

# CERTIFICATION TEST REPORT

**Report Number.** : 4790776103-E4V2

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

**Model** : SM-X716B

**FCC ID** : A3LSMX716B

**EUT Description** : GSM/WCDMA/LTE 5G NR Tablet + BT/BLE, DTS/UNII a/b/g/n/ac/ax  
and WPT.

**Test Standard(s)** : FCC CFR47 PART 27 SUBPART F,H,L,M

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# 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** SAMSUNG ELECTRONICS CO., LTD.  
**EUT DESCRIPTION:** GSM/WCDMA/LTE 5G NR Tablet + BT/BLE, DTS/UNII a/b/g/n/ac/ax and WPT.  
**MODEL NUMBER:** SM-X716B  
**SERIAL NUMBER:** R32W3004EJL, R32W3004EFK (CONDUCTED);  
R32W3004E3J (RADIATED);  
**DATE TESTED:** 2023-04-03 ~ 2023-04-19;

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 27F,H,L,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  
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UL KOREA LTD.

Tested By:



Yeonhee Lim  
Suwon Lab Engineer  
UL KOREA LTD.

## 2. TEST METHODOLOGY

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

1. FCC CFR 47 Part 2.
2. FCC CFR 47 Part 27.
3. ANSI TIA-603-E, 2016
4. ANSI C63.26, 2015
5. KDB 971168 D01 Power Meas License Digital Systems v03r01

## 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	
<input checked="" type="checkbox"/>	Chamber 1(3m semi-anechoic chamber)
<input checked="" type="checkbox"/>	Chamber 2(3m semi-anechoic chamber)
<input type="checkbox"/>	Chamber 3(3m semi-anechoic chamber)
<input checked="" type="checkbox"/>	Chamber 4(3m Full-anechoic chamber)
<input type="checkbox"/>	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:

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

$ERP = \text{PSA reading with EUT worst orientation (dBm)} + \text{Path loss (dB)} - \text{cable loss (between the SG and substitution antenna)}$

(Path loss = Signal generator output – PSA reading with substitution antenna)

### 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	2.80 dB
Radiated Disturbance, 30 MHz to 1 GHz	3.92 dB
Radiated Disturbance, 1 GHz to 18 GHz	5.06 dB
Radiated Disturbance, 18 GHz to 40 GHz	6.02 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 Procedure 2, Clause 4.4.3 in IEC Guide 115:2021.

## 5. EQUIPMENT UNDER TEST

### 5.1. DESCRIPTION OF EUT

The EUT is a GSM/WCDMA/LTE 5G NR Tablet + BT/BLE, DTS/UNII a/b/g/n/ac/ax and WPT. This test report addresses the WWAN operational mode.

### 5.2. MAXIMUM OUTPUT POWER

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

#### WCDMA

FCC Part 27						
Band	Frequency Range [MHz]	Modulation	Conducted		Radiated	
			Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 4	1710 ~ 1755	Rel. 99	<b>24.35</b>	<b>272.27</b>	<b>25.30</b>	<b>338.84</b>
		HSDPA	23.38	217.77	24.32	270.40

#### LTE Band 12

FCC Part 27							
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
				Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 12	704 ~ 711	10	QPSK	<b>24.30</b>	<b>269.15</b>	21.29	134.59
			16QAM	23.43	220.29	20.20	104.71
			64QAM	22.36	172.19		
			256QAM	19.29	84.92		
	701.5 ~ 713.5	5	QPSK	24.29	268.53	21.50	141.25
			16QAM	23.49	223.36	20.26	106.17
			64QAM	22.20	165.96		
			256QAM	19.37	86.50		
	700.5 ~ 714.5	3	QPSK	24.26	266.69	<b>21.53</b>	<b>142.23</b>
			16QAM	23.49	223.36	20.29	106.91
			64QAM	22.38	172.98		
			256QAM	19.26	84.33		
	699.7 ~ 715.3	1.4	QPSK	24.27	267.30	21.34	136.14
			16QAM	23.49	223.36	20.23	105.44
			64QAM	22.35	171.79		
			256QAM	19.28	84.72		

**LTE Band 13**

FCC Part 27							
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
				Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 13	782	10	QPSK	<b>23.53</b>	<b>225.42</b>	21.58	143.88
			16QAM	22.78	189.67	20.29	106.91
			64QAM	21.74	149.28		
			256QAM	18.68	73.79		
	779.5 – 784.5	5	QPSK	23.46	221.82	<b>22.14</b>	<b>163.68</b>
			16QAM	22.87	193.64	20.86	121.90
			64QAM	21.65	146.22		
			256QAM	18.70	74.13		

**LTE Band 41 (PC2)**

FCC Part 27							
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
				Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 41	2506 – 2680	20	QPSK	<b>25.43</b>	<b>349.14</b>	25.35	342.77
			16QAM	24.65	291.74	24.39	274.79
			64QAM	23.79	239.33		
			256QAM	20.61	115.08		
	2503.5 – 2682.5	15	QPSK	25.39	345.94	27.68	586.14
			16QAM	24.39	274.79	27.18	522.40
			64QAM	23.58	228.03		
			256QAM	20.61	115.08		
	2501 – 2685	10	QPSK	25.42	348.34	<b>27.72</b>	<b>591.56</b>
			16QAM	24.56	285.76	27.15	518.80
			64QAM	23.63	230.67		
			256QAM	20.52	112.72		
	2498.5 – 2687.5	5	QPSK	25.40	346.74	27.61	576.77
			16QAM	24.57	286.42	26.98	498.88
			64QAM	23.59	228.56		
			256QAM	20.69	117.22		



**LTE Band 66**

FCC Part 27							
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
				Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 66	1720 ~ 1770	20	QPSK	23.99	250.61	24.17	261.22
			16QAM	23.36	216.77	23.60	229.09
			64QAM	22.43	174.98		
			256QAM	19.48	88.72		
	1717.5 ~ 1772.5	15	QPSK	24.04	253.51	24.24	265.46
			16QAM	23.42	219.79	23.71	234.96
			64QAM	22.31	170.22		
			256QAM	19.33	85.70		
	1715 ~ 1775	10	QPSK	24.19	262.42	24.33	271.02
			16QAM	23.50	223.87	23.62	230.14
			64QAM	22.48	177.01		
			256QAM	19.48	88.72		
	1712.5 ~ 1777.5	5	QPSK	24.27	267.30	24.43	277.33
			16QAM	23.50	223.87	23.67	232.81
			64QAM	22.48	177.01		
			256QAM	19.48	88.72		
	1711.5 ~ 1778.5	3	QPSK	<b>24.28</b>	<b>267.92</b>	<b>24.49</b>	<b>281.19</b>
			16QAM	23.50	223.87	23.78	238.78
			64QAM	22.50	177.83		
			256QAM	19.50	89.13		
	1710.7 ~ 1779.3	1.4	QPSK	24.26	266.69	23.62	230.14
			16QAM	23.50	223.87	22.84	192.31
			64QAM	22.46	176.20		
			256QAM	19.39	86.90		

**NR Band n66**

FCC Part 27								
Band	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Mode	Conducted		Radiated	
					Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
n66	1730.0 ~ 1760.0	40	DFT-s OFDM	$\pi/2$ BPSK	24.20	263.03		
				QPSK	24.22	264.24	<b>24.35</b>	<b>272.27</b>
				16QAM	23.17	207.49	23.70	234.42
				64QAM	21.78	150.66		
			256QAM	19.03	79.98			
	CP-OFDM	QPSK	22.60	181.97				
	1725.0 ~ 1765.0	30	DFT-s OFDM	$\pi/2$ BPSK	24.23	264.85		
				QPSK	24.20	263.03	23.78	238.78
				16QAM	23.17	207.49	22.90	194.98
				64QAM	21.84	152.76		
			256QAM	19.19	82.99			
	CP-OFDM	QPSK	22.68	185.35				
	1720.0 ~ 1770.0	20	DFT-s OFDM	$\pi/2$ BPSK	24.20	263.03		
				QPSK	<b>24.25</b>	<b>266.07</b>	23.77	238.23
				16QAM	23.13	205.59	22.79	190.11
				64QAM	21.90	154.88		
			256QAM	19.14	82.04			
	CP-OFDM	QPSK	22.67	184.93				
	1717.5 ~ 1772.5	15	DFT-s OFDM	$\pi/2$ BPSK	24.19	262.42		
				QPSK	24.24	265.46	23.98	250.03
				16QAM	23.17	207.49	22.93	196.34
				64QAM	21.84	152.76		
			256QAM	19.16	82.41			
	CP-OFDM	QPSK	22.65	184.08				
	1715.0 ~ 1775.0	10	DFT-s OFDM	$\pi/2$ BPSK	24.15	260.02		
				QPSK	24.14	259.42	23.94	247.74
				16QAM	23.12	205.12	22.85	192.75
				64QAM	21.82	152.05		
			256QAM	19.13	81.85			
	CP-OFDM	QPSK	22.49	177.42				
1712.5 ~ 1777.5	5	DFT-s OFDM	$\pi/2$ BPSK	24.10	257.04			
			QPSK	24.11	257.63	23.99	250.61	
			16QAM	23.07	202.77	22.83	191.87	
			64QAM	21.75	149.62			
		256QAM	18.98	79.07				
CP-OFDM	QPSK	22.51	178.24					

### 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)	Peak Gain (dBi)
WCDMA B4/ LTE Band 4 / LTE Band 66 / NR Band n66 1710 - 1780 MHz	0.21
LTE Band 12 / LTE Bnad 17 699 - 716 MHz	-1.16
LTE Band 13 777 - 787 MHz	-0.79
LTE Band 41 (PC2) 2496 - 2690 MHz	-0.59

## 5.4. WORST-CASE ORIENTATION

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

- UMTS REL 99/HSDPA

For LTE Bands 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. However, the out of band emissions and spurious radiation were only performed on bandwidth and RB offset(with RB size 1) with the highest conducted power in QPSK.

For 5G NR Band n66 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  $\pi/2$  BPSK, QPSK, 16QAM, 64QAM and 256QAM modulations. It was found that QPSK and 16QAM results were worst case as below.

SA modes were tested and worst case is reported. the out of band emissions and spurious radiation were only performed on bandwidth and RB offset(with RB size 1) with the highest conducted power.

### **LTE Band 4**

LTE Band 4 (Frequency range: 1710-1755 MHz) is covered by LTE Band 66 (Frequency range: 1710-1780 MHz) due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth.

### **LTE Band 17**

LTE Band 17 (Frequency range: 704-716 MHz) is covered by LTE Band 12 (Frequency range: 699-716 MHz) due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth.

### **LTE Band 41(PC3)**

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 Band41(PC3).

● Conducted Spurious Emission

Highest conducted power setting for each bands				
LTE Band	Frequency (MHz)	Bandwidth (MHz)	RB size	RB offset
12	704.0	10	1	49
	707.5		1	49
	711.0		1	49
13	782.0	10	1	0
41(PC2)	2506.0	20	1	49
	2593.0		1	99
	2680.0		1	99
66	1711.5	3	1	8
	1745.0		1	8
	1778.5		1	8
NR Band	Frequency (MHz)	Bandwidth (MHz)	RB size	RB offset
66	1720.0	20	1	104
	1745.0		1	104
	1770.0		1	104

● Radiated Spurious Emission

Highest ERP/EIRP setting for each bands				
LTE Band	Frequency (MHz)	Bandwidth (MHz)	RB size	RB offset
12	700.5	3	1	8
	707.5		1	8
	714.5		1	8
13	779.5	5	1	0
	782.0		1	0
	784.5		1	12
41(PC2)	2501.0	10	1	25
	2593.0		1	25
	2685.0		1	0
66	1711.5	3	1	8
	1745.0		1	8
	1778.5		1	8
NR Band	Frequency (MHz)	Bandwidth (MHz)	RB size	RB offset
66	1730.0	40	1	214
	1745.0		1	108
	1760.0		1	108

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

Band	ERP/EIRP			RSE		
	X	Y	Z	X	Y	Z
WCDMA B4	O	-	-	O	-	-
LTE B12	-	O	-	O	-	-
LTE B13	-	O	-	-	O	-
LTE B41(PC2)	O	-	-	O	-	-
LTE B66	-	-	O	-	-	O
NR n66	-	-	O	-	-	O

Note : For ERP/EIRP testing, the EUT didn't attached with travel adapter. But 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.

## 5.5. DESCRIPTION OF TEST SETUP

### SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacture	Model	Serial Number	FCC ID
Charger	SAMSUNG	EP-TA800	R37T7CAG0XRASEA	N/A
Data Cable	SAMSUNG	EP-DW767	GH39-02132A	N/A

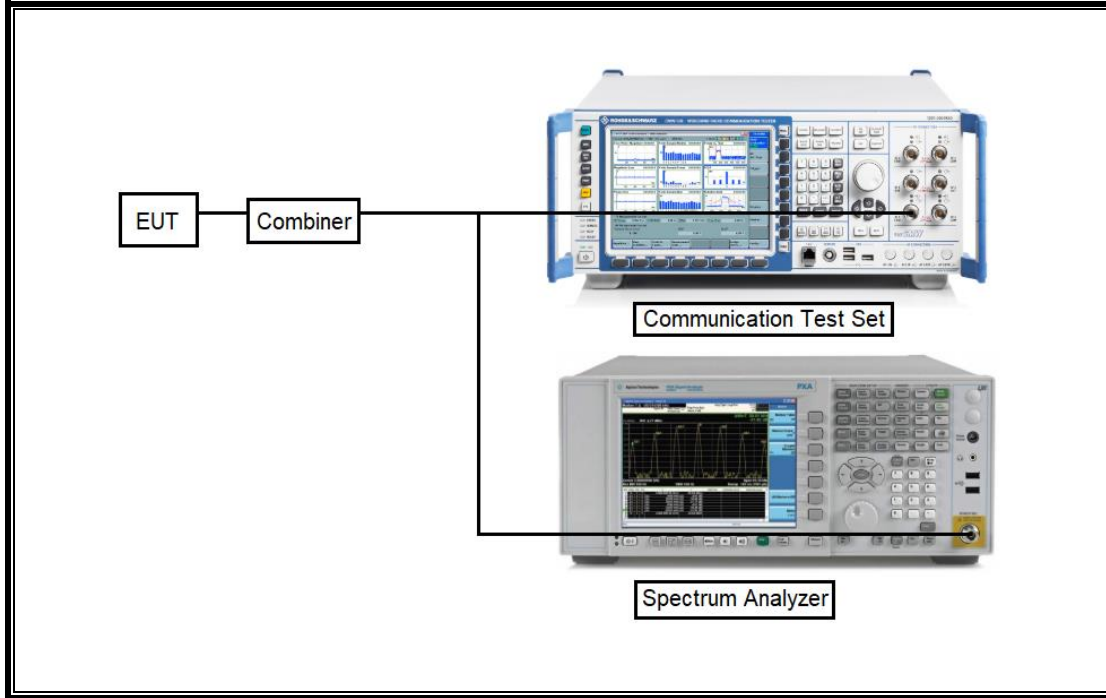
### I/O CABLE

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	1.8 m	N/A

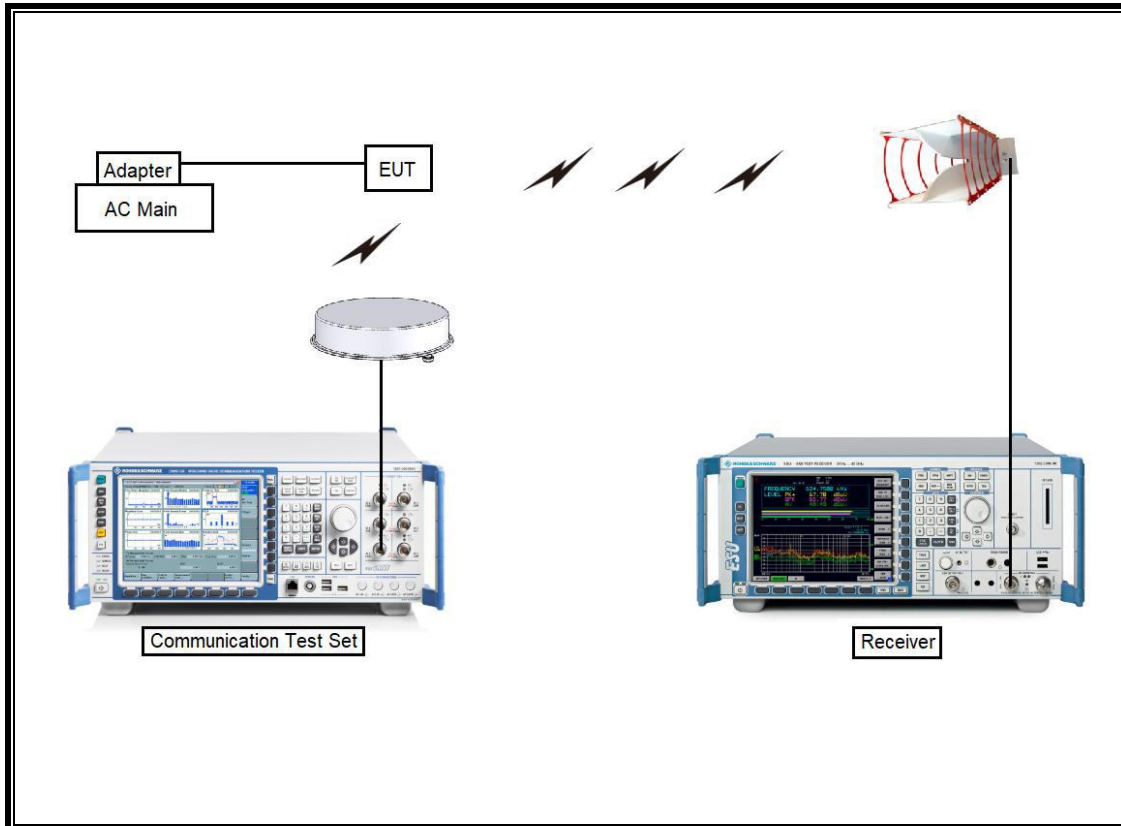
### TEST SETUP

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)**



## 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 DB4	00164753	2025-01-17
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	00168645	2023-10-13
Preamplifier	ETS	3115-PA	00167475	2023-08-04
Preamplifier	ETS	3116C-PA	00168841	2023-08-04
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	750	2024-08-15
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	845	2024-08-15
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	749	2024-08-15
Antenna, Horn, 18 GHz	ETS	3115	00161451	2024-08-21
Antenna, Horn, 18 GHz	ETS	3117	00168717	2024-08-21
Communications Test Set	R&S	CMW500	169796	2024-01-05
DC Power Supply	Agilent / HP	E3640A	MY54226395	2023-08-02
Preamplifier, 1000 MHz	Sonoma	310N	341282	2023-08-02
Preamplifier, 1000 MHz	Sonoma	310N	351741	2023-08-02
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	2029169	2023-08-01
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	1896138	2023-08-01
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	MY54170614	2023-08-03
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	MY54490312	2023-08-01
EMI Test Receive, 40 GHz	R&S	ESU40	100439	2023-08-02
EMI Test Receive, 40 GHz	R&S	ESU40	100457	2023-07-29
High Pass Filter 1.2GHz	Micro-Tronics	HPM50108-02	G005	2023-08-01
High Pass Filter 1.2GHz	Micro-Tronics	HPM50108-02	G006	2023-08-01
High Pass Filter 2.8GHz	Micro-Tronics	HPM50111-02	010	2023-08-01
High Pass Filter 2.8GHz	Micro-Tronics	HPM50111-02	011	2023-08-01
High Pass Filter 4GHz	Micro-Tronics	HPM50118-02	G001	2023-08-01
High Pass Filter 4GHz	Micro-Tronics	HPM50118-02	G002	2023-08-01
Attenuator	PASTERNAK	PE7087-10	A009	2023-08-03
Attenuator	PASTERNAK	PE7087-10	A001	2023-08-03
Attenuator	PASTERNAK	PE7087-10	A008	2023-08-03
Attenuator	PASTERNAK	PE7004-10	2	2023-08-01
Attenuator	PASTERNAK	PE7395-10	A011	2023-08-03
Antenna, Loop, 9kHz-30MHz	R&S	HFH2-Z2	100418	2023-10-06
Temperature Chamber	ESPEC	SH-642	93001109	2023-08-01
Power Splitter	MINI-CIRCUITS	WA1534	UL003	2024-01-09
Power Splitter	MINI-CIRCUITS	WA1534	UL004	2024-01-09
UXM 5G Wireless Test Platform	KEYSIGHT	E7515B	MY57510655	2024-01-09
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 Result
2.1049	Occupied Band width (99%)	N/A	Conducted	Pass
27.53(h)	Band Edge / Conducted Spurious Emission	-13dBm		Pass
27.53(m)	Conducted Spurious Emission	-25dBm		Pass
27.53(m)	Emission mask	Section 9.2.2		Pass
2.1046	Conducted output power	N/A		Pass
27.54	Frequency Stability	2.5PPM		Pass
27.50(c)(10) 27.50(b)(10)	Equivalent Radiated Power	34.77dBm		Radiated
27.50(d)(4)	Equivalent Isotropic Radiated Power	30dBm	Pass	
27.53(h)	Radiated Spurious Emission	-13dBm	Pass	
27.53(f)		-40dBm	Pass	

## 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.

#### NOTE

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.

#### RESULTS

See the following pages.

### 8.1.1. CONDUCTED AVERAGE OUTPUT POWER

#### WCDMA B4

Mode		UL Ch No.	Freq. (MHz)	Maximum Average Power (dBm)		
				Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	1312	1712.4	24.09	N/A	24.5
		1413	1732.6	24.13		
		1513	1752.6	24.35		
HSDPA	Subtest 1	1312	1712.4	23.08	0	23.5
		1413	1732.6	23.14		
		1513	1752.6	23.38		
	Subtest 2	1312	1712.4	23.13	0	23.5
		1413	1732.6	23.14		
		1513	1752.6	23.37		
	Subtest 3	1312	1712.4	22.56	0.5	23.0
		1413	1732.6	22.59		
		1513	1752.6	22.84		
	Subtest 4	1312	1712.4	22.59	0.5	23.0
		1413	1732.6	22.60		
		1513	1752.6	22.85		
HSUPA	Subtest 1	1312	1712.4	23.09	0	23.5
		1413	1732.6	23.17		
		1513	1752.6	23.36		
	Subtest 2	1312	1712.4	21.13	2	21.5
		1413	1732.6	21.15		
		1513	1752.6	21.41		
	Subtest 3	1312	1712.4	22.09	1	22.5
		1413	1732.6	22.16		
		1513	1752.6	22.41		
	Subtest 4	1312	1712.4	21.14	2	21.5
		1413	1732.6	21.13		
		1513	1752.6	21.38		
	Subtest 5	1312	1712.4	22.66	0	23.5
		1413	1732.6	22.69		
		1513	1752.6	22.95		
DC-HSDPA	Subtest 1	1312	1712.4	23.11	0	23.5
		1413	1732.6	23.15		
		1513	1752.6	23.35		
	Subtest 2	1312	1712.4	23.17	0	23.5
		1413	1732.6	23.16		
		1513	1752.6	23.39		
	Subtest 3	1312	1712.4	22.60	0.5	23.0
		1413	1732.6	22.63		
		1513	1752.6	22.86		
	Subtest 4	1312	1712.4	22.63	0.5	23.0
		1413	1732.6	22.63		
		1513	1752.6	22.87		

**LTE Band 12**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				23060	23095	23130		
				704 MHz	707.5 MHz	711 MHz		
10 MHz	QPSK	1	0	23.86	24.03	24.20	0.0	24.5
		1	25	24.06	24.18	24.27	0.0	24.5
		1	49	24.06	24.30	24.28	0.0	24.5
		25	0	22.95	23.04	23.18	1.0	23.5
		25	12	23.10	23.17	23.30	1.0	23.5
		25	25	23.15	23.23	23.23	1.0	23.5
	16QAM	50	0	23.07	23.13	23.27	1.0	23.5
		1	0	23.27	23.35	23.43	1.0	23.5
		1	25	23.25	23.31	23.15	1.0	23.5
		1	49	23.13	23.17	23.00	1.0	23.5
		25	0	21.97	22.10	22.20	2.0	22.5
		25	12	22.15	22.16	22.33	2.0	22.5
	64QAM	25	25	22.19	22.19	22.28	2.0	22.5
		50	0	22.10	22.16	22.29	2.0	22.5
		1	0	22.04	22.10	22.24	2.0	22.5
		1	25	22.19	22.36	22.32	2.0	22.5
		1	49	22.18	22.27	22.13	2.0	22.5
		25	0	20.93	21.02	21.02	3.0	21.5
	256QAM	25	12	21.03	21.03	21.04	3.0	21.5
		25	25	20.98	21.06	21.03	3.0	21.5
		50	0	21.01	21.02	20.97	3.0	21.5
		1	0	18.90	18.98	19.24	5.0	19.5
		1	25	19.06	19.14	19.29	5.0	19.5
		1	49	18.95	19.13	19.11	5.0	19.5
5 MHz	QPSK	25	0	18.92	19.03	19.06	5.0	19.5
		25	12	19.08	19.04	19.08	5.0	19.5
		25	25	19.02	19.10	19.03	5.0	19.5
		50	0	19.01	18.98	18.93	5.0	19.5
		1	0	23.90	24.05	24.16	0.0	24.5
		1	12	24.04	24.22	24.27	0.0	24.5
	16QAM	1	24	24.03	24.16	24.29	0.0	24.5
		12	0	22.87	23.14	23.18	1.0	23.5
		12	7	22.98	23.16	23.27	1.0	23.5
		12	13	22.99	23.20	23.27	1.0	23.5
		25	0	22.96	23.14	23.29	1.0	23.5
		1	0	23.41	23.09	23.03	1.0	23.5
	64QAM	1	12	23.34	23.16	23.05	1.0	23.5
		1	24	23.43	23.49	23.00	1.0	23.5
		12	0	21.97	22.12	22.35	2.0	22.5
		12	7	22.06	22.16	22.45	2.0	22.5
		12	13	22.05	22.25	22.39	2.0	22.5
		25	0	22.02	22.12	22.33	2.0	22.5
	256QAM	1	0	22.16	21.96	22.20	2.0	22.5
		1	12	22.16	22.07	22.20	2.0	22.5
		1	24	22.10	22.08	22.20	2.0	22.5
		12	0	20.90	21.02	20.99	3.0	21.5
		12	7	21.02	21.05	20.99	3.0	21.5
		12	13	20.96	21.07	21.00	3.0	21.5
256QAM	25	0	20.94	21.02	20.96	3.0	21.5	
	1	0	18.93	19.19	19.09	5.0	19.5	
	1	12	19.06	19.37	19.23	5.0	19.5	
	1	24	19.08	19.29	19.13	5.0	19.5	
	12	0	18.87	18.93	18.94	5.0	19.5	
	12	7	18.95	19.01	18.92	5.0	19.5	
256QAM	12	13	18.94	19.07	18.97	5.0	19.5	
	25	0	18.99	18.99	18.96	5.0	19.5	

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				23025	23095	23165		
				700.5 MHz	707.5 MHz	714.5 MHz		
3 MHz	QPSK	1	0	23.88	24.04	24.16	0.0	24.5
		1	8	23.94	24.23	24.26	0.0	24.5
		1	14	23.89	24.10	24.16	0.0	24.5
		8	0	22.86	23.12	23.19	1.0	23.5
		8	4	22.99	23.15	23.25	1.0	23.5
		8	7	22.94	23.25	23.30	1.0	23.5
	16QAM	15	0	22.96	23.11	23.16	1.0	23.5
		1	0	23.30	23.48	23.27	1.0	23.5
		1	8	23.40	23.37	23.42	1.0	23.5
		1	14	23.30	23.49	23.39	1.0	23.5
		8	0	21.95	22.14	22.31	2.0	22.5
		8	4	22.09	22.18	22.30	2.0	22.5
	64QAM	8	7	22.06	22.28	22.39	2.0	22.5
		15	0	21.94	22.14	22.23	2.0	22.5
		1	0	22.10	22.26	22.09	2.0	22.5
		1	8	22.11	22.38	22.24	2.0	22.5
		1	14	21.97	22.35	22.09	2.0	22.5
		8	0	20.85	21.05	21.02	3.0	21.5
	256QAM	8	4	20.97	21.05	21.00	3.0	21.5
		8	7	20.95	21.08	20.97	3.0	21.5
		15	0	20.94	21.00	20.95	3.0	21.5
1		0	18.96	18.98	19.05	5.0	19.5	
1		8	18.98	19.22	19.26	5.0	19.5	
1		14	18.93	19.14	19.20	5.0	19.5	
1.4 MHz	QPSK	8	0	18.80	19.00	18.97	5.0	19.5
		8	4	18.99	19.08	19.02	5.0	19.5
		8	7	18.98	19.08	18.98	5.0	19.5
		15	0	18.90	18.99	18.93	5.0	19.5
		1	0	23.93	24.16	24.25	0.0	24.5
		1	3	23.86	24.24	24.18	0.0	24.5
	16QAM	1	5	23.86	24.14	24.15	0.0	24.5
		3	0	23.85	24.15	24.15	0.0	24.5
		3	1	23.89	24.19	24.27	0.0	24.5
		3	3	23.88	24.17	24.18	0.0	24.5
		6	0	22.85	23.08	23.17	1.0	23.5
		1	0	23.15	23.36	23.07	1.0	23.5
	64QAM	1	3	23.12	23.17	23.00	1.0	23.5
		1	5	23.18	23.36	23.03	1.0	23.5
		3	0	23.01	23.33	23.41	1.0	23.5
		3	1	23.04	23.32	23.14	1.0	23.5
		3	3	23.04	23.30	23.49	1.0	23.5
		6	0	21.97	22.13	22.40	2.0	22.5
	256QAM	1	0	21.99	22.16	22.09	2.0	22.5
		1	3	21.97	22.35	22.10	2.0	22.5
		1	5	21.83	22.16	22.17	2.0	22.5
3		0	22.00	22.19	22.05	2.0	22.5	
3		1	22.05	22.17	22.08	2.0	22.5	
3		3	22.06	22.16	22.05	2.0	22.5	
16QAM	6	0	20.86	21.08	20.98	3.0	21.5	
	1	0	19.01	19.15	19.02	5.0	19.5	
	1	3	19.09	19.28	19.14	5.0	19.5	
	1	5	19.04	19.18	19.05	5.0	19.5	
	3	0	18.89	18.95	19.09	5.0	19.5	
	3	1	19.00	18.97	19.08	5.0	19.5	
QPSK	3	3	18.92	19.04	19.07	5.0	19.5	
	6	0	18.92	18.95	18.91	5.0	19.5	

**LTE Band 13**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)					
				Measured Pwr (dBm)			MPR	Tune-up Limit	
				23230	782 MHz	23230			
10 MHz	QPSK	1	0	23.53			0.0	24.5	
		1	25	23.45			0.0	24.5	
		1	49	23.29			0.0	24.5	
		25	0	22.45			1.0	23.5	
		25	12	22.42			1.0	23.5	
		25	25	22.32			1.0	23.5	
	16QAM	50	0	22.36			1.0	23.5	
		1	0	22.78			1.0	23.5	
		1	25	22.74			1.0	23.5	
		1	49	22.60			1.0	23.5	
		25	0	21.48			2.0	22.5	
		25	12	21.41			2.0	22.5	
	64QAM	25	25	21.38			2.0	22.5	
		50	0	21.38			2.0	22.5	
		1	0	21.74			2.0	22.5	
		1	25	21.66			2.0	22.5	
		1	49	21.64			2.0	22.5	
		25	0	20.44			3.0	21.5	
	256QAM	25	12	20.42			3.0	21.5	
		25	25	20.38			3.0	21.5	
		50	0	20.45			3.0	21.5	
		1	0	18.58			5.0	19.5	
		1	25	18.68			5.0	19.5	
		1	49	18.47			5.0	19.5	
5 MHz	QPSK	25	0	18.49			5.0	19.5	
		25	12	18.43			5.0	19.5	
		25	25	18.36			5.0	19.5	
50		0	18.44			5.0	19.5		
5 MHz		QPSK	1	0	23.44	23.46	23.36	0.0	24.5
			1	12	23.44	23.38	23.44	0.0	24.5
	1		24	23.37	23.31	23.35	0.0	24.5	
	12		0	22.49	22.38	22.41	1.0	23.5	
	12		7	22.50	22.45	22.39	1.0	23.5	
	12		13	22.46	22.45	22.39	1.0	23.5	
	16QAM	25	0	22.45	22.33	22.41	1.0	23.5	
		1	0	22.84	22.79	22.85	1.0	23.5	
		1	12	22.83	22.85	22.87	1.0	23.5	
		1	24	22.72	22.70	22.84	1.0	23.5	
		12	0	21.52	21.38	21.53	2.0	22.5	
		12	7	21.53	21.46	21.53	2.0	22.5	
	64QAM	12	13	21.51	21.41	21.53	2.0	22.5	
		25	0	21.46	21.35	21.37	2.0	22.5	
		1	0	21.64	21.65	21.44	2.0	22.5	
		1	12	21.60	21.62	21.62	2.0	22.5	
		1	24	21.56	21.45	21.54	2.0	22.5	
		12	0	20.52	20.40	20.43	3.0	21.5	
	256QAM	12	7	20.58	20.49	20.47	3.0	21.5	
		12	13	20.50	20.44	20.42	3.0	21.5	
		25	0	20.52	20.38	20.45	3.0	21.5	
		1	0	18.63	18.64	18.49	5.0	19.5	
		1	12	18.65	18.70	18.53	5.0	19.5	
		1	24	18.56	18.53	18.41	5.0	19.5	
5 MHz	256QAM	12	0	18.48	18.47	18.37	5.0	19.5	
		12	7	18.52	18.55	18.41	5.0	19.5	
		12	13	18.51	18.52	18.38	5.0	19.5	
		25	0	18.49	18.37	18.42	5.0	19.5	

**LTE Band 41 (PC2)**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				39750	40620	41490		
				2506 MHz	2593 MHz	2680 MHz		
20 MHz	QPSK	1	0	25.39	25.12	25.14	0.0	26.0
		1	49	25.43	25.07	25.11	0.0	26.0
		1	99	25.24	25.22	25.18	0.0	26.0
		50	0	24.45	24.10	24.18	1.0	25.0
		50	24	24.36	24.16	24.21	1.0	25.0
		50	50	24.30	24.11	24.14	1.0	25.0
	100	0	24.35	24.15	24.21	1.0	25.0	
	16QAM	1	0	24.62	24.18	24.46	1.0	25.0
		1	49	24.65	24.32	24.48	1.0	25.0
		1	99	24.38	24.31	24.42	1.0	25.0
		50	0	23.40	23.04	23.18	2.0	24.0
		50	24	23.33	23.14	23.20	2.0	24.0
		50	50	23.31	23.11	23.15	2.0	24.0
	100	0	23.30	23.13	23.16	2.0	24.0	
	64QAM	1	0	23.66	23.33	23.46	2.0	24.0
		1	49	23.79	23.46	23.24	2.0	24.0
		1	99	23.45	23.48	23.40	2.0	24.0
		50	0	22.38	22.16	22.20	3.0	23.0
		50	24	22.36	22.19	22.23	3.0	23.0
		50	50	22.29	22.18	22.12	3.0	23.0
	100	0	22.32	22.20	22.19	3.0	23.0	
	256QAM	1	0	20.57	20.38	20.33	5.0	21.0
		1	49	20.61	20.28	20.36	5.0	21.0
		1	99	20.43	20.37	20.35	5.0	21.0
50		0	20.40	20.14	20.15	5.0	21.0	
50		24	20.34	20.19	20.21	5.0	21.0	
50		50	20.33	20.18	20.16	5.0	21.0	
100	0	20.34	20.16	20.18	5.0	21.0		
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				39725	40620	41515		
				2503.5 MHz	2593 MHz	2682.5 MHz		
				15 MHz	QPSK	1	0	25.31
1	37	25.39	25.10			25.14	0.0	26.0
1	74	25.25	25.19			25.16	0.0	26.0
36	0	24.37	24.06			24.14	1.0	25.0
36	20	24.38	24.11			24.19	1.0	25.0
36	39	24.27	24.15			24.11	1.0	25.0
75	0	24.28	24.13		24.17	1.0	25.0	
16QAM	1	0	24.35		24.11	24.07	1.0	25.0
	1	37	24.39		24.14	24.18	1.0	25.0
	1	74	24.33		24.24	24.24	1.0	25.0
	36	0	23.40		23.11	23.20	2.0	24.0
	36	20	23.38		23.12	23.22	2.0	24.0
	36	39	23.30		23.16	23.12	2.0	24.0
75	0	23.30	23.13		23.18	2.0	24.0	
64QAM	1	0	23.46		23.18	23.25	2.0	24.0
	1	37	23.58		23.20	23.40	2.0	24.0
	1	74	23.33		23.34	23.41	2.0	24.0
	36	0	22.45		22.09	22.17	3.0	23.0
	36	20	22.40		22.12	22.18	3.0	23.0
	36	39	22.32		22.15	22.11	3.0	23.0
75	0	22.31	22.15		22.21	3.0	23.0	
256QAM	1	0	20.61		20.14	20.22	5.0	21.0
	1	37	20.54		20.19	20.39	5.0	21.0
	1	74	20.44		20.28	20.41	5.0	21.0
	36	0	20.43	20.07	20.16	5.0	21.0	
	36	20	20.42	20.15	20.20	5.0	21.0	
	36	39	20.33	20.19	20.13	5.0	21.0	
75	0	20.36	20.13	20.18	5.0	21.0		

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
				39700	40620	41540			
				2501 MHz	2593 MHz	2685 MHz			
10 MHz	QPSK	1	0	25.36	25.14	25.13	0.0	26.0	
		1	25	25.42	25.29	25.12	0.0	26.0	
		1	49	25.36	25.24	25.07	0.0	26.0	
		25	0	24.44	24.14	24.18	1.0	25.0	
		25	12	24.43	24.24	24.16	1.0	25.0	
		25	25	24.38	24.25	24.13	1.0	25.0	
	16QAM	50	0	24.37	24.19	24.14	1.0	25.0	
		1	0	24.52	24.23	24.13	1.0	25.0	
		1	25	24.56	24.42	24.23	1.0	25.0	
		1	49	24.47	24.30	24.41	1.0	25.0	
		25	0	23.43	23.25	23.20	2.0	24.0	
		25	12	23.34	23.25	23.30	2.0	24.0	
	64QAM	25	25	23.41	23.30	23.22	2.0	24.0	
		50	0	23.35	23.23	23.27	2.0	24.0	
		1	0	23.55	23.30	23.31	2.0	24.0	
		1	25	23.63	23.36	23.33	2.0	24.0	
		1	49	23.47	23.23	23.34	2.0	24.0	
		25	0	22.51	22.23	22.19	3.0	23.0	
	256QAM	25	12	22.48	22.25	22.24	3.0	23.0	
		25	25	22.41	22.30	22.28	3.0	23.0	
		50	0	22.35	22.25	22.29	3.0	23.0	
		1	0	20.43	20.32	20.46	5.0	21.0	
		1	25	20.50	20.48	20.50	5.0	21.0	
		1	49	20.39	20.49	20.46	5.0	21.0	
	10 MHz	256QAM	25	0	20.52	20.28	20.25	5.0	21.0
			25	12	20.43	20.34	20.31	5.0	21.0
			25	25	20.44	20.30	20.26	5.0	21.0
			50	0	20.41	20.27	20.24	5.0	21.0
1			0	25.35	25.15	25.07	0.0	26.0	
1			12	25.40	25.23	25.19	0.0	26.0	
5 MHz	QPSK	1	24	25.40	25.16	25.12	0.0	26.0	
		12	0	24.44	24.15	24.18	1.0	25.0	
		12	7	24.52	24.21	24.21	1.0	25.0	
		12	13	24.51	24.19	24.22	1.0	25.0	
		25	0	24.52	24.21	24.18	1.0	25.0	
		1	0	24.50	24.47	24.23	1.0	25.0	
	16QAM	1	12	24.50	24.57	24.27	1.0	25.0	
		1	24	24.46	24.49	24.22	1.0	25.0	
		12	0	23.38	23.27	23.13	2.0	24.0	
		12	7	23.40	23.32	23.24	2.0	24.0	
		12	13	23.39	23.27	23.21	2.0	24.0	
		25	0	23.46	23.26	23.22	2.0	24.0	
	64QAM	1	0	23.54	23.39	23.34	2.0	24.0	
		1	12	23.59	23.48	23.39	2.0	24.0	
		1	24	23.52	23.53	23.28	2.0	24.0	
		12	0	22.44	22.23	22.19	3.0	23.0	
		12	7	22.48	22.28	22.25	3.0	23.0	
		12	13	22.45	22.28	22.21	3.0	23.0	
	256QAM	25	0	22.44	22.28	22.22	3.0	23.0	
		1	0	20.64	20.33	20.41	5.0	21.0	
		1	12	20.69	20.41	20.50	5.0	21.0	
		1	24	20.66	20.34	20.35	5.0	21.0	
		12	0	20.43	20.25	20.17	5.0	21.0	
		12	7	20.44	20.33	20.14	5.0	21.0	
	10 MHz	256QAM	12	13	20.45	20.29	20.13	5.0	21.0
			25	0	20.48	20.28	20.14	5.0	21.0



**LTE Band 66**

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
				132072	132322	132572		
				1720 MHz	1745 MHz	1770 MHz		
20 MHz	QPSK	1	0	23.64	23.91	23.97	0.0	24.5
		1	49	23.64	23.88	23.99	0.0	24.5
		1	99	23.76	23.92	23.93	0.0	24.5
		50	0	22.69	22.90	22.99	1.0	23.5
		50	24	22.78	22.94	23.08	1.0	23.5
		50	50	22.81	23.02	23.04	1.0	23.5
	100	0	22.78	22.93	23.07	1.0	23.5	
	16QAM	1	0	22.90	23.20	23.30	1.0	23.5
		1	49	23.10	23.36	23.25	1.0	23.5
		1	99	23.06	23.34	23.17	1.0	23.5
		50	0	21.71	21.93	22.01	2.0	22.5
		50	24	21.81	21.94	22.08	2.0	22.5
		50	50	21.80	22.02	22.04	2.0	22.5
	100	0	21.77	21.92	22.08	2.0	22.5	
	64QAM	1	0	21.98	22.12	22.24	2.0	22.5
		1	49	22.07	22.22	22.43	2.0	22.5
		1	99	22.11	22.17	22.36	2.0	22.5
		50	0	20.79	21.01	21.11	3.0	21.5
		50	24	20.90	20.99	21.17	3.0	21.5
		50	50	20.87	21.07	21.16	3.0	21.5
	100	0	20.88	21.00	21.18	3.0	21.5	
	256QAM	1	0	18.94	19.06	19.36	5.0	19.5
		1	49	19.05	18.96	19.37	5.0	19.5
		1	99	19.07	19.15	19.48	5.0	19.5
50		0	18.79	19.01	19.10	5.0	19.5	
50		24	18.90	19.04	19.17	5.0	19.5	
50		50	18.90	19.04	19.17	5.0	19.5	
100	0	18.88	19.02	19.16	5.0	19.5		
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				132047	132322	132597		
				1717.5 MHz	1745 MHz	1772.5 MHz		
				15 MHz	QPSK	1	0	23.55
1	37	23.70	23.94			24.04	0.0	24.5
1	74	23.73	23.94			23.98	0.0	24.5
36	0	22.66	22.87			22.98	1.0	23.5
36	20	22.75	22.88			22.96	1.0	23.5
36	39	22.74	22.93			23.05	1.0	23.5
75	0	22.74	22.92		22.94	1.0	23.5	
16QAM	1	0	22.84		23.09	23.42	1.0	23.5
	1	37	22.99		23.15	23.41	1.0	23.5
	1	74	23.01		23.27	23.24	1.0	23.5
	36	0	21.67		21.93	22.01	2.0	22.5
	36	20	21.76		21.90	22.01	2.0	22.5
	36	39	21.77		21.94	22.04	2.0	22.5
75	0	21.75	21.93		21.99	2.0	22.5	
64QAM	1	0	21.83		22.06	22.31	2.0	22.5
	1	37	21.88		22.18	22.27	2.0	22.5
	1	74	22.06		22.11	22.28	2.0	22.5
	36	0	20.78		20.99	21.09	3.0	21.5
	36	20	20.85		20.97	21.09	3.0	21.5
	36	39	20.84		21.07	21.15	3.0	21.5
75	0	20.84	20.96		21.07	3.0	21.5	
256QAM	1	0	18.74		19.19	19.29	5.0	19.5
	1	37	18.87		19.12	19.33	5.0	19.5
	1	74	18.93		19.17	19.18	5.0	19.5
	36	0	18.75	18.98	19.15	5.0	19.5	
	36	20	18.86	19.00	19.14	5.0	19.5	
	36	39	18.85	19.06	19.17	5.0	19.5	
75	0	18.81	18.99	19.10	5.0	19.5		

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
				132022	132322	132622			
				1715 MHz	1745 MHz	1775 MHz			
10 MHz	QPSK	1	0	23.75	24.05	24.18	0.0	24.5	
		1	25	23.89	24.10	24.19	0.0	24.5	
		1	49	23.77	24.05	24.17	0.0	24.5	
		25	0	22.77	23.01	23.12	1.0	23.5	
		25	12	22.84	23.05	23.13	1.0	23.5	
		25	25	22.84	23.09	23.19	1.0	23.5	
	16QAM	50	0	22.87	22.99	23.21	1.0	23.5	
		1	0	23.16	23.37	23.41	1.0	23.5	
		1	25	23.11	23.50	23.47	1.0	23.5	
		1	49	23.03	23.50	23.44	1.0	23.5	
		25	0	21.74	21.99	22.09	2.0	22.5	
		25	12	21.87	22.02	22.15	2.0	22.5	
	64QAM	25	25	21.83	22.12	22.17	2.0	22.5	
		50	0	21.86	22.02	22.22	2.0	22.5	
		1	0	22.11	22.29	22.42	2.0	22.5	
		1	25	22.25	22.30	22.48	2.0	22.5	
		1	49	22.06	22.27	22.47	2.0	22.5	
		25	0	20.80	21.07	21.22	3.0	21.5	
	256QAM	25	12	20.92	21.11	21.24	3.0	21.5	
		25	25	20.92	21.16	21.30	3.0	21.5	
		50	0	20.95	21.11	21.30	3.0	21.5	
		1	0	19.03	19.40	19.34	5.0	19.5	
		1	25	19.20	19.48	19.47	5.0	19.5	
		1	49	19.12	19.37	19.43	5.0	19.5	
		25	0	18.86	19.14	19.27	5.0	19.5	
		25	12	18.95	19.17	19.27	5.0	19.5	
		25	25	18.90	19.21	19.31	5.0	19.5	
		50	0	18.94	19.12	19.36	5.0	19.5	
BW (MHz)		Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					131997	132322	132647		
	1712.5 MHz				1745 MHz	1777.5 MHz			
5 MHz	QPSK	1	0	23.72	24.05	24.06	0.0	24.5	
		1	12	23.83	24.16	24.27	0.0	24.5	
		1	24	23.73	24.00	24.14	0.0	24.5	
		12	0	22.70	23.00	23.04	1.0	23.5	
		12	7	22.83	23.03	23.15	1.0	23.5	
		12	13	22.79	23.09	23.14	1.0	23.5	
	16QAM	25	0	22.81	23.00	23.11	1.0	23.5	
		1	0	23.08	23.26	23.42	1.0	23.5	
		1	12	23.19	23.47	23.50	1.0	23.5	
		1	24	23.11	23.32	23.45	1.0	23.5	
		12	0	21.78	22.06	22.19	2.0	22.5	
		12	7	21.89	22.14	22.21	2.0	22.5	
	64QAM	12	13	21.88	22.19	22.21	2.0	22.5	
		25	0	21.84	22.01	22.15	2.0	22.5	
		1	0	21.85	22.33	22.47	2.0	22.5	
		1	12	22.04	22.44	22.45	2.0	22.5	
		1	24	21.77	22.39	22.48	2.0	22.5	
		12	0	20.81	21.14	21.23	3.0	21.5	
	256QAM	12	7	20.90	21.14	21.24	3.0	21.5	
		12	13	20.85	21.15	21.26	3.0	21.5	
		25	0	20.89	21.10	21.22	3.0	21.5	
		1	0	18.91	19.06	19.32	5.0	19.5	
		1	12	19.01	19.20	19.46	5.0	19.5	
		1	24	18.98	19.11	19.48	5.0	19.5	
		12	0	18.86	19.06	19.27	5.0	19.5	
		12	7	18.96	19.12	19.31	5.0	19.5	
		12	13	18.93	19.22	19.34	5.0	19.5	
		25	0	18.89	19.10	19.25	5.0	19.5	

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
				131987	132322	132657			
				1711.5 MHz	1745 MHz	1778.5 MHz			
3 MHz	QPSK	1	0	23.67	24.00	24.12	0.0	24.5	
		1	8	23.81	24.03	24.28	0.0	24.5	
		1	14	23.69	23.99	24.16	0.0	24.5	
		8	0	22.77	22.98	23.07	1.0	23.5	
		8	4	22.79	22.99	23.13	1.0	23.5	
		8	7	22.79	23.08	23.14	1.0	23.5	
	16QAM	15	0	22.78	22.94	23.10	1.0	23.5	
		1	0	22.97	23.44	23.46	1.0	23.5	
		1	8	23.02	23.47	23.50	1.0	23.5	
		1	14	22.93	23.35	23.50	1.0	23.5	
		8	0	21.80	22.04	22.12	2.0	22.5	
		8	4	21.89	22.07	22.20	2.0	22.5	
	64QAM	8	7	21.87	22.13	22.18	2.0	22.5	
		15	0	21.83	22.00	22.15	2.0	22.5	
		1	0	22.00	22.18	22.36	2.0	22.5	
		1	8	22.08	22.34	22.50	2.0	22.5	
		1	14	21.99	22.29	22.36	2.0	22.5	
		8	0	20.82	21.07	21.21	3.0	21.5	
	256QAM	8	4	20.86	21.14	21.29	3.0	21.5	
		8	7	20.87	21.17	21.27	3.0	21.5	
		15	0	20.85	21.08	21.20	3.0	21.5	
		1	0	18.88	19.15	19.31	5.0	19.5	
		1	8	19.06	19.35	19.50	5.0	19.5	
		1	14	18.93	19.25	19.33	5.0	19.5	
	1.4 MHz	QPSK	8	0	18.90	19.08	19.27	5.0	19.5
			8	4	18.97	19.12	19.33	5.0	19.5
			8	7	18.92	19.18	19.29	5.0	19.5
15			0	18.85	19.10	19.31	5.0	19.5	
1			0	23.75	23.96	24.26	0.0	24.5	
1			3	23.77	24.11	24.21	0.0	24.5	
16QAM		1	5	23.74	23.99	24.14	0.0	24.5	
		3	0	23.70	24.01	24.13	0.0	24.5	
		3	1	23.73	24.07	24.17	0.0	24.5	
		3	3	23.70	24.08	24.16	0.0	24.5	
		6	0	22.72	22.96	23.17	1.0	23.5	
		1	0	23.00	23.17	23.45	1.0	23.5	
64QAM		1	3	23.09	23.13	23.50	1.0	23.5	
		1	5	23.00	23.23	23.46	1.0	23.5	
		3	0	22.92	23.11	23.33	1.0	23.5	
		3	1	22.93	23.07	23.35	1.0	23.5	
		3	3	22.81	23.15	23.40	1.0	23.5	
		6	0	21.86	21.98	22.14	2.0	22.5	
256QAM		1	0	22.07	22.13	22.35	2.0	22.5	
		1	3	21.96	22.20	22.46	2.0	22.5	
		1	5	21.94	22.11	22.40	2.0	22.5	
		3	0	21.89	22.16	22.23	2.0	22.5	
		3	1	21.90	22.18	22.23	2.0	22.5	
		3	3	21.96	22.15	22.24	2.0	22.5	
QPSK		6	0	20.96	21.06	21.22	3.0	21.5	
		1	0	18.99	19.09	19.35	5.0	19.5	
		1	3	19.06	19.20	19.32	5.0	19.5	
	1	5	19.04	19.19	19.22	5.0	19.5		
	3	0	18.95	19.01	19.36	5.0	19.5		
	3	1	18.97	19.18	19.39	5.0	19.5		
16QAM	3	3	18.91	19.09	19.35	5.0	19.5		
	6	0	18.68	19.03	19.20	5.0	19.5		

**NR Band n66**

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
					Measured Pwr (dBm)			MPR	Tune-up Limit
					346000	349000	352000		
					1730 MHz	1745 MHz	1760 MHz		
40 MHz	DFT-s-OFDM	π/2 BPSK		1	23.39	23.73	23.95	0.0	24.5
			1	108	23.71	24.06	23.96	0.0	24.5
			1	214	24.02	24.04	23.95	0.0	24.5
			108	0	22.72	23.12	23.19	0.5	24.0
			108	54	23.84	24.17	24.20	0.0	24.5
			108	108	23.06	23.32	23.27	0.5	24.0
			216	0	22.85	23.21	23.17	0.5	24.0
		QPSK	1	1	23.50	23.87	24.05	0.0	24.5
			1	108	23.89	24.22	24.11	0.0	24.5
			1	214	24.11	24.17	24.09	0.0	24.5
			108	0	22.72	23.16	23.20	1.0	23.5
			108	54	23.92	24.19	24.19	0.0	24.5
			108	108	23.15	23.33	23.33	1.0	23.5
			216	0	22.93	23.23	23.18	1.0	23.5
		16QAM	1	1	22.52	22.89	23.04	1.0	23.5
1	108		22.83	23.17	23.10	1.0	23.5		
1	214		23.13	23.17	23.10	1.0	23.5		
64QAM	1	1	21.18	21.61	21.78	2.5	22.0		
256QAM	1	1	18.48	18.86	19.03	4.5	20.0		
CP-OFDM	QPSK	1	1	22.04	22.39	22.60	1.5	23.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					345000	349000	353000		
					1725 MHz	1745 MHz	1765 MHz		
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.21	23.54	24.02	0.0	24.5
			1	80	23.43	23.86	24.04	0.0	24.5
			1	158	23.65	23.87	24.06	0.0	24.5
			80	0	22.68	23.02	23.20	0.5	24.0
			80	40	23.85	24.11	24.23	0.0	24.5
			80	80	23.08	23.25	23.32	0.5	24.0
			160	0	22.88	23.17	23.20	0.5	24.0
		QPSK	1	1	23.57	23.98	24.19	0.0	24.5
			1	80	23.78	24.20	24.17	0.0	24.5
			1	158	24.00	24.18	24.16	0.0	24.5
			80	0	22.78	23.10	23.21	1.0	23.5
			80	40	23.84	24.17	24.18	0.0	24.5
			80	80	23.10	23.28	23.27	1.0	23.5
			160	0	22.91	23.19	23.24	1.0	23.5
		16QAM	1	1	22.61	22.94	23.17	1.0	23.5
		64QAM	1	1	21.24	21.67	21.84	2.5	22.0
		256QAM	1	1	18.60	18.99	19.19	4.5	20.0
		CP-OFDM	QPSK	1	1	22.10	22.51	22.68	1.5

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
					344000	349000	354000			
					1720 MHz	1745 MHz	1770 MHz			
20 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	23.53	24.03	23.97	0.0	24.5	
			1	53	23.65	24.03	24.00	0.0	24.5	
			1	104	23.84	24.11	24.03	0.0	24.5	
			50	0	22.71	23.20	23.11	0.5	24.0	
			50	28	23.80	24.20	24.20	0.0	24.5	
			50	56	22.92	23.23	23.22	0.5	24.0	
			100	0	22.81	23.25	23.21	0.5	24.0	
		QPSK	1	1	23.62	24.12	24.10	0.0	24.5	
			1	53	23.77	24.17	24.17	0.0	24.5	
			1	104	24.02	24.21	24.18	0.0	24.5	
			50	0	22.72	23.25	23.16	1.0	23.5	
			50	28	23.78	24.25	24.19	0.0	24.5	
			50	56	22.92	23.23	23.21	1.0	23.5	
		100	0	22.83	23.25	23.20	1.0	23.5		
16QAM	1	1	22.66	23.13	23.12	1.0	23.5			
64QAM	1	1	21.32	21.90	21.75	2.5	22.0			
256QAM	1	1	18.66	19.14	19.10	4.5	20.0			
CP-OFDM	QPSK	1	1	20.80	22.67	22.61	1.5	23.0		
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
					343500	349000	354500			
					1717.5 MHz	1745 MHz	1772.5 MHz			
15 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	23.33	23.94	24.03	0.0	24.5	
			1	40	23.58	24.03	23.99	0.0	24.5	
			1	77	23.84	24.14	24.05	0.0	24.5	
			36	0	22.77	23.25	23.23	0.5	24.0	
			36	22	23.81	24.19	24.18	0.0	24.5	
			36	43	22.96	23.27	23.23	0.5	24.0	
			75	0	22.85	23.26	23.19	0.5	24.0	
		QPSK	1	1	23.62	24.14	24.14	0.0	24.5	
			1	40	23.78	24.18	24.09	0.0	24.5	
			1	77	23.92	24.19	24.12	0.0	24.5	
			36	0	22.79	23.27	23.25	1.0	23.5	
			36	22	23.83	24.24	24.19	0.0	24.5	
			36	43	22.99	23.25	23.21	1.0	23.5	
		75	0	22.89	23.27	23.17	1.0	23.5		
		16QAM	1	1	22.62	23.10	23.17	1.0	23.5	
		64QAM	1	1	21.32	21.78	21.84	2.5	22.0	
		256QAM	1	1	18.62	19.05	19.16	4.5	20.0	
		CP-OFDM	QPSK	1	1	22.14	22.59	22.65	1.5	23.0

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					343000	349000	355000		
					1715 MHz	1745 MHz	1775 MHz		
10 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	23.56	23.75	23.97	0.0	24.5
			1	26	23.56	23.97	23.98	0.0	24.5
			1	50	23.68	24.00	23.98	0.0	24.5
			25	0	22.68	23.02	23.11	0.5	24.0
			25	14	23.67	24.15	24.14	0.0	24.5
			25	27	22.81	23.13	23.12	0.5	24.0
			50	0	22.65	23.13	23.12	0.5	24.0
		QPSK	1	1	23.67	23.97	24.08	0.0	24.5
			1	26	23.66	24.14	24.12	0.0	24.5
			1	50	23.74	24.10	24.10	0.0	24.5
			25	0	22.66	23.03	23.15	1.0	23.5
			25	14	23.65	24.10	24.08	0.0	24.5
			25	27	22.82	23.10	23.14	1.0	23.5
	50	0	22.67	23.07	23.10	1.0	23.5		
16QAM	1	1	22.67	23.01	23.12	1.0	23.5		
64QAM	1	1	21.37	21.72	21.82	2.5	22.0		
256QAM	1	1	18.66	19.01	19.13	4.5	20.0		
CP-OFDM	QPSK	1	1	22.16	22.49	22.10	1.5	23.0	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					342500	349000	355500		
					1712.5 MHz	1745 MHz	1777.5 MHz		
5 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	1	23.26	23.79	22.93	0.0	24.5
			1	13	23.33	23.96	23.98	0.0	24.5
			1	23	23.44	23.94	23.89	0.0	24.5
			12	0	22.63	23.11	23.08	0.5	24.0
			12	7	23.62	24.10	24.05	0.0	24.5
			12	13	22.65	23.08	23.08	0.5	24.0
			25	0	22.59	23.11	23.10	0.5	24.0
		QPSK	1	1	23.64	23.97	24.01	0.0	24.5
			1	13	23.62	24.10	24.06	0.0	24.5
			1	23	23.61	24.08	24.04	0.0	24.5
			12	0	22.67	23.10	23.05	1.0	23.5
			12	7	23.61	24.11	24.03	0.0	24.5
			12	13	22.65	23.16	23.10	1.0	23.5
	25	0	22.60	23.09	23.08	1.0	23.5		
16QAM	1	1	22.58	22.97	23.07	1.0	23.5		
64QAM	1	1	21.33	21.69	21.75	2.5	22.0		
256QAM	1	1	18.61	18.98	18.18	4.5	20.0		
CP-OFDM	QPSK	1	1	22.04	22.46	22.51	1.5	23.0	

## 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

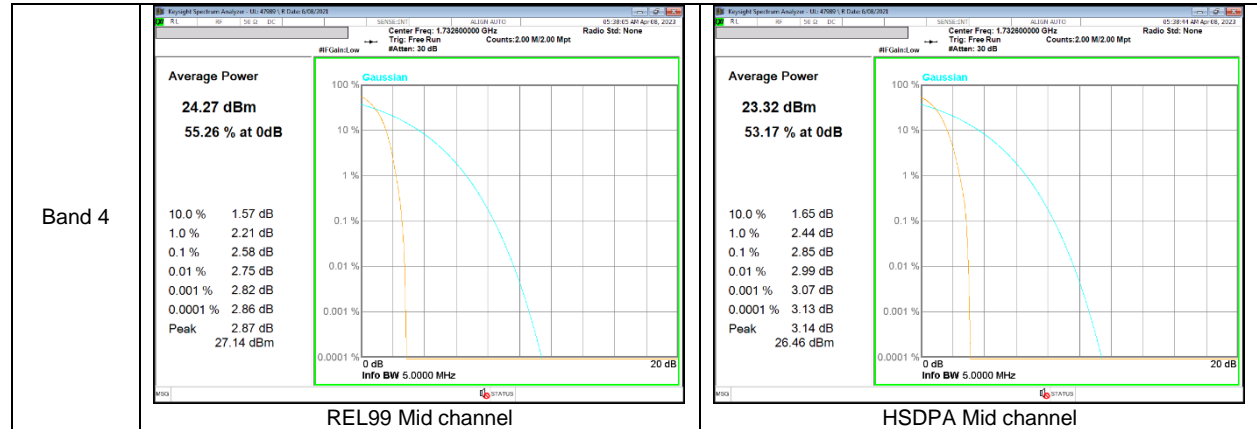
5G NR: All Waveforms (CP-OFDM vs DFT-s\_OFDM) and modulations ( $\pi/2$  BPSK, QPSK, 16QAM, 64QAM, 256QAM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

### RESULTS

See the following pages.

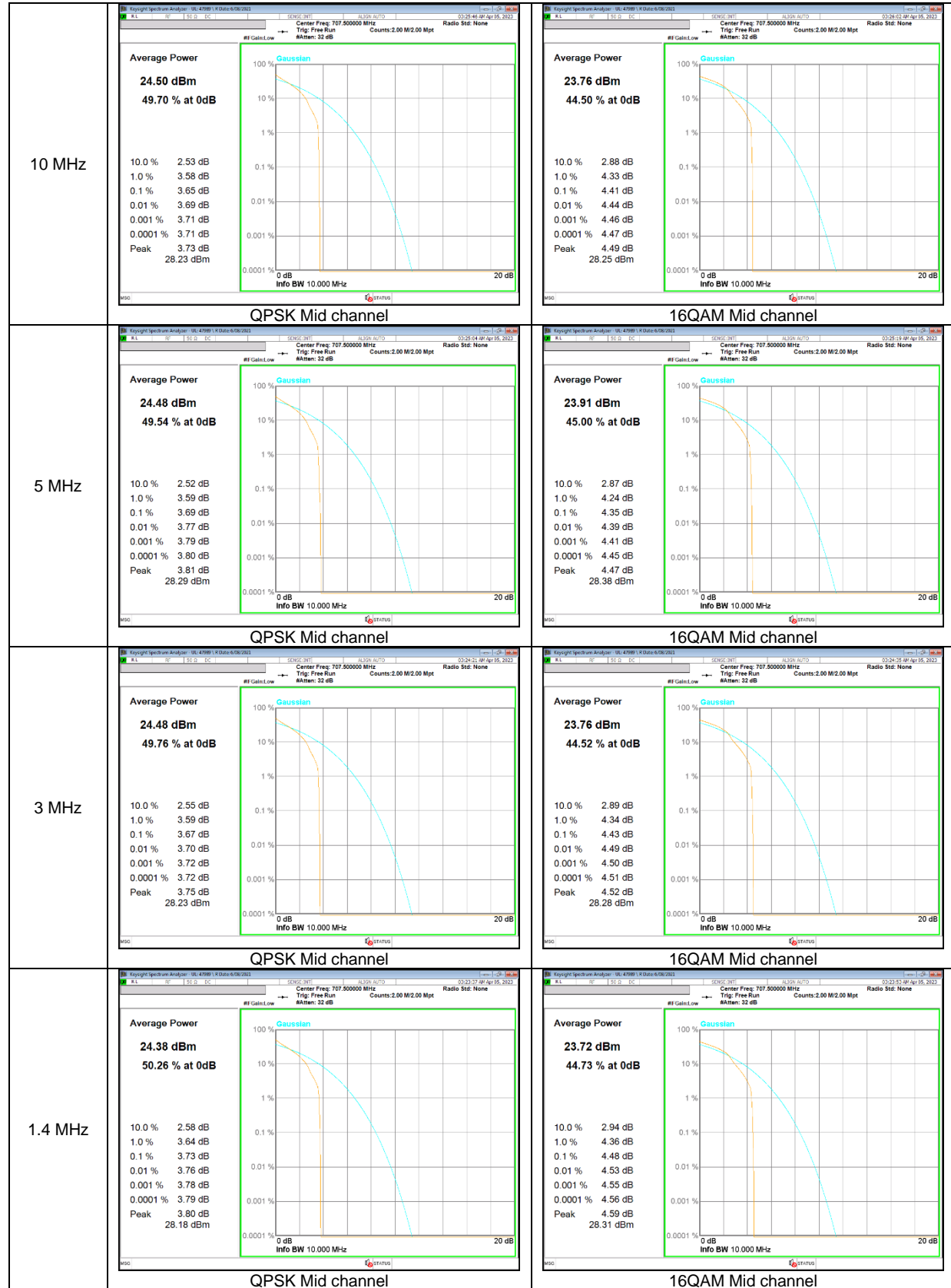
### 8.2.1. CONDUCTED PEAK TO AVERAGE RESULT

#### WCDMA

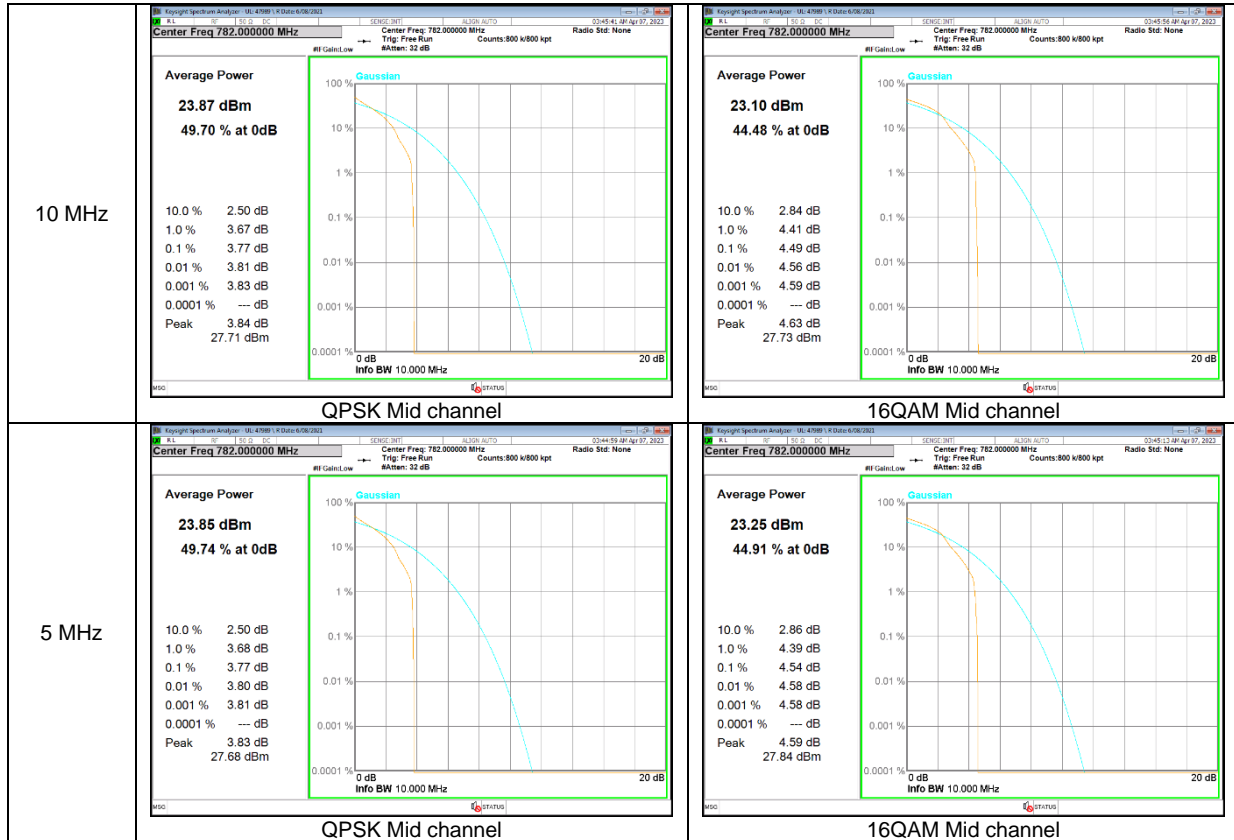




**LTE Band 12**



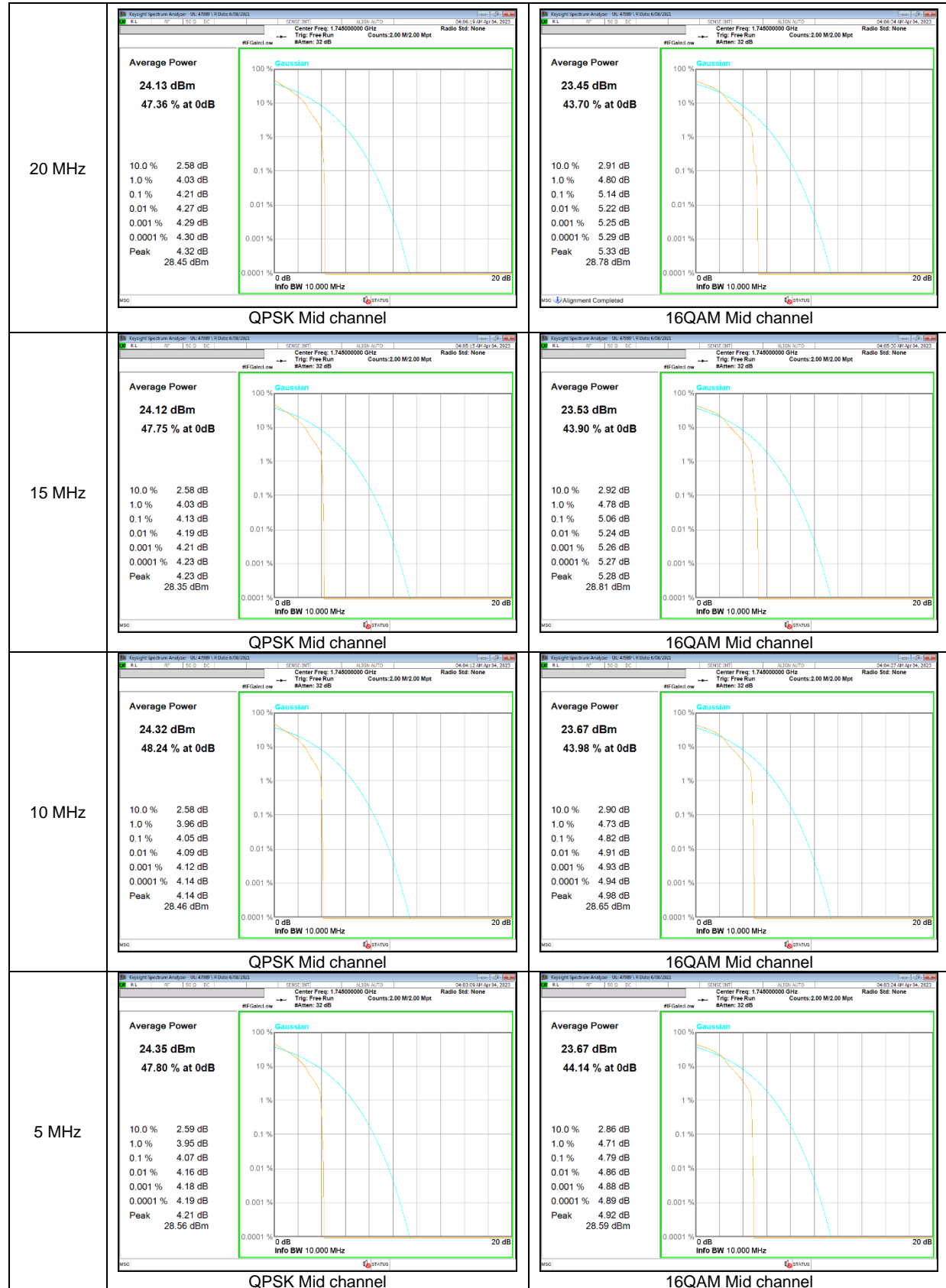
**LTE Band 13**

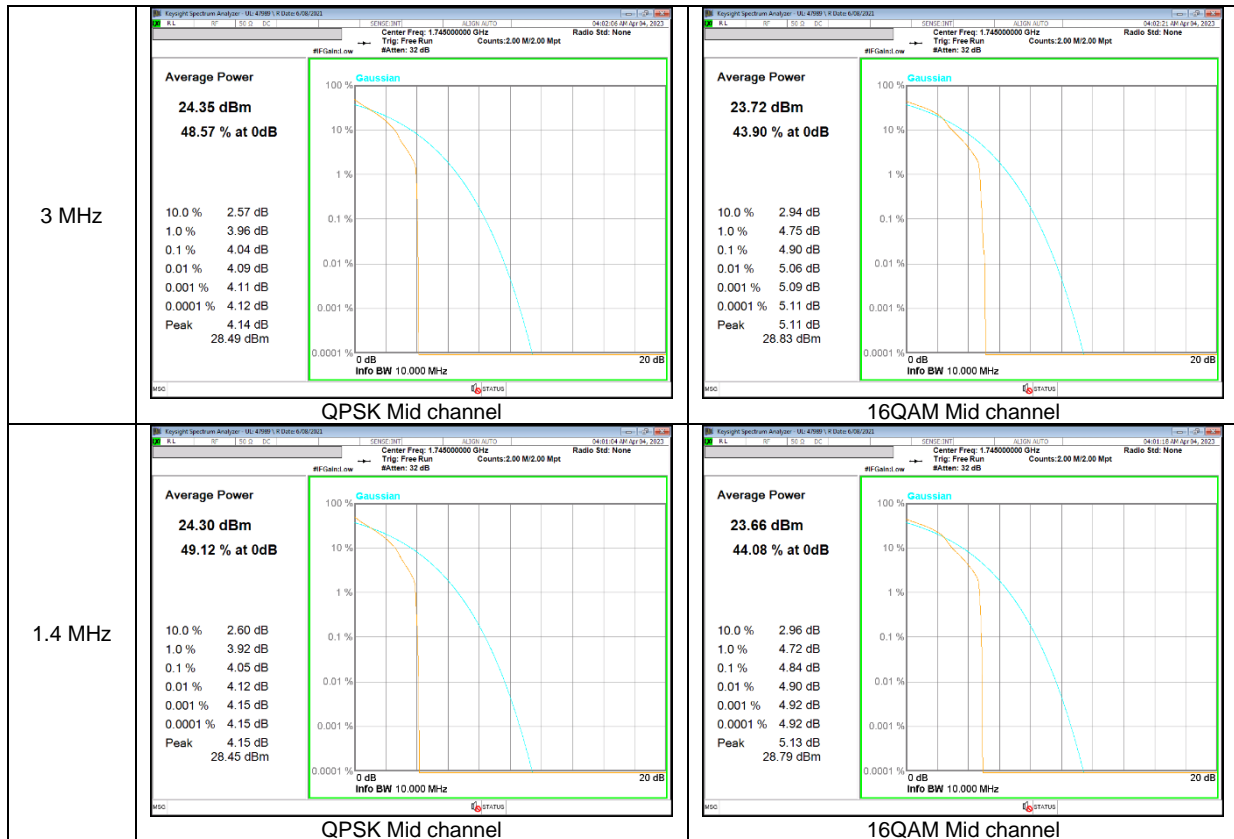


**LTE Band 41(PC2)**

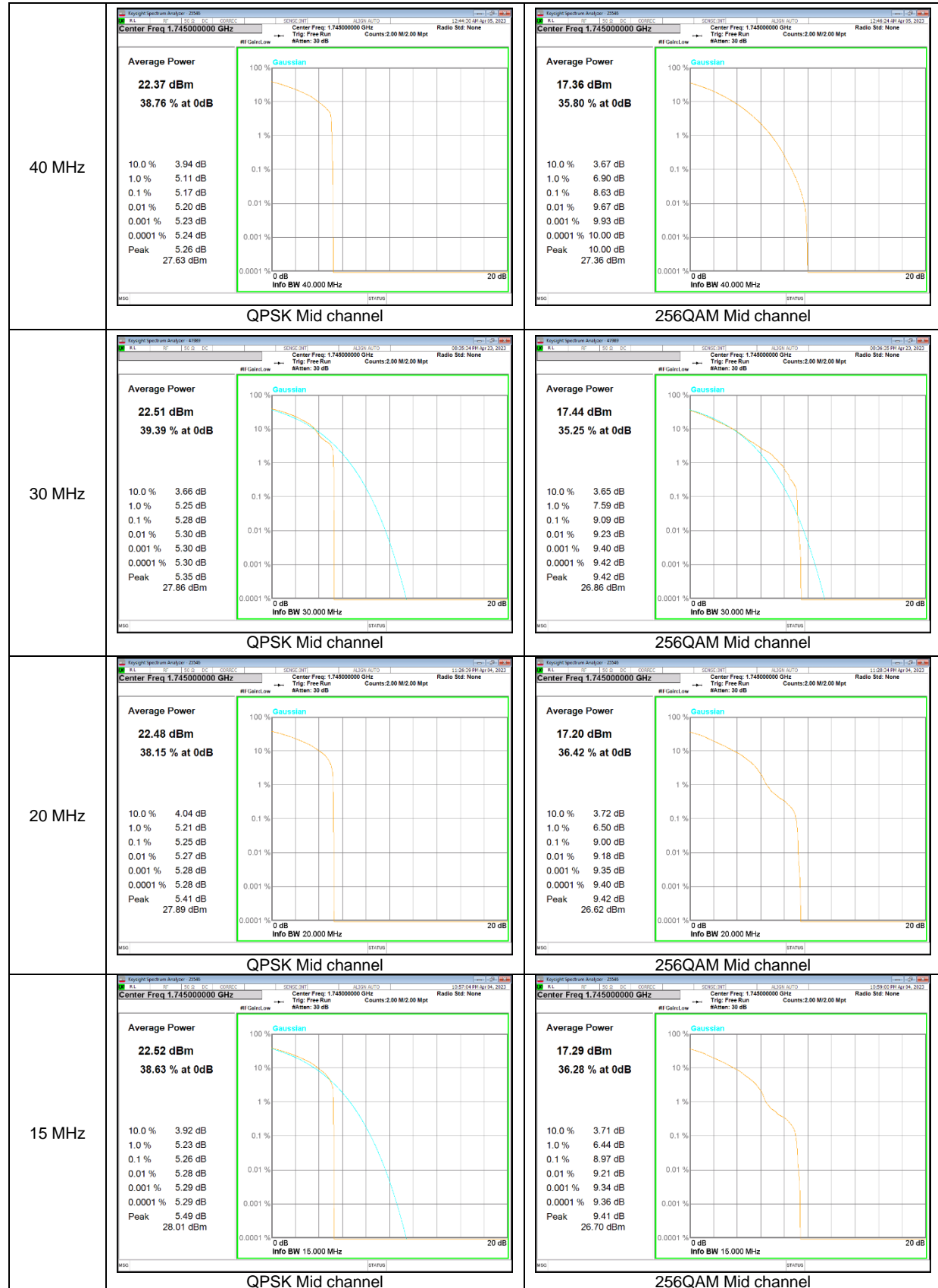


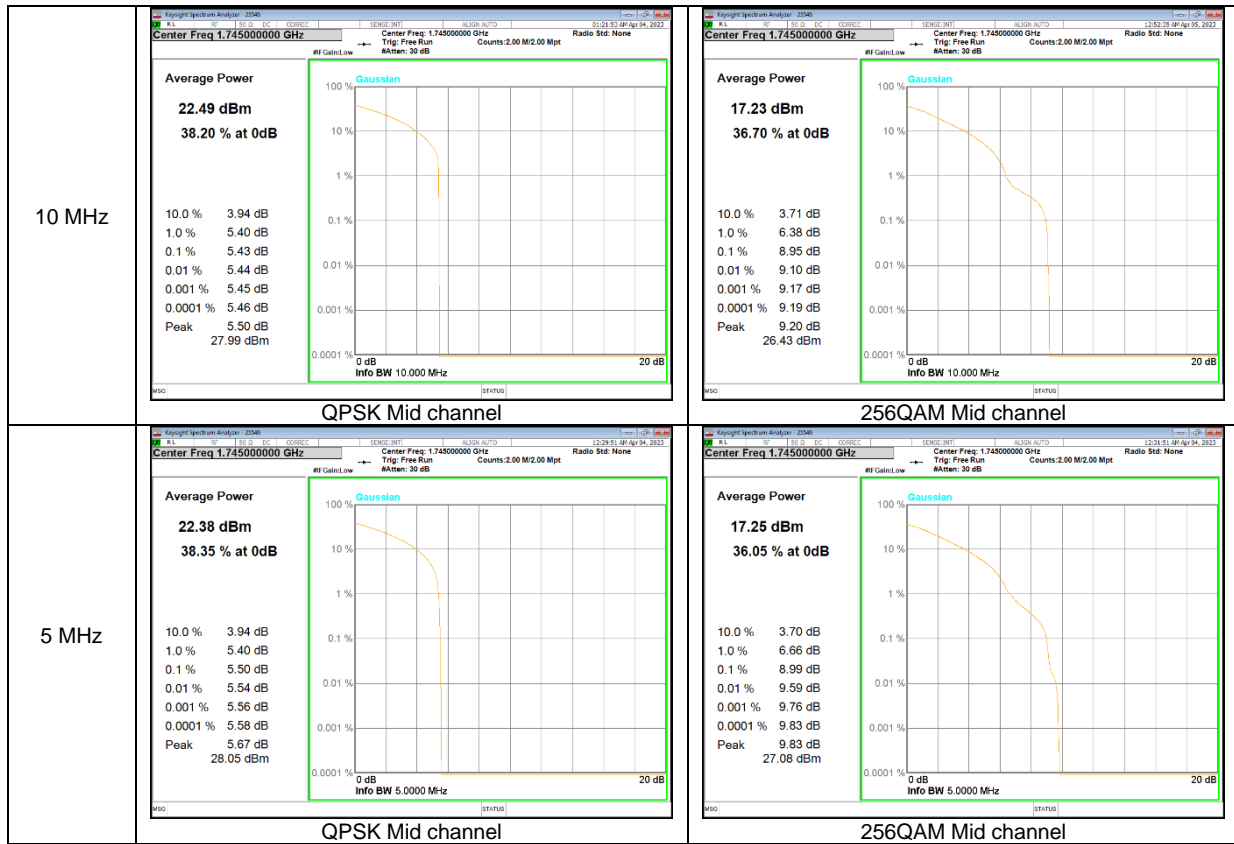
**LTE Band 66**





**NR Band n66 CP-OFDM**





### **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.



**- WCDMA**

Band	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
B4	Rel.99	1732.6	4.156	4.74
	HSDPA		4.155	4.73

**- LTE Band 12**

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B12	10M	QPSK	707.5	8.946	9.88
		16QAM		8.948	9.89
	5M	QPSK		4.499	5.06
		16QAM		4.504	5.12
	3M	QPSK		2.694	3.02
		16QAM		2.701	3.04
	1.4M	QPSK		1.092	1.34
		16QAM		1.091	1.35

**- LTE Band 13**

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B13	10M	QPSK	782.0	8.949	9.86
		16QAM		8.959	9.85
	5M	QPSK		4.500	5.08
		16QAM		4.490	5.13

**- LTE Band 41(PC2)**

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B41(PC2)	20M	QPSK	2593.0	17.916	19.47
		16QAM		17.878	19.38
	15M	QPSK		13.461	14.80
		16QAM		13.449	14.63
	10M	QPSK		8.968	9.88
		16QAM		8.943	9.77
	5M	QPSK		4.478	5.08
		16QAM		4.500	5.12

**- LTE Band 66**

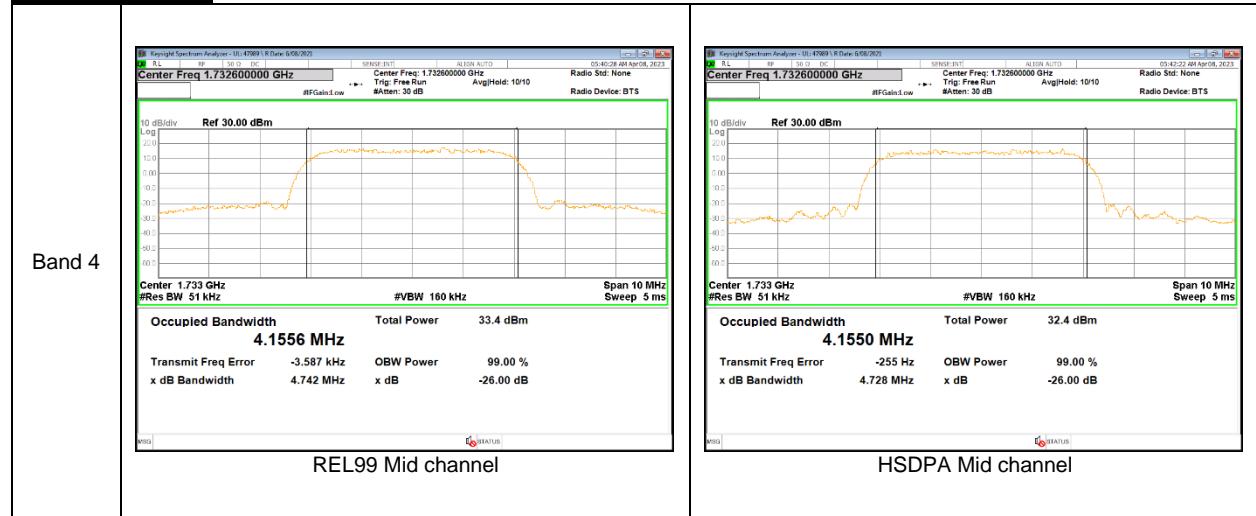
Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B66	20M	QPSK	1745.0	17.928	19.78
		16QAM		17.907	19.58
	15M	QPSK		13.437	14.82
		16QAM		13.426	14.62
	10M	QPSK		8.961	9.95
		16QAM		8.972	9.94
	5M	QPSK		4.496	5.17
		16QAM		4.493	5.10
	3M	QPSK		2.697	3.05
		16QAM		2.701	3.02
	1.4M	QPSK		1.089	1.32
		16QAM		1.094	1.33

**- NR Band n66 CP-OFDM**

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
NR n66	40M	QPSK	1745.0	38.576	40.33
		16QAM		38.716	40.25
	30M	QPSK		28.595	30.04
		16QAM		28.671	29.89
	20M	QPSK		18.959	19.94
		16QAM		18.944	19.93
	15M	QPSK		14.101	15.13
		16QAM		14.072	14.76
	10M	QPSK		9.310	10.09
		16QAM		9.295	10.10
	5M	QPSK		4.483	5.10
		16QAM		4.493	4.98

### 8.3.1. OCCUPIED BANDWIDTH RESULTS

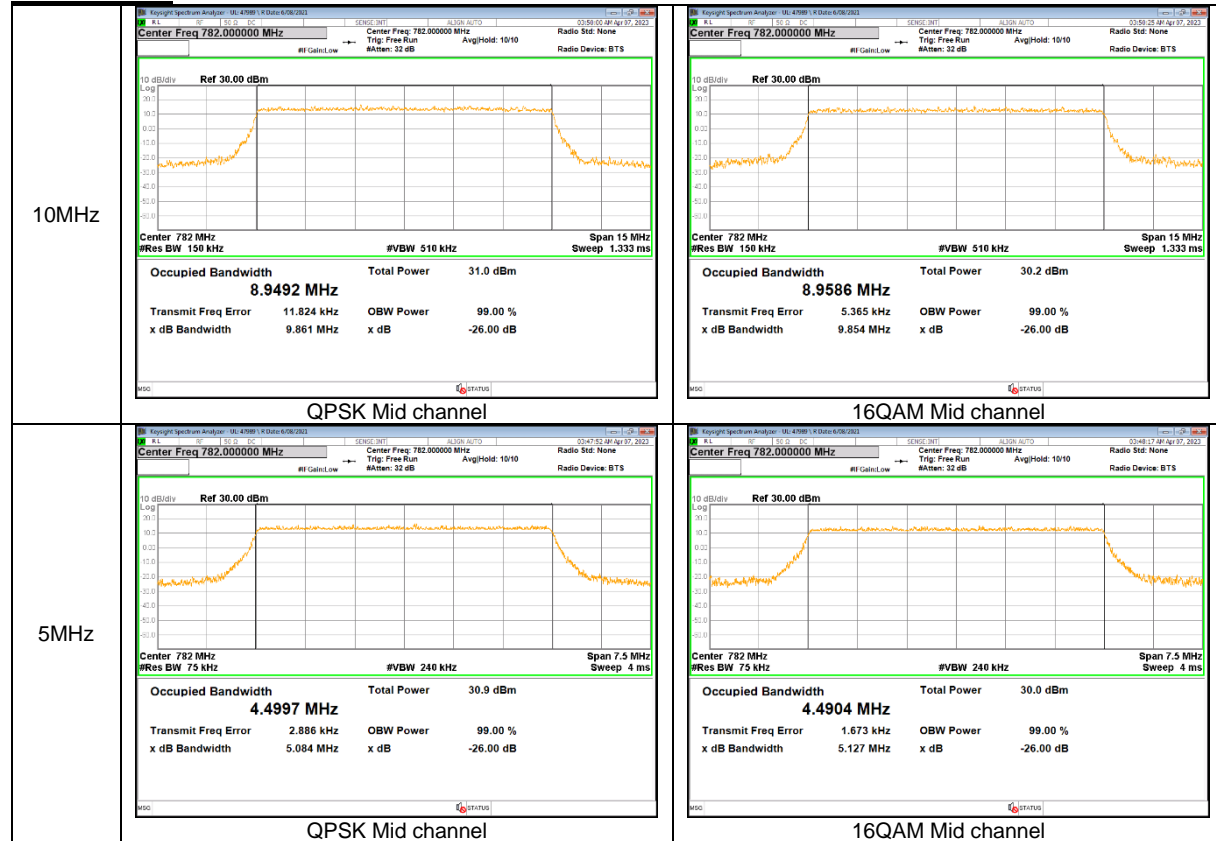
#### WCDMA Band 4



**LTE Band 12**



**LTE Band 13**

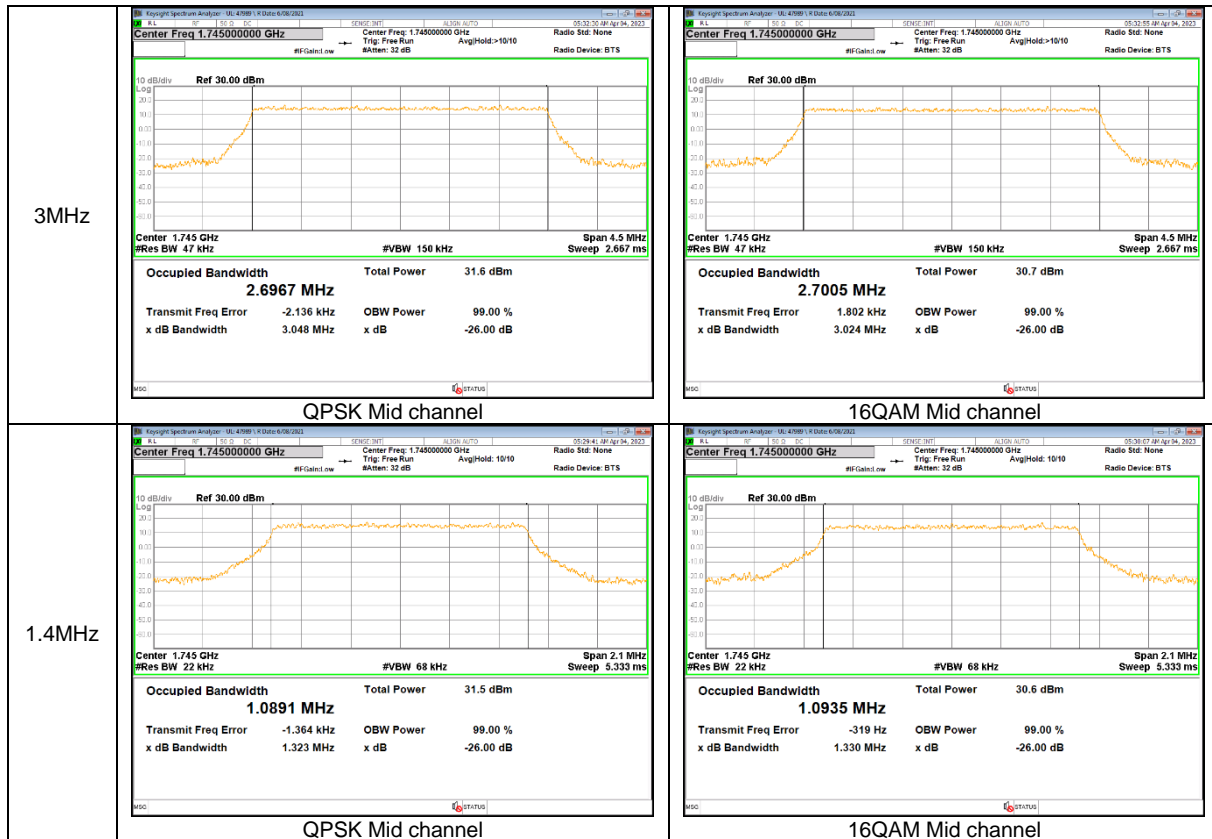


**LTE Band 41(PC2)**



**LTE Band 66**







**NR Band n66 CP-OFDM**





## 8.4. BAND EDGE EMISSIONS

### RULE PART(S)

FCC: §27. 53

### LIMITS

Part 27.53:

(c) For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

(2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log (P)$  dB;

(4) On all frequencies between 763-775 MHz and 793-806 MHz, by a factor not less than  $65 + 10 \log (P)$  dB in a 6.25 kHz band segment, for mobile and portable stations;

(h) The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least  $43 + 10 \log_{10} (P)$  dB.

(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.

### 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.

### WCDMA/LTE/5G NR

- a) Set the RBW = 1 - 1.5 % of OBW (Typically limited to a minimum RBW of 1% of the OBW)
- b) Set VBW  $\geq 3 \times$  RBW;
- c) Set span  $\geq 1.5$  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**

For frequency range of 763-775 MHz and 793-806 MHz, 769-775 MHz and 799-805 MHz.(LTE Band 13)

- a) Set the RBW = 6.2 kHz
- b) Set VBW  $\geq 3 \times$  RBW;
- c) Sweep time = 1 second ;
- d) Detector = RMS;
- e) Ensure that the number of measurement points  $\geq 2 \times$  Span/RBW;
- f) Trace mode = Average;

**NOTE2**

Note that the spurious emissions outside of the channel include narrowband signals. These signals are all below the -13dBm / -25dBm limits. Although the measurement bandwidth is less than the reference bandwidth of 1MHz no addtional correction is applied as ANSI C63.26 section 4.2.3 only requires the correction to be applied when the OBW of the emission being measured is wider than the measurement bandwidth (Where the OBW of the signal under measurement is less than the RBW of the measuring instrument, no bandwidth correction or integration will be required.) Plots for low and high channels show the level of the emission measured with the reduced bandwidth and the level of the same emission measured using the integration method over the 1MHz reference bandwidth are very close, indicating the emissions are narrowband.

**NOTE3**

For Band-Edge extended:

CH BW (MHz)	RB Used (kHz)	CF for emissions more than 100kHz	CF for emissions more than 1MHz
1.4	15	+8.2 dB	+18.2 dB
3	30	+5.2 dB	+15.2 dB
5	51	+2.9 dB	+12.9 dB
10	100	N/A	+10.0 dB
15	150	N/A	+8.2 dB
20	200	N/A	+7.0 dB

For the band edge value measured in [RB Used], even if [CF for emissions reference bandwidth 100kHz/1MHz] is applied, it is below -13dBm.

**NOTE4**

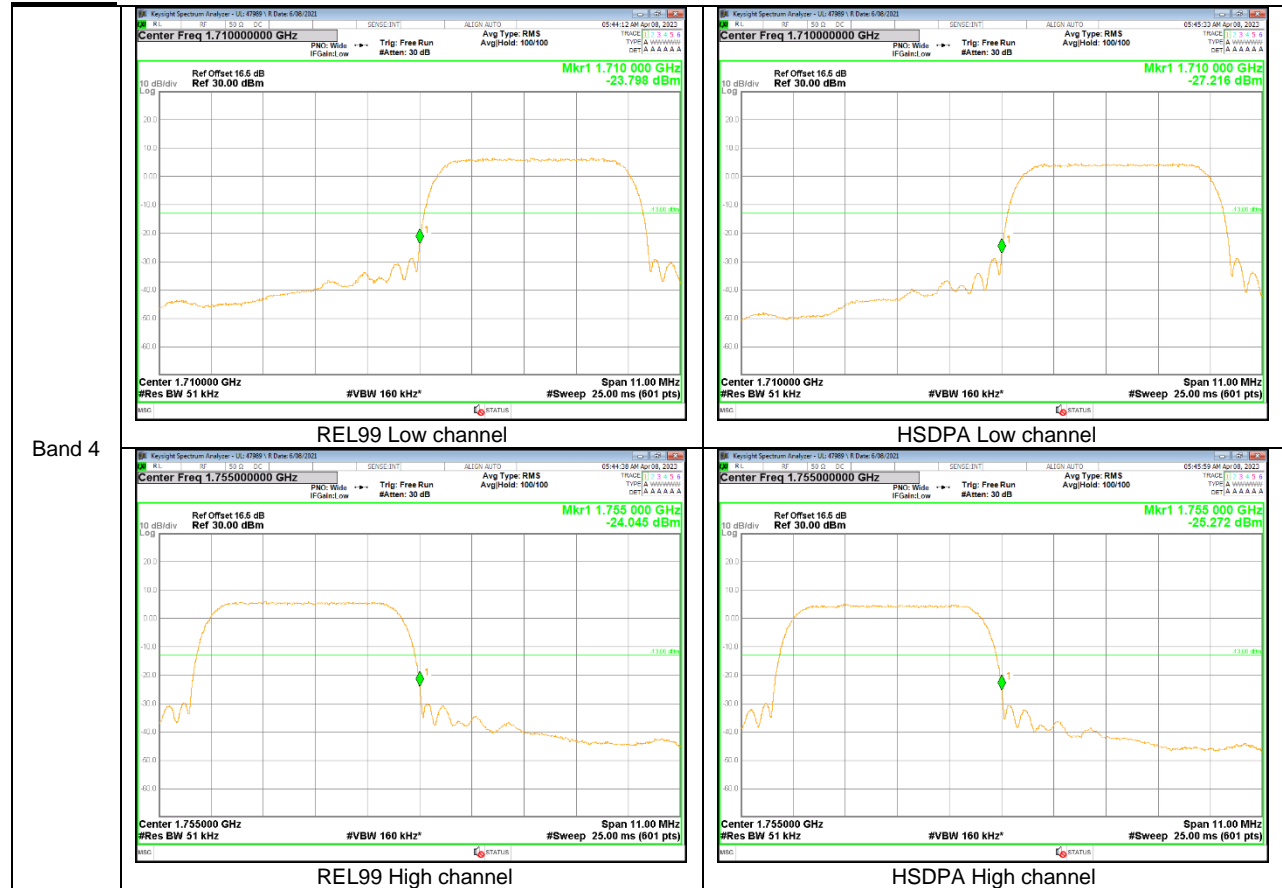
5G NR: All Waveforms (CP-OFDM vs DFT-s\_OFDM) and modulations ( $\pi/2$  BPSK, QPSK, 16QAM, 64QAM, 256QAM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

**RESULTS**

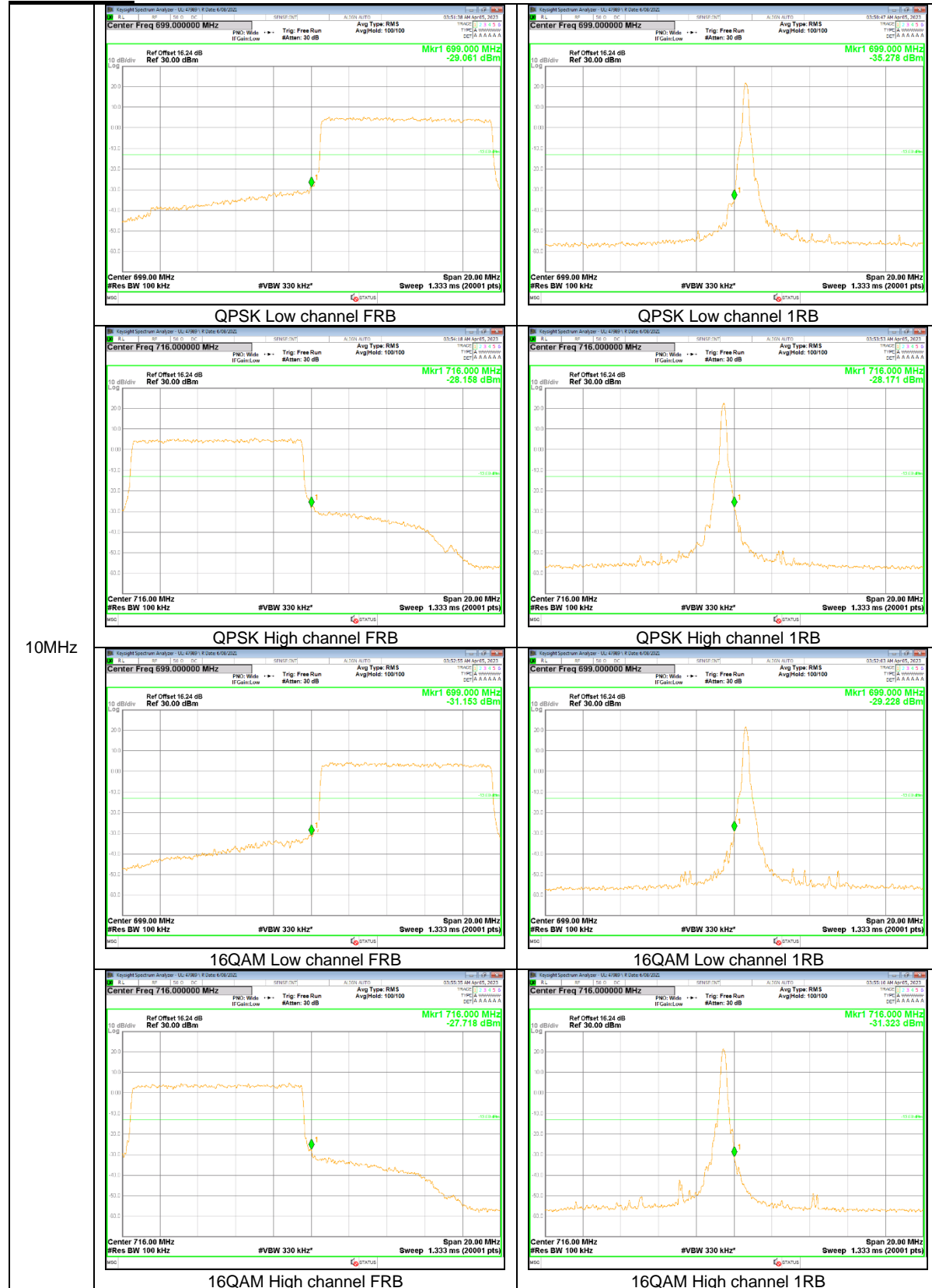
See the following pages.

### 8.4.1. BAND EDGE RESULT

#### WCDMA



LTE Band 12



10MHz