

# Shenzhen Toby Technology Co., Ltd.

Report No.: TB-FCC152237

1 of 91 Page:

# **FCC Radio Test Report** FCC ID: 2ABES-KR1409

## **Original Grant**

Report No. TB-FCC152237

Pathway Innovations and Technologies, Inc. **Applicant** 

**Equipment Under Test (EUT)** 

**EUT Name Document Camera** 

Model No. KR1409 Nillo 100, N1300

Series No. N/A

**Brand Name** HoverCam

**Receipt Date** 2017-03-29

2017-03-30 to 2017-04-20 **Test Date** 

**Issue Date** 2017-04-21

**Standards** FCC Part 15, Subpart C (15.247:2016)

**Test Method** ANSI C63.10: 2013

**PASS Conclusions** 

In the configuration tested, the EUT complied with the standards specified above,

The EUT technically complies with the FCC and IC requirements

**Test/Witness Engineer** 

Approved&

the report.

**Authorized** 

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in

TB-RF-074-1.0

Fax: +86 75526509195 Tel: +86 75526509301



Page: 2 of 91

# Contents

COR	NIENIS	
1.	GENERAL INFORMATION ABOUT EUT	4
	1.1 Client Information	
	1.2 General Description of EUT (Equipment Under Test)	
	1.3 Block Diagram Showing the Configuration of System Tested	5
	1.4 Description of Support Units	5
	1.5 Description of Test Mode	6
	1.6 Description of Test Software Setting	7
	1.7 Measurement Uncertainty	7
	1.8 Test Facility	
2.	TEST SUMMARY	9
3.	TEST EQUIPMENT	10
4.	CONDUCTED EMISSION TEST	11
	4.1 Test Standard and Limit	11
	4.2 Test Setup	
	4.3 Test Procedure	
	4.4 EUT Operating Mode	12
	4.5 Test Data	
5.	RADIATED EMISSION TEST	17
	5.1 Test Standard and Limit	17
	5.2 Test Setup	
	5.3 Test Procedure	
	5.4 EUT Operating Condition	19
	5.5 Test Data	
6.	RESTRICTED BANDS REQUIREMENT	47
	6.1 Test Standard and Limit	47
	6.2 Test Setup	
	6.3 Test Procedure	47
	6.4 EUT Operating Condition	48
	6.5 Test Data	48
7.	BANDWIDTH TEST	69
	7.1 Test Standard and Limit	69
	7.2 Test Setup	
	7.3 Test Procedure	
	7.4 EUT Operating Condition	69
	7.5 Test Data	70
8.	PEAK OUTPUT POWER TEST	78
	8.1 Test Standard and Limit	78
	8.2 Test Setup	



Page: 3 of 91

	8.3 Test Procedure	78
	8.4 EUT Operating Condition	
	8.5 Test Data	
9.	POWER SPECTRAL DENSITY TEST	82
	9.1 Test Standard and Limit	82
	9.2 Test Setup	82
	9.3 Test Procedure	82
	9.4 EUT Operating Condition	82
	9.5 Test Data	83
10.	ANTENNA REQUIREMENT	91
	10.1 Standard Requirement	91
	10.2 Antenna Connected Construction	



Page: 4 of 91

## 1. General Information about EUT

#### 1.1 Client Information

**Applicant**: Pathway Innovations and Technologies, Inc.

Address : 10211 Pacific Mesa Blvd., #412, San Diego, CA 92121, USA

Manufacturer : ShenZhen KerunVisual Technology Co., Ltd.

Address : 6/F, Building 2, Zone S2, 1213 Liuxian Blvd Honghualing Industrial

Park Nanshan District, Shenzhen City, China

#### 1.2 General Description of EUT (Equipment Under Test)

EUT Name	:	Document Camera			
Models No.	:	KR1409 Nillo 100, N1300			
Model Difference	Ì	All these models are identical in the same PCB layout and electrical circuit, the only difference is model name for commercial.			
0.000		Operation Frequency:	802.11b/g/n(HT20): 2412MHz~2462MHz 802.11n(HT40): 2422MHz~2452MHz		
		Number of Channel:	802.11b/g/n(HT20):11 channels see note(3) 802.11n(HT40):9 channels see note(3)		
Product		RF Output Power:	802.11b: 16.54 dBm 802.11g: 15.45 dBm 802.11n (HT20): 14.37 dBm 802.11n (HT40): 14.25 dBm		
Description		Antenna Gain:	4.5 dBi FPC Antenna		
		Modulation Type:	802.11b: DSSS(CCK, DQPSK, DBPSK) 802.11g/n:OFDM(BPSK,QPSK,16QAM, 64QAM)		
		Bit Rate of Transmitter:	802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6 Mbps 802.11n:up to 150Mbps		
Power Supply	:	AC/DC Adapter (TDX-0902000): Input: AC 100~240V, 50/60Hz, 0.6A. Output: DC 9V, 2.0A.			
Connecting : Please refer to the User's Manual  I/O Port(S)		er's Manual			

#### Note:

- (1) This Test Report is FCC Part 15.247 for 802.11b/g/n, the test procedure follows the FCC KDB 558074 D01 DTS Meas Guidance v04.
- (2) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.



Page: 5 of 91

#### (3) Channel List:

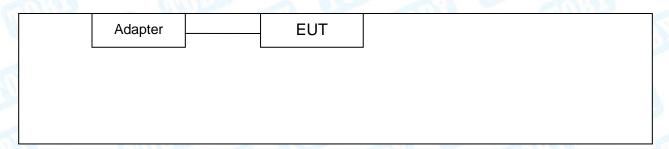
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	05	2432	09	2452
02	2417	06	2437	10	2457
03	2422	07	2442	11	2462
04	2427	08	2447		

Note:CH 01~CH 11 for 802.11b/g/n(HT20)

CH 03~CH 09 for 802.11n(HT40)

- (4) The Antenna information about the equipment is provided by the applicant.
- 1.3 Block Diagram Showing the Configuration of System Tested

#### TX Mode



## 1.4 Description of Support Units

The EUT has been test as an independent unit.



Page: 6 of 91

## 1.5 Description of Test Mode

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 follow was evaluated respectively.

For Conducted Test				
Final Test Mode Description				
Mode 1	Charging with TX B Mode			

For Radiated Test					
Final Test Mode	Description				
Mode 2	TX Mode B Mode Channel 01/06/11				
Mode 3	TX Mode G Mode Channel 01/06/11				
Mode 4	TX Mode N(HT20) Mode Channel 01/06/11				
Mode 5	TX Mode N(HT40) Mode Channel 03/06/09				

#### Note:

(1) For all test, we have verified the construction and function in typical operation. And all the test modes were carried out with the EUT in transmitting operation in maximum power with all kinds of data rate.

According to ANSI C63.10 standards, the measurements are performed at the highest, Middle, lowest available channels, and the worst case data rate as follows:

802.11b Mode: CCK (1 Mbps) 802.11g Mode: OFDM (6 Mbps)

802.11n (HT20) Mode: MCS 0 (6.5 Mbps) 802.11n (HT40) Mode: MCS 0 (13 Mbps)

- (2) During the testing procedure, the continuously transmitting with the maximum power mode was programmed by the customer.
- (3) The EUT is considered a fixed unit; in normal use it was positioned on X-plane. The worst case was found positioned on X-plane. Therefore only the test data of this X-plane was used for radiated emission measurement test.



Page: 7 of 91

## 1.6 Description of Test 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 power parameters of WLAN.

Test Software Version		N/A	
Channel	CH 01	CH 06	CH 11
IEEE 802.11b DSSS	DEF	DEF	DEF
IEEE 802.11g OFDM	DEF	DEF	DEF
IEEE 802.11n (HT20)	DEF	DEF	DEF
Channel	CH 03	CH 06	CH 09
IEEE 802.11n (HT40)	DEF	DEF	DEF

## 1.7 Measurement Uncertainty

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

Test Item	Parameters	Expanded Uncertainty (U <sub>Lab</sub> )
	Level Accuracy:	WY DEATH OF THE PROPERTY OF TH
Conducted Emission	9kHz~150kHz	±3.42 dB
	150kHz to 30MHz	±3.42 dB
Dedicted Engineer	Level Accuracy:	. 4 CO dD
Radiated Emission	9kHz to 30 MHz	±4.60 dB
Dedicted Emission	Level Accuracy:	. 4 40 dD
Radiated Emission	30MHz to 1000 MHz	±4.40 dB
Radiated Emission	Level Accuracy:	±4.20 dB
Radiated Emission	Above 1000MHz	±4.20 UB



Page: 8 of 91

## 1.8 Test Facility

The testing report were performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at 1A/F., Bldg.6, Yusheng Industrial Zone, The National Road No.107 Xixiang Section 467, Xixiang, Bao'an, Shenzhen, Guangdong, China. At the time of testing, the following bodies accredited the Laboratory:

#### **CNAS (L5813)**

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

#### FCC List No.: (811562)

The Laboratory is listed in the United States of American Federal Communications Commission (FCC), and the registration number is 811562.

#### IC Registration No.: (11950A-1)

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A-1.



Page: 9 of 91

# 2. Test Summary

	FCC Part	t 15 Subpart C(15.247)/ RSS 247	Issue 1	
Standa	rd Section	Test Item	ludament Bo	
FCC	IC	rest item	Judgment	Remark
15.203	1	Antenna Requirement	PASS	N/A
15.207	RSS-GEN 7.2.4	Conducted Emission	PASS	N/A
15.205	RSS-GEN 7.2.2	Restricted Bands	PASS	N/A
15.247(a)(2)	RSS 247 5.2 (1)	6dB Bandwidth	PASS	N/A
15.247(b)	RSS 247 5.4 (4)	Peak Output Power	PASS	N/A
15.247(e)	RSS 247 5.2 (2)	Power Spectral Density	PASS	N/A
15.247(d)	RSS 247 5.5	Band Edge	PASS	N/A
15.247(d)& 15.209	RSS 247 5.5	Transmitter Radiated Spurious Emission	PASS	N/A

Note: "/" for no requirement for this test item.

N/A is an abbreviation for Not Applicable.



Page: 10 of 91

# 3. Test Equipment

Conducte	d Emission Te	st			
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Jul. 22, 2016	Jul. 21, 2017
RF Switching Unit	Compliance Direction Systems Inc	RSU-A4	34403	Jul. 22, 2016	Jul. 21, 2017
AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Jul. 22, 2016	Jul. 21, 2017
LISN	Rohde & Schwarz	ENV216	101131	Jul. 22, 2016	Jul. 21, 2017
Radiation	Emission Tes	t			
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 22, 2016	Jul. 21, 2017
EMI Test Receiver	Rohde & Schwarz	ESPI	100010/007	Jul. 22, 2016	Jul. 21, 2017
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Mar. 25, 2017	Mar. 24, 2018
Bilog Antenna	ETS-LINDGREN	3142E	00117542	Mar. 25, 2017	Mar. 24, 2018
Horn Antenna	ETS-LINDGREN	3117	00143207	Mar. 25, 2017	Mar. 24, 2018
Horn Antenna	ETS-LINDGREN	3117	00143209	Mar. 25, 2017	Mar. 24, 2018
Loop Antenna	Laplace instrument	RF300	0701	Mar. 25, 2017	Mar. 24, 2018
Pre-amplifier	Sonoma	310N	185903	Mar. 24, 2017	Mar. 23, 2018
Pre-amplifier	HP	8449B	3008A00849	Mar. 29, 2017	Mar. 28, 2018
Cable	HUBER+SUHNER	100	SUCOFLEX	Mar. 29, 2017	Mar. 28, 2018
Positioning Controller	ETS-LINDGREN	2090	N/A	N/A	N/A
Antenna C	Conducted Em	ission			
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 22, 2016	Jul. 21, 2017
Spectrum Analyzer	Rohde & Schwarz	ESCI	100010/007	Jul. 22, 2016	Jul. 21, 2017
Power Meter	Anritsu	ML2495A	25406005	Jul. 22, 2016	Jul. 21, 2017
Power Sensor	Anritsu	ML2411B	25406005	Jul. 22, 2016	Jul. 21, 2017



Page: 11 of 91

## 4. Conducted Emission Test

#### 4.1 Test Standard and Limit

4.1.1Test Standard FCC Part 15.207

#### 4.1.2 Test Limit

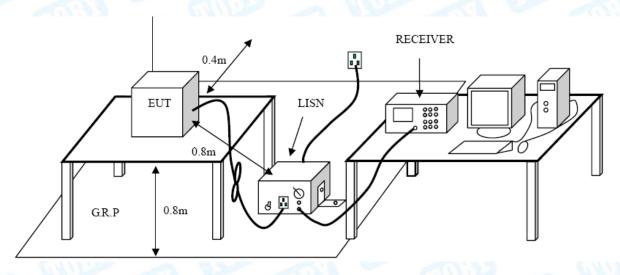
#### **Conducted Emission Test Limit**

Fragueney	Maximum RF Line Voltage (dBμV)		
Frequency	Quasi-peak Level	Average Level	
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *	
500kHz~5MHz	56	46	
5MHz~30MHz	60	50	

#### Notes:

- (1) \*Decreasing linearly with logarithm of the frequency.
- (2) The lower limit shall apply at the transition frequencies.
- (3) The limit decrease in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

### 4.2 Test Setup



#### 4.3 Test Procedure

The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/50uH of coupling impedance for the measuring instrument.

Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.



Page: 12 of 91

I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

LISN at least 80 cm from nearest part of EUT chassis.

The bandwidth of EMI test receiver is set at 9kHz, and the test frequency band is from 0.15MHz to 30MHz.

## 4.4 EUT Operating Mode

Please refer to the description of test mode.

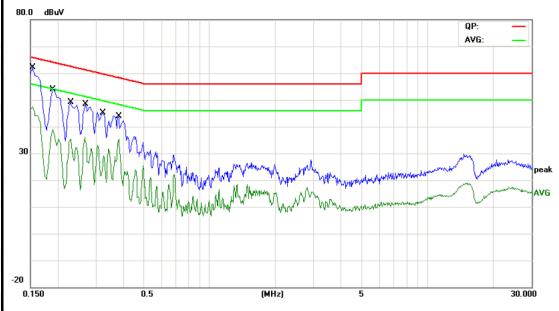
#### 4.5 Test Data

Please see the next page.



13 of 91 Page:

EUT:	Document Camera	Model Name :	KR1409 Nillo 100		
Temperature:	25 ℃	Relative Humidity:	55%		
Test Voltage:	AC 120V/60Hz				
Terminal:	Line				
Test Mode:	Charging with TX B Mode				
Remark: Only worse case is reported			1:13		
80.0 dBuV					



N.	NAI.		Reading	Correct	Measure-	Limit	Over	_
INO.	Mk.	Freq.	Level	Factor	ment	Liiiiii	Ovei	
		MHz	dBu∀	dB	dBu∨	dBu∀	dB	Detector
1	*	0.1539	48.60	9.93	58.53	65.78	-7.25	QP
2		0.1539	36.16	9.93	46.09	55.78	-9.69	AVG
3		0.1900	41.72	10.00	51.72	64.03	-12.31	QP
4		0.1900	28.56	10.00	38.56	54.03	-15.47	AVG
5		0.2300	36.20	10.02	46.22	62.45	-16.23	QP
6		0.2300	24.43	10.02	34.45	52.45	-18.00	AVG
7		0.2700	31.10	10.02	41.12	61.12	-20.00	QP
8		0.2700	23.00	10.02	33.02	51.12	-18.10	AVG
9		0.3183	30.41	10.02	40.43	59.75	-19.32	QP
10		0.3183	11.39	10.02	21.41	49.75	-28.34	AVG
11		0.3820	30.54	10.02	40.56	58.23	-17.67	QP
12		0.3820	25.10	10.02	35.12	48.23	-13.11	AVG



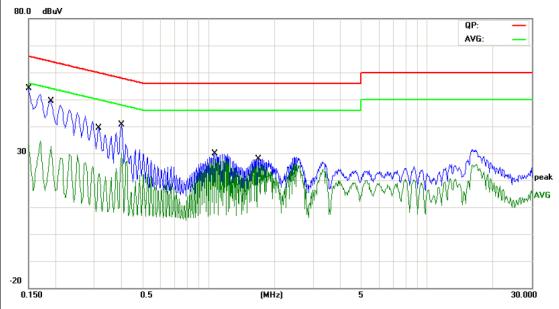
14 of 91 Page:

EUT:	Document	t Camera	<b>Model Name</b>	:	KR1409	Nillo 100			
Temperature:	25 ℃		Relative Hum	idity:	55%	Hill			
Test Voltage:	AC 120V/	60Hz	101	60	11:33				
Terminal:	Neutral		U.S.						
Test Mode: Charging with TX B Mode									
Remark: Only worse case is reported									
30 dBuV -20 0.150	0.5	(МН	2) 5	Www.ww	QP: AVG:	Deak AVG			
No. Mk. F		eading Corr evel Fac		Limit	Over				
1	VIHz (	dBu∀ dB	dBu∨	dBuV	dB	Detector			
1 * 0.	1539 4	6.81 9.9	3 56.74	65.78	-9.04	QP			
2 0.1	1539 3	0.24 9.9	3 40.17	55.78	-15.61	AVG			
3 0.	1780 4	2.86 9.9	8 52.84	64.57	-11.73	QP			
4 0.1	1780 2	6.60 9.9	8 36.58	54.57	-17.99	AVG			
5 0.	1980 4	0.72 10.0	2 50.74	63.69	-12.95	QP			
6 0.	1980 2	4.85 10.0	2 34.87	53.69	-18.82	AVG			
7 0.2	2220 3	7.93 10.0	2 47.95	62.74	-14.79	QP			
8 0.2	2220 2	2.90 10.0	2 32.92	52.74	-19.82	AVG			
9 0.2	2420 3	5.48 10.0	2 45.50	62.02	-16.52	QP			
10 0.2	2420 2	1.07 10.0	2 31.09	52.02	-20.93	AVG			
11 0.2	2660 3	2.28 10.0	2 42.30	61.24	-18.94	QP			
12 0.2	2660 1	8.26 10.0	2 28.28	51.24	-22.96	AVG			
Emission Level	= Read Lev	el+ Correct Fa	ctor						



Report No.: TB-FCC152237
Page: 15 of 91

EUT:	Document Camera	Model Name :	KR1409 Nillo 100
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	AC 240V/60Hz		133
Terminal:	Line		
Test Mode:	Charging with TX B Mode		a William
Remark:	Only worse case is reported		73 _ (1)
00 0 ID W			

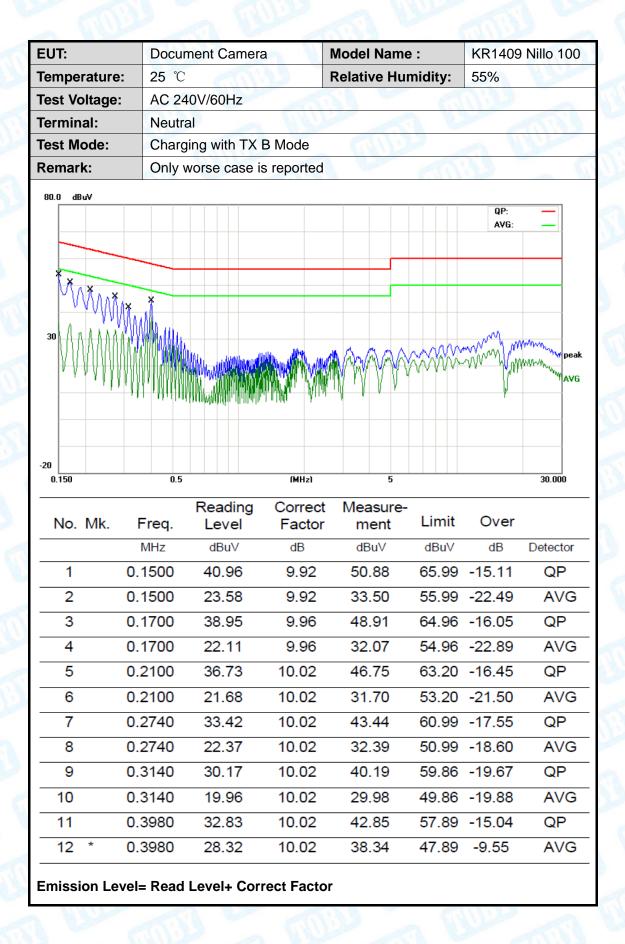


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∀	dB	dBu∀	dBu∀	dB	Detector
1	*	0.1500	41.44	10.12	51.56	65.99	-14.43	QP
2		0.1500	21.67	10.12	31.79	55.99	-24.20	AVG
3		0.1904	37.57	10.12	47.69	64.01	-16.32	QP
4		0.1904	18.59	10.12	28.71	54.01	-25.30	AVG
5		0.3140	25.97	10.08	36.05	59.86	-23.81	QP
6		0.3140	12.68	10.08	22.76	49.86	-27.10	AVG
7		0.3980	28.48	10.05	38.53	57.89	-19.36	QP
8		0.3980	20.40	10.05	30.45	47.89	-17.44	AVG
9		1.0700	18.03	10.15	28.18	56.00	-27.82	QP
10		1.0700	17.39	10.15	27.54	46.00	-18.46	AVG
11		1.6980	15.99	10.09	26.08	56.00	-29.92	QP
12		1.6980	15.09	10.09	25.18	46.00	-20.82	AVG



Page: 16 of 91

1		3Y	
			_





Page: 17 of 91

## 5. Radiated Emission Test

### 5.1 Test Standard and Limit

5.1.1 Test Standard FCC Part 15.209

5.1.2 Test Limit

#### Radiated Emission Limits (9 kHz~1000 MHz)

Frequency (MHz	Field Strength (microvolt/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

### Radiated Emission Limit (Above 1000MHz)

Frequency	Distance of 3m (dBuV/m)			
(MHz)	Peak	Average		
Above 1000	74	54		

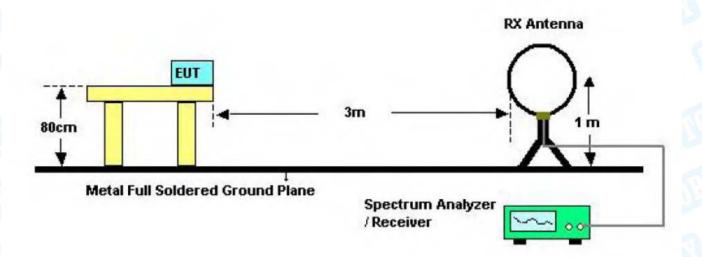
#### Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission Level(dBuV/m)=20log Emission Level(uV/m)

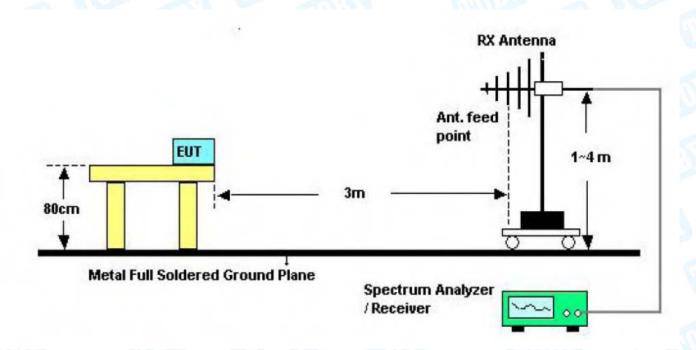


Page: 18 of 91

## 5.2 Test Setup



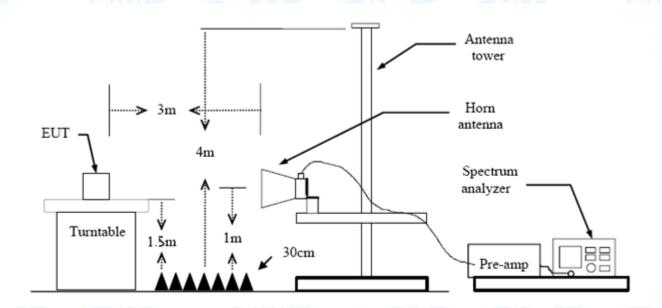
Below 30MHz Test Setup



Below 1000MHz Test Setup



Page: 19 of 91



Above 1GHz Test Setup

#### 5.3 Test Procedure

- (1) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.
- (2) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.
- (3) 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.
- (4) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (5) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (6) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (7) For the actual test configuration, please see the test setup photo.

## 5.4 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.



Page: 20 of 91

### 5.5 Test Data

Remark: During testing above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.

Test data please refer the following pages.



Page: 21 of 91

#### 9KHz~30MHz

From 9KHz to 30MHz: Conclusion: PASS

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

#### 30MHz~1GHz

	T:		Docu	ument	Came	ra	Model:		KR1409	Nillo 100	
Tei	nperati	ure:	25 °	C	111.		Relative I	Humidity:	55%	-	
Tes	st Volta	ge:	AC 1	AC 120V/60Hz				6111			
An	t. Pol.		Horiz	zontal							
Tes	st Mode	<b>)</b> :	TX E	3 Mode	2412	MHz					
Re	mark:		Only	worse	ecase	is reported		ALL DE		I WA	
80.	0 dBuV/m	1									
30	N-way March	LANCON MARINE	Jm ( <sub>v</sub> n	Alam Milli	1,744/4/	Hope Market Mark	2 X	(RF)FCC -	15C 3M Radiation Margin -6		
3	0.000 4	10 50	60	70 80		(MHz)	300	0 400 5	500 600 700	1000.000	
_	0.000 4	10 50	60		ading				600 600 700	1000.000	
_	0.000 4 No. MI		req.	Rea	ading evel	(MHz) Correct Factor	Measure ment		000 600 700 Over	1000.000	
_		k. F		Re:	_	Correct	Measure	-	Over	1000.000  Detector	
_		k. F	req.	Rea Le	evel	Correct Factor	Measure ment	- Limit	Over dB		
_	No. MI	k. F	req.	Rea Le	evel BuV	Correct Factor	Measure ment dBuV/m	- Limit dBuV/m	Over  dB  -9.96	Detector	
	No. MI	k. F 167 215	req. MHz .2366	Rea Le d	BuV 4.28	Correct Factor dB/m -20.74	Measure ment dBuV/m 33.54	Limit dBuV/m 43.50	Over  dB  -9.96  -12.09	Detector peak	
1 2	No. MI	k. F 167 215 382	req. MHz .2366	Red dd 54 50 52	BuV 4.28 0.73	Correct Factor dB/m -20.74 -19.32	Measure ment dBuV/m 33.54 31.41	Limit  dBuV/m  43.50	Over  dB  -9.96  -12.09  -6.89	Detector peak peak	
	No. MI	k. F 167 215 382 742	req. MHz .2366 .2676	Red dd 54 50 52	BuV 4.28 0.73 2.61	Correct Factor dB/m -20.74 -19.32 -13.50	Measure ment  dBuV/m  33.54  31.41  39.11	Limit  dBuV/m  43.50  43.50  46.00	Over  dB  -9.96  -12.09  -6.89  -7.26	Detector peak peak peak	

\*:Maximum data x:Over limit !:over margin



Page: 22 of 91

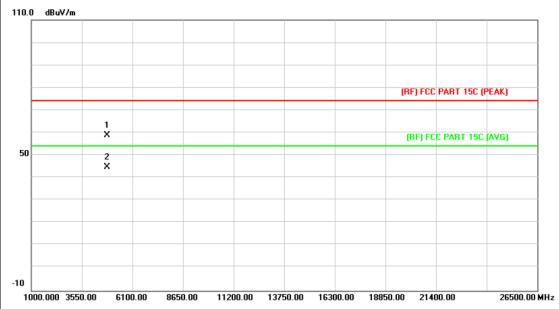
EUT:	Document Camera	Model:	KR1409 Nillo 100				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60Hz						
Ant. Pol.	Vertical						
Test Mode:	TX B Mode 2412MHz						
Remark:	Only worse case is rep	oorted	1:33				
80.0 dBuV/m							
30	1 2 3 1 × X	(RF)	JFCC 15C 3M Radiation Margin -6 dB				
30.000 40 5	0 60 70 80	MHz) 300 400	500 600 700 1000.00				
30.000 40 5	0 60 70 80 Reading Co	rrect Measure-					
30.000 40 5	Reading Co	rrect Measure- actor ment Lim	nit Over				
30.000 40 5 No. Mk.	Reading Co Freq. Level Fa	rrect Measure- actor ment Lim	nit Over				
No. Mk.	Reading Co Freq. Level Fa MHz dBuV dE 8.2667 58.94 -21	rrect Measure- actor ment Lim 3/m dBuV/m dBu 1.85 37.09 43.	nit Over V/m dB Detecto				
No. Mk.  1 10 2 ! 11	Reading Co Freq. Level Fa MHz dBuV dE 8.2667 58.94 -21 9.4360 62.11 -22	rrect Measure- actor ment Lim 3/m dBuV/m dBu 1.85 37.09 43. 2.42 39.69 43.	olit Over  V/m dB Detector  .50 -6.41 peak  .50 -3.81 peak				
No. Mk.  1 10 2 ! 11 3 ! 12	Reading Co Freq. Level Fa MHz dBuV dE 8.2667 58.94 -21 9.4360 62.11 -22 9.0146 61.77 -22	rrect Measure- actor ment Lim 3/m dBuV/m dBu 1.85 37.09 43. 2.42 39.69 43. 2.12 39.65 43.	olit Over    V/m   dB   Detector   .50   -6.41   peak   .50   -3.81   peak   .50   -3.85   peak				
No. Mk.  1 10 2 ! 11 3 ! 12 4 16	Reading Co Freq. Level Fa MHz dBuV dE 8.2667 58.94 -21 9.4360 62.11 -22 9.0146 61.77 -22 7.2366 57.95 -20	rrect Measure- actor ment Lim 3/m dBuV/m dBu 1.85 37.09 43. 2.42 39.69 43. 2.12 39.65 43. 0.74 37.21 43.	olit Over    V/m   dB   Detector   .50   -6.41   peak   .50   -3.81   peak   .50   -3.85   peak   .50   -6.29   peak				
No. Mk.  1 10 2 ! 11 3 ! 12 4 16 5 26	Reading Co Freq. Level Fa MHz dBuV dE 8.2667 58.94 -21 9.4360 62.11 -22 9.0146 61.77 -22 7.2366 57.95 -20 2.8955 56.58 -17	rrect Measure- actor ment Lim  B/m dBuV/m dBu  1.85 37.09 43.  2.42 39.69 43.  2.12 39.65 43.  2.74 37.21 43.  7.42 39.16 46.	olit Over    V/m   dB   Detector   .50   -6.41   peak   .50   -3.81   peak   .50   -3.85   peak				



Page: 23 of 91

#### **Above 1GHz**

EUT:	Document Camera	Model:	KR1409 Nillo 100				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz					
Ant. Pol.	Horizontal						
Test Mode:	TX B Mode 2412MHz						
Remark:	No report for the emission limit.	which more than 10 dB	B below the prescribed				

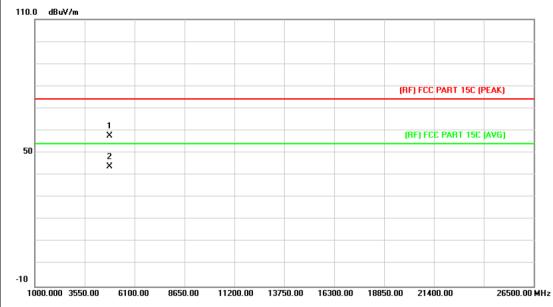


No	. Mk	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4823.355	45.21	13.56	58.77	74.00	-15.23	peak
2	*	4824.054	31.32	13.56	44.88	54.00	-9.12	AVG



Page: 24 of 91

	PERCENTING THE PROPERTY OF THE PERCENTY OF THE						
EUT:	Document Camera	Model:	KR1409 Nillo 100				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz					
Ant. Pol.	Vertical		1017				
Test Mode:	TX B Mode 2412MHz	COLUMN TO THE PARTY OF THE PART	7 1111				
Remark:	No report for the emission which more than 10 dB below the						
	prescribed limit.						

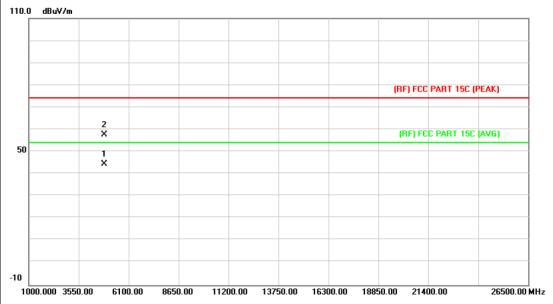


No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4823.409	44.08	13.56	57.64	74.00	-16.36	peak
2	*	4824.915	30.31	13.56	43.87	54.00	-10.13	AVG



Page: 25 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60Hz						
Ant. Pol.	Horizontal		TOP I				
Test Mode:	TX B Mode 2437MHz		TO WILL				
Remark:	No report for the emission which more than 10 dB below the						
	prescribed limit.						
1							

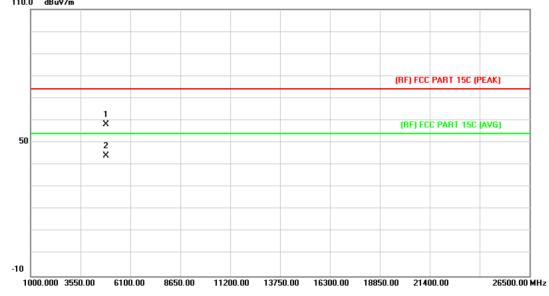


N	0.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
			MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1	,	k	4872.890	30.62	13.85	44.47	54.00	-9.53	AVG
2			4873.601	43.76	13.86	57.62	74.00	-16.38	peak



Page: 26 of 91

			1/5//00 1/11 /00					
EUT:	Document Camera	Model:	KR1409 Nillo 100					
Temperature:	<b>25</b> ℃	Relative Humidity:	55%					
Test Voltage:	AC 120V/60Hz		W. 33					
Ant. Pol.	Vertical	Vertical						
Test Mode:	TX B Mode 2437MHz		THE PARTY OF THE P					
Remark:	No report for the emiss prescribed limit.	ion which more than 10 d	B below the					
110.0 dBuV/m	'							



No	. Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4873.481	44.50	13.86	58.36	74.00	-15.64	peak
2	*	4874.630	30.41	13.86	44.27	54.00	-9.73	AVG



Page: 27 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60Hz	31 6	TIES .				
Ant. Pol.	Horizontal						
Test Mode:	TX B Mode 2462MHz		THE PARTY OF				
Remark:	No report for the emission which more than 10 dB below the prescribed limit.						



No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4924.102	44.98	14.15	59.13	74.00	-14.87	peak
2	*	4925.329	30.64	14.16	44.80	54.00	-9.20	AVG



Page: 28 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100					
Temperature:	25 ℃	Relative Humidity:	55%					
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz						
Ant. Pol.	Vertical	Vertical						
Test Mode:	TX B Mode 2462MHz							
Remark:	No report for the emission	No report for the emission which more than 10 dB below the						
	prescribed limit.							
i								



N	o. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4924.075	44.02	14.15	58.17	74.00	-15.83	peak
2	*	4925.014	30.66	14.16	44.82	54.00	-9.18	AVG



Page: 29 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100					
Temperature:	25 ℃	Relative Humidity:	55%					
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz						
Ant. Pol.	Horizontal	Horizontal						
Test Mode:	TX G Mode 2412MHz							
Remark:	No report for the emission	No report for the emission which more than 10 dB below the						
	prescribed limit.							



No	. Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4823.859	44.26	13.56	57.82	74.00	-16.18	peak
2	*	4823.997	31.50	13.56	45.06	54.00	-8.94	AVG



Page: 30 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100					
Temperature:	<b>25</b> ℃	Relative Humidity:	55%					
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz						
Ant. Pol.	Vertical	Vertical						
Test Mode:	TX G Mode 2412MHz		THE PARTY OF THE P					
Remark:	No report for the emission which more than 10 dB below the							
	prescribed limit.							
i								

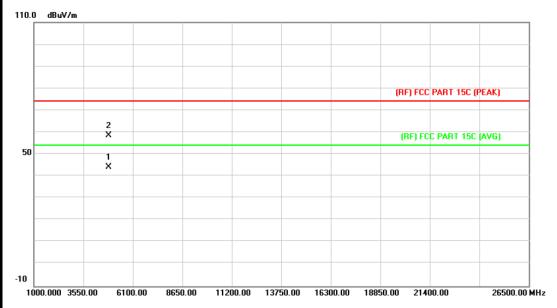


	No.	Mk.	Freq.	_		Measure- ment	Limit	Over	
			MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		*	4823.976	31.32	13.56	44.88	54.00	-9.12	AVG
2			4824.798	44.51	13.56	58.07	74.00	-15.93	peak



Page: 31 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	oltage: AC 120V/60Hz					
Ant. Pol.	Horizontal	Horizontal				
Test Mode:	TX G Mode 2437MHz		A VIII			
Remark:	No report for the emission	No report for the emission which more than 10 dB below the				
	prescribed limit.					

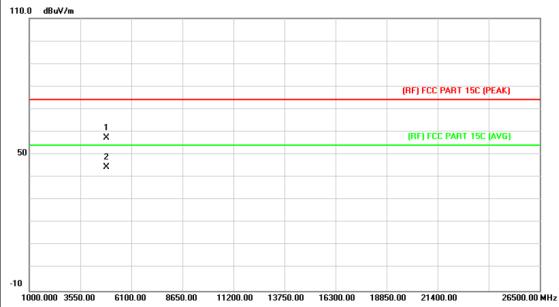


N	lo.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
			MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		*	4873.706	30.37	13.86	44.23	54.00	-9.77	AVG
2			4875.473	44.75	13.87	58.62	74.00	-15.38	peak



Page: 32 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage: AC 120V/60Hz							
Ant. Pol.	Vertical						
Test Mode:	TX G Mode 2437MHz						
Remark:	No report for the emission prescribed limit.	No report for the emission which more than 10 dB below the prescribed limit.					

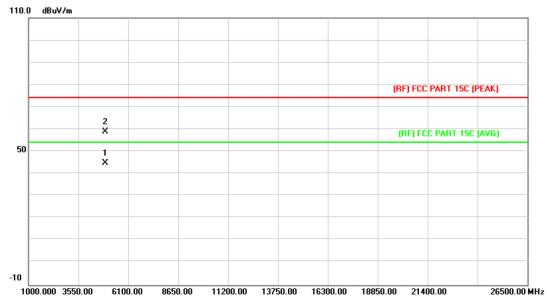


No	. Mk	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4873.853	43.46	13.86	57.32	74.00	-16.68	peak
2	*	4874.342	30.47	13.86	44.33	54.00	-9.67	AVG



Page: 33 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100		
Temperature:	25 ℃	Relative Humidity:	55%		
Test Voltage: AC 120V/60Hz					
Ant. Pol.	Horizontal				
Test Mode:	TX G Mode 2462MHz		THE PARTY OF THE P		
Remark:	No report for the emission which more than 10 dB below the				
prescribed limit.					

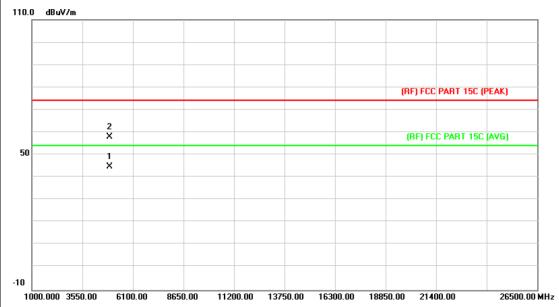


No	. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4922.587	30.62	14.14	44.76	54.00	-9.24	AVG
2		4923.868	44.85	14.15	59.00	74.00	-15.00	peak



Page: 34 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage: AC 120V/60Hz						
Ant. Pol.	Vertical	Vertical				
Test Mode:	TX G Mode 2462MHz		THE REAL PROPERTY OF THE PARTY			
Remark:	No report for the emissio prescribed limit.	No report for the emission which more than 10 dB below the prescribed limit.				



No	. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4924.813	30.74	14.15	44.89	54.00	-9.11	AVG
2		4925.227	43.81	14.16	57.97	74.00	-16.03	peak



Page: 35 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage: AC 120V/60Hz							
Ant. Pol.	Horizontal	Horizontal					
Test Mode:	TX N(HT20) Mode 2412N	1Hz					
Remark:	No report for the emission which more than 10 dB below the						
	prescribed limit.	prescribed limit.					

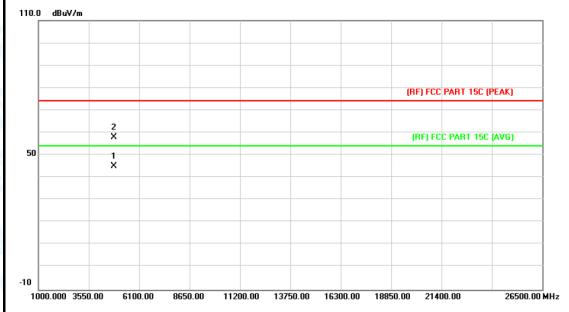


No	. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4823.523	44.49	13.56	58.05	74.00	-15.95	peak
2	*	4823.901	31.36	13.56	44.92	54.00	-9.08	AVG



Page: 36 of 91

	KR1409 Nillo 100				
e Humidity:	EE0/				
	55%				
Test Voltage: AC 120V/60Hz					
Vertical					
	3				
No report for the emission which more than 10 dB below the					
a live					
	ore than 10 dB l				

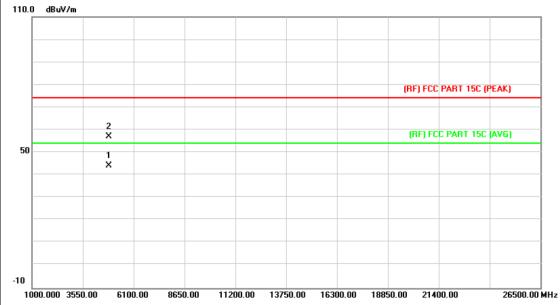


N	No.	Mk.	Freq.			Measure- ment	Limit	Over	
			MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		*	4824.075	31.38	13.56	44.94	54.00	-9.06	AVG
2			4824.366	44.37	13.56	57.93	74.00	-16.07	peak



Page: 37 of 91

ument Camera	Model:	KR1409 Nillo 100			
C	Relative Humidity:	55%			
AC 120V/60Hz					
Horizontal					
N(HT20) Mode 243	7MHz	THE PARTY OF THE P			
eport for the emiss scribed limit.	ion which more than 10 dE	3 below the			



No	o. Mk	. Freq.	_		Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4874.471	30.40	13.86	44.26	54.00	-9.74	AVG
2		4875.008	43.05	13.87	56.92	74.00	-17.08	peak



Page: 38 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz				
Ant. Pol.	Vertical					
Test Mode:	TX N(HT20) Mode 2437N	ЛНz				
Remark:	No report for the emission	No report for the emission which more than 10 dB below the				
prescribed limit.						



No	o. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4874.534	30.56	13.86	44.42	54.00	-9.58	AVG
2		4875.083	43.86	13.87	57.73	74.00	-16.27	peak



Page: 39 of 91

			WILL				
EUT:	Document Camera	Model:	KR1409 Nillo 100				
Temperature:	<b>25</b> ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60Hz		133				
Ant. Pol.	Horizontal						
Test Mode:	TX N(HT20) Mode 2462	MHz	A WILL				
Remark:	No report for the emission prescribed limit.	on which more than 10 dB	below the				
110.0 dBuV/m							



No	. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4924.327	44.63	14.15	58.78	74.00	-15.22	peak
2	*	4925.005	30.74	14.16	44.90	54.00	-9.10	AVG



Page: 40 of 91

Document Camera Model: KR1409		KR1409 Nillo 100		
5 °C	Relative Humidity: 55%			
AC 120V/60Hz				
Vertical				
( N(HT20) Mode 2462MHz	z (MI)DE	a William		
o report for the emission we escribed limit.	hich more than 10 dB	below the		
	C 120V/60Hz ertical ( N(HT20) Mode 2462MH: o report for the emission w	c 120V/60Hz ertical ( N(HT20) Mode 2462MHz o report for the emission which more than 10 dB		

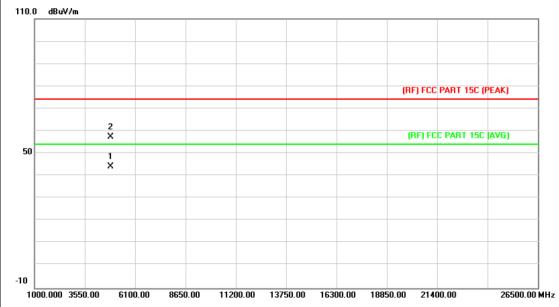


No	. Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4922.935	44.30	14.14	58.44	74.00	-15.56	peak
2	*	4924.582	30.60	14.15	44.75	54.00	-9.25	AVG



Page: 41 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage: AC 120V/60Hz						
Ant. Pol.	Horizontal	Horizontal				
Test Mode:	TX N(HT40) Mode 2422l	MHz				
Remark: No report for the emission which more than 10 dB below the prescribed limit.						

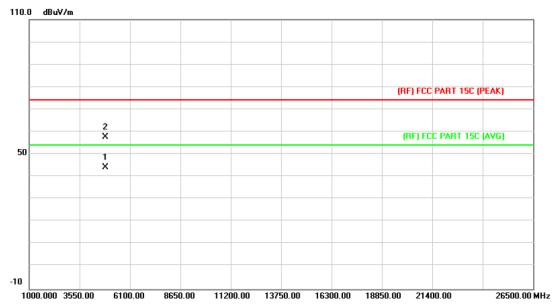


No	o. MI	k. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4844.108	30.34	13.68	44.02	54.00	-9.98	AVG
2		4845.455	43.62	13.69	57.31	74.00	-16.69	peak



Page: 42 of 91

EUT:	Document Camera Model: KR1		KR1409 Nillo 100			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	AC 120V/60Hz					
Ant. Pol.	Vertical	Vertical				
Test Mode:	TX N(HT40) Mode 2422MH	z	2 Mills			
Remark:	No report for the emission w prescribed limit.	hich more than 10 dB	below the			

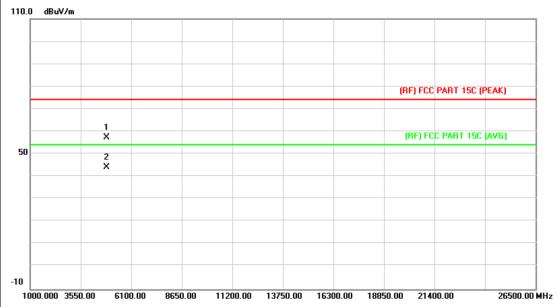


	No.	Mk.	Freq.			Measure- ment	Limit	Over	
			MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		*	4842.563	30.44	13.67	44.11	54.00	-9.89	AVG
2	-		4844.150	44.03	13.68	57.71	74.00	-16.29	peak



Page: 43 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60Hz						
Ant. Pol.	Horizontal	Horizontal					
Test Mode:	TX N(HT40) Mode 2437N	1Hz	A VIII				
Remark:	No report for the emission	which more than 10 de	B below the				
	prescribed limit.						
1100 10 10							

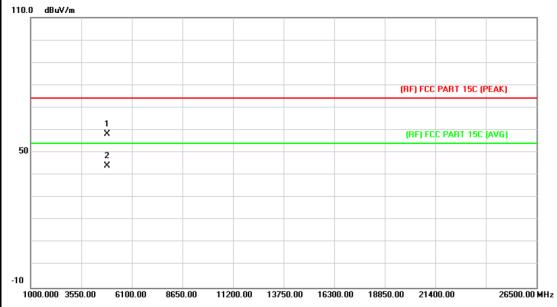


No	. Mk	. Freq.			Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4873.631	43.49	13.86	57.35	74.00	-16.65	peak
2	*	4874.558	30.35	13.86	44.21	54.00	-9.79	AVG



Page: 44 of 91

	Model:	KR1409 Nillo 100				
25 ℃	Relative Humidity:	55%				
AC 120V/60Hz						
Vertical						
TX N(HT40) Mode 2437MH	-lz	A VIVI				
No report for the emission which more than 10 dB below the prescribed limit.						
1	AC 120V/60Hz Vertical TX N(HT40) Mode 2437Mh No report for the emission	AC 120V/60Hz  Vertical  TX N(HT40) Mode 2437MHz  No report for the emission which more than 10 dE				

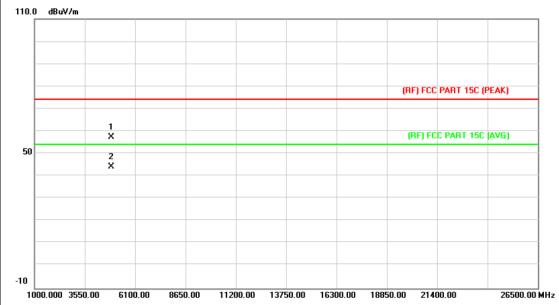


No	o. Mi	k. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4874.618	44.32	13.86	58.18	74.00	-15.82	peak
2	*	4875.419	30.39	13.87	44.26	54.00	-9.74	AVG



Page: 45 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100					
Temperature:	25 ℃	Relative Humidity:	55%					
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz						
Ant. Pol.	Horizontal	Horizontal						
Test Mode:	TX N(HT40) Mode 2452	TX N(HT40) Mode 2452MHz						
Remark:	No report for the emission	No report for the emission which more than 10 dB below the						
	prescribed limit.							

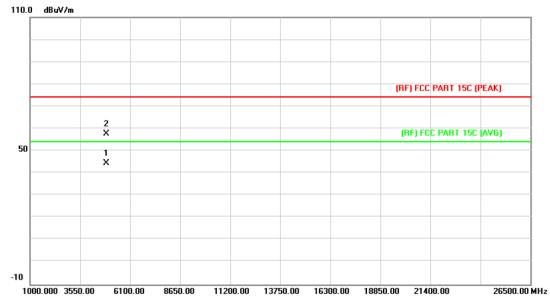


No	o. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4903.112	43.45	14.03	57.48	74.00	-16.52	peak
2	*	4903.466	30.27	14.03	44.30	54.00	-9.70	AVG



Page: 46 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60Hz						
Ant. Pol.	Vertical	Vertical					
Test Mode:	TX N(HT40) Mode 2452M	TX N(HT40) Mode 2452MHz					
Remark:	No report for the emission	No report for the emission which more than 10 dB below the					
	prescribed limit.						



N	No.	Mk.	Freq.	_		Measure- ment	Limit	Over	
			MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		*	4902.986	30.35	14.02	44.37	54.00	-9.63	AVG
2			4904.549	43.64	14.03	57.67	74.00	-16.33	peak



Page: 47 of 91

# 6. Restricted Bands Requirement

#### 6.1 Test Standard and Limit

6.1.1 Test Standard

FCC Part 15.247(d)

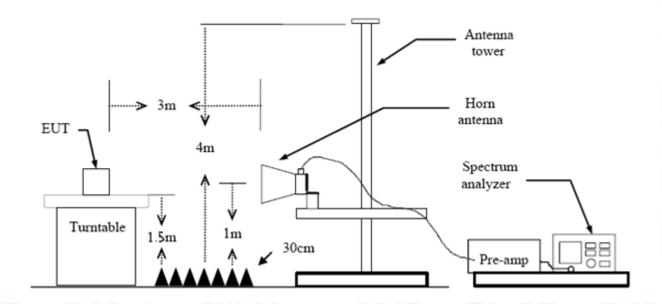
FCC Part 15.209

FCC Part 15.205

6.1.2 Test Limit

Restricted Frequency	Distance of	3m (dBuV/m)
Band (MHz)	Peak	Average
2310 ~2390	74	54
2483.5 ~2500	74	54

### 6.2 Test Setup



#### 6.3 Test Procedure

- (1) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz and above 1 GHz. The EUT was placed on a rotating 0.8m high above ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- (2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.



Page: 48 of 91

(3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.

- (4) 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.
- (5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (8) For the actual test configuration, please see the test setup photo.

### 6.4 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.

#### 6.5 Test Data

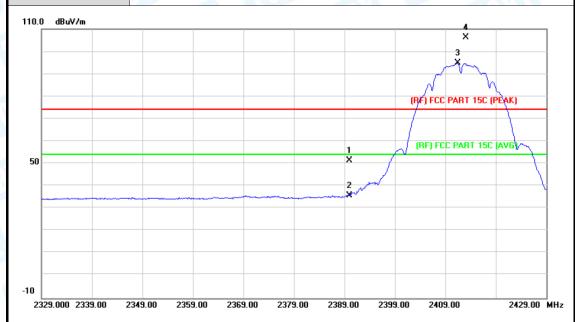
Please see the next page.



Page: 49 of 91

## (1) Radiation Test

EUT:	Document Camera	Model: KR1409 Nill					
Temperature:	25 ℃	Relative Humidity: 55%					
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz					
Ant. Pol.	Horizontal		THE PARTY OF THE P				
Test Mode:	TX B Mode 2412MHz	TX B Mode 2412MHz					
Remark:	N/A						

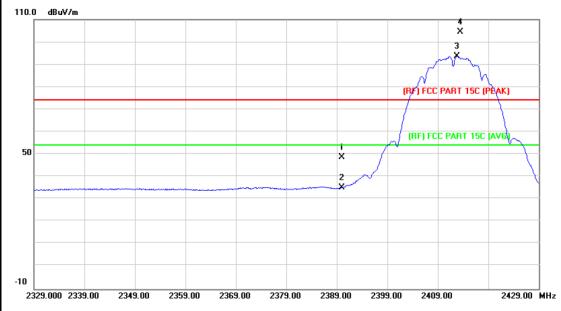


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	50.60	0.77	51.37	74.00	-22.63	peak
2		2390.000	35.02	0.77	35.79	54.00	-18.21	AVG
3	*	2411.400	93.91	0.86	94.77	Fundamental F	requency	AVG
4	X	2413.100	105.51	0.86	106.37	Fundamental F	requency	peak



Page: 50 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz	33	11:33
Ant. Pol.	Vertical		
Test Mode:	TX B Mode 2412MHz		
Remark:	N/A		33 _ 0

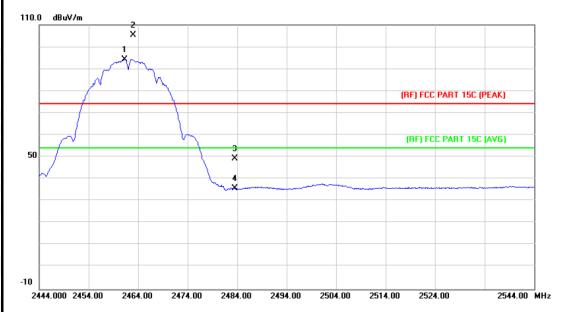


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	47.86	0.77	48.63	74.00	-25.37	peak
2		2390.000	34.44	0.77	35.21	54.00	-18.79	AVG
3	*	2412.800	92.71	0.86	93.57	Fundamental	Frequency	AVG
4	Χ	2413.400	103.51	0.86	104.37	Fundamental	Frequency	peak



Page: 51 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz		11:33
Ant. Pol.	Horizontal		
Test Mode:	TX B Mode 2462MHz		
Remark:	N/A		133

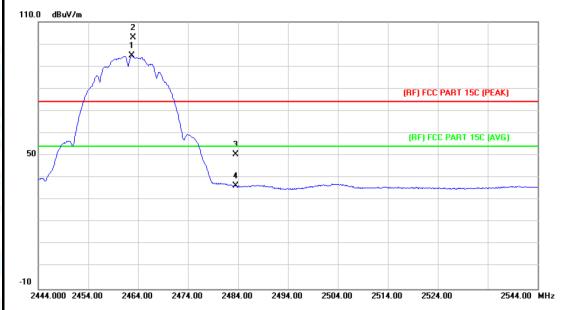


No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	2461.300	93.27	1.07	94.34	Fundamental	Frequency	AVG
2	Χ	2463.000	104.25	1.08	105.33	Fundamental	Frequency	peak
3		2483.500	48.20	1.17	49.37	74.00	-24.63	peak
4		2483.500	34.54	1.17	35.71	54.00	-18.29	AVG



Page: 52 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100
Temperature:	<b>25</b> ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz	31	TIES OF
Ant. Pol.	Vertical		
Test Mode:	TX B Mode 2462MHz		
Remark:	N/A		35 _ 6

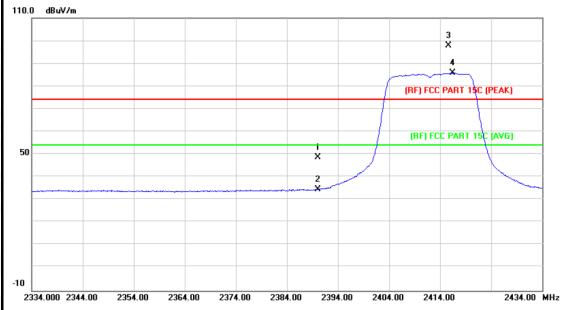


No	o. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	2462.700	93.65	1.08	94.73	Fundamental	Frequency	AVG
2	X	2463.000	101.79	1.08	102.87	Fundamental	Frequency	peak
3		2483.500	49.38	1.17	50.55	74.00	-23.45	peak
4		2483.500	35.05	1.17	36.22	54.00	-17.78	AVG



Page: 53 of 91

Document Camera	Madali						
	Model:	KR1409 Nillo 100					
25 ℃ Relative Humidity: 55%							
Test Voltage: AC 120V/60Hz							
Ant. Pol. Horizontal							
TX G Mode 2412MHz		THE PARTY OF THE P					
N/A		33 _ (					
		3					
	25 ℃ AC 120V/60Hz Horizontal TX G Mode 2412MHz	25 °C Relative Humidity:  AC 120V/60Hz Horizontal  TX G Mode 2412MHz					

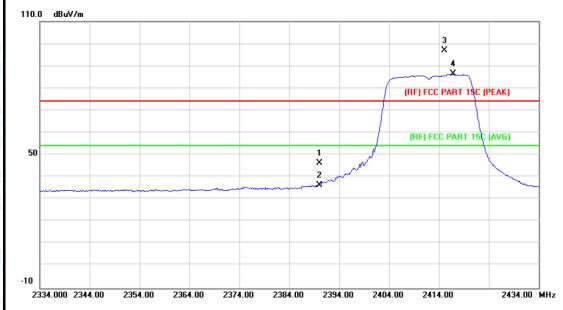


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	47.95	0.77	48.72	74.00	-25.28	peak
2		2390.000	33.71	0.77	34.48	54.00	-19.52	AVG
3	Χ	2415.700	96.97	0.88	97.85	— Fundamenta	I Frequency	peak
4	*	2416.400	84.84	0.88	85.72	Fundamenta	ıl Frequency	AVG



Page: 54 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100
Temperature:	<b>25</b> ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz		
Ant. Pol.	Vertical		Circum.
Test Mode:	TX G Mode 2412MHz	WILL SE	J. HILL
Remark:	N/A		73 _ [0]

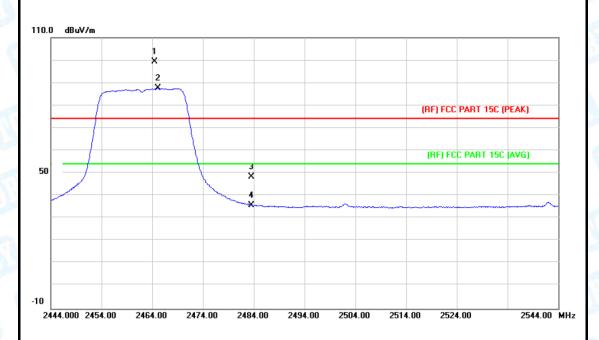


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	45.52	0.77	46.29	74.00	-27.71	peak
2		2390.000	35.59	0.77	36.36	54.00	-17.64	AVG
3	X	2415.100	95.97	0.88	96.85	 Fundamenta	l Frequency	peak
4	*	2416.900	85.43	0.88	86.31	- Fundamenta	l Frequency	AVG



Page: 55 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60Hz						
Ant. Pol.	Horizontal						
Test Mode:	TX G Mode 2462MHz						
Remark:	N/A		33				

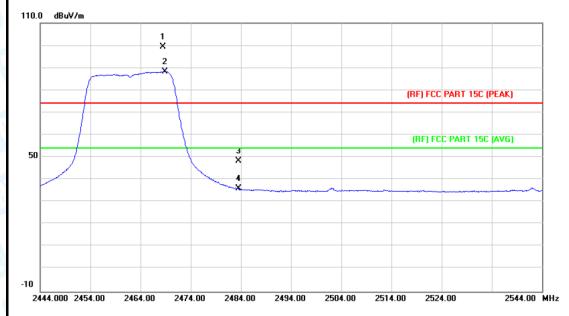


1	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
			MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		X	2464.400	98.16	1.08	99.24	Fundamental	Frequency	peak
2		*	2465.200	86.43	1.09	87.52	Fundamental	Frequency	AVG
3			2483.500	47.05	1.17	48.22	74.00	-25.78	peak
4			2483.500	34.68	1.17	35.85	54.00	-18.15	AVG



Page: 56 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60Hz						
Ant. Pol.	Vertical						
Test Mode:	TX G Mode 2462MHz	WILLIAM STATE	2 1111				
Remark:	N/A						

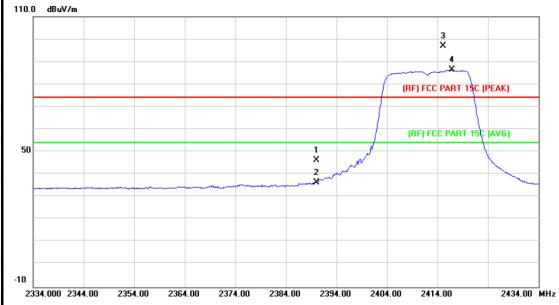


No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	2468.500	98.10	1.11	99.21	Fundamental	Frequency	peak
2	*	2468.900	87.21	1.11	88.32	Fundamental	Frequency	AVG
3		2483.500	47.15	1.17	48.32	74.00	-25.68	peak
4		2483.500	34.90	1.17	36.07	54.00	-17.93	AVG



Page: 57 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100					
Temperature:	25 ℃	Relative Humidity:	55%					
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz						
Ant. Pol.	Horizontal							
Test Mode:	TX N(HT20) Mode 2412MH	TX N(HT20) Mode 2412MHz						
Remark:	N/A							

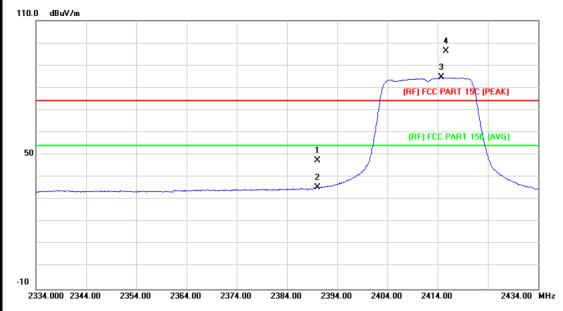


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	47.96	0.77	48.73	74.00	-25.27	peak
2		2390.000	35.97	0.77	36.74	54.00	-17.26	AVG
3	*	2414.700	84.64	0.88	85.52	Fundamental	Frequency	AVG
4	Χ	2417.900	96.42	0.89	97.31	Fundamental	Frequency	peak



Page: 58 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100					
Temperature:	25 ℃	Relative Humidity:	55%					
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz						
Ant. Pol.	Vertical							
Test Mode:	TX N(HT20) Mode 2412M	TX N(HT20) Mode 2412MHz						
Remark:	N/A		: P					

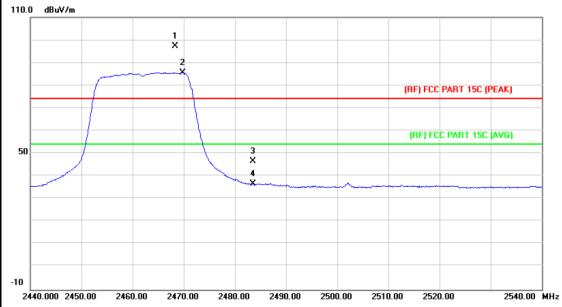


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	46.58	0.77	47.35	74.00	-26.65	peak
2		2390.000	34.69	0.77	35.46	54.00	-18.54	AVG
3	*	2414.700	83.70	0.88	84.58	 Fundamental	Frequency	AVG
4	Χ	2415.700	95.37	0.88	96.25	- Fundamental	Frequency	peak



Page: 59 of 91

EUT:	Document Camera Model: KR1409 N						
Temperature:	25 ℃ Relative Humidity: 55%						
Test Voltage:	AC 120V/60Hz						
Ant. Pol.	Horizontal		TOTAL S				
Test Mode:	TX N(HT20) Mode 2462MHz						
Remark:	N/A						
	'						

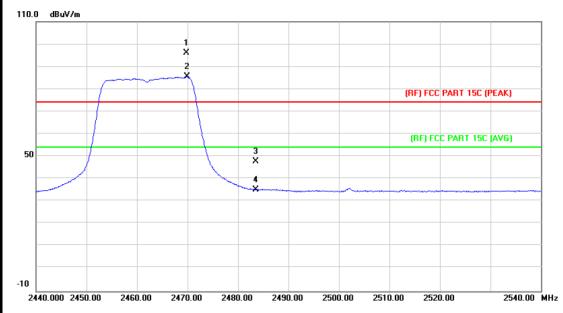


No.	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	2468.300	96.24	1.11	97.35	Fundamental F	-requency	peak
2	*	2469.800	84.54	1.11	85.65	Fundamental F	-requency	AVG
3		2483.500	45.24	1.17	46.41	74.00	-27.59	peak
4		2483.500	35.41	1.17	36.58	54.00	-17.42	AVG



Page: 60 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100					
Temperature:	<b>25</b> ℃	25 ℃ Relative Humidity:						
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz						
Ant. Pol.	Vertical							
Test Mode:	TX N(HT20) Mode 2462M	Hz	THE PARTY OF THE P					
Remark:	N/A							

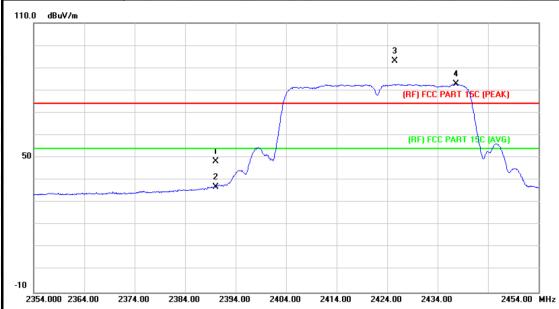


No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	2469.800	94.83	1.11	95.94	Fundamental F	requency	peak
2	*	2469.900	84.44	1.11	85.55	Fundamental Frequency		AVG
3		2483.500	46.67	1.17	47.84	74.00	-26.16	peak
4		2483.500	34.11	1.17	35.28	54.00	-18.72	AVG



Page: 61 of 91

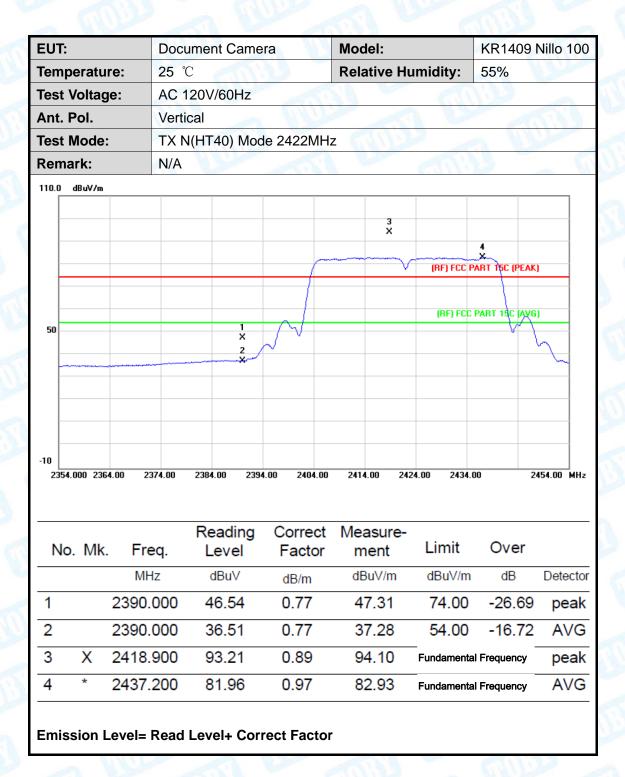
EUT:	Document Camera	Model:	KR1409 Nillo 100					
Temperature:	25 ℃	Relative Humidity:	55%					
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz						
Ant. Pol.	Horizontal		TOTAL STATE					
Test Mode:	TX N(HT40) Mode 2452MH	z						
Remark:	N/A							



N	o. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	47.64	0.77	48.41	74.00	-25.59	peak
2		2390.000	36.21	0.77	36.98	54.00	-17.02	AVG
3	X	2425.600	92.10	0.93	93.03	Fundamental	Frequency	peak
4	*	2437.700	81.85	0.98	82.83	- Fundamental	Frequency	AVG



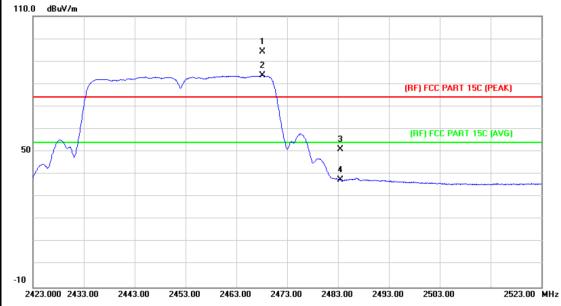
Page: 62 of 91





Page: 63 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100					
Temperature:	25 ℃	Relative Humidity:	55%					
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz						
Ant. Pol.	Horizontal							
Test Mode:	TX N(HT40) Mode 2452M	Hz						
Remark:	N/A							

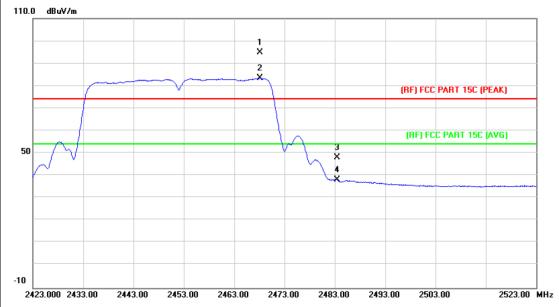


No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1	Χ	2468.100	93.05	1.11	94.16	Fundamental	Frequency	peak
2	*	2468.200	82.65	1.11	83.76	Fundamental	Frequency	AVG
3		2483.500	49.94	1.17	51.11	74.00	-22.89	peak
4		2483.500	36.43	1.17	37.60	54.00	-16.40	AVG

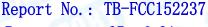


Page: 64 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100	
Temperature:	25 ℃	Relative Humidity:	55%	
Test Voltage:	AC 120V/60Hz			
Ant. Pol.	Vertical			
Test Mode:	TX N(HT40) Mode 2452MHz			
Remark:	N/A		:33	
	•			



No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1	Χ	2468.100	93.61	1.11	94.72	Fundamental	Frequency	peak
2	*	2468.200	82.27	1.11	83.38	Fundamental	Frequency	AVG
3		2483.500	46.94	1.17	48.11	74.00	-25.89	peak
4		2483.500	36.85	1.17	38.02	54.00	-15.98	AVG

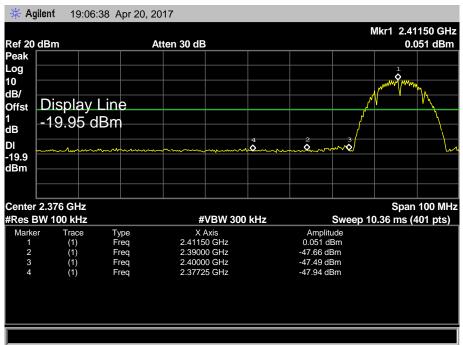


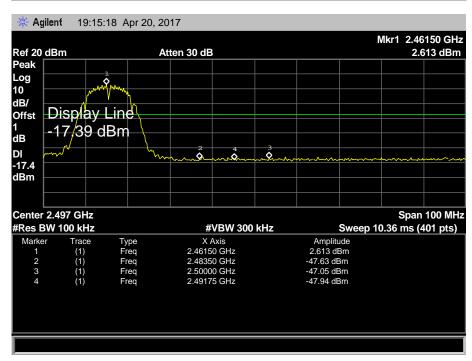


Page: 65 of 91

## (2) Conducted Test

EUT:	Document Camera	Model:	KR1409 Nillo 100	
Temperature:	25 ℃	Relative Humidity:	55%	
Test Voltage:	AC 120V/60Hz			
Test Mode:	TX B Mode 2412MHz / TX B Mode 2462MHz			
Remark:	The EUT is programed in continuously transmitting mode			



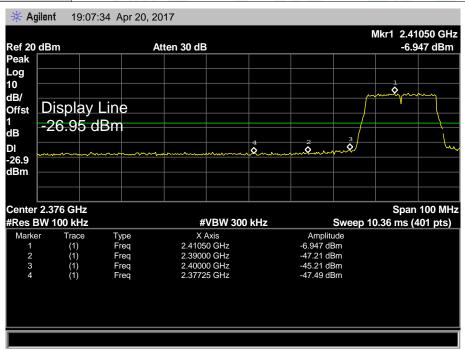


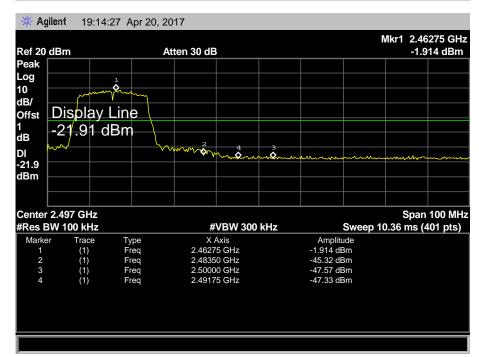


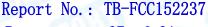


Page: 66 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100	
Temperature:	25 ℃	Relative Humidity:	55%	
Test Voltage:	AC 120V/60Hz			
Test Mode:	TX G Mode 2412MHz / TX G Mode 2462MHz			
Remark:	The EUT is programed in continuously transmitting mode			



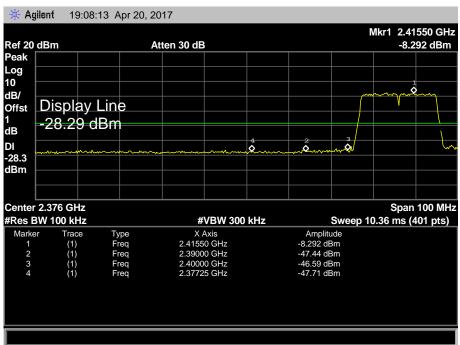


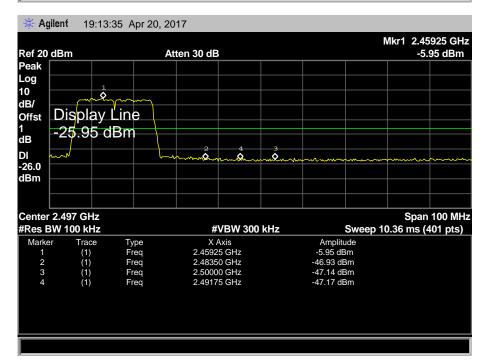




Page: 67 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100		
Temperature:	25 ℃	Relative Humidity:	55%		
Test Voltage:	AC 120V/60Hz				
Test Mode:	TX N(HT20) Mode 2412MHz / TX N(HT20) Mode 2462MHz				
Remark:	The EUT is programed in continuously transmitting mode				



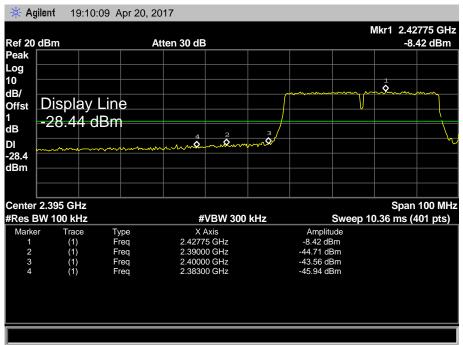


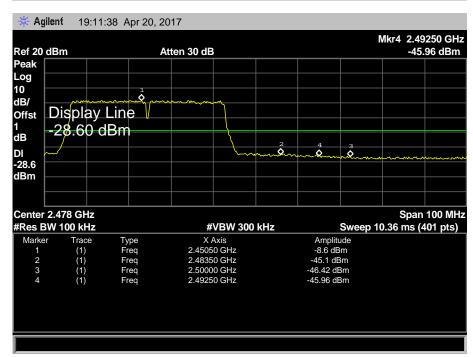




Page: 68 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100		
Temperature:	25 ℃	Relative Humidity:	55%		
Test Voltage:	AC 120V/60Hz				
Test Mode:	TX N(HT40) Mode 2422MHz / TX N(HT40) Mode 2452MHz				
Remark:	The EUT is programed in continuously transmitting mode				
	, ,				







Page: 69 of 91

## 7. Bandwidth Test

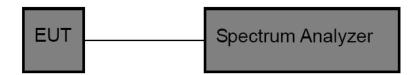
#### 7.1 Test Standard and Limit

7.1.1 Test Standard FCC Part 15.247 (a)(2)

7.1.2 Test Limit

FCC Part 15 Subpart C(15.247)/RSS-210					
Test Item Limit Frequency Range					
Bandwidth	>=500 KHz (6dB bandwidth)	2400~2483.5			

## 7.2 Test Setup



#### 7.3 Test Procedure

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) The bandwidth is measured at an amplitude level reduced 6dB from the reference level. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency. Once the reference level is established, the equipment is conditioned with typical modulating signal to produce the worst –case (i.e the widest) bandwidth.
- (3)Measure the channel separation the spectrum analyzer was set to Resolution Bandwidth:100 kHz, and Video Bandwidth:300 kHz, Detector: Peak, Sweep Time set auto.

## 7.4 EUT Operating Condition

The EUT was set to continuously transmitting in each mode and low, Digital photo framesdle and high channel for the test.



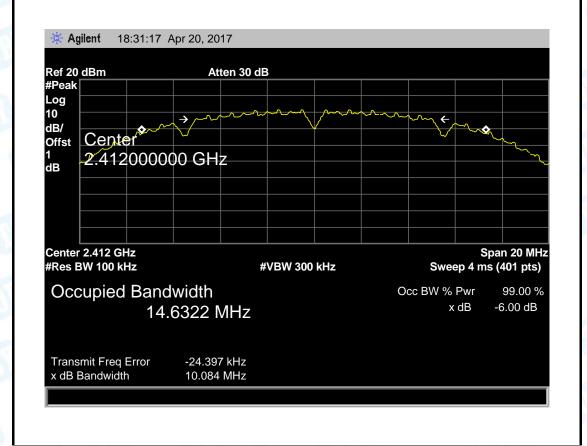
Page: 70 of 91

## 7.5 Test Data

EUT:	Document Camera	Model:	KR1409 Nillo 100
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz		
Test Mode:	TX 802.11B Mode	A CHUISE	a u
Channel frequence	cy 6dB Bandwidth	99% Bandwidth	Limit
(MHz)	(MHz)	(MHz)	(MHz)
2412	10.084	14.6322	
2437	10.070	14.5797	>=0.5
2462	10.069	14.5493	

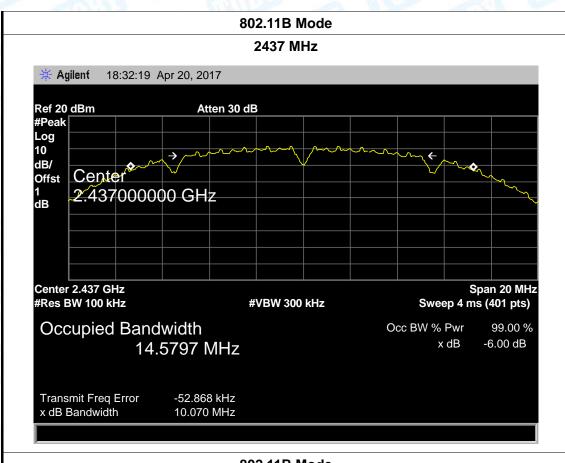
#### 802.11B Mode

#### 2412 MHz





Report No.: TB-FCC152237 Page: 71 of 91



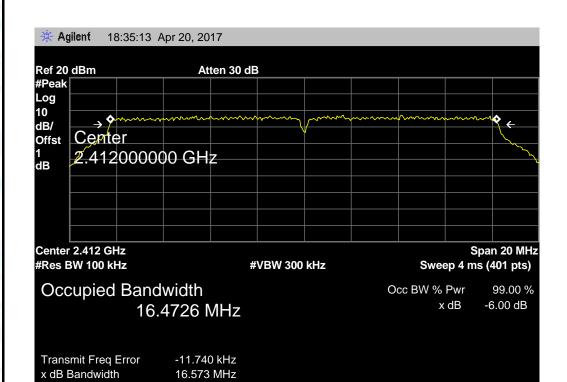
#### 802.11B Mode 2462 MHz \* Agilent 18:33:02 Apr 20, 2017 Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Center Offst 1 dB 2.462000000 GHz Center 2.462 GHz Span 20 MHz #Res BW 100 kHz **#VBW 300 kHz** Sweep 4 ms (401 pts) Occupied Bandwidth Occ BW % Pwr 99.00 % -6.00 dB 14.5493 MHz x dB Transmit Freq Error -52.504 kHz x dB Bandwidth 10.069 MHz



72 of 91 Page:

EUT:	Document Camera	Model:	KR1409 Nillo 100		
Temperature:	25 ℃	Relative Humidity:	55%		
Test Voltage:	AC 120V/60Hz		133		
Test Mode:	TX 802.11G Mode				
Channel frequence	cy 6dB Bandwidth	99% Bandwidth	Limit		
(MHz)	(MHz)	(MHz)	(MHz)		
2412	16.573	16.4726			
2437	16.593	16.5164	>=0.5		
2462	15.692	16.3885			
802.11G Mode					

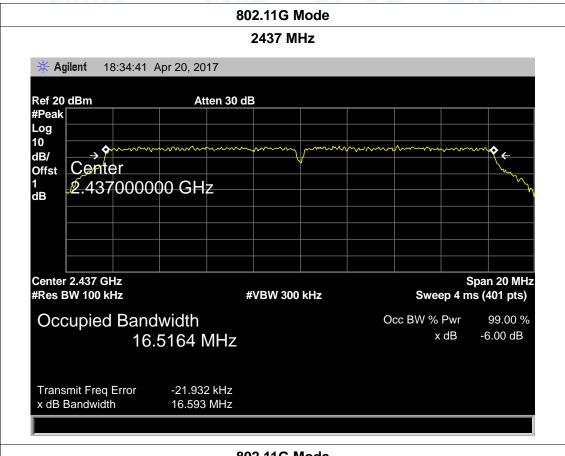
#### 2412 MHz



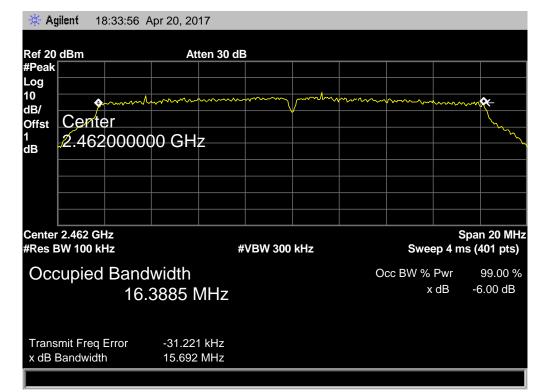
16.573 MHz



73 of 91 Page:



#### 802.11G Mode

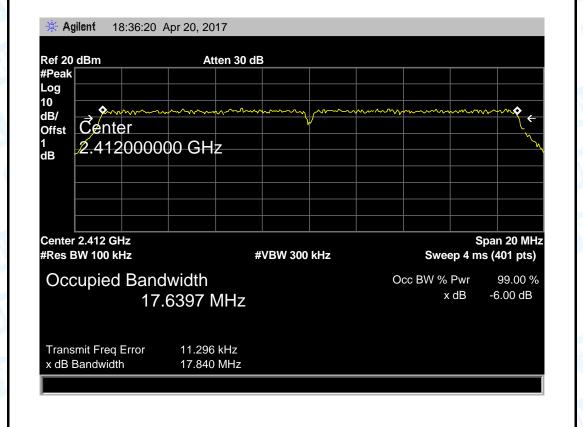




Page: 74 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100	
Temperature:	25 ℃	Relative Humidity:	55%	
Test Voltage:	AC 120V/60Hz		133	
Test Mode:	TX 802.11N(HT20) Mode			
Channel frequence	quency 6dB Bandwidth 99% Bandwidth Limit			
(MHz) (MHz)		(MHz)	(MHz)	
2412	17.840	17.6397		
2437	17.858	17.6415	>=0.5	
2462 17.823		17.6304		
802.11N(HT20) Mode				
2412 MHz				







Transmit Freq Error

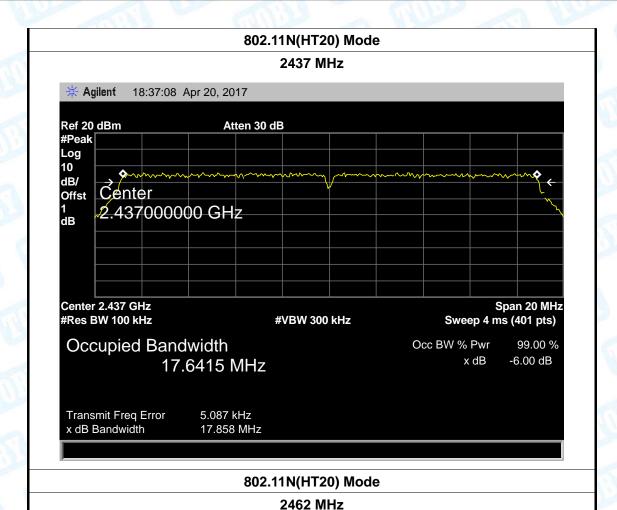
x dB Bandwidth

-6.697 kHz

17.823 MHz

Report No.: TB-FCC152237

Page: 75 of 91

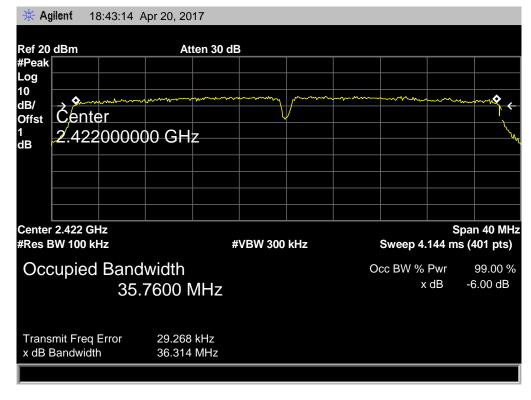


#### \* Agilent 18:39:03 Apr 20, 2017 Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Čenter Offst 1 dB 2.462000000 GHz Center 2.462 GHz Span 20 MHz #Res BW 100 kHz **#VBW 300 kHz** Sweep 4 ms (401 pts) Occupied Bandwidth Occ BW % Pwr 99.00 % -6.00 dB x dB 17.6304 MHz



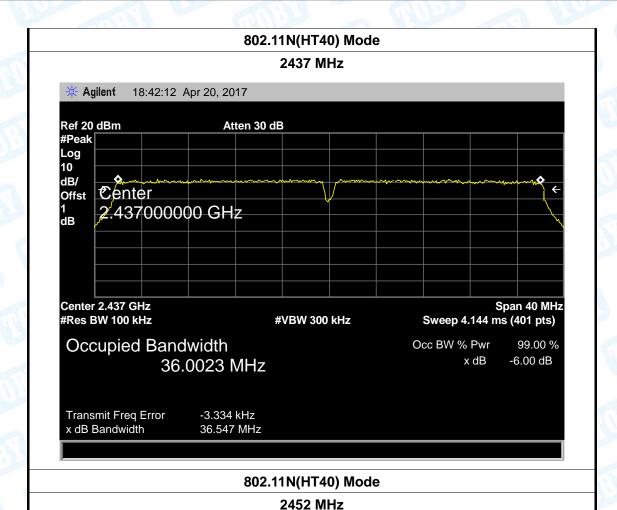
Page: 76 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100	
Temperature:	25 ℃	Relative Humidity:	55%	
Test Voltage:	AC 120V/60Hz	THU:		
Test Mode:	TX 802.11N(HT40) Mode			
Channel frequen	cy 6dB Bandwidth	Limit		
(MHz)	(MHz)	(MHz)	(MHz)	
2422	36.314	35.7600		
2437	36.547	36.0023	>=0.5	
2452 36.513		36.0041		
802.11N(HT40) Mode				
2422 MHz				





Page: 77 of 91



#### \* Agilent 18:41:36 Apr 20, 2017 Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Center Offst 1 dB 2.452000000 GHz Center 2.452 GHz Span 40 MHz #Res BW 100 kHz Sweep 4.144 ms (401 pts) **#VBW 300 kHz** Occupied Bandwidth Occ BW % Pwr 99.00 % -6.00 dB x dB 36.0041 MHz

Transmit Freq Error

x dB Bandwidth

-13.239 kHz

36.513 MHz



Page: 78 of 91

# 8. Peak Output Power Test

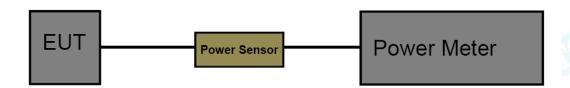
## 8.1 Test Standard and Limit

8.1.1 Test Standard FCC Part 15.247 (b)

8.1.2 Test Limit

FCC Part 15 Subpart C(15.247)/RSS-210				
Test Item Limit Frequency Range(MHz)				
Peak Output Power	1 Watt or 30 dBm	2400~2483.5		

# 8.2 Test Setup



### 8.3 Test Procedure

The measurement is according to section 9.1.2 of KDB 558074 D01 DTS Meas Guidance v04. The EUT was connected to RF power meter via a broadband power sensor as show the block above. The power sensor video bandwidth is greater than or equal to the DTS bandwidth of the equipment.

# 8.4 EUT Operating Condition

The EUT was set to continuously transmitting in the max power during the test.



Page: 79 of 91

# 8.5 Test Data

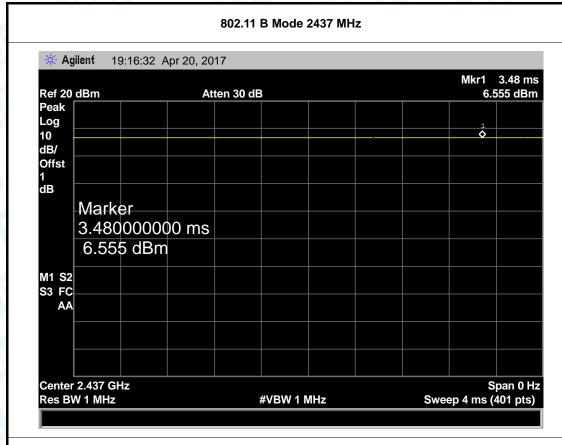
EUT:	Document Camera Model:		KR1409 Nillo 100	
Temperature:	25 ℃	Relative Humidity:	55%	
Test Voltage:	AC 120V/60Hz		ET THE	
Mode	Channel frequency (MHz)	Test Result (dBm)	Limit (dBm)	
	2412	16.54		
802.11b	2437	16.37		
	2462	16.48		
802.11g	2412	15.45		
	2437	15.28		
	2462	15.36	30	
2412		14.37	30	
802.11n (HT20)	2437	14.24		
(11120)	2462	14.29		
902 11n	2422	14.25		
802.11n (HT40)	2437	14.20		
(11170)	2452	14.09		
Result: PASS				

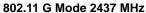
Duty Cycle				
Mode	Channel frequency (MHz)	Test Result		
	2412			
802.11b	2437			
	2462			
	2412			
802.11g 802.11n (HT20)	2437			
	2462	. 000/		
	2412	>98%		
	2437			
	2462			
000 44	2422			
802.11n	2437			
(HT40)	2452			
Please see belov	w plots			

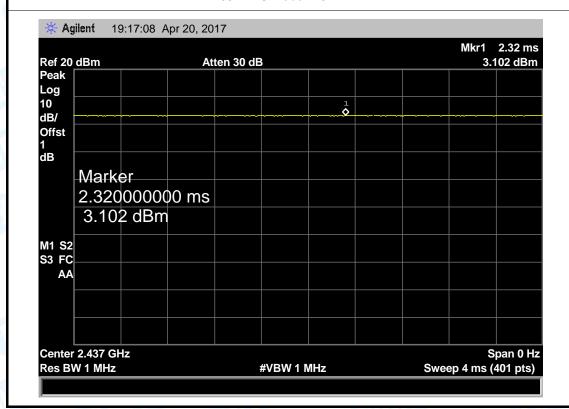


Page: 80 of 91





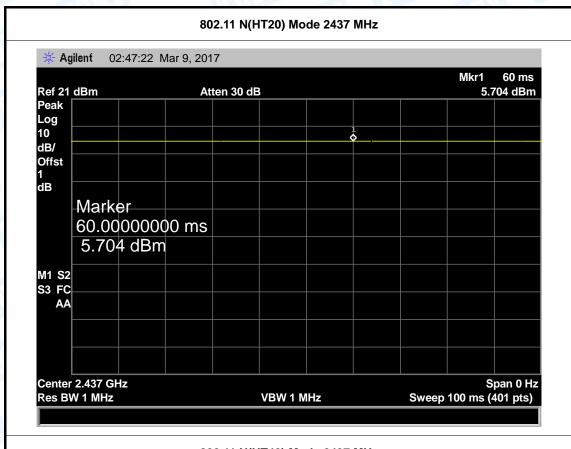


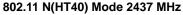


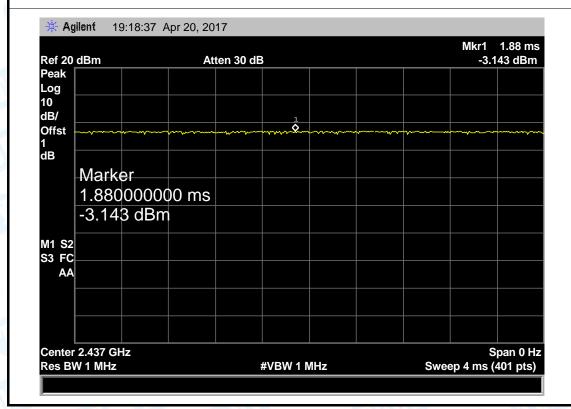


Page: 81 of 91











Page: 82 of 91

# 9. Power Spectral Density Test

### 9.1 Test Standard and Limit

9.1.1 Test Standard FCC Part 15.247 (e)

9.1.2 Test Limit

FCC Part 15 Subpart C(15.247)				
Test Item Limit Frequency Range(MHz)				
Power Spectral Density	8dBm(in any 3 kHz)	2400~2483.5		

# 9.2 Test Setup



## 9.3 Test Procedure

The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement according to section 10.2 of KDB 558074 D01 DTS Meas Guidance v04.

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) Set analyser center frequency to DTS channel center frequency.
- (3) Set the span to 1.5 times the DTS bandwidth.
- (4) Set the RBW to: 3 kHz(5) Set the VBW to: 10 kHz
- (6) Detector: peak
- (7) Sweep time: auto
- (8) Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

# 9.4 EUT Operating Condition

The EUT was set to continuously transmitting in each mode and low, Digital photo framesdle and high channel for the test.

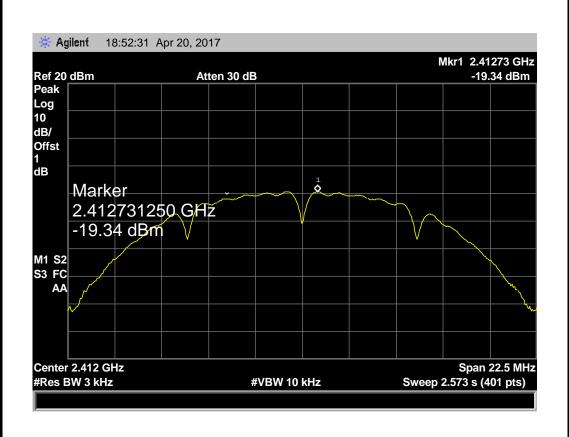


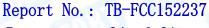
Page: 83 of 91

# 9.5 Test Data

EUT:	Document Camera		Model:		KR1409 Nillo 100
Temperature:	25 ℃		Relative Hum	idity:	55%
Test Voltage:	AC 120V/	AC 120V/60Hz		1 6	
Test Mode:	TX 802.11B Mode				
Channel Freq	equency Power Density		Limit		
(MHz)		(3 kHz/dBm)			(dBm)
2412	2412		-19.34		
2437		-19.70			8
2462		-19.32			
	000 44D Mode				

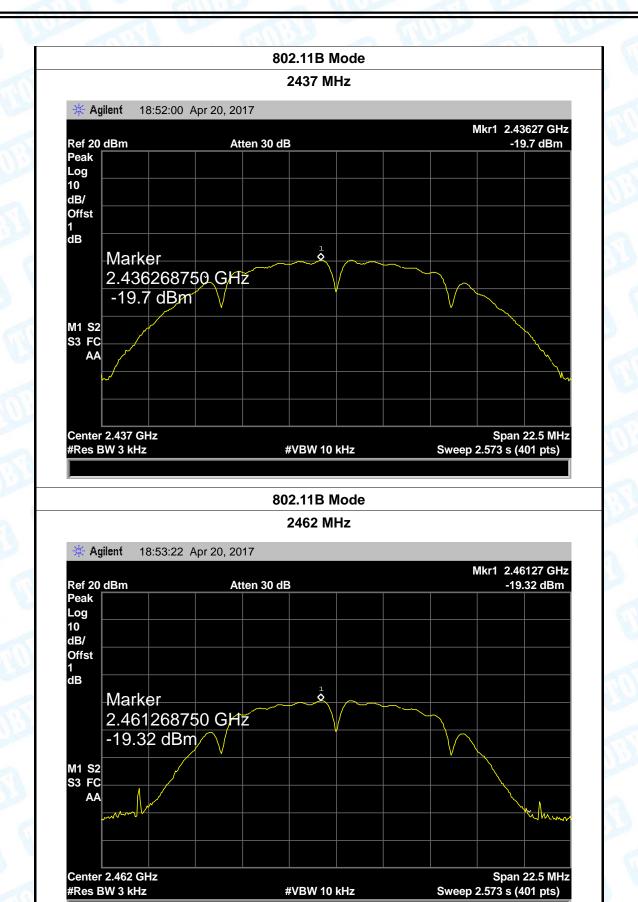
## 802.11B Mode







Page: 84 of 91



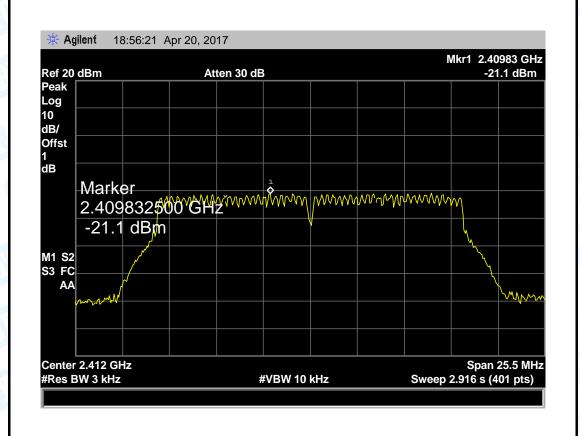


Report No.: TB-FCC152237
Page: 85 of 91

EUT:	Document Camera	Model:	KR1409 Nillo 100
Temperature:	25 ℃	Temperature:	25 ℃
Test Voltage:	AC 120V/60Hz	11:33	

Channel Frequency	Power Density	Limit	
(MHz)	(3 kHz/dBm)	(dBm)	
2412	-21.10		
2437	-21.00	8	
2462	-19.60		
·			

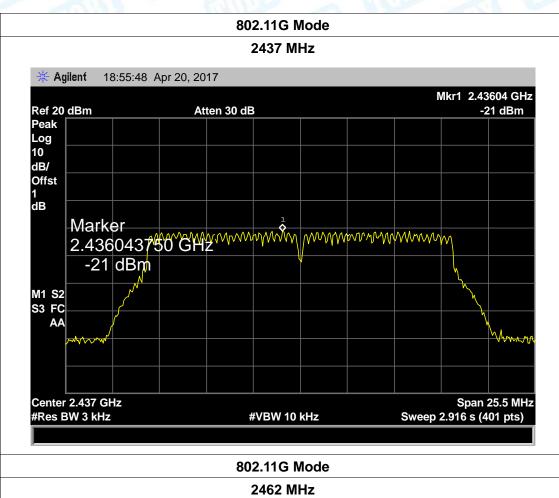
#### 802.11G Mode







Page: 86 of 91



\* Agilent 18:55:09 Apr 20, 2017 Mkr1 2.46104 GHz -19.6 dBm Ref 20 dBm Atten 30 dB Peak Log 10 dB/ Offst 1 dB Marker 2.461043750 GHZ -19.6 dBm M1 S2 S3 FC AA Center 2.462 GHz Span 25.5 MHz #Res BW 3 kHz #VBW 10 kHz Sweep 2.916 s (401 pts)

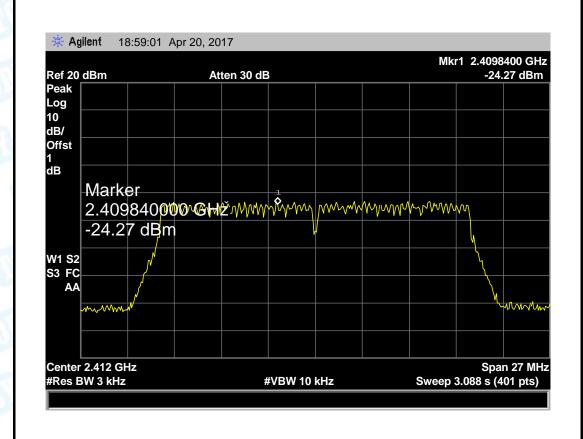


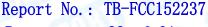
Page: 87 of 91

EUT:	Documen	t Camera	Model:	KR1409 Nillo 100
Temperature:	25 ℃		Temperature:	<b>25</b> ℃
Test Voltage:	AC 120V/60Hz			anis s
Test Mode:	TX 802.11N(HT20) Mode			
01 1		D D .	*4	1.114

Channel Frequency	Power Density	Limit	
(MHz)	(3 kHz/dBm)	(dBm)	
2412	-24.27		
2437	-23.52	8	
2462	-26.01		

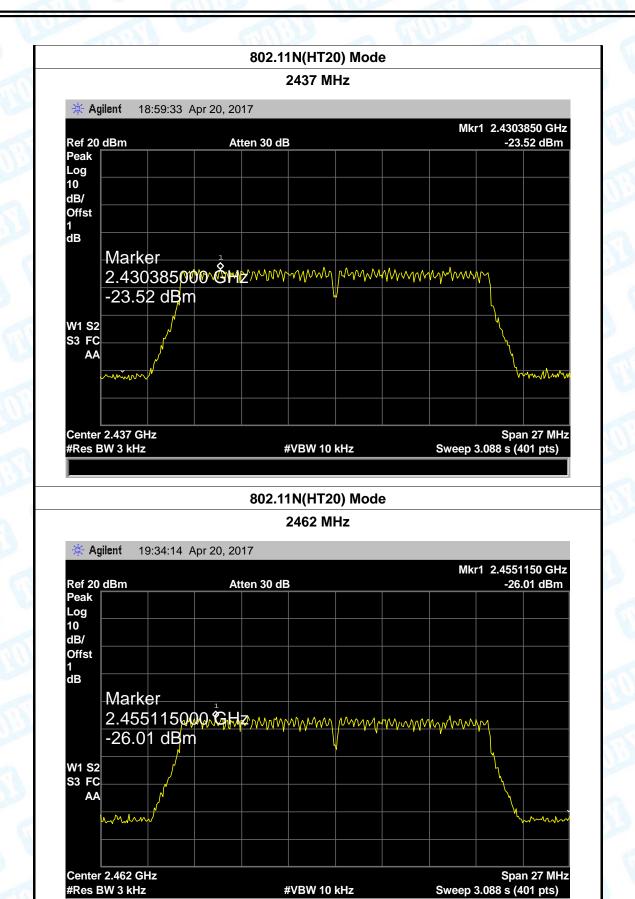
## 802.11N(HT20) Mode







Page: 88 of 91



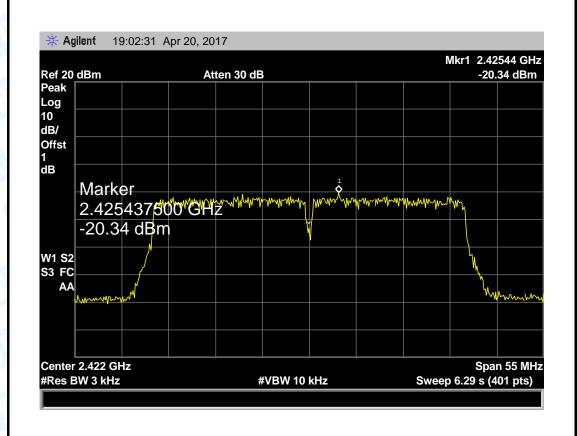


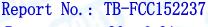
Page: 89 of 91

EUT:	Documen	t Camera	Model:	KR1409 Nillo 100	
Temperature:	25 ℃		Temperature:	25 ℃	
Test Voltage:	AC 120V/60Hz				
Test Mode:	TX 802.11N(HT40) Mode				
Channel Frequency		Power De	nsity	Limit	

Channel Frequency	Power Density	Limit
(MHz)	(3 kHz/dBm)	(dBm)
2422	-20.34	
2437	-17.83	8
2452	-22.06	
·		

## 802.11N(HT40) Mode

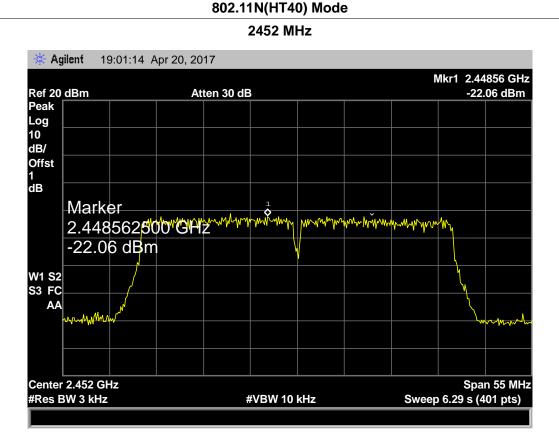






Page: 90 of 91







Page: 91 of 91

# 10. Antenna Requirement

# 10.1 Standard Requirement

10.1.1 Standard FCC Part 15.203

## 10.1.2 Requirement

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

### 10.2 Antenna Connected Construction

The directional gains of the antenna used for transmitting is 4.5 dBi, and the antenna de-signed with permanent attachment and no consideration of replacement. Please see the EUT photo for details.

## Result

The EUT antenna is a FPC Antenna. It complies with the standard requirement.

	Antenna Type
335	□ Permanent attached antenna
(In)	✓ Unique connector antenna
Times .	□ Professional installation antenna

----END OF REPORT----