

CERTIFICATION TEST REPORT

Report Number. : S-4792147620-E3V3

Applicant : SAMSUNG ELECTRONICS CO., LTD.
129 SAMSUNG-RO, YEONGTONG-GU, SUWON-SI,
GYEONGGI-DO, 16677, KOREA

Model : SM-F971B

FCC ID : A3LSMF971B

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

Test Standard(s) : FCC 47 CFR PART 27 SUBPART M

Date Of Issue:

2026-05-20

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Revision History

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
V1	2026-05-08	Initial issue	Yeonghwan Hong
V2	2026-05-18	Updated to address TCB's question	Yeonghwan Hong
V3	2026-05-20	Updated to address TCB's question	Yeonghwan Hong

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: SAMSUNG ELECTRONICS CO., LTD.

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

MODEL NUMBER: SM-F971B

SERIAL NUMBER: 9badcaa8b44f7ece, 9badcaa9754f7ece, 9badcaa8a14f7ece
a33af058df4d7ece, a33aed81a34d7ece, a33af0591e4d7ece
(CONDUCTED);
R37L200G6NE, R37L200G60R, R37L200G6FK, R37L200GH0M,
a33aed81d44d7ece (RADIATED)

DATE TESTED: 2026-03-09 – 2026-05-04

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 27 M	Complies

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

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

Approved & Released For
UL KOREA LTD. By:

Tested By:



Seokhwan Hong
Suwon Lab Engineer
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Suwon Lab Engineer
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1.1. INTRODUCTION OF TEST DATA REUSE

This report references test data from reference model: SM-F971U (FCC 47 CFR Part 27).

This data reuse has been conducted in accordance with KDB 484596 D01 Referencing Test Data v03 criteria, and RF performance equivalence between the two models (SM-F971U/U1 and SM-F971B) has been verified through spot-check measurements.

The applicant takes full responsibility that the test data referenced in this report represent compliance for this model.

For the WWAN mode in this report, it is fully tested(refer to section 1.3). Please refer to the spot-check data in the test report number S-4792147620-E4.

1.2. DIFFERENCE

Key differences between SM-F971U and SM-F971B:

1. RF/Cellular Circuit Modifications:

The cellular band functionality has been modified through a combination of firmware changes, component addition, depopulation and pin to pin changes. The hardware changes consist solely of components addition on the main board, with no changes to the circuit board layout.

For detailed change information, please refer to the “FCC Data Reuse Inquiry” document.

2. Common Elements:

- The SM-F971B BT/WIFI block diagram and antenna structure remain identical to the SM-F971U.
- All other aspects including form factors, materials, functions, PCB layouts, and common components are the same between both models.

1.3. DATA RE-USE TEST MODES

Test modes	Data re-use / Full test	Note.
GSM850	Re-use	-
GSM1900	Re-use	-
WCDMA B2	Re-use	-
WCDMA B4	Re-use	-
WCDMA B5	Re-use	-
LTE B12	Re-use	-
LTE B13	Re-use	-
LTE B26	Re-use	-
LTE B66	Re-use	-
LTE B41	Full test	-
LTE B25	Re-use	-
NR n71	Re-use	-
NR n5	Full test	-
NR n66	Re-use	-
NR n25	Re-use	-
NR n41	Full test	-
NR n77	Re-use	-

Note 1: LTE B17 is covered by LTE B12 because the conducted output power verification result of LTE B17 is lower than LTE B12.

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with following methods.

1. FCC 47 CFR Part 2.
2. FCC 47 CFR Part 27.
3. ANSI TIA-603-E, 2016
4. ANSI C63.26, 2015
5. KDB 971168 D01 Power Meas License Digital Systems v03r01
6. KDB 971168 D02 Misc Rev Approv License Devices v02r02
7. KDB 412172 D01 Determining ERP and EIRP v01r01

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea. Line conducted emissions are measured only at the 218 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

218 Maeyeong-ro	
☒	Chamber 1(3m semi-anechoic chamber)
☒	Chamber 2(3m semi-anechoic chamber)
☐	Chamber 3(3m semi-anechoic chamber)
☒	Chamber 4(3m Full-anechoic chamber)
☐	Chamber 5(3m Full-anechoic chamber)

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

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

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

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

$EIRP = \text{SG reading with EUT worst orientation (dBm)} - \text{cable loss (between the SG and substitution antenna)} + \text{Substitution Antenna Factor (dBi)}$

$\text{For Radiated Spurious Emission (dBm)} = \text{SA reading with EUT worst orientation (dBm)} + \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + \text{Conversion Factor (dB)}$

$\text{SA reading with EUT worst orientation (dBm)} = \text{Measured amplitude level (dBuV)} + 107$

$\text{Conversion Factor} = 107 + 20 \log(D) - 104.8 = 107 + 9.54 - 104.8 = 11.74 \text{ dB}$

where D is the measurement distance (in the far field) in m

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	1.84 dB
Radiated Disturbance, 9 kHz to 30 MHz	2.41 dB
Radiated Disturbance, 30 MHz to 1 GHz	3.78 dB
Radiated Disturbance, 1 GHz to 18 GHz	5.25 dB
Radiated Disturbance, Above 18 GHz	5.07 dB

Uncertainty figures are valid to a confidence level of 95%.

4.4. DECISION RULE

Decision rule for statement(s) of conformity is based on Clause 4.3.3 in IEC Guide 115:2023.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

GSM/WCDMA/LTE/5G NR Phone + BT/BLE, DTS/UNII a/b/g/n/ac/ax/be, NFC, WPT and UWB.
This test report addresses the WWAN Operational mode.

The SM-F971B model was used as the representative model for final testing.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum average radiated EIRP output powers as follows:
Radiated samples were tested to a higher power than conducted resulting in radiated EIRP greater than conducted measurements.

LTE Band 41(PC2)

FCC Part 27							
Band	Frequency Range [MHz]	BandWidth	Modulation	Conducted Power (ANT B)		EIRP (ANT B)	
		[MHz]		Max. Power [dBm]	Max. Power [W]	Max. Power [dBm]	Max. Power [W]
Band 41	2506.00 - 2680.00	20	QPSK	25.53	0.357	26.26	0.423
			16QAM	24.93	0.311	25.55	0.359
			64QAM	23.86	0.243		
			256QAM	20.84	0.121		
	2503.50 - 2682.50	15	QPSK	25.40	0.347	26.36	0.433
			16QAM	25.20	0.331	25.82	0.382
			64QAM	24.08	0.256		
			256QAM	20.98	0.125		
	2501.00 - 2685.00	10	QPSK	25.38	0.345	26.28	0.425
			16QAM	25.09	0.323	25.71	0.372
			64QAM	23.80	0.240		
			256QAM	20.79	0.120		
	2498.50 - 2687.50	5	QPSK	25.54	0.358	26.11	0.408
			16QAM	25.03	0.318	25.65	0.367
			64QAM	23.77	0.238		
			256QAM	20.88	0.122		
FCC Part 27							
Band	Frequency Range [MHz]	BandWidth	Modulation	Conducted Power (ANT F)		EIRP (ANT F)	
		[MHz]		Max. Power [dBm]	Max. Power [W]	Max. Power [dBm]	Max. Power [W]
Band 41	2506.00 - 2680.00	20	QPSK	25.68	0.370	26.98	0.499
			16QAM	25.02	0.318	26.23	0.420
			64QAM	24.04	0.254		
			256QAM	20.86	0.122		
	2503.50 - 2682.50	15	QPSK	25.67	0.369	27.08	0.511
			16QAM	24.88	0.308	26.20	0.417
			64QAM	24.10	0.257		
			256QAM	20.84	0.121		
	2501.00 - 2685.00	10	QPSK	25.60	0.363	27.01	0.502
			16QAM	24.91	0.310	26.28	0.425
			64QAM	23.86	0.243		
			256QAM	20.74	0.119		
	2498.50 - 2687.50	5	QPSK	25.56	0.360	26.97	0.498
			16QAM	24.78	0.301	26.12	0.409
			64QAM	24.01	0.252		
			256QAM	20.70	0.117		

NR Band n41 (PC3, ANT B)

FCC Part 27								
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Mode	Conducted Power (ANT B)		EIRP (ANT B)	
					Max. Power [dBm]	Max. Power [W]	Max. Power [dBm]	Max. Power [W]
n41	2546.01 - 2640.00	100	DFT-s OFDM	$\pi/2$ BPSK	24.79	0.301		
				QPSK	24.89	0.308	25.66	0.368
				16QAM	23.90	0.245	24.93	0.311
				64QAM	21.99	0.158		
				256QAM	19.93	0.098		
			CP-OFDM	QPSK	23.42	0.220		
				16QAM	22.85	0.193		
				64QAM	20.92	0.124		
				256QAM	18.00	0.063		
				$\pi/2$ BPSK	24.82	0.303		
	2541.00 - 2644.98	90	DFT-s OFDM	QPSK	24.83	0.304	25.64	0.366
				16QAM	23.81	0.240	24.95	0.313
				64QAM	22.11	0.163		
				256QAM	19.86	0.097		
				QPSK	23.28	0.213		
			CP-OFDM	$\pi/2$ BPSK	24.75	0.299		
				QPSK	24.82	0.303	25.64	0.366
				16QAM	23.71	0.235	24.99	0.316
				64QAM	22.06	0.161		
				256QAM	19.83	0.096		
	2536.02 - 2649.99	80	DFT-s OFDM	QPSK	23.31	0.214		
				$\pi/2$ BPSK	24.75	0.299		
				QPSK	24.71	0.296	25.69	0.371
				16QAM	23.69	0.234	24.95	0.313
				64QAM	22.08	0.161		
				256QAM	19.91	0.098		
			CP-OFDM	QPSK	23.24	0.211		
				$\pi/2$ BPSK	24.64	0.291		
				QPSK	24.66	0.292	25.64	0.366
				16QAM	23.55	0.226	24.87	0.307
	2526.00 - 2659.98	60	DFT-s OFDM	64QAM	21.87	0.154		
				256QAM	19.83	0.096		
				QPSK	23.27	0.212		
				$\pi/2$ BPSK	24.90	0.309		
				QPSK	24.91	0.310	25.69	0.371
			CP-OFDM	16QAM	23.89	0.245	24.95	0.313
				64QAM	22.08	0.161		
				256QAM	19.94	0.099		
				QPSK	23.31	0.214		
				$\pi/2$ BPSK	24.95	0.313		
	2521.01 - 2665.00	50	DFT-s OFDM	QPSK	24.97	0.314	25.71	0.372
				16QAM	23.73	0.236	24.98	0.315
				64QAM	22.17	0.165		
				256QAM	19.90	0.098		
				QPSK	23.35	0.216		
			CP-OFDM	$\pi/2$ BPSK	24.61	0.289		
				QPSK	24.57	0.286	25.42	0.348
				16QAM	23.49	0.223	24.78	0.301
				64QAM	21.91	0.155		
				256QAM	19.72	0.094		
	2518.50 - 2667.48	45	DFT-s OFDM	QPSK	23.11	0.205		
				$\pi/2$ BPSK	24.63	0.290		
				QPSK	24.62	0.290	25.41	0.348
				16QAM	23.50	0.224	24.59	0.288
				64QAM	21.84	0.153		
			CP-OFDM	256QAM	19.71	0.094		
				QPSK	23.07	0.203		
				$\pi/2$ BPSK	24.68	0.294		
				QPSK	24.70	0.295	25.49	0.354
				16QAM	23.65	0.232	24.68	0.294
	2513.52 - 2672.49	35	DFT-s OFDM	64QAM	21.89	0.155		
				256QAM	19.70	0.093		
				QPSK	23.12	0.205		
			CP-OFDM	$\pi/2$ BPSK	24.66	0.292		
				QPSK	24.61	0.289	25.55	0.359
				16QAM	23.63	0.231	25.00	0.316
				64QAM	21.97	0.157		
				256QAM	19.77	0.095		
				QPSK	23.12	0.205		
	2511.00 - 2675.00	30	DFT-s OFDM	$\pi/2$ BPSK	24.55	0.285		
				QPSK	24.54	0.284	25.38	0.345
				16QAM	23.43	0.220	24.66	0.292
				64QAM	21.85	0.153		
				256QAM	19.65	0.092		
			CP-OFDM	QPSK	23.00	0.200		
				$\pi/2$ BPSK	24.68	0.294		
				QPSK	24.58	0.287	25.41	0.348
				16QAM	23.41	0.219	24.71	0.296
				64QAM	21.88	0.154		
	2508.51 - 2677.50	25	DFT-s OFDM	256QAM	19.65	0.092		
				QPSK	23.06	0.202		
			CP-OFDM	$\pi/2$ BPSK	24.56	0.286		
				QPSK	24.55	0.285	26.08	0.406
				16QAM	23.33	0.215	24.94	0.312
				64QAM	21.85	0.153		
				256QAM	19.79	0.095		
				QPSK	23.15	0.207		
	2506.02 - 2679.99	20	DFT-s OFDM	$\pi/2$ BPSK	24.68	0.294		
				QPSK	24.58	0.287	25.41	0.348
				16QAM	23.41	0.219	24.71	0.296
				64QAM	21.88	0.154		
				256QAM	19.65	0.092		
			CP-OFDM	QPSK	23.06	0.202		
				$\pi/2$ BPSK	24.56	0.286		
				QPSK	24.55	0.285	26.08	0.406
				16QAM	23.33	0.215	24.94	0.312
				64QAM	21.85	0.153		
	2503.50 - 2682.48	15	DFT-s OFDM	256QAM	19.79	0.095		
				QPSK	23.15	0.207		
			CP-OFDM	$\pi/2$ BPSK	24.68	0.294		
				QPSK	24.58	0.287	25.41	0.348
				16QAM	23.41	0.219	24.71	0.296
				64QAM	21.88	0.154		
				256QAM	19.65	0.092		
				QPSK	23.06	0.202		
			CP-OFDM	$\pi/2$ BPSK	24.56	0.286		
				QPSK	24.55	0.285	26.08	0.406
				16QAM	23.33	0.215	24.94	0.312
				64QAM	21.85	0.153		
	2501.01 - 2685.00	10	DFT-s OFDM	256QAM	19.79	0.095		
				QPSK	23.15	0.207		
			CP-OFDM	$\pi/2$ BPSK	24.68	0.294		
				QPSK	24.58	0.287	25.41	0.348
				16QAM	23.41	0.219	24.71	0.296
				64QAM	21.88	0.154		
				256QAM	19.65	0.092		
				QPSK	23.06	0.202		
			CP-OFDM	$\pi/2$ BPSK	24.56	0.286		
				QPSK	24.55	0.285	26.08	0.406
				16QAM	23.33	0.215	24.94	0.312
				64QAM	21.85	0.153		

NR Band n41 (PC3, SRS2, ANT F)

FCC Part 27						
Band	Frequency Range	BandWidth	Conducted Power (ANT F)		EIRP (ANT F)	
	[MHz]	[MHz]	Max. Power [dBm]	Max. Power [W]	Max. Power [dBm]	Max. Power [W]
n41	2546.01 - 2640.00	100	24.45	0.279	24.33	0.271
	2541.00 - 2644.98	90	24.44	0.278		
	2536.02 - 2649.99	80	24.42	0.277		
	2531.02 - 2654.98	70	24.43	0.277		
	2526.00 - 2659.98	60	24.44	0.278		
	2521.01 - 2665.00	50	24.41	0.276		
	2518.50 - 2667.48	45	24.40	0.275		
	2516.01 - 2670.00	40	24.41	0.276		
	2513.52 - 2672.49	35	24.44	0.278		
	2511.00 - 2675.00	30	24.41	0.276		
	2508.51 - 2677.50	25	24.43	0.277		
	2506.02 - 2679.99	20	24.41	0.276		
	2503.50 - 2682.48	15	24.44	0.278		
	2501.01 - 2685.00	10	24.42	0.277		

NR Band n41 (PC3, SRS3, ANT C)

FCC Part 27						
Band	Frequency Range	BandWidth	Conducted Power (ANT C)		EIRP (ANT C)	
	[MHz]	[MHz]	Max. Power [dBm]	Max. Power [W]	Max. Power [dBm]	Max. Power [W]
n41	2546.01 - 2640.00	100	24.49	0.281	21.02	0.126
	2541.00 - 2644.98	90	24.48	0.281		
	2536.02 - 2649.99	80	24.43	0.277		
	2531.02 - 2654.98	70	24.45	0.279		
	2526.00 - 2659.98	60	24.48	0.281		
	2521.01 - 2665.00	50	24.45	0.279		
	2518.50 - 2667.48	45	24.44	0.278		
	2516.01 - 2670.00	40	24.41	0.276		
	2513.52 - 2672.49	35	24.45	0.279		
	2511.00 - 2675.00	30	24.47	0.280		
	2508.51 - 2677.50	25	24.45	0.279		
	2506.02 - 2679.99	20	24.42	0.277		
	2503.50 - 2682.48	15	24.43	0.277		
	2501.01 - 2685.00	10	24.45	0.279		

NR Band n41 (PC3, SRS4, ANT E)

FCC Part 27						
Band	Frequency Range	BandWidth	Conducted Power (ANT E)		EIRP (ANT E)	
	[MHz]	[MHz]	Max. Power [dBm]	Max. Power [W]	Max. Power [dBm]	Max. Power [W]
n41	2546.01 - 2640.00	100	22.38	0.173	16.41	0.044
	2541.00 - 2644.98	90	22.31	0.170		
	2536.02 - 2649.99	80	22.24	0.167		
	2531.02 - 2654.98	70	22.07	0.161		
	2526.00 - 2659.98	60	22.06	0.161		
	2521.01 - 2665.00	50	22.15	0.164		
	2518.50 - 2667.48	45	22.21	0.166		
	2516.01 - 2670.00	40	22.18	0.165		
	2513.52 - 2672.49	35	22.13	0.163		
	2511.00 - 2675.00	30	22.15	0.164		
	2508.51 - 2677.50	25	22.19	0.166		
	2506.02 - 2679.99	20	22.22	0.167		
	2503.50 - 2682.48	15	22.18	0.165		
	2501.01 - 2685.00	10	22.21	0.166		

NR Band n41 (PC3, ANT F)

Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Mode	Conducted Power (ANT F)		EIRP (ANT F)	
					Max. Power [dBm]	Max. Power [W]	Max. Power [dBm]	Max. Power [W]
n41	2546.01 - 2640.00	100	DFT-s OFDM	$\pi/2$ BPSK	24.57	0.286		
				QPSK	24.64	0.291	25.74	0.375
				16QAM	23.59	0.229	24.94	0.312
				64QAM	21.62	0.145		
				256QAM	19.76	0.095		
			CP-OFDM	QPSK	23.24	0.211		
				16QAM	22.85	0.193		
				64QAM	20.83	0.121		
				256QAM	17.89	0.062		
				$\pi/2$ BPSK	24.66	0.292		
	2541.00 - 2644.98	90	DFT-s OFDM	QPSK	24.68	0.294	25.81	0.381
				16QAM	23.76	0.238	25.09	0.323
				64QAM	21.71	0.148		
				256QAM	19.90	0.098		
			CP-OFDM	QPSK	23.15	0.207		
				$\pi/2$ BPSK	24.61	0.289		
				QPSK	24.63	0.290	25.62	0.365
				16QAM	23.66	0.232	25.05	0.320
				64QAM	21.68	0.147		
				256QAM	19.85	0.097		
	2536.02 - 2649.99	80	DFT-s OFDM	QPSK	23.17	0.207		
				$\pi/2$ BPSK	24.50	0.282		
				QPSK	24.53	0.284	25.63	0.366
				16QAM	23.54	0.226	24.83	0.304
				64QAM	21.64	0.146		
				256QAM	19.70	0.093		
			CP-OFDM	QPSK	23.03	0.201		
				$\pi/2$ BPSK	24.44	0.278		
				QPSK	24.46	0.279	25.75	0.376
				16QAM	23.44	0.221	24.96	0.313
				64QAM	21.66	0.147		
	2526.00 - 2659.98	60	DFT-s OFDM	256QAM	19.73	0.094		
				QPSK	23.08	0.203		
			CP-OFDM	QPSK	23.08	0.203		
				$\pi/2$ BPSK	24.63	0.290		
				QPSK	24.69	0.294	25.97	0.395
				16QAM	23.61	0.230	25.07	0.321
				64QAM	21.88	0.154		
				256QAM	19.99	0.100		
			CP-OFDM	QPSK	23.22	0.210		
				$\pi/2$ BPSK	24.67	0.293		
	2518.50 - 2667.48	45	DFT-s OFDM	QPSK	24.71	0.296	26.00	0.398
				16QAM	23.70	0.234	25.04	0.319
				64QAM	21.79	0.151		
				256QAM	20.00	0.100		
			CP-OFDM	QPSK	23.30	0.214		
				$\pi/2$ BPSK	24.37	0.274		
				QPSK	24.41	0.276	25.70	0.372
				16QAM	23.51	0.224	24.86	0.306
				64QAM	21.66	0.147		
				256QAM	19.79	0.095		
	2516.01 - 2670.00	40	DFT-s OFDM	QPSK	23.01	0.200		
				$\pi/2$ BPSK	24.41	0.276		
				QPSK	24.41	0.276	25.70	0.372
				16QAM	23.47	0.222	24.84	0.305
				64QAM	21.53	0.142		
				256QAM	19.86	0.097		
			CP-OFDM	QPSK	23.11	0.205		
				$\pi/2$ BPSK	24.39	0.275		
				QPSK	24.54	0.284	25.75	0.376
				16QAM	23.52	0.225	24.91	0.310
				64QAM	21.71	0.148		
	2511.00 - 2675.00	30	DFT-s OFDM	256QAM	19.84	0.096		
				QPSK	23.13	0.206		
			CP-OFDM	$\pi/2$ BPSK	24.53	0.284		
				QPSK	24.59	0.288	25.76	0.377
				16QAM	23.56	0.227	25.08	0.322
				64QAM	21.75	0.150		
				256QAM	19.91	0.098		
			CP-OFDM	QPSK	23.38	0.218		
				$\pi/2$ BPSK	24.38	0.274		
				QPSK	24.39	0.275	25.54	0.358
				16QAM	23.44	0.221	24.71	0.296
	2508.51 - 2677.50	25	DFT-s OFDM	64QAM	21.49	0.141		
				256QAM	19.66	0.092		
				QPSK	23.07	0.203		
			CP-OFDM	$\pi/2$ BPSK	24.35	0.272		
				QPSK	24.35	0.272	25.50	0.355
				16QAM	23.43	0.220	24.65	0.292
				64QAM	21.49	0.141		
				256QAM	19.70	0.093		
			CP-OFDM	QPSK	23.10	0.204		
				$\pi/2$ BPSK	24.46	0.279		
				QPSK	24.45	0.279	24.44	0.278
	2503.50 - 2682.48	15	DFT-s OFDM	16QAM	23.56	0.227	23.67	0.233
				64QAM	21.56	0.143		
				256QAM	19.77	0.095		
				QPSK	23.04	0.201		
			CP-OFDM	$\pi/2$ BPSK	24.46	0.279		
				QPSK	24.45	0.279	24.44	0.278
				16QAM	23.56	0.227	23.67	0.233
				64QAM	21.56	0.143		
				256QAM	19.77	0.095		
			CP-OFDM	QPSK	23.04	0.201		
	2501.01 - 2685.00	10	DFT-s OFDM	$\pi/2$ BPSK	24.46	0.279		
				QPSK	24.45	0.279	24.44	0.278
				16QAM	23.56	0.227	23.67	0.233
				64QAM	21.56	0.143		
				256QAM	19.77	0.095		
			CP-OFDM	QPSK	23.04	0.201		
				$\pi/2$ BPSK	24.46	0.279		
				QPSK	24.45	0.279	24.44	0.278
				16QAM	23.56	0.227	23.67	0.233
				64QAM	21.56	0.143		
				256QAM	19.77	0.095		

NR Band n41 (PC3, SRS2, ANT B)

FCC Part 27						
Band	Frequency Range	BandWidth	Conducted Power (ANT B)		EIRP (ANT B)	
	[MHz]	[MHz]	Max. Power [dBm]	Max. Power [W]	Max. Power [dBm]	Max. Power [W]
n41	2546.01 - 2640.00	100	23.61	0.230		
	2541.00 - 2644.98	90	23.63	0.231		
	2536.02 - 2649.99	80	23.68	0.233	24.38	0.274
	2531.02 - 2654.98	70	23.55	0.226		
	2526.00 - 2659.98	60	23.43	0.220		
	2521.01 - 2665.00	50	23.48	0.223		
	2518.50 - 2667.48	45	23.53	0.225		
	2516.01 - 2670.00	40	23.48	0.223		
	2513.52 - 2672.49	35	23.54	0.226		
	2511.00 - 2675.00	30	23.61	0.230		
	2508.51 - 2677.50	25	23.56	0.227		
	2506.02 - 2679.99	20	23.48	0.223		
	2503.50 - 2682.48	15	23.43	0.220		
	2501.01 - 2685.00	10	23.47	0.222		

NR Band n41 (PC3, SRS3, ANT E)

FCC Part 27						
Band	Frequency Range	BandWidth	Conducted Power (ANT E)		EIRP (ANT E)	
	[MHz]	[MHz]	Max. Power [dBm]	Max. Power [W]	Max. Power [dBm]	Max. Power [W]
n41	2546.01 - 2640.00	100	22.83	0.192		
	2541.00 - 2644.98	90	22.81	0.191		
	2536.02 - 2649.99	80	22.71	0.187		
	2531.02 - 2654.98	70	22.68	0.185		
	2526.00 - 2659.98	60	22.71	0.187		
	2521.01 - 2665.00	50	22.84	0.192	14.59	0.029
	2518.50 - 2667.48	45	22.79	0.190		
	2516.01 - 2670.00	40	22.73	0.187		
	2513.52 - 2672.49	35	22.68	0.185		
	2511.00 - 2675.00	30	22.70	0.186		
	2508.51 - 2677.50	25	22.73	0.187		
	2506.02 - 2679.99	20	22.76	0.189		
	2503.50 - 2682.48	15	22.71	0.187		
	2501.01 - 2685.00	10	22.73	0.187		

NR Band n41 (PC3, SRS4, ANT C)

FCC Part 27						
Band	Frequency Range	BandWidth	Conducted Power (ANT C)		EIRP (ANT C)	
	[MHz]	[MHz]	Max. Power [dBm]	Max. Power [W]	Max. Power [dBm]	Max. Power [W]
n41	2546.01 - 2640.00	100	23.13	0.206		
	2541.00 - 2644.98	90	22.95	0.197		
	2536.02 - 2649.99	80	23.02	0.200		
	2531.02 - 2654.98	70	23.06	0.202		
	2526.00 - 2659.98	60	23.13	0.206		
	2521.01 - 2665.00	50	23.08	0.203		
	2518.50 - 2667.48	45	23.14	0.206		
	2516.01 - 2670.00	40	23.15	0.207		
	2513.52 - 2672.49	35	23.18	0.208		
	2511.00 - 2675.00	30	23.21	0.209		
	2508.51 - 2677.50	25	23.28	0.213	18.20	0.066
	2506.02 - 2679.99	20	23.19	0.208		
	2503.50 - 2682.48	15	23.15	0.207		
	2501.01 - 2685.00	10	23.18	0.208		

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a internal antenna for the supported bands with a maximum peak gain as follow:

Frequency (MHz)	ANT	Peak Gain (dBi)
LTE Band 41 / NR Band n41 2496 - 2690 MHz	B	-1.3
	F	-2.2
	C	-4.4
	E	-7.1

5.4. WORST-CASE ORIENTATION

Following Modes should be considered as worst-case scenario for all other measurements.

- LTE Band

The worst-case scenario for all measurements is based on the average conducted output power measurement investigation results. Output power measurements were measured on QPSK, 16QAM, 64QAM and 256QAM modulations. It was found QPSK and 16QAM results were worst case.

As for the Antenna Switching supported either Tx Device Hopping conditions. It has been verified. Tx device hopping can be implemented through the application provided by the manufacturer.

Band	Antenna Switching
LTE B41(PC2)	Tx Device Hopping

- The RF port of LTE Band 41(PC2) are tested on all antennas and reported as 'Sub ANT' because the output power of 'Sub ANT' is same to or higher than 'Main ANT'.

So the test case is as below.

Band	Main ANT	Tune up Limit (dBm)	Sub ANT	Tune up Limit (dBm)
LTE B41(PC2)	B	26.5	<u>F</u>	<u>26.5</u>

Test Item	Test case antenna & port
Conducted output power	All
RF port test	All (Worst case reported)
EIRP	All
Radiated Spurious Emissions	All

- NR Bands

The worst-case scenario for all measurements is based on the average conducted output power measurement investigation results. Output power measurements were performed for $\pi/2$ BPSK, QPSK, 16QAM, 64QAM, and 256QAM modulation.

The worst-case scenario was determined by distinguishing between PSK-based modulation ($\pi/2$ BPSK, QPSK) and QAM-based modulation (16QAM, 64QAM, 256QAM). Within each modulation group, QPSK and 16QAM showed the worst results.

This device supports NSA and SA Mode and Worst case reported.

So the test case is as below.

NR Band	NSA	SA
NR n41(PC3)	LTE B2/4/5/12/66	<u>Stand Alone</u>

- The RF port of NR Band n41 are tested on all antennas and reported as 'Sub ANT' because the output power of 'Sub ANT' is same to or higher than 'Main ANT'.

So the test case is as below.

Band	Main ANT	Tune up Limit (dBm)	Sub ANT	Tune up Limit (dBm)
NR n41(PC3)	F	25.0	<u>B</u>	<u>25.0</u>

Test Item	Test case antenna & port
Conducted output power	All
RF port test	All (Worst case reported)
EIRP	All
Radiated Spurious Emissions	All

● Conducted Spurious Emission

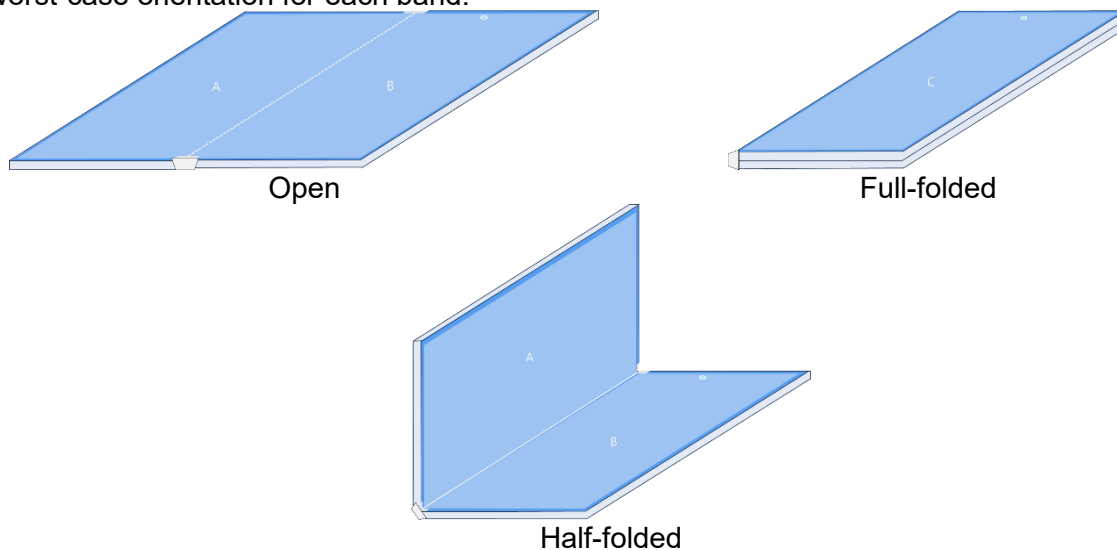
Highest conducted output power setting for each bands						
LTE Band	ANT	Frequency (MHz)	Bandwidth (MHz)	Modulation	RB size	RB offset
41 (PC2)	F	2506.00	20	QPSK	1	49
		2593.00			1	49
		2680.00			1	0
NR Band	ANT	Frequency (MHz)	Bandwidth (MHz)	Modulation	RB size	RB offset
41 (PC3)	B	2518.50	45	DFT-s OFDM QPSK	1	117
		2592.99			1	117
		2667.48			1	1

● Radiated Spurious Emission

Highest EIRP setting for each bands						
LTE Band	ANT	Frequency (MHz)	Bandwidth (MHz)	Modulation	RB size	RB offset
41 (PC2)	B	2503.50	15	QPSK	1	37
		2593.00			1	37
		2682.50			1	0
	F	2503.50	15	QPSK	1	0
		2593.00			1	74
		2682.50			1	0
NR Band	ANT	Frequency (MHz)	Bandwidth (MHz)	Modulation	RB size	RB offset
41 (PC3)	B	2501.01	10	DFT-s OFDM QPSK	1	22
		2592.99			1	22
		2685.00			1	22
41 SRS 2	F	2546.01	100	-	-	-
		2592.99			-	-
		2640.00			-	-
41 SRS 3	C	2546.01	100	-	-	-
		2592.99			-	-
		2640.00			-	-
41 SRS 4	E	2546.01	100	-	-	-
		2592.99			-	-
		2640.00			-	-
41 (PC3)	F	2518.50	45	DFT-s OFDM QPSK	1	1
		2592.99			1	117
		2667.48			1	1
41 SRS 2	B	2536.02	80	-	-	-
		2592.99			-	-
		2649.99			-	-
41 SRS 3	E	2521.01	50	-	-	-
		2592.99			-	-
		2665.00			-	-
41 SRS 4	C	2508.51	25	-	-	-
		2592.99			-	-
		2677.50			-	-

Note1 : for radiated emission testing, EN-DC mode was investigated in simultaneous mode. There was no discernible difference in the spurious emission levels when using different LTE and FR1 anchor bands.

The fundamental and radiated spurious emission were investigated in three orthogonal orientations X, Y and Z and folded conditions it was determined that below orientation was worst-case orientation for each band.



Band	ANT	ERP/EIRP			RSE		
		X	Y	Z	X	Y	Z
LTE B41(PC2)	B	Full-folded	-	-	-	Full-folded	-
	F	Half-folded	-	-	-	-	Half-folded
NR n41(PC3, SA)	F	Half-folded	-	-	Open	-	-
	B(SRS2)	Open	-	-	Open	-	-
	E(SRS3)	Half-folded	-	-	Half-folded	-	-
	C(SRS4)	Half-folded	-	-	Half-folded	-	-
NR n41(PC3,SA) switching	B	Half-folded	-	-	-	-	Open
	F(SRS2)	Half-folded	-	-	Half-folded	-	-
	C(SRS3)	Open	-	-	Open	-	-
	E(SRS4)	Half-folded	-	-	-	-	Half-folded

Note1 : For the radiated spurious testing, the EUT attached with travel adapter for the worst case condition. The EUT is continuously communicated with the call box during the tests.

Note2 : Antenna switching-related actions according to foldable conditions were force operated and tested in factory mode.

Note 3: In this report, HF and FF denote Half-folded and Full-folded configurations, respectively.

LTE Band 41 (PC3) (ANT B) (ANT F)

LTE Band 41(PC3, Frequency range : 2496-2690 MHz) is covered by LTE Band 41 (PC2) (Frequency range: 2496-2690 MHz) due to same frequency range, same channel bandwidth and maximum tune-up limit is higher than LTE Band 41 (PC3).

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacture	Model	Serial Number	FCC ID
Charger	SAMSUNG	EP-TA800	R37N3FS0G88DK3	N/A
Data Cable	SAMSUNG	N/A	N/A	N/A

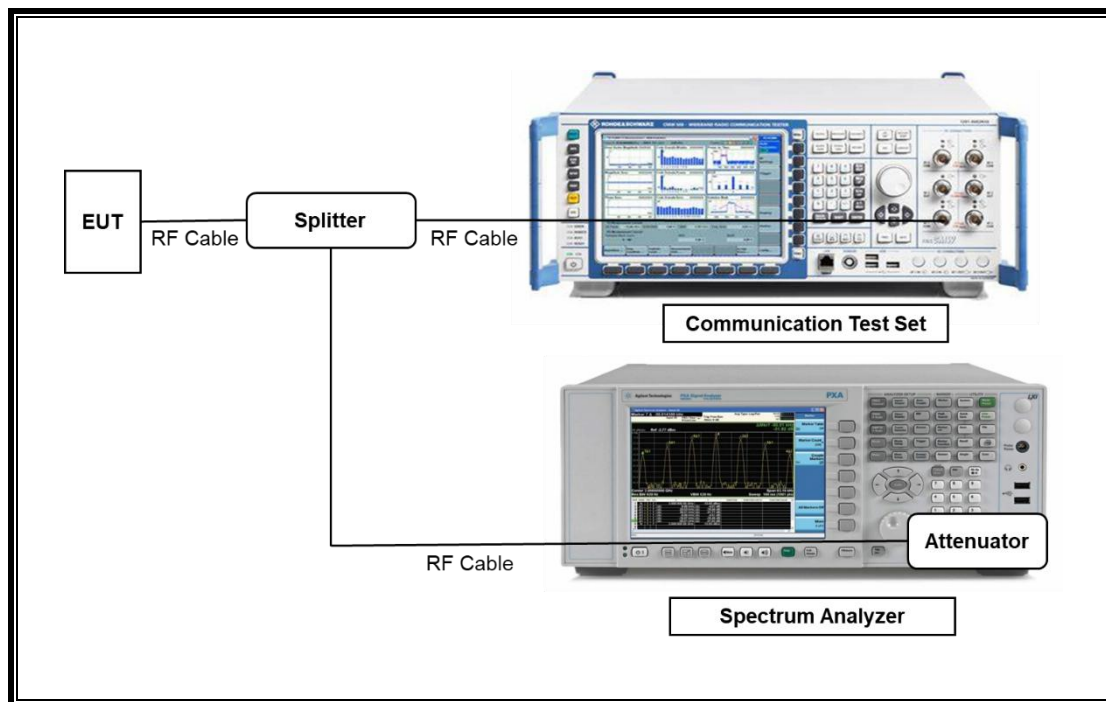
I/O CABLE

I/O Cable List						
Cable No.	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	DC Power	1	C Type	Shielded	1.0 m	N/A

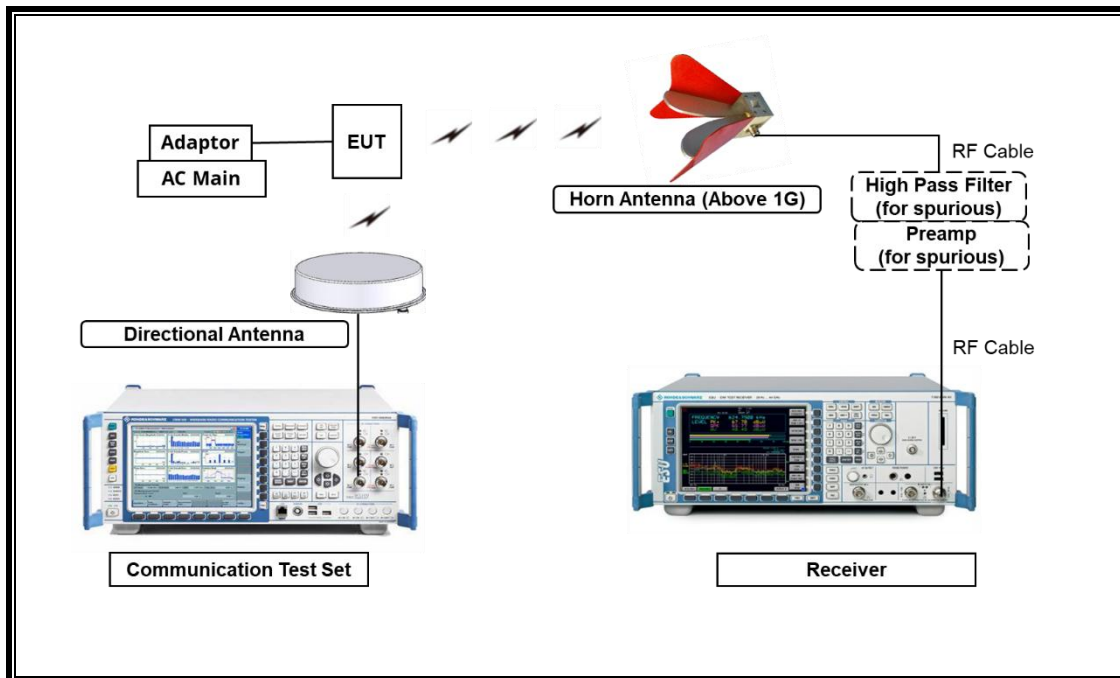
TEST SETUP

The EUT is continuously communicated with the call box during the tests.

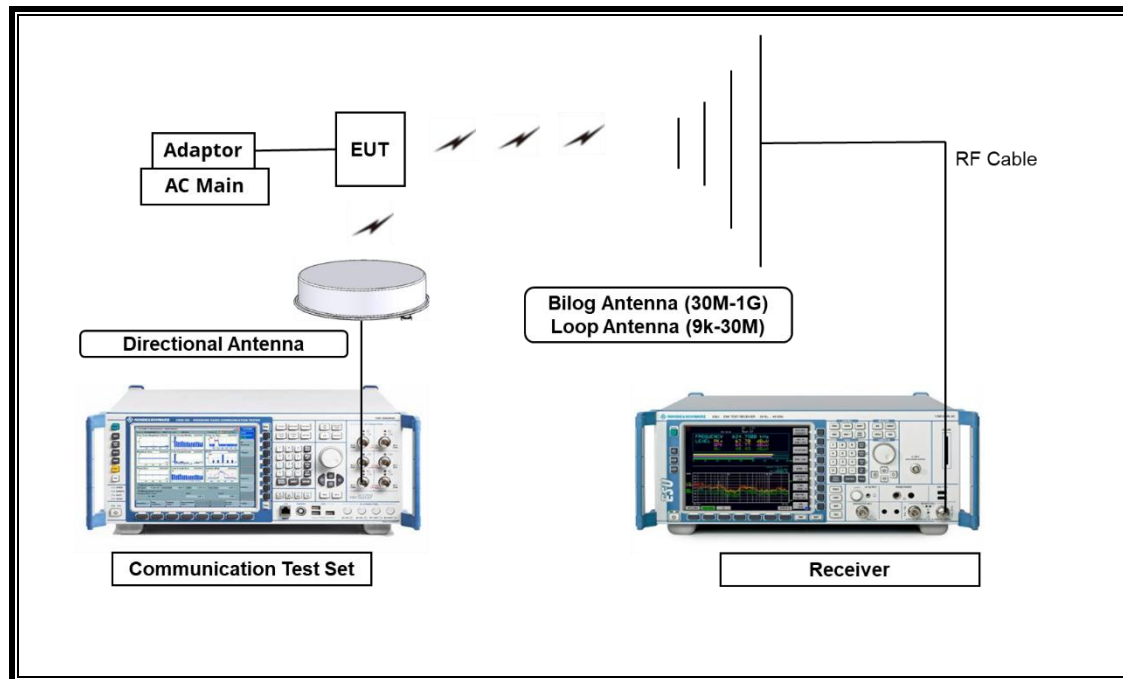
SETUP DIAGRAM FOR TESTS (CONDUCTED TEST SETUP)



SETUP DIAGRAM FOR TESTS (RADIATED TEST SETUP) Above 1G



SETUP DIAGRAM FOR TESTS (RADIATED TEST SETUP) Below 1G



6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

Test Equipment List				
Description	Manufacturer	Model	S/N	Cal Due
Antenna, Tuned Dipole 400~1000 MHz	ETS	3121D DB-4	00164753	2027-01-08
Directional Antenna	Cobham	FPA3-0.8-6.0R/1329	110367-0003	N/A
Directional Antenna	Cobham	FPA3-0.8-6.0R/1329	80108-0004	N/A
Antenna, Horn, 40 GHz	ETS	3116C	00166155	2026-07-23
Antenna, Horn, 40 GHz	ETS	3116C	00168645	2027-07-23
Preamplifier	ETS	3116C-PA	00168841	2026-07-28
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB 9163	750	2026-07-30
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB 9163	845	2026-07-30
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB 9163	749	2026-08-12
Antenna, Horn, 18 GHz	ETS	3115	00167211	2026-07-17
Antenna, Horn, 18 GHz	ETS	3115	00161451	2026-07-17
Antenna, Horn, 18 GHz	ETS	3117	00168724	2026-07-17
Antenna, Horn, 18 GHz	ETS	3117	00168717	2026-07-17
Communications Test Set	R&S	CMW500	169797	2026-07-21
DC Power Supply	KIKUSUI	PWR2001ML	AX001947	2026-07-23
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	2029169	2026-07-21
Preamplifier, 18 GHz	B&Z Technologies, LLC	BZR-01001800-231040-182020	28451	2026-07-21
Preamplifier, 18 GHz	B&Z Technologies, LLC	BZR-01001800-231040-181515	23576	2026-07-22
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	MY54170614	2026-07-21
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	MY54490312	2026-12-29
Spectrum Analyzer, 44 GHz	KEYSIGHT	N9030B	MY57143717	2026-07-21
EMI Test Receive, 40 GHz	R&S	ESU40	100439	2026-07-21
EMI Test Receive, 40 GHz	R&S	ESU40	100457	2026-07-21
High Pass Filter 1.2GHz	Micro-Tronics	HPM50108-02	G005	2026-07-23
High Pass Filter 1.2GHz	Micro-Tronics	HPM50108-02	G006	2026-07-23
High Pass Filter 2.8GHz	Micro-Tronics	HPM50111-02	010	2026-07-23
High Pass Filter 2.8GHz	Micro-Tronics	HPM50111-02	011	2026-07-23
High Pass Filter 4GHz	Micro-Tronics	HPM50118-02	G001	2026-07-23
High Pass Filter 4GHz	Micro-Tronics	HPM50118-02	G002	2026-07-23
Attenuator	PASTERNAK	PE7087-10	A009	2026-07-22
Attenuator	PASTERNAK	PE7087-10	A001	2026-07-22
Attenuator	PASTERNAK	PE7087-10	A008	2026-07-22
Attenuator	PASTERNAK	PE7004-10	2	2026-07-22
Attenuator	PASTERNAK	PE7395-10	A011	2026-07-22
Antenna, Loop, 9kHz-30MHz	R&S	HFH2-Z2E	100900	2027-07-24
Temperature Chamber	ESPEC	SH-642	93001109	2026-07-21
Power Splitter	MINI-CIRCUITS	WA1534	UL003	2026-12-29
Power Splitter	MINI-CIRCUITS	WA1534	UL004	2027-01-06
UXM 5G Wireless Test Platform	KEYSIGHT	E7515B	MY57510655	2026-12-30
Notch Filter	MICRO-TRONICS	BRC50705-02	G024	2026-07-23
Notch Filter	MICRO-TRONICS	BRM50702-02	G036	2026-07-23
Notch Filter	MICRO-TRONICS	BRM50707-02	G002	2026-07-23
Notch Filter	MICRO-TRONICS	BRM50709-02	G001	2026-07-23
Notch Filter	MICRO-TRONICS	BRM50713-02	G001	2026-07-23
Notch Filter	MICRO-TRONICS	BRM50716-2	006	2026-07-23
UL Software				
Description	Manufacturer	Model	Version	
Antenna port test software	UL	CLT	Ver 3.4	
Radiated software	UL	UL EMC	Ver 9.5	
Antenna port test software (5G NR FR1)	UL	UL iM	Ver 1.06	

7. SUMMARY TABLE

FCC Part Section	Test Description	Test Limit	Test Condition	Test Results
2.1046	Conducted Output Power	N/A	Conducted	Complies
2.1049	Occupied Bandwidth (99%)	N/A		Complies
27.53(m)	Conducted Spurious Emission	-25 dBm		Complies
27.53(m)	Emission Mask	Section 8.4.1		Complies
27.54	Frequency Stability	2.5 ppm		Complies
27.50(h)(2)	Effective Isotropic Radiated Power	33 dBm	Radiated	Complies
27.53(m)	Radiated Spurious Emission	-25 dBm		Complies

8. CONDUCTED RESULTS

8.1. CONDUCTED OUTPUT POWER

Test Procedure

Per KDB 971168 D01 Power Meas License Digital Systems v03r01;

The transmitter output was connected to either CMW500 Test Set or E7515B Test set and configured to operate at maximum power.

NOTE1

LTE, 5G NR : Conducted output power has been verified across Low, Mid, and High channels for each resource block configuration. Compliance of MPR (Maximum Power Reduction) and Tune-up limits has also been confirmed. Therefore, representative measurements at 1 RB and Full RB configurations are reported for each channel.

NOTE2

All Waveforms (CP-OFDM vs DFT-s_OFDM) and modulations ($\pi/2$ BPSK, QPSK, 16QAM, 64QAM, 256QAM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

RESULTS

See the following pages.

8.1.1. CONDUCTED AVERAGE OUTPUT POWER

LTE Band 41 (PC2) (ANT B)

BW (MHz)	Mode	RB Allocation	RB offset	39750	40620	41490
				2506.00 MHz	2593.00 MHz	2680.00 MHz
20 MHz	QPSK	1	0	25.53	25.30	25.48
		1	49	25.30	25.30	25.41
		1	99	25.35	25.10	25.13
		100	0	24.33	24.22	24.17
	16QAM	1	0	24.93	24.79	24.90
		1	49	24.86	24.83	24.70
		1	99	24.87	24.80	24.88
		100	0	23.39	23.46	23.26
	64QAM	1	0	23.72	23.41	23.79
		1	49	23.86	23.66	23.63
		1	99	23.77	23.57	23.38
		100	0	22.46	22.35	22.33
	256QAM	1	0	20.43	20.43	20.57
		1	49	20.65	20.79	20.46
		1	99	20.84	20.47	20.42
		100	0	20.34	20.23	20.20
BW (MHz)	Mode	RB Allocation	RB offset	39725	40620	41515
				2503.50 MHz	2593.00 MHz	2682.50 MHz
15 MHz	QPSK	1	0	25.30	25.26	25.30
		1	37	25.36	25.40	25.20
		1	74	25.21	25.31	25.16
		75	0	24.23	24.23	24.17
	16QAM	1	0	24.71	24.72	24.60
		1	37	25.20	24.73	24.65
		1	74	24.73	24.51	24.24
		75	0	23.38	23.21	23.18
	64QAM	1	0	24.08	23.79	23.53
		1	37	23.89	23.59	23.64
		1	74	23.85	23.62	23.45
		75	0	22.46	22.32	22.23
	256QAM	1	0	20.67	20.84	20.61
		1	37	20.98	20.71	20.55
		1	74	20.53	20.39	20.68
		75	0	20.41	20.23	20.10

BW (MHz)	Mode	RB Allocation	RB offset	39700	40620	41540
				2501.00 MHz	2593.00 MHz	2685.00 MHz
10 MHz	QPSK	1	0	25.38	25.32	25.27
		1	25	25.23	25.18	25.21
		1	49	25.12	25.21	25.15
		50	0	24.41	24.27	24.36
	16QAM	1	0	25.09	24.83	24.71
		1	25	24.74	24.58	24.45
		1	49	24.68	24.53	24.95
		50	0	23.40	23.31	23.28
	64QAM	1	0	23.78	23.47	23.76
		1	25	23.75	23.68	23.72
		1	49	23.80	23.57	23.43
		50	0	22.46	22.33	22.33
	256QAM	1	0	20.79	20.54	20.66
		1	25	20.74	20.53	20.61
		1	49	20.52	20.61	20.44
		50	0	20.41	20.26	20.27
BW (MHz)	Mode	RB Allocation	RB offset	39675	40620	41565
				2498.50 MHz	2593.00 MHz	2687.50 MHz
5 MHz	QPSK	1	0	25.54	25.15	25.15
		1	12	25.42	25.07	25.18
		1	24	25.36	25.05	25.04
		25	0	24.47	24.19	24.23
	16QAM	1	0	25.03	24.60	24.84
		1	12	24.99	24.64	24.93
		1	24	25.00	24.46	24.79
		25	0	23.45	23.23	23.36
	64QAM	1	0	23.67	23.55	23.49
		1	12	23.76	23.52	23.38
		1	24	23.77	23.41	23.58
		25	0	22.45	22.31	22.33
	256QAM	1	0	20.66	20.39	20.80
		1	12	20.88	20.68	20.55
		1	24	20.60	20.42	20.60
		25	0	20.48	20.23	20.22

LTE Band 41 (PC2) (ANT F)

BW (MHz)	Mode	RB Allocation	RB offset	39750	40620	41490
				2506.00 MHz	2593.00 MHz	2680.00 MHz
20 MHz	QPSK	1	0	25.62	25.32	25.57
		1	49	25.68	25.39	25.52
		1	99	25.50	25.34	25.36
		100	0	24.79	24.54	24.65
	16QAM	1	0	24.70	24.42	24.81
		1	49	24.88	25.02	24.82
		1	99	24.93	24.35	24.72
		100	0	23.75	23.45	23.54
	64QAM	1	0	23.87	23.82	24.04
		1	49	23.95	23.82	24.01
		1	99	23.90	23.38	23.79
		100	0	22.62	22.44	22.57
	256QAM	1	0	20.66	20.50	20.69
		1	49	20.69	20.75	20.86
		1	99	20.76	20.56	20.53
		100	0	20.51	20.46	20.52
BW (MHz)	Mode	RB Allocation	RB offset	39725	40620	41515
				2503.50 MHz	2593.00 MHz	2682.50 MHz
15 MHz	QPSK	1	0	25.57	25.38	25.67
		1	37	25.42	25.65	25.64
		1	74	25.47	25.66	25.25
		75	0	24.68	24.43	24.57
	16QAM	1	0	24.67	24.43	24.79
		1	37	24.86	24.88	24.64
		1	74	24.40	24.66	24.39
		75	0	23.62	23.53	23.45
	64QAM	1	0	23.79	23.54	23.74
		1	37	23.64	24.10	23.67
		1	74	24.08	23.55	23.74
		75	0	22.68	22.48	22.65
	256QAM	1	0	20.63	20.35	20.69
		1	37	20.56	20.57	20.84
		1	74	20.58	20.64	20.50
		75	0	20.58	20.50	20.49

BW (MHz)	Mode	RB Allocation	RB offset	39700	40620	41540
				2501.00 MHz	2593.00 MHz	2685.00 MHz
10 MHz	QPSK	1	0	25.34	25.40	25.60
		1	25	25.55	25.49	25.59
		1	49	25.54	25.46	25.44
		50	0	24.55	24.56	24.55
	16QAM	1	0	24.66	24.55	24.50
		1	25	24.91	24.61	24.87
		1	49	24.72	24.50	24.65
		50	0	23.58	23.46	23.56
	64QAM	1	0	23.86	23.48	23.64
		1	25	23.66	23.61	23.73
		1	49	23.51	23.71	23.72
		50	0	22.54	22.51	22.53
	256QAM	1	0	20.62	20.55	20.58
		1	25	20.61	20.74	20.59
		1	49	20.59	20.62	20.51
		50	0	20.58	20.50	20.52
BW (MHz)	Mode	RB Allocation	RB offset	39675	40620	41565
				2498.50 MHz	2593.00 MHz	2687.50 MHz
5 MHz	QPSK	1	0	25.47	25.35	25.47
		1	12	25.49	25.55	25.56
		1	24	25.43	25.34	25.38
		25	0	24.55	24.45	24.54
	16QAM	1	0	24.74	24.21	24.59
		1	12	24.44	24.78	24.71
		1	24	24.66	24.34	24.39
		25	0	23.56	23.47	23.51
	64QAM	1	0	23.75	23.59	23.48
		1	12	24.01	23.75	23.59
		1	24	23.83	23.54	23.54
		25	0	22.57	22.53	22.53
	256QAM	1	0	20.65	20.57	20.56
		1	12	20.61	20.70	20.57
		1	24	20.63	20.55	20.50
		25	0	20.50	20.46	20.47

NR Band n41 (PC3) (ANT B)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	509202	518598	528000
					2546.01 MHz	2592.99 MHz	2640.00 MHz
100 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.04	23.85	23.90
			1	1	23.94	24.57	24.65
			1	136	24.43	24.51	24.60
			1	271	24.43	24.79	24.63
			1	272	23.71	24.13	23.91
			270	0	23.79	24.09	24.18
		QPSK	1	0	22.53	23.34	23.35
			1	1	23.79	24.67	24.68
			1	136	24.31	24.49	24.55
			1	271	24.30	24.89	24.61
			1	272	23.02	23.59	23.30
			270	0	23.62	23.55	23.72
		16QAM	1	0	22.39	22.10	22.33
			1	1	23.65	23.48	23.56
			1	136	23.49	23.34	23.53
			1	271	23.90	23.77	23.53
			1	272	22.66	22.55	22.30
			270	0	22.58	22.51	22.66
		64QAM	1	1	21.72	21.96	21.99
		256QAM	1	1	19.93	19.64	19.76
	CP-OFDM	QPSK	1	0	21.43	21.51	21.72
			1	1	23.33	23.23	23.24
			1	137	23.02	23.12	23.36
			1	271	23.28	23.39	23.42
			1	272	21.65	21.74	21.58
			273	0	21.59	21.46	21.78
		16QAM	1	0	21.52	21.31	21.40
			1	1	22.54	22.37	22.53
			1	137	22.84	22.42	22.68
			1	271	22.85	22.84	22.48
			1	272	21.72	21.62	21.41
			273	0	21.56	21.53	21.67
		64QAM	1	1	20.84	20.70	20.92
		256QAM	1	1	18.00	17.81	18.00
90 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.19	23.94	24.16
			1	1	23.75	24.45	24.67
			1	123	24.40	24.50	24.63
			1	243	24.35	24.82	24.59
			1	244	23.77	24.32	23.98
			243	0	23.72	24.07	24.20
		QPSK	1	0	22.63	23.37	23.59
			1	1	23.74	24.49	24.66
			1	123	24.33	24.44	24.53
			1	243	24.31	24.83	24.59
			1	244	23.22	23.75	23.50
			243	0	23.19	23.56	23.69
		16QAM	1	1	22.50	23.41	23.58
			1	123	23.17	23.32	23.37
			1	243	23.21	23.81	23.44
		64QAM	1	1	21.08	21.92	22.11
		256QAM	1	1	18.92	19.64	19.86
	CP-OFDM	QPSK	1	1	22.39	23.19	23.28
					508200	518598	528996
					2541.00 MHz	2592.99 MHz	2644.98 MHz

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	507204	518598	529998
					2536.02 MHz	2592.99 MHz	2649.99 MHz
80 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.07	23.76	24.13
			1	1	23.70	24.41	24.67
			1	109	24.27	24.42	24.56
			1	215	24.30	24.75	24.58
			1	216	23.70	24.23	23.94
			216	0	23.73	24.05	24.27
		QPSK	1	0	22.58	23.24	23.54
			1	1	23.66	24.38	24.66
			1	109	24.22	24.39	24.45
			1	215	24.30	24.82	24.50
			1	216	23.16	23.59	23.42
			216	0	23.20	23.57	23.66
		16QAM	1	1	22.55	23.33	23.62
			1	109	23.13	23.38	23.49
			1	215	23.20	23.71	23.44
		64QAM	1	1	20.98	21.76	22.06
		256QAM	1	1	18.88	19.57	19.83
	CP-OFDM	QPSK	1	1	22.31	22.98	23.31
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	506202	518598	531000
					2531.02 MHz	2592.99 MHz	2655.00 MHz
70 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	22.98	23.64	24.13
			1	1	23.56	24.22	24.75
			1	95	24.18	24.46	24.49
			1	187	24.37	24.73	24.48
			1	188	23.75	24.18	23.87
			180	0	23.68	24.06	24.21
		QPSK	1	0	22.43	23.06	23.60
			1	1	23.56	24.24	24.71
			1	95	24.14	24.37	24.44
			1	187	24.33	24.69	24.44
			1	188	23.18	23.59	23.33
			180	0	23.20	23.57	23.67
		16QAM	1	1	22.46	23.22	23.58
			1	95	23.09	23.38	23.43
			1	187	23.18	23.69	23.39
		64QAM	1	1	20.97	21.64	22.08
		256QAM	1	1	18.74	19.39	19.91
	CP-OFDM	QPSK	1	1	22.23	22.92	23.24
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	505200	518598	513996
					2526.00 MHz	2592.99 MHz	2659.98 MHz
60 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	22.90	23.58	24.08
			1	1	23.52	24.15	24.59
			1	81	24.08	24.41	24.29
			1	160	24.34	24.64	24.36
			1	161	23.76	24.03	23.77
			162	0	23.64	24.01	23.96
		QPSK	1	0	22.41	23.07	23.50
			1	1	23.47	24.13	24.66
			1	81	23.98	24.36	24.28
			1	160	24.38	24.57	24.39
			1	161	23.25	23.58	23.30
			162	0	23.08	23.47	23.43
		16QAM	1	1	22.25	23.10	23.50
			1	81	22.78	23.25	23.16
			1	160	23.19	23.55	23.35
		64QAM	1	1	20.88	21.48	21.87
		256QAM	1	1	18.66	19.39	19.83
	CP-OFDM	QPSK	1	1	22.17	22.81	23.27

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	504204	518598	532998
					2521.01 MHz	2592.99 MHz	2665.00 MHz
50 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.15	23.91	24.17
			1	1	23.77	24.48	24.73
			1	67	24.23	24.63	24.49
			1	131	24.62	24.90	24.66
			1	132	24.04	24.36	24.11
			128	0	23.74	24.17	24.17
		QPSK	1	0	22.63	23.39	23.61
			1	1	23.68	24.44	24.71
			1	67	24.15	24.56	24.58
			1	131	24.44	24.91	24.67
			1	132	23.48	23.82	23.55
			128	0	23.20	23.71	23.66
		16QAM	1	1	22.84	23.40	23.58
			1	67	23.25	23.56	23.44
			1	131	23.68	23.89	23.51
		64QAM	1	1	21.16	21.82	22.08
		256QAM	1	1	18.94	19.71	19.94
	CP-OFDM	QPSK	1	1	22.40	23.08	23.31
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	503700	518598	533496
					2518.50 MHz	2592.99 MHz	2667.48 MHz
45 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.18	23.91	24.12
			1	1	23.76	24.61	24.76
			1	60	24.29	24.64	24.60
			1	117	24.57	24.95	24.72
			1	118	23.95	24.37	24.09
			108	0	23.76	24.21	24.17
		QPSK	1	0	22.70	23.35	23.67
			1	1	23.82	24.43	24.73
			1	60	24.14	24.58	24.55
			1	117	24.50	24.97	24.63
			1	118	23.46	23.81	23.58
			108	0	23.21	23.71	23.69
		16QAM	1	1	22.71	23.34	23.61
			1	60	23.11	23.39	23.36
			1	117	23.41	23.73	23.46
		64QAM	1	1	21.16	21.87	22.17
		256QAM	1	1	18.96	19.66	19.90
	CP-OFDM	QPSK	1	1	22.45	23.22	23.35
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	503202	518598	534000
					2516.01 MHz	2592.99 MHz	2670.00 MHz
40 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.04	23.77	23.97
			1	1	23.57	24.33	24.52
			1	53	24.02	24.49	24.48
			1	104	24.30	24.61	24.45
			1	105	23.74	24.00	23.83
			100	0	23.61	24.09	24.08
		QPSK	1	0	22.48	23.22	23.38
			1	1	23.57	24.33	24.44
			1	53	23.93	24.44	24.43
			1	104	24.26	24.57	24.41
			1	105	23.24	23.49	23.33
			100	0	23.10	23.55	23.56
		16QAM	1	1	22.60	23.29	23.41
			1	53	23.09	23.33	23.27
			1	104	23.36	23.49	23.23
		64QAM	1	1	20.95	21.68	21.91
		256QAM	1	1	18.71	19.55	19.72
	CP-OFDM	QPSK	1	1	22.14	22.95	23.11

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	507204	518598	534498
					2513.52 MHz	2592.99 MHz	2672.49 MHz
35 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.02	23.79	23.86
			1	1	23.66	24.39	24.47
			1	45	24.05	24.62	24.56
			1	90	24.34	24.63	24.48
			1	91	23.67	24.08	23.90
			90	0	23.52	24.08	24.07
		QPSK	1	0	22.50	23.27	23.31
			1	1	23.57	24.35	24.36
			1	45	23.92	24.53	24.43
			1	90	24.20	24.62	24.42
			1	91	23.17	23.53	23.37
			90	0	23.01	23.56	23.51
		16QAM	1	1	22.39	23.27	23.21
			1	45	22.73	23.32	23.20
			1	90	23.10	23.50	23.22
		64QAM	1	1	21.00	21.67	21.84
		256QAM	1	1	18.83	19.50	19.71
	CP-OFDM	QPSK	1	1	22.23	22.92	23.07
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	502200	518598	534996
					2511.00 MHz	2592.99 MHz	2675.00 MHz
30 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.08	23.85	23.95
			1	1	23.70	24.47	24.56
			1	39	23.87	24.50	24.52
			1	76	24.26	24.68	24.59
			1	77	23.67	24.14	23.86
			75	0	23.42	24.11	24.10
		QPSK	1	0	22.54	23.31	23.44
			1	1	23.65	24.48	24.51
			1	39	23.78	24.47	24.50
			1	76	24.24	24.70	24.51
			1	77	23.14	23.58	23.44
			75	0	22.89	23.56	23.57
		16QAM	1	1	22.49	23.45	23.31
			1	39	22.74	23.48	23.31
			1	76	23.13	23.65	23.31
		64QAM	1	1	21.05	21.86	21.89
		256QAM	1	1	18.87	19.62	19.70
	CP-OFDM	QPSK	1	1	22.34	23.07	23.12
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	501702	518598	535500
					2508.51 MHz	2592.99 MHz	2677.50 MHz
25 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.12	24.03	23.92
			1	1	23.76	24.58	24.57
			1	32	23.96	24.65	24.59
			1	63	24.23	24.66	24.58
			1	64	23.61	24.20	23.90
			64	0	23.44	24.11	24.09
		QPSK	1	0	22.58	23.43	23.41
			1	1	23.67	24.55	24.54
			1	32	23.84	24.55	24.57
			1	63	24.17	24.61	24.51
			1	64	23.09	23.61	23.44
			64	0	22.90	23.54	23.55
		16QAM	1	1	22.61	23.47	23.63
			1	32	22.72	23.41	23.30
			1	63	22.99	23.56	23.31
		64QAM	1	1	21.11	21.94	21.97
		256QAM	1	1	18.89	19.76	19.77
	CP-OFDM	QPSK	1	1	22.36	23.12	23.11

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	501204	518598	535998
					2506.02 MHz	2592.99 MHz	2679.99 MHz
20 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.02	23.82	23.83
			1	1	23.63	24.39	24.47
			1	26	23.78	24.51	24.50
			1	49	23.98	24.55	24.45
			1	50	23.37	24.00	23.89
			50	0	23.35	24.11	24.01
		QPSK	1	0	22.49	23.29	23.28
			1	1	23.54	24.36	24.40
			1	26	23.70	24.43	24.38
			1	49	23.87	24.54	24.39
			1	50	22.83	23.37	23.30
			50	0	22.81	23.55	23.57
		16QAM	1	1	22.49	23.35	23.17
			1	26	22.64	23.35	23.29
			1	49	22.78	23.43	23.18
		64QAM	1	1	20.99	21.73	21.85
		256QAM	1	1	18.78	19.57	19.65
	CP-OFDM	QPSK	1	1	22.14	22.99	23.00
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	500700	518598	536496
					2503.50 MHz	2592.99 MHz	2682.48 MHz
15 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.07	23.91	23.97
			1	1	23.67	24.47	24.54
			1	19	23.81	24.53	24.46
			1	36	23.91	24.68	24.52
			1	37	23.37	24.07	23.94
			36	0	23.32	24.11	24.04
		QPSK	1	0	22.55	23.34	23.43
			1	1	23.61	24.40	24.32
			1	19	23.71	24.49	24.34
			1	36	23.86	24.58	24.43
			1	37	22.83	23.54	23.38
			36	0	22.81	23.55	23.49
		16QAM	1	1	22.55	23.25	23.34
			1	19	22.49	23.28	23.21
			1	36	22.70	23.41	23.29
		64QAM	1	1	21.07	21.84	21.88
		256QAM	1	1	18.72	19.65	19.59
	CP-OFDM	QPSK	1	1	22.23	23.06	23.06
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	500202	518598	537000
					2501.01 MHz	2592.99 MHz	2685.00 MHz
10 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.09	23.96	23.88
			1	1	23.72	24.49	24.52
			1	12	23.70	24.56	24.51
			1	22	23.84	24.56	24.54
			1	23	23.21	23.93	23.93
			24	0	23.23	24.13	23.99
		QPSK	1	0	22.53	23.35	23.31
			1	1	23.65	24.44	24.43
			1	12	23.63	24.49	24.42
			1	22	23.75	24.55	24.51
			1	23	22.66	23.41	23.37
			24	0	22.71	23.57	23.52
		16QAM	1	1	22.56	23.28	23.28
			1	12	22.50	23.30	23.21
			1	22	22.69	23.33	23.26
		64QAM	1	1	21.06	21.80	21.85
		256QAM	1	1	18.90	19.79	19.58
	CP-OFDM	QPSK	1	1	22.26	23.15	23.03

NR Band n41 (PC3) SRS2 (ANT F) / SRS3 (ANT C) / SRS4 (ANT E)

Maximum Average Power (dBm) SRS2			Tune-up Limit	Maximum Average Power (dBm) SRS3			Tune-up Limit	Maximum Average Power (dBm) SRS4			Tune-up Limit
			24.5				24.5				23.0
BW (MHz)	RB Allocation	RB offset	MPR	BW (MHz)	RB Allocation	RB offset	MPR	BW (MHz)	RB Allocation	RB offset	MPR
	1	1	0.0		1	1	0.0		1	1	0.0
	Measured Pwr (dBm)				Measured Pwr (dBm)				Measured Pwr (dBm)		
100 MHz	509202	518598	528000	100 MHz	509202	518598	528000	100 MHz	509202	518598	528000
	2546.01 MHz	2592.99 MHz	2640.00 MHz		2546.01 MHz	2592.99 MHz	2640.00 MHz		2546.01 MHz	2592.99 MHz	2640.00 MHz
	23.43	24.43	24.45		24.32	24.48	24.49		20.98	22.13	22.38
90 MHz	508200	518598	528996	90 MHz	508200	518598	528996	90 MHz	508200	518598	528996
	2541.00 MHz	2592.99 MHz	2644.98 MHz		2541.00 MHz	2592.99 MHz	2644.98 MHz		2541.00 MHz	2592.99 MHz	2644.98 MHz
	23.41	24.38	24.44		24.28	24.45	24.48		21.03	22.08	22.31
80 MHz	507204	518598	529998	80 MHz	507204	518598	529998	80 MHz	507204	518598	529998
	2536.02 MHz	2592.99 MHz	2649.99 MHz		2536.02 MHz	2592.99 MHz	2649.99 MHz		2536.02 MHz	2592.99 MHz	2649.99 MHz
	23.42	24.42	24.41		24.23	24.43	24.43		21.97	21.98	22.24
70 MHz	506202	518598	531000	70 MHz	506202	518598	531000	70 MHz	506202	518598	531000
	2531.01 MHz	2592.99 MHz	2655.00 MHz		2531.01 MHz	2592.99 MHz	2655.00 MHz		2531.01 MHz	2592.99 MHz	2655.00 MHz
	23.38	24.41	24.43		24.21	24.41	24.45		20.88	21.89	22.07
60 MHz	505200	518598	531996	60 MHz	505200	518598	531996	60 MHz	505200	518598	531996
	2526.00 MHz	2592.99 MHz	2659.98 MHz		2526.00 MHz	2592.99 MHz	2659.98 MHz		2526.00 MHz	2592.99 MHz	2659.98 MHz
	23.44	24.44	24.41		24.18	24.36	24.48		20.95	22.06	22.01
50 MHz	504204	518598	532998	50 MHz	504204	518598	532998	50 MHz	504204	518598	532998
	2521.02 MHz	2592.99 MHz	2664.99 MHz		2521.02 MHz	2592.99 MHz	2664.99 MHz		2521.02 MHz	2592.99 MHz	2664.99 MHz
	23.42	24.41	24.39		24.25	24.43	24.45		22.03	22.15	22.05
45 MHz	503700	518598	533496	45 MHz	503700	518598	533496	45 MHz	503700	518598	533496
	2518.50 MHz	2592.99 MHz	2667.48 MHz		2518.50 MHz	2592.99 MHz	2667.48 MHz		2518.50 MHz	2592.99 MHz	2667.48 MHz
	23.41	24.40	24.38		24.18	24.44	24.42		21.01	22.21	21.94
40 MHz	503202	518598	534000	40 MHz	503202	518598	534000	40 MHz	503202	518598	534000
	2516.01 MHz	2592.99 MHz	2670.00 MHz		2516.01 MHz	2592.99 MHz	2670.00 MHz		2516.01 MHz	2592.99 MHz	2670.00 MHz
	23.39	24.41	24.32		24.23	24.39	24.41		20.98	22.18	21.63
35 MHz	502704	518598	534498	35 MHz	502704	518598	534498	35 MHz	502704	518598	534498
	2513.52 MHz	2592.99 MHz	2672.49 MHz		2513.52 MHz	2592.99 MHz	2672.49 MHz		2513.52 MHz	2592.99 MHz	2672.49 MHz
	23.33	24.44	24.28		24.18	24.45	24.38		21.01	22.13	21.45
30 MHz	502200	518598	534996	30 MHz	502200	518598	534996	30 MHz	502200	518598	534996
	2511.00 MHz	2592.99 MHz	2675.00 MHz		2511.00 MHz	2592.99 MHz	2675.00 MHz		2511.00 MHz	2592.99 MHz	2675.00 MHz
	23.25	24.41	24.22		24.15	24.47	24.42		20.97	22.15	21.33
25 MHz	501702	518598	535500	25 MHz	501702	518598	535500	25 MHz	501702	518598	535500
	2508.51 MHz	2592.99 MHz	2677.50 MHz		2508.51 MHz	2592.99 MHz	2677.50 MHz		2508.51 MHz	2592.99 MHz	2677.50 MHz
	23.21	24.43	24.25		24.18	24.45	24.38		20.88	22.19	21.36
20 MHz	501204	518598	535998	20 MHz	501204	518598	535998	20 MHz	501204	518598	535998
	2506.02 MHz	2592.99 MHz	2679.99 MHz		2506.02 MHz	2592.99 MHz	2679.99 MHz		2506.02 MHz	2592.99 MHz	2679.99 MHz
	23.18	24.41	24.21		24.15	24.42	24.31		20.81	22.22	21.29
15 MHz	500700	518598	536496	15 MHz	500700	518598	536496	15 MHz	500700	518598	536496
	2503.50 MHz	2592.99 MHz	2682.48 MHz		2503.50 MHz	2592.99 MHz	2682.48 MHz		2503.50 MHz	2592.99 MHz	2682.48 MHz
	23.13	24.44	24.19		24.22	24.43	24.21		20.77	22.18	21.31
10 MHz	500202	518598	537000	10 MHz	500202	518598	537000	10 MHz	500202	518598	537000
	2501.01 MHz	2592.99 MHz	2685.00 MHz		2501.01 MHz	2592.99 MHz	2685.00 MHz		2501.01 MHz	2592.99 MHz	2685.00 MHz
	23.12	24.42	24.16		24.19	24.45	24.13		20.74	22.21	21.38

NR Band n41 (PC3) (ANT F)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	509202	518598	528000
					2546.01 MHz	2592.99 MHz	2640.00 MHz
100 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.84	22.91	23.32
			1	1	24.41	23.57	23.86
			1	136	23.60	23.85	24.36
			1	271	23.88	24.57	24.21
			1	272	23.21	23.89	23.59
			270	0	23.41	23.50	23.82
		QPSK	1	0	23.26	22.44	22.86
			1	1	24.43	23.61	23.96
			1	136	23.70	23.90	24.45
			1	271	23.98	24.64	24.33
			1	272	22.88	23.49	23.15
			270	0	22.97	23.01	23.32
		16QAM	1	0	22.44	21.57	22.00
			1	1	23.37	22.75	22.94
			1	136	22.56	23.02	23.42
			1	271	23.11	23.59	23.36
			1	272	21.75	22.42	22.09
			270	0	22.05	21.96	22.30
		64QAM	1	1	21.62	20.93	21.35
		256QAM	1	1	19.76	19.03	19.37
	CP-OFDM	QPSK	1	0	21.32	20.36	20.67
			1	1	23.16	22.31	22.57
			1	137	22.27	22.44	23.03
			1	271	22.55	23.24	22.87
			1	272	20.78	21.42	21.11
			270	0	20.93	21.05	21.35
		16QAM	1	0	21.42	20.52	20.90
			1	1	22.73	21.94	22.06
			1	137	21.74	21.94	22.47
			1	271	21.96	22.85	22.59
			1	272	20.52	21.58	21.24
			270	0	20.93	21.01	21.30
		64QAM	1	1	20.83	19.96	20.11
		256QAM	1	1	17.89	17.18	17.50
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	508200	518598	528996
					2541.00 MHz	2592.99 MHz	2644.98 MHz
90 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.86	23.02	23.51
			1	1	24.57	23.75	24.26
			1	123	23.93	23.89	24.45
			1	243	24.01	24.66	24.37
			1	244	23.25	23.94	23.68
			243	0	23.66	23.55	23.92
		QPSK	1	0	23.32	22.60	23.08
			1	1	24.47	23.81	24.29
			1	123	23.89	23.92	24.52
			1	243	23.98	24.68	24.39
			1	244	22.82	23.52	23.13
			243	0	23.14	23.08	23.39
		16QAM	1	1	23.56	22.90	23.38
			1	123	22.80	22.99	23.57
			1	243	23.11	23.76	23.24
		64QAM	1	1	21.71	21.00	21.48
		256QAM	1	1	19.90	19.02	19.57
	CP-OFDM	QPSK	1	1	23.15	22.39	22.76

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	507204	518598	529998
					2536.02 MHz	2592.99 MHz	2649.99 MHz
80 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.84	22.98	23.68
			1	1	24.41	23.62	24.23
			1	108	23.81	23.81	24.27
			1	215	23.86	24.61	24.20
			1	216	23.22	23.94	23.53
			216	0	23.65	23.56	23.91
		QPSK	1	0	23.37	22.56	23.27
			1	1	24.47	23.70	24.32
			1	108	23.89	23.84	24.33
			1	215	23.92	24.63	24.20
			1	216	22.84	23.57	23.12
			216	0	23.14	23.10	23.50
		16QAM	1	1	23.66	22.60	23.44
			1	108	23.04	22.87	23.53
			1	215	22.96	23.56	23.32
		64QAM	1	1	21.68	20.84	21.62
		256QAM	1	1	19.85	18.98	19.69
	CP-OFDM	QPSK	1	1	23.17	22.15	22.84
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	506202	518598	531000
					2531.02 MHz	2592.99 MHz	2655.00 MHz
70 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.73	22.95	23.87
			1	1	24.26	23.50	24.42
			1	94	23.95	23.84	24.33
			1	187	23.70	24.50	24.14
			1	188	23.22	23.84	23.57
			180	0	23.57	23.44	23.88
		QPSK	1	0	23.29	22.54	23.38
			1	1	24.25	23.52	24.31
			1	94	23.94	23.86	24.34
			1	187	23.74	24.53	24.06
			1	188	22.75	23.42	23.11
			180	0	23.07	22.99	23.42
		16QAM	1	1	23.32	22.43	23.31
			1	94	22.99	22.91	23.30
			1	187	23.01	23.54	23.06
		64QAM	1	1	21.48	20.75	21.64
		256QAM	1	1	19.69	18.79	19.70
	CP-OFDM	QPSK	1	1	23.03	22.13	22.98
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	505200	518598	513996
					2526.00 MHz	2592.99 MHz	2659.98 MHz
60 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.70	22.93	23.83
			1	1	24.14	23.59	24.44
			1	80	23.99	23.75	24.17
			1	160	23.56	24.39	24.08
			1	161	23.10	23.79	23.47
			162	0	23.59	23.48	23.83
		QPSK	1	0	23.22	22.51	23.37
			1	1	24.27	23.61	24.46
			1	80	23.92	23.74	24.19
			1	160	23.79	24.42	24.13
			1	161	22.64	23.35	23.05
			162	0	23.11	23.02	23.33
		16QAM	1	1	23.26	22.36	23.44
			1	80	23.10	22.72	23.32
			1	160	22.77	23.34	22.99
		64QAM	1	1	21.40	20.70	21.66
		256QAM	1	1	19.52	18.80	19.73
	CP-OFDM	QPSK	1	1	22.88	22.09	23.08

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	504204	518598	532998
					2521.01 MHz	2592.99 MHz	2665.00 MHz
50 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	24.00	23.21	24.06
			1	1	24.61	23.86	24.63
			1	66	24.21	24.01	24.37
			1	131	24.05	24.63	24.37
			1	132	23.58	24.00	23.77
			128	0	23.82	23.60	23.92
		QPSK	1	0	23.52	22.75	23.53
			1	1	24.52	23.82	24.68
			1	66	24.21	24.01	24.43
			1	131	24.17	24.69	24.35
			1	132	23.10	23.59	23.30
			128	0	23.29	23.13	23.50
		16QAM	1	1	23.48	22.76	23.55
			1	66	23.18	23.08	23.36
			1	131	23.12	23.61	23.42
		64QAM	1	1	21.83	21.11	21.88
		256QAM	1	1	19.92	19.14	19.99
	CP-OFDM	QPSK	1	1	23.22	22.38	23.22
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	503700	518598	533496
					2518.50 MHz	2592.99 MHz	2667.48 MHz
45 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	24.01	23.24	24.03
			1	1	24.58	23.86	24.67
			1	60	24.21	24.02	24.38
			1	117	24.30	24.47	24.39
			1	118	23.63	23.84	23.75
			108	0	23.95	23.60	23.97
		QPSK	1	0	23.53	22.83	23.63
			1	1	24.55	23.88	24.71
			1	60	24.25	24.07	24.44
			1	117	24.31	24.54	24.38
			1	118	23.20	23.48	23.33
			108	0	23.42	23.07	23.51
		16QAM	1	1	23.70	22.97	23.52
			1	60	23.48	23.01	23.35
			1	117	23.16	23.43	23.37
		64QAM	1	1	21.79	20.98	21.77
		256QAM	1	1	20.00	19.19	19.91
	CP-OFDM	QPSK	1	1	23.23	22.42	23.30
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	503202	518598	534000
					2516.01 MHz	2592.99 MHz	2670.00 MHz
40 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.80	22.96	23.77
			1	1	24.26	23.59	24.37
			1	52	24.23	23.88	24.25
			1	104	24.03	24.33	24.13
			1	105	23.40	23.63	23.53
			100	0	23.92	23.60	23.97
		QPSK	1	0	23.26	22.58	23.30
			1	1	24.31	23.65	24.41
			1	52	24.24	23.91	24.23
			1	104	24.04	24.26	24.13
			1	105	22.95	23.18	23.10
			100	0	23.39	23.08	23.48
		16QAM	1	1	23.51	22.71	23.34
			1	52	23.41	23.05	23.22
			1	104	23.10	23.13	23.07
		64QAM	1	1	21.58	20.83	21.66
		256QAM	1	1	19.66	18.97	19.79
	CP-OFDM	QPSK	1	1	22.90	22.19	23.01

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	507204	518598	534498
					2513.52 MHz	2592.99 MHz	2672.49 MHz
35 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.86	23.19	23.82
			1	1	24.33	23.70	24.41
			1	45	24.24	23.98	24.26
			1	90	24.06	24.14	24.08
			1	91	23.55	23.60	23.56
			90	0	23.83	23.48	23.75
		QPSK	1	0	23.27	22.72	23.39
			1	1	24.27	23.60	24.41
			1	45	24.35	24.00	24.31
			1	90	24.09	24.16	24.12
			1	91	23.08	23.15	23.12
			90	0	23.29	22.95	23.30
		16QAM	1	1	23.47	22.60	23.32
			1	45	23.18	22.89	23.18
			1	90	23.05	23.11	23.11
		64QAM	1	1	21.52	20.86	21.53
		256QAM	1	1	19.82	19.08	19.86
	CP-OFDM	QPSK	1	1	23.11	22.33	23.07
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	502200	518598	534996
					2511.00 MHz	2592.99 MHz	2675.00 MHz
30 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.89	23.26	23.80
			1	1	24.39	23.84	24.39
			1	39	24.28	23.98	24.26
			1	76	24.27	24.29	24.21
			1	77	23.66	23.64	23.56
			75	0	23.77	23.47	23.78
		QPSK	1	0	23.42	22.81	23.37
			1	1	24.54	23.91	24.46
			1	39	24.30	24.03	24.30
			1	76	24.29	24.29	24.25
			1	77	23.19	23.18	23.17
			75	0	23.27	23.00	23.24
		16QAM	1	1	23.52	22.69	23.39
			1	39	23.18	23.11	23.23
			1	76	23.36	23.18	23.18
		64QAM	1	1	21.56	20.97	21.71
		256QAM	1	1	19.84	19.25	19.83
	CP-OFDM	QPSK	1	1	23.13	22.42	23.07
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	501702	518598	535500
					2508.51 MHz	2592.99 MHz	2677.50 MHz
25 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.95	23.29	23.88
			1	1	24.53	23.95	24.47
			1	32	24.38	24.03	24.26
			1	63	24.18	24.28	24.21
			1	64	23.67	23.65	23.63
			64	0	23.89	23.44	23.73
		QPSK	1	0	23.37	22.84	23.42
			1	1	24.59	23.97	24.47
			1	32	24.45	24.08	24.29
			1	63	24.34	24.20	24.26
			1	64	23.24	23.24	23.17
			64	0	23.37	22.97	23.24
		16QAM	1	1	23.42	22.82	23.56
			1	32	23.34	22.99	23.39
			1	63	23.26	23.29	23.33
		64QAM	1	1	21.75	21.19	21.72
		256QAM	1	1	19.91	19.30	19.84
	CP-OFDM	QPSK	1	1	23.38	22.54	23.07

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	501204	518598	535998
					2506.02 MHz	2592.99 MHz	2679.99 MHz
20 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.63	23.18	23.61
			1	1	24.38	23.85	24.23
			1	26	24.30	24.07	24.31
			1	49	24.22	24.08	24.13
			1	50	23.62	23.46	23.54
			50	0	23.88	23.59	23.83
		QPSK	1	0	23.29	22.71	23.17
			1	1	24.39	23.82	24.25
			1	26	24.30	24.10	24.25
			1	49	24.23	24.13	24.14
			1	50	23.10	23.04	23.07
			50	0	23.36	23.13	23.27
		16QAM	1	1	23.44	22.87	23.19
			1	26	23.44	22.93	23.18
			1	49	23.30	23.15	23.08
		64QAM	1	1	21.44	21.01	21.49
		256QAM	1	1	19.66	19.18	19.52
	CP-OFDM	QPSK	1	1	23.07	22.29	22.69
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	500700	518598	536496
					2503.50 MHz	2592.99 MHz	2682.48 MHz
15 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.80	23.26	23.65
			1	1	24.31	23.87	24.32
			1	19	24.35	24.00	24.23
			1	36	24.28	24.13	24.21
			1	37	23.65	23.51	23.61
			36	0	23.78	23.38	23.67
		QPSK	1	0	23.31	22.80	22.78
			1	1	24.34	23.93	23.91
			1	19	24.35	24.07	24.00
			1	36	24.29	24.21	24.21
			1	37	23.23	23.07	23.10
			36	0	23.28	23.04	22.99
		16QAM	1	1	23.43	22.93	22.90
			1	19	23.25	23.08	22.96
			1	36	23.34	23.19	23.13
		64QAM	1	1	21.49	21.17	21.09
		256QAM	1	1	19.70	19.24	19.33
	CP-OFDM	QPSK	1	1	23.10	22.49	22.50
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	500202	518598	537000
					2501.01 MHz	2592.99 MHz	2685.00 MHz
10 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.80	23.29	23.61
			1	1	24.46	23.90	24.16
			1	12	24.38	24.03	24.27
			1	22	24.40	24.13	24.15
			1	23	23.79	23.47	23.61
			24	0	23.87	23.36	23.69
		QPSK	1	0	23.27	22.85	23.21
			1	1	24.45	24.04	24.34
			1	12	24.45	23.99	24.29
			1	22	24.45	24.24	24.33
			1	23	23.27	22.98	23.15
			24	0	23.30	22.93	23.22
		16QAM	1	1	23.34	22.86	23.35
			1	12	23.31	22.87	23.30
			1	22	23.56	22.95	23.33
		64QAM	1	1	21.56	21.18	21.54
		256QAM	1	1	19.77	19.33	19.70
	CP-OFDM	QPSK	1	1	23.04	22.57	22.89

NR Band n41 (PC3) SRS2 (ANT B) / SRS3 (ANT E) / SRS4 (ANT C)

Maximum Average Power (dBm) SRS2			Tune-up Limit	Maximum Average Power (dBm) SRS3			Tune-up Limit	Maximum Average Power (dBm) SRS4			Tune-up Limit
			24.0				24.0				23.5
BW (MHz)	RB Allocation	RB offset	MPR	BW (MHz)	RB Allocation	RB offset	MPR	BW (MHz)	RB Allocation	RB offset	MPR
	1	1	0.0		1	1	0.0		1	1	0.0
	Measured Pwr (dBm)				Measured Pwr (dBm)				Measured Pwr (dBm)		
100 MHz	509202	518598	528000	100 MHz	509202	518598	528000	100 MHz	509202	518598	528000
	2546.01 MHz	2592.99 MHz	2640.00 MHz		2546.01 MHz	2592.99 MHz	2640.00 MHz		2546.01 MHz	2592.99 MHz	2640.00 MHz
	22.41	23.61	23.44		22.23	22.83	22.79		21.76	23.13	22.98
90 MHz	508200	518598	528996	90 MHz	508200	518598	528996	90 MHz	508200	518598	528996
	2541.00 MHz	2592.99 MHz	2644.98 MHz		2541.00 MHz	2592.99 MHz	2644.98 MHz		2541.00 MHz	2592.99 MHz	2644.98 MHz
	22.25	23.63	23.41		22.19	22.81	22.75		21.71	22.08	22.95
80 MHz	507204	518598	529998	80 MHz	507204	518598	529998	80 MHz	507204	518598	529998
	2536.02 MHz	2592.99 MHz	2649.99 MHz		2536.02 MHz	2592.99 MHz	2649.99 MHz		2536.02 MHz	2592.99 MHz	2649.99 MHz
	22.12	23.68	23.43		22.14	22.71	22.71		21.68	23.02	22.98
70 MHz	506202	518598	531000	70 MHz	506202	518598	531000	70 MHz	506202	518598	531000
	2531.01 MHz	2592.99 MHz	2655.00 MHz		2531.01 MHz	2592.99 MHz	2655.00 MHz		2531.01 MHz	2592.99 MHz	2655.00 MHz
	22.08	23.55	23.41		22.22	22.68	22.65		21.61	23.06	23.03
60 MHz	505200	518598	531996	60 MHz	505200	518598	531996	60 MHz	505200	518598	531996
	2526.00 MHz	2592.99 MHz	2659.98 MHz		2526.00 MHz	2592.99 MHz	2659.98 MHz		2526.00 MHz	2592.99 MHz	2659.98 MHz
	21.98	23.43	23.28		22.28	22.71	22.61		21.43	23.13	23.01
50 MHz	504204	518598	532998	50 MHz	504204	518598	532998	50 MHz	504204	518598	532998
	2521.02 MHz	2592.99 MHz	2664.99 MHz		2521.02 MHz	2592.99 MHz	2664.99 MHz		2521.02 MHz	2592.99 MHz	2664.99 MHz
	22.05	23.48	23.34		22.31	22.84	22.60		21.58	23.08	22.99
45 MHz	503700	518598	533496	45 MHz	503700	518598	533496	45 MHz	503700	518598	533496
	2518.50 MHz	2592.99 MHz	2667.48 MHz		2518.50 MHz	2592.99 MHz	2667.48 MHz		2518.50 MHz	2592.99 MHz	2667.48 MHz
	22.05	23.53	23.48		22.25	22.79	22.58		21.74	23.14	22.98
40 MHz	503202	518598	534000	40 MHz	503202	518598	534000	40 MHz	503202	518598	534000
	2516.01 MHz	2592.99 MHz	2670.00 MHz		2516.01 MHz	2592.99 MHz	2670.00 MHz		2516.01 MHz	2592.99 MHz	2670.00 MHz
	22.01	23.48	23.41		22.21	22.73	22.45		21.79	23.15	22.76
35 MHz	502704	518598	534498	35 MHz	502704	518598	534498	35 MHz	502704	518598	534498
	2513.52 MHz	2592.99 MHz	2672.49 MHz		2513.52 MHz	2592.99 MHz	2672.49 MHz		2513.52 MHz	2592.99 MHz	2672.49 MHz
	22.05	23.54	23.48		22.13	22.68	22.33		21.84	23.18	22.65
30 MHz	502200	518598	534996	30 MHz	502200	518598	534996	30 MHz	502200	518598	534996
	2511.00 MHz	2592.99 MHz	2675.00 MHz		2511.00 MHz	2592.99 MHz	2675.00 MHz		2511.00 MHz	2592.99 MHz	2675.00 MHz
	22.03	23.61	23.54		22.18	22.70	22.28		21.82	23.21	22.57
25 MHz	501702	518598	535500	25 MHz	501702	518598	535500	25 MHz	501702	518598	535500
	2508.51 MHz	2592.99 MHz	2677.50 MHz		2508.51 MHz	2592.99 MHz	2677.50 MHz		2508.51 MHz	2592.99 MHz	2677.50 MHz
	22.01	23.56	23.49		22.22	22.73	22.21		21.85	23.28	22.49
20 MHz	501204	518598	535998	20 MHz	501204	518598	535998	20 MHz	501204	518598	535998
	2506.02 MHz	2592.99 MHz	2679.99 MHz		2506.02 MHz	2592.99 MHz	2679.99 MHz		2506.02 MHz	2592.99 MHz	2679.99 MHz
	22.03	23.48	23.38		22.26	22.76	22.15		21.81	23.19	22.41
15 MHz	500700	518598	536496	15 MHz	500700	518598	536496	15 MHz	500700	518598	536496
	2503.50 MHz	2592.99 MHz	2682.48 MHz		2503.50 MHz	2592.99 MHz	2682.48 MHz		2503.50 MHz	2592.99 MHz	2682.48 MHz
	22.01	23.43	23.41		22.21	22.71	22.08		21.76	23.15	22.35
10 MHz	500202	518598	537000	10 MHz	500202	518598	537000	10 MHz	500202	518598	537000
	2501.01 MHz	2592.99 MHz	2685.00 MHz		2501.01 MHz	2592.99 MHz	2685.00 MHz		2501.01 MHz	2592.99 MHz	2685.00 MHz
	21.94	23.47	23.37		22.23	22.73	22.03		21.75	23.18	22.31

8.2. PEAK TO AVERAGE RATIO

Test Procedure

Per KDB 971168 D01 Power Meas License Digital Systems v03r01;

The transmitter output was connected to either CMW500 Test Set or E7515B Test set and configured to operate at maximum power. The PAR were measured on the Spectrum Analyzer.

Test Spec

In addition, when the transmitter power is measured in terms of average value, the peak-to-average ratio of the power shall not exceed 13 dB.

NOTE

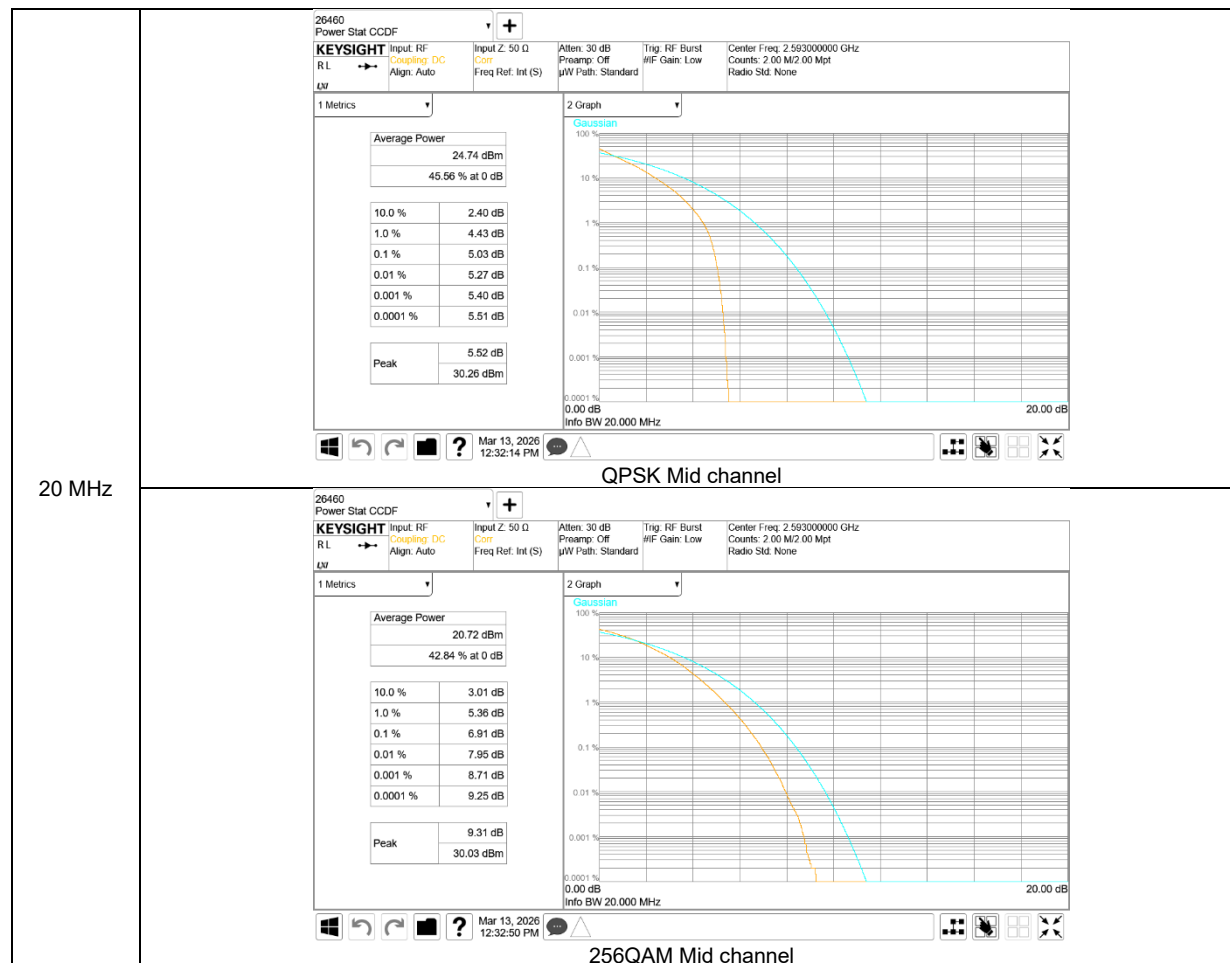
All Waveforms (CP-OFDM vs DFT-s_OFDM) and modulations ($\pi/2$ BPSK, QPSK, 16QAM, 64QAM, 256QAM) were investigated to determine the worst case configuration. All Modes of operation were investigated and the worst case configuration results are reported in this section.

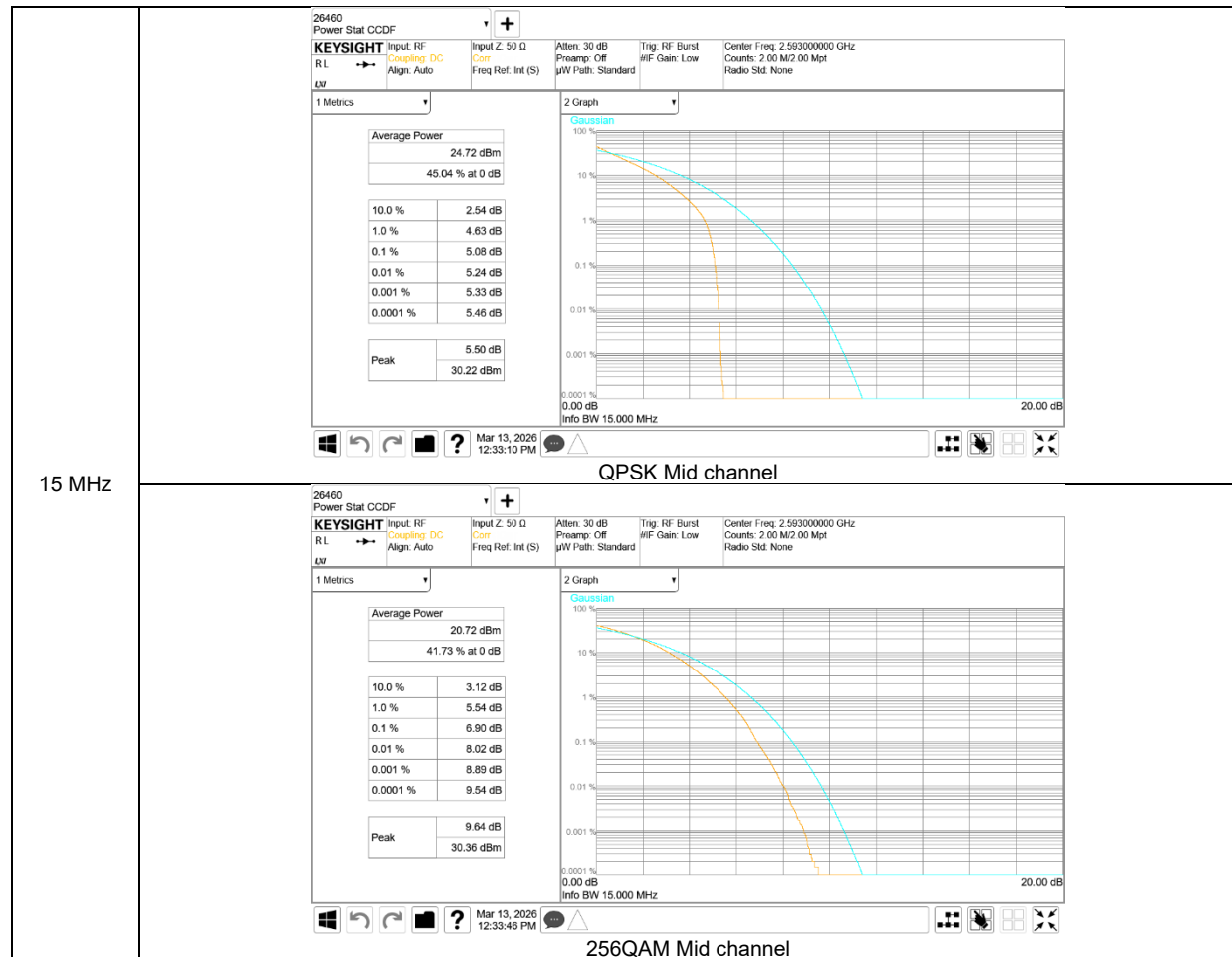
RESULTS

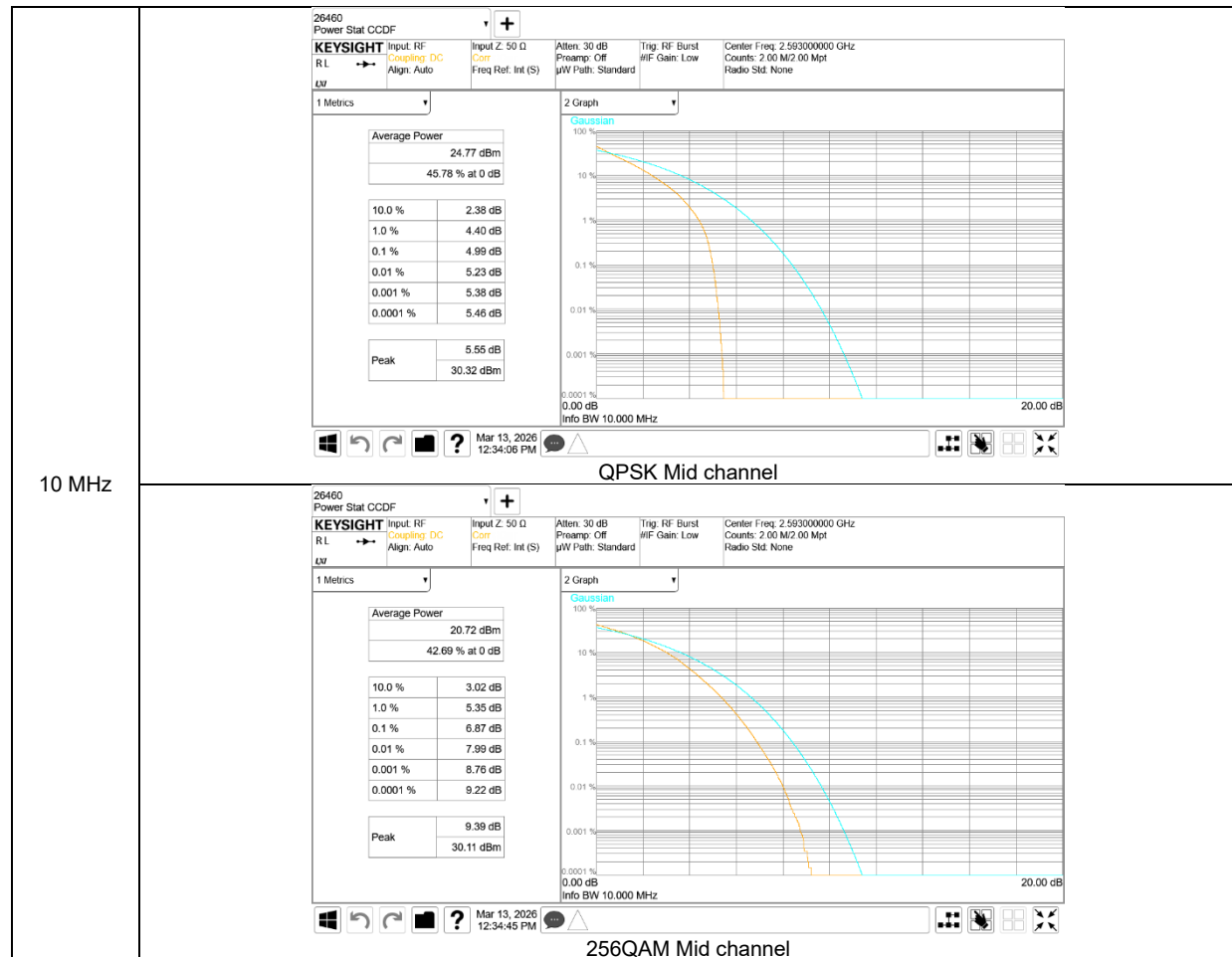
See the following pages.

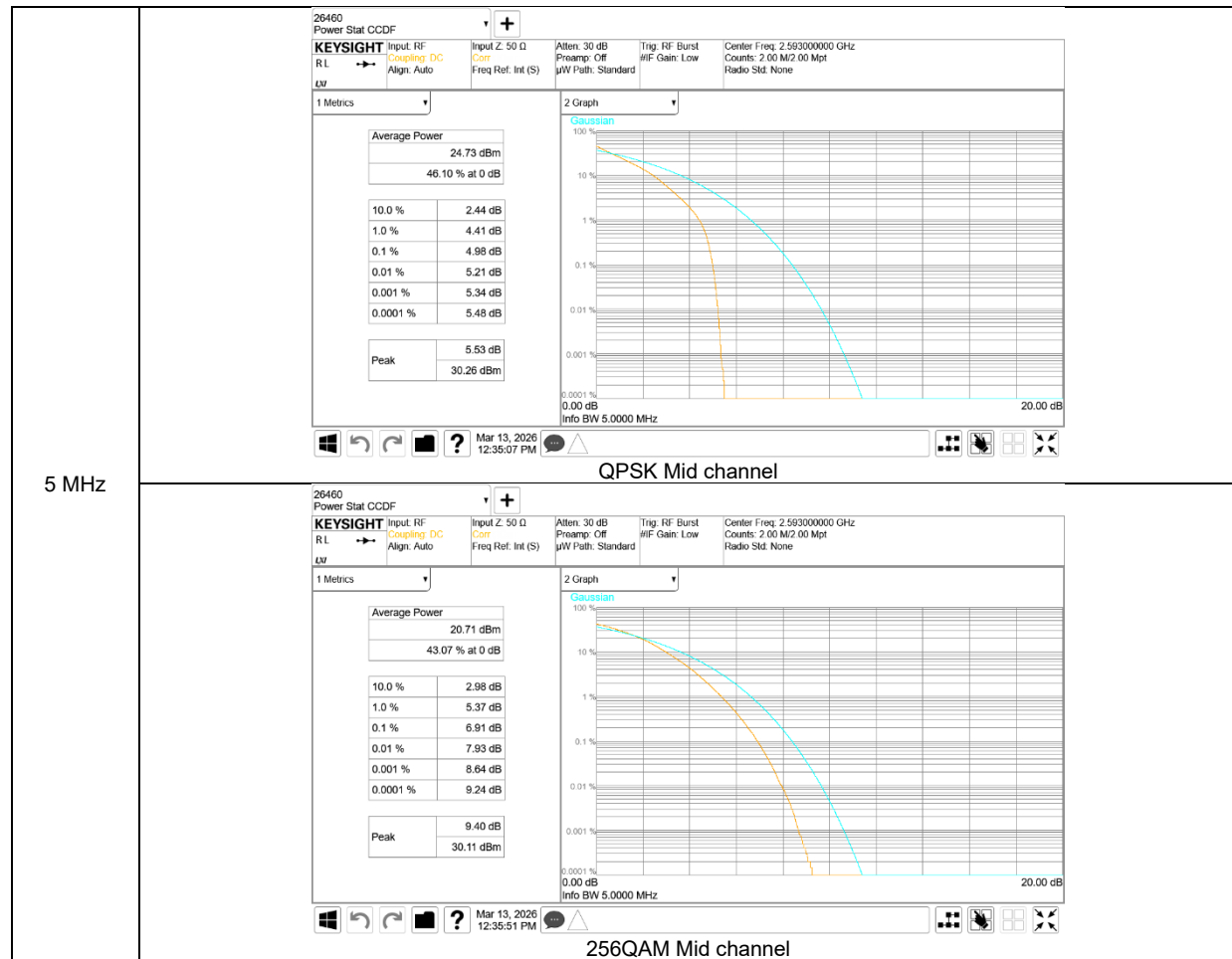
8.2.1. CONDUCTED PEAK TO AVERAGE RESULT

LTE Band 41 (PC2) (ANT F)

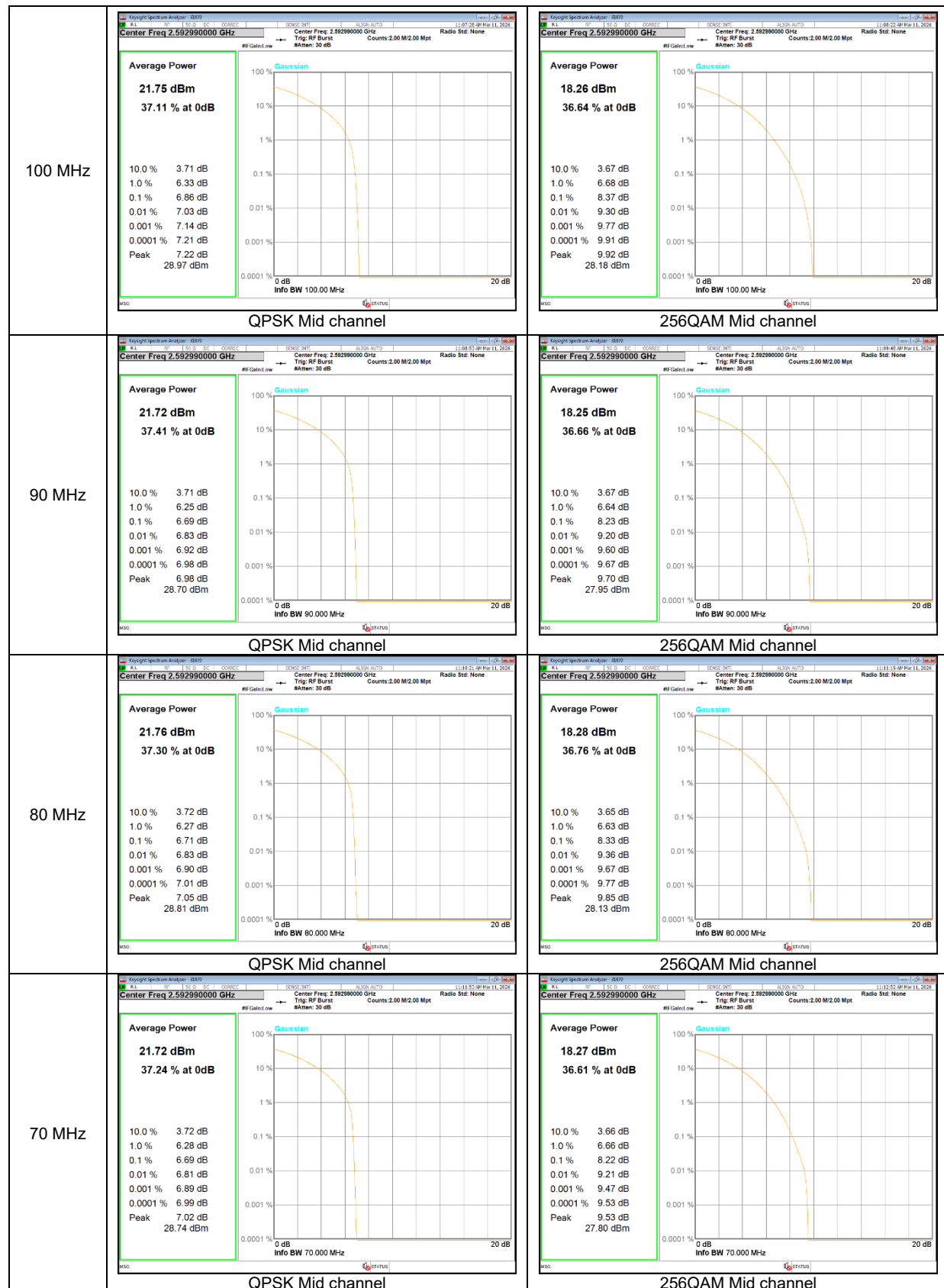






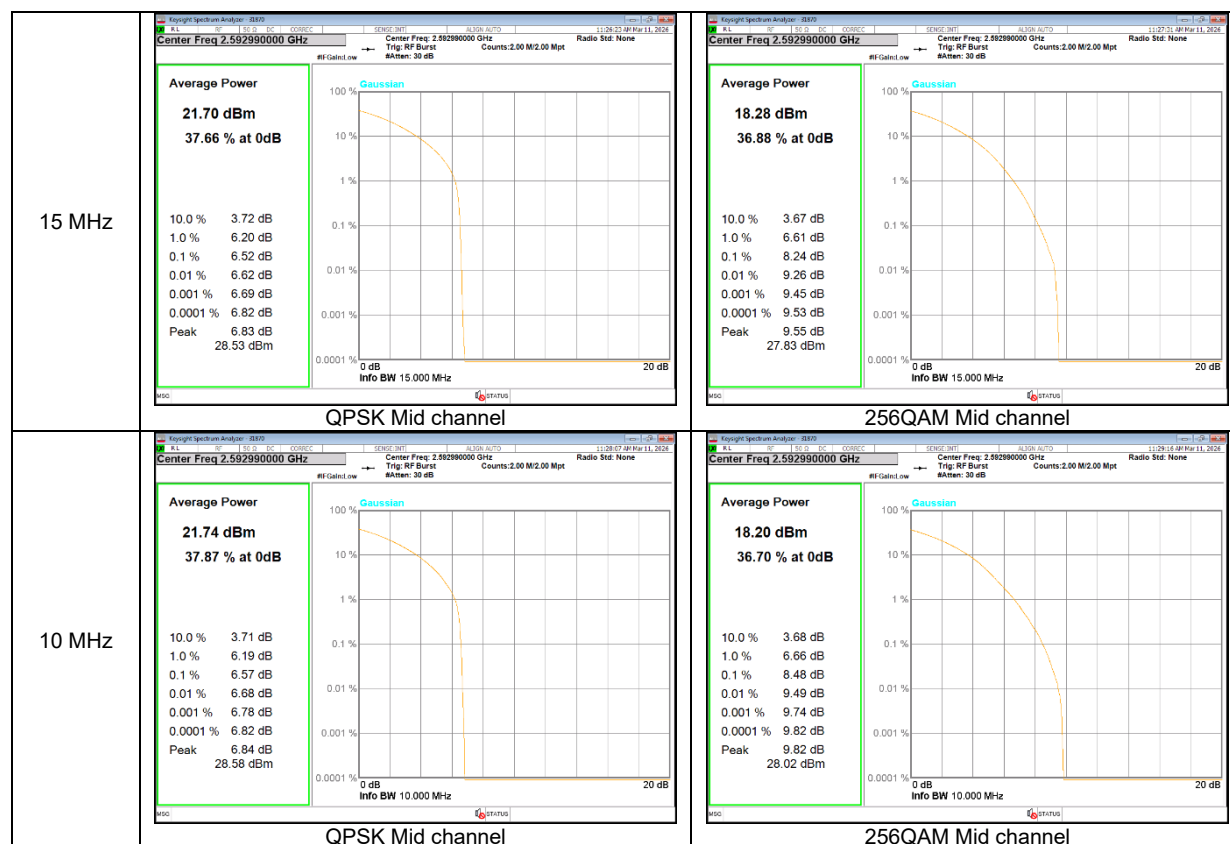


NR Band n41(PC3) CP-OFDM (ANT B)









8.3. OCCUPIED BANDWIDTH

RULE PART(S)

FCC: §2.1049

LIMITS

For reporting purposes only

TEST PROCEDURE

The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. The occupied bandwidth was measured with the spectrum analyzer at middle channel in each band. The -26dB bandwidth was also measured and recorded.

(KDB 971168 D01 Power Meas License Digital Systems v03r01)

RESULTS

See the following pages.

- LTE Band 41 (PC2) (ANT F)

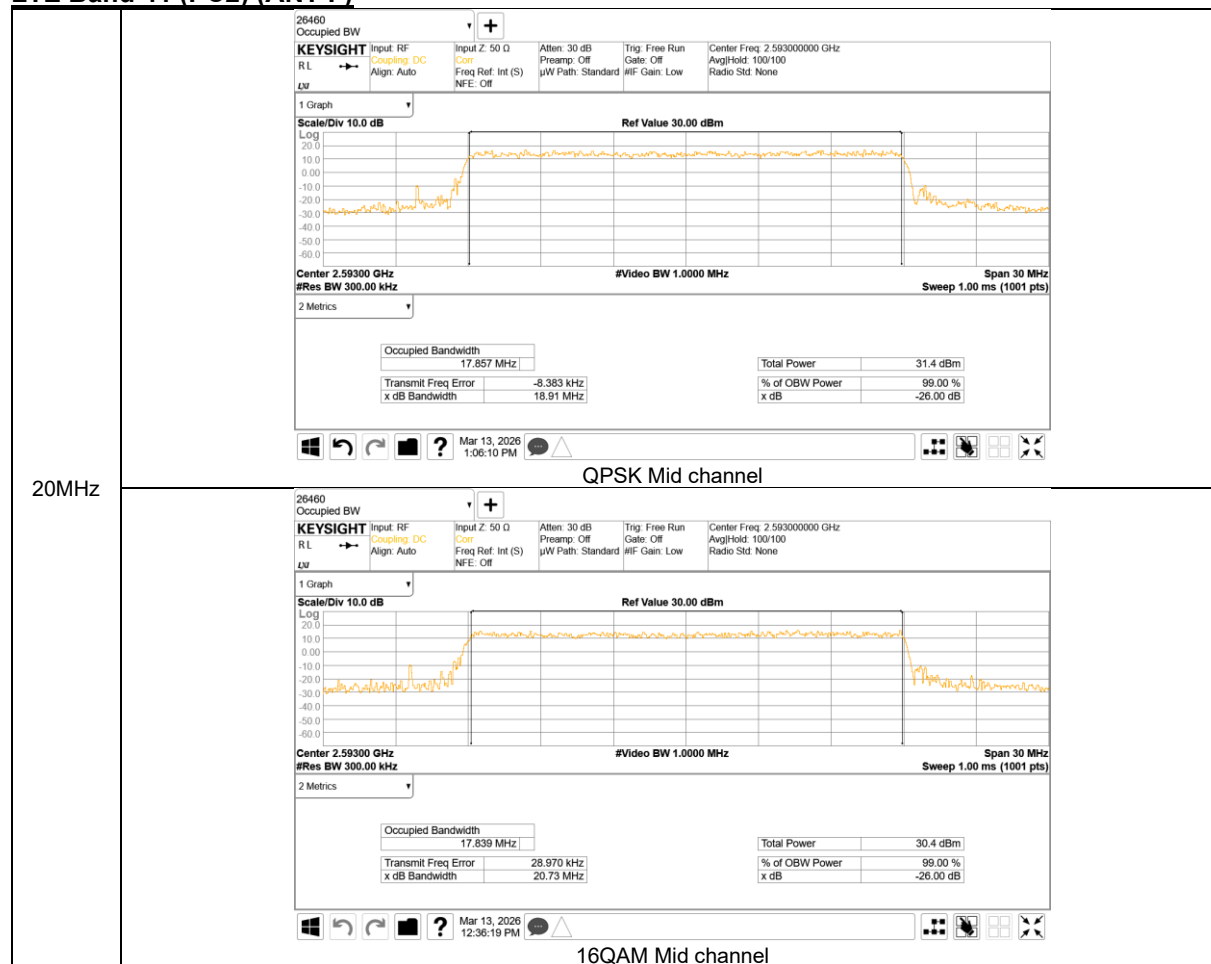
Band	BW	Modulation	Frequency [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B41 (PC2)	20M	QPSK	2593.00	17.857	18.910
		16QAM		17.839	20.730
	15M	QPSK		13.453	14.380
		16QAM		13.413	14.440
	10M	QPSK		8.988	9.926
		16QAM		8.988	9.591
	5M	QPSK		4.484	5.004
		16QAM		4.484	4.972

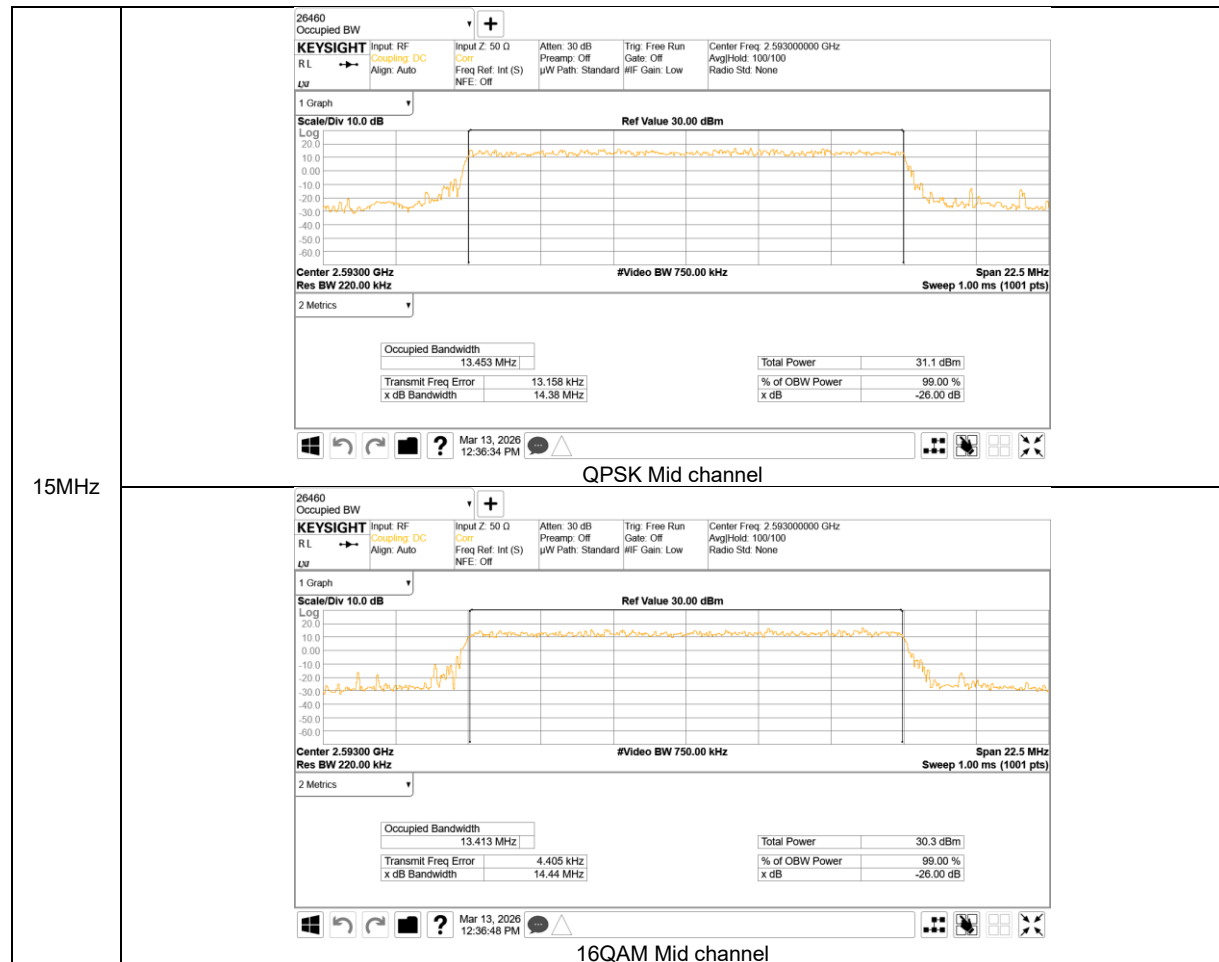
- NR Band n41 (PC3) CP-OFDM (ANT B)

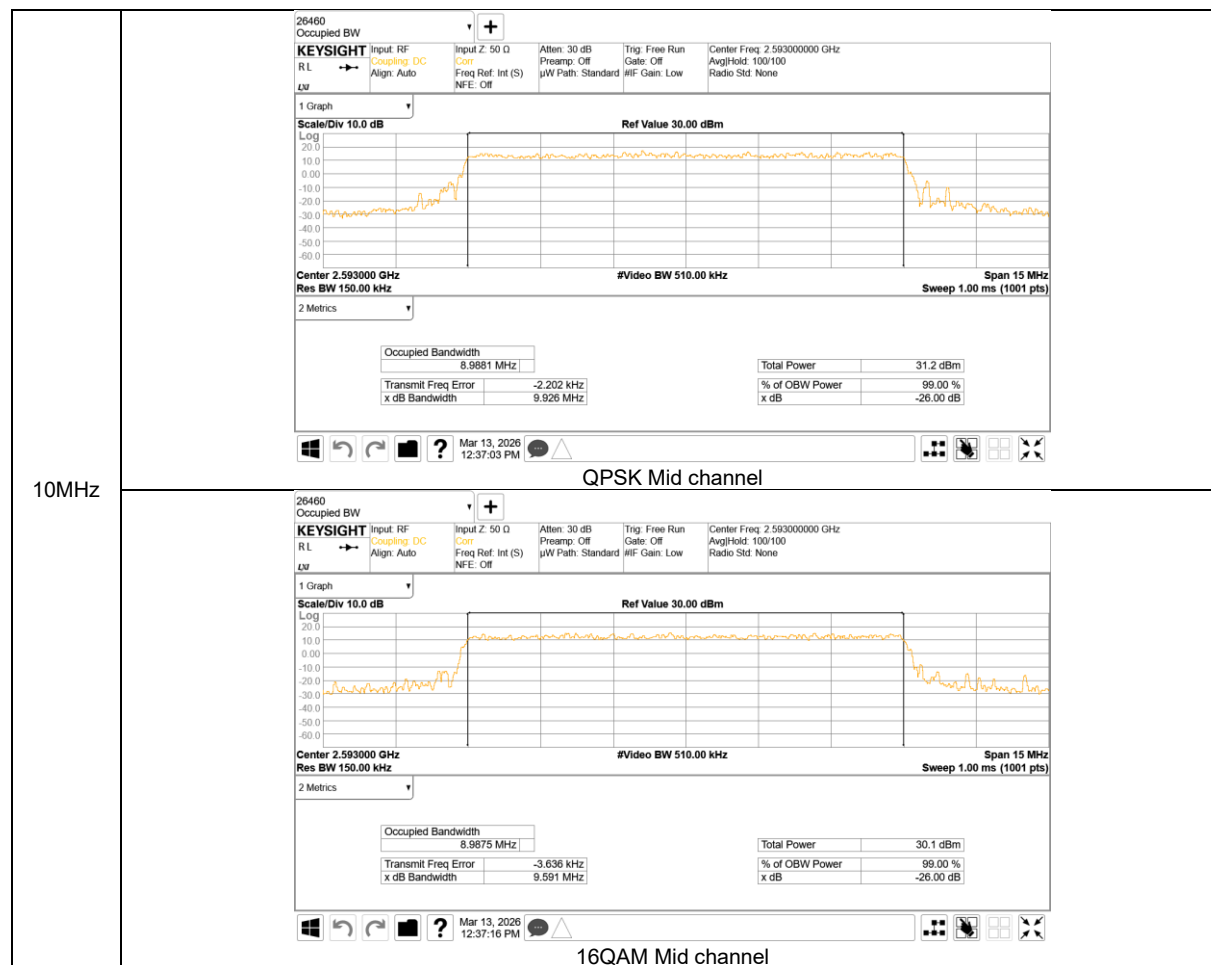
Band	BW	Modulation	Frequency [MHz]	99% BW (MHz)	-26dB BW (MHz)
NR n41 (PC3)	100M	QPSK	2592.99	97.296	101.500
		16QAM		97.353	101.300
	90M	QPSK		87.636	91.280
		16QAM		87.359	91.650
	80M	QPSK		77.451	80.870
		16QAM		77.456	80.600
	70M	QPSK		67.379	70.450
		16QAM		67.490	70.310
	60M	QPSK		57.952	60.350
		16QAM		57.933	60.350
	50M	QPSK		47.456	49.670
		16QAM		47.515	49.660
	45M	QPSK		42.359	44.740
		16QAM		42.493	44.510
	40M	QPSK		37.906	39.570
		16QAM		37.794	40.350
	35M	QPSK		32.749	35.270
		16QAM		32.883	34.510
	30M	QPSK		27.866	29.600
		16QAM		27.963	29.640
	25M	QPSK		23.246	25.190
		16QAM		23.229	24.780
	20M	QPSK		18.272	19.720
		16QAM		18.236	19.730
	15M	QPSK		13.532	14.940
		16QAM		13.610	14.640
	10M	QPSK		8.623	9.902
		16QAM		8.642	9.545

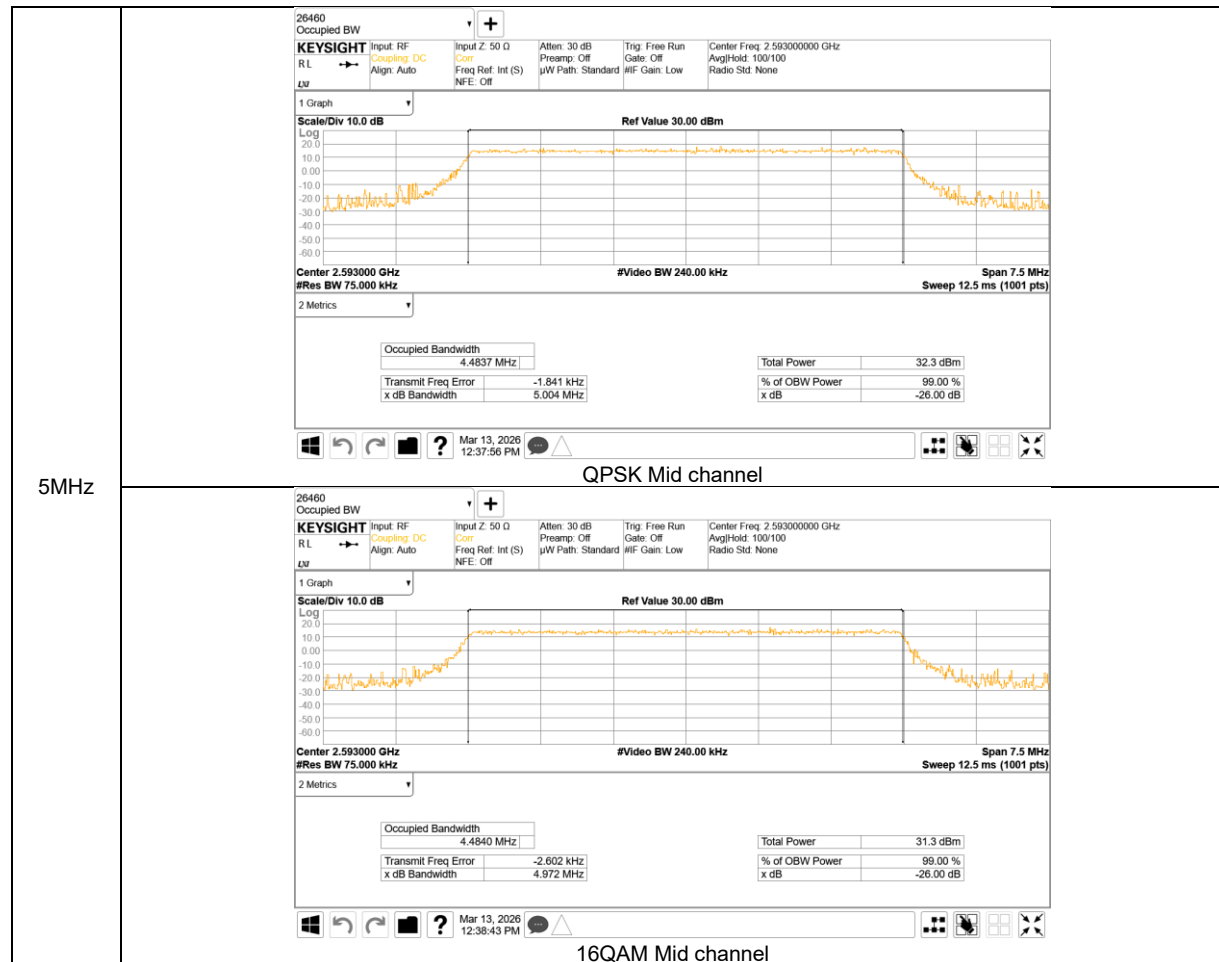
8.3.1. OCCUPIED BANDWIDTH RESULT

LTE Band 41 (PC2) (ANT F)







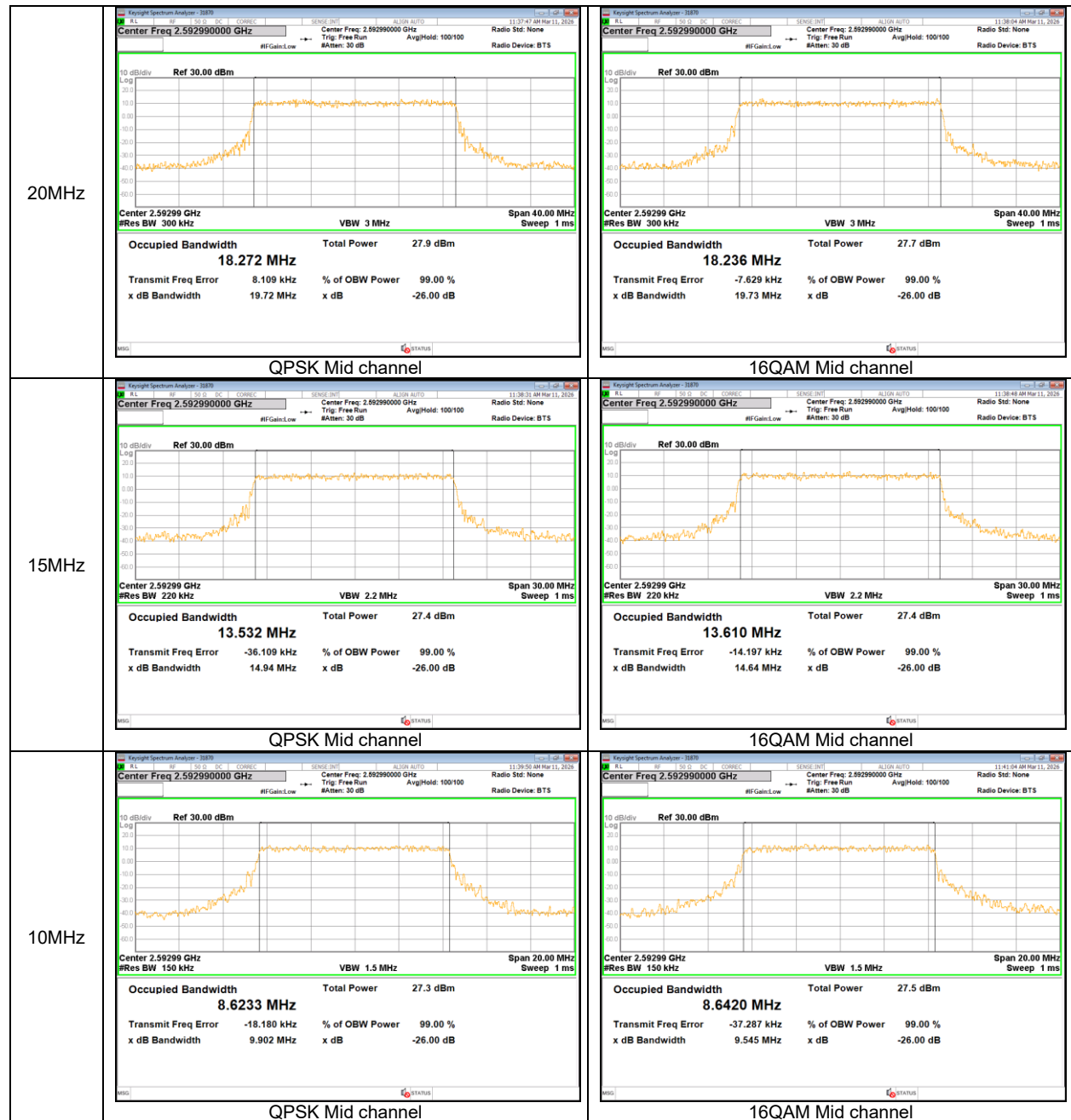


NR Band n41 (PC3) CP-OFDM (ANT B)









8.4. BAND EDGE EMISSIONS

RULE PART(S)

FCC: §27.53

LIMITS

§27.53:

(m) (4) For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

(m) (6) **Measurement procedure.** Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed; for mobile digital stations, in the 1 megahertz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least two percent may be employed, except when the 1 megahertz band is 2495-2496 MHz, in which case a resolution bandwidth of at least one percent may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 megahertz or 1 percent of emission bandwidth, as specified; or 1 megahertz or 2 percent for mobile digital stations, except in the band 2495-2496 MHz). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. With respect to television operations, measurements must be made of the separate visual and aural operating powers at sufficiently frequent intervals to ensure compliance with the rules.

TEST PROCEDURE

Per KDB 971168 D01 Power Meas License Digital Systems v03r01

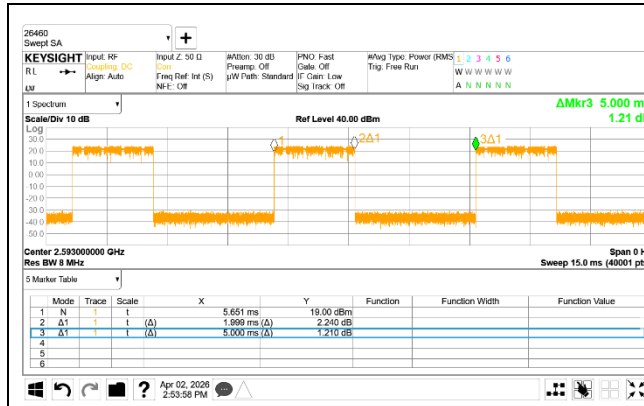
The transmitter output was connected to either CMW500 Test Set or E7515B Test set and configured to operate at maximum power. The band edge emissions were measured at the required operating frequencies in each band on the Spectrum Analyzer.

- a) Set the RBW = at least 1 % of OBW (Typically limited to a minimum RBW of 1% of the OBW) within 1 MHz from the edge of the authorized frequency block/band.
Set the RBW = 1 MHz (Above 1GHz Bands: 1 MHz from the edge of the authorized frequency block/band)
- b) Set VBW $\geq 3 \times$ RBW;
- c) Set span ≥ 1.5 times the OBW;
- d) Sweep time = Auto;
- e) Detector = RMS;
- f) Ensure that the number of measurement points $\geq 2 \times$ span/RBW;
- g) Trace Mode = Average (100);

NOTE1

5G NR: All Waveforms (CP-OFDM vs DFT-s_OFDM) and modulations ($\pi/2$ BPSK, QPSK, 16QAM, 64QAM, 256QAM) were investigated to determine the worst case configuration. All Modes of operation were investigated and the worst case configuration results are reported in this section.

NOTE2

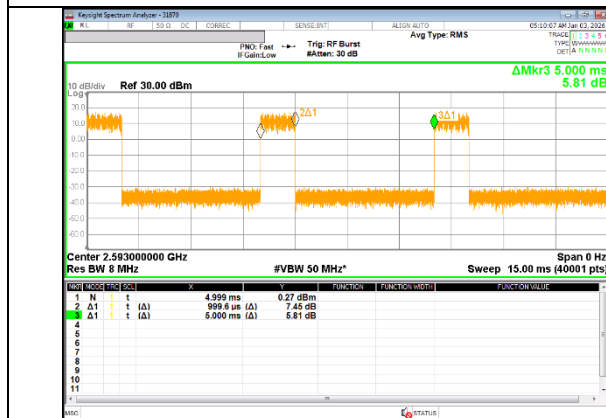


For LTE Band 41

$$\text{DCF: } 4 \text{ dB} = 10 \log(1/(2/5))$$

Measure offset (Gate trigger off):

The reference offset for RF path loss was applied as a correction factor, and the emission mask result in section 8.4.1 was applied with an additional DCF of 4 dB.



For 5G NR n41

$$\text{DCF : } 7 \text{ dB} = 10 \log(1/(0.999/5))$$

Measure offset (Gate trigger off):

The reference offset for RF path loss was applied as a correction factor, and the emission mask result in section 8.4.1 was applied with an additional DCF of 7 dB.

NOTE3

Emission Mask: All 1RB Positions (Edge RB, Outer RB, Inner RB) and modulations ($\pi/2$ BPSK, QPSK, 16QAM, 64QAM, 256QAM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

RESULTS

See the following pages.

8.4.1. EMISSION MASK RESULT

LTE Band 41 (PC2) (ANT F)



