



FCC PART 15C TEST REPORT No. I14N01258-WLAN

For

MFOURTEL MEXICO S.A. DE C.V.

GSM/GPRS WCDMA Mobile Telephone

Model Name: M4 SS4041

Marketing Name: M4

With

Hardware Version: XL-V2.0

Software Version: M4_SS4041_S10_Ver200

FCC ID: CLNSS4041

Issued Date: Nov 14th, 2014

Test Laboratory:

FCC 2.948 Listed: No.310359

IC O.A.T.S listed: No.6629C-1

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 TMC Beijing.

TMC Beijing, Telecommunication Metrology Center of Ministry of Industry and Information Technology

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

Tel:+86(0)10-62304633-2678 , Fax:+86(0)10-62304633-2504 Email:welcome@emcite.com. www.emcite.com

CONTENTS

1. TEST LABORATORY	8
1.1. TESTING LOCATION	8
1.2. TESTING ENVIRONMENT	8
1.3. PROJECT DATA	8
1.4. SIGNATURE.....	8
2. CLIENT INFORMATION.....	9
2.1. APPLICANT INFORMATION.....	9
2.2. MANUFACTURER INFORMATION.....	9
3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE).....	10
3.1. ABOUT EUT	10
3.2. INTERNAL IDENTIFICATION OF EUT USED DURING THE TEST	10
3.3. INTERNAL IDENTIFICATION OF AE USED DURING THE TEST.....	10
4. REFERENCE DOCUMENTS.....	11
4.1. DOCUMENTS SUPPLIED BY APPLICANT	11
4.2. REFERENCE DOCUMENTS FOR TESTING.....	11
5. LABORATORY ENVIRONMENT.....	12
6. SUMMARY OF TEST RESULTS	13
6.1. SUMMARY OF TEST RESULTS.....	13
6.2. STATEMENTS	13
6.3. TERMS USED IN THE RESULT TABLE	13
7. TEST EQUIPMENTS UTILIZED.....	14
ANNEX A: EUT PHOTOGRAPH	15
ANNEX B: MEASUREMENT RESULTS	17
B.0 ANTENNA REQUIREMENT	17
B.1 MAXIMUM AVERAGE OUTPUT POWER.....	18
B.2 PEAK POWER SPECTRAL DENSITY	20
B.3 OCCUPIED 6dB BANDWIDTH	21
B.4 BAND EDGES COMPLIANCE	22
B.5 TRANSMITTER SPURIOUS EMISSION	23
B.5.1 TRANSMITTER SPURIOUS EMISSION - CONDUCTED	23
B.5.2 TRANSMITTER SPURIOUS EMISSION - RADIATED	25
B.6 AC POWERLINE CONDUCTED EMISSION.....	36
ANNEX C: TEST FIGURE LIST	37
FIG. 1 MAXIMUM AVERAGE OUTPUT POWER (802.11B, CH 1,1MBPS).....	37
FIG. 2 MAXIMUM AVERAGE OUTPUT POWER (802.11B, CH 6,1MBPS)	37
FIG. 3 MAXIMUM AVERAGE OUTPUT POWER (802.11B, CH 11,1MBPS)	38

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

FIG. 48	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 11,MCS3)	60
FIG. 49	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 1,MCS4)	61
FIG. 50	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 6,MCS4)	61
FIG. 51	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 11,MCS4)	62
FIG. 52	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 1,MCS5)	62
FIG. 53	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 6,MCS5)	63
FIG. 54	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 11,MCS5)	63
FIG. 55	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 1,MCS6)	64
FIG. 56	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 6,MCS6)	64
FIG. 57	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 11,MCS6)	65
FIG. 58	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 1,MCS7)	65
FIG. 59	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 6,MCS7)	66
FIG. 60	MAXIMUM AVERAGE OUTPUT POWER (802.11N-20MHz, CH 11,MCS7)	66
FIG. 61	MAXIMUM AVERAGE OUTPUT POWER (802.11N-40MHz, CH 1,MCS0)	67
FIG. 62	MAXIMUM AVERAGE OUTPUT POWER (802.11N- 40MHz,CH6,MCS0)	67
FIG. 63	MAXIMUM AVERAGE OUTPUT POWER (802.11N- 40MHz,CH11,MCS0)	68
FIG. 64	MAXIMUM AVERAGE OUTPUT POWER (802.11N- 40MHz,CH1,MCS1)	68
FIG. 65	MAXIMUM AVERAGE OUTPUT POWER (802.11N- 40MHz,CH6,MCS1)	69
FIG. 66	MAXIMUM AVERAGE OUTPUT POWER (802.11N- 40MHz,CH11,MCS1)	69
FIG. 67	MAXIMUM AVERAGE OUTPUT POWER (802.11N- 40MHz,CH1,MCS2)	70
FIG. 68	MAXIMUM AVERAGE OUTPUT POWER (802.11N- 40MHz,CH6,MCS2)	70
FIG. 69	MAXIMUM AVERAGE OUTPUT POWER (802.11N- 40MHz,CH11,MCS2)	71
FIG. 70	MAXIMUM AVERAGE OUTPUT POWER (802.11N- 40MHz,CH1,MCS3)	71
FIG. 71	MAXIMUM AVERAGE OUTPUT POWER (802.11N- 40MHz,CH6,MCS3)	72
FIG. 72	MAXIMUM AVERAGE OUTPUT POWER (802.11N- 40MHz,CH11,MCS3)	72
FIG. 73	MAXIMUM AVERAGE OUTPUT POWER (802.11N- 40MHz,CH1,MCS4)	73
FIG. 74	MAXIMUM AVERAGE OUTPUT POWER (802.11N- 40MHz,CH6,MCS4)	73
FIG. 75	MAXIMUM AVERAGE OUTPUT POWER (802.11N- 40MHz,CH11,MCS4)	74
FIG. 76	MAXIMUM AVERAGE OUTPUT POWER (802.11N- 40MHz,CH1,MCS5)	74
FIG. 77	MAXIMUM AVERAGE OUTPUT POWER (802.11N- 40MHz,CH6,MCS5)	75
FIG. 78	MAXIMUM AVERAGE OUTPUT POWER (802.11N- 40MHz,CH11,MCS5)	75
FIG. 79	MAXIMUM AVERAGE OUTPUT POWER (802.11N- 40MHz,CH1,MCS6)	76
FIG. 80	MAXIMUM AVERAGE OUTPUT POWER (802.11N- 40MHz,CH6,MCS6)	76
FIG. 81	MAXIMUM AVERAGE OUTPUT POWER (802.11N- 40MHz,CH11,MCS6)	77
FIG. 82	MAXIMUM AVERAGE OUTPUT POWER (802.11N- 40MHz,CH1,MCS7)	77
FIG. 83	MAXIMUM AVERAGE OUTPUT POWER (802.11N- 40MHz,CH6,MCS7)	78
FIG. 84	MAXIMUM AVERAGE OUTPUT POWER (802.11N- 40MHz,CH11,MCS7)	78
FIG. 85	POWER SPECTRAL DENSITY (802.11B, CH 1)	79
FIG. 86	POWER SPECTRAL DENSITY (802.11B, CH 6)	79
FIG. 87	POWER SPECTRAL DENSITY (802.11B, CH 11).....	80
FIG. 88	POWER SPECTRAL DENSITY (802.11G, CH 1).....	80
FIG. 89	POWER SPECTRAL DENSITY (802.11G, CH 6).....	81
FIG. 90	POWER SPECTRAL DENSITY (802.11G, CH 11).....	81
FIG. 91	POWER SPECTRAL DENSITY (802.11N-20MHz, CH 1).....	82

FIG. 92	POWER SPECTRAL DENSITY (802.11N-20MHZ, CH 6).....	82
FIG. 93	POWER SPECTRAL DENSITY (802.11N-20MHZ, CH 11).....	83
FIG. 94	POWER SPECTRAL DENSITY (802.11N-40MHZ, CH 3).....	83
FIG. 95	POWER SPECTRAL DENSITY (802.11N-40MHZ, CH 6).....	84
FIG. 96	POWER SPECTRAL DENSITY (802.11N-40MHZ, CH 9).....	84
FIG. 97	OCCUPIED 6dB BANDWIDTH (802.11B, CH 1).....	85
FIG. 98	OCCUPIED 6dB BANDWIDTH (802.11B, CH 6).....	85
FIG. 99	OCCUPIED 6dB BANDWIDTH (802.11B, CH 11).....	86
FIG. 100	OCCUPIED 6dB BANDWIDTH (802.11G, CH 1).....	86
FIG. 101	OCCUPIED 6dB BANDWIDTH (802.11G, CH 6).....	87
FIG. 102	OCCUPIED 6dB BANDWIDTH (802.11G, CH 11).....	87
FIG. 103	OCCUPIED 6dB BANDWIDTH (802.11 N-20MHZ, CH 1).....	88
FIG. 104	OCCUPIED 6dB BANDWIDTH (802.11 N-20MHZ, CH 6).....	88
FIG. 105	OCCUPIED 6dB BANDWIDTH (802.11N-20MHZ, CH 11).....	89
FIG. 106	OCCUPIED 6dB BANDWIDTH (802.11N-40MHZ, CH 3).....	89
FIG. 107	OCCUPIED 6dB BANDWIDTH (802.11N-40MHZ, CH 6).....	90
FIG. 108	OCCUPIED 6dB BANDWIDTH (802.11N-40MHZ, CH 9).....	90
FIG. 109	BAND EDGES (802.11B, CH 1).....	91
FIG. 110	BAND EDGES (802.11B, CH 11).....	91
FIG. 111	BAND EDGES (802.11G, CH 1).....	92
FIG. 112	BAND EDGES (802.11G, CH 11).....	92
FIG. 113	BAND EDGES (802.11 N-20MHZ, CH 1).....	93
FIG. 114	BAND EDGES (802.11 N-20MHZ, CH 11).....	93
FIG. 115	BAND EDGES (802.11 N-40MHZ, CH 3).....	94
FIG. 116	BAND EDGES (802.11 N-40MHZ, CH 9).....	94
FIG. 117	CONDUCTED SPURIOUS EMISSION (802.11B, CH1, CENTER FREQUENCY).....	95
FIG. 118	CONDUCTED SPURIOUS EMISSION (802.11B, CH1, 30 MHz-3 GHz).....	95
FIG. 119	CONDUCTED SPURIOUS EMISSION (802.11B, CH1, 3 GHz-18 GHz).....	96
FIG. 120	CONDUCTED SPURIOUS EMISSION (802.11B, CH6, CENTER FREQUENCY).....	96
FIG. 121	CONDUCTED SPURIOUS EMISSION (802.11B, CH6, 30 MHz-3 GHz).....	97
FIG. 122	CONDUCTED SPURIOUS EMISSION (802.11B, CH6, 3 GHz-18 GHz).....	97
FIG. 123	CONDUCTED SPURIOUS EMISSION (802.11B, CH11, CENTER FREQUENCY).....	98
FIG. 124	CONDUCTED SPURIOUS EMISSION (802.11B, CH11, 30 MHz-3 GHz).....	98
FIG. 125	CONDUCTED SPURIOUS EMISSION (802.11B, CH11, 3 GHz-18 GHz).....	99
FIG. 126	CONDUCTED SPURIOUS EMISSION (802.11G, CH1, CENTER FREQUENCY).....	99
FIG. 127	CONDUCTED SPURIOUS EMISSION (802.11G, CH1, 30 MHz-3 GHz).....	100
FIG. 128	CONDUCTED SPURIOUS EMISSION (802.11G, CH1, 3 GHz-18 GHz).....	100
FIG. 129	CONDUCTED SPURIOUS EMISSION (802.11G, CH6, CENTER FREQUENCY).....	101
FIG. 130	CONDUCTED SPURIOUS EMISSION (802.11G, CH6, 30 MHz-3 GHz).....	101
FIG. 131	CONDUCTED SPURIOUS EMISSION (802.11G, CH6, 3 GHz-18 GHz).....	102
FIG. 132	CONDUCTED SPURIOUS EMISSION (802.11G, CH11, CENTER FREQUENCY).....	102
FIG. 133	CONDUCTED SPURIOUS EMISSION (802.11G, CH11, 30 MHz-3 GHz).....	103
FIG. 134	CONDUCTED SPURIOUS EMISSION (802.11G, CH11, 3 GHz-18 GHz).....	103
FIG. 135	CONDUCTED SPURIOUS EMISSION (802.11N-20M, CH1, CENTER FREQUENCY).....	104

FIG. 136	CONDUCTED SPURIOUS EMISSION (802.11N-20M, CH1, 30 MHz-3 GHz).....	104
FIG. 137	CONDUCTED SPURIOUS EMISSION (802.11N-20M, CH1, 3 GHz-18 GHz)	105
FIG. 138	CONDUCTED SPURIOUS EMISSION (802.11N-20M, CH6, CENTER FREQUENCY)	105
FIG. 139	CONDUCTED SPURIOUS EMISSION (802.11N-20M, CH6, 30 MHz-3 GHz).....	106
FIG. 140	CONDUCTED SPURIOUS EMISSION (802.11N-20M, CH6, 3 GHz-18 GHz)	106
FIG. 141	CONDUCTED SPURIOUS EMISSION (802.11N-20M, CH11, CENTER FREQUENCY)	107
FIG. 142	CONDUCTED SPURIOUS EMISSION (802.11N-20M, CH11, 30 MHz-3 GHz).....	107
FIG. 143	CONDUCTED SPURIOUS EMISSION (802.11N-20M, CH11, 3 GHz-18 GHz)	108
FIG. 144	CONDUCTED SPURIOUS EMISSION (802.11N-40M, CH3, CENTER FREQUENCY)	108
FIG. 145	CONDUCTED SPURIOUS EMISSION (802.11N-40M, CH3, 30 MHz-3 GHz).....	109
FIG. 146	CONDUCTED SPURIOUS EMISSION (802.11N-40M, CH3, 3 GHz-18 GHz)	109
FIG. 147	CONDUCTED SPURIOUS EMISSION (802.11N-40M, CH6, CENTER FREQUENCY)	110
FIG. 148	CONDUCTED SPURIOUS EMISSION (802.11N-40M, CH6, 30 MHz-3 GHz).....	110
FIG. 149	CONDUCTED SPURIOUS EMISSION (802.11N-40M, CH6, 3 GHz-18 GHz)	111
FIG. 150	CONDUCTED SPURIOUS EMISSION (802.11N-40M, CH9, CENTER FREQUENCY)	111
FIG. 151	CONDUCTED SPURIOUS EMISSION (802.11N-40M, CH9, 30 MHz-3 GHz).....	112
FIG. 152	CONDUCTED SPURIOUS EMISSION (802.11N-40M, CH9, 3 GHz-18 GHz)	112
FIG. 153	CONDUCTED SPURIOUS EMISSION (ALL CHANNELS, 18 GHz-26 GHz)	113
FIG. 154	RADIATED SPURIOUS EMISSION (802.11B, CH1, 30MHz-1 GHz)	113
FIG. 155	RADIATED SPURIOUS EMISSION (802.11B, CH1, 1 GHz-18 GHz)	114
FIG. 156	RADIATED SPURIOUS EMISSION (802.11B, CH6, 30MHz-1 GHz)	114
FIG. 157	RADIATED SPURIOUS EMISSION (802.11B, CH6, 1 GHz-18 GHz)	115
FIG. 158	RADIATED SPURIOUS EMISSION (802.11B, CH11, 30MHz-1 GHz)	115
FIG. 159	RADIATED SPURIOUS EMISSION (802.11B, CH11, 1 GHz-18 GHz)	116
FIG. 160	RADIATED EMISSION POWER (802.11B, CH1, 2380GHz~2450GHz)	117
FIG. 161	RADIATED EMISSION POWER (802.11B, CH11, 2450GHz~2500GHz)	117
FIG. 162	RADIATED SPURIOUS EMISSION (802.11G, CH1,30MHz-1 GHz)	117
FIG. 163	RADIATED SPURIOUS EMISSION (802.11G, CH1, 1 GHz-18 GHz)	118
FIG. 164	RADIATED SPURIOUS EMISSION (802.11G, CH6, 30MHz-1 GHz)	118
FIG. 165	RADIATED SPURIOUS EMISSION (802.11G, CH6, 1 GHz-18 GHz)	119
FIG. 166	RADIATED SPURIOUS EMISSION (802.11G, CH11, 30MHz-1 GHz).....	119
FIG. 167	RADIATED SPURIOUS EMISSION (802.11G, CH11, 1 GHz-18 GHz)	120
FIG. 168	RADIATED EMISSION POWER (802.11G, CH1, 2380GHz~2450GHz)	120
FIG. 169	RADIATED EMISSION POWER (802.11G, CH11, 2450GHz~2500GHz).....	121
FIG. 170	RADIATED SPURIOUS EMISSION (802.11N-20M, CH1, 30MHz-1 GHz)	121
FIG. 171	RADIATED SPURIOUS EMISSION (802.11N-20M, CH1, 1 GHz-18 GHz)	122
FIG. 172	RADIATED SPURIOUS EMISSION (802.11N-20M, CH6, 30MHz-1 GHz)	122
FIG. 173	RADIATED SPURIOUS EMISSION (802.11N-20M, CH6, 1 GHz-18 GHz)	123
FIG. 174	RADIATED SPURIOUS EMISSION (802.11N-20M, CH11, 30MHz-1 GHz)	123
FIG. 175	RADIATED SPURIOUS EMISSION (802.11N-20M, CH11, 1 GHz-18 GHz)	124
FIG. 176	RADIATED EMISSION POWER (802.11N-20M, CH1, 2380GHz~2450GHz)	124
FIG. 177	RADIATED EMISSION POWER (802.11N-20M, CH11, 2450GHz~2500GHz)	125
FIG. 178	RADIATED SPURIOUS EMISSION (802.11N-40M, CH3, 30MHz-1 GHz)	125
FIG. 179	RADIATED SPURIOUS EMISSION (802.11N-40M, CH3, 1 GHz-18 GHz)	126

FIG. 180	RADIATED SPURIOUS EMISSION (802.11N-40M, CH6, 30MHz-1 GHz)	126
FIG. 181	RADIATED SPURIOUS EMISSION (802.11N-40M, CH6, 1 GHz-18 GHz)	127
FIG. 182	RADIATED SPURIOUS EMISSION (802.11N-40M, CH9, 30MHz-1 GHz)	127
FIG. 183	RADIATED SPURIOUS EMISSION (802.11N-40M, CH9, 1 GHz-18 GHz)	128
FIG. 184	RADIATED EMISSION POWER (802.11N-40M, CH3, 2380GHz~2450GHz)	128
FIG. 185	RADIATED EMISSION POWER (802.11N-20M, CH9, 2450GHz~2500GHz)	129
FIG. 186	RADIATED EMISSION: 18 GHz - 26 GHz.....	129
FIG. 187	AC POWERLINE CONDUCTED EMISSION (TRAFFIC, AE1)	130
FIG. 188	AC POWERLINE CONDUCTED EMISSION (IDLE, AE1)	131

1. Test Laboratory

1.1. Testing Location

Company Name: TMC Shenzhen, Telecommunication Metrology Center of MIIT
Address: No. 12 Building, Shangsha Innovation and Technology Park, Futian District, Shenzhen, P. R. China
Postal Code: 518048
Telephone: +86(0)755-33322000
Fax: +86(0)755-33322001

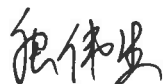
1.2. Testing Environment

Normal Temperature: 15°C-30°C
Extreme Temperature: -20°C/+55°C
Relative Humidity: 30%-60%

1.3. Project data

Project Leader: Zhang Bojun
Test Engineer: Tang Weisheng
Testing Start Date: Oct 31st, 2014
Testing End Date: Nov 14th, 2014

1.4. Signature



Tang Weisheng
(Prepared this test report)



Zhang Bojun
(Reviewed this test report)



Lu Minniu
Director of the laboratory
(Approved this test report)

2. Client Information

2.1.Applicant Information

Company Name: MFOURTEL MEXICO S.A. DE C.V.
Address /Post: Av. Ejército Nacional 436 Piso 3 Chapultepec Morales Miguel Hidalgo
Distrito Federal 11570
City: Shenzhen
Country: China
E-mail: xin.li@ck-telecom.com
Telephone: 0755-26739100 ext.8515
Fax: 0755-26739600

2.2.Manufacturer Information

Company Name: CK TELECOM LTD.
Address /Post: Technology Road.High-Tech Development Zone. Heyuan,
Guangdong,P.R.China
City: Shenzhen
Country: China
E-mail: xin.li@ck-telecom.com
Telephone: 0755-26739100 ext.8515
Fax: 0755-26739600

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

3.1.About EUT

Description	GSM/GPRS WCDMA Mobile Telephone
Model Name	M4 SS4041
Market Name	M4
RF Protocol	IEEE 802.11b/g/n20/n40
Operating Frequency	2412MHz~2462MHz
FCC ID	CLNSS4041

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

3.2.Internal Identification of EUT used during the test

EUT ID*	IMEI	HW Version	SW Version
EUT1	/	XL-V2.0	M4_SS4041_S10_Ver200

3.3.Internal Identification of AE used during the test

AE ID*	Description	Type	SN
AE1	Charger	HKC0055010-2A	/

*AE ID: is used to identify the test accessory 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, 2013 Edition
ANSI C63.4	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2003
KDB558074	Measurement of Digital Transmission Systems Operating under Section 15.247	Jun, 2014

5. Laboratory Environment

Half-anechoic chamber (11.20 meters×6.10 meters×5.60 meters) did not exceed following limits:

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 30 %, Max. = 60 %
Shielding effectiveness	> 110 dB
Electrical insulation	> 2M Ω
Ground system resistance	< 0.5 Ω
Normalized Site Attenuation (NSA)	< ±3.5dB, with 3m of Measuring distance, 30MHz 1000MHz
Uniformity of field strength	Between 0 and 6 dB, from 80MHz to 3000 MHz

Fully-anechoic chamber (11.20 meters×6.10 meters×6.60 meters) did not exceed following limits:

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 30 %, Max. = 60 %
Shielding effectiveness	> 110 dB
Electrical insulation	> 2M Ω
Ground system resistance	< 0.5 Ω
VSWR	Between 0 and 6 dB, from 30MHz to 18 000 MHz

Conduction Lab did not exceed following limits:

Temperature	Min.=15 °C, Max.=30 °C
Relative humidity	Min.=30 %, Max.= 60 %
Shielding effectiveness	> 80 dB
Electrical insulation	> 2M Ω
Ground system resistance	< 0.5 Ω

6. Summary of Test Results

6.1. Summary of Test Results

No	Test cases	Sub-clause of Part15C	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

6.2. Statements

TMC has evaluated the test cases requested by the applicant/manufacture as listed in section 6.1 of this report, for the EUT specified in section 3, according to the standards or reference documents listed in section 4.2

6.3. 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

7. Test Equipments Utilized

Conducted test system

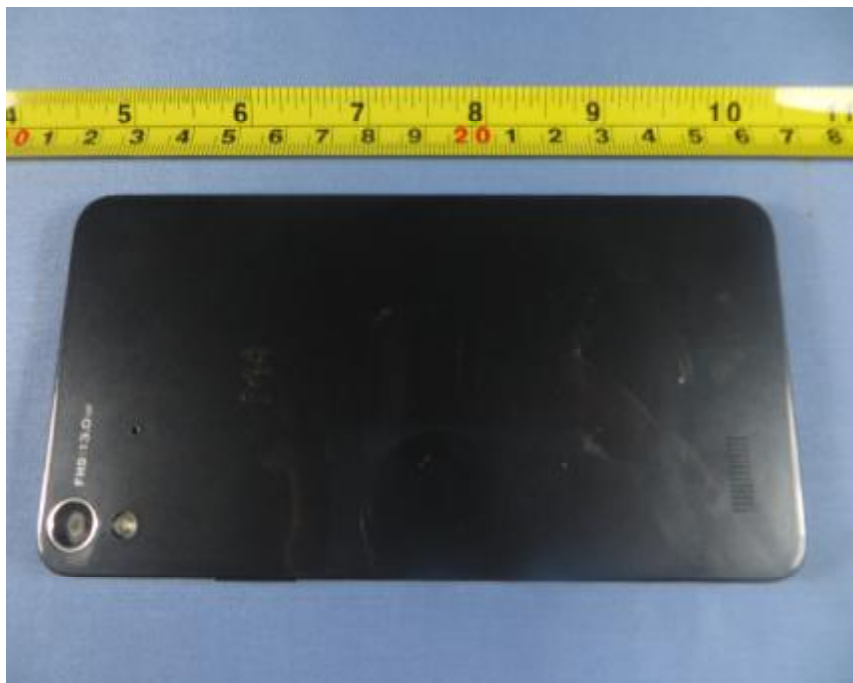
No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
1	Vector Signal Analyzer	FSV40	100903	Rohde & Schwarz	2015-04-22	1 year

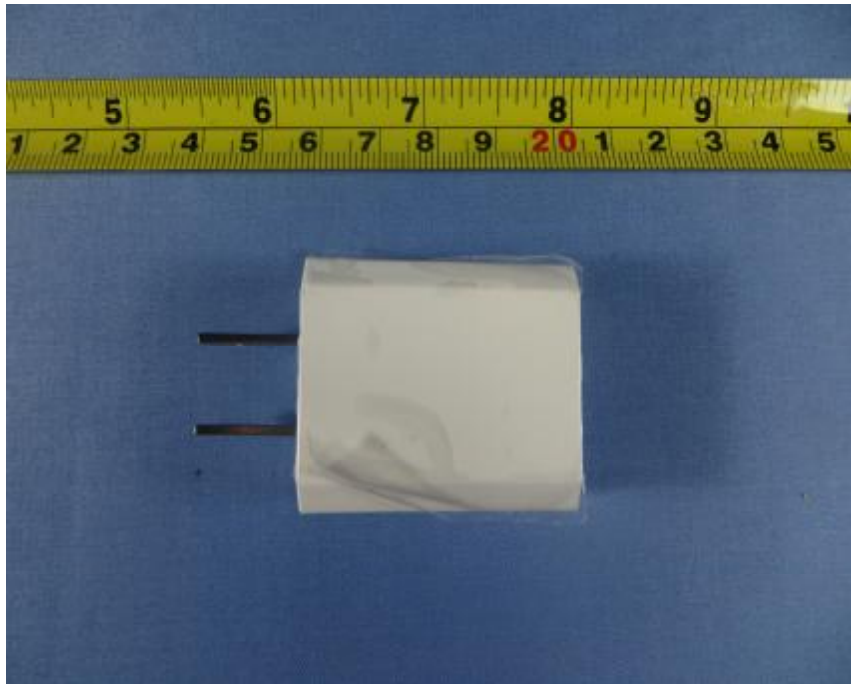
Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
1	Chamber	FACT5-2.0	4166	ETS-Lindgren	2016-05-29	3 years
2	Test Receiver	ESCI	100701	Rohde & Schwarz	2015-07-30	1 year
3	Spectrum Analyzer	FSP40	100378	Rohde & Schwarz	2014-12-20	1 year
4	BiLog Antenna	VULB9163	9163-329	Schwarzbeck	2017-01-20	3 years
5	Test Receiver	ESCI	100702	Rohde & Schwarz	2015-07-30	1 year
6	LISN	ESH2-Z5	100196	Rohde & Schwarz	2015-01-14	1 year
7	Signal Generator	SMR40	100541	Rohde & Schwarz	2014-12-26	1 year
8	Dual-Ridge Waveguide Horn Antenna	3117	00066577	ETS-Lindgren	2016-04-01	3 years
9	Loop Antenna	HLA6120	35779	TESEQ	2016-02-25	3 years
10	EMI Antenna	3160-09	00118383	ETS-Lindgren	2015-09-05	3 years

Anechoic chamber

Fully anechoic chamber by ETS-Lindgren.

ANNEX A: EUT photograph**Pic A-1 Mobile phone****Pic A-2 Mobile phone**



Pic A-3 Charger



Pic A-4 Charger

ANNEX B: MEASUREMENT RESULTS

B.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 1.5 dBi.
The RF transmitter uses an integrate antenna without connector.**

B.1 Maximum Average Output Power

Measurement Limit and Method:

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	16.43	Fig.2	16.51	Fig.3	16.68
	2	Fig.4	16.29	Fig.5	16.41	Fig.6	16.55
	5.5	Fig.7	15.85	Fig.8	16.04	Fig.9	16.20
	11	Fig.10	15.11	Fig.11	15.12	Fig.12	15.31
802.11g	6	Fig.13	11.46	Fig.14	12.84	Fig.15	11.88
	9	Fig.16	10.98	Fig.17	12.33	Fig.18	11.38
	12	Fig.19	10.56	Fig.20	11.86	Fig.21	10.95
	18	Fig.22	9.82	Fig.23	10.89	Fig.24	10.19
	24	Fig.25	8.96	Fig.26	10.27	Fig.27	9.50
	36	Fig.28	8.07	Fig.29	9.34	Fig.30	8.40
	48	Fig.31	7.35	Fig.32	8.61	Fig.33	7.65
	54	Fig.34	7.17	Fig.35	8.30	Fig.36	7.45

802.11n mode

Mode	Data Rate (MCS Index)	Test Result (dBm)					
		2412MHz (Ch1)		2437MHz (Ch6)		2462 MHz (Ch11)	
802.11n (20MHz)	MCS0	Fig.37	11.47	Fig.38	12.76	Fig.39	11.81
	MCS1	Fig.40	10.50	Fig.41	11.78	Fig.42	10.86
	MCS2	Fig.43	9.64	Fig.44	11.00	Fig.45	10.17
	MCS3	Fig.46	8.93	Fig.47	10.14	Fig.48	9.43
	MCS4	Fig.49	8.05	Fig.50	9.28	Fig.51	8.35
	MCS5	Fig.52	7.40	Fig.53	8.65	Fig.54	7.71
	MCS6	Fig.55	7.15	Fig.56	8.36	Fig.57	7.47
	MCS7	Fig.58	6.92	Fig.59	7.92	Fig.60	7.19

Mode	Data Rate (MCS Index)	Test Result (dBm)					
		2422MHz (Ch3)		2437MHz (Ch6)		2452 MHz (Ch9)	
802.11n (40MHz)	MCS0	Fig.61	8.43	Fig.62	10.48	Fig.63	8.60
	MCS1	Fig.64	7.20	Fig.65	9.20	Fig.66	7.33
	MCS2	Fig.67	6.08	Fig.68	8.28	Fig.69	6.45
	MCS3	Fig.70	5.53	Fig.71	7.60	Fig.72	5.89
	MCS4	Fig.73	4.72	Fig.74	6.73	Fig.75	4.86
	MCS5	Fig.76	4.24	Fig.77	6.21	Fig.78	4.34
	MCS6	Fig.79	4.00	Fig.80	6.02	Fig.81	4.26
	MCS7	Fig.82	4.06	Fig.83	5.97	Fig.84	4.15

Conclusion: Pass

B.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	-5.35	P
	6	Fig.86	-5.75	P
	11	Fig.87	-6.01	P
802.11g	1	Fig.88	-11.69	P
	6	Fig.89	-10.80	P
	11	Fig.90	-11.73	P

802.11n mode

Mode	Channel	Peak Power Spectral Density(dBm)		Conclusion
802.11n (20MHz)	1	Fig.91	-12.09	P
	6	Fig.92	-9.51	P
	11	Fig.93	-10.55	P
802.11n (40MHz)	3	Fig.94	-16.92	P
	6	Fig.95	-15.35	P
	9	Fig.96	-16.20	P

See ANNEX C for test graphs.

Conclusion: Pass

B.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	7988	P
	6	Fig.98	8640	P
	11	Fig.99	7988	P
802.11g	1	Fig.100	14805	P
	6	Fig.101	14978	P
	11	Fig.102	15195	P

802.11n mode

Mode	Channel	Test Results (kHz)		conclusion
802.11n (20MHz)	1	Fig.103	15195	P
	6	Fig.104	15195	P
	11	Fig.105	15195	P
802.11n (40MHz)	3	Fig.106	33169	P
	6	Fig.107	32062	P
	9	Fig.108	33734	P

See ANNEX C for test graphs.

Conclusion: Pass

B.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

B.5 Transmitter Spurious Emission

B.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

B.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	30 MHz ~1 GHz	Fig.154	P
		1 GHz ~ 18 GHz	Fig.155	P
	6	30 MHz ~1 GHz	Fig.156	P
		1 GHz ~ 18 GHz	Fig.157	P
	11	30 MHz ~1 GHz	Fig.158	P
		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	30 MHz ~1 GHz	Fig.162	P
		1 GHz ~ 18 GHz	Fig.163	P
	6	30 MHz ~1 GHz	Fig.164	P
		1 GHz ~ 18 GHz	Fig.165	P
	11	30 MHz ~1 GHz	Fig.166	P
		1 GHz ~ 18 GHz	Fig.167	P
	Power(CH1)	2.38 GHz ~ 2.45 GHz	Fig.168	P
	Power(CH11)	2.45 GHz ~ 2.5 GHz	Fig.169	P

802.11n mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (20M)	1	30 MHz ~1 GHz	Fig.170	P
		1 GHz ~ 18 GHz	Fig.171	P
	6	30 MHz ~1 GHz	Fig.172	P
		1 GHz ~ 18 GHz	Fig.173	P
	11	30 MHz ~1 GHz	Fig.174	P
		1 GHz ~ 18 GHz	Fig.175	P
	Power(CH1)	2.38 GHz ~ 2.45 GHz	Fig.176	P
	Power(CH11)	2.45 GHz ~ 2.5 GHz	Fig.177	P
802.11n (40M)	3	30 MHz ~1 GHz	Fig.178	P
		1 GHz ~ 18 GHz	Fig.179	P
	6	30 MHz ~1 GHz	Fig.180	P
		1 GHz ~ 18 GHz	Fig.181	P
	9	30 MHz ~1 GHz	Fig.182	P
		1 GHz ~ 18 GHz	Fig.183	P
	Power(CH3)	2.38 GHz ~ 2.45 GHz	Fig.184	P
	Power(CH9)	2.45 GHz ~ 2.5 GHz	Fig.185	P
/	All channels	18 GHz~ 26.5 GHz	Fig.186	P

802.11b CH1 (1-18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14152.000	57.4	V	12.4	16.6	74.0
15116.000	57.7	H	12.8	16.3	74.0
15756.000	59.5	V	14.1	14.5	74.0
16366.000	59.3	V	15.2	14.7	74.0
16790.000	59.8	V	15.3	14.2	74.0
17776.000	59.9	H	15.7	14.1	74.0

Frequency (MHz)	Average (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14453.000	45.1	H	13.1	8.9	54.0
15050.000	45.8	H	13.3	8.2	54.0
15758.000	47.4	H	14.1	6.6	54.0
16232.000	47.6	H	14.5	6.4	54.0
16824.000	48.2	H	15.5	5.8	54.0
17334.000	48.0	H	15.5	6.0	54.0

802.11b CH 6(1-18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14357.000	57.7	V	13.3	16.3	74.0
15123.000	57.3	H	12.8	16.7	74.0
15825.000	59.0	V	14.4	15.0	74.0
16376.000	59.8	V	15.3	14.2	74.0
16777.000	60.6	H	15.2	13.4	74.0
17492.000	60.1	V	15.7	13.9	74.0

Frequency (MHz)	Average (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14398.000	44.9	H	13.4	9.1	54.0
15048.000	45.5	H	13.3	8.5	54.0
15770.000	47.1	H	14.1	6.9	54.0
16350.000	47.3	V	15.1	6.7	54.0
16839.000	47.9	V	15.6	6.1	54.0
17416.000	47.6	H	15.6	6.4	54.0

802.11b CH11 (1-18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14037.000	57.7	H	12.0	16.3	74.0
14867.000	58.4	V	13.5	15.6	74.0
15827.000	59.5	V	14.4	14.5	74.0
16287.000	60.0	V	14.8	14.0	74.0
16759.000	60.5	H	15.1	13.5	74.0
17267.000	60.6	V	15.3	13.4	74.0

Frequency (MHz)	Average (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14492.000	45.1	H	12.9	8.9	54.0
15059.000	45.9	H	13.2	8.1	54.0
15772.000	47.5	V	14.1	6.5	54.0
16237.000	48.0	H	14.5	6.0	54.0
16788.000	48.7	H	15.3	5.3	54.0
17278.000	48.3	H	15.4	5.7	54.0

802.11g CH1 (1-18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14074.000	56.8	H	12.1	17.2	74.0
14971.000	57.6	V	13.8	16.4	74.0
15723.000	59.7	H	14.0	14.3	74.0
16304.000	59.9	H	14.9	14.1	74.0
16934.000	59.6	H	15.8	14.4	74.0
17427.000	59.2	V	15.6	14.8	74.0

Frequency (MHz)	Average (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14400.000	44.9	H	13.4	9.1	54.0
15060.000	45.5	H	13.2	8.5	54.0
15781.000	47.2	H	14.2	6.8	54.0
16314.000	47.2	H	14.9	6.8	54.0
16849.000	47.8	H	15.6	6.2	54.0
17427.000	47.3	V	15.6	6.7	54.0

802.11g CH6 (1-18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14357.000	57.7	V	13.3	16.3	74.0
15123.000	57.3	H	12.8	16.7	74.0
15825.000	59.0	V	14.4	15.0	74.0
16376.000	59.8	V	15.3	14.2	74.0
16777.000	60.6	H	15.2	13.4	74.0
17492.000	60.1	V	15.7	13.9	74.0

Frequency (MHz)	Average (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14398.000	44.9	H	13.4	9.1	54.0
15048.000	45.5	H	13.3	8.5	54.0
15770.000	47.1	H	14.1	6.9	54.0
16350.000	47.3	V	15.1	6.7	54.0
16839.000	47.9	V	15.6	6.1	54.0
17416.00	47.6	H	15.6	6.4	54.0

802.11g CH11 (1-18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14037.000	57.7	H	12.0	16.3	74.0
14867.000	58.4	V	13.5	15.6	74.0
15827.000	59.5	V	14.4	14.5	74.0
16287.000	60.0	V	14.8	14.0	74.0
16759.000	60.5	H	15.1	13.5	74.0
17267.000	60.6	V	15.3	13.4	74.0

Frequency (MHz)	Average (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14492.000	45.1	H	12.9	8.9	54.0
15059.000	45.9	H	13.2	8.1	54.0
15772.000	47.5	V	14.1	6.5	54.0
16237.000	48.0	H	14.5	6.0	54.0
16788.000	48.7	H	15.3	5.3	54.0
17278.000	48.3	H	15.4	5.7	54.0

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

Frequency (MHz)	MaxPeak (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14257.000	57.4	H	13.0	16.6	74.0
14975.000	58.0	V	13.8	16.0	74.0
15744.000	59.6	H	14.0	14.4	74.0
16368.000	59.5	V	15.2	14.5	74.0
16822.000	61.5	H	15.5	12.5	74.0
17777.000	60.2	H	15.7	13.8	74.0

Frequency (MHz)	Average (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14469.000	45.2	H	13.0	8.8	54.0
15047.000	45.8	H	13.3	8.2	54.0
15731.000	47.5	H	14.0	6.5	54.0
16253.000	47.9	H	14.6	6.1	54.0
16834.000	48.7	H	15.5	5.3	54.0
17317.000	48.4	H	15.4	5.6	54.0

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

Frequency (MHz)	MaxPeak (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14231.000	57.7	H	12.8	16.3	74.0
14996.000	57.6	V	13.6	16.4	74.0
15787.000	59.4	V	14.2	14.6	74.0
16314.000	59.2	V	14.9	14.8	74.0
16807.000	60.4	H	15.4	13.6	74.0
17811.000	60.6	V	15.7	13.4	74.0

Frequency (MHz)	Average (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14398.000	44.9	V	13.4	9.1	54.0
14991.000	45.6	H	13.7	8.4	54.0
15786.000	47.3	H	14.2	6.7	54.0
16340.000	47.4	H	15.1	6.6	54.0
16837.000	48.1	H	15.6	5.9	54.0
17429.000	47.5	H	15.6	6.5	54.0

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

Frequency (MHz)	MaxPeak (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14451.000	57.7	V	13.1	16.3	74.0
15037.000	57.9	H	13.4	16.1	74.0
15796.000	60.1	H	14.2	13.9	74.0
16237.000	59.5	H	14.5	14.5	74.0
16777.000	59.8	V	15.2	14.2	74.0
17460.000	60.5	V	15.6	13.5	74.0

Frequency (MHz)	Average (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14400.000	45.0	V	13.4	9.0	54.0
14976.000	45.5	H	13.8	8.5	54.0
15771.000	47.2	H	14.1	6.8	54.0
16296.000	47.2	H	14.8	6.8	54.0
16844.000	47.9	V	15.6	6.1	54.0
17352.000	47.5	V	15.5	6.5	54.0

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

Frequency (MHz)	MaxPeak (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14514.000	57.9	V	12.7	16.1	74.0
15034.000	58.2	V	13.4	15.8	74.0
15778.000	59.8	V	14.2	14.2	74.0
16154.000	60.7	V	14.5	13.3	74.0
16843.000	62.1	H	15.6	11.9	74.0
17872.000	61.1	H	15.8	12.9	74.0

Frequency (MHz)	Average (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14463.000	46.1	H	13.0	7.9	54.0
14971.000	46.8	H	13.8	7.2	54.0
15793.000	48.4	H	14.2	5.6	54.0
16273.000	48.4	H	14.7	5.6	54.0
16835.000	49.2	H	15.5	4.8	54.0
17381.000	48.9	H	15.5	5.1	54.0

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

Frequency (MHz)	MaxPeak (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14342.000	58.2	H	13.3	15.8	74.0
14852.000	58.4	H	13.5	15.6	74.0
15699.000	60.2	H	13.9	13.8	74.0
16281.000	61.0	H	14.8	13.0	74.0
16742.000	60.9	V	15.0	13.1	74.0
17418.000	61.3	H	15.6	12.7	74.0

Frequency (MHz)	Average (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14520.000	45.7	V	12.7	8.3	54.0
15180.000	46.5	V	13.1	7.5	54.0
15679.000	48.4	V	13.8	5.6	54.0
16206.000	48.8	V	14.4	5.2	54.0
16831.000	49.4	H	15.5	4.6	54.0
17277.000	49.0	V	15.4	5.0	54.0

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

Frequency (MHz)	MaxPeak (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14500.000	58.2	V	12.8	15.8	74.0
15029.000	58.7	V	13.4	15.3	74.0
15791.000	59.9	V	14.2	14.1	74.0
16365.000	60.1	V	15.2	13.9	74.0
16828.000	61.1	V	15.5	12.9	74.0
17426.000	60.6	H	15.6	13.4	74.0

Frequency (MHz)	Average (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14459.000	45.6	V	13.1	8.4	54.0
14978.000	46.3	V	13.8	7.7	54.0
15792.000	47.9	H	14.2	6.1	54.0
16316.000	48.2	H	15.0	5.8	54.0
16826.000	48.9	V	15.5	5.1	54.0
17390.000	48.7	H	15.6	5.3	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= $P_{Mea}+A_{Rpl}= P_{Mea}+Cable\ Loss+Antenna\ Factor$

B.6 AC Powerline Conducted Emission

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dB _{mV})	Result (dB _{mV})		Conclusion
		Traffic	Idle	
0.15 to 0.5	Fig.66 to 56	Fig.187	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)

Frequency range (MHz)	Average-peak Limit (dB _{mV})	Result (dB _{mV})		Conclusion
		Traffic	Idle	
0.15 to 0.5	56 to 46	Fig.187	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.

See ANNEX C for test graphs.

Conclusion: Pass

ANNEX C: TEST FIGURE LIST

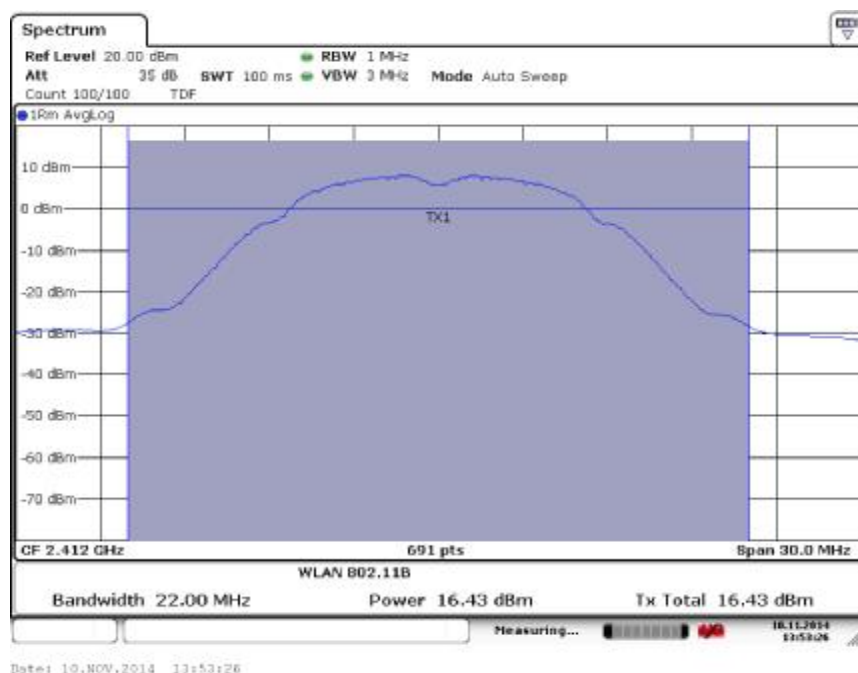


Fig.1 Maximum Average Output Power (802.11b, Ch 1,1Mbps)

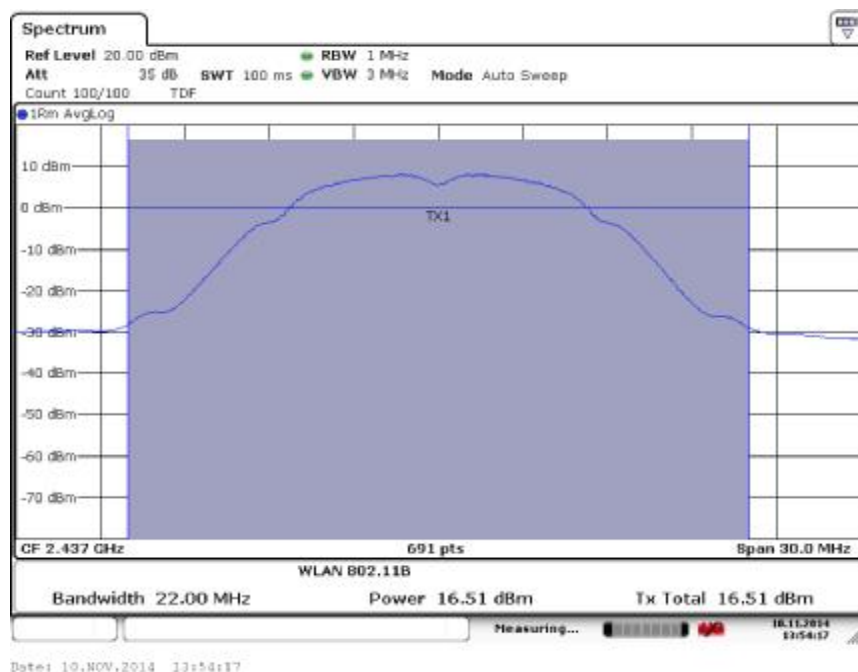


Fig.2 Maximum Average Output Power (802.11b, Ch 6,1Mbps)

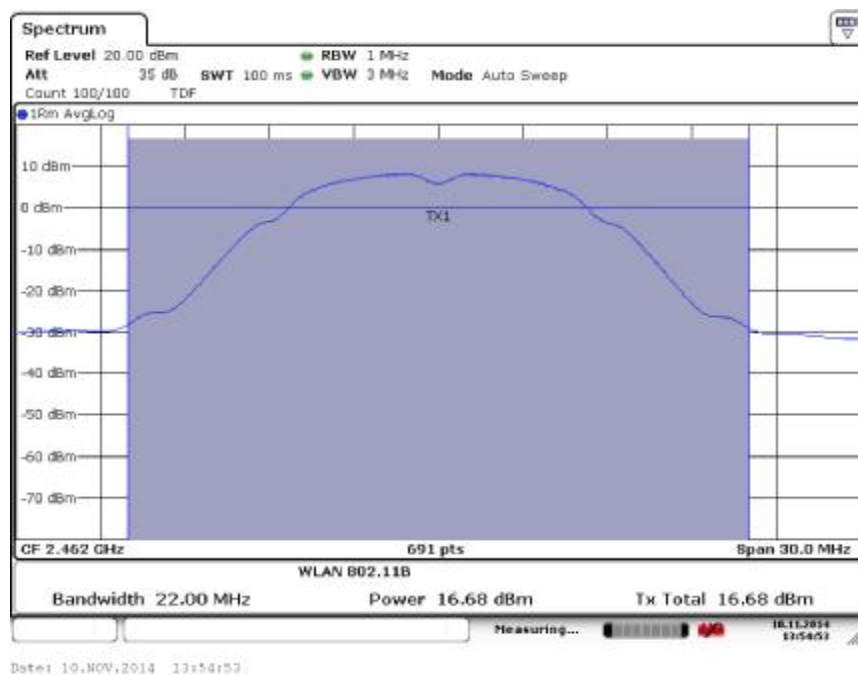


Fig.3 Maximum Average Output Power (802.11b, Ch 11,1Mbps)

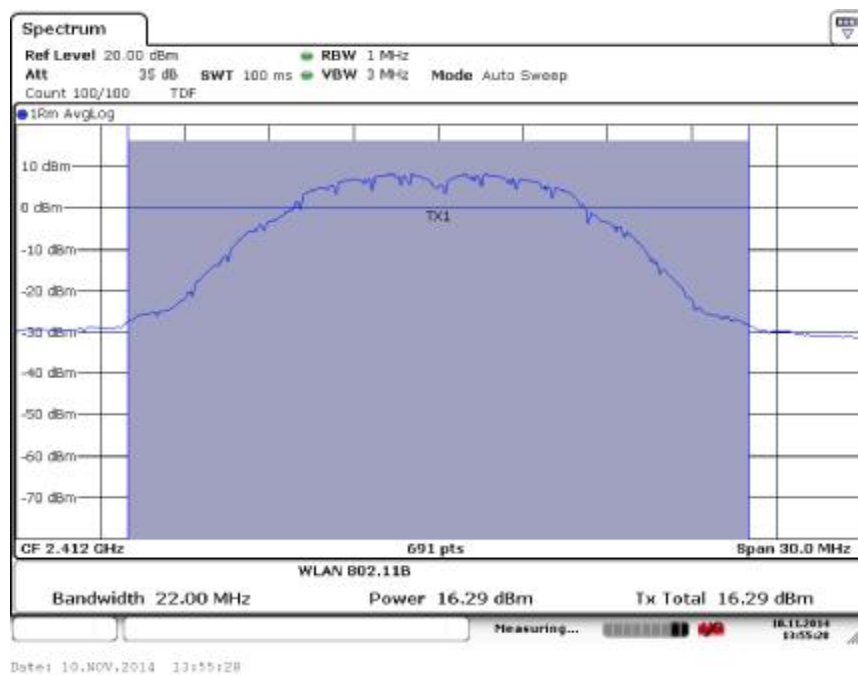


Fig.4 Maximum Average Output Power (802.11b, Ch 1,2Mbps)

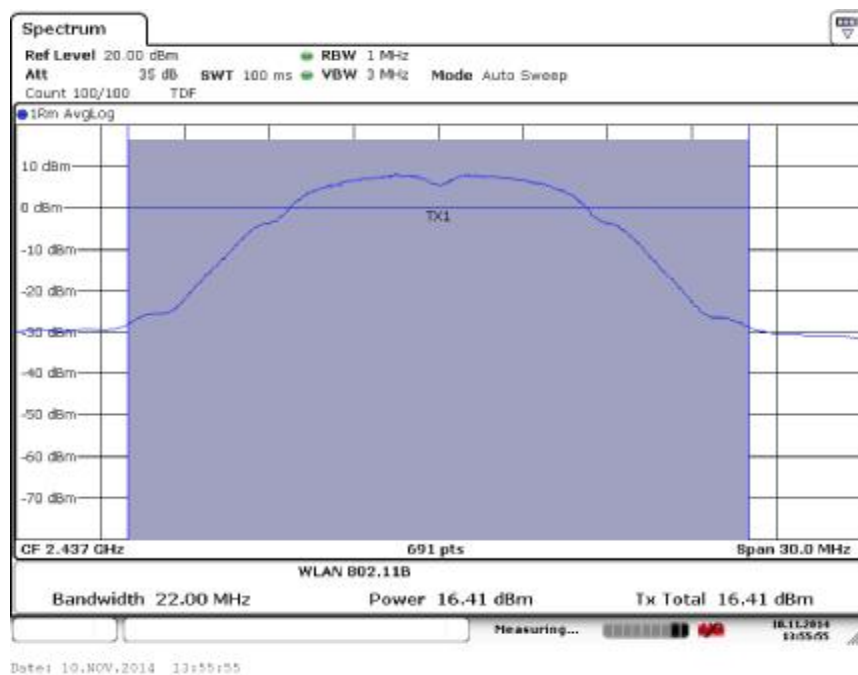


Fig.5 Maximum Average Output Power (802.11b, Ch 6,2Mbps)

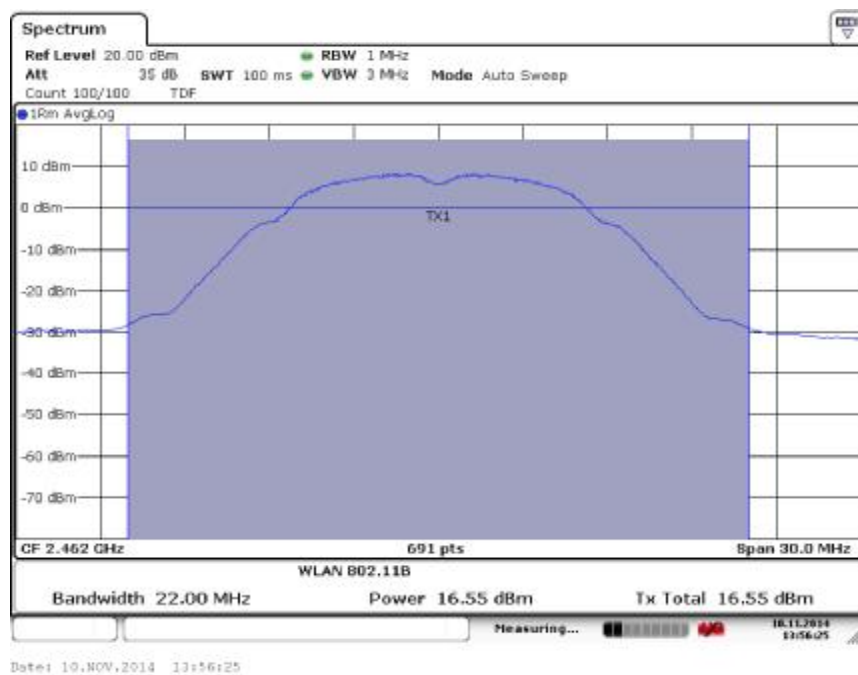


Fig.6 Maximum Average Output Power (802.11b, Ch 11,2Mbps)

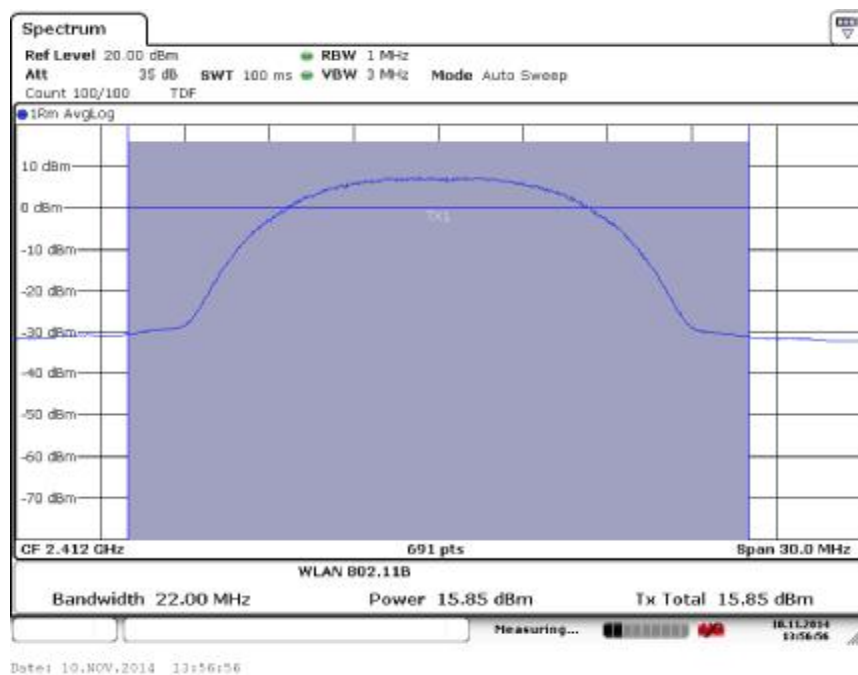


Fig.7 Maximum Average Output Power (802.11b, Ch 1,5.5Mbps)

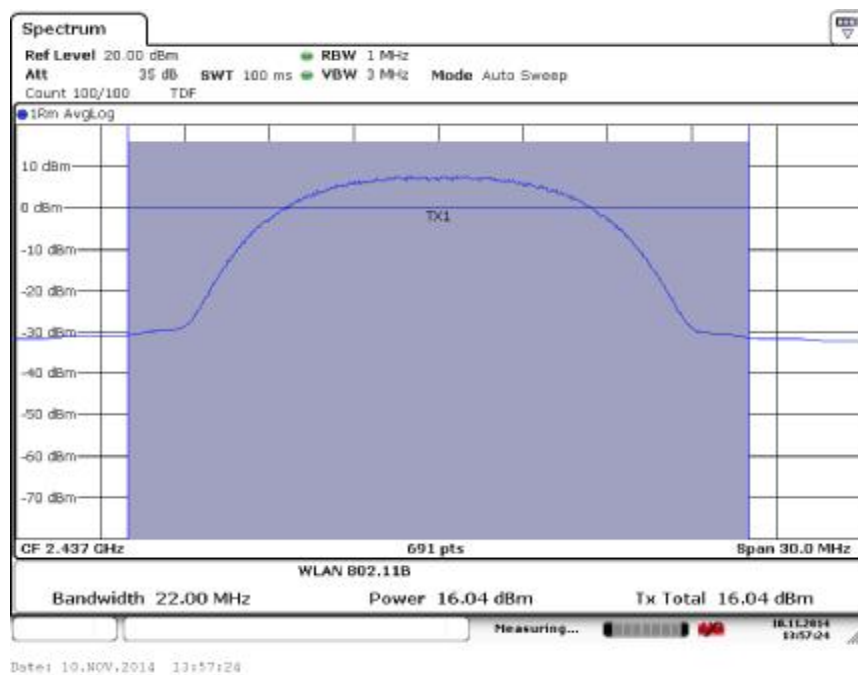


Fig.8 Maximum Average Output Power (802.11b, Ch 6,5.5Mbps)

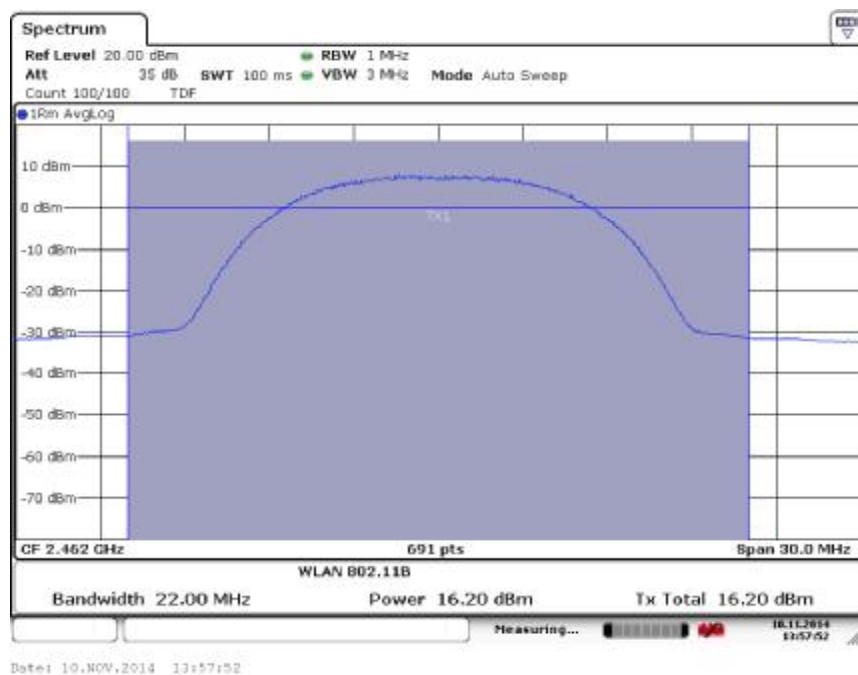


Fig.9 Maximum Average Output Power (802.11b, Ch 11,5.5Mbps)

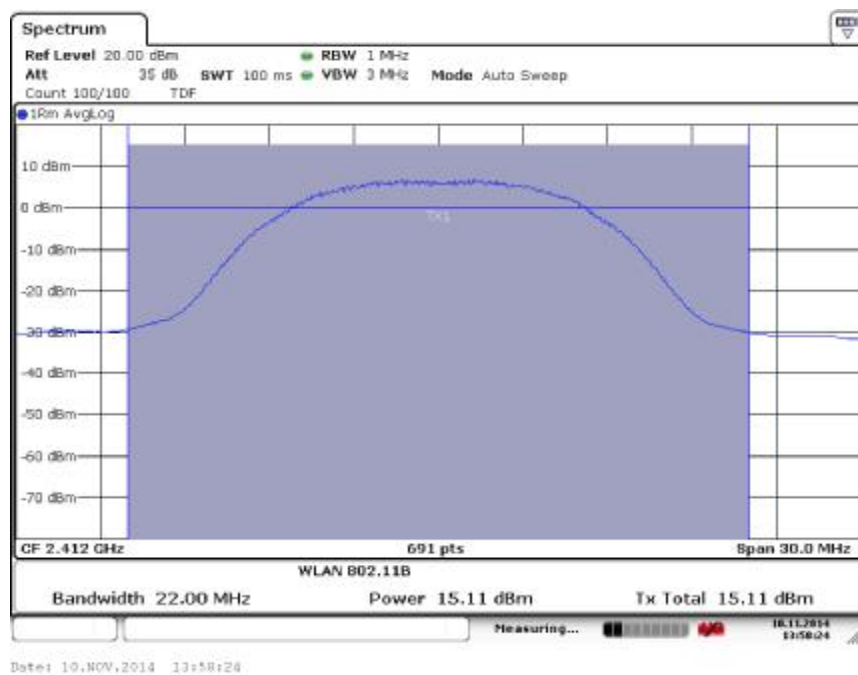


Fig.10 Maximum Average Output Power (802.11b, Ch 1,11Mbps)

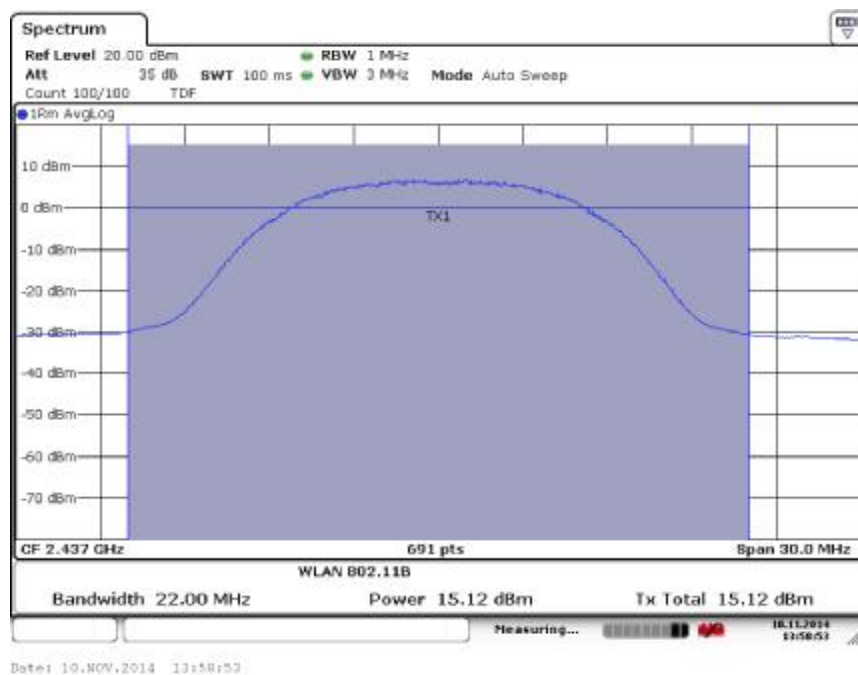


Fig.11 Maximum Average Output Power (802.11b, Ch 6,11Mbps)

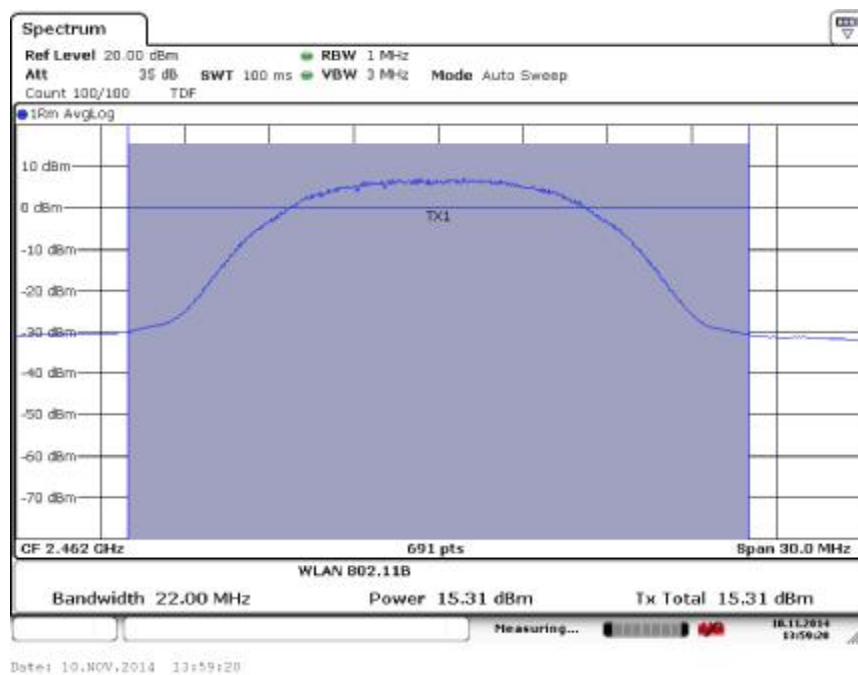


Fig.12 Maximum Average Output Power (802.11b, Ch 11,11Mbps)

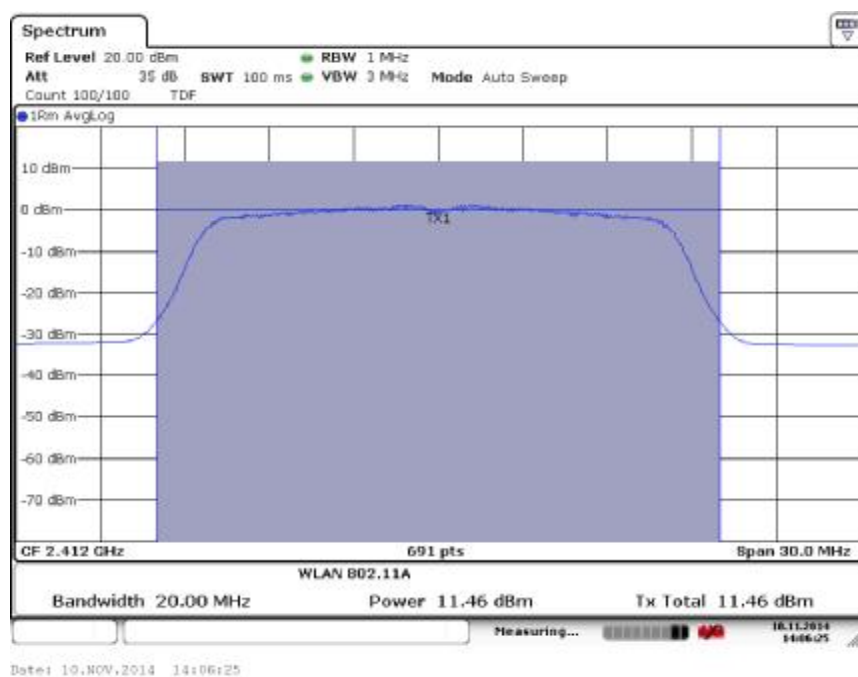


Fig.13 Maximum Average Output Power (802.11g, Ch 1,6Mbps)

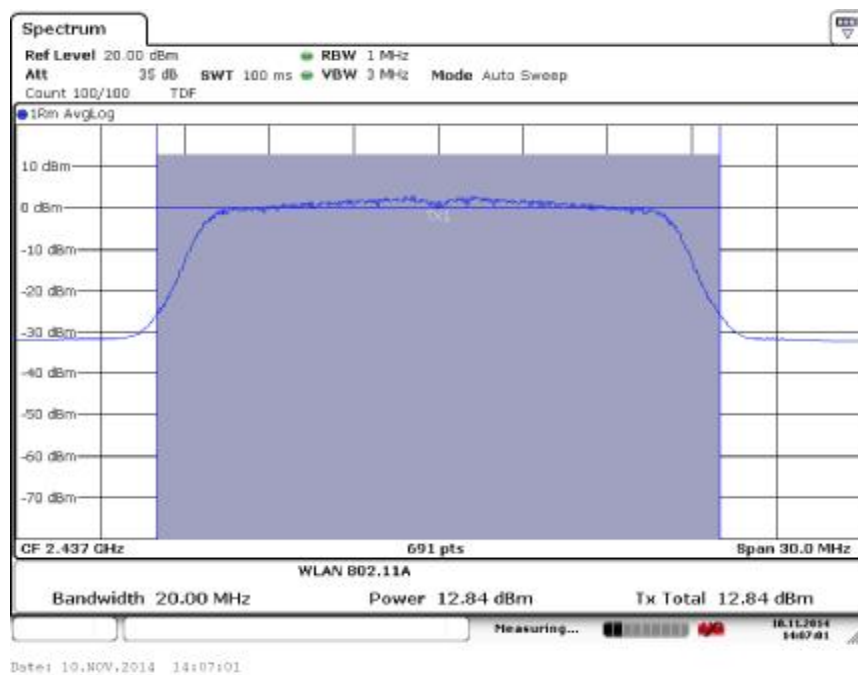


Fig.14 Maximum Average Output Power (802.11g, Ch 6,6Mbps)

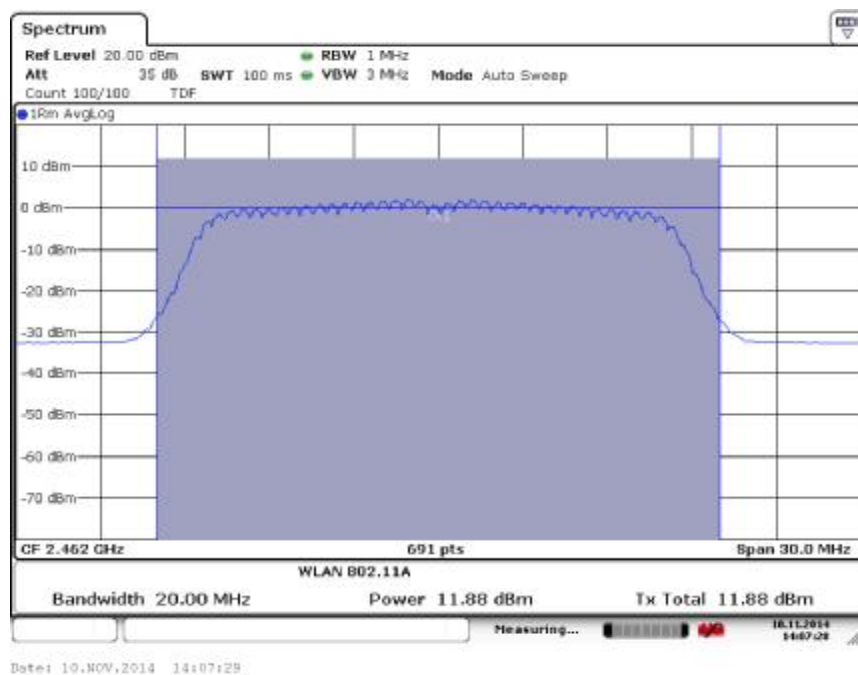


Fig.15 Maximum Average Output Power (802.11g, Ch 11,6Mbps)

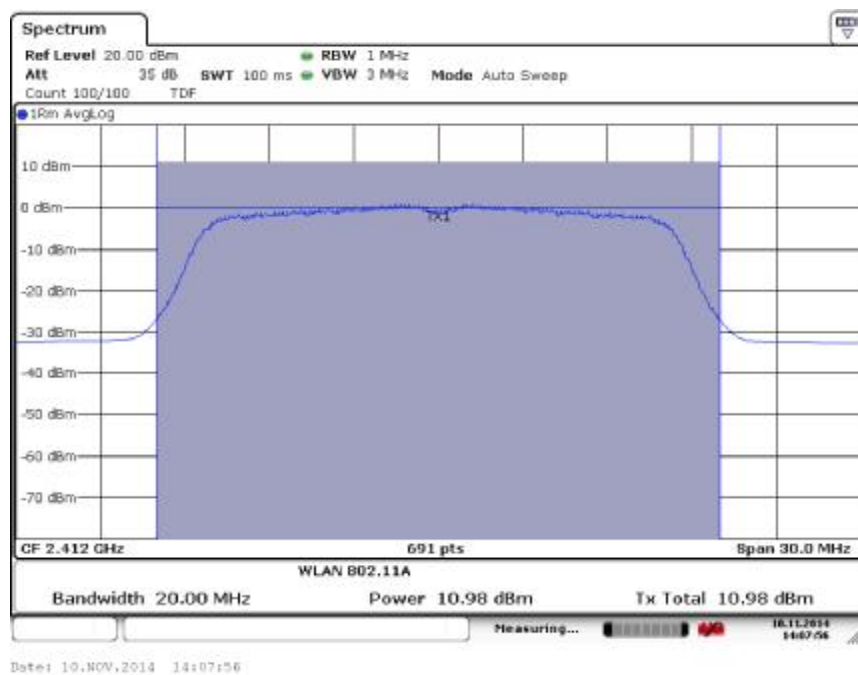


Fig.16 Maximum Average Output Power (802.11g, Ch 1,9Mbps)

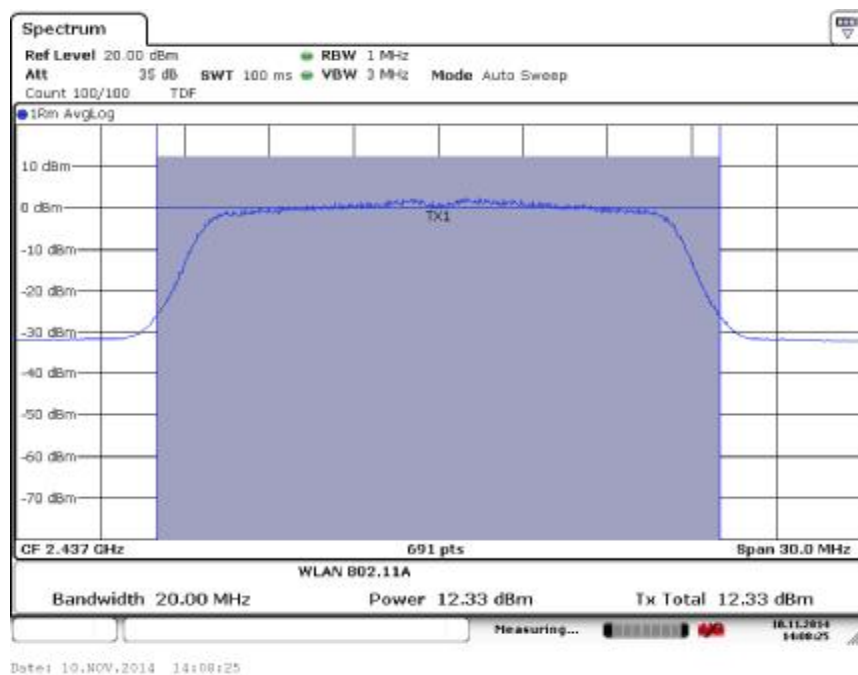


Fig.17 Maximum Average Output Power (802.11g, Ch 6,9Mbps)

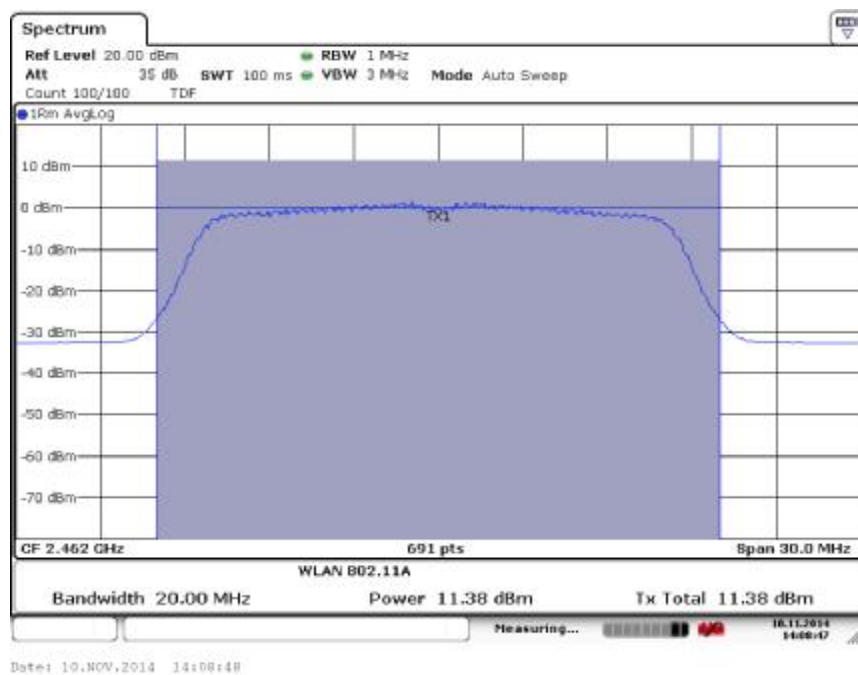


Fig.18 Maximum Average Output Power (802.11g, Ch 11,9Mbps)

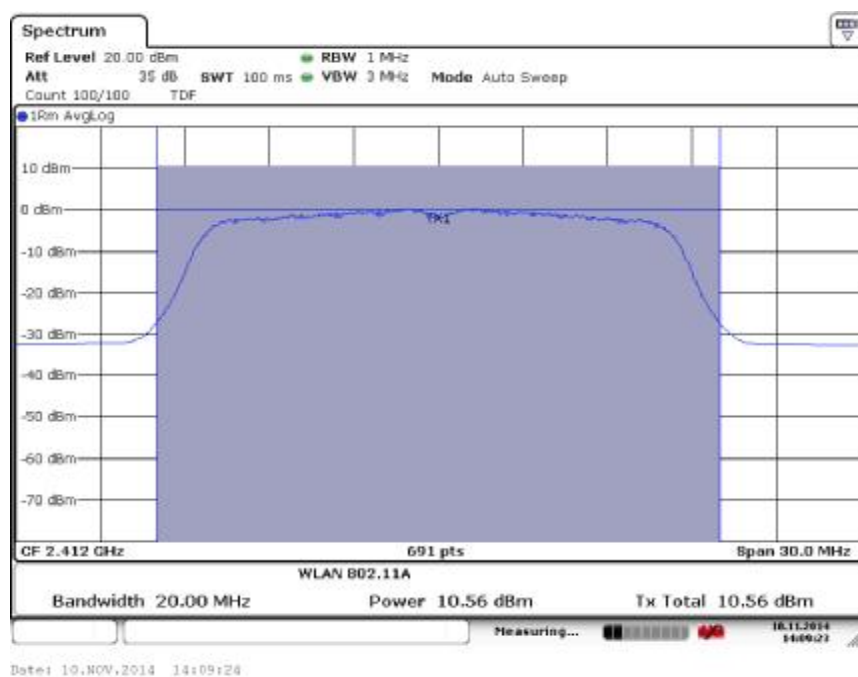


Fig.19 Maximum Average Output Power (802.11g, Ch 1,12Mbps)

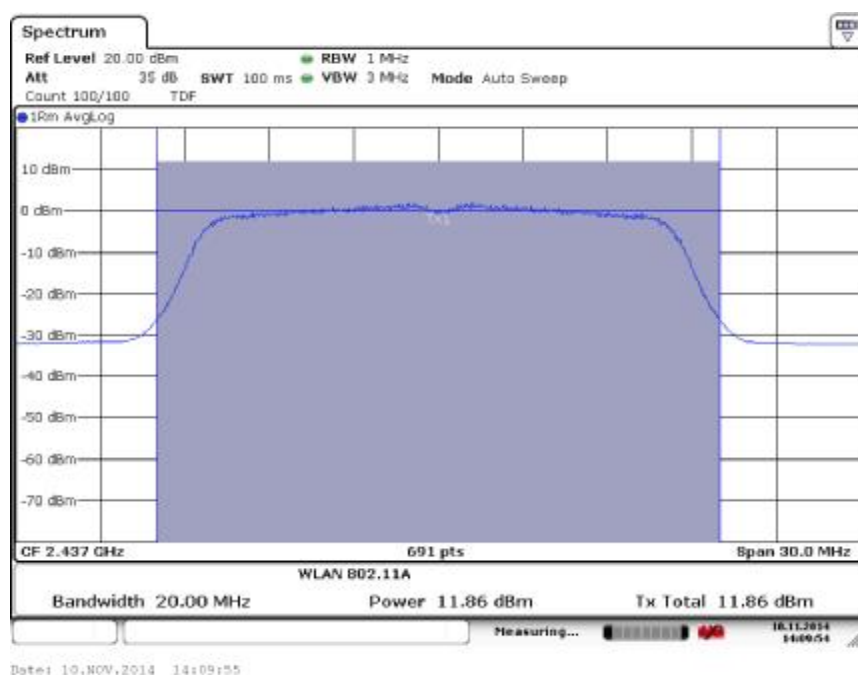


Fig.20 Maximum Average Output Power (802.11g, Ch 6,12Mbps)

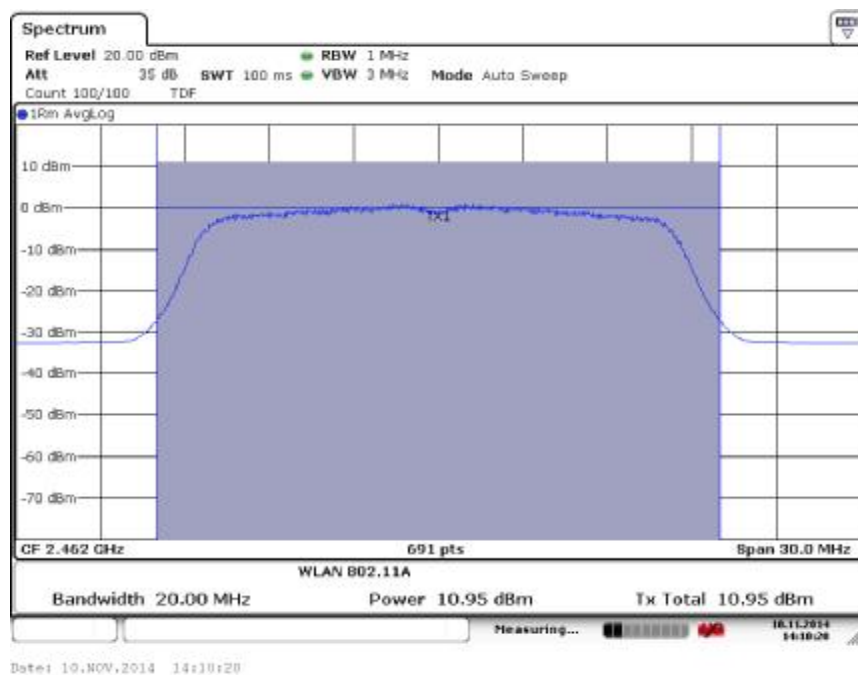


Fig.21 Maximum Average Output Power (802.11g, Ch 11,12Mbps)

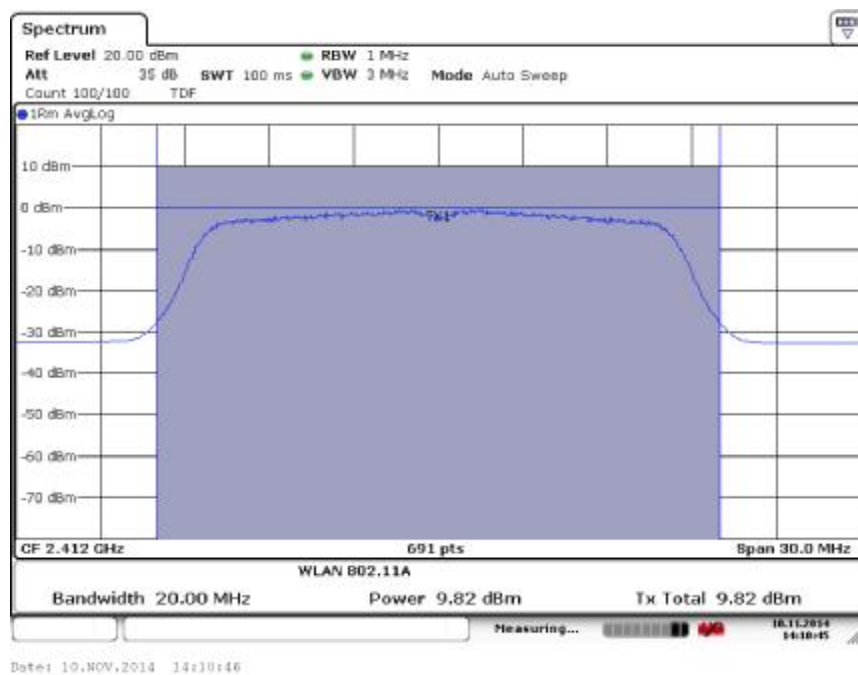


Fig.22 Maximum Average Output Power (802.11g, Ch 1,18Mbps)

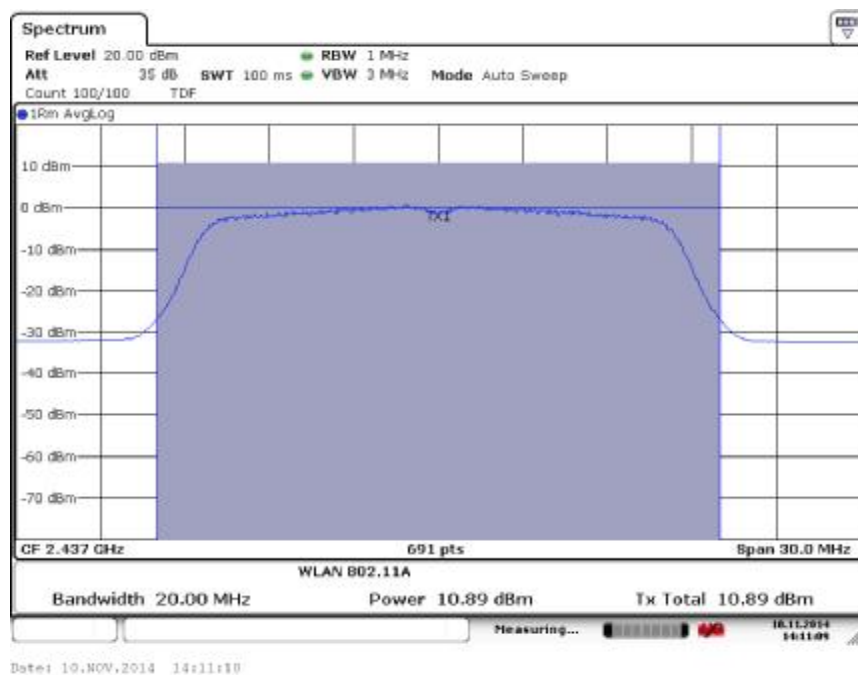


Fig.23 Maximum Average Output Power (802.11g, Ch 6,18Mbps)

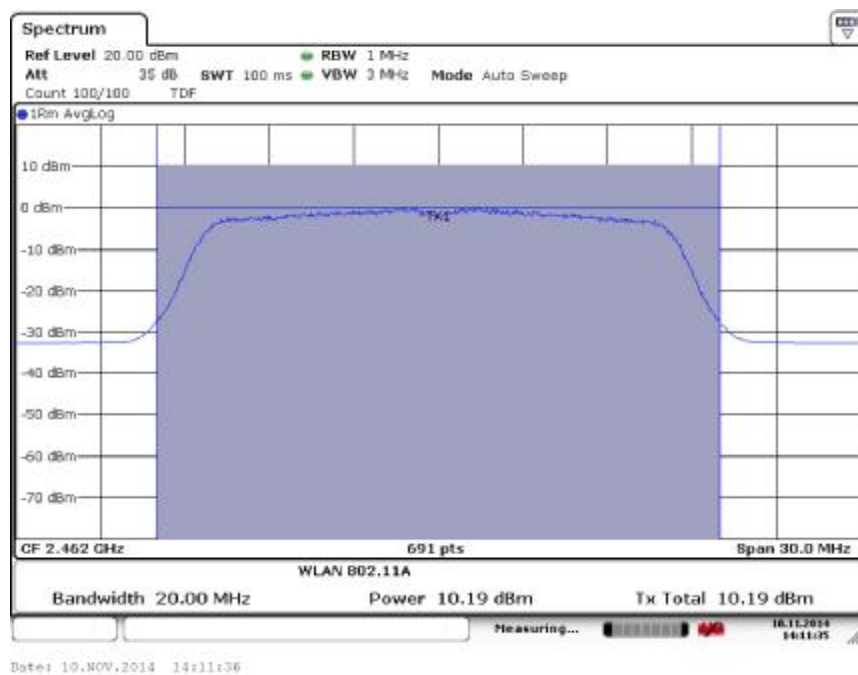


Fig.24 Maximum Average Output Power (802.11g, Ch 11,18Mbps)

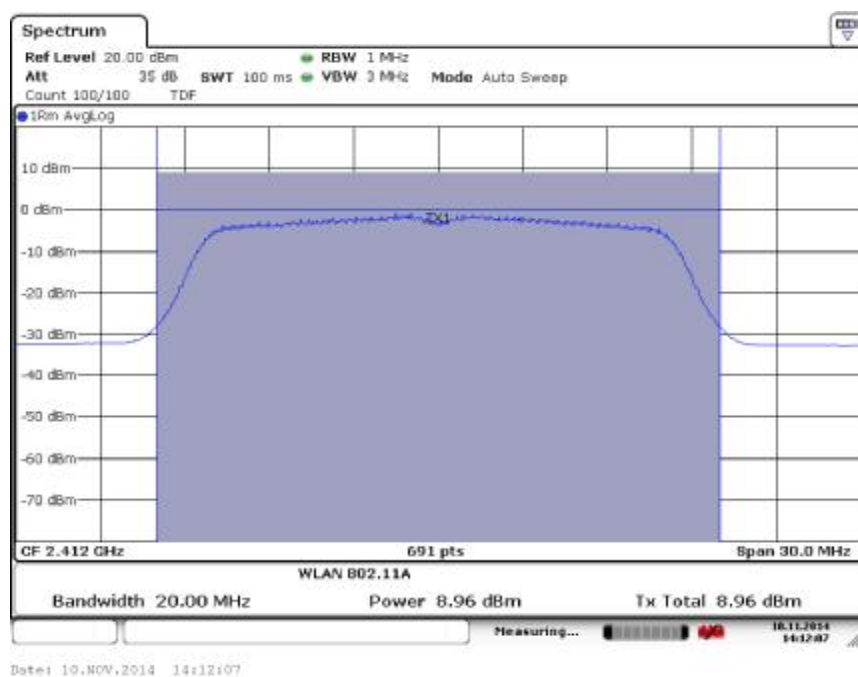


Fig.25 Maximum Average Output Power (802.11g, Ch 1,24Mbps)

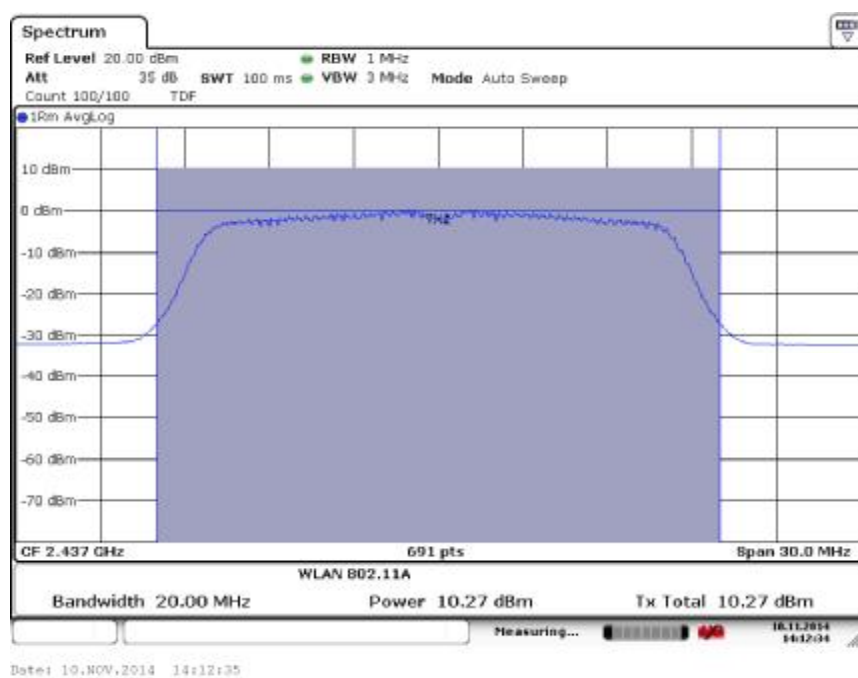


Fig.26 Maximum Average Output Power (802.11g, Ch 6,24Mbps)

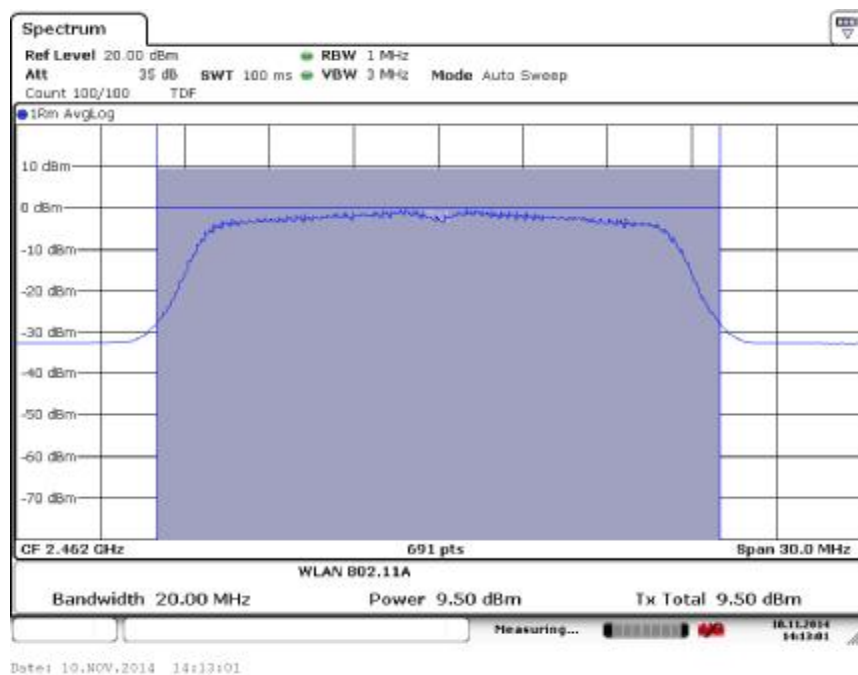


Fig.27 Maximum Average Output Power (802.11g, Ch 11,24Mbps)

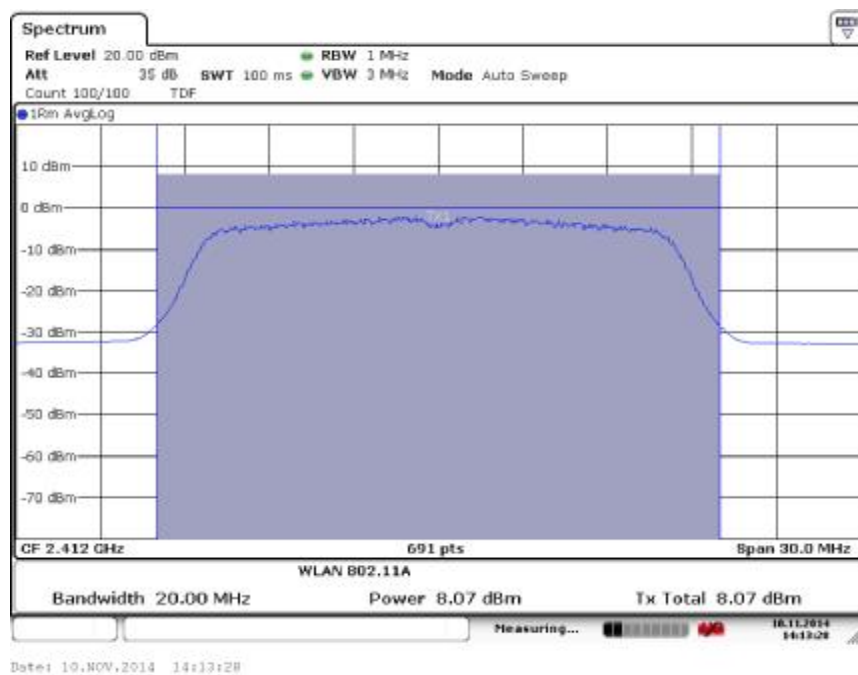


Fig.28 Maximum Average Output Power (802.11g, Ch 1,36Mbps)

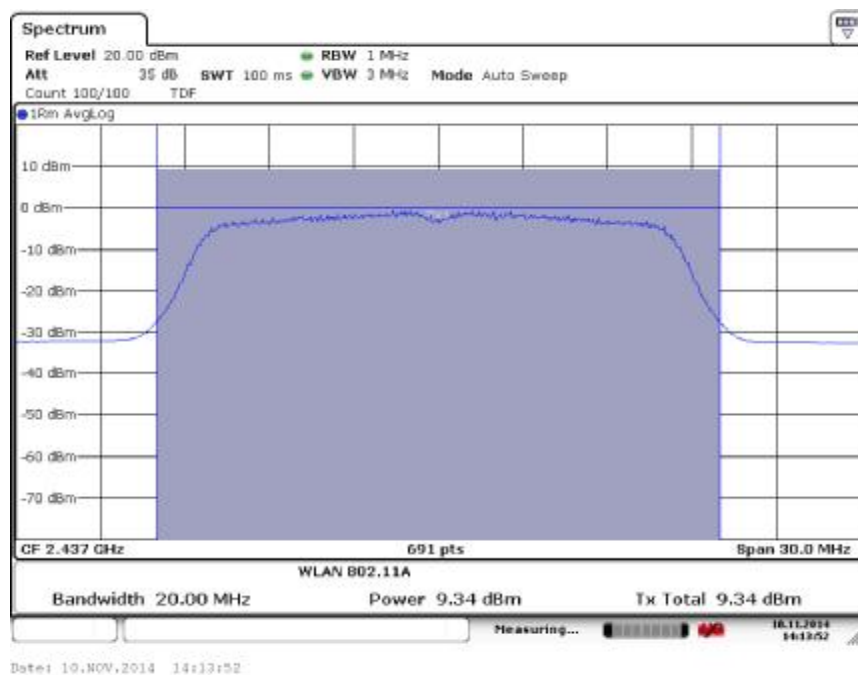


Fig.29 Maximum Average Output Power (802.11g, Ch 6,36Mbps)

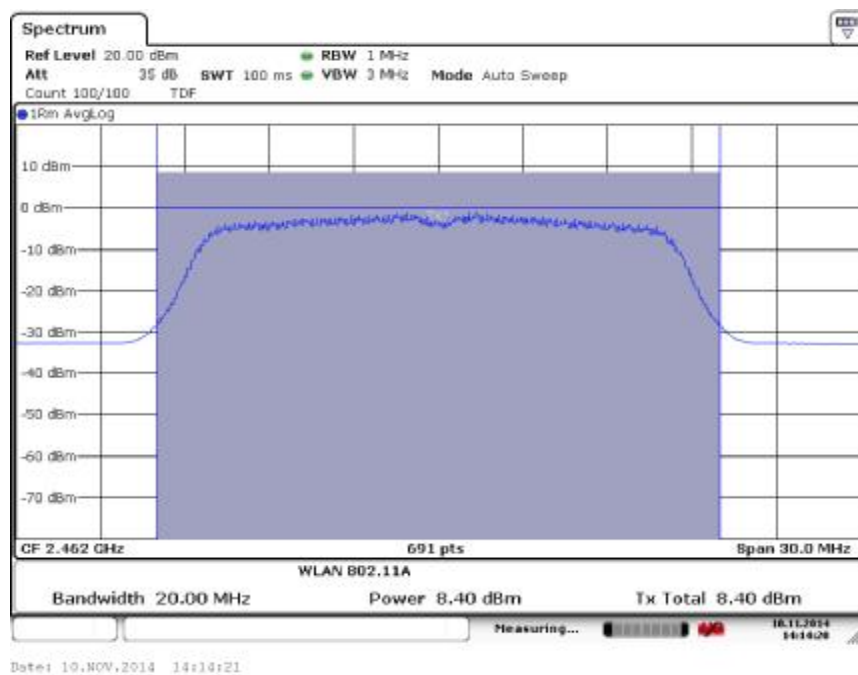


Fig.30 Maximum Average Output Power (802.11g, Ch 11,36Mbps)

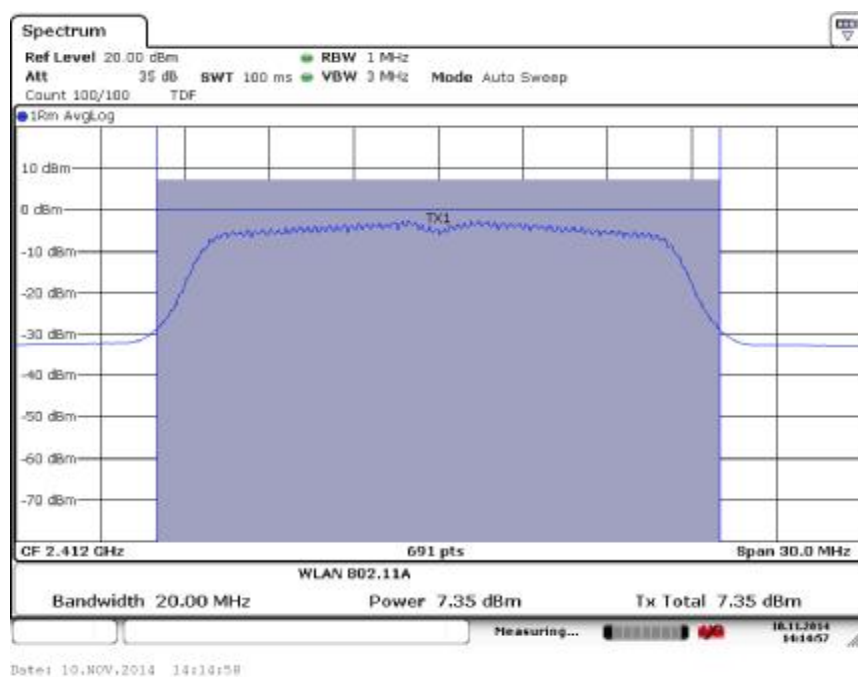


Fig.31 Maximum Average Output Power (802.11g, Ch 1,48Mbps)

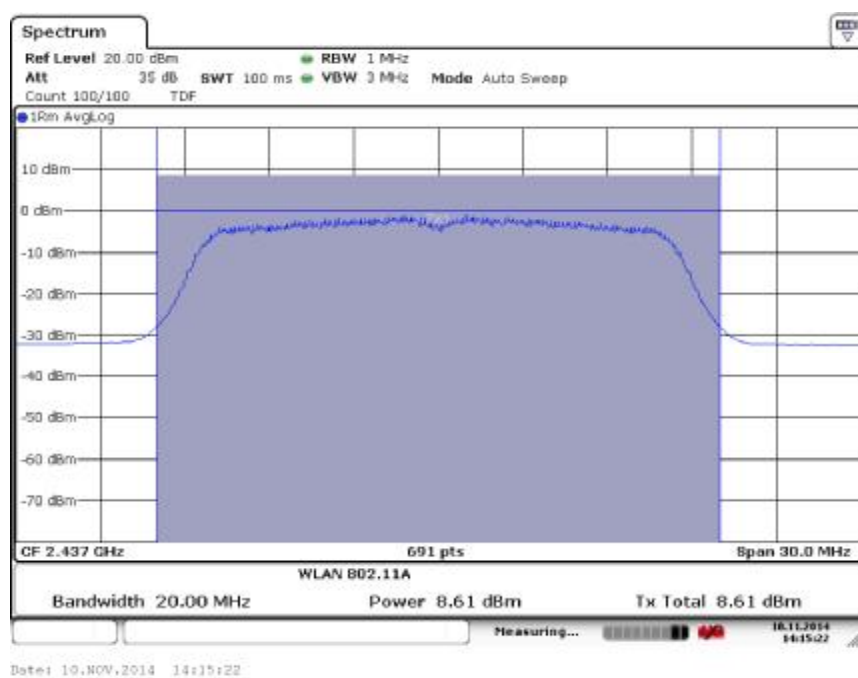


Fig.32 Maximum Average Output Power (802.11g, Ch 6,48Mbps)

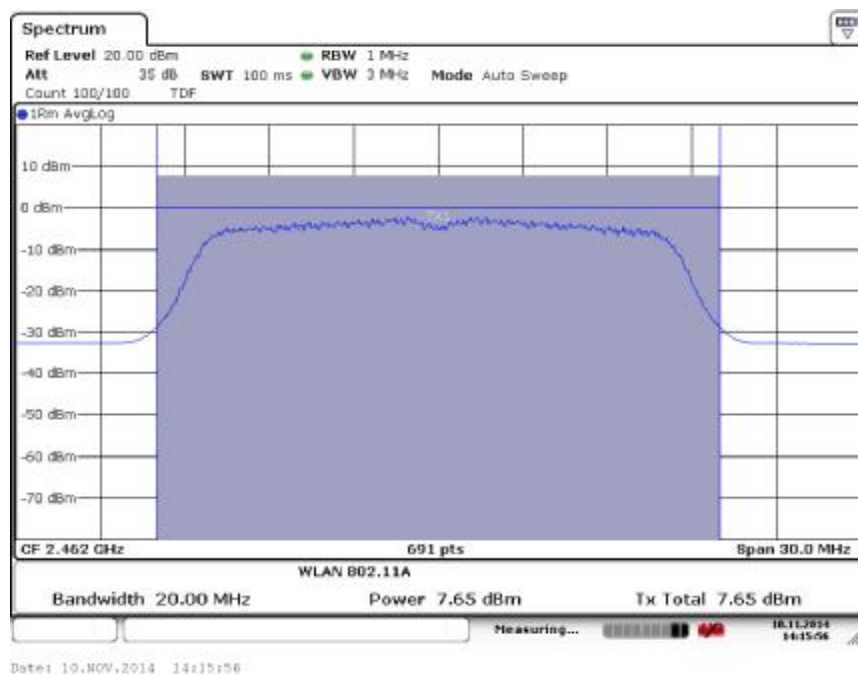


Fig.33 Maximum Average Output Power (802.11g, Ch 11,48Mbps)

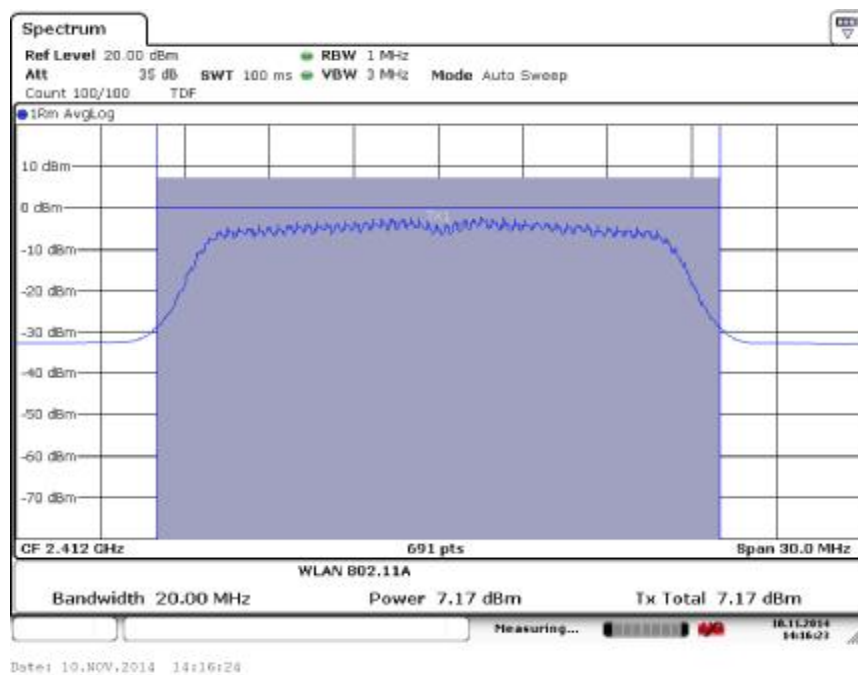


Fig.34 Maximum Average Output Power (802.11g, Ch 1,54Mbps)

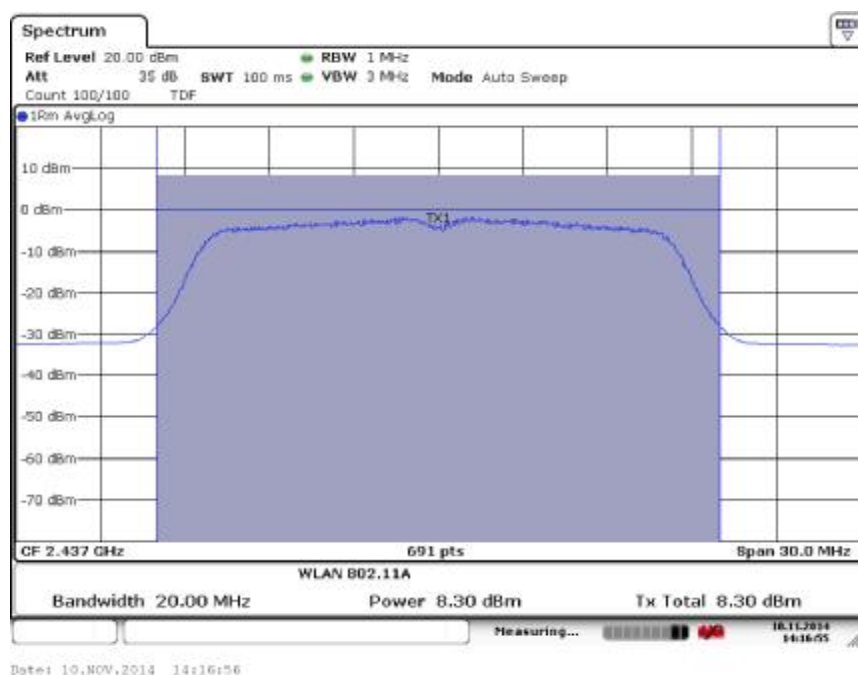


Fig.35 Maximum Average Output Power (802.11g, Ch 6,54Mbps)

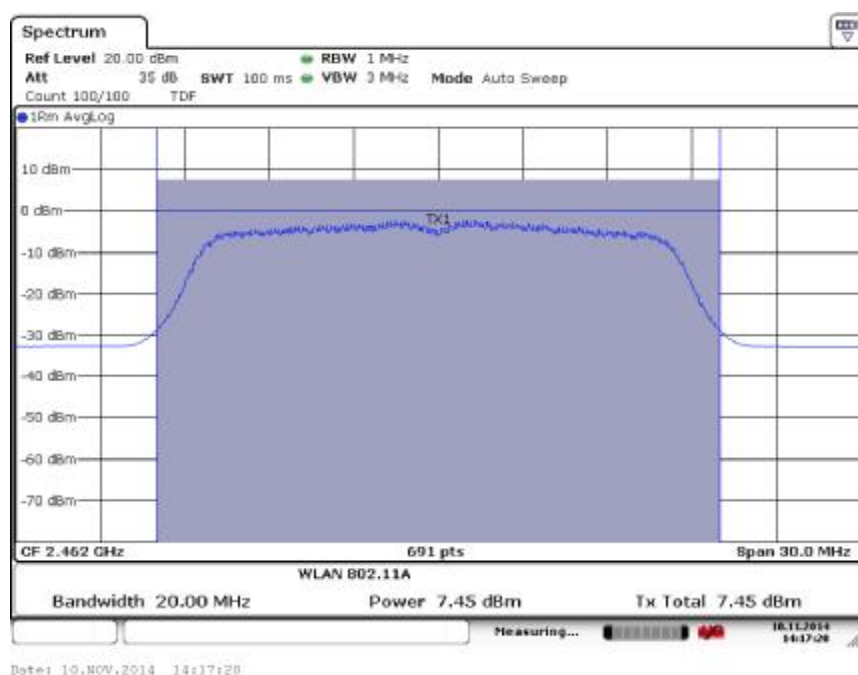


Fig.36 Maximum Average Output Power (802.11g, Ch 11,54Mbps)

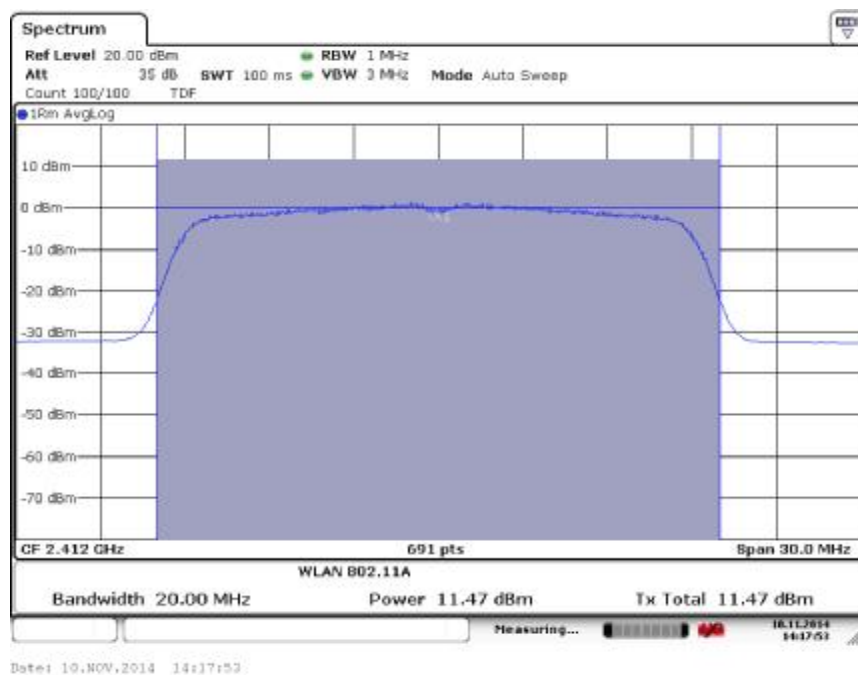


Fig.37 Maximum Average Output Power (802.11n-20MHz, Ch 1,MCS0)

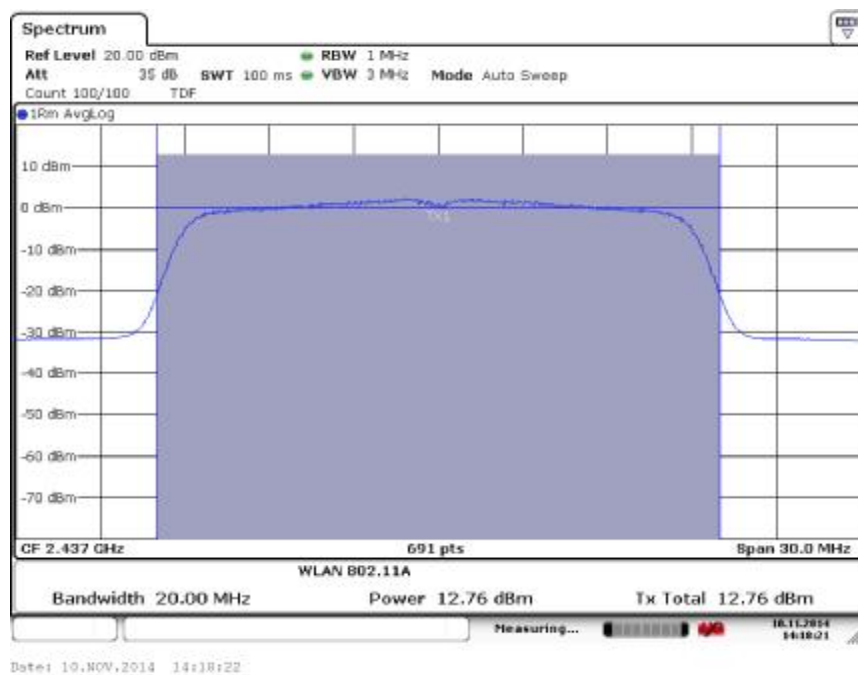


Fig.38 Maximum Average Output Power (802.11n-20MHz, Ch 6,MCS0)

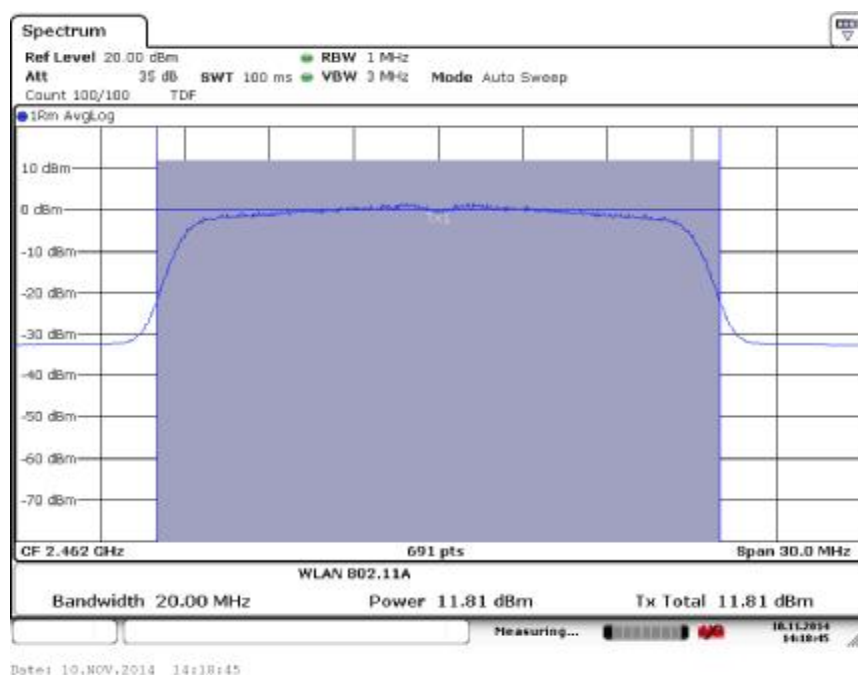


Fig.39 Maximum Average Output Power (802.11n-20MHz, Ch 11,MCS0)

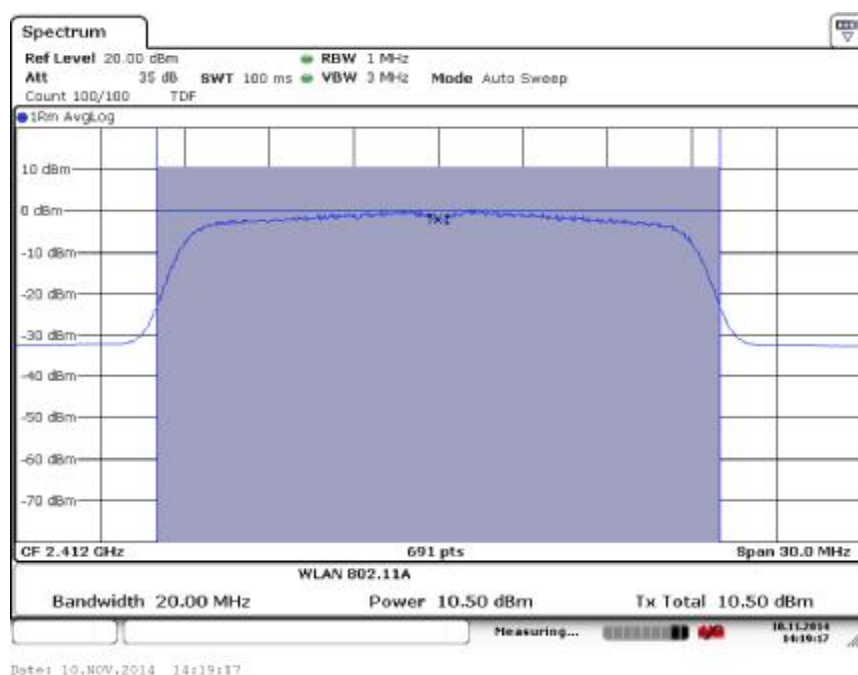


Fig.40 Maximum Average Output Power (802.11n-20MHz, Ch 1,MCS1)

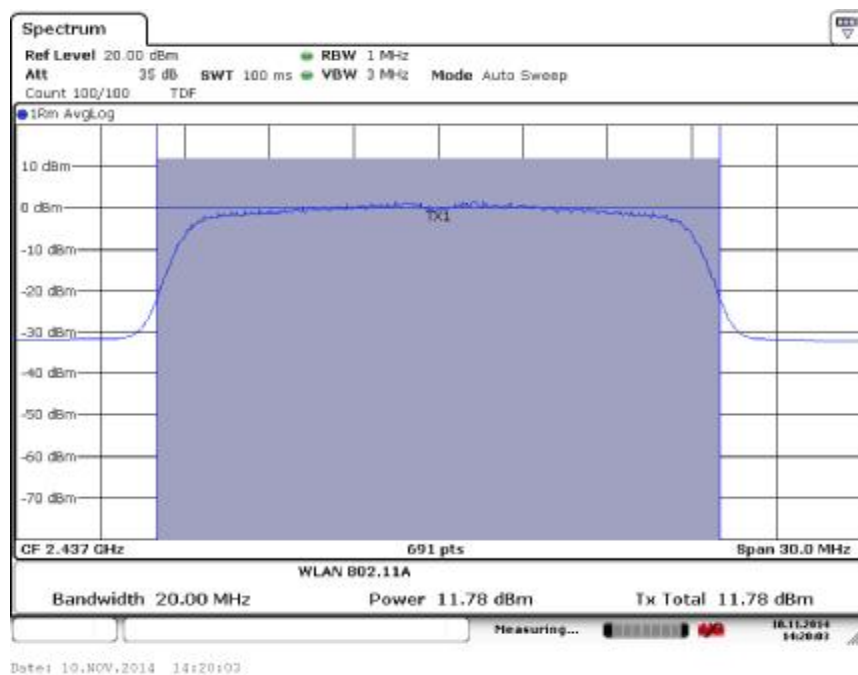


Fig.41 Maximum Average Output Power (802.11n-20MHz, Ch 6,MCS1)

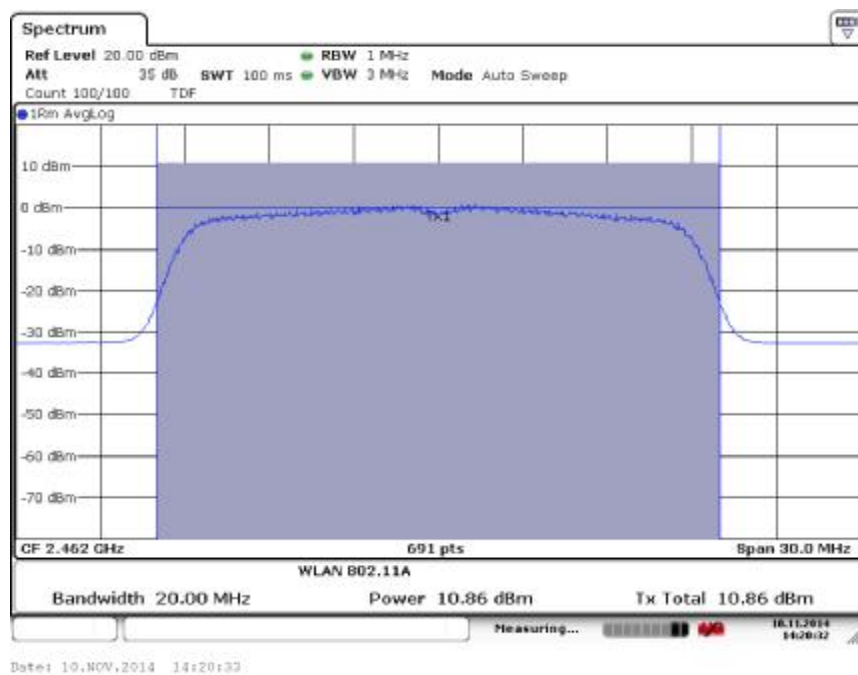


Fig.42 Maximum Average Output Power (802.11n-20MHz, Ch 11,MCS1)

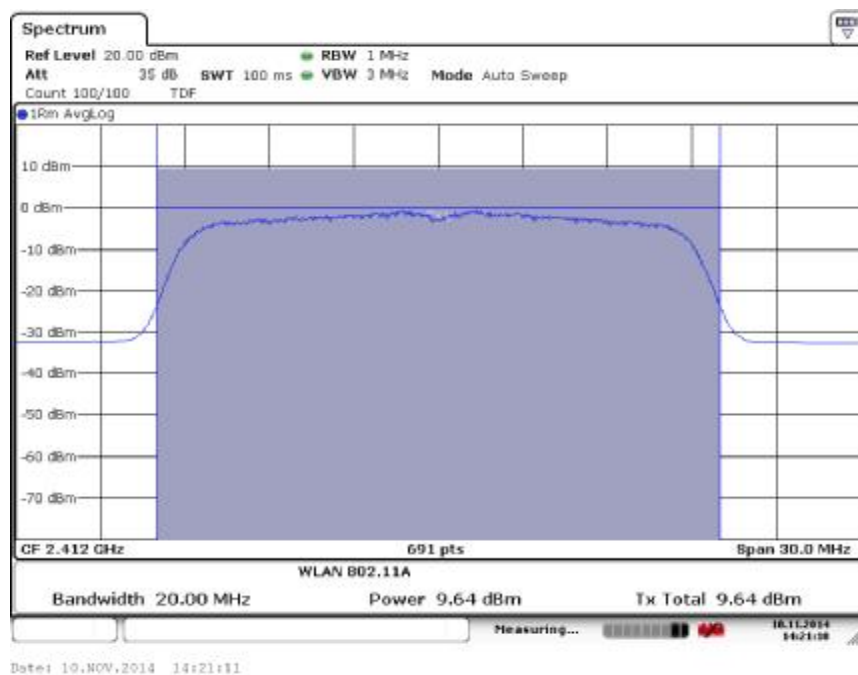


Fig.43 Maximum Average Output Power (802.11n-20MHz, Ch 1,MCS2)

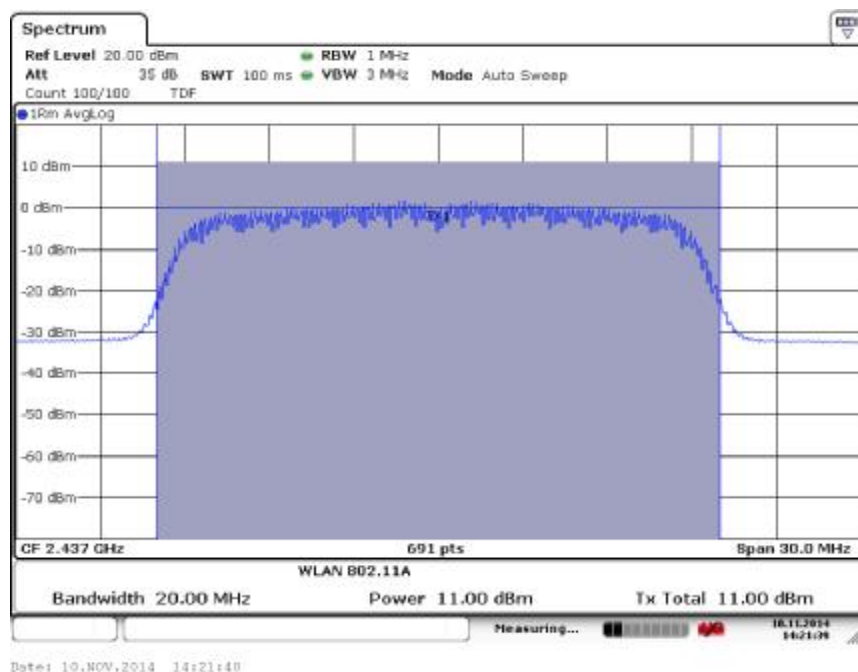


Fig.44 Maximum Average Output Power (802.11n-20MHz, Ch 6,MCS2))

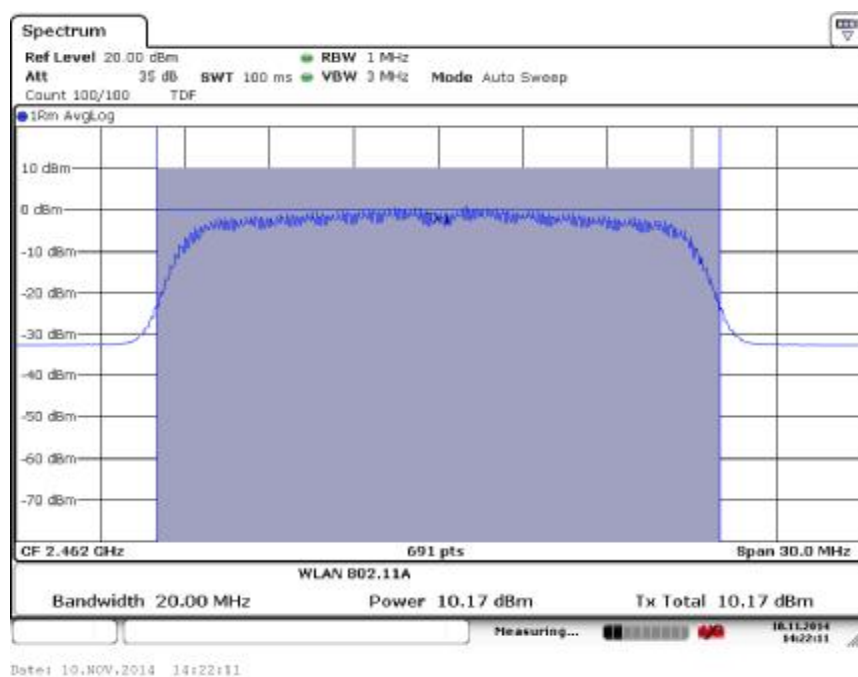


Fig.45 Maximum Average Output Power (802.11n-20MHz, Ch 11,MCS2)

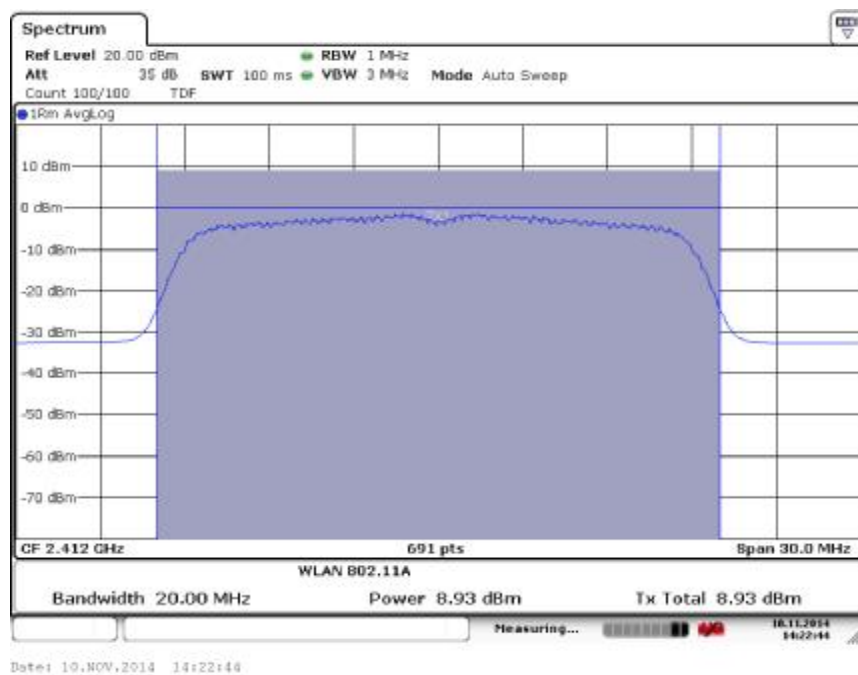


Fig.46 Maximum Average Output Power (802.11n-20MHz, Ch 1,MCS3)

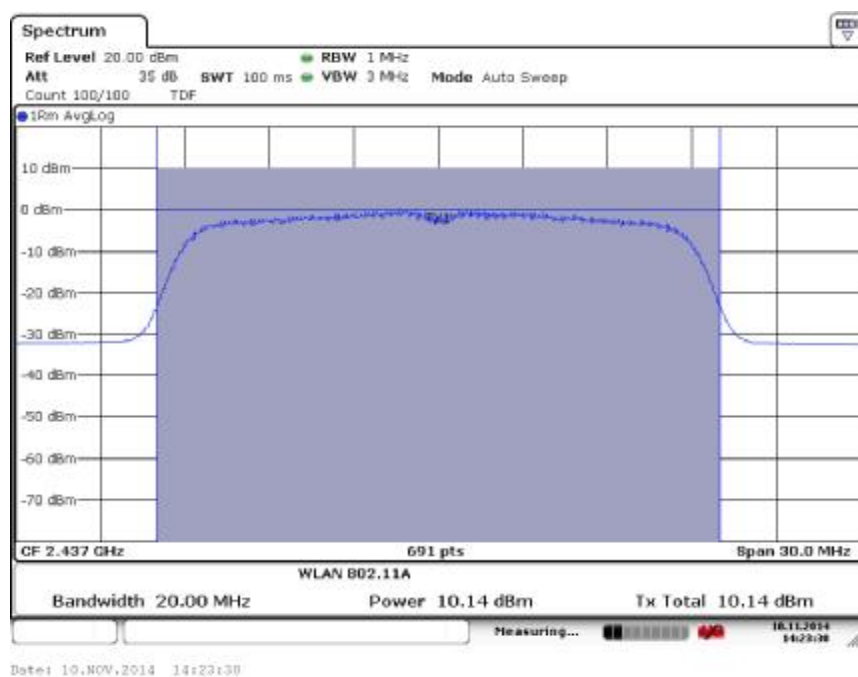


Fig.47 Maximum Average Output Power (802.11n-20MHz, Ch 6,MCS3)

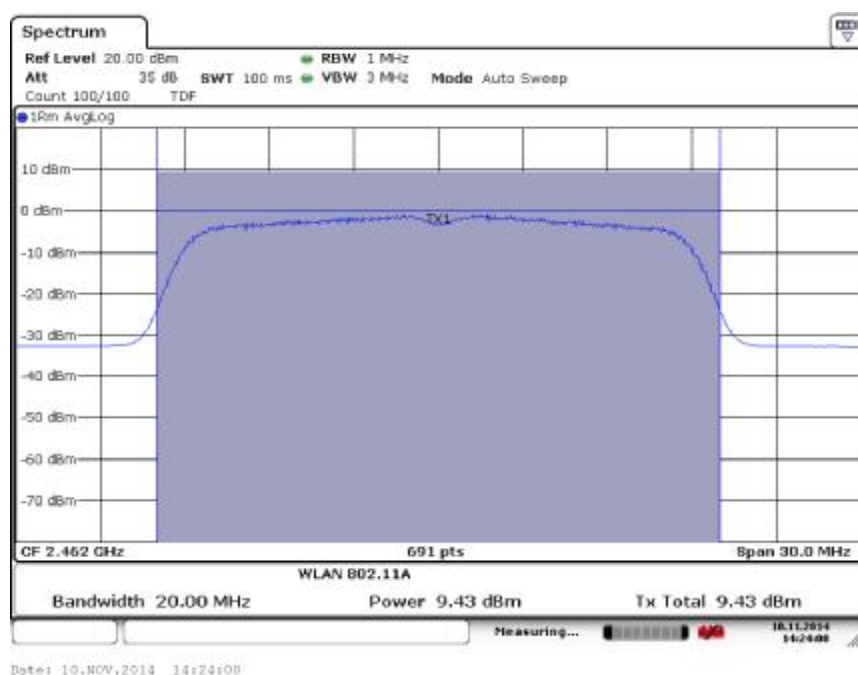


Fig.48 Maximum Average Output Power (802.11n-20MHz, Ch 11,MCS3)

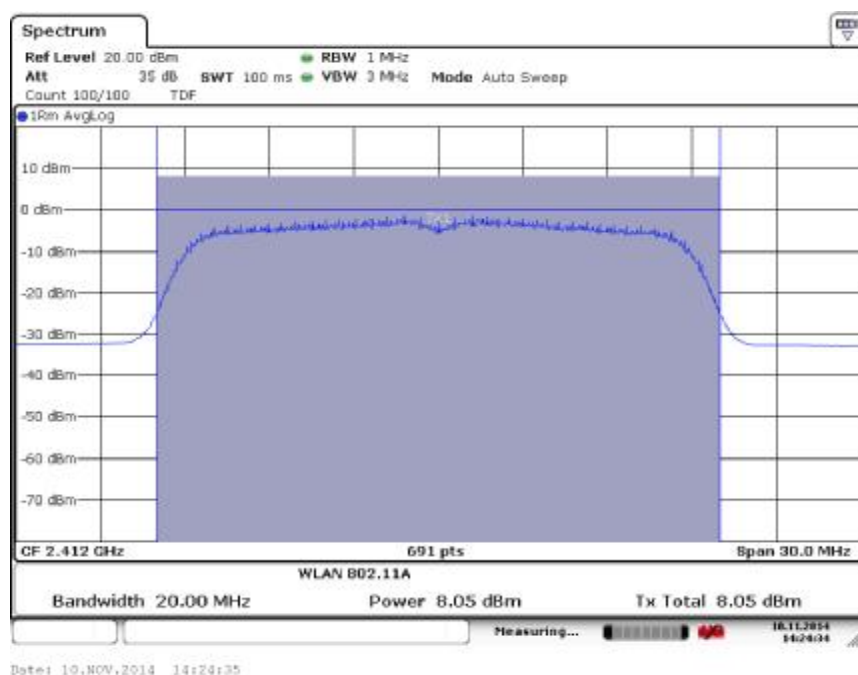


Fig.49 Maximum Average Output Power (802.11n-20MHz, Ch 1,MCS4)

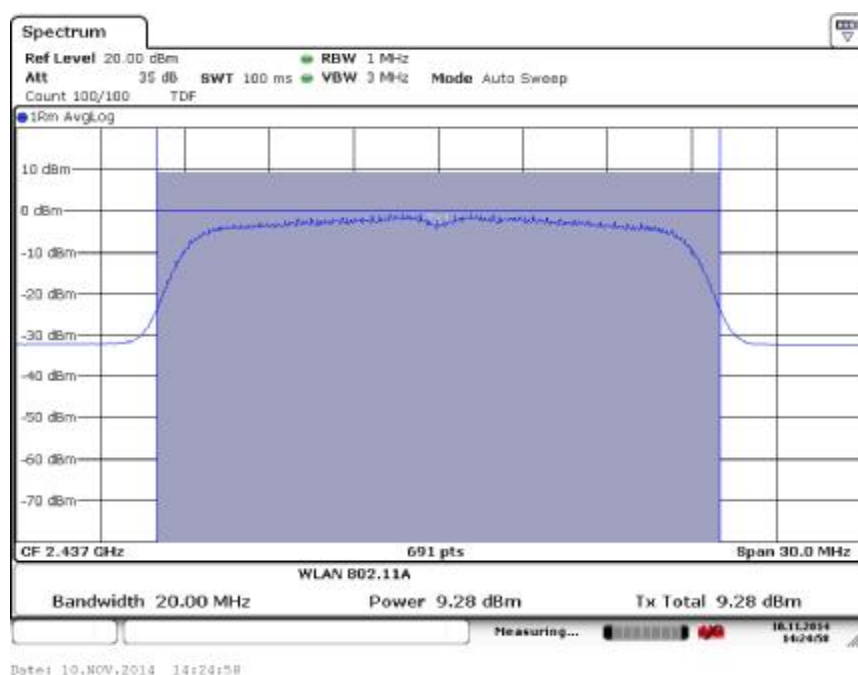


Fig.50 Maximum Average Output Power (802.11n-20MHz, Ch 6,MCS4)

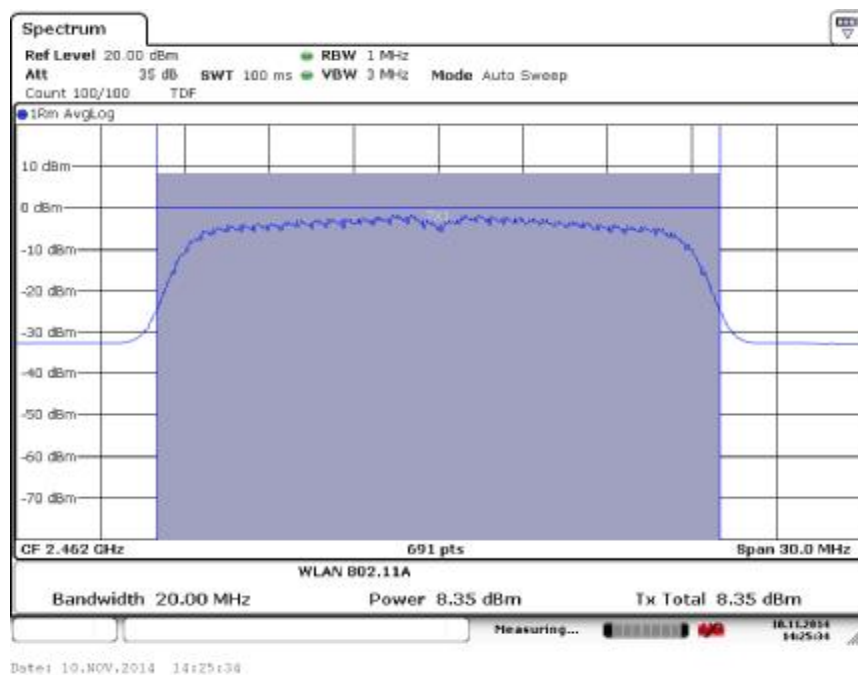


Fig.51 Maximum Average Output Power (802.11n-20MHz, Ch 11,MCS4)

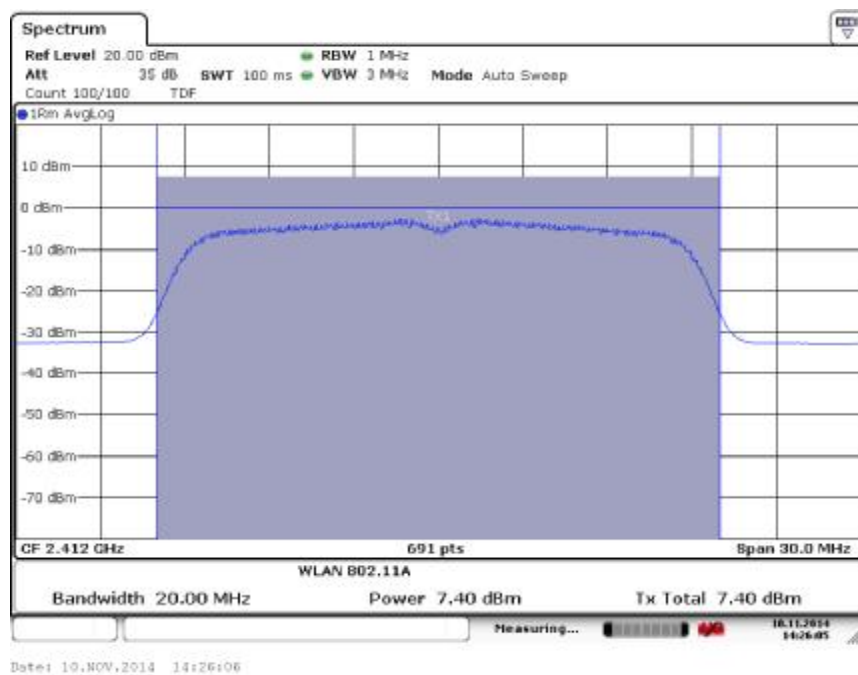


Fig.52 Maximum Average Output Power (802.11n-20MHz, Ch 1,MCS5)

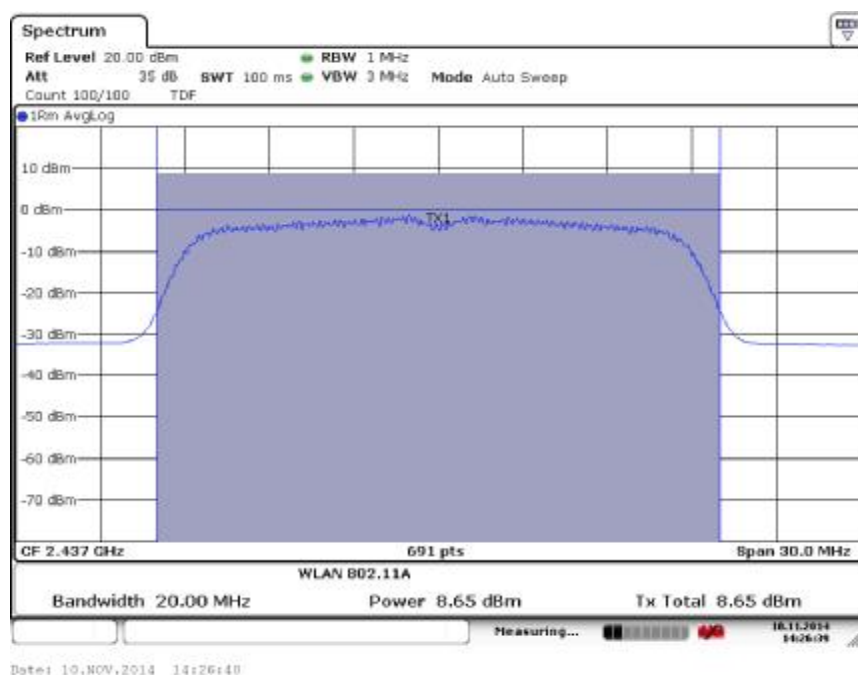


Fig.53 Maximum Average Output Power (802.11n-20MHz, Ch 6,MCS5)

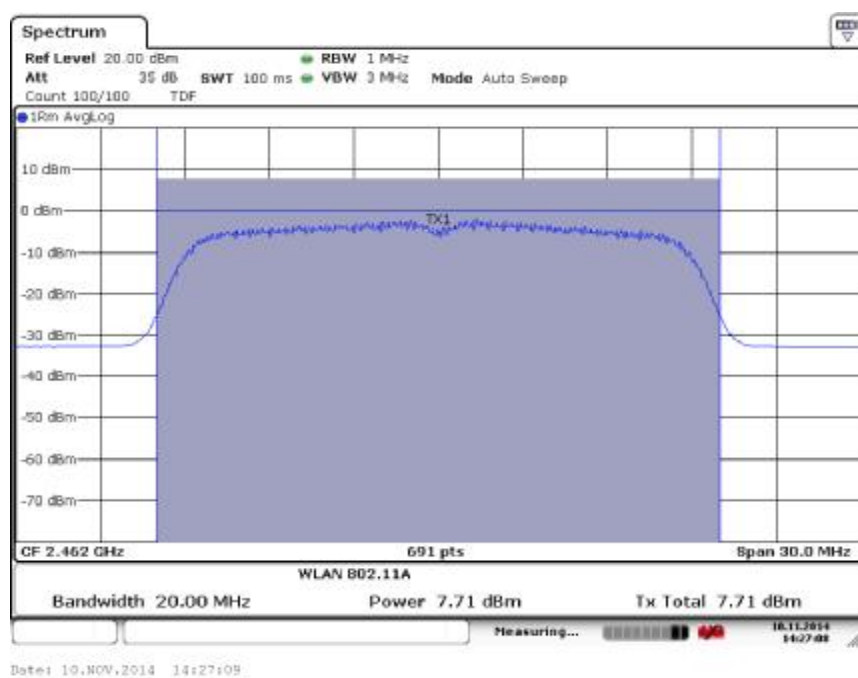


Fig.54 Maximum Average Output Power (802.11n-20MHz, Ch 11,MCS5)

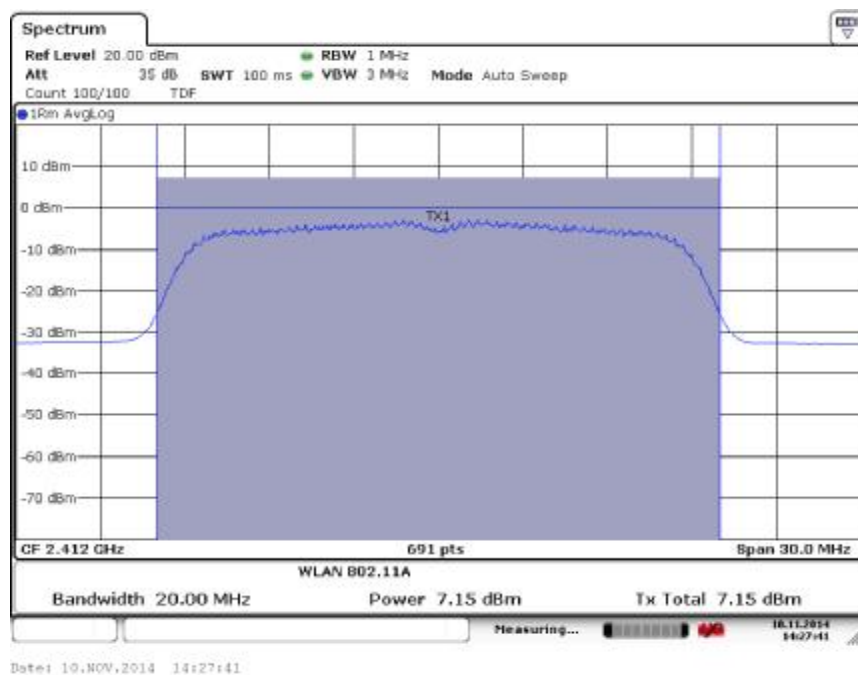


Fig.55 Maximum Average Output Power (802.11n-20MHz, Ch 1,MCS6)

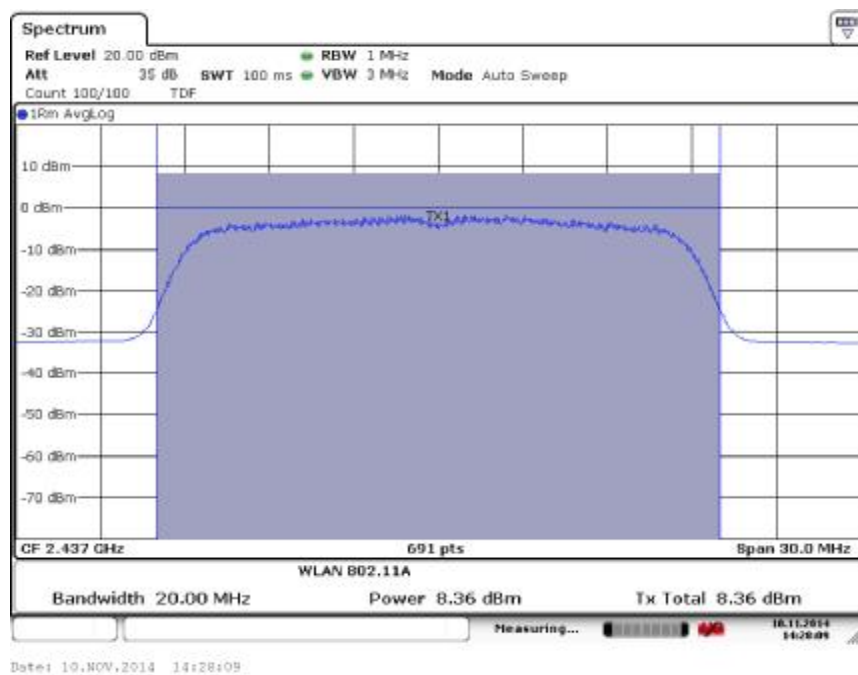


Fig.56 Maximum Average Output Power (802.11n-20MHz, Ch 6,MCS6)

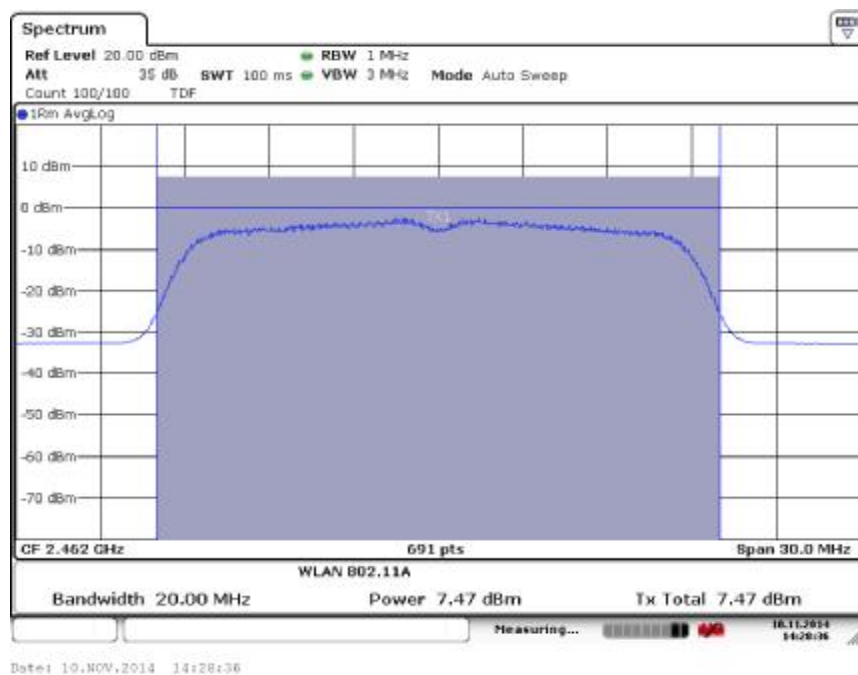


Fig.57 Maximum Average Output Power (802.11n-20MHz, Ch 11,MCS6)

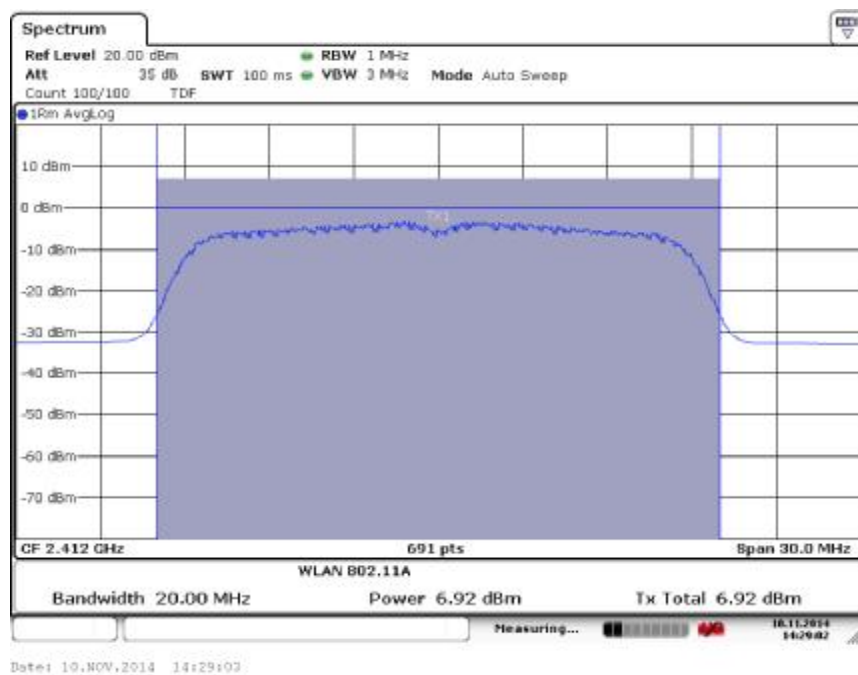


Fig.58 Maximum Average Output Power (802.11n-20MHz, Ch 1,MCS7)

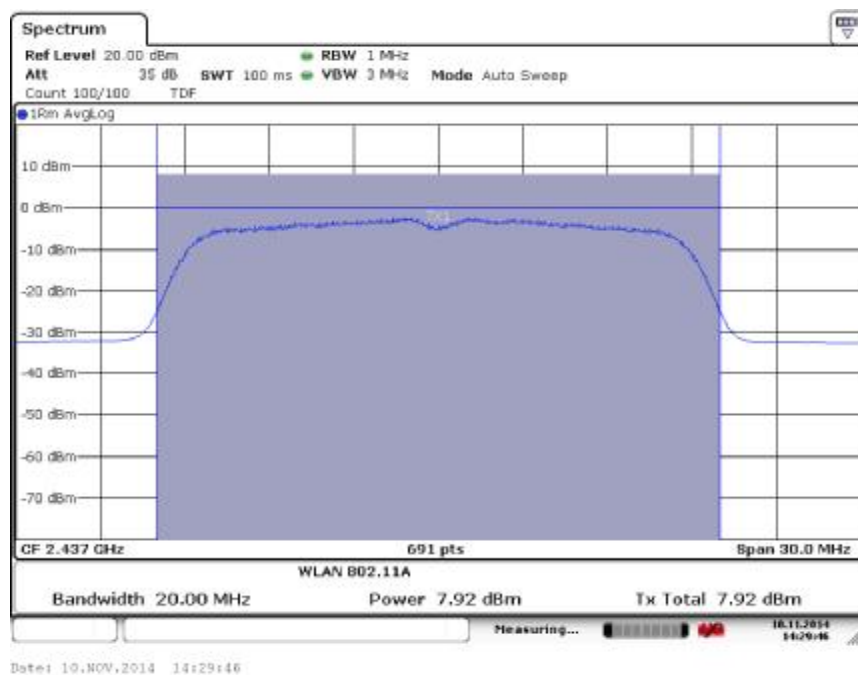


Fig.59 Maximum Average Output Power (802.11n-20MHz, Ch 6,MCS7)

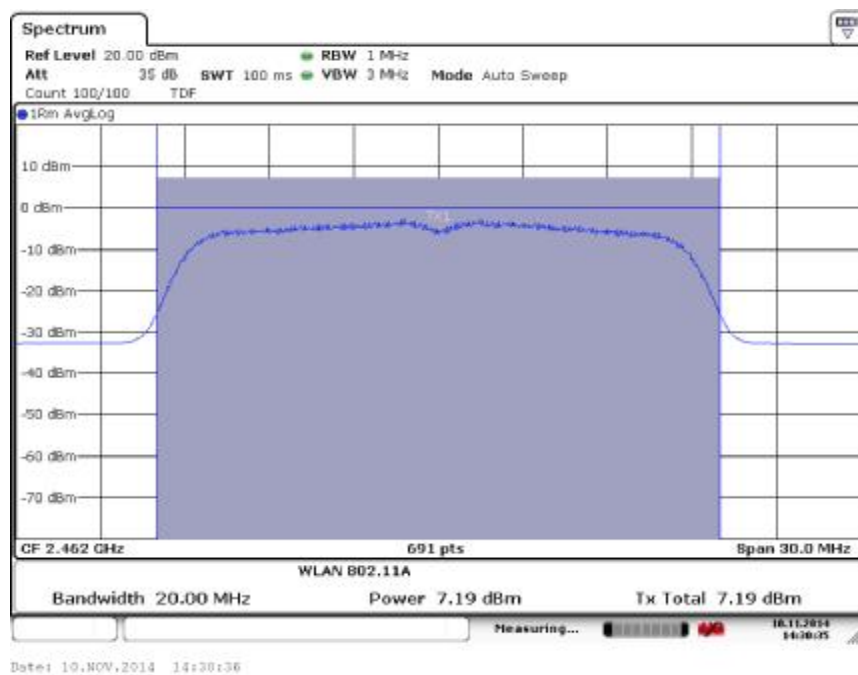


Fig.60 Maximum Average Output Power (802.11n-20MHz, Ch 11,MCS7)

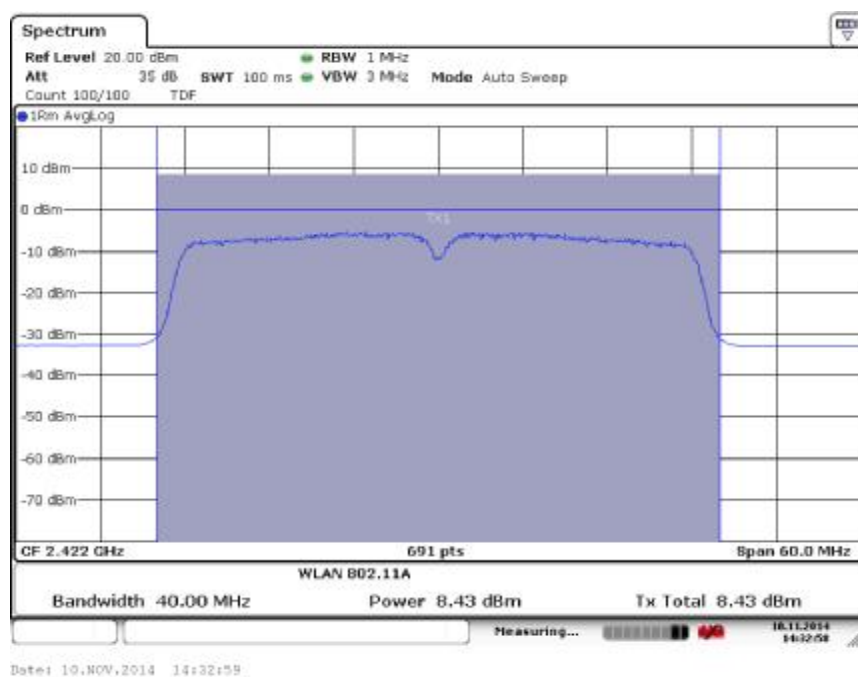


Fig.61 Maximum Average Output Power (802.11n-40MHz, Ch 1,MCS0)

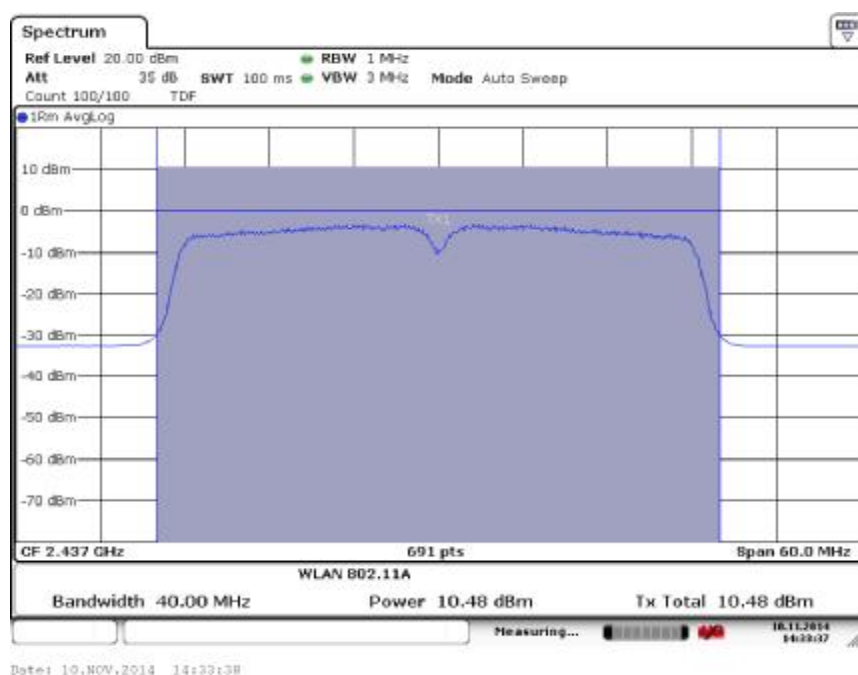


Fig.62 Maximum Average Output Power (802.11n- 40MHz,Ch6,MCS0)

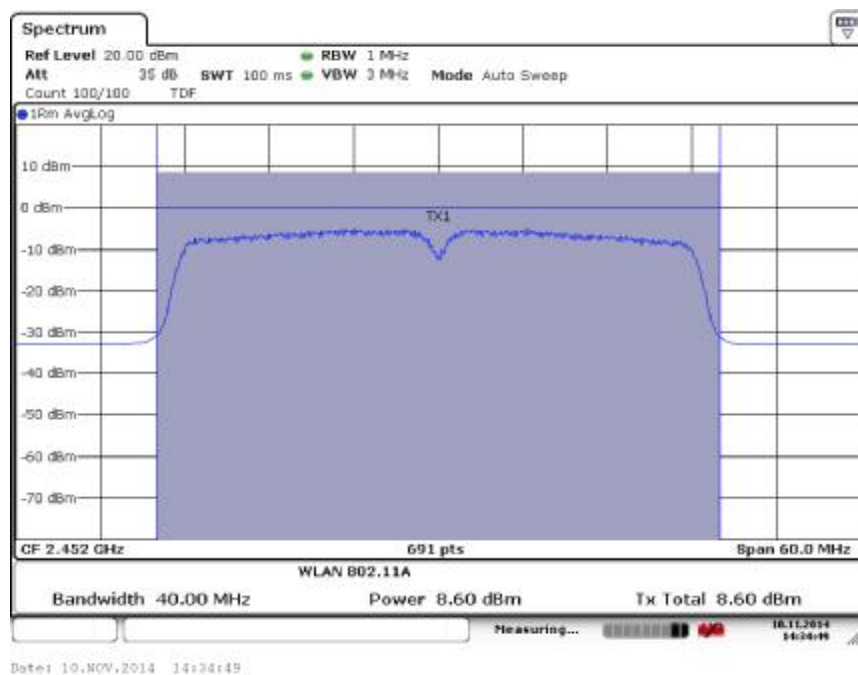


Fig.63 Maximum Average Output Power (802.11n- 40MHz,Ch11,MCS0)

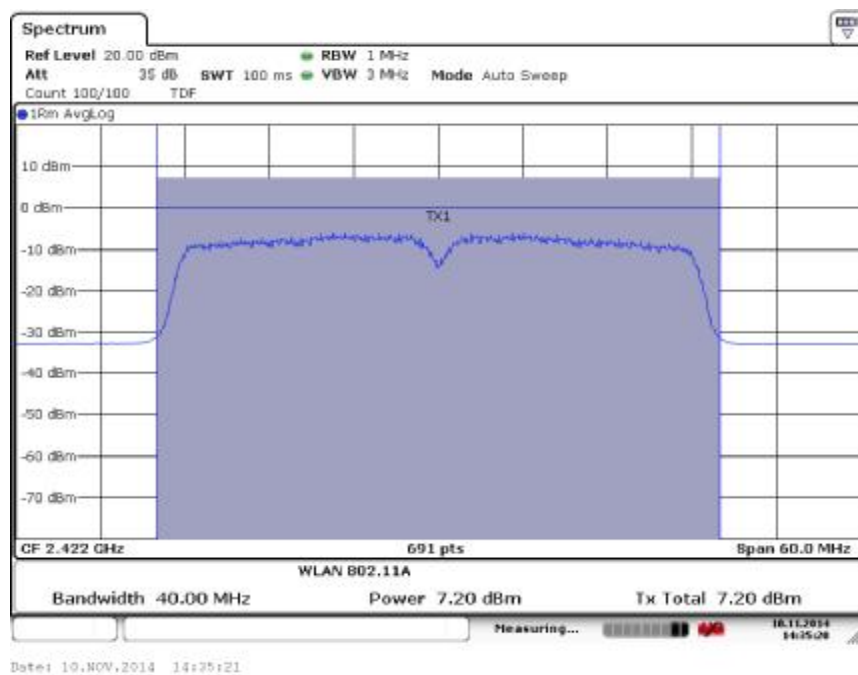


Fig.64 Maximum Average Output Power (802.11n- 40MHz,Ch1,MCS1)

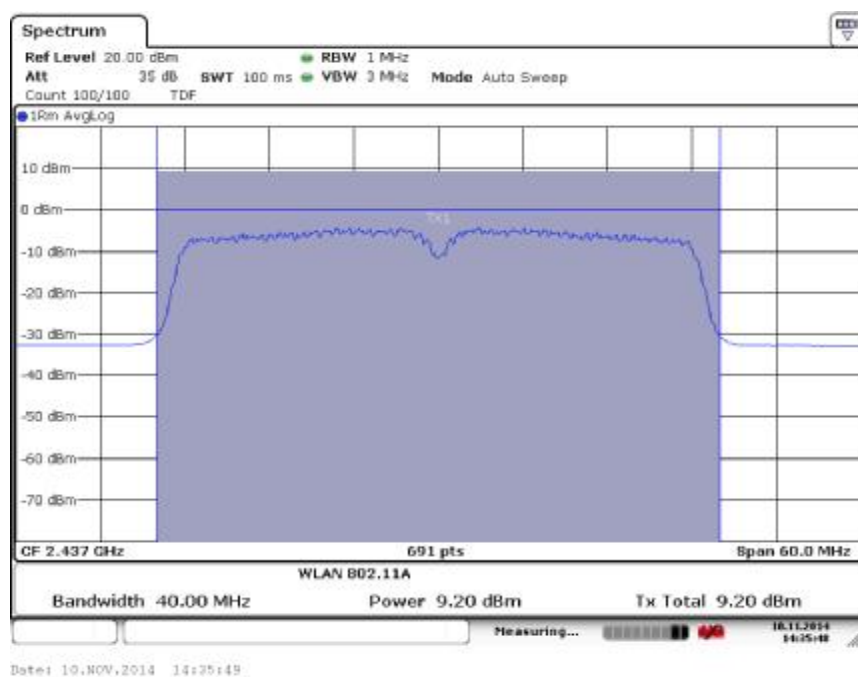


Fig.65 Maximum Average Output Power (802.11n- 40MHz,Ch6,MCS1)

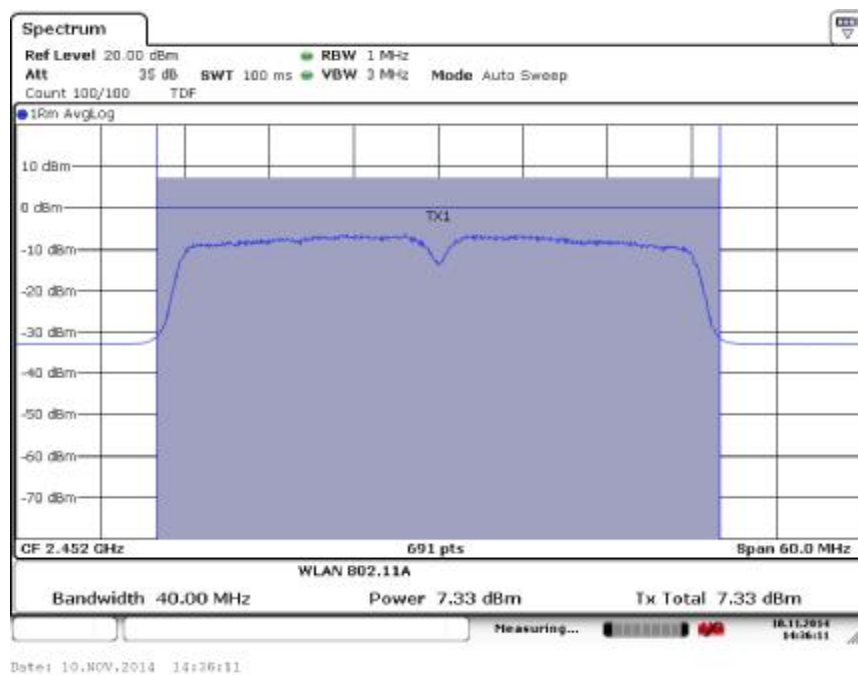


Fig.66 Maximum Average Output Power (802.11n- 40MHz,Ch11,MCS1)

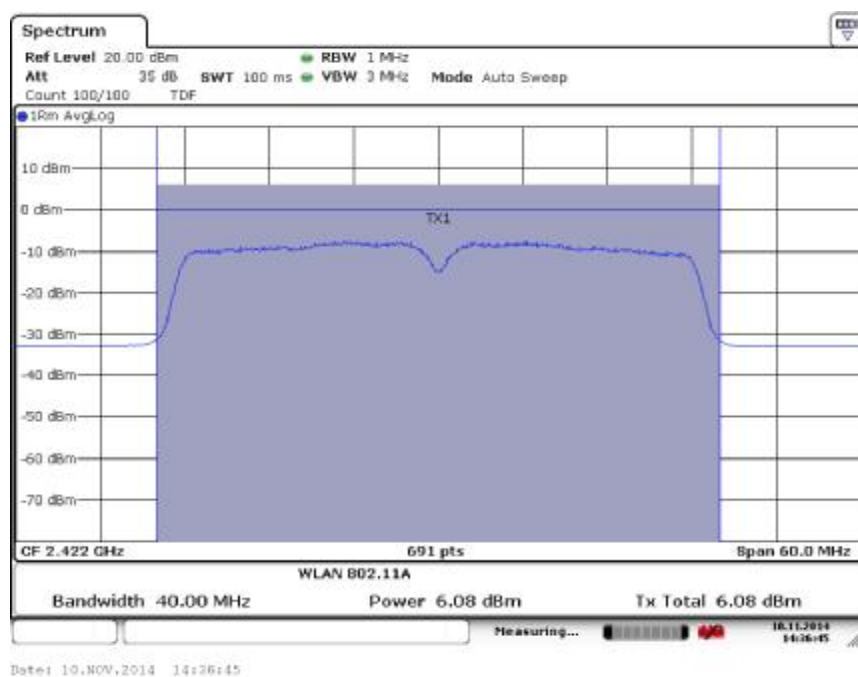


Fig.67 Maximum Average Output Power (802.11n- 40MHz,Ch1,MCS2)

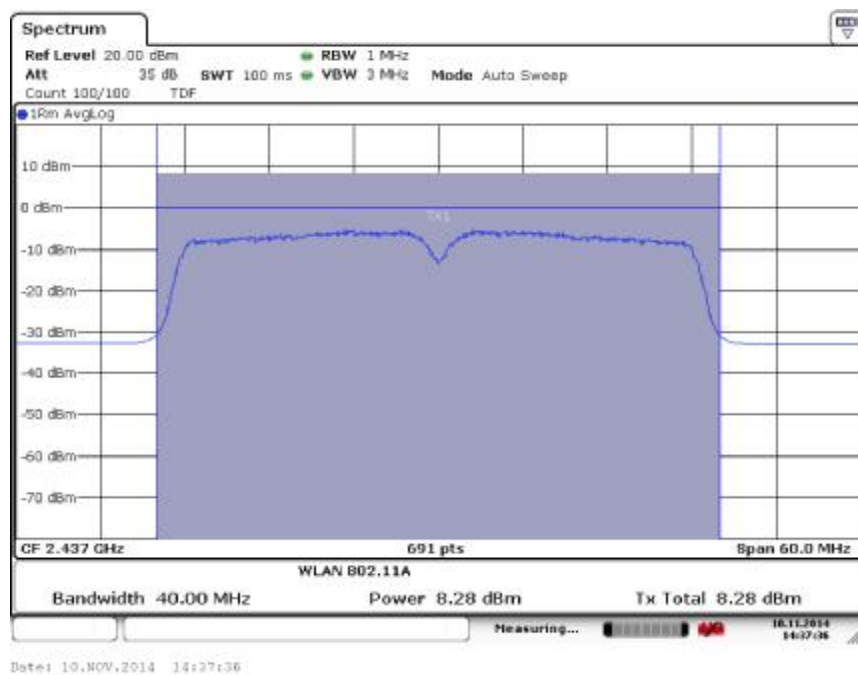


Fig.68 Maximum Average Output Power (802.11n- 40MHz,Ch6,MCS2)

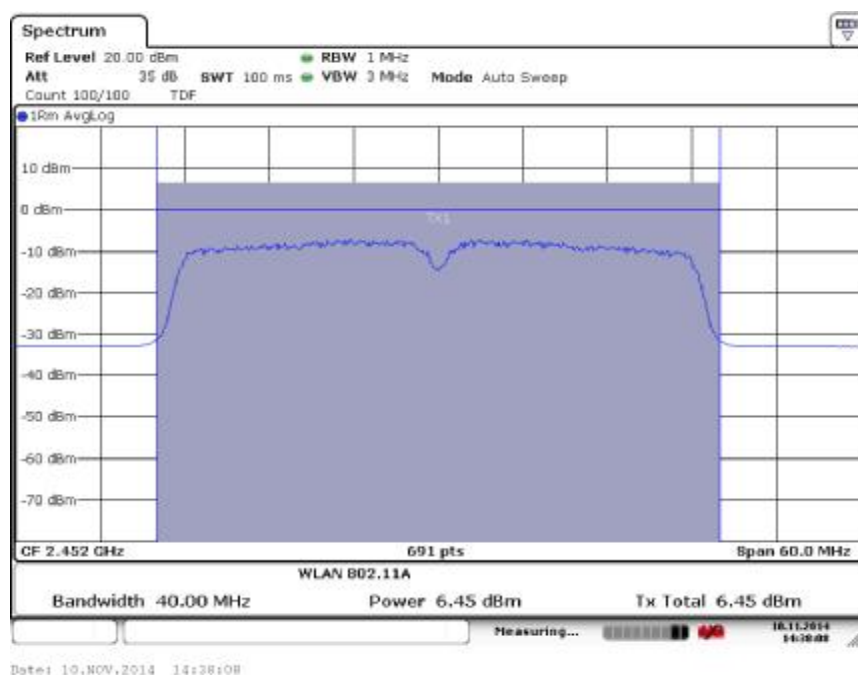


Fig.69 Maximum Average Output Power (802.11n- 40MHz,Ch11,MCS2)

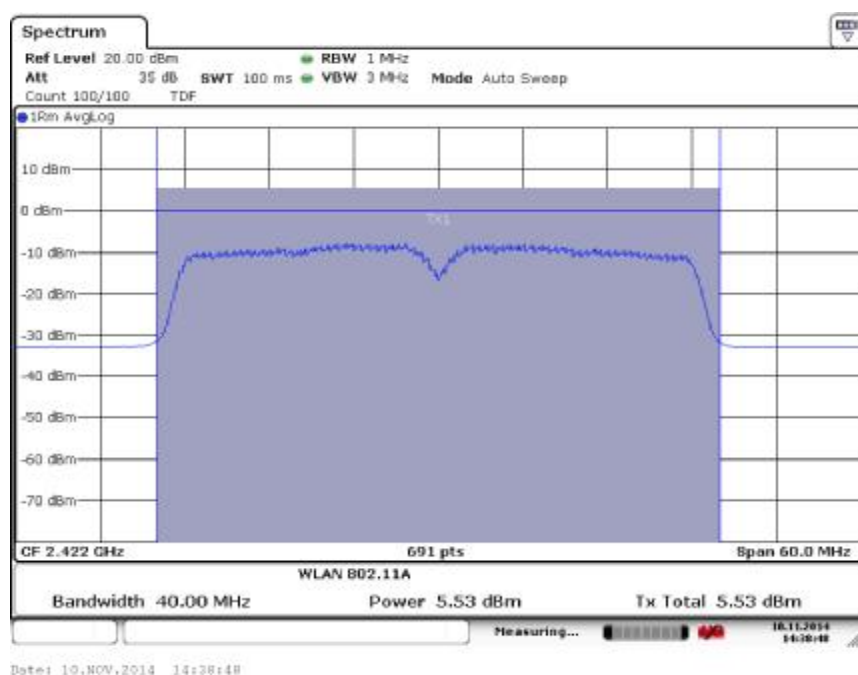


Fig.70 Maximum Average Output Power (802.11n- 40MHz,Ch1,MCS3)

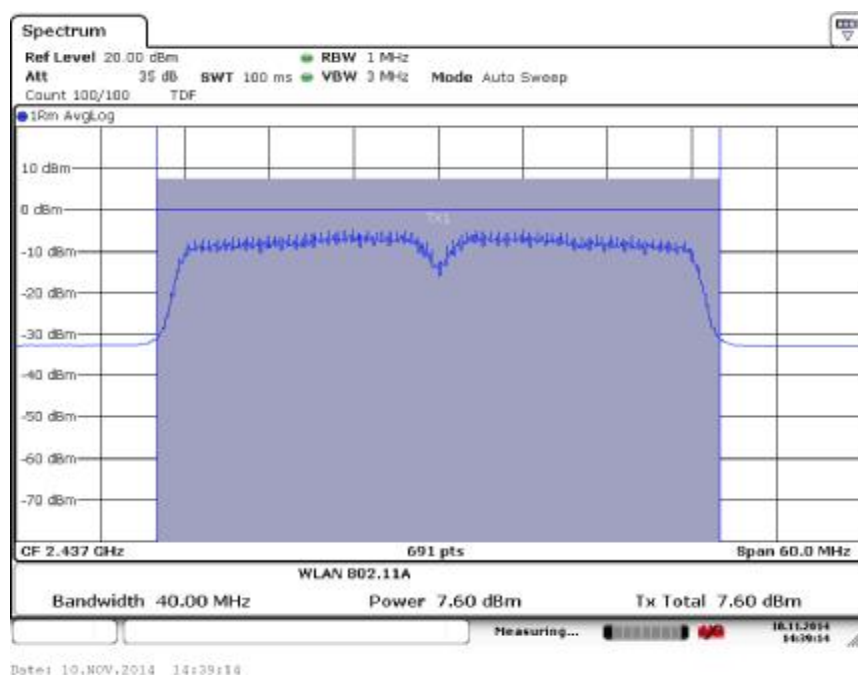


Fig.71 Maximum Average Output Power (802.11n- 40MHz,Ch6,MCS3)

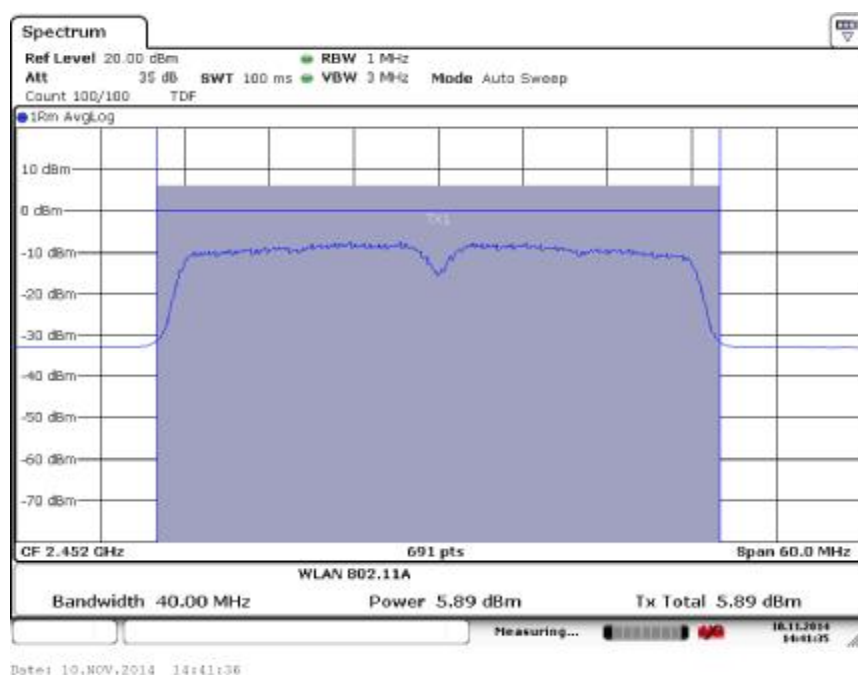


Fig.72 Maximum Average Output Power (802.11n- 40MHz,Ch11,MCS3)

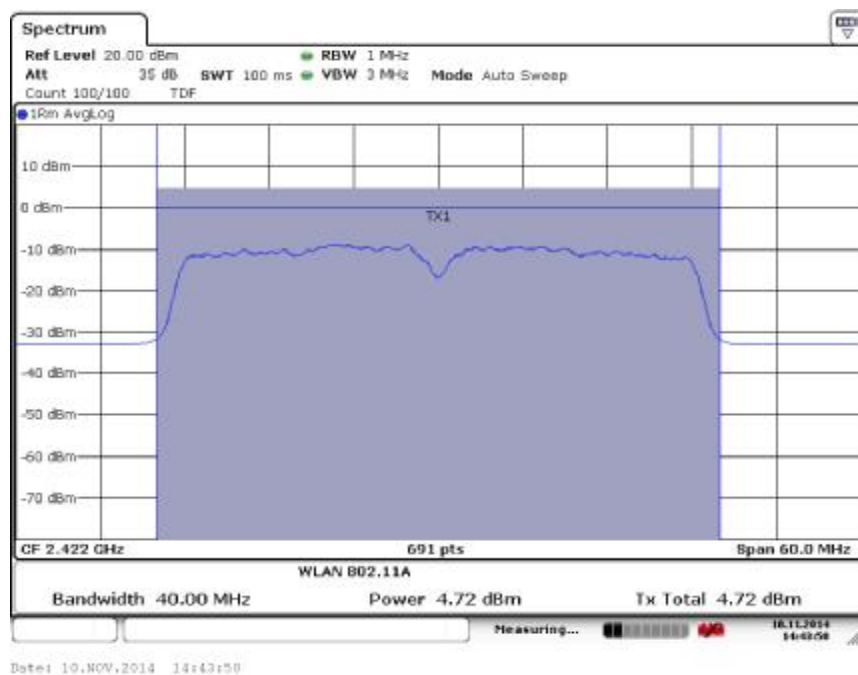


Fig.73 Maximum Average Output Power (802.11n- 40MHz,Ch1,MCS4)

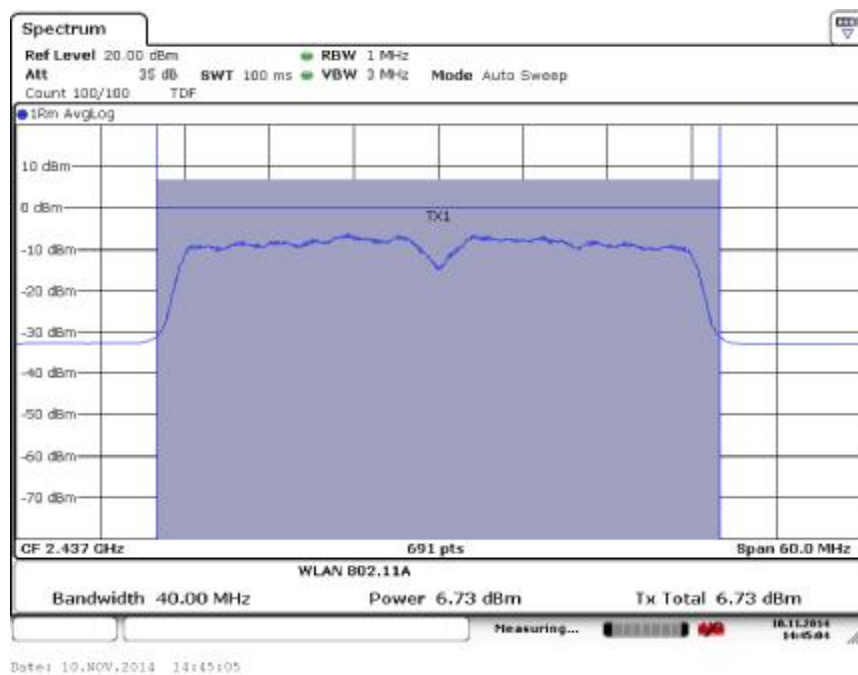


Fig.74 Maximum Average Output Power (802.11n- 40MHz,Ch6,MCS4)

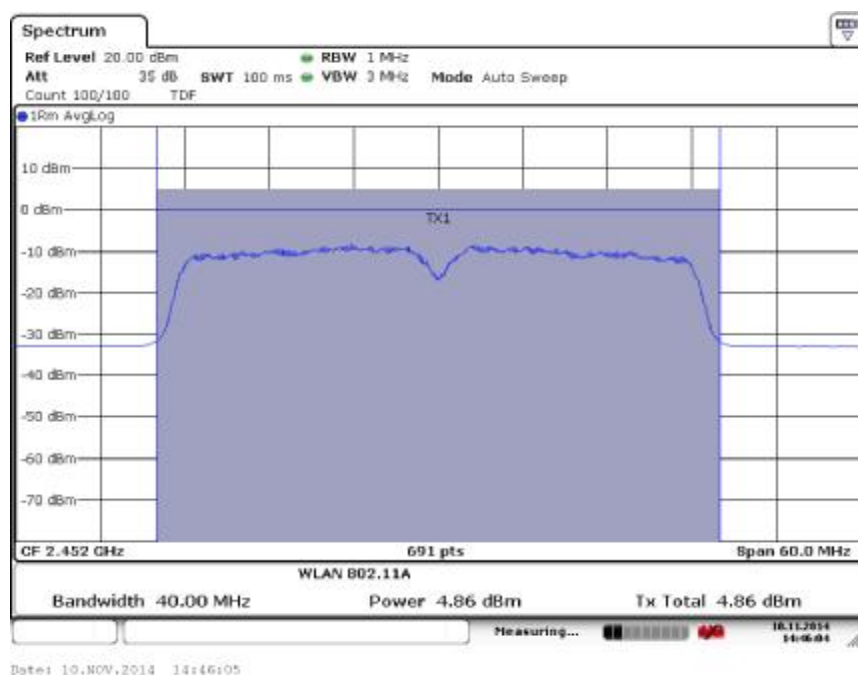


Fig.75 Maximum Average Output Power (802.11n- 40MHz,Ch11,MCS4)

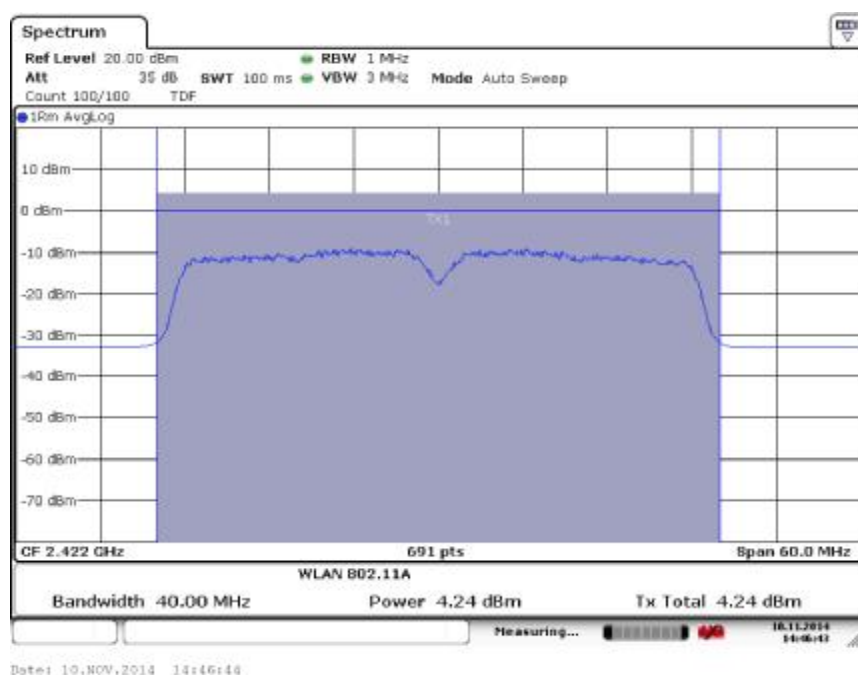


Fig.76 Maximum Average Output Power (802.11n- 40MHz,Ch1,MCS5)

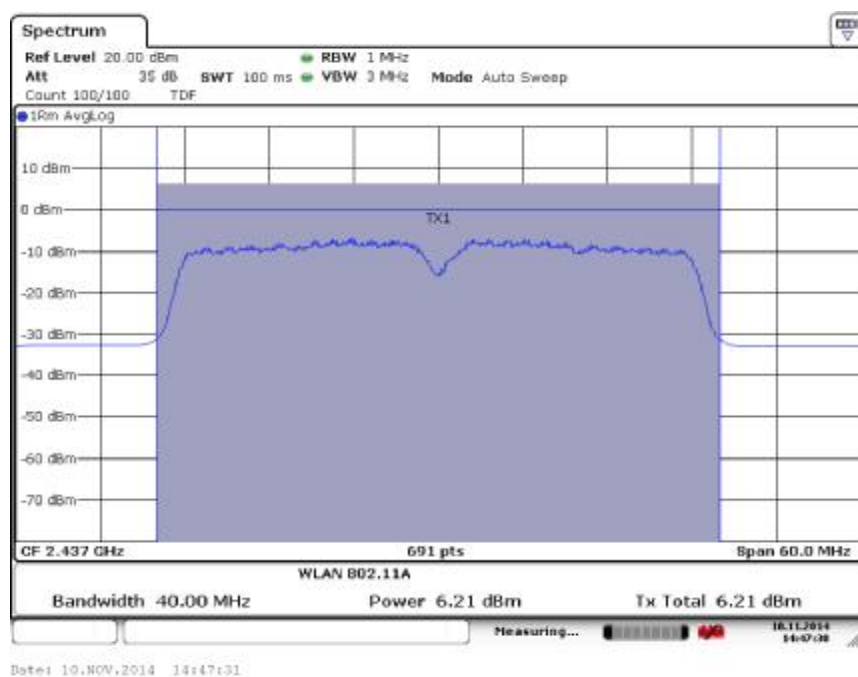


Fig.77 Maximum Average Output Power (802.11n- 40MHz,Ch6,MCS5)

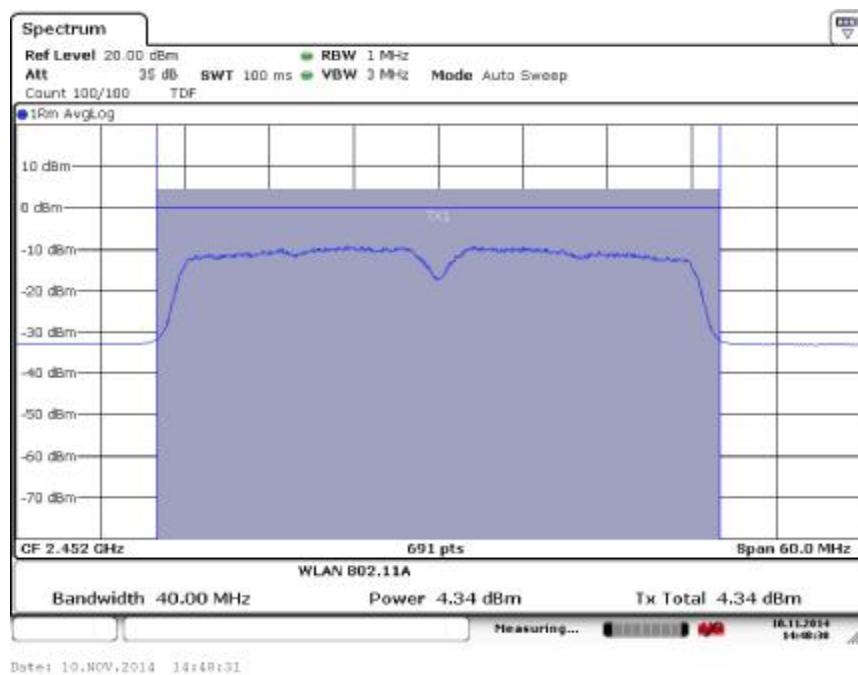


Fig.78 Maximum Average Output Power (802.11n- 40MHz,Ch11,MCS5)

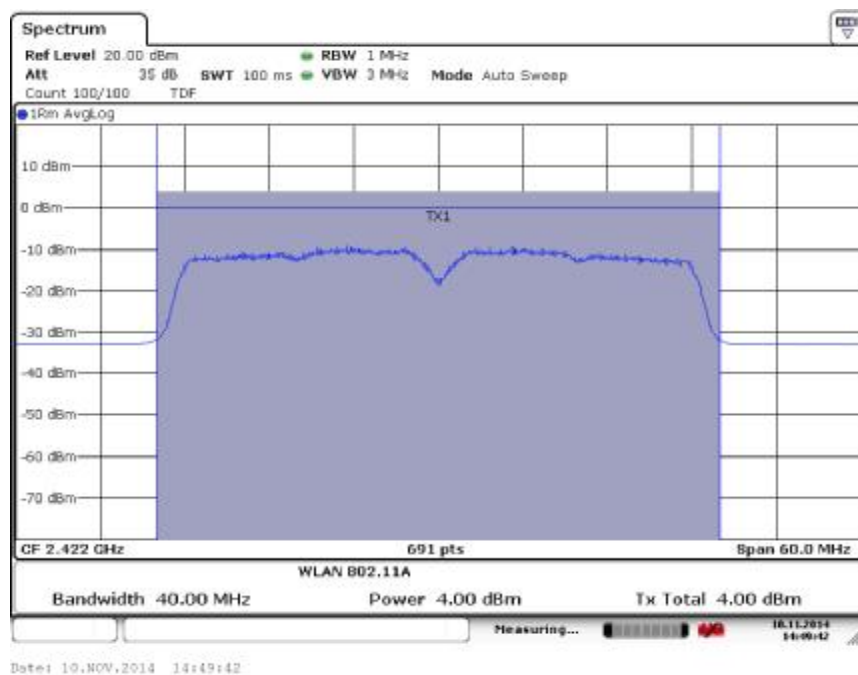


Fig.79 Maximum Average Output Power (802.11n- 40MHz,Ch1,MCS6)

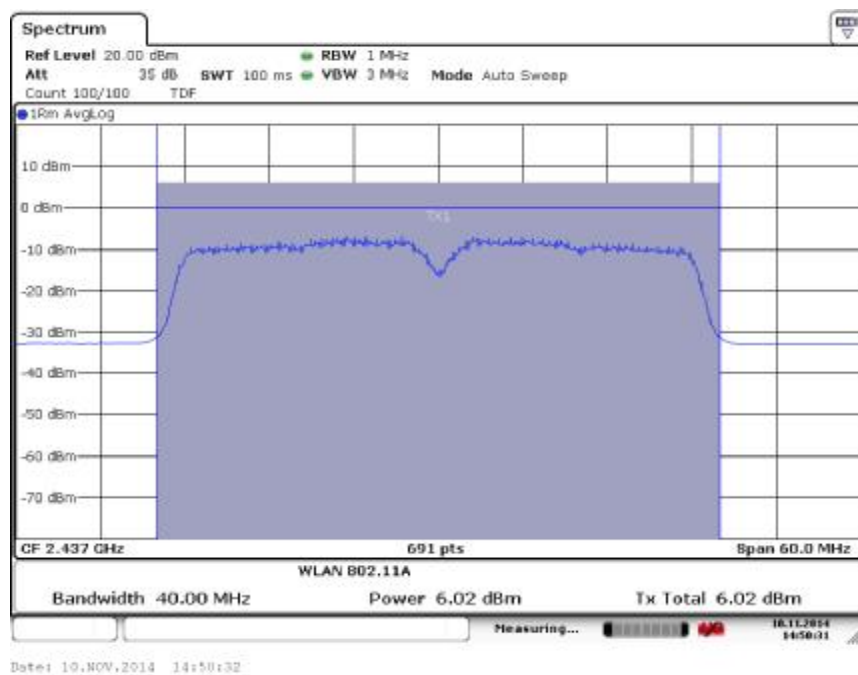


Fig.80 Maximum Average Output Power (802.11n- 40MHz,Ch6,MCS6)

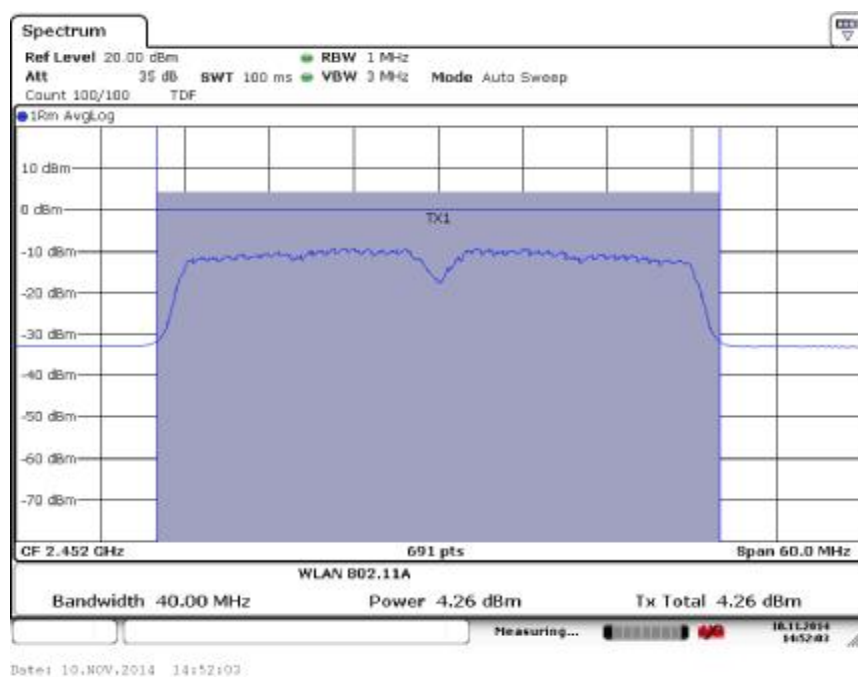


Fig.81 Maximum Average Output Power (802.11n- 40MHz,Ch11,MCS6)

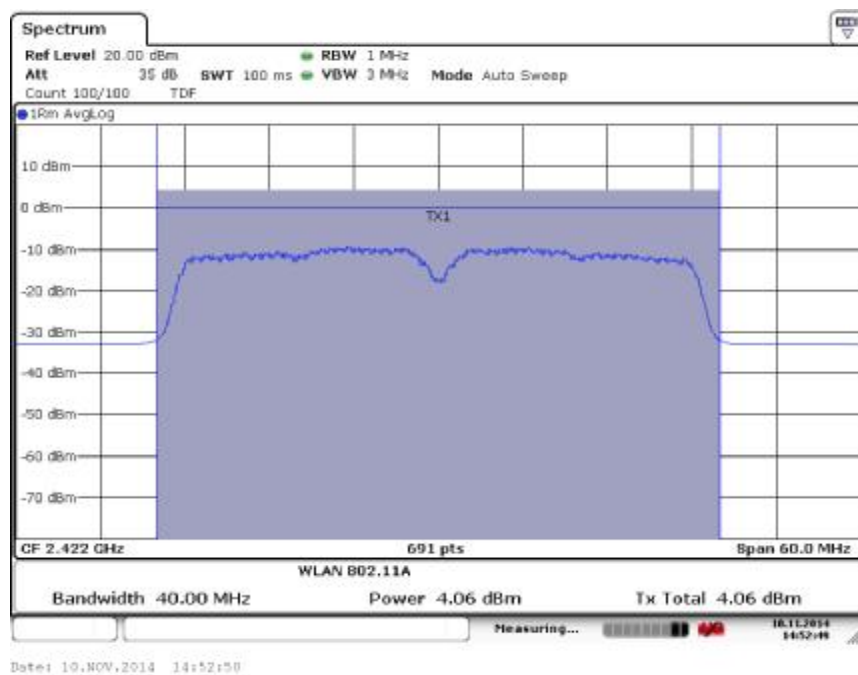


Fig.82 Maximum Average Output Power (802.11n- 40MHz,Ch1,MCS7)

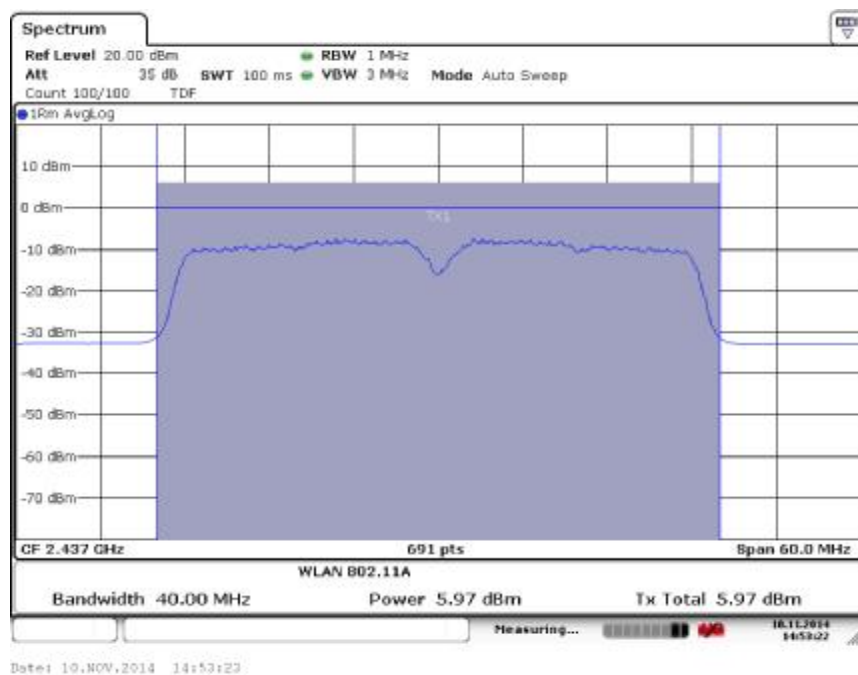


Fig.83 Maximum Average Output Power (802.11n- 40MHz,Ch6,MCS7)

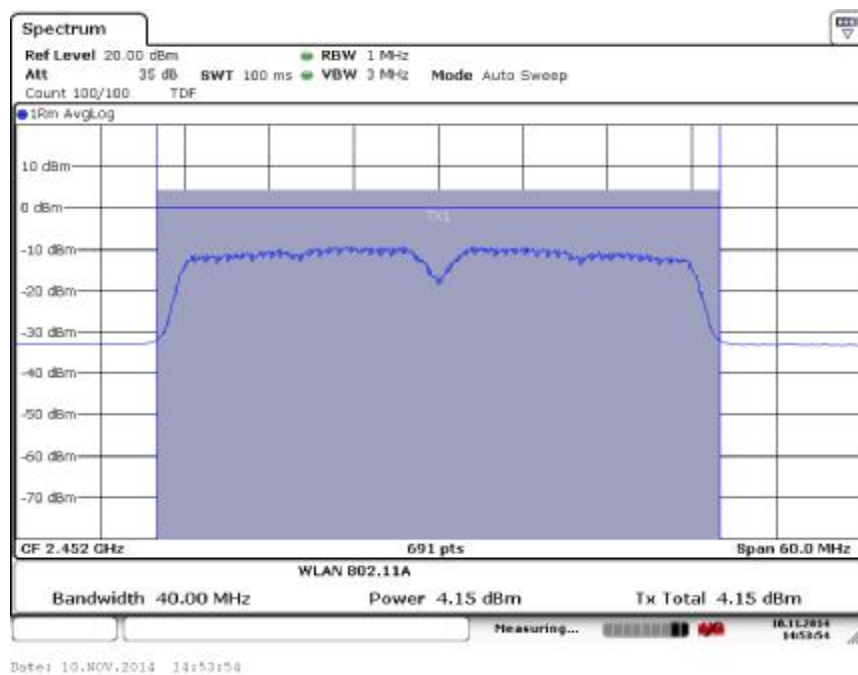


Fig.84 Maximum Average Output Power (802.11n- 40MHz,Ch11,MCS7)

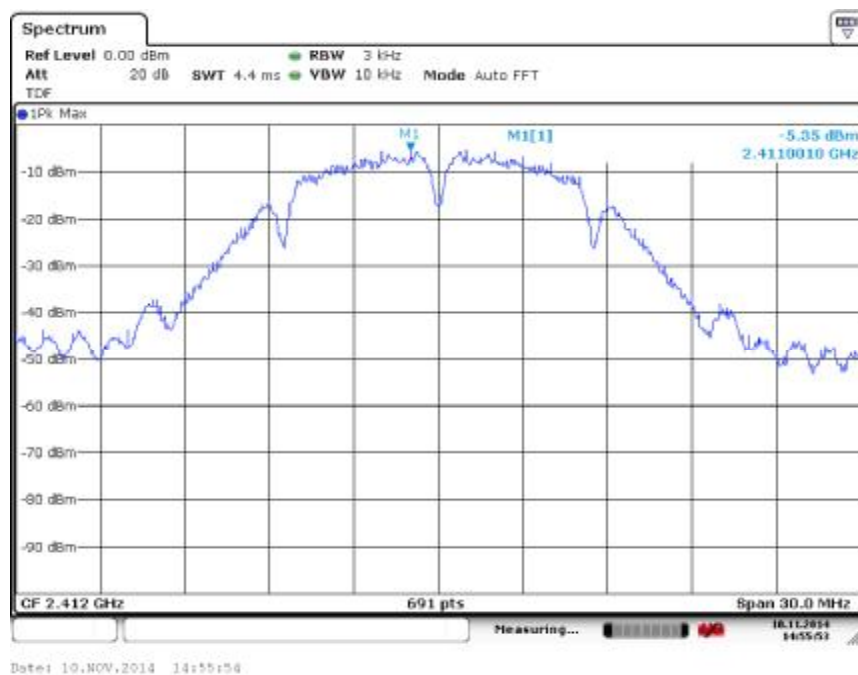


Fig.85 Power Spectral Density (802.11b, Ch 1)

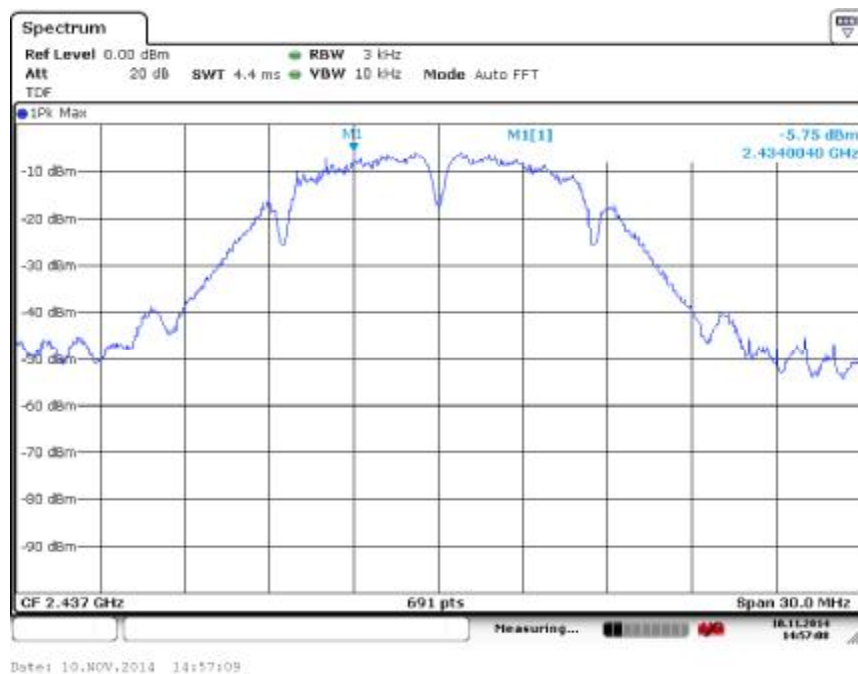


Fig.86 Power Spectral Density (802.11b, Ch 6)



Fig.87 Power Spectral Density (802.11b, Ch 11)

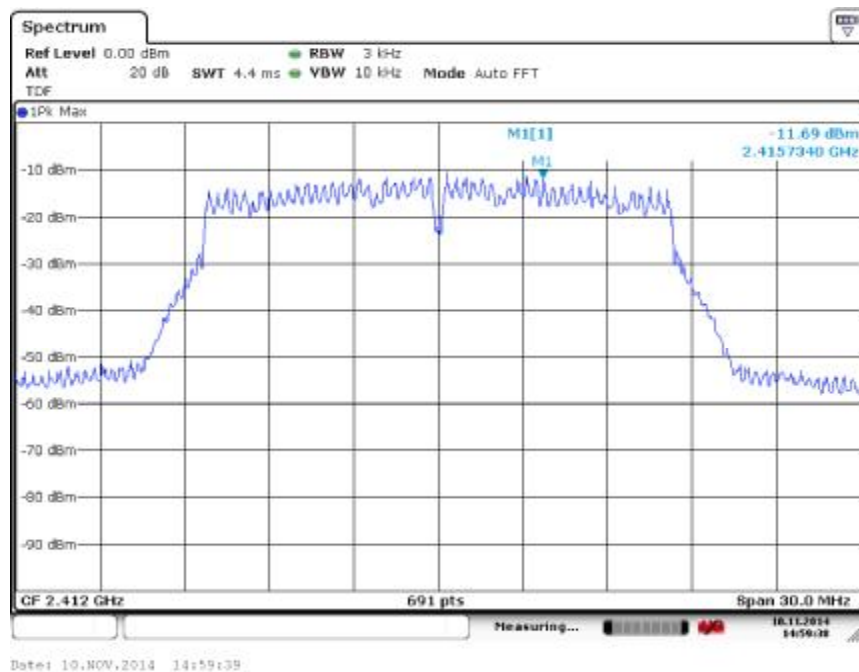


Fig.88 Power Spectral Density (802.11g, Ch 1)

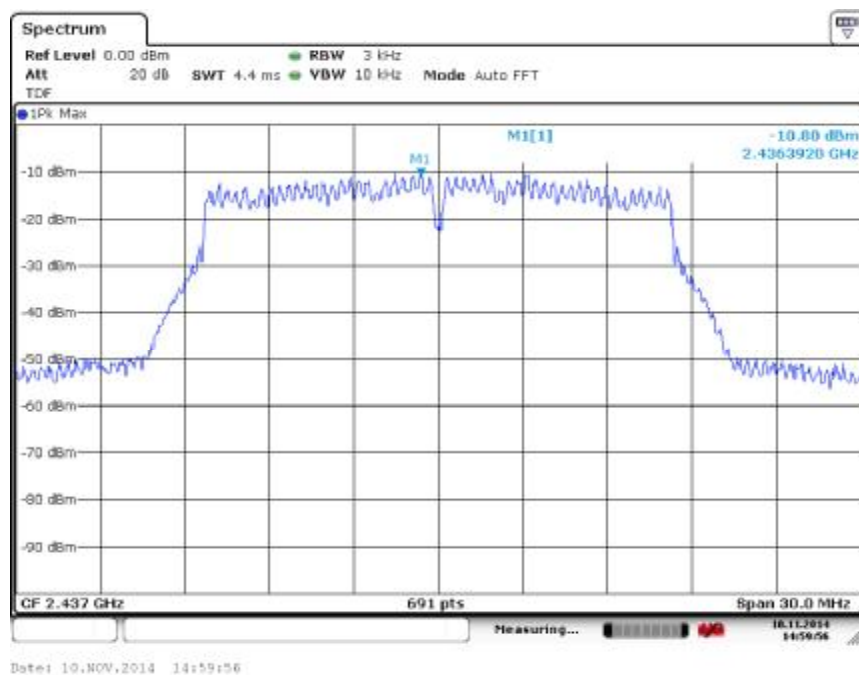


Fig.89 Power Spectral Density (802.11g, Ch 6)

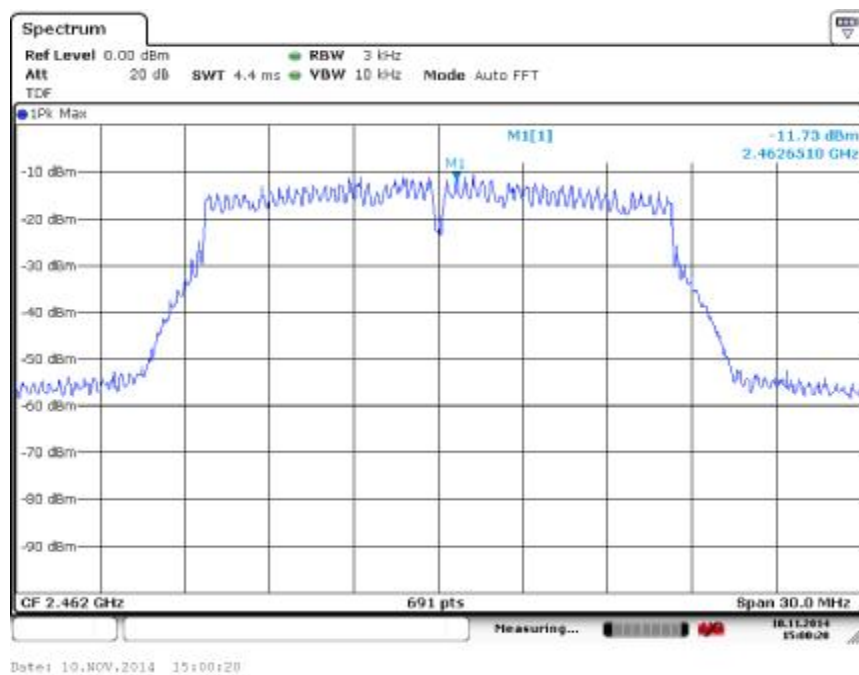


Fig.90 Power Spectral Density (802.11g, Ch 11)

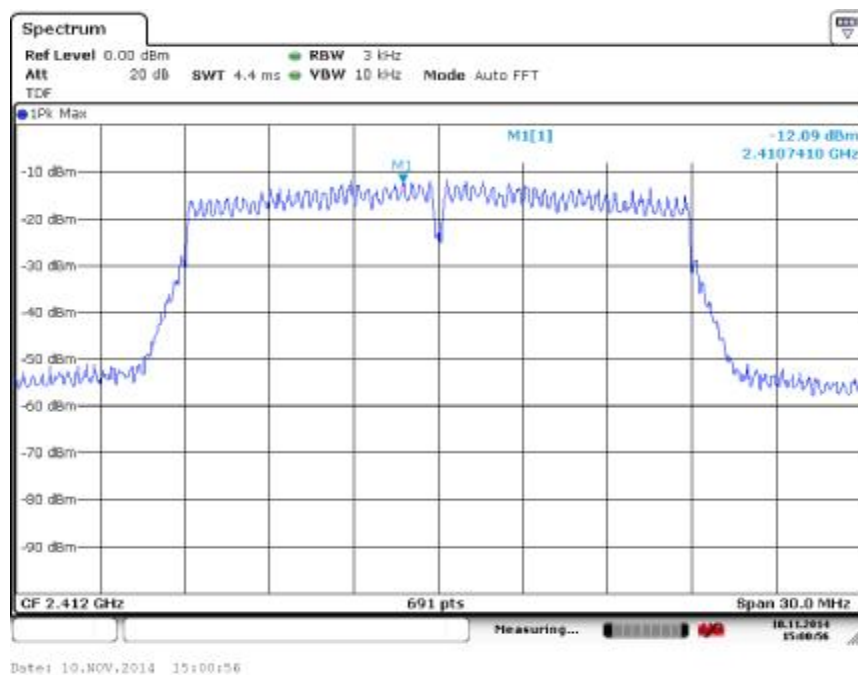


Fig.91 Power Spectral Density (802.11n-20MHz, Ch 1)

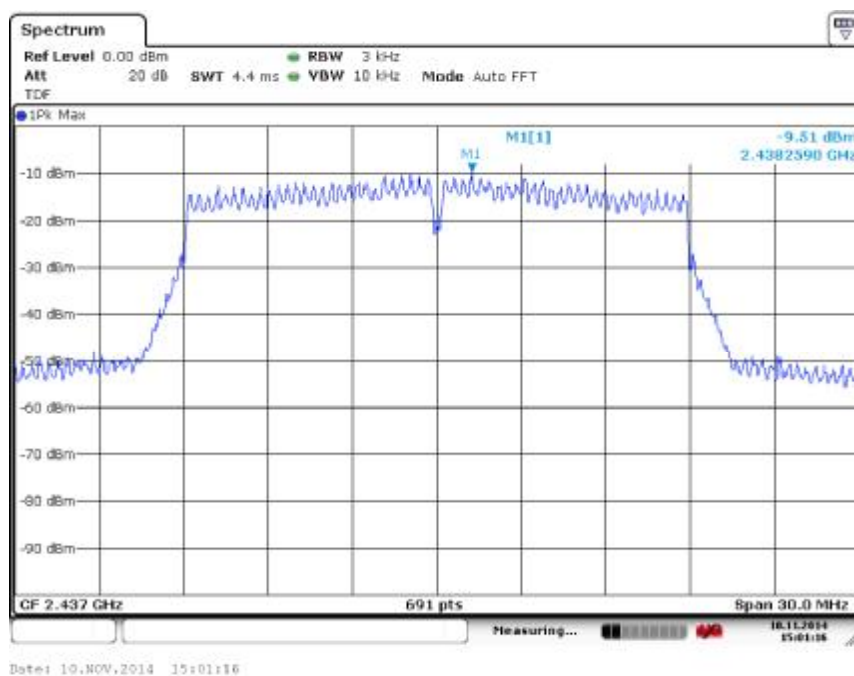


Fig.92 Power Spectral Density (802.11n-20MHz, Ch 6)

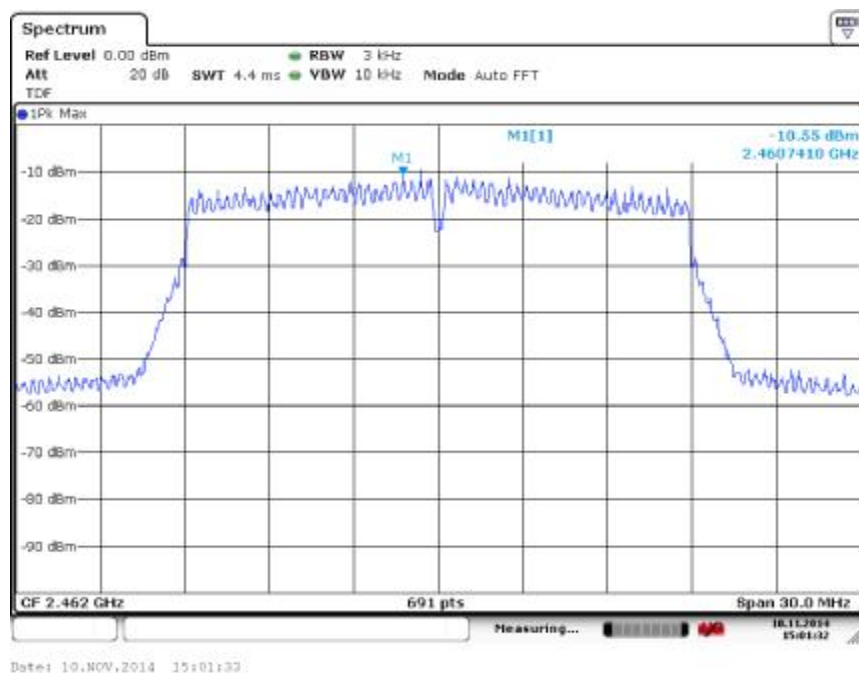


Fig.93 Power Spectral Density (802.11n-20MHz, Ch 11)

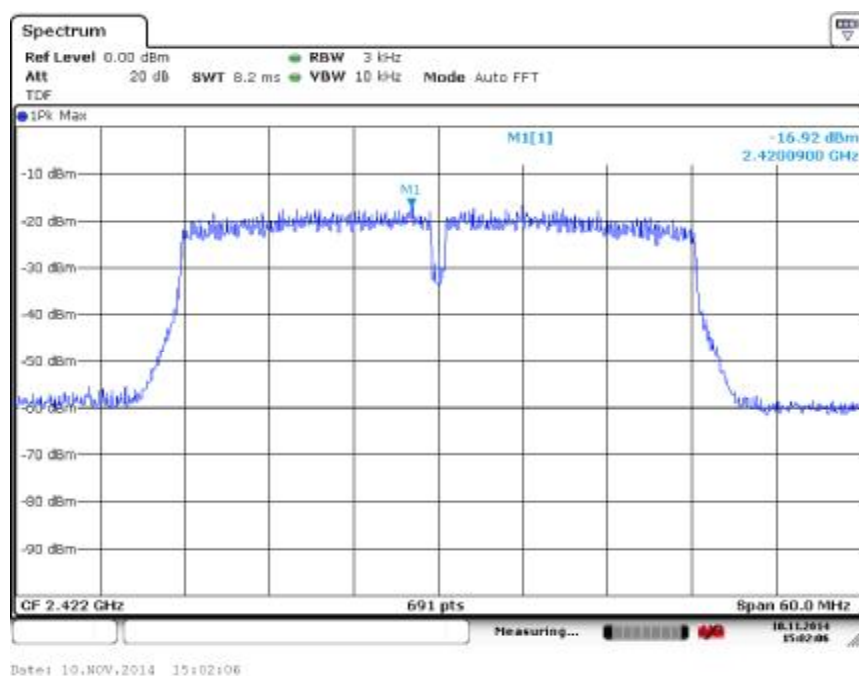


Fig.94 Power Spectral Density (802.11n-40MHz, Ch 3)

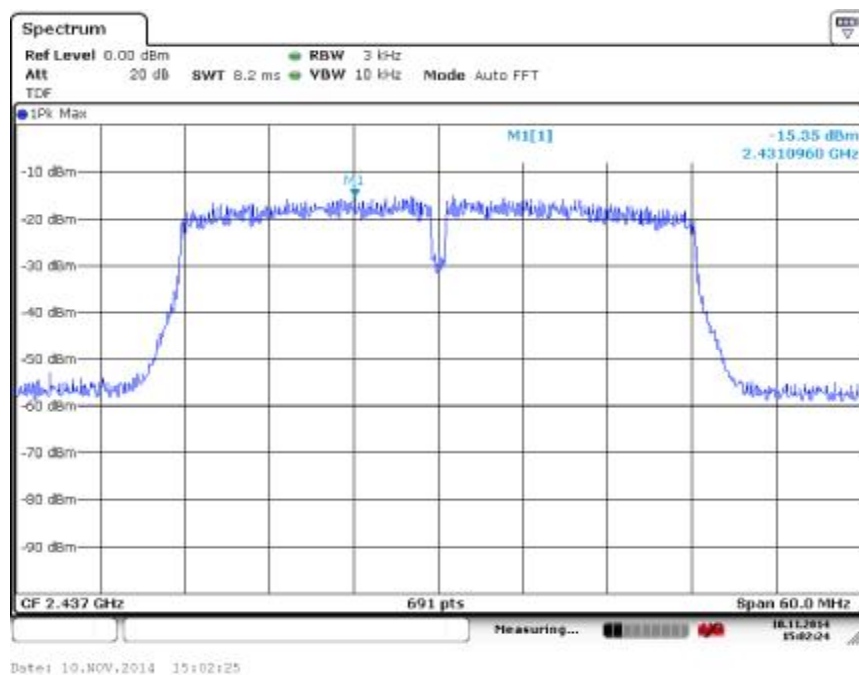


Fig.95 Power Spectral Density (802.11n-40MHz, Ch 6)

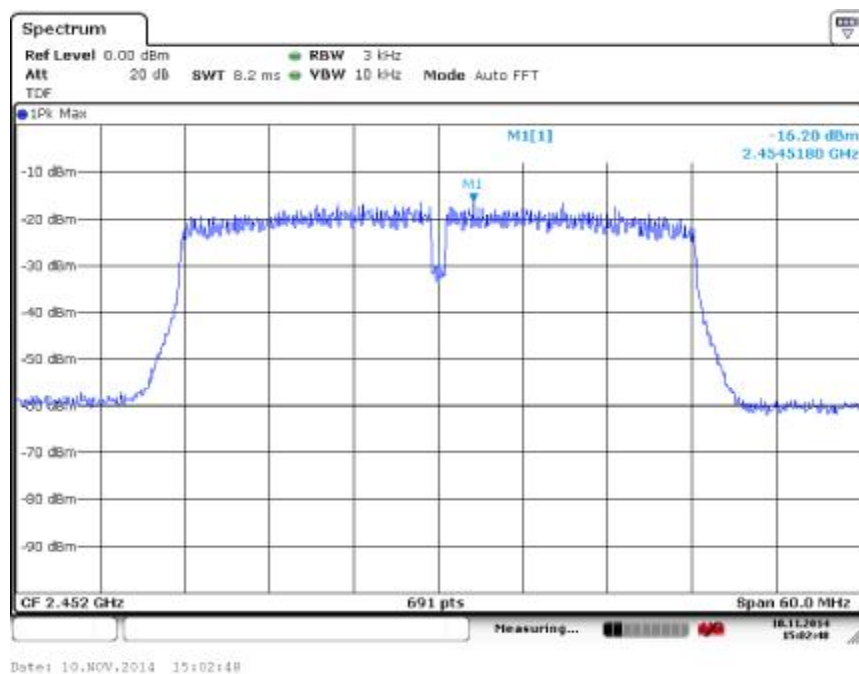


Fig.96 Power Spectral Density (802.11n-40MHz, Ch 9)

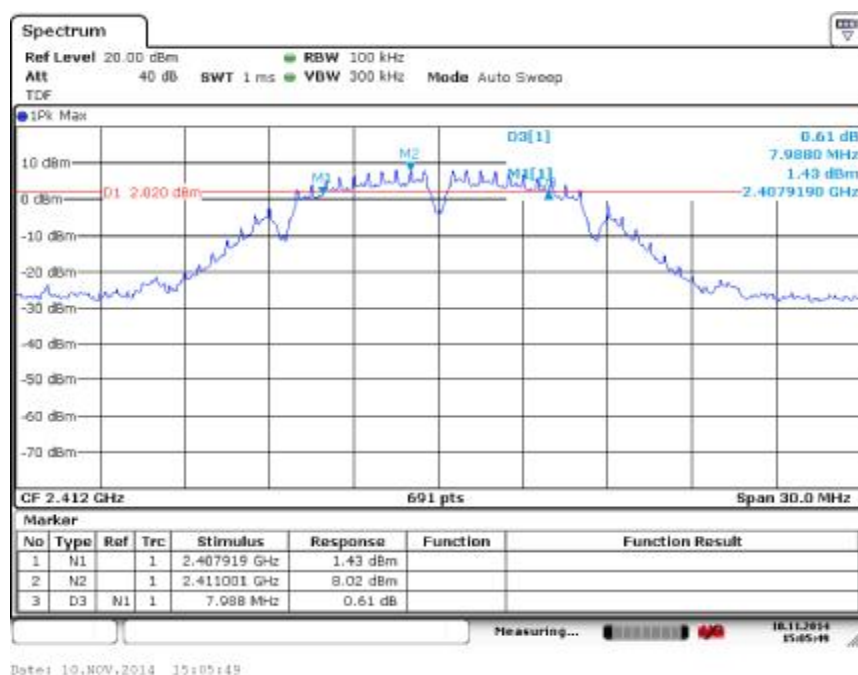


Fig.97 Occupied 6dB Bandwidth (802.11b, Ch 1)

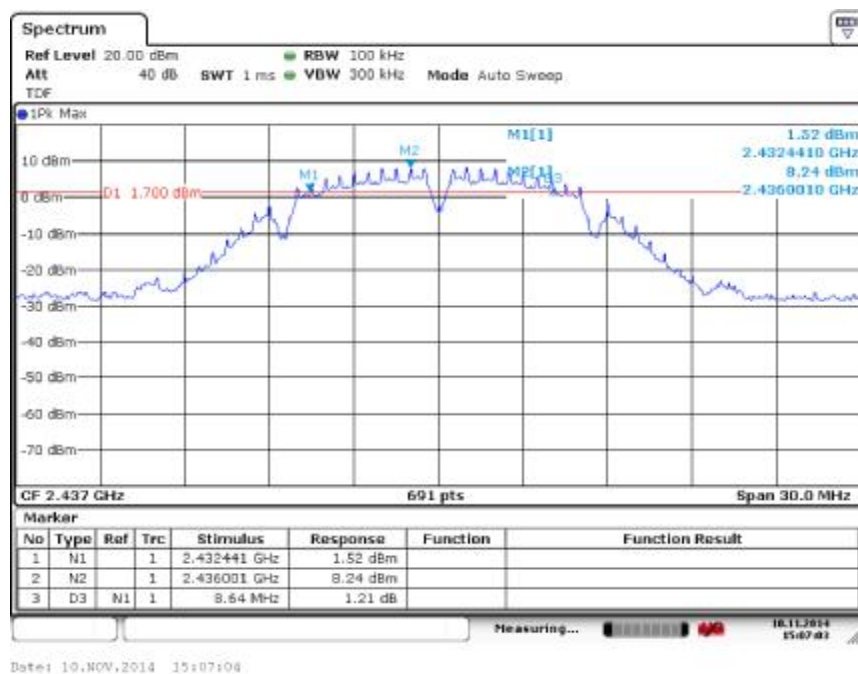


Fig.98 Occupied 6dB Bandwidth (802.11b, Ch 6)

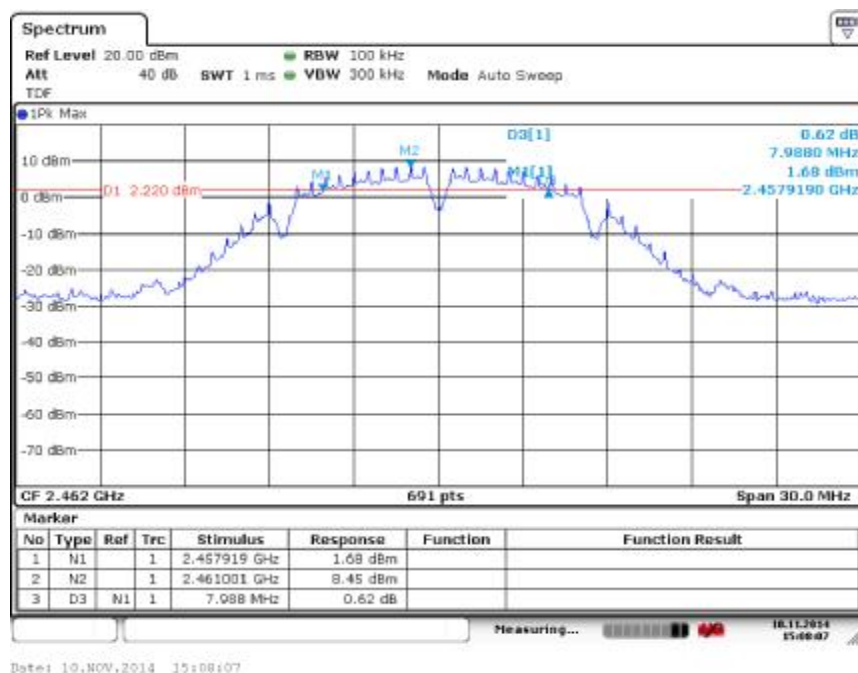


Fig.99 Occupied 6dB Bandwidth (802.11b, Ch 11)

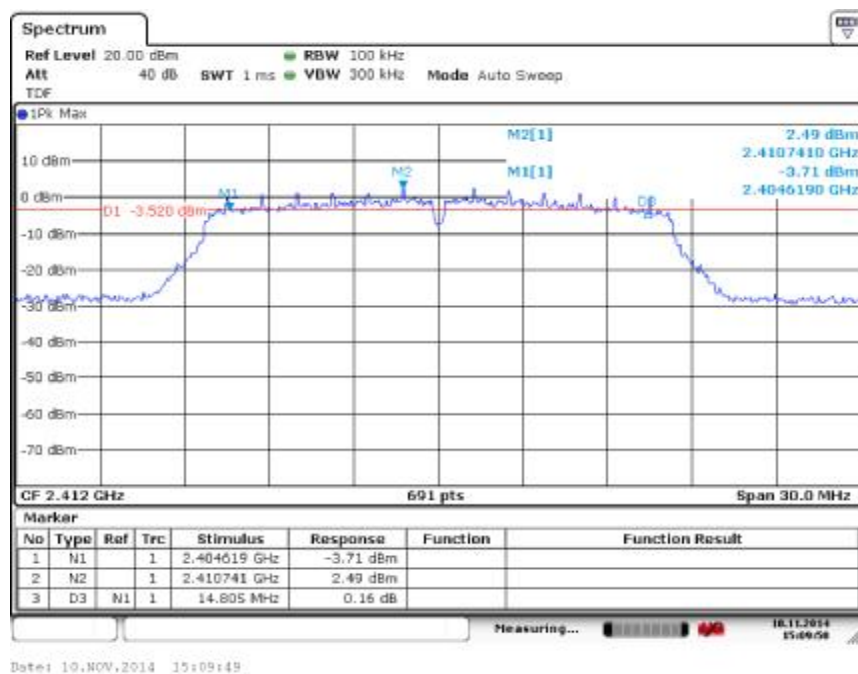


Fig.100 Occupied 6dB Bandwidth (802.11g, Ch 1)

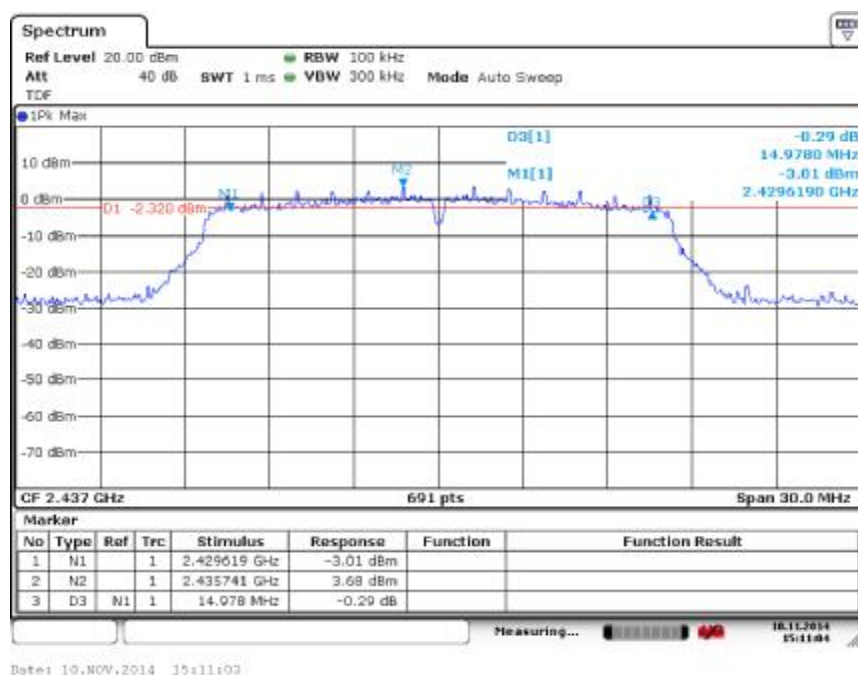


Fig.101 Occupied 6dB Bandwidth (802.11g, Ch 6)

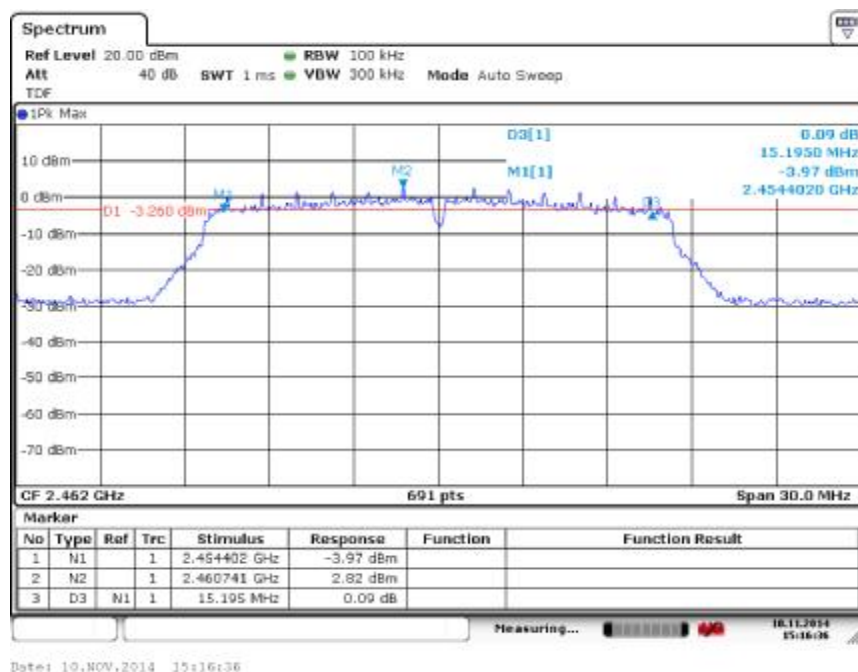


Fig.102 Occupied 6dB Bandwidth (802.11g, Ch 11)

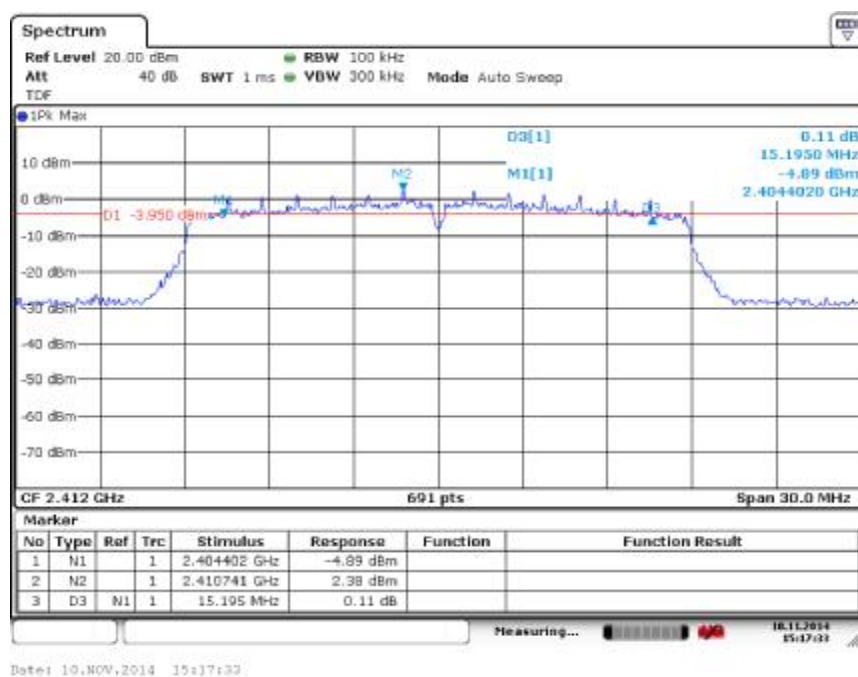


Fig.103 Occupied 6dB Bandwidth (802.11 n-20MHz, Ch 1)

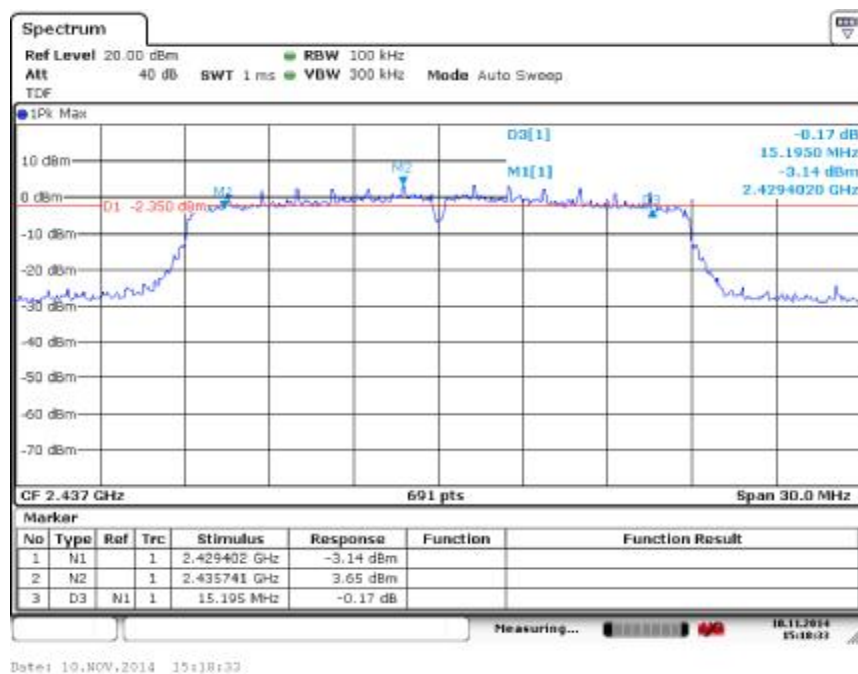


Fig.104 Occupied 6dB Bandwidth (802.11 n-20MHz, Ch 6)

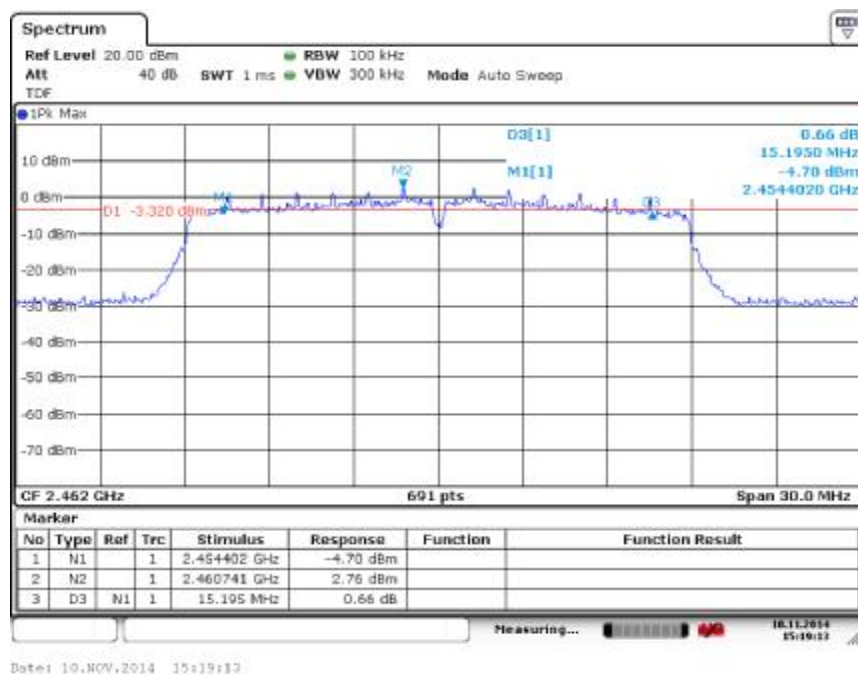


Fig.105 Occupied 6dB Bandwidth (802.11n-20MHz, Ch 11)

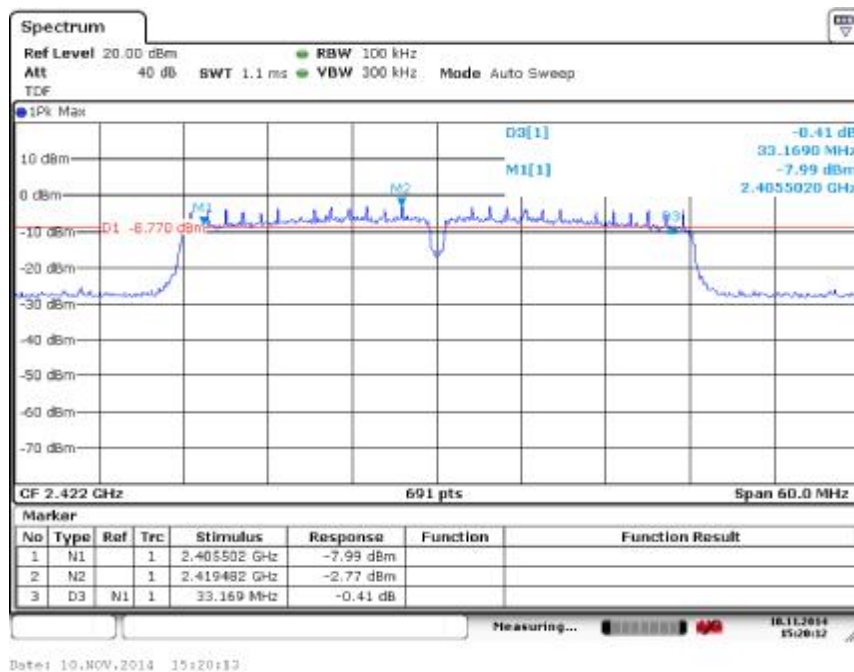


Fig.106 Occupied 6dB Bandwidth (802.11n-40MHz, Ch 3)

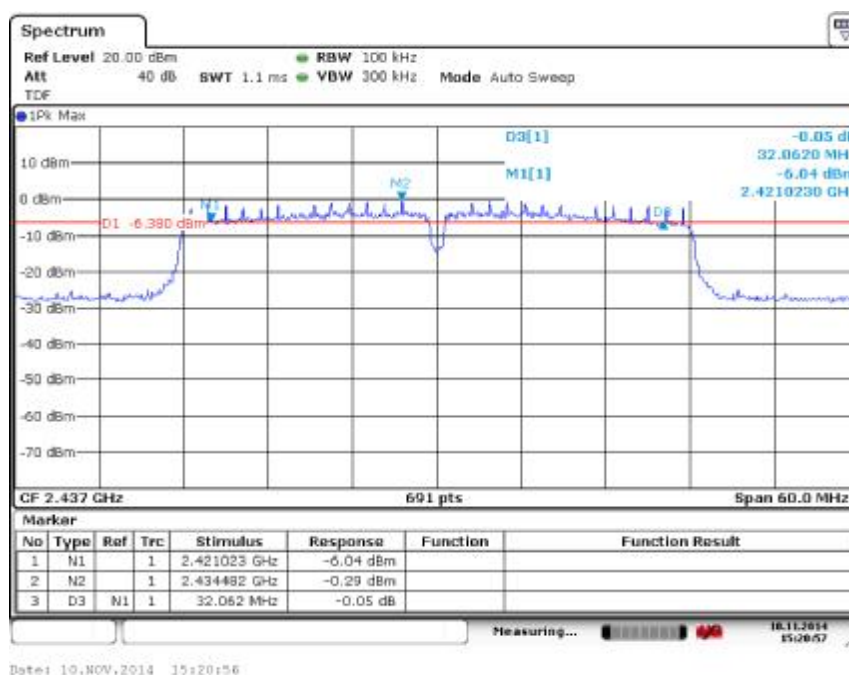


Fig.107 Occupied 6dB Bandwidth (802.11n-40MHz, Ch 6)

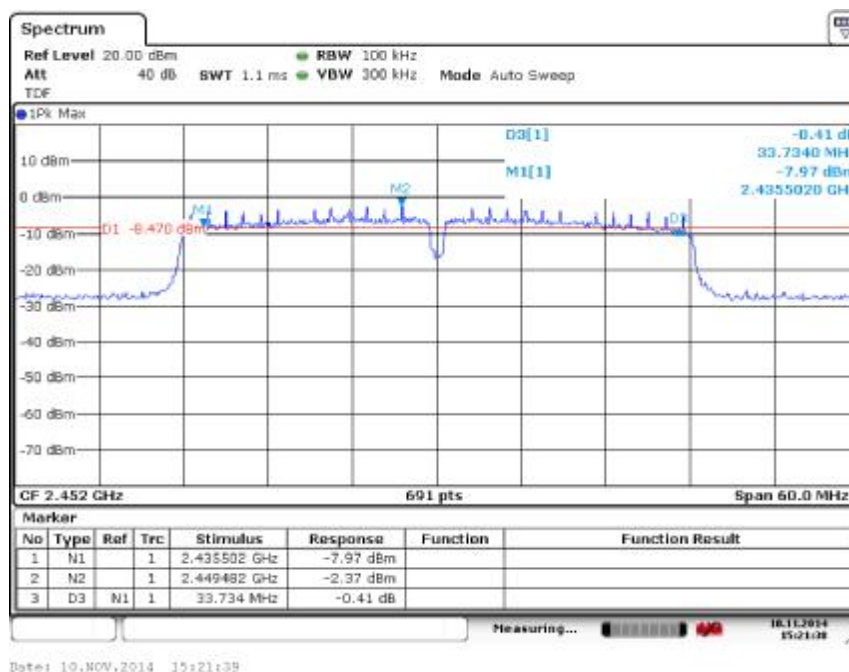


Fig.108 Occupied 6dB Bandwidth (802.11n-40MHz, Ch 9)

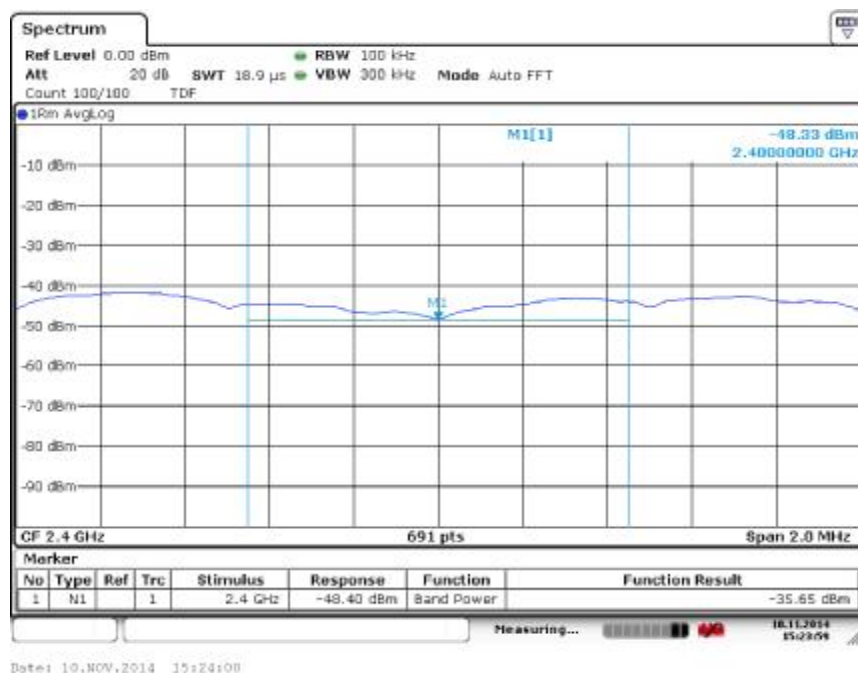


Fig.109 Band Edges (802.11b, Ch 1)

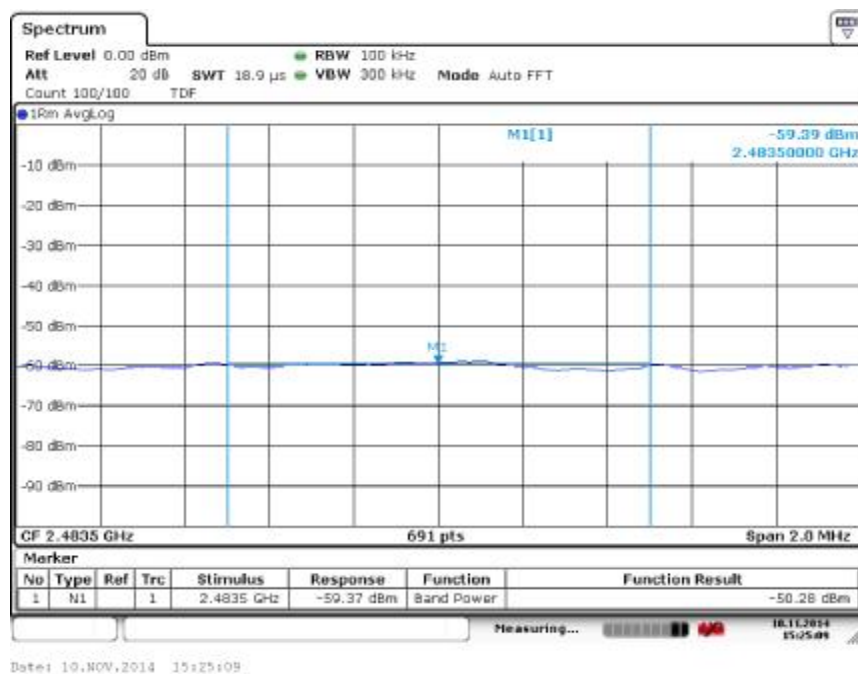


Fig.110 Band Edges (802.11b, Ch 11)

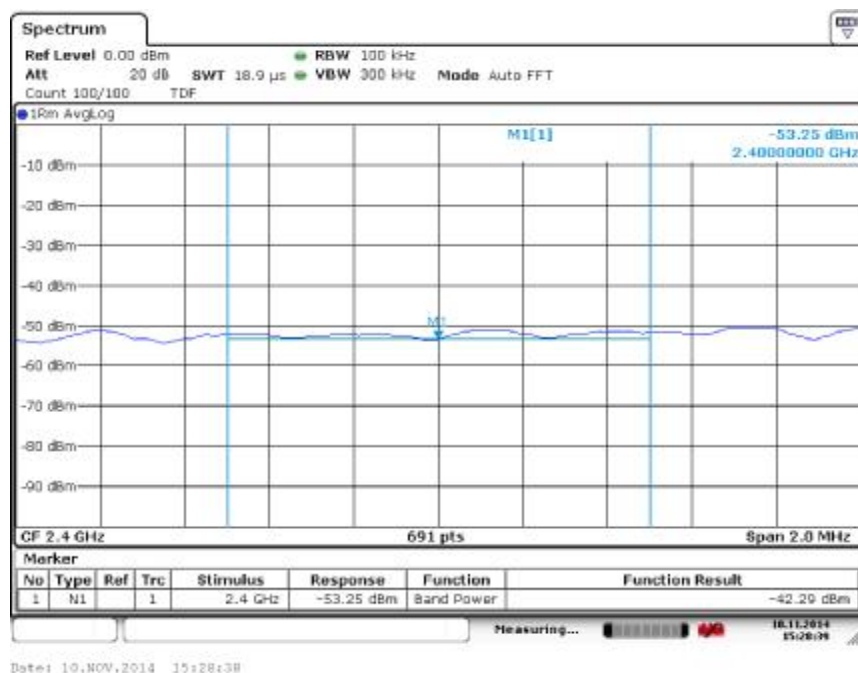


Fig.111 Band Edges (802.11g, Ch 1)

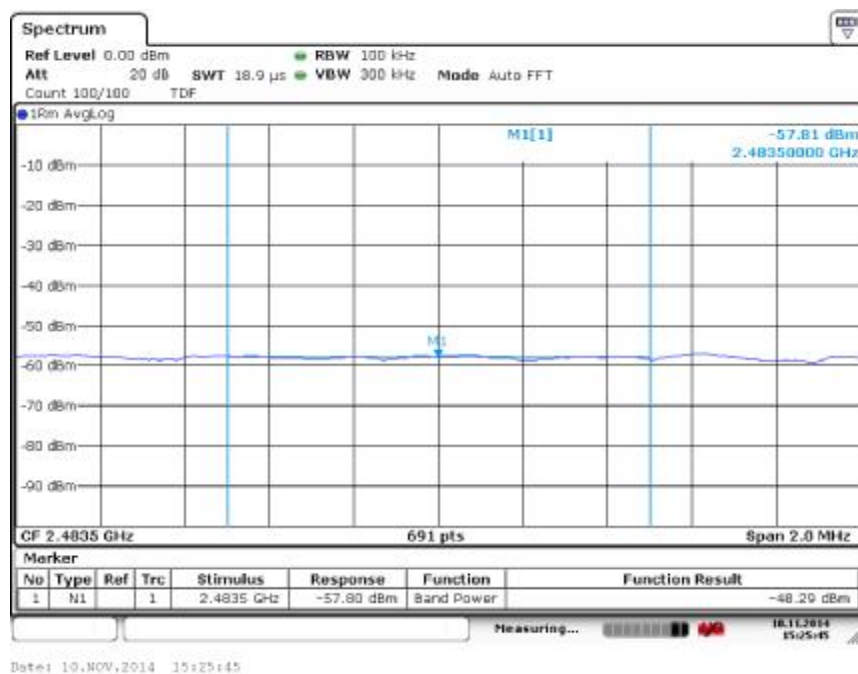


Fig.112 Band Edges (802.11g, Ch 11)

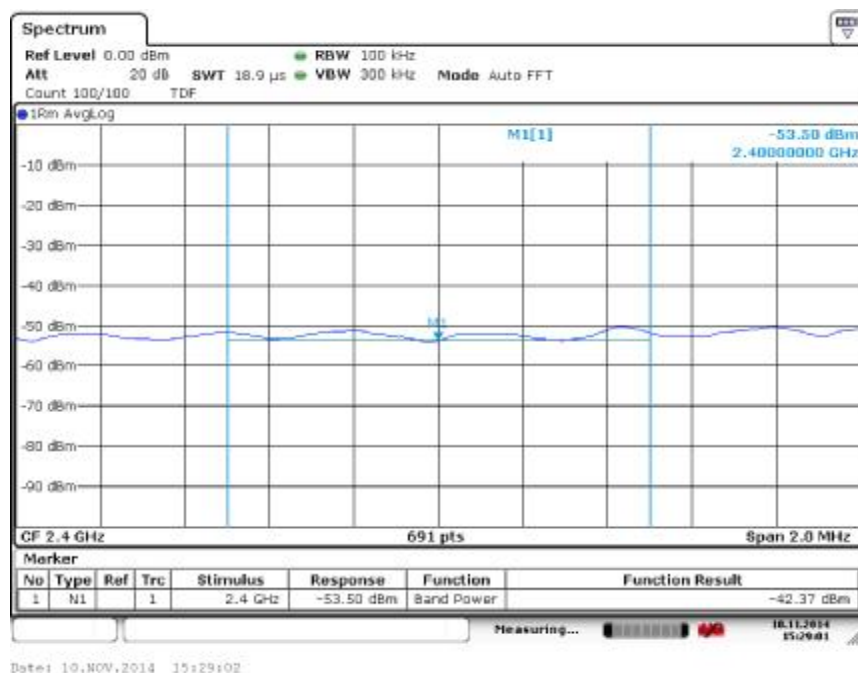


Fig.113 Band Edges (802.11 n-20MHz, Ch 1)

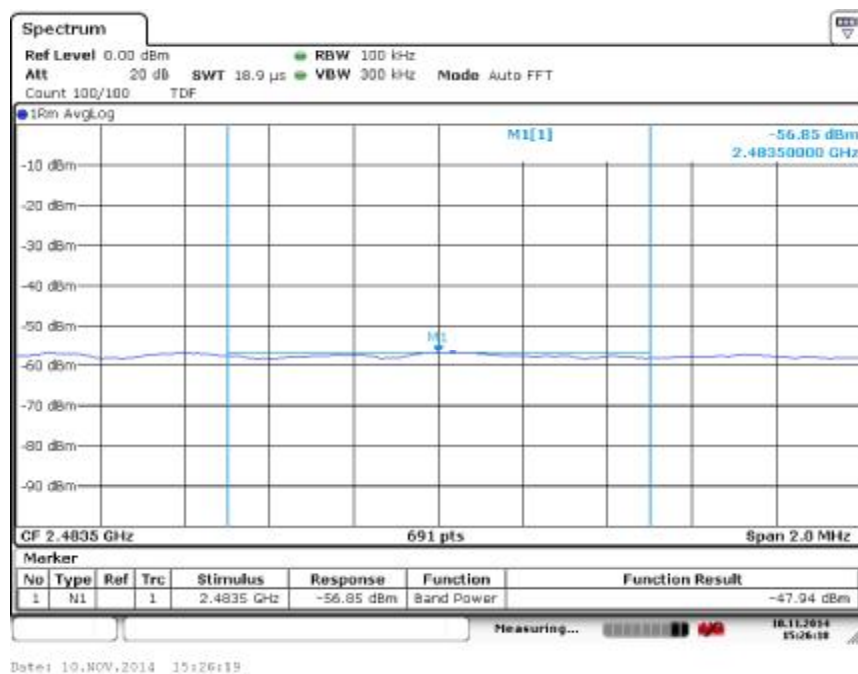


Fig.114 Band Edges (802.11 n-20MHz, Ch 11)

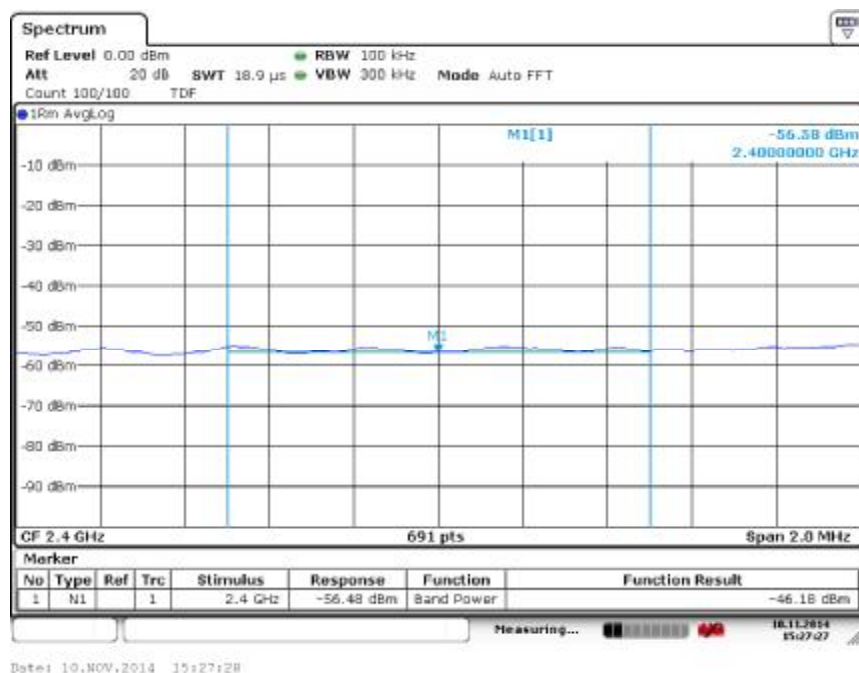


Fig.115 Band Edges (802.11 n-40MHz, Ch 3)

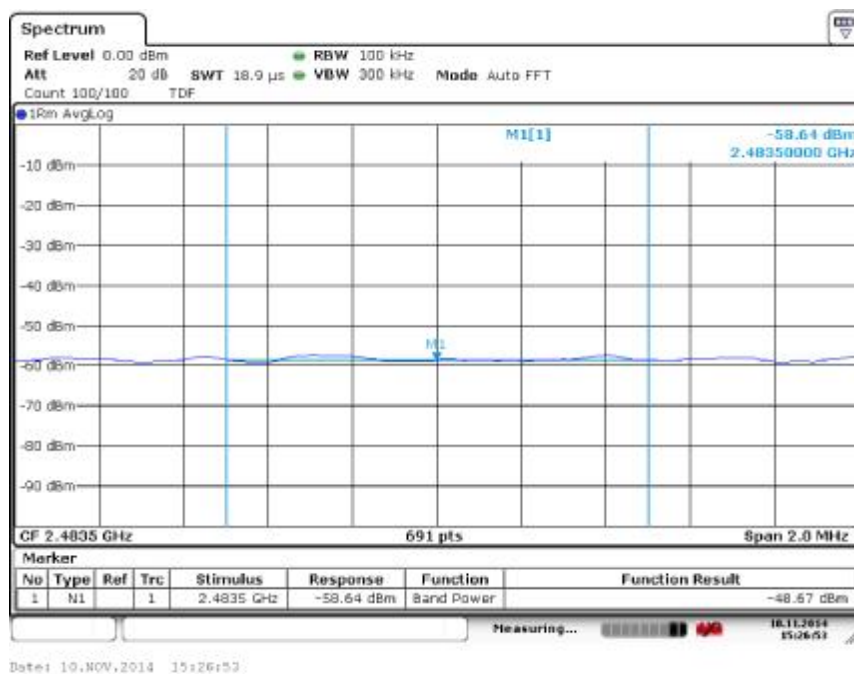


Fig.116 Band Edges (802.11 n-40MHz, Ch 9)

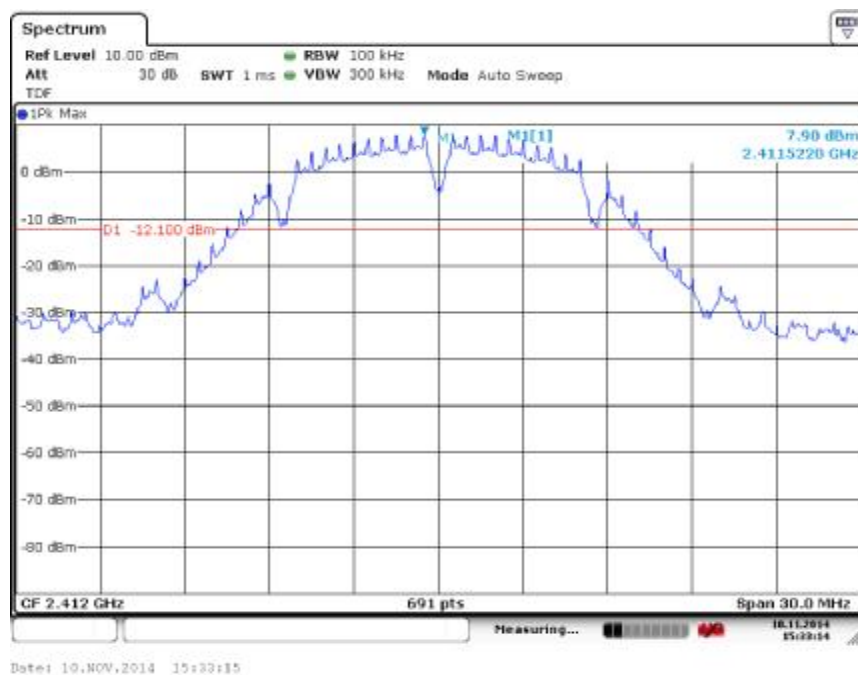


Fig.117 Conducted Spurious Emission (802.11b, Ch1, Center Frequency)

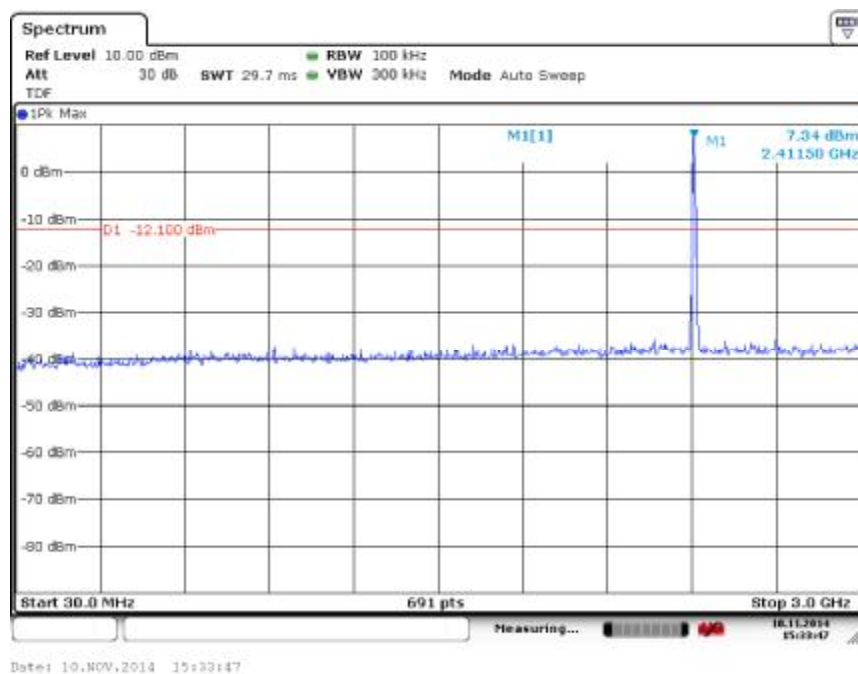


Fig.118 Conducted Spurious Emission (802.11b, Ch1, 30 MHz-3 GHz)

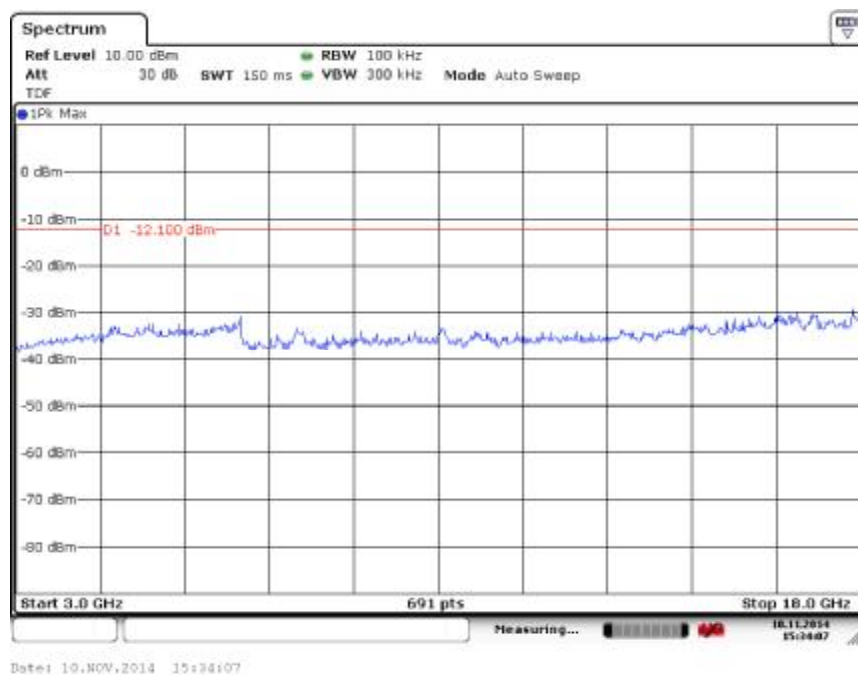


Fig.119 Conducted Spurious Emission (802.11b, Ch1, 3 GHz-18 GHz)

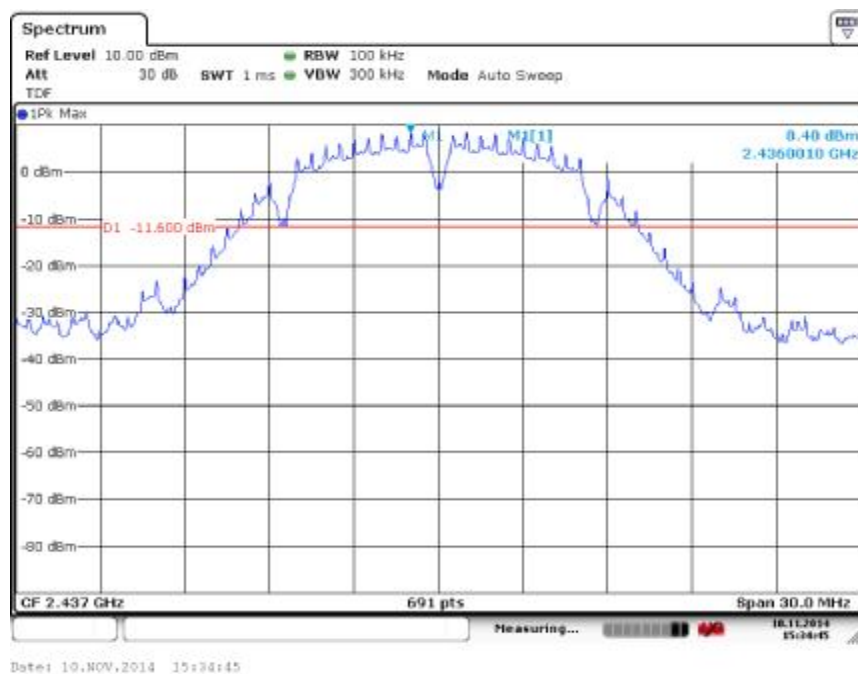


Fig.120 Conducted Spurious Emission (802.11b, Ch6, Center Frequency)

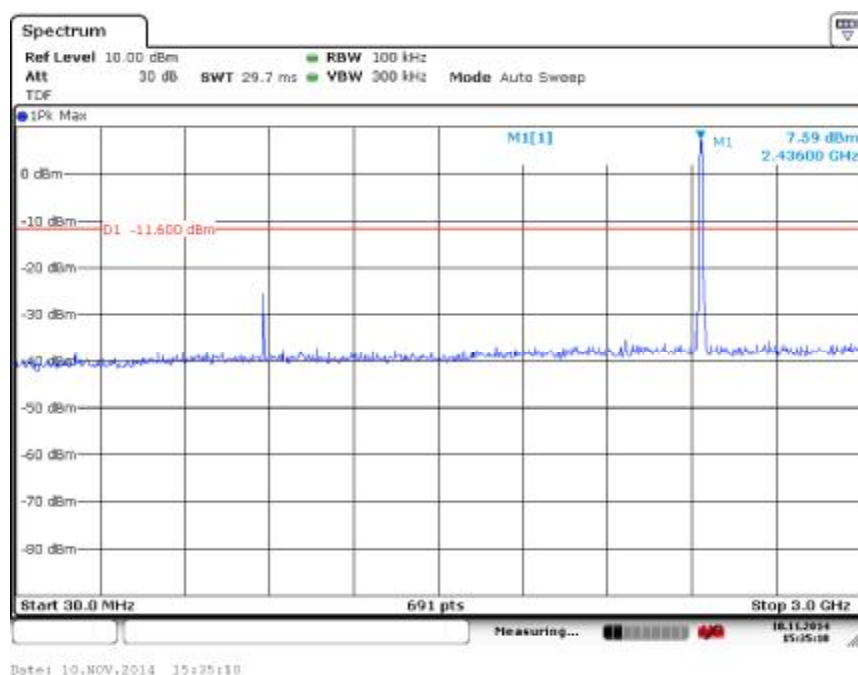


Fig.121 Conducted Spurious Emission (802.11b, Ch6, 30 MHz-3 GHz)

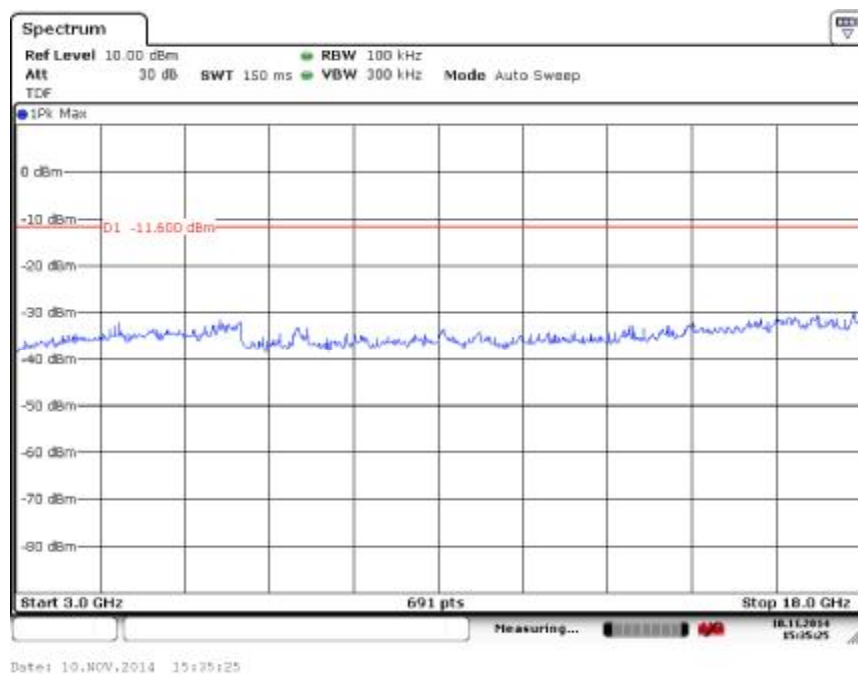


Fig.122 Conducted Spurious Emission (802.11b, Ch6, 3 GHz-18 GHz)

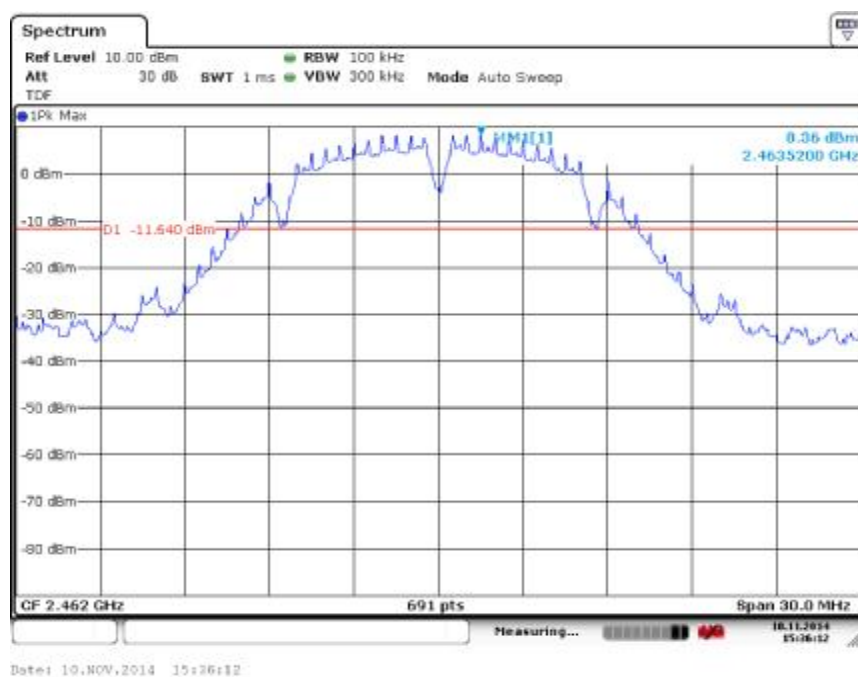


Fig.123 Conducted Spurious Emission (802.11b, Ch11, Center Frequency)

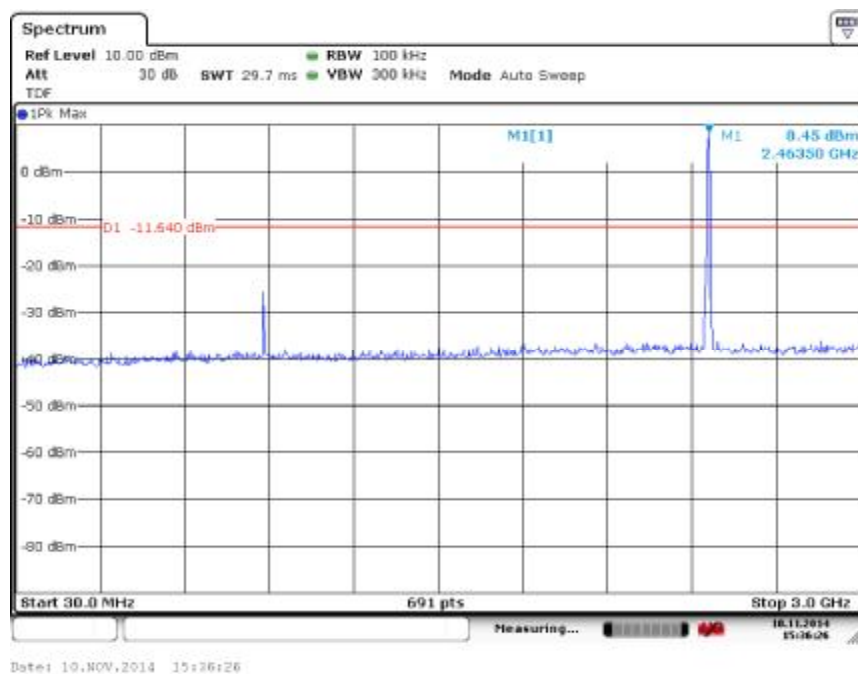


Fig.124 Conducted Spurious Emission (802.11b, Ch11, 30 MHz-3 GHz)

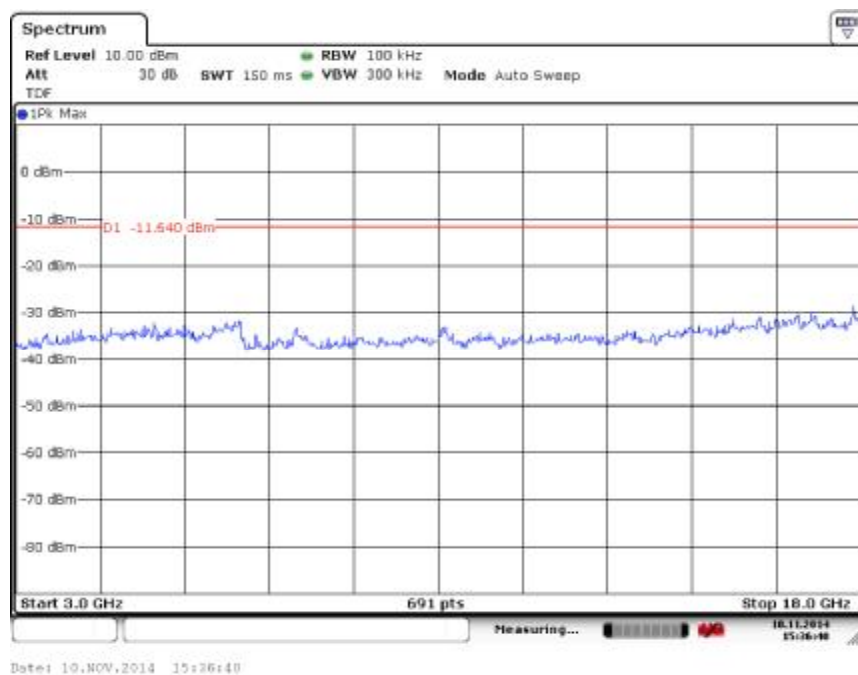


Fig.125 Conducted Spurious Emission (802.11b, Ch11, 3 GHz-18 GHz)

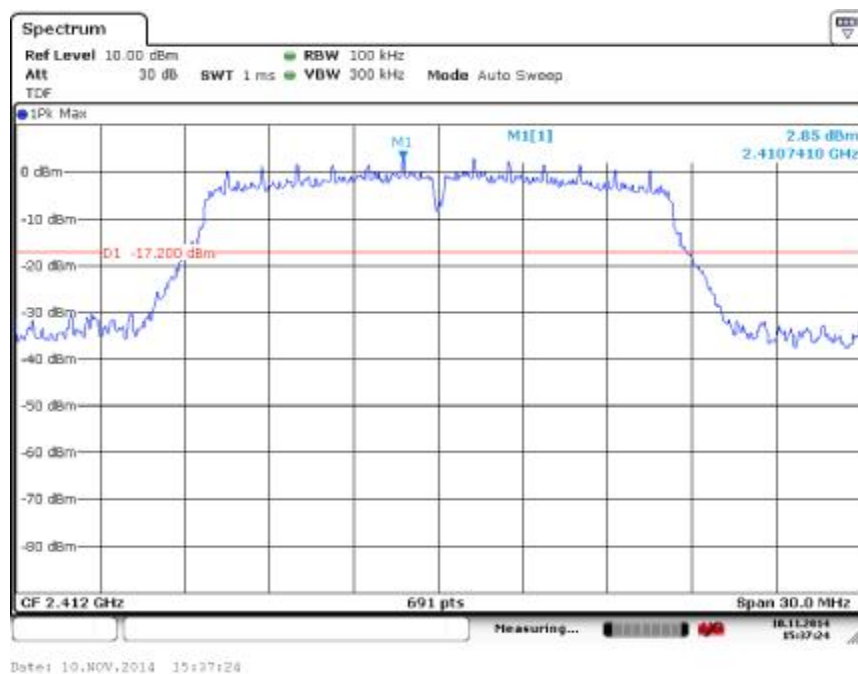


Fig.126 Conducted Spurious Emission (802.11g, Ch1, Center Frequency)

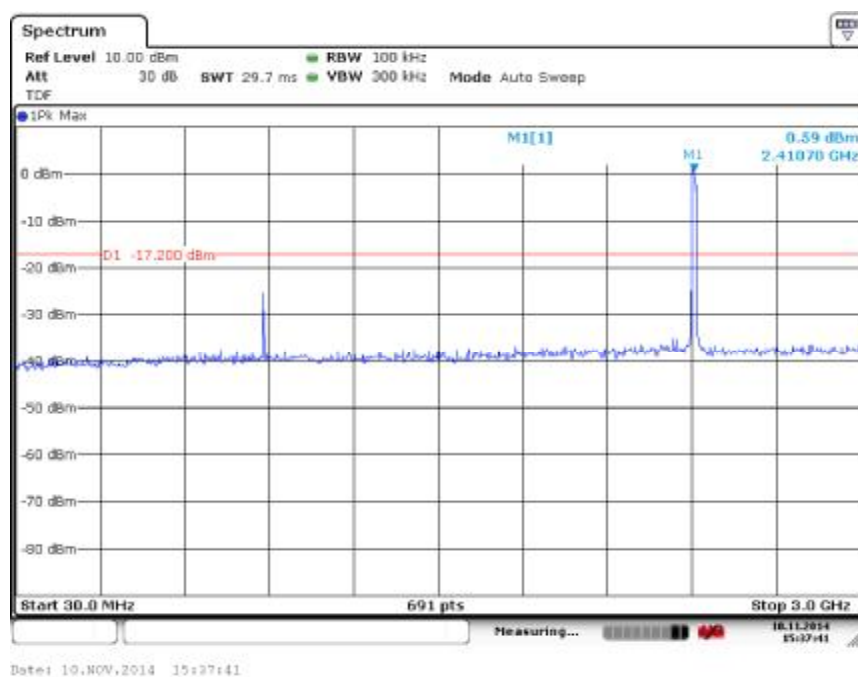


Fig.127 Conducted Spurious Emission (802.11g, Ch1, 30 MHz-3 GHz)

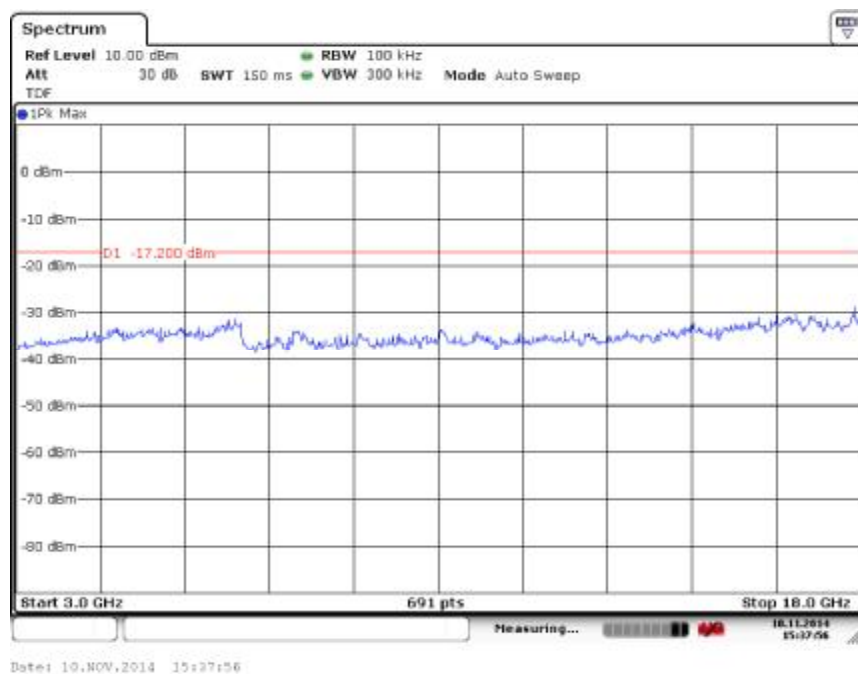


Fig.128 Conducted Spurious Emission (802.11g, Ch1, 3 GHz-18 GHz)

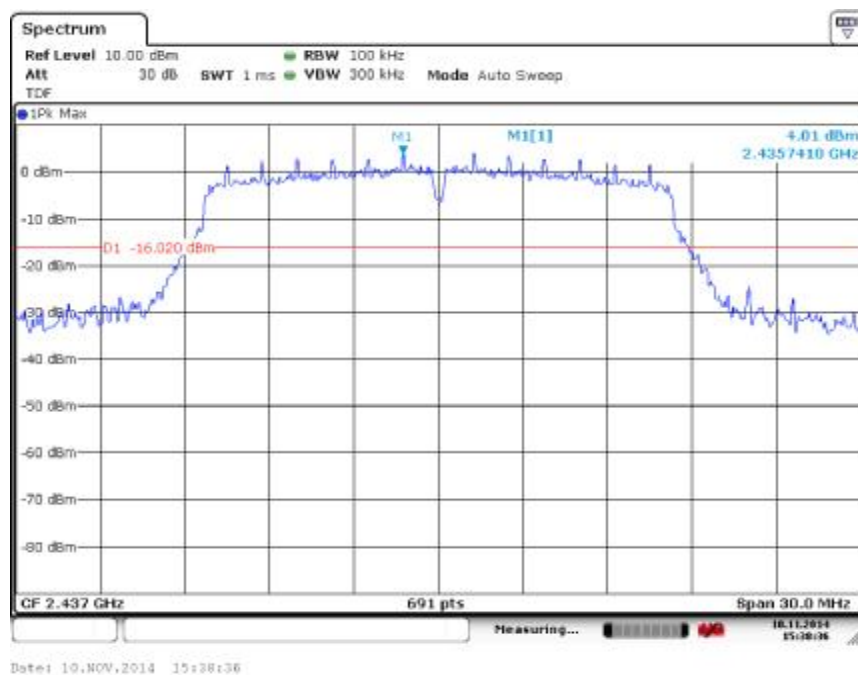


Fig.129 Conducted Spurious Emission (802.11g, Ch6, Center Frequency)

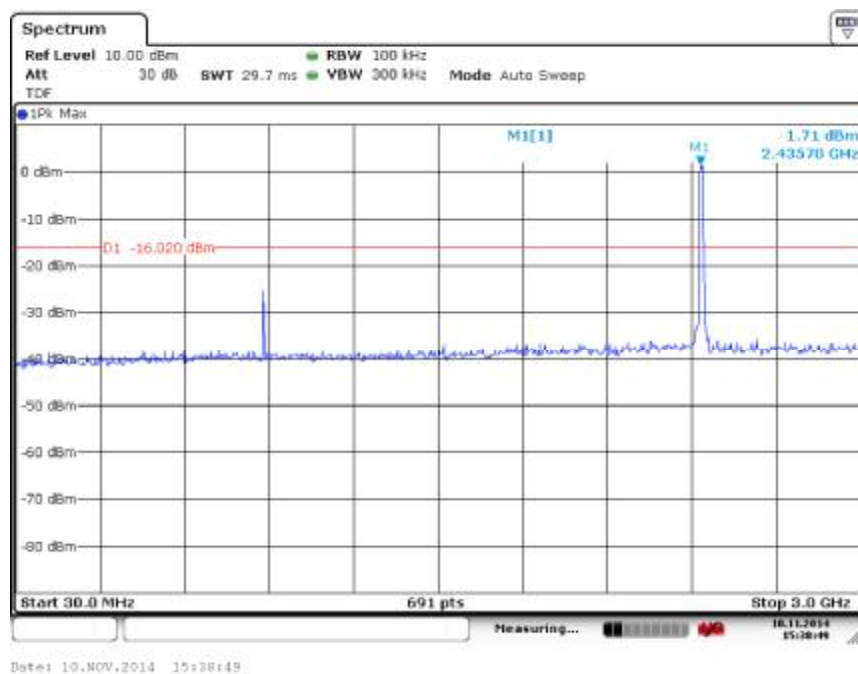


Fig.130 Conducted Spurious Emission (802.11g, Ch6, 30 MHz-3 GHz)

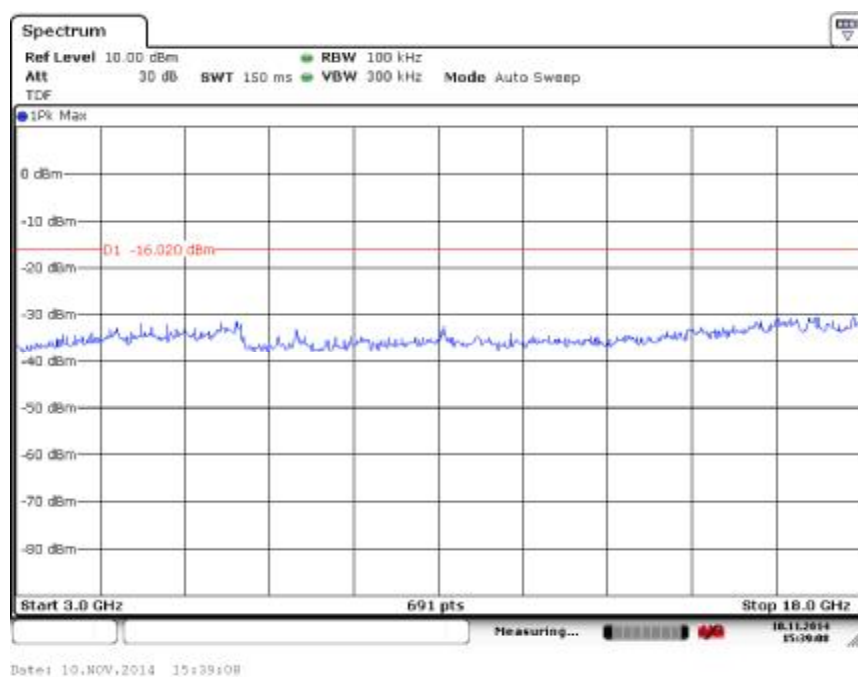


Fig.131 Conducted Spurious Emission (802.11g, Ch6, 3 GHz-18 GHz)

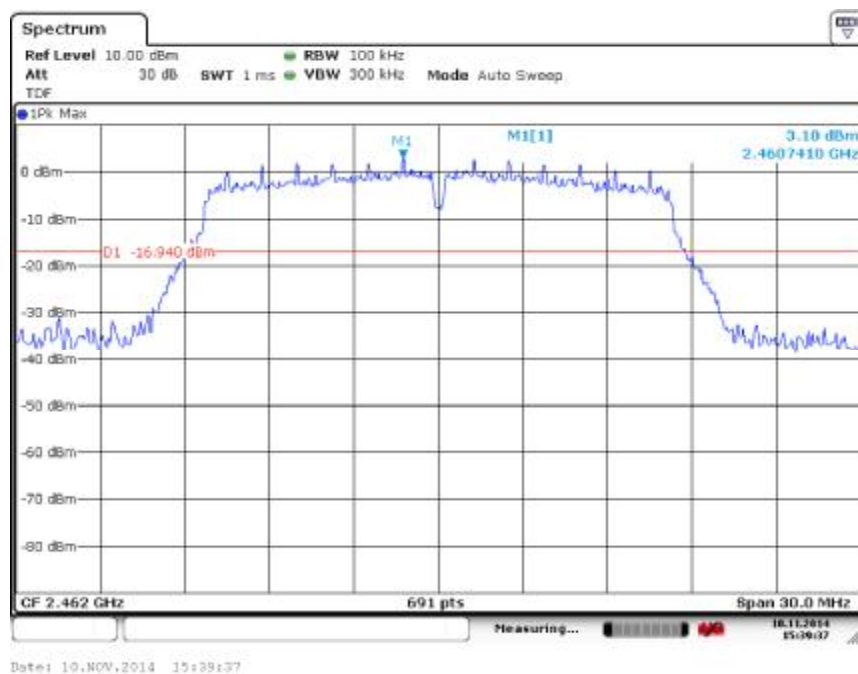


Fig.132 Conducted Spurious Emission (802.11g, Ch11, Center Frequency)

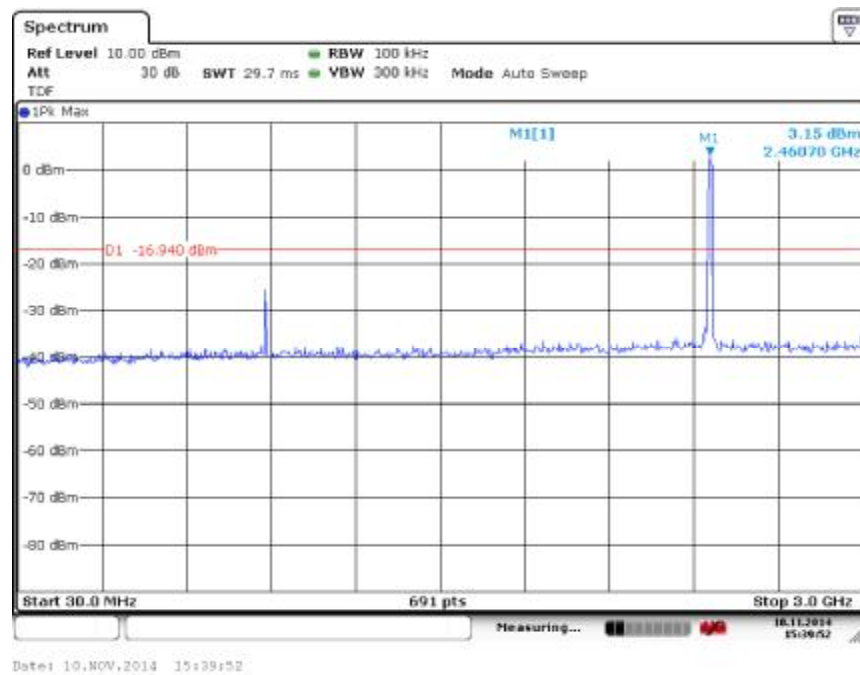


Fig.133 Conducted Spurious Emission (802.11g, Ch11, 30 MHz-3 GHz)

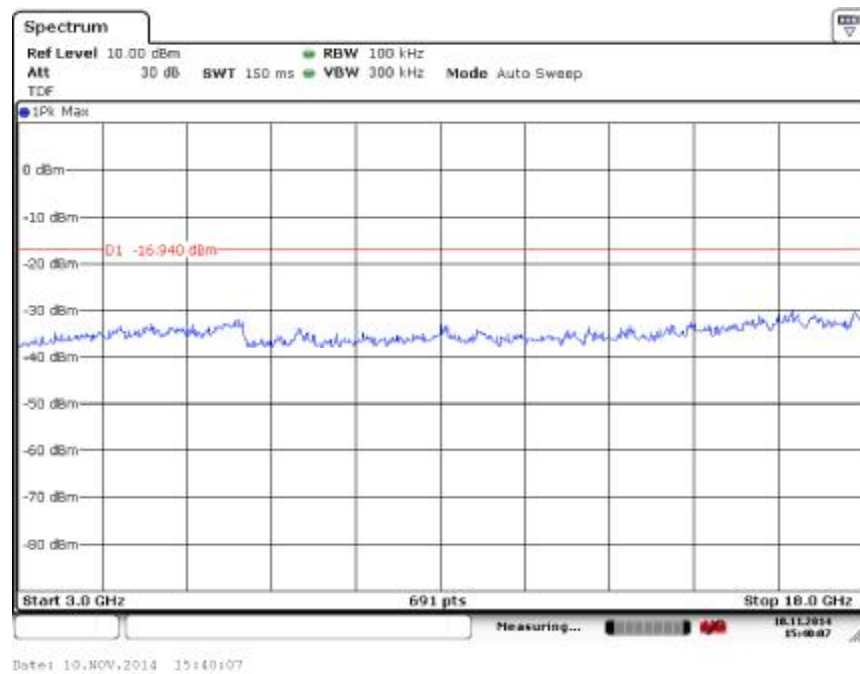


Fig.134 Conducted Spurious Emission (802.11g, Ch11, 3 GHz-18 GHz)

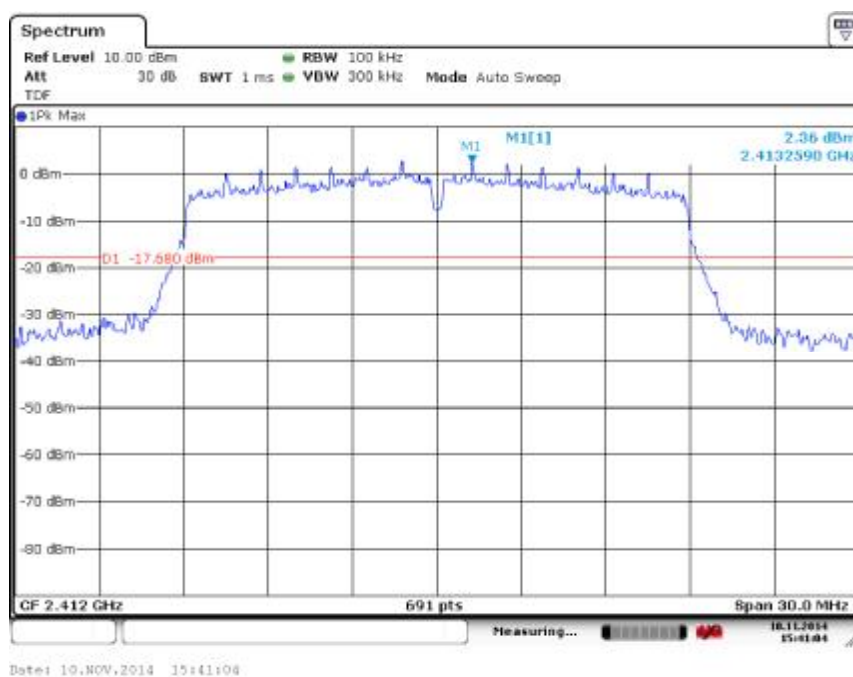


Fig.135 Conducted Spurious Emission (802.11n-20M, Ch1, Center Frequency)

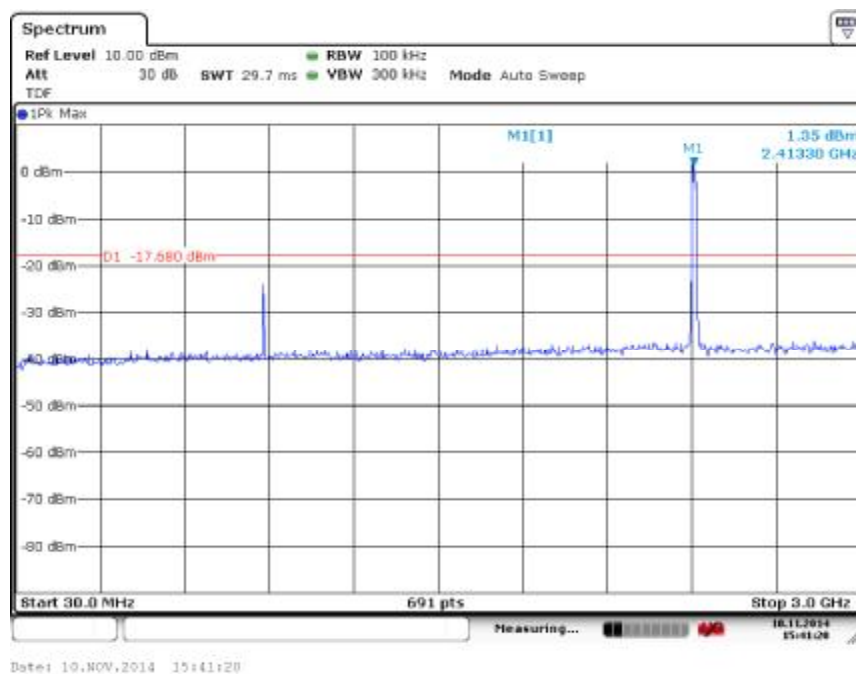


Fig.136 Conducted Spurious Emission (802.11n-20M, Ch1, 30 MHz-3 GHz)

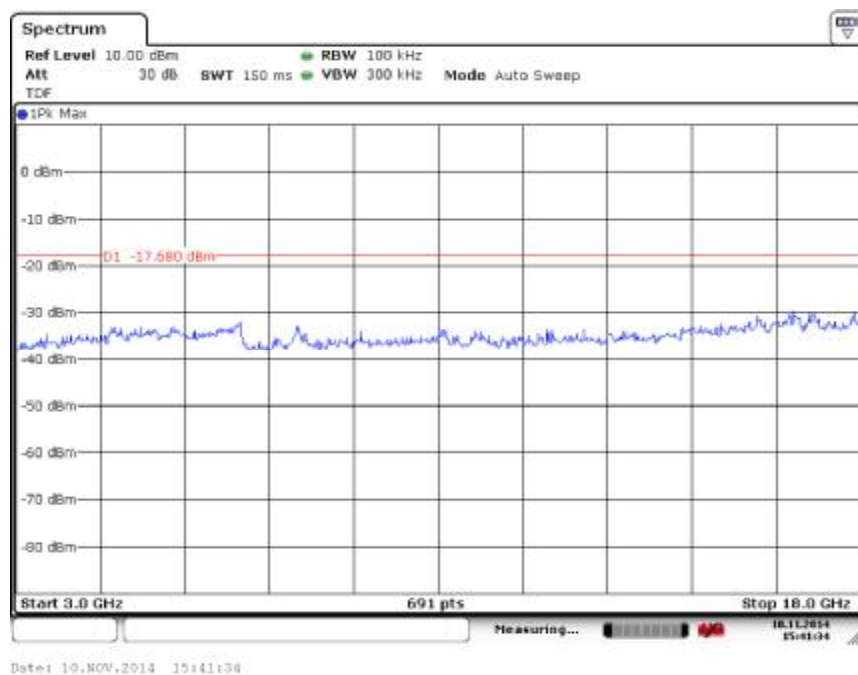


Fig.137 Conducted Spurious Emission (802.11n-20M, Ch1, 3 GHz-18 GHz)

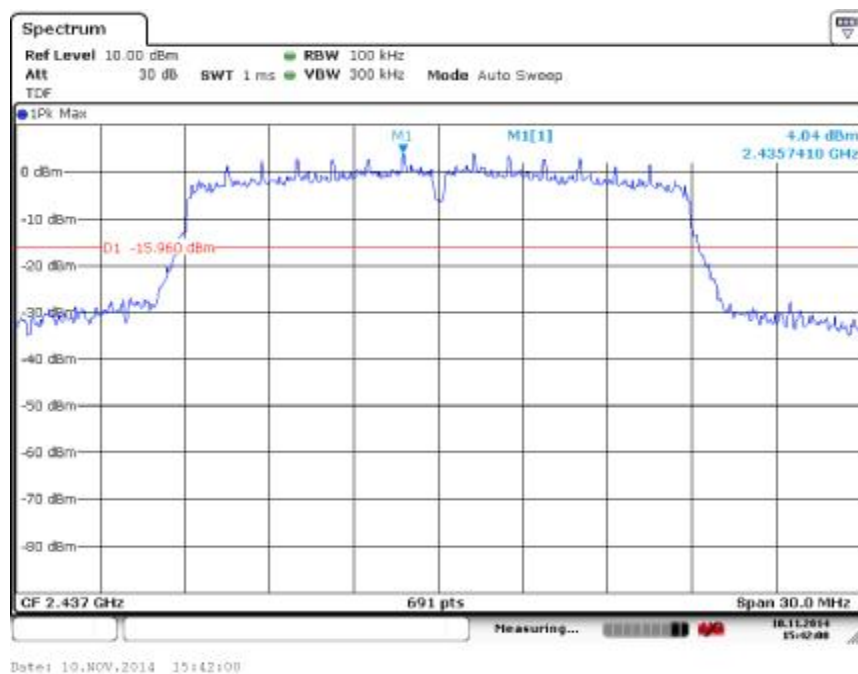


Fig.138 Conducted Spurious Emission (802.11n-20M, Ch6, Center Frequency)

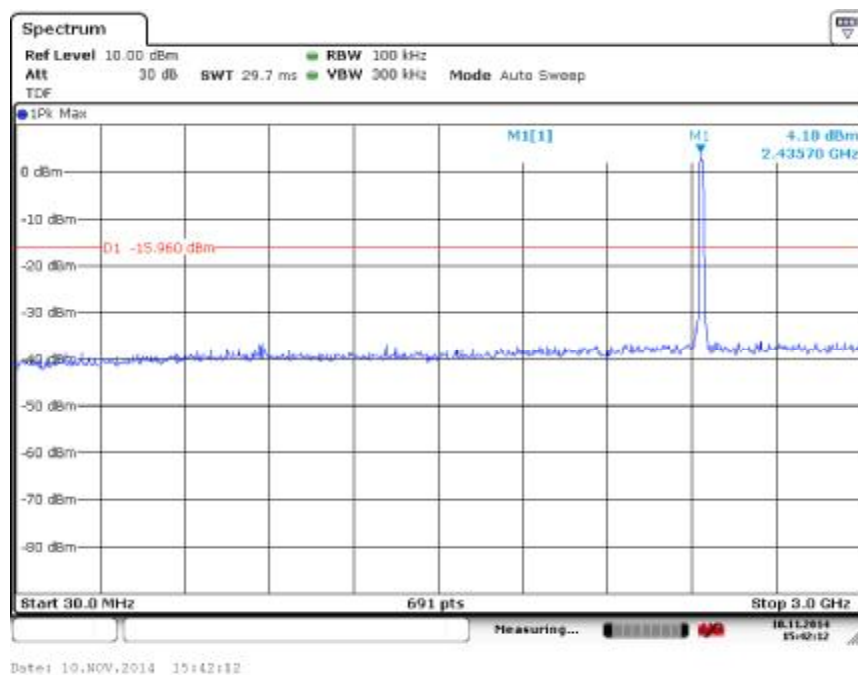


Fig.139 Conducted Spurious Emission (802.11n-20M, Ch6, 30 MHz-3 GHz)

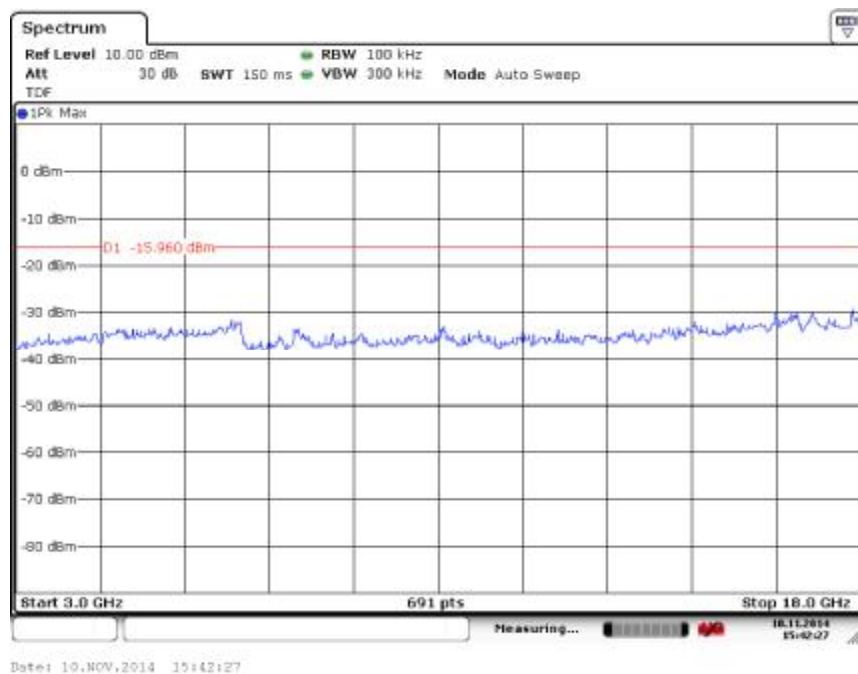


Fig.140 Conducted Spurious Emission (802.11n-20M, Ch6, 3 GHz-18 GHz)

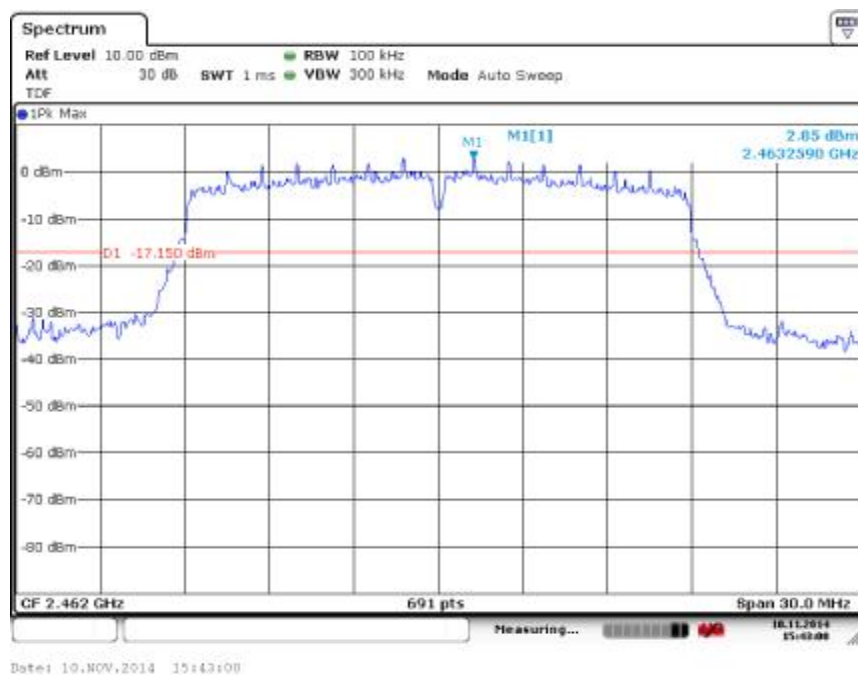


Fig.141 Conducted Spurious Emission (802.11n-20M, Ch11, Center Frequency)

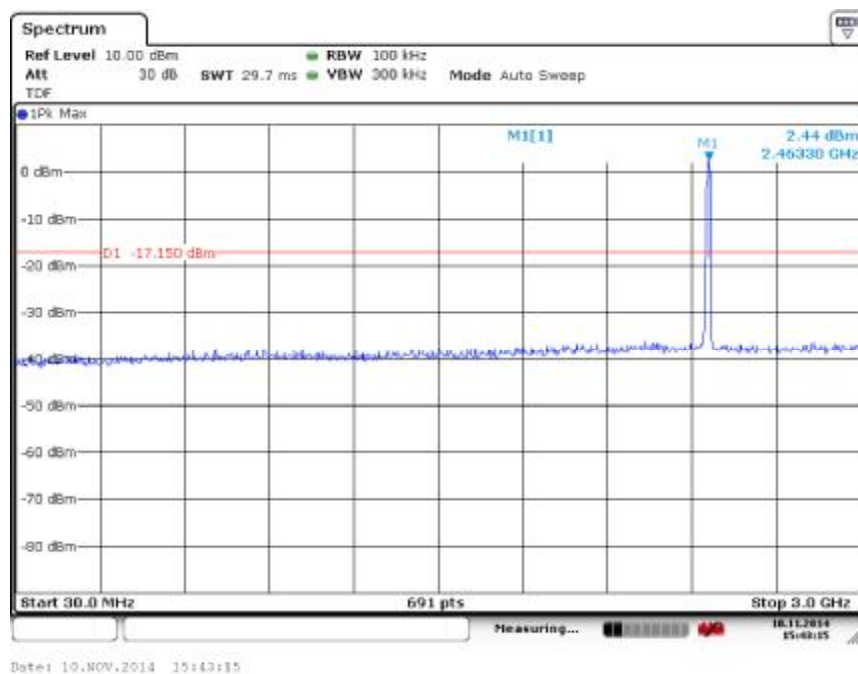


Fig.142 Conducted Spurious Emission (802.11n-20M, Ch11, 30 MHz-3 GHz)

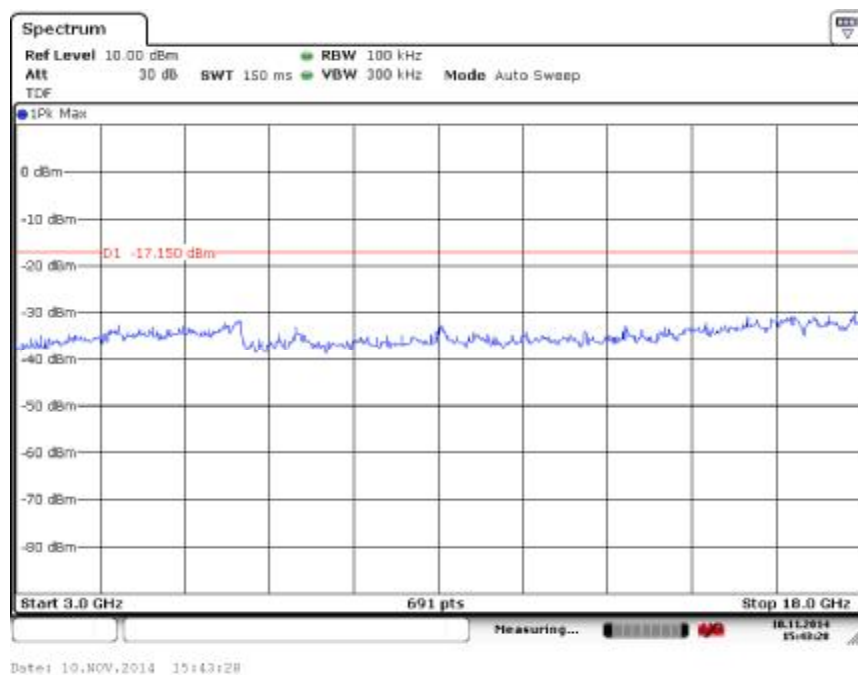


Fig.143 Conducted Spurious Emission (802.11n-20M, Ch11, 3 GHz-18 GHz)

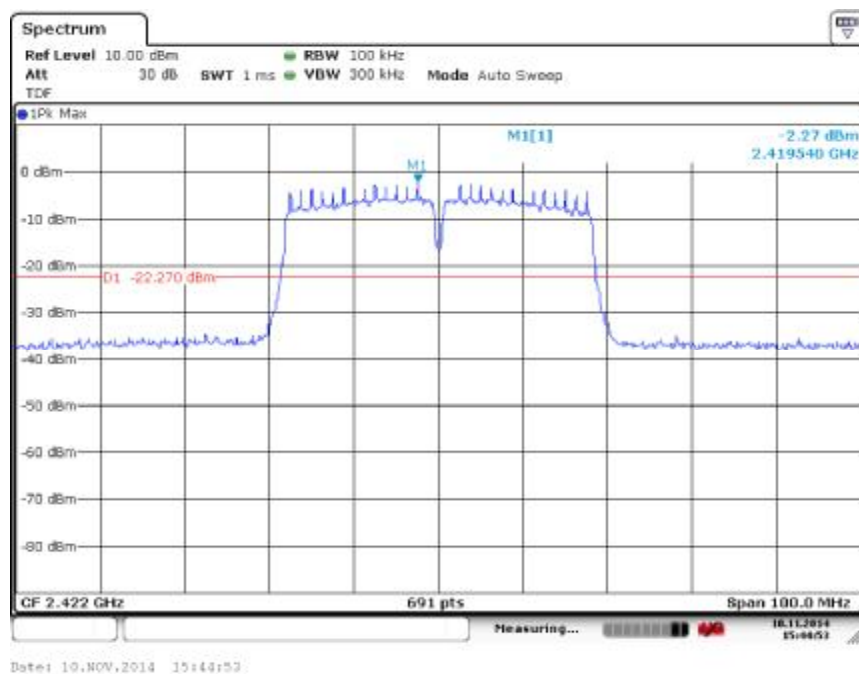


Fig.144 Conducted Spurious Emission (802.11n-40M, Ch3, Center Frequency)

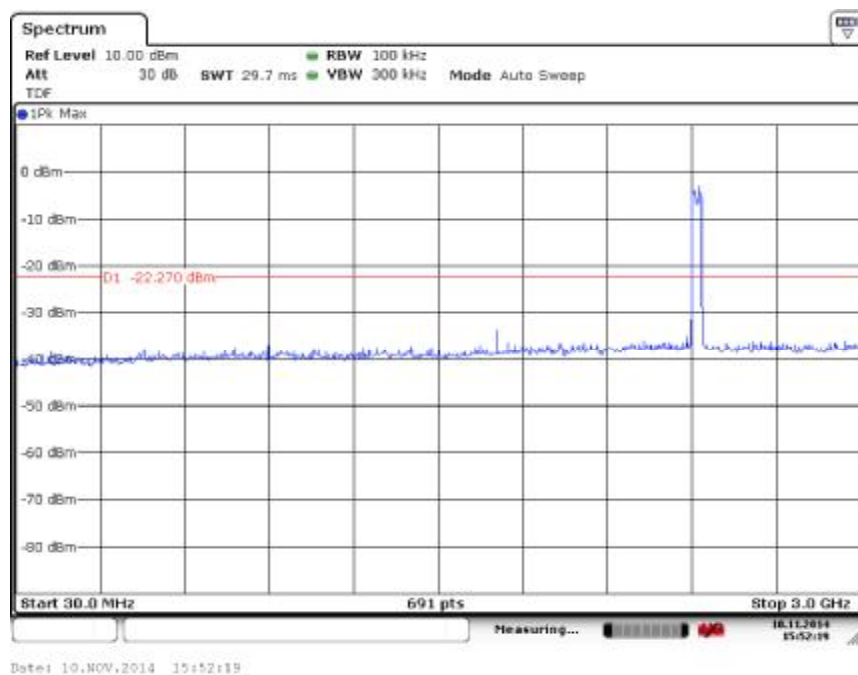


Fig.145 Conducted Spurious Emission (802.11n-40M, Ch3, 30 MHz-3 GHz)

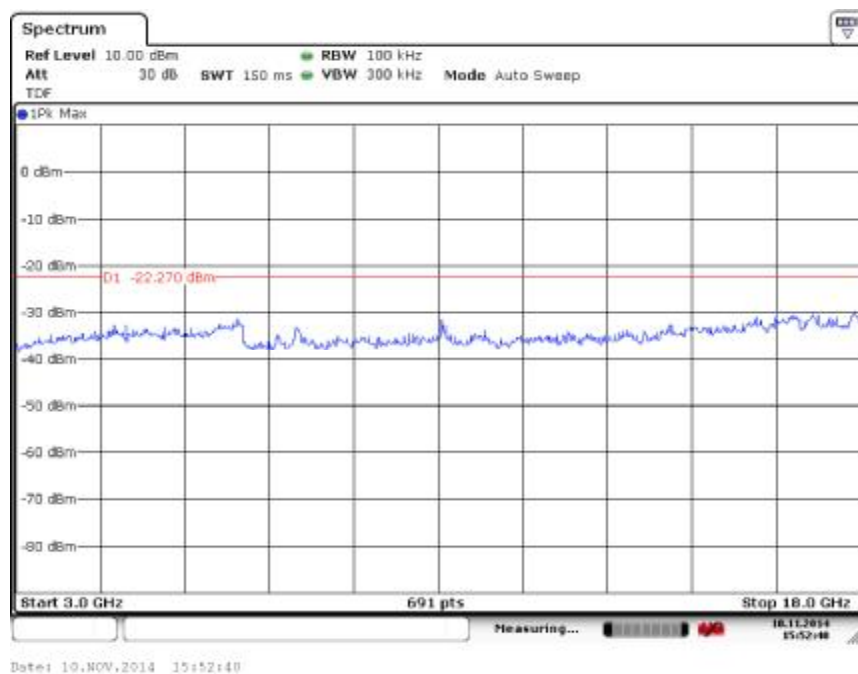


Fig.146 Conducted Spurious Emission (802.11n-40M, Ch3, 3 GHz-18 GHz)

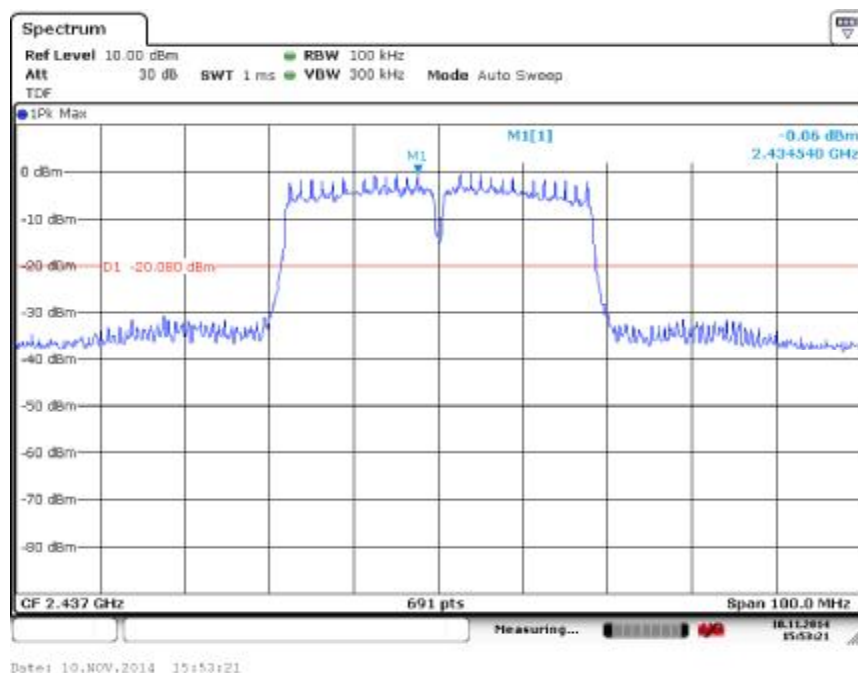


Fig.147 Conducted Spurious Emission (802.11n-40M, Ch6, Center Frequency)

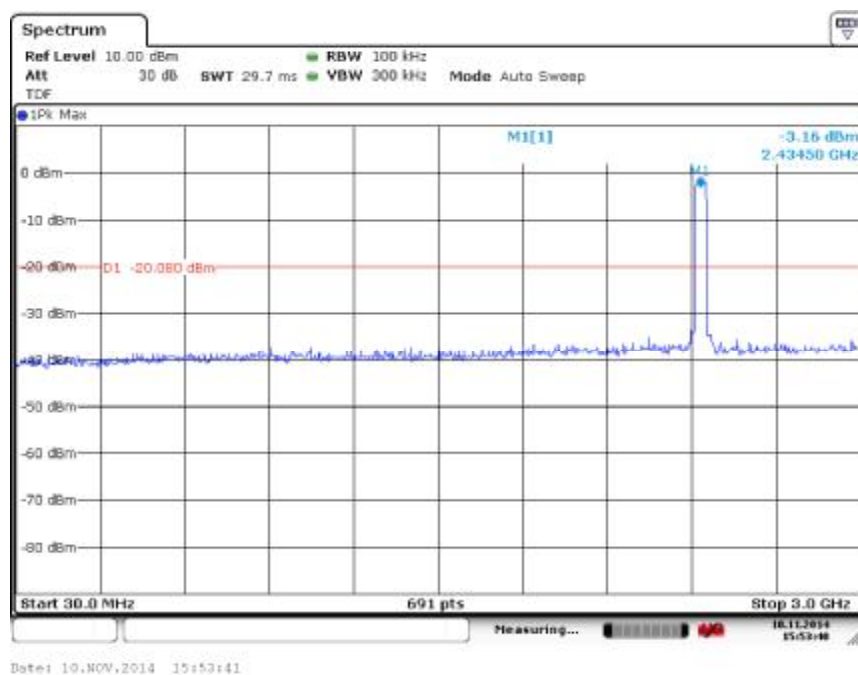


Fig.148 Conducted Spurious Emission (802.11n-40M, Ch6, 30 MHz-3 GHz)

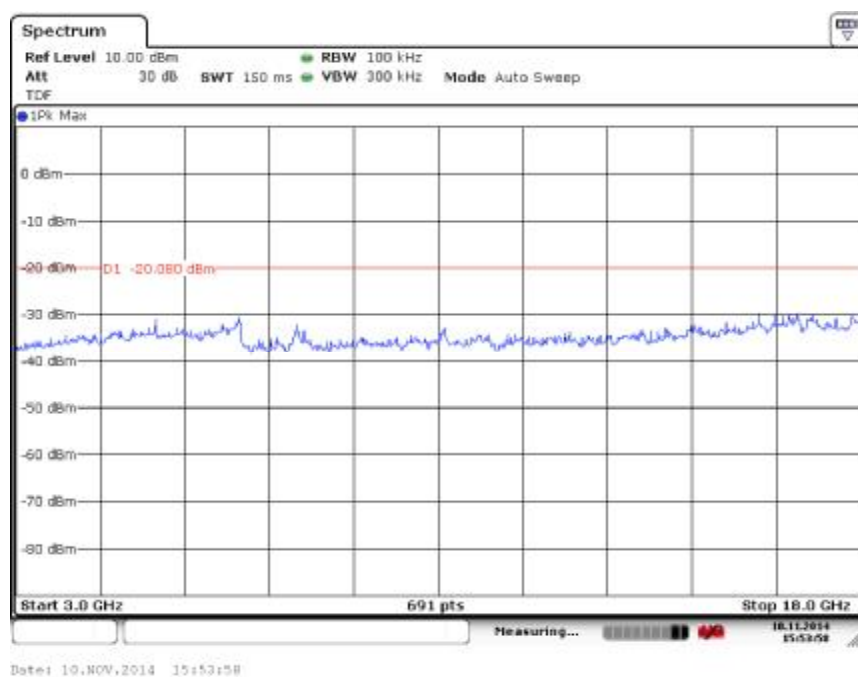


Fig.149 Conducted Spurious Emission (802.11n-40M, Ch6, 3 GHz-18 GHz)

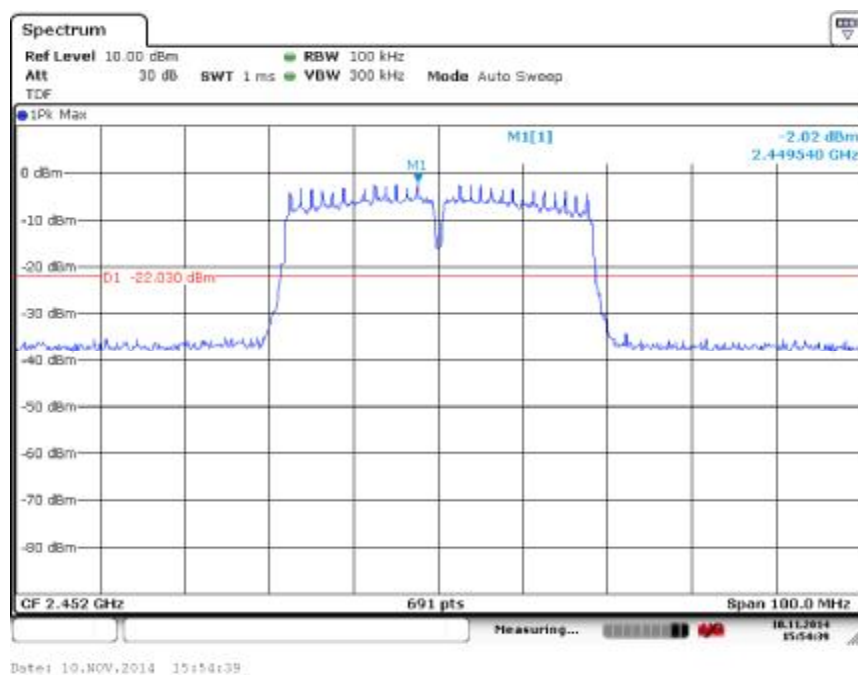


Fig.150 Conducted Spurious Emission (802.11n-40M, Ch9, Center Frequency)

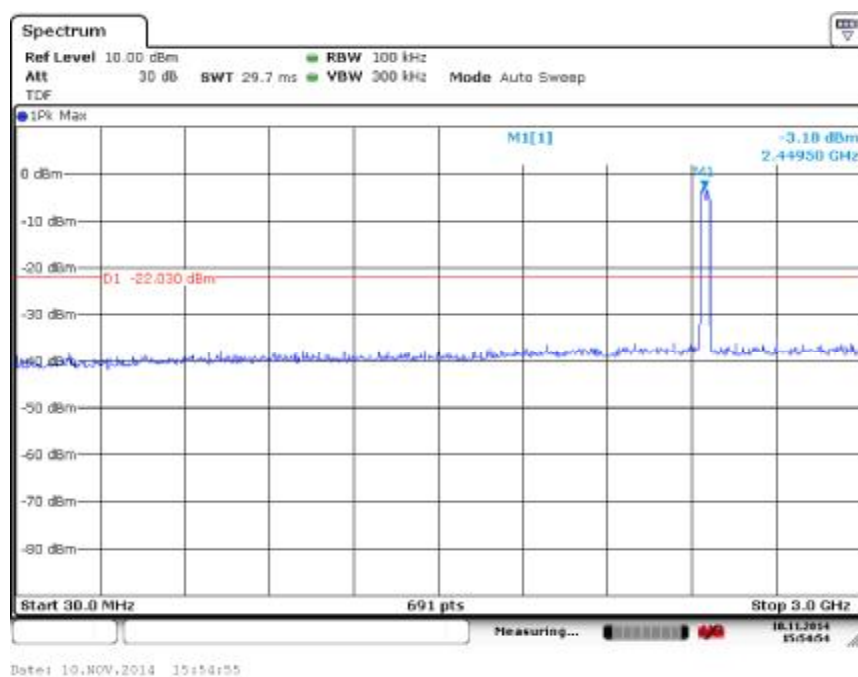


Fig.151 Conducted Spurious Emission (802.11n-40M, Ch9, 30 MHz-3 GHz)

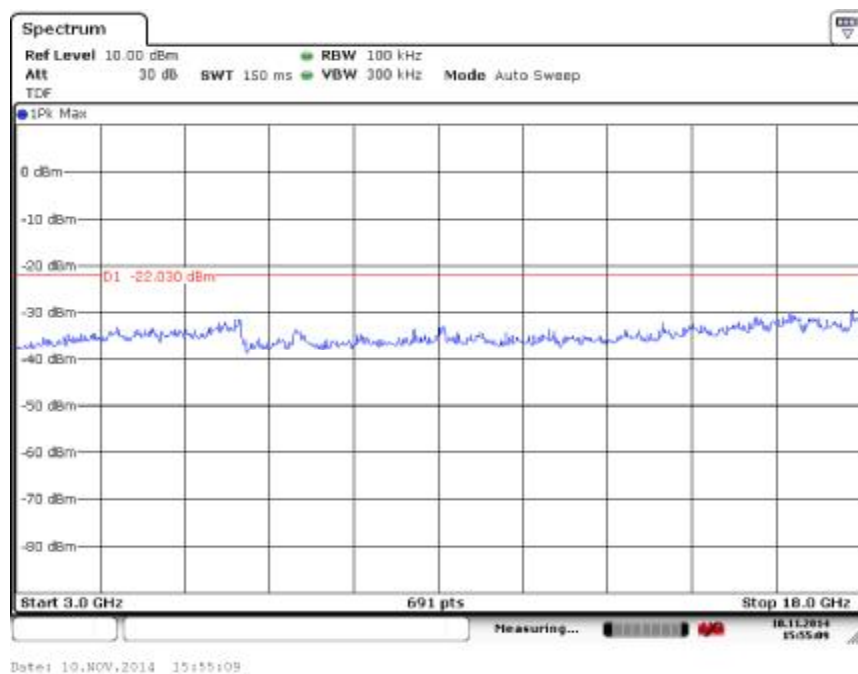


Fig.152 Conducted Spurious Emission (802.11n-40M, Ch9, 3 GHz-18 GHz)

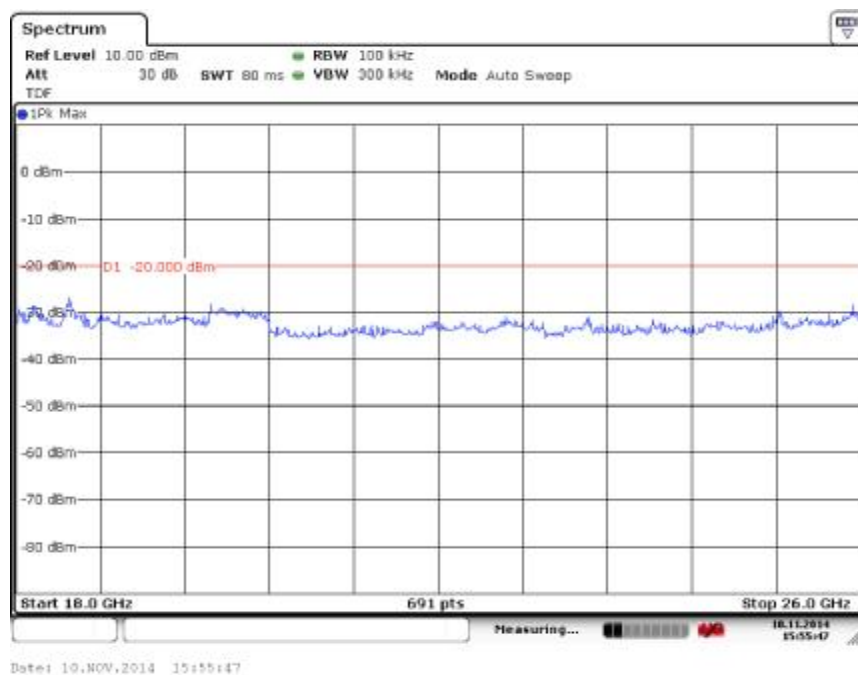


Fig.153 Conducted Spurious Emission (All channels, 18 GHz-26 GHz)

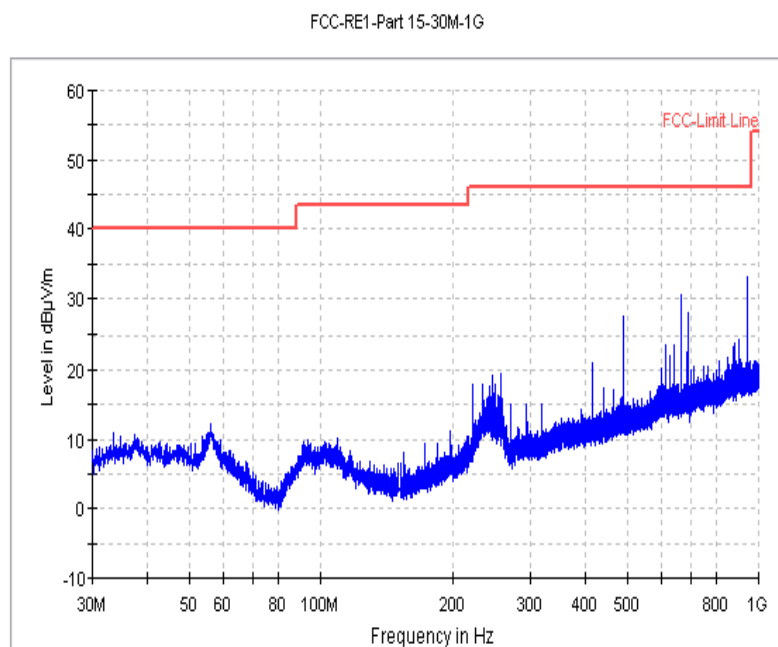


Fig.154 Radiated Spurious Emission (802.11b, Ch1, 30MHz-1 GHz)

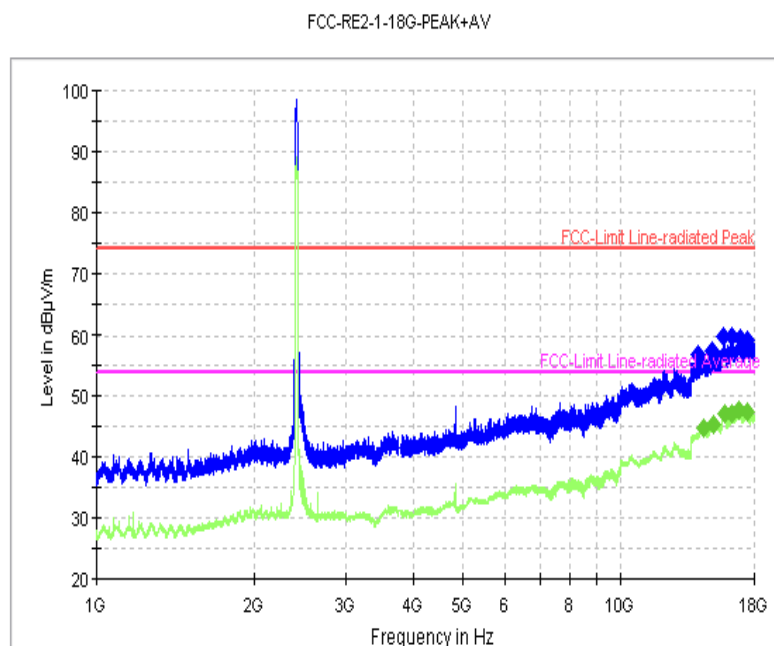


Fig.155 Radiated Spurious Emission (802.11b, Ch1, 1 GHz-18 GHz)

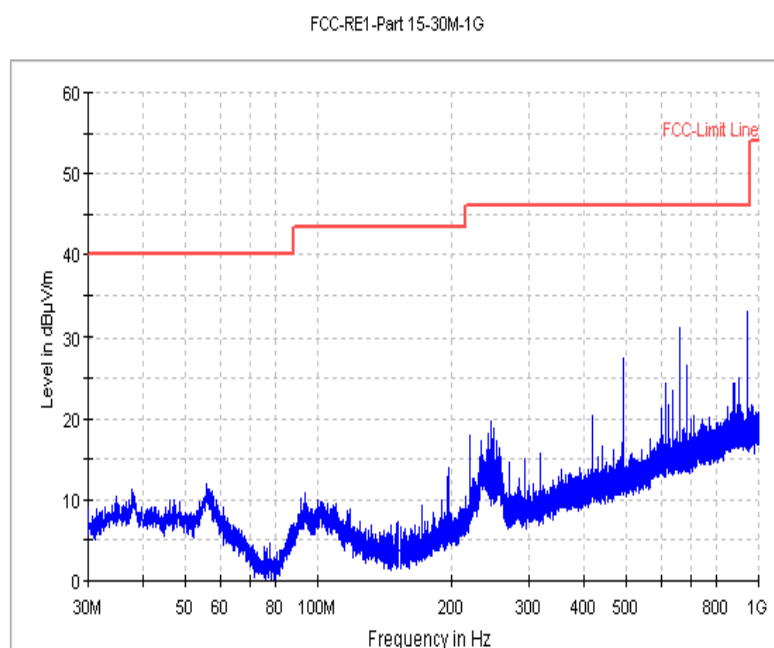


Fig.156 Radiated Spurious Emission (802.11b, Ch6, 30MHz-1 GHz)

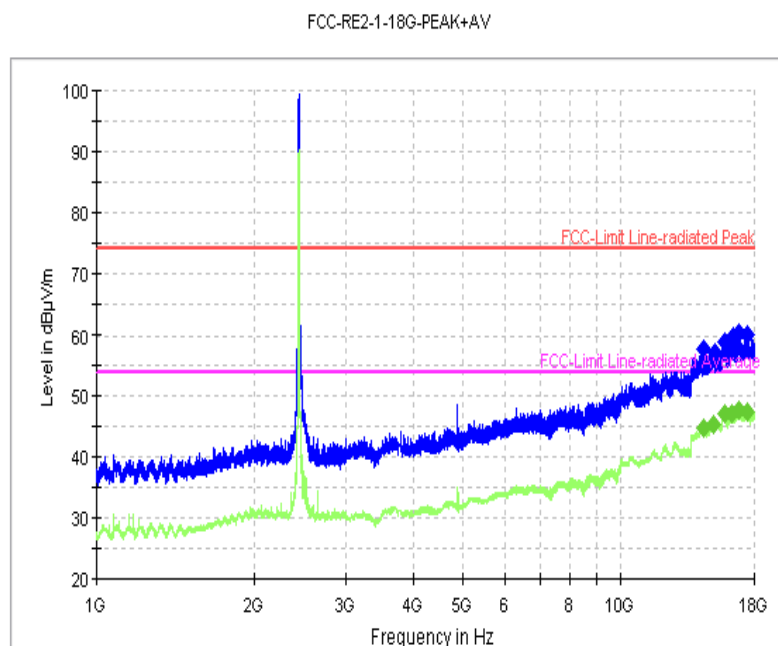


Fig.157 Radiated Spurious Emission (802.11b, Ch6, 1 GHz-18 GHz)

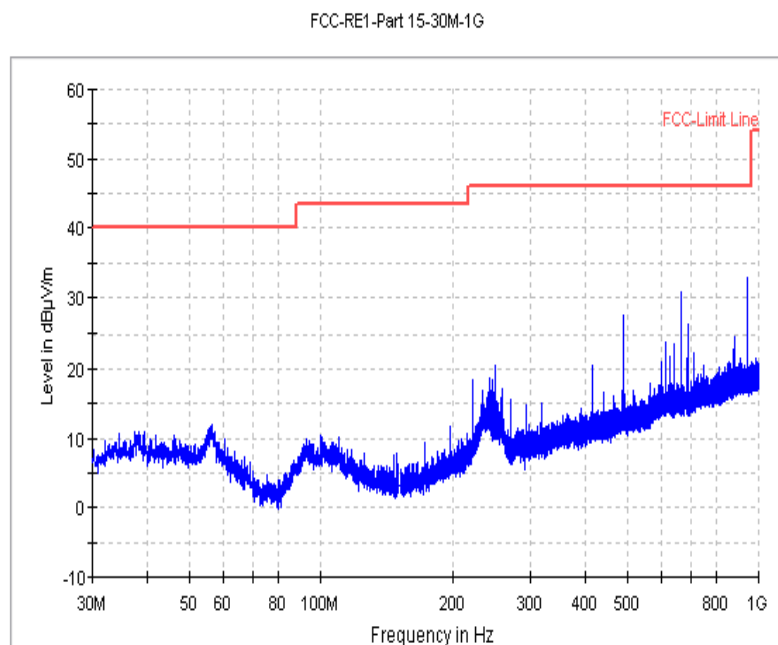


Fig.158 Radiated Spurious Emission (802.11b, Ch11, 30MHz-1 GHz)

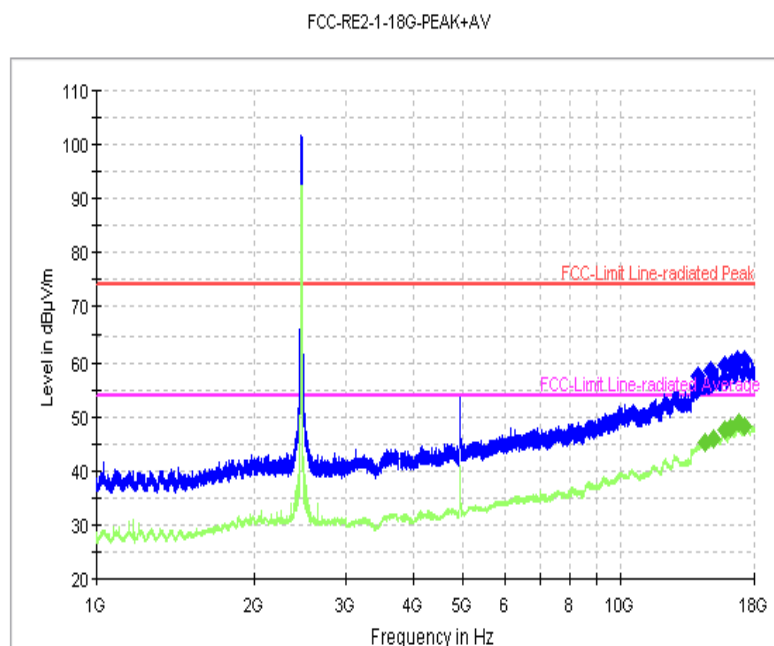


Fig.159 Radiated Spurious Emission (802.11b, Ch11, 1 GHz-18 GHz)

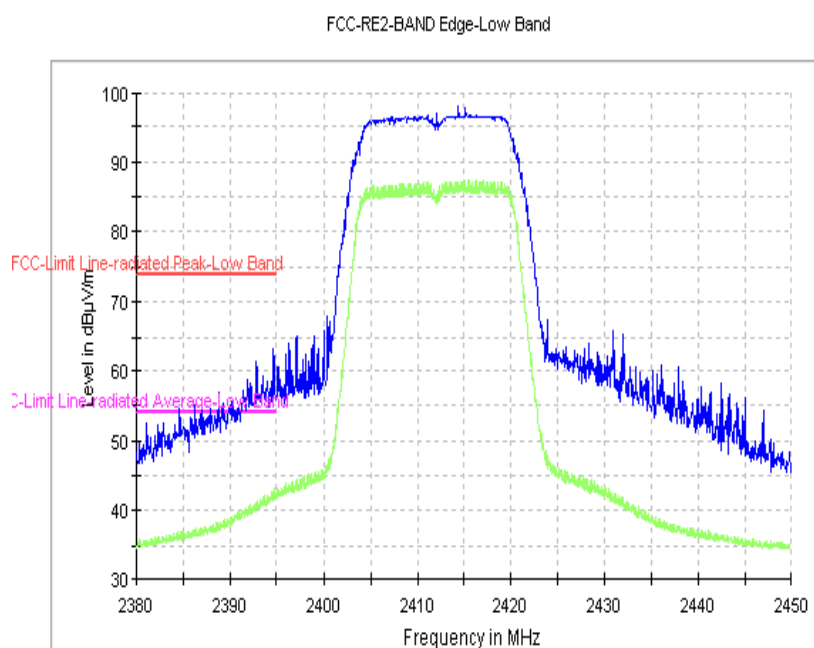


Fig.160 Radiated Emission Power (802.11b, Ch1, 2380GHz~2450GHz)

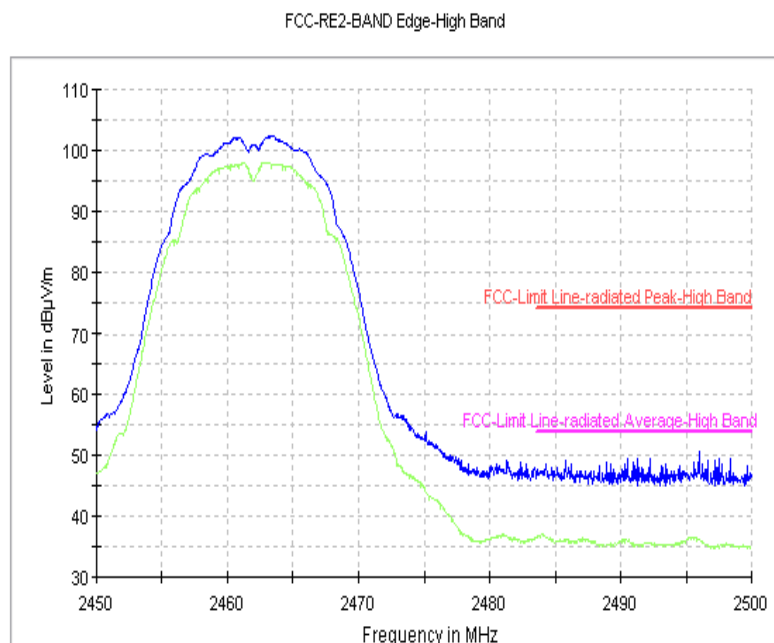


Fig.161 Radiated Emission Power (802.11b, Ch11, 2450GHz~2500GHz)

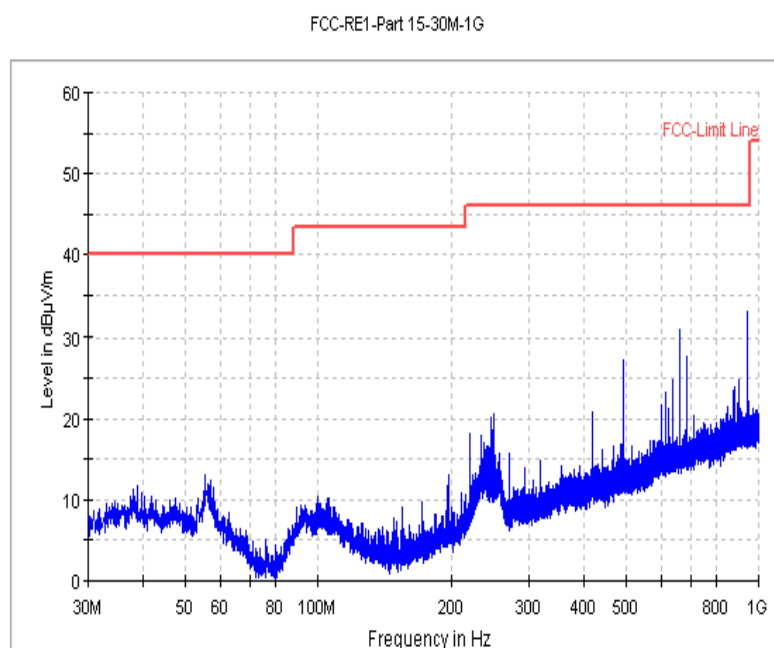


Fig.162 Radiated Spurious Emission (802.11g, Ch1,30MHz-1 GHz)

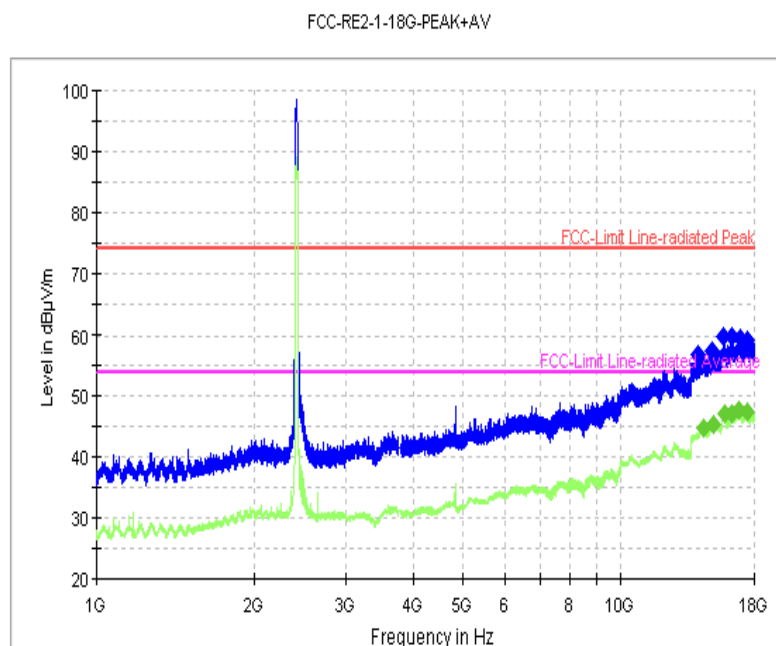


Fig.163 Radiated Spurious Emission (802.11g, Ch1, 1 GHz-18 GHz)

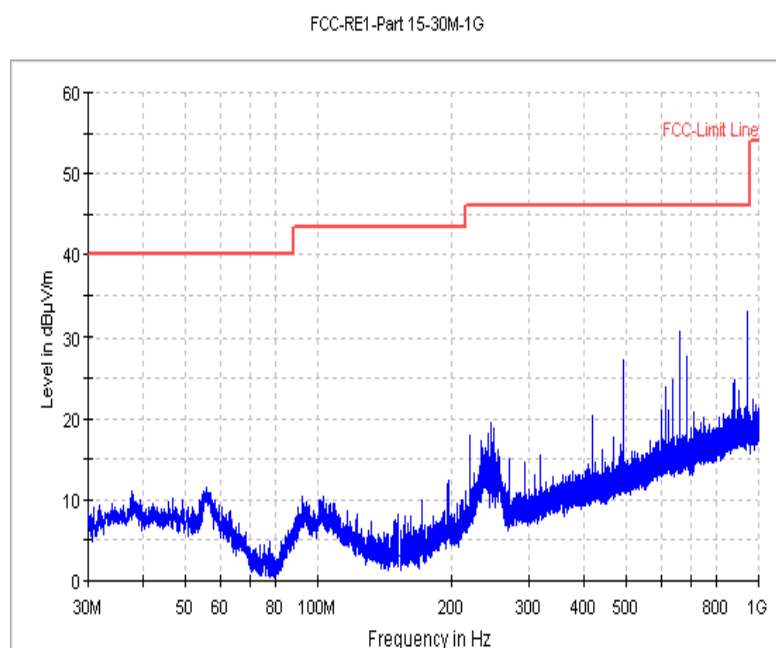


Fig.164 Radiated Spurious Emission (802.11g, Ch6, 30MHz-1 GHz)

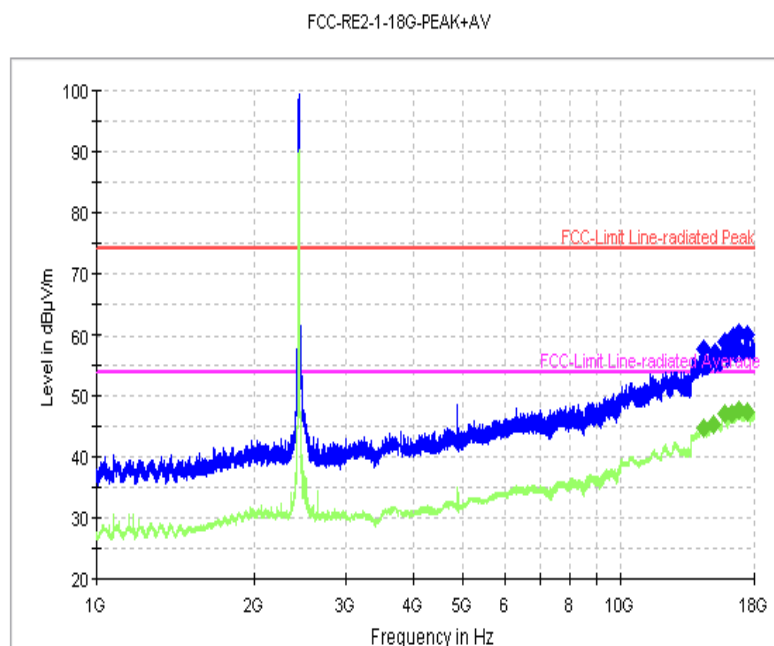


Fig.165 Radiated Spurious Emission (802.11g, Ch6, 1 GHz-18 GHz)

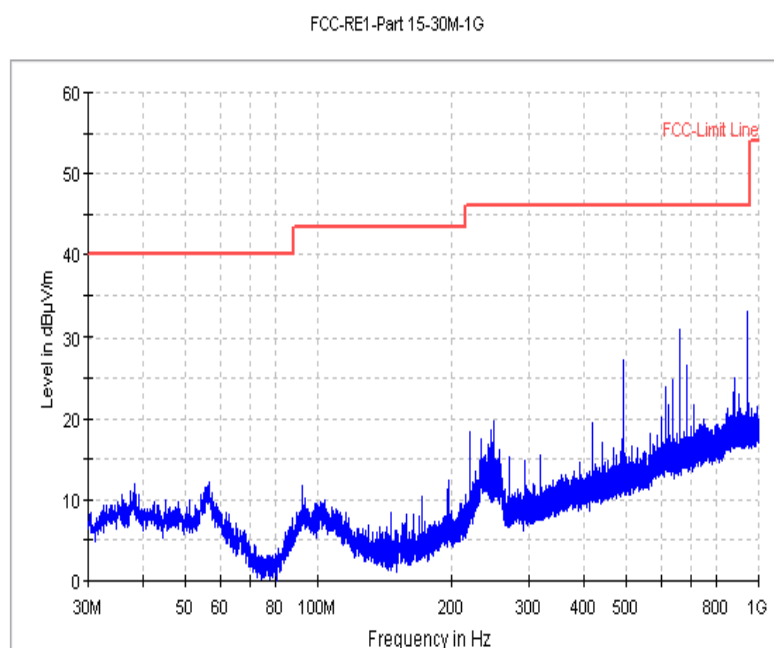


Fig.166 Radiated Spurious Emission (802.11g, Ch11, 30MHz-1 GHz)

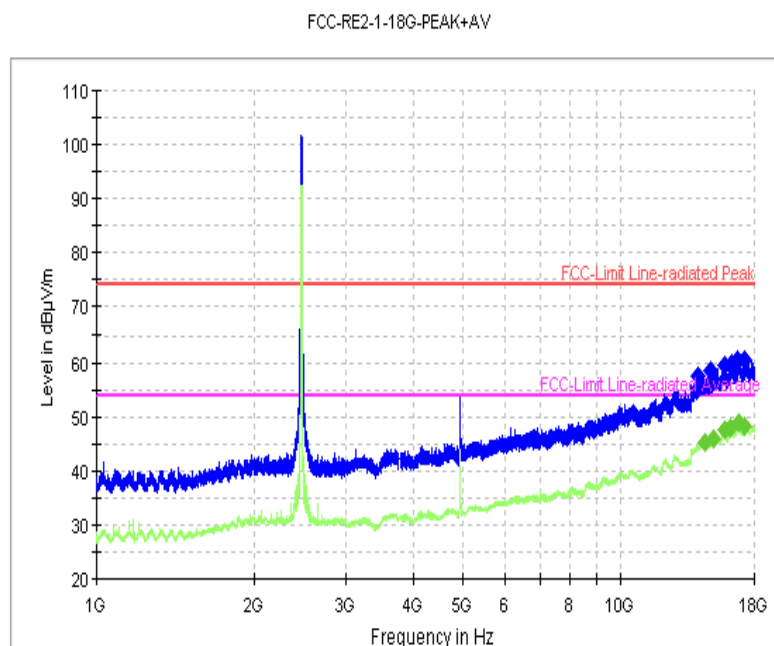


Fig.167 Radiated Spurious Emission (802.11g, Ch11, 1 GHz-18 GHz)

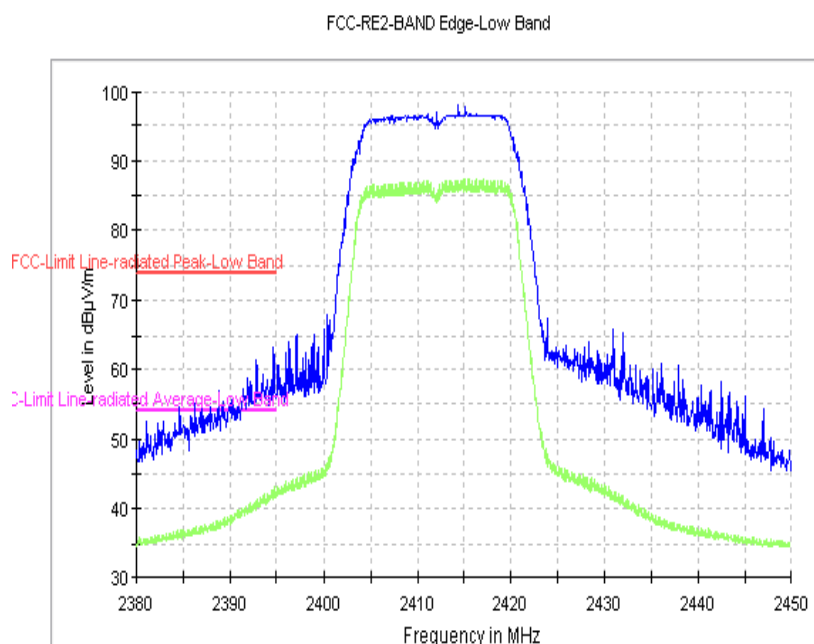


Fig.168 Radiated Emission Power (802.11g, Ch1, 2380GHz~2450GHz)

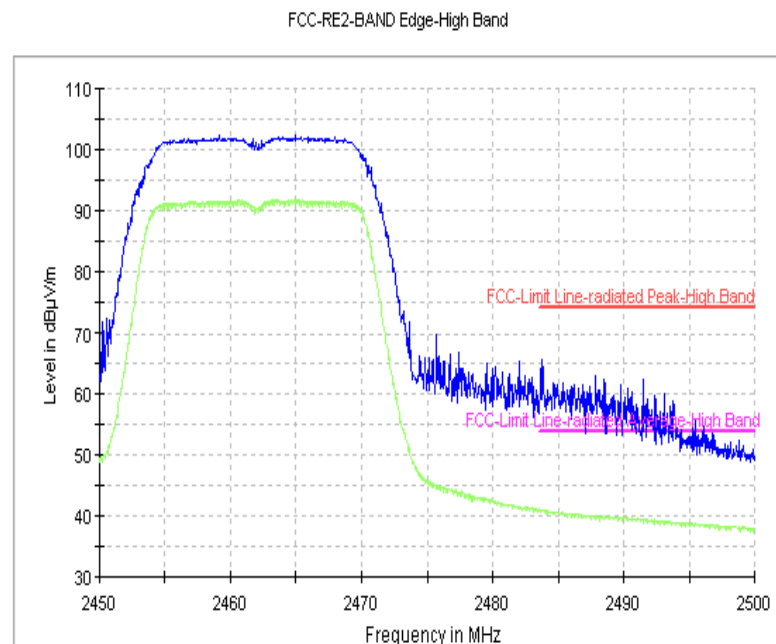


Fig.169 Radiated Emission Power (802.11g, Ch11, 2450GHz~2500GHz)

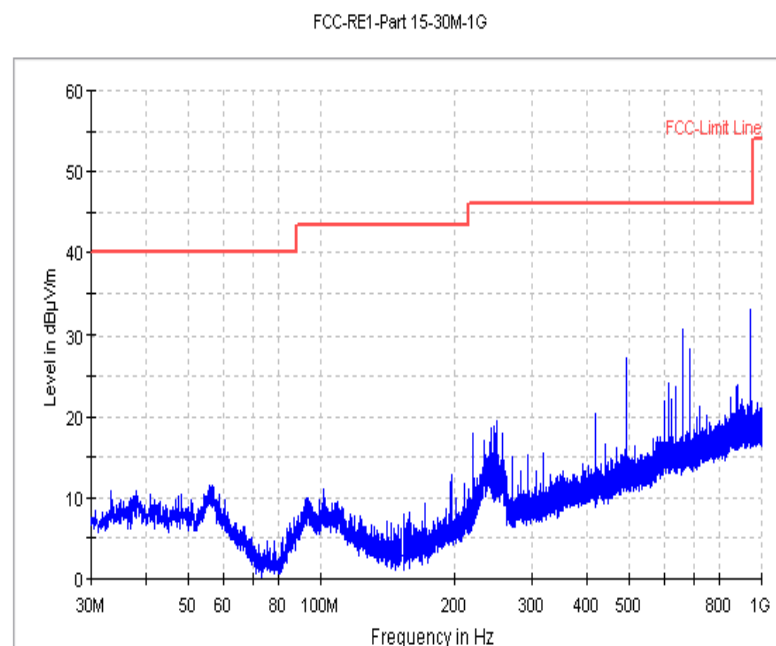


Fig.170 Radiated Spurious Emission (802.11n-20M, Ch1, 30MHz-1 GHz)

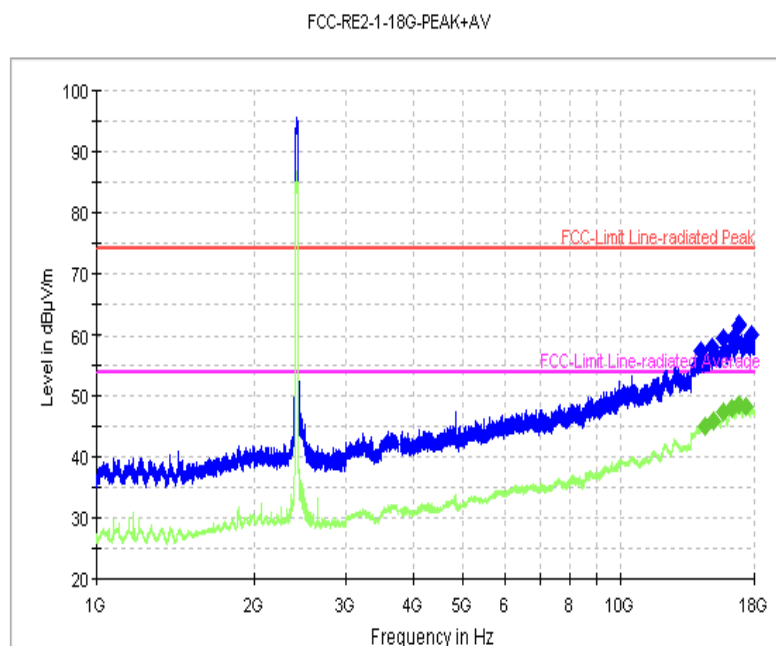


Fig.171 Radiated Spurious Emission (802.11n-20M, Ch1, 1 GHz-18 GHz)

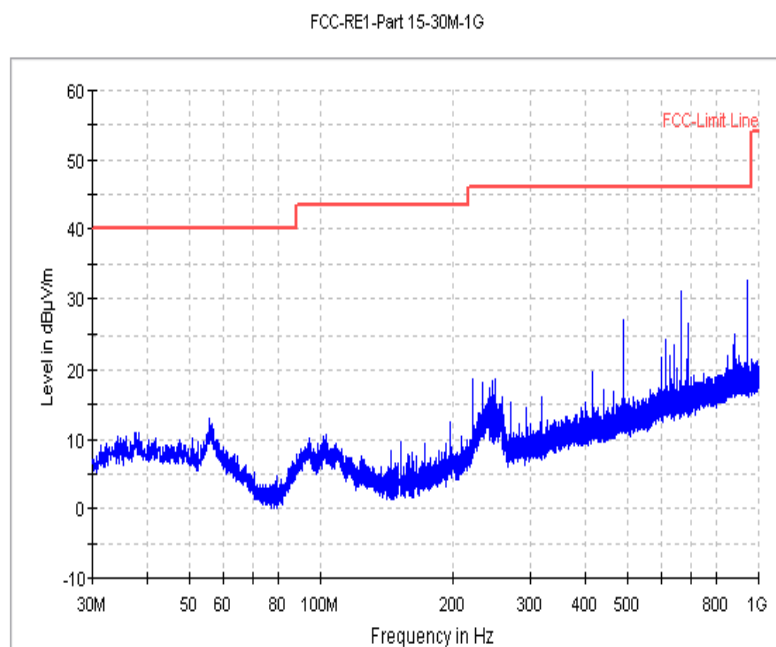


Fig.172 Radiated Spurious Emission (802.11n-20M, Ch6, 30MHz-1 GHz)

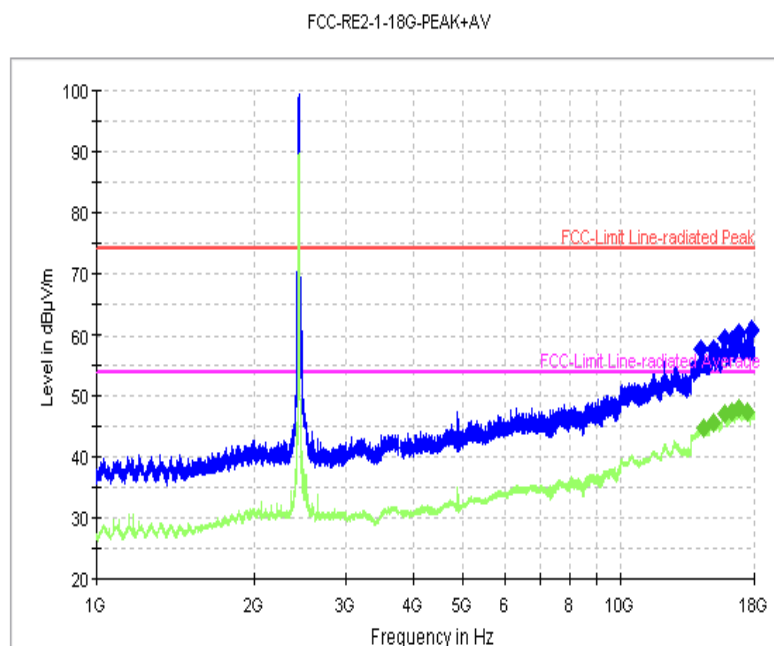


Fig.173 Radiated Spurious Emission (802.11n-20M, Ch6, 1 GHz-18 GHz)

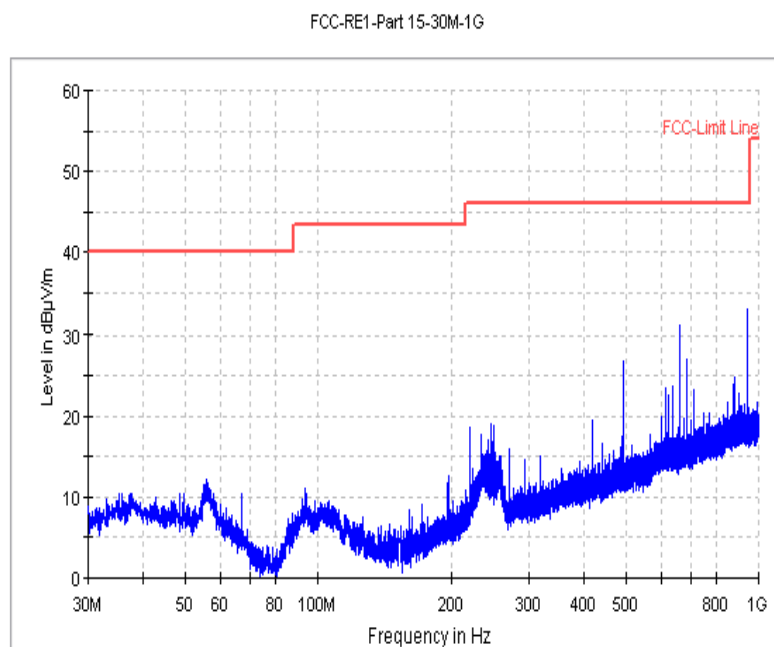


Fig.174 Radiated Spurious Emission (802.11n-20M, Ch11, 30MHz-1 GHz)

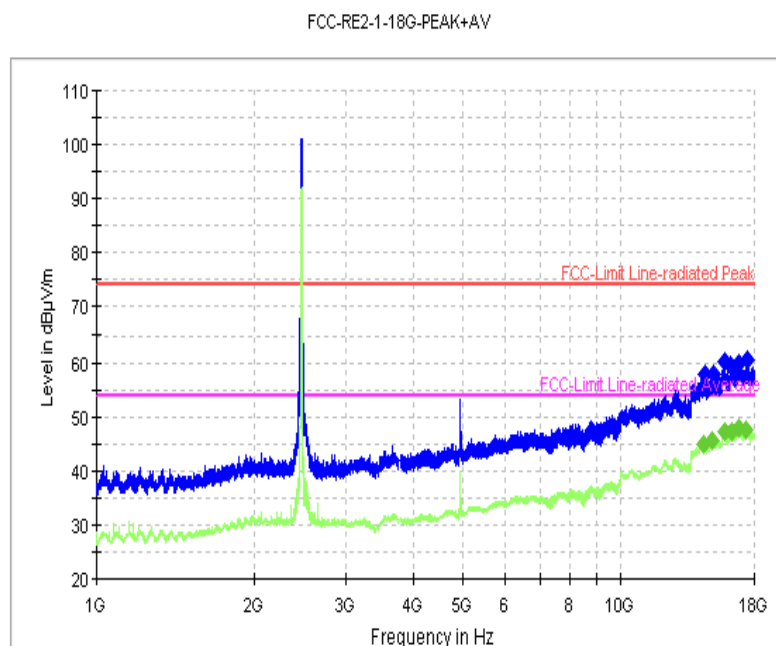


Fig.175 Radiated Spurious Emission (802.11n-20M, Ch11, 1 GHz-18 GHz)

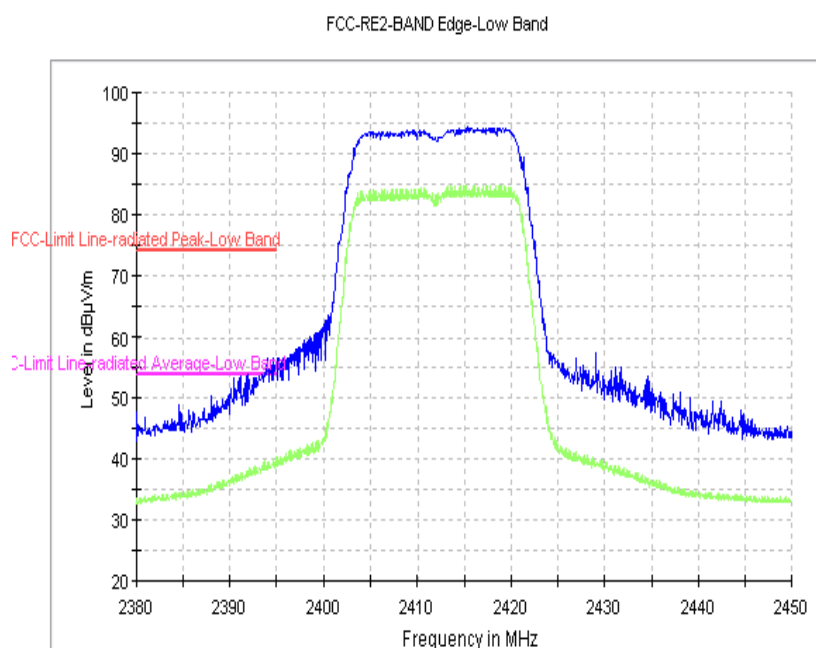


Fig.176 Radiated Emission Power (802.11n-20M, Ch1, 2380GHz~2450GHz)

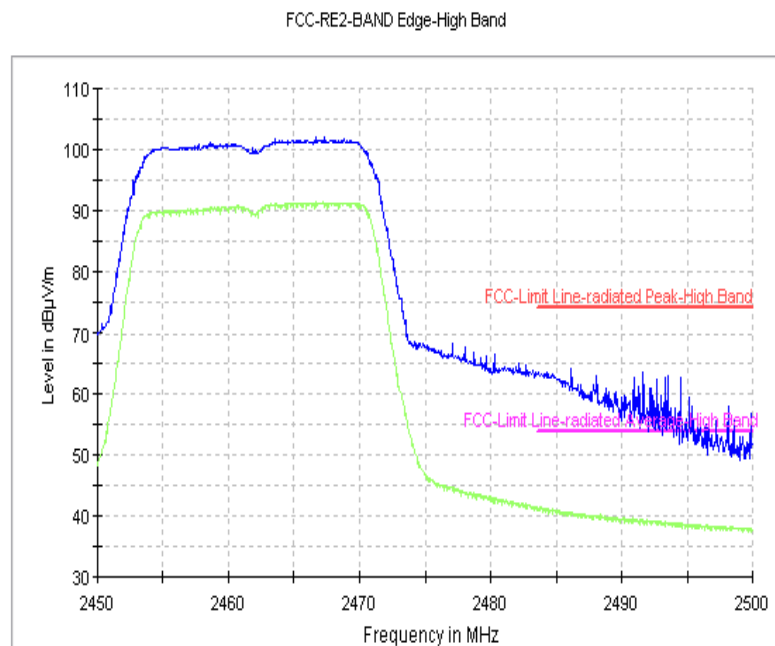


Fig.177 Radiated Emission Power (802.11n-20M, Ch11, 2450GHz~2500GHz)

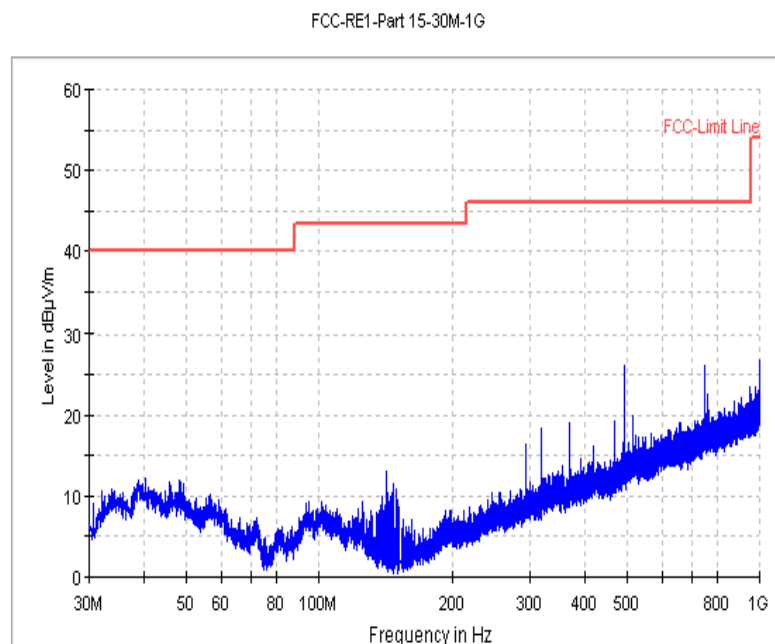


Fig.178 Radiated Spurious Emission (802.11n-40M, Ch3, 30MHz-1 GHz)

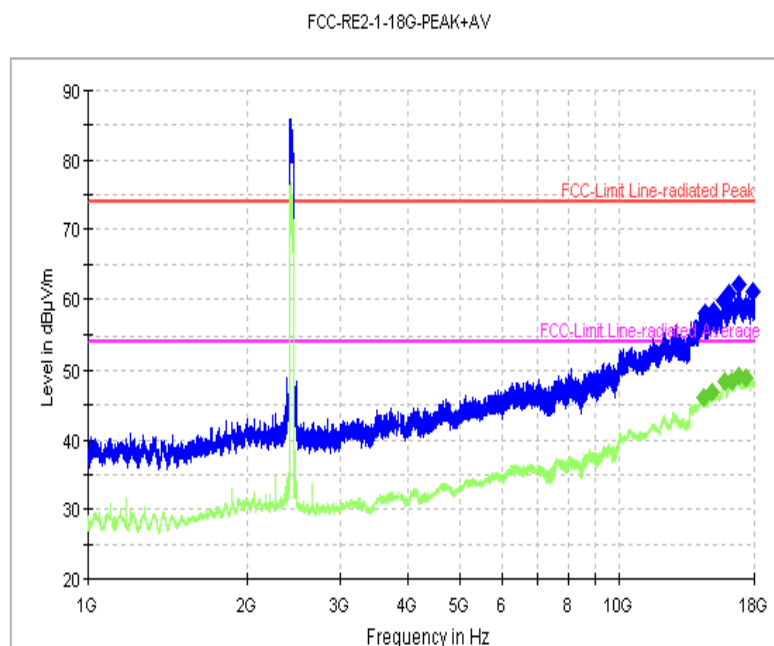


Fig.179 Radiated Spurious Emission (802.11n-40M, Ch3, 1 GHz-18 GHz)

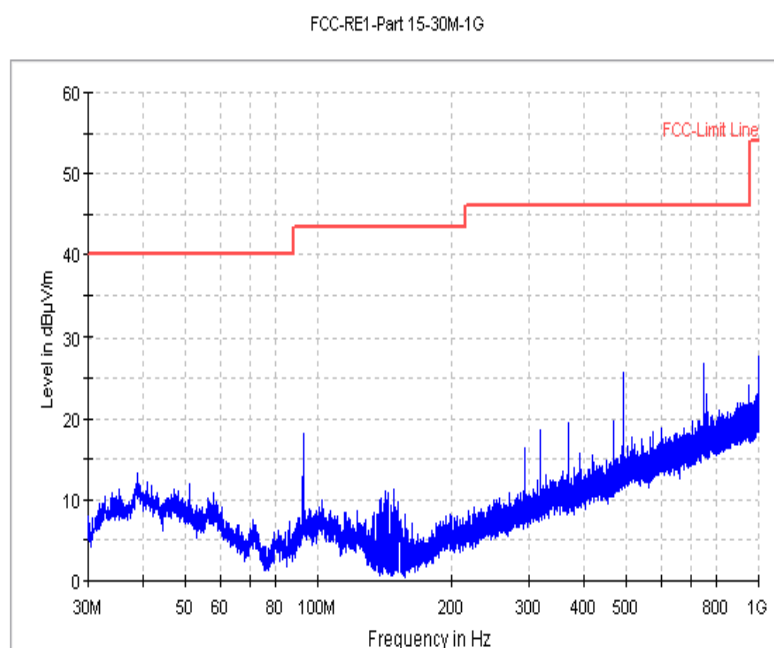


Fig.180 Radiated Spurious Emission (802.11n-40M, Ch6, 30MHz-1 GHz)

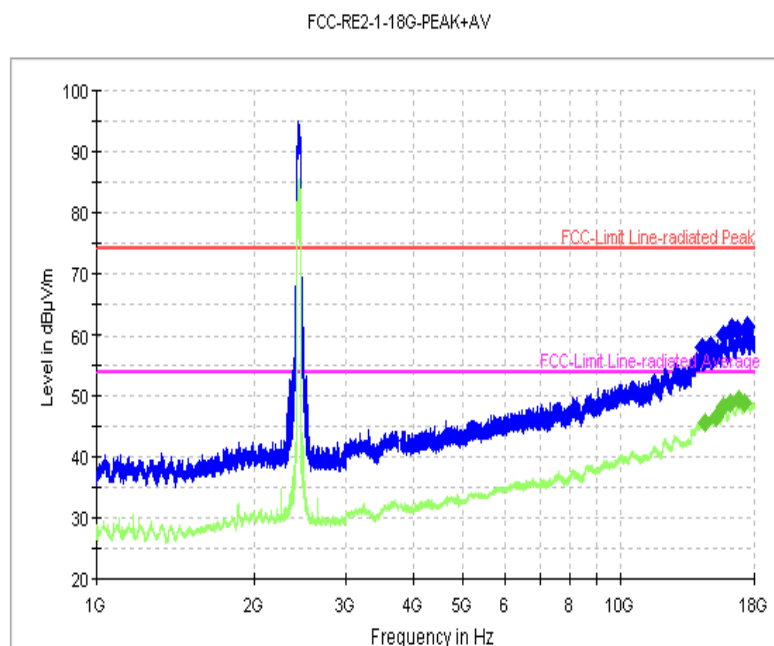


Fig.181 Radiated Spurious Emission (802.11n-40M, Ch6, 1 GHz-18 GHz)

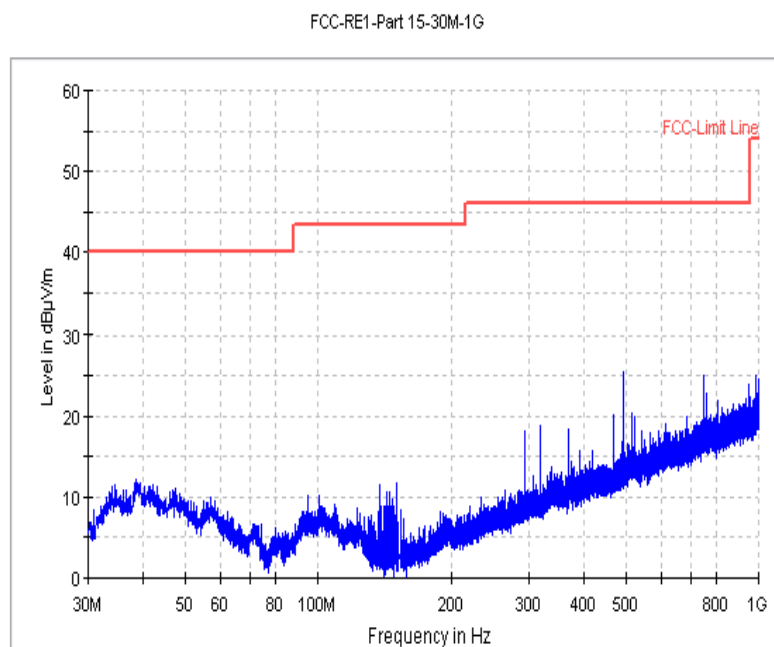


Fig.182 Radiated Spurious Emission (802.11n-40M, Ch9, 30MHz-1 GHz)

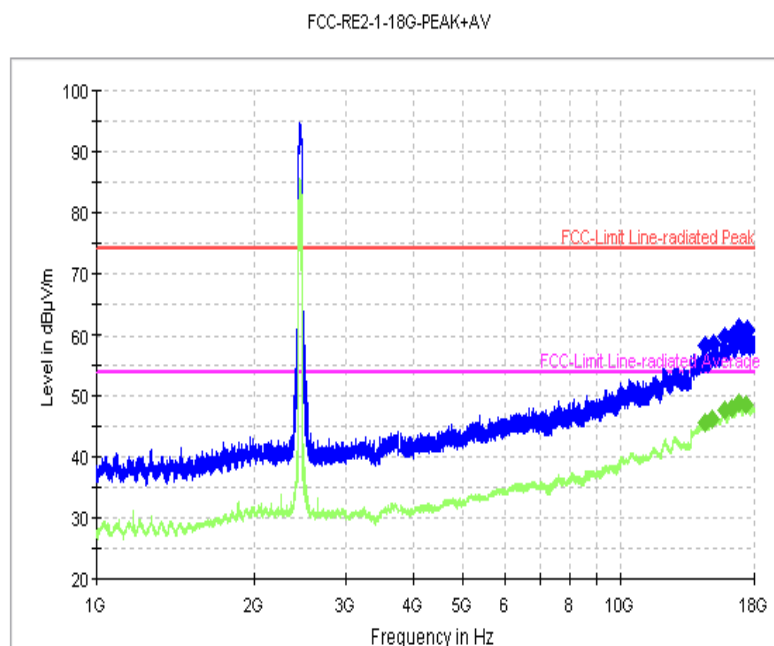


Fig.183 Radiated Spurious Emission (802.11n-40M, Ch9, 1 GHz-18 GHz)

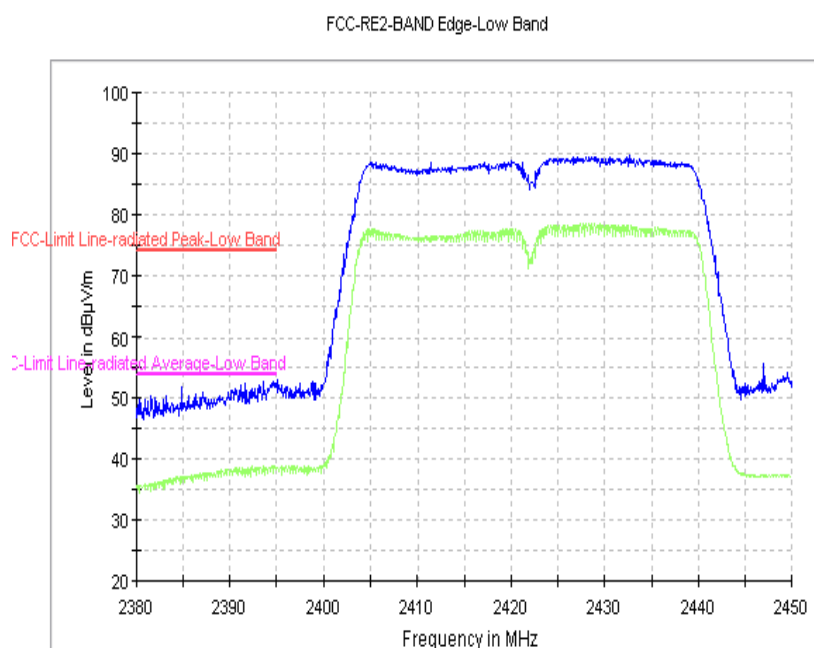


Fig.184 Radiated Emission Power (802.11n-40M, Ch3, 2380GHz~2450GHz)

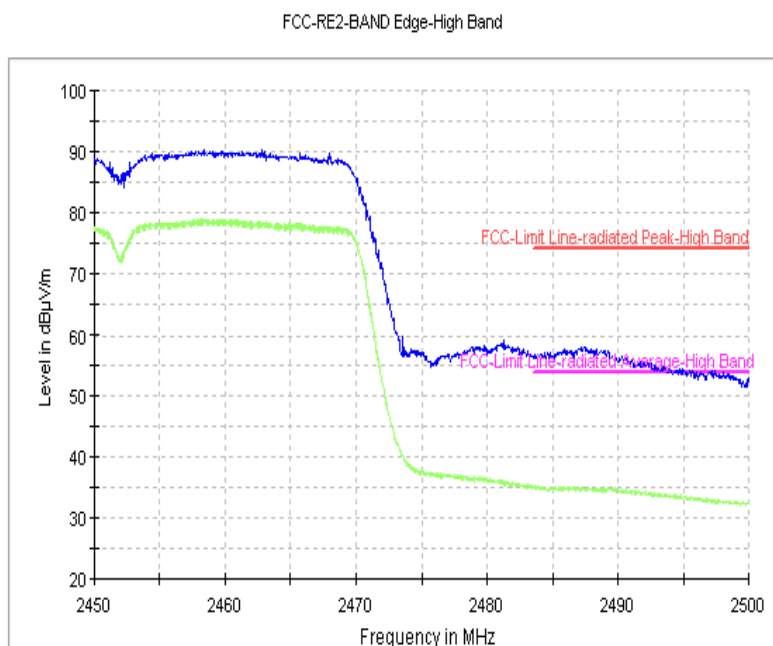


Fig.185 Radiated Emission Power (802.11n-20M, Ch9, 2450GHz~2500GHz)

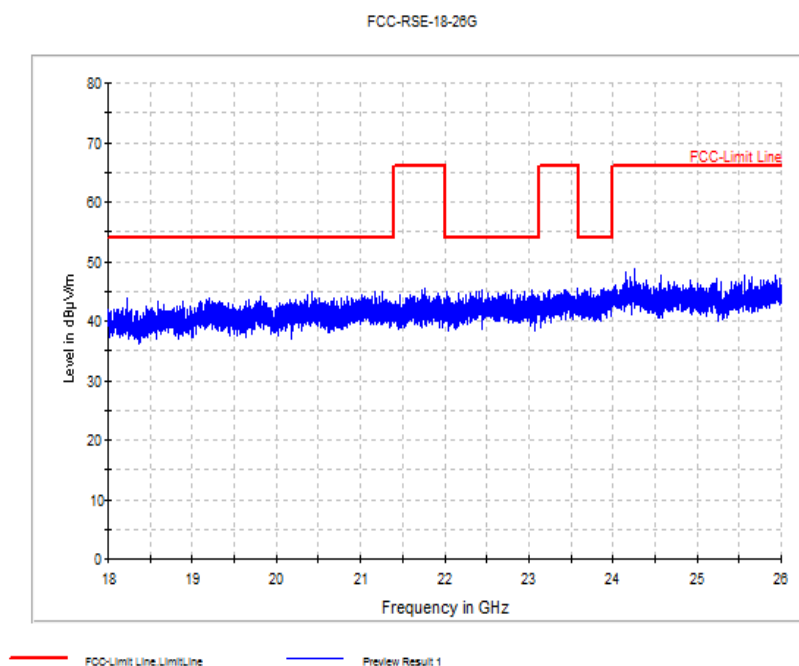


Fig.186 Radiated emission: 18 GHz - 26 GHz

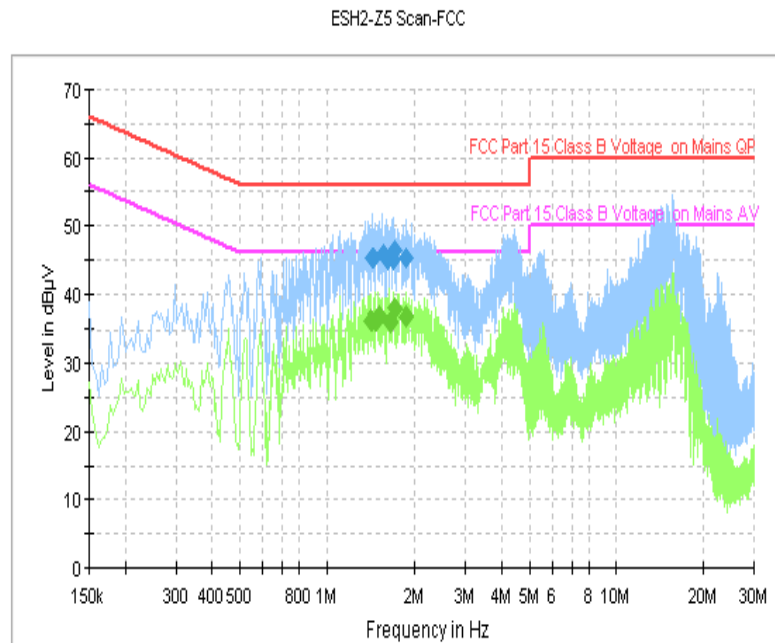


Fig.187AC Powerline Conducted Emission (Traffic, AE1)

MEASUREMENT RESULT: " QuasiPeak "

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
1.442000	45.1	FLO	L1	10.1	10.9	56.0
1.562000	46.0	FLO	L1	10.1	10.0	56.0
1.606000	44.9	FLO	L1	10.1	11.1	56.0
1.678000	45.0	FLO	L1	10.1	11.0	56.0
1.694000	46.5	FLO	L1	10.1	9.5	56.0
1.854000	45.3	FLO	L1	10.1	10.7	56.0

MEASUREMENT RESULT: " Average "

Frequency (MHz)	CAverage (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
1.430000	36.3	FLO	L1	10.1	9.7	46.0
1.474000	36.1	FLO	L1	10.1	9.9	46.0
1.502000	36.7	FLO	L1	10.1	9.3	46.0
1.650000	36.1	FLO	L1	10.1	9.9	46.0
1.694000	38.1	FLO	L1	10.1	7.9	46.0
1.854000	36.8	FLO	L1	10.1	9.2	46.0

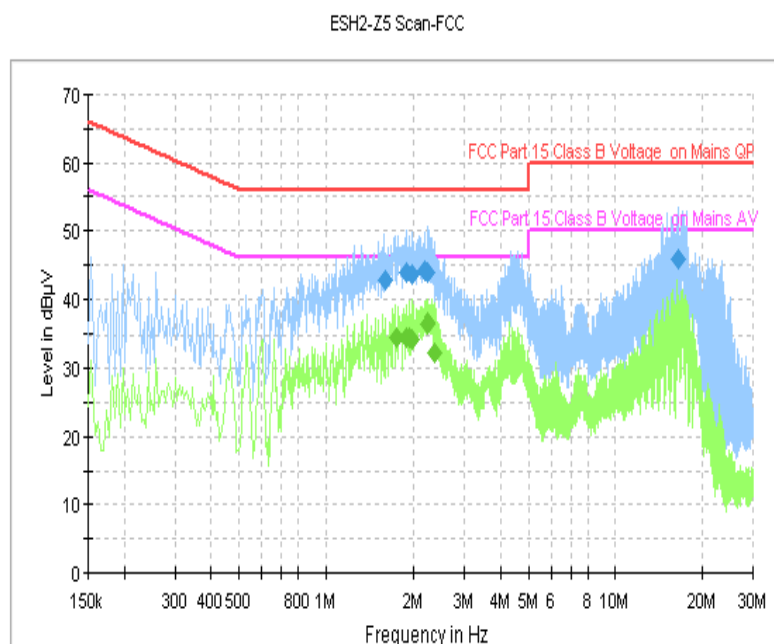


Fig.188AC Powerline Conducted Emission (Idle, AE1)

MEASUREMENT RESULT: " QuasiPeak "

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
1.598000	42.7	FLO	L1	10.1	13.3	56.0
1.894000	43.8	FLO	L1	10.1	12.2	56.0
1.966000	43.4	FLO	L1	10.1	12.6	56.0
2.190000	44.0	FLO	L1	10.1	12.0	56.0
2.226000	43.8	FLO	L1	10.1	12.2	56.0
16.526000	45.9	FLO	L1	10.5	14.1	60.0

MEASUREMENT RESULT: " Average "

Frequency (MHz)	CAverage (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
1.746000	34.5	FLO	L1	10.1	11.5	46.0
1.878000	34.7	FLO	L1	10.1	11.3	46.0
1.922000	34.5	FLO	L1	10.1	11.5	46.0
1.966000	34.4	FLO	L1	10.1	11.6	46.0
2.226000	36.6	FLO	L1	10.1	9.4	46.0
2.358000	32.3	FLO	L1	10.1	13.7	46.0

*** END OF REPORT BODY ***