



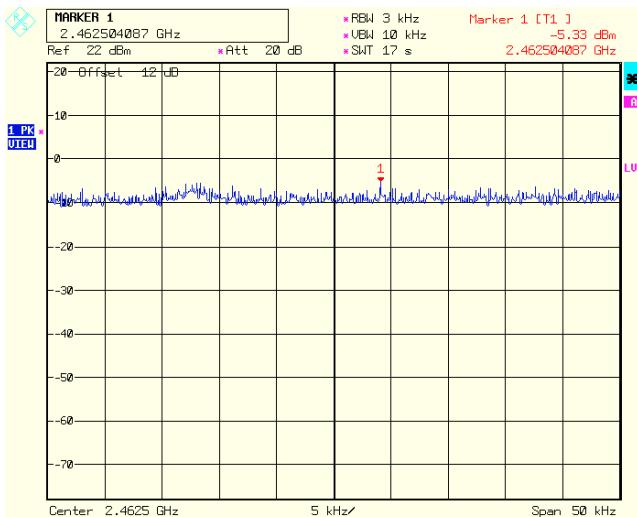
Test Report No.: 8612332644

Title: Test on 2.4 GHz Band Outdoor WiFi (802.11b/g) access point

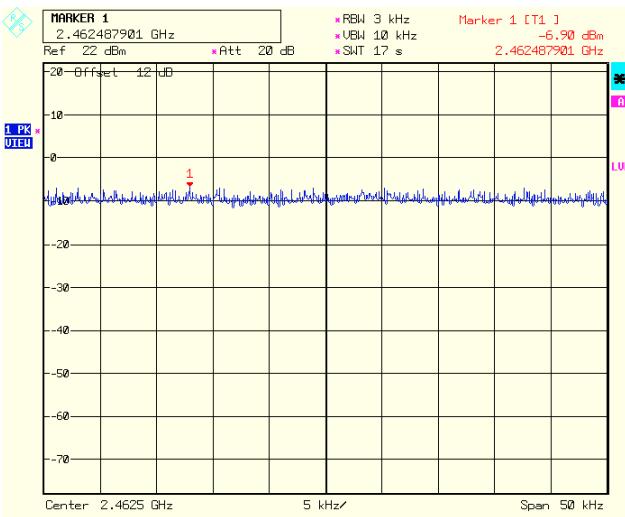
Model: WS410

Page 60 of 103 Pages

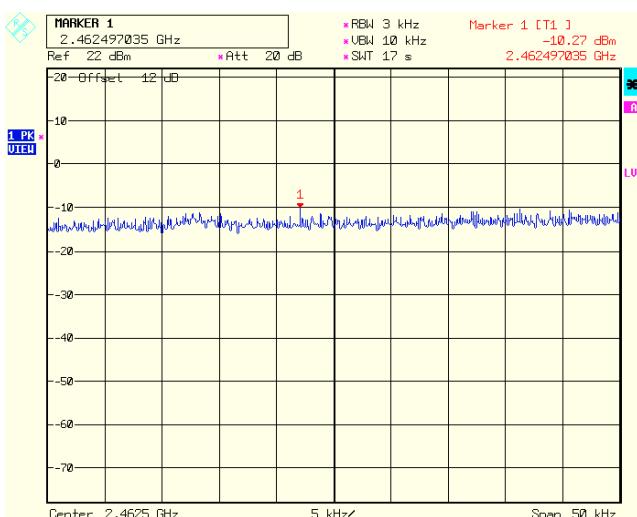
FCC ID: UGMWS410



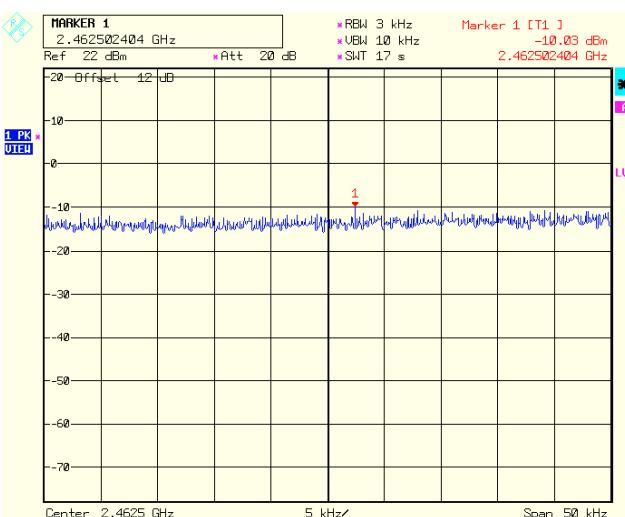
**Plot # 147. Transmitter output 3.**  
**Peak Power Spectral Density.**  
**High frequency. 1Mbps rate.**



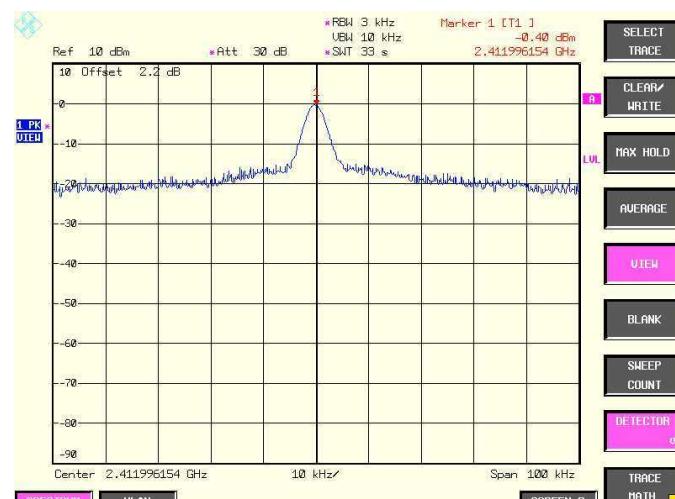
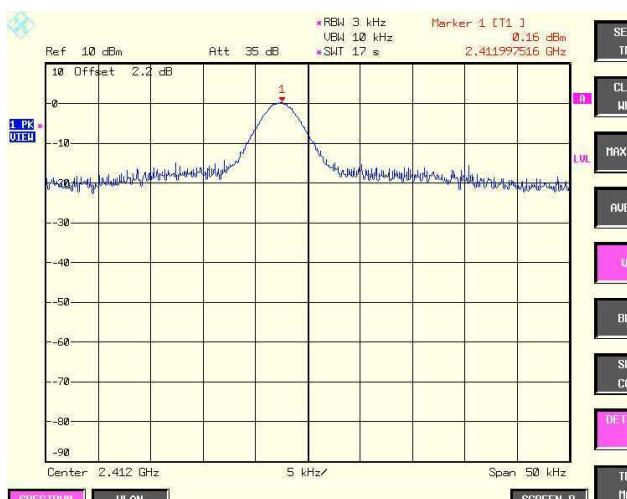
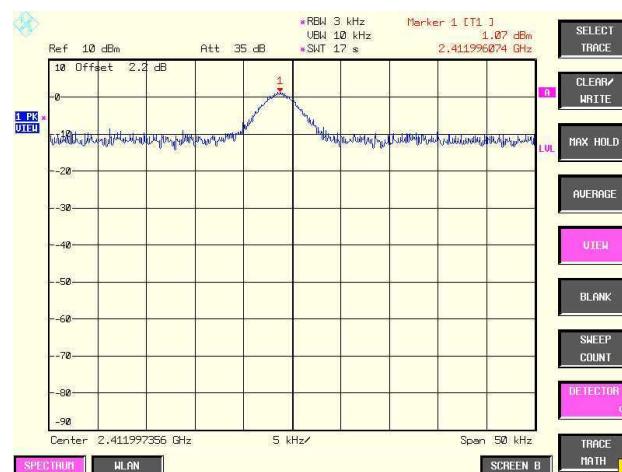
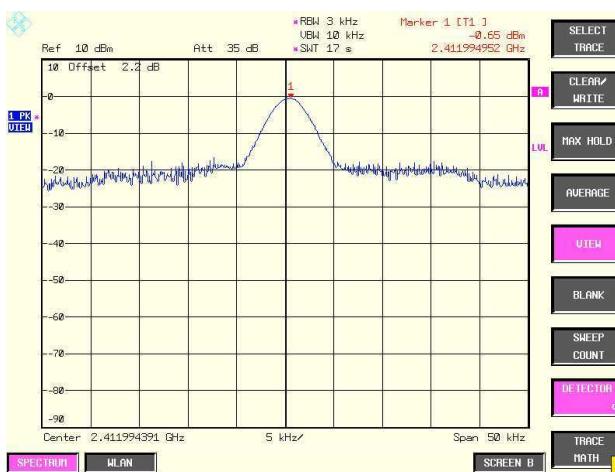
**Plot # 148. Transmitter output 3.**  
**Peak Power Spectral Density.**  
**High frequency. 11Mbps rate.**



**Plot # 149. Transmitter output 3.**  
**Peak Power Spectral Density.**  
**High frequency. 6Mbps rate.**



**Plot # 150. Transmitter output 3.**  
**Peak Power Spectral Density.**  
**High frequency. 54Mbps rate.**

**Test Report No.: 8612332644**
**Page 61 of 103 Pages**
**Title: Test on 2.4 GHz Band Outdoor WiFi (802.11b/g) access point**
**FCC ID: UGMWS410**
**Model: WS410**




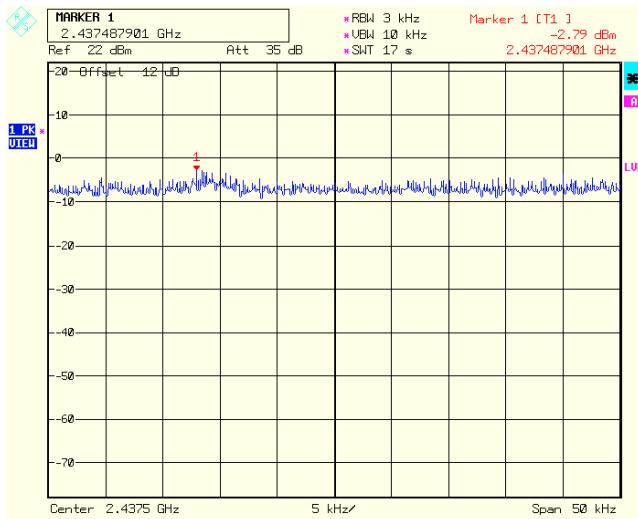
Test Report No.: 8612332644

Title: Test on 2.4 GHz Band Outdoor WiFi (802.11b/g) access point

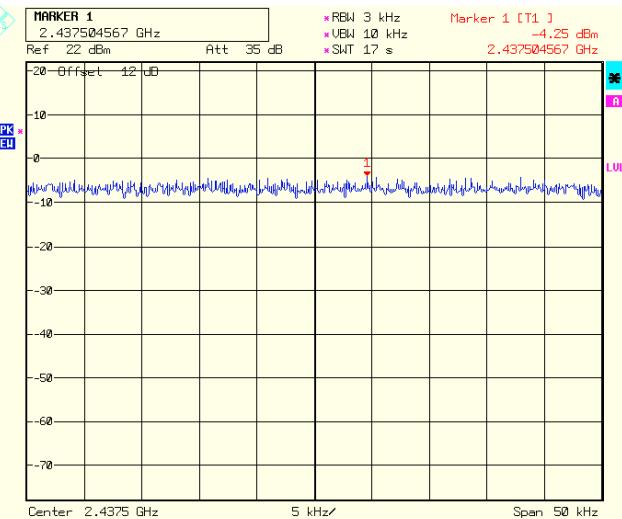
Model: WS410

Page 62 of 103 Pages

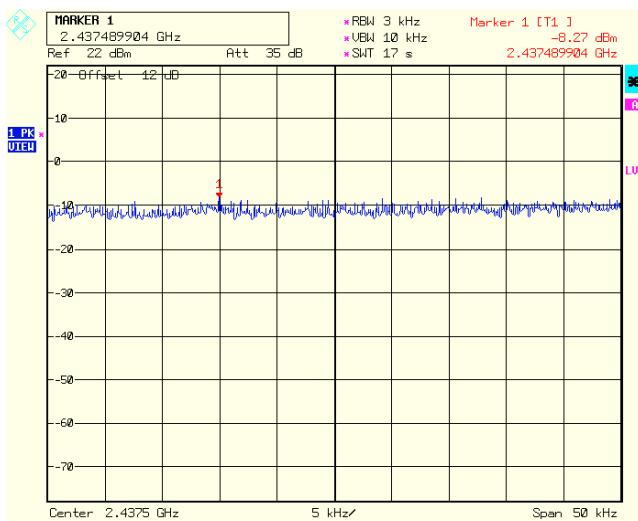
FCC ID: UGMWS410



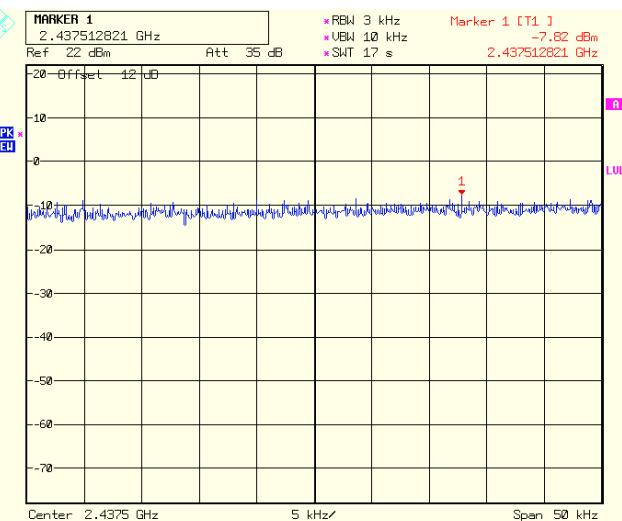
**Plot # 155. Transmitter output 4.  
Peak Power Spectral Density.  
Middle frequency. 1Mbps rate.**



**Plot # 156. Transmitter output 4.  
Peak Power Spectral Density.  
Middle frequency. 11Mbps rate.**



**Plot # 157. Transmitter output 4.  
Peak Power Spectral Density.  
Middle frequency. 6Mbps rate.**



**Plot # 158. Transmitter output 4.  
Peak Power Spectral Density.  
Middle frequency. 54Mbps rate.**



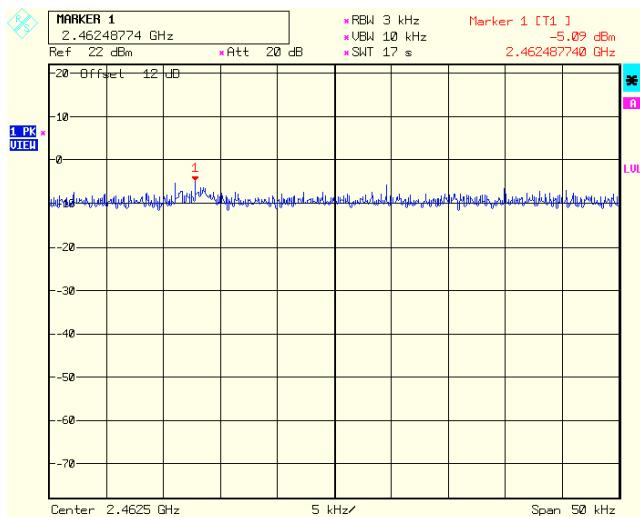
Test Report No.: 8612332644

Title: Test on 2.4 GHz Band Outdoor WiFi (802.11b/g) access point

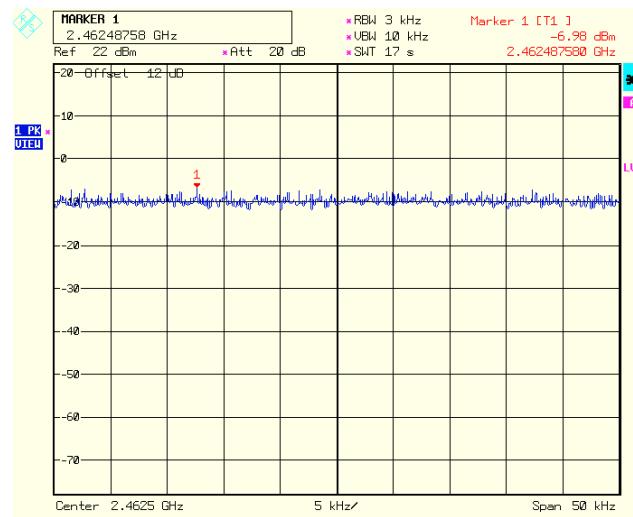
Model: WS410

Page 63 of 103 Pages

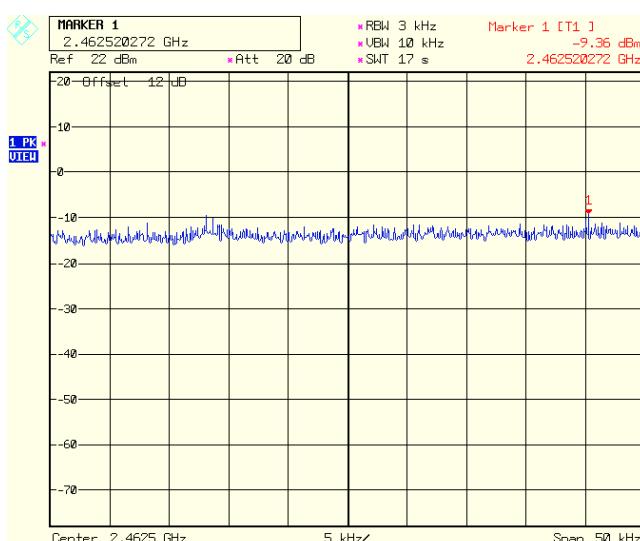
FCC ID: UGMWS410



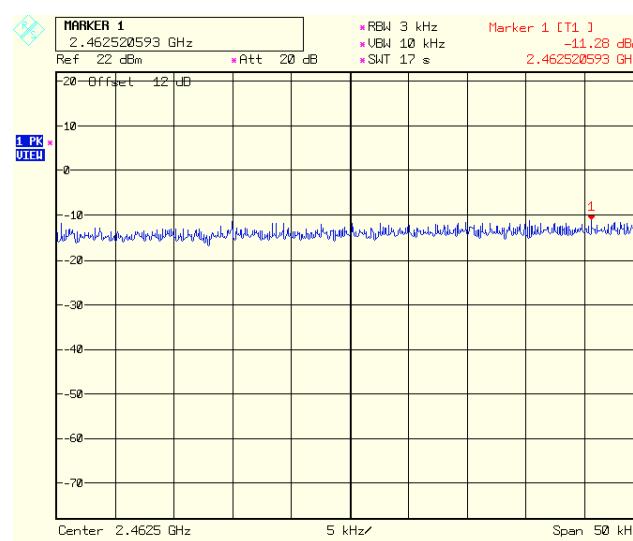
**Plot # 159. Transmitter output 4.**  
**Peak Power Spectral Density.**  
**High frequency. 1Mbps rate.**



**Plot # 160. Transmitter output 4.**  
**Peak Power Spectral Density.**  
**High frequency. 11Mbps rate.**



**Plot # 161. Transmitter output 4.**  
**Peak Power Spectral Density.**  
**High frequency. 6Mbps rate.**



**Plot # 162. Transmitter output 4.**  
**Peak Power Spectral Density.**  
**High frequency. 54Mbps rate.**



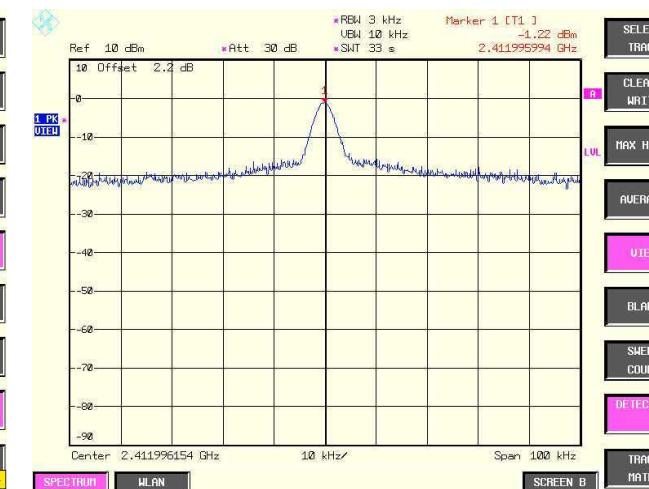
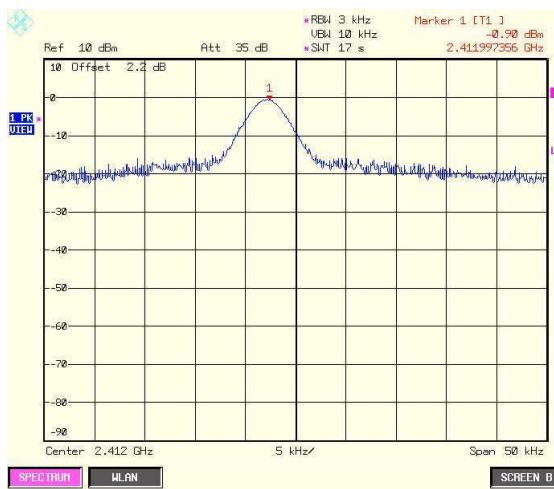
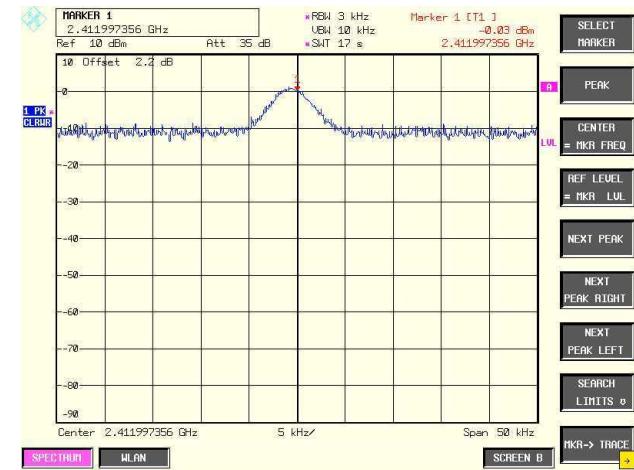
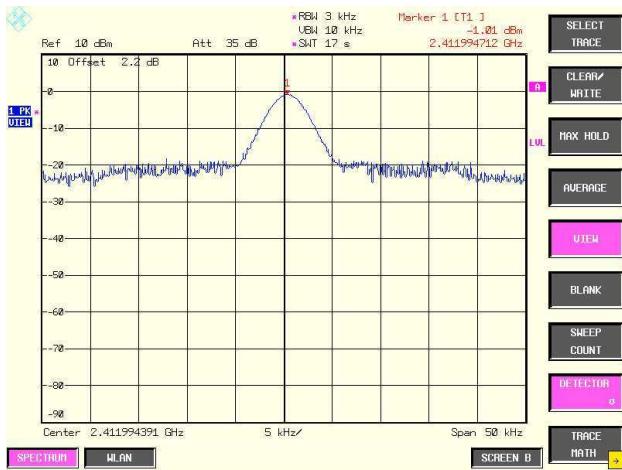
Test Report No.: 8612332644

Title: Test on 2.4 GHz Band Outdoor WiFi (802.11b/g) access point

Model: WS410

Page 64 of 103 Pages

FCC ID: UGMWS410





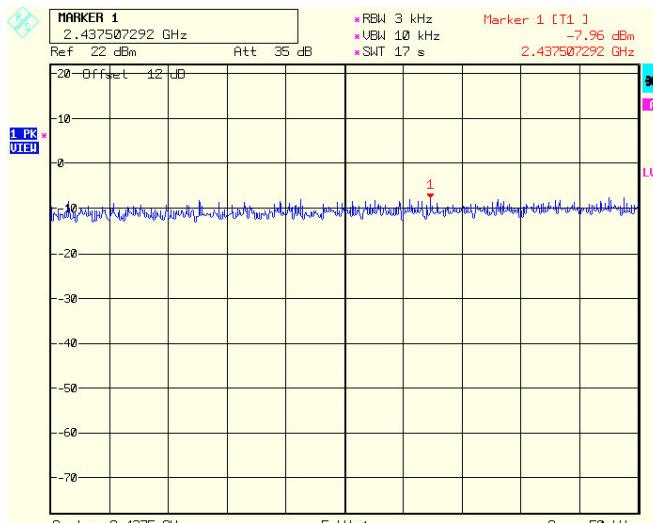
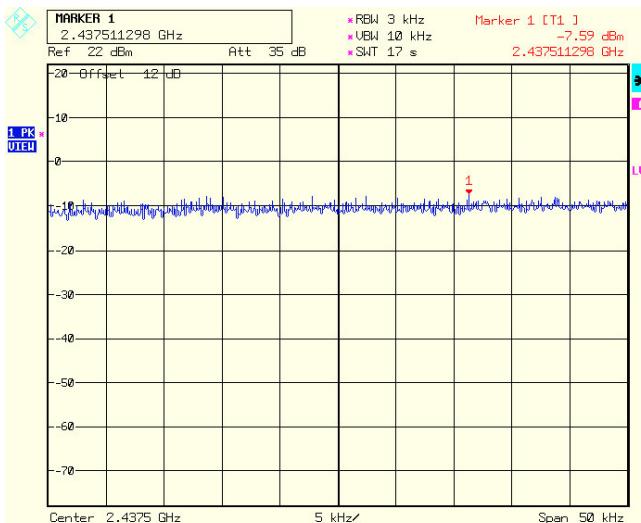
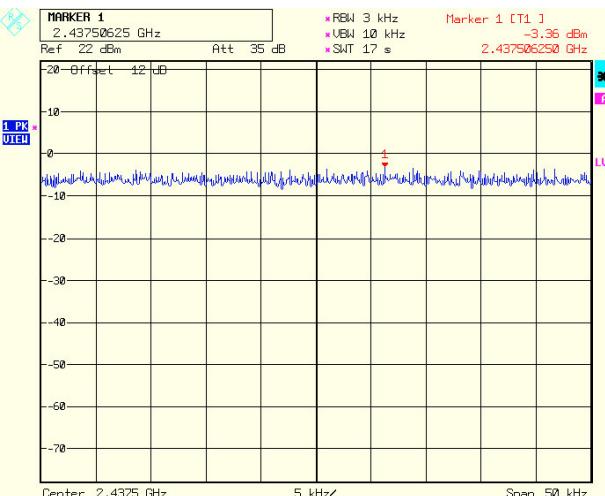
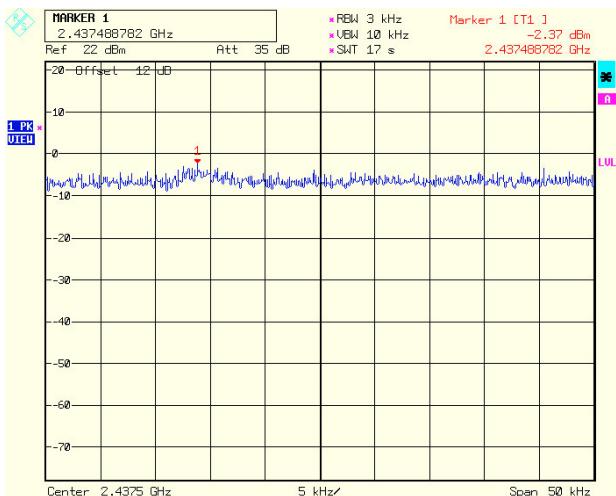
Test Report No.: 8612332644

Title: Test on 2.4 GHz Band Outdoor WiFi (802.11b/g) access point

Model: WS410

Page 65 of 103 Pages

FCC ID: UGMWS410





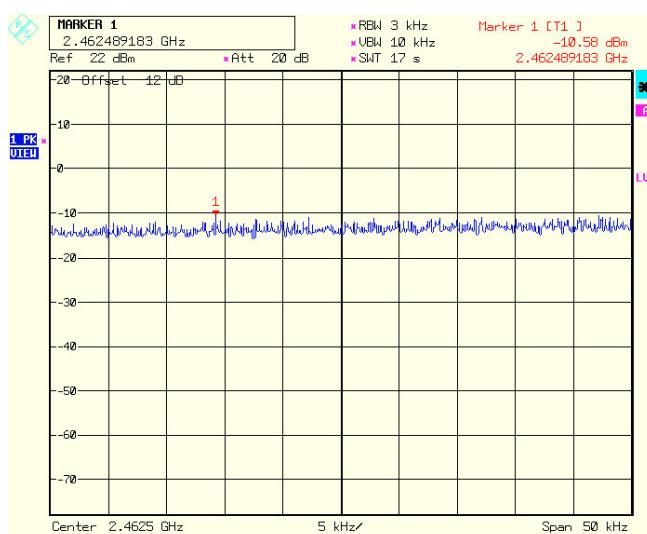
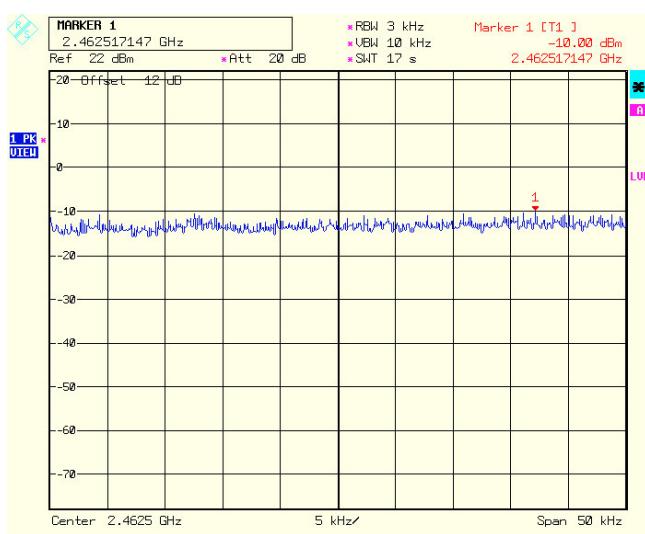
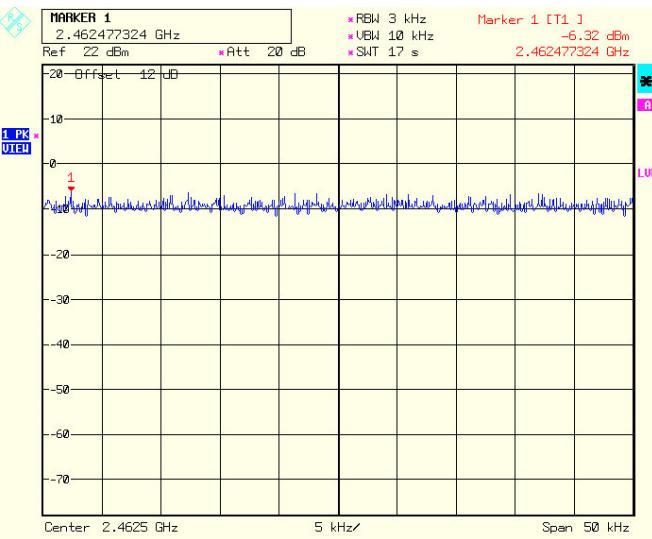
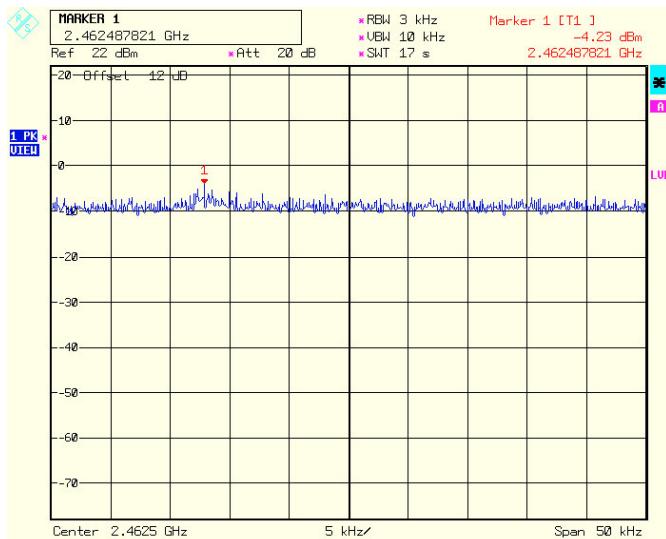
Test Report No.: 8612332644

Title: Test on 2.4 GHz Band Outdoor WiFi (802.11b/g) access point

Model: WS410

Page 66 of 103 Pages

FCC ID: UGMWS410





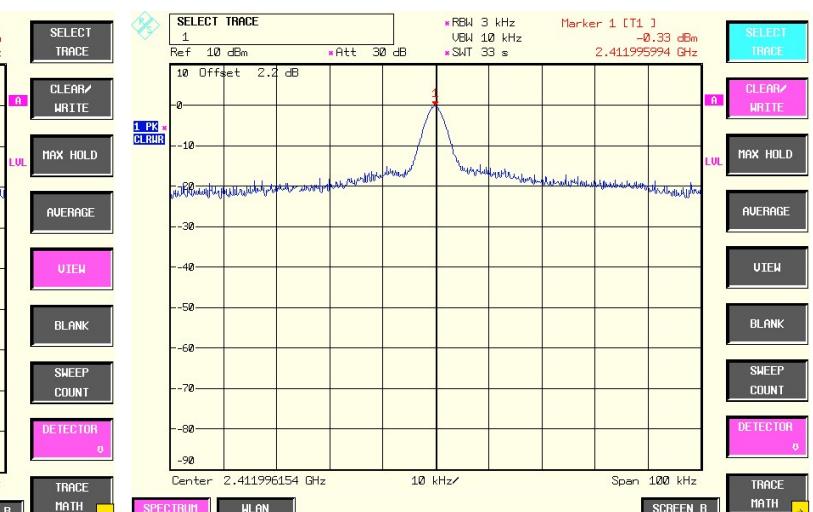
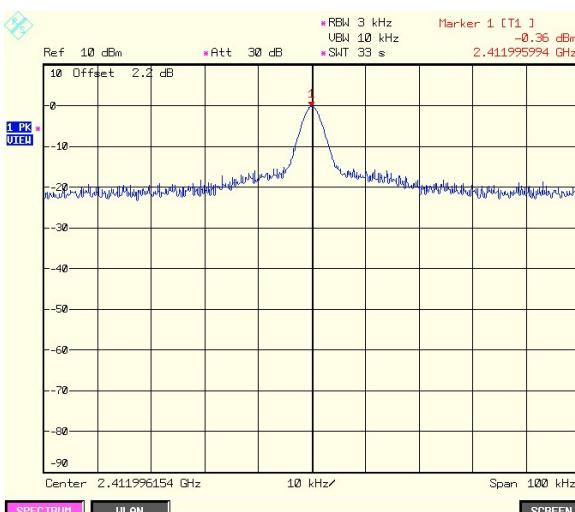
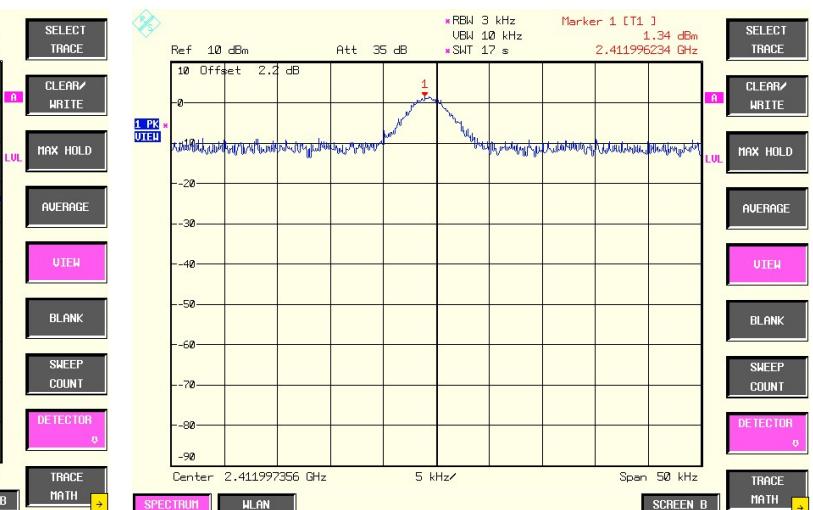
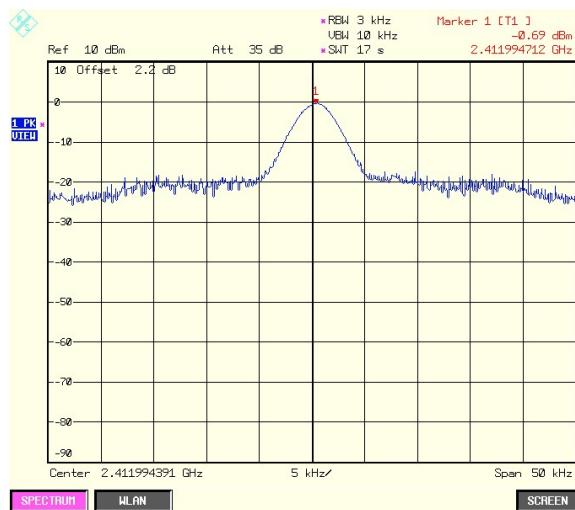
Test Report No.: 8612332644

Title: Test on 2.4 GHz Band Outdoor WiFi (802.11b/g) access point

Model: WS410

Page 67 of 103 Pages

FCC ID: UGMWS410





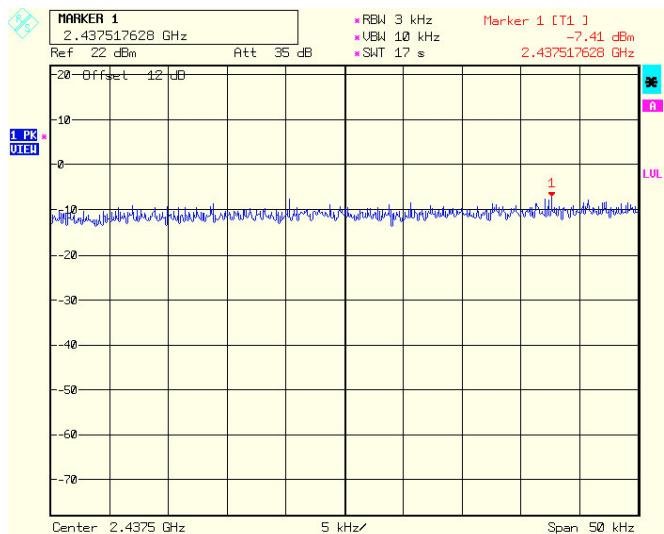
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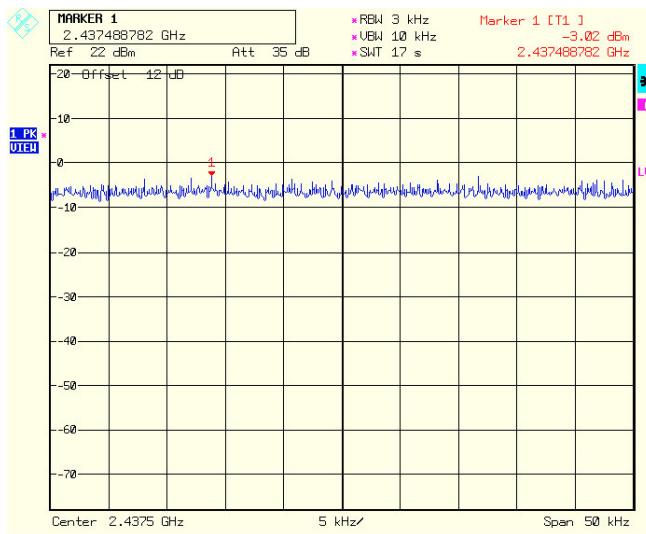
Model: WS410

Page 68 of 103 Pages

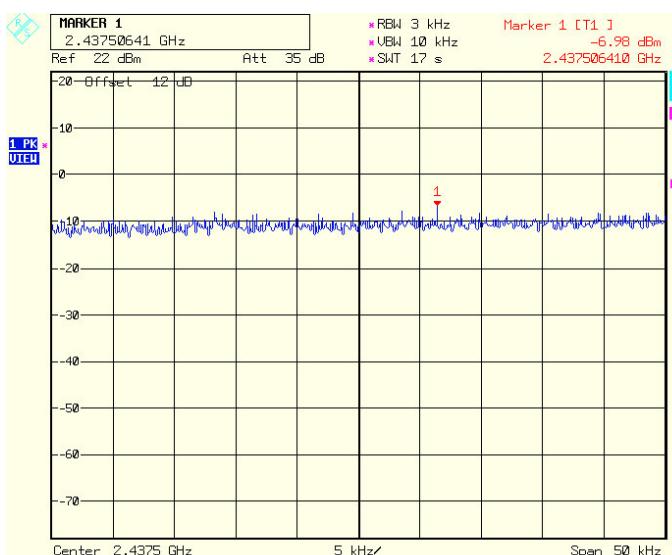
FCC ID: UGMWS410



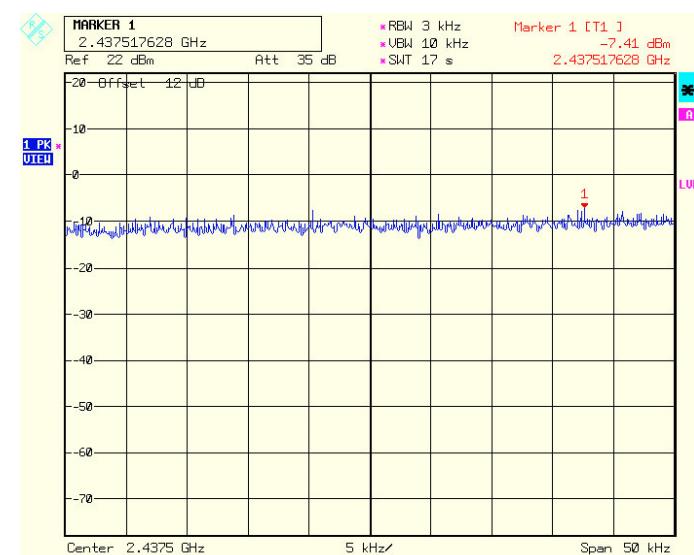
**Plot # 179. Transmitter output 6.  
Peak Power Spectral Density.  
Middle frequency. 1Mbps rate.**



**Plot # 180. Transmitter output 6.  
Peak Power Spectral Density.  
Middle frequency. 11Mbps rate.**



**Plot # 181. Transmitter output 6.  
Peak Power Spectral Density.  
Middle frequency. 6Mbps rate.**



**Plot # 182. Transmitter output 6.  
Peak Power Spectral Density.  
Middle frequency. 54Mbps rate.**



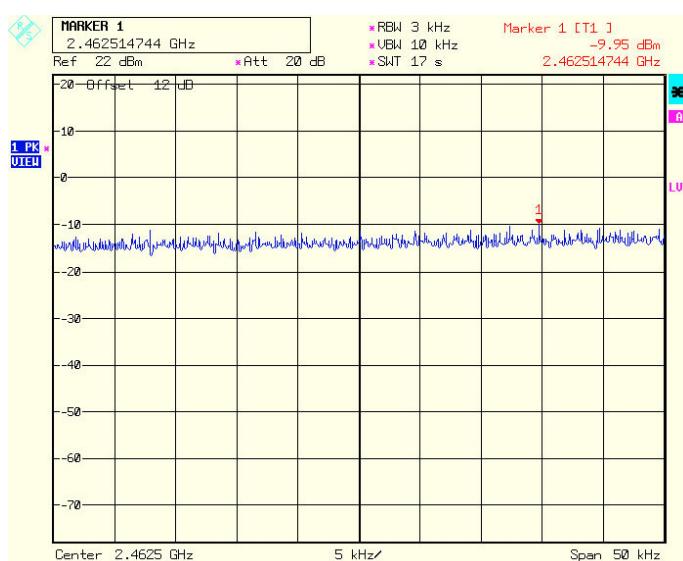
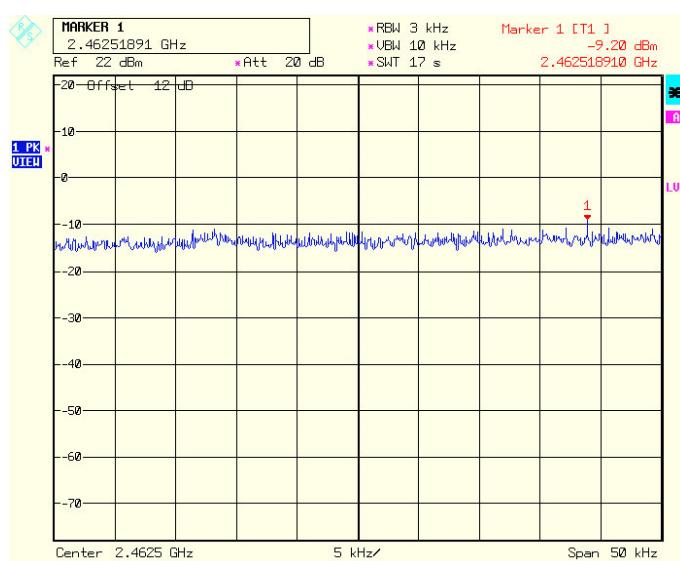
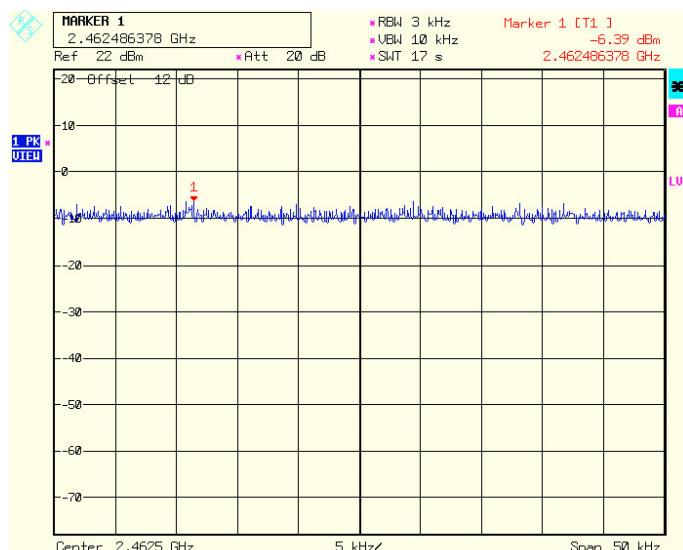
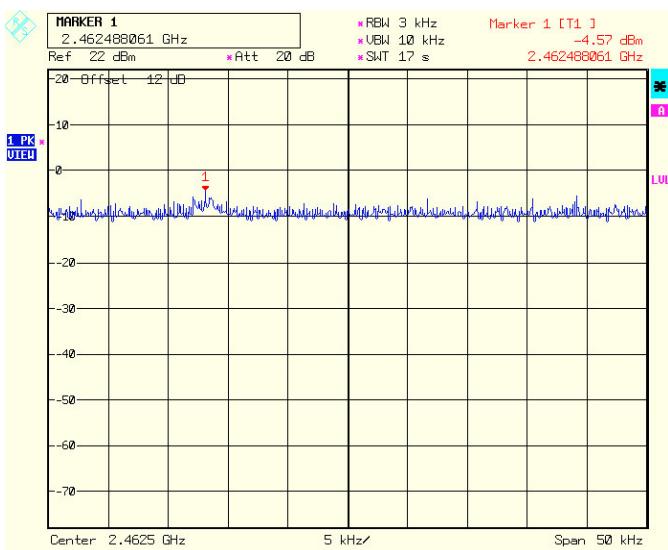
Test Report No.: 8612332644

Title: Test on 2.4 GHz Band Outdoor WiFi (802.11b/g) access point

Model: WS410

Page 69 of 103 Pages

FCC ID: UGMWS410





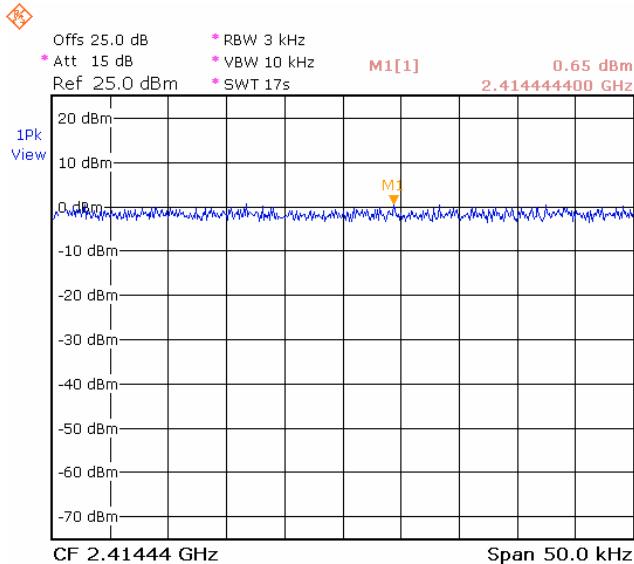
Test Report No.: 8612332644

Title: Test on 2.4 GHz Band Outdoor WiFi (802.11b/g) access point

Model: WS410

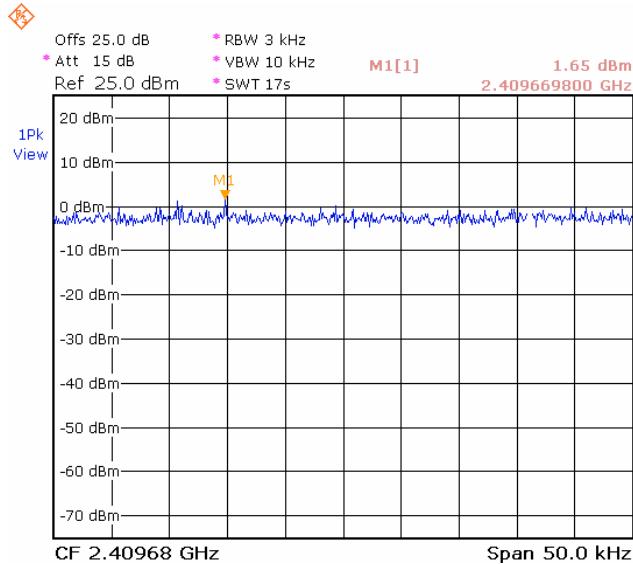
Page 70 of 103 Pages

FCC ID: UGMWS410



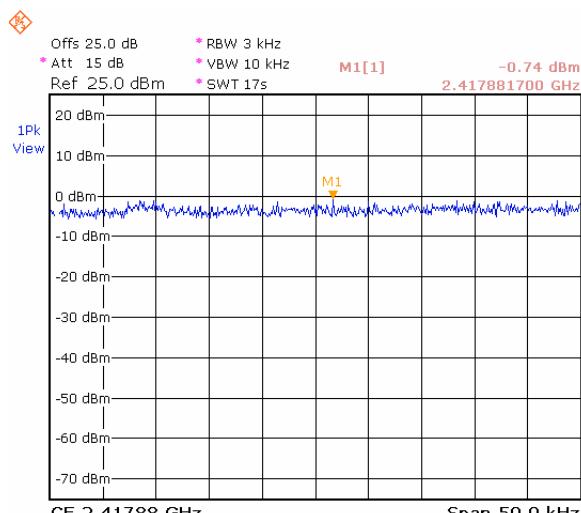
Plot # 187. Combined output Peak Power Spectral Density.

Low frequency. 1Mbps rate.



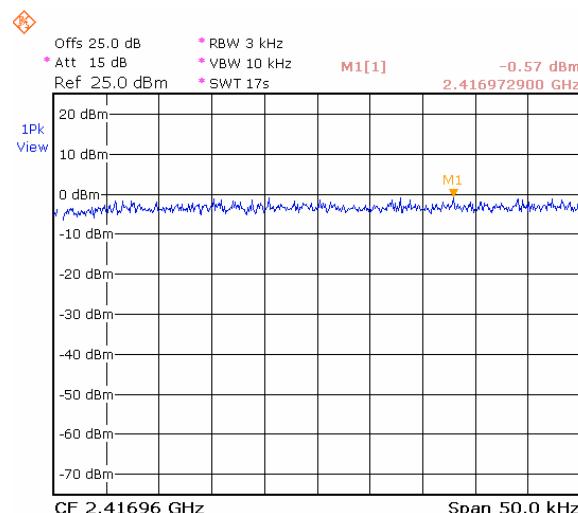
Plot # 188. Combined output Peak Power Spectral Density.

Low frequency. 11Mbps rate.



Plot # 189. Combined output Peak Power Spectral Density.

Low frequency. 6Mbps rate.



Plot # 190. Combined output Peak Power Spectral Density.

Low frequency. 54Mbps rate.



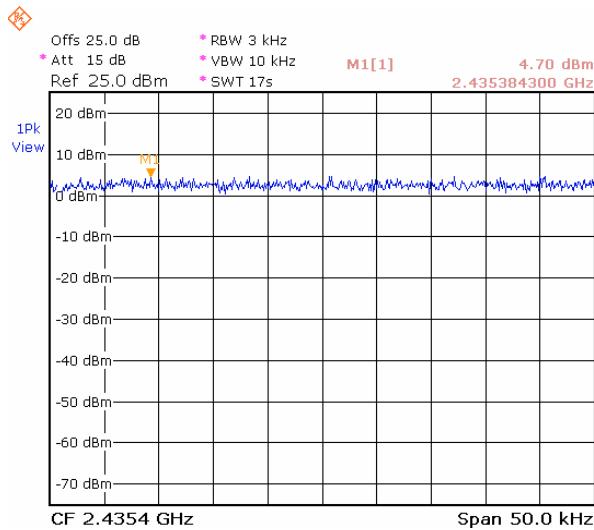
Test Report No.: 8612332644

Page 71 of 103 Pages

Title: Test on 2.4 GHz Band Outdoor WiFi (802.11b/g) access point

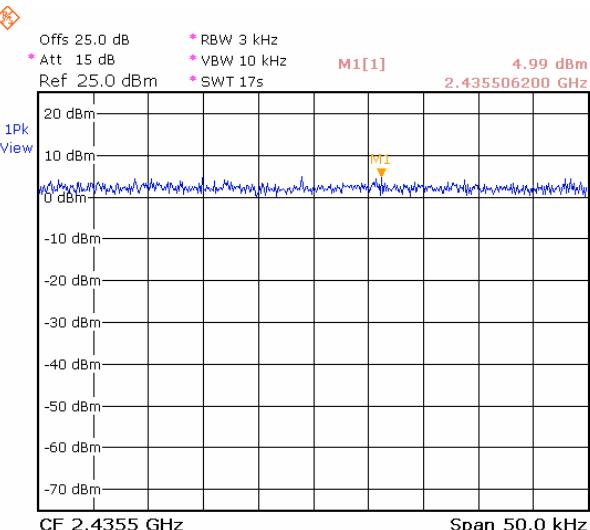
FCC ID: UGMWS410

Model: WS410



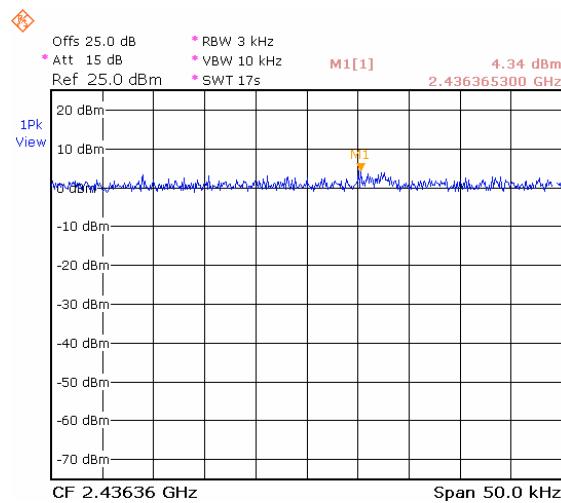
**Plot # 191. Combined output Peak Power Spectral Density.**

Middle frequency. 1Mbps rate.



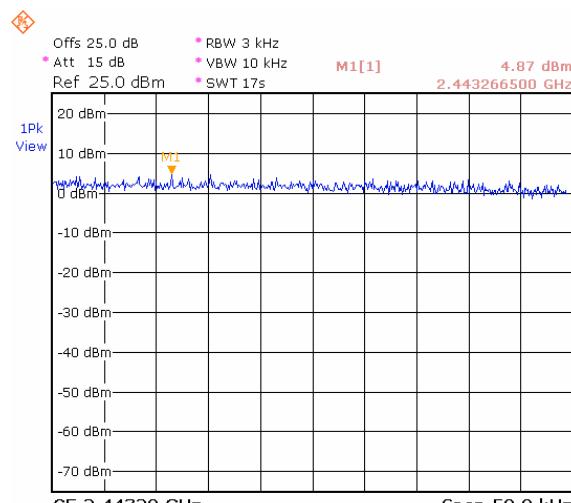
**Plot # 192. Combined output Peak Power Spectral Density.**

Middle frequency. 11Mbps rate.



**Plot # 193. Combined output Peak Power Spectral Density.**

Middle frequency. 6Mbps rate.



**Plot # 194. Combined output Peak Power Spectral Density.**

Middle frequency. 54Mbps rate.



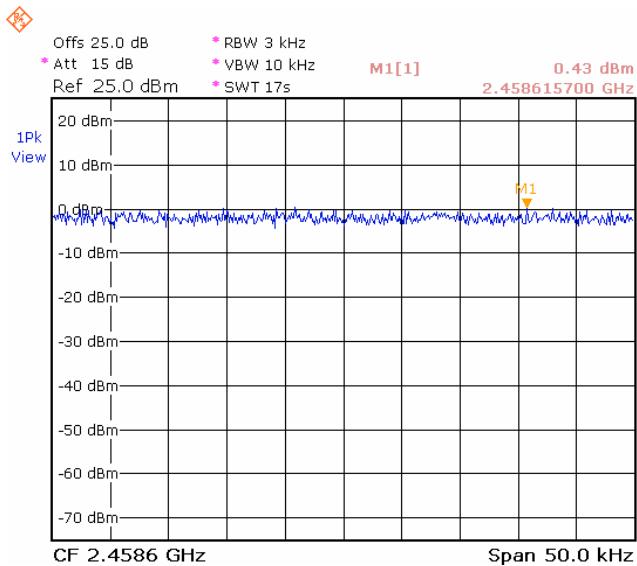
Test Report No.: 8612332644

Title: Test on 2.4 GHz Band Outdoor WiFi (802.11b/g) access point

Model: WS410

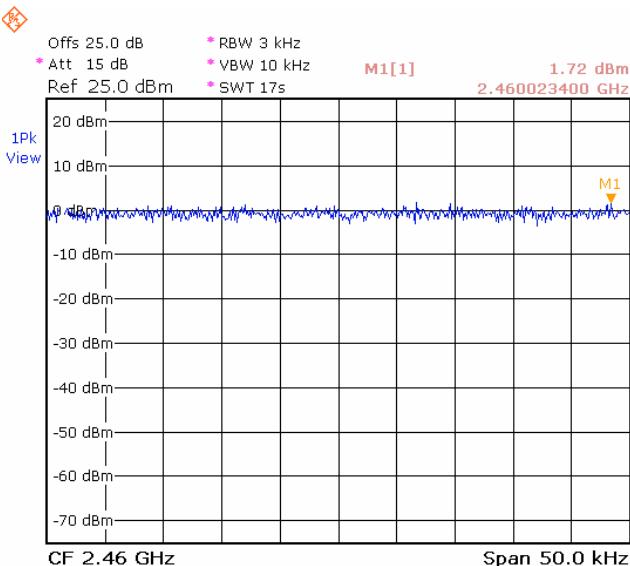
Page 72 of 103 Pages

FCC ID: UGMWS410



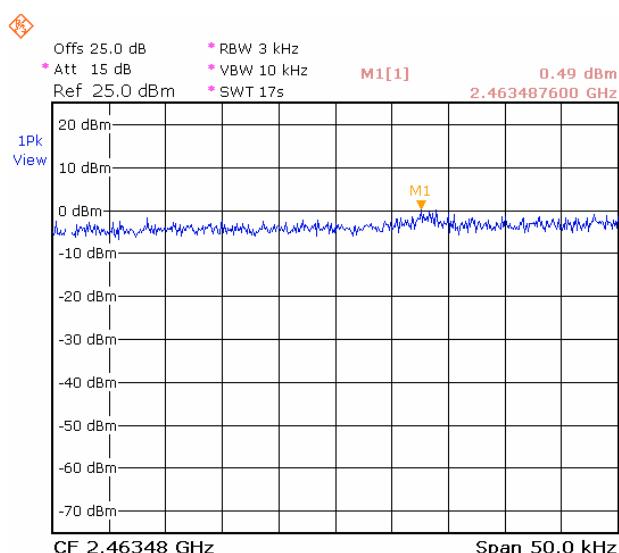
Plot # 195. Combined output Peak Power Spectral Density.

High frequency. 1Mbps rate.



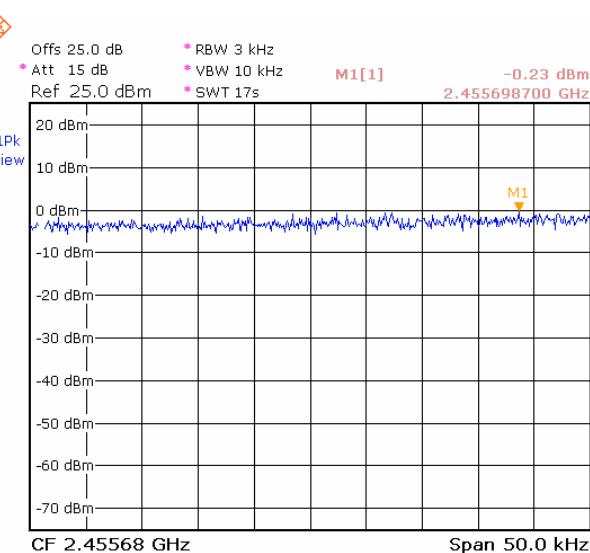
Plot # 196. Combined output Peak Power Spectral Density.

High frequency. 11Mbps rate.



Plot # 197. Combined output Peak Power Spectral Density.

High frequency. 6Mbps rate.



Plot # 198. Combined output Peak Power Spectral Density.

High frequency. 54Mbps rate.



Test Report No.: 8612332644

Page 73 of 103 Pages

Title: Test on 2.4 GHz Band Outdoor WiFi (802.11b/g) access point

Model: WS410

FCC ID: UGMWS410

#### **8.4. Conducted spurious emission**

##### **8.4.1. Requirements:**

Clause 15.247(c). In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Sec. 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Sec. 15.205(a), must also comply with the radiated emission limits specified in Sec. 15.209(a) (see Sec. 15.205(c)).

Due to the conducted power was measured based on the use of RMS averaging over a time interval, the attenuation required here shall be 30 dB instead of 20 dB.

##### **8.4.2. Test Procedure:**

The transmitter output is connected to a spectrum analyzer. The RBW is set to 100 kHz. The VBW is set to 300kHz.

The spectrum from 30MHz to 26GHz is investigated with the transmitter set to the low, middle and high frequencies.

##### **8.4.3. Test Results:**

All test results met the requirements.

The tests were performed with the worst case, which is higher power level.

All harmonics/spurs are at least 30dB down from the highest emission level within the authorized band as measured with a 100 kHz RBW.

The results are shown in plots #199-270.



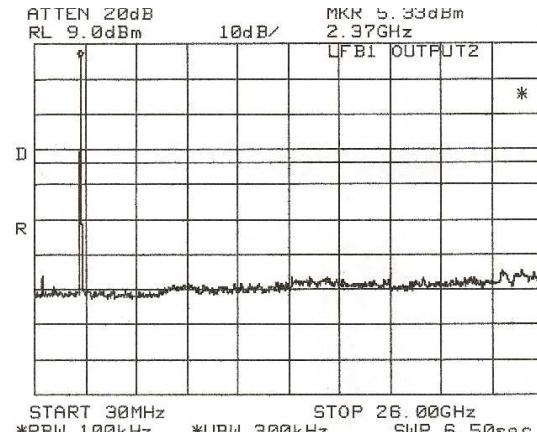
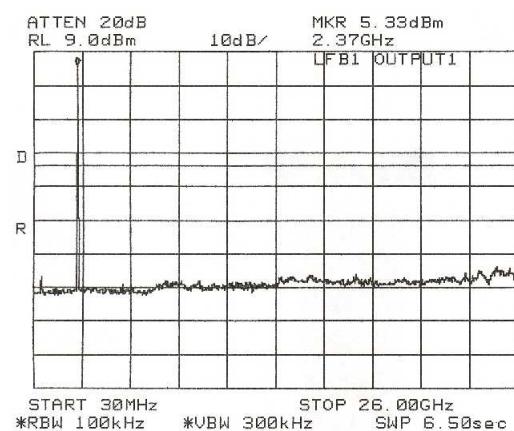
Test Report No.: 8612332644

Title: Test on 2.4 GHz Band Outdoor WiFi (802.11b/g) access point

Model: WS410

Page 74 of 103 Pages

FCC ID: UGMWS410





Test Report No.: 8612332644

Page 75 of 103 Pages

Title: Test on 2.4 GHz Band Outdoor WiFi (802.11b/g) access point

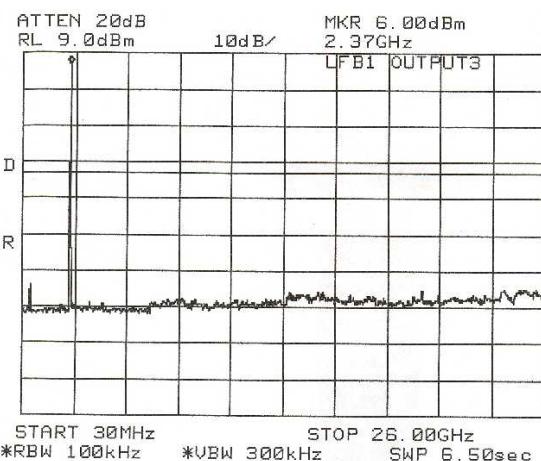
Model: WS410

FCC ID: UGMWS410



Plot # 203.

**Output 3. Low frequency bandedge.  
802.11b mode.**



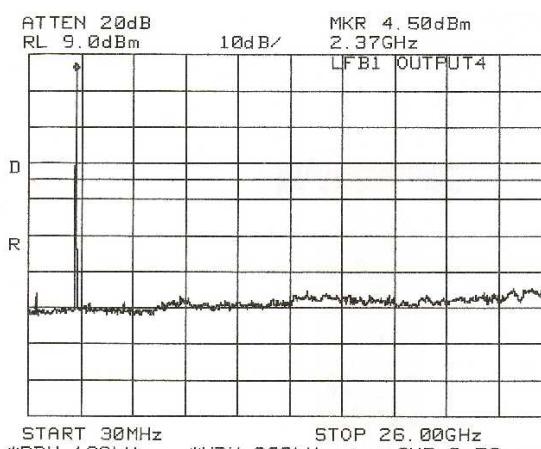
Plot # 204.

**Output 3. Low frequency spurious.  
802.11b mode.**



Plot # 205.

**Output 4. Low frequency bandedge.  
802.11b mode.**



Plot # 206.

**Output 4. Low frequency spurious.  
802.11b mode.**



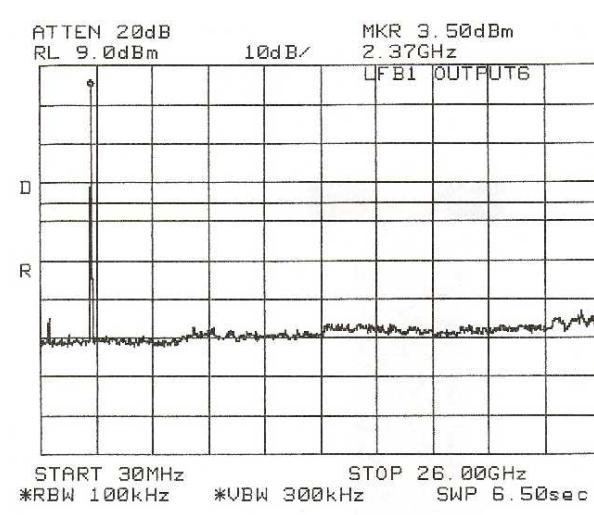
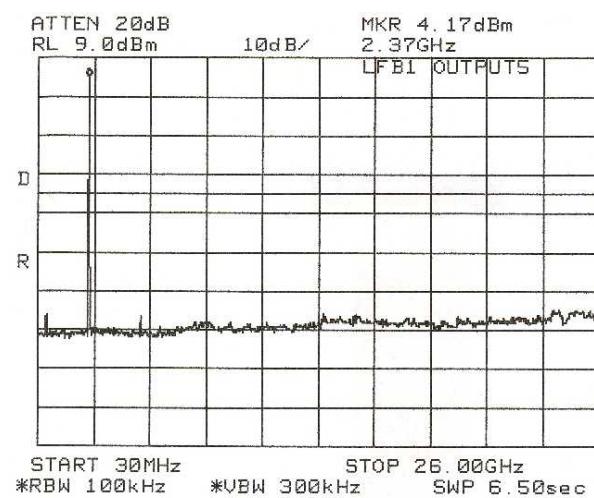
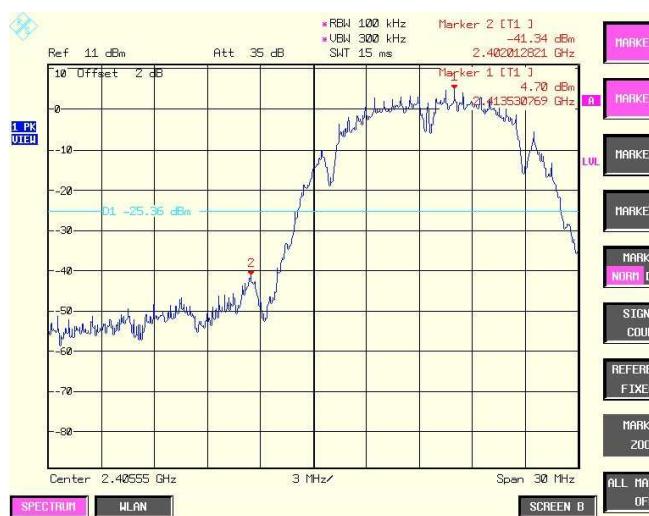
Test Report No.: 8612332644

Page 76 of 103 Pages

Title: Test on 2.4 GHz Band Outdoor WiFi (802.11b/g) access point

FCC ID: UGMWS410

Model: WS410





Test Report No.: 8612332644

Page 77 of 103 Pages

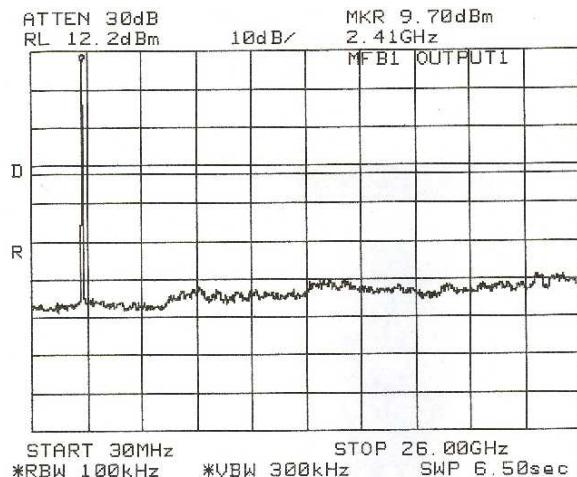
Title: Test on 2.4 GHz Band Outdoor WiFi (802.11b/g) access point

FCC ID: UGMWS410



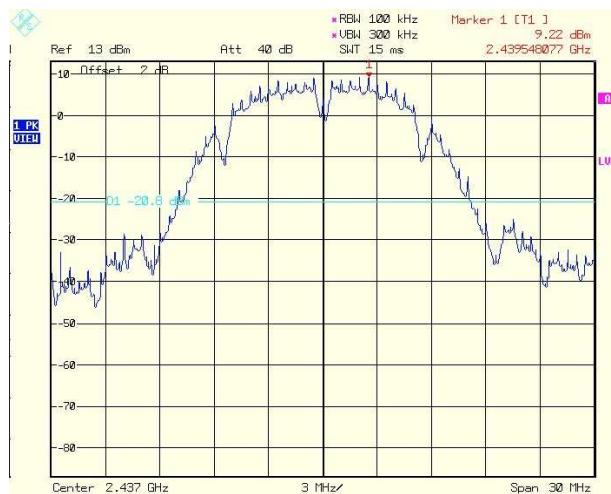
Plot # 211.

**Output 1. Middle frequency bandedge.  
802.11b mode.**



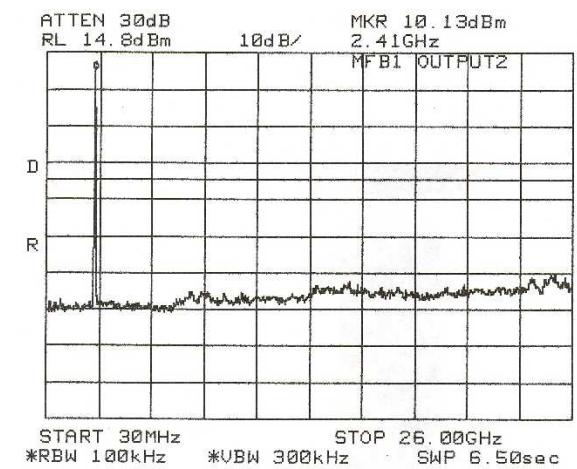
Plot # 212.

**Output 1. Middle frequency spurious.  
802.11b mode.**



Plot # 213.

**Output 2. Middle frequency bandedge.  
802.11b mode.**



Plot # 214.

**Output 2. Middle frequency spurious.  
802.11b mode.**



Test Report No.: 8612332644

Title: Test on 2.4 GHz Band Outdoor WiFi (802.11b/g) access point

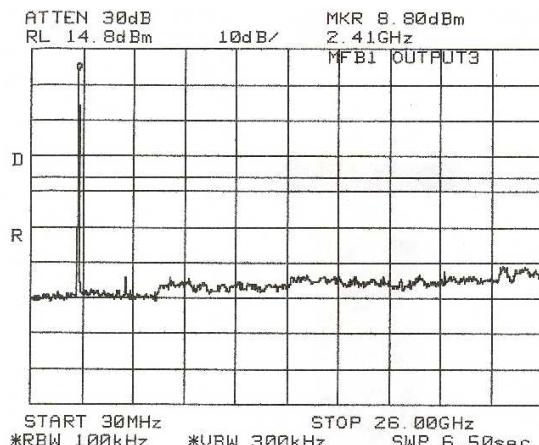
Model: WS410

Page 78 of 103 Pages

FCC ID: UGMWS410



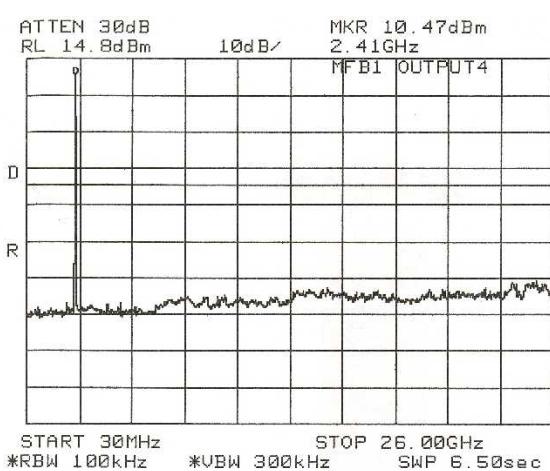
**Plot # 215.**  
**Output 3. Middle frequency bandedge.**  
**802.11b mode.**



**Plot # 216.**  
**Output 3. Middle frequency spurious.**  
**802.11b mode.**



**Plot # 217.**  
**Output 4. Middle frequency bandedge.**  
**802.11b mode.**



**Plot # 218.**  
**Output 4. Middle frequency spurious.**  
**802.11b mode.**



Test Report No.: 8612332644

Title: Test on 2.4 GHz Band Outdoor WiFi (802.11b/g) access point

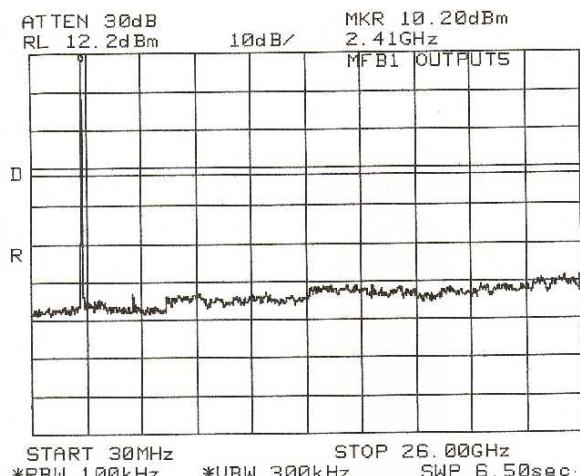
Model: WS410

Page 79 of 103 Pages

FCC ID: UGMWS410



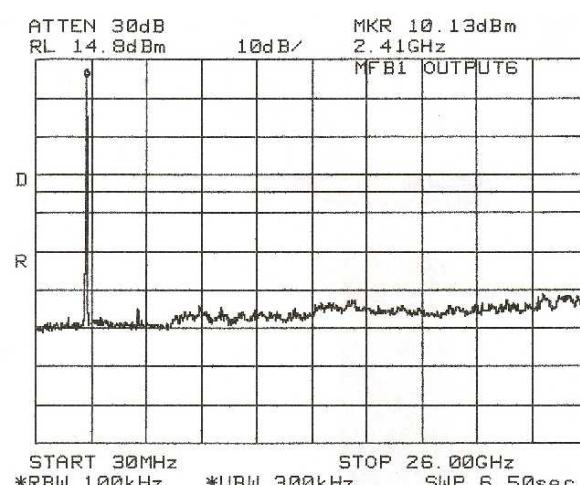
**Plot # 219.**  
**Output 5. Middle frequency bandedge.**  
**802.11b mode.**



**Plot # 220.**  
**Output 5. Middle frequency spurious.**  
**802.11b mode.**



**Plot # 221.**  
**Output 6. Middle frequency bandedge.**  
**802.11b mode.**



**Plot # 222.**  
**Output 6. Middle frequency spurious.**  
**802.11b mode.**