

8.7.4 Test data, continued

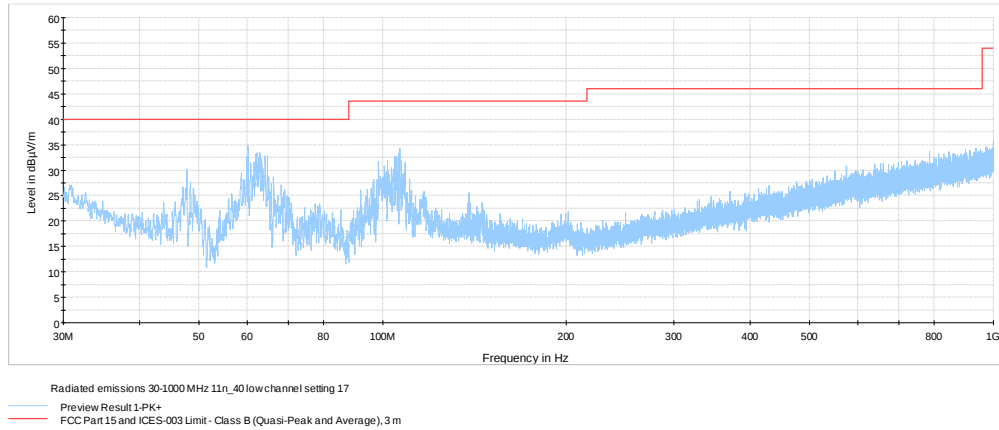


Figure 8.7-44: Radiated spurious emissions 30 MHz – 1 GHz for 802.11n HT40, low channel

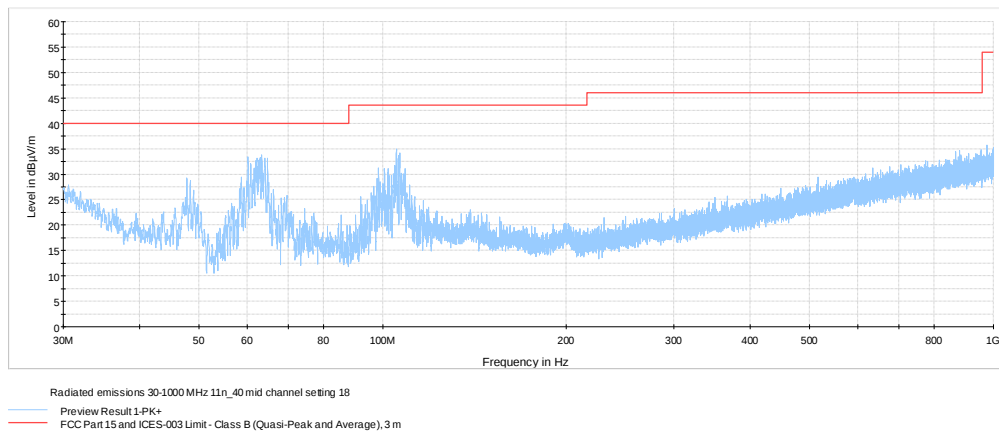


Figure 8.7-45: Radiated spurious emissions 30 MHz – 1 GHz for 802.11n HT40, mid channel

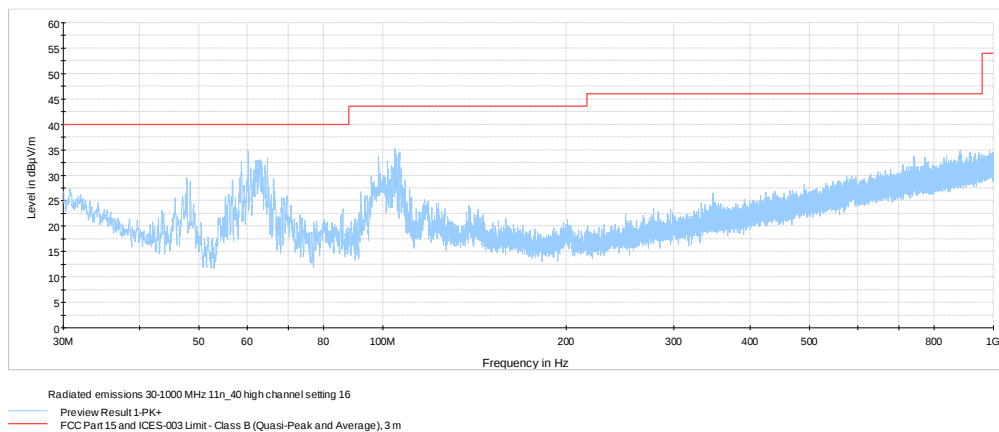


Figure 8.7-46: Radiated spurious emissions 30 MHz – 1 GHz for 802.11n HT40, high channel

8.7.4 Test data, continued

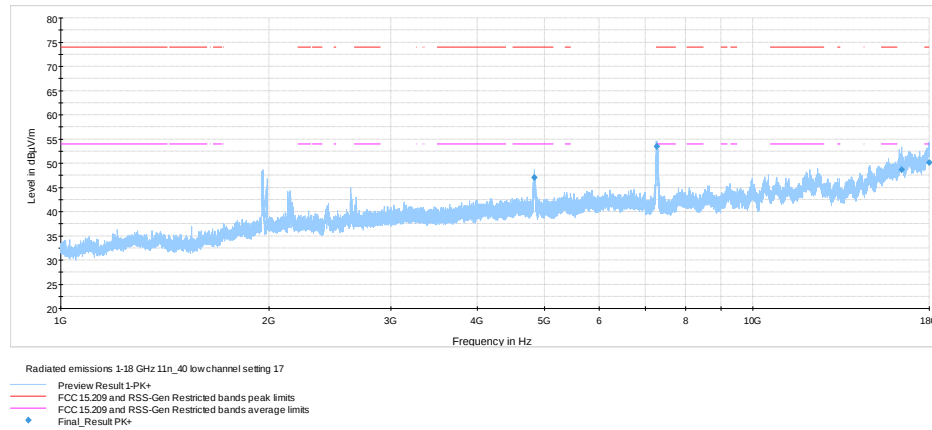


Figure 8.7-47: Radiated spurious emissions 1 - 18 GHz for 802.11n HT40, low channel

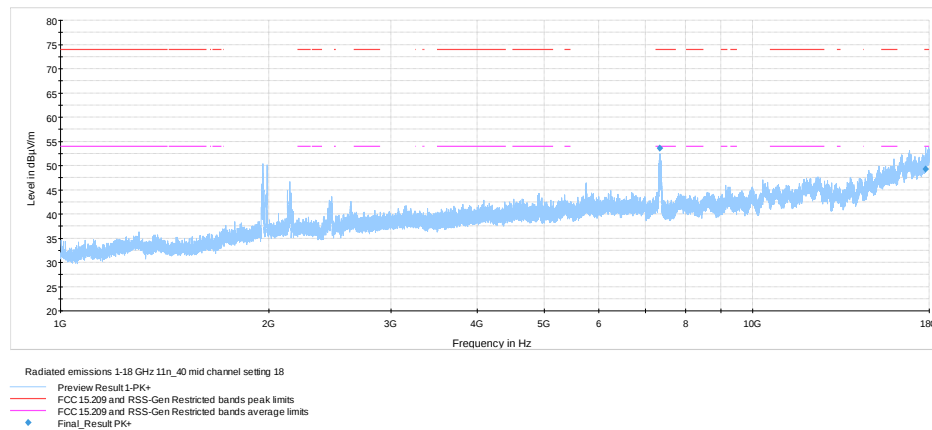


Figure 8.7-48: Radiated spurious emissions 1 - 18 GHz for 802.11n HT40, mid channel

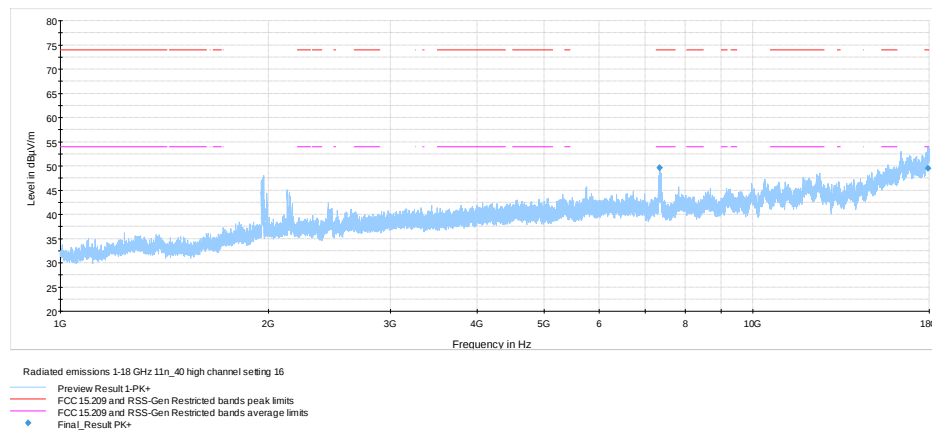
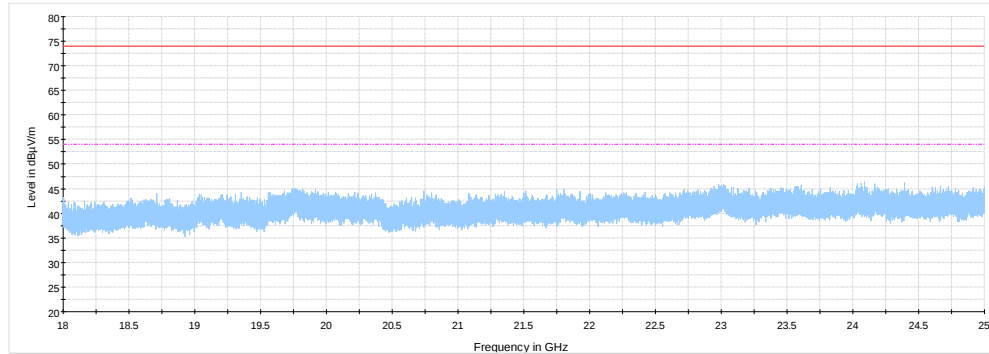


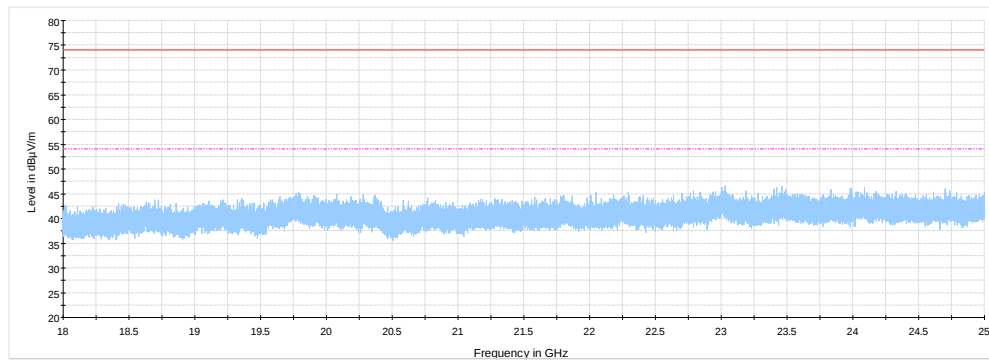
Figure 8.7-49: Radiated spurious emissions 1 - 18 GHz for 802.11n HT40, high channel

8.7.4 Test data, continued



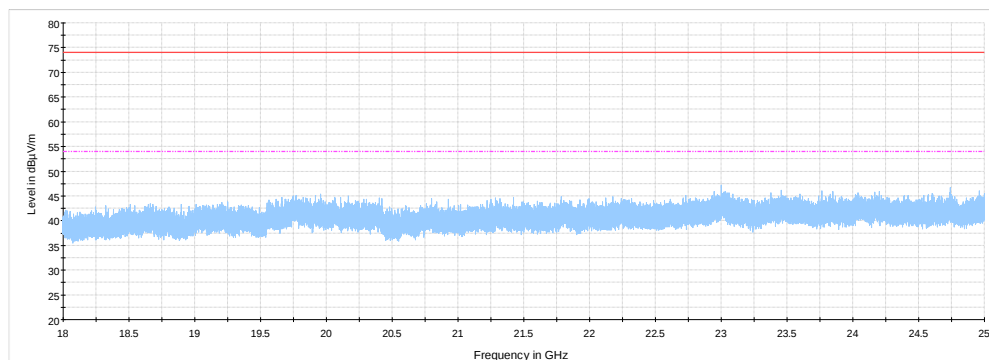
Radiated emissions 18-25 GHz 11n_40 low channel setting 17
 — Preview Result 1-PK+
 — FCC 15.209 and RSS-210 limit line RB pk
 - - - FCC 15.209 and RSS-210 limit line RB cav

Figure 8.7-50: Radiated spurious emissions 18 - 25 GHz for 802.11n HT40, low channel



Radiated emissions 18-25 GHz 11n_40 mid channel setting 18
 — Preview Result 1-PK+
 — FCC 15.209 and RSS-210 limit line RB pk
 - - - FCC 15.209 and RSS-210 limit line RB cav

Figure 8.7-51: Radiated spurious emissions 18 - 25 GHz for 802.11n HT40, mid channel



Radiated emissions 18-25 GHz 11n_40 high channel setting 16
 — Preview Result 1-PK+
 — FCC 15.209 and RSS-210 limit line RB pk
 - - - FCC 15.209 and RSS-210 limit line RB cav

Figure 8.7-52: Radiated spurious emissions 18 - 25 GHz for 802.11n HT40, high channel

8.7.4 Test data, continued

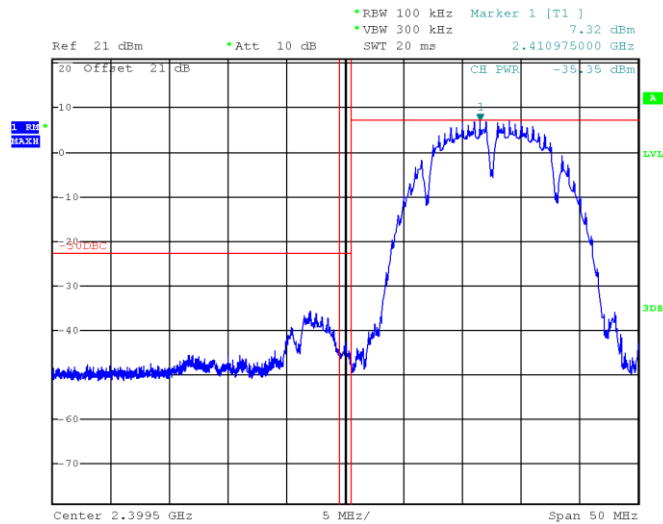


Figure 8.7-53: Conducted band edge emissions for 802.11b, low channel

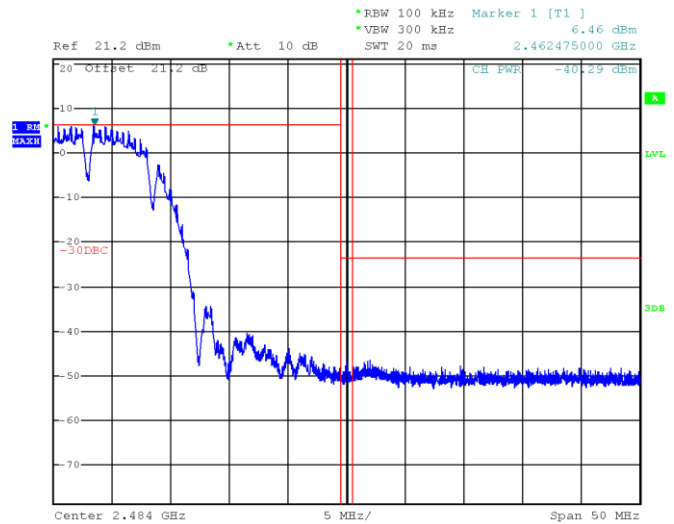


Figure 8.7-54: Conducted band edge emissions for 802.11b, high channel

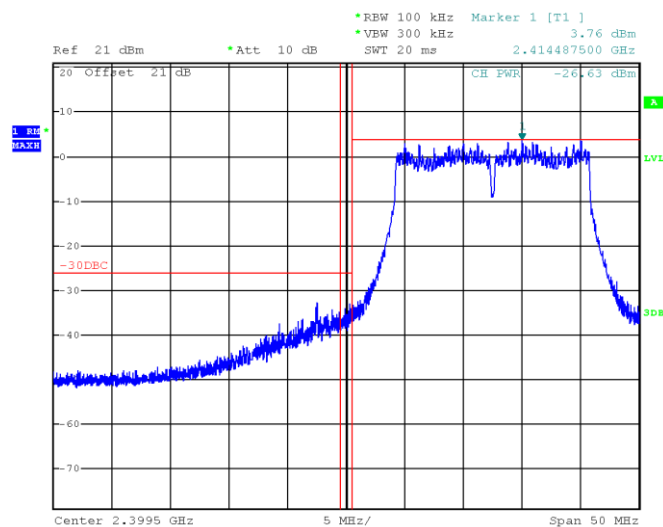


Figure 8.7-55: Conducted band edge emissions for 802.11g, low channel

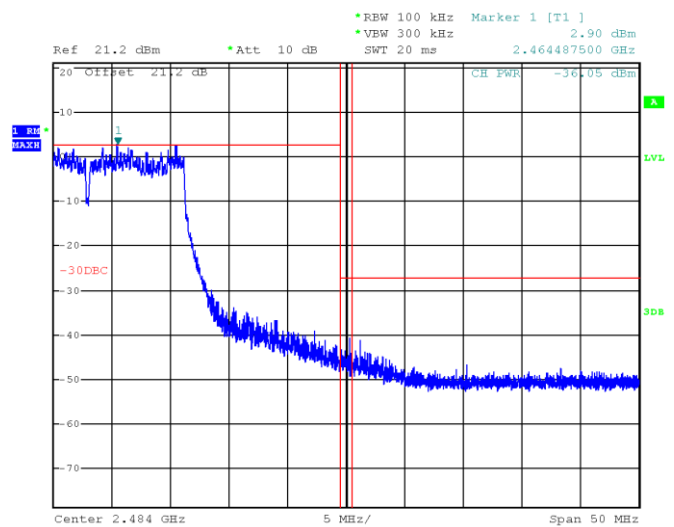


Figure 8.7-56: Conducted band edge emissions for 802.11g, high channel

8.7.4 Test data, continued

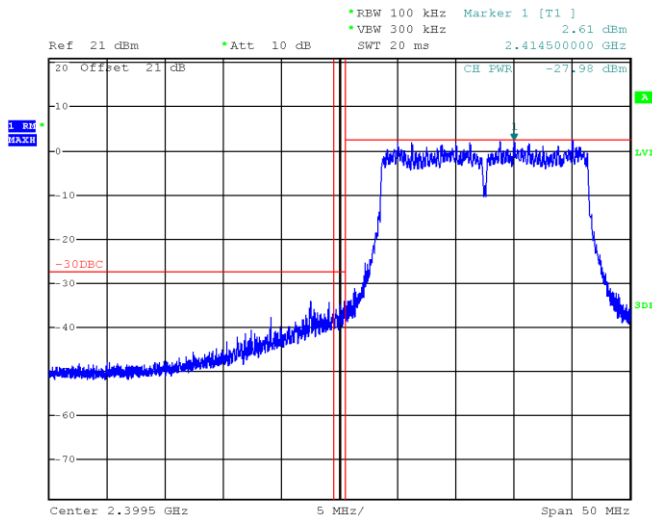


Figure 8.7-57: Conducted band edge emissions for 802.11n HT20, low channel

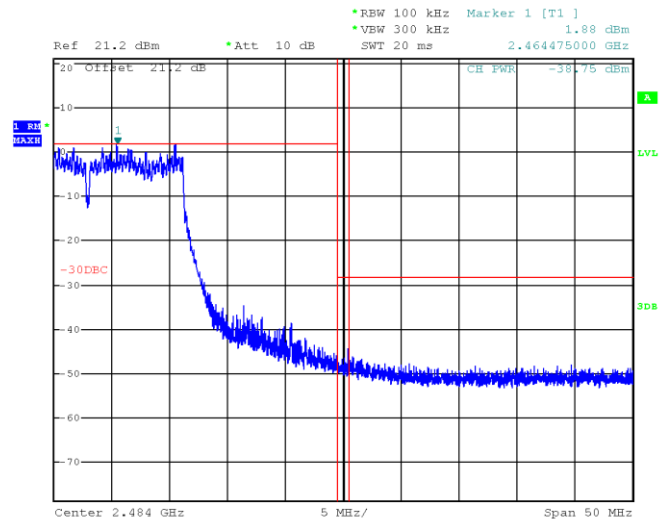


Figure 8.7-58: Conducted band edge emissions for 802.11n HT20, high channel

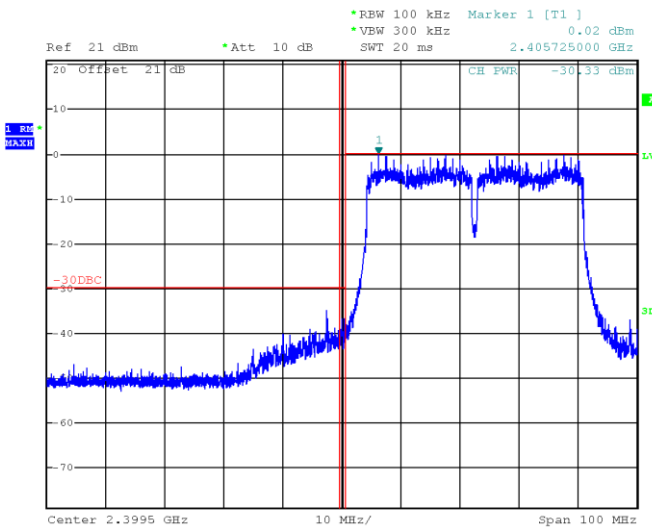


Figure 8.7-59: Conducted band edge emissions for 802.11n HT40, low channel

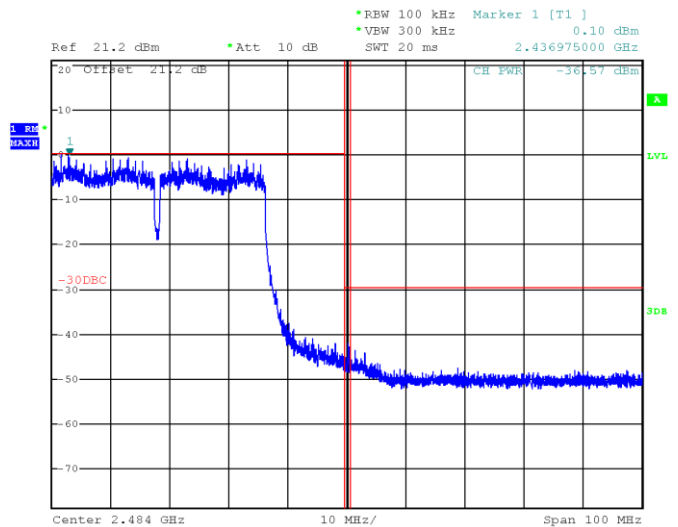


Figure 8.7-60: Conducted band edge emissions for 802.11n HT40, high channel

8.7.4 Test data, continued

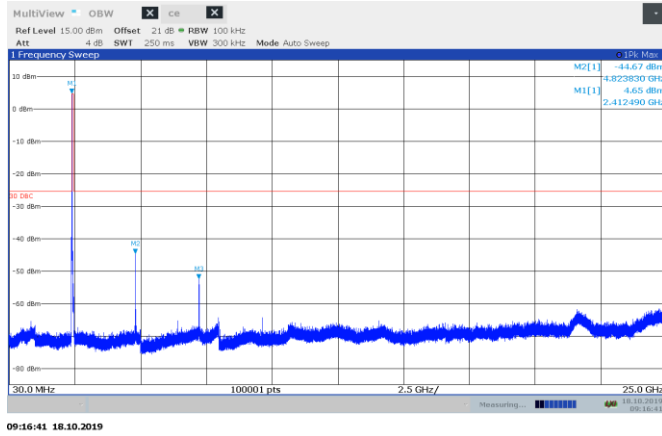


Figure 8.7-61: Conducted spurious emissions for 802.11b, low channel

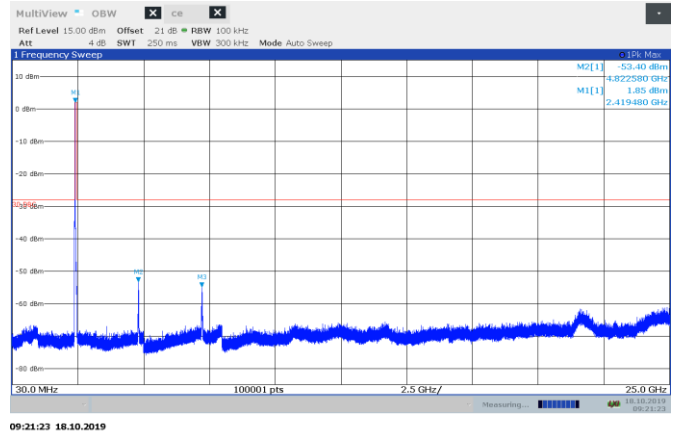


Figure 8.7-62: Conducted spurious emissions for 802.11g, low channel

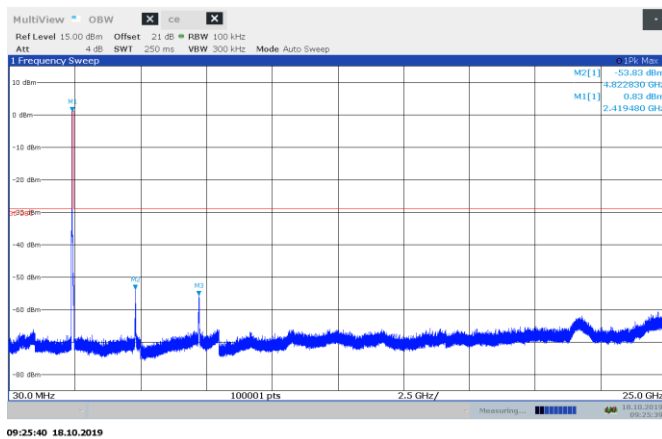


Figure 8.7-63: Conducted spurious emissions for 802.11n HT20, low channel

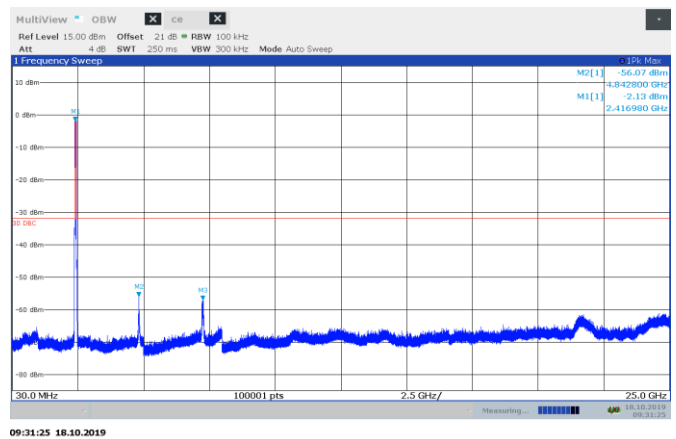


Figure 8.7-64: Conducted spurious emissions for 802.11n HT40, low channel

8.7.4 Test data, continued

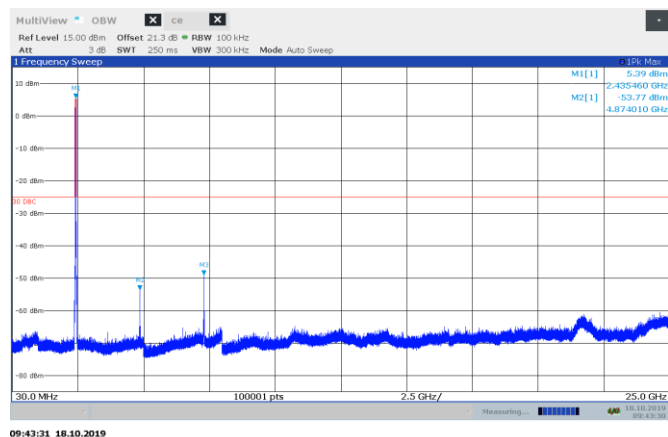


Figure 8.7-65: Conducted spurious emissions for 802.11b, mid channel

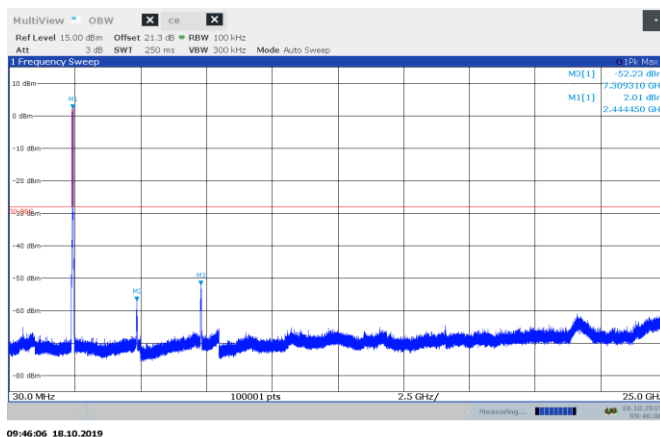


Figure 8.7-66: Conducted spurious emissions for 802.11g, mid channel

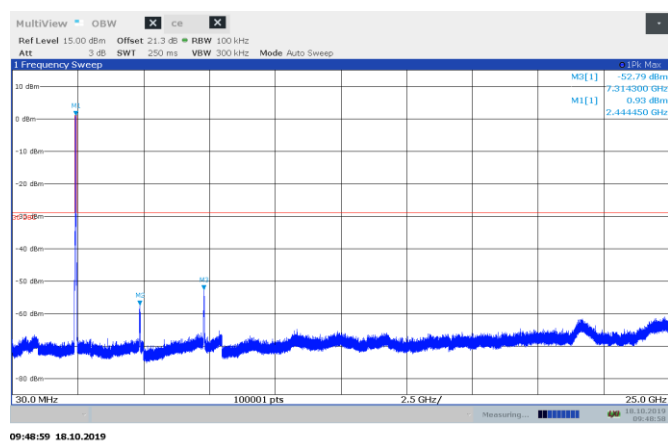


Figure 8.7-67: Conducted spurious emissions for 802.11n HT20, mid channel

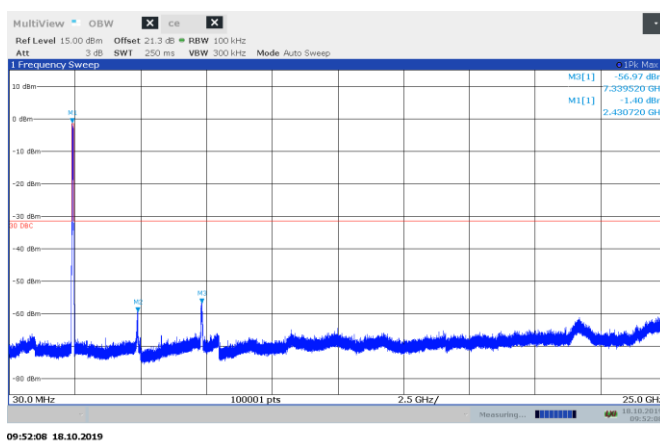


Figure 8.7-68: Conducted spurious emissions for 802.11n HT40, mid channel

8.7.4 Test data, continued

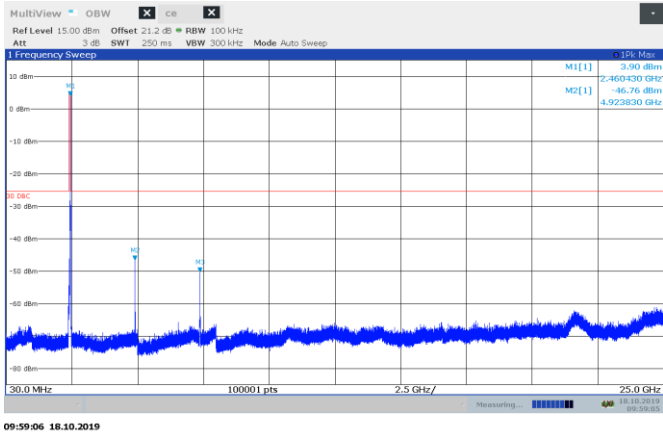


Figure 8.7-69: Conducted spurious emissions for 802.11b, high channel

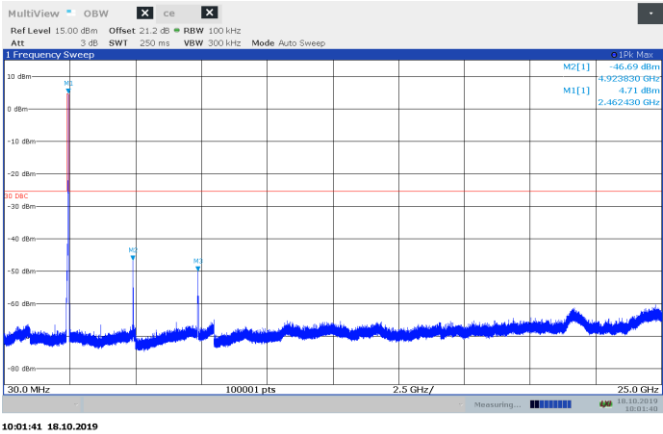


Figure 8.7-70: Conducted spurious emissions for 802.11g, high channel

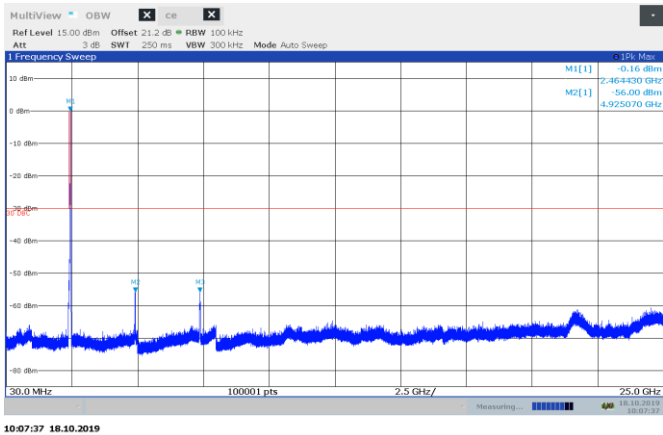


Figure 8.7-71: Conducted spurious emissions for 802.11n HT20, high channel

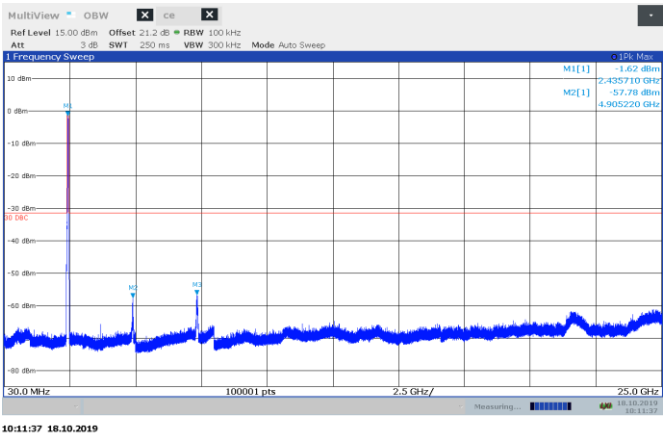


Figure 8.7-72: Conducted spurious emissions for 802.11n HT40, high channel

8.8 FCC 15.247(e) Power spectral density for digitally modulated devices

8.8.1 Definitions and limits

FCC §15.247 (e):

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

8.8.2 Test date

Start date	November 1, 2019
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8.8.3 Observations, settings and special notes

- Power spectral density test was performed as per KDB 558074, section 8.4 with reference to ANSI C63.10 subclause 11.10.
- The test was performed using method AVGPDS-1 (trace averaging with EUT transmitting at full power throughout each sweep).

Spectrum analyser settings:

Resolution bandwidth:	3 kHz
Video bandwidth:	$\geq 3 \times \text{RBW}$
Frequency span:	≥ 1.5 times the OBW
Detector mode:	RMS
Trace mode:	Average
Averaging sweeps number:	100

8.8.4 Test data

Table 8.8-1: PSD measurements results

Modulation	Frequency, MHz	PSD, dBm/3 kHz	PSD limit, dBm/3 kHz	Margin, dB
802.11b	2412	-15.1	8.0	23.1
	2437	-15.7	8.0	23.7
	2462	-16.2	8.0	24.2
802.11g	2412	-17.1	8.0	25.1
	2437	-17.5	8.0	25.5
	2462	-17.9	8.0	25.9
802.11n HT20	2412	-16.8	8.0	24.8
	2437	-17.2	8.0	25.2
	2462	-19.0	8.0	27.0
802.11n HT40	2422	-20.0	8.0	28.0
	2447	-20.3	8.0	28.3
	2452	-20.3	8.0	28.3

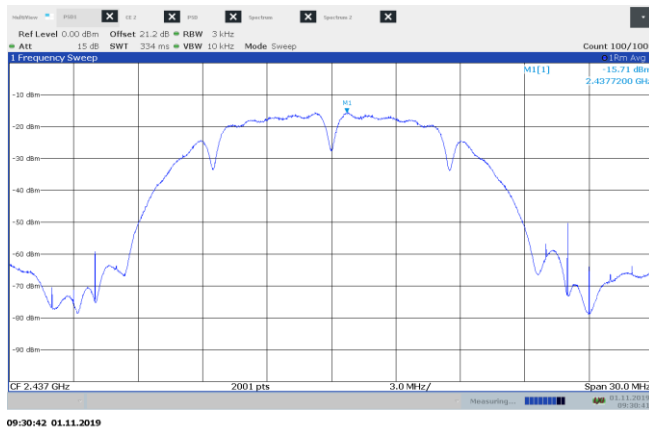


Figure 8.8-1: PSD sample plot on 802.11b

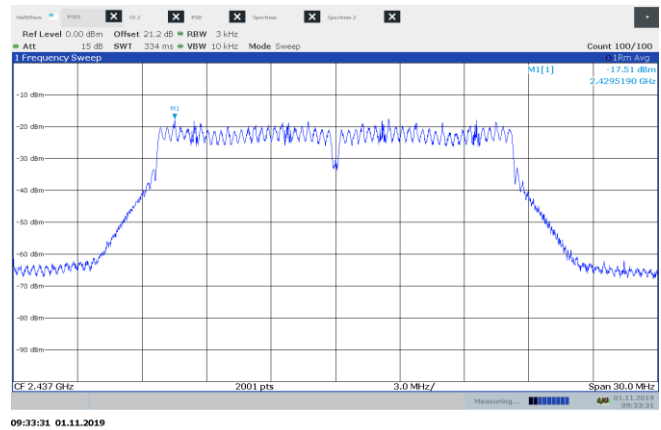


Figure 8.8-2: PSD sample plot on 802.11g

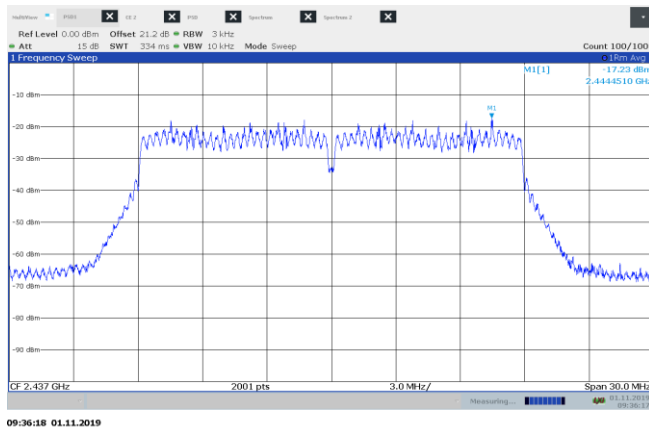


Figure 8.8-3: PSD sample plot on 802.11n HT20

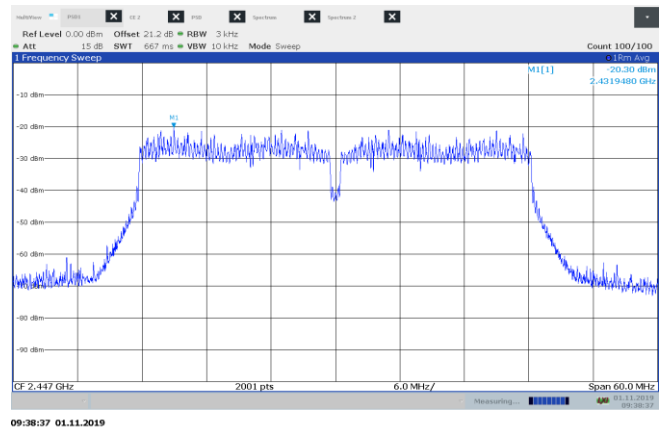
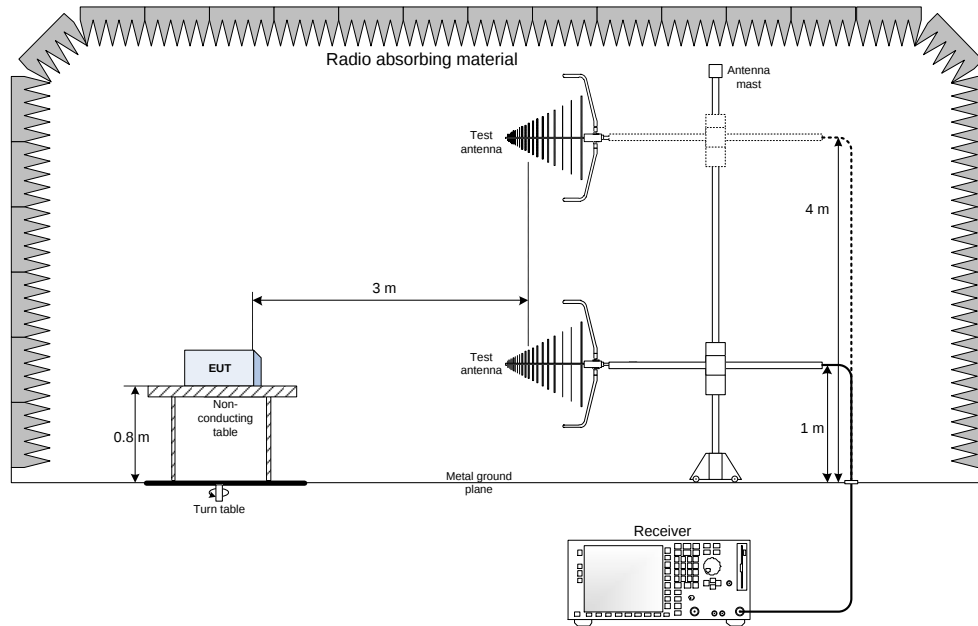


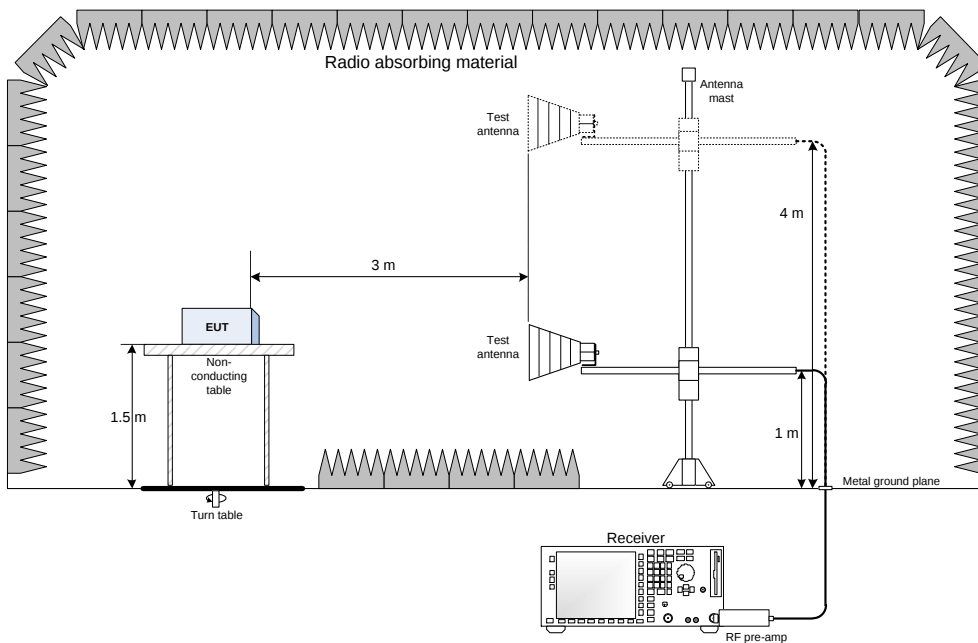
Figure 8.8-4: PSD sample plot on 802.11n HT40

Section 9. Block diagrams of test set-ups

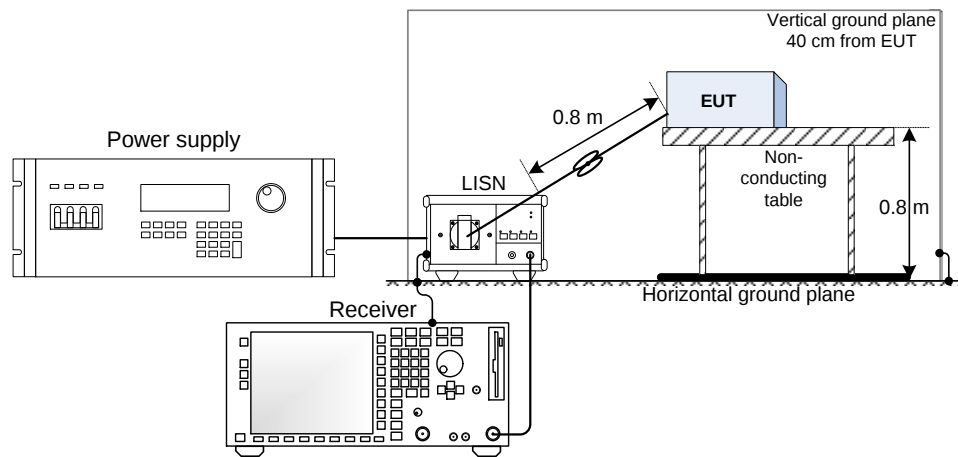
9.1 Radiated emissions set-up for frequencies below 1 GHz



9.2 Radiated emissions set-up for frequencies above 1 GHz



9.3 Conducted emissions set-up



9.4 Antenna port set-up

