

CERTIFICATION TEST REPORT

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

Model : SM-S937U, SM-S937U1

FCC ID : A3LSMS937U

EUT Description : GSM/WCDMA/LTE/NTN 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 22 SUBPART H
FCC 47 CFR PART 90 SUBPART R,S

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Revision History

Rev.	Issue Date	Revisions	Revised By
V1	2025-02-21	Initial issue	Yeonhee Lim
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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: SAMSUNG ELECTRONICS CO., LTD.

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

MODEL NUMBER: SM-S937U, SM-S937U1

SERIAL NUMBER: R3CXC0G5CTD, R3CXC0G5DAF, R3CXC0HMH4H, R3CXC0G5ASPB,
R3CXC0HMSYK (CONDUCTED);
R3CXC0G5CZP, R3CXC0G5B4F, R3CXC0G5R3R (RADIATED);

DATE TESTED: 2025-01-20 – 2025-02-21;

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 22H, 90R,S	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:



Seokhwan Hong
Suwon Lab Engineer
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 47 CFR Part 2.
2. FCC 47 CFR Part 22.
3. FCC 47 CFR Part 90.
4. ANSI TIA-603-E, 2016
5. ANSI C63.26, 2015
6. KDB 971168 D01 Power Meas License Digital Systems v03r01
7. KDB 971168 D02 Misc Rev Approv License Devices v02r02
8. KDB 412172 D01 Determining ERP and EIRP v01r01
9. KDB 648474 D03 Wireless Chargers Battery Cover v01r04

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:

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

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	3.69 dB
Radiated Disturbance, 1 GHz to 18 GHz	5.18 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

The EUT is a GSM/WCDMA/LTE/NTN 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.

Representative model	Difference	Derivative model
		SM-S937U1
SM-S937U	Hardware	Same
	Software	The UI has changed according to Service Provider

The model SM-S937U used for final testing and is representative of the test results in this report.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum average radiated ERP output powers as follows:

GSM

FCC Part 22							
Band	ANT	Frequency Range [MHz]	Modulation	Conducted		Radiated	
				Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
GSM 850	A	824.20 ~ 848.80	GPRS	33.30	2137.96	24.95	312.61
			EGPRS	27.32	539.51	21.73	148.94
GSM 850	E	824.20 ~ 848.80	GPRS	33.12	2051.16	30.84	1213.39
			EGPRS	27.21	526.02	25.35	342.77

WCDMA

FCC Part 22							
Band	ANT	Frequency Range [MHz]	Modulation	Conducted		Radiated	
				Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 5	A	826.40 ~ 846.60	Rel. 99	24.05	254.10	15.81	38.11
			HSDPA	23.08	203.24	14.43	27.73
Band 5	E	826.40 ~ 846.60	Rel. 99	24.03	252.93	21.02	126.47
			HSDPA	23.07	202.77	20.18	104.23

LTE Band 14

FCC Part 90								
Band	ANT	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
					Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 14	A	793.00	10	QPSK	24.08	255.86	15.82	38.19
				16QAM	23.37	217.27	14.88	30.76
				64QAM	22.46	176.20		
				256QAM	19.39	86.90		
		790.50 ~ 795.50	5	QPSK	24.89	308.32	15.90	38.90
				16QAM	23.62	230.14	14.94	31.19
				64QAM	22.54	179.47		
				256QAM	19.61	91.41		
Band 14	E	793.00	10	QPSK	23.80	239.88	22.00	158.49
				16QAM	23.42	219.79	21.08	128.23
				64QAM	21.93	155.96		
				256QAM	19.39	86.90		
		790.50 ~ 795.50	5	QPSK	23.94	247.74	22.26	168.27
				16QAM	23.34	215.77	21.22	132.43
				64QAM	22.53	179.06		
				256QAM	19.11	81.47		

LTE Band 26 (Part 90)

FCC Part 90								
Band	ANT	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
					Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 26	A	821.50	15	QPSK	23.87	243.78	16.32	42.85
				16QAM	22.98	198.61	15.34	34.20
				64QAM	22.13	163.31		
				256QAM	19.06	80.54		
		819.00	10	QPSK	24.01	251.77	16.51	44.77
				16QAM	23.01	199.99	15.42	34.83
				64QAM	22.13	163.31		
				256QAM	19.07	80.72		
		816.50 ~ 821.50	5	QPSK	23.96	248.89	16.41	43.75
				16QAM	22.92	195.88	15.40	34.67
				64QAM	22.05	160.32		
				256QAM	19.16	82.41		
		815.50 ~ 822.50	3	QPSK	23.86	243.22	16.28	42.46
				16QAM	23.10	204.17	15.59	36.22
				64QAM	22.07	161.06		
				256QAM	18.92	77.98		
		814.70 ~ 823.30	1.4	QPSK	23.70	234.42	16.13	41.02
				16QAM	23.16	207.01	15.50	35.48
				64QAM	21.94	156.31		
				256QAM	18.92	77.98		
Band 26	E	821.50	15	QPSK	23.70	234.42	20.69	117.22
				16QAM	22.89	194.54	19.90	97.72
				64QAM	22.02	159.22		
				256QAM	18.79	75.68		
		819.00	10	QPSK	23.64	231.21	20.54	113.24
				16QAM	22.81	190.99	19.73	93.97
				64QAM	21.92	155.60		
				256QAM	18.84	76.56		
		816.50 ~ 821.50	5	QPSK	24.11	257.63	21.10	128.82
				16QAM	23.21	209.41	20.22	105.20
				64QAM	21.75	149.62		
				256QAM	18.84	76.56		
		815.50 ~ 822.50	3	QPSK	24.00	251.19	21.07	127.94
				16QAM	23.27	212.32	20.24	105.68
				64QAM	22.30	169.82		
				256QAM	19.13	81.85		
		814.70 ~ 823.30	1.4	QPSK	23.80	239.88	20.95	124.45
				16QAM	23.09	203.70	20.14	103.28
				64QAM	22.15	164.06		
				256QAM	19.08	80.91		

LTE Band 26 (Straddle)

Straddle								
Band	ANT	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
					Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 26	A	824.00	15	QPSK	24.10	257.04	16.17	41.40
				16QAM	23.15	206.54	15.33	34.12
				64QAM	22.35	171.79		
				256QAM	18.87	77.09		
			10	QPSK	23.93	247.17	16.00	39.81
				16QAM	23.12	205.12	15.30	33.88
				64QAM	22.35	171.79		
				256QAM	19.07	80.72		
			5	QPSK	23.87	243.78	15.94	39.26
				16QAM	23.12	205.12	15.30	33.88
				64QAM	22.05	160.32		
				256QAM	19.09	81.10		
			3	QPSK	23.79	239.33	15.86	38.55
				16QAM	22.95	197.24	15.13	32.58
				64QAM	22.05	160.32		
				256QAM	18.88	77.27		
			1.4	QPSK	23.72	235.50	15.79	37.93
				16QAM	22.85	192.75	15.03	31.84
				64QAM	22.17	164.82		
				256QAM	18.82	76.21		
Band 26	E	824.00	15	QPSK	23.76	237.68	21.04	127.06
				16QAM	22.99	199.07	20.16	103.75
				64QAM	21.95	156.68		
				256QAM	18.95	78.52		
			10	QPSK	23.84	242.10	21.12	129.42
				16QAM	22.93	196.34	20.10	102.33
				64QAM	21.93	155.96		
				256QAM	18.84	76.56		
			5	QPSK	24.19	262.42	21.47	140.28
				16QAM	22.69	185.78	19.86	96.83
				64QAM	21.87	153.82		
				256QAM	18.94	78.34		
			3	QPSK	24.12	258.23	21.40	138.04
				16QAM	23.10	204.17	20.27	106.41
				64QAM	22.27	168.66		
				256QAM	19.08	80.91		
			1.4	QPSK	23.96	248.89	21.24	133.05
				16QAM	23.23	210.38	20.40	109.65
				64QAM	22.40	173.78		
				256QAM	19.26	84.33		

LTE Band 26 (Part 22)

FCC Part 22								
Band	ANT	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Conducted		Radiated	
					Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
Band 26	A	831.50 ~ 841.50	15	QPSK	24.05	254.10	16.20	41.69
				16QAM	23.47	222.33	15.10	32.36
				64QAM	22.23	167.11		
				256QAM	19.21	83.37		
		829.00 ~ 844.00	10	QPSK	24.02	252.35	16.18	41.50
				16QAM	23.66	232.27	15.34	34.20
				64QAM	22.26	168.27		
				256QAM	19.22	83.56		
		826.50 ~ 846.50	5	QPSK	24.04	253.51	15.99	39.72
				16QAM	23.27	212.32	14.93	31.12
				64QAM	22.25	167.88		
				256QAM	19.11	81.47		
		825.50 ~ 847.50	3	QPSK	24.00	251.19	15.96	39.45
				16QAM	23.24	210.86	14.92	31.05
				64QAM	22.37	172.58		
				256QAM	19.24	83.95		
		824.70 ~ 848.30	1.4	QPSK	24.04	253.51	15.66	36.81
				16QAM	23.30	213.80	14.98	31.48
				64QAM	22.09	161.81		
				256QAM	19.68	92.90		
Band 26	E	831.50 ~ 841.50	15	QPSK	23.91	246.04	21.63	145.55
				16QAM	23.25	211.35	20.88	122.46
				64QAM	22.23	167.11		
				256QAM	19.03	79.98		
		829.00 ~ 844.00	10	QPSK	23.85	242.66	21.00	125.89
				16QAM	23.18	207.97	20.24	105.68
				64QAM	22.10	162.18		
				256QAM	19.15	82.22		
		826.50 ~ 846.50	5	QPSK	24.20	263.03	21.48	140.60
				16QAM	22.91	195.43	19.84	96.38
				64QAM	21.95	156.68		
				256QAM	19.01	79.62		
		825.50 ~ 847.50	3	QPSK	24.19	262.42	21.44	139.32
				16QAM	23.41	219.28	20.31	107.40
				64QAM	22.54	179.47		
				256QAM	19.18	82.79		
		824.70 ~ 848.30	1.4	QPSK	24.11	257.63	21.34	136.14
				16QAM	23.52	224.91	20.52	112.72
				64QAM	22.38	172.98		
				256QAM	19.10	81.28		

NR Band n14

FCC Part 27									
Band	ANT	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Mode	Conducted		Radiated	
						Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
n14	A	793.00	10	DFT-s OFDM	$\pi/2$ BPSK	24.19	262.42		
					QPSK	23.11	204.64	16.32	42.81
					16QAM	23.35	216.27	15.36	34.32
					64QAM	21.31	135.21		
					256QAM	19.06	80.54		
				CP-OFDM	QPSK	22.40	173.78		
					16QAM	21.91	155.24		
					64QAM	20.07	101.62		
					256QAM	17.41	55.08		
		790.50 ~ 795.50	5	DFT-s OFDM	$\pi/2$ BPSK	24.16	260.62		
					QPSK	24.21	263.63	16.44	44.01
					16QAM	23.58	228.03	15.39	34.62
					64QAM	21.49	140.93		
					256QAM	19.02	79.80		
				CP-OFDM	QPSK	22.06	160.69		
n14	E	793.00	10	DFT-s OFDM	$\pi/2$ BPSK	23.99	250.61		
					QPSK	23.84	242.10	22.04	159.96
					16QAM	23.02	200.45	20.87	122.18
					64QAM	21.19	131.52		
					256QAM	19.24	83.95		
				CP-OFDM	QPSK	22.37	172.58		
					16QAM	22.04	159.96		
					64QAM	21.03	126.77		
					256QAM	18.98	79.07		
		790.50 ~ 795.50	5	DFT-s OFDM	$\pi/2$ BPSK	24.03	252.93		
					QPSK	24.07	255.27	22.30	169.82
					16QAM	23.10	204.17	21.56	143.22
					64QAM	21.02	126.47		
					256QAM	18.94	78.34		
				CP-OFDM	QPSK	22.55	179.89		

NR Band n26 (Part 90)

FCC Part 90									
Band	ANT	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Mode	Conducted		Radiated	
						Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
n26	A	821.50	15	DFT-s OFDM	π/2 BPSK	24.14	259.42		
					QPSK	24.15	260.02	16.51	44.73
					16QAM	23.05	201.84	15.22	33.24
					64QAM	20.81	120.50		
				256QAM	18.80	75.86			
		CP-OFDM	QPSK	21.87	153.82				
		819.00	10	DFT-s OFDM	π/2 BPSK	23.92	246.60		
					QPSK	23.84	242.10	16.25	42.13
					16QAM	22.91	195.43	15.13	32.55
					64QAM	20.66	116.41		
				256QAM	18.66	73.45			
		CP-OFDM	QPSK	21.76	149.97				
		816.50 ~ 821.50	5	DFT-s OFDM	π/2 BPSK	23.70	234.42		
					QPSK	23.91	246.04	16.21	41.75
					16QAM	22.81	190.99	15.34	34.17
					64QAM	21.01	126.18		
				256QAM	18.92	77.98			
		CP-OFDM	QPSK	22.40	173.78				
n26	E	821.50	15	DFT-s OFDM	π/2 BPSK	23.62	230.14		
					QPSK	23.59	228.56	21.24	133.14
					16QAM	22.91	195.43	19.10	81.34
					64QAM	20.65	116.14		
				256QAM	18.57	71.94			
		CP-OFDM	QPSK	22.05	160.32				
		819.00	10	DFT-s OFDM	π/2 BPSK	23.61	229.61		
					QPSK	23.63	230.67	21.19	131.57
					16QAM	22.74	187.93	18.84	76.59
					64QAM	20.62	115.35		
				256QAM	18.62	72.78			
		CP-OFDM	QPSK	22.09	161.81				
		816.50 ~ 821.50	5	DFT-s OFDM	π/2 BPSK	23.70	234.42		
					QPSK	23.91	246.04	21.55	142.99
					16QAM	22.81	190.99	19.59	91.06
					64QAM	21.01	126.18		
				256QAM	18.92	77.98			
		CP-OFDM	QPSK	22.40	173.78				

NR Band n26 (Straddle)

Straddle									
Band	ANT	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Mode	Conducted		Radiated	
						Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
n26	A	824.00	20	DFT-s OFDM	$\pi/2$ BPSK	24.02	252.35		
					QPSK	24.04	253.51	16.41	43.75
					16QAM	22.97	198.15	15.15	32.73
					64QAM	20.77	119.40		
					256QAM	18.73	74.64		
				CP-OFDM	QPSK	22.35	171.79		
					16QAM	22.36	172.19		
					64QAM	20.21	104.95		
					256QAM	17.01	50.23		
			15	DFT-s OFDM	$\pi/2$ BPSK	23.92	246.60		
					QPSK	23.93	247.17	16.30	42.66
					16QAM	22.82	191.43	15.00	31.62
					64QAM	21.06	127.64		
					256QAM	19.05	80.35		
				CP-OFDM	QPSK	22.38	172.98		
					$\pi/2$ BPSK	23.83	241.55		
					QPSK	23.90	245.47	16.27	42.36
					16QAM	23.06	202.30	15.24	33.42
					64QAM	20.58	114.29		
					256QAM	18.96	78.70		
			10	DFT-s OFDM	QPSK	22.18	165.20		
					$\pi/2$ BPSK	23.81	240.44		
					QPSK	23.85	242.66	16.51	44.77
					16QAM	22.78	189.67	14.96	31.33
					64QAM	20.64	115.88		
					256QAM	18.92	77.98		
				CP-OFDM	QPSK	22.15	164.06		
					$\pi/2$ BPSK	23.63	230.67		
					QPSK	23.61	229.61	21.49	140.94
					16QAM	23.89	244.91	20.31	107.41
					64QAM	20.47	111.43		
n26	E	824.00	20	DFT-s OFDM	256QAM	18.47	70.31		
					QPSK	22.37	172.58		
					16QAM	22.42	174.58		
					64QAM	19.92	98.17		
					256QAM	17.16	52.00		
				CP-OFDM	QPSK	22.52	178.65		
					$\pi/2$ BPSK	23.96	248.89		
					QPSK	24.00	251.19	21.88	154.18
					16QAM	22.87	193.64	19.29	84.93
					64QAM	21.09	128.53		
			15	DFT-s OFDM	256QAM	19.16	82.41		
					QPSK	22.52	178.65		
					$\pi/2$ BPSK	23.91	246.04		
					QPSK	23.85	242.66	21.73	148.95
					16QAM	22.88	194.09	19.30	85.12
					64QAM	21.01	126.18		
					256QAM	19.40	87.10		
				CP-OFDM	QPSK	22.40	173.78		
					$\pi/2$ BPSK	23.96	248.89		
					QPSK	23.90	245.47	21.69	147.58
					16QAM	23.40	218.78	19.82	95.95
					64QAM	21.51	141.58		
			10	DFT-s OFDM	256QAM	18.97	78.89		
					QPSK	22.46	176.20		
					$\pi/2$ BPSK	23.96	248.89		
					QPSK	23.90	245.47	21.69	147.58
					16QAM	23.40	218.78	19.82	95.95
					64QAM	21.51	141.58		
					256QAM	18.97	78.89		
				CP-OFDM	QPSK	22.46	176.20		
					$\pi/2$ BPSK	23.96	248.89		
					QPSK	23.90	245.47	21.69	147.58
					16QAM	23.40	218.78	19.82	95.95
					64QAM	21.51	141.58		

NR Band n26 (Part 22)

FCC Part 22									
Band	ANT	Frequency Range [MHz]	BandWidth [MHz]	Modulation	Mode	Conducted		Radiated	
						Avg [dBm]	Avg [mW]	Avg [dBm]	Avg [mW]
n26	A	834.00 ~ 839.00	20	DFT-s OFDM	$\pi/2$ BPSK	24.02	252.35		
					QPSK	24.20	263.03	16.17	41.35
					16QAM	23.05	201.84	14.95	31.23
					64QAM	21.00	125.89		
					256QAM	18.99	79.25		
				CP-OFDM	QPSK	22.37	172.58		
					16QAM	22.36	172.19		
					64QAM	20.52	112.72		
					256QAM	17.15	51.88		
		831.50 ~ 841.50	15	DFT-s OFDM	$\pi/2$ BPSK	24.13	258.82		
					QPSK	23.78	238.78	16.16	41.28
					16QAM	23.31	214.29	15.35	34.25
					64QAM	21.04	127.06		
					256QAM	19.04	80.17		
				CP-OFDM	QPSK	22.10	162.18		
		829.00 ~ 844.00	10	DFT-s OFDM	$\pi/2$ BPSK	24.13	258.82		
					QPSK	24.11	257.63	16.23	41.95
					16QAM	23.39	218.27	15.10	32.35
					64QAM	21.05	127.35		
					256QAM	19.38	86.70		
				CP-OFDM	QPSK	22.39	173.38		
		826.50 ~ 846.50	5	DFT-s OFDM	$\pi/2$ BPSK	24.09	256.45		
					QPSK	23.82	240.99	15.20	33.09
					16QAM	23.07	202.77	14.81	30.25
					64QAM	21.13	129.72		
					256QAM	19.36	86.30		
				CP-OFDM	QPSK	22.33	171.00		
n26	E	834.00 ~ 839.00	20	DFT-s OFDM	$\pi/2$ BPSK	23.98	250.03		
					QPSK	23.90	245.47	22.10	162.25
					16QAM	23.90	245.47	21.25	133.41
					64QAM	21.15	130.32		
					256QAM	19.53	89.74		
				CP-OFDM	QPSK	22.39	173.38		
					16QAM	22.47	176.60		
					64QAM	20.55	113.50		
					256QAM	17.65	58.21		
		831.50 ~ 841.50	15	DFT-s OFDM	$\pi/2$ BPSK	23.87	243.78		
					QPSK	23.83	241.55	21.89	154.37
					16QAM	22.87	193.64	19.92	98.08
					64QAM	21.13	129.72		
					256QAM	18.76	75.16		
				CP-OFDM	QPSK	22.33	171.00		
		829.00 ~ 844.00	10	DFT-s OFDM	$\pi/2$ BPSK	23.89	244.91		
					QPSK	23.90	245.47	21.67	146.93
					16QAM	23.07	202.77	19.86	96.85
					64QAM	21.20	131.83		
					256QAM	19.41	87.30		
				CP-OFDM	QPSK	22.60	181.97		
		826.50 ~ 846.50	5	DFT-s OFDM	$\pi/2$ BPSK	23.98	250.03		
					QPSK	23.99	250.61	21.68	147.23
					16QAM	22.97	198.15	19.44	87.95
					64QAM	21.47	140.28		
					256QAM	19.03	79.98		
				CP-OFDM	QPSK	22.60	181.97		

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 (dBd)
GSM850 / WCDMA Band 5 / LTE Band 5, 26 / NR Band n5, 26 814 - 849 MHz	A	-6.9
	E	-4.2
LTE Band 14 / NR Band n14 788 – 798 MHz	A	-6.7
	E	-5.1

5.4. WORST-CASE ORIENTATION

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

- GSM GPRS/EGPRS**
 The worst-case scenario for all measurements is based on the average conducted output power measurement investigation results. Output power measurements were measured on GPRS and EGPRS modulations. It was found GPRS results were worst case.
- UMTS REL 99/HSDPA**
 The worst-case scenario for all measurements is based on the average conducted output power measurement investigation results. Output power measurements were measured on REL 99 and HSDPA modulations. It was found REL 99 results were worst case.
- 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. It was found QPSK and 16QAM results were worst case.
- As for the Antenna Switching supported ASDIV (Antenna Switching Diversity) conditions. Only the Tx trigger is different and there is no difference in the results regarding the method. It has been verified. ASDIV can be implemented through the application provided by the manufacturer.

Band	Antenna Switching
LTE B14. 26	ASDIV

- The RF port of LTE B14 was tested on all antennas and reported as 'Main ANT' because the test power of 'Main ANT' is same to or higher than 'Sub ANT'.
- The RF port of LTE B26 was tested on all antennas and reported as 'Sub ANT' because the test 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 B14	<u>A</u>	<u>25.0</u>	E	25.0
LTE B26	A	25.0	<u>E</u>	<u>25.0</u>

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

LTE Band 5 (ANT A, E)

LTE Band 5 (Frequency range: 824-849 MHz) is covered by LTE Band 26 (Frequency range: 814-849 MHz) due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth.

- NR 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 $\pi/2$ BPSK, QPSK, 16QAM, 64QAM and 256QAM modulations. It was found QPSK and 16QAM results were worst case.

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

So the test case is as below.

NR Band	NSA	SA
n26	-	<u>Stand Alone</u>
n5	B2/48/66	Stand Alone

- As for the Antenna Switching supported ASDIV (Antenna Switching Diversity) conditions. Only the Tx trigger is different and there is no difference in the results regarding the method. It has been verified. ASDIV can be implemented through the application provided by the manufacturer.

Band	Antenna Switching
NR n14, 26	ASDIV

- It was tested for all rf ports and, 'Main ANT' conducted test power is the same or higher than 'Sub ANT', so we reported with 'Main ANT'.

- So the test case is as below.

Band	Main ANT	Tune up Limit (dBm)	Sub ANT	Tune up Limit (dBm)
NR n14	<u>A</u>	<u>25.0</u>	E	25.0
NR n26	<u>A</u>	<u>25.0</u>	E	25.0

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

NR Band 5 (ANT A, E)

NR Band 5 (Frequency range: 824-849 MHz) is covered by NR Band 26 (Frequency range: 814-849 MHz) due to overlapping frequency range, same maximum tune-up limit and same channel bandwidth.

● Conducted Spurious Emission

Highest conducted output power setting for each bands						
LTE Band	ANT	Frequency (MHz)	Bandwidth (MHz)	Modulation	RB size	RB offset
14	A	790.50	5	QPSK	1	12
		793.00			1	24
		795.50			1	0
26	E	816.50	5	QPSK	1	0
		821.50			1	0
		824.00	5	QPSK	1	0
		826.50	5	QPSK	1	0
		831.50			1	12
		846.50			1	12
NR Band	ANT	Frequency (MHz)	Bandwidth (MHz)	Modulation	RB size	RB offset
14	A	790.50	5	DFT-s OFDM QPSK	1	13
		793.00			1	1
		795.50			1	23
26	A	821.50	15	DFT-s OFDM QPSK	1	77
		824.00	20		1	53
		834.00	20		1	53
		836.50			1	104
		839.00			1	1

● Radiated Spurious Emission

Highest ERP setting for each bands						
LTE Band	ANT	Frequency (MHz)	Bandwidth (MHz)	Modulation	RB size	RB offset
14	A	790.50	5	QPSK	1	12
		793.00			1	24
		795.50			1	0
	E	790.50	5	QPSK	1	12
		793.00			1	24
		795.50			1	12
26	A	819.00	10	QPSK	1	49
		824.00	15	QPSK	1	74
		831.50	15	QPSK	1	37
		836.50			1	37
		841.50			1	37
	E	816.50	5	QPSK	1	0
		821.50			1	0
		824.00	5	QPSK	1	0
		831.50	15	QPSK	1	37
		836.50			1	37
		841.50			1	37
NR Band	ANT	Frequency (MHz)	Bandwidth (MHz)	Modulation	RB size	RB offset
14	A	790.50	5	DFT-s OFDM QPSK	1	13
		793.00			1	1
		795.50			1	23
	E	790.50	5	DFT-s OFDM QPSK	1	23
		793.00			1	13
		795.50			1	13
26	A	821.50	15	DFT-s OFDM QPSK	1	77
		824.00	5		1	13
		829.00	10		1	50
		831.50			1	50
		844.00			1	26
	E	816.50	5	DFT-s OFDM QPSK	1	13
		821.50			1	13
		824.00	15		1	77
		834.00	20		1	104
		836.50			1	104
		839.00			1	104

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	ANT	ERP			RSE		
		X	Y	Z	X	Y	Z
GSM 850	A	-	O	-	O	-	-
	E	-	-	O	O	-	-
WCDMA B5	A	-	O	-	-	O	-
	E	-	-	O	-	-	O
LTE B14	A	-	O	-	-	O	-
	E	-	-	O	O	-	-
LTE B26	A	-	O	-	O	-	-
	E	-	-	O	-	O	-
NR n14	A	-	O	-	O	-	-
	E	-	-	O	O	-	-
NR n26	A	-	O	-	O	-	-
	E	-	-	O	-	O	-

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.

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacture	Model	Serial Number	FCC ID
Charger	SAMSUNG	EP-T2510	RF7X1YF85Z1DKA	N/A
Data Cable	SAMSUNG	EP-DN980	N/A	N/A

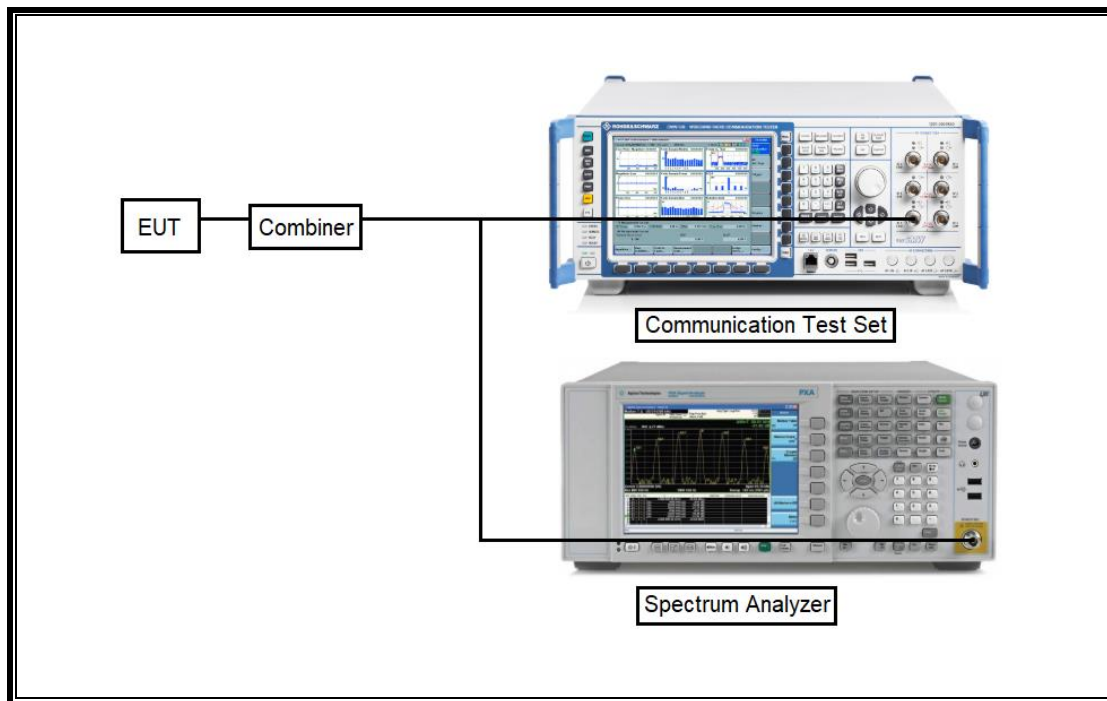
I/O CABLE

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

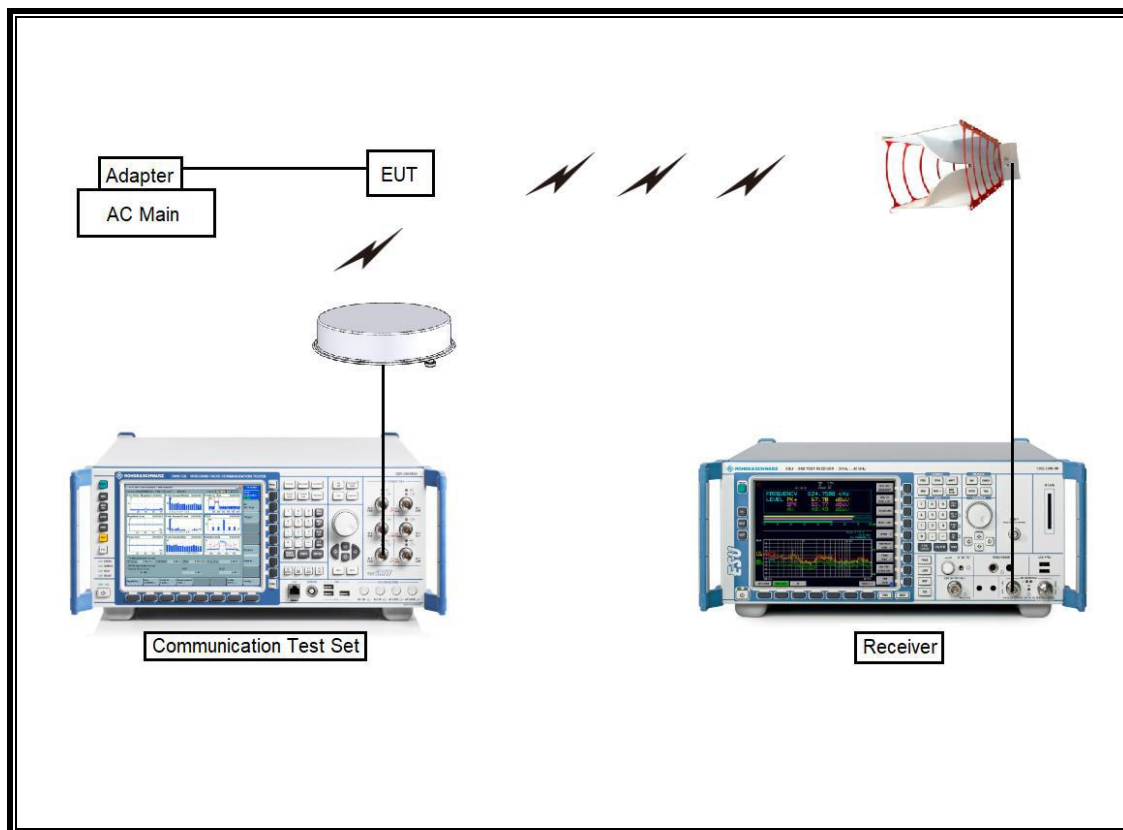
TEST SETUP

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)



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	2025-10-06
Preamplifier	ETS	3116C-PA	00168841	2025-07-25
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	2025-07-23
DC Power Supply	Agilent / HP	E3640A	MY54226395	2025-07-24
Preamplifier, 1000 MHz	Sonoma	310N	341282	2025-07-22
Preamplifier, 1000 MHz	Sonoma	310N	370599	2025-07-22
Preamplifier, 1000 MHz	Sonoma	310N	351741	2025-07-22
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	2029169	2025-07-23
Preamplifier, 18 GHz	B&Z Technologies, LLC	BZR-01001800-231040-182020	28451	2025-07-22
Preamplifier, 18 GHz	B&Z Technologies, LLC	BZR-01001800-231040-181515	23576	2025-07-25
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	MY54170614	2025-07-24
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	MY54490312	2026-01-02
Spectrum Analyzer, 44 GHz	KEYSIGHT	N9030B	MY57143717	2025-07-23
EMI Test Receive, 40 GHz	R&S	ESU40	100439	2025-07-23
EMI Test Receive, 40 GHz	R&S	ESU40	100457	2025-07-22
High Pass Filter 1.2GHz	Micro-Tronics	HPM50108-02	G005	2025-07-23
High Pass Filter 1.2GHz	Micro-Tronics	HPM50108-02	G006	2025-07-23
High Pass Filter 2.8GHz	Micro-Tronics	HPM50111-02	010	2025-07-23
High Pass Filter 2.8GHz	Micro-Tronics	HPM50111-02	011	2025-07-23
High Pass Filter 4GHz	Micro-Tronics	HPM50118-02	G001	2025-07-23
High Pass Filter 4GHz	Micro-Tronics	HPM50118-02	G002	2025-07-23
Attenuator	PASTERNAK	PE7087-10	A009	2025-07-23
Attenuator	PASTERNAK	PE7087-10	A001	2025-07-23
Attenuator	PASTERNAK	PE7087-10	A008	2025-07-23
Attenuator	PASTERNAK	PE7004-10	2	2025-07-23
Attenuator	PASTERNAK	PE7395-10	A011	2025-07-25
Antenna, Loop, 9kHz-30MHz	R&S	HFH2-Z2	100418	2025-09-07
Temperature Chamber	ESPEC	SH-642	93001109	2025-07-23
Power Splitter	MINI-CIRCUITS	WA1534	UL003	2026-01-03
Power Splitter	MINI-CIRCUITS	WA1534	UL004	2026-01-03
UXM5G Wireless Test Platform	KEYSIGHT	E7515B	MY57510655	2026-01-03
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	Pass
2.1049	Occupied Bandwidth (99%)	N/A		Pass
22.917(a)	Conducted Band Edge / Conducted Spurious Emission	-13 dBm		Pass
90.543(e)		-35 dBm		
90.691	Emission Mask	Section 8.4.1		Pass
22.355 90.213	Frequency Stability	2.5 ppm		Pass
22.913(a)(5)	Effective Radiated Power	38.5 dBm	Radiated	Pass
90.542(a)(7)		34.77 dBm		
90.635(b)		50 dBm		
22.917(a) 90.543(e) 90.691(a)	Radiated Spurious Emission	-13 dBm		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

GSM (ANT A)

Mode	Coding Scheme	Time Slots	Maximum Average Power (dBm)			
			Measured		Tune-up Limit	
			Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr
GSM (Voice)	CS1	1	32.77	23.58	33.5	24.3
			33.30	24.11		
			33.19	24.00		
GPRS (GMSK)	CS1	1	32.71	23.52	33.5	24.3
			33.11	23.92		
			32.92	23.73		
		2	31.71	25.53	32.5	26.3
			32.02	25.84		
			31.96	25.78		
		3	29.48	25.06	30.5	26.1
			30.40	25.98		
			30.49	26.07		
		4	27.88	24.71	29.5	26.3
			28.97	25.80		
			29.05	25.88		
EGPRS (8PSK)	MCS5	1	26.95	17.76	28.0	18.8
			27.32	18.13		
			27.13	17.94		
		2	25.37	19.19	26.0	19.8
			25.51	19.33		
			25.50	19.32		
		3	23.40	18.98	24.0	19.6
			23.60	19.18		
			23.45	19.03		
		4	22.44	19.27	23.0	19.8
			22.79	19.62		
			22.73	19.56		

GSM (ANT E)

Mode	Coding Scheme	Time Slots	Maximum Average Power (dBm)			
			Measured		Tune-up Limit	
			Burst Pwr	Frame Pwr	Burst Pwr	Frame Pwr
GSM (Voice)	CS1	1	32.96	23.77	33.5	24.3
			33.12	23.93		
			33.12	23.93		
GPRS (GMSK)	CS1	1	32.83	23.64	33.5	24.3
			32.87	23.68		
			32.74	23.55		
		2	31.85	25.67	32.5	26.3
			31.53	25.35		
			31.57	25.39		
		3	29.77	25.35	30.5	26.1
			30.12	25.70		
			30.40	25.98		
		4	28.02	24.85	29.5	26.3
			28.44	25.27		
			28.47	25.30		
EGPRS (8PSK)	MCS5	1	26.53	17.34	28.0	18.8
			27.21	18.02		
			27.14	17.95		
		2	24.99	18.81	26.0	19.8
			25.21	19.03		
			25.17	18.99		
		3	23.05	18.63	24.0	19.6
			23.27	18.85		
			23.24	18.82		
		4	22.19	19.02	23.0	19.8
			22.41	19.24		
			22.84	19.67		

WCDMA B5 (ANT A)

Mode		UL Ch No.	Freq. (MHz)	Maximum Average Power (dBm)		
				Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	4132	826.4	23.92	N/A	25.0
		4183	836.6	23.96		
		4233	846.6	24.05		
HSDPA	Subtest 1	4132	826.4	22.96	0	24.0
		4183	836.6	22.93		
		4233	846.6	23.07		
	Subtest 2	4132	826.4	22.96	0	24.0
		4183	836.6	22.95		
		4233	846.6	23.08		
	Subtest 3	4132	826.4	22.45	0.5	23.5
		4183	836.6	22.46		
		4233	846.6	22.59		
	Subtest 4	4132	826.4	22.42	0.5	23.5
		4183	836.6	22.50		
		4233	846.6	22.58		
HSUPA	Subtest 1	4132	826.4	22.94	0	24.0
		4183	836.6	22.93		
		4233	846.6	23.03		
	Subtest 2	4132	826.4	20.93	2	22.0
		4183	836.6	20.93		
		4233	846.6	21.03		
	Subtest 3	4132	826.4	21.93	1	23.0
		4183	836.6	21.92		
		4233	846.6	22.02		
	Subtest 4	4132	826.4	20.94	2	22.0
		4183	836.6	20.96		
		4233	846.6	20.93		
	Subtest 5	4132	826.4	22.95	0	24.0
		4183	836.6	22.96		
		4233	846.6	22.91		
DC-HSDPA	Subtest 1	4132	826.4	23.00	0	24.0
		4183	836.6	23.05		
		4233	846.6	23.13		
	Subtest 2	4132	826.4	22.96	0	24.0
		4183	836.6	23.03		
		4233	846.6	23.15		
	Subtest 3	4132	826.4	22.46	0.5	23.5
		4183	836.6	22.56		
		4233	846.6	22.64		
	Subtest 4	4132	826.4	22.50	0.5	23.5
		4183	836.6	22.55		
		4233	846.6	22.64		

WCDMA B5 (ANT E)

Mode		UL Ch No.	Freq. (MHz)	Maximum Average Power (dBm)		
				Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	4132	826.4	23.84	N/A	25.0
		4183	836.6	23.90		
		4233	846.6	24.03		
HSDPA	Subtest 1	4132	826.4	22.87	0	24.0
		4183	836.6	22.94		
		4233	846.6	23.06		
	Subtest 2	4132	826.4	22.95	0	24.0
		4183	836.6	22.96		
		4233	846.6	23.07		
	Subtest 3	4132	826.4	22.43	0.5	23.5
		4183	836.6	22.47		
		4233	846.6	22.58		
	Subtest 4	4132	826.4	22.44	0.5	23.5
		4183	836.6	22.49		
		4233	846.6	22.58		
HSUPA	Subtest 1	4132	826.4	22.96	0	24.0
		4183	836.6	22.98		
		4233	846.6	23.03		
	Subtest 2	4132	826.4	20.95	2	22.0
		4183	836.6	20.97		
		4233	846.6	21.06		
	Subtest 3	4132	826.4	21.52	1	23.0
		4183	836.6	21.63		
		4233	846.6	21.66		
	Subtest 4	4132	826.4	20.94	2	22.0
		4183	836.6	20.96		
		4233	846.6	20.92		
	Subtest 5	4132	826.4	22.96	0	24.0
		4183	836.6	22.95		
		4233	846.6	22.97		
DC-HSDPA	Subtest 1	4132	826.4	22.86	0	24.0
		4183	836.6	22.85		
		4233	846.6	22.91		
	Subtest 2	4132	826.4	22.92	0	24.0
		4183	836.6	22.88		
		4233	846.6	22.92		
	Subtest 3	4132	826.4	22.42	0.5	23.5
		4183	836.6	22.36		
		4233	846.6	22.42		
	Subtest 4	4132	826.4	22.35	0.5	23.5
		4183	836.6	22.36		
		4233	846.6	22.42		

LTE Band 14 (ANT A)

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
					23330			
				793.00 MHz				
10 MHz	QPSK	1	0		24.03		0.0	25.0
		1	25		24.08		0.0	25.0
		1	49		24.05		0.0	25.0
		25	0		23.11		1.0	24.0
		25	12		23.17		1.0	24.0
		25	25		23.14		1.0	24.0
	16QAM	50	0		23.25		1.0	24.0
		1	0		23.02		1.0	24.0
		1	25		23.29		1.0	24.0
		1	49		23.37		1.0	24.0
		25	0		22.12		2.0	23.0
		25	12		22.17		2.0	23.0
	64QAM	25	25		22.10		2.0	23.0
		50	0		22.13		2.0	23.0
		1	0		22.30		2.0	23.0
		1	25		22.28		2.0	23.0
		1	49		22.46		2.0	23.0
		25	0		21.05		3.0	22.0
5 MHz	QPSK	25	12		21.10		3.0	22.0
		25	25		21.01		3.0	22.0
		50	0		21.08		3.0	22.0
	16QAM	1	0		19.06		5.0	20.0
		1	25		19.39		5.0	20.0
		1	49		18.80		5.0	20.0
	256QAM	25	0		19.02		5.0	20.0
		25	12		19.09		5.0	20.0
		25	25		18.87		5.0	20.0
		50	0		19.05		5.0	20.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				23305	23330	23355		
				790.50 MHz	793.00 MHz	795.50 MHz		
5 MHz	QPSK	1	0	24.06	24.06	24.13	0.0	25.0
		1	12	24.28	24.15	24.06	0.0	25.0
		1	24	24.08	24.89	24.08	0.0	25.0
		12	0	23.09	23.14	23.20	1.0	24.0
		12	7	23.15	23.15	23.13	1.0	24.0
		12	13	23.10	23.10	23.01	1.0	24.0
	16QAM	25	0	23.22	23.05	23.14	1.0	24.0
		1	0	22.95	22.97	23.03	1.0	24.0
		1	12	23.45	23.18	23.18	1.0	24.0
		1	24	23.62	23.25	22.88	1.0	24.0
		12	0	22.18	22.11	22.12	2.0	23.0
		12	7	22.21	22.04	22.17	2.0	23.0
	64QAM	12	13	22.28	22.08	22.12	2.0	23.0
		25	0	22.17	22.09	22.11	2.0	23.0
		1	0	22.54	22.15	22.34	2.0	23.0
		1	12	22.05	22.35	22.44	2.0	23.0
		1	24	22.41	22.27	22.40	2.0	23.0
		12	0	21.10	21.06	21.38	3.0	22.0
	256QAM	12	7	21.15	21.22	21.14	3.0	22.0
		12	13	21.25	21.13	20.95	3.0	22.0
		25	0	21.08	21.16	21.11	3.0	22.0
		1	0	19.33	19.24	19.61	5.0	20.0
		1	12	19.26	19.38	19.24	5.0	20.0
		1	24	18.97	18.91	18.60	5.0	20.0
	256QAM	12	0	19.04	19.10	19.15	5.0	20.0
		12	7	19.24	19.26	19.10	5.0	20.0
		12	13	18.97	19.07	18.90	5.0	20.0
		25	0	19.16	19.12	19.06	5.0	20.0

LTE Band 14 (ANT E)

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)				
				Measured Pwr (dBm)			MPR	Tune-up Limit
					23330			
					793.00 MHz			
10 MHz	QPSK	1	0		23.75		0.0	25.0
		1	25		23.80		0.0	25.0
		1	49		23.72		0.0	25.0
		25	0		22.81		1.0	24.0
		25	12		22.84		1.0	24.0
		25	25		22.97		1.0	24.0
	16QAM	50	0		22.86		1.0	24.0
		1	0		23.42		1.0	24.0
		1	25		23.15		1.0	24.0
		1	49		22.64		1.0	24.0
		25	0		21.90		2.0	23.0
		25	12		21.77		2.0	23.0
	64QAM	25	25		22.07		2.0	23.0
		50	0		21.89		2.0	23.0
		1	0		21.93		2.0	23.0
		1	25		21.41		2.0	23.0
		1	49		21.89		2.0	23.0
		25	0		20.89		3.0	22.0
5 MHz	QPSK	25	12		20.90		3.0	22.0
		25	25		20.85		3.0	22.0
		50	0		20.82		3.0	22.0
	16QAM	1	0		19.39		5.0	20.0
		1	25		19.24		5.0	20.0
		1	49		18.81		5.0	20.0
	256QAM	25	0		18.76		5.0	20.0
		25	12		18.90		5.0	20.0
		25	25		18.66		5.0	20.0
		50	0		18.80		5.0	20.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
				23305	23330	23355		
				790.50 MHz	793.00 MHz	795.50 MHz		
5 MHz	QPSK	1	0	23.63	23.71	23.91	0.0	25.0
		1	12	23.91	23.71	23.94	0.0	25.0
		1	24	23.81	23.88	23.83	0.0	25.0
		12	0	22.78	22.81	22.90	1.0	24.0
		12	7	22.93	22.88	22.95	1.0	24.0
		12	13	22.82	22.86	22.84	1.0	24.0
	16QAM	25	0	22.80	22.84	22.88	1.0	24.0
		1	0	22.68	23.15	22.88	1.0	24.0
		1	12	22.80	23.22	22.71	1.0	24.0
		1	24	22.84	23.34	22.94	1.0	24.0
		12	0	21.82	21.84	21.92	2.0	23.0
		12	7	21.97	21.80	21.94	2.0	23.0
	64QAM	12	13	21.80	21.75	22.00	2.0	23.0
		25	0	21.93	21.85	21.85	2.0	23.0
		1	0	22.03	21.99	21.67	2.0	23.0
		1	12	22.35	22.53	21.79	2.0	23.0
		1	24	21.53	21.83	21.90	2.0	23.0
		12	0	20.71	20.95	20.73	3.0	22.0
	256QAM	12	7	20.83	20.87	20.79	3.0	22.0
		12	13	20.93	20.74	20.78	3.0	22.0
		25	0	20.87	20.79	20.78	3.0	22.0
		1	0	18.78	18.47	18.83	5.0	20.0
		1	12	19.00	19.11	18.95	5.0	20.0
		1	24	18.75	18.44	18.89	5.0	20.0
	256QAM	12	0	18.73	18.92	18.82	5.0	20.0
		12	7	18.86	18.83	18.99	5.0	20.0
		12	13	18.78	18.85	18.79	5.0	20.0
		25	0	18.78	18.68	18.75	5.0	20.0

LTE Band 26 (ANT A)

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)						MPR	Tune-up Limit
				Measured Pwr (dBm)							
				26765		26790	26865	26915	26965		
15 MHz	QPSK	1	0	23.65		26790	26865	26915	26965	0.0	25.0
				821.50 MHz		824.00 MHz	831.50 MHz	836.50 MHz	841.50 MHz		
		1	37	23.87		23.92	23.93	23.87	24.05	0.0	25.0
		1	74	23.80		24.10	23.65	23.68	23.90	0.0	25.0
		36	0	22.73		22.77	22.82	22.78	22.88	1.0	24.0
		36	20	22.85		22.87	22.84	22.74	22.95	1.0	24.0
		36	39	22.79		22.99	22.82	22.84	22.81	1.0	24.0
	16QAM	75	0	22.82		22.79	22.79	22.87	22.85	1.0	24.0
		1	0	22.75		22.70	23.24	22.90	23.47	1.0	24.0
		1	37	22.94		22.90	23.34	22.91	23.14	1.0	24.0
		1	74	22.98		23.15	22.93	22.89	22.95	1.0	24.0
		36	0	21.74		21.76	21.88	21.91	21.90	2.0	23.0
		36	20	21.85		21.79	21.77	21.86	21.78	2.0	23.0
		36	39	21.82		21.77	21.73	21.83	21.86	2.0	23.0
	64QAM	75	0	21.83		21.85	21.79	21.81	21.89	2.0	23.0
		1	0	21.94		21.83	21.88	22.23	22.02	2.0	23.0
		1	37	21.95		22.35	22.13	22.22	22.07	2.0	23.0
		1	74	22.13		22.28	21.87	22.06	22.20	2.0	23.0
		36	0	20.72		20.81	20.88	20.90	20.88	3.0	22.0
		36	20	20.80		20.87	20.88	20.87	20.87	3.0	22.0
		36	39	20.79		20.82	20.82	20.80	20.86	3.0	22.0
	256QAM	75	0	20.83		20.81	20.81	20.83	20.92	3.0	22.0
		1	0	18.88		18.70	18.82	19.03	19.21	5.0	20.0
		1	37	19.06		18.87	19.16	19.18	19.17	5.0	20.0
		1	74	18.95		18.87	18.75	18.84	18.50	5.0	20.0
		36	0	18.71		18.76	18.83	18.94	18.91	5.0	20.0
		36	20	18.85		18.86	18.84	18.90	18.92	5.0	20.0
		36	39	18.80		18.81	18.85	18.81	18.97	5.0	20.0
	75	0	18.77		18.77	18.80	18.76	18.84	5.0	20.0	
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	
				26740		26790	26840	26865			26990
				819.00 MHz		824.00 MHz	829.00 MHz	831.50 MHz			844.00 MHz
10 MHz	QPSK	1	0	23.80		23.77	24.01	23.79	24.02	0.0	25.0
				23.91		23.93	23.85	23.72	23.97	0.0	25.0
		1	49	24.01		23.86	23.72	23.75	23.92	0.0	25.0
		25	0	22.76		22.80	22.87	22.85	22.92	1.0	24.0
		25	12	22.95		22.86	22.93	22.94	22.99	1.0	24.0
		25	25	22.89		22.81	22.95	22.97	22.95	1.0	24.0
		50	0	22.81		22.88	22.94	22.90	22.98	1.0	24.0
	16QAM	1	0	22.92		22.90	22.83	23.66	23.04	1.0	24.0
		1	25	23.01		23.12	23.07	23.02	23.13	1.0	24.0
		1	49	22.77		23.05	22.86	23.03	22.90	1.0	24.0
		25	0	21.83		21.77	21.92	22.09	22.05	2.0	23.0
		25	12	21.72		21.85	22.01	21.96	22.01	2.0	23.0
		25	25	21.87		22.04	21.94	21.96	21.93	2.0	23.0
		50	0	21.83		21.95	21.95	21.79	22.02	2.0	23.0
	64QAM	1	0	21.99		22.00	21.99	22.09	22.21	2.0	23.0
		1	25	22.13		21.89	22.09	21.94	22.26	2.0	23.0
		1	49	21.97		22.35	22.17	21.88	22.23	2.0	23.0
		25	0	20.78		20.71	20.91	20.86	20.92	3.0	22.0
		25	12	20.85		20.88	21.02	20.90	20.96	3.0	22.0
		25	25	20.84		20.80	21.05	20.91	20.95	3.0	22.0
		50	0	20.81		20.90	20.82	21.07	20.94	3.0	22.0
	256QAM	1	0	18.83		18.89	18.98	18.85	19.04	5.0	20.0
		1	25	18.98		18.78	19.05	19.22	19.12	5.0	20.0
		1	49	19.07		19.07	19.00	19.06	19.03	5.0	20.0
		25	0	18.78		18.75	18.87	18.89	18.86	5.0	20.0
		25	12	18.88		18.82	18.88	18.90	18.95	5.0	20.0
		25	25	18.76		18.81	18.90	18.91	18.93	5.0	20.0
		50	0	18.76		18.83	18.91	18.80	18.93	5.0	20.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
				26715	26765	26790	26815	26865	27015		
				816.50 MHz	821.50 MHz	824.00 MHz	826.50 MHz	831.50 MHz	846.50 MHz		
5 MHz	QPSK	1	0	23.71	23.81	23.84	23.87	23.94	23.94	0.0	25.0
		1	12	23.79	23.88	23.64	23.97	24.04	24.04	0.0	25.0
		1	24	23.81	23.96	23.87	23.86	23.95	23.64	0.0	25.0
		12	0	22.69	22.76	22.78	22.78	22.92	22.92	1.0	24.0
		12	7	22.80	22.88	22.88	22.95	22.90	22.89	1.0	24.0
		12	13	22.81	22.82	22.82	22.99	22.96	22.87	1.0	24.0
	16QAM	25	0	22.75	22.86	22.86	22.88	22.88	22.89	1.0	24.0
		1	0	22.61	22.83	22.89	23.24	23.20	22.94	1.0	24.0
		1	12	22.92	22.89	23.00	22.86	23.25	23.15	1.0	24.0
		1	24	22.90	22.59	23.12	22.87	22.99	23.27	1.0	24.0
		12	0	21.74	21.82	21.71	21.81	21.85	21.93	2.0	23.0
		12	7	21.84	21.82	21.92	21.87	21.88	21.97	2.0	23.0
	64QAM	12	13	21.71	21.83	21.79	21.95	21.91	21.91	2.0	23.0
		25	0	21.75	21.83	21.87	21.84	21.86	21.90	2.0	23.0
		1	0	21.81	21.74	21.96	22.16	21.82	22.07	2.0	23.0
		1	12	22.05	22.01	22.05	22.25	22.05	22.08	2.0	23.0
		1	24	21.91	22.03	21.87	21.81	22.05	21.85	2.0	23.0
		12	0	20.69	20.80	20.81	20.82	20.82	20.83	3.0	22.0
3 MHz	QPSK	12	7	20.78	20.85	20.86	20.93	20.89	20.98	3.0	22.0
		12	13	20.78	20.82	20.82	20.85	20.88	20.90	3.0	22.0
		25	0	20.73	20.84	20.83	20.89	20.73	20.84	3.0	22.0
	16QAM	1	0	18.86	18.89	18.82	19.01	18.92	18.91	5.0	20.0
		1	12	18.90	19.16	19.09	19.03	19.11	18.86	5.0	20.0
		1	24	18.74	18.89	18.87	18.97	19.02	18.88	5.0	20.0
		12	0	18.72	18.72	18.76	18.83	18.92	18.84	5.0	20.0
		12	7	18.76	18.84	18.86	18.92	18.92	18.88	5.0	20.0
		12	13	18.77	18.80	18.81	18.89	19.07	18.89	5.0	20.0
	64QAM	25	0	18.74	18.82	18.81	18.82	18.85	18.86	5.0	20.0
		1	0	23.52	23.69	23.69	23.62	23.86	23.89	0.0	25.0
		1	8	23.67	23.86	23.79	24.00	23.99	23.93	0.0	25.0
		1	14	23.65	23.68	23.77	23.68	23.85	23.71	0.0	25.0
		8	0	22.70	22.71	22.71	22.79	22.86	22.87	1.0	24.0
		8	4	22.75	22.82	22.76	22.84	22.83	22.87	1.0	24.0
	16QAM	8	7	22.66	22.79	22.74	22.83	22.87	22.91	1.0	24.0
		15	0	22.72	22.80	22.84	22.86	22.86	22.83	1.0	24.0
		1	0	22.71	22.92	22.77	23.24	22.89	23.03	1.0	24.0
		1	8	23.01	23.00	22.95	23.08	23.24	22.98	1.0	24.0
		1	14	23.10	22.71	22.59	22.83	23.02	23.13	1.0	24.0
		8	0	21.81	21.76	21.78	21.89	21.83	21.94	2.0	23.0
	64QAM	8	4	21.77	21.81	21.81	21.89	22.00	21.91	2.0	23.0
		8	7	21.76	21.78	21.75	21.96	21.97	21.98	2.0	23.0
		15	0	21.73	21.80	21.80	21.91	21.84	21.92	2.0	23.0
		1	0	21.85	21.94	21.97	21.91	22.33	21.91	2.0	23.0
		1	8	21.97	22.07	22.05	22.01	22.08	22.37	2.0	23.0
		1	14	21.87	21.93	21.87	21.77	22.08	22.12	2.0	23.0
	256QAM	8	0	20.78	20.78	20.78	20.76	20.98	20.75	3.0	22.0
		8	4	20.74	20.77	20.84	20.81	20.84	20.87	3.0	22.0
		8	7	20.72	20.87	20.89	20.92	20.87	20.97	3.0	22.0
		15	0	20.75	20.84	20.85	20.91	20.84	20.77	3.0	22.0
		1	0	18.75	18.79	18.57	18.94	19.23	19.03	5.0	20.0
		1	8	18.92	18.92	18.88	18.96	19.24	18.95	5.0	20.0
	256QAM	1	14	18.66	18.88	18.66	19.00	19.00	18.71	5.0	20.0
		8	0	18.78	18.77	18.76	18.72	18.82	18.84	5.0	20.0
		8	4	18.77	18.72	18.74	18.76	18.72	18.79	5.0	20.0
		8	7	18.68	18.78	18.81	18.76	18.83	18.73	5.0	20.0
		15	0	18.75	18.73	18.79	18.79	18.77	18.76	5.0	20.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
				26697	26783	26790	26797	26865	27033		
				814.70 MHz	823.30 MHz	824.00 MHz	824.70 MHz	831.50 MHz	848.30 MHz		
1.4 MHz	QPSK	1	0	23.28	23.50	23.56	23.52	23.69	23.68	0.0	25.0
		1	3	23.42	23.65	23.66	23.54	23.80	23.73	0.0	25.0
		1	5	23.36	23.70	23.72	23.58	23.76	23.56	0.0	25.0
		3	0	23.36	23.61	23.56	23.66	23.65	23.70	1.0	24.0
		3	1	23.44	23.60	23.60	23.73	23.67	24.04	1.0	24.0
		3	3	23.45	23.59	23.69	23.61	23.65	23.65	1.0	24.0
	16QAM	6	0	22.49	22.58	22.54	22.56	22.63	23.21	1.0	24.0
		1	0	22.52	23.16	22.60	22.46	22.84	22.72	1.0	24.0
		1	3	22.59	22.81	22.67	22.73	23.30	22.86	1.0	24.0
		1	5	22.66	22.84	22.64	22.42	22.88	22.87	1.0	24.0
		3	0	22.74	22.82	22.80	22.77	22.95	22.84	2.0	23.0
		3	1	22.69	22.66	22.67	22.79	22.82	22.92	2.0	23.0
	64QAM	3	3	22.72	22.73	22.85	22.86	22.81	22.91	2.0	23.0
		6	0	21.54	21.71	21.64	21.76	21.69	21.82	2.0	23.0
		1	0	21.72	21.94	21.96	21.60	21.76	22.04	2.0	23.0
		1	3	21.84	21.92	22.17	21.75	22.08	21.81	2.0	23.0
		1	5	21.72	21.84	21.73	21.95	21.79	22.07	2.0	23.0
		3	0	21.71	21.83	21.80	21.80	21.81	21.89	3.0	22.0
256QAM	256QAM	3	1	21.64	21.83	21.74	21.83	22.04	21.79	3.0	22.0
		3	3	21.72	21.72	21.79	21.89	22.09	22.00	3.0	22.0
		6	0	20.63	20.78	20.75	20.73	20.72	20.63	3.0	22.0
		1	0	18.75	18.78	18.63	18.81	18.76	18.87	5.0	20.0
		1	3	18.53	18.92	18.72	18.81	19.68	18.62	5.0	20.0
		1	5	18.50	18.89	18.60	18.76	19.35	18.70	5.0	20.0
	256QAM	3	0	18.69	18.77	18.77	18.74	18.70	18.85	5.0	20.0
		3	1	18.68	18.76	18.82	18.66	18.88	18.88	5.0	20.0
		3	3	18.69	18.76	18.73	18.78	19.03	18.66	5.0	20.0
		6	0	18.60	18.56	18.68	18.67	18.63	18.86	5.0	20.0

LTE Band 26 (ANT E)

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)								MPR	Tune-up Limit
				Measured Pwr (dBm)									
				26765		26790	26865	26915	26965				
				821.50 MHz		824.00 MHz	831.50 MHz	836.50 MHz	841.50 MHz				
15 MHz	QPSK	1	0	23.51		23.59	23.61	23.62	23.79	0.0	25.0		
		1	37	23.70		23.76	23.70	23.67	23.91	0.0	25.0		
		1	74	23.58		23.65	23.49	23.42	23.67	0.0	25.0		
		36	0	22.58		22.60	22.68	22.73	22.77	1.0	24.0		
		36	20	22.64		22.65	22.69	22.73	22.79	1.0	24.0		
		36	39	22.67		22.66	22.70	22.71	22.89	1.0	24.0		
	16QAM	75	0	22.60		22.62	22.63	22.67	22.79	1.0	24.0		
		1	0	22.52		22.72	23.25	22.99	23.06	1.0	24.0		
		1	37	22.89		22.85	22.92	23.07	23.23	1.0	24.0		
		1	74	22.67		22.99	22.83	23.07	22.85	1.0	24.0		
		36	0	21.62		21.62	21.76	21.79	21.76	2.0	23.0		
		36	20	21.68		21.79	21.73	21.74	21.88	2.0	23.0		
	64QAM	36	39	21.67		21.72	21.70	21.73	21.72	2.0	23.0		
		75	0	21.70		21.68	21.66	21.70	21.85	2.0	23.0		
		1	0	21.53		21.72	21.74	22.07	21.84	2.0	23.0		
		1	37	22.02		21.82	22.06	22.01	22.23	2.0	23.0		
		1	74	21.86		21.95	21.68	21.79	21.97	2.0	23.0		
		36	0	20.65		20.63	20.76	20.77	20.84	3.0	22.0		
	256QAM	36	20	20.74		20.80	20.74	20.81	20.84	3.0	22.0		
		36	39	20.72		20.73	20.77	20.69	20.73	3.0	22.0		
		75	0	20.67		20.74	20.70	20.71	20.82	3.0	22.0		
		1	0	18.79		18.83	18.84	18.97	19.03	5.0	20.0		
		1	37	18.65		18.95	19.03	18.91	19.01	5.0	20.0		
		1	74	18.71		18.73	18.88	18.89	18.72	5.0	20.0		
36		0	18.61		18.64	18.67	18.74	18.69	5.0	20.0			
36		20	18.69		18.67	18.73	18.73	18.80	5.0	20.0			
36		39	18.66		18.62	18.74	18.64	18.67	5.0	20.0			
75		0	18.67		18.65	18.65	18.69	18.76	5.0	20.0			

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
				26740		26790	26840	26865	26990		
				819.00 MHz		824.00 MHz	829.00 MHz	831.50 MHz	844.00 MHz		
10 MHz	QPSK	1	0	23.42		23.50	23.64	23.64	23.70	0.0	25.0
		1	25	23.64		23.84	23.73	23.72	23.80	0.0	25.0
		1	49	23.54		23.68	23.57	23.59	23.85	0.0	25.0
		25	0	22.50		22.54	22.66	22.63	22.72	1.0	24.0
		25	12	22.66		22.66	22.74	22.68	22.87	1.0	24.0
		25	25	22.56		22.64	22.75	22.75	22.94	1.0	24.0
	16QAM	50	0	22.56		22.62	22.70	22.66	22.76	1.0	24.0
		1	0	22.66		22.89	22.93	22.65	22.93	1.0	24.0
		1	25	22.81		22.93	22.74	22.83	23.18	1.0	24.0
		1	49	22.79		22.72	22.65	22.67	23.09	1.0	24.0
		25	0	21.57		21.62	21.69	21.74	21.71	2.0	23.0
		25	12	21.58		21.71	21.72	21.71	21.80	2.0	23.0
	64QAM	25	25	21.59		21.61	21.77	21.73	21.64	2.0	23.0
		50	0	21.57		21.66	21.75	21.69	21.85	2.0	23.0
		1	0	21.80		21.93	21.60	21.74	21.87	2.0	23.0
		1	25	21.74		21.81	21.82	22.10	21.98	2.0	23.0
		1	49	21.92		21.85	21.75	22.03	21.75	2.0	23.0
		25	0	20.56		20.53	20.73	20.73	20.74	3.0	22.0
5 MHz	QPSK	25	12	20.64		20.69	20.78	20.71	20.86	3.0	22.0
		25	25	20.63		20.68	20.73	20.74	20.81	3.0	22.0
		50	0	20.63		20.67	20.75	20.69	20.77	3.0	22.0
	16QAM	1	0	18.68		18.84	18.69	18.67	18.84	5.0	20.0
		1	25	18.84		18.73	18.67	19.07	18.92	5.0	20.0
		1	49	18.84		18.67	18.76	19.05	19.15	5.0	20.0
		25	0	18.55		18.55	18.67	18.65	18.73	5.0	20.0
		25	12	18.61		18.67	18.76	18.71	18.80	5.0	20.0
		25	25	18.62		18.62	18.70	18.79	19.03	5.0	20.0
	64QAM	50	0	18.62		18.65	18.70	18.63	18.74	5.0	20.0
		1	0	24.04	23.97	24.19	24.08	24.06	24.06	0.0	25.0
	16QAM	1	12	23.97	24.11	24.18	23.94	24.20	24.13	0.0	25.0
		1	24	23.68	23.95	23.90	23.99	24.03	23.52	0.0	25.0
		12	0	22.86	22.89	22.89	22.93	23.05	23.06	1.0	24.0
		12	7	22.93	22.98	23.01	23.03	23.06	23.17	1.0	24.0
	256QAM	12	13	22.89	22.92	22.97	23.01	23.09	23.06	1.0	24.0
		25	0	22.90	22.93	22.96	22.99	22.97	23.11	1.0	24.0
	64QAM	1	0	23.05	23.06	22.42	22.52	22.71	22.80	1.0	24.0
		1	12	22.89	23.21	22.69	22.77	22.66	22.68	1.0	24.0
		1	24	22.91	22.99	22.43	22.91	22.51	22.60	1.0	24.0
		12	0	21.84	21.35	21.45	21.42	21.58	21.62	2.0	23.0
	256QAM	12	7	21.95	21.45	21.52	21.55	21.60	21.60	2.0	23.0
		12	13	21.90	21.41	21.57	21.55	21.58	21.61	2.0	23.0
		25	0	21.90	21.40	21.47	21.57	21.52	21.49	2.0	23.0
	16QAM	1	0	21.68	21.67	21.56	21.63	21.80	21.95	2.0	23.0
		1	12	21.52	21.75	21.87	21.84	21.79	21.89	2.0	23.0
		1	24	21.45	21.68	21.57	21.65	21.70	21.85	2.0	23.0
		12	0	20.36	20.49	20.51	20.57	20.71	20.67	3.0	22.0
		12	7	20.51	20.60	20.60	20.68	20.66	20.62	3.0	22.0
		12	13	20.43	20.54	20.60	20.67	20.78	20.67	3.0	22.0
	256QAM	25	0	20.49	20.50	20.57	20.56	20.59	20.58	3.0	22.0
		1	0	18.51	18.52	18.73	18.53	18.89	18.87	5.0	20.0
		1	12	18.61	18.84	18.94	18.96	18.90	19.01	5.0	20.0
		1	24	18.58	18.63	18.56	18.64	18.64	18.84	5.0	20.0
		12	0	18.42	18.47	18.50	18.62	18.67	18.61	5.0	20.0
		12	7	18.44	18.65	18.59	18.67	18.58	18.71	5.0	20.0
	256QAM	12	13	18.45	18.56	18.53	18.56	18.75	18.61	5.0	20.0
		25	0	18.49	18.54	18.63	18.60	18.60	18.60	5.0	20.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit
				26705	26775	26790	26805	26865	27025		
				815.50 MHz	822.50 MHz	824.00 MHz	825.50 MHz	831.50 MHz	847.50 MHz		
3 MHz	QPSK	1	0	23.84	23.84	23.90	23.86	24.00	23.98	0.0	25.0
		1	8	23.98	24.00	24.12	24.19	24.16	24.12	0.0	25.0
		1	14	23.72	23.93	23.94	23.88	23.98	23.55	0.0	25.0
		8	0	22.88	22.86	22.84	22.88	22.94	23.00	1.0	24.0
		8	4	22.84	22.91	22.97	22.97	22.96	23.01	1.0	24.0
		8	7	22.85	22.94	22.91	22.95	22.98	23.07	1.0	24.0
	16QAM	15	0	22.89	22.94	22.90	23.01	22.95	22.98	1.0	24.0
		1	0	23.27	22.91	22.99	23.41	23.10	23.25	1.0	24.0
		1	8	23.10	23.07	23.10	23.27	23.18	23.37	1.0	24.0
		1	14	22.96	23.15	22.89	23.21	23.05	23.15	1.0	24.0
		8	0	21.97	21.90	21.92	21.99	22.01	22.23	2.0	23.0
		8	4	21.91	22.02	21.99	22.01	22.00	21.95	2.0	23.0
	64QAM	8	7	21.95	21.97	21.96	22.04	22.01	22.02	2.0	23.0
		15	0	21.88	21.97	21.97	22.01	21.99	22.13	2.0	23.0
		1	0	22.01	21.89	21.96	21.88	22.30	22.13	2.0	23.0
		1	8	21.86	22.24	22.27	22.00	22.39	22.54	2.0	23.0
		1	14	21.88	22.30	21.90	22.17	22.15	22.23	2.0	23.0
		8	0	20.90	20.80	20.91	20.94	21.03	21.05	3.0	22.0
1.4 MHz	QPSK	8	4	20.87	20.89	20.96	20.92	21.00	19.98	3.0	22.0
		8	7	20.92	20.94	20.96	20.93	20.96	21.14	3.0	22.0
		15	0	20.86	20.93	21.04	20.97	20.96	21.06	3.0	22.0
	16QAM	1	0	19.13	18.80	19.08	19.12	19.02	18.94	5.0	20.0
		1	8	18.97	19.10	19.04	19.18	19.14	18.57	5.0	20.0
		1	14	19.01	18.89	18.67	19.09	19.17	18.99	5.0	20.0
		8	0	18.77	18.87	18.84	18.83	18.99	19.06	5.0	20.0
		8	4	18.88	18.94	18.97	18.95	18.97	18.91	5.0	20.0
		8	7	18.88	18.91	18.90	18.97	18.92	18.89	5.0	20.0
	64QAM	15	0	18.86	18.86	18.85	18.95	18.91	18.91	5.0	20.0
		1	0	23.65	23.49	23.96	23.58	24.06	24.11	0.0	25.0
		1	3	23.61	23.69	23.96	23.84	23.85	23.97	0.0	25.0
		1	5	23.40	23.80	23.78	23.61	23.91	23.64	0.0	25.0
		3	0	23.52	23.60	23.82	23.75	23.83	23.45	1.0	24.0
		3	1	23.57	23.65	23.76	23.77	23.75	23.42	1.0	24.0
	16QAM	3	3	23.58	23.60	23.71	23.75	23.86	23.49	1.0	24.0
		6	0	22.49	22.68	22.68	22.67	22.82	22.84	1.0	24.0
		1	0	22.89	22.72	22.94	23.23	23.39	23.08	1.0	24.0
		1	3	22.79	22.82	23.23	23.02	23.18	23.21	1.0	24.0
		1	5	22.84	22.95	23.06	23.23	23.24	23.52	1.0	24.0
		3	0	22.77	22.63	22.98	23.02	23.11	23.17	2.0	23.0
	64QAM	3	1	22.70	22.97	22.97	23.05	23.06	23.31	2.0	23.0
		3	3	23.09	22.91	22.91	22.88	23.07	23.06	2.0	23.0
		6	0	21.69	21.83	21.77	21.97	21.90	21.88	2.0	23.0
		1	0	22.15	21.98	22.12	22.16	22.11	22.19	2.0	23.0
		1	3	21.75	22.09	22.40	22.21	22.31	22.13	2.0	23.0
		1	5	22.06	22.00	21.92	22.11	22.22	22.04	2.0	23.0
	256QAM	3	0	21.93	21.96	22.03	22.06	21.92	22.20	3.0	22.0
		3	1	21.96	22.10	21.99	22.07	22.19	22.19	3.0	22.0
		3	3	21.86	22.06	22.06	22.07	22.38	21.93	3.0	22.0
		6	0	20.80	20.99	20.93	20.88	20.97	20.98	3.0	22.0
		1	0	18.80	18.93	18.87	18.79	18.29	18.94	5.0	20.0
		1	3	18.51	18.99	18.87	18.82	19.10	19.04	5.0	20.0
	256QAM	1	5	18.91	18.80	19.26	18.97	19.07	18.98	5.0	20.0
		3	0	19.00	19.00	19.03	18.88	18.81	18.97	5.0	20.0
		3	1	18.95	18.89	19.04	18.90	19.02	19.03	5.0	20.0
		3	3	19.08	18.87	18.82	19.03	19.02	19.03	5.0	20.0
		6	0	19.08	18.72	18.80	18.87	18.91	18.95	5.0	20.0

NR Band n14 (ANT A)

					Maximum Average Power (dBm)				
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					158600	793.00 MHz			
10 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0		22.89		0.5	24.5
			1	1		22.92		0.0	25.0
			1	25		24.19		0.0	25.0
			1	50		24.02		0.0	25.0
			1	51		22.91		0.5	24.5
			25	0		23.03		0.5	24.5
			25	13		24.05		0.0	25.0
			25	27		22.95		0.5	24.5
		50	0		23.01		0.5	24.5	
		QPSK	1	0		22.74		1.0	24.0
			1	1		23.00		0.0	25.0
			1	25		23.11		0.0	25.0
			1	50		22.97		0.0	25.0
			1	51		22.77		1.0	24.0
			25	0		22.06		1.0	24.0
			25	13		23.04		0.0	25.0
			25	27		21.99		1.0	24.0
		50	0		21.99		1.0	24.0	
		16QAM	1	0		22.11		2.0	23.0
			1	1		23.35		1.0	24.0
			1	25		23.16		1.0	24.0
			1	50		23.21		1.0	24.0
			1	51		21.74		2.0	23.0
			25	0		21.99		2.0	23.0
			25	13		22.97		1.0	24.0
			25	27		21.84		2.0	23.0
		50	0		21.88		2.0	23.0	
		64QAM	1	1		21.31		2.5	22.5
		256QAM	1	1		19.06		4.5	20.5
	CP-OFDM	QPSK	1	0		20.77		3.0	22.0
			1	1		21.96		1.5	23.5
			1	25		22.30		1.5	23.5
			1	50		22.26		1.5	23.5
			1	51		20.77		3.0	22.0
			26	0		20.91		3.0	22.0
			26	13		22.40		1.5	23.5
			26	26		20.87		3.0	22.0
		52	0		20.87		3.0	22.0	
		16QAM	1	0		21.16		3.0	22.0
			1	1		21.67		2.0	23.0
			1	25		21.85		2.0	23.0
			1	50		21.84		2.0	23.0
			1	51		20.76		3.0	22.0
			26	0		20.87		3.0	22.0
			26	13		21.91		2.0	23.0
			26	26		20.89		3.0	22.0
		52	0		20.90		3.0	22.0	
		64QAM	1	1		20.07		3.5	21.5
		256QAM	1	1		17.41		6.5	18.5
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit
					158100	158600	159100		
					790.50 MHz	793.00 MHz	795.50 MHz		
5 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	22.70	22.88	22.67	0.5	24.5
			1	1	24.09	24.00	23.91	0.0	25.0
			1	13	24.05	24.16	24.02	0.0	25.0
			1	23	24.01	23.97	23.88	0.0	25.0
			1	24	22.87	22.88	22.84	0.5	24.5
			12	0	22.85	23.00	22.92	0.5	24.5
			12	6	24.10	24.10	24.10	0.0	25.0
			12	13	22.98	22.97	22.93	0.5	24.5
		QPSK	25	0	23.03	23.02	22.96	0.5	24.5
			1	0	22.70	22.88	22.67	1.0	24.0
			1	1	23.95	24.21	24.05	0.0	25.0
			1	13	24.17	24.05	23.93	0.0	25.0
			1	23	24.11	23.97	24.20	0.0	25.0
			1	24	22.87	22.88	22.84	1.0	24.0
			12	0	22.01	21.99	21.94	1.0	24.0
			12	6	23.00	23.01	22.99	0.0	25.0
			12	13	22.00	21.98	21.98	1.0	24.0
			25	0	22.09	22.04	21.96	1.0	24.0
		16QAM	1	1	23.34	23.58	23.23	1.0	24.0
			1	13	23.09	23.41	23.08	1.0	24.0
			1	23	23.33	23.13	23.13	1.0	24.0
		64QAM	1	1	21.49	21.28	21.25	2.5	22.5
		256QAM	1	1	19.02	19.02	18.98	4.5	20.5
	CP-OFDM	QPSK	1	1	21.99	22.06	21.82	1.5	23.5

NR Band n14 (ANT E)

					Maximum Average Power (dBm)					
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
					158600	159100	159600			
					793.00 MHz					
10 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0		23.01		0.5	24.5	
			1	1		23.83		0.0	25.0	
			1	25		23.99		0.0	25.0	
			1	50		23.77		0.0	25.0	
			1	51		22.98		0.5	24.5	
			25	0		23.32		0.5	24.5	
			25	13		23.97		0.0	25.0	
			25	27		23.24		0.5	24.5	
		50	0		23.32		0.5	24.5		
		QPSK	1	0		22.55		1.0	24.0	
			1	1		23.75		0.0	25.0	
			1	25		23.79		0.0	25.0	
			1	50		23.84		0.0	25.0	
			1	51		22.66		1.0	24.0	
			25	0		22.82		1.0	24.0	
			25	13		23.84		0.0	25.0	
			25	27		22.57		1.0	24.0	
		50	0		22.75		1.0	24.0		
		16QAM	1	0		21.71		2.0	23.0	
			1	1		22.95		1.0	24.0	
			1	25		23.02		1.0	24.0	
			1	50		22.74		1.0	24.0	
			1	51		21.71		2.0	23.0	
			25	0		21.72		2.0	23.0	
			25	13		22.68		1.0	24.0	
			25	27		21.69		2.0	23.0	
		50	0		21.70		2.0	23.0		
		64QAM	1	1		21.19		2.5	22.5	
		256QAM	1	1		19.24		4.5	20.5	
	CP-OFDM	QPSK	1	0		20.53		3.0	22.0	
			1	1		22.28		1.5	23.5	
			1	25		22.37		1.5	23.5	
			1	50		22.25		1.5	23.5	
			1	51		20.55		3.0	22.0	
			26	0		20.54		3.0	22.0	
			26	13		22.26		1.5	23.5	
			26	26		20.60		3.0	22.0	
		52	0		20.78		3.0	22.0		
		16QAM	1	0		20.92		3.0	22.0	
			1	1		22.01		2.0	23.0	
			1	25		22.00		2.0	23.0	
			1	50		22.04		2.0	23.0	
			1	51		20.93		3.0	22.0	
			26	0		20.62		3.0	22.0	
			26	13		21.71		2.0	23.0	
			26	26		20.71		3.0	22.0	
		52	0		20.68		3.0	22.0		
		64QAM	1	1		21.03		3.5	21.5	
		256QAM	1	1		18.98		6.5	18.5	
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	
					158100	158600	159100			
					790.50 MHz	793.00 MHz	795.50 MHz			
5 MHz	DFT-s-OFDM	$\pi/2$ BPSK	1	0	23.05	23.01	23.02	0.5	24.5	
			1	1	23.72	23.75	23.88	0.0	25.0	
			1	13	23.80	23.94	23.82	0.0	25.0	
			1	23	23.74	23.75	23.78	0.0	25.0	
			1	24	22.91	22.94	22.98	0.5	24.5	
			12	0	23.32	23.30	23.42	0.5	24.5	
			12	6	23.89	24.01	24.03	0.0	25.0	
			12	13	23.28	23.41	23.33	0.5	24.5	
		25	0	23.37	23.33	23.32	0.5	24.5		
		QPSK	1	0	22.61	22.55	22.81	1.0	24.0	
			1	1	23.69	23.75	23.65	0.0	25.0	
			1	13	23.88	23.58	23.58	0.0	25.0	
			1	23	23.72	23.63	23.77	0.0	25.0	
			1	24	22.58	22.55	22.64	1.0	24.0	
			12	0	22.86	22.83	22.77	1.0	24.0	
			12	6	23.96	23.67	24.07	0.0	25.0	
			12	13	22.83	22.65	22.87	1.0	24.0	
		25	0	22.82	22.79	22.78	1.0	24.0		
		16QAM	1	1	23.03	23.10	22.80	1.0	24.0	
			1	13	23.03	23.01	22.65	1.0	24.0	
			1	23	22.87	22.77	22.84	1.0	24.0	
			64QAM	1	1	21.02	20.99	20.97	2.5	22.5
		256QAM	1	1	18.94	18.89	18.93	4.5	20.5	
			CP-OFDM	QPSK	1	1	22.55	22.49	22.40	1.5

NR Band n26 (ANT A)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)					MPR	Tune-up Limit			
					Measured Pw (dBm)									
					164800	166300	167300	167800						
20 MHz	DFT-s-OFDM	π/2 BPSK	1	0			824.00 MHz	831.50 MHz	836.50 MHz	839.00 MHz	0.5	24.5		
			1	1			23.03	23.60	23.95	23.81	0.0	25.0		
			1	52			23.93	23.64	23.96	23.88	0.0	25.0		
			1	104			23.85	23.61	23.95	23.68	0.0	25.0		
			1	105			22.98	23.04	23.18	23.00	0.5	24.5		
			50	0			22.75	23.09	22.78	22.92	0.5	24.5		
			50	28			24.02	23.68	24.02	23.96	0.0	25.0		
			50	56			22.94	23.11	22.90	22.90	0.5	24.5		
			100	0			22.98	23.35	23.06	22.94	0.5	24.5		
			QPSK	1	0			22.46	22.51	22.54	22.49	1.0	24.0	
		1		1			23.86	23.68	23.78	24.20	0.0	25.0		
		1		52			24.04	23.72	23.13	23.92	0.0	25.0		
		1		104			23.79	23.70	23.90	23.89	0.0	25.0		
		1		105			22.66	22.64	22.52	22.48	1.0	24.0		
		50		0			21.77	22.66	22.81	21.87	1.0	24.0		
		50		28			22.86	23.75	22.98	22.88	0.0	25.0		
		50		56			22.94	22.68	22.87	22.89	1.0	24.0		
		100		0			22.88	22.79	22.89	22.85	1.0	24.0		
		16QAM		1	0			21.63	21.65	21.71	21.81	2.0	23.0	
			1	1			22.94	22.62	23.05	23.05	1.0	24.0		
			1	52			22.95	22.70	23.01	22.95	1.0	24.0		
			1	104			22.97	22.55	22.98	22.85	1.0	24.0		
			1	105			21.70	21.63	21.72	21.94	2.0	23.0		
			50	0			21.71	21.71	21.71	21.66	2.0	23.0		
			50	28			22.65	22.65	22.70	22.74	1.0	24.0		
			50	56			21.67	21.69	21.70	21.73	2.0	23.0		
			100	0			21.71	21.73	21.76	21.69	2.0	23.0		
			64QAM	1	1			20.77	21.00	20.67	20.82	2.5	22.5	
		256QAM	1	1			18.73	18.99	18.80	18.88	4.5	20.5		
		CP-OFDM	QPSK	1	0			20.48	20.63	20.54	20.51	3.0	22.0	
	1			1			21.54	22.06	21.74	21.97	1.5	23.5		
	1			52			22.18	22.36	22.33	22.21	1.5	23.5		
	1			104			22.35	22.37	22.32	22.31	1.5	23.5		
	1			105			20.69	20.82	20.76	20.52	3.0	22.0		
	50			0			20.57	20.63	20.57	20.62	3.0	22.0		
	50			28			22.29	22.23	22.25	22.14	1.5	23.5		
	50			56			20.83	20.88	20.84	20.78	3.0	22.0		
	100			0			20.70	20.59	20.62	20.64	3.0	22.0		
	16QAM			1	0			20.65	20.60	20.53	20.57	3.0	22.0	
			1	1			22.13	22.02	22.36	22.06	2.0	23.0		
			1	52			22.20	22.20	22.24	22.33	2.0	23.0		
			1	104			22.36	22.29	22.28	22.27	2.0	23.0		
			1	105			21.28	20.93	20.88	20.84	3.0	22.0		
			50	0			20.57	20.60	20.63	20.63	3.0	22.0		
			50	28			22.27	22.16	22.15	22.29	2.0	23.0		
			50	56			20.90	20.96	20.91	20.78	3.0	22.0		
			100	0			20.66	20.61	20.59	20.68	3.0	22.0		
			64QAM	1	1			20.21	20.40	20.45	20.52	3.5	21.5	
	256QAM		1	1			17.01	17.15	17.01	17.10	6.5	18.5		
	BW (MHz)	Modulation	Mode	RB Allocation	RB offset		164300	164800	166300	166800	168300	MPR	Tune-up Limit	
15 MHz	DFT-s-OFDM	π/2 BPSK	1	0		821.50 MHz	824.00 MHz	831.50 MHz	836.50 MHz	841.50 MHz	0.5	24.5		
			1	1			23.73	23.76	24.01	24.13	23.89	0.0	25.0	
			1	39			24.01	23.64	24.01	23.92	23.87	0.0	25.0	
			1	76			24.14	23.92	23.99	23.90	23.97	0.0	25.0	
			1	77			23.31	23.19	23.30	23.13	23.14	0.5	24.5	
			36	0			22.82	23.15	22.91	22.94	22.88	0.5	24.5	
			36	21			23.90	23.72	23.98	23.94	24.04	0.0	25.0	
			36	42			22.90	23.18	22.91	22.90	22.80	0.5	24.5	
			75	0			22.85	23.18	22.93	22.85	22.83	0.5	24.5	
			QPSK	1	0			22.72	22.59	22.69	22.64	22.66	1.0	24.0
		1		1			23.53	23.75	23.61	23.60	23.63	0.0	25.0	
		1		39			23.47	23.90	23.78	23.73	23.52	0.0	25.0	
		1		76			24.15	23.93	23.45	23.42	23.57	0.0	25.0	
		1		77			22.68	22.69	22.70	22.75	22.77	1.0	24.0	
		36		0			21.86	22.69	21.97	22.04	21.91	1.0	24.0	
		36		21			22.90	23.85	23.02	23.10	22.83	0.0	25.0	
		36		42			22.89	22.78	22.91	22.93	22.90	1.0	24.0	
		16QAM	75	0			22.82	22.78	22.94	22.90	22.83	1.0	24.0	
			1	1			23.05	22.67	23.14	23.08	23.31	1.0	24.0	
			1	39			22.88	22.77	22.92	22.88	22.94	1.0	24.0	
			1	76			22.98	22.82	22.98	22.92	22.94	1.0	24.0	
		CP-OFDM	QPSK	64QAM	1	1			20.81	21.06	20.99	20.93	21.04	2.5
	256QAM			1	1			18.80	19.05	18.93	19.04	18.97	4.5	20.5
				1	1			21.87	22.38	22.00	22.10	21.86	1.5	23.5

BW (MHz)	Modulation	Mode	RB Allocation	RB offset		Measured Pwr (dBm)					MPR	Tune-up Limit		
						163800	164800	165800	166300	166800				
						819.00 MHz	824.00 MHz	829.00 MHz	831.50 MHz	844.00 MHz				
10 MHz	DFT-s-OFDM	π/2 BPSK	1	0		23.16	23.10	23.13	23.17	23.19	0.5	24.5		
			1	1		23.89	23.77	23.73	24.13	24.12	0.0	25.0		
			1	26		23.82	23.77	23.78	24.03	23.93	0.0	25.0		
			1	49		23.86	23.81	23.90	23.89	23.81	0.0	25.0		
			1	50		23.20	23.21	23.23	23.25	23.18	0.5	24.5		
			25	0		22.80	23.27	23.21	22.87	22.93	0.5	24.5		
			25	13		23.92	23.83	23.83	24.11	24.06	0.0	25.0		
			25	26		22.88	23.33	23.20	22.97	22.86	0.5	24.5		
			50	0		22.83	23.24	23.30	22.98	22.90	0.5	24.5		
			1	0		22.58	22.70	22.73	22.63	22.62	1.0	24.0		
		QPSK	1	1		23.84	23.82	23.86	23.95	23.68	0.0	25.0		
			1	26		23.66	23.80	23.83	23.90	23.88	0.0	25.0		
			1	49		23.76	23.84	23.88	24.11	23.70	0.0	25.0		
			1	50		22.75	22.75	22.81	22.81	22.81	1.0	24.0		
			25	0		22.86	22.68	22.75	22.95	22.92	1.0	24.0		
			25	13		22.82	23.90	23.89	22.98	22.98	0.0	25.0		
			25	26		22.70	22.73	22.80	22.56	22.42	1.0	24.0		
			50	0		22.46	22.76	22.80	22.45	22.89	1.0	24.0		
			16QAM	1	1		22.89	23.05	22.62	23.39	23.24	1.0	24.0	
				1	26		22.91	23.06	22.64	23.05	22.89	1.0	24.0	
1		49			22.85	23.06	22.71	23.01	22.93	1.0	24.0			
64QAM		1	1		20.66	20.58	21.05	20.92	20.95	2.5	22.5			
256QAM		1	1		18.66	18.96	19.38	18.86	18.97	4.5	20.5			
CP-OFDM		QPSK	1	1		21.76	22.18	22.39	22.16	21.95	1.5	23.5		
BW (MHz)		Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit		
	163300					163800	164800	165300	166300	169300				
						816.50 MHz	821.50 MHz	824.00 MHz	826.50 MHz	831.50 MHz	846.50 MHz			
5 MHz	DFT-s-OFDM	π/2 BPSK	1	0		23.10	23.15	23.16	23.10	23.19	23.32	0.5	24.5	
			1	1		23.66	23.62	23.78	23.66	24.06	24.09	0.0	25.0	
			1	13		23.89	23.82	23.74	23.78	24.00	23.92	0.0	25.0	
			1	23		23.92	23.90	23.74	23.72	23.96	23.77	0.0	25.0	
			1	24		23.15	23.13	23.19	23.16	23.21	23.28	0.5	24.5	
			12	0		22.65	22.64	23.22	23.22	22.92	22.83	0.5	24.5	
			12	6		23.80	23.75	23.81	23.80	24.06	23.84	0.0	25.0	
			12	13		22.73	22.72	23.28	23.27	22.91	22.80	0.5	24.5	
			25	0		22.84	22.80	23.24	23.32	23.00	22.81	0.5	24.5	
			QPSK	1	0		22.71	22.76	22.65	22.79	22.76	22.59	1.0	24.0
		1		1		22.83	22.82	23.66	23.80	23.04	23.04	0.0	25.0	
		1		13		23.06	23.11	23.70	23.81	23.22	23.02	0.0	25.0	
		1		23		22.93	22.92	23.85	23.70	23.17	22.96	0.0	25.0	
		1		24		22.66	22.65	22.72	22.78	22.80	22.74	1.0	24.0	
		12		0		21.69	21.68	22.76	22.79	22.03	21.79	1.0	24.0	
		12		6		22.81	22.83	23.85	23.82	23.04	22.82	0.0	25.0	
		12		13		21.81	21.82	22.72	22.70	22.00	21.81	1.0	24.0	
		25		0		21.86	21.85	22.72	22.74	22.02	21.84	1.0	24.0	
		16QAM	1	1		23.00	23.13	22.68	22.79	22.89	22.90	1.0	24.0	
			1	13		22.85	22.86	22.77	22.79	22.99	22.84	1.0	24.0	
			1	23		23.05	23.13	22.78	22.80	23.07	22.88	1.0	24.0	
		64QAM	1	1		20.51	20.60	20.64	21.13	20.96	20.73	2.5	22.5	
		256QAM	1	1		18.62	18.92	18.92	19.36	19.01	18.85	4.5	20.5	
		CP-OFDM	QPSK	1	1		21.74	21.75	22.15	22.33	22.14	21.95	1.5	23.5

NR Band n26 (ANT E)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Average Power (dBm)					MPR	Tune-up Limit			
					Measured Pwr (dBm)									
					164800	166300	167300	167800						
20 MHz	DFT-s-OFDM	π/2 BPSK	1	0			164800	166300	167300	167800	0.5	24.5		
			1	1			824.00 MHz	831.50 MHz	836.50 MHz	839.00 MHz	0.0	25.0		
			1	52			23.54	23.63	23.86	23.53	0.0	25.0		
			1	104			23.60	23.64	23.98	23.58	0.0	25.0		
			1	105			23.24	23.28	23.36	23.15	0.5	24.5		
			50	0			22.94	23.10	23.26	23.14	0.5	24.5		
			50	28			23.63	23.62	23.96	23.61	0.0	25.0		
			50	56			23.05	23.20	23.39	23.23	0.5	24.5		
			100	0			23.08	23.05	23.38	23.28	0.5	24.5		
			1	0			22.60	22.61	22.61	22.65	1.0	24.0		
		QPSK	1	1			23.41	23.43	23.73	23.46	0.0	25.0		
			1	52			23.50	23.63	23.79	23.51	0.0	25.0		
			1	104			23.51	23.70	23.90	23.60	0.0	25.0		
			1	105			22.65	22.87	22.80	22.80	1.0	24.0		
			50	0			22.38	22.58	22.74	22.64	1.0	24.0		
			50	28			23.61	23.56	23.85	23.64	0.0	25.0		
			50	56			22.51	22.62	22.86	22.71	1.0	24.0		
			100	0			22.63	22.68	22.93	22.65	1.0	24.0		
			1	0			22.60	22.61	22.61	22.65	2.0	23.0		
			1	1			22.09	22.56	23.73	22.61	1.0	24.0		
		16QAM	1	52			22.63	22.57	23.79	22.80	1.0	24.0		
			1	104			22.58	22.68	23.90	22.64	1.0	24.0		
			1	105			22.65	22.87	22.80	22.80	2.0	23.0		
			50	0			22.71	22.74	22.74	22.78	2.0	23.0		
			50	28			23.89	23.83	23.85	23.86	1.0	24.0		
			50	56			22.83	22.87	22.86	22.89	2.0	23.0		
			100	0			22.87	22.88	22.93	22.86	2.0	23.0		
			64QAM	1	1			20.47	20.67	21.15	20.69	2.5	22.5	
			256QAM	1	1			18.47	18.58	19.53	18.97	4.5	20.5	
			CP-OFDM	QPSK	1	0			20.64	20.63	20.70	20.66	3.0	22.0
	1	1					21.93	22.13	22.22	22.36	1.5	23.5		
	1	52					22.28	22.15	22.39	22.09	1.5	23.5		
	1	104					22.28	22.38	22.35	22.24	1.5	23.5		
	1	105					20.88	20.62	20.64	20.62	3.0	22.0		
	50	0					20.66	20.67	20.69	20.71	3.0	22.0		
	50	28					22.37	22.20	22.34	22.33	1.5	23.5		
	50	56					20.83	20.75	20.74	20.69	3.0	22.0		
	100	0					20.78	20.65	20.69	20.68	3.0	22.0		
	16QAM	1			0			20.64	20.65	20.58	20.61	3.0	22.0	
		1		1			22.41	22.29	22.29	22.31	2.0	23.0		
		1		52			22.34	22.08	22.47	22.35	2.0	23.0		
		1		104			22.33	22.33	22.44	22.31	2.0	23.0		
		1		105			20.81	20.53	20.52	20.56	3.0	22.0		
		50		0			20.65	20.68	20.70	20.75	3.0	22.0		
		50		28			22.42	22.27	22.38	22.38	2.0	23.0		
		50		56			20.77	20.76	20.73	20.70	3.0	22.0		
		100		0			20.67	20.70	20.70	20.70	3.0	22.0		
		64QAM		1	1			19.92	20.42	20.51	20.55	3.5	21.5	
	256QAM	1		1			17.16	17.50	17.58	17.65	6.5	18.5		
	BW (MHz)	Modulation	Mode	RB Allocation	RB offset		164300	164800	166300	167300	168300	MPR	Tune-up Limit	
15 MHz	DFT-s-OFDM	π/2 BPSK	1	0		821.50 MHz	824.00 MHz	831.50 MHz	836.50 MHz	841.50 MHz	0.5	24.5		
			1	1			23.53	23.83	23.57	23.62	23.64	0.0	25.0	
			1	39			23.47	23.78	23.77	23.70	23.66	0.0	25.0	
			1	76			23.59	23.88	23.72	23.78	23.79	0.0	25.0	
			1	77			23.36	23.27	23.39	23.25	23.23	0.5	24.5	
			36	0			22.93	23.12	23.10	23.16	23.17	0.5	24.5	
			36	21			23.62	23.96	23.76	23.70	23.87	0.0	25.0	
			36	42			23.07	23.32	23.21	23.24	23.14	0.5	24.5	
			75	0			22.97	23.30	23.18	23.21	23.30	0.5	24.5	
			1	0			22.79	22.64	22.64	22.62	22.60	1.0	24.0	
		QPSK	1	1			23.52	23.74	23.50	23.55	23.76	0.0	25.0	
			1	39			23.34	23.79	23.68	23.69	23.80	0.0	25.0	
			1	76			23.59	24.00	23.65	23.63	23.70	0.0	25.0	
			1	77			22.81	22.78	22.82	22.80	22.78	1.0	24.0	
			36	0			22.35	22.72	22.64	22.68	22.67	1.0	24.0	
			36	21			23.59	23.95	23.60	23.66	23.83	0.0	25.0	
			36	42			22.49	22.82	22.59	22.61	22.65	1.0	24.0	
			75	0			22.52	22.81	22.64	22.63	22.66	1.0	24.0	
			1	1			22.53	22.69	22.66	22.65	22.87	1.0	24.0	
		16QAM	1	39			22.61	22.78	22.60	22.64	22.77	1.0	24.0	
			1	76			22.91	22.87	22.76	22.72	22.64	1.0	24.0	
			64QAM	1	1			20.65	21.09	20.65	20.63	21.13	2.5	22.5
			256QAM	1	1			18.57	19.16	18.67	18.60	18.76	4.5	20.5
	CP-OFDM	QPSK	1	1			22.05	22.52	22.30	22.28	22.33	1.5	23.5	

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)						MPR	Tune-up Limit	
					163800	164800	165800	166300	168800				
					819.00 MHz	824.00 MHz	829.00 MHz	831.50 MHz	844.00 MHz				
10 MHz	DFT-s-OFDM	π/2 BPSK	1	0		23.00	23.24	23.20	23.16	23.14	0.5	24.5	
			1	1		23.50	23.80	23.82	23.51	23.79	0.0	25.0	
			1	26		23.53	23.70	23.79	23.58	23.77	0.0	25.0	
			1	49		23.59	23.91	23.89	23.78	23.73	0.0	25.0	
			1	50		23.21	23.29	23.30	23.16	23.25	0.5	24.5	
			25	0		23.03	23.30	23.32	23.14	23.26	0.5	24.5	
			25	13		23.61	23.84	23.83	23.68	23.73	0.0	25.0	
			25	26		23.11	23.34	23.34	23.20	23.32	0.5	24.5	
			50	0		23.04	23.20	23.24	23.17	23.21	0.5	24.5	
			1	0		22.56	22.66	22.73	22.71	22.55	1.0	24.0	
		QPSK	1	1		23.54	23.76	23.82	23.49	23.67	0.0	25.0	
			1	26		23.38	23.78	23.83	23.68	23.66	0.0	25.0	
			1	49		23.58	23.85	23.90	23.70	23.71	0.0	25.0	
			1	50		22.83	22.74	22.72	22.71	22.73	1.0	24.0	
			25	0		22.58	22.77	22.79	22.66	22.76	1.0	24.0	
			25	13		23.63	23.85	23.88	23.68	23.83	0.0	25.0	
			25	26		22.63	22.82	22.83	22.64	22.65	1.0	24.0	
			50	0		22.54	22.75	22.77	22.65	22.76	1.0	24.0	
			16QAM	1	1		22.62	22.79	23.01	22.61	22.93	1.0	24.0
				1	26		22.68	22.82	23.07	22.65	22.76	1.0	24.0
		1		49		22.74	22.88	23.05	22.75	22.56	1.0	24.0	
		64QAM	1	1		20.62	21.01	21.20	20.84	20.99	2.5	22.5	
			256QAM	1	1		18.62	19.40	19.41	18.64	18.84	4.5	20.5
		CP-OFDM	QPSK	1	1		22.09	22.40	22.44	22.28	22.60	1.5	23.5
				Measured Pwr (dBm)						MPR	Tune-up Limit		
						163300	164300	164800	165300	166300	169300		
					816.50 MHz	821.50 MHz	824.00 MHz	826.50 MHz	831.50 MHz	846.50 MHz			
5 MHz	DFT-s-OFDM	π/2 BPSK	1	0		23.21	23.28	23.27	23.24	23.29	0.5	24.5	
			1	1		23.45	23.70	23.85	23.77	23.58	23.77	0.0	25.0
			1	13		23.61	23.62	23.96	23.98	23.74	23.87	0.0	25.0
			1	23		23.43	23.63	23.68	23.85	23.63	23.84	0.0	25.0
			1	24		23.26	23.33	23.30	23.24	23.17	23.25	0.5	24.5
			12	0		23.03	23.13	23.35	23.22	23.20	23.19	0.5	24.5
			12	6		23.60	23.70	23.94	23.91	23.79	23.96	0.0	25.0
			12	13		22.96	23.13	23.21	23.27	23.09	23.30	0.5	24.5
			25	0		23.01	23.34	23.34	23.28	23.19	23.26	0.5	24.5
			QPSK	1	0		22.73	22.75	22.79	22.68	22.87	22.74	1.0
		1		1		23.52	23.68	23.88	23.74	23.61	23.63	0.0	25.0
		1		13		23.58	23.91	23.90	23.99	23.70	23.76	0.0	25.0
		1		23		23.44	23.42	23.87	23.79	23.63	23.73	0.0	25.0
		1		24		22.79	22.80	22.81	22.67	22.78	22.65	1.0	24.0
		12		0		22.49	22.59	22.84	22.75	22.71	22.85	1.0	24.0
		12		6		23.64	23.64	23.78	23.93	23.86	23.90	0.0	25.0
		12		13		22.45	22.70	22.73	22.78	22.68	22.76	1.0	24.0
		25		0		22.50	22.72	22.76	22.87	22.63	22.70	1.0	24.0
		16QAM	1	1		22.59	22.68	23.40	22.91	22.72	22.82	1.0	24.0
			1	13		22.66	22.60	23.34	22.97	22.80	22.81	1.0	24.0
			1	23		22.72	22.81	22.35	22.91	22.74	22.79	1.0	24.0
		64QAM	1	1		20.66	21.01	21.51	21.47	20.80	20.89	2.5	22.5
			256QAM	1	1		18.66	18.92	18.97	18.96	19.01	19.03	4.5
		CP-OFDM	QPSK	1	1		22.31	22.40	22.46	22.21	22.53	22.60	1.5

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

LTE: It was all modulations and worst modulations(QPSK, 256QAM) is repoted.

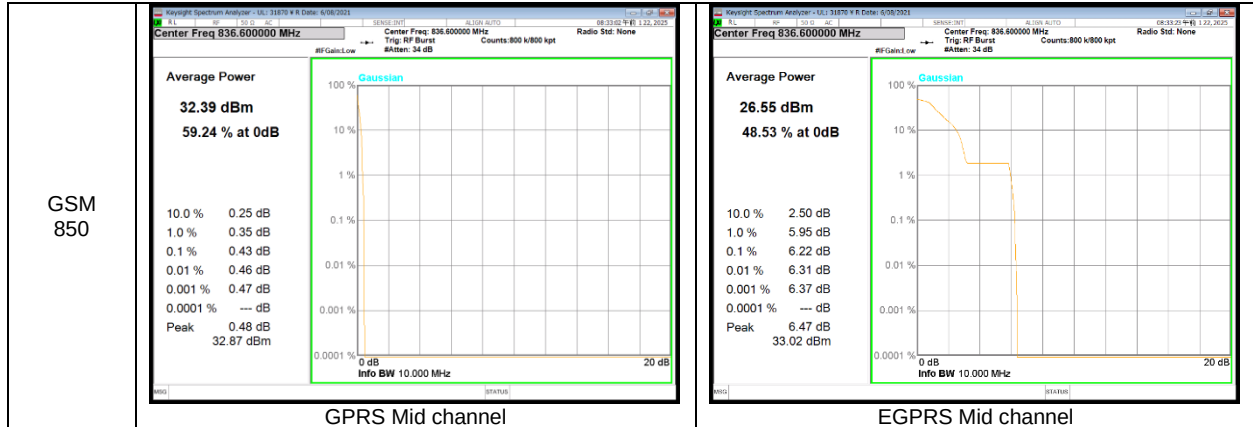
5G NR: All Waveforms (CP-OFDM vs DFT-s_OFDM) and modulations ($\pi/2$ BPSK, QPSK, 16QAM, 64QAM, 256QAM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

RESULTS

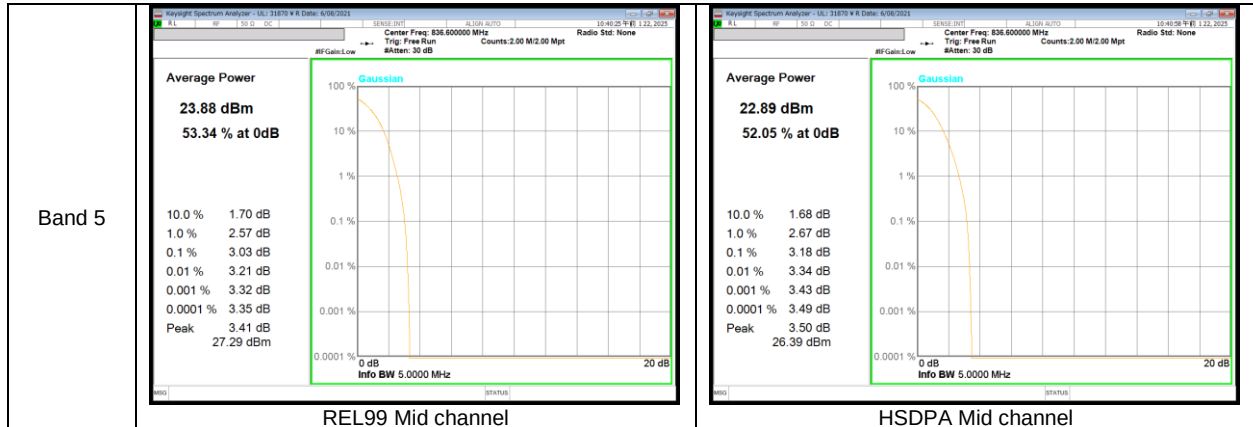
See the following pages.

8.2.1. CONDUCTED PEAK TO AVERAGE RESULT

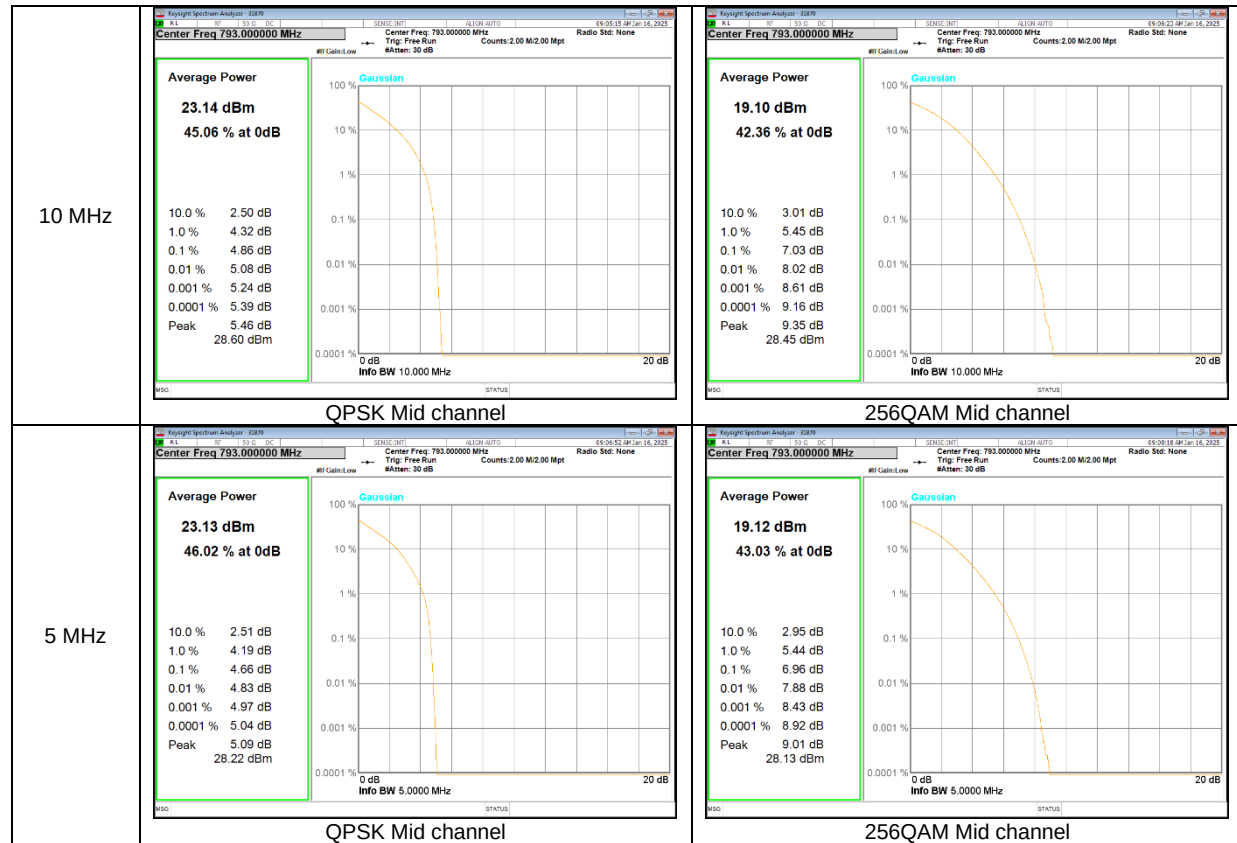
GSM (ANT A)



WCDMA (ANT A)

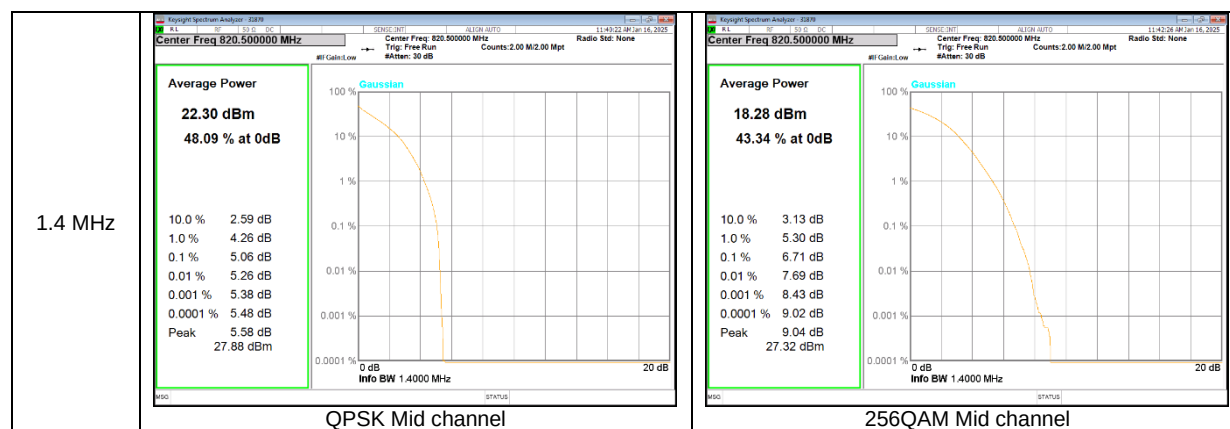


LTE Band 14 (ANT A)

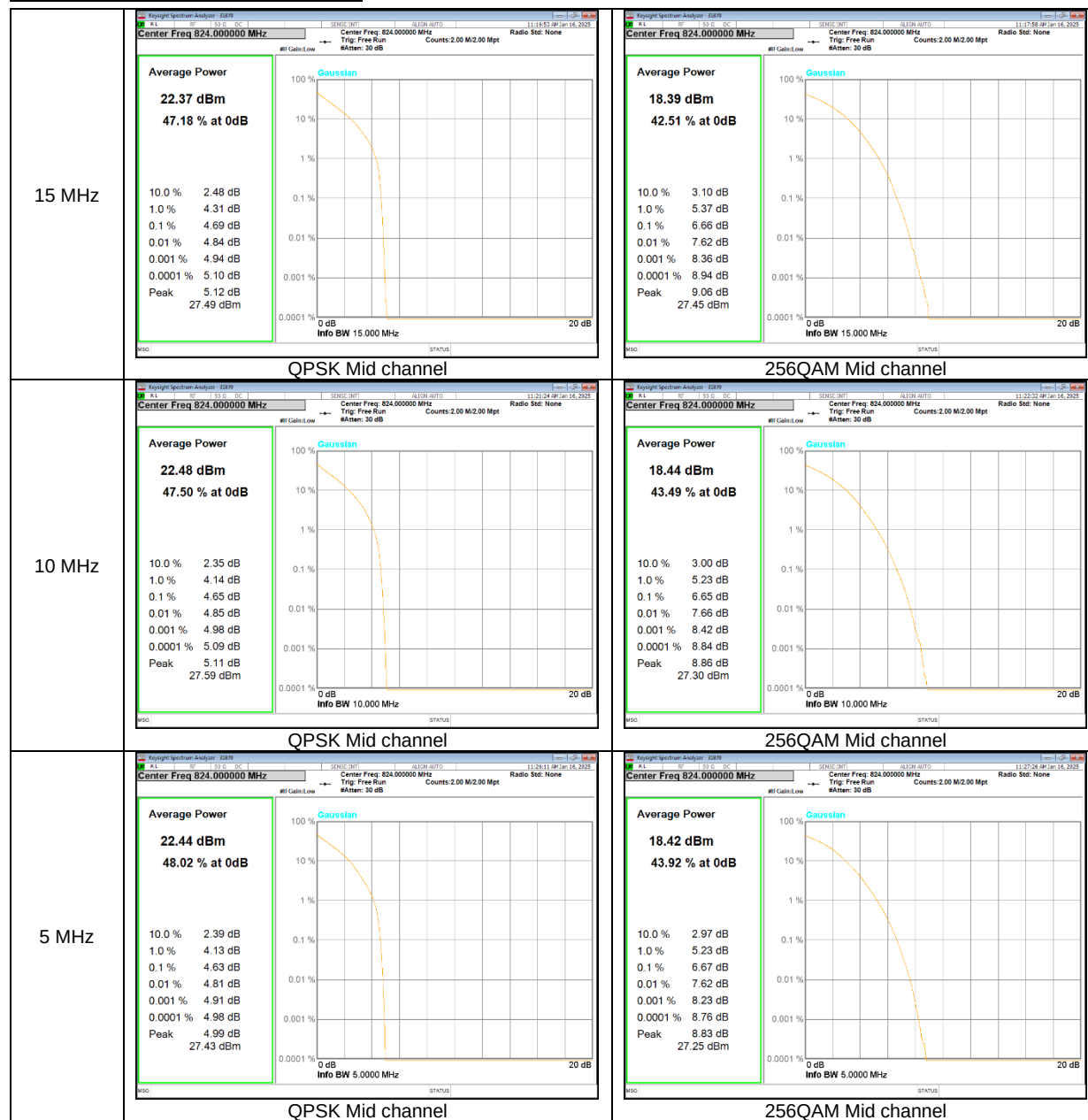


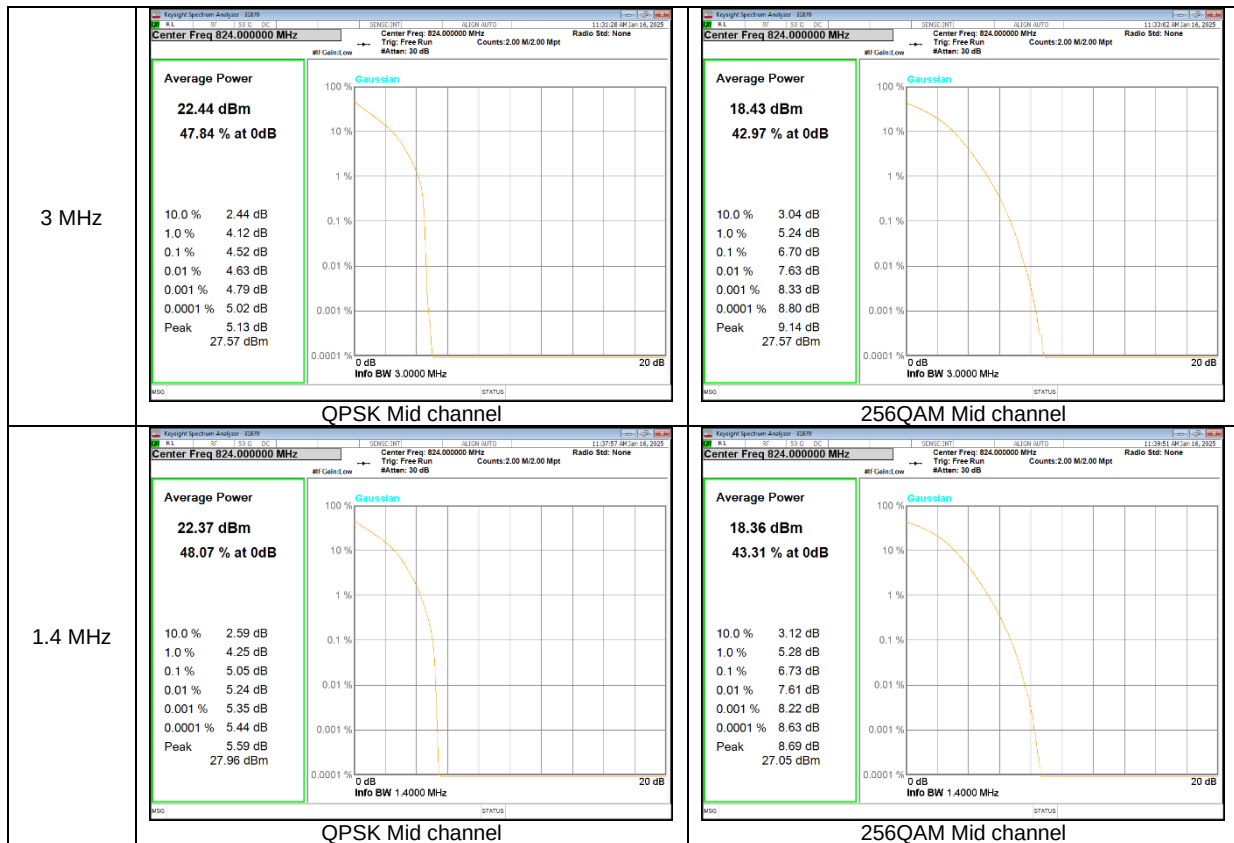
LTE Band 26 (Part 90) (ANT E)



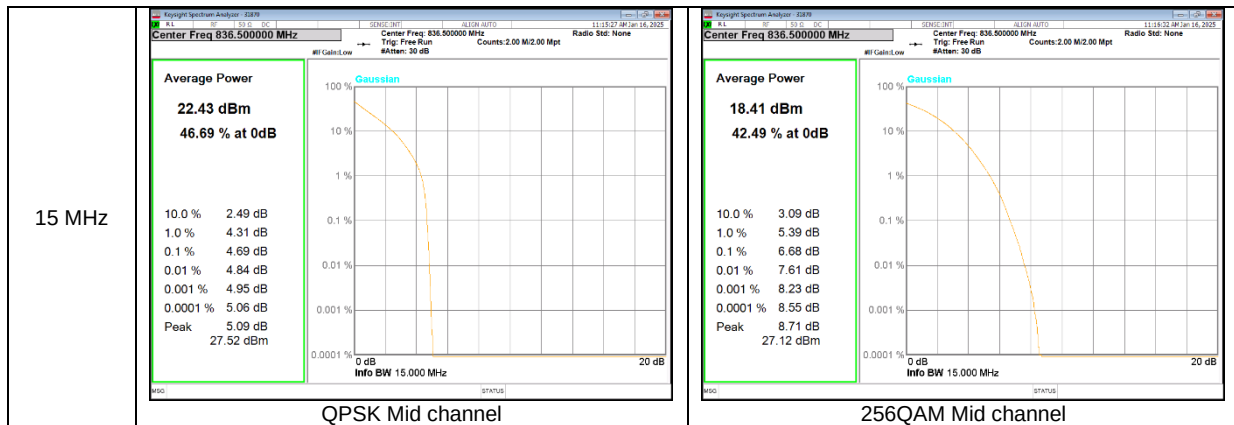


LTE Band 26 (Straddle) (ANT E)



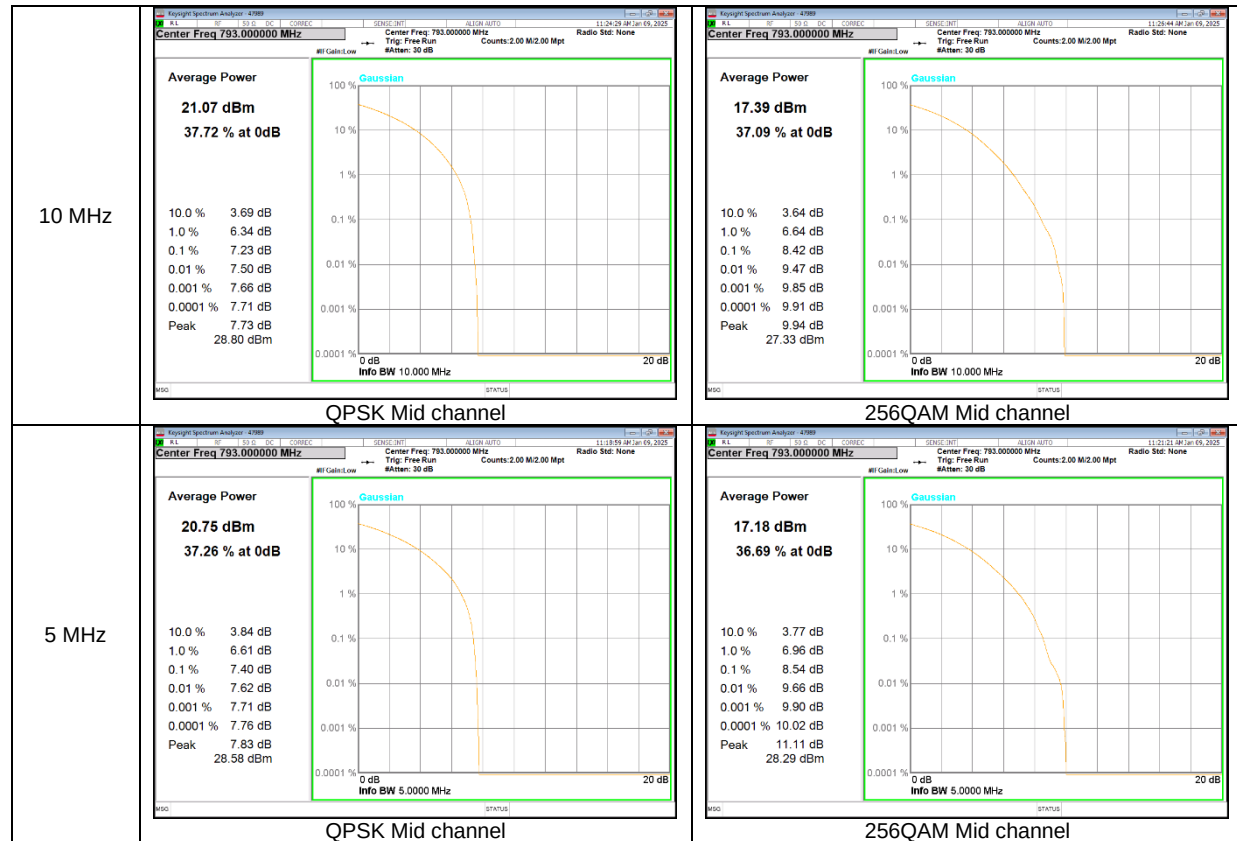


LTE Band 26 (Part 22) (ANT E)

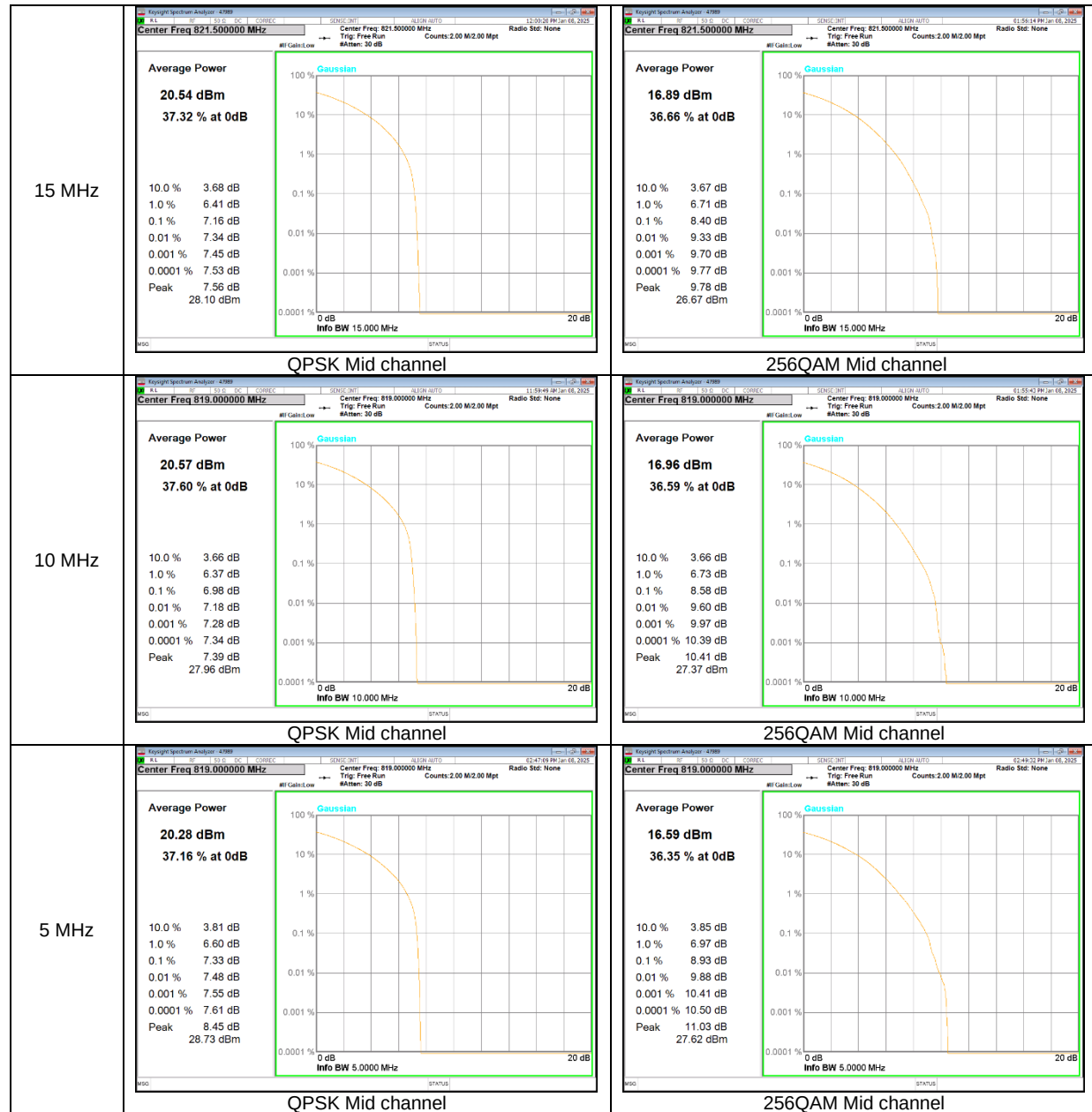




NR Band n14 CP-OFDM (ANT A)



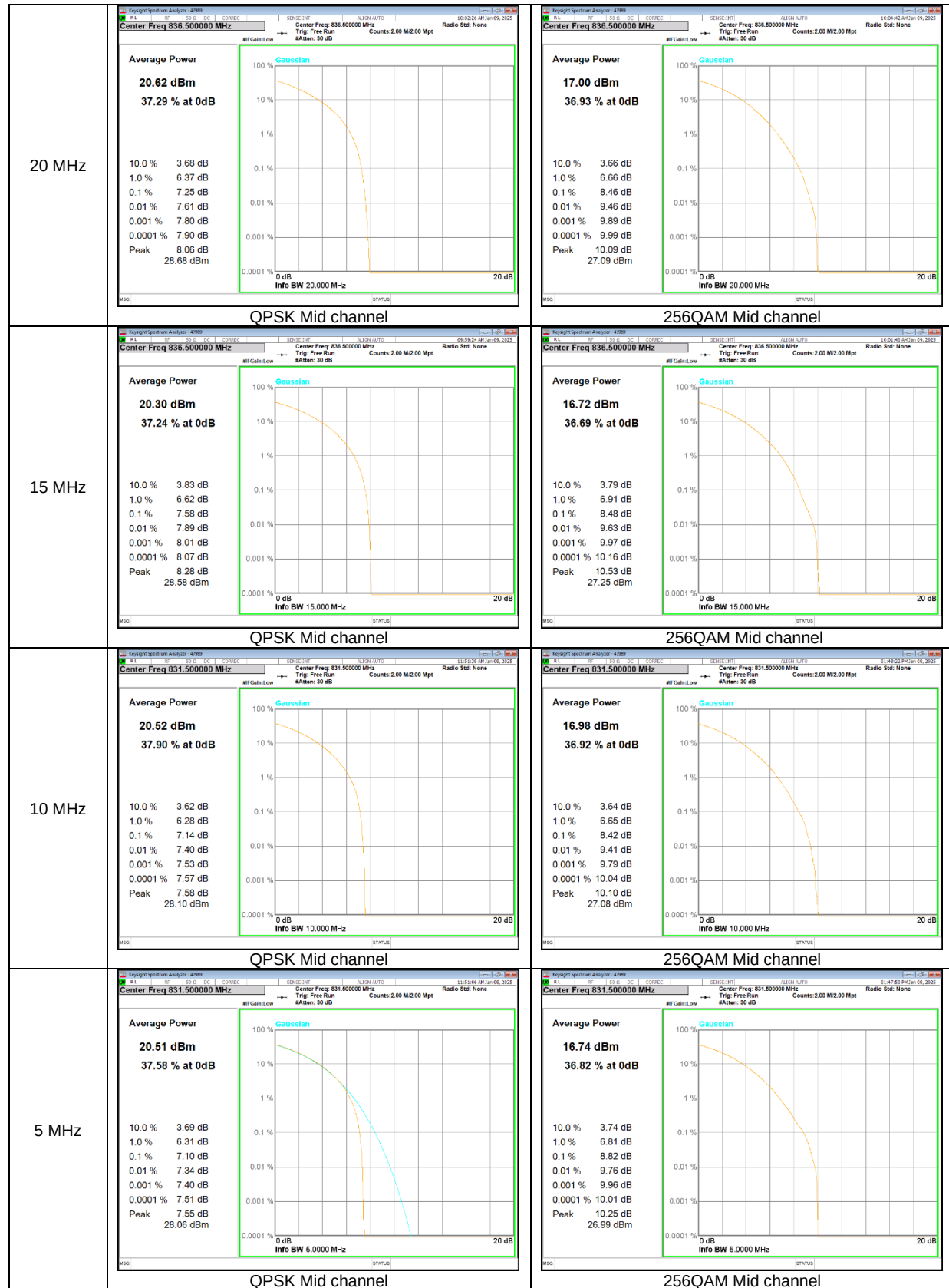
NR Band n26 CP-OFDM (Part 90) (ANT A)



NR Band n26 CP-OFDM (Straddle) (ANT A)



NR Band n26 CP-OFDM (Part 22) (ANT A)



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.

- GSM (ANT A)

Band	Modulation	f [MHz]	99% BW (kHz)	-26dB BW (kHz)
850	GPRS	836.60	246.05	311.5
	EGPRS		247.78	308.8

- WCDMA (ANT A)

Band	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
B5	Rel.99	836.60	4.131	4.689
	HSDPA		4.144	4.706

- LTE Band 14 (ANT A)

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B14	10M	QPSK	793.00	8.961	9.788
		16QAM		8.965	9.780
	5M	QPSK		4.484	5.041
		16QAM		4.492	5.118

- LTE Band 26 (Part 90) (ANT E)

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B26	15M	QPSK	821.50	13.429	14.540
		16QAM		13.469	14.520
	10M	QPSK	819.00	8.970	9.833
		16QAM		8.977	9.847
	5M	QPSK	819.00	4.484	5.053
		16QAM		4.489	5.053
	3M	QPSK	819.00	2.685	2.994
		16QAM		2.701	3.009
	1.4M	QPSK	819.00	1.085	1.342
		16QAM		1.088	1.337

- LTE Band 26 (Straddle) (ANT E)

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B26	15M	QPSK	824.00	13.444	14.780
		16QAM		13.475	14.570
	10M	QPSK		8.971	9.757
		16QAM		8.983	9.808
	5M	QPSK		4.488	5.004
		16QAM		4.505	5.047
	3M	QPSK		2.694	3.035
		16QAM		2.684	3.032
	1.4M	QPSK		1.091	1.314
		16QAM		1.089	1.325

- LTE Band 26 (Part 22) (ANT E)

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
LTE B26	15M	QPSK	836.50	13.437	14.560
		16QAM		13.449	14.310
	10M	QPSK	831.50	8.947	9.741
		16QAM		8.952	9.815
	5M	QPSK	831.50	4.483	5.143
		16QAM		4.501	5.043
	3M	QPSK	831.50	2.687	2.995
		16QAM		2.697	3.032
	1.4M	QPSK	831.50	1.088	1.322
		16QAM		1.092	1.348

- NR Band n14 CP-OFDM (ANT A)

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
NR n14	10M	QPSK	793.00	9.314	10.110
		16QAM		9.291	9.972
	5M	QPSK		4.478	5.146
		16QAM		4.480	5.136

- NR Band n26 (Part 90) (ANT A)

Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
NR n26	15M	QPSK	821.50	14.127	15.090
		16QAM		14.129	15.020
	10M	QPSK	819.00	9.324	10.220
		16QAM		9.288	9.970
	5M	QPSK	819.00	4.475	5.152
		16QAM		4.481	5.151

- NR Band n26 (Straddle) (ANT A)

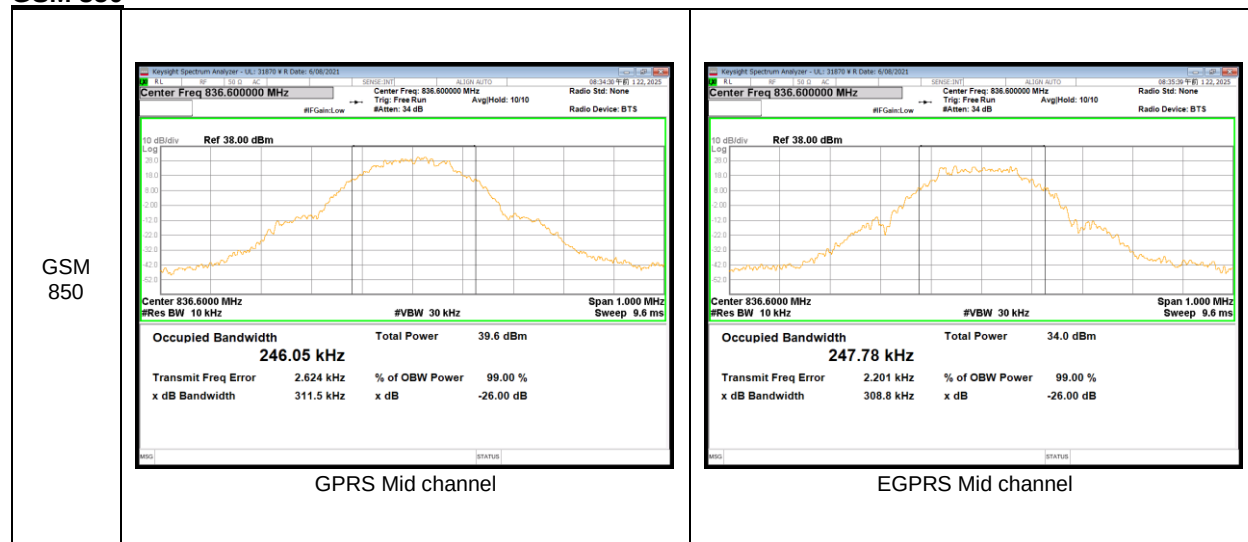
Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
NR n26	20M	QPSK	824.00	18.957	19.970
		16QAM		18.952	19.870
	15M	QPSK		14.145	15.060
		16QAM		14.087	14.930
	10M	QPSK		9.290	9.992
		16QAM		9.288	9.952
	5M	QPSK		4.468	5.173
		16QAM		4.473	5.090

- NR Band n26 (Part 22) (ANT A)

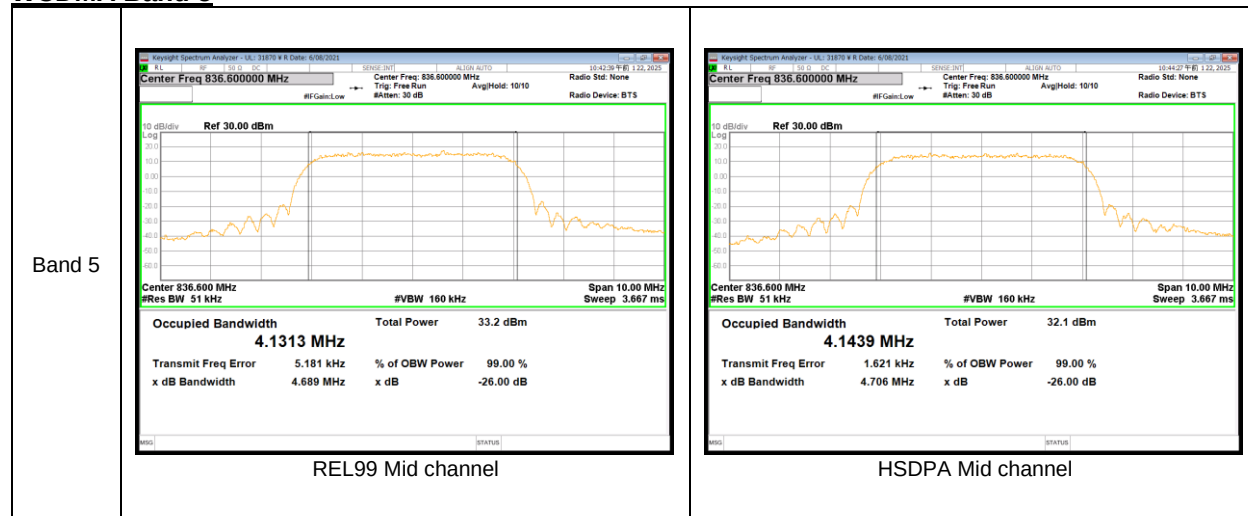
Band	BW	Modulation	f [MHz]	99% BW (MHz)	-26dB BW (MHz)
NR n26	20M	QPSK	836.50	19.011	19.990
		16QAM		18.936	19.950
	15M	QPSK	836.50	14.136	14.960
		16QAM		14.146	15.000
	10M	QPSK	831.50	9.319	10.190
		16QAM		9.307	10.000
	5M	QPSK	831.50	4.482	5.134
		16QAM		4.471	5.099

8.3.1. OCCUPIED BANDWIDTH RESULT

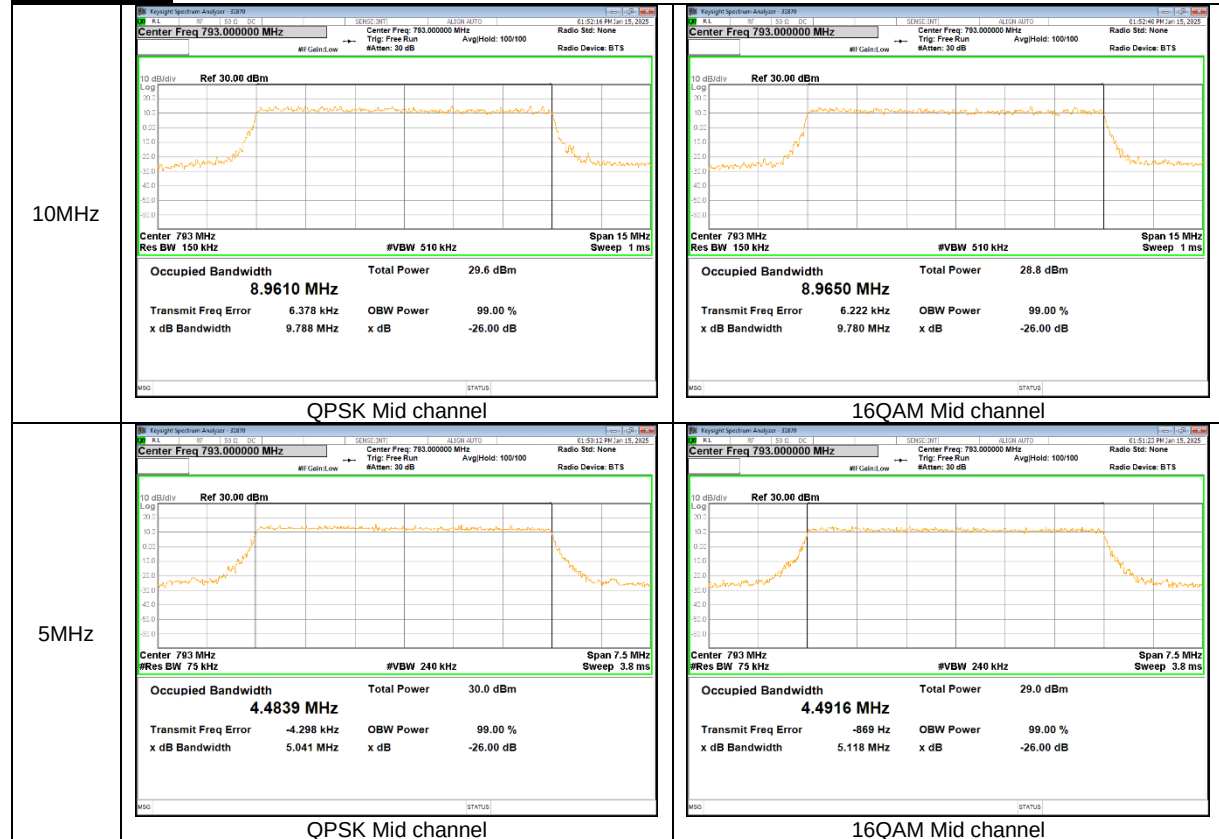
GSM 850



WCDMA Band 5

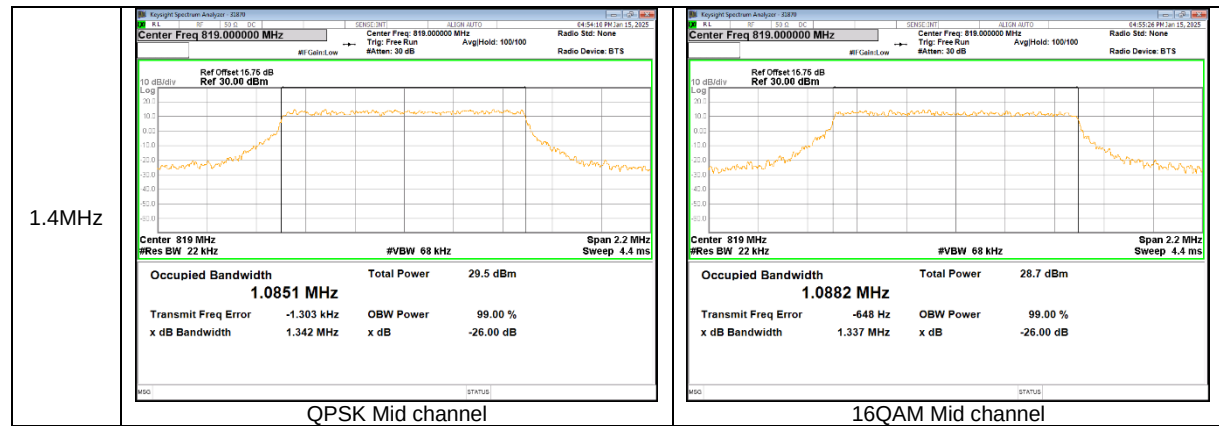


LTE Band 14



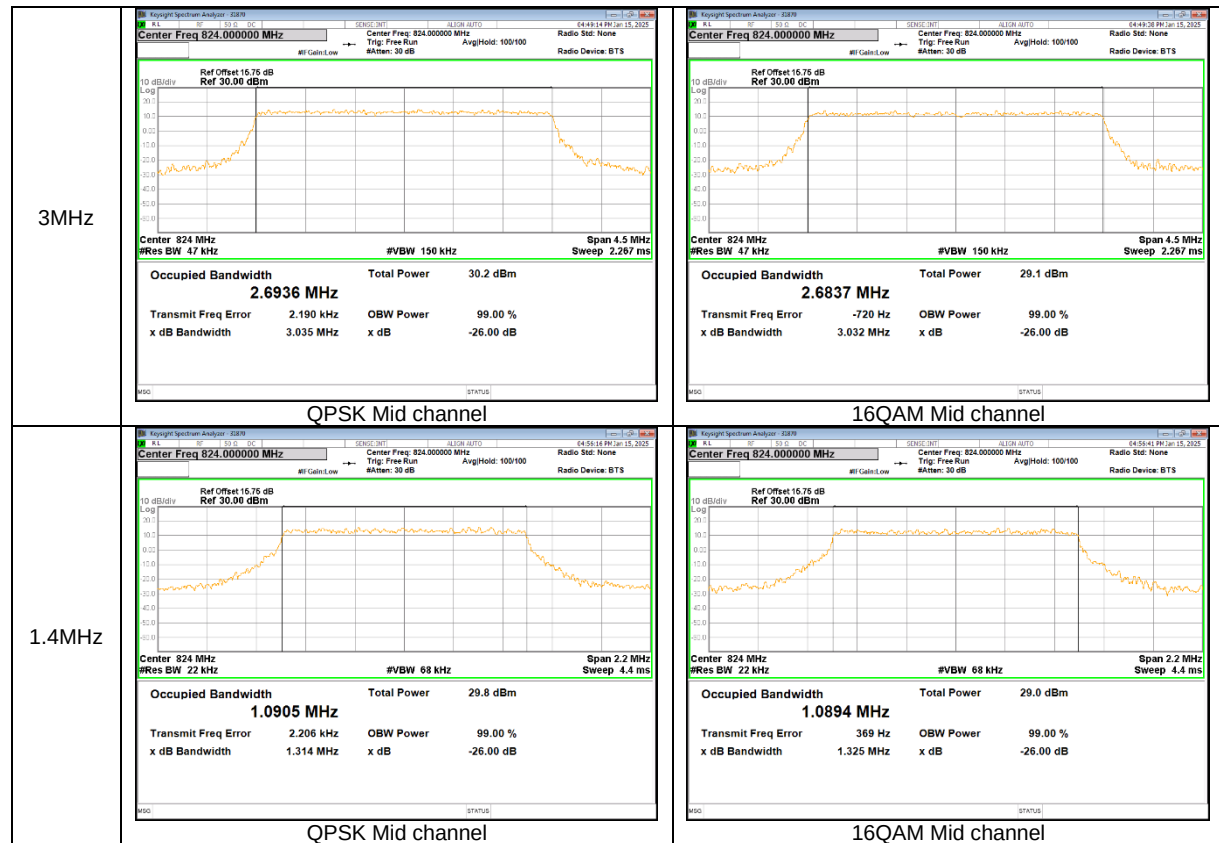
LTE Band 26 (Part 90)





LTE Band 26 (Straddle)





LTE Band 26 (Part 22)

