

Report No.: 1706RSU02401 Report Version: V01 Issue Date: 07-11-2017

MEASUREMENT REPORT

EMC Test Report

- Applicant: Compex Systems Pte Ltd
- Address: No:9 Harrison Road, Harrison Industrial Building, #05-01, Singapore 369651
- Product: 802.11ac Dual Band Module
- Model No.: WLE600VX, WLE600VX-I
- Brand Name: COMPEX
- **Standards:** EN 55032: 2015

EN 301 489 - 1 V2.2.0 (2017-02) EN 301 489 - 17 V3.2.0 (2017-02)

- Result: Complies
- **Test Date:** June 24 ~ July 11, 2017

: Jame Yuan) Reviewed By Marlinchen Approved By ESTING LABORATOR (Marlin Chen)

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
1706RSU02401	Rev. 01	Initial report	07-11-2017	Valid

Note: The product has no change in hardware and software and only upgrades the EMC rules version as below. The was based on MRT Report number is 1503RSU02910 and we added the radiated emission & radio-frequency electromagnetic field testing, any others were same as before.

Old Rules Version	New Rules Version
ETSI EN 301 489 - 1 V1.9.2	ETSI EN 301 489 - 1 V2.2.0
ETSI EN 301 489 - 17 V2.2.1	ETSI EN 301 489 - 17 V3.2.0
EN 55022: 2010/AC: 2011	EN 55032: 2015



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1. General Information

1.1. Applicant

Compex Systems Pte Ltd No:9 Harrison Road, Harrison Industrial Building, #05-01, Singapore 369651

1.2. Manufacturer

Compex Systems Pte Ltd No:9 Harrison Road, Harrison Industrial Building, #05-01, Singapore 369651

1.3. Testing Facility

Test Site MRT Technology (Suzhou) Co., Ltd Test Site Location D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China

Test Facility / Accreditations

Measurements were performed at MRT Laboratory located in Tian'edang Rd., Suzhou, China.

- MRT facility is a FCC registered (MRT Reg. No. 809388) test facility with the site description report on file and has met all the requirements specified in Section 2.948 of the FCC Rules.
- MRT facility is an IC registered (MRT Reg. No. 11384A-1) test laboratory with the site description on file at Industry Canada.
- MRT facility is a VCCI registered (R-4179, G-814, C-4664, T-2206) test laboratory with the site description on file at VCCI Council.
- MRT Lab is accredited to ISO 17025 by the American Association for Laboratory Accreditation (A2LA) under the American Association for Laboratory Accreditation Program (A2LA Cert. No. 3628.01) in EMC, Telecommunications and Radio testing for FCC, Industry Canada, EU and TELEC Rules.





1.4. Feature of Equipment under Test

Product Name:	802.11ac Dual Band Module
Model No.:	WLE600VX, WLE600VX-I
Brand Name:	COMPEX
Frequency Range	For 2.4GHz Band:
	802.11b/g/n:
	2412 ~ 2472 MHz
	For 5GHz Band:
	802.11a/n/ac:
	5150 ~ 5350MHz
	5470 ~ 5825MHz
Type of Modulation	802.11b: DSSS
	802.11g/a/n/ac: OFDM
Data Rate	802.11a: 6/9/12/18/24/36/48/54Mbps
	802.11n: up to 300Mbps
	802.11ac: up to 866.6Mbps

1.5. Standards Applicable for Testing

The EUT complies with the requirements of EN 301 489 - 1 V2.2.0 & ETSI EN 301 489 - 17 V3.2.0 & EN 55032: 2015 Class B.

EMI Test:

EN 55032: 2015 (Radiated Emission)

EMS Test:

EN 61000-4-3: 2006+A1:2008+A2:2010 (RS)

1.6. Performance Criteria

General Requirements (ETSI EN 301489-1):

The performance criteria are used to take a decision on whether radio equipment passes or fails immunity tests.

For the purpose of the present document four categories of performance criteria apply:

- Performance criteria for continuous phenomena applied to transmitters and receivers;
- Performance criteria for transient phenomena applied to transmitters and receivers;
- Performance criteria for equipment which does not provide a continuous communication link;

• Performance criteria for ancillary equipment tested on a stand alone basis.

Normally, the performance criteria depend on the type of radio equipment. Thus, the present document only contains general performance criteria commonly used for the assessment of radio equipment. More specific and product-related performance criteria for a dedicated type of radio equipment may be found in the part of ETSI EN 301 489 series [i.13] dealing with the particular type of radio equipment.

Performance criteria for continuous phenomena applied to transmitters and receivers

If no further details are given in the relevant part of ETSI EN 301 489 series [i.13] dealing with the particular type of radio equipment, the following general performance criteria for continuous phenomena shall apply.

During and after the test, the equipment shall continue to operate as intended. No degradation of performance or loss of function is allowed below a permissible performance level specified by the manufacturer when the equipment is used as intended. In some cases this permissible performance level may be replaced by a permissible loss of performance.

During the test the EUT shall not unintentionally transmit or change its actual operating state and stored data.

If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be deduced from the product description and documentation and what the user may reasonably expect from the equipment if used as intended.



Performance criteria for transient phenomena applied to transmitters and receivers

If no further details are given in the relevant part of ETSI EN 301 489 series [i.13] dealing with the particular type of radio equipment, the following general performance criteria for transient phenomena shall apply.

For surges applied to symmetrically operated wired network ports intended to be connected directly to outdoor lines the following criteria applies:

- For products with only one symmetrical port intended for connection to outdoor lines, loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of the controls by the user in accordance with the manufacturer's instructions. A SW reboot is not allowed. Information stored in non-volatile memory, or protected by a battery backup, shall not be lost.
- For products with more than one symmetrical port intended for connection to outdoor lines, loss of function on the port under test is allowed, provided the function is self-recoverable. A SW reboot is not allowed. Information stored in non-volatile memory, or protected by a battery backup, shall not be lost.

For all other ports the following applies:

- After the test, the equipment shall continue to operate as intended. No degradation of performance or loss of function is allowed below a permissible performance level specified by the manufacturer, when the equipment is used as intended. In some cases this permissible performance level may be replaced by a permissible loss of performance.
- During the EMC exposure to an electromagnetic phenomenon, a degradation of performance is, however, allowed. No change of the actual mode of operation (e.g. unintended transmission) or stored data is allowed.
- If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be deduced from the product description and documentation and what the user may reasonably expect from the equipment if used as intended.



Performance criteria for equipment which does not provide a continuous communication link

For radio equipment which does not provide a continuous communication link, the performance criteria described in clauses 6.1 and 6.2 are not appropriate, in these cases the manufacturer shall declare, for inclusion in the test report, his own specification for an acceptable level of performance or degradation of performance during and/or after the immunity tests. The performance specification shall be included in the product description and documentation. The related specifications set out in clause 5.3 have also to be taken into account.

The performance criteria specified by the manufacturer shall give the same degree of immunity protection as called for in clauses 6.1 and 6.2.

Performance criteria for ancillary equipment tested on a stand-alone basis

If ancillary equipment is intended to be tested on a standalone basis, the performance criteria described in clauses 6.1 and 6.2 are not appropriate, in these cases the manufacturer shall declare, for inclusion in the test report, his own specification for an acceptable level of performance or degradation of performance during and/or after the immunity tests. The performance specification shall be included in the product description and documentation. The related specifications set out in clause 5.3 have also to be taken into account.

The performance criteria specified by the manufacturer shall give the same degree of immunity protection as called for in clauses 6.1 and 6.2.



Special Performance Requirements (ETSI EN 301489-17):

The performance criteria are:

- performance criteria A for immunity tests with phenomena of a continuous nature;
- performance criteria B for immunity tests with phenomena of a transient nature;
- performance criteria C for immunity tests with power interruptions exceeding a certain time.

The equipment shall meet the minimum performance criteria as specified in the following clauses.

Performance criteria for Continuous phenomena applied to Transmitters (CT)

The performance criteria A shall apply.

Tests shall be repeated with the EUT in standby mode (if applicable) to ensure that unintentional transmission does not occur. In systems using acknowledgement signals, it is recognized that an ACKnowledgement (ACK) or Not ACKnowledgement (NACK) transmission may occur, and steps should be taken to ensure that any transmission resulting from the application of the test is correctly interpreted.

Performance criteria for Transient phenomena applied to Transmitters (TT)

The performance criteria B shall apply, except for voltage dips of 100 ms and voltage interruptions of 5000 ms duration, for which performance criteria C shall apply.

Tests shall be repeated with the EUT in standby mode (if applicable) to ensure that unintentional transmission does not occur. In systems using acknowledgement signals, it is recognized that an acknowledgement (ACK) or not-acknowledgement (NACK) transmission may occur, and steps should be taken to ensure that any transmission resulting from the application of the test is correctly interpreted.

Performance criteria for Continuous phenomena applied to Receivers (CR)

The performance criteria A shall apply.

Where the EUT is a transceiver, under no circumstances, shall the transmitter operate unintentionally during the test. In systems using acknowledgement signals, it is recognized that an ACK or NACK transmission may occur, and steps should be taken to ensure that any transmission resulting from the application of the test is correctly interpreted.



Performance criteria for Transient phenomena applied to Receivers (TR)

The performance criteria B shall apply, except for voltage dips of 100 ms and voltage interruptions of 5000 ms duration for which performance criteria C shall apply.

Where the EUT is a transceiver, under no circumstances, shall the transmitter operate unintentionally during the test. In systems using acknowledgement signals, it is recognized that an ACK or NACK transmission may occur, and steps should be taken to ensure that any transmission resulting from the application of the test is correctly interpreted.

	EN 301 489 -17 Performance criteria					
Criteria	During Test	After test				
A	Shall operate as intended. (see note 1). Shall be no loss of function. Shall be no unintentional transmissions	Shall operate as intended. Shall be no degradation of performance (see note 3). Shall be no loss of function. Shall be no loss of stored data or user programmable functions.				
В	May show loss of function (one or more). May show degradation of performance (see note 2). Shall be no unintentional transmissions	Functions shall be self-recoverable. Shall operate as intended after recovering. Shall be no degradation of performance (see note 3). Shall be no loss of stored data or user programmable functions.				
С	May be loss of function (one or more)	Functions shall be recoverable by the operator. Shall operate as intended after recovering. Shall be no degradation of performance (see note 3).				



of performance.

Note 1: Operate as intended during the test allows a level of degradation not below a minimum performance level specified by the manufacturer for the use of the apparatus as intended. In some cases the specified minimum performance level may be replaced by a permissible degradation of performance. If the minimum performance level or the permissible performance degradation is not specified by the manufacturer then either of these may be derived from the product description and documentation (including leaflets and advertising) and what the user may reasonably expect from the apparatus if used as intended.
Note 2: Degradation of performance during the test is understood as a degradation to a level not below a minimum performance level specified by the manufacturer for the use of the apparatus as intended. In some cases the specified minimum performance level may be replaced by a permissible degradation

If the minimum performance level or the permissible performance degradation is not specified by the manufacturer then either of these may be derived from the product description and documentation (including leaflets and advertising) and what the user may reasonably expect from the apparatus if used as intended.

Note 3: No degradation of performance after the test is understood as no degradation below a minimum performance level specified by the manufacturer for the use of the apparatus as intended. In some cases the specified minimum performance level may be replaced by a permissible degradation of performance. After the test no change of actual operating data or user retrievable data is allowed. If the minimum performance level or the permissible performance degradation is not specified by the manufacturer then either of these may be derived from the product description and documentation (including leaflets and advertising) and what the user may reasonably expect from the apparatus if used as intended.

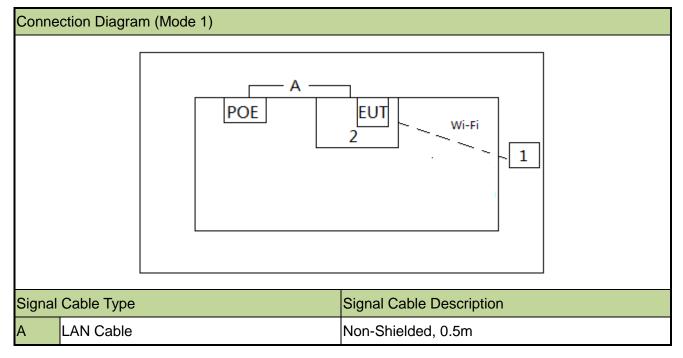


2. Test Configuration of Equipment under Test

2.1. Test Mode

Test Mode	
EMI Mode	Mode 1: Power on and Communication with notebook by Wi-Fi
EMS Mode	Mode 1: Power on and Communication with notebook by Wi-Fi

2.2. Configuration of Tested System



2.3. Test System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	lanufacturer Model No. S		Power Cord	
1	Notebook	Lenovo	E430c	MP-4CFX213/10	Non-Shielded, 1.8m	
2	PCB Board	COMPEX	WPJ344	N/A	Non-Shielded, 1.5m	

2.4. Test Procedure

1	Setup the EUT and simulators as shown on above.
2	Turn on the power of all equipment.
3	Making EUT communicate with PC by LAN cable and communicate with notebook by Wi-Fi.



3. Test Summary

Test Reference Standard	Test Item	Result (Pass/Fail)	Remark			
	Emission Measurements					
EN 55032	Radiated Emission	Pass				
	Immunity Measurements					
EN 61000-4-3	Radio-Frequency Electromagnetic Field	Pass				



4. Radiated Emission

4.1. Limit of Radiated Emission

Frequency range MHz	Quasi-peak limits dB(µV/m)
30 to 230	40
230 to 1000	47

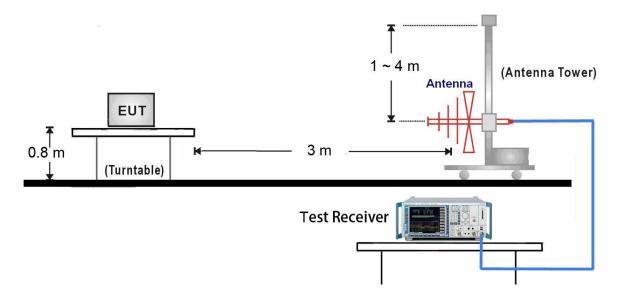
Note 1: The lower limit shall apply at the transition frequency.

Note 2: Additional provisions may be required for cases where interference occurs.

Frequency range GHz	Average limit dB(µV/m)	Peak limit dB(µV/m)			
1 to 3	50	70			
3 to 6	54	74			
Note: The lower limit applies at the transition frequency.					

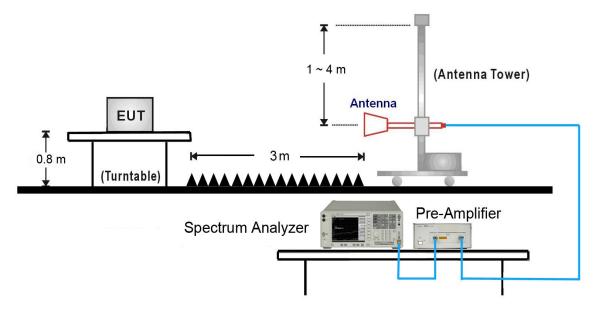
4.2. Test Setup

30 ~ 1000 MHz

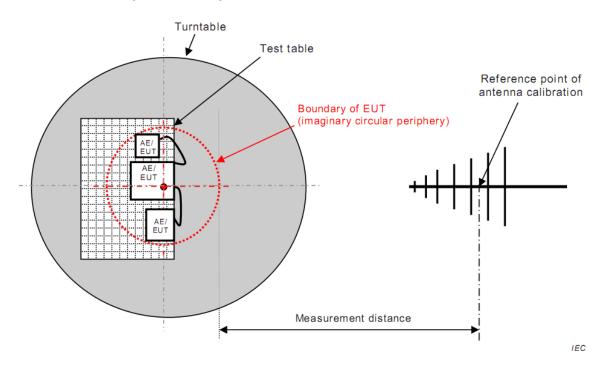




1000 ~ 6000 MHz



Note: About the radiated test setup, the EUT and local AE shall be arranged in the most compact practical arrangement within the test volume, while respecting typical spacing and the requirements defined in EN55032 Annex D. The central point of the arrangement shall be positioned at the centre of the turntable. The measurement distance is the shortest horizontal distance between an imaginary circular periphery just encompassing this arrangement and the calibration point of the antenna. See below Figure 1 and Figure 2.







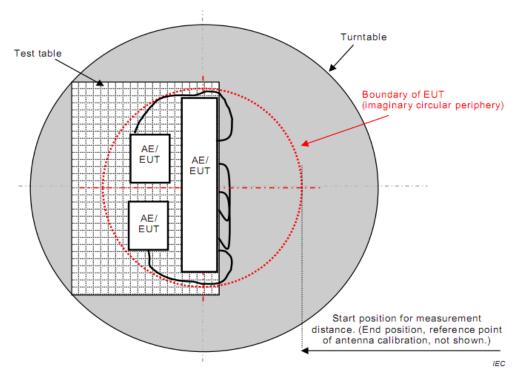


Figure 2

4.3. Test Procedure

Starting with the front of the receiver under test facing the measuring antenna, the measuring antenna is adjusted for horizontal polarization measurement and its height varied between 1 m and 4 m until the maximum reading is obtained.

The receiver under test is then rotated about its centre until the maximum meter reading is obtained, after which the measuring antenna height is again varied between 1 m and 4 m and the maximum reading noted.

The procedure is repeated for vertical polarization of the measuring antenna.

The highest value found, following this procedure, is defined as the radiation figure of the receiver. If at certain frequencies the ambient signal field strength is high at the position of the receiving antenna, one of the following methods may be used to show compliance of the equipment under test.

a) For small frequency bands with high ambient signals, the disturbance value may be interpolated from the adjacent values. The interpolated value shall lie on the curve describing a continuous function of the disturbance values adjacent to the ambient noise.

b) Another possibility is to use the method described in annex C of CISPR 11.



4.4. Test Result

Site	AC1				1	Time: 2017/07	/07 - 03:16		
Limit: EN55032_RE(3m)_ClassB				E	Engineer: Will Yan				
Probe: VULB 9168 _20-2000MHz				F	Polarity: Horiz	ontal			
EUT:802.11ac Dual Band Module			F	Power: AC 230)V/50Hz				
Test	Mode	: Mode	1						
90 80 70 60 50 40 30 1 20 10 10 10 10 10 10 10 10 10 1					3	4 5		6	
	0 -10 30			100	Freque	ncy(MHz)			1000
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
-			(MHz)	Level (dBuV/m)	Level (dBuV)	(dB)	(dBuV/m)	(dB)	
1			40.055	24.649	10.140	-15.351	40.000	14.509	QP
2			99.840	23.602	12.650	-16.398	40.000	10.952	QP
3			217.145	32.992	21.260	-7.008	40.000	11.732	QP
4		*	298.630	34.409	20.145	-12.591	47.000	14.264	QP
5			400.055	26.742	10.250	-20.258	47.000	16.492	QP
6			699.250	26.217	4.250	-20.783	47.000	21.967	QP

Note: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).



Site: AC1				Т	Time: 2017/07/07 - 03:16				
Limit: EN55032_RE(3m)_ClassB				E	Engineer: Will Yan				
Prob	e: VUI	LB 9168	3_20-2000MI	Ηz	F	Polarity: Vertic	al		
EUT	:802.1	1ac Dua	al Band Modu	le	F	ower: AC 230)V/50Hz		
Test	Mode:	Mode	1						
	90		1						
	80								
	70								
	60								
Ē	50								
Level(dBuV/m)	40								
evel(c	30 1			2	3	4	5		6
_	20			*	*	*	*		*
	10								
	0								
	-10 30			100	1				1000
3						ncy(MHz)			
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			31.455	25.810	12.140	-14.190	40.000	13.670	QP
2		*	106.630	26.869	15.225	-13.131	40.000	11.644	QP
3			110.510	26.688	14.630	-13.312	40.000	12.058	QP
4			215.755	25.099	13.450	-14.901	40.000	11.649	QP
5			400.055	27.942	11.450	-19.058	47.000	16.492	QP
6			712.630	26.431	4.250	-20.569	47.000	22.181	QP

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m).



6

*

Site: AC1					Time: 2017/07/07 - 03:16				
Limi	t: EN5	5032_R	E(3m)_Class	В		Engineer: Will Yan			
Prot	be: BBł	HA9120	D_1-18GHz			Polarity: Horizo	ontal		
EUT	:802.1	lac Dua	I Band Modu	le		Power: AC 230)V/50Hz		
Test	Mode:	Mode '	1						
Level(dBuV/m)	90 80 70 60 50 40 30 20 10 0		1		3	5			
	-10 1000				Frequ	ency(MHz)			6000
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Туре
1			1295.000	38.063	46.341	-31.937	70.000	-8.277	РК
2			1295.140	25.743	34.020	-24.257	50.000	-8.277	AV
3			2095.000	38.353	43.125	-31.647	70.000	-4.773	PK
4			2095.140	26.679	31.450	-23.321	50.000	-4.770	AV

Note: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)

25.234

2692.650

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

28.030

-24.766

50.000

-2.795

AV



Site: AC1				Time: 2017/07/07 - 03:16					
Limi	Limit: EN55032_RE(3m)_ClassB				Engineer: Will Yan				
Prob	be: BBH	HA9120	D_1-18GHz			Polarity: Vertic	al		
EUT	:802.1	1ac Dua	I Band Modu	le		Power: AC 230)V/50Hz		
Test	Mode:	Mode '	1						
Level(dBuV/m)	20 10 0		1 * 2 *	4 * 3 *	5 * 5				
	-10 1000			4	Freq	uency(MHz)			6000
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			1297.500	35.821	44.083	-34.179	70.000	-8.262	PK
2			1297.550	23.858	32.120	-26.142	50.000	-8.262	AV
3			1597.050	26.540	34.230	-23.460	50.000	-7.690	AV
4		*	1597.500	38.684	46.374	-31.316	70.000	-7.689	PK
5			2125.000	40.804	45.236	-29.196	70.000	-4.432	PK
6			2125.210	27.040	31.470	-22.960	50.000	-4.430	AV

Note: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)

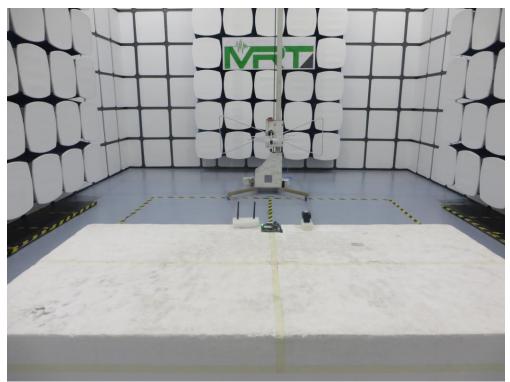
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).



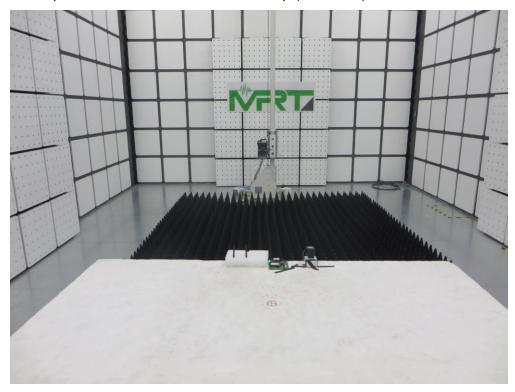
4.5. Test Photograph

Test Mode: Mode 1

Description: Radiated Emission Test Setup (30MHz ~ 1GHz)



Test Mode: Mode 1 Description: Radiated Emission Test Setup (1 ~ 6GHz)





5. Radio-Frequency Electromagnetic Field

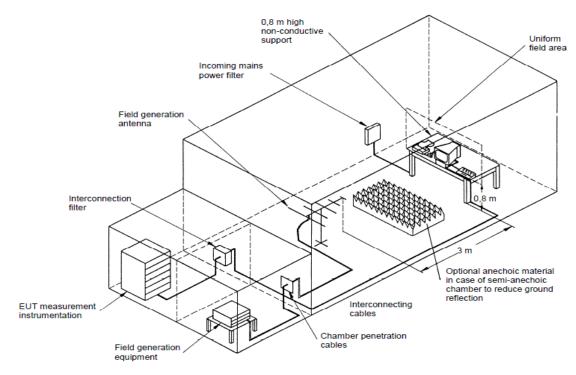
5.1. Limit of Radio-Frequency Electromagnetic Field

Environmental phenomenon	Test specification	Units	Performance					
			criterion					
Enclosure port								
Radio frequency	80 - 6000	MHz	А					
electromagnetic field	3	V/m (unmodulated, r.m.s)						
	80	% AM (1kHz)						

Note 1: If the wanted signal is modulated at 1000Hz, then an audio signal of 400Hz shall be used.

Note 2: The test shall be performed over the frequency range 80MHz to 6000MHz with the exception of the exclusion band for transmitters, receivers and duplex transceivers of EN 301 489-1, as appropriate.

5.2. Test Setup





5.3. Test Procedure

The EUT and load, which are placed on a table that is 0.8 meter above ground, are placed with one coincident with the calibration plane such that the distance from antenna to the EUT was 3 meters. Both horizontal and vertical polarization of the antenna and four sides of the EUT are set on measurement.

All the scanning conditions are as follows:

	Condition of Test	Remarks
1.	Field Strength	3V/m
2.	Radiated Signal	AM 80% Modulated with 1kHz
3.	Scanning Frequency	80MHz - 6GHz
4	Dwell Time	3 Seconds
5.	Frequency Step Size Δf	1%



5.4. Test Result

EUT	802.11ac Dual Band Module	Temperature	25°C
Test Engineer	Jone Zhang	Relative Humidity	52%
Test Mode	Mode 1	Date of Test	2017/07/04

Frequency (MHz)	Polarity	Test Position	Field Strength (V/m)	Test Result
		Front		Pass
		Rear		Pass
80 - 6000	Horizontal/Vertical	Left	2	Pass
80 - 8000		Right	3	Pass
		Тор		Pass
		Bottom		Pass

Note: The EUT performance complied with performance criteria for CT & CR to MS Function and there is no any degradation of performance and function, and performance criterion was A.



5.5. Test Photograph

Test Mode: Mode 1

Description: Radio-frequency Electromagnetic Field Test Setup





6. Uncertainty Measurement

Radiated Distur	Radiated Disturbance - AC1					
The maximu	um measurement uncertainty is evaluated as:					
Horizontal:	30MHz~300MHz: ±4.07dB					
	300MHz~1GHz: ±3.63 dB					
Vertical:	30MHz~300MHz: ±4.18 dB					
	300MHz~1GHz: ±3.60 dB					
Radiated Distu	rbance - AC2					
The maxim	The maximum measurement uncertainty is evaluated as:					
Horizontal:	1GHz~6GHz: ±4.16 dB					
Vertical:	1GHz~6GHz: ±4.76 dB					



7. List of Measuring Instrument

Radiated Disturbance - AC1

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
MXE EMI Receiver	Agilent	N9038A	MRTSUE06125	1 year	2017/08/19
Microwave System Amplifier	Agilent	83017A	MRTSUE06076	1 year	2018/03/27
Bilog Period Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2017/11/19
Horn Antenna	Schwarzbeck	BBHA9120D	MRTSUE06023	1 year	2017/10/22
Temperature/Humidity Meter	Yuhuaze	HTC-2	MRTSUE06183	1 year	2017/12/22
Anechoic Chamber	ток	Chamber-AC1	MRTSUE06212	1 year	2018/05/10

Radiated Disturbance - AC2

Instrument	Manufacturer	Туре No.	Asset No.	Cali. Interval	Cali. Due Date
MXE EMI Receiver	Agilent	N9038A	MRTSUE06125	1 year	2017/08/19
Broadband Coaxial Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06176	1 year	2017/11/06
Bilog Period Antenna	Schwarzbeck	VULB 9162	MRTSUE06022	1 year	2017/11/06
Horn Antenna	Schwarzbeck	BBHA9120D	MRTSUE06171	1 year	2017/12/10
Digitial Thermometer & Hygrometer	Minggao	ETH529	MRTSUE06170	1 year	2017/11/29
Anechoic Chamber	RIKEN	Chamber-AC2	MRTSUE06213	1 year	2018/05/10

Radio-Frequency Electromagnetic Field - AC2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date	
Signal Generator	Agilent	E4438C	MRTSUE06081	1 year	2017/12/06	
EPM Series Power Meter	Agilent	E4418B	MRTSUE06204	1 year	2018/06/26	
Power Sensor	Agilent	E9301H	MRTSUE06205	1 year	2018/06/26	
Power Amplifier	AR	150W1000M1	MRTSUE06146	N/A	N/A	
Power Amplifier	rflight	NTWPAS-1025	MRTSUE06264	1 year	2018/04/12	
Power Amplifier	rflight	100	INIK I SUE00204			
Power Amplifier	rflight	NTWPAS-2560	MRTSUE06263	1 voor	2018/04/12	
	rflight	100	INIK I SUE00203	1 year	2010/04/12	
High-Gain Horn Antenna	AR	ATH800M5GA	MRTSUE06144	N/A	N/A	
Log-Periodic Antenna	AR	ATR80M6G	MRTSUE06145	N/A	N/A	
Digitial Thermometer &	Minagoo	ETH529		1.000	2017/11/20	
Hygrometer	Minggao	E I 1929	MRTSUE06170	1 year	2017/11/29	
Anechoic Chamber	RIKEN	Chamber-AC2	MRTSUE06213	1 year	2018/05/10	



Software	Version	Function
e3	v 8.3.5	EMI Test Software
JS32-RS	v 1.0.0.1	RS Test Software

The End