FCC SAR Test Report

APPLICANT	**:**	**Zebra Technologies Corporation**
EQUIPMENT	**:**	**Touch computer**
BRAND NAME	**:**	**Zebra**
MODEL NAME	**:**	**TC15BK**
FCC ID	**:**	**UZ7TC15BK**
STANDARD	**:**	**FCC 47 CFR PART 2 (2.1093)**

We, Sporton International Inc. (Kunshan), would like to declare that the tested sample has been evaluated in accordance with the test procedures given in 47 CFR Part 2.1093 and FCC KDB and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.

Si Zhang

Approved by: Si Zhang / Supervisor

ACCREDITED Cert #5145.02

Sporton International Inc. (Kunshan)
No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA212805	Rev. 01	Initial issue of report	Apr. 01, 2022

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Zebra Technologies Corporation, Touch computer, TC15BK,** are as follows.

Highest 1g SAR Summary						
Equipment Class	Frequency Band		Head (Separation 0mm)	Hotspot (Separation 10mm)	Body-worn (Separation 15mm)	Highest Simultaneous Transmission 1g SAR (W/kg)
			1g SAR (W/kg)			
Licensed	GSM	GSM850	0.34	0.47	0.47	1.59
		GSM1900	0.18	0.93	0.69	
	WCDMA	Band II	0.30	0.93	0.72	
		Band IV	0.62	**0.94**	0.53	
		Band V	0.41	0.51	0.30	
	LTE	Band 2	0.29	0.93	0.85	
		Band 4	0.64	0.93	0.53	
		Band 5	0.38	0.47	0.29	
		Band 7	1.18	0.93	**0.87**	
		Band 41/Band 38	**1.19**	**0.94**	0.50	
		Band 42	0.27	0.54	0.19	
	5G NR 5G NR	n2	0.28	**0.94**	0.32	
		n5	0.43	0.52	0.34	
		n7	1.18	**0.94**	0.66	
		n66	0.64	**0.94**	0.47	
		n41	**1.19**	0.92	0.64	
		n77	0.71	0.88	0.53	
		n78	1.05	0.93	0.54	
DTS	WLAN	2.4GHz WLAN	0.53	0.63	0.28	1.57
NII		5GHz WLAN	1.07	0.65	0.63	1.59
DSS	Bluetooth	2.4GHz Bluetooth	<0.10	<0.10	<0.10	1.21

Highest 10g SAR Summary				
Equipment Class	Frequency Band		Product Specific 10g SAR (W/kg) (Separation 0mm)	Highest Simultaneous Transmission 10g SAR (W/kg)
Licensed	GSM	GSM1900	2.91	3.97
	WCDMA	WCDMA II	3.10	
		WCDMA IV	2.52	
	LTE	Band 2	3.10	
		Band 4	2.58	
		Band 7	3.10	
		Band 41/Band 38	**3.14**	
	5G NR	n2	3.09	
		n7	2.97	
		n41-HPUE	3.08	
		n66	2.20	
		n78	2.95	
NII	WLAN	5GHz WLAN	1.90	3.97
Date of Testing:			2022/2/24~2022/3/16	

Remark:
1. This device supports LTE B38 and B41. Since the supported frequency span for LTE B38 falls completely within the

supports frequency span for LTE B41, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B41. 2. This device supports 5GNR n38 and n41. Since the supported frequency span for 5GNR n38 falls completely within the supports frequency span for 5GNR n41, both 5GNR bands have the same target power, and both 5GNR bands share the same transmission path; therefore, SAR was only assessed for 5GNR n41.

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg for Partial-Body 1g SAR, 4.0 W/kg for Product Specific 10g SAR) specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications.

2. Administration Data

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Testing Laboratory			
Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158 FAX : +86-512-57900958		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	SAR02-KS	CN1257	314309

Applicant	
Company Name	Zebra Technologies Corporation
Address	1 Zebra Plaza, Holtsville, NY 11742

Manufacturer	
Company Name	Zebra Technologies Corporation
Address	1 Zebra Plaza, Holtsville, NY 11742

3. Guidance Applied

The Specific Absorption Rate (SAR) testing specification, method, and procedure for this device is in accordance with the following standards:

- FCC 47 CFR Part 2 (2.1093)
- ANSI/IEEE C95.1-1992
- IEEE 1528-2013
- FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- FCC KDB 865664 D02 SAR Reporting v01r02
- FCC KDB 447498 D01 General RF Exposure Guidance v06
- FCC KDB 648474 D04 SAR Evaluation Considerations for Wireless Handsets v01r03
- FCC KDB 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB 941225 D01 3G SAR Procedures v03r01
- FCC KDB 941225 D05 SAR for LTE Devices v02r05
- FCC KDB 941225 D05A Rel.10 LTE SAR Test Guidance v01r02
- FCC KDB 941225 D06 Hotspot Mode SAR v02r01
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4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Touch computer
Brand Name	Zebra
Model Name	TC15BK
FCC ID	UZ7TC15BK
Sample 1	Scanner(SE4710)
Sample 2	Scanner(SE4100)
IMEI Code	Sample1: SIM1: 354283690001577 SIM2: 354283690001585 Sample2: SIM1: 354283690005974 SIM2: 354283690005982
Wireless Technology and Frequency Range	GSM850: 824 MHz ~ 849 MHz GSM1900: 1850 MHz ~ 1910 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 42 : 3450 MHz ~ 3550 MHz 5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n77: 3450 MHz ~ 3550 MHz; 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz; 3700 MHz ~ 3800 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5700 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC: 13.56 MHz
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+(16QAM uplink is not supported) LTE: QPSK, 16QAM, 64QAM 5G NR : CP-OFDM / DFT-s-OFDM, PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM WLAN 2.4GHz 802.11b/g/n/ac HT20/HT40/VHT20/VHT40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE NFC:ASK
HW Version	EV2.4
SW Version	Groot-userdebug11 11-06-29.00-RG-U000-PRD-GRT FX3

MFD	26JAN22
GSM / (E)GPRS Transfer mode	Class B – EUT cannot support Packet Switched and Circuit Switched Network simultaneously but can automatically switch between Packet and Circuit Switched Network.
EUT Stage	Identical Prototype

Remark:

1. This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. This device does not support DTM operation and support GRPS/EGRPS mode up to multi-slot class 33.
3. This device WLAN 2.4GHz supports hotspot operation and Bluetooth support tethering applications.
4. This device 2.4GHz WLAN/5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WiFi Direct (GC/GO), and 5.3GHz / 5.5GHz supports WiFi Direct (GC only).
5. This device has NFC operations, the NFC antenna is integrated into the device for this model, therefore, all SAR test were performed with the device which already incorporates the NFC antenna. A diagram showing the location of the antenna can be found in the operational description. According to FCC KDB publication 447498 D01v06, transmitters are consider to be operating simultaneously when there is overlapping transmission, with the exception of transmission during network hand-offs with maximum hand-off duration less than 30 seconds.
6. For dual SIM card mobile has two SIM slots and supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (single active). After pre-scan two SIM cards power, we found test result of the SIM1 was the worse, so we chose SIM1 slot to perform all tests.
7. The device implements the power management and receiver detection/hotspot mode for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the Qualcomm smart transmit will manage to ensure the power level not exceeding the associated power table.
8. For WLAN when transmit simultaneous with WWAN, power reduction will be activated to head, body-worn, handheld.
9. The device has two batteries. For battery 1/2 only battery chip are different. So we only choose battery 1 to perform full SAR testing and battery 2 to verify the differences.
10. There are two samples, the difference between them is that the scanner model is different. According to the difference, we choose sample 1 to full test and sample 2 to verify the differences.
11. 5G NR n41 / n78 supports HPUE, HPUE power and SAR testing performed separately.
12. 5GNR n41 / n78 HUPE with higher power, 5GNR n41 HUPE SAR can represent power class 3 level SAR.
13. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
14. NSA and SA mode should perform SAR separately. For the bands, when channel bandwidth of SA and NSA is same, and the maximum power of NSA mode is same as SA total power level, SA SAR can represent NSA mode SAR. For the bands, when channel bandwidth of SA and NSA is different, choose the the largest channel bandwidth with maximum power to perform SAR testing, so the largest channel bandwidth SAR can represent the smallest channel bandwidth SAR.
15. 5GNR NSA mode, the power level is the same as 5GNR SA mode, so 5GNR NSA mode and SA mode power table only show one time.
16. 5G NR supports CP-OFDM and DFT-s-OFDM modulation, for DFT-s-OFDM power is higher than CP-OFDM, so only show DFT-s-OFDM power table and chose DFT-s-OFDM to perform SAR testing.
17. For DFT-s-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for the CP-OFDM mode will not higher than DFT-s-OFDM mode, therefore, CP-OFDM measurement is unnecessary.
18. This device supports 5GNR FR1 bands as following table.

<5G NR>

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
NSA	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20
	n66	FDD	15	5, 10, 15, 20, 30
	n78	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
SA	n2	FDD	15	5, 10, 15, 20
	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 40, 50
	n66	FDD	15	5, 10, 15, 20
	n38	FDD	15	20, 30, 40
	n41	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
	n77	TDD	30	20, 30, 40, 60, 80, 100
	n78	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100

Specification of Accessory				
AC Adapter	Brand Name	Zebra	Part Number	PWR-WUA5V12W0US
Battery 1	Brand Name	Zebra	Model Number	BT-000454
			Part Number	BT-000454-20
Battery 2	Brand Name	Zebra	Model Number	BT-000454
			Part Number	BT-000454-70
Earphone	Brand Name	Zebra	Part Number	HDST-35MM-PTVP-01
USB Cable (Type C to Type A)	Brand Name	Zebra	Part Number	CBL-TC5X-USBC2A-01
Type C-Audio Cable (Type C to 3.5mm)	Brand Name	Zebra	Part Number	ADP-USBC-35MM1-01

4.2 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05	
FCC ID	UZ7TC15BK
Equipment Name	Touch computer
Operating Frequency Range of each LTE transmission band	LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 42 : 3450 MHz ~ 3550 MHz
Channel Bandwidth	LTE Band 2:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 4:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 5:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 42: 5MHz, 10MHz, 15MHz, 20MHz
Uplink Modulations used	QPSK / 16QAM / 64QAM
LTE Voice / Data requirements	Data only / Voice and Data
LTE Release Version	R15, Cat 5
CA Support	Yes, Downlink only
LTE MPR permanently built-in by design	**Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3**

Modulation	Channel bandwidth / Transmission bandwidth (N_{RB})						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2
64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3
256 QAM	≥ 1						≤ 5

LTE A-MPR	In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)
Spectrum plots for RB configuration	A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.
Power reduction applied to satisfy SAR compliance	Yes, when operating in receiver detection/hotspot detect mechanism; head / body-worn / hotspot / extremity will trigger reduced power for some bands applied to satisfy SAR compliance, the detail please referred to section 13.
LTE Carrier Aggregation Combinations	Intra-Band and Inter-Band possible combinations and the detail power verification please referred to section 13.
LTE Carrier Aggregation Additional Information	This device supports maximum of 2 carriers in the downlink Additional following LTE Release features are not supported: Relay, HetNet, Enhanced MIMO, eICI, WiFi Offloading, MDH, eMBMA, Cross-Carrier Scheduling, Enhanced SC-FDMA.

Transmission (H, M, L) channel numbers and frequencies in each LTE band

LTE Band 2

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	18607	1850.7	18615	1851.5	18625	1852.5	18650	1855	18675	1857.5	18700	1860
M	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880
H	19193	1909.3	19185	1908.5	19175	1907.5	19150	1905	19125	1902.5	19100	1900

LTE Band 4

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	19957	1710.7	19965	1711.5	19975	1712.5	20000	1715	20025	1717.5	20050	1720
M	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5
H	20393	1754.3	20385	1753.5	20375	1752.5	20350	1750	20325	1747.5	20300	1745

LTE Band 5

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20407	824.7	20415	825.5	20425	826.5	20450	829
M	20525	836.5	20525	836.5	20525	836.5	20525	836.5
H	20643	848.3	20635	847.5	20625	846.5	20600	844

LTE Band 7								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20775	2502.5	20800	2505	20825	2507.5	20850	2510
M	21100	2535	21100	2535	21100	2535	21100	2535
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560

LTE Band 38								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	37775	2572.5	37800	2575	37825	2577.5	37850	2580
M	38000	2595	38000	2595	38000	2595	38000	2595
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610

LTE Band 41								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	39675	2498.5	39700	2501	39725	2503.5	39750	2506
LM	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5
M	40620	2593	40620	2593	40620	2593	40620	2593
HM	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5
H	41565	2687.5	41540	2685	41515	2682.5	41490	2680

LTE Band 42								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	42115	3452.5	42140	3455	42165	3457.5	42190	3460
M	42590	3500	42590	3500	42590	3500	42590	3500
H	43065	3547.5	43040	3545	43015	3542.5	42990	3540

4.3 General 5G NR SAR Test and Reporting Considerations

5G NR Information	
Operating Frequency Range of each 5G NR transmission band	5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n77: 3450 MHz ~ 3550 MHz; 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz; 3700 MHz ~ 3800 MHz
Channel Bandwidth	5G NR n2: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n5: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n7: 5MHz, 10MHz, 15MHz, 20MHz, 25MHz, 30MHz, 40MHz, 50MHz 5G NR n38: 20MHz, 30MHz, 40MHz 5G NR n41: 20MHz, 30MHz, 40MHz, 50MHz, 60MHz, 70MHz, 80MHz, 90MHz, 100MHz 5G NR n66: 5MHz, 10MHz, 15MHz, 20MHz, 30MHz 5G NR n77: 20MHz, 30MHz, 40MHz, 60MHz, 80MHz, 100MHz 5G NR n78: 20MHz, 30MHz, 40MHz, 50MHz, 60MHz, 70MHz, 80MHz, 90MHz, 100MHz
SCS	FDD: SCS15KHz, TDD: SCS30KHz
uplink modulations used	DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM CP-OFDM QPSK / 16QAM / 64QAM / 256QAM
A-MPR (Additional MPR) disabled for SAR Testing?	Yes
LTE Anchor Bands for n5	LTE B7
LTE Anchor Bands for n7	LTE B2/5
LTE Anchor Bands for n66	LTE B7
LTE Anchor Bands for n78	LTE B2/5

Transmission (H, M, L) channel numbers and frequencies in each 5G NR band

NR Band 2

	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860
M	376000	1880	376000	1880	376000	1880	376000	1880
H	381500	1907.5	381000	1905	380500	1902.5	380000	1900

NR Band 5

	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	165300	826.5	165800	829	166300	831.5	166800	834
M	167300	836.5	167300	836.5	167300	836.5	167300	836.5
H	169300	846.5	168800	844	168300	841.5	167800	839

NR Band 66

	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	342500	1712.5	343000	1715	343500	1717.5	344000	1720	345000	1725
M	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745
H	355500	1777.5	355000	1775	354500	1772.5	354000	1770	353000	1765

NR Band 7

	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500500	2502.5	501000	2505	501500	2507.5	502000	2510	502500	2512.5	503000	2515	504000	2520	505000	2525
M	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535
H	513500	2567.5	513000	2565	512500	2562.5	512000	2560	511500	2557.5	511000	2555	510000	2550	509000	2545

NR Band 38

	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	516000	2580	517002	2585.01	518004	2590.02
M	519000	2595	519000	2595	519000	2595
H	522000	2610	520998	2604.99	519996	2599.98

NR Band 41																		
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)			Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	501204	2506.02	502200	2511	503202	2516.01	504204	2521.02	505200	2526	506202	2531.01	507204	2536.02	508200	2541	509202	2546.01
M	518598	2592.99	518598	2592.99	518598	2595.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99
H	535998	2679.99	534996	2674.98	534000	2670	532998	2664.99	531996	2659.98	531000	2655	529998	2649.99	528996	2644.98	528000	2640

NR Band 77												
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 60MHz		Bandwidth 80MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647334	3710.01	647668	3715.02	648000	3720	648666	3729.99	649334	3740.01	650000	3750
M	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840
H	664666	3969.99	664334	3965.1	664000	3960	663334	3950.01	662666	3940.02	662000	3930

NR Band 78																		
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647334	3710.01	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02		
M	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750
H	652668	3790.02	652334	3785.01	652000	3780	651668	3775.02	651334	3770.01	651000	3765	650668	3760.02	650334	3755.01		

For <3450 MHz ~ 3550 MHz >

NR Band 77												
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 60MHz		Bandwidth 80MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630668	3460.02	631000	3465	631334	3470.01	632000	3480	632668	3490.02		
M	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01
H	636000	3540	635668	3535.02	635334	3530.01	634668	3520.02	634000	3510		

NR Band 78																		
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630668	3460.02	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495		
M	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01
H	636000	3540	635668	3535.02	635334	3530.01	635000	3525	634668	3520.02	634334	3515.01	634000	3510	633668	3505.02		

5. Smart Transmit feature for RF Exposure compliance

The RF exposure limit is defined based on time-averaged RF exposure. The product implements Qualcomm Smart Transmit feature which controls the instantaneous transmitting power for WWAN transmitter to ensure the product in compliance with RF exposure limit over a defined time window, for SAR (transmit frequency ≤ 6GHz). To control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is compliant to the regulation requirement.

This report describes the procedures for the SAR char generation, and the parameters obtained from SAR characterization (referred to as SAR char, respectively) will be used as input for Smart Transmit. SAR char will be entered via the Embedded File System (EFS) to enable the Smart Transmit Feature.

<Terminologies in this report>

P_{limit}	The time-averaged RF power which corresponds to SAR_design_target.
P_{max}	Maximum target power level
SAR_design_target:	The design target for SAR compliance. It should be less than regulatory SAR limit to account for all device design related uncertainty.
SAR char	P_{limit} for all the technologies/bands for all applicable DSI

<SAR Characterization>

SAR char must be generated to cover all radio configurations and usage scenarios that the wireless device supports for operating at 6 GHz or below. It will then be used as input for Smart Transmit to control and manage RF exposure for f < 6 GHz.

<SAR design target and uncertainty>

	Uncertainty dB (k=2)
Total uncertainty	1.5

To account for total uncertainty, SAR_design_target should be determined as:

$$SAR\_design\_target < SAR_{regulatory\_limit} \times 10^{\frac{-total\ uncertainty}{10}}$$

The Smart Transmit algorithm maintains the time-averaged transmit power, in turn, time-averaged RF exposure of SAR_design_target, below the predefined time-averaged power limit, for each characterized technology and band.

Smart Transmit allows the device to transmit at higher power instantaneously, as high as Pmax, when needed, but enforces power limiting to maintain time-averaged transmit power to Plimit. Below table shows Plimit EFS settings and maximum tune up output power Pmax configured for this EUT for various transmit conditions (Device State Index DSI).

<P_{limit} for supported technologies and bands (P_{limit} in EFS file)>

Band	Antenna	Head DSI 3	Hotspot DSI 2	Body Worn &Extremity DSI 1	Pmax*
GPRS850(2 Tx slots)	Ant 0	29.8	27.5	28.5	24.5
GSM1900(2 Tx slots)	Ant 0	29.6	18.8	20.3	21.5
WCDMA II	Ant 0	29.0	18.9	20.9	23.0
WCDMA IV	Ant 0	25.8	21.8	23.5	23.0
WCDMA V	Ant 0	27.6	25.6	29.0	23.0
LTE Band 2	Ant 0	29.0	18.3	20.7	23.0
LTE Band 4	Ant 0	25.6	21.6	23.8	23.0
LTE Band 5	Ant 0	27.9	26.0	29.1	23.0
LTE Band 7	Ant 2	17.2	19.4	22.3	23.0
LTE Band 38	Ant 2	17.5	19.7	21.0	21.0
LTE Band 41	Ant 2	17.5	19.7	21.0	21.0
LTE Band 42	Ant 3	27.4	23.4	29.1	21.0
5G NR n2	Ant 0	29.3	17.6	19.4	23.0
5G NR n5	Ant 0	27.4	25.6	28.4	23.0
5G NR n7	Ant 2	17.1	20.4	21.5	23.0
5G NR n66	Ant 0	25.7	21.9	27.0	23.0
5G NR n38(41)	Ant 2	18.0	19.7	21.5	23.0
5G NR n41-PC2	Ant 2	18.0	19.7	21.5	26.0
5G NR n77	Ant 3	25.5	23.3	26.5	23.0
5G NR n78	Ant 3	26.4	22.7	23.0	23.0
5G NR n78-PC2	Ant 3	26.4	22.7	23.0	26.0
5G NR n41	Ant 1	34.0	25.8	37.1	20.0
5G NR n41	Ant 4	22.8	21.4	25.1	20.0
5G NR n41	Ant 6	25.6	24.5	27.4	20.0
5G NR n77	Ant 1	28.0	21.8	25.0	19.0
5G NR n77	Ant 4	21.2	20.3	27.3	19.0
5G NR n77	Ant 5	24.7	23.7	27.5	19.0
5G NR n78	Ant 1	27.8	20.6	23.4	20.0
5G NR n78	Ant 4	20.5	20.6	25.9	20.0
5G NR n78	Ant 5	24.5	22.8	27.4	20.0

Note:

1. P_{max} is used for RF tune up procedure. The maximum allowed output power is equal to Pmax + 1dB uncertainty.
2. All P_{limit} power levels entered in the Table correspond to average power levels after accounting for duty cycle in the case TDD modulation schemes (for e.g., GSM & LTE TDD).
3. The max allowed output power is the P_{limit} + 1dB device uncertainty, and if P_{limit} is higher than P_{max}, the device output power will be P_{max} instead.
4. 5G NR n41 ant 1, ant 4 and ant 6, 5G NR n77/ n78 ant 1, ant 4 and ant 5 support SRS (Sounding Reference Signal) functionality.

6. RF Exposure Limits

6.1 Uncontrolled Environment

Uncontrolled Environments are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure. The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

6.2 Controlled Environment

Controlled Environments are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation). In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. The exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Limits for Occupational/Controlled Exposure (W/kg)

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.4	8.0	20.0

Limits for General Population/Uncontrolled Exposure (W/kg)

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.08	1.6	4.0

Whole-Body SAR is averaged over the entire body, partial-body SAR is averaged over any 1gram of tissue defined as a tissue volume in the shape of a cube. SAR for hands, wrists, feet and ankles is averaged over any 10 grams of tissue defined as a tissue volume in the shape of a cube.

7. Specific Absorption Rate (SAR)

7.1 Introduction

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

7.2 SAR Definition

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). The equation description is as below:

$$\mathbf{SAR} = \frac{\mathbf{d}}{\mathbf{dt}}\left(\frac{\mathbf{dW}}{\mathbf{dm}}\right) = \frac{\mathbf{d}}{\mathbf{dt}}\left(\frac{\mathbf{dW}}{\boldsymbol{\rho}\mathbf{dv}}\right)$$

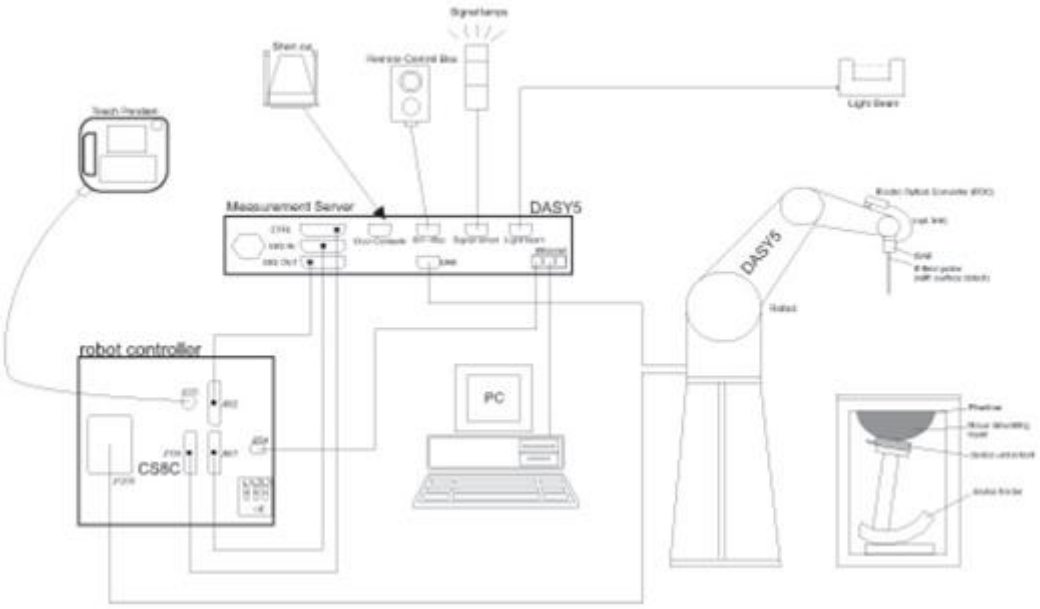
SAR is expressed in units of Watts per kilogram (W/kg)

$$\mathbf{SAR} = \frac{\boldsymbol{\sigma}|\mathbf{E}|^{\mathbf{2}}}{\boldsymbol{\rho}}$$

Where: σ is the conductivity of the tissue, ρ is the mass density of the tissue and E is the RMS electrical field strength.

8. System Description and Setup

The DASY system used for performing compliance tests consists of the following items:



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP or Win7 and the DASY5 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

8.1 E-Field Probe

The SAR measurement is conducted with the dosimetric probe (manufactured by SPEAG).The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency. This probe has a built in optical surface detection system to prevent from collision with phantom.

<EX3DV4 Probe>

Construction	Symmetric design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Frequency	10 MHz – >6 GHz Linearity: ±0.2 dB (30 MHz – 6 GHz)
Directivity	±0.3 dB in TSL (rotation around probe axis) ±0.5 dB in TSL (rotation normal to probe axis)
Dynamic Range	10 µW/g – >100 mW/g Linearity: ±0.2 dB (noise: typically <1 µW/g)
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 2.5 mm (body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm

8.2 Data Acquisition Electronics (DAE)

The data acquisition electronics (DAE) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock.

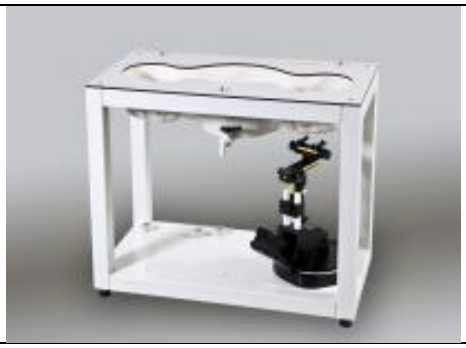
The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

Photo of DAE

8.3 Phantom

<SAM Twin Phantom>

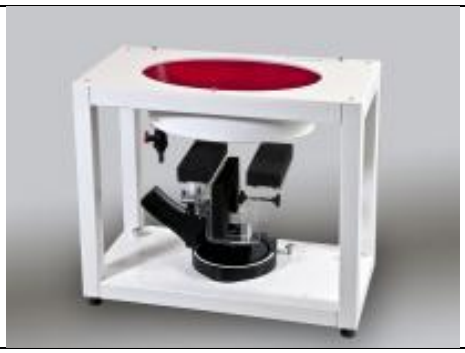
Shell Thickness	2 ± 0.2 mm; Center ear point: 6 ± 0.2 mm
Filling Volume	Approx. 25 liters
Dimensions	Length: 1000 mm; Width: 500 mm; Height: adjustable feet
Measurement Areas	Left Hand, Right Hand, Flat Phantom



The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. A white cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.

<ELI Phantom>

Shell Thickness	2 ± 0.2 mm (sagging: <1%)
Filling Volume	Approx. 30 liters
Dimensions	Major ellipse axis: 600 mm Minor axis: 400 mm



The ELI phantom is intended for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI4 is fully compatible with standard and all known tissue simulating liquids.

8.4 Device Holder

<Mounting Device for Hand-Held Transmitter>

In combination with the Twin SAM V5.0/V5.0c or ELI phantoms, the Mounting Device for Hand-Held Transmitters enables rotation of the mounted transmitter device to specified spherical coordinates. At the heads, the rotation axis is at the ear opening. Transmitter devices can be easily and accurately positioned according to IEC 62209-1, IEEE 1528, FCC, or other specifications. The device holder can be locked for positioning at different phantom sections (left head, right head, flat). And upgrade kit to Mounting Device to enable easy mounting of wider devices like big smart-phones, e-books, small tablets, etc. It holds devices with width up to 140 mm.

Mounting Device for Hand-Held Transmitters

Mounting Device Adaptor for Wide-Phones

<Mounting Device for Laptops and other Body-Worn Transmitters>

The extension is lightweight and made of POM, acrylic glass and foam. It fits easily on the upper part of the mounting device in place of the phone positioned. The extension is fully compatible with the SAM Twin and ELI phantoms.

Mounting Device for Laptops

9. Measurement Procedures

The measurement procedures are as follows:

<Conducted power measurement>

(a) For WWAN power measurement, use base station simulator to configure EUT WWAN transmission in conducted connection with RF cable, at maximum power in each supported wireless interface and frequency band.
(b) Read the WWAN RF power level from the base station simulator.
(c) For WLAN/BT power measurement, use engineering software to configure EUT WLAN/BT continuously transmission, at maximum RF power in each supported wireless interface and frequency band
(d) Connect EUT RF port through RF cable to the power meter, and measure WLAN/BT output power

<SAR measurement>

(a) Use base station simulator to configure EUT WWAN transmission in radiated connection, and engineering software to configure EUT WLAN/BT continuously transmission, at maximum RF power, in the highest power channel.
(b) Place the EUT in the positions as Appendix D demonstrates.
(c) Set scan area, grid size and other setting on the DASY software.
(d) Measure SAR results for the highest power channel on each testing position.
(e) Find out the largest SAR result on these testing positions of each band
(f) Measure SAR results for other channels in worst SAR testing position if the reported SAR of highest power channel is larger than 0.8 W/kg

According to the test standard, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:

(a) Power reference measurement
(b) Area scan
(c) Zoom scan
(d) Power drift measurement

9.1 Spatial Peak SAR Evaluation

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1g and 10g, as well as for user-specific masses. The DASY software includes all numerical procedures necessary to evaluate the spatial peak SAR value.

The base for the evaluation is a "cube" measurement. The measured volume must include the 1g and 10g cubes with the highest averaged SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan.

The entire evaluation of the spatial peak values is performed within the post-processing engine (SEMCAD). The system always gives the maximum values for the 1g and 10g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

(a) Extraction of the measured data (grid and values) from the Zoom Scan
(b) Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
(c) Generation of a high-resolution mesh within the measured volume
(d) Interpolation of all measured values form the measurement grid to the high-resolution grid
(e) Extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
(f) Calculation of the averaged SAR within masses of 1g and 10g

9.2 Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

9.3 Area Scan

The area scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum found in the scanned area, within a range of the global maximum. The range (in dB0 is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan), if only one zoom scan follows the area scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of zoom scans has to be increased accordingly.

Area scan parameters extracted from FCC KDB 865664 D01v01r04 SAR measurement 100 MHz to 6 GHz.

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	½·δ·ln(2) ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

9.4 Zoom Scan

Zoom scans are used assess the peak spatial SAR values within a cubic averaging volume containing 1 gram and 10 gram of simulated tissue. The zoom scan measures points (refer to table below) within a cube shoes base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the zoom scan evaluates the averaged SAR for 1 gram and 10 gram and displays these values next to the job's label.

Zoom scan parameters extracted from FCC KDB 865664 D01v01r04 SAR measurement 100 MHz to 6 GHz.

			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	≤ 1.5·$\Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.

* When zoom scan is required and the *reported* SAR from the *area scan based 1-g SAR estimation* procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

9.5 Volume Scan Procedures

The volume scan is used for assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in standalone measurements. The measurement volume will be used to enclose all the simultaneous transmitting antennas. For antennas transmitting simultaneously in different frequency bands, the volume scan is measured separately in each frequency band. In order to sum correctly to compute the 1g aggregate SAR, the EUT remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing. When all volume scan were completed, the software, SEMCAD postprocessor can combine and subsequently superpose these measurement data to calculating the multiband SAR.

9.6 Power Drift Monitoring

All SAR testing is under the EUT install full charged battery and transmit maximum output power. In DASY measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of EUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in dB. If the power drifts more than 5%, the SAR will be retested.

10. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	835MHz System Validation Kit	D835V2	4d258	2020/5/7	2023/5/6
SPEAG	1750MHz System Validation Kit	D1750V2	1090	2019/3/27	2022/3/25
SPEAG	1900MHz System Validation Kit	D1900V2	5d170	2019/3/26	2022/3/24
SPEAG	2450MHz System Validation Kit	D2450V2	908	2019/3/25	2022/3/23
SPEAG	2600MHz System Validation Kit	D2600V2	1061	2020/11/26	2023/11/25
SPEAG	3500MHz System Validation Kit	D3500V2	1037	2020/11/25	2023/11/24
SPEAG	3700MHz System Validation Kit	D3700V2	1008	2020/11/25	2023/11/24
SPEAG	3900MHz System Validation Kit	D3900V2	1048	2020/5/14	2023/5/13
SPEAG	5000MHz System Validation Kit	D5GHzV2	1113	2019/9/24	2022/9/22
SPEAG	Data Acquisition Electronics	DAE4	1338	2021/12/1	2022/11/30
SPEAG	Data Acquisition Electronics	DAE4	1303	2021/6/18	2022/6/17
SPEAG	Dosimetric E-Field Probe	EX3DV4	3279	2021/8/24	2022/8/23
SPEAG	Dosimetric E-Field Probe	EX3DV4	7684	2021/10/4	2022/10/3
SPEAG	SAM Twin Phantom	SAM Twin	TP-1842	NCR	NCR
SPEAG	SAM Twin Phantom	SAM Twin	TP-1697	NCR	NCR
Testo	Thermo-Hygrometer	608-H1	1241332126	2022/1/6	2023/1/5
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio Communication Analyzer	MT8821C	6201432831	2021/4/13	2022/4/12
Agilent	ENA Series Network Analyzer	E5071C	MY46106933	2021/7/31	2022/7/30
SPEAG	Dielectric Probe Kit	DAK-3.5	1138	2021/6/9	2022/6/8
Anritsu	Vector Signal Generator	MG3710A	6201682672	2022/1/6	2023/1/5
Rohde & Schwarz	Power Meter	NRVD	102081	2021/8/12	2022/8/11
Rohde & Schwarz	Power Sensor	NRV-Z5	100538	2021/8/12	2022/8/11
Rohde & Schwarz	Power Sensor	NRV-Z5	100539	2021/8/12	2022/8/11
R&S	CBT BLUETOOTH TESTER	CBT	101246	2021/4/12	2022/4/11
EXA	Spectrum Analyzer	FSV7	101631	2021/10/14	2022/10/13
FLUKE	DIGITAC THERMOMETER	51II	97240029	2021/8/13	2022/8/12
BONN	POWER AMPLIFIER	BLMA 0830-3	087193A	Note 1	
BONN	POWER AMPLIFIER	BLMA 2060-2	087193B	Note 1	
Agilent	Dual Directional Coupler	778D	20500	Note 1	
Agilent	Dual Directional Coupler	11691D	MY48151020	Note 1	
ARRA	Power Divider	A3200-2	N/A	Note 1	
MCL	Attenuation1	BW-S10W5+	N/A	Note 1	
MCL	Attenuation2	BW-S10W5+	N/A	Note 1	
MCL	Attenuation3	BW-S10W5+	N/A	Note 1	

Note:

1. Prior to system verification and validation, the path loss from the signal generator to the system check source and the power meter, which includes the amplifier, cable, attenuator and directional coupler, was measured by the network analyzer. The reading of the power meter was offset by the path loss difference between the path to the power meter and the path to the system check source to monitor the actual power level fed to the system check
2. Referring to KDB 865664 D01v01r04, the dipole calibration interval can be extended to 3 years with justification. The dipoles are also not physically damaged, or repaired during the interval.
3. The justification data of dipole can be found in appendix C. The return loss is < -20dB, within 20% of prior calibration, the impedance is within 5 ohm of prior calibration.

11. System Verification

11.1 Tissue Simulating Liquids

For the measurement of the field distribution inside the SAM phantom with DASY, the phantom must be filled with around 25 liters of homogeneous body tissue simulating liquid. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 10.1. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 10.2.

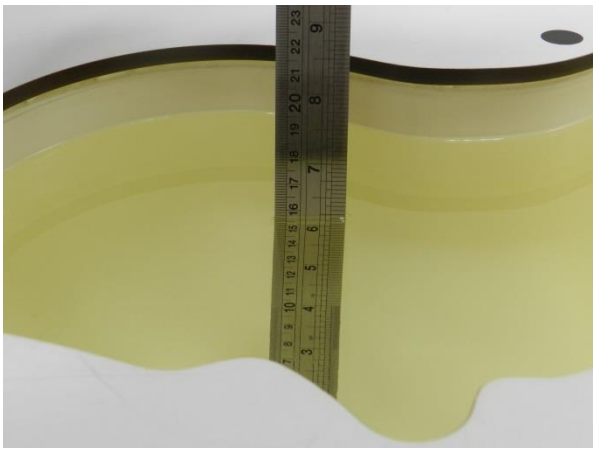


Fig 10.1Photo of Liquid Height for Head SAR

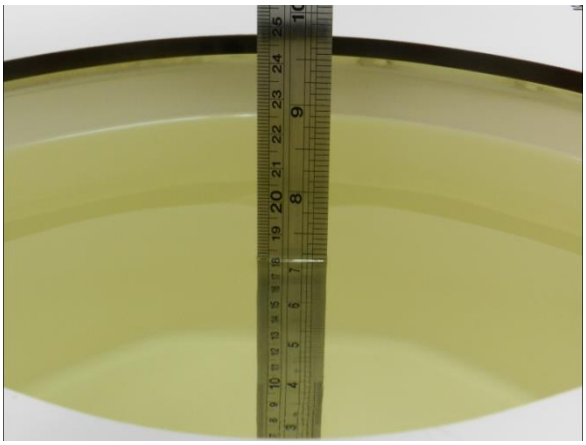


Fig 10.2 Photo of Liquid Height for Body SAR

11.2 Tissue Verification

The following tissue formulations are provided for reference only as some of the parameters have not been thoroughly verified. The composition of ingredients may be modified accordingly to achieve the desired target tissue parameters required for routine SAR evaluation.

Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity (σ)	Permittivity (εr)
For Head								
750	41.1	57.0	0.2	1.4	0.2	0	0.89	41.9
835	40.3	57.9	0.2	1.4	0.2	0	0.90	41.5
900	40.3	57.9	0.2	1.4	0.2	0	0.97	41.5
1800, 1900, 2000	55.2	0	0	0.3	0	44.5	1.40	40.0
2450	55.0	0	0	0	0	45.0	1.80	39.2
2600	54.8	0	0	0.1	0	45.1	1.96	39.0

Simulating Liquid for 5GHz, Manufactured by SPEAG

Ingredients	(% by weight)
Water	64~78%
Mineral oil	11~18%
Emulsifiers	9~15%
Additives and Salt	2~3%

<Tissue Dielectric Parameter Check Results>

Frequency (MHz)	Tissue Type	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (εr)	Conductivity Target (σ)	Permittivity Target (εr)	Delta (σ) (%)	Delta (εr) (%)	Limit (%)	Date
835	Head	22.5	0.930	40.910	0.90	41.50	3.33	-1.42	±5	2022/2/26
1750	Head	22.8	1.395	40.500	1.37	40.10	1.82	1.00	±5	2022/3/1
1900	Head	22.6	1.370	38.737	1.40	40.00	-2.14	-3.16	±5	2022/3/3
2450	Head	22.7	1.889	40.822	1.80	39.20	4.94	4.14	±5	2022/3/6
2600	Head	22.8	2.009	40.643	1.96	39.00	2.50	4.21	±5	2022/3/9
835	Head	22.6	0.930	40.917	0.90	41.50	3.33	-1.40	±5	2022/2/25
1750	Head	22.8	1.410	40.683	1.37	40.10	2.92	1.45	±5	2022/2/28
1900	Head	22.6	1.458	39.790	1.40	40.00	4.14	-0.53	±5	2022/3/2
2450	Head	22.9	1.808	38.521	1.80	39.20	0.44	-1.73	±5	2022/3/5
2600	Head	22.7	1.925	38.229	1.96	39.00	-1.79	-1.98	±5	2022/3/8
835	Head	22.8	0.929	40.902	0.90	41.50	3.22	-1.44	±5	2022/2/24
1750	Head	22.8	1.375	39.868	1.37	40.10	0.36	-0.58	±5	2022/2/27
1900	Head	22.8	1.453	39.680	1.40	40.00	3.79	-0.80	±5	2022/3/1
2450	Head	22.6	1.867	40.817	1.80	39.20	3.72	4.12	±5	2022/3/4
2600	Head	22.9	1.975	40.599	1.96	39.00	0.77	4.10	±5	2022/3/7
3500	Head	22.6	2.806	38.997	2.91	37.90	-3.57	2.89	±5	2022/3/9
3700	Head	22.9	2.992	38.678	3.12	37.70	-4.10	2.59	±5	2022/3/11
3900	Head	22.7	3.193	38.383	3.32	37.50	-3.83	2.35	±5	2022/3/13
5250	Head	22.7	4.554	36.099	4.71	35.90	-3.31	0.55	±5	2022/3/14
5600	Head	22.9	4.925	35.570	5.07	35.50	-2.86	0.20	±5	2022/3/15
5750	Head	22.7	5.100	35.381	5.22	35.40	-2.30	-0.05	±5	2022/3/16

11.3 System Performance Check Results

Comparing to the original SAR value provided by SPEAG, the verification data should be within its specification of 10 %. Below table shows the target SAR and measured SAR after normalized to 1W input power. The table below indicates the system performance check can meet the variation criterion and the plots can be referred to Appendix A of this report.

<1g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)
2022/2/26	835	Head	50	4d258	3279	1338	0.503	9.44	10.06	6.57
2022/3/1	1750	Head	50	1090	3279	1338	1.870	36.40	37.4	2.75
2022/3/3	1900	Head	50	5d170	3279	1338	1.870	39.00	37.4	-4.10
2022/3/6	2450	Head	50	908	3279	1338	2.700	52.80	54	2.27
2022/3/9	2600	Head	50	1061	3279	1338	2.800	56.60	56	-1.06
2022/2/25	835	Head	50	4d258	3279	1338	0.505	9.44	10.1	6.99
2022/2/28	1750	Head	50	1090	3279	1338	1.890	36.40	37.8	3.85
2022/3/2	1900	Head	50	5d170	3279	1338	1.980	39.00	39.6	1.54
2022/3/5	2450	Head	50	908	3279	1338	2.580	52.80	51.6	-2.27
2022/3/8	2600	Head	50	1061	3279	1338	2.680	56.60	53.6	-5.30
2022/2/24	835	Head	50	4d258	3279	1338	0.505	9.44	10.1	6.99
2022/2/27	1750	Head	50	1090	3279	1338	1.840	36.40	36.8	1.10
2022/3/1	1900	Head	50	5d170	3279	1338	1.980	39.00	39.6	1.54
2022/3/4	2450	Head	50	908	3279	1338	2.660	52.80	53.2	0.76
2022/3/7	2600	Head	50	1061	3279	1338	2.750	56.60	55	-2.83
2022/3/9	3500	Head	50	1037	7684	1303	3.180	68.00	63.6	-6.47
2022/3/11	3700	Head	50	1008	7684	1303	3.160	67.60	63.2	-6.51
2022/3/13	3900	Head	50	1048	7684	1303	3.270	70.20	65.4	-6.84
2022/3/14	5250	Head	50	1113	7684	1303	4.050	80.50	81	0.62
2022/3/15	5600	Head	50	1113	7684	1303	3.880	83.40	77.6	-6.95
2022/3/16	5750	Head	50	1113	7684	1303	3.690	80.00	73.8	-7.75

<10g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2022/2/26	835	Head	50	4d258	3279	1338	0.318	6.13	6.36	3.75
2022/3/1	1750	Head	50	1090	3279	1338	1.010	19.20	20.2	5.21
2022/3/3	1900	Head	50	5d170	3279	1338	0.987	20.30	19.74	-2.76
2022/3/6	2450	Head	50	908	3279	1338	1.290	24.20	25.8	6.61
2022/3/9	2600	Head	50	1061	3279	1338	1.300	25.10	26	3.59
2022/2/25	835	Head	50	4d258	3279	1338	0.319	6.13	6.38	4.08
2022/2/28	1750	Head	50	1090	3279	1338	1.020	19.20	20.4	6.25
2022/3/2	1900	Head	50	5d170	3279	1338	1.050	20.30	21	3.45
2022/3/5	2450	Head	50	908	3279	1338	1.230	24.20	24.6	1.65
2022/3/8	2600	Head	50	1061	3279	1338	1.240	25.10	24.8	-1.20
2022/2/24	835	Head	50	4d258	3279	1338	0.329	6.13	6.58	7.34
2022/2/27	1750	Head	50	1090	3279	1338	0.996	19.20	19.92	3.75
2022/3/1	1900	Head	50	5d170	3279	1338	1.050	20.30	21	3.45
2022/3/4	2450	Head	50	908	3279	1338	1.270	24.20	25.4	4.96
2022/3/7	2600	Head	50	1061	3279	1338	1.270	25.10	25.4	1.20
2022/3/9	3500	Head	50	1037	7684	1303	1.180	25.40	23.6	-7.09
2022/3/11	3700	Head	50	1008	7684	1303	1.140	24.40	22.8	-6.56
2022/3/13	3900	Head	50	1048	7684	1303	1.130	24.40	22.6	-7.38
2022/3/14	5250	Head	50	1113	7684	1303	1.150	23.10	23	-0.43
2022/3/15	5600	Head	50	1113	7684	1303	1.190	23.80	23.8	0.00
2022/3/16	5750	Head	50	1113	7684	1303	1.090	22.80	21.8	-4.39

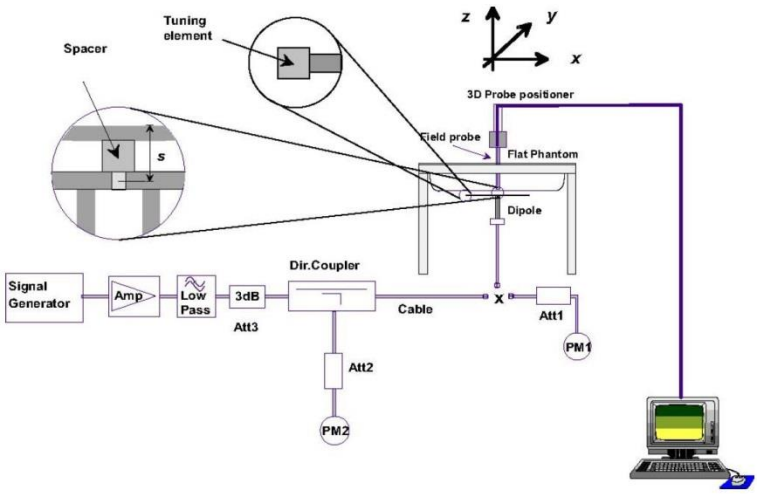


Fig 10.3.1 System Performance Check Setup

Fig 10.3.2 Setup Photo

12. RF Exposure Positions

12.1 Ear and handset reference point

Figure 11.1.1 shows the front, back, and side views of the SAM phantom. The center-of-mouth reference point is labeled “M,” the left ear reference point (ERP) is marked “LE,” and the right ERP is marked “RE.” Each ERP is 15 mm along the B-M (back-mouth) line behind the entrance-to-ear-canal (EEC) point, as shown in Figure 11.1.2 The Reference Plane is defined as passing through the two ear reference points and point M. The line N-F (neck-front), also called the reference pivoting line, is normal to the Reference Plane and perpendicular to both a line passing through RE and LE and the B-M line (see Figure 11.1.3). Both N-F and B-M lines should be marked on the exterior of the phantom shell to facilitate handset positioning. Posterior to the N-F line the ear shape is a flat surface with 6 mm thickness at each ERP, and forward of the N-F line the ear is truncated, as illustrated in Figure 11.1.2. The ear truncation is introduced to preclude the ear lobe from interfering with handset tilt, which could lead to unstable positioning at the cheek.

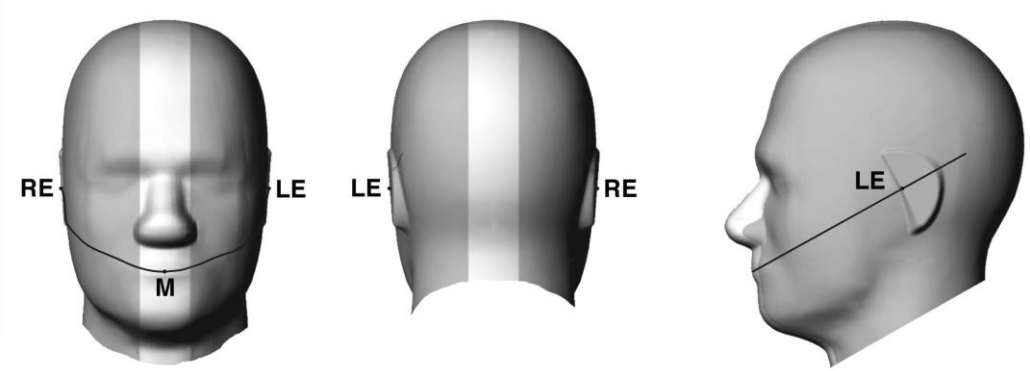


Fig 11.1.1 Front, back, and side views of SAM twin phantom

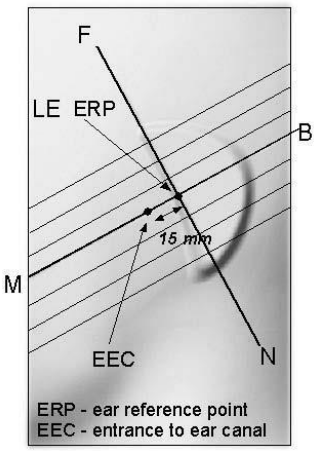


Fig 11.1.2 Close-up side view of phantom showing the ear region.

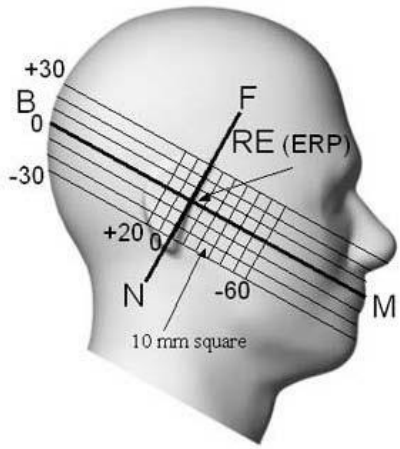


Fig 11.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

12.2 Definition of the cheek position

1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. Define two imaginary lines on the handset—the vertical centerline and the horizontal line. The vertical centerline passes through two points on the front side of the handset—the midpoint of the width wt of the handset at the level of the acoustic output (point A in Figure 11.2.1 and Figure 11.2.2), and the midpoint of the width wb of the bottom of the handset (point B). The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output (see Figure 11.2.1). The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centerline is not necessarily parallel to the front face of the handset (see Figure 11.2.2), especially for clamshell handsets, handsets with flip covers, and other irregularly-shaped handsets.
3. Position the handset close to the surface of the phantom such that point A is on the (virtual) extension of the line passing through points RE and LE on the phantom (see Figure 11.2.3), such that the plane defined by the vertical centerline and the horizontal line of the handset is approximately parallel to the sagittal plane of the phantom.
4. Translate the handset towards the phantom along the line passing through RE and LE until handset point A touches the pinna at the ERP.
5. While maintaining the handset in this plane, rotate it around the LE-RE line until the vertical centerline is in the plane normal to the plane containing B-M and N-F lines, i.e., the Reference Plane.
6. Rotate the handset around the vertical centerline until the handset (horizontal line) is parallel to the N-F line.
7. While maintaining the vertical centerline in the Reference Plane, keeping point A on the line passing through RE and LE, and maintaining the handset contact with the pinna, rotate the handset about the N-F line until any point on the handset is in contact with a phantom point below the pinna on the cheek. See Figure 11.2.3. The actual rotation angles should be documented in the test report.

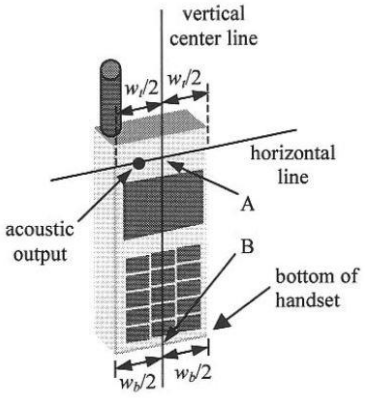


Fig 11.2.1 Handset vertical and horizontal reference lines—"fixed case

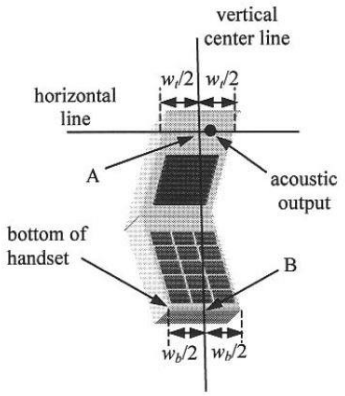


Fig 11.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

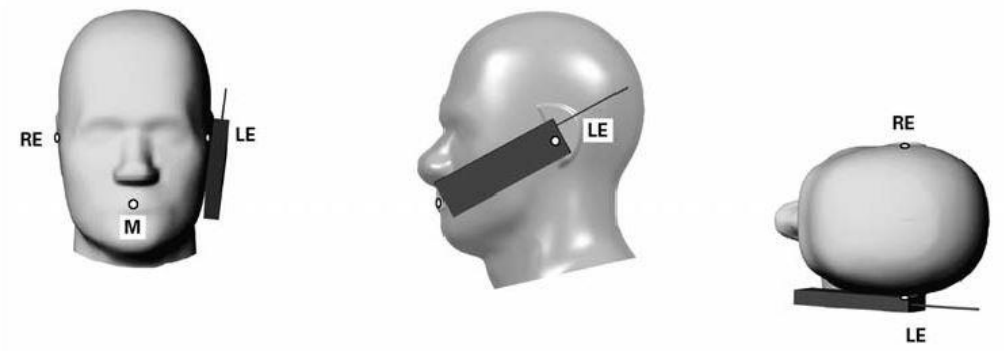


Fig 11.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

12.3 Definition of the tilt position

1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. While maintaining the orientation of the handset, move the handset away from the pinna along the line passing through RE and LE far enough to allow a rotation of the handset away from the cheek by 15°.
3. Rotate the handset around the horizontal line by 15°.
4. While maintaining the orientation of the handset, move the handset towards the phantom on the line passing through RE and LE until any part of the handset touches the ear. The tilt position is obtained when the contact point is on the pinna. See Figure 11.3.1. If contact occurs at any location other than the pinna, e.g., the antenna at the back of the phantom head, the angle of the handset should be reduced. In this case, the tilt position is obtained if any point on the handset is in contact with the pinna and a second point

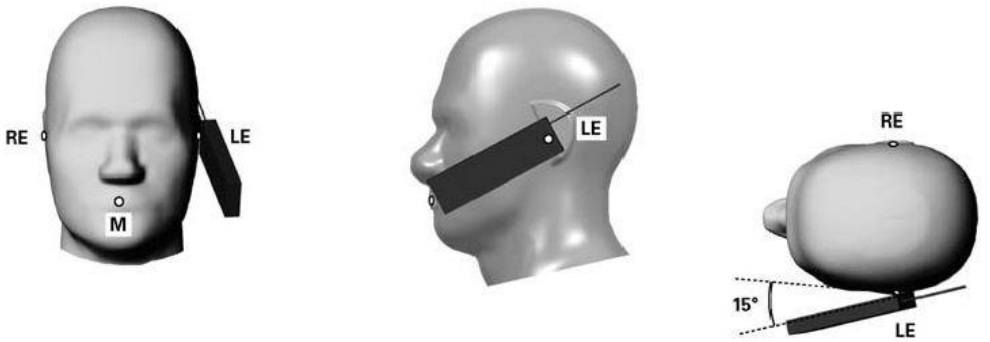


Fig 11.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

12.4 Body Worn Accessory

Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration (see Figure 11.4). Per KDB648474 D04v01r03, body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB 447498 D01v06 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for body-worn accessory, measured without a headset connected to the handset is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a handset attached to the handset.

Accessories for body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components and those that do contain metallic components. When multiple accessories that do not contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are test with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-chip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

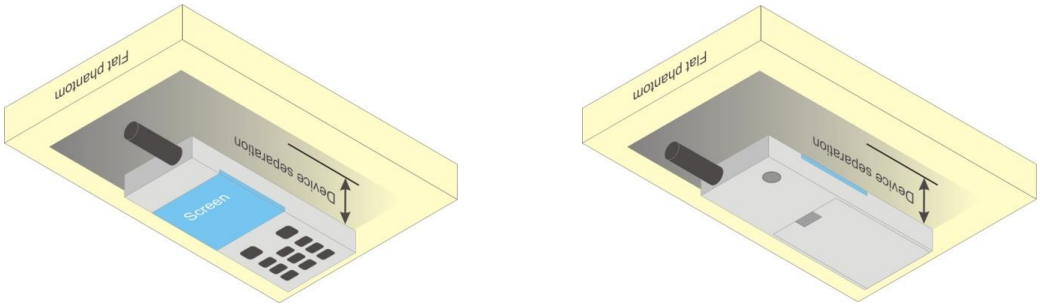


Fig 11.4 Body Worn Position

12.5 Product Specific 10g SAR Exposure

For smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear, According to KDB648474 D04v01r03, the following phablet procedures should be applied to evaluate SAR compliance for each applicable wireless modes and frequency band. Devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance

1. The normally required head and body-worn accessory SAR test procedures for handsets, including hotspot mode, must be applied.

2. The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB 865664 to address interactive hand use exposure conditions.6 The UMPC mini-tablet 1-g SAR at 5 mm is not required. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.

12.6 Wireless Router

Some battery-operated handsets have the capability to transmit and receive user through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06 v02r01 where SAR test considerations for handsets (L x W ≥ 9 cm x 5 cm) are based on a composite test separation distance of 10mm from the front, back and edges of the device containing transmitting antennas within 2.5cm of their edges, determined form general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some body-worn accessory SAR tests.

When the user enables the personal wireless router functions for the handset, actual operations include simultaneous transmission of both the WIFI transmitter and another licensed transmitter. Both transmitters often do not transmit at the same transmitting frequency and thus cannot be evaluated for SAR under actual use conditions due to the limitations of the SAR assessment probes. Therefore, SAR must be evaluated for each frequency transmission and mode separately and spatially summed with the WIFI transmitter according to FCC KDB Publication 447498 D01v06 publication procedures. The “Portable Hotspot” feature on the handset was NOT activated during SAR assessments, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal at a time.

13. Conducted RF Output Power (Unit: dBm)

<GSM Conducted Power>

General Note:

1. Per KDB 447498 D01v06, the maximum output power channel is used for SAR testing and for further SAR test reduction.
2. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. Therefore, the GPRS (2Tx slots) for GSM850/GSM1900 is considered as the primary mode.
3. Other configurations of GSM / GPRS / EDGE are considered as secondary modes. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode, SAR measurement is not required for the secondary mode.

Default Power Mode

GSM850 Ant.0	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	32.31	32.36	32.42	33.50	23.31	23.36	23.42	24.50
GPRS 1 Tx slot	32.26	32.34	32.40	33.50	23.26	23.34	23.40	24.50
GPRS 2 Tx slots	30.45	30.46	30.41	31.50	24.45	24.46	24.41	25.50
GPRS 3 Tx slots	28.51	28.56	28.53	29.50	24.25	24.30	24.27	25.24
GPRS 4 Tx slots	26.35	26.48	26.52	27.50	23.35	23.48	23.52	24.50
EDGE 1 Tx slot	26.11	26.03	26.12	27.50	17.11	17.03	17.12	18.50
EDGE 2 Tx slots	25.96	25.91	25.92	27.50	19.96	19.91	19.92	21.50
EDGE 3 Tx slots	25.79	25.76	25.71	27.50	21.53	21.50	21.45	23.24
EDGE 4 Tx slots	25.65	25.52	25.52	27.50	22.65	22.52	22.52	24.50

GSM1900 Ant.0	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	29.58	29.79	29.57	30.50	20.58	20.79	20.57	21.50
GPRS 1 Tx slot	29.63	29.79	29.59	30.50	20.63	20.79	20.59	21.50
GPRS 2 Tx slots	27.73	27.84	27.74	28.50	21.73	21.84	21.74	22.50
GPRS 3 Tx slots	25.79	25.79	25.57	26.50	21.53	21.53	21.31	22.24
GPRS 4 Tx slots	23.67	23.62	23.36	24.50	20.67	20.62	20.36	21.50
EDGE 1 Tx slot	25.15	25.48	25.31	26.50	16.15	16.48	16.31	17.50
EDGE 2 Tx slots	25.02	25.34	25.28	26.50	19.02	19.34	19.28	20.50
EDGE 3 Tx slots	24.86	25.23	25.06	26.50	20.60	20.97	20.80	22.24
EDGE 4 Tx slots	24.77	25.08	24.87	25.50	21.77	22.08	21.87	21.50

Reduced Power Mode for DSI 1

GSM850 Ant.0	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	32.31	32.36	32.42	33.50	23.31	23.36	23.42	24.50
GPRS 1 Tx slot	32.26	32.34	32.40	33.50	23.26	23.34	23.40	24.50
GPRS 2 Tx slots	30.45	30.46	30.41	31.50	24.45	24.46	24.41	25.50
GPRS 3 Tx slots	28.51	28.56	28.53	29.50	24.25	24.30	24.27	25.24
GPRS 4 Tx slots	26.35	26.48	26.52	27.50	23.35	23.48	23.52	24.50
EDGE 1 Tx slot	26.11	26.03	26.12	27.50	17.11	17.03	17.12	18.50
EDGE 2 Tx slots	25.96	25.91	25.92	27.50	19.96	19.91	19.92	21.50
EDGE 3 Tx slots	25.79	25.76	25.71	27.50	21.53	21.50	21.45	23.24
EDGE 4 Tx slots	25.65	25.52	25.52	27.50	22.65	22.52	22.52	24.50

GSM1900 Ant.0	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	29.58	29.79	29.57	30.30	20.58	20.79	20.57	21.30
GPRS 1 Tx slot	29.63	29.79	29.59	30.30	20.63	20.79	20.59	21.30
GPRS 2 Tx slots	26.18	26.34	26.11	27.30	20.18	20.34	20.11	21.30
GPRS 3 Tx slots	24.25	24.38	24.17	25.50	19.99	20.12	19.91	21.24
GPRS 4 Tx slots	23.62	23.67	23.36	24.30	20.62	20.67	20.36	21.30
EDGE 1 Tx slot	25.15	25.48	25.31	26.50	16.15	16.48	16.31	17.50
EDGE 2 Tx slots	25.02	25.34	25.28	26.50	19.02	19.34	19.28	20.50
EDGE 3 Tx slots	23.85	23.93	23.87	25.50	19.59	19.67	19.61	21.24
EDGE 4 Tx slots	23.31	23.60	23.34	24.30	20.31	20.60	20.34	21.30

Reduced Power Mode for DSI 2

GSM850 Ant.0	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	32.31	32.36	32.42	33.50	23.31	23.36	23.42	24.50
GPRS 1 Tx slot	32.26	32.34	32.40	33.50	23.26	23.34	23.40	24.50
GPRS 2 Tx slots	30.45	30.46	30.41	31.50	24.45	24.46	24.41	25.50
GPRS 3 Tx slots	28.51	28.56	28.53	29.50	24.25	24.30	24.27	25.24
GPRS 4 Tx slots	26.35	26.48	26.52	27.50	23.35	23.48	23.52	24.50
EDGE 1 Tx slot	26.11	26.03	26.12	27.50	17.11	17.03	17.12	18.50
EDGE 2 Tx slots	25.96	25.91	25.92	27.50	19.96	19.91	19.92	21.50
EDGE 3 Tx slots	25.79	25.76	25.71	27.50	21.53	21.50	21.45	23.24
EDGE 4 Tx slots	25.65	25.52	25.52	27.50	22.65	22.52	22.52	24.50

GSM1900 Ant.0	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	27.80	27.92	27.87	28.80	18.80	18.92	18.87	19.80
GPRS 1 Tx slot	27.90	27.97	27.84	28.80	18.90	18.97	18.84	19.80
GPRS 2 Tx slots	25.23	25.35	25.30	25.80	19.23	19.35	19.30	19.80
GPRS 3 Tx slots	23.69	23.84	23.69	24.00	19.43	19.58	19.43	19.74
GPRS 4 Tx slots	21.76	21.80	21.67	22.80	18.76	18.80	18.67	19.80
EDGE 1 Tx slot	26.14	26.20	26.08	26.50	17.14	17.20	17.08	17.50
EDGE 2 Tx slots	25.44	25.57	25.48	25.80	19.44	19.57	19.48	19.80
EDGE 3 Tx slots	23.63	23.69	23.60	24.00	19.37	19.43	19.34	19.74
EDGE 4 Tx slots	22.13	22.27	22.18	22.80	19.13	19.27	19.18	19.80

Reduced Power Mode for DSI 3

GSM850 Ant.0	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	32.31	32.36	32.42	33.50	23.31	23.36	23.42	24.50
GPRS 1 Tx slot	32.26	32.34	32.40	33.50	23.26	23.34	23.40	24.50
GPRS 2 Tx slots	30.45	30.46	30.41	31.50	24.45	24.46	24.41	25.50
GPRS 3 Tx slots	28.51	28.56	28.53	29.50	24.25	24.30	24.27	25.24
GPRS 4 Tx slots	26.35	26.48	26.52	27.50	23.35	23.48	23.52	24.50
EDGE 1 Tx slot	26.11	26.03	26.12	27.50	17.11	17.03	17.12	18.50
EDGE 2 Tx slots	25.96	25.91	25.92	27.50	19.96	19.91	19.92	21.50
EDGE 3 Tx slots	25.79	25.76	25.71	27.50	21.53	21.50	21.45	23.24
EDGE 4 Tx slots	25.65	25.52	25.52	27.50	22.65	22.52	22.52	24.50

GSM1900 Ant.0	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GSM 1 Tx slot	29.58	29.79	29.57	30.50	20.58	20.79	20.57	21.50
GPRS 1 Tx slot	29.63	29.79	29.59	30.50	20.63	20.79	20.59	21.50
GPRS 2 Tx slots	27.73	27.84	27.74	28.50	21.73	21.84	21.74	22.50
GPRS 3 Tx slots	25.79	25.79	25.57	26.50	21.53	21.53	21.31	22.24
GPRS 4 Tx slots	23.67	23.62	23.36	24.50	20.67	20.62	20.36	21.50
EDGE 1 Tx slot	25.15	25.48	25.31	26.50	16.15	16.48	16.31	17.50
EDGE 2 Tx slots	25.02	25.34	25.28	26.50	19.02	19.34	19.28	20.50
EDGE 3 Tx slots	24.86	25.23	25.06	26.50	20.60	20.97	20.80	22.24
EDGE 4 Tx slots	24.77	25.08	24.87	25.50	21.77	22.08	21.87	21.50

<WCDMA Conducted Power>

1. The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification.
2. The procedures in KDB 941225 D01v03r01 are applied for 3GPP Rel. 6 HSPA to configure the device in the required sub-test mode(s) to determine SAR test exclusion.
3. For HSPA+ devices supporting 16 QAM in the uplink, power measurements procedure is according to the configurations in Table C.11.1.4 of 3GPP TS 34.121-1.
4. For DC-HSDPA, the device was configured according to the H-Set 12, Fixed Reference Channel (FRC) configuration in Table C.8.1.12 of 3GPP TS 34.121-1, with the primary and the secondary serving HS-DSCH Cell enabled during the power measurement.

A summary of these settings are illustrated below:

HSDPA Setup Configuration:

a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
b. The RF path losses were compensated into the measurements.
c. A call was established between EUT and Base Station with following setting:
   i. Set Gain Factors (β_c and β_d) and parameters were set according to each
   ii. Specific sub-test in the following table, C10.1.4, quoted from the TS 34.121
   iii. Set RMC 12.2Kbps + HSDPA mode.
   iv. Set Cell Power = -86 dBm
   v. Set HS-DSCH Configuration Type to FRC (H-set 1, QPSK)
   vi. Select HSDPA Uplink Parameters
   vii. Set Delta ACK, Delta NACK and Delta CQI = 8
   viii. Set Ack-Nack Repetition Factor to 3
   ix. Set CQI Feedback Cycle (k) to 4 ms
   x. Set CQI Repetition Factor to 2
   xi. Power Ctrl Mode = All Up bits
d. The transmitted maximum output power was recorded.

Table C.10.1.4: β values for transmitter characteristics tests with HS-DPCCH

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_c.

Note 2: For the HS-DPCCH power mask requirement test in clause 5.2C, 5.7A, and the Error Vector Magnitude (EVM) with HS-DPCCH test in clause 5.13.1A, and HSDPA EVM with phase discontinuity in clause 5.13.1AA, Δ_{ACK} and Δ_{NACK} = 30/15 with β_{hs} = 30/15 * β_c, and Δ_{CQI} = 24/15 with β_{hs} = 24/15 * β_c.

Note 3: CM = 1 for β_c/β_d =12/15, β_{hs}/β_c=24/15. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

Note 4: For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to β_c = 11/15 and β_d = 15/15.

Setup Configuration

HSUPA Setup Configuration:

a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
b. The RF path losses were compensated into the measurements.
c. A call was established between EUT and Base Station with following setting * :
   i. Call Configs = 5.2B, 5.9B, 5.10B, and 5.13.2B with QPSK
   ii. Set the Gain Factors (β_c and β_d) and parameters (AG Index) were set according to each specific sub-test in the following table, C11.1.3, quoted from the TS 34.121
   iii. Set Cell Power = -86 dBm
   iv. Set Channel Type = 12.2k + HSPA
   v. Set UE Target Power
   vi. Power Ctrl Mode= Alternating bits
   vii. Set and observe the E-TFCI
   viii. Confirm that E-TFCI is equal to the target E-TFCI of 75 for sub-test 1, and other subtest's E-TFCI
d. The transmitted maximum output power was recorded.

Table C.11.1.3: β values for transmitter characteristics tests with HS-DPCCH and E-DCH

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (Note 4) (Note 5)	β_{ed} (SF)	β_{ed} (Codes)	CM (dB) (Note 2)	MPR (dB) (Note 2) (Note 6)	AG Index (Note 5)	E-TFCI
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/225	1309/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	$\beta_{ed}1$: 47/15 $\beta_{ed}2$: 47/15	4 4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15	0	-	-	5/15	5/15	47/15	4	1	1.0	0.0	12	67

Note 1: For sub-test 1 to 4, Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_c. For sub-test 5, Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 5/15 with β_{hs} = 5/15 * β_c.

Note 2: CM = 1 for β_c/β_d =12/15, β_{hs}/β_c=24/15. For all other combinations of DPDCH, DPCCH, HS- DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

Note 3: For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to β_c = 10/15 and β_d = 15/15.

Note 4: In case of testing by UE using E-DPDCH Physical Layer category 1, Sub-test 3 is omitted according to TS25.306 Table 5.1g.

Note 5: β_{ed} can not be set directly; it is set by Absolute Grant Value.

Note 6: For subtests 2, 3 and 4, UE may perform E-DPDCH power scaling at max power which could results in slightly smaller MPR values.

Setup Configuration

DC-HSDPA 3GPP release 8 Setup Configuration:

a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration below
b. The RF path losses were compensated into the measurements.
c. A call was established between EUT and Base Station with following setting:
   i. Set RMC 12.2Kbps + HSDPA mode.
   ii. Set Cell Power = -25 dBm
   iii. Set HS-DSCH Configuration Type to FRC (H-set 12, QPSK)
   iv. Select HSDPA Uplink Parameters
   v. Set Gain Factors (β_c and β_d) and parameters were set according to each Specific sub-test in the following table, C10.1.4, quoted from the TS 34.121
      a). Subtest 1: β_c/β_d=2/15
      b). Subtest 2: β_c/β_d=12/15
      c). Subtest 3: β_c/β_d=15/8
      d). Subtest 4: β_c/β_d=15/4
   vi. Set Delta ACK, Delta NACK and Delta CQI = 8
   vii. Set Ack-Nack Repetition Factor to 3
   viii. Set CQI Feedback Cycle (k) to 4 ms
   ix. Set CQI Repetition Factor to 2
   x. Power Ctrl Mode = All Up bits
d. The transmitted maximum output power was recorded.

The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification.
A summary of these settings are illustrated below:

C.8.1.12 Fixed Reference Channel Definition H-Set 12

Table C.8.1.12: Fixed Reference Channel H-Set 12

Parameter	Unit	Value
Nominal Avg. Inf. Bit Rate	kbps	60
Inter-TTI Distance	TTI's	1
Number of HARQ Processes	Proces ses	6
Information Bit Payload (N_{INF})	Bits	120
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	960
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	3200
Coding Rate		0.15
Number of Physical Channel Codes	Codes	1
Modulation		QPSK
Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table.		
Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.		

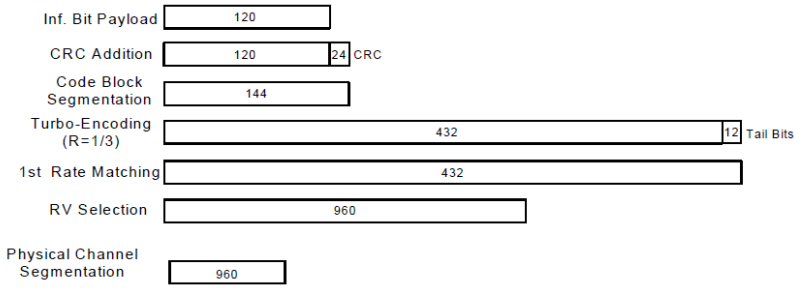


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

<WCDMA Conducted Power>

General Note:

1. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".
2. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA is ≤ ¼ dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA / DC-HSDPA to RMC12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA, and according to the following RF output power, the output power results of the secondary modes (HSDPA / HSUPA / DC-HSDPA) are less than ¼ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA.

Default Power Mode

Band		WCDMA II Ant.0			Tune-up Limit (dBm)	WCDMA IV Ant.0			Tune-up Limit (dBm)	WCDMA V Ant.0			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	23.09	23.11	23.06	24.00	22.93	22.96	22.89	24.00	22.97	23.06	23.03	24.00
3GPP Rel 99	RMC 12.2Kbps	23.18	23.25	23.19	24.00	23.07	23.09	23.03	24.00	23.04	23.14	23.11	24.00
3GPP Rel 6	HSDPA Subtest-1	22.01	22.05	22.08	23.00	21.97	22.02	21.92	23.00	22.04	22.10	22.09	23.00
3GPP Rel 6	HSDPA Subtest-2	22.00	22.09	22.08	23.00	21.95	22.01	21.90	23.00	22.01	22.13	22.07	23.00
3GPP Rel 6	HSDPA Subtest-3	21.52	21.59	21.58	22.50	21.44	21.49	21.42	22.50	21.54	21.66	21.55	22.50
3GPP Rel 6	HSDPA Subtest-4	21.46	21.61	21.58	22.50	21.18	21.52	21.39	22.50	21.52	21.62	21.59	22.50
3GPP Rel 8	DC-HSDPA Subtest-1	21.93	22.00	22.11	23.00	21.91	22.02	21.95	23.00	22.13	22.19	21.99	23.00
3GPP Rel 8	DC-HSDPA Subtest-2	22.09	22.02	22.04	23.00	22.03	22.07	21.87	23.00	21.91	22.09	21.98	23.00
3GPP Rel 8	DC-HSDPA Subtest-3	21.56	21.50	21.67	22.50	21.41	21.53	21.49	22.50	21.55	21.63	21.56	22.50
3GPP Rel 8	DC-HSDPA Subtest-4	21.53	21.54	21.59	22.50	21.23	21.46	21.43	22.50	21.58	21.59	21.53	22.50
3GPP Rel 6	HSUPA Subtest-1	21.91	22.06	22.11	23.00	21.90	21.87	21.91	23.00	22.01	22.07	22.04	23.00
3GPP Rel 6	HSUPA Subtest-2	19.96	20.05	20.05	21.00	19.83	19.97	19.88	21.00	19.97	20.12	19.99	21.00
3GPP Rel 6	HSUPA Subtest-3	20.94	21.06	21.10	22.00	20.90	20.93	20.87	22.00	20.95	21.04	21.01	22.00
3GPP Rel 6	HSUPA Subtest-4	20.02	20.05	20.05	21.00	19.90	19.98	19.92	21.00	19.96	20.05	20.03	21.00
3GPP Rel 6	HSUPA Subtest-5	22.00	22.10	22.10	23.00	21.90	22.00	21.90	23.00	22.00	22.10	22.00	23.00

Reduced Power Mode for DSI 1

Band		WCDMA II Ant.0			Tune-up Limit (dBm)	WCDMA IV Ant.0			Tune-up Limit (dBm)	WCDMA V Ant.0			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	21.10	21.19	21.15	21.90	22.93	22.96	22.89	24.00	22.97	23.06	23.03	24.00
3GPP Rel 99	RMC 12.2Kbps	21.17	21.24	21.19	21.90	23.07	23.09	23.03	24.00	23.04	23.14	23.11	24.00
3GPP Rel 6	HSDPA Subtest-1	20.00	20.10	20.08	20.90	21.97	22.02	21.92	23.00	22.04	22.10	22.09	23.00
3GPP Rel 6	HSDPA Subtest-2	19.96	20.11	20.03	20.90	21.95	22.01	21.90	23.00	22.01	22.13	22.07	23.00
3GPP Rel 6	HSDPA Subtest-3	19.52	19.64	19.55	20.40	21.44	21.49	21.42	22.50	21.54	21.66	21.55	22.50
3GPP Rel 6	HSDPA Subtest-4	19.46	19.62	19.60	20.40	21.18	21.52	21.39	22.50	21.52	21.62	21.59	22.50
3GPP Rel 8	DC-HSDPA Subtest-1	19.91	20.02	20.16	20.90	21.91	22.02	21.95	23.00	22.13	22.19	21.99	23.00
3GPP Rel 8	DC-HSDPA Subtest-2	20.13	19.97	20.04	20.90	22.03	22.07	21.87	23.00	21.91	22.09	22.01	23.00
3GPP Rel 8	DC-HSDPA Subtest-3	19.52	19.51	19.73	20.40	21.41	21.53	21.49	22.50	21.55	21.63	21.56	22.50
3GPP Rel 8	DC-HSDPA Subtest-4	19.49	19.58	19.54	20.40	21.23	21.46	21.43	22.50	21.58	21.59	21.53	22.50
3GPP Rel 6	HSUPA Subtest-1	19.87	20.11	20.06	21.00	21.90	21.87	21.91	23.00	22.01	22.07	22.04	23.00
3GPP Rel 6	HSUPA Subtest-2	17.99	18.09	18.05	18.90	19.83	19.97	19.88	21.00	19.97	20.12	19.99	21.00
3GPP Rel 6	HSUPA Subtest-3	18.95	19.06	19.15	19.90	20.90	20.93	20.87	22.00	20.95	21.04	21.01	22.00
3GPP Rel 6	HSUPA Subtest-4	18.00	18.04	18.02	18.90	19.90	19.98	19.92	21.00	19.96	20.05	20.03	21.00
3GPP Rel 6	HSUPA Subtest-5	19.99	20.15	20.13	20.90	21.90	22.00	21.90	23.00	22.00	22.10	22.00	23.00

Reduced Power Mode for DSI 2

Band		WCDMA II Ant.0			Tune-up Limit (dBm)	WCDMA IV Ant.0			Tune-up Limit (dBm)	WCDMA V Ant.0			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	19.03	19.07	19.05	19.90	21.75	21.73	21.66	22.80	22.97	23.06	23.03	24.00
3GPP Rel 99	RMC 12.2Kbps	19.10	19.17	19.06	19.90	21.89	21.92	21.89	22.80	23.04	23.14	23.11	24.00
3GPP Rel 6	HSDPA Subtest-1	18.01	18.04	18.07	18.90	20.83	20.79	20.77	21.80	22.04	22.10	22.09	23.00
3GPP Rel 6	HSDPA Subtest-2	17.97	18.04	18.12	18.90	20.77	20.76	20.69	21.80	22.01	22.13	22.07	23.00
3GPP Rel 6	HSDPA Subtest-3	17.52	17.60	17.60	18.40	20.29	20.32	20.25	21.30	21.54	21.66	21.55	22.50
3GPP Rel 6	HSDPA Subtest-4	17.43	17.60	17.63	18.40	19.96	20.35	20.18	21.30	21.52	21.62	21.59	22.50
3GPP Rel 8	DC-HSDPA Subtest-1	17.90	17.98	18.11	18.90	20.66	20.88	20.77	21.80	22.13	22.19	21.99	23.00
3GPP Rel 8	DC-HSDPA Subtest-2	18.13	17.97	18.03	18.90	20.85	20.84	20.72	21.80	21.91	22.09	21.99	23.00
3GPP Rel 8	DC-HSDPA Subtest-3	17.59	17.53	17.71	18.40	20.17	20.31	20.25	21.30	21.55	21.63	21.56	22.50
3GPP Rel 8	DC-HSDPA Subtest-4	17.50	17.59	17.61	18.40	20.04	20.21	20.28	21.30	21.58	21.59	21.53	22.50
3GPP Rel 6	HSUPA Subtest-1	17.97	18.03	18.16	18.90	20.66	20.65	20.72	21.80	22.01	22.07	22.04	23.00
3GPP Rel 6	HSUPA Subtest-2	15.98	16.01	16.07	16.90	18.63	18.81	18.66	19.80	19.97	20.12	19.99	21.00
3GPP Rel 6	HSUPA Subtest-3	16.90	17.03	17.12	17.90	19.75	19.71	19.63	20.80	20.95	21.04	21.01	22.00
3GPP Rel 6	HSUPA Subtest-4	16.05	15.99	16.06	16.90	18.72	18.76	18.70	19.80	19.96	20.05	20.03	21.00
3GPP Rel 6	HSUPA Subtest-5	18.02	18.10	18.14	18.90	20.72	20.76	20.69	21.80	22.00	22.10	22.00	23.00

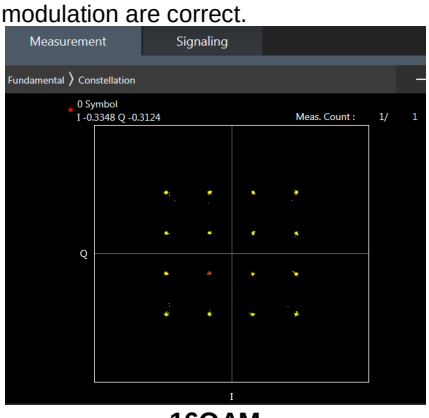
Reduced Power Mode for DSI 3

Band		WCDMA II Ant.0			Tune-up Limit (dBm)	WCDMA IV Ant.0			Tune-up Limit (dBm)	WCDMA V Ant.0			Tune-up Limit (dBm)
TX Channel		9262	9400	9538		1312	1413	1513		4132	4182	4233	
Rx Channel		9662	9800	9938		1537	1638	1738		4357	4407	4458	
Frequency (MHz)		1852.4	1880	1907.6		1712.4	1732.6	1752.6		826.4	836.4	846.6	
3GPP Rel 99	AMR 12.2Kbps	23.09	23.11	23.06	24.00	22.93	22.96	22.89	24.00	22.97	23.06	23.03	24.00
3GPP Rel 99	RMC 12.2Kbps	23.18	23.25	23.19	24.00	23.07	23.09	23.03	24.00	23.04	23.14	23.11	24.00
3GPP Rel 6	HSDPA Subtest-1	22.01	22.05	22.08	23.00	21.97	22.02	21.92	23.00	22.04	22.10	22.09	23.00
3GPP Rel 6	HSDPA Subtest-2	22.00	22.09	22.08	23.00	21.95	22.01	21.90	23.00	22.01	22.13	22.07	23.00
3GPP Rel 6	HSDPA Subtest-3	21.52	21.59	21.58	22.50	21.44	21.49	21.42	22.50	21.54	21.66	21.55	22.50
3GPP Rel 6	HSDPA Subtest-4	21.46	21.61	21.58	22.50	21.18	21.52	21.39	22.50	21.52	21.62	21.59	22.50
3GPP Rel 8	DC-HSDPA Subtest-1	21.93	22.00	22.11	23.00	21.91	22.02	21.95	23.00	22.13	22.19	21.99	23.00
3GPP Rel 8	DC-HSDPA Subtest-2	22.09	22.02	22.04	23.00	22.03	22.07	21.87	23.00	21.91	22.09	21.98	23.00
3GPP Rel 8	DC-HSDPA Subtest-3	21.56	21.50	21.67	22.50	21.41	21.53	21.49	22.50	21.55	21.63	21.56	22.50
3GPP Rel 8	DC-HSDPA Subtest-4	21.53	21.54	21.59	22.50	21.23	21.46	21.43	22.50	21.58	21.59	21.53	22.50
3GPP Rel 6	HSUPA Subtest-1	21.91	22.06	22.11	23.00	21.90	21.87	21.91	23.00	22.01	22.07	22.04	23.00
3GPP Rel 6	HSUPA Subtest-2	19.96	20.05	20.05	21.00	19.83	19.97	19.88	21.00	19.97	20.12	19.99	21.00
3GPP Rel 6	HSUPA Subtest-3	20.94	21.06	21.10	22.00	20.90	20.93	20.87	22.00	20.95	21.04	21.01	22.00
3GPP Rel 6	HSUPA Subtest-4	20.02	20.05	20.05	21.00	19.90	19.98	19.92	21.00	19.96	20.05	20.03	21.00
3GPP Rel 6	HSUPA Subtest-5	22.00	22.10	22.10	23.00	21.90	22.00	21.90	23.00	22.00	22.10	22.00	23.00

<LTE Conducted Power>

General Note:

1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
6. Per KDB 941225 D05v02r05, 16QAM output power for each RB allocation configuration is > not ½ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM SAR testing is not required.
7. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is > not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
8. For LTE 4 / B5 / B38 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
9. LTE band 38 SAR test was covered by Band 41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
   a. the maximum output power, including tolerance, for the smaller band is ≤ the larger band to qualify for the SAR test exclusion
   b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band
10. According to 2017 TCB workshop, for 16QAM and 64QAM should be verified by checking the signal constellation with a call box to avoid incorrect maximum power levels due to MPR and other requirements associated with signal modulation, and the following figure is taken from the "Fundamental Measurement >> Modulation Analysis >> constellation" mode of the device connect to the MT8821C base station, therefore, the device 64QAM and 16QAM signal modulation are correct.



16QAM

64QAM

Default Power Mode

<LTE Band 2 Ant.0>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				18700	18900	19100		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	22.49	22.54	22.49	24	0
20	QPSK	1	49	22.45	22.51	22.49		
20	QPSK	1	99	22.36	22.40	22.37		
20	QPSK	50	0	21.58	21.67	21.66	23	1
20	QPSK	50	24	21.64	21.62	21.66		
20	QPSK	50	50	21.57	21.59	21.59		
20	QPSK	100	0	21.61	21.68	21.60		
20	16QAM	1	0	21.78	21.87	21.80	23	1
20	16QAM	1	49	21.80	21.86	21.80		
20	16QAM	1	99	21.73	21.76	21.68		
20	16QAM	50	0	20.56	20.65	20.68	22	2
20	16QAM	50	24	20.63	20.63	20.68		
20	16QAM	50	50	20.61	20.61	20.63		
20	16QAM	100	0	20.63	20.61	20.62		
20	64QAM	1	0	20.66	20.72	20.67	22	2
20	64QAM	1	49	20.69	20.76	20.66		
20	64QAM	1	99	20.62	20.64	20.55		
20	64QAM	50	0	19.54	19.66	19.66	21	3
20	64QAM	50	24	19.61	19.63	19.63		
20	64QAM	50	50	19.58	19.59	19.61		
20	64QAM	100	0	19.61	19.60	19.64		
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	22.39	22.50	22.34	24	0
15	QPSK	1	37	22.34	22.34	22.36		
15	QPSK	1	74	22.30	22.26	22.34		
15	QPSK	36	0	21.44	21.51	21.57	23	1
15	QPSK	36	20	21.46	21.45	21.51		
15	QPSK	36	39	21.43	21.46	21.43		
15	QPSK	75	0	21.49	21.56	21.53		
15	16QAM	1	0	21.65	21.73	21.69	23	1
15	16QAM	1	37	21.74	21.80	21.71		
15	16QAM	1	74	21.63	21.71	21.56		
15	16QAM	36	0	20.52	20.52	20.53	22	2
15	16QAM	36	20	20.53	20.61	20.59		
15	16QAM	36	39	20.51	20.55	20.55		
15	16QAM	75	0	20.52	20.57	20.53		
15	64QAM	1	0	20.59	20.58	20.53	22	2
15	64QAM	1	37	20.57	20.69	20.50		
15	64QAM	1	74	20.54	20.49	20.42		
15	64QAM	36	0	19.38	19.62	19.58	21	3
15	64QAM	36	20	19.54	19.60	19.51		
15	64QAM	36	39	19.51	19.44	19.50		
15	64QAM	75	0	19.47	19.49	19.62		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	22.43	22.44	22.44	24	0
10	QPSK	1	25	22.37	22.35	22.39		
10	QPSK	1	49	22.29	22.34	22.19		

10	QPSK	25	0	21.51	21.58	21.54	23	1
10	QPSK	25	12	21.51	21.49	21.55		
10	QPSK	25	25	21.55	21.45	21.55		
10	QPSK	50	0	21.50	21.66	21.47		
10	16QAM	1	0	21.61	21.79	21.64	23	1
10	16QAM	1	25	21.68	21.81	21.64		
10	16QAM	1	49	21.62	21.58	21.59		
10	16QAM	25	0	20.42	20.52	20.60	22	2
10	16QAM	25	12	20.56	20.51	20.51		
10	16QAM	25	25	20.50	20.53	20.52		
10	16QAM	50	0	20.53	20.54	20.52		
10	64QAM	1	0	20.51	20.61	20.61	22	2
10	64QAM	1	25	20.67	20.62	20.63		
10	64QAM	1	49	20.46	20.62	20.43		
10	64QAM	25	0	19.51	19.59	19.51	21	3
10	64QAM	25	12	19.57	19.54	19.49		
10	64QAM	25	25	19.51	19.47	19.50		
10	64QAM	50	0	19.58	19.45	19.48		
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	22.45	22.39	22.43	24	0
5	QPSK	1	12	22.30	22.42	22.46		
5	QPSK	1	24	22.19	22.25	22.26		
5	QPSK	12	0	21.47	21.62	21.59	23	1
5	QPSK	12	7	21.59	21.49	21.56		
5	QPSK	12	13	21.50	21.47	21.51		
5	QPSK	25	0	21.51	21.53	21.57		
5	16QAM	1	0	21.72	21.77	21.68	23	1
5	16QAM	1	12	21.73	21.81	21.63		
5	16QAM	1	24	21.64	21.60	21.55		
5	16QAM	12	0	20.54	20.57	20.64	22	2
5	16QAM	12	7	20.50	20.58	20.62		
5	16QAM	12	13	20.45	20.53	20.55		
5	16QAM	25	0	20.55	20.46	20.56		
5	64QAM	1	0	20.55	20.54	20.55	22	2
5	64QAM	1	12	20.66	20.68	20.61		
5	64QAM	1	24	20.48	20.61	20.51		
5	64QAM	12	0	19.37	19.59	19.50	21	3
5	64QAM	12	7	19.54	19.57	19.59		
5	64QAM	12	13	19.45	19.43	19.54		
5	64QAM	25	0	19.49	19.43	19.53		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	22.45	22.36	22.32	24	0
3	QPSK	1	8	22.40	22.38	22.33		
3	QPSK	1	14	22.27	22.25	22.24		
3	QPSK	8	0	21.46	21.59	21.63	23	1
3	QPSK	8	4	21.59	21.51	21.50		
3	QPSK	8	7	21.40	21.45	21.45		
3	QPSK	15	0	21.55	21.52	21.49		
3	16QAM	1	0	21.68	21.73	21.63	23	1
3	16QAM	1	8	21.77	21.78	21.66		
3	16QAM	1	14	21.65	21.72	21.51		
3	16QAM	8	0	20.48	20.62	20.58	22	2
3	16QAM	8	4	20.59	20.51	20.65		
3	16QAM	8	7	20.44	20.52	20.46		

3	16QAM	15	0	20.49	20.57	20.58		
3	64QAM	1	0	20.57	20.58	20.62	22	2
3	64QAM	1	8	20.57	20.60	20.50		
3	64QAM	1	14	20.49	20.56	20.39		
3	64QAM	8	0	19.51	19.62	19.55	21	3
3	64QAM	8	4	19.50	19.46	19.54		
3	64QAM	8	7	19.49	19.48	19.52		
3	64QAM	15	0	19.47	19.53	19.47		
Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	22.44	22.37	22.45	24	0
1.4	QPSK	1	3	22.31	22.41	22.37		
1.4	QPSK	1	5	22.28	22.37	22.21		
1.4	QPSK	3	0	22.44	22.41	22.49		
1.4	QPSK	3	1	22.49	22.45	22.24		
1.4	QPSK	3	3	22.48	22.46	22.42		
1.4	QPSK	6	0	21.45	21.62	21.57	23	1
1.4	16QAM	1	0	21.68	21.85	21.64	23	1
1.4	16QAM	1	3	21.71	21.79	21.65		
1.4	16QAM	1	5	21.66	21.70	21.54		
1.4	16QAM	3	0	21.52	21.47	21.51		
1.4	16QAM	3	1	21.48	21.54	21.64		
1.4	16QAM	3	3	21.50	21.57	21.47		
1.4	16QAM	6	0	20.54	20.43	20.51	22	2
1.4	64QAM	1	0	20.48	20.63	20.52	22	2
1.4	64QAM	1	3	20.60	20.61	20.49		
1.4	64QAM	1	5	20.55	20.60	20.44		
1.4	64QAM	3	0	20.43	20.49	20.59		
1.4	64QAM	3	1	20.45	20.56	20.49		
1.4	64QAM	3	3	20.41	20.51	20.51		
1.4	64QAM	6	0	19.55	19.56	19.59	21	3

<LTE Band 4 Ant.0>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20050	20175	20300		
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	22.46	22.63	22.56	24	0
20	QPSK	1	49	22.40	22.48	22.58		
20	QPSK	1	99	22.39	22.45	22.50		
20	QPSK	50	0	21.51	21.68	21.64	23	1
20	QPSK	50	24	21.59	21.56	21.63		
20	QPSK	50	50	21.54	21.60	21.67		
20	QPSK	100	0	21.57	21.62	21.61		
20	16QAM	1	0	21.80	21.88	22.10	23	1
20	16QAM	1	49	21.77	21.85	21.90		
20	16QAM	1	99	21.73	21.81	21.90		
20	16QAM	50	0	20.54	20.57	20.65	22	2
20	16QAM	50	24	20.62	20.58	20.67		
20	16QAM	50	50	20.54	20.60	20.68		
20	16QAM	100	0	20.58	20.63	20.64		
20	64QAM	1	0	20.69	20.73	20.78	22	2
20	64QAM	1	49	20.68	20.71	20.85		
20	64QAM	1	99	20.63	20.74	20.82		
20	64QAM	50	0	19.54	19.57	19.64	21	3
20	64QAM	50	24	19.59	19.58	19.66		
20	64QAM	50	50	19.55	19.60	19.63		
20	64QAM	100	0	19.57	19.63	19.56		
Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	22.35	22.56	22.51	24	0
15	QPSK	1	37	22.32	22.31	22.56		
15	QPSK	1	74	22.39	22.39	22.48		
15	QPSK	36	0	21.51	21.52	21.57	23	1
15	QPSK	36	20	21.52	21.39	21.52		
15	QPSK	36	39	21.53	21.46	21.50		
15	QPSK	75	0	21.45	21.43	21.45		
15	16QAM	1	0	21.65	21.76	21.90	23	1
15	16QAM	1	37	21.62	21.76	21.74		
15	16QAM	1	74	21.63	21.70	21.76		
15	16QAM	36	0	20.35	20.41	20.54	22	2
15	16QAM	36	20	20.54	20.40	20.49		
15	16QAM	36	39	20.52	20.55	20.66		
15	16QAM	75	0	20.46	20.57	20.51		
15	64QAM	1	0	20.53	20.67	20.72	22	2
15	64QAM	1	37	20.57	20.66	20.75		
15	64QAM	1	74	20.44	20.59	20.66		
15	64QAM	36	0	19.39	19.38	19.48	21	3
15	64QAM	36	20	19.45	19.47	19.52		
15	64QAM	36	39	19.50	19.47	19.61		
15	64QAM	75	0	19.56	19.52	19.47		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	22.38	22.53	22.45	24	0
10	QPSK	1	25	22.22	22.44	22.41		
10	QPSK	1	49	22.20	22.42	22.41		
10	QPSK	25	0	21.44	21.68	21.54	23	1

10	QPSK	25	12	21.46	21.46	21.61		
10	QPSK	25	25	21.41	21.55	21.64		
10	QPSK	50	0	21.39	21.59	21.49		
10	16QAM	1	0	21.73	21.78	21.89	23	1
10	16QAM	1	25	21.65	21.84	21.77		
10	16QAM	1	49	21.59	21.77	21.90		
10	16QAM	25	0	20.39	20.46	20.51	22	2
10	16QAM	25	12	20.48	20.42	20.53		
10	16QAM	25	25	20.48	20.58	20.55		
10	16QAM	50	0	20.44	20.61	20.48		
10	64QAM	1	0	20.65	20.71	20.64	22	2
10	64QAM	1	25	20.67	20.64	20.70		
10	64QAM	1	49	20.58	20.62	20.66		
10	64QAM	25	0	19.40	19.50	19.50	21	3
10	64QAM	25	12	19.56	19.57	19.49		
10	64QAM	25	25	19.46	19.44	19.49		
10	64QAM	50	0	19.43	19.62	19.54		
Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	22.44	22.48	22.44	24	0
5	QPSK	1	12	22.39	22.38	22.49		
5	QPSK	1	24	22.32	22.36	22.42		
5	QPSK	12	0	21.45	21.52	21.62	23	1
5	QPSK	12	7	21.50	21.48	21.47		
5	QPSK	12	13	21.46	21.60	21.63		
5	QPSK	25	0	21.41	21.56	21.48		
5	16QAM	1	0	21.63	21.72	21.88	23	1
5	16QAM	1	12	21.61	21.78	21.74		
5	16QAM	1	24	21.69	21.76	21.72		
5	16QAM	12	0	20.37	20.55	20.60	22	2
5	16QAM	12	7	20.44	20.39	20.56		
5	16QAM	12	13	20.44	20.48	20.65		
5	16QAM	25	0	20.40	20.52	20.47		
5	64QAM	1	0	20.59	20.55	20.72	22	2
5	64QAM	1	12	20.65	20.70	20.80		
5	64QAM	1	24	20.48	20.72	20.71		
5	64QAM	12	0	19.35	19.46	19.60	21	3
5	64QAM	12	7	19.56	19.44	19.47		
5	64QAM	12	13	19.51	19.42	19.49		
5	64QAM	25	0	19.40	19.47	19.43		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	22.26	22.46	22.36	24	0
3	QPSK	1	8	22.26	22.42	22.46		
3	QPSK	1	14	22.22	22.31	22.32		
3	QPSK	8	0	21.35	21.63	21.49	23	1
3	QPSK	8	4	21.43	21.54	21.43		
3	QPSK	8	7	21.53	21.48	21.57		
3	QPSK	15	0	21.43	21.55	21.52		
3	16QAM	1	0	21.70	21.80	21.79	23	1
3	16QAM	1	8	21.67	21.68	21.89		
3	16QAM	1	14	21.69	21.79	21.78		
3	16QAM	8	0	20.37	20.51	20.56	22	2
3	16QAM	8	4	20.57	20.48	20.49		
3	16QAM	8	7	20.37	20.52	20.50		
3	16QAM	15	0	20.45	20.59	20.59		

3	64QAM	1	0	20.60	20.70	20.58	22	2
3	64QAM	1	8	20.51	20.68	20.65		
3	64QAM	1	14	20.61	20.58	20.63		
3	64QAM	8	0	19.48	19.48	19.58	21	3
3	64QAM	8	4	19.40	19.52	19.66		
3	64QAM	8	7	19.49	19.41	19.44		
3	64QAM	15	0	19.54	19.51	19.53		
Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	22.49	22.51	22.51	24	0
1.4	QPSK	1	3	22.47	22.41	22.47		
1.4	QPSK	1	5	22.40	22.52	22.46		
1.4	QPSK	3	0	22.47	22.58	22.51		
1.4	QPSK	3	1	22.50	22.53	22.52		
1.4	QPSK	3	3	22.45	22.58	22.48		
1.4	QPSK	6	0	21.54	21.62	21.72	23	1
1.4	16QAM	1	0	21.79	21.89	21.99	23	1
1.4	16QAM	1	3	21.84	21.88	21.92		
1.4	16QAM	1	5	21.79	21.88	21.95		
1.4	16QAM	3	0	21.54	21.71	21.82		
1.4	16QAM	3	1	21.63	21.75	21.92		
1.4	16QAM	3	3	21.53	21.67	21.88		
1.4	16QAM	6	0	20.57	20.69	20.79	22	2
1.4	64QAM	1	0	20.69	20.74	20.79	22	2
1.4	64QAM	1	3	20.71	20.83	20.92		
1.4	64QAM	1	5	20.67	20.72	20.85		
1.4	64QAM	3	0	20.59	20.71	20.83		
1.4	64QAM	3	1	20.60	20.74	20.84		
1.4	64QAM	3	3	20.59	20.71	20.79		
1.4	64QAM	6	0	19.54	19.62	19.74	21	3

<LTE Band 5 Ant.0>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20450	20525	20600		
Frequency (MHz)				829	836.5	844		
10	QPSK	1	0	22.89	22.92	22.83	24	0
10	QPSK	1	25	22.87	22.83	22.82		
10	QPSK	1	49	22.80	22.80	22.75		
10	QPSK	25	0	21.97	22.07	21.94	23	1
10	QPSK	25	12	21.94	21.97	21.96		
10	QPSK	25	25	21.97	22.01	21.98		
10	QPSK	50	0	21.99	22.01	21.92		
10	16QAM	1	0	22.22	22.21	22.23	23	1
10	16QAM	1	25	22.35	22.19	22.20		
10	16QAM	1	49	22.18	22.19	22.13		
10	16QAM	25	0	20.98	21.00	20.98	22	2
10	16QAM	25	12	21.04	20.96	20.98		
10	16QAM	25	25	21.01	21.00	20.94		
10	16QAM	50	0	21.03	20.95	20.91		
10	64QAM	1	0	21.16	21.07	21.16	22	2
10	64QAM	1	25	21.07	21.01	21.02		
10	64QAM	1	49	21.05	21.02	20.99		
10	64QAM	25	0	19.94	20.00	19.95	21	3
10	64QAM	25	12	20.01	19.97	19.97		
10	64QAM	25	25	20.00	20.00	19.95		
10	64QAM	50	0	20.01	19.93	19.95		
Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	22.88	22.89	22.80	24	0
5	QPSK	1	12	22.84	22.88	22.89		
5	QPSK	1	24	22.76	22.86	22.81		
5	QPSK	12	0	22.00	21.90	21.89	23	1
5	QPSK	12	7	21.95	22.02	21.90		
5	QPSK	12	13	21.96	21.97	21.94		
5	QPSK	25	0	21.99	21.91	21.83		
5	16QAM	1	0	22.34	22.23	22.18	23	1
5	16QAM	1	12	22.25	22.16	22.14		
5	16QAM	1	24	22.29	22.22	22.18		
5	16QAM	12	0	21.03	20.95	20.90	22	2
5	16QAM	12	7	20.99	21.03	20.90		
5	16QAM	12	13	21.00	21.01	20.95		
5	16QAM	25	0	21.00	20.94	20.85		
5	64QAM	1	0	21.22	21.19	21.07	22	2
5	64QAM	1	12	21.05	21.15	20.91		
5	64QAM	1	24	21.11	21.18	21.08		
5	64QAM	12	0	20.02	19.94	19.89	21	3
5	64QAM	12	7	20.01	19.99	19.88		
5	64QAM	12	13	19.99	20.01	19.93		
5	64QAM	25	0	19.98	19.91	19.82		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	22.90	22.91	22.84	24	0
3	QPSK	1	8	22.87	22.82	22.86		
3	QPSK	1	14	22.85	22.80	22.80		
3	QPSK	8	0	21.93	21.88	21.90	23	1

3	QPSK	8	4	21.96	21.98	21.92		
3	QPSK	8	7	21.91	21.91	21.87		
3	QPSK	15	0	21.91	21.86	21.92		
3	16QAM	1	0	22.22	22.13	22.19	23	1
3	16QAM	1	8	22.27	22.28	22.24		
3	16QAM	1	14	22.20	22.16	22.14		
3	16QAM	8	0	20.98	20.95	20.98	22	2
3	16QAM	8	4	21.01	21.05	20.98		
3	16QAM	8	7	20.95	20.95	20.93		
3	16QAM	15	0	20.94	20.91	20.91		
3	64QAM	1	0	21.08	21.02	21.12	22	2
3	64QAM	1	8	21.18	21.24	21.11		
3	64QAM	1	14	21.18	21.14	20.99		
3	64QAM	8	0	19.98	19.92	19.98	21	3
3	64QAM	8	4	19.94	19.94	19.99		
3	64QAM	8	7	19.98	20.00	19.91		
3	64QAM	15	0	19.94	19.87	19.93		
Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	22.73	22.70	22.66	24	0
1.4	QPSK	1	3	22.83	22.80	22.75		
1.4	QPSK	1	5	22.70	22.72	22.74		
1.4	QPSK	3	0	22.80	22.74	22.72		
1.4	QPSK	3	1	22.82	22.81	22.74		
1.4	QPSK	3	3	22.78	22.79	22.74		
1.4	QPSK	6	0	21.50	21.80	21.77	23	1
1.4	16QAM	1	0	22.14	22.09	22.04	23	1
1.4	16QAM	1	3	22.19	22.09	22.11		
1.4	16QAM	1	5	22.13	22.06	22.01		
1.4	16QAM	3	0	21.86	21.92	21.81		
1.4	16QAM	3	1	21.91	21.78	21.82		
1.4	16QAM	3	3	21.85	21.84	21.77		
1.4	16QAM	6	0	20.56	20.85	20.83	22	2
1.4	64QAM	1	0	20.99	20.99	20.94	22	2
1.4	64QAM	1	3	21.01	21.07	20.91		
1.4	64QAM	1	5	20.99	20.95	20.89		
1.4	64QAM	3	0	20.96	20.88	20.84		
1.4	64QAM	3	1	20.92	20.92	20.82		
1.4	64QAM	3	3	20.87	20.90	20.85		
1.4	64QAM	6	0	19.85	19.76	19.78	21	3

<LTE Band 7 Ant.2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	23.32	23.37	23.28	24	0
20	QPSK	1	49	23.31	23.33	23.35		
20	QPSK	1	99	23.26	23.36	23.29		
20	QPSK	50	0	22.35	22.52	22.40	23	1
20	QPSK	50	24	22.50	22.41	22.44		
20	QPSK	50	50	22.47	22.50	22.36		
20	QPSK	100	0	22.37	22.46	22.41		
20	16QAM	1	0	22.48	22.55	22.53	23	1
20	16QAM	1	49	22.60	22.66	22.68		
20	16QAM	1	99	22.63	22.72	22.73		
20	16QAM	50	0	21.35	21.36	21.38	22	2
20	16QAM	50	24	21.49	21.40	21.43		
20	16QAM	50	50	21.46	21.50	21.51		
20	16QAM	100	0	21.46	21.39	21.43		
20	64QAM	1	0	21.39	21.36	21.34	22	2
20	64QAM	1	49	21.42	21.46	21.48		
20	64QAM	1	99	21.48	21.54	21.60		
20	64QAM	50	0	20.34	20.35	20.39	21	3
20	64QAM	50	24	20.47	20.40	20.43		
20	64QAM	50	50	20.45	20.46	20.51		
20	64QAM	100	0	20.46	20.39	20.42		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	23.26	23.34	23.20	24	0
15	QPSK	1	37	23.17	23.18	23.29		
15	QPSK	1	74	23.24	23.23	23.20		
15	QPSK	36	0	22.28	22.36	22.24	23	1
15	QPSK	36	20	22.35	22.29	22.32		
15	QPSK	36	39	22.42	22.38	22.22		
15	QPSK	75	0	22.27	22.44	22.29		
15	16QAM	1	0	22.40	22.40	22.45	23	1
15	16QAM	1	37	22.56	22.60	22.55		
15	16QAM	1	74	22.61	22.65	22.60		
15	16QAM	36	0	21.31	21.27	21.23	22	2
15	16QAM	36	20	21.41	21.35	21.40		
15	16QAM	36	39	21.36	21.34	21.46		
15	16QAM	75	0	21.34	21.32	21.36		
15	64QAM	1	0	21.27	21.21	21.25	22	2
15	64QAM	1	37	21.37	21.42	21.39		
15	64QAM	1	74	21.35	21.42	21.43		
15	64QAM	36	0	20.31	20.30	20.34	21	3
15	64QAM	36	20	20.38	20.22	20.35		
15	64QAM	36	39	20.38	20.34	20.45		
15	64QAM	75	0	20.33	20.23	20.26		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	23.15	23.25	23.11	24	0
10	QPSK	1	25	23.25	23.20	23.32		
10	QPSK	1	49	23.11	23.18	23.15		
10	QPSK	25	0	22.26	22.46	22.31	23	1

10	QPSK	25	12	22.38	22.32	22.40		
10	QPSK	25	25	22.34	22.43	22.27		
10	QPSK	50	0	22.26	22.39	22.37		
10	16QAM	1	0	22.33	22.38	22.50	23	1
10	16QAM	1	25	22.55	22.49	22.56		
10	16QAM	1	49	22.52	22.70	22.60		
10	16QAM	25	0	21.32	21.26	21.33	22	2
10	16QAM	25	12	21.43	21.30	21.27		
10	16QAM	25	25	21.35	21.35	21.49		
10	16QAM	50	0	21.42	21.26	21.28		
10	64QAM	1	0	21.36	21.24	21.32	22	2
10	64QAM	1	25	21.33	21.38	21.33		
10	64QAM	1	49	21.44	21.37	21.45		
10	64QAM	25	0	20.22	20.30	20.28	21	3
10	64QAM	25	12	20.33	20.37	20.34		
10	64QAM	25	25	20.33	20.41	20.44		
10	64QAM	50	0	20.41	20.28	20.39		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	23.30	23.23	23.14	24	0
5	QPSK	1	12	23.15	23.28	23.22		
5	QPSK	1	24	23.22	23.32	23.14		
5	QPSK	12	0	22.20	22.45	22.31	23	1
5	QPSK	12	7	22.42	22.26	22.35		
5	QPSK	12	13	22.42	22.44	22.23		
5	QPSK	25	0	22.26	22.37	22.32		
5	16QAM	1	0	22.33	22.48	22.45	23	1
5	16QAM	1	12	22.49	22.61	22.61		
5	16QAM	1	24	22.61	22.61	22.64		
5	16QAM	12	0	21.25	21.31	21.31	22	2
5	16QAM	12	7	21.42	21.32	21.29		
5	16QAM	12	13	21.42	21.45	21.38		
5	16QAM	25	0	21.33	21.33	21.27		
5	64QAM	1	0	21.30	21.26	21.16	22	2
5	64QAM	1	12	21.39	21.37	21.31		
5	64QAM	1	24	21.40	21.39	21.54		
5	64QAM	12	0	20.19	20.28	20.30	21	3
5	64QAM	12	7	20.30	20.30	20.27		
5	64QAM	12	13	20.32	20.35	20.43		
5	64QAM	25	0	20.43	20.25	20.27		

Reduced Power Mode for DSI 1

<LTE Band 2 Ant.0>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				18700	18900	19100		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	20.64	20.66	20.58	21.7	0
20	QPSK	1	49	20.37	20.53	20.43		
20	QPSK	1	99	20.42	20.56	20.46		
20	QPSK	50	0	20.46	20.65	20.48	21.7	0
20	QPSK	50	24	20.42	20.53	20.46		
20	QPSK	50	50	20.35	20.46	20.40		
20	QPSK	100	0	20.31	20.47	20.36		
20	16QAM	1	0	20.50	20.58	20.52	21.7	0
20	16QAM	1	49	20.40	20.53	20.43		
20	16QAM	1	99	20.35	20.50	20.45		
20	16QAM	50	0	20.51	20.58	20.59	21.7	0
20	16QAM	50	24	20.50	20.58	20.60		
20	16QAM	50	50	20.50	20.48	20.49		
20	16QAM	100	0	20.57	20.50	20.55		
20	64QAM	1	0	20.54	20.60	20.56	21.7	0
20	64QAM	1	49	20.54	20.46	20.55		
20	64QAM	1	99	20.48	20.56	20.43		
20	64QAM	50	0	19.54	19.66	19.66	21	0.7
20	64QAM	50	24	19.61	19.63	19.63		
20	64QAM	50	50	19.58	19.59	19.61		
20	64QAM	100	0	19.61	19.60	19.64		
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	20.35	20.57	20.53	21.7	0
15	QPSK	1	37	20.23	20.44	20.30		
15	QPSK	1	74	20.35	20.50	20.36		
15	QPSK	36	0	20.36	20.53	20.37	21.7	0
15	QPSK	36	20	20.37	20.43	20.34		
15	QPSK	36	39	20.25	20.38	20.30		
15	QPSK	75	0	20.21	20.43	20.30		
15	16QAM	1	0	20.42	20.50	20.40	21.7	0
15	16QAM	1	37	20.27	20.38	20.31		
15	16QAM	1	74	20.28	20.34	20.40		
15	16QAM	36	0	20.41	20.43	20.46	21.7	0
15	16QAM	36	20	20.38	20.51	20.46		
15	16QAM	36	39	20.41	20.36	20.36		
15	16QAM	75	0	20.46	20.38	20.47		
15	64QAM	1	0	20.42	20.53	20.42	21.7	0
15	64QAM	1	37	20.48	20.48	20.45		
15	64QAM	1	74	20.39	20.46	20.36		
15	64QAM	36	0	19.41	19.56	19.54	21	0.7
15	64QAM	36	20	19.53	19.55	19.58		
15	64QAM	36	39	19.43	19.53	19.53		
15	64QAM	75	0	19.50	19.53	19.49		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	20.35	20.48	20.43	21.7	0
10	QPSK	1	25	20.22	20.38	20.38		
10	QPSK	1	49	20.38	20.41	20.31		

10	QPSK	25	0	20.34	20.45	20.38	21.7	0
10	QPSK	25	12	20.32	20.43	20.38		
10	QPSK	25	25	20.30	20.35	20.34		
10	QPSK	50	0	20.23	20.33	20.28		
10	16QAM	1	0	20.44	20.46	20.47	21.7	0
10	16QAM	1	25	20.32	20.45	20.38		
10	16QAM	1	49	20.27	20.45	20.32		
10	16QAM	25	0	20.46	20.47	20.43	21.7	0
10	16QAM	25	12	20.43	20.43	20.52		
10	16QAM	25	25	20.41	20.33	20.33		
10	16QAM	50	0	20.42	20.37	20.49		
10	64QAM	1	0	20.43	20.55	20.47	21.7	0
10	64QAM	1	25	20.39	20.59	20.49		
10	64QAM	1	49	20.41	20.43	20.32		
10	64QAM	25	0	19.46	19.62	19.54	21	0.7
10	64QAM	25	12	19.48	19.58	19.48		
10	64QAM	25	25	19.43	19.47	19.51		
10	64QAM	50	0	19.52	19.55	19.54		
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	20.36	20.56	20.45	21.7	0
5	QPSK	1	12	20.33	20.39	20.32		
5	QPSK	1	24	20.37	20.49	20.36		
5	QPSK	12	0	20.41	20.49	20.40	21.7	0
5	QPSK	12	7	20.30	20.48	20.31		
5	QPSK	12	13	20.20	20.30	20.27		
5	QPSK	25	0	20.25	20.40	20.30		
5	16QAM	1	0	20.43	20.48	20.37	21.7	0
5	16QAM	1	12	20.27	20.48	20.33		
5	16QAM	1	24	20.29	20.42	20.36		
5	16QAM	12	0	20.42	20.44	20.52	21.7	0
5	16QAM	12	7	20.39	20.45	20.50		
5	16QAM	12	13	20.37	20.36	20.45		
5	16QAM	25	0	20.52	20.43	20.50		
5	64QAM	1	0	20.38	20.48	20.44	21.7	0
5	64QAM	1	12	20.45	20.53	20.41		
5	64QAM	1	24	20.43	20.47	20.27		
5	64QAM	12	0	19.45	19.52	19.58	21	0.7
5	64QAM	12	7	19.52	19.58	19.48		
5	64QAM	12	13	19.46	19.49	19.57		
5	64QAM	25	0	19.53	19.52	19.58		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	20.32	20.50	20.48	21.7	0
3	QPSK	1	8	20.30	20.45	20.36		
3	QPSK	1	14	20.33	20.46	20.36		
3	QPSK	8	0	20.31	20.49	20.35	21.7	0
3	QPSK	8	4	20.31	20.38	20.33		
3	QPSK	8	7	20.29	20.31	20.31		
3	QPSK	15	0	20.16	20.33	20.22		
3	16QAM	1	0	20.41	20.48	20.43	21.7	0
3	16QAM	1	8	20.26	20.44	20.31		
3	16QAM	1	14	20.26	20.37	20.40		
3	16QAM	8	0	20.43	20.47	20.54	21.7	0
3	16QAM	8	4	20.42	20.45	20.47		
3	16QAM	8	7	20.45	20.44	20.37		

3	16QAM	15	0	20.42	20.43	20.48		
3	64QAM	1	0	20.46	20.51	20.41	21.7	0
3	64QAM	1	8	20.41	20.60	20.47		
3	64QAM	1	14	20.32	20.41	20.32		
3	64QAM	8	0	19.45	19.59	19.58	21	0.7
3	64QAM	8	4	19.54	19.51	19.50		
3	64QAM	8	7	19.50	19.44	19.50		
3	64QAM	15	0	19.53	19.44	19.58		
Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	20.28	20.57	20.49	21.7	0
1.4	QPSK	1	3	20.23	20.47	20.28		
1.4	QPSK	1	5	20.36	20.49	20.35		
1.4	QPSK	3	0	20.30	20.56	20.45		
1.4	QPSK	3	1	20.23	20.45	20.35		
1.4	QPSK	3	3	20.32	20.50	20.36		
1.4	QPSK	6	0	20.38	20.45	20.37	21.7	0
1.4	16QAM	1	0	20.29	20.48	20.36	21.7	0
1.4	16QAM	1	3	20.31	20.31	20.34		
1.4	16QAM	1	5	20.15	20.43	20.29		
1.4	16QAM	3	0	20.36	20.46	20.46		
1.4	16QAM	3	1	20.33	20.47	20.33		
1.4	16QAM	3	3	20.27	20.35	20.39		
1.4	16QAM	6	0	20.54	20.43	20.51	21.7	0
1.4	64QAM	1	0	20.48	20.53	20.52	21.7	0
1.4	64QAM	1	3	20.60	20.61	20.49		
1.4	64QAM	1	5	20.55	20.60	20.44		
1.4	64QAM	3	0	20.43	20.49	20.59		
1.4	64QAM	3	1	20.45	20.56	20.49		
1.4	64QAM	3	3	20.41	20.51	20.51		
1.4	64QAM	6	0	19.55	19.56	19.59	21	0.7

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20050	20175	20300		
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	22.46	22.63	22.56	24	0
20	QPSK	1	49	22.40	22.48	22.58		
20	QPSK	1	99	22.39	22.45	22.50		
20	QPSK	50	0	21.51	21.68	21.64	23	1
20	QPSK	50	24	21.59	21.56	21.63		
20	QPSK	50	50	21.54	21.60	21.67		
20	QPSK	100	0	21.57	21.62	21.61		
20	16QAM	1	0	21.80	21.88	22.10	23	1
20	16QAM	1	49	21.77	21.85	21.90		
20	16QAM	1	99	21.73	21.81	21.90		
20	16QAM	50	0	20.54	20.57	20.65	22	2
20	16QAM	50	24	20.62	20.58	20.67		
20	16QAM	50	50	20.54	20.60	20.68		
20	16QAM	100	0	20.58	20.63	20.64		
20	64QAM	1	0	20.69	20.73	20.78	22	2
20	64QAM	1	49	20.68	20.71	20.85		
20	64QAM	1	99	20.63	20.74	20.82		
20	64QAM	50	0	19.54	19.57	19.64	21	3
20	64QAM	50	24	19.59	19.58	19.66		
20	64QAM	50	50	19.55	19.60	19.63		
20	64QAM	100	0	19.57	19.63	19.56		
Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	22.35	22.56	22.51	24	0
15	QPSK	1	37	22.32	22.31	22.56		
15	QPSK	1	74	22.39	22.39	22.48		
15	QPSK	36	0	21.51	21.52	21.57	23	1
15	QPSK	36	20	21.52	21.39	21.52		
15	QPSK	36	39	21.53	21.46	21.50		
15	QPSK	75	0	21.45	21.43	21.45		
15	16QAM	1	0	21.65	21.76	21.90	23	1
15	16QAM	1	37	21.62	21.76	21.74		
15	16QAM	1	74	21.63	21.70	21.76		
15	16QAM	36	0	20.35	20.41	20.54	22	2
15	16QAM	36	20	20.54	20.40	20.49		
15	16QAM	36	39	20.52	20.55	20.66		
15	16QAM	75	0	20.46	20.57	20.51		
15	64QAM	1	0	20.53	20.67	20.72	22	2
15	64QAM	1	37	20.57	20.66	20.75		
15	64QAM	1	74	20.44	20.59	20.66		
15	64QAM	36	0	19.39	19.38	19.48	21	3
15	64QAM	36	20	19.45	19.47	19.52		
15	64QAM	36	39	19.50	19.47	19.61		
15	64QAM	75	0	19.56	19.52	19.47		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	22.38	22.53	22.45	24	0
10	QPSK	1	25	22.22	22.44	22.41		
10	QPSK	1	49	22.20	22.42	22.41		
10	QPSK	25	0	21.44	21.68	21.54	23	1

10	QPSK	25	12	21.46	21.46	21.61		
10	QPSK	25	25	21.41	21.55	21.64		
10	QPSK	50	0	21.39	21.59	21.49		
10	16QAM	1	0	21.73	21.78	21.89	23	1
10	16QAM	1	25	21.65	21.84	21.77		
10	16QAM	1	49	21.59	21.77	21.90		
10	16QAM	25	0	20.39	20.46	20.51	22	2
10	16QAM	25	12	20.48	20.42	20.53		
10	16QAM	25	25	20.48	20.58	20.55		
10	16QAM	50	0	20.44	20.61	20.48		
10	64QAM	1	0	20.65	20.71	20.64	22	2
10	64QAM	1	25	20.67	20.64	20.70		
10	64QAM	1	49	20.58	20.62	20.66		
10	64QAM	25	0	19.40	19.50	19.50	21	3
10	64QAM	25	12	19.56	19.57	19.49		
10	64QAM	25	25	19.46	19.44	19.49		
10	64QAM	50	0	19.43	19.62	19.54		
Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	22.44	22.48	22.44	24	0
5	QPSK	1	12	22.39	22.38	22.49		
5	QPSK	1	24	22.32	22.36	22.42		
5	QPSK	12	0	21.45	21.52	21.62	23	1
5	QPSK	12	7	21.50	21.48	21.47		
5	QPSK	12	13	21.46	21.60	21.63		
5	QPSK	25	0	21.41	21.56	21.48		
5	16QAM	1	0	21.63	21.72	21.88	23	1
5	16QAM	1	12	21.61	21.78	21.74		
5	16QAM	1	24	21.69	21.76	21.72		
5	16QAM	12	0	20.37	20.55	20.60	22	2
5	16QAM	12	7	20.44	20.39	20.56		
5	16QAM	12	13	20.44	20.48	20.65		
5	16QAM	25	0	20.40	20.52	20.47		
5	64QAM	1	0	20.59	20.55	20.72	22	2
5	64QAM	1	12	20.65	20.70	20.80		
5	64QAM	1	24	20.48	20.72	20.71		
5	64QAM	12	0	19.35	19.46	19.60	21	3
5	64QAM	12	7	19.56	19.44	19.47		
5	64QAM	12	13	19.51	19.42	19.49		
5	64QAM	25	0	19.40	19.47	19.43		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	22.26	22.46	22.36	24	0
3	QPSK	1	8	22.26	22.42	22.46		
3	QPSK	1	14	22.22	22.31	22.32		
3	QPSK	8	0	21.35	21.63	21.49	23	1
3	QPSK	8	4	21.43	21.54	21.43		
3	QPSK	8	7	21.53	21.48	21.57		
3	QPSK	15	0	21.43	21.55	21.52		
3	16QAM	1	0	21.70	21.80	21.79	23	1
3	16QAM	1	8	21.67	21.68	21.89		
3	16QAM	1	14	21.69	21.79	21.78		
3	16QAM	8	0	20.37	20.51	20.56	22	2
3	16QAM	8	4	20.57	20.48	20.49		
3	16QAM	8	7	20.37	20.52	20.50		
3	16QAM	15	0	20.45	20.59	20.59		

3	64QAM	1	0	20.60	20.70	20.58	22	2
3	64QAM	1	8	20.51	20.68	20.65		
3	64QAM	1	14	20.61	20.58	20.63		
3	64QAM	8	0	19.48	19.48	19.58	21	3
3	64QAM	8	4	19.40	19.52	19.66		
3	64QAM	8	7	19.49	19.41	19.44		
3	64QAM	15	0	19.54	19.51	19.53		
Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	22.49	22.51	22.51	24	0
1.4	QPSK	1	3	22.47	22.41	22.47		
1.4	QPSK	1	5	22.40	22.52	22.46		
1.4	QPSK	3	0	22.47	22.58	22.51		
1.4	QPSK	3	1	22.50	22.53	22.52		
1.4	QPSK	3	3	22.45	22.58	22.48		
1.4	QPSK	6	0	21.54	21.62	21.72	23	1
1.4	16QAM	1	0	21.79	21.89	21.99	23	1
1.4	16QAM	1	3	21.84	21.88	21.92		
1.4	16QAM	1	5	21.79	21.88	21.95		
1.4	16QAM	3	0	21.54	21.71	21.82		
1.4	16QAM	3	1	21.63	21.75	21.92		
1.4	16QAM	3	3	21.53	21.67	21.88		
1.4	16QAM	6	0	20.57	20.69	20.79	22	2
1.4	64QAM	1	0	20.69	20.74	20.79	22	2
1.4	64QAM	1	3	20.71	20.83	20.92		
1.4	64QAM	1	5	20.67	20.72	20.85		
1.4	64QAM	3	0	20.59	20.71	20.83		
1.4	64QAM	3	1	20.60	20.74	20.84		
1.4	64QAM	3	3	20.59	20.71	20.79		
1.4	64QAM	6	0	19.54	19.62	19.74	21	3

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20450	20525	20600		
Frequency (MHz)				829	836.5	844		
10	QPSK	1	0	22.89	22.92	22.83	24	0
10	QPSK	1	25	22.87	22.83	22.82		
10	QPSK	1	49	22.80	22.80	22.75		
10	QPSK	25	0	21.97	22.07	21.94	23	1
10	QPSK	25	12	21.94	21.97	21.96		
10	QPSK	25	25	21.97	22.01	21.98		
10	QPSK	50	0	21.99	22.01	21.92		
10	16QAM	1	0	22.22	22.21	22.23	23	1
10	16QAM	1	25	22.35	22.19	22.20		
10	16QAM	1	49	22.18	22.19	22.13		
10	16QAM	25	0	20.98	21.00	20.98	22	2
10	16QAM	25	12	21.04	20.96	20.98		
10	16QAM	25	25	21.01	21.00	20.94		
10	16QAM	50	0	21.03	20.95	20.91		
10	64QAM	1	0	21.16	21.07	21.16	22	2
10	64QAM	1	25	21.07	21.01	21.02		
10	64QAM	1	49	21.05	21.02	20.99		
10	64QAM	25	0	19.94	20.00	19.95	21	3
10	64QAM	25	12	20.01	19.97	19.97		
10	64QAM	25	25	20.00	20.00	19.95		
10	64QAM	50	0	20.01	19.93	19.95		
Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	22.88	22.89	22.80	24	0
5	QPSK	1	12	22.84	22.88	22.89		
5	QPSK	1	24	22.76	22.86	22.81		
5	QPSK	12	0	22.00	21.90	21.89	23	1
5	QPSK	12	7	21.95	22.02	21.90		
5	QPSK	12	13	21.96	21.97	21.94		
5	QPSK	25	0	21.99	21.91	21.83		
5	16QAM	1	0	22.34	22.23	22.18	23	1
5	16QAM	1	12	22.25	22.16	22.14		
5	16QAM	1	24	22.29	22.22	22.18		
5	16QAM	12	0	21.03	20.95	20.90	22	2
5	16QAM	12	7	20.99	21.03	20.90		
5	16QAM	12	13	21.00	21.01	20.95		
5	16QAM	25	0	21.00	20.94	20.85		
5	64QAM	1	0	21.22	21.19	21.07	22	2
5	64QAM	1	12	21.05	21.15	20.91		
5	64QAM	1	24	21.11	21.18	21.08		
5	64QAM	12	0	20.02	19.94	19.89	21	3
5	64QAM	12	7	20.01	19.99	19.88		
5	64QAM	12	13	19.99	20.01	19.93		
5	64QAM	25	0	19.98	19.91	19.82		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	22.90	22.91	22.84	24	0
3	QPSK	1	8	22.87	22.82	22.86		
3	QPSK	1	14	22.85	22.80	22.80		
3	QPSK	8	0	21.93	21.88	21.90	23	1

3	QPSK	8	4	21.96	21.98	21.92		
3	QPSK	8	7	21.91	21.91	21.87		
3	QPSK	15	0	21.91	21.86	21.92		
3	16QAM	1	0	22.22	22.13	22.19	23	1
3	16QAM	1	8	22.27	22.28	22.24		
3	16QAM	1	14	22.20	22.16	22.14		
3	16QAM	8	0	20.98	20.95	20.98	22	2
3	16QAM	8	4	21.01	21.05	20.98		
3	16QAM	8	7	20.95	20.95	20.93		
3	16QAM	15	0	20.94	20.91	20.91		
3	64QAM	1	0	21.08	21.02	21.12	22	2
3	64QAM	1	8	21.18	21.24	21.11		
3	64QAM	1	14	21.18	21.14	20.99		
3	64QAM	8	0	19.98	19.92	19.98	21	3
3	64QAM	8	4	19.94	19.94	19.99		
3	64QAM	8	7	19.98	20.00	19.91		
3	64QAM	15	0	19.94	19.87	19.93		
Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	22.73	22.70	22.66	24	0
1.4	QPSK	1	3	22.83	22.80	22.75		
1.4	QPSK	1	5	22.70	22.72	22.74		
1.4	QPSK	3	0	22.80	22.74	22.72		
1.4	QPSK	3	1	22.82	22.81	22.74		
1.4	QPSK	3	3	22.78	22.79	22.74		
1.4	QPSK	6	0	21.50	21.80	21.77	23	1
1.4	16QAM	1	0	22.14	22.09	22.04	23	1
1.4	16QAM	1	3	22.19	22.09	22.11		
1.4	16QAM	1	5	22.13	22.06	22.01		
1.4	16QAM	3	0	21.86	21.92	21.81		
1.4	16QAM	3	1	21.91	21.78	21.82		
1.4	16QAM	3	3	21.85	21.84	21.77		
1.4	16QAM	6	0	20.56	20.85	20.83	22	2
1.4	64QAM	1	0	20.99	20.99	20.94	22	2
1.4	64QAM	1	3	21.01	21.07	20.91		
1.4	64QAM	1	5	20.99	20.95	20.89		
1.4	64QAM	3	0	20.96	20.88	20.84		
1.4	64QAM	3	1	20.92	20.92	20.82		
1.4	64QAM	3	3	20.87	20.90	20.85		
1.4	64QAM	6	0	19.85	19.76	19.78	21	3

<LTE Band 7 Ant.2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	22.32	22.52	22.35	23.3	0
20	QPSK	1	49	22.48	22.39	22.34		
20	QPSK	1	99	22.44	22.49	22.49		
20	QPSK	50	0	21.34	21.70	21.51	23	0.3
20	QPSK	50	24	21.61	21.43	21.53		
20	QPSK	50	50	21.59	21.65	21.42		
20	QPSK	100	0	21.55	21.61	21.52		
20	16QAM	1	0	21.48	21.68	21.70	23	0.3
20	16QAM	1	49	21.64	21.69	21.79		
20	16QAM	1	99	21.76	21.71	21.80		
20	16QAM	50	0	20.35	20.48	20.59	22	1.3
20	16QAM	50	24	20.69	20.59	20.45		
20	16QAM	50	50	20.61	20.50	20.56		
20	16QAM	100	0	20.65	20.42	20.63		
20	64QAM	1	0	20.56	20.35	20.45	22	1.3
20	64QAM	1	49	20.48	20.66	20.60		
20	64QAM	1	99	20.51	20.55	20.67		
20	64QAM	50	0	19.36	19.45	19.54	21	2.3
20	64QAM	50	24	19.69	19.54	19.50		
20	64QAM	50	50	19.58	19.63	19.72		
20	64QAM	100	0	19.61	19.53	19.55		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	22.39	22.45	22.29	23.3	0
15	QPSK	1	37	22.24	22.17	22.42		
15	QPSK	1	74	22.25	22.44	22.24		
15	QPSK	36	0	21.34	21.58	21.45	23	0.3
15	QPSK	36	20	21.35	21.45	21.43		
15	QPSK	36	39	21.45	21.49	21.38		
15	QPSK	75	0	21.34	21.66	21.38		
15	16QAM	1	0	21.54	21.57	21.44	23	0.3
15	16QAM	1	37	21.64	21.79	21.59		
15	16QAM	1	74	21.80	21.83	21.69		
15	16QAM	36	0	20.31	20.28	20.23	22	1.3
15	16QAM	36	20	20.42	20.34	20.62		
15	16QAM	36	39	20.46	20.37	20.52		
15	16QAM	75	0	20.41	20.50	20.40		
15	64QAM	1	0	20.32	20.24	20.35	22	1.3
15	64QAM	1	37	20.51	20.61	20.60		
15	64QAM	1	74	20.38	20.47	20.57		
15	64QAM	36	0	19.43	19.45	19.55	21	2.3
15	64QAM	36	20	19.56	19.24	19.52		
15	64QAM	36	39	19.51	19.52	19.65		
15	64QAM	75	0	19.54	19.21	19.33		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	22.20	22.39	22.15	23.3	0
10	QPSK	1	25	22.35	22.25	22.44		
10	QPSK	1	49	22.10	22.16	22.20		
10	QPSK	25	0	21.32	21.44	21.40	23	0.3

10	QPSK	25	12	21.50	21.38	21.42		
10	QPSK	25	25	21.54	21.43	21.35		
10	QPSK	50	0	21.25	21.54	21.36		
10	16QAM	1	0	21.38	21.54	21.66		
10	16QAM	1	25	21.67	21.70	21.65	23	0.3
10	16QAM	1	49	21.67	21.70	21.77		
10	16QAM	25	0	20.49	20.42	20.38		
10	16QAM	25	12	20.62	20.37	20.33	22	1.3
10	16QAM	25	25	20.33	20.39	20.66		
10	16QAM	50	0	20.43	20.35	20.41		
10	64QAM	1	0	20.40	20.43	20.52		
10	64QAM	1	25	20.49	20.57	20.43	22	1.3
10	64QAM	1	49	20.62	20.39	20.65		
10	64QAM	25	0	19.27	19.32	19.27		
10	64QAM	25	12	19.52	19.38	19.43	21	2.3
10	64QAM	25	25	19.42	19.52	19.49		
10	64QAM	50	0	19.45	19.42	19.53		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	22.46	22.27	22.22		
5	QPSK	1	12	22.21	22.34	22.22	23.3	0
5	QPSK	1	24	22.32	22.39	22.18		
5	QPSK	12	0	21.39	21.55	21.51		
5	QPSK	12	7	21.63	21.25	21.34	23	0.3
5	QPSK	12	13	21.47	21.52	21.30		
5	QPSK	25	0	21.31	21.47	21.48		
5	16QAM	1	0	21.35	21.59	21.44		
5	16QAM	1	12	21.66	21.75	21.82	23	0.3
5	16QAM	1	24	21.68	21.79	21.81		
5	16QAM	12	0	20.24	20.49	20.36		
5	16QAM	12	7	20.42	20.46	20.29	22	1.3
5	16QAM	12	13	20.63	20.60	20.38		
5	16QAM	25	0	20.49	20.44	20.49		
5	64QAM	1	0	20.39	20.32	20.29		
5	64QAM	1	12	20.55	20.48	20.33	22	1.3
5	64QAM	1	24	20.55	20.53	20.75		
5	64QAM	12	0	19.28	19.39	19.52		
5	64QAM	12	7	19.51	19.34	19.27	21	2.3
5	64QAM	12	13	19.39	19.57	19.50		
5	64QAM	25	0	19.48	19.23	19.33		

Reduced Power Mode for DSI 2

<LTE Band 2 Ant.0>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				18700	18900	19100		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	18.07	18.08	18.03	19.3	0
20	QPSK	1	49	17.99	18.06	17.95		
20	QPSK	1	99	17.93	18.05	17.99		
20	QPSK	50	0	17.97	18.04	17.91	19.3	0
20	QPSK	50	24	17.91	18.01	17.91		
20	QPSK	50	50	17.93	18.00	17.88		
20	QPSK	100	0	17.87	17.98	17.89		
20	16QAM	1	0	17.87	17.97	17.83	19.3	0
20	16QAM	1	49	17.83	17.96	17.88		
20	16QAM	1	99	17.84	17.95	17.85		
20	16QAM	50	0	17.82	17.93	17.85	19.3	0
20	16QAM	50	24	17.78	17.92	17.88		
20	16QAM	50	50	17.83	17.90	17.84		
20	16QAM	100	0	17.76	17.87	17.81		
20	64QAM	1	0	17.77	17.87	17.74	19.3	0
20	64QAM	1	49	17.76	17.86	17.78		
20	64QAM	1	99	17.79	17.83	17.73		
20	64QAM	50	0	17.65	17.79	17.63	19.3	0
20	64QAM	50	24	17.65	17.75	17.61		
20	64QAM	50	50	17.63	17.69	17.60		
20	64QAM	100	0	17.59	17.60	17.55		
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	17.85	17.94	17.99	19.3	0
15	QPSK	1	37	17.83	18.00	17.84		
15	QPSK	1	74	17.80	17.97	17.87		
15	QPSK	36	0	17.83	17.94	17.77	19.3	0
15	QPSK	36	20	17.81	17.95	17.85		
15	QPSK	36	39	17.88	17.89	17.83		
15	QPSK	75	0	17.83	17.93	17.77		
15	16QAM	1	0	17.81	17.88	17.73	19.3	0
15	16QAM	1	37	17.69	17.89	17.79		
15	16QAM	1	74	17.69	17.85	17.71		
15	16QAM	36	0	17.69	17.80	17.70	19.3	0
15	16QAM	36	20	17.72	17.81	17.76		
15	16QAM	36	39	17.75	17.80	17.78		
15	16QAM	75	0	17.67	17.82	17.71		
15	64QAM	1	0	17.66	17.80	17.67	19.3	0
15	64QAM	1	37	17.64	17.82	17.65		
15	64QAM	1	74	17.74	17.71	17.66		
15	64QAM	36	0	17.60	17.65	17.54	19.3	0
15	64QAM	36	20	17.59	17.65	17.46		
15	64QAM	36	39	17.53	17.57	17.50		
15	64QAM	75	0	17.43	17.53	17.47		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	17.88	17.97	17.90	19.3	0
10	QPSK	1	25	17.89	17.99	17.84		
10	QPSK	1	49	17.89	18.00	17.87		

10	QPSK	25	0	17.85	17.89	17.79	19.3	0
10	QPSK	25	12	17.77	17.92	17.83		
10	QPSK	25	25	17.84	17.96	17.82		
10	QPSK	50	0	17.80	17.83	17.79		
10	16QAM	1	0	17.73	17.90	17.77	19.3	0
10	16QAM	1	25	17.74	17.90	17.74		
10	16QAM	1	49	17.70	17.80	17.77		
10	16QAM	25	0	17.77	17.86	17.78	19.3	0
10	16QAM	25	12	17.64	17.80	17.77		
10	16QAM	25	25	17.78	17.78	17.75		
10	16QAM	50	0	17.67	17.73	17.68		
10	64QAM	1	0	17.69	17.81	17.63	19.3	0
10	64QAM	1	25	17.60	17.73	17.69		
10	64QAM	1	49	17.68	17.73	17.61		
10	64QAM	25	0	17.61	17.70	17.52	19.3	0
10	64QAM	25	12	17.57	17.61	17.48		
10	64QAM	25	25	17.55	17.58	17.53		
10	64QAM	50	0	17.48	17.51	17.48		
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	17.93	17.99	17.94	19.3	0
5	QPSK	1	12	17.92	17.98	17.80		
5	QPSK	1	24	17.84	17.89	17.87		
5	QPSK	12	0	17.81	17.90	17.77	19.3	0
5	QPSK	12	7	17.83	17.89	17.79		
5	QPSK	12	13	17.78	17.90	17.81		
5	QPSK	25	0	17.75	17.86	17.76		
5	16QAM	1	0	17.72	17.91	17.73	19.3	0
5	16QAM	1	12	17.67	17.91	17.83		
5	16QAM	1	24	17.69	17.91	17.71		
5	16QAM	12	0	17.68	17.86	17.74	19.3	0
5	16QAM	12	7	17.64	17.77	17.83		
5	16QAM	12	13	17.77	17.79	17.79		
5	16QAM	25	0	17.71	17.78	17.69		
5	64QAM	1	0	17.64	17.78	17.68	19.3	0
5	64QAM	1	12	17.69	17.78	17.66		
5	64QAM	1	24	17.68	17.68	17.68		
5	64QAM	12	0	17.58	17.65	17.49	19.3	0
5	64QAM	12	7	17.58	17.64	17.52		
5	64QAM	12	13	17.59	17.55	17.51		
5	64QAM	25	0	17.45	17.55	17.46		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	17.82	17.96	17.92	19.3	0
3	QPSK	1	8	17.94	18.00	17.82		
3	QPSK	1	14	17.86	17.90	17.89		
3	QPSK	8	0	17.87	17.90	17.84	19.3	0
3	QPSK	8	4	17.86	17.96	17.79		
3	QPSK	8	7	17.86	17.88	17.80		
3	QPSK	15	0	17.83	17.92	17.83		
3	16QAM	1	0	17.81	17.89	17.77	19.3	0
3	16QAM	1	8	17.72	17.89	17.73		
3	16QAM	1	14	17.76	17.82	17.72		
3	16QAM	8	0	17.72	17.84	17.79	19.3	0
3	16QAM	8	4	17.72	17.83	17.73		
3	16QAM	8	7	17.77	17.81	17.74		

3	16QAM	15	0	17.71	17.82	17.76		
3	64QAM	1	0	17.66	17.72	17.62	19.3	0
3	64QAM	1	8	17.72	17.82	17.65		
3	64QAM	1	14	17.69	17.79	17.61		
3	64QAM	8	0	17.59	17.63	17.55	19.3	0
3	64QAM	8	4	17.50	17.69	17.51		
3	64QAM	8	7	17.58	17.55	17.54		
3	64QAM	15	0	17.49	17.51	17.47		
Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	17.87	17.93	17.95	19.3	0
1.4	QPSK	1	3	17.85	17.91	17.84		
1.4	QPSK	1	5	17.83	17.96	17.90		
1.4	QPSK	3	0	17.87	17.90	17.83		
1.4	QPSK	3	1	17.82	17.88	17.84		
1.4	QPSK	3	3	17.88	17.89	17.79		
1.4	QPSK	6	0	17.77	17.83	17.83	19.3	0
1.4	16QAM	1	0	17.74	17.82	17.72	19.3	0
1.4	16QAM	1	3	17.68	17.81	17.82		
1.4	16QAM	1	5	17.77	17.81	17.77		
1.4	16QAM	3	0	17.71	17.88	17.78		
1.4	16QAM	3	1	17.63	17.82	17.83		
1.4	16QAM	3	3	17.75	17.79	17.68		
1.4	16QAM	6	0	17.71	17.77	17.70	19.3	0
1.4	64QAM	1	0	17.68	17.77	17.65	19.3	0
1.4	64QAM	1	3	17.61	17.81	17.71		
1.4	64QAM	1	5	17.65	17.76	17.59		
1.4	64QAM	3	0	17.60	17.74	17.48		
1.4	64QAM	3	1	17.57	17.71	17.53		
1.4	64QAM	3	3	17.57	17.63	17.55		
1.4	64QAM	6	0	17.45	17.44	17.42	19.3	0

<LTE Band 4 Ant.0>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20050	20175	20300		
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	21.24	21.36	21.30	22.6	0
20	QPSK	1	49	21.10	21.13	21.28		
20	QPSK	1	99	21.16	21.18	21.30		
20	QPSK	50	0	21.08	21.22	21.15	22.6	0
20	QPSK	50	24	21.04	21.11	21.05		
20	QPSK	50	50	20.91	21.06	20.95		
20	QPSK	100	0	21.08	21.19	21.03		
20	16QAM	1	0	21.31	21.25	21.32	22.6	0
20	16QAM	1	49	21.11	21.17	21.11		
20	16QAM	1	99	21.16	21.21	21.09		
20	16QAM	50	0	20.54	20.57	20.65	22	0.6
20	16QAM	50	24	20.62	20.58	20.67		
20	16QAM	50	50	20.54	20.60	20.68		
20	16QAM	100	0	20.58	20.63	20.64		
20	64QAM	1	0	20.69	20.73	20.78	22	0.6
20	64QAM	1	49	20.68	20.71	20.85		
20	64QAM	1	99	20.63	20.74	20.82		
20	64QAM	50	0	19.54	19.57	19.64	21	1.6
20	64QAM	50	24	19.59	19.58	19.66		
20	64QAM	50	50	19.55	19.60	19.63		
20	64QAM	100	0	19.57	19.63	19.56		
Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	21.01	21.16	21.04	22.6	0
15	QPSK	1	37	20.90	21.04	20.98		
15	QPSK	1	74	20.94	21.13	20.93		
15	QPSK	36	0	20.94	21.14	21.07	22.6	0
15	QPSK	36	20	20.89	21.01	20.97		
15	QPSK	36	39	20.86	20.96	20.86		
15	QPSK	75	0	20.93	21.11	20.97		
15	16QAM	1	0	21.22	21.28	21.25	22.6	0
15	16QAM	1	37	21.06	21.02	21.03		
15	16QAM	1	74	21.08	21.09	21.05		
15	16QAM	36	0	20.35	20.41	20.54	22	0.6
15	16QAM	36	20	20.54	20.40	20.49		
15	16QAM	36	39	20.52	20.55	20.66		
15	16QAM	75	0	20.46	20.57	20.51		
15	64QAM	1	0	20.53	20.67	20.72	22	0.6
15	64QAM	1	37	20.57	20.66	20.75		
15	64QAM	1	74	20.44	20.59	20.66		
15	64QAM	36	0	19.39	19.38	19.48	21	1.6
15	64QAM	36	20	19.45	19.47	19.52		
15	64QAM	36	39	19.50	19.47	19.61		
15	64QAM	75	0	19.56	19.52	19.47		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	21.02	21.20	20.95	22.6	0
10	QPSK	1	25	20.92	20.99	20.94		
10	QPSK	1	49	21.03	21.10	21.00		
10	QPSK	25	0	21.02	21.11	21.00	22.6	0

10	QPSK	25	12	20.95	20.98	20.98		
10	QPSK	25	25	20.86	20.92	20.88		
10	QPSK	50	0	20.94	21.10	20.98		
10	16QAM	1	0	21.24	21.24	21.18	22.6	0
10	16QAM	1	25	21.00	21.12	21.02		
10	16QAM	1	49	21.10	21.08	20.97		
10	16QAM	25	0	20.39	20.46	20.51	22	0.6
10	16QAM	25	12	20.48	20.42	20.53		
10	16QAM	25	25	20.48	20.58	20.55		
10	16QAM	50	0	20.44	20.61	20.48		
10	64QAM	1	0	20.65	20.71	20.64	22	0.6
10	64QAM	1	25	20.67	20.64	20.70		
10	64QAM	1	49	20.58	20.62	20.66		
10	64QAM	25	0	19.40	19.50	19.50	21	1.6
10	64QAM	25	12	19.56	19.57	19.49		
10	64QAM	25	25	19.46	19.44	19.49		
10	64QAM	50	0	19.43	19.62	19.54		
Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	21.01	21.18	20.98	22.6	0
5	QPSK	1	12	20.88	21.03	20.95		
5	QPSK	1	24	21.05	21.10	21.01		
5	QPSK	12	0	21.01	21.09	21.05	22.6	0
5	QPSK	12	7	20.93	20.96	20.98		
5	QPSK	12	13	20.85	20.93	20.88		
5	QPSK	25	0	21.01	21.03	20.96		
5	16QAM	1	0	21.17	21.32	21.17	22.6	0
5	16QAM	1	12	21.01	21.12	21.03		
5	16QAM	1	24	21.06	21.15	20.98		
5	16QAM	12	0	20.37	20.55	20.60	22	0.6
5	16QAM	12	7	20.44	20.39	20.56		
5	16QAM	12	13	20.44	20.48	20.65		
5	16QAM	25	0	20.40	20.52	20.47		
5	64QAM	1	0	20.59	20.55	20.72	22	0.6
5	64QAM	1	12	20.65	20.70	20.80		
5	64QAM	1	24	20.48	20.72	20.71		
5	64QAM	12	0	19.35	19.46	19.60	21	1.6
5	64QAM	12	7	19.56	19.44	19.47		
5	64QAM	12	13	19.51	19.42	19.49		
5	64QAM	25	0	19.40	19.47	19.43		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	21.06	21.13	21.02	22.6	0
3	QPSK	1	8	20.91	21.02	21.02		
3	QPSK	1	14	21.06	21.03	20.92		
3	QPSK	8	0	20.98	21.12	21.07	22.6	0
3	QPSK	8	4	20.95	20.99	20.91		
3	QPSK	8	7	20.80	20.96	20.89		
3	QPSK	15	0	20.93	21.13	20.95		
3	16QAM	1	0	21.27	21.30	21.27	22.6	0
3	16QAM	1	8	20.95	21.02	21.02		
3	16QAM	1	14	21.06	21.10	20.96		
3	16QAM	8	0	20.37	20.51	20.56	22	0.6
3	16QAM	8	4	20.57	20.48	20.49		
3	16QAM	8	7	20.37	20.52	20.50		
3	16QAM	15	0	20.45	20.59	20.59		

3	64QAM	1	0	20.60	20.70	20.58	22	0.6
3	64QAM	1	8	20.51	20.68	20.65		
3	64QAM	1	14	20.61	20.58	20.63		
3	64QAM	8	0	19.48	19.48	19.58	21	1.6
3	64QAM	8	4	19.40	19.52	19.66		
3	64QAM	8	7	19.49	19.41	19.44		
3	64QAM	15	0	19.54	19.51	19.53		
Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	20.99	21.11	20.95	22.6	0
1.4	QPSK	1	3	20.86	21.06	21.02		
1.4	QPSK	1	5	21.05	21.03	20.98		
1.4	QPSK	3	0	21.00	21.10	20.94		
1.4	QPSK	3	1	20.91	20.97	21.02		
1.4	QPSK	3	3	21.05	21.13	20.94		
1.4	QPSK	6	0	20.98	21.16	21.10	22.6	0
1.4	16QAM	1	0	20.98	21.02	20.98	22.6	0
1.4	16QAM	1	3	20.86	20.92	20.89		
1.4	16QAM	1	5	20.98	21.05	20.94		
1.4	16QAM	3	0	21.19	21.31	21.18		
1.4	16QAM	3	1	21.01	21.12	20.97		
1.4	16QAM	3	3	21.08	21.11	20.98		
1.4	16QAM	6	0	20.57	20.69	20.79	22	0.6
1.4	64QAM	1	0	20.69	20.74	20.79	22	0.6
1.4	64QAM	1	3	20.71	20.83	20.92		
1.4	64QAM	1	5	20.67	20.72	20.85		
1.4	64QAM	3	0	20.59	20.71	20.83		
1.4	64QAM	3	1	20.60	20.74	20.84		
1.4	64QAM	3	3	20.59	20.71	20.79		
1.4	64QAM	6	0	19.54	19.62	19.74	21	1.6

<LTE Band 5 Ant.0>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20450	20525	20600		
Frequency (MHz)				829	836.5	844		
10	QPSK	1	0	22.89	22.92	22.83	24	0
10	QPSK	1	25	22.87	22.83	22.82		
10	QPSK	1	49	22.80	22.80	22.75		
10	QPSK	25	0	21.97	22.07	21.94	23	1
10	QPSK	25	12	21.94	21.97	21.96		
10	QPSK	25	25	21.97	22.01	21.98		
10	QPSK	50	0	21.99	22.01	21.92		
10	16QAM	1	0	22.22	22.21	22.23	23	1
10	16QAM	1	25	22.35	22.19	22.20		
10	16QAM	1	49	22.18	22.19	22.13		
10	16QAM	25	0	20.98	21.00	20.98	22	2
10	16QAM	25	12	21.04	20.96	20.98		
10	16QAM	25	25	21.01	21.00	20.94		
10	16QAM	50	0	21.03	20.95	20.91		
10	64QAM	1	0	21.16	21.07	21.16	22	2
10	64QAM	1	25	21.07	21.01	21.02		
10	64QAM	1	49	21.05	21.02	20.99		
10	64QAM	25	0	19.94	20.00	19.95	21	3
10	64QAM	25	12	20.01	19.97	19.97		
10	64QAM	25	25	20.00	20.00	19.95		
10	64QAM	50	0	20.01	19.93	19.95		
Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	22.88	22.89	22.80	24	0
5	QPSK	1	12	22.84	22.88	22.89		
5	QPSK	1	24	22.76	22.86	22.81		
5	QPSK	12	0	22.00	21.90	21.89	23	1
5	QPSK	12	7	21.95	22.02	21.90		
5	QPSK	12	13	21.96	21.97	21.94		
5	QPSK	25	0	21.99	21.91	21.83		
5	16QAM	1	0	22.34	22.23	22.18	23	1
5	16QAM	1	12	22.25	22.16	22.14		
5	16QAM	1	24	22.29	22.22	22.18		
5	16QAM	12	0	21.03	20.95	20.90	22	2
5	16QAM	12	7	20.99	21.03	20.90		
5	16QAM	12	13	21.00	21.01	20.95		
5	16QAM	25	0	21.00	20.94	20.85		
5	64QAM	1	0	21.22	21.19	21.07	22	2
5	64QAM	1	12	21.05	21.15	20.91		
5	64QAM	1	24	21.11	21.18	21.08		
5	64QAM	12	0	20.02	19.94	19.89	21	3
5	64QAM	12	7	20.01	19.99	19.88		
5	64QAM	12	13	19.99	20.01	19.93		
5	64QAM	25	0	19.98	19.91	19.82		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	22.90	22.91	22.84	24	0
3	QPSK	1	8	22.87	22.82	22.86		
3	QPSK	1	14	22.85	22.80	22.80		
3	QPSK	8	0	21.93	21.88	21.90	23	1

3	QPSK	8	4	21.96	21.98	21.92		
3	QPSK	8	7	21.91	21.91	21.87		
3	QPSK	15	0	21.91	21.86	21.92		
3	16QAM	1	0	22.22	22.13	22.19	23	1
3	16QAM	1	8	22.27	22.28	22.24		
3	16QAM	1	14	22.20	22.16	22.14		
3	16QAM	8	0	20.98	20.95	20.98	22	2
3	16QAM	8	4	21.01	21.05	20.98		
3	16QAM	8	7	20.95	20.95	20.93		
3	16QAM	15	0	20.94	20.91	20.91		
3	64QAM	1	0	21.08	21.02	21.12	22	2
3	64QAM	1	8	21.18	21.24	21.11		
3	64QAM	1	14	21.18	21.14	20.99		
3	64QAM	8	0	19.98	19.92	19.98	21	3
3	64QAM	8	4	19.94	19.94	19.99		
3	64QAM	8	7	19.98	20.00	19.91		
3	64QAM	15	0	19.94	19.87	19.93		
Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	22.73	22.70	22.66	24	0
1.4	QPSK	1	3	22.83	22.80	22.75		
1.4	QPSK	1	5	22.70	22.72	22.74		
1.4	QPSK	3	0	22.80	22.74	22.72		
1.4	QPSK	3	1	22.82	22.81	22.74		
1.4	QPSK	3	3	22.78	22.79	22.74		
1.4	QPSK	6	0	21.50	21.80	21.77	23	1
1.4	16QAM	1	0	22.14	22.09	22.04	23	1
1.4	16QAM	1	3	22.19	22.09	22.11		
1.4	16QAM	1	5	22.13	22.06	22.01		
1.4	16QAM	3	0	21.86	21.92	21.81		
1.4	16QAM	3	1	21.91	21.78	21.82		
1.4	16QAM	3	3	21.85	21.84	21.77		
1.4	16QAM	6	0	20.56	20.85	20.83	22	2
1.4	64QAM	1	0	20.99	20.99	20.94	22	2
1.4	64QAM	1	3	21.01	21.07	20.91		
1.4	64QAM	1	5	20.99	20.95	20.89		
1.4	64QAM	3	0	20.96	20.88	20.84		
1.4	64QAM	3	1	20.92	20.92	20.82		
1.4	64QAM	3	3	20.87	20.90	20.85		
1.4	64QAM	6	0	19.85	19.76	19.78	21	3

<LTE Band 7 Ant.2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	19.31	19.40	19.28	20.4	0
20	QPSK	1	49	19.13	19.28	19.15		
20	QPSK	1	99	19.12	19.27	19.21		
20	QPSK	50	0	19.14	19.21	19.11	20.4	0
20	QPSK	50	24	19.13	19.19	19.14		
20	QPSK	50	50	19.08	19.18	19.12		
20	QPSK	100	0	19.09	19.15	19.04		
20	16QAM	1	0	19.08	19.15	19.04	20.4	0
20	16QAM	1	49	19.07	19.14	19.08		
20	16QAM	1	99	18.98	19.13	18.98		
20	16QAM	50	0	18.96	19.12	19.01	20.4	0
20	16QAM	50	24	19.01	19.12	18.97		
20	16QAM	50	50	19.06	19.10	18.94		
20	16QAM	100	0	19.04	19.10	19.02		
20	64QAM	1	0	18.83	18.94	18.81	20.4	0
20	64QAM	1	49	18.79	18.91	18.80		
20	64QAM	1	99	18.76	18.85	18.78		
20	64QAM	50	0	18.69	18.70	18.74	20.4	0
20	64QAM	50	24	18.82	18.75	18.78		
20	64QAM	50	50	18.80	18.81	18.86		
20	64QAM	100	0	18.81	18.74	18.77		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	19.20	19.24	19.12	20.4	0
15	QPSK	1	37	19.01	19.21	19.11		
15	QPSK	1	74	19.02	19.11	19.15		
15	QPSK	36	0	19.03	19.16	18.99	20.4	0
15	QPSK	36	20	19.02	19.11	19.02		
15	QPSK	36	39	19.01	19.05	19.05		
15	QPSK	75	0	18.94	19.00	18.98		
15	16QAM	1	0	18.97	19.11	18.99	20.4	0
15	16QAM	1	37	18.97	19.05	18.94		
15	16QAM	1	74	18.82	19.03	18.86		
15	16QAM	36	0	18.89	19.06	18.92	20.4	0
15	16QAM	36	20	18.96	18.98	18.84		
15	16QAM	36	39	18.92	19.02	18.88		
15	16QAM	75	0	18.99	19.01	18.86		
15	64QAM	1	0	18.72	18.79	18.68	20.4	0
15	64QAM	1	37	18.70	18.84	18.75		
15	64QAM	1	74	18.61	18.78	18.67		
15	64QAM	36	0	18.66	18.65	18.69	20.4	0
15	64QAM	36	20	18.73	18.57	18.70		
15	64QAM	36	39	18.73	18.69	18.80		
15	64QAM	75	0	18.68	18.58	18.61		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	19.16	19.29	19.20	20.4	0
10	QPSK	1	25	18.97	19.12	19.01		
10	QPSK	1	49	19.04	19.12	19.15		
10	QPSK	25	0	19.10	19.06	19.01	20.4	0

10	QPSK	25	12	19.05	19.14	19.02		
10	QPSK	25	25	19.01	19.08	18.96		
10	QPSK	50	0	18.94	19.03	18.99		
10	16QAM	1	0	19.03	19.04	18.97	20.4	0
10	16QAM	1	25	18.92	19.08	18.96		
10	16QAM	1	49	18.84	19.06	18.90		
10	16QAM	25	0	18.86	18.98	18.88	20.4	0
10	16QAM	25	12	18.88	19.06	18.88		
10	16QAM	25	25	19.02	19.01	18.89		
10	16QAM	50	0	18.92	19.05	18.93		
10	64QAM	1	0	18.72	18.87	18.68	20.4	0
10	64QAM	1	25	18.74	18.77	18.68		
10	64QAM	1	49	18.71	18.70	18.68		
10	64QAM	25	0	18.57	18.65	18.63	20.4	0
10	64QAM	25	12	18.68	18.72	18.69		
10	64QAM	25	25	18.68	18.76	18.79		
10	64QAM	50	0	18.76	18.63	18.74		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	19.26	19.31	19.16	20.4	0
5	QPSK	1	12	19.06	19.12	19.05		
5	QPSK	1	24	19.06	19.13	19.11		
5	QPSK	12	0	19.00	19.11	19.07	20.4	0
5	QPSK	12	7	19.00	19.14	19.02		
5	QPSK	12	13	18.97	19.09	18.99		
5	QPSK	25	0	18.94	19.07	18.89		
5	16QAM	1	0	18.96	19.00	18.97	20.4	0
5	16QAM	1	12	19.03	18.99	18.95		
5	16QAM	1	24	18.92	18.99	18.83		
5	16QAM	12	0	18.91	19.06	18.86	20.4	0
5	16QAM	12	7	18.88	18.98	18.91		
5	16QAM	12	13	19.01	19.02	18.81		
5	16QAM	25	0	18.97	18.94	18.94		
5	64QAM	1	0	18.70	18.84	18.66	20.4	0
5	64QAM	1	12	18.65	18.80	18.72		
5	64QAM	1	24	18.69	18.77	18.65		
5	64QAM	12	0	18.54	18.63	18.65	20.4	0
5	64QAM	12	7	18.65	18.65	18.62		
5	64QAM	12	13	18.67	18.70	18.78		
5	64QAM	25	0	18.78	18.60	18.62		

Reduced Power Mode for DSI 3

<LTE Band 2 Ant.0>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				18700	18900	19100		
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	22.49	22.54	22.49	24	0
20	QPSK	1	49	22.45	22.51	22.49		
20	QPSK	1	99	22.36	22.40	22.37		
20	QPSK	50	0	21.58	21.67	21.66	23	1
20	QPSK	50	24	21.64	21.62	21.66		
20	QPSK	50	50	21.57	21.59	21.59		
20	QPSK	100	0	21.61	21.68	21.60		
20	16QAM	1	0	21.78	21.87	21.80	23	1
20	16QAM	1	49	21.80	21.86	21.80		
20	16QAM	1	99	21.73	21.76	21.68		
20	16QAM	50	0	20.56	20.65	20.68	22	2
20	16QAM	50	24	20.63	20.63	20.68		
20	16QAM	50	50	20.61	20.61	20.63		
20	16QAM	100	0	20.63	20.61	20.62		
20	64QAM	1	0	20.66	20.72	20.67	22	2
20	64QAM	1	49	20.69	20.76	20.66		
20	64QAM	1	99	20.62	20.64	20.55		
20	64QAM	50	0	19.54	19.66	19.66	21	3
20	64QAM	50	24	19.61	19.63	19.63		
20	64QAM	50	50	19.58	19.59	19.61		
20	64QAM	100	0	19.61	19.60	19.64		
Channel				18675	18900	19125	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	22.39	22.50	22.34	24	0
15	QPSK	1	37	22.34	22.34	22.36		
15	QPSK	1	74	22.30	22.26	22.34		
15	QPSK	36	0	21.44	21.51	21.57	23	1
15	QPSK	36	20	21.46	21.45	21.51		
15	QPSK	36	39	21.43	21.46	21.43		
15	QPSK	75	0	21.49	21.56	21.53		
15	16QAM	1	0	21.65	21.73	21.69	23	1
15	16QAM	1	37	21.74	21.80	21.71		
15	16QAM	1	74	21.63	21.71	21.56		
15	16QAM	36	0	20.52	20.52	20.53	22	2
15	16QAM	36	20	20.53	20.61	20.59		
15	16QAM	36	39	20.51	20.55	20.55		
15	16QAM	75	0	20.52	20.57	20.53		
15	64QAM	1	0	20.59	20.58	20.53	22	2
15	64QAM	1	37	20.57	20.69	20.50		
15	64QAM	1	74	20.54	20.49	20.42		
15	64QAM	36	0	19.38	19.62	19.58	21	3
15	64QAM	36	20	19.54	19.60	19.51		
15	64QAM	36	39	19.51	19.44	19.50		
15	64QAM	75	0	19.47	19.49	19.62		
Channel				18650	18900	19150	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	22.43	22.44	22.44	24	0
10	QPSK	1	25	22.37	22.35	22.39		
10	QPSK	1	49	22.29	22.34	22.19		

10	QPSK	25	0	21.51	21.58	21.54	23	1
10	QPSK	25	12	21.51	21.49	21.55		
10	QPSK	25	25	21.55	21.45	21.55		
10	QPSK	50	0	21.50	21.66	21.47		
10	16QAM	1	0	21.61	21.79	21.64	23	1
10	16QAM	1	25	21.68	21.81	21.64		
10	16QAM	1	49	21.62	21.58	21.59		
10	16QAM	25	0	20.42	20.52	20.60	22	2
10	16QAM	25	12	20.56	20.51	20.51		
10	16QAM	25	25	20.50	20.53	20.52		
10	16QAM	50	0	20.53	20.54	20.52		
10	64QAM	1	0	20.51	20.61	20.61	22	2
10	64QAM	1	25	20.67	20.62	20.63		
10	64QAM	1	49	20.46	20.62	20.43		
10	64QAM	25	0	19.51	19.59	19.51	21	3
10	64QAM	25	12	19.57	19.54	19.49		
10	64QAM	25	25	19.51	19.47	19.50		
10	64QAM	50	0	19.58	19.45	19.48		
Channel				18625	18900	19175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	22.45	22.39	22.43	24	0
5	QPSK	1	12	22.30	22.42	22.46		
5	QPSK	1	24	22.19	22.25	22.26		
5	QPSK	12	0	21.47	21.62	21.59	23	1
5	QPSK	12	7	21.59	21.49	21.56		
5	QPSK	12	13	21.50	21.47	21.51		
5	QPSK	25	0	21.51	21.53	21.57		
5	16QAM	1	0	21.72	21.77	21.68	23	1
5	16QAM	1	12	21.73	21.81	21.63		
5	16QAM	1	24	21.64	21.60	21.55		
5	16QAM	12	0	20.54	20.57	20.64	22	2
5	16QAM	12	7	20.50	20.58	20.62		
5	16QAM	12	13	20.45	20.53	20.55		
5	16QAM	25	0	20.55	20.46	20.56		
5	64QAM	1	0	20.55	20.54	20.55	22	2
5	64QAM	1	12	20.66	20.68	20.61		
5	64QAM	1	24	20.48	20.61	20.51		
5	64QAM	12	0	19.37	19.59	19.50	21	3
5	64QAM	12	7	19.54	19.57	19.59		
5	64QAM	12	13	19.45	19.43	19.54		
5	64QAM	25	0	19.49	19.43	19.53		
Channel				18615	18900	19185	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	22.45	22.36	22.32	24	0
3	QPSK	1	8	22.40	22.38	22.33		
3	QPSK	1	14	22.27	22.25	22.24		
3	QPSK	8	0	21.46	21.59	21.63	23	1
3	QPSK	8	4	21.59	21.51	21.50		
3	QPSK	8	7	21.40	21.45	21.45		
3	QPSK	15	0	21.55	21.52	21.49		
3	16QAM	1	0	21.68	21.73	21.63	23	1
3	16QAM	1	8	21.77	21.78	21.66		
3	16QAM	1	14	21.65	21.72	21.51		
3	16QAM	8	0	20.48	20.62	20.58	22	2
3	16QAM	8	4	20.59	20.51	20.65		
3	16QAM	8	7	20.44	20.52	20.46		

3	16QAM	15	0	20.49	20.57	20.58		
3	64QAM	1	0	20.57	20.58	20.62	22	2
3	64QAM	1	8	20.57	20.60	20.50		
3	64QAM	1	14	20.49	20.56	20.39		
3	64QAM	8	0	19.51	19.62	19.55	21	3
3	64QAM	8	4	19.50	19.46	19.54		
3	64QAM	8	7	19.49	19.48	19.52		
3	64QAM	15	0	19.47	19.53	19.47		
Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	22.44	22.37	22.45	24	0
1.4	QPSK	1	3	22.31	22.41	22.37		
1.4	QPSK	1	5	22.28	22.37	22.21		
1.4	QPSK	3	0	22.44	22.41	22.49		
1.4	QPSK	3	1	22.49	22.45	22.24		
1.4	QPSK	3	3	22.48	22.46	22.42		
1.4	QPSK	6	0	21.45	21.62	21.57	23	1
1.4	16QAM	1	0	21.68	21.85	21.64	23	1
1.4	16QAM	1	3	21.71	21.79	21.65		
1.4	16QAM	1	5	21.66	21.70	21.54		
1.4	16QAM	3	0	21.52	21.47	21.51		
1.4	16QAM	3	1	21.48	21.54	21.64		
1.4	16QAM	3	3	21.50	21.57	21.47		
1.4	16QAM	6	0	20.54	20.43	20.51	22	2
1.4	64QAM	1	0	20.48	20.63	20.52	22	2
1.4	64QAM	1	3	20.60	20.61	20.49		
1.4	64QAM	1	5	20.55	20.60	20.44		
1.4	64QAM	3	0	20.43	20.49	20.59		
1.4	64QAM	3	1	20.45	20.56	20.49		
1.4	64QAM	3	3	20.41	20.51	20.51		
1.4	64QAM	6	0	19.55	19.56	19.59	21	3

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20050	20175	20300		
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	22.46	22.63	22.56	24	0
20	QPSK	1	49	22.40	22.48	22.58		
20	QPSK	1	99	22.39	22.45	22.50		
20	QPSK	50	0	21.51	21.68	21.64	23	1
20	QPSK	50	24	21.59	21.56	21.63		
20	QPSK	50	50	21.54	21.60	21.67		
20	QPSK	100	0	21.57	21.62	21.61		
20	16QAM	1	0	21.80	21.88	22.10	23	1
20	16QAM	1	49	21.77	21.85	21.90		
20	16QAM	1	99	21.73	21.81	21.90		
20	16QAM	50	0	20.54	20.57	20.65	22	2
20	16QAM	50	24	20.62	20.58	20.67		
20	16QAM	50	50	20.54	20.60	20.68		
20	16QAM	100	0	20.58	20.63	20.64		
20	64QAM	1	0	20.69	20.73	20.78	22	2
20	64QAM	1	49	20.68	20.71	20.85		
20	64QAM	1	99	20.63	20.74	20.82		
20	64QAM	50	0	19.54	19.57	19.64	21	3
20	64QAM	50	24	19.59	19.58	19.66		
20	64QAM	50	50	19.55	19.60	19.63		
20	64QAM	100	0	19.57	19.63	19.56		
Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	22.35	22.56	22.51	24	0
15	QPSK	1	37	22.32	22.31	22.56		
15	QPSK	1	74	22.39	22.39	22.48		
15	QPSK	36	0	21.51	21.52	21.57	23	1
15	QPSK	36	20	21.52	21.39	21.52		
15	QPSK	36	39	21.53	21.46	21.50		
15	QPSK	75	0	21.45	21.43	21.45		
15	16QAM	1	0	21.65	21.76	21.90	23	1
15	16QAM	1	37	21.62	21.76	21.74		
15	16QAM	1	74	21.63	21.70	21.76		
15	16QAM	36	0	20.35	20.41	20.54	22	2
15	16QAM	36	20	20.54	20.40	20.49		
15	16QAM	36	39	20.52	20.55	20.66		
15	16QAM	75	0	20.46	20.57	20.51		
15	64QAM	1	0	20.53	20.67	20.72	22	2
15	64QAM	1	37	20.57	20.66	20.75		
15	64QAM	1	74	20.44	20.59	20.66		
15	64QAM	36	0	19.39	19.38	19.48	21	3
15	64QAM	36	20	19.45	19.47	19.52		
15	64QAM	36	39	19.50	19.47	19.61		
15	64QAM	75	0	19.56	19.52	19.47		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	22.38	22.53	22.45	24	0
10	QPSK	1	25	22.22	22.44	22.41		
10	QPSK	1	49	22.20	22.42	22.41		
10	QPSK	25	0	21.44	21.68	21.54	23	1

10	QPSK	25	12	21.46	21.46	21.61		
10	QPSK	25	25	21.41	21.55	21.64		
10	QPSK	50	0	21.39	21.59	21.49		
10	16QAM	1	0	21.73	21.78	21.89	23	1
10	16QAM	1	25	21.65	21.84	21.77		
10	16QAM	1	49	21.59	21.77	21.90		
10	16QAM	25	0	20.39	20.46	20.51	22	2
10	16QAM	25	12	20.48	20.42	20.53		
10	16QAM	25	25	20.48	20.58	20.55		
10	16QAM	50	0	20.44	20.61	20.48		
10	64QAM	1	0	20.65	20.71	20.64	22	2
10	64QAM	1	25	20.67	20.64	20.70		
10	64QAM	1	49	20.58	20.62	20.66		
10	64QAM	25	0	19.40	19.50	19.50	21	3
10	64QAM	25	12	19.56	19.57	19.49		
10	64QAM	25	25	19.46	19.44	19.49		
10	64QAM	50	0	19.43	19.62	19.54		
Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	22.44	22.48	22.44	24	0
5	QPSK	1	12	22.39	22.38	22.49		
5	QPSK	1	24	22.32	22.36	22.42		
5	QPSK	12	0	21.45	21.52	21.62	23	1
5	QPSK	12	7	21.50	21.48	21.47		
5	QPSK	12	13	21.46	21.60	21.63		
5	QPSK	25	0	21.41	21.56	21.48		
5	16QAM	1	0	21.63	21.72	21.88	23	1
5	16QAM	1	12	21.61	21.78	21.74		
5	16QAM	1	24	21.69	21.76	21.72		
5	16QAM	12	0	20.37	20.55	20.60	22	2
5	16QAM	12	7	20.44	20.39	20.56		
5	16QAM	12	13	20.44	20.48	20.65		
5	16QAM	25	0	20.40	20.52	20.47		
5	64QAM	1	0	20.59	20.55	20.72	22	2
5	64QAM	1	12	20.65	20.70	20.80		
5	64QAM	1	24	20.48	20.72	20.71		
5	64QAM	12	0	19.35	19.46	19.60	21	3
5	64QAM	12	7	19.56	19.44	19.47		
5	64QAM	12	13	19.51	19.42	19.49		
5	64QAM	25	0	19.40	19.47	19.43		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	22.26	22.46	22.36	24	0
3	QPSK	1	8	22.26	22.42	22.46		
3	QPSK	1	14	22.22	22.31	22.32		
3	QPSK	8	0	21.35	21.63	21.49	23	1
3	QPSK	8	4	21.43	21.54	21.43		
3	QPSK	8	7	21.53	21.48	21.57		
3	QPSK	15	0	21.43	21.55	21.52		
3	16QAM	1	0	21.70	21.80	21.79	23	1
3	16QAM	1	8	21.67	21.68	21.89		
3	16QAM	1	14	21.69	21.79	21.78		
3	16QAM	8	0	20.37	20.51	20.56	22	2
3	16QAM	8	4	20.57	20.48	20.49		
3	16QAM	8	7	20.37	20.52	20.50		
3	16QAM	15	0	20.45	20.59	20.59		

3	64QAM	1	0	20.60	20.70	20.58	22	2
3	64QAM	1	8	20.51	20.68	20.65		
3	64QAM	1	14	20.61	20.58	20.63		
3	64QAM	8	0	19.48	19.48	19.58	21	3
3	64QAM	8	4	19.40	19.52	19.66		
3	64QAM	8	7	19.49	19.41	19.44		
3	64QAM	15	0	19.54	19.51	19.53		
Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	22.49	22.51	22.51	24	0
1.4	QPSK	1	3	22.47	22.41	22.47		
1.4	QPSK	1	5	22.40	22.52	22.46		
1.4	QPSK	3	0	22.47	22.58	22.51		
1.4	QPSK	3	1	22.50	22.53	22.52		
1.4	QPSK	3	3	22.45	22.58	22.48		
1.4	QPSK	6	0	21.54	21.62	21.72	23	1
1.4	16QAM	1	0	21.79	21.89	21.99	23	1
1.4	16QAM	1	3	21.84	21.88	21.92		
1.4	16QAM	1	5	21.79	21.88	21.95		
1.4	16QAM	3	0	21.54	21.71	21.82		
1.4	16QAM	3	1	21.63	21.75	21.92		
1.4	16QAM	3	3	21.53	21.67	21.88		
1.4	16QAM	6	0	20.57	20.69	20.79	22	2
1.4	64QAM	1	0	20.69	20.74	20.79	22	2
1.4	64QAM	1	3	20.71	20.83	20.92		
1.4	64QAM	1	5	20.67	20.72	20.85		
1.4	64QAM	3	0	20.59	20.71	20.83		
1.4	64QAM	3	1	20.60	20.74	20.84		
1.4	64QAM	3	3	20.59	20.71	20.79		
1.4	64QAM	6	0	19.54	19.62	19.74	21	3

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20450	20525	20600		
Frequency (MHz)				829	836.5	844		
10	QPSK	1	0	22.89	22.92	22.83	24	0
10	QPSK	1	25	22.87	22.83	22.82		
10	QPSK	1	49	22.80	22.80	22.75		
10	QPSK	25	0	21.97	22.07	21.94	23	1
10	QPSK	25	12	21.94	21.97	21.96		
10	QPSK	25	25	21.97	22.01	21.98		
10	QPSK	50	0	21.99	22.01	21.92		
10	16QAM	1	0	22.22	22.21	22.23	23	1
10	16QAM	1	25	22.35	22.19	22.20		
10	16QAM	1	49	22.18	22.19	22.13		
10	16QAM	25	0	20.98	21.00	20.98	22	2
10	16QAM	25	12	21.04	20.96	20.98		
10	16QAM	25	25	21.01	21.00	20.94		
10	16QAM	50	0	21.03	20.95	20.91		
10	64QAM	1	0	21.16	21.07	21.16	22	2
10	64QAM	1	25	21.07	21.01	21.02		
10	64QAM	1	49	21.05	21.02	20.99		
10	64QAM	25	0	19.94	20.00	19.95	21	3
10	64QAM	25	12	20.01	19.97	19.97		
10	64QAM	25	25	20.00	20.00	19.95		
10	64QAM	50	0	20.01	19.93	19.95		
Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	22.88	22.89	22.80	24	0
5	QPSK	1	12	22.84	22.88	22.89		
5	QPSK	1	24	22.76	22.86	22.81		
5	QPSK	12	0	22.00	21.90	21.89	23	1
5	QPSK	12	7	21.95	22.02	21.90		
5	QPSK	12	13	21.96	21.97	21.94		
5	QPSK	25	0	21.99	21.91	21.83		
5	16QAM	1	0	22.34	22.23	22.18	23	1
5	16QAM	1	12	22.25	22.16	22.14		
5	16QAM	1	24	22.29	22.22	22.18		
5	16QAM	12	0	21.03	20.95	20.90	22	2
5	16QAM	12	7	20.99	21.03	20.90		
5	16QAM	12	13	21.00	21.01	20.95		
5	16QAM	25	0	21.00	20.94	20.85		
5	64QAM	1	0	21.22	21.19	21.07	22	2
5	64QAM	1	12	21.05	21.15	20.91		
5	64QAM	1	24	21.11	21.18	21.08		
5	64QAM	12	0	20.02	19.94	19.89	21	3
5	64QAM	12	7	20.01	19.99	19.88		
5	64QAM	12	13	19.99	20.01	19.93		
5	64QAM	25	0	19.98	19.91	19.82		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	22.90	22.91	22.84	24	0
3	QPSK	1	8	22.87	22.82	22.86		
3	QPSK	1	14	22.85	22.80	22.80		
3	QPSK	8	0	21.93	21.88	21.90	23	1

3	QPSK	8	4	21.96	21.98	21.92		
3	QPSK	8	7	21.91	21.91	21.87		
3	QPSK	15	0	21.91	21.86	21.92		
3	16QAM	1	0	22.22	22.13	22.19	23	1
3	16QAM	1	8	22.27	22.28	22.24		
3	16QAM	1	14	22.20	22.16	22.14		
3	16QAM	8	0	20.98	20.95	20.98	22	2
3	16QAM	8	4	21.01	21.05	20.98		
3	16QAM	8	7	20.95	20.95	20.93		
3	16QAM	15	0	20.94	20.91	20.91		
3	64QAM	1	0	21.08	21.02	21.12	22	2
3	64QAM	1	8	21.18	21.24	21.11		
3	64QAM	1	14	21.18	21.14	20.99		
3	64QAM	8	0	19.98	19.92	19.98	21	3
3	64QAM	8	4	19.94	19.94	19.99		
3	64QAM	8	7	19.98	20.00	19.91		
3	64QAM	15	0	19.94	19.87	19.93		
Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	22.73	22.70	22.66	24	0
1.4	QPSK	1	3	22.83	22.80	22.75		
1.4	QPSK	1	5	22.70	22.72	22.74		
1.4	QPSK	3	0	22.80	22.74	22.72		
1.4	QPSK	3	1	22.82	22.81	22.74		
1.4	QPSK	3	3	22.78	22.79	22.74		
1.4	QPSK	6	0	21.50	21.80	21.77	23	1
1.4	16QAM	1	0	22.14	22.09	22.04	23	1
1.4	16QAM	1	3	22.19	22.09	22.11		
1.4	16QAM	1	5	22.13	22.06	22.01		
1.4	16QAM	3	0	21.86	21.92	21.81		
1.4	16QAM	3	1	21.91	21.78	21.82		
1.4	16QAM	3	3	21.85	21.84	21.77		
1.4	16QAM	6	0	20.56	20.85	20.83	22	2
1.4	64QAM	1	0	20.99	20.99	20.94	22	2
1.4	64QAM	1	3	21.01	21.07	20.91		
1.4	64QAM	1	5	20.99	20.95	20.89		
1.4	64QAM	3	0	20.96	20.88	20.84		
1.4	64QAM	3	1	20.92	20.92	20.82		
1.4	64QAM	3	3	20.87	20.90	20.85		
1.4	64QAM	6	0	19.85	19.76	19.78	21	3

<LTE Band 7 Ant.2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				20850	21100	21350		
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	0	17.46	17.56	17.53	18.2	0
20	QPSK	1	49	17.47	17.55	17.42		
20	QPSK	1	99	17.41	17.53	17.40		
20	QPSK	50	0	17.39	17.51	17.45	18.2	0
20	QPSK	50	24	17.33	17.44	17.36		
20	QPSK	50	50	17.42	17.50	17.43		
20	QPSK	100	0	17.39	17.48	17.34		
20	16QAM	1	0	17.40	17.47	17.38	18.2	0
20	16QAM	1	49	17.40	17.47	17.40		
20	16QAM	1	99	17.32	17.44	17.37		
20	16QAM	50	0	17.37	17.44	17.32	18.2	0
20	16QAM	50	24	17.31	17.43	17.36		
20	16QAM	50	50	17.32	17.42	17.28		
20	16QAM	100	0	17.27	17.40	17.33		
20	64QAM	1	0	17.26	17.39	17.27	18.2	0
20	64QAM	1	49	17.28	17.38	17.25		
20	64QAM	1	99	17.27	17.37	17.24		
20	64QAM	50	0	17.31	17.37	17.23	18.2	0
20	64QAM	50	24	17.24	17.31	17.24		
20	64QAM	50	50	17.19	17.28	17.18		
20	64QAM	100	0	17.14	17.21	17.12		
Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	17.36	17.49	17.41	18.2	0
15	QPSK	1	37	17.36	17.47	17.28		
15	QPSK	1	74	17.33	17.39	17.32		
15	QPSK	36	0	17.26	17.40	17.35	18.2	0
15	QPSK	36	20	17.20	17.33	17.27		
15	QPSK	36	39	17.35	17.38	17.31		
15	QPSK	75	0	17.28	17.39	17.22		
15	16QAM	1	0	17.32	17.36	17.31	18.2	0
15	16QAM	1	37	17.28	17.40	17.29		
15	16QAM	1	74	17.25	17.34	17.25		
15	16QAM	36	0	17.24	17.36	17.26	18.2	0
15	16QAM	36	20	17.24	17.32	17.26		
15	16QAM	36	39	17.22	17.31	17.19		
15	16QAM	75	0	17.18	17.27	17.20		
15	64QAM	1	0	17.14	17.32	17.19	18.2	0
15	64QAM	1	37	17.19	17.25	17.12		
15	64QAM	1	74	17.19	17.25	17.16		
15	64QAM	36	0	17.23	17.25	17.11	18.2	0
15	64QAM	36	20	17.16	17.21	17.12		
15	64QAM	36	39	17.08	17.21	17.08		
15	64QAM	75	0	17.01	17.08	17.04		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	17.37	17.44	17.44	18.2	0
10	QPSK	1	25	17.34	17.49	17.30		
10	QPSK	1	49	17.29	17.47	17.31		
10	QPSK	25	0	17.28	17.39	17.38	18.2	0

10	QPSK	25	12	17.24	17.38	17.23		
10	QPSK	25	25	17.30	17.42	17.36		
10	QPSK	50	0	17.29	17.42	17.20		
10	16QAM	1	0	17.31	17.41	17.31	18.2	0
10	16QAM	1	25	17.28	17.36	17.33		
10	16QAM	1	49	17.22	17.35	17.25		
10	16QAM	25	0	17.30	17.37	17.24	18.2	0
10	16QAM	25	12	17.24	17.36	17.27		
10	16QAM	25	25	17.24	17.31	17.15		
10	16QAM	50	0	17.18	17.33	17.22		
10	64QAM	1	0	17.19	17.28	17.15	18.2	0
10	64QAM	1	25	17.14	17.28	17.19		
10	64QAM	1	49	17.14	17.29	17.15		
10	64QAM	25	0	17.17	17.24	17.14	18.2	0
10	64QAM	25	12	17.12	17.19	17.16		
10	64QAM	25	25	17.11	17.16	17.10		
10	64QAM	50	0	17.05	17.12	17.00		
Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	17.39	17.50	17.47	18.2	0
5	QPSK	1	12	17.38	17.47	17.32		
5	QPSK	1	24	17.27	17.42	17.33		
5	QPSK	12	0	17.25	17.44	17.32	18.2	0
5	QPSK	12	7	17.21	17.36	17.22		
5	QPSK	12	13	17.33	17.42	17.36		
5	QPSK	25	0	17.30	17.39	17.26		
5	16QAM	1	0	17.31	17.41	17.27	18.2	0
5	16QAM	1	12	17.27	17.33	17.32		
5	16QAM	1	24	17.20	17.36	17.27		
5	16QAM	12	0	17.29	17.35	17.26	18.2	0
5	16QAM	12	7	17.19	17.30	17.27		
5	16QAM	12	13	17.23	17.30	17.20		
5	16QAM	25	0	17.15	17.29	17.19		
5	64QAM	1	0	17.16	17.27	17.15	18.2	0
5	64QAM	1	12	17.15	17.31	17.15		
5	64QAM	1	24	17.14	17.31	17.11		
5	64QAM	12	0	17.21	17.24	17.17	18.2	0
5	64QAM	12	7	17.17	17.24	17.13		
5	64QAM	12	13	17.06	17.19	17.05		
5	64QAM	25	0	17.06	17.08	16.99		

<TDD LTE SAR Measurement>

TDD LTE configuration setup for SAR measurement

SAR was tested with a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by 3GPP.

a. 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations

b. "special subframe S" contains both uplink and downlink transmissions, it has been taken into consideration to determine the transmission duty factor according to the worst case uplink and downlink cyclic prefix requirements for UpPTS

c. Establishing connections with base station simulators ensure a consistent means for testing SAR and recommended for evaluating SAR. The Anritsu MT8820C (firmware: #22.52#004) was used for LTE output power measurements and SAR testing.

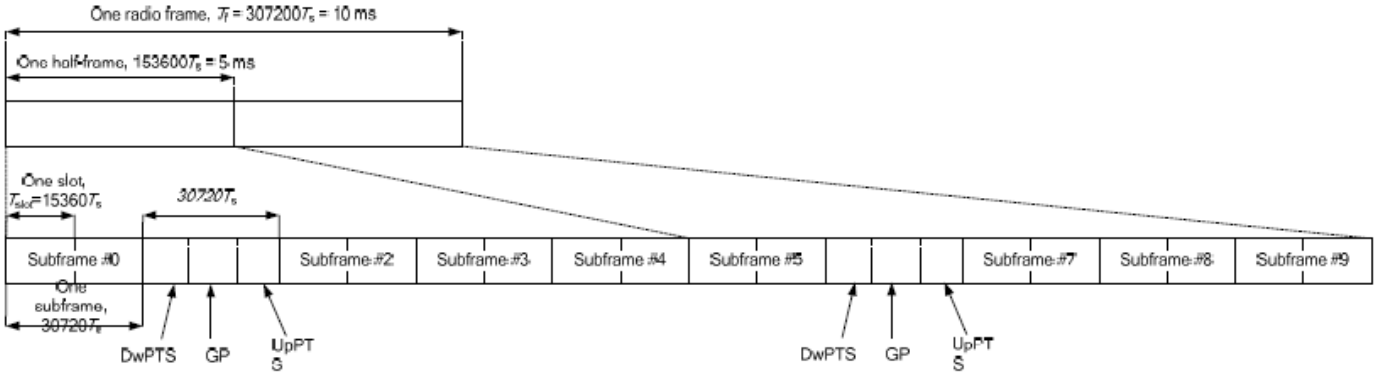

Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

Table 4.2-2: Uplink-downlink configurations.

Uplink-downlink configuration	Downlink-to-Uplink Switch-point periodicity	Subframe number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U	U	D	S	U	U	D

Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS).

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

Special subframe (30720·T_s): Normal cyclic prefix in downlink (UpPTS)			
	Special subframe configuration	**Normal cyclic prefix in uplink**	**Extended cyclic prefix in uplink**
Uplink duty factor in one special subframe	**0~4**	7.13%	8.33%
	5~9	14.3%	16.7%

Special subframe(30720·T_s): Extended cyclic prefix in downlink (UpPTS)			
	Special subframe configuration	**Normal cyclic prefix in uplink**	**Extended cyclic prefix in uplink**
Uplink duty factor in one special subframe	**0~3**	7.13%	8.33%
	4~7	14.3%	16.7%

The highest duty factor is resulted from:

i. Uplink-downlink configuration: 0. In a half-frame consisted of 5 subfames, uplink operation is in 3 uplink subframes and 1 special subframe.

ii. special subframe configuration: 5-9 for normal cyclic prefix in downlink, 4-7 for extended cyclic prefix in downlink

iii. for special subframe with extended cyclic prefix in uplink, the total uplink duty factor in one half-frame is: (3+0.167)/5 = 63.3%

iv. for special subframe with normal cyclic prefix in uplink, the total uplink duty factor in one half-frame is: (3+0.143)/5 = 62.9%

v. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result. The scaled TDD LTE SAR = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.

Default Power Mode

<LTE Band 38 Ant.2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				37850	38000	38150		
Frequency (MHz)				2580	2595	2610		
20	QPSK	1	0	23.36	23.50	23.31	24	0
20	QPSK	1	49	23.44	23.38	23.36		
20	QPSK	1	99	23.49	23.45	23.36		
20	QPSK	50	0	22.41	22.55	22.44	23	1
20	QPSK	50	24	22.47	22.54	22.48		
20	QPSK	50	50	22.43	22.50	22.37		
20	QPSK	100	0	22.49	22.51	22.45		
20	16QAM	1	0	22.47	22.54	22.50	23	1
20	16QAM	1	49	22.58	22.63	22.52		
20	16QAM	1	99	22.60	22.58	22.48		
20	16QAM	50	0	21.39	21.45	21.46	22	2
20	16QAM	50	24	21.56	21.52	21.51		
20	16QAM	50	50	21.53	21.52	21.36		
20	16QAM	100	0	21.51	21.49	21.45		
20	64QAM	1	0	21.17	21.18	21.20	22	2
20	64QAM	1	49	21.22	21.35	21.23		
20	64QAM	1	99	21.29	21.27	21.21		
20	64QAM	50	0	20.31	20.39	20.40	21	3
20	64QAM	50	24	20.47	20.47	20.45		
20	64QAM	50	50	20.47	20.44	20.32		
20	64QAM	100	0	20.53	20.52	20.50		
Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	23.25	23.46	23.23	24	0
15	QPSK	1	37	23.33	23.24	23.33		
15	QPSK	1	74	23.40	23.31	23.24		
15	QPSK	36	0	22.32	22.38	22.32	23	1
15	QPSK	36	20	22.35	22.51	22.46		
15	QPSK	36	39	22.28	22.33	22.30		
15	QPSK	75	0	22.47	22.36	22.42		
15	16QAM	1	0	22.32	22.45	22.32	23	1
15	16QAM	1	37	22.42	22.56	22.42		
15	16QAM	1	74	22.45	22.50	22.44		
15	16QAM	36	0	21.27	21.30	21.41	22	2
15	16QAM	36	20	21.41	21.46	21.38		
15	16QAM	36	39	21.39	21.37	21.32		
15	16QAM	75	0	21.38	21.39	21.36		
15	64QAM	1	0	21.06	21.06	21.15	22	2
15	64QAM	1	37	21.06	21.33	21.10		
15	64QAM	1	74	21.26	21.14	21.06		
15	64QAM	36	0	20.16	20.23	20.34	21	3
15	64QAM	36	20	20.33	20.37	20.41		
15	64QAM	36	39	20.33	20.28	20.29		
15	64QAM	75	0	20.35	20.44	20.37		
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	23.20	23.35	23.16	24	0
10	QPSK	1	25	23.28	23.28	23.31		
10	QPSK	1	49	23.35	23.32	23.28		

10	QPSK	25	0	22.26	22.46	22.38	23	1
10	QPSK	25	12	22.30	22.39	22.36		
10	QPSK	25	25	22.35	22.37	22.21		
10	QPSK	50	0	22.45	22.36	22.41		
10	16QAM	1	0	22.45	22.45	22.41	23	1
10	16QAM	1	25	22.52	22.50	22.38		
10	16QAM	1	49	22.47	22.50	22.39		
10	16QAM	25	0	21.22	21.40	21.41	22	2
10	16QAM	25	12	21.50	21.38	21.44		
10	16QAM	25	25	21.45	21.44	21.28		
10	16QAM	50	0	21.39	21.35	21.38		
10	64QAM	1	0	21.14	21.02	21.11	22	2
10	64QAM	1	25	21.08	21.27	21.12		
10	64QAM	1	49	21.14	21.12	21.04		
10	64QAM	25	0	20.29	20.22	20.24	21	3
10	64QAM	25	12	20.35	20.39	20.40		
10	64QAM	25	25	20.33	20.31	20.17		
10	64QAM	50	0	20.38	20.44	20.33		
Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	23.27	23.34	23.21	24	0
5	QPSK	1	12	23.27	23.28	23.22		
5	QPSK	1	24	23.39	23.39	23.24		
5	QPSK	12	0	22.33	22.39	22.41	23	1
5	QPSK	12	7	22.30	22.46	22.45		
5	QPSK	12	13	22.31	22.45	22.22		
5	QPSK	25	0	22.46	22.36	22.38		
5	16QAM	1	0	22.37	22.48	22.42	23	1
5	16QAM	1	12	22.55	22.53	22.42		
5	16QAM	1	24	22.55	22.45	22.34		
5	16QAM	12	0	21.34	21.30	21.41	22	2
5	16QAM	12	7	21.41	21.46	21.38		
5	16QAM	12	13	21.37	21.45	21.25		
5	16QAM	25	0	21.42	21.37	21.33		
5	64QAM	1	0	21.13	21.09	21.12	22	2
5	64QAM	1	12	21.17	21.24	21.06		
5	64QAM	1	24	21.25	21.19	21.14		
5	64QAM	12	0	20.14	20.22	20.33	21	3
5	64QAM	12	7	20.43	20.43	20.34		
5	64QAM	12	13	20.36	20.41	20.22		
5	64QAM	25	0	20.42	20.42	20.42		

<LTE Band 41 Ant.2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	23.21	23.14	23.57	23.23	23.29	24	0
20	QPSK	1	49	23.16	23.21	23.22	23.28	23.24		
20	QPSK	1	99	23.13	23.18	23.29	23.33	23.24		
20	QPSK	50	0	22.27	22.30	22.47	22.41	22.44	23	1
20	QPSK	50	24	22.36	22.41	22.44	22.44	22.42		
20	QPSK	50	50	22.35	22.41	22.43	22.42	22.31		
20	QPSK	100	0	22.17	22.22	22.31	22.24	22.21		
20	16QAM	1	0	22.28	22.32	22.43	22.38	22.42	23	1
20	16QAM	1	49	22.29	22.34	22.36	22.38	22.35		
20	16QAM	1	99	22.25	22.34	22.43	22.50	22.36		
20	16QAM	50	0	21.31	21.32	21.45	21.41	21.44	22	2
20	16QAM	50	24	21.39	21.43	21.45	21.49	21.45		
20	16QAM	50	50	21.38	21.41	21.47	21.48	21.33		
20	16QAM	100	0	21.42	21.44	21.45	21.47	21.42		
20	64QAM	1	0	21.02	20.99	21.12	21.14	21.22	22	2
20	64QAM	1	49	20.98	21.04	21.08	21.15	21.10		
20	64QAM	1	99	20.95	20.98	21.13	21.22	21.07		
20	64QAM	50	0	20.24	20.26	20.40	20.37	20.33	21	3
20	64QAM	50	24	20.34	20.38	20.39	20.39	20.38		
20	64QAM	50	50	20.32	20.36	20.40	20.45	20.27		
20	64QAM	100	0	20.43	20.49	20.49	20.50	20.47		
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	23.17	22.96	23.34	23.11	23.23	24	0
15	QPSK	1	37	23.11	23.04	23.04	23.21	23.07		
15	QPSK	1	74	23.07	23.02	23.25	23.25	23.12		
15	QPSK	36	0	22.21	22.24	22.43	22.27	22.41	23	1
15	QPSK	36	20	22.32	22.28	22.30	22.31	22.25		
15	QPSK	36	39	22.25	22.31	22.40	22.37	22.16		
15	QPSK	75	0	22.27	22.37	22.31	22.32	22.36		
15	16QAM	1	0	22.16	22.15	22.29	22.25	22.33	23	1
15	16QAM	1	37	22.22	22.27	22.27	22.24	22.22		
15	16QAM	1	74	22.10	22.17	22.33	22.39	22.32		
15	16QAM	36	0	21.20	21.21	21.38	21.37	21.33	22	2
15	16QAM	36	20	21.31	21.34	21.31	21.45	21.40		
15	16QAM	36	39	21.28	21.34	21.34	21.33	21.28		
15	16QAM	75	0	21.28	21.34	21.28	21.40	21.40		
15	64QAM	1	0	20.98	20.87	20.96	21.02	21.04	22	2
15	64QAM	1	37	20.86	20.89	21.05	20.98	20.94		
15	64QAM	1	74	20.83	20.86	21.06	21.15	20.95		
15	64QAM	36	0	20.11	20.19	20.24	20.29	20.27	21	3
15	64QAM	36	20	20.26	20.32	20.34	20.36	20.21		
15	64QAM	36	39	20.27	20.34	20.26	20.35	20.13		
15	64QAM	75	0	20.29	20.36	20.39	20.36	20.32		
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	23.16	23.12	23.26	23.08	23.19	24	0
10	QPSK	1	25	23.08	23.16	23.18	23.24	23.21		
10	QPSK	1	49	23.02	23.11	23.14	23.20	23.14		
10	QPSK	25	0	22.14	22.16	22.42	22.28	22.34	23	1

10	QPSK	25	12	22.28	22.31	22.30	22.39	22.29		
10	QPSK	25	25	22.24	22.31	22.30	22.32	22.20		
10	QPSK	50	0	22.25	22.39	22.34	22.24	22.26		
10	16QAM	1	0	22.23	22.15	22.26	22.33	22.29		
10	16QAM	1	25	22.16	22.32	22.22	22.24	22.29	23	1
10	16QAM	1	49	22.11	22.22	22.37	22.41	22.26		
10	16QAM	25	0	21.27	21.14	21.33	21.28	21.37		
10	16QAM	25	12	21.30	21.29	21.41	21.39	21.31	22	2
10	16QAM	25	25	21.24	21.33	21.29	21.33	21.22		
10	16QAM	50	0	21.27	21.39	21.40	21.30	21.26		
10	64QAM	1	0	20.94	20.97	21.09	21.10	21.11		
10	64QAM	1	25	20.86	20.91	20.94	21.06	20.94	22	2
10	64QAM	1	49	20.88	20.89	21.05	21.17	20.92		
10	64QAM	25	0	20.20	20.13	20.23	20.34	20.16		
10	64QAM	25	12	20.20	20.22	20.31	20.21	20.34	21	3
10	64QAM	25	25	20.22	20.27	20.26	20.34	20.20		
10	64QAM	50	0	20.34	20.36	20.41	20.44	20.33		
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	23.15	23.04	23.19	23.12	23.19		
5	QPSK	1	12	22.98	23.10	23.06	23.21	23.13	24	0
5	QPSK	1	24	23.09	23.02	23.16	23.23	23.12		
5	QPSK	12	0	22.10	22.25	22.30	22.31	22.35		
5	QPSK	12	7	22.22	22.33	22.40	22.26	22.38	23	1
5	QPSK	12	13	22.22	22.25	22.27	22.28	22.13		
5	QPSK	25	0	22.32	22.38	22.35	22.31	22.28		
5	16QAM	1	0	22.17	22.15	22.35	22.35	22.28		
5	16QAM	1	12	22.23	22.28	22.28	22.36	22.25	23	1
5	16QAM	1	24	22.22	22.26	22.32	22.40	22.32		
5	16QAM	12	0	21.14	21.16	21.40	21.26	21.34		
5	16QAM	12	7	21.24	21.39	21.36	21.42	21.35	22	2
5	16QAM	12	13	21.35	21.29	21.31	21.46	21.28		
5	16QAM	25	0	21.37	21.42	21.43	21.37	21.38		
5	64QAM	1	0	20.97	20.85	21.08	21.10	21.12		
5	64QAM	1	12	20.87	20.92	20.98	21.05	21.01	22	2
5	64QAM	1	24	20.81	20.91	21.04	21.08	21.00		
5	64QAM	12	0	20.06	20.17	20.25	20.34	20.16		
5	64QAM	12	7	20.24	20.27	20.22	20.22	20.22	21	3
5	64QAM	12	13	20.20	20.20	20.38	20.33	20.09		
5	64QAM	25	0	20.38	20.45	20.35	20.38	20.39		

<LTE Band 42 Ant.3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				42190	42590	42990		
Frequency (MHz)				3460	3500	3540		
20	QPSK	1	0	23.36	23.50	23.31	24	0
20	QPSK	1	49	23.44	23.38	23.36		
20	QPSK	1	99	23.49	23.45	23.36		
20	QPSK	50	0	22.41	22.55	22.44	23	1
20	QPSK	50	24	22.46	22.54	22.48		
20	QPSK	50	50	22.29	22.50	22.37		
20	QPSK	100	0	22.49	22.51	22.45		
20	16QAM	1	0	22.47	22.54	22.50	23	1
20	16QAM	1	49	22.58	22.63	22.52		
20	16QAM	1	99	22.60	22.58	22.48		
20	16QAM	50	0	21.39	21.45	21.46	22	2
20	16QAM	50	24	21.56	21.52	21.51		
20	16QAM	50	50	21.53	21.52	21.36		
20	16QAM	100	0	21.51	21.49	21.45		
20	64QAM	1	0	21.17	21.35	21.20	22	2
20	64QAM	1	49	21.22	21.18	21.23		
20	64QAM	1	99	21.29	21.27	21.21		
20	64QAM	50	0	20.31	20.39	20.40	21	3
20	64QAM	50	24	20.47	20.47	20.45		
20	64QAM	50	50	20.47	20.44	20.32		
20	64QAM	100	0	20.53	20.52	20.50		
Channel				42165	42590	43015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3457.5	3500	3542.5		
15	QPSK	1	0	23.25	23.45	23.28	24	0
15	QPSK	1	37	23.32	23.30	23.20		
15	QPSK	1	74	23.42	23.29	23.34		
15	QPSK	36	0	22.26	22.41	22.41	23	1
15	QPSK	36	20	22.43	22.47	22.31		
15	QPSK	36	39	22.21	22.42	22.21		
15	QPSK	75	0	22.42	22.42	22.40		
15	16QAM	1	0	22.34	22.49	22.38	23	1
15	16QAM	1	37	22.54	22.54	22.42		
15	16QAM	1	74	22.57	22.49	22.34		
15	16QAM	36	0	21.21	21.30	21.30	22	2
15	16QAM	36	20	21.52	21.48	21.39		
15	16QAM	36	39	21.51	21.44	21.32		
15	16QAM	75	0	21.48	21.36	21.32		
15	64QAM	1	0	21.07	21.32	21.15	22	2
15	64QAM	1	37	21.17	21.11	21.06		
15	64QAM	1	74	21.21	21.12	21.15		
15	64QAM	36	0	20.13	20.26	20.36	21	3
15	64QAM	36	20	20.38	20.40	20.41		
15	64QAM	36	39	20.30	20.27	20.15		
15	64QAM	75	0	20.43	20.36	20.34		
Channel				42140	42590	43040	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3455	3500	3545		
10	QPSK	1	0	23.31	23.38	23.26	24	0
10	QPSK	1	25	23.28	23.22	23.29		
10	QPSK	1	49	23.47	23.38	23.29		
10	QPSK	25	0	22.27	22.45	22.41	23	1

10	QPSK	25	12	22.40	22.46	22.33		
10	QPSK	25	25	22.26	22.35	22.34		
10	QPSK	50	0	22.46	22.37	22.41		
10	16QAM	1	0	22.30	22.38	22.43		
10	16QAM	1	25	22.46	22.46	22.44	23	1
10	16QAM	1	49	22.45	22.47	22.43		
10	16QAM	25	0	21.33	21.36	21.31		
10	16QAM	25	12	21.53	21.48	21.49	22	2
10	16QAM	25	25	21.37	21.44	21.31		
10	16QAM	50	0	21.37	21.43	21.28		
10	64QAM	1	0	21.04	21.27	21.11		
10	64QAM	1	25	21.18	21.12	21.10	22	2
10	64QAM	1	49	21.14	21.09	21.10		
10	64QAM	25	0	20.18	20.29	20.22		
10	64QAM	25	12	20.30	20.30	20.41	21	3
10	64QAM	25	25	20.38	20.32	20.19		
10	64QAM	50	0	20.49	20.37	20.38		
Channel				42115	42590	43065	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3452.5	3500	3547.5		
5	QPSK	1	0	23.19	23.34	23.22		
5	QPSK	1	12	23.33	23.34	23.25	24	0
5	QPSK	1	24	23.39	23.41	23.22		
5	QPSK	12	0	22.31	22.39	22.40		
5	QPSK	12	7	22.37	22.51	22.32	23	1
5	QPSK	12	13	22.25	22.47	22.34		
5	QPSK	25	0	22.38	22.36	22.37		
5	16QAM	1	0	22.41	22.44	22.40		
5	16QAM	1	12	22.43	22.46	22.45	23	1
5	16QAM	1	24	22.44	22.49	22.35		
5	16QAM	12	0	21.32	21.42	21.40		
5	16QAM	12	7	21.45	21.42	21.35	22	2
5	16QAM	12	13	21.44	21.36	21.29		
5	16QAM	25	0	21.43	21.38	21.39		
5	64QAM	1	0	21.00	21.23	21.04		
5	64QAM	1	12	21.05	21.07	21.20	22	2
5	64QAM	1	24	21.21	21.10	21.14		
5	64QAM	12	0	20.20	20.33	20.30		
5	64QAM	12	7	20.36	20.43	20.41	21	3
5	64QAM	12	13	20.44	20.29	20.19		
5	64QAM	25	0	20.47	20.40	20.36		

Reduced Power Mode for DSI 1

<LTE Band 38 Ant.2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				37850	38000	38150		
Frequency (MHz)				2580	2595	2610		
20	QPSK	1	0	23.36	23.50	23.31	24	0
20	QPSK	1	49	23.44	23.38	23.36		
20	QPSK	1	99	23.49	23.45	23.36		
20	QPSK	50	0	22.41	22.55	22.44	23	1
20	QPSK	50	24	22.47	22.54	22.48		
20	QPSK	50	50	22.43	22.50	22.37		
20	QPSK	100	0	22.49	22.51	22.45		
20	16QAM	1	0	22.47	22.54	22.50	23	1
20	16QAM	1	49	22.58	22.63	22.52		
20	16QAM	1	99	22.60	22.58	22.48		
20	16QAM	50	0	21.39	21.45	21.46	22	2
20	16QAM	50	24	21.56	21.52	21.51		
20	16QAM	50	50	21.53	21.52	21.36		
20	16QAM	100	0	21.51	21.49	21.45		
20	64QAM	1	0	21.17	21.18	21.20	22	2
20	64QAM	1	49	21.22	21.35	21.23		
20	64QAM	1	99	21.29	21.27	21.21		
20	64QAM	50	0	20.31	20.39	20.40	21	3
20	64QAM	50	24	20.47	20.47	20.45		
20	64QAM	50	50	20.47	20.44	20.32		
20	64QAM	100	0	20.53	20.52	20.50		
Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	23.25	23.46	23.23	24	0
15	QPSK	1	37	23.33	23.24	23.33		
15	QPSK	1	74	23.40	23.31	23.24		
15	QPSK	36	0	22.32	22.38	22.32	23	1
15	QPSK	36	20	22.35	22.51	22.46		
15	QPSK	36	39	22.28	22.33	22.30		
15	QPSK	75	0	22.47	22.36	22.42		
15	16QAM	1	0	22.32	22.45	22.32	23	1
15	16QAM	1	37	22.42	22.56	22.42		
15	16QAM	1	74	22.45	22.50	22.44		
15	16QAM	36	0	21.27	21.30	21.41	22	2
15	16QAM	36	20	21.41	21.46	21.38		
15	16QAM	36	39	21.39	21.37	21.32		
15	16QAM	75	0	21.38	21.39	21.36		
15	64QAM	1	0	21.06	21.06	21.15	22	2
15	64QAM	1	37	21.06	21.33	21.10		
15	64QAM	1	74	21.26	21.14	21.06		
15	64QAM	36	0	20.16	20.23	20.34	21	3
15	64QAM	36	20	20.33	20.37	20.41		
15	64QAM	36	39	20.33	20.28	20.29		
15	64QAM	75	0	20.35	20.44	20.37		
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	23.20	23.35	23.16	24	0
10	QPSK	1	25	23.28	23.28	23.31		
10	QPSK	1	49	23.35	23.32	23.28		

10	QPSK	25	0	22.26	22.46	22.38	23	1
10	QPSK	25	12	22.30	22.39	22.36		
10	QPSK	25	25	22.35	22.37	22.21		
10	QPSK	50	0	22.45	22.36	22.41		
10	16QAM	1	0	22.45	22.45	22.41	23	1
10	16QAM	1	25	22.52	22.50	22.38		
10	16QAM	1	49	22.47	22.50	22.39		
10	16QAM	25	0	21.22	21.40	21.41	22	2
10	16QAM	25	12	21.50	21.38	21.44		
10	16QAM	25	25	21.45	21.44	21.28		
10	16QAM	50	0	21.39	21.35	21.38		
10	64QAM	1	0	21.14	21.02	21.11	22	2
10	64QAM	1	25	21.08	21.27	21.12		
10	64QAM	1	49	21.14	21.12	21.04		
10	64QAM	25	0	20.29	20.22	20.24	21	3
10	64QAM	25	12	20.35	20.39	20.40		
10	64QAM	25	25	20.33	20.31	20.17		
10	64QAM	50	0	20.38	20.44	20.33		
Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	23.27	23.34	23.21	24	0
5	QPSK	1	12	23.27	23.28	23.22		
5	QPSK	1	24	23.39	23.39	23.24		
5	QPSK	12	0	22.33	22.39	22.41	23	1
5	QPSK	12	7	22.30	22.46	22.45		
5	QPSK	12	13	22.31	22.45	22.22		
5	QPSK	25	0	22.46	22.36	22.38		
5	16QAM	1	0	22.37	22.48	22.42	23	1
5	16QAM	1	12	22.55	22.53	22.42		
5	16QAM	1	24	22.55	22.45	22.34		
5	16QAM	12	0	21.34	21.30	21.41	22	2
5	16QAM	12	7	21.41	21.46	21.38		
5	16QAM	12	13	21.37	21.45	21.25		
5	16QAM	25	0	21.42	21.37	21.33		
5	64QAM	1	0	21.13	21.09	21.12	22	2
5	64QAM	1	12	21.17	21.24	21.06		
5	64QAM	1	24	21.25	21.19	21.14		
5	64QAM	12	0	20.14	20.22	20.33	21	3
5	64QAM	12	7	20.43	20.43	20.34		
5	64QAM	12	13	20.36	20.41	20.22		
5	64QAM	25	0	20.42	20.42	20.42		

<LTE Band 41 Ant.2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	23.21	23.14	23.57	23.23	23.29	24	0
20	QPSK	1	49	23.16	23.21	23.22	23.28	23.24		
20	QPSK	1	99	23.13	23.18	23.29	23.33	23.24		
20	QPSK	50	0	22.27	22.30	22.47	22.41	22.44	23	1
20	QPSK	50	24	22.36	22.41	22.44	22.44	22.42		
20	QPSK	50	50	22.35	22.41	22.43	22.42	22.31		
20	QPSK	100	0	22.17	22.22	22.31	22.24	22.21		
20	16QAM	1	0	22.28	22.32	22.43	22.38	22.42	23	1
20	16QAM	1	49	22.29	22.34	22.36	22.38	22.35		
20	16QAM	1	99	22.25	22.34	22.43	22.50	22.36		
20	16QAM	50	0	21.31	21.32	21.45	21.41	21.44	22	2
20	16QAM	50	24	21.39	21.43	21.45	21.49	21.45		
20	16QAM	50	50	21.38	21.41	21.47	21.48	21.33		
20	16QAM	100	0	21.42	21.44	21.45	21.47	21.42		
20	64QAM	1	0	21.02	20.99	21.12	21.14	21.22	22	2
20	64QAM	1	49	20.98	21.04	21.08	21.15	21.10		
20	64QAM	1	99	20.95	20.98	21.13	21.22	21.07		
20	64QAM	50	0	20.24	20.26	20.40	20.37	20.33	21	3
20	64QAM	50	24	20.34	20.38	20.39	20.39	20.38		
20	64QAM	50	50	20.32	20.36	20.40	20.45	20.27		
20	64QAM	100	0	20.43	20.49	20.49	20.50	20.47		
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	23.17	22.96	23.34	23.11	23.23	24.00	0
15	QPSK	1	37	23.11	23.04	23.04	23.21	23.07		
15	QPSK	1	74	23.07	23.02	23.25	23.25	23.12		
15	QPSK	36	0	22.21	22.24	22.43	22.27	22.41	23	1
15	QPSK	36	20	22.32	22.28	22.30	22.31	22.25		
15	QPSK	36	39	22.25	22.31	22.40	22.37	22.16		
15	QPSK	75	0	22.27	22.37	22.31	22.32	22.36		
15	16QAM	1	0	22.16	22.15	22.29	22.25	22.33	23	1
15	16QAM	1	37	22.22	22.27	22.27	22.24	22.22		
15	16QAM	1	74	22.10	22.17	22.33	22.39	22.32		
15	16QAM	36	0	21.20	21.21	21.38	21.37	21.33	22	2
15	16QAM	36	20	21.31	21.34	21.31	21.45	21.40		
15	16QAM	36	39	21.28	21.34	21.34	21.33	21.28		
15	16QAM	75	0	21.28	21.34	21.28	21.40	21.40		
15	64QAM	1	0	20.98	20.87	20.96	21.02	21.04	22	2
15	64QAM	1	37	20.86	20.89	21.05	20.98	20.94		
15	64QAM	1	74	20.83	20.86	21.06	21.15	20.95		
15	64QAM	36	0	20.11	20.19	20.24	20.29	20.27	21	3
15	64QAM	36	20	20.26	20.32	20.34	20.36	20.21		
15	64QAM	36	39	20.27	20.34	20.26	20.35	20.13		
15	64QAM	75	0	20.29	20.36	20.39	20.36	20.32		
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	23.16	23.12	23.26	23.08	23.19	24.00	0
10	QPSK	1	25	23.08	23.16	23.18	23.24	23.21		
10	QPSK	1	49	23.02	23.11	23.14	23.20	23.14		

10	QPSK	25	0	22.14	22.16	22.42	22.28	22.34	23	1
10	QPSK	25	12	22.28	22.31	22.30	22.39	22.29		
10	QPSK	25	25	22.24	22.31	22.30	22.32	22.20		
10	QPSK	50	0	22.25	22.39	22.34	22.24	22.26		
10	16QAM	1	0	22.23	22.15	22.26	22.33	22.29	23	1
10	16QAM	1	25	22.16	22.32	22.22	22.24	22.29		
10	16QAM	1	49	22.11	22.22	22.37	22.41	22.26		
10	16QAM	25	0	21.27	21.14	21.33	21.28	21.37	22	2
10	16QAM	25	12	21.30	21.29	21.41	21.39	21.31		
10	16QAM	25	25	21.24	21.33	21.29	21.33	21.22		
10	16QAM	50	0	21.27	21.39	21.40	21.30	21.26		
10	64QAM	1	0	20.94	20.97	21.09	21.10	21.11	22	2
10	64QAM	1	25	20.86	20.91	20.94	21.06	20.94		
10	64QAM	1	49	20.88	20.89	21.05	21.17	20.92		
10	64QAM	25	0	20.20	20.13	20.23	20.34	20.16	21	3
10	64QAM	25	12	20.20	20.22	20.31	20.21	20.34		
10	64QAM	25	25	20.22	20.27	20.26	20.34	20.20		
10	64QAM	50	0	20.34	20.36	20.41	20.44	20.33		
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	23.15	23.04	23.19	23.12	23.19	24.00	0
5	QPSK	1	12	22.98	23.10	23.06	23.21	23.13		
5	QPSK	1	24	23.09	23.02	23.16	23.23	23.12		
5	QPSK	12	0	22.10	22.25	22.30	22.31	22.35	23	1
5	QPSK	12	7	22.22	22.33	22.40	22.26	22.38		
5	QPSK	12	13	22.22	22.25	22.27	22.28	22.13		
5	QPSK	25	0	22.32	22.38	22.35	22.31	22.28		
5	16QAM	1	0	22.17	22.15	22.35	22.35	22.28	23	1
5	16QAM	1	12	22.23	22.28	22.28	22.36	22.25		
5	16QAM	1	24	22.22	22.26	22.32	22.40	22.32		
5	16QAM	12	0	21.14	21.16	21.40	21.26	21.34	22	2
5	16QAM	12	7	21.24	21.39	21.36	21.42	21.35		
5	16QAM	12	13	21.35	21.29	21.31	21.46	21.28		
5	16QAM	25	0	21.37	21.42	21.43	21.37	21.38		
5	64QAM	1	0	20.97	20.85	21.08	21.10	21.12	22	2
5	64QAM	1	12	20.87	20.92	20.98	21.05	21.01		
5	64QAM	1	24	20.81	20.91	21.04	21.08	21.00		
5	64QAM	12	0	20.06	20.17	20.25	20.34	20.16	21	3
5	64QAM	12	7	20.24	20.27	20.22	20.22	20.22		
5	64QAM	12	13	20.20	20.20	20.38	20.33	20.09		
5	64QAM	25	0	20.38	20.45	20.35	20.38	20.39		

<LTE Band 42 Ant.3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				42190	42590	42990		
Frequency (MHz)				3460	3500	3540		
20	QPSK	1	0	23.36	23.50	23.31	24	0
20	QPSK	1	49	23.44	23.38	23.36		
20	QPSK	1	99	23.49	23.45	23.36		
20	QPSK	50	0	22.41	22.55	22.44	23	1
20	QPSK	50	24	22.46	22.54	22.48		
20	QPSK	50	50	22.29	22.50	22.37		
20	QPSK	100	0	22.49	22.51	22.45		
20	16QAM	1	0	22.47	22.54	22.50	23	1
20	16QAM	1	49	22.58	22.63	22.52		
20	16QAM	1	99	22.60	22.58	22.48		
20	16QAM	50	0	21.39	21.45	21.46	22	2
20	16QAM	50	24	21.56	21.52	21.51		
20	16QAM	50	50	21.53	21.52	21.36		
20	16QAM	100	0	21.51	21.49	21.45		
20	64QAM	1	0	21.17	21.35	21.20	22	2
20	64QAM	1	49	21.22	21.18	21.23		
20	64QAM	1	99	21.29	21.27	21.21		
20	64QAM	50	0	20.31	20.39	20.40	21	3
20	64QAM	50	24	20.47	20.47	20.45		
20	64QAM	50	50	20.47	20.44	20.32		
20	64QAM	100	0	20.53	20.52	20.50		
Channel				42165	42590	43015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3457.5	3500	3542.5		
15	QPSK	1	0	23.25	23.45	23.28	24	0
15	QPSK	1	37	23.32	23.30	23.20		
15	QPSK	1	74	23.42	23.29	23.34		
15	QPSK	36	0	22.26	22.41	22.41	23	1
15	QPSK	36	20	22.43	22.47	22.31		
15	QPSK	36	39	22.21	22.42	22.21		
15	QPSK	75	0	22.42	22.42	22.40		
15	16QAM	1	0	22.34	22.49	22.38	23	1
15	16QAM	1	37	22.54	22.54	22.42		
15	16QAM	1	74	22.57	22.49	22.34		
15	16QAM	36	0	21.21	21.30	21.30	22	2
15	16QAM	36	20	21.52	21.48	21.39		
15	16QAM	36	39	21.51	21.44	21.32		
15	16QAM	75	0	21.48	21.36	21.32		
15	64QAM	1	0	21.07	21.32	21.15	22	2
15	64QAM	1	37	21.17	21.11	21.06		
15	64QAM	1	74	21.21	21.12	21.15		
15	64QAM	36	0	20.13	20.26	20.36	21	3
15	64QAM	36	20	20.38	20.40	20.41		
15	64QAM	36	39	20.30	20.27	20.15		
15	64QAM	75	0	20.43	20.36	20.34		
Channel				42140	42590	43040	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3455	3500	3545		
10	QPSK	1	0	23.31	23.38	23.26	24	0
10	QPSK	1	25	23.28	23.22	23.29		
10	QPSK	1	49	23.47	23.38	23.29		
10	QPSK	25	0	22.27	22.45	22.41	23	1

10	QPSK	25	12	22.40	22.46	22.33		
10	QPSK	25	25	22.26	22.35	22.34		
10	QPSK	50	0	22.46	22.37	22.41		
10	16QAM	1	0	22.30	22.38	22.43		
10	16QAM	1	25	22.46	22.46	22.44	23	1
10	16QAM	1	49	22.45	22.47	22.43		
10	16QAM	25	0	21.33	21.36	21.31		
10	16QAM	25	12	21.53	21.48	21.49	22	2
10	16QAM	25	25	21.37	21.44	21.31		
10	16QAM	50	0	21.37	21.43	21.28		
10	64QAM	1	0	21.04	21.27	21.11		
10	64QAM	1	25	21.18	21.12	21.10	22	2
10	64QAM	1	49	21.14	21.09	21.10		
10	64QAM	25	0	20.18	20.29	20.22		
10	64QAM	25	12	20.30	20.30	20.41	21	3
10	64QAM	25	25	20.38	20.32	20.19		
10	64QAM	50	0	20.49	20.37	20.38		
Channel				42115	42590	43065	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3452.5	3500	3547.5		
5	QPSK	1	0	23.19	23.34	23.22		
5	QPSK	1	12	23.33	23.34	23.25	24	0
5	QPSK	1	24	23.39	23.41	23.22		
5	QPSK	12	0	22.31	22.39	22.40		
5	QPSK	12	7	22.37	22.51	22.32	23	1
5	QPSK	12	13	22.25	22.47	22.34		
5	QPSK	25	0	22.38	22.36	22.37		
5	16QAM	1	0	22.41	22.44	22.40		
5	16QAM	1	12	22.43	22.46	22.45	23	1
5	16QAM	1	24	22.44	22.49	22.35		
5	16QAM	12	0	21.32	21.42	21.40		
5	16QAM	12	7	21.45	21.42	21.35	22	2
5	16QAM	12	13	21.44	21.36	21.29		
5	16QAM	25	0	21.43	21.38	21.39		
5	64QAM	1	0	21.00	21.23	21.04		
5	64QAM	1	12	21.05	21.07	21.20	22	2
5	64QAM	1	24	21.21	21.10	21.14		
5	64QAM	12	0	20.20	20.33	20.30		
5	64QAM	12	7	20.36	20.43	20.41	21	3
5	64QAM	12	13	20.44	20.29	20.19		
5	64QAM	25	0	20.47	20.40	20.36		

Reduced Power Mode for DSI 2

<LTE Band 38 Ant.2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				37850	38000	38150		
Frequency (MHz)				2580	2595	2610		
20	QPSK	1	0	21.78	21.85	21.74	22.7	0
20	QPSK	1	49	21.69	21.71	21.60		
20	QPSK	1	99	21.63	21.73	21.61		
20	QPSK	50	0	21.09	21.29	21.15	22.7	0
20	QPSK	50	24	21.16	21.26	21.21		
20	QPSK	50	50	21.18	21.20	21.01		
20	QPSK	100	0	21.17	21.21	21.11		
20	16QAM	1	0	21.20	21.26	21.19	22.7	0
20	16QAM	1	49	21.33	21.31	21.21		
20	16QAM	1	99	21.27	21.30	21.20		
20	16QAM	50	0	20.15	20.19	20.19	22	0.7
20	16QAM	50	24	20.27	20.26	20.25		
20	16QAM	50	50	20.22	20.28	20.10		
20	16QAM	100	0	20.25	20.19	20.17		
20	64QAM	1	0	20.25	20.23	20.26	22	0.7
20	64QAM	1	49	20.34	20.39	20.31		
20	64QAM	1	99	20.38	20.38	20.28		
20	64QAM	50	0	19.31	19.40	19.43	21	1.7
20	64QAM	50	24	19.47	19.47	19.47		
20	64QAM	50	50	19.51	19.48	19.33		
20	64QAM	100	0	19.47	19.50	19.48		
Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	21.79	21.64	21.68	22.7	0
15	QPSK	1	37	21.55	21.66	21.47		
15	QPSK	1	74	21.51	21.63	21.48		
15	QPSK	36	0	20.97	21.24	21.05	22.7	0
15	QPSK	36	20	21.06	21.19	21.14		
15	QPSK	36	39	21.09	21.09	20.90		
15	QPSK	75	0	21.12	21.05	21.06		
15	16QAM	1	0	21.05	21.16	21.10	22.7	0
15	16QAM	1	37	21.17	21.23	21.07		
15	16QAM	1	74	21.19	21.14	21.09		
15	16QAM	36	0	20.08	20.11	20.13	22	0.7
15	16QAM	36	20	20.14	20.12	20.18		
15	16QAM	36	39	20.15	20.20	20.08		
15	16QAM	75	0	20.11	20.03	20.02		
15	64QAM	1	0	20.11	20.17	20.15	22	0.7
15	64QAM	1	37	20.28	20.23	20.17		
15	64QAM	1	74	20.22	20.32	20.20		
15	64QAM	36	0	19.06	19.06	19.08	21	1.7
15	64QAM	36	20	19.11	19.04	19.02		
15	64QAM	36	39	19.12	19.11	19.02		
15	64QAM	75	0	19.04	19.07	19.11		
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	21.76	21.67	21.63	22.7	0
10	QPSK	1	25	21.56	21.62	21.49		
10	QPSK	1	49	21.51	21.64	21.51		

10	QPSK	25	0	20.94	21.18	21.04	22.7	0
10	QPSK	25	12	21.07	21.22	21.07		
10	QPSK	25	25	21.03	21.12	20.85		
10	QPSK	50	0	21.08	21.12	21.01		
10	16QAM	1	0	21.06	21.11	21.03	22.7	0
10	16QAM	1	25	21.21	21.15	21.10		
10	16QAM	1	49	21.15	21.17	21.11		
10	16QAM	25	0	20.09	20.14	20.10	22	0.7
10	16QAM	25	12	20.17	20.16	20.16		
10	16QAM	25	25	20.09	20.17	20.04		
10	16QAM	50	0	20.16	20.05	20.04		
10	64QAM	1	0	20.13	20.15	20.13	22	0.7
10	64QAM	1	25	20.21	20.29	20.18		
10	64QAM	1	49	20.24	20.29	20.16		
10	64QAM	25	0	19.01	19.02	19.01	21	1.7
10	64QAM	25	12	19.12	19.03	19.05		
10	64QAM	25	25	19.05	19.08	19.00		
10	64QAM	50	0	19.03	19.04	19.06		
Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	21.75	21.62	21.69	22.7	0
5	QPSK	1	12	21.54	21.67	21.47		
5	QPSK	1	24	21.52	21.58	21.50		
5	QPSK	12	0	21.02	21.20	21.06	22.7	0
5	QPSK	12	7	21.09	21.21	21.15		
5	QPSK	12	13	21.14	21.15	20.94		
5	QPSK	25	0	21.02	21.09	21.00		
5	16QAM	1	0	21.12	21.10	21.14	22.7	0
5	16QAM	1	12	21.21	21.27	21.16		
5	16QAM	1	24	21.18	21.14	21.12		
5	16QAM	12	0	20.01	20.13	20.09	22	0.7
5	16QAM	12	7	20.20	20.13	20.13		
5	16QAM	12	13	20.15	20.22	20.06		
5	16QAM	25	0	20.19	20.04	20.06		
5	64QAM	1	0	20.15	20.12	20.13	22	0.7
5	64QAM	1	12	20.20	20.33	20.17		
5	64QAM	1	24	20.25	20.32	20.13		
5	64QAM	12	0	19.08	19.08	19.06	21	1.7
5	64QAM	12	7	19.06	19.10	19.04		
5	64QAM	12	13	19.06	19.11	19.01		
5	64QAM	25	0	19.08	19.07	19.09		

<LTE Band 41 Ant.2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	21.73	21.81	21.86	21.83	21.75	22.7	0
20	QPSK	1	49	21.55	21.65	21.83	21.75	21.77		
20	QPSK	1	99	21.51	21.71	21.76	21.74	21.80		
20	QPSK	50	0	21.15	21.25	21.41	21.28	21.33	22.7	0
20	QPSK	50	24	21.21	21.27	21.36	21.33	21.29		
20	QPSK	50	50	21.30	21.27	21.34	21.37	21.20		
20	QPSK	100	0	21.24	21.28	21.32	21.29	21.26		
20	16QAM	1	0	21.21	21.18	21.38	21.27	21.28	22.7	0
20	16QAM	1	49	21.19	21.18	21.24	21.31	21.21		
20	16QAM	1	99	21.19	21.19	21.35	21.45	21.21		
20	16QAM	50	0	20.17	20.19	20.33	20.34	20.28	22	0.7
20	16QAM	50	24	20.27	20.37	20.32	20.39	20.39		
20	16QAM	50	50	20.24	20.34	20.36	20.40	20.23		
20	16QAM	100	0	20.27	20.33	20.39	20.37	20.27		
20	64QAM	1	0	20.26	20.23	20.27	20.36	20.42	22	0.7
20	64QAM	1	49	20.12	20.26	20.32	20.32	20.30		
20	64QAM	1	99	20.19	20.14	20.32	20.36	20.30		
20	64QAM	50	0	19.11	19.11	19.27	19.30	19.20	21	1.7
20	64QAM	50	24	19.29	19.34	19.30	19.23	19.33		
20	64QAM	50	50	19.22	19.31	19.24	19.32	19.21		
20	64QAM	100	0	19.35	19.34	19.39	19.39	19.43		
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	21.59	21.66	21.73	21.72	21.77	22.70	0
15	QPSK	1	37	21.46	21.56	21.70	21.66	21.65		
15	QPSK	1	74	21.37	21.55	21.66	21.67	21.69		
15	QPSK	36	0	21.01	21.13	21.26	21.17	21.28	22.7	0
15	QPSK	36	20	21.16	21.16	21.29	21.25	21.13		
15	QPSK	36	39	21.23	21.21	21.26	21.29	21.05		
15	QPSK	75	0	21.09	21.20	21.23	21.17	21.21		
15	16QAM	1	0	21.05	21.12	21.34	21.16	21.16	22.7	0
15	16QAM	1	37	21.09	21.09	21.19	21.24	21.15		
15	16QAM	1	74	21.04	21.14	21.24	21.38	21.16		
15	16QAM	36	0	20.12	20.04	20.26	20.18	20.15	22	0.7
15	16QAM	36	20	20.12	20.30	20.17	20.24	20.34		
15	16QAM	36	39	20.08	20.29	20.31	20.25	20.13		
15	16QAM	75	0	20.12	20.24	20.31	20.27	20.19		
15	64QAM	1	0	20.11	20.18	20.18	20.22	20.27	22	0.7
15	64QAM	1	37	20.03	20.10	20.17	20.27	20.17		
15	64QAM	1	74	20.05	20.02	20.27	20.27	20.14		
15	64QAM	36	0	19.07	19.06	19.15	19.25	19.07	21	1.7
15	64QAM	36	20	19.19	19.19	19.15	19.15	19.23		
15	64QAM	36	39	19.15	19.21	19.10	19.21	19.08		
15	64QAM	75	0	19.19	19.22	19.35	19.29	19.27		
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	21.61	21.72	21.71	21.70	21.72	22.70	0
10	QPSK	1	25	21.40	21.54	21.75	21.70	21.70		
10	QPSK	1	49	21.37	21.58	21.72	21.62	21.69		
10	QPSK	25	0	21.07	21.15	21.31	21.15	21.25	22.7	0

10	QPSK	25	12	21.16	21.16	21.32	21.17	21.22		
10	QPSK	25	25	21.19	21.12	21.26	21.22	21.08		
10	QPSK	50	0	21.16	21.14	21.25	21.23	21.12		
10	16QAM	1	0	21.16	21.05	21.23	21.11	21.15	22.7	0
10	16QAM	1	25	21.09	21.07	21.19	21.24	21.06		
10	16QAM	1	49	21.08	21.07	21.22	21.33	21.06		
10	16QAM	25	0	20.09	20.12	20.27	20.25	20.15	22	0.7
10	16QAM	25	12	20.14	20.21	20.19	20.32	20.27		
10	16QAM	25	25	20.19	20.21	20.27	20.32	20.08		
10	16QAM	50	0	20.19	20.26	20.28	20.23	20.12		
10	64QAM	1	0	20.20	20.16	20.20	20.27	20.38	22	0.7
10	64QAM	1	25	20.07	20.19	20.27	20.18	20.24		
10	64QAM	1	49	20.08	20.04	20.20	20.23	20.25		
10	64QAM	25	0	19.09	19.02	19.22	19.23	19.13	21	1.7
10	64QAM	25	12	19.25	19.23	19.20	19.13	19.19		
10	64QAM	25	25	19.17	19.17	19.14	19.18	19.07		
10	64QAM	50	0	19.21	19.18	19.24	19.33	19.31		
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	21.67	21.73	21.80	21.78	21.74	22.70	0
5	QPSK	1	12	21.46	21.53	21.76	21.64	21.63		
5	QPSK	1	24	21.39	21.59	21.65	21.67	21.67		
5	QPSK	12	0	21.10	21.21	21.36	21.20	21.20	22.7	0
5	QPSK	12	7	21.11	21.22	21.24	21.20	21.23		
5	QPSK	12	13	21.18	21.21	21.28	21.31	21.16		
5	QPSK	25	0	21.14	21.15	21.27	21.15	21.15		
5	16QAM	1	0	21.12	21.11	21.24	21.11	21.14	22.7	0
5	16QAM	1	12	21.07	21.08	21.12	21.25	21.08		
5	16QAM	1	24	21.10	21.06	21.27	21.30	21.11		
5	16QAM	12	0	20.13	20.04	20.20	20.27	20.13	22	0.7
5	16QAM	12	7	20.13	20.32	20.20	20.35	20.25		
5	16QAM	12	13	20.18	20.25	20.32	20.26	20.16		
5	16QAM	25	0	20.18	20.25	20.26	20.25	20.11		
5	64QAM	1	0	20.17	20.13	20.18	20.30	20.29	22	0.7
5	64QAM	1	12	20.05	20.19	20.26	20.23	20.20		
5	64QAM	1	24	20.04	20.03	20.24	20.23	20.19		
5	64QAM	12	0	19.09	19.07	19.20	19.26	19.10	21	1.7
5	64QAM	12	7	19.15	19.26	19.25	19.08	19.26		
5	64QAM	12	13	19.16	19.27	19.09	19.25	19.13		
5	64QAM	25	0	19.27	19.20	19.33	19.26	19.30		

<LTE Band 42 Ant.3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				42190	42590	42990		
Frequency (MHz)				3460	3500	3540		
20	QPSK	1	0	23.36	23.50	23.31	24	0
20	QPSK	1	49	23.44	23.38	23.36		
20	QPSK	1	99	23.49	23.45	23.36		
20	QPSK	50	0	22.41	22.55	22.44	23	1
20	QPSK	50	24	22.46	22.54	22.48		
20	QPSK	50	50	22.29	22.50	22.37		
20	QPSK	100	0	22.49	22.51	22.45		
20	16QAM	1	0	22.47	22.54	22.50	23	1
20	16QAM	1	49	22.58	22.63	22.52		
20	16QAM	1	99	22.60	22.58	22.48		
20	16QAM	50	0	21.39	21.45	21.46	22	2
20	16QAM	50	24	21.56	21.52	21.51		
20	16QAM	50	50	21.53	21.52	21.36		
20	16QAM	100	0	21.51	21.49	21.45		
20	64QAM	1	0	21.17	21.35	21.20	22	2
20	64QAM	1	49	21.22	21.18	21.23		
20	64QAM	1	99	21.29	21.27	21.21		
20	64QAM	50	0	20.31	20.39	20.40	21	3
20	64QAM	50	24	20.47	20.47	20.45		
20	64QAM	50	50	20.47	20.44	20.32		
20	64QAM	100	0	20.53	20.52	20.50		
Channel				42165	42590	43015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3457.5	3500	3542.5		
15	QPSK	1	0	23.25	23.45	23.28	24	0
15	QPSK	1	37	23.32	23.30	23.20		
15	QPSK	1	74	23.42	23.29	23.34		
15	QPSK	36	0	22.26	22.41	22.41	23	1
15	QPSK	36	20	22.43	22.47	22.31		
15	QPSK	36	39	22.21	22.42	22.21		
15	QPSK	75	0	22.42	22.42	22.40		
15	16QAM	1	0	22.34	22.49	22.38	23	1
15	16QAM	1	37	22.54	22.54	22.42		
15	16QAM	1	74	22.57	22.49	22.34		
15	16QAM	36	0	21.21	21.30	21.30	22	2
15	16QAM	36	20	21.52	21.48	21.39		
15	16QAM	36	39	21.51	21.44	21.32		
15	16QAM	75	0	21.48	21.36	21.32		
15	64QAM	1	0	21.07	21.32	21.15	22	2
15	64QAM	1	37	21.17	21.11	21.06		
15	64QAM	1	74	21.21	21.12	21.15		
15	64QAM	36	0	20.13	20.26	20.36	21	3
15	64QAM	36	20	20.38	20.40	20.41		
15	64QAM	36	39	20.30	20.27	20.15		
15	64QAM	75	0	20.43	20.36	20.34		
Channel				42140	42590	43040	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3455	3500	3545		
10	QPSK	1	0	23.31	23.38	23.26	24	0
10	QPSK	1	25	23.28	23.22	23.29		
10	QPSK	1	49	23.47	23.38	23.29		
10	QPSK	25	0	22.27	22.45	22.41	23	1

10	QPSK	25	12	22.40	22.46	22.33		
10	QPSK	25	25	22.26	22.35	22.34		
10	QPSK	50	0	22.46	22.37	22.41		
10	16QAM	1	0	22.30	22.38	22.43		
10	16QAM	1	25	22.46	22.46	22.44	23	1
10	16QAM	1	49	22.45	22.47	22.43		
10	16QAM	25	0	21.33	21.36	21.31		
10	16QAM	25	12	21.53	21.48	21.49	22	2
10	16QAM	25	25	21.37	21.44	21.31		
10	16QAM	50	0	21.37	21.43	21.28		
10	64QAM	1	0	21.04	21.27	21.11		
10	64QAM	1	25	21.18	21.12	21.10	22	2
10	64QAM	1	49	21.14	21.09	21.10		
10	64QAM	25	0	20.18	20.29	20.22		
10	64QAM	25	12	20.30	20.30	20.41	21	3
10	64QAM	25	25	20.38	20.32	20.19		
10	64QAM	50	0	20.49	20.37	20.38		
Channel				42115	42590	43065	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3452.5	3500	3547.5		
5	QPSK	1	0	23.19	23.34	23.22		
5	QPSK	1	12	23.33	23.34	23.25	24	0
5	QPSK	1	24	23.39	23.41	23.22		
5	QPSK	12	0	22.31	22.39	22.40		
5	QPSK	12	7	22.37	22.51	22.32	23	1
5	QPSK	12	13	22.25	22.47	22.34		
5	QPSK	25	0	22.38	22.36	22.37		
5	16QAM	1	0	22.41	22.44	22.40		
5	16QAM	1	12	22.43	22.46	22.45	23	1
5	16QAM	1	24	22.44	22.49	22.35		
5	16QAM	12	0	21.32	21.42	21.40		
5	16QAM	12	7	21.45	21.42	21.35	22	2
5	16QAM	12	13	21.44	21.36	21.29		
5	16QAM	25	0	21.43	21.38	21.39		
5	64QAM	1	0	21.00	21.23	21.04		
5	64QAM	1	12	21.05	21.07	21.20	22	2
5	64QAM	1	24	21.21	21.10	21.14		
5	64QAM	12	0	20.20	20.33	20.30		
5	64QAM	12	7	20.36	20.43	20.41	21	3
5	64QAM	12	13	20.44	20.29	20.19		
5	64QAM	25	0	20.47	20.40	20.36		

Reduced Power Mode for DSI 3

<LTE Band 38 Ant.2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				37850	38000	38150		
Frequency (MHz)				2580	2595	2610		
20	QPSK	1	0	19.69	19.77	19.55	20.5	0
20	QPSK	1	49	19.66	19.73	19.60		
20	QPSK	1	99	19.60	19.71	19.64		
20	QPSK	50	0	19.56	19.67	19.60	20.5	0
20	QPSK	50	24	19.53	19.66	19.59		
20	QPSK	50	50	19.54	19.64	19.51		
20	QPSK	100	0	19.49	19.61	19.49		
20	16QAM	1	0	19.54	19.61	19.50	20.5	0
20	16QAM	1	49	19.52	19.60	19.53		
20	16QAM	1	99	19.48	19.59	19.53		
20	16QAM	50	0	19.49	19.58	19.46	20.5	0
20	16QAM	50	24	19.52	19.58	19.43		
20	16QAM	50	50	19.45	19.57	19.50		
20	16QAM	100	0	19.42	19.56	19.48		
20	64QAM	1	0	19.47	19.53	19.44	20.5	0
20	64QAM	1	49	19.38	19.51	19.37		
20	64QAM	1	99	19.41	19.50	19.39		
20	64QAM	50	0	19.37	19.47	19.33	20.5	0
20	64QAM	50	24	19.16	19.27	19.14		
20	64QAM	50	50	19.13	19.23	19.16		
20	64QAM	100	0	19.15	19.21	19.11		
Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	19.61	19.64	19.47	20.5	0
15	QPSK	1	37	19.60	19.62	19.49		
15	QPSK	1	74	19.51	19.61	19.50		
15	QPSK	36	0	19.47	19.56	19.48	20.5	0
15	QPSK	36	20	19.39	19.60	19.46		
15	QPSK	36	39	19.44	19.51	19.40		
15	QPSK	75	0	19.38	19.50	19.41		
15	16QAM	1	0	19.42	19.49	19.41	20.5	0
15	16QAM	1	37	19.39	19.51	19.42		
15	16QAM	1	74	19.42	19.49	19.44		
15	16QAM	36	0	19.35	19.48	19.34	20.5	0
15	16QAM	36	20	19.40	19.52	19.36		
15	16QAM	36	39	19.34	19.49	19.41		
15	16QAM	75	0	19.29	19.49	19.42		
15	64QAM	1	0	19.34	19.42	19.34	20.5	0
15	64QAM	1	37	19.30	19.39	19.23		
15	64QAM	1	74	19.33	19.38	19.29		
15	64QAM	36	0	19.28	19.35	19.21	20.5	0
15	64QAM	36	20	19.03	19.19	19.00		
15	64QAM	36	39	19.05	19.10	19.08		
15	64QAM	75	0	19.07	19.13	19.02		
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	19.60	19.70	19.43	20.5	0
10	QPSK	1	25	19.54	19.61	19.50		
10	QPSK	1	49	19.49	19.63	19.54		

10	QPSK	25	0	19.44	19.57	19.46	20.5	0
10	QPSK	25	12	19.45	19.54	19.45		
10	QPSK	25	25	19.40	19.56	19.45		
10	QPSK	50	0	19.37	19.52	19.40		
10	16QAM	1	0	19.43	19.48	19.42	20.5	0
10	16QAM	1	25	19.40	19.46	19.47		
10	16QAM	1	49	19.41	19.47	19.43		
10	16QAM	25	0	19.35	19.46	19.32	20.5	0
10	16QAM	25	12	19.45	19.50	19.36		
10	16QAM	25	25	19.36	19.46	19.40		
10	16QAM	50	0	19.34	19.46	19.34		
10	64QAM	1	0	19.41	19.42	19.30	20.5	0
10	64QAM	1	25	19.30	19.42	19.24		
10	64QAM	1	49	19.30	19.44	19.26		
10	64QAM	25	0	19.30	19.39	19.24	20.5	0
10	64QAM	25	12	19.06	19.14	19.01		
10	64QAM	25	25	19.00	19.13	19.05		
10	64QAM	50	0	19.09	19.07	19.00		
Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	19.59	19.66	19.49	20.5	0
5	QPSK	1	12	19.53	19.63	19.53		
5	QPSK	1	24	19.50	19.63	19.56		
5	QPSK	12	0	19.43	19.53	19.53	20.5	0
5	QPSK	12	7	19.45	19.55	19.51		
5	QPSK	12	13	19.47	19.57	19.41		
5	QPSK	25	0	19.37	19.52	19.41		
5	16QAM	1	0	19.48	19.48	19.38	20.5	0
5	16QAM	1	12	19.42	19.52	19.42		
5	16QAM	1	24	19.39	19.47	19.44		
5	16QAM	12	0	19.38	19.45	19.36	20.5	0
5	16QAM	12	7	19.42	19.49	19.34		
5	16QAM	12	13	19.37	19.49	19.38		
5	16QAM	25	0	19.31	19.43	19.40		
5	64QAM	1	0	19.37	19.41	19.33	20.5	0
5	64QAM	1	12	19.25	19.43	19.27		
5	64QAM	1	24	19.28	19.41	19.28		
5	64QAM	12	0	19.30	19.38	19.26	20.5	0
5	64QAM	12	7	19.08	19.17	19.02		
5	64QAM	12	13	19.00	19.15	19.03		
5	64QAM	25	0	19.02	19.10	18.99		

<LTE Band 41 Ant.2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	19.65	19.76	19.88	19.70	19.81	20.5	0
20	QPSK	1	49	19.72	19.66	19.76	19.66	19.74		
20	QPSK	1	99	19.63	19.61	19.74	19.60	19.58		
20	QPSK	50	0	19.68	19.62	19.72	19.70	19.71	20.5	0
20	QPSK	50	24	19.62	19.57	19.69	19.56	19.61		
20	QPSK	50	50	19.62	19.52	19.70	19.54	19.57		
20	QPSK	100	0	19.57	19.57	19.68	19.62	19.54		
20	16QAM	1	0	19.55	19.55	19.66	19.63	19.52	20.5	0
20	16QAM	1	49	19.54	19.59	19.67	19.61	19.50		
20	16QAM	1	99	19.51	19.57	19.61	19.56	19.51		
20	16QAM	50	0	19.49	19.49	19.60	19.51	19.59	20.5	0
20	16QAM	50	24	19.53	19.45	19.65	19.46	19.49		
20	16QAM	50	50	19.57	19.59	19.63	19.54	19.52		
20	16QAM	100	0	19.56	19.58	19.62	19.55	19.50		
20	64QAM	1	0	19.53	19.53	19.59	19.46	19.51	20.5	0
20	64QAM	1	49	19.44	19.45	19.57	19.43	19.47		
20	64QAM	1	99	19.43	19.39	19.51	19.35	19.36		
20	64QAM	50	0	19.39	19.33	19.45	19.32	19.28	20.5	0
20	64QAM	50	24	19.21	19.25	19.32	19.22	19.22		
20	64QAM	50	50	19.09	19.03	19.19	19.10	19.10		
20	64QAM	100	0	19.02	18.94	19.10	18.96	18.95		
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	19.56	19.65	19.80	19.63	19.73	20.50	0
15	QPSK	1	37	19.63	19.57	19.72	19.57	19.69		
15	QPSK	1	74	19.52	19.49	19.62	19.45	19.43		
15	QPSK	36	0	19.52	19.51	19.60	19.66	19.59	20.5	0
15	QPSK	36	20	19.53	19.49	19.64	19.46	19.47		
15	QPSK	36	39	19.49	19.36	19.55	19.41	19.52		
15	QPSK	75	0	19.49	19.44	19.54	19.54	19.48		
15	16QAM	1	0	19.40	19.46	19.61	19.53	19.39	20.5	0
15	16QAM	1	37	19.45	19.49	19.52	19.56	19.34		
15	16QAM	1	74	19.44	19.46	19.48	19.49	19.47		
15	16QAM	36	0	19.41	19.37	19.54	19.41	19.51	20.5	0
15	16QAM	36	20	19.42	19.40	19.56	19.31	19.42		
15	16QAM	36	39	19.51	19.53	19.54	19.49	19.42		
15	16QAM	75	0	19.50	19.45	19.50	19.47	19.45		
15	64QAM	1	0	19.44	19.39	19.53	19.38	19.44	20.5	0
15	64QAM	1	37	19.28	19.29	19.47	19.38	19.37		
15	64QAM	1	74	19.36	19.28	19.40	19.31	19.21		
15	64QAM	36	0	19.30	19.27	19.29	19.17	19.13	20.5	0
15	64QAM	36	20	19.13	19.13	19.26	19.16	19.07		
15	64QAM	36	39	19.00	18.93	19.13	19.06	18.97		
15	64QAM	75	0	18.88	18.89	18.96	18.80	18.84		
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	19.51	19.67	19.74	19.55	19.74	20.50	0
10	QPSK	1	25	19.58	19.53	19.63	19.50	19.63		
10	QPSK	1	49	19.58	19.52	19.65	19.52	19.50		
10	QPSK	25	0	19.62	19.55	19.64	19.54	19.62	20.5	0

10	QPSK	25	12	19.50	19.49	19.59	19.50	19.54		
10	QPSK	25	25	19.54	19.40	19.57	19.50	19.45		
10	QPSK	50	0	19.52	19.42	19.61	19.52	19.44		
10	16QAM	1	0	19.44	19.39	19.59	19.47	19.48		
10	16QAM	1	25	19.39	19.49	19.55	19.47	19.40	20.5	0
10	16QAM	1	49	19.41	19.51	19.47	19.40	19.41		
10	16QAM	25	0	19.34	19.40	19.45	19.46	19.55		
10	16QAM	25	12	19.37	19.36	19.59	19.31	19.39	20.5	0
10	16QAM	25	25	19.48	19.51	19.56	19.41	19.45		
10	16QAM	50	0	19.44	19.43	19.55	19.50	19.36		
10	64QAM	1	0	19.46	19.40	19.45	19.36	19.37		
10	64QAM	1	25	19.30	19.36	19.50	19.33	19.34	20.5	0
10	64QAM	1	49	19.35	19.33	19.38	19.20	19.30		
10	64QAM	25	0	19.34	19.24	19.31	19.23	19.18		
10	64QAM	25	12	19.08	19.20	19.27	19.07	19.12	20.5	0
10	64QAM	25	25	18.96	18.96	19.07	19.01	19.00		
10	64QAM	50	0	18.94	18.87	19.00	18.88	18.80		
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	19.57	19.65	19.82	19.62	19.69		
5	QPSK	1	12	19.63	19.58	19.69	19.54	19.68	20.50	0
5	QPSK	1	24	19.53	19.54	19.63	19.51	19.53		
5	QPSK	12	0	19.54	19.50	19.61	19.58	19.61		
5	QPSK	12	7	19.50	19.46	19.57	19.41	19.54	20.5	0
5	QPSK	12	13	19.54	19.39	19.59	19.39	19.46		
5	QPSK	25	0	19.48	19.44	19.64	19.56	19.43		
5	16QAM	1	0	19.47	19.40	19.51	19.48	19.48		
5	16QAM	1	12	19.49	19.44	19.61	19.54	19.38	20.5	0
5	16QAM	1	24	19.44	19.44	19.50	19.43	19.46		
5	16QAM	12	0	19.36	19.37	19.53	19.41	19.54		
5	16QAM	12	7	19.42	19.31	19.50	19.36	19.36	20.5	0
5	16QAM	12	13	19.49	19.52	19.49	19.48	19.46		
5	16QAM	25	0	19.50	19.52	19.51	19.51	19.39		
5	64QAM	1	0	19.49	19.46	19.46	19.35	19.37		
5	64QAM	1	12	19.40	19.34	19.42	19.30	19.34	20.5	0
5	64QAM	1	24	19.37	19.26	19.36	19.21	19.27		
5	64QAM	12	0	19.24	19.27	19.41	19.20	19.15		
5	64QAM	12	7	19.15	19.19	19.18	19.07	19.18	20.5	0
5	64QAM	12	13	18.93	18.91	19.05	18.97	18.96		
5	64QAM	25	0	18.86	18.87	19.04	18.86	18.85		

<LTE Band 42 Ant.3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				42190	42590	42990		
Frequency (MHz)				3460	3500	3540		
20	QPSK	1	0	23.36	23.50	23.31	24	0
20	QPSK	1	49	23.44	23.38	23.36		
20	QPSK	1	99	23.49	23.45	23.36		
20	QPSK	50	0	22.41	22.55	22.44	23	1
20	QPSK	50	24	22.46	22.54	22.48		
20	QPSK	50	50	22.29	22.50	22.37		
20	QPSK	100	0	22.49	22.51	22.45		
20	16QAM	1	0	22.47	22.54	22.50	23	1
20	16QAM	1	49	22.58	22.63	22.52		
20	16QAM	1	99	22.60	22.58	22.48		
20	16QAM	50	0	21.39	21.45	21.46	22	2
20	16QAM	50	24	21.56	21.52	21.51		
20	16QAM	50	50	21.53	21.52	21.36		
20	16QAM	100	0	21.51	21.49	21.45		
20	64QAM	1	0	21.17	21.35	21.20	22	2
20	64QAM	1	49	21.22	21.18	21.23		
20	64QAM	1	99	21.29	21.27	21.21		
20	64QAM	50	0	20.31	20.39	20.40	21	3
20	64QAM	50	24	20.47	20.47	20.45		
20	64QAM	50	50	20.47	20.44	20.32		
20	64QAM	100	0	20.53	20.52	20.50		
Channel				42165	42590	43015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3457.5	3500	3542.5		
15	QPSK	1	0	23.25	23.45	23.28	24	0
15	QPSK	1	37	23.32	23.30	23.20		
15	QPSK	1	74	23.42	23.29	23.34		
15	QPSK	36	0	22.26	22.41	22.41	23	1
15	QPSK	36	20	22.43	22.47	22.31		
15	QPSK	36	39	22.21	22.42	22.21		
15	QPSK	75	0	22.42	22.42	22.40		
15	16QAM	1	0	22.34	22.49	22.38	23	1
15	16QAM	1	37	22.54	22.54	22.42		
15	16QAM	1	74	22.57	22.49	22.34		
15	16QAM	36	0	21.21	21.30	21.30	22	2
15	16QAM	36	20	21.52	21.48	21.39		
15	16QAM	36	39	21.51	21.44	21.32		
15	16QAM	75	0	21.48	21.36	21.32		
15	64QAM	1	0	21.07	21.32	21.15	22	2
15	64QAM	1	37	21.17	21.11	21.06		
15	64QAM	1	74	21.21	21.12	21.15		
15	64QAM	36	0	20.13	20.26	20.36	21	3
15	64QAM	36	20	20.38	20.40	20.41		
15	64QAM	36	39	20.30	20.27	20.15		
15	64QAM	75	0	20.43	20.36	20.34		
Channel				42140	42590	43040	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3455	3500	3545		
10	QPSK	1	0	23.31	23.38	23.26	24	0
10	QPSK	1	25	23.28	23.22	23.29		
10	QPSK	1	49	23.47	23.38	23.29		
10	QPSK	25	0	22.27	22.45	22.41	23	1

10	QPSK	25	12	22.40	22.46	22.33		
10	QPSK	25	25	22.26	22.35	22.34		
10	QPSK	50	0	22.46	22.37	22.41		
10	16QAM	1	0	22.30	22.38	22.43		
10	16QAM	1	25	22.46	22.46	22.44	23	1
10	16QAM	1	49	22.45	22.47	22.43		
10	16QAM	25	0	21.33	21.36	21.31		
10	16QAM	25	12	21.53	21.48	21.49	22	2
10	16QAM	25	25	21.37	21.44	21.31		
10	16QAM	50	0	21.37	21.43	21.28		
10	64QAM	1	0	21.04	21.27	21.11		
10	64QAM	1	25	21.18	21.12	21.10	22	2
10	64QAM	1	49	21.14	21.09	21.10		
10	64QAM	25	0	20.18	20.29	20.22		
10	64QAM	25	12	20.30	20.30	20.41	21	3
10	64QAM	25	25	20.38	20.32	20.19		
10	64QAM	50	0	20.49	20.37	20.38		
Channel				42115	42590	43065	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3452.5	3500	3547.5		
5	QPSK	1	0	23.19	23.34	23.22		
5	QPSK	1	12	23.33	23.34	23.25	24	0
5	QPSK	1	24	23.39	23.41	23.22		
5	QPSK	12	0	22.31	22.39	22.40		
5	QPSK	12	7	22.37	22.51	22.32	23	1
5	QPSK	12	13	22.25	22.47	22.34		
5	QPSK	25	0	22.38	22.36	22.37		
5	16QAM	1	0	22.41	22.44	22.40		
5	16QAM	1	12	22.43	22.46	22.45	23	1
5	16QAM	1	24	22.44	22.49	22.35		
5	16QAM	12	0	21.32	21.42	21.40		
5	16QAM	12	7	21.45	21.42	21.35	22	2
5	16QAM	12	13	21.44	21.36	21.29		
5	16QAM	25	0	21.43	21.38	21.39		
5	64QAM	1	0	21.00	21.23	21.04		
5	64QAM	1	12	21.05	21.07	21.20	22	2
5	64QAM	1	24	21.21	21.10	21.14		
5	64QAM	12	0	20.20	20.33	20.30		
5	64QAM	12	7	20.36	20.43	20.41	21	3
5	64QAM	12	13	20.44	20.29	20.19		
5	64QAM	25	0	20.47	20.40	20.36		

<LTE Carrier Aggregation>

General Note:

1. This device supports Carrier Aggregation on downlink for inter and intra band. For the device supports bands and bandwidths and configurations are provided as follow table was according to 3GPP.
2. In applying the existing power measurement procedures of KDB 941225 D05A for DL CA SAR test exclusion, only the subset with the largest number of combinations of frequency bands and CCs in each row need combination, and for this device that all the configurations were choose to power measurement.

Index	2CC
2CC #1	CA_2C
2CC #2	CA_7B
2CC #3	CA_7C
2CC #4	CA_38C
2CC #5	CA_41C
2CC #6	CA_2A-2A
2CC #7	CA_4A-4A
2CC #8	CA_5A-5A
2CC #9	CA_7A-7A
2CC #10	CA_41A-41A
2CC #11	CA_2A-5A
2CC #12	CA_4A-5A
2CC #13	CA_5A-2A
2CC #14	CA_5A-7A
2CC #15	CA_5A-38A
2CC #16	CA_5A-41A

LTE Carrier Aggregation Conducted Power (Downlink)

i. According to KDB941225 D05A v01r02, Uplink maximum output power measurement with downlink carrier aggregation active should be measured, using the highest output channel measured without downlink carrier aggregation, to confirm that uplink maximum output power with downlink carrier aggregation active remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output measured without downlink carrier aggregation active.

ii. Uplink maximum output power with downlink carrier aggregation active does not show more than ¼ dB higher than the maximum output power without downlink carrier aggregation active, therefore SAR evaluation with downlink carrier aggregation active can be excluded.

iii. The device supports downlink two carrier aggregation. For power measurement were control and acknowledge data is sent on uplink channels that operate identical to specifications when downlink carrier aggregation is inactive.

iv. Selected highest measured power when downlink carrier aggregation is inactive for conducted power comparison with downlink carrier aggregation is active, to confirm that when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive.

v. For inter-band CA, the SCC selected highest bandwidth and near the middle of its transmission band. For SCC DL RB size and offset will base on the PCC corresponding RB allocation.

vi. For non-contiguous intra-band CA, the SCC selected to provide maximum separation from the PCC and must remain fully within the downlink transmission band.

vii. For Intra-band, contiguous CA, the downlink channels selected to perform the uplink power measurement must satisfy 3GPP channel spacing (5.4.1A of 3GPP TS 36.521 or equivalent) and channel bandwidth (5.4.2A) requirements.

$$\text{Nominal channel spacing} = \left\lfloor \frac{BW_{Channel(1)} + BW_{Channel(2)} - 0.1\left|BW_{Channel(1)} - BW_{Channel(2)}\right|}{0.6} \right\rfloor 0.3 \ \ [\text{MHz}]$$

LTE 4x4 MIMO (Downlink)

This device supports downlink 4x4 MIMO operations for LTE Bands7/38/41only. Uplink transmission is limited to a single output stream. Power measurements were performed with downlink 4x4 MIMO active for the configuration with highest measured maximum conducted power with 4x4 downlink MIMO inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band.

Per FCC Guidance, SAR for downlink 4x4 MIMO was not needed since the maximum average output power in 4x4 downlink MIMO mode was not > 0.25 dB higher than the maximum output power with downlink 4x4 MIMO inactive. When carrier aggregation is applicable, power measurements were performed with the downlink carrier aggregation and 4x4 DL MIMO active for the configuration with highest measured maximum conducted power with downlink carrier aggregation inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band.

4X4 MIMO	Band
	LTE Band7/38/41

<Two Carrier power verification>

CA List	PCC									SCC					Power	
	LTE Band	BW Ant	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	DL Antenna Configuration	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	DL Antenna Configuration	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
CA_2C	Band 2	Ant0	20M	1880	18900	QPSK	1	0		Band 2	20M	1979.8	1098		22.47	22.54
CA_7B	Band 7	Ant2	15M	2535	21100	QPSK	1	0	4x4MIMO	Band 7	5M	2664.3	3193	4x4MIMO	23.18	23.37
CA_7C	Band 7	Ant2	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 7	20M	2674.8	3298	4x4MIMO	23.14	23.37
CA_38C	Band 38	Ant2	20M	2580	37850	QPSK	1	0	4x4MIMO	Band 38	20M	2599.8	38048	4x4MIMO	23.28	23.50
CA_41C	Band 41	Ant2	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 41	20M	2612.8	40818	4x4MIMO	23.20	23.37
CA_2A-2A	Band 2	Ant0	20M	1880	18900	QPSK	1	0		Band 2	5M	1987.5	1175		22.39	22.54
CA_4A-4A	Band 4	Ant0	20M	1732.5	20175	QPSK	1	0		Band 4	5M	2152.5	2375		22.51	22.63
CA_5A-5A	Band 5	Ant0	10M	836.5	20525	QPSK	1	0		Band 5	5M	891.5	2625		22.70	22.92
CA_7A-7A	Band 7	Ant2	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 7	5M	2687.5	3425	4x4MIMO	23.16	23.37
CA_41A-41A	Band 41	Ant2	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 41	10M	2685	41540	4x4MIMO	23.17	23.37
CA_2A-5A	Band 2	Ant0	20M	1880	18900	QPSK	1	0		Band 5	10M	881.5	2525		22.46	22.54
CA_4A-5A	Band 4	Ant0	20M	1732.5	20175	QPSK	1	0		Band 5	10M	881.5	2525		22.50	22.63
	Band 5	Ant0	10M	836.5	20525	QPSK	1	0		Band 4	20M	2132.5	2175		22.44	22.63
CA_5A-2A	Band 5	Ant0	10M	836.5	20525	QPSK	1	0		Band 2	20M	1979.8	1098		22.71	22.92
CA_5A-7A	Band 5	Ant0	10M	836.5	20525	QPSK	1	0		Band 7	20M	2655	3100	4x4MIMO	22.67	22.92
	Band 7	Ant2	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 5	10M	881.5	2525		22.75	22.92
CA_5A-38A	Band 5	Ant0	10M	836.5	20525	QPSK	1	0		Band 38	20M	2595	38000	4x4MIMO	22.69	22.92
	Band 38	Ant2	20M	2595	38000	QPSK	1	0	4x4MIMO	Band 5	10M	881.5	2525		22.84	22.92
CA_5A-41A	Band 5	Ant0	10M	836.5	20525	QPSK	1	0		Band 41	20M	2593	40620	4x4MIMO	22.83	22.92
	Band 41	Ant2	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 5	10M	881.5	2525		22.89	22.92

5G NR Output Power (Unit: dBm)

General Note:

1. 5G NR n5 / n7 / n66 / n78 is NSA mode.
2. 5G NR n2 / n5 / n7 / n66 / n38 / n41/ n77 / n78 is SA mode.
3. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
   a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not ½ dB higher than the same configuration in DFT-QPSK and the reported SAR for the DFT-QPSK configuration is ≤ 1.45 W/kg; CP-OFDM testing is not required.
   b. For DFT-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, for 16QAM/64QAM/256QAM and smaller bandwidth output power will spot check largest channel bandwidth worst RB configuration to ensure the 16QAM/64QAM/256QAM and smaller bandwidth output power will not ½ dB higher than the same configuration in the largest supported bandwidth.
   c. SAR testing start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel
   d. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
   e. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested
   f. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK /16QAM/64QAM/256QAM SAR testing are not required.
   g. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
4. Due to test setup limitations, SAR testing for NR was performed using Factory Test Mode software to establish the connection and perform SAR with 100% transmission.
5. 5G NR n41 / 78 supports HPUE, HPUE power and SAR testing performed separately.
6. 5G NR n41 / 78 HUPE with higher power, 5G NR n78 HUPE SAR can represent power class 3 level SAR.
7. NSA and SA mode should perform SAR separately. For the maximum power of NSA mode is the same as SA total power level, so SA SAR can represent NSA mode SAR.
8. 5GNR NSA mode, the power level is the same as 5GNR SA mode, so 5GNR NSA mode and SA mode power table only show one time.
9. 5G NR supports CP-OFDM and DFT-s-OFDM modulation, for DFT-s-OFDM power is higher than CP-OFDM, so only show DFT-s-OFDM power table and chose DFT-s-OFDM to perform SAR testing.
10. For DFT-s-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for the CP-OFDM mode will not higher than DFT-s-OFDM mode, therefore, CP-OFDM measurement is unnecessary.

<3GPP 38.101 MPR for EN-DC>

Table 6.2.2-1 Maximum power reduction (MPR) for power class 3

Modulation		MPR (dB)		
		Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM	Pi/2 BPSK	≤ 3.5[1]	≤ 1.2[1]	≤ 0.2[1]
		≤ 0.5[2]	≤ 0.5[2]	0[2]
	QPSK	≤ 1		0
	16 QAM	≤ 2		≤ 1
	64 QAM	≤ 2.5		
	256 QAM	≤ 4.5		
CP-OFDM	QPSK	≤ 3		≤ 1.5
	16 QAM	≤ 3		≤ 2
	64 QAM	≤ 3.5		
	256 QAM	≤ 6.5		
NOTE 1: Applicable for UE operating in TDD mode with Pi/2 BPSK modulation and UE indicates support for UE capability *powerBoosting-pi2BPSK* and if the IE *powerBoostPi2BPSK* is set to 1 and 40 % or less slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79. The reference power of 0 dB MPR is 26 dBm.				
NOTE 2: Applicable for UE operating in FDD mode, or in TDD mode in bands other than n40, n41, n77, n78 and n79 with Pi/2 BPSK modulation and if the IE *powerBoostPi2BPSK* is set to 0 and if more than 40 % of slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79.				

Table 6.2.2-2 Maximum power reduction (MPR) for power class 2

Modulation		MPR (dB)		
		Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM	Pi/2 BPSK	≤ 3.5	≤ 0.5	0
	QPSK	≤ 3.5	≤ 1	0
	16 QAM	≤ 3.5	≤ 2	≤ 1
	64 QAM	≤ 3.5	≤ 2.5	
	256 QAM	≤ 4.5		
CP-OFDM	QPSK	≤ 3.5	≤ 3	≤ 1.5
	16 QAM	≤ 3.5	≤ 3	≤ 2
	64 QAM	≤ 3.5		
	256 QAM	≤ 6.5		

<EN-DC combination and combine Total Power>

EN-DC configuration	Uplink EN-DC configuration	4G UL	5GNR UL
DC_2A_n7A	DC_2A_n7A	ANT0	ANT2
DC_2A_n78A	DC_2A_n78A	ANT0	ANT3
DC_5A_n7A	DC_5A_n7A	ANT0	ANT2
DC_5A_n78A	DC_5A_n78A	ANT0	ANT3
DC_7A_n5A	DC_7A_n5A	ANT2	ANT0
DC_7A_n66A	DC_7A_n66A	ANT2	ANT0

Default Power Mode

<n2 Ant.0>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				372000	376000	380000		
Frequency (MHz)				1860	1880	1900		
20	PI/2 BPSK	1	1	23.11	23.16	23.01	24.0	0.0
20	PI/2 BPSK	1	53	23.14	23.22	23.09		
20	PI/2 BPSK	1	104	23.07	23.19	23.12		
20	PI/2 BPSK	50	0	22.56	22.71	22.62	23.5	0.5
20	PI/2 BPSK	50	28	23.10	23.23	23.18	24.0	0.0
20	PI/2 BPSK	50	56	22.57	22.66	22.58	23.5	0.5
20	PI/2 BPSK	100	0	22.75	22.88	22.79		
20	QPSK	1	1	22.97	23.27	23.20	24.0	0.0
20	QPSK	1	53	22.92	23.05	22.98		
20	QPSK	1	104	22.70	22.84	22.75		
20	QPSK	50	0	22.08	22.16	22.07	23.0	1.0
20	QPSK	50	28	23.00	23.09	22.96	24.0	0.0
20	QPSK	50	56	21.57	21.65	21.59	23.0	1.0
20	QPSK	100	0	21.93	22.07	21.95		
20	16QAM	1	1	22.15	22.24	22.17	23.0	1.0
20	64QAM	1	1	20.61	20.73	20.66	21.5	2.5
20	256QAM	1	1	19.17	19.26	19.14	19.5	4.5
Channel				371500	376000	380500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	1	22.86	23.17	23.07	24.0	0.0
Channel				371000	376000	381000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	1	22.88	23.21	23.14	24.0	0.0
Channel				370500	376000	381500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	1	22.83	23.19	23.06	24.0	0.0

<n5 Ant.0>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				166800	167300	167800		
Frequency (MHz)				834	836.5	839		
20	PI/2 BPSK	1	1	22.84	22.95	22.90	24.0	0.0
20	PI/2 BPSK	1	53	22.80	22.86	22.74		
20	PI/2 BPSK	1	104	22.72	22.83	22.75		
20	PI/2 BPSK	50	0	22.32	22.47	22.40	23.5	0.5
20	PI/2 BPSK	50	28	22.85	22.98	22.90	24.0	0.0
20	PI/2 BPSK	50	56	22.32	22.39	22.26	23.5	0.5
20	PI/2 BPSK	100	0	22.35	22.50	22.37		
20	QPSK	1	1	23.01	23.03	22.96	24.0	0.0
20	QPSK	1	53	22.78	22.91	22.85		
20	QPSK	1	104	22.74	22.80	22.72		
20	QPSK	50	0	21.90	21.98	21.90	23.0	1.0
20	QPSK	50	28	22.79	22.91	22.79	24.0	0.0
20	QPSK	50	56	21.74	21.86	21.81	23.0	1.0
20	QPSK	100	0	21.80	21.93	21.86		
20	16QAM	1	1	22.22	22.35	22.29	23.0	1.0
20	64QAM	1	1	20.77	20.82	20.69	21.5	2.5
20	256QAM	1	1	18.53	18.62	18.52	19.5	4.5
Channel				166300	167300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				831.5	836.5	841.5		
15	QPSK	1	1	22.88	22.89	22.84	24.0	0.0
Channel				165800	167300	168800	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				829	836.5	844		
10	QPSK	1	1	22.88	22.91	22.84	24.0	0.0
Channel				165300	167300	169300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	1	22.90	22.95	22.90	24.0	0.0

<n7 Ant.2 SA>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				505000	507000	509000		
Frequency (MHz)				2525	2535	2545		
50	PI/2 BPSK	1	1	22.82	23.34	23.22	24.0	0.0
50	PI/2 BPSK	1	135	22.77	23.27	23.12		
50	PI/2 BPSK	1	268	22.85	23.38	23.31		
50	PI/2 BPSK	135	0	22.27	22.78	22.68	23.5	0.5
50	PI/2 BPSK	135	68	22.88	23.35	23.27	24.0	0.0
50	PI/2 BPSK	135	135	22.36	22.86	22.71	23.5	0.5
50	PI/2 BPSK	270	0	22.30	22.77	22.67		
50	QPSK	1	1	22.94	23.48	23.41	24.0	0.0
50	QPSK	1	135	22.80	23.32	23.25		
50	QPSK	1	268	22.92	23.37	23.23		
50	QPSK	135	0	21.65	22.16	22.11	23.0	1.0
50	QPSK	135	68	22.81	23.28	23.18	24.0	0.0
50	QPSK	135	135	21.88	22.36	22.31	23.0	1.0
50	QPSK	270	0	21.77	22.27	22.17		
50	16QAM	1	1	22.11	22.64	22.56	23.0	1.0
50	64QAM	1	1	20.61	21.13	21.08	21.5	2.5
50	256QAM	1	1	18.43	18.89	18.82	19.5	4.5
Channel				504000	507000	510000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2520	2535	2550		
40	QPSK	1	1	22.80	23.37	23.27	24.0	0.0
Channel				503000	507000	511000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2515	2535	2555		
30	QPSK	1	1	22.84	23.40	23.36	24.0	0.0
Channel				502500	507000	511500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2512.5	2535	2557.5		
25	QPSK	1	1	22.89	23.34	23.29	24.0	0.0
Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	1	22.81	23.38	23.28	24.0	0.0
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	1	22.80	23.37	23.31	24.0	0.0
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	22.83	23.22	23.32	24.0	0.0
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	22.80	23.29	23.29	24.0	0.0

<n7 Ant.2 NSA>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				502000	507000	512000		
Frequency (MHz)				2510	2535	2560		
20	PI/2 BPSK	1	1	22.74	23.22	23.10	24.0	0.0
20	PI/2 BPSK	1	53	22.73	23.11	23.04		
20	PI/2 BPSK	1	104	22.68	23.34	23.27		
20	PI/2 BPSK	50	0	22.16	22.74	22.51	23.5	0.5
20	PI/2 BPSK	50	28	22.78	23.31	23.19	24.0	0.0
20	PI/2 BPSK	50	56	22.29	22.69	22.66	23.5	0.5
20	PI/2 BPSK	100	0	22.15	22.72	22.57		
20	QPSK	1	1	22.81	23.38	23.28	24.0	0.0
20	QPSK	1	53	22.71	23.19	23.20		
20	QPSK	1	104	22.85	23.25	23.16		
20	QPSK	50	0	21.62	22.06	22.04	23.0	1.0
20	QPSK	50	28	22.68	23.22	23.01	24.0	0.0
20	QPSK	50	56	21.72	22.23	22.20	23.0	1.0
20	QPSK	100	0	21.72	22.14	22.03		
20	16QAM	1	1	21.96	22.49	22.43	23.0	1.0
20	64QAM	1	1	20.43	21.02	20.93	21.5	2.5
20	256QAM	1	1	18.39	18.84	18.71	19.5	4.5
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	1	22.80	23.37	23.31	24.0	0.0
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	22.83	23.22	23.32	24.0	0.0
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	22.80	23.29	23.29	24.0	0.0

<n66 Ant.0 SA>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				344000	349000	354000		
Frequency (MHz)				1720	1745	1770		
20	PI/2 BPSK	1	1	22.82	22.96	22.81	24.0	0.0
20	PI/2 BPSK	1	53	22.72	22.86	22.87		
20	PI/2 BPSK	1	104	22.90	22.92	22.82		
20	PI/2 BPSK	50	0	22.30	22.40	22.30	23.5	0.5
20	PI/2 BPSK	50	28	22.85	22.91	22.88	24.0	0.0
20	PI/2 BPSK	50	56	22.36	22.46	22.42	23.5	0.5
20	PI/2 BPSK	100	0	22.24	22.43	22.29		
20	QPSK	1	1	22.97	23.10	22.88	24.0	0.0
20	QPSK	1	53	22.85	22.93	22.85		
20	QPSK	1	104	22.86	22.93	22.86		
20	QPSK	50	0	21.71	21.88	21.77	23.0	1.0
20	QPSK	50	28	22.81	23.09	22.79	24.0	0.0
20	QPSK	50	56	21.84	21.95	21.92	23.0	1.0
20	QPSK	100	0	21.85	21.97	21.81		
20	16QAM	1	1	22.14	22.19	22.20	23.0	1.0
20	64QAM	1	1	20.44	20.53	20.39	21.5	2.5
20	256QAM	1	1	18.36	18.49	18.40	19.5	4.5
Channel				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	1	23.03	23.06	22.89	24.0	0.0
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	1	23.07	23.06	22.93	24.0	0.0
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	1	23.04	23.01	22.97	24.0	0.0

<n66 Ant.0 NSA>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				345000	349000	353000		
Frequency (MHz)				1725	1745	1765		
30	PI/2 BPSK	1	1	22.99	23.09	22.95	24.0	0.0
30	PI/2 BPSK	1	80	22.91	23.05	22.98		
30	PI/2 BPSK	1	158	23.02	23.11	22.96		
30	PI/2 BPSK	80	0	22.50	22.58	22.46	23.5	0.5
30	PI/2 BPSK	80	40	22.97	23.10	23.01	24.0	0.0
30	PI/2 BPSK	80	80	22.55	22.61	22.53	23.5	0.5
30	PI/2 BPSK	160	0	22.41	22.55	22.41		
30	QPSK	1	1	23.15	23.22	23.03	24.0	0.0
30	QPSK	1	80	22.97	23.07	22.96		
30	QPSK	1	158	22.99	23.10	23.04		
30	QPSK	80	0	21.91	22.02	21.96	23.0	1.0
30	QPSK	80	40	22.96	23.21	22.94	24.0	0.0
30	QPSK	80	80	22.01	22.11	22.03	23.0	1.0
30	QPSK	160	0	21.99	22.08	21.98		
30	16QAM	1	1	22.25	22.39	22.32	23.0	1.0
30	64QAM	1	1	20.56	20.67	20.57	21.5	2.5
30	256QAM	1	1	18.49	18.63	18.53	19.5	4.5
Channel				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	1	23.03	23.15	22.88	24.0	0.0
Channel				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	1	23.03	23.06	22.89	24.0	0.0
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	1	23.07	23.16	22.93	24.0	0.0
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	1	23.04	23.14	22.97	24.0	0.0

<n38 Ant.2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				518004	519000	519996		
Frequency (MHz)				2590.02	2595	2599.98		
40	PI/2 BPSK	1	1	23.52	23.67	23.61	24.0	0.0
40	PI/2 BPSK	1	53	23.51	23.64	23.57		
40	PI/2 BPSK	1	104	23.56	23.68	23.58		
40	PI/2 BPSK	50	0	23.09	23.23	23.10	23.5	0.5
40	PI/2 BPSK	50	28	23.55	23.62	23.53	24.0	0.0
40	PI/2 BPSK	50	56	22.99	23.13	23.00	23.5	0.5
40	PI/2 BPSK	100	0	22.98	23.09	22.98		
40	QPSK	1	1	23.72	23.77	23.68	24.0	0.0
40	QPSK	1	53	23.56	23.62	23.51		
40	QPSK	1	104	23.58	23.70	23.58		
40	QPSK	50	0	22.54	22.65	22.59	23.0	1.0
40	QPSK	50	28	23.54	23.66	23.54	24.0	0.0
40	QPSK	50	56	22.52	22.65	22.58	23.0	1.0
40	QPSK	100	0	22.51	22.57	22.46		
40	16QAM	1	1	22.95	23.02	22.91	23.0	1.0
40	64QAM	1	1	21.29	21.35	21.26	21.5	2.5
40	256QAM	1	1	19.15	19.27	19.19	19.5	4.5
Channel				517002	519000	520998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2585.01	2595	2604.99		
30	QPSK	1	39	23.59	23.70	23.62	24.0	0.0
Channel				516000	519000	522000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2580	2595	2610		
20	QPSK	1	26	23.65	23.72	23.58	24.0	0.0

<n41 Ant.1 PC3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509202	518598	528000		
Frequency (MHz)				2546.01	2592.99	2640		
100	PI/2 BPSK	1	1	19.20	19.27	19.14	21.0	0.0
100	PI/2 BPSK	1	137	19.72	19.76	19.58		
100	PI/2 BPSK	1	271	19.88	20.02	19.94		
100	PI/2 BPSK	135	0	19.64	19.71	19.64	21.0	0.0
100	PI/2 BPSK	135	69	19.81	19.91	19.82	21.0	0.0
100	PI/2 BPSK	135	138	19.97	19.78	20.03	21.0	0.0
100	PI/2 BPSK	270	0	19.58	19.64	19.52		
100	QPSK	1	1	19.89	20.19	19.87	21.0	0.0
100	QPSK	1	137	19.97	20.07	20.03		
100	QPSK	1	271	19.90	19.92	19.95		
100	QPSK	135	0	19.53	19.65	19.49	21.0	0.0
100	QPSK	135	69	19.74	20.15	19.64	21.0	0.0
100	QPSK	135	138	19.78	19.86	19.73	21.0	0.0
100	QPSK	270	0	19.63	19.68	19.60		
100	16QAM	1	1	19.47	19.65	19.59	21.0	0.0
100	64QAM	1	1	19.95	20.08	19.96	21.0	0.0
100	256QAM	1	1	19.76	19.94	19.79	21.0	0.0
Channel				508200	518598	528996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2541	2592.99	2644.98		
90	QPSK	1	123	19.66	19.79	19.88	21.0	0.0
Channel				507204	518598	529998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2536.02	2592.99	2649.99		
80	QPSK	1	109	19.78	19.90	19.77	21.0	0.0
Channel				506202	518598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	95	19.81	19.97	19.87	21.0	0.0
Channel				505200	518598	531996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	81	19.81	19.79	19.83	21.0	0.0
Channel				504204	518598	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2521.02	2592.99	2664.99		
50	QPSK	1	67	19.76	19.87	19.82	21.0	0.0
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2516.01	2592.99	2670		
40	QPSK	1	53	19.86	19.78	19.72	21.0	0.0
Channel				502200	518598	534996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2511	2592.99	2674.98		
30	QPSK	1	39	19.86	19.94	19.73	21.0	0.0
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506.02	2592.99	2679.99		
20	QPSK	1	26	19.79	19.87	19.72	21.0	0.0

<n41 Ant.2 PC3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509202	518598	528000		
Frequency (MHz)				2546.01	2592.99	2640		
100	PI/2 BPSK	1	1	23.48	23.58	23.52	24.0	0.0
100	PI/2 BPSK	1	137	23.44	23.54	23.43		
100	PI/2 BPSK	1	271	23.60	23.66	23.58		
100	PI/2 BPSK	135	0	22.83	22.96	22.85	23.5	0.5
100	PI/2 BPSK	135	69	23.39	23.52	23.45	24.0	0.0
100	PI/2 BPSK	135	138	22.93	23.04	22.94	23.5	0.5
100	PI/2 BPSK	270	0	22.90	22.99	22.86		
100	QPSK	1	1	23.35	23.74	23.46	24.0	0.0
100	QPSK	1	137	23.47	23.59	23.34		
100	QPSK	1	271	23.57	23.63	23.56		
100	QPSK	135	0	22.35	22.42	22.28	23.0	1.0
100	QPSK	135	69	23.44	23.53	23.38	24.0	0.0
100	QPSK	135	138	22.48	22.54	22.41	23.0	1.0
100	QPSK	270	0	22.45	22.50	22.38		
100	16QAM	1	1	22.01	22.15	22.09	23.0	1.0
100	64QAM	1	1	21.02	21.08	20.99	21.5	2.5
100	256QAM	1	1	18.98	19.10	18.97	19.5	4.5
Channel				508200	518598	528996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2541	2592.99	2644.98		
90	QPSK	1	123	23.30	23.60	23.40	24.0	0.0
Channel				507204	518598	529998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2536.02	2592.99	2649.99		
80	QPSK	1	109	23.28	23.66	23.40	24.0	0.0
Channel				506202	518598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	95	23.23	23.61	23.38	24.0	0.0
Channel				505200	518598	531996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	81	23.27	23.59	23.39	24.0	0.0
Channel				504204	518598	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2521.02	2592.99	2664.99		
50	QPSK	1	67	23.28	23.63	23.41	24.0	0.0
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2516.01	2592.99	2670		
40	QPSK	1	53	23.20	23.64	23.32	24.0	0.0
Channel				502200	518598	534996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2511	2592.99	2674.98		
30	QPSK	1	39	23.25	23.67	23.41	24.0	0.0
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506.02	2592.99	2679.99		
20	QPSK	1	26	23.26	23.62	23.33	24.0	0.0

<n41 Ant.2 PC2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509202	518598	528000		
Frequency (MHz)				2546.01	2592.99	2640		
100	PI/2 BPSK	1	1	25.92	26.09	25.88	27.0	0.0
100	PI/2 BPSK	1	137	26.09	26.18	25.85		
100	PI/2 BPSK	1	271	26.07	26.35	26.26		
100	PI/2 BPSK	135	0	25.54	25.73	25.62	26.5	0.5
100	PI/2 BPSK	135	69	25.45	25.74	25.52	27.0	0.0
100	PI/2 BPSK	135	138	25.57	25.62	25.31	26.5	0.5
100	PI/2 BPSK	270	0	25.44	25.77	25.49		
100	QPSK	1	1	26.17	26.48	26.42	27.0	0.0
100	QPSK	1	137	26.06	26.38	26.35		
100	QPSK	1	271	26.09	26.42	26.36		
100	QPSK	135	0	24.98	25.34	25.17	26.0	1.0
100	QPSK	135	69	26.22	26.44	26.14	27.0	0.0
100	QPSK	135	138	25.52	25.57	25.48	26.0	1.0
100	QPSK	270	0	25.19	25.50	25.30		
100	16QAM	1	1	25.48	25.63	25.26	26.0	1.0
100	64QAM	1	1	23.86	23.88	23.73	24.5	2.5
100	256QAM	1	1	21.77	21.97	21.69	22.5	4.5
Channel				508200	518598	528996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2541	2592.99	2644.98		
90	QPSK	1	123	25.23	25.51	25.23	27.0	0.0
Channel				507204	518598	529998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2536.02	2592.99	2649.99		
80	QPSK	1	109	26.10	26.17	26.21	27.0	0.0
Channel				506202	518598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	95	25.25	25.70	25.36	27.0	0.0
Channel				505200	518598	531996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	81	26.01	26.37	26.13	27.0	0.0
Channel				504204	518598	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2521.02	2592.99	2664.99		
50	QPSK	1	67	25.28	25.49	25.26	27.0	0.0
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2516.01	2592.99	2670		
40	QPSK	1	53	25.93	26.11	26.40	27.0	0.0
Channel				502200	518598	534996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2511	2592.99	2674.98		
30	QPSK	1	39	25.28	25.60	25.25	27.0	0.0
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506.02	2592.99	2679.99		
20	QPSK	1	26	26.04	26.10	26.39	27.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509202	518598	528000		
Frequency (MHz)				2546.01	2592.99	2640		
100	PI/2 BPSK	1	1	19.25	19.42	19.27	21.0	0.0
100	PI/2 BPSK	1	137	19.40	19.57	19.50		
100	PI/2 BPSK	1	271	20.09	20.11	20.01		
100	PI/2 BPSK	135	0	19.36	19.44	19.27	21.0	0.0
100	PI/2 BPSK	135	69	19.66	19.75	19.70	21.0	0.0
100	PI/2 BPSK	135	138	20.15	20.17	20.04	21.0	0.0
100	PI/2 BPSK	270	0	19.76	19.92	19.86		
100	QPSK	1	1	20.10	20.21	20.01	21.0	0.0
100	QPSK	1	137	20.05	20.12	20.05		
100	QPSK	1	271	20.19	20.17	20.08		
100	QPSK	135	0	19.60	19.69	19.60	21.0	0.0
100	QPSK	135	69	19.83	20.18	19.93	21.0	0.0
100	QPSK	135	138	20.15	20.07	20.08	21.0	0.0
100	QPSK	270	0	20.07	20.16	20.11		
100	16QAM	1	1	19.35	19.54	19.39	21.0	0.0
100	64QAM	1	1	20.13	20.02	20.09	21.0	0.0
100	256QAM	1	1	20.08	20.13	20.05	21.0	0.0
Channel				508200	518598	528996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2541	2592.99	2644.98		
90	QPSK	1	123	19.57	20.08	19.74	21.0	0.0
Channel				507204	518598	529998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2536.02	2592.99	2649.99		
80	QPSK	1	109	19.54	20.08	19.74	21.0	0.0
Channel				506202	518598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	95	19.60	20.12	19.70	21.0	0.0
Channel				505200	518598	531996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	81	19.54	20.15	19.81	21.0	0.0
Channel				504204	518598	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2521.02	2592.99	2664.99		
50	QPSK	1	67	19.58	20.18	19.85	21.0	0.0
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2516.01	2592.99	2670		
40	QPSK	1	53	19.65	20.18	19.78	21.0	0.0
Channel				502200	518598	534996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2511	2592.99	2674.98		
30	QPSK	1	39	19.54	20.13	19.70	21.0	0.0
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506.02	2592.99	2679.99		
20	QPSK	1	26	19.69	20.10	19.80	21.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509202	518598	528000		
Frequency (MHz)				2546.01	2592.99	2640		
100	PI/2 BPSK	1	1	19.88	20.18	20.07	21.0	0.0
100	PI/2 BPSK	1	137	19.60	19.68	19.55		
100	PI/2 BPSK	1	271	20.55	20.55	20.45		
100	PI/2 BPSK	135	0	19.69	19.98	19.80	21.0	0.0
100	PI/2 BPSK	135	69	19.74	19.84	19.58	21.0	0.0
100	PI/2 BPSK	135	138	19.94	20.23	20.06	21.0	0.0
100	PI/2 BPSK	270	0	19.96	20.11	19.98		
100	QPSK	1	1	20.25	20.57	20.33	21.0	0.0
100	QPSK	1	137	19.80	20.02	19.90		
100	QPSK	1	271	20.32	20.48	20.42		
100	QPSK	135	0	20.01	20.11	19.97	21.0	0.0
100	QPSK	135	69	19.74	20.14	19.99	21.0	0.0
100	QPSK	135	138	20.07	20.04	20.12	21.0	0.0
100	QPSK	270	0	19.97	20.01	19.96		
100	16QAM	1	1	19.95	20.12	19.91	21.0	0.0
100	64QAM	1	1	20.16	20.43	20.15	21.0	0.0
100	256QAM	1	1	19.60	19.90	19.74	21.0	0.0
Channel				508200	518598	528996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2541	2592.99	2644.98		
90	QPSK	1	123	19.55	19.72	19.53	21.0	0.0
Channel				507204	518598	529998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2536.02	2592.99	2649.99		
80	QPSK	1	109	19.48	19.74	19.45	21.0	0.0
Channel				506202	518598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	95	19.56	19.66	19.52	21.0	0.0
Channel				505200	518598	531996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	81	19.56	19.62	19.38	21.0	0.0
Channel				504204	518598	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2521.02	2592.99	2664.99		
50	QPSK	1	67	19.62	19.83	19.42	21.0	0.0
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2516.01	2592.99	2670		
40	QPSK	1	53	19.61	19.73	19.38	21.0	0.0
Channel				502200	518598	534996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2511	2592.99	2674.98		
30	QPSK	1	39	19.56	19.69	19.54	21.0	0.0
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506.02	2592.99	2679.99		
20	QPSK	1	26	19.49	19.65	19.39	21.0	0.0

<n77Ant.1>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				650000	656000	662000		
Frequency (MHz)				3750	3840	3930		
100	PI/2 BPSK	1	1	18.69	18.83	18.68	20.0	0.0
100	PI/2 BPSK	1	137	18.83	18.91	18.82		
100	PI/2 BPSK	1	271	18.73	19.02	18.93		
100	PI/2 BPSK	135	0	18.45	18.67	18.44	20.0	0.0
100	PI/2 BPSK	135	69	18.72	18.98	18.83	20.0	0.0
100	PI/2 BPSK	135	138	18.42	18.70	18.50	20.0	0.0
100	PI/2 BPSK	270	0	18.65	18.74	18.50		
100	QPSK	1	1	18.97	19.28	18.90	20.0	0.0
100	QPSK	1	137	18.91	19.16	19.03		
100	QPSK	1	271	18.99	19.26	19.09		
100	QPSK	135	0	18.64	18.84	18.64	20.0	0.0
100	QPSK	135	69	18.92	19.04	18.91	20.0	0.0
100	QPSK	135	138	18.62	18.78	18.69	20.0	0.0
100	QPSK	270	0	18.25	18.46	18.27		
100	16QAM	1	1	18.36	18.65	18.49	20.0	0.0
100	64QAM	1	1	17.70	17.97	17.83	20.0	0.0
100	256QAM	1	1	17.15	17.29	17.06	19.5	0.5
Channel				649334	656000	662668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3840	3940.02		
80	QPSK	1	109	18.81	18.85	18.80	20.0	0.0
Channel				648668	656000	663334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3840	3950.01		
60	QPSK	1	81	18.61	18.83	18.72	20.0	0.0
Channel				648000	656000	664000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3840	3960		
40	QPSK	1	53	18.71	18.76	18.81	20.0	0.0
Channel				647668	656000	664334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3840	3965.01		
30	QPSK	1	39	18.74	18.88	18.67	20.0	0.0
Channel				647334	656000	664668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3840	3970.02		
20	QPSK	1	26	18.74	18.94	18.71	20.0	0.0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					633334			
Frequency (MHz)					3500.01			
100	PI/2 BPSK	1	1		18.62		20.0	0.0
100	PI/2 BPSK	1	137		18.19			
100	PI/2 BPSK	1	271		18.14			
100	PI/2 BPSK	135	0		18.54		20.0	0.0
100	PI/2 BPSK	135	69		18.43		20.0	0.0
100	PI/2 BPSK	135	138		18.12		20.0	0.0
100	PI/2 BPSK	270	0		18.41			
100	QPSK	1	1		18.71		20.0	0.0
100	QPSK	1	137		18.29			
100	QPSK	1	271		18.07			
100	QPSK	135	0		18.41		20.0	0.0
100	QPSK	135	69		18.52		20.0	0.0
100	QPSK	135	138		18.12		20.0	0.0
100	QPSK	270	0		18.39			
100	16QAM	1	1		18.47		20.0	0.0
100	64QAM	1	1		18.52'		20.0	0.0
100	256QAM	1	1		18.03		19.5	0.5
Channel				632668	633334	634000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3490.02	3500.01	3510		
80	QPSK	1	109	18.17	18.21	18.32	20.0	0.0
Channel				632000	633334	634668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3480	3500.01	3520.02		
60	QPSK	1	81	18.21	18.29	18.22	20.0	0.0
Channel				631334	633334	635334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3470.01	3500.01	3530.01		
40	QPSK	1	53	18.13	18.23	18.20	20.0	0.0
Channel				631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3465	3500.01	3535.02		
30	QPSK	1	39	18.19	18.19	18.32	20.0	0.0
Channel				630668	633334	636000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3460.02	3500.01	3540		
20	QPSK	1	26	18.16	18.39	18.37	20.0	0.0

<n77Ant.3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				650000	656000	662000		
Frequency (MHz)				3750	3840	3930		
100	PI/2 BPSK	1	1	23.29	23.34	23.09	24.0	0.0
100	PI/2 BPSK	1	137	22.73	22.83	22.69		
100	PI/2 BPSK	1	271	22.90	22.95	22.78		
100	PI/2 BPSK	135	0	22.71	23.04	22.80	23.5	0.5
100	PI/2 BPSK	135	69	22.86	23.12	23.10	24.0	0.0
100	PI/2 BPSK	135	138	22.49	22.79	22.71	23.5	0.5
100	PI/2 BPSK	270	0	21.95	22.27	22.05		
100	QPSK	1	1	23.25	23.47	23.13	24.0	0.0
100	QPSK	1	137	23.07	23.15	23.01		
100	QPSK	1	271	23.19	23.31	23.07		
100	QPSK	135	0	22.05	22.39	22.00	23.0	1.0
100	QPSK	135	69	23.44	23.46	23.28	24.0	0.0
100	QPSK	135	138	22.40	22.48	22.36	23.0	1.0
100	QPSK	270	0	22.35	22.53	22.31		
100	16QAM	1	1	22.15	22.52	22.48	23.0	1.0
100	64QAM	1	1	20.91	21.12	20.84	21.5	2.5
100	256QAM	1	1	18.76	19.06	19.02	19.5	4.5
Channel				649334	656000	662668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3840	3940.02		
80	QPSK	1	109	23.21	23.31	23.17	24.0	0.0
Channel				648668	656000	663334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3840	3950.01		
60	QPSK	1	81	23.19	23.32	23.19	24.0	0.0
Channel				648000	656000	664000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3840	3960		
40	QPSK	1	53	23.23	23.37	23.13	24.0	0.0
Channel				647668	656000	664334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3840	3965.01		
30	QPSK	1	39	23.19	23.21	23.06	24.0	0.0
Channel				647334	656000	664668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3840	3970.02		
20	QPSK	1	26	23.15	23.16	23.04	24.0	0.0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					633334			
Frequency (MHz)					3500.01			
100	PI/2 BPSK	1	1		23.10		24.0	0.0
100	PI/2 BPSK	1	137		22.70			
100	PI/2 BPSK	1	271		22.57			
100	PI/2 BPSK	135	0		22.74		23.5	0.5
100	PI/2 BPSK	135	69		22.73		24.0	0.0
100	PI/2 BPSK	135	138		22.42		23.5	0.5
100	PI/2 BPSK	270	0		21.94			
100	QPSK	1	1		23.40		24.0	0.0
100	QPSK	1	137		22.90			
100	QPSK	1	271		23.23			
100	QPSK	135	0		22.10		23.0	1.0
100	QPSK	135	69		23.25		24.0	0.0
100	QPSK	135	138		22.29		23.0	1.0
100	QPSK	270	0		22.43			
100	16QAM	1	1		22.27		23.0	1.0
100	64QAM	1	1		20.89		21.5	2.5
100	256QAM	1	1		19.05		19.5	4.5
Channel				632668	633334	634000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3490.02	3500.01	3510		
80	QPSK	1	109	22.62	22.61	22.45	24.0	0.0
Channel				632000	633334	634668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3480	3500.01	3520.02		
60	QPSK	1	81	22.55	22.59	22.38	24.0	0.0
Channel				631334	633334	635334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3470.01	3500.01	3530.01		
40	QPSK	1	53	22.40	22.52	22.39	24.0	0.0
Channel				631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3465	3500.01	3535.02		
30	QPSK	1	39	22.44	22.56	22.47	24.0	0.0
Channel				630668	633334	636000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3460.02	3500.01	3540		
20	QPSK	1	26	22.46	22.62	22.35	24.0	0.0

<n77Ant.4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				650000	656000	662000		
Frequency (MHz)				3750	3840	3930		
100	PI/2 BPSK	1	1	19.52	19.68	19.51	20.0	0.0
100	PI/2 BPSK	1	137	18.89	19.03	18.94		
100	PI/2 BPSK	1	271	17.91	18.15	17.84		
100	PI/2 BPSK	135	0	19.03	19.28	19.12	20.0	0.0
100	PI/2 BPSK	135	69	19.02	19.16	18.86	20.0	0.0
100	PI/2 BPSK	135	138	18.19	18.43	18.21	20.0	0.0
100	PI/2 BPSK	270	0	18.86	18.99	18.68		
100	QPSK	1	1	19.55	19.75	19.46	20.0	0.0
100	QPSK	1	137	19.38	19.63	19.45		
100	QPSK	1	271	18.34	18.61	18.46		
100	QPSK	135	0	19.27	19.36	19.10	20.0	0.0
100	QPSK	135	69	19.51	19.65	19.35	20.0	0.0
100	QPSK	135	138	18.24	18.54	18.45	20.0	0.0
100	QPSK	270	0	18.52	18.71	18.49		
100	16QAM	1	1	18.81	18.95	18.71	20.0	0.0
100	64QAM	1	1	18.18	18.28	18.02	20.0	0.0
100	256QAM	1	1	17.81	18.11	18.01	19.5	0.5
Channel				649334	656000	662668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3840	3940.02		
80	QPSK	1	109	19.14	19.04	18.84	20.0	0.0
Channel				648668	656000	663334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3840	3950.01		
60	QPSK	1	81	18.97	19.10	18.86	20.0	0.0
Channel				648000	656000	664000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3840	3960		
40	QPSK	1	53	19.15	19.28	18.88	20.0	0.0
Channel				647668	656000	664334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3840	3965.01		
30	QPSK	1	39	19.12	19.22	18.97	20.0	0.0
Channel				647334	656000	664668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3840	3970.02		
20	QPSK	1	26	19.14	19.15	18.96	20.0	0.0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					633334			
Frequency (MHz)					3500.01			
100	PI/2 BPSK	1	1		19.19		20.0	0.0
100	PI/2 BPSK	1	137		18.91			
100	PI/2 BPSK	1	271		19.01			
100	PI/2 BPSK	135	0		19.14		20.0	0.0
100	PI/2 BPSK	135	69		19.05		20.0	0.0
100	PI/2 BPSK	135	138		18.87		20.0	0.0
100	PI/2 BPSK	270	0		19.03			
100	QPSK	1	1		19.30		20.0	0.0
100	QPSK	1	137		18.97			
100	QPSK	1	271		18.84			
100	QPSK	135	0		18.99		20.0	0.0
100	QPSK	135	69		19.15		20.0	0.0
100	QPSK	135	138		18.83		20.0	0.0
100	QPSK	270	0		19.02			
100	16QAM	1	1		18.86		20.0	0.0
100	64QAM	1	1		19.13		20.0	0.0
100	256QAM	1	1		18.56		19.5	0.5
Channel				632668	633334	634000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3490.02	3500.01	3510		
80	QPSK	1	109	18.62	18.52	18.46	20.0	0.0
Channel				632000	633334	634668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3480	3500.01	3520.02		
60	QPSK	1	81	18.66	18.49	18.40	20.0	0.0
Channel				631334	633334	635334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3470.01	3500.01	3530.01		
40	QPSK	1	53	18.49	18.41	18.38	20.0	0.0
Channel				631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3465	3500.01	3535.02		
30	QPSK	1	39	18.47	18.38	18.38	20.0	0.0
Channel				630668	633334	636000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3460.02	3500.01	3540		
20	QPSK	1	26	18.44	18.45	18.58	20.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				650000	656000	662000		
Frequency (MHz)				3750	3840	3930		
100	PI/2 BPSK	1	1	18.97	19.17	18.89	20.0	0.0
100	PI/2 BPSK	1	137	18.57	18.73	18.61		
100	PI/2 BPSK	1	271	17.93	18.17	17.97		
100	PI/2 BPSK	135	0	18.46	18.76	18.49	20.0	0.0
100	PI/2 BPSK	135	69	18.62	18.87	18.58	20.0	0.0
100	PI/2 BPSK	135	138	18.16	18.25	18.17	20.0	0.0
100	PI/2 BPSK	270	0	18.43	18.63	18.34		
100	QPSK	1	1	19.11	19.31	19.13	20.0	0.0
100	QPSK	1	137	18.97	19.21	18.99		
100	QPSK	1	271	18.49	18.60	18.45		
100	QPSK	135	0	18.92	19.04	18.98	20.0	0.0
100	QPSK	135	69	18.70	19.12	18.87	20.0	0.0
100	QPSK	135	138	18.09	18.35	18.18	20.0	0.0
100	QPSK	270	0	18.17	18.29	18.14		
100	16QAM	1	1	18.09	18.25	18.11	20.0	0.0
100	64QAM	1	1	18.24	18.48	18.32	20.0	0.0
100	256QAM	1	1	17.69	17.81	17.72	19.5	0.5
Channel				649334	656000	662668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3840	3940.02		
80	QPSK	1	109	18.38	18.72	18.73	20.0	0.0
Channel				648668	656000	663334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3840	3950.01		
60	QPSK	1	81	18.56	18.80	18.56	20.0	0.0
Channel				648000	656000	664000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3840	3960		
40	QPSK	1	53	18.60	18.79	18.58	20.0	0.0
Channel				647668	656000	664334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3840	3965.01		
30	QPSK	1	39	18.43	18.81	18.79	20.0	0.0
Channel				647334	656000	664668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3840	3970.02		
20	QPSK	1	26	18.42	18.84	18.77	20.0	0.0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					633334			
Frequency (MHz)					3500.01			
100	PI/2 BPSK	1	1		19.33		20.0	0.0
100	PI/2 BPSK	1	137		19.34			
100	PI/2 BPSK	1	271		19.31			
100	PI/2 BPSK	135	0		19.33		20.0	0.0
100	PI/2 BPSK	135	69		19.38		20.0	0.0
100	PI/2 BPSK	135	138		19.27		20.0	0.0
100	PI/2 BPSK	270	0		19.38			
100	QPSK	1	1		19.41		20.0	0.0
100	QPSK	1	137		19.36			
100	QPSK	1	271		19.35			
100	QPSK	135	0		19.38		20.0	0.0
100	QPSK	135	69		19.39		20.0	0.0
100	QPSK	135	138		19.29		20.0	0.0
100	QPSK	270	0		19.35			
100	16QAM	1	1		19.16		20.0	0.0
100	64QAM	1	1		19.37		20.0	0.0
100	256QAM	1	1		18.55		19.5	0.5
Channel				632668	633334	634000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3490.02	3500.01	3510		
80	QPSK	1	109	19.25	19.11	19.20	20.0	0.0
Channel				632000	633334	634668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3480	3500.01	3520.02		
60	QPSK	1	81	19.19	18.97	19.23	20.0	0.0
Channel				631334	633334	635334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3470.01	3500.01	3530.01		
40	QPSK	1	53	19.30	19.02	19.26	20.0	0.0
Channel				631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3465	3500.01	3535.02		
30	QPSK	1	39	19.30	19.10	19.08	20.0	0.0
Channel				630668	633334	636000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3460.02	3500.01	3540		
20	QPSK	1	26	19.16	18.92	19.09	20.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				650000	650000	650000		
Frequency (MHz)				3750	3750	3750		
100	PI/2 BPSK	1	1		19.03		21.0	0.0
100	PI/2 BPSK	1	137		19.23			
100	PI/2 BPSK	1	271		19.26			
100	PI/2 BPSK	135	0		18.87		21.0	0.0
100	PI/2 BPSK	135	69		19.15		21.0	0.0
100	PI/2 BPSK	135	138		18.98		21.0	0.0
100	PI/2 BPSK	270	0		18.87			
100	QPSK	1	1		19.43		21.0	0.0
100	QPSK	1	137		19.25			
100	QPSK	1	271		19.39			
100	QPSK	135	0		18.89		21.0	0.0
100	QPSK	135	69		19.12		21.0	0.0
100	QPSK	135	138		18.98		21.0	0.0
100	QPSK	270	0		19.02			
100	16QAM	1	1		18.72		21.0	0.0
100	64QAM	1	1		17.71		21.0	0.0
100	256QAM	1	1		17.16		19.5	1.5
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	123	19.26	19.32	19.34	21.0	0.0
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	109	19.21	19.28	19.29	21.0	0.0
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	95	19.24	19.31	19.31	21.0	0.0
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3750	3770.01		
60	QPSK	1	81	19.28	19.26	19.29	21.0	0.0
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3775.02		
50	QPSK	1	67	19.28	19.29	19.33	21.0	0.0
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	53	19.27	19.31	19.34	21.0	0.0
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3785.01		
30	QPSK	1	39	19.21	19.27	19.31	21.0	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	26	19.28	19.25	19.31	21.0	0.0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				633334	633334	633334		
Frequency (MHz)				3500.01	3500.01	3500.01		
100	PI/2 BPSK	1	1		19.21		21.0	0.0
100	PI/2 BPSK	1	137		19.11			
100	PI/2 BPSK	1	271		19.33			
100	PI/2 BPSK	135	0		19.01		21.0	0.0
100	PI/2 BPSK	135	69		19.16		21.0	0.0
100	PI/2 BPSK	135	138		19.01		21.0	0.0
100	PI/2 BPSK	270	0		19.03			
100	QPSK	1	1		19.55		21.0	0.0
100	QPSK	1	137		19.14			
100	QPSK	1	271		19.36			
100	QPSK	135	0		19.01		21.0	0.0
100	QPSK	135	69		19.52		21.0	0.0
100	QPSK	135	138		19.37		21.0	0.0
100	QPSK	270	0		18.89			
100	16QAM	1	1		18.91		21.0	0.0
100	64QAM	1	1		17.69		21.0	0.0
100	256QAM	1	1		17.38		19.5	1.5
Channel				633000	633334	633668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3495	3500.01	3505.02		
90	QPSK	1	123	19.24	19.31	19.31	21.0	0.0
Channel				632668	633334	634000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3490.02	3500.01	3510		
80	QPSK	1	109	19.28	19.29	19.33	21.0	0.0
Channel				632334	633334	634334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3485.01	3500.01	3515.01		
70	QPSK	1	95	19.21	19.27	19.31	21.0	0.0
Channel				632000	633334	634668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3480	3500.01	3520.02		
60	QPSK	1	81	19.24	19.31	19.31	21.0	0.0
Channel				631668	633334	635000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3475.02	3500.01	3525		
50	QPSK	1	67	19.28	19.29	19.33	21.0	0.0
Channel				631334	633334	635334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3470.01	3500.01	3530.01		
40	QPSK	1	53	19.28	19.25	19.31	21.0	0.0
Channel				631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3465	3500.01	3535.02		
30	QPSK	1	39	19.21	19.27	19.31	21.0	0.0
Channel				630668	633334	636000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3460.02	3500.01	3540		
20	QPSK	1	26	19.24	19.31	19.31	21.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				650000	650000	650000		
Frequency (MHz)				3750	3750	3750		
100	PI/2 BPSK	1	1		23.27		24.0	0.0
100	PI/2 BPSK	1	137		22.54			
100	PI/2 BPSK	1	271		22.97			
100	PI/2 BPSK	135	0		22.81		23.5	0.5
100	PI/2 BPSK	135	69		23.03		24.0	0.0
100	PI/2 BPSK	135	138		22.56		23.5	0.5
100	PI/2 BPSK	270	0		22.16			
100	QPSK	1	1		23.40		24.0	0.0
100	QPSK	1	137		22.91			
100	QPSK	1	271		23.05			
100	QPSK	135	0		22.40		23.0	1.0
100	QPSK	135	69		23.22		24.0	0.0
100	QPSK	135	138		22.51		23.0	1.0
100	QPSK	270	0		22.38			
100	16QAM	1	1		22.42		23.0	1.0
100	64QAM	1	1		20.93		21.5	2.5
100	256QAM	1	1		18.87		19.5	4.5
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	123	23.19	23.21	23.08	24.0	0.0
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	109	22.99	23.11	22.89	24.0	0.0
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	95	22.94	23.08	22.94	24.0	0.0
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3750	3770.01		
60	QPSK	1	81	23.01	23.05	22.93	24.0	0.0
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3775.02		
50	QPSK	1	67	23.04	23.12	22.82	24.0	0.0
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	53	22.97	22.98	22.93	24.0	0.0
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3785.01		
30	QPSK	1	39	23.00	23.09	22.87	24.0	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	26	23.05	23.09	22.90	24.0	0.0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					633334			
Frequency (MHz)					3500.01			
100	PI/2 BPSK	1	1		23.24		24.0	0.0
100	PI/2 BPSK	1	137		22.80			
100	PI/2 BPSK	1	271		23.02			
100	PI/2 BPSK	135	0		22.92		23.5	0.5
100	PI/2 BPSK	135	69		23.27		24.0	0.0
100	PI/2 BPSK	135	138		22.52		23.5	0.5
100	PI/2 BPSK	270	0		22.44			
100	QPSK	1	1		23.46		24.0	0.0
100	QPSK	1	137		22.57			
100	QPSK	1	271		22.70			
100	QPSK	135	0		22.70		23.0	1.0
100	QPSK	135	69		23.25		24.0	0.0
100	QPSK	135	138		22.60		23.0	1.0
100	QPSK	270	0		22.44			
100	16QAM	1	1		22.20		23.0	1.0
100	64QAM	1	1		21.01		21.5	2.5
100	256QAM	1	1		18.64		19.5	4.5
Channel				633000	633334	633668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3495	3500.01	3505.02		
90	QPSK	1	123	23.17	23.32	23.30	24.0	0.0
Channel				632668	633334	634000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3490.02	3500.01	3510		
80	QPSK	1	109	23.23	23.09	23.03	24.0	0.0
Channel				632334	633334	634334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3485.01	3500.01	3515.01		
70	QPSK	1	95	23.23	23.19	23.00	24.0	0.0
Channel				632000	633334	634668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3480	3500.01	3520.02		
60	QPSK	1	81	23.21	23.16	23.08	24.0	0.0
Channel				631668	633334	635000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3475.02	3500.01	3525		
50	QPSK	1	67	23.16	23.09	23.13	24.0	0.0
Channel				631334	633334	635334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3470.01	3500.01	3530.01		
40	QPSK	1	53	23.17	23.15	23.22	24.0	0.0
Channel				631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3465	3500.01	3535.02		
30	QPSK	1	39	23.19	23.18	23.09	24.0	0.0
Channel				630668	633334	636000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3460.02	3500.01	3540		
20	QPSK	1	26	23.14	23.06	23.12	24.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				650000	650000	650000		
Frequency (MHz)				3750	3750	3750		
100	PI/2 BPSK	1	1		26.18		27.0	0.0
100	PI/2 BPSK	1	137		25.67			
100	PI/2 BPSK	1	271		25.93			
100	PI/2 BPSK	135	0		25.90		26.5	0.5
100	PI/2 BPSK	135	69		26.16		27.0	0.0
100	PI/2 BPSK	135	138		25.71		26.5	0.5
100	PI/2 BPSK	270	0		25.31			
100	QPSK	1	1		26.49		27.0	0.0
100	QPSK	1	137		25.83			
100	QPSK	1	271		25.96			
100	QPSK	135	0		25.57		26.0	1.0
100	QPSK	135	69		26.41		27.0	0.0
100	QPSK	135	138		25.55		26.0	1.0
100	QPSK	270	0		25.38			
100	16QAM	1	1		25.27		26.0	1.0
100	64QAM	1	1		23.79		24.5	2.5
100	256QAM	1	1		21.86		22.5	4.5
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	123	25.16	25.14	25.15	27.0	0.0
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	109	25.37	25.35	25.34	27.0	0.0
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	95	25.24	25.18	25.03	27.0	0.0
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3750	3770.01		
60	QPSK	1	81	25.16	25.14	25.15	27.0	0.0
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3775.02		
50	QPSK	1	67	25.24	25.18	25.03	27.0	0.0
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	53	25.16	25.14	25.15	27.0	0.0
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3785.01		
30	QPSK	1	39	25.17	25.25	25.09	27.0	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	26	25.37	25.35	25.34	27.0	0.0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					633334			
Frequency (MHz)					3500.01			
100	PI/2 BPSK	1	1		26.34		27.0	0.0
100	PI/2 BPSK	1	137		25.86			
100	PI/2 BPSK	1	271		25.90			
100	PI/2 BPSK	135	0		25.85		26.5	0.5
100	PI/2 BPSK	135	69		26.30		27.0	0.0
100	PI/2 BPSK	135	138		25.62		26.5	0.5
100	PI/2 BPSK	270	0		25.42			
100	QPSK	1	1		26.45		27.0	0.0
100	QPSK	1	137		25.75			
100	QPSK	1	271		25.85			
100	QPSK	135	0		25.53		26.0	1.0
100	QPSK	135	69		26.37		27.0	0.0
100	QPSK	135	138		25.65		26.0	1.0
100	QPSK	270	0		25.39			
100	16QAM	1	1		25.16		26.0	1.0
100	64QAM	1	1		23.87		24.5	2.5
100	256QAM	1	1		21.82		22.5	4.5
Channel				633000	633334	633668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3495	3500.01	3505.02		
90	QPSK	1	123	25.37	25.35	25.34	27.0	0.0
Channel				632668	633334	634000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3490.02	3500.01	3510		
80	QPSK	1	109	25.24	25.18	25.03	27.0	0.0
Channel				632334	633334	634334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3485.01	3500.01	3515.01		
70	QPSK	1	95	25.24	25.16	25.04	27.0	0.0
Channel				632000	633334	634668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3480	3500.01	3520.02		
60	QPSK	1	81	25.21	25.26	25.16	27.0	0.0
Channel				631668	633334	635000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3475.02	3500.01	3525		
50	QPSK	1	67	25.27	25.21	25.10	27.0	0.0
Channel				631334	633334	635334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3470.01	3500.01	3530.01		
40	QPSK	1	53	25.16	25.14	25.15	27.0	0.0
Channel				631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3465	3500.01	3535.02		
30	QPSK	1	39	25.17	25.25	25.09	27.0	0.0
Channel				630668	633334	636000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3460.02	3500.01	3540		
20	QPSK	1	26	25.12	25.23	25.10	27.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				650000	650000	650000		
Frequency (MHz)				3750	3750	3750		
100	PI/2 BPSK	1	1		20.37		21.0	0.0
100	PI/2 BPSK	1	137		20.35			
100	PI/2 BPSK	1	271		20.32			
100	PI/2 BPSK	135	0		20.40		21.0	0.0
100	PI/2 BPSK	135	69		20.38		21.0	0.0
100	PI/2 BPSK	135	138		20.30		21.0	0.0
100	PI/2 BPSK	270	0		20.36			
100	QPSK	1	1		20.58		21.0	0.0
100	QPSK	1	137		20.40			
100	QPSK	1	271		20.29			
100	QPSK	135	0		20.34		21.0	0.0
100	QPSK	135	69		20.37		21.0	0.0
100	QPSK	135	138		20.33		21.0	0.0
100	QPSK	270	0		20.31			
100	16QAM	1	1		20.25		21.0	0.0
100	64QAM	1	1		20.35		21.0	0.0
100	256QAM	1	1		20.39		21.0	0.0
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	123	20.40	20.37	20.49	21.0	0.0
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	109	20.40	20.39	20.45	21.0	0.0
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	95	20.39	20.42	20.49	21.0	0.0
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3750	3770.01		
60	QPSK	1	81	20.46	20.40	20.49	21.0	0.0
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3775.02		
50	QPSK	1	67	20.42	20.35	20.41	21.0	0.0
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	53	20.45	20.36	20.50	21.0	0.0
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3785.01		
30	QPSK	1	39	20.45	20.43	20.49	21.0	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	26	20.43	20.41	20.48	21.0	0.0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				633334	633334	633334		
Frequency (MHz)				3500.01	3500.01	3500.01		
100	PI/2 BPSK	1	1		20.23		21.0	0.0
100	PI/2 BPSK	1	137		20.21			
100	PI/2 BPSK	1	271		20.03			
100	PI/2 BPSK	135	0		20.16		21.0	0.0
100	PI/2 BPSK	135	69		20.11		21.0	0.0
100	PI/2 BPSK	135	138		20.18		21.0	0.0
100	PI/2 BPSK	270	0		20.21			
100	QPSK	1	1		20.43		21.0	0.0
100	QPSK	1	137		20.33			
100	QPSK	1	271		20.17			
100	QPSK	135	0		20.21		21.0	0.0
100	QPSK	135	69		20.42		21.0	0.0
100	QPSK	135	138		20.25		21.0	0.0
100	QPSK	270	0		20.29			
100	16QAM	1	1		19.97		21.0	0.0
100	64QAM	1	1		20.14		21.0	0.0
100	256QAM	1	1		20.11		21.0	0.0
Channel				633000	633334	633668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3495	3500.01	3505.02		
90	QPSK	1	123	20.39	20.42	20.49	21.0	0.0
Channel				632668	633334	634000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3490.02	3500.01	3510		
80	QPSK	1	109	20.43	20.41	20.48	21.0	0.0
Channel				632334	633334	634334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3485.01	3500.01	3515.01		
70	QPSK	1	95	20.39	20.42	20.49	21.0	0.0
Channel				632000	633334	634668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3480	3500.01	3520.02		
60	QPSK	1	81	20.42	20.35	20.41	21.0	0.0
Channel				631668	633334	635000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3475.02	3500.01	3525		
50	QPSK	1	67	20.43	20.41	20.48	21.0	0.0
Channel				631334	633334	635334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3470.01	3500.01	3530.01		
40	QPSK	1	53	20.39	20.42	20.49	21.0	0.0
Channel				631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3465	3500.01	3535.02		
30	QPSK	1	39	20.42	20.35	20.41	21.0	0.0
Channel				630668	633334	636000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3460.02	3500.01	3540		
20	QPSK	1	26	20.45	20.43	20.49	21.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				650000	650000	650000		
Frequency (MHz)				3750	3750	3750		
100	PI/2 BPSK	1	1		20.01		21.0	0.0
100	PI/2 BPSK	1	137		20.19			
100	PI/2 BPSK	1	271		19.94			
100	PI/2 BPSK	135	0		20.20		21.0	0.0
100	PI/2 BPSK	135	69		20.23		21.0	0.0
100	PI/2 BPSK	135	138		19.82		21.0	0.0
100	PI/2 BPSK	270	0		20.13			
100	QPSK	1	1		20.25		21.0	0.0
100	QPSK	1	137		19.72			
100	QPSK	1	271		19.95			
100	QPSK	135	0		20.16		21.0	0.0
100	QPSK	135	69		20.22		21.0	0.0
100	QPSK	135	138		19.81		21.0	0.0
100	QPSK	270	0		19.87			
100	16QAM	1	1		20.25		21.0	0.0
100	64QAM	1	1		19.96		21.0	0.0
100	256QAM	1	1		19.37		21.0	0.0
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	123	20.12	20.15	20.05	21.0	0.0
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	109	20.10	20.13	20.09	21.0	0.0
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	95	20.09	20.11	20.04	21.0	0.0
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3750	3770.01		
60	QPSK	1	81	20.07	20.13	20.04	21.0	0.0
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3775.02		
50	QPSK	1	67	20.08	20.13	20.07	21.0	0.0
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	53	20.10	20.11	20.08	21.0	0.0
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3785.01		
30	QPSK	1	39	20.11	20.17	20.07	21.0	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	26	20.12	20.16	20.10	21.0	0.0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				633334	633334	633334		
Frequency (MHz)				3500.01	3500.01	3500.01		
100	PI/2 BPSK	1	1		20.01		21.0	0.0
100	PI/2 BPSK	1	137		20.13			
100	PI/2 BPSK	1	271		19.81			
100	PI/2 BPSK	135	0		20.22		21.0	0.0
100	PI/2 BPSK	135	69		20.13		21.0	0.0
100	PI/2 BPSK	135	138		19.84		21.0	0.0
100	PI/2 BPSK	270	0		19.97			
100	QPSK	1	1		20.33		21.0	0.0
100	QPSK	1	137		19.63			
100	QPSK	1	271		19.79			
100	QPSK	135	0		20.18		21.0	0.0
100	QPSK	135	69		20.27		21.0	0.0
100	QPSK	135	138		19.97		21.0	0.0
100	QPSK	270	0		19.89			
100	16QAM	1	1		20.18		21.0	0.0
100	64QAM	1	1		19.97		21.0	0.0
100	256QAM	1	1		19.36		21.0	0.0
Channel				633000	633334	633668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3495	3500.01	3505.02		
90	QPSK	1	123	20.09	20.11	20.04	21.0	0.0
Channel				632668	633334	634000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3490.02	3500.01	3510		
80	QPSK	1	109	20.11	20.17	20.07	21.0	0.0
Channel				632334	633334	634334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3485.01	3500.01	3515.01		
70	QPSK	1	95	20.09	20.11	20.04	21.0	0.0
Channel				632000	633334	634668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3480	3500.01	3520.02		
60	QPSK	1	81	20.11	20.17	20.07	21.0	0.0
Channel				631668	633334	635000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3475.02	3500.01	3525		
50	QPSK	1	67	20.12	20.15	20.05	21.0	0.0
Channel				631334	633334	635334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3470.01	3500.01	3530.01		
40	QPSK	1	53	20.09	20.11	20.04	21.0	0.0
Channel				631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3465	3500.01	3535.02		
30	QPSK	1	39	20.12	20.15	20.05	21.0	0.0
Channel				630668	633334	636000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3460.02	3500.01	3540		
20	QPSK	1	26	20.09	20.11	20.04	21.0	0.0

Reduced Power Mode for DSI 1

<n2 Ant.0>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				372000	376000	380000		
Frequency (MHz)				1860	1880	1900		
20	PI/2 BPSK	1	1	19.18	19.24	19.19	20.4	0.0
20	PI/2 BPSK	1	53	19.14	19.23	19.15		
20	PI/2 BPSK	1	104	19.02	19.15	19.05		
20	PI/2 BPSK	50	0	19.08	19.18	19.11	20.4	0.0
20	PI/2 BPSK	50	28	19.13	19.25	19.19	20.4	0.0
20	PI/2 BPSK	50	56	19.18	19.21	19.13	20.4	0.0
20	PI/2 BPSK	100	0	19.16	19.26	19.12		
20	QPSK	1	1	19.24	19.39	19.29	20.4	0.0
20	QPSK	1	53	19.24	19.30	19.24		
20	QPSK	1	104	19.17	19.32	19.29		
20	QPSK	50	0	19.23	19.28	19.20	20.4	0.0
20	QPSK	50	28	19.28	19.34	19.22	20.4	0.0
20	QPSK	50	56	19.15	19.26	19.13	20.4	0.0
20	QPSK	100	0	19.19	19.29	19.16		
20	16QAM	1	1	19.26	19.35	19.31	20.4	0.0
20	64QAM	1	1	19.14	19.28	19.21	20.4	0.0
20	256QAM	1	1	18.76	18.88	18.81	19.5	0.9
Channel				371500	376000	380500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	40	19.15	19.28	19.15	20.4	0.0
Channel				371000	376000	381000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	26	19.11	19.27	19.18	20.4	0.0
Channel				370500	376000	381500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	13	19.12	19.28	19.17	20.4	0.0

<n5 Ant.0>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				166800	167300	167800		
Frequency (MHz)				834	836.5	839		
20	PI/2 BPSK	1	1	22.84	22.95	22.90	24.0	0.0
20	PI/2 BPSK	1	53	22.80	22.86	22.74		
20	PI/2 BPSK	1	104	22.72	22.83	22.75		
20	PI/2 BPSK	50	0	22.32	22.47	22.40	23.5	0.5
20	PI/2 BPSK	50	28	22.85	22.98	22.90	24.0	0.0
20	PI/2 BPSK	50	56	22.32	22.39	22.26	23.5	0.5
20	PI/2 BPSK	100	0	22.35	22.50	22.37		
20	QPSK	1	1	23.01	23.03	22.96	24.0	0.0
20	QPSK	1	53	22.78	22.91	22.85		
20	QPSK	1	104	22.74	22.80	22.72		
20	QPSK	50	0	21.90	21.98	21.90	23.0	1.0
20	QPSK	50	28	22.79	22.91	22.79	24.0	0.0
20	QPSK	50	56	21.74	21.86	21.81	23.0	1.0
20	QPSK	100	0	21.80	21.93	21.86		
20	16QAM	1	1	22.22	22.35	22.29	23.0	1.0
20	64QAM	1	1	20.77	20.82	20.69	21.5	2.5
20	256QAM	1	1	18.53	18.62	18.52	19.5	4.5
Channel				166300	167300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				831.5	836.5	841.5		
15	QPSK	1	40	22.88	22.89	22.84	24.0	0.0
Channel				165800	167300	168800	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				829	836.5	844		
10	QPSK	1	26	22.88	22.91	22.84	24.0	0.0
Channel				165300	167300	169300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	13	22.90	22.95	22.90	24.0	0.0

<n7 Ant.2 SA>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				505000	507000	509000		
Frequency (MHz)				2525	2535	2545		
50	PI/2 BPSK	1	1	21.58	21.62	21.50	22.5	0.0
50	PI/2 BPSK	1	135	21.52	21.61	21.53		
50	PI/2 BPSK	1	268	21.58	21.65	21.55		
50	PI/2 BPSK	135	0	21.59	21.67	21.55	22.5	0.0
50	PI/2 BPSK	135	68	21.53	21.57	21.53	22.5	0.0
50	PI/2 BPSK	135	135	21.56	21.64	21.56	22.5	0.0
50	PI/2 BPSK	270	0	21.56	21.70	21.66		
50	QPSK	1	1	21.67	21.78	21.62	22.5	0.0
50	QPSK	1	135	21.54	21.68	21.61		
50	QPSK	1	268	21.63	21.71	21.59		
50	QPSK	135	0	21.55	21.63	21.58	22.5	0.0
50	QPSK	135	68	21.61	21.77	21.60	22.5	0.0
50	QPSK	135	135	21.61	21.67	21.56	22.5	0.0
50	QPSK	270	0	21.61	21.73	21.69		
50	16QAM	1	1	21.68	21.75	21.64	22.5	0.0
50	64QAM	1	1	20.56	20.65	20.60	21.5	1.0
50	256QAM	1	1	18.51	18.59	18.49	19.5	3.0
Channel				504000	507000	510000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2520	2535	2550		
40	QPSK	1	108	21.52	21.69	21.54	22.5	0.0
Channel				503000	507000	511000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2515	2535	2555		
30	QPSK	1	80	21.53	21.73	21.49	22.5	0.0
Channel				502500	507000	511500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2512.5	2535	2557.5		
25	QPSK	1	67	21.62	21.64	21.54	22.5	0.0
Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2510	2535	2560		
20	QPSK	1	53	21.64	21.70	21.58	22.5	0.0
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	40	21.56	21.68	21.58	22.5	0.0
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	26	21.56	21.73	21.52	22.5	0.0
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	13	21.60	21.64	21.49	22.5	0.0

<n7 Ant.2 NSA>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				502000	507000	512000		
Frequency (MHz)				2510	2535	2560		
20	PI/2 BPSK	1	1	21.46	21.56	21.36	22.5	0.0
20	PI/2 BPSK	1	53	21.36	21.53	21.47		
20	PI/2 BPSK	1	104	21.52	21.56	21.43		
20	PI/2 BPSK	50	0	21.43	21.54	21.45	22.5	0.0
20	PI/2 BPSK	50	28	21.47	21.48	21.43	22.5	0.0
20	PI/2 BPSK	50	56	21.41	21.48	21.48	22.5	0.0
20	PI/2 BPSK	100	0	21.46	21.66	21.54		
20	QPSK	1	1	21.55	21.73	21.55	22.5	0.0
20	QPSK	1	53	21.45	21.60	21.47		
20	QPSK	1	104	21.50	21.59	21.45		
20	QPSK	50	0	21.44	21.53	21.53	22.5	0.0
20	QPSK	50	28	21.53	21.67	21.53	22.5	0.0
20	QPSK	50	56	21.55	21.58	21.45	22.5	0.0
20	QPSK	100	0	21.57	21.62	21.60		
20	16QAM	1	1	21.62	21.61	21.52	22.5	0.0
20	64QAM	1	1	20.41	20.58	20.48	21.5	1.0
20	256QAM	1	1	18.38	18.52	18.37	19.5	3.0
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	1	21.51	21.63	21.46	22.5	0.0
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	21.48	21.66	21.47	22.5	0.0
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	21.50	21.59	21.46	22.5	0.0

<n66 Ant.0 SA>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				344000	349000	354000		
Frequency (MHz)				1720	1745	1770		
20	PI/2 BPSK	1	1	22.82	22.96	22.81	24.0	0.0
20	PI/2 BPSK	1	53	22.72	22.86	22.87		
20	PI/2 BPSK	1	104	22.90	22.92	22.82		
20	PI/2 BPSK	50	0	22.30	22.40	22.30	23.5	0.5
20	PI/2 BPSK	50	28	22.85	22.91	22.88	24.0	0.0
20	PI/2 BPSK	50	56	22.36	22.46	22.42	23.5	0.5
20	PI/2 BPSK	100	0	22.24	22.43	22.29		
20	QPSK	1	1	22.97	23.10	22.88	24.0	0.0
20	QPSK	1	53	22.85	22.93	22.85		
20	QPSK	1	104	22.86	22.93	22.86		
20	QPSK	50	0	21.71	21.88	21.77	23.0	1.0
20	QPSK	50	28	22.81	23.09	22.79	24.0	0.0
20	QPSK	50	56	21.84	21.95	21.92	23.0	1.0
20	QPSK	100	0	21.85	21.97	21.81		
20	16QAM	1	1	22.14	22.19	22.20	23.0	1.0
20	64QAM	1	1	20.44	20.53	20.39	21.5	2.5
20	256QAM	1	1	18.36	18.49	18.40	19.5	4.5
Channel				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	1	23.03	23.06	22.89	24.0	0.0
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	1	23.07	23.06	22.93	24.0	0.0
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	1	23.04	23.01	22.97	24.0	0.0

<n66 Ant.0 NSA>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				345000	349000	353000		
Frequency (MHz)				1725	1745	1765		
30	PI/2 BPSK	1	1	22.99	23.09	22.95	24.0	0.0
30	PI/2 BPSK	1	80	22.91	23.05	22.98		
30	PI/2 BPSK	1	158	23.02	23.11	22.96		
30	PI/2 BPSK	80	0	22.50	22.58	22.46	23.5	0.5
30	PI/2 BPSK	80	40	22.97	23.10	23.01	24.0	0.0
30	PI/2 BPSK	80	80	22.55	22.61	22.53	23.5	0.5
30	PI/2 BPSK	160	0	22.41	22.55	22.41		
30	QPSK	1	1	23.15	23.22	23.03	24.0	0.0
30	QPSK	1	80	22.97	23.07	22.96		
30	QPSK	1	158	22.99	23.10	23.04		
30	QPSK	80	0	21.91	22.02	21.96	23.0	1.0
30	QPSK	80	40	22.96	23.21	22.94	24.0	0.0
30	QPSK	80	80	22.01	22.11	22.03	23.0	1.0
30	QPSK	160	0	21.99	22.08	21.98		
30	16QAM	1	1	22.25	22.39	22.32	23.0	1.0
30	64QAM	1	1	20.56	20.67	20.57	21.5	2.5
30	256QAM	1	1	18.49	18.63	18.53	19.5	4.5
Channel				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	53	23.03	23.15	22.88	24.0	0.0
Channel				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	40	23.03	23.06	22.89	24.0	0.0
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	26	23.07	23.16	22.93	24.0	0.0
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	13	23.04	23.14	22.97	24.0	0.0

<n38 Ant.2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				518004	519000	519996		
Frequency (MHz)				2590.02	2595	2599.98		
40	PI/2 BPSK	1	1	21.04	21.13	21.01	22.5	0.0
40	PI/2 BPSK	1	53	20.93	21.05	20.96		
40	PI/2 BPSK	1	104	21.02	21.06	21.02		
40	PI/2 BPSK	50	0	20.93	21.02	20.87	22.5	0.0
40	PI/2 BPSK	50	28	20.92	21.04	20.90	22.5	0.0
40	PI/2 BPSK	50	56	21.02	21.09	21.00	22.5	0.0
40	PI/2 BPSK	100	0	20.95	21.02	20.91		
40	QPSK	1	1	21.09	21.16	21.09	22.5	0.0
40	QPSK	1	53	20.94	21.01	20.95		
40	QPSK	1	104	20.95	21.06	20.98		
40	QPSK	50	0	20.89	20.97	20.93	22.5	0.0
40	QPSK	50	28	21.04	21.07	21.00	22.5	0.0
40	QPSK	50	56	20.85	20.95	20.89	22.5	0.0
40	QPSK	100	0	20.97	21.03	20.96		
40	16QAM	1	1	20.89	21.01	20.97	22.5	0.0
40	64QAM	1	1	20.84	20.97	20.93	21.5	1.0
40	256QAM	1	1	19.15	19.27	19.19	19.5	3.0
Channel				517002	519000	520998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2585.01	2595	2604.99		
30	QPSK	1	39	20.99	21.05	21.01	22.5	0.0
Channel				516000	519000	522000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2580	2595	2610		
20	QPSK	1	26	21.03	21.07	20.96	22.5	0.0

<n41 Ant.1 PC3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509202	518598	528000		
Frequency (MHz)				2546.01	2592.99	2640		
100	PI/2 BPSK	1	1	19.20	19.27	19.14	21.0	0.0
100	PI/2 BPSK	1	137	19.72	19.76	19.58		
100	PI/2 BPSK	1	271	19.88	20.02	19.94		
100	PI/2 BPSK	135	0	19.64	19.71	19.64	21.0	0.0
100	PI/2 BPSK	135	69	19.81	19.91	19.82	21.0	0.0
100	PI/2 BPSK	135	138	19.97	19.78	20.03	21.0	0.0
100	PI/2 BPSK	270	0	19.58	19.64	19.52		
100	QPSK	1	1	19.89	20.19	19.87	21.0	0.0
100	QPSK	1	137	19.97	20.07	20.03		
100	QPSK	1	271	19.90	19.92	19.95		
100	QPSK	135	0	19.53	19.65	19.49	21.0	0.0
100	QPSK	135	69	19.74	20.15	19.64	21.0	0.0
100	QPSK	135	138	19.78	19.86	19.73	21.0	0.0
100	QPSK	270	0	19.63	19.68	19.60		
100	16QAM	1	1	19.47	19.65	19.59	21.0	0.0
100	64QAM	1	1	19.95	20.08	19.96	21.0	0.0
100	256QAM	1	1	19.76	19.94	19.79	21.0	0.0
Channel				508200	518598	528996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2541	2592.99	2644.98		
90	QPSK	1	123	19.66	19.79	19.88	21.0	0.0
Channel				507204	518598	529998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2536.02	2592.99	2649.99		
80	QPSK	1	109	19.78	19.90	19.77	21.0	0.0
Channel				506202	518598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	95	19.81	19.97	19.87	21.0	0.0
Channel				505200	518598	531996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	81	19.81	19.79	19.83	21.0	0.0
Channel				504204	518598	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2521.02	2592.99	2664.99		
50	QPSK	1	67	19.76	19.87	19.82	21.0	0.0
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2516.01	2592.99	2670		
40	QPSK	1	53	19.86	19.78	19.72	21.0	0.0
Channel				502200	518598	534996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2511	2592.99	2674.98		
30	QPSK	1	39	19.86	19.94	19.73	21.0	0.0
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506.02	2592.99	2679.99		
20	QPSK	1	26	19.79	19.87	19.72	21.0	0.0

<n41 Ant.2 PC2&3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509202	518598	528000		
Frequency (MHz)				2546.01	2592.99	2640		
100	PI/2 BPSK	1	1	20.94	21.08	21.05	22.5	0.0
100	PI/2 BPSK	1	137	20.97	21.11	21.00		
100	PI/2 BPSK	1	271	21.09	21.14	21.02		
100	PI/2 BPSK	135	0	20.98	21.04	20.95	22.5	0.0
100	PI/2 BPSK	135	69	21.05	21.15	21.09	22.5	0.0
100	PI/2 BPSK	135	138	20.97	21.08	21.04	22.5	0.0
100	PI/2 BPSK	270	0	21.04	21.12	21.04		
100	QPSK	1	1	21.10	21.16	21.04	22.5	0.0
100	QPSK	1	137	21.03	21.13	21.10		
100	QPSK	1	271	21.01	21.11	21.03		
100	QPSK	135	0	20.95	21.03	20.91	22.5	0.0
100	QPSK	135	69	21.09	21.13	21.12	22.5	0.0
100	QPSK	135	138	21.05	21.12	21.01	22.5	0.0
100	QPSK	270	0	21.03	21.11	21.04		
100	16QAM	1	1	21.08	21.14	21.11	22.5	0.0
100	64QAM	1	1	20.97	21.07	20.97	21.5	1.0
100	256QAM	1	1	21.01	20.95	20.93	19.5	3.0
Channel				508200	518598	528996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2541	2592.99	2644.98		
90	QPSK	1	1	21.00	21.12	20.99	22.5	0.0
Channel				507204	518598	529998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2536.02	2592.99	2649.99		
80	QPSK	1	1	20.97	21.08	20.98	22.5	0.0
Channel				506202	518598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	1	20.98	21.03	20.92	22.5	0.0
Channel				505200	518598	531996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	1	21.07	21.09	20.92	22.5	0.0
Channel				504204	518598	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2521.02	2592.99	2664.99		
50	QPSK	1	1	20.97	21.05	20.91	22.5	0.0
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2516.01	2592.99	2670		
40	QPSK	1	1	20.96	21.13	20.96	22.5	0.0
Channel				502200	518598	534996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2511	2592.99	2674.98		
30	QPSK	1	1	21.06	21.13	20.95	22.5	0.0
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506.02	2592.99	2679.99		
20	QPSK	1	1	21.03	21.07	20.89	22.5	0.0

<n41 Ant.4 PC3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509202	518598	528000		
Frequency (MHz)				2546.01	2592.99	2640		
100	PI/2 BPSK	1	1	19.25	19.42	19.27	21.0	0.0
100	PI/2 BPSK	1	137	19.40	19.57	19.50		
100	PI/2 BPSK	1	271	20.09	20.11	20.01		
100	PI/2 BPSK	135	0	19.36	19.44	19.27	21.0	0.0
100	PI/2 BPSK	135	69	19.66	19.75	19.70	21.0	0.0
100	PI/2 BPSK	135	138	20.15	20.17	20.04	21.0	0.0
100	PI/2 BPSK	270	0	19.76	19.92	19.86		
100	QPSK	1	1	20.10	20.21	20.01	21.0	0.0
100	QPSK	1	137	20.05	20.12	20.05		
100	QPSK	1	271	20.19	20.17	20.08		
100	QPSK	135	0	19.60	19.69	19.60	21.0	0.0
100	QPSK	135	69	19.83	20.18	19.93	21.0	0.0
100	QPSK	135	138	20.15	20.07	20.08	21.0	0.0
100	QPSK	270	0	20.07	20.16	20.11		
100	16QAM	1	1	19.35	19.54	19.39	21.0	0.0
100	64QAM	1	1	20.13	20.02	20.09	21.0	0.0
100	256QAM	1	1	20.08	20.13	20.05	21.0	0.0
Channel				508200	518598	528996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2541	2592.99	2644.98		
90	QPSK	1	123	19.57	20.08	19.74	21.0	0.0
Channel				507204	518598	529998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2536.02	2592.99	2649.99		
80	QPSK	1	109	19.54	20.08	19.74	21.0	0.0
Channel				506202	518598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	95	19.60	20.12	19.70	21.0	0.0
Channel				505200	518598	531996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	81	19.54	20.15	19.81	21.0	0.0
Channel				504204	518598	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2521.02	2592.99	2664.99		
50	QPSK	1	67	19.58	20.18	19.85	21.0	0.0
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2516.01	2592.99	2670		
40	QPSK	1	53	19.65	20.18	19.78	21.0	0.0
Channel				502200	518598	534996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2511	2592.99	2674.98		
30	QPSK	1	39	19.54	20.13	19.70	21.0	0.0
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506.02	2592.99	2679.99		
20	QPSK	1	26	19.69	20.10	19.80	21.0	0.0

<n41 Ant.6 PC3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				509202	518598	528000		
Frequency (MHz)				2546.01	2592.99	2640		
100	PI/2 BPSK	1	1	19.88	20.18	20.07	21.0	0.0
100	PI/2 BPSK	1	137	19.60	19.68	19.55		
100	PI/2 BPSK	1	271	20.55	20.55	20.45		
100	PI/2 BPSK	135	0	19.69	19.98	19.80	21.0	0.0
100	PI/2 BPSK	135	69	19.74	19.84	19.58	21.0	0.0
100	PI/2 BPSK	135	138	19.94	20.23	20.06	21.0	0.0
100	PI/2 BPSK	270	0	19.96	20.11	19.98		
100	QPSK	1	1	20.25	20.57	20.33	21.0	0.0
100	QPSK	1	137	19.80	20.02	19.90		
100	QPSK	1	271	20.32	20.48	20.42		
100	QPSK	135	0	20.01	20.11	19.97	21.0	0.0
100	QPSK	135	69	19.74	20.14	19.99	21.0	0.0
100	QPSK	135	138	20.07	20.04	20.12	21.0	0.0
100	QPSK	270	0	19.97	20.01	19.96		
100	16QAM	1	1	19.95	20.12	19.91	21.0	0.0
100	64QAM	1	1	20.16	20.43	20.15	21.0	0.0
100	256QAM	1	1	19.60	19.90	19.74	21.0	0.0
Channel				508200	518598	528996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2541	2592.99	2644.98		
90	QPSK	1	123	19.55	19.72	19.53	21.0	0.0
Channel				507204	518598	529998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2536.02	2592.99	2649.99		
80	QPSK	1	109	19.48	19.74	19.45	21.0	0.0
Channel				506202	518598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	95	19.56	19.66	19.52	21.0	0.0
Channel				505200	518598	531996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	81	19.56	19.62	19.38	21.0	0.0
Channel				504204	518598	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2521.02	2592.99	2664.99		
50	QPSK	1	67	19.62	19.83	19.42	21.0	0.0
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2516.01	2592.99	2670		
40	QPSK	1	53	19.61	19.73	19.38	21.0	0.0
Channel				502200	518598	534996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2511	2592.99	2674.98		
30	QPSK	1	39	19.56	19.69	19.54	21.0	0.0
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506.02	2592.99	2679.99		
20	QPSK	1	26	19.49	19.65	19.39	21.0	0.0

<n77Ant.1>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				650000	656000	662000		
Frequency (MHz)				3750	3840	3930		
100	PI/2 BPSK	1	1	18.69	18.83	18.68	20.0	0.0
100	PI/2 BPSK	1	137	18.83	18.91	18.82		
100	PI/2 BPSK	1	271	18.73	19.02	18.93		
100	PI/2 BPSK	135	0	18.45	18.67	18.44	20.0	0.0
100	PI/2 BPSK	135	69	18.72	18.98	18.83	20.0	0.0
100	PI/2 BPSK	135	138	18.42	18.70	18.50	20.0	0.0
100	PI/2 BPSK	270	0	18.65	18.74	18.50		
100	QPSK	1	1	18.97	19.28	18.90	20.0	0.0
100	QPSK	1	137	18.91	19.16	19.03		
100	QPSK	1	271	18.99	19.26	19.09		
100	QPSK	135	0	18.64	18.84	18.64	20.0	0.0
100	QPSK	135	69	18.92	19.04	18.91	20.0	0.0
100	QPSK	135	138	18.62	18.78	18.69	20.0	0.0
100	QPSK	270	0	18.25	18.46	18.27		
100	16QAM	1	1	18.36	18.65	18.49	20.0	0.0
100	64QAM	1	1	17.70	17.97	17.83	20.0	0.0
100	256QAM	1	1	17.15	17.29	17.06	19.5	0.5
Channel				649334	656000	662668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3840	3940.02		
80	QPSK	1	109	18.81	18.85	18.80	20.0	0.0
Channel				648668	656000	663334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3840	3950.01		
60	QPSK	1	81	18.61	18.83	18.72	20.0	0.0
Channel				648000	656000	664000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3840	3960		
40	QPSK	1	53	18.71	18.76	18.81	20.0	0.0
Channel				647668	656000	664334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3840	3965.01		
30	QPSK	1	39	18.74	18.88	18.67	20.0	0.0
Channel				647334	656000	664668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3840	3970.02		
20	QPSK	1	26	18.74	18.94	18.71	20.0	0.0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					633334			
Frequency (MHz)					3500.01			
100	PI/2 BPSK	1	1		18.62		20.0	0.0
100	PI/2 BPSK	1	137		18.19			
100	PI/2 BPSK	1	271		18.14			
100	PI/2 BPSK	135	0		18.54		20.0	0.0
100	PI/2 BPSK	135	69		18.43		20.0	0.0
100	PI/2 BPSK	135	138		18.12		20.0	0.0
100	PI/2 BPSK	270	0		18.41			
100	QPSK	1	1		18.71		20.0	0.0
100	QPSK	1	137		18.29			
100	QPSK	1	271		18.07			
100	QPSK	135	0		18.41		20.0	0.0
100	QPSK	135	69		18.52		20.0	0.0
100	QPSK	135	138		18.12		20.0	0.0
100	QPSK	270	0		18.39			
100	16QAM	1	1		18.47		20.0	0.0
100	64QAM	1	1		18.52'		20.0	0.0
100	256QAM	1	1		18.03		19.5	0.5
Channel				632668	633334	634000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3490.02	3500.01	3510		
80	QPSK	1	109	18.17	18.21	18.32	20.0	0.0
Channel				632000	633334	634668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3480	3500.01	3520.02		
60	QPSK	1	81	18.21	18.29	18.22	20.0	0.0
Channel				631334	633334	635334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3470.01	3500.01	3530.01		
40	QPSK	1	53	18.13	18.23	18.20	20.0	0.0
Channel				631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3465	3500.01	3535.02		
30	QPSK	1	39	18.19	18.19	18.32	20.0	0.0
Channel				630668	633334	636000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3460.02	3500.01	3540		
20	QPSK	1	26	18.16	18.39	18.37	20.0	0.0

<n77Ant.3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				650000	656000	662000		
Frequency (MHz)				3750	3840	3930		
100	PI/2 BPSK	1	1	23.29	23.34	23.09	24.0	0.0
100	PI/2 BPSK	1	137	22.73	22.83	22.69		
100	PI/2 BPSK	1	271	22.90	22.95	22.78		
100	PI/2 BPSK	135	0	22.71	23.04	22.80	23.5	0.5
100	PI/2 BPSK	135	69	22.86	23.12	23.10	24.0	0.0
100	PI/2 BPSK	135	138	22.49	22.79	22.71	23.5	0.5
100	PI/2 BPSK	270	0	21.95	22.27	22.05		
100	QPSK	1	1	23.25	23.47	23.13	24.0	0.0
100	QPSK	1	137	23.07	23.15	23.01		
100	QPSK	1	271	23.19	23.31	23.07		
100	QPSK	135	0	22.05	22.39	22.00	23.0	1.0
100	QPSK	135	69	23.44	23.46	23.28	24.0	0.0
100	QPSK	135	138	22.40	22.48	22.36	23.0	1.0
100	QPSK	270	0	22.35	22.53	22.31		
100	16QAM	1	1	22.15	22.52	22.48	23.0	1.0
100	64QAM	1	1	20.91	21.12	20.84	21.5	2.5
100	256QAM	1	1	18.76	19.06	19.02	19.5	4.5
Channel				649334	656000	662668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3840	3940.02		
80	QPSK	1	109	23.21	23.31	23.17	24.0	0.0
Channel				648668	656000	663334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3840	3950.01		
60	QPSK	1	81	23.19	23.32	23.19	24.0	0.0
Channel				648000	656000	664000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3840	3960		
40	QPSK	1	53	23.23	23.37	23.13	24.0	0.0
Channel				647668	656000	664334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3840	3965.01		
30	QPSK	1	39	23.19	23.21	23.06	24.0	0.0
Channel				647334	656000	664668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3840	3970.02		
20	QPSK	1	26	23.15	23.16	23.04	24.0	0.0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					633334			
Frequency (MHz)					3500.01			
100	PI/2 BPSK	1	1		23.10		24.0	0.0
100	PI/2 BPSK	1	137		22.70			
100	PI/2 BPSK	1	271		22.57			
100	PI/2 BPSK	135	0		22.74		23.5	0.5
100	PI/2 BPSK	135	69		22.73		24.0	0.0
100	PI/2 BPSK	135	138		22.42		23.5	0.5
100	PI/2 BPSK	270	0		21.94			
100	QPSK	1	1		23.40		24.0	0.0
100	QPSK	1	137		22.90			
100	QPSK	1	271		23.23			
100	QPSK	135	0		22.10		23.0	1.0
100	QPSK	135	69		23.25		24.0	0.0
100	QPSK	135	138		22.29		23.0	1.0
100	QPSK	270	0		22.43			
100	16QAM	1	1		22.27		23.0	1.0
100	64QAM	1	1		20.89		21.5	2.5
100	256QAM	1	1		19.05		19.5	4.5
Channel				632668	633334	634000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3490.02	3500.01	3510		
80	QPSK	1	109	22.62	22.61	22.45	24.0	0.0
Channel				632000	633334	634668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3480	3500.01	3520.02		
60	QPSK	1	81	22.55	22.59	22.38	24.0	0.0
Channel				631334	633334	635334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3470.01	3500.01	3530.01		
40	QPSK	1	53	22.40	22.52	22.39	24.0	0.0
Channel				631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3465	3500.01	3535.02		
30	QPSK	1	39	22.44	22.56	22.47	24.0	0.0
Channel				630668	633334	636000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3460.02	3500.01	3540		
20	QPSK	1	26	22.46	22.62	22.35	24.0	0.0

<n77Ant.4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				650000	656000	662000		
Frequency (MHz)				3750	3840	3930		
100	PI/2 BPSK	1	1	19.52	19.68	19.51	20.0	0.0
100	PI/2 BPSK	1	137	18.89	19.03	18.94		
100	PI/2 BPSK	1	271	17.91	18.15	17.84		
100	PI/2 BPSK	135	0	19.03	19.28	19.12	20.0	0.0
100	PI/2 BPSK	135	69	19.02	19.16	18.86	20.0	0.0
100	PI/2 BPSK	135	138	18.19	18.43	18.21	20.0	0.0
100	PI/2 BPSK	270	0	18.86	18.99	18.68		
100	QPSK	1	1	19.55	19.75	19.46	20.0	0.0
100	QPSK	1	137	19.38	19.63	19.45		
100	QPSK	1	271	18.34	18.61	18.46		
100	QPSK	135	0	19.27	19.36	19.10	20.0	0.0
100	QPSK	135	69	19.51	19.65	19.35	20.0	0.0
100	QPSK	135	138	18.24	18.54	18.45	20.0	0.0
100	QPSK	270	0	18.52	18.71	18.49		
100	16QAM	1	1	18.81	18.95	18.71	20.0	0.0
100	64QAM	1	1	18.18	18.28	18.02	20.0	0.0
100	256QAM	1	1	17.81	18.11	18.01	19.5	0.5
Channel				649334	656000	662668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3840	3940.02		
80	QPSK	1	109	19.14	19.04	18.84	20.0	0.0
Channel				648668	656000	663334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3840	3950.01		
60	QPSK	1	81	18.97	19.10	18.86	20.0	0.0
Channel				648000	656000	664000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3840	3960		
40	QPSK	1	53	19.15	19.28	18.88	20.0	0.0
Channel				647668	656000	664334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3840	3965.01		
30	QPSK	1	39	19.12	19.22	18.97	20.0	0.0
Channel				647334	656000	664668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3840	3970.02		
20	QPSK	1	26	19.14	19.15	18.96	20.0	0.0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					633334			
Frequency (MHz)					3500.01			
100	PI/2 BPSK	1	1		19.19		20.0	0.0
100	PI/2 BPSK	1	137		18.91			
100	PI/2 BPSK	1	271		19.01			
100	PI/2 BPSK	135	0		19.14		20.0	0.0
100	PI/2 BPSK	135	69		19.05		20.0	0.0
100	PI/2 BPSK	135	138		18.87		20.0	0.0
100	PI/2 BPSK	270	0		19.03			
100	QPSK	1	1		19.30		20.0	0.0
100	QPSK	1	137		18.97			
100	QPSK	1	271		18.84			
100	QPSK	135	0		18.99		20.0	0.0
100	QPSK	135	69		19.15		20.0	0.0
100	QPSK	135	138		18.83		20.0	0.0
100	QPSK	270	0		19.02			
100	16QAM	1	1		18.86		20.0	0.0
100	64QAM	1	1		19.13		20.0	0.0
100	256QAM	1	1		18.56		19.5	0.5
Channel				632668	633334	634000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3490.02	3500.01	3510		
80	QPSK	1	109	18.62	18.52	18.46	20.0	0.0
Channel				632000	633334	634668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3480	3500.01	3520.02		
60	QPSK	1	81	18.66	18.49	18.40	20.0	0.0
Channel				631334	633334	635334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3470.01	3500.01	3530.01		
40	QPSK	1	53	18.49	18.41	18.38	20.0	0.0
Channel				631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3465	3500.01	3535.02		
30	QPSK	1	39	18.47	18.38	18.38	20.0	0.0
Channel				630668	633334	636000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3460.02	3500.01	3540		
20	QPSK	1	26	18.44	18.45	18.58	20.0	0.0

<n77Ant.5>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				650000	656000	662000		
Frequency (MHz)				3750	3840	3930		
100	PI/2 BPSK	1	1	18.97	19.17	18.89	20.0	0.0
100	PI/2 BPSK	1	137	18.57	18.73	18.61		
100	PI/2 BPSK	1	271	17.93	18.17	17.97		
100	PI/2 BPSK	135	0	18.46	18.76	18.49	20.0	0.0
100	PI/2 BPSK	135	69	18.62	18.87	18.58	20.0	0.0
100	PI/2 BPSK	135	138	18.16	18.25	18.17	20.0	0.0
100	PI/2 BPSK	270	0	18.43	18.63	18.34		
100	QPSK	1	1	19.11	19.31	19.13	20.0	0.0
100	QPSK	1	137	18.97	19.21	18.99		
100	QPSK	1	271	18.49	18.60	18.45		
100	QPSK	135	0	18.92	19.04	18.98	20.0	0.0
100	QPSK	135	69	18.70	19.12	18.87	20.0	0.0
100	QPSK	135	138	18.09	18.35	18.18	20.0	0.0
100	QPSK	270	0	18.17	18.29	18.14		
100	16QAM	1	1	18.09	18.25	18.11	20.0	0.0
100	64QAM	1	1	18.24	18.48	18.32	20.0	0.0
100	256QAM	1	1	17.69	17.81	17.72	19.5	0.5
Channel				649334	656000	662668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3840	3940.02		
80	QPSK	1	109	18.38	18.72	18.73	20.0	0.0
Channel				648668	656000	663334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3840	3950.01		
60	QPSK	1	81	18.56	18.80	18.56	20.0	0.0
Channel				648000	656000	664000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3840	3960		
40	QPSK	1	53	18.60	18.79	18.58	20.0	0.0
Channel				647668	656000	664334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3840	3965.01		
30	QPSK	1	39	18.43	18.81	18.79	20.0	0.0
Channel				647334	656000	664668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3840	3970.02		
20	QPSK	1	26	18.42	18.84	18.77	20.0	0.0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					633334			
Frequency (MHz)					3500.01			
100	PI/2 BPSK	1	1		19.33		20.0	0.0
100	PI/2 BPSK	1	137		19.34			
100	PI/2 BPSK	1	271		19.31			
100	PI/2 BPSK	135	0		19.33		20.0	0.0
100	PI/2 BPSK	135	69		19.38		20.0	0.0
100	PI/2 BPSK	135	138		19.27		20.0	0.0
100	PI/2 BPSK	270	0		19.38			
100	QPSK	1	1		19.41		20.0	0.0
100	QPSK	1	137		19.36			
100	QPSK	1	271		19.35			
100	QPSK	135	0		19.38		20.0	0.0
100	QPSK	135	69		19.39		20.0	0.0
100	QPSK	135	138		19.29		20.0	0.0
100	QPSK	270	0		19.35			
100	16QAM	1	1		19.16		20.0	0.0
100	64QAM	1	1		19.37		20.0	0.0
100	256QAM	1	1		18.55		19.5	0.5
Channel				632668	633334	634000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3490.02	3500.01	3510		
80	QPSK	1	109	19.25	19.11	19.20	20.0	0.0
Channel				632000	633334	634668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3480	3500.01	3520.02		
60	QPSK	1	81	19.19	18.97	19.23	20.0	0.0
Channel				631334	633334	635334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3470.01	3500.01	3530.01		
40	QPSK	1	53	19.30	19.02	19.26	20.0	0.0
Channel				631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3465	3500.01	3535.02		
30	QPSK	1	39	19.30	19.10	19.08	20.0	0.0
Channel				630668	633334	636000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3460.02	3500.01	3540		
20	QPSK	1	26	19.16	18.92	19.09	20.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				650000	650000	650000		
Frequency (MHz)				3750	3750	3750		
100	PI/2 BPSK	1	1		19.03		21.0	0.0
100	PI/2 BPSK	1	137		19.23			
100	PI/2 BPSK	1	271		19.26			
100	PI/2 BPSK	135	0		18.87		21.0	0.0
100	PI/2 BPSK	135	69		19.15		21.0	0.0
100	PI/2 BPSK	135	138		18.98		21.0	0.0
100	PI/2 BPSK	270	0		18.87			
100	QPSK	1	1		19.43		21.0	0.0
100	QPSK	1	137		19.25			
100	QPSK	1	271		19.39			
100	QPSK	135	0		18.89		21.0	0.0
100	QPSK	135	69		19.12		21.0	0.0
100	QPSK	135	138		18.98		21.0	0.0
100	QPSK	270	0		19.02			
100	16QAM	1	1		18.72		21.0	0.0
100	64QAM	1	1		17.71		21.0	0.0
100	256QAM	1	1		17.16		19.5	1.5
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	123	19.26	19.32	19.34	21.0	0.0
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	109	19.21	19.28	19.29	21.0	0.0
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	95	19.24	19.31	19.31	21.0	0.0
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3750	3770.01		
60	QPSK	1	81	19.28	19.26	19.29	21.0	0.0
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3775.02		
50	QPSK	1	67	19.28	19.29	19.33	21.0	0.0
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	53	19.27	19.31	19.34	21.0	0.0
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3785.01		
30	QPSK	1	39	19.21	19.27	19.31	21.0	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	26	19.28	19.25	19.31	21.0	0.0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				633334	633334	633334		
Frequency (MHz)				3500.01	3500.01	3500.01		
100	PI/2 BPSK	1	1		19.21		21.0	0.0
100	PI/2 BPSK	1	137		19.11			
100	PI/2 BPSK	1	271		19.33			
100	PI/2 BPSK	135	0		19.01		21.0	0.0
100	PI/2 BPSK	135	69		19.16		21.0	0.0
100	PI/2 BPSK	135	138		19.01		21.0	0.0
100	PI/2 BPSK	270	0		19.03			
100	QPSK	1	1		19.55		21.0	0.0
100	QPSK	1	137		19.14			
100	QPSK	1	271		19.36			
100	QPSK	135	0		19.01		21.0	0.0
100	QPSK	135	69		19.52		21.0	0.0
100	QPSK	135	138		19.37		21.0	0.0
100	QPSK	270	0		18.89			
100	16QAM	1	1		18.91		21.0	0.0
100	64QAM	1	1		17.69		21.0	0.0
100	256QAM	1	1		17.38		19.5	1.5
Channel				633000	633334	633668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3495	3500.01	3505.02		
90	QPSK	1	123	19.28	19.25	19.31	21.0	0.0
Channel				632668	633334	634000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3490.02	3500.01	3510		
80	QPSK	1	109	19.21	19.27	19.31	21.0	0.0
Channel				632334	633334	634334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3485.01	3500.01	3515.01		
70	QPSK	1	95	19.28	19.25	19.31	21.0	0.0
Channel				632000	633334	634668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3480	3500.01	3520.02		
60	QPSK	1	81	19.21	19.27	19.31	21.0	0.0
Channel				631668	633334	635000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3475.02	3500.01	3525		
50	QPSK	1	67	19.24	19.31	19.31	21.0	0.0
Channel				631334	633334	635334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3470.01	3500.01	3530.01		
40	QPSK	1	53	19.21	19.27	19.31	21.0	0.0
Channel				631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3465	3500.01	3535.02		
30	QPSK	1	39	19.24	19.31	19.31	21.0	0.0
Channel				630668	633334	636000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3460.02	3500.01	3540		
20	QPSK	1	26	19.26	19.32	19.34	21.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				650000	650000	650000		
Frequency (MHz)				3750	3750	3750		
100	PI/2 BPSK	1	1		22.29		24.0	0.0
100	PI/2 BPSK	1	137		22.26			
100	PI/2 BPSK	1	271		22.22			
100	PI/2 BPSK	135	0		22.14		23.5	0.5
100	PI/2 BPSK	135	69		22.33		24.0	0.0
100	PI/2 BPSK	135	138		22.16		23.5	0.5
100	PI/2 BPSK	270	0		22.22			
100	QPSK	1	1		22.38		24.0	0.0
100	QPSK	1	137		22.37			
100	QPSK	1	271		22.24			
100	QPSK	135	0		22.06		23.0	1.0
100	QPSK	135	69		22.33		24.0	0.0
100	QPSK	135	138		22.03		23.0	1.0
100	QPSK	270	0		22.22			
100	16QAM	1	1		22.17		23.0	1.0
100	64QAM	1	1		22.29		21.5	2.5
100	256QAM	1	1		21.72		19.5	4.5
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	1	25.27	25.27	25.26	24.0	0.0
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	1	25.26	25.34	25.26	24.0	0.0
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	1	25.28	25.35	25.35	24.0	0.0
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3750	3770.01		
60	QPSK	1	1	25.29	25.31	25.27	24.0	0.0
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3775.02		
50	QPSK	1	1	25.26	25.28	25.30	24.0	0.0
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	1	25.31	25.26	25.28	24.0	0.0
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3785.01		
30	QPSK	1	1	25.31	25.25	25.34	24.0	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	1	25.24	25.29	25.24	24.0	0.0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					633334			
Frequency (MHz)					3500.01			
100	PI/2 BPSK	1	1		22.65		24.0	0.0
100	PI/2 BPSK	1	137		22.62			
100	PI/2 BPSK	1	271		22.56			
100	PI/2 BPSK	135	0		22.59		23.5	0.5
100	PI/2 BPSK	135	69		22.61		24.0	0.0
100	PI/2 BPSK	135	138		22.63		23.5	0.5
100	PI/2 BPSK	270	0		22.57			
100	QPSK	1	1		22.66		24.0	0.0
100	QPSK	1	137		22.61			
100	QPSK	1	271		22.56			
100	QPSK	135	0		22.60		23.0	1.0
100	QPSK	135	69		22.64		24.0	0.0
100	QPSK	135	138		22.59		23.0	1.0
100	QPSK	270	0		22.61			
100	16QAM	1	1		22.62		23.0	1.0
100	64QAM	1	1		22.54		21.5	2.5
100	256QAM	1	1		21.96		19.5	4.5
Channel				633000	633334	633668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3495	3500.01	3505.02		
90	QPSK	1	1	22.56	22.59	22.63	24.0	0.0
Channel				632668	633334	634000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3490.02	3500.01	3510		
80	QPSK	1	1	22.61	22.61	22.55	24.0	0.0
Channel				632334	633334	634334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3485.01	3500.01	3515.01		
70	QPSK	1	1	22.59	22.60	22.57	24.0	0.0
Channel				632000	633334	634668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3480	3500.01	3520.02		
60	QPSK	1	1	22.58	22.53	22.56	24.0	0.0
Channel				631668	633334	635000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3475.02	3500.01	3525		
50	QPSK	1	1	22.60	22.54	22.53	24.0	0.0
Channel				631334	633334	635334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3470.01	3500.01	3530.01		
40	QPSK	1	1	22.52	22.61	22.53	24.0	0.0
Channel				631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3465	3500.01	3535.02		
30	QPSK	1	1	22.60	22.56	22.55	24.0	0.0
Channel				630668	633334	636000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3460.02	3500.01	3540		
20	QPSK	1	1	22.58	22.58	22.63	24.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				650000	650000	650000		
Frequency (MHz)				3750	3750	3750		
100	PI/2 BPSK	1	1		20.37		21.0	0.0
100	PI/2 BPSK	1	137		20.35			
100	PI/2 BPSK	1	271		20.32			
100	PI/2 BPSK	135	0		20.40		21.0	0.0
100	PI/2 BPSK	135	69		20.38		21.0	0.0
100	PI/2 BPSK	135	138		20.30		21.0	0.0
100	PI/2 BPSK	270	0		20.36			
100	QPSK	1	1		20.58		21.0	0.0
100	QPSK	1	137		20.40			
100	QPSK	1	271		20.29			
100	QPSK	135	0		20.34		21.0	0.0
100	QPSK	135	69		20.37		21.0	0.0
100	QPSK	135	138		20.33		21.0	0.0
100	QPSK	270	0		20.31			
100	16QAM	1	1		20.25		21.0	0.0
100	64QAM	1	1		20.35		21.0	0.0
100	256QAM	1	1		20.39		21.0	0.0
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	123	20.40	20.37	20.49	21.0	0.0
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	109	20.40	20.39	20.45	21.0	0.0
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	95	20.39	20.42	20.49	21.0	0.0
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3750	3770.01		
60	QPSK	1	81	20.46	20.40	20.49	21.0	0.0
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3775.02		
50	QPSK	1	67	20.42	20.35	20.41	21.0	0.0
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	53	20.45	20.36	20.50	21.0	0.0
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3785.01		
30	QPSK	1	39	20.45	20.43	20.49	21.0	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	26	20.43	20.41	20.48	21.0	0.0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				633334	633334	633334		
Frequency (MHz)				3500.01	3500.01	3500.01		
100	PI/2 BPSK	1	1		20.23		21.0	0.0
100	PI/2 BPSK	1	137		20.21			
100	PI/2 BPSK	1	271		20.03			
100	PI/2 BPSK	135	0		20.16		21.0	0.0
100	PI/2 BPSK	135	69		20.11		21.0	0.0
100	PI/2 BPSK	135	138		20.18		21.0	0.0
100	PI/2 BPSK	270	0		20.21			
100	QPSK	1	1		20.43		21.0	0.0
100	QPSK	1	137		20.33			
100	QPSK	1	271		20.17			
100	QPSK	135	0		20.21		21.0	0.0
100	QPSK	135	69		20.42		21.0	0.0
100	QPSK	135	138		20.25		21.0	0.0
100	QPSK	270	0		20.29			
100	16QAM	1	1		19.97		21.0	0.0
100	64QAM	1	1		20.14		21.0	0.0
100	256QAM	1	1		20.11		21.0	0.0
Channel				633000	633334	633668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3495	3500.01	3505.02		
90	QPSK	1	123	20.45	20.36	20.50	21.0	0.0
Channel				632668	633334	634000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3490.02	3500.01	3510		
80	QPSK	1	109	20.43	20.41	20.48	21.0	0.0
Channel				632334	633334	634334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3485.01	3500.01	3515.01		
70	QPSK	1	95	20.45	20.36	20.50	21.0	0.0
Channel				632000	633334	634668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3480	3500.01	3520.02		
60	QPSK	1	81	20.40	20.39	20.45	21.0	0.0
Channel				631668	633334	635000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3475.02	3500.01	3525		
50	QPSK	1	67	20.40	20.37	20.49	21.0	0.0
Channel				631334	633334	635334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3470.01	3500.01	3530.01		
40	QPSK	1	53	20.43	20.41	20.48	21.0	0.0
Channel				631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3465	3500.01	3535.02		
30	QPSK	1	39	20.40	20.39	20.45	21.0	0.0
Channel				630668	633334	636000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3460.02	3500.01	3540		
20	QPSK	1	26	20.40	20.37	20.49	21.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				650000	650000	650000		
Frequency (MHz)				3750	3750	3750		
100	PI/2 BPSK	1	1		20.01		21.0	0.0
100	PI/2 BPSK	1	137		20.19			
100	PI/2 BPSK	1	271		19.94			
100	PI/2 BPSK	135	0		20.20		21.0	0.0
100	PI/2 BPSK	135	69		20.23		21.0	0.0
100	PI/2 BPSK	135	138		19.82		21.0	0.0
100	PI/2 BPSK	270	0		20.13			
100	QPSK	1	1		20.25		21.0	0.0
100	QPSK	1	137		19.72			
100	QPSK	1	271		19.95			
100	QPSK	135	0		20.16		21.0	0.0
100	QPSK	135	69		20.22		21.0	0.0
100	QPSK	135	138		19.81		21.0	0.0
100	QPSK	270	0		19.87			
100	16QAM	1	1		20.25		21.0	0.0
100	64QAM	1	1		19.96		21.0	0.0
100	256QAM	1	1		19.37		21.0	0.0
Channel				649668	650000	650334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3745.02	3750	3755.01		
90	QPSK	1	123	20.12	20.15	20.05	21.0	0.0
Channel				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	109	20.10	20.13	20.09	21.0	0.0
Channel				649000	650000	651000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	95	20.09	20.11	20.04	21.0	0.0
Channel				648668	650000	651334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3730.02	3750	3770.01		
60	QPSK	1	81	20.07	20.13	20.04	21.0	0.0
Channel				648334	650000	651668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3725.01	3750	3775.02		
50	QPSK	1	67	20.08	20.13	20.07	21.0	0.0
Channel				648000	650000	652000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	53	20.10	20.11	20.08	21.0	0.0
Channel				647668	650000	652334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3715.02	3750	3785.01		
30	QPSK	1	39	20.11	20.17	20.07	21.0	0.0
Channel				647334	650000	652668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	26	20.12	20.16	20.10	21.0	0.0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				633334	633334	633334		
Frequency (MHz)				3500.01	3500.01	3500.01		
100	PI/2 BPSK	1	1		20.01		21.0	0.0
100	PI/2 BPSK	1	137		20.13			
100	PI/2 BPSK	1	271		19.81			
100	PI/2 BPSK	135	0		20.22		21.0	0.0
100	PI/2 BPSK	135	69		20.13		21.0	0.0
100	PI/2 BPSK	135	138		19.84		21.0	0.0
100	PI/2 BPSK	270	0		19.97			
100	QPSK	1	1		20.33		21.0	0.0
100	QPSK	1	137		19.63			
100	QPSK	1	271		19.79			
100	QPSK	135	0		20.18		21.0	0.0
100	QPSK	135	69		20.27		21.0	0.0
100	QPSK	135	138		19.97		21.0	0.0
100	QPSK	270	0		19.89			
100	16QAM	1	1		20.18		21.0	0.0
100	64QAM	1	1		19.97		21.0	0.0
100	256QAM	1	1		19.36		21.0	0.0
Channel				633000	633334	633668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3495	3500.01	3505.02		
90	QPSK	1	123	20.07	20.13	20.04	21.0	0.0
Channel				632668	633334	634000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3490.02	3500.01	3510		
80	QPSK	1	109	20.12	20.16	20.10	21.0	0.0
Channel				632334	633334	634334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3485.01	3500.01	3515.01		
70	QPSK	1	95	20.10	20.11	20.08	21.0	0.0
Channel				632000	633334	634668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3480	3500.01	3520.02		
60	QPSK	1	81	20.12	20.15	20.05	21.0	0.0
Channel				631668	633334	635000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3475.02	3500.01	3525		
50	QPSK	1	67	20.07	20.13	20.04	21.0	0.0
Channel				631334	633334	635334	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3470.01	3500.01	3530.01		
40	QPSK	1	53	20.12	20.15	20.05	21.0	0.0
Channel				631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3465	3500.01	3535.02		
30	QPSK	1	39	20.10	20.11	20.08	21.0	0.0
Channel				630668	633334	636000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				3460.02	3500.01	3540		
20	QPSK	1	26	20.12	20.15	20.05	21.0	0.0