



**FCC PART 15C
TEST REPORT
No. I15N01161-WLAN**

for

Huawei Technologies Co.,Ltd

Smart Phone

Model Name: HUAWEI TAG-L23

With

Hardware Version: Ver.A

Software Version: TAG-L23C464B006_A

FCC ID: QISTAG-L23

Issued Date: Dec 30th, 2015

Test Laboratory:

FCC 2.948 Listed: No.342690

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of CTTL.

Test Laboratory:

CTTL, Telecommunication Technology Labs, Academy of Telecommunication Research, MIIT

No.52, HuayuanNorth Road, Haidian District, Beijing, P. R. China 100191.

Tel:+86(0)10-62304633, Fax:+86(0)10-62304633Email:cttl@chinattl.com, website:www.chinattl.com

REPORT HISTORY

Report Number	Revision	Description	Issue Date
I15N01161-WLAN	Rev.0	1st edition	2015-12-30

CONTENTS

1. TEST LABORATORY	9
1.1. TESTING LOCATION	9
1.2. TESTING ENVIRONMENT.....	9
1.3. PROJECT DATA	9
1.4. SIGNATURE	9
2. CLIENT INFORMATION.....	10
2.1. APPLICANT INFORMATION	10
2.2. MANUFACTURER INFORMATION	10
3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE)	11
3.1. ABOUT EUT	11
3.2. INTERNAL IDENTIFICATION OF EUT	11
3.3. INTERNAL IDENTIFICATION OF AE.....	11
4. REFERENCE DOCUMENTS.....	12
4.1. DOCUMENTS SUPPLIED BY APPLICANT	12
4.2. REFERENCE DOCUMENTS FOR TESTING.....	12
5. TEST RESULTS	13
5.1. SUMMARY OF TEST RESULTS.....	13
5.2. STATEMENTS.....	13
5.3. TERMS USED IN THE RESULT TABLE	13
5.4. LABORATORY ENVIRONMENT.....	14
6. TEST FACILITIES UTILIZED	15
7. MEASUREMENT UNCERTAINTY	16
ANNEX A: MEASUREMENT RESULTS FOR RECEIVER	17
A.0 ANTENNA REQUIREMENT	17
A.1 MAXIMUM AVERAGE OUTPUT POWER	18
A.2 PEAK POWER SPECTRAL DENSITY.....	20
A.3 OCCUPIED 6DB BANDWIDTH.....	21
A.4 BAND EDGES COMPLIANCE	22
A.5 TRANSMITTER SPURIOUS EMISSION	23
A.5.1 TRANSMITTER SPURIOUS EMISSION - CONDUCTED	23
A.5.2 TRANSMITTER SPURIOUS EMISSION - RADIATED	25
A.6 AC POWERLINE CONDUCTED EMISSION.....	34
ANNEX B: TEST LAYOUTS	41
FIG.1 MAXIMUM AVERAGE OUTPUT POWER (802.11B, CH 1,1Mbps)	41
FIG.2 MAXIMUM AVERAGE OUTPUT POWER (802.11B, CH 6,1Mbps)	41
FIG.3 MAXIMUM AVERAGE OUTPUT POWER (802.11B, CH 11,1Mbps)	42

FIG.4	MAXIMUM AVERAGE OUTPUT POWER (802.11B, CH 1,2Mbps)	42
FIG.5	MAXIMUM AVERAGE OUTPUT POWER (802.11B, CH 6,2Mbps)	43
FIG.6	MAXIMUM AVERAGE OUTPUT POWER (802.11B, CH 11,2Mbps)	43
FIG.7	MAXIMUM AVERAGE OUTPUT POWER (802.11B, CH 1,5.5Mbps)	44
FIG.8	MAXIMUM AVERAGE OUTPUT POWER (802.11B, CH 6,5.5Mbps)	44
FIG.9	MAXIMUM AVERAGE OUTPUT POWER (802.11B, CH 11,5.5Mbps)	45
FIG.10	MAXIMUM AVERAGE OUTPUT POWER (802.11B, CH 1,11Mbps)	45
FIG.11	MAXIMUM AVERAGE OUTPUT POWER (802.11B, CH 6,11Mbps)	46
FIG.12	MAXIMUM AVERAGE OUTPUT POWER (802.11B, CH 11,11Mbps)	46
FIG.13	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 1,6Mbps)	47
FIG.14	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 6,6Mbps)	47
FIG.15	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 11,6Mbps)	48
FIG.16	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 1,9Mbps)	48
FIG.17	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 6,9Mbps)	49
FIG.18	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 11,9Mbps)	49
FIG.19	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 1,12Mbps)	50
FIG.20	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 6,12Mbps)	50
FIG.21	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 11,12Mbps)	51
FIG.22	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 1,18Mbps)	51
FIG.23	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 6,18Mbps)	52
FIG.24	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 11,18Mbps)	52
FIG.25	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 1,24Mbps)	53
FIG.26	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 6,24Mbps)	53
FIG.27	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 11,24Mbps)	54
FIG.28	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 1,36Mbps)	54
FIG.29	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 6,36Mbps)	55
FIG.30	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 11,36Mbps)	55
FIG.31	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 1,48Mbps)	56
FIG.32	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 6,48Mbps)	56
FIG.33	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 11,48Mbps)	57
FIG.34	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 1,54Mbps)	57
FIG.35	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 6,54Mbps)	58
FIG.36	MAXIMUM AVERAGE OUTPUT POWER (802.11G, CH 11,54Mbps)	58
FIG.37	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 1,MCS0)	59
FIG.38	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 6,MCS0)	59
FIG.39	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 11,MCS0)	60
FIG.40	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 1,MCS1)	60
FIG.41	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 6,MCS1)	61
FIG.42	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 11,MCS1)	61
FIG.43	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 1,MCS2)	62
FIG.44	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 6,MCS2)	62
FIG.45	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 11,MCS2)	63
FIG.46	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 1,MCS3)	63
FIG.47	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 6,MCS3)	64

FIG.48	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 11,MCS3)	64
FIG.49	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 1,MCS4)	65
FIG.50	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 6,MCS4)	65
FIG.51	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 11,MCS4)	66
FIG.52	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 1,MCS5)	66
FIG.53	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 6,MCS5)	67
FIG.54	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 11,MCS5)	67
FIG.55	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 1,MCS6)	68
FIG.56	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 6,MCS6)	68
FIG.57	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 11,MCS6)	69
FIG.58	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 1,MCS7)	69
FIG.59	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 6,MCS7)	70
FIG.60	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 11,MCS7)	71
FIG.61	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 3,MCS0)	71
FIG.62	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 6,MCS0)	71
FIG.63	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 9,MCS0)	72
FIG.64	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 3,MCS1)	72
FIG.65	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 6,MCS1)	73
FIG.66	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 9,MCS1)	73
FIG.67	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 3,MCS2)	74
FIG.68	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 6,MCS2)).....	74
FIG.69	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 9,MCS2)	75
FIG.70	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 3,MCS3)	75
FIG.71	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 6,MCS3)	76
FIG.72	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 9,MCS3)	76
FIG.73	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 3,MCS4)	77
FIG.74	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 6,MCS4)	77
FIG.75	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH9,MCS4)	78
FIG.76	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 3,MCS5)	78
FIG.77	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 6,MCS5)	79
FIG.78	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 9,MCS5)	79
FIG.79	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 3,MCS6)	80
FIG.80	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 6,MCS6)	80
FIG.81	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 9,MCS6)	81
FIG.82	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 3,MCS7)	81
FIG.83	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 6,MCS7)	82
FIG.84	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 9,MCS7)	82
FIG.85	POWER SPECTRAL DENSITY (802.11B, CH 1).....	83
FIG.86	POWER SPECTRAL DENSITY (802.11B, CH 6).....	83
FIG.87	POWER SPECTRAL DENSITY (802.11B, CH 11).....	84
FIG.88	POWER SPECTRAL DENSITY (802.11G, CH 1).....	84
FIG.89	POWER SPECTRAL DENSITY (802.11G, CH 6).....	85
FIG.90	POWER SPECTRAL DENSITY (802.11G, CH 11).....	85
FIG.91	POWER SPECTRAL DENSITY (802.11N-20MHz, CH 1).....	86

FIG.92	POWER SPECTRAL DENSITY (802.11N-20MHz, CH 6).....	86
FIG.93	POWER SPECTRAL DENSITY (802.11N-20MHz, CH 11).....	87
FIG.94	POWER SPECTRAL DENSITY (802.11N-40MHz, CH 3).....	88
FIG.95	POWER SPECTRAL DENSITY (802.11N-40MHz, CH 6).....	88
FIG.96	POWER SPECTRAL DENSITY (802.11N-40MHz, CH 9).....	88
FIG.97	OCCUPIED 6dB BANDWIDTH (802.11B, CH 1).....	89
FIG.98	OCCUPIED 6dB BANDWIDTH (802.11B, CH 6).....	90
FIG.99	OCCUPIED 6dB BANDWIDTH (802.11B, CH 11).....	90
FIG.100	OCCUPIED 6dB BANDWIDTH (802.11G, CH 1).....	91
FIG.101	OCCUPIED 6dB BANDWIDTH (802.11G, CH 6).....	91
FIG.102	OCCUPIED 6dB BANDWIDTH (802.11G, CH 11).....	92
FIG.103	OCCUPIED 6dB BANDWIDTH (802.11 N-20MHz, CH 1).....	92
FIG.104	OCCUPIED 6dB BANDWIDTH (802.11 N-20MHz, CH 6).....	93
FIG.105	OCCUPIED 6dB BANDWIDTH (802.11 N-20MHz, CH 11).....	93
FIG.106	OCCUPIED 6dB BANDWIDTH (802.11 N-40MHz, CH 3).....	93
FIG.107	OCCUPIED 6dB BANDWIDTH (802.11 N-40MHz, CH 6).....	94
FIG.108	OCCUPIED 6dB BANDWIDTH (802.11 N-40MHz, CH 9).....	94
FIG.109	BAND EDGES (802.11B, CH 1).....	95
FIG.110	BAND EDGES (802.11B, CH 11).....	95
FIG.111	BAND EDGES (802.11G, CH 1).....	96
FIG.112	BAND EDGES (802.11G, CH 11).....	96
FIG.113	BAND EDGES (802.11 N-20MHz, CH 1).....	97
FIG.114	BAND EDGES (802.11 N-20MHz, CH 11).....	97
FIG.115	BAND EDGES (802.11 N-40MHz, CH 3).....	98
FIG.116	BAND EDGES (802.11 N-40MHz, CH 9).....	98
FIG.117	CONDUCTED SPURIOUS EMISSION (802.11B, CH1, CENTER FREQUENCY).....	99
FIG.118	CONDUCTED SPURIOUS EMISSION (802.11B, CH1, 30 MHz-3 GHz).....	99
FIG.119	CONDUCTED SPURIOUS EMISSION (802.11B, CH1, 3 GHz-18 GHz).....	100
FIG.120	CONDUCTED SPURIOUS EMISSION (802.11B, CH6, CENTER FREQUENCY).....	100
FIG.121	CONDUCTED SPURIOUS EMISSION (802.11B, CH6, 30 MHz-3 GHz).....	101
FIG.122	CONDUCTED SPURIOUS EMISSION (802.11B, CH6, 3 GHz-18 GHz).....	101
FIG.123	CONDUCTED SPURIOUS EMISSION (802.11B, CH11, CENTER FREQUENCY).....	102
FIG.124	CONDUCTED SPURIOUS EMISSION (802.11B, CH11, 30 MHz-3 GHz).....	102
FIG.125	CONDUCTED SPURIOUS EMISSION (802.11B, CH11, 3 GHz-18 GHz).....	103
FIG.126	CONDUCTED SPURIOUS EMISSION (802.11G, CH1, CENTER FREQUENCY).....	103
FIG.127	CONDUCTED SPURIOUS EMISSION (802.11G, CH1, 30 MHz-3 GHz).....	104
FIG.128	CONDUCTED SPURIOUS EMISSION (802.11G, CH1, 3 GHz-18 GHz).....	104
FIG.129	CONDUCTED SPURIOUS EMISSION (802.11G, CH6, CENTER FREQUENCY).....	105
FIG.130	CONDUCTED SPURIOUS EMISSION (802.11G, CH6, 30 MHz-3 GHz).....	105
FIG.131	CONDUCTED SPURIOUS EMISSION (802.11G, CH6, 3 GHz-18 GHz).....	106
FIG.132	CONDUCTED SPURIOUS EMISSION (802.11G, CH11, CENTER FREQUENCY).....	106
FIG.133	CONDUCTED SPURIOUS EMISSION (802.11G, CH11, 30 MHz-3 GHz).....	107
FIG.134	CONDUCTED SPURIOUS EMISSION (802.11G, CH11, 3 GHz-18 GHz).....	107
FIG.135	CONDUCTED SPURIOUS EMISSION (802.11N-20M, CH1, CENTER FREQUENCY).....	108

FIG.136	CONDUCTED SPURIOUS EMISSION (802.11N-20M, CH1, 30 MHz-3 GHz).....	108
FIG.137	CONDUCTED SPURIOUS EMISSION (802.11N-20M, CH1, 3 GHz-18 GHz)	109
FIG.138	CONDUCTED SPURIOUS EMISSION (802.11N-20M, CH6, CENTER FREQUENCY)	109
FIG.139	CONDUCTED SPURIOUS EMISSION (802.11N-20M, CH6, 30 MHz-3 GHz).....	110
FIG.140	CONDUCTED SPURIOUS EMISSION (802.11N-20M, CH6, 3 GHz-18 GHz)	110
FIG.141	CONDUCTED SPURIOUS EMISSION (802.11N-20M, CH11, CENTER FREQUENCY)	111
FIG.142	CONDUCTED SPURIOUS EMISSION (802.11N-20M, CH11, 30 MHz-3 GHz).....	111
FIG.143	CONDUCTED SPURIOUS EMISSION (802.11N-20M, CH11, 3 GHz-18 GHz).....	112
FIG.144	CONDUCTED SPURIOUS EMISSION (802.11N-40M, CH3, CENTER FREQUENCY)	112
FIG.145	CONDUCTED SPURIOUS EMISSION (802.11N-40M, CH3, 30 MHz-3 GHz).....	113
FIG.146	CONDUCTED SPURIOUS EMISSION (802.11N-40M, CH3, 3 GHz-18 GHz)	113
FIG.147	CONDUCTED SPURIOUS EMISSION (802.11N-40M, CH6, CENTER FREQUENCY)	114
FIG.148	CONDUCTED SPURIOUS EMISSION (802.11N-40M, CH6, 30 MHz-3 GHz).....	114
FIG.149	CONDUCTED SPURIOUS EMISSION (802.11N-40M, CH6, 3 GHz-18 GHz)	115
FIG.150	CONDUCTED SPURIOUS EMISSION (802.11N-40M, CH9, CENTER FREQUENCY)	115
FIG.151	CONDUCTED SPURIOUS EMISSION (802.11N-40M, CH9, 30 MHz-3 GHz).....	116
FIG.152	CONDUCTED SPURIOUS EMISSION (802.11N-40M, CH9, 3 GHz-18 GHz)	117
FIG.153	CONDUCTED SPURIOUS EMISSION (ALL CHANNELS, 18 GHz-26 GHz).....	117
FIG.154	RADIATED SPURIOUS EMISSION (802.11B, CH1, 1 GHz-18GHz)	117
FIG.155	RADIATED SPURIOUS EMISSION (802.11B, CH6, 9 kHz-30MHz).....	118
FIG.156	RADIATED SPURIOUS EMISSION (802.11B, CH6, 30MHz-1 GHz)	118
FIG.157	RADIATED SPURIOUS EMISSION (802.11B, CH6, 1 GHz-18GHz)	119
FIG.158	RADIATED SPURIOUS EMISSION (802.11B, CH6, 18 GHz-26.5GHz)	119
FIG.159	RADIATED SPURIOUS EMISSION (802.11B, CH11, 1 GHz-18 GHz)	120
FIG.160	RADIATED EMISSION POWER (802.11B, CH1, 2380GHz~2450GHz)	121
FIG.161	RADIATED EMISSION POWER (802.11B, CH11, 2450GHz~2500GHz).....	121
FIG.162	RADIATED SPURIOUS EMISSION (802.11G, CH1, 1 GHz-18GHz)	121
FIG.163	RADIATED SPURIOUS EMISSION (802.11G, CH6, 30MHz-1 GHz).....	122
FIG.164	RADIATED SPURIOUS EMISSION (802.11G, CH6, 1 GHz-18GHz)	122
FIG.165	RADIATED SPURIOUS EMISSION (802.11G, CH6, 18 GHz-26.5GHz)	123
FIG.166	RADIATED SPURIOUS EMISSION (802.11G, CH11, 1 GHz-18 GHz).....	123
FIG.167	RADIATED EMISSION POWER (802.11G, CH1, 2380GHz~2450GHz).....	124
FIG.168	RADIATED EMISSION POWER (802.11G, CH11, 2450GHz~2500GHz).....	124
FIG.169	RADIATED SPURIOUS EMISSION (802.11N, CH1, 1 GHz-18GHz).....	125
FIG.170	RADIATED SPURIOUS EMISSION (802.11N, CH6, 30MHz-1 GHz)	125
FIG.171	RADIATED SPURIOUS EMISSION (802.11N, CH6, 1 GHz-18GHz).....	126
FIG.172	RADIATED SPURIOUS EMISSION (802.11N, CH6, 18 GHz-26.5GHz).....	127
FIG.173	RADIATED SPURIOUS EMISSION (802.11N, CH11, 1 GHz-18 GHz)	127
FIG.174	RADIATED EMISSION POWER (802.11N, CH1, 2380GHz~2450GHz)	128
FIG.175	RADIATED EMISSION POWER (802.11N, CH11, 2450GHz~2500GHz)	128
FIG.176	RADIATED SPURIOUS EMISSION (802.11N-40MHz, CH3, 1 GHz-18GHz)	128
FIG.177	RADIATED SPURIOUS EMISSION (802.11N-40MHz, CH6, 30MHz-1 GHz).....	129
FIG.178	RADIATED SPURIOUS EMISSION (802.11N-40MHz, CH6, 1 GHz-18GHz)	129
FIG.179	RADIATED SPURIOUS EMISSION (802.11N-40MHz, CH6, 18 GHz-26.5GHz)	130

FIG.180	RADIATED SPURIOUS EMISSION (802.11N-40MHz, CH9, 1 GHz-18 GHz)	130
FIG.181	RADIATED EMISSION POWER (802.11N-40MHz, CH3, 2380GHz~2450GHz).....	131
FIG.182	RADIATED EMISSION POWER (802.11N-40MHz, CH9, 2450GHz~2500GHz).....	131
FIG. 183	AC POWER LINE CONDUCTED EMISSION (TRAFFIC, AE1).....	132
FIG. 184	AC POWER LINE CONDUCTED EMISSION (TRAFFIC, AE2).....	133
FIG. 185	AC POWER LINE CONDUCTED EMISSION (TRAFFIC, AE3).....	134
FIG. 186	AC POWER LINE CONDUCTED EMISSION (TRAFFIC, AE4).....	135
FIG. 187	AC POWER LINE CONDUCTED EMISSION (TRAFFIC, AE5).....	136
FIG. 188	AC POWER LINE CONDUCTED EMISSION (TRAFFIC, AE6).....	137
FIG. 189	AC POWER LINE CONDUCTED EMISSION (TRAFFIC, AE7).....	138
FIG. 190	AC POWER LINE CONDUCTED EMISSION (TRAFFIC, AE8).....	139
FIG. 191	AC POWER LINE CONDUCTED EMISSION (IDLE, AE1).....	140
FIG. 192	AC POWER LINE CONDUCTED EMISSION (IDLE, AE2).....	141
FIG. 193	AC POWER LINE CONDUCTED EMISSION (IDLE, AE3).....	142
FIG. 194	AC POWER LINE CONDUCTED EMISSION (IDLE, AE4).....	143
FIG. 195	AC POWER LINE CONDUCTED EMISSION (IDLE, AE5).....	144
FIG. 196	AC POWER LINE CONDUCTED EMISSION (IDLE, AE6).....	145
FIG. 197	AC POWER LINE CONDUCTED EMISSION (IDLE, AE7).....	146
FIG. 198	AC POWER LINE CONDUCTED EMISSION (IDLE, AE8).....	147
ANNEX C: PERSONS INVOLVED IN THIS TESTING		148



1. Test Laboratory

1.1. Testing Location

Location: CTTL(South Branch)

Address: TCL International E city No. 1001 Zhongshanyuan Road, Nanshan
District, Shenzhen, Guangdong, China 518000

1.2. Testing Environment

Normal Temperature: 15-35°C

Extreme Temperature: -20/+55°C

Relative Humidity: 20-75%

1.3. Project data

Testing Start Date: 2015-10-28

Testing End Date: 2015-12-25

1.4. Signature

Xu Ye

(Prepared this test report)

Tang Weisheng

(Reviewed this test report)

Zhang Bojun

(Approved this test report)

2. Client Information

2.1. Applicant Information

Company Name: Huawei Technologies Co.,Ltd
Address: Administration Building, Headquarters of Huawei Technologies Co.,
Ltd., Bantian, Longgang District Shenzhen China
City: Shenzhen
Postal Code: /
Country: China
Telephone: +86 755 28970299
Fax: /

2.2. Manufacturer Information

Company Name: Huawei Technologies Co.,Ltd
Address: Administration Building, Headquarters of Huawei Technologies Co.,
Ltd., Bantian, Longgang District Shenzhen China
City: Shenzhen
Postal Code: /
Country: China
Telephone: +86 755 28970299
Fax: /

3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description	Smart Phone
Model Name	HUAWEI TAG-L23
Market Name	HUAWEI GR3
RF Protocol	IEEE 802.11b/g/n20/n40
Operating Frequency	2412MHz~2462MHz
FCC ID	QISTAG-L23

*Note: Photographs of EUT are shown in ANNEX A of this test report.

3.2. Internal Identification of EUT

EUT ID*	IMEI	HW Version	SW Version
EUT1	/	Ver.A	TAG-L23C464B006_A

*EUT ID: is used to identify the test sample in the lab internally.

3.3. Internal Identification of AE

AE ID*	Description	Type	SN
AE1	Charger	HW-050100U01_BYD	/
AE2	Charger	HW-050100U01_HUNTKEY	/
AE3	Charger	HW-050100U01_Phitek	/
AE4	Charger	HW-050100E01_BYD	/
AE5	Charger	HW-050100E01_HUNTKEY	/
AE6	Charger	HW-050100E01_Phitek	/
AE7	Charger	HW-050100I01_BYD	/
AE8	Charger	HW-050100I01_HUNTKEY	/
AE9	Charger	HW-050100R01_BYD	/
AE10	Charger	HW-050100B01_BYD	/
AE11	Charger	HW-050100A01_BYD	/
AE12	Charger	HW-050100R01_HUNTKEY	/
AE13	Charger	HW-050100B01_HUNTKEY	/
AE14	Charger	HW-050100A01_HUNTKEY	/
AE15	Charger	HW-050100R01_Phitek	/
AE16	Charger	HW-050100B01_Phitek	/
AE17	Charger	HW-050100A01_Phitek	/
AE18	Charger	HW-050100Z01_HUNTKEY	/
AE19	Charger	HW-050100Z01_Phitek	/
AE20	Charger	HW-050100Z01_BYD	/

*AE ID: is used to identify the test sample in the lab internally.

4. Reference Documents

4.1. Documents supplied by applicant

EUT feature information is supplied by the applicant or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
FCC Part15	FCC CFR 47, Part 15, Subpart C: 15.205 Restricted bands of operation; 15.209 Radiated emission limits, general requirements; 15.247 Operation within the bands 902–928MHz, 2400–2483.5 MHz, and 5725–5850 MHz.	Oct, 2014
ANSI C63.10	American National Standard for Testing Unlicensed Wireless Devices	Jun, 2013

5. Test Results

5.1. Summary of Test Results

No	Test cases	Standard Sub-clause	Verdict
0	Antenna Requirement	15.203	P
1	Maximum Peak Output Power	15.247 (b)	P
2	Peak Power Spectral Density	15.247 (e)	P
3	Occupied 6dB Bandwidth	15.247 (a)	P
4	Band Edges Compliance	15.247 (d)	P
5	Transmitter Spurious Emission - Conducted	15.247 (d)	P
6	Transmitter Spurious Emission - Radiated	15.247, 15.205, 15.209	P
7	AC Powerline Conducted Emission	15.107, 15.207	P

See **ANNEX B** and **ANNEX C** for details.

5.2. Statements

CTTL has evaluated the test cases requested by the applicant/manufacture as listed in section 5.1 of this report, for the EUT specified in section 3, according to the standards or reference documents listed in section 4.2

5.3. Terms used in the result table

Terms used in Verdict column

P	Pass
NA	Not Available
F	Fail

Abbreviations

AC	Alternating Current
AFH	Adaptive Frequency Hopping
BW	Band Width
E.I.R.P.	equivalent isotropical radiated power
ISM	Industrial, Scientific and Medical
R&TTE	Radio and Telecommunications Terminal Equipment
RF	Radio Frequency
Tx	Transmitter

5.4. Laboratory Environment

Semi-anechoic chamber (23 meters×17 meters×10 meters) did not exceed following limits:

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 15 %, Max. = 75 %
Shielding effectiveness	0.014MHz - 1MHz, >60dB; 1MHz - 1000MHz, >90dB.
Electrical insulation	> 2 M
Ground system resistance	< 4
Normalised site attenuation (NSA)	< $\pm$ 4 dB, 3m/10m distance, from 30 to 1000 MHz
Site voltage standing-wave ratio (S_{VSWR})	Between 0 and 6 dB, from 1GHz to 18GHz
Uniformity of field strength	Between 0 and 6 dB, from 80 to 3000 MHz

Shielded room did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	0.014MHz - 1MHz, >60dB; 1MHz - 1000MHz, >90dB.
Electrical insulation	> 2 M
Ground system resistance	< 4

6. Test Facilities Utilized

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
1	Vector Signal Analyzer	FSV40	100903	Rohde & Schwarz	2016-04-21	1 year

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
1	Chamber	FACT5-2.0	4166	ETS-Lindgren	2018-05-13	3 years
2	Test Receiver	ESCI	100701	Rohde & Schwarz	2016-08-10	1 year
3	BiLog Antenna	VULB9163	9163 329	Schwarzbeck	2017-01-20	3 years
4	Horn Antenna	3117	00066577	ETS-Lindgren	2016-04-01	3 years
5	Universal Radio Communication Tester	CMU200	114544	Rohde & Schwarz	2016-09-10	1 year
6	Universal Radio Communication Tester	CMW500	152499	Schwarzbeck	2016-07-23	1 year
7	Spectrum Analyser	FSP40	100378	Rohde & Schwarz	2016-12-18	1 year

Anechoic chamber

Fully anechoic chamber by ETS-Lindgren.

7. Measurement Uncertainty

Test Name	Uncertainty	
1.Maximum Peak Output Power	$\pm 1.32\text{dB}$	
2.Peak Power Spectral Density	$\pm 0.66\text{dBm/MHz}$	
3.Occupied 6dB Bandwidth	$\pm 66\text{Hz}$	
4.Band Edges Compliance	$\pm 66\text{Hz}$	
5.Transmitter Spurious Emission - Conducted	$30\text{MHz} \leq f \leq 1\text{GHz}$	$\pm 1.41\text{dB}$
	$1\text{GHz} \leq f \leq 18\text{GHz}$	$\pm 1.92\text{dB}$
	$18\text{GHz} \leq f \leq 26\text{GHz}$	$\pm 2.31\text{dB}$
6.Transmitter Spurious Emission - Radiated	$9\text{k} \leq f \leq 30\text{MHz}$	$\pm 4.00\text{dB}$
	$30\text{M} \leq f \leq 1\text{GHz}$	$\pm 5.08\text{dB}$
	$1\text{GHz} \leq f \leq 18\text{GHz}$	$\pm 4.56\text{dB}$
	$18\text{GHz} \leq f \leq 26\text{GHz}$	$\pm 4.56\text{dB}$
7.AC Powerline Conducted Emission	$\pm 2.7\text{dB}$	

ANNEX A: MEASUREMENT RESULTS FOR RECEIVER

A.0 Antenna requirement

Measurement Limit:

Standard	Requirement
FCC CRF Part 15.203	An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, § 15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

**Conclusion: The Directional gains of antenna used for transmitting is -2.9 dBi.
The RF transmitter uses an integrate antenna without connector.**

A.1 Maximum Average Output Power

Measurement Limit:

Standard	Limit (dBm)
FCC CRF Part 15.247(b)(1)	< 30

Measurement Results:

802.11b/g mode

Mode	Data Rate (Mbps)	Test Result (dBm)					
		2412MHz (Ch1)		2437MHz (Ch6)		2462 MHz (Ch11)	
802.11b	1	Fig.1	15.68	Fig.2	16.27	Fig.3	16.61
	2	Fig.4	15.75	Fig.5	16.07	Fig.6	16.64
	5.5	Fig.7	15.80	Fig.8	16.36	Fig.9	16.69
	11	Fig.10	15.80	Fig.11	16.31	Fig.12	16.56
802.11g	6	Fig.13	15.50	Fig.14	16.18	Fig.15	16.11
	9	Fig.16	15.37	Fig.17	16.20	Fig.18	16.17
	12	Fig.19	15.73	Fig.20	16.39	Fig.21	16.52
	18	Fig.22	15.68	Fig.23	16.46	Fig.24	15.99
	24	Fig.25	15.48	Fig.26	15.78	Fig.27	15.56
	36	Fig.28	13.58	Fig.29	13.43	Fig.30	13.52
	48	Fig.31	12.05	Fig.32	13.01	Fig.33	13.21
	54	Fig.34	12.01	Fig.35	12.92	Fig.36	13.23

802.11n mode

Mode	Data Rate (MCS Index)	Test Result (dBm)					
		2412MHz (Ch1)		2437MHz (Ch6)		2462 MHz (Ch11)	
802.11n (20MHz)	MCS0	Fig.37	12.01	Fig.38	12.46	Fig.39	12.21
	MCS1	Fig.40	11.93	Fig.41	12.68	Fig.42	12.16
	MCS2	Fig.43	12.29	Fig.44	12.86	Fig.45	12.65
	MCS3	Fig.46	11.82	Fig.47	12.18	Fig.48	12.08
	MCS4	Fig.49	9.81	Fig.50	9.94	Fig.51	9.72
	MCS5	Fig.52	8.57	Fig.53	8.95	Fig.54	8.66
	MCS6	Fig.55	9.06	Fig.56	8.91	Fig.57	9.05
	MCS7	Fig.58	9.22	Fig.59	9.27	Fig.60	8.86

Mode	Data Rate (MCS Index)	Test Result (dBm)					
		2422MHz (Ch3)		2437MHz (Ch6)		2452 MHz (Ch9)	
802.11n (40MHz)	MCS0	Fig.61	12.49	Fig.62	11.08	Fig.63	11.84
	MCS1	Fig.64	12.11	Fig.65	10.81	Fig.66	11.08
	MCS2	Fig.67	9.14	Fig.68	8.46	Fig.69	8.29
	MCS3	Fig.70	8.26	Fig.71	7.18	Fig.72	7.66
	MCS4	Fig.73	9.57	Fig.74	7.73	Fig.75	8.80
	MCS5	Fig.76	8.59	Fig.77	7.03	Fig.78	7.95
	MCS6	Fig.79	8.93	Fig.80	7.50	Fig.81	7.81
	MCS7	Fig.82	9.67	Fig.83	7.70	Fig.84	8.13

See ANNEX C for test graphs.

Conclusion: PASS

A.2 Peak Power Spectral Density

Measurement Limit:

Standard	Limit
FCC CRF Part 15.247(d)	< 8 dBm/3 kHz

Measurement Results:

802.11b/g mode

Mode	Channel	Peak Power Spectral Density (dBm)		Conclusion
802.11b	1	Fig.85	-10.91	P
	6	Fig.86	-11.31	P
	11	Fig.87	-10.47	P
802.11g	1	Fig.88	-16.48	P
	6	Fig.89	-15.19	P
	11	Fig.90	-14.35	P

802.11n mode

Mode	Channel	Peak Power Spectral Density(dBm)		Conclusion
802.11n (20MHz)	1	Fig.91	-15.39	P
	6	Fig.92	-14.85	P
	11	Fig.93	-14.15	P
802.11n (40MHz)	3	Fig.94	-17.04	P
	6	Fig.95	-16.10	P
	9	Fig.96	-18.27	P

See ANNEX C for test graphs.

Conclusion: PASS

A.3 Occupied 6dB Bandwidth

Measurement Limit:

Standard	Limit (kHz)
FCC 47 CFR Part 15.247 (a)	≥ 500

Measurement Result:

802.11b/g mode

Mode	Channel	Test Results (kHz)		conclusion
802.11b	1	Fig.97	9117	P
	6	Fig.98	9595	P
	11	Fig.99	7033	P
802.11g	1	Fig.100	9421	P
	6	Fig.101	16194	P
	11	Fig.102	6686	P

802.11n mode

Mode	Channel	Test Results (kHz)		conclusion
802.11n (20MHz)	1	Fig.103	7858	P
	6	Fig.104	17366	P
	11	Fig.105	5470	P
802.11n (40MHz)	3	Fig.106	15109	P
	6	Fig.107	34559	P
	9	Fig.108	5818	P

See ANNEX C for test graphs.

Conclusion: PASS

A.4 Band Edges Compliance

Measurement Limit:

Standard	Limit (dBc)
FCC 47 CFR Part 15.247 (d)	> 20

Measurement Result:

802.11b/g mode

Mode	Channel	Test Results	Conclusion
802.11b	1	Fig.109	P
	11	Fig.110	P
802.11g	1	Fig.111	P
	11	Fig.112	P

802.11n mode

Mode	Channel	Test Results	Conclusion
802.11n (20MHz)	1	Fig.113	P
	11	Fig.114	P
802.11n (40MHz)	3	Fig.115	P
	9	Fig.116	P

See ANNEX C for test graphs.

Conclusion: PASS

A.5 Transmitter Spurious Emission

A.5.1 Transmitter Spurious Emission - Conducted

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247 (d)	20dB below peak output power in 100 kHz bandwidth

Measurement Results:

802.11b/g mode

MODE	Channel	Frequency Range	Test Results	Conclusion
802.11b	1	2.412 GHz	Fig.117	P
		30 MHz-3 GHz	Fig.118	P
		3GHz-18GHz	Fig.119	P
	6	2.437 GHz	Fig.120	P
		30 MHz-3 GHz	Fig.121	P
		3GHz-18GHz	Fig.122	P
	11	2.462 GHz	Fig.123	P
		30 MHz-3 GHz	Fig.124	P
		3GHz-18GHz	Fig.125	P
802.11g	1	2.412 GHz	Fig.126	P
		30 MHz-3 GHz	Fig.127	P
		3GHz-18GHz	Fig.128	P
	6	2.437 GHz	Fig.129	P
		30 MHz-3 GHz	Fig.130	P
		3GHz-18GHz	Fig.131	P
	11	2.462 GHz	Fig.132	P
		30 MHz-3 GHz	Fig.133	P
		3GHz-18GHz	Fig.134	P

802.11n mode

802.11n (20MHz)	1	2.412 GHz	Fig.135	P
		30 MHz-3 GHz	Fig.136	P
		3GHz-18GHz	Fig.137	P
	6	2.437 GHz	Fig.138	P
		30 MHz-3 GHz	Fig.139	P
		3GHz-18GHz	Fig.140	P
	11	2.462 GHz	Fig.141	P
		30 MHz-3 GHz	Fig.142	P
		3GHz-18GHz	Fig.143	P
802.11n (40MHz)	3	2.422 GHz	Fig.144	P
		30 MHz-3 GHz	Fig.145	P
		3GHz-18GHz	Fig.146	P
	6	2.437 GHz	Fig.147	P
		30 MHz-3 GHz	Fig.148	P
		3GHz-18GHz	Fig.149	P
	9	2.452 GHz	Fig.150	P
		30 MHz-3 GHz	Fig.151	P
		3GHz-18GHz	Fig.152	P
/	All channels	18GHz-26GHz	Fig.153	P

See ANNEX C for test graphs.

Conclusion: PASS

A.5.2 Transmitter Spurious Emission - Radiated**Measurement Limit:**

Standard	Limit
FCC 47 CFR Part 15.247, 15.205, 15.209	20dB below peak output power

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

Limit in restricted band:

Frequency of emission (MHz)	Field strength(μ V/m)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Test Condition

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	120kHz/300kHz	5
1000-4000	1MHz/3MHz	15
4000-18000	1MHz/3MHz	40
18000-26500	1MHz/3MHz	20

Note:

According to the performance evaluation, the radiated emission margin of EUT is over 20dB in the band below 30MHz. Therefore, the measurement starts from 30MHz to tenth harmonic.

The measurement results include the horizontal polarization and vertical polarization measurements.

Measurement Results:
802.11b/g mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11b	1	1 GHz ~ 18 GHz	Fig.154	P
	6	9 kHz ~30 MHz	Fig.155	P
		30 MHz ~1 GHz	Fig.156	P
		1 GHz ~ 18 GHz	Fig.157	P
		18 GHz~ 26.5 GHz	Fig.158	P
	11	1 GHz ~ 18 GHz	Fig.159	P
	Power(CH1)	2.38 GHz ~ 2.45 GHz	Fig.160	P
	Power(CH11)	2.45 GHz ~ 2.5 GHz	Fig.161	P
802.11g	1	1 GHz ~ 18 GHz	Fig.162	P
	6	30 MHz ~1 GHz	Fig.163	P
		1 GHz ~ 18 GHz	Fig.164	P
		18 GHz~ 26.5 GHz	Fig.165	P
	11	1 GHz ~ 18 GHz	Fig.166	P
	Power(CH1)	2.38 GHz ~ 2.45 GHz	Fig.167	P
	Power(CH11)	2.45 GHz ~ 2.5 GHz	Fig.168	P

802.11n mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (20MHz)	1	1 GHz ~ 18 GHz	Fig.169	P
	6	30 MHz ~1 GHz	Fig.170	P
		1 GHz ~ 18 GHz	Fig.171	P
		18 GHz~ 26.5 GHz	Fig.172	P
	11	1 GHz ~ 18 GHz	Fig.173	P
	Power(CH1)	2.38 GHz ~ 2.45 GHz	Fig.174	P
	Power(CH11)	2.45 GHz ~ 2.5 GHz	Fig.175	P

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (40MHz)	3	1 GHz ~ 18 GHz	Fig.176	P
	6	30 MHz ~1 GHz	Fig.177	P
		1 GHz ~ 18 GHz	Fig.178	P
		18 GHz~ 26.5 GHz	Fig.179	P
	9	1 GHz ~ 18 GHz	Fig.180	P
	Power(CH3)	2.38 GHz ~ 2.45 GHz	Fig.181	P
	Power(CH9)	2.45 GHz ~ 2.5 GHz	Fig.182	P

802.11b CH1 (1-18GHz)

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14496.000000	55.6	V	11.7	18.4	74.0
15128.000000	56.4	V	12.1	17.6	74.0
15697.000000	57.6	H	12.8	16.4	74.0
16216.000000	57.5	H	13.3	16.5	74.0
17088.000000	58.2	H	14.2	15.8	74.0
17389.000000	57.9	V	14.3	16.1	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14529.000000	43.4	V	11.7	10.6	54.0
15121.000000	44.4	H	12.1	9.6	54.0
15739.000000	45.9	V	12.9	8.1	54.0
16247.000000	45.7	V	13.3	8.3	54.0
16783.000000	46.2	H	14.0	7.8	54.0
17352.000000	45.9	H	14.2	8.1	54.0

802.11b CH 6(1-18GHz)

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14549.000000	56.3	V	11.8	17.7	74.0
15094.000000	57.3	V	12.0	16.7	74.0
15629.000000	59.1	V	12.7	14.9	74.0
16247.000000	59.7	H	13.3	14.3	74.0
16743.000000	59.8	H	14.0	14.2	74.0
17346.000000	59.5	V	14.2	14.5	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
4874.250000	44.9	H	3.1	9.1	54.0
15176.000000	45.2	V	12.1	8.8	54.0
15677.000000	46.9	V	12.8	7.1	54.0
16215.000000	47.3	V	13.3	6.7	54.0
16754.000000	47.9	V	14.0	6.1	54.0
17291.000000	47.6	V	14.1	6.4	54.0

802.11b CH11 (1-18GHz)

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14553.000000	56.4	V	11.8	17.6	74.0
15092.000000	57.1	V	12.0	16.9	74.0
15748.000000	59.2	V	12.9	14.8	74.0
16338.000000	58.6	H	13.5	15.4	74.0
16727.000000	58.5	V	13.9	15.5	74.0
17328.000000	59.4	H	14.2	14.6	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
4924.125000	46.4	H	3.2	7.6	54.0
15124.000000	45.0	V	12.1	9.0	54.0
15736.000000	46.4	H	12.9	7.6	54.0
16225.000000	46.4	V	13.3	7.6	54.0
16773.000000	46.9	H	14.0	7.1	54.0
17373.000000	46.6	H	14.3	7.4	54.0

802.11g CH1 (1-18GHz)

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14507.000000	56.6	V	11.7	17.4	74.0
15168.000000	57.6	V	12.1	16.4	74.0
15650.000000	58.5	H	12.7	15.5	74.0
16253.000000	60.2	V	13.3	13.8	74.0
16774.000000	59.9	V	14.0	14.1	74.0
17266.000000	59.4	V	14.1	14.6	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14543.000000	44.6	H	11.8	9.4	54.0
15173.000000	45.3	V	12.1	8.7	54.0
15744.000000	46.8	V	12.9	7.2	54.0
16200.000000	47.3	V	13.3	6.7	54.0
16768.000000	48.2	V	14.0	5.8	54.0
17321.000000	47.6	V	14.2	6.4	54.0

802.11g CH6 (1-18GHz)

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14524.000000	56.7	V	11.7	17.3	74.0
15121.000000	57.6	H	12.1	16.4	74.0
15656.000000	59.2	H	12.7	14.8	74.0
16238.000000	59.9	V	13.3	14.1	74.0
16766.000000	59.8	V	14.0	14.2	74.0
17286.000000	59.6	H	14.1	14.4	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14541.000000	44.7	H	11.8	9.3	54.0
15170.000000	45.3	V	12.1	8.7	54.0
15762.000000	46.8	H	12.9	7.2	54.0
16203.000000	47.4	V	13.3	6.6	54.0
16773.000000	47.9	V	14.0	6.1	54.0
17296.000000	47.6	V	14.1	6.4	54.0

802.11g CH11 (1-18GHz)

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14183.000000	55.7	H	11.3	18.3	74.0
15063.000000	56.6	V	12.0	17.4	74.0
15777.000000	58.4	V	12.9	15.6	74.0
16237.000000	58.6	V	13.3	15.4	74.0
16725.000000	58.5	V	13.9	15.5	74.0
17999.000000	59.3	V	14.8	14.7	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14538.000000	44.0	V	11.8	10.0	54.0
15140.000000	44.9	V	12.1	9.1	54.0
15771.000000	46.4	H	12.9	7.6	54.0
16227.000000	46.6	V	13.3	7.4	54.0
16825.000000	46.9	V	14.0	7.1	54.0
17363.000000	46.7	V	14.3	7.3	54.0

802.11n-20MHz CH1 (1-18GHz)

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14516.000000	56.8	V	11.7	17.2	74.0
14714.000000	57.1	V	11.8	16.9	74.0
15790.000000	58.8	H	13.0	15.2	74.0
16241.000000	60.2	V	13.3	13.8	74.0
16830.000000	59.7	H	14.0	14.3	74.0
17778.000000	60.1	V	14.4	13.9	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14528.000000	44.5	H	11.7	9.5	54.0
15159.000000	45.3	H	12.1	8.7	54.0
15731.000000	46.9	H	12.9	7.1	54.0
16219.000000	47.3	V	13.3	6.7	54.0
16772.000000	47.8	V	14.0	6.2	54.0
17279.000000	47.5	V	14.1	6.5	54.0

802.11n-20MHz CH6 (1-18GHz)

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14544.000000	56.6	H	11.8	17.4	74.0
15146.000000	57.3	V	12.1	16.7	74.0
15706.000000	58.7	V	12.8	15.3	74.0
16283.000000	59.3	H	13.4	14.7	74.0
16732.000000	60.1	H	13.9	13.9	74.0
17888.000000	60.2	V	14.4	13.8	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14553.000000	44.7	V	11.8	9.3	54.0
15142.000000	45.3	H	12.1	8.7	54.0
15744.000000	46.9	V	12.9	7.1	54.0
16207.000000	47.4	V	13.3	6.6	54.0
16825.000000	48.0	V	14.0	6.0	54.0
17310.000000	47.7	V	14.2	6.3	54.0

802.11n-20MHz CH11 (1-18GHz)

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14471.000000	56.1	V	11.6	17.9	74.0
15047.000000	57.4	V	12.0	16.6	74.0
15796.000000	58.8	V	13.0	15.2	74.0
16327.000000	58.8	V	13.5	15.2	74.0
16825.000000	59.9	V	14.0	14.1	74.0
17422.000000	58.7	H	14.3	15.3	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14522.000000	44.4	H	11.7	9.6	54.0
15127.000000	45.0	V	12.1	9.0	54.0
15743.000000	46.7	V	12.9	7.3	54.0
16217.000000	46.8	V	13.3	7.2	54.0
16840.000000	47.2	V	14.0	6.8	54.0
17381.000000	46.9	V	14.3	7.1	54.0

802.11n-40MHz CH3 (1-18GHz)

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14547.000000	57.1	V	11.8	16.9	74.0
15105.000000	58.0	H	12.0	16.0	74.0
15704.000000	58.6	H	12.8	15.4	74.0
16245.000000	59.2	V	13.3	14.8	74.0
16766.000000	59.9	V	14.0	14.1	74.0
17300.000000	59.7	V	14.1	14.3	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14543.000000	44.5	H	11.8	9.5	54.0
15136.000000	45.2	V	12.1	8.8	54.0
15758.000000	46.8	H	12.9	7.2	54.0
16203.000000	47.1	V	13.3	6.9	54.0
16773.000000	47.8	V	14.0	6.2	54.0
17392.000000	47.4	V	14.3	6.6	54.0

802.11n-40MHz CH6 (1-18GHz)

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14500.000000	56.7	V	11.7	17.3	74.0
15154.000000	57.6	V	12.1	16.4	74.0
15776.000000	58.7	V	12.9	15.3	74.0
16237.000000	59.2	V	13.3	14.8	74.0
16819.000000	59.8	V	14.0	14.2	74.0
17395.000000	59.9	V	14.3	14.1	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14544.000000	44.6	H	11.8	9.4	54.0
15168.000000	45.3	V	12.1	8.7	54.0
15671.000000	46.9	V	12.8	7.1	54.0
16220.000000	47.4	H	13.3	6.6	54.0
16764.000000	48.0	V	14.0	6.0	54.0
17289.000000	47.6	V	14.1	6.4	54.0

802.11n-40MHz CH9 (1-18GHz)

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14212.000000	56.3	V	11.3	17.7	74.0
15185.000000	57.0	V	12.1	17.0	74.0
15667.000000	58.4	V	12.7	15.6	74.0
16321.000000	59.1	V	13.5	14.9	74.0
16694.000000	59.1	V	13.9	14.9	74.0
17449.000000	59.3	V	14.3	14.7	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14522.000000	44.2	H	11.7	9.8	54.0
15153.000000	45.1	V	12.1	8.9	54.0
15786.000000	46.6	V	13.0	7.4	54.0
16212.000000	46.7	V	13.3	7.3	54.0
16708.000000	47.1	V	13.9	6.9	54.0
17283.000000	47.0	V	14.1	7.0	54.0

See ANNEX C for test graphs.

Conclusion: PASS

Note:

A "reference path loss" is established and the A_{Rpl} is the attenuation of "reference path loss", and including the gain of receive antenna, the gain of the preamplifier, the cable loss.

P_{Mea} is the field strength recorded from the instrument.

The measurement results are obtained as described below:

Result= $P_{Mea}+A_{Rpl}= P_{Mea}+Cable\ Loss+Antenna\ Factor$

A.6 AC Powerline Conducted Emission

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement Result and limit:

WLAN (Quasi-peak Limit)-AE1

Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Result (dB μ V)	Conclusion
		Traffic	
0.15 to 0.5	Fig.66 to 56	Fig.183	P
0.5 to 5	56		
5 to 30	60		

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

WLAN (Average Limit)-AE1

Frequency range (MHz)	Average-peak Limit (dB μ V)	Result (dB μ V)	Conclusion
		Traffic	
0.15 to 0.5	56 to 46	Fig.183	P
0.5 to 5	46		
5 to 30	50		

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

WLAN (Quasi-peak Limit)-AE2

Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Result (dB μ V)	Conclusion
		Traffic	
0.15 to 0.5	Fig.67 to 56	Fig.184	P
0.5 to 5	56		
5 to 30	60		

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

WLAN (Average Limit)-AE2

Frequency range (MHz)	Average-peak Limit (dB μ V)	Result (dB μ V)	Conclusion
		Traffic	
0.15 to 0.5	56 to 46	Fig.184	P
0.5 to 5	46		
5 to 30	50		

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

WLAN (Quasi-peak Limit)-AE3

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Traffic	
0.15 to 0.5	Fig.68 to 56	Fig.185	P
0.5 to 5	56		
5 to 30	60		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Average Limit)-AE3

Frequency range (MHz)	Average-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Traffic	
0.15 to 0.5	56 to 46	Fig.185	P
0.5 to 5	46		
5 to 30	50		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Quasi-peak Limit)-AE4

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Traffic	
0.15 to 0.5	Fig.69 to 56	Fig.186	P
0.5 to 5	56		
5 to 30	60		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Average Limit)-AE4

Frequency range (MHz)	Average-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Traffic	
0.15 to 0.5	56 to 46	Fig.186	P
0.5 to 5	46		
5 to 30	50		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Quasi-peak Limit)-AE5

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Traffic	
0.15 to 0.5	Fig.70 to 56	Fig.187	P
0.5 to 5	56		
5 to 30	60		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Average Limit)-AE5

Frequency range (MHz)	Average-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Traffic	
0.15 to 0.5	56 to 46	Fig.187	P
0.5 to 5	46		
5 to 30	50		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Quasi-peak Limit)-AE6

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Traffic	
0.15 to 0.5	Fig.71 to 56	Fig.188	P
0.5 to 5	56		
5 to 30	60		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Average Limit)-AE6

Frequency range (MHz)	Average-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Traffic	
0.15 to 0.5	56 to 46	Fig.188	P
0.5 to 5	46		
5 to 30	50		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Quasi-peak Limit)-AE7

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Traffic	
0.15 to 0.5	Fig.72 to 56	Fig.189	P
0.5 to 5	56		
5 to 30	60		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Average Limit)-AE7

Frequency range (MHz)	Average-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Traffic	
0.15 to 0.5	56 to 46	Fig.189	P
0.5 to 5	46		
5 to 30	50		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Quasi-peak Limit)-AE8

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Traffic	
0.15 to 0.5	Fig.73 to 56	Fig.190	P
0.5 to 5	56		
5 to 30	60		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Average Limit)-AE8

Frequency range (MHz)	Average-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Traffic	
0.15 to 0.5	56 to 46	Fig.190	P
0.5 to 5	46		
5 to 30	50		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Quasi-peak Limit)-AE1-idle

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Idle	
0.15 to 0.5	Fig.74 to 56	Fig.191	P
0.5 to 5	56		
5 to 30	60		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Average Limit)-AE1-idle

WEIN (Average Limit) A21 table			
Frequency range (MHz)	Average-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Idle	
0.15 to 0.5	56 to 46	Fig.191	P
0.5 to 5	46		
5 to 30	50		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Quasi-peak Limit)-AE2-idle

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Idle	
0.15 to 0.5	Fig.75 to 56	Fig.192	P
0.5 to 5	56		
5 to 30	60		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Average Limit)-AE2-idle

Frequency range (MHz)	Average-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Idle	
0.15 to 0.5	56 to 46	Fig.192	P
0.5 to 5	46		
5 to 30	50		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Quasi-peak Limit)-AE3-idle

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Idle	
0.15 to 0.5	Fig.76 to 56	Fig.193	P
0.5 to 5	56		
5 to 30	60		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Average Limit)-AE3-idle

Frequency range (MHz)	Average-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Idle	
0.15 to 0.5	56 to 46	Fig.193	P
0.5 to 5	46		
5 to 30	50		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Quasi-peak Limit)-AE4-idle

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Idle	
0.15 to 0.5	Fig.77 to 56	Fig.194	P
0.5 to 5	56		
5 to 30	60		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Average Limit)-AE4-idle

Frequency range (MHz)	Average-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Idle	
0.15 to 0.5	56 to 46	Fig.194	P
0.5 to 5	46		
5 to 30	50		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Quasi-peak Limit)-AE5-idle

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Idle	
0.15 to 0.5	Fig.78 to 56	Fig.195	P
0.5 to 5	56		
5 to 30	60		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Average Limit)-AE5-idle

Frequency range (MHz)	Average-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Idle	
0.15 to 0.5	56 to 46	Fig.195	P
0.5 to 5	46		
5 to 30	50		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Quasi-peak Limit)-AE6-idle

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Idle	
0.15 to 0.5	Fig.79 to 56	Fig.196	P
0.5 to 5	56		
5 to 30	60		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Average Limit)-AE6-idle

WEIN (Average Limit) A20 table			
Frequency range (MHz)	Average-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Idle	
0.15 to 0.5	56 to 46	Fig.196	P
0.5 to 5	46		
5 to 30	50		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Quasi-peak Limit)-AE7-idle

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Idle	
0.15 to 0.5	Fig.80 to 56	Fig.197	P
0.5 to 5	56		
5 to 30	60		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Average Limit)-AE7-idle

Frequency range (MHz)	Average-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Idle	
0.15 to 0.5	56 to 46	Fig.197	P
0.5 to 5	46		
5 to 30	50		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Quasi-peak Limit)-AE8-idle

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Idle	
0.15 to 0.5	Fig.81 to 56	Fig.198	P
0.5 to 5	56		
5 to 30	60		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

WLAN (Average Limit)-AE8-idle

Frequency range (MHz)	Average-peak Limit (dBμV)	Result (dBμV)	Conclusion
		Idle	
0.15 to 0.5	56 to 46	Fig.198	P
0.5 to 5	46		
5 to 30	50		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.			

See ANNEX C for test graphs.

Conclusion: PASS

ANNEX B: TEST LAYOUTS

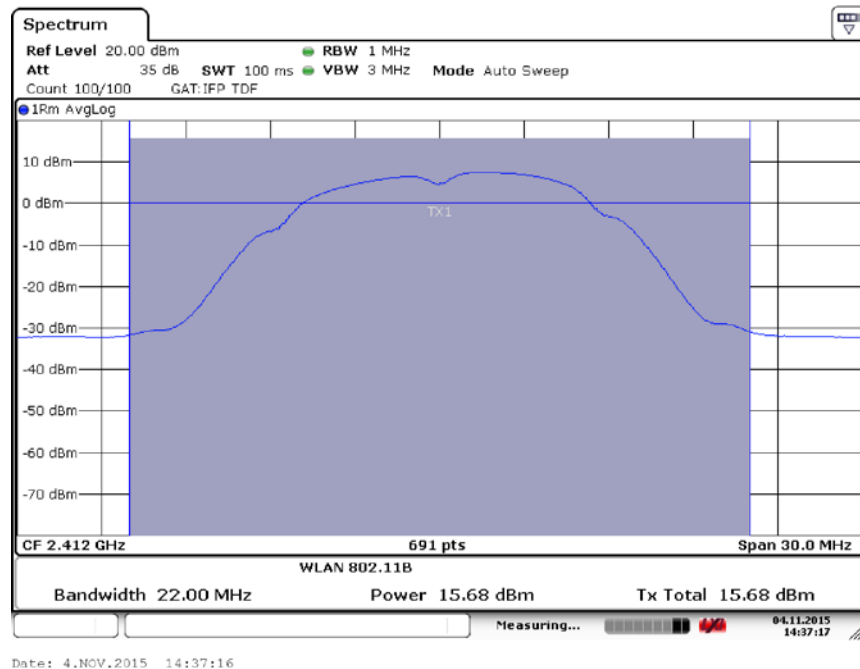


Fig.1 Maximum Average Output Power (802.11b, Ch 1,1Mbps)

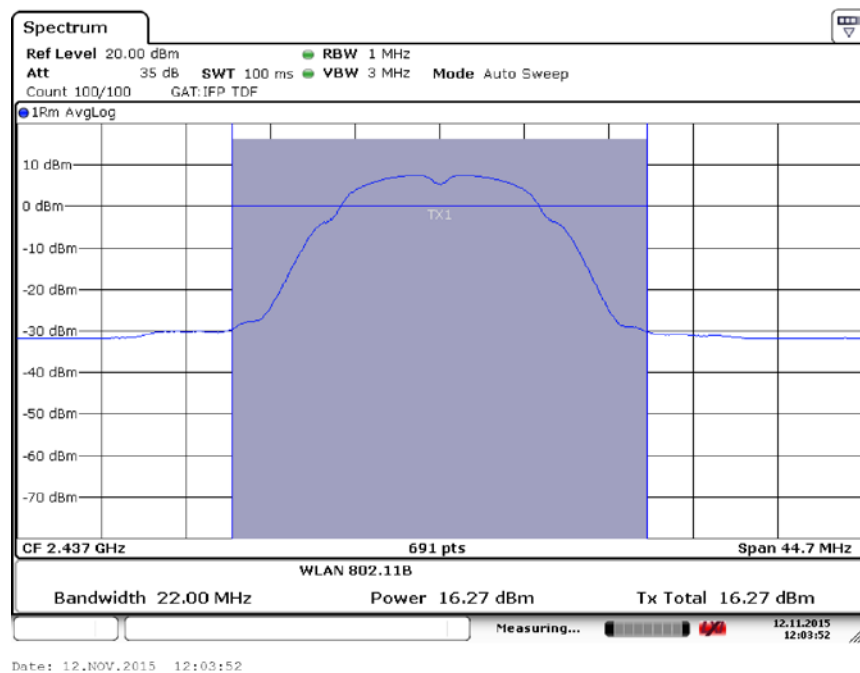


Fig.2 Maximum Average Output Power (802.11b, Ch 6,1Mbps)

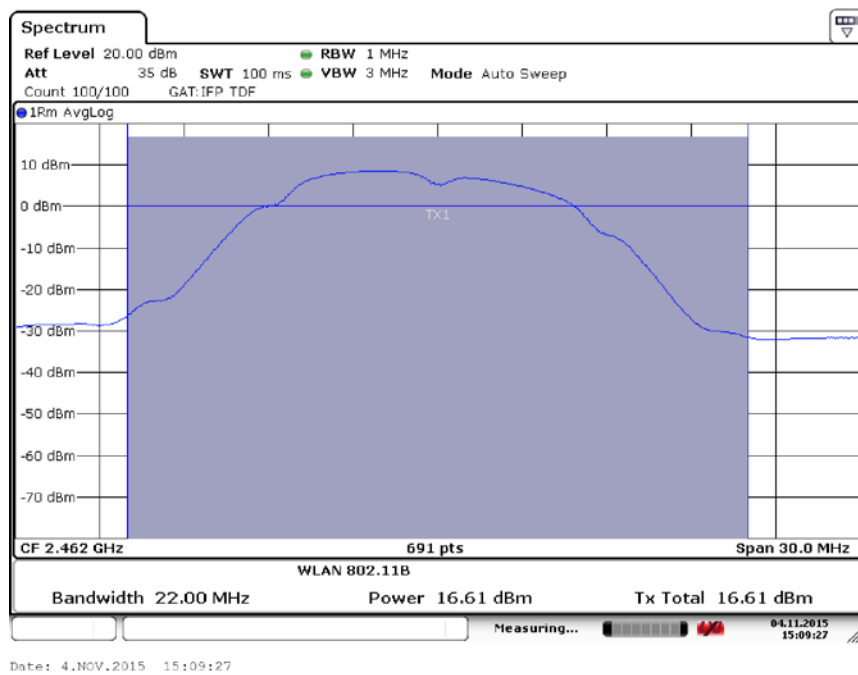


Fig.3 Maximum Average Output Power (802.11b, Ch 11,1Mbps)

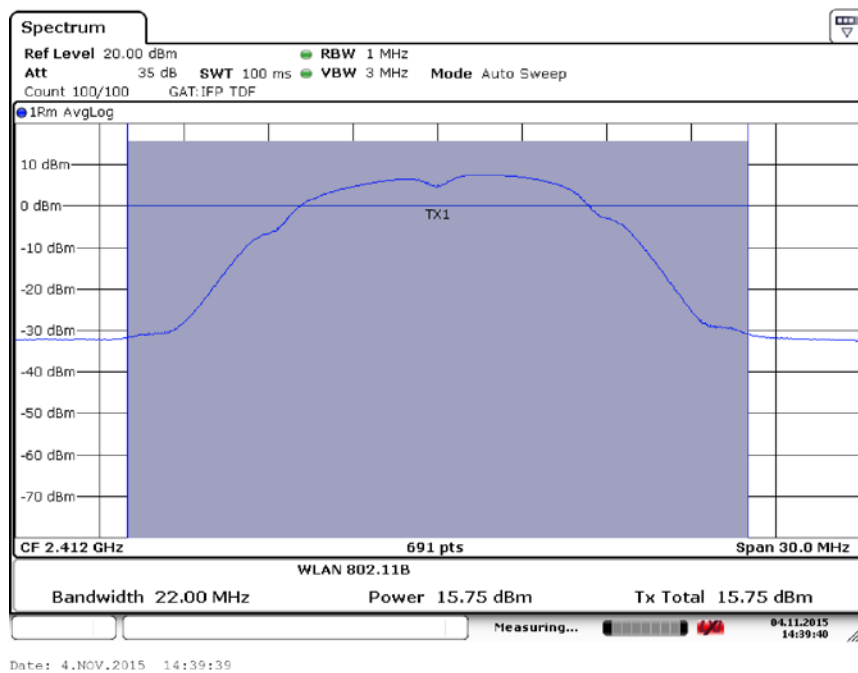


Fig.4 Maximum Average Output Power (802.11b, Ch 1,2Mbps)

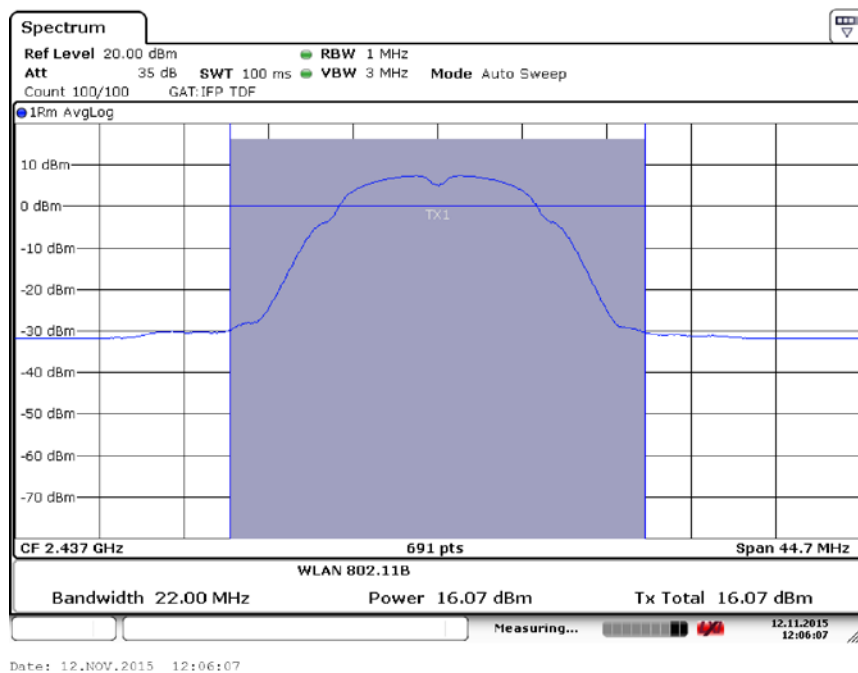


Fig.5 Maximum Average Output Power (802.11b, Ch 6,2Mbps)

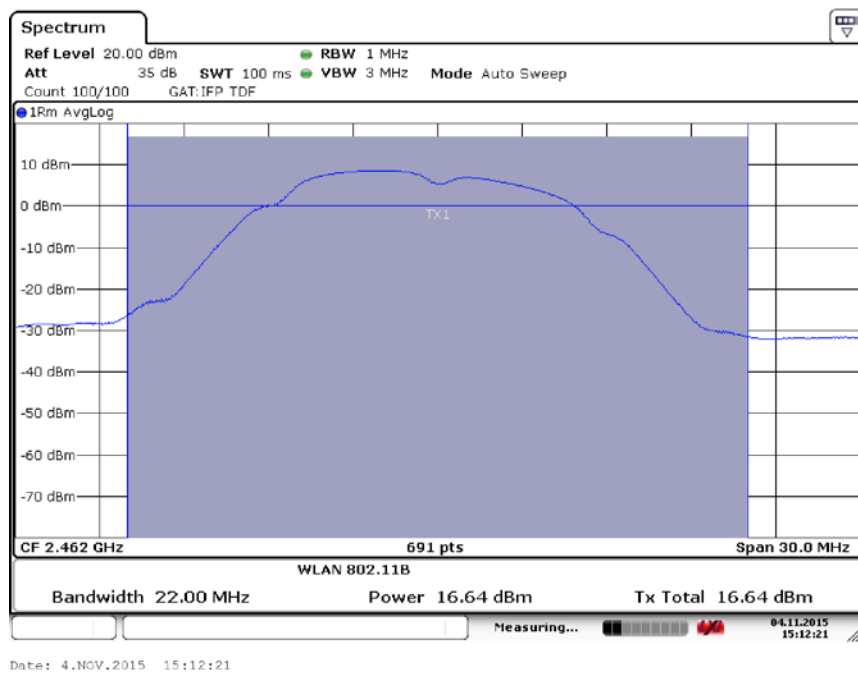


Fig.6 Maximum Average Output Power (802.11b, Ch 11,2Mbps)

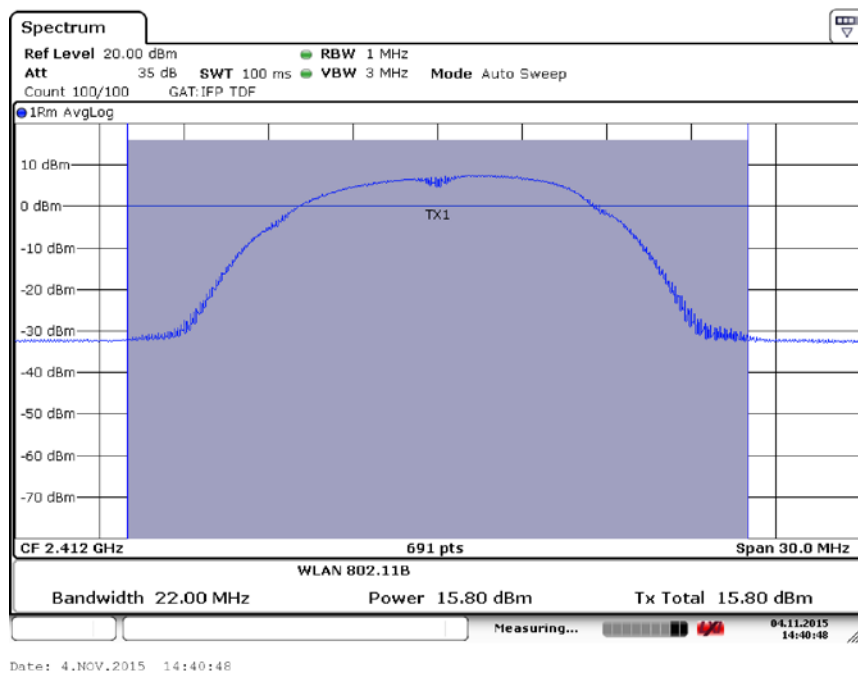


Fig.7 Maximum Average Output Power (802.11b, Ch 1,5Mbps)

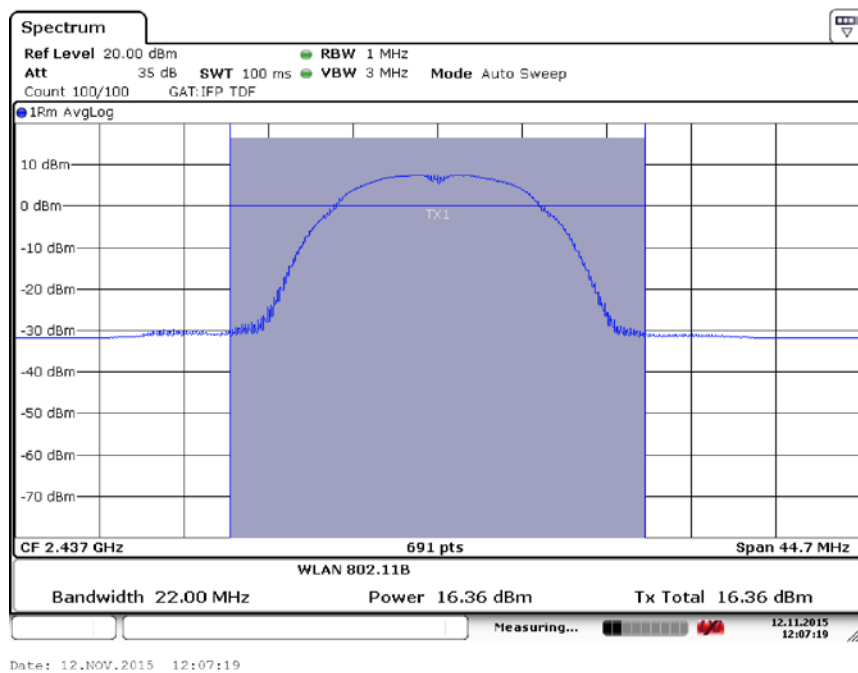


Fig.8 Maximum Average Output Power (802.11b, Ch 6,5Mbps)

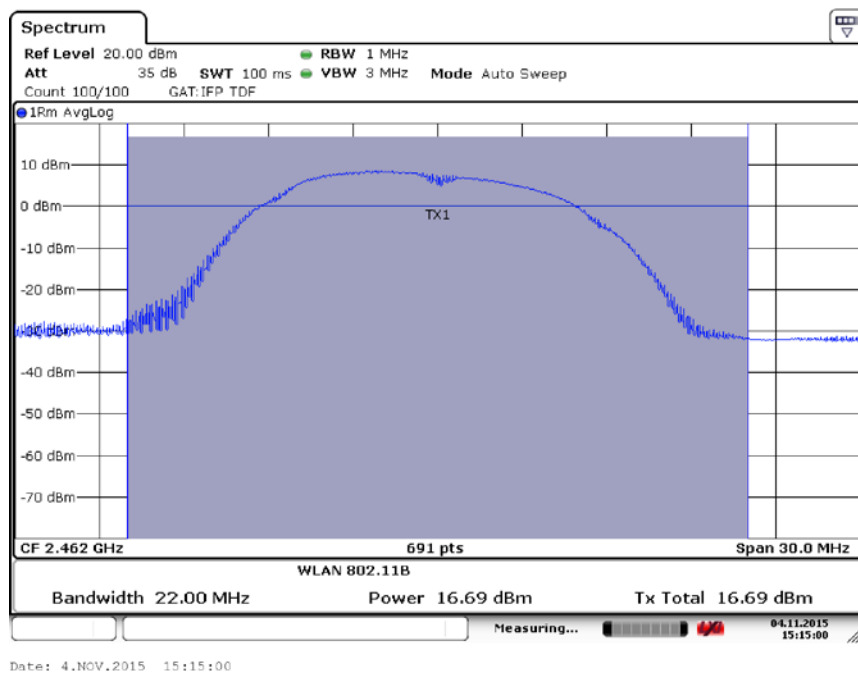


Fig.9 Maximum Average Output Power (802.11b, Ch 11,5.5Mbps)

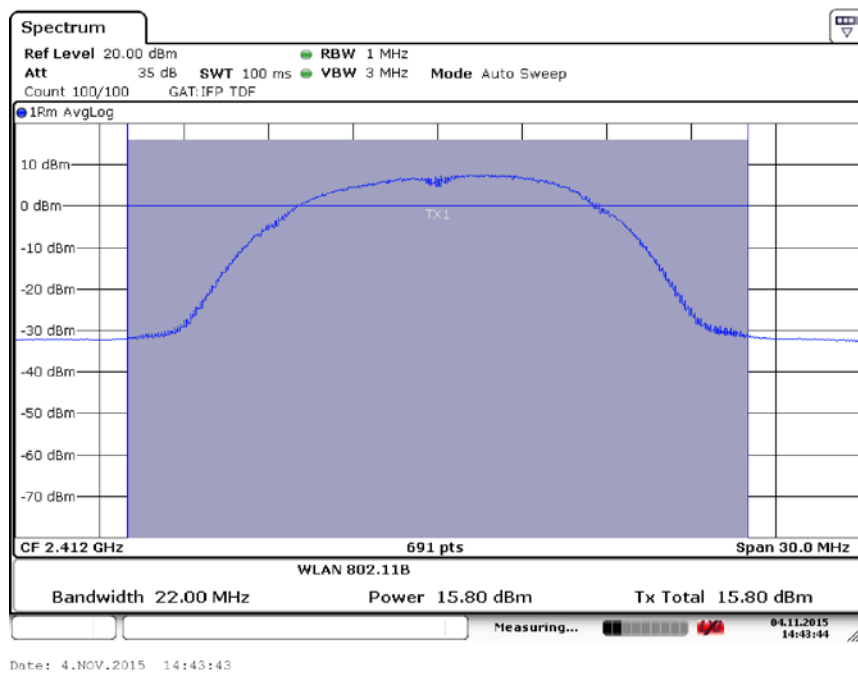


Fig.10 Maximum Average Output Power (802.11b, Ch 1,11Mbps)

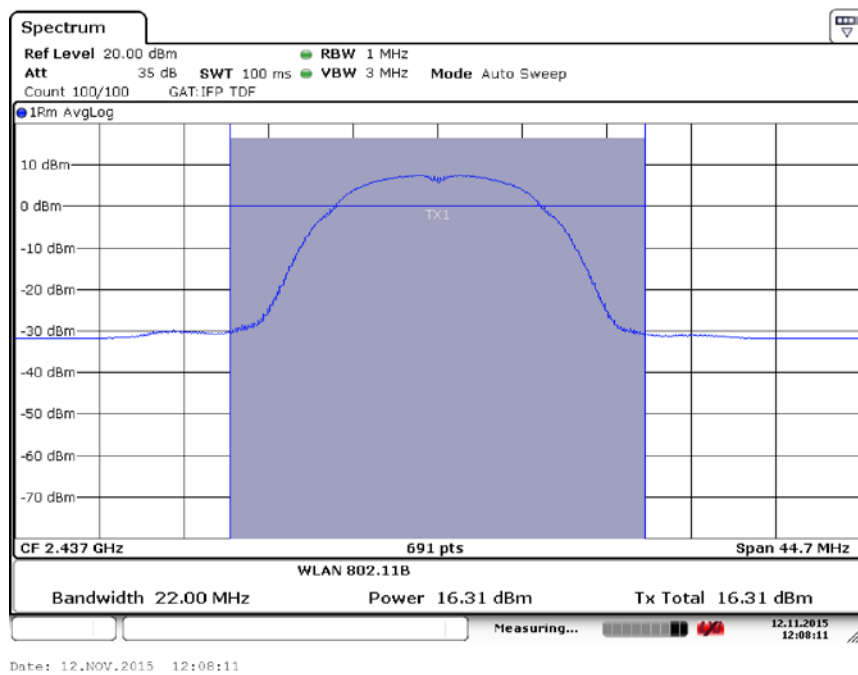


Fig.11 Maximum Average Output Power (802.11b, Ch 6,11Mbps)

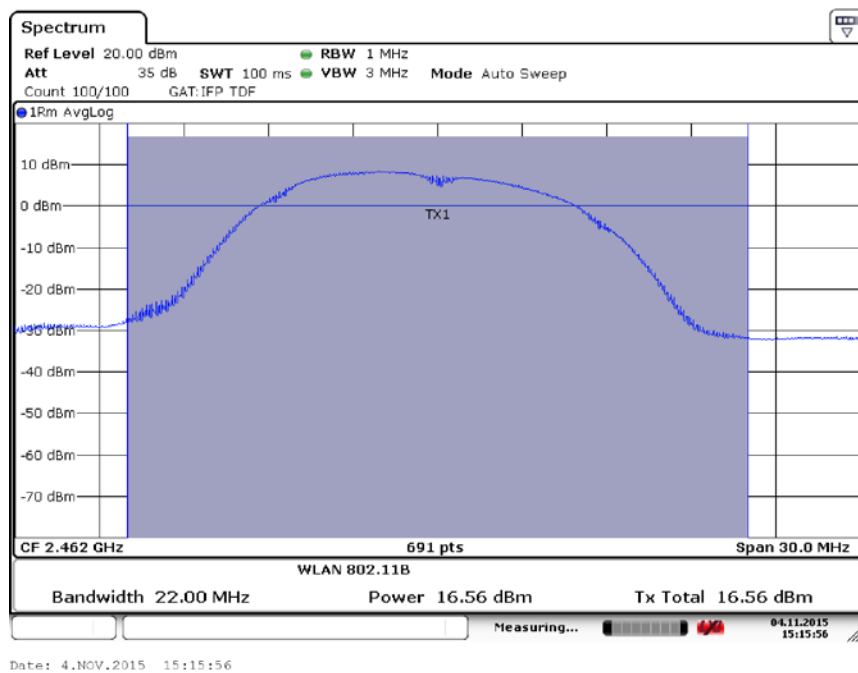


Fig.12 Maximum Average Output Power (802.11b, Ch 11,11Mbps)

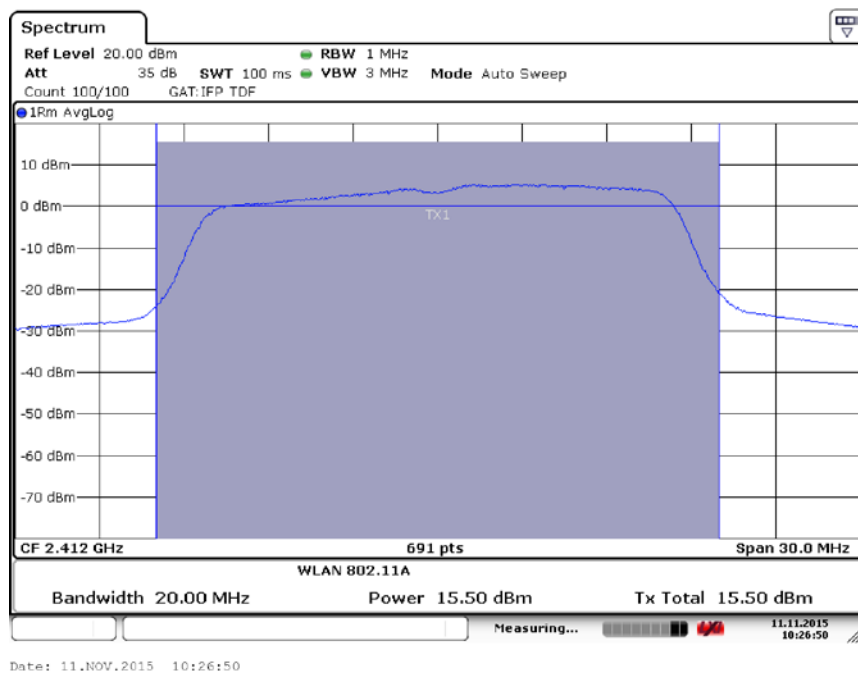


Fig.13 Maximum Average Output Power (802.11g, Ch 1,6Mbps)

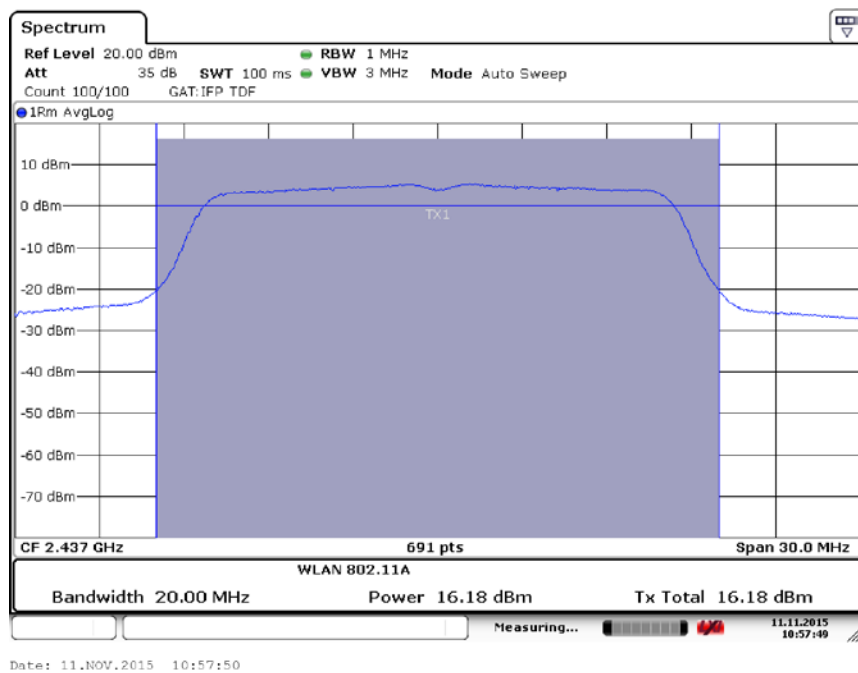


Fig.14 Maximum Average Output Power (802.11g, Ch 6,6Mbps)

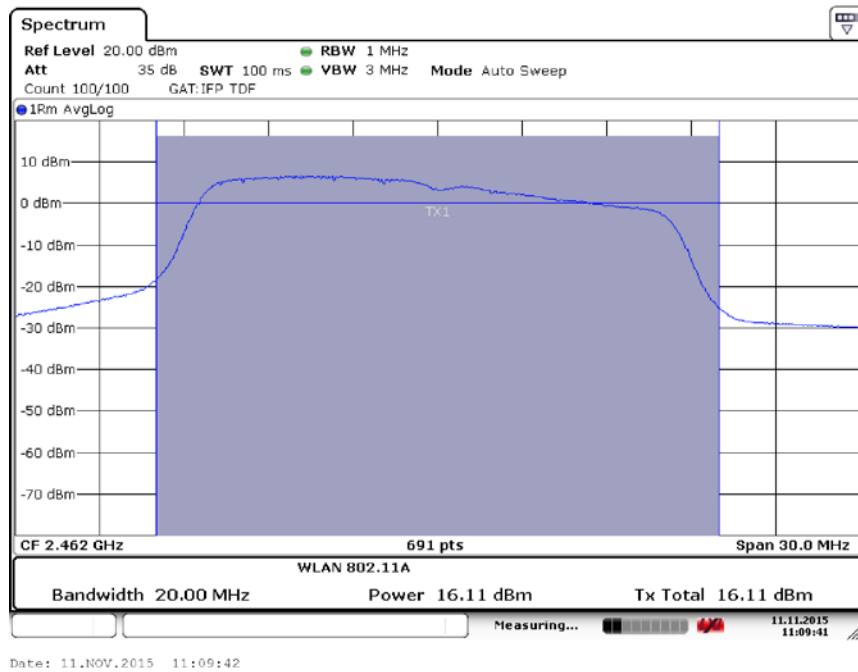


Fig.15 Maximum Average Output Power (802.11g, Ch 11,6Mbps)

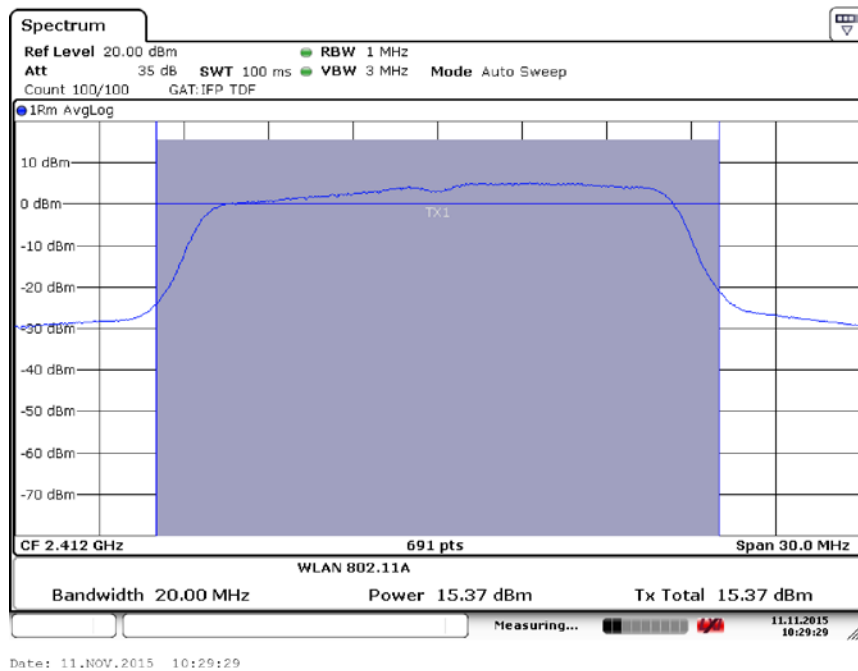


Fig.16 Maximum Average Output Power (802.11g, Ch 1,9Mbps)

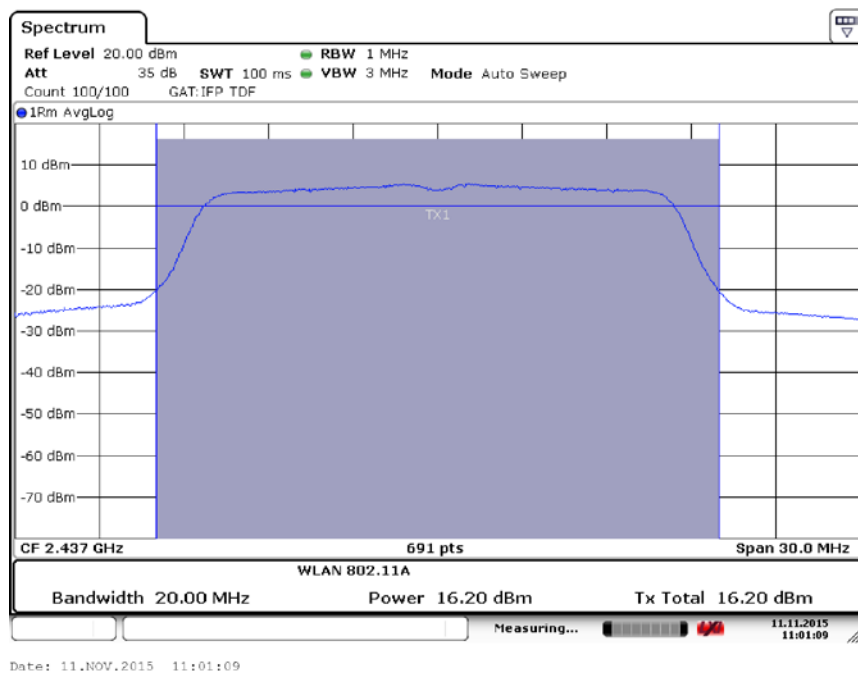


Fig.17 Maximum Average Output Power (802.11g, Ch 6,9Mbps)

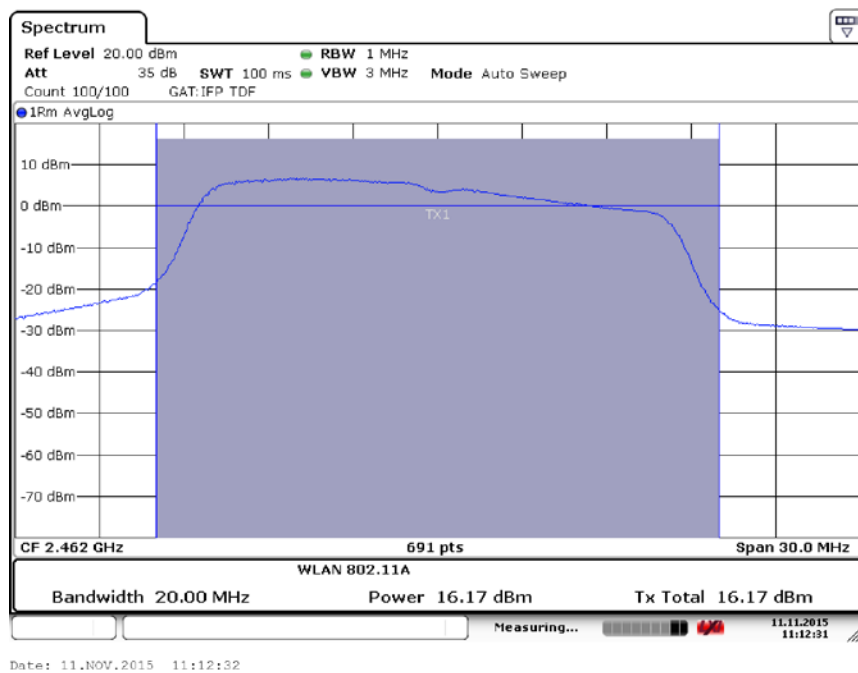


Fig.18 Maximum Average Output Power (802.11g, Ch 11,9Mbps)

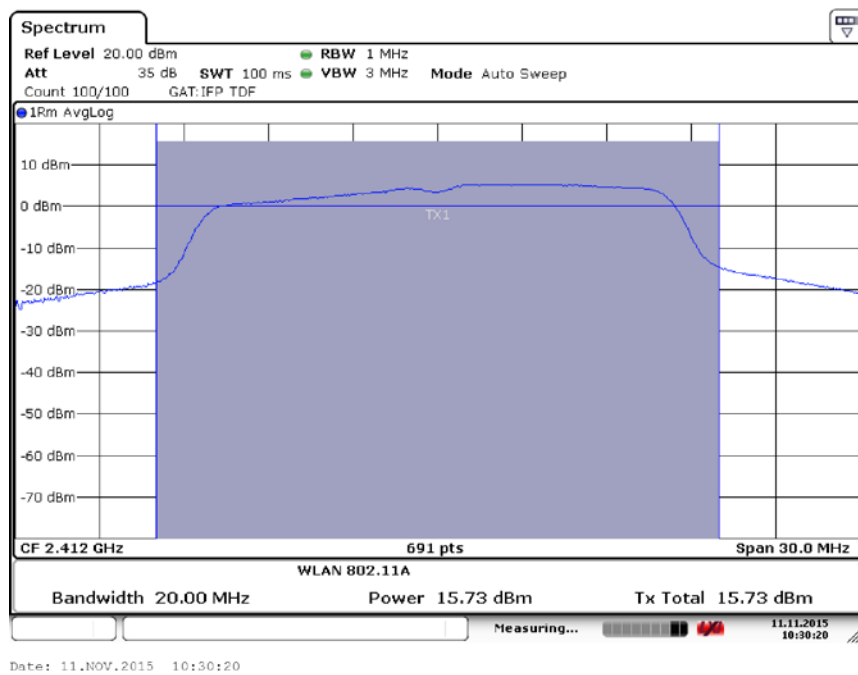


Fig.19 Maximum Average Output Power (802.11g, Ch 1,12Mbps)

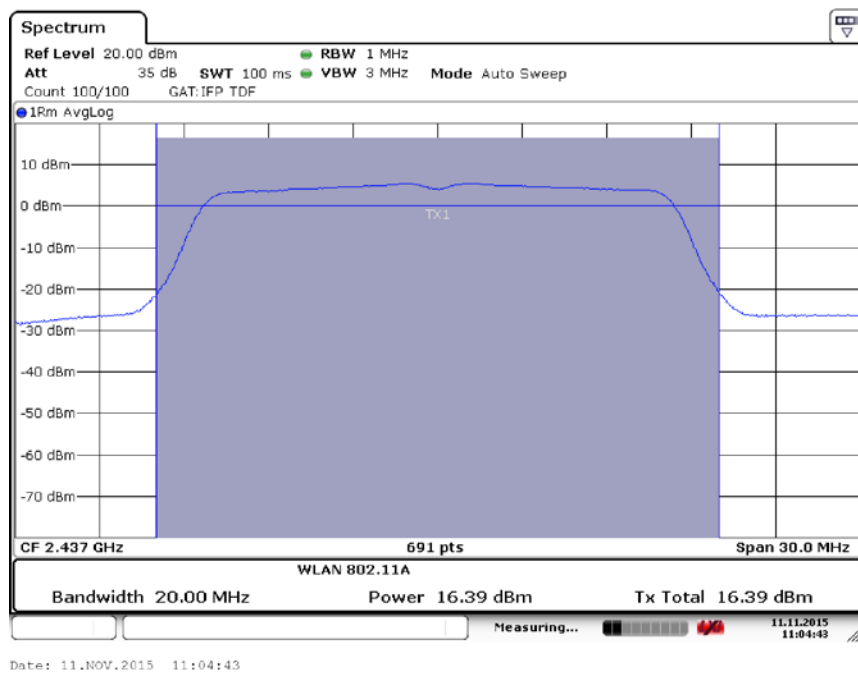


Fig.20 Maximum Average Output Power (802.11g, Ch 6,12Mbps)

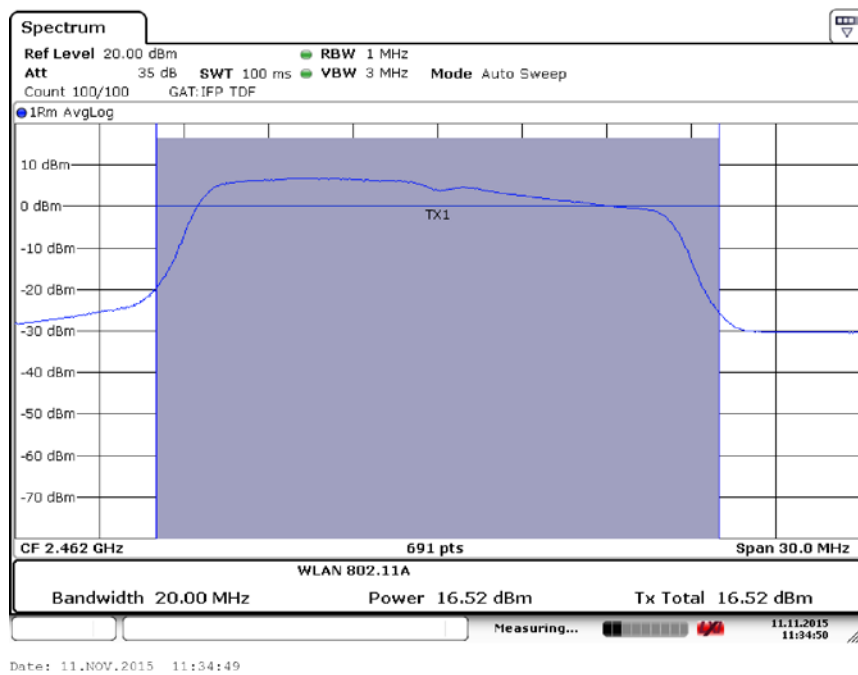


Fig.21 Maximum Average Output Power (802.11g, Ch 11,12Mbps)

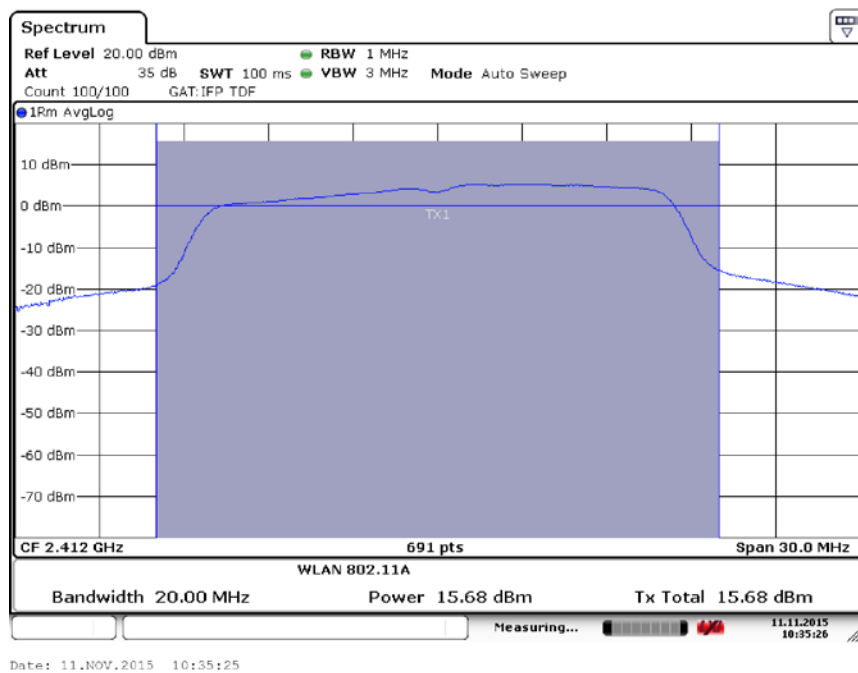


Fig.22 Maximum Average Output Power (802.11g, Ch 1,18Mbps)

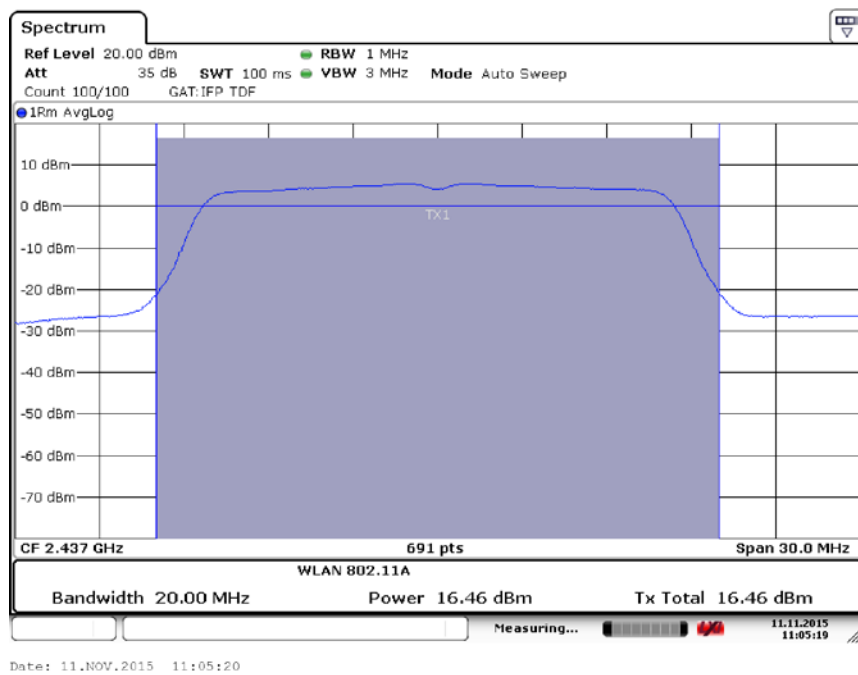


Fig.23 Maximum Average Output Power (802.11g, Ch 6,18Mbps)

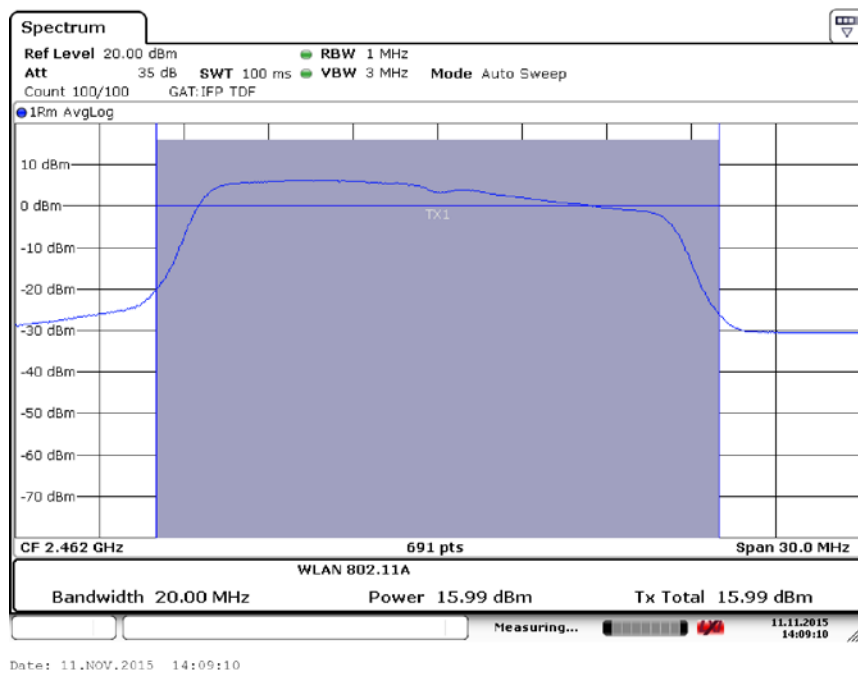


Fig.24 Maximum Average Output Power (802.11g, Ch 11,18Mbps)

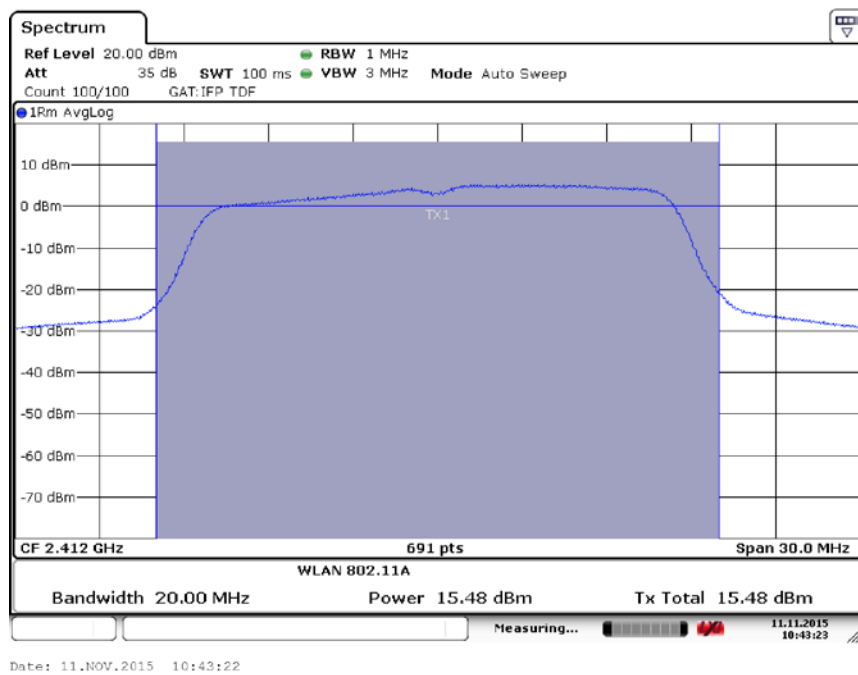


Fig.25 Maximum Average Output Power (802.11g, Ch 1,24Mbps)

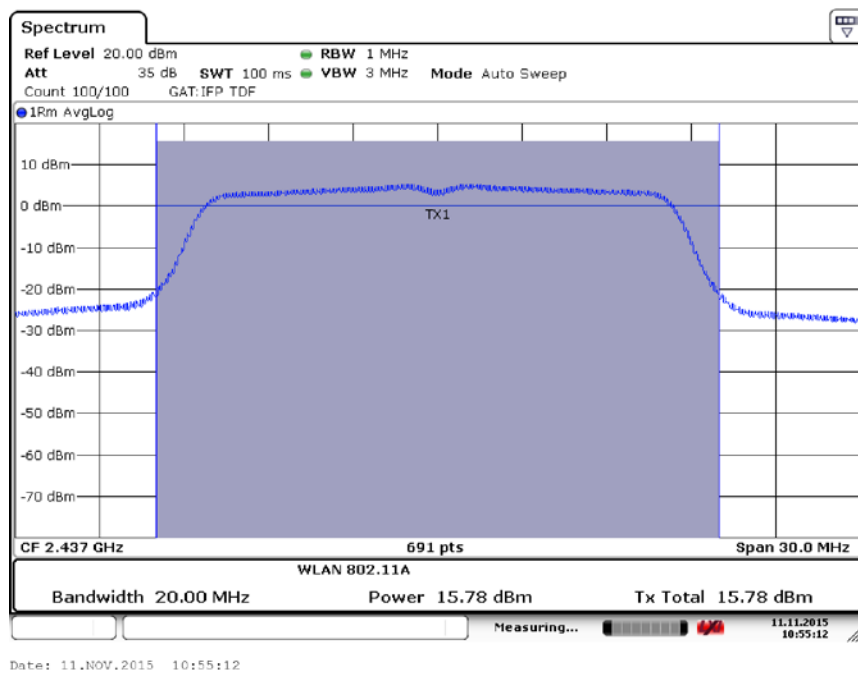


Fig.26 Maximum Average Output Power (802.11g, Ch 6,24Mbps)

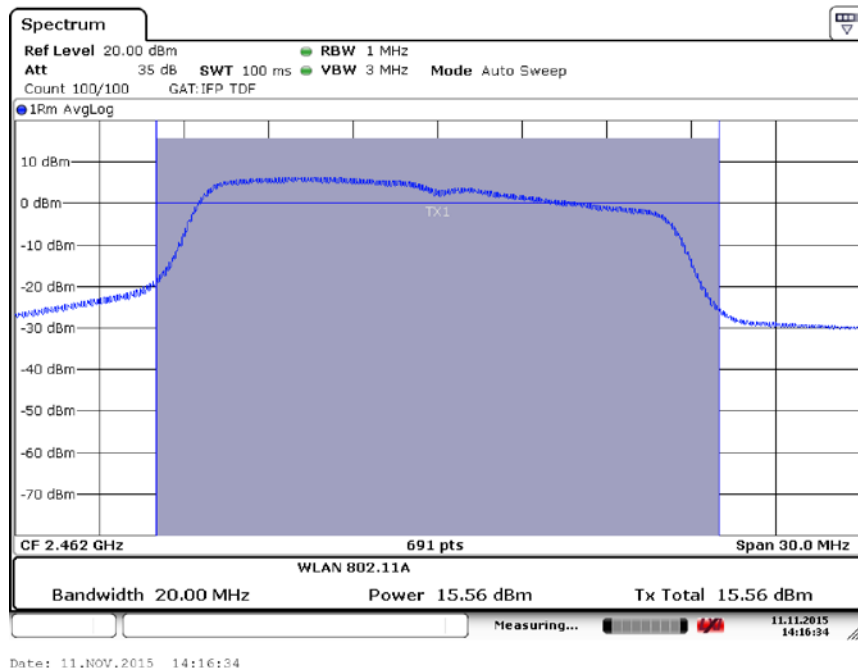


Fig.27 Maximum Average Output Power (802.11g, Ch 11,24Mbps)

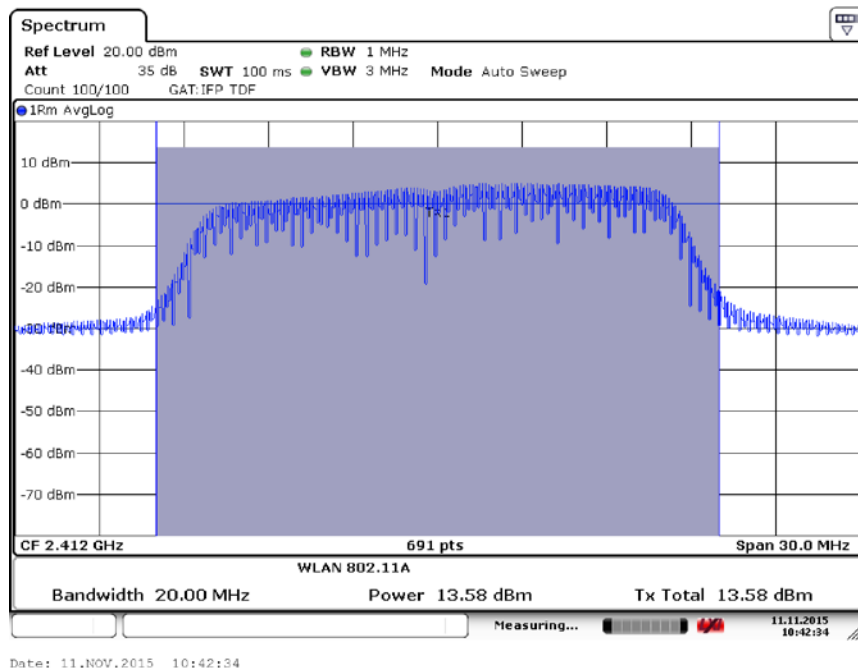


Fig.28 Maximum Average Output Power (802.11g, Ch 1,36Mbps)

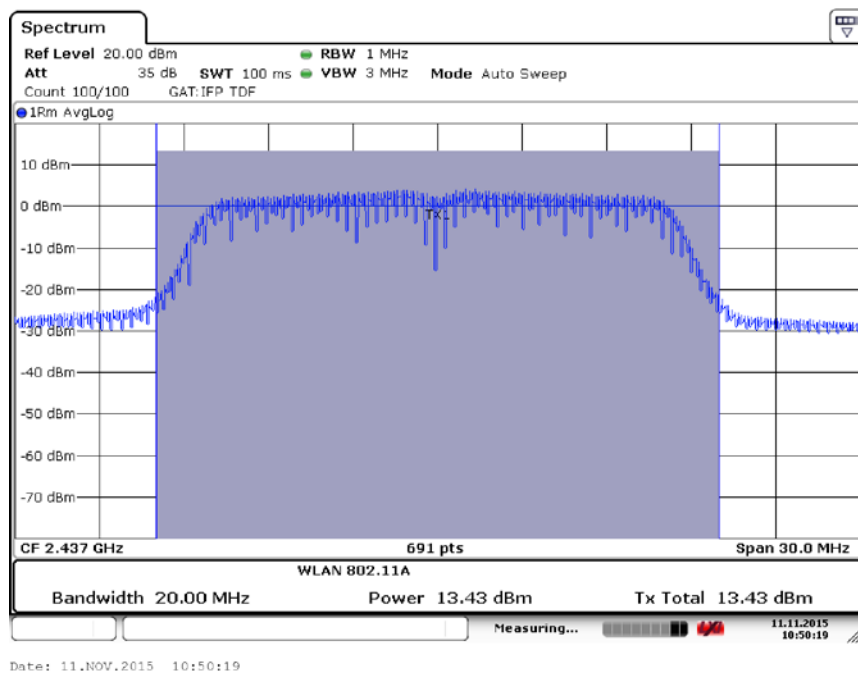


Fig.29 Maximum Average Output Power (802.11g, Ch 6,36Mbps)

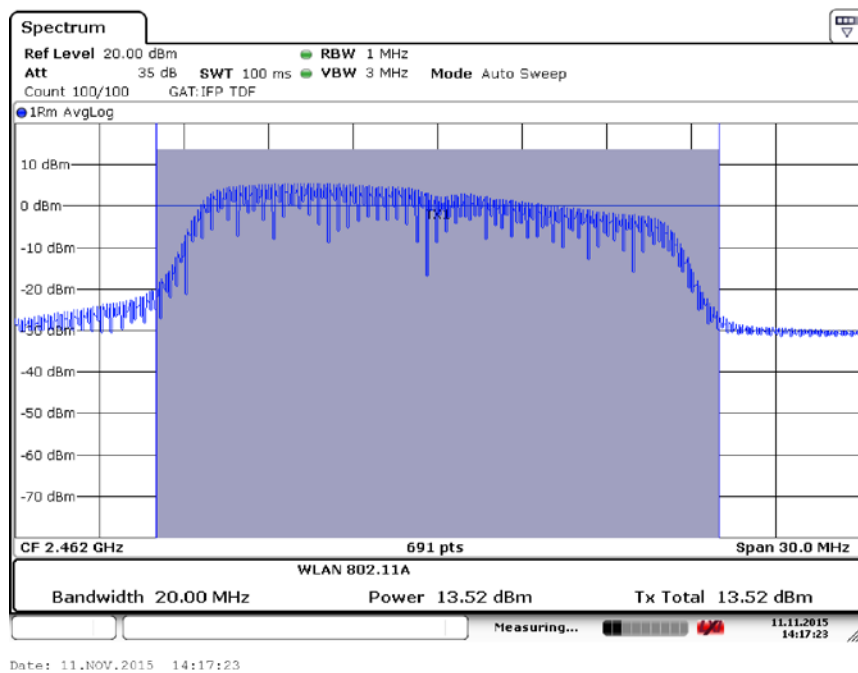


Fig.30 Maximum Average Output Power (802.11g, Ch 11,36Mbps)

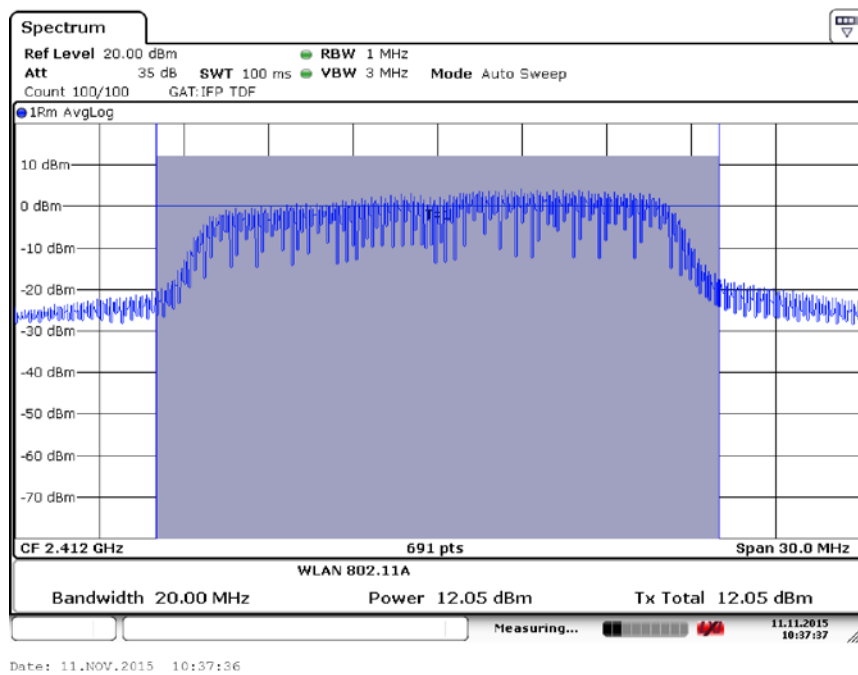


Fig.31 Maximum Average Output Power (802.11g, Ch 1,48Mbps)

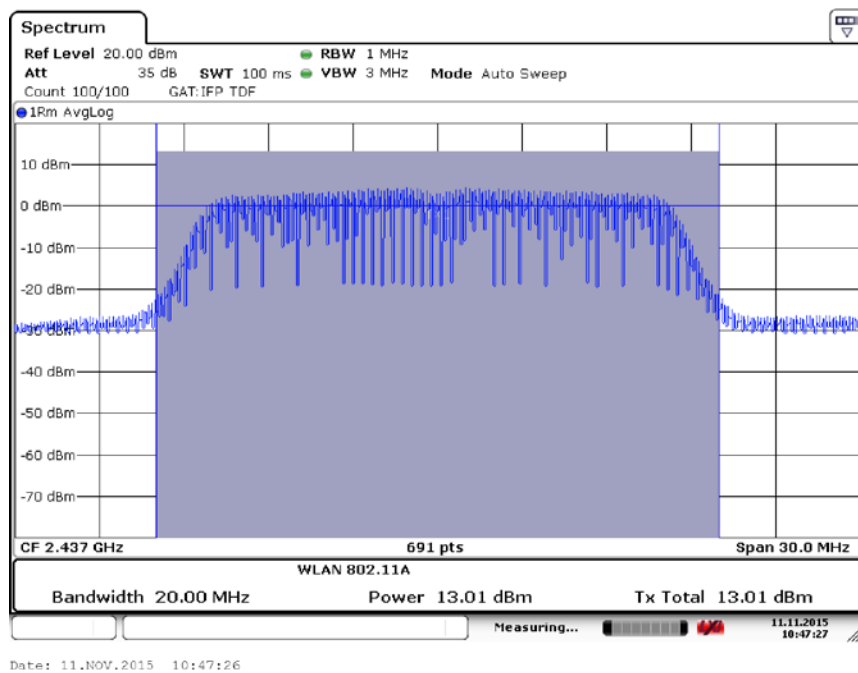


Fig.32 Maximum Average Output Power (802.11g, Ch 6,48Mbps)

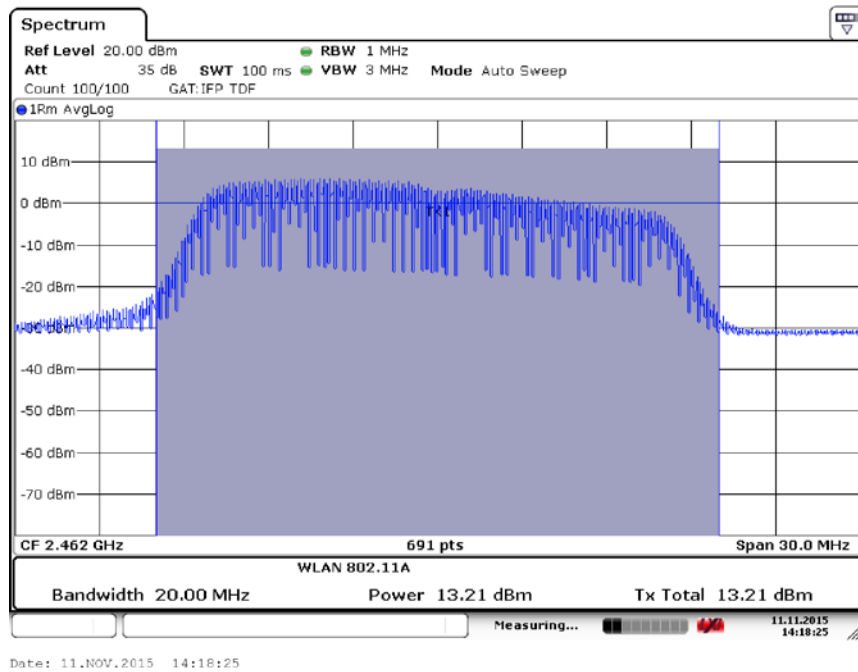


Fig.33 Maximum Average Output Power (802.11g, Ch 11,48Mbps)

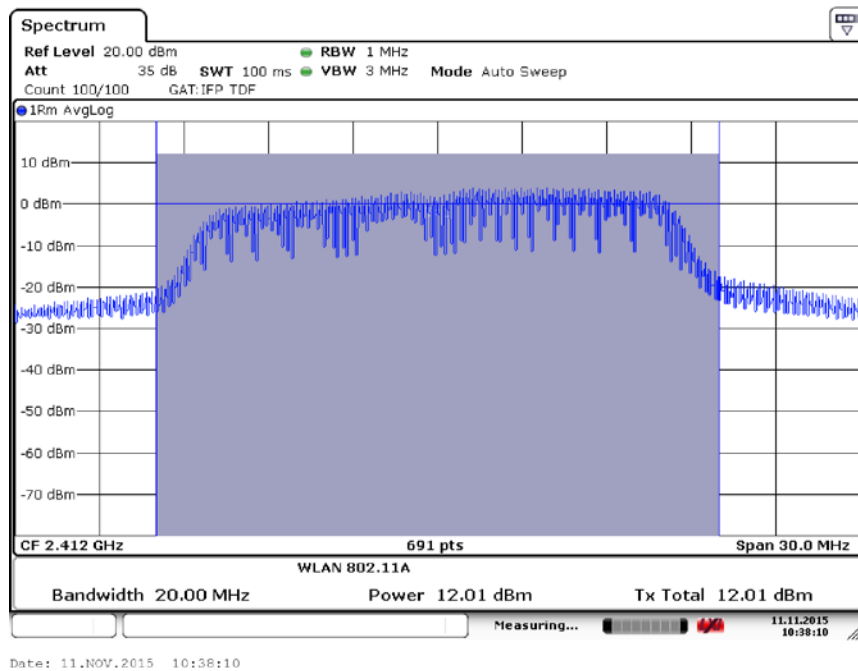


Fig.34 Maximum Average Output Power (802.11g, Ch 1,54Mbps)

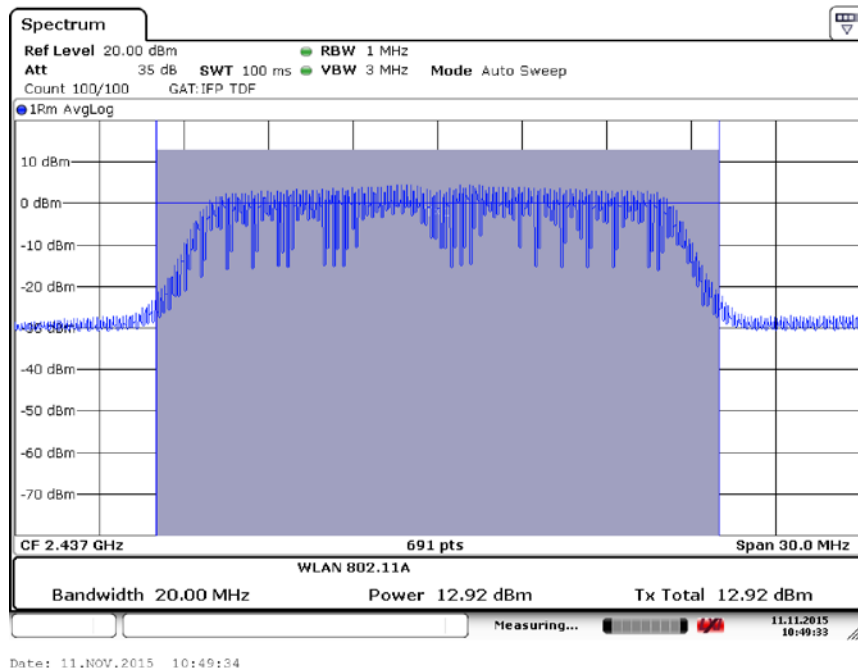


Fig.35 Maximum Average Output Power (802.11g, Ch 6,54Mbps)

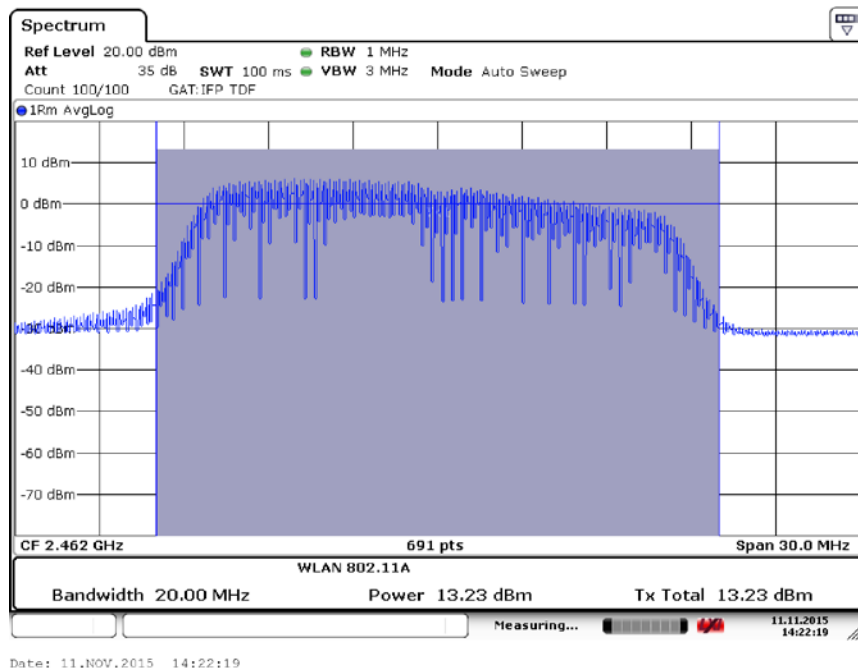


Fig.36 Maximum Average Output Power (802.11g, Ch 11,54Mbps)

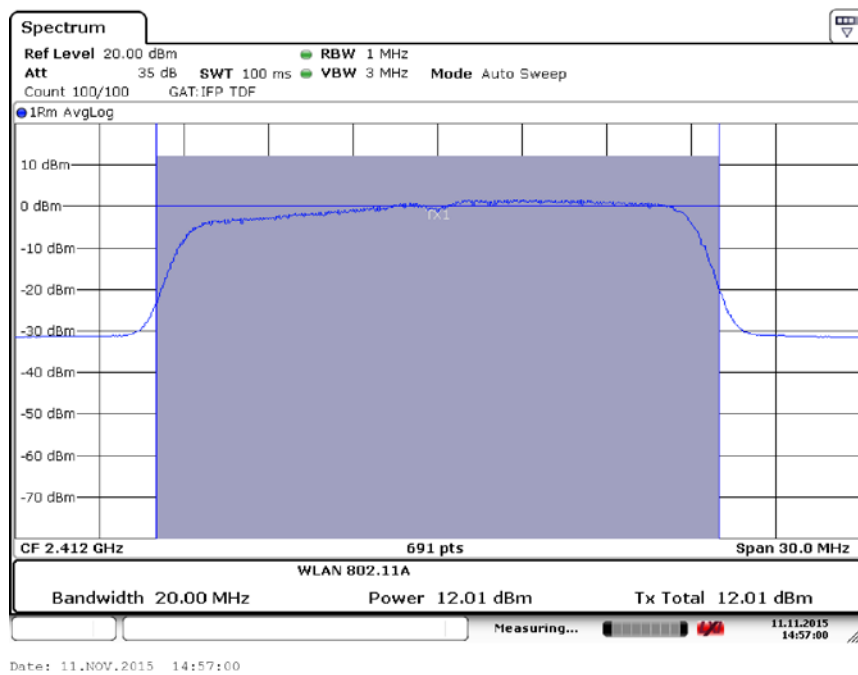


Fig.37 Maximum Average Output Power (802.11n-20MHz, Ch 1,MCS0)

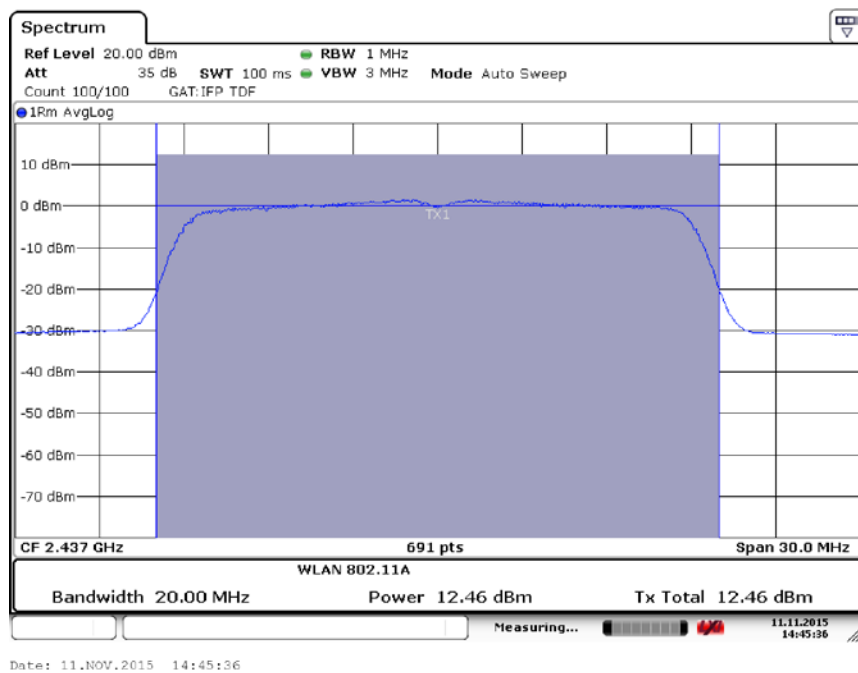


Fig.38 Maximum Average Output Power (802.11n-20MHz, Ch 6,MCS0)

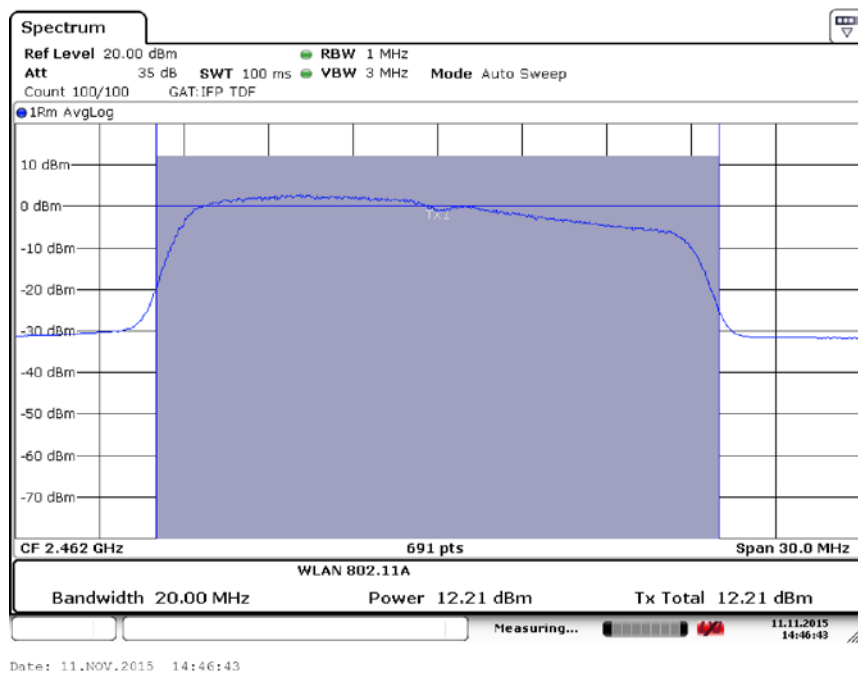


Fig.39 Maximum Average Output Power (802.11n-20MHz, Ch 11,MCS0)

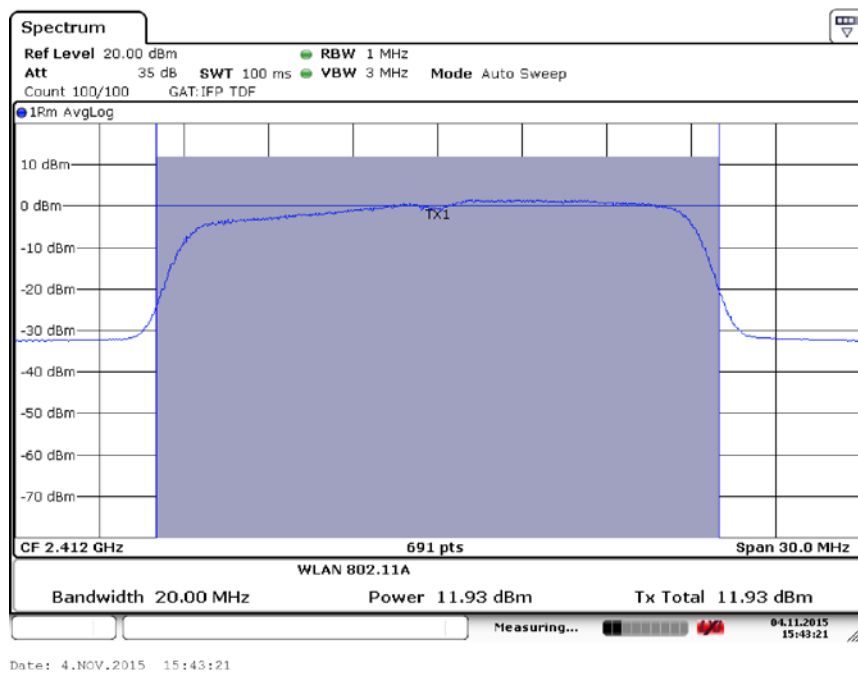


Fig.40 Maximum Average Output Power (802.11n-20MHz, Ch 1,MCS1)

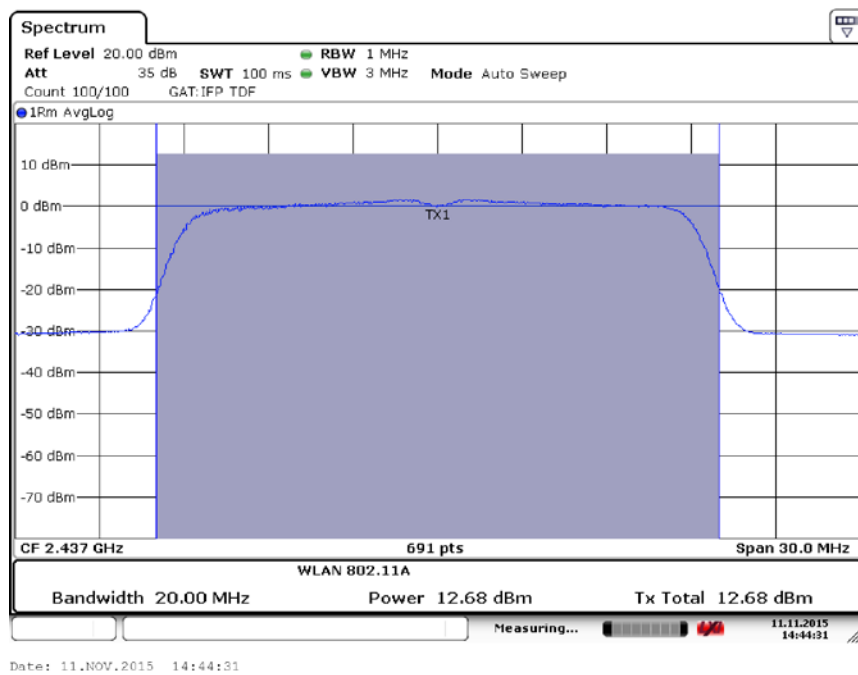


Fig.41 Maximum Average Output Power (802.11n-20MHz, Ch 6,MCS1)

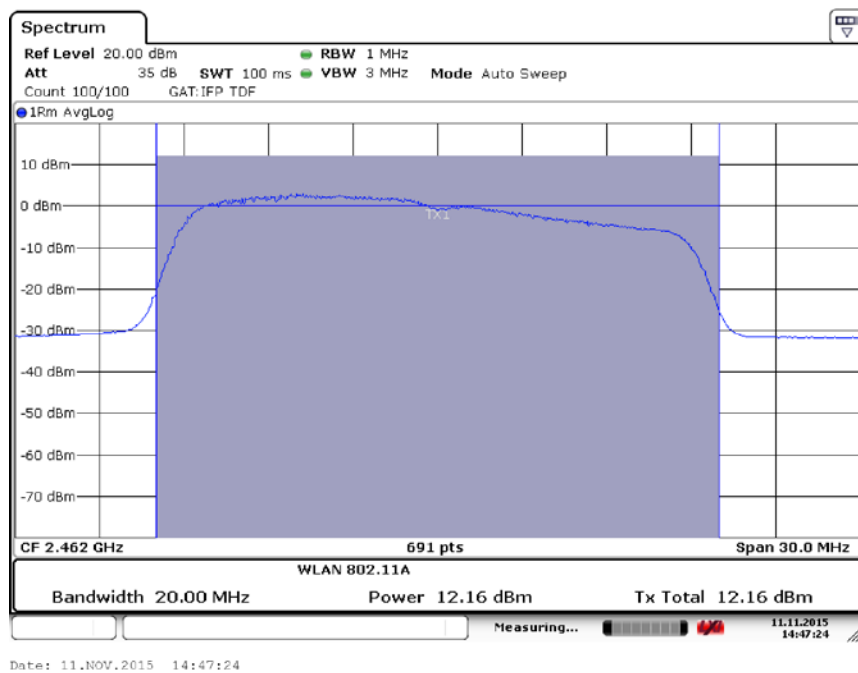


Fig.42 Maximum Average Output Power (802.11n-20MHz, Ch 11,MCS1)

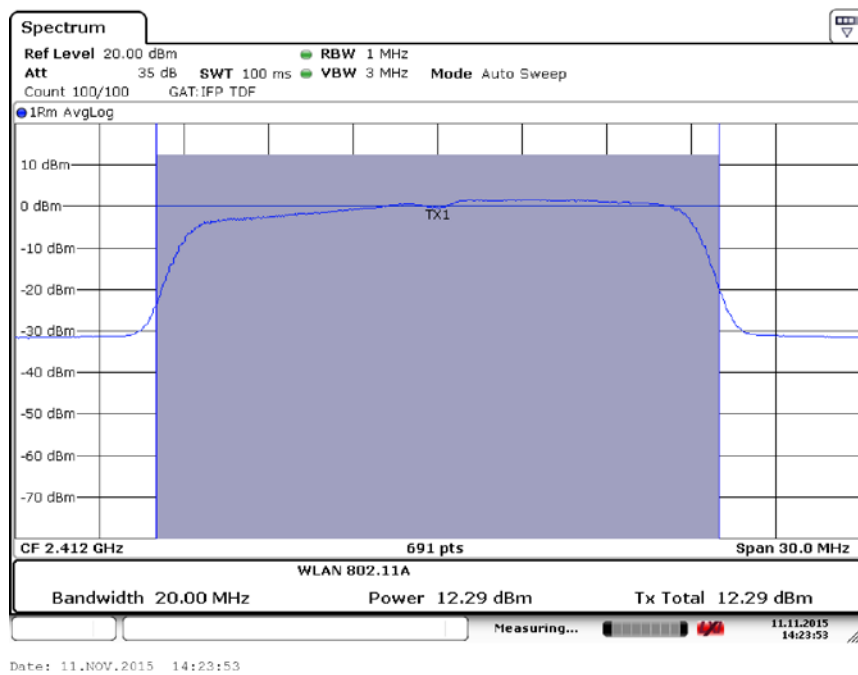


Fig.43 Maximum Average Output Power (802.11n-20MHz, Ch 1,MCS2)

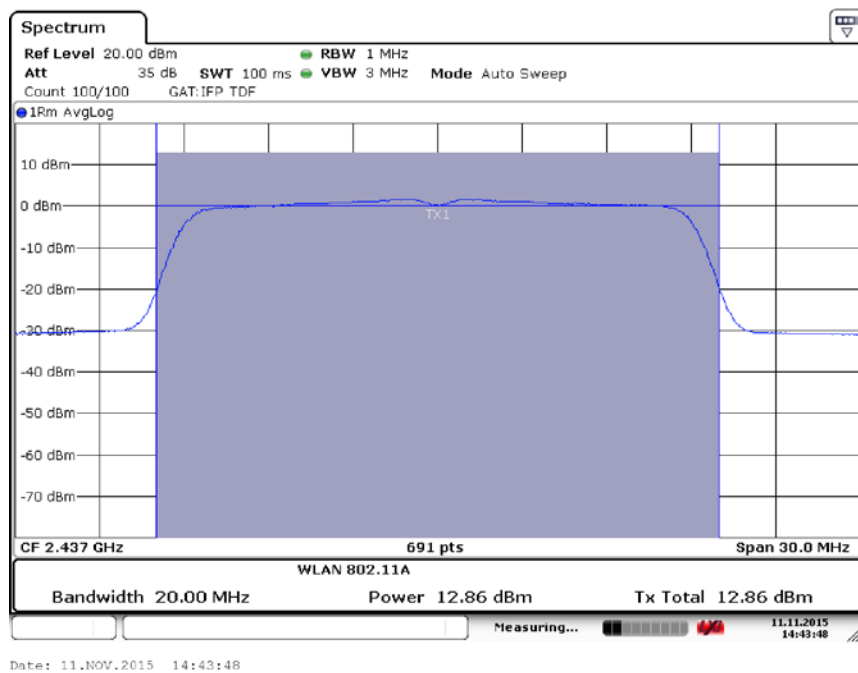


Fig.44 Maximum Average Output Power (802.11n-20MHz, Ch 6,MCS2))

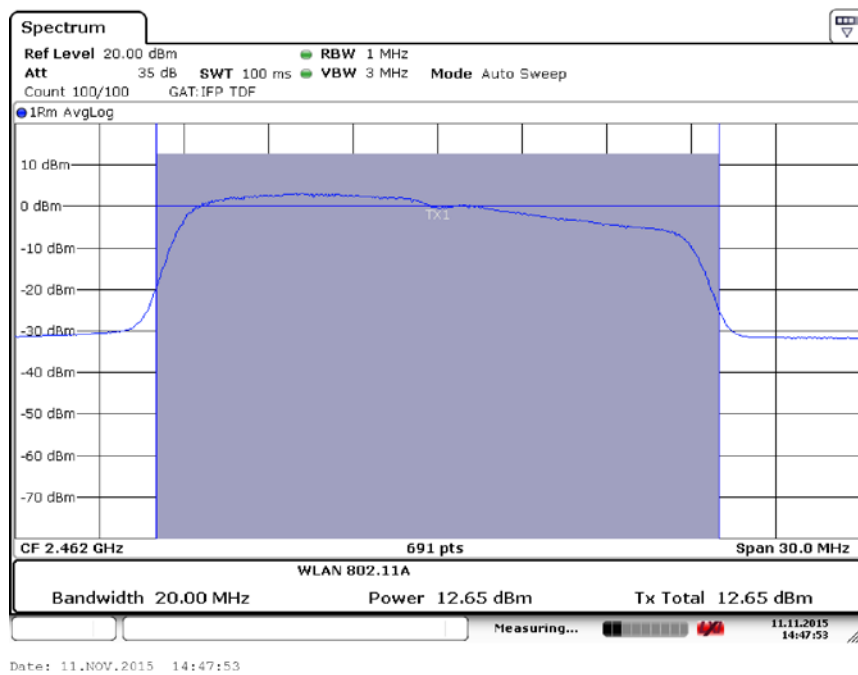


Fig.45 Maximum Average Output Power (802.11n-20MHz, Ch 11,MCS2)

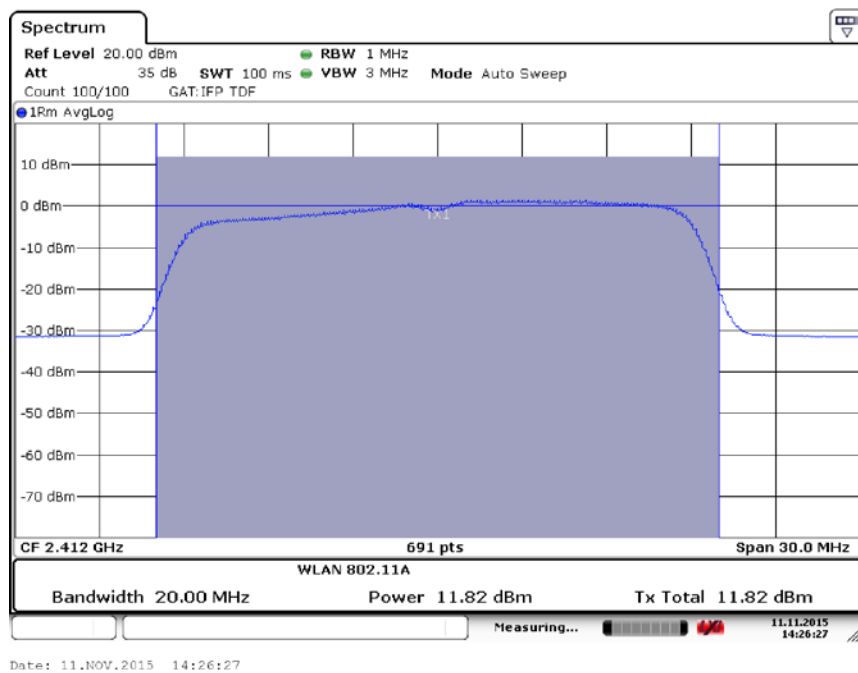


Fig.46 Maximum Average Output Power (802.11n-20MHz, Ch 1,MCS3)

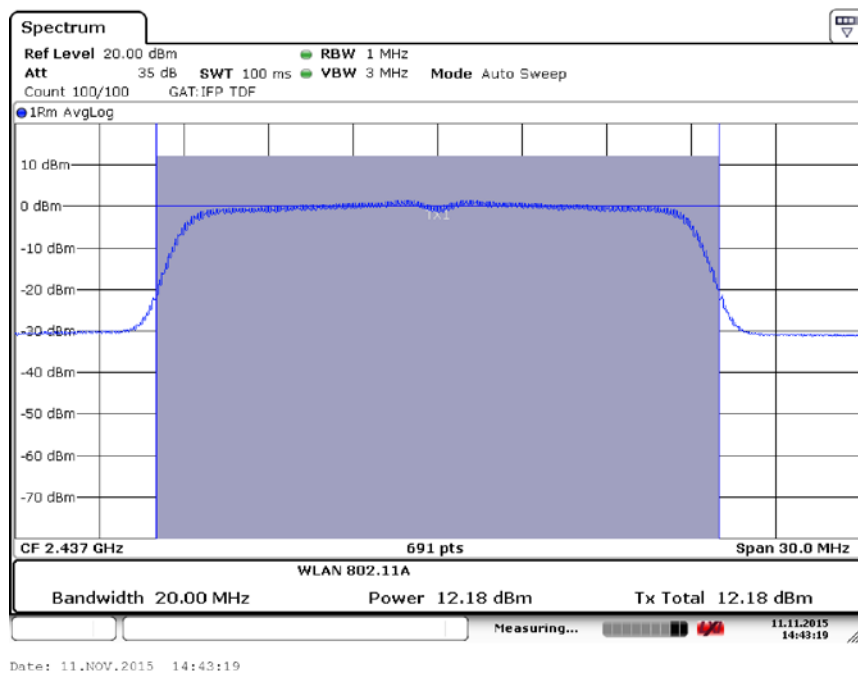


Fig.47 Maximum Average Output Power (802.11n-20MHz, Ch 6,MCS3)

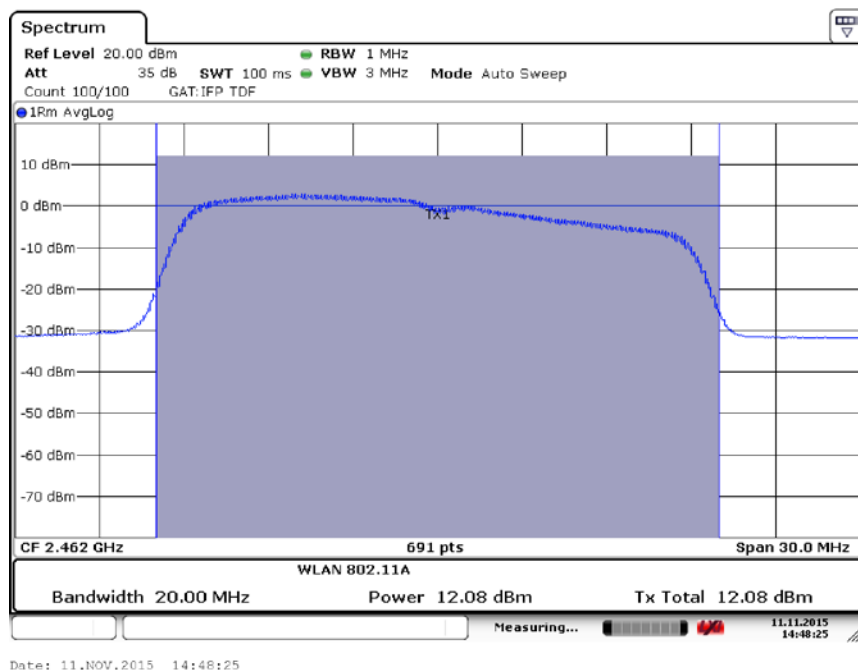


Fig.48 Maximum Average Output Power (802.11n-20MHz, Ch 11,MCS3)

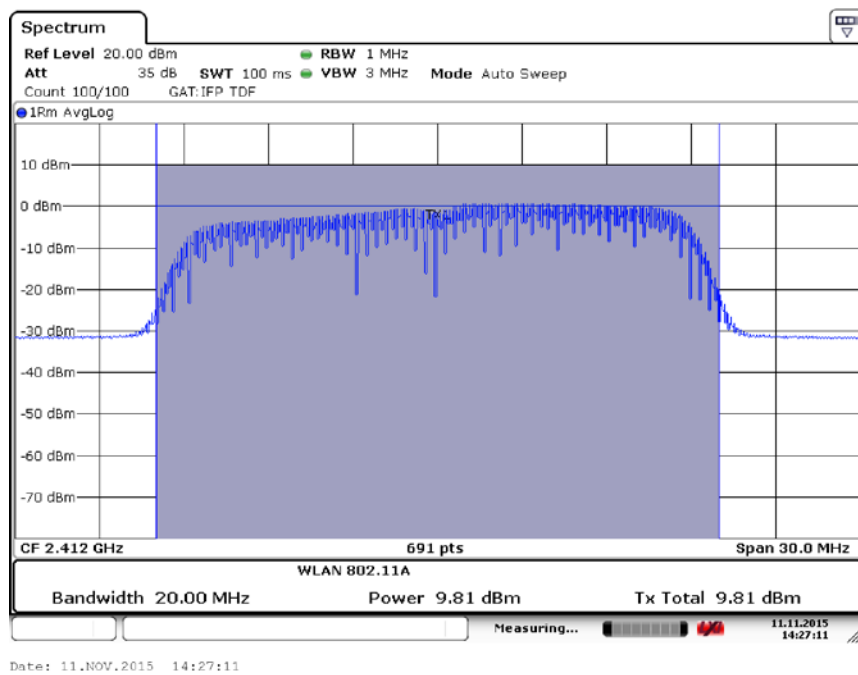


Fig.49 Maximum Average Output Power (802.11n-20MHz, Ch 1,MCS4)

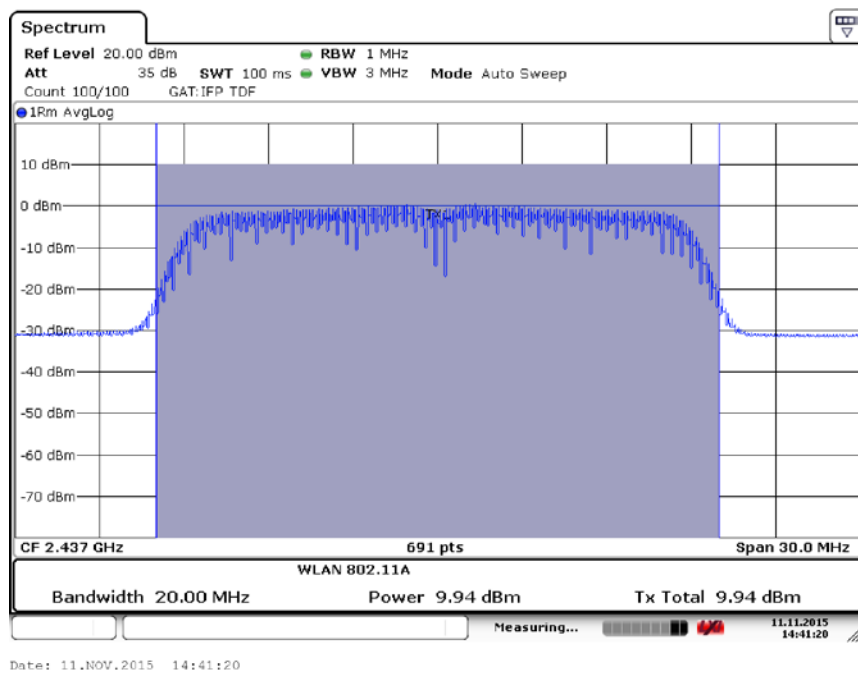


Fig.50 Maximum Average Output Power (802.11n-20MHz, Ch 6,MCS4)

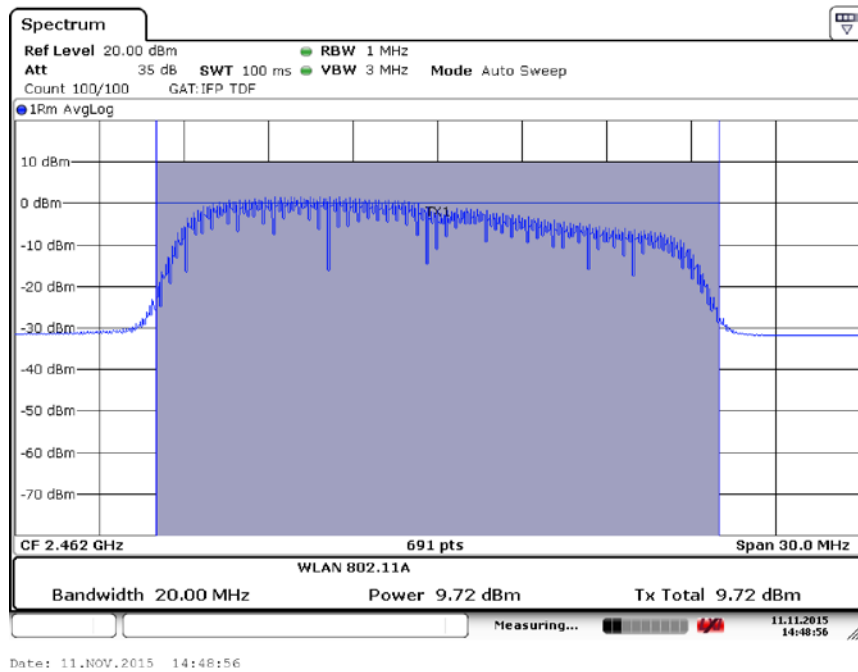


Fig.51 Maximum Average Output Power (802.11n-20MHz, Ch 11,MCS4)

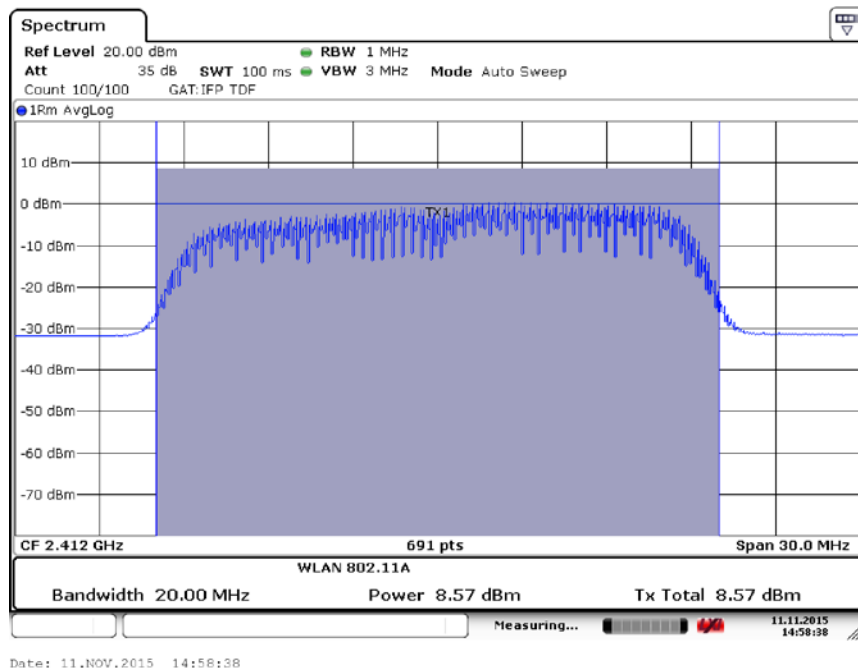


Fig.52 Maximum Average Output Power (802.11n-20MHz, Ch 1,MCS5)

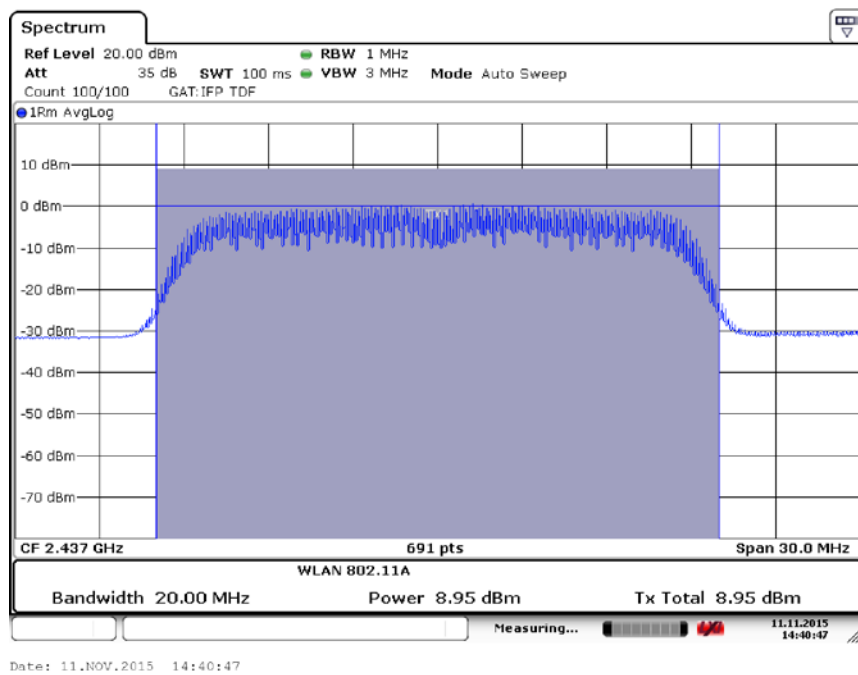


Fig.53 Maximum Average Output Power (802.11n-20MHz, Ch 6,MCS5)

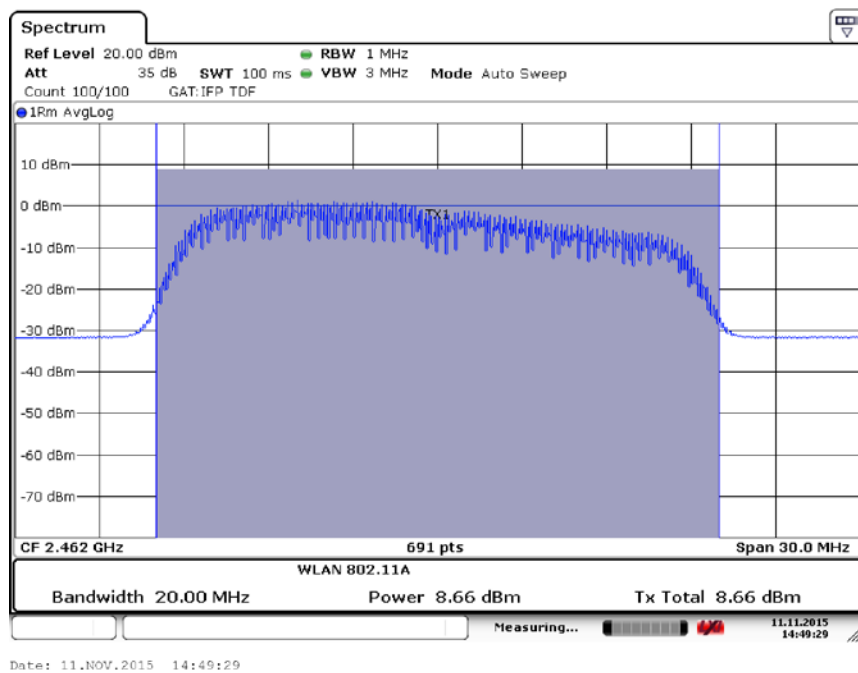


Fig.54 Maximum Average Output Power (802.11n-20MHz, Ch 11,MCS5)

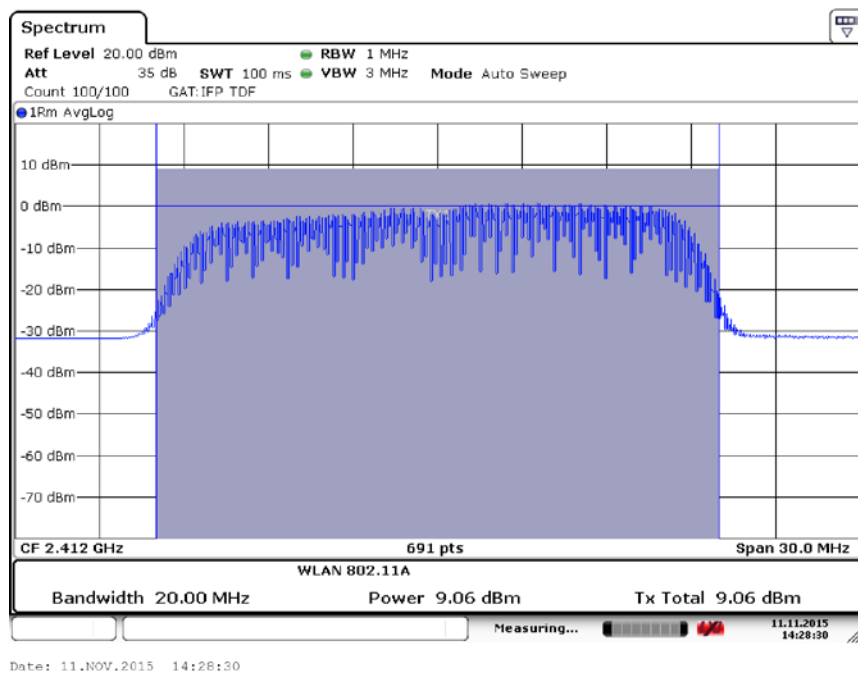


Fig.55 Maximum Average Output Power (802.11n-20MHz, Ch 1,MCS6)

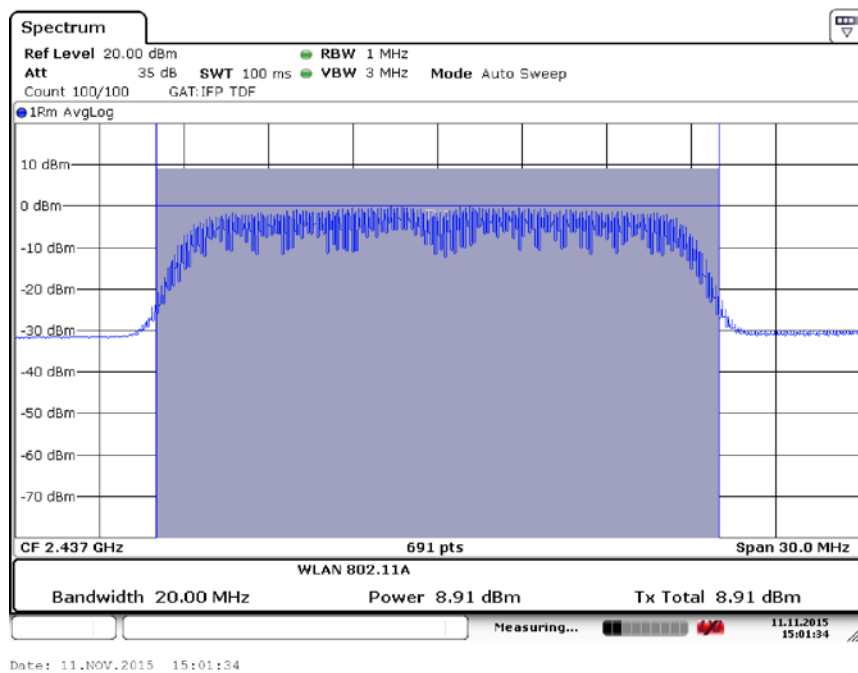


Fig.56 Maximum Average Output Power (802.11n-20MHz, Ch 6,MCS6)

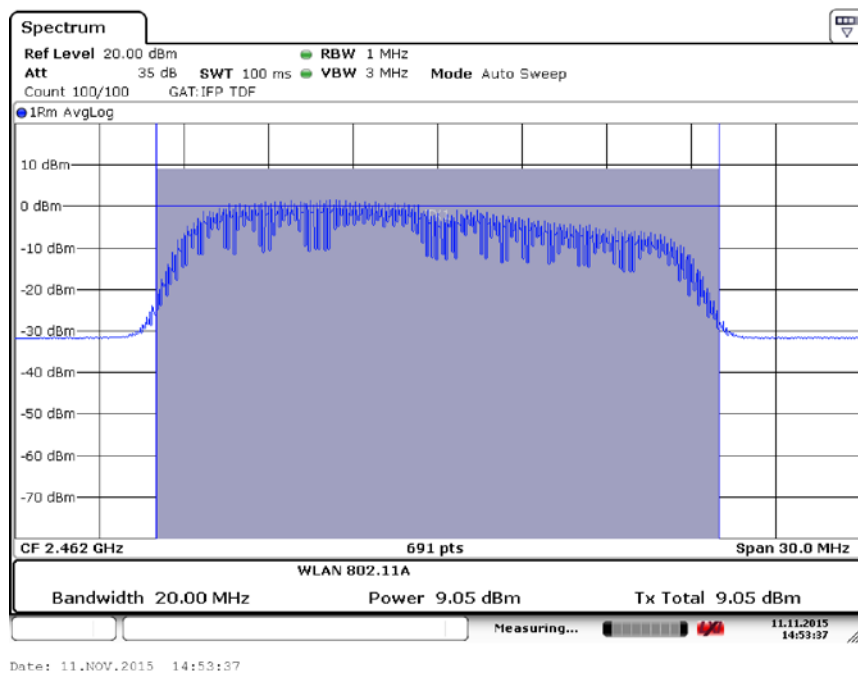


Fig.57 Maximum Average Output Power (802.11n-20MHz, Ch 11,MCS6)

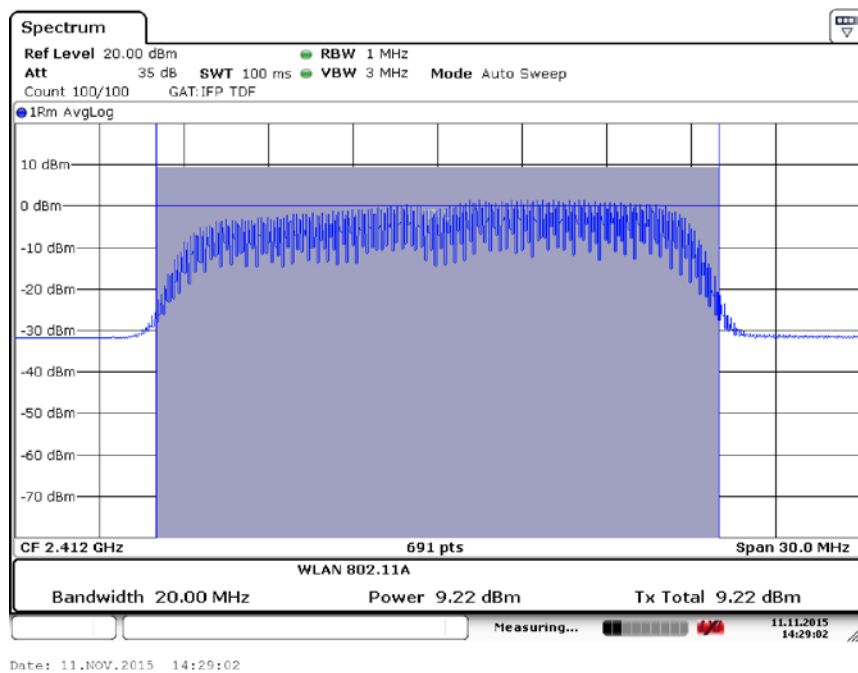


Fig.58 Maximum Average Output Power (802.11n-20MHz, Ch 1,MCS7)

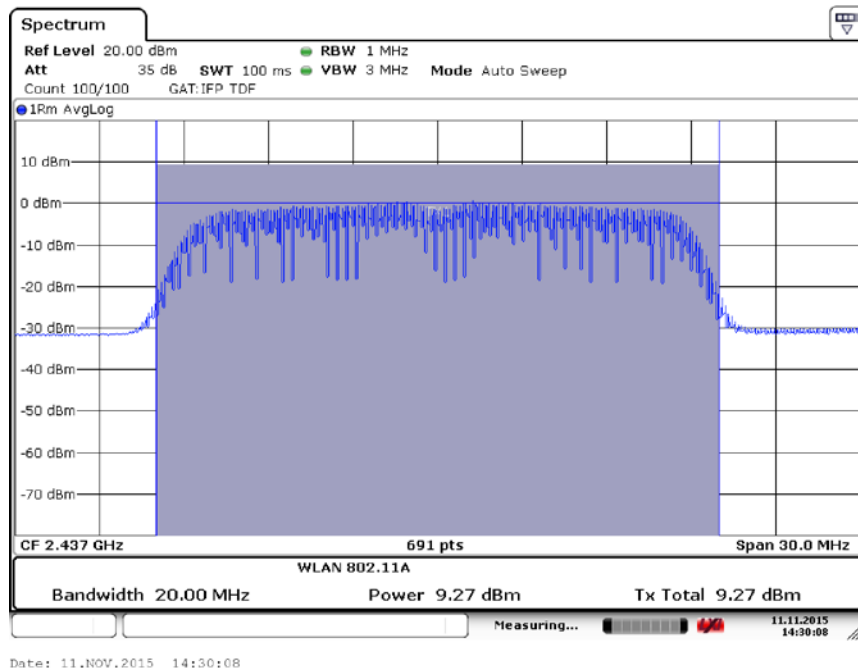


Fig.59 Maximum Average Output Power (802.11n-20MHz, Ch 6,MCS7)

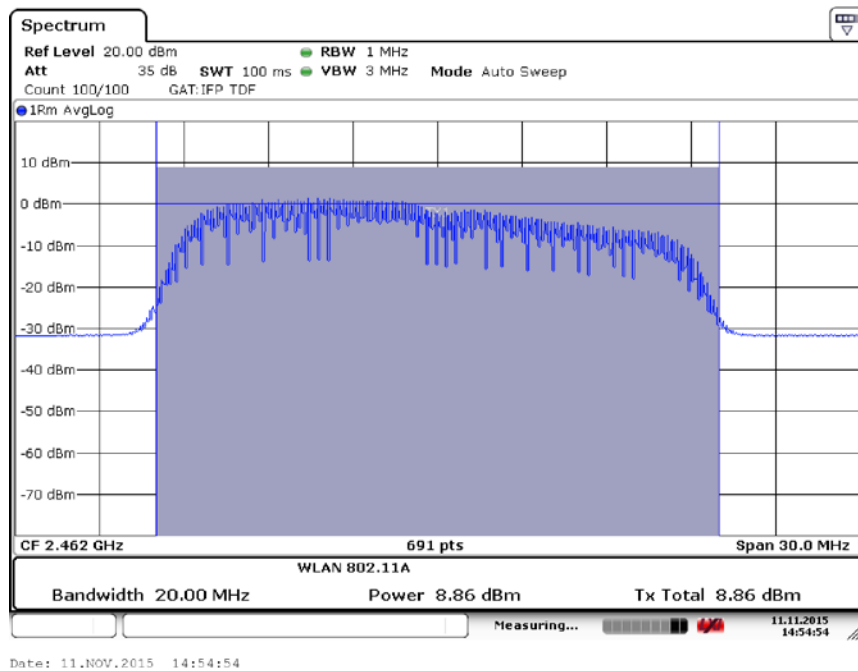


Fig.60 Maximum Average Output Power (802.11n-20MHz, Ch 11,MCS7)

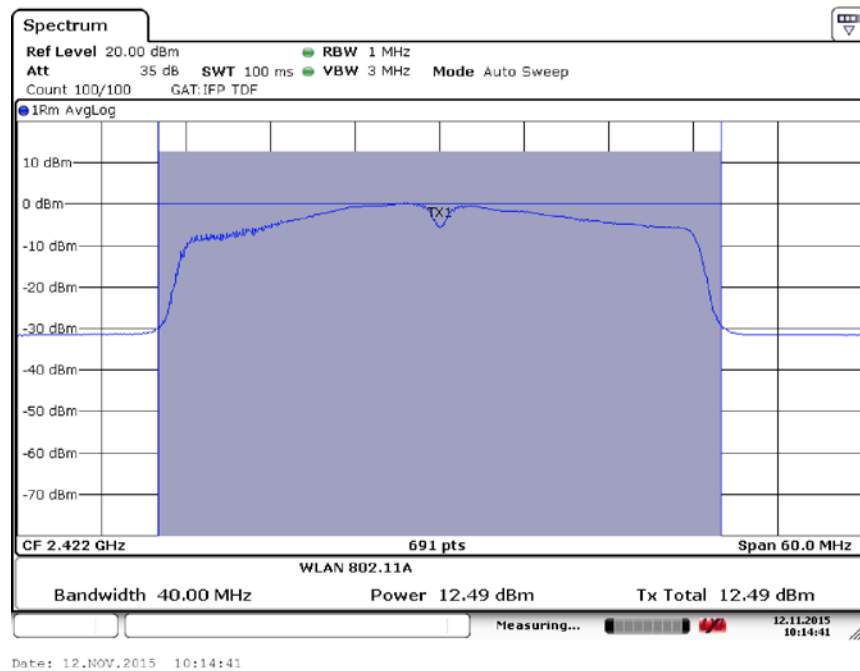


Fig.61 Maximum Average Output Power (802.11n-40MHz, Ch 3,MCS0)

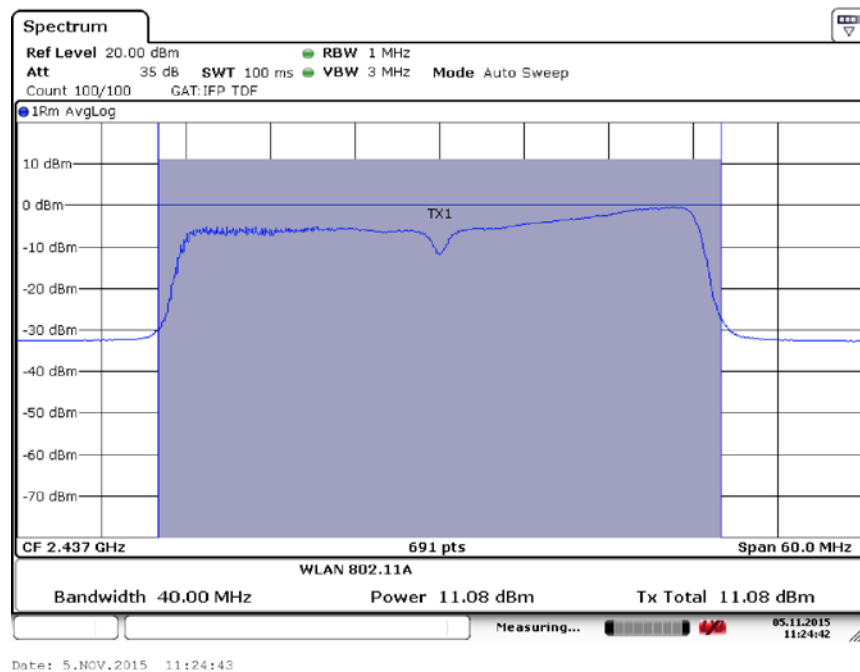


Fig.62 Maximum Average Output Power (802.11n-40MHz, Ch 6,MCS0)

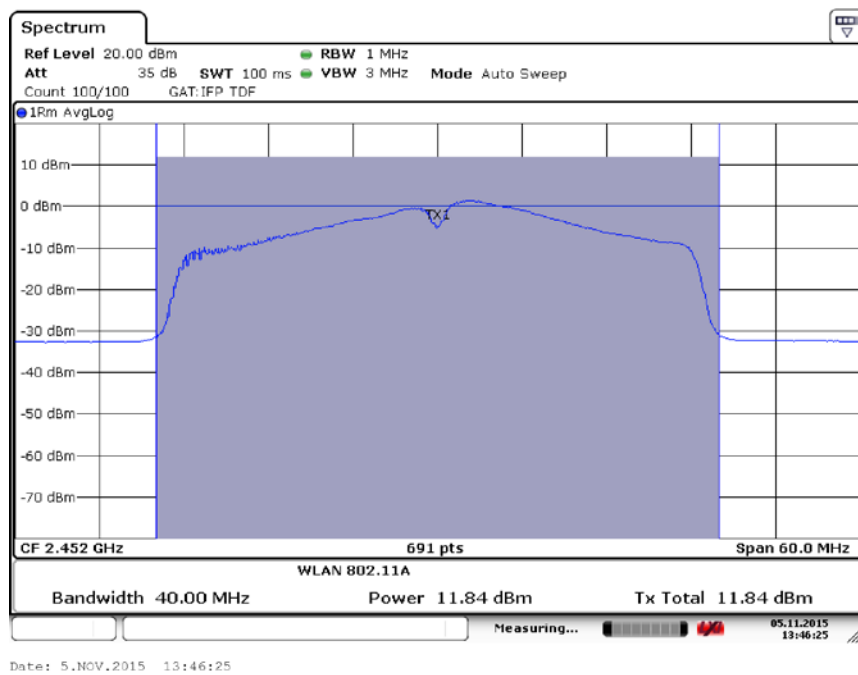


Fig.63 Maximum Average Output Power (802.11n-40MHz, Ch 9,MCS0)

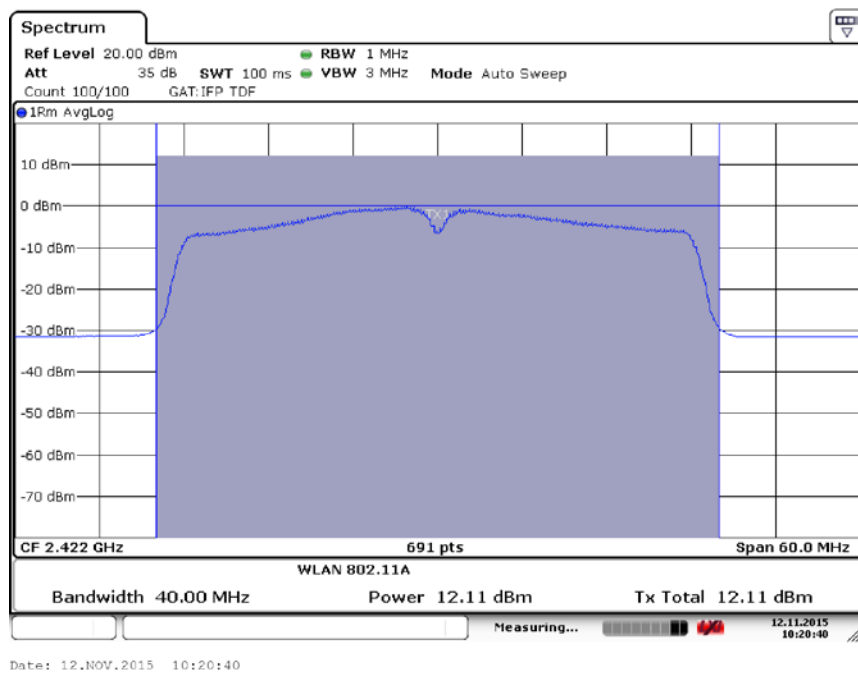


Fig.64 Maximum Average Output Power (802.11n-40MHz, Ch 3,MCS1)

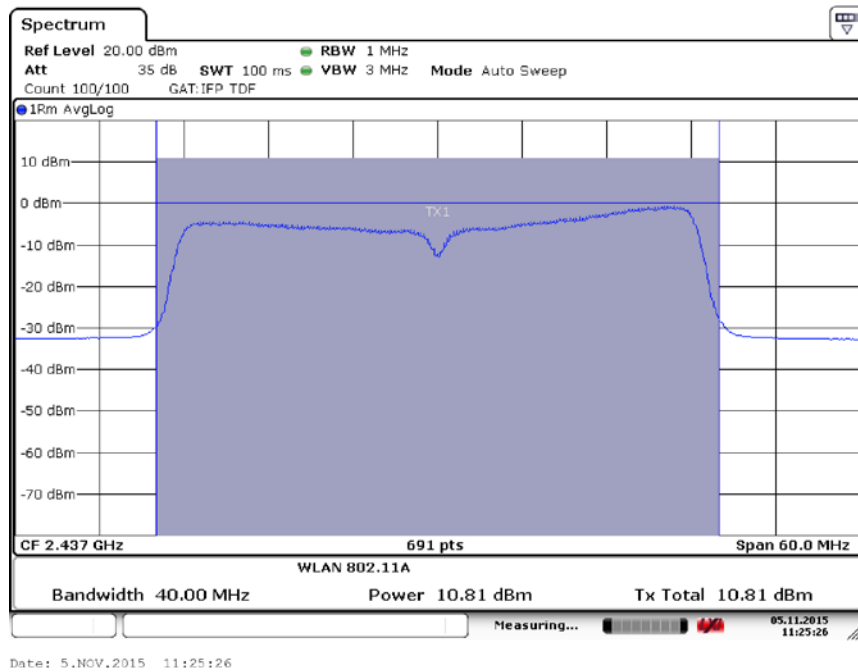


Fig.65 Maximum Average Output Power (802.11n-40MHz, Ch 6,MCS1)

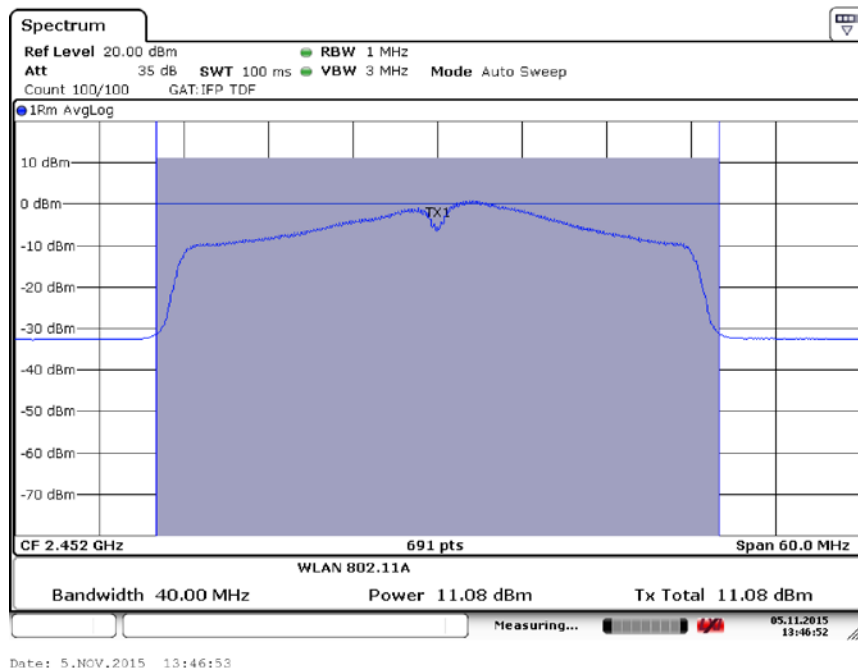


Fig.66 Maximum Average Output Power (802.11n-40MHz, Ch 9,MCS1)

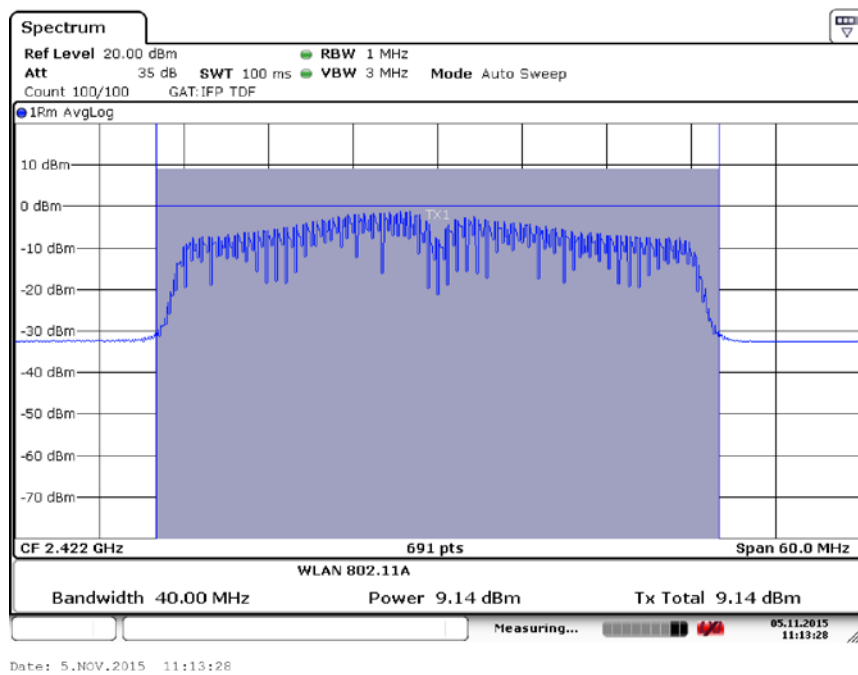


Fig.67 Maximum Average Output Power (802.11n-40MHz, Ch 3,MCS2)

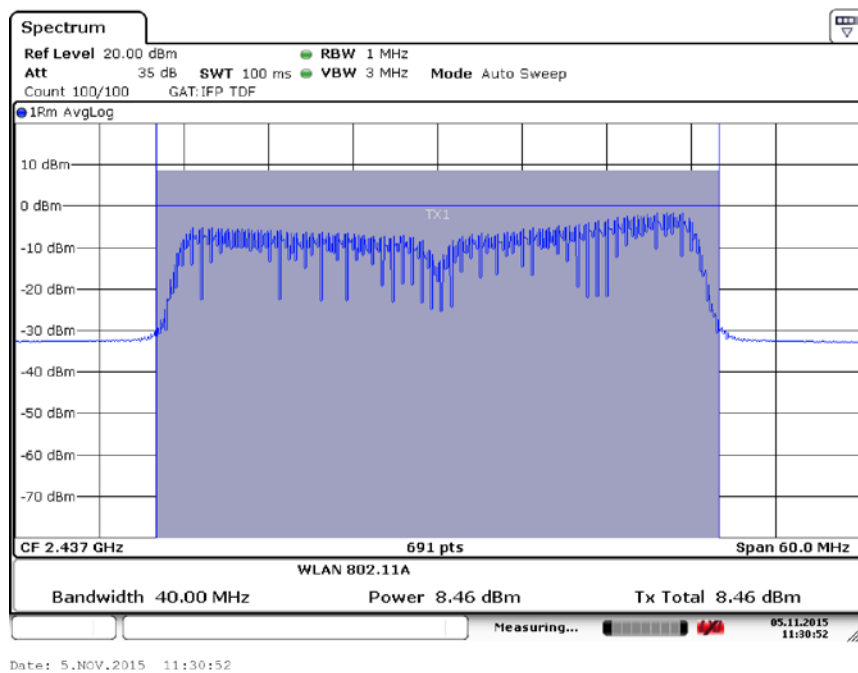


Fig.68 Maximum Average Output Power (802.11n-40MHz, Ch 6,MCS2))

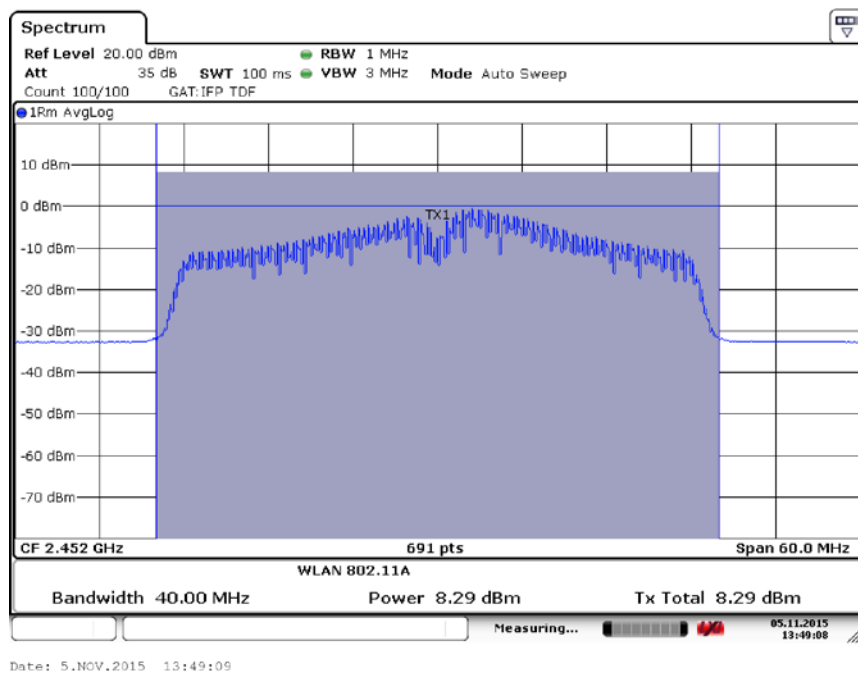


Fig.69 Maximum Average Output Power (802.11n-40MHz, Ch 9,MCS2)

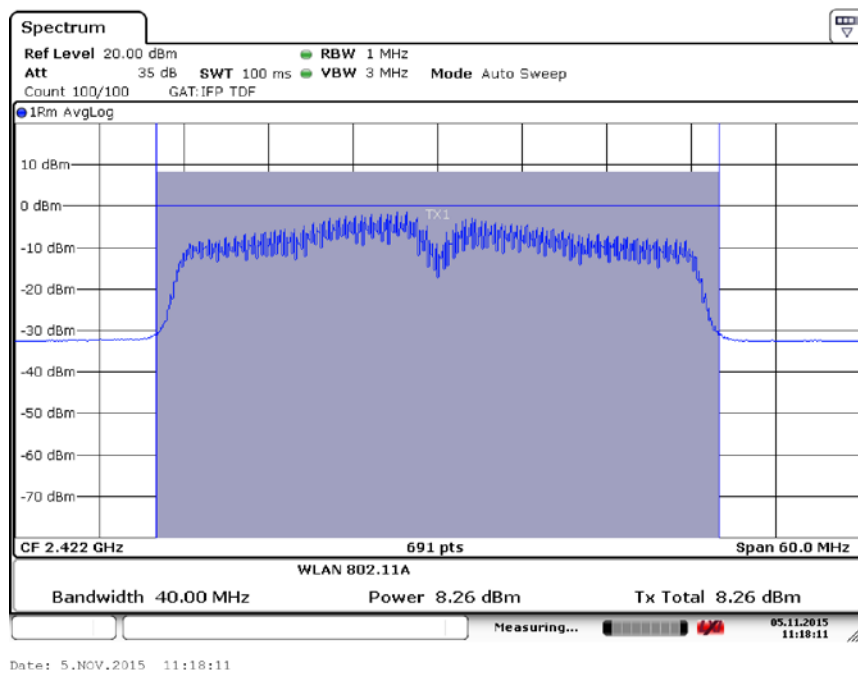


Fig.70 Maximum Average Output Power (802.11n-40MHz, Ch 3,MCS3)

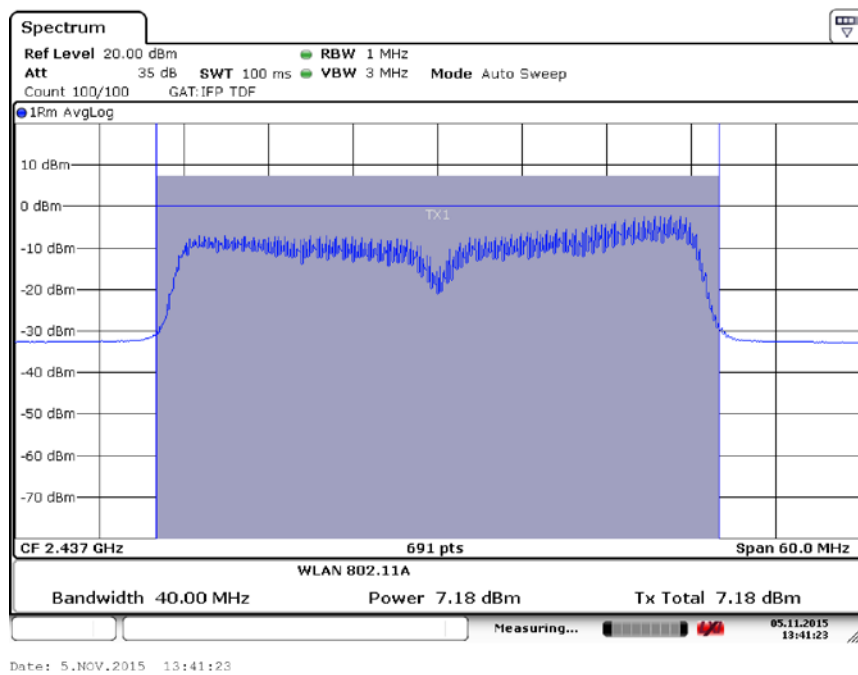


Fig.71 Maximum Average Output Power (802.11n-40MHz, Ch 6,MCS3)

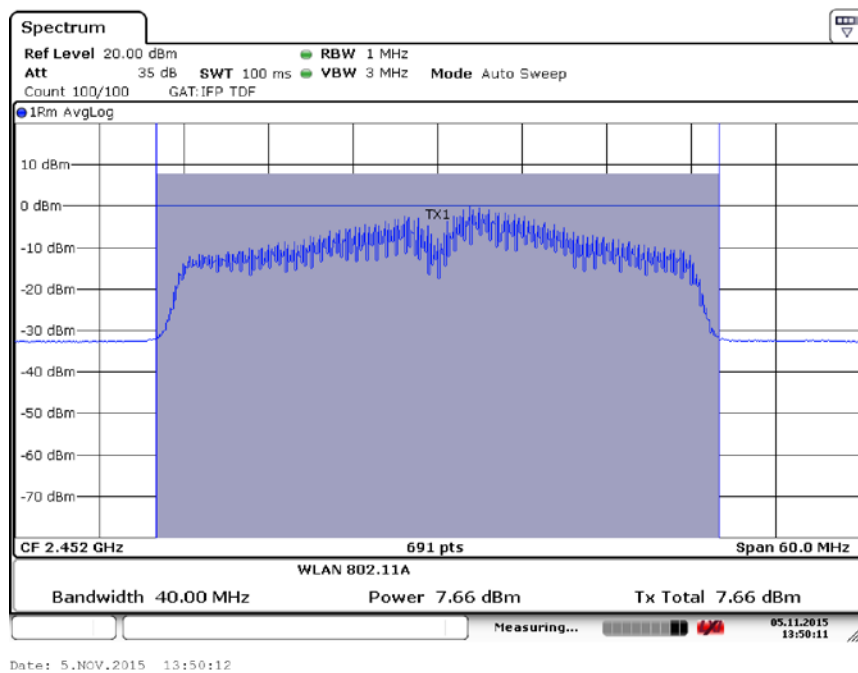


Fig.72 Maximum Average Output Power (802.11n-40MHz, Ch 9,MCS3)

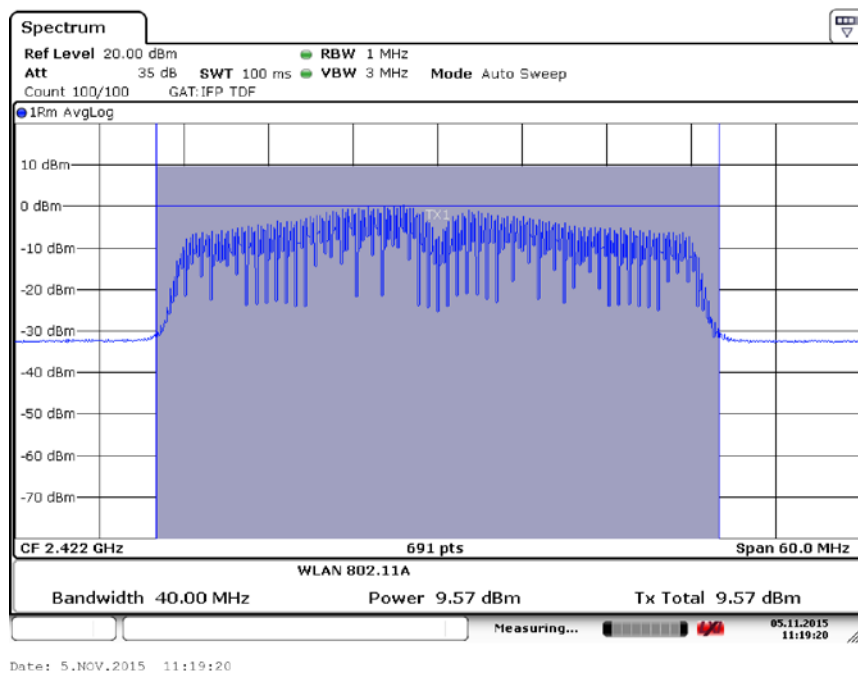


Fig.73 Maximum Average Output Power (802.11n-40MHz, Ch 3,MCS4)

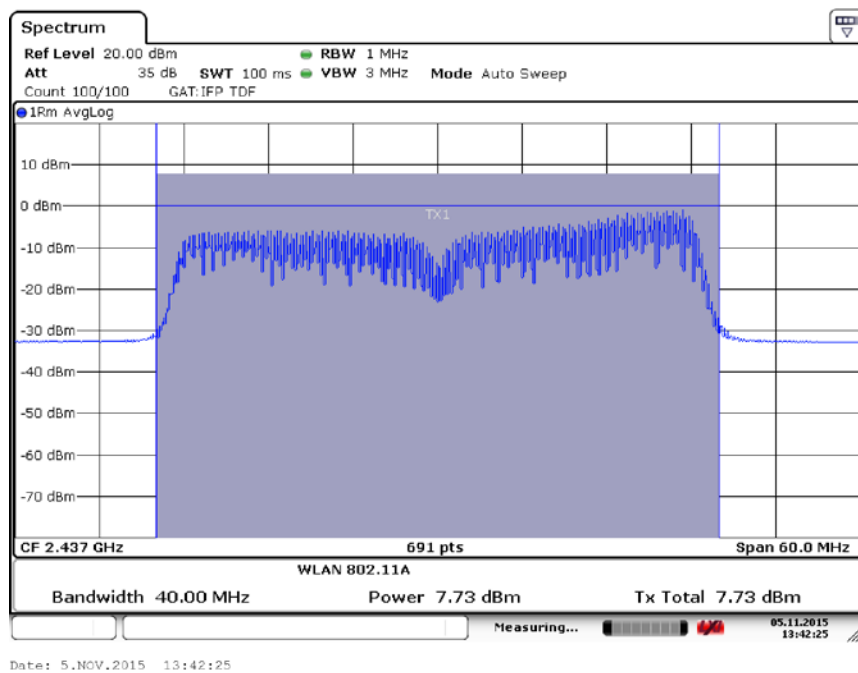


Fig.74 Maximum Average Output Power (802.11n-40MHz, Ch 6,MCS4)

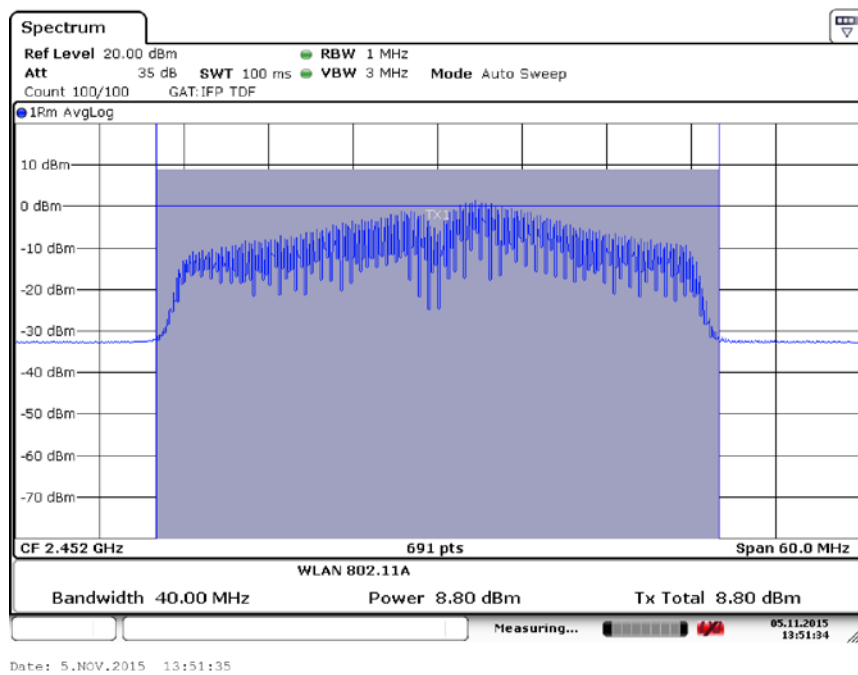


Fig.75 Maximum Average Output Power (802.11n-40MHz, Ch9,MCS4)

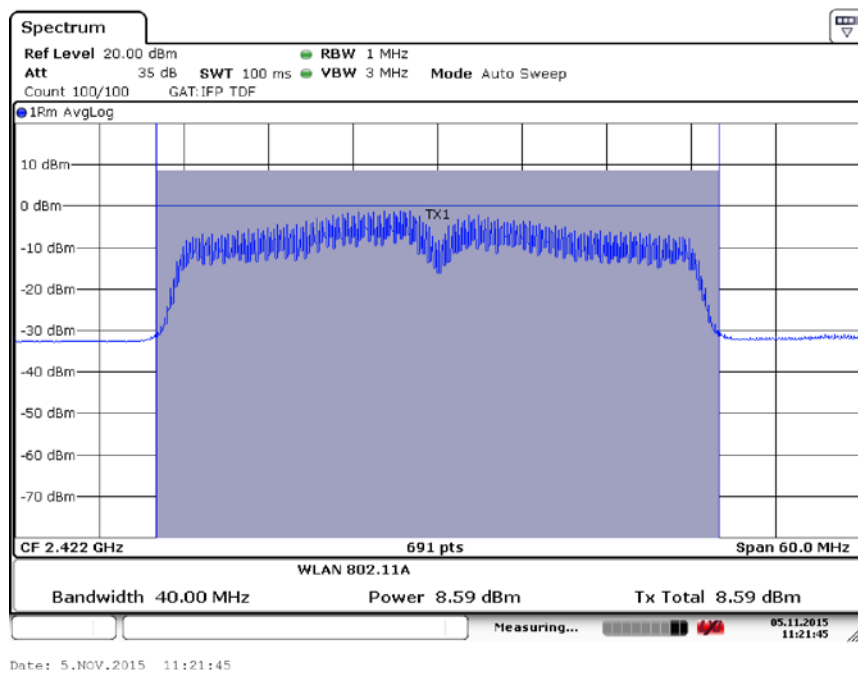


Fig.76 Maximum Average Output Power (802.11n-40MHz, Ch 3,MCS5)

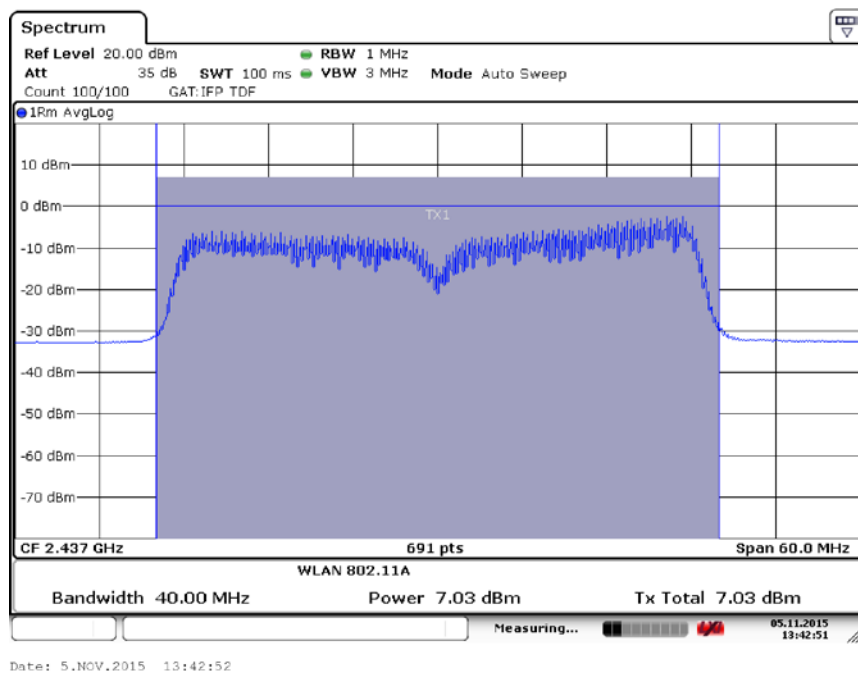


Fig.77 Maximum Average Output Power (802.11n-40MHz, Ch 6,MCS5)

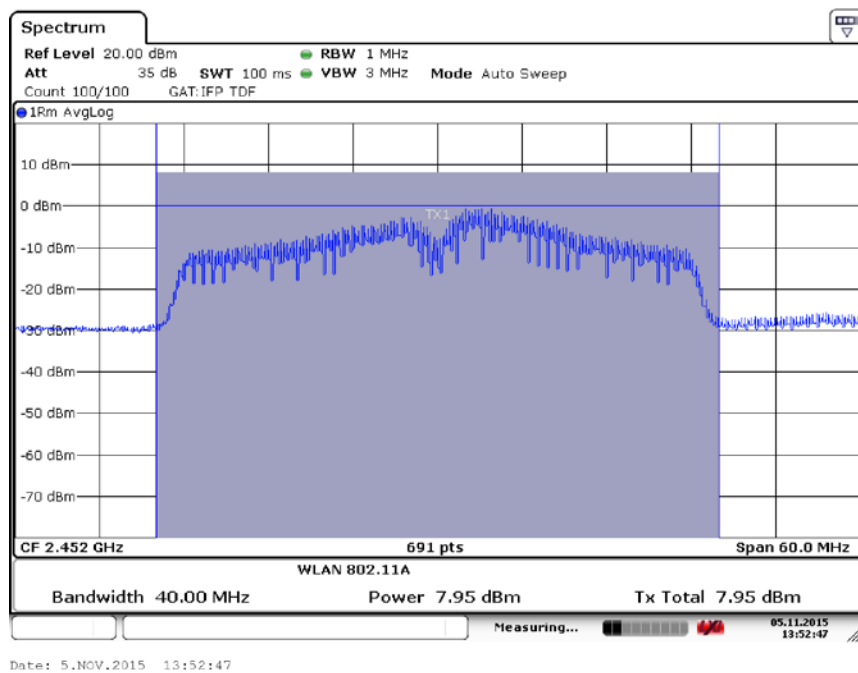


Fig.78 Maximum Average Output Power (802.11n-40MHz, Ch 9,MCS5)

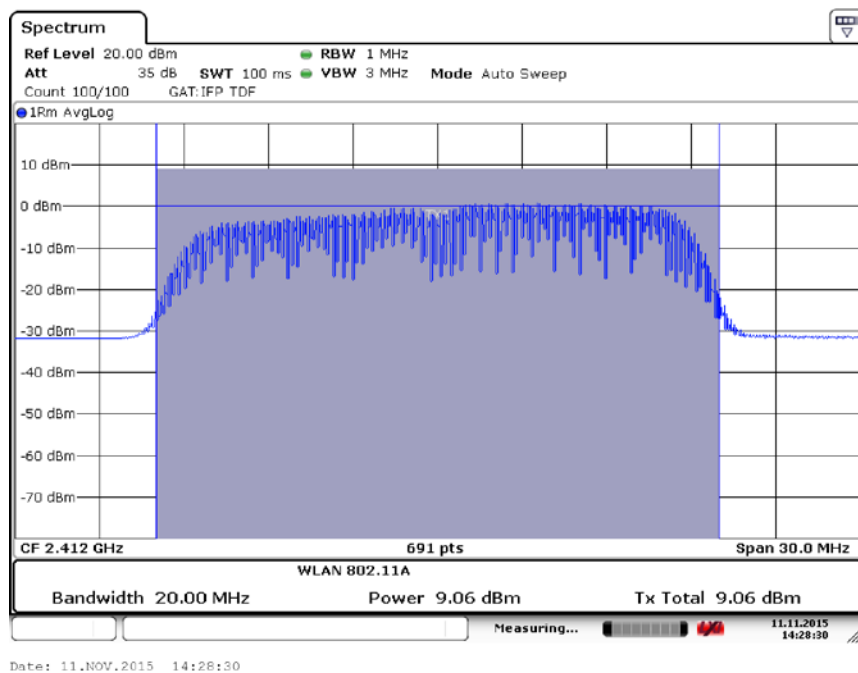


Fig.79 Maximum Average Output Power (802.11n-40MHz, Ch 3,MCS6)

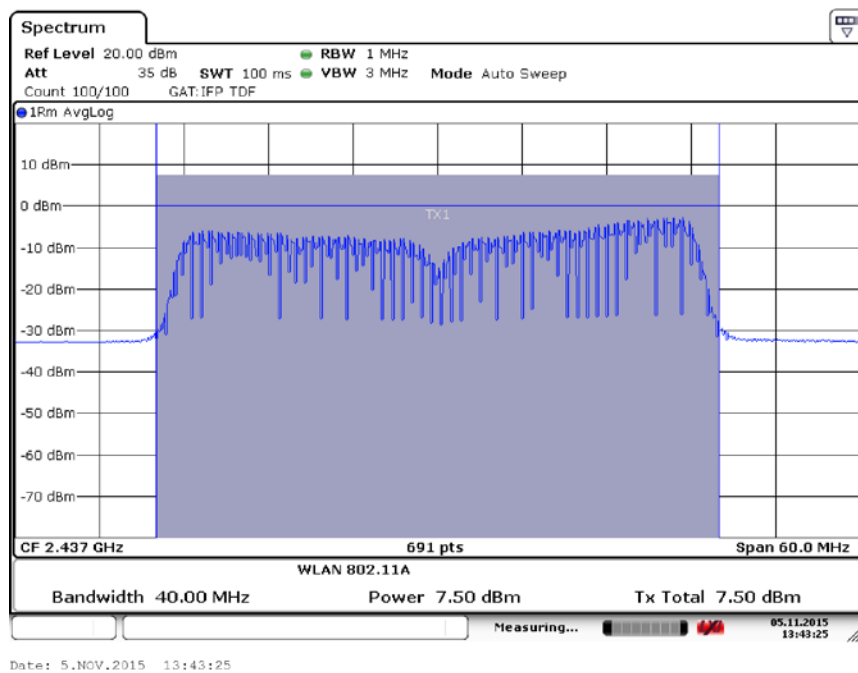


Fig.80 Maximum Average Output Power (802.11n-40MHz, Ch 6,MCS6)