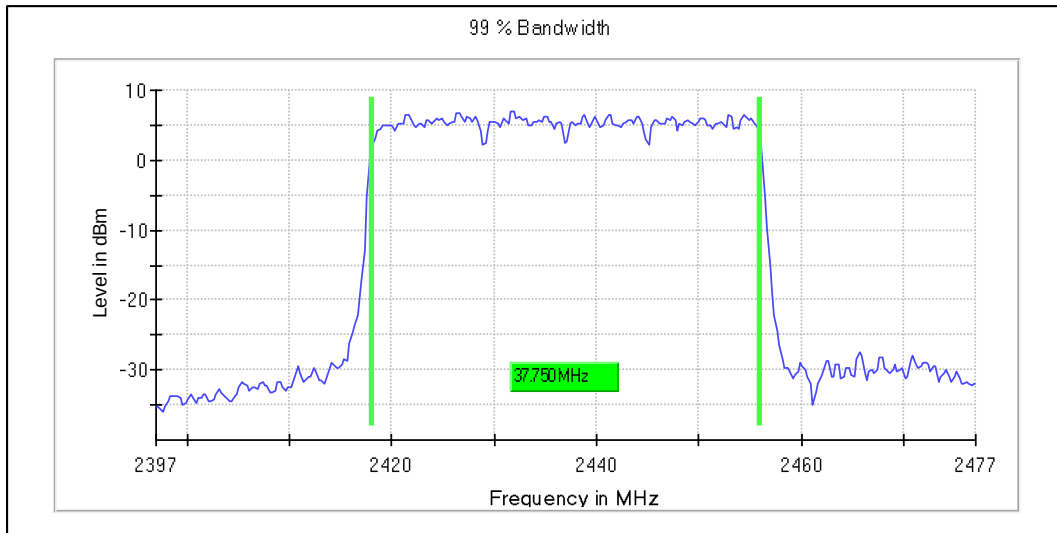


Prüfbericht - Nr.:
Test Report No.:

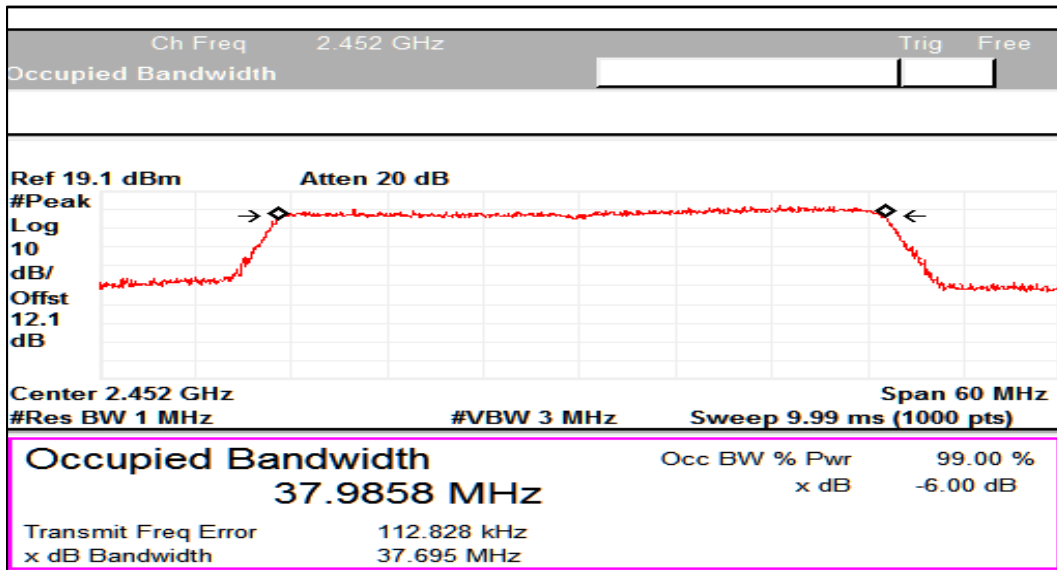
IN23WDIF 001

Seite 151 von 298
Page 151 of 298



Data Rate: MCS11

Channel Frequency: 2437MHz



Data Rate: MCS11

Channel Frequency: 2452MHz

7.4 Emissions in non-restricted frequency bands and Conducted Spurious Emission

Result

Pass

Test Specification

FCC part 15 Subpart C 15.247 (d) / RSS 247 Issue 2, Section 5.5

Test Method

Subclause 11.11 of ANSI C63.10

Measurement Bandwidth

100 kHz

Detector

Peak

Port of testing

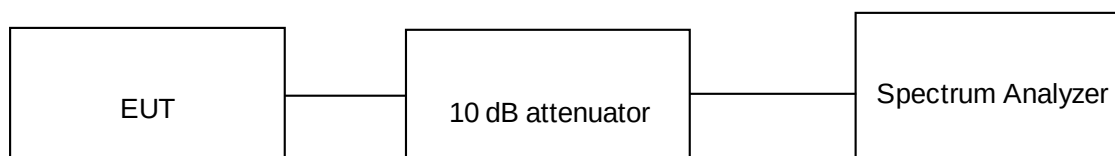
Antenna port

Requirement

In any 100kHz 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 30dB below that in the 100kHz 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, the attenuation required under this paragraph shall be 30 dB instead of 20 dB

Test Method:



Test Condition

Normal Test Condition:

Temperature (Norm) = +25 °C

Voltage = 5.0V AC to DC Adaptor

Relative humidity: 62 %

KDB Guidelines applied:

Measurements were made as per section 8.5 in KDB 558074 D01 15.247 Measurement Guidance v05r02.

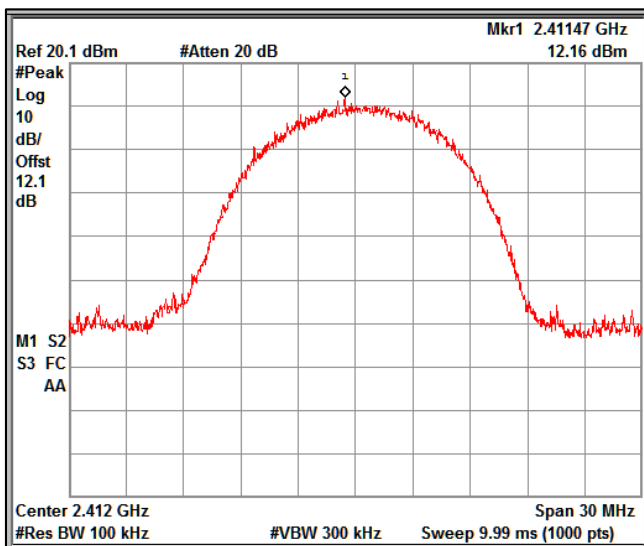
Test results:

Note:

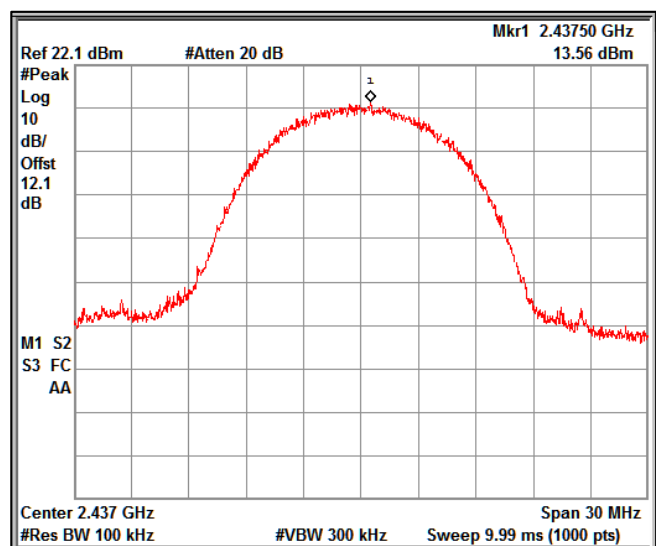
1. All the losses are included during measurement and final values are mentioned in the test report.
2. Final Value (dBm) = Measured Value (dBm) + Attenuator factor (10dB) + Cable loss (0.5dB)
3. This product do not support additional beamforming gain / directional gain, it uses signal antenna and hence directional gain of the single antenna is 2.35 dBi

7.4.1 Band edge and reference plots

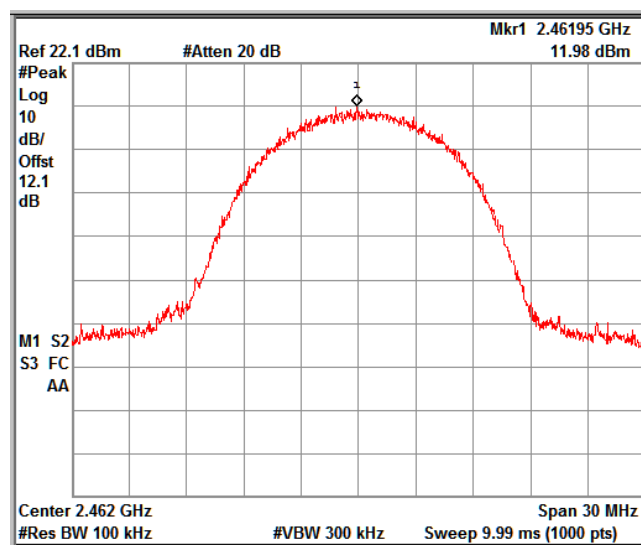
Modulation: 802.11b
Data Rate 11Mbps



Reference Plot Channel Frequency 2412MHz



Reference Plot Channel Frequency 2437MHz



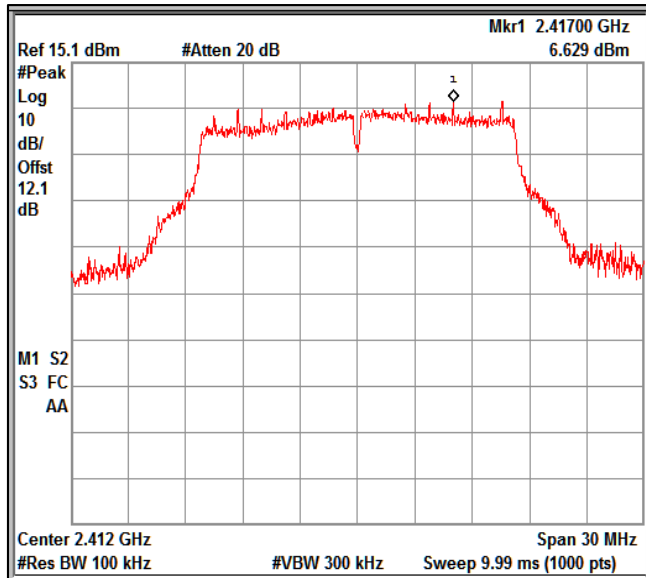
Reference Plot Channel Frequency 2462MHz

Prüfbericht - Nr.:
Test Report No.:

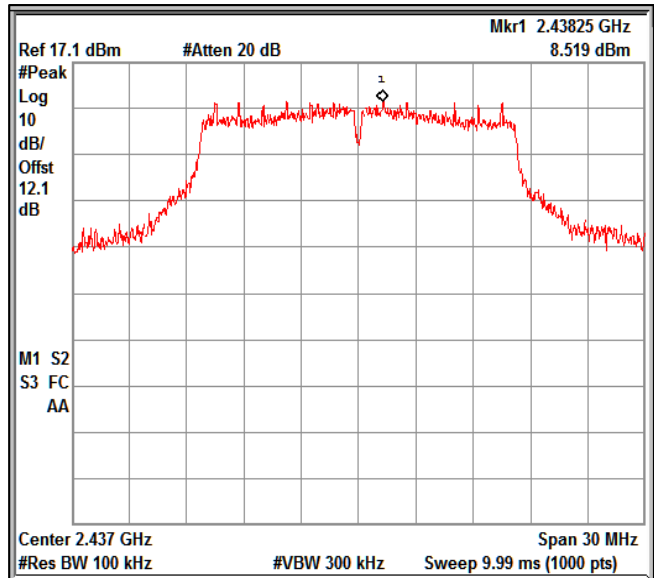
IN23WDIF 001

Seite 154 von 298
Page 154 of 298

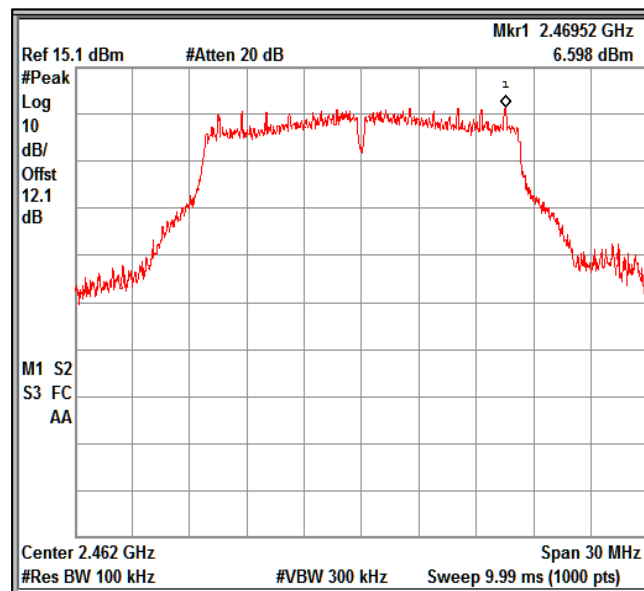
Modulation: 802.11g
Data Rate : 6Mbps



Reference Plot Channel Frequency 2412MHz



Reference Plot Channel Frequency 2437MHz



Reference Plot Channel Frequency 2462MHz

Prüfbericht - Nr.:

Test Report No.:

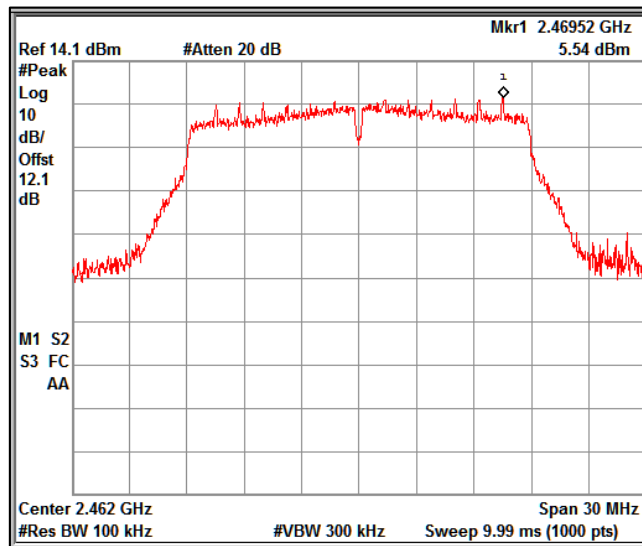
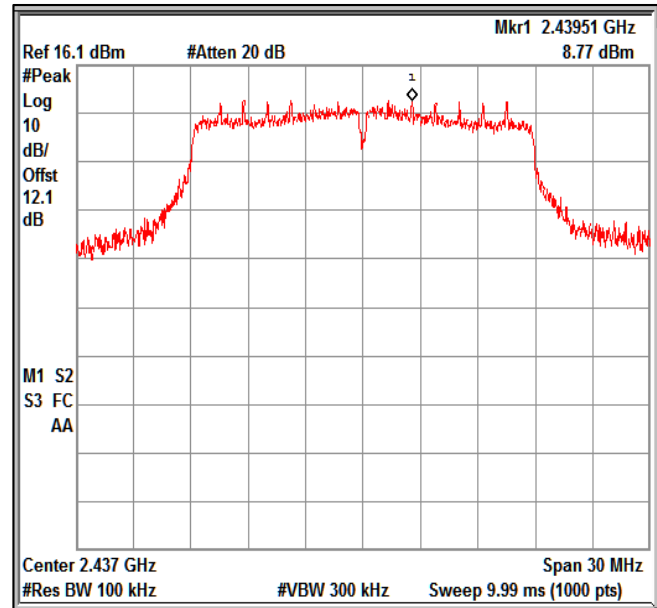
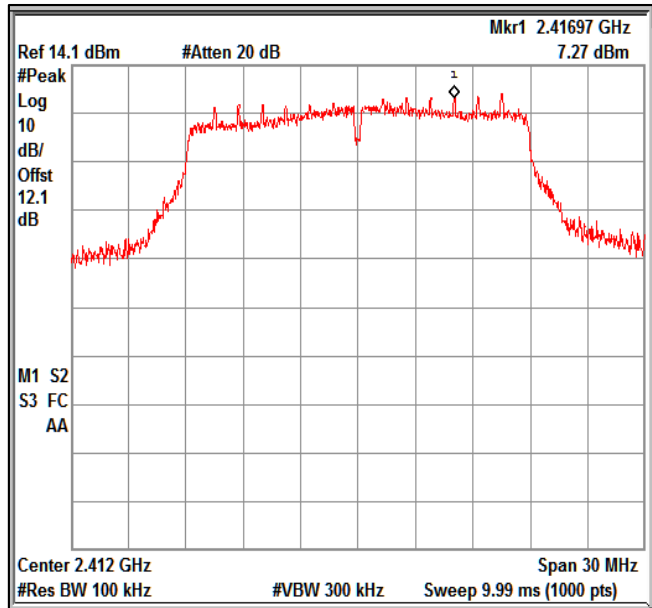
IN23WDIF 001

Seite 155 von 298

Page 155 of 298

Modulation: 802.11n-HT_20

Data Rate : MCS0



Prüfbericht - Nr.:

Test Report No.:

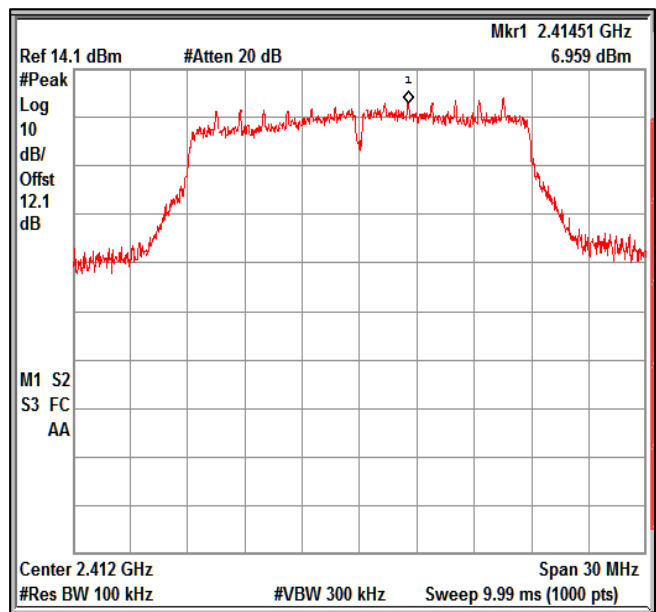
IN23WDIF 001

Seite 156 von 298

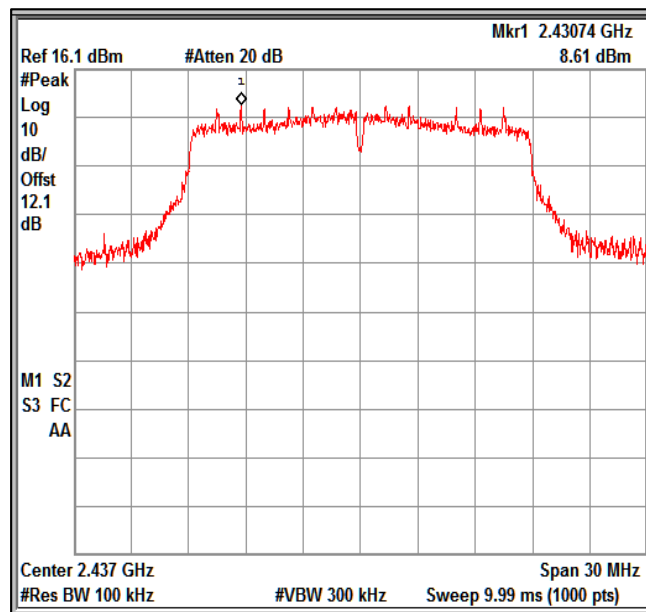
Page 156 of 298

Modulation: 802.11ac-VHT_20

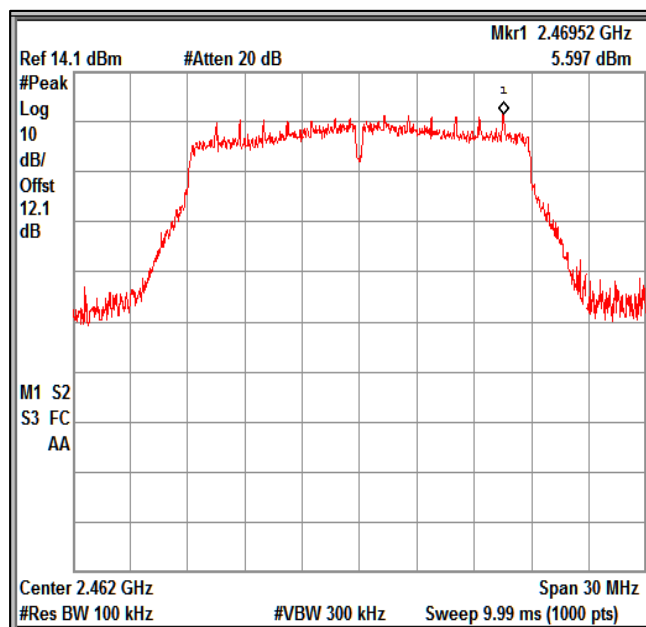
Data Rate : MCS0



Reference Plot Channel Frequency 2412MHz



Reference Plot Channel Frequency 2437MHz



Reference Plot Channel Frequency 2462MHz

Prüfbericht- Nr.:

Test Report No.:

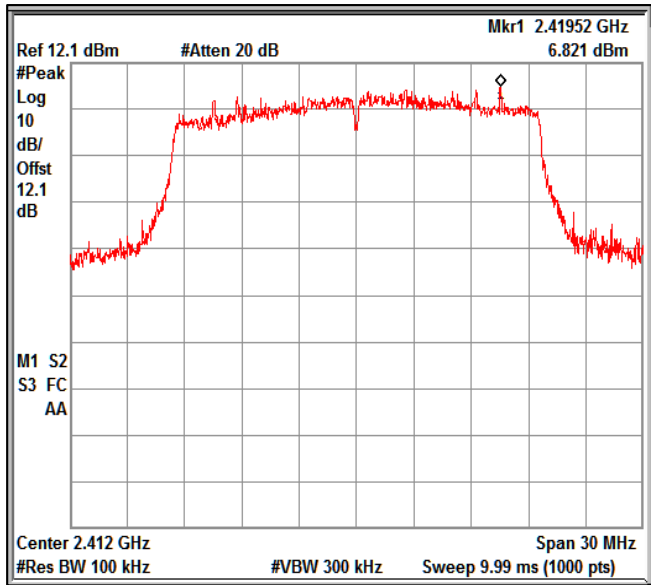
IN23WDIF 001

Seite 157 von 298

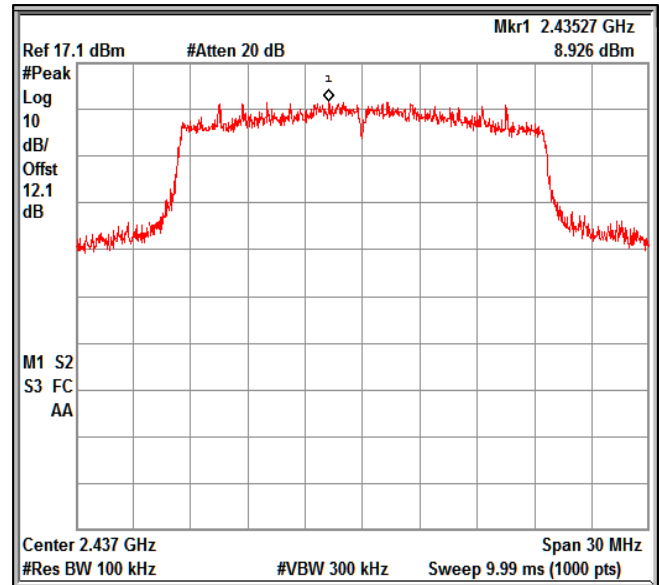
Page 157 of 298

Modulation: 802.11ax-HE_20

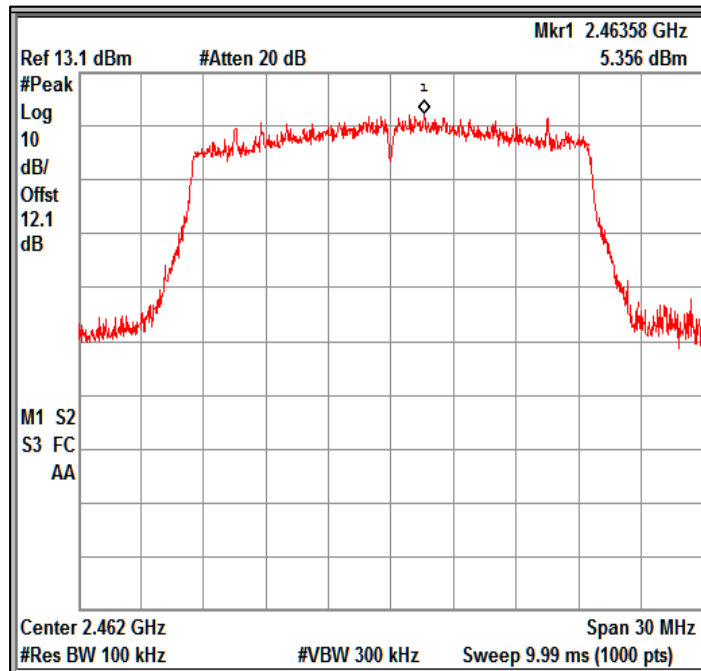
Data Rate : MCS0



Reference Plot Channel Frequency 2412MHz



Reference Plot Channel Frequency 2437MHz



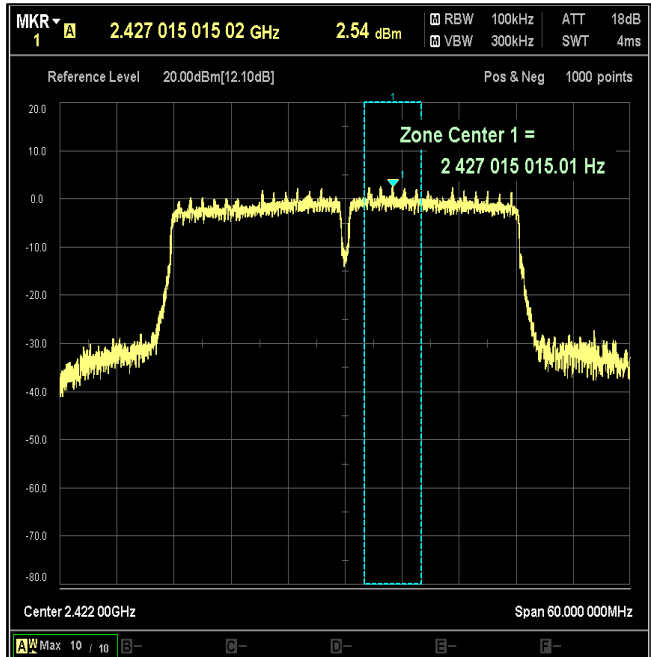
Reference Plot Channel Frequency 2462MHz

Prüfbericht - Nr.:
Test Report No.:

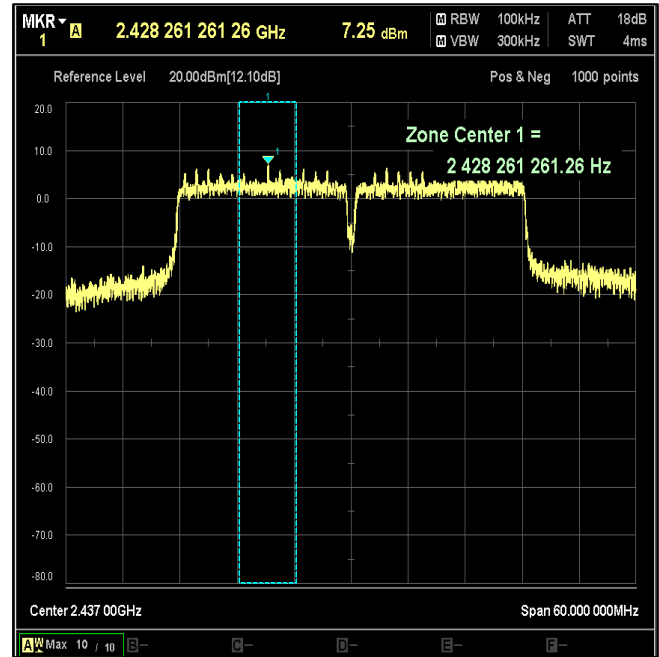
IN23WDIF 001

Seite 158 von 298
Page 158 of 298

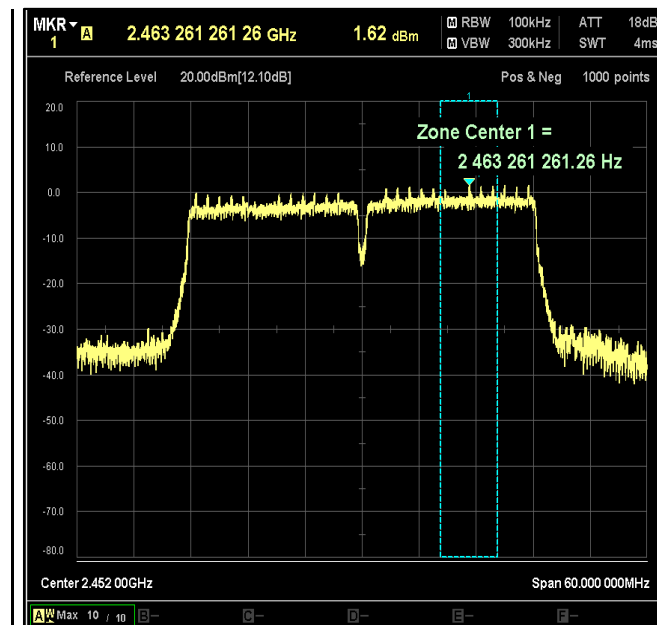
Modulation: 802.11n-HT40
Data Rate : MCS0



Reference Plot Channel Frequency 2422MHz



Reference Plot Channel Frequency 2437MHz



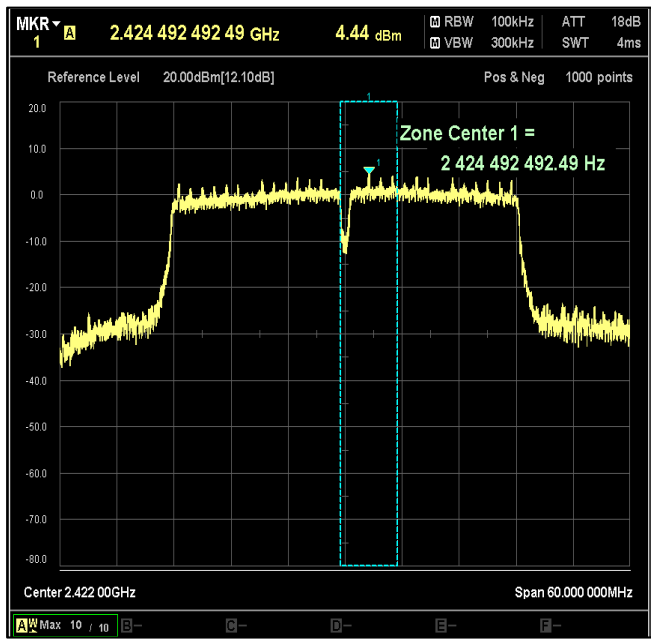
Reference Plot Channel Frequency 2452MHz

Prüfbericht - Nr.:
Test Report No.:

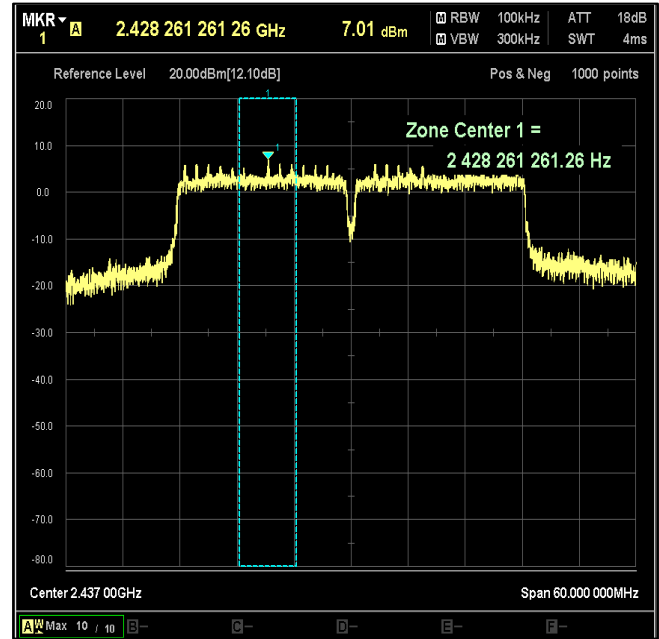
IN23WDIF 001

Seite 159 von 298
Page 159 of 298

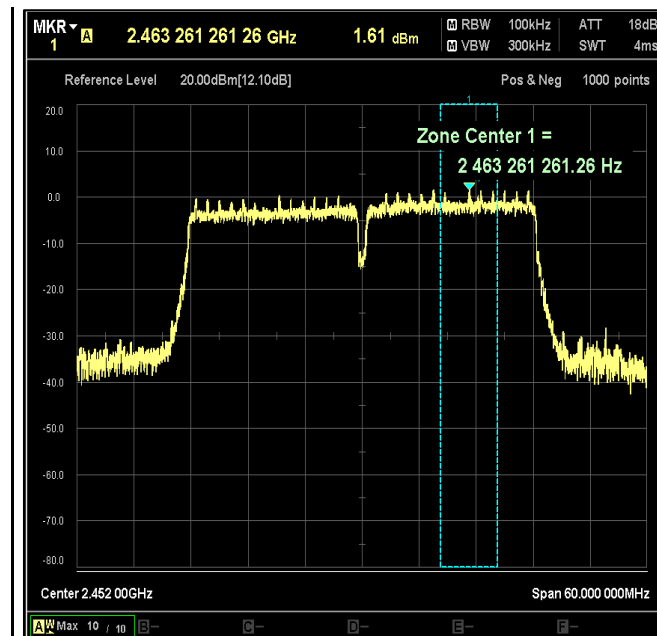
Modulation: 802.11ac-VHT40
Data Rate : MCS0



Reference Plot Channel Frequency 2422MHz



Reference Plot Channel Frequency 2437MHz



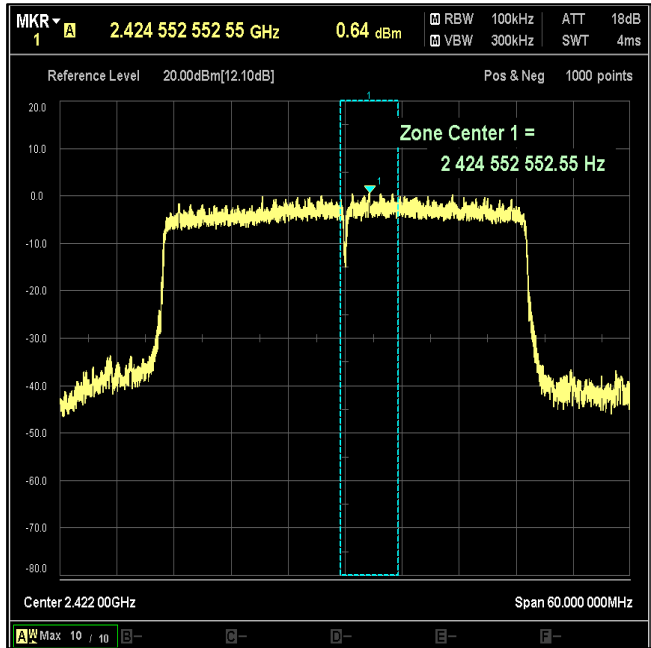
Reference Plot Channel Frequency 2452MHz

Prüfbericht - Nr.:
Test Report No.:

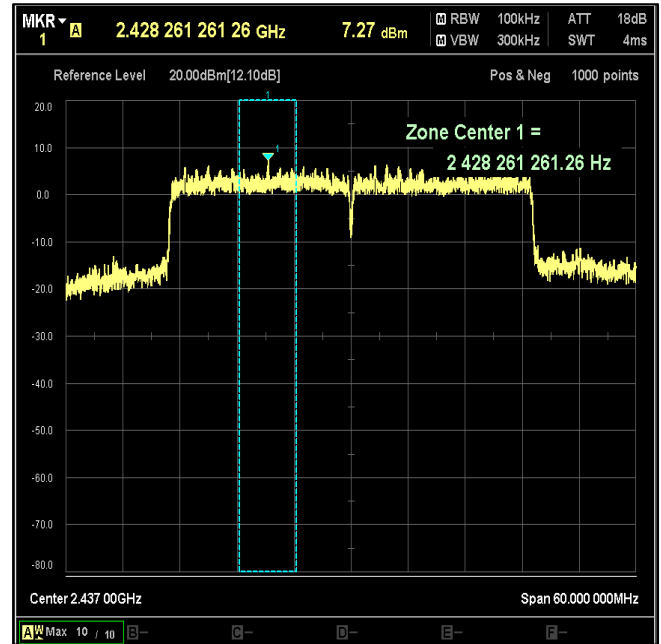
IN23WDIF 001

Seite 160 von 298
Page 160 of 298

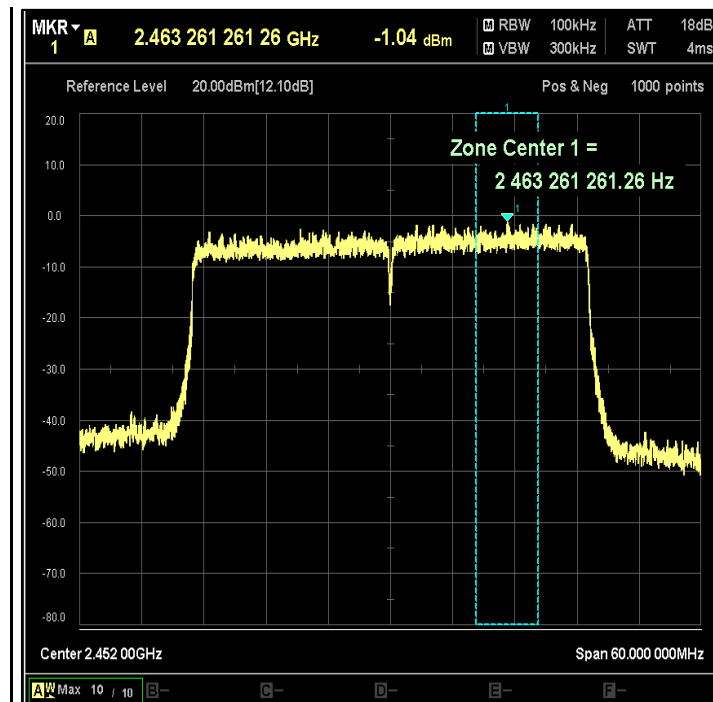
Modulation: 802.11ax-HE40
Data Rate : MCS0



Reference Plot Channel Frequency 2422MHz



Reference Plot Channel Frequency 2437MHz



Reference Plot Channel Frequency 2452MHz

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

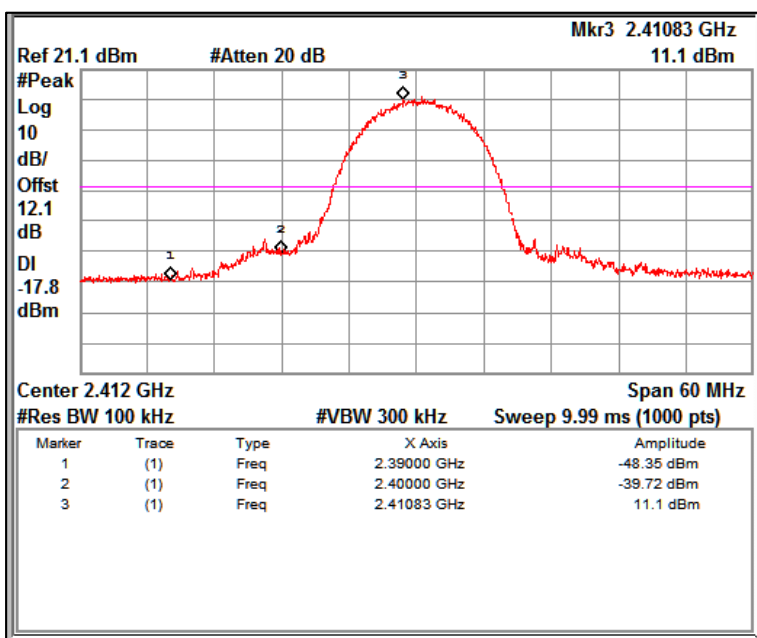
Seite 161 von 298

Page 161 of 298

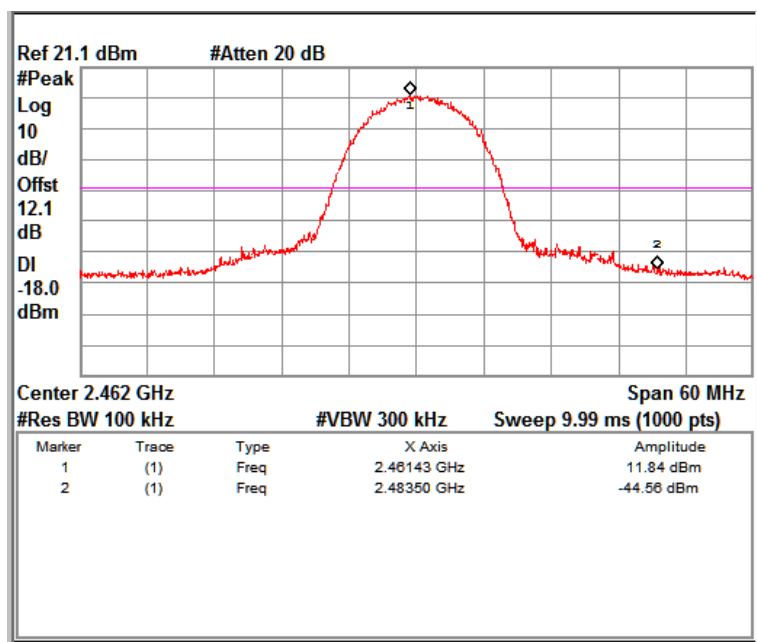
Modulation: 802.11b

Data Rate 11Mbps

Channel Frequency (MHz)	Band edge frequency (MHz)	Value at band edge (A) (dBm)	Reference value (B) (dBm)	A-B (dBc)	Minimum Limit (dBc)
2412.00	2400.00	-39.72	12.16	-51.88	-30
2462.00	2483.50	-44.56	11.98	-56.54	-30



Channel Frequency 2412MHz



Channel Frequency 2462MHz

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

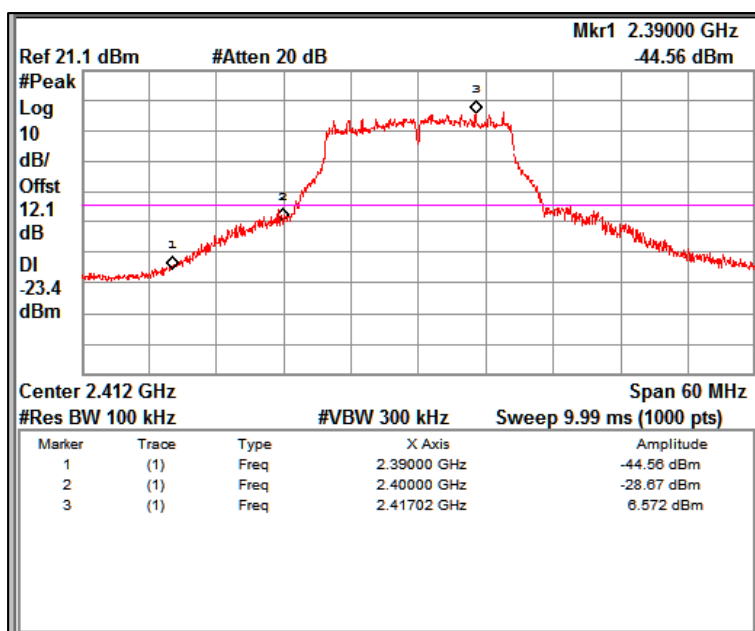
Seite 162 von 298

Page 162 of 298

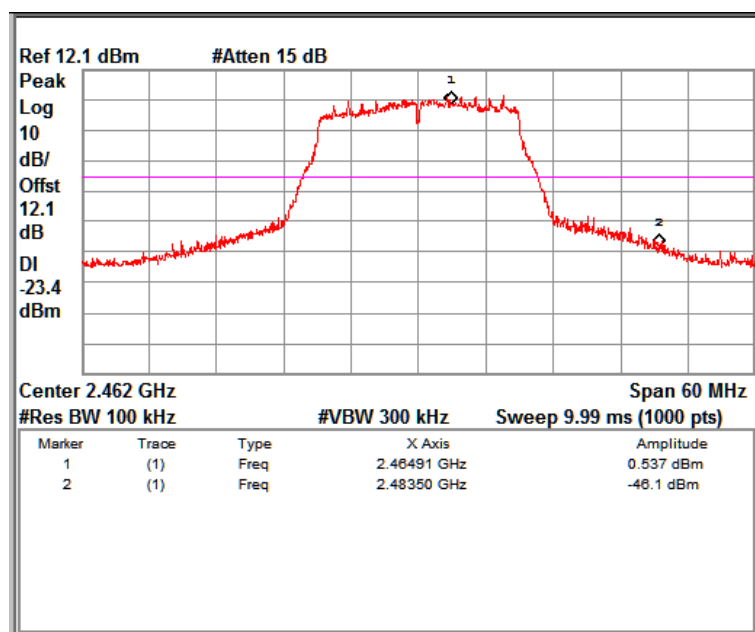
Modulation: 802.11g

Data Rate 6Mbps

Channel Frequency (MHz)	Band edge frequency (MHz)	Value at band edge (A) (dBm)	Reference value (B) (dBm)	A-B (dBc)	Minimum Limit (dBc)
2412.00	2400.00	-28.67	6.62	-35.29	-30
2462.00	2483.50	-46.10	6.59	-52.69	-30



Channel Frequency 2412MHz



Channel Frequency 2462MHz

Prüfbericht- Nr.:

Test Report No.:

IN23WDIF 001

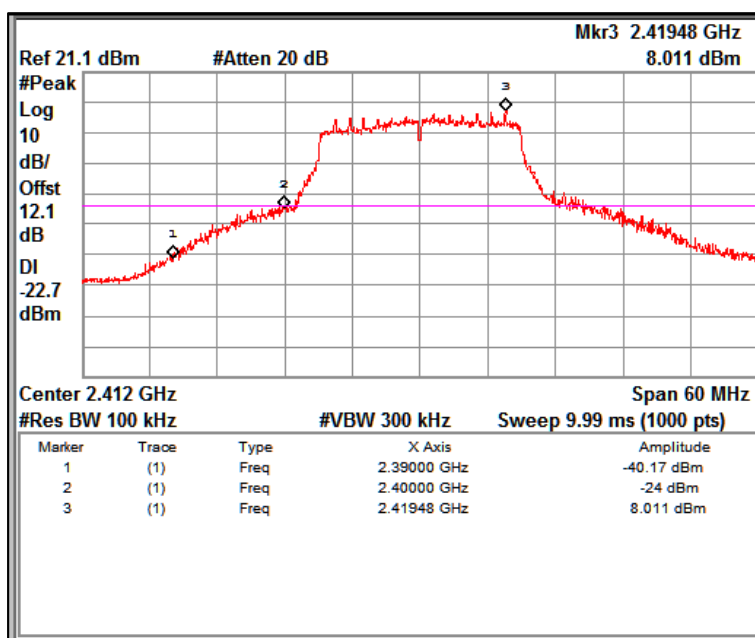
Seite 163 von 298

Page 163 of 298

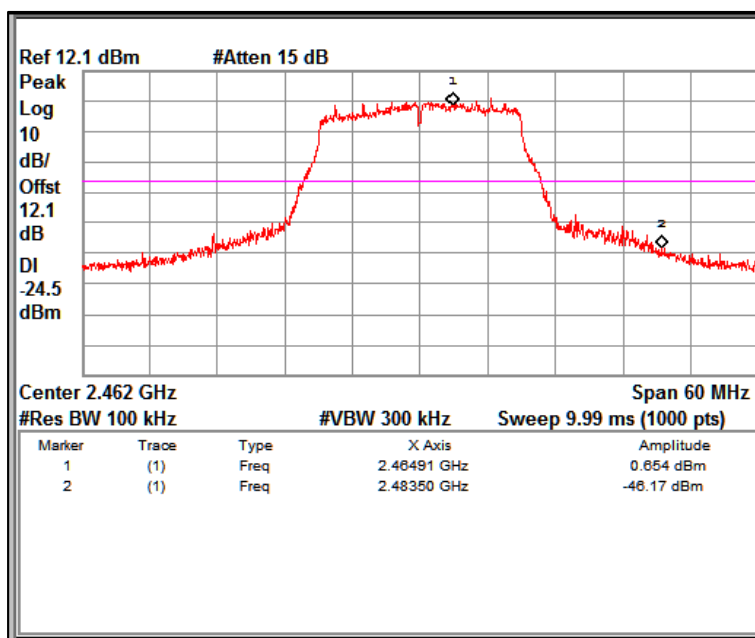
Modulation: 802.11n_HT20

Data Rate MCS0

Channel Frequency (MHz)	Band edge frequency (MHz)	Value at band edge (A) (dBm)	Reference value (B) (dBm)	A-B (dBc)	Minimum Limit (dBc)
2412.00	2400.00	-24.00	7.27	-31.27	-30
2462.00	2483.50	-46.17	5.54	-51.71	-30



Channel Frequency 2412MHz



Channel Frequency 2462MHz

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

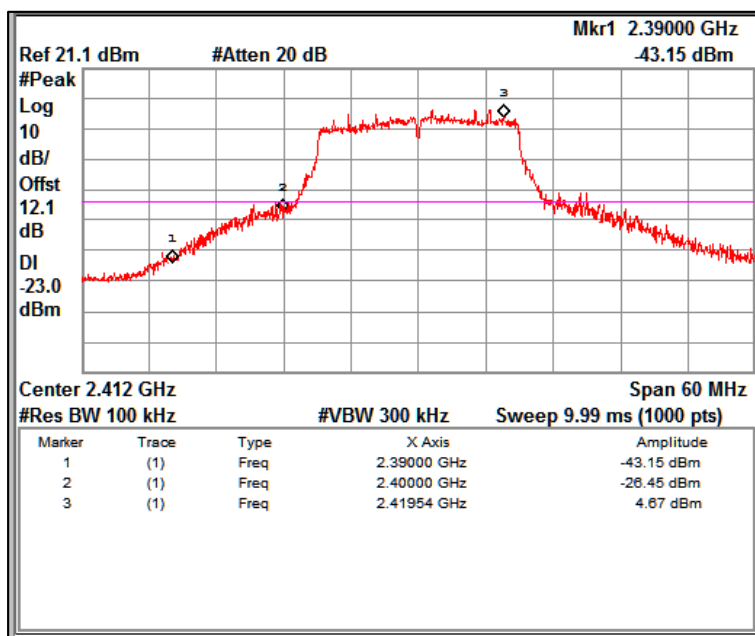
Seite 164 von 298

Page 164 of 298

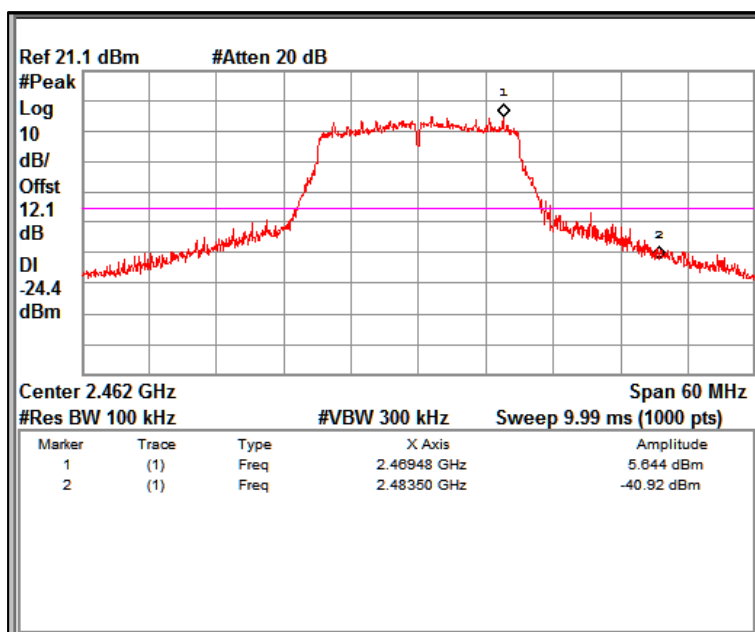
Modulation: 802.11ac-VHT_20

Data Rate : MCS0

Channel Frequency (MHz)	Band edge frequency (MHz)	Value at band edge (A) (dBm)	Reference value (B) (dBm)	A-B (dBc)	Minimum Limit (dBc)
2412.00	2400.00	-26.45	6.95	-33.40	-30
2462.00	2483.50	-40.29	5.59	-45.88	-30



Channel Frequency 2412MHz



Channel Frequency 2462MHz

Prüfbericht- Nr.:

Test Report No.:

IN23WDIF 001

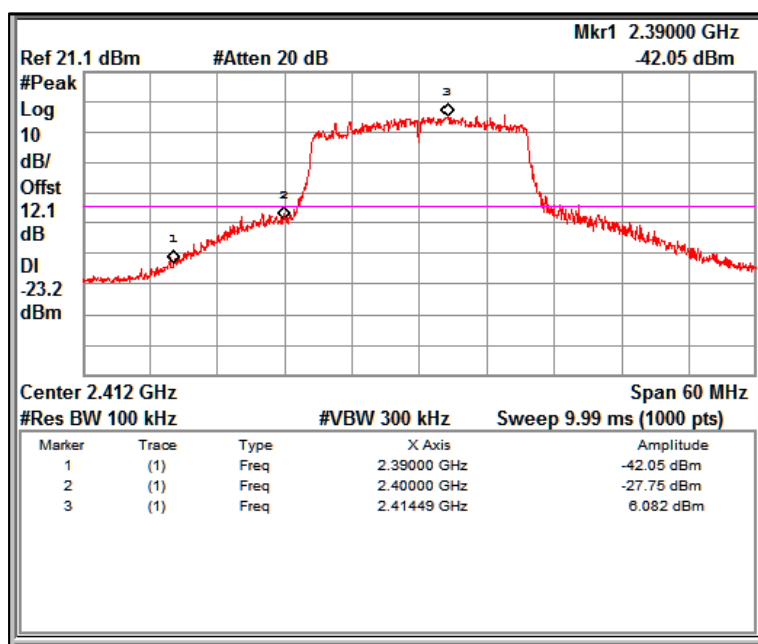
Seite 165 von 298

Page 165 of 298

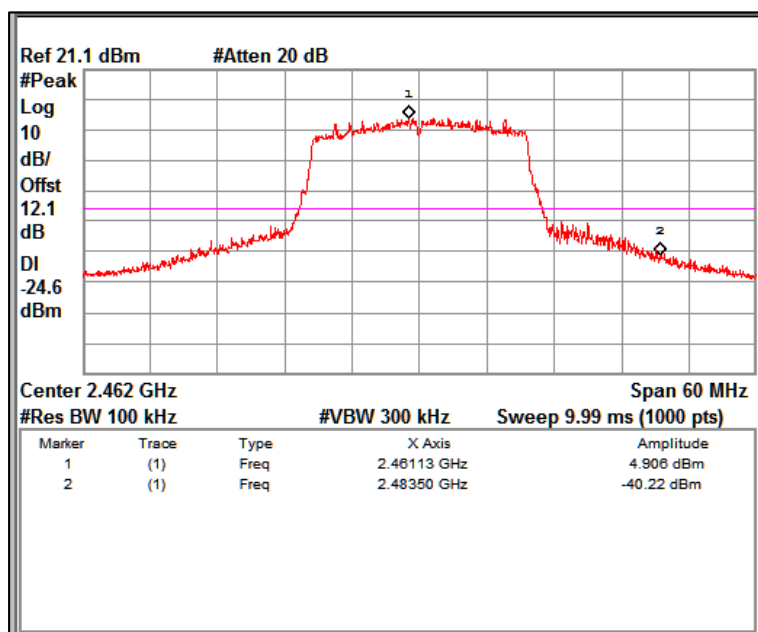
Modulation: 802.11ax-HE_20

Data Rate : MCS0

Channel Frequency (MHz)	Band edge frequency (MHz)	Value at band edge (A) (dBm)	Reference value (B) (dBm)	A-B (dBc)	Minimum Limit (dBc)
2412.00	2400.00	-27.75	6.82	-34.57	-30
2462.00	2483.50	-40.22	5.35	-45.57	-30



Channel Frequency 2412MHz



Channel Frequency 2462MHz

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

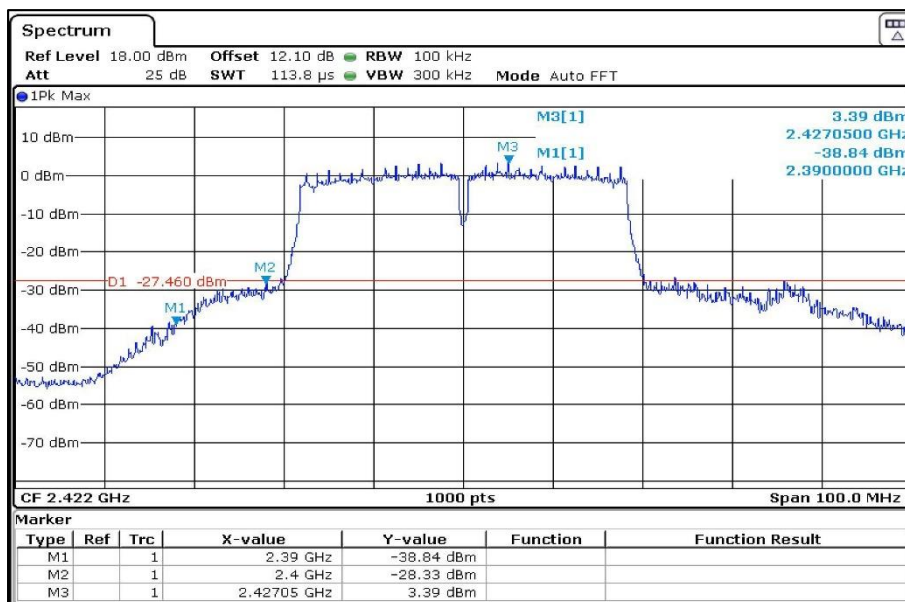
Seite 166 von 298

Page 166 of 298

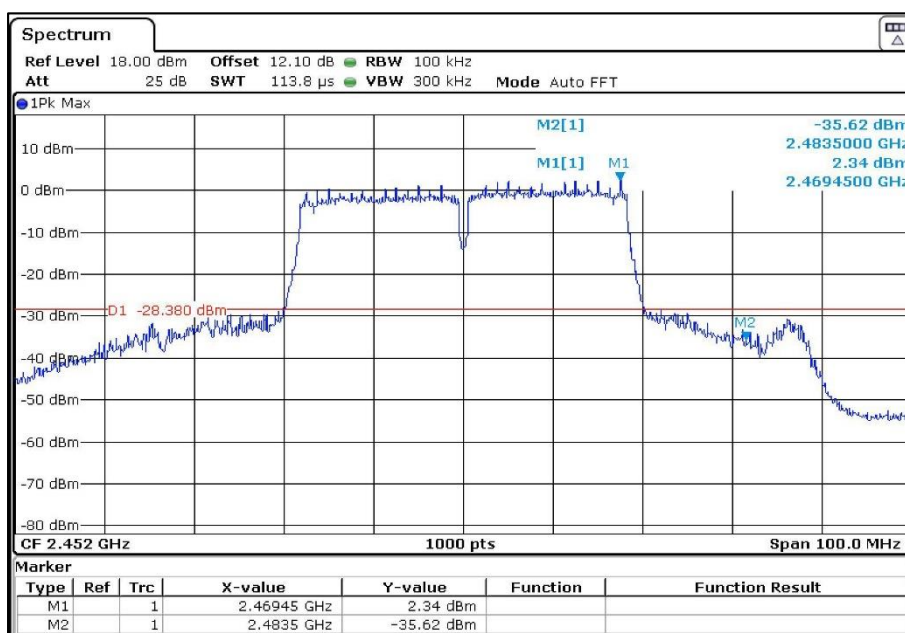
Modulation: 802.11n_HT40

Data Rate MCS0

Channel Frequency (MHz)	Band edge frequency (MHz)	Value at band edge (A) (dBm)	Reference value (B) (dBm)	A-B (dBc)	Minimum Limit (dBc)
2422.00	2400.00	-28.33	2.54	-30.87	-30
2452.00	2483.50	-35.62	1.62	-37.24	-30



Channel Frequency 2422MHz



Channel Frequency 2452MHz

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

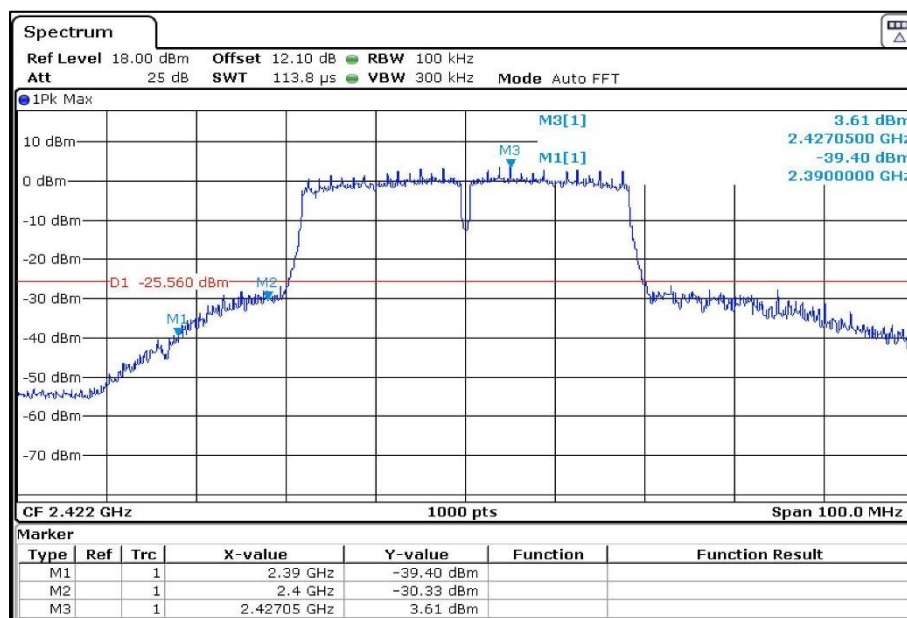
Seite 167 von 298

Page 167 of 298

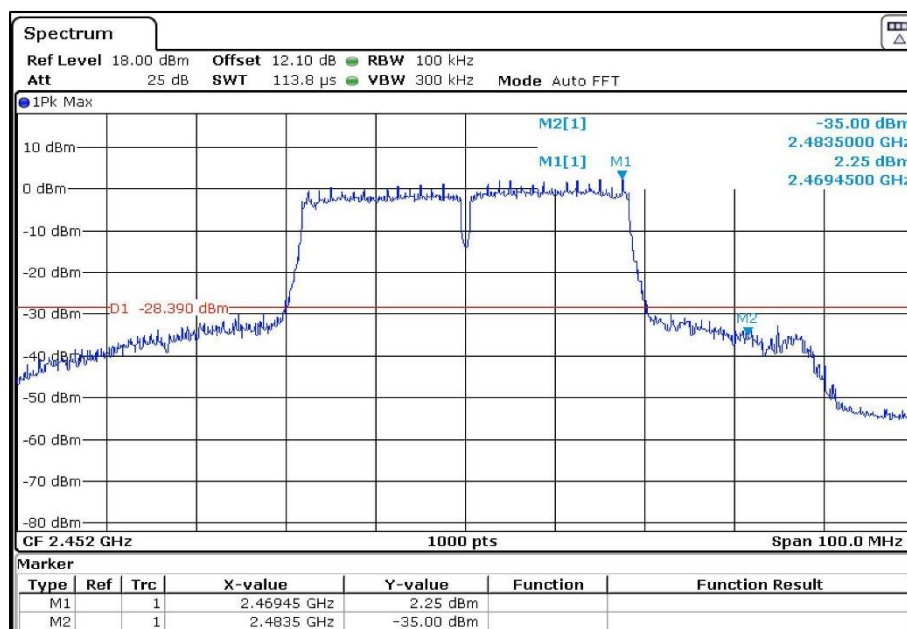
Modulation: 802.11ac_VHT40

Data Rate : MCS0

Channel Frequency (MHz)	Band edge frequency (MHz)	Value at band edge (A) (dBm)	Reference value (B) (dBm)	A-B (dBc)	Minimum Limit (dBc)
2422.00	2400.00	-30.33	4.44	-34.77	-30
2452.00	2483.50	-35.00	1.61	-36.61	-30



Channel Frequency 2422MHz



Channel Frequency 2452MHz

Prüfbericht - Nr.:
Test Report No.:

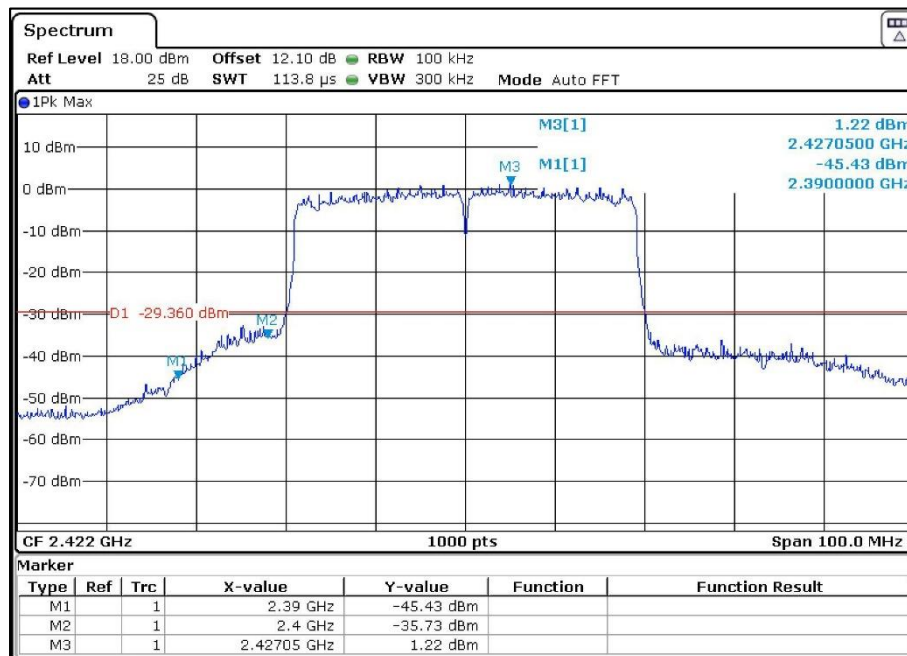
IN23WDIF 001

Seite 168 von 298
Page 168 of 298

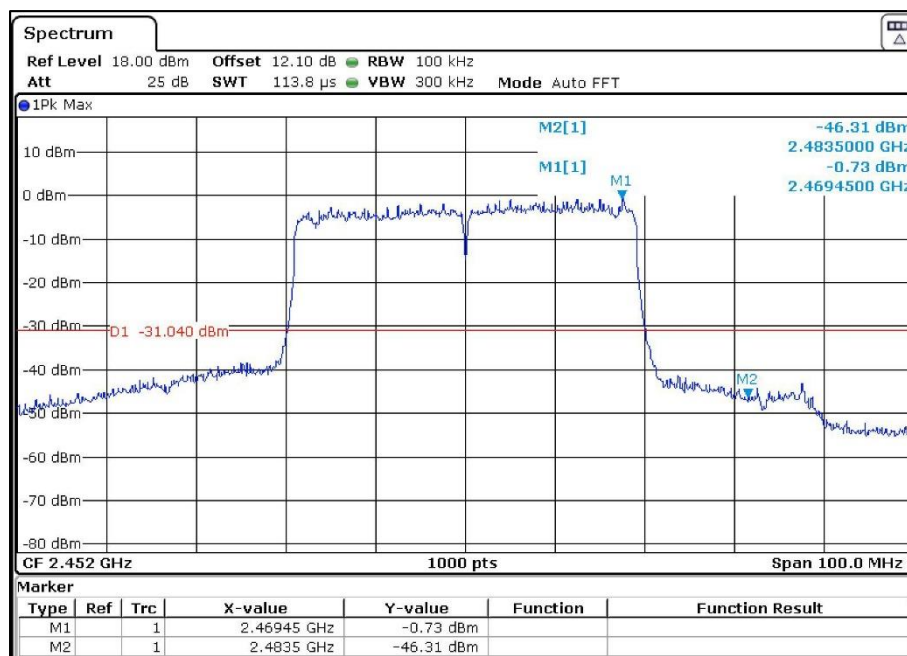
Modulation: 802.11ax_HE40

Data Rate : MCS0

Channel Frequency (MHz)	Band edge frequency (MHz)	Value at band edge (A) (dBm)	Reference value (B) (dBm)	A-B (dBc)	Minimum Limit (dBc)
2422.00	2400.00	-35.73	0.64	-36.37	-30
2452.00	2483.50	-46.31	-0.04	-46.27	-30



Channel Frequency 2422MHz



Channel Frequency 2452MHz

Prüfbericht - Nr.:
Test Report No.:

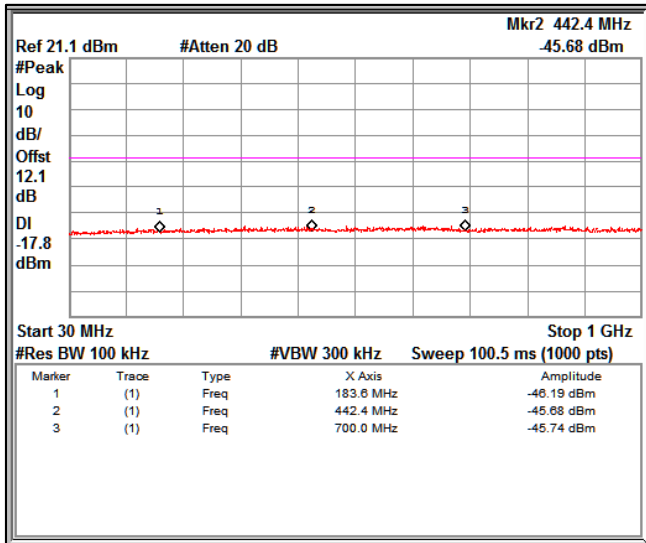
IN23WDIF 001

Seite 169 von 298
Page 169 of 298

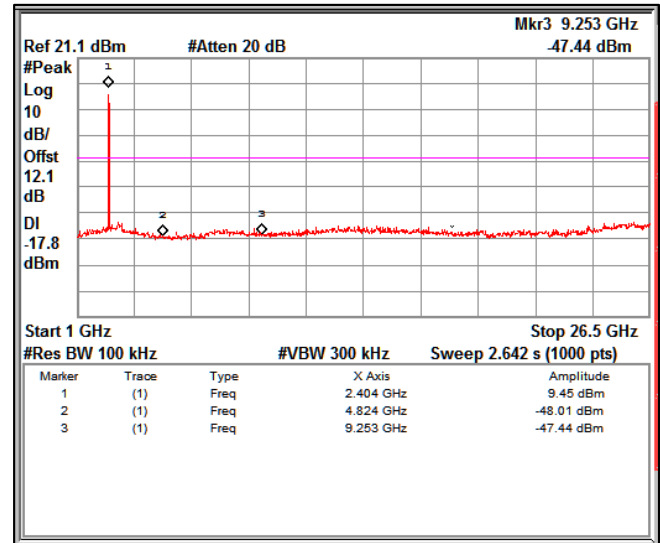
7.4.2 Out-Of-Band Emissions

Modulation: 802.11b

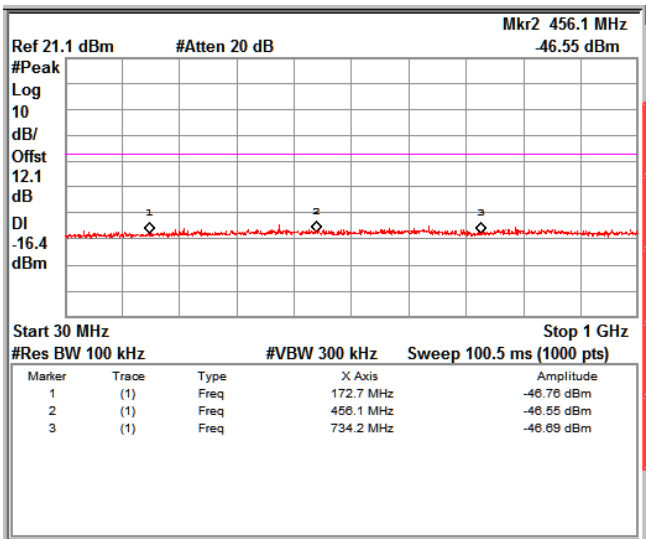
Data Rate 11Mbps



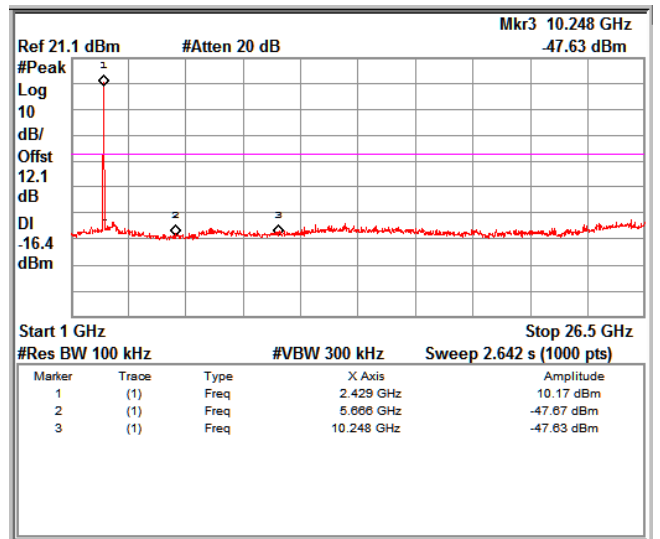
Channel Frequency 2412MHz Frequency Range 30MHz –1GHz



Channel Frequency 2412MHz Frequency Range 1GHz –26.5GHz



Channel Frequency 2437MHz Frequency Range 30MHz –1GHz

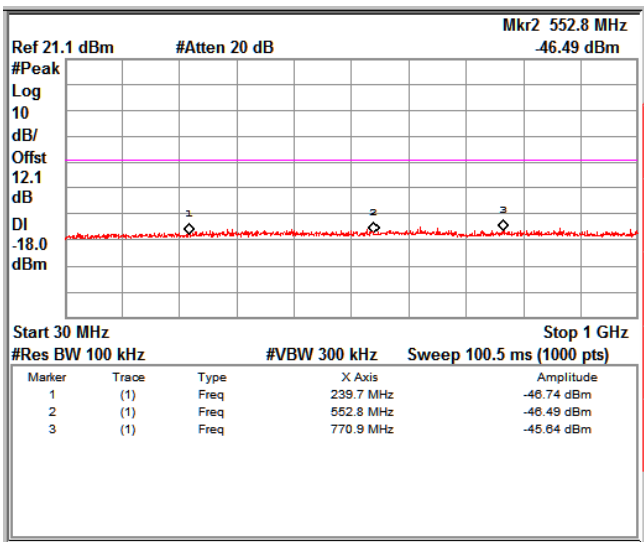


Channel Frequency 2437MHz Frequency Range 1GHz –26.5GHz

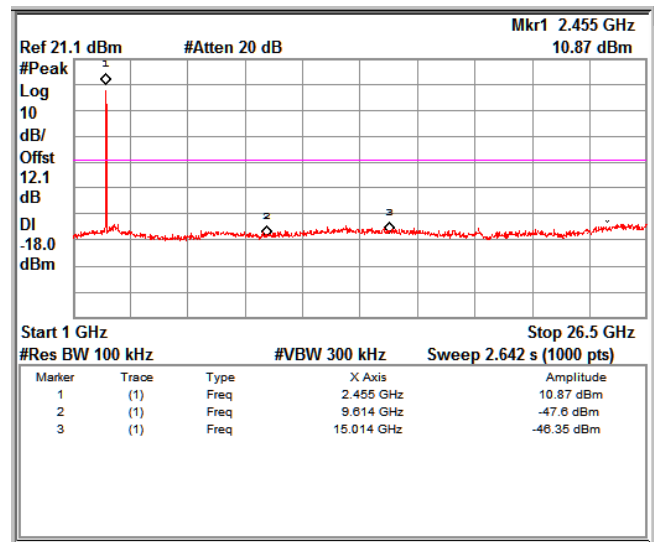
Prüfbericht - Nr.:
Test Report No.:

IN23WDIF 001

Seite 170 von 298
Page 170 of 298

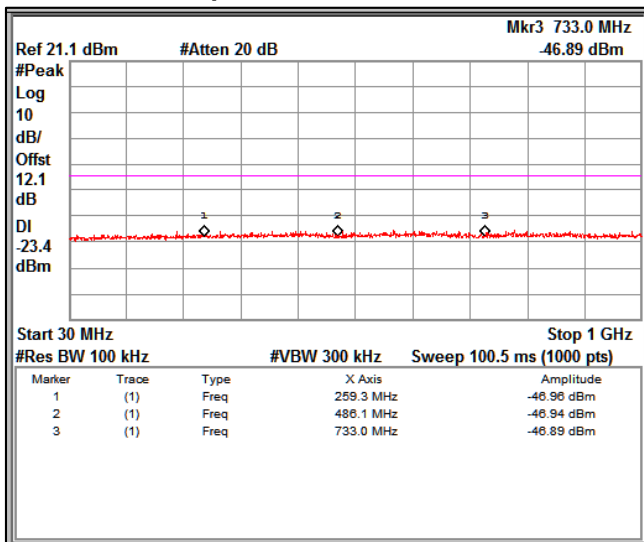


Channel Frequency 2462MHz Frequency Range 30MHz - 1GHz

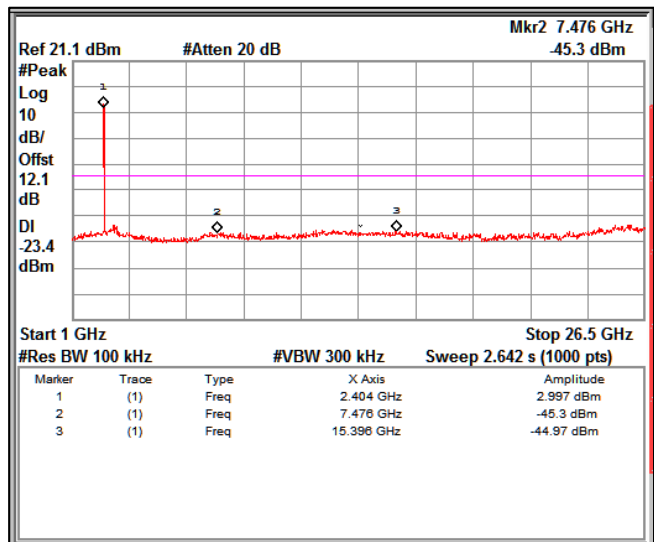


Channel Frequency 2462MHz Frequency Range 1GHz - 26.5GHz

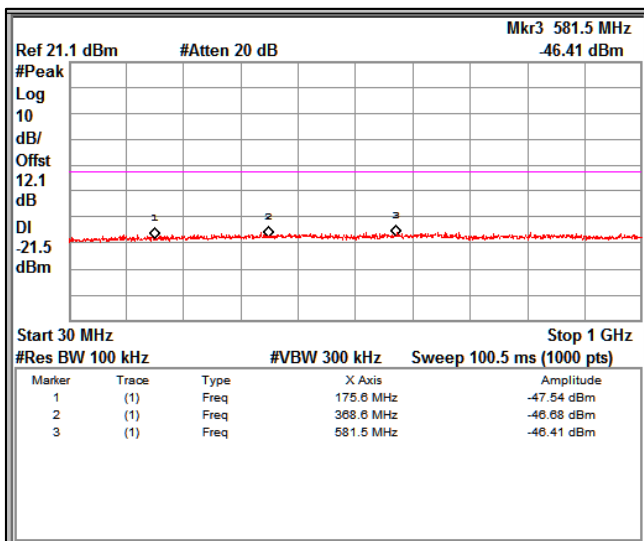
Modulation: 802.11g
Data Rate : 6Mbps



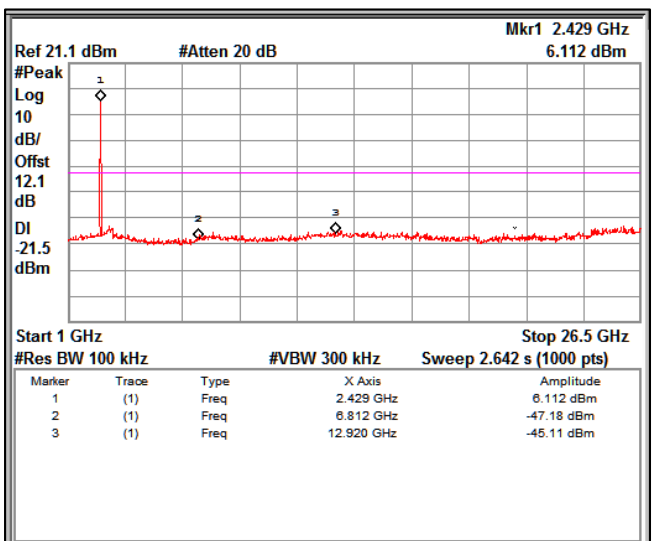
Channel Frequency 2412MHz Frequency Range 30MHz - 1GHz



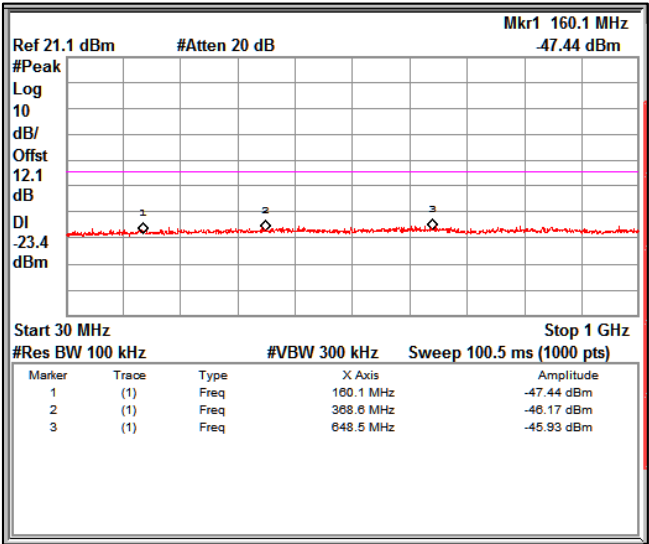
Channel Frequency 2412MHz Frequency Range 1GHz - 26.5GHz



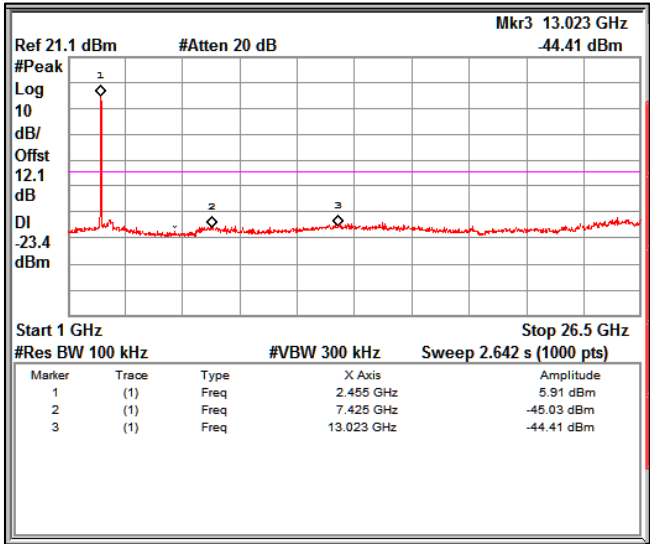
Channel Frequency 2437MHz Frequency Range 1GHz - 26.5GHz



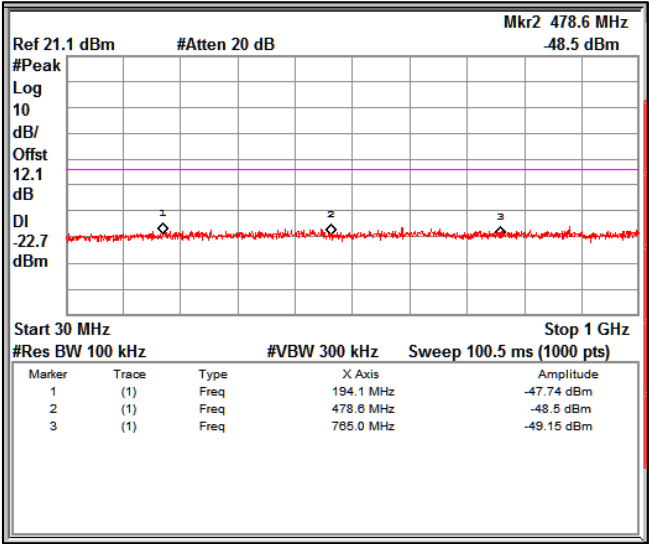
Channel Frequency 2437MHz Frequency Range 1GHz - 26.5GHz



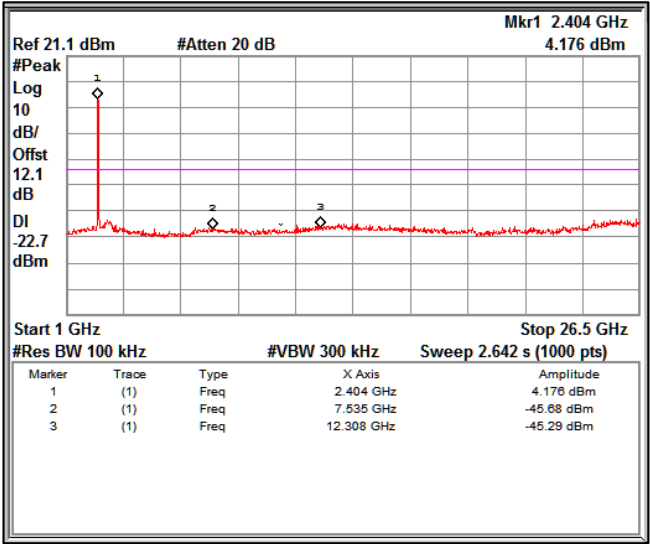
Channel Frequency 2462MHz Frequency Range 30MHz –1GHz



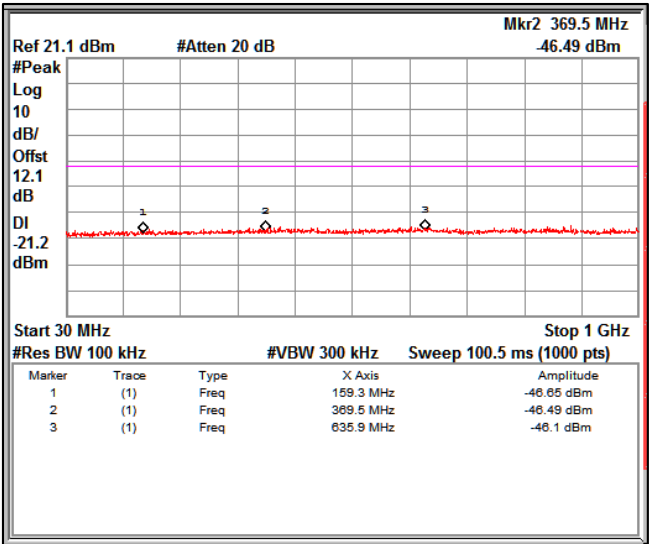
Channel Frequency 2462MHz Frequency Range 1GHz –26.5GHz

Modulation: 802.11n-HT_20
Data Rate : MCS0


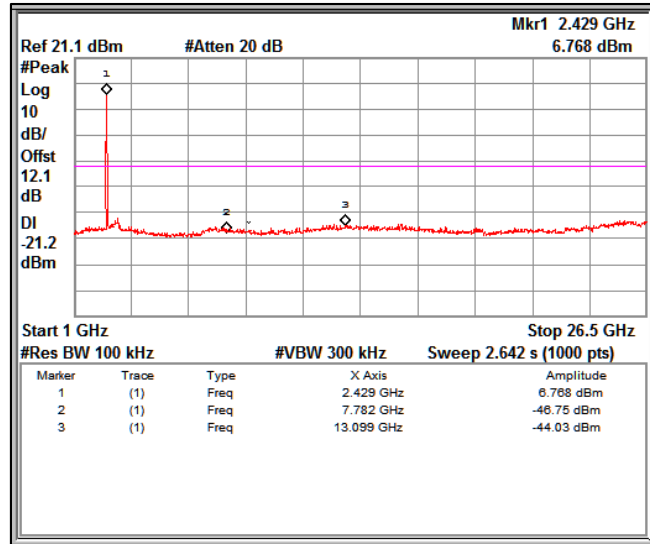
Channel Frequency 2412MHz Frequency Range 30MHz –1GHz



Channel Frequency 2412MHz Frequency Range 1GHz –26.5GHz



Channel Frequency 2437MHz Frequency Range 30MHz –1GHz

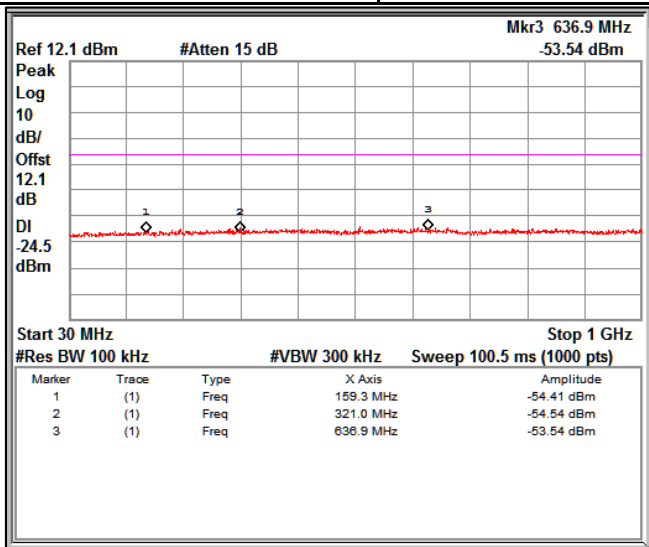


Channel Frequency 2437MHz Frequency Range 1GHz –26.5GHz

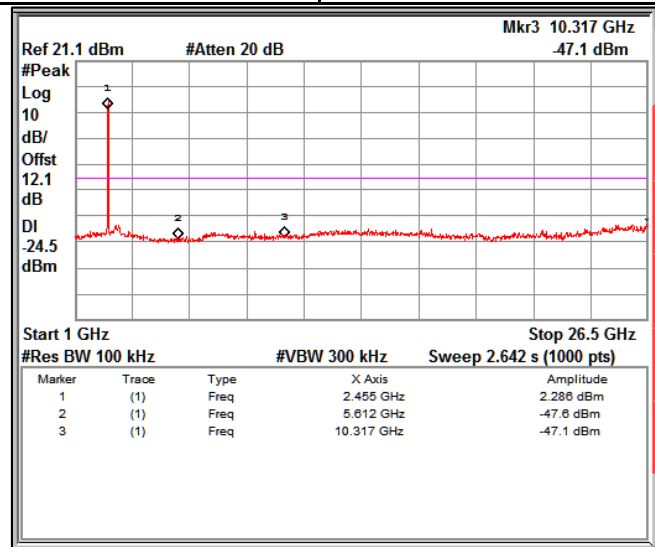
Prüfbericht - Nr.:
Test Report No.:

IN23WDIF 001

Seite 172 von 298
Page 172 of 298



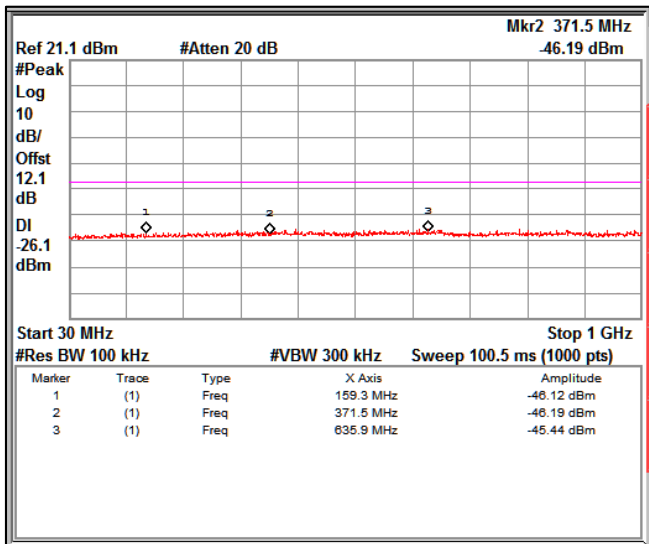
Channel Frequency 2462MHz Frequency Range 30MHz –1GHz



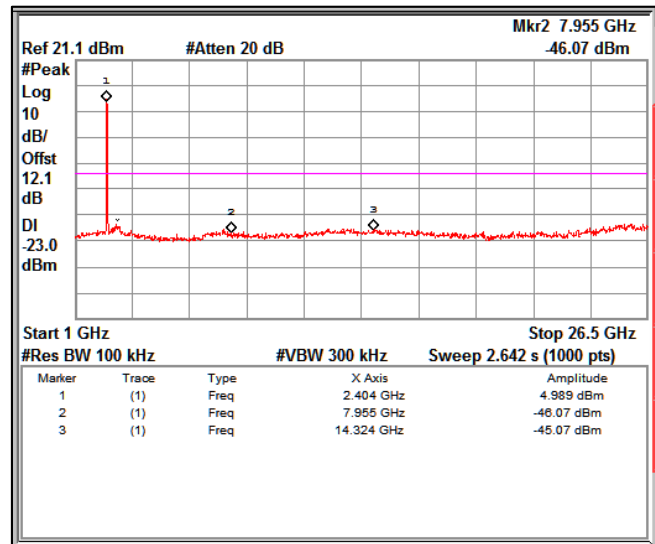
Channel Frequency 2462MHz Frequency Range 1GHz –26.5GHz

Modulation: 802.11ac-VHT_20

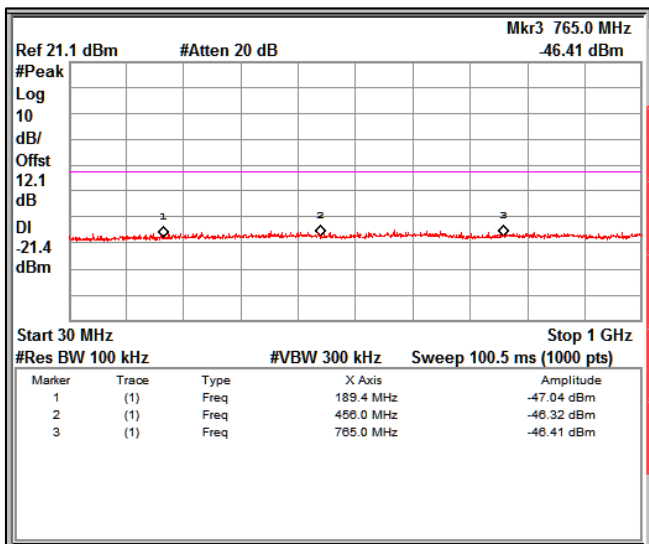
Data Rate : MCS0



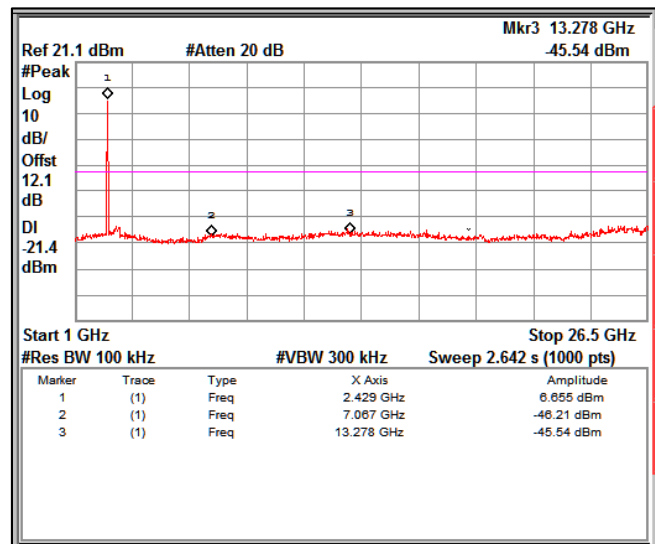
Channel Frequency 2412MHz Frequency Range 30MHz –1GHz



Channel Frequency 2412MHz Frequency Range 1GHz –26.5GHz



Channel Frequency 2437MHz Frequency Range 30MHz –1GHz

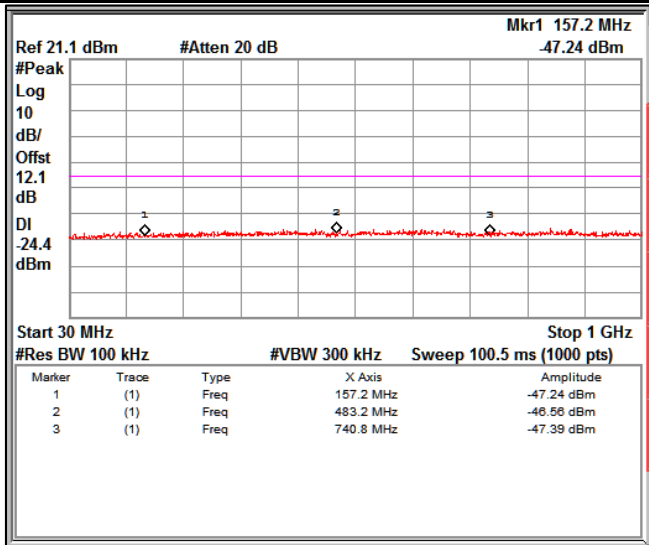


Channel Frequency 2437MHz Frequency Range 1GHz –26.5GHz

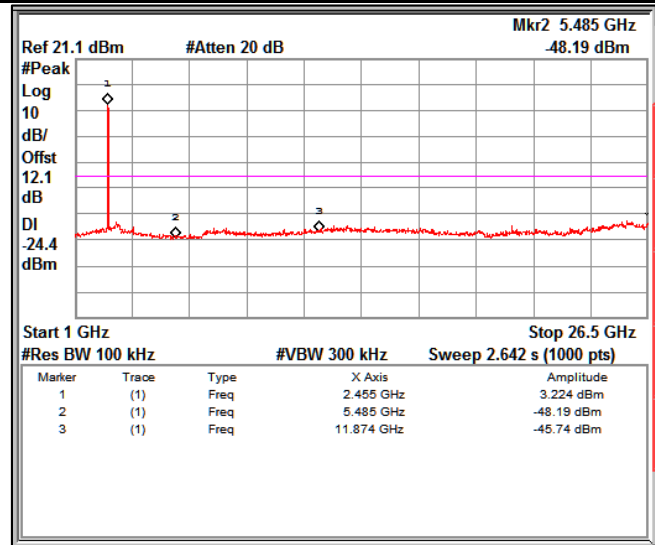
Prüfbericht - Nr.:
Test Report No.:

IN23WDIF 001

Seite 173 von 298
Page 173 of 298

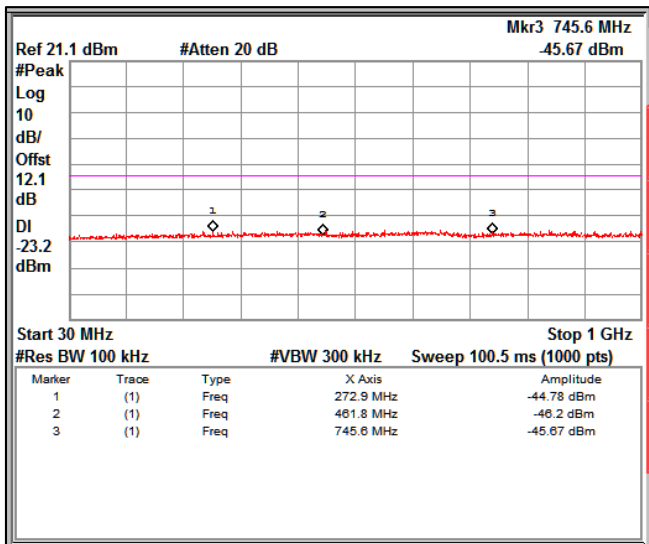


Channel Frequency 2462MHz Frequency Range 30MHz –1GHz

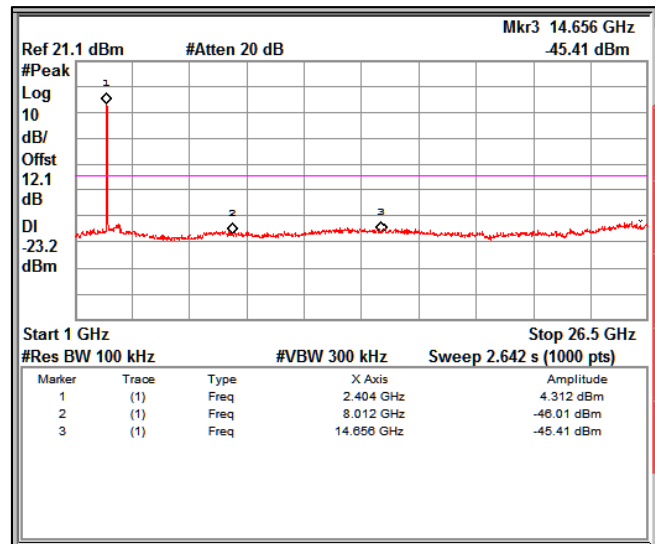


Channel Frequency 2462MHz Frequency Range 1GHz –26.5GHz

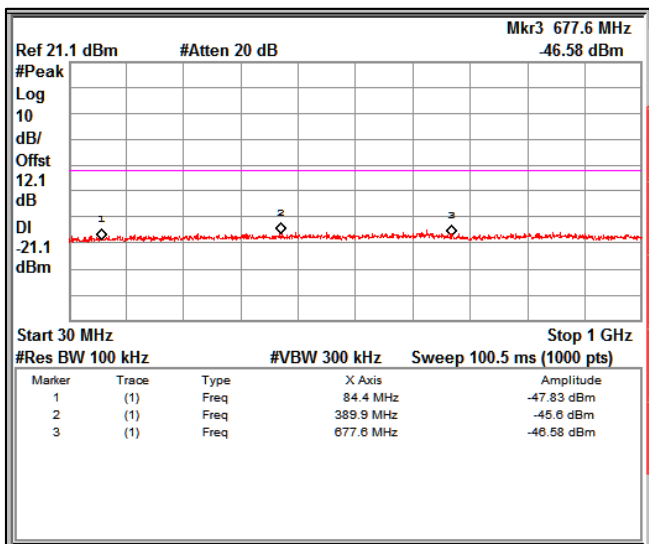
Modulation: 802.11ax-HE_20
Data Rate : MCS0



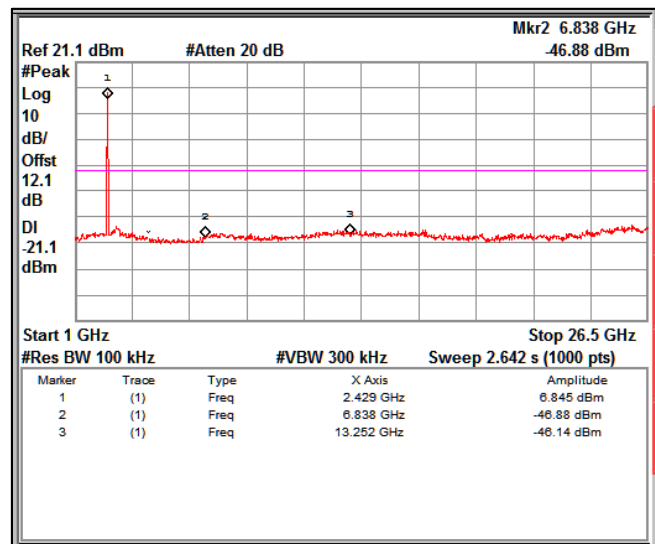
Channel Frequency 2412MHz Frequency Range 30MHz –1GHz



Channel Frequency 2412MHz Frequency Range 1GHz –26.5GHz



Channel Frequency 2437MHz Frequency Range 30MHz –1GHz

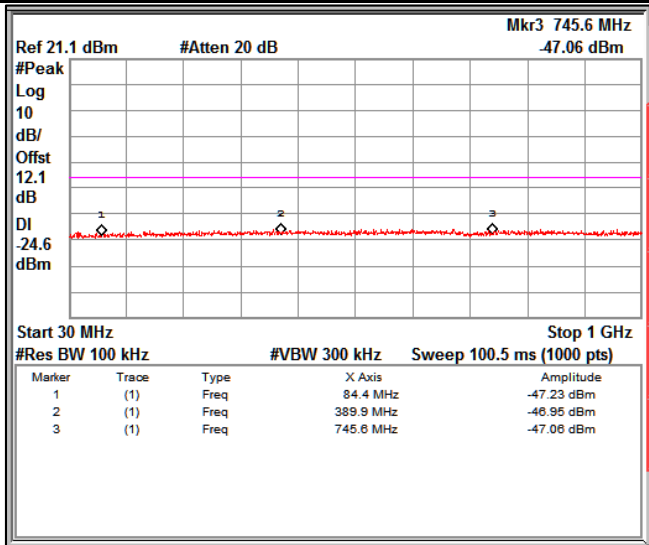


Channel frequency 2437MHz Frequency Range 1GHz –26.5GHz

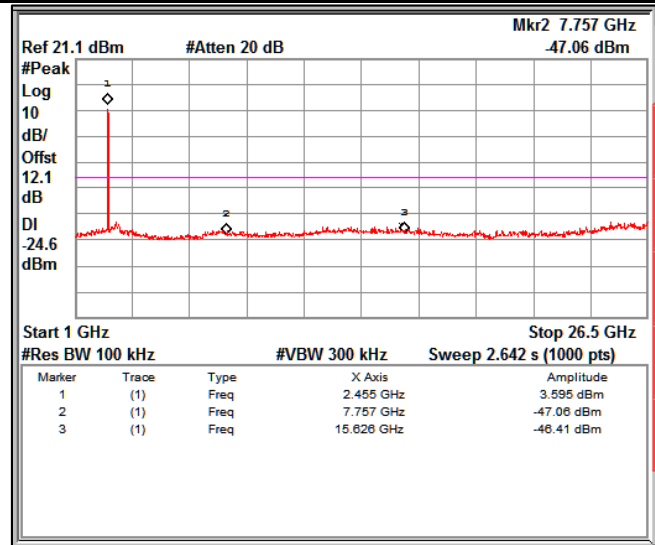
Prüfbericht - Nr.:
Test Report No.:

IN23WDIF 001

Seite 174 von 298
Page 174 of 298

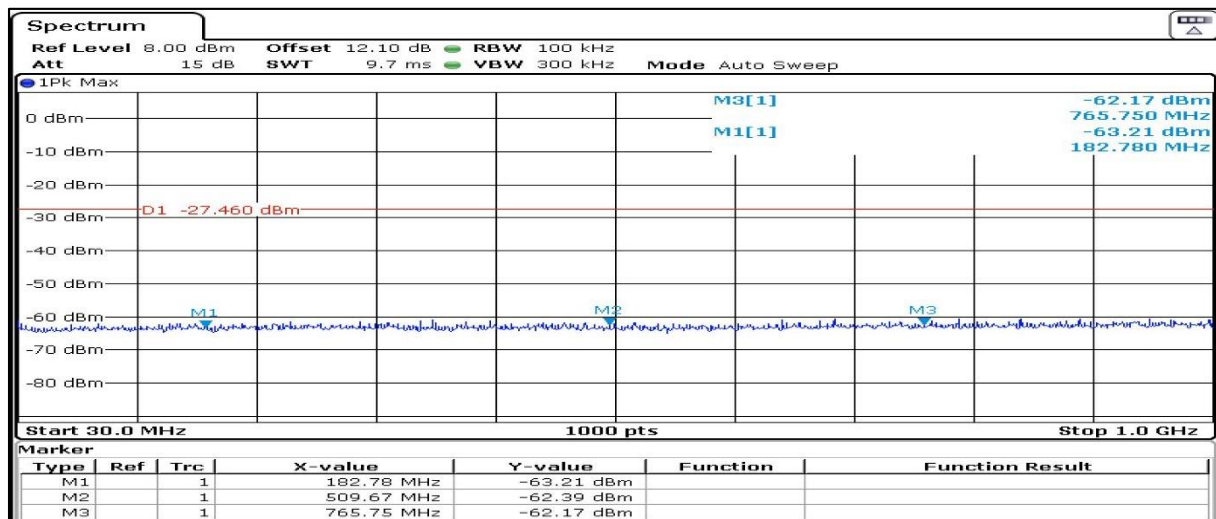


Channel Frequency 2462MHz Frequency Range 30MHz –1GHz



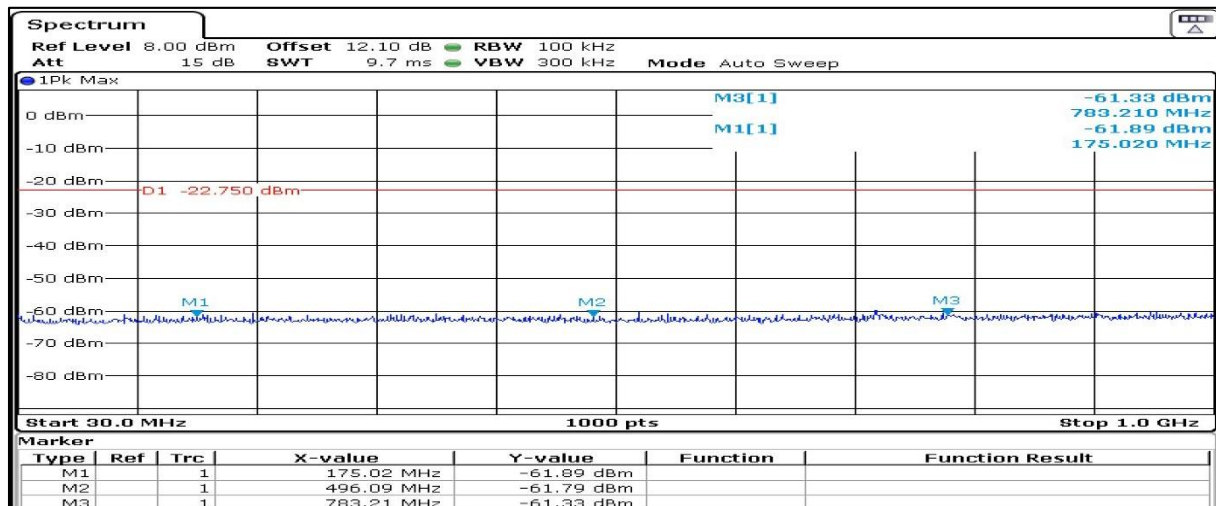
Channel Frequency 2462MHz Frequency Range 1GHz –26.5GHz

Modulation: 802.11n-HT_40
Data Rate : MCS0



Channel frequency 2422MHz

Frequency Range 30MHz –1GHz



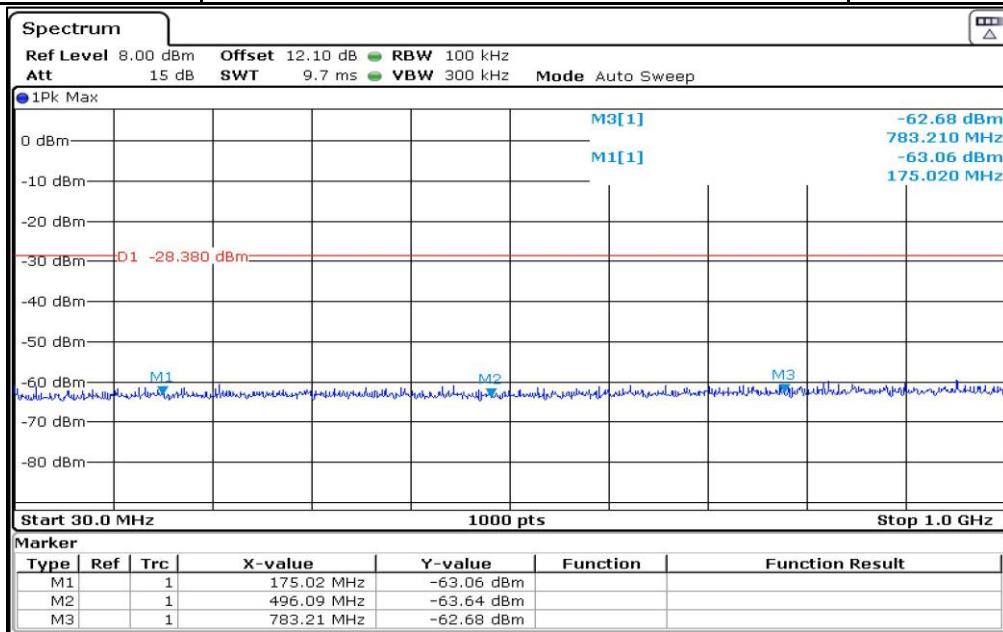
Channel frequency 2437MHz

Frequency Range 30MHz –1GHz

Prüfbericht - Nr.:
Test Report No.:

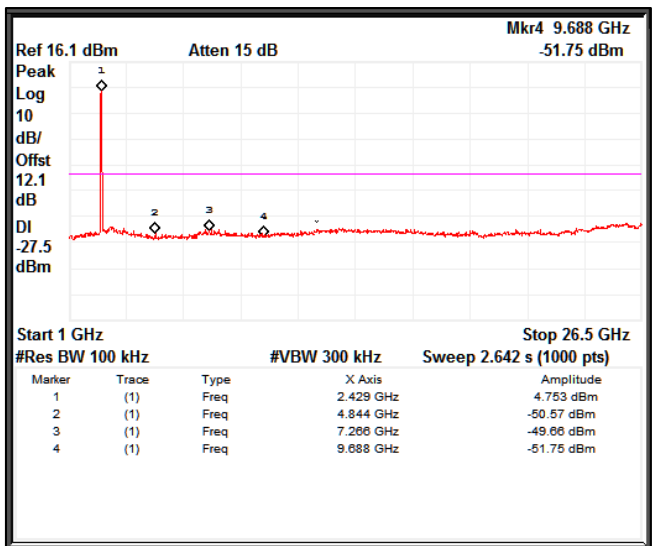
IN23WDIF 001

Seite 175 von 298
Page 175 of 298



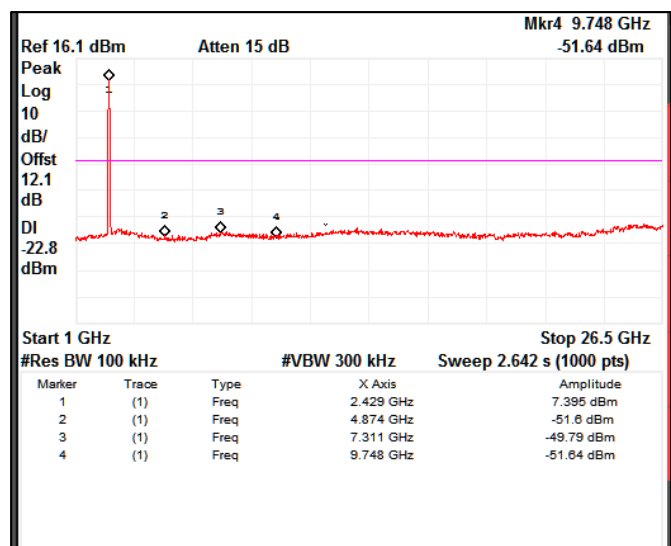
Channel frequency 2452MHz

Frequency Range 30MHz –1GHz



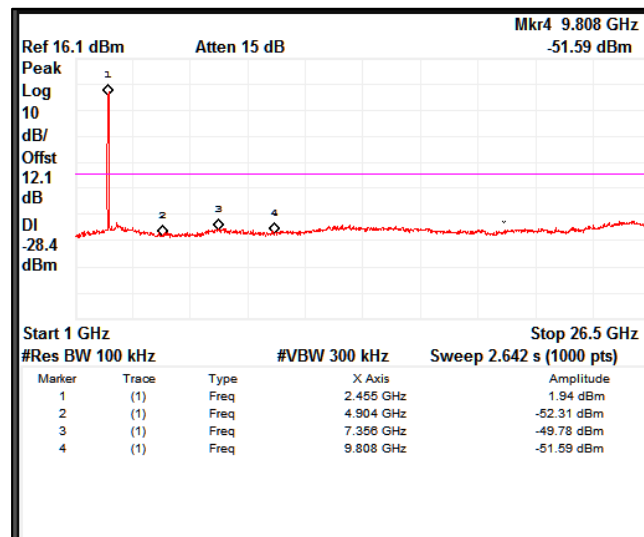
Channel frequency 2422MHz

Frequency Range 1GHz –26.5GHz



Channel frequency 2437MHz

Frequency Range 1GHz –26.5GHz



Channel frequency 2452MHz

Frequency Range 1GHz –26.5GHz

Prüfbericht - Nr.:

Test Report No.:

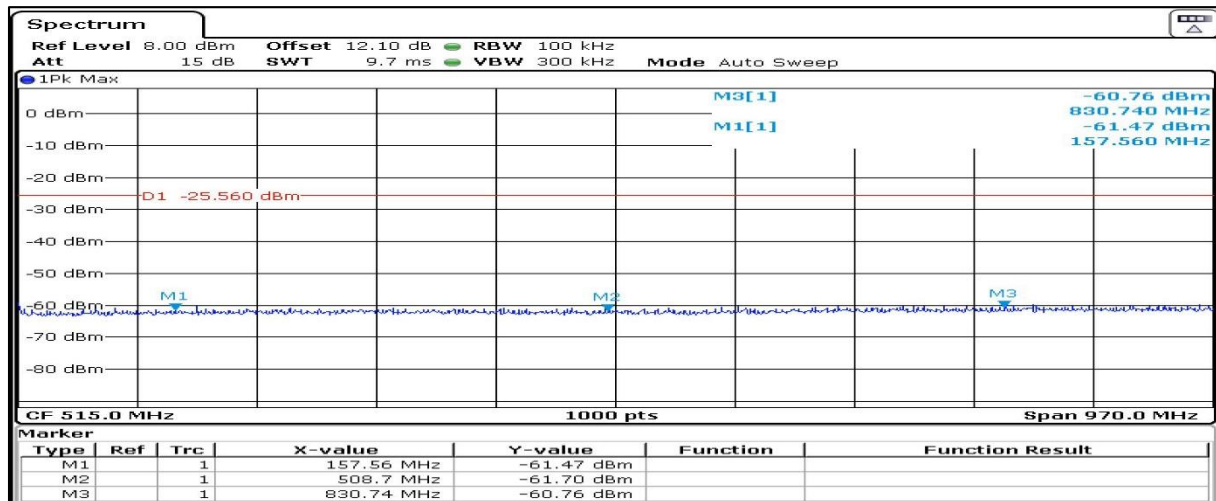
IN23WDIF 001

Seite 176 von 298

Page 176 of 298

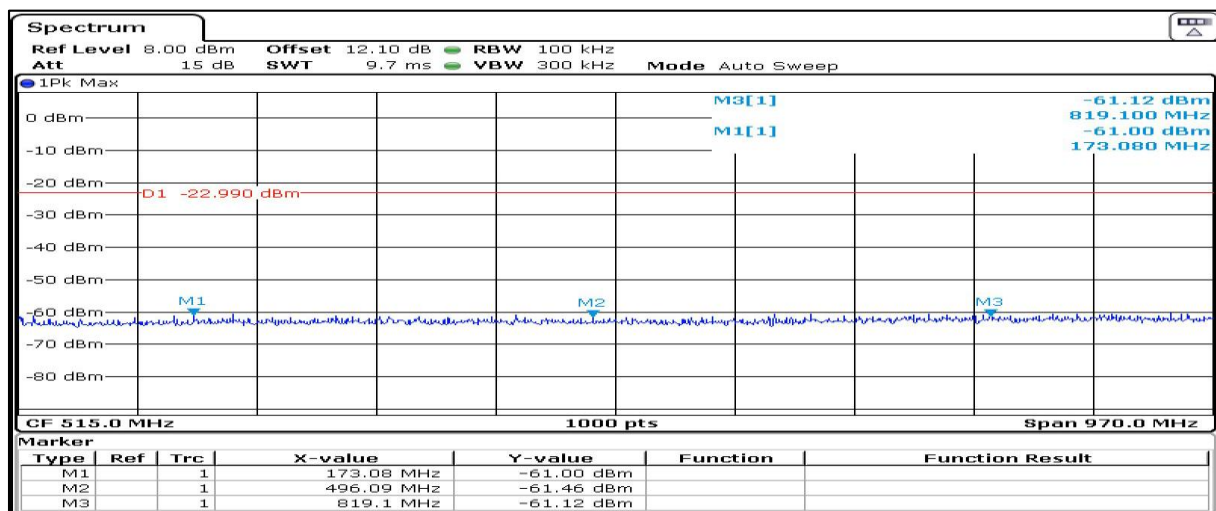
Modulation: 802.11ac-VHT_40

Data Rate : MCS0



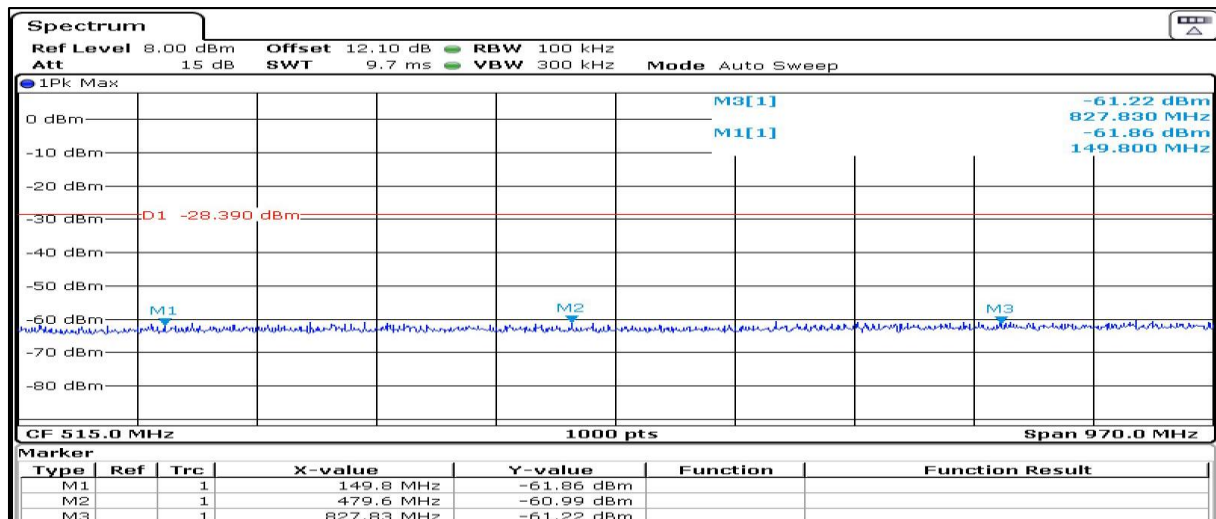
Channel frequency 2422MHz

Frequency Range 30MHz –1GHz



Channel frequency 2437MHz

Frequency Range 30MHz –1GHz



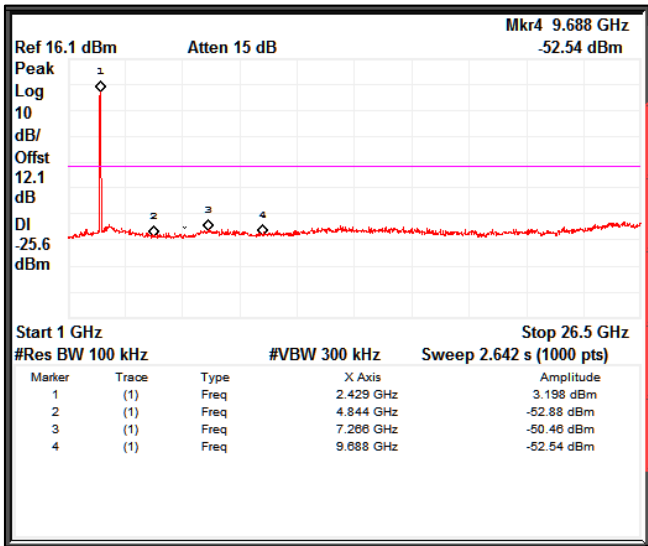
Channel frequency 2452MHz

Frequency Range 30MHz –1GHz

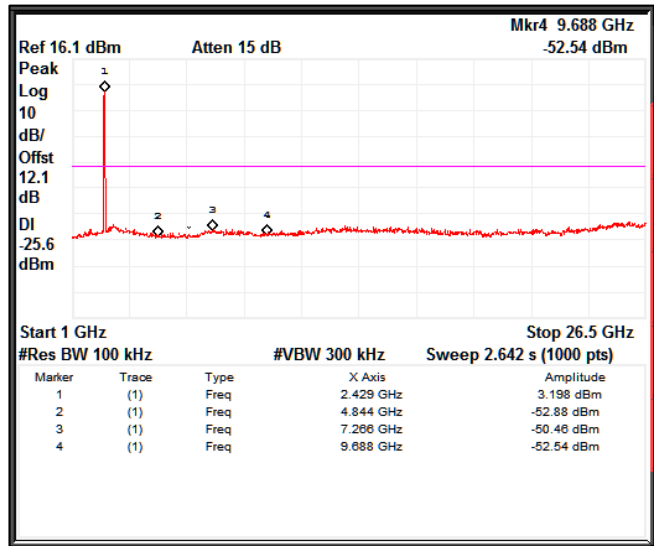
Prüfbericht - Nr.:
Test Report No.:

IN23WDIF 001

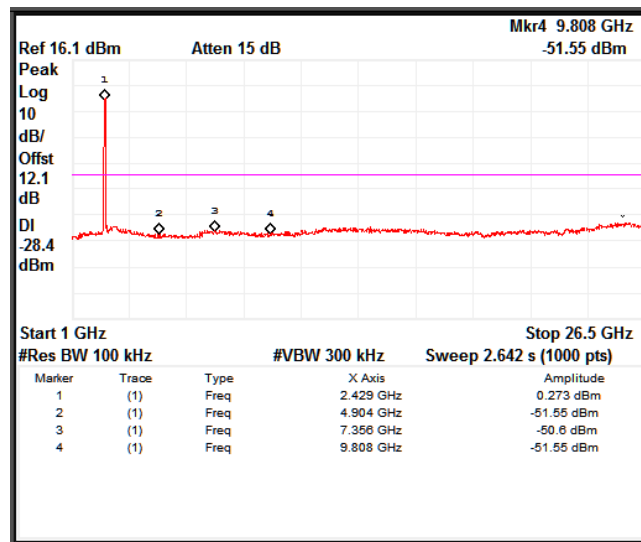
Seite 177 von 298
Page 177 of 298



Channel frequency 2422MHz Frequency Range 1GHz –26.5GHz



Channel frequency 2437MHz Frequency Range 1GHz –26.5GHz



Channel frequency 2452MHz Frequency Range 1GHz –26.5GHz

Prüfbericht - Nr.:

Test Report No.:

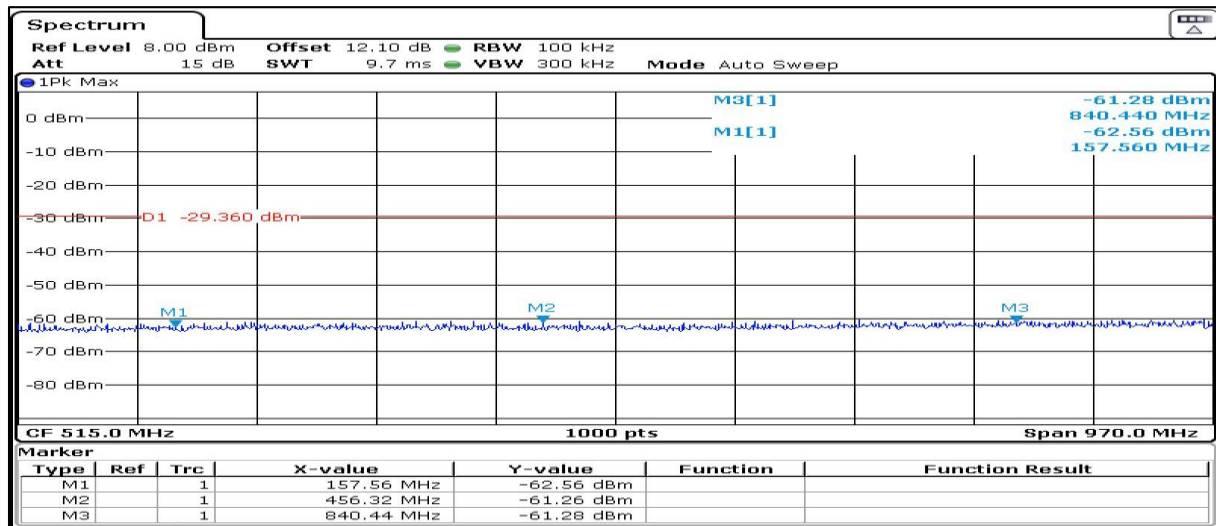
IN23WDIF 001

Seite 178 von 298

Page 178 of 298

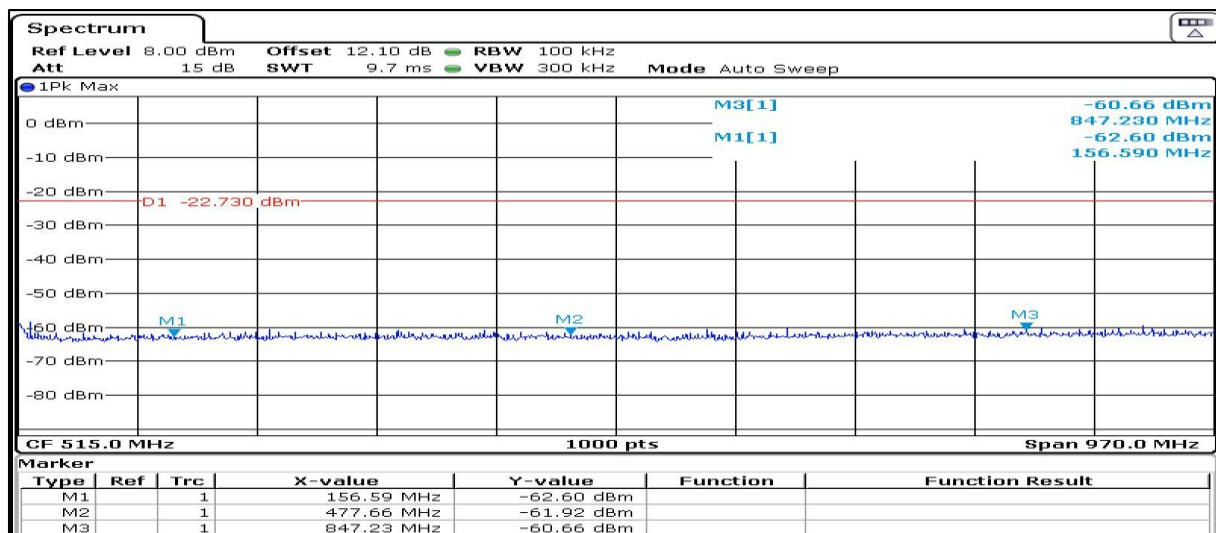
Modulation: 802.11ax-HE_40

Data Rate : MCS0



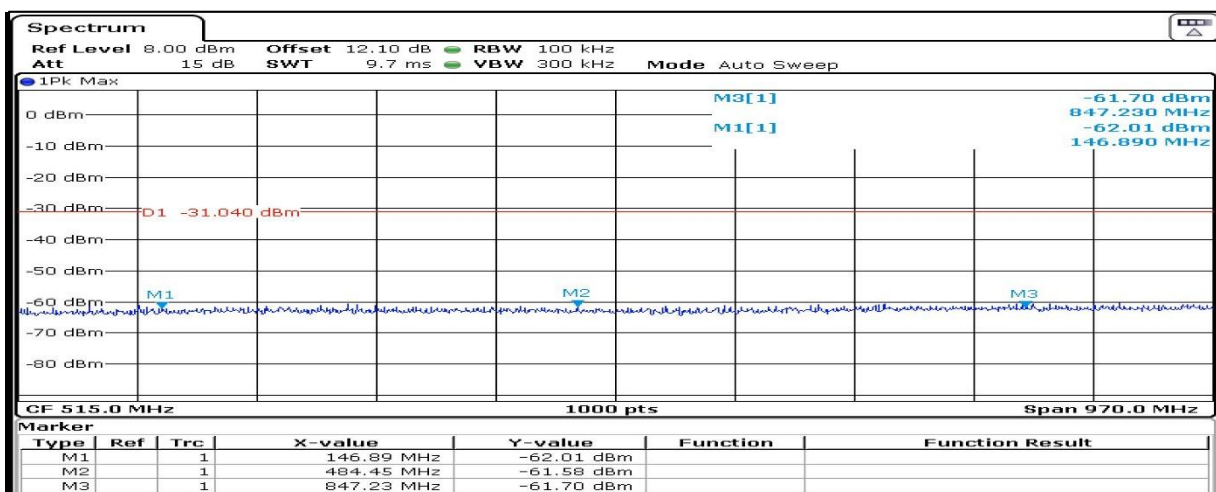
Channel frequency 2422MHz

Frequency Range 30MHz –1GHz



Channel frequency 2437MHz

Frequency Range 30MHz –1GHz



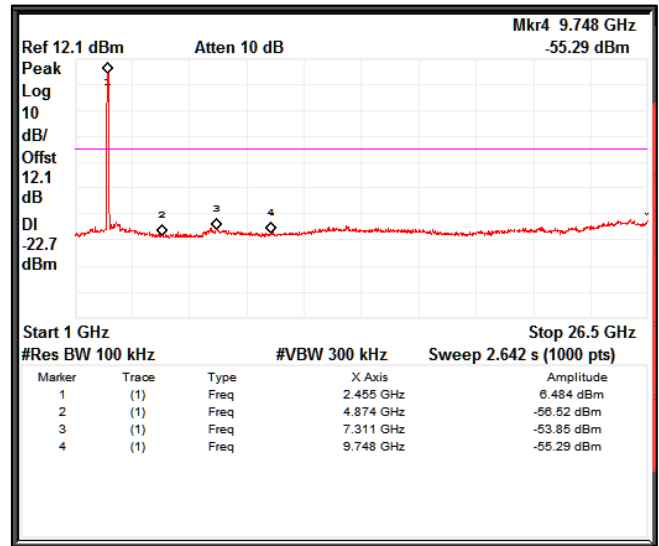
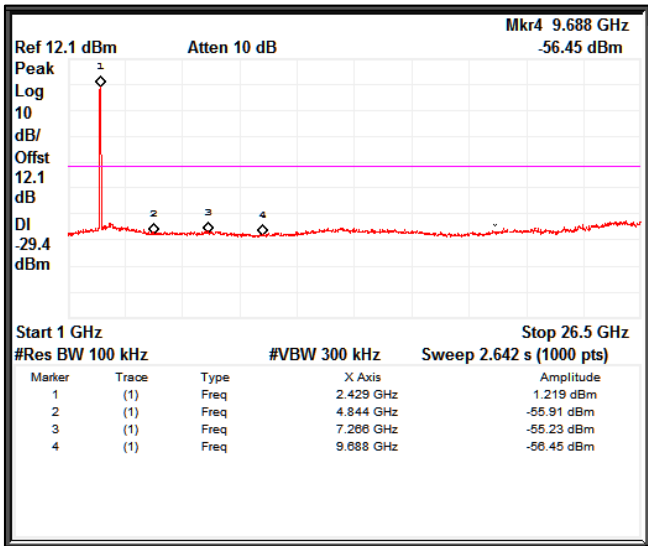
Channel frequency 2452MHz

Frequency Range 30MHz –1GHz

Prüfbericht - Nr.:
Test Report No.:

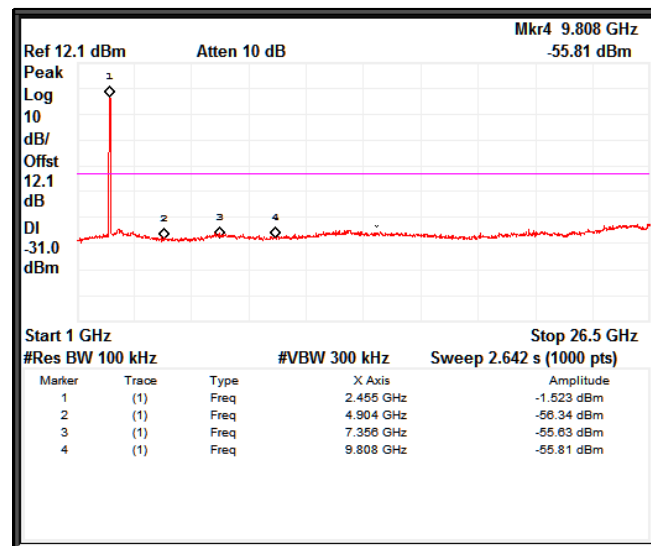
IN23WDIF 001

Seite 179 von 298
Page 179 of 298



Channel frequency 2422MHz Frequency Range 1GHz –26.5GHz

Channel frequency 2437MHz Frequency Range 1GHz –26.5GHz



Channel frequency 2452MHz Frequency Range 1GHz –26.5GHz

7.5 Spurious Radiated Emissions & Restricted Bands of Operation

Result

Pass

Test Specification	FCC part 15 Subpart C 15.247 (d) / (15.209 & 15.205) / IC RSS-GEN, Section 8.9 and 8.10
Test Method	ANSI C63.10
Measurement Location	Semi Anechoic Chamber 30MHz - 1 GHz Fully Anechoic Chamber 1 GHz - 40GHz
Measurement Bandwidth	100 kHz for frequency range < 1GHz 1 MHz for Frequency range >1GHz
Detector	Refer remarks below
Measuring Distance	3 m
Requirement	As per the limits mentioned in the below table
Test setup	Refer Clause 7 TEST METHODOLOGY

Table 7: Transmitter limits for Radiated emission

Frequency (MHz)	Field strength (μV/m)	Field strength (dBμV/m)	Distance of Measurement (m)
0.009 – 0.490	2400/F(kHz)	48.50 – 13.80	300*
0.490 – 1.705	24000/F(kHz)	33.80 – 23.00	30*
1.705 -30	30	29.54	30*
30-88	100	40.0	3
88-216	150	43.5	3
216-960	200	46.0	3
Above 960	500	54.0	3

Remark: * The limit shows in the table above of frequency range 0.009 – 0.490, 0.490 – 1.705 MHz and 1.705-30MHz is at 300 meter, 30 meter and 30 meter range respectively, which corresponds to 128.51 – 93.80, 73.80 – 62.96 and 69.54 dBμV/m at 3m range by extrapolation calculation and the measurement of loop antenna.

The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz Radiated emission limits in these three bands are based on measurements employing an average detector.

Test Conditions:

Temperature (Norm) = + 25 °C

Voltage = 5.0V AC to DC Adaptor

Relative humidity = 62 %

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 181 von 298

Page 181 of 298

Test results:

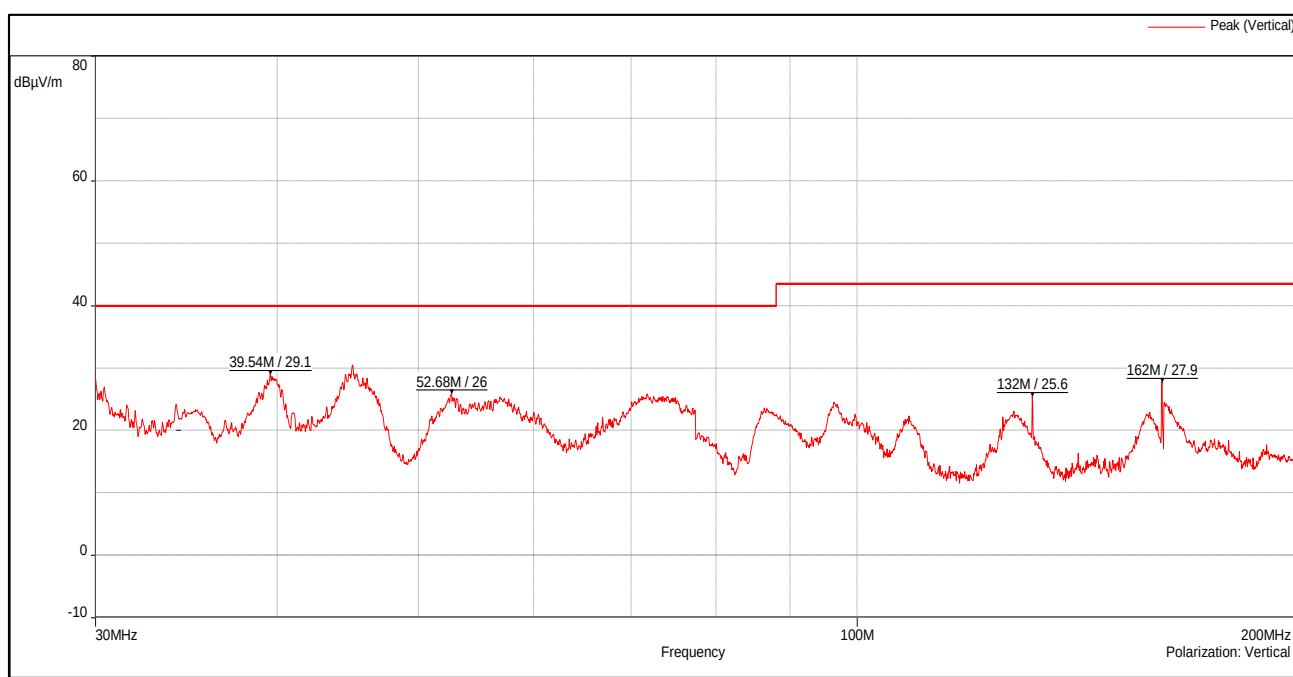
Note: All the losses are included during measurement and final values are mentioned in the test report. Refer Clause 7 TEST METHODOLOGY for more details

Test results for frequency range 9kHz – 30MHz

No emissions found in frequency range 9 kHz to 30 MHz, and measured levels are below 20dB from the limit line, hence not reported

Test results for frequency range 30MHz – 1GHz

Antenna Polarization	Measured Frequency (MHz)	Measured value (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Vertical	39.54	29.10	40.00	-10.90
	52.68	26.00	40.00	-14.00
	132.00	25.60	43.50	-17.90
	162.00	27.90	43.50	-15.60
	238.64	9.99	46.00	-36.01
	395.99	12.90	46.00	-33.10
	653.45	14.90	46.00	-31.10
Horizontal	39.63	16.20	40.00	-23.80
	57.06	16.60	43.50	-26.90
	127.95	27.00	43.50	-16.50
	157.98	33.93	43.50	-9.57
	263.99	3.93	46.00	-42.07
	395.99	18.70	46.00	-27.30
	659.84	14.20	46.00	-31.80



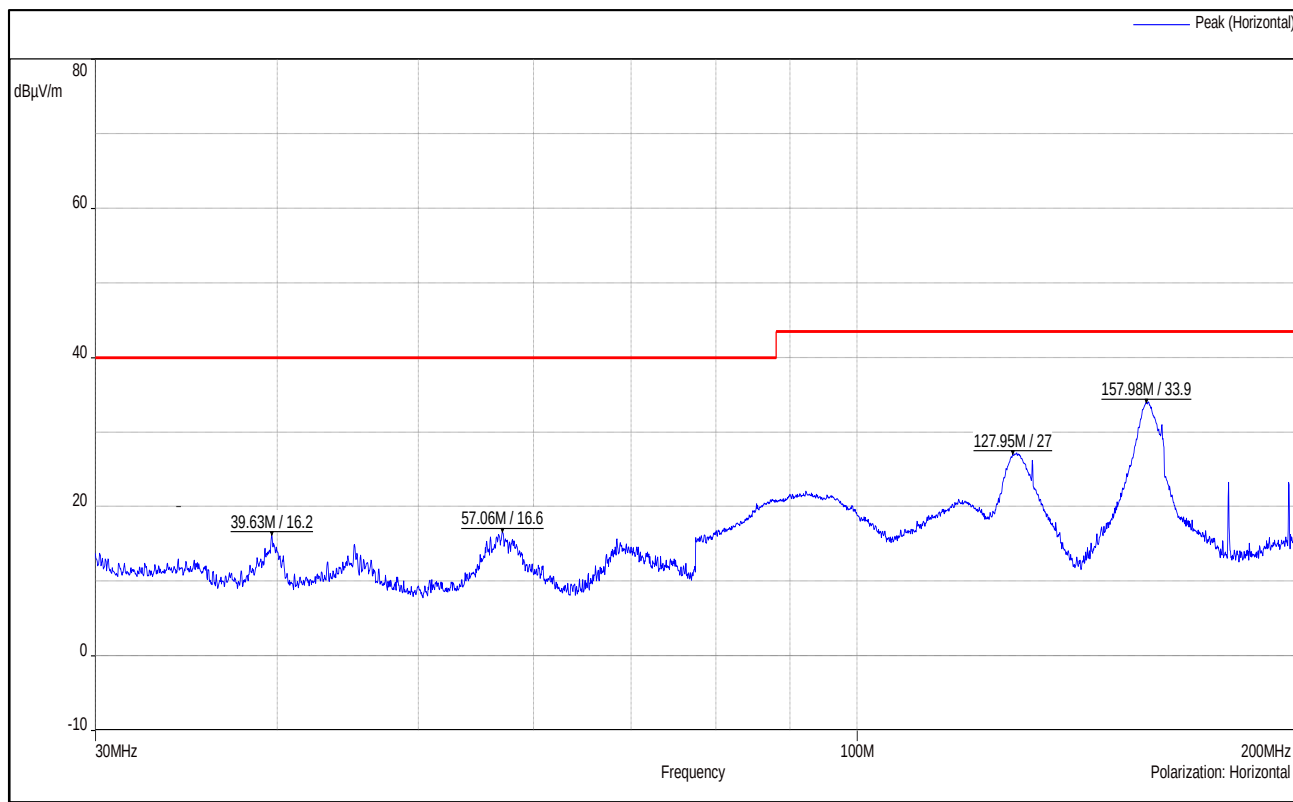
Channel Frequency 30MHz – 200MHz

Polarization Vertical

Prüfbericht - Nr.:
Test Report No.:

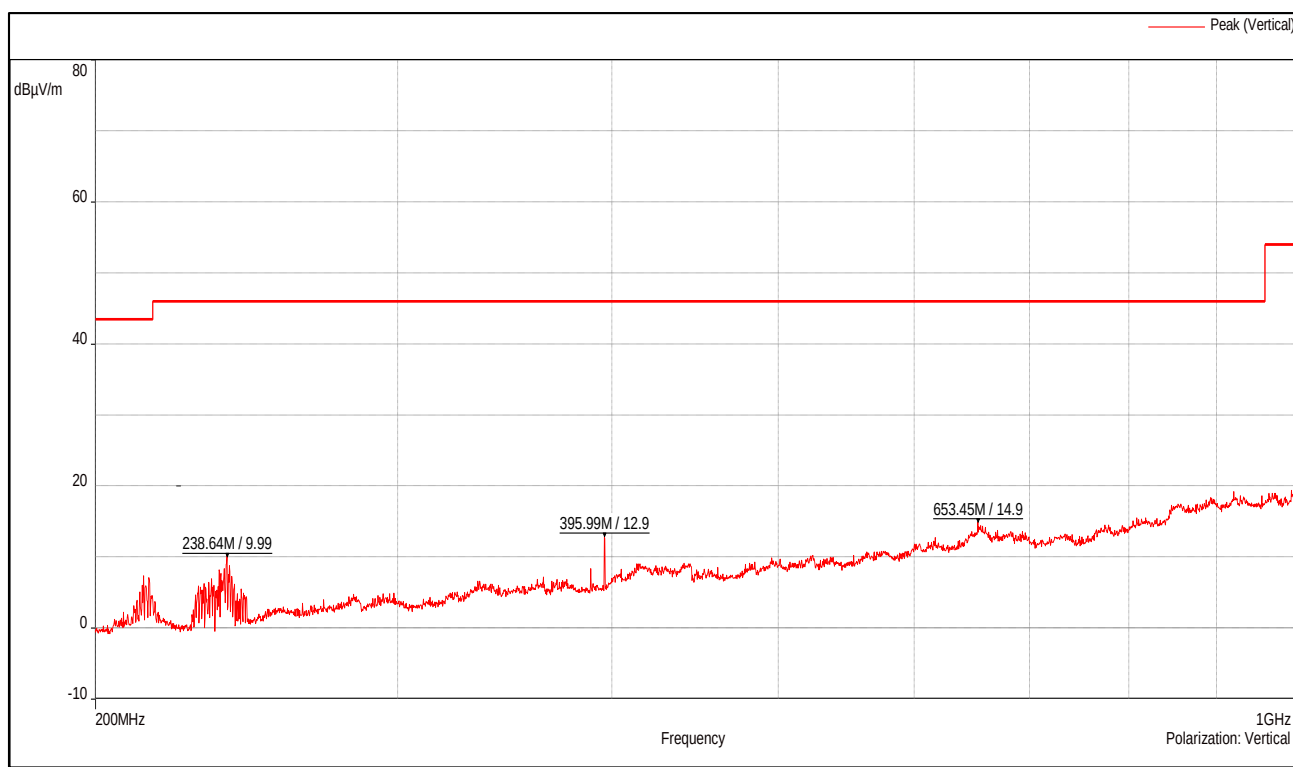
IN23WDIF 001

Seite 182 von 298
Page 182 of 298



Channel Frequency 30MHz – 200MHz

Polarization Horizontal



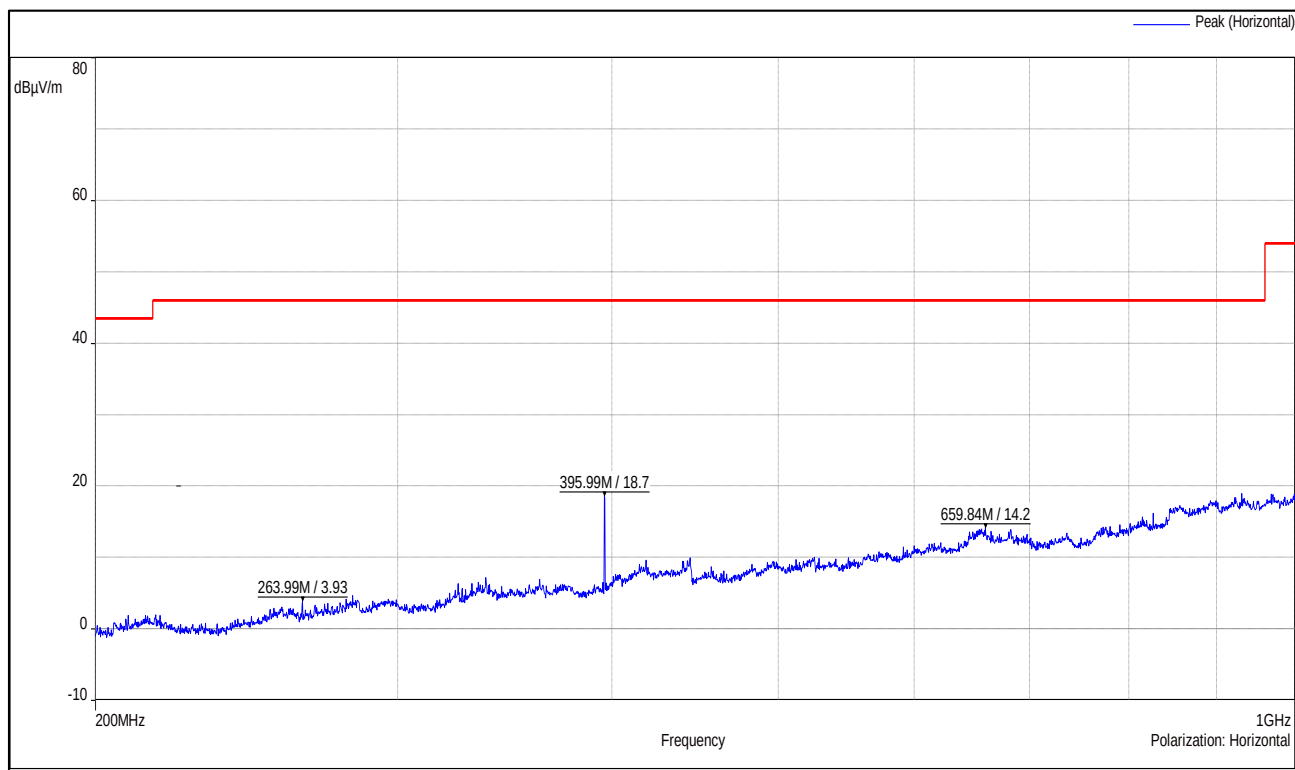
Channel Frequency 200MHz – 1GHz

Polarization Vertical

Prüfbericht - Nr.:
Test Report No.:

IN23WDIF 001

Seite 183 von 298
Page 183 of 298



Channel Frequency 200MHz – 1GHz

Polarization Horizontal

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 184 von 298

Page 184 of 298

Test results for the frequencies in the range 1 GHz to 26.5 GHz

Antenna Type: MAF94367(Omni Directional Antenna) RPSMA Antenna Results

Modulation: 802.11b

Data Rate: 1Mbps

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2412	Vertical	2412(Pk)	104.44	-	-
		2412(Av)	101.82	-	-
		2390(Pk)	49.54	74*	-24.46
		2390(Av)	38.11	54*	-15.89
		4824(Pk)	42.86	74	-31.14
		4824(Av)	30.98	54	-23.02
		7236(Pk)	48.64	74	-25.36
		7236(Av)	39.21	54	-14.79
	Horizontal	2412(Pk)	103.25	-	-
		2412(Av)	100.74	-	-
		2390(Pk)	47.05	74*	-26.95
		2390(Av)	35.84	54*	-18.16
		4824(Pk)	41.97	74	-32.03
		4824(Av)	30.04	54	-23.96
		7236(Pk)	47.57	74	-26.43
		7236(Av)	35.71	54	-18.29
2437	Vertical	2437(Pk)	109.24	-	-
		2437(Av)	106.64	-	-
		4874(Pk)	42.90	74	-31.10
		4874(Av)	30.29	54	-23.71
		7311(Pk)	51.15	74	-22.85
		7311(Av)	42.74	54	-11.26
	Horizontal	2437(Pk)	106.89	-	-
		2437(Av)	104.41	-	-
		4874(Pk)	41.97	74	-32.03
		4874(Av)	29.93	54	-24.07
		7311(Pk)	48.06	74	-25.94
		7311(Av)	36.63	54	-17.37
2462	Vertical	2462(Pk)	106.64	-	-
		2462(Av)	104.17	-	-
		2483.5(Pk)	53.59	74*	-20.41
		2483.5(Av)	42.73	54*	-11.27
		4924(Pk)	43.11	74	-30.89
		4924(Av)	32.07	54	-21.93
		7386(Pk)	48.67	74	-25.33
		7386(Av)	38.51	54	-15.49
	Horizontal	2462(Pk)	103.32	-	-
		2462(Av)	100.83	-	-
		2483.5(Pk)	47.60	74*	-26.40
		2483.5(Av)	36.50	54*	-17.50
		4924(Pk)	42.38	74	-31.62
		4924(Av)	30.05	54	-23.95
		7386(Pk)	47.63	74	-26.37
		7386(Av)	35.50	54	-18.50

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 185 von 298

Page 185 of 298

Modulation: 802.11b

Data Rate: 11Mbps

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2412	Vertical	2412(Pk)	112.37	-	-
		2412(Av)	102.99	-	-
		2390(Pk)	53.23	74*	-20.77
		2390(Av)	38.14	54*	-15.86
		4824(Pk)	41.81	74	-32.19
		4824(Av)	30.08	54	-23.92
		7236(Pk)	51.03	74	-22.97
		7236(Av)	37.98	54	-16.02
	Horizontal	2412(Pk)	108.31	-	-
		2412(Av)	99.06	-	-
		2390(Pk)	48.56	74*	-25.44
		2390(Av)	34.07	54*	-19.93
		4824(Pk)	42.18	74	-31.82
		4824(Av)	29.93	54	-24.07
		7236(Pk)	48.63	74	-25.37
		7236(Av)	35.62	54	-18.38
2437	Vertical	2437(Pk)	114.43	-	-
		2437(Av)	105.28	-	-
		4874(Pk)	42.47	74	-31.53
		4874(Av)	30.02	54	-23.98
		7311(Pk)	52.99	74	-21.01
		7311(Av)	39.58	54	-14.42
	Horizontal	2437(Pk)	111.96	-	-
		2437(Av)	102.76	-	-
		4874(Pk)	42.30	74	-31.70
		4874(Av)	29.95	54	-24.05
		7311(Pk)	48.15	74	-25.85
		7311(Av)	36.17	54	-17.83
2462	Vertical	2462(Pk)	111.62	-	-
		2462(Av)	102.55	-	-
		2483.5(Pk)	53.56	74*	-20.44
		2483.5(Av)	39.68	54*	-14.32
		4924(Pk)	41.88	74	-32.12
		4924(Av)	29.88	54	-24.12
		7386(Pk)	49.22	74	-24.78
		7386(Av)	36.96	54	-17.04
	Horizontal	2462(Pk)	108.24	-	-
		2462(Av)	99.13	-	-
		2483.5(Pk)	50.39	74*	-23.61
		2483.5(Av)	37.21	54*	-16.79
		4924(Pk)	41.22	74	-32.78
		4924(Av)	29.57	54	-24.43
		7386(Pk)	48.02	74	-25.98
		7386(Av)	35.44	54	-18.56

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 186 von 298

Page 186 of 298

Modulation: 802.11g

Data Rate: 6Mbps

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2412	Vertical	2412(Pk)	108.70	-	-
		2412(Av)	98.42	-	-
		2390(Pk)	71.40	74*	-2.60
		2390(Av)	50.51	54*	-3.49
		4824(Pk)	42.28	74	-31.72
		4824(Av)	29.95	54	-24.05
		7236(Pk)	48.31	74	-25.69
		7236(Av)	36.00	54	-18.00
	Horizontal	2412(Pk)	105.30	-	-
		2412(Av)	94.97	-	-
		2390(Pk)	63.48	74*	-10.52
		2390(Av)	43.40	54*	-10.60
		4824(Pk)	41.91	74	-32.09
		4824(Av)	29.88	54	-24.12
		7236(Pk)	48.41	74	-25.59
		7236(Av)	35.50	54	-18.50
2437	Vertical	2437(Pk)	112.32	-	-
		2437(Av)	101.75	-	-
		4874(Pk)	43.02	74	-30.98
		4874(Av)	29.98	54	-24.02
		7311(Pk)	50.67	74	-23.33
		7311(Av)	37.12	54	-16.88
	Horizontal	2437(Pk)	110.03	-	-
		2437(Av)	99.38	-	-
		4874(Pk)	42.58	74	-31.42
		4874(Av)	29.95	54	-24.05
		7311(Pk)	48.14	74	-25.86
		7311(Av)	35.71	54	-18.29
2462	Vertical	2462(Pk)	109.10	-	-
		2462(Av)	98.56	-	-
		2483.5(Pk)	69.93	74*	-4.07
		2483.5(Av)	51.44	54*	-2.56
		4924(Pk)	41.35	74	-32.65
		4924(Av)	29.67	54	-24.33
		7386(Pk)	47.93	74	-26.07
		7386(Av)	36.42	54	-17.58
	Horizontal	2462(Pk)	105.92	-	-
		2462(Av)	95.44	-	-
		2483.5(Pk)	67.25	74*	-6.75
		2483.5(Av)	46.65	54*	-7.35
		4924(Pk)	41.12	74	-32.88
		4924(Av)	29.57	54	-24.43
		7386(Pk)	47.54	74	-26.46
		7386(Av)	35.40	54	-18.60

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 187 von 298

Page 187 of 298

Modulation: 802.11g

Data Rate: 54Mbps

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2412	Vertical	2412(Pk)	108.52	-	-
		2412(Av)	93.48	-	-
		2390(Pk)	65.98	74*	-8.02
		2390(Av)	46.91	54*	-7.09
		4824(Pk)	42.16	74	-31.84
		4824(Av)	29.93	54	-24.07
		7236(Pk)	47.38	74	-26.62
		7236(Av)	35.60	54	-18.4
	Horizontal	2412(Pk)	104.47	-	-
		2412(Av)	89.57	-	-
		2390(Pk)	56.86	74*	-17.14
		2390(Av)	38.84	54*	-15.16
		4824(Pk)	42.08	74	-31.92
		4824(Av)	29.88	54	-24.12
		7236(Pk)	47.10	74	-26.9
		7236(Av)	35.45	54	-18.55
2437	Vertical	2437(Pk)	109.53	-	-
		2437(Av)	94.44	-	-
		4874(Pk)	42.53	74	-31.47
		4874(Av)	29.96	54	-24.04
		7311(Pk)	47.71	74	-26.29
		7311(Av)	35.82	54	-18.18
	Horizontal	2437(Pk)	106.98	-	-
		2437(Av)	91.87	-	-
		4874(Pk)	42.23	74	-31.77
		4874(Av)	29.93	54	-24.07
		7311(Pk)	47.63	74	-26.37
		7311(Av)	35.47	54	-18.53
2462	Vertical	2462(Pk)	108.54	-	-
		2462(Av)	94.12	-	-
		2483.5(Pk)	66.97	74*	-7.03
		2483.5(Av)	45.37	54*	-8.63
		4924(Pk)	41.75	74	-32.25
		4924(Av)	29.64	54	-24.36
		7386(Pk)	47.63	74	-26.37
		7386(Av)	35.69	54	-18.31
	Horizontal	2462(Pk)	105.45	-	-
		2462(Av)	91.24	-	-
		2483.5(Pk)	61.52	74*	-12.48
		2483.5(Av)	41.12	54*	-12.88
		4924(Pk)	41.66	74	-32.34
		4924(Av)	29.61	54	-24.39
		7386(Pk)	47.11	74	-26.89
		7386(Av)	35.33	54	-18.67

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 188 von 298

Page 188 of 298

Modulation: 802.11n_HT20

Data Rate: MCS0

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2412	Vertical	2412(Pk)	107.75	-	-
		2412(Av)	96.67	-	-
		2390(Pk)	70.93	74*	-3.07
		2390(Av)	48.33	54*	-5.67
		4824(Pk)	42.09	74	-31.91
		4824(Av)	29.96	54	-24.04
		7236(Pk)	48.05	74	-25.95
		7236(Av)	35.89	54	-18.11
	Horizontal	2412(Pk)	10.3.54	-	-
		2412(Av)	92.40	-	-
		2390(Pk)	60.96	74*	-13.04
		2390(Av)	40.39	54*	-13.61
		4824(Pk)	41.62	74	-32.38
		4824(Av)	29.87	54	-24.13
		7236(Pk)	47.57	74	-26.43
		7236(Av)	35.43	54	-18.57
2437	Vertical	2437(Pk)	112.71	-	-
		2437(Av)	101.84	-	-
		4874(Pk)	42.22	74	-31.78
		4874(Av)	30.03	54	-23.97
		7311(Pk)	51.01	74	-22.99
		7311(Av)	37.64	54	-16.36
	Horizontal	2437(Pk)	109.58	*	-
		2437(Av)	98.92	*	-
		4874(Pk)	42.77	74	-31.23
		4874(Av)	29.95	54	-24.05
		7311(Pk)	47.83	74	-26.17
		7311(Av)	35.74	54	-18.26
2462	Vertical	2462(Pk)	107.48	-	-
		2462(Av)	96.99	-	-
		2483.5(Pk)	72.20	74*	-1.80
		2483.5(Av)	49.17	54*	-4.83
		4924(Pk)	42.16	74	-31.84
		4924(Av)	29.68	54	-24.32
		7386(Pk)	47.66	74	-26.34
		7386(Av)	35.74	54	-18.26
	Horizontal	2462(Pk)	104.24	-	-
		2462(Av)	93.40	-	-
		2483.5(Pk)	68.11	74*	-5.89
		2483.5(Av)	43.81	54*	-10.19
		4924(Pk)	41.18	74	-32.82
		4924(Av)	29.59	54	-24.41
		7386(Pk)	47.85	74	-26.15
		7386(Av)	35.34	54	-18.66

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 189 von 298

Page 189 of 298

Modulation: 802.11n_HT20

Data Rate: MCS7

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2412	Vertical	2412(Pk)	107.29	-	-
		2412(Av)	91.23	-	-
		2390(Pk)	68.33	74*	-5.67
		2390(Av)	43.21	54*	-10.79
		4824(Pk)	43.02	74	-30.98
		4824(Av)	29.90	54	-24.10
		7236(Pk)	48.00	74	-26.00
		7236(Av)	35.61	54	-18.39
	Horizontal	2412(Pk)	102.98	-	-
		2412(Av)	87.03	-	-
		2390(Pk)	58.36	74*	-15.64
		2390(Av)	35.48	54*	-18.52
		4824(Pk)	41.78	74	-32.22
		4824(Av)	29.92	54	-24.08
		7236(Pk)	48.03	74	-25.97
		7236(Av)	35.39	54	-18.61
2437	Vertical	2437(Pk)	109.60	-	-
		2437(Av)	93.19	-	-
		4874(Pk)	42.29	74	-31.71
		4874(Av)	29.99	54	-24.01
		7311(Pk)	47.83	74	-26.17
		7311(Av)	35.65	54	-18.35
	Horizontal	2437(Pk)	106.18	-	-
		2437(Av)	89.72	-	-
		4874(Pk)	42.43	74	-31.57
		4874(Av)	29.95	54	-24.05
		7311(Pk)	47.36	74	-26.64
		7311(Av)	35.50	54	-18.50
2462	Vertical	2462(Pk)	107.94	-	-
		2462(Av)	92.29	-	-
		2483.5(Pk)	65.98	74*	-8.02
		2483.5(Av)	43.01	54*	-10.99
		4924(Pk)	41.39	74	-32.61
		4924(Av)	29.69	54	-24.31
		7386(Pk)	47.95	74	-26.05
		7386(Av)	35.49	54	-18.51
	Horizontal	2462(Pk)	104.22	-	-
		2462(Av)	88.59	-	-
		2483.5(Pk)	60.35	74*	-13.65
		2483.5(Av)	39.02	54*	-14.98
		4924(Pk)	42.20	74	-31.80
		4924(Av)	29.69	54	-24.31
		7386(Pk)	47.47	74	-26.53
		7386(Av)	35.41	54	-18.59

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 190 von 298

Page 190 of 298

Modulation: 802.11ac_VHT20

Data Rate: MCS0

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2412	Vertical	2412(Pk)	107.75	-	-
		2412(Av)	96.72	-	-
		2390(Pk)	70.74	74*	-3.26
		2390(Av)	48.58	54*	-5.42
		4824(Pk)	42.47	74	-31.53
		4824(Av)	30.03	54	-23.97
		7236(Pk)	48.64	74	-25.36
		7236(Av)	35.99	54	-18.01
	Horizontal	2412(Pk)	102.96	-	-
		2412(Av)	92.11	-	-
		2390(Pk)	60.36	74*	-13.64
		2390(Av)	40.55	54*	-13.45
		4824(Pk)	41.52	74	-32.48
		4824(Av)	29.94	54	-24.06
		7236(Pk)	48.00	74	-26.00
		7236(Av)	35.50	54	-18.50
2437	Vertical	2437(Pk)	112.13	-	-
		2437(Av)	101.71	-	-
		4874(Pk)	42.44	74	-31.56
		4874(Av)	30.06	54	-23.94
		7311(Pk)	49.62	74	-24.38
		7311(Av)	37.13	54	-16.87
	Horizontal	2437(Pk)	109.36	-	-
		2437(Av)	98.83	-	-
		4874(Pk)	42.46	74	-31.54
		4874(Av)	30.00	54	-24.00
2462	Vertical	2462(Pk)	107.79	-	-
		2462(Av)	96.90	-	-
		2483.5(Pk)	70.73	74*	-3.27
		2483.5(Av)	49.15	54*	-4.85
		4924(Pk)	41.98	74	-32.02
		4924(Av)	29.73	54	-24.27
		7386(Pk)	47.43	74	-26.57
		7386(Av)	35.95	54	-18.05
	Horizontal	2462(Pk)	104.38	-	-
		2462(Av)	93.23	-	-
		2483.5(Pk)	65.35	74*	-8.65
		2483.5(Av)	43.94	54*	-10.06
		4924(Pk)	41.44	74	-32.56
		4924(Av)	29.67	54	-24.33
		7386(Pk)	48.22	74	-25.78
		7386(Av)	35.42	54	-18.58

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 191 von 298

Page 191 of 298

Modulation: 802.11ac_VHT20

Data Rate: MCS8

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2412	Vertical	2412(Pk)	106.61	-	-
		2412(Av)	89.76	-	-
		2390(Pk)	66.17	74*	-7.83
		2390(Av)	40.21	54*	-13.79
		4824(Pk)	42.56	74	-31.44
		4824(Av)	30.01	54	-23.99
		7236(Pk)	47.63	74	-26.37
		7236(Av)	35.51	54	-18.49
	Horizontal	2412(Pk)	101.95	-	-
		2412(Av)	85.35	-	-
		2390(Pk)	57.17	74*	-16.83
		2390(Av)	33.64	54*	-20.36
		4824(Pk)	42.26	74	-31.74
		4824(Av)	29.97	54	-24.03
		7236(Pk)	48.09	74	-25.91
		7236(Av)	35.51	54	-18.49
2437	Vertical	2437(Pk)	108.12	-	-
		2437(Av)	91.64	-	-
		4874(Pk)	42.73	74	-31.27
		4874(Av)	29.99	54	-24.01
		7311(Pk)	47.39	74	-26.61
		7311(Av)	35.79	54	-18.21
	Horizontal	2437(Pk)	105.02	*	-
		2437(Av)	88.35	*	-
		4874(Pk)	42.34	74	-31.66
		4874(Av)	30.00	54	-24.00
		7311(Pk)	47.90	74	-26.10
		7311(Av)	35.52	54	-18.48
2462	Vertical	2462(Pk)	107.68	-	-
		2462(Av)	90.95	-	-
		2483.5(Pk)	63.44	74*	-10.56
		2483.5(Av)	40.27	54*	-13.73
		4924(Pk)	41.67	74	-32.33
		4924(Av)	29.73	54	-24.27
		7386(Pk)	47.72	74	-26.28
		7386(Av)	35.49	54	-18.51
	Horizontal	2462(Pk)	103.60	-	-
		2462(Av)	86.86	-	-
		2483.5(Pk)	56.65	74*	-17.35
		2483.5(Av)	35.82	54*	-18.18
		4924(Pk)	42.10	74	-31.90
		4924(Av)	29.70	54	-24.30
		7386(Pk)	47.36	74	-26.64
		7386(Av)	35.40	54	-18.60

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 192 von 298

Page 192 of 298

Modulation: 802.11ax_HE20

Data Rate: MCS0

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2412	Vertical	2412(Pk)	110.07	-	-
		2412(Av)	96.51	-	-
		2390(Pk)	71.96	74*	-2.04
		2390(Av)	49.22	54*	-4.78
		4824(Pk)	41.66	74	-32.34
		4824(Av)	29.99	54	-24.01
		7236(Pk)	50.63	74	-23.37
		7236(Av)	36.32	54	-17.68
	Horizontal	2412(Pk)	105.68	-	-
		2412(Av)	92.15	-	-
		2390(Pk)	61.86	74*	-12.14
		2390(Av)	41.82	54*	-12.18
		4824(Pk)	41.77	74	-32.23
		4824(Av)	29.93	54	-24.07
		7236(Pk)	49.27	74	-24.73
		7236(Av)	35.45	54	-18.55
2437	Vertical	2437(Pk)	114.57	-	-
		2437(Av)	101.46	-	-
		4874(Pk)	42.30	74	-31.70
		4874(Av)	30.05	54	-23.95
		7311(Pk)	51.53	74	-22.47
		7311(Av)	38.51	54	-15.49
	Horizontal	2437(Pk)	111.74	*	-
		2437(Av)	98.72	*	-
		4874(Pk)	43.69	74	-30.31
		4874(Av)	30.02	54	-23.98
2462	Vertical	2462(Pk)	110.14	-	-
		2462(Av)	96.59	-	-
		2483.5(Pk)	69.66	74*	-4.34
		2483.5(Av)	49.82	54*	-4.18
		4924(Pk)	41.75	74	-32.25
		4924(Av)	29.76	54	-24.24
		7386(Pk)	48.65	74	-25.35
		7386(Av)	36.06	54	-17.94
	Horizontal	2462(Pk)	107.34	-	-
		2462(Av)	93.28	-	-
		2483.5(Pk)	67.35	74*	-6.65
		2483.5(Av)	44.98	54*	-9.02
		4924(Pk)	41.84	74	-32.16
		4924(Av)	29.71	54	-24.29
		7386(Pk)	48.95	74	-25.05
		7386(Av)	35.42	54	-18.58

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 193 von 298

Page 193 of 298

Modulation: 802.11ax_HE20

Data Rate: MCS11

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2412	Vertical	2412(Pk)	106.05	-	-
		2412(Av)	87.75	-	-
		2390(Pk)	68.24	74*	-5.76
		2390(Av)	39.45	54*	-14.55
		4824(Pk)	43.05	74	-30.95
		4824(Av)	29.99	54	-24.01
		7236(Pk)	47.18	74	-26.82
		7236(Av)	35.52	54	-18.48
	Horizontal	2412(Pk)	102.05	-	-
		2412(Av)	83.76	-	-
		2390(Pk)	57.85	74*	-16.15
		2390(Av)	33.38	54*	-20.62
		4824(Pk)	41.85	74	-32.15
		4824(Av)	29.93	54	-24.07
		7236(Pk)	47.72	74	-26.28
		7236(Av)	35.44	54	-18.56
2437	Vertical	2437(Pk)	108.40	-	-
		2437(Av)	89.69	-	-
		4874(Pk)	42.28	74	-31.72
		4874(Av)	30.05	54	-23.95
		7311(Pk)	47.62	74	-26.38
		7311(Av)	35.69	54	-18.31
	Horizontal	2437(Pk)	105.54	*	-
		2437(Av)	86.48	*	-
		4874(Pk)	42.10	74	-31.90
		4874(Av)	30.04	54	-23.96
		7311(Pk)	47.43	74	-26.57
		7311(Av)	35.54	54	-18.46
2462	Vertical	2462(Pk)	106.82	-	-
		2462(Av)	88.75	-	-
		2483.5(Pk)	63.13	74*	-10.87
		2483.5(Av)	39.77	54*	-14.23
		4924(Pk)	41.43	74	-32.57
		4924(Av)	29.67	54	-24.33
		7386(Pk)	48.16	74	-25.84
		7386(Av)	35.43	54	-18.57
	Horizontal	2462(Pk)	102.94	-	-
		2462(Av)	85.10	-	-
		2483.5(Pk)	57.39	74*	-16.61
		2483.5(Av)	35.71	54*	-18.29
		4924(Pk)	41.94	74	-32.06
		4924(Av)	29.66	54	-24.34
		7386(Pk)	47.68	74	-26.32
		7386(Av)	35.38	54	-18.62

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 194 von 298

Page 194 of 298

Modulation: 802.11n_HT40

Data Rate: MCS0

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2422	Vertical	2422(Pk)	101.74	-	-
		2422(Av)	90.25	-	-
		2390(Pk)	70.11	74*	-3.89
		2390(Av)	52.28	54*	-1.72
		4844(Pk)	43.78	74	-30.22
		4844(Av)	30.70	54	-23.30
		7266(Pk)	46.89	74	-27.11
		7266(Av)	35.42	54	-18.58
	Horizontal	2422(Pk)	96.02	-	-
		2422(Av)	84.76	-	-
		2390(Pk)	61.66	74*	-12.34
		2390(Av)	45.57	54*	-8.43
		4844(Pk)	40.62	74	-33.38
		4844(Av)	29.25	54	-24.75
		7266(Pk)	46.83	74	-27.17
		7266(Av)	35.03	54	-18.97
2437	Vertical	2437(Pk)	106.47	-	-
		2437(Av)	95.22	-	-
		4874(Pk)	46.87	74	-27.13
		4874(Av)	33.00	54	-21.00
		7311(Pk)	47.55	74	-26.45
		7311(Av)	35.95	54	-18.05
	Horizontal	2437(Pk)	98.39	-	-
		2437(Av)	87.32	-	-
		4874(Pk)	41.04	74	-32.96
		4874(Av)	29.16	54	-24.84
		7311(Pk)	47.29	74	-26.71
		7311(Av)	34.92	54	-19.08
2452	Vertical	2452(Pk)	100.44	-	-
		2452(Av)	89.30	-	-
		2483.5(Pk)	66.94	74*	-7.06
		2483.5(Av)	45.00	54*	-9.00
		4904(Pk)	41.85	74	-32.15
		4904(Av)	29.51	54	-24.49
		7356(Pk)	46.75	74	-27.25
		7356(Av)	34.90	54	-19.10
	Horizontal	2452(Pk)	94.53	-	-
		2452(Av)	84.02	-	-
		2483.5(Pk)	60.42	74*	-13.58
		2483.5(Av)	38.95	54*	-15.05
		4904(Pk)	40.95	74	-33.05
		4904(Av)	29.13	54	-24.87
		7356(Pk)	47.20	74	-26.8
		7356(Av)	34.78	54	-19.22

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 195 von 298

Page 195 of 298

Modulation: 802.11n_HT40

Data Rate: MCS7

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2422	Vertical	2422(Pk)	105.6	-	-
		2422(Av)	88.18	-	-
		2390(Pk)	66.58	74*	-7.42
		2390(Av)	49.16	54*	-4.84
		4844(Pk)	41.32	74	-32.68
		4844(Av)	29.45	54	-24.55
		7266(Pk)	47.30	74	-26.70
		7266(Av)	35.20	54	-18.80
	Horizontal	2422(Pk)	98.04	-	-
		2422(Av)	80.18	-	-
		2390(Pk)	57.71	74*	-16.29
		2390(Av)	40.46	54*	-13.54
		4844(Pk)	41.58	74	-32.42
		4844(Av)	29.19	54	-24.81
		7266(Pk)	47.03	74	-26.97
		7266(Av)	35.03	54	-18.97
2437	Vertical	2437(Pk)	106.69	-	-
		2437(Av)	90.87	-	-
		4874(Pk)	42.84	74	-31.16
		4874(Av)	30.40	54	-23.60
		7311(Pk)	47.82	74	-26.18
		7311(Av)	35.75	54	-18.25
	Horizontal	2437(Pk)	99.23	-	-
		2437(Av)	83.26	-	-
		4874(Pk)	41.66	74	-32.34
		4874(Av)	29.12	54	-24.88
		7311(Pk)	47.61	74	-26.39
		7311(Av)	34.95	54	-19.05
2452	Vertical	2452(Pk)	102.12	-	-
		2452(Av)	86.59	-	-
		2483.5(Pk)	70.75	74*	-3.25
		2483.5(Av)	47.43	54*	-6.57
		4904(Pk)	41.38	74	-32.62
		4904(Av)	29.34	54	-24.66
		7356(Pk)	48.27	74	-25.73
		7356(Av)	34.94	54	-19.06
	Horizontal	2452(Pk)	64.90	-	-
		2452(Av)	41.79	-	-
		2483.5(Pk)	64.90	74*	-9.10
		2483.5(Av)	41.79	54*	-12.21
		4904(Pk)	40.89	74	-33.11
		4904(Av)	29.14	54	-24.86
		7356(Pk)	47.12	74	-26.88
		7356(Av)	34.75	54	-19.25

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 196 von 298

Page 196 of 298

Modulation: 802.11ac_VHT40

Data Rate: MCS0

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2422	Vertical	2422(Pk)	101.55	-	-
		2422(Av)	90.45	-	-
		2390(Pk)	65.11	74*	-8.89
		2390(Av)	47.49	54*	-6.51
		4844(Pk)	40.57	74	-33.43
		4844(Av)	29.46	54	-24.54
		7266(Pk)	47.19	74	-26.81
		7266(Av)	35.10	54	-18.90
	Horizontal	2422(Pk)	94.05	-	-
		2422(Av)	82.83	-	-
		2390(Pk)	55.86	74*	-18.14
		2390(Av)	39.14	54*	-14.86
		4844(Pk)	40.57	74	-33.43
		4844(Av)	29.46	54	-24.54
		7266(Pk)	47.19	74	-26.81
		7266(Av)	35.10	54	-18.90
2437	Vertical	2437(Pk)	106.64	-	-
		2437(Av)	95.00	-	-
		4874(Pk)	42.79	74	-31.21
		4874(Av)	30.72	54	-23.28
		7311(Pk)	47.13	74	-26.87
		7311(Av)	35.85	54	-18.15
	Horizontal	2437(Pk)	98.96	-	-
		2437(Av)	87.41	-	-
		4874(Pk)	41.21	74	-32.79
		4874(Av)	29.37	54	-24.63
		7311(Pk)	46.95	74	-27.05
		7311(Av)	34.97	54	-19.03
2452	Vertical	2452(Pk)	100.74	-	-
		2452(Av)	90.43	-	-
		2483.5(Pk)	69.04	74*	-4.96
		2483.5(Av)	48.69	54*	-5.31
		4904(Pk)	41.35	74	-32.65
		4904(Av)	29.63	54	-24.37
		7356(Pk)	46.99	74	-27.01
		7356(Av)	34.97	54	-19.03
	Horizontal	2452(Pk)	96.05	-	-
		2452(Av)	86.04	-	-
		2483.5(Pk)	63.49	74*	-10.51
		2483.5(Av)	43.68	54*	-10.32
		4904(Pk)	40.67	74	-33.33
		4904(Av)	29.08	54	-24.92
		7356(Pk)	46.37	74	-27.63
		7356(Av)	34.73	54	-19.27

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 197 von 298

Page 197 of 298

Modulation: 802.11ac_VHT40

Data Rate: MCS8

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2422	Vertical	2422(Pk)	104.68	-	-
		2422(Av)	87.57	-	-
		2390(Pk)	66.79	74*	-7.21
		2390(Av)	48.58	54*	-5.42
		4844(Pk)	41.39	74	-32.61
		4844(Av)	29.64	54	-24.36
		7266(Pk)	47.18	74	-26.82
		7266(Av)	35.25	54	-18.75
	Horizontal	2422(Pk)	96.95	-	-
		2422(Av)	79.91	-	-
		2390(Pk)	57.73	74*	-16.27
		2390(Av)	39.35	54*	-14.65
		4844(Pk)	42.27	74	-31.73
		4844(Av)	29.21	54	-24.79
		7266(Pk)	46.94	74	-27.06
		7266(Av)	35.00	54	-19.00
2437	Vertical	2437(Pk)	107.09	-	-
		2437(Av)	90.45	-	-
		4874(Pk)	44.40	74	-29.60
		4874(Av)	30.51	54	-23.49
		7311(Pk)	49.57	74	-24.43
		7311(Av)	36.03	54	-17.97
	Horizontal	2437(Pk)	99.56	-	-
		2437(Av)	82.96	-	-
		4874(Pk)	41.22	74	-32.78
		4874(Av)	29.15	54	-24.85
		7311(Pk)	46.97	74	-27.03
		7311(Av)	34.94	54	-19.06
2452	Vertical	2452(Pk)	102.27	-	-
		2452(Av)	85.82	-	-
		2483.5(Pk)	68.30	74*	-5.70
		2483.5(Av)	47.08	54*	-6.92
		4904(Pk)	41.42	74	-32.58
		4904(Av)	29.47	54	-24.53
		7356(Pk)	47.85	74	-26.15
		7356(Av)	34.92	54	-19.08
	Horizontal	2452(Pk)	97.82	-	-
		2452(Av)	81.82	-	-
		2483.5(Pk)	64.43	74*	-9.57
		2483.5(Av)	43.51	54*	-10.49
		4904(Pk)	41.69	74	-32.31
		4904(Av)	29.12	54	-24.88
		7356(Pk)	47.25	74	-26.75
		7356(Av)	34.79	54	-19.21

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 198 von 298

Page 198 of 298

Modulation: 802.11ax_HE40

Data Rate: MCS0

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2422	Vertical	2422(Pk)	105.44	-	-
		2422(Av)	91.55	-	-
		2390(Pk)	67.95	74*	-6.05
		2390(Av)	51.34	54*	-2.66
		4844(Pk)	41.56	74	-32.44
		4844(Av)	29.73	54	-24.27
		7266(Pk)	47.22	74	-26.78
		7266(Av)	35.17	54	-18.83
	Horizontal	2422(Pk)	98.94	-	-
		2422(Av)	84.80	-	-
		2390(Pk)	60.94	74*	-13.06
		2390(Av)	44.69	54*	-9.31
		4844(Pk)	40.84	74	-33.16
		4844(Av)	29.17	54	-24.83
		7266(Pk)	47.67	74	-26.33
		7266(Av)	34.99	54	-19.01
2437	Vertical	2437(Pk)	108.77	-	-
		2437(Av)	94.90	-	-
		4874(Pk)	47.21	74	-26.79
		4874(Av)	32.98	54	-21.02
		7311(Pk)	50.09	74	-23.91
		7311(Av)	36.25	54	-17.75
	Horizontal	2437(Pk)	101.30	-	-
		2437(Av)	87.37	-	-
		4874(Pk)	41.36	74	-32.64
		4874(Av)	29.30	54	-24.70
		7311(Pk)	46.78	74	-27.22
		7311(Av)	34.94	54	-19.06
2452	Vertical	2452(Pk)	103.51	-	-
		2452(Av)	89.52	-	-
		2483.5(Pk)	66.55	74*	-7.45
		2483.5(Av)	47.32	54*	-6.68
		4904(Pk)	41.33	74	-32.67
		4904(Av)	29.14	54	-24.86
		7356(Pk)	46.85	74	-27.15
		7356(Av)	34.89	54	-19.11
	Horizontal	2452(Pk)	98.71	-	-
		2452(Av)	84.77	-	-
		2483.5(Pk)	63.31	74*	-10.69
		2483.5(Av)	41.90	54*	-12.10
		4904(Pk)	41.08	74	-32.92
		4904(Av)	29.14	54	-24.86
		7356(Pk)	47.42	74	-26.58
		7356(Av)	34.74	54	-19.26

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 199 von 298

Page 199 of 298

Modulation: 802.11ax_HE40

Data Rate: MCS7

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2422	Vertical	2422(Pk)	103.05	-	-
		2422(Av)	85.69	-	-
		2390(Pk)	61.12	74*	-12.88
		2390(Av)	40.96	54*	-13.04
		4844(Pk)	41.42	74	-32.58
		4844(Av)	29.27	54	-24.73
		7266(Pk)	47.02	74	-26.98
		7266(Av)	35.07	54	-18.93
	Horizontal	2422(Pk)	83.20	-	-
		2422(Av)	64.93	-	-
		2390(Pk)	37.36	74*	-36.64
		2390(Av)	24.11	54*	-29.89
		4844(Pk)	40.97	74	-33.03
		4844(Av)	29.16	54	-24.84
		7266(Pk)	46.97	74	-27.03
		7266(Av)	34.99	54	-19.01
2437	Vertical	2437(Pk)	102.63	-	-
		2437(Av)	85.38	-	-
		4874(Pk)	41.08	74	-32.92
		4874(Av)	29.28	54	-24.72
		7311(Pk)	47.12	74	-26.88
		7311(Av)	34.96	54	-19.04
	Horizontal	2437(Pk)	93.21	-	-
		2437(Av)	76.26	-	-
		4874(Pk)	42.39	74	-31.61
		4874(Av)	29.12	54	-24.88
		7311(Pk)	46.68	74	-27.32
		7311(Av)	34.91	54	-19.09
2452	Vertical	2452(Pk)	100.85	-	-
		2452(Av)	83.26	-	-
		2483.5(Pk)	59.10	74*	-14.90
		2483.5(Av)	37.44	54*	-16.56
		4904(Pk)	41.85	74	-32.15
		4904(Av)	29.18	54	-24.82
		7356(Pk)	46.73	74	-27.27
		7356(Av)	34.85	54	-19.15
	Horizontal	2452(Pk)	95.58	-	-
		2452(Av)	78.55	-	-
		2483.5(Pk)	53.41	74*	-20.59
		2483.5(Av)	33.38	54*	-20.62
		4904(Pk)	40.96	74	-33.04
		4904(Av)	29.07	54	-24.93
		7356(Pk)	46.79	74	-27.21
		7356(Av)	34.75	54	-19.25

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 200 von 298

Page 200 of 298

Antenna Type: 1001932PT Flex/PCB MIMO Antenna Results

Modulation: 802.11b

Data Rate: 1Mbps

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2412	Vertical	2412(Pk)	99.49	-	-
		2412(Av)	96.94	-	-
		2390(Pk)	45.67	74*	-28.33
		2390(Av)	36.20	54*	-17.80
		4824(Pk)	42.11	74	-31.89
		4824(Av)	31.88	54	-22.12
		7236(Pk)	48.84	74	-25.16
		7236(Av)	39.63	54	-14.37
	Horizontal	2412(Pk)	108.82	-	-
		2412(Av)	106.13	-	-
		2390(Pk)	53.30	74*	-20.70
		2390(Av)	43.82	54*	-10.18
		4824(Pk)	44.44	74	-29.56
		4824(Av)	33.89	54	-20.11
		7236(Pk)	51.71	74	-22.29
		7236(Av)	42.99	54	-11.01
2437	Vertical	2437(Pk)	103.65	-	-
		2437(Av)	101.14	-	-
		4874(Pk)	42.14	74	-31.86
		4874(Av)	30.52	54	-23.48
		7311(Pk)	48.41	74	-25.59
		7311(Av)	38.24	54	-15.76
	Horizontal	2437(Pk)	111.84	-	-
		2437(Av)	109.40	-	-
		4874(Pk)	42.67	74	-31.33
		4874(Av)	31.63	54	-22.37
		7311(Pk)	46.79	74	-27.21
		7311(Av)	35.37	54	-18.63
2462	Vertical	2462(Pk)	100.61	-	-
		2462(Av)	97.84	-	-
		2483.5(Pk)	47.11	74*	-26.89
		2483.5(Av)	38.76	54*	-15.24
		4924(Pk)	42.06	74	-31.94
		4924(Av)	30.66	54	-23.34
		7386(Pk)	49.83	74	-24.17
		7386(Av)	39.81	54	-14.19
	Horizontal	2462(Pk)	102.63	-	-
		2462(Av)	100.01	-	-
		2483.5(Pk)	52.62	74*	-21.38
		2483.5(Av)	43.11	54*	-10.89
		4924(Pk)	45.43	74	-28.57
		4924(Av)	37.42	54	-16.58
		7386(Pk)	49.49	74	-24.51
		7386(Av)	38.46	54	-15.54

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 201 von 298

Page 201 of 298

Modulation: 802.11b

Data Rate: 11Mbps

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2412	Vertical	2412(Pk)	103.67	-	-
		2412(Av)	94.41	-	-
		2390(Pk)	44.01	74*	-29.99
		2390(Av)	31.50	54*	-22.50
		4824(Pk)	41.61	74	-32.39
		4824(Av)	29.53	54	-24.47
		7236(Pk)	47.03	74	-26.97
		7236(Av)	35.30	54	-18.70
	Horizontal	2412(Pk)	105.10	-	-
		2412(Av)	95.82	-	-
		2390(Pk)	49.79	74*	-24.21
		2390(Av)	35.66	54*	-18.34
		4824(Pk)	41.25	74	-32.75
		4824(Av)	29.76	54	-24.24
		7236(Pk)	47.12	74	-26.88
		7236(Av)	35.42	54	-18.58
2437	Vertical	2437(Pk)	108.53	-	-
		2437(Av)	99.42	-	-
		4874(Pk)	41.76	74	-32.24
		4874(Av)	29.60	54	-24.40
		7311(Pk)	48.37	74	-25.63
		7311(Av)	36.43	54	-17.57
	Horizontal	2437(Pk)	114.65	-	-
		2437(Av)	105.48	-	-
		4874(Pk)	41.49	74	-32.51
		4874(Av)	29.60	54	-24.40
2462	Vertical	2462(Pk)	105.46	-	-
		2462(Av)	96.25	-	-
		2483.5(Pk)	48.77	74*	-25.23
		2483.5(Av)	34.60	54*	-19.40
		4924(Pk)	41.74	74	-32.26
		4924(Av)	29.58	54	-24.42
		7386(Pk)	47.59	74	-26.41
		7386(Av)	35.70	54	-18.30
	Horizontal	2462(Pk)	114.48	-	-
		2462(Av)	105.24	-	-
		2483.5(Pk)	57.63	74*	-16.37
		2483.5(Av)	42.84	54*	-11.16
		4924(Pk)	41.92	74	-32.08
		4924(Av)	29.96	54	-24.04
		7386(Pk)	46.38	74	-27.62
		7386(Av)	34.99	54	-19.01

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 202 von 298

Page 202 of 298

Modulation: 802.11g

Data Rate: 6Mbps

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2412	Vertical	2412(Pk)	100.87	-	-
		2412(Av)	91.92	-	-
		2390(Pk)	64.17	74*	-9.83
		2390(Av)	43.08	54*	-10.92
		4824(Pk)	41.54	74	-32.46
		4824(Av)	29.43	54	-24.57
		7236(Pk)	46.35	74	-27.65
		7236(Av)	35.16	54	-18.84
	Horizontal	2412(Pk)	107.22	-	-
		2412(Av)	97.41	-	-
		2390(Pk)	68.90	74*	-5.10
		2390(Av)	47.13	54*	-6.87
		4824(Pk)	41.92	74	-32.08
		4824(Av)	29.62	54	-24.38
		7236(Pk)	47.12	74	-26.88
		7236(Av)	35.25	54	-18.75
2437	Vertical	2437(Pk)	106.01	-	-
		2437(Av)	96.53	-	-
		4874(Pk)	41.72	74	-32.28
		4874(Av)	29.63	54	-24.37
		7311(Pk)	47.21	74	-26.79
		7311(Av)	35.57	54	-18.43
	Horizontal	2437(Pk)	111.67	-	-
		2437(Av)	102.18	-	-
		4874(Pk)	41.66	74	-32.34
		4874(Av)	29.88	54	-24.12
		7311(Pk)	47.82	74	-26.18
		7311(Av)	35.25	54	-18.75
2462	Vertical	2462(Pk)	99.85	-	-
		2462(Av)	89.86	-	-
		2483.5(Pk)	56.96	74*	-17.04
		2483.5(Av)	38.44	54*	-15.56
		4924(Pk)	41.46	74	-32.54
		4924(Av)	29.47	54	-24.53
		7386(Pk)	47.51	74	-26.49
		7386(Av)	35.42	54	-18.58
	Horizontal	2462(Pk)	107.50	-	-
		2462(Av)	98.12	-	-
		2483.5(Pk)	67.58	74*	-6.42
		2483.5(Av)	49.73	54*	-4.27
		4924(Pk)	42.10	74	-31.90
		4924(Av)	29.88	54	-24.12
		7386(Pk)	46.61	74	-27.39
		7386(Av)	35.06	54	-18.94

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 203 von 298

Page 203 of 298

Modulation: 802.11g

Data Rate: 54Mbps

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2412	Vertical	2412(Pk)	99.49	-	-
		2412(Av)	85.02	-	-
		2390(Pk)	55.7	74*	-18.30
		2390(Av)	36.26	54*	-17.74
		4824(Pk)	42.49	74	-31.51
		4824(Av)	29.56	54	-24.44
		7236(Pk)	47.46	74	-26.54
		7236(Av)	35.36	54	-18.64
	Horizontal	2412(Pk)	106.38	-	-
		2412(Av)	91.79	-	-
		2390(Pk)	61.38	74*	-12.62
		2390(Av)	42.03	54*	-11.97
		4824(Pk)	43.73	74	-30.27
		4824(Av)	29.54	54	-24.46
		7236(Pk)	48.42	74	-25.58
		7236(Av)	35.15	54	-18.85
2437	Vertical	2437(Pk)	102.92	-	-
		2437(Av)	88.53	-	-
		4874(Pk)	40.62	74	-33.38
		4874(Av)	29.52	54	-24.48
		7311(Pk)	46.40	74	-27.60
		7311(Av)	35.11	54	-18.89
	Horizontal	2437(Pk)	109.58	-	-
		2437(Av)	95.06	-	-
		4874(Pk)	41.92	74	-32.08
		4874(Av)	29.69	54	-24.31
		7311(Pk)	47.16	74	-26.84
		7311(Av)	35.07	54	-18.93
2462	Vertical	2462(Pk)	101.37	-	-
		2462(Av)	87.37	-	-
		2483.5(Pk)	60.25	74*	-13.75
		2483.5(Av)	38.39	54*	-15.61
		4924(Pk)	41.83	74	-32.17
		4924(Av)	29.38	54	-24.62
		7386(Pk)	48.23	74	-25.77
		7386(Av)	35.36	54	-18.64
	Horizontal	2462(Pk)	109.99	-	-
		2462(Av)	95.70	-	-
		2483.5(Pk)	69.10	74*	-4.90
		2483.5(Av)	49.67	54*	-4.33
		4924(Pk)	42.31	74	-31.69
		4924(Av)	29.76	54	-24.24
		7386(Pk)	45.93	74	-28.07
		7386(Av)	35.03	54	-18.97

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 204 von 298

Page 204 of 298

Modulation: 802.11n_HT20

Data Rate: MCS0

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2412	Vertical	2412(Pk)	98.02	-	-
		2412(Av)	88.15	-	-
		2390(Pk)	60.41	74*	-13.59
		2390(Av)	39.61	54*	-14.39
		4824(Pk)	41.69	74	-32.31
		4824(Av)	29.64	54	-24.36
		7236(Pk)	47.34	74	-26.66
		7236(Av)	35.41	54	-18.59
	Horizontal	2412(Pk)	108.20	-	-
		2412(Av)	97.34	-	-
		2390(Pk)	70.36	74*	-3.64
		2390(Av)	50.49	54*	-3.51
		4824(Pk)	41.18	74	-32.82
		4824(Av)	29.63	54	-24.37
		7236(Pk)	47.28	74	-26.72
		7236(Av)	35.10	54	-18.90
2437	Vertical	2437(Pk)	105.18	-	-
		2437(Av)	95.60	-	-
		4874(Pk)	42.22	74	-31.78
		4874(Av)	29.67	54	-24.33
		7311(Pk)	48.43	74	-25.57
		7311(Av)	36.75	54	-17.25
	Horizontal	2437(Pk)	115.51	*	-
		2437(Av)	104.91	*	-
		4874(Pk)	42.12	74	-31.88
		4874(Av)	29.79	54	-24.21
		7311(Pk)	47.32	74	-26.68
		7311(Av)	35.19	54	-18.81
2462	Vertical	2462(Pk)	78.97	-	-
		2462(Av)	88.38	-	-
		2483.5(Pk)	57.74	74*	-16.26
		2483.5(Av)	38.37	54*	-15.63
		4924(Pk)	41.85	74	-32.15
		4924(Av)	29.51	54	-24.49
		7386(Pk)	46.95	74	-27.05
		7386(Av)	35.13	54	-18.87
	Horizontal	2462(Pk)	108.30	-	-
		2462(Av)	97.85	-	-
		2483.5(Pk)	72.05	74*	-1.95
		2483.5(Av)	50.47	54*	-3.53
		4924(Pk)	41.32	74	-32.68
		4924(Av)	29.68	54	-24.32
		7386(Pk)	46.15	74	-27.85
		7386(Av)	35.02	54	-18.98

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 205 von 298

Page 205 of 298

Modulation: 802.11n_HT20

Data Rate: MCS7

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2412	Vertical	2412(Pk)	98.41	-	-
		2412(Av)	82.78	-	-
		2390(Pk)	59.45	74*	-14.55
		2390(Av)	35.81	54*	-18.19
		4824(Pk)	41.11	74	-32.89
		4824(Av)	29.41	54	-24.59
		7236(Pk)	47.64	74	-26.36
		7236(Av)	35.27	54	-18.73
	Horizontal	2412(Pk)	108.93	-	-
		2412(Av)	93.63	-	-
		2390(Pk)	70.87	74*	-3.13
		2390(Av)	46.86	54*	-7.14
		4824(Pk)	40.95	74	-33.05
		4824(Av)	29.53	54	-24.47
		7236(Pk)	46.19	74	-27.81
		7236(Av)	35.13	54	-18.87
2437	Vertical	2437(Pk)	101.15	-	-
		2437(Av)	86.19	-	-
		4874(Pk)	41.79	74	-32.21
		4874(Av)	29.58	54	-24.42
		7311(Pk)	47.29	74	-26.71
		7311(Av)	35.15	54	-18.85
	Horizontal	2437(Pk)	111.53	*	-
		2437(Av)	96.57	*	-
		4874(Pk)	41.79	74	-32.21
		4874(Av)	29.68	54	-24.32
		7311(Pk)	48.15	74	-25.85
		7311(Av)	35.21	54	-18.79
2462	Vertical	2462(Pk)	0.04	-	-
		2462(Av)	84.38	-	-
		2483.5(Pk)	58.05	74*	-15.95
		2483.5(Av)	36.38	54*	-17.62
		4924(Pk)	41.46	74	-32.54
		4924(Av)	29.49	54	-24.51
		7386(Pk)	47.54	74	-26.46
		7386(Av)	34.97	54	-19.03
	Horizontal	2462(Pk)	110.79	-	-
		2462(Av)	94.97	-	-
		2483.5(Pk)	72.47	74*	-1.53
		2483.5(Av)	48.28	54*	-5.72
		4924(Pk)	41.01	74	-32.99
		4924(Av)	29.70	54	-24.30
		7386(Pk)	47.18	74	-26.82
		7386(Av)	35.05	54	-18.95

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 206 von 298

Page 206 of 298

Modulation: 802.11ac_VHT20

Data Rate: MCS0

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2412	Vertical	2412(Pk)	99.59	-	-
		2412(Av)	88.93	-	-
		2390(Pk)	61.34	74*	-12.66
		2390(Av)	42.47	54*	-11.53
		4824(Pk)	41.71	74	-32.29
		4824(Av)	29.64	54	-24.36
		7236(Pk)	48.30	74	-25.70
		7236(Av)	35.47	54	-18.53
	Horizontal	2412(Pk)	109.46	-	-
		2412(Av)	98.84	-	-
		2390(Pk)	70.55	74*	-3.45
		2390(Av)	50.78	54*	-3.22
		4824(Pk)	42.13	74	-31.87
		4824(Av)	30.27	54	-23.73
		7236(Pk)	47.47	74	-26.53
		7236(Av)	35.69	54	-18.31
2437	Vertical	2437(Pk)	105.94	-	-
		2437(Av)	95.79	-	-
		4874(Pk)	42.24	74	-31.76
		4874(Av)	29.85	54	-24.15
		7311(Pk)	48.93	74	-25.07
		7311(Av)	36.39	54	-17.61
	Horizontal	2437(Pk)	115.38	-	-
		2437(Av)	104.87	-	-
		4874(Pk)	43.11	74	-30.89
		4874(Av)	31.00	54	-23.00
2462	Vertical	2462(Pk)	99.41	-	-
		2462(Av)	88.75	-	-
		2483.5(Pk)	57.52	74*	-16.48
		2483.5(Av)	36.08	54*	-17.92
		4924(Pk)	42.33	74	-31.67
		4924(Av)	29.40	54	-24.60
		7386(Pk)	47.04	74	-26.96
		7386(Av)	35.08	54	-18.92
	Horizontal	2462(Pk)	108.67	-	-
		2462(Av)	98.34	-	-
		2483.5(Pk)	67.68	74*	-6.32
		2483.5(Av)	46.75	54*	-7.25
		4924(Pk)	42.01	74	-31.99
		4924(Av)	30.28	54	-23.72
		7386(Pk)	46.91	74	-27.09
		7386(Av)	35.11	54	-18.89

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 207 von 298

Page 207 of 298

Modulation: 802.11ac_VHT20

Data Rate: MCS8

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2412	Vertical	2412(Pk)	97.54	-	-
		2412(Av)	81.11	-	-
		2390(Pk)	57.95	74*	-16.05
		2390(Av)	33.83	54*	-20.17
		4824(Pk)	41.81	74	-32.19
		4824(Av)	29.79	54	-24.21
		7236(Pk)	47.26	74	-26.74
		7236(Av)	35.19	54	-18.81
	Horizontal	2412(Pk)	108.04	-	-
		2412(Av)	92.35	-	-
		2390(Pk)	69.10	74*	-4.90
		2390(Av)	43.97	54*	-10.03
		4824(Pk)	42.00	74	-32.00
		4824(Av)	29.96	54	-24.04
		7236(Pk)	47.85	74	-26.15
		7236(Av)	35.23	54	-18.77
2437	Vertical	2437(Pk)	100.58	-	-
		2437(Av)	84.77	-	-
		4874(Pk)	42.44	74	-31.56
		4874(Av)	29.77	54	-24.23
		7311(Pk)	47.48	74	-26.52
		7311(Av)	35.30	54	-18.70
	Horizontal	2437(Pk)	110.85	*	-
		2437(Av)	95.44	*	-
		4874(Pk)	42.99	74	-31.01
		4874(Av)	30.06	54	-23.94
		7311(Pk)	47.42	74	-26.58
		7311(Av)	35.25	54	-18.75
2462	Vertical	2462(Pk)	101.15	-	-
		2462(Av)	84.60	-	-
		2483.5(Pk)	57.34	74*	-16.66
		2483.5(Av)	34.36	54*	-19.64
		4924(Pk)	41.55	74	-32.45
		4924(Av)	29.47	54	-24.53
		7386(Pk)	47.22	74	-26.78
		7386(Av)	35.24	54	-18.76
	Horizontal	2462(Pk)	108.45	-	-
		2462(Av)	91.42	-	-
		2483.5(Pk)	64.68	74*	-9.32
		2483.5(Av)	42.08	54*	-11.92
		4924(Pk)	43.02	74	-30.98
		4924(Av)	30.14	54	-23.86
		7386(Pk)	47.25	74	-26.75
		7386(Av)	35.31	54	-18.69

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 208 von 298

Page 208 of 298

Modulation: 802.11ax_HE20

Data Rate: MCS0

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2412	Vertical	2412(Pk)	100.65	-	-
		2412(Av)	87.32	-	-
		2390(Pk)	59.12	74*	-14.88
		2390(Av)	38.28	54*	-15.72
		4824(Pk)	42.41	74	-31.59
		4824(Av)	30.05	54	-23.95
		7236(Pk)	47.77	74	-26.23
		7236(Av)	35.51	54	-18.49
	Horizontal	2412(Pk)	111.06	-	-
		2412(Av)	97.42	-	-
		2390(Pk)	69.44	74*	-4.56
		2390(Av)	47.50	54*	-6.50
		4824(Pk)	42.32	74	-31.68
		4824(Av)	30.40	54	-23.60
		7236(Pk)	47.13	74	-26.87
		7236(Av)	35.38	54	-18.62
2437	Vertical	2437(Pk)	108.59	-	-
		2437(Av)	95.85	-	-
		4874(Pk)	42.30	74	-31.70
		4874(Av)	29.90	54	-24.10
		7311(Pk)	47.85	74	-26.15
		7311(Av)	36.23	54	-17.77
	Horizontal	2437(Pk)	114.92	-	-
		2437(Av)	101.91	-	-
		4874(Pk)	42.83	74	-31.17
		4874(Av)	31.16	54	-22.84
2462	Vertical	2462(Pk)	101.21	-	-
		2462(Av)	87.84	-	-
		2483.5(Pk)	58.09	74*	-15.91
		2483.5(Av)	37.21	54*	-16.79
		4924(Pk)	41.79	74	-32.21
		4924(Av)	29.88	54	-24.12
		7386(Pk)	48.03	74	-25.97
		7386(Av)	35.37	54	-18.63
	Horizontal	2462(Pk)	111.58	-	-
		2462(Av)	98.03	-	-
		2483.5(Pk)	68.34	74*	-5.66
		2483.5(Av)	47.92	54*	-6.08
		4924(Pk)	42.66	74	-31.34
		4924(Av)	30.50	54	-23.50
		7386(Pk)	47.13	74	-26.87
		7386(Av)	35.31	54	-18.69

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 209 von 298

Page 209 of 298

Modulation: 802.11ax_HE20

Data Rate: MCS11

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2412	Vertical	2412(Pk)	98.74	-	-
		2412(Av)	79.72	-	-
		2390(Pk)	58.51	74*	-15.49
		2390(Av)	33.44	54*	-20.56
		4824(Pk)	42.48	74	-31.52
		4824(Av)	29.88	54	-24.12
		7236(Pk)	47.28	74	-26.72
		7236(Av)	35.40	54	-18.60
	Horizontal	2412(Pk)	108.49	-	-
		2412(Av)	90.16	-	-
		2390(Pk)	70.03	74*	-3.97
		2390(Av)	42.71	54*	-11.29
		4824(Pk)	42.74	74	-31.26
		4824(Av)	30.10	54	-23.90
		7236(Pk)	47.66	74	-26.34
		7236(Av)	35.44	54	-18.56
2437	Vertical	2437(Pk)	100.98	-	-
		2437(Av)	82.98	-	-
		4874(Pk)	42.33	74	-31.67
		4874(Av)	29.91	54	-24.09
		7311(Pk)	47.36	74	-26.64
		7311(Av)	35.46	54	-18.54
	Horizontal	2437(Pk)	111.18	-	-
		2437(Av)	93.61	-	-
		4874(Pk)	41.98	74	-32.02
		4874(Av)	30.21	54	-23.79
		7311(Pk)	47.76	74	-26.24
		7311(Av)	35.68	54	-18.32
2462	Vertical	2462(Pk)	101.56	-	-
		2462(Av)	82.23	-	-
		2483.5(Pk)	58.07	74*	-15.93
		2483.5(Av)	33.06	54*	-20.94
		4924(Pk)	42.20	74	-31.80
		4924(Av)	29.58	54	-24.42
		7386(Pk)	47.31	74	-26.69
		7386(Av)	35.34	54	-18.66
	Horizontal	2462(Pk)	110.82	-	-
		2462(Av)	92.39	-	-
		2483.5(Pk)	68.12	74*	-5.88
		2483.5(Av)	43.42	54*	-10.58
		4924(Pk)	42.43	74	-31.57
		4924(Av)	30.22	54	-23.78
		7386(Pk)	48.24	74	-25.76
		7386(Av)	35.33	54	-18.67

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 210 von 298

Page 210 of 298

Modulation: 802.11n_HT40

Data Rate: MCS0

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2422	Vertical	2422(Pk)	98.29	-	-
		2422(Av)	87.44	-	-
		2390(Pk)	55.38	74*	-18.62
		2390(Av)	39.97	54*	-14.03
		4844(Pk)	40.71	74	-33.29
		4844(Av)	29.39	54	-24.61
		7266(Pk)	47.66	74	-26.34
		7266(Av)	35.22	54	-18.78
	Horizontal	2422(Pk)	104.94	-	-
		2422(Av)	94.38	-	-
		2390(Pk)	64.44	74*	-9.56
		2390(Av)	48.29	54*	-5.71
		4844(Pk)	41.60	74	-32.40
		4844(Av)	29.54	54	-24.46
		7266(Pk)	47.15	74	-26.85
		7266(Av)	35.12	54	-18.88
2437	Vertical	2437(Pk)	108.12	-	-
		2437(Av)	69.34	-	-
		4874(Pk)	41.92	74	-32.08
		4874(Av)	29.34	54	-24.66
		7311(Pk)	47.37	74	-26.63
		7311(Av)	35.76	54	-18.24
	Horizontal	2437(Pk)	110.05	-	-
		2437(Av)	97.38	-	-
		4874(Pk)	48.28	74	-25.72
		4874(Av)	33.70	54	-20.30
		7311(Pk)	47.24	74	-26.76
		7311(Av)	35.33	54	-18.67
2452	Vertical	2452(Pk)	97.51	-	-
		2452(Av)	86.71	-	-
		2483.5(Pk)	60.87	74*	-13.13
		2483.5(Av)	38.85	54*	-15.15
		4904(Pk)	40.82	74	-33.18
		4904(Av)	29.24	54	-24.76
		7356(Pk)	46.18	74	-27.82
		7356(Av)	34.93	54	-19.07
	Horizontal	2452(Pk)	103.88	-	-
		2452(Av)	93.45	-	-
		2483.5(Pk)	67.81	74*	-6.19
		2483.5(Av)	47.03	54*	-6.97
		4904(Pk)	41.73	74	-32.27
		4904(Av)	29.48	54	-24.52
		7356(Pk)	47.52	74	-26.48
		7356(Av)	34.85	54	-19.15

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 211 von 298

Page 211 of 298

Modulation: 802.11n_HT40

Data Rate: MCS7

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2422	Vertical	2422(Pk)	106.14	-	-
		2422(Av)	90.31	-	-
		2390(Pk)	62.24	74*	-11.76
		2390(Av)	44.05	54*	-9.95
		4844(Pk)	41.30	74	-32.70
		4844(Av)	29.25	54	-24.75
		7266(Pk)	47.26	74	-26.74
		7266(Av)	35.10	54	-18.90
	Horizontal	2422(Pk)	107.65	-	-
		2422(Av)	92.19	-	-
		2390(Pk)	69.23	74*	-4.77
		2390(Av)	49.76	54*	-4.24
		4844(Pk)	41.37	74	-32.63
		4844(Av)	29.33	54	-24.67
		7266(Pk)	47.13	74	-26.87
		7266(Av)	35.04	54	-18.96
2437	Vertical	2437(Pk)	101.39	-	-
		2437(Av)	58.41	-	-
		4874(Pk)	41.19	74	-32.81
		4874(Av)	29.23	54	-24.77
		7311(Pk)	47.26	74	-26.74
		7311(Av)	35.14	54	-18.86
	Horizontal	2437(Pk)	107.91	-	-
		2437(Av)	92.74	-	-
		4874(Pk)	42.24	74	-31.76
		4874(Av)	29.71	54	-24.29
2452	Vertical	2452(Pk)	101.95	-	-
		2452(Av)	86.46	-	-
		2483.5(Pk)	61.37	74*	-12.63
		2483.5(Av)	41.76	54*	-12.24
		4904(Pk)	41.02	74	-32.98
		4904(Av)	29.16	54	-24.84
		7356(Pk)	46.77	74	-27.23
		7356(Av)	34.77	54	-19.23
	Horizontal	2452(Pk)	103.83	-	-
		2452(Av)	88.79	-	-
		2483.5(Pk)	65.07	74*	-8.93
		2483.5(Av)	42.64	54*	-11.36
		4904(Pk)	40.84	74	-33.16
		4904(Av)	29.37	54	-24.63
		7356(Pk)	46.97	74	-27.03
		7356(Av)	34.82	54	-19.18

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 212 von 298

Page 212 of 298

Modulation: 802.11ac_VHT40

Data Rate: MCS0

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2422	Vertical	2422(Pk)	104.84	-	-
		2422(Av)	94.25	-	-
		2390(Pk)	61.73	74*	-12.27
		2390(Av)	46.07	54*	-7.93
		4844(Pk)	41.77	74	-32.23
		4844(Av)	29.31	54	-24.69
		7266(Pk)	47.37	74	-26.63
		7266(Av)	35.03	54	-18.97
	Horizontal	2422(Pk)	106.63	-	-
		2422(Av)	96.06	-	-
		2390(Pk)	68.09	74*	-5.91
		2390(Av)	52.65	54*	-1.35
		4844(Pk)	41.50	74	-32.50
		4844(Av)	29.29	54	-24.71
		7266(Pk)	46.95	74	-27.05
		7266(Av)	35.07	54	-18.93
2437	Vertical	2437(Pk)	108.71	-	-
		2437(Av)	98.20	-	-
		4874(Pk)	41.52	74	-32.48
		4874(Av)	29.36	54	-24.64
		7311(Pk)	46.97	74	-27.03
		7311(Av)	35.29	54	-18.71
	Horizontal	2437(Pk)	111.03	-	-
		2437(Av)	98.94	-	-
		4874(Pk)	46.18	74	-27.82
		4874(Av)	32.09	54	-21.91
		7311(Pk)	47.02	74	-26.98
		7311(Av)	35.27	54	-18.73
2452	Vertical	2452(Pk)	101.98	-	-
		2452(Av)	90.64	-	-
		2483.5(Pk)	64.46	74*	-9.54
		2483.5(Av)	44.71	54*	-9.29
		4904(Pk)	41.23	74	-32.77
		4904(Av)	29.15	54	-24.85
		7356(Pk)	47.07	74	-26.93
		7356(Av)	34.78	54	-19.22
	Horizontal	2452(Pk)	103.84	-	-
		2452(Av)	93.43	-	-
		2483.5(Pk)	66.82	74*	-7.18
		2483.5(Av)	47.24	54*	-6.76
		4904(Pk)	42.06	74	-31.94
		4904(Av)	29.34	54	-24.66
		7356(Pk)	46.21	74	-27.79
		7356(Av)	34.80	54	-19.20

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 213 von 298

Page 213 of 298

Modulation: 802.11ac_VHT40

Data Rate: MCS8

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2422	Vertical	2422(Pk)	104.84	-	-
		2422(Av)	89.9	-	-
		2390(Pk)	58.57	74*	-15.43
		2390(Av)	39.27	54*	-14.73
		4844(Pk)	41.59	74	-32.41
		4844(Av)	29.21	54	-24.79
		7266(Pk)	47.74	74	-26.26
		7266(Av)	35.01	54	-18.99
	Horizontal	2422(Pk)	106.97	-	-
		2422(Av)	91.48	-	-
		2390(Pk)	64.79	74*	-9.21
		2390(Av)	46.11	54*	-7.89
		4844(Pk)	40.74	74	-33.26
		4844(Av)	29.31	54	-24.69
		7266(Pk)	46.59	74	-27.41
		7266(Av)	35.02	54	-18.98
2437	Vertical	2437(Pk)	105.39	-	-
		2437(Av)	89.18	-	-
		4874(Pk)	41.06	74	-32.94
		4874(Av)	29.21	54	-24.79
		7311(Pk)	47.18	74	-26.82
		7311(Av)	34.89	54	-19.11
	Horizontal	2437(Pk)	107.42	-	-
		2437(Av)	90.83	-	-
		4874(Pk)	41.38	74	-32.62
		4874(Av)	29.64	54	-24.36
		7311(Pk)	46.86	74	-27.14
		7311(Av)	34.96	54	-19.04
2452	Vertical	2452(Pk)	104.52	-	-
		2452(Av)	87.95	-	-
		2483.5(Pk)	68.53	74*	-5.47
		2483.5(Av)	47.46	54*	-6.54
		4904(Pk)	40.84	74	-33.16
		4904(Av)	29.12	54	-24.88
		7356(Pk)	45.87	74	-28.13
		7356(Av)	34.81	54	-19.19
	Horizontal	2452(Pk)	106.42	-	-
		2452(Av)	90.03	-	-
		2483.5(Pk)	70.62	74*	-3.38
		2483.5(Av)	48.10	54*	-5.90
		4904(Pk)	41.69	74	-32.31
		4904(Av)	29.48	54	-24.52
		7356(Pk)	46.70	74	-27.30
		7356(Av)	34.76	54	-19.24

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 214 von 298

Page 214 of 298

Modulation: 802.11ax_HE40

Data Rate: MCS0

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2422	Vertical	2422(Pk)	106.17	-	-
		2422(Av)	93.23	-	-
		2390(Pk)	59.43	74*	-14.57
		2390(Av)	43.52	54*	-10.48
		4844(Pk)	41.14	74	-32.86
		4844(Av)	29.30	54	-24.70
		7266(Pk)	46.83	74	-27.17
		7266(Av)	35.02	54	-18.98
	Horizontal	2422(Pk)	108.68	-	-
		2422(Av)	95.63	-	-
		2390(Pk)	67.15	74*	-6.85
		2390(Av)	50.95	54*	-3.05
		4844(Pk)	41.41	74	-32.59
		4844(Av)	29.30	54	-24.70
		7266(Pk)	46.61	74	-27.39
		7266(Av)	35.09	54	-18.91
2437	Vertical	2437(Pk)	111.27	-	-
		2437(Av)	98.19	-	-
		4874(Pk)	41.02	74	-32.98
		4874(Av)	29.21	54	-24.79
		7311(Pk)	47.90	74	-26.10
		7311(Av)	35.84	54	-18.16
	Horizontal	2437(Pk)	113.89	-	-
		2437(Av)	98.48	-	-
		4874(Pk)	44.81	74	-29.19
		4874(Av)	31.95	54	-22.05
		7311(Pk)	47.15	74	-26.85
		7311(Av)	35.31	54	-18.69
2452	Vertical	2452(Pk)	104.34	-	-
		2452(Av)	90.47	-	-
		2483.5(Pk)	60.73	74*	-13.27
		2483.5(Av)	42.09	54*	-11.91
		4904(Pk)	42.56	74	-31.44
		4904(Av)	29.14	54	-24.86
		7356(Pk)	46.08	74	-27.92
		7356(Av)	34.73	54	-19.27
	Horizontal	2452(Pk)	105.81	-	-
		2452(Av)	91.76	-	-
		2483.5(Pk)	67.63	74*	-6.37
		2483.5(Av)	47.65	54*	-6.35
		4904(Pk)	41.84	74	-32.16
		4904(Av)	29.30	54	-24.70
		7356(Pk)	47.82	74	-26.18
		7356(Av)	34.79	54	-19.21

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 215 von 298

Page 215 of 298

Modulation: 802.11ax_HE40

Data Rate: MCS7

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Emission (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2422	Vertical	2422(Pk)	104.92	-	-
		2422(Av)	88.09	-	-
		2390(Pk)	56.09	74*	-17.91
		2390(Av)	35.05	54*	-18.95
		4844(Pk)	40.89	74	-33.11
		4844(Av)	29.24	54	-24.76
		7266(Pk)	47.24	74	-26.76
		7266(Av)	35.01	54	-18.99
	Horizontal	2422(Pk)	107.05	-	-
		2422(Av)	89.35	-	-
		2390(Pk)	59.74	74*	-14.26
		2390(Av)	41.51	54*	-12.49
		4844(Pk)	41.02	74	-32.98
		4844(Av)	29.23	54	-24.77
		7266(Pk)	46.41	74	-27.59
		7266(Av)	35.00	54	-19.00
2437	Vertical	2437(Pk)	102.49	-	-
		2437(Av)	85.52	-	-
		4874(Pk)	40.81	74	-33.19
		4874(Av)	29.21	54	-24.79
		7311(Pk)	46.90	74	-27.10
		7311(Av)	34.88	54	-19.12
	Horizontal	2437(Pk)	107.70	-	-
		2437(Av)	89.86	-	-
		4874(Pk)	41.70	74	-32.30
		4874(Av)	29.64	54	-24.36
2452	Vertical	2452(Pk)	103.99	-	-
		2452(Av)	86.84	-	-
		2483.5(Pk)	66.42	74*	-7.58
		2483.5(Av)	44.17	54*	-9.83
		4904(Pk)	41.25	74	-32.75
		4904(Av)	29.17	54	-24.83
		7356(Pk)	46.53	74	-27.47
		7356(Av)	34.75	54	-19.25
	Horizontal	2452(Pk)	106.35	-	-
		2452(Av)	89.23	-	-
		2483.5(Pk)	67.03	74*	-6.97
		2483.5(Av)	45.94	54*	-8.06
		4904(Pk)	41.18	74	-32.82
		4904(Av)	29.38	54	-24.62
		7356(Pk)	46.55	74	-27.45
		7356(Av)	34.73	54	-19.27

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 216 von 298

Page 216 of 298

Antenna Type: FPA3020-10A Flex/PCB MIMO Antenna Results

Modulation: 802.11b

Data Rate: 1Mbps

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2412	Vertical	2412(Pk)	98.34	-	-
		2412(Av)	95.82	-	-
		2390(Pk)	47.64	74*	-26.36
		2390(Av)	37.31	54*	-16.69
		4824(Pk)	41.68	74	-32.32
		4824(Av)	30.02	54	-23.98
		7236(Pk)	47.50	74	-26.50
		7236(Av)	35.55	54	-18.45
	Horizontal	2412(Pk)	101.40	-	-
		2412(Av)	98.73	-	-
		2390(Pk)	46.96	74*	-27.04
		2390(Av)	36.80	54*	-17.20
		4824(Pk)	42.70	74	-31.30
		4824(Av)	30.08	54	-23.92
		7236(Pk)	48.03	74	-25.97
		7236(Av)	37.20	54	-16.80
2437	Vertical	2437(Pk)	102.67	-	-
		2437(Av)	100.00	-	-
		4874(Pk)	42.18	74	-31.82
		4874(Av)	30.43	54	-23.57
		7311(Pk)	50.70	74	-23.30
		7311(Av)	41.27	54	-12.73
	Horizontal	2437(Pk)	107.08	-	-
		2437(Av)	104.45	-	-
		4874(Pk)	43.25	74	-30.75
		4874(Av)	32.00	54	-22.00
		7311(Pk)	47.61	74	-26.39
		7311(Av)	36.98	54	-17.02
2462	Vertical	2462(Pk)	98.71	-	-
		2462(Av)	95.96	-	-
		2483.5(Pk)	45.74	74*	-28.26
		2483.5(Av)	37.92	54*	-16.08
		4924(Pk)	42.59	74	-31.41
		4924(Av)	31.53	54	-22.47
		7386(Pk)	48.20	74	-25.80
		7386(Av)	37.55	54	-16.45
	Horizontal	2462(Pk)	103.22	-	-
		2462(Av)	100.62	-	-
		2483.5(Pk)	48.63	74*	-25.37
		2483.5(Av)	39.01	54*	-14.99
		4924(Pk)	43.26	74	-30.74
		4924(Av)	31.17	54	-22.83
		7386(Pk)	47.33	74	-26.67
		7386(Av)	35.89	54	-18.11

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 217 von 298

Page 217 of 298

Modulation: 802.11b

Data Rate: 11Mbps

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2412	Vertical	2412(Pk)	104.79	-	-
		2412(Av)	95.72	-	-
		2390(Pk)	49.36	74*	-24.64
		2390(Av)	36.59	54*	-17.41
		4824(Pk)	41.02	74	-32.98
		4824(Av)	29.86	54	-24.14
		7236(Pk)	50.91	74	-23.09
		7236(Av)	37.31	54	-16.69
	Horizontal	2412(Pk)	107.12	-	-
		2412(Av)	97.84	-	-
		2390(Pk)	47.27	74*	-26.73
		2390(Av)	34.68	54*	-19.32
		4824(Pk)	42.84	74	-31.16
		4824(Av)	30.06	54	-23.94
		7236(Pk)	49.34	74	-24.66
		7236(Av)	36.94	54	-17.06
2437	Vertical	2437(Pk)	107.07	-	-
		2437(Av)	97.76	-	-
		4874(Pk)	41.75	74	-32.25
		4874(Av)	30.04	54	-23.96
		7311(Pk)	52.95	74	-21.05
		7311(Av)	39.76	54	-14.24
	Horizontal	2437(Pk)	111.39	-	-
		2437(Av)	102.29	-	-
		4874(Pk)	41.69	74	-32.31
		4874(Av)	30.34	54	-23.66
		7311(Pk)	48.44	74	-25.56
2462	Vertical	2462(Pk)	103.02	-	-
		2462(Av)	93.75	-	-
		2483.5(Pk)	46.19	74*	-27.81
		2483.5(Av)	32.95	54*	-21.05
		4924(Pk)	42.48	74	-31.52
		4924(Av)	30.34	54	-23.66
		7386(Pk)	52.25	74	-21.75
		7386(Av)	38.79	54	-15.21
	Horizontal	2462(Pk)	106.33	-	-
		2462(Av)	97.00	-	-
		2483.5(Pk)	49.18	74*	-24.82
		2483.5(Av)	36.35	54*	-17.65
		4924(Pk)	29.99	74	-44.01
		4924(Av)	42.60	54	-11.40
		7386(Pk)	47.23	74	-26.77
		7386(Av)	35.59	54	-18.41

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 218 von 298

Page 218 of 298

Modulation: 802.11g

Data Rate: 6Mbps

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBμV/m)	Limit (dBμV/m)	Margin (dB)
2412	Vertical	2412(Pk)	102.19	-	-
		2412(Av)	92.83	-	-
		2390(Pk)	68.83	74*	-5.17
		2390(Av)	48.36	54*	-5.64
		4824(Pk)	42.43	74	-31.57
		4824(Av)	30.01	54	-23.99
		7236(Pk)	47.50	74	-26.50
		7236(Av)	35.99	54	-18.01
	Horizontal	2412(Pk)	104.71	-	-
		2412(Av)	95.39	-	-
		2390(Pk)	68.14	74*	-5.86
		2390(Av)	47.11	54*	-6.89
		4824(Pk)	41.91	74	-32.09
		4824(Av)	29.67	54	-24.33
		7236(Pk)	48.19	74	-25.81
		7236(Av)	36.41	54	-17.59
2437	Vertical	2437(Pk)	108.63	-	-
		2437(Av)	98.01	-	-
		4874(Pk)	41.54	74	-32.46
		4874(Av)	30.10	54	-23.90
		7311(Pk)	50.38	74	-23.62
		7311(Av)	37.45	54	-16.55
	Horizontal	2437(Pk)	110.27	-	-
		2437(Av)	100.86	-	-
		4874(Pk)	42.56	74	-31.44
		4874(Av)	30.00	54	-24.00
		7311(Pk)	48.26	74	-25.74
		7311(Av)	36.28	54	-17.72
2462	Vertical	2462(Pk)	101.12	-	-
		2462(Av)	91.09	-	-
		2483.5(Pk)	59.75	74*	-14.25
		2483.5(Av)	41.55	54*	-12.45
		4924(Pk)	41.36	74	-32.64
		4924(Av)	29.73	54	-24.27
		7386(Pk)	50.05	74	-23.95
		7386(Av)	37.31	54	-16.69
	Horizontal	2462(Pk)	105.05	-	-
		2462(Av)	95.61	-	-
		2483.5(Pk)	64.98	74*	-9.02
		2483.5(Av)	46.67	54*	-7.33
		4924(Pk)	41.76	74	-32.24
		4924(Av)	29.70	54	-24.30
		7386(Pk)	47.32	74	-26.68
		7386(Av)	35.64	54	-18.36

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 219 von 298

Page 219 of 298

Modulation: 802.11g

Data Rate: 54Mbps

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2412	Vertical	2412(Pk)	101.32	-	-
		2412(Av)	87.18	-	-
		2390(Pk)	58.37	74*	-15.63
		2390(Av)	40.85	54*	-13.15
		4824(Pk)	41.58	74	-32.42
		4824(Av)	29.96	54	-24.04
		7236(Pk)	47.19	74	-26.81
		7236(Av)	35.66	54	-18.34
	Horizontal	2412(Pk)	103.88	-	-
		2412(Av)	89.65	-	-
		2390(Pk)	58.05	74*	-15.95
		2390(Av)	40.16	54*	-13.84
		4824(Pk)	41.63	74	-32.37
		4824(Av)	29.87	54	-24.13
		7236(Pk)	46.97	74	-27.03
		7236(Av)	35.54	54	-18.46
2437	Vertical	2437(Pk)	104.84	-	-
		2437(Av)	90.67	-	-
		4874(Pk)	41.46	74	-32.54
		4874(Av)	29.96	54	-24.04
		7311(Pk)	49.83	74	-24.17
		7311(Av)	36.42	54	-17.58
	Horizontal	2437(Pk)	107.97	-	-
		2437(Av)	93.98	-	-
		4874(Pk)	41.29	74	-32.71
		4874(Av)	29.90	54	-24.10
		7311(Pk)	47.29	74	-26.71
		7311(Av)	35.66	54	-18.34
2462	Vertical	2462(Pk)	102.18	-	-
		2462(Av)	88.15	-	-
		2483.5(Pk)	60.46	74*	-13.54
		2483.5(Av)	40.95	54*	-13.05
		4924(Pk)	42.32	74	-31.68
		4924(Av)	29.82	54	-24.18
		7386(Pk)	46.80	74	-27.20
		7386(Av)	35.42	54	-18.58
	Horizontal	2462(Pk)	104.89	-	-
		2462(Av)	91.37	-	-
		2483.5(Pk)	61.96	74*	-12.04
		2483.5(Av)	43.13	54*	-10.87
		4924(Pk)	42.33	74	-31.67
		4924(Av)	29.72	54	-24.28
		7386(Pk)	46.93	74	-27.07
		7386(Av)	35.39	54	-18.61

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector

Prüfbericht - Nr.:

Test Report No.:

IN23WDIF 001

Seite 220 von 298

Page 220 of 298

Modulation: 802.11n_HT20

Data Rate: MCS0

Channel Frequency (MHz)	Antenna Polarization	Measured Frequency (MHz)	Field Strength (dBµV/m)	Limit (dBµV/m)	Margin (dB)
2412	Vertical	2412(Pk)	100.53	-	-
		2412(Av)	89.72	-	-
		2390(Pk)	63.80	74*	-10.20
		2390(Av)	44.66	54*	-9.34
		4824(Pk)	42.36	74	-31.64
		4824(Av)	29.89	54	-24.11
		7236(Pk)	47.69	74	-26.31
		7236(Av)	35.94	54	-18.06
	Horizontal	2412(Pk)	102.68	-	-
		2412(Av)	92.84	-	-
		2390(Pk)	64.35	74*	-9.65
		2390(Av)	44.27	54*	-9.73
		4824(Pk)	42.80	74	-31.20
		4824(Av)	29.85	54	-24.15
		7236(Pk)	47.93	74	-26.07
		7236(Av)	36.58	54	-17.42
2437	Vertical	2437(Pk)	108.76	-	-
		2437(Av)	97.20	-	-
		4874(Pk)	42.05	74	-31.95
		4874(Av)	30.03	54	-23.97
		7311(Pk)	50.44	74	-23.56
		7311(Av)	38.07	54	-15.93
	Horizontal	2437(Pk)	109.98	-	-
		2437(Av)	100.12	-	-
		4874(Pk)	41.39	74	-32.61
		4874(Av)	29.98	54	-24.02
		7311(Pk)	47.77	74	-26.23
		7311(Av)	35.60	54	-18.40
2462	Vertical	2462(Pk)	102.95	-	-
		2462(Av)	91.51	-	-
		2483.5(Pk)	68.24	74*	-5.76
		2483.5(Av)	40.68	54*	-13.32
		4924(Pk)	43.96	74	-30.04
		4924(Av)	29.72	54	-24.28
		7386(Pk)	47.90	74	-26.10
		7386(Av)	35.57	54	-18.43
	Horizontal	2462(Pk)	105.25	-	-
		2462(Av)	95.38	-	-
		2483.5(Pk)	70.40	74*	-3.60
		2483.5(Av)	50.11	54*	-3.89
		4924(Pk)	41.43	74	-32.57
		4924(Av)	29.75	54	-24.25
		7386(Pk)	47.61	74	-26.39
		7386(Av)	35.40	54	-18.60

*- : Indicate restricted band of operation §15.205

Pk: Peak Detector; Av: Average Detector