FCC 47CFR part 15C
Test Report
For
Personal Identity Device (PID)
PID3X

Reference Standard: FCC 47CFR part 15C
Manufacturer: Serco Geografix Ltd.
For type of equipment and serial number, refer to section 3
Report Number: 08-7046-4-13 Issue 01
Report Produced by: -

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Certificate of Test 08-7046-4-13 Issue 01

The unit noted below has been tested by **R.N. Electronics Limited** and, where appropriate, conforms to the relevant subpart of FCC 47CFR Part 15. This is a certificate of test only and should not be confused with an equipment authorisation. Other standards may also apply.

Equipment:	Personal Identity Device (PID)
Model Number:	PID3X
Proposed FCC ID:	Not stated
Unique Serial Number:	800038
Manufacturer:	Serco Geografix Ltd Hurricane Way Norwich Norfolk NR6 6EW
Full measurement results are detailed in Report Number:	08-7046-4-13 Issue 01
Test Standards:	FCC 47CFR Part 15.249 effective date **October 1st 2012,** Class DXT Intentional Radiator

DEVIATIONS:
No deviations from the standards have been applied.

This certificate relates only to the unit tested as identified by a unique serial number and in the condition at the time it was tested. It does not relate to any other similar equipment and performance of the product before or after the test cannot be guaranteed. Whilst every effort is made to assure quality of testing, type tests are not exhaustive and although no non-conformances may be found, this doesn't exclude the possibility of unit not meeting the intentions of the standard or the requirements of the Federal Regulations, particularly under different conditions to those during testing. Any compliance statements are made reliant on (a) the application of the product and use of the assigned band being acceptable to the FCC and (b) the modes of operation as instructed to us by the Customer based on their specific knowledge of the application and functionality of the EUT. Statements of compliance, where measurements were made, do not include the measurement uncertainty. The measurement uncertainty, where stated, is the expanded uncertainty based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

Date of Test: 17th July 2013 - 27th August 2013

Test Engineer: Graham Blake
Digitally signed by Graham Blake
DN: CN = Graham Blake, C = GB, O = RN Electronics
Date: 2013.12.13 11:18:05 Z

Approved By:
Managing Director: Roger Ray

Customer Representative:

1 Contents

2 Equipment Under Test (EUT)

2.1 Equipment Specification

Applicant	Serco Geografix Ltd Hurricane Way Norwich Norfolk NR6 6EW
Manufacturer of EUT	Serco Geografix Ltd
Brand name of EUT	Personal Identity Device (PID)
Model Number of EUT	PID3X
Serial Number of EUT	800038
Date when equipment was received by RN Electronics	8th July 2013
Date of test:	17th July 2013 - 27th August 2013
Visual description of EUT:	A small plastic enclosure with a battery compartment accessible from the underside. The unit has a secure rubberised strap to enable the unit to be body worn.
Main function of the EUT:	The EUT is a 'Personal Identity Device' used as part of an offender monitoring system. The battery powered unit is used to monitor the presence of a user by transmitting a status message back to a dedicated receiver unit every 20 - 30 seconds.
Height	22 mm
Width	45 mm
Depth	70 mm
Weight	0.07 kg
Voltage	2.9 - 3.7V
Current required from above voltage source	65uA (idle) 30mA (TX)

2.2 EUT Configurations for testing

General parameters	
EUT Normal use position	Body worn
Antenna details	Integral
Antenna port	No
Baseband Data port (yes/no)?	No
Highest Signal generated in EUT	915.15 MHz
Lowest Signal generated in EUT	62.5 kHz
TX Parameters	
Alignment range – transmitter	902 - 928MHz
EUT Declared Modulation Parameters	FSK 4800 Baud
EUT Declared Power level	7dBm
EUT Declared Signal Bandwidths	62.5 kHz
EUT Declared Channel Spacing's	N/A Single Channel
EUT declared Duty Cycle	In normal use 1 x 60ms transmission every 20 to 30 seconds
Unmodulated carrier available?	No
Declared frequency stability	+/- 10 ppm over -20 deg. C to 70 deg. C
RX Parameters	
Alignment range – receiver	902 - 928 MHz
EUT Declared RX Signal Bandwidth	50 kHz

2.3 Functional Description

In normal operation, the 'Personal Identity Device' (PID) transmits a status message on a single spot-frequency of 915.15 MHz, to a monitoring receiver unit every 20 - 30 seconds. The PID can also receive and respond to RF commands sent from a controlling unit. This mainly occurs during the initial setting up of the PID.

2.4 EUT Modes

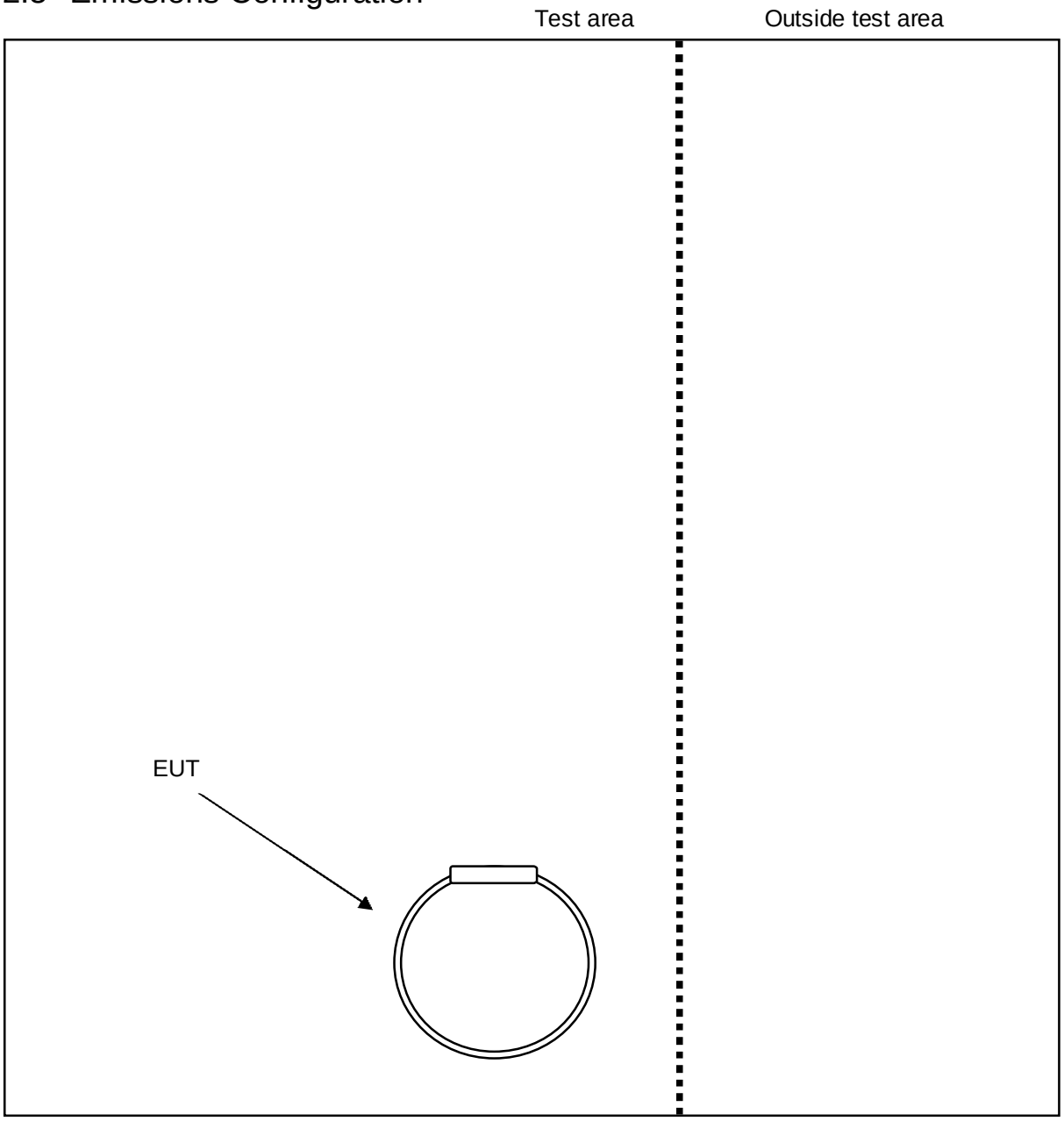
Mode Reference	Description	Used for testing
TX	Transmitting continuously	Yes

Description of ancillary equipment connected to the equipment under test, for the purpose of tests, can be found in Section 10.

Any modifications made to the EUT, whilst under test, can be found in Section 11.

This report was printed on: 13 December 2013

2.5 Emissions Configuration



For testing purposes, the manufacturer supplied an engineering unit which was configured to allow the EUT to transmit continuously at 915.15 MHz. The unit was powered from its own internal battery and the transmit mode was with FSK modulation applied.

3 Summary of test results

The **Personal Identity Device (PID)** was tested to the following standards: -

FCC 47CFR Part 15.249 (effective date October 1st, 2012); Class DXX Intentional Radiator

Any compliance statements are made reliant on the modes of operation as instructed to us by the Manufacturer based on their specific knowledge of the application and functionality of the equipment tested. Whilst every effort is made to assure quality of testing, type tests are not exhaustive and although no non-conformances may be found, this doesn't exclude the possibility of equipment not meeting the intentions of the standard, particularly under different conditions to those during testing.

Title	Reference	Results
1. AC power line conducted emissions	ANSI C63.10 §6.2.	NOT APPLICABLE[1]
2. Intentional radiator field strength	ANSI C63.10 §6.10.	PASSED
3. Radiated emissions	ANSI C63.10 §6.4 – 6.6.	PASSED
4. Frequency stability	ANSI C63.10 §6.8.	NOT APPLICABLE[2]
5. Occupied bandwidth	ANSI C63.10 §6.9.	PASSED
6. Band Edge		PASSED
7. Duty cycle	ANSI C63.10 §7.5.	NOT APPLICABLE

[1] EUT does not operate from the AC power lines nor contain provisions for operation while connected to AC power lines.
[2] EUT is not for fixed, point-to-point operation, therefore no limits are specified.

4 Specifications

The tests were performed by an RN Electronics Engineer who set up the tests, the test equipment, and operated it in accordance with the ***R.N. Electronics Ltd*** procedures manual, ANSI C63.10-2009, FCC Part 15 and those specifications incorporated by reference into 47CFR15 (e.g. ANSI C63.4-2003).

R.N. Electronics Ltd sites M and OATS are listed with the FCC. Registration Number 293246

4.1 Deviations

ANSI C63-10-2009 deviations:
The reference standard ANSI C63.4-2003 was used, not the latest ANSI C63.4-2009

FCC Part 15 deviations:
None.

4.2 Tests at Extremes of Temperature & Voltage

Not applicable.

4.3 Measurement Uncertainties

Parameter	Uncertainty
Transmitter Tests	
Occupied bandwidth	± 1.9 %
Radiated RF power	± 3.5 dB
Radiated spurious emissions	30MHz - 1000MHz ±5.1dB 1000MHz - 2000MHz ±4.5dB 1 – 18 GHz ±3.5dB

5 Tests, Methods and Results

5.1 AC power line conducted emissions

NOT APPLICABLE: EUT does not operate from the AC power lines nor contain provisions for operation while connected to AC power lines.

5.2 Intentional radiator field strength

5.2.1 Test Methods

Test Requirements	FCC Part 15C, Reference (15.249 a)
Test Method:	ANSI C63.10, Reference (6.3 / 6.5)

5.2.2 Configuration of EUT

The EUT was placed on a 0.8 metres high turntable. The front edge of the EUT was initially positioned facing the antenna. The EUT was rotated in all three orthogonal planes to maximise the emission. Final measurements were taken at 3m. The EUT was operated in TX mode.

5.2.3 Test Procedure

Tests were made in accordance with FCC Part 15 using the measuring equipment noted below.

Measurements were made in an OATS. This site is listed with the FCC.
Both the equipment and the antenna were rotated 360° to record the maximised emission.
Tests were performed using Test Site OATS**.**

5.2.4 Test Equipment used

TMS903, E226

See Section 10 for more details

5.2.5 Test results

Ambient conditions.
Temperature: 24°C Relative humidity: 50 % Pressure: 102 kPa

Radio Parameter 1

Band	902-928 MHz
Power level	7 dBm
Channel spacing	n/a
Mod scheme	FSK
Low channel	915.15 MHz

Duty Cycle Table relating to Radio Parameters 1

	Low
Duty Cycle (%)	100
Duty Cycle correction	0

Results relating to Radio Parameters 1

	Low
QP Level (dBµV/m)	86.2
Plot reference	Plot 1 J7046-1 ERP plot Vert ant EUT upright.spt
Antenna Polarisation	Vert
EUT Polarisation	Side

	Low
QP Level (dBµV/m)	86.47
Plot reference	Plot 2 J7046-1 ERP plot Horiz ant EUT Vert.spt
Antenna Polarisation	Horiz
EUT Polarisation	Vert

Any Analyser plots can be found in Section 6.2 of this report.

LIMITS:

15.249(a) 50 mV/m @ 3m (94 dBµV/m @ 3m).

These results show that the EUT has **PASSED** this test.

5.3 Radiated emissions

Radiated emissions 30MHz-1GHz
Radiated emissions above 1 GHz

5.3.1 Test Methods

Test Requirements:	FCC Part 15C, Reference (15.209)
Test Method:	ANSI C63.10, Reference (6.4 – 6.6.)

5.3.2 Configuration of EUT

The EUT was placed on a 0.8 metres high turntable. The front edge of the EUT was initially positioned facing the antenna. The EUT was measured at a distance of 3 metres. The EUT was investigated in all three orthogonal planes to maximise emissions. The EUT was operated in TX mode.

5.3.3 Test Procedure

Tests were made in accordance with FCC Part 15 using the measuring equipment noted below.

30MHz - 1GHz, measurements were made on a site listed with the FCC. The equipment was rotated 360° and the antenna scanned 1 – 4 metres in both horizontal and vertical polarisations to record the worst case emissions.

Above 1GHz, measurements were made in a semi-anechoic chamber with appropriate absorbing material for use in this range. The EUT was raised and antenna was placed 1.5m above the ground in line with the EUT, which was rotated through 360° to record the worst case emissions.

At least 6 signals within 20dB and all signals within 10dB of the limit were investigated.

Radiated emissions 30MHz-1GHz – Tests were performed using Test Site M and OATS**.**
Radiated emissions above 1 GHz – Tests were performed using Test Site B**.**

5.3.4 Test Equipment used

Radiated emissions 30MHz-1GHz – E533, E534, E535, E429, E319, TMS903, E226
Radiated emissions above 1 GHz – E428, E533, E534, E535, TMS82, E497

See Section 10 for more details

5.3.5 Test results

Analyser plots for the Quasi-Peak / Average values as applicable can be found in Section 6.3 of this report.

Note: EUT tested in a continuous transmit mode for ease of test.

5.3.5.1 Below 30MHz.

Not applicable

5.3.5.2 30MHz - 1GHz.

Plot references for Radiated emissions measurements (30-1000MHz)

Frequency Range	Antenna Polarisation	Plot reference
30 – 300 MHz	Horizontal	7046-1 Rad 1 VHF Horiz
30 – 300 MHz	Vertical	7046-1 Rad 1 VHF Vert
300 – 1000 MHz	Horizontal	7046-1 Rad 1 UHF Horiz
300 – 1000 MHz	Vertical	7046-1 Rad 1 UHF Vert

No significant emissions were observed below 1GHz.

5.3.5.3 Above 1GHz.

Radio Parameters 1

Band	902-928 MHz
Power level	7 dBm
Channel spacing	n/a
Mod scheme	FSK
Bottom channel	915.15 MHz

Results relating to Radio Parameters 1

Spurious Frequency (MHz)	Measured Peak Level (dBµV/m)	Difference to Peak Limit (dB)	Measured Average Level (dBµV/m)	Difference to Average Limit (dB)	Antenna Polarisation	EUT Polarisation
1830.3	50.76	-23.24	49.85	-4.15	Vertical	Upright
2745.45	46.03	-7.97	41.65	-12.35	Vertical	Upright
3660.6	42.97	-11.03	32.02	-21.98	Vertical	Upright
5490.9	48.59	-25.41	43.44	-10.56	Vertical	Upright
7321.2	51.81	-2.19	49.24	-4.76	Vertical	Upright
1830.3	52.01	-21.99	50.96	-3.04	Horizontal	Side
2745.45	47.67	-6.33	43.9	-10.1	Horizontal	Side
3660.6	45.77	-8.23	43.33	-10.67	Horizontal	Side
5490.9	51.66	-22.34	48.41	-5.59	Horizontal	Side
6406.05	45.36	-28.64	34.34	-19.66	Horizontal	Side
7321.2	51.61	-2.39	46.27	-7.73	Horizontal	Side

Frequency Range	Antenna Polarisation	Plot reference
1 – 3 GHz	Horizontal	PID800038, 1-3GHz Horizontal
1 – 3 GHz	Vertical	PID800038, 1-3GHz Vertical
3 – 5 GHz	Horizontal	PID800038, 3-5GHz Horizontal
3 – 5 GHz	Vertical	PID800038, 3-5GHz Vertical
5 – 6 GHz	Horizontal	PID800038, 5-6GHz Horizontal
5 – 6 GHz	Vertical	PID800038, 5-6GHz Vertical
6 – 7.8 GHz	Horizontal	PID800038, 6-7.8GHz Horizontal
6 – 7.8 GHz	Vertical	PID800038, 6-7.8GHz Vertical
7.8 – 10 GHz	Horizontal	PID800038, 7.8-10GHz Horizontal
7.8 – 10 GHz	Vertical	PID800038, 7.8-10GHz Vertical

LIMITS:
15.209 limits are applicable in the restricted bands of 15.205 with the relevant detector.
15.249(a) harmonics must not exceed 500 / 2500 (54 / 68 dB) µV/m @ 3m.
15.249(d) other emissions, outside the intentional band, must be attenuated by at least 50dB from the level of the fundamental / meet the general limits of 15.209.

n.b. the general limits of 15.209 are as drawn on the respective plots.

These show that the **EUT** has **PASSED** this test.

5.4 Frequency stability

NOT APPLICABLE: The EUT is not for fixed, point-to-point operation, therefore no limits are specified.

5.5 Occupied bandwidth

5.5.1 Test Methods

Test Requirements**:**	FCC Part 15C, Reference (15.215)
Test Method:	ANSI C63.10, Reference (6.9)

5.5.2 Configuration of EUT

The EUT was placed on a 0.8 metres high turntable. The front edge of the EUT was initially positioned facing the antenna. The EUT was measured at a distance of 3 metres. The EUT was powered by its own internal battery. The EUT was operated in TX mode.

5.5.3 Test Procedure

Tests were performed using Test Site OATS.
Tests were made in accordance with FCC Part 15 using the measuring equipment noted below. A 10kHz RBW, 3x VBW, auto sweep time and max hold settings were used for the 20dB bandwidth.

5.5.4 Test Equipment used

E266, TMS903

See Section 10 for more details.

5.5.5 Test results

Ambient conditions.
Temperature: 24 °C Relative humidity: 50 % Pressure: 102 kPa

Analyser plots for the 20dB bandwidth can be found in Section 6.4 of this report.

Radio Parameter 1

Band	902-928 MHz
Power level	7 dBm
Channel spacing	n/a
Mod scheme	FSK
Low channel	915.15 MHz

Results relating to Radio Parameters 1

20dB BW (MHz)	0.1188
Plot reference	J7046-1 99% OBW Horizontal

20dB BW (MHz)	0.1151
Plot reference	J7046-1 99% OBW Vertical

LIMITS:

15.215(c) The 20dB bandwidth of the emission must be contained within the designated frequency band.
The restricted band edges closest to the EUT frequency of 915.15MHz are 614 & 960MHz.

These results show that the EUT has **PASSED** this test.

5.6 Band Edge

Please refer to the bandwidth plots shown in section 6.4

LIMITS:

The emissions should remain within the band.

These results show that the EUT has **PASSED** this test.

5.7 Duty cycle

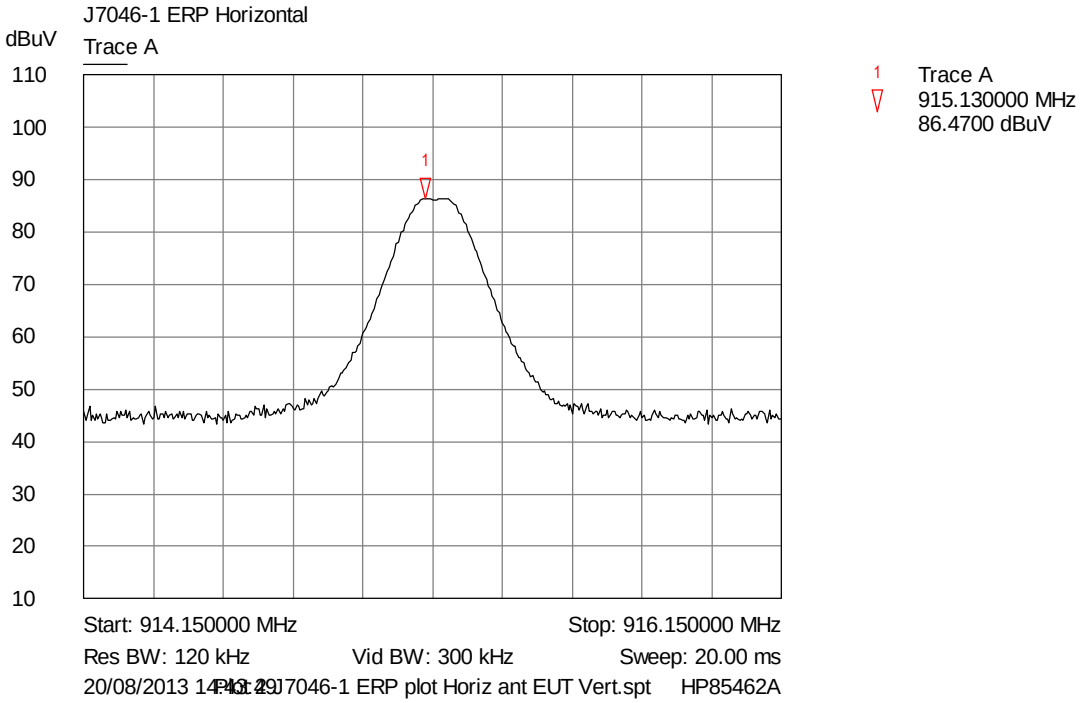
Not applicable

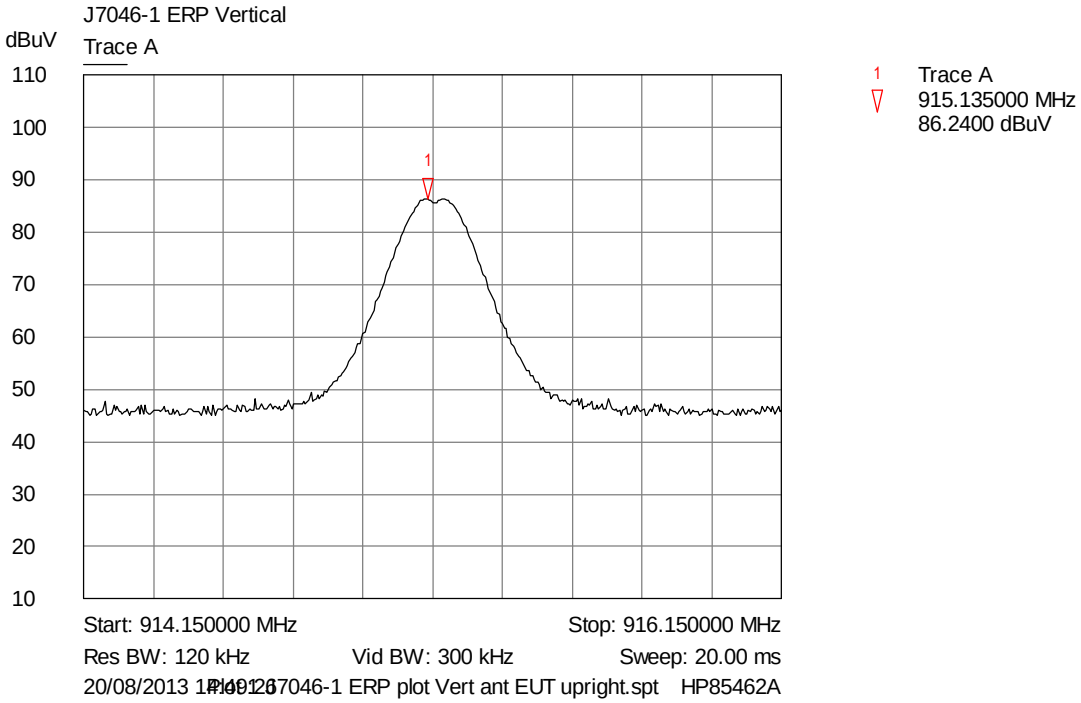
6 Plots and Results

6.1 AC power line conducted emissions plots

Not Applicable

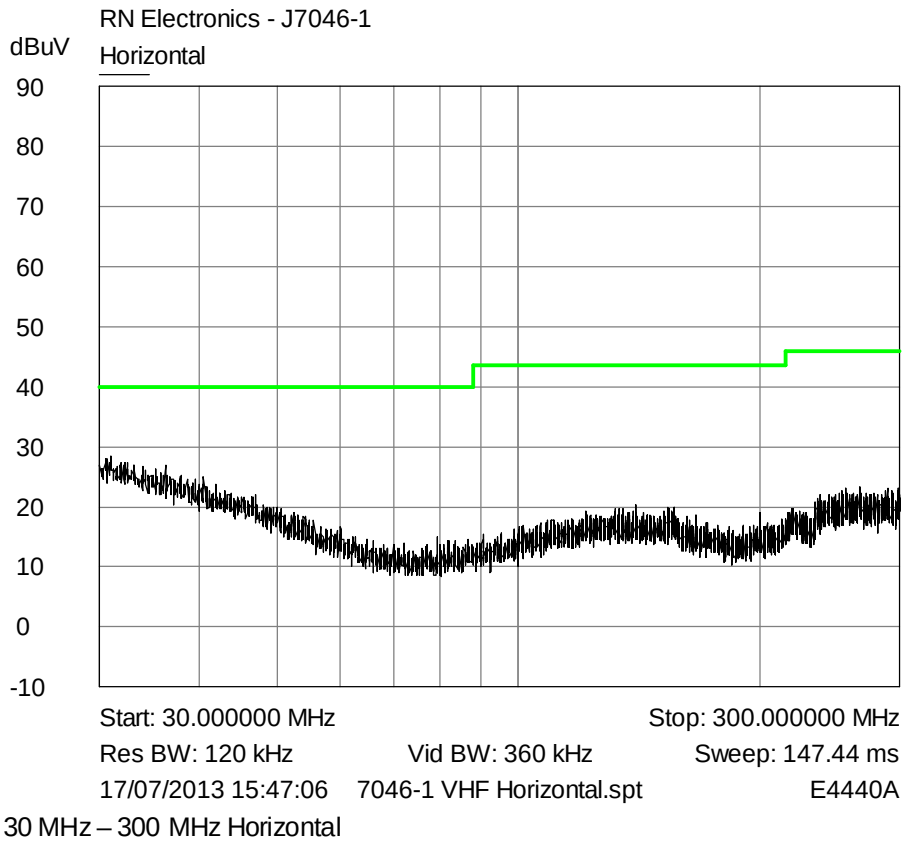
6.2 Intentional radiator field strength plots



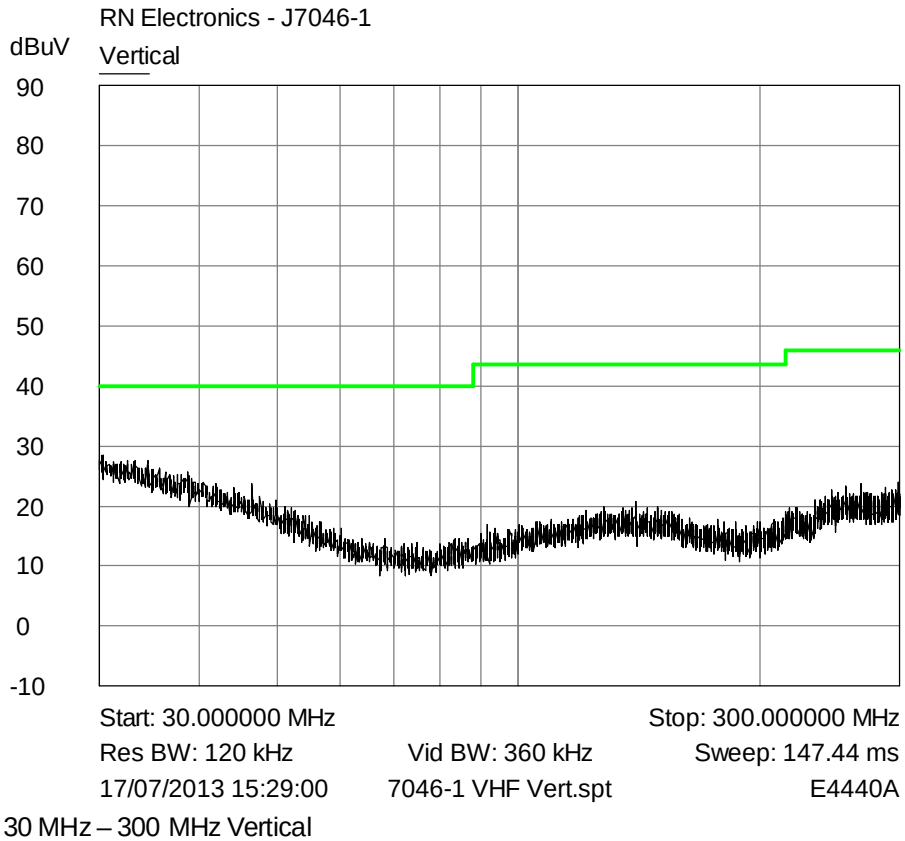


6.3 Radiated emissions plots

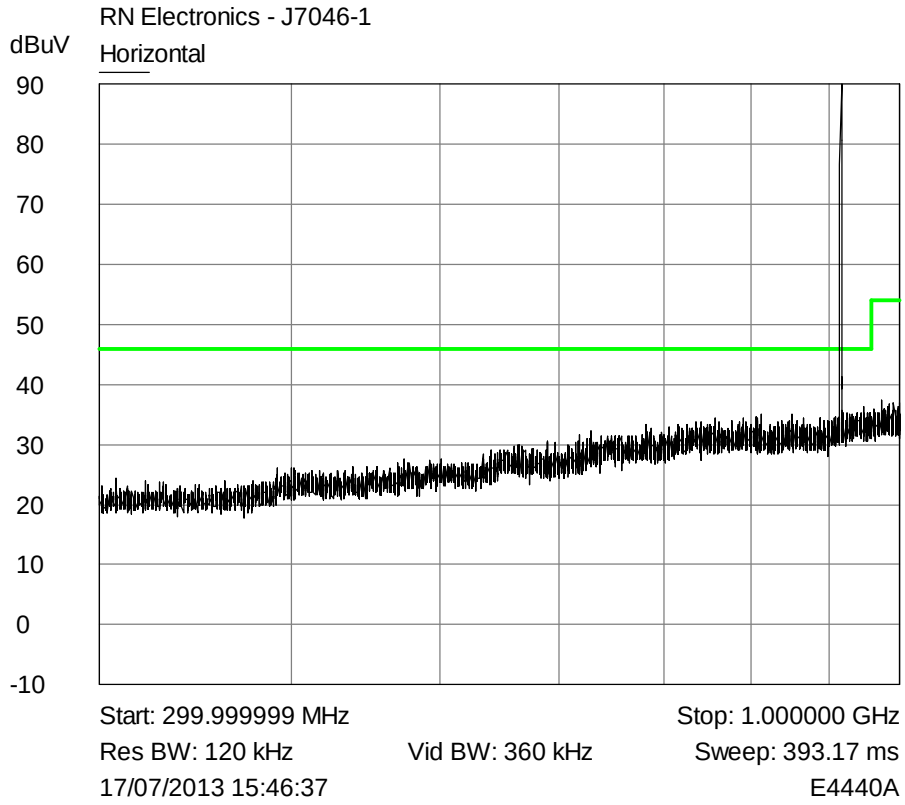
6.3.1 Radiated emissions - 30MHz - 1GHz



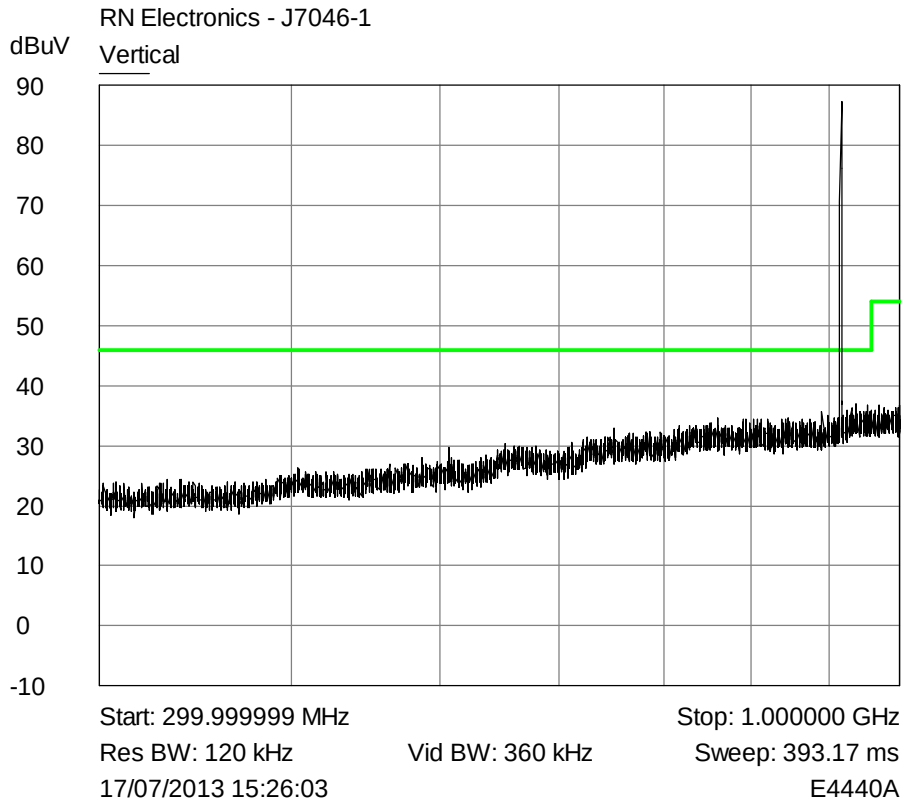
30 MHz – 300 MHz Horizontal



30 MHz – 300 MHz Vertical

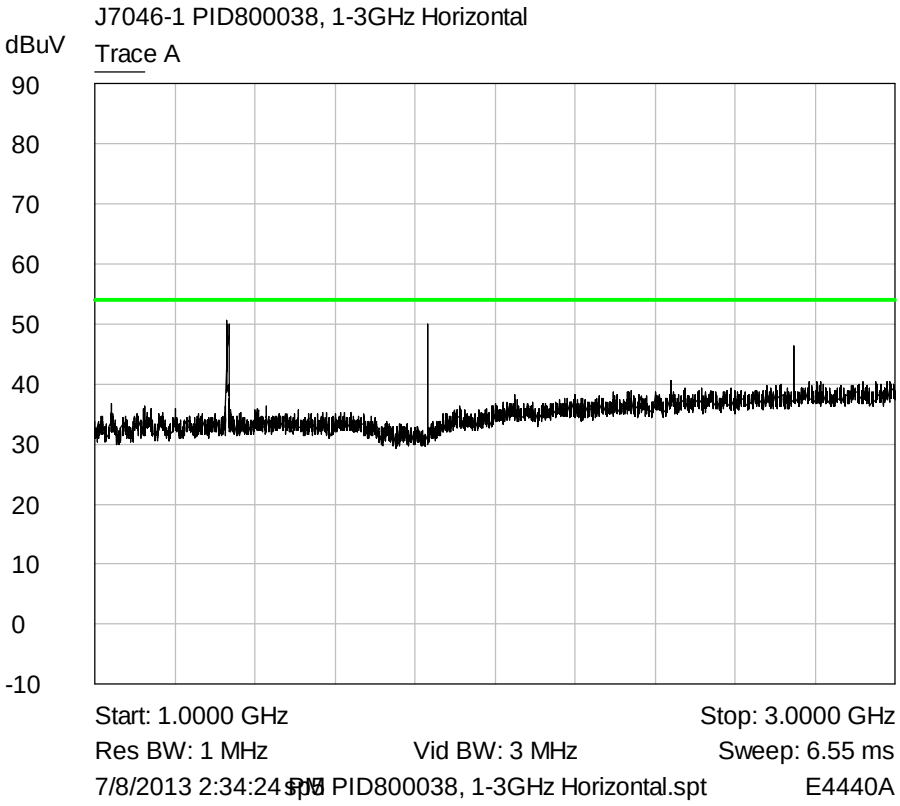


300 MHz to 1 GHz Horizontal (**shows fundamental frequency at 915.15 MHz**)

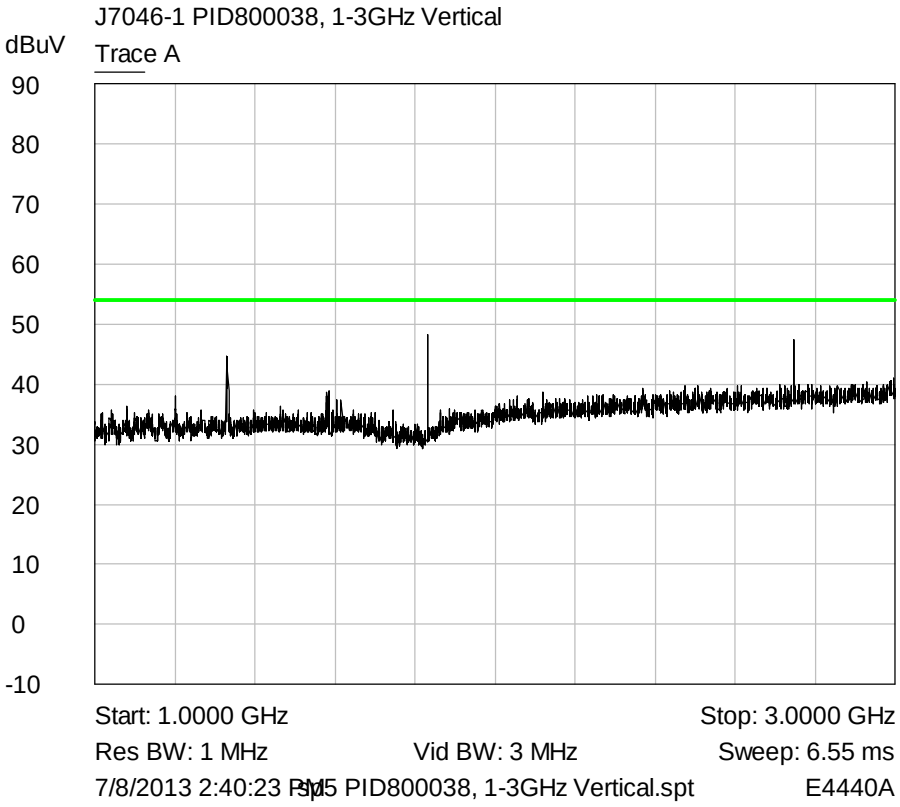


300 MHz to 1 GHz Vertical (**shows fundamental frequency at 915.15 MHz**)

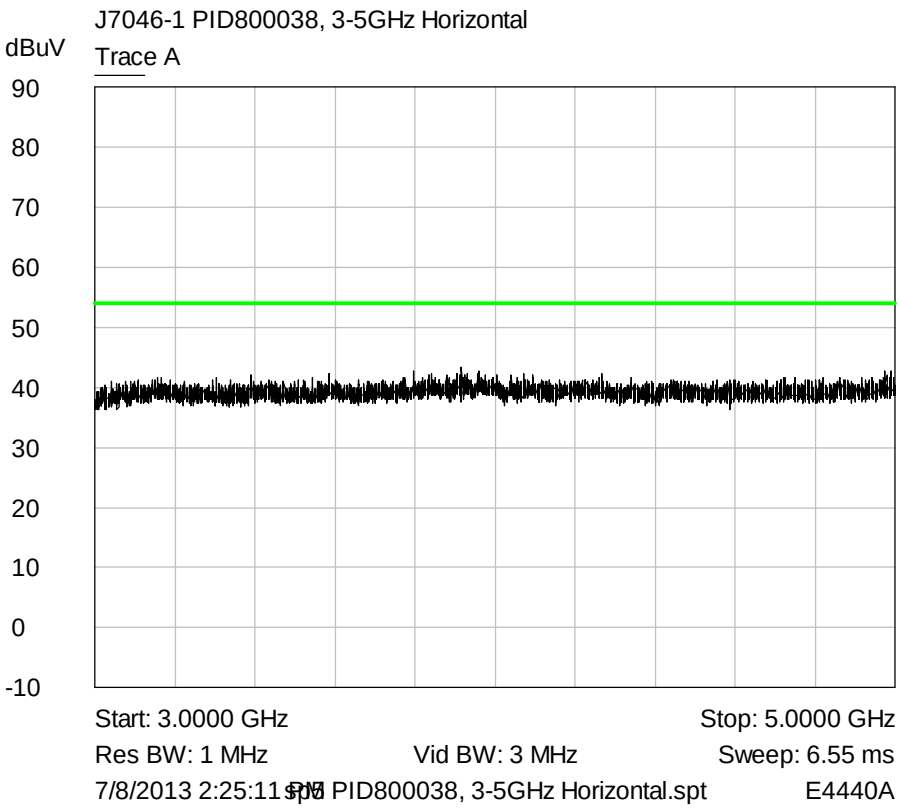
6.3.2 Radiated emissions Plots above 1GHz



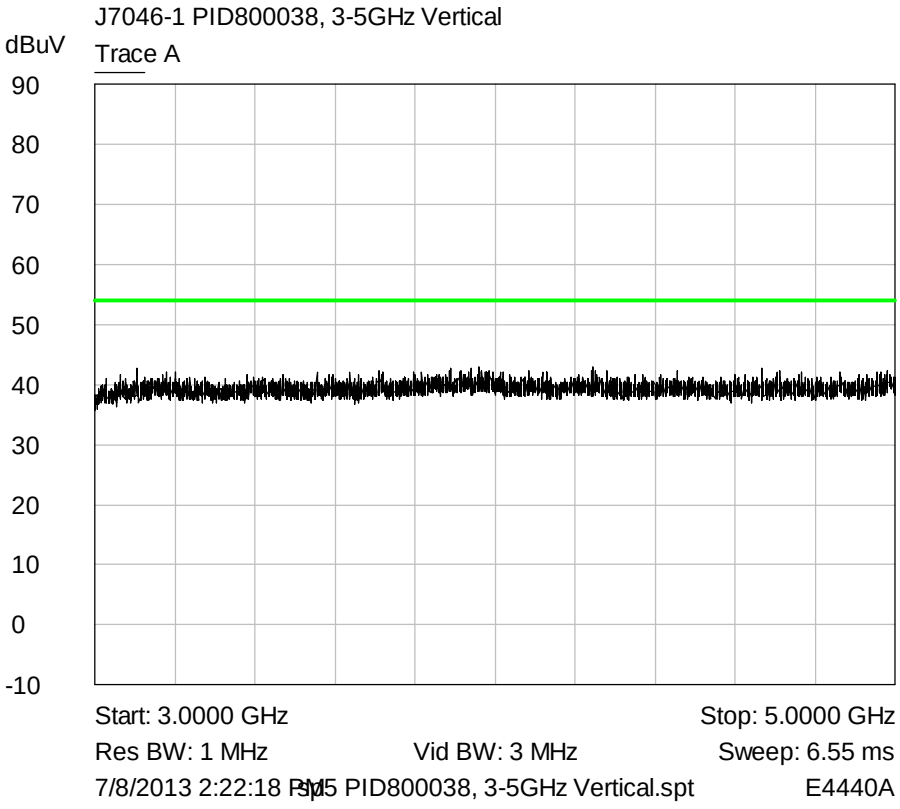
1 GHz - 3 GHz Horizontal



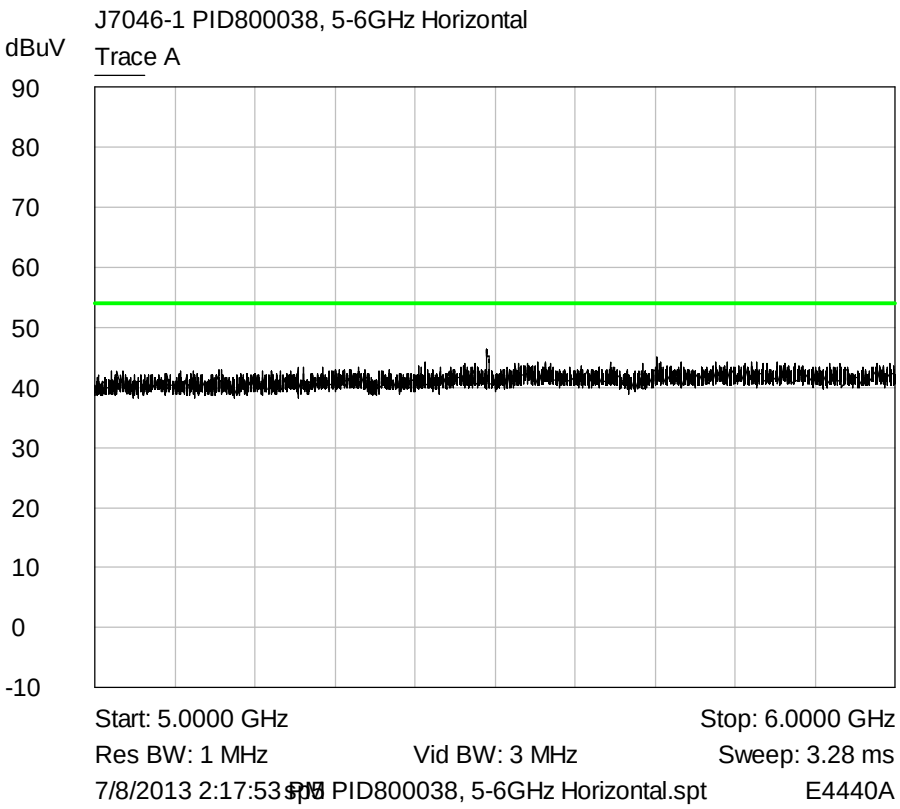
1 GHz - 3 GHz Vertical



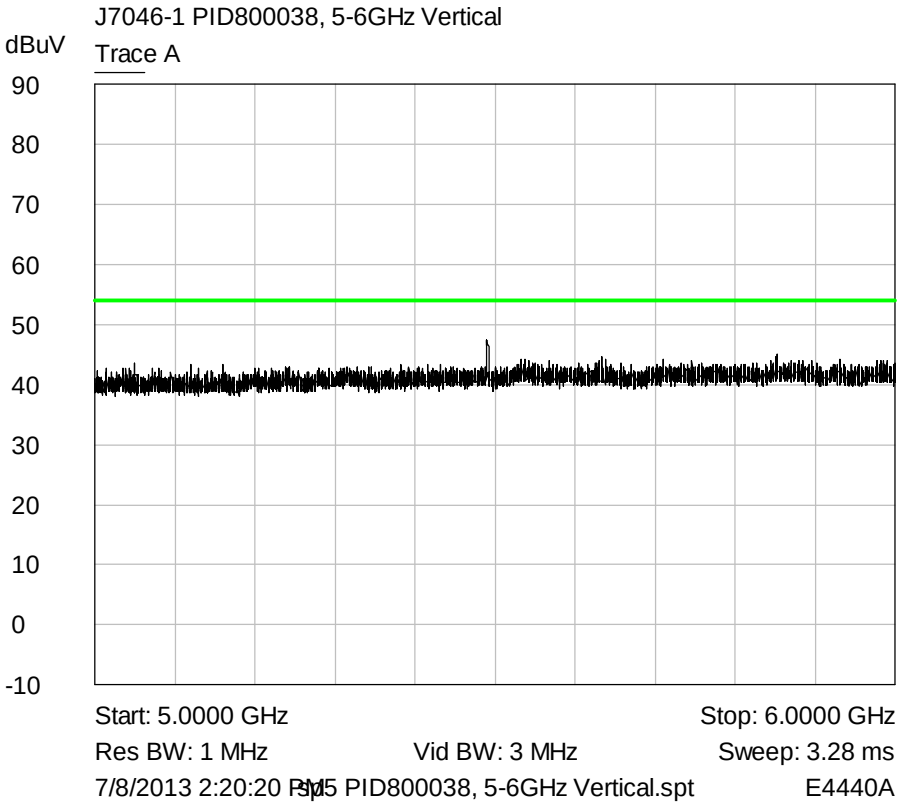
3 GHz - 5 GHz Horizontal



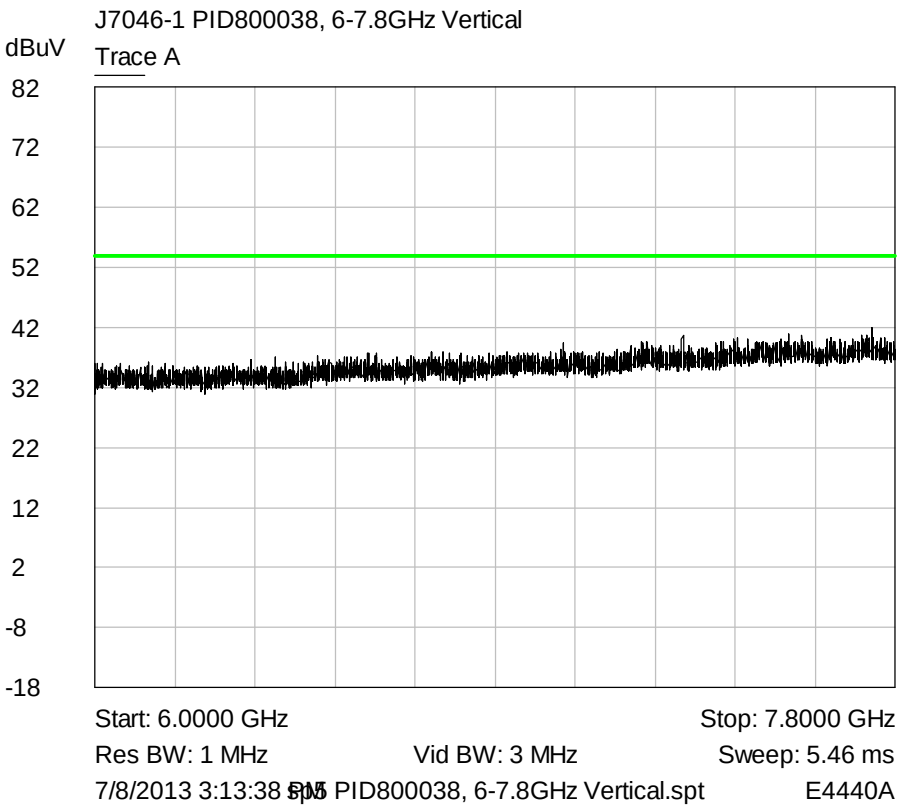
3 GHz - 5 GHz Vertical



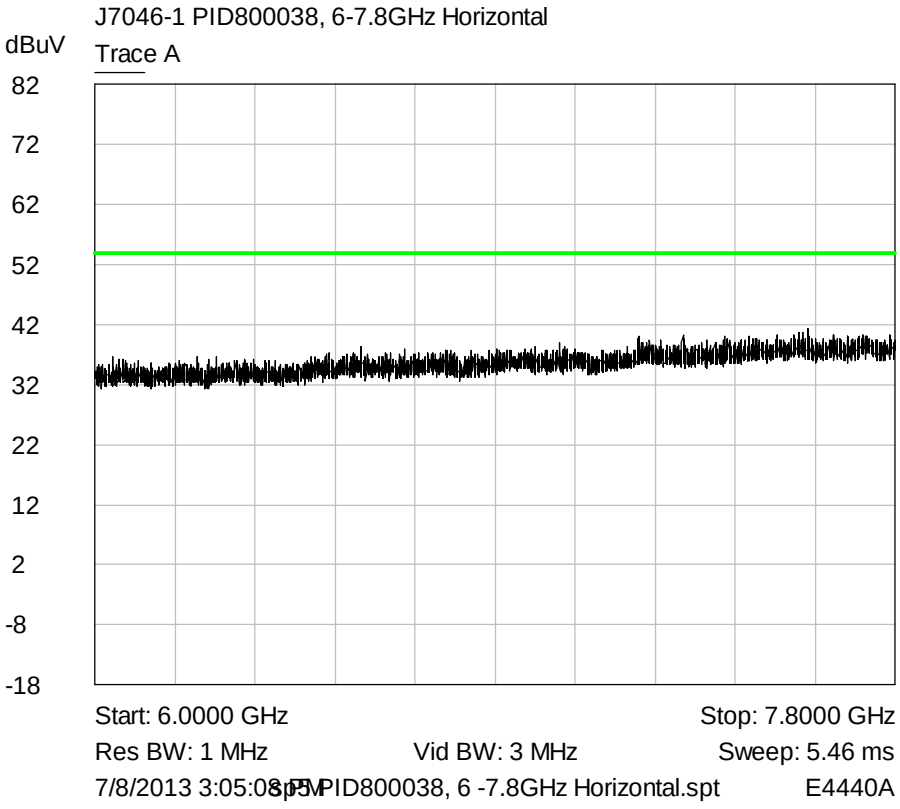
5 GHz - 6 GHz Horizontal



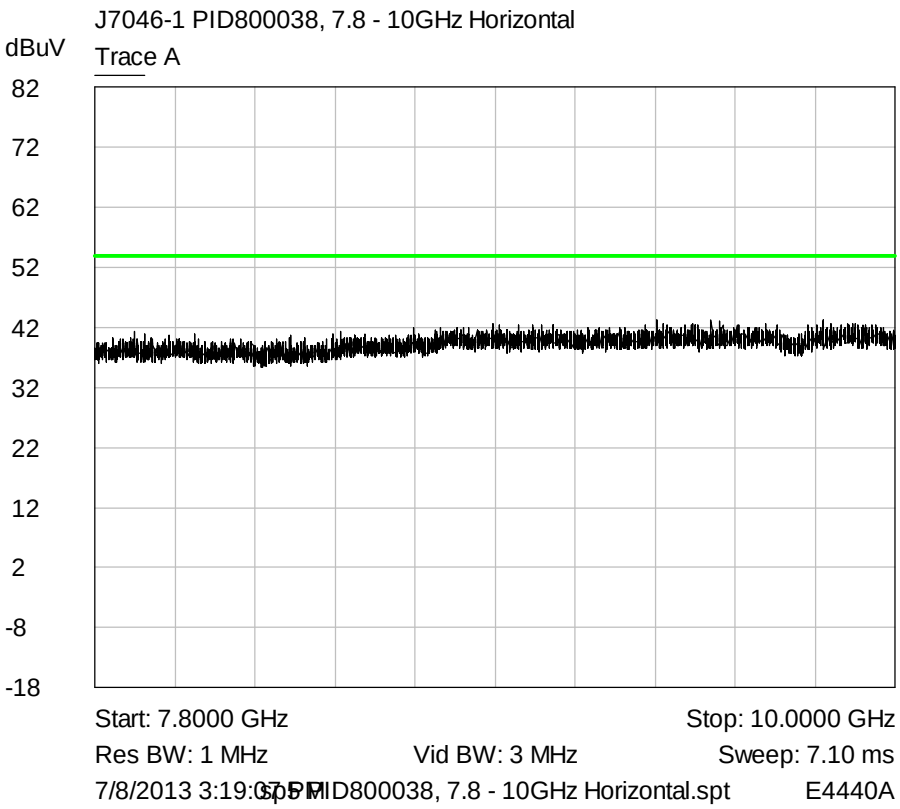
5 GHz - 6 GHz Vertical



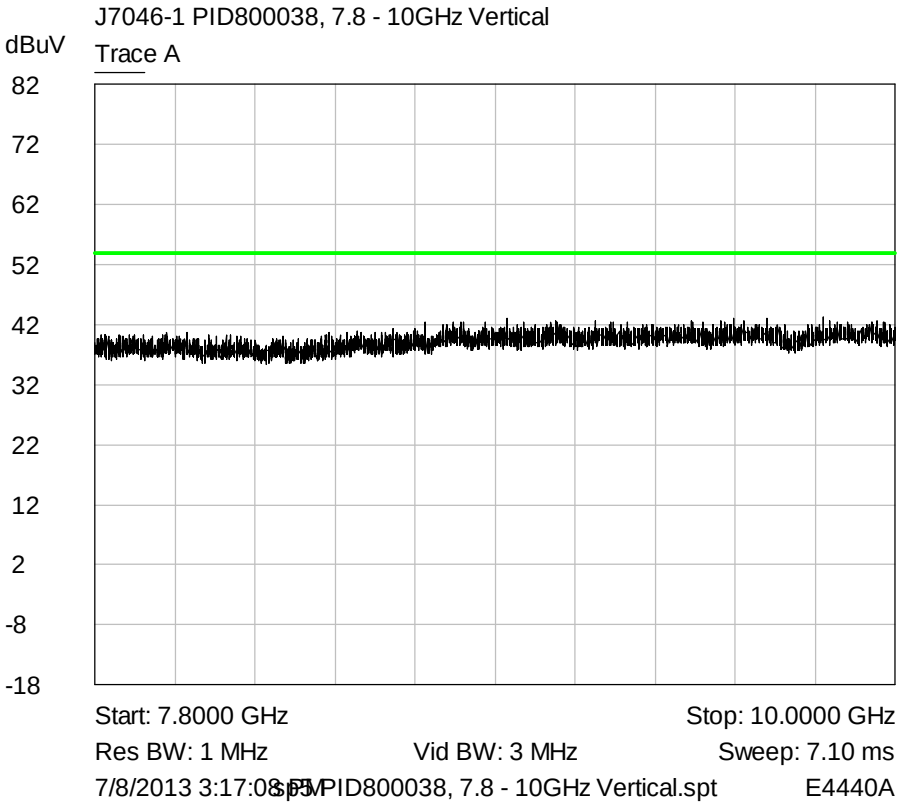
6 GHz – 7.8 GHz Vertical



6 GHz – 7.8 GHz Horizontal



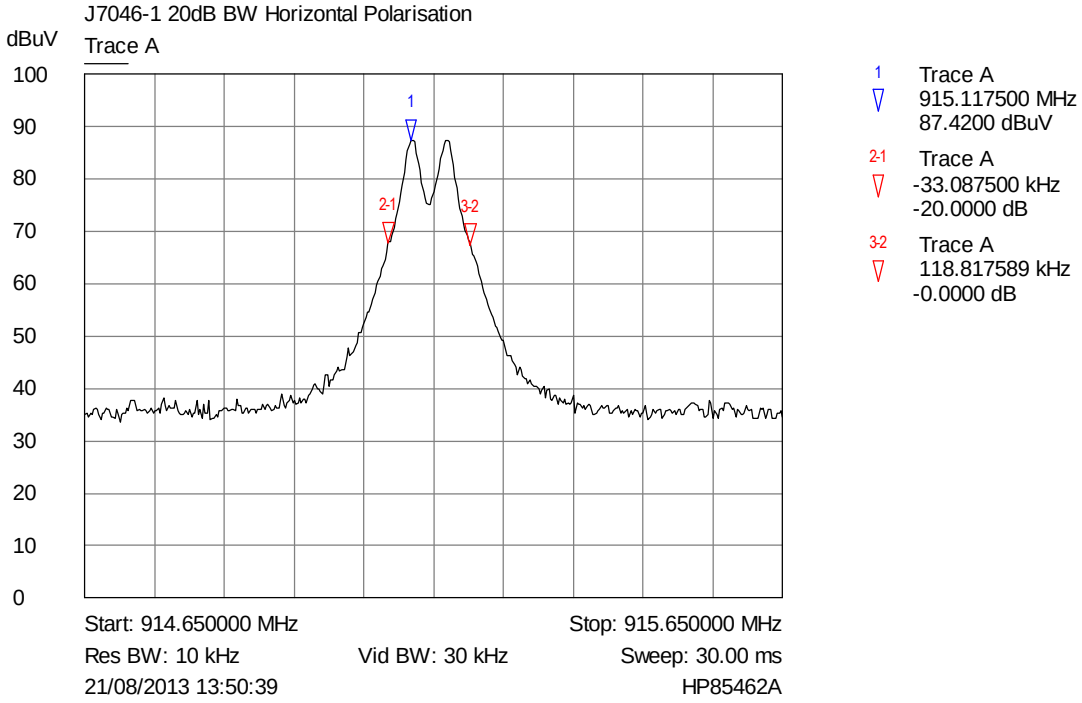
7.8 GHz – 10 GHz Horizontal

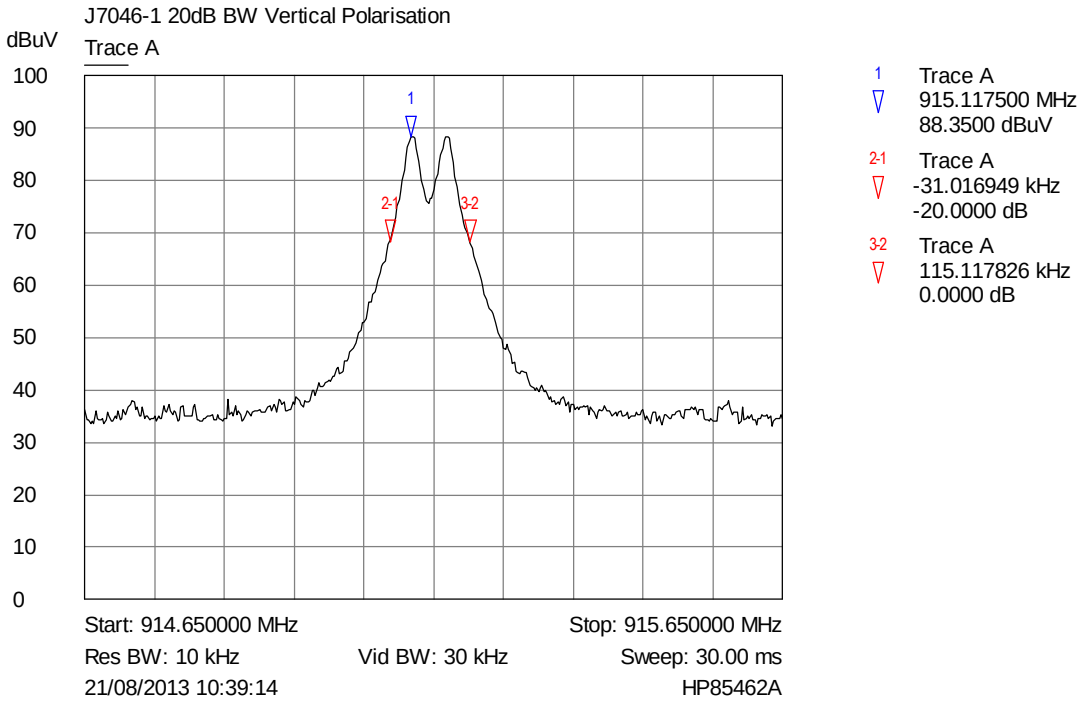


7.8 GHz – 10 GHz Vertical

6.4 20dB bandwidth plots

6.4.1 Plots for Band 902-928 MHz, Power 7 dBm with FSK Modulation





7 Explanatory Notes

7.1 Explanation of Table of Signals Measured

Measurements are made as required by the standard. These measurements are made and recorded using detectors, either peak, quasi peak or average dependant on the test. A table of results has been given following the relevant plots. This table looks similar to the one illustrated below dependant on the measurements required by the test: -

Signal No.	Freq (MHz)	Peak Amp (dBuV)	Pk – Lim 1 (dB)	QP Amp (dBuV)	QP - Lim1 (dB)	Av Amp (dBuV)	Av - Lim1 (dB)
1	12345	54.9	-10.5	48.0	-12.6	37.6	-14.4

Column One - Labelled Signal No. is an incremental number that the receiver has given to each signal that has been measured.

Column Two - Labelled Freq (MHz) is the approximate frequency of the signal received.

Column Three - Labelled Peak Amp (dBμV) is the level of received signal that was measured in dB above 1μV using the peak detector.

Column Four - Labelled Pk - Lim1 (dB) is the difference in level from the peak signal given to the active limit line. If this column appears in the table the peak detector measurement is required by the standard for this test. The results entered in this column indicate the signal level relative to the compliance limit required. Negative numbers indicate that the product is compliant.

Column Five - Labelled QP Amp (dBμV) is the level of received signal that was measured in dB above 1μV using the quasi-peak detector.

Column Six - Labelled QP - Lim1 (dB) is the difference in level from the quasi-peak signal given to the active limit line. If this column appears in the table the quasi-peak detector measurement is required by the standard for this test. The results entered in this column indicate the signal level relative to the compliance limit required. Negative numbers indicate that the product is compliant.

Column Seven - Labelled Av Amp (dBμV) is the level of received signal that was measured in dB above 1μV using the average detector.

Column Eight - Labelled Av - Lim1 (dB) is the difference in level from the average signal given to the active limit line. If this column appears in the table the average detector measurement is required by the standard for this test. The results entered in this column indicate the signal level relative to the compliance limit required. Negative numbers indicate that the product is compliant.

Only signals highlighted in red are deemed to exceed the limit of the detector required.

7.1.1 Explanation of limit line calculations for radiated measurements

The limits given in the test standard are normally expressed as absolute values (e.g. in µV/m at a specified distance), whereas the measured values are expressed as peak, quasi peak or average values in dBµV/m referenced to the measuring instrument inputs. RN Electronics calibrate the test set-up to account for any path losses, antenna gains, etc. so that the value read at the receiver relates directly to the absolute value required, except that it is expressed in dB relative to one microVolt and may need to take account of any alternative measuring distance used. Examples:

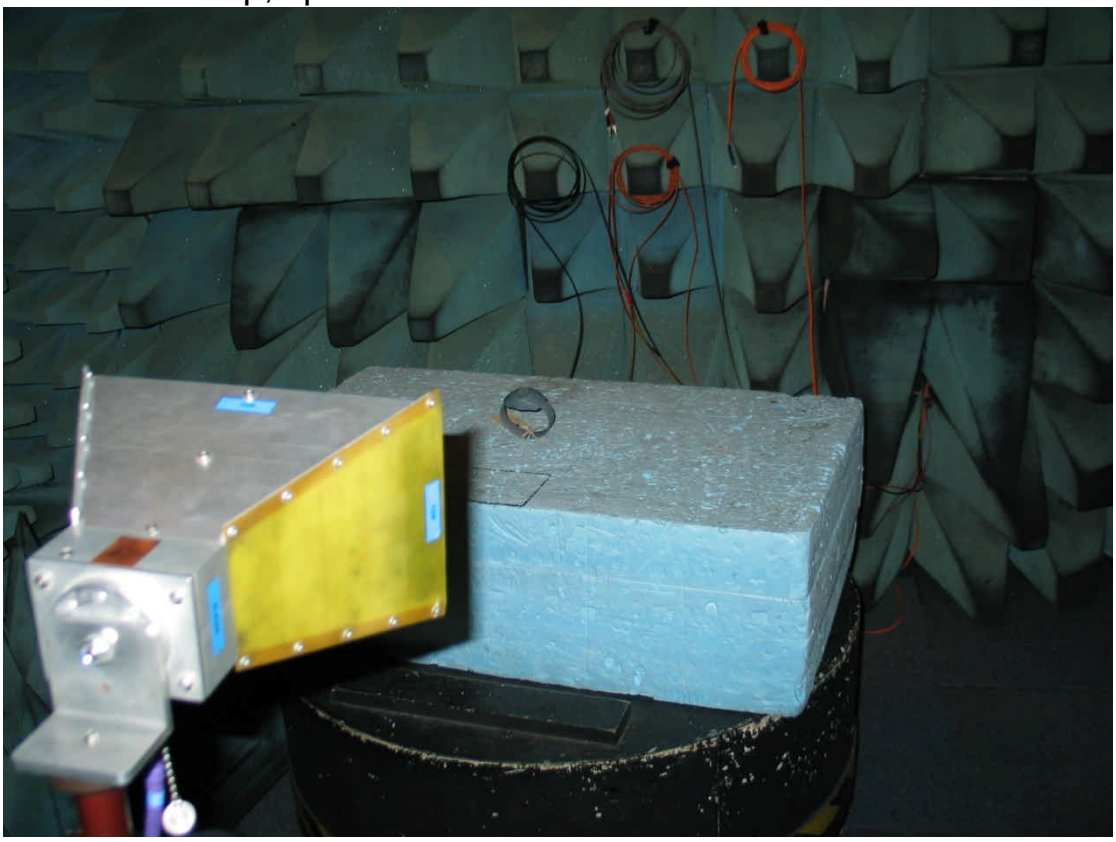
(a) limit of 500 µV/m equates to 20.log (500) = 54 dB µV/m.

(b) limit of 300 µV/m at 10m equates to 20.log (300 . 10/3) = 60 dB µV/m at 3m

(c) limit of 30 µV/m at 30m, but below 30MHz, equates to 20.log(30) + 40.log(30/3) = 69.5 dBµV/m at 3m, as extrapolation factor below 30MHz is 40dB/decade per 15.31(f)(2).

8 Photographs

8.1 Test set-up, spurious emissions



Identifying Photograph of the EUT

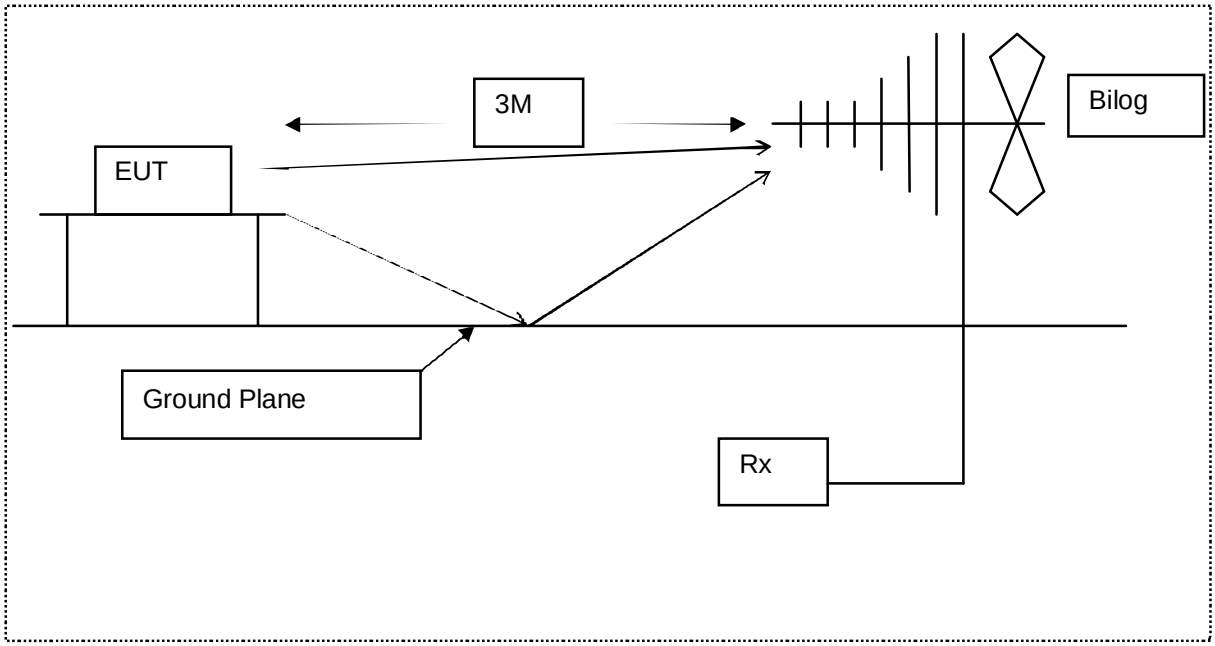


Diagram of the radiated emissions test setup.

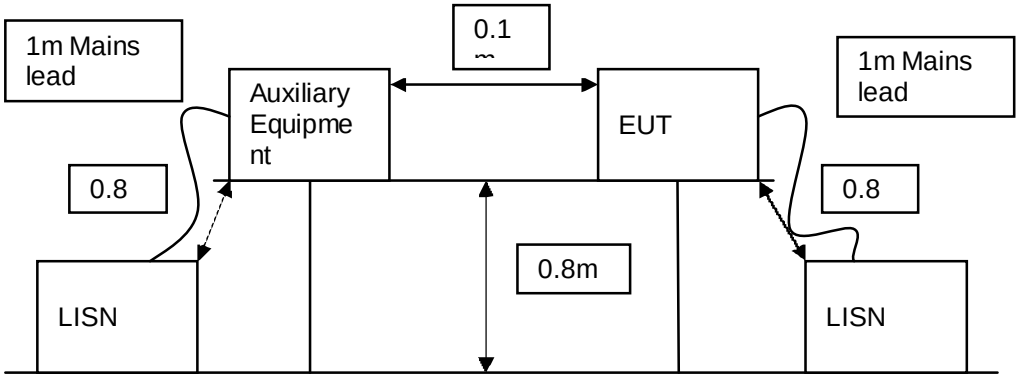


Diagram of the conducted emissions test setup.

9 Signal Leads

No signal leads were connected to EUT during test.

10 Test Equipment Calibration list

The following table lists the test equipment used, last calibration date and calibration interval. All test equipment used has been maintained within the calibration requirements of ***R.N. Electronics Ltd.*** test facility quality system. Calibration intervals are regularly reviewed dependent on equipment manufacturer's recommendations and actual usage of the equipment.

RN No.	Model	Description	Manufacturer	Calibration date	Cal period
E226	8546A	EMI Receiver	Hewlett Packard	18-Jun-13	12 months
E266	2032	5.4GHz Signal Generator	Marconi Instruments	28-Jun-12	24 months
E428	HF906	1-18 GHz Horn Antenna	Rhode & Schwarz	25-Nov-11	36 months
E429	-	5 Switch Filter Box 0.91 GHz - 16.3 GHz	RN Electronics	20-Nov-12	12 months
E533	N5182A	6 GHz MXG Signal Generator	Agilent Technologies	26-Feb-13	36 months
E534	E4440A	3 Hz - 26.5 GHz PSA	Agilent Technologies	22-Feb-13	36 months
E535	N9039A	9 kHz - 1 GHz RF Filter Section	Agilent Technologies	22-Feb-13	36 months
TMS82	8449B	Pre Amplifier 1 - 26 GHz	Agilent	26-Nov-13*	12 months
TMS903	CBL6111A	Bilog Antenna 30MHz - 1GHz	Chase	04-Jun-13	36 months

*The equipment listed above was ‘in calibration’ at the time of test. The equipment has since been recalibrated prior to the generation of this report.

11 Auxiliary equipment

Auxiliary equipment used for the purpose of test supplied by the above has been listed below.

11.1 Customer supplied Equipment

No customer supplied equipment was used.

11.2 Supplied by RN Electronics Limited

No RN Electronics supplied equipment was used.

12 Modifications

In order for the EUT to produce the results shown within this report the following modifications, if any, were implemented.

12.1 Modifications before test

No modifications were made before test by RN Electronics Ltd.

12.2 Modifications during test

No modifications were made during test by RN Electronics Ltd.

13 Description of Test Sites

Site A	Radio / Calibration Laboratory and anechoic chamber
Site B	Semi-anechoic chamber
Site B1	Control Room for Site B
Site C	Transient Laboratory
Site D	Screened Room (Conducted Immunity)
Site E	Screened Room (Control Room for Site D)
Site F	Screened Room (Conducted Emissions) VCCI Registration No. C-2823
Site K	Screened Room (Control Room for Site M)
Site M	3m Semi-anechoic chamber (indoor OATS) FCC Registration No. 293246
Site Q	Fully-anechoic chamber
Site OATS	3m and 10m Open Area Test Site FCC Registration No. 293246 IC Registration No. 5612A-1 VCCI Registration No. R-2580
Site R	Screened Room (Conducted Immunity)
Site S	Safety Laboratory
Site T	Transient Laboratory

14 Abbreviations and Units

%	Percent	Hz	Hertz
µV	microVolts	IF	Intermediate Frequency
µW	microWatts	kHz	kiloHertz
AC	Alternating Current	LO	Local Oscillator
ALSE	Absorber Lined Screened Enclosure	mA	milliAmps
		max	maximum
AM	Amplitude Modulation	kPa	milliBars
Amb	Ambient	MHz	MegaHertz
ANSI	American National Standards Institute	min	minimum
		mm	milliMetres
ºC	Degrees Celsius	ms	milliSeconds
CFR	Code of Federal Regulations	mW	milliWatts
		NA	Not Applicable
CS	Channel Spacing	nom	Nominal
CW	Continuous Wave	nW	nanoWatt
dB	deciBels	OATS	Open Area Test Site
dBµV	deciBels relative to 1µV	OFDM	Orthogonal Frequency Division Multiplexing
dBc	deciBels relative to Carrier		
dBm	deciBels relative to 1mW	ppm	Parts per million
DC	Direct Current	QAM	Quadrature Amplitude Modulation
EIRP	Equivalent Isotropic Radiated Power	QPSK	Quadrature Phase Shift Keying
ERP	Effective Radiated Power		
EUT	Equipment Under Test	Ref	Reference
FCC	Federal Communications Commission	RF	Radio Frequency
		RTP	Room Temperature and Pressure
FM	Frequency Modulation		
FSK	Frequency Shift Keying	s	Seconds
g	Grams	Tx	Transmitter
GHz	GigaHertz	V	Volts