Antonio Precise Products Manufactory Ltd.

Application
For
Certification

Bluetooth Headset

(FCC ID: QLM0030405)

04065961
TL/Ann Choy
August 28, 2004

FCC ID: QLM0030405

Intertek Testing Services Hong Kong Ltd.
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LIST OF EXHIBITS

MEASUREMENT/TECHNICAL REPORT

Antonio Precise Products Manufactory Ltd.- MODEL: BT25
FCC ID: QLM0030405

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

Equipment Type: DSS-Part 15 Spread Spectrum Transmitter

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

If yes, defer until : dae

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 X

If no, assumed Part 15, Subpart C for intentional radiator - the new 47 CFR [12-08-03 Edition] provision.

Report prepared by:

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Test Report	20 dB Bandwidth Plot	h20dB.pdf
Test Report	Minimum Number of Hopping Frequencies	hchno.pdf
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EXHIBIT 1
SUMMARY OF TEST RESULTS

1.0 Summary of Test

Antonio Precise Products Manufactory Ltd.- MODEL: BT25
FCC ID: QLM0030405

TEST	REFERENCE	RESULTS
Max. Output Power	15.247(b)	Pass
Min. No. of Hopping Frequencies	15.247(a)(1)	Pass
Min. Hopping Channel Carrier Frequency Separation	15.247(a)(1)	Pass
Average Time of Occupancy	15.247(a)(1)	Pass
Out of Band Antenna Conducted Emission	15.247(c)	Pass
Radiated Emission in Restricted Bands	15.247(c)	Pass
AC Conducted Emission	15.207	N/A
Radiated Emission from Digital Part	15.109	Pass
Antenna Requirement	15.203	Pass (See Notes)

Notes: The EUT uses a permanently attached 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 Bluetooth Handset BT 25 is a portable handsfree communication device built on Bluetooth wireless technology. This Headset is designed and manufactured in accordance with Bluetooth specification v1.1. It operates at frequency range of 2402.000MHz to 2480.000MHz with 79 hopping frequencies.

Bluetooth wireless technology is a global specification for personal area wireless connectivity to ensure communication compatibility worldwide. It connects any portable and stationary communication devices easily without a single inch of cable.

The wireless Headset can be connected to mobile phones, computer or any Bluetooth-enabled products that support the Headset/ Handsfree Profile.

The Headset unit consists of three function keys (Volume+/pairing, Volume-/pairing, callpick-up/endcall).

Incoming and outgoing calls, call transfer, call waiting, call reject, voice dialing, last number redial, and adjust the listening volume by using the " On/Off", "+" or "-" buttons on the Headset.

The antennas used in the Headset are integral, and the test sample is a prototype.

The circuit description and frequency hopping algorithm is saved with filename: descri.pdf

2.2 Related Submittal(s) Grants

This is an application for Certification of a DSS-Part 15 Spread Spectrum Transceiver. A Transmitter is included in this application.

2.3 Test Methodology

The radiated emission measurements was performed according to the procedures in ANSI C63.4 (2001). All measurements were performed in Open Area Test Sites. Preliminary scans were performed in the Open Area Test Sites only to determine 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 open area test site used to collect the radiated data is located at Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong. This test facility 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 units were setup to transmit continuously to simplify the measurement methodology. During testing, the earphone was manipulated to produce worst case emissions. The handset was powered by a new "AAA" size battery. Care was taken to ensure proper power supply voltages during testing.

For the measurements, the EUT is attached to a plastic stand if necessary and placed on the wooden turntable. 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. Detector function is in peak mode. 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 1000MHz. The resolution is 1MHz or greater for frequencies above 1000MHz.

Radiated emission measurement were performed from the lowest radio frequency signal generated in the device which is greater than 9kHz to 25GHz.

3.2 EUT Exercising Software

The EUT exercise program used during radiated and conducted testing was designed to exercise the various system components in a manner similar to a typical use.

3.3 Measurement Uncertainty

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

3.4 Equipment Modification

Any modifications installed previous to testing by Antonio Precise Products Manufactory Ltd. will be incorporated in each production model sold/leased in the United States.

No modifications were installed by ETL Division, Intertek Testing Services Hong Kong Ltd.

All the items listed under section 3.0 of this report are confirmed by:

Confirmed by:

Tommy Leung
Supervisor
Intertek Testing Services Hong Kong Ltd.
Agent for Antonio Precise Products Manufactory Ltd.

Signature

August 28, 2004 Date

EXHIBIT 4
MEASUREMENT RESULTS

Company: Antonio Precise Products Manufactory Ltd. Date of Test: April 21-May 10, 2004
Model: BT25

4.0 Measurement Results

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

[ ] 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>20dB bandwidth and power was read directly in dBm. External attenuation and cable loss were compensated for using the OFFSET function of the analyser.

For antennas with gains greater than 6 dBi, transmitter output level must be decreased by an amount equal to (GAIN - 6) dBm.

(Headset) Antenna Gain = 0			
Frequency (MHz)		Output in dBm	Output in mWatt
Low Channel:	2402.119	-3.10	0.49
Middle Channel:	2441.105	-2.68	0.54
High Channel:	2480.147	0.62	1.15

Cable loss : 2.3 dB External Attenuation : N/A dB

Cable loss, external attenuation: [x] included in OFFSET function
[ ] added to SA raw reading

EUT Transmit Antenna Gain(dBi) + dBm max. output level = 0.62 dBm (21dBm or less)

Please refer to the attached plots for details:

Plot H1a: Low Channel Output Power
Plot H1b: Middle Channel Output Power
Plot H1c: High Channel Output Power

Remarks: As only 32 non-overlapping hopping channel would be used for “Page”, “Page Response”, “Inquiry” and “Inquiry Response” modes, the maximum output level should be lower than 0.125W (21dBm)

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

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

Company: Antonio Precise Products Manufactory Ltd. Date of Test: April 21-May 10, 2004
Model: BT25

4.2 Maximum 20 dB RF Bandwidth, FCC Rule 15.247(a)(1):

The center frequency of the analyzer was set to the hopping channel under investigation. The RBW of the spectrum analyzer was chosen so that the display was a result of the hopping channel modulation, rather than the internal response of the analyzer. The RBW was chosen to be as close as possible to the emission bandwidth of the analyzer. The RBW was chosen to be as close as possible to the emission bandwidth of the EUT. The RBW shall be $\geq$ 1% of the 20dB bandwidth.

(Headset)	
Frequency (MHz)	20 dB Bandwidth (kHz)
2401.676	776

Refer to the following plots for 20 dB bandwidth sharp:

Plot H2a: Low Channel 20 dB RF Bandwidth
Plot H2b: Middle Channel 20 dB RF Bandwidth
Plot H2c: High Channel 20 dB RF Bandwidth

For electronic filing, the above plots are saved with filename: H20dB.pdf

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Model: BT25

4.3 Minimum Number of Hopping Frequencies, FCC Rule 15.247(a)(1) :

The RF passband of the EUT was divided into 4 approximately equal bands. With the analyzer set to MAX HOLD readings were taken for 2-3 minutes in each band. The channel peaks so recorded were added together, and the total number compared to the minimum number of channels required in the regulation.

Headset – Traffic Channel Hopping	
No. of hopping channels	79

Refer to the following plots for number of hopping channels in Traffic Channel hopping.

Plot H3a-H3d: Non-overlapping Channels for Traffic Channel Hopping.

Headset – Page Hopping, Page Response, Inquiry and Inquiry Response	
No. of hopping channels	32

Refer to the following plots for number of hopping channels in Page Hopping, Page Response, Inquiry and Inquiry Response.

Plot H3e-H3h: Non-overlapping Channels for Page Hopping, Page Response, Inquiry and Inquiry Response.

Minimum Requirements: at least 15 non-overlapping channels for 2400MHz-2483.5MHz.

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

Company: Antonio Precise Products Manufactory Ltd. Date of Test: April 21-May 10, 2004
Model: BT25

4.4 Minimum Hopping Channel Carrier Frequency Separation, FCC Ref: 15.247(a)(1) :

Using the DELTA MARKER function of the analyzer, the frequency separation between two adjacent channels was measured and compared against the limit.

[ ] 25 kHz [x] 20 dB bandwidth of hopping channel:

Headset	
Channel Separation	1000 kHz

Plot H4: Channel 39 and Channel 40

Requirement: The frequency separation is more than 20dB bandwidth of hopping channel.

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

Company: Antonio Precise Products Manufactory Ltd. Date of Test: April 21-May 10, 2004
Model: BT25

4.5 Average Channel Occupancy Time, FCC Ref: 15.247(a)(1)

The spectrum analyzer center frequency was set to one of the known hopping channels. The SWEEP was set to 31,600ms, the SPAN was set to ZERO SPAN, and the TRIGGER was set to VIDEO. The time duration of the transmission so captured was measured with the MARKER DELTA function.

The SWEEP was then set to the time required by the regulation (20 seconds for 902-928 MHz devices, if the 20dB bandwidth is less than 250kHz, 10 seconds for 902-928 MHz if the 20dB bandwidth is or greater than 250kHz, "0.4 seconds x Number of hopping channels employed" seconds for 2400-2483.5 MHz, 30 seconds for 5725-5850 MHz). The analyzer was set to SINGLE SWEEP, the total ON time was added and compared against the limit (0.4 seconds).

Average 0.4 seconds maximum occupancy in 31.6 seconds, (0.4sec. x 79) for 2400MHz-2483.5MHz.

Headset	
Average Occupancy Time = 420μs x 320	134.4 ms

Refer to attached spectrum analyzer plots H5a1, H5a2, H5b1

Remarks: As declared by the manufacturer, according to Bluetooth Spec 1.1, all packet types for voice communication occupy 1 time slot only. Besides, as BT-25 operates in Headset and Handsfree profiles, only control data (AT command) will be sent other than voice. For TX, all control packets occupy 1 time slot only.

According to the Frequency hopping algorithm of the headset BT25, the worst situation was that there would be a transmission in every 98.75ms. In 31.6 seconds, the maximum number of transmission could be 320. Thus, the maximum average Occupancy Time = 420μs x 320 = 134.4ms, which is lower than 0.4 seconds.

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

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4.6 Out of Band Radiated Emissions, FCC Rule 15.247(c):

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 20 dB 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:

Plot H6a.1- H6a.2: Low Channel Emissions
Plot H6b.1- H6b.2: Middle Channel Emissions
Plot H6c.1- H6c.2: High Channel Emissions
Plot H6d.1- H6d.2: Modulation Products Emissions*

The plots showed the 2nd harmonic and modulation products at the band edges of 2400 MHz and 2483.5 MHz. In addition, 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.

Furthermore, delta measurement technique for measuring bandedge emissions was incorporated in the test of the edge at 2483.5MHz.

*These 2 plots are shown the worst-case which has been already considered between enable and disable the hopping function of the EUT.

For electronic filing, the above plots are saved with filenames: hobantcon.pdf

Company: Antonio Precise Products Manufactory Ltd. Date of Test: April 21-May 10, 2004
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4.7 Out of Band Radiated Emissions (for emissions in 4.6 above that are less than 20 dB below carrier), FCC Rule 15.247(c):

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, all emissions more than 20dB below fundamental
[ ] See attached data sheet

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4.8 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.

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4.9 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 dBμV/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 dBμV 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 dBμV/m. This value in dBμV/m was converted to its corresponding level in μV/m.

RA = 62.0 dBμV
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 dBμV/m

Level in mV/m = Common Antilogarithm [(32 dBμV/m)/20] = 39.8 μV/m

Company: Antonio Precise Products Manufactory Ltd. Date of Test: April 21-May 10, 2004
Model: BT25

4.10 Radiated Emission Configuration Photograph - Headset

Worst Case Radiated Emission
at
52.643 MHz

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

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Model: BT25

4.11 Radiated Emission Data - Headset

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

Judgement : Passed by 14.2 dB

****

TEST PERSONNEL:

Tester Signature

Ken Sit, Lead Engineer
Typed/Printed Name

August 28, 2004
Date

Company: Antonio Precise Products Manufactory Ltd. Date of Test: April 21-May 10, 2004
Model: BT25
Mode : TX-Channel 1

Table 1

Radiated Emissions

Polari-zation	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Average Factor (-dB)	Calculated at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
V	*1201.000	54.8	34	25.5	46.3	41.5	4.8	54	-49.2
V	*3603.000	38.6	34	32.8	37.4	41.5	-4.1	54	-58.1
V	*4804.000	36.2	34	34.0	36.2	41.5	-5.3	54	-59.3

NOTES: 1. Peak Detector data

2. All measurements were made at 3 meters. Harmonic 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 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. Horn antenna and average detector are used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of part 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: Ken Sit

Company: Antonio Precise Products Manufactory Ltd. Date of Test: April 21-May 10, 2004
Model: BT25
Mode : TX-Channel 39

Table 2

Radiated Emissions

Polari-zation	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Average Factor (-dB)	Calculated at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
V	*1220.500	52.8	34	25.5	44.3	41.5	2.8	54	-51.2
V	*3661.500	38.7	34	32.8	37.5	41.5	-4.0	54	-58.0
V	*4882.000	35.0	34	34.0	35.0	41.5	-6.5	54	-60.5
V	*7323.000	35.5	34	37.0	38.5	41.5	-3.0	54	-57.0

NOTES: 1. Peak Detector data

2. All measurements were made at 3 meters. Harmonic 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 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. Horn antenna and average detector are used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of part 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: Ken Sit

Company: Antonio Precise Products Manufactory Ltd. Date of Test: April 21-May 10, 2004
Model: BT25
Mode : TX-Channel 78

Table 3

Radiated Emissions

Polari-zation	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBμV/m)	Average Factor (-dB)	Calculated at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
V	**2480.000	98.8	34	29.1	93.9	41.5	52.4	N/A	N/A
V	*1240.000	54.0	34	25.5	45.5	41.5	4.0	54	-50.0
V	*3720.000	38.7	34	32.8	37.5	41.5	-4.0	54	-58.0
V	*4960.000	38.0	34	34.0	38.0	41.5	-3.5	54	-57.5
V	*7440.000	35.4	34	37.0	38.4	41.5	-3.1	54	-57.1

NOTES: 1. Peak Detector data

2. All measurements were made at 3 meters. Harmonic 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 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. Horn antenna and average detector are used for the emission over 1000MHz.

* Emission within the restricted band meets the requirement of part 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 emission was measured for determining band-edge compliance of using delta measurement technique.

Test Engineer: Ken Sit

Company: Antonio Precise Products Manufactory Ltd. Date of Test: April 21-May 10, 2004
Model: BT25
Mode: Talk

Table 4

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Limit (dBµV/m)	Margin (dB)
V	32.768	28.2	16	11.6	23.8	40.0	-16.2
V	38.452	29.4	16	11.2	24.6	40.0	-15.4
V	44.179	29.0	16	11.7	24.7	40.0	-15.3
V	49.503	29.4	16	11.9	25.3	40.0	-14.7
V	52.643	30.1	16	11.7	25.8	40.0	-14.2
V	58.909	30.6	16	11.0	25.6	40.0	-14.4

NOTES: 1. Quasi-peak detector is used for the emission below or equal to 1000 MHz.

2. All measurements were made at 3 meters. Harmonic 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 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. Horn antenna and average detector are used for the emission over 1000MHz.

Test Engineer: Ken Sit

Company: Antonio Precise Products Manufactory Ltd. Date of Test: April 21-May 10, 2004
Model: BT25

4.12 AC Line Conducted Emission, FCC Rule 15.207:

[×] Not required; battery operation only

[ ] Test data attached

Company: Antonio Precise Products Manufactory Ltd. Date of Test: April 21-May 10, 2004
Model: BT25

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:

Headset:

Remark: According to the Frequency Hopping Algorithm of the headset BT25, it was possible that two transmissions would take place in 40ms with period 120ms. Thus, the Maximum ON time in 10ms would be (420 * 2)μs = 840μs.

Duty cycle (DC) = Maximum ON time in 100ms/100ms
= 840μs/100ms

Duty cycle correction, dB = 20* log (DC)
= 20* log (0.0084)
= -41.5 dB

X	See attached spectrum analyzer chart (s) for transmitter timing Base Unit: Plot H7
	See transmitter timing diagram provided by manufacturer
	Not applicable, duty cycle was not used.

For electronic filing, the above plots are saved with filenames: hdcc.pdf.

EXHIBIT 5
EQUIPMENT PHOTOGRAPHS

5.0 **Equipment Photographs**

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

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 **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

8.0 **Instruction Manual**

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

Please note that the required FCC Information to the User is saved with filename: FCC information.pdf.

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

EXHIBIT 9
CONFIDENTIALITY REQUEST

9.0 **Confidentiality Request**

For electronic filing, confidentiality request is saved with filename: request.pdf.