

November 9, 2011

SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD. NO.1 Shuoying Rd., Hebei Industry Area, Dalang, Longhua Town, Baoan, Shenzhen, China

Dear Tony Pan:

Enclosed you will find your file copy of a Part 15 report (FCC ID: XJN-SYP0106).

For your reference, TCB will normally take another 1 week for reviewing the report. Approval will then be granted when no query is sorted.

Please contact me if you have any questions regarding the enclosed material.

Sincerely,

Shawn Xing Manager

Enclosure



SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

Application For Certification

MID (WiFi Transceiver)

(FCC ID: XJN-SYP0106)

Model: P0106

Billy li SZ11090419-2

Billy Li November 9, 2011

- 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.
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- 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.

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TRF no.: FCC 15C_TXa FCC ID: XJN-SYP0106

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MEASUREMENT/TECHNICAL REPORT

SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD. - MODEL: P0106

FCC ID: XJN-SYP0106

This report concerns (check one)	Original Grant X Class II Change
Equipment Type: DTS - Part 15 portion)	5 Digital Transmission Systems (WiFi transmitter
Deferred grant requested per 47	CFR 0.457(d)(1)(ii)? Yes NoX
	If yes, defer until:
Company Name agrees to notify	the Commission by: date
of the intended date of announcissued on that date.	cement of the product so that the grant can be
Transition Rules Request per 15.3	37? Yes NoX
If no, assumed Part 15, Subpa [10-01-10 Edition] provision.	art C for intentional radiator - the new 47 CFR
Report prepared by:	Shawn Xing Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch 6F, Block D, Huahan Building, Langshan Road, Nanshan District, Shenzhen, P. R. China Phone: (86 755) 8601 6288 Fax: (86 755) 8601 6751

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List of attached file

Exhibit Type	File Description	Filename
Cover Letter	Letter of Agency	agency.spdf
Test Report	Test Report	report.pdf
Test Report	6 dB Bandwidth Plot	6dB bw.pdf
Test Report	Maximum Power Density Plot	maxpd.pdf
Test Report	Out Band Antenna Conducted Emission Plot	obantcon.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
RF Exposure info	RF Safety	RF exposure info.pdf

EXHIBIT 1 SUMMARY OF TEST RESULTS

1.0 Summary of Test

SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD. - MODEL: P0106 FCC ID: XJN-SYP0106

TEST	REFERENCE	RESULTS
Max. Output power	15.247(b)	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 Internal Integral Antenna which in accordance to Section 15.203 is considered sufficient to comply with the provisions of this section.

EXHIBIT 2 GENERAL DESCRIPTION

2.0 **General Description**

2.1 Product Description

The Equipment Under Test (EUT) is a MID with internal WiFi module operating at 2.412-2.462GHz (11 channels for 802.11b/g/n (20MHz) & 2.422-2.452 GHz (7 channels for 802.11n (40MHz) with 5MHz channel spacing. The EUT has a resistive touch screen and can be operated by stylus or your nail tapping the screen. The device is powered by 1 X 8.4V rechargeable battery or an AC/DC Adapter (INPUT: AC 100-240V, 50/60Hz; OUTPUT: DC 9V, 2.5A). For more detailed features description, please refer to the user's manual.

Type of Modulation: CCK for 802.11b, OFDM for 802.11g/n.

Antenna Type: Internal Integral Antenna.

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

TRF No.: FCC 15C_TXa FCC ID: XJN-SYP0106

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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. Receiver portion of WiFi: exempt from technical requirement of this Part.
- 2. Other function: 15B (report no.: SZ11090419-1).

2.3 Test Methodology

Both AC mains line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.4 (2003) and KDB 558074. 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 Semi-Anechoic chamber and shield room used to collect the radiated data and conducted data are **Interterk 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.

EXHIBIT 3

SYSTEM TEST CONFIGURATION

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. It was powered by an AC/DC Adapter (INPUT: AC 100-240V, 50/60Hz, 0.5A; OUTPUT: DC 9V, 2.5A) and 1 X 8.4V fully charged battery.

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.

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.

Power Parameters of IEEE 802.11b/g/n

Test software setting of IEEE 802.11b/g/n			
Channel No.	Output Power	Data rate	Modulation type
4.0.44	13.0	802.11b: 1-11Mbps	802.11b: CCK
1,6,11	13.0	802.11g: 6-54Mbps	802.11g: OFDM
1,6,11	13.0	802.11n: 7.2-72.2Mbps	802.11n-20M: OFDM
3,6,9	13.0	802.11n: 15-157.5Mbps	802.11n-40M: OFDM

We test all data rate and only the worst – case data is shown in the report.

3.3 Special Accessories

Shielding HDMI cable with two ferrite ring.

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 SHUOYING INDUSTRIAL (SHENZHEN) 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.

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3.6 Support Equipment List and Description

This product was tested in the following configuration:

Refer List:

Description	Manufacturer	Model No.
Router	Buffalo	WHR-HP-G54
2 X USB Disk	Sandisk	USB/2GB
2 X TF card	Sandisk	TF/2GB
Earphone	ShuoYing	EP-001 (Length: 120cm)
Adapter	ShuoYing	ADS-24S-12 0923GPCU (INPUT: 100-240, 50/60Hz, 0.7A; OUTPUT: DC 9V, 2.5A)
HDMI terminal	MTC	TL-002
Net Cable	PTL	RJ45 Cat.5 net cable (Length: 120cm)
Shielded HDMI Cable with two ferrite ring	ShuoYing	HDMI-001 (Length: 100cm)

All the items listed under section 3.0 of this report are

Confirmed by:

Shawn Xing Manager

Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch Agent for SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

_____ Signature

November 9, 2011 Date

EXHIBIT 4

MEASUREMENT RESULTS

Applicant: SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

Date of Test: November 9, 2011

Model: P0106

4.0 Measurement Results

- 4.1 Maximum Conducted Output Power at Antenna Terminals, FCC Rules 15.247(b)(3):
 - [x] The antenna power of the EUT was connected to the input of a power meter. Power was read directly and cable loss correction was added to the reading to obtain power at the EUT antenna terminals.
 - [] The antenna port of the EUT was connected to the input of a spectrum analyzer. The analyzer was set for RBW> 6dB bandwidth and power was read directly in dBm. External attenuation and cable loss were compensated from the measured value.

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

IEEE 802.11b (Antenna Gain = 1.0 dBi) (CCK, 1Mbps)		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2412	11.8	15.1
Middle Channel: 2437	12.1	16.2
High Channel: 2462	11.9	15.5

IEEE 802.11g (Antenna Gain = 1.0 dBi) (OFDM, 6Mbps)		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2412	11.3	13.5
Middle Channel: 2437	11.5	14.1
High Channel: 2462	11.7	14.8

IEEE 802.11n 20M (Antenna Gain = 1.0 dBi) (OFDM, 7.2Mbps)			
Frequency (MHz)	Output in dBm	Output in mWatt	
Low Channel: 2412	12.8	19.1	
Middle Channel: 2437	12.4	17.4	
High Channel: 2462	12.4	17.4	

IEEE 802.11n 40M (Antenna Gain = 1.0dBi) (OFDM, 15Mbps)			
Frequency (MHz)	Output in dBm	Output in mWatt	
Low Channel: 2422	11.8	15.1	
Middle Channel: 2437	11.7	14.8	
High Channel: 2452	11.6	14.5	

Cable loss: <u>0.5</u> dB	External Att	enuation: 0 dB
Cable loss, external a	attenuation:	included in OFFSET functionadded to power meter raw reading
EUT dBm max. outports. For RF Safety, the in		8dBm saved with filename: RF exposure info.pdf.

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Applicant: SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

Date of Test: November 9, 2011

Model: P0106

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 100kHz. 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.

IEEE 802.11b (CCK, 1Mbps)		
Frequency (MHz)	6 dB Bandwidth (MHz)	
2412	10.12	

IEEE 802.11g (OFDM, 6Mbps)				
Frequency (MHz)	6 dB Bandwidth (MHz)			
2412, 2437, 2462	16.56			

IEEE 802.11n 20M (OFDM, 7.2Mbps)				
Frequency (MHz)	6 dB Bandwidth (MHz)			
2462	17.68			

IEEE 802.11n 40M (OFDM, 15Mbps)				
Frequency (MHz)	6 dB Bandwidth (MHz)			
2422	36.54			

Limit: at least 500 kHz

Refer to the following plots for 6 dB bandwidth sharp:

IEEE 802.11b

Plot B2A1: Low Channel 6 dB RF Bandwidth Plot B2B1: Middle Channel 6 dB RF Bandwidth Plot B2C1: High Channel 6 dB RF Bandwidth

IEEE 802.11g

Plot G2A1: Low Channel 6 dB RF Bandwidth Plot G2B1: Middle Channel 6 dB RF Bandwidth Plot G2C1: High Channel 6 dB RF Bandwidth

IEEE 802.11n 20M

Plot N2A1-20M: Low Channel 6 dB RF Bandwidth Plot N2B1-20M: Middle Channel 6 dB RF Bandwidth Plot N2C1-20M: High Channel 6 dB RF Bandwidth

IEEE 802.11n 40M

Plot N2A1-40M: Low Channel 6 dB RF Bandwidth Plot N2B1-40M: Middle Channel 6 dB RF Bandwidth Plot N2C1-40M: High Channel 6 dB RF Bandwidth

For electronic filing, the above plots are saved with filename: 6dB bw.pdf

Applicant: SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

Date of Test: November 9, 2011

Model: P0106

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

The spectrum analyzer RES BW was set to 3kHz. In order to look for a peak, the START and STOP frequencies were set to the band edges of the maximum output passband. If there is no clear maximum amplitude in any given portion of the band, it may be necessary to make measurements at a number of bands defined by several START and STOP frequency pairs.

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.

IEEE 802.11b (CCK, 1Mbps)				
Frequency (MHz) Power Density (dBm/3kHz)				
2412.713	-23.72			

Frequency Span = 1.5MHz

Sweep Time = Frequency Span/3kHz

= 500 seconds

Cable Loss: <u>0.5</u>dB

Peak Power Density (at 2412.713MHz) = -23.22 dBm/3kHz

Limit: 8dBm/3 kHz

Refer to the following plots for power density data:

Plot B3A1: Low Channel power density Plot B3B1: Middle Channel power density Plot B3C1: High Channel power density

For electronic filing, the above plots are saved with filename: maxpd.pdf

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Date of Test: November 9, 2011

Model: P0106

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

IEEE 802.11g (OFDM, 6Mbps)				
Frequency (MHz) Power Density (dBm/3kHz)				
2411.070	-25.89			

Frequency Span = 1.5MHz

Sweep Time = Frequency Span/3kHz

= 500 seconds

Cable Loss: 0.5dB

Peak Power Density (at 2411.070MHz) = -25.39 dBm/3kHz

Limit: 8dBm/3 kHz

Refer to the following plots for power density data:

Plot G3A1: Low Channel power density Plot G3B1: Middle Channel power density Plot G3C1: High Channel power density

For electronic filing, the above plots are saved with filename: maxpd.pdf

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Date of Test: November 9, 2011

Model: P0106

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

IEEE 802.11n 20M (OFDM, 7.2Mbps)				
Frequency (MHz) Power Density (dBm/3kHz)				
2455.400	-25.49			

Frequency Span = 1.5MHz

Sweep Time = Frequency Span/3kHz

= 500 seconds

Cable Loss: 0.5dB

Peak Power Density (at 2455.400MHz) = -24.99 dBm/3kHz

Limit: 8dBm/ 3 kHz

Refer to the following plots for power density data:

Plot N3A1-20M: Low Channel power density Plot N3B1-20M: Middle Channel power density Plot N3C1-20M: High Channel power density

For electronic filing, the above plots are saved with filename: maxpd.pdf

Applicant: SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

Date of Test: November 9, 2011

Model: P0106

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

IEEE 802.11n 40M (OFDM, 15Mbps)				
Frequency (MHz) Power Density (dBm/3kHz)				
2418.570	-25.30			

Frequency Span = 1.5MHz

Sweep Time = Frequency Span/3kHz

= 500 seconds

Cable Loss: 0.5dB

Peak Power Density (at 2418.570MHz) = -24.80 dBm/3kHz

Limit: 8dBm/ 3 kHz

Refer to the following plots for power density data:

Plot N3A1-40M: Low Channel power density Plot N3B1-40M: Middle Channel power density Plot N3C1-40M: High Channel power density

For electronic filing, the above plots are saved with filename: maxpd.pdf

Applicant: SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

Date of Test: November 9, 2011

Model: P0106

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

In any 100 kHz bandwidth outside the EUT passband, the RF power produced by the modulation products of the spreading sequence, the information sequence, and the carrier frequency shall be at least 20dB below that of the maximum in-band 100 kHz emission, or else shall meet the general limits for radiated emissions at frequencies outside the passband, whichever results in lower attenuation.

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

Refer to the following plots for out of band conducted emissions data with rate of 1MHz for 802.11b and 6MHz for 802.11g.

Plot B4A1, B4A2: Low Channel Emissions Plot B4B1, B4B2: Middle Channel Emissions Plot B4C1, B4C2: High Channel Emissions Plot B4D1, B4D2: Bandedge Emissions Plot G4A1, G4A2: Low Channel Emissions Plot G4B1, G4B2: Middle Channel Emissions Plot G4C1, G4C2: High Channel Emissions Plot G4D1, G4D2: Bandedge Emissions Plot N4A1-20M, N4A2-20M: Low Channel Emissions Plot N4B1-20M, N4B2-20M: Middle Channel Emissions Plot N4C1-20M, N4C2-20M: High Channel Emissions Plot N4D1-20M, N4D2-20M: Bandedge Emissions Plot N4A1-40M, N4A2-40M: Low Channel Emissions Plot N4B1-40M, N4B2-40M: Middle Channel Emissions Plot N4C1-40M, N4C2-40M: High Channel Emissions Plot N4D1-40M, N4D2-40M: Bandedge Emissions

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

For the electronic filing, the above Channel Emissions and Bandedge Emissions plots are saved with filename: obantcon.pdf.

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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.

[X]	Not required, since all	emissions are me	ore than 20dB	below fundamenta	Ì٤
[]	See attached data sh	eet			

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Date of Test: November 9, 2011

Model: P0106

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.

Applicant: SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

Date of Test: November 9, 2011

Model: P0106

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 + AV

Where $FS = Field Strength in dB\mu V/m$

RA = Receiver Amplitude (including preamplifier) in dBμV

CF = Cable Attenuation Factor in dB

AF = Antenna Factor in dB AG = Amplifier Gain in dB

PD = Pulse Desensitization in dB

AV = Average Factor 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:

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

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, and the resultant average factor was -10 dB. The net field strength for comparison to the appropriate emission limit is 32 dB μ V/m. This value in dB μ V/m was converted to its corresponding level in μ V/m.

 $RA = 62.0 dB\mu V$

AF = 7.4 dB

CF = 1.6 dB

AG = 29.0 dB

PD = 0 dB

AV = -10 dB

 $FS = 62 + 7.4 + 1.6 - 29 + 0 + (-10) = 32 dB\mu V/m$

Level in mV/m = Common Antilogarithm [(32 dB μ V/m)/20] = 39.8 μ V/m

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Date of Test: November 9, 2011

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4.8 Radiated Emission Configuration Photograph

Worst Case Radiated Emission (802.11b) at 7386.000MHz

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

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Date of Test: November 9, 2011

Model: P0106

4.9 Radiated Emission Data

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

Judgement: Passed by 0.4 dB margin

TEST	PERS	ON	VEL:
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Tester Signature

November 9, 2011

Date

Applicant: SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

Date of Test: November 9, 2011

Model: P0106

Worst Case Operating Mode: Link with wireless Router with 802.11n-40M 2437MHz

Table 1

Radiated Emissions

Polarization	Frequency	Reading	Pre-	Antenna	Net	Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
			Gain	(dB)	(dBµV/m)	(dBµV/m)	
			(dB)				
Horizontal	97.905	45.8	20.0	9.0	34.8	43.5	-8.7
Horizontal	389.905	46.8	20.0	16.0	42.8	46.0	-3.2
Horizontal	410.420	48.3	20.0	16.0	44.3	46.0	-1.7
Vertical	110.794	42.9	20.0	8.3	31.2	43.5	-12.3
Vertical	269.997	48.2	20.0	12.4	40.6	46.0	-5.4
Vertical	453.607	45.5	20.0	16.9	42.4	46.0	-3.6

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.

Test Engineer: Billy Li

Applicant: SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

Date of Test: November 9, 2011

Model: P0106

Mode: 802.11b (TX-Channel 01)

Table 2
Radiated Emissions

Polarization	Frequency	Reading	Pre-	Antenna	Net	Average Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
			Gain	(dB)	(dBµV/m)	(dBµV/m)	
			(dB)				
Horizontal	**2412.000	101.1	36.7	27.2	91.6		
Horizontal	*4824.000	52.2	36.1	34.1	50.2	54.0	-3.8
Horizontal	*2388.461	53.3	36.7	27.2	43.8	54.0	-10.2

NOTES: 1. Peak detector is used for the emission measurement.

- 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.
- ** Fundamental emissions were measured for determining band-edge compliance of using delta measurements technique.

Test Engineer: Billy Li

Applicant: SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

Date of Test: November 9, 2011

Model: P0106

Mode: 802.11b (TX-Channel 06)

Table 3
Radiated Emissions

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	54.7	36.1	34.5	53.1	54.0	-0.9
Horizontal	*7311.000	51.4	35.6	37.1	52.9	54.0	-1.1

NOTES: 1. Peak detector is used for the emission measurement.

- 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.

Test Engineer: Billy Li

Applicant: SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

Date of Test: November 9, 2011

Model: P0106

Mode: 802.11b (TX-Channel 11)

Table 4
Radiated Emissions

Polarization	Frequency	Reading	Pre-	Antenna	Net	Average Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
			Gain	(dB)	(dBµV/m)	(dBµV/m)	
			(dB)				
Horizontal	**2462.000	100.5	36.7	27.7	91.5		-
Horizontal	*4924.000	54.2	36.1	34.7	52.8	54.0	-1.2
Horizontal	*7386.000	52.0	35.6	37.2	53.6	54.0	-0.4
Horizontal	*2483.562	55.1	36.7	27.7	46.1	54.0	-7.9

NOTES: 1. Peak detector is used for the emission measurement.

- 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.
- ** Fundamental emissions were measured for determining band-edge compliance of using delta measurements technique.

Test Engineer: Billy Li

Applicant: SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

Date of Test: November 9, 2011

Model: P0106

Mode: 802.11g (TX-Channel 01)

Table 5
Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Amp Gain	Antenna Factor (dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	**2412.000	98.4	(dB) 36.7	27.2	88.9		
Horizontal	*4824.000	51.0	36.1	34.1	49.0	54.0	-5.0
Horizontal	*2389.356	54.7	36.7	27.2	45.2	54.0	-8.8

NOTES: 1. Peak detector is used for the emission measurement.

- 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.
- ** Fundamental emissions were measured for determining band-edge compliance of using delta measurements technique.

Test Engineer: Billy Li

Applicant: SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

Date of Test: November 9, 2011

Model: P0106

Mode: 802.11g (TX-Channel 06)

Table 6
Radiated Emissions

Polarization	Frequency	Reading	Pre-	Antenna	Net	Average Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
			Gain (dB)	(dB)	(dBµV/m)	(dBµV/m)	
Horizontal	*4874.000	50.3	36.1	34.5	48.7	54.0	-5.3
Horizontal	*7311.000	49.5	35.6	37.1	51.0	54.0	-3.0

NOTES: 1. Peak detector is used for the emission measurement.

- 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.

Test Engineer: Billy Li

Applicant: SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

Date of Test: November 9, 2011

Model: P0106

Mode: 802.11g (TX-Channel 11)

Table 7
Radiated Emissions

Polarization	Frequency	Reading	Pre-	Antenna	Net	Average Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
			Gain	(dB)	(dBµV/m)	(dBµV/m)	
			(dB)			, , ,	
Horizontal	**2462.000	97.1	36.7	27.7	88.1		-
Horizontal	*4924.000	49.6	36.1	34.7	48.2	54.0	-5.8
Horizontal	*7386.000	51.3	35.6	37.2	52.9	54.0	-1.1
Horizontal	*2483.604	54.8	36.7	27.7	45.8	54.0	-8.2

NOTES: 1. Peak detector is used for the emission measurement.

- 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.
- ** Fundamental emissions were measured for determining band-edge compliance of using delta measurements technique.

Test Engineer: Billy Li

Applicant: SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

Date of Test: November 9, 2011

Model: P0106

Mode: 802.11n-20M (TX-Channel 01)

Table 8
Radiated Emissions

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	**2412.000	99.2	36.7	27.2	89.7		
Horizontal	*4824.000	51.5	36.1	34.1	49.5	54.0	-4.5
Horizontal	*2386.582	55.3	36.7	27.2	45.8	54.0	-8.2

NOTES: 1. Peak detector is used for the emission measurement.

- 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.
- ** Fundamental emissions were measured for determining band-edge compliance of using delta measurements technique.

Test Engineer: Billy Li

Applicant: SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

Date of Test: November 9, 2011

Model: P0106

Mode: 802.11n-20M (TX-Channel 06)

Table 9
Radiated Emissions

Polarization	Frequency	Reading	Pre-	Antenna	Net	Average Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
			Gain (dB)	(dB)	(dBµV/m)	(dBµV/m)	
Horizontal	*4874.000	50.1	36.1	34.5	48.5	54.0	-5.5
Horizontal	*7311.000	51.7	35.6	37.1	53.2	54.0	-0.8

NOTES: 1. Peak detector is used for the emission measurement.

- 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.

Test Engineer: Billy Li

Applicant: SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

Date of Test: November 9, 2011

Model: P0106

Mode: 802.11n-20M (TX-Channel 11)

Table 10 Radiated Emissions

Polarization	Frequency	Reading	Pre-	Antenna	Net	Average Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
			Gain	(dB)	(dBµV/m)	(dBµV/m)	
			(dB)				
Horizontal	**2462.000	96.6	36.7	27.7	87.6		-
Horizontal	*4924.000	50.3	36.1	34.7	48.9	54.0	-5.1
Horizontal	*7386.000	49.6	35.6	37.2	51.2	54.0	-2.8
Horizontal	*2483.585	55.8	36.7	27.7	46.8	54.0	-7.2

NOTES: 1. Peak detector is used for the emission measurement.

- 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.
- ** Fundamental emissions were measured for determining band-edge compliance of using delta measurements technique.

Test Engineer: Billy Li

Applicant: SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

Date of Test: November 9, 2011

Model: P0106

Mode: 802.11n-40M (TX-Channel 03)

Table 11
Radiated Emissions

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	**2422.000	98.7	36.7	27.2	89.2		
Horizontal	*4844.000	50.0	36.1	34.2	48.1	54.0	-5.9
Horizontal	*2379.463	53.1	36.7	27.2	43.6	54.0	-10.4

NOTES: 1. Peak detector is used for the emission measurement.

- 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.
- ** Fundamental emissions were measured for determining band-edge compliance of using delta measurements technique.

Test Engineer: Billy Li

Applicant: SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

Date of Test: November 9, 2011

Model: P0106

Mode: 802.11 n-40M (TX-Channel 06)

Table 12 Radiated Emissions

Polarization	Frequency	Reading	Pre-	Antenna	Net	Average Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
			Gain	(dB)	(dBµV/m)	(dBµV/m)	
			(dB)				
Horizontal	*4874.000	49.1	36.1	34.5	47.5	54.0	-6.5
Horizontal	*7311.000	50.4	35.6	37.1	51.9	54.0	-2.1

NOTES: 1. Peak detector is used for the emission measurement.

- 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.

Test Engineer: Billy Li

Applicant: SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

Date of Test: November 9, 2011

Model: P0106

Mode: 802.11n-40M (TX-Channel 09)

Table 13 Radiated Emissions

Polarization	Frequency	Reading	Pre-	Antenna	Net	Average Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	at 3m	at 3m	(dB)
			Gain	(dB)	(dBµV/m)	(dBµV/m)	
			(dB)				
Horizontal	**2452.000	94.6	36.7	27.7	85.6		-
Horizontal	*4904.000	50.1	36.1	34.7	48.7	54.0	-5.3
Horizontal	*7356.000	50.3	35.6	37.2	51.9	54.0	-2.1
Horizontal	*2483.613	54.3	36.7	27.7	45.3	54.0	-8.7

NOTES: 1. Peak detector is used for the emission measurement.

- 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.
- ** Fundamental emissions were measured for determining band-edge compliance of using delta measurements technique.

Test Engineer: Billy Li

4.10 Conducted Emission Configuration Photograph

Worst Case Neutral-Conducted Configuration at 0.158 MHz

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

4.11 Conducted Emission Data

Judgement: Passed by 4.9 dB margin

TEST PERSONNEL:

Signature

Billy Li, Team Leader
Typed/Printed Name

November 9, 2011

Date

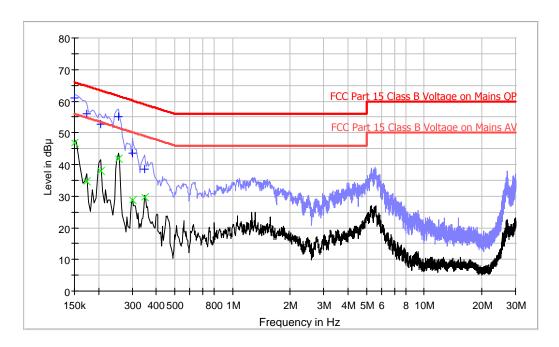
Company: SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

Date of Test: November 9, 2011

Model: P0106

Worst Case Operating Mode: Transmit with 802.11n-40M 2437MHz

Conducted Emission Test - FCC



Result Table-QP

Frequency (MHz)	QuasiPeak (dB µ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
0.150	61.0	L1	9.6	5.0	66.0
0.174	55.7	L1	9.6	9.1	64.8
0.206	52.7	L1	9.6	10.7	63.4
0.254	55.0	L1	9.6	6.6	61.6
0.302	43.7	L1	9.6	16.5	60.2
0.350	38.6	L1	9.6	20.4	59.0

Result Table-AV

	Frequency (MHz)	Average (dB µ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
ĺ	0.150	46.9	L1	9.6	9.1	56.0
	0.174	34.6	L1	9.6	20.2	54.8
	0.206	37.8	L1	9.6	15.6	53.4
	0.254	41.9	L1	9.6	9.7	51.6
	0.302	28.7	L1	9.6	21.5	50.2
Į	0.350	29.6	L1	9.6	19.4	49.0

Test Engineer: Billy Li

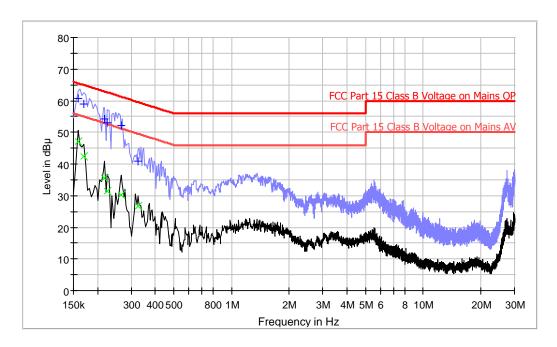
Company: SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

Date of Test: November 9, 2011

Model: P0106

Worst Case Operating Mode: Transmit with 802.11n-40M 2437MHz

Conducted Emission Test - FCC



Result Table-QP

Frequency (MHz)	QuasiPeak (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
(1711 12)	(uD p v)		(uD)	(uD)	(UD F V)
0.158	60.7	N	9.6	4.9	65.6
0.170	58.9	N	9.6	6.1	65.0
0.218	54.2	N	9.6	8.7	62.9
0.226	53.0	N	9.6	9.6	62.6
0.266	52.1	N	9.6	9.1	61.2
0.326	40.8	N	9.6	18.8	59.6

Result Table-AV

Frequency (MHz)	Average (dB µ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
0.158	47.2	N	9.6	8.4	55.6
0.170	42.5	N	9.6	12.5	55.0
0.218	35.7	N	9.6	17.2	52.9
0.226	31.5	N	9.6	21.1	52.6
0.266	30.2	N	9.6	21.0	51.2
0.326	26.7	N	9.6	22.9	49.6

Test Engineer: Billy Li

Date	licant: SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD. e of Test: November 9, 2011 del: P0106
4.12	2 Radiated Emissions from Digital Section of Transceiver, FCC Ref: 15.109
[]	Not required - No digital part
[]	Test results are attached
[x]	Included in the separated Verification report.

Applicant: SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

Date of Test: November 9, 2011

Model: P0106

4.13 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
Х	Not applicable, duty cycle was not used.

EXHIBIT 5

EQUIPMENT PHOTOGRAPHS

5.0 **Equipment Photographs**

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

EXHIBIT 6

PRODUCT LABELLING

6.0 **Product Labelling**

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

EXHIBIT 7

TECHNICAL SPECIFICATIONS

7.0 <u>Technical Specifications</u>

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

EXHIBIT 8

INSTRUCTION MANUAL

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.

TRF No.: FCC 15C_TXa FCC ID: XJN-SYP0106

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EXHIBIT 9

MISCELLANEOUS INFORMATION

9.0 **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.

EXHIBIT 10

TEST EQUIPMENT LIST

10.0 <u>Test Equipment List</u>

Equipment No.	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
SZ061-03	BiConiLog Antenna	ETS	3142C	00066460	02-Jul-11	02-Jan-13
SZ185-01	EMI Receiver	R&S	ESCI	100547	08-Mar-11	08-Mar-12
SZ061-08	Horn Antenna	ETS	3115	00092346	06-Jul-11	03-Jul-12
SZ061-06	Active Loop Antenna	Electro- Metrics	6509	00069080	17-May-11	17-May-12
SZ056-03	Spectrum Analyzer	R&S	FSP 30	101148	08-Mar-11	08-Mar-12
SZ181-04	Preamplifier	Agilent	8449B	3008A02474	08-Mar-11	08-Mar-12
SZ188-01	Anechoic Chamber	ETS	RFD-F/A- 100	4102	15-Jan-11	15-Jan-12
SZ062-02	RF Cable	RADIALL	RG 213U		25-Sep-11	25-Mar-12
SZ062-06	RF Cable	RADIALL	0.04- 26.5GHz		16-Sep-11	16-Sep-12
SZ062-12	RF Cable	RADIALL	0.04- 26.5GHz		16-Sep-11	16-Sep-12
SZ067-04	Notch Filter	Micro-Tronics	BRM5070 2-02		15-Jul-11	15-Jul-12
SZ185-02	EMI Test Receiver	R&S	ESCI	100692	12-Dec-10	12-Dec-11
SZ187-01	Two-Line V- Network	R&S	ENV216	100072	12-Dec-10	12-Dec-11
SZ187-02	Two-Line V- Network	R&S	ENV216	100073	12-Dec-10	12-Dec-11
SZ188-03	Shielding Room	ETS	RFD-100	4100	16-Sep-10	16-Sep-13
SZ182-01	RF Power Meter	BOONTON	4232A	11002	08-Mar-11	08-Mar-12
SZ182-01- 01	Power Sensor	BOONTON	51011- EMC	34400	08-Mar-11	08-Mar-12