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TEST REPORT

Airconsole LE Bluetooth Serial Port Adaptor

tested to the

Code of Federal Regulations (CFR) 47

Part 15 – Radio Frequency Devices

Subpart C – Intentional Radiators

**Section 15.249 – Operation in the band
2400 – 2483.5 MHz**

Global Product Certification

Cloudstore Ltd

This Test Report is issued with the authority of:

Andrew Cutler - General Manager



All tests reported
herein have been
performed in accordance
with the laboratory's
scope of accreditation

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1. STATEMENT OF COMPLIANCE

The **Airconsole LE Bluetooth Serial Port Adaptor** complies with 47 CFR Part 15 and in particular Sections, 15.205, 15.207, 15.209, 15.215 and 15.249 as detailed below when tested in accordance with ANSI C63.10 – 2013.

2. RESULTS SUMMARY

The results of testing carried out in June 2017 are detailed below.

Clause	Description	Result
15.201	Equipment authorisation requirement	New equipment. Certification process applied.
15.203	Antenna requirement	Complies
15.204	External power amplifiers	Not applicable
15.205	Operation in restricted bands	Complies
15.207	Conducted emissions	Complies
15.209	Radiated emissions	See below
15.215	Additional provisions	Complies
15.249 (a)	Field strength of fundamental	Complies
15.249 (a)	Field strength of harmonics	Complies
15.249 (b)	Fixed, point to point operations	Not applicable
15.249 (c)	3 metre measurement distance	Noted
15.249 (d)	Spurious emission levels except harmonics	Complies
15.249 (e)	Detectors above 1000 MHz	Noted
15.249 (f)	Reference to section 15.37(d)	Noted

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3. CLIENT INFORMATION

Company Name Cloudstore Ltd

Address C/o 2fDesign Ltd
41C Clyde Road
Browns Bay

City Auckland 0603

Country New Zealand

Contact Mr Rob Beck

4. DESCRIPTION OF TEST SAMPLE

Brand Name	Airconsole
Model	LE
Product	Bluetooth LE Serial Port Adaptor
Manufacturer	Zitrok
Country of Origin	China
Serial Number	Engineering Samples B3, B5, B6 and B7
FCC ID	2AA0ZGCAC2-LE

5. EQUIPMENT PARAMETERS

The 2.4 GHz transceiver in this device has the following RF specifications:

FCC Band:	2400 MHz – 2483.5 MHz
Test Frequencies:	2402 MHz, 2426 MHz, 2480 MHz
Channel Spacing:	2 MHz
Rated Conducted Power:	1.00 mW (+0 dBm) estimated
Modulation Type:	Bluetooth Low Energy
Antenna Type:	Integral
Power Supply:	Internal 3.6 Vdc battery
Ports:	USB port that will in future be used to re-charge the internal battery

The device that was tested is used as a serial port extender when used with an Airconsole cloud storage device.

The transmitter uses Bluetooth Low Energy principles using 40 channels between 2402 MHz and 2480 MHz with a channel spacing of 2 MHz when transferring data.

In advertising mode the transmitter operates on 2402, 2426 and 2480 MHz.

3 samples were provided that operated on 2402, 2426 and 2480 MHz individually and a sample operating in advertising mode was also provided.

6. ATTESTATION

This report describes the tests and measurements performed for the purpose of determining compliance with the specification with the following conditions:

The client selected the test sample.

The report relates only to the sample tested.

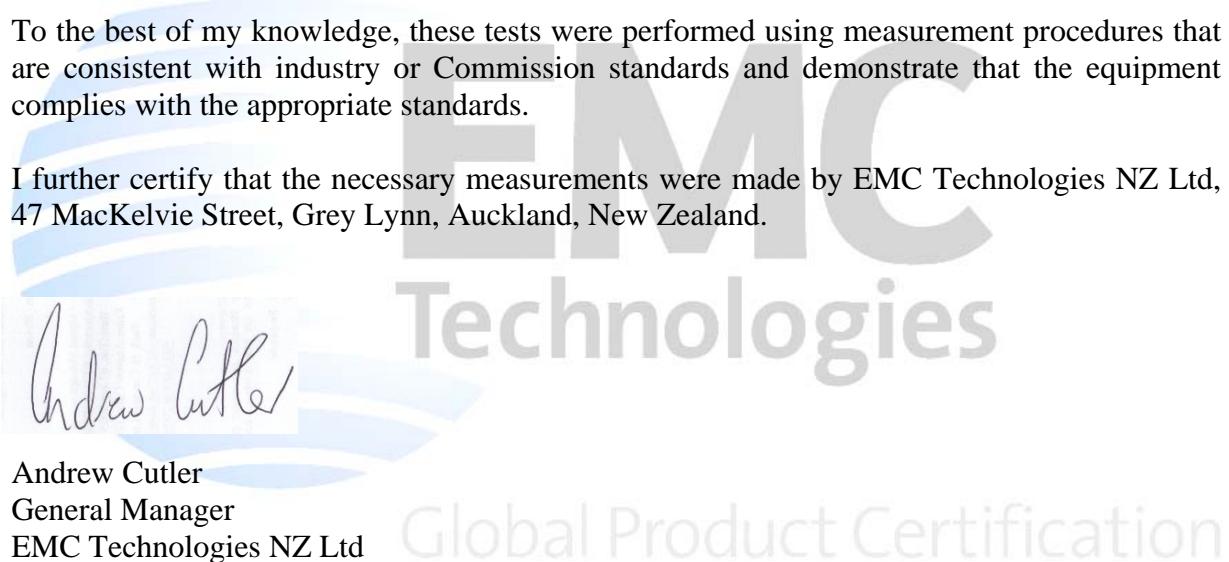
This report does not contain corrections or erasures.

Measurement uncertainties with statistical confidence intervals of 95% are shown below test results. Both Class A and Class B uncertainties have been accounted for, as well as influence uncertainties where appropriate.

In addition this equipment has been tested in accordance with the requirements contained in the appropriate Commission regulations.

To the best of my knowledge, these tests were performed using measurement procedures that are consistent with industry or Commission standards and demonstrate that the equipment complies with the appropriate standards.

I further certify that the necessary measurements were made by EMC Technologies NZ Ltd, 47 MacKelvie Street, Grey Lynn, Auckland, New Zealand.



Andrew Cutler
General Manager
EMC Technologies NZ Ltd

7. TEST RESULTS

Section 15.201: Equipment authorisation requirement

Certification as detailed in Subpart J of Part 2 is being sought for the low power 2.4 GHz band transmitter device which is located in this device.

Section 15.203 – Antenna requirement

This device uses a 2.4 GHz antenna that is integral to the device.

Result: Complies.

Section 15.204: External radio frequency power amplifiers and antenna modifications

An external power amplifier is not supplied with this device and it is NOT possible to attach an external power amplifier.

Result: Complies.

Section 15.205 – Restricted bands of operation

Refer to measurements made with reference to Section 15.249 (a).

This device operates in the 2400 – 2483.5 MHz which is not a restricted band.

Result: Complies.

Section 15.207: Conducted limits

Conducted emission testing has been carried out when a representative USB power supply that was attached to the USB charging port.

The USB power supply was powered at 120 Vac 60 Hz.

Conducted emission testing was carried out over the frequency range of 150 kHz to 30 MHz at the Laboratory's MacKelvie Street premises in a 2.4 m x 2.4 m x 2.4 m screened room.

Testing was carried out in accordance with section 15.207(a) using a measuring receiver and a 50 uH / 50 ohm artificial mains network which is also known as a line impedance stabilisation network (LISN).

Measurements on both the phase and neutral lines were made using either a Quasi Peak or an Average detector with a 9 kHz bandwidth.

The supplied conducted emission plot is a combined plot showing the worst case of the Peak, Quasi Peak and Average levels for both phase and neutral.

The Class B conducted limits have been applied

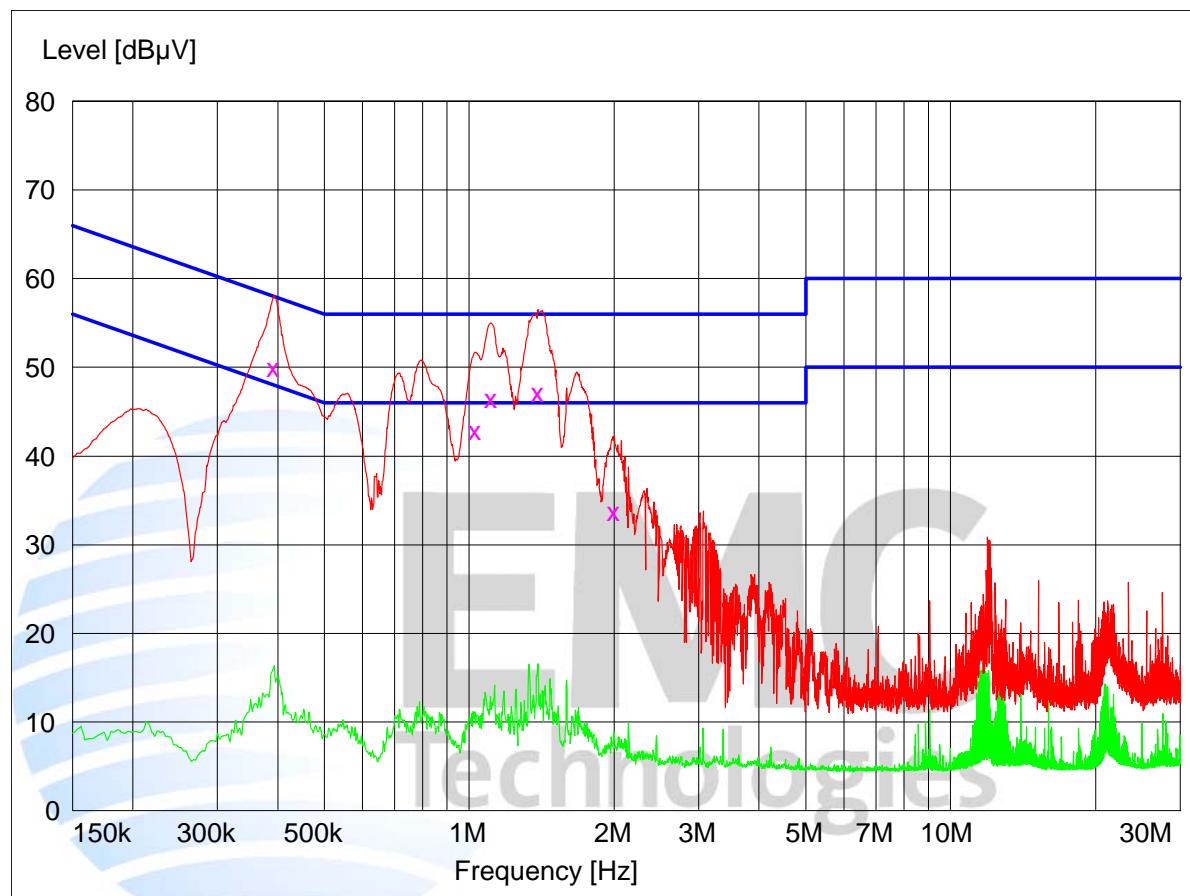
Result: Complies.

Measurement uncertainty with a confidence interval of 95% is:
Conducted emissions tests (0.15 - 30 MHz) \pm 2.2 dB

Conducted Emissions – AC Input Power Port

Setup:	Device tested when powered using a 3 Vdc internal battery while operating continuously transmitting a Bluetooth advertising signal on 2402, 2426 and 2480 MHz. Test carried out on the a representative power supply at 120 Vac 60 Hz which was supplying 5 Vdc to the external charging port.
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Peak --- Average -- Quasi Peak X Average +



Final Quasi-Peak Measurements

Frequency MHz	Level dB μ V	Limit dB μ V	Margin dB	Phase	Rechecks dB μ V
0.393000	50.00	58.0	8.0	L1	
1.032000	42.90	56.0	13.1	N	
1.113000	46.50	56.0	9.5	L1	
1.389000	47.20	56.0	8.9	L1	
2.000000	33.70	56.0	22.3	L1	

Final Average Measurements

Frequency MHz	Level dB μ V	Limit dB μ V	Margin dB	Phase	Rechecks dB μ V
No emissions observed within 15 dB of the limit.					

Section 15.209 – Radiated emissions below 30 MHz

In accordance with section 15.249 (d) the general emission limits specified in Section 15.209 (a) have been applied to all emissions except the transmitter harmonics.

See Section 15.249 (a) for further details.

As this device contains digital devices that operate using various frequencies below 30 MHz, low frequency measurements were attempted between 9 kHz – 30 MHz at the open area test site over a distance of 10 metres using a loop antenna the centre of which was 1 metre above the ground.

Testing was carried out when the device was powered using an internal battery with an Airconsole device attached and when a representative USB power supply was attached to the USB port.

Testing was carried out in the X, Y and Z planes when laying flat, standing upright and standing on an edge.

The device was transmitting continuously in advertising mode on 2402, 2426 and 2480 MHz.

The general limits described in 15.209 have been applied with the 300 metre and 30 metre limits being extrapolated by a factor of 40 dB per decade as allowed for in section 15.31(d)(2).

Between 9 – 90 kHz and between 110 – 490 kHz an Average detector and a Peak detector were used.

Where a peak detector was used the limit was increased by +20 dB.

Between 90 kHz and 110 kHz and between 490 kHz and 30 MHz a Quasi Peak detector was used.

No emissions were detected on these frequencies of interest and no other emissions were detected from this device over the range of 9 kHz – 30 MHz

Result: Complies.

Measurement uncertainty with a confidence interval of 95% is:

- Free radiation tests (9 kHz – 30 MHz) \pm 4.8 dB

Section 15.209 – Radiated emissions above 30 MHz

In accordance with section 15.249 (d) the general emission limits specified in Section 15.209 (a) have been applied to all emissions except the transmitter harmonics.

See Section 15.249 (a) for further details.

Testing for general radiated emissions was carried out over the frequency range of 30 MHz to 25000 MHz as the device contains a 2.4 GHz transmitter.

Testing was carried out at the laboratory's open area test site - located at Driving Creek, Orere Point, Auckland, New Zealand.

An enclosure containing absorber material, Panashield HYB-NF-12, has been placed between the turntable and the measurement antenna for when measurements are made above 1 GHz.

This material has no absorbing affect below 1 GHz with site verification measurements.

Below 1000 MHz the transmitter was placed on the test table top which was a total of 0.8 m above the test site ground plane.

Above 1000 MHz the transmitter was placed on the test table top which was a total of 1.5 m above the test site ground plane.

Testing was carried out when the device was powered using an internal battery with an Airconsole device attached and when a representative USB power supply was attached to the USB port.

Testing was carried out in the X, Y and Z planes when laying flat, standing upright and standing on an edge.

The device was transmitting continuously in advertising mode on 2402, 2426 and 2480 MHz.

When an emission is located, it is positively identified and its maximum level is found by rotating the automated turntable, and by varying the antenna height, where appropriate, with an automated antenna tower.

Above 30 MHz the emission is measured in both vertical and horizontal antenna polarisations, where appropriate, using a quasi peak detector.

The emission level was determined in field strength by taking the following into consideration:

$$\text{Level (dB}\mu\text{V/m)} = \text{Receiver Reading (dB}\mu\text{V)} + \text{Antenna Factor (dB/m)} + \text{Coax Loss (dB)}$$

Results:

Frequency (MHz)	Vertical (dBuV/m)	Horizontal (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Result	Antenna
200.000	28.1	31.1	43.5	12.4	Pass	Horizontal
225.000	34.5	29.6	43.5	9.0	Pass	Vertical
368.681		34.9	46.0	11.1	Pass	Horizontal
375.000		31.5	46.0	14.5	Pass	Horizontal
400.000		36.5	46.0	9.5	Pass	Horizontal
425.000		33.3	46.0	12.7	Pass	Horizontal
450.000	29.7	33.7	46.0	12.3	Pass	Horizontal
475.000	32.6	33.2	46.0	12.8	Pass	Horizontal
500.000	36.3	40.1	46.0	5.9	Pass	Horizontal
550.000	34.5	38.1	46.0	7.9	Pass	Horizontal
600.000		36.0	43.5	7.5	Pass	Horizontal
650.000	39.9	37.3	46.0	6.1	Pass	Vertical
675.000	32.6	35.6	46.0	10.4	Pass	Horizontal
700.000	33.7	32.3	46.0	12.3	Pass	Vertical
850.000	37.1	36.5	46.0	8.9	Pass	Vertical
900.000	37.0	38.4	46.0	7.6	Pass	Horizontal

It is suspected the majority of the emissions observed were from the Airconsole ancillary equipment that was attached to the device using a 5 metre long data cable that was attached to the console port.

Result: Complies

Measurement uncertainty with a confidence interval of 95% is:

- Free radiation tests (30 – 1000 MHz) \pm 4.1 dB

Section 15.215 (c) – Additional provisions to the general radiated emission limitations

The device operates in the 2400 – 2483.5 MHz band.

Relative spectrum mask measurements have been made when the device was operating on 2402 MHz and 2480 MHz.

Measurements have been made at the -20 dB points.

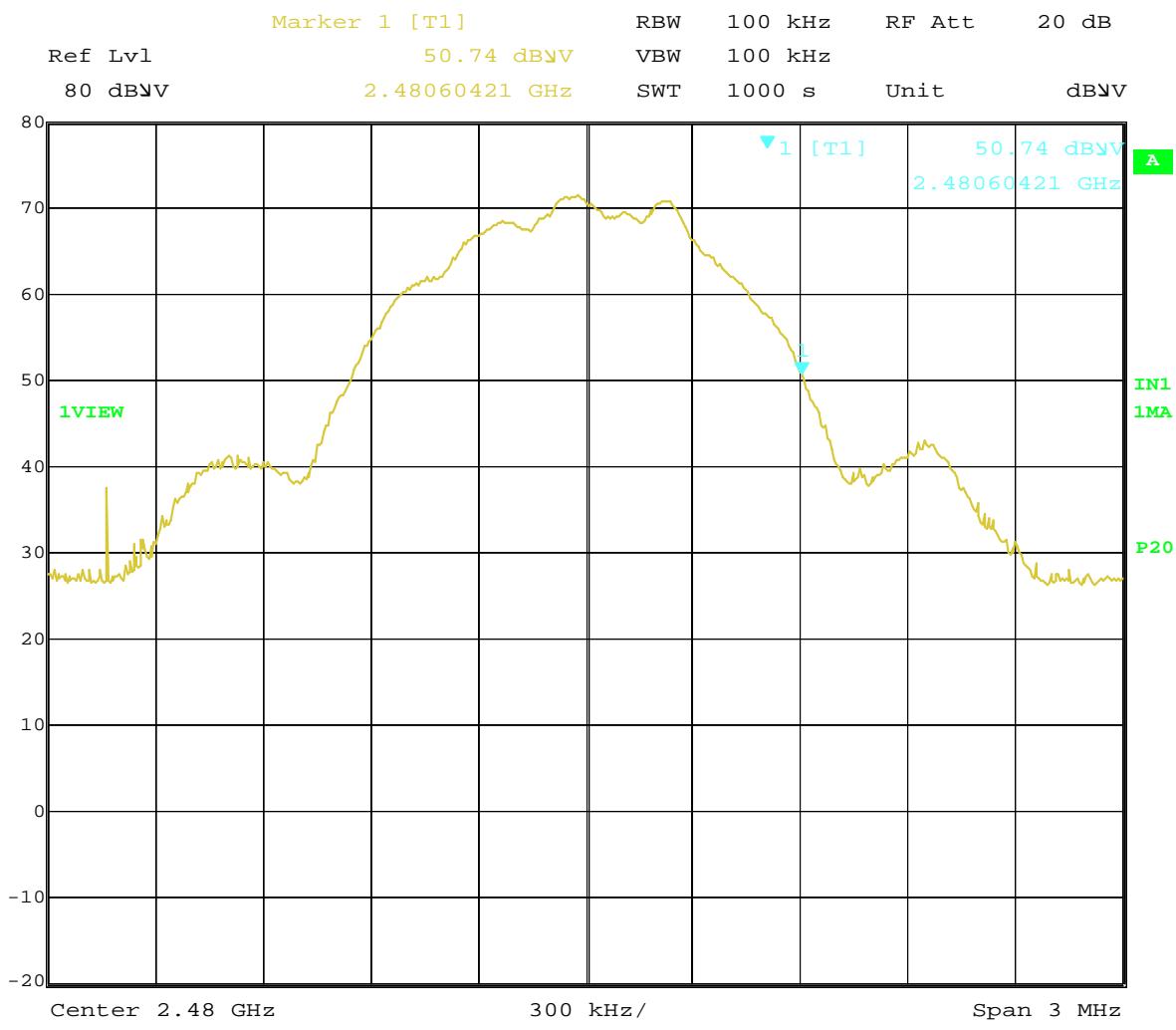
Frequency (MHz)	F low (MHz)	F high (MHz)
2402.000	2401.3477	-
2480.000	-	2480.6042

The device can be seen to stay within the band of 2400 – 2483.5 MHz at the -20 dB points

2402 MHz



2480 MHz



Results: Complies

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Section 15.249 (a) – Field strength of the Fundamental and Harmonics

Radiated emission measurements were carried out with the limits as per section 15.249 (a) being applied to the Fundamental and Harmonics of each transmitter.

Testing was carried out at EMC Technologies (NZ) Ltd Open Area Test Site, which is located at Driving Creek, Orere Point, Auckland.

An enclosure containing absorber material, Panashield HYB-NF-12, has been placed between the turntable and the measurement antenna for when measurements are made above 1 GHz.

This material has no absorbing affect below 1 GHz with site verification measurements.

Below 1000 MHz the transmitter was placed on the test table top which was a total of 0.8 m above the test site ground plane.

Above 1000 MHz the transmitter was placed on the test table top which was a total of 1.5 m above the test site ground plane.

Measurements of the radiated field were made 3 metres from the transmitting antenna.

Measurements below 1000 MHz were made using a Quasi Peak Detector with a bandwidth of 120 kHz.

Measurements above 1000 MHz were made using an average detector with a bandwidth of 1.0 MHz and also a peak detector with a bandwidth of 1.0 MHz.

When an emission is located, it is positively identified and its maximum level is found by rotating the automated turntable, and by varying the antenna height with an automated antenna tower.

All emissions were measured in both vertical and horizontal antenna polarisations.

The emission is measured in both vertical and horizontal antenna polarisations with no measurements were made above the 10th harmonic.

Testing was carried out when the device was powered using an internal battery with an Airconsole device attached and when an external 6 Vdc battery was attached to the USB port.

Testing was carried out in the X, Y and Z planes when laying flat, standing upright and standing on an edge.

The device was transmitting continuously individually on 2402, 2426 and 2480 MHz.

The emission level is determined in field strength by taking the following into consideration:

Level (dB μ V/m) = Receiver Reading (dB μ V) + Antenna Factor (dB/m) + Coax Loss (dB) – Amplifier Gain (dB)

Fundamental emission

Testing was carried out as detailed below

Plane	Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Result	Detector	Bandwidth
Y	2402.0	80.7	94.0	13.3	Vertical	Peak	1 MHz
Y	2402.0	77.1	94.0	16.9	Horizontal	Peak	1 MHz
X	2402.0	74.8	94.0	19.2	Vertical	Peak	1 MHz
X	2402.0	71.1	94.0	22.9	Horizontal	Peak	1 MHz
Z	2402.0	81.7	94.0	12.3	Vertical	Peak	1 MHz
Z	2402.0	69.1	94.0	24.9	Horizontal	Peak	1 MHz
Y	2426.0	80.5	94.0	13.5	Vertical	Peak	1 MHz
Y	2426.0	75.4	94.0	18.6	Horizontal	Peak	1 MHz
X	2426.0	75.1	94.0	18.9	Vertical	Peak	1 MHz
X	2426.0	71.2	94.0	22.8	Horizontal	Peak	1 MHz
Z	2426.0	81.9	94.0	12.1	Vertical	Peak	1 MHz
Z	2426.0	69.2	94.0	24.8	Horizontal	Peak	1 MHz
Y	2480.0	81.3	94.0	12.7	Vertical	Peak	1 MHz
Y	2480.0	74.1	94.0	19.9	Horizontal	Peak	1 MHz
X	2480.0	75.5	94.0	18.5	Vertical	Peak	1 MHz
X	2480.0	73.6	94.0	20.4	Horizontal	Peak	1 MHz
Z	2480.0	82.6	94.0	11.4	Vertical	Peak	1 MHz
Z	2480.0	69.6	94.0	24.4	Horizontal	Peak	1 MHz

Section 15.249 specifies a limit of 50 mV/m (94 dBuV/m) when an average detector is used for devices operating in the band of 2400 – 2483.5 MHz.

Measurements were made using a peak detector with the average limit applied.

This limit has been converted to dBuV/m using the formula $20 * (\log 0.050 / 0.000001)$

Result: Complies.

Measurement uncertainty with a confidence interval of 95% is:

- Free radiation tests $(30 - 25,000 \text{ MHz}) \pm 4.1 \text{ dB}$

Spurious emissions

Transmitting on 2402 MHz

Frequency (MHz)	Vertical (dBuV/m)	Horizontal (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna	BW
4804.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
7206.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
9608.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
12010.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
14413.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
16814.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
19216.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
21618.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
24020.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz

Transmitting on 2426 MHz

Frequency (MHz)	Vertical (dBuV/m)	Horizontal (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna	BW
4852.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
7278.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
9704.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
12130.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
14556.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
16982.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
19408.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
21834.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
24260.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz

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Transmitting on 2480 MHz

Frequency (MHz)	Vertical (dBuV/m)	Horizontal (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Antenna	BW
4960.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
7440.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
9920.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
12400.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
14880.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
17360.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
19840.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
22320.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz
24800.000	< 59	< 59	74.0	> 15	Peak	Vert/Hort	1 MHz
	< 46	< 46	54.0	> 8	Average	Vert/Hort	1 MHz

Measurements were attempted at a distance of 3 metres using vertical and horizontal polarisations with a peak and an average detector with a 1 MHz bandwidth being used.

As per section 15.249 a limit of 500 uV/m applies to the harmonic emissions when an average detector is used.

This limit has been converted to dBuV/m using the formula $20 * (\log 500)$ with a factor of + 20 dB being added to determine the peak limit.

Result: Complies.

Measurement uncertainty with a confidence interval of 95% is:

- Free radiation tests (30 – 25,000 MHz) ± 4.1 dB

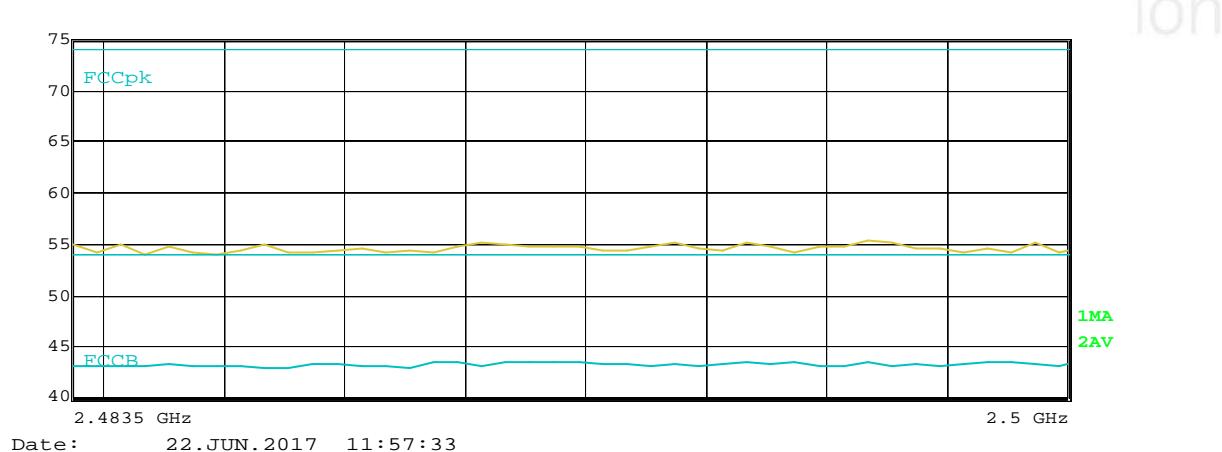
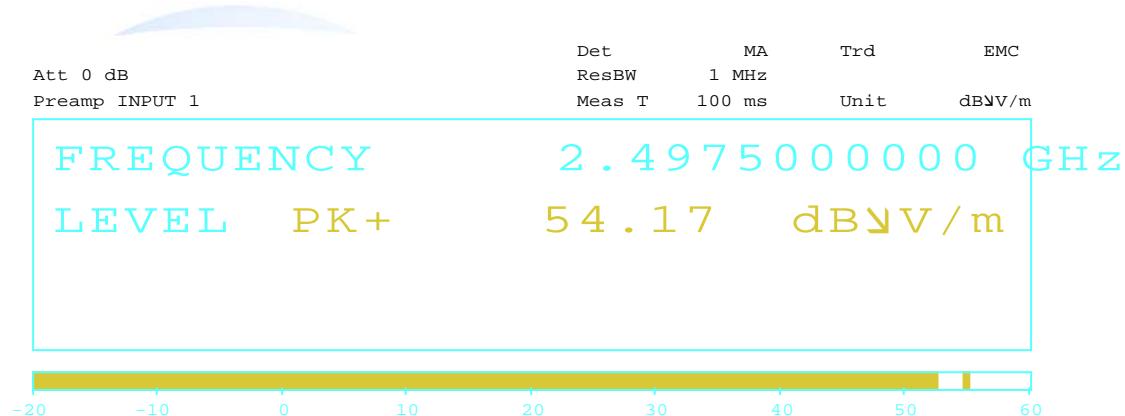
2310 - 2390 MHz and 2483.5 – 2500.0 MHz Restricted Band Measurements

When the device was transmitting alternately on 2402, 2426 and 2480 MHz radiated emission measurements were made at the open area test site in the 2310 - 2390 MHz restricted band and in the 2483.5 – 2500 MHz restricted band to determine compliance.

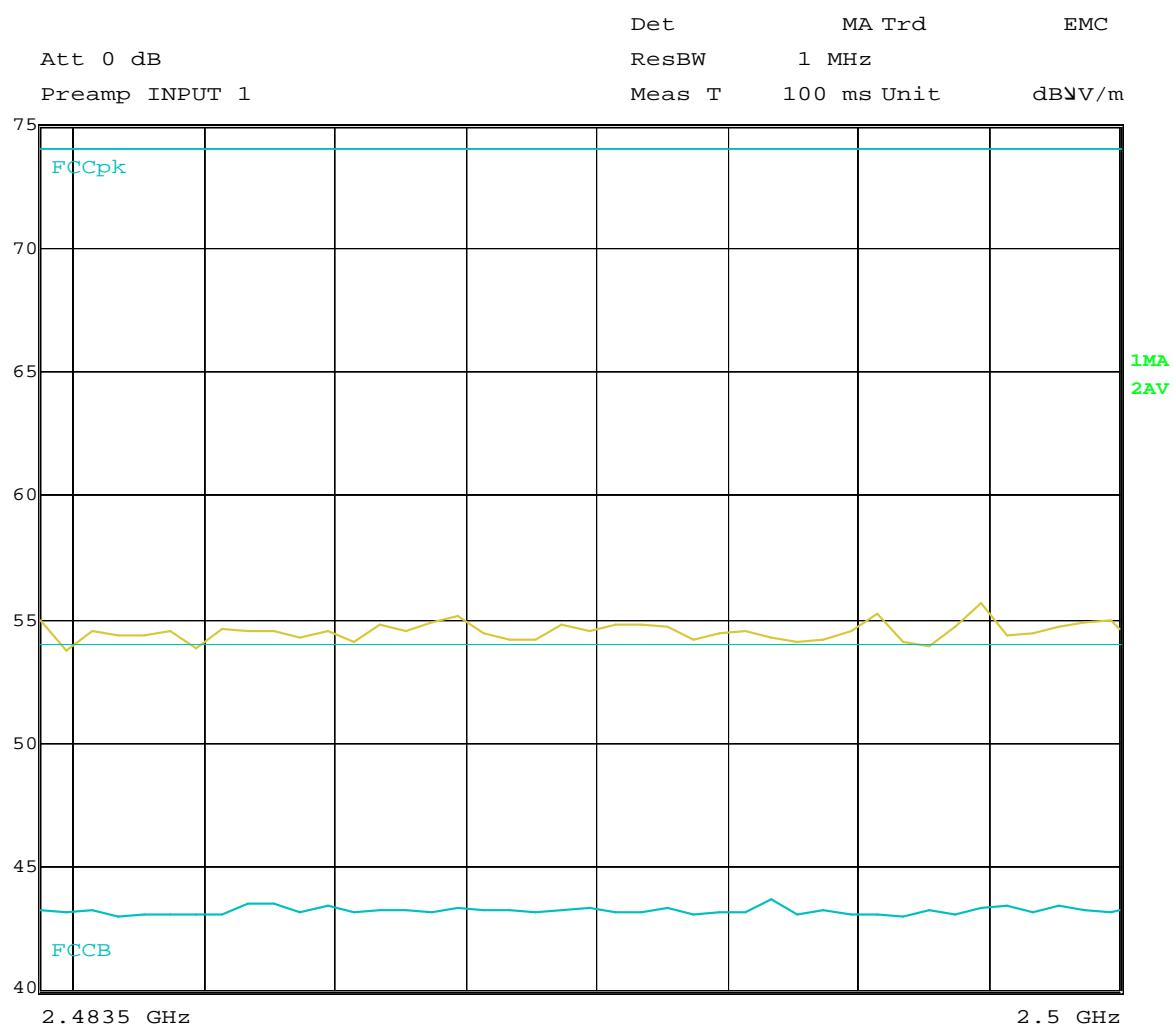
Measurements were made using a scanning measuring receiver that scanned between 2300 - 2400 GHz and between 2483.5 - 2500.0 MHz using both an Average and a Peak detector with a 1 MHz bandwidth in peak hold mode which the device was rotated and height scanned.

The plots below show that no emissions were detected in the selected restricted bands when the FCC average and peak limits are applied

2483.5 - 2500.0 MHz. Vertical polarisation when device transmitting on 2480 MHz.



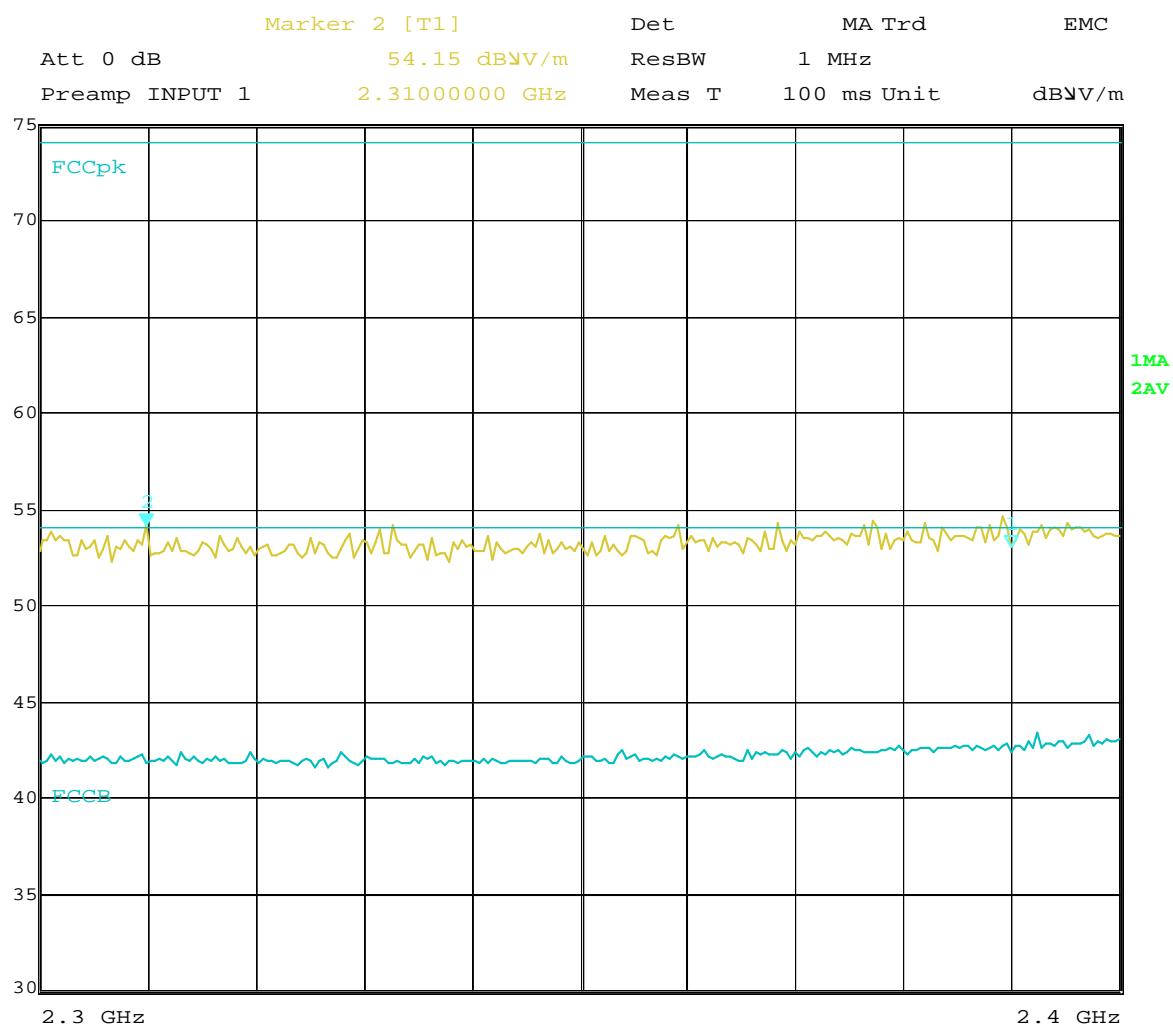
2483.5 - 2500 MHz Horizontal polarisation when device transmitting on 2480 MHz.



Date: 22.JUN.2017 12:06:57

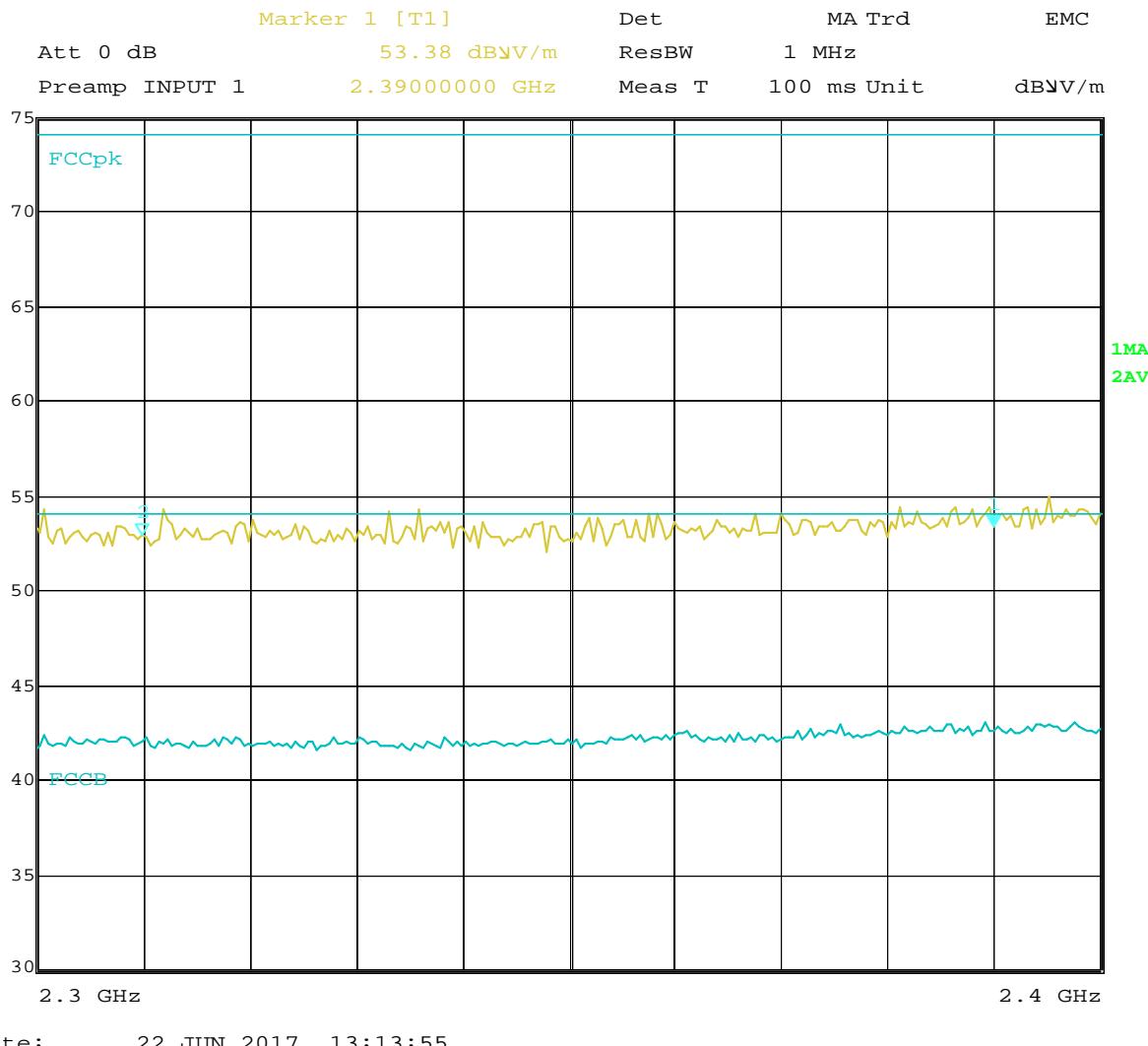
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2300.0 - 2400.0 MHz Vertical polarisation when device transmitting on 2402 MHz.



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2300.0 - 2400.0 MHz. Horizontal polarisation when device transmitting on 2402 MHz.



All measurements were attempted at a distance of 3 metres using vertical and horizontal polarisations with a peak and an average detector with a 1 MHz bandwidth was used.

As per section 15.249 a limit of 500 μ V/m applies to the harmonic emissions when an average detector is used.

This limit has been converted to dB_uV/m using the formula $20 * (\log 500)$ with a factor of + 20 dB being added to determine the peak limit.

Result: Complies.

Measurement uncertainty with a confidence interval of 95% is:

- Free radiation tests $(30 - 25,000 \text{ MHz}) \pm 4.1 \text{ dB}$

8. TEST EQUIPMENT USED

Instrument	Manufacturer	Model	Serial No	Asset Ref	Cal Due	Period
Aerial Controller	EMCO	1090	9112-1062	RFS 3710	Not applic	Not applic
Aerial Mast	EMCO	1070-1	9203-1661	RFS 3708	Not applic	Not applic
Turntable	EMCO	1080-1-2.1	9109-1578	RFS 3709	Not applic	Not applic
Biconical Antenna	Schwarzbeck	BBA 9106	-	3680	3 Feb 2018	3 years
Horn Antenna	EMCO	3115	9511-4629	E1526	4 June 2018	3 years
Horn Antenna	EMCO	3116	92035	E1527	10 June 2019	3 years
Log Periodic	Schwarzbeck	VUSLP 9111	9111-228	3785	1 Dec 2017	3 years
Loop Antenna	EMCO	6502	9003-2485	3798	4 July 2018	1 year
Mains Network	R & S	ESH2-Z5	881362/032	3628	2 Oct 2017	2 years
Receiver	R & S	ESHS 10	828404/005	3728	9 June 2018	2 years
Receiver	R & S	ESIB 40	100295	INV0818	28 Aug 2018	1 year
VHF Balun	Schwarzbeck	VHA 9103	9594	3696	3 Feb 2018	3 years

9. ACCREDITATIONS

Testing was carried out in accordance with EMC Technologies NZ Ltd registration with the Federal Communications Commission as a listed facility, Registration Number: 90838, which was updated in February 2014.

In addition testing was carried out in accordance with the terms of EMC Technologies (NZ) Ltd's International Accreditation New Zealand (IANZ) Accreditation to NZS/IEC/ISO 17025.

All measurement equipment has been calibrated in accordance with the terms of EMC Technologies (NZ) Ltd's International Accreditation New Zealand (IANZ) Accreditation to NZS/IEC/ISO 17025.

International Accreditation New Zealand has Mutual Recognition Arrangements for testing and calibration with a number of accreditation bodies in various economies. This includes NATA (Australia), UKAS (UK), SANAS (South Africa), NVLAP (USA), A2LA (USA), SWEDAC (Sweden). Further details can be supplied on request.

10. PHOTOGRAPHS

External photo and label





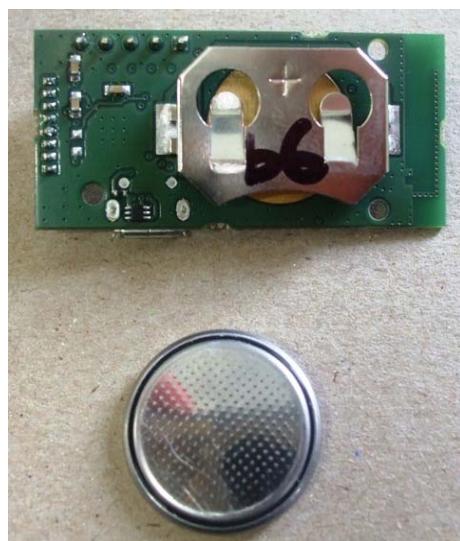
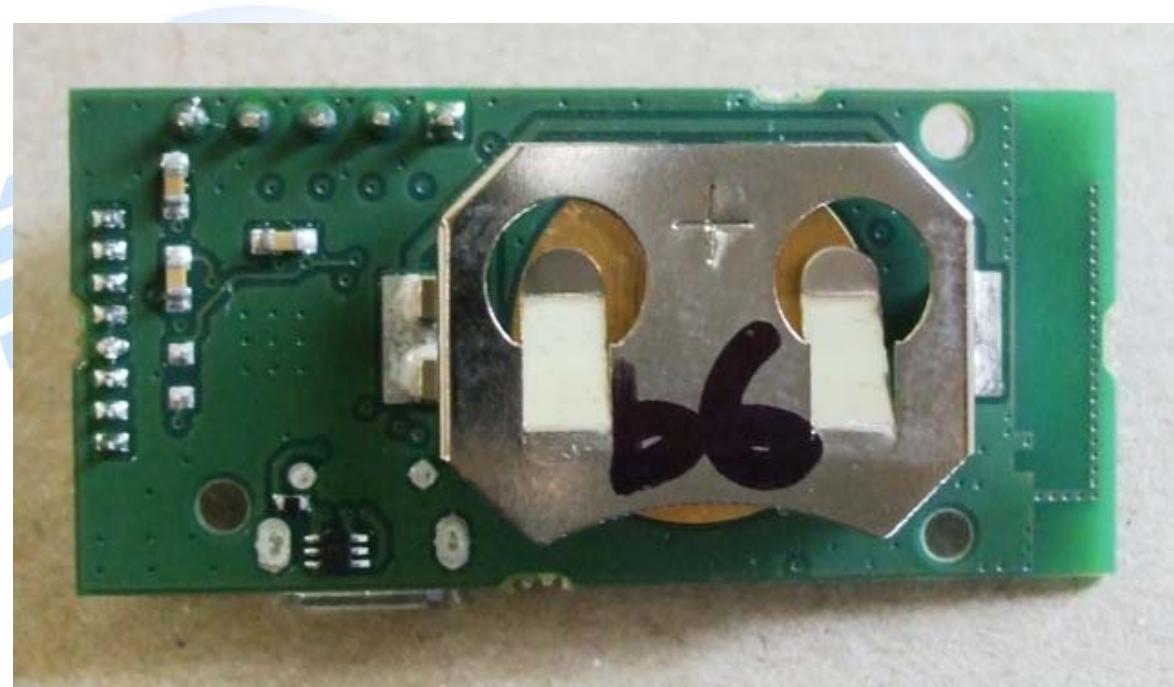
NB: The device has a completely black rectangular plastic enclosure.

All sides are identical being black plastic except the bottom connector face and the face with the label.

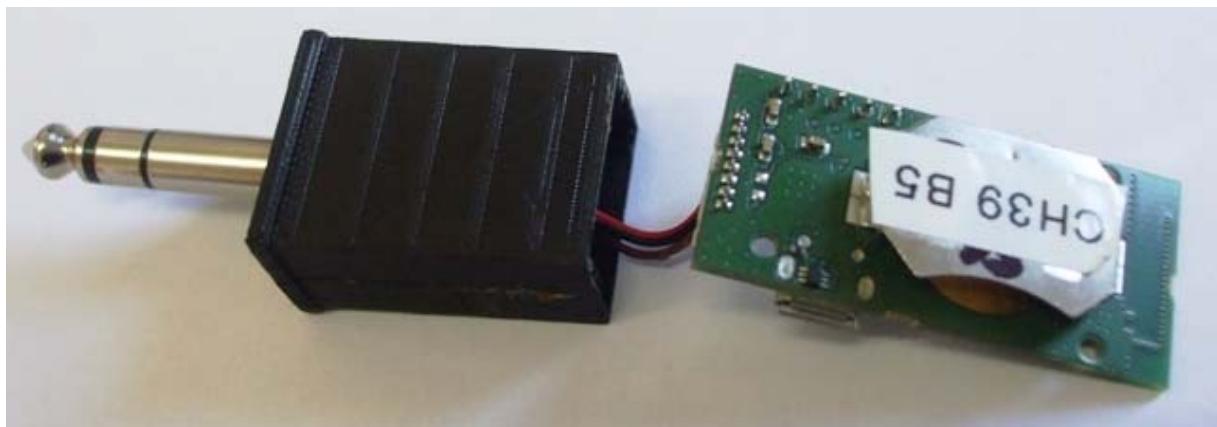
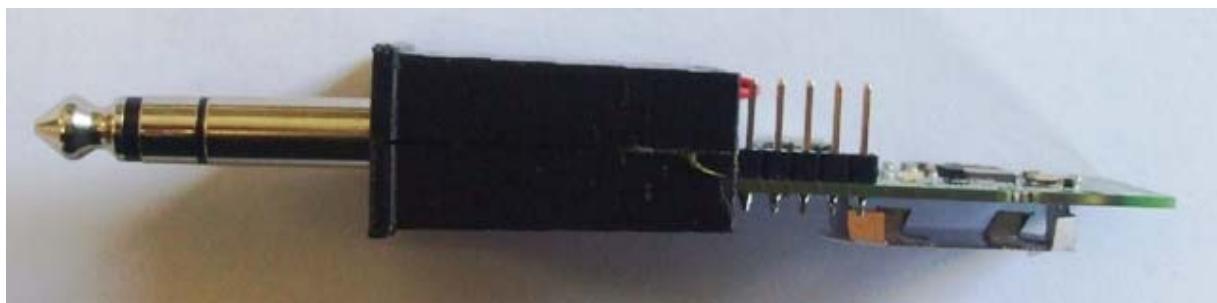
The left hand side face being completely black is representative of all of the other faces.

Global Product Certification

Internal Photos

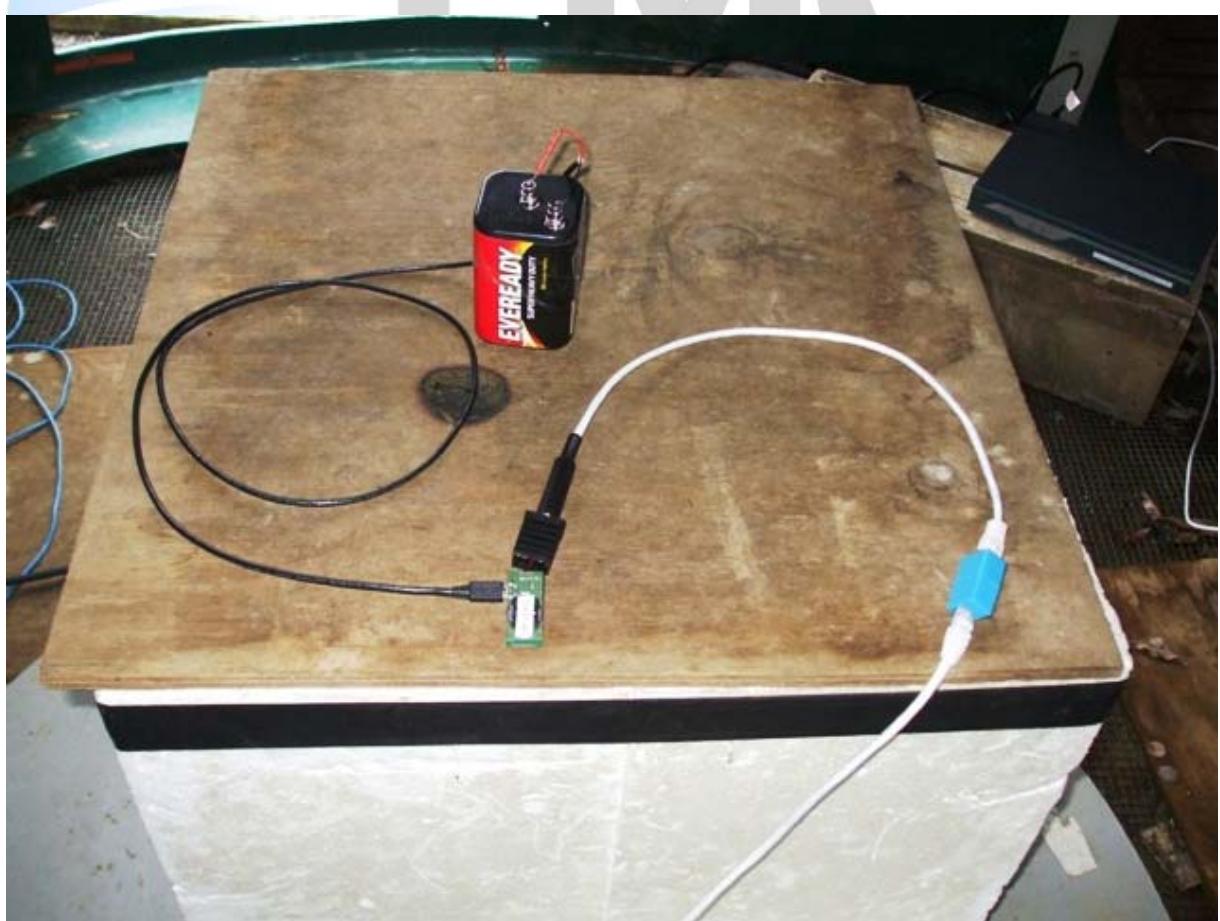


Internal photos showing how the circuit board is attached to the connector



Radiated emissions test set up - 80 cm above ground plane



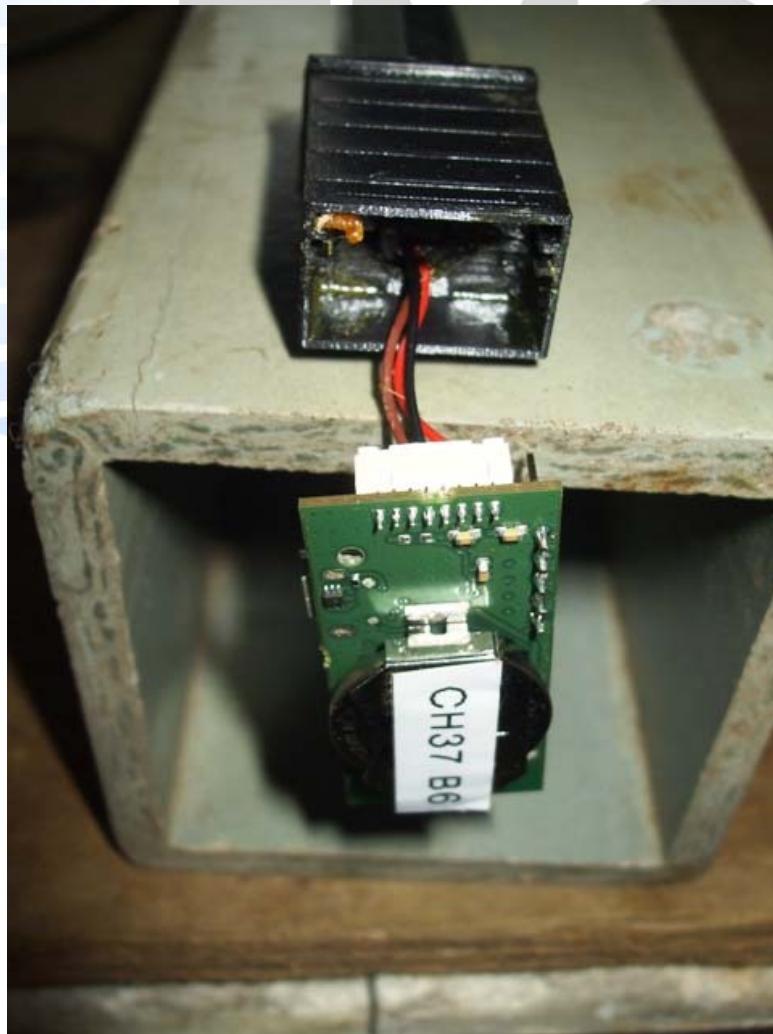
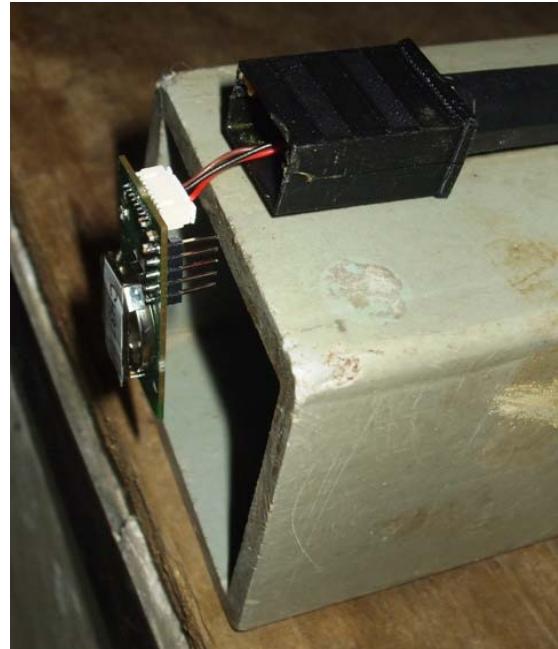
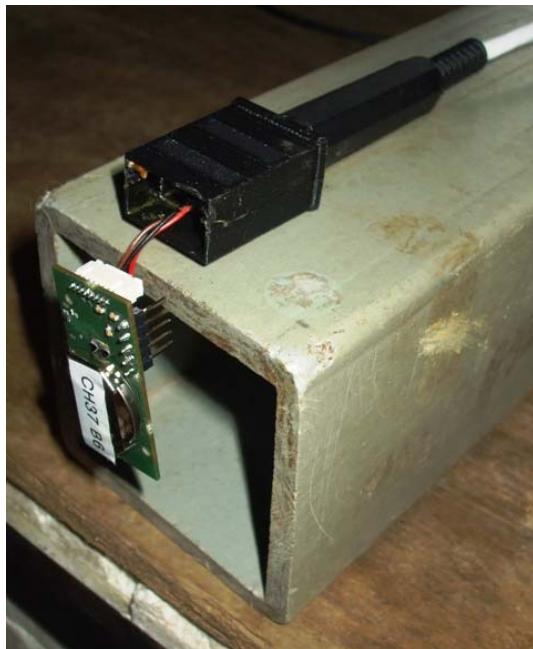


Radiated emissions test set up - 150 cm above ground plane

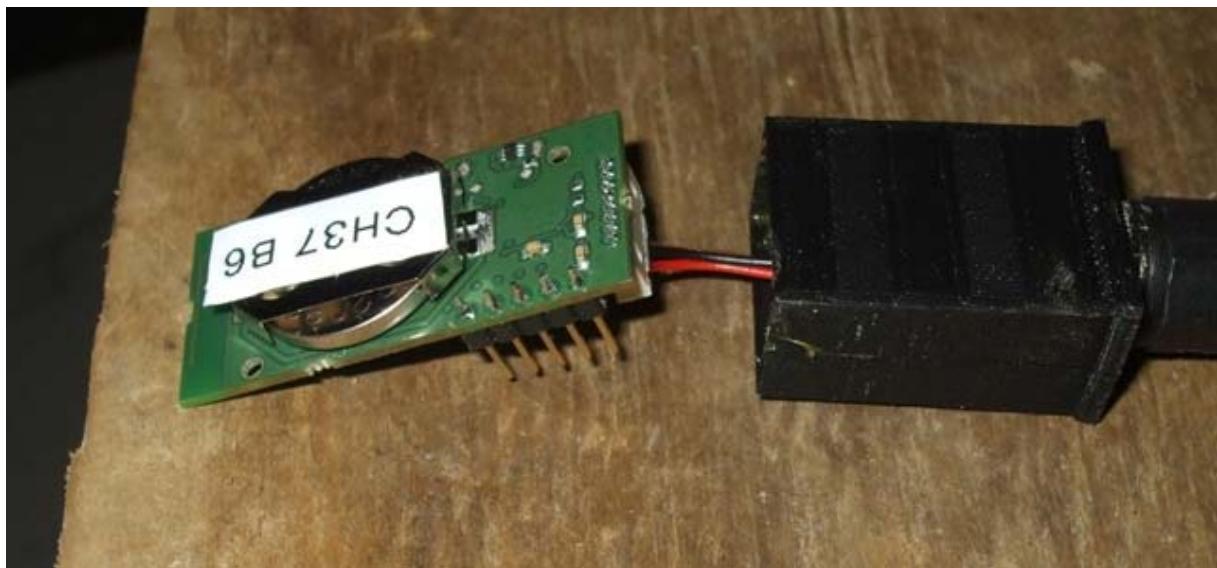




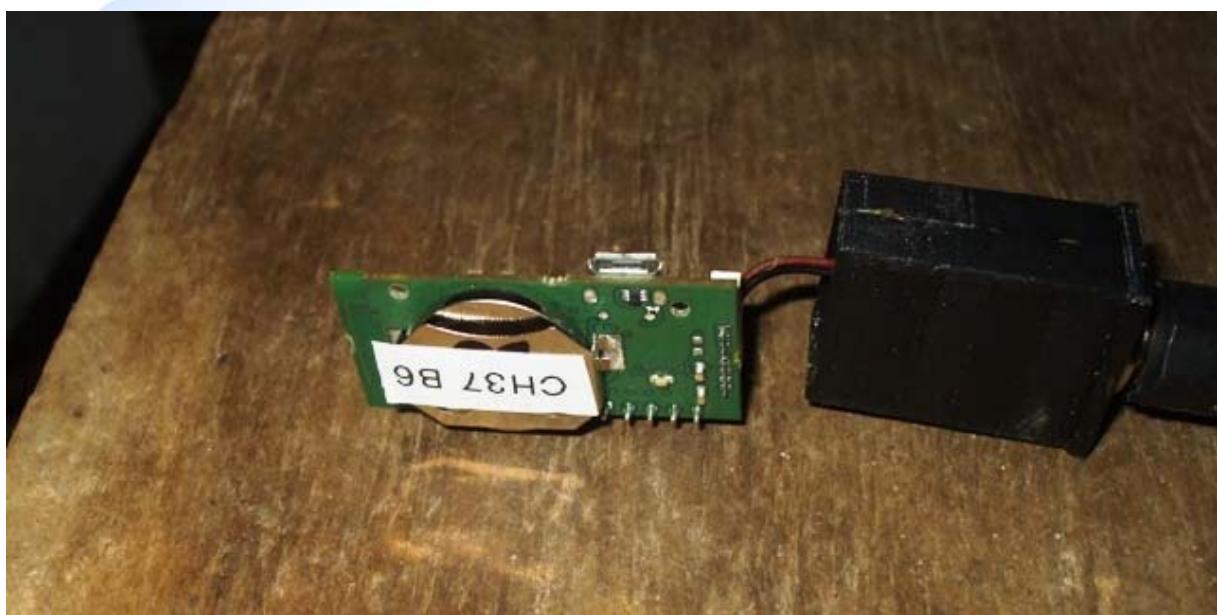
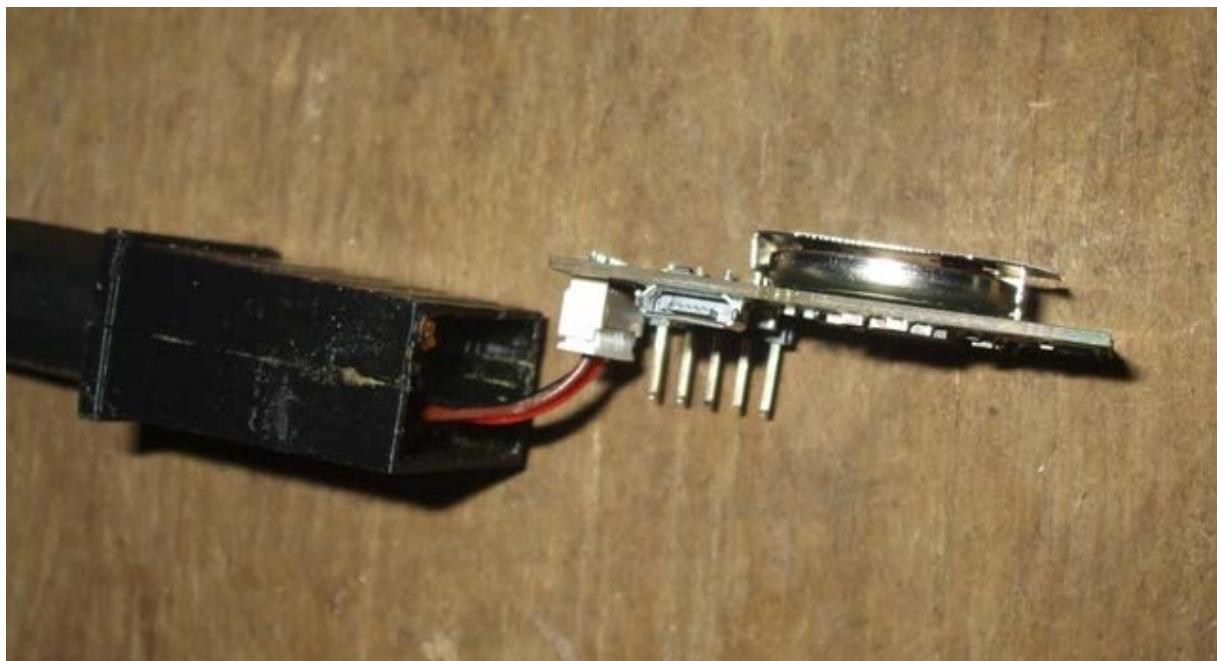
Transmitter X Plane - Standing Upright



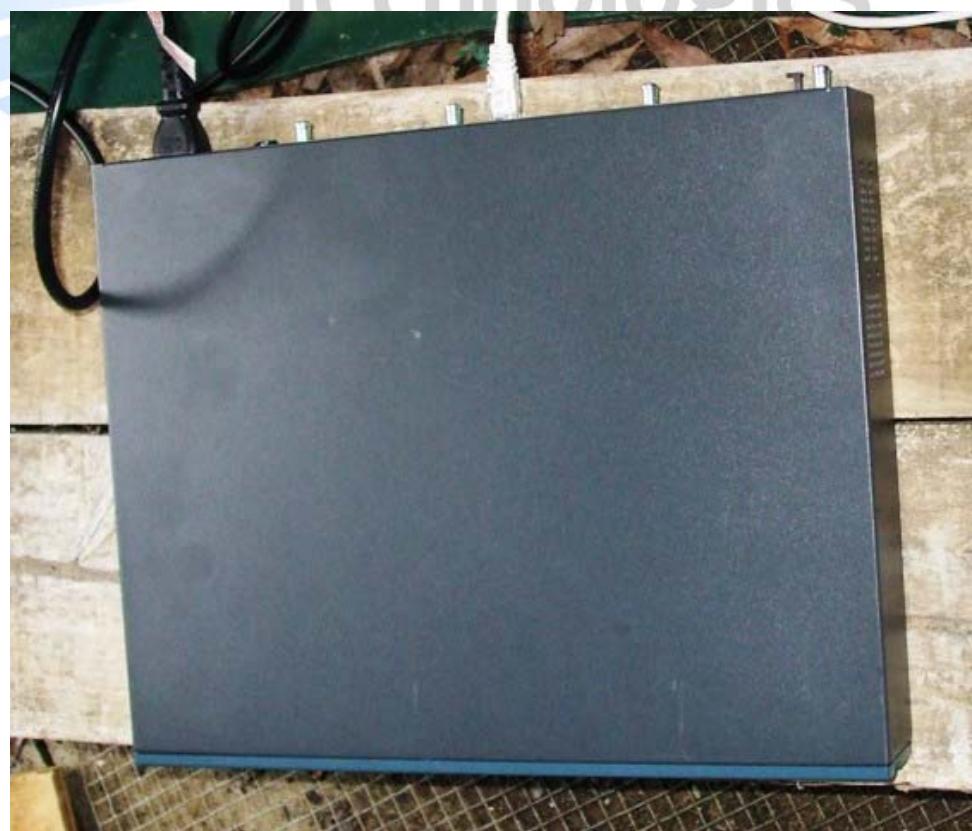
Transmitter Y Plane - Laying Flat



Transmitter Z Plane - On edge



Ancillary Equipment



Conducted emissions test set up





Overall Photo showing the location of the ancillary Airconsole

