MHz, MCS11, 90pc duty cycle)	WLAN	8.51	±0.5
10767	AAC	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	7.96	±0.5
10768	AAC	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	±0.5
10769	AAC	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	±0.5
10770	AAC	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±0.5
10771	AAC	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±0.5
10772	AAC	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.23	±0.5
10773	AAC	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.03	±0.5
10774	AAC	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±0.5
10775	AAC	5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.31	±0.5
10776	AAC	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	±0.5
10777	AAC	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	±0.5
10778	AAC	5G NR (CP-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.34	±0.5
10779	AAC	5G NR (CP-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.42	±0.5
10780	AAC	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	±0.5
10781	AAC	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	±0.5
10782	AAC	5G NR (CP-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.43	±0.5
10783	AAC	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.31	±0.5
10784	AAC	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.28	±0.5
10785	AAC	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.45	±0.5
10786	AAC	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.35	±0.5
10787	AAC	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.44	±0.5
10788	AAC	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	±0.5
10789	AAC	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.37	±0.5
10790	AAC	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	±0.5
10791	AAC	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.83	±0.5
10792	AAC	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.92	±0.5
10793	AAC	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.95	±0.5
10794	AAC	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	±0.5
10795	AAC	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.84	±0.5
10796	AAC	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	±0.5
10797	AAC	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.01	±0.5
10798	AAC	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	±0.5
10799	AAC	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	±0.5
10800	AAC	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	±0.5
10801	AAC	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.87	±0.5
10802	AAC	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	±0.5
10803	AAC	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±0.5
10804	AAC	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.37	±0.5
10805	AAC	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±0.5
10810	AAC	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±0.5
10812	AAC	5G NR (CP-OFDM, 50% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.36	±0.5
10817	AAC	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.35	±0.5
10818	AAC	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±0.5
10819	AAC	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.33	±0.5
10820	AAC	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.30	±0.5
10821	AAC	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	±0.5
10822	AAC	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	±0.5
10823	AAC	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	±0.5
10824	AAC	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	±0.5
10825	AAC	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	±0.5
10827	AAC	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.42	±0.5
10828	AAC	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.43	±0.5

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10829	A1F	SG NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	SG NR FR1 TDD	8.40	±0.6
10830	A1E	SG NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 60 kHz)	SG NR FR1 TDD	7.83	±0.6
10831	A1D	SG NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 60 kHz)	SG NR FR1 TDD	7.73	±0.6
10832	A1E	SG NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 60 kHz)	SG NR FR1 TDD	7.74	±0.6
10833	A1D	SG NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 60 kHz)	SG NR FR1 TDD	7.70	±0.6
10834	A1E	SG NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 60 kHz)	SG NR FR1 TDD	7.75	±0.6
10835	A1F	SG NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 60 kHz)	SG NR FR1 TDD	7.70	±0.6
10836	A1E	SG NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 60 kHz)	SG NR FR1 TDD	7.66	±0.6
10837	A1F	SG NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 60 kHz)	SG NR FR1 TDD	7.68	±0.6
10838	A1F	SG NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 60 kHz)	SG NR FR1 TDD	7.70	±0.6
10840	A1E	SG NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 60 kHz)	SG NR FR1 TDD	7.67	±0.6
10841	A1F	SG NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 60 kHz)	SG NR FR1 TDD	7.71	±0.6
10843	A1D	SG NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 80 kHz)	SG NR FR1 TDD	8.49	±0.6
10844	A1E	SG NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 80 kHz)	SG NR FR1 TDD	8.34	±0.6
10846	A1E	SG NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 80 kHz)	SG NR FR1 TDD	8.41	±0.6
10854	A1E	SG NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 80 kHz)	SG NR FR1 TDD	8.34	±0.6
10855	A1D	SG NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 80 kHz)	SG NR FR1 TDD	8.36	±0.6
10856	A1E	SG NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 80 kHz)	SG NR FR1 TDD	8.37	±0.6
10857	A1D	SG NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 80 kHz)	SG NR FR1 TDD	8.35	±0.6
10858	A1E	SG NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 80 kHz)	SG NR FR1 TDD	8.36	±0.6
10859	A1F	SG NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 80 kHz)	SG NR FR1 TDD	8.34	±0.6
10860	A1E	SG NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 80 kHz)	SG NR FR1 TDD	8.41	±0.6
10861	A1F	SG NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 80 kHz)	SG NR FR1 TDD	8.40	±0.6
10862	A1F	SG NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 80 kHz)	SG NR FR1 TDD	8.41	±0.6
10864	A1E	SG NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 80 kHz)	SG NR FR1 TDD	8.37	±0.6
10865	A1F	SG NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 80 kHz)	SG NR FR1 TDD	8.41	±0.6
10866	A1F	SG NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	SG NR FR1 TDD	5.89	±0.6
10868	A1F	SG NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	SG NR FR1 TDD	5.89	±0.6
10869	A1E	SG NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	SG NR FR2 TDD	5.75	±0.6
10870	A1E	SG NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	SG NR FR2 TDD	5.80	±0.6
10871	A1E	SG NR (CP-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	SG NR FR2 TDD	5.75	±0.6
10872	A1E	SG NR (CP-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	SG NR FR2 TDD	5.82	±0.6
10873	A1E	SG NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	SG NR FR2 TDD	5.81	±0.6
10874	A1E	SG NR (CP-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	SG NR FR2 TDD	5.85	±0.6
10875	A1E	SG NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 180 kHz)	SG NR FR2 TDD	7.76	±0.6
10876	A1E	SG NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 180 kHz)	SG NR FR2 TDD	6.39	±0.6
10877	A1E	SG NR (CP-OFDM, 1 RB, 100 MHz, 16QAM, 180 kHz)	SG NR FR2 TDD	7.75	±0.6
10878	A1E	SG NR (CP-OFDM, 100% RB, 100 MHz, 16QAM, 180 kHz)	SG NR FR2 TDD	6.41	±0.6
10879	A1E	SG NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 180 kHz)	SG NR FR2 TDD	6.12	±0.6
10880	A1E	SG NR (CP-OFDM, 100% RB, 100 MHz, 64QAM, 180 kHz)	SG NR FR2 TDD	6.38	±0.6
10881	A1E	SG NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 120 kHz)	SG NR FR2 TDD	5.75	±0.6
10882	A1E	SG NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 120 kHz)	SG NR FR2 TDD	5.86	±0.6
10883	A1E	SG NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	SG NR FR2 TDD	6.57	±0.6
10884	A1E	SG NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	SG NR FR2 TDD	6.53	±0.6
10885	A1E	SG NR (CP-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	SG NR FR2 TDD	6.41	±0.6
10886	A1E	SG NR (CP-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	SG NR FR2 TDD	6.48	±0.6
10887	A1E	SG NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 120 kHz)	SG NR FR2 TDD	7.75	±0.6
10888	A1E	SG NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 120 kHz)	SG NR FR2 TDD	6.35	±0.6
10889	A1E	SG NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	SG NR FR2 TDD	6.02	±0.6
10890	A1E	SG NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	SG NR FR2 TDD	6.43	±0.6
10891	A1E	SG NR (CP-OFDM, 1 RB, 60 MHz, 64QAM, 120 kHz)	SG NR FR2 TDD	6.13	±0.6
10892	A1E	SG NR (CP-OFDM, 100% RB, 60 MHz, 64QAM, 120 kHz)	SG NR FR2 TDD	6.41	±0.6
10897	A1E	SG NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	SG NR FR1 TDD	5.66	±0.6
10898	A1D	SG NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	SG NR FR1 TDD	5.67	±0.6
10899	A1E	SG NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	SG NR FR1 TDD	5.67	±0.6
10900	A1D	SG NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	SG NR FR1 TDD	5.68	±0.6
10901	A1E	SG NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	SG NR FR1 TDD	5.68	±0.6
10902	A1D	SG NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	SG NR FR1 TDD	5.68	±0.6
10903	A1D	SG NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	SG NR FR1 TDD	5.68	±0.6
10904	A1D	SG NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	SG NR FR1 TDD	5.68	±0.6
10905	A1D	SG NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	SG NR FR1 TDD	5.68	±0.6
10906	A1D	SG NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	SG NR FR1 TDD	5.68	±0.6
10907	A1E	SG NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 30 kHz)	SG NR FR1 TDD	5.76	±0.6
10908	A1D	SG NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	SG NR FR1 TDD	5.95	±0.6
10909	A1D	SG NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	SG NR FR1 TDD	5.96	±0.6
10910	A1D	SG NR (CP-OFDM, 50% RB, 25 MHz, QPSK, 30 kHz)	SG NR FR1 TDD	5.93	±0.6

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10011	AAB	5G NR (DFT-s-OFDM, 50% RB, 35 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.93	±0.6
10012	AAC	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±0.6
10013	AAD	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±0.6
10014	AAC	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.85	±0.6
10015	AAD	5G NR (DFT-s-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.83	±0.6
10016	AAD	5G NR (DFT-s-OFDM, 50% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.87	±0.6
10017	AAD	5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	±0.6
10018	AAC	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.86	±0.6
10019	AAC	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.86	±0.6
10020	AAB	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.87	±0.6
10021	AAC	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±0.6
10022	AAB	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.82	±0.6
10023	AAC	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±0.6
10024	AAD	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±0.6
10025	AAC	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.86	±0.6
10026	AAD	5G NR (DFT-s-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±0.6
10027	AAD	5G NR (DFT-s-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	±0.6
10028	AAD	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.32	±0.6
10029	AAD	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.32	±0.6
10030	AAC	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.32	±0.6
10031	AAC	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.31	±0.6
10032	AAD	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.31	±0.6
10033	AAD	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.31	±0.6
10034	AAC	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.31	±0.6
10035	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.31	±0.6
10036	AAD	5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.30	±0.6
10037	AAD	5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.37	±0.6
10038	AAC	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.40	±0.6
10039	AAC	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.82	±0.6
10040	AAC	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.86	±0.6
10041	AAC	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.83	±0.6
10042	AAC	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.85	±0.6
10043	AAD	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.86	±0.6
10044	AAD	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.81	±0.6
10045	AAD	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.85	±0.6
10046	AAC	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.83	±0.6
10047	AAD	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.87	±0.6
10048	AAC	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.94	±0.6
10049	AAC	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.87	±0.6
10050	AAC	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.94	±0.6
10051	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.92	±0.6
10052	AAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.25	±0.6
10053	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.15	±0.6
10054	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.23	±0.6
10055	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.42	±0.6
10056	AAA	5G NR DL (CP-OFDM, TM 3.1, 25 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.14	±0.6
10057	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.31	±0.6
10058	AAA	5G NR DL (CP-OFDM, TM 3.1, 35 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.01	±0.6
10059	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.33	±0.6
10060	AAA	5G NR DL (CP-OFDM, TM 3.1, 45 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.32	±0.6
10061	AAC	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.36	±0.6
10062	AAB	5G NR DL (CP-OFDM, TM 3.1, 55 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.40	±0.6
10063	AAC	5G NR DL (CP-OFDM, TM 3.1, 60 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10064	AAC	5G NR DL (CP-OFDM, TM 3.1, 65 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.29	±0.6
10065	AAC	5G NR DL (CP-OFDM, TM 3.1, 70 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.37	±0.6
10066	AAB	5G NR DL (CP-OFDM, TM 3.1, 75 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.25	±0.6
10067	AAD	5G NR DL (CP-OFDM, TM 3.1, 80 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.42	±0.6
10068	AAD	5G NR DL (CP-OFDM, TM 3.1, 85 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.49	±0.6
10069	AAC	5G NR DL (CP-OFDM, TM 3.1, 90 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.59	±0.6
10070	AAD	5G NR DL (CP-OFDM, TM 3.1, 95 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10071	AAD	5G NR DL (CP-OFDM, TM 3.1, 100 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10072	AAC	5G NR DL (CP-OFDM, TM 3.1, 105 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10073	AAD	5G NR DL (CP-OFDM, TM 3.1, 110 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10074	AAD	5G NR DL (CP-OFDM, TM 3.1, 115 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10075	AAA	5G NR DL (CP-OFDM, TM 3.1, 120 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10076	AAA	5G NR DL (CP-OFDM, TM 3.1, 125 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10077	AAA	5G NR DL (CP-OFDM, TM 3.1, 130 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10078	AAA	5G NR DL (CP-OFDM, TM 3.1, 135 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10079	AAA	5G NR DL (CP-OFDM, TM 3.1, 140 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10080	AAA	5G NR DL (CP-OFDM, TM 3.1, 145 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10081	AAA	5G NR DL (CP-OFDM, TM 3.1, 150 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10082	AAA	5G NR DL (CP-OFDM, TM 3.1, 155 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10083	AAA	5G NR DL (CP-OFDM, TM 3.1, 160 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10084	AAA	5G NR DL (CP-OFDM, TM 3.1, 165 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10085	AAA	5G NR DL (CP-OFDM, TM 3.1, 170 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10086	AAA	5G NR DL (CP-OFDM, TM 3.1, 175 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10087	AAA	5G NR DL (CP-OFDM, TM 3.1, 180 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10088	AAA	5G NR DL (CP-OFDM, TM 3.1, 185 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10089	AAA	5G NR DL (CP-OFDM, TM 3.1, 190 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10090	AAA	5G NR DL (CP-OFDM, TM 3.1, 195 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10091	AAA	5G NR DL (CP-OFDM, TM 3.1, 200 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10092	AAA	5G NR DL (CP-OFDM, TM 3.1, 205 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10093	AAA	5G NR DL (CP-OFDM, TM 3.1, 210 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10094	AAA	5G NR DL (CP-OFDM, TM 3.1, 215 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10095	AAA	5G NR DL (CP-OFDM, TM 3.1, 220 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10096	AAA	5G NR DL (CP-OFDM, TM 3.1, 225 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10097	AAA	5G NR DL (CP-OFDM, TM 3.1, 230 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10098	AAA	5G NR DL (CP-OFDM, TM 3.1, 235 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10099	AAA	5G NR DL (CP-OFDM, TM 3.1, 240 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6
10100	AAA	5G NR DL (CP-OFDM, TM 3.1, 245 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	6.95	±0.6

Certificate No: EX-3986_jan24

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EX3DV4 - SN:3986

January 24, 2024

SRD	Rev	Communication System Name	Group	PAR (dB)	Unc ² k=2
10982	AAD	5G NR DL (CP-OFDM, TM 3.1, 40MHz, 64-QAM, 15MHz)	5G NR FR1 TDD	9.31	±0.6
10984	AAB	5G NR DL (CP-OFDM, TM 3.1, 50MHz, 64-QAM, 15MHz)	5G NR FR1 TDD	9.42	±0.6
10985	AAD	5G NR DL (CP-OFDM, TM 3.1, 40MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	9.54	±0.6
10986	AAB	5G NR DL (CP-OFDM, TM 3.1, 50MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	9.50	±0.6
10987	AAC	5G NR DL (CP-OFDM, TM 3.1, 60MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	9.53	±0.6
10988	AAB	5G NR DL (CP-OFDM, TM 3.1, 70MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	9.39	±0.6
10989	AAC	5G NR DL (CP-OFDM, TM 3.1, 80MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	9.33	±0.6
10990	AAB	5G NR DL (CP-OFDM, TM 3.1, 90MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	9.50	±0.6
11000	AAA	5G NR DL (CP-OFDM, TM 3.1, 30MHz, 64-QAM, 15kHz)	5G NR FR1 TDD	10.24	±0.6
11004	AAA	5G NR DL (CP-OFDM, TM 3.1, 30MHz, 64-QAM, 30kHz)	5G NR FR1 TDD	10.73	±0.6
11005	AAA	5G NR DL (CP-OFDM, TM 3.1, 25MHz, 64-QAM, 15kHz)	5G NR FR1 PCD	8.70	±0.6
11006	AAA	5G NR DL (CP-OFDM, TM 3.1, 30MHz, 64-QAM, 15kHz)	5G NR FR1 PCD	8.55	±0.6
11007	AAA	5G NR DL (CP-OFDM, TM 3.1, 40MHz, 64-QAM, 15kHz)	5G NR FR1 PCD	8.46	±0.6
11008	AAA	5G NR DL (CP-OFDM, TM 3.1, 50MHz, 64-QAM, 15kHz)	5G NR FR1 PCD	8.51	±0.6
11009	AAA	5G NR DL (CP-OFDM, TM 3.1, 25MHz, 64-QAM, 30kHz)	5G NR FR1 PCD	8.78	±0.6
11010	AAA	5G NR DL (CP-OFDM, TM 3.1, 30MHz, 64-QAM, 30kHz)	5G NR FR1 PCD	8.66	±0.6
11011	AAA	5G NR DL (CP-OFDM, TM 3.1, 40MHz, 64-QAM, 30kHz)	5G NR FR1 PCD	8.56	±0.6
11012	AAA	5G NR DL (CP-OFDM, TM 3.1, 50MHz, 64-QAM, 30kHz)	5G NR FR1 PCD	8.66	±0.6
11013	AAB	IEEE 802.11be (320MHz, MCS1, 99pc duty cycle)	WLAN	8.47	±0.6
11014	AAB	IEEE 802.11be (320MHz, MCS2, 99pc duty cycle)	WLAN	8.45	±0.6
11015	AAB	IEEE 802.11be (320MHz, MCS3, 99pc duty cycle)	WLAN	8.44	±0.6
11016	AAB	IEEE 802.11be (320MHz, MCS4, 99pc duty cycle)	WLAN	8.44	±0.6
11017	AAB	IEEE 802.11be (320MHz, MCS5, 99pc duty cycle)	WLAN	8.61	±0.6
11018	AAB	IEEE 802.11be (320MHz, MCS6, 99pc duty cycle)	WLAN	8.40	±0.6
11019	AAB	IEEE 802.11be (320MHz, MCS7, 99pc duty cycle)	WLAN	8.29	±0.6
11020	AAB	IEEE 802.11be (320MHz, MCS8, 99pc duty cycle)	WLAN	8.27	±0.6
11021	AAB	IEEE 802.11be (320MHz, MCS9, 99pc duty cycle)	WLAN	8.40	±0.6
11022	AAB	IEEE 802.11be (320MHz, MCS10, 99pc duty cycle)	WLAN	8.30	±0.6
11023	AAB	IEEE 802.11be (320MHz, MCS11, 99pc duty cycle)	WLAN	8.39	±0.6
11024	AAB	IEEE 802.11be (320MHz, MCS12, 99pc duty cycle)	WLAN	8.42	±0.6
11025	AAB	IEEE 802.11be (320MHz, MCS13, 99pc duty cycle)	WLAN	8.37	±0.6
11026	AAB	IEEE 802.11be (320MHz, MCS14, 99pc duty cycle)	WLAN	8.39	±0.6

² Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

Appendix D.2 Calibration certificate for DAE_SN567

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Client: **SGS**
Gyeonggi-do, Republic of Korea

Accreditation No.: **SCS 0108**

Certificate No.: **DAE3-567_Feb24**

CALIBRATION CERTIFICATE

Object: **DAE3 - SD 000 D03 AA - SN: 567**

Calibration procedure(s): **QA CAL-06.v30**
Calibration procedure for the data acquisition electronics (DAE)

Calibration date: **February 16, 2024**

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

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

Calibration Equipment used (M&E critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Kalshay Multimeter Type 2001	SR: 0810278	29-Aug-23 (Mod1421)	Aug-24

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Auto DAE Calibration Unit	SE UWS 003 AA 1001	23-Jan-24 (in house check)	In house check: Jan-25
Calibrator Box V2.1	SE UWS 008 AA 1002	23-Jan-24 (in house check)	In house check: Jan-25

Calibrated by: **Dominique Stoffen** (Name), **Laboratory Technician** (Function),  (Signature)

Approved by: **Sven Köhn** (Name), **Technical Manager** (Function),  (Signature)

Issued: February 16, 2024

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Certificate No: DAE3-567_Feb24

Page 1 of 5

**Calibration Laboratory of
 Schmid & Partner
 Engineering AG**
 Zeughausstrasse 43, 8004 Zurich, Switzerland



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C Service suisse d'étalonnage
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 Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
 The Swiss Accreditation Service is one of the signatories to the EA
 Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Glossary

DAE data acquisition electronics
Connector angle Information used in DASY system to align probe sensor X to the robot coordinate system.

Methods Applied and Interpretation of Parameters

- **DC Voltage Measurement:** Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- **Connector angle:** The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty.
 - **DC Voltage Measurement Linearity:** Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this measurement.
 - **Common mode sensitivity:** Influence of a positive or negative common mode voltage on the differential measurement.
 - **Channel separation:** Influence of a voltage on the neighbor channels not subject to an input voltage.
 - **AD Converter Values with inputs shorted:** Values on the internal AD converter corresponding to zero input voltage
 - **Input Offset Measurement:** Output voltage and statistical results over a large number of zero voltage measurements.
 - **Input Offset Current:** Typical value for information; Maximum channel input offset current, not considering the input resistance.
 - **Input resistance:** Typical value for information; DAE input resistance at the connector, during internal auto-zeroing and during measurement.
 - **Low Battery Alarm Voltage:** Typical value for information. Below this voltage, a battery alarm signal is generated.
 - **Power consumption:** Typical value for information. Supply currents in various operating modes.

DC Voltage Measurement

A/D - Converter Resolution nominal
 High Range: 1LSB = 6.1 μ V, full range = -100...+300 mV
 Low Range: 1LSB = 61nV, full range = -1.....+3mV
 DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Calibration Factors	X	Y	Z
High Range	404.646 $\pm$ 0.02% (k=2)	404.382 $\pm$ 0.02% (k=2)	404.483 $\pm$ 0.02% (k=2)
Low Range	3.92682 $\pm$ 1.50% (k=2)	3.95906 $\pm$ 1.50% (k=2)	3.94509 $\pm$ 1.50% (k=2)

Connector Angle

Connector Angle to be used in DASY system	7.0 $^{\circ}$ $\pm$ 1 $^{\circ}$
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Appendix (Additional assessments outside the scope of SCS0108)

1. DC Voltage Linearity

High Range	Reading (μV)	Difference (μV)	Error (%)
Channel X + Input	199997.63	0.16	0.00
Channel X + Input	20008.51	2.97	0.01
Channel X - Input	-19995.08	3.53	-0.02
Channel Y + Input	199994.79	-2.54	-0.00
Channel Y + Input	20006.68	1.05	0.01
Channel Y - Input	-19996.41	2.07	-0.01
Channel Z + Input	199998.46	0.73	0.00
Channel Z + Input	20004.07	-1.57	-0.01
Channel Z - Input	-19995.57	2.51	-0.01

Low Range	Reading (μV)	Difference (μV)	Error (%)
Channel X + Input	2004.54	0.11	0.01
Channel X + Input	204.82	0.28	0.14
Channel X - Input	-185.41	0.02	-0.01
Channel Y + Input	2004.06	-0.42	-0.02
Channel Y + Input	204.33	-0.35	-0.17
Channel Y - Input	-185.02	0.24	-0.12
Channel Z + Input	2004.66	0.21	0.01
Channel Z + Input	203.98	-0.49	-0.24
Channel Z - Input	-198.29	-0.94	0.48

2. Common mode sensitivity

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Common mode Input Voltage (mV)	High Range Average Reading (μV)	Low Range Average Reading (μV)
Channel X	200	2.90	1.35
	- 200	-0.35	-2.22
Channel Y	200	-3.28	-3.47
	- 200	2.64	2.26
Channel Z	200	3.63	3.45
	- 200	-4.54	-4.75

3. Channel separation

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Input Voltage (mV)	Channel X (μV)	Channel Y (μV)	Channel Z (μV)
Channel X	200	-	-1.42	-2.72
Channel Y	200	8.21	-	0.13
Channel Z	200	5.69	5.67	-

4. AD-Converter Values with inputs shorted

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	High Range (LSB)	Low Range (LSB)
Channel X	16246	14236
Channel Y	16135	12885
Channel Z	15988	15810

5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Input 10M Ω

	Average (μ V)	min. Offset (μ V)	max. Offset (μ V)	Std. Deviation (μ V)
Channel X	1.33	-0.17	2.48	0.50
Channel Y	-0.25	-1.68	1.20	0.46
Channel Z	-0.04	-1.66	0.72	0.39

6. Input Offset Current

Nominal Input circuitry offset current on all channels: ± 25 nA

7. Input Resistance (Typical values for information)

	Zeroing (k Ω m)	Measuring (M Ω m)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

8. Low Battery Alarm Voltage (Typical values for information)

Typical values	Alarm Level (VDC)
Supply (+ Vcc)	+7.9
Supply (- Vcc)	-7.8

9. Power Consumption (Typical values for information)

Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)
Supply (+ Vcc)	+0.01	+6	+14
Supply (- Vcc)	-0.01	-8	-9

Appendix D.3 Calibration certificate for Dipole_SN1070

Calibration Laboratory of
Schmid & Partner
Engineering AG
 Zeughausstrasse 43, 8004 Zurich, Switzerland

Accredited by the Swiss Accreditation Service (SAS)
 The Swiss Accreditation Service is one of the signatories to the EA
 Multilateral Agreement for the recognition of calibration certificates




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 S Service suisse d'étalonnage
 C Servizio svizzero di taratura
 S Swiss Calibration Service

Accreditation No.: SCS 0108

Client **SGS**
 Gyeonggi-do, Republic of Korea

Certificate No. **D1750V2-1070_Jul24**

CALIBRATION CERTIFICATE

Object **D1750V2 - SN: 1070**

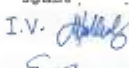
Calibration procedure(s) **QA CAL-05.v12**
 Calibration Procedure for SAR Validation Sources between 0.7 - 3 GHz

Calibration date **July 11, 2024**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
 The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.
 All calibrations have been conducted in the closed laboratory facility: environment temperature (22±5)°C and humidity < 70%.
 Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Cal
Power Sensor R&S NRP-337	SN: 100997	28-Mar-24 (No. 217-04038)	Mar-25
Power Sensor R&S NRP13A	SN: 101899	21-Mar-24 (No. 4030A316557801)	Mar-25
Spectrum Analyzer R&S FSV40	SN: 101832	25-Jan-24 (No. 4030-315007551)	Jan-25
Mismatch: Short [S4188] Attenuator [S4482]	SN: 1102	28-Mar-24 (No. 217-04038)	Mar-25
CCP DAK-12	SN: 1016	05-Oct-23 (No. CCP-DAK12-1016_Oct23)	Oct-24
CCP DAK-3.5	SN: 1249	05-Oct-23 (No. CCP-DAK3.5-1249_Oct23)	Oct-24
Reference Probe EX30V4	SN: 7349	03-Jun-24 (No. EX3-7349_Jun24)	Jun-25
DAE-5p	SN: 1836	10-Jan-24 (No. DAE5p-1836_Jan24)	Jan-25

Secondary Standards	ID	Check Date (in house)	Scheduled Check
ACAD Source Box	SN: 1000	28-May-24 (No. 675-ACAD_Source_Box-240528)	May-25
Signal Generator R&S SM5102A	SN: 182081	28-May-24 (No. 0051-300718404)	May-25
Mismatch: SMA	SN: 1102	22-May-24 (No. 675-Mismatch_SMA-240522)	May-25

	Name	Function	Signature
Calibrated by	Paula Pina	Laboratory Technician	I.V. 
Approved by	Evan Kühn	Technical Manager	

Issued: July 11, 2024

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland



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S Swiss Calibration Service

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The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Glossary

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

Calibration is Performed According to the Following Standards

- IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices - Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation

- DASY System Handbook

Methods Applied and Interpretation of Parameters

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

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor $k=2$, which for a normal distribution corresponds to a coverage probability of approximately 95%.

D1750V2 - SN: 1070

July 11, 2024

Measurement Conditions

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

DASY Version	DASY8 Module SAR	16.4.0
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with spacer
Zoom Scan Resolution	dx, dy = 6mm, dz = 1.6mm	Graded Ratio = 1.5 mm (Z direction)
Frequency	1750MHz ±1MHz	

Head TSL parameters at 1750 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	40.1	1.37 mho/m
Measured Head TSL parameters	(22.0 ±0.2)°C	40.6 ±6%	1.35 mho/m ±6%
Head TSL temperature change during test	< 0.5 °C		

SAR result with Head TSL at 1750 MHz

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR for nominal Head TSL parameters	24 dBm input power	9.28 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	36.9 W/kg ±17.0% (k = 2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	Condition	
SAR for nominal Head TSL parameters	24 dBm input power	4.94 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	19.7 W/kg ±16.5% (k = 2)

D1750V2 - SN: 1070

July 11, 2024

Appendix (Additional assessments outside the scope of SCS 0106)

Antenna Parameters with Head TSL at 1750 MHz

Impedance	49.5 Ω - 0.5 jΩ
Return Loss	-42.4 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.222 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured. The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard. No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
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D1750V2 - SN: 1070

July 11, 2024

System Performance Check Report

Summary

Device	Frequency (MHz)	TSL	Power (dBm)
D1750V2 - SN1070	1750	HSL	24

Exposure Conditions

Platform Position, TSL	Test Distance (mm)	Band	Cross, UID	Frequency (MHz, Channel Number)	Conversion factor	TSL Conductivity (S/m)	TSL Permeability
Flat	18	DS, D--	1750, D		7.86	1.35	40.6

Hardware Setup

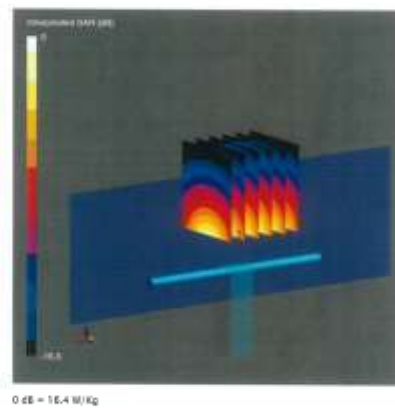
Platform	TSL Measured Date	Probe, Calibration Date	Dist, Calibration Date
HSP VLS Right	HSL, 2024-07-11	EX3066 - 547348, 2024-05-05	DE440 Ser1636, 2024-01-19

Scans Setup

	Zoom Scan
Grid Format (mm)	32 x 80 x 80
Grid Size (mm)	6.8 x 6.8 x 1.3
Sensor Surface (mm)	1.4
Grated G/M	Yes
Grating Rule	1.8
Roller	N/A
Surface Detection	All points
Scan Method	Measured

Measurement Results

	Zoom Scan
Date	2024-07-11
psARL g (m/kg)	9.38
psARL g (W/kg)	4.86
Power Grth (dB)	0.80
Power Scaling	Disabled
Scaling Factor (dB)	
TSL Correction	Positive / Negative



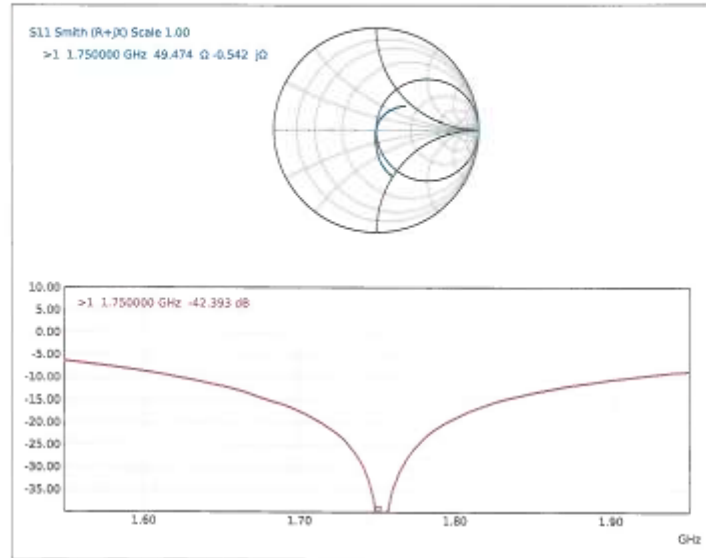
Certificate No: D1750V2-1070_Ju24

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D1750V2 - SN: 1070

July 11, 2024

Impedance Measurement Plot for Head TSL



Certificate No: D1750V2-1070_Jul24

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Appendix D.4 Calibration certificate for Dipole_SN1124

Calibration Laboratory of
Schmid & Partner
Engineering AG
 Zeughausstrasse 43, 8004 Zurich, Switzerland

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Accreditation No.: SCS 0108

Client **SGS**
 Gyeonggi-do, Republic of Korea

Certificate No. **D2600V2-1124_Jul24**

CALIBRATION CERTIFICATE

Object **D2600V2 - SN: 1124**

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

Calibration date **July 22, 2024**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
 The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.
 All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 5 °C and humidity < 70%.
 Calibration Equipment used (M&T/E critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Cal
Power Sensor R&S NRP-33T	SN: 103967	26-Mar-24 (No. 217-24038)	Mar-25
Power Sensor R&S NRP18A	SN: 101859	21-Mar-24 (No. 4230A315007801)	Mar-25
Spectrum Analyzer R&S FSVA0	SN: 101838	25-Jan-24 (No. 4530-315007951)	Jan-25
Mismatch: Short [S418M] Attenuator [S4423]	SN: 1152	26-Mar-24 (No. 217-24038)	Mar-25
CCP DAK-12	SN: 1016	05-Oct-23 (No. CCP-DAK12-1016_Oct23)	Oct-24
CCP DAK-3.5	SN: 1249	05-Oct-23 (No. CCP-DAK3.5-1249_Oct23)	Oct-24
Reference Probe EX30V4	SN: 7349	03-Jun-24 (No. EX3-7349_Jun24)	Jun-25
DAE4ip	SN: 1836	10-Jan-24 (No. DAE4ip-1836_Jan24)	Jan-25

Secondary Standards	ID	Check Date (in house)	Scheduled Check
ACAD Source Box	SN: 1000	23-May-24 (No. 675-ACAD_Source_Box-240523)	May-25
Signal Generator R&S SMB100A	SN: 182081	23-May-24 (No. 0001-300715404)	May-25
Mismatch: SMA	SN: 1102	22-May-24 (No. 675-Mismatch_SMA-240522)	May-25

	Name	Function	Signature
Calibrated by	Knelemin Pranjic	Laboratory Technician	
Approved by	Brian Kohn	Technical Manager	

Issued: July 22, 2024

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Calibration Laboratory of
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Engineering AG

Zugheustrasse 43, 8004 Zurich, Switzerland



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Accreditation No.: SCS 0108

Glossary

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

Calibration is Performed According to the Following Standards

- IECIEEE 62209-1538, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices - Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- KDB 885664, "SAR Measurement Requirements for 100 MHz to 8 GHz"

Additional Documentation

- DASY System Handbook

Methods Applied and Interpretation of Parameters

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

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor $k=2$, which for a normal distribution corresponds to a coverage probability of approximately 95%.

D2600V2 - SN: 1124

July 22, 2024

Measurement Conditions

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

DASY Version	DASY8 Module SAR	16.4.0
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with spacer
Zoom Scan Resolution	dx, dy = 5mm, dz = 1.5mm	Graded Ratio = 1.5 mm (Z direction)
Frequency	2600MHz ±1MHz	

Head TSL parameters at 2600 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.0	1.96 mho/m
Measured Head TSL parameters	(22.0 ±0.2)°C	37.2 ±5%	1.98 mho/m ±5%
Head TSL temperature change during test	< 0.5 °C		

SAR result with Head TSL at 2600 MHz

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR for nominal Head TSL parameters	24 dBm input power	13.7 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	54.5 W/kg ±17.0% (k = 2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	Condition	
SAR for nominal Head TSL parameters	24 dBm input power	6.15 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	24.5 W/kg ±16.5% (k = 2)

D2600V2 - SN: 1124

July 22, 2024

Appendix (Additional assessments outside the scope of SCS 0106)

Antenna Parameters with Head TSL at 2600 MHz

Impedance	49.9 Ω - 7.3 j Ω
Return Loss	-22.6 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.152 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured. The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard. No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

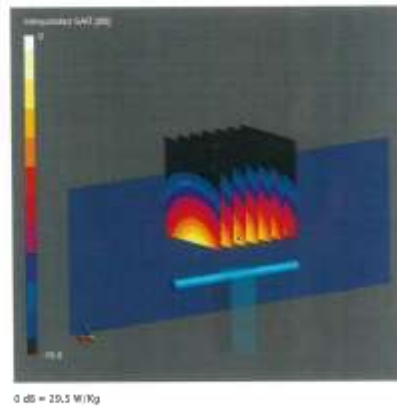
Manufactured by	SPEAG
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D2600V2 - SN: 1124

July 22, 2024

System Performance Check Report

Summary								
Device	Frequency (MHz)			TSL	Power (dBm)			
D2600V2 - SN1124	2508			HSL	24			
Exposure Conditions								
Phantom Section, TSL	Test Distance (mm)	Band	Group, STD	Frequency (MHz)	Channel Number	Conversion Factor	TSL Conductivity (S/m)	TSL Permeability
Flat	10	DW, D---		2508, 0		7.29	1.55	0.72
Hardware Setup								
Phantom	TSL Measured Date			Probe, Calibration Date			OAE, Calibration Date	
MPF V10.0 Config	HSL, 2024-07-22			G232PR - SN7348, 2024-06-03			GAS09 SN1836, 2024-01-10	
Scans Setup				Measurement Results				
Zoom Scan				Zoom Scan				
Grid Size (mm)				Date				
30 x 10 x 10				2024-07-22				
Grid Steps (mm)				pSAR1 (pW/Kg)				
3.0 x 3.0 x 1.5				13.7				
Sensor Surface (mm)				pSAR10g (W/Kg)				
1.4				6.15				
Coated Grid				Power DITS (dB)				
Yes				-0.01				
Griding Ratio				Power Scaling				
1.5				Disabled				
MAG				Scaling Factor (dB)				
N/A								
Surface Detection				TSL Correction				
VMS - dp				Positive / Negative				
Scan Method								
Measured								



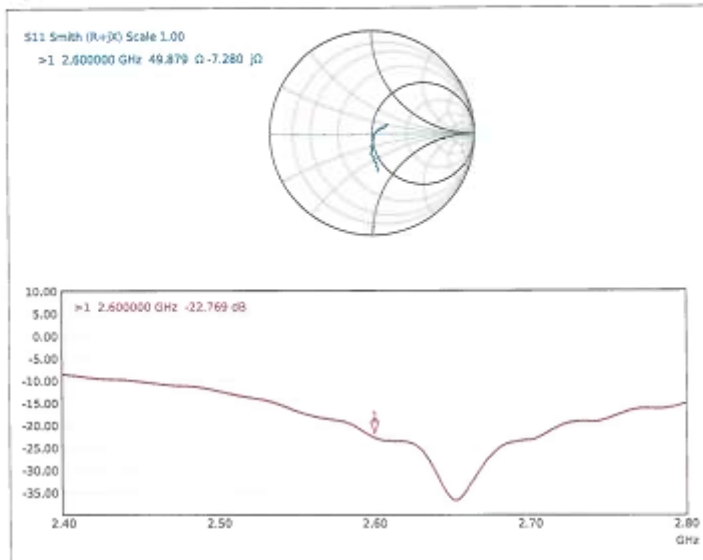
Certificate No: D2600V2-1124_kj24

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D2800V2 - SN: 1124

July 22, 2024

Impedance Measurement Plot for Head TSL



Certificate No: D2800V2-1124_Jul24

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Appendix D.5 Calibration certificate for Dipole_SN1058

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Engineering AG
Zughausstrasse 43, 8004 Zurich, Switzerland

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Client: **SGS**
Gyeonggi-do, Republic of Korea

Certificate No. **D3500V2-1058_Sep23**

CALIBRATION CERTIFICATE

Object: **D3500V2 - SN:1058**

Calibration procedure(s): **QA CAL-22.v7**
Calibration Procedure for SAR Validation Sources between 3-10 GHz

Calibration date: **September 28, 2023**

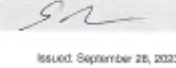
This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 5)°C and humidity < 70%.

Calibration Equipment used (MATE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP2	SN: 104778	30-Mar-23 (No. 217-09804/03905)	Mar-24
Power sensor NRP-Z91	SN: 103244	30-Mar-23 (No. 217-09804)	Mar-24
Power sensor NRP-Z91	SN: 103245	30-Mar-23 (No. 217-09805)	Mar-24
Reference 20 dB Attenuator	SN: B48394 (25k)	30-Mar-23 (No. 217-09806)	Mar-24
Type-N mismatch combination	SN: S10982 / 05327	30-Mar-23 (No. 217-09810)	Mar-24
Reference Probe EX30V4	SN: 3500	07-Mar-23 (No. EX3-3503_Mar23)	Mar-24
DAE4	SN: 900	09-Aug-23 (No. DAE4-900_Aug23)	Aug-24

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB35512675	30-Oct-14 (in house check Oct-22)	in house check: Oct-24
Power sensor HP 8481A	SN: US37292763	07-Oct-15 (in house check Oct-22)	in house check: Oct-24
Power sensor HP 8481A	SN: MY41093315	07-Oct-15 (in house check Oct-22)	in house check: Oct-24
RF generator R&S SM1-05	SN: 100872	15-Jun-15 (in house check Oct-22)	in house check: Oct-24
Network Analyzer Agilent E8358A	SN: US41093477	21-Mar-14 (in house check Oct-22)	in house check: Oct-24

Name	Function	Signature
Calibrated by: Paulo Pina	Laboratory Technician	
Approved by: Sven Kühn	Technical Manager	

Issued: September 28, 2023

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Certificate No: D3500V2-1058_Sep23 Page 1 of 7

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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Glossary:

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

Calibration is Performed According to the Following Standards:

- IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices - Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

- DASY System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The source is mounted in a touch configuration below the center marking of the flat phantom.
- Return Loss:** This parameter is measured with the source positioned under the liquid filled phantom (as described in the measurement condition clause). The Return Loss ensures low reflected power. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor $k=2$, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

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

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V5.0	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy = 4.0 mm, dz = 1.4 mm	Graded Ratio = 1.4 (Z direction)
Frequency	3400 MHz $\pm$ 1 MHz 3500 MHz $\pm$ 1 MHz	

Head TSL parameters at 3400 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	38.0	2.81 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	37.7 $\pm$ 6 %	2.87 mho/m $\pm$ 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 3400 MHz

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	6.79 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	67.4 W/kg $\pm$ 19.9 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.56 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	25.6 W/kg $\pm$ 19.5 % (k=2)

Head TSL parameters at 3500 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	37.9	2.91 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	37.6 $\pm$ 6 %	2.85 mho/m $\pm$ 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 3500 MHz

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	6.55 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	65.3 W/kg $\pm$ 19.9 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.49 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	24.8 W/kg $\pm$ 19.5 % (k=2)

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL at 3400 MHz

Impedance, transformed to feed point	44.1 Ω - 7.3 j Ω
Return Loss	- 20.0 dB

Antenna Parameters with Head TSL at 3500 MHz

Impedance, transformed to feed point	50.8 Ω - 6.1 j Ω
Return Loss	- 24.3 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.135 ns
----------------------------------	----------

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

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
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DASY5 Validation Report for Head TSL

Date: 28.09.2023

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 3500 MHz; Type: D3500V2; Serial: D3500V2 - SN:1058

Communication System: UID 0 - CW; Frequency: 3500 MHz, Frequency: 3400 MHz

Medium parameters used: $f = 3500$ MHz; $\sigma = 2.95$ S/m; $\epsilon_r = 37.6$; $\rho = 1000$ kg/m³

Medium parameters used: $f = 3400$ MHz; $\sigma = 2.87$ S/m; $\epsilon_r = 37.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN3503; ConvF(7.91, 7.91, 7.91) @ 3500 MHz, ConvF(7.91, 7.91, 7.91) @ 3400 MHz; Calibrated: 07.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn900; Calibrated: 09.08.2023
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Dipole Calibration for Head Tissue/Pin=100 mW, d=10mm, f=3500MHz/Zoom Scan,

dist=1.4mm (8x8x8)/Cube 0; Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 68.22 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 17.5 W/kg

SAR(1 g) = 6.56 W/kg; SAR(10 g) = 2.49 W/kg

Smallest distance from peaks to all points 3 dB below = 8 mm

Ratio of SAR at M2 to SAR at M1 = 74.6%

Maximum value of SAR (measured) = 12.4 W/kg

Dipole Calibration for Head Tissue/Pin=100 mW, d=10mm, f=3400MHz/Zoom Scan,

dist=1.4mm (8x8x8)/Cube 0; Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 70.44 V/m; Power Drift = 0.06 dB

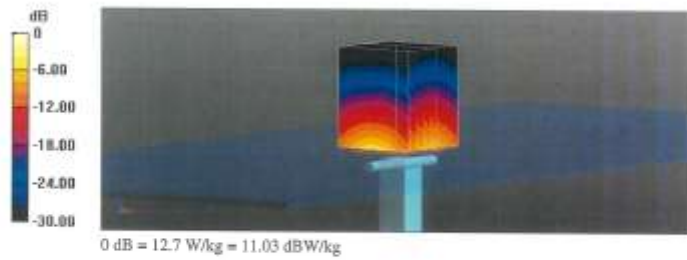
Peak SAR (extrapolated) = 17.9 W/kg

SAR(1 g) = 6.79 W/kg; SAR(10 g) = 2.56 W/kg

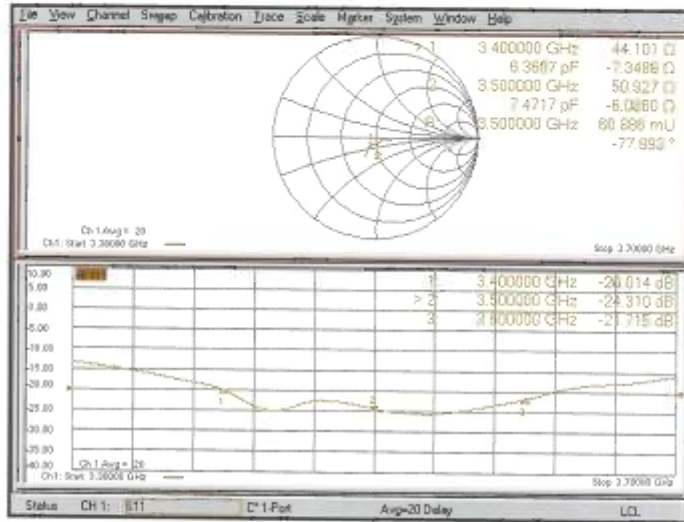
Smallest distance from peaks to all points 3 dB below = 8 mm

Ratio of SAR at M2 to SAR at M1 = 75.3%

Maximum value of SAR (measured) = 12.7 W/kg



Impedance Measurement Plot for Head TSL



Appendix D.6 Calibration certificate for Dipole_SN1036

Calibration Laboratory of
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Engineering AG
 Zeughausstrasse 43, 8004 Zurich, Switzerland

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 S Swiss Calibration Service

Accreditation No.: **SCS 0108**

Client: **SGS**
 Gyeonggi-do, Republic of Korea

Certificate No. **D3900V2-1036_Sep23**

CALIBRATION CERTIFICATE

Object: **D3900V2 - SN:1036**

Calibration procedure(s): **CA_CAL-22.v7
 Calibration Procedure for SAR Validation Sources between 3-10 GHz**

Calibration date: **September 27, 2023**

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

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

Calibration Equipment used (M&E critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP2	SN: 104778	30-Mar-23 (No. 217-03804/03805)	Mar-24
Power sensor NRP-Z91	SN: 103264	30-Mar-23 (No. 217-03804)	Mar-24
Power sensor NRP-Z91	SN: 103248	30-Mar-23 (No. 217-03805)	Mar-24
Reference 20 dB Attenuator	SN: 849394 (20k)	30-Mar-23 (No. 217-03806)	Mar-24
Type-N mismatch combination	SN: 310662 / 06327	30-Mar-23 (No. 217-03810)	Mar-24
Reference Probe EX3DV4	SN: 3553	07-Mar-23 (No. EX3-3503_Mar23)	Mar-24
DAE4	SN: 900	09-Aug-23 (No. DAE4-900_Aug23)	Aug-24

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4118B	SN: G839512476	30-Oct-14 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: MY41083315	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-22)	In house check: Oct-24
Network Analyzer Agilent E8358A	SN: US41083477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24

Calibrated by: **Kristin Franje**

Function: **Laboratory Technician**

Signature: 

Approved by: **Erwin Kuhn**

Technical Manager

Signature: 

Issued: September 27, 2023

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Certificate No: D3900V2-1036_Sep23

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Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland



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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SC5 0108

Glossary:

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

Calibration is Performed According to the Following Standards:

- IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices - Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

- DASY System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The source is mounted in a touch configuration below the center marking of the flat phantom.
- Return Loss:** This parameter is measured with the source positioned under the liquid filled phantom (as described in the measurement condition clause). The Return Loss ensures low reflected power. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor $k=2$, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

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

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V5.0	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy = 4.0 mm, dz = 1.4 mm	Graded Ratio = 1.4 (Z direction)
Frequency	3900 MHz $\pm$ 1 MHz 4100 MHz $\pm$ 1 MHz	

Head TSL parameters at 3900 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	37.5	3.32 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	37.1 $\pm$ 8 %	3.27 mho/m $\pm$ 6 %
Head TSL temperature change during test	< 0.5 °C	---	---

SAR result with Head TSL at 3900 MHz

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	6.80 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	68.0 W/kg $\pm$ 19.9 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.38 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	23.8 W/kg $\pm$ 19.5 % (k=2)

Head TSL parameters at 4100 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	37.2	3.53 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	36.9 $\pm$ 6 %	3.45 mho/m $\pm$ 6 %
Head TSL temperature change during test	< 0.5 °C	---	---

SAR result with Head TSL at 4100 MHz

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	6.77 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	67.8 W/kg $\pm$ 19.9 % (k=2)
SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.36 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	23.6 W/kg $\pm$ 19.5 % (k=2)

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL at 3900 MHz

Impedance, transformed to feed point	47.4 Ω - 4.9 j Ω
Return Loss	-24.9 dB

Antenna Parameters with Head TSL at 4100 MHz

Impedance, transformed to feed point	57.3 Ω - 1.1 j Ω
Return Loss	-23.2 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.104 ns
----------------------------------	----------

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

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
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DASY5 Validation Report for Head TSL

Date: 27.09.2023

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 3900 MHz; Type: D3900V2; Serial: D3900V2 - SN:1036

Communication System: UID 0 - CW; Frequency: 3900 MHz, Frequency: 4100 MHz

Medium parameters used: $f = 3900$ MHz; $\sigma = 3.27$ S/m; $\epsilon_r = 37.1$; $\rho = 1000$ kg/m³

Medium parameters used: $f = 4100$ MHz; $\sigma = 3.45$ S/m; $\epsilon_r = 36.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN3503; ConvP(7.39, 7.39, 7.39) @ 3900 MHz, ConvP(7.26, 7.26, 7.26) @ 4100 MHz; Calibrated: 07.03.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn900; Calibrated: 09.08.2023
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Dipole Calibration for Head Tissue/Pin=100 mW, d=10mm, f=3900MHz/Zoom Scan,

dist=1.4mm (8x8x8)/Cube 0; Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 70.20 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 19.2 W/kg

SAR(1 g) = 6.8 W/kg; SAR(10 g) = 2.39 W/kg

Smallest distance from peaks to all points 3 dB below = 8 mm

Ratio of SAR at M2 to SAR at M1 = 73.9%

Maximum value of SAR (measured) = 13.4 W/kg

Dipole Calibration for Head Tissue/Pin=100 mW, d=10mm, f=4100MHz/Zoom Scan,

dist=1.4mm (8x8x8)/Cube 0; Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 68.07 V/m; Power Drift = 0.09 dB

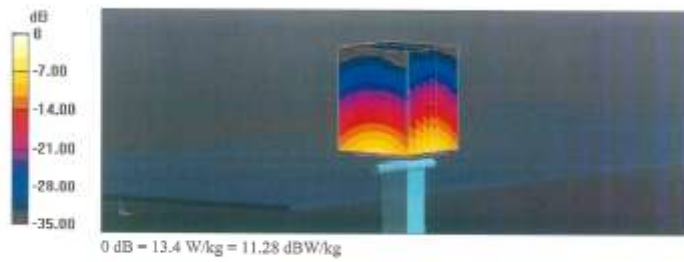
Peak SAR (extrapolated) = 19.1 W/kg

SAR(1 g) = 6.77 W/kg; SAR(10 g) = 2.36 W/kg

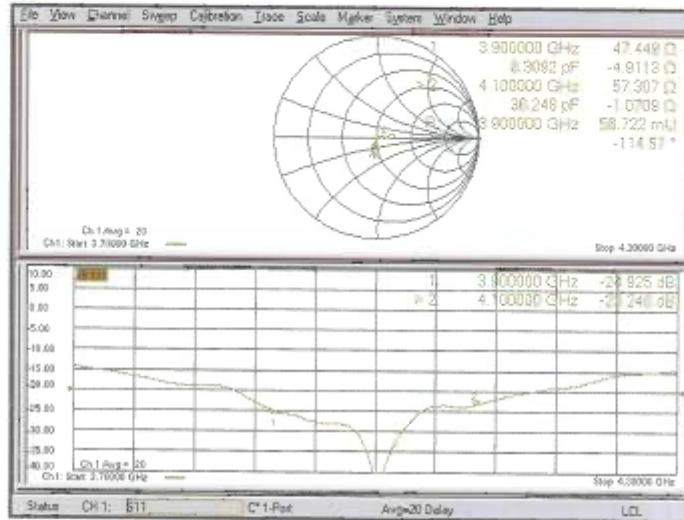
Smallest distance from peaks to all points 3 dB below = 8 mm

Ratio of SAR at M2 to SAR at M1 = 74%

Maximum value of SAR (measured) = 13.4 W/kg



Impedance Measurement Plot for Head TSL



Appendix E RF Conducted Powers

Appendix E.1 5G NR

5G NR n41

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 501204 (2506.02 MHz)	Mid Channel 518598 (2592.99 MHz)	High Channel 535998 (2679.99 MHz)		
n41	30	20	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1	25.55	25.48	25.63		
				QPSK		1	1	25.37	25.32	25.40		
				16QAM		1	1	24.38	24.35	24.45		
				64QAM		1	1	23.66	23.65	23.69		
				256QAM		1	1	22.13	21.88	21.35		
				Pi/2 BPSK	Inner_1RB Right	1	49	25.37	25.56	24.75		
				QPSK		1	49	25.37	25.44	24.57		
				Pi/2 BPSK	Inner_Full	25	12	25.37	25.47	25.28		
				QPSK		25	12	25.37	25.43	25.15		
				Pi/2 BPSK	Outer_Full	50	0	25.58	25.04	24.79		
				QPSK		50	0	25.17	24.64	24.38		
				Pi/2 BPSK	Edge_1RB Left	1	0	23.02	23.05	23.07		
				QPSK		1	0	22.51	22.59	22.59		
				Pi/2 BPSK	Edge_Full Left	2	0	23.02	23.05	23.00		
				QPSK		2	0	22.63	22.63	22.64		
				Pi/2 BPSK	Edge_1RB Right	1	50	23.02	23.05	23.05		
				QPSK		1	50	22.72	22.59	23.05		
				Pi/2 BPSK	Edge_Full Right	2	49	23.02	23.05	23.05		
				QPSK		2	49	22.79	22.66	22.53		
						CP-OFDM	QPSK	Inner_1RB Left	1	1	23.65	23.60

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 502200 (2511 MHz)	Mid Channel 518598 (2592.99 MHz)	High Channel 534996 (2674.98 MHz)	
n41	30	30	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1	25.65	25.74	25.55	
						1	1	25.26	25.49	25.67	
						16QAM	1	1	24.30	24.49	24.75
						64QAM	1	1	22.74	22.97	23.31
						256QAM	1	1	22.05	21.46	21.44
				Pi/2 BPSK	Inner_1RB Right	1	76	25.56	25.80	24.86	
						1	76	25.83	25.57	24.56	
				Pi/2 BPSK	Inner_Full	36	18	25.59	25.64	25.72	
						36	18	25.55	25.44	25.49	
				Pi/2 BPSK	Outer_Full	75	0	25.75	25.26	25.21	
						75	0	25.24	24.79	24.78	
				Pi/2 BPSK	Edge_1RB Left	1	0	23.08	23.07	23.09	
						1	0	22.66	22.68	22.96	
				Pi/2 BPSK	Edge_Full Left	2	0	23.00	23.01	23.00	
						2	0	22.69	22.75	23.02	
				Pi/2 BPSK	Edge_1RB Right	1	77	23.02	23.07	23.05	
						1	77	22.92	22.89	22.88	
				Pi/2 BPSK	Edge_Full Right	2	76	23.00	23.00	23.08	
						2	76	23.01	22.96	22.92	
			CP-OFDM	QPSK	Inner_1RB Left	1	1	23.48	23.68	23.91	

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 503202 (2516.01 MHz)	Mid Channel 518598 (2592.99 MHz)	High Channel 534000 (2670 MHz)
n41	30	40	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1	25.67	25.65	25.70
				QPSK		1	1	24.97	25.46	25.76
				16QAM		1	1	24.01	24.51	24.78
				64QAM		1	1	23.41	23.70	23.96
				256QAM		1	1	22.13	21.53	21.41
				Pi/2 BPSK		Inner_1RB Right	1	104	25.56	25.88
				QPSK	1		104	25.83	25.57	24.56
				Pi/2 BPSK	Inner_Full	50	25	25.59	25.64	25.72
				QPSK		50	25	25.55	25.44	25.49
				Pi/2 BPSK	Outer_Full	100	0	25.75	25.26	25.21
				QPSK		100	0	25.24	24.79	24.78
				Pi/2 BPSK	Edge_1RB Left	1	0	23.08	23.07	23.09
				QPSK		1	0	22.66	22.68	22.96
				Pi/2 BPSK	Edge_Full Left	2	0	23.00	23.01	23.00
				QPSK		2	0	22.69	22.75	23.02
				Pi/2 BPSK	Edge_1RB Right	1	105	23.02	23.07	23.05
				QPSK		1	105	22.92	22.89	22.88
				Pi/2 BPSK	Edge_Full Right	2	104	23.00	23.00	23.08
				QPSK		2	104	23.01	22.96	22.92
						CP-OFDM	QPSK	Inner_1RB Left	1	1

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 504204 (2521.02 MHz)	Mid Channel 518598 (2592.99 MHz)	High Channel 532998 (2664.99 MHz)	
n41	30	50	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1	25.60	25.39	25.70	
				QPSK		1	1	24.97	25.21	25.88	
				16QAM		1	1	24.01	24.14	24.91	
				64QAM		1	1	23.41	23.15	23.95	
				256QAM		1	1	22.12	21.94	21.69	
				Pi/2 BPSK	Inner_1RB Right	1	131	25.60	25.88	24.86	
				QPSK		1	131	25.83	25.57	24.56	
				Pi/2 BPSK	Inner_Full	64	32	25.59	25.64	25.72	
				QPSK		64	32	25.55	25.44	25.49	
				Pi/2 BPSK	Outer_Full	128	0	25.75	25.26	25.21	
				QPSK		128	0	25.24	24.79	24.78	
				Pi/2 BPSK	Edge_1RB Left	1	0	23.08	23.07	23.09	
				QPSK		1	0	22.66	22.68	22.96	
				Pi/2 BPSK	Edge_Full Left	2	0	23.00	23.01	23.00	
				QPSK		2	0	22.69	22.75	23.02	
				Pi/2 BPSK	Edge_1RB Right	1	132	23.02	23.07	23.05	
				QPSK		1	132	22.92	22.89	22.88	
				Pi/2 BPSK	Edge_Full Right	2	131	23.00	23.00	23.08	
				QPSK		2	131	23.01	22.96	22.92	
					CP-OFDM	QPSK	Inner_1RB Left	1	1	23.48	23.68

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 505200 (2526 MHz)	Mid Channel 518598 (2592.99 MHz)	High Channel 531996 (2659.98 MHz)			
n41	30	60	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1	25.11	25.18	25.56			
				QPSK		1	1	24.01	25.03	25.70			
				16QAM		1	1	23.05	24.01	25.04			
				64QAM		1	1	21.87	22.98	23.78			
				256QAM		1	1	22.28	21.45	20.40			
				Pi/2 BPSK	Inner_1RB Right	1	160	24.89	25.54	24.43			
				QPSK		1	160	24.03	25.72	24.36			
				Pi/2 BPSK	Inner_Full	81	40	25.62	25.46	25.68			
				QPSK		81	40	25.09	25.30	25.59			
				Pi/2 BPSK	Outer_Full	162	0	25.25	25.09	25.20			
				QPSK		162	0	24.43	24.85	24.75			
				Pi/2 BPSK	Edge_1RB Left	1	0	23.08	23.07	23.09			
				QPSK		1	0	22.66	22.68	22.96			
				Pi/2 BPSK	Edge_Full Left	2	0	23.00	23.01	23.00			
				QPSK		2	0	22.69	22.75	23.02			
				Pi/2 BPSK	Edge_1RB Right	1	161	23.02	23.07	23.05			
				QPSK		1	161	22.92	22.89	22.88			
				Pi/2 BPSK	Edge_Full Right	2	160	23.00	23.00	23.08			
				QPSK		2	160	23.01	22.96	22.92			
							CP-OFDM	QPSK	Inner_1RB Left	1	1	23.48	23.68

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 506202 (2531.01 MHz)	Mid Channel 518598 (2592.99 MHz)	High Channel 531000 (2655 MHz)		
n41	30	70	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1	24.78	25.08	25.29		
				QPSK		1	1	24.71	25.07	25.13		
				16QAM		1	1	23.83	24.07	24.38		
				64QAM		1	1	22.86	23.18	23.50		
				256QAM		1	1	21.67	21.71	22.05		
				Pi/2 BPSK	Inner_1RB Right	1	187	24.64	25.30	24.40		
				QPSK		1	187	24.53	25.28	24.39		
				Pi/2 BPSK	Inner_Full	90	45	25.18	25.31	25.60		
				QPSK		90	45	25.15	24.77	25.56		
				Pi/2 BPSK	Outer_Full	180	0	23.86	24.26	24.65		
				QPSK		180	0	23.99	24.28	24.47		
				Pi/2 BPSK	Edge_1RB Left	1	0	23.03	23.00	23.01		
				QPSK		1	0	22.56	22.70	23.01		
				Pi/2 BPSK	Edge_Full Left	2	0	23.12	23.07	23.09		
				QPSK		2	0	22.62	22.77	23.07		
				Pi/2 BPSK	Edge_1RB Right	1	188	23.02	23.05	23.01		
				QPSK		1	188	22.53	23.03	22.73		
				Pi/2 BPSK	Edge_Full Right	2	187	23.11	23.13	23.14		
				QPSK		2	187	22.56	23.08	22.79		
						CP-OFDM	QPSK	Inner_1RB Left	1	1	22.99	23.64

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 507204 (2536.02 MHz)	Mid Channel 518598 (2592.99 MHz)	High Channel 529998 (2649.99 MHz)
n41	30	80	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1	25.38	24.86	25.73
				QPSK		1	1	24.34	24.73	25.55
				16QAM		1	1	23.37	23.75	24.55
				64QAM		1	1	22.30	22.76	23.57
				256QAM		1	1	21.98	21.68	20.79
				Pi/2 BPSK	Inner_1RB Right	1	215	25.61	25.30	24.55
				QPSK		1	215	24.46	25.36	24.37
				Pi/2 BPSK	Inner_Full	108	54	25.60	25.57	25.70
				QPSK		108	54	25.03	25.42	25.78
				Pi/2 BPSK	Outer_Full	216	0	25.25	25.09	25.20
				QPSK		216	0	24.43	24.85	24.75
				Pi/2 BPSK	Edge_1RB Left	1	0	23.08	23.07	23.09
				QPSK		1	0	22.66	22.68	22.96
				Pi/2 BPSK	Edge_Full Left	2	0	23.00	23.01	23.00
				QPSK		2	0	22.69	22.75	23.02
				Pi/2 BPSK	Edge_1RB Right	1	216	23.02	23.07	23.05
				QPSK		1	216	22.92	22.89	22.88
				Pi/2 BPSK	Edge_Full Right	2	215	23.00	23.00	23.08
				QPSK		2	215	23.01	22.96	22.92
			CP-OFDM	QPSK	Inner_1RB Left	1	1	23.48	23.68	23.91

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 508200 (2541 MHz)	Mid Channel 518598 (2592.99 MHz)	High Channel 528996 (2644.98 MHz)
n41	30	90	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1	24.99	24.76	25.50
				QPSK		1	1	24.72	24.72	25.43
				16QAM		1	1	23.72	23.72	24.49
				64QAM		1	1	22.32	22.32	23.03
				256QAM		1	1	22.15	20.84	21.06
				Pi/2 BPSK	Inner_1RB Right	1	243	24.95	25.56	24.54
				QPSK		1	243	25.00	25.58	24.49
				Pi/2 BPSK	Outer_Full	243	0	25.03	25.30	25.60
				QPSK		243	0	25.02	24.99	25.32
				Pi/2 BPSK	Edge_1RB Left	1	0	23.08	23.07	23.09
				QPSK		1	0	22.66	22.68	22.96
				Pi/2 BPSK	Edge_Full Left	2	0	23.00	23.01	23.00
				QPSK		2	0	22.69	22.75	23.02
				Pi/2 BPSK	Edge_1RB Right	1	244	23.02	23.07	23.05
				QPSK		1	244	22.92	22.89	22.88
				Pi/2 BPSK	Edge_Full Right	2	243	23.00	23.00	23.08
				QPSK		2	243	23.01	22.96	22.92
			CP-OFDM	QPSK	Inner_1RB Left	1	1	23.48	23.68	23.91

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 509202 (2546.01 MHz)	Mid Channel 518598 (2592.99 MHz)	High Channel 528000 (2640 MHz)
n41	30	100	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1	25.84	25.89	25.89
				QPSK		1	1	24.34	24.71	24.95
				16QAM		1	1	23.37	23.72	23.93
				64QAM		1	1	22.30	22.23	22.43
				256QAM		1	1	22.26	21.00	21.40
				Pi/2 BPSK	Inner_1RB Right	1	271	25.61	25.59	24.37
				QPSK		1	271	24.46	25.84	24.25
				Pi/2 BPSK	Inner_Full	135	67	25.80	25.83	25.79
				QPSK		135	67	25.03	25.48	25.83
				Pi/2 BPSK	Outer_Full	270	0	25.00	24.99	25.23
				QPSK		270	0	24.90	24.80	25.04
				Pi/2 BPSK	Edge_1RB Left	1	0	23.08	23.07	23.09
				QPSK		1	0	22.66	22.68	22.96
				Pi/2 BPSK	Edge_Full Left	2	0	23.00	23.01	23.00
				QPSK		2	0	22.69	22.75	23.02
				Pi/2 BPSK	Edge_1RB Right	1	272	23.02	23.07	23.05
				QPSK		1	272	22.92	22.89	22.88
				Pi/2 BPSK	Edge_Full Right	2	271	23.00	23.00	23.08
				QPSK		2	271	23.01	22.96	22.92
			CP-OFDM	QPSK	Inner_1RB Left	1	1	23.48	23.68	23.91

5G NR n41 MIMO

Band	SCS (KHz)	Bandwidth (MHz)	Modulation	RB allocation	RB Size	RB Offset	Low Channel 501204 (2506.02 MHz)	Mid Channel 518598 (2592.99 MHz)	High Channel 535998 (2679.99 MHz)
n41	30	20	CP-OFDM	QPSK	1	1	24.27	24.30	24.14
				16QAM	1	1	24.08	24.23	24.03
				64QAM	1	1	23.50	23.60	23.77
				256QAM	1	1	19.80	19.78	19.73
				QPSK	1	49	24.29	24.34	24.12
				QPSK	25	12	24.30	24.31	24.18
				QPSK	51	0	23.35	23.36	23.22
				QPSK	1	0	22.78	22.76	22.62
				QPSK	2	0	22.81	22.76	22.64
				QPSK	1	50	22.71	22.81	22.65
				QPSK	2	49	22.69	22.84	22.62

Band	SCS (KHz)	Bandwidth (MHz)	Modulation	RB allocation	RB Size	RB Offset	Low Channel 502200 (2511 MHz)	Mid Channel 518598 (2592.99 MHz)	High Channel 534996 (2674.98 MHz)
n41	30	30	CP-OFDM	QPSK	1	1	24.89	24.33	24.37
				16QAM	1	1	24.40	24.30	24.25
				64QAM	1	1	23.80	23.88	23.78
				256QAM	1	1	20.10	19.83	19.77
				QPSK	1	76	24.81	24.45	24.47
				QPSK	39	19	24.01	24.34	24.36
				QPSK	78	0	23.31	23.35	23.42
				QPSK	1	0	22.90	22.78	22.83
				QPSK	2	0	22.90	22.80	22.84
				QPSK	1	77	22.82	22.94	23.05
				QPSK	2	76	21.06	22.94	22.97

Band	SCS (KHz)	Bandwidth (MHz)	Modulation	RB allocation	RB Size	RB Offset	Low Channel 503202 (2516.01 MHz)	Mid Channel 518598 (2592.99 MHz)	High Channel 534000 (2670 MHz)
n41	30	40	CP-OFDM	QPSK	1	1	24.80	24.77	24.77
				16QAM	1	1	24.23	24.26	24.23
				64QAM	1	1	23.45	23.44	23.40
				256QAM	1	1	19.82	19.76	19.82
				QPSK	1	104	24.54	24.34	24.32
				QPSK	53	26	24.72	24.84	24.77
				QPSK	106	0	23.23	23.37	23.31
				QPSK	1	0	22.87	22.80	22.77
				QPSK	2	0	21.07	22.76	21.03
				QPSK	1	105	22.55	22.98	22.93
				QPSK	2	104	22.54	22.92	22.86

Band	SCS (KHz)	Bandwidth (MHz)	Modulation	RB allocation	RB Size	RB Offset	Low Channel 504204 (2521.02 MHz)	Mid Channel 518598 (2592.99 MHz)	High Channel 532998 (2664.99 MHz)
n41	30	50	CP-OFDM	QPSK	1	1	24.23	24.17	24.23
				16QAM	1	1	24.19	24.12	24.16
				64QAM	1	1	23.22	23.21	23.20
				256QAM	1	1	19.78	19.73	19.85
				QPSK	1	131	24.02	24.36	24.28
				QPSK	67	33	24.25	24.34	24.19
				QPSK	133	0	23.18	23.34	23.26
				QPSK	1	0	22.76	22.67	22.75
				QPSK	2	0	22.73	22.64	22.72
				QPSK	1	132	22.48	22.84	22.85
				QPSK	2	131	22.52	22.79	22.82



Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 505200 (2526 MHz)	Mid Channel 518598 (2592.99 MHz)	High Channel 531996 (2659.98 MHz)
n41	30	60	CP-OFDM	QPSK	Inner_1RB Left	1	1	24.11	23.98	24.65
				16QAM		1	1	24.08	23.88	24.10
				64QAM		1	1	23.50	23.54	23.55
				256QAM		1	1	19.72	19.43	19.59
				QPSK	Inner_1RB Right	1	160	23.86	24.29	24.76
				QPSK	Inner_Full	81	40	24.09	24.30	24.59
				QPSK	Outer_Full	162	0	23.08	23.30	23.12
				QPSK	Edge_1RB Left	1	0	22.66	22.45	22.56
				QPSK	Edge_Full Left	2	0	22.63	22.43	22.58
				QPSK	Edge_1RB Right	1	161	22.36	22.75	22.77
				QPSK	Edge_Full Right	2	160	22.33	22.76	22.74

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 506202 (2531.01 MHz)	Mid Channel 518598 (2592.99 MHz)	High Channel 531000 (2655 MHz)
n41	30	70	CP-OFDM	QPSK	Inner_1RB Left	1	1	24.77	24.78	24.76
				16QAM		1	1	24.26	24.30	24.27
				64QAM		1	1	22.83	22.77	22.77
				256QAM		1	1	19.85	19.86	19.84
				QPSK	Inner_1RB Right	1	187	24.45	24.46	24.46
				QPSK	Inner_Full	95	47	24.73	24.70	24.70
				QPSK	Outer_Full	189	0	23.23	23.21	23.21
				QPSK	Edge_1RB Left	1	0	22.74	22.74	22.75
				QPSK	Edge_Full Left	2	0	22.80	22.79	22.77
				QPSK	Edge_1RB Right	1	188	22.51	22.50	22.52
				QPSK	Edge_Full Right	2	187	22.52	22.53	22.51

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 507204 (2536.02 MHz)	Mid Channel 518598 (2592.99 MHz)	High Channel 529998 (2649.99 MHz)
n41	30	80	CP-OFDM	QPSK	Inner_1RB Left	1	1	24.31	23.85	24.26
				16QAM		1	1	24.20	23.58	23.74
				64QAM		1	1	23.30	23.32	23.30
				256QAM		1	1	19.83	19.72	19.75
				QPSK	Inner_1RB Right	1	215	23.89	23.72	23.45
				QPSK	Inner_Full	109	54	24.02	24.01	24.35
				QPSK	Outer_Full	217	0	23.00	23.08	23.24
				QPSK	Edge_1RB Left	1	0	22.75	22.57	22.79
				QPSK	Edge_Full Left	2	0	22.72	22.52	22.75
				QPSK	Edge_1RB Right	1	216	22.37	22.65	22.12
				QPSK	Edge_Full Right	2	215	22.37	22.68	22.12

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 508200 (2541 MHz)	Mid Channel 518598 (2592.99 MHz)	High Channel 528996 (2644.98 MHz)
n41	30	90	CP-OFDM	QPSK	Inner_1RB Left	1	1	24.44	23.79	24.37
				16QAM		1	1	24.29	23.57	23.75
				64QAM		1	1	23.02	23.03	23.04
				256QAM		1	1	20.12	19.77	19.90
				QPSK	Inner_1RB Right	1	243	23.96	23.75	23.57
				QPSK	Inner_Full	123	61	24.09	23.81	24.49
				QPSK	Outer_Full	245	0	23.21	23.07	23.14
				QPSK	Edge_1RB Left	1	0	22.89	22.61	22.95
				QPSK	Edge_Full Left	2	0	22.85	22.56	22.95
				QPSK	Edge_1RB Right	1	244	22.43	22.78	22.07
				QPSK	Edge_Full Right	2	243	22.41	22.74	22.08

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Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 509202 (2546.01 MHz)	Mid Channel 518598 (2592.99 MHz)	High Channel 528000 (2640 MHz)
n41	30	100	CP-OFDM	QPSK	Inner_1RB Left	1	1	24.90	24.90	24.78
				16QAM		1	1	24.26	23.71	23.58
				64QAM		1	1	23.05	23.06	23.07
				256QAM		1	1	20.34	19.74	19.76
				QPSK	Inner_1RB Right	1	271	23.94	23.48	23.11
				QPSK	Inner_Full	137	68	24.77	24.79	24.75
				QPSK	Outer_Full	273	0	23.11	22.91	22.91
				QPSK	Edge_1RB Left	1	0	22.89	22.56	22.75
				QPSK	Edge_Full Left	2	0	22.86	22.52	22.72
				QPSK	Edge_1RB Right	1	272	22.42	22.59	21.78
				QPSK	Edge_Full Right	2	271	22.39	22.63	21.79

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Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 342500 (1712.5 MHz)	Mid Channel 349000 (1745 MHz)	High Channel 355500 (1777.5 MHz)	
n66	15	5	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1	23.47	23.49	23.00	
						1	1	23.40	23.37	23.04	
						16QAM	1	1	22.47	22.30	21.99
						64QAM	1	1	21.21	21.04	20.67
						256QAM	1	1	19.60	19.09	18.93
				Pi/2 BPSK	Inner_1RB Right	1	23	23.44	23.40	23.01	
						1	23	23.42	23.42	23.07	
				Pi/2 BPSK	Inner_Full	12	6	23.48	23.38	23.17	
						12	6	23.44	23.43	23.11	
				Pi/2 BPSK	Outer_Full	25	0	22.93	22.89	22.56	
						25	0	22.49	22.42	21.99	
				Pi/2 BPSK	Edge_1RB Left	1	0	23.03	22.76	22.44	
						1	0	22.43	22.34	22.06	
				Pi/2 BPSK	Edge_Full Left	2	0	22.97	22.95	22.54	
						2	0	22.43	22.36	22.00	
				Pi/2 BPSK	Edge_1RB Right	1	24	22.95	23.36	22.54	
						1	24	22.45	23.45	22.04	
				Pi/2 BPSK	Edge_Full Right	2	23	22.93	23.43	22.54	
						2	23	22.46	23.35	21.96	
			CP-OFDM	QPSK	Inner_1RB Left	1	1	22.28	21.80	21.65	

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 343000 (1715 MHz)	Mid Channel 349000 (1745 MHz)	High Channel 355000 (1775 MHz)
								SA	SA	SA
n66	15	10	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1	23.02	23.21	23.00
				QPSK		1	1	23.40	23.17	23.03
				16QAM		1	1	22.45	22.22	22.09
				64QAM		1	1	21.09	20.89	20.65
				256QAM		1	1	19.59	19.12	18.91
				Pi/2 BPSK	Inner_1RB Right	1	50	23.37	23.26	22.99
				QPSK		1	50	23.33	23.16	22.92
				Pi/2 BPSK	Inner_Full	25	12	23.49	23.16	23.06
				QPSK		25	12	23.40	23.22	22.96
				Pi/2 BPSK	Outer_Full	50	0	22.96	22.81	22.58
				QPSK		50	0	22.35	22.20	21.97
				Pi/2 BPSK	Edge_1RB Left	1	0	22.95	22.72	22.53
				QPSK		1	0	22.41	22.06	22.01
				Pi/2 BPSK	Edge_Full Left	2	0	22.93	22.66	22.56
				QPSK		2	0	22.55	22.18	21.96
				Pi/2 BPSK	Edge_1RB Right	1	51	22.99	22.64	22.48
				QPSK		1	51	22.37	22.10	21.96
				Pi/2 BPSK	Edge_Full Right	2	50	22.83	22.58	22.44
				QPSK		2	50	22.29	22.09	21.88
					CP-OFDM	QPSK	Inner_1RB Left	1	1	21.85

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 343500 (1717.5 MHz)	Mid Channel 349000 (1745 MHz)	High Channel 354500 (1772.5 MHz)	
n66	15	15	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1	23.44	23.12	22.91	
						QPSK	1	1	23.49	23.18	22.99
						16QAM	1	1	22.49	22.21	21.92
						64QAM	1	1	21.03	20.85	20.63
						256QAM	1	1	19.67	19.23	18.95
				Pi/2 BPSK	Inner_1RB Right	1	77	23.38	23.15	22.92	
				QPSK		1	77	23.32	23.21	22.87	
				Pi/2 BPSK	Inner_Full	36	18	23.40	23.22	22.88	
				QPSK		36	18	23.41	23.23	22.90	
				Pi/2 BPSK	Outer_Full	75	0	22.94	22.72	22.44	
				QPSK		75	0	22.45	22.28	21.98	
				Pi/2 BPSK	Edge_1RB Left	1	0	23.00	22.72	22.51	
				QPSK		1	0	22.51	22.20	22.01	
				Pi/2 BPSK	Edge_Full Left	2	0	23.08	22.77	22.55	
				QPSK		2	0	22.50	22.20	22.00	
				Pi/2 BPSK	Edge_1RB Right	1	78	22.85	22.67	22.44	
				QPSK		1	78	22.35	22.21	21.94	
				Pi/2 BPSK	Edge_Full Right	2	77	22.91	22.82	22.47	
				QPSK		2	77	22.41	22.22	21.95	
						CP-OFDM	QPSK	Inner_1RB Left	1	1	21.85

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 344000 (1720 MHz)	Mid Channel 349000 (1745 MHz)	High Channel 354000 (1770 MHz)
n66	15	20	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1	23.15	23.16	23.01
				QPSK		1	1	23.49	23.20	22.93
				16QAM		1	1	22.42	22.17	22.07
				64QAM		1	1	21.01	22.17	20.69
				256QAM		1	1	19.76	19.62	19.33
				Pi/2 BPSK	Inner_1RB Right	1	104	23.28	23.07	23.04
				QPSK		1	104	23.23	23.11	22.96
				Pi/2 BPSK	Inner_Full	50	25	23.24	23.13	22.96
				QPSK		50	25	23.25	23.14	22.98
				Pi/2 BPSK	Outer_Full	100	0	22.74	22.68	22.49
				QPSK		100	0	22.31	22.18	22.04
				Pi/2 BPSK	Edge_1RB Left	1	0	22.90	22.69	22.57
				QPSK		1	0	22.46	22.24	22.05
				Pi/2 BPSK	Edge_Full Left	2	0	22.99	22.80	22.60
				QPSK		2	0	22.43	22.23	22.04
				Pi/2 BPSK	Edge_1RB Right	1	105	22.77	22.75	22.38
				QPSK		1	105	22.27	22.17	21.93
				Pi/2 BPSK	Edge_Full Right	2	104	22.82	22.73	22.56
			QPSK	2		104	22.25	22.18	21.95	
			CP-OFDM	QPSK	Inner_1RB Left	1	1	21.83	21.78	21.45

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 345000 (1725 MHz)	Mid Channel 349000 (1745 MHz)	High Channel 353000 (1765 MHz)
n66	15	30	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1	23.47	23.23	23.28
				QPSK		1	1	23.49	23.27	23.27
				16QAM		1	1	22.36	22.30	22.16
				64QAM		1	1	21.06	20.95	20.90
				256QAM		1	1	19.86	19.59	19.35
				Pi/2 BPSK	Inner_1RB Right	1	158	23.46	23.27	23.33
				QPSK		1	158	23.39	23.25	23.33
				Pi/2 BPSK	Inner_Full	80	40	23.33	23.32	22.81
				QPSK		80	40	23.39	23.21	22.26
				Pi/2 BPSK	Outer_Full	160	0	22.87	22.83	22.82
				QPSK		160	0	22.54	22.21	22.28
				Pi/2 BPSK	Edge_1RB Left	1	0	22.99	22.80	22.68
				QPSK		1	0	22.64	22.32	22.34
				Pi/2 BPSK	Edge_Full Left	2	0	23.08	22.83	22.77
				QPSK		2	0	22.50	22.29	22.17
				Pi/2 BPSK	Edge_1RB Right	1	159	22.93	22.75	22.74
				QPSK		1	159	22.46	22.30	22.20
				Pi/2 BPSK	Edge_Full Right	2	158	22.95	22.80	22.76
			QPSK	2		158	22.36	22.30	22.16	
			CP-OFDM	QPSK	Inner_1RB Left	1	1	22.00	21.78	21.66

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 346000 (1730 MHz)	Mid Channel 349000 (1745 MHz)	High Channel 352000 (1760 MHz)	
n66	15	40	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1	23.50	23.50	23.34	
						QPSK	1	1	23.28	23.25	23.30
						16QAM	1	1	22.31	22.05	22.23
						64QAM	1	1	20.87	20.79	20.73
						256QAM	1	1	19.76	19.62	19.33
				Pi/2 BPSK	Inner_1RB Right	1	214	23.07	22.97	22.78	
				QPSK		1	214	23.11	22.99	22.72	
				Pi/2 BPSK	Inner_Full	108	54	23.26	23.22	23.01	
				QPSK		108	54	23.17	23.13	23.03	
				Pi/2 BPSK	Outer_Full	216	0	22.73	22.69	22.51	
				QPSK		216	0	22.23	22.10	22.08	
				Pi/2 BPSK	Edge_1RB Left	1	0	22.81	22.65	22.68	
				QPSK		1	0	22.50	22.20	22.37	
				Pi/2 BPSK	Edge_Full Left	2	0	22.93	22.77	22.75	
				QPSK		2	0	22.38	22.18	22.22	
				Pi/2 BPSK	Edge_1RB Right	1	215	22.54	22.43	22.46	
				QPSK		1	215	22.05	21.97	22.05	
				Pi/2 BPSK	Edge_Full Right	2	214	22.78	22.59	22.48	
				QPSK		2	214	22.04	22.00	22.02	
						CP-OFDM	QPSK	Inner_1RB Left	1	1	21.90

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Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 630668 (3460.02 MHz)	Mid Channel 633334 (3500.01 MHz)	High Channel 636000 (3540 MHz)
n77	30	20	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1	25.40	25.42	25.01
				QPSK		1	1	25.03	25.33	25.57
				16QAM		1	1	24.33	24.33	24.62
				64QAM		1	1	23.82	23.82	23.95
				256QAM		1	1	21.07	20.82	21.54
				Pi/2 BPSK	Inner_1RB Right	1	49	25.30	25.30	25.00
				QPSK		1	49	25.46	25.46	25.52
				Pi/2 BPSK	Inner_Full	25	12	25.07	25.47	24.33
				QPSK		25	12	25.39	25.39	25.55
				Pi/2 BPSK	Outer_Full	50	0	25.15	25.15	25.29
				QPSK		50	0	24.49	24.49	24.67
				Pi/2 BPSK	Edge_1RB Left	1	0	23.14	23.14	23.00
				QPSK		1	0	23.06	23.06	22.86
				Pi/2 BPSK	Edge_Full Left	2	0	23.15	23.15	23.01
				QPSK		2	0	23.14	23.14	22.91
				Pi/2 BPSK	Edge_1RB Right	1	50	23.07	23.07	23.06
				QPSK		1	50	23.01	23.01	22.76
				Pi/2 BPSK	Edge_Full Right	2	49	23.10	23.10	23.02
				QPSK		2	49	23.08	23.08	22.80
					CP-OFDM	QPSK	Inner_1RB Left	1	1	23.79

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 631000 (3465 MHz)	Mid Channel 633334 (3500.01 MHz)	High Channel 635666 (3534.99 MHz)
n77	30	30	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1	24.61	25.36	25.44
				QPSK		1	1	24.50	25.26	25.55
				16QAM		1	1	23.56	24.29	24.59
				64QAM		1	1	22.04	22.76	23.06
				256QAM		1	1	20.51	20.69	21.44
				Pi/2 BPSK	Inner_1RB Right	1	76	25.26	25.04	25.01
				QPSK		1	76	25.18	25.44	25.52
				Pi/2 BPSK	Inner_Full	36	18	25.02	25.48	25.30
				QPSK		36	18	24.90	25.37	25.09
				Pi/2 BPSK	Outer_Full	75	0	24.71	25.17	25.36
				QPSK		75	0	24.08	24.53	24.71
				Pi/2 BPSK	Edge_1RB Left	1	0	23.00	23.09	23.07
				QPSK		1	0	22.50	22.92	22.89
				Pi/2 BPSK	Edge_Full Left	2	0	23.09	23.09	23.09
				QPSK		2	0	22.61	23.02	22.99
				Pi/2 BPSK	Edge_1RB Right	1	77	23.00	23.08	23.05
				QPSK		1	77	22.96	23.01	22.84
				Pi/2 BPSK	Edge_Full Right	2	76	23.08	23.07	23.05
				QPSK		2	76	23.03	23.09	22.91
						CP-OFDM	QPSK	Inner_1RB Left	1	1

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 631334 (3470.01 MHz)	Mid Channel 633334 (3500.01 MHz)	High Channel 635332 (3529.98 MHz)	
n77	30	40	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1	24.12	25.17	25.45	
						QPSK	1	1	24.08	25.07	25.28
						16QAM	1	1	23.51	24.06	24.33
						64QAM	1	1	22.95	23.52	23.78
						256QAM	1	1	20.59	20.72	21.24
				Pi/2 BPSK	Inner_1RB Right	1	104	24.45	25.41	25.49	
						QPSK	1	104	24.44	25.32	25.37
				Pi/2 BPSK	Inner_Full	50	25	24.25	25.41	25.58	
						QPSK	50	25	24.16	25.27	25.44
				Pi/2 BPSK	Outer_Full	100	0	24.22	25.07	25.22	
						QPSK	100	0	24.12	24.42	24.56
				Pi/2 BPSK	Edge_1RB Left	1	0	23.07	23.04	23.04	
						QPSK	1	0	22.59	22.83	22.92
				Pi/2 BPSK	Edge_Full Left	2	0	23.06	23.05	23.05	
						QPSK	2	0	22.65	22.95	22.99
				Pi/2 BPSK	Edge_1RB Right	1	105	23.15	23.01	23.00	
						QPSK	1	105	23.07	22.91	22.83
				Pi/2 BPSK	Edge_Full Right	2	104	23.08	23.03	23.00	
						QPSK	2	104	23.03	22.98	22.89
			CP-OFDM	QPSK	Inner_1RB Left	1	1	22.92	23.47	23.64	

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 631668 (3475.02 MHz)	Mid Channel 633334 (3500.01 MHz)	High Channel 635000 (3525 MHz)
n77	30	50	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1	24.28	24.87	25.01
				QPSK		1	1	24.18	24.79	24.93
				16QAM		1	1	23.24	23.81	23.98
				64QAM		1	1	22.20	22.77	22.95
				256QAM		1	1	20.63	20.66	20.82
				Pi/2 BPSK	Inner_1RB Right	1	131	24.94	25.05	25.13
				QPSK		1	131	24.89	24.98	25.00
				Pi/2 BPSK	Inner_Full	64	32	24.84	25.07	25.10
				QPSK		64	32	24.72	24.99	24.98
				Pi/2 BPSK	Outer_Full	128	0	24.35	24.75	24.73
				QPSK		128	0	23.81	24.09	24.14
				Pi/2 BPSK	Edge_1RB Left	1	0	23.04	23.04	23.06
				QPSK		1	0	23.07	22.61	22.69
				Pi/2 BPSK	Edge_Full Left	2	0	23.03	23.06	23.08
				QPSK		2	0	23.03	22.70	22.74
				Pi/2 BPSK	Edge_1RB Right	1	132	23.05	23.04	23.00
				QPSK		1	132	22.83	22.74	22.60
				Pi/2 BPSK	Edge_Full Right	2	131	23.00	23.05	23.01
				QPSK		2	131	22.90	22.83	22.66
			CP-OFDM	QPSK	Inner_1RB Left	1	1	22.81	23.35	23.40

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 632000 (3480 MHz)	Mid Channel 633334 (3500.01 MHz)	High Channel 634666 (3519.99 MHz)
n77	30	60	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1	24.31	24.67	24.95
				QPSK		1	1	24.22	24.56	24.80
				16QAM		1	1	23.27	23.60	23.85
				64QAM		1	1	22.19	22.51	22.80
				256QAM		1	1	20.73	20.70	20.71
				Pi/2 BPSK	Inner_1RB Right	1	160	25.12	25.11	25.14
				QPSK		1	160	25.03	25.05	25.02
				Pi/2 BPSK	Inner_Full	81	40	24.98	25.06	25.13
				QPSK		81	40	24.91	24.94	24.99
				Pi/2 BPSK	Outer_Full	162	0	24.73	24.90	24.80
				QPSK		162	0	24.14	24.03	24.16
				Pi/2 BPSK	Edge_1RB Left	1	0	23.06	23.04	23.01
				QPSK		1	0	23.09	22.56	22.67
				Pi/2 BPSK	Edge_Full Left	2	0	23.00	23.02	23.09
				QPSK		2	0	22.55	22.64	22.75
				Pi/2 BPSK	Edge_1RB Right	1	161	23.06	23.09	23.04
				QPSK		1	161	22.86	22.66	22.56
				Pi/2 BPSK	Edge_Full Right	2	160	23.04	23.01	23.05
				QPSK		2	160	22.94	22.71	22.60
			CP-OFDM	QPSK	Inner_1RB Left	1	1	22.85	23.26	23.53

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 632334 (3485.01 MHz)	Mid Channel 633334 (3500.01 MHz)	High Channel 634332 (3514.98 MHz)
n77	30	70	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1	24.15	24.50	24.92
				QPSK		1	1	24.06	24.40	24.80
				16QAM		1	1	23.10	23.41	23.85
				64QAM		1	1	22.04	22.33	22.79
				256QAM		1	1	20.68	20.64	20.76
				Pi/2 BPSK	Inner_1RB Right	1	187	25.01	25.02	25.04
				QPSK		1	187	24.93	24.94	24.91
				Pi/2 BPSK	Inner_Full	90	45	24.84	24.97	25.15
				QPSK		90	45	24.77	24.92	25.03
				Pi/2 BPSK	Outer_Full	180	0	24.52	24.85	24.94
				QPSK		180	0	23.94	24.11	24.15
				Pi/2 BPSK	Edge_1RB Left	1	0	23.11	23.29	23.45
				QPSK		1	0	23.10	23.18	23.39
				Pi/2 BPSK	Edge_Full Left	2	0	23.12	23.23	23.46
				QPSK		2	0	23.17	23.30	23.50
				Pi/2 BPSK	Edge_1RB Right	1	188	23.40	23.30	23.21
				QPSK		1	188	23.35	23.25	23.18
				Pi/2 BPSK	Edge_Full Right	2	187	23.42	23.28	23.24
				QPSK		2	187	23.39	23.30	23.27
			CP-OFDM	QPSK	Inner_1RB Left	1	1	23.36	23.77	24.10

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 632668 (3490.02 MHz)	Mid Channel 633334 (3500.01 MHz)	High Channel 634000 (3510 MHz)
n77	30	80	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1	24.20	24.35	24.60
				QPSK		1	1	24.02	24.23	24.52
				16QAM		1	1	23.03	23.25	23.55
				64QAM		1	1	21.92	22.16	22.43
				256QAM		1	1	20.71	20.72	20.72
				Pi/2 BPSK	Inner_1RB Right	1	215	25.10	25.04	25.05
				QPSK		1	215	24.90	24.93	24.95
				Pi/2 BPSK	Inner_Full	108	54	25.04	25.03	25.07
				QPSK		108	54	24.84	24.89	24.97
				Pi/2 BPSK	Outer_Full	216	0	24.80	24.73	24.82
				QPSK		216	0	24.16	24.08	24.18
				Pi/2 BPSK	Edge_1RB Left	1	0	23.22	23.23	23.31
				QPSK		1	0	23.16	23.19	23.30
				Pi/2 BPSK	Edge_Full Left	2	0	23.23	23.25	23.33
				QPSK		2	0	23.23	23.27	23.38
				Pi/2 BPSK	Edge_1RB Right	1	216	23.28	23.25	23.23
				QPSK		1	216	23.27	23.14	23.18
				Pi/2 BPSK	Edge_Full Right	2	215	23.29	23.22	23.24
				QPSK		2	215	23.30	23.28	23.26
			CP-OFDM	QPSK	Inner_1RB Left	1	1	23.41	23.66	23.84

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 633000 (3495 MHz)	Mid Channel 633334 (3500.01 MHz)	High Channel 633666 (3504.99 MHz)
n77	30	90	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1	24.28	24.52	24.57
				QPSK		1	1	24.18	24.33	24.45
				16QAM		1	1	23.22	23.37	23.50
				64QAM		1	1	21.65	21.76	21.89
				256QAM		1	1	20.21	20.19	20.18
				Pi/2 BPSK	Inner_1RB Right	1	243	25.27	25.23	25.08
				QPSK		1	243	25.16	25.07	24.97
				Pi/2 BPSK	Outer_Full	243	0	24.69	24.90	24.94
				QPSK		243	0	24.15	24.15	24.24
				Pi/2 BPSK	Edge_1RB Left	1	0	23.18	23.22	23.26
				QPSK		1	0	23.18	23.21	23.21
				Pi/2 BPSK	Edge_Full Left	2	0	23.20	23.25	23.27
				QPSK		2	0	23.26	23.28	23.28
				Pi/2 BPSK	Edge_1RB Right	1	244	23.30	23.23	23.18
				QPSK		1	244	23.31	23.23	23.09
				Pi/2 BPSK	Edge_Full Right	2	243	23.33	23.26	23.17
				QPSK		2	243	23.34	23.30	23.19
			CP-OFDM	QPSK	Inner_1RB Left	1	1	23.48	22.47	23.79

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset		Mid Channel 633334 (3500.01 MHz)	
n77	30	100	DFT-s-OFDM	Pi/2 BPSK	Inner_1RB Left	1	1		25.55	
				QPSK		1	1		24.12	
				16QAM		1	1		23.13	
				64QAM		1	1		21.51	
				256QAM		1	1		20.83	
				Pi/2 BPSK	Inner_1RB Right	1	271		25.08	
				QPSK		1	271		24.98	
				Pi/2 BPSK	Inner_Full	135	67		25.48	
				QPSK		135	67		24.84	
				Pi/2 BPSK	Outer_Full	270	0		24.60	
				QPSK		270	0		23.98	
				Pi/2 BPSK	Edge_1RB Left	1	0		23.04	
				QPSK		1	0		22.54	
				Pi/2 BPSK	Edge_Full Left	2	0		23.00	
				QPSK		2	0		22.63	
				Pi/2 BPSK	Edge_1RB Right	1	272		23.07	
				QPSK		1	272		22.63	
				Pi/2 BPSK	Edge_Full Right	2	271		23.07	
				QPSK		2	271		22.67	
			CP-OFDM	QPSK	Inner_1RB Left	1	1		22.83	

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Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 647334 (3710.01 MHz)	Mid Channel 656000 (3840 MHz)	High Channel 664666 (3969.99 MHz)
n77	30	20	CP-OFDM	QPSK	Inner_1RB Left	1	1	23.88	23.99	25.10
				16QAM		1	1	23.69	23.69	24.48
				64QAM		1	1	23.50	23.50	23.20
				256QAM		1	1	21.37	20.10	20.82
				QPSK	Inner_1RB Right	1	49	24.50	24.50	25.00
				QPSK	Inner_Full	25	12	24.25	24.25	24.98
				QPSK	Outer_Full	51	0	22.79	22.79	23.50
				QPSK	Edge_1RB Left	1	0	24.40	24.80	23.13
				QPSK	Edge_Full Left	2	0	22.00	22.00	22.50
				QPSK	Edge_1RB Right	1	50	22.36	22.36	23.10
				QPSK	Edge_Full Right	2	49	23.00	23.00	23.05

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 647668 (3715.02 MHz)	Mid Channel 656000 (3840 MHz)	High Channel 664332 (3964.98 MHz)
n77	30	30	CP-OFDM	QPSK	Inner_1RB Left	1	1	24.40	24.20	24.33
				16QAM		1	1	23.70	23.67	23.77
				64QAM		1	1	22.50	22.60	22.60
				256QAM		1	1	21.24	20.29	20.76
				QPSK		Inner_1RB Right	1	76	24.09	24.00
				QPSK	Inner_Full	39	19	23.54	24.28	24.56
				QPSK	Outer_Full	78	0	22.61	22.77	23.19
				QPSK	Edge_1RB Left	1	0	22.05	22.16	22.28
				QPSK	Edge_Full Left	2	0	22.07	22.55	22.31
				QPSK	Edge_1RB Right	1	77	22.14	22.30	22.30
				QPSK	Edge_Full Right	2	76	22.15	22.31	22.19

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 648000 (3720 MHz)	Mid Channel 656000 (3840 MHz)	High Channel 664000 (3960 MHz)
n77	30	40	CP-OFDM	QPSK	Inner_1RB Left	1	1	24.22	24.00	24.26
				16QAM		1	1	23.61	23.70	23.69
				64QAM		1	1	22.80	22.88	22.90
				256QAM		1	1	21.37	20.28	20.29
				QPSK	Inner_1RB Right	1	104	24.00	24.39	24.00
				QPSK	Inner_Full	53	26	23.70	24.28	24.15
				QPSK	Outer_Full	106	0	22.76	22.84	22.71
				QPSK	Edge_1RB Left	1	0	22.17	22.19	22.29
				QPSK	Edge_Full Left	2	0	22.17	22.18	22.24
				QPSK	Edge_1RB Right	1	105	22.38	22.42	22.21
				QPSK	Edge_Full Right	2	104	22.40	22.39	22.18

Band	SCS (KHz)	Bandwidth (MHz)	Modulation		RB allocation	RB Size	RB Offset	Low Channel 648334 (3725.01 MHz)	Mid Channel 656000 (3840 MHz)	High Channel 663666 (3954.99 MHz)
n77	30	50	CP-OFDM	QPSK	Inner_1RB Left	1	1	23.52	24.00	24.22
				16QAM		1	1	23.41	23.46	23.44
				64QAM		1	1	22.50	22.60	22.66
				256QAM		1	1	21.05	20.23	19.97
				QPSK	Inner_1RB Right	1	131	23.60	23.50	23.93
				QPSK	Inner_Full	67	33	23.51	24.22	23.98
				QPSK	Outer_Full	133	0	22.56	22.67	22.46
				QPSK	Edge_1RB Left	1	0	21.98	22.12	22.09
				QPSK	Edge_Full Left	2	0	21.98	22.10	22.13
				QPSK	Edge_1RB Right	1	132	22.14	22.18	21.99
				QPSK	Edge_Full Right	2	131	22.11	22.09	21.92



Band	SCS (KHz)	Bandwidth (MHz)	Modulation	RB allocation	RB Size	RB Offset	Low Channel 648668 (3730.02 MHz)	Mid Channel 656000 (3840 MHz)	High Channel 663332 (3949.98 MHz)
n77	30	60	CP-OFDM	QPSK	Inner_1RB Left	1	1	24.30	24.09
				16QAM		1	1	23.47	23.64
				64QAM		1	1	22.80	22.55
				256QAM		1	1	21.18	20.58
				QPSK	Inner_1RB Right	1	160	24.00	24.02
				QPSK	Inner_Full	81	40	23.70	24.15
				QPSK	Outer_Full	162	0	22.70	22.65
				QPSK	Edge_1RB Left	1	0	22.10	22.11
				QPSK	Edge_Full Left	2	0	22.05	22.09
				QPSK	Edge_1RB Right	1	161	22.21	22.03
				QPSK	Edge_Full Right	2	160	22.20	21.96

Band	SCS (KHz)	Bandwidth (MHz)	Modulation	RB allocation	RB Size	RB Offset	Low Channel 649000 (3735 MHz)	Mid Channel 656000 (3840 MHz)	High Channel 663000 (3945 MHz)
n77	30	70	CP-OFDM	QPSK	Inner_1RB Left	1	1	23.52	24.10
				16QAM		1	1	23.48	23.60
				64QAM		1	1	22.90	22.66
				256QAM		1	1	21.15	20.46
				QPSK	Inner_1RB Right	1	187	23.59	24.01
				QPSK	Inner_Full	95	47	23.62	24.26
				QPSK	Outer_Full	189	0	22.65	22.72
				QPSK	Edge_1RB Left	1	0	22.01	22.16
				QPSK	Edge_Full Left	2	0	22.05	22.15
				QPSK	Edge_1RB Right	1	188	22.09	22.04
				QPSK	Edge_Full Right	2	187	22.03	22.03

Band	SCS (KHz)	Bandwidth (MHz)	Modulation	RB allocation	RB Size	RB Offset	Low Channel 649334 (3740.01 MHz)	Mid Channel 656000 (3840 MHz)	High Channel 662666 (3934.98 MHz)
n77	30	80	CP-OFDM	QPSK	Inner_1RB Left	1	1	23.52	24.15
				16QAM		1	1	23.52	23.44
				64QAM		1	1	22.58	22.59
				256QAM		1	1	21.26	20.55
				QPSK	Inner_1RB Right	1	215	23.77	23.88
				QPSK	Inner_Full	109	54	23.80	24.09
				QPSK	Outer_Full	217	0	22.75	22.56
				QPSK	Edge_1RB Left	1	0	22.09	22.00
				QPSK	Edge_Full Left	2	0	22.11	21.94
				QPSK	Edge_1RB Right	1	216	22.01	21.91
				QPSK	Edge_Full Right	2	215	21.97	21.85

Band	SCS (KHz)	Bandwidth (MHz)	Modulation	RB allocation	RB Size	RB Offset	Low Channel 649668 (3745.02 MHz)	Mid Channel 656000 (3840 MHz)	High Channel 662332 (3934.98 MHz)
n77	30	90	CP-OFDM	QPSK	Inner_1RB Left	1	1	23.51	24.30
				16QAM		1	1	23.41	23.50
				64QAM		1	1	22.55	22.51
				256QAM		1	1	21.25	20.45
				QPSK	Inner_1RB Right	1	243	23.44	23.90
				QPSK	Inner_Full	123	61	23.49	24.10
				QPSK	Outer_Full	245	0	22.48	22.56
				QPSK	Edge_1RB Left	1	0	21.95	22.01
				QPSK	Edge_Full Left	2	0	21.95	22.00
				QPSK	Edge_1RB Right	1	244	21.96	21.98
				QPSK	Edge_Full Right	2	243	21.91	21.91

Band	SCS (KHz)	Bandwidth (MHz)	Modulation	RB allocation	RB Size	RB Offset	Low Channel 650000 (3750 MHz)	Mid Channel 656000 (3840 MHz)	High Channel 6620000 (3930 MHz)
n77	30	100	CP-OFDM	QPSK	1	1	24.77	24.82	24.72
				16QAM	1	1	23.45	23.45	23.45
				64QAM	1	1	22.56	22.56	22.56
				256QAM	1	1	21.25	20.94	20.93
				QPSK	1	271	23.50	23.50	23.50
				QPSK	137	68	24.70	24.80	24.60
				QPSK	273	0	22.53	22.53	22.53
				QPSK	1	0	21.99	21.99	21.99
				QPSK	2	0	21.98	21.98	21.98
				QPSK	1	272	22.00	22.00	22.00
				QPSK	2	271	21.97	21.97	21.97