

### **Radio Test Report**

### FCC ID: O9C-BJNGAFB0003

This report concerns (check one) : oximes Original Grant oximes Class II Change

**Issued Date** : Jun. 17, 2014 **Project No.** : 1406049

**Equipment**: Unified Wired-WLAN Walljack **Model Name**: BJNGA-FB0003;JG971A

**Applicant**: Hewlett Packard Company **Address**: 153 Taylor Street Littleton

Massachusetts, United States

01460-1407

**Tested by:** Neutron Engineering Inc. EMC Laboratory

Date of Receipt: Jun. 06, 2014

Date of Test: Jun. 06, 2014 ~ Jun. 16, 2014

Testing Engineer:

(Josh Lin)

Technical Manager:

Jeff Yand

Authorized Signatory:

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**Neutron** represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with the standards traceable to National Measurement Laboratory (**NML**) of **R.O.C.**, or National Institute of Standards and Technology (**NIST**) of **U.S.A.** 

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#### Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

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#### **REPORT ISSUED HISTORY**

Issue No.	Description	Issued Date
NEI-FCCP-1-1406049	Original Issue.	Jun. 17, 2014

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#### 1 CERTIFICATION

Equipment : Unified Wired-WLAN Walljack

Brand Name: HP

Model Name : BJNGA-FB0003;JG971A
Applicant : Hewlett Packard Company
Date of Test : Jun. 06, 2014 ~ Jun. 16, 2014
Standard(s) : FCC Part 15, Subpart C: 2013

ANSI C63.4-2009

The above equipment has been tested and found compliance with the requirement of the relative standards by Neutron Engineering Inc. EMC Laboratory.

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. NEI-FCCP-1-1406049) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of TAF according to the ISO-17025 quality assessment standard and technical standard(s).

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#### 2. SUMMARY OF TEST RESULTS

Standard Clause	Test Item	Result
15.207	Conducted Emission	N/A NOTE (2)
15.247 (c)	Antenna conducted Spurious Emission	PASS
15.247 (a)(2)	6 dB Bandwidth	PASS
15.247 (b)	Maximum Peak Conducted Output Power	PASS
15.247 (c)	Radiated Spurious Emission	PASS
15.247 (d)(e)	Power Spectral Density	PASS
15.205	Restricted Bands	PASS
15.203	Antenna Requirement	PASS

#### NOTE:

- (1) N/A: denotes test is not applicable in this Test Report
- (2) No AC connection.

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#### 2.1 TEST FACILITY

The test facilities used to collect the test data in this report:

#### Radiated emission Test (Below 1 GHz):

**CB08:** (FCC RN: 614388; FCC DN: TW1054; IC Assigned Code: 4428C-1) 1F., No. 61, Ln. 77, Sing-ai Rd., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)

#### Radiated emission Test (Above 1 GHz):

**CB08:** (VCCI RN: G-91; FCC RN: 614388; FCC DN: TW1054; IC Assigned Code: 4428C-1) 1F., No. 61, Ln. 77, Sing-ai Rd., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)

#### 2.2 MEASUREMENT UNCERTAINTY

### The measurement uncertainty is not specified by FCC/Industry Canada rules and for reference only.

The reported uncertainty of measurement  $\mathbf{y} \pm \mathbf{U}$ , where expended uncertainty  $\mathbf{U}$  is based on a standard uncertainty multiplied by a coverage factor of  $\mathbf{k=2}$ , providing a level of confidence of approximately 95%.

The measurement instrumentation uncertainty considerations contained in CISPR 16-4-2.

#### A. Radiated emission test:

Test Site	Item	Measurement	Frequency Range	Uncertainty	NOTE
			30 - 200MHz	3.35 dB	
		Horizontal	200 - 1000MHz	3.11 dB	
	Radiated	Polarization	1 - 18GHz	3.97 dB	
CB08	emission at 3m		18 - 40GHz	4.01 dB	
CBUO			30 - 200MHz	3.22 dB	
		Vertical	200 - 1000MHz	3.24 dB	
		Polarization	1 - 18GHz	4.05 dB	
			18 - 40GHz	4.04 dB	

Our calculated Measurement Instrumentation Uncertainty is shown in the tables above. These are our  $U_{\text{lab}}$  values in CISPR 16-4-2 terminology.

Since Table 1 of CISPR 16-4-2 has values of measurement instrumentation uncertainty, called  $U_{\text{CISPR}}$ , as follows:

Conducted Disturbance (mains port) – 150 kHz – 30 MHz: 3.6 dB

Radiated Disturbance (electric field strength on an open area test site or alternative test site) - 30 MHz - 1000 MHz: 5.2 dB

It can be seen that our  $U_{lab}$  values are smaller than  $U_{CISPR}$ .

If  $U_{lab}$  is less than or equal to  $U_{CISPR}$ , then:

- compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

If  $U_{lab}$  is greater than  $U_{CISPR}$ , then:

- compliance is deemed to occur if no measured disturbance level, increased by (U<sub>lab</sub> U<sub>CISPR</sub>), exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level, increased by (U<sub>lab</sub> U<sub>CISPR</sub>), exceeds the disturbance limit.

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#### **3 GENERAL INFORMATION**

#### 3.1 GENERAL DESCRIPTION OF EUT

Equipment	Unified Wired-WLAN Wall	Unified Wired-WLAN Walljack					
Brand Name	HP						
Model Name	BJNGA-FB0003;JG971A	JNGA-FB0003;JG971A					
OEM Brand/Model Name	N/A	J/A					
Model Difference	Only differ in model name.						
	-						
	Operation Frequency	2412~2462 MHz					
	Modulation Type	IEEE 802.11b: DSSS (DQPSK, DBPSK, CCK) IEEE 802.11g: OFDM (64-QAM, 16-QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64-QAM, 16-QAM, QPSK, BPSK)					
Product Description	Bit Rate of Transmitter	IEEE 802.11b: 1, 2, 5.5, 11 Mbps IEEE 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps IEEE 802.11n: 6.5, 13, 19.5, 26, 39, 52, 58.5, 65,up to 300 Mbps					
	Number Of Channel	Please refer to the Note 2.					
	Antenna Designation	Please refer to the Note 3.					
	Antenna Gain(Peak)	Please refer to the Note 3.					
	Maximum Conducted Output Power	IEEE 802.11b: 22.1100 dBm (0.1626 W) IEEE 802.11g: 24.8300 dBm (0.3041 W) IEEE 802.11n (20 MHz): 27.2897dBm (0.5358 W) IEEE 802.11n (40 MHz):27.1536 dBm (0.5192 W)					
	More details of EUT technical specification please refer to the User's Manual.						
Power Source	Supplied from PoE.						
Power Rating	DC 48V;0.4A						
Connecting I/O Port(s)	1x 10/100/1000 uplink LAN port (PoE input) 3x 10/100 downlink LAN port (PoE Output*1) 1x RJ45 pass-through port						
Products Covered	N/A						
EUT Modification(s)	N/A						

#### NOTE:

- 1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- 2. Channel List:

Channel 01-11 for IEEE 802.11b/g/n (20MHz) Channel 03-09 for IEEE 802.11n(40MHz)

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	05	2432	09	2452
02	2417	06	2437	10	2457
03	2422	07	2442	11	2462
04	2427	08	2447		

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#### 3. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
А	HONGLIN TECHNOLOGY CO., LTD	WP338 PIFA ANTENNA-1	PIFA Antenna	N/A	4.20
В	HONGLIN TECHNOLOGY CO., LTD	WP338 PIFA ANTENNA-2	PIFA Antenna	N/A	2.10

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#### 3.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Test Items	IEEE	Mode	Data Rate	Channel	Chain	TX/RX
Conducted Emission	-	=	-	-	-	
	802.11b	DSSS	1 Mbps	01/06/11	Ant. A	1 TX
Antenna conducted Spurious	802.11g	OFDM	6 Mbps	01/06/11	Ant. A	1 TX
Emission	802.11n (20 MHz)	BPSK	MCS8	01/06/11	Ant. A,B	2 TX
	802.11n (40 MHz)	BPSK	MCS8	03/06/09	Ant. A,B	2 TX
	802.11b	DSSS	1 Mbps	01/06/11	Ant. A	1 TX
6 dB Bandwidth	802.11g	OFDM	6 Mbps	01/06/11	Ant. A	1 TX
6 db Baridwidtri	802.11n (20 MHz)	BPSK	MCS8	01/06/11	Ant. A,B	2 TX
	802.11n (40 MHz)	BPSK	MCS8	03/06/09	Ant. A,B	2 TX
	802.11b	DSSS	1 Mbps	01/06/11	Ant. A	1 TX
Maximum Peak Conducted	802.11g	OFDM	6 Mbps	01/06/11	Ant. A	1 TX
Output Power	802.11n (20 MHz)	BPSK	MCS8	01/06/11	Ant. A,B	2 TX
	802.11n (40 MHz)	BPSK	MCS8	03/06/09	Ant. A,B	2 TX
Radiated Spurious Emission (30 MHz to 1 GHz)	802.11b	DSSS	1 Mbps	06	Ant. A	1 TX
	802.11b	DSSS	1 Mbps	01/06/11	Ant. A	1 TX
Radiated Spurious Emission	802.11g	OFDM	6 Mbps	01/06/11	Ant. A	1 TX
(above 1 GHz)	802.11n (20 MHz)	BPSK	MCS8	01/06/11	Ant. A,B	2 TX
	802.11n (40 MHz)	BPSK	MCS8	03/06/09	Ant. A,B	2 TX
	802.11b	DSSS	1 Mbps	01/06/11	Ant. A	1 TX
Dootrioted Dondo	802.11g	OFDM	6 Mbps	01/06/11	Ant. A	1 TX
Restricted Bands	802.11n (20 MHz)	BPSK	MCS8	01/06/11	Ant. A,B	2 TX
	802.11n (40 MHz)	BPSK	MCS8	03/06/09	Ant. A,B	2 TX
Antenna Requirement						

NOTE: The measurements are performed at the highest, middle, lowest available channels.

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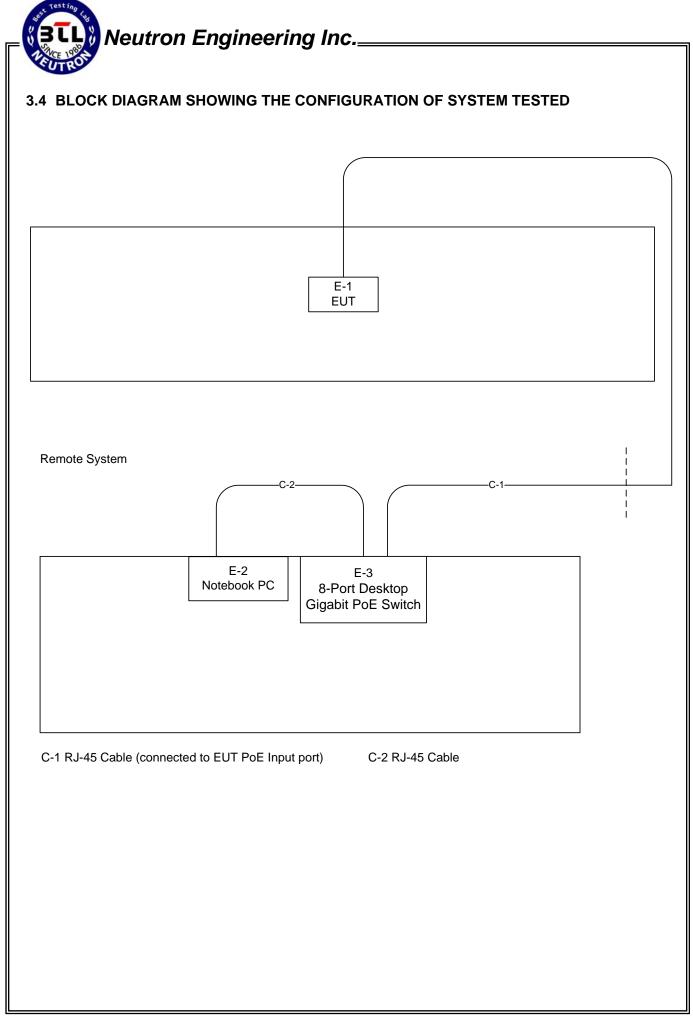
#### 3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

IEEE	802.11b			802.11g		
Test software Version	art 2			art 2		
Frequency	2412 MHz	2437 MHz	2462 MHz	2412 MHz	2437 MHz	2462 MHz
Parameter	22.5	22.5	22.5	19.5	22	19

IEEE	802.11n (20 MHz)			802	2.11n (40 MI	Hz)
Test software Version	art 2			art 2		
Frequency	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
Parameter	18	20	18.5	15.5	19	16

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#### 3.5 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.	Note
E-1	Unified Wired-WLAN Walljack	HP	BJNGA-FB0003;JG971A	O9C-BJNGAFB0003	N/A	EUT
E-2	Notebook PC	DELL	D620	DOC	N/A	
E-3	8-Port Desktop Gigabit PoE Switch	LINKSYS	LGS180P	DOC	N/A	

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	10M	
C-2	NO	NO	1M	

NOTE: The support equipment was authorized by Declaration of Conformity (DOC).

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#### 4 ANTENNA CONDUCTED SPURIOUS EMISSION

#### **4.1 LIMIT**

Test Item	Frequency Range (MHz)	Limit
Antenna conducted Spurious Emission	1 3(1= /5(1(1))	20 dB less than the peak value of fundamental frequency

#### 4.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-30	100854	Sep. 08, 2014

NOTE: N/A: denotes No Model Name, No Serial No. or No Calibration specified.

#### **4.3 TEST PROCEDURES**

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW= 100KHz, VBW=100KHz, Sweep time = Auto.

#### 4.4 TEST SETUP LAYOUT

EUT	SPECTRUM
	ANALYZER

Notes: Test cable is directly connected to inner connector.

#### 4.5 DEVIATION FROM TEST STANDARD

No deviation

#### 4.6 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

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#### **4.7 TEST RESULTS**

EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A
Temperature	Temperature 26°C		46%
Test Voltage	DC 48V		
Test Mode	IEEE 802.11b_ANT A		

Channel of Worst Data				
The max. radio frequency bandwidth outside the fre		The max. radio frequency bandwidth within the frequency		
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)	
2398.00	-30.01	2487.75	-46.90	

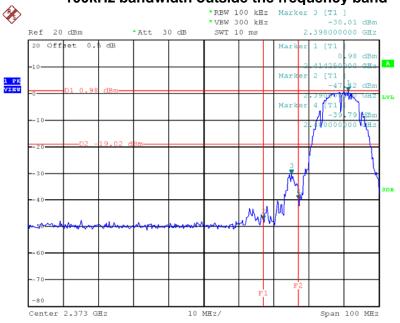
#### Result

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.

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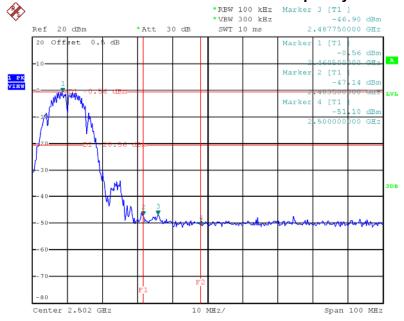


### IEEE 802.11b/The max. radio frequency power in any 100kHz bandwidth outside the frequency band



Date: 12.JUN.2014 17:24:41

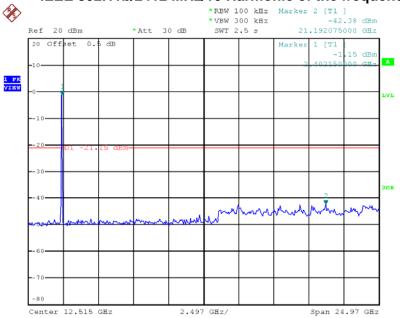
### IEEE 802.11b/The max. radio frequency power in any 100 kHz bandwidth within the frequency band



Date: 12.JUN.2014 17:34:20

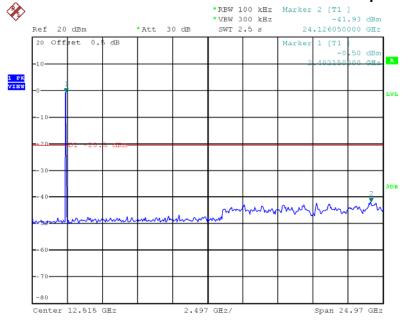


#### IEEE 802.11b/2412 MHz/10 Harmonic of the frequency



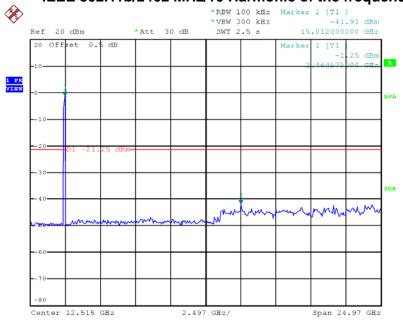
Date: 12.JUN.2014 17:23:25

#### IEEE 802.11b/2437 MHz/10 Harmonic of the frequency



Date: 12.JUN.2014 17:32:11

#### IEEE 802.11b/2462 MHz/10 Harmonic of the frequency



Date: 12.JUN.2014 17:33:05

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EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A
Temperature	26°C	Relative Humidity	46%
Test Voltage	DC 48V		
Test Mode	IEEE 802.11g_ANT A		

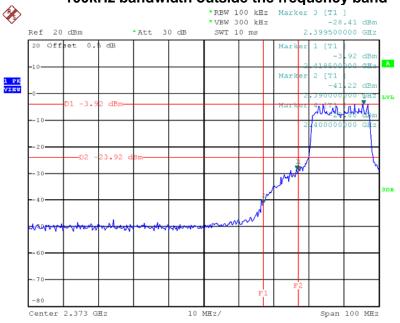
Channel of Worst Data				
The max. radio frequency power in any 100kHz bandwidth outside the frequency band  The max. radio frequency power in any 100 kH bandwidth within the frequency band.				
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)	
2399.50	-28.41	2483.75	-44.18	
Result				

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.

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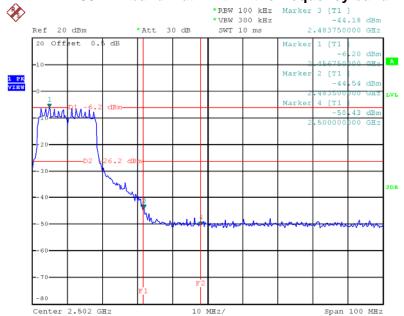


### IEEE 802.11g/The max. radio frequency power in any 100kHz bandwidth outside the frequency band



Date: 12.JUN.2014 17:39:07

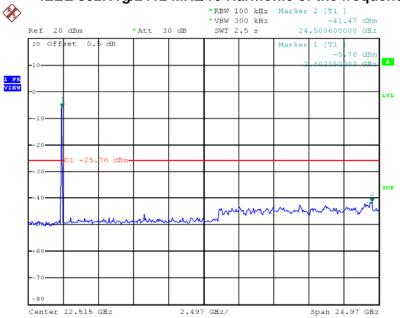
## IEEE 802.11g/The max. radio frequency power in any 100 kHz bandwidth within the frequency band



Date: 12.JUN.2014 17:53:43

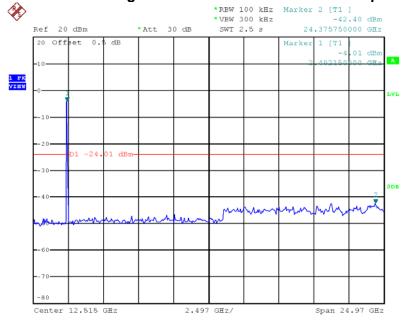
# Neutron Engineering Inc.

#### IEEE 802.11g/2412 MHz/10 Harmonic of the frequency

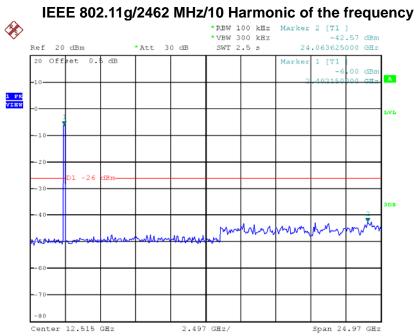


Date: 12.JUN.2014 17:38:04

#### IEEE 802.11g/2437 MHz/10 Harmonic of the frequency



Date: 12.JUN.2014 17:47:50



Date: 12.JUN.2014 17:58:16

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EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A
Temperature	26°C	Relative Humidity	46%
Test Voltage	Test Voltage DC 48V		
Test Mode	IEEE 802.11n (20 MHz)_ANT A		

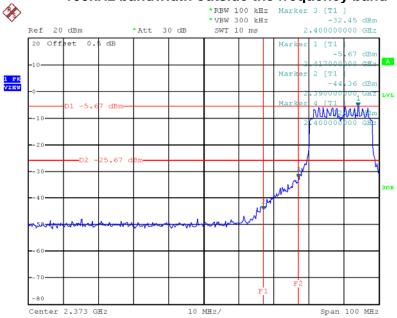
Channel of Worst Data				
The max. radio frequency power in any 100kHz bandwidth outside the frequency band bandwidth within the frequency band.				
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)	
2400.00	-32.45	2483.75	-43.14	
Result				

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.

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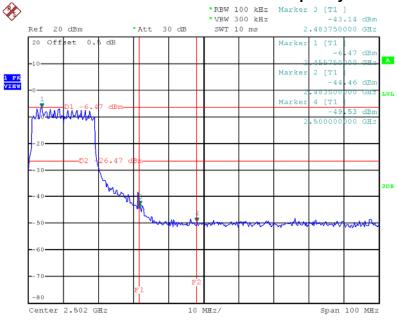


### IEEE 802.11n (20 MHz)/The max. radio frequency power in any 100kHz bandwidth outside the frequency band



Date: 12.JUN.2014 17:59:35

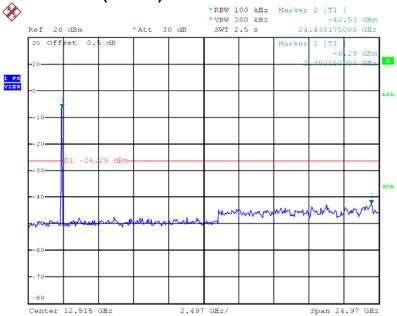
## IEEE 802.11n (20 MHz)/The max. radio frequency power in any 100 kHz bandwidth within the frequency band



Date: 12.JUN.2014 18:08:54

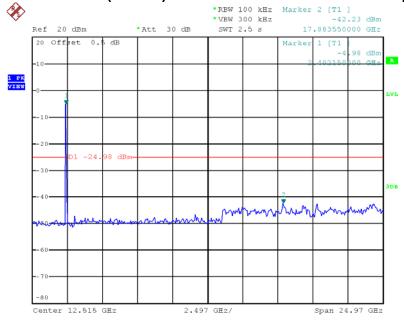


#### IEEE 802.11n (20 MHz)/2412 MHz/10 Harmonic of the frequency



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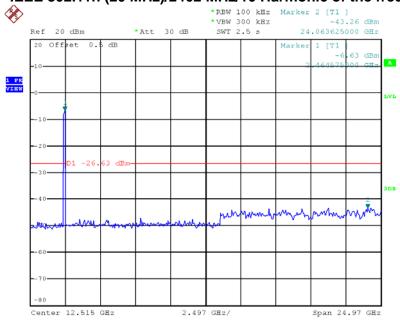
#### IEEE 802.11n (20 MHz)/2437 MHz/10 Harmonic of the frequency



Date: 12.JUN.2014 18:07:48



#### IEEE 802.11n (20 MHz)/2462 MHz/10 Harmonic of the frequency



Date: 12.JUN.2014 18:11:39

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EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A
Temperature	26°C	Relative Humidity	46%
Test Voltage	DC 48V		
Test Mode	IEEE 802.11n (20 MHz)_ANT B		

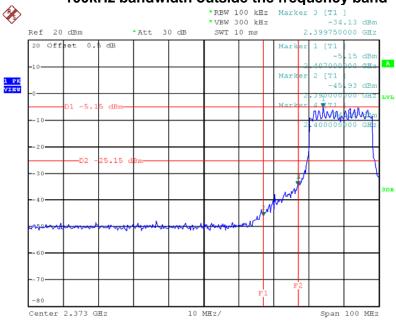
Channel of Worst Data				
The max. radio frequency power in any 100kHz bandwidth outside the frequency band bandwidth within the frequency band.				
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)	
2399.75	-34.13	2483.50	-42.55	
Result				

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.

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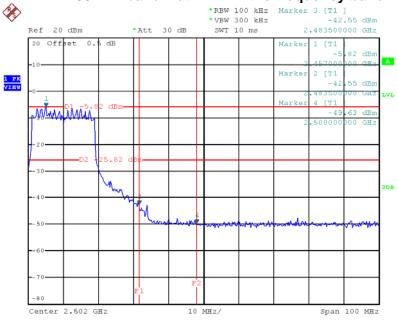


### IEEE 802.11n (20 MHz)/The max. radio frequency power in any 100kHz bandwidth outside the frequency band



Date: 12.JUN.2014 18:26:23

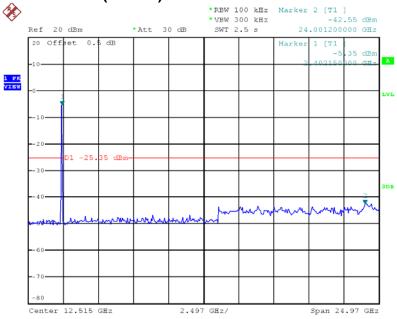
## IEEE 802.11n (20 MHz)/The max. radio frequency power in any 100 kHz bandwidth within the frequency band



Date: 12.JUN.2014 18:31:40

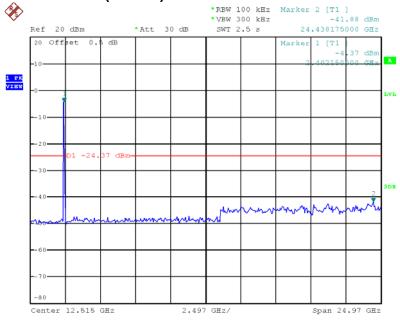


#### IEEE 802.11n (20 MHz)/2412 MHz/10 Harmonic of the frequency



Date: 12.JUN.2014 18:27:34

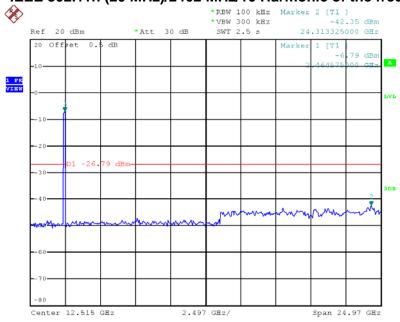
#### IEEE 802.11n (20 MHz)/2437 MHz/10 Harmonic of the frequency



Date: 12.JUN.2014 18:30:14



#### IEEE 802.11n (20 MHz)/2462 MHz/10 Harmonic of the frequency



Date: 12.JUN.2014 18:33:32

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EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A
Temperature	26°C	Relative Humidity	46%
Test Voltage	DC 48V		
Test Mode	IEEE 802.11n (40 MHz)_ANT A		

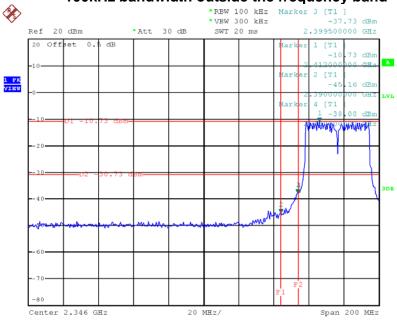
Channel of Worst Data						
The max. radio frequency power in any 100kHz bandwidth outside the frequency band		The max. radio frequency power in any 100 kHz bandwidth within the frequency band.				
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)			
2399.50	-37.73	2483.50	-44.56			
Result						

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.

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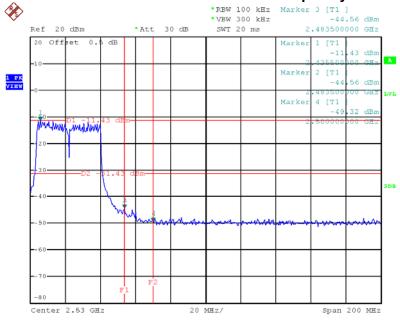


### IEEE 802.11n (40 MHz)/The max. radio frequency power in any 100kHz bandwidth outside the frequency band



Date: 12.JUN.2014 18:15:11

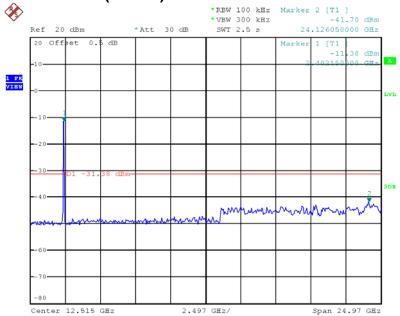
## IEEE 802.11n (40 MHz)/The max. radio frequency power in any 100 kHz bandwidth within the frequency band



Date: 12.JUN.2014 18:22:06

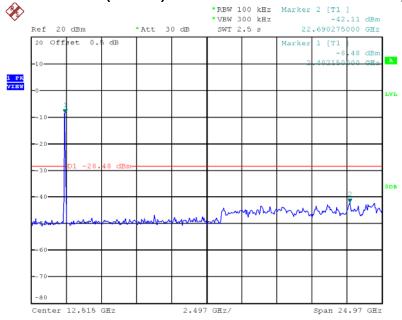


#### IEEE 802.11n (40 MHz)/2422 MHz/10 Harmonic of the frequency



Date: 12.JUN.2014 18:16:49

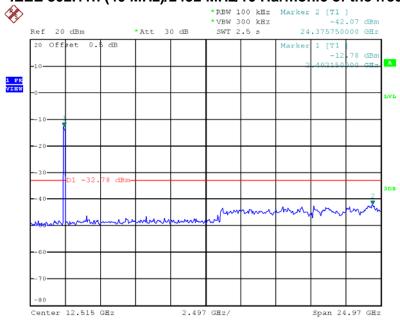
#### IEEE 802.11n (40 MHz)/2437 MHz/10 Harmonic of the frequency



Date: 12.JUN.2014 18:20:37



#### IEEE 802.11n (40 MHz)/2452 MHz/10 Harmonic of the frequency



Date: 12.JUN.2014 18:24:07

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EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A
Temperature	26°C	Relative Humidity	46%
Test Voltage	DC 48V		
Test Mode	IEEE 802.11n (40 MHz)_ANT B		

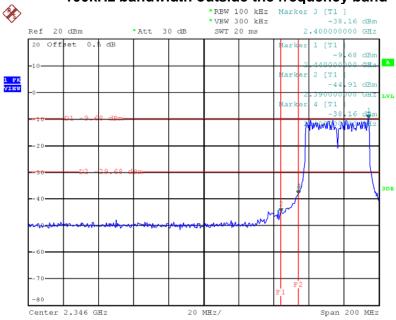
Channel of Worst Data						
The max. radio frequency power in any 100kHz bandwidth outside the frequency band		The max. radio frequency power in any 100 kHz bandwidth within the frequency band.				
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)			
2400.00	-38.16	2486.50	-41.53			
Result						

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.

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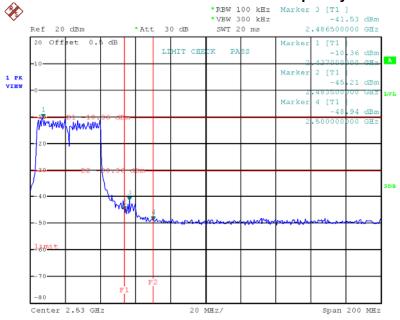


# IEEE 802.11n (40 MHz)/The max. radio frequency power in any 100kHz bandwidth outside the frequency band



Date: 12.JUN.2014 18:35:13

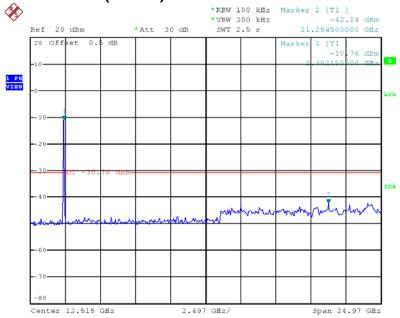
# IEEE 802.11n (40 MHz)/The max. radio frequency power in any 100 kHz bandwidth within the frequency band



Date: 12.JUN.2014 19:33:11

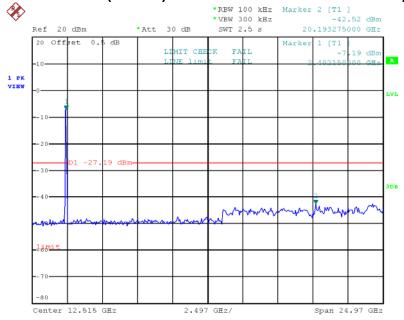


## IEEE 802.11n (40 MHz)/2422 MHz/10 Harmonic of the frequency



Date: 12.JUN.2014 18:38:19

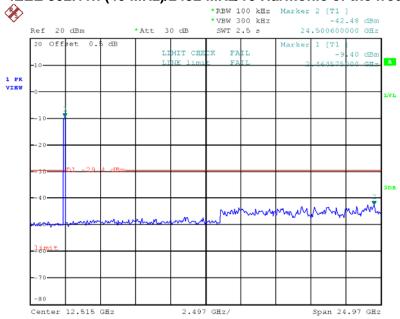
## IEEE 802.11n (40 MHz)/2437 MHz/10 Harmonic of the frequency



Date: 12.JUN.2014 19:31:26



## IEEE 802.11n (40 MHz)/2452 MHz/10 Harmonic of the frequency



Date: 12.JUN.2014 19:36:01

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#### **5 6 DB BANDWIDTH**

#### **5.1 LIMIT**

Test Item	Frequency Range (MHz)	Limit
Bandwidth	2400-2483.5	>= 500KHz (6dB bandwidth)

#### **5.2 MEASUREMENT INSTRUMENTS LIST**

Iten	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-30	100854	Sep. 08, 2014

NOTE: N/A: denotes No Model Name, No Serial No. or No Calibration specified.

#### **5.3 TEST PROCEDURES**

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Spectrum Setting: RBW= 100KHz, VBW=100KHz, Sweep time = Auto.

#### **5.4 TEST SETUP LAYOUT**

EUT	SPECTRUM
	ANALYZER

Notes: Test cable is directly connected to inner connector.

### 5.5 DEVIATION FROM TEST STANDARD

No deviation

#### **5.6 EUT OPERATING CONDITIONS**

The EUT tested system was configured as the statements of 4.6 Unless otherwise a special operating condition is specified in the follows during the testing.

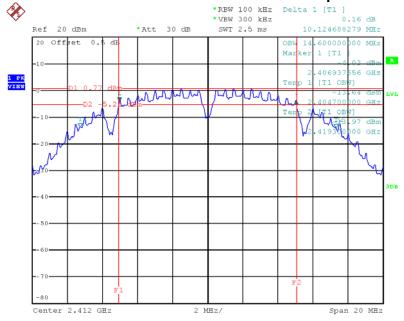
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#### 5.7 TEST RESULTS

EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A			
Temperature	26°C	Relative Humidity	46%			
Test Voltage	DC 48V					
Test Mode	IEEE 802.11b/2412 MHz, 2437 MHz, 2462 MHz_ANT A					

Frequency	6 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit	Result
2412 MHz	10.12	14.60	>=500 kHz	PASS
2437 MHz	10.12	14.45	>=500 kHz	PASS
2462 MHz	10.07	14.40	>=500 kHz	PASS

## IEEE 802.11b/2412 MHz/6 dB and 99% Occupied Bandwidth

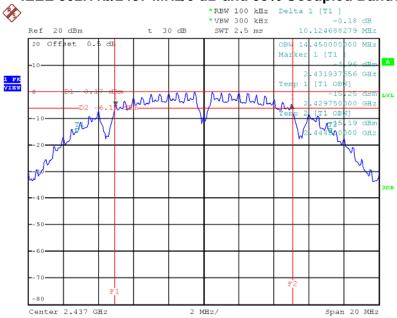


Date: 12.JUN.2014 17:24:17

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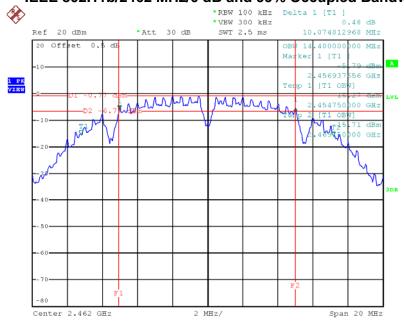


#### IEEE 802.11b/2437 MHz/6 dB and 99% Occupied Bandwidth



Date: 12.JUN.2014 17:28:44

#### IEEE 802.11b/2462 MHz/6 dB and 99% Occupied Bandwidth

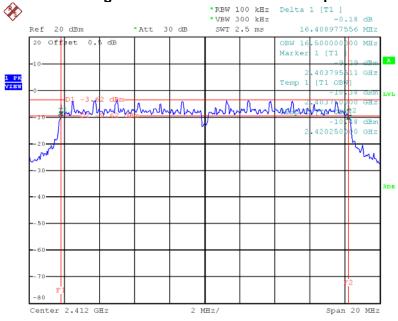


Date: 12.JUN.2014 17:33:59

EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A			
Temperature	26°C	Relative Humidity	46%			
Test Voltage	DC 48V					
Test Mode	IEEE 802.11g/2412 MHz, 2437 MHz, 2462 MHz_ANT A					

Frequency	6 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit	Result
2412 MHz	16.41	16.50	>=500 kHz	PASS
2437 MHz	16.36	16.65	>=500 kHz	PASS
2462 MHz	16.36	16.55	>=500 kHz	PASS

## IEEE 802.11g/2412 MHz/6 dB and 99% Occupied Bandwidth

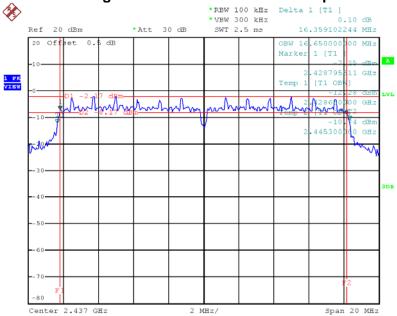


Date: 12.JUN.2014 17:38:48

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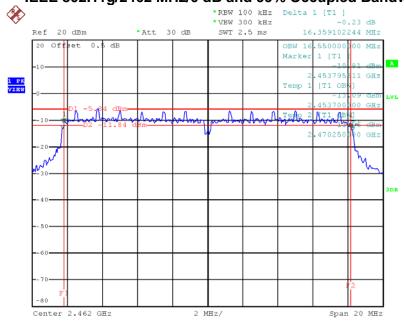


### IEEE 802.11g/2437 MHz/6 dB and 99% Occupied Bandwidth



Date: 12.JUN.2014 17:48:10

#### IEEE 802.11g/2462 MHz/6 dB and 99% Occupied Bandwidth

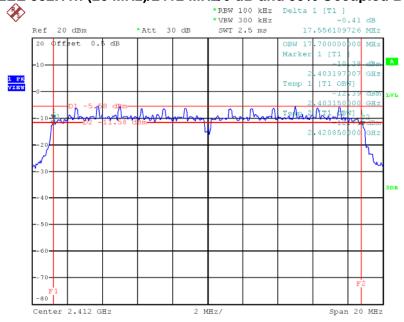


Date: 12.JUN.2014 17:53:26

EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A			
Temperature	26°C	Relative Humidity	46%			
Test Voltage	DC 48V					
Test Mode	IEEE 802.11n (20 MHz)/2412 MHz, 2437 MHz, 2462 MHz_ANT A					

Frequency	6 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit	Result
2412 MHz	17.56	17.70	>=500 kHz	PASS
2437 MHz	17.56	17.75	>=500 kHz	PASS
2462 MHz	17.66	17.75	>=500 kHz	PASS

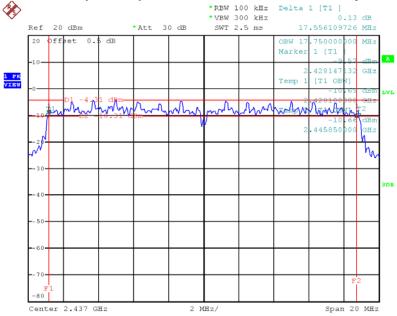
## IEEE 802.11n (20 MHz)/2412 MHz/6 dB and 99% Occupied Bandwidth



Date: 12.JUN.2014 17:59:16

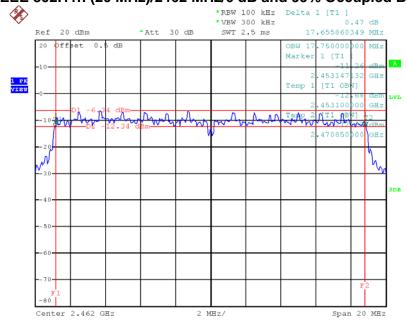
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## IEEE 802.11n (20 MHz)/2437 MHz/6 dB and 99% Occupied Bandwidth



Date: 12.JUN.2014 18:04:58

#### IEEE 802.11n (20 MHz)/2462 MHz/6 dB and 99% Occupied Bandwidth

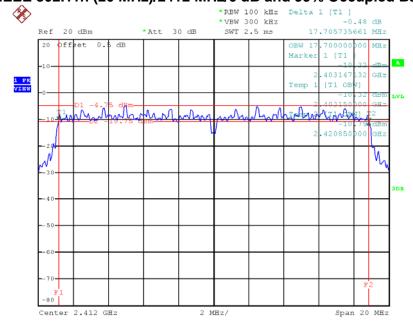


Date: 12.JUN.2014 18:08:37

EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A			
Temperature	26°C	Relative Humidity	46%			
Test Voltage	DC 48V					
Test Mode	IEEE 802.11n (20 MHz)/2412 MHz, 2437 MHz, 2462 MHz_ANT B					

Frequency	6 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit	Result
2412 MHz	17.71	17.70	>=500 kHz	PASS
2437 MHz	17.56	17.70	>=500 kHz	PASS
2462 MHz	17.56	17.75	>=500 kHz	PASS

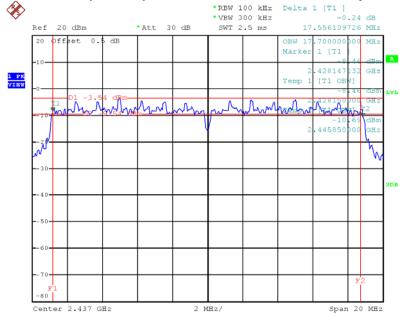
## IEEE 802.11n (20 MHz)/2412 MHz/6 dB and 99% Occupied Bandwidth



Date: 12.JUN.2014 18:26:03

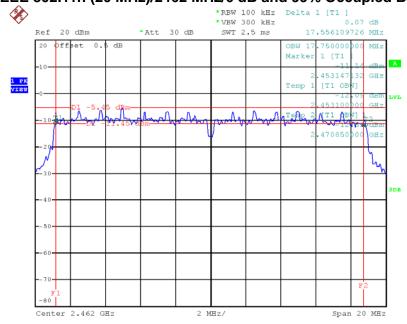
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## IEEE 802.11n (20 MHz)/2437 MHz/6 dB and 99% Occupied Bandwidth



Date: 12.JUN.2014 18:28:48

#### IEEE 802.11n (20 MHz)/2462 MHz/6 dB and 99% Occupied Bandwidth

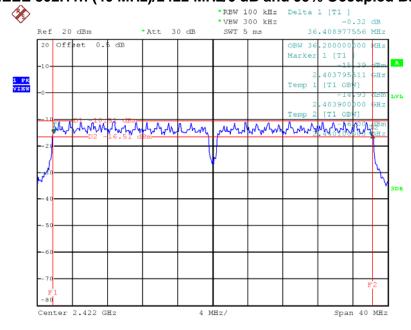


Date: 12.JUN.2014 18:31:13

EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A			
Temperature	26°C	Relative Humidity	46%			
Test Voltage	DC 48V					
Test Mode	IEEE 802.11n (40 MHz)/2422 MHz, 2437 MHz, 2452 MHz_ANT A					

Frequency	6 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit	Result
2422 MHz	36.41	36.20	>=500 kHz	PASS
2437 MHz	36.41	36.30	>=500 kHz	PASS
2452 MHz	36.51	36.30	>=500 kHz	PASS

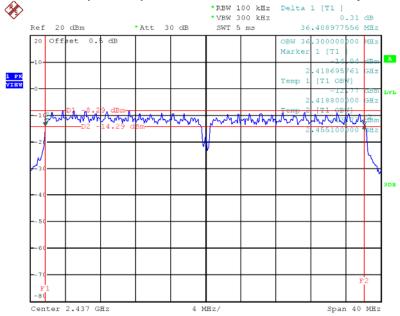
## IEEE 802.11n (40 MHz)/2422 MHz/6 dB and 99% Occupied Bandwidth



Date: 12.JUN.2014 18:14:47

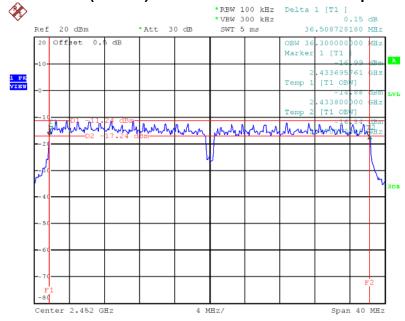
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## IEEE 802.11n (40 MHz)/2437 MHz/6 dB and 99% Occupied Bandwidth



Date: 12.JUN.2014 18:18:16

#### IEEE 802.11n (40 MHz)/2452 MHz/6 dB and 99% Occupied Bandwidth

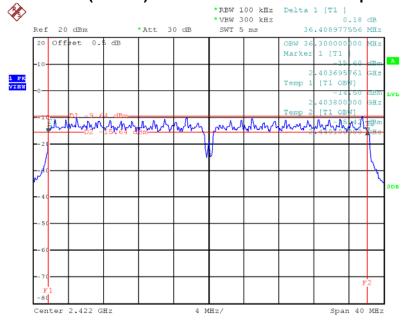


Date: 12.JUN.2014 18:21:42

EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A		
Temperature	26°C	Relative Humidity	46%		
Test Voltage	DC 48V				
Test Mode	IEEE 802.11n (40 MHz)/2422 MHz, 2437 MHz, 2452 MHz_ANT B				

Frequency	6 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit	Result
2422 MHz	36.41	36.30	>=500 kHz	PASS
2437 MHz	36.51	36.30	>=500 kHz	PASS
2452 MHz	36.31	36.30	>=500 kHz	PASS

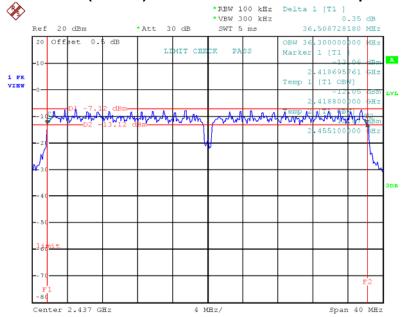
## IEEE 802.11n (40 MHz)/2422 MHz/6 dB and 99% Occupied Bandwidth



Date: 12.JUN.2014 18:34:49

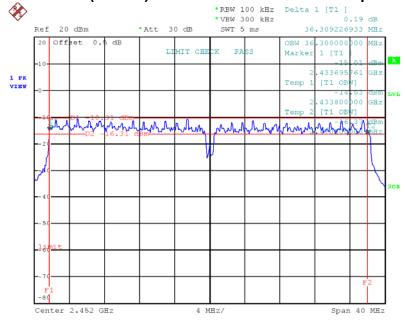
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## IEEE 802.11n (40 MHz)/2437 MHz/6 dB and 99% Occupied Bandwidth



Date: 12.JUN.2014 19:27:54

#### IEEE 802.11n (40 MHz)/2452 MHz/6 dB and 99% Occupied Bandwidth



Date: 12.JUN.2014 19:32:37

#### **6 MAXIMUM PEAK CONDUCTED OUTPUT POWER**

#### 6.1 LIMIT

Test Item	Frequency Range (MHz)	Limit
Maximum Peak Conducted Output Power	2400-2483.5	1 watt or 30 dBm

#### **6.2 MEASUREMENT INSTRUMENTS LIST**

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-30	100854	Sep. 08, 2014

NOTE: N/A: denotes No Model Name, No Serial No. or No Calibration specified.

#### **6.3 TEST PROCEDURES**

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW= 3 MHz, VBW= 3 MHz, Sweep time = Auto.

#### **6.4 TEST SETUP LAYOUT**

EUT	SPECTRUM
	ANALYZER

Notes: Test cable is directly connected to inner connector.

#### 6.5 DEVIATION FROM TEST STANDARD

No deviation

#### **6.6 EUT OPERATING CONDITIONS**

The EUT tested system was configured as the statements of 4.6 Unless otherwise a special operating condition is specified in the follows during the testing.

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# 6.7 TEST RESULTS

EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A		
Temperature	26°C	Relative Humidity	46%		
Test Voltage	DC 48V				
Test Mode	IEEE 802.11b/2412 MHz, 2437 MHz, 2462 MHz_ANT A				

Fraguenav	Peak Output Power		Limit		Result
Frequency	(dBm)	(W)	(dBm)	(W)	Result
2412 MHz	22.11	0.1626	30	1	PASS
2437 MHz	21.97	0.1574	30	1	PASS
2462 MHz	21.86	0.1535	30	1	PASS

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EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A		
Temperature	26°C	Relative Humidity	46%		
Test Voltage	DC 48V				
Test Mode	IEEE 802.11g/2412 MHz, 2437 MHz, 2462 MHz_ANT A				

Fraguenav	Peak Output Power		Limit		Popult
Frequency	(dBm)	(W)	(dBm)	(W)	Result
2412 MHz	24.37	0.2735	30	1	PASS
2437 MHz	24.83	0.3041	30	1	PASS
2462 MHz	24.04	0.2535	30	1	PASS

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EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A		
Temperature	26°C	Relative Humidity	46%		
Test Voltage	DC 48V				
Test Mode	IEEE 802.11n (20 MHz)/2412 MHz, 2437 MHz, 2462 MHz_ANT A				

Fraguenav	Peak Output Power		Limit		Dogult
Frequency	(dBm)	(W)	(dBm)	(W)	Result
2412 MHz	23.86	0.2432	30	1	PASS
2437 MHz	24.08	0.2559	30	1	PASS
2462 MHz	23.97	0.2495	30	1	PASS

EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A	
Temperature	26°C	Relative Humidity	46%	
Test Voltage	DC 48V			
Test Mode	IEEE 802.11n (20 MHz)/2412 MHz, 2437 MHz, 2462 MHz_ANT B			

Fraguenay	Peak Output Power		Limit		Popult
Frequency	(dBm)	(W)	(dBm)	(W)	Result
2412 MHz	23.71	0.2350	30	1	PASS
2437 MHz	24.47	0.2799	30	1	PASS
2462 MHz	23.98	0.2500	30	1	PASS

EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A		
Temperature	26°C	Relative Humidity	46%		
Test Voltage	DC 48V				
Test Mode	IEEE 802.11n (20 MHz)/2412 MHz, 2437 MHz, 2462 MHz_Total				

Fraguency	Peak Output Power		Limit		Result
Frequency	(dBm)	(W)	(dBm)	(W)	Nesuit
2412 MHz	26.80	0.4782	30	1	PASS
2437 MHz	27.29	0.5358	30	1	PASS
2462 MHz	26.99	0.4995	30	1	PASS

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EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A	
Temperature	26°C	Relative Humidity	46%	
Test Voltage	DC 48V			
Test Mode	IEEE 802.11n (40 MHz)/2422 MHz, 2437 MHz, 2452 MHz_ANT A			

Eroguenov	Peak Output Power		Limit		Dogult
Frequency	(dBm)	(W)	(dBm)	(W)	Result
2422 MHz	22.79	0.1901	30	1	PASS
2437 MHz	23.97	0.2495	30	1	PASS
2452 MHz	22.48	0.1770	30	1	PASS

EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A	
Temperature	26°C	Relative Humidity	46%	
Test Voltage	DC 48V			
Test Mode	IEEE 802.11n (40 MHz)/2422 MHz, 2437 MHz, 2452 MHz_ANT B			

Fraguenov	Peak Output Power		Limit		Dogult
Frequency	(dBm)	(W)	(dBm)	(W)	Result
2422 MHz	22.85	0.1928	30	1	PASS
2437 MHz	24.31	0.2698	30	1	PASS
2452 MHz	23.49	0.2234	30	1	PASS

EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A		
Temperature	26°C	Relative Humidity	46%		
Test Voltage	DC 48V				
Test Mode	IEEE 802.11n (40 MHz)/2422 MHz, 2437 MHz, 2452 MHz_Total				

Fraguenav	Peak Output Power		Limit		Popult
Frequency	(dBm)	(W)	(dBm)	(W)	Result
2422 MHz	25.83	0.3829	30	1	PASS
2437 MHz	27.15	0.5192	30	1	PASS
2452 MHz	26.02	0.4004	30	1	PASS

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## 7 RADIATED SPURIOUS EMISSION (9 KHZ TO 1 GHZ)

#### **7.1 LIMIT**

20 dB in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequency Range: 9 kHz to 1 GHz				
FREQUENCY (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)		
0.009~0.490	2400/F(kHz)	300		
0.490~1.705	24000/F(kHz)	30		
1.705~30.0	30	30		
30~88	100	3		
88~216	150	3		
216~960	200	3		
Above 960	500	3		

Frequency Range: above 1 GHz					
FREQUENCY	Class A (dBuV/m) (at 3m)		Class B (dBuV/m) (at 3m)		
(MHz)	PEAK	AVERAGE	PEAK	AVERAGE	
above 1 GHz	above 1 GHz 80 60 74 54				

#### NOTE:

- 1. The limit for radiated test was performed according to FCC PART 15B.
- 2. The tighter limit applies at the band edges.
- 3. Emission level (dBuV/m)=20log Emission level (uV/m).
- 4. The test result calculated as following: Measurement Value = Reading Level + Correct Factor Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain(if use) Margin Level = Measurement Value – Limit Value

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## 7.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-30	100854	Sep. 08, 2014
2	Horn Antenna	Schwarzbeck	BBHA 9120	D-325	Apr. 14, 2015
3	Microwave Pre_amplifier	Agilent	8449B	3008A01714	Apr. 15, 2015
4	Microflex Cable	Harbour industries	27478LL142	1m	May. 12, 2015
5	Microflex Cable	EMC	S104-SMA	8m	May. 12, 2015
6	Microflex Cable	Harbour industries	27478LL142	3m	May. 12, 2015
7	Test Cable	LMR	LMR-400	12m	May. 13, 2015
8	Test Cable	LMR	LMR-400	3m	May. 13, 2015
9	Pre-Amplifier	Anritsu	MH648A	M92649	Jun. 17, 2015
10	Log-Bicon Antenna	Schwarzbeck	VULB9168-352	9168-352	Jun. 10, 2015

Remark: "N/A" denotes No Model Name, No Serial No. or No Calibration specified.

## 7.3 MEASURING INSTRUMENTS SETTING

EMI Test Receiver	Parameter Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

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#### 7.4 TEST PROCEDURES

- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1 GHz. For frequencies above 1 GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m Semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item -EUT Test Photos.
- g. The testing follows the guidelines in ANSI C63.4 and FCC Public Notice DA 00-705 Measurement Guidelines. In case the emission is fail due to the used RBW/VBW is too wide, marker-delta method of FCC Public Notice DA 00-705 will be followed.

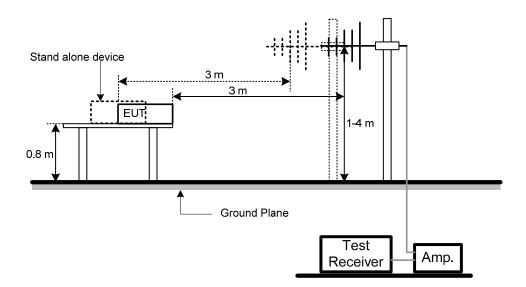
#### NOTE:

- a. Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode with Detector BW=120 kHz; SPA setting in RBW=100 kHz, VBW =100 kHz, Swp. Time = 0.3 sec./ MHz.
- b. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.

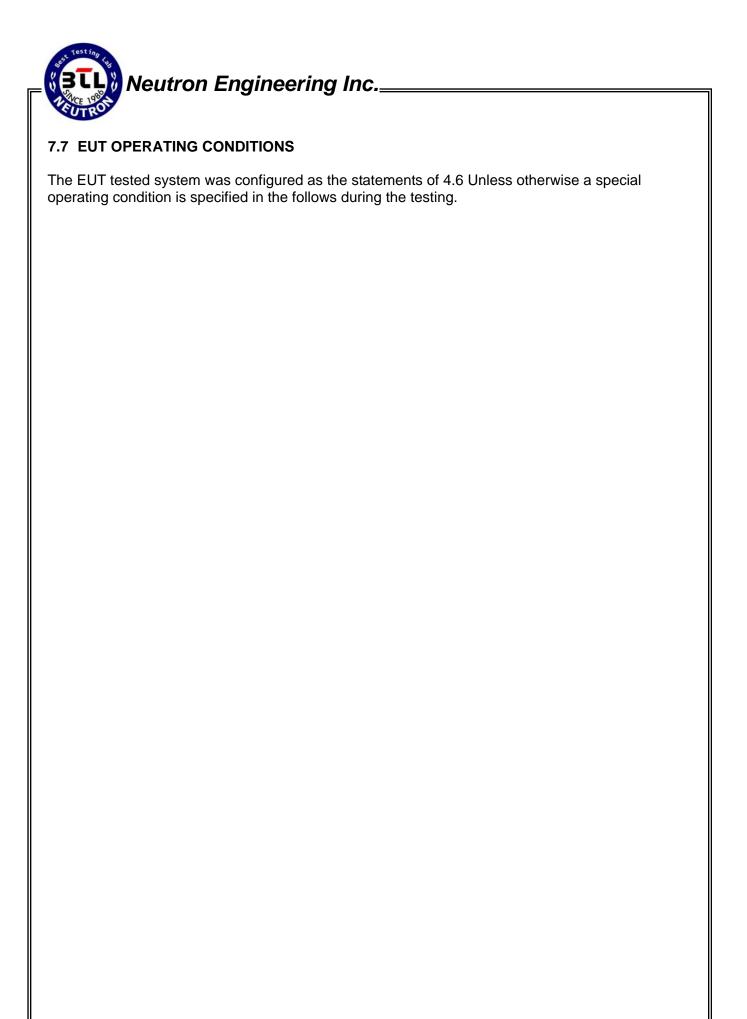
#### 7.5 DEVIATION FROM TEST STANDARD

No deviation

#### 7.6 TEST SETUP LAYOUT



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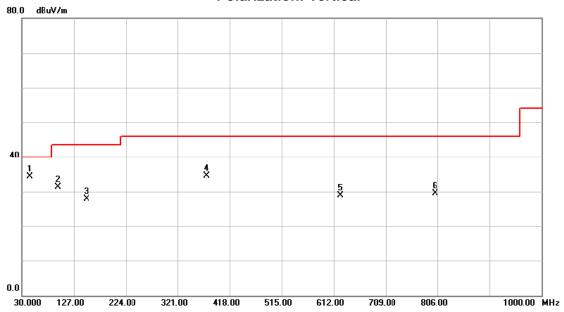
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# 7.8 TEST RESULTS

EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A				
Temperature	26°C	Relative Humidity	60%				
Test Voltage	DC 48V						
Test Mode	IEEE 802.11b/2437 MHz						

## **Polarization: Vertical**

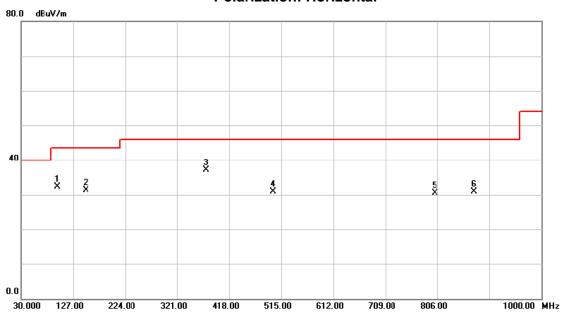


No.	Mk.	Freq.	Level	Factor	ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	44.5500	47.96	-13.73	34.23	40.00	-5.77	peak	
2		97.9000	50.39	-19.10	31.29	43.50	-12.21	peak	
3	,	151.2500	41.67	-13.81	27.86	43.50	-15.64	peak	
4	3	374.3500	46.35	-11.80	34.55	46.00	-11.45	peak	
5	(	624.1250	35.49	-6.66	28.83	46.00	-17.17	peak	
6	8	301.1500	33.83	-4.37	29.46	46.00	-16.54	peak	

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EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A				
Temperature	26°C	Relative Humidity	60%				
Test Voltage	DC 48V						
Test Mode	IEEE 802.11b/2437 MHz						

#### **Polarization: Horizontal**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		97.9000	51.34	-19.10	32.24	43.50	-11.26	peak	
2		151.2500	45.12	-13.81	31.31	43.50	-12.19	peak	
3	*	374.3500	48.99	-11.80	37.19	46.00	-8.81	peak	
4		500.4500	40.09	-9.19	30.90	46.00	-15.10	peak	
5		801.1500	34.87	-4.37	30.50	46.00	-15.50	peak	
6		873.9000	34.29	-3.43	30.86	46.00	-15.14	peak	

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## **8 RADIATED SPURIOUS EMISSION (ABOVE 1 GHZ)**

#### **8.1 LIMIT**

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequency Range: 9 kHz to 1 GHz							
FREQUENCY (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)					
0.009~0.490	2400/F(kHz)	300					
0.490~1.705	24000/F(kHz)	30					
1.705~30.0	30	30					
30~88	100	3					
88~216	150	3					
216~960	200	3					
Above 960	500	3					

Frequency Range: above 1 GHz							
FREQUENCY	Class A (dBu	IV/m) (at 3m)	Class B (dBuV/m) (at 3m)				
(MHz)	PEAK	AVERAGE	PEAK	AVERAGE			
above 1 GHz	80	60	74	54			

#### NOTE:

- (1) The limit for radiated test was performed according to FCC PART 15B.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).
- (4) The test result calculated as following: Measurement Value = Reading Level + Correct Factor Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain(if use) Margin Level = Measurement Value – Limit Value

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## **8.2 MEASUREMENT INSTRUMENTS LIST**

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-30	100854	Sep. 08, 2014
2	Horn Antenna	Schwarzbeck	BBHA 9120	D-325	Apr. 14, 2015
3	Microwave Pre_amplifier	Agilent	8449B	3008A01714	Apr. 15, 2015
4	Microflex Cable	Harbour industries	27478LL142	1m	May. 12, 2015
5	Microflex Cable	EMC	S104-SMA	8m	May. 12, 2015
6	Microflex Cable	Harbour industries	27478LL142	3m	May. 12, 2015
7	Test Cable	LMR	LMR-400	12m	May. 13, 2015
8	Test Cable	LMR	LMR-400	3m	May. 13, 2015
9	Pre-Amplifier	Anritsu	MH648A	M92649	Jun. 17, 2015
10	Log-Bicon Antenna	Schwarzbeck	VULB9168-352	9168-352	Jun. 10, 2015

Remark: "N/A" denotes No Model Name, No Serial No. or No Calibration specified.

## 8.3 MEASURING INSTRUMENTS SETTING

Spectrum Analyzer	Parameter Setting			
Attenuation	Auto			
Start Frequency	1000 MHz			
Stop Frequency	10th carrier harmonic			
RB / VB (emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average			
RB / VB (other emission)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average			

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#### 8.4 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m Semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- c. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- d. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.
- f. The testing follows the guidelines in ANSI C63.4 and FCC Public Notice DA 00-705 Measurement Guidelines. In case the emission is fail due to the used RBW/VBW is too wide, marker-delta method of FCC Public Notice DA 00-705 will be followed.

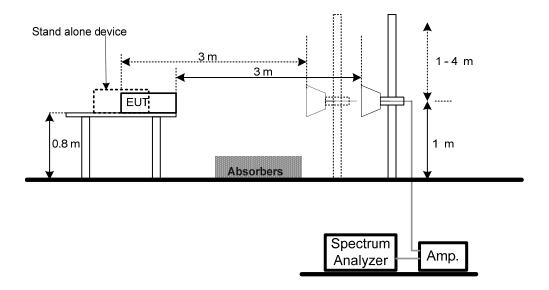
#### NOTE:

- a. Reading in which marked as Peak means measurements by using are Peak Mode with instrument setting in RBW= 1 MHz, VBW= 1 MHz, Swp. Time = Auto.
   Reading in which marked as AV means measurements by using are Average Mode with instrument setting in RBW= 1 MHz, VBW= 10 Hz, Swp. Time = Auto.
- b. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform.

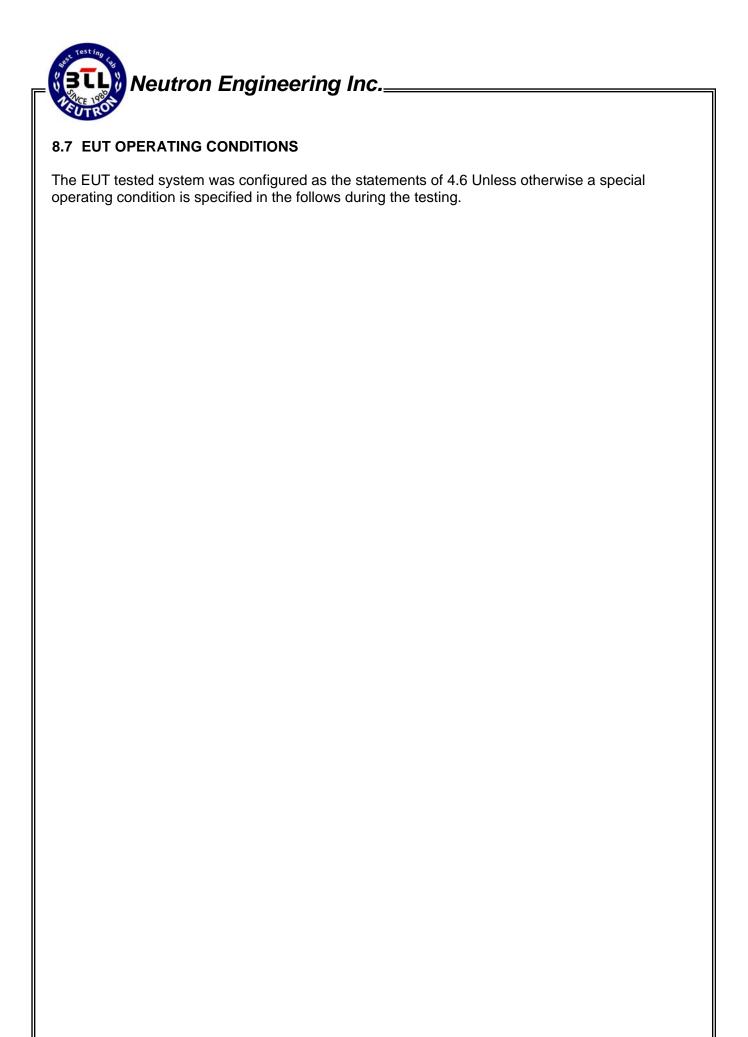
#### 8.5 DEVIATION FROM TEST STANDARD

No deviation

#### **8.6 TEST SETUP LAYOUT**



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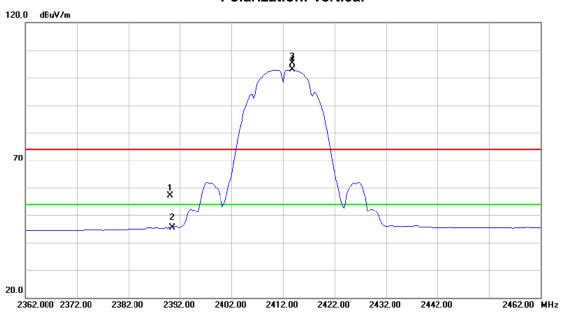


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# 8.8 TEST RESULTS

EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A				
Temperature	26°C	Relative Humidity	60%				
Test Voltage	DC 48V						
Test Mode	IEEE 802.11b/2412 MHz						

## **Polarization: Vertical**

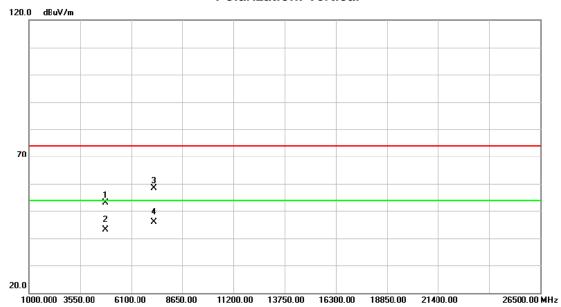


No.	Mk.	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	25.61	31.40	57.01	74.00	-16.99	peak	
2		2390.000	13.98	31.40	45.38	54.00	-8.62	AVG	
3	X	2413.750	73.63	31.50	105.13	74.00	31.13	peak	
4	*	2413.750	71.34	31.50	102.84	54.00	48.84	AVG	

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EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A					
Temperature	26°C	Relative Humidity	60%					
Test Voltage	DC 48V							
Test Mode	IEEE 802.11b/2412 MHz							

#### **Polarization: Vertical**

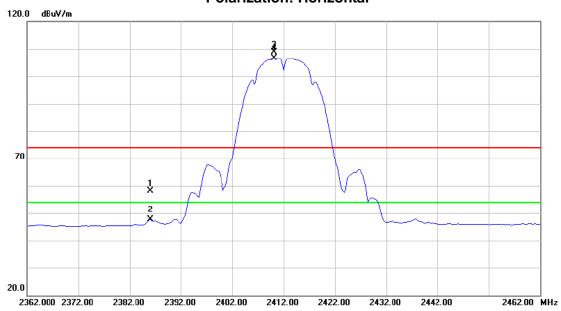


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4	4824.030	45.53	7.48	53.01	74.00	-20.99	peak	
2	4	4824.030	35.62	7.48	43.10	54.00	-10.90	AVG	
3		7236.940	43.84	14.50	58.34	74.00	-15.66	peak	
4	*	7236.940	31.42	14.50	45.92	54.00	-8.08	AVG	

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EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A					
Temperature	26°C	Relative Humidity	60%					
Test Voltage	DC 48V							
Test Mode	IEEE 802.11b/2412 MHz							

## **Polarization: Horizontal**



	No.	Mk	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
-			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1		2386.000	26.85	31.38	58.23	74.00	-15.77	peak	
_	2		2386.000	16.15	31.38	47.53	54.00	-6.47	AVG	
	3	X	2410.250	77.41	31.48	108.89	74.00	34.89	peak	
	4	*	2410.250	75.13	31.48	106.61	54.00	52.61	AVG	
_										

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EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A					
Temperature	26°C	Relative Humidity	60%					
Test Voltage	DC 48V							
Test Mode	IEEE 802.11b/2412 MHz							

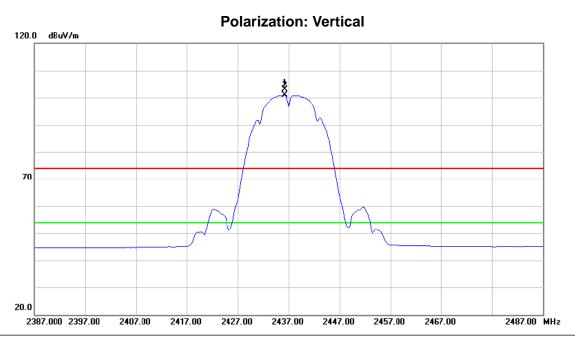
## **Polarization: Horizontal**



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4823.965	43.43	7.48	50.91	74.00	-23.09	peak	
2		4823.965	32.38	7.48	39.86	54.00	-14.14	AVG	
3		7236.945	43.75	14.50	58.25	74.00	-15.75	peak	
4	*	7236.945	31.31	14.50	45.81	54.00	-8.19	AVG	

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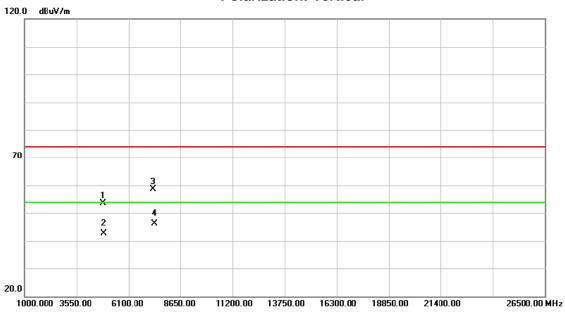
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A					
Temperature	26°C	Relative Humidity	60%					
Test Voltage	DC 48V							
Test Mode	IEEE 802.11b/2437 MHz							



No.	Mk	c. Freq.	Reading Level		Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2436.250	71.25	31.59	102.84	74.00	28.84	peak	
2	*	2436.250	69.17	31.59	100.76	54.00	46.76	AVG	

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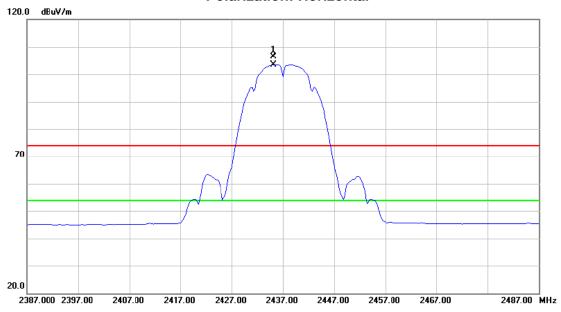
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A
Temperature	26°C	Relative Humidity	60%
Test Voltage	DC 48V		
Test Mode	IEEE 802.11b/2437 MHz		



No	. Mk	Freq.	Reading Level	Correct Factor	Measure- ment		Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4873.975	45.90	7.64	53.54	74.00	-20.46	peak	
2	)	4873.975	35.02	7.64	42.66	54.00	-11.34	AVG	
3	}	7311.630	43.75	14.81	58.56	74.00	-15.44	peak	
4	*	7311.630	31.41	14.81	46.22	54.00	-7.78	AVG	

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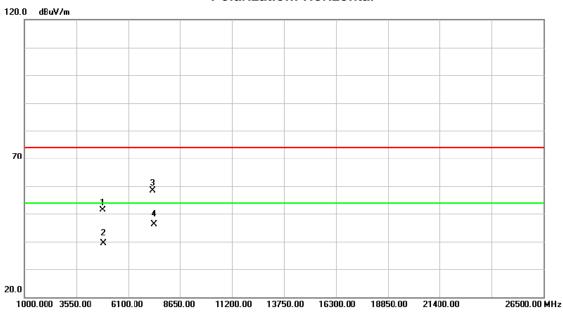
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V	DC 48V								
Test Mode	IEEE 802.11b/2437 MHz									



No	). l	Mk	. Freq.	_	Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	1	X	2435.250	74.67	31.59	106.26	74.00	32.26	peak	
2	2	*	2435.250	71.89	31.59	103.48	54.00	49.48	AVG	

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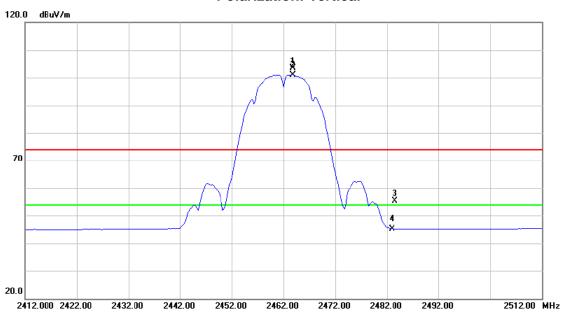
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V	DC 48V								
Test Mode	IEEE 802.11b/2437 MHz									



MHz dBuV dB dBuV/m dBuV/m dB Detector Comment	
1 4874.050 43.75 7.64 51.39 74.00 -22.61 peak	
2 4874.050 31.81 7.64 39.45 54.00 -14.55 AVG	
3 7311.620 43.61 14.81 58.42 74.00 -15.58 peak	
4 * 7311.620 31.28 14.81 46.09 54.00 -7.91 AVG	

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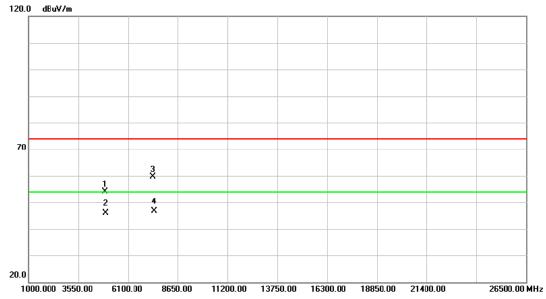
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V	DC 48V								
Test Mode	IEEE 802.11b/2462 MHz									



	No.	Mk	c. Freq.	Level	Factor	Measure- ment	Limit	Over		
_			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	X	2463.750	71.69	31.71	103.40	74.00	29.40	peak	
	2	*	2463.750	69.29	31.71	101.00	54.00	47.00	AVG	
	3		2483.500	23.53	31.79	55.32	74.00	-18.68	peak	
	4		2483.500	13.41	31.79	45.20	54.00	-8.80	AVG	
_										

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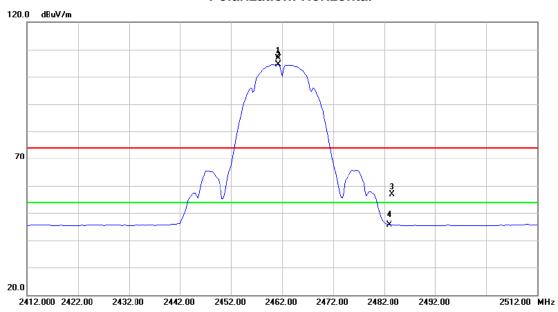
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V	OC 48V								
Test Mode	EEE 802.11b/2462 MHz									



	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
_			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
_	1		4924.005	46.34	7.81	54.15	74.00	-19.85	peak	
_	2		4924.005	38.19	7.81	46.00	54.00	-8.00	AVG	
_	3		7386.830	44.55	15.10	59.65	74.00	-14.35	peak	
	4	*	7386.830	31.61	15.10	46.71	54.00	-7.29	AVG	

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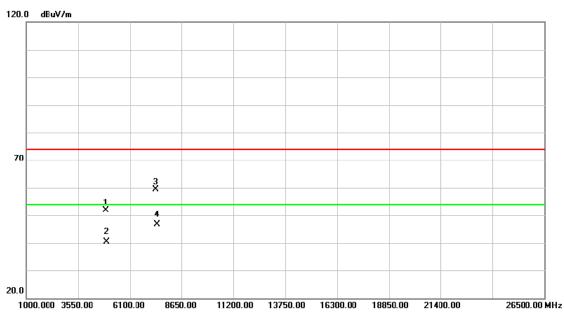
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V	DC 48V								
Test Mode	IEEE 802.11b/2462 MHz									



No.	Mk	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2461.250	75.28	31.70	106.98	74.00	32.98	peak	
2	*	2461.250	72.66	31.70	104.36	54.00	50.36	AVG	
3		2483.500	25.16	31.79	56.95	74.00	-17.05	peak	
4		2483.500	13.75	31.79	45.54	54.00	-8.46	AVG	

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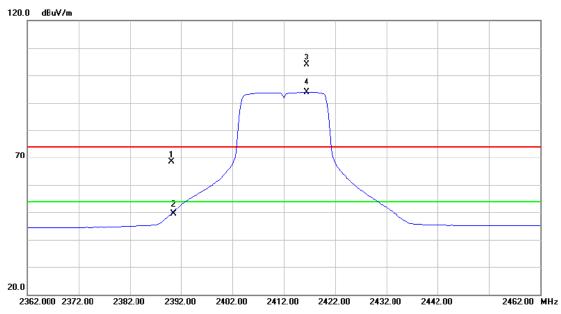
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A
Temperature	26°C	Relative Humidity	60%
Test Voltage	DC 48V		
Test Mode	IEEE 802.11b/2462 MHz		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4	923.965	44.13	7.81	51.94	74.00	-22.06	peak	
2	4	923.965	32.52	7.81	40.33	54.00	-13.67	AVG	
3	7	385.090	44.18	15.09	59.27	74.00	-14.73	peak	
4	* 7	'385.090	31.50	15.09	46.59	54.00	-7.41	AVG	

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EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V									
Test Mode	IEEE 802.11g/2412 MHz									



No.	MŁ	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	36.86	31.40	68.26	74.00	-5.74	peak	
2		2390.000	17.97	31.40	49.37	54.00	-4.63	AVG	
3	X	2416.500	72.26	31.51	103.77	74.00	29.77	peak	
4	*	2416.500	62.41	31.51	93.92	54.00	39.92	AVG	

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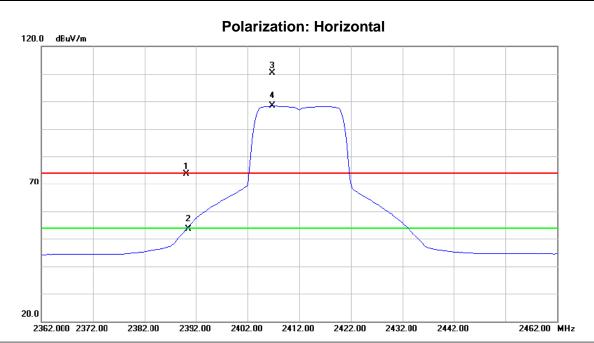
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V									
Test Mode	EEE 802.11g/2412 MHz									



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4	1824.105	42.93	7.48	50.41	74.00	-23.59	peak	
2	4	1824.105	30.79	7.48	38.27	54.00	-15.73	AVG	
3	7	7236.880	43.84	14.50	58.34	74.00	-15.66	peak	
4	* 7	7236.880	31.20	14.50	45.70	54.00	-8.30	AVG	

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EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V									
Test Mode	IEEE 802.11g/2412 MHz									



No.	Mk	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	42.17	31.40	73.57	74.00	-0.43	peak	
2		2390.000	22.19	31.40	53.59	54.00	-0.41	AVG	
3	Χ	2406.750	78.86	31.46	110.32	74.00	36.32	peak	
4	*	2406.750	66.82	31.46	98.28	54.00	44.28	AVG	

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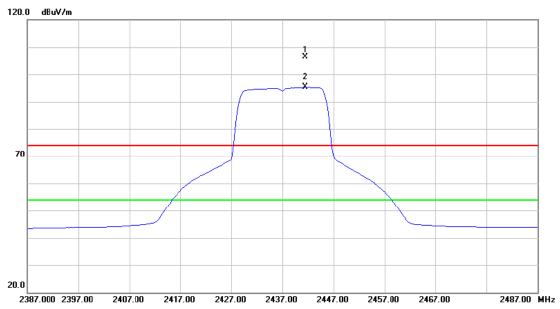
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V									
Test Mode	IEEE 802.11g/2412 MHz									



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment		Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4	823.235	43.35	7.48	50.83	74.00	-23.17	peak	
2	4	823.235	30.68	7.48	38.16	54.00	-15.84	AVG	
3	7	236.565	43.71	14.50	58.21	74.00	-15.79	peak	
4	* 7	236.565	31.17	14.50	45.67	54.00	-8.33	AVG	

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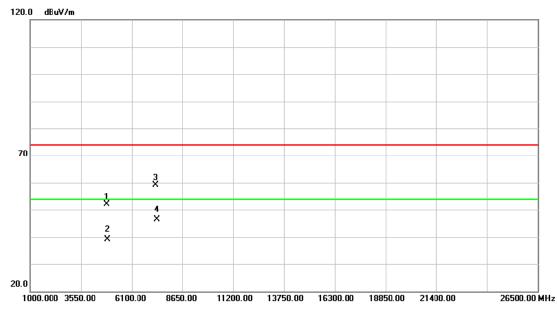
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V									
Test Mode	IEEE 802.11g/2437 MHz									



No.	Λ	Лk.	Freq.			Measure- ment		Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	>	X :	2441.500	74.69	31.61	106.30	74.00	32.30	peak	
2	*		2441.500	63.65	31.61	95.26	54.00	41.26	AVG	

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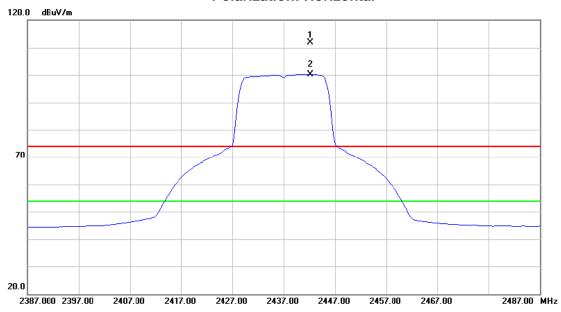
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A
Temperature	26°C	Relative Humidity	60%
Test Voltage	DC 48V		
Test Mode	IEEE 802.11g/2437 MHz		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4	4873.865	44.41	7.64	52.05	74.00	-21.95	peak	
2	4	4873.865	31.38	7.64	39.02	54.00	-14.98	AVG	
3	7	7311.785	44.26	14.81	59.07	74.00	-14.93	peak	
4	*	7311.785	31.55	14.81	46.36	54.00	-7.64	AVG	

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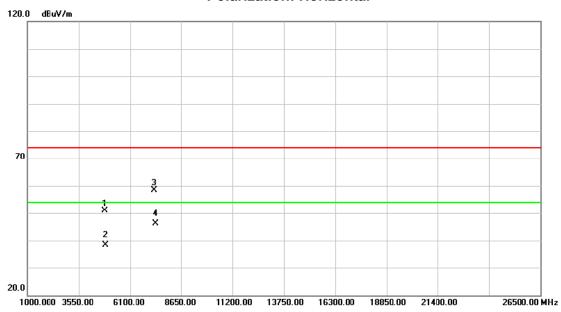
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A						
Temperature	26°C	Relative Humidity	60%						
Test Voltage	DC 48V								
Test Mode	IEEE 802.11g/2437 MHz								



No.	M	k. Freq.	Reading Level		Measure- ment		Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2442.250	80.34	31.61	111.95	74.00	37.95	peak	
2	*	2442.250	68.52	31.61	100.13	54.00	46.13	AVG	

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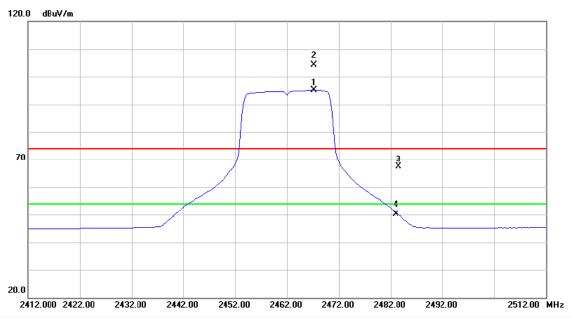
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A
Temperature	26°C	Relative Humidity	60%
Test Voltage	DC 48V		
Test Mode	IEEE 802.11g/2437 MHz		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4	1873.240	43.19	7.64	50.83	74.00	-23.17	peak	
2	4	1873.240	30.65	7.64	38.29	54.00	-15.71	AVG	
3	7	7311.880	43.52	14.81	58.33	74.00	-15.67	peak	
4	*	7311.880	31.43	14.81	46.24	54.00	-7.76	AVG	

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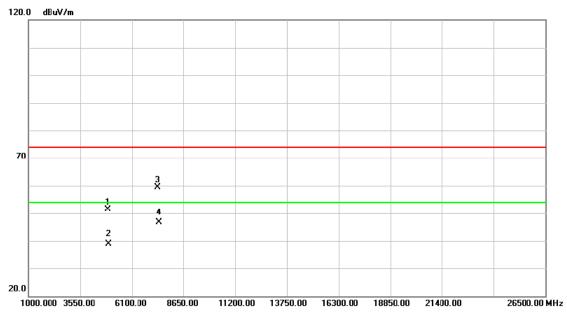
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A						
Temperature	26°C	Relative Humidity	60%						
Test Voltage	DC 48V								
Test Mode	IEEE 802.11g/2462 MHz								



No. I	Mk.	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2467.250	63.45	31.72	95.17	74.00	21.17	peak	
2	*	2467.250	72.41	31.72	104.13	54.00	50.13	AVG	
3		2483.500	35.60	31.79	67.39	74.00	-6.61	peak	
4		2483.500	18.27	31.79	50.06	54.00	-3.94	AVG	

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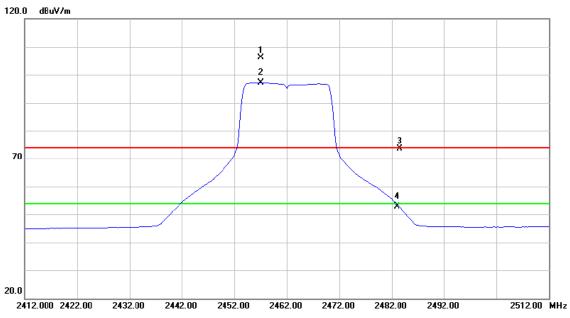
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A						
Temperature	26°C	Relative Humidity	60%						
Test Voltage	DC 48V								
Test Mode	IEEE 802.11g/2462 MHz								



No.	. Mk	. Freq.	Reading Level		Measure- ment		Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4923.170	43.48	7.81	51.29	74.00	-22.71	peak	
2		4923.170	31.01	7.81	38.82	54.00	-15.18	AVG	
3		7386.325	44.26	15.10	59.36	74.00	-14.64	peak	
4	*	7386.325	31.49	15.10	46.59	54.00	-7.41	AVG	

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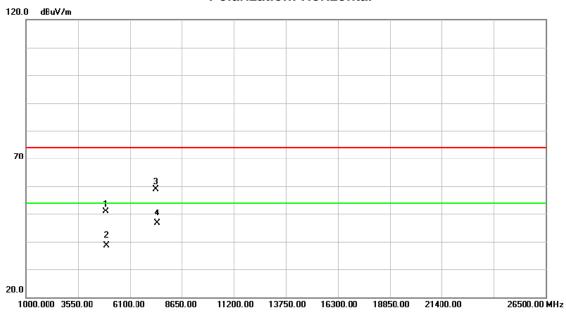
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A						
Temperature	26°C	Relative Humidity	60%						
Test Voltage	DC 48V								
Test Mode	IEEE 802.11g/2462 MHz								



Mk	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
Χ	2457.000	74.34	31.67	106.01	74.00	32.01	peak	
*	2457.000	65.51	31.67	97.18	54.00	43.18	AVG	
	2483.500	41.79	31.79	73.58	74.00	-0.42	peak	
	2483.500	21.09	31.79	52.88	54.00	-1.12	AVG	
	X	MHz X 2457.000 * 2483.500	Mk. Freq. Level  MHz dBuV  X 2457.000 74.34  * 2457.000 65.51  2483.500 41.79	Mk.         Freq.         Level         Factor           MHz         dBuV         dB           X         2457.000         74.34         31.67           *         2457.000         65.51         31.67           2483.500         41.79         31.79	Mk.         Freq.         Level         Factor         ment           MHz         dBuV         dB         dBuV/m           X         2457.000         74.34         31.67         106.01           *         2457.000         65.51         31.67         97.18           2483.500         41.79         31.79         73.58	Mk.         Freq.         Level         Factor         ment         Limit           MHz         dBuV         dB         dBuV/m         dBuV/m           X         2457.000         74.34         31.67         106.01         74.00           *         2457.000         65.51         31.67         97.18         54.00           2483.500         41.79         31.79         73.58         74.00	Mk.         Freq.         Level         Factor         ment         Limit         Over           MHz         dBuV         dB         dBuV/m         dBuV/m         dB           X         2457.000         74.34         31.67         106.01         74.00         32.01           *         2457.000         65.51         31.67         97.18         54.00         43.18           2483.500         41.79         31.79         73.58         74.00         -0.42	MHz         dBuV         dB         dBuV/m         dBuV/m         dB uV/m         dB uV/m

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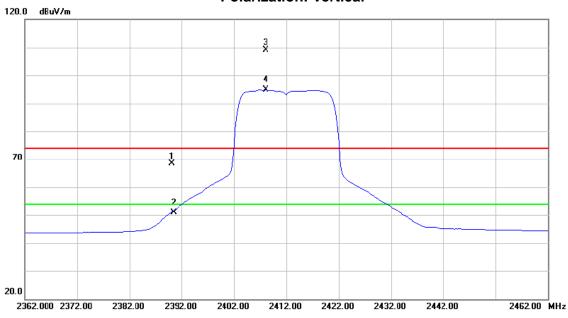
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V	DC 48V								
Test Mode	IEEE 802.11g/2462 MHz									



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4	4923.260	43.07	7.81	50.88	74.00	-23.12	peak	
2	4	4923.260	30.74	7.81	38.55	54.00	-15.45	AVG	
3		7385.655	43.73	15.10	58.83	74.00	-15.17	peak	
4	*	7385.655	31.43	15.10	46.53	54.00	-7.47	AVG	

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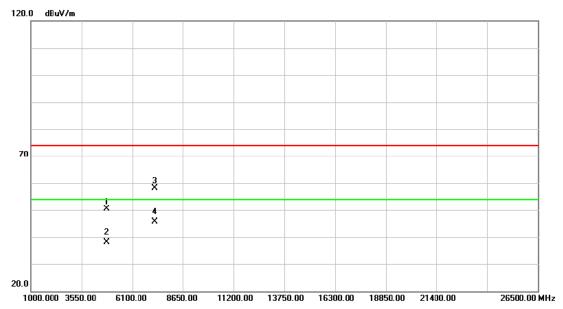
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V	DC 48V								
Test Mode	IEEE 802.11n (20 MHz)/2412 MHz									



No.	Mk	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	37.03	31.40	68.43	74.00	-5.57	peak	
2		2390.000	19.59	31.40	50.99	54.00	-3.01	AVG	
3	X	2408.000	77.65	31.47	109.12	74.00	35.12	peak	
4	*	2408.000	63.29	31.47	94.76	54.00	40.76	AVG	

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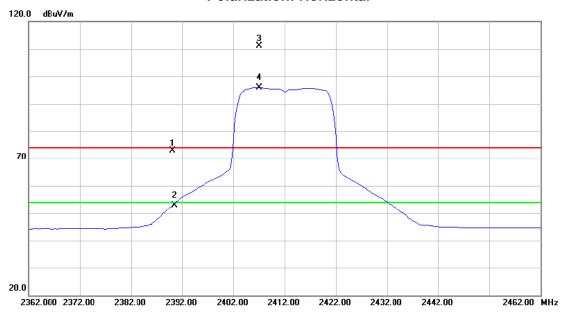
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V	DC 48V								
Test Mode	IEEE 802.11n (20 MHz)/2412 MHz									



No	. Mi	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4824.425	43.02	7.48	50.50	74.00	-23.50	peak	
2		4824.425	30.67	7.48	38.15	54.00	-15.85	AVG	
3		7236.805	43.67	14.50	58.17	74.00	-15.83	peak	
4	*	7236.805	31.23	14.50	45.73	54.00	-8.27	AVG	

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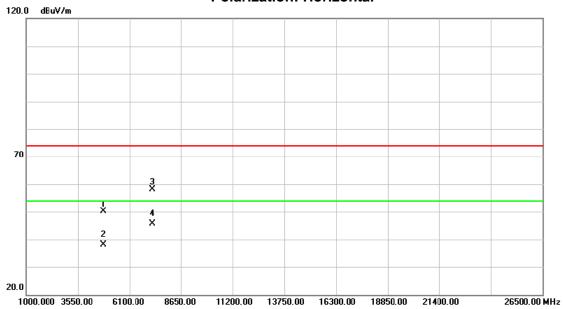
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V	DC 48V								
Test Mode	IEEE 802.11n (20 MHz)/2412 MHz									



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	41.49	31.40	72.89	74.00	-1.11	peak	
2		2390.000	21.53	31.40	52.93	54.00	-1.07	AVG	
3	X	2407.000	79.57	31.46	111.03	74.00	37.03	peak	
4	*	2407.000	64.47	31.46	95.93	54.00	41.93	AVG	

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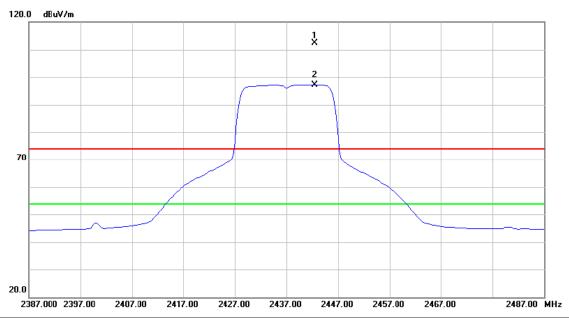
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V	DC 48V								
Test Mode	IEEE 802.11n (20 MHz)/2412 MHz									



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4	1823.845	42.72	7.48	50.20	74.00	-23.80	peak	
2	4	1823.845	30.66	7.48	38.14	54.00	-15.86	AVG	
3	7	7236.850	43.54	14.50	58.04	74.00	-15.96	peak	
4	* /	7236.850	31.17	14.50	45.67	54.00	-8.33	AVG	

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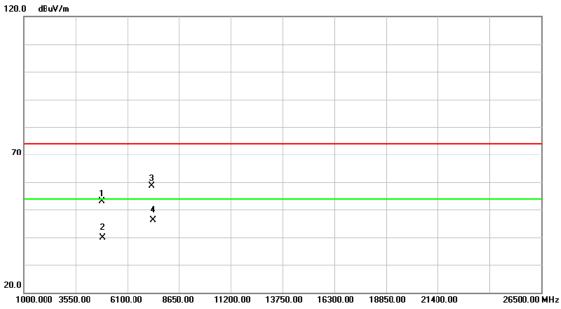
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V	DC 48V								
Test Mode	IEEE 802.11n (20 MHz)/2437 MHz									



No.	Mł	k. Freq.	Reading Level		Measure- ment		Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2442.500	80.78	31.61	112.39	74.00	38.39	peak	
2	*	2442.500	65.60	31.61	97.21	54.00	43.21	AVG	

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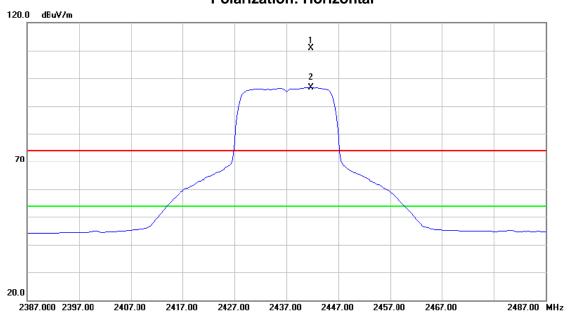
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V									
Test Mode	IEEE 802.11n (20 MHz)/2437 MHz									



No. M	k. Fred	Reading J. Level	g Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4873.03	0 45.38	7.64	53.02	74.00	-20.98	peak	
2	4873.03	0 32.30	7.64	39.94	54.00	-14.06	AVG	
3	7311.70	0 43.71	14.81	58.52	74.00	-15.48	peak	
4 *	7311.70	0 31.32	14.81	46.13	54.00	-7.87	AVG	

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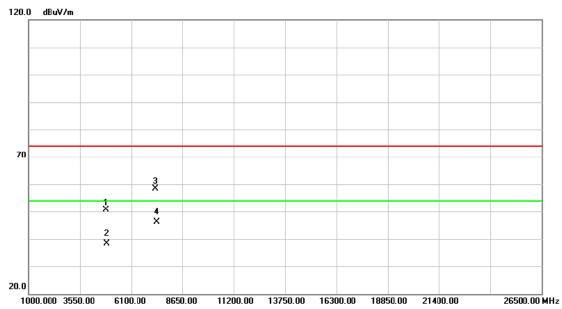
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A						
Temperature	26°C	Relative Humidity	60%						
Test Voltage	DC 48V								
Test Mode	IEEE 802.11n (20 MHz)/2437 MHz								



No.	Mk	k. Freq.	Reading Level		Measure- ment		Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	X	2441.750	79.26	31.61	110.87	74.00	36.87	peak	
2	*	2441.750	64.96	31.61	96.57	54.00	42.57	AVG	

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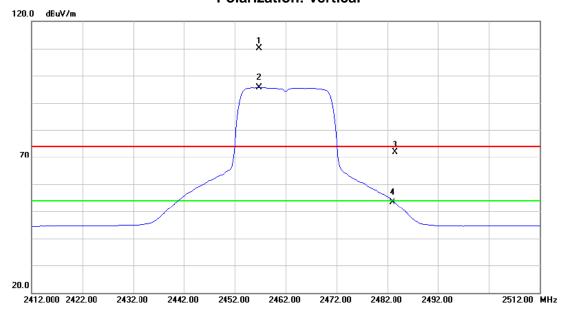
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V	DC 48V								
Test Mode	IEEE 802.11n (20 MHz)/2437 MHz									



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment		Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4873.410	42.98	7.64	50.62	74.00	-23.38	peak	
2		4873.410	30.80	7.64	38.44	54.00	-15.56	AVG	
3		7311.965	43.58	14.81	58.39	74.00	-15.61	peak	
4	*	7311.965	31.25	14.81	46.06	54.00	-7.94	AVG	

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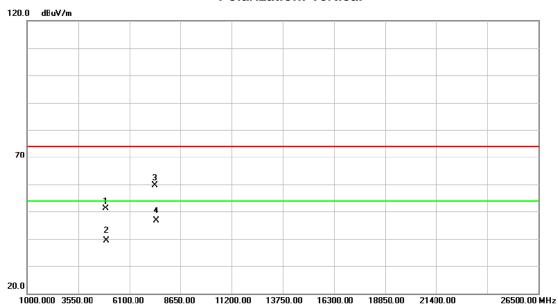
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A						
Temperature	26°C	Relative Humidity	60%						
Test Voltage	DC 48V								
Test Mode	IEEE 802.11n (20 MHz)/2462 MHz								



	MHz	dBuV	dB	15.14				
			uD.	dBuV/m	dBuV/m	dB	Detector	Comment
1 X 24	156.750	78.58	31.67	110.25	74.00	36.25	peak	
2 * 24	156.750	63.96	31.67	95.63	54.00	41.63	AVG	
3 24	183.500	40.15	31.79	71.94	74.00	-2.06	peak	
4 24	183.500	21.54	31.79	53.33	54.00	-0.67	AVG	

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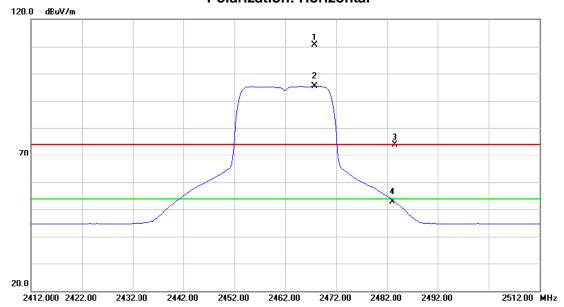
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V	DC 48V								
Test Mode	IEEE 802.11n (20 MHz)/2462 MHz									



MHz         dBuV         dB         dBuV/m         dBuV/m         dB         Detector         Comment           1         4923.275         43.37         7.81         51.18         74.00         -22.82         peak           2         4923.275         31.58         7.81         39.39         54.00         -14.61         AVG           3         7387.000         44.48         15.10         59.58         74.00         -14.42         peak           4         * 7387.000         31.54         15.10         46.64         54.00         -7.36         AVG	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment		Over		
2 4923.275 31.58 7.81 39.39 54.00 -14.61 AVG 3 7387.000 44.48 15.10 59.58 74.00 -14.42 peak			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
3 7387.000 44.48 15.10 59.58 74.00 -14.42 peak	1	4	923.275	43.37	7.81	51.18	74.00	-22.82	peak	
	2	4	923.275	31.58	7.81	39.39	54.00	-14.61	AVG	
4 * 7387.000 31.54 15.10 46.64 54.00 -7.36 AVG	3	7	387.000	44.48	15.10	59.58	74.00	-14.42	peak	
	4	* 7	387.000	31.54	15.10	46.64	54.00	-7.36	AVG	

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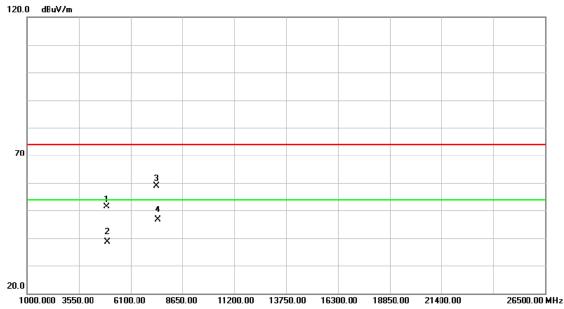
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V	DC 48V								
Test Mode	IEEE 802.11n (20 MHz)/2462 MHz									



	No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
-			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	X	2467.750	78.88	31.72	110.60	74.00	36.60	peak	
	2	*	2467.750	63.66	31.72	95.38	54.00	41.38	AVG	
	3		2483.500	42.08	31.79	73.87	74.00	-0.13	peak	
-	4		2483.500	21.11	31.79	52.90	54.00	-1.10	AVG	
-										

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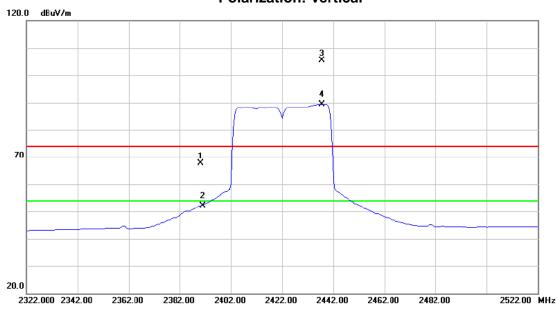
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A								
Temperature	26°C	Relative Humidity	60%								
Test Voltage	DC 48V	DC 48V									
Test Mode	IEEE 802.11n (20 MHz)/2462 MHz										



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4923.260	43.48	7.81	51.29	74.00	-22.71	peak	
2		4923.260	30.91	7.81	38.72	54.00	-15.28	AVG	
3		7385.885	43.78	15.10	58.88	74.00	-15.12	peak	
4	*	7385.885	31.49	15.10	46.59	54.00	-7.41	AVG	

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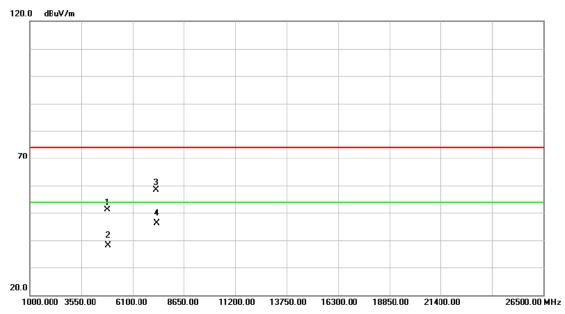
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A						
Temperature	26°C	Relative Humidity	60%						
Test Voltage	DC 48V								
Test Mode	IEEE 802.11n (40 MHz)/2422 MHz								



	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
Ī			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1		2390.000	36.12	31.40	67.52	74.00	-6.48	peak	
Ī	2		2390.000	20.74	31.40	52.14	54.00	-1.86	AVG	
	3	X	2437.500	73.90	31.60	105.50	74.00	31.50	peak	
	4	*	2437.500	57.89	31.60	89.49	54.00	35.49	AVG	
-										

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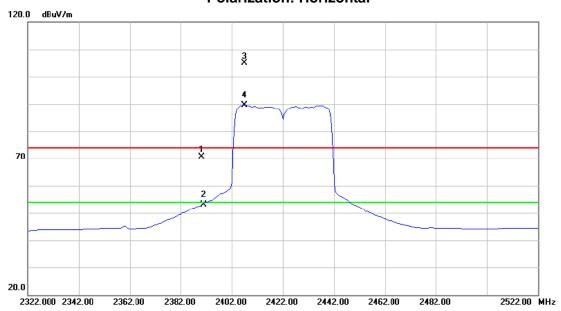
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V	DC 48V								
Test Mode	IEEE 802.11n (40 MHz)/2422 MHz									



No. Mk. Freq		Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4	4843.785	43.55	7.54	51.09	74.00	-22.91	peak	
2	4	4843.785	30.58	7.54	38.12	54.00	-15.88	AVG	
3		7266.270	43.72	14.63	58.35	74.00	-15.65	peak	
4	*	7266.270	31.42	14.63	46.05	54.00	-7.95	AVG	

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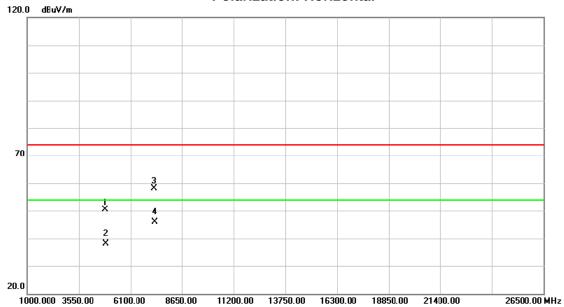
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A						
Temperature	26°C	Relative Humidity	60%						
Test Voltage	DC 48V								
Test Mode	IEEE 802.11n (40 MHz)/2422 MHz								



No.	Mk	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	39.24	31.40	70.64	74.00	-3.36	peak	
2		2390.000	21.63	31.40	53.03	54.00	-0.97	AVG	
3	Χ	2407.000	73.46	31.46	104.92	74.00	30.92	peak	
4	*	2407.000	58.20	31.46	89.66	54.00	35.66	AVG	

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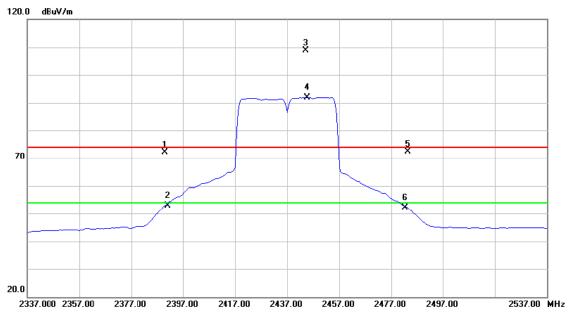
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V	DC 48V								
Test Mode	IEEE 802.11n (40 MHz)/2422 MHz									



No.	Mk	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4843.015	42.80	7.54	50.34	74.00	-23.66	peak	
2		4843.015	30.58	7.54	38.12	54.00	-15.88	AVG	
3		7265.390	43.63	14.62	58.25	74.00	-15.75	peak	
4	*	7265.390	31.38	14.62	46.00	54.00	-8.00	AVG	

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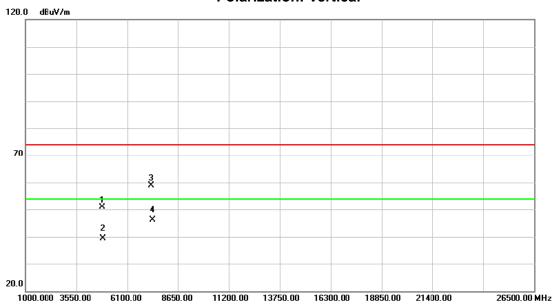
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A						
Temperature	26°C	Relative Humidity	60%						
Test Voltage	DC 48V								
Test Mode	IEEE 802.11n (40 MHz)/2437 MHz								



No	). M	lk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	I	23	90.000	40.79	31.40	72.19	74.00	-1.81	peak	
2	2	23	90.000	21.45	31.40	52.85	54.00	-1.15	AVG	
3	3 X	24	44.000	77.37	31.62	108.99	74.00	34.99	peak	
4	1 *	24	44.000	60.33	31.62	91.95	54.00	37.95	AVG	
Ę	5	24	83.500	40.48	31.79	72.27	74.00	-1.73	peak	
6	6	24	83.500	20.24	31.79	52.03	54.00	-1.97	AVG	

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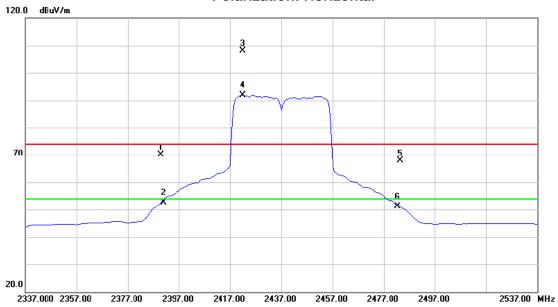
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A						
Temperature	26°C	Relative Humidity	60%						
Test Voltage	DC 48V								
Test Mode	IEEE 802.11n (40 MHz)/2437 MHz								



No. Mk.	Freq.	Reading Level		Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 4	4873.020	43.26	7.64	50.90	74.00	-23.10	peak	
2	4873.020	31.82	7.64	39.46	54.00	-14.54	AVG	
3	7311.975	43.95	14.81	58.76	74.00	-15.24	peak	
4 *	7311.975	31.35	14.81	46.16	54.00	-7.84	AVG	

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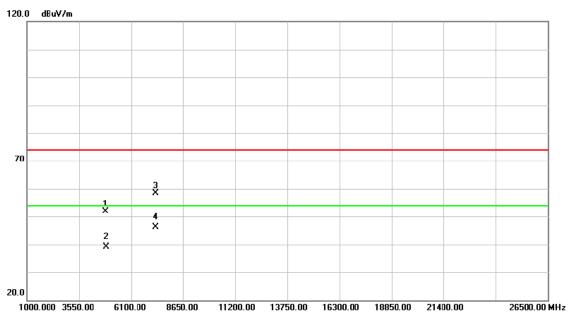
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A						
Temperature	26°C	Relative Humidity	60%						
Test Voltage	DC 48V								
Test Mode	IEEE 802.11n (40 MHz)/2437 MHz								



No.	M	k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		23	90.000	38.84	31.40	70.24	74.00	-3.76	peak	
2		23	90.000	21.28	31.40	52.68	54.00	-1.32	AVG	
3	X	24	22.000	76.68	31.53	108.21	74.00	34.21	peak	
4	*	24	22.000	60.30	31.53	91.83	54.00	37.83	AVG	
5		24	83.500	36.06	31.79	67.85	74.00	-6.15	peak	
6		24	83.500	19.32	31.79	51.11	54.00	-2.89	AVG	

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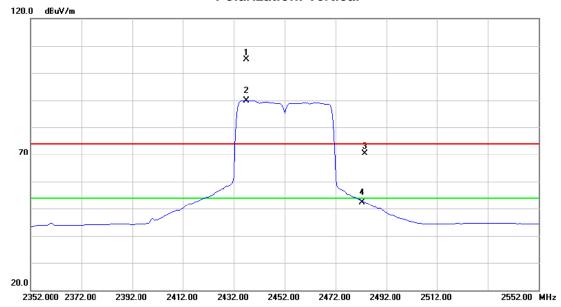
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V									
Test Mode	IEEE 802.11n (40 MHz)/2437 MHz									



No	o. Mł	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
•	1	4873.045	44.36	7.64	52.00	74.00	-22.00	peak	
2	2	4873.045	31.59	7.64	39.23	54.00	-14.77	AVG	
3	3	7310.835	43.68	14.80	58.48	74.00	-15.52	peak	
	1 *	7310.835	31.32	14.80	46.12	54.00	-7.88	AVG	

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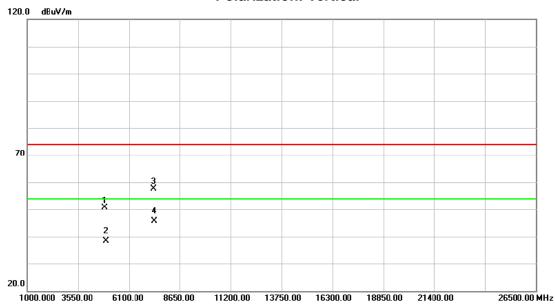
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A						
Temperature	26°C	Relative Humidity	60%						
Test Voltage	DC 48V								
Test Mode	IEEE 802.11n (40 MHz)/2452 MHz								



	No. N	Иk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1 )	X 2	2437.000	73.34	31.60	104.94	74.00	30.94	peak	
	2 *	* 2	2437.000	58.37	31.60	89.97	54.00	35.97	AVG	
-	3	2	2483.500	38.51	31.79	70.30	74.00	-3.70	peak	
	4	2	2483.500	20.64	31.79	52.43	54.00	-1.57	AVG	
_										

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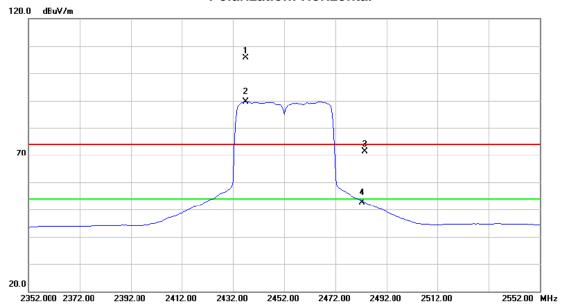
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	26°C	Relative Humidity	60%							
Test Voltage	DC 48V									
Test Mode	IEEE 802.11n (40 MHz)/2452 MHz									



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		4903.110	42.84	7.74	50.58	74.00	-23.42	peak	
2		4903.110	30.62	7.74	38.36	54.00	-15.64	AVG	
3		7356.665	42.72	14.97	57.69	74.00	-16.31	peak	
4	*	7356.665	30.68	14.97	45.65	54.00	-8.35	AVG	

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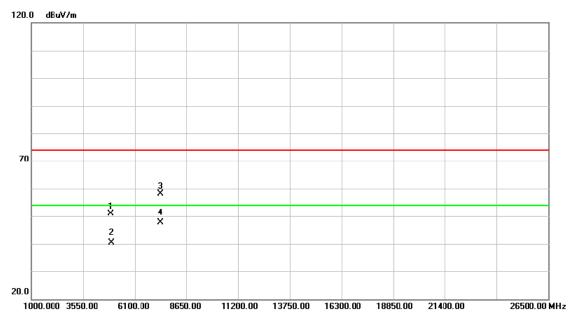
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A						
Temperature	26°C	Relative Humidity	60%						
Test Voltage	DC 48V								
Test Mode	IEEE 802.11n (40 MHz)/2452 MHz								



	No.	Mk	c. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	X	2437.000	74.10	31.60	105.70	74.00	31.70	peak	
-	2	*	2437.000	58.12	31.60	89.72	54.00	35.72	AVG	
	3		2483.500	39.58	31.79	71.37	74.00	-2.63	peak	
-	4		2483.500	20.85	31.79	52.64	54.00	-1.36	AVG	
-										

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EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A						
Temperature	26°C	Relative Humidity	60%						
Test Voltage	DC 48V								
Test Mode	IEEE 802.11n (40 MHz)/2452 MHz								



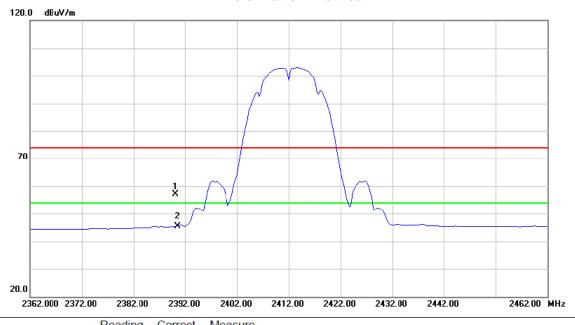
	No. M	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
-		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	4913.400	42.99	7.78	50.77	74.00	-23.23	peak	
-	2	4913.400	32.48	7.78	40.26	54.00	-13.74	AVG	
-	3	7365.500	43.07	15.01	58.08	74.00	-15.92	peak	
-	4 *	7365.500	32.59	15.01	47.60	54.00	-6.40	AVG	
-									

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## 8.9 TEST RESULTS (RESTRICTED BANDS)

EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A					
Temperature	24°C Relative Humidity 46%							
Test Voltage	DC 48V							
Test Mode	IEEE 802.11b							
NOTE	The transmitter was setup to transmit at the lowest channel and the field strength was measured at 2310-2390 MHz.							

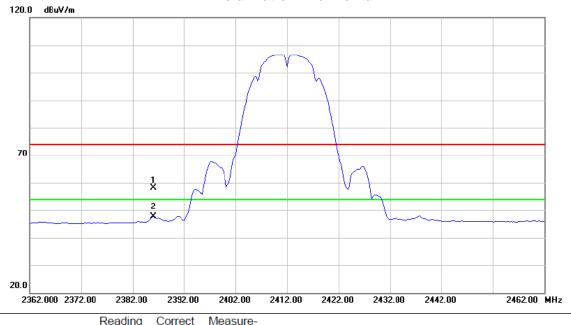
## **Polarization: Vertical**



	No.	Mk.	Freq.			ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1		2390.000	25.61	31.40	57.01	74.00	-16.99	peak	
	2	*	2390.000	13.98	31.40	45.38	54.00	-8.62	AVG	
-										

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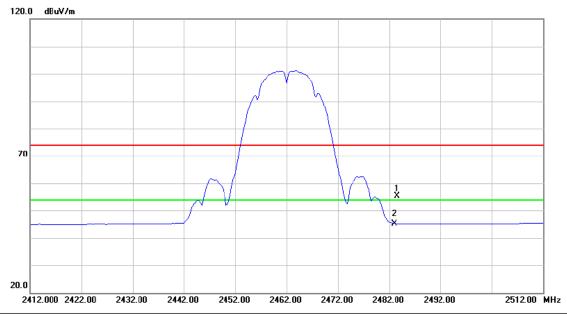
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A						
Temperature	24°C	Relative Humidity	46%						
Test Voltage	DC 48V								
Test Mode	IEEE 802.11b	IEEE 802.11b							
NOTE	The transmitter was setup to transmit at the lowest channel and the field strength was measured at 2310-2390 MHz.								



	No. I	Mk.	Freq.	Level		ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	23	386.000	26.85	31.38	58.23	74.00	-15.77	peak	
	2	* 23	386.000	16.15	31.38	47.53	54.00	-6.47	AVG	
-										

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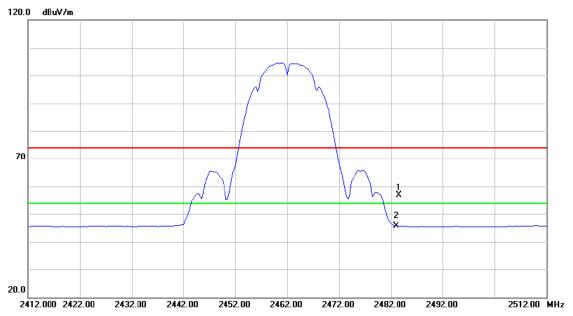
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A						
Temperature	24°C	Relative Humidity	46%						
Test Voltage	OC 48V								
Test Mode	IEEE 802.11b								
	The transmitter was setup to transmit at the highest channel and the field strength was measured at 2483.5-2500 MHz.								



	No.	Mk.	Freq.			Measure- ment		Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1		2483.500	23.53	31.79	55.32	74.00	-18.68	peak	
	2	*	2483.500	13.41	31.79	45.20	54.00	-8.80	AVG	
-										

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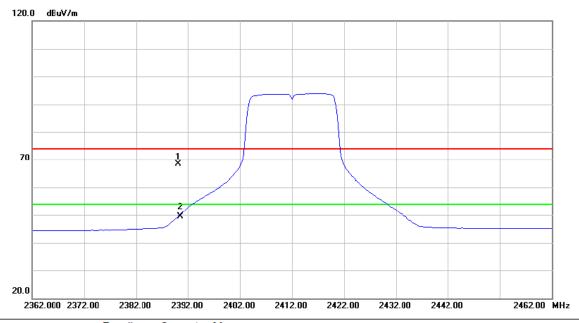
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A					
Temperature	24°C	Relative Humidity	46%					
Test Voltage	OC 48V							
Test Mode	IEEE 802.11b							
	The transmitter was setup to transmit at the highest channel and the field strength was measured at 2483.5-2500 MHz.							



No.	. M	k.	Freq.	Reading Level		Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		24	83.500	25.16	31.79	56.95	74.00	-17.05	peak	
2	*	24	83.500	13.75	31.79	45.54	54.00	-8.46	AVG	

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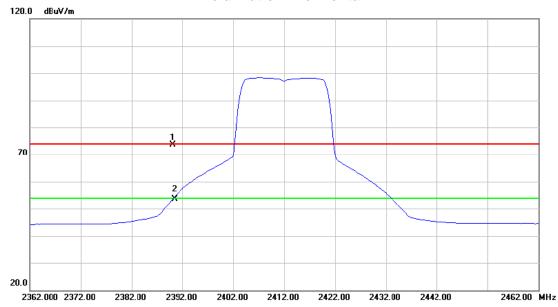
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A					
Temperature	24°C	Relative Humidity	46%					
Test Voltage	DC 48V							
Test Mode	IEEE 802.11g							
NOTE	The transmitter was setup to transmit at the lowest channel and the field strength was measured at 2310-2390 MHz.							



No	. MI	k. Freq.	Reading Level	Correct Factor	Measure- ment		Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	36.86	31.40	68.26	74.00	-5.74	peak	
2	*	2390.000	17.97	31.40	49.37	54.00	-4.63	AVG	

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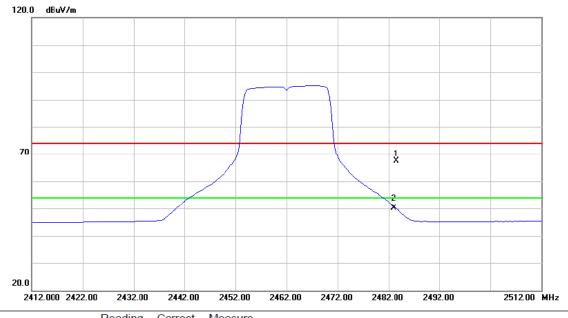
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	24°C	Relative Humidity	46%							
Test Voltage	OC 48V									
Test Mode	IEEE 802.11g	EEE 802.11g								
	The transmitter was setup to transmit at the lowest channel and the field strength was neasured at 2310-2390 MHz.									



	No. M	Лk.	Freq.	Level		ment	Limit	Over		
_			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
_	1	23	90.000	42.17	31.40	73.57	74.00	-0.43	peak	
	2 *	23	90.000	22.19	31.40	53.59	54.00	-0.41	AVG	

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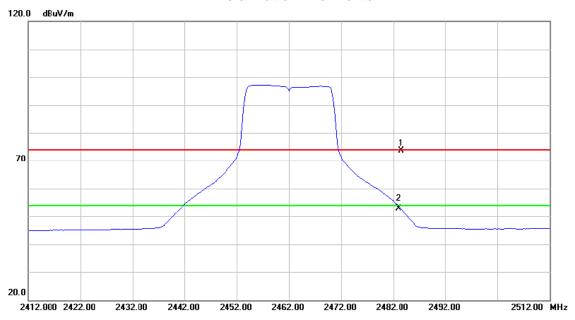
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	24°C Relative Humidity 46%									
Test Voltage	C 48V									
Test Mode	IEEE 802.11g	EEE 802.11g								
	The transmitter was setup to transmit at the highest channel and the field strength was measured at 2483.5-2500 MHz.									



	No. M	۸k.	Freq.	Reading Level		Measure- ment		Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	24	83.500	35.60	31.79	67.39	74.00	-6.61	peak	
	2 *	24	83.500	18.27	31.79	50.06	54.00	-3.94	AVG	
-										

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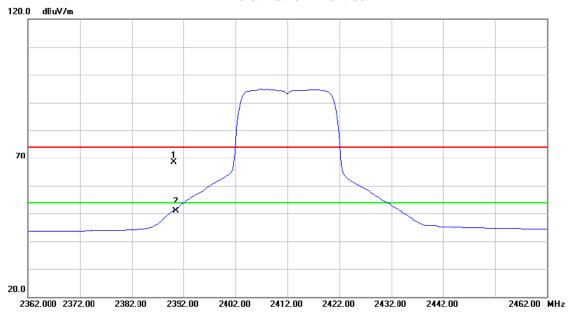
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	24°C Relative Humidity 46%									
Test Voltage	C 48V									
Test Mode	IEEE 802.11g	EEE 802.11g								
	The transmitter was setup to transmit at the highest channel and the field strength was measured at 2483.5-2500 MHz.									



No.	Mk	. Freq.			Measure- ment		Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	2483.500	41.79	31.79	73.58	74.00	-0.42	peak	
2		2483.500	21.09	31.79	52.88	54.00	-1.12	AVG	

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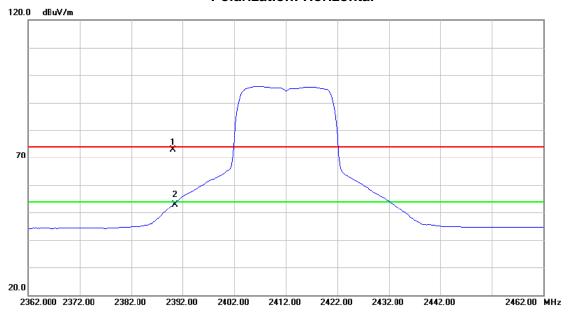
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	24°C	Relative Humidity	46%							
Test Voltage	OC 48V									
Test Mode	IEEE 802.11n (20 MHz)	EEE 802.11n (20 MHz)								
	The transmitter was setup to transmit at the lowest channel and the field strength was measured at 2310-2390 MHz.									



	No. M	lk.	Freq.			Measure- ment		Over		
-			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
-	1	23	90.000	37.03	31.40	68.43	74.00	-5.57	peak	
	2 *	23	90.000	19.59	31.40	50.99	54.00	-3.01	AVG	
-										

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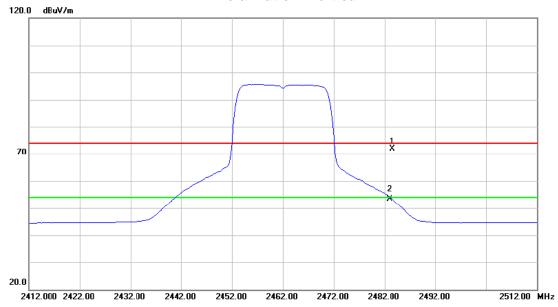
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	24°C	Relative Humidity	46%							
Test Voltage	OC 48V									
Test Mode	IEEE 802.11n (20 MHz)	EEE 802.11n (20 MHz)								
11/1( )    -	The transmitter was setup to transmit at the lowest channel and the field strength was measured at 2310-2390 MHz.									



	No. N	Λk.	Freq.		Correct Factor	Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	23	390.000	41.49	31.40	72.89	74.00	-1.11	peak	
_	2 *	23	390.000	21.53	31.40	52.93	54.00	-1.07	AVG	
_										

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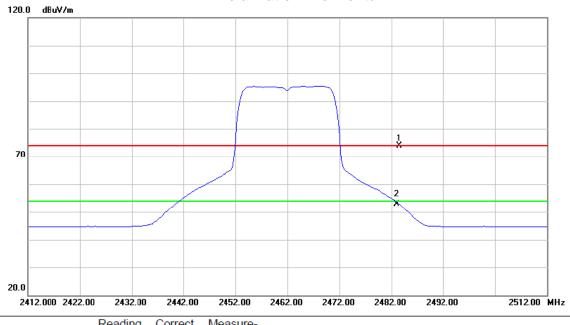
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A							
Temperature	24°C	Relative Humidity	46%							
Test Voltage	IC 48V									
Test Mode	IEEE 802.11n (20 MHz)	EEE 802.11n (20 MHz)								
	The transmitter was setup to transmit at the highest channel and the field strength was measured at 2483.5-2500 MHz.									



No.	. M	lk.	Freq.			Measure- ment	Limit	Over		
			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		24	83.500	40.15	31.79	71.94	74.00	-2.06	peak	
2	*	24	83.500	21.54	31.79	53.33	54.00	-0.67	AVG	

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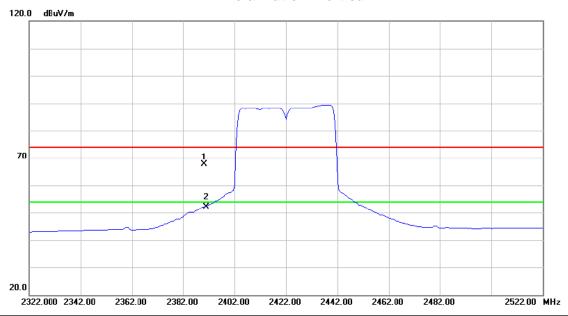
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A				
Temperature	24°C	Relative Humidity	46%				
Test Voltage	OC 48V						
Test Mode	IEEE 802.11n (20 MHz)						
NOTE	The transmitter was setup to transmit at the highest channel and the field strength was measured at 2483.5-2500 MHz.						



	No.	M	k. Freq.			ment	Limit	Over		
_			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	*	2483.500	42.08	31.79	73.87	74.00	-0.13	peak	
	2		2483.500	21.11	31.79	52.90	54.00	-1.10	AVG	
_										

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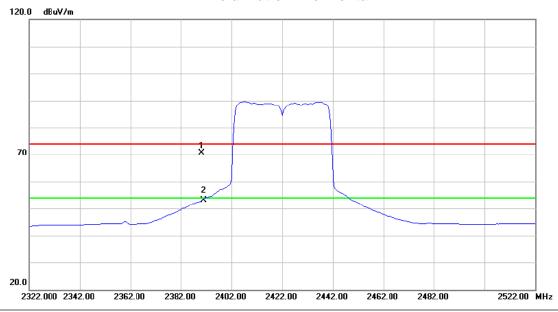
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A					
Temperature	24°C	Relative Humidity	46%					
Test Voltage	OC 48V							
Test Mode	IEEE 802.11n (40 MHz)	EEE 802.11n (40 MHz)						
	The transmitter was setup to transmit at the lowest channel and the field strength was measured at 2310-2390 MHz.							



No.	Mk	c. Freq.			Measure- ment		Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2390.000	36.12	31.40	67.52	74.00	-6.48	peak	
2	*	2390.000	20.74	31.40	52.14	54.00	-1.86	AVG	

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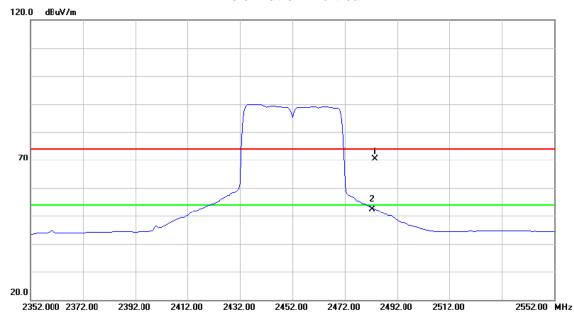
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A				
Temperature	24°C	Relative Humidity	46%				
Test Voltage	OC 48V						
Test Mode	IEEE 802.11n (40 MHz)						
	The transmitter was setup to transmit at the lowest channel and the field strength was measured at 2310-2390 MHz.						



	No.	Mł	c. Freq.	_	Correct Factor	Measure- ment		Over		
_			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1		2390.000	39.24	31.40	70.64	74.00	-3.36	peak	
_	2	*	2390.000	21.63	31.40	53.03	54.00	-0.97	AVG	

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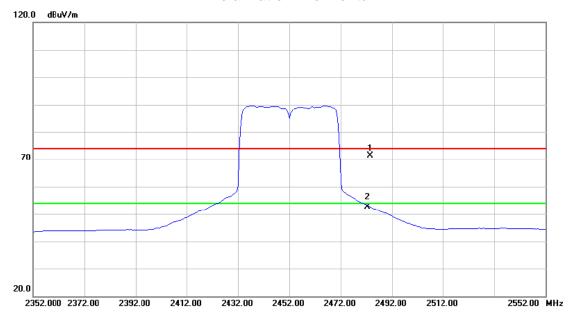
EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A					
Temperature	24°C	Relative Humidity	46%					
Test Voltage	DC 48V	OC 48V						
Test Mode	IEEE 802.11n (40 MHz)							
	The transmitter was setup to transmit at the highest channel and the field strength was measured at 2483.5-2500 MHz.							



	No.	MŁ	k. Freq.		Correct Factor	Measure- ment		Over		
-			MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1		2483.500	38.51	31.79	70.30	74.00	-3.70	peak	
	2	*	2483.500	20.64	31.79	52.43	54.00	-1.57	AVG	

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EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A					
Temperature	24°C	Relative Humidity	46%					
Test Voltage	DC 48V	OC 48V						
Test Mode	IEEE 802.11n (40 MHz)							
	The transmitter was setup to transmit at the highest channel and the field strength was measured at 2483.5-2500 MHz.							



No.	M	c. Freq.	Level		ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		2483.500	39.58	31.79	71.37	74.00	-2.63	peak	
2	*	2483.500	20.85	31.79	52.64	54.00	-1.36	AVG	

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#### 9 POWER SPECTRAL DENSITY

#### **9.1 LIMIT**

Test Item	Frequency Range (MHz)	Limit	
Power Spectral Density	2400-2483.5	8 dBm (in any 3 kHz)	

#### 9.2 MEASUREMENT INSTRUMENTS LIST

Ite	m Kind of Equipment	Manufacturer	lanufacturer Type No.		Calibrated until
1	Spectrum Analyzer	R&S	FSP-30	100854	Sep. 08, 2014

NOTE: N/A: denotes No Model Name, No Serial No. or No Calibration specified.

#### 9.3 TEST PROCEDURES

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Spectrum Setting: RBW=3 kHz, VBW=30 kHz, Sweep time = 500s.

#### 9.4 TEST SETUP LAYOUT

EUT	SPECTRUM
	ANALYZER

Notes: Test cable is directly connected to inner connector.

#### 9.5 DEVIATION FROM TEST STANDARD

No deviation

#### 9.6 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 4.6 Unless otherwise a special operating condition is specified in the follows during the testing.

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## 9.7 TEST RESULTS

EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A
Temperature	26°C	Relative Humidity	60%
Test Voltage	DC 48V		
Test Mode	IEEE 802.11b/2412 MHz, 2437 MHz, 2462 MHz_ANT A		

Frequency	Power Density (dBm)	Limit (dBm)	Result
2412 MHz	-13.99	8	PASS
2437 MHz	-14.65	8	PASS
2462 MHz	-15.51	8	PASS

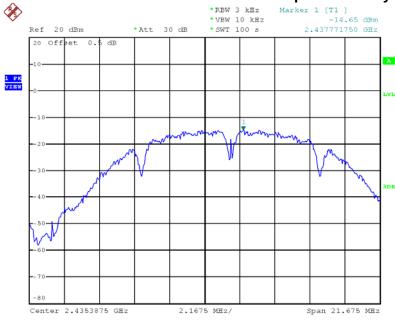
## IEEE 802.11b/2412 MHz/Power Sepctral Density



Date: 12.JUN.2014 17:27:17

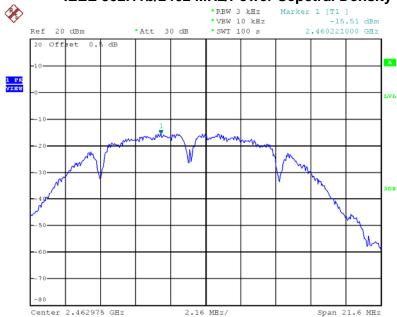
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## IEEE 802.11b/2437 MHz/Power Sepctral Density



Date: 12.JUN.2014 17:31:26

## IEEE 802.11b/2462 MHz/Power Sepctral Density



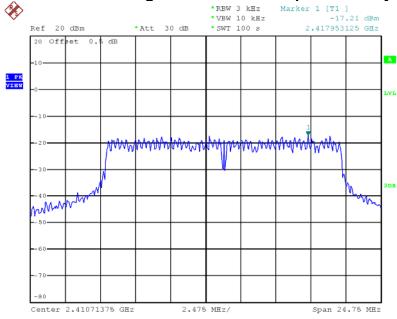
Date: 12.JUN.2014 17:36:25

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EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A
Temperature	26°C	Relative Humidity	60%
Test Voltage	DC 48V		
Test Mode	IEEE 802.11g/2412 MHz, 2437 MHz, 2462 MHz_ANT A		

Frequency	Power Density (dBm)	Limit (dBm)	Result
2412 MHz	-17.21	8	PASS
2437 MHz	-15.68	8	PASS
2462 MHz	-18.36	8	PASS

## IEEE 802.11g/2412 MHz/Power Sepctral Density

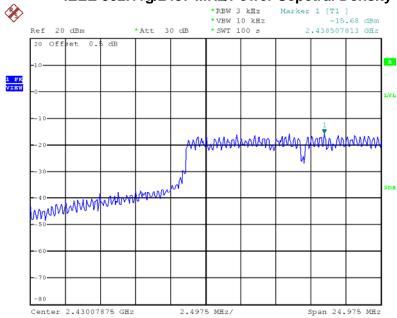


Date: 12.JUN.2014 17:41:45

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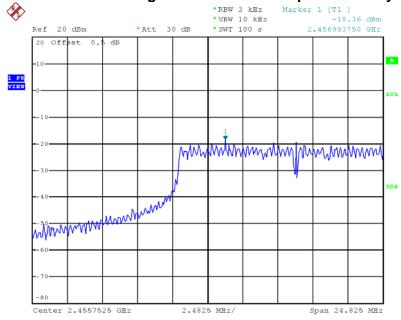


## IEEE 802.11g/2437 MHz/Power Sepctral Density



Date: 12.JUN.2014 17:51:23

## IEEE 802.11g/2462 MHz/Power Sepctral Density



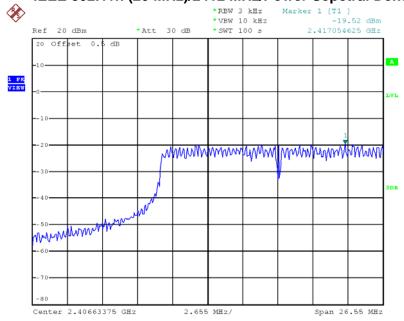
Date: 12.JUN.2014 17:56:59

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EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A
Temperature	26°C	Relative Humidity	60%
Test Voltage	DC 48V		
Test Mode	IEEE 802.11n (20 MHz)/2412 MHz, 2437 MHz, 2462 MHz_ANT A		

Frequency	Power Density (dBm)	Limit (dBm)	Result
2412 MHz	-19.52	8	PASS
2437 MHz	-18.63	8	PASS
2462 MHz	-19.08	8	PASS

## IEEE 802.11n (20 MHz)/2412 MHz/Power Sepctral Density

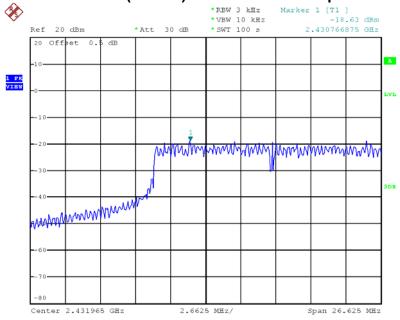


Date: 12.JUN.2014 18:01:40

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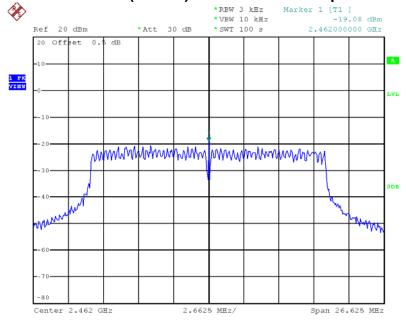
# Neutron Engineering Inc.

#### IEEE 802.11n (20 MHz)/2437 MHz/Power Sepctral Density



Date: 12.JUN.2014 18:07:13

## IEEE 802.11n (20 MHz)/2462 MHz/Power Sepctral Density

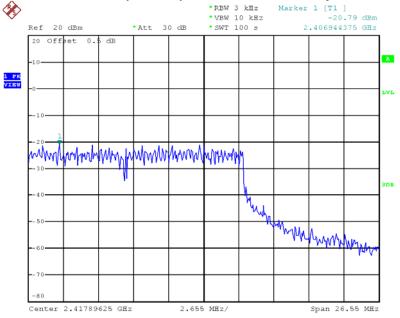


Date: 12.JUN.2014 18:10:58

EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A
Temperature	26°C	Relative Humidity	60%
Test Voltage	DC 48V		
Test Mode	IEEE 802.11n (20 MHz)/2412 MHz, 2437 MHz, 2462 MHz_ANT B		

Frequency	Power Density (dBm)	Limit (dBm)	Result
2412 MHz	-20.79	8	PASS
2437 MHz	-19.83	8	PASS
2462 MHz	-20.47	8	PASS

## IEEE 802.11n (20 MHz)/2412 MHz/Power Sepctral Density

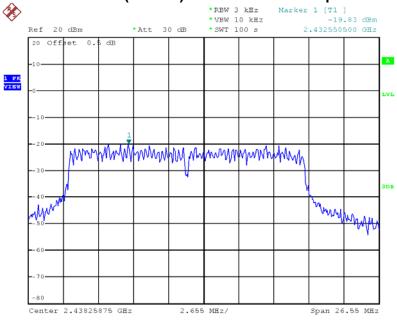


Date: 12.JUN.2014 18:27:01

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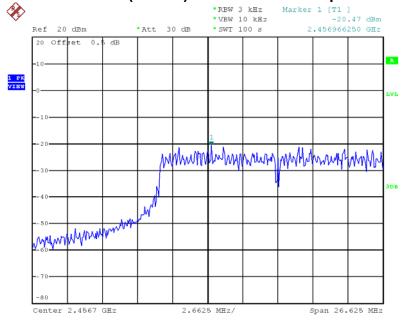
# Neutron Engineering Inc.

#### IEEE 802.11n (20 MHz)/2437 MHz/Power Sepctral Density



Date: 12.JUN.2014 18:29:32

## IEEE 802.11n (20 MHz)/2462 MHz/Power Sepctral Density



Date: 12.JUN.2014 18:32:22



EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A
Temperature	26°C	Relative Humidity	60%
Test Voltage	DC 48V		
Test Mode	IEEE 802.11n (20 MHz)/2412 MHz, 2437 MHz, 2462 MHz_Total		

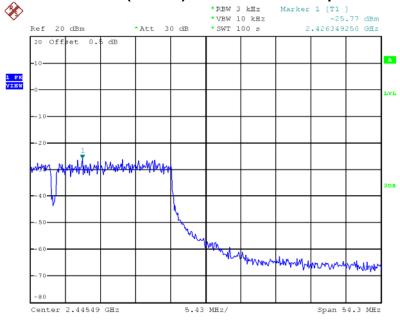
Frequency	Power Density (dBm)	Limit (dBm)	Result
2412 MHz	-17.10	8	PASS
2437 MHz	-16.18	8	PASS
2462 MHz	-16.71	8	PASS

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EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A
Temperature	26°C	Relative Humidity	60%
Test Voltage	DC 48V		
Test Mode	IEEE 802.11n (40 MHz)/2422 MHz, 2437 MHz, 2452 MHz_ANT A		

Frequency	Power Density (dBm)	Limit (dBm)	Result
2422 MHz	-25.77	8	PASS
2437 MHz	-23.06	8	PASS
2452 MHz	-27.12	8	PASS

## IEEE 802.11n (40 MHz)/2422 MHz/Power Sepctral Density

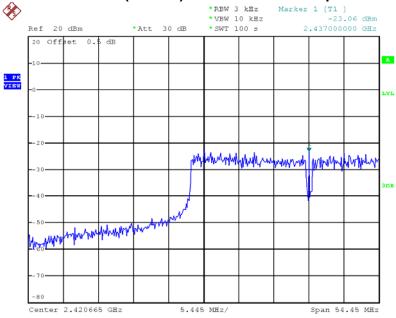


Date: 12.JUN.2014 18:16:15

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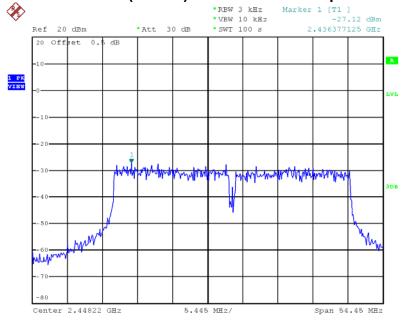
# Neutron Engineering Inc.

## IEEE 802.11n (40 MHz)/2437 MHz/Power Sepctral Density



Date: 12.JUN.2014 18:19:18

## IEEE 802.11n (40 MHz)/2452 MHz/Power Sepctral Density

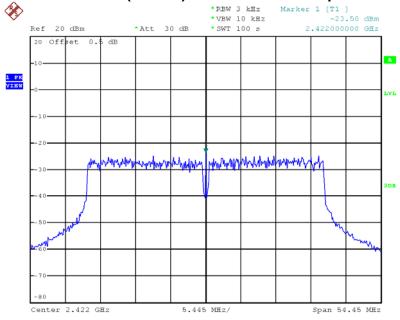


Date: 12.JUN.2014 18:23:01

EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A
Temperature	26°C	Relative Humidity	60%
Test Voltage	DC 48V		
Test Mode	IEEE 802.11n (40 MHz)/2422 MHz, 2437 MHz, 2452 MHz_ANT B		

Frequency	Power Density (dBm)	Limit (dBm)	Result
2422 MHz	-23.50	8	PASS
2437 MHz	-21.64	8	PASS
2452 MHz	-24.82	8	PASS

## IEEE 802.11n (40 MHz)/2422 MHz/Power Sepctral Density

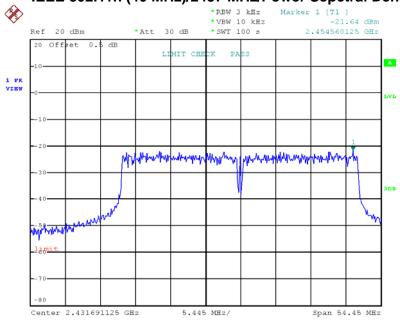


Date: 12.JUN.2014 18:37:27

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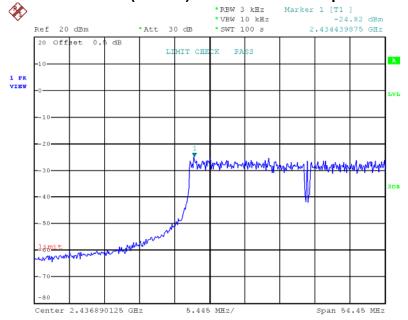


## IEEE 802.11n (40 MHz)/2437 MHz/Power Sepctral Density



Date: 12.JUN.2014 19:30:22

## IEEE 802.11n (40 MHz)/2452 MHz/Power Sepctral Density



Date: 12.JUN.2014 19:35:21

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EUT	Unified Wired-WLAN Walljack	Model Name	BJNGA-FB0003;JG971A
Temperature	26°C	Relative Humidity	60%
Test Voltage	DC 48V		
Test Mode	IEEE 802.11n (40 MHz)/2422 MHz, 2437 MHz, 2452 MHz_Total		

Frequency	Power Density (dBm)	Limit (dBm)	Result
2422 MHz	-21.48	8	PASS
2437 MHz	-19.28	8	PASS
2452 MHz	-22.81	8	PASS

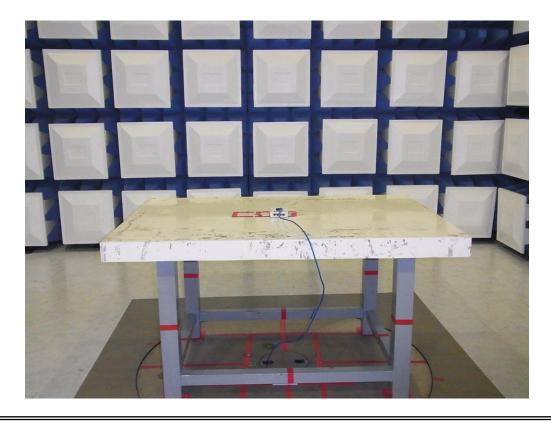
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# 10 EUT TEST PHOTO

## Radiated spurious emission test photos





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# **Conducted test photos**



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