

power for that channel. When the reported SAR of a required test channel is $> 1.45 \text{ W/kg}$, SAR is required for all three RB offset configurations for that required test channel.

2) QPSK with 50% RB allocation

The procedures required for 1 RB allocation in 1) are applied to measure the SAR for QPSK with 50% RB allocation.

3) QPSK with 100% RB allocation

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 in 1) and 2) are $\leq 0.8 \text{ W/kg}$. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is $> 1.45 \text{ W/kg}$, the remaining required test channels must also be tested.

9.5 Bluetooth & Wi-Fi Measurement Procedures for SAR

Normal network operating configurations are not suitable for measuring the SAR of 802.11 transmitters in general. Unpredictable fluctuations in network traffic and antenna diversity conditions can introduce undesirable variations in SAR results. The SAR for these devices should be measured using chipset based test mode software to ensure that the results are consistent and reliable.

Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in a test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters. The test frequencies should correspond to actual channel frequencies defined for domestic use. SAR for devices with switched diversity should be measured with only one antenna transmitting at a time during each SAR measurement, according to a fixed modulation and data rate. The same data pattern should be used for all measurements.

9.6 Power Drift

To control the output power stability during the SAR test, DASY4 system calculates the power drift by measuring the E-field at the same location at the beginning and at the end of the measurement for each test position. These drift values can be found in Table 14.2 to Table 14.37 labeled as: (Power Drift [dB]). This ensures that the power drift during one measurement is within 5%.

10 Area Scan Based 1-g SAR

10.1 Requirement of KDB

According to the KDB447498 D01 v05, when the implementation is based the specific polynomial fit algorithm as presented at the 29th Bioelectromagnetics Society meeting (2007) and the estimated 1-gSAR is ≤ 1.2 W/kg, a zoom scan measurement is not required provided it is also not needed for any other purpose; for example, if the peak SAR location required for simultaneous transmission SAR test exclusion can be determined accurately by the SAR system or manually to discriminate between distinctive peaks and scattered noisy SAR distributions from area scans.

There must not be any warning or alert messages due to various measurement concerns identified by the SAR system; for example, noise in measurements, peaks too close to scan boundary, peaks are too sharp, spatial resolution and uncertainty issues etc. The SAR system verification must also demonstrate that the area scan estimated 1-g SAR is within 3% of the zoom scan 1-g SAR (See Annex B). When all the SAR results for each exposure condition in a frequency band and wireless mode are based on estimated 1-g SAR, the 1-g SAR for the highest SAR configuration must be determined by a zoom scan.

10.2 Fast SAR Algorithms

The approach is based on the area scan measurement applying a frequency dependent attenuation parameter. This attenuation parameter was empirically determined by analyzing a large number of phones. The MOTOROLA FAST SAR was developed and validated by the MOTOROLA Research Group in Ft. Lauderdale.

In the initial study, an approximation algorithm based on Linear fit was developed. The accuracy of the algorithm has been demonstrated across a broad frequency range (136-2450 MHz) and for both 1- and 10-g averaged SAR using a sample of 264 SAR measurements from 55 wireless handsets. For the sample size studied, the root-mean-squared errors of the algorithm are 1.2% and 5.8% for 1- and 10-g averaged SAR, respectively. The paper describing the algorithm in detail is expected to be published in August 2004 within the Special Issue of Transactions on MTT.

In the second step, the same research group optimized the fitting algorithm to an Polynomial fit whereby the frequency validity was extended to cover the range 30-6000MHz. Details of this study can be found in the BEMS 2007 Proceedings.

Both algorithms are implemented in DASY software.

11 Conducted Output Power

11.1 Manufacturing tolerance

This project supports Hotspot mode. When WLAN Hotspot mode is activated (AP ON), the conducted output power will be reduced for WCDMA1700/1900 and LTE band 2/4. When WLAN Hotspot mode is deactivated (AP OFF), the RF output power level return to their normal RF power level.

When the hotspot mode is ON:

Table 11.1: WCDMA

WCDMA 1700 CS			
Channel	Channel 1513	Channel 1412	Channel 1312
Target (dBm)	22	22	22
Tune-up(dBm)	23	23	23
HSUPA (sub-test 1/4)			
Channel	Channel 1513	Channel 1412	Channel 1312
Target (dBm)	20.5	20.5	20.5
Tune-up(dBm)	21.5	21.5	21.5
HSUPA (sub-test 2/3)			
Channel	Channel 1513	Channel 1412	Channel 1312
Target (dBm)	20	20	20
Tune-up(dBm)	21	21	21
HSUPA (sub-test 5)			
Channel	Channel 1513	Channel 1412	Channel 1312
Target (dBm)	20.5	20.5	20.5
Tune-up(dBm)	21.5	21.5	21.5
DC-HSDPA (sub-test 1-4)			
Channel	Channel 1513	Channel 1412	Channel 1312
Target (dBm)	21	21	21
Tune-up(dBm)	22	22	22
WCDMA 1900 CS			
Channel	Channel 9538	Channel 9400	Channel 9262
Target (dBm)	22	22	22
Tune-up(dBm)	23	23	23
HSUPA (sub-test 1/5)			
Channel	Channel 9538	Channel 9400	Channel 9262
Target (dBm)	20.5	20.5	20.5
Tune-up(dBm)	21.5	21.5	21.5
HSUPA (sub-test 2/3)			
Channel	Channel 9538	Channel 9400	Channel 9262
Target (dBm)	19.5	19.5	19.5
Tune-up(dBm)	20.5	20.5	20.5
HSUPA (sub-test 4)			
Channel	Channel 9538	Channel 9400	Channel 9262
Target (dBm)	20	20	20
Tune-up(dBm)	21	21	21
DC-HSDPA (sub-test 1-4)			
Channel	Channel 9538	Channel 9400	Channel 9262
Target (dBm)	21	21	21
Tune-up(dBm)	22	22	22

Table 11.2: LTE

Mode	Target (dBm)	Tune-up(dBm)
LTE Band 2	22	23
LTE Band 4	21	22

Note: When the hotspot mode is ON, MPR settings doesn't work.

When the hotspot mode is OFF:

Table 11.3: GSM Speech

GSM 850			
Channel	Channel 251	Channel 190	Channel 128
Target (dBm)	32.5	32.5	32.5
Tune-up(dBm)	33.5	33.5	33.5
GSM 1900			
Channel	Channel 810	Channel 661	Channel 512
Target (dBm)	29.5	29.5	29.5
Tune-up(dBm)	30.5	30.5	30.5

Table 11.4: GPRS and EGPRS

GSM 850 GPRS (GMSK)				
Channel		251	190	128
1 Txslot	Target (dBm)	32.5	32.5	32.5
	Tune-up(dBm)	33.5	33.5	33.5
2 Txslots	Target (dBm)	29.5	29.5	29.5
	Tune-up(dBm)	30.5	30.5	30.5
3 Txslots	Target (dBm)	27.7	27.7	27.7
	Tune-up(dBm)	28.7	28.7	28.7
4 Txslots	Target (dBm)	26.5	26.5	26.5
	Tune-up(dBm)	27.5	27.5	27.5
GSM 850 EGPRS (GMSK)				
Channel		251	190	128
1 Txslot	Target (dBm)	32.5	32.5	32.5
	Tune-up(dBm)	33.5	33.5	33.5
2 Txslots	Target (dBm)	29.5	29.5	29.5
	Tune-up(dBm)	30.5	30.5	30.5
3 Txslots	Target (dBm)	27.7	27.7	27.7
	Tune-up(dBm)	28.7	28.7	28.7
4 Txslots	Target (dBm)	26.5	26.5	26.5
	Tune-up(dBm)	27.5	27.5	27.5
GSM 850 EGPRS (8PSK)				
Channel		251	190	128
1 Txslot	Target (dBm)	26.5	26.5	26.5
	Tune-up(dBm)	27.5	27.5	27.5
2 Txslots	Target (dBm)	25.5	25.5	25.5

	Tune-up(dBm)	26.5	26.5	26.5
3 Txs slots	Target (dBm)	24	24	24
	Tune-up(dBm)	25	25	25
4 Txs slots	Target (dBm)	22.5	22.5	22.5
	Tune-up(dBm)	23.5	23.5	23.5
GSM 1900 GPRS (GMSK)				
	Channel	810	661	512
1 Tx slot	Target (dBm)	29.5	29.5	29.5
	Tune-up(dBm)	30.5	30.5	30.5
2 Txs slots	Target (dBm)	26.5	26.5	26.5
	Tune-up(dBm)	27.5	27.5	27.5
3 Txs slots	Target (dBm)	24.7	24.7	24.7
	Tune-up(dBm)	25.7	25.7	25.7
4 Txs slots	Target (dBm)	23.5	23.5	23.5
	Tune-up(dBm)	24.5	24.5	24.5
GSM 1900 EGPRS (GMSK)				
	Channel	810	661	512
1 Tx slot	Target (dBm)	29.5	29.5	29.5
	Tune-up(dBm)	30.5	30.5	30.5
2 Txs slots	Target (dBm)	26.5	26.5	26.5
	Tune-up(dBm)	27.5	27.5	27.5
3 Txs slots	Target (dBm)	24.7	24.7	24.7
	Tune-up(dBm)	25.7	25.7	25.7
4 Txs slots	Target (dBm)	23.5	23.5	23.5
	Tune-up(dBm)	24.5	24.5	24.5
GSM 1900 EGPRS (8PSK)				
	Channel	810	661	512
1 Tx slot	Target (dBm)	25.5	25.5	25.5
	Tune-up(dBm)	26.5	26.5	26.5
2 Txs slots	Target (dBm)	24.5	24.5	24.5
	Tune-up(dBm)	25.5	25.5	25.5
3 Txs slots	Target (dBm)	23	23	23
	Tune-up(dBm)	24	24	24
4 Txs slots	Target (dBm)	21.5	21.5	21.5
	Tune-up(dBm)	22.5	22.5	22.5

Table 11.5: WCDMA

WCDMA 850 CS			
Channel	Channel 4233	Channel 4182	Channel 4132
Target (dBm)	23	23	23
Tune-up(dBm)	24	24	24
HSUPA (sub-test 1/5)			
Channel	Channel 4233	Channel 4182	Channel 4132

Target (dBm)	21.5	21.5	21.5
Tune-up(dBm)	22.5	22.5	22.5
HSUPA (sub-test 2/3)			
Channel	Channel 4233	Channel 4182	Channel 4132
Target (dBm)	20.5	20.5	20.5
Tune-up(dBm)	21.5	21.5	21.5
HSUPA (sub-test 4)			
Channel	Channel 4233	Channel 4182	Channel 4132
Target (dBm)	21	21	21
Tune-up(dBm)	22	22	22
DC-HSDPA (sub-test 1-4)			
Channel	Channel 4233	Channel 4182	Channel 4132
Target (dBm)	21.5	21.5	21.5
Tune-up(dBm)	22.5	22.5	22.5
WCDMA 1700 CS			
Channel	Channel 1513	Channel 1412	Channel 1312
Target (dBm)	23	23	23
Tune-up(dBm)	24	24	24
HSUPA (sub-test 1/4)			
Channel	Channel 1513	Channel 1412	Channel 1312
Target (dBm)	21.5	21.5	21.5
Tune-up(dBm)	22.5	22.5	22.5
HSUPA (sub-test 2/3)			
Channel	Channel 1513	Channel 1412	Channel 1312
Target (dBm)	21	21	21
Tune-up(dBm)	22	22	22
HSUPA (sub-test 5)			
Channel	Channel 1513	Channel 1412	Channel 1312
Target (dBm)	22	22	22
Tune-up(dBm)	23	23	23
DC-HSDPA (sub-test 1-4)			
Channel	Channel 1513	Channel 1412	Channel 1312
Target (dBm)	21.5	21.5	21.5
Tune-up(dBm)	22.5	22.5	22.5
WCDMA 1900 CS			
Channel	Channel 9538	Channel 9400	Channel 9262
Target (dBm)	23	23	23
Tune-up(dBm)	24	24	24
HSUPA (sub-test 1/5)			
Channel	Channel 9538	Channel 9400	Channel 9262
Target (dBm)	21.5	21.5	21.5
Tune-up(dBm)	22.5	22.5	22.5
HSUPA (sub-test 2/3)			

Channel	Channel 9538	Channel 9400	Channel 9262
Target (dBm)	20.5	20.5	20.5
Tune-up(dBm)	21.5	21.5	21.5
HSUPA (sub-test 4)			
Channel	Channel 9538	Channel 9400	Channel 9262
Target (dBm)	21	21	21
Tune-up(dBm)	22	22	22
DC-HSDPA (sub-test 1-4)			
Channel	Channel 9538	Channel 9400	Channel 9262
Target (dBm)	21.5	21.5	21.5
Tune-up(dBm)	22.5	22.5	22.5

Table 11.6: LTE

Mode	Target (dBm)	Tune-up(dBm)
LTE Band 2	23	24
LTE Band 4	23	24
LTE Band 12	23	24

LTE MPR will follow up 3GPP setting as below:

Modulation	Channel bandwidth / Transmission bandwidth (NRB)						MPR (dB)
	1.4MHz	3.0MHz	5MHz	10MHz	15MHz	20MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	1
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	2

Table 11.7: Bluetooth

GFSK			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	7.5	7.5	6.5
Tune-up(dBm)	9	9	8
EDR2M-4_DQPSK			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	6.5	6.5	5.5
Tune-up(dBm)	8	8	7
EDR3M-8DPSK			
Channel	Channel 0	Channel 39	Channel 78
Target (dBm)	6.5	6.5	5.5
Tune-up(dBm)	8	8	7

Table 11.8: WiFi
802.11b

Channel\ rate	1Mbps		2Mbps		5.5Mbps		11Mbps	
	dBm	±	dBm	±	dBm	±	dBm	±
1	20.0	1	20.0	1	20.0	1	19.8	1
6	20.0	1	20.0	1	20.0	1	19.8	1
11	20.0	1	20.0	1	20.0	1	19.8	1

802.11g

Channel\ rate	6Mbps		9Mbps		12Mbps		18Mbps		24Mbps		36Mbps		48Mbps		54Mbps	
	dBm	±	dBm	±	dBm	±	dBm	±	dBm	±	dBm	±	dBm	±	dBm	±
1	15.0	1	15.0	1	15.0	1	15.0	1	14.5	1	14.0	1	13.5	1	13.5	1
6	15.0	1	15.0	1	15.0	1	15.0	1	14.5	1	14.0	1	13.5	1	13.5	1
11	15.0	1	15.0	1	15.0	1	15.0	1	14.5	1	14.0	1	13.5	1	13.5	1

802.11n-20M

Channel\ rate	MCS0		MCS1		MCS2		MCS3		MCS4		MCS5		MCS6		MCS7	
	dBm	±	dBm	±	dBm	±	dBm	±	dBm	±	dBm	±	dBm	±	dBm	±
1	14.0	1	13.0	1	13.0	1	12.5	1	12.0	1	12.0	1	12.0	1	12.0	1
6	14.0	1	13.0	1	13.0	1	12.5	1	12.0	1	12.0	1	12.0	1	12.0	1
11	14.0	1	13.0	1	13.0	1	12.5	1	12.0	1	12.0	1	12.0	1	12.0	1

802.11n-40M

Channel\ rate	MCS0		MCS1		MCS2		MCS3		MCS4		MCS5		MCS6		MCS7	
	dBm	±	dBm	±	dBm	±	dBm	±	dBm	±	dBm	±	dBm	±	dBm	±
3	13.0	1	13.0	1	13.0	1	12.5	1	12.0	1	11.5	1	11.0	1	11.0	1
6	13.0	1	13.0	1	13.0	1	12.5	1	12.0	1	11.5	1	11.0	1	11.0	1
9	13.0	1	13.0	1	13.0	1	12.5	1	12.0	1	11.5	1	11.0	1	11.0	1

11.2 Hotspot

The conducted power is normal for all bands except WCDMA1700/1900 and LTE band 2/4. There is power reduction enabled for WCDMA1700/1900 and LTE band 2/4. The power reduction is enabled when the user enables hotspot mode via the manufacturer software. The tables below show the measured powers with hotspot.

Table 11.9: The conducted Power for WCDMA

Item	band	FDDIV result		
	ARFCN	1513 (1752.6MHz)	1412 (1732.4MHz)	1312 (1712.4MHz)
WCDMA	\	22.59	22.61	22.66
HSUPA	1	21.04	21.21	20.82
	2	19.90	20.35	20.16
	3	19.57	20.12	20.37
	4	20.83	20.83	20.92

	5	21.37	21.39	21.40
DC-HSDPA	1	21.10	21.09	21.04
	2	21.08	21.05	21.02
	3	21.12	21.02	21.01
	4	21.06	21.08	21.05
Item	band	FDDII result		
	ARFCN	9538(1907.6MHz)	9400(1880MHz)	9262(1852.4MHz)
WCDMA	\	22.95	22.84	22.66
HSUPA	1	21.18	20.91	20.64
	2	20.42	20.44	20.08
	3	20.08	20.02	19.80
	4	21.01	20.94	20.89
	5	21.42	21.36	21.27
DC-HSDPA	1	21.33	21.23	21.21
	2	21.31	21.18	21.19
	3	21.28	21.21	21.17
	4	21.26	21.22	21.21

Table 11.10: The conducted Power for LTE

Band 2							
Bandwidth (MHz)	RB allocation	Frequency (MHz)	Max. Target Power (dBm)	QPSK		16QAM	
	RB offset (Start RB)			Actual output power (dBm)	MPR	Actual output power (dBm)	MPR
1.4 MHz	1RB High (5)	1909.3	23	22.08	0	22.58	0
		1880	23	22.03	0	22.75	0
		1850.7	23	22.25	0	22.42	0
	1RB Middle (3)	1909.3	23	22.22	0	22.36	0
		1880	23	22.33	0	22.87	0
		1850.7	23	22.23	0	22.42	0
	1RB Low (0)	1909.3	23	22.19	0	22.55	0
		1880	23	22.06	0	22.07	0
		1850.7	23	22.00	0	22.72	0
	3RB High (3)	1909.3	23	22.15	0	22.25	0
		1880	23	22.08	0	22.11	0
		1850.7	23	22.01	0	22.07	0
	3RB Middle (1)	1909.3	23	22.24	0	22.26	0
		1880	23	22.01	0	22.02	0
		1850.7	23	22.08	0	21.96	0
	3RB Low (0)	1909.3	23	22.23	0	22.09	0
		1880	23	22.05	0	22.12	0
		1850.7	23	21.94	0	21.88	0
	6RB (0)	1909.3	23	22.08	0	21.25	0
		1880	23	22.06	0	20.78	0
		1850.7	23	21.94	0	20.86	0
3 MHz	1RB	1908.5	23	22.20	0	22.57	0

	High (14)	1880	23	22.19	0	22.38	0
		1851.5	23	22.07	0	22.43	0
	1RB Middle (7)	1908.5	23	22.44	0	22.52	0
		1880	23	22.06	0	22.29	0
		1851.5	23	22.22	0	22.71	0
	1RB Low (0)	1908.5	23	22.29	0	22.68	0
		1880	23	22.12	0	22.25	0
		1851.5	23	22.35	0	22.70	0
	8RB High (7)	1908.5	23	22.20	0	21.31	0
		1880	23	22.16	0	21.26	0
		1851.5	23	21.93	0	21.12	0
	8RB Middle (4)	1908.5	23	22.24	0	21.36	0
		1880	23	22.13	0	21.23	0
		1851.5	23	22.03	0	21.13	0
	8RB Low (0)	1908.5	23	22.19	0	21.39	0
		1880	23	22.10	0	21.29	0
		1851.5	23	21.96	0	21.17	0
	15RB (0)	1908.5	23	22.24	0	21.42	0
		1880	23	22.23	0	21.28	0
		1851.5	23	22.06	0	21.11	0
5 MHz	1RB High (24)	1907.5	23	22.12	0	22.45	0
		1880	23	22.37	0	22.38	0
		1852.5	23	21.87	0	22.13	0
	1RB Middle (12)	1907.5	23	22.06	0	22.45	0
		1880	23	22.00	0	22.27	0
		1852.5	23	21.80	0	22.20	0
	1RB Low (0)	1907.5	23	22.00	0	22.26	0
		1880	23	22.06	0	22.30	0
		1852.5	23	22.15	0	22.21	0
	12RB High (13)	1907.5	23	22.16	0	21.23	0
		1880	23	22.18	0	21.22	0
		1852.5	23	21.99	0	21.04	0
	12RB Middle (6)	1907.5	23	22.17	0	21.22	0
		1880	23	22.15	0	21.31	0
		1852.5	23	22.00	0	21.06	0
	12RB Low (0)	1907.5	23	22.12	0	21.18	0
		1880	23	22.15	0	21.29	0
		1852.5	23	22.04	0	21.08	0
	25RB (0)	1907.5	23	22.21	0	21.29	0
		1880	23	22.13	0	21.29	0
		1852.5	23	22.07	0	21.03	0
10 MHz	1RB	1905	23	22.46	0	22.67	0

	High (49)	1880	23	22.36	0	22.63	0
		1855	23	22.03	0	22.67	0
	1RB Middle (24)	1905	23	22.45	0	22.69	0
		1880	23	22.31	0	22.85	0
		1855	23	22.33	0	22.59	0
	1RB Low (0)	1905	23	22.14	0	23.11	0
		1880	23	22.15	0	22.71	0
		1855	23	22.27	0	22.61	0
	25RB High (25)	1905	23	22.28	0	21.24	0
		1880	23	22.23	0	21.17	0
		1855	23	22.02	0	20.96	0
	25RB Middle (12)	1905	23	22.22	0	21.26	0
		1880	23	22.17	0	21.22	0
		1855	23	22.06	0	20.99	0
	25RB Low (0)	1905	23	22.23	0	21.17	0
		1880	23	22.19	0	21.22	0
		1855	23	22.08	0	20.99	0
	50RB (0)	1905	23	22.20	0	21.23	0
		1880	23	22.25	0	21.18	0
		1855	23	22.04	0	21.16	0
15 MHz	1RB High (74)	1902.5	23	22.27	0	22.41	0
		1880	23	22.35	0	22.49	0
		1857.5	23	22.01	0	22.61	0
	1RB Middle (37)	1902.5	23	22.10	0	22.55	0
		1880	23	22.05	0	22.93	0
		1857.5	23	22.30	0	22.63	0
	1RB Low (0)	1902.5	23	22.29	0	22.79	0
		1880	23	22.05	0	22.75	0
		1857.5	23	22.24	0	22.27	0
	36RB High (38)	1902.5	23	22.19	0	21.26	0
		1880	23	22.18	0	21.25	0
		1857.5	23	22.20	0	21.25	0
	36RB Middle (19)	1902.5	23	22.20	0	21.26	0
		1880	23	22.17	0	21.23	0
		1857.5	23	22.14	0	21.15	0
	36RB Low (0)	1902.5	23	22.25	0	21.32	0
		1880	23	22.19	0	21.38	0
		1857.5	23	22.12	0	21.24	0
	75RB (0)	1902.5	23	22.23	0	21.18	0
		1880	23	22.22	0	21.18	0
		1857.5	23	22.10	0	21.14	0
20 MHz	1RB High (99)	1900	23	22.28	0	22.35	0
		1880	23	22.37	0	22.45	0
		1860	23	22.24	0	22.58	0
	1RB Middle (50)	1900	23	22.43	0	22.65	0
		1880	23	22.41	0	22.45	0
		1860	23	22.45	0	22.68	0
	1RB	1900	23	22.33	0	22.74	0

	Low (0)	1880	23	22.35	0	22.32	0
		1860	23	22.39	0	22.60	0
		1900	23	22.25	0	21.16	0
	50RB High (50)	1880	23	22.23	0	21.27	0
		1860	23	22.20	0	21.10	0
		1900	23	22.09	0	21.12	0
	50RB Middle (25)	1880	23	22.13	0	21.35	0
		1860	23	22.10	0	21.12	0
		1900	23	22.13	0	21.17	0
	50RB Low (0)	1880	23	22.22	0	21.25	0
		1860	23	22.19	0	21.15	0
		1900	23	22.10	0	21.12	0
	100RB (0)	1880	23	22.14	0	21.16	0
		1860	23	22.19	0	21.20	0
Band 4							
Bandwidth (MHz)	RB allocation	Frequency (MHz)	Max. Target Power (dBm)	QPSK		16QAM	
	RB offset (Start RB)			Actual output power (dBm)	MPR	Actual output power (dBm)	MPR
1.4 MHz	1RB High (5)	1754.3	22	21.29	0	21.95	0
		1732.5	22	21.38	0	21.28	0
		1710.7	22	21.65	0	22.36	0
	1RB Middle (3)	1754.3	22	21.43	0	21.83	0
		1732.5	22	21.43	0	21.30	0
		1710.7	22	21.50	0	21.51	0
	1RB Low (0)	1754.3	22	21.30	0	21.74	0
		1732.5	22	21.31	0	21.29	0
		1710.7	22	21.41	0	21.47	0
	3RB High (3)	1754.3	22	21.28	0	21.16	0
		1732.5	22	21.31	0	21.39	0
		1710.7	22	21.61	0	21.54	0
	3RB Middle (1)	1754.3	22	21.44	0	21.28	0
		1732.5	22	21.38	0	21.67	0
		1710.7	22	21.47	0	21.47	0
	3RB Low (0)	1754.3	22	21.25	0	21.24	0
		1732.5	22	21.42	0	21.42	0
		1710.7	22	21.52	0	21.61	0
	6RB (0)	1754.3	22	21.30	0	19.97	0
		1732.5	22	21.35	0	20.08	0
		1710.7	22	21.60	0	20.55	0
3 MHz	1RB High (14)	1753.5	22	21.37	0	21.77	0
		1732.5	22	21.31	0	21.09	0
		1711.5	22	21.41	0	21.35	0
	1RB Middle (7)	1753.5	22	21.45	0	21.28	0
		1732.5	22	21.16	0	21.53	0
		1711.5	22	21.48	0	21.44	0
	1RB Low (0)	1753.5	22	21.42	0	21.78	0
		1732.5	22	21.40	0	21.66	0

	8RB High (7)	1711.5	22	21.66	0	21.54	0
		1753.5	22	21.37	0	20.49	0
		1732.5	22	21.43	0	20.53	0
	8RB Middle (4)	1711.5	22	21.47	0	20.35	0
		1753.5	22	21.33	0	20.48	0
		1732.5	22	21.42	0	20.54	0
	8RB Low (0)	1711.5	22	21.46	0	20.34	0
		1753.5	22	21.45	0	20.48	0
		1732.5	22	21.46	0	20.56	0
	15RB (0)	1711.5	22	21.44	0	20.45	0
		1753.5	22	21.37	0	20.46	0
		1732.5	22	21.35	0	20.41	0
5 MHz	1RB High (24)	1711.5	22	21.45	0	20.42	0
		1752.5	22	21.09	0	21.40	0
		1732.5	22	21.54	0	21.60	0
	1RB Middle (12)	1712.5	22	21.43	0	21.61	0
		1752.5	22	21.29	0	21.58	0
		1732.5	22	21.36	0	21.61	0
	1RB Low (0)	1712.5	22	21.27	0	21.73	0
		1752.5	22	21.58	0	21.61	0
		1732.5	22	21.54	0	21.72	0
	12RB High (13)	1712.5	22	21.73	0	21.80	0
		1752.5	22	21.35	0	20.35	0
		1732.5	22	21.37	0	20.44	0
	12RB Middle (6)	1712.5	22	21.51	0	20.47	0
		1752.5	22	21.26	0	20.45	0
		1732.5	22	21.46	0	20.42	0
	12RB Low (0)	1712.5	22	21.49	0	20.57	0
		1752.5	22	21.38	0	20.48	0
		1732.5	22	21.42	0	20.60	0
	25RB (0)	1712.5	22	21.50	0	20.54	0
		1752.5	22	21.33	0	20.33	0
		1732.5	22	21.37	0	20.44	0
10 MHz	1RB High (49)	1712.5	22	21.46	0	20.43	0
		1750	22	21.31	0	21.84	0
		1732.5	22	21.62	0	21.90	0
	1RB Middle (24)	1715	22	21.22	0	21.41	0
		1750	22	21.62	0	21.67	0
		1732.5	22	21.71	0	21.89	0
	1RB Low (0)	1715	22	21.67	0	22.00	0
		1750	22	21.66	0	21.71	0
		1732.5	22	21.52	0	22.05	0

	25RB High (25)	1715	22	21.79	0	21.79	0
		1750	22	21.27	0	20.26	0
		1732.5	22	21.38	0	20.45	0
		1715	22	21.53	0	20.50	0
	25RB Middle (12)	1750	22	21.47	0	20.45	0
		1732.5	22	21.41	0	20.57	0
		1715	22	21.58	0	20.55	0
	25RB Low (0)	1750	22	21.47	0	20.41	0
		1732.5	22	21.48	0	20.66	0
		1715	22	21.58	0	20.55	0
	50RB (0)	1750	22	21.38	0	20.45	0
		1732.5	22	21.44	0	20.50	0
		1715	22	21.46	0	20.52	0
15 MHz	1RB High (74)	1747.5	22	21.30	0	21.83	0
		1732.5	22	21.46	0	21.38	0
		1717.5	22	21.45	0	22.18	0
	1RB Middle (37)	1747.5	22	21.50	0	21.47	0
		1732.5	22	21.28	0	21.91	0
		1717.5	22	21.36	0	21.40	0
	1RB Low (0)	1747.5	22	21.61	0	21.59	0
		1732.5	22	21.45	0	21.52	0
		1717.5	22	21.68	0	21.86	0
	36RB High (38)	1747.5	22	21.38	0	20.40	0
		1732.5	22	21.34	0	20.42	0
		1717.5	22	21.45	0	20.54	0
	36RB Middle (19)	1747.5	22	21.44	0	20.44	0
		1732.5	22	21.42	0	20.50	0
		1717.5	22	21.51	0	20.60	0
	36RB Low (0)	1747.5	22	21.55	0	20.55	0
		1732.5	22	21.49	0	20.68	0
		1717.5	22	21.60	0	20.69	0
	75RB (0)	1747.5	22	21.46	0	20.45	0
		1732.5	22	21.45	0	20.48	0
		1717.5	22	21.51	0	20.48	0
20 MHz	1RB High (99)	1745	22	21.32	0	21.50	0
		1732.5	22	21.44	0	21.47	0
		1720	22	21.53	0	21.65	0
	1RB Middle (50)	1745	22	21.53	0	21.71	0
		1732.5	22	21.63	0	21.84	0
		1720	22	21.82	0	21.74	0
	1RB Low (0)	1745	22	21.54	0	21.64	0
		1732.5	22	21.66	0	21.76	0
		1720	22	21.95	0	21.97	0
	50RB High (50)	1745	22	21.45	0	20.52	0
		1732.5	22	21.35	0	20.31	0
		1720	22	21.51	0	20.54	0
	50RB	1745	22	21.51	0	20.58	0

	Middle (25)	1732.5	22	21.44	0	20.39	0
		1720	22	21.55	0	20.61	0
	50RB Low (0)	1745	22	21.57	0	20.63	0
		1732.5	22	21.55	0	20.59	0
		1720	22	21.58	0	20.64	0
	100RB (0)	1745	22	21.48	0	20.45	0
		1732.5	22	21.47	0	20.50	0
		1720	22	21.45	0	20.52	0

11.3 GSM Measurement result

During the process of testing, the EUT was controlled via Agilent Digital Radio Communication tester (E5515C) to ensure the maximum power transmission and proper modulation. This result contains conducted output power for the EUT. In all cases, the measured peak output power should be greater and within 5% than EMI measurement.

Table 11.11: The conducted power measurement results for GSM850/1900

GSM 850MHz	Conducted Power (dBm)		
	Channel 251(848.8MHz)	Channel 190(836.6MHz)	Channel 128(824.2MHz)
	32.03	31.95	31.89
GSM 1900MHz	Conducted Power(dBm)		
	Channel 810(1909.8MHz)	Channel 661(1880MHz)	Channel 512(1850.2MHz)
	29.48	29.50	29.49

Table 11.12: The conducted power measurement results for GPRS and EGPRS

GSM 850 GPRS (GMSK)	Measured Power (dBm)			calculation	Averaged Power (dBm)		
	251	190	128		251	190	128
1 Txslot	32.00	31.92	31.85	-9.03	22.97	22.89	22.82
2 Txslots	28.91	28.80	28.79	-6.02	22.89	22.78	22.77
3Txslots	27.64	27.48	27.36	-4.26	23.38	23.22	23.10
4 Txslots	25.78	26.00	25.90	-3.01	22.77	22.99	22.89
GSM 850 EGPRS (GMSK)	Measured Power (dBm)			calculation	Averaged Power (dBm)		
	251	190	128		251	190	128
1 Txslot	32.01	31.92	31.85	-9.03	22.98	22.89	22.82
2 Txslots	28.92	28.81	28.79	-6.02	22.90	22.79	22.77
3Txslots	27.64	27.51	27.39	-4.26	23.38	23.25	23.13
4 Txslots	25.78	26.00	25.91	-3.01	22.77	22.99	22.90
GSM 850 EGPRS (8PSK)	Measured Power (dBm)			calculation	Averaged Power (dBm)		
	251	190	128		251	190	128
1 Txslot	25.98	25.91	25.96	-9.03	16.95	16.88	16.93
2 Txslots	24.88	24.86	24.90	-6.02	18.86	18.84	18.88
3Txslots	23.26	23.28	23.34	-4.26	19.00	19.02	19.08
4 Txslots	21.55	21.58	21.53	-3.01	18.54	18.57	18.52
PCS1900 GPRS (GMSK)	Measured Power (dBm)			calculation	Averaged Power (dBm)		
	810	661	512		810	661	512
1 Txslot	29.51	29.53	29.50	-9.03	20.48	20.50	20.47
2 Txslots	26.82	26.82	26.73	-6.02	20.80	20.80	20.71

3Txslots	24.82	24.83	24.79	-4.26	20.56	20.57	20.53
4 Txslots	23.33	23.35	23.37	-3.01	20.32	20.34	20.36
PCS1900 EGPRS (GMSK)	Measured Power (dBm)			calculation	Averaged Power (dBm)		
	810	661	512		810	661	512
1 Txslot	29.57	29.58	29.58	-9.03	20.54	20.55	20.55
2 Txslots	26.87	26.76	26.53	-6.02	20.85	20.74	20.51
3Txslots	24.86	24.81	24.76	-4.26	20.60	20.55	20.50
4 Txslots	23.36	23.37	23.39	-3.01	20.35	20.36	20.38
PCS1900 EGPRS (8PSK)	Measured Power (dBm)			calculation	Averaged Power (dBm)		
	810	661	512		810	661	512
1 Txslot	26.01	26.03	26.01	-9.03	16.98	17.00	16.98
2 Txslots	24.83	24.81	24.84	-6.02	18.81	18.79	18.82
3Txslots	23.23	23.24	23.23	-4.26	18.97	18.98	18.97
4 Txslots	21.61	21.60	21.60	-3.01	18.60	18.59	18.59

NOTES:

1) Division Factors

To average the power, the division factor is as follows:

1TX-slot = 1 transmit time slot out of 8 time slots=> conducted power divided by (8/1) => -9.03dB

2TX-slots = 2 transmit time slots out of 8 time slots=> conducted power divided by (8/2) => -6.02dB

3TX-slots = 3 transmit time slots out of 8 time slots=> conducted power divided by (8/3) => -4.26dB

4TX-slots = 4 transmit time slots out of 8 time slots=> conducted power divided by (8/4) => -3.01dB

According to the conducted power as above, the body measurements are performed with 3Txslots for GSM850 and 2Txslots for PCS1900.

11.4 WCDMA Measurement result

Table 11.13: The conducted Power for WCDMA

Item	band	FDDV result		
	ARFCN	4233(846.6MHz)	4182(836.4MHz)	4132(826.4MHz)
WCDMA	\	22.84	22.82	22.99
HSUPA	1	21.30	21.26	21.05
	2	20.56	20.56	20.64
	3	20.22	20.16	20.82
	4	21.10	21.05	21.23
	5	21.63	21.59	21.79
DC-HSDPA	1	21.61	21.28	21.48
	2	21.59	21.29	21.44
	3	21.55	21.31	21.45
	4	21.56	21.29	21.43
Item	band	FDDIV result		
	ARFCN	1513 (1752.6MHz)	1412 (1732.4MHz)	1312 (1712.4MHz)
WCDMA	\	23.05	23.00	23.09
HSUPA	1	21.45	21.43	21.78
	2	20.85	20.80	20.56
	3	20.47	20.43	20.74
	4	21.33	21.32	21.39
	5	21.81	21.79	21.92

DC-HSDPA	1	21.61	21.51	21.56
	2	21.58	21.52	21.53
	3	21.60	21.48	21.51
	4	21.62	21.49	21.52
Item	band	FDDII result		
	ARFCN	9538(1907.6MHz)	9400(1880MHz)	9262(1852.4MHz)
WCDMA	\	23.58	23.48	23.34
HSUPA	1	21.84	21.79	21.36
	2	21.15	21.09	20.74
	3	20.76	20.78	20.94
	4	21.75	21.71	21.54
	5	22.20	22.09	22.03
DC-HSDPA	1	21.92	21.85	21.64
	2	21.89	21.83	21.62
	3	21.93	21.81	21.59
	4	21.91	21.81	21.60

11.5 LTE Measurement result

Table 11.14: The conducted Power for LTE

Band 2							
Bandwidth (MHz)	RB allocation	Frequency (MHz)	Max. Target Power (dBm)	QPSK		16QAM	
	RB offset (Start RB)			Actual output power (dBm)	MPR	Actual output power (dBm)	MPR
1.4 MHz	1RB High (5)	1909.3	24	23.12	0	22.90	1
		1880	24	23.04	0	22.32	1
		1850.7	24	23.16	0	22.31	1
	1RB Middle (3)	1909.3	24	23.24	0	22.70	1
		1880	24	23.30	0	22.64	1
		1850.7	24	23.22	0	21.95	1
	1RB Low (0)	1909.3	24	23.21	0	22.72	1
		1880	24	23.07	0	22.54	1
		1850.7	24	23.05	0	22.19	1
	3RB High (3)	1909.3	24	23.11	0	22.22	1
		1880	24	23.13	0	21.95	1
		1850.7	24	23.07	0	22.10	1
	3RB Middle (1)	1909.3	24	23.26	0	22.32	1
		1880	24	23.26	0	22.12	1
		1850.7	24	23.14	0	22.01	1
	3RB Low (0)	1909.3	24	23.17	0	22.12	1
		1880	24	23.11	0	22.10	1
		1850.7	24	22.92	0	22.12	1
	6RB (0)	1909.3	24	22.18	1	21.18	2
		1880	24	22.16	1	21.08	2
		1850.7	24	22.16	1	21.09	2

3 MHz	1RB High (14)	1908.5	24	23.17	0	22.27	1
		1880	24	23.13	0	22.12	1
		1851.5	24	22.92	0	22.44	1
	1RB Middle (7)	1908.5	24	22.84	0	21.99	1
		1880	24	22.86	0	22.43	1
		1851.5	24	22.96	0	22.29	1
	1RB Low (0)	1908.5	24	22.95	0	22.05	1
		1880	24	23.17	0	22.60	1
		1851.5	24	23.23	0	22.46	1
	8RB High (7)	1908.5	24	22.21	1	21.42	2
		1880	24	22.16	1	21.24	2
		1851.5	24	22.02	1	21.14	2
	8RB Middle (4)	1908.5	24	22.23	1	21.36	2
		1880	24	22.11	1	21.31	2
		1851.5	24	22.07	1	21.17	2
	8RB Low (0)	1908.5	24	22.20	1	21.39	2
		1880	24	22.17	1	21.35	2
		1851.5	24	22.18	1	21.26	2
	15RB (0)	1908.5	24	22.25	1	21.43	2
		1880	24	22.21	1	21.38	2
		1851.5	24	22.07	1	21.12	2
5 MHz	1RB High (24)	1907.5	24	23.14	0	22.45	1
		1880	24	23.21	0	22.13	1
		1852.5	24	23.01	0	21.75	1
	1RB Middle (12)	1907.5	24	23.23	0	22.51	1
		1880	24	22.88	0	22.34	1
		1852.5	24	22.84	0	22.14	1
	1RB Low (0)	1907.5	24	23.32	0	22.43	1
		1880	24	23.18	0	22.37	1
		1852.5	24	23.08	0	22.24	1
	12RB High (13)	1907.5	24	22.16	1	21.34	2
		1880	24	22.21	1	21.36	2
		1852.5	24	22.00	1	21.01	2
	12RB Middle (6)	1907.5	24	22.18	1	21.34	2
		1880	24	22.10	1	21.36	2
		1852.5	24	22.01	1	21.16	2
	12RB Low (0)	1907.5	24	22.17	1	21.30	2
		1880	24	22.20	1	21.34	2
		1852.5	24	22.12	1	21.19	2
	25RB (0)	1907.5	24	22.19	1	21.38	2
		1880	24	22.16	1	21.32	2
		1852.5	24	21.99	1	21.05	2

10 MHz	1RB High (49)	1905	24	23.01	0	22.40	1
		1880	24	23.29	0	22.46	1
		1855	24	22.97	0	22.25	1
	1RB Middle (24)	1905	24	23.17	0	22.28	1
		1880	24	23.33	0	22.54	1
		1855	24	23.04	0	22.09	1
	1RB Low (0)	1905	24	23.04	0	22.91	1
		1880	24	22.96	0	22.32	1
		1855	24	22.91	0	22.43	1
	25RB High (25)	1905	24	22.14	1	21.20	2
		1880	24	22.17	1	21.23	2
		1855	24	22.05	1	20.99	2
	25RB Middle (12)	1905	24	22.20	1	21.25	2
		1880	24	22.14	1	21.18	2
		1855	24	22.09	1	21.09	2
	25RB Low (0)	1905	24	22.23	1	21.38	2
		1880	24	22.07	1	21.20	2
		1855	24	22.08	1	21.05	2
	50RB (0)	1905	24	22.19	1	21.22	2
		1880	24	22.12	1	21.08	2
		1855	24	21.97	1	21.05	2
15 MHz	1RB High (74)	1902.5	24	23.03	0	22.57	1
		1880	24	23.17	0	22.29	1
		1857.5	24	22.86	0	22.28	1
	1RB Middle (37)	1902.5	24	23.13	0	22.24	1
		1880	24	22.98	0	22.41	1
		1857.5	24	23.05	0	22.25	1
	1RB Low (0)	1902.5	24	23.33	0	22.77	1
		1880	24	22.98	0	22.68	1
		1857.5	24	23.11	0	22.31	1
	36RB High (38)	1902.5	24	22.22	1	21.20	2
		1880	24	22.15	1	21.24	2
		1857.5	24	22.17	1	21.18	2
	36RB Middle (19)	1902.5	24	22.13	1	21.30	2
		1880	24	22.06	1	21.25	2
		1857.5	24	22.07	1	20.89	2
	36RB Low (0)	1902.5	24	22.21	1	21.27	2
		1880	24	22.11	1	21.17	2
		1857.5	24	22.03	1	20.86	2
	75RB (0)	1902.5	24	22.17	1	21.22	2
		1880	24	22.12	1	21.07	2
		1857.5	24	22.00	1	21.08	2
20 MHz	1RB High (99)	1900	24	23.14	0	22.35	1
		1880	24	23.14	0	22.30	1
		1860	24	23.09	0	22.18	1
	1RB Middle (50)	1900	24	23.51	0	22.33	1
		1880	24	23.34	0	22.26	1
		1860	24	23.28	0	22.51	1

	1RB Low (0)	1900	24	23.44	0	22.62	1
		1880	24	23.32	0	22.36	1
		1860	24	23.27	0	22.30	1
	50RB High (50)	1900	24	22.23	1	21.17	2
		1880	24	22.18	1	21.11	2
		1860	24	22.16	1	21.25	2
	50RB Middle (25)	1900	24	22.11	1	21.14	2
		1880	24	22.07	1	21.10	2
		1860	24	22.15	1	21.07	2
	50RB Low (0)	1900	24	22.13	1	21.17	2
		1880	24	22.11	1	21.14	2
		1860	24	22.14	1	21.18	2
100RB (0)	1900	24	22.09	1	21.12	2	
	1880	24	22.19	1	21.21	2	
	1860	24	22.11	1	21.03	2	
Band 4							
Bandwidth (MHz)	RB allocation	Frequency (MHz)	Max. Target Power (dBm)	QPSK		16QAM	
	RB offset (Start RB)			Actual output power (dBm)	MPR	Actual output power (dBm)	MPR
1.4 MHz	1RB High (5)	1754.3	24	22.42	0	21.78	1
		1732.5	24	22.77	0	22.25	1
		1710.7	24	22.57	0	21.63	1
	1RB Middle (3)	1754.3	24	22.61	0	22.15	1
		1732.5	24	22.70	0	21.46	1
		1710.7	24	22.77	0	21.57	1
	1RB Low (0)	1754.3	24	22.39	0	21.85	1
		1732.5	24	22.50	0	21.97	1
		1710.7	24	22.50	0	21.56	1
	3RB High (3)	1754.3	24	22.41	0	21.26	1
		1732.5	24	22.67	0	21.15	1
		1710.7	24	22.56	0	21.58	1
	3RB Middle (1)	1754.3	24	22.48	0	21.42	1
		1732.5	24	22.66	0	21.84	1
		1710.7	24	22.67	0	21.87	1
	3RB Low (0)	1754.3	24	22.35	0	21.51	1
		1732.5	24	22.49	0	21.42	1
		1710.7	24	22.62	0	21.47	1
	6RB (0)	1754.3	24	21.38	1	20.43	2
		1732.5	24	21.50	1	20.72	2
		1710.7	24	21.57	1	20.32	2
3 MHz	1RB High (14)	1753.5	24	22.51	0	21.86	1
		1732.5	24	22.26	0	21.39	1
		1711.5	24	22.23	0	21.39	1
	1RB Middle (7)	1753.5	24	22.53	0	21.82	1
		1732.5	24	22.21	0	21.56	1
		1711.5	24	22.27	0	21.59	1
	1RB	1753.5	24	22.68	0	21.87	1

	Low (0)	1732.5	24	22.45	0	21.70	1
		1711.5	24	22.66	0	21.65	1
	8RB High (7)	1753.5	24	21.38	1	20.49	2
		1732.5	24	21.58	1	20.58	2
		1711.5	24	21.58	1	20.65	2
	8RB Middle (4)	1753.5	24	21.42	1	20.66	2
		1732.5	24	21.58	1	20.69	2
		1711.5	24	21.64	1	20.65	2
	8RB Low (0)	1753.5	24	21.35	1	20.57	2
		1732.5	24	21.51	1	20.61	2
		1711.5	24	21.70	1	20.78	2
	15RB (0)	1753.5	24	21.45	1	20.56	2
		1732.5	24	21.39	1	20.46	2
		1711.5	24	21.54	1	20.41	2
5 MHz	1RB High (24)	1752.5	24	22.40	0	21.64	1
		1732.5	24	22.42	0	21.64	1
		1712.5	24	22.56	0	21.66	1
	1RB Middle (12)	1752.5	24	22.29	0	21.47	1
		1732.5	24	22.43	0	21.54	1
		1712.5	24	22.41	0	21.40	1
	1RB Low (0)	1752.5	24	22.30	0	21.71	1
		1732.5	24	22.40	0	21.77	1
		1712.5	24	22.70	0	21.80	1
	12RB High (13)	1752.5	24	21.38	1	20.49	2
		1732.5	24	21.41	1	20.45	2
		1712.5	24	21.53	1	20.72	2
	12RB Middle (6)	1752.5	24	21.39	1	20.51	2
		1732.5	24	21.48	1	20.35	2
		1712.5	24	21.52	1	20.71	2
	12RB Low (0)	1752.5	24	21.44	1	20.55	2
		1732.5	24	21.45	1	20.52	2
		1712.5	24	21.53	1	20.70	2
	25RB (0)	1752.5	24	21.39	1	20.31	2
		1732.5	24	21.39	1	20.37	2
		1712.5	24	21.50	1	20.59	2
10 MHz	1RB High (49)	1750	24	22.55	0	21.93	1
		1732.5	24	22.53	0	21.72	1
		1715	24	22.42	0	21.92	1
	1RB Middle (24)	1750	24	22.93	0	21.83	1
		1732.5	24	22.65	0	21.98	1
		1715	24	22.70	0	22.01	1
	1RB	1750	24	22.68	0	21.81	1

	Low (0)	1732.5	24	22.56	0	22.27	1
		1715	24	22.67	0	21.49	1
	25RB High (25)	1750	24	21.44	1	20.52	2
		1732.5	24	21.47	1	20.45	2
		1715	24	21.58	1	20.60	2
	25RB Middle (12)	1750	24	21.64	1	20.63	2
		1732.5	24	21.60	1	20.55	2
		1715	24	21.64	1	20.65	2
	25RB Low (0)	1750	24	21.63	1	20.65	2
		1732.5	24	21.56	1	20.62	2
		1715	24	21.64	1	20.72	2
	50RB (0)	1750	24	21.64	1	20.51	2
		1732.5	24	21.54	1	20.69	2
		1715	24	21.63	1	20.68	2
15 MHz	1RB High (74)	1747.5	24	22.38	0	21.99	1
		1732.5	24	22.57	0	21.62	1
		1717.5	24	22.54	0	22.18	1
	1RB Middle (37)	1747.5	24	22.62	0	21.77	1
		1732.5	24	22.47	0	21.32	1
		1717.5	24	22.54	0	21.61	1
	1RB Low (0)	1747.5	24	22.67	0	21.79	1
		1732.5	24	22.57	0	21.48	1
		1717.5	24	22.89	0	21.91	1
	36RB High (38)	1747.5	24	21.37	1	20.43	2
		1732.5	24	21.41	1	20.50	2
		1717.5	24	21.54	1	20.63	2
	36RB Middle (19)	1747.5	24	21.46	1	20.52	2
		1732.5	24	21.49	1	20.54	2
		1717.5	24	21.51	1	20.56	2
	36RB Low (0)	1747.5	24	21.65	1	20.75	2
		1732.5	24	21.56	1	20.55	2
		1717.5	24	21.56	1	20.70	2
	75RB (0)	1747.5	24	21.49	1	20.47	2
		1732.5	24	21.45	1	20.52	2
		1717.5	24	21.50	1	20.57	2
20 MHz	1RB High (99)	1745	24	22.64	0	21.98	1
		1732.5	24	22.71	0	21.54	1
		1720	24	22.46	0	21.72	1
	1RB Middle (50)	1745	24	23.31	0	22.02	1
		1732.5	24	22.79	0	21.97	1
		1720	24	22.75	0	21.92	1
	1RB Low (0)	1745	24	22.71	0	21.74	1
		1732.5	24	22.78	0	22.15	1
		1720	24	22.74	0	21.86	1
	50RB High (50)	1745	24	21.68	1	20.57	2
		1732.5	24	21.74	1	20.73	2
		1720	24	21.84	1	20.80	2

	50RB Middle (25)	1745	24	21.65	1	20.71	2
		1732.5	24	21.65	1	20.69	2
		1720	24	21.77	1	20.68	2
	50RB Low (0)	1745	24	21.67	1	20.75	2
		1732.5	24	21.72	1	20.79	2
		1720	24	21.78	1	20.69	2
	100RB (0)	1745	24	21.61	1	20.67	2
		1732.5	24	21.58	1	20.62	2
		1720	24	21.74	1	20.77	2
Band 12							
Bandwidth (MHz)	RB allocation	Frequency (MHz)	Max. Target Power (dBm)	QPSK		16QAM	
	RB offset (Start RB)			Actual output power (dBm)	MPR	Actual output power (dBm)	MPR
1.4 MHz	1RB-High (5)	715.3	24	22.34	0	21.15	1
		707.5	24	22.32	0	22.03	1
		699.7	24	22.54	0	21.10	1
	1RB-Middle (3)	715.3	24	22.37	0	21.36	1
		707.5	24	22.25	0	21.31	1
		699.7	24	22.59	0	21.45	1
	1RB-Low (0)	715.3	24	22.27	0	21.15	1
		707.5	24	22.51	0	21.93	1
		699.7	24	22.34	0	21.00	1
	3RB-High (3)	715.3	24	22.43	0	21.33	1
		707.5	24	22.34	0	21.43	1
		699.7	24	22.60	0	21.50	1
	3RB-Middle (1)	715.3	24	22.55	0	21.38	1
		707.5	24	22.39	0	21.70	1
		699.7	24	22.54	0	21.74	1
	3RB-Low (0)	715.3	24	22.43	0	21.08	1
		707.5	24	22.51	0	21.58	1
		699.7	24	22.51	0	21.62	1
	6RB (0)	715.3	24	21.29	1	20.13	2
		707.5	24	21.46	1	20.39	2
		699.7	24	21.53	1	20.47	2
3 MHz	1RB-High (14)	714.5	24	22.50	0	21.89	1
		707.5	24	22.42	0	21.30	1
		700.5	24	22.28	0	21.92	1
	1RB-Middle (7)	714.5	24	22.62	0	21.82	1
		707.5	24	22.20	0	21.38	1
		700.5	24	22.59	0	21.60	1
	1RB-Low (0)	714.5	24	22.83	0	22.09	1
		707.5	24	22.34	0	21.57	1
		700.5	24	22.40	0	21.54	1
	8RB-High (7)	714.5	24	21.48	1	20.57	2
		707.5	24	21.44	1	20.53	2
		700.5	24	21.41	1	20.61	2