

FCC Test Report

Equipment : 802.11ac 2x2 MIMO PCI Express Mini Card
Brand Name : LITE-ON
Model No. : WM862FEMD
FCC ID : PPQ-WM862FEMD
Standard : 47 CFR FCC Part 15.247
Operating Band : 2400 MHz – 2483.5 MHz
Function : ☒ Point-to-multipoint; ☐ Point-to-point
Applicant : LITE-ON Technology Corp.
Bldg. C, 90, Chien 1 Rd., Chung-Ho, New Taipei City,
23585 Taiwan
Manufacturer : Lite-On Network Communication (Dongguan) Limited
30#Keji Rd., Yin Hu Industrial Area, Qingxi
Town, DongGuan City, Guangdong, China

This report was evaluated for permissive change. The product sample received on Nov. 14, 2017 and completely tested on Nov. 24, 2017. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.


Phoenix Chen / Assistant Manager



Table of Contents

1	GENERAL DESCRIPTION	5
1.1	Information.....	5
1.2	Testing Applied Standards	6
1.3	Testing Location Information	7
1.4	Measurement Uncertainty	7
2	TEST CONFIGURATION OF EUT	8
2.1	Test Condition	8
2.2	Test Channel Mode	8
2.3	The Worst Case Measurement Configuration.....	8
2.4	Support Equipment.....	9
2.5	Test Setup Diagram	10
3	TRANSMITTER TEST RESULT	11
3.1	Emissions in Non-restricted Frequency Bands	11
3.2	Emissions in Restricted Frequency Bands.....	12
4	TEST EQUIPMENT AND CALIBRATION DATA	15
APPENDIX A. TEST RESULTS OF EMISSIONS IN NON-RESTRICTED FREQUENCY BANDS		
APPENDIX B. TEST RESULTS OF EMISSIONS IN RESTRICTED FREQUENCY BANDS		
APPENDIX C. TEST PHOTOS		
PHOTOGRAPHS OF EUT v01		



Summary of Test Result

Conformance Test Specifications				
Report Clause	Ref. Std. Clause	Description	Limit	Result
1.1.2	15.203	Antenna Requirement	FCC 15.203	Complied
3.1	15.247(d)	Emissions in Non-restricted Frequency Bands	Non-Restricted Bands: > 30 dBc	Complied
3.2	15.247(d)	Emissions in Restricted Frequency Bands	Restricted Bands: FCC 15.209	Complied



SPORTON INTERNATIONAL INC.
TEL : 886-3-3273456
FAX : 886-3-3270973
FCC ID: PPQ-WM862FEMD

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
2400-2483.5	b, g, n (HT20), ac (VHT20)	2412-2462	1-11 [11]
2400-2483.5	n (HT40), ac (VHT40)	2422-2452	3-9 [7]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	2TX
2.4-2.4835GHz	802.11g	20	2TX
2.4-2.4835GHz	802.11n HT20	20	2TX
2.4-2.4835GHz	802.11ac VHT20	20	2TX
2.4-2.4835GHz	802.11n HT40	40	2TX
2.4-2.4835GHz	802.11ac VHT40	40	2TX

Note:

- 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- 11g, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Port	Brand	Model Name	Antenna Type	Connector
1	1	Master Wave Technology Co., Ltd	98P7RPIPF000	PCB Antenna	I-PEX
2	2	Master Wave Technology Co., Ltd	98P7RPIPF001	PCB Antenna	I-PEX

Ant.	Gain (dBi)				
	2.4G	5G B1	5G B2	5G B3	5G B4
1	6.5	4.7	4.7	5.6	6.0
2	6.5	4.8	5.4	5.8	5.5

Note 1: The EUT has two antennas.

For 2.4GHz function:

For IEEE 802.11 b/g/n/ac mode (2TX/2RX)

Ant. 1 (port 1) and Ant. 2 (port 2) could transmit/receive simultaneously.

For 5GHz function:

For IEEE 802.11 a/n/ac mode (2TX/2RX)

Ant. 1 (port 1) and Ant. 2 (port 2) could transmit/receive simultaneously.

1.1.3 EUT Information

Operational Condition			
EUT Power Type	From PoE		
Beamforming Function	☐ With beamforming	☒ Without beamforming	
Type of EUT			
☒	Stand-alone		
☐	Combined (EUT where the radio part is fully integrated within another device)		
	Combined Equipment - Brand Name / Model No.:		...
☐	Plug-in radio (EUT intended for a variety of host systems)		
	Host System - Brand Name / Model No.:		...
☐	Other:		

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11b	1	0	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)

1.1.5 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR741722-01AA

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
Single module approval from limited module approval.	The worst case of Emissions in Non-restricted Frequency Bands and Emissions in Restricted Frequency Bands were evaluated.

1.2 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR FCC Part 15
- ♦ ANSI C63.10-2013
- ♦ KDB 558074 D01 v04
- ♦ KDB 662911 D01 v02r01
- ♦ KDB 644545 D03 v01

1.3 Testing Location Information

Testing Location			
☒	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)	
		TEL : 886-3-327-3456	FAX : 886-3-327-0973
Test site Designation No. TW1190 with FCC.			
☐	JHUBEI	ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.)	
		TEL : 886-3-656-9065	FAX : 886-3-656-9085
Test site Designation No. TW0006 with FCC.			

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-HY	Tim	24.5°C / 65.6%	20/Nov/2017
Radiated	03CH02-HY	Jerry	25.5°C / 55%	24/Nov/2017

1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	2.1 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	2.6 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	2.9 dB	Confidence levels of 95%
Conducted Emission	1.3 dB	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Condition

RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	120V

2.2 Test Channel Mode

Test Software	TOOL
---------------	------

Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX(Port1)	-
2437MHz	21

2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emissions in Restricted Frequency Bands
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode < 1GHz	CTX
1	PoE mode
Operating Mode > 1GHz	CTX
Orthogonal Planes of EUT	Z Plane 
Worst Planes of EUT	V

2.4 Support Equipment

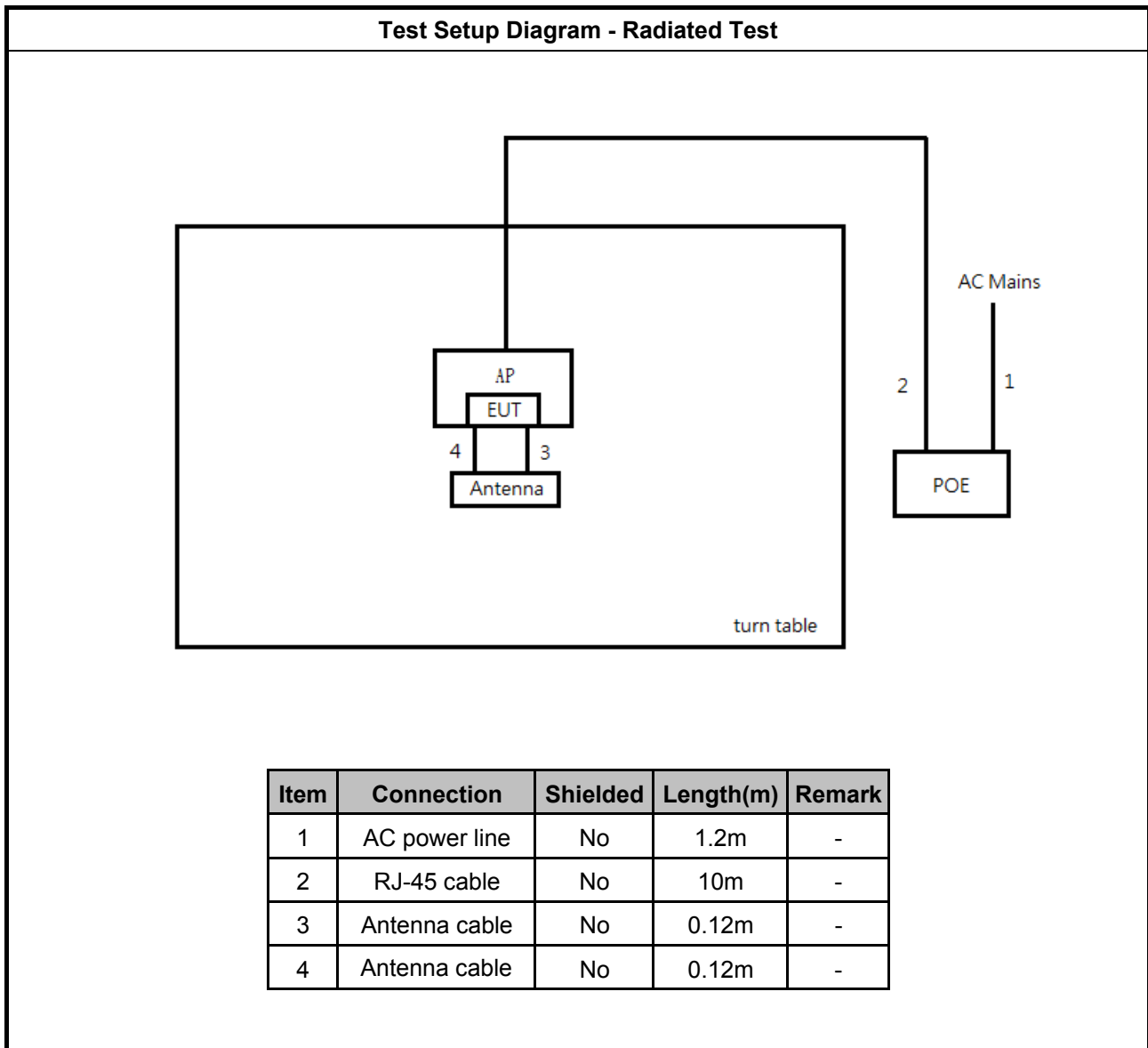
Support Equipment – RF Conducted				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E5410	DoC
2	Adapter for NB	DELL	HA65NM130	DoC
3	AP	LITEON	WP9333	-
4	PoE	Microsemi	PD-9001G	-

Note: Support equipment No.3 and 4 was provided by customer.

Support Equipment – Radiated Emission				
No.	Equipment	Brand Name	Model Name	FCC ID
1	PoE	Microsemi	PD-9001G	-
2	AP	LITEON	WP9333	-

Note: Support equipment No.1 and 2 was provided by customer.

2.5 Test Setup Diagram



3 Transmitter Test Result

3.1 Emissions in Non-restricted Frequency Bands

3.1.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	Limit (dB)
Peak output power procedure	20
Average output power procedure	30
Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level. Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.	

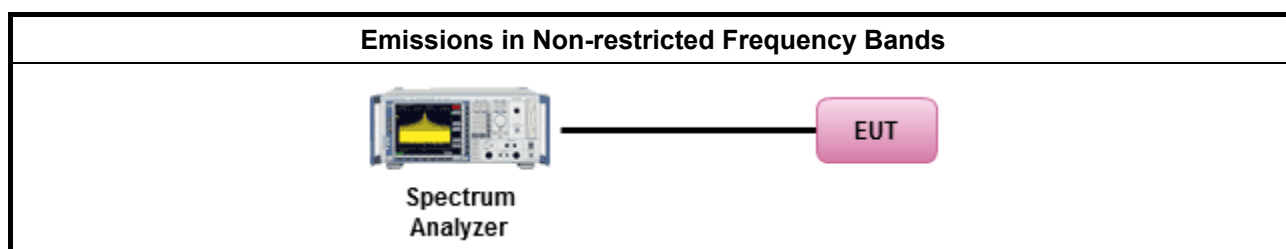
3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method
Refer as KDB 558074, clause 11 for unwanted emissions into non-restricted bands.

3.1.4 Test Setup



3.1.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix A

3.2 Emissions in Restricted Frequency Bands

3.2.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

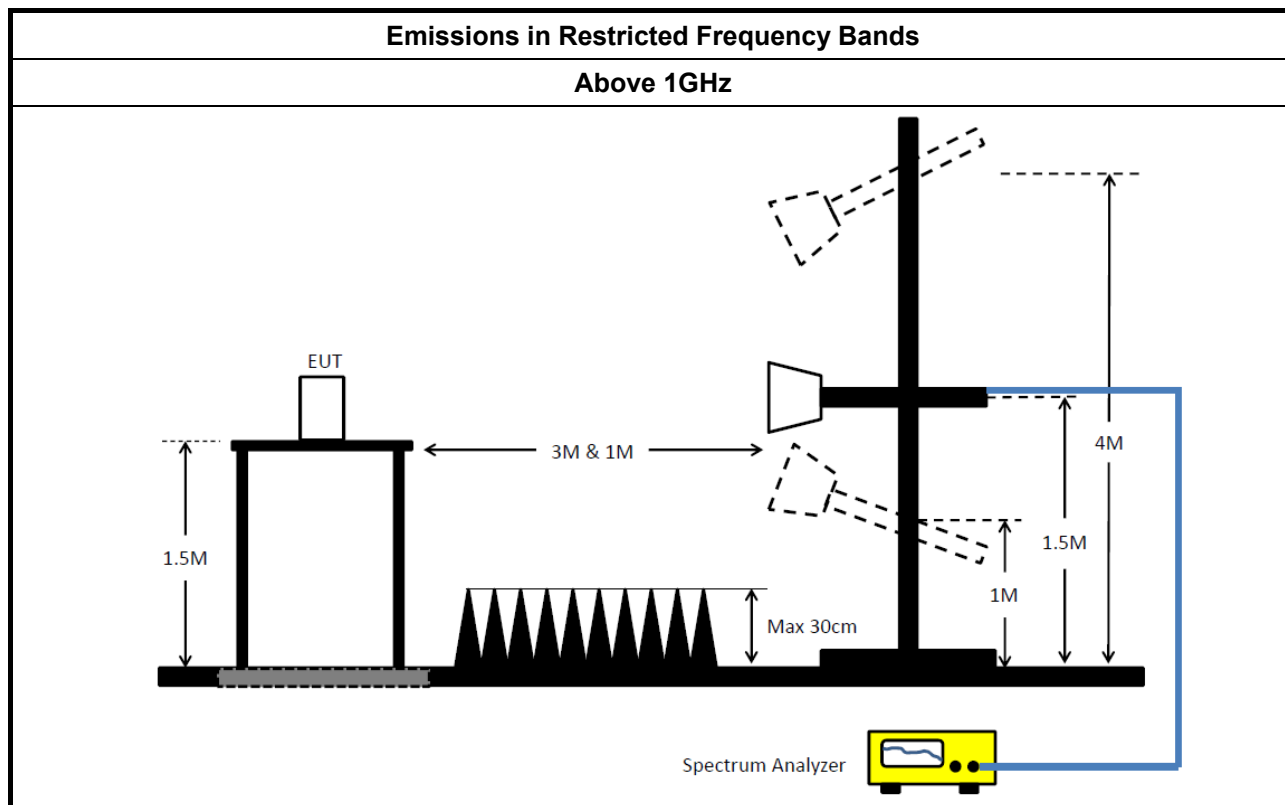
3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

Test Method	
The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].	
Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
For the transmitter unwanted emissions shall be measured using following options below:	
	Refer as KDB 558074, clause 12 for unwanted emissions into restricted bands.
	☒ Refer as KDB 558074, clause 12.2.5.3 (ANSI C63.10, clause 4.1.4.2.3), Reduced VBW $\geq 1/T$.
	☒ Refer as KDB 558074, clause 12.2.4 measurement procedure peak limit.
For the transmitter band-edge emissions shall be measured using following options below:	
	Refer as KDB 558074 clause 13.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.
	Refer as KDB 558074, clause 13.2 (ANSI C63.10, clause 6.10.6) for marker-delta method for band-edge measurements.
	Refer as KDB 558074, clause 13.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).
For conducted and cabinet radiation measurement, refer as KDB 558074, clause 12.2.2.	
	For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB
	For KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.

3.2.4 Test Setup



3.2.5 Test Result of Emissions in Restricted Frequency Bands (Below 30MHz)

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

3.2.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix B

4 Test Equipment and Calibration Data

Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSP40	100305	9kHz - 40GHz	30/Dec/2016	29/Dec/2017
3m Semi Anechoic	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz-1GHz	20/Oct/2017	19/Oct/2018
3m Semi Anechoic	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz ~ 18GHz	12/Dec/2016	11/Dec/2017
Amplifier	Agilent	8447D	2944A11149	100KHz-1.3GHz	29/Jun/2017	28/Jun/2018
Amplifier	Ketsight	8449B	3008A02602	1GHz-26.5GHz	19/Sep/2017	18/Sep/2018
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA9120D 01531	1GHz-18GHz	11/May/2017	10/May/2018
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170154	18GHz-40GHz	06/Feb/2017	05/Feb/2018
RF Cable-high	SUHNER	SUCOFLEX104	MY34918/4	1GHz ~ 40GHz	26/Jan/2017	25/Jan/2018
RF Cable-R03m	Jye Bao	RG142	CB017	9kHz ~ 1GHz	26/Jan/2017	25/Jan/2018
Receiver	R&S	ESU3	102052	9kHz ~ 3.6GHz	29/Apr/2017	28/Apr/2018

Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	9kHz~40GHz	30/Dec/2016	29/Dec/2017
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	27/Jul/2017	26/Jul/2018
Power Sensor	Anritsu	MA2411B	0917017	300MHz ~ 40GHz	10/Feb/2017	09/Feb/2018
Power Meter	Anritsu	ML2495A	0949003	300MHz ~ 40GHz	10/Feb/2017	09/Feb/2018
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10709/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-0.2m	HUBER+SUHNER	SUCOFLEX_104	MY10712/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018
RF Cable-0.5m	HUBER+SUHNER	SUCOFLEX_104	MY10713/4	30MHz ~ 26.5GHz	25/Aug/2017	24/Aug/2018

Summary

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	Pass	2.438911G	6.80	-23.20	874.625M	-58.08	2.39664G	-56.07	2.49774G	-54.76	16.627504G	-51.76	1

Result

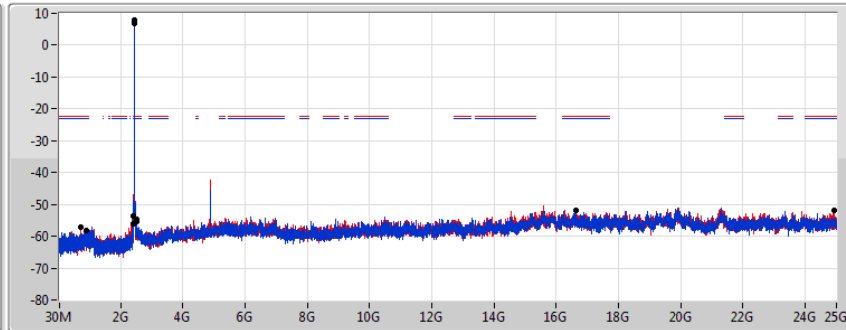
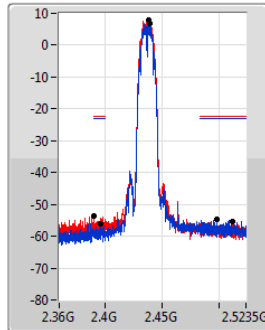
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2437MHz_TnomVnom	Pass	2.438911G	6.80	-23.20	874.625M	-58.08	2.39664G	-56.07	2.49774G	-54.76	16.627504G	-51.76	1
2437MHz_TnomVnom	Pass	2.438577G	7.77	-22.23	697.545M	-57.32	2.39072G	-53.56	2.5119G	-55.41	24.93819G	-51.82	2

802.11b_Nss1,(1Mbps)_2TX

CSE NdB

2437MHz

20/11/2017



Port 1
Port 2

Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.438911G	6.80	-23.20	874.625M	-58.08	2.39664G	-56.07	2.49774G	-54.76	16.627504G	-51.76	1
2.438577G	7.77	-22.23	697.545M	-57.32	2.39072G	-53.56	2.5119G	-55.41	24.93819G	-51.82	2

**Summary**

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1.(1Mbps)_2TX	Pass	AV	4.874G	52.96	54.00	-1.04	2.26	3	Horizontal	1	2.47	-

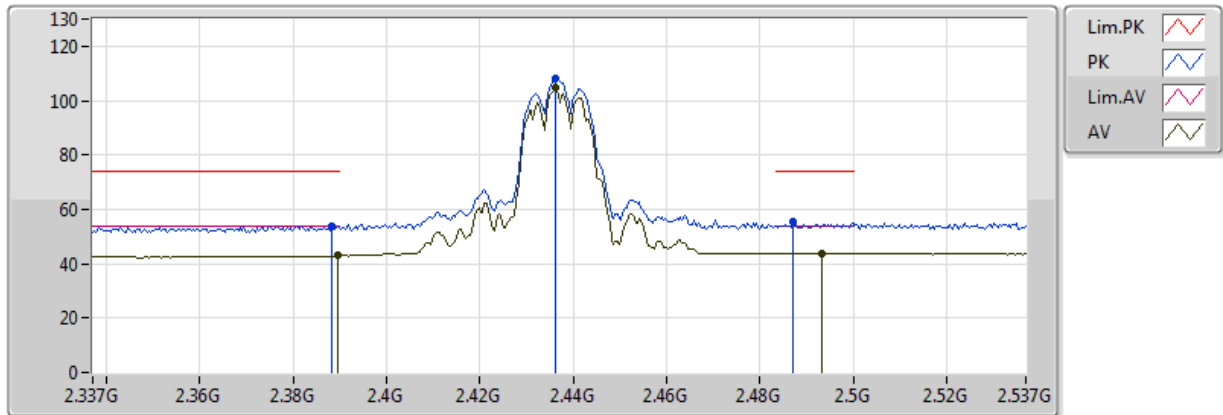
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-
2437MHz	Pass	AV	2.389998G	43.07	54.00	-10.93	30.93	3	Horizontal	159	1.71	-
2437MHz	Pass	AV	2.4394G	105.10	Inf	-Inf	31.11	3	Horizontal	159	1.71	-
2437MHz	Pass	AV	2.4938G	43.72	54.00	-10.28	31.31	3	Horizontal	159	1.71	-
2437MHz	Pass	PK	2.3558G	54.30	74.00	-19.70	30.82	3	Horizontal	159	1.71	-
2437MHz	Pass	PK	2.4394G	108.71	Inf	-Inf	31.11	3	Horizontal	159	1.71	-
2437MHz	Pass	PK	2.495G	55.22	74.00	-18.78	31.31	3	Horizontal	159	1.71	-
2437MHz	Pass	AV	2.3894G	42.87	54.00	-11.13	30.93	3	Vertical	204	2.19	-
2437MHz	Pass	AV	2.4362G	104.83	Inf	-Inf	31.10	3	Vertical	204	2.19	-
2437MHz	Pass	AV	2.4934G	43.66	54.00	-10.34	31.31	3	Vertical	204	2.19	-
2437MHz	Pass	PK	2.3882G	53.71	74.00	-20.29	30.93	3	Vertical	204	2.19	-
2437MHz	Pass	PK	2.4362G	108.32	Inf	-Inf	31.10	3	Vertical	204	2.19	-
2437MHz	Pass	PK	2.487G	55.29	74.00	-18.71	31.28	3	Vertical	204	2.19	-
2437MHz	Pass	AV	4.874G	52.96	54.00	-1.04	2.26	3	Horizontal	1	2.47	-
2437MHz	Pass	AV	7.31178G	52.27	54.00	-1.73	7.46	3	Horizontal	187	1.97	-
2437MHz	Pass	PK	4.87406G	55.52	74.00	-18.48	2.26	3	Horizontal	1	2.47	-
2437MHz	Pass	PK	7.31208G	58.52	74.00	-15.48	7.46	3	Horizontal	187	1.97	-
2437MHz	Pass	AV	4.874G	47.65	54.00	-6.35	2.26	3	Vertical	195	1.65	-
2437MHz	Pass	AV	7.31178G	46.20	54.00	-7.80	7.46	3	Vertical	328	2.27	-
2437MHz	Pass	PK	4.874G	51.32	74.00	-22.68	2.26	3	Vertical	195	1.65	-
2437MHz	Pass	PK	7.311G	54.26	74.00	-19.74	7.46	3	Vertical	328	2.27	-

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

24/11/2017

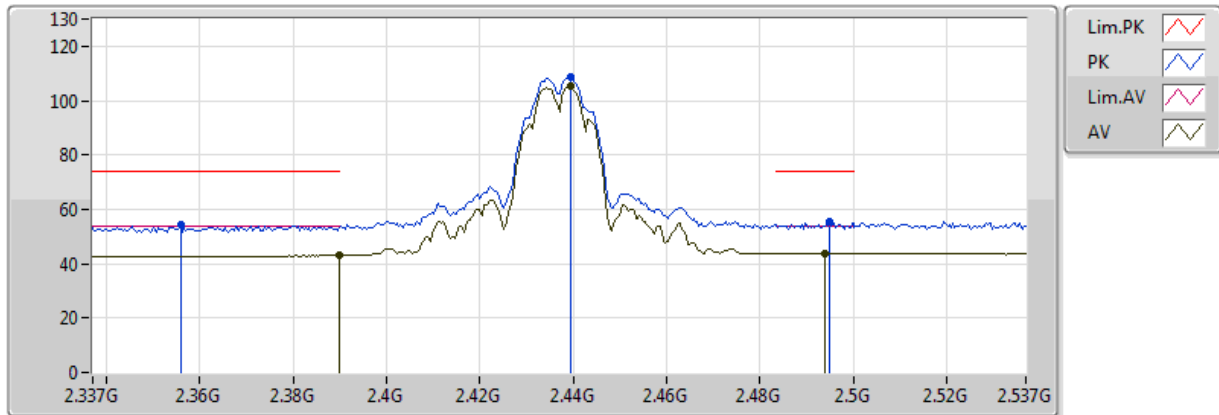


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.3894G	42.87	54.00	-11.13	30.93	3	Vertical	204	2.19	-	11.94	27.31	3.62	-
AV	2.4362G	104.83	Inf	-Inf	31.10	3	Vertical	204	2.19	-	73.73	27.43	3.67	-
AV	2.4934G	43.66	54.00	-10.34	31.31	3	Vertical	204	2.19	-	12.35	27.58	3.72	-
PK	2.3882G	53.71	74.00	-20.29	30.93	3	Vertical	204	2.19	-	22.78	27.31	3.62	-
PK	2.4362G	108.32	Inf	-Inf	31.10	3	Vertical	204	2.19	-	77.22	27.43	3.67	-
PK	2.487G	55.29	74.00	-18.71	31.28	3	Vertical	204	2.19	-	24.01	27.57	3.72	-

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

24/11/2017

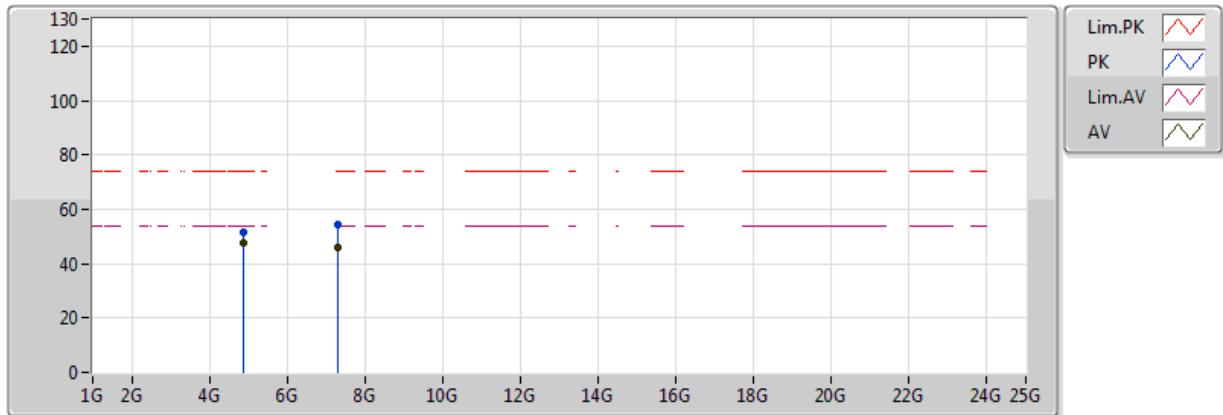


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	2.389998G	43.07	54.00	-10.93	30.93	3	Horizontal	159	1.71	-	12.13	27.31	3.62	-
AV	2.4394G	105.10	Inf	-Inf	31.11	3	Horizontal	159	1.71	-	73.99	27.44	3.67	-
AV	2.4938G	43.72	54.00	-10.28	31.31	3	Horizontal	159	1.71	-	12.41	27.58	3.72	-
PK	2.3558G	54.30	74.00	-19.70	30.82	3	Horizontal	159	1.71	-	23.49	27.23	3.59	-
PK	2.4394G	108.71	Inf	-Inf	31.11	3	Horizontal	159	1.71	-	77.59	27.44	3.67	-
PK	2.495G	55.22	74.00	-18.78	31.31	3	Horizontal	159	1.71	-	23.91	27.59	3.73	-

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

24/11/2017

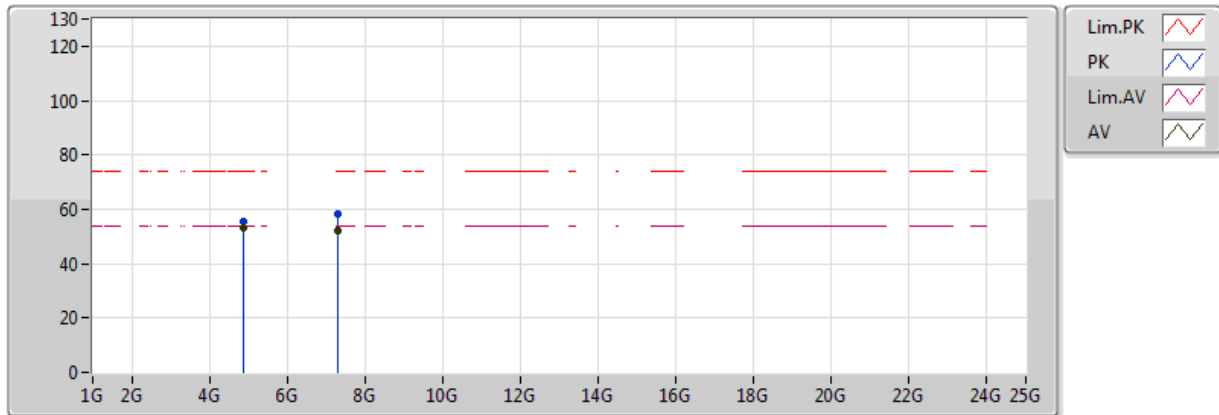


Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.874G	47.65	54.00	-6.35	2.26	3	Vertical	195	1.65	-	45.40	31.37	5.46	34.58
AV	7.31178G	46.20	54.00	-7.80	7.46	3	Vertical	328	2.27	-	38.74	35.81	6.63	34.98
PK	4.874G	51.32	74.00	-22.68	2.26	3	Vertical	195	1.65	-	49.06	31.37	5.46	34.58
PK	7.311G	54.26	74.00	-19.74	7.46	3	Vertical	328	2.27	-	46.80	35.81	6.63	34.98

802.11b_Nss1,(1Mbps)_2TX

2437MHz_TX

24/11/2017



Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments	Raw (dBuV)	AF (dB)	CL (dB)	PA (dB)
AV	4.874G	52.96	54.00	-1.04	2.26	3	Horizontal	1	2.47	-	50.70	31.37	5.46	34.58
AV	7.31178G	52.27	54.00	-1.73	7.46	3	Horizontal	187	1.97	-	44.81	35.81	6.63	34.98
PK	4.87406G	55.52	74.00	-18.48	2.26	3	Horizontal	1	2.47	-	53.26	31.37	5.46	34.58
PK	7.31208G	58.52	74.00	-15.48	7.46	3	Horizontal	187	1.97	-	51.05	35.81	6.63	34.98