

Zhuhai Pantum Electronics Co., Ltd.

Application
For
Certification

FCC ID: 2AEGO5103MFP

Monochrome Laser Multifunctional Printer

Model: M7200FDW

Additional Model: M6700DW, M6702DW, M6705DW, M6706DW, M6707DW, M6708DW, M7100DW, M7102DW, M7105DW, M7106DW, M7107DW, M7108DW, M6800FDW, M6802FDW, M6805FDW, M6806FDW, M6807FDW, M6808FDW, M7202FDW, M7205FDW, M7206FDW, M7207FDW, M7208FDW

2.4GHz WiFi Transceiver

Report No.: 161026008SZN-001

We hereby certify that the sample of the above item is considered to comply with the requirements of FCC Part 15, Subpart C for Intentional Radiator, mention 47 CFR [10-1-15]

Prepared and Checked by:

Approved by:

Sign on file

Sunny Zhou
Project Engineer

Kidd Yang
Senior Project Engineer
Date: December 06, 2016

- The test results reported in this test report shall refer only to the sample actually tested and shall not refer or be deemed to refer to bulk from which such a sample may be said to have been obtained.
- This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to copy or distribute this report. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results referenced from this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.
- For Terms And Conditions of the services, it can be provided upon request.
- The evaluation data of the report will be kept for 3 years from the date of issuance.

TRF no.: FCC 15C_Tx_b

Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch

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INTERTEK TESTING SERVICES

MEASUREMENT/TECHNICAL REPORT

Monochrome Laser Multifunctional Printer

Model: M7200FDW

Additional Model: M6700DW, M6702DW, M6705DW, M6706DW, M6707DW, M6708DW, M7100DW, M7102DW, M7105DW, M7106DW, M7107DW, M7108DW, M6800FDW, M6802FDW, M6805FDW, M6806FDW, M6807FDW, M6808FDW, M7202FDW, M7205FDW, M7206FDW, M7207FDW, M7208FDW

FCC ID: 2AEGO5103MFP

This report concerns (check one) Original Grant ☒ Class I Change ☐

Equipment Type: DTS - Part 15 Digital Transmission Systems (WiFi transmitter portion)

Deferred grant requested per 47 CFR 0.457(d)(1)(ii)? Yes ☐ No ☒

If yes, defer until :
date

Company Name agrees to notify the Commission by:
date

of the intended date of announcement of the product so that the grant can be issued on that date.

Transition Rules Request per 15.37? Yes ☐ No ☒

If no, assumed Part 15, Subpart C for intentional radiator - the new 47 CFR [10-01-15] Edition] provision.

Report prepared by:

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List of attached file

Exhibit type	File Description	Filename
Test Report	Test Report	report.pdf
Test Setup Photo	Radiated Emission	radiated photos.pdf
Test Setup Photo	Conducted Emission	conducted photos.pdf
External Photo	External Photo	external photos.pdf
Internal Photo	Internal Photo	internal photos.pdf
Block Diagram	Block Diagram	block.pdf
Schematics	Circuit Diagram	circuit.pdf
Operation Description	Technical Description	descri.pdf
ID Label/Location	Label Artwork and Location	label.pdf
User Manual	User Manual	manual.pdf
Cover Letter	Confidentiality Letter	request.pdf
Cover Letter	Letter of Agency	agency.pdf

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EXHIBIT 1

SUMMARY OF TEST RESULTS

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1.0 Summary of Test results

Monochrome Laser Multifunctional Printer

Model: M7200FDW

Additional Model: M6700DW, M6702DW, M6705DW, M6706DW, M6707DW, M6708DW, M7100DW, M7102DW, M7105DW, M7106DW, M7107DW, M7108DW, M6800FDW, M6802FDW, M6805FDW, M6806FDW, M6807FDW, M6808FDW, M7202FDW, M7205FDW, M7206FDW, M7207FDW, M7208FDW

FCC ID: 2AEGO5103MFP

TEST	REFERENCE	RESULTS
Max. Output power	15.247(b)(3)	Pass
6 dB Bandwidth	15.247(a)(2)	Pass
Max. Power Density	15.247(e)	Pass
Out of Band Antenna Conducted Emission	15.247(d)	Pass
Radiated Emission in Restricted Bands	15.247(d)	Pass
AC Conducted Emission	15.207	Pass
Antenna Requirement	15.203	Pass (See Notes)

Notes: The EUT uses an Integral Antenna which in accordance to Section 15.203 is considered sufficient to comply with the provisions of this section.

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EXHIBIT 2

GENERAL DESCRIPTION

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2.0 General Description

2.1 Product Description

The Equipment Under Test (EUT) is a Monochrome Laser Multifunctional Printer with WiFi function operating at 2412-2462MHz for 802.11b/g/n-HT20, 11 channels with 5MHz channel spacing. The NFC tag on EUT is passive. The EUT was powered by AC120V/60Hz. For more detailed features description, please refer to the user's manual.

Type of Modulation: BPSK, QPSK, 16QAM, 64QAM for OFDM. CCK, DQPSK, DBPSK for DSSS.

Antenna Type: Integral Antenna.

All models are identical with each other except the model name, color, communication interface (optional component: FAX, ADF, component manufacturer) used for trading purpose. The optional print speed is 30cpm and 33cpm. Model difference description:

Model	Speed	Communication Interface	Scan Type	Data Board Model	Color
M6700DW, M6702DW, M6705DW, M6706DW, M6707DW, M6708DW	30cpm	USB, NET, WIFI	FB	GORILLA-MFP (3IN1)-MB	Various
M7100DW, M7102DW, M7105DW, M7106DW, M7107DW, M7108DW	33cpm	USB, NET, WIFI	FB,ADF		
M6800FDW, M6802FDW, M6805FDW, M6806FDW, M6807FDW, M6808FDW	30cpm	USB, NET, WIFI, FAX			
M7200FDW, M7202FDW, M7205FDW, M7206FDW, M7207FDW, M7208FDW	33cpm				

Alternative components:

Object	Manufacturer
Transformer(T1)	BETTER MAGNETICS CORP
	SHAN DONG BOAM ELECTRIC CO.,LTD
Filter(L1、L2、L3)	BETTER MAGNETICS CORP
	SHAN DONG BOAM ELECTRIC CO.,LTD
Inverter(T300、T301、T400、T500)	Goldenbamboo (Zhuhai) Electronics Co., Ltd.
	TOKYO PARTS IND. CO., LTD.
	Intelligent Components Technology Zhuhai Ltd.
DC Motor	Minebea Motor Manufacturing Corporation
	Nidec Corporation
ADF Motor	Minebea Co., Ltd
	TAIWAN MITSUMI CO LTD
motor of scanner	Minebea Co., Ltd
	Taiwan Mitsumi Co., Ltd.
DC Fan	Nidec Corporation, Shiga Technical Center
	Minebea Co., Ltd

TRF no.: FCC 15C_TX_b

FCC ID: 2AEGO5103MFP

Report No.: 161026008SZN-001

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GDT on fax module (AR501、 AR500)	NANJING JYUNKOH TECHNOLOGY INC SHIJIAZHUANG UNION ELECTRONICS CO LTD
Filter on fax module (L1)	Laird Technologies Co., Ltd. Goldenbamboo (Zhuhai) Electronics Co., Ltd. BETTER MAGNETICS CORP

All models were tested and only the worst data was reported in this report.

For electronic filing, the brief circuit description is saved with filename: descri.pdf.

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2.2 Related Submittal(s) Grants

This is an application for certification of:

DTS- Part 15 Digital Transmission Systems (WiFi transmitter portion)

Remaining portions are subject to the following procedures:

1. PC download (Class B personal computer and peripherals):CF16120420
2. Other function: 161026006SZN-001

2.3 Test Methodology

Both AC mains line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.10 (2013) and KDB 558074 D01 v03r05. Radiated emission measurement was performed in semi-anechoic chamber and conducted emission measurement was performed in shield room. For radiated emission measurement, preliminary scans were performed in the semi-anechoic chamber only to determine the worst case modes. All radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the “**Justification Section**” of this Application. All other measurements were made in accordance with the procedures in part 2 of CFR 47.

2.4 Test Facility

The shield room used to collect the conducted data is **Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch** and located at 6F, Block D, Huahan Building, Langshan Road, Nanshan District, Shenzhen, P. R. China. This test facility and site measurement data have been fully placed on file with the FCC (Registration Number: 242492).

The Semi-anechoic chamber used to collect the radiated data is **EMTEK (Shenzhen) Co., Ltd.** and located at Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052, China. This test facility and site measurement data have been fully placed on file with the FCC (Registration Number: 406365).

EXHIBIT 3
SYSTEM TEST CONFIGURATION

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3.0 System Test Configuration

3.1 Justification

For emissions testing, the equipment under test (EUT) setup to transmit continuously to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, all cables were manipulated to produce worst case emissions. The EUT was powered by AC120V/ 60Hz during the testing.

On 802.11b/g/n-HT20 modes, all data rate were tested and only the worst case data was reported.

The signal is maximized through rotation and placement in the three orthogonal axes. The antenna height and polarization are varied during the search for maximum signal level. The antenna height is varied from 1 to 4 meters. Radiated emissions are taken at three meters unless the signal level is too low for measurement at that distance. If necessary, a pre-amplifier is used and/or the test is conducted at a closer distance.

The rear of unit shall be flushed with the rear of the table.

All readings are extrapolated back to the equivalent three meter reading using inverse scaling with distance. Analyzer resolution is 100 kHz or greater for frequencies below 1000 MHz. The resolution is 1 MHz or greater for frequencies above 1000 MHz. The spurious emissions more than 20 dB below the permissible value are not reported.

Radiated emission measurement were performed the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

3.2 EUT Exercising Software

The EUT exercise program (provided by client) used during radiated and conducted testing was designed to exercise the various system components in a manner similar to a typical use. The worst case configuration is used in all specified testing.

The parameters of test software setting:

During the test, Channel and power controlling software provided by the applicant 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 application and is going to be fixed on the firmware of the end product.

3.3 Special Accessories

USB Interface Cable, shielded, Length 150cm

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3.4 Measurement Uncertainty

When determining of the test conclusion, the Measurement Uncertainty of test has been considered.

Uncertainty and Compliance – Unless the standard specifically states that measured values are to be extended by the measurement uncertainty in determining compliance, all compliance determinations are based on the actual measured value.

3.5 Equipment Modification

Any modifications installed previous to testing by Zhuhai Pantum Electronics Co., Ltd. will be incorporated in each production model sold / leased in the United States.

No modifications were installed by Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch.

3.6 Support Equipment List and Description

This product was tested in the following configuration:

Refer List:

Description	Manufacturer	Model No.
USB Interface Cable	Pantum	shielded, Length 150cm
Network cable (RJ45)	Smart.drive	unshielded, Length 100cm
Power Cord	Pantum	unshielded, Length 150cm
Laptop	Lenovo	T420
Hard Disk	Smart.drive	HD-003
USB Cable	Smart.drive	unshielded, Length 155cm
1394 Cable	Smart.drive	unshielded, Length 180cm
Telephone Simulator (With RJ11 cable)	TELTONE	TLS-5D-01

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EXHIBIT 4

MEASUREMENT RESULTS

INTERTEK TESTING SERVICES

Applicant: Zhuhai Pantum Electronics Co., Ltd.

Date of Test: December 08, 2014

Model: M7200FDW

4.0 Measurement Results

4.1 Maximum Conducted Output Power at Antenna Terminals, FCC Rules 15.247(b)(3):

The antenna power of the EUT was connected to the input of a broadband peak RF power meter. The power meter have a video bandwidth that is greater than DTS bandwidth and utilize a fast-responding diode detector. Power was read directly at the EUT antenna terminals with cable loss added.

For antennas with gains of 6 dBi or less, maximum allowed Transmitter output is 1 watt (+30 dBm).

IEEE 802.11b (Antenna Gain = 2dBi) (CCK, 1Mbps)		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2412	17.21	52.60
Middle Channel: 2437	16.89	48.87
High Channel: 2462	16.16	41.30

IEEE 802.11g (Antenna Gain = 2dBi) (16QAM, 6Mbps)		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2412	19.76	94.62
Middle Channel: 2437	18.98	79.07
High Channel: 2462	19.21	83.37

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IEEE 802.11n-HT20 (Antenna Gain = 2dBi) (16QAM, 6.5Mbps)		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2412	19.32	85.51
Middle Channel: 2437	18.94	78.34
High Channel: 2462	19.12	81.66

Cable loss: 1.5 dB External Attenuation: 0 dB

Cable loss, external attenuation has been included in OFFSET function

EUT max output level = 19.76dBm

For RF Exposure, the information is saved with filename: RF exposure.pdf.

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Applicant: Zhuhai Pantum Electronics Co., Ltd.

Date of Test: December 08, 2014

Model: M7200FDW

4.2 Minimum 6 dB RF Bandwidth, FCC Rule 15.247(a)(2):

The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer RES BW was set to 100 KHz according to FCC KDB 558074. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A PEAK output reading was taken, a DISPLAY line was drawn 6 dB lower than PEAK level. The 6dB bandwidth was determined from where the channel output spectrum intersected the display line.

Limit: The 6 dB Bandwidth is at least 500 kHz.

IEEE 802.11b (CCK, 1Mbps)	
Frequency (MHz)	6 dB Bandwidth (MHz)
2412	10.072
2437	10.029
2462	10.072

IEEE 802.11g (16QAM, 6Mbps)	
Frequency (MHz)	6 dB Bandwidth (MHz)
2412	16.585
2437	16.541
2462	16.585

IEEE 802.11n-HT20 (16QAM, 6.5Mbps)	
Frequency (MHz)	6 dB Bandwidth (MHz)
2412	17.800
2437	17.800
2462	17.757

The test plots are attached as below.

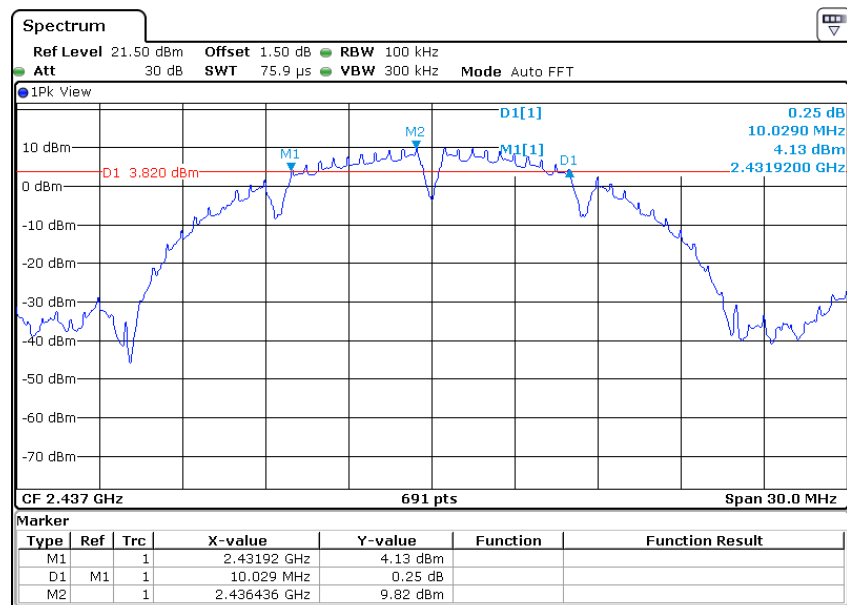
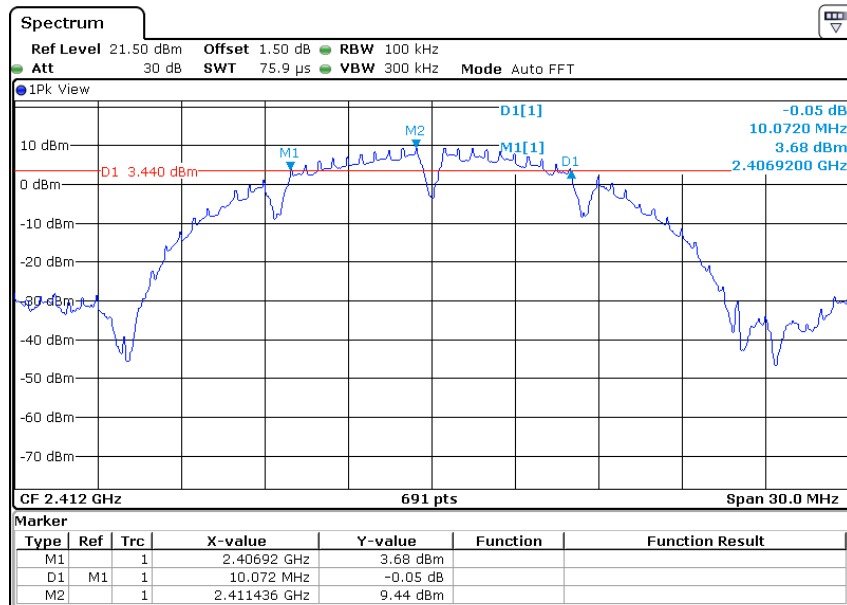
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FCC ID: 2AEGO5103MFP

Report No.: 161026008SZN-001

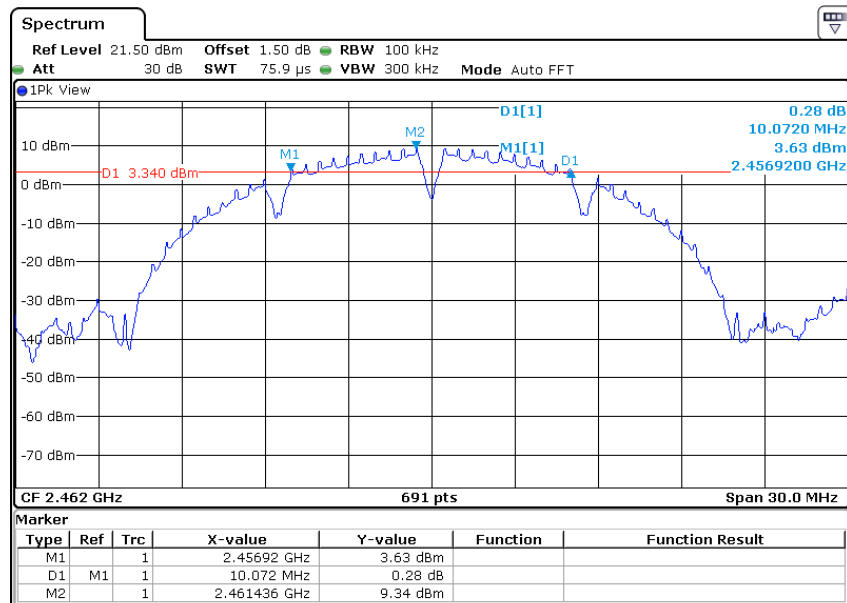
INTERTEK TESTING SERVICES

802.11b

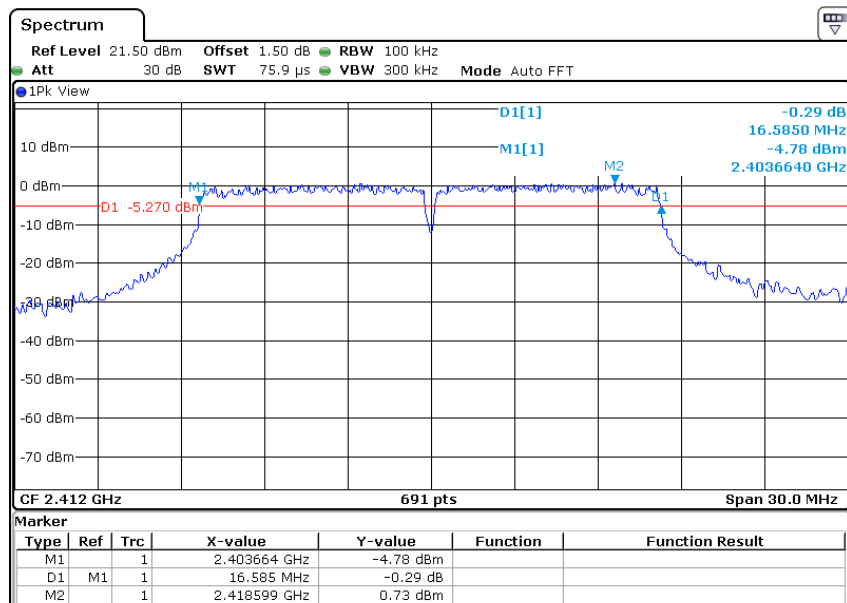


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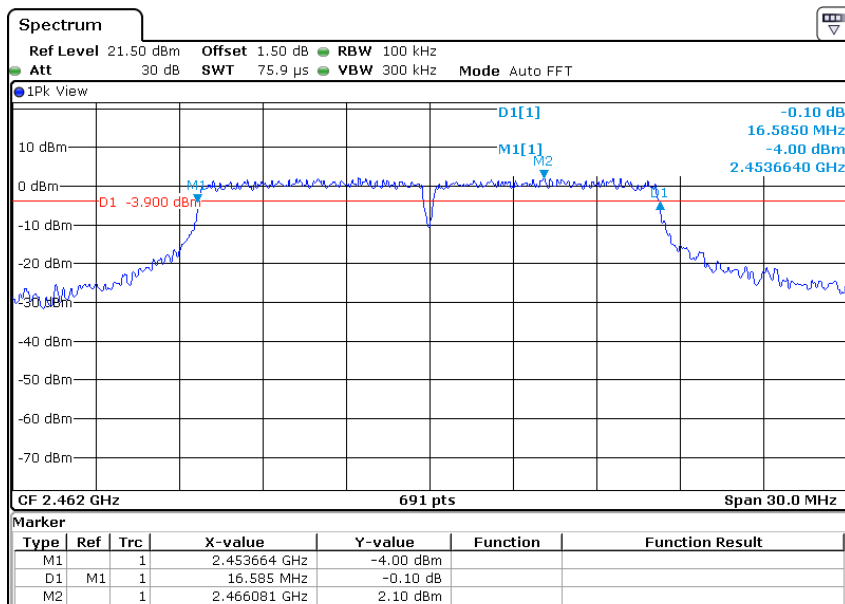
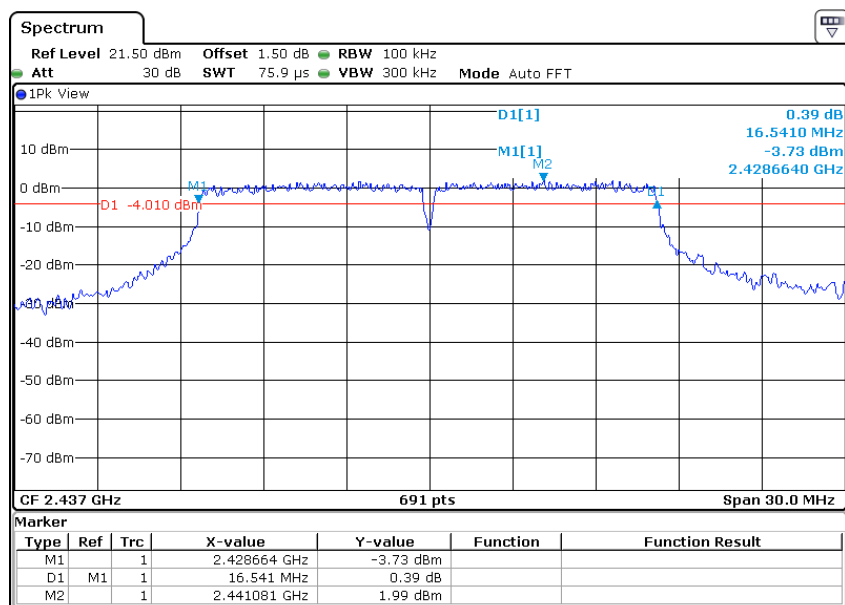


802.11g



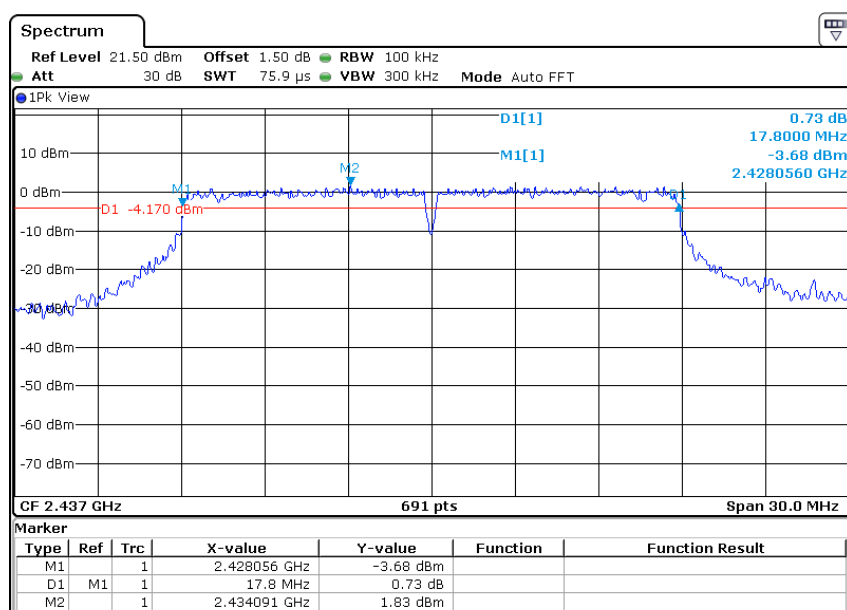
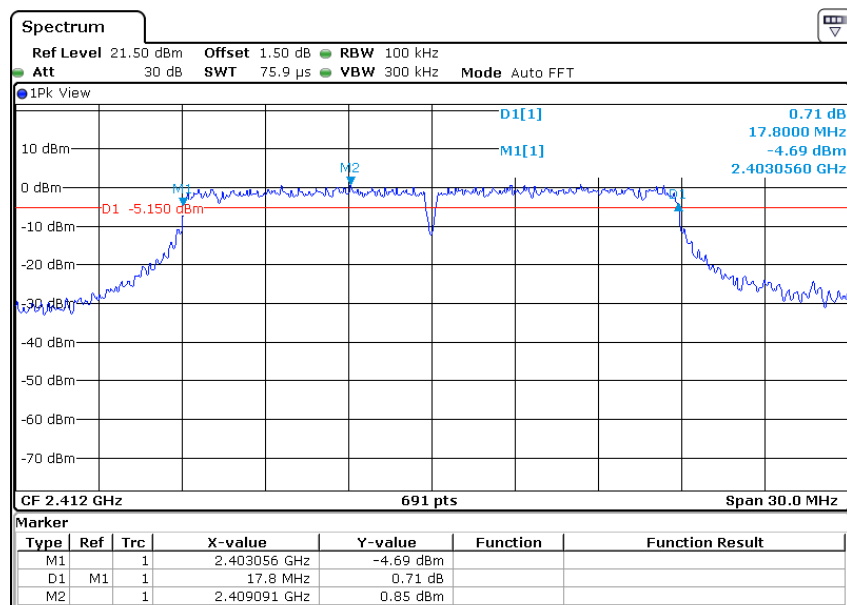
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INTERTEK TESTING SERVICES



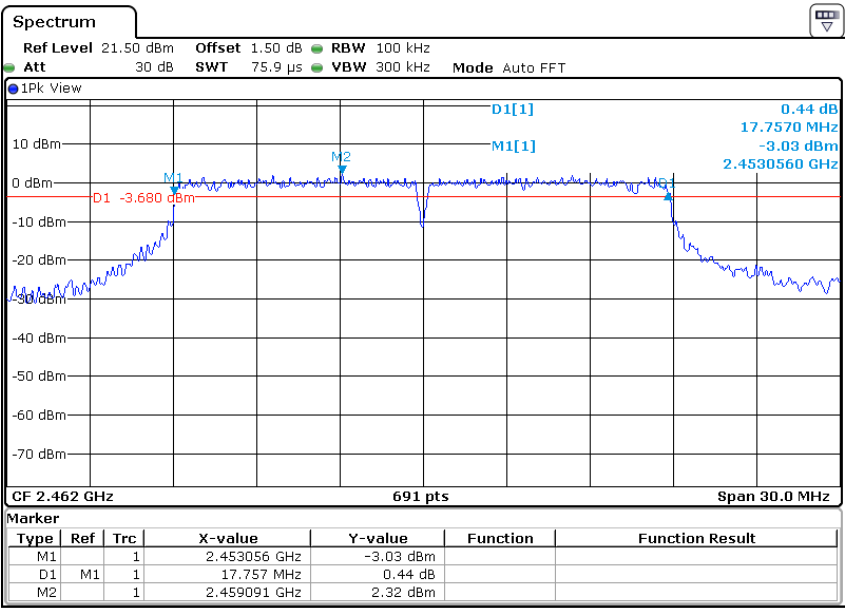
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802.11 n-HT20



TRF no.: FCC 15C_TX_b
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INTERTEK TESTING SERVICES

Applicant: Zhuhai Pantum Electronics Co., Ltd.

Date of Test: December 08, 2014

Model: M7200FDW

4.3 Maximum Power Density Reading, FCC Rule 15.247(e):

The Measurement Procedure PKPSD was set according to the FCC KDB 558074.

Antenna output of the EUT was coupled directly to spectrum analyzer; if an external attenuator and/or cable was used, these losses are compensated for with the analyzer OFFSET function.

Limit: The Power Density does not exceed 8dBm/3 kHz.

IEEE 802.11b (CCK, 1Mbps)	
Frequency (MHz)	Power Density with RBW 100KHz
2412	7.67
2437	6.69
2462	7.94

IEEE 802.11g (16QAM, 6Mbps)	
Frequency (MHz)	Power Density with RBW 100KHz
2412	0.37
2437	1.39
2462	1.70

IEEE 802.11n-HT20 (16QAM, 6.5Mbps)	
Frequency (MHz)	Power Density with RBW 100KHz
2412	0.41
2437	1.78
2462	2.15

The test plots are attached as below.

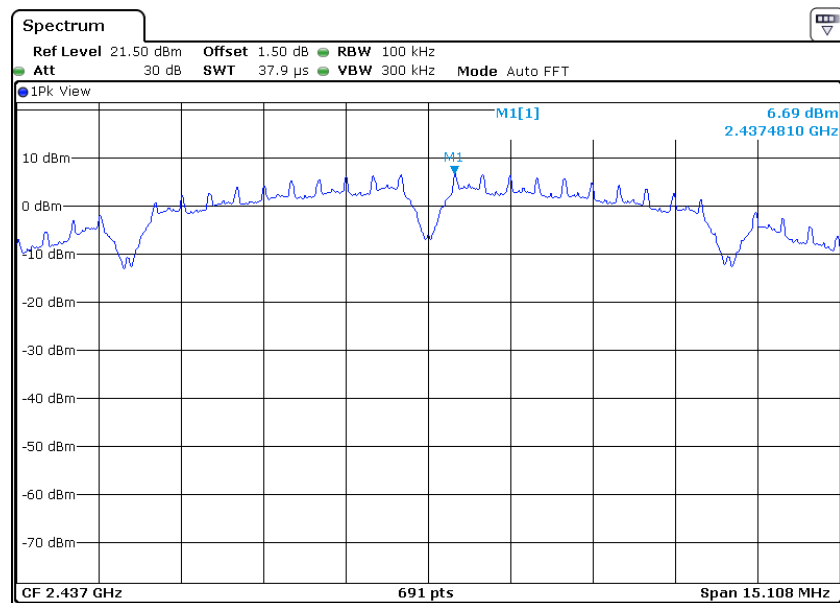
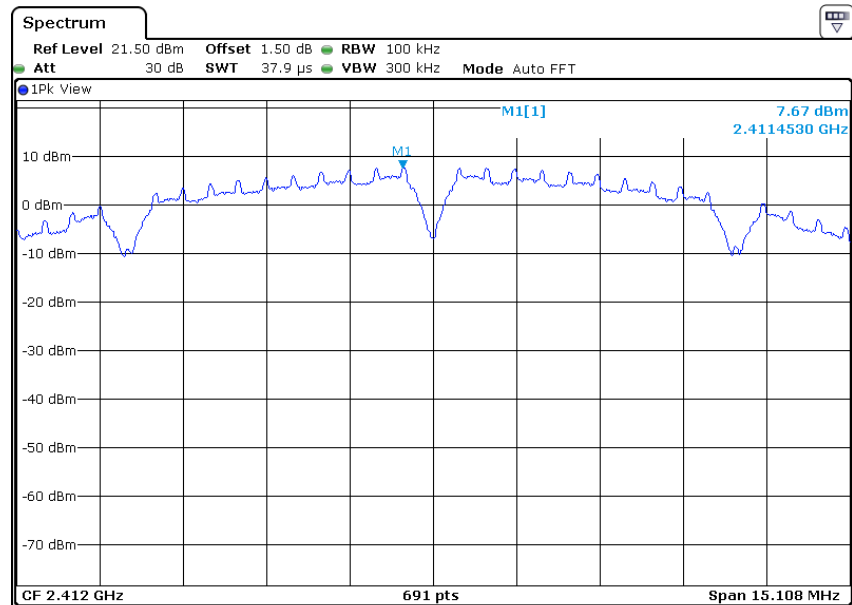
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FCC ID: 2AEGO5103MFP

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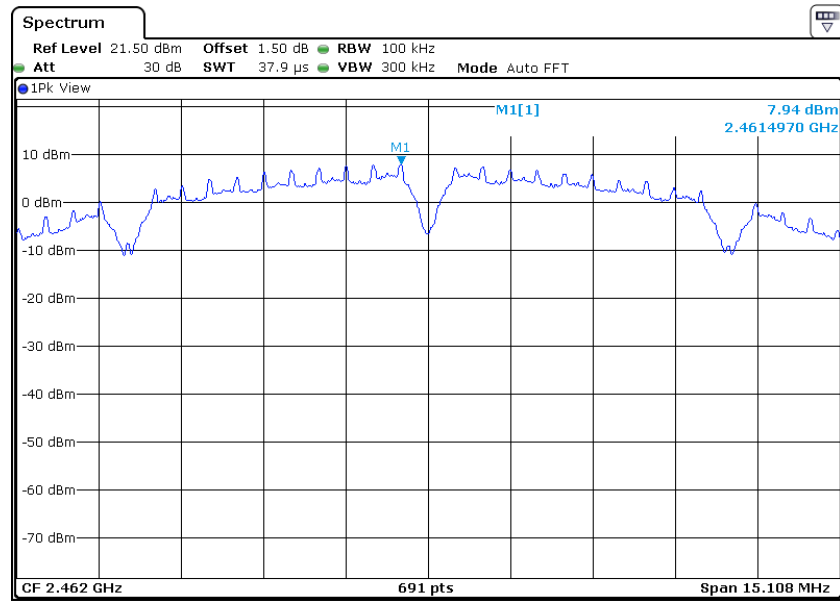
INTERTEK TESTING SERVICES

802.11b

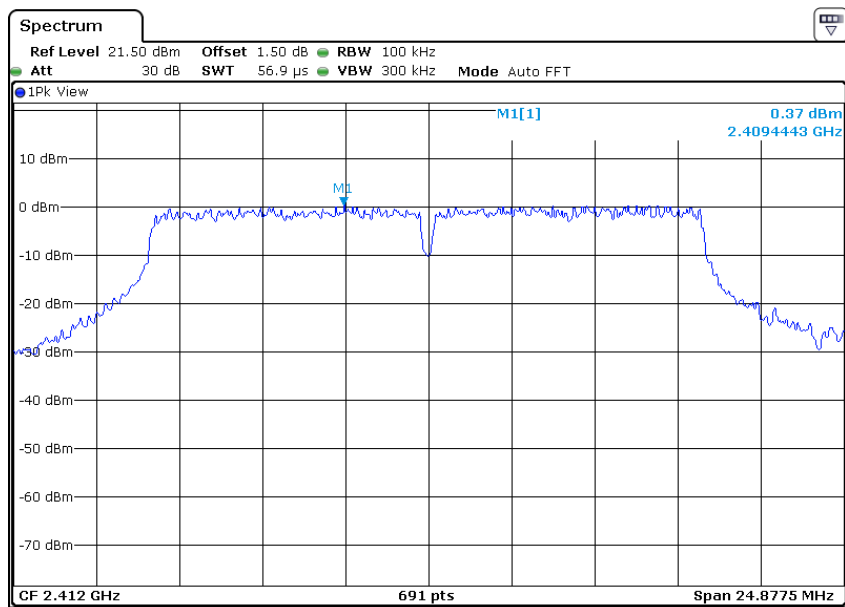


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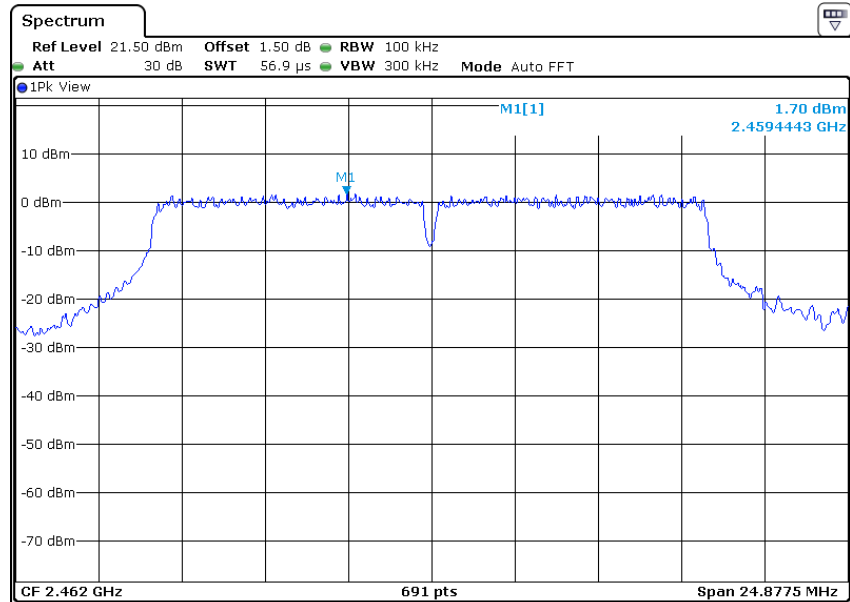
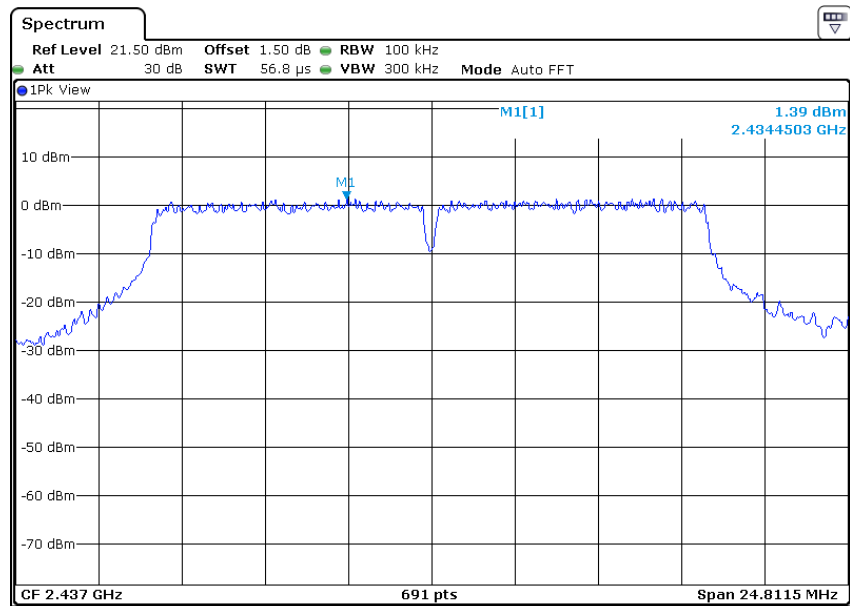


802.11g



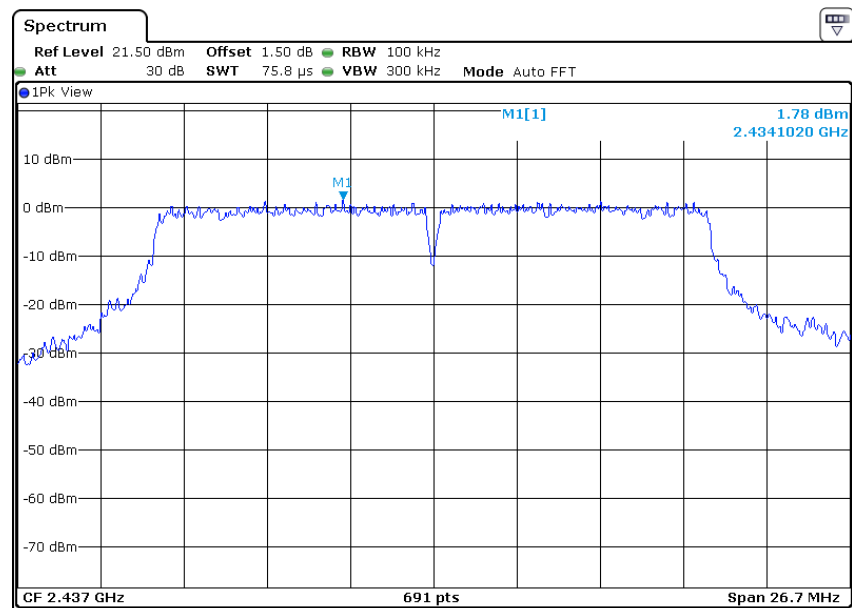
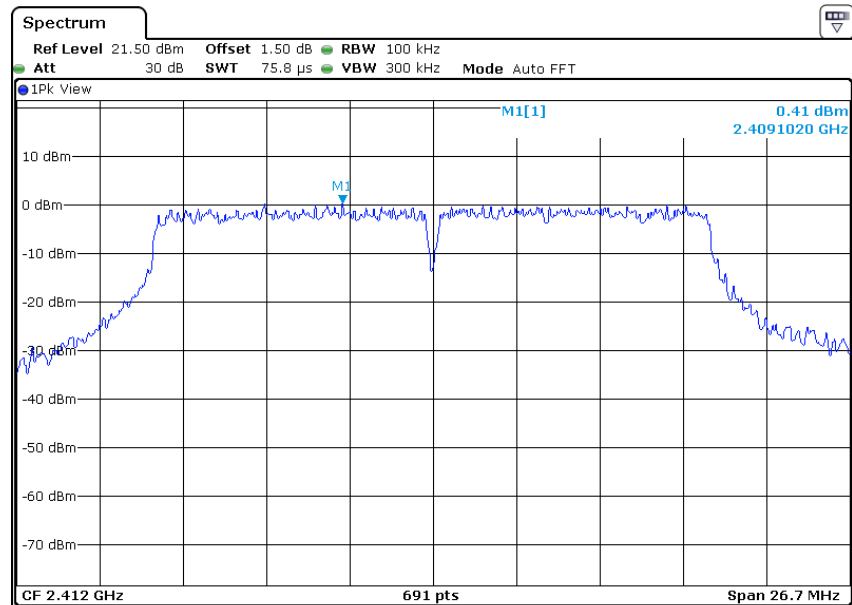
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INTERTEK TESTING SERVICES



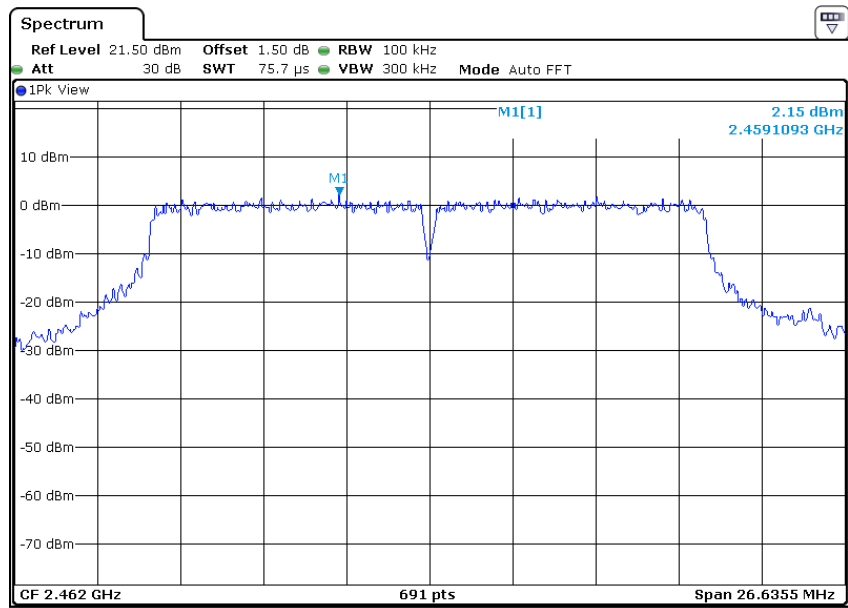
INTERTEK TESTING SERVICES

802.11 n-HT20



TRF no.: FCC 15C_TX_b
FCC ID: 2AEGO5103MFP
Report No.: 161026008SZN-001

INTERTEK TESTING SERVICES



INTERTEK TESTING SERVICES

Applicant: Zhuhai Pantum Electronics Co., Ltd.

Date of Test: December 08, 2014

Model: M7200FDW

4.4 Out of Band Conducted Emissions, FCC Rule 15.247(d)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. The Measurement Procedure was set according to the FCC KDB 558074.

All other types of emissions from the EUT shall meet the general limits for radiated frequencies outside the passband.

Refer to the attached test plots for out of band conducted emissions data with rate of 1Mbps for 802.11b, 6Mbps for 802.11g and 6.5Mbps for 802.11n-HT20.

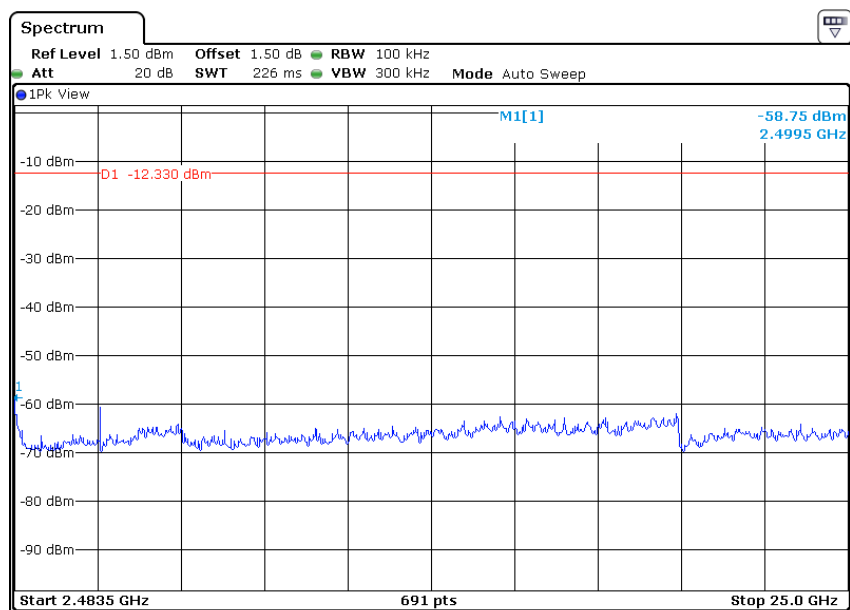
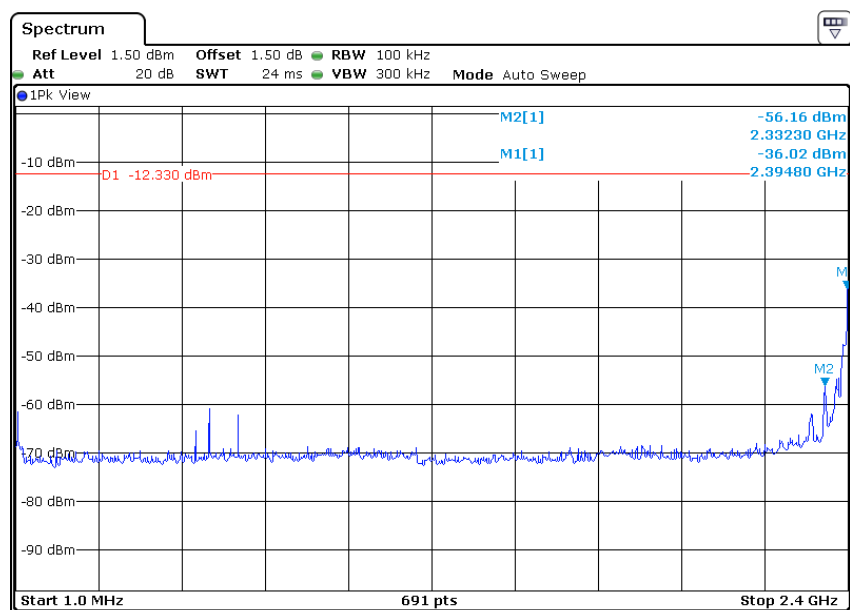
The test plots showed all spurious emission up to the tenth harmonic were measured and they were found to be at least 20 dB below the highest level of the desired power in the passband.

The test plots are attached as below.

INTERTEK TESTING SERVICES

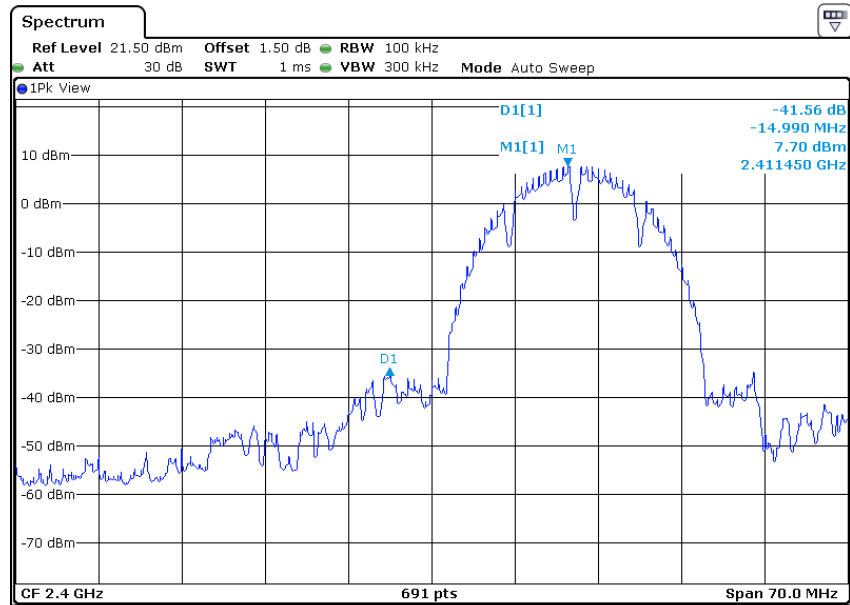
802.11b

Channel 01 (2412MHz) Reference Level: 7.67dBm



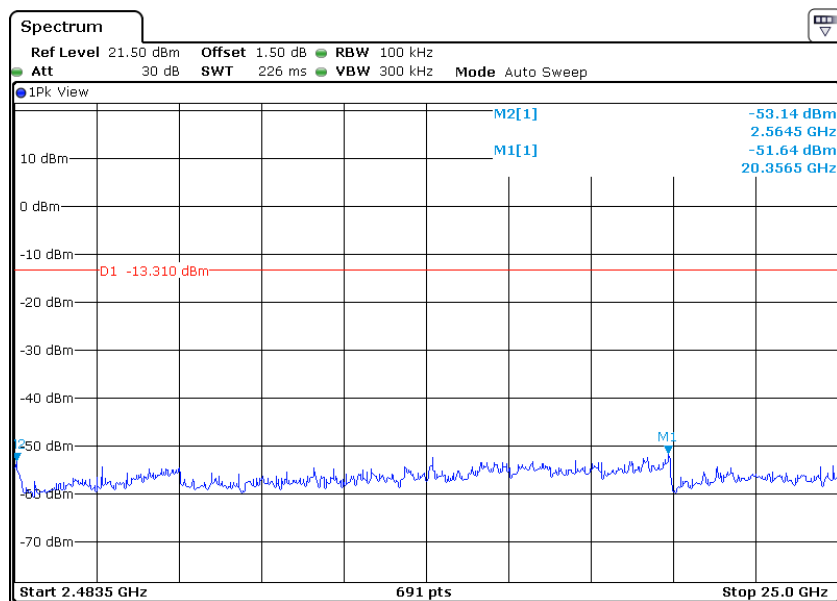
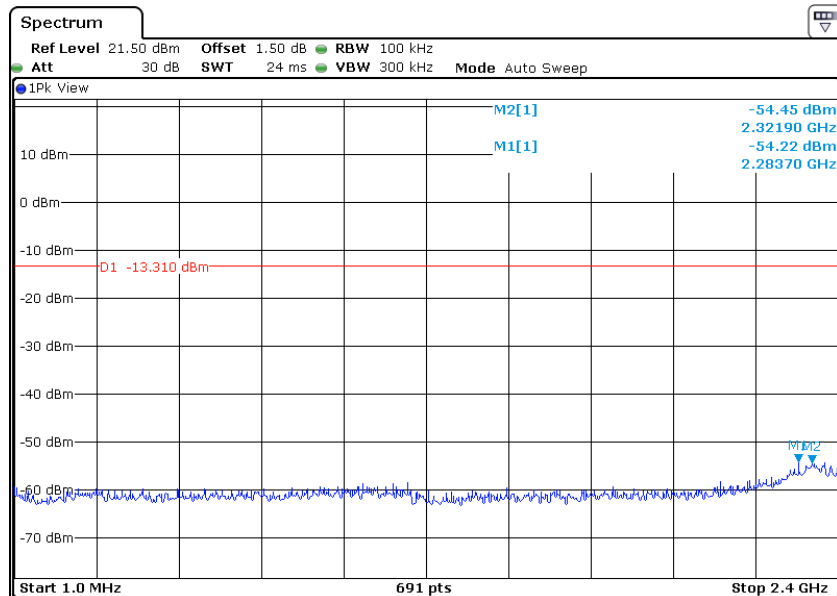
TRF no.: FCC 15C_TX_b
FCC ID: 2AEGO5103MFP
Report No.: 161026008SZN-001

INTERTEK TESTING SERVICES



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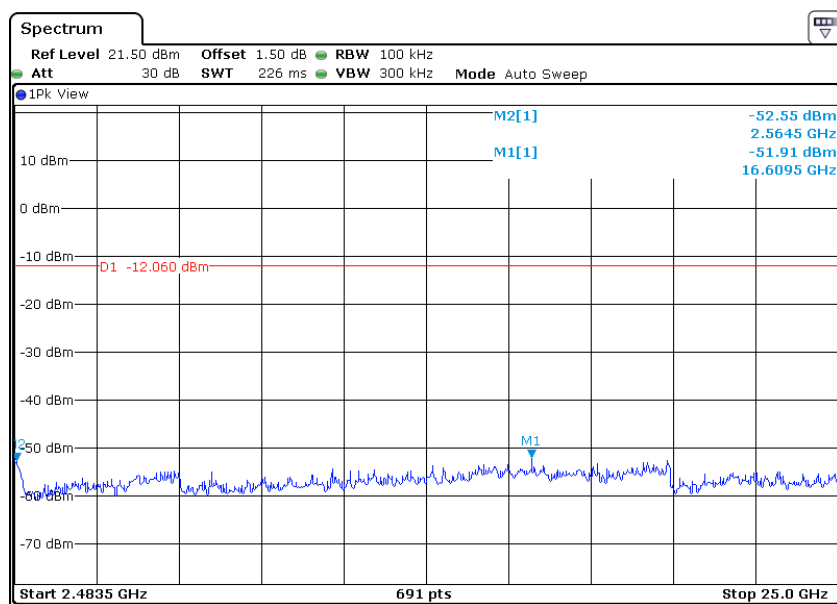
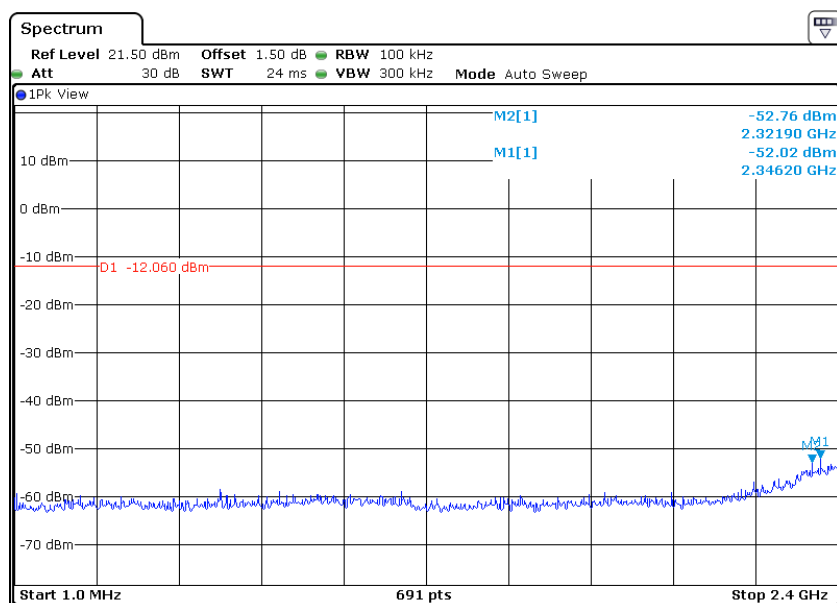
Channel 06 (2437MHz) Reference Level: 6.69dBm



TRF no.: FCC 15C_TX_b
FCC ID: 2AEGO5103MFP
Report No.: 161026008SZN-001

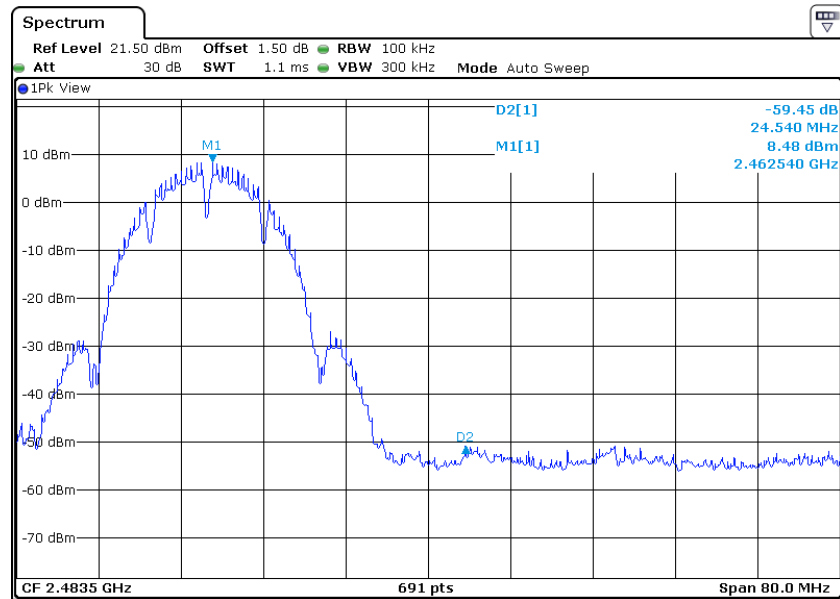
INTERTEK TESTING SERVICES

Channel 11 (2462MHz) Reference Level: 7.94dBm



TRF no.: FCC 15C_TX_b
FCC ID: 2AEGO5103MFP
Report No.: 161026008SZN-001

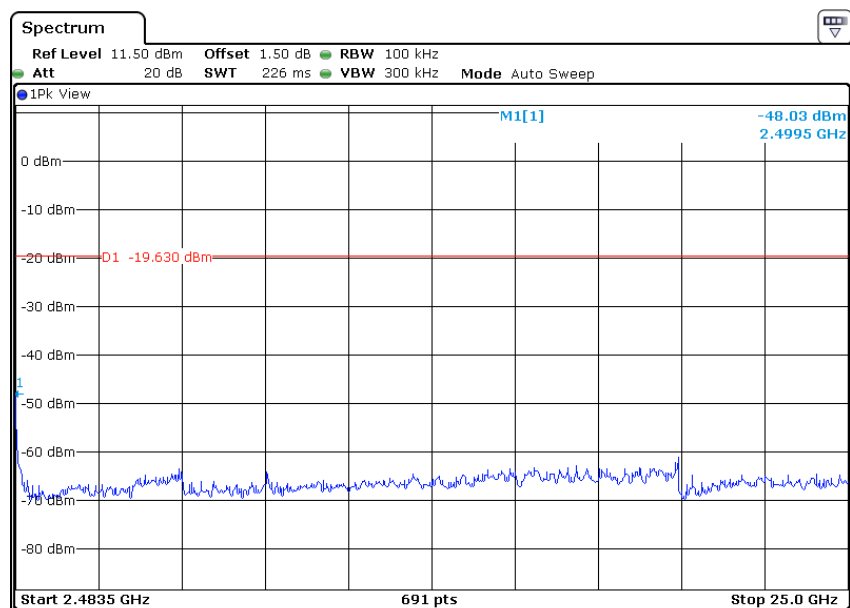
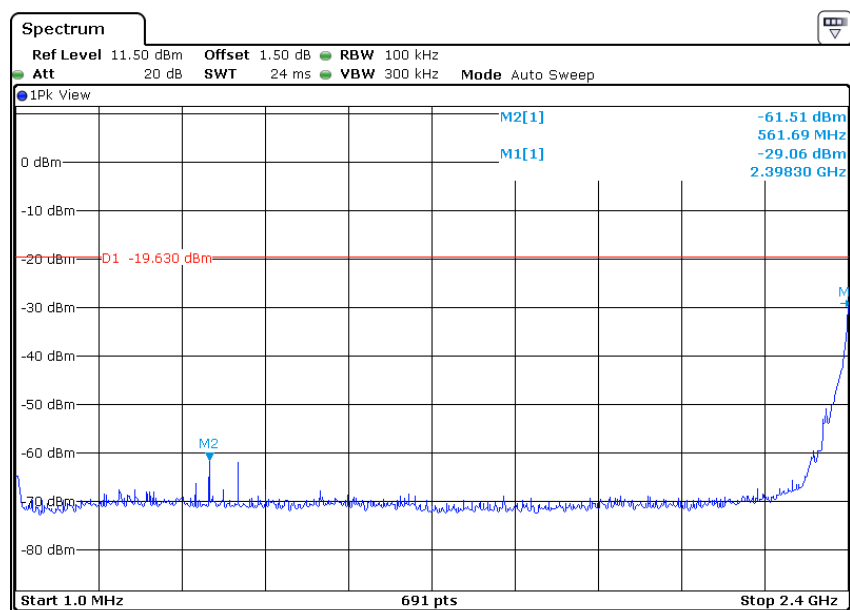
INTERTEK TESTING SERVICES



INTERTEK TESTING SERVICES

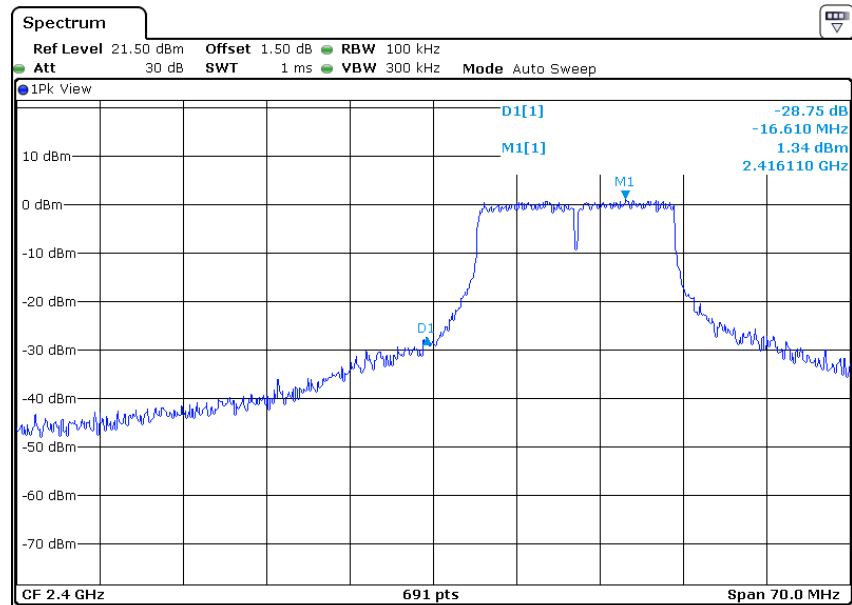
802.11g

Channel 01 (2412MHz) Reference Level: 0.37dBm



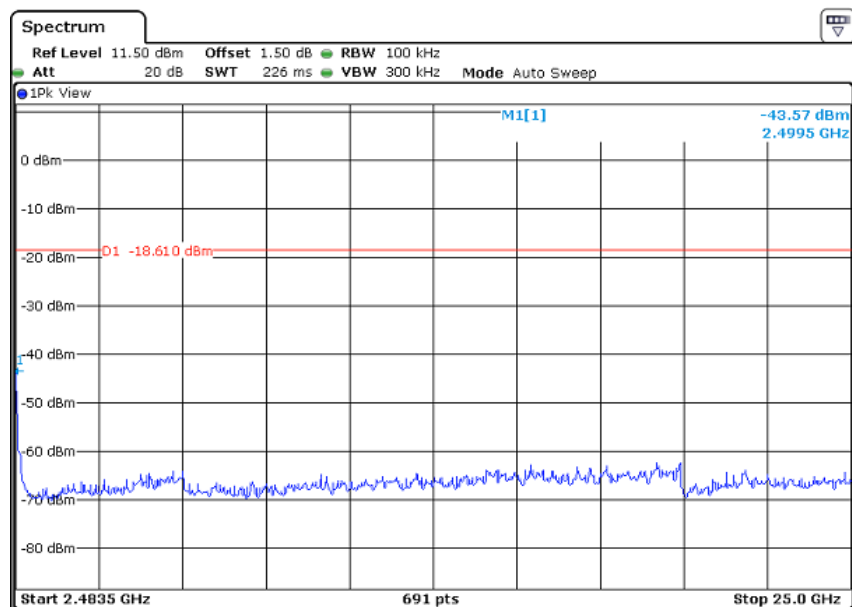
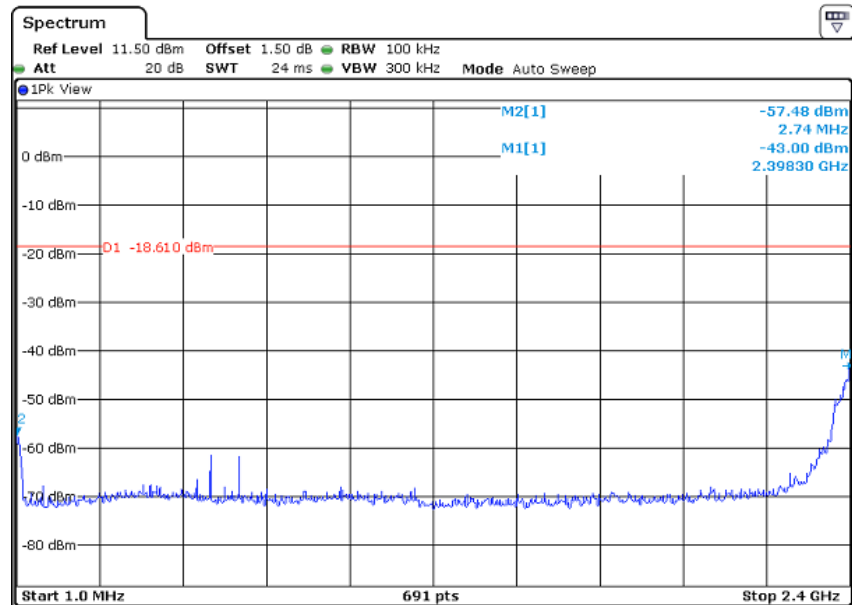
TRF no.: FCC 15C_TX_b
FCC ID: 2AEGO5103MFP
Report No.: 161026008SZN-001

INTERTEK TESTING SERVICES



INTERTEK TESTING SERVICES

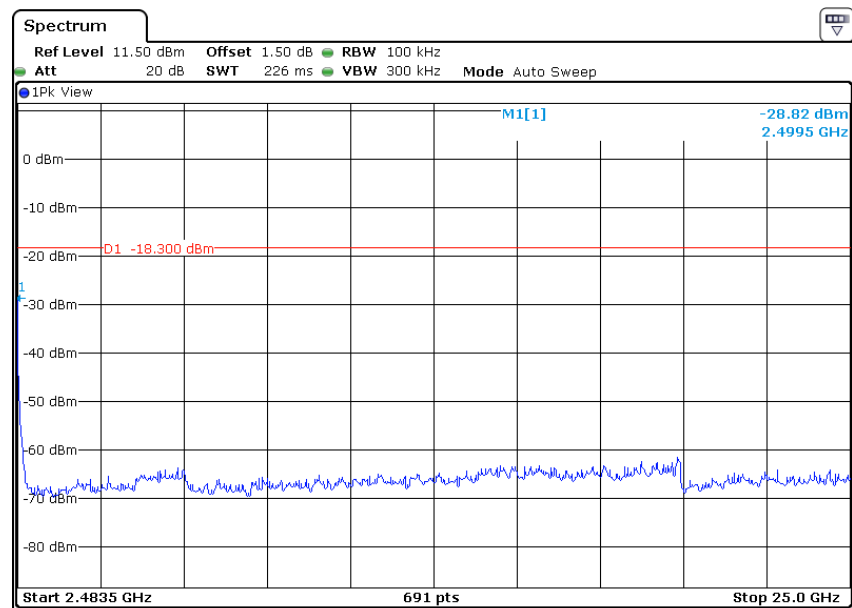
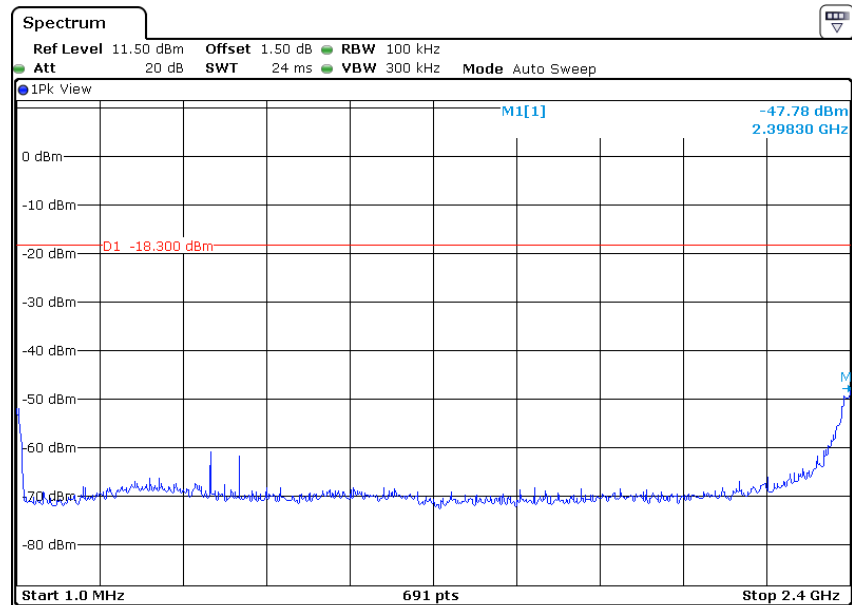
Channel 06 (2437MHz) Reference Level: 1.39dBm



TRF no.: FCC 15C_TX_b
FCC ID: 2AEGO5103MFP
Report No.: 161026008SZN-001

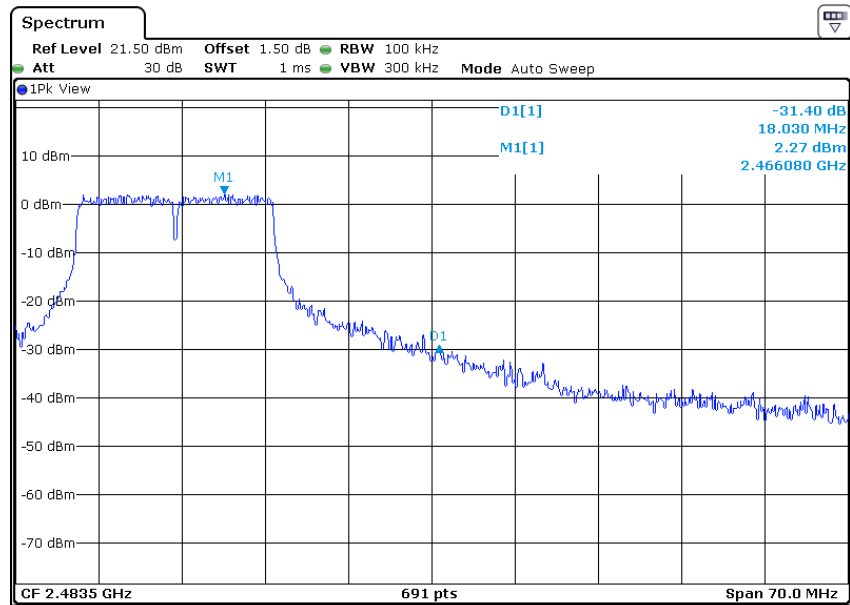
INTERTEK TESTING SERVICES

Channel 11 (2462MHz) Reference Level: 1.70dBm



TRF no.: FCC 15C_TX_b
FCC ID: 2AEGO5103MFP
Report No.: 161026008SZN-001

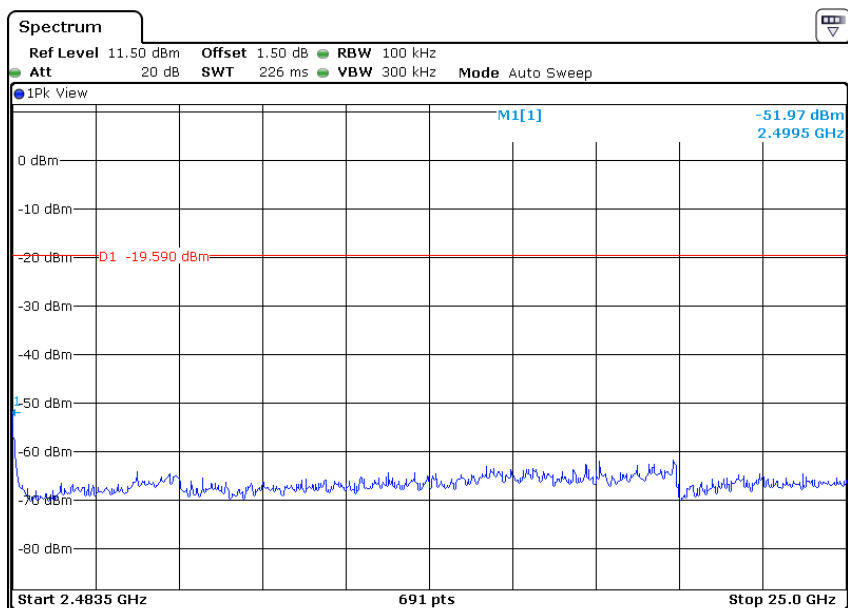
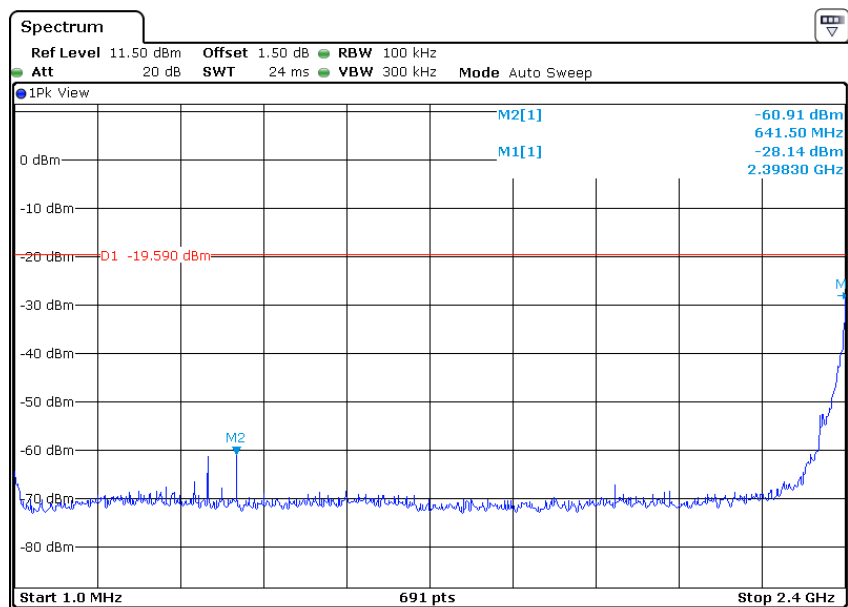
INTERTEK TESTING SERVICES



INTERTEK TESTING SERVICES

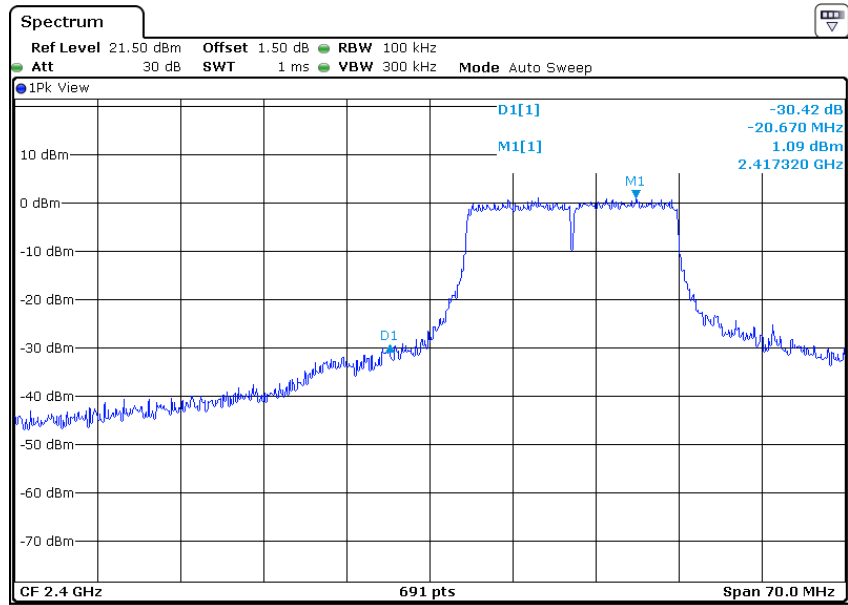
802.11 n-HT20

Channel 01 (2412MHz) Reference Level: 0.41dBm



TRF no.: FCC 15C_TX_b
FCC ID: 2AEGO5103MFP
Report No.: 161026008SZN-001

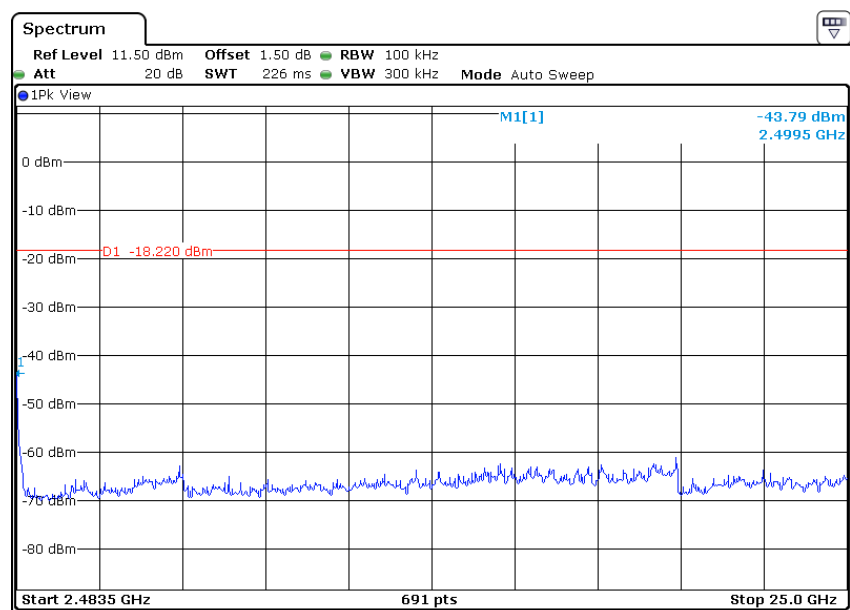
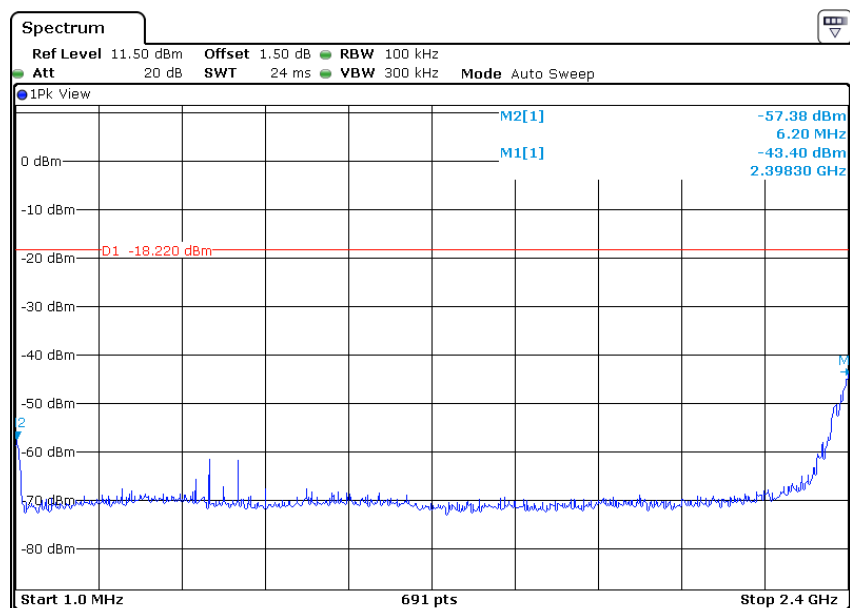
INTERTEK TESTING SERVICES



TRF no.: FCC 15C_TX_b
FCC ID: 2AEGO5103MFP
Report No.: 161026008SZN-001

INTERTEK TESTING SERVICES

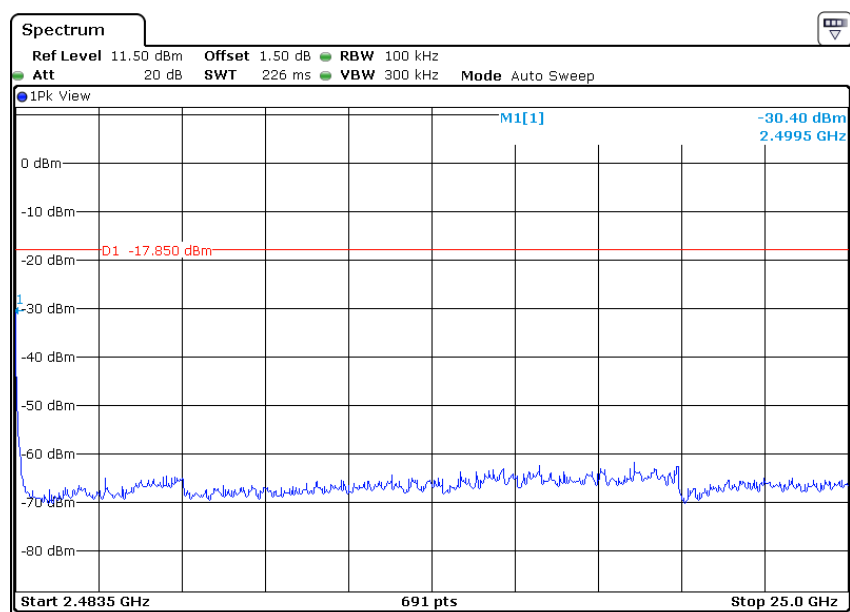
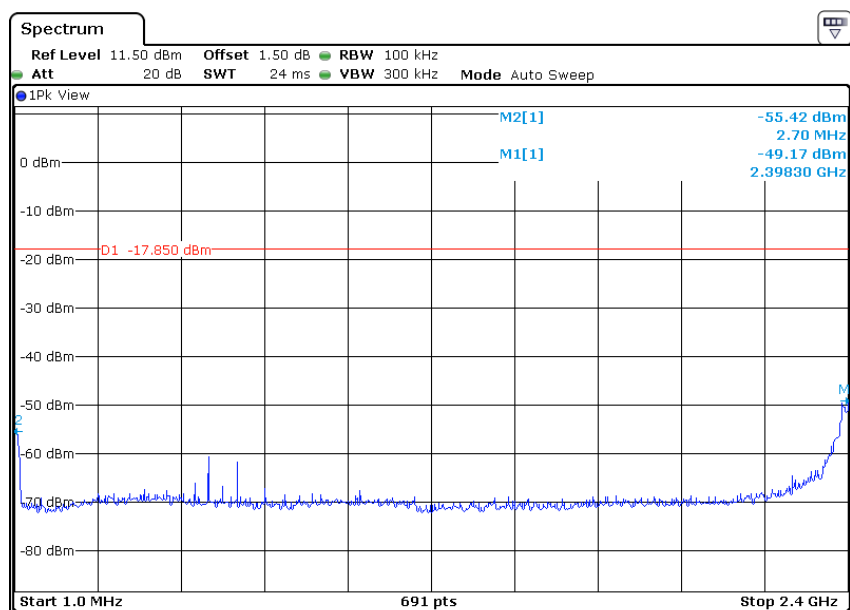
Channel 06 (2437MHz) Reference Level: 1.78dBm



TRF no.: FCC 15C_TX_b
FCC ID: 2AEGO5103MFP
Report No.: 161026008SZN-001

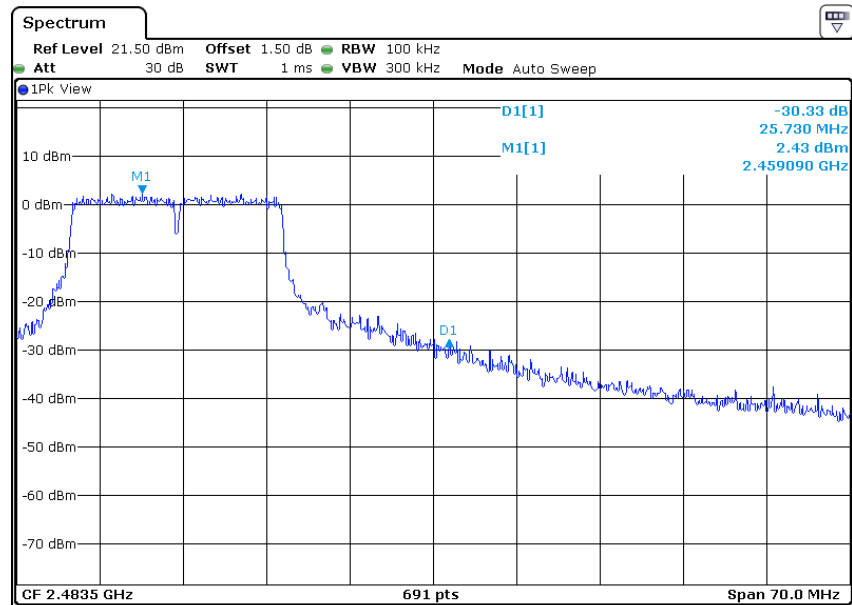
INTERTEK TESTING SERVICES

Channel 11 (2462MHz) Reference Level: 2.15dBm



TRF no.: FCC 15C_TX_b
FCC ID: 2AEGO5103MFP
Report No.: 161026008SZN-001

INTERTEK TESTING SERVICES



TRF no.: FCC 15C_TX_b
FCC ID: 2AEGO5103MFP
Report No.: 161026008SZN-001

INTERTEK TESTING SERVICES

Applicant: Zhuhai Pantum Electronics Co., Ltd.

Date of Test: December 08, 2014

Model: M7200FDW

4.5 Out of Band Radiated Emissions (for emissions in 4.4 above that are less than 20dB below carrier), FCC Rule 15.247(d):

For out of band emissions that are close to or that exceed the 20dB attenuation requirement described in the specification, radiated measurements were performed at a 3m separation distance to determine whether these emissions complied with the general radiated emission requirement.

☒ Not required, since all emissions are more than 20dB below fundamental

☐ See attached data sheet

INTERTEK TESTING SERVICES

Applicant: Zhuhai Pantum Electronics Co., Ltd.

Date of Test: December 08, 2014

Model: M7200FDW

4.6 Transmitter Radiated Emissions in Restricted Bands, FCC Rule 15.35(b), (c):

Data is included of the worst case configuration (the configuration which resulted in the highest emission levels). A sample calculation, configuration photographs and data tables of the emissions are included. All measurements were performed with peak detection unless otherwise specified.

The data on the following pages list the significant emission frequencies, the limit and the margin of compliance.

INTERTEK TESTING SERVICES

Applicant: Zhuhai Pantum Electronics Co., Ltd.

Date of Test: December 08, 2014

Model: M7200FDW

4.7 Field Strength Calculation

The field strength is calculated by adding the reading on the Spectrum Analyzer to the factors associated with preamplifiers (if any), antennas, cables, pulse desensitization and average factors (when specified limit is in average and measurements are made with peak detectors). A sample calculation is included below.

$$FS = RA + AF + CF - AG + PD$$

Where FS = Field Strength in dB μ V/m

RA = Receiver Amplitude (including preamplifier) in dB μ V

CF = Cable Attenuation Factor in dB

AF = Antenna Factor in dB

AG = Amplifier Gain in dB

PD = Pulse Desensitization in dB

In the radiated emission table which follows, the reading shown on the data table may reflect the preamplifier gain. An example of the calculations, where the reading does not reflect the preamplifier gain, follows:

$$FS = RA + AF + CF - AG + PD$$

Example

Assume a receiver reading of 62.0 dB μ V is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB is added. The amplifier gain of 29 dB is subtracted. The pulse desensitization factor of the spectrum analyzer was 0 dB. The net field strength for comparison to the appropriate emission limit is 42 dB μ V/m. This value in dB μ V/m was converted to its corresponding level in μ V/m.

RA = 62.0 dB μ V

AF = 7.4 dB

CF = 1.6 dB

AG = 29.0 dB

PD = 0 dB

$$FS = 62 + 7.4 + 1.6 - 29 + 0 = 42 \text{ dB}\mu\text{V/m}$$

$$\text{Level in mV/m} = \text{Common Antilogarithm} [(42 \text{ dB}\mu\text{V/m})/20] = 125.9 \mu\text{V/m}$$

TRF no.: FCC 15C_TX_b

FCC ID: 2AEGO5103MFP

Report No.: 161026008SZN-001

INTERTEK TESTING SERVICES

Applicant: Zhuhai Pantum Electronics Co., Ltd.

Date of Test: December 08, 2014

Model: M7200FDW

4.8 Radiated Spurious Emission

Worst Case Radiated Spurious Emission [802.11g(TX-Channel 01)] at 320.009 MHz is passed by 1.6dB margin.

For the electronic filing, the worst case radiated emission configuration photographs are saved with filename: radiated photos.pdf.

INTERTEK TESTING SERVICES

Applicant: Zhuhai Pantum Electronics Co., Ltd.

Date of Test: December 08, 2014

Model: M7200FDW

Worst Case Operating Mode: 802.11g (TX-Channel 01)

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	320.009	48.4	20.0	16.0	44.4	46.0	-1.6
Horizontal	400.055	43.0	20.0	19.0	42.0	46.0	-4.0
Horizontal	439.992	42.9	20.0	19.0	41.9	46.0	-4.1
Vertical	166.285	36.5	20.0	10.9	27.4	43.5	-16.1
Vertical	320.030	41.7	20.0	16.0	37.7	46.0	-8.3
Vertical	640.130	35.0	20.0	23.6	38.6	46.0	-7.4

- NOTES:
1. Quasi-Peak detector is used except for others stated.
 2. All measurements were made at 3 meters. Harmonic emissions not detected at the 3-meter distances were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other harmonic emissions than those reported were detected at a test distance of 0.3-meter.
 3. Negative value in the margin column shows emission below limit.
 4. All emissions are below the QP limit.

INTERTEK TESTING SERVICES

Applicant: Zhuhai Pantum Electronics Co., Ltd.

Date of Test: December 08, 2014

Model: M7200FDW

Worst Case Operating Mode: 802.11b (TX-Channel 01)

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	*4824.000	62.1	36.1	34.2	60.2	74.0	-13.8
Horizontal	*2388.551	49.3	20.0	28.2	57.5	74.0	-16.5

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	*4824.000	44.5	36.1	34.2	42.6	54.0	-11.4
Horizontal	*2388.551	31.9	20.0	28.2	40.1	54.0	-13.9

- NOTES:
1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.
 2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 3. Negative value in the margin column shows emission below limit.
 4. Horn antenna used for the emission over 1000MHz.
- * Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

TRF no.: FCC 15C_TX_b

FCC ID: 2AEGO5103MFP

Report No.: 161026008SZN-001

INTERTEK TESTING SERVICES

Applicant: Zhuhai Pantum Electronics Co., Ltd.

Date of Test: December 08, 2014

Model: M7200FDW

Worst Case Operating Mode: 802.11b (TX-Channel 06)

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	*4874.000	59.3	36.1	34.6	57.8	74.0	-16.2
Horizontal	*7311.000	52.5	35.6	37.1	54.0	74.0	-20.0

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	*4874.000	45.3	36.1	34.6	43.8	54.0	-10.2
Horizontal	*7311.000	39.4	35.6	37.1	40.9	54.0	-13.1

- NOTES: 1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.
2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
3. Negative value in the margin column shows emission below limit.
4. Horn antenna used for the emission over 1000MHz.
- * Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

INTERTEK TESTING SERVICES

Applicant: Zhuhai Pantum Electronics Co., Ltd.

Date of Test: December 08, 2014

Model: M7200FDW

Worst Case Operating Mode: 802.11b (TX-Channel 11)

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	*4924.000	60.9	36.1	34.6	59.4	74.0	-14.6
Horizontal	*7386.000	53.6	35.6	37.2	55.2	74.0	-18.8

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	*4924.000	41.8	36.1	34.6	40.3	54.0	-13.7
Horizontal	*7386.000	38.8	35.6	37.2	40.4	54.0	-13.6

- NOTES:
1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.
 2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 3. Negative value in the margin column shows emission below limit.
 4. Horn antenna used for the emission over 1000MHz.
- * Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

TRF no.: FCC 15C_TX_b

FCC ID: 2AEGO5103MFP

Report No.: 161026008SZN-001

INTERTEK TESTING SERVICES

Applicant: Zhuhai Pantum Electronics Co., Ltd.

Date of Test: December 08, 2014

Model: M7200FDW

Worst Case Operating Mode: 802.11g (TX-Channel 01)

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	*4824.000	58.7	36.1	34.2	56.8	74.0	-17.2
Horizontal	*2389.039	45.4	20.0	28.2	53.6	74.0	-20.4

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	*4824.000	41.8	36.1	34.2	39.9	54.0	-14.1
Horizontal	*2389.039	32.8	20.0	28.2	41.0	54.0	-13.0

- NOTES:
1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.
 2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 3. Negative value in the margin column shows emission below limit.
 4. Horn antenna used for the emission over 1000MHz.
- * Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

INTERTEK TESTING SERVICES

Applicant: Zhuhai Pantum Electronics Co., Ltd.

Date of Test: December 08, 2014

Model: M7200FDW

Worst Case Operating Mode: 802.11g (TX-Channel 06)

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	*4874.000	55.6	36.1	34.6	54.1	74.0	-19.9
Horizontal	*7311.000	56.3	35.6	37.1	57.8	74.0	-16.2

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	*4874.000	45.9	36.1	34.6	44.4	54.0	-9.6
Horizontal	*7311.000	40.3	35.6	37.1	41.8	54.0	-12.2

- NOTES:
1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.
 2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 3. Negative value in the margin column shows emission below limit.
 4. Horn antenna used for the emission over 1000MHz.
- * Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

TRF no.: FCC 15C_TX_b

FCC ID: 2AEGO5103MFP

Report No.: 161026008SZN-001

INTERTEK TESTING SERVICES

Applicant: Zhuhai Pantum Electronics Co., Ltd.

Date of Test: December 08, 2014

Model: M7200FDW

Worst Case Operating Mode: 802.11g (TX-Channel 11)

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	*4924.000	61.2	36.1	34.6	59.7	74.0	-14.3

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	*4924.000	41.7	36.1	34.6	40.2	54.0	-13.8

- NOTES:
1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.
 2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 3. Negative value in the margin column shows emission below limit.
 4. Horn antenna used for the emission over 1000MHz.
- * Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

TRF no.: FCC 15C_TX_b

FCC ID: 2AEGO5103MFP

Report No.: 161026008SZN-001

INTERTEK TESTING SERVICES

Applicant: Zhuhai Pantum Electronics Co., Ltd.

Date of Test: December 08, 2014

Model: M7200FDW

Worst Case Operating Mode: 802.11n-HT20 (TX-Channel 01)

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Peak Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4824.000	59.4	36.1	34.2	57.5	74.0	-16.5
Horizontal	*2389.400	50.5	20.0	28.2	58.7	74.0	-15.3

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dB μ V/m)	Average Limit at 3m (dB μ V/m)	Margin (dB)
Horizontal	*4824.000	44.6	36.1	34.2	42.7	54.0	-11.3
Horizontal	*2389.400	30.6	20.0	28.2	38.8	54.0	-15.2

- NOTES:
1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.
 2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 3. Negative value in the margin column shows emission below limit.
 4. Horn antenna used for the emission over 1000MHz.
- * Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

INTERTEK TESTING SERVICES

Applicant: Zhuhai Pantum Electronics Co., Ltd.

Date of Test: December 08, 2014

Model: M7200FDW

Worst Case Operating Mode: 802.11n-HT20 (TX-Channel 06)

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	*4874.000	61.4	36.1	34.2	59.5	74.0	-14.5
Horizontal	*7311.000	52.6	35.6	37.1	54.1	74.0	-19.9

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	*4874.000	41.8	36.1	34.2	39.9	54.0	-14.1
Horizontal	*7311.000	33.8	35.6	37.1	35.3	54.0	-18.7

- NOTES:
1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.
 2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
 3. Negative value in the margin column shows emission below limit.
 4. Horn antenna used for the emission over 1000MHz.
- * Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

TRF no.: FCC 15C_TX_b

FCC ID: 2AEGO5103MFP

Report No.: 161026008SZN-001

INTERTEK TESTING SERVICES

Applicant: Zhuhai Pantum Electronics Co., Ltd.

Date of Test: December 08, 2014

Model: M7200FDW

Worst Case Operating Mode: 802.11n-HT20 (TX-Channel 11)

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	*4924.000	61.9	36.1	34.6	60.4	74.0	-13.6
Horizontal	*7386.000	53.6	35.6	37.2	55.2	74.0	-18.8

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)
Horizontal	*4924.000	41.4	36.1	34.6	39.9	54.0	-14.1
Horizontal	*7386.000	39.0	35.6	37.2	40.6	54.0	-13.4

- NOTES: 1. Peak detector is used, RBW=1MHz/VBW=3MHz for peak value and RBW=1MHz / VBW=10Hz for average value.
2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
3. Negative value in the margin column shows emission below limit.
4. Horn antenna used for the emission over 1000MHz.
- * Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

TRF no.: FCC 15C_TX_b

FCC ID: 2AEGO5103MFP

Report No.: 161026008SZN-001

INTERTEK TESTING SERVICES

4.9 Conducted Emission

Worst Case Conducted emission at 4.622MHz is Passed by 15.1dB margin.

For electronic filing, the worst case conducted emission configuration photograph is saved with filename: conducted photos.pdf.

INTERTEK TESTING SERVICES

Applicant: Zhuhai Pantum Electronics Co., Ltd.

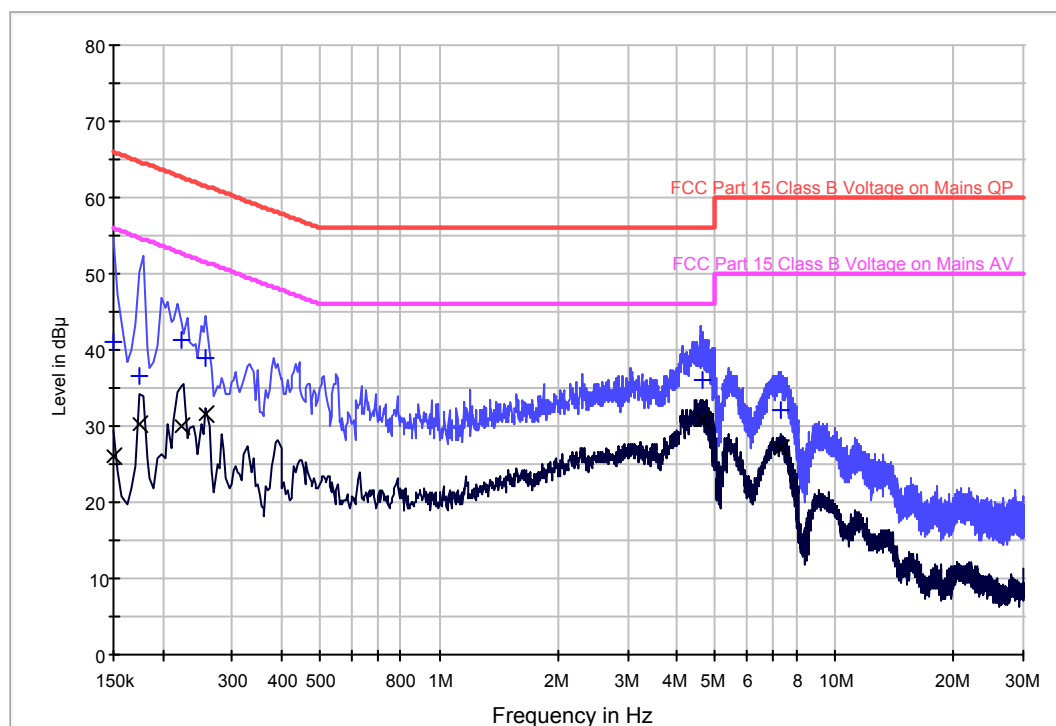
Date of Test: December 08, 2014

Model: M7200FDW

Worst Case Operating Mode: 802.11g (TX-Channel 01)

Line: Live

Conducted Emission Test - FCC



Limit and Margin QP

Frequency (MHz)	QuasiPeak (dB μV)	Line	Corr. (dB)	Margin (dB)	Limit (dB μV)
0.150000	41.0	L1	9.5	25.0	66.0
0.174000	36.6	L1	9.5	28.2	64.8
0.222000	41.4	L1	9.5	21.3	62.7
0.258000	39.0	L1	9.6	22.5	61.5
4.622000	36.0	L1	9.7	20.0	56.0
7.310000	32.2	L1	9.7	27.8	60.0

Limit and Margin AV

Frequency (MHz)	Average (dB μV)	Line	Corr. (dB)	Margin (dB)	Limit (dB μV)
0.150000	25.9	L1	9.5	30.1	56.0
0.174000	30.3	L1	9.5	24.5	54.8
0.222000	29.9	L1	9.5	22.8	52.7
0.258000	31.6	L1	9.6	19.9	51.5
4.622000	30.9	L1	9.7	15.1	46.0
7.310000	27.2	L1	9.7	22.8	50.0

TRF no.: FCC 15C_TX_b

FCC ID: 2AEGO5103MFP

Report No.: 161026008SZN-001

INTERTEK TESTING SERVICES

Applicant: Zhuhai Pantum Electronics Co., Ltd.

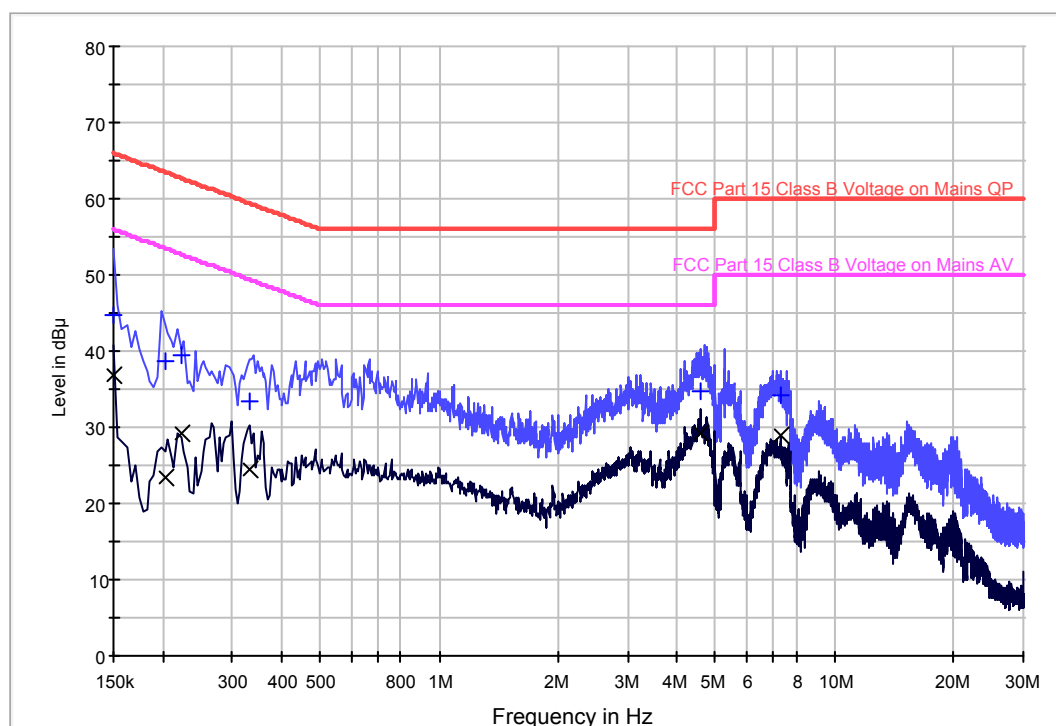
Date of Test: December 08, 2014

Model: M7200FDW

Worst Case Operating Mode: 802.11g (TX-Channel 01)

Line: Neutral

Conducted Emission Test - FCC



Limit and Margin QP

Frequency (MHz)	QuasiPeak (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.150000	44.8	N	9.6	21.2	66.0
0.202000	38.6	N	9.6	24.9	63.5
0.222000	39.5	N	9.6	23.2	62.7
0.330000	33.3	N	9.6	26.2	59.5
4.582000	34.8	N	9.6	21.2	56.0
7.314000	34.3	N	9.7	25.7	60.0

Limit and Margin AV

Frequency (MHz)	Average (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.150000	36.8	N	9.6	19.2	56.0
0.202000	23.4	N	9.6	30.1	53.5
0.222000	29.2	N	9.6	23.5	52.7
0.330000	24.5	N	9.6	25.0	49.5
4.582000	29.2	N	9.6	16.8	46.0
7.314000	29.0	N	9.7	21.0	50.0

TRF no.: FCC 15C_TX_b

FCC ID: 2AEGO5103MFP

Report No.: 161026008SZN-001

INTERTEK TESTING SERVICES

Applicant: Zhuhai Pantum Electronics Co., Ltd.

Date of Test: December 08, 2014

Model: M7200FDW

4.10 Radiated Emissions from Digital Section of Transceiver, FCC Ref: 15.109 & ICES-003

☐ Not required - No digital part

☐ Test results are attached

☒ Included in the separated report.

INTERTEK TESTING SERVICES

Applicant: Zhuhai Pantum Electronics Co., Ltd.

Date of Test: December 08, 2014

Model: M7200FDW

4.11 Transmitter Duty Cycle Calculation and Measurements, FCC Rule 15.35(b), (c)

The EUT antenna output port was connected to the input of the spectrum analyzer. The analyzer center frequency was set to EUT RF channel carrier. The SWEP function on the analyzer was set to ZERO SPAN. The Transmitter ON time was determined from the resultant time-amplitude display:

	See attached spectrum analyzer chart (s) for Transmitter timing
	See Transmitter timing diagram provided by manufacturer
x	Not applicable, duty cycle was not used.

INTERTEK TESTING SERVICES

EXHIBIT 5

EQUIPMENT PHOTOGRAPHS

INTERTEK TESTING SERVICES

5.0 **Equipment Photographs**

For electronic filing, the photographs are saved with filename: external photos.pdf & internal photos.pdf.

EXHIBIT 6
PRODUCT LABELLING

INTERTEK TESTING SERVICES

6.0 **Product Labeling**

For electronic filing, the FCC ID label artwork and location is saved with filename: label.pdf.

INTERTEK TESTING SERVICES

EXHIBIT 7

TECHNICAL SPECIFICATIONS

INTERTEK TESTING SERVICES

7.0 Technical Specifications

For electronic filing, the block diagram and circuit diagram are saved with filename: block.pdf and circuit.pdf respectively.

EXHIBIT 8
INSTRUCTION MANUAL

INTERTEK TESTING SERVICES

8.0 Instruction Manual

For electronic filing, a preliminary copy of the Instruction Manual is saved with filename: manual.pdf.

This manual will be provided to the end-user with each unit sold/leased in the United States.

INTERTEK TESTING SERVICES

EXHIBIT 9

CONFIDENTIALITY REQUEST

INTERTEK TESTING SERVICES

9.0 Confidentiality Request

For electronic filing, the confidentiality request of the tested EUT is saved with filename: request.pdf.

INTERTEK TESTING SERVICES

EXHIBIT 10

MISCELLANEOUS INFORMATION

INTERTEK TESTING SERVICES

10.0 **Discussion of Pulse Desensitization**

The determination of pulse desensitivity was made in accordance with Hewlett Packard Application Note 150-2, *Spectrum Analysis ... Pulsed RF*.

Pulse desensitivity is not applicable for this device since the transmitter transmits the RF signal continuously.

INTERTEK TESTING SERVICES

EXHIBIT 11

TEST EQUIPMENT LIST

INTERTEK TESTING SERVICES

11.0 Test Equipment List

Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
RF Power Meter	Anritsu	ML2496A	1302005	23-May-2016	23-May-2017
Power Sensor	Anritsu	MA2411B	1207429	23-May-2016	23-May-2017
EMI Receiver	R&S	ESU	1302.6005.26	28-May-2016	28-May-2017
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170399	28-May-2016	28-May-2017
Horn Antenna	Schwarzbeck	BBHA 9120	D143	28-May-2016	28-May-2017
Active Loop Antenna	ARA	PLA-1030/B	1029	28-May-2016	28-May-2017
Bilog Antenna	Schwarzbeck	VULB9163	142	28-May-2016	28-May-2017
Spectrum Analyzer	R&S	FSP 30	101148	28-May-2016	28-May-2017
Spectrum Analyzer	R&S	FSV 40	101506	28-May-2016	28-May-2017
Preamplifier	HP	8447D	2944A07999	28-May-2016	28-May-2017
RF Cable	Schwarzbeck	AK9513	ACRX1	28-May-2016	28-May-2017
RF Cable	Schwarzbeck	AK9513	ACRX2	28-May-2016	28-May-2017
RF Cable	Schwarzbeck	AK9513	ACRX3	28-May-2016	28-May-2017
Notch Filter	Micro-Tronics	BRM50702-02	--	28-May-2016	28-May-2017
EMI Test Receiver	R&S	ESCI	100692	1-Nov-2016	1-Nov-2017
Two-Line V-Network	R&S	ENV216	100072	1-Nov-2016	1-Nov-2017
Two-Line V-Network	R&S	ENV216	100073	1-Jul-2016	1-Jul-2017
Shielding Room	ETS	RFD-100	4100	17-Aug-2016	17-Aug-2018