4.2 Test No. 2: Modulation Characteristics (§ 2.1047, § 2.201)

The occupied bandwidth was measured to be 4.88 MHz (Config. A), 9.73 MHz (Config. B), 14.6 MHz (Config. C), 19.6 MHz (Config. D), which represents the -26dB power bandwidth (see the following section and screenshots on pages 46).

Therefore, the modulation characteristic of the base stations transceiver is:

Config A: 4M88F9W (Channel bandwidth 5 MHz)

Config B: 9M73F9W (Channel bandwidth 10 MHz)

Config C: 14M6F9W (Channel bandwidth 15 MHz)

Config D: 19M6F9W (Channel bandwidth 20 MHz)

No further testing is required under this section of the FCC rules. No measurements other than the occupied bandwidth are required.

Sample modulation screenshots are on page 41, in I/Q constellation diagrams and tables, showing QPSK, 16QAM, 64QAM and 256QAM–modulation generation.

The modulation characteristics were found to be compliant with the manufacturer's specifications and with all requirements of the FCC rules.

4.3 Test No. 3: Occupied Bandwidth (§ 2.1049)

4.3.1. Limits

Para. No 24.238(b). Emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

4.3.2. Test Procedure and Results

The 26dB occupied bandwidth of the carrier emission is measured using a signal analyzer with Resolution Bandwidth set to 200 kHz (less than 1% of bandwidth; see screenshots on page 46 for details). The following tables summarize the results:

Measured laboratory room temperature and humidity during the tests				
Date	Temperature Min-Max:		Humidity Min-Max:	
19.Mar– 2.Apr 2019	23 °C	24 °C	14 RH%	21 RH%

Config A:

Carrier Frequency [MHz]	Occupied Bandwidth [MHz]	Result
QPSK-Modulation ANT1		
1932.5	4.8550	compliant
1962.5	4.8450	compliant
1992.5	4.8550	compliant
QPSK-Modulation ANT2		
1932.5	4.8650	compliant
1962.5	4.8550	compliant
1992.5	4.8550	compliant
QPSK-Modulation ANT3		
1932.5	4.8450	compliant
1962.5	4.8250	compliant
1992.5	4.8550	compliant
QPSK-Modulation ANT4		
1932.5	4.8250	compliant
1962.5	4.8550	compliant
1992.5	4.8350	compliant
16QAM-Modulation ANT1		
1932.5	4.8650	compliant
1962.5	4.8650	compliant
1992.5	4.8650	compliant
16QAM-Modulation ANT2		
1932.5	4.7950	compliant
1962.5	4.8350	compliant
1992.5	4.8350	compliant
16QAM-Modulation ANT3		
1932.5	4.8350	compliant

1962.5	4.8150	compliant
1992.5	4.8250	compliant
16QAM-Modulation ANT4		
1932.5	4.8550	compliant
1962.5	4.8650	compliant
1992.5	4.8450	compliant
64QAM-Modulation ANT1		
1932.5	4.8550	compliant
1962.5	4.8550	compliant
1992.5	4.8450	compliant
64QAM-Modulation ANT2		
1932.5	4.8750	compliant
1962.5	4.8550	compliant
1992.5	4.8550	compliant
64QAM-Modulation ANT3		
1932.5	4.8350	compliant
1962.5	4.8650	compliant
1992.5	4.8550	compliant
64QAM-Modulation ANT4		
1932.5	4.8550	compliant
1962.5	4.8350	compliant
1992.5	4.8550	compliant
256QAM-Modulation ANT1		
1932.5	4.8750	compliant
1962.5	4.8350	compliant
1992.5	4.8550	compliant
256QAM-Modulation ANT2		
1932.5	4.8550	compliant
1962.5	4.8750	compliant
1992.5	4.8550	compliant
256QAM-Modulation ANT3		
1932.5	4.8550	compliant
1962.5	4.8450	compliant
1992.5	4.8650	compliant
256QAM-Modulation ANT4		
1932.5	4.8350	compliant
1962.5	4.8650	compliant
1992.5	4.8550	compliant
Measurement Uncertainty:		±48kHz

Table 8 Occupied Bandwidth (5 MHz Channel BW)

Config B:

Carrier Frequency [MHz]	Occupied Bandwidth [MHz]	Result
QPSK-Modulation ANT1		
1935	9.7300	compliant
1962.5	9.6900	compliant
1990	9.7100	compliant
QPSK-Modulation ANT2		
1935	9.6700	compliant
1962.5	9.7300	compliant

1990	9.6900	compliant
QPSK-Modulation ANT3		
1935	9.6900	compliant
1962.5	9.6700	compliant
1990	9.6900	compliant
QPSK-Modulation ANT4		
1935	9.6900	compliant
1962.5	9.6700	compliant
1990	9.7100	compliant
16QAM-Modulation ANT1		
1935	9.6500	compliant
1962.5	9.7100	compliant
1990	9.6500	compliant
16QAM-Modulation ANT2		
1935	9.6900	compliant
1962.5	9.5900	compliant
1990	9.6700	compliant
16QAM-Modulation ANT3		
1935	9.6100	compliant
1962.5	9.6700	compliant
1990	9.6700	compliant
16QAM-Modulation ANT4		
1935	9.6500	compliant
1962.5	9.5700	compliant
1990	9.5300	compliant
64QAM-Modulation ANT1		
1935	9.6700	compliant
1962.5	9.7100	compliant
1990	9.7100	compliant
64QAM-Modulation ANT2		
1935	9.7100	compliant
1962.5	9.6300	compliant
1990	9.7100	compliant
64QAM-Modulation ANT3		
1935	9.7300	compliant
1962.5	9.6700	compliant
1990	9.6700	compliant
64QAM-Modulation ANT4		
1935	9.7100	compliant
1962.5	9.7100	compliant
1990	9.6900	compliant
256QAM-Modulation ANT1		
1935	9.6900	compliant
1962.5	9.6700	compliant
1990	9.6700	compliant
256QAM-Modulation ANT2		
1935	9.6900	compliant
1962.5	9.6300	compliant
1990	9.6500	compliant
256QAM-Modulation ANT3		
1935	9.7100	compliant
1962.5	9.6700	compliant

1990	9.6700	compliant
256QAM-Modulation ANT4		
1935	9.6700	compliant
1962.5	9.6700	compliant
1990	9.6100	compliant
Measurement Uncertainty:		±48kHz

Table 9 Occupied Bandwidth (10 MHz Channel BW)

Config C:

Carrier Frequency [MHz]	Occupied Bandwidth [MHz]	Result
QPSK-Modulation ANT1		
1937.5	14.4160	compliant
1962.5	14.5350	compliant
1987.5	14.5350	compliant
QPSK-Modulation ANT2		
1937.5	14.5350	compliant
1962.5	14.5650	compliant
1987.5	14.5350	compliant
QPSK-Modulation ANT3		
1937.5	14.3860	compliant
1962.5	14.4760	compliant
1987.5	14.5350	compliant
QPSK-Modulation ANT4		
1937.5	14.5650	compliant
1962.5	14.4460	compliant
1987.5	14.4760	compliant
16QAM-Modulation ANT1		
1937.5	14.4160	compliant
1962.5	14.3560	compliant
1987.5	14.4460	compliant
16QAM-Modulation ANT2		
1937.5	14.4160	compliant
1962.5	14.2960	compliant
1987.5	14.4160	compliant
16QAM-Modulation ANT3		
1937.5	14.5050	compliant
1962.5	14.4460	compliant
1987.5	14.2960	compliant
16QAM-Modulation ANT4		
1937.5	14.5050	compliant
1962.5	14.4760	compliant
1987.5	14.4760	compliant
64QAM-Modulation ANT1		
1937.5	14.5950	compliant
1962.5	14.5950	compliant
1987.5	14.5350	compliant
64QAM-Modulation ANT2		
1937.5	14.5350	compliant
1962.5	14.5050	compliant
1987.5	14.5650	compliant

64QAM-Modulation ANT3		
1937.5	14.4760	compliant
1962.5	14.5650	compliant
1987.5	14.4460	compliant
64QAM-Modulation ANT4		
1937.5	14.4760	compliant
1962.5	14.5050	compliant
1987.5	14.5050	compliant
256QAM-Modulation ANT1		
1937.5	14.5050	compliant
1962.5	14.5350	compliant
1987.5	14.5350	compliant
256QAM-Modulation ANT2		
1937.5	14.4760	compliant
1962.5	14.4460	compliant
1987.5	14.5650	compliant
256QAM-Modulation ANT3		
1937.5	14.5050	compliant
1962.5	14.4760	compliant
1987.5	14.5350	compliant
256QAM-Modulation ANT4		
1937.5	14.4160	compliant
1962.5	14.5350	compliant
1987.5	14.5350	compliant
Measurement Uncertainty:		±48kHz

Table 10 Occupied Bandwidth (15 MHz Channel BW)

Config D:

Carrier Frequency [MHz]	Occupied Bandwidth [MHz]	Result
QPSK-Modulation ANT1		
1937.5	19.3010	compliant
1962.5	19.4610	compliant
1987.5	19.5000	compliant
QPSK-Modulation ANT2		
1937.5	19.3410	compliant
1962.5	19.5400	compliant
1987.5	19.4210	compliant
QPSK-Modulation ANT3		
1937.5	19.3810	compliant
1962.5	19.4610	compliant
1987.5	19.3010	compliant
QPSK-Modulation ANT4		
1937.5	19.5400	compliant
1962.5	19.5000	compliant
1987.5	19.4210	compliant
16QAM-Modulation ANT1		
1937.5	19.5400	compliant
1962.5	19.5800	compliant
1987.5	19.5000	compliant
16QAM-Modulation ANT2		

1937.5	19.5800	compliant
1962.5	19.5000	compliant
1987.5	19.5800	compliant
16QAM-Modulation ANT3		
1937.5	19.6200	compliant
1962.5	19.5800	compliant
1987.5	19.5400	compliant
16QAM-Modulation ANT4		
1937.5	19.5000	compliant
1962.5	19.5400	compliant
1987.5	19.5000	compliant
64QAM-Modulation ANT1		
1937.5	19.4210	compliant
1962.5	19.5000	compliant
1987.5	19.5400	compliant
64QAM-Modulation ANT2		
1937.5	19.5000	compliant
1962.5	19.5400	compliant
1987.5	19.5000	compliant
64QAM-Modulation ANT3		
1937.5	19.5000	compliant
1962.5	19.5400	compliant
1987.5	19.4610	compliant
64QAM-Modulation ANT4		
1937.5	19.5400	compliant
1962.5	19.5400	compliant
1987.5	19.5000	compliant
256QAM-Modulation ANT1		
1937.5	19.5800	compliant
1962.5	19.3410	compliant
1987.5	19.4610	compliant
256QAM-Modulation ANT2		
1937.5	19.4610	compliant
1962.5	19.4610	compliant
1987.5	19.5000	compliant
256QAM-Modulation ANT3		
1937.5	19.5000	compliant
1962.5	19.5400	compliant
1987.5	19.5400	compliant
256QAM-Modulation ANT4		
1937.5	19.4610	compliant
1962.5	19.4610	compliant
1987.5	19.5000	compliant
Measurement Uncertainty:		±48kHz

Table 11 Occupied Bandwidth (20 MHz Channel BW)

The occupied bandwidth was found to be compliant with the manufacturer's specifications and with all requirements of the FCC rules.

4.4 Test No. 4: Spurious Emissions at Antenna Terminals (§ 2.1051, § 2.1057, § 24.238)

4.4.1. Limits

Para. No. 24.238(a,b,c). The rules in this section govern the spectral characteristics of emissions in the Broadband Personal Communications

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

The compliance limit was calculated in the following way:

Maximum transmitter output power [W]:	P
Maximum transmitter output power [dBm]:	30 + 10 log10 P (conversion from W to dBm)
Attenuation required by FCC:	43 + 10 log10 P

Compliance limit = Maximum transmitter output power - Required attenuation

= 30 + 10 log10 P - (43 + 10 log10 P) = -13 dBm

For MiMo output from 4 TX -antenna connectors, each antenna connectors were measured individually and each individual limit lime was reduced by 10log(4). Limit line was calculated to show -19.02dB emission limit, according to FCC KDB 662911 D01 guidance.

4.4.2. Test Procedure and Results

The tests were carried out in accordance with § 24.238. For all frequency ranges except two (immediately below and above the carrier frequency block) a 1 MHz resolution bandwidth was used for the measurements.

In the 1 MHz frequency bands immediately outside and adjacent to the carrier frequency block the resolution bandwidth is lowered to 1% of the 26 dB occupied bandwidth of the transmitted carrier.

According to § 2.1057, all emissions including the fundamental frequency from the lowest radio frequency generated in the equipment, without going below 9 kHz, up to the 10th harmonic were investigated.

The following tables summarize the worst case detected emission levels (see screenshots on page 54 for details). The external attenuation (cable loss of the set up) is already added in the results. It can be seen separately as the 'Offset' value in the screenshots.

Measured laboratory room temperature and humidity during the tests

Date	Temperature Min-Max:		Humidity Min-Max:	
19.Mar– 2.Apr 2019	23 °C	24 °C	14 RH%	21 RH%

Config A Lower band edge:

Carrier Frequency: 1932.5 MHz			
Frequency Range [MHz]	**Emission Frequency [MHz]**	**Maximum Emission Level [dBm]**	**Result**
QPSK-Modulation ANT1			
	1930.00	-34.08	compliant
QPSK-Modulation ANT2			
	1930.00	-33.59	compliant
QPSK-Modulation ANT3			
	1930.00	-33.32	compliant
QPSK-Modulation ANT4			
	1930.00	-34.64	compliant
16QAM-Modulation ANT1			
	1930.00	-34.08	compliant
16QAM-Modulation ANT2			
	1930.00	-34.08	compliant
16QAM-Modulation ANT3			
	1930.00	-33.06	compliant
16QAM-Modulation ANT4			
	1930.00	-34.23	compliant
64QAM-Modulation ANT1			
	1930.00	-34.31	compliant
64QAM-Modulation ANT2			
	1930.00	-33.62	compliant
64QAM-Modulation ANT3			
	1930.00	-33.49	compliant
64QAM-Modulation ANT4			
	1930.00	-34.60	compliant
256QAM-Modulation ANT1			
	1930.00	-34.22	compliant
256QAM-Modulation ANT2			
	1930.00	-33.33	compliant
256QAM-Modulation ANT3			
	1930.00	-33.80	compliant
256QAM-Modulation ANT4			
	1930.00	-34.51	compliant
Measurement Uncertainty:		f < 1.0GHz: ±1.1dB,	

	1.0GHz ≤ f <3.6GHz: ±1.2dB, 3.6GHz ≤ f <8.0GHz: ±1.6dB, 8.0GHz ≤ f: ±1.9dB

Table 12 Spurious Emissions (Lower band edge) (5 MHz CH BW)

Config A Upper band edge:

Carrier Frequency: 1992.5 MHz			
Frequency Range [MHz]	**Emission Frequency [MHz]**	**Maximum Emission Level [dBm]**	**Result**
QPSK-Modulation ANT1			
	1995.00	-33.00	compliant
QPSK-Modulation ANT2			
	1995.00	-32.60	compliant
QPSK-Modulation ANT3			
	1995.00	-33.19	compliant
QPSK-Modulation ANT4			
	1995.00	-33.14	compliant
16QAM-Modulation ANT1			
	1995.00	-33.11	compliant
16QAM-Modulation ANT2			
	1995.00	-33.12	compliant
16QAM-Modulation ANT3			
	1995.00	-33.46	compliant
16QAM-Modulation ANT4			
	1995.00	-33.58	compliant
64QAM-Modulation ANT1			
	1995.00	-31.78	compliant
64QAM-Modulation ANT2			
	1995.00	-32.44	compliant
64QAM-Modulation ANT3			
	1995.00	-33.12	compliant
64QAM-Modulation ANT4			
	1995.00	-33.21	compliant
256QAM-Modulation ANT1			
	1995.00	-32.47	compliant
256QAM-Modulation ANT2			
	1995.01	-32.68	compliant
256QAM-Modulation ANT3			
	1995.00	-32.70	compliant

256QAM-Modulation ANT4			
	1995.00	-32.53	compliant
		f < 1.0GHz: ±1.1dB, 1.0GHz ≤ f <3.6GHz: ±1.2dB, Measurement Uncertainty:3.6GHz ≤ f <8.0GHz: ±1.6dB, 8.0GHz ≤ f: ±1.9dB	

Table 13 Spurious Emissions (Upper band edge) (5 MHz CH BW)

Config A Spurious emissions:

Carrier Frequency: 1962.5 MHz			
Frequency Range [MHz]	**Emission Frequency [MHz]**	**Maximum Emission Level [dBm]**	**Result**
QPSK-Modulation ANT1			
0.009 – 19950	19696.04	-22.05	compliant
QPSK-Modulation ANT2			
0.009 – 19950	19919.21	-21.92	compliant
QPSK-Modulation ANT3			
0.009 – 19950	19862.41	-21.83	compliant
QPSK-Modulation ANT4			
0.009 – 19950	19914.12	-21.95	compliant
16QAM-Modulation ANT1			
0.009 – 19950	19911.86	-21.62	compliant
16QAM-Modulation ANT2			
0.009 – 19950	19915.82	-21.22	compliant
16QAM-Modulation ANT3			
0.009 – 19950	19849.72	-22.18	compliant
16QAM-Modulation ANT4			
0.009 – 19950	19912.99	-21.84	compliant
64QAM-Modulation ANT1			
0.009 – 19950	19916.95	-21.71	compliant
64QAM-Modulation ANT2			
0.009 – 19950	19841.81	-21.74	compliant
64QAM-Modulation ANT3			
0.009 – 19950	19924.29	-22.28	compliant
64QAM-Modulation ANT4			
0.009 – 19950	19926.55	-22.01	compliant
256QAM-Modulation ANT1			
0.009 – 19950	19914.69	-22.31	compliant
256QAM-Modulation ANT2			
0.009 – 19950	19915.82	-21.69	compliant

256QAM-Modulation ANT3			
0.009 – 19950	19916.38	-22.02	compliant
256QAM-Modulation ANT4			
0.009 – 19950	19919.21	-22.14	compliant
Measurement Uncertainty:		f < 1.0GHz: ±1.1dB, 1.0GHz ≤ f <3.6GHz: ±1.2dB, 3.6GHz ≤ f <8.0GHz: ±1.6dB, 8.0GHz ≤ f: ±1.9dB	

Table 14 Spurious Emissions (5 MHz Channel BW)

Config B Lower band edge:

Carrier Frequency: 1935.0 MHz			
Frequency Range [MHz]	**Emission Frequency [MHz]**	**Maximum Emission Level [dBm]**	**Result**
QPSK-Modulation ANT1			
	1930.00	-33.61	compliant
QPSK-Modulation ANT2			
	1930.00	-33.21	compliant
QPSK-Modulation ANT3			
	1930.00	-33.43	compliant
QPSK-Modulation ANT4			
	1930.00	-33.84	compliant
16QAM-Modulation ANT1			
	1929.99	-33.87	compliant
16QAM-Modulation ANT2			
	1929.99	-33.70	compliant
16QAM-Modulation ANT3			
	1930.00	-33.57	compliant
16QAM-Modulation ANT4			
	1930.00	-34.43	compliant
64QAM-Modulation ANT1			
	1930.00	-33.76	compliant
64QAM-Modulation ANT2			
	1930.00	-33.05	compliant
64QAM-Modulation ANT3			
	1930.00	-33.57	compliant
64QAM-Modulation ANT4			
	1929.99	-34.15	compliant
256QAM-Modulation ANT1			
	1930.00	-33.66	compliant

256QAM-Modulation ANT2			
	1930.00	-32.84	compliant
256QAM-Modulation ANT3			
	1930.00	-33.18	compliant
256QAM-Modulation ANT4			
	1929.99	-31.64	compliant
Measurement Uncertainty:		f < 1.0GHz: ±1.1dB, 1.0GHz ≤ f <3.6GHz: ±1.2dB, 3.6GHz ≤ f <8.0GHz: ±1.6dB, 8.0GHz ≤ f: ±1.9dB	

Table 15 Spurious Emissions (Lower band edge) (10 MHz CH BW)

Config B Upper band edge:

Carrier Frequency: 1990.0 MHz			
Frequency Range [MHz]	**Emission Frequency [MHz]**	**Maximum Emission Level [dBm]**	**Result**
QPSK-Modulation ANT1			
	1995.00	-32.01	compliant
QPSK-Modulation ANT2			
	1995.00	-32.86	compliant
QPSK-Modulation ANT3			
	1995.00	-33.51	compliant
QPSK-Modulation ANT4			
	1995.00	-33.63	compliant
16QAM-Modulation ANT1			
	1995.00	-32.25	compliant
16QAM-Modulation ANT2			
	1995.00	-32.90	compliant
16QAM-Modulation ANT3			
	1995.01	-33.39	compliant
16QAM-Modulation ANT4			
	1995.00	-33.30	compliant
64QAM-Modulation ANT1			
	1995.00	-32.52	compliant
64QAM-Modulation ANT2			
	1995.00	-33.08	compliant
64QAM-Modulation ANT3			
	1995.00	-33.33	compliant
64QAM-Modulation ANT4			

	1995.01	-33.66	compliant
256QAM-Modulation ANT1			
	1995.01	-32.19	compliant
256QAM-Modulation ANT2			
	1995.00	-32.58	compliant
256QAM-Modulation ANT3			
	1995.01	-33.12	compliant
256QAM-Modulation ANT4			
	1995.00	-33.25	compliant
		f < 1.0GHz: ±1.1dB, 1.0GHz ≤ f <3.6GHz: ±1.2dB, Measurement Uncertainty:3.6GHz ≤ f <8.0GHz: ±1.6dB, 8.0GHz ≤ f: ±1.9dB	

Table 16 Spurious Emissions (Upper band edge) (10 MHz CH BW)

Config B Spurious emissions:

Carrier Frequency: 1962.5 MHz			
Frequency Range [MHz]	**Emission Frequency [MHz]**	**Maximum Emission Level [dBm]**	**Result**
QPSK-Modulation ANT1			
0.009 – 19950	19848.59	-21.84	compliant
QPSK-Modulation ANT2			
	19920.90	-21.64	compliant
QPSK-Modulation ANT3			
	19918.08	-21.95	compliant
QPSK-Modulation ANT4			
	19616.95	-22.17	compliant
16QAM-Modulation ANT1			
	19919.77	-21.39	compliant
16QAM-Modulation ANT2			
	19914.12	-21.74	compliant
16QAM-Modulation ANT3			
	19915.25	-21.41	compliant
16QAM-Modulation ANT4			
	19916.38	-22.07	compliant
64QAM-Modulation ANT1			
	19929.38	-21.63	compliant
64QAM-Modulation ANT2			
	19928.81	-22.07	compliant
64QAM-Modulation ANT3			

	19915.25	-22.08	compliant
64QAM-Modulation ANT4			
	19515.81	-22.24	compliant
256QAM-Modulation ANT1			
	19914.69	-22.01	compliant
256QAM-Modulation ANT2			
	19918.08	-21.64	compliant
256QAM-Modulation ANT3			
	19920.90	-21.72	compliant
256QAM-Modulation ANT4			
	19847.60	-22.00	compliant
Measurement Uncertainty:		f < 1.0GHz: ±1.1dB, 1.0GHz ≤ f <3.6GHz: ±1.2dB, 3.6GHz ≤ f <8.0GHz: ±1.6dB, 8.0GHz ≤ f: ±1.9dB	

Table 17 Spurious Emissions (10 MHz Channel BW)

Config C Lower band edge:

Carrier Frequency: 1937.5 MHz			
Frequency Range [MHz]	**Emission Frequency [MHz]**	**Maximum Emission Level [dBm]**	**Result**
QPSK-Modulation ANT1			
	1930.00	-30.46	compliant
QPSK-Modulation ANT2			
	1929.99	-30.11	compliant
QPSK-Modulation ANT3			
	1929.99	-30.32	compliant
QPSK-Modulation ANT4			
	1929.98	-31.00	compliant
16QAM-Modulation ANT1			
	1930.00	-30.93	compliant
16QAM-Modulation ANT2			
	1929.99	-30.02	compliant
16QAM-Modulation ANT3			
	1929.98	-30.33	compliant
16QAM-Modulation ANT4			
	1929.99	-30.87	compliant
64QAM-Modulation ANT1			
	1930.00	-30.60	compliant
64QAM-Modulation ANT2			

	1929.99	-30.13	compliant
64QAM-Modulation ANT3			
	1929.99	-30.56	compliant
64QAM-Modulation ANT4			
	1930.00	-30.41	compliant
256QAM-Modulation ANT1			
	1930.00	-30.76	compliant
256QAM-Modulation ANT2			
	1929.99	-30.22	compliant
256QAM-Modulation ANT3			
	1929.99	-30.12	compliant
256QAM-Modulation ANT4			
	1930.00	-30.32	compliant
Measurement Uncertainty:		f < 1.0GHz: ±1.1dB, 1.0GHz ≤ f <3.6GHz: ±1.2dB, 3.6GHz ≤ f <8.0GHz: ±1.6dB, 8.0GHz ≤ f: ±1.9dB	

Table 18 Spurious Emissions (Lower band edge) (15 MHz CH BW)

Config C Upper band edge:

Carrier Frequency: 1987.5 MHz			
Frequency Range [MHz]	**Emission Frequency [MHz]**	**Maximum Emission Level [dBm]**	**Result**
QPSK-Modulation ANT1			
	1995.00	-29.73	compliant
QPSK-Modulation ANT2			
	1995.00	-30.48	compliant
QPSK-Modulation ANT3			
	1995.02	-30.30	compliant
QPSK-Modulation ANT4			
	1995.02	-29.55	compliant
16QAM-Modulation ANT1			
	1995.01	-29.51	compliant
16QAM-Modulation ANT2			
	1995.01	-30.22	compliant
16QAM-Modulation ANT3			
	1995.00	-30.17	compliant
16QAM-Modulation ANT4			
	1995.02	-30.06	compliant
64QAM-Modulation ANT1			

	1995.00	-29.08	compliant
64QAM-Modulation ANT2			
	1995.00	-30.07	compliant
64QAM-Modulation ANT3			
	1995.00	-29.64	compliant
64QAM-Modulation ANT4			
	1995.00	-28.97	compliant
256QAM-Modulation ANT1			
	1995.02	-29.69	compliant
256QAM-Modulation ANT2			
	1995.01	-29.90	compliant
256QAM-Modulation ANT3			
	1995.00	-30.53	compliant
256QAM-Modulation ANT4			
	1995.00	-29.55	compliant
		f < 1.0GHz: ±1.1dB, 1.0GHz ≤ f <3.6GHz: ±1.2dB, Measurement Uncertainty:3.6GHz ≤ f <8.0GHz: ±1.6dB, 8.0GHz ≤ f: ±1.9dB	

Table 19 Spurious Emissions (Upper band edge) (15 MHz CH BW)

Config C Spurious emissions:

Carrier Frequency: 1962.5 MHz			
Frequency Range [MHz]	**Emission Frequency [MHz]**	**Maximum Emission Level [dBm]**	**Result**
QPSK-Modulation ANT1			
0.009 – 19950	19924.29	-21.86	compliant
QPSK-Modulation ANT2			
	19845.20	-21.91	compliant
QPSK-Modulation ANT3			
	19848.59	-21.97	compliant
QPSK-Modulation ANT4			
	19703.39	-22.28	compliant
16QAM-Modulation ANT1			
	19850.28	-21.97	compliant
16QAM-Modulation ANT2			
	19918.64	-22.04	compliant
16QAM-Modulation ANT3			
	19916.95	-22.09	compliant
16QAM-Modulation ANT4			