



REPORT No.: SZ23100340W02

TEST REPORT

APPLICANT : Sonim Technologies, Inc.

PRODUCT NAME : Mobile Hotspot

MODEL NAME : H500V

BRAND NAME : Sonim

FCC ID : WYPH500V

STANDARD(S) : 47 CFR Part 2
47 CFR Part 22
47 CFR Part 24
47 CFR Part 27
47 CFR Part 96

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Edited by:

Gan Jing

Gan Jing (Rapporteur)

Approved by:

Shen Junsheng

Shen Junsheng (Supervisor)

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MORLAB

Shenzhen Morlab Communication Technology Co., Ltd.
FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China

Tel: 86-755-36698555

Http://www.morlab.cn

Fax: 86-755-36698525

E-mail: service@morlab.cn





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Change History		
Version	Date	Reason for change
1.0	2024-04-08	First edition



1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	Sonim Technologies, Inc.
Applicant Address:	4445 Eastgate Mall, Suite 200, San Diego, CA 92121, USA
Manufacturer:	Sonim Technologies, Inc.
Manufacturer Address:	4445 Eastgate Mall, Suite 200, San Diego, CA 92121, USA

1.2. Equipment Under Test (EUT) Description

Product Name:	Mobile Hotspot	
Hardware Version:	V1.0	
Software Version:	H50.0-01-5.4.0-15.08.00	
IMEI:	351966690000192	
Modulation Type:	DFT-s-OFDM	PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM
	CP-OFDM	QPSK, 16QAM, 64QAM, 256QAM
SA Band:	n2, n5, n48, n66, n77, n78	
Power Class:	PC2:	n77, n78
	PC3:	n2, n5, n48, n66, n77, n78
EN-DC Band:	n2	DC_5A_n2, DC_13A_n2, DC_66A_n2,
	n5	DC_2A_n5, DC_48A_n5, DC_66A_n5
	n66	DC_2A_n66, DC_5A_n66, DC_13A_n66, DC_48A_n66
	n77	DC_2A_n77, DC_5A_n77, DC_13A_n77, DC_66A_n77
Frequency Range:	n2	Tx: 1850MHz-1910MHz
		Rx: 1930MHz-1990MHz
	n5	Tx: 824MHz-849MHz
		Rx: 869MHz-894MHz
		Rx: 2496MHz-2690MHz
	n48	Tx: 3550 MHz-3700 MHz
		Rx: 3550 MHz-3700 MHz
	n66	Tx: 1710MHz-1780MHz



		Rx: 2110MHz-2200MHz
	n77 : (enabling bands)	Tx: 3450MHz-3550MHz
		Rx: 3450MHz-3550MHz
		Tx: 3700MHz-3980MHz
		Rx: 3700MHz-3980MHz
	n78: (enabling bands)	Tx: 3450MHz-3550MHz
		Rx: 3450MHz-3550MHz
		Tx: 3700MHz-3800MHz
		Rx: 3700MHz-3800MHz
Channel Bandwidth	n2	5MHz, 10MHz, 15MHz, 20MHz
	n5	5MHz, 10MHz, 15MHz, 20MHz
	n48	10MHz, 20MHz, 30MHz, 40MHz
	n66	5MHz, 10MHz, 15MHz, 20MHz, 30MHz
	n77	5MHz, 10MHz, 15MHz, 20MHz, 30MHz, 40MHz, 60MHz, 80MHz, 100MHz
	n78	20MHz, 30MHz, 40MHz, 50MHz, 60MHz, 70MHz, 80MHz, 90MHz, 100MHz
Antenna Type:	PIFA Antenna	
Antenna Gain:	n2	ANT0: 2.40dBi, ANT1: 2.17dBi,
	n5	ANT4: -1.14dBi
	n48	ANT2:-0.14dBi, ANT3:-0.03dBi,
	n66	ANT0: 1.29dBi, ANT1: 1.93dBi,
	n77	ANT2:2.65 dBi, ANT3:2.31dBi,
	n78	ANT2:-0.07dBi, ANT3:-0.03dBi,
Accessory Information:	Battery :	
	Brand Name:	sonim
	Model No.:	BAT-06000-01S
	Serial No.:	N/A
	Capacity:	6000mAh
	Rated Voltage:	3.85V
	Charge Limit:	4.4V
	Manufacturer:	Guangdong Fenghua New Energy Co.,Ltd.
	AC Adapter :	
	Brand Name:	N/A
	Model No.:	1-CHUSQ302-097
	Serial No.:	N/A
	Rated Input:	100-240V~50/60HZ, 0.5A
	Rated Output:	5V=3A or 9V=2A or 12V=1.5A
	Manufacturer:	HUIZHOU PUAN ELECTRONICS CO.,LTD



- Note 1:** For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.
- Note 2:** n77 supports both power class 2 and class 3. We have evaluated two power classes respectively by performing full test, for Conducted Output Power .we recorded the test result of two power classes separately, for other test items we only recorded the worst test result (Class 2) in this report.
- Note 3:** There is no test for SA n78 due to the band is completely covered by SA n77 and its power level setting also less than SA n77.
- Note 4:** In the same NR frequency band, the measured power in SA mode is higher than that in NSA mode, SA mode is selected to test all test cases.
- Note 5:** This test report is variant from the original report (Report No.: SZ23100334W02, FCC ID: WYPH500B), based on the similarity between before, most of the LTE and NR frequency bands were deleted through hardware and software, and the millimeter wave module was added, the WCDMA and WiFi specifications remain unchanged, as below:

	Original	New
Model	H500B	H500V
FCC ID	WYPH500B	WYPH500V
HW Version	V1.0	V1.0
SW Version	H50.0-01-5.4.0-11.08.00	H50.0-01-5.4.0-15.08.00
WCDMA Bands	B2/4/5	B2/4/5
LTE Bands	B2/4/5/7/12/13/14/17/25/26/29(RX)/30/38/41/42/43/46(Rx)/48/66/71	B2/4/5/7/12/13/17/46(Rx)/48/66
5G FR1 Bands	n2/n5/n7/n12/n13/n14/n25/n26/n29(RX)/n30/n38/n41/n48/n66/n71/n77/n78	n2/n5/n48/n66/n77/n78
5G FR2 Bands	N/A	n260/n261
WIFI	2.4G WiFi, 5G WiFi B1/B4	2.4G WiFi, 5G WiFi B1/B4

The changes do not affect the results in this report.

1.3. Maximum ERP/EIRP and Emission Designator

EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

ERP (dBm) = EIPR (dBm) - 2.15

n2						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	Emission Designator
5	PI/2 BPSK	/	/	/	4.491	4M49G7D
	QPSK	23.50	25.90	0.389	4.496	4M50G7D
	16QAM	/	/	/	4.496	4M50W7D
	64QAM	/	/	/	4.481	4M48W7D
	256QAM	/	/	/	4.491	4M49W7D
	CP-QPSK	/	/	/	4.479	4M48G7D
10	PI/2 BPSK	/	/	/	8.927	8M93G7D
	QPSK	23.45	25.85	0.385	8.935	8M94G7D
	16QAM	/	/	/	8.951	8M95W7D
	64QAM	/	/	/	8.931	8M93W7D
	256QAM	/	/	/	8.934	8M93W7D
	CP-QPSK	/	/	/	9.297	9M30G7D
15	PI/2 BPSK	/	/	/	13.428	13M4G7D
	QPSK	23.51	25.91	0.390	13.450	13M5G7D
	16QAM	/	/	/	13.429	13M4W7D
	64QAM	/	/	/	13.461	13M5W7D
	256QAM	/	/	/	13.451	13M5W7D
	CP-QPSK	/	/	/	14.123	14M1G7D
20	PI/2 BPSK	23.56	25.96	0.394	17.887	17M9G7D
	QPSK	23.54	25.94	0.393	17.896	17M9G7D
	16QAM	22.43	24.83	0.304	17.904	17M9W7D
	64QAM	20.99	23.39	0.218	17.907	17M9W7D
	256QAM	18.78	21.18	0.131	17.866	17M9W7D
	CP-QPSK	/	/	/	18.927	18M9G7D



n5						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	ERP Average (dBm)	ERP Average (W)	99% BW (MHz)	Emission Designator
5	PI/2 BPSK	/	/	/	4.491	4M49G7D
	QPSK	22.47	21.33	0.136	4.491	4M49G7D
	16QAM	/	/	/	4.488	4M49W7D
	64QAM	/	/	/	4.485	4M49W7D
	256QAM	/	/	/	4.479	4M48W7D
	CP-QPSK	/	/	/	4.486	4M49G7D
10	PI/2 BPSK	/	/	/	8.918	8M92G7D
	QPSK	22.42	21.28	0.134	8.916	8M92G7D
	16QAM	/	/	/	8.944	8M94W7D
	64QAM	/	/	/	8.927	8M93W7D
	256QAM	/	/	/	8.928	8M93W7D
	CP-QPSK	/	/	/	9.290	9M29G7D
15	PI/2 BPSK	/	/	/	13.396	13M4G7D
	QPSK	22.61	21.47	0.140	13.417	13M4G7D
	16QAM	/	/	/	13.426	13M4W7D
	64QAM	/	/	/	13.383	13M4W7D
	256QAM	/	/	/	13.408	13M4W7D
	CP-QPSK	/	/	/	14.095	14M1G7D
20	PI/2 BPSK	22.67	21.53	0.142	17.817	17M8G7D
	QPSK	22.65	21.51	0.142	17.806	17M8G7D
	16QAM	21.94	20.80	0.120	17.836	17M8W7D
	64QAM	20.39	19.25	0.084	17.830	17M8W7D
	256QAM	18.23	17.09	0.051	17.810	17M8W7D
	CP-QPSK	/	/	/	18.851	18M9G7D



n48						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	Emission Designator
10	PI/2 BPSK	/	/	/	8.602	8M60G7D
	QPSK	22.39	22.36	0.172	8.596	8M60G7D
	16QAM	/	/	/	8.632	8M63W7D
	64QAM	/	/	/	8.604	8M60W7D
	256QAM	/	/	/	8.624	8M62W7D
	CP-QPSK	/	/	/	8.581	8M58G7D
20	PI/2 BPSK	/	/	/	17.840	17M8G7D
	QPSK	22.94	22.91	0.195	17.830	17M8G7D
	16QAM	/	/	/	17.864	17M9W7D
	64QAM	/	/	/	17.858	17M9W7D
	256QAM	/	/	/	17.862	17M9W7D
	CP-QPSK	/	/	/	17.886	17M9G7D
30	PI/2 BPSK	/	/	/	26.796	26M8G7D
	QPSK	22.78	22.75	0.188	26.830	26M8G7D
	16QAM	/	/	/	26.848	26M9W7D
	64QAM	/	/	/	26.782	26M8W7D
	256QAM	/	/	/	26.812	26M8W7D
	CP-QPSK	/	/	/	26.799	26M8G7D
40	PI/2 BPSK	22.97	22.94	0.197	35.750	35M8G7D
	QPSK	22.98	22.95	0.197	35.740	35M7G7D
	16QAM	21.91	21.88	0.154	35.793	35M8W7D
	64QAM	20.25	20.22	0.105	35.816	35M8W7D
	256QAM	18.33	18.30	0.068	35.761	35M8W7D
	CP-QPSK	/	/	/	35.666	35M7G7D

n66						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	Emission Designator
5	PI/2 BPSK	/	/	/	4.492	4M49G7D
	QPSK	23.06	24.99	0.316	4.490	4M49G7D
	16QAM	/	/	/	4.498	4M50W7D
	64QAM	/	/	/	4.480	4M48W7D



	256QAM	/	/	/	4.484	4M48W7D
	CP-QPSK	/	/	/	4.481	4M48G7D
10	PI/2 BPSK	/	/	/	8.926	8M93G7D
	QPSK	22.90	24.83	0.304	8.931	8M93G7D
	16QAM	/	/	/	8.949	8M95W7D
	64QAM	/	/	/	8.933	8M93W7D
	256QAM	/	/	/	8.938	8M94W7D
	CP-QPSK	/	/	/	9.295	9M30G7D
15	PI/2 BPSK	/	/	/	13.429	13M4G7D
	QPSK	22.89	24.82	0.303	13.442	13M4G7D
	16QAM	/	/	/	13.435	13M4W7D
	64QAM	/	/	/	13.408	13M4W7D
	256QAM	/	/	/	13.440	13M4W7D
	CP-QPSK	/	/	/	14.126	14M1G7D
20	PI/2 BPSK	/	/	/	17.920	17M9G7D
	QPSK	22.95	24.88	0.308	17.884	17M9G7D
	16QAM	/	/	/	17.915	17M9W7D
	64QAM	/	/	/	17.907	17M9W7D
	256QAM	/	/	/	17.875	17M9W7D
	CP-QPSK	/	/	/	18.921	18M9G7D
30	PI/2 BPSK	22.83	24.76	0.299	28.631	28M6G7D
	QPSK	22.99	24.92	0.310	28.576	28M6G7D
	16QAM	21.96	23.89	0.245	28.608	28M6W7D
	64QAM	20.51	22.44	0.175	28.552	28M6W7D
	256QAM	17.98	19.91	0.098	28.584	28M6W7D
	CP-QPSK	/	/	/	28.570	28M6G7D

n77(3450-3550MHz)(PC2)						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	Emission Designator
20	PI/2 BPSK	/	/	/	17.829	17M8G7D
	QPSK	26.97	29.62	0.916	17.845	17M9G7D
	16QAM	/	/	/	17.871	17M9W7D
	64QAM	/	/	/	17.868	17M9W7D
	256QAM	/	/	/	17.840	17M8W7D
	CP-QPSK	/	/	/	17.881	17M9G7D



30	PI/2 BPSK	/	/	/	26.779	26M8G7D
	QPSK	27.11	29.76	0.946	26.806	26M8G7D
	16QAM	/	/	/	26.830	26M8W7D
	64QAM	/	/	/	26.784	26M8W7D
	256QAM	/	/	/	26.875	26M9W7D
	CP-QPSK	/	/	/	26.814	26M8G7D
40	PI/2 BPSK	/	/	/	35.758	35M8G7D
	QPSK	27.04	29.69	0.931	35.729	35M7G7D
	16QAM	/	/	/	35.801	35M8W7D
	64QAM	/	/	/	35.760	35M8W7D
	256QAM	/	/	/	35.748	35M8W7D
	CP-QPSK	/	/	/	35.720	35M7G7D
60	PI/2 BPSK	/	/	/	57.861	57M9G7D
	QPSK	26.57	29.22	0.836	57.781	57M8G7D
	16QAM	/	/	/	57.779	57M8W7D
	64QAM	/	/	/	57.883	57M9W7D
	256QAM	/	/	/	57.863	57M9W7D
	CP-QPSK	/	/	/	57.760	57M8G7D
80	PI/2 BPSK	/	/	/	77.004	77M0G7D
	QPSK	26.20	28.85	0.767	77.055	77M1G7D
	16QAM	/	/	/	77.126	77M1W7D
	64QAM	/	/	/	77.117	77M1W7D
	256QAM	/	/	/	77.057	77M1W7D
	CP-QPSK	/	/	/	77.202	77M2G7D
100	PI/2 BPSK	26.77	29.42	0.875	96.141	96M1G7D
	QPSK	26.75	29.40	0.871	96.264	96M3G7D
	16QAM	25.11	27.76	0.597	96.272	96M3W7D
	64QAM	23.46	26.11	0.408	96.166	96M2W7D
	256QAM	21.37	24.02	0.252	96.241	96M2W7D
	CP-QPSK	/	/	/	96.264	96M3G7D

n77(3450-3550MHz)(PC3)						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	Emission Designator
20	PI/2 BPSK	/	/	/	/	/
	QPSK	23.98	26.63	0.460	/	/



	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
30	PI/2 BPSK	/	/	/	/	/
	QPSK	24.24	26.89	0.489	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
40	PI/2 BPSK	/	/	/	/	/
	QPSK	24.07	26.72	0.470	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
60	PI/2 BPSK	/	/	/	/	/
	QPSK	23.58	26.23	0.420	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
80	PI/2 BPSK	/	/	/	/	/
	QPSK	23.24	25.89	0.388	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	CP-QPSK	/	/	/	/	/
100	PI/2 BPSK	23.90	26.55	0.452	/	/
	QPSK	23.81	26.46	0.443	/	/
	16QAM	23.10	25.75	0.376	/	/
	64QAM	23.00	25.65	0.367	/	/
	256QAM	21.34	23.99	0.251	/	/
	CP-QPSK	/	/	/	/	/



n77(3700-3980MHz)(PC2)						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	Emission Designator
20	PI/2 BPSK	/	/	/	17.809	17M8G7D
	QPSK	27.13	29.78	0.951	17.826	17M8G7D
	16QAM	/	/	/	17.869	17M9W7D
	64QAM	/	/	/	17.829	17M8W7D
	256QAM	/	/	/	17.799	17M8W7D
	CP-QPSK	/	/	/	17.848	17M9G7D
30	PI/2 BPSK	/	/	/	26.775	26M8G7D
	QPSK	27.19	29.84	0.964	26.813	26M8G7D
	16QAM	/	/	/	26.785	26M8W7D
	64QAM	/	/	/	26.791	26M8W7D
	256QAM	/	/	/	26.824	26M8W7D
	CP-QPSK	/	/	/	26.778	26M8G7D
40	PI/2 BPSK	/	/	/	35.755	35M8G7D
	QPSK	27.12	29.77	0.948	35.752	35M8G7D
	16QAM	/	/	/	35.810	35M8W7D
	64QAM	/	/	/	35.753	35M8W7D
	256QAM	/	/	/	35.753	35M8W7D
	CP-QPSK	/	/	/	35.694	35M7G7D
60	PI/2 BPSK	/	/	/	57.868	57M9G7D
	QPSK	26.82	29.47	0.885	57.825	57M8G7D
	16QAM	/	/	/	57.811	57M8W7D
	64QAM	/	/	/	57.838	57M8W7D
	256QAM	/	/	/	57.921	57M9W7D
	CP-QPSK	/	/	/	57.753	57M8G7D
80	PI/2 BPSK	/	/	/	77.217	77M2G7D
	QPSK	26.71	29.36	0.863	77.051	77M1G7D
	16QAM	/	/	/	77.102	77M1W7D
	64QAM	/	/	/	77.069	77M1W7D
	256QAM	/	/	/	76.935	76M9W7D
	CP-QPSK	/	/	/	77.181	77M2G7D
100	PI/2 BPSK	26.88	29.53	0.897	96.339	96M3G7D
	QPSK	26.93	29.58	0.908	96.360	96M4G7D
	16QAM	25.50	28.15	0.653	96.452	96M5W7D



	64QAM	23.80	26.45	0.442	96.360	96M4W7D
	256QAM	21.92	24.57	0.286	96.356	96M4W7D
	CP-QPSK	/	/	/	96.174	96M2G7D

n77(3700-3980MHz)(PC3)						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	Emission Designator
20	PI/2 BPSK	/	/	/	/	/
	QPSK	24.10	26.75	0.473	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
30	PI/2 BPSK	/	/	/	/	/
	QPSK	24.15	26.80	0.479	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
40	PI/2 BPSK	/	/	/	/	/
	QPSK	24.19	26.84	0.483	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
60	PI/2 BPSK	/	/	/	/	/
	QPSK	24.01	26.66	0.463	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
80	PI/2 BPSK	/	/	/	/	/
	QPSK	23.77	26.42	0.439	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
100	PI/2 BPSK	23.95	26.60	0.457	/	/
	QPSK	23.90	26.55	0.452	/	/
	16QAM	23.66	26.31	0.428	/	/
	64QAM	23.60	26.25	0.422	/	/



	256QAM	/	/	/	/	/
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n78(3450-3550MHz)(PC2)						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	Emission Designator
20	PI/2 BPSK	/	/	/	/	/
	QPSK	27.05	27.02	0.504	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
30	PI/2 BPSK	/	/	/	/	/
	QPSK	27.19	27.16	0.520	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
40	PI/2 BPSK	/	/	/	/	/
	QPSK	27.15	27.12	0.515	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
50	PI/2 BPSK	/	/	/	/	/
	QPSK	26.64	26.61	0.458	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
60	PI/2 BPSK	/	/	/	/	/
	QPSK	26.64	26.61	0.458	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
70	PI/2 BPSK	/	/	/	/	/
	QPSK	26.54	26.51	0.448	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
80	PI/2 BPSK	/	/	/	/	/



	QPSK	26.26	26.23	0.420	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
90	PI/2 BPSK	/	/	/	/	/
	QPSK	26.15	26.12	0.409	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
100	PI/2 BPSK	26.80	26.77	0.475	/	/
	QPSK	26.83	26.80	0.479	/	/
	16QAM	25.06	25.03	0.318	/	/
	64QAM	23.55	23.52	0.225	/	/
	256QAM	21.54	21.51	0.142	/	/

n78(3450-3550MHz)(PC3)						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	Emission Designator
20	PI/2 BPSK	/	/	/	/	/
	QPSK	24.10	24.07	0.255	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
30	PI/2 BPSK	/	/	/	/	/
	QPSK	24.16	24.13	0.259	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
40	PI/2 BPSK	/	/	/	/	/
	QPSK	24.09	24.06	0.255	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
50	PI/2 BPSK	/	/	/	/	/
	QPSK	23.66	23.63	0.231	/	/
	16QAM	/	/	/	/	/



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	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
60	PI/2 BPSK	/	/	/	/	/
	QPSK	23.66	23.63	0.231	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
70	PI/2 BPSK	/	/	/	/	/
	QPSK	23.53	23.50	0.224	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
80	PI/2 BPSK	/	/	/	/	/
	QPSK	23.38	23.35	0.216	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
90	PI/2 BPSK	/	/	/	/	/
	QPSK	23.19	23.16	0.207	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
100	PI/2 BPSK	23.85	23.82	0.241	/	/
	QPSK	23.78	23.75	0.237	/	/
	16QAM	23.06	23.03	0.201	/	/
	64QAM	23.04	23.01	0.200	/	/
	256QAM	21.44	21.41	0.138	/	/

n78(3700-3800MHz)(PC2)						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	Emission Designator
20	PI/2 BPSK	/	/	/	/	/
	QPSK	27.10	27.07	0.509	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/



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30	PI/2 BPSK	/	/	/	/	/
	QPSK	27.25	27.22	0.527	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
40	PI/2 BPSK	/	/	/	/	/
	QPSK	27.36	27.33	0.541	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
50	PI/2 BPSK	/	/	/	/	/
	QPSK	26.91	26.88	0.488	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
60	PI/2 BPSK	/	/	/	/	/
	QPSK	26.77	26.74	0.472	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
70	PI/2 BPSK	/	/	/	/	/
	QPSK	26.60	26.57	0.454	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
80	PI/2 BPSK	/	/	/	/	/
	QPSK	26.56	26.53	0.450	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
90	PI/2 BPSK	/	/	/	/	/
	QPSK	26.58	26.55	0.452	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
100	PI/2 BPSK	26.70	26.67	0.465	/	/
	QPSK	26.71	26.68	0.466	/	/



	16QAM	25.27	25.24	0.334	/	/
	64QAM	23.65	23.62	0.230	/	/
	256QAM	21.77	21.74	0.149	/	/

n78(3700-3800MHz)(PC3)						
Bandwidth (MHz)	Modulation	Conducted Average (dBm)	EIRP Average (dBm)	EIRP Average (W)	99% BW (MHz)	Emission Designator
20	PI/2 BPSK	/	/	/	/	/
	QPSK	24.09	24.06	0.255	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
30	PI/2 BPSK	/	/	/	/	/
	QPSK	24.26	24.23	0.265	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
40	PI/2 BPSK	/	/	/	/	/
	QPSK	24.38	24.35	0.272	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
50	PI/2 BPSK	/	/	/	/	/
	QPSK	23.95	23.92	0.247	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
60	PI/2 BPSK	/	/	/	/	/
	QPSK	23.75	23.72	0.236	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
70	PI/2 BPSK	/	/	/	/	/
	QPSK	23.54	23.51	0.224	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/



	256QAM	/	/	/	/	/
80	PI/2 BPSK	/	/	/	/	/
	QPSK	23.59	23.56	0.227	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	PI/2 BPSK	/	/	/	/	/
90	QPSK	23.55	23.52	0.225	/	/
	16QAM	/	/	/	/	/
	64QAM	/	/	/	/	/
	256QAM	/	/	/	/	/
	PI/2 BPSK	23.68	23.65	0.232	/	/
100	QPSK	23.69	23.66	0.232	/	/
	16QAM	23.55	23.52	0.225	/	/
	64QAM	23.45	23.42	0.220	/	/
	256QAM	21.76	21.73	0.149	/	/
	PI/2 BPSK	23.68	23.65	0.232	/	/



1.4. Test Standards and Results

The objective of the report is to perform testing according to Part 2, Part 22, Part 24, Part 27, Part 90 and Part96 for the EUT FCC ID Certification:

No	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	47 CFR Part 22	Public Mobile Services
3	47 CFR Part 24	Personal Communications Services
4	47 CFR Part 27	Miscellaneous Wireless Communications Services
5	47 CFR Part 96	CITIZENS BROADBAND RADIO SERVICE

n2			
Item	FCC Rule No.	Requirements	Result
Effective (Isotropic) Radiated Power Output Data	§2.1046, §24.232(c)	EIRP $\leq$ 2 W	PASS
Peak-Average Ratio	§24.232(d)	Limit $\leq$ 13 dB	PASS
Bandwidth	§2.1049	OBW: No limit EBW: No limit	PASS
Band Edges Compliance	§2.1051, §24.238(a)(b)	Refer to section 2.6	PASS
Spurious Emission at Antenna Terminals	§2.1051, §24.238(a)(b)	$\leq$ -13 dBm/1MHz	PASS
Field Strength of Spurious Radiation	§2.1053, §24.238(a)	$\leq$ -13 dBm/1MHz	PASS
Frequency Stability	§2.1055, §24.235	No limit	N/A

Remark: For the verdict, the “N/A” denotes “not applicable”, the “N/T” denotes “not tested”.



n5			
Item	FCC Rule No.	Requirements	Result
Effective (Isotropic) Radiated Power Output Data	§2.1046, §22.913(a)(5)	ERP ≤ 7W	PASS
Peak-Average Ratio	N/A	N/A	N/A
Bandwidth	§2.1049	OBW: No limit EBW: No limit	PASS
Band Edges Compliance	§2.1051, §22.917(a)(b)	Refer to section 2.6	PASS
Spurious Emission at Antenna Terminals	§2.1051, §22.917(a)	≤ -13 dBm/1MHz	PASS
Field Strength of Spurious Radiation	§2.1053, §22.917(a)	≤ -13 dBm/1MHz	PASS
Frequency Stability	§2.1055, §22.355	≤ ±2.5ppm	PASS

n48			
Item	FCC Rule No.	Requirements	Result
Effective (Isotropic) Radiated Power Output Data	§2.1046, §96.41(b)	Refer to section 2.1	PASS
Peak-Average Ratio	§96.39(g)	≤ 13 dB	PASS
Bandwidth	§2.1049	OBW: No limit EBW: No limit	PASS
Band Edges Compliance	§2.1051, §96.41(e)	Refer to section 2.6	PASS
Spurious Emission at Antenna Terminals	§2.1051, §96.41(e)	≤ -40 dBm/1MHz	PASS
Field Strength of Spurious Radiation	§2.1053, §96.41(e)	≤ -40 dBm/1MHz	PASS
Frequency Stability	§2.1055, §27.54	No limit	N/A



n66			
Item	FCC Rule No.	Requirements	Result
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(d)(4)	EIRP $\leq$ 1 W	PASS
Peak-Average Ratio	§27.50(d) (5)	Limit $\leq$ 13 dB	PASS
Bandwidth	§2.1049	OBW: No limit. EBW: No limit.	PASS
Band Edges Compliance	§2.1051, §27.53(h)(1) §27.53(h)(3)(i)	Refer to section 2.6	PASS
Spurious Emission at Antenna Terminals	§2.1051, §27.53(h)(1)	$\leq$ -13 dBm/1MHz	PASS
Field Strength of Spurious Radiation	§2.1053, §27.53(h)(1)	$\leq$ -13 dBm/1MHz.	PASS
Frequency Stability	§2.1055, §27.54	No limit	N/A

Remark: For the verdict, the "N/A" denotes "not applicable", the "N/T" denotes "not tested".

n77(3450~3550MHz) & n78(3450~3550MHz)			
Item	FCC Rule No.	Requirements	Result
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(K)(3)	EIRP $\leq$ 1W	PASS
Peak-Average Ratio	§27.50(K)(4)	$\leq$ 13 dB	PASS
Bandwidth	§2.1049	OBW: No limit. EBW: No limit.	PASS
Band Edges Compliance	§2.1051, §27.53(l)(2)	Refer to section 2.6	PASS
Spurious Emission at Antenna Terminals	§2.1051, §27.53(l)(2)	$\leq$ -13 dBm/1MHz	PASS
Field Strength of Spurious Radiation	§2.1053, §27.53(l)(2)	$\leq$ -13 dBm/1MHz.	PASS
Frequency Stability	§2.1055, §27.54	No limit	N/A

Remark: For the verdict, the "N/A" denotes "not applicable", the "N/T" denotes "not tested".



n77(3700~3980MHz) & n78(3700~3800MHz)			
Item	FCC Rule No.	Requirements	Result
Effective (Isotropic) Radiated Power Output Data	§2.1046, §27.50(j)(3)	EIRP ≤ 1W	PASS
Peak-Average Ratio	§27.50(j)(4)	≤ 13 dB	PASS
Bandwidth	§2.1049	OBW: No limit. EBW: No limit.	PASS
Band Edges Compliance	§2.1051, §27.53(n)(2)	Refer to section 2.6	PASS
Spurious Emission at Antenna Terminals	§2.1051, §27.53(n)(2)	≤ -13 dBm/1MHz	PASS
Field Strength of Spurious Radiation	§2.1053, §27.53(m)(4)	≤ -13 dBm/1MHz.	PASS
Frequency Stability	§2.1055, §27.54	No limit	N/A

Remark: For the verdict, the "N/A" denotes "not applicable", the "N/T" denotes "not tested".

Test detailed items/section required by FCC rules and results are as below:

Test Item	Test Engineer	Result	Method Determination /Remark
Transmitter Conducted Output Power and ERP/EIRP	Li Huaijie	PASS	Nodeviation
Occupied Bandwidth	Li Huaijie	PASS	Nodeviation
Frequency Stability	Li Huaijie	PASS	Nodeviation
Peak to Average Radio	Li Huaijie	PASS	Nodeviation
Conducted Spurious Emissions	Li Huaijie	PASS	Nodeviation
Band Edge	Li Huaijie	PASS	Nodeviation
Radiated Spurious Emissions	Yang Lian Lin Hanbin	PASS	Nodeviation
Note 1: The tests were performed according to the method of measurements prescribed in KDB971168 D01 v03 and ANSI/TIA-603-E-2016. Note 2: Additions to, deviation, or exclusions from the method shall be judged in the "method determination" column of add, deviate or exclude from the specific method shall be explained in the "Remark" of the above table. Note 3: The declared of product specification for EUT presented in the report are provided by manufacturer and the test laboratory is not responsible for the accuracy of the information.			



Note 4: When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% confidence intervals.

Note 5: The test results of these test items in this report refer to the test report (Report No.: SZ23100334W02).

1.5. Environmental Conditions

During the measurement, the environmental conditions were within the listed ranges:

Temperature (°C):	15 - 35
Relative Humidity (%):	30 -60

2. Summary Test Results And Description

2.1. Transmitter Conducted Output Power

2.1.1. Requirement

According to FCC section 2.1046(a), for transmitters other than single sideband, independent sideband and controlled carrier radiotelephone, power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on the circuit elements specified in FCC section 2.1033(c)(8).

According to FCC section 24.232 (c) for n2, the ERP of Mobile and portable stations are limited to 2 watts EIRP.

According to FCC section 22.913 (a)(5) for n5, the ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

According to FCC section 96.41(b) for n48, the maximum effective isotropic radiated power (EIRP) and maximum Power Spectral Density (PSD) of any CBSD and End User Device must comply with the limits shown in the table as below. Paragraph

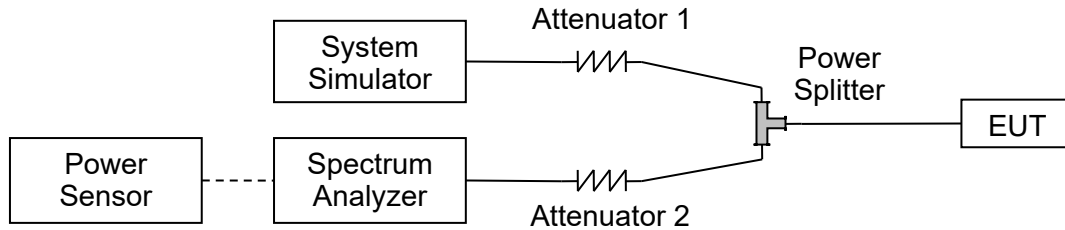
Device	Maximum EIRP (dBm/10 megahertz)	Maximum PSD (dBm/MHz)
End User Device	23	n/a
Category A CBSD	30	20
Category B CBSD ¹	47	37

According to FCC section 27.50 (d)(4) for n66, Fixed, mobile and portable (hand-held) stations in the 1710-1755MHz band are limited to 1wat E.I.R.P.

According to FCC section 27.50(j)(3) for n77(3700-3980MHz), n78(3700-3800MHz), mobile and portable stations are limited to 1 Watt EIRP. Mobile and portable stations operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

According to FCC section 27.50(k)(3) for n77, n78(3450-3550MHz), Mobile devices are limited to 1Watt (30 dBm) EIRP. Mobile devices operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

2.1.2. Test Description



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

2.1.3. Test procedure

KDB 971168 D01v03 Section 5.2 and ANSI/TIA-603-E-2016.

2.1.4. Conducted Output Power

n2						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				372000	376000	380000
Frequency (MHz)				1860	1880	1900
20	DFT-s-OFDM PI/2 BPSK	1	1	23.51	23.35	23.06
20		1	53	23.50	23.20	23.12
20		1	104	23.41	23.11	23.05
20		50	1	23.06	22.88	22.70
20		50	25	23.56	23.32	23.18
20		50	50	23.02	22.75	22.62
20		100	0	23.08	22.82	22.67
20	DFT-s-OFDM QPSK	1	1	23.47	23.35	23.09
20		1	53	23.50	23.34	23.17
20		1	104	23.38	23.12	23.02
20		50	1	22.57	22.33	22.16
20		50	25	23.54	23.33	23.12
20		50	50	22.54	22.28	22.10
20		100	0	22.58	22.35	22.14
20	DFT-s-OFDM 16QAM	1	1	22.43	22.33	22.04
20	DFT-s-OFDM 64QAM	1	1	20.99	20.84	20.60



20	DFT-s-OFDM 256QAM	1	1	18.78	18.65	18.38
20	CP-OFDM QPSK	1	1	21.97	21.80	21.57
20	CP-OFDM 16QAM	1	1	21.45	21.30	21.05
20	CP-OFDM 64QAM	1	1	19.78	19.63	19.43
20	CP-OFDM 256QAM	1	1	16.78	16.62	16.39
Channel				371500	376000	380500
Frequency (MHz)				1857.5	1880	1902.5
15	DFT-s-OFDM QPSK	1	1	23.51	23.36	23.15
Channel				371000	376000	381000
Frequency (MHz)				1855	1880	1905
10	DFT-s-OFDM QPSK	1	1	23.45	23.36	23.03
Channel				370500	376000	381500
Frequency (MHz)				1852.5	1880	1907.5
5	DFT-s-OFDM QPSK	1	1	23.50	23.34	22.96

n5						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				166800	167300	167800
Frequency (MHz)				834	836.5	839
20	DFT-s-OFDM PI/2 BPSK	1	1	22.62	22.59	22.57
20		1	53	22.59	22.56	22.55
20		1	104	22.45	22.42	22.40
20		50	1	22.43	22.42	22.42
20		50	25	22.64	22.67	22.66
20		50	50	22.33	22.29	22.29
20		100	0	22.38	22.40	22.39
20		1	1	22.56	22.64	22.61
20	DFT-s-OFDM QPSK	1	53	22.59	22.62	22.65
20		1	104	22.48	22.46	22.55
20		50	1	21.99	21.94	21.90
20		50	25	22.65	22.64	22.61
20		50	50	21.82	21.82	21.80
20		100	0	21.88	21.91	21.86
20	DFT-s-OFDM 16QAM	1	1	21.89	21.85	21.94
20	DFT-s-OFDM 64QAM	1	1	20.28	20.26	20.39
20	DFT-s-OFDM 256QAM	1	1	18.11	18.09	18.23
20	CP-OFDM QPSK	1	1	21.31	21.33	21.45
20	CP-OFDM 16QAM	1	1	20.83	20.78	20.88
20	CP-OFDM 64QAM	1	1	18.95	18.92	19.03
20	CP-OFDM 256QAM	1	1	16.13	16.13	16.20
Channel				166300	167300	168300
Frequency (MHz)				831.5	836.5	841.5



15	DFT-s-OFDM QPSK	1	1	22.60	22.54	22.61
Channel				165800	167300	168800
Frequency (MHz)				829	836.5	844
10	DFT-s-OFDM QPSK	1	1	22.41	22.42	22.42
Channel				165300	167300	169300
Frequency (MHz)				826.5	836.5	846.5
5	DFT-s-OFDM QPSK	1	1	22.45	22.45	22.47

n48 (PC3)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				638000	641666	645332
Frequency (MHz)				3570	3624.99	3679.98
40	DFT-s-OFDM PI/2 BPSK	1	1	22.97	22.97	22.66
40		1	53	22.92	22.88	22.56
40		1	104	22.90	22.84	22.65
40		50	1	22.45	22.43	22.17
40		50	25	22.97	22.84	22.65
40		50	50	22.44	22.29	22.10
40		100	0	22.38	22.38	22.13
40	DFT-s-OFDM QPSK	1	1	22.94	22.98	22.66
40		1	53	22.91	22.80	22.58
40		1	104	22.89	22.84	22.65
40		50	1	21.92	21.93	21.69
40		50	25	22.92	22.84	22.64
40		50	50	21.92	21.75	21.63
40		100	0	21.92	21.83	21.66
40	DFT-s-OFDM 16QAM	1	1	21.84	21.91	21.62
40	DFT-s-OFDM 64QAM	1	1	20.17	20.25	19.94
40	DFT-s-OFDM 256QAM	1	1	18.33	18.33	18.07
40	CP-OFDM QPSK	1	1	21.54	21.49	21.18
40	CP-OFDM 16QAM	1	1	20.98	20.99	20.67
40	CP-OFDM 64QAM	1	1	19.51	19.39	19.07
40	CP-OFDM 256QAM	1	1	16.40	16.40	16.12
Channel				637668	641666	645666
Frequency (MHz)				3565.02	3624.99	3684.99
30	DFT-s-OFDM QPSK	1	1	22.70	22.76	22.78
Channel				637334	641666	646000
Frequency (MHz)				3560.01	3624.99	3690
20	DFT-s-OFDM QPSK	1	1	22.94	22.85	22.60
Channel				637000	641666	646332
Frequency (MHz)				3555	3624.99	3694.98
10	DFT-s-OFDM QPSK	1	1	22.30	22.39	22.32



n66						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				345000	349000	353000
Frequency (MHz)				1725	1745	1765
30	DFT-s-OFDM PI/2 BPSK	1	1	22.74	22.77	22.77
30		1	80	22.66	22.76	22.82
30		1	158	22.72	22.74	22.76
30		80	1	22.33	22.31	22.35
30		80	40	22.78	22.81	22.83
30		80	80	22.32	22.40	22.40
30		160	0	22.26	22.31	22.40
30	DFT-s-OFDM QPSK	1	1	22.95	22.84	22.99
30		1	80	22.83	22.82	22.76
30		1	158	22.95	22.97	22.84
30		80	1	21.80	21.77	21.81
30		80	40	22.76	22.77	22.89
30		80	80	21.87	21.94	21.86
30		160	0	21.79	21.86	21.86
30	DFT-s-OFDM 16QAM	1	1	21.94	21.90	21.96
30	DFT-s-OFDM 64QAM	1	1	20.49	20.43	20.51
30	DFT-s-OFDM 256QAM	1	1	17.98	16.54	16.61
30	CP-OFDM QPSK	1	1	21.33	21.33	21.46
30	CP-OFDM 16QAM	1	1	20.83	20.83	20.86
30	CP-OFDM 64QAM	1	1	19.35	19.37	19.49
30	CP-OFDM 256QAM	1	1	16.00	16.34	16.37
Channel				344000	349000	354000
Frequency (MHz)				1720	1745	1770
20	DFT-s-OFDM QPSK	1	1	22.95	22.88	22.69
Channel				343500	349000	354500
Frequency (MHz)				1717.5	1745	1772.5
15	DFT-s-OFDM QPSK	1	1	22.89	22.80	22.68
Channel				343000	349000	355000
Frequency (MHz)				1715	1745	1775
10	DFT-s-OFDM QPSK	1	1	22.85	22.90	22.68
Channel				342500	349000	355500
Frequency (MHz)				1712.5	1745	1777.5
5	DFT-s-OFDM QPSK	1	1	23.06	22.63	22.83



n77(3450-3550MHz)(PC2)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				/	633334	/
Frequency (MHz)				/	3500.01	/
100	DFT-s-OFDM PI/2 BPSK	1	1	/	26.02	/
100		1	136	/	26.45	/
100		1	271	/	26.77	/
100		135	1	/	25.78	/
100		135	67	/	26.42	/
100		135	136	/	26.15	/
100		270	0	/	25.97	/
100	DFT-s-OFDM QPSK	1	1	/	25.99	/
100		1	136	/	26.40	/
100		1	271	/	26.75	/
100		135	1	/	25.27	/
100		135	67	/	26.47	/
100		135	136	/	25.67	/
100		270	0	/	25.41	/
100	DFT-s-OFDM 16QAM	1	1	/	25.11	/
100	DFT-s-OFDM 64QAM	1	1	/	23.46	/
100	DFT-s-OFDM 256QAM	1	1	/	21.37	/
100	CP-OFDM QPSK	1	1	/	24.43	/
100	CP-OFDM 16QAM	1	1	/	24.01	/
100	CP-OFDM 64QAM	1	1	/	22.59	/
100	CP-OFDM 256QAM	1	1	/	19.44	/
Channel				632668	633334	634000
Frequency (MHz)				3490.02	3500.01	3510
80	DFT-s-OFDM QPSK	1	1	25.99	26.06	26.20
Channel				632000	633334	634666
Frequency (MHz)				3480	3500.01	3519.99
60	DFT-s-OFDM QPSK	1	1	26.15	26.28	26.57
Channel				631334	633334	635332
Frequency (MHz)				3470.01	3500.01	3529.98
40	DFT-s-OFDM QPSK	1	1	26.52	26.66	27.04
Channel				631000	633334	635666
Frequency (MHz)				3465	3500.01	3534.99
30	DFT-s-OFDM QPSK	1	1	26.33	26.81	27.11
Channel				630668	633334	636000
Frequency (MHz)				3460.02	3500.01	3540
20	DFT-s-OFDM QPSK	1	1	26.32	26.56	26.97



n77(3450-3550MHz)(PC3)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				/	633334	/
Frequency (MHz)				/	3500.01	/
100	DFT-s-OFDM PI/2 BPSK	1	1	/	23.01	/
100		1	136	/	23.44	/
100		1	271	/	23.90	/
100		135	1	/	23.27	/
100		135	67	/	23.46	/
100		135	136	/	23.65	/
100		270	0	/	23.43	/
100	DFT-s-OFDM QPSK	1	1	/	22.94	/
100		1	136	/	23.36	/
100		1	271	/	23.81	/
100		135	1	/	23.24	/
100		135	67	/	23.40	/
100		135	136	/	23.61	/
100		270	0	/	23.38	/
100	DFT-s-OFDM 16QAM	1	1	/	23.10	/
100	DFT-s-OFDM 64QAM	1	1	/	23.00	/
100	DFT-s-OFDM 256QAM	1	1	/	21.34	/
100	CP-OFDM QPSK	1	1	/	22.96	/
100	CP-OFDM 16QAM	1	1	/	23.01	/
100	CP-OFDM 64QAM	1	1	/	22.52	/
100	CP-OFDM 256QAM	1	1	/	19.40	/
Channel				632668	633334	634000
Frequency (MHz)				3490.02	3500.01	3510
80	DFT-s-OFDM QPSK	1	1	22.89	23.00	23.24
Channel				632000	633334	634666
Frequency (MHz)				3480	3500.01	3519.99
60	DFT-s-OFDM QPSK	1	1	23.56	23.40	23.58
Channel				631334	633334	635332
Frequency (MHz)				3470.01	3500.01	3529.98
40	DFT-s-OFDM QPSK	1	1	23.43	23.74	24.07
Channel				631000	633334	635666
Frequency (MHz)				3465	3500.01	3534.99
30	DFT-s-OFDM QPSK	1	1	23.38	23.84	24.24
Channel				630668	633334	636000
Frequency (MHz)				3460.02	3500.01	3540
20	DFT-s-OFDM QPSK	1	1	23.29	23.69	23.98



n77(3700-3980MHz)(PC2)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				650000	656000	662000
Frequency (MHz)				3750	3840	3930
100	DFT-s-OFDM PI/2 BPSK	1	1	26.46	26.45	26.59
100		1	136	26.68	26.62	26.78
100		1	271	26.58	26.55	26.77
100		135	1	26.13	26.15	26.33
100		135	67	26.76	26.64	26.88
100		135	136	26.17	26.14	26.39
100		270	0	26.18	26.20	26.33
100	DFT-s-OFDM QPSK	1	1	26.45	26.49	26.67
100		1	136	26.68	26.63	26.93
100		1	271	26.58	26.69	26.79
100		135	1	25.62	25.56	25.80
100		135	67	26.73	26.65	26.89
100		135	136	25.65	25.66	25.85
100		270	0	25.67	25.67	25.84
100	DFT-s-OFDM 16QAM	1	1	25.35	25.36	25.50
100	DFT-s-OFDM 64QAM	1	1	23.79	23.80	23.72
100	DFT-s-OFDM 256QAM	1	1	21.83	21.85	21.92
100	CP-OFDM QPSK	1	1	24.91	25.01	25.08
100	CP-OFDM 16QAM	1	1	24.46	24.51	24.55
100	CP-OFDM 64QAM	1	1	22.87	22.95	23.11
100	CP-OFDM 256QAM	1	1	19.92	19.92	20.04
Channel				649334	656000	662666
Frequency (MHz)				3740.01	3840	3939.99
80	DFT-s-OFDM QPSK	1	1	26.39	26.46	26.71
Channel				648668	656000	663332
Frequency (MHz)				3730.02	3840	3949.98
60	DFT-s-OFDM QPSK	1	1	26.59	26.67	26.82
Channel				648000	656000	664000
Frequency (MHz)				3720	3840	3960
40	DFT-s-OFDM QPSK	1	1	27.12	27.05	26.92
Channel				647668	656000	664332
Frequency (MHz)				3715.02	3840	3964.98
30	DFT-s-OFDM QPSK	1	1	26.85	26.98	27.19
Channel				647334	656000	664666
Frequency (MHz)				3710.01	3840	3969.99
20	DFT-s-OFDM QPSK	1	1	26.83	26.97	27.13



n77(3700-3980MHz)(PC3)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				650000	656000	662000
Frequency (MHz)				3750	3840	3930
100	DFT-s-OFDM PI/2 BPSK	1	1	23.56	23.50	23.57
100		1	136	23.72	23.72	23.87
100		1	271	23.53	23.61	23.86
100		135	1	23.69	23.64	23.80
100		135	67	23.76	23.63	23.87
100		135	136	23.65	23.68	23.95
100		270	0	23.67	23.69	23.85
100	DFT-s-OFDM QPSK	1	1	23.52	23.52	23.53
100		1	136	23.73	23.69	23.87
100		1	271	23.54	23.65	23.84
100		135	1	23.62	23.66	23.77
100		135	67	23.72	23.64	23.88
100		135	136	23.65	23.64	23.90
100		270	0	23.66	23.68	23.79
100	DFT-s-OFDM 16QAM	1	1	23.62	23.66	23.63
100	DFT-s-OFDM 64QAM	1	1	23.60	23.52	23.60
100	DFT-s-OFDM 256QAM	1	1	21.92	21.86	21.95
100	CP-OFDM QPSK	1	1	23.50	23.52	23.59
100	CP-OFDM 16QAM	1	1	23.54	23.52	23.55
100	CP-OFDM 64QAM	1	1	23.18	23.11	23.11
100	CP-OFDM 256QAM	1	1	20.02	19.94	20.01
Channel				649334	656000	662666
Frequency (MHz)				3740.01	3840	3939.99
80	DFT-s-OFDM QPSK	1	1	23.58	23.53	23.77
Channel				648668	656000	663332
Frequency (MHz)				3730.02	3840	3949.98
60	DFT-s-OFDM QPSK	1	1	23.69	23.68	24.01
Channel				648000	656000	664000
Frequency (MHz)				3720	3840	3960
40	DFT-s-OFDM QPSK	1	1	24.19	24.08	24.06
Channel				647668	656000	664332
Frequency (MHz)				3715.02	3840	3964.98
30	DFT-s-OFDM QPSK	1	1	23.91	24.02	24.15
Channel				647334	656000	664666
Frequency (MHz)				3710.01	3840	3969.99
20	DFT-s-OFDM QPSK	1	1	23.88	23.93	24.10



n78(3450-3550MHz)(PC2)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				/	633334	/
Frequency (MHz)				/	3500.01	/
100	DFT-s-OFDM PI/2 BPSK	1	1	/	26.02	/
100		1	136	/	26.57	/
100		1	271	/	26.80	/
100		135	1	/	25.87	/
100		135	67	/	26.66	/
100		135	136	/	26.20	/
100		270	0	/	26.07	/
100	DFT-s-OFDM QPSK	1	1	/	26.00	/
100		1	136	/	26.58	/
100		1	271	/	26.83	/
100		135	1	/	25.39	/
100		135	67	/	26.62	/
100		135	136	/	25.72	/
100		270	0	/	25.55	/
100	DFT-s-OFDM 16QAM	1	1	/	25.06	/
100	DFT-s-OFDM 64QAM	1	1	/	23.55	/
100	DFT-s-OFDM 256QAM	1	1	/	21.54	/
100	CP-OFDM QPSK	1	1	/	24.60	/
100	CP-OFDM 16QAM	1	1	/	24.03	/
100	CP-OFDM 64QAM	1	1	/	22.64	/
100	CP-OFDM 256QAM	1	1	/	19.53	/
Channel				633000	633334	633666
Frequency (MHz)				3495	3500.01	3504.99
90	DFT-s-OFDM QPSK	1	1	26.02	26.15	26.14
Channel				632668	633334	634000
Frequency (MHz)				3490.02	3500.01	3510
80	DFT-s-OFDM QPSK	1	1	26.06	26.17	26.26
Channel				632334	633334	634332
Frequency (MHz)				3485.01	3500.01	3514.98
70	DFT-s-OFDM QPSK	1	1	26.11	26.29	26.54
Channel				632000	633334	634666
Frequency (MHz)				3480	3500.01	3519.99
60	DFT-s-OFDM QPSK	1	1	26.26	26.49	26.64
Channel				631668	633334	635000
Frequency (MHz)				3475.02	3500.01	3525
50	DFT-s-OFDM QPSK	1	1	16.67	26.46	26.64
Channel				631334	633334	635332
Frequency (MHz)				3470.01	3500.01	3529.98



40	DFT-s-OFDM QPSK	1	1	26.66	26.87	27.15
Channel				631000	633334	635666
Frequency (MHz)				3465	3500.01	3534.99
30	DFT-s-OFDM QPSK	1	1	26.52	26.85	27.19
Channel				630668	633334	636000
Frequency (MHz)				3460.02	3500.01	3540
20	DFT-s-OFDM QPSK	1	1	26.56	26.80	27.05

n78(3450-3550MHz)(PC2)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				/	633334	/
Frequency (MHz)				/	3500.01	/
100	DFT-s-OFDM PI/2 BPSK	1	1	/	23.04	/
100		1	136	/	23.62	/
100		1	271	/	23.85	/
100		135	1	/	23.33	/
100		135	67	/	23.58	/
100		135	136	/	23.65	/
100		270	0	/	23.55	/
100	DFT-s-OFDM QPSK	1	1	/	23.03	/
100		1	136	/	23.52	/
100		1	271	/	23.78	/
100		135	1	/	23.29	/
100		135	67	/	23.61	/
100		135	136	/	23.70	/
100		270	0	/	23.59	/
100	DFT-s-OFDM 16QAM	1	1	/	23.06	/
100	DFT-s-OFDM 64QAM	1	1	/	23.04	/
100	DFT-s-OFDM 256QAM	1	1	/	21.44	/
100	CP-OFDM QPSK	1	1	/	22.99	/
100	CP-OFDM 16QAM	1	1	/	23.06	/
100	CP-OFDM 64QAM	1	1	/	22.65	/
100	CP-OFDM 256QAM	1	1	/	19.48	/
Channel				633000	633334	633666
Frequency (MHz)				3495	3500.01	3504.99
90	DFT-s-OFDM QPSK	1	1	23.07	23.05	23.19
Channel				632668	633334	634000
Frequency (MHz)				3490.02	3500.01	3510
80	DFT-s-OFDM QPSK	1	1	23.13	23.16	23.38
Channel				632334	633334	634332
Frequency (MHz)				3485.01	3500.01	3514.98
70	DFT-s-OFDM QPSK	1	1	23.09	23.17	23.53
Channel				632000	633334	634666



Frequency (MHz)				3480	3500.01	3519.99
60	DFT-s-OFDM QPSK	1	1	23.25	23.43	23.66
Channel				631668	633334	635000
Frequency (MHz)				3475.02	3500.01	3525
50	DFT-s-OFDM QPSK	1	1	23.09	23.49	23.66
Channel				631334	633334	635332
Frequency (MHz)				3470.01	3500.01	3529.98
40	DFT-s-OFDM QPSK	1	1	23.53	23.83	24.09
Channel				631000	633334	635666
Frequency (MHz)				3465	3500.01	3534.99
30	DFT-s-OFDM QPSK	1	1	23.33	23.93	24.16
Channel				630668	633334	636000
Frequency (MHz)				3460.02	3500.01	3540
20	DFT-s-OFDM QPSK	1	1	23.51	23.82	24.10

n78(3700-3800MHz)(PC2)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				/	650000	/
Frequency (MHz)				/	3750	/
100	DFT-s-OFDM PI/2 BPSK	1	1	/	26.46	/
100		1	136	/	26.68	/
100		1	271	/	26.56	/
100		135	1	/	26.14	/
100		135	67	/	26.70	/
100		135	136	/	26.18	/
100		270	0	/	26.18	/
100		1	1	/	26.30	/
100	DFT-s-OFDM QPSK	1	136	/	26.71	/
100		1	271	/	26.57	/
100		135	1	/	25.60	/
100		135	67	/	26.71	/
100		135	136	/	25.68	/
100		270	0	/	25.67	/
100	DFT-s-OFDM 16QAM	1	1	/	25.27	/
100	DFT-s-OFDM 64QAM	1	1	/	23.65	/
100	DFT-s-OFDM 256QAM	1	1	/	21.77	/
100	CP-OFDM QPSK	1	1	/	25.02	/
100	CP-OFDM 16QAM	1	1	/	24.40	/
100	CP-OFDM 64QAM	1	1	/	22.83	/
100	CP-OFDM 256QAM	1	1	/	19.84	/
Channel				649668	650000	650332
Frequency (MHz)				3745.02	3750	3754.98



90	DFT-s-OFDM QPSK	1	1	26.37	26.44	26.58
Channel				649334	650000	650666
Frequency (MHz)				3740.01	3750	3759.99
80	DFT-s-OFDM QPSK	1	1	26.38	26.46	26.56
Channel				649000	650000	651000
Frequency (MHz)				3735	3750	3765
70	DFT-s-OFDM QPSK	1	1	26.44	26.60	26.49
Channel				648668	650000	651332
Frequency (MHz)				3730.02	3750	3769.98
60	DFT-s-OFDM QPSK	1	1	26.52	26.60	26.77
Channel				648334	650000	651666
Frequency (MHz)				3725.01	3750	3774.99
50	DFT-s-OFDM QPSK	1	1	26.53	26.63	26.91
Channel				648000	650000	652000
Frequency (MHz)				3720	3750	3780
40	DFT-s-OFDM QPSK	1	1	27.01	27.13	27.36
Channel				647668	650000	652332
Frequency (MHz)				3715.02	3750	3784.98
30	DFT-s-OFDM QPSK	1	1	26.80	27.01	27.25
Channel				647334	650000	652666
Frequency (MHz)				3710.01	3750	3789.99
20	DFT-s-OFDM QPSK	1	1	26.82	26.99	27.10

n78(3700-3800MHz)(PC3)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				/	650000	/
Frequency (MHz)				/	3750	/
100	DFT-s-OFDM PI/2 BPSK	1	1	/	23.44	/
100		1	136	/	23.68	/
100		1	271	/	23.55	/
100		135	1	/	23.63	/
100		135	67	/	23.68	/
100		135	136	/	23.62	/
100		270	0	/	23.65	/
100		1	1	/	23.38	/
100	DFT-s-OFDM QPSK	1	136	/	23.68	/
100		1	271	/	23.47	/
100		135	1	/	23.60	/
100		135	67	/	23.69	/
100		135	136	/	23.59	/
100		270	0	/	23.65	/
100	DFT-s-OFDM 16QAM	1	1	/	23.55	/
100	DFT-s-OFDM 64QAM	1	1	/	23.45	/



100	DFT-s-OFDM 256QAM	1	1	/	21.76	/
100	CP-OFDM QPSK	1	1	/	23.41	/
100	CP-OFDM 16QAM	1	1	/	23.41	/
100	CP-OFDM 64QAM	1	1	/	22.98	/
100	CP-OFDM 256QAM	1	1	/	19.91	/
Channel				649668	650000	650332
Frequency (MHz)				3745.02	3750	3754.98
90	DFT-s-OFDM QPSK	1	1	23.39	23.50	23.55
Channel				649334	650000	650666
Frequency (MHz)				3740.01	3750	3759.99
80	DFT-s-OFDM QPSK	1	1	23.45	23.44	23.59
Channel				649000	650000	651000
Frequency (MHz)				3735	3750	3765
70	DFT-s-OFDM QPSK	1	1	23.37	23.42	23.54
Channel				648668	650000	651332
Frequency (MHz)				3730.02	3750	3769.98
60	DFT-s-OFDM QPSK	1	1	23.60	23.63	23.75
Channel				648334	650000	651666
Frequency (MHz)				3725.01	3750	3774.99
50	DFT-s-OFDM QPSK	1	1	23.56	23.63	23.95
Channel				648000	650000	652000
Frequency (MHz)				3720	3750	3780
40	DFT-s-OFDM QPSK	1	1	24.01	24.15	24.38
Channel				647668	650000	652332
Frequency (MHz)				3715.02	3750	3784.98
30	DFT-s-OFDM QPSK	1	1	23.79	24.05	24.26
Channel				647334	650000	652666
Frequency (MHz)				3710.01	3750	3789.99
20	DFT-s-OFDM QPSK	1	1	23.80	23.84	24.09



B5_n2						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				372000	376000	380000
Frequency (MHz)				1860	1880	1900
20	DFT-s-OFDM PI/2 BPSK	1	1	23.47	23.52	23.48
20		1	53	23.55	23.52	23.47
20		1	104	23.56	23.50	23.40
20		50	1	23.21	23.11	23.10
20		50	25	23.73	23.65	23.64
20		50	50	23.14	23.17	23.10
20		100	0	23.21	23.15	23.05
20		100	0	23.21	23.15	23.05
20	DFT-s-OFDM QPSK	1	1	23.60	23.55	23.49
20		1	53	23.61	23.49	23.45
20		1	104	23.55	23.50	23.41
20		50	1	22.71	22.67	22.28
20		50	25	23.70	23.65	23.59
20		50	50	22.68	22.62	22.59
20		100	0	22.73	22.63	22.64
20		100	0	22.73	22.63	22.64
20	DFT-s-OFDM 16QAM	1	1	22.83	22.63	22.70
20	DFT-s-OFDM 64QAM	1	1	21.14	21.07	21.00
20	DFT-s-OFDM 256QAM	1	1	18.83	18.87	18.82
20	CP-OFDM QPSK	1	1	22.08	22.15	22.10
20	CP-OFDM 16QAM	1	1	21.82	21.84	21.78
20	CP-OFDM 64QAM	1	1	20.18	20.11	20.20
20	CP-OFDM 256QAM	1	1	16.93	16.84	16.87
Channel				371500	376000	380500
Frequency (MHz)				1857.5	1880	1902.5
15	DFT-s-OFDM QPSK	1	1	23.60	23.70	23.61
Channel				371000	376000	381000
Frequency (MHz)				1855	1880	1905
10	DFT-s-OFDM QPSK	1	1	23.45	23.50	23.47
Channel				370500	376000	381500
Frequency (MHz)				1852.5	1880	1907.5
5	DFT-s-OFDM QPSK	1	1	19.71	23.50	23.26



B13_n2						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				372000	376000	380000
Frequency (MHz)				1860	1880	1900
20	DFT-s-OFDM PI/2 BPSK	1	1	23.62	23.55	23.52
20		1	53	23.67	23.56	23.54
20		1	104	23.70	23.52	23.44
20		50	1	23.20	23.16	23.14
20		50	25	23.72	23.69	23.69
20		50	50	23.25	23.15	23.06
20		100	0	23.22	23.21	23.11
20	DFT-s-OFDM QPSK	1	1	23.72	23.60	23.61
20		1	53	23.71	23.55	23.50
20		1	104	23.82	23.54	23.45
20		50	1	22.74	22.71	22.33
20		50	25	23.74	23.64	23.62
20		50	50	22.70	22.68	22.64
20		100	0	22.76	22.68	22.58
20	DFT-s-OFDM 16QAM	1	1	22.63	22.76	22.70
20	DFT-s-OFDM 64QAM	1	1	21.40	21.15	21.13
20	DFT-s-OFDM 256QAM	1	1	18.85	18.81	18.77
20	CP-OFDM QPSK	1	1	22.09	22.21	22.11
20	CP-OFDM 16QAM	1	1	21.97	21.78	21.87
20	CP-OFDM 64QAM	1	1	20.22	20.17	20.22
20	CP-OFDM 256QAM	1	1	16.86	16.91	16.86
Channel				371500	376000	380500
Frequency (MHz)				1857.5	1880	1902.5
15	DFT-s-OFDM QPSK	1	1	23.81	23.77	23.69
Channel				371000	376000	381000
Frequency (MHz)				1855	1880	1905
10	DFT-s-OFDM QPSK	1	1	23.53	23.51	23.53
Channel				370500	376000	381500
Frequency (MHz)				1852.5	1880	1907.5
5	DFT-s-OFDM QPSK	1	1	23.36	23.69	23.38



B66_n2						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				372000	376000	380000
Frequency (MHz)				1860	1880	1900
20	DFT-s-OFDM PI/2 BPSK	1	1	23.35	23.46	23.39
20		1	53	23.50	23.40	23.28
20		1	104	23.50	23.37	23.28
20		50	1	23.09	22.98	22.90
20		50	25	23.62	23.44	23.31
20		50	50	23.03	23.12	22.83
20		100	0	23.15	23.01	23.02
20	DFT-s-OFDM QPSK	1	1	23.43	23.49	23.41
20		1	53	23.51	23.40	23.27
20		1	104	23.52	23.40	23.34
20		50	1	22.52	22.61	22.41
20		50	25	23.57	23.52	23.41
20		50	50	22.63	22.45	22.39
20		100	0	22.60	22.64	22.56
20	DFT-s-OFDM 16QAM	1	1	22.58	22.55	22.49
20	DFT-s-OFDM 64QAM	1	1	20.92	20.98	20.88
20	DFT-s-OFDM 256QAM	1	1	18.67	18.75	18.60
20	CP-OFDM QPSK	1	1	22.00	22.04	21.95
20	CP-OFDM 16QAM	1	1	21.56	21.67	21.50
20	CP-OFDM 64QAM	1	1	19.96	20.03	19.83
20	CP-OFDM 256QAM	1	1	16.80	16.87	16.78
Channel				371500	376000	380500
Frequency (MHz)				1857.5	1880	1902.5
15	DFT-s-OFDM QPSK	1	1	23.56	23.62	23.42
Channel				371000	376000	381000
Frequency (MHz)				1855	1880	1905
10	DFT-s-OFDM QPSK	1	1	23.40	23.49	23.41
Channel				370500	376000	381500
Frequency (MHz)				1852.5	1880	1907.5
5	DFT-s-OFDM QPSK	1	1	23.32	23.42	23.50



B2_n5 (PC3)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				166800	167300	167800
Frequency (MHz)				834	836.5	839
20	DFT-s-OFDM PI/2 BPSK	1	1	23.04	23.06	23.15
20		1	53	23.02	23.00	22.95
20		1	104	22.90	22.85	22.75
20		50	1	22.67	22.61	22.60
20		50	25	23.09	23.08	23.04
20		50	50	22.51	22.53	22.50
20		100	0	22.59	22.61	22.60
20	DFT-s-OFDM QPSK	1	1	23.02	23.03	23.11
20		1	53	23.03	22.96	22.96
20		1	104	22.85	22.81	22.72
20		50	1	22.14	22.17	22.10
20		50	25	23.08	23.09	23.03
20		50	50	22.04	22.02	22.02
20		100	0	22.10	22.12	22.11
20	DFT-s-OFDM 16QAM	1	1	22.16	22.04	22.17
20	DFT-s-OFDM 64QAM	1	1	20.63	20.40	20.50
20	DFT-s-OFDM 256QAM	1	1	18.65	18.81	18.91
20	CP-OFDM QPSK	1	1	21.55	21.57	21.60
20	CP-OFDM 16QAM	1	1	21.07	20.96	21.04
20	CP-OFDM 64QAM	1	1	19.63	19.68	19.75
20	CP-OFDM 256QAM	1	1	16.67	16.84	16.97
Channel				166300	167300	168300
Frequency (MHz)				831.5	836.5	841.5
15	DFT-s-OFDM QPSK	1	1	23.06	23.12	23.02
Channel				165800	167300	168800
Frequency (MHz)				829	836.5	844
10	DFT-s-OFDM QPSK	1	1	22.93	22.82	22.81
Channel				165300	167300	169300
Frequency (MHz)				826.5	836.5	846.5
5	DFT-s-OFDM QPSK	1	1	22.98	22.94	22.82



B48_n5						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				166800	167300	167800
Frequency (MHz)				834	836.5	839
20	DFT-s-OFDM PI/2 BPSK	1	1	22.51	22.55	22.55
20		1	53	22.35	22.30	22.23
20		1	104	22.03	22.07	21.94
20		50	1	22.09	22.08	22.00
20		50	25	22.48	22.49	22.39
20		50	50	21.85	21.80	21.79
20		100	0	22.01	21.99	22.04
20		1	1	22.60	22.58	22.53
20	DFT-s-OFDM QPSK	1	53	22.29	22.40	22.27
20		1	104	22.13	22.05	22.01
20		50	1	21.68	21.61	21.49
20		50	25	22.49	22.43	22.38
20		50	50	21.32	21.34	21.28
20		100	0	21.46	21.47	21.39
20	DFT-s-OFDM 16QAM	1	1	21.54	21.57	21.64
20	DFT-s-OFDM 64QAM	1	1	20.04	20.12	19.98
20	DFT-s-OFDM 256QAM	1	1	18.20	18.25	17.79
20	CP-OFDM QPSK	1	1	21.11	21.15	21.13
20	CP-OFDM 16QAM	1	1	20.61	20.64	20.67
20	CP-OFDM 64QAM	1	1	19.12	19.20	18.99
20	CP-OFDM 256QAM	1	1	16.28	16.25	15.85
Channel				166300	167300	168300
Frequency (MHz)				831.5	836.5	841.5
15	DFT-s-OFDM QPSK	1	1	22.65	22.61	22.37
Channel				165800	167300	168800
Frequency (MHz)				829	836.5	844
10	DFT-s-OFDM QPSK	1	1	22.50	22.28	22.10
Channel				165300	167300	169300
Frequency (MHz)				826.5	836.5	846.5
5	DFT-s-OFDM QPSK	1	1	22.57	22.27	22.08



B66_n5						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				166800	167300	167800
Frequency (MHz)				834	836.5	839
20	DFT-s-OFDM PI/2 BPSK	1	1	23.09	23.07	23.19
20		1	53	23.07	23.08	23.04
20		1	104	23.06	23.05	22.93
20		50	1	22.72	22.71	22.65
20		50	25	23.15	23.12	23.13
20		50	50	22.57	22.65	22.66
20		100	0	22.65	22.64	22.64
20		1	1	23.11	23.08	23.16
20	DFT-s-OFDM QPSK	1	53	23.11	23.04	23.03
20		1	104	23.05	23.01	22.68
20		50	1	22.22	22.23	22.17
20		50	25	23.18	23.14	23.10
20		50	50	22.12	22.17	22.15
20		100	0	22.18	22.16	22.17
20	DFT-s-OFDM 16QAM	1	1	22.19	22.16	22.22
20	DFT-s-OFDM 64QAM	1	1	20.55	20.49	20.55
20	DFT-s-OFDM 256QAM	1	1	18.86	18.86	18.95
20	CP-OFDM QPSK	1	1	21.59	21.60	21.70
20	CP-OFDM 16QAM	1	1	20.97	21.01	21.10
20	CP-OFDM 64QAM	1	1	19.71	19.72	19.79
20	CP-OFDM 256QAM	1	1	16.91	16.92	16.95
Channel				166300	167300	168300
Frequency (MHz)				831.5	836.5	841.5
15	DFT-s-OFDM QPSK	1	1	23.14	23.19	23.12
Channel				165800	167300	168800
Frequency (MHz)				829	836.5	844
10	DFT-s-OFDM QPSK	1	1	22.84	22.85	22.87
Channel				165300	167300	169300
Frequency (MHz)				826.5	836.5	846.5
5	DFT-s-OFDM QPSK	1	1	22.90	22.89	22.85



B2_n66 (PC3)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				345000	349000	353000
Frequency (MHz)				1725	1745	1765
30	DFT-s-OFDM PI/2 BPSK	1	1	23.18	23.22	23.20
30		1	80	23.28	23.34	23.13
30		1	158	23.26	23.07	23.06
30		80	1	22.94	22.94	22.77
30		80	40	23.37	23.42	23.21
30		80	80	22.96	22.85	22.83
30		160	0	22.99	22.98	22.86
30	DFT-s-OFDM QPSK	1	1	23.15	23.21	23.22
30		1	80	23.34	23.27	23.11
30		1	158	23.34	23.23	23.07
30		80	1	22.60	22.35	22.24
30		80	40	23.40	23.40	23.21
30		80	80	22.50	22.52	22.32
30		160	0	22.49	22.63	22.37
30	DFT-s-OFDM 16QAM	1	1	22.22	22.37	22.31
30	DFT-s-OFDM 64QAM	1	1	20.58	20.71	20.65
30	DFT-s-OFDM 256QAM	1	1	19.05	19.08	19.09
30	CP-OFDM QPSK	1	1	21.76	21.79	21.78
30	CP-OFDM 16QAM	1	1	21.09	21.10	21.11
30	CP-OFDM 64QAM	1	1	19.86	19.89	19.86
30	CP-OFDM 256QAM	1	1	16.97	17.15	17.05
Channel				344000	349000	354000
Frequency (MHz)				1720	1745	1770
20	DFT-s-OFDM QPSK	1	1	23.14	23.28	23.05
Channel				343500	349000	354500
Frequency (MHz)				1717.5	1745	1772.5
15	DFT-s-OFDM QPSK	1	1	23.14	23.26	22.97
Channel				343000	349000	355000
Frequency (MHz)				1715	1745	1775
10	DFT-s-OFDM QPSK	1	1	22.57	23.12	22.96
Channel				342500	349000	355500
Frequency (MHz)				1712.5	1745	1777.5
5	DFT-s-OFDM QPSK	1	1	23.08	23.08	22.94



B5_n66 (PC3)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				345000	349000	353000
Frequency (MHz)				1725	1745	1765
30	DFT-s-OFDM PI/2 BPSK	1	1	22.85	22.96	22.83
30		1	80	22.92	22.89	22.92
30		1	158	22.89	22.86	22.89
30		80	1	22.44	22.51	22.48
30		80	40	22.94	22.98	22.98
30		80	80	22.59	22.48	22.55
30		160	0	22.49	22.55	22.57
30	DFT-s-OFDM QPSK	1	1	22.78	22.82	22.77
30		1	80	22.88	22.88	22.88
30		1	158	22.83	22.84	22.88
30		80	1	21.92	21.98	21.95
30		80	40	22.96	23.01	23.03
30		80	80	22.09	21.99	22.02
30		160	0	22.02	22.05	22.05
30	DFT-s-OFDM 16QAM	1	1	21.99	21.93	21.93
30	DFT-s-OFDM 64QAM	1	1	20.31	20.25	20.31
30	DFT-s-OFDM 256QAM	1	1	18.63	18.62	18.63
30	CP-OFDM QPSK	1	1	21.36	21.41	21.47
30	CP-OFDM 16QAM	1	1	20.72	20.73	20.77
30	CP-OFDM 64QAM	1	1	19.51	19.50	19.48
30	CP-OFDM 256QAM	1	1	16.62	16.64	16.43
Channel				344000	349000	354000
Frequency (MHz)				1720	1745	1770
20	DFT-s-OFDM QPSK	1	1	22.75	22.34	22.30
Channel				343500	349000	354500
Frequency (MHz)				1717.5	1745	1772.5
15	DFT-s-OFDM QPSK	1	1	22.77	22.55	22.60
Channel				343000	349000	355000
Frequency (MHz)				1715	1745	1775
10	DFT-s-OFDM QPSK	1	1	22.70	22.67	22.73
Channel				342500	349000	355500
Frequency (MHz)				1712.5	1745	1777.5
5	DFT-s-OFDM QPSK	1	1	23.04	22.65	22.71



B13_n66 (PC3)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				345000	349000	353000
Frequency (MHz)				1725	1745	1765
30	DFT-s-OFDM PI/2 BPSK	1	1	22.86	23.21	23.16
30		1	80	22.89	23.25	23.16
30		1	158	22.86	23.30	23.27
30		80	1	22.42	22.81	22.76
30		80	40	23.01	23.23	23.25
30		80	80	22.53	22.92	22.83
30		160	0	22.55	22.85	22.76
30	DFT-s-OFDM QPSK	1	1	22.77	23.25	23.19
30		1	80	22.90	23.28	23.26
30		1	158	22.82	23.21	23.26
30		80	1	21.96	22.32	22.17
30		80	40	22.96	23.26	23.40
30		80	80	21.96	22.32	22.35
30		160	0	22.02	22.29	22.29
30	DFT-s-OFDM 16QAM	1	1	21.98	22.32	22.46
30	DFT-s-OFDM 64QAM	1	1	20.32	20.87	21.02
30	DFT-s-OFDM 256QAM	1	1	18.65	18.84	18.79
30	CP-OFDM QPSK	1	1	21.43	21.75	21.69
30	CP-OFDM 16QAM	1	1	20.71	21.27	21.21
30	CP-OFDM 64QAM	1	1	19.48	19.82	18.96
30	CP-OFDM 256QAM	1	1	16.64	16.80	16.82
Channel				344000	349000	354000
Frequency (MHz)				1720	1745	1770
20	DFT-s-OFDM QPSK	1	1	22.33	22.85	22.74
Channel				343500	349000	354500
Frequency (MHz)				1717.5	1745	1772.5
15	DFT-s-OFDM QPSK	1	1	22.49	22.79	22.74
Channel				343000	349000	355000
Frequency (MHz)				1715	1745	1775
10	DFT-s-OFDM QPSK	1	1	22.73	22.61	22.64
Channel				342500	349000	355500
Frequency (MHz)				1712.5	1745	1777.5
5	DFT-s-OFDM QPSK	1	1	22.71	22.69	22.73



B48_n66 (PC3)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				345000	349000	353000
Frequency (MHz)				1725	1745	1765
30	DFT-s-OFDM PI/2 BPSK	1	1	22.81	22.69	22.70
30		1	80	22.91	22.60	22.65
30		1	158	22.97	22.79	22.63
30		80	1	22.51	22.21	22.01
30		80	40	22.98	22.70	22.67
30		80	80	22.67	22.08	22.20
30		160	0	22.53	22.15	22.09
30	DFT-s-OFDM QPSK	1	1	22.86	22.74	22.74
30		1	80	22.91	22.71	22.80
30		1	158	22.92	22.71	22.69
30		80	1	21.99	21.60	21.51
30		80	40	22.98	22.68	22.79
30		80	80	22.07	21.66	21.71
30		160	0	22.05	21.60	21.64
30	DFT-s-OFDM 16QAM	1	1	22.01	21.89	21.92
30	DFT-s-OFDM 64QAM	1	1	20.46	20.35	20.31
30	DFT-s-OFDM 256QAM	1	1	18.49	17.80	17.82
30	CP-OFDM QPSK	1	1	21.45	21.20	21.27
30	CP-OFDM 16QAM	1	1	21.08	20.73	20.76
30	CP-OFDM 64QAM	1	1	19.42	19.28	19.67
30	CP-OFDM 256QAM	1	1	16.47	15.81	15.91
Channel				344000	349000	354000
Frequency (MHz)				1720	1745	1770
20	DFT-s-OFDM QPSK	1	1	22.84	22.91	22.87
Channel				343500	349000	354500
Frequency (MHz)				1717.5	1745	1772.5
15	DFT-s-OFDM QPSK	1	1	22.84	22.89	22.84
Channel				343000	349000	355000
Frequency (MHz)				1715	1745	1775
10	DFT-s-OFDM QPSK	1	1	22.70	22.71	22.84
Channel				342500	349000	355500
Frequency (MHz)				1712.5	1745	1777.5
5	DFT-s-OFDM QPSK	1	1	22.74	22.76	22.83



B2_n77(3450-3550MHz) (PC3)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				/	633334	/
Frequency (MHz)				/	3500.01	/
100	DFT-s-OFDM PI/2 BPSK	1	1	/	23.04	/
100		1	136	/	23.08	/
100		1	271	/	23.12	/
100		135	1	/	22.62	/
100		135	67	/	23.17	/
100		135	136	/	22.33	/
100		270	0	/	22.61	/
100		1	1	/	23.08	/
100	DFT-s-OFDM QPSK	1	136	/	23.03	/
100		1	271	/	23.13	/
100		135	1	/	22.10	/
100		135	67	/	23.21	/
100		135	136	/	21.87	/
100		270	0	/	22.12	/
100	DFT-s-OFDM 16QAM	1	1	/	22.18	/
100	DFT-s-OFDM 64QAM	1	1	/	20.73	/
100	DFT-s-OFDM 256QAM	1	1	/	18.44	/
100	CP-OFDM QPSK	1	1	/	21.62	/
100	CP-OFDM 16QAM	1	1	/	21.22	/
100	CP-OFDM 64QAM	1	1	/	19.78	/
100	CP-OFDM 256QAM	1	1	/	16.57	/
Channel				632668	633334	634000
Frequency (MHz)				3490.02	3500.01	3510
80	DFT-s-OFDM QPSK	1	1	23.08	23.15	23.16
Channel				632000	633334	634666
Frequency (MHz)				3480	3500.01	3519.99
60	DFT-s-OFDM QPSK	1	1	23.22	23.30	23.33
Channel				631334	633334	635332
Frequency (MHz)				3470.01	3500.01	3529.98
40	DFT-s-OFDM QPSK	1	1	23.58	23.65	23.54
Channel				631000	633334	635666
Frequency (MHz)				3465	3500.01	3534.99
30	DFT-s-OFDM QPSK	1	1	23.52	23.58	23.27
Channel				630668	633334	636000
Frequency (MHz)				3460.02	3500.01	3540
20	DFT-s-OFDM QPSK	1	1	23.40	23.57	23.10



B5_n77(3450-3550MHz) (PC3)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				/	633334	/
Frequency (MHz)				/	3500.01	/
100	DFT-s-OFDM PI/2 BPSK	1	1	/	23.28	/
100		1	136	/	23.32	/
100		1	271	/	22.98	/
100		135	1	/	22.87	/
100		135	67	/	23.37	/
100		135	136	/	22.42	/
100		270	0	/	22.77	/
100	DFT-s-OFDM QPSK	1	1	/	23.29	/
100		1	136	/	23.26	/
100		1	271	/	22.90	/
100		135	1	/	22.24	/
100		135	67	/	23.32	/
100		135	136	/	21.94	/
100		270	0	/	22.25	/
100	DFT-s-OFDM 16QAM	1	1	/	22.36	/
100	DFT-s-OFDM 64QAM	1	1	/	20.80	/
100	DFT-s-OFDM 256QAM	1	1	/	18.68	/
100	CP-OFDM QPSK	1	1	/	21.83	/
100	CP-OFDM 16QAM	1	1	/	21.53	/
100	CP-OFDM 64QAM	1	1	/	19.90	/
100	CP-OFDM 256QAM	1	1	/	16.71	/
Channel				632668	633334	634000
Frequency (MHz)				3490.02	3500.01	3510
80	DFT-s-OFDM QPSK	1	1	23.34	23.33	23.24
Channel				632000	633334	634666
Frequency (MHz)				3480	3500.01	3519.99
60	DFT-s-OFDM QPSK	1	1	23.44	23.43	23.52
Channel				631334	633334	635332
Frequency (MHz)				3470.01	3500.01	3529.98
40	DFT-s-OFDM QPSK	1	1	23.73	23.84	23.68
Channel				631000	633334	635666
Frequency (MHz)				3465	3500.01	3534.99
30	DFT-s-OFDM QPSK	1	1	23.71	23.83	23.44
Channel				630668	633334	636000
Frequency (MHz)				3460.02	3500.01	3540
20	DFT-s-OFDM QPSK	1	1	23.64	23.76	23.20



B13_n77(3450-3550MHz) (PC3)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				/	633334	/
Frequency (MHz)				/	3500.01	/
100	DFT-s-OFDM PI/2 BPSK	1	1	/	23.28	/
100		1	136	/	23.25	/
100		1	271	/	22.96	/
100		135	1	/	22.81	/
100		135	67	/	23.25	/
100		135	136	/	22.42	/
100		270	0	/	22.71	/
100	DFT-s-OFDM QPSK	1	1	/	23.25	/
100		1	136	/	23.26	/
100		1	271	/	22.83	/
100		135	1	/	22.24	/
100		135	67	/	23.33	/
100		135	136	/	21.89	/
100		270	0	/	22.23	/
100	DFT-s-OFDM 16QAM	1	1	/	22.32	/
100	DFT-s-OFDM 64QAM	1	1	/	20.78	/
100	DFT-s-OFDM 256QAM	1	1	/	18.68	/
100	CP-OFDM QPSK	1	1	/	21.80	/
100	CP-OFDM 16QAM	1	1	/	21.53	/
100	CP-OFDM 64QAM	1	1	/	19.85	/
100	CP-OFDM 256QAM	1	1	/	16.67	/
Channel				632668	633334	634000
Frequency (MHz)				3490.02	3500.01	3510
80	DFT-s-OFDM QPSK	1	1	23.28	23.36	23.28
Channel				632000	633334	634666
Frequency (MHz)				3480	3500.01	3519.99
60	DFT-s-OFDM QPSK	1	1	23.47	23.52	23.49
Channel				631334	633334	635332
Frequency (MHz)				3470.01	3500.01	3529.98
40	DFT-s-OFDM QPSK	1	1	23.81	23.81	23.69
Channel				631000	633334	635666
Frequency (MHz)				3465	3500.01	3534.99
30	DFT-s-OFDM QPSK	1	1	23.70	23.76	23.40
Channel				630668	633334	636000
Frequency (MHz)				3460.02	3500.01	3540
20	DFT-s-OFDM QPSK	1	1	23.64	23.74	23.20



B66_n77(3450-3550MHz) (PC3)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				/	633334	/
Frequency (MHz)				/	3500.01	/
100	DFT-s-OFDM PI/2 BPSK	1	1	/	23.03	/
100		1	136	/	23.09	/
100		1	271	/	23.03	/
100		135	1	/	22.64	/
100		135	67	/	23.22	/
100		135	136	/	22.41	/
100		270	0	/	22.65	/
100		1	1	/	23.12	/
100	DFT-s-OFDM QPSK	1	136	/	23.11	/
100		1	271	/	23.08	/
100		135	1	/	22.15	/
100		135	67	/	23.16	/
100		135	136	/	21.89	/
100		270	0	/	22.12	/
100	DFT-s-OFDM 16QAM	1	1	/	22.21	/
100	DFT-s-OFDM 64QAM	1	1	/	20.75	/
100	DFT-s-OFDM 256QAM	1	1	/	18.46	/
100	CP-OFDM QPSK	1	1	/	21.61	/
100	CP-OFDM 16QAM	1	1	/	21.33	/
100	CP-OFDM 64QAM	1	1	/	19.71	/
100	CP-OFDM 256QAM	1	1	/	16.61	/
Channel				632668	633334	634000
Frequency (MHz)				3490.02	3500.01	3510
80	DFT-s-OFDM QPSK	1	1	23.07	23.07	23.07
Channel				632000	633334	634666
Frequency (MHz)				3480	3500.01	3519.99
60	DFT-s-OFDM QPSK	1	1	23.21	23.23	23.32
Channel				631334	633334	635332
Frequency (MHz)				3470.01	3500.01	3529.98
40	DFT-s-OFDM QPSK	1	1	23.59	23.57	22.84
Channel				631000	633334	635666
Frequency (MHz)				3465	3500.01	3534.99
30	DFT-s-OFDM QPSK	1	1	23.59	23.57	23.23
Channel				630668	633334	636000
Frequency (MHz)				3460.02	3500.01	3540
20	DFT-s-OFDM QPSK	1	1	23.47	23.54	23.15



B2_n77(3700-3980MHz) (PC3)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				650000	656000	662000
Frequency (MHz)				3750	3840	3930
100	DFT-s-OFDM PI/2 BPSK	1	1	23.83	22.69	23.19
100		1	136	23.50	23.04	23.21
100		1	271	22.80	23.26	23.99
100		135	1	23.56	22.14	22.74
100		135	67	23.63	23.15	23.32
100		135	136	22.64	22.37	23.09
100		270	0	23.09	22.58	22.89
100	DFT-s-OFDM QPSK	1	1	23.85	22.61	23.18
100		1	136	23.50	23.13	23.14
100		1	271	22.75	23.22	23.98
100		135	1	23.05	21.65	22.23
100		135	67	23.61	23.11	23.27
100		135	136	22.02	21.88	22.61
100		270	0	22.58	22.09	22.38
100	DFT-s-OFDM 16QAM	1	1	22.97	21.70	22.11
100	DFT-s-OFDM 64QAM	1	1	21.44	20.34	20.78
100	DFT-s-OFDM 256QAM	1	1	19.21	18.03	18.54
100	CP-OFDM QPSK	1	1	22.40	21.15	21.77
100	CP-OFDM 16QAM	1	1	22.00	20.81	21.36
100	CP-OFDM 64QAM	1	1	20.49	19.24	19.80
100	CP-OFDM 256QAM	1	1	17.28	16.07	16.57
Channel				649334	656000	662666
Frequency (MHz)				3740.01	3840	3939.99
80	DFT-s-OFDM QPSK	1	1	23.89	22.73	23.24
Channel				648668	656000	663332
Frequency (MHz)				3730.02	3840	3949.98
60	DFT-s-OFDM QPSK	1	1	23.95	22.77	23.23
Channel				648000	656000	664000
Frequency (MHz)				3720	3840	3960
40	DFT-s-OFDM QPSK	1	1	23.95	23.24	23.37
Channel				647668	656000	664332
Frequency (MHz)				3715.02	3840	3964.98
30	DFT-s-OFDM QPSK	1	1	23.87	23.12	23.58
Channel				647334	656000	664666
Frequency (MHz)				3710.01	3840	3969.99
20	DFT-s-OFDM QPSK	1	1	24.18	23.24	23.83



B5_n77(3650-3700MHz) (PC3)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				644668	645000	645334
Frequency (MHz)				3670.02	3675	3680.01
40	DFT-s-OFDM PI/2 BPSK	1	1	23.29	23.36	23.46
40		1	53	23.38	23.48	23.51
40		1	104	23.48	23.42	23.32
40		50	1	22.79	22.86	22.95
40		50	25	23.45	23.52	23.55
40		50	50	23.06	23.03	23.02
40		100	0	22.92	22.96	22.99
40		1	1	23.28	23.34	23.44
40	DFT-s-OFDM QPSK	1	53	23.38	23.46	23.48
40		1	104	23.57	23.37	23.28
40		50	1	22.26	22.34	22.45
40		50	25	23.42	23.50	23.48
40		50	50	22.52	22.50	22.37
40		100	0	22.42	22.45	22.44
40	DFT-s-OFDM 16QAM	1	1	22.20	22.32	22.51
40	DFT-s-OFDM 64QAM	1	1	20.93	20.86	21.09
40	DFT-s-OFDM 256QAM	1	1	18.77	18.80	18.85
40	CP-OFDM QPSK	1	1	21.82	21.90	21.97
40	CP-OFDM 16QAM	1	1	21.33	21.50	21.53
40	CP-OFDM 64QAM	1	1	19.90	19.96	20.04
40	CP-OFDM 256QAM	1	1	16.73	16.86	16.86
Channel				644334	645000	645666
Frequency (MHz)				3665.01	3675	3684.99
30	DFT-s-OFDM QPSK	1	1	23.05	23.28	23.43
Channel				644000	645000	646000
Frequency (MHz)				3660	3675	3690
20	DFT-s-OFDM QPSK	1	1	23.04	23.36	23.42



B13_n77(3700-3980MHz) (PC3)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				650000	656000	662000
Frequency (MHz)				3750	3840	3930
100	DFT-s-OFDM PI/2 BPSK	1	1	22.71	21.86	22.22
100		1	136	20.83	23.36	20.81
100		1	271	21.76	22.17	22.47
100		135	1	21.49	22.15	20.97
100		135	67	21.28	23.46	21.13
100		135	136	20.83	22.13	20.97
100		270	0	21.87	20.45	21.08
100	DFT-s-OFDM QPSK	1	1	23.13	21.84	22.22
100		1	136	21.71	23.47	20.79
100		1	271	21.80	21.92	22.22
100		135	1	21.47	21.78	20.69
100		135	67	21.31	23.28	20.97
100		135	136	20.35	21.75	20.83
100		270	0	20.96	21.90	20.37
100	DFT-s-OFDM 16QAM	1	1	22.02	21.19	19.39
100	DFT-s-OFDM 64QAM	1	1	20.44	19.94	19.83
100	DFT-s-OFDM 256QAM	1	1	18.22	17.28	17.60
100	CP-OFDM QPSK	1	1	21.36	20.40	20.73
100	CP-OFDM 16QAM	1	1	20.96	20.34	20.31
100	CP-OFDM 64QAM	1	1	19.52	18.48	18.90
100	CP-OFDM 256QAM	1	1	16.29	15.27	15.62
Channel				649334	656000	662666
Frequency (MHz)				3740.01	3840	3939.99
80	DFT-s-OFDM QPSK	1	1	22.78	21.99	20.51
Channel				648668	656000	663332
Frequency (MHz)				3730.02	3840	3949.98
60	DFT-s-OFDM QPSK	1	1	22.80	22.52	20.15
Channel				648000	656000	664000
Frequency (MHz)				3720	3840	3960
40	DFT-s-OFDM QPSK	1	1	23.28	23.21	21.02
Channel				647668	656000	664332
Frequency (MHz)				3715.02	3840	3964.98
30	DFT-s-OFDM QPSK	1	1	23.13	23.21	21.33
Channel				647334	656000	664666
Frequency (MHz)				3710.01	3840	3969.99
20	DFT-s-OFDM QPSK	1	1	23.13	23.24	21.66



B66_n77(3700-3980MHz) (PC3)						
BW [MHz]	Modulation	RB num	RB start	Low Channel	Middle Channel	High Channel
Channel				650000	656000	662000
Frequency (MHz)				3750	3840	3930
100	DFT-s-OFDM PI/2 BPSK	1	1	23.78	22.64	23.21
100		1	136	23.55	23.10	23.12
100		1	271	22.73	23.21	24.00
100		135	1	23.49	22.22	22.69
100		135	67	23.67	23.08	23.26
100		135	136	22.55	22.40	23.13
100		270	0	23.12	22.63	22.80
100	DFT-s-OFDM QPSK	1	1	23.75	22.62	23.19
100		1	136	23.52	23.09	23.09
100		1	271	22.68	23.18	23.99
100		135	1	22.98	21.70	22.18
100		135	67	23.65	23.09	23.18
100		135	136	22.01	21.92	22.54
100		270	0	22.61	22.10	22.28
100	DFT-s-OFDM 16QAM	1	1	22.69	21.63	22.27
100	DFT-s-OFDM 64QAM	1	1	21.36	20.14	20.77
100	DFT-s-OFDM 256QAM	1	1	19.15	17.98	18.60
100	CP-OFDM QPSK	1	1	22.33	21.14	21.75
100	CP-OFDM 16QAM	1	1	21.98	20.78	21.32
100	CP-OFDM 64QAM	1	1	20.39	19.24	19.82
100	CP-OFDM 256QAM	1	1	17.14	16.04	16.51
Channel				649334	656000	662666
Frequency (MHz)				3740.01	3840	3939.99
80	DFT-s-OFDM QPSK	1	1	23.82	22.67	23.14
Channel				648668	656000	663332
Frequency (MHz)				3730.02	3840	3949.98
60	DFT-s-OFDM QPSK	1	1	23.84	22.74	22.57
Channel				648000	656000	664000
Frequency (MHz)				3720	3840	3960
40	DFT-s-OFDM QPSK	1	1	24.40	23.17	23.38
Channel				647668	656000	664332
Frequency (MHz)				3715.02	3840	3964.98
30	DFT-s-OFDM QPSK	1	1	24.24	23.19	23.52
Channel				647334	656000	664666
Frequency (MHz)				3710.01	3840	3969.99
20	DFT-s-OFDM QPSK	1	1	24.09	23.19	23.76



Effective Radiated Power and Effective Isotropic Radiated Power:

n2									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel/ dBm	Low Channel/ Watt	Middle Channel/ dBm	Middle Channel/ Watt	High Channel/ dBm	High Channel/ Watt
Channel				372000	372000	376000	376000	380000	380000
Frequency (MHz)				1860	1860	1880	1880	1900	1900
20	DFT-s-OFDM PI/2 BPSK	1	1	25.91	0.390	25.75	0.376	25.46	0.352
20		1	53	25.90	0.389	25.60	0.363	25.52	0.356
20		1	104	25.81	0.381	25.51	0.356	25.45	0.351
20		50	1	25.46	0.352	25.28	0.337	25.10	0.324
20		50	25	25.96	0.394	25.72	0.373	25.58	0.361
20		50	50	25.42	0.348	25.15	0.327	25.02	0.318
20		100	0	25.48	0.353	25.22	0.333	25.07	0.321
20	DFT-s-OFDM QPSK	1	1	25.87	0.386	25.75	0.376	25.49	0.354
20		1	53	25.90	0.389	25.74	0.375	25.57	0.361
20		1	104	25.78	0.378	25.52	0.356	25.42	0.348
20		50	1	24.97	0.314	24.73	0.297	24.56	0.286
20		50	25	25.94	0.393	25.73	0.374	25.52	0.356
20		50	50	24.94	0.312	24.68	0.294	24.50	0.282
20		100	0	24.98	0.315	24.75	0.299	24.54	0.284
20	DFT-s-OFDM 16QAM	1	1	24.83	0.304	24.73	0.297	24.44	0.278
20	DFT-s-OFDM 64QAM	1	1	23.39	0.218	23.24	0.211	23.00	0.200
20	DFT-s-OFDM 256QAM	1	1	21.18	0.131	21.05	0.127	20.78	0.120
20	CP-OFDM QPSK	1	1	24.37	0.274	24.20	0.263	23.97	0.249
20	CP-OFDM 16QAM	1	1	23.85	0.243	23.70	0.234	23.45	0.221
20	CP-OFDM 64QAM	1	1	22.18	0.165	22.03	0.160	21.83	0.152
20	CP-OFDM 256QAM	1	1	19.18	0.083	19.02	0.080	18.79	0.076
Channel				371500	371500	376000	376000	380500	380500
Frequency (MHz)				1857.5	1857.5	1880	1880	1902.5	1902.5
15	DFT-s-OFDM QPSK	1	1	25.91	0.390	25.76	0.377	25.55	0.359
Channel				371000	371000	376000	376000	381000	381000
Frequency (MHz)				1855	1855	1880	1880	1905	1905
10	DFT-s-OFDM QPSK	1	1	25.85	0.385	25.76	0.377	25.43	0.349
Channel				370500	370500	376000	376000	381500	381500
Frequency (MHz)				1852.5	1852.5	1880	1880	1907.5	1907.5



5	DFT-s-OFDM QPSK	1	1	25.90	0.389	25.74	0.375	25.36	0.344
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n5									
BW [M Hz]	Modulation	R B Si ze	RB Offs et	Low Channel/ dBm	Low Channel/ Watt	Middle Channel/ dBm	Middle Channel/ Watt	High Channel/ dBm	High Channel/ Watt
Channel				166800	166800	167300	167300	167800	167800
Frequency (MHz)				834	834	836.5	836.5	839	839
20	DFT-s-OFDM PI/2 BPSK	1	1	21.48	0.141	21.45	0.140	21.43	0.139
20		1	53	21.45	0.140	21.42	0.139	21.41	0.138
20		1	104	21.31	0.135	21.28	0.134	21.26	0.134
20		50	1	21.29	0.135	21.28	0.134	21.28	0.134
20		50	25	21.50	0.141	21.53	0.142	21.52	0.142
20		50	50	21.19	0.132	21.15	0.130	21.15	0.130
20		10 0	0	21.24	0.133	21.26	0.134	21.25	0.133
20	DFT-s-OFDM QPSK	1	1	21.42	0.139	21.50	0.141	21.47	0.140
20		1	53	21.45	0.140	21.48	0.141	21.51	0.142
20		1	104	21.34	0.136	21.32	0.136	21.41	0.138
20		50	1	20.85	0.122	20.80	0.120	20.76	0.119
20		50	25	21.51	0.142	21.50	0.141	21.47	0.140
20		50	50	20.68	0.117	20.68	0.117	20.66	0.116
20		10 0	0	20.74	0.119	20.77	0.119	20.72	0.118
20	DFT-s-OFDM 16QAM	1	1	20.75	0.119	20.71	0.118	20.80	0.120
20	DFT-s-OFDM 64QAM	1	1	19.14	0.082	19.12	0.082	19.25	0.084
20	DFT-s-OFDM 256QAM	1	1	16.97	0.050	16.95	0.050	17.09	0.051
20	CP-OFDM QPSK	1	1	20.17	0.104	20.19	0.104	20.31	0.107
20	CP-OFDM 16QAM	1	1	19.69	0.093	19.64	0.092	19.74	0.094
20	CP-OFDM 64QAM	1	1	17.81	0.060	17.78	0.060	17.89	0.062
20	CP-OFDM 256QAM	1	1	14.99	0.032	14.99	0.032	15.06	0.032
Channel				166300	166300	167300	167300	168300	168300
Frequency (MHz)				831.50	831.50	836.50	836.50	841.50	841.50
15	DFT-s-OFDM QPSK	1	1	21.46	0.140	21.40	0.138	21.47	0.140
Channel				165800	165800	167300	167300	168800	168800
Frequency (MHz)				829.00	829.00	836.50	836.50	844.00	844.00
10	DFT-s-OFDM QPSK	1	1	21.27	0.134	21.28	0.134	21.28	0.134



Channel				165300	165300	167300	167300	169300	169300
Frequency (MHz)				826.50	826.50	836.50	836.50	846.50	846.50
5	DFT-s-OFDM QPSK	1	1	21.31	0.135	21.31	0.135	21.33	0.136

n48 (PC3)									
BW [M Hz]	Modulation	RB Size	RB Offset	Low Channel /dBm	Low Channel/ Watt	Middle Channel /dBm	Middle Channel/ Watt	High Channel /dBm	High Channel/ Watt
Channel				638000	638000	641666	641666	645332	645332
Frequency (MHz)				3570	3570	3624.99	3624.99	3679.98	3679.98
40	DFT-s-OFDM PI/2 BPSK	1	1	22.94	0.197	22.94	0.197	22.63	0.183
40		1	53	22.89	0.195	22.85	0.193	22.53	0.179
40		1	104	22.87	0.194	22.81	0.191	22.62	0.183
40		50	1	22.42	0.175	22.40	0.174	22.14	0.164
40		50	25	22.94	0.197	22.81	0.191	22.62	0.183
40		50	50	22.41	0.174	22.26	0.168	22.07	0.161
40		100	0	22.35	0.172	22.35	0.172	22.10	0.162
40	DFT-s-OFDM QPSK	1	1	22.91	0.195	22.95	0.197	22.63	0.183
40		1	53	22.88	0.194	22.77	0.189	22.55	0.180
40		1	104	22.86	0.193	22.81	0.191	22.62	0.183
40		50	1	21.89	0.155	21.90	0.155	21.66	0.147
40		50	25	22.89	0.195	22.81	0.191	22.61	0.182
40		50	50	21.89	0.155	21.72	0.149	21.60	0.145
40		100	0	21.89	0.155	21.80	0.151	21.63	0.146
40	DFT-s-OFDM 16QAM	1	1	21.81	0.152	21.88	0.154	21.59	0.144
40	DFT-s-OFDM 64QAM	1	1	20.14	0.103	20.22	0.105	19.91	0.098
40	DFT-s-OFDM 256QAM	1	1	18.30	0.068	18.30	0.068	18.04	0.064
40	CP-OFDM QPSK	1	1	21.51	0.142	21.46	0.140	21.15	0.130
40	CP-OFDM 16QAM	1	1	20.95	0.124	20.96	0.125	20.64	0.116
40	CP-OFDM 64QAM	1	1	19.48	0.089	19.36	0.086	19.04	0.080
40	CP-OFDM 256QAM	1	1	16.37	0.043	16.37	0.043	16.09	0.041
Channel				637668	637668	641666	641666	645666	645666
Frequency (MHz)				3565.02	3565.02	3624.99	3624.99	3684.99	3684.99
30	DFT-s-OFDM QPSK	1	1	22.67	0.185	22.73	0.187	22.75	0.188
Channel				637334	637334	641666	641666	646000	646000
Frequency (MHz)				3560.01	3560.01	3624.99	3624.99	3690	3690
20	DFT-s-OFDM QPSK	1	1	22.91	0.195	22.82	0.191	22.57	0.181
Channel				637000	637000	641666	641666	646332	646332



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Frequency (MHz)				3555	3555	3624.99	3624.99	3694.98	3694.98
10	DFT-s-OFDM QPSK	1	1	22.27	0.169	22.36	0.172	22.29	0.169

n66									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel/ dBm	Low Channel/ Watt	Middle Channel/ dBm	Middle Channel/ Watt	High Channel/ dBm	High Channel/ Watt
Channel				345000	345000	349000	349000	353000	353000
Frequency (MHz)				1725	1725	1745	1745	1765	1765
30	DFT-s-OFDM PI/2 BPSK	1	1	24.67	0.293	24.70	0.295	24.70	0.295
30		1	80	24.59	0.288	24.69	0.294	24.75	0.299
30		1	158	24.65	0.292	24.67	0.293	24.69	0.294
30		80	1	24.26	0.267	24.24	0.265	24.28	0.268
30		80	40	24.71	0.296	24.74	0.298	24.76	0.299
30		80	80	24.25	0.266	24.33	0.271	24.33	0.271
30		160	0	24.19	0.262	24.24	0.265	24.33	0.271
30	DFT-s-OFDM QPSK	1	1	24.88	0.308	24.77	0.300	24.92	0.310
30		1	80	24.76	0.299	24.75	0.299	24.69	0.294
30		1	158	24.88	0.308	24.90	0.309	24.77	0.300
30		80	1	23.73	0.236	23.70	0.234	23.74	0.237
30		80	40	24.69	0.294	24.70	0.295	24.82	0.303
30		80	80	23.80	0.240	23.87	0.244	23.79	0.239
30		160	0	23.72	0.236	23.79	0.239	23.79	0.239
30	DFT-s-OFDM 16QAM	1	1	23.87	0.244	23.83	0.242	23.89	0.245
30	DFT-s-OFDM 64QAM	1	1	22.42	0.175	22.36	0.172	22.44	0.175
30	DFT-s-OFDM 256QAM	1	1	19.91	0.098	18.47	0.070	18.54	0.071
30	CP-OFDM QPSK	1	1	23.26	0.212	23.26	0.212	23.39	0.218
30	CP-OFDM 16QAM	1	1	22.76	0.189	22.76	0.189	22.79	0.190
30	CP-OFDM 64QAM	1	1	21.28	0.134	21.30	0.135	21.42	0.139
30	CP-OFDM 256QAM	1	1	17.93	0.062	18.27	0.067	18.30	0.068
Channel				344000	344000	349000	349000	354000	354000
Frequency (MHz)				1720	1720	1745	1745	1770	1770
20	DFT-s-OFDM QPSK	1	1	24.88	0.308	24.81	0.303	24.62	0.290
Channel				343500	343500	349000	349000	354500	354500
Frequency (MHz)				1717.5	1717.5	1745	1745	1772.5	1772.5
15	DFT-s-OFDM	1	1	24.82	0.303	24.73	0.297	24.61	0.289



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	QPSK								
Channel				343000	343000	349000	349000	355000	355000
Frequency (MHz)				1715	1715	1745	1745	1775	1775
10	DFT-s-OFDM QPSK	1	1	24.78	0.301	24.83	0.304	24.61	0.289
Channel				342500	342500	349000	349000	355500	355500
Frequency (MHz)				1712.5	1712.5	1745	1745	1777.5	1777.5
5	DFT-s-OFDM QPSK	1	1	24.99	0.316	24.56	0.286	24.76	0.299

n77(3450-3550MHz)(PC2)									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel/ dBm	Low Channel/ Watt	Middle Channel/ dBm	Middle Channel/ Watt	High Channel/ dBm	High Channel/ Watt
Channel				/	/	633334	633334	/	/
Frequency (MHz)				/	/	3500.01	3500.01	/	/
100	DFT-s-OFDM PI/2 BPSK	1	1	/	/	28.67	0.736	/	/
100		1	136	/	/	29.10	0.813	/	/
100		1	271	/	/	29.42	0.875	/	/
100		135	1	/	/	28.43	0.697	/	/
100		135	67	/	/	29.07	0.807	/	/
100		135	136	/	/	28.80	0.759	/	/
100		270	0	/	/	28.62	0.728	/	/
100	DFT-s-OFDM QPSK	1	1	/	/	28.64	0.731	/	/
100		1	136	/	/	29.05	0.804	/	/
100		1	271	/	/	29.40	0.871	/	/
100		135	1	/	/	27.92	0.619	/	/
100		135	67	/	/	29.12	0.817	/	/
100		135	136	/	/	28.32	0.679	/	/
100		270	0	/	/	28.06	0.640	/	/
100	DFT-s-OFDM 16QAM	1	1	/	/	27.76	0.597	/	/
100	DFT-s-OFDM 64QAM	1	1	/	/	26.11	0.408	/	/
100	DFT-s-OFDM 256QAM	1	1	/	/	24.02	0.252	/	/
100	CP-OFDM QPSK	1	1	/	/	27.08	0.511	/	/
100	CP-OFDM 16QAM	1	1	/	/	26.66	0.463	/	/
100	CP-OFDM 64QAM	1	1	/	/	25.24	0.334	/	/
100	CP-OFDM 256QAM	1	1	/	/	22.09	0.162	/	/
Channel				632668	632668	633334	633334	634000	634000
Frequency (MHz)				3490.02	3490.02	3500.01	3500.01	3510	3510
80	DFT-s-OFDM	1	1	28.64	0.731	28.71	0.743	28.85	0.767



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	QPSK								
Channel				632000	632000	633334	633334	634666	634666
Frequency (MHz)				3480	3480	3500.01	3500.01	3519.99	3519.99
60	DFT-s-OFDM QPSK	1	1	28.80	0.759	28.93	0.782	29.22	0.836
Channel				631334	631334	633334	633334	635332	635332
Frequency (MHz)				3470.01	3470.01	3500.01	3500.01	3529.98	3529.98
40	DFT-s-OFDM QPSK	1	1	29.17	0.826	29.31	0.853	29.69	0.931
Channel				631000	631000	633334	633334	635666	635666
Frequency (MHz)				3465	3465	3500.01	3500.01	3534.99	3534.99
30	DFT-s-OFDM QPSK	1	1	28.98	0.791	29.46	0.883	29.76	0.946
Channel				630668	630668	633334	633334	636000	636000
Frequency (MHz)				3460.02	3460.02	3500.01	3500.01	3540	3540
20	DFT-s-OFDM QPSK	1	1	28.97	0.789	29.21	0.834	29.62	0.916

n77(3450-3550MHz)(PC3)									
BW [MHz]	Modulation	RB Size	RB Offset	Low Channel/dBm	Low Channel/Watt	Middle Channel/dBm	Middle Channel/Watt	High Channel/dBm	High Channel/Watt
Channel				/	/	633334	633334	/	/
Frequency (MHz)				/	/	3500.01	3500.01	/	/
100	DFT-s-OFDM PI/2 BPSK	1	1	/	/	25.66	0.368	/	/
100		1	136	/	/	26.09	0.406	/	/
100		1	271	/	/	26.55	0.452	/	/
100		135	1	/	/	25.92	0.391	/	/
100		135	67	/	/	26.11	0.408	/	/
100		135	136	/	/	26.30	0.427	/	/
100		270	0	/	/	26.08	0.406	/	/
100	DFT-s-OFDM QPSK	1	1	/	/	25.59	0.362	/	/
100		1	136	/	/	26.01	0.399	/	/
100		1	271	/	/	26.46	0.443	/	/
100		135	1	/	/	25.89	0.388	/	/
100		135	67	/	/	26.05	0.403	/	/
100		135	136	/	/	26.26	0.423	/	/
100		270	0	/	/	26.03	0.401	/	/
100	DFT-s-OFDM 16QAM	1	1	/	/	25.75	0.376	/	/
100	DFT-s-OFDM 64QAM	1	1	/	/	25.65	0.367	/	/
100	DFT-s-OFDM 256QAM	1	1	/	/	23.99	0.251	/	/
100	CP-OFDM QPSK	1	1	/	/	25.61	0.364	/	/
100	CP-OFDM	1	1	/	/	25.66	0.368	/	/