

7.5. Conducted Band Edge and Out-of-Band Emissions

7.5.1. Test Limit

The limit for out-of-band spurious emissions at the band edge is 30dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100 kHz bandwidth per the PSD procedure.

7.5.2. Test Procedure Used

KDB 558074 D01v03r05 - Section 11.2 & Section 11.3

7.5.3. Test Setting

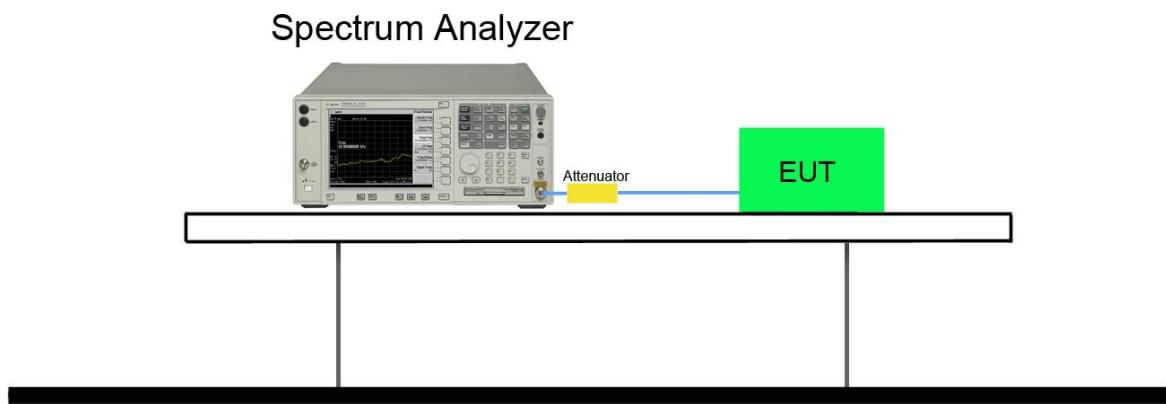
Reference level measurement

1. Set instrument center frequency to DTS channel center frequency
2. Set the span to \geq 1.5 times the DTS bandwidth
3. Set the RBW = 100 kHz
4. Set the VBW \geq 3 x RBW
5. Detector = peak
6. Sweep time = auto couple
7. Trace mode = max hold
8. Allow trace to fully stabilize

Emission level measurement

1. Set the center frequency and span to encompass frequency range to be measured
2. RBW = 100kHz
3. VBW = 300kHz
4. Detector = Peak
5. Trace mode = max hold
6. Sweep time = auto couple
7. The trace was allowed to stabilize

7.5.4. Test Setup



7.5.5. Test Result

| | | | |
|---------------|---------------------------------|-------------------|-------------------|
| Product | US WI-FI AP 4X4 OD ext. antenna | Temperature | 25°C |
| Test Engineer | Johnson Liao | Relative Humidity | 50 ~ 58% |
| Test Site | SR2 | Test Date | 2016/09/22 |
| Test Item | Power Spectral Density | Antenna Model No. | FPMI2458-DP2RPSMA |

| Test Mode | Data Rate (Mbps) | Channel No. | Frequency (MHz) | Limit | Result |
|--------------|------------------|-------------|-----------------|-------|--------|
| Ant 0 | | | | | |
| 802.11b | 1 | 01 | 2412 | 30dBc | Pass |
| 802.11b | 1 | 06 | 2437 | 30dBc | Pass |
| 802.11b | 1 | 11 | 2462 | 30dBc | Pass |
| 802.11g | 6 | 01 | 2412 | 30dBc | Pass |
| 802.11g | 6 | 06 | 2437 | 30dBc | Pass |
| 802.11g | 6 | 11 | 2462 | 30dBc | Pass |
| 802.11n-HT20 | 6.5 | 01 | 2412 | 30dBc | Pass |
| 802.11n-HT20 | 6.5 | 06 | 2437 | 30dBc | Pass |
| 802.11n-HT20 | 6.5 | 11 | 2462 | 30dBc | Pass |
| 802.11n-HT40 | 13.5 | 03 | 2422 | 30dBc | Pass |
| 802.11n-HT40 | 13.5 | 06 | 2437 | 30dBc | Pass |
| 802.11n-HT40 | 13.5 | 09 | 2452 | 30dBc | Pass |
| Ant 1 | | | | | |
| 802.11b | 1 | 01 | 2412 | 30dBc | Pass |
| 802.11b | 1 | 06 | 2437 | 30dBc | Pass |
| 802.11b | 1 | 11 | 2462 | 30dBc | Pass |
| 802.11g | 6 | 01 | 2412 | 30dBc | Pass |
| 802.11g | 6 | 06 | 2437 | 30dBc | Pass |
| 802.11g | 6 | 11 | 2462 | 30dBc | Pass |
| 802.11n-HT20 | 6.5 | 01 | 2412 | 30dBc | Pass |
| 802.11n-HT20 | 6.5 | 06 | 2437 | 30dBc | Pass |
| 802.11n-HT20 | 6.5 | 11 | 2462 | 30dBc | Pass |
| 802.11n-HT40 | 13.5 | 03 | 2422 | 30dBc | Pass |
| 802.11n-HT40 | 13.5 | 06 | 2437 | 30dBc | Pass |
| 802.11n-HT40 | 13.5 | 09 | 2452 | 30dBc | Pass |

| Test Mode | Data Rate (Mbps) | Channel No. | Frequency (MHz) | Limit | Result |
|--------------|---------------------|-------------|--------------------|-------|--------|
| Ant 2 | | | | | |
| 802.11b | 1 | 01 | 2412 | 30dBc | Pass |
| 802.11b | 1 | 06 | 2437 | 30dBc | Pass |
| 802.11b | 1 | 11 | 2462 | 30dBc | Pass |
| 802.11g | 6 | 01 | 2412 | 30dBc | Pass |
| 802.11g | 6 | 06 | 2437 | 30dBc | Pass |
| 802.11g | 6 | 11 | 2462 | 30dBc | Pass |
| 802.11n-HT20 | 6.5 | 01 | 2412 | 30dBc | Pass |
| 802.11n-HT20 | 6.5 | 06 | 2437 | 30dBc | Pass |
| 802.11n-HT20 | 6.5 | 11 | 2462 | 30dBc | Pass |
| 802.11n-HT40 | 13.5 | 03 | 2422 | 30dBc | Pass |
| 802.11n-HT40 | 13.5 | 06 | 2437 | 30dBc | Pass |
| 802.11n-HT40 | 13.5 | 09 | 2452 | 30dBc | Pass |
| Ant 3 | | | | | |
| 802.11b | 1 | 01 | 2412 | 30dBc | Pass |
| 802.11b | 1 | 06 | 2437 | 30dBc | Pass |
| 802.11b | 1 | 11 | 2462 | 30dBc | Pass |
| 802.11g | 6 | 01 | 2412 | 30dBc | Pass |
| 802.11g | 6 | 06 | 2437 | 30dBc | Pass |
| 802.11g | 6 | 11 | 2462 | 30dBc | Pass |
| 802.11n-HT20 | 6.5 | 01 | 2412 | 30dBc | Pass |
| 802.11n-HT20 | 6.5 | 06 | 2437 | 30dBc | Pass |
| 802.11n-HT20 | 6.5 | 11 | 2462 | 30dBc | Pass |
| 802.11n-HT40 | 13.5 | 03 | 2422 | 30dBc | Pass |
| 802.11n-HT40 | 13.5 | 06 | 2437 | 30dBc | Pass |
| 802.11n-HT40 | 13.5 | 09 | 2452 | 30dBc | Pass |

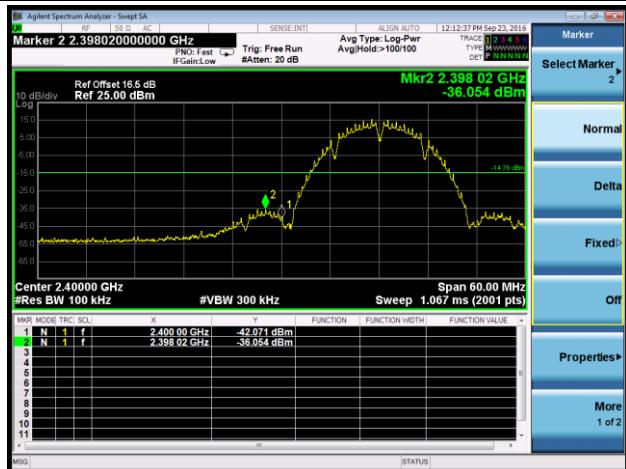
802.11b Out-of-Band Emissions - Ant 0

100kHz PSD Reference Level

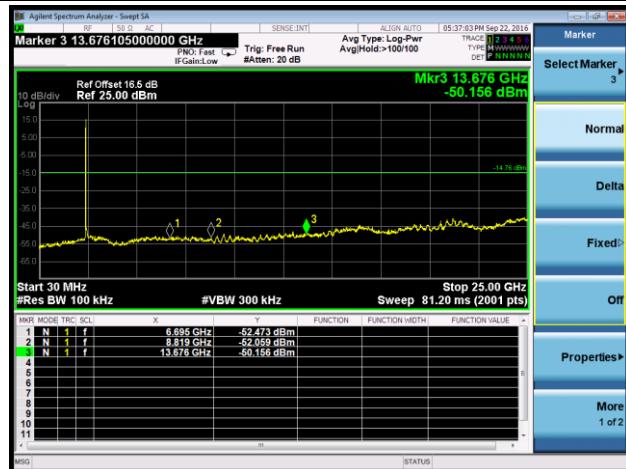


Channel 01 (2412MHz)

Low Band Edge



Spurious Emission



Channel 06 (2437MHz)

Spurious Emission

