

FCC TEST REPORT

FCC 47 CFR Part 15C Industry Canada RSS-210

Digital transmission systems operating within the 2400 - 2483.5 MHz band

Testing Laboratory Eurofins Product Service GmbH

Address...... Storkower Str. 38c

15526 Reichenwalde

Germany

Accreditation:



A2LA Accredited Testing Laboratory, Certificate No.: 1983.01

FCC Filed Test Laboratory, Reg.-No.: 96970

IC OATS Filing assigned code: 3470A

Applicant's name...... AED Engineering

Address...... Taunusstraße 51

80807 München GERMANY

Test specification:

Standard 47 CFR Part 15C

KDB Publication No. 558074 D01 v03r02

RSS-210, Issue 8, 2010-12 RSS-Gen, Issue 4, 2014-11

ANSI C63.4:2014

Test scope..... complete Radio compliance test

Equipment under test (EUT):

Product description CAN-WLAN Gateway RH

Model No. GN1001A

Additional Model(s)

Brand Name(s)

Hardware version

None

B0

Firmware / Software version None

FCC-ID: 2AELE-GN1001A IC: 20129-GN1001A

Test result Passed



Possible test case verdicts:

- neither assessed nor tested N/N

- required by standard but not appl. to test object......: N/A

- required by standard but not tested...... N/T

- not required by standard for the test object N/R

- test object does meet the requirement...... P (Pass)

- test object does not meet the requirement...... F (Fail)

Testing:

Test Lab Temperature 20 – 23 °C

Test Lab Humidity 32 – 38 %

Compiled by: Matthias Handrik

Approved by (+ signature): Christian Weber

Date of issue: 2015-06-30

Total number of pages: 163

General remarks:

The test results presented in this report relate only to the object tested.

The results contained in this report reflect the results for this particular model and serial number. It is the responsibility of the manufacturer to ensure that all production models meet the intent of the requirements detailed within this report.

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Additional comments:

The used radio module had a valid certification; the module used a new antenna. Only the radiated spurious measurements were performed. For the conducted measurement see test-report: FR3N2752-01C

c. Weber



Version History

Version	Issue Date	Remarks	Revised by
01	2015-06-30	Initial Release	



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1 Equipment (Test item) Description

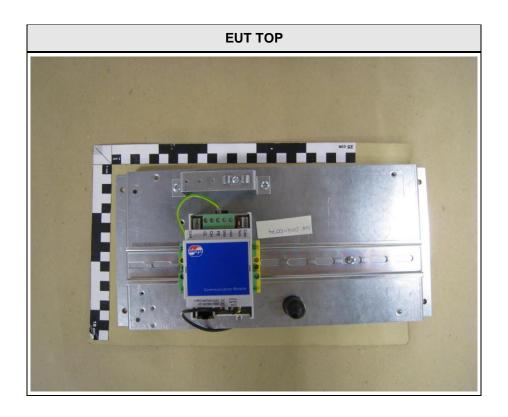
Description	CAN-WLAN Gateway RH					
Model	GN1001A	GN1001A				
Additional Model(s)	None					
Brand Name(s)	None					
Serial number	None					
Hardware version	B0					
Software / Firmware version	None					
FCC-ID	2AELE-GN1001	A				
IC	20129-GN1001	4				
Equipment type	End product					
Radio type	Transceiver					
Radio technology	IEEE 802.11 b/g	ı/n				
Operating frequency range	2412 - 2462 MH					
Assigned frequency band	2400 - 2483.5 M	Hz				
	F _{LOW20}	2412 MHz	F _{LOW40}	2422 MHz		
Main test frequencies	F _{MID20}	2437 MHz	F _{MID40}	2437 MHz		
	F _{HIGH20}	2462 MHz F _{HIGH40} 2452 MHz				
Spreading	CCK, DSSS, OF	DM				
Modulations	BPSK, QPSK, 1	6-QAM, 64-QAN	И			
Number of channels	11					
Channel spacing	5 MHz					
Number of antennas	1					
	Туре	Type IEEE 802.11 b/g/n Module				
	Model	del WL18 MODG B				
Radio Module	Manufacturer	Texas Instrum	ents			
	FCC-ID	Z64-WL18SBN	ИOD			
	IC	451I-WL18SBI	MOD			
	Туре	external dedica	ated			
Antenna	Model	ANT-2.4WRT-	MON-RPS			
Antonia	Manufacturer	Lynx				
	Gain	Gain +0.8 dBi (manufacturer declaration)				
	AED Engineering					
Manufacturer	Taunusstraße 5					
	80807 München					
	GERMANY	041/00				
Barray armsh	V _{NOM}	24 VDC				
Power supply	V _{MIN}	20 VDC				
	V _{MAX}	28 VDC				



	Model	N/A
AC/DC-Adaptor	Vendor	N/A
AC/DC-Adaptor	Input	N/A
	Output	N/A

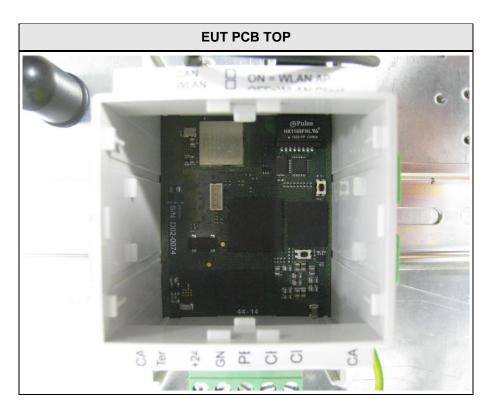


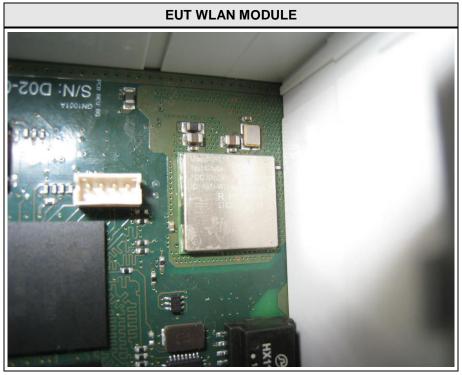
1.1 Photos – Equipment External





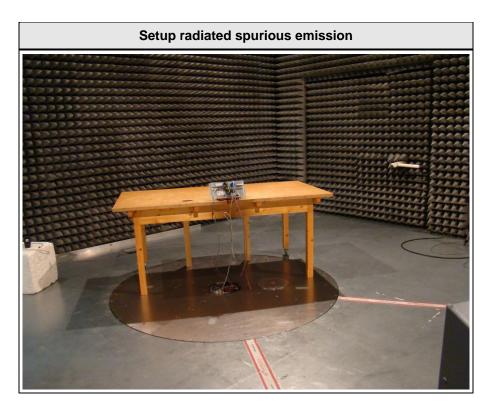
1.2 Photos – Equipment internal

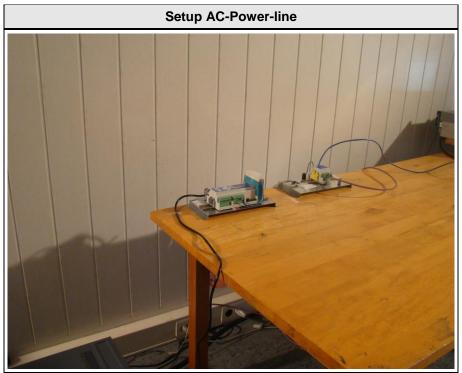






1.3 Photos - Test setup







1.4 Supporting Equipment Used During Testing

Product Type*	Device	Manufacturer	Model No.	Comments			
AE	Laptop	Lenovo	R61				
AE:	AE : Auxiliary/Associated Equipment						



1.5 Test Modes

Mode #		Description	
	General conditions:	EUT powered by laboratory power supply.	
DSSS	Radio conditions:	Mode = standalone transmit Spreading = DSSS Modulation = BPSK Data rate = 1 Mbps Bandwidth = 20 MHz Duty cycle = 100 %	
	General conditions:	EUT powered by laboratory power supply.	
OFDM	Radio conditions:	Mode = standalone transmit Spreading = OFDM Modulation = BPSK Data rate = 6 Mbps Bandwidth = 20 MHz Duty cycle = 100 %	
	General conditions:	EUT powered by laboratory power supply.	
HT20	Radio conditions:	Mode = standalone transmit Spreading = OFDM Modulation = BPSK Data rate = MCS0 Bandwidth = 20 MHz Duty cycle = 100 %	
	General conditions:	EUT powered by laboratory power supply.	
HT40	Radio conditions:	Mode = standalone transmit Spreading = OFDM Modulation = BPSK Data rate = MCS0 Bandwidth = 40 MHz Duty cycle = 100 %	
	General conditions:	EUT powered by laboratory power supply.	
Receive	Radio conditions:	Mode = standalone receive Spreading = DSSS / OFDM	



	General conditions:	EUT powered by 120 V AC
AC-Powerline	Radio conditions:	Mode = standalone transmit Spreading = DSSS Power level = Maximum



1.6 Test Equipment Used During Testing

Measurement Software								
Description	Description Manufacturer Name Version							
EMC Test Software	EMC Test Software Dare Instruments Radimation 2014.1.15							

Radiated spurious emissions								
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due			
Semi-anechoic chamber	Frankonia	AC 1	EF00062	-	-			
Spectrum Analyzer	R&S	FSIQ26	EF00242	2014-03	2015-03			
Biconical Antenna	R&S	HK 116	EF00012	2013-02	2016-02			
LPD Antenna	R&S	HL 223	EF00187	2014-03	2017-03			
LPD Antenna	R&S	HL 025	EF00327	2013-02	2016-02			

AC powerline conducted emissions									
Description	Description Manufacturer Model Identifier Cal. Date Cal. Due								
AMN	R&S	ESH2-Z5	EF00182	2014-11	2016-11				
EMI Test Receiver	R&S	ESCS 30	EF00295	2014-10	2015-10				



1.7 Sample emission level calculation

The following is a description of terms and a sample calculation, as appears in the radiated emissions data table. The numbers used in the calculation are for example only. There is no direct correlation to the specific data taken for the product described in this document:

Reading:

This is the reading obtained on the spectrum analyzer in dBµV. Any external preamplifiers used are taken into account through internal analyzer settings.

A.F.:

This is the antenna factor for the receiving antenna. It is a conversion factor, which converts electric fields strengths to voltages, which can be measured directly on the spectrum analyzer. It is treated as a loss in dB. Cable losses have been included with the A.F. to simplify the calculations. The antenna factor is used in calculations as follows:

Reading on Analyzer (dB μ V) + A.F. (dB) = Net field strength (dB μ V/m)

Net:

This is the net field strength measurement (as shown above).

Limit:

This is the FCC Class B radiated emission limit (in units of $dB\mu V/m$). The FCC limits are given in units of $\mu V/m$. The following formula is used to convert the units of $\mu V/m$ to $dB\mu V/m$:

Limit (dB μ V/m) = 20*log (μ V/m)

Margin:

This is the margin of compliance below the FCC limit. The units are given in dB. A negative margin indicates the emission was below the limit. A positive margin indicates that the emission exceeds the limit.

Example only:

Reading + AF = Net Reading : Net reading - FCC limit = Margin 21.5 dB μ V + 26 dB = 47.5 dB μ V/m : 47.5 dB μ V/m - 57.0 dB μ V/m = -9.5 dB



2 Result Summary

Product Specific Standard Section	Requirement – Test	Reference Method	Result	Remarks
RSS-Gen 6.6	Occupied Bandwidth	RSS-Gen 6.6	N/R	Informational only; See FCC RF Test Repor FR3N2752-01C
FCC § 15.247(a)(2) IC RSS-210 § A8.2	6dB Bandwidth	KDB Publication No. 558074	PASS	See FCC RF Test Repor FR3N2752-01C
FCC § 15.247(b)(3) IC RSS-210 § A8.4	Maximum peak conducted power	KDB Publication No. 558074	PASS	See FCC RF Test Repor FR3N2752-01C
FCC § 15.247(e) IC RSS-210 § A8.2	Power spectral density	KDB Publication No. 558074	PASS	See FCC RF Test Report FR3N2752-01C
47 CFR 15.207 RSS-Gen 8.8	AC power line conducted emissions	KDB Publication No. 558074 / ANSI C63.4	PASS	
FCC § 15.247(d) IC RSS-210 § A8.5	Band edge compliance	KDB Publication No. 558074	PASS	See FCC RF Test Report FR3N2752-01C
FCC § 15.247(d) IC RSS-210 § A8.5	Conducted spurious emissions	KDB Publication No. 558074	PASS	See FCC RF Test Report FR3N2752-01C
FCC § 15.247(d) FCC § 15.209 IC RSS-210 A8.5 IC RSS-Gen 6.13	Transmitter radiated spurious emissions	KDB Publication No. 558074 / ANSI C 63.4	PASS	
IC RSS-Gen 7.1	Receiver radiated spurious emissions	ANSI C 63.4	PASS	



3 Test Conditions and Results

3.1 Test Conditions and Results – AC power line conducted emissions

Power line conducted emissions acc. to Verdict: PASS FCC 47 CFR 15.207 / IC RSS-Gen						
Test according referenced			Reference Method			
standard				ANSI C63.4		
Fully configured sample	e scanned over		Fi	requency range		
the following freque	ency range		0.19	5 MHz to 30 MHz		
Points of Application			Application Interface			
AC Mains			LISN			
EUT test me	ode	AC-Powerline				
		Limits	and results			
Frequency [MHz]	Quasi-Peak [dBµV]	Result	Average [dBµV]	Result	
0.15 to 5	66 to 56	*	PASS	56 to 46*	PASS	
0.5 to 5 56			PASS	46	PASS	
5 to 30 60			PASS	50	PASS	
Comments: * Limit decreases linearly with the logarithm of the frequency.						



Conducted Emissions

EMI voltage test in the ac-mains according to FCC 15B

Project number: G0M-1411-4293

Manufacturer: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Belz

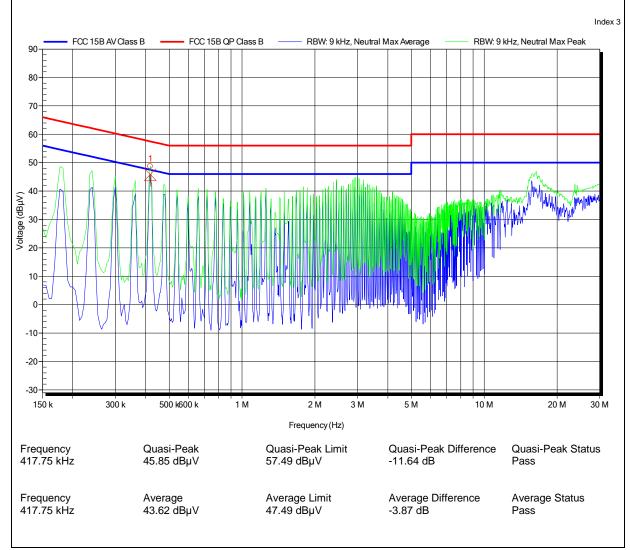
Test Conditions: Tnom: 23°C, Unom: 120 VAC

LISN: ESH2-Z5 N

Mode: WLAN, LAN active

Test Date: 2015-03-16







Conducted Emissions

EMI voltage test in the ac-mains according to FCC 15B

Project number: G0M-1411-4293

Manufacturer: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

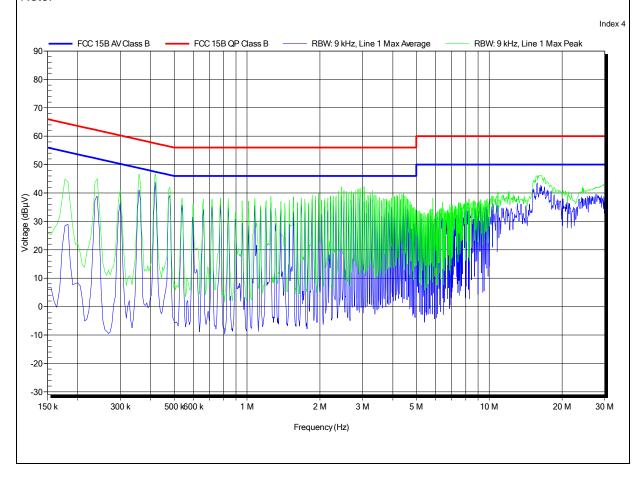
Test Site: Eurofins Product Service GmbH

Operator: Mr. Belz

Test Conditions: Tnom: 23°C, Unom: 120 VAC

LISN: ESH2-Z5 L Mode: WLAN, LAN active Test Date: 2015-03-16

Note:

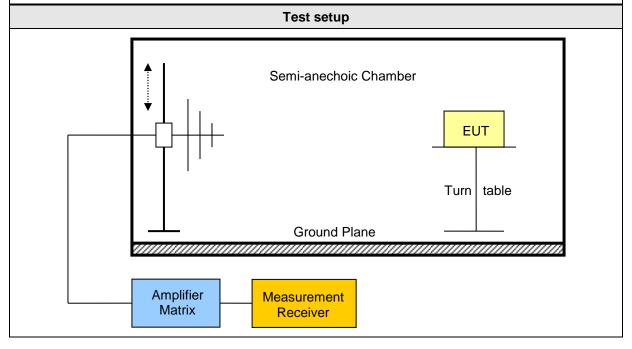




3.2 Test Conditions and Results – Transmitter radiated emissions

Transmitter radiated er FCC 47 CFR 15.247 / IC		. to		Verdict: PASS			
Test according refe	erenced	Reference Method					
standards		FCC 15.24	47(d) / IC R	SS-210 A8.5			
Test according	to	Re	eference Me	thod			
measurement refe	erence	FCC KDB Public	ation No. 55	58074 / ANSI C63.4			
Toot from your on our	0000	Tested frequencies					
Test frequency r	ange	30 MHz – 10 th Harmonic					
		Limits					
Frequency range [MHz]	Detector	Limit [µV/m]	Limit [dBµV/m]	Limit Distance [m]			
30 – 88	Quasi-Peak	100	40	3			
88 – 216	Quasi-Peak	150	43.5	3			
216 – 960	216 – 960 Quasi-Peak		46	3			
960 – 1000 Quasi-Peak		500	54	3			
> 1000	Average	500	54	3			

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)). When average radiated emission measurements are specified, including average emission measurements below 1000 MHz, there also is a limit on the peak level of the radio frequency emissions. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit applicable to the equipment under test.





Test procedure

- 1. EUT set to test mode (Communication tester is used if needed)
- 2. Span it set according to measurement range
- 3. Resolution bandwidth below 1 GHz is set according to CISPR 16 with peak/quasi-peak detector and RBW of 1 MHz with peak/average detector is used above 1 GHz
- 4. Markers are set to peak emission levels within restricted bands

			Test resul	ts IEEE80	2.11 b				
Channel	Frequency [MHz]	Mode	Emission [MHz]	Level [dbµV/m]	Det.	Pol.	Limit [dbµV/m]	Limit dist. [m]*	Margin [dB]
F_{LOW}	2412	DSSS	2363	42.41	pk	hor	74.00	3	-31.59
F _{LOW}	2412	DSSS	2363	32.11	RMS	hor	54.00	3	-21.89
F _{LOW}	2412	DSSS	2386	48.73	pk	hor	74.00	3	-25.27
F _{LOW}	2412	DSSS	2386	41.60	RMS	hor	54.00	3	-12.40
F _{LOW}	2412	DSSS	2310	40.27	pk	ver	74.00	3	-33.73
F _{LOW}	2412	DSSS	2310	29.55	RMS	ver	54.00	3	-24.45
F _{LOW}	2412	DSSS	2358	41.91	pk	ver	74.00	3	-32.09
F _{LOW}	2412	DSSS	2358	29.95	RMS	ver	54.00	3	-24.05
F _{LOW}	2412	DSSS	2386	46.29	pk	ver	74.00	3	-27.71
F _{LOW}	2412	DSSS	2386	38.17	RMS	ver	54.00	3	-15.83
F _{LOW}	2412	DSSS	3961	43.16	pk	ver	74.00	3	-30.84
F _{HIGH}	2462	DSSS	2484	50.66	pk	hor	74.00	3	-23.34
F _{HIGH}	2462	DSSS	2484	41.70	RMS	hor	54.00	3	-12.30
F _{HIGH}	2462	DSSS	2488	49.90	pk	hor	74.00	3	-24.10
F _{HIGH}	2462	DSSS	2488	40.64	RMS	hor	54.00	3	-13.36
F _{HIGH}	2462	DSSS	2491	47.55	pk	hor	74.00	3	-26.45
F _{HIGH}	2462	DSSS	2491	38.94	RMS	hor	54.00	3	-15.06
F _{HIGH}	2462	DSSS	2499	49.55	pk	hor	74.00	3	-24.45
F _{HIGH}	2462	DSSS	2499	39.68	RMS	hor	54.00	3	-14.32
F _{HIGH}	2462	DSSS	2484	48.82	pk	ver	74.00	3	-25.18
F _{HIGH}	2462	DSSS	2484	39.74	RMS	ver	54.00	3	-14.26
F _{HIGH}	2462	DSSS	2487	49.87	pk	ver	74.00	3	-24.13
F _{HIGH}	2462	DSSS	2487	41.67	RMS	ver	54.00	3	-12.33
Comments	: * Physical d	istance betwee	n EUT and m	easurement	antenna				



			Test resul	Its IEEE80	2.11 a				
Channel	Frequency [MHz]	Mode	Emission [MHz]	Level	Det.	Pol.	Limit [dbµV/m]	Limit dist. [m]*	Margin [dB]
F _{LOW}	2412	OFDM	2379	54.39	pk	hor	74.00	3	-19.61
F _{LOW}	2412	OFDM	2379	32.40	RMS	hor	54.00	3	-21.60
F _{LOW}	2412	OFDM	2383	61.91	pk	hor	74.00	3	-12.09
F _{LOW}	2412	OFDM	2383	35.86	RMS	hor	54.00	3	-18.14
F _{LOW}	2412	OFDM	2387	67.14	pk	hor	74.00	3	-06.86
F _{LOW}	2412	OFDM	2387	40.06	RMS	hor	54.00	3	-13.94
F _{HIGH}	2462	OFDM	2484	66.18	pk	ver	74.00	3	-07.82
F _{HIGH}	2462	OFDM	2484	43.86	RMS	ver	54.00	3	-10.14
F _{HIGH}	2462	OFDM	2484	73.33	pk	hor	74.00	3	-00.67
F _{HIGH}	2462	OFDM	2484	49.26	RMS	hor	54.00	3	-04.74
F _{HIGH}	2462	OFDM	2487	61.32	pk	ver	74.00	3	-12.68
F _{HIGH}	2462	OFDM	2487	37.91	RMS	ver	54.00	3	-16.09
F _{HIGH}	2462	OFDM	2489	61.55	pk	hor	74.00	3	-12.45
F _{HIGH}	2462	OFDM	2489	38.17	RMS	hor	54.00	3	-15.83
F _{HIGH}	2462	OFDM	2490	59.77	pk	ver	74.00	3	-14.23
F _{HIGH}	2462	OFDM	2490	37.41	RMS	ver	54.00	3	-16.59
F _{HIGH}	2462	OFDM	2496	54.56	pk	ver	74.00	3	-19.44
F _{HIGH}	2462	OFDM	2496	32.90	RMS	ver	54.00	3	-21.10
F _{HIGH}	2462	OFDM	2498	50.82	pk	ver	74.00	3	-23.18
F _{HIGH}	2462	OFDM	2498	31.04	RMS	ver	54.00	3	-22.96
F _{HIGH}	2462	OFDM	2498	51.09	pk	hor	74.00	3	-22.91
F _{HIGH}	2462	OFDM	2498	31.67	RMS	hor	54.00	3	-22.33
F _{MID}	2437	OFDM	2383	51.79	pk	hor	74.00	3	-22.21
F _{MID}	2437	OFDM	2385	53.44	pk	ver	74.00	3	-20.56
F _{MID}	2437	OFDM	2385	34.16	RMS	ver	54.00	3	-19.84
F _{MID}	2437	OFDM	2389	54.89	pk	ver	74.00	3	-19.11
F _{MID}	2437	OFDM	2389	53.99	pk	ver	74.00	3	-20.01
F _{MID}	2437	OFDM	2389	33.78	RMS	ver	54.00	3	-20.22
F _{MID}	2437	OFDM	2390	54.19	pk	ver	74.00	3	-19.81
F _{MID}	2437	OFDM	2390	34.05	RMS	ver	54.00	3	-19.95
F _{MID}	2437	OFDM	2487	53.49	pk	hor	74.00	3	-20.51
F _{LOW}	2412	OFDM	4816	38.77	pk	hor	74.00	3	-35.23
F _{LOW}	2412	OFDM	2369	50.23	pk	ver	74.00	3	-23.77
F_{LOW}	2412	OFDM	2369	29.68	RMS	ver	54.00	3	-24.32



F _{LOW}	2412	OFDM	2384	59.30	pk	ver	74.00	3	-14.70
F_{LOW}	2412	OFDM	2384	33.77	RMS	ver	54.00	3	-20.23
F_{LOW}	2412	OFDM	2400	76.38	pk	ver	95.00	3	-18.62

Comments: * Physical distance between EUT and measurement antenna.



		Te	est results IE	EE802.11	gn (HT	40)			
Channel	Frequency [MHz]	Mode	Emission [MHz]	Level [dbµV/m]	Det.	Pol.	Limit [dbµV/m]	Limit dist. [m]*	Margin [dB]
F _{LOW}	2422	OFDM	2357	55.39	pk	hor	74.00	3	-18.61
F_{LOW}	2422	OFDM	2357	29.63	RMS	hor	54.00	3	-24.37
F_{LOW}	2422	OFDM	2358	58.08	pk	ver	74.00	3	-15.92
F _{LOW}	2422	OFDM	2358	39.77	RMS	ver	54.00	3	-14.23
F _{LOW}	2422	OFDM	2367	57.13	pk	hor	74.00	3	-16.87
F _{LOW}	2422	OFDM	2367	31.80	RMS	hor	54.00	3	-22.20
F _{LOW}	2422	OFDM	2372	59.12	pk	hor	74.00	3	-14.88
F _{LOW}	2422	OFDM	2372	34.36	RMS	hor	54.00	3	-19.64
F _{LOW}	2422	OFDM	2374	59.96	pk	ver	74.00	3	-14.04
F _{LOW}	2422	OFDM	2374	41.22	RMS	ver	54.00	3	-12.78
F _{LOW}	2422	OFDM	2380	68.65	pk	hor	74.00	3	-05.35
F _{LOW}	2422	OFDM	2380	43.29	RMS	hor	54.00	3	-10.71
F _{LOW}	2422	OFDM	2382	68.73	pk	ver	74.00	3	-05.27
F _{LOW}	2422	OFDM	2382	46.33	RMS	ver	54.00	3	-07.67
F _{LOW}	2422	OFDM	2385	71.10	pk	hor	74.00	3	-02.90
F_{LOW}	2422	OFDM	2385	47.64	RMS	hor	54.00	3	-06.36
F_{LOW}	2422	OFDM	2388	70.63	pk	hor	74.00	3	-03.37
F_{LOW}	2422	OFDM	2388	50.24	RMS	hor	54.00	3	-03.76
F_{LOW}	2422	OFDM	2390	70.41	pk	ver	74.00	3	-03.59
F_{LOW}	2422	OFDM	2390	49.35	RMS	ver	54.00	3	-04.65
F_{MID}	2437	OFDM	2344	44.42	pk	ver	74.00	3	-29.58
F_{MID}	2437	OFDM	2344	27.07	RMS	ver	54.00	3	-26.93
F_{MID}	2437	OFDM	2364	52.00	pk	ver	74.00	3	-22.00
F_{MID}	2437	OFDM	2364	28.18	RMS	ver	54.00	3	-25.82
F_{MID}	2437	OFDM	2367	49.27	pk	ver	74.00	3	-24.73
F_{MID}	2437	OFDM	2367	28.20	RMS	ver	54.00	3	-25.80
F_{MID}	2437	OFDM	2370	54.91	pk	hor	74.00	3	-19.09
F_{MID}	2437	OFDM	2370	29.69	RMS	hor	54.00	3	-24.31
F_{MID}	2437	OFDM	2374	57.48	pk	hor	74.00	3	-16.52
F_{MID}	2437	OFDM	2374	30.69	RMS	hor	54.00	3	-23.31
F_{MID}	2437	OFDM	2376	53.93	pk	ver	74.00	3	-20.07
F _{MID}	2437	OFDM	2376	29.06	RMS	ver	54.00	3	-24.94
F_{MID}	2437	OFDM	2378	55.11	pk	ver	74.00	3	-18.89
F _{MID}	2437	OFDM	2380	56.20	pk	hor	74.00	3	-17.80



F _{MID}	2437	OFDM	2384	59.10	pk	hor	74.00	3	-14.90
F _{MID}	2437	OFDM	2384	34.41	RMS	hor	54.00	3	-19.59
F _{MID}	2437	OFDM	2388	59.71	pk	ver	74.00	3	-14.29
F _{MID}	2437	OFDM	2388	36.99	RMS	ver	54.00	3	-17.01
F _{MID}	2437	OFDM	2389	60.52	pk	hor	74.00	3	-13.48
F _{MID}	2437	OFDM	2389	39.22	RMS	hor	54.00	3	-14.78
F _{MID}	2437	OFDM	2390	60.33	pk	ver	74.00	3	-13.67
F _{MID}	2437	OFDM	2390	39.16	RMS	ver	54.00	3	-14.84
F _{MID}	2437	OFDM	2392	64.01	pk	hor	95.00	3	-30.99
F _{MID}	2437	OFDM	2484	54.88	pk	ver	74.00	3	-19.12
F _{MID}	2437	OFDM	2484	59.20	pk	ver	74.00	3	-14.80
F _{MID}	2437	OFDM	2484	38.71	RMS	ver	54.00	3	-15.29
F _{MID}	2437	OFDM	2484	62.37	pk	hor	74.00	3	-11.63
F _{MID}	2437	OFDM	2484	41.84	RMS	hor	54.00	3	-12.16
F _{MID}	2437	OFDM	2487	57.67	pk	hor	74.00	3	-16.33
F _{MID}	2437	OFDM	2488	59.18	pk	hor	74.00	3	-14.82
F _{MID}	2437	OFDM	2488	37.35	RMS	hor	54.00	3	-16.65
F_{MID}	2437	OFDM	2489	56.14	pk	ver	74.00	3	-17.86
F_{MID}	2437	OFDM	2489	33.81	RMS	ver	54.00	3	-20.19
F_{MID}	2437	OFDM	2491	56.58	pk	ver	74.00	3	-17.42
F_{MID}	2437	OFDM	2491	31.91	RMS	ver	54.00	3	-22.09
F _{MID}	2437	OFDM	2492	60.33	pk	hor	74.00	3	-13.67
F_{MID}	2437	OFDM	2492	35.43	RMS	hor	54.00	3	-18.57
F_{MID}	2437	OFDM	2494	55.97	pk	ver	74.00	3	-18.03
F_{MID}	2437	OFDM	2494	30.83	RMS	ver	54.00	3	-23.17
F_{MID}	2437	OFDM	2495	60.07	pk	hor	74.00	3	-13.93
F_{MID}	2437	OFDM	2495	34.80	RMS	hor	54.00	3	-19.20
F_{MID}	2437	OFDM	2499	58.71	pk	hor	74.00	3	-15.29
F_{MID}	2437	OFDM	2499	33.49	RMS	hor	54.00	3	-20.51
F_{MID}	2437	OFDM	2500	55.39	pk	ver	74.00	3	-18.61
F_{MID}	2437	OFDM	2500	29.39	RMS	ver	54.00	3	-24.61
F _{HIGH}	2452	OFDM	2385	54.81	pk	hor	74.00	3	-19.19
F _{HIGH}	2452	OFDM	2385	30.54	RMS	hor	54.00	3	-23.46
F _{HIGH}	2452	OFDM	2386	53.03	pk	ver	74.00	3	-20.97
F _{HIGH}	2452	OFDM	2386	57.43	pk	hor	74.00	3	-16.57
F _{HIGH}	2452	OFDM	2386	30.91	RMS	hor	54.00	3	-23.09



F _{HIGH}	2452	OFDM	2387	57.30	pk	hor	74.00	3	-16.70
F _{HIGH}	2452	OFDM	2387	31.11	RMS	hor	54.00	3	-22.89
F _{HIGH}	2452	OFDM	2389	54.71	pk	hor	74.00	3	-19.29
F _{HIGH}	2452	OFDM	2390	55.98	pk	hor	74.00	3	-18.02
F _{HIGH}	2452	OFDM	2390	31.80	RMS	hor	54.00	3	-22.20
F _{HIGH}	2452	OFDM	2484	69.81	pk	ver	74.00	3	-04.19
F _{HIGH}	2452	OFDM	2484	49.80	RMS	ver	54.00	3	-04.20
F _{HIGH}	2452	OFDM	2484	67.57	pk	hor	74.00	3	-06.43
F _{HIGH}	2452	OFDM	2484	49.48	RMS	hor	54.00	3	-04.52
F _{HIGH}	2452	OFDM	2487	68.36	pk	ver	74.00	3	-05.64
F _{HIGH}	2452	OFDM	2487	46.03	RMS	ver	54.00	3	-07.97
F _{HIGH}	2452	OFDM	2490	65.70	pk	ver	74.00	3	-08.30
F _{HIGH}	2452	OFDM	2490	45.90	RMS	ver	54.00	3	-08.10
F _{HIGH}	2452	OFDM	2492	64.59	pk	hor	74.00	3	-09.41
F _{HIGH}	2452	OFDM	2492	43.27	RMS	hor	54.00	3	-10.73
F _{HIGH}	2452	OFDM	2495	65.44	pk	ver	74.00	3	-08.56
F _{HIGH}	2452	OFDM	2495	41.85	RMS	ver	54.00	3	-12.15
F _{HIGH}	2452	OFDM	2495	65.85	pk	hor	74.00	3	-08.15
F _{HIGH}	2452	OFDM	2495	41.46	RMS	hor	54.00	3	-12.54
F _{HIGH}	2452	OFDM	2500	56.47	pk	ver	74.00	3	-17.53
F _{HIGH}	2452	OFDM	2500	35.35	RMS	ver	54.00	3	-18.65
F _{HIGH}	2452	OFDM	2500	57.36	pk	hor	74.00	3	-16.64
Comments	: * Physical d	istance betwee	en EUT and me	easurement	antenna				



3.3 Test Conditions and Results - Receiver radiated emissions

Receiver radiated emissions acc. to IC RSS-210 Verdict: PASS										
Test according refere	enced			Reference Method						
standards		IC RSS-210 A8.5								
Test according t		Reference Method								
measurement refer	ence	ANSI C63.4								
Test frequency rar			Tested frequencies	3						
rest frequency far	ige		30	0 MHz – 5 th Harmor	nic					
EUT test mode				Receive						
			Limits							
Frequency range [MHz]	Detector		Limit [µV/m]	Limit [dBµV/m]	Limit Distance [m]					
30 – 88	Quasi-Pea	ık	100	40	3					
88 – 216	Quasi-Pea	ık	150	43.5	3					
216 – 960	Quasi-Pea	ık	200	46	3					
960 – 1000	Quasi-Pea	ık	500	54	3					
> 1000	Average		500	54	3					
			Test setup							
Semi-anechoic Chamber EUT Turn table										
Amplifier Measurement Receiver										



Test procedure

- 1. EUT set to receive mode (Communication tester is used if needed)
- 2. Span it set according to measurement range
- 3. Resolution bandwidth below 1 GHz is set according to CISPR 16 with peak/quasi-peak detector and RBW of 1 MHz with peak/average detector is used above 1 GHz
- 4. Markers are set to peak emission levels

			Test re	sults			
Channel	Frequency [MHz]	Emission [MHz]	Emission Level [dbµV/m]	Emission Level [µV/m]	Det.	Limit [µV/m]	Margin [µV/m]
F _{MID}	2437	30	27.74	24.38	pk	100.00	-75.62
F _{MID}	2437	31.02	28.38	26.24	pk	100.00	-73.76
F _{MID}	2437	32.04	27.45	23.58	pk	100.00	-76.42
F _{MID}	2437	106.84	32.89	44.11	pk	150.00	-105.89
F _{MID}	2437	165.66	32.27	41.07	pk	150.00	-108.93
F _{MID}	2437	187.08	31.79	38.86	pk	150.00	-111.14
F _{MID}	2437	197.28	31.38	37.07	pk	150.00	-112.93
F _{MID}	2437	197.96	31.52	37.67	pk	150.00	-112.33
F _{MID}	2437	198.64	31.50	37.58	pk	150.00	-112.42
F _{MID}	2437	199.66	31.28	36.64	pk	150.00	-113.36
F _{MID}	2437	220.8	31.89	39.31	pk	200.00	-160.69
F _{MID}	2437	224	34.52	53.21	pk	200.00	-146.79
F _{MID}	2437	249.6	20.01	10.01	pk	200.00	-189.99
F _{MID}	2437	273.6	21.07	11.31	pk	200.00	-188.69
F_{MID}	2437	524.8	22.67	13.60	pk	200.00	-186.40
F _{MID}	2437	524.8	24.25	16.31	pk	200.00	-183.69
F _{MID}	2437	600	27.62	24.04	pk	200.00	-175.96
F_{MID}	2437	878.4	33.49	47.26	pk	200.00	-152.74
F _{MID}	2437	915.2	31.06	35.73	pk	200.00	-164.27
F _{MID}	2437	3688	43.41	148.08	pk	500.00	-351.92
F _{MID}	2437	3898	42.87	139.16	pk	500.00	-360.84
F _{MID}	2437	3940	42.87	139.16	pk	500.00	-360.84
F _{MID}	2437	7736	52.76	434.51	pk	500.00	-65.49
F _{MID}	2437	7808	51.39	371.11	pk	500.00	-128.89

Comments:

^{*} Physical distance between EUT and measurement antenna.

^{**} Emission level corresponds to ambient noise floor



ANNEX A Transmitter radiated spurious emissions

Spurious emissions according to FCC part 15 Subpart C § 15.247

Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

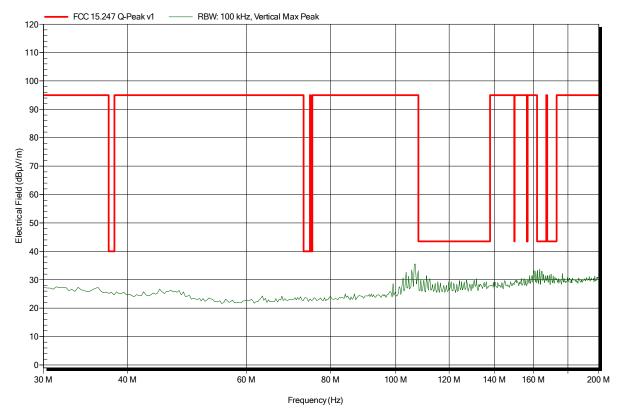
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HK 116, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11b; Ch. 1; 2412 MHz; 1Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

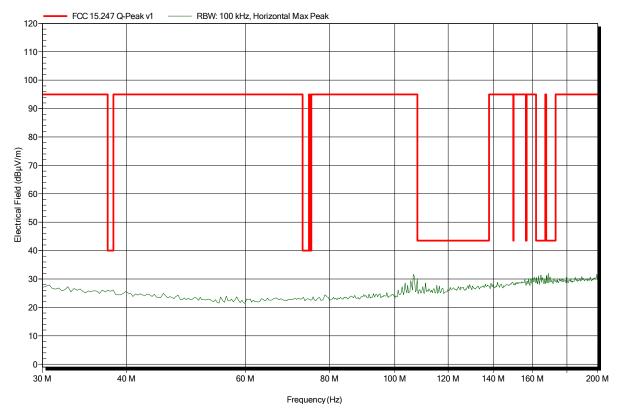
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HK 116, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11b; Ch.1; 2412 MHz; 1Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

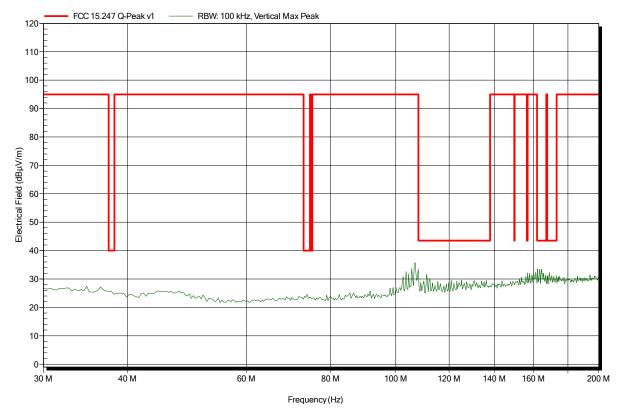
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HK 116, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11b; Ch. 6; 2437 MHz; 1Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

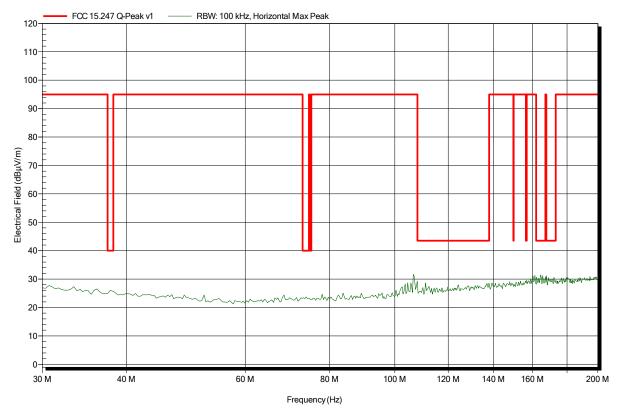
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HK 116, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11b; Ch.6; 2437 MHz; 1Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

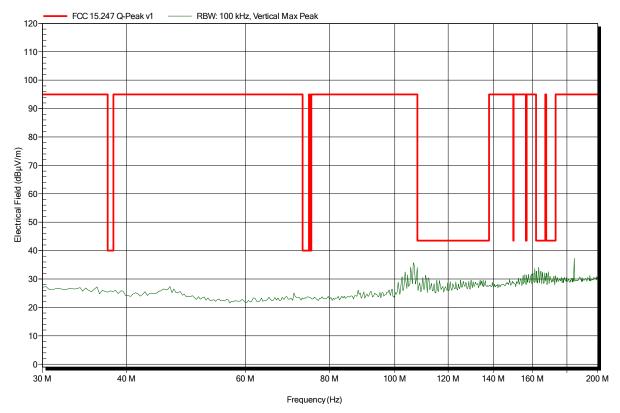
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HK 116, Vertical

Measurement distance: 3 n

Mode: TX; IEEE 802.11b; Ch. 11; 2462 MHz; 1Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

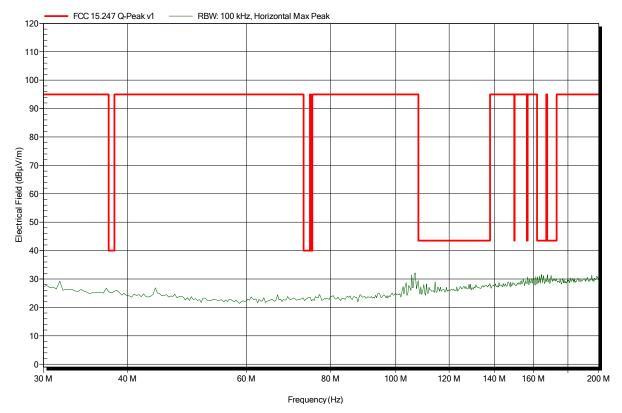
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HK 116, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11b; Ch.11; 2462 MHz; 1Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

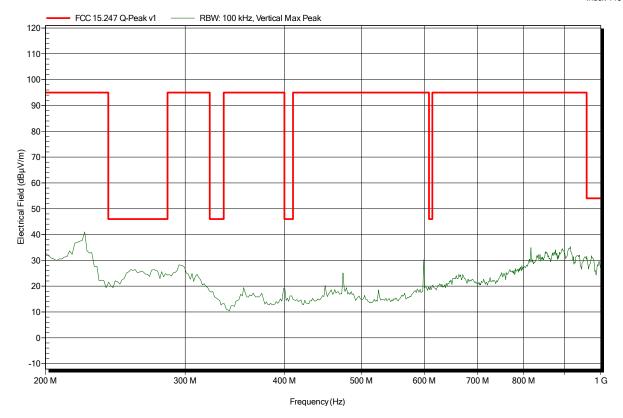
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 223, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11b; Ch. 1; 2412 MHz; 1Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

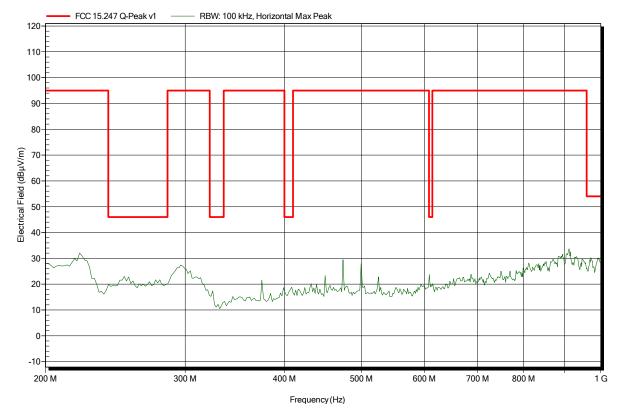
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11b; Ch. 1; 2412 MHz; 1Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

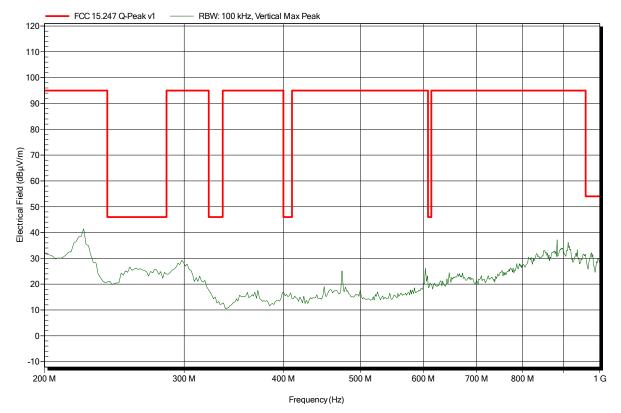
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 223, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11b; Ch. 6; 2437 MHz; 1Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

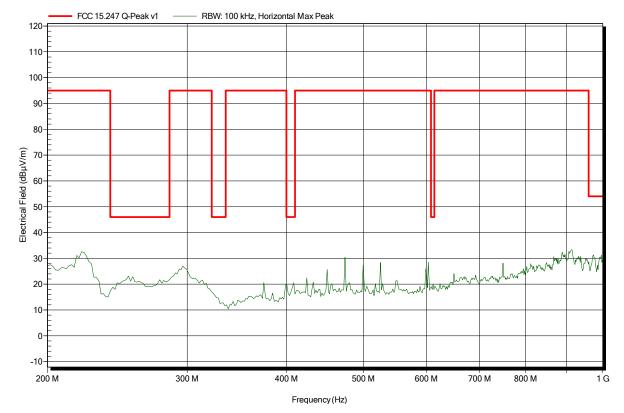
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11b; Ch. 6; 2437 MHz; 1Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

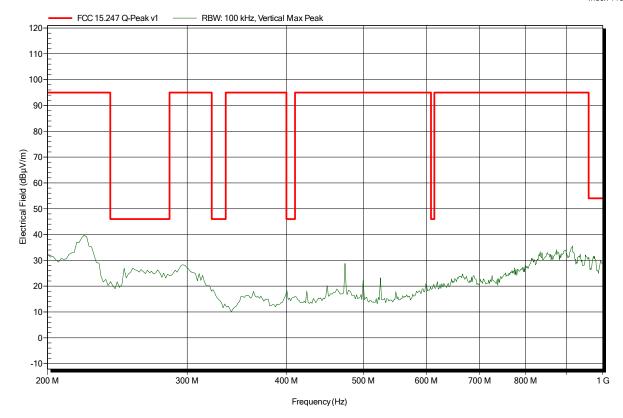
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 223, Vertical

Measurement distance: 3 n

Mode: TX; IEEE 802.11b; Ch. 11; 2462 MHz; 1Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

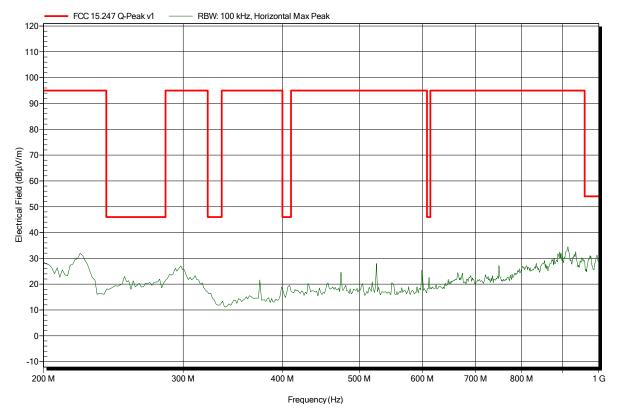
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11b; Ch. 11; 2462 MHz; 1Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

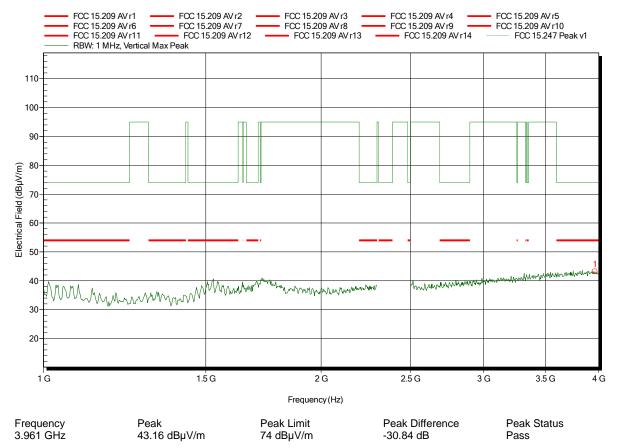
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 3 r

Mode: TX; IEEE 802.11b; Ch.1; 2412 MHz; 1 Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

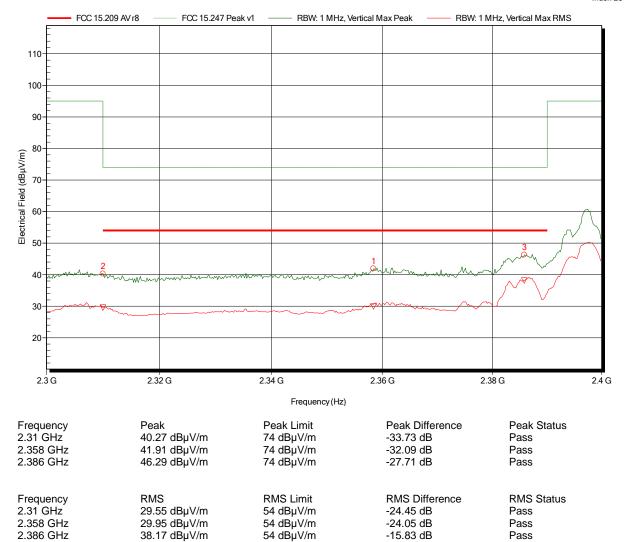
Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11b; Ch.1; 2412 MHz; 1 Mbps; Pmax

Test Date: 2015-02-20

Note: EUT vertical; lower band edge





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

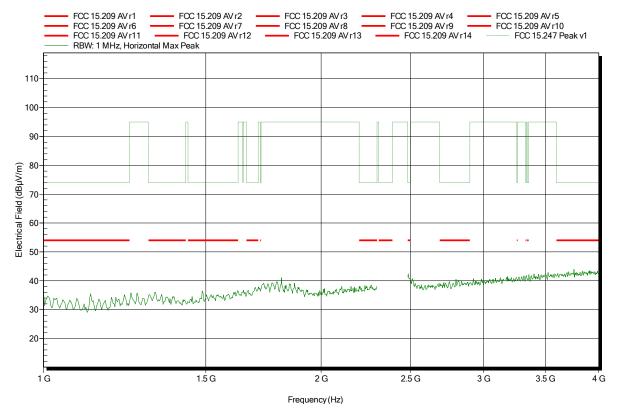
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11b; Ch. 1; 2412 MHz; 1 Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC

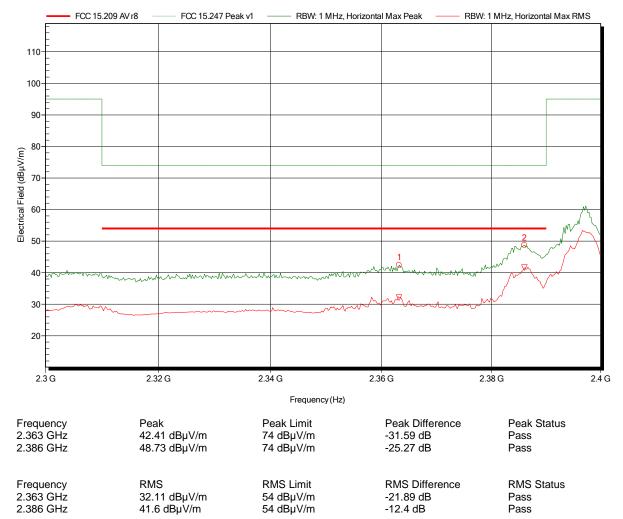
Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 3 r

Mode: TX; IEEE 802.11b; Ch. 1; 2412 MHz; 1 Mbps; Pmax

Test Date: 2015-02-23

Note: EUT vertical; lower band edge





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

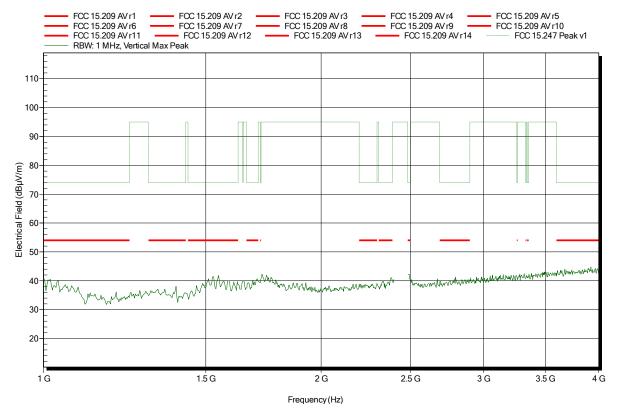
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11b; Ch.6; 2437 MHz; 1 Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

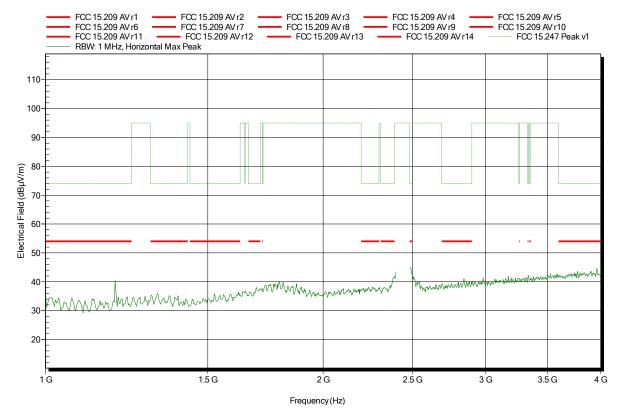
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11b; Ch. 6; 2437 MHz; 1 Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

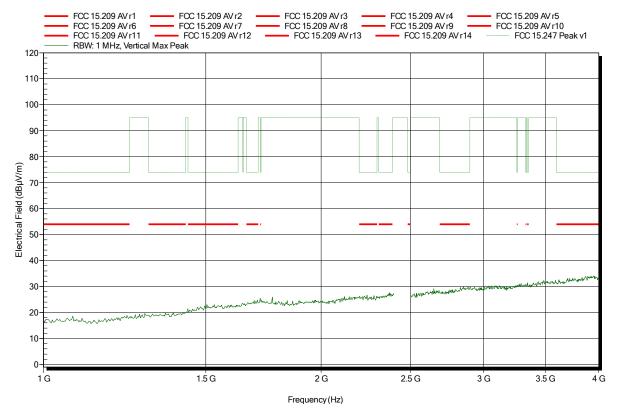
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11b; Ch.11; 2462 MHz; 1Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

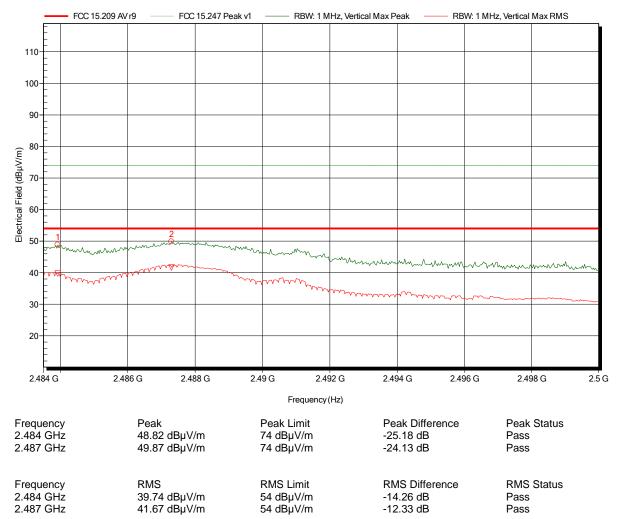
Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11b; Ch.11; 2462 MHz; 1Mbps; Pmax

Test Date: 2015-02-23

Note: EUT vertical; higher band edge





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

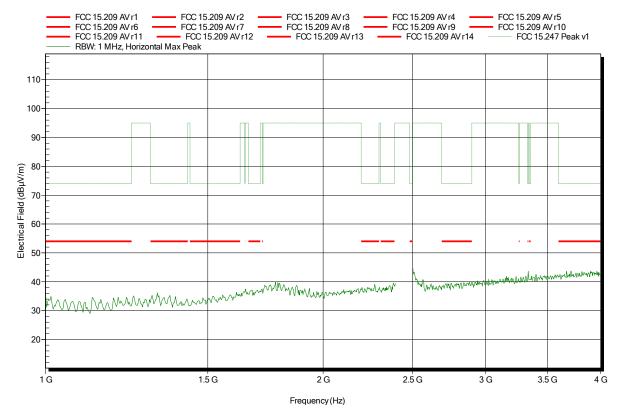
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 3 n

Mode: TX; IEEE 802.11b; Ch. 11; 2462 MHz; 1Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC

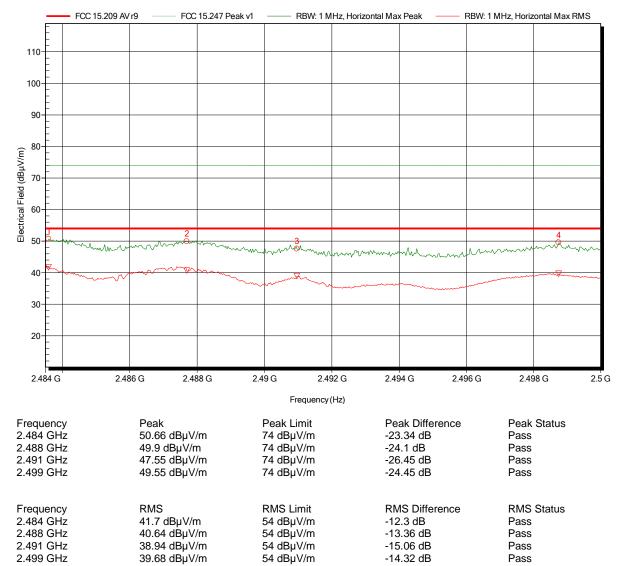
Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11b; Ch. 11; 2462 MHz; 1Mbps; Pmax

Test Date: 2015-02-23

Note: EUT vertical; higher band edge





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

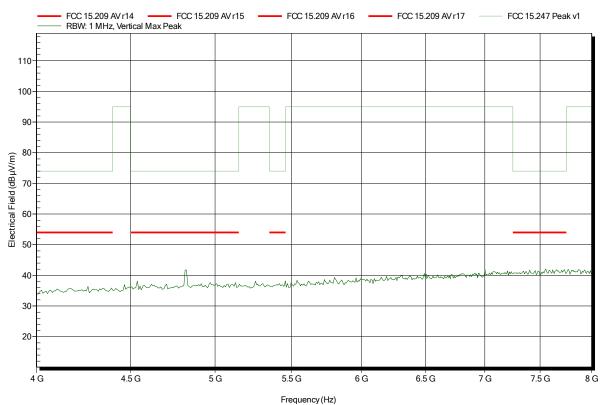
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11b; Ch.1; 2412 MHz; 1 Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

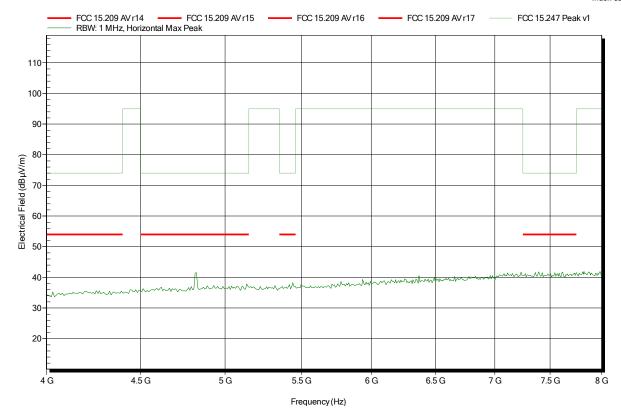
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11b; Ch.1; 2412 MHz; 1 Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

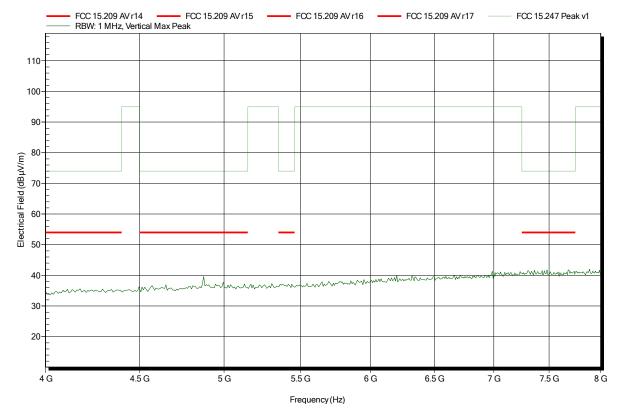
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11b; Ch.6; 2432 MHz; 1 Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

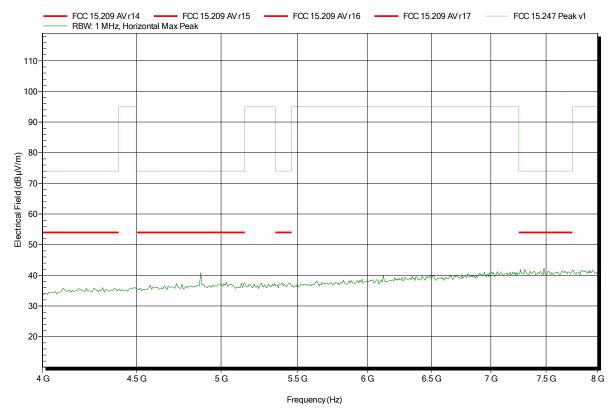
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11b; Ch.6; 2432 MHz; 1 Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

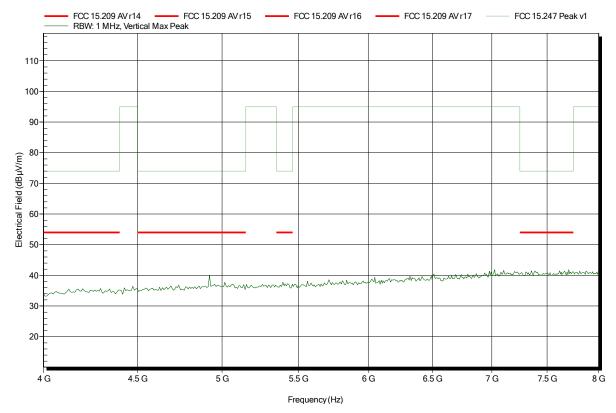
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11b; Ch.11; 2462 MHz; 1 Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

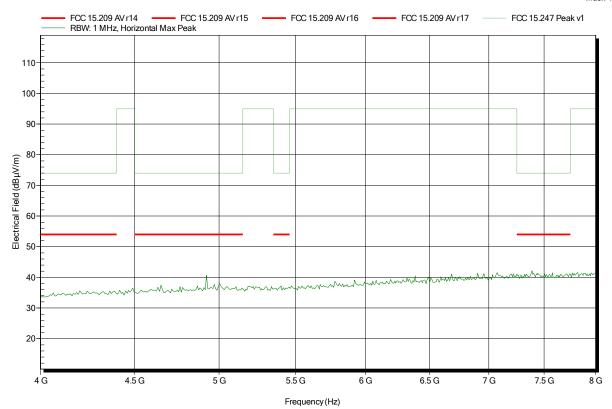
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11b; Ch.11; 2462 MHz; 1 Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

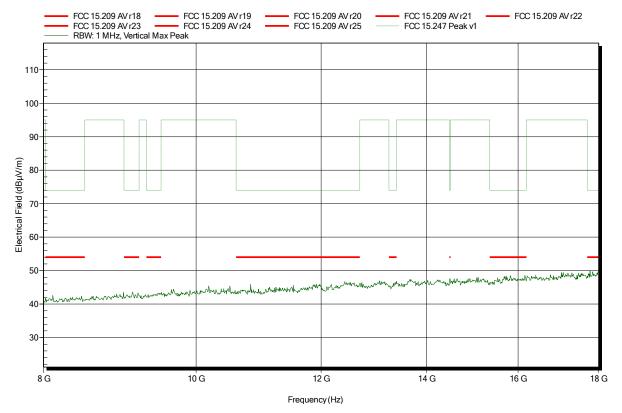
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11b; Ch.1; 2412 MHz; 1 Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

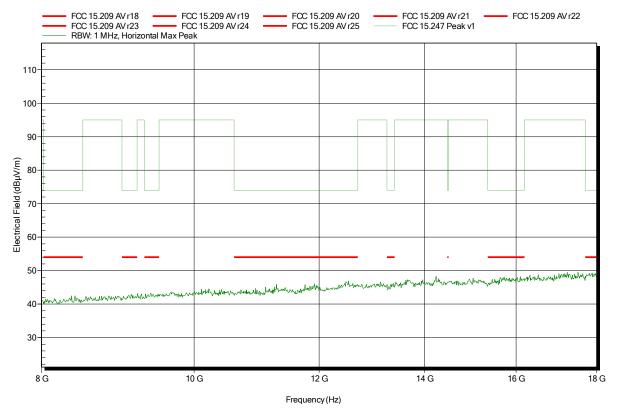
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11b; Ch.1; 2412 MHz; 1 Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

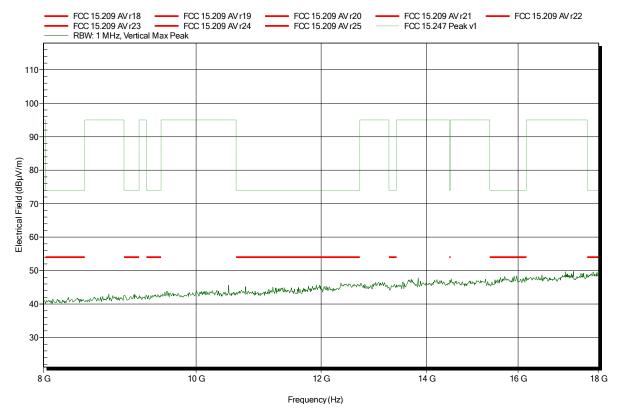
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11b; Ch.6; 2432 MHz; 1 Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

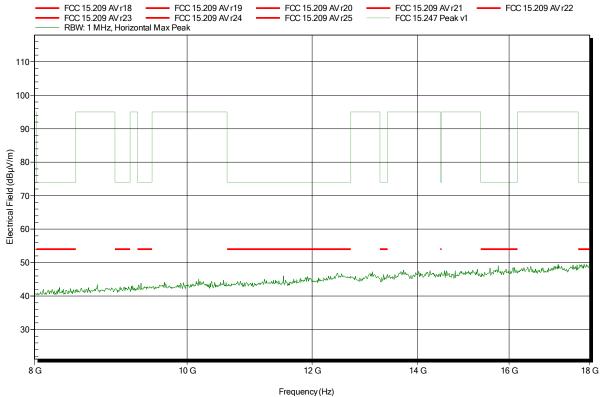
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11b; Ch.6; 2432 MHz; 1 Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

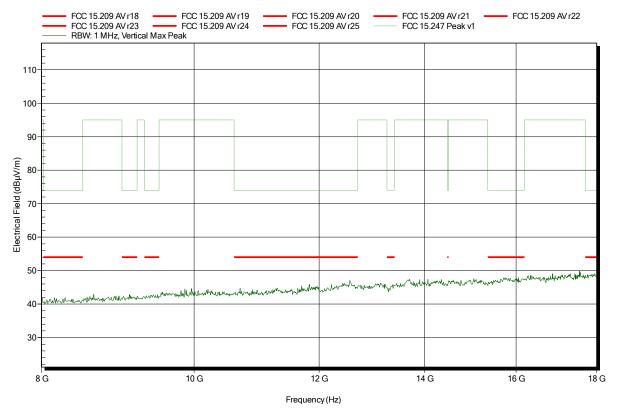
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11b; Ch.11; 2462 MHz; 1 Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

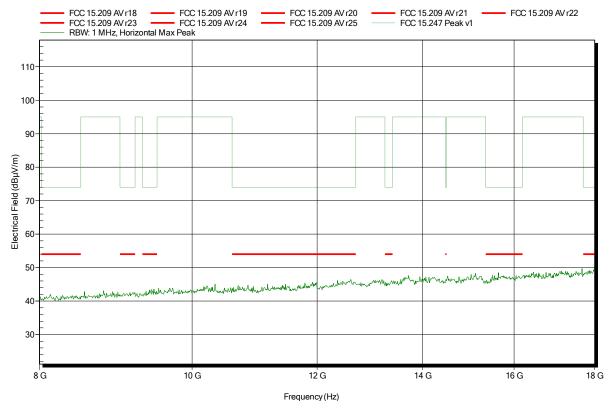
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11b; Ch.11; 2462 MHz; 1 Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

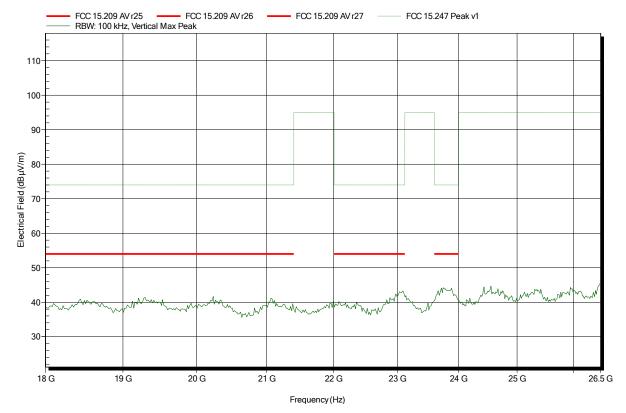
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11b; Ch.1; 2412 MHz; 1 Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

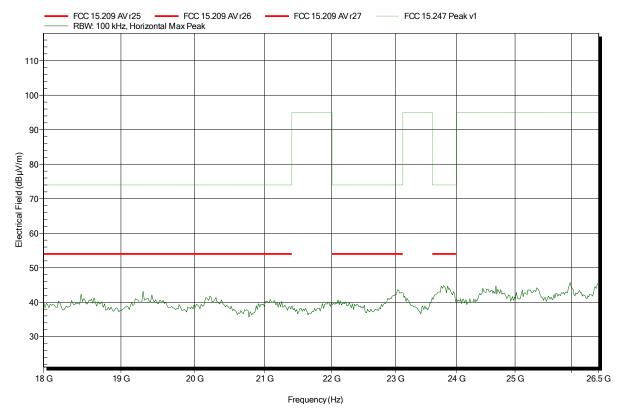
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11b; Ch.1; 2412 MHz; 1 Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

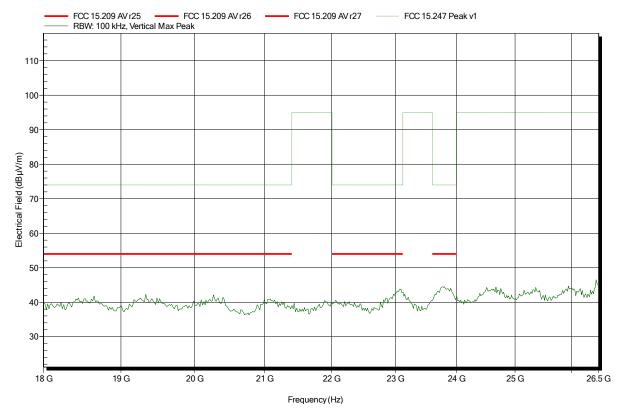
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11b; Ch.6; 2432 MHz; 1 Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

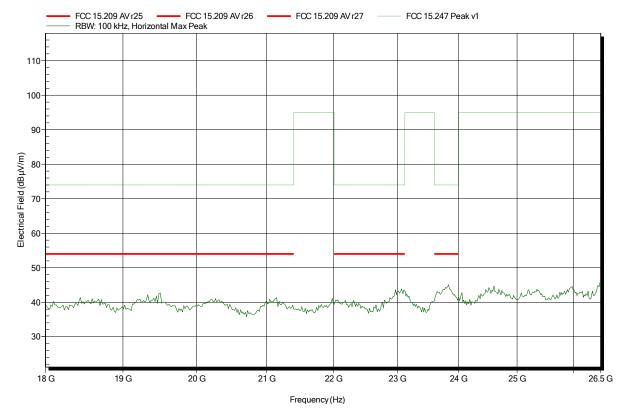
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11b; Ch.6; 2432 MHz; 1 Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

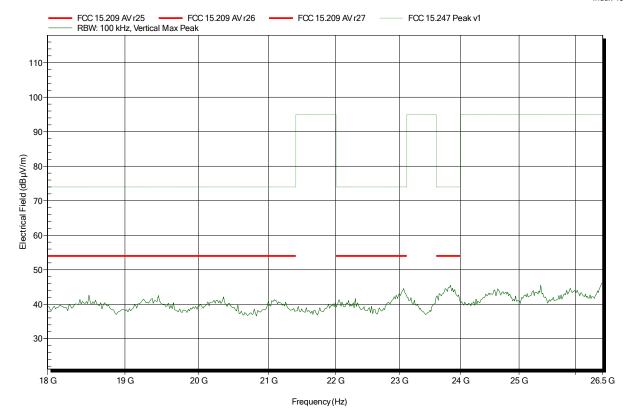
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11b; Ch.11; 2462 MHz; 1 Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

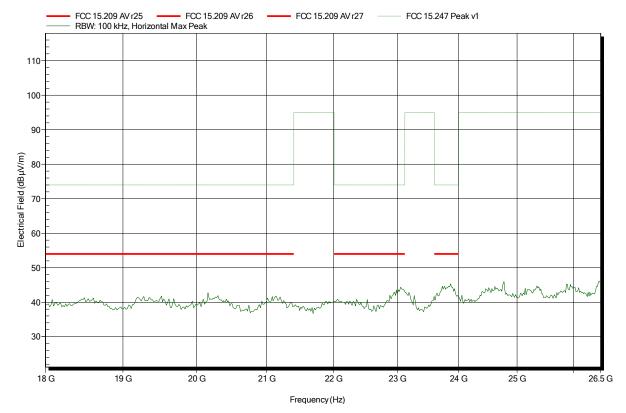
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11b; Ch.11; 2462 MHz; 1 Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

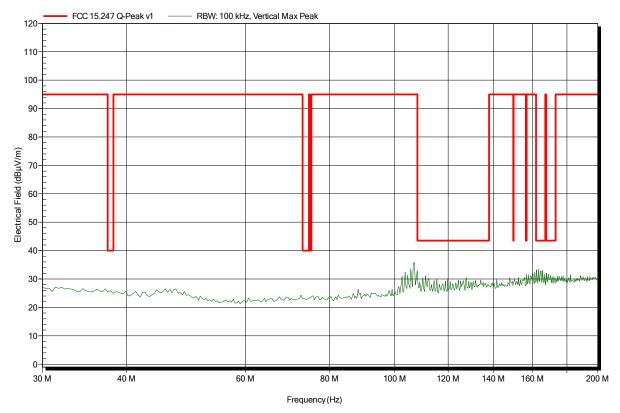
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HK 116, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11g; Ch. 1; 2412 MHz; 6Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

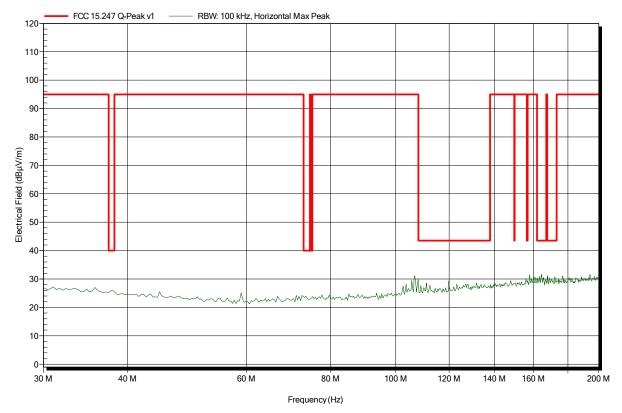
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HK 116, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11g; Ch. 1; 2412 MHz; 6Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

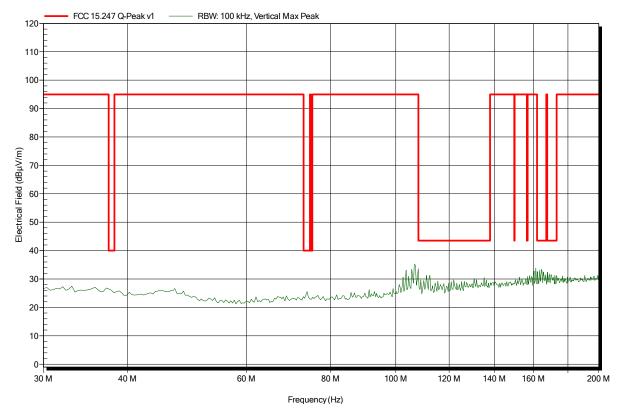
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HK 116, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11g; Ch. 6; 2437 MHz; 6Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

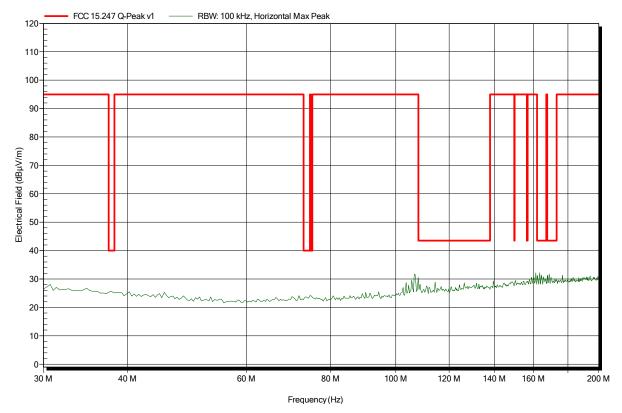
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HK 116, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11g; Ch. 6; 2437 MHz; 6Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

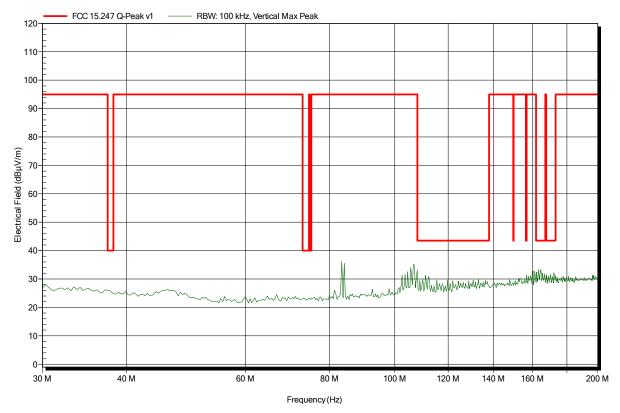
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HK 116, Vertical

Measurement distance: 3 n

Mode: TX; IEEE 802.11g; Ch. 11; 2462 MHz; 6Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

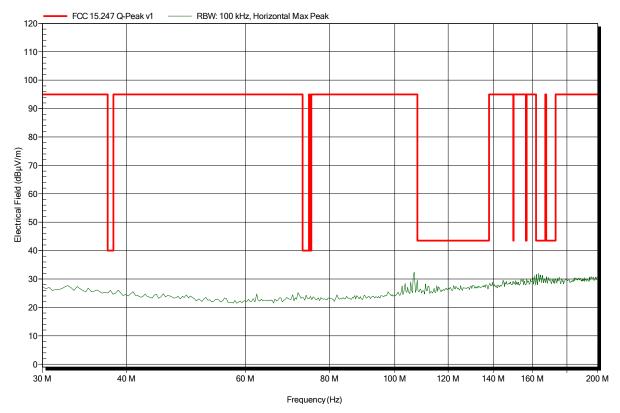
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HK 116, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11g; Ch.11; 2462 MHz; 6Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

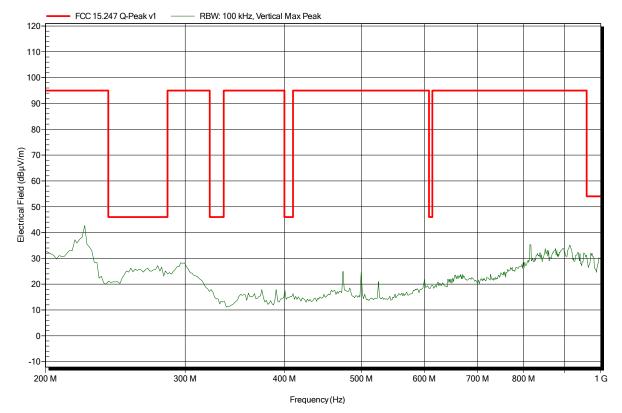
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 223, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11g; Ch. 1; 2412 MHz; 6Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

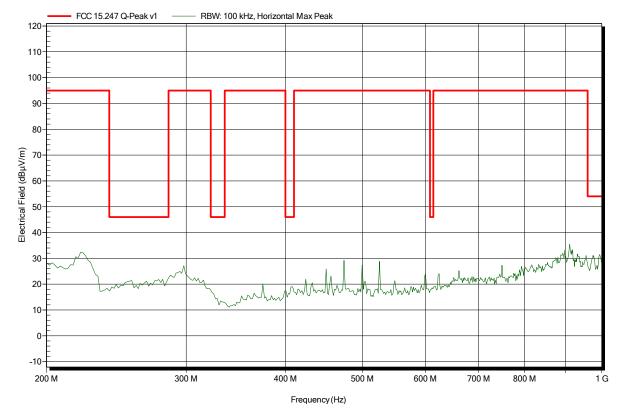
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11g; Ch. 1; 2412 MHz; 6Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

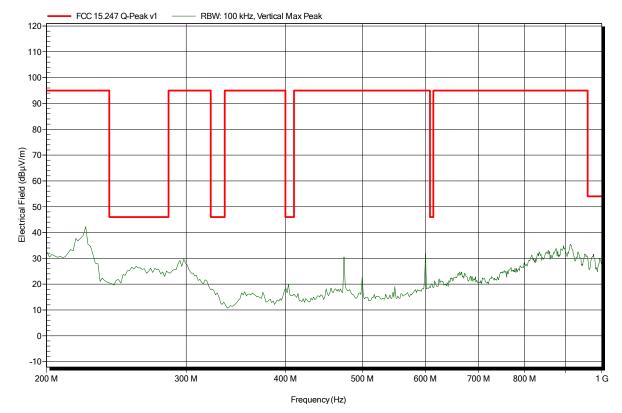
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 223, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11g; Ch. 6; 2437 MHz; 6Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

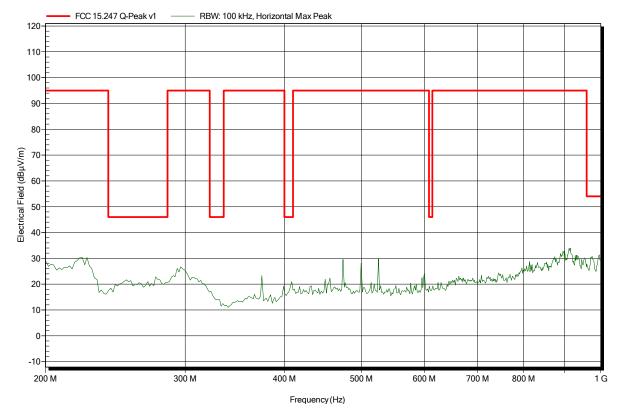
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11g; Ch. 6; 2437 MHz; 6Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

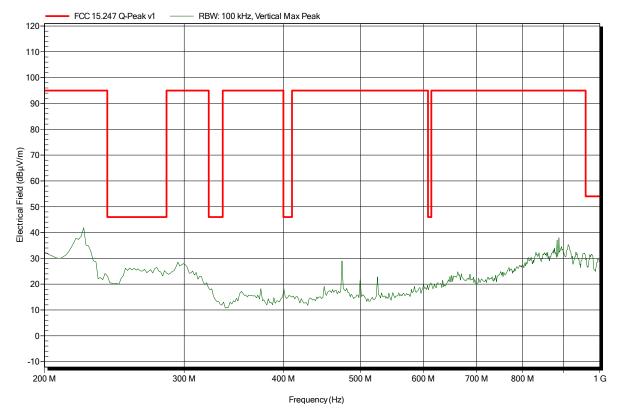
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 223, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11g; Ch. 11; 2462 MHz; 6Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

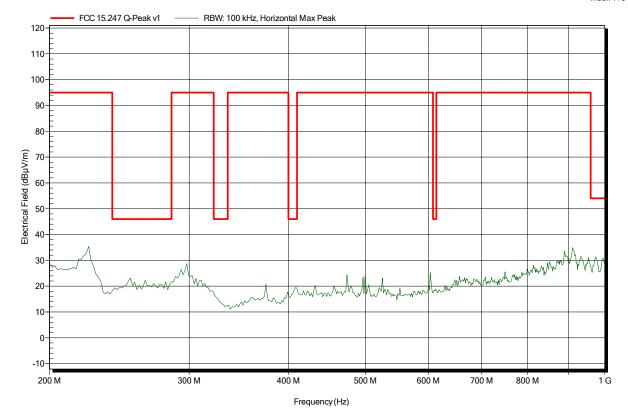
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 n

Mode: TX; IEEE 802.11g; Ch. 11; 2462 MHz; 6Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

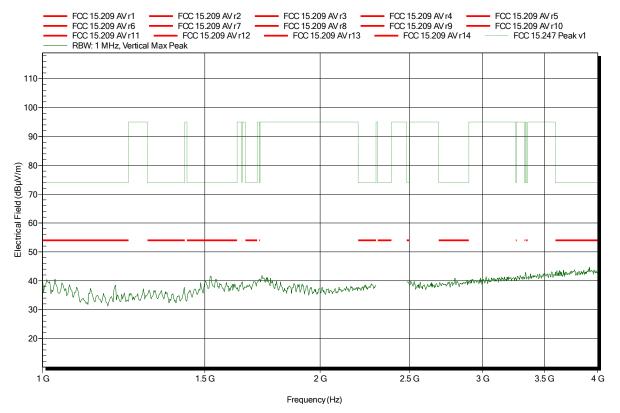
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11g; Ch.1; 2412 MHz; 6Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

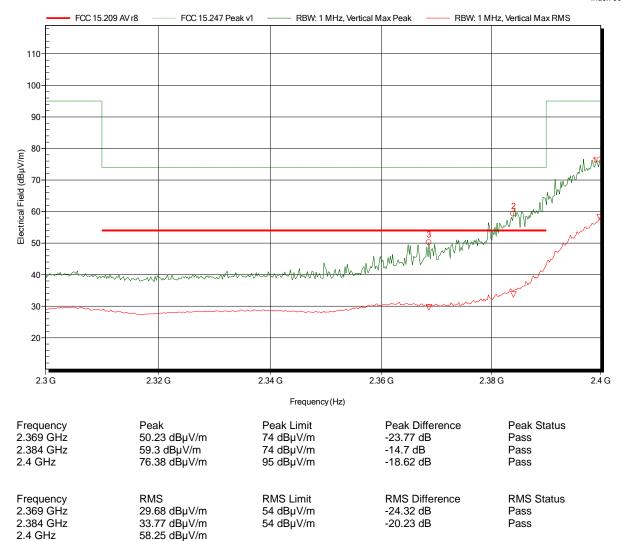
Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11g; Ch.1; 2412 MHz; 6Mbps; Pmax

Test Date: 2015-02-23

Note: EUT vertical; lower bandedge





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

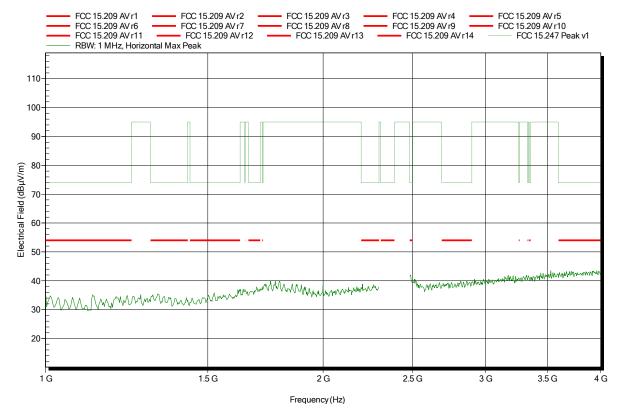
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11g; Ch. 1; 2412 MHz; 6Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC

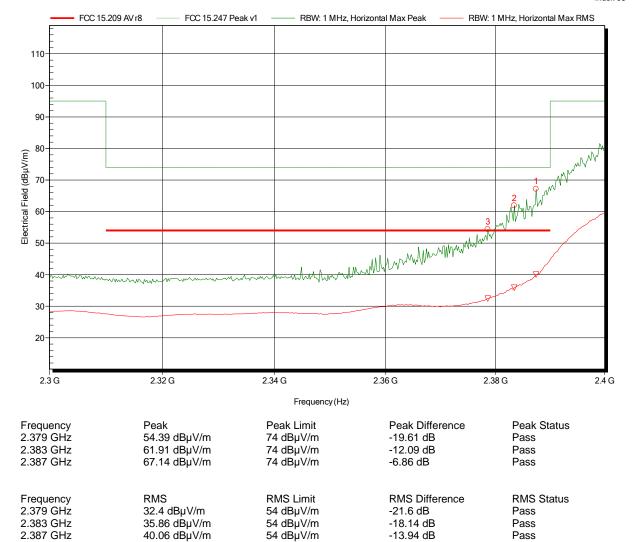
Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11g; Ch. 1; 2412 MHz; 6Mbps; Pmax

Test Date: 2015-02-23

Note: EUT vertical; lower bandedge





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

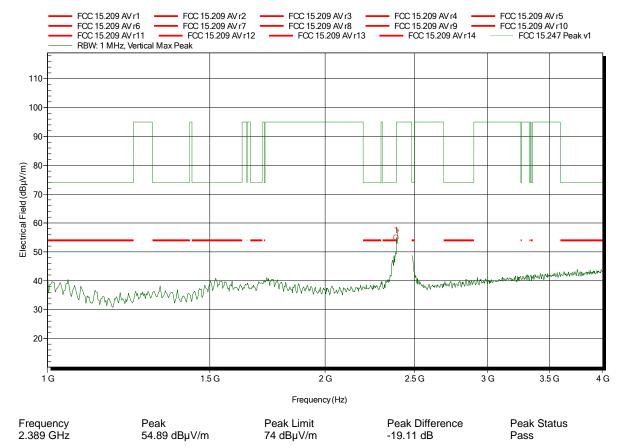
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11g; Ch. 6; 2437 MHz; 6Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

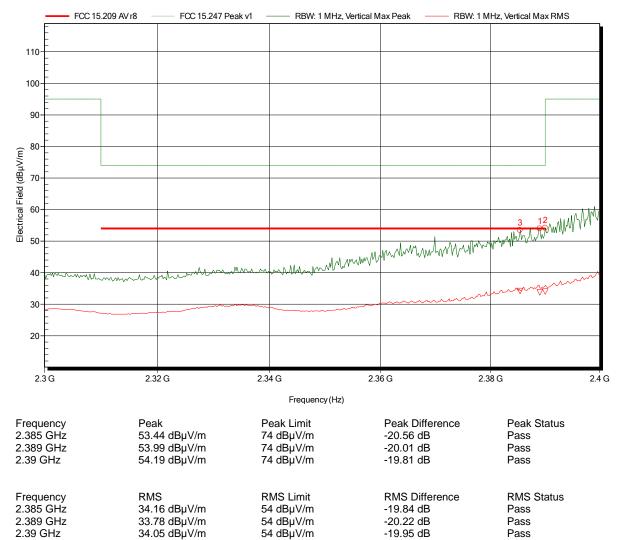
Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 3 n

Mode: TX; IEEE 802.11g; Ch. 6; 2437 MHz; 6Mbps; Pmax

Test Date: 2015-02-23

Note: EUT vertical; lower band edge





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 3 n

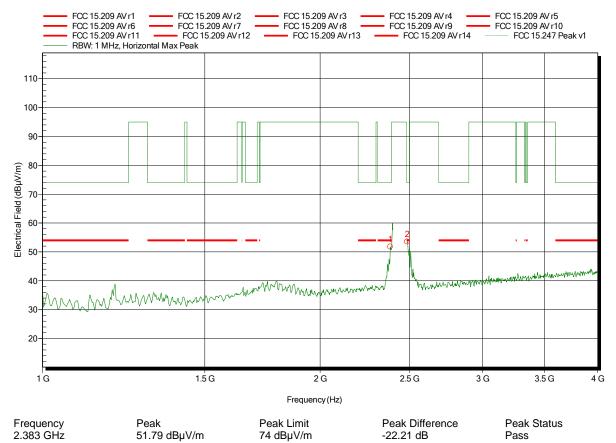
2.487 GHz

Mode: TX; IEEE 802.11g; Ch. 6; 2437 MHz; 6Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical

53.49 dBµV/m

Index 97



 $74 \; dB\mu V/m$

-20.51 dB

Pass



Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

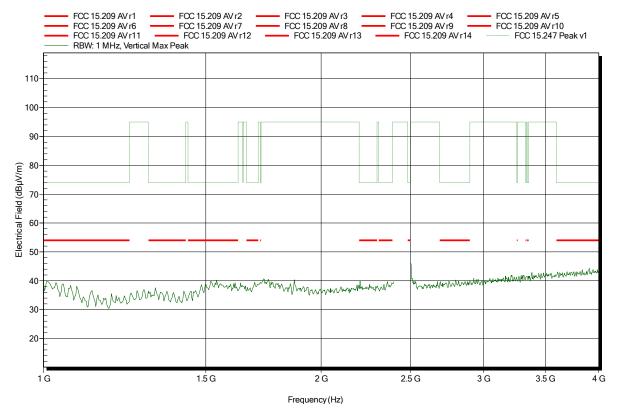
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11g; Ch. 11; 2462 MHz; 6Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

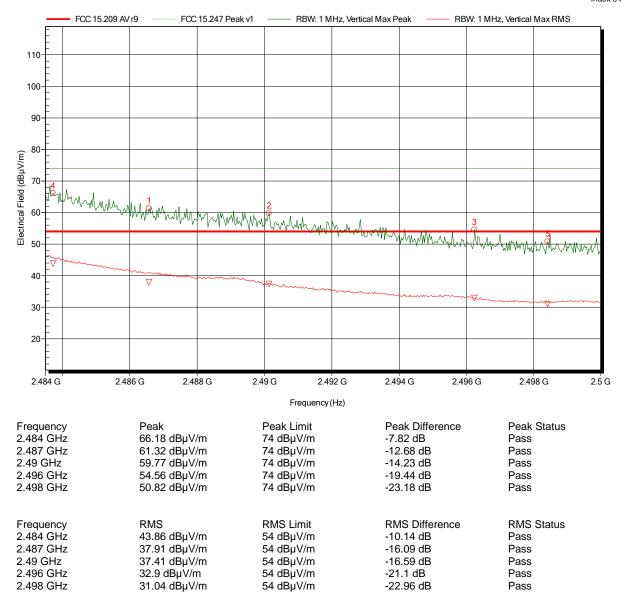
Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 3 n

Mode: TX; IEEE 802.11g; Ch. 11; 2462 MHz; 6Mbps; Pmax

Test Date: 2015-02-23

Note: EUT vertical; higher band edge





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

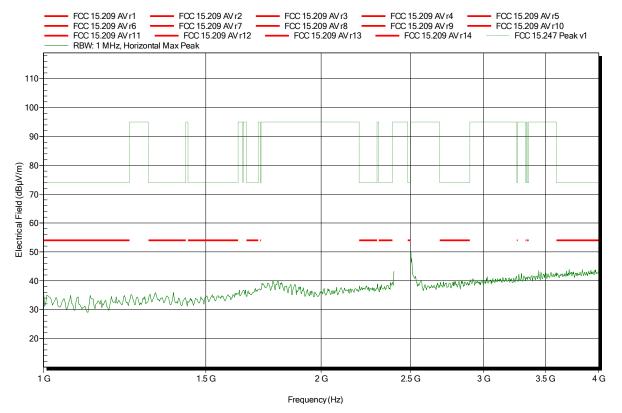
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11g; Ch. 11; 2462 MHz; 6Mbps; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

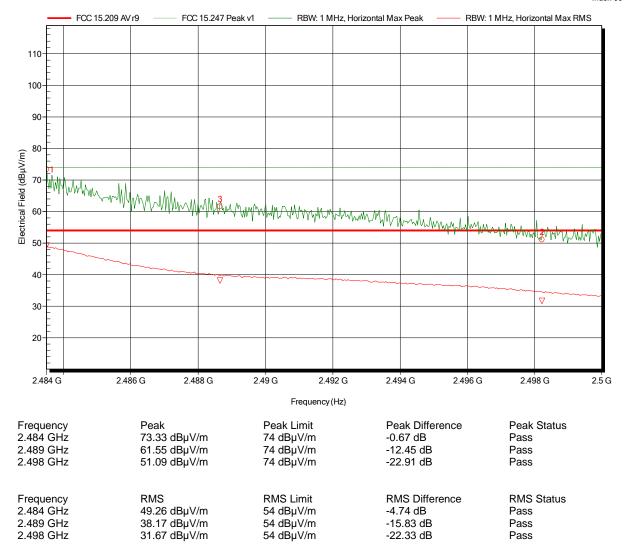
Measurement distance: 3 m

Mode: TX; IEEE 802.11g; Ch. 11; 2462 MHz; 6Mbps; Pmax

Test Date: 2015-02-23

Note: EUT vertical; higher band edge

ndex 99





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

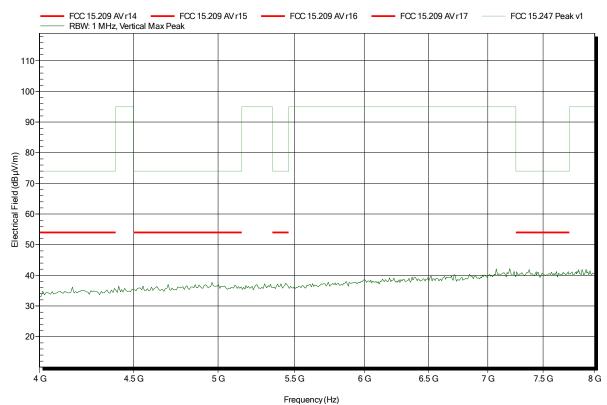
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11g; Ch.1; 2412 MHz; 6Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

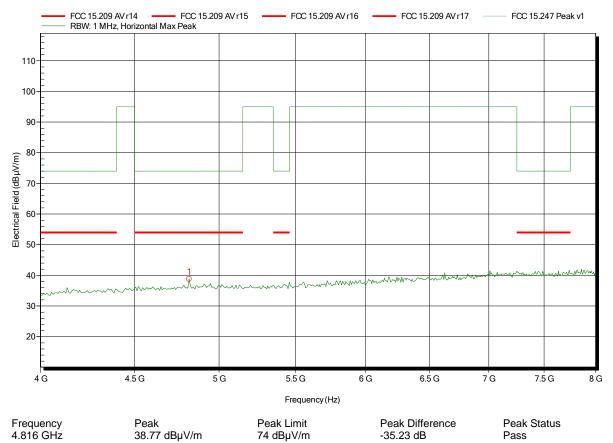
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11g; Ch.1; 2412 MHz; 6 Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

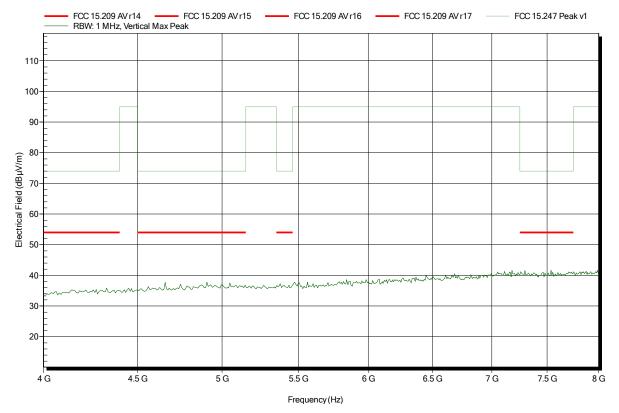
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11g; Ch.6; 2437 MHz; 6Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

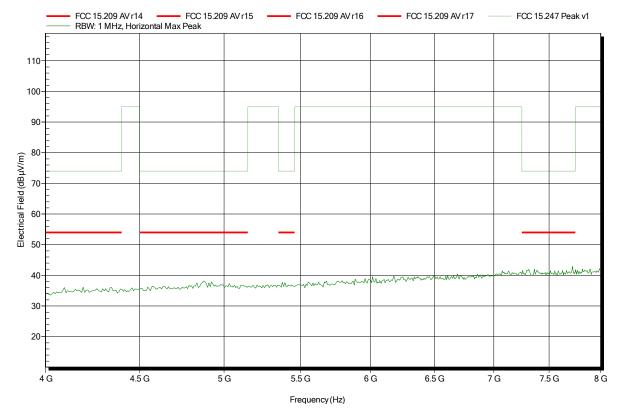
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11g; Ch.6; 2437 MHz; 6Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

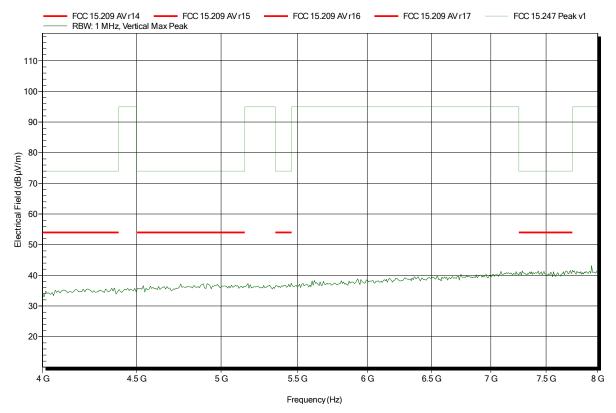
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11g; Ch.11; 2462 MHz; 6Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

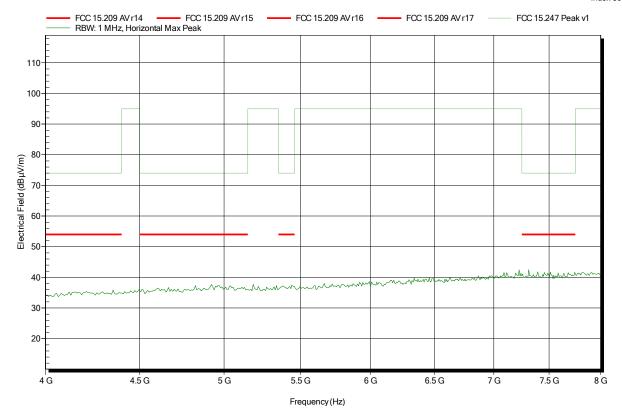
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11g; Ch.11; 2462 MHz; 6Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

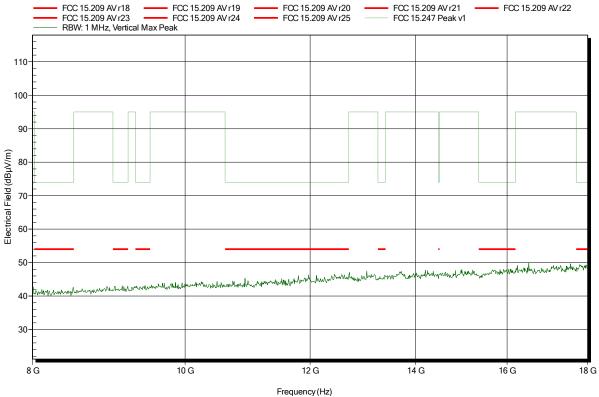
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11g; Ch.1; 2412 MHz; 6Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

FCC 15.209 AV r19

10 G

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11g; Ch.1; 2412 MHz; 6Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical

FCC 15 209 AV r18

30

8 G

FCC 15 209 AV r23 — FCC 15 209 AV r24 — FCC 15 209 AV r25 — FCC 15 247 Peak v1

110

90

90

70

40

Name of the standard of t

12 G

Frequency (Hz)

FCC 15 209 AV r20

FCC 15 209 AV r21

14 G

16 G

18 G

Index 66

FCC 15 209 AV r22



Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

10 G

Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11g; Ch.6; 2437 MHz; 6Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical

8 G

FCC 15.209 AV r19 FCC 15 209 AV r21 FCC 15 209 AV r22 FCC 15 209 AV r18 FCC 15 209 AV r20 FCC 15.209 AV r23 FCC 15.209 AV r24 FCC 15.209 AV r25 FCC 15.247 Peak v1 RBW: 1 MHz, Vertical Max Peak 110 100 90 Electrical Field (dBµV/m) 80 70 60 50 40 30

12 G

Frequency (Hz)

14 G

16 G

18 G



Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

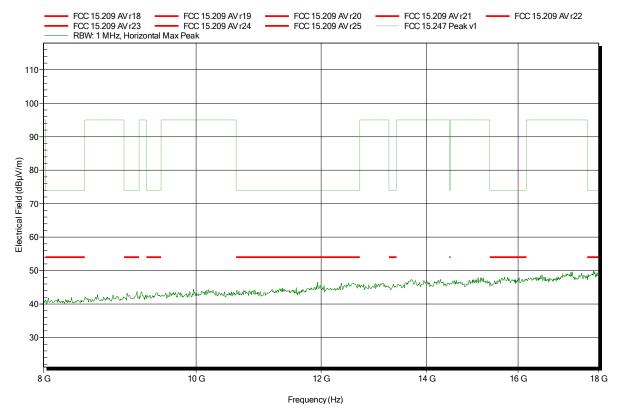
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11g; Ch.6; 2437 MHz; 6Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

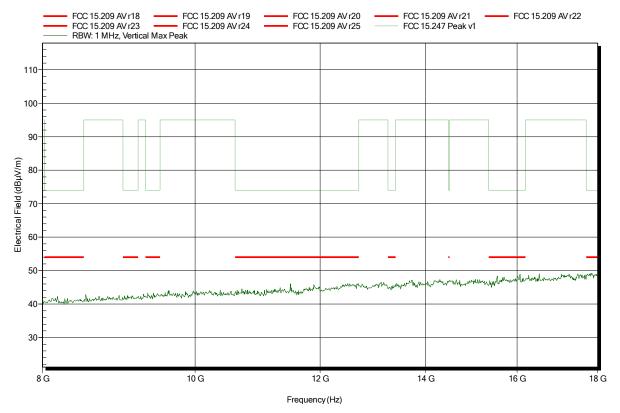
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11g; Ch.11; 2462 MHz; 6Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

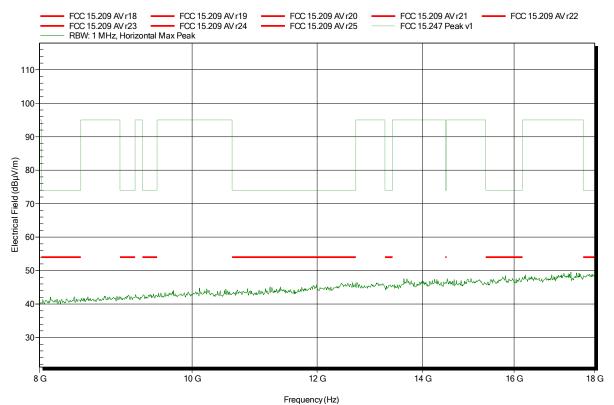
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11g; Ch.11; 2462 MHz; 6Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

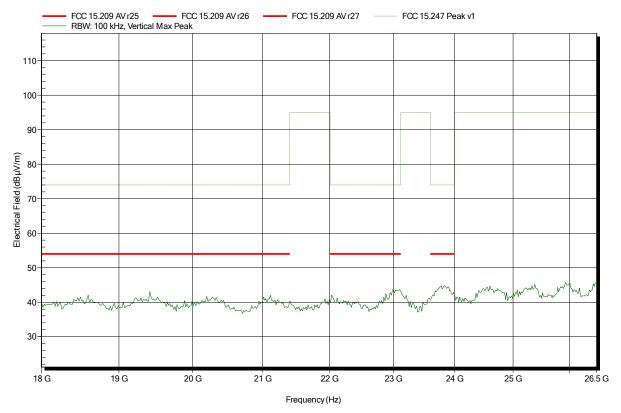
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11g; Ch.1; 2412 MHz; 6Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

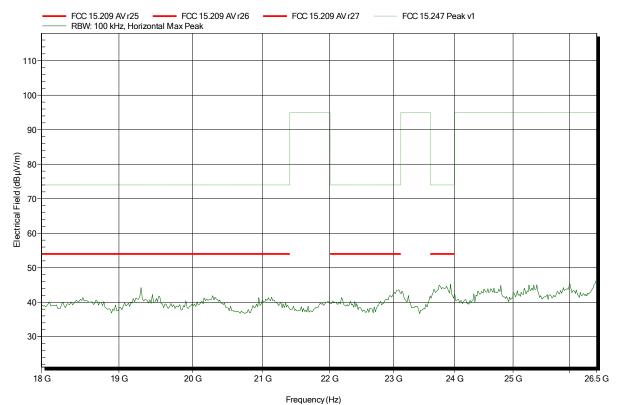
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11g; Ch.1; 2412 MHz; 6Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

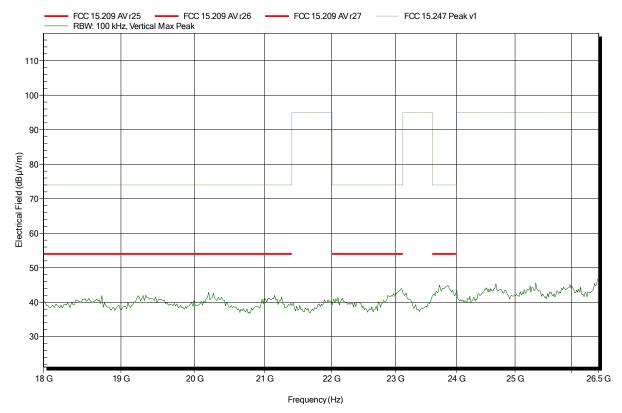
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11g; Ch.6; 2437 MHz; 6Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC

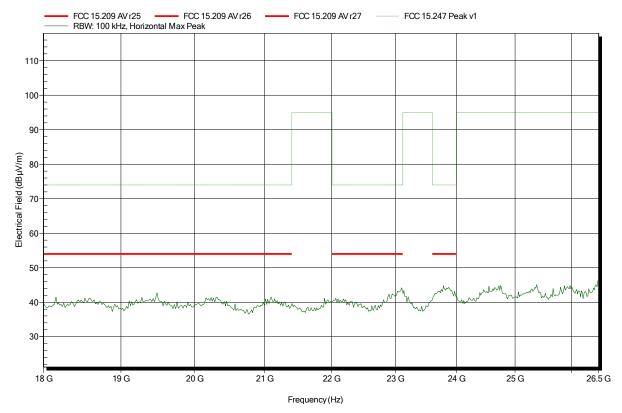
Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11g; Ch.6; 2437 MHz; 6Mbps; Pmax

Test Date: 2015-02-20

Note: EUT horizontal; worst case





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

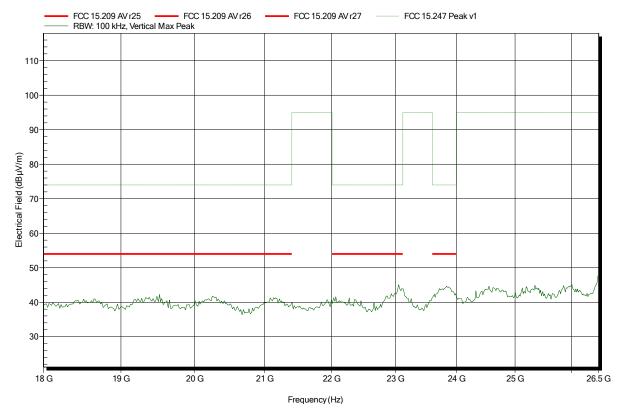
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11g; Ch.11; 2462 MHz; 6Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

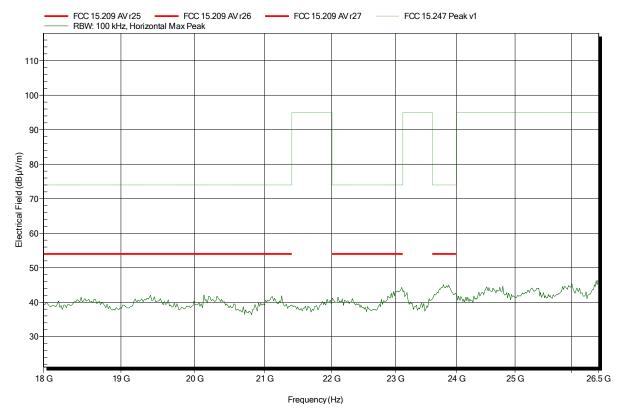
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11g; Ch.11; 2462 MHz; 6Mbps; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

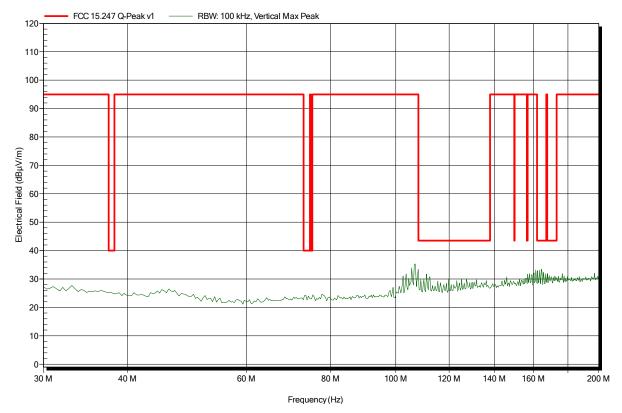
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HK 116, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11gn; Ch. 3; 2422 MHz; MCS0; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

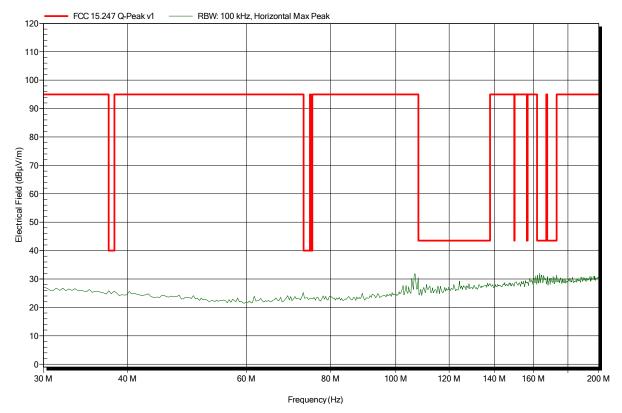
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HK 116, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11gn; Ch. 3; 2422 MHz; MCS0; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

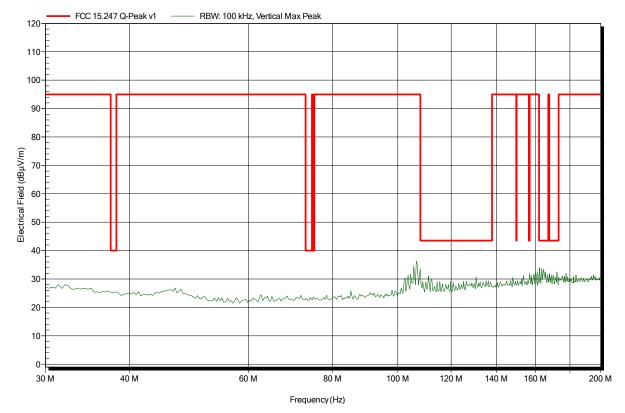
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HK 116, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11gn; Ch. 6; 2437 MHz; MCS0; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

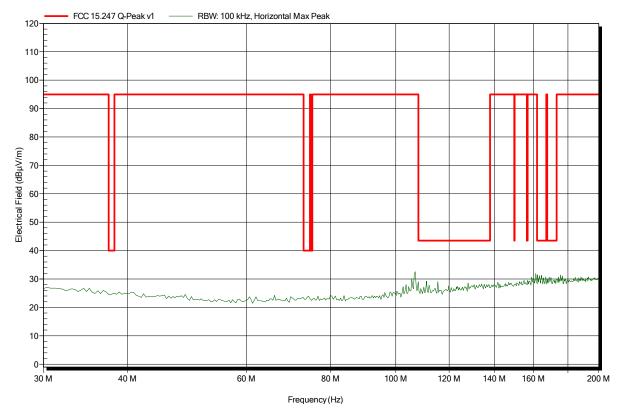
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HK 116, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11gn; Ch. 6; 2437 MHz; MCS0; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

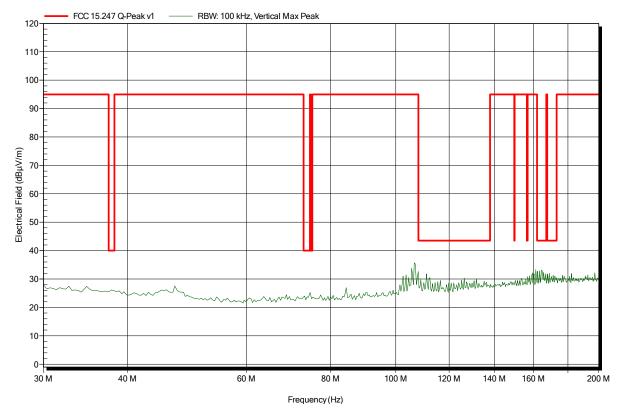
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HK 116, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11gn; Ch. 9; 2452 MHz; MCS0; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

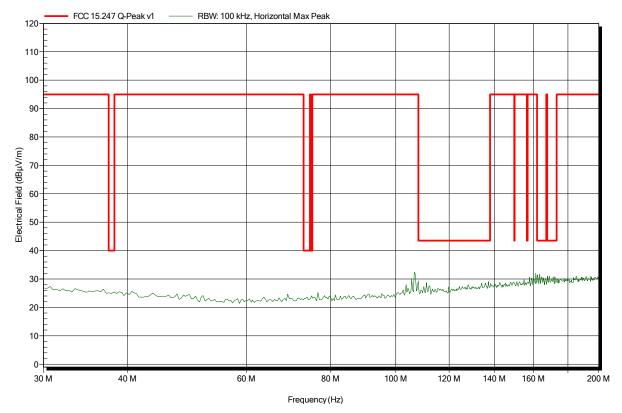
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HK 116, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11gn; Ch. 9; 2452 MHz; MCS0; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

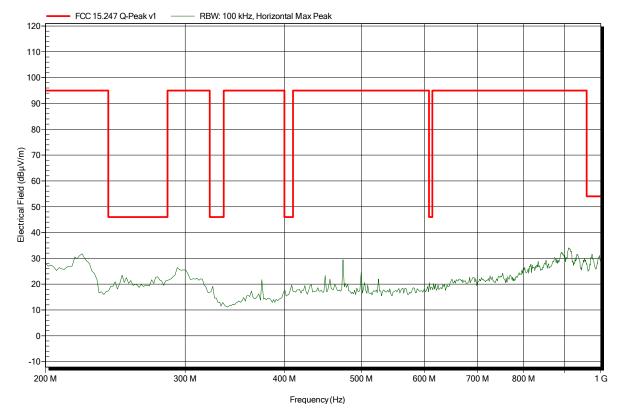
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11gn; Ch. 3; 2422 MHz; MCS0; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

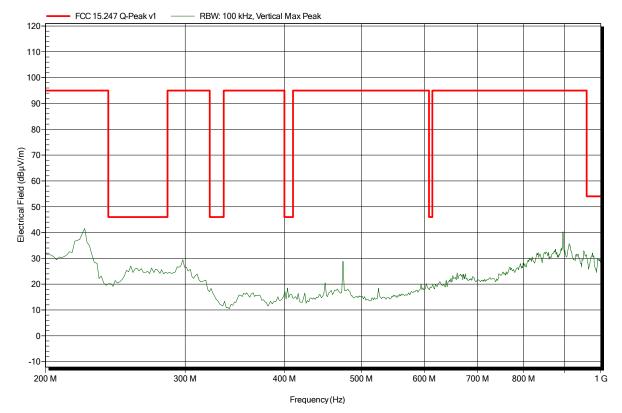
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 223, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11gn; Ch. 3; 2422 MHz; MCS0; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

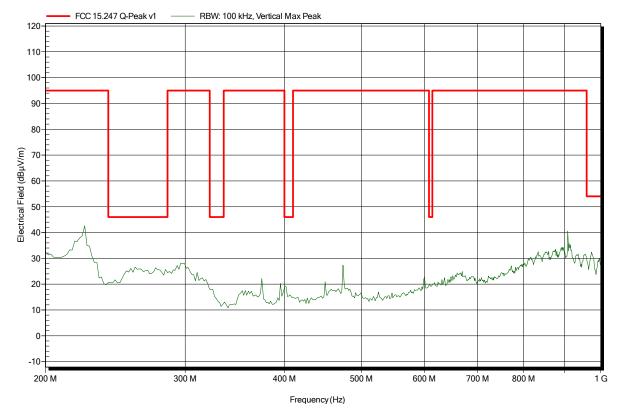
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 223, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11gn; Ch. 6; 2437 MHz; MCS0; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

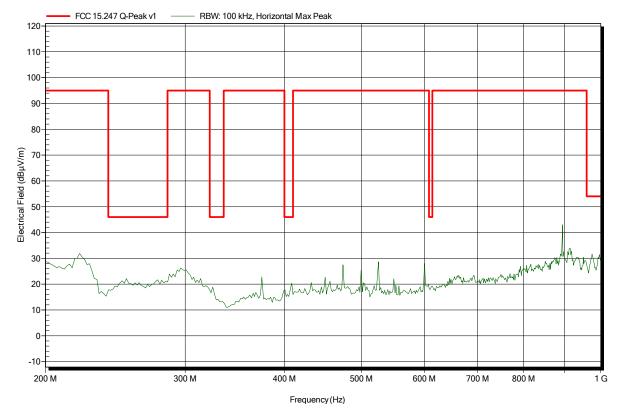
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 n

Mode: TX; IEEE 802.11gn; Ch. 6; 2437 MHz; MCS0; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

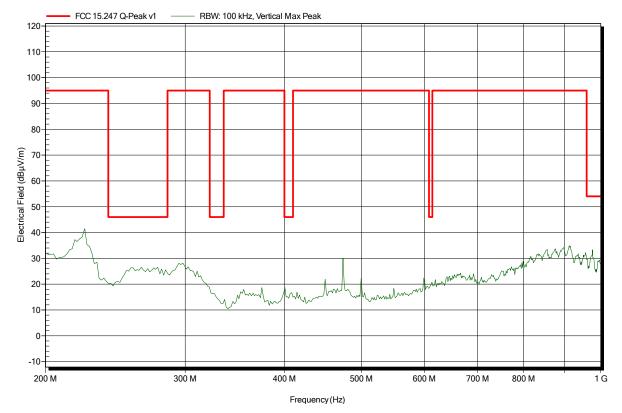
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 223, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11gn; Ch. 9; 2452 MHz; MCS0; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

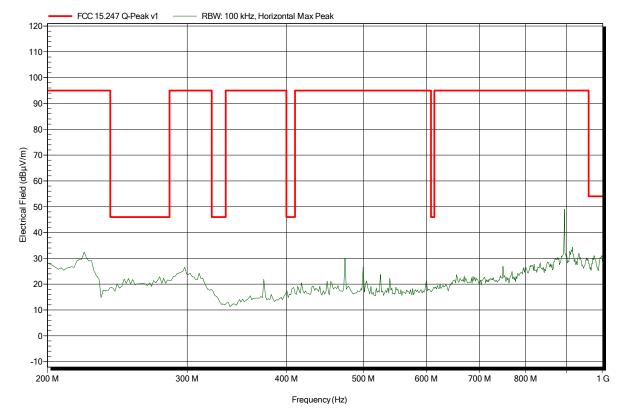
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11gn; Ch. 9; 2452 MHz; MCS0; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

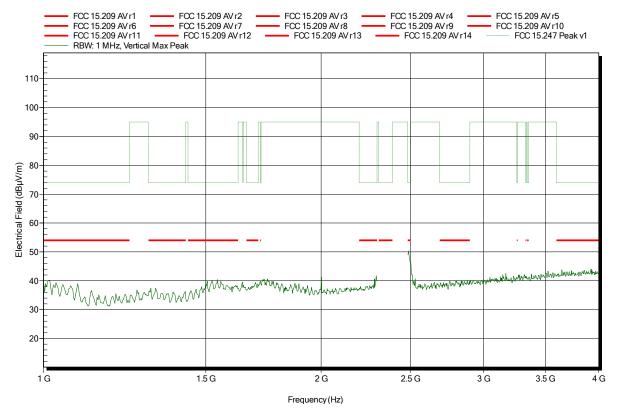
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11gn; Ch. 3; 2422 MHz; MCS0; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

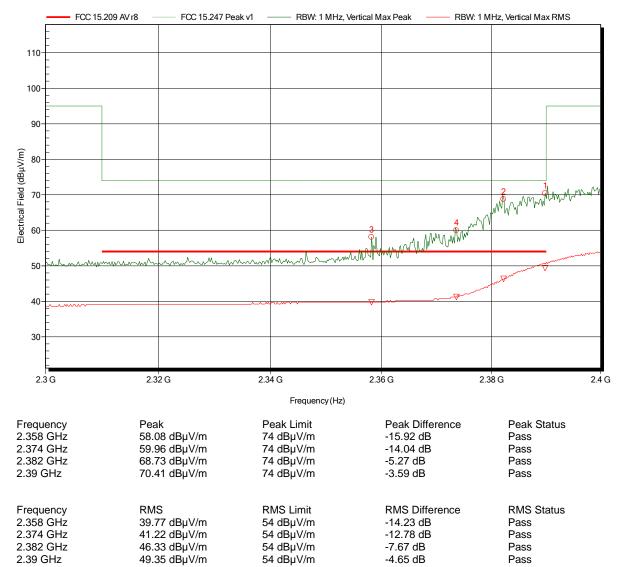
Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m

Mode: TX; IEEE 802.11gn; Ch. 3; 2422 MHz; MCS0; Pmax

Test Date: 2015-02-23

Note: EUT vertical; lower band edge





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

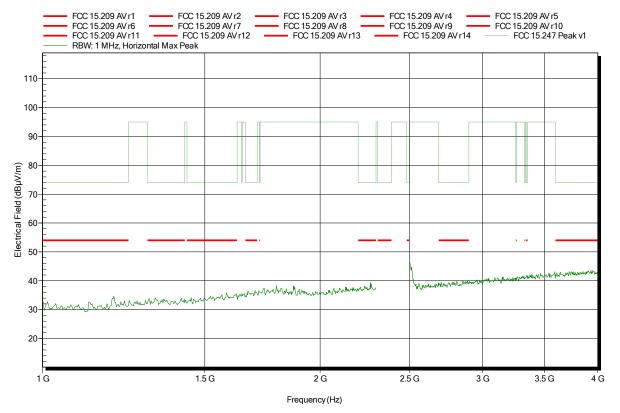
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11gn; Ch. 3; 2422 MHz; MCS0; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 3 r

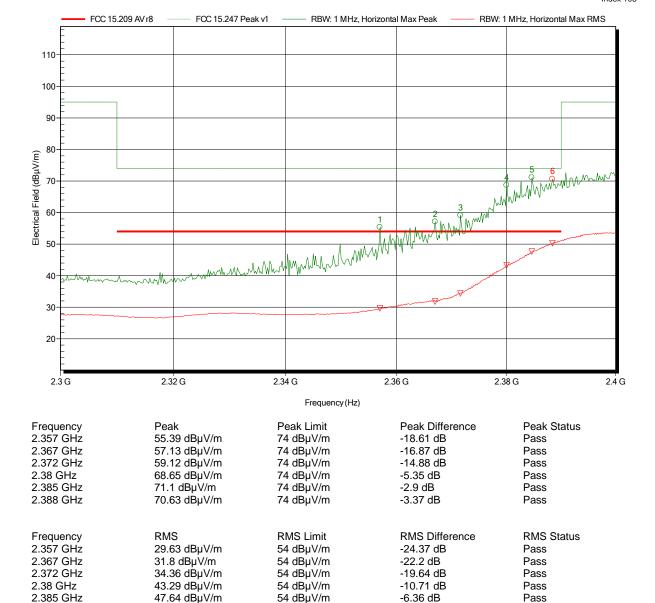
2.388 GHz

Mode: TX; IEEE 802.11gn; Ch. 3; 2422 MHz; MCS0; Pmax

Test Date: 2015-02-23

Note: EUT vertical: lower band edge

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Test Report No.: G0M-1411-4293-TFC247WF-V01

-3.76 dB

54 dBµV/m

50.24 dBµV/m

Pass





Project number: G0M-1411-4293

Applicant: **AED Engineering**

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

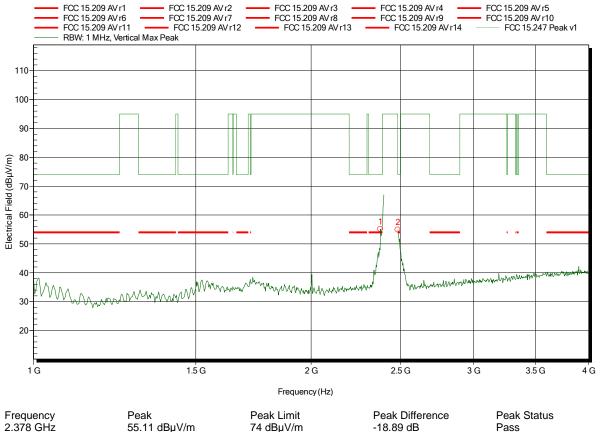
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance:

TX; IEEE 802.11gn; Ch. 6; 2437 MHz; MCS0; Pmax Mode:

Test Date: 2015-02-23 **EUT** vertical Note:





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 3 n

Mode: TX; IEEE 802.11gn; Ch. 6; 2437 MHz; MCS0; Pmax

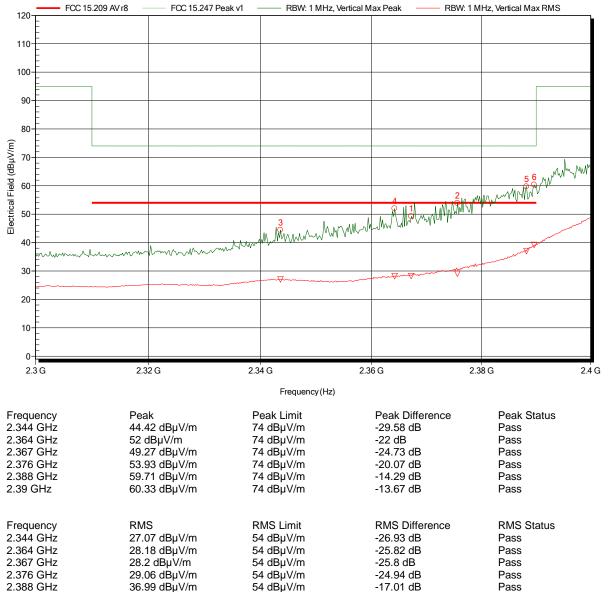
Test Date: 2015-02-23

Note: EUT vertical; lower band edge

39.16 dBµV/m

2.39 GHz

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Test Report No.: G0M-1411-4293-TFC247WF-V01

-14.84 dB

54 dBµV/m

Pass





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

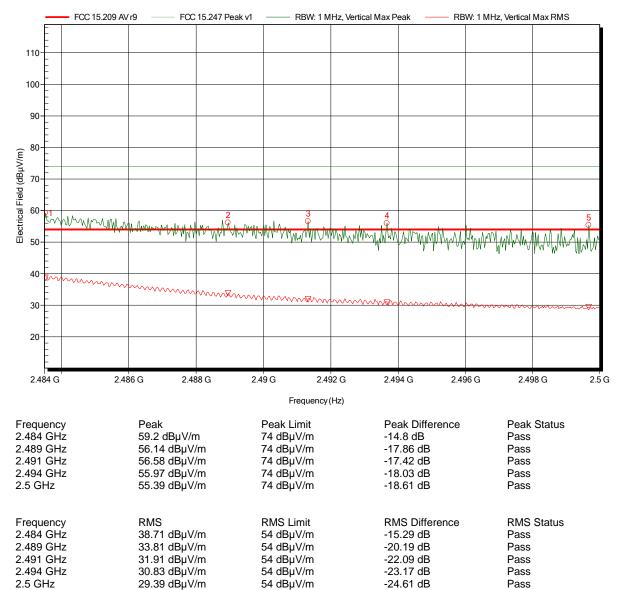
Measurement distance: 3 r

Mode: TX; IEEE 802.11gn; Ch. 6; 2437 MHz; MCS0; Pmax

Test Date: 2015-02-23

Note: EUT vertical; higher band edge

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Test Report No.: G0M-1411-4293-TFC247WF-V01



Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

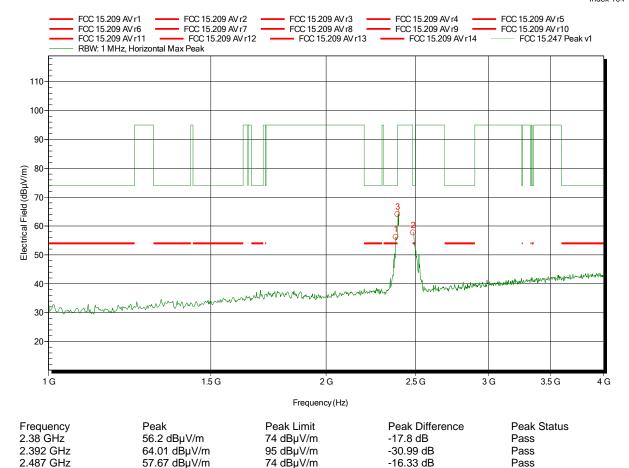
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11gn; Ch. 6; 2437 MHz; MCS0; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC

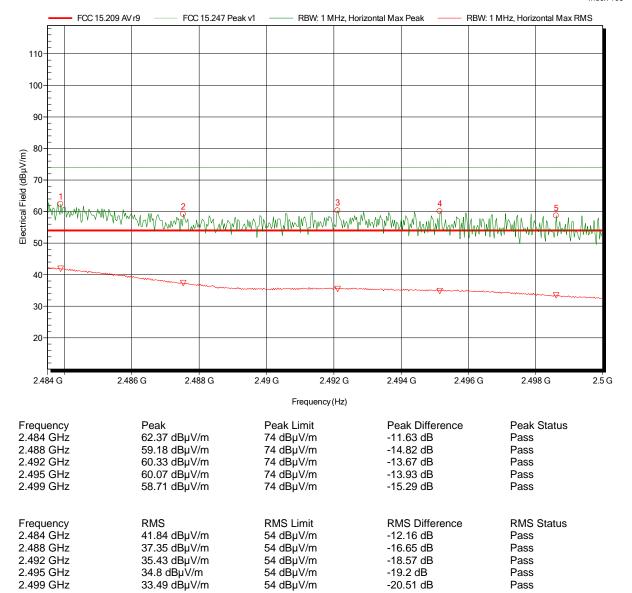
Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 3 n

Mode: TX; IEEE 802.11gn; Ch. 6; 2437 MHz; MCS0; Pmax

Test Date: 2015-02-23

Note: EUT vertical; higher band edge





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 3 m

2.384 GHz

2.389 GHz

34.41 dBµV/m

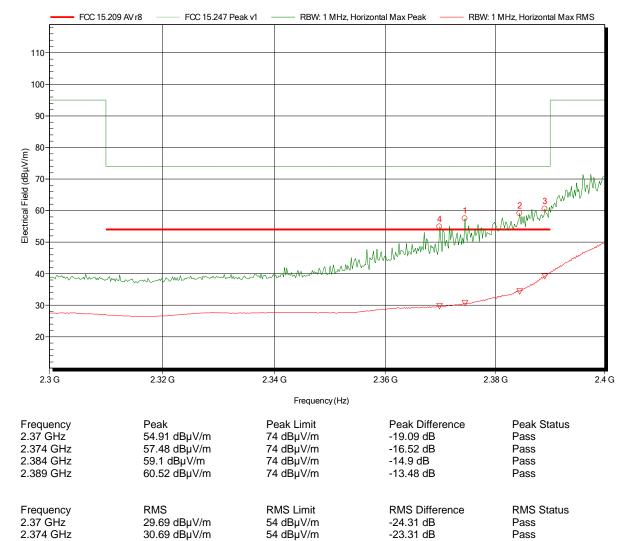
39.22 dBµV/m

Mode: TX; IEEE 802.11gn; Ch. 6; 2437 MHz; MCS0; Pmax

Test Date: 2015-02-23

Note: EUT vertical: lower band edge

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-19.59 dB

-14.78 dB

54 dBµV/m

54 dBµV/m

Pass

Pass



Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

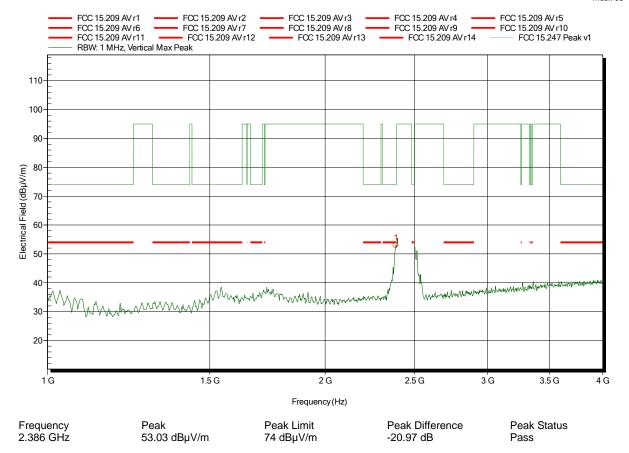
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 3 m

Mode: TX; IEEE 802.11gn; Ch. 9; 2452 MHz; MCS0; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

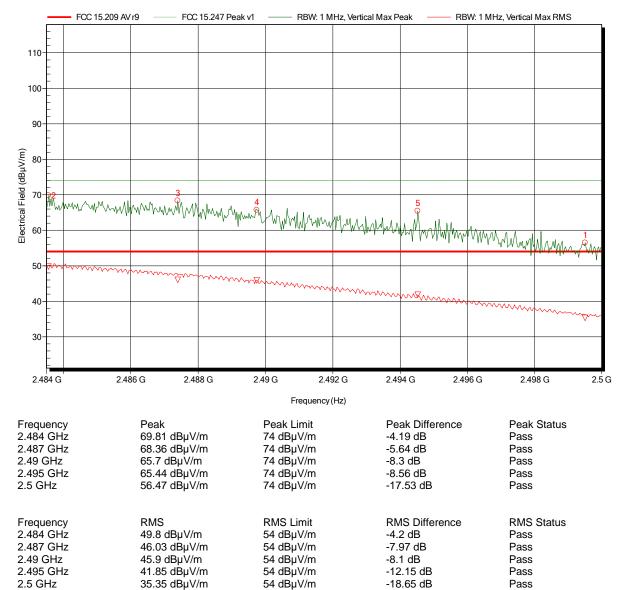
Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 3 n

Mode: TX; IEEE 802.11gn; Ch. 9; 2452 MHz; MCS0; Pmax

Test Date: 2015-02-23

Note: EUT vertical; higher band edge





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

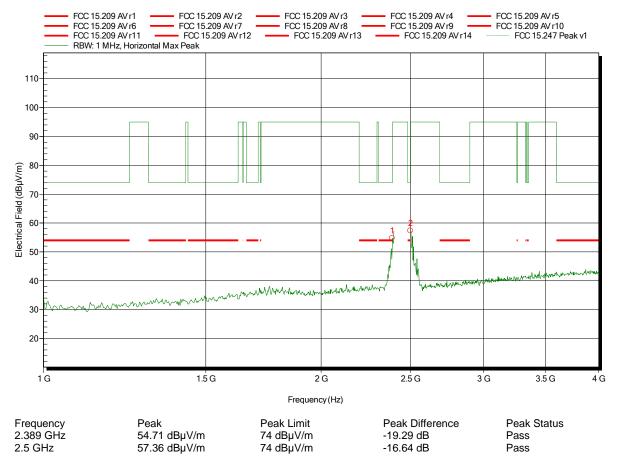
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11gn; Ch. 9; 2452 MHz; MCS0; Pmax

Test Date: 2015-02-23 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 3 m

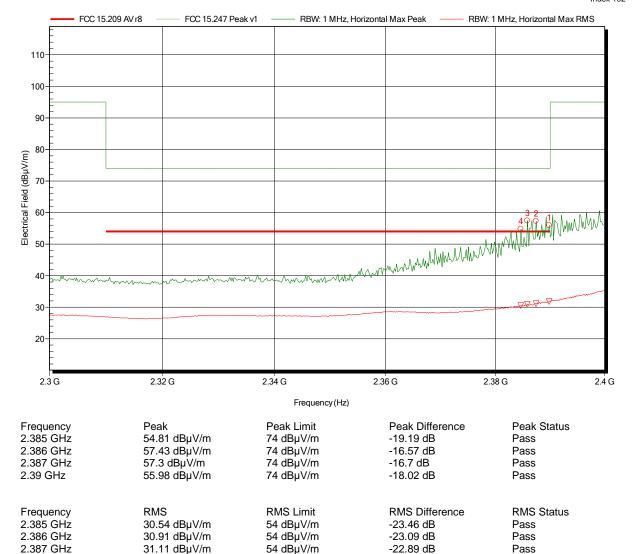
2.39 GHz

Mode: TX; IEEE 802.11gn; Ch. 9; 2452 MHz; MCS0; Pmax

Test Date: 2015-02-23

Note: EUT vertical: lower band edge

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-22.2 dB

54 dBµV/m

31.8 dBµV/m

Pass



Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC

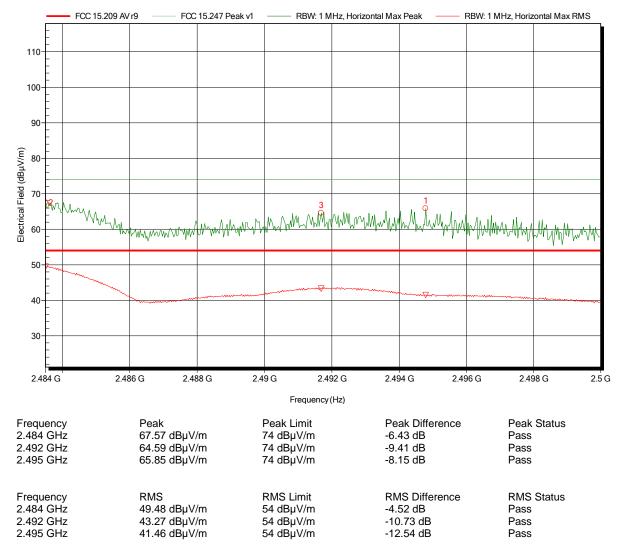
Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 3 m

Mode: TX; IEEE 802.11gn; Ch. 9; 2452 MHz; MCS0; Pmax

Test Date: 2015-02-23

Note: EUT vertical; higher bandedge





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

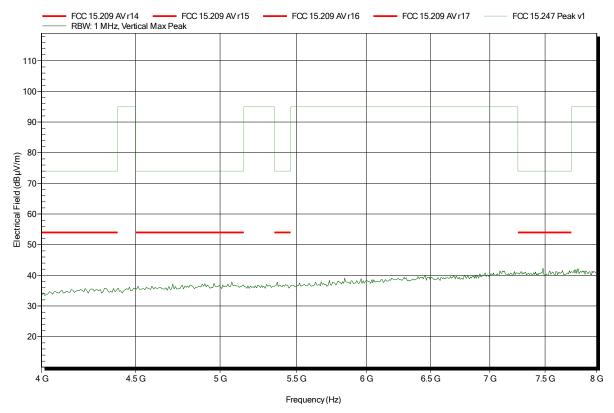
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11gn; Ch.3; 2422 MHz; MCS0; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

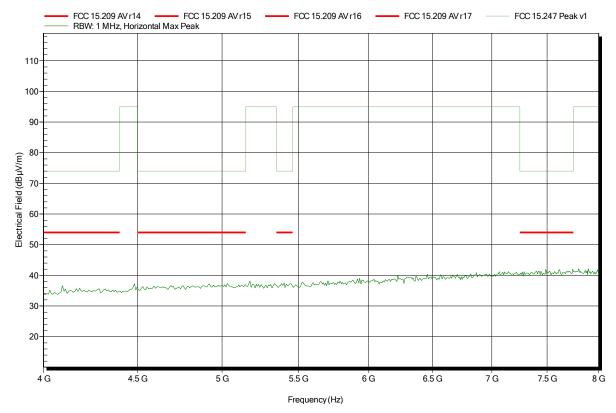
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11gn; Ch.3; 2422 MHz; MCS0; Pmax

Test Date: 2015-02-20 Note: EUT horizontal





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

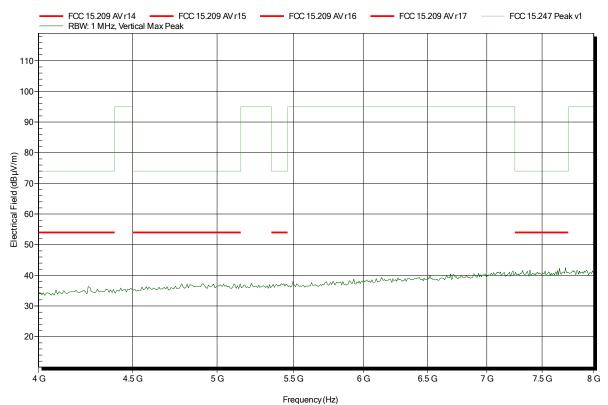
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11gn; Ch.6; 2437 MHz; MCS0; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

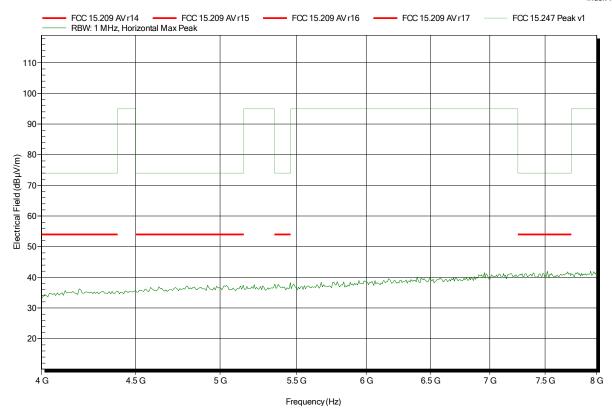
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11gn; Ch.6; 2437 MHz; MCS0; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

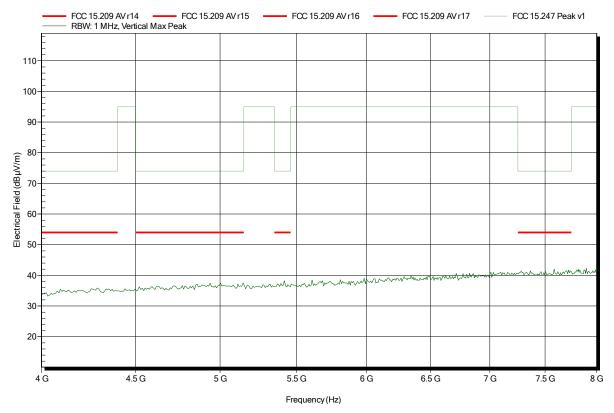
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11gn; Ch.9; 2452 MHz; MCS0; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

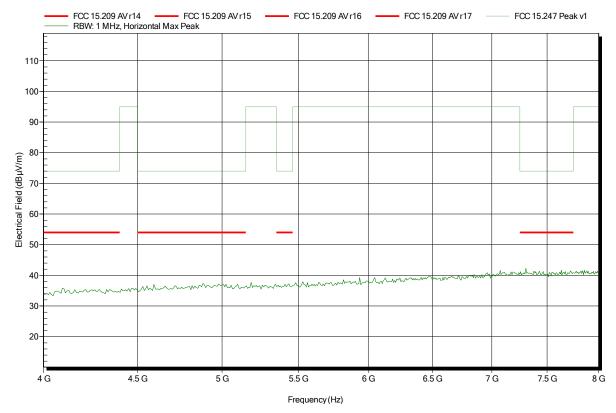
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11gn; Ch.9; 2452 MHz; MCS0; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

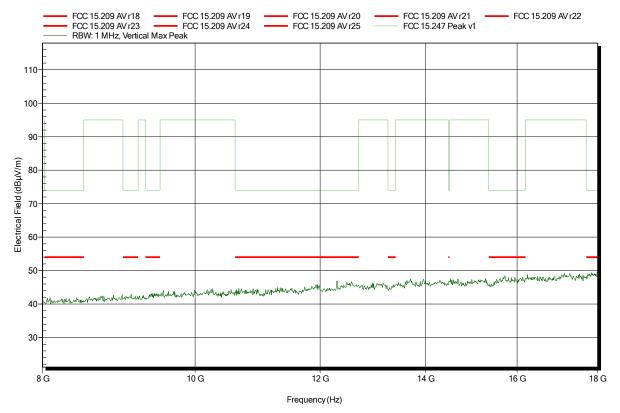
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11gn; Ch.3; 2422 MHz; MCS0; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

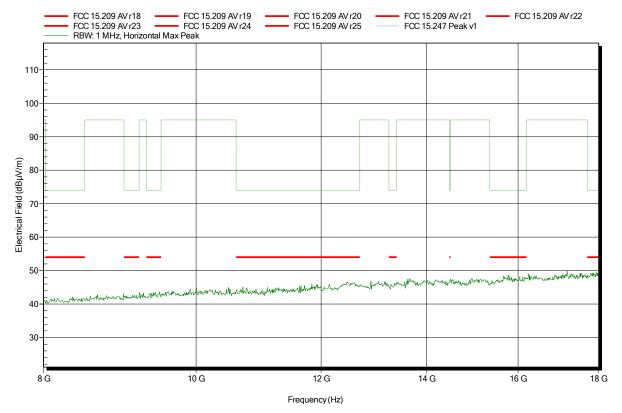
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11gn; Ch.3; 2422 MHz; MCS0; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

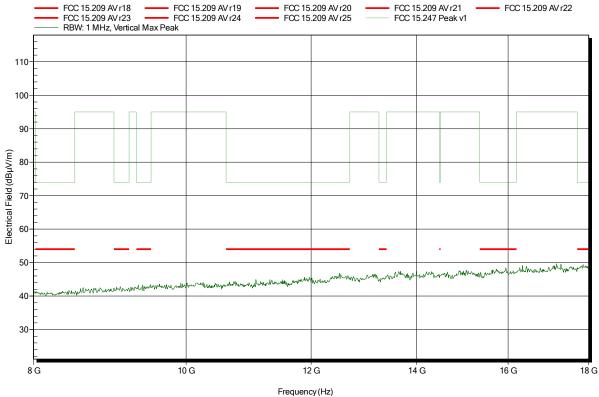
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11gn; Ch.6; 2437 MHz; MCS0; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

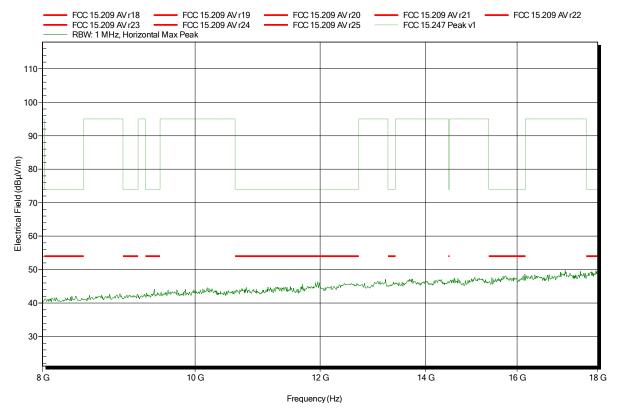
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11gn; Ch.6; 2437 MHz; MCS0; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

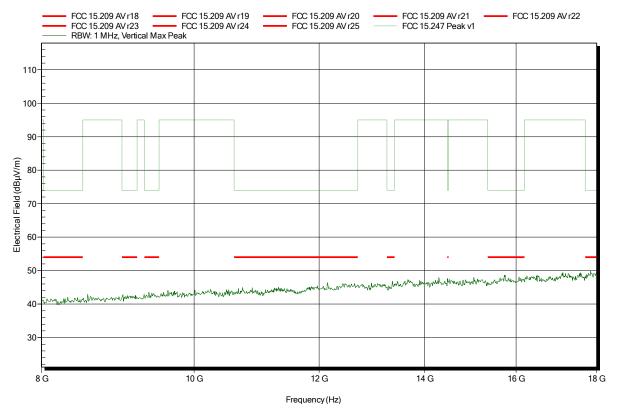
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11gn; Ch.9; 2452 MHz; MCS0; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

FCC 15.209 AV r19

FCC 15.209 AV r24

10 G

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11gn; Ch.9; 2452 MHz; MCS0; Pmax

Test Date: 2015-02-20 Note: EUT vertical

FCC 15 209 AV r18

FCC 15.209 AV r23

110

100

90

80

70

60

50

40

30

8 G

Electrical Field (dBµV/m)

— RBW: 1 MHz, Horizontal Max Peak

FCC 15 209 AV r20

FCC 15.209 AV r25

FCC 15 209 AV r21

14 G

16 G

18 G

FCC 15.247 Peak v1

12 G

Frequency (Hz)

Index 75

FCC 15 209 AV r22



Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

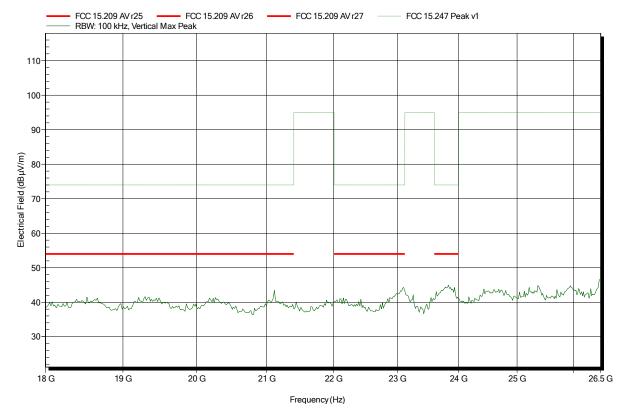
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11gn; Ch.3; 2422 MHz; MCS0; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

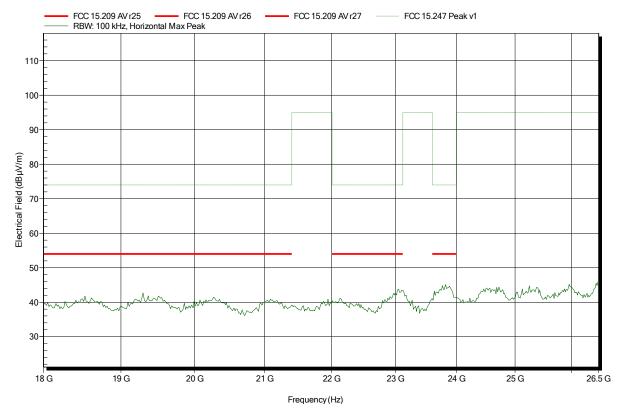
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11gn; Ch.3; 2422 MHz; MCS0; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

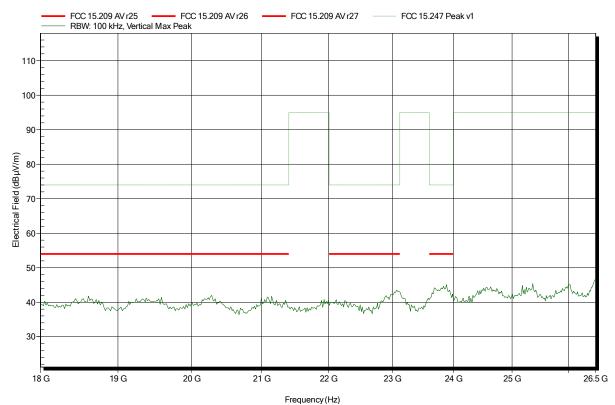
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11gn; Ch.6; 2437 MHz; MCS0; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

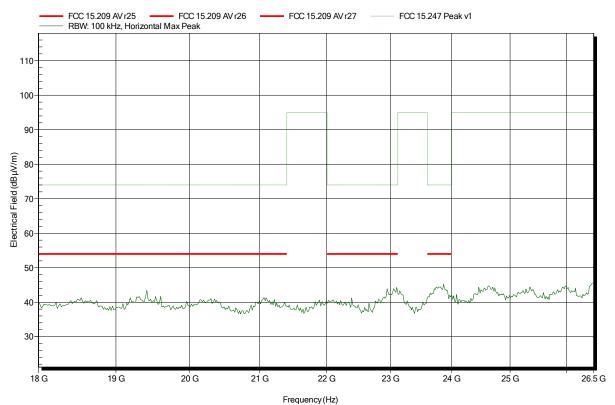
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11gn; Ch.6; 2437 MHz; MCS0; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

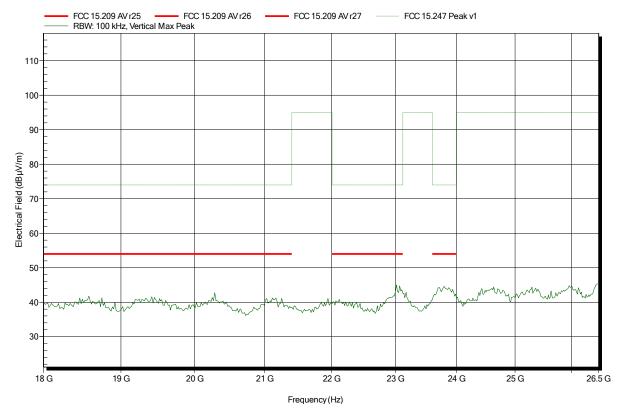
Operator: Mr. Handrik

Test Conditions: Tnom: 24°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11gn; Ch.9; 2452 MHz; MCS0; Pmax

Test Date: 2015-02-20 Note: EUT vertical





Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

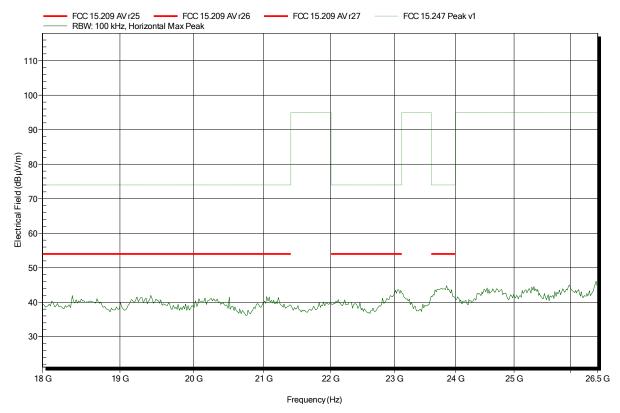
Test Conditions: Tnom: 24°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 1 m converted to 3m

Mode: TX; IEEE 802.11gn; Ch.9; 2452 MHz; MCS0; Pmax

Test Date: 2015-02-20 Note: EUT vertical





ANNEX B Receiver radiated spurious emissions Spurious emissions according to IC RSS-Gen

Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC

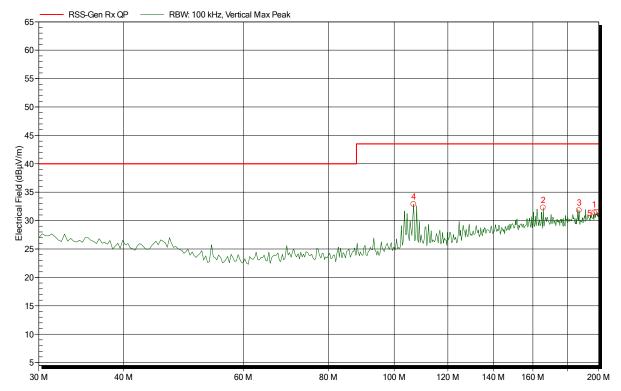
Antenna: Rohde & Schwarz HK 116, Vertical

Measurement distance: 3 m

Mode: RX; IEEE 802.11b,g,n; Ch.6; 2437 MHz

Test Date: 2015-02-23 Note: EUT vertical

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Frequency (Hz)

Frequency	Peak	Peak Limit	Peak Difference	Status
106.84 MHz	32.89 dBµV/m	43.5 dBµV/m	-10.61 dB	Pass
165.66 MHz	32.27 dBµV/m	43.5 dBµV/m	-11.23 dB	Pass
187.08 MHz	31.79 dBµV/m	43.5 dBµV/m	-11.71 dB	Pass
197.28 MHz	31.38 dBµV/m	43.5 dBµV/m	-12.12 dB	Pass
198.64 MHz	31.5 dBµV/m	43.5 dBµV/m	-12 dB	Pass



Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

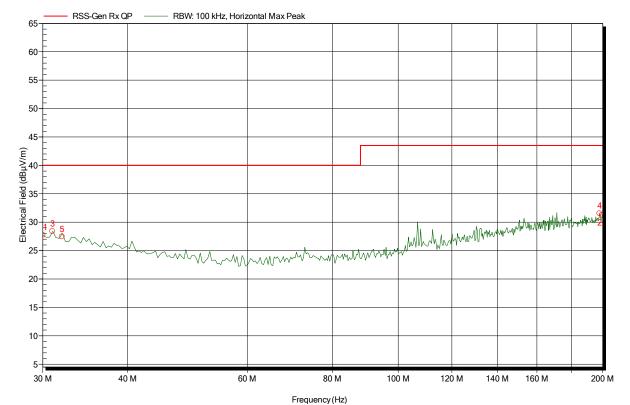
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HK 116, Horizontal

Measurement distance: 3 m

Mode: RX; IEEE 802.11b,g,n; Ch.6; 2437 MHz

Test Date: 2015-02-23 Note: EUT vertical



Frequency	Peak	Peak Limit	Peak Difference	Status
30 MHz	27.74 dBµV/m	40 dBμV/m	-12.26 dB	Pass
31.02 MHz	28.38 dBµV/m	40 dBµV/m	-11.62 dB	Pass
32.04 MHz	27.45 dBµV/m	40 dBµV/m	-12.55 dB	Pass
197.96 MHz	31.52 dBµV/m	43.5 dBµV/m	-11.98 dB	Pass
199.66 MHz	31.28 dBµV/m	43.5 dBµV/m	-12.22 dB	Pass



Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

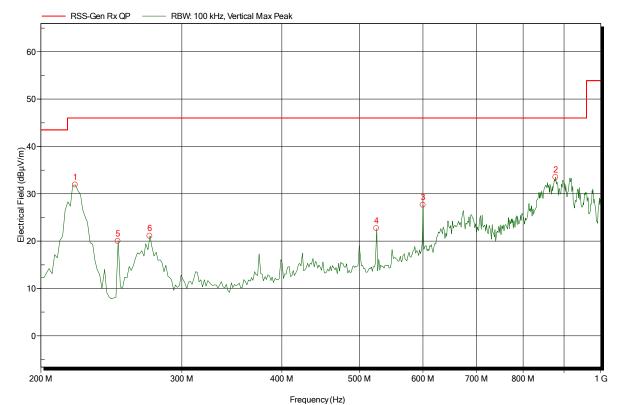
Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 223, Vertical

Measurement distance: 3 m

Mode: RX; IEEE 802.11b,g,n; Ch.6; 2437 MHz

Test Date: 2015-02-23 Note: EUT vertical



Frequency	Peak	Peak Limit	Peak Difference	Status
220.8 MHz	31.89 dBµV/m	46 dBμV/m	-14.11 dB	Pass
249.6 MHz	20.01 dBµV/m	46 dBμV/m	-25.99 dB	Pass
273.6 MHz	21.07 dBµV/m	46 dBµV/m	-24.93 dB	Pass
524.8 MHz	22.67 dBµV/m	46 dBµV/m	-23.33 dB	Pass
600 MHz	27.62 dBµV/m	46 dBµV/m	-18.38 dB	Pass
878.4 MHz	33.49 dBµV/m	46 dBµV/m	-12.51 dB	Pass



Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

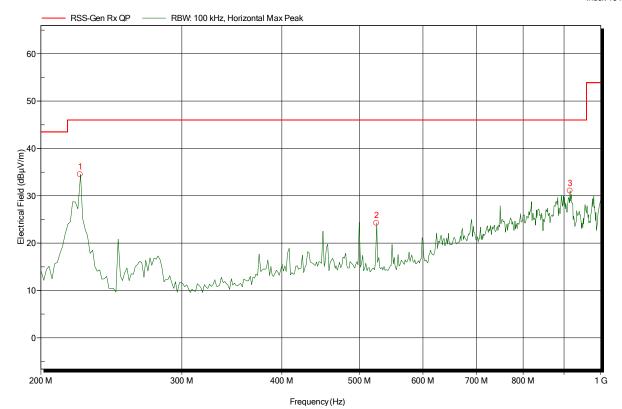
Test Conditions: Tnom: 22°C, Vnom: 24 VDC

Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 m

Mode: RX; IEEE 802.11b,g,n; Ch.6; 2437 MHz

Test Date: 2015-02-23 Note: EUT vertical



Frequency	Peak	Peak Limit	Peak Difference	Status
224 MHz	34.52 dBµV/m	46 dBµV/m	-11.48 dB	Pass
524.8 MHz	24.25 dBµV/m	46 dBµV/m	-21.75 dB	Pass
915.2 MHz	31.06 dBµV/m	46 dBµV/m	-14.94 dB	Pass



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Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

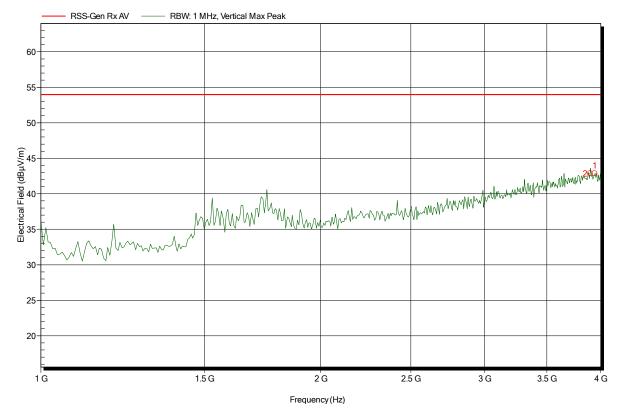
Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 3 m

Mode: RX; IEEE 802.11b,g,n; Ch.6; 2437 MHz

Test Date: 2015-02-23 Note: EUT vertical

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Frequency 3.898 GHz 3.94 GHz Peak 42.87 dBμV/m 42.87 dBμV/m Peak Limit 53.98 dBµV/m 53.98 dBµV/m Peak Difference -11.11 dB -11.11 dB Peak Status Pass Pass



Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC

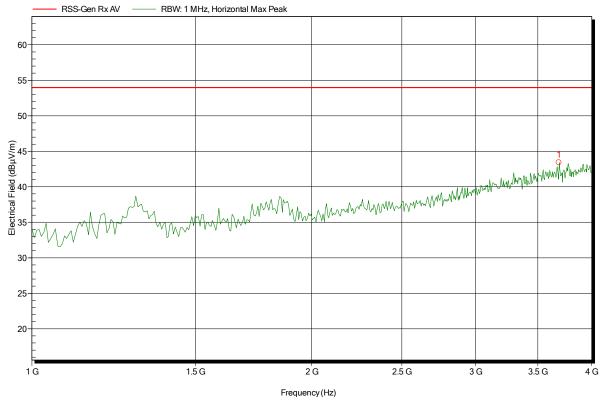
Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 3 m

Mode: RX; IEEE 802.11b,g,n; Ch.6; 2437 MHz

Test Date: 2015-02-23 Note: EUT vertical

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Frequency 3.688 GHz Peak 43.41 dBµV/m Peak Limit 53.98 dBµV/m Peak Difference -10.57 dB Peak Status Pass



Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

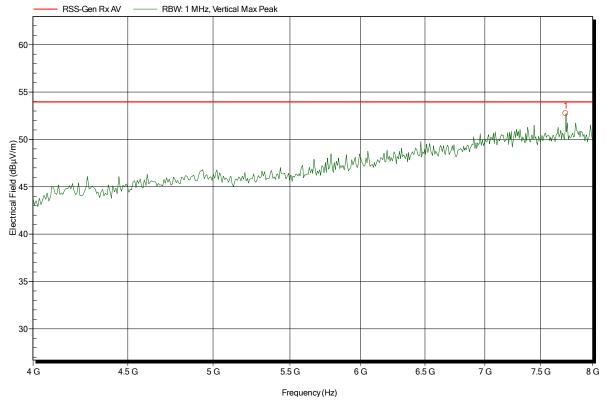
Test Conditions: Tnom: 22°C, Vnom: 24 VDC
Antenna: Rohde & Schwarz HL 025, Vertical

Measurement distance: 3 m

Mode: RX; IEEE 802.11b,g,n; Ch.6; 2437 MHz

Test Date: 2015-02-23 Note: EUT vertical

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Frequency 7.736 GHz Peak 52.76 dBµV/m Peak Limit 53.98 dBµV/m Peak Difference -1.22 dB Peak Status Pass



Project number: G0M-1411-4293

Applicant: AED Engineering

EUT Name: CAN-WLAN Gateway RH

Model: GN1001A

Test Site: Eurofins Product Service GmbH

Operator: Mr. Handrik

Test Conditions: Tnom: 22°C, Vnom: 24 VDC

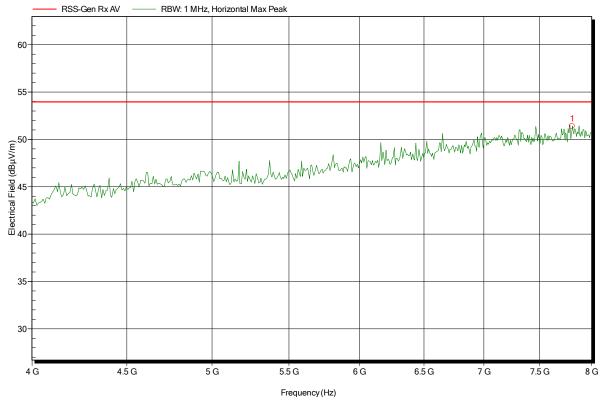
Antenna: Rohde & Schwarz HL 025, Horizontal

Measurement distance: 3 m

Mode: RX; IEEE 802.11b,g,n; Ch.6; 2437 MHz

Test Date: 2015-02-23 Note: EUT vertical

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Frequency 7.808 GHz Peak 51.39 dBµV/m Peak Limit 53.98 dBµV/m Peak Difference -2.59 dB Peak Status Pass