Global Product Certification
EMC-EMF Safety Approvals

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EMI TEST REPORT
for
CERTIFICATION of
FCC PART 15.225, FCC PART 15.207 TRANSMITTER,
RSS-Gen Issue 5 Section 8.8 & RSS-210 Issue 9
Section B.6

Test Report Number: S190801-2R1

FCC ID: 2AC7B-G6300OPT
IC ID: 12614A-G6300

Manufacturer: Invenco Group Limited
Test Sample: Outdoor Payment Terminal
Model Number: G6-300
Serial No: KAHG004R

Date: 6h November 2019

REVISION TABLE

Version	Sec/Para Changed	Change Made	Date
S190801-2		Initial issue of document	27/09/2019
S190801-2R	Whole document	FCC ID added to document	05/11/2019
		Measurement equipment added	
S190801-2R1		Industry Canada ID added	06/11/2019

EMI TEST REPORT FOR CERTIFICATION FOR CERTIFICATION OF FCC Part 15.225, FCC PART 15.207 TRANSMITTER, RSS-Gen Issue 5 Section 8.8 & RSS-210 Issue 9 Section B.6

EMC Technologies Report No. S190801-2R1
Date: 5th November 2019

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Report Number:	S190801-2R1
FCC ID: **IC ID:**	2AC7B-G6300OPT 12614A-G6300
Test Sample Name: **Model Number:** **Serial Number:**	Outdoor Payment Terminal G6-300 KAHG004R
Manufacturer:	Invenco Group Limited 7-11 Kawana Street Northcote, Auckland, 0627, New Zealand
Tested For: **Address:**	Invenco Group Limited 7-11 Kawana Street Northcote, Auckland, 0627, New Zealand
Phone:	+64 21 529530
Responsible Party:	Michael Doh
Test Standards:	**FCC Part 15.225 Intentional Radiators** **FCC Part 15.207 Conducted Limits** **RSS-Gen Issue 5 Section 8.8 Conducted Limits** **RSS-210 Issue 9 B.6 Intentional Radiators** **ANSI C63.4:2014** **OET Bulletin No. 65**
Test Dates:	5th August 2019 to 28th August 2019
Issue Date:	6th November 2019
Testing Officer:	**Dong Feng**
Attestation:	*I hereby certify that the device(s) described herein were tested as described in this report and that the data included is that which was obtained during such testing.*
Authorised Signature:	**Robert Middleton** **Sydney Branch Manager** **EMC Technologies Pty Ltd**

Issued by EMC Technologies Pty Ltd, Unit 3/87 Station Road, Seven Hills, NSW, 2147, Australia.
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EMI TEST REPORT FOR CERTIFICATION of FCC PART 15.225 & FCC PART 15.207 TRANSMITTER, RSS-Gen Issue 5 Section 8.8 & RSS-210 Issue 9 Section B.6 on the Outdoor Payment Terminal

1.0 SUMMARY of RESULTS

This report details the results of EMI tests and measurements performed on the Outdoor Payment Terminal with, Model Number: G6-300, in accordance with:

- Federal Communications Commission (FCC) regulations as detailed in Title 47 CFR, Part 15 Rules for intentional radiators.
- Innovation, Science & Economic Development (ISED) Canada requirements of RSS-210 for intentional radiators.

Part 15.31e	
Amplitude stability with supply variation:	Complied
Part 15.207	
Conducted Emissions:	Complied
Part 15.225 a, b &c	
Carrier Signal Field Strength 13.110 – 14.010MHz:	Complied
Part 15.225 d (15.209)	
Field Strength Outside 13.110 – 14.010MHz:	Complied
Part 15.225 e	
Frequency Tolerance:	Complied
RSS-Gen Section 8.8	
Conducted Emissions:	Complied
RSS-210 Section B.6	
Devices Operating in Frequency Band 13.110 – 14.010MHz:	Complied

2.0 GENERAL INFORMATION

2.1 General Description of Test Sample

Manufacturer:	Invenco Group Limited
Test Sample:	Outdoor Payment Terminal
Model Number:	G6-300
Serial Number:	KAHG004R
Microprocessor:	I.MX6, MAX32590, MSP430
Highest Internal Frequency:	796MHz
Crystal Frequency:	MAX32590: 24MHz and 32.768kHz, MSP430: 32.768kHz USB2514: 24MHz Audio: 12.288MHz NFC: 27.12MHz
Operating Band:	13.56MHz
Number of Channels:	1
Highest operating freq.:	796MHz
Input Supply:	120V, 60Hz
External Ports:	USB (2.5 metres) Ethernet (2.5 metres) DC Input: 24V External Speaker, GPIO, SAM card, FTDI serial debug ports
Equipment Type:	Unintentional Radiator
FCC ID:	2AC7B-G6300OPT
IC ID:	12614A-G6300
Antenna Type:	Loop
Modulation:	ASK (Amplitude Shift Keying)
Hardware Version:	DV
Software Version:	Production Test Aug - 2019

2.2 Test Sample Description

The EUT is an outdoor payment terminal for payment transactions including card reader and near field contactless card reader. Includes keypad for PIN entry, display for screen prompts and playing of media, printer for printing of receipts, barcode reader for scanning barcodes and ethernet connection for communication with the point of sale systems.

2.3 Technical Specifications and System Overview

Microprocessor:	I.MX6, MAX32590, MSP430
Highest Internal Frequency:	796MHz
Crystal Frequency:	MAX32590: 24MHz and 32.768kHz, MSP430: 32.768kHz USB2514: 24MHz Audio: 12.288MHz NFC: 27.12MHz
Power Supply:	24VDC

2.4 EUT Configurations

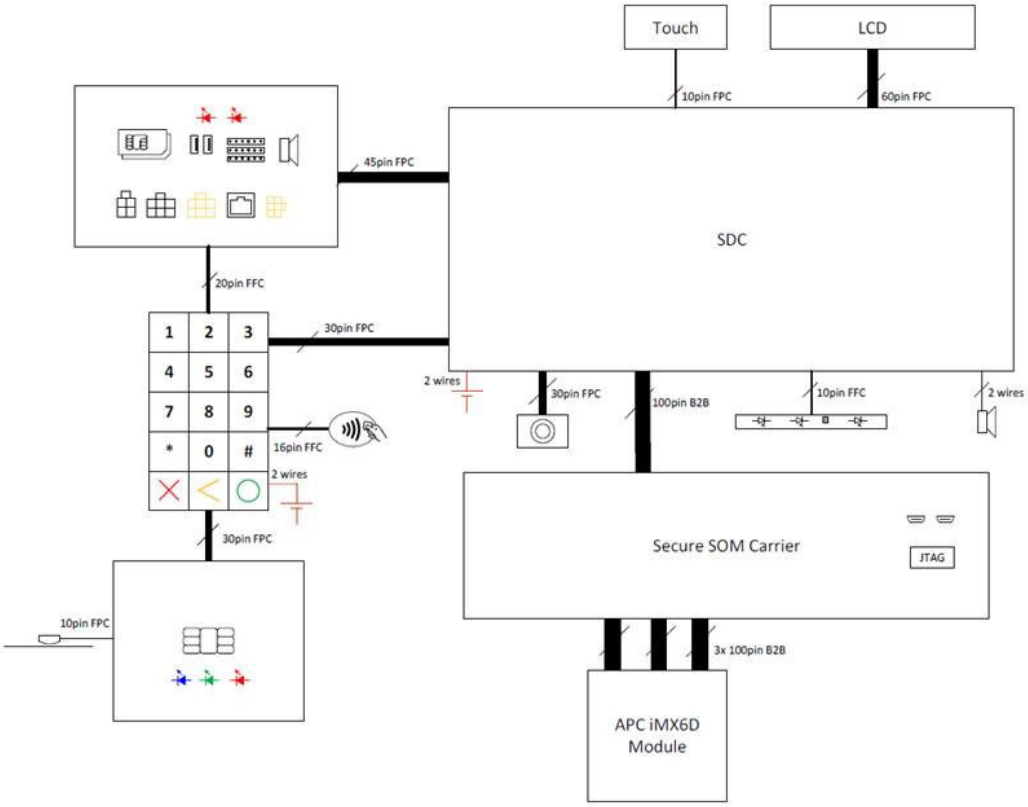
The Device is supplied 24VDC from a representative external power supply (which is in turn supplied by 120Vac, 60Hz mains. Test firmware is configured to exercise all functional operations by:

- Play media video with sound in continuous loop
- Barcode reader capturing images and showing on the display
- Printing a representative receipt
- NFC continuously polling for a card
- Card readier continuously reading a card
- Keypad and indicator LEDs on
- Ethernet transmitting data to representative network terminal
- Security tamper circuits active and continuously monitoring status

2.5 Test Sample Support Equipment

Representative external DC power supply 24VDC output.
Representative ethernet terminal (hub).
DC power cable from the external power supply to the product under test.
Ethernet cable from the ethernet terminal to the product under test.

2.6 Test Sample Block Diagram



2.7 EUT Operation Conditions

The EUT is operated in accordance with the standard and the customer's testing requirements.

2.8 Modifications

No modifications were performed.

2.9 Test Procedure

Radiated Emissions measurements were performed in accordance with the procedures of ANSI C63.4:2014. The measurement distance for radiated emissions was 3 metres from the EUT for range 9kHz-1000MHz.

2.10 Test Facility

2.10.1 General

Measurements were performed at EMC Technologies' laboratory in Seven Hills, NSW, Australia, 2147.

EMC Technologies Pty Ltd has been accredited as a Conformity Assessment Body (CAB) by Australian Communications and Media Authority (ACMA) under the APECTEL MRA and is designated to perform compliance testing on equipment subject to Supplier's Declaration of Conformity (SDoC) and Certification under Parts 15 and 18 of the FCC Commission's rules –**Designation number AU0002.**

2.10.2 NATA Accreditation

EMC Technologies is accredited in Australia to test to the following standards by the National Association of Testing Authorities (NATA).

"FCC Part 15 unintentional and intentional emitters in the frequency range 9kHz to 18GHz excluding TV receivers (15.117 and 15.119), TV interface devices (15.115), cable ready consumer electronic equipment (15.118), cable locating equipment (15.213) and unlicensed national information infrastructure devices (Sub part E)."

NATA is the Australian National laboratory accreditation body and has accredited EMC Technologies to operate to the IEC/ISO17025 requirements. A major requirement for accreditation is the assessment of the company and its personnel as being technically competent in testing to the standards. This requires fully documented test procedures, continued calibration of all equipment to the National Standard at the National Measurements Institute (NMI) and an internal quality system to ISO 17025. NATA is an ILAC member and has mutual recognition agreements with the National Voluntary Laboratory Accreditation Program (NVLAP) and the American Association for Laboratory Accreditation (A^2LA).

All testing in this report has been conducted in accordance with EMC Technologies' scope of NATA accreditation.

The current full scope of accreditation can be found on the NATA website:
www.nata.com.au
The scope also includes a large number of emissions, immunity, SAR, EMR and Safety standards.

2.11 Units of Measurements

2.11.1 Conducted Emissions

Measurements are reported in units of dB relative to one microvolt (dBµV).

2.11.2 Radiated Emissions

Measurements are reported in units of dB relative to one microvolt per metre (dBµV/m).
The measurement distance was 3 metres from the EUT for ranges 9kHz-1000MHz.

2.12 Test Equipment Calibration

All measurement instrumentation and transducers were calibrated in accordance with the applicable standards by an independent NATA registered laboratory such as Agilent Technologies (Australia) Pty Ltd or the National Measurement Institute (NMI). All equipment calibration is traceable to Australia national standards at the National Measurement Institute. The reference antenna calibration was performed by NMI and the working antennas (biconical and log-periodic) calibrated by the NATA approved procedures. The complete list of test equipment used for the measurements, including calibration dates and traceability is contained in Appendix A of this report.

2.13 Ambients at OATS

The Open Area Test Site (OATS) is an area of low background ambient signals. No significant broadband ambients are present however commercial radio and TV signals exceed the limit in the FM radio, VHF and UHF television bands. Radiated prescan measurements were performed in the shielded enclosure to check for possible radiated emissions at the frequencies where the OATS ambient signals exceeded the test limit.

2.14 §15.203 Antenna Requirement

The antennas were internal to the device ensuring that they could not be replaced.

3.0 CONDUCTED EMISSION MEASUREMENTS

3.1 Test Procedure

The arrangement specified in ANSI C63.4:2014 was adhered to for the conducted EMI measurements. The EUT was placed in the RF screened enclosure and a CISPR EMI Receiver as defined in ANSI C63.2-2016 was used to perform the measurements.

The EMI Receiver was operated under program control using the Max-Hold function and automatic frequency scanning, measurement and data logging techniques. The specified 0.15 MHz to 30 MHz frequency range was sub-divided into sub-ranges to ensure that all duration peaks were captured.

3.2 Peak Maximizing Procedure

For each of the sub-ranges, the EMI receiver was set to continuous scan with the Peak detector set to Max-Hold mode. The Quasi-Peak detector was then invoked to measure the actual Quasi-Peak level of the most significant peaks which were detected.

The highest recorded EMI signals are shown on the Peaks List on the bottom right side of the graph. Peaks that were greater than 20dB below the limit were not measured. For each numbered peak the frequency, peak field strength, Quasi-peak field strength, Average field strength and the margin relative to the limit in dB is listed. A negative margin is the level below the limit.

3.3 Calculation of Voltage Levels

The voltage levels were automatically measured in software and compared to the test limit. The method of calculation was as follows:

$V_{EMI} = V_{Rx} + L_{BPF}$

Where:

V_{EMI}	=	The Measured EMI voltage in dBµV to be compared to the limit.
V_{Rx}	=	The Voltage in dBµV read directly at the EMI receiver.
L_{BPF}	=	The insertion loss in dB of the cables and the Limiter and Pass Filter.

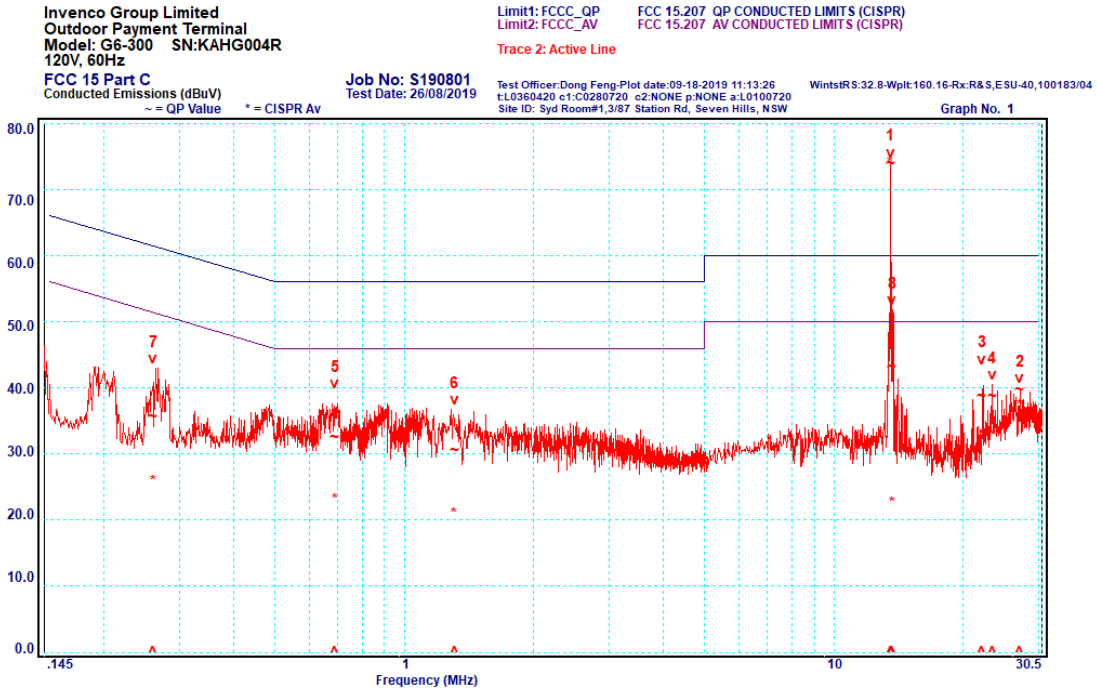
3.4 Plotting of Conducted Emission Measurement Data

The measurement data pertaining to each frequency sub-range were then concatenated to form a single graph of (peak) amplitude versus frequency. This was performed for both Active and Neutral lines and the composite graph was subsequently plotted. A list of the highest relevant peaks and the respective Quasi-Peak and Average values were also plotted on the graphs.

3.5 Conducted EMI Results

3.5.1 FCC Section 15.207 AC Power Line

Graph 1 Active Line 0.145 to 30.5MHz



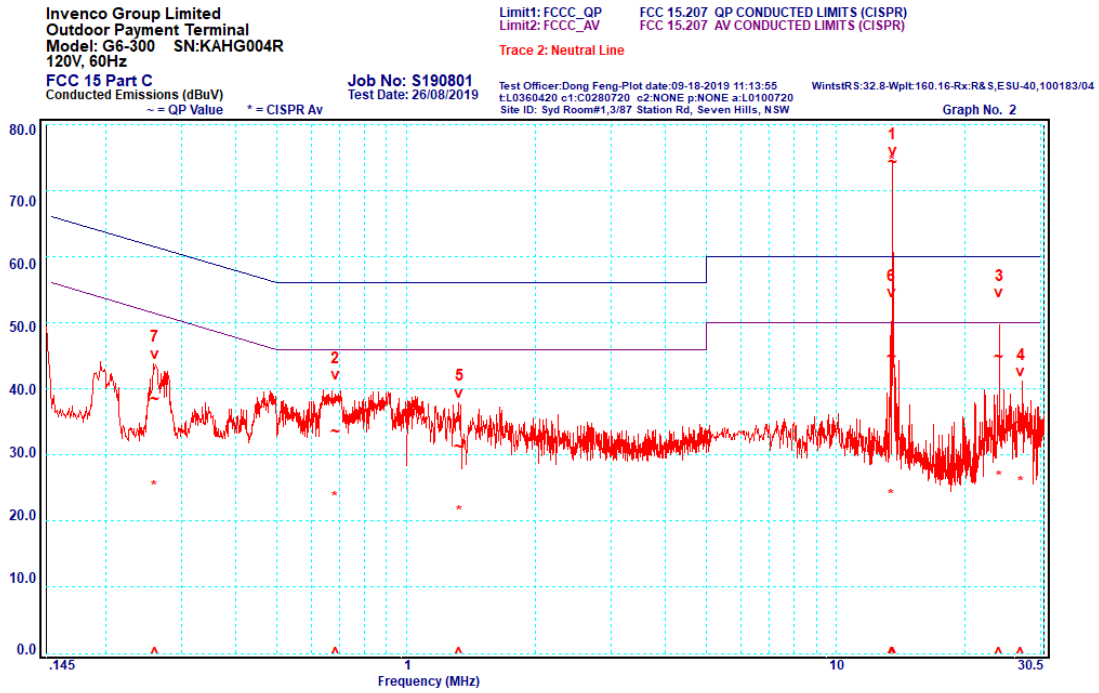
Plot	Frequency [MHz]	Line	Quasi-Peak			Average		
			Level [dBµV]	Limit [dBµV]	Margin [±dB]	Level [dBµV]	Limit [dBµV]	Margin [±dB]
1	13.56	Active	73.9	60.0	13.9	74.0	50.0	+24.0**
2	27.12	Active	39.7	60.0	-20.3	37.2	50.0	-12.8
3	22.16	Active	38.8	60.0	-21.2	32.6	50.0	-17.4
4	23.36	Active	38.7	60.0	-21.3	32.6	50.0	-17.4
5	0.69	Active	32.5	56.0	-23.5	23.0	46.0	-23.0
6	1.309	Active	30.5	56.0	-25.5	20.8	46.0	-25.2
7	0.261	Active	35.6	61.4	-25.8	25.8	51.4	-25.6

** Fundamental Frequency of Transmitter

Complied with both quasi peak and average limits by margins of greater than 10dB.

Note: The transmit carrier was excluded from the test with the antenna connected.

Graph 2 Neutral Line 0.145 to 30.5MHz



Plot	Frequency [MHz]	Line	Quasi-Peak			Average		
			Level [dBµV]	Limit [dBµV]	Margin [±dB]	Level [dBµV]	Limit [dBµV]	Margin [±dB]
1	13.56	Neutral	74.3	60.0	14.3	74.4	50.0	+24.4**
2	0.685	Neutral	33.5	56.0	-22.5	23.5	46.0	-22.5
3	23.99	Neutral	44.8	60.0	-15.2	26.6	50.0	-23.4
4	26.96	Neutral	34.7	60.0	-25.3	25.8	50.0	-24.2
5	1.33	Neutral	31.2	56.0	-24.8	21.4	46.0	-24.6
6	13.48	Neutral	44.8	60.0	-15.2	23.8	50.0	-26.2
7	0.26	Neutral	38.4	61.4	-23.0	25.2	51.4	-26.2

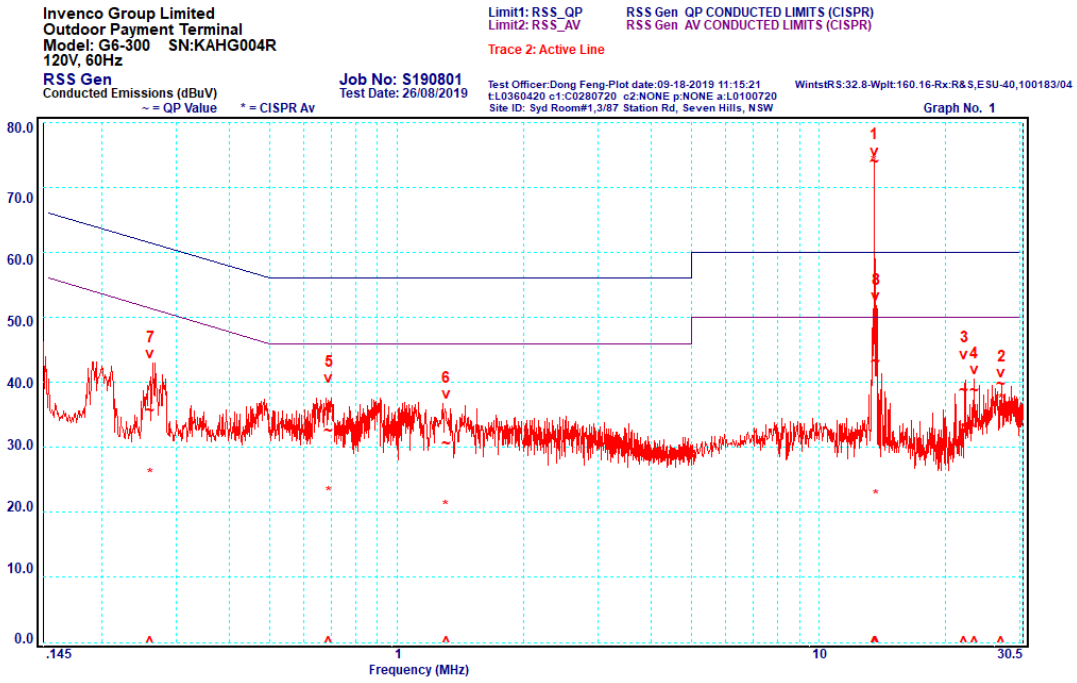
** Fundamental Frequency of Transmitter

Complied with both quasi peak and average limits by margins of greater than 10dB.

Note: The transmit carrier was excluded from the test with the antenna connected.

3.5.1 RSS-Gen Section 8.8 AC Power Line

Graph 1 Active Line 0.145 to 30.5MHz



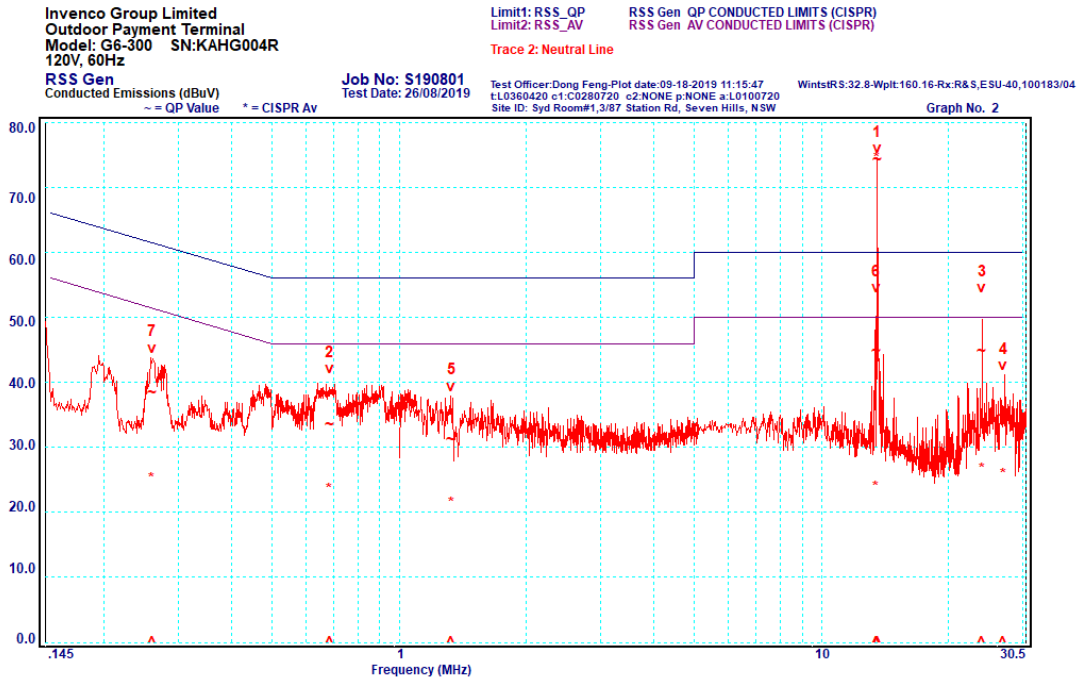
Plot	Frequency [MHz]	Line	Quasi-Peak			Average		
			Level [dBµV]	Limit [dBµV]	Margin [±dB]	Level [dBµV]	Limit [dBµV]	Margin [±dB]
1	13.56	Active	73.9	60.0	13.9	74.0	50.0	+24.0**
2	27.12	Active	39.7	60.0	-20.3	37.2	50.0	-12.8
3	22.16	Active	38.8	60.0	-21.2	32.6	50.0	-17.4
4	23.36	Active	38.7	60.0	-21.3	32.6	50.0	-17.4
5	0.69	Active	32.5	56.0	-23.5	23.0	46.0	-23.0
6	1.309	Active	30.5	56.0	-25.5	20.8	46.0	-25.2
7	0.261	Active	35.6	61.4	-25.8	25.8	51.4	-25.6

** Fundamental Frequency of Transmitter

Complied with both quasi peak and average limits by margins of greater than 10dB.

Note: The transmit carrier was excluded from the test with the antenna connected.

Graph 2 Neutral Line 0.145 to 30.5MHz



Plot	Frequency [MHz]	Line	Quasi-Peak			Average		
			Level [dBµV]	Limit [dBµV]	Margin [±dB]	Level [dBµV]	Limit [dBµV]	Margin [±dB]
1	13.56	Neutral	74.3	60.0	14.3	74.4	50.0	+24.4**
2	0.685	Neutral	33.5	56.0	-22.5	23.5	46.0	-22.5
3	23.99	Neutral	44.8	60.0	-15.2	26.6	50.0	-23.4
4	26.96	Neutral	34.7	60.0	-25.3	25.8	50.0	-24.2
5	1.33	Neutral	31.2	56.0	-24.8	21.4	46.0	-24.6
6	13.48	Neutral	44.8	60.0	-15.2	23.8	50.0	-26.2
7	0.26	Neutral	38.4	61.4	-23.0	25.2	51.4	-26.2

** Fundamental Frequency of Transmitter

Complied with both quasi peak and average limits by margins of greater than 10dB.

Note: The transmit carrier was excluded from the test with the antenna connected.

3.6 Results of Conducted Emission Measurement

The EUT complied with the limits of FCC Rule Part 15 Subpart C – Intentional Radiators and RSS Gen Section 8.8. Emissions at the fundamental frequency of 13.56 MHz are excluded from the results with the antenna connected.

4.0 RADIATED EMISSION MEASUREMENTS – 9 kHz to 1 GHz

4.1 Frequency Range of Radiated Measurements

The highest frequency of the EUT is 0.796GHz (refer to section 2.3 of this report).

Highest frequency generated or used in the device or on which the device operates or tunes [MHz]	Upper frequency of measurement range [MHz]
1.705 - 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	10th harmonic of the highest frequency or 40 GHz, whichever is lower

Frequencies above 1 GHz: Average trace taken (RBW 1MHz, VBW 100 kHz)

According to the table in FCC Part 15, Section 15.33 and the highest radio frequency signal generated or used in the EUT is 0.796GHz, the radiated emissions measurement were performed from 30MHz to 6000MHz.

4.2 Test Procedure

Radiated emissions measurements were performed in accordance with the procedures of ANSI C63.4:2014 Radiated emission tests from 9 kHz to 1GHz were performed on the EUT with a distance of 3 metres. OET Bulletin 65 was used for reference.

The EUT was placed on a timber table 0.8m above an inground and operated in accordance with section 2 of this report. The EMI Receiver was operated under software control via the PC Controller.

4.2.1 0.009 – 30 MHz Range

The 0.009 MHz to 30 MHz test frequency range was sub-divided into smaller bands with sufficient frequency resolution to permit reliable display and identification of possible EMI peaks while also permitting fast frequency scan times. The EUT was slowly rotated with the Peak Detector set to Max-Hold. The receive loop antenna was set to 1m above the ground plane with the Quasi-Peak detector ON. The measurement data for each frequency range was automatically corrected by the software for cable losses, antenna factors and preamplifier gain and all data was then stored on disk in sequential data files. The orientation of the receive loop antenna was varied to ensure that the emissions were maximised. The EUT was further rotated through three orthogonal directions to ensure worst case emissions are measured. The carrier test was performed at the worst-case operation voltage.

Measurement distance:

If the measurements were performed at a distance closer than that specified in the regulation, then the results would have been extrapolated by using the square of an inverse linear distance extrapolation factor (40 dB/decade) as described in Section 15.31 (f) (2).

4.2.2 30 – 1000 MHz Range

The 30 MHz to 1000 MHz test frequency range was sub-divided into smaller bands with sufficient frequency resolution to permit reliable display and identification of possible EMI peaks while also permitting fast frequency scan times. The EUT was slowly rotated with the Peak Detector set to Max-Hold. The EUT was further rotated through three orthogonal directions to ensure worst case emissions are measured. This was performed for two receiver antenna heights. Each significant peak was then investigated and maximised by rotating the turntable and scanning the height of the receiver antenna between 1 to 4 metres with the Quasi-Peak detector ON. The measurement data for each frequency range was automatically corrected by the software for cable losses, antenna factors and

preamplifier gain and all data was then stored on disk in sequential data files. This process was performed for both horizontal and vertical receive antenna polarisation.

4.2.3 1 GHz - 6 GHz

The 1 GHz to 6 GHz test frequency range was sub-divided into smaller bands with sufficient frequency resolution to permit reliable display and identification of possible EMI peaks while also permitting fast frequency scan times. The EUT was slowly rotated with the average detector set to Max-Hold. The EUT was further rotated through three orthogonal directions to ensure worst case emissions are measured. This was performed for two receiver antenna heights. Each significant peak was then investigated and maximised by rotating the turntable and scanning the height of the receiver antenna between 1 to 4 metres with the Average detector ON. The measurement data for each frequency range was automatically corrected by the software for cable losses, antenna factors and preamplifier gain and all data was then stored on disk in sequential data files. This process was performed for both horizontal and vertical receive antenna polarisation.

4.3 Plotting of Measurement Data for Radiated Emissions

4.3.1 0.009 – 30 MHz Range

The stored measurement data was combined to form a single graph which comprised of all the frequency sub-ranges over the range 0.009 – 30 MHz. The fundamental frequency was measured at the OATS. The worst case radiated EMI peak measurements as recorded using the Max-Hold data are presented as the **RED** trace while the respective ambient signals are presented as the lower or **GREEN** trace. Occasionally, an intermittent ambient arose during the EUT ON measurement (RED trace) and could not be captured when the Ambient trace was being stored. The ambient peaks of significant amplitude with respect to the limit are tagged with the "#" symbol while EMI peaks are identified with a numeral. Ambient peaks that were present during the EUT ON measurement (RED trace) and not captured during the AMBIENT measurement were also tagged with "#" symbol.

The highest recorded EMI signals are shown on the Peaks List on the bottom right hand side of the graph. For radiated EMI, each numbered peak is listed as a frequency, peak field strength, Quasi-peak field strength, limit and the margin relative to the limit in dB. A negative margin is the deviation of the recorded value below the limit. At times, the quasi-peak level may appear to be higher than the peak level. This happens because the individual peak is further maximised with the QP detector AFTER the MAX-HOLD trace has been stored. This will be apparent when the peaks list at the foot of the graphs shows the quasi peak level higher than the peak level.

4.3.2 30 – 1000 MHz

The stored measurement data was combined to form a single graph which comprised of all the frequency sub-ranges over the range 30 – 1000 MHz. The accumulated EMI (EUT ON) was plotted as the Red trace while the Ambient signals (AMBIENT) were plotted as Green trace. The worst case radiated EMI peak measurements (as recorded using the Max-Hold data are presented as the upper or **RED** trace while the respective ambient signals are presented as the lower or **GREEN** trace. Occasionally, an intermittent ambient arose during the EUT ON measurement (RED trace) and could not be captured when the Ambient trace was being stored. The ambient peaks of significant amplitude with respect to the limit are tagged with the "#" symbol while EMI peaks are identified with a numeral. Ambient peaks that were present during the EUT ON measurement (RED trace) and not captured during the AMBIENT measurement were also tagged with "#" symbol.

The highest recorded EMI signals are shown on the Peaks List on the bottom right hand side of the graph. For radiated EMI, each numbered peak is listed as a frequency, peak field strength, Quasi-peak field strength, limit and the margin relative to the limit in dB. A negative margin is the deviation of the recorded value below the limit. At times, the quasi-

peak level may appear to be higher than the peak level. This happens because the individual peak is further maximised with the QP detector AFTER the MAX-HOLD trace has been stored. This will be apparent when the peaks list at the foot of the graphs shows the quasi peak level higher than the peak level.

4.3.3 1 GHz– 6 GHz

The stored measurement data was combined to form a single graph which comprised of all the frequency sub-ranges over the range 1 GHz – GHz. The accumulated EMI (EUT ON) was plotted as the Red trace while the Ambient signals (AMBIENT) were plotted as Green trace. The worst case radiated EMI peak measurements (as recorded using the Max-Hold data are presented as the upper or **RED** trace while the respective ambient signals are presented as the lower or **GREEN** trace. Occasionally, an intermittent ambient arose during the EUT ON measurement (RED trace) and could not be captured when the Ambient trace was being stored. The ambient peaks of significant amplitude with respect to the limit are tagged with the "#" symbol while EMI peaks are identified with a numeral. Ambient peaks that were present during the EUT ON measurement (RED trace) and not captured during the AMBIENT measurement were also tagged with "#" symbol.

The highest recorded EMI signals are shown on the Peaks List on the bottom right hand side of the graph. For radiated EMI, each numbered peak is listed as a frequency, peak field strength, Average field strength, limit and the margin relative to the limit in dB. A negative margin is the deviation of the recorded value below the limit. At times, the average level may appear to be higher than the peak level. This happens because the individual peak is further maximised with the Average detector AFTER the MAX-HOLD trace has been stored. This will be apparent when the peaks list at the foot of the graphs shows the average level higher than the peak level.

4.4 Calculation of Field Strength

The field strength was calculated automatically by the software using all the pre-stored calibration data. The method of calculation is shown below:

E = V + AF - G + L

Where:
E = Radiated Field Strength in dBµV/m.
V = EMI Receiver Voltage in dBµV. (measured value)
AF = Antenna Factor in dB/m (stored as a data array)
G = Preamplifier Gain in dB. (stored as a data array)
L = Cable insertion loss in dB. (stored as a data array)

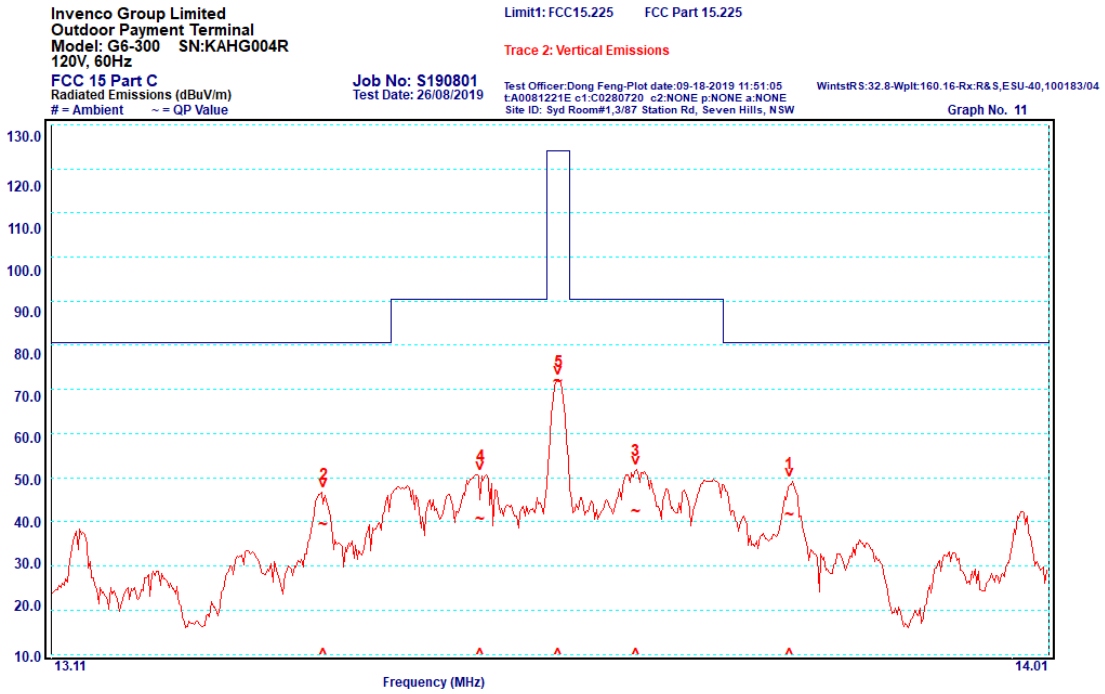
Example Field Strength Calculation
Assuming a receiver reading of 34.0 dBµV is obtained at 90 MHz, the Antenna Factor at that frequency is 9.2 dB. The cable loss is 1.9dB while the preamplifier gain is 20dB.

34.0 + 9.2 + 1.9 – 20 = 25.1 dBµV/m

4.5 Radiated Field Strength Measurement Results – Section 15.225

4.5.1 13.56 MHz Carrier Field Strength Measurement at 3m Antenna Distance

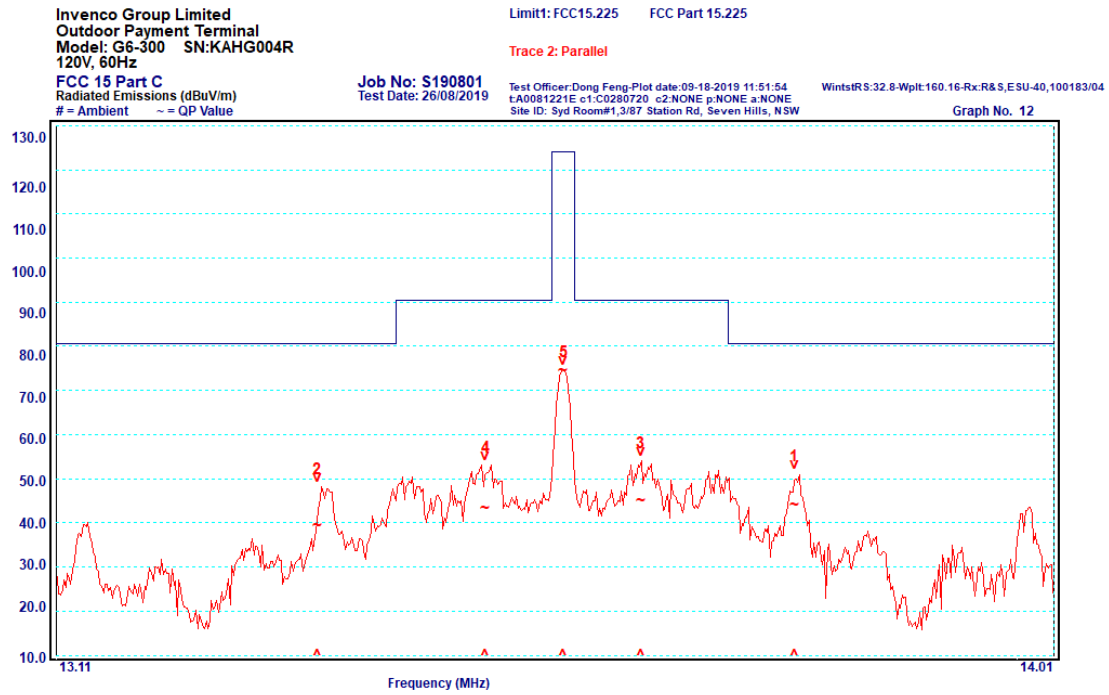
Graph 11 Vertical Emissions 13.11 to 14.01MHz



Plot	Frequency (MHz)	Rx Antenna Polarisation	Quasi Peak Level (dBµV/m)	Limit @ 3m (dBµV/m)	ΔResult (dB)
1	13.77	Vertical	41.5	80.5	-39.0
2	13.35	Vertical	39.4	80.5	-41.1
3	13.63	Vertical	42.4	90.5	-48.1
4	13.49	Vertical	40.7	90.5	-49.8
5	13.56	Vertical	71.8	124.0	-52.2

Complied with a margin of greater than 20dB with Section 15.225 Subpart a, b & c.

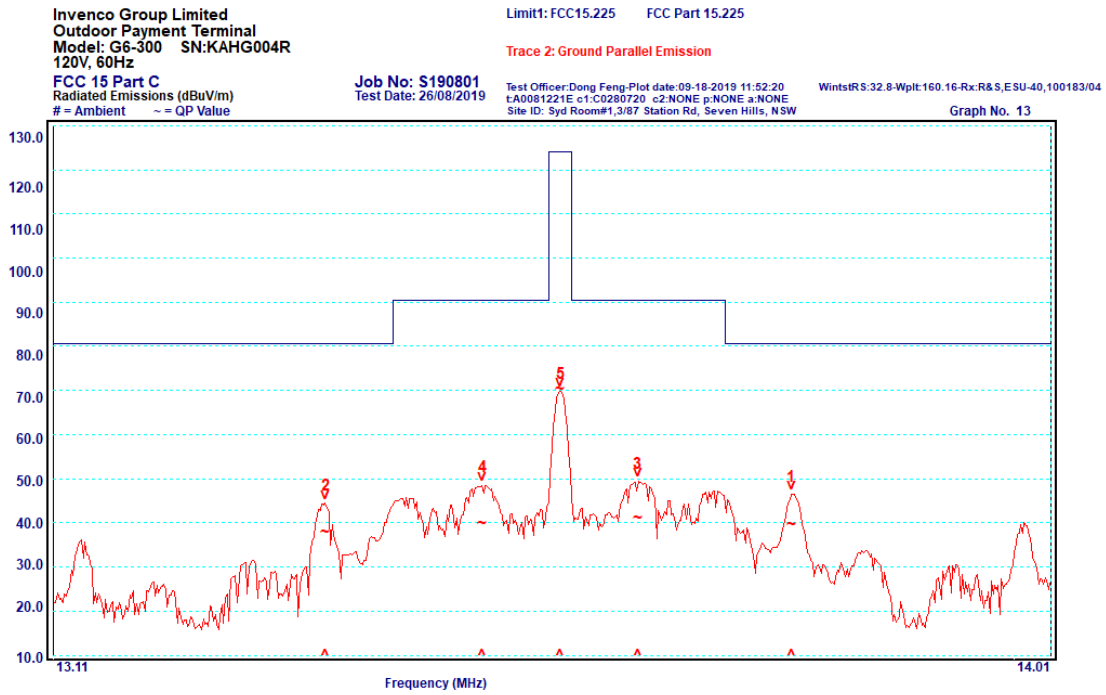
Graph 12 Parallel Emissions 13.11 to 14.01MHz



Plot	Frequency (MHz)	Rx Antenna Polarisation	Quasi Peak Level (dBµV/m)	Limit @ 3m (dBµV/m)	ΔResult (dB)
1	13.77	Parrallel	44.0	80.5	-36.5
2	13.34	Parrallel	39.4	80.5	-41.1
3	13.63	Parrallel	45.1	90.5	-45.4
4	13.49	Parrallel	43.4	90.5	-47.1
5	13.56	Parrallel	74.5	124.0	-49.5

Complied with a margin of greater than 20dB with Section 15.225 Subpart a, b & c.

Graph 13 **Ground Parallel Emissions 13.11 to 14.01MHz**

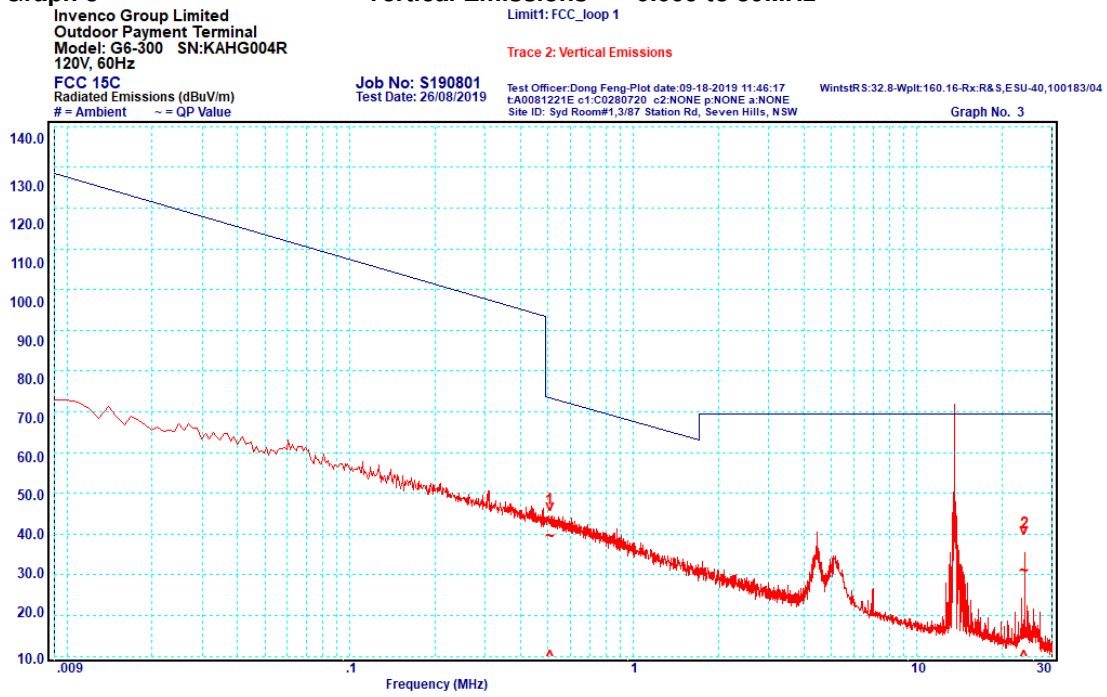


Plot	Frequency (MHz)	Rx Antenna Polarisation	Quasi Peak Level (dBµV/m)	Limit @ 3m (dBµV/m)	ΔResult (dB)
1	13.77	Ground Parallel	39.7	80.5	-40.8
2	13.35	Ground Parallel	37.9	80.5	-42.6
3	13.63	Ground Parallel	41.0	90.5	-49.5
4	13.49	Ground Parallel	39.8	90.5	-50.7
5	13.56	Ground Parallel	70.4	124.0	-53.6

Complied with a margin of greater than 20dB with Section 15.225 Subpart a, b & c.

4.5.2 9 kHz to 30 MHz Field Strength Spurious Emissions at 3m Antenna Distance

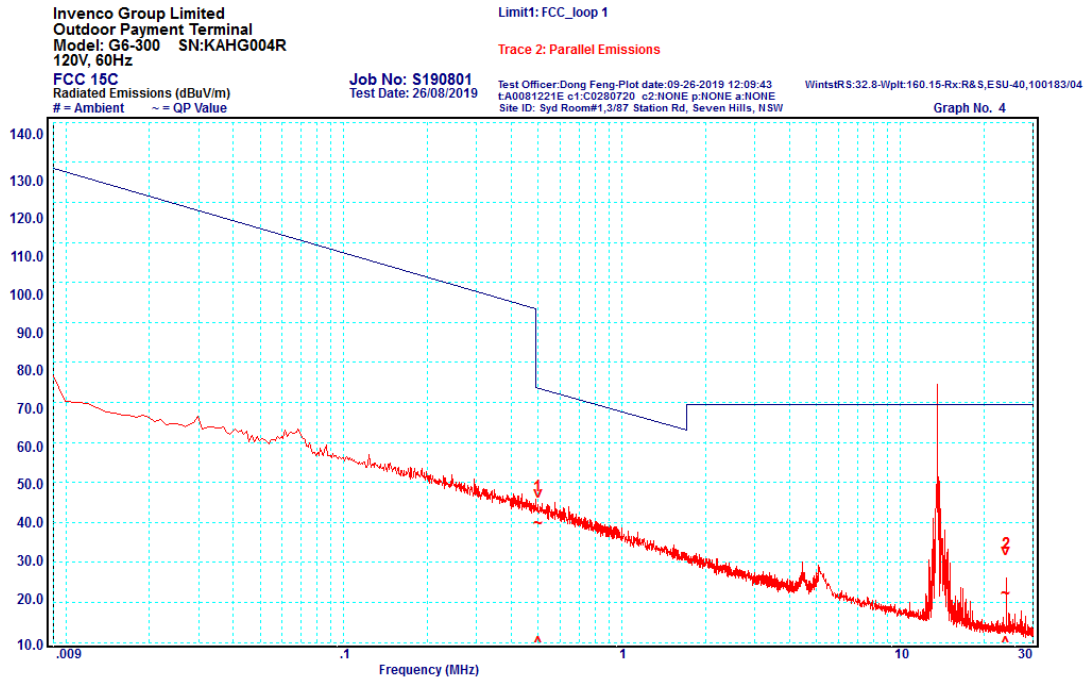
Graph 3 Vertical Emissions 0.009 to 30MHz



Plot	Frequency (MHz)	Rx Antenna Polarisation	Quasi Peak Level (dBµV/m)	Limit @ 3m (dBµV/m)	ΔResult (dB)
1	0.509	Vertical	39.4	73.5	-34.1
2	24.00	Vertical	31.0	69.5	-38.5

Complied with a margin of greater than 20dB with Section 15.225 Supart d (15.209).

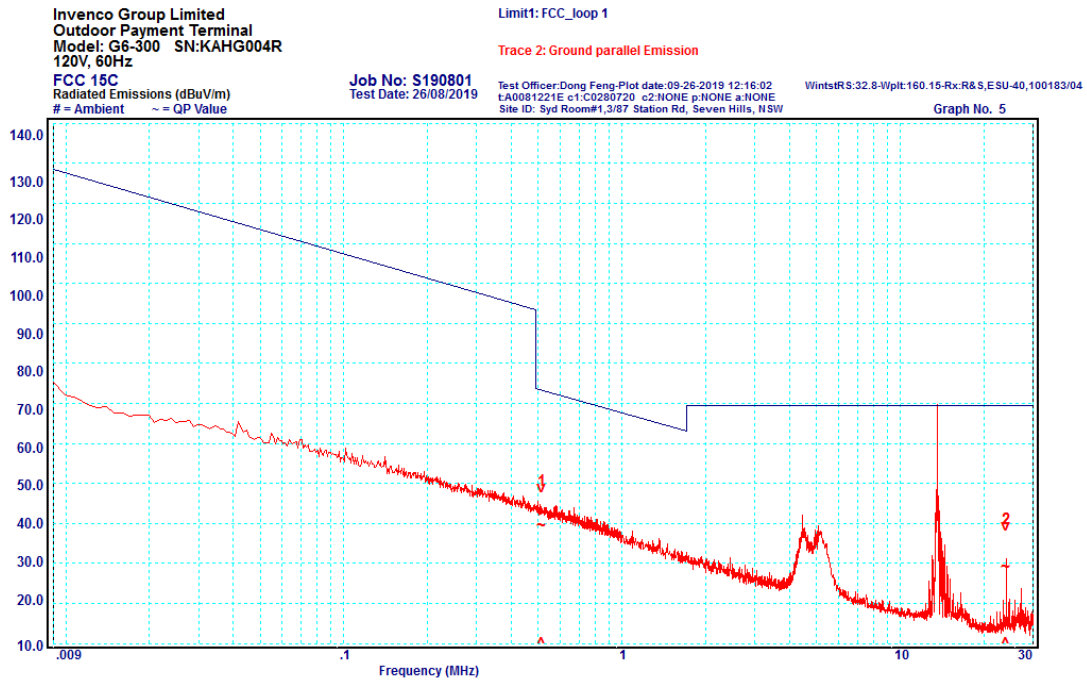
Graph 4 **Parallel Emissions 0.009 to 30MHz**



Plot	Frequency (MHz)	Rx Antenna Polarisation	Quasi Peak Level (dBµV/m)	Limit @ 3m (dBµV/m)	ΔResult (dB)
1	0.498	Parrallel	39.6	73.7	-34.1
2	24.00	Parrallel	22.0	69.5	-47.5

Complied with a margin of greater than 20dB with Section 15.225 Supart d (15.209).

Graph 5 **Ground Parallel Emissions 0.009 to 30MHz**

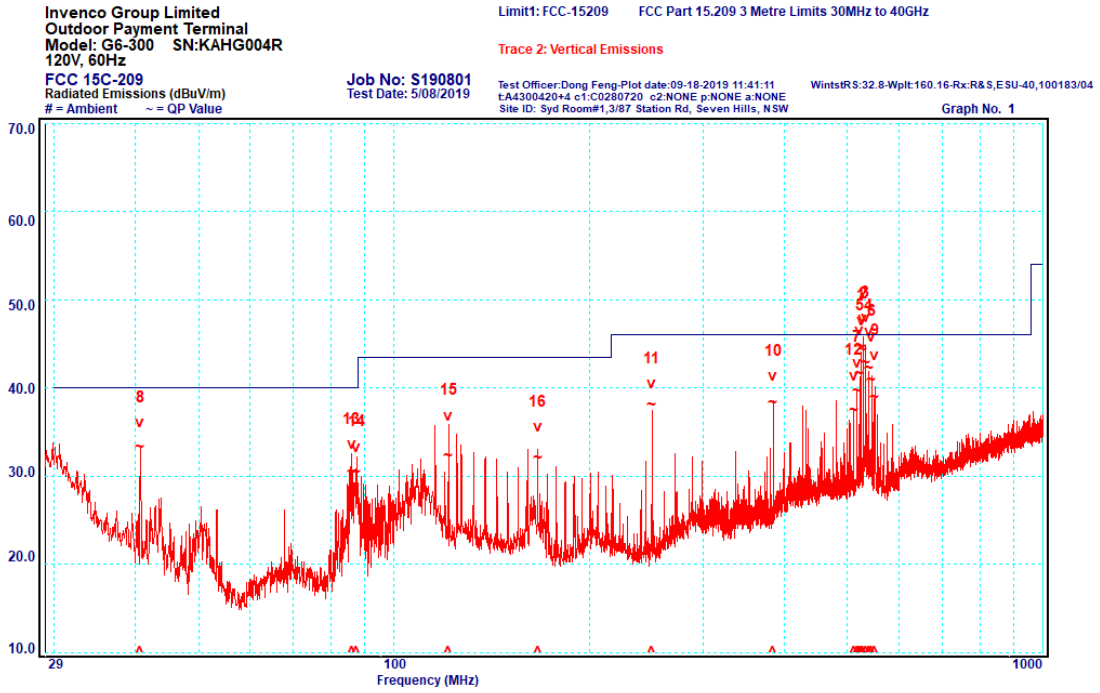


Plot	Frequency (MHz)	Rx Antenna Polarisation	Quasi Peak Level (dBµV/m)	Limit @ 3m (dBµV/m)	ΔResult (dB)
1	0.514	Ground Parallel	39.4	73.4	-34.0
2	24.01	Ground Parallel	28.9	69.5	-40.6

Complied with a margin of greater than 20dB with Section 15.225 Supart d (15.209).

4.5.3 30 - 1000MHz Field Strength Spurious Emissions –Section 15.225 d (15.209) at 3m Antenna Distance

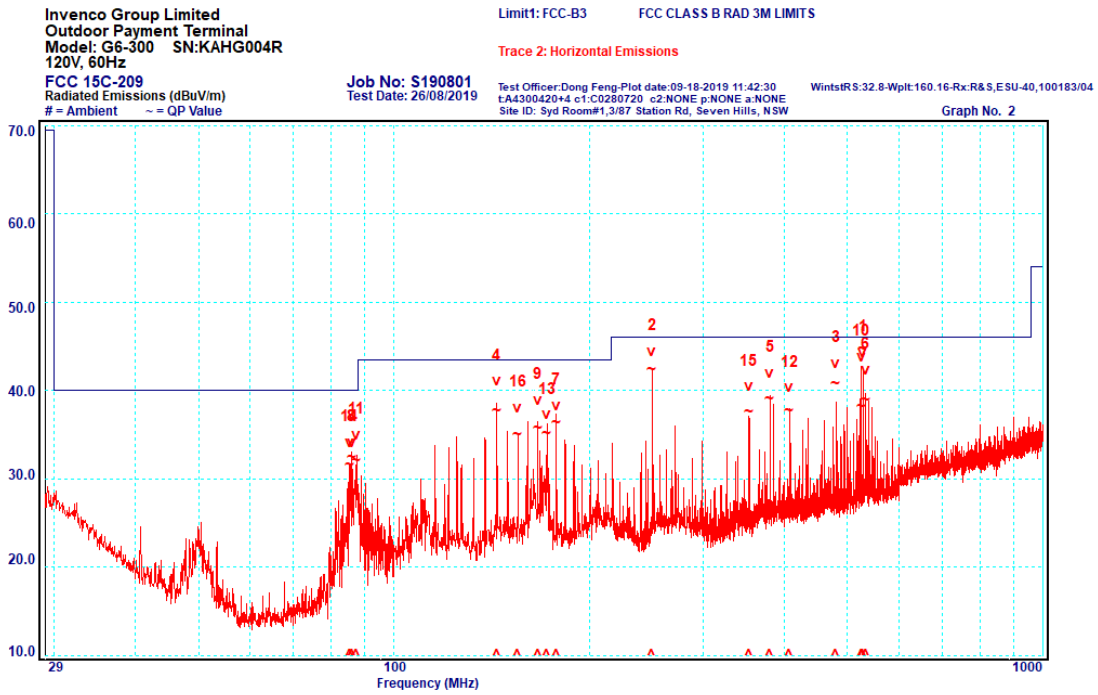
Graph 1 Vertical Polarisation 29 to 1000MHz



Plot	Frequency [MHz]	Polarisation	Quasi-Peak [dBµV/m]	Limit [dBµV/m]	Margin [± dB]
1	525.03	Vertical	44.6	46.0	-1.4*
2	527.95	Vertical	44.3	46.0	-1.7*
3	533.65	Vertical	42.9	46.0	-3.1*
4	539.3	Vertical	42.2	46.0	-3.8*
5	522.35	Vertical	41.6	46.0	-4.4*
6	544.94	Vertical	40.9	46.0	-5.1
7	516.71	Vertical	39.6	46.0	-6.4
8	40.68	Vertical	33.3	40.0	-6.7
9	550.59	Vertical	38.9	46.0	-7.1
10	384.01	Vertical	38.3	46.0	-7.7
11	250.01	Vertical	38.1	46.0	-7.9
12	511.06	Vertical	37.5	46.0	-8.5
13	86.09	Vertical	30.4	40.0	-9.6
14	87.64	Vertical	30.4	40.0	-9.6
15	121.41	Vertical	32.2	43.5	-11.3
16	166.6	Vertical	32.0	43.5	-11.5

The highest radiated spurious emission was 1.4dB below the limit at 525.03MHz and complied with the limits of Section 15.225 D.

Graph 2 **Vertical Polarisation** **29 to 1000MHz**



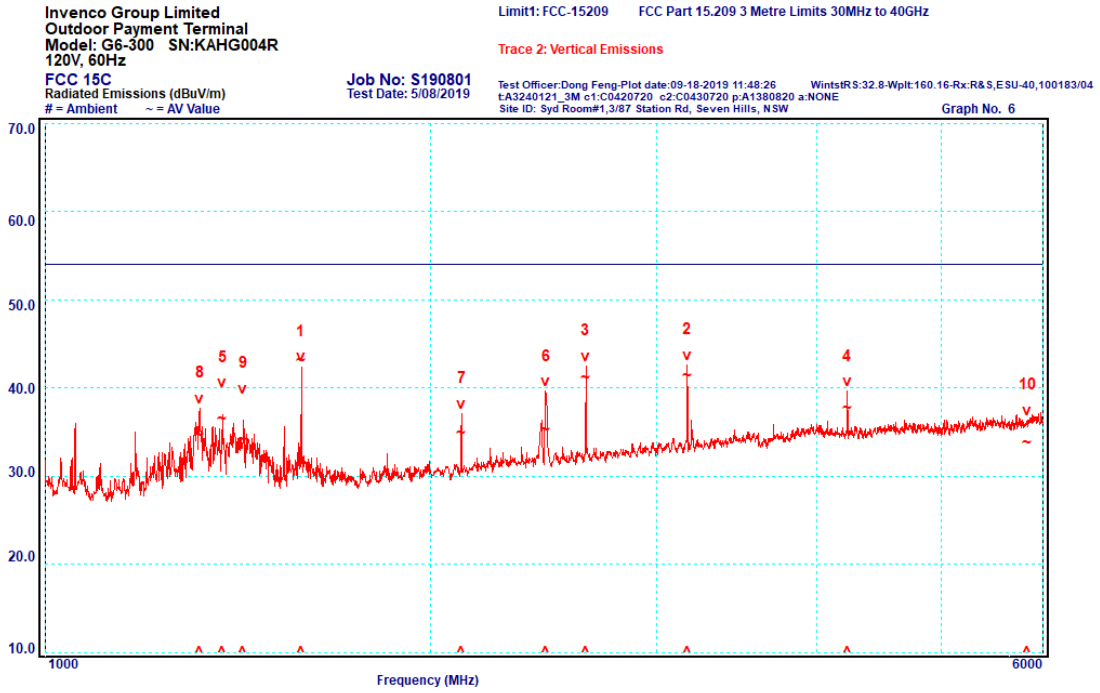
Plot	Frequency [MHz]	Polarisation	Quasi-Peak [dBµV/m]	Limit [dBµV/m]	Margin [± dB]
1	527.98	Horizontal	44.7	46.0	-1.3*
2	250.01	Horizontal	42.4	46.0	-3.6*
3	480.00	Horizontal	40.8	46.0	-5.2
4	144.01	Horizontal	37.7	43.5	-5.8
5	379.67	Horizontal	39.0	46.0	-7.0
6	533.32	Horizontal	39.0	46.0	-7.0
7	177.88	Horizontal	36.4	43.5	-7.1
8	86.08	Horizontal	32.4	40.0	-7.6
9	166.59	Horizontal	35.8	43.5	-7.7
10	525.03	Horizontal	38.2	46.0	-7.8
11	87.48	Horizontal	32.1	40.0	-7.9
12	406.79	Horizontal	37.6	46.0	-8.4
13	172.23	Horizontal	35.1	43.5	-8.4
14	85.49	Horizontal	31.6	40.0	-8.4
15	352.55	Horizontal	37.6	46.0	-8.4
16	155.29	Horizontal	35.0	43.5	-8.5

* This measurement falls within the laboratories measurement uncertainty.

The highest radiated spurious emission was 1.3dB below the limit at 527.98MHz and complied with the limits of Section 15.209

4.5.4 1000 - 6000MHz Field Strength Spurious Emissions –Section 15.225 d (15.209) at 3m Antenna Distance

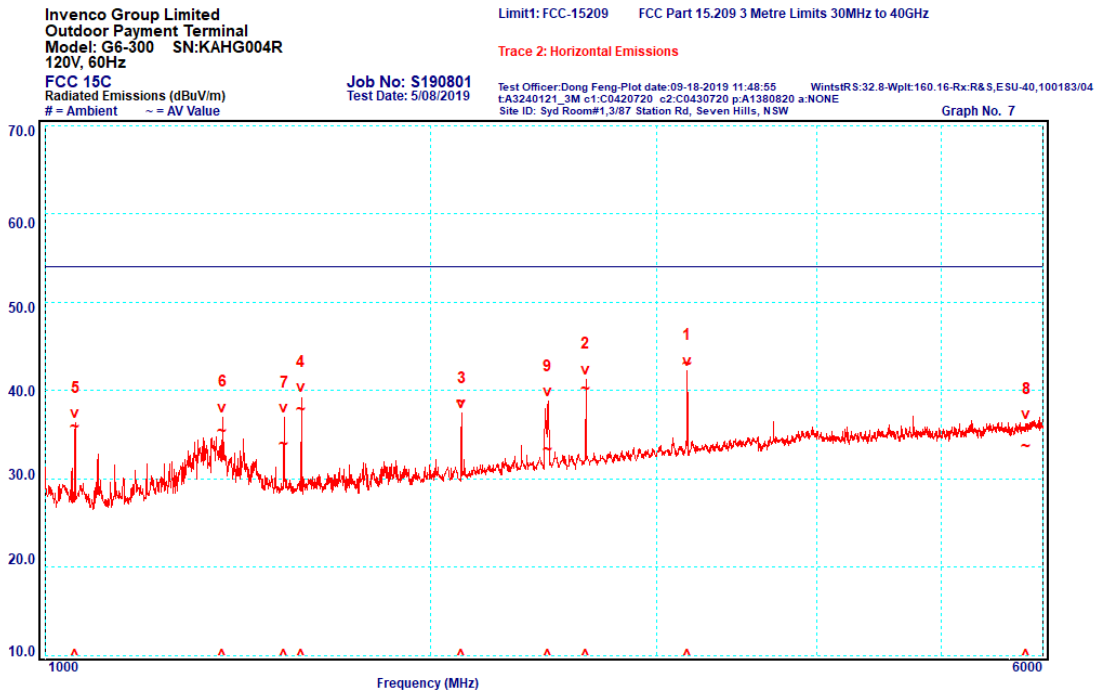
Graph 6 Average Measurements Vertical Polarisation 1000 to 6000MHz



Plot	Frequency [MHz]	Polarisation	Average [dBµV/m]	Limit [dBµV/m]	Margin [± dB]
1	1584.05	Vertical	43.1	54.0	-10.9
2	3167.96	Vertical	41.4	54.0	-12.6
3	2640.13	Vertical	41.2	54.0	-12.8
4	4223.94	Vertical	37.7	54.0	-16.3
5	1375.02	Vertical	36.5	54.0	-17.5
6	2457.81	Vertical	35.2	54.0	-18.8
7	2112.07	Vertical	34.8	54.0	-19.2
8	1320.00	Vertical	34.6	54.0	-19.4
9	1427.58	Vertical	34.2	54.0	-19.8
10	5834.63	Vertical	33.8	54.0	-20.2

The highest radiated spurious emission was -10.9dB below the limit at 1584.05MHz and complied with the Average limits of Section 15.209.

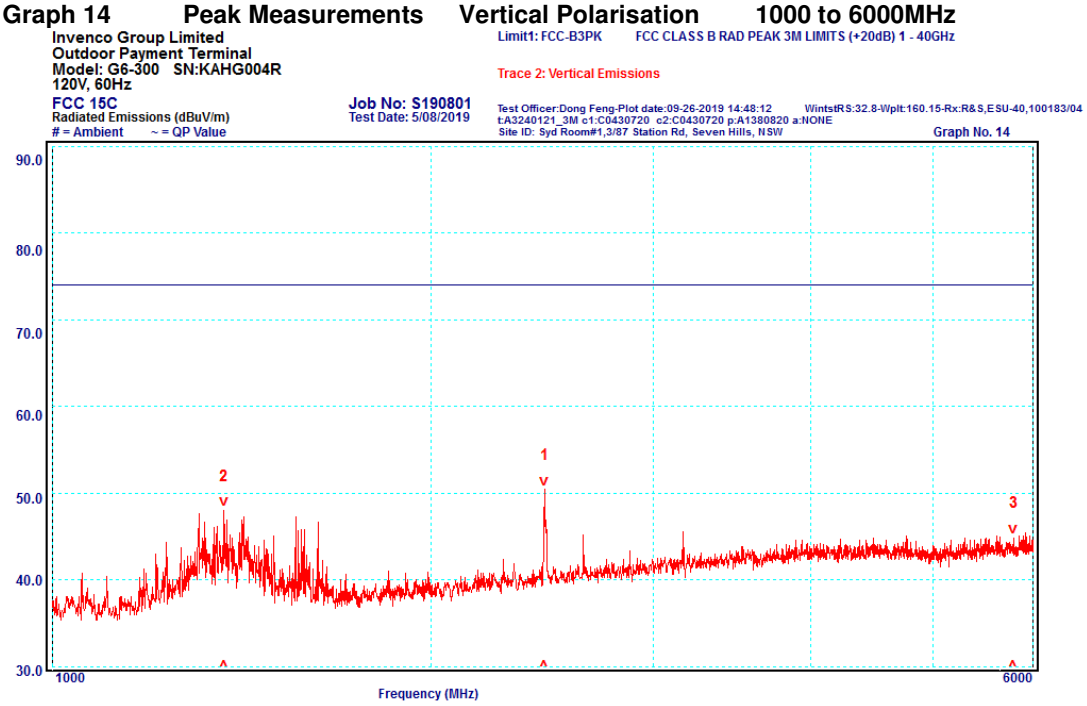
Graph 7 Average Measurements Horizontal Polarisation 1000 to 6000MHz



Plot	Frequency [MHz]	Polarisation	Average [dBµV/m]	Limit [dBµV/m]	Margin [± dB]
1	3168.03	Horizontal	42.9	54.0	-11.1
2	2639.84	Horizontal	40.1	54.0	-13.9
3	2112.05	Horizontal	38.6	54.0	-15.4
4	1584.08	Horizontal	37.8	54.0	-16.2
5	1055.96	Horizontal	35.8	54.0	-18.2
6	1375.18	Horizontal	35.4	54.0	-18.6
7	1536.11	Horizontal	33.9	54.0	-20.1
8	5825.95	Horizontal	33.7	54.0	-20.3
9	2465.26	Horizontal	33.2	54.0	-20.8

Complied with a margin of greater than 10dB with the Average limits of Section 15.209.

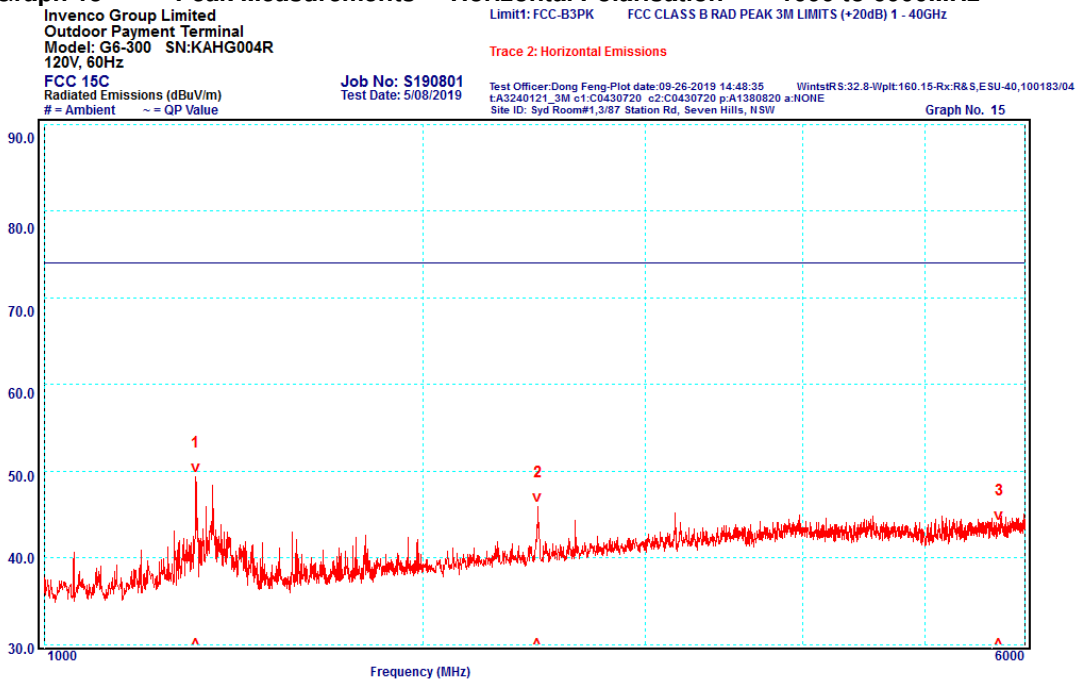
Graph 14 Peak Measurements Vertical Polarisation 1000 to 6000MHz



Plot	Frequency [MHz]	Polarisation	Peak [dBµV/m]	Limit [dBµV/m]	Margin [± dB]
1	2459	Vertical	50.4	74	-23.6
2	1368.64	Vertical	48	74	-26
3	5788.25	Vertical	44.8	74	-29.2

All measured frequencies complied with the Peak limits by a margin of greater than 10dB.

Graph 15 Peak Measurements Horizontal Polarisation 1000 to 6000MHz



Plot	Frequency [MHz]	Polarisation	Peak [dBµV/m]	Limit [dBµV/m]	Margin [± dB]
1	1318.69	Horizontal	49.3	74	-24.7
2	2463	Horizontal	45.9	74	-28.1
3	5720.32	Horizontal	43.8	74	-30.2

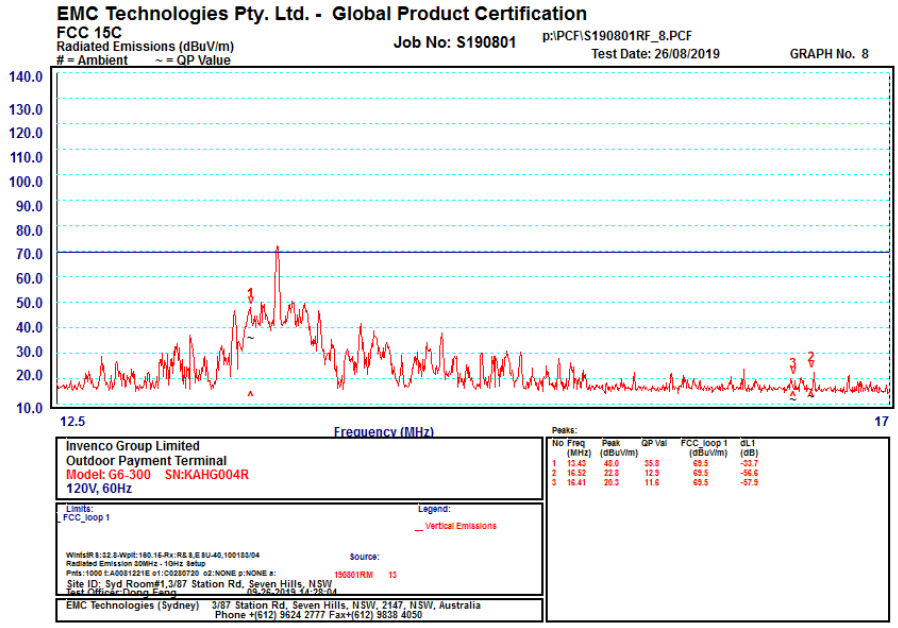
All measured frequencies complied with the Peak limits by a margin of greater than 10dB.

4.5.5 §15.205 Restricted-band band-edge

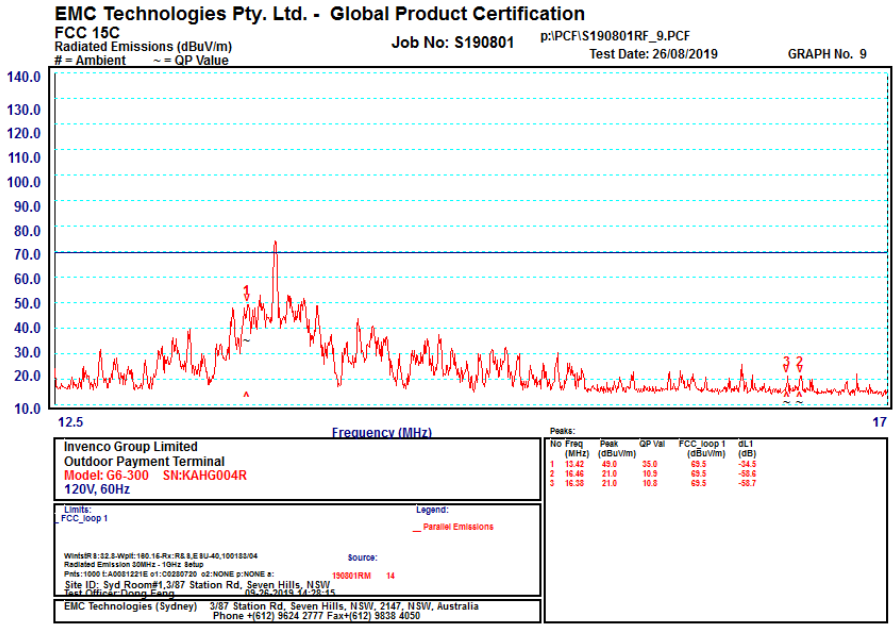
This was done by radiated measurement according to C63.10 Clause 6.10.5.
Mark1 and Mark2 being set to around 13.41MHz and 16.42MHz.

Results:
The measured results complied with the restricted band requirements.

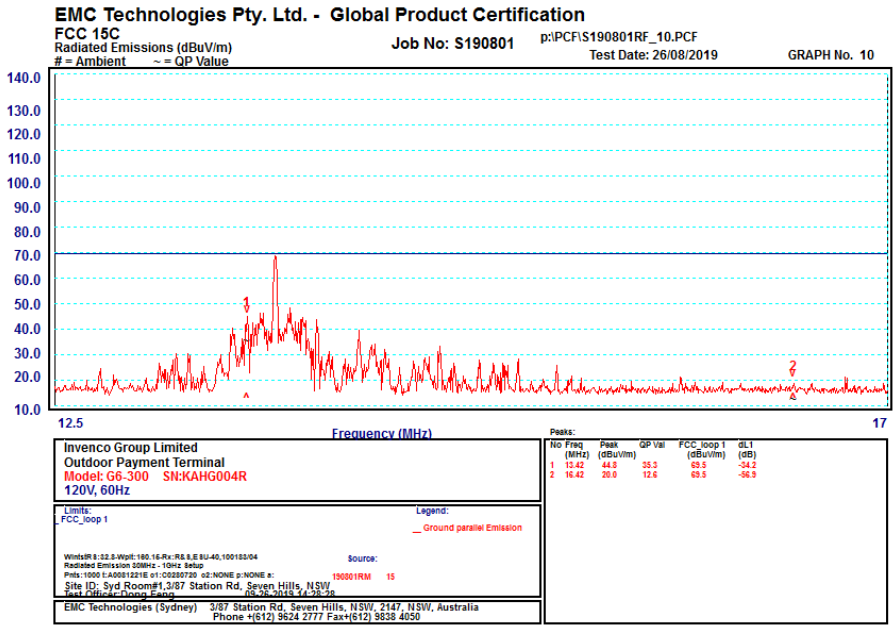
Graph 8 Vertical Polarization 12.5 to 17MHz



Graph 9 **Parallel Polarization** **12.5 to 17MHz**



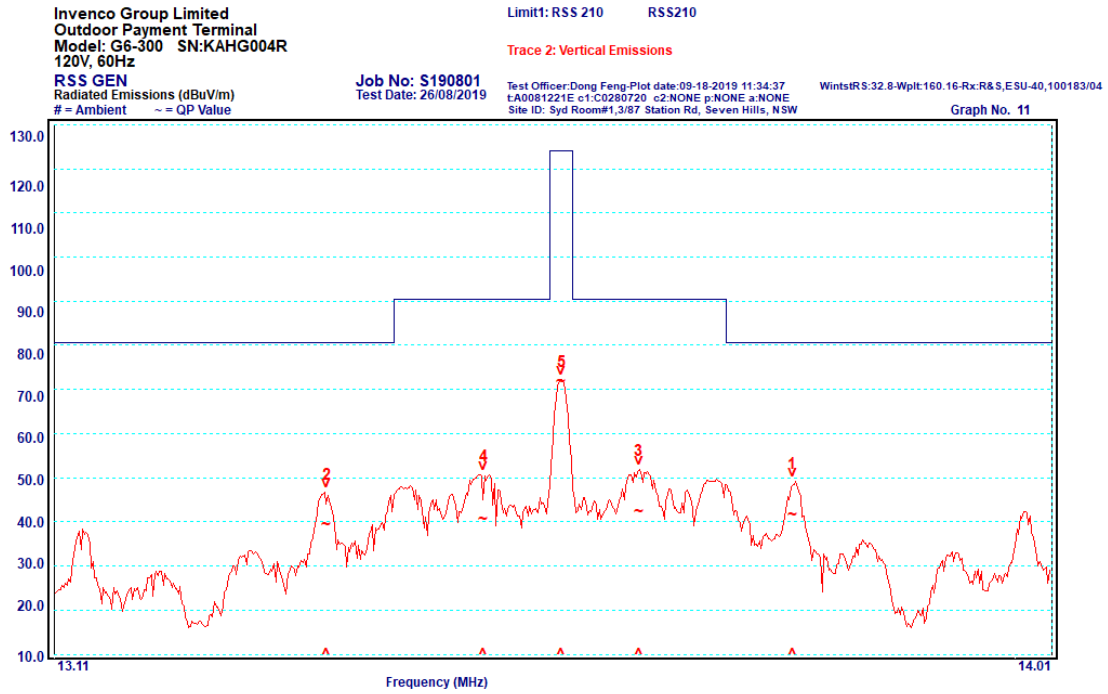
Graph 10 **Ground Parellel Polarization** **12.5 to 17MHz**



Radiated Field Strength Measurement Results – RSS-210

4.6.1 13.56 MHz Carrier Field Strength Measurement at 3m Antenna Distance

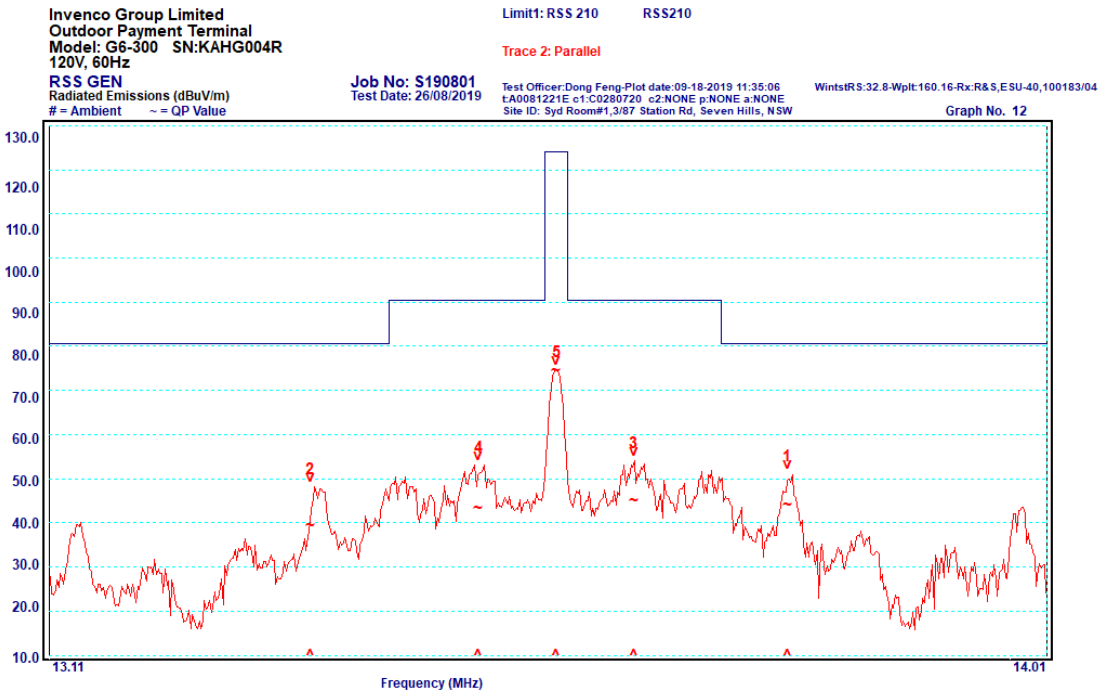
Graph 11 Vertical Emissions 13.11 to 14.01MHz



Plot	Frequency (MHz)	Rx Antenna Polarisation	Quasi Peak Level (dBµV/m)	Limit @ 3m (dBµV/m)	ΔResult (dB)
1	13.77	Vertical	41.5	80.5	-39.0
2	13.35	Vertical	39.4	80.5	-41.1
3	13.63	Vertical	42.4	90.5	-48.1
4	13.49	Vertical	40.7	90.5	-49.8
5	13.56	Vertical	71.8	124.0	-52.2

Complied with a margin of greater than 20dB with the limits of RSS-210 Issue 9 Section B.6.

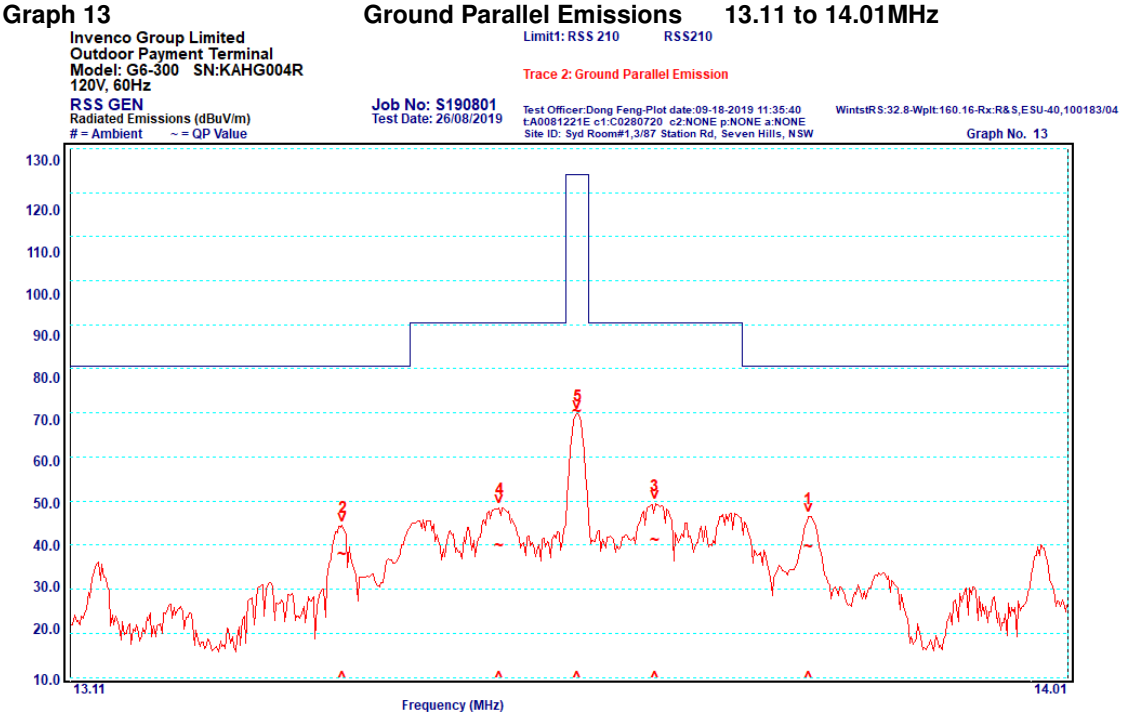
Graph 12 **Parallel Emissions** **13.11 to 14.01MHz**



Plot	Frequency (MHz)	Rx Antenna Polarisation	Quasi Peak Level (dBµV/m)	Limit @ 3m (dBµV/m)	ΔResult (dB)
1	13.77	Parallel	44	80.5	-36.5
2	13.34	Parallel	39.4	80.5	-41.1
3	13.63	Parallel	45.1	90.5	-45.4
4	13.49	Parallel	43.4	90.5	-47.1
5	13.56	Parallel	74.5	124	-49.5

Complied with a margin of greater than 20dB with the limits of RSS-210 Issue 9 Section B.6.

Graph 13 **Ground Parallel Emissions 13.11 to 14.01MHz**

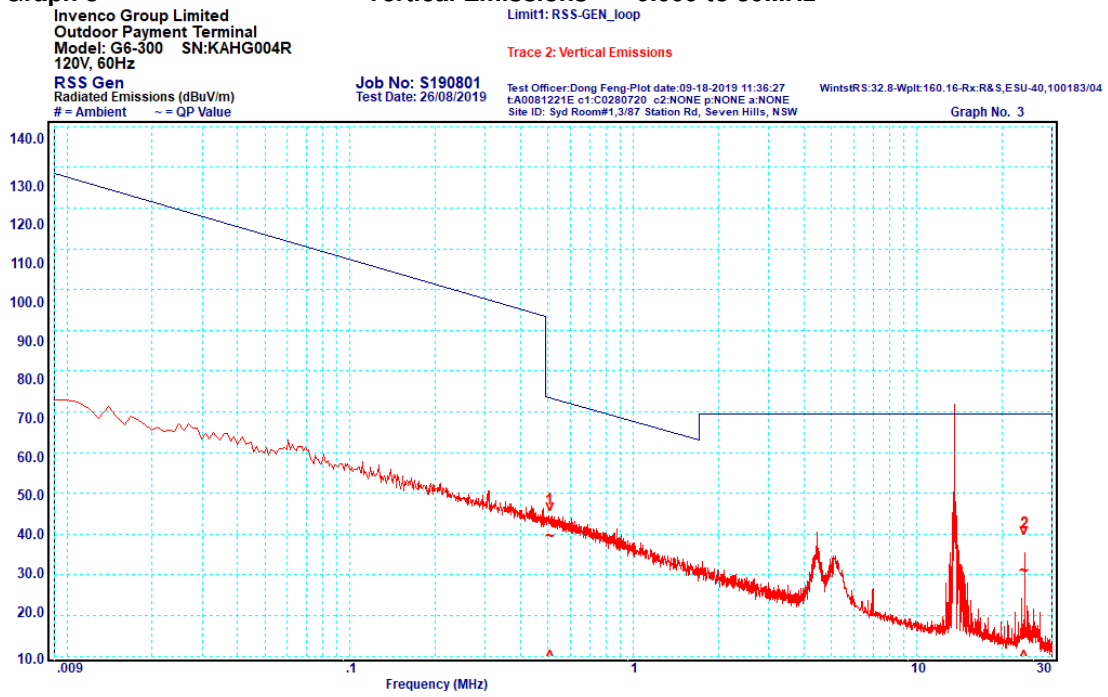


Plot	Frequency (MHz)	Rx Antenna Polarisation	Quasi Peak Level (dBµV/m)	Limit @ 3m (dBµV/m)	ΔResult (dB)
1	13.77	Ground Parallel	39.7	80.5	-40.8
2	13.35	Ground Parallel	37.9	80.5	-42.6
3	13.63	Ground Parallel	41	90.5	-49.5
4	13.49	Ground Parallel	39.8	90.5	-50.7
5	13.56	Ground Parallel	70.4	124	-53.6

Complied with a margin of greater than 20dB with the limits of RSS-210 Issue 9 Section B.6.

4.6.2 9 kHz to 30 MHz Field Strength Spurious Emissions at 3m Antenna Distance

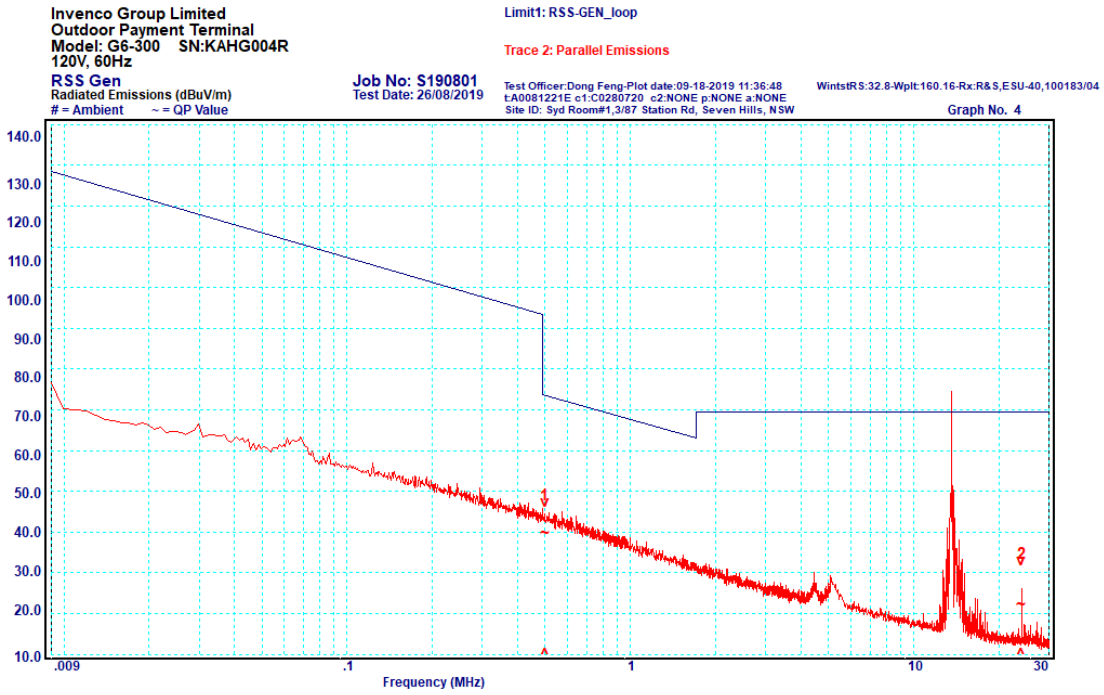
Graph 3 **Vertical Emissions 0.009 to 30MHz**



Plot	Frequency (MHz)	Rx Antenna Polarisation	Quasi Peak Level (dBµV/m)	Limit @ 3m (dBµV/m)	ΔResult (dB)
1	0.509	Vertical	39.4	73.5	-34.1
2	24.00	Vertical	31.0	69.5	-38.5

Complied with a margin of greater than 20dB with the limits of RSS-Gen Issue 5 Section 8.9.

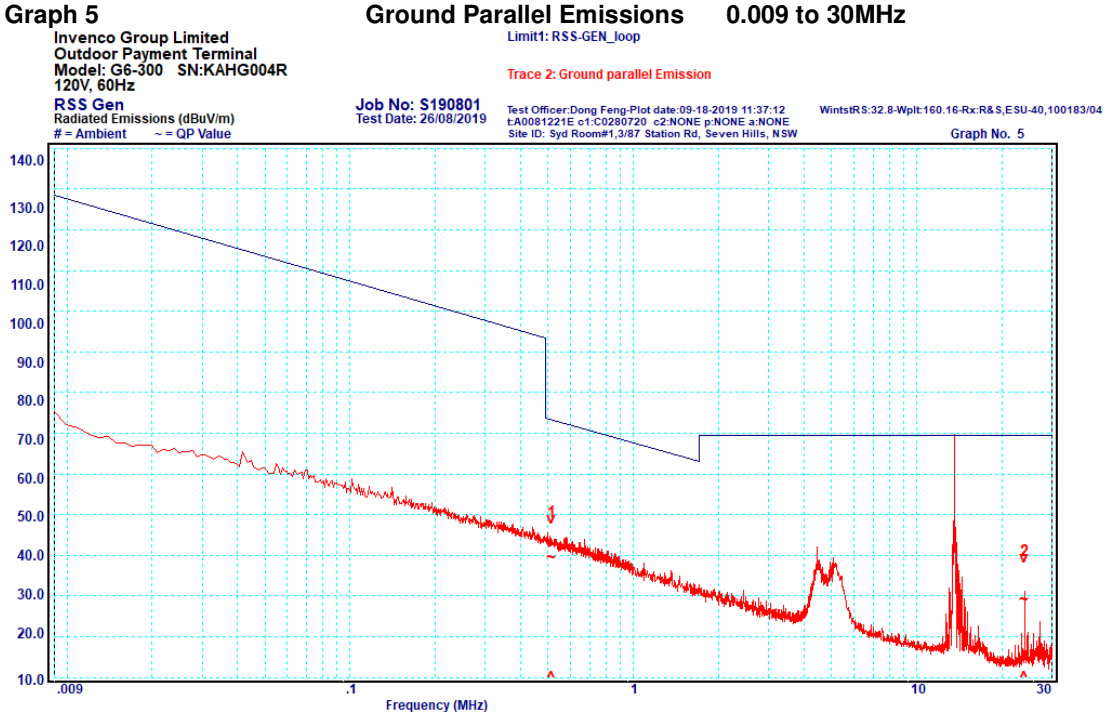
Graph 4 **Parallel Emissions** **0.009 to 30MHz**



Plot	Frequency (MHz)	Rx Antenna Polarisation	Quasi Peak Level (dBµV/m)	Limit @ 3m (dBµV/m)	ΔResult (dB)
1	0.498	Parrallel	39.6	73.7	-34.1
2	24.0	Parrallel	22.0	69.5	-47.5

Complied with a margin of greater than 20dB with the limits of RSS-Gen Issue 5 Section 8.9.

Graph 5 **Ground Parallel Emissions 0.009 to 30MHz**

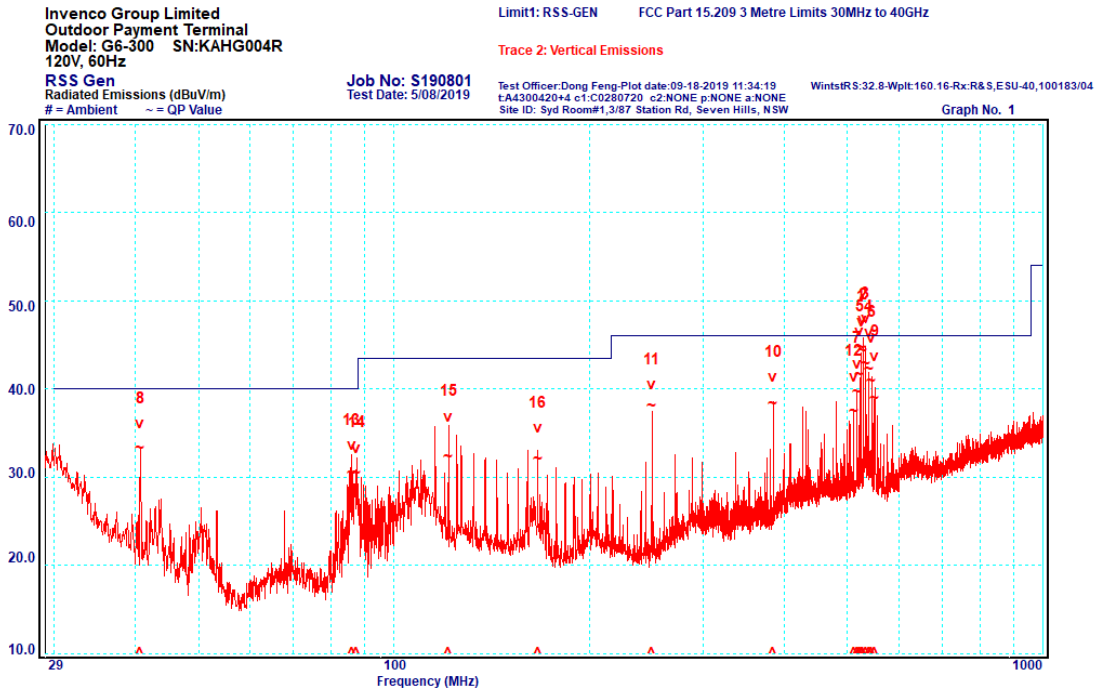


Plot	Frequency (MHz)	Rx Antenna Polarisation	Quasi Peak Level (dBµV/m)	Limit @ 3m (dBµV/m)	ΔResult (dB)
1	0.514	Ground Parallel	39.4	73.4	-34.0
2	24.01	Ground Parallel	28.9	69.5	-40.6

Complied with a margin of greater than 20dB with the limits of RSS-Gen Issue 5 Section 8.9.

4.6.3 430 - 1000MHz Field Strength Spurious Emissions at 3m Antenna Distance

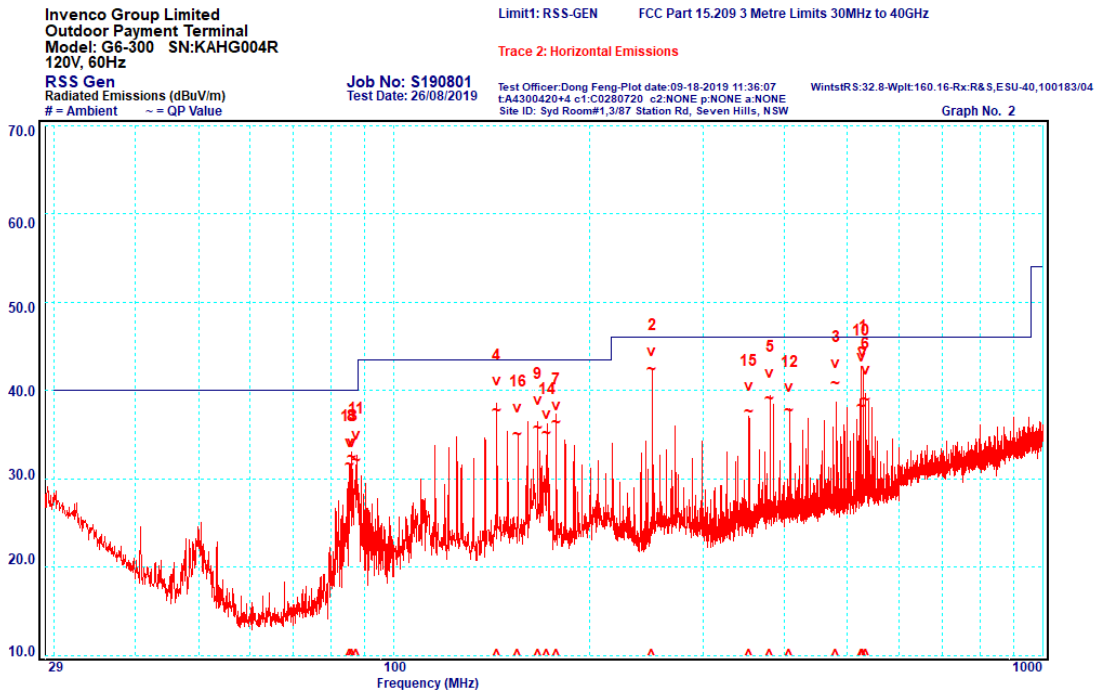
Graph 1 Vertical Polarisation 29 to 1000MHz



Plot	Frequency [MHz]	Polarisation	Quasi-Peak [dBµV/m]	Limit [dBµV/m]	Margin [± dB]
1	525.03	Vertical	44.6	46.0	-1.4*
2	527.95	Vertical	44.3	46.0	-1.7*
3	533.65	Vertical	42.9	46.0	-3.1*
4	539.3	Vertical	42.2	46.0	-3.8*
5	522.35	Vertical	41.6	46.0	-4.4*
6	544.94	Vertical	40.9	46.0	-5.1
7	516.71	Vertical	39.6	46.0	-6.4
8	40.68	Vertical	33.3	40.0	-6.7
9	550.59	Vertical	38.9	46.0	-7.1
10	384.01	Vertical	38.3	46.0	-7.7
11	250.01	Vertical	38.1	46.0	-7.9
12	511.06	Vertical	37.5	46.0	-8.5
13	86.09	Vertical	30.4	40.0	-9.6
14	87.64	Vertical	30.4	40.0	-9.6
15	121.41	Vertical	32.2	43.5	-11.3
16	166.6	Vertical	32.0	43.5	-11.5

The highest radiated spurious emission was 1.4dB below the limit at 525.03MHz and complied with the limits of RSS-Gen Issue 5 Section 8.9.

Graph 2 **Vertical Polarisation** **29 to 1000MHz**

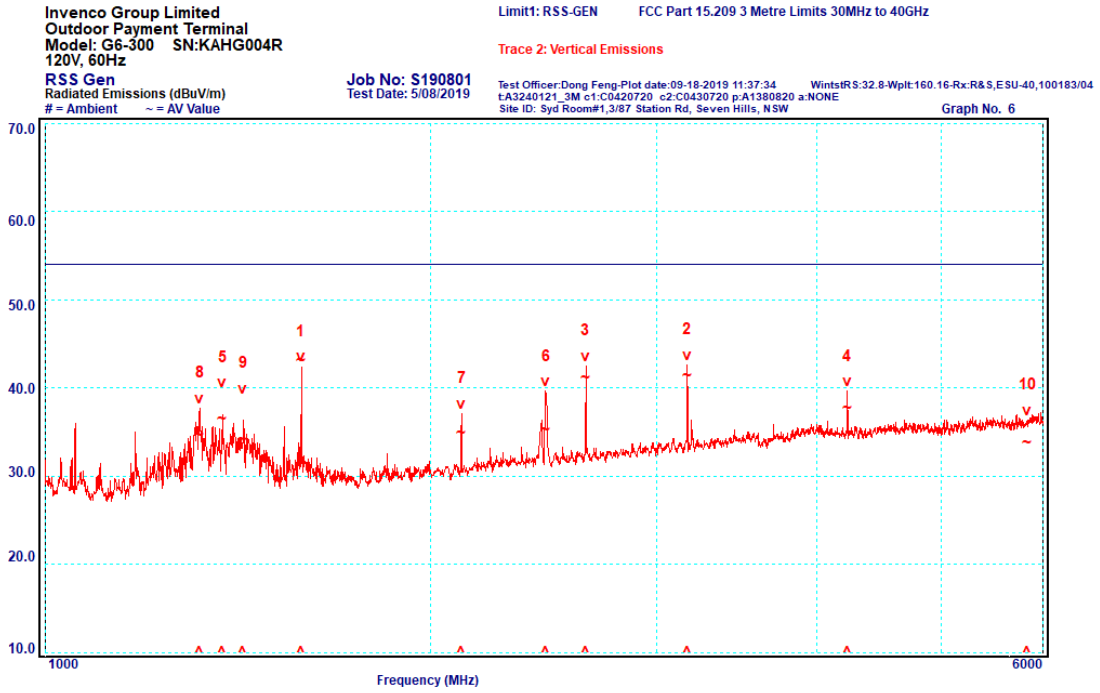


Plot	Frequency [MHz]	Polarisation	Quasi-Peak [dBµV/m]	Limit [dBµV/m]	Margin [± dB]
1	527.98	Horizontal	44.7	46.0	-1.3*
2	250.01	Horizontal	42.4	46.0	-3.6*
3	480.00	Horizontal	40.8	46.0	-5.2
4	144.01	Horizontal	37.7	43.5	-5.8
5	379.67	Horizontal	39.0	46.0	-7.0
6	533.32	Horizontal	39.0	46.0	-7.0
7	177.88	Horizontal	36.4	43.5	-7.1
8	86.08	Horizontal	32.4	40.0	-7.6
9	166.59	Horizontal	35.8	43.5	-7.7
10	525.03	Horizontal	38.2	46.0	-7.8
11	87.48	Horizontal	32.1	40.0	-7.9
12	406.79	Horizontal	37.6	46.0	-8.4
13	172.23	Horizontal	35.1	43.5	-8.4
14	85.49	Horizontal	31.6	40.0	-8.4
15	352.55	Horizontal	37.6	46.0	-8.4
16	155.29	Horizontal	35.0	43.5	-8.5

The highest radiated spurious emission was 1.3dB below the limit at 527.98MHz and complied with the limits of RSS-Gen Issue 5 Section 8.9.

4.6.4 1000 - 6000MHz Field Strength Spurious Emissions at 3m Antenna Distance

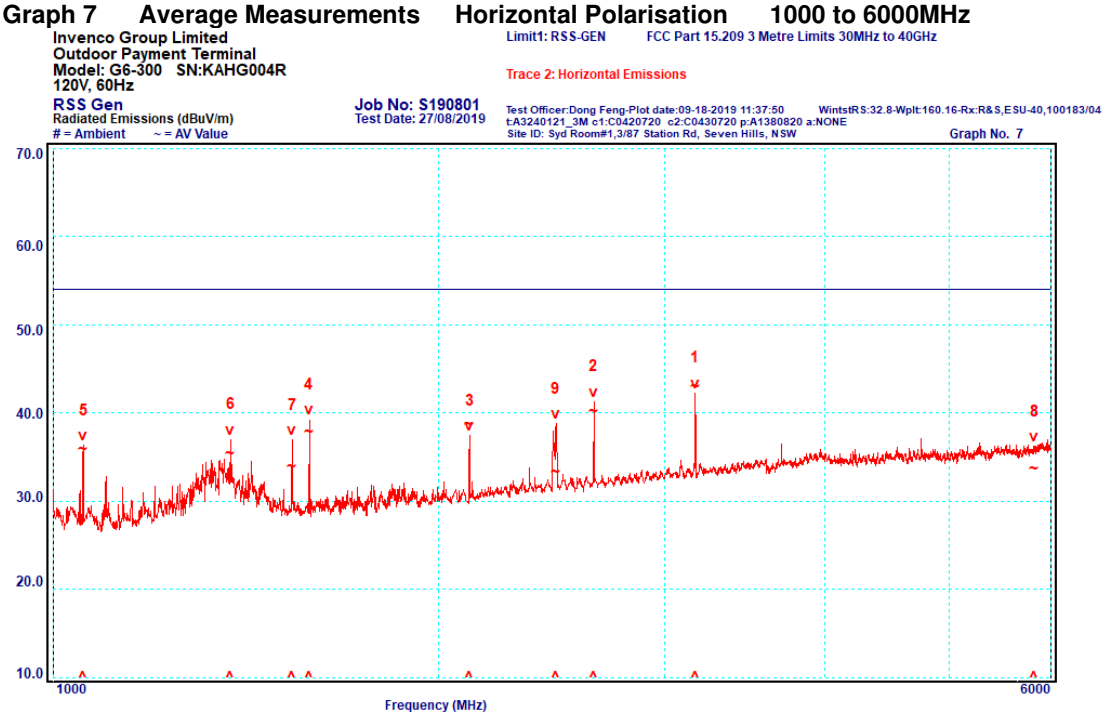
Graph 6 Average Measurements Vertical Polarisation 1000 to 6000MHz



Plot	Frequency [MHz]	Polarisation	Average [dBµV/m]	Limit [dBµV/m]	Margin [± dB]
1	1584.05	Vertical	43.1	54.0	-10.9
2	3167.96	Vertical	41.4	54.0	-12.6
3	2640.13	Vertical	41.2	54.0	-12.8
4	4223.94	Vertical	37.7	54.0	-16.3
5	1375.02	Vertical	36.5	54.0	-17.5
6	2457.81	Vertical	35.2	54.0	-18.8
7	2112.07	Vertical	34.8	54.0	-19.2
8	1320.00	Vertical	34.6	54.0	-19.4
9	1427.58	Vertical	34.2	54.0	-19.8
10	5834.63	Vertical	33.8	54.0	-20.2

All measured frequencies complied with the average limits of RSS-Gen Issue 5 Section 8.9 by a margin of greater than 10dB.

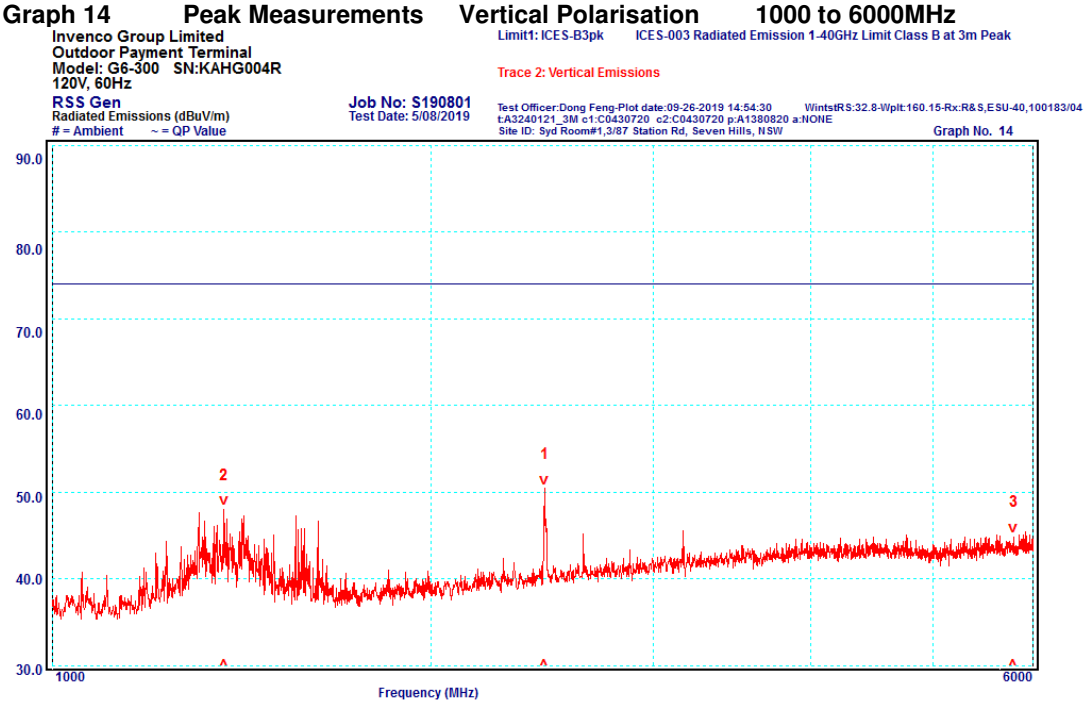
Graph 7 Average Measurements Horizontal Polarisation 1000 to 6000MHz



Plot	Frequency [MHz]	Polarisation	Average [dBµV/m]	Limit [dBµV/m]	Margin [± dB]
1	3168.03	Horizontal	42.9	54.0	-11.1
2	2639.84	Horizontal	40.1	54.0	-13.9
3	2112.05	Horizontal	38.6	54.0	-15.4
4	1584.08	Horizontal	37.8	54.0	-16.2
5	1055.96	Horizontal	35.8	54.0	-18.2
6	1375.18	Horizontal	35.4	54.0	-18.6
7	1536.11	Horizontal	33.9	54.0	-20.1
8	5825.95	Horizontal	33.7	54.0	-20.3
9	2465.26	Horizontal	33.2	54.0	-20.8

All measured frequencies complied with the average limits of RSS-Gen Issue 5 Section 8.9 by a margin of greater than 10dB.

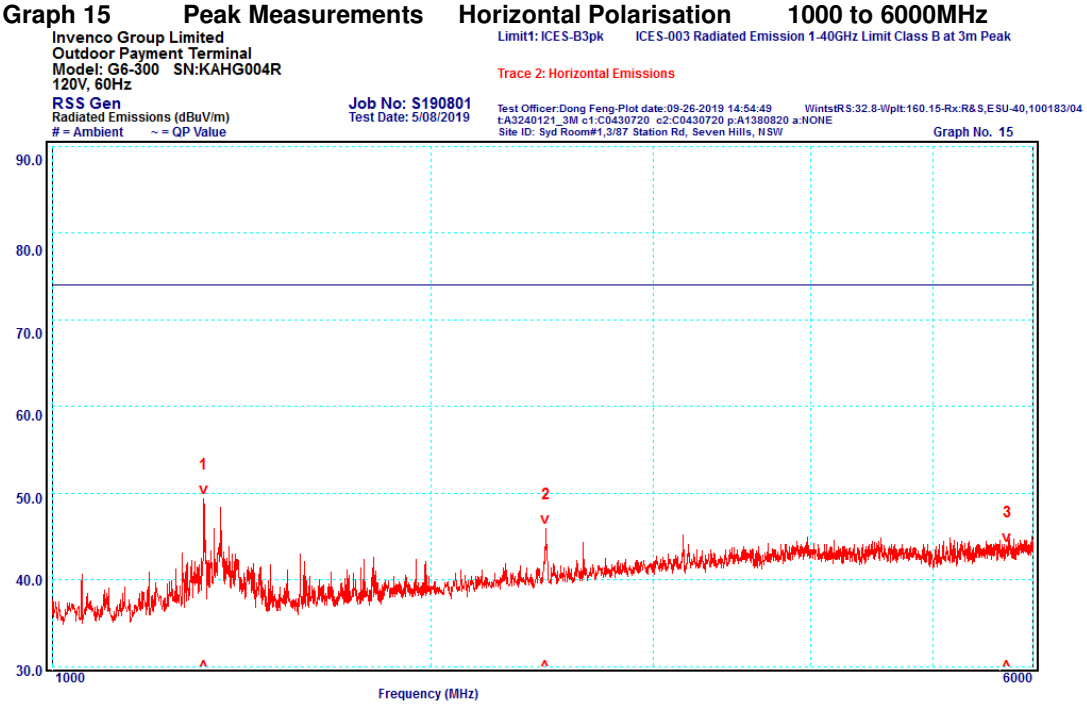
Graph 14 Peak Measurements Vertical Polarisation 1000 to 6000MHz



Plot	Frequency [MHz]	Polarisation	Peak[dBµV/m]	Limit [dBµV/m]	Margin [± dB]
1	2459	Vertical	50.4	74	-23.6
2	1368.64	Vertical	48	74	-26
3	5788.25	Vertical	44.8	74	-29.2

All measured frequencies complied with the Peak limits of RSS-Gen Issue 5 Section 8.9 by a margin of greater than 10dB.

Graph 15 Peak Measurements Horizontal Polarisation 1000 to 6000MHz



Plot	Frequency [MHz]	Polarisation	Peak [dBµV/m]	Limit [dBµV/m]	Margin [± dB]
1	1318.69	Horizontal	49.3	74	-24.7
2	2463	Horizontal	45.9	74	-28.1
3	5720.32	Horizontal	43.8	74	-30.2

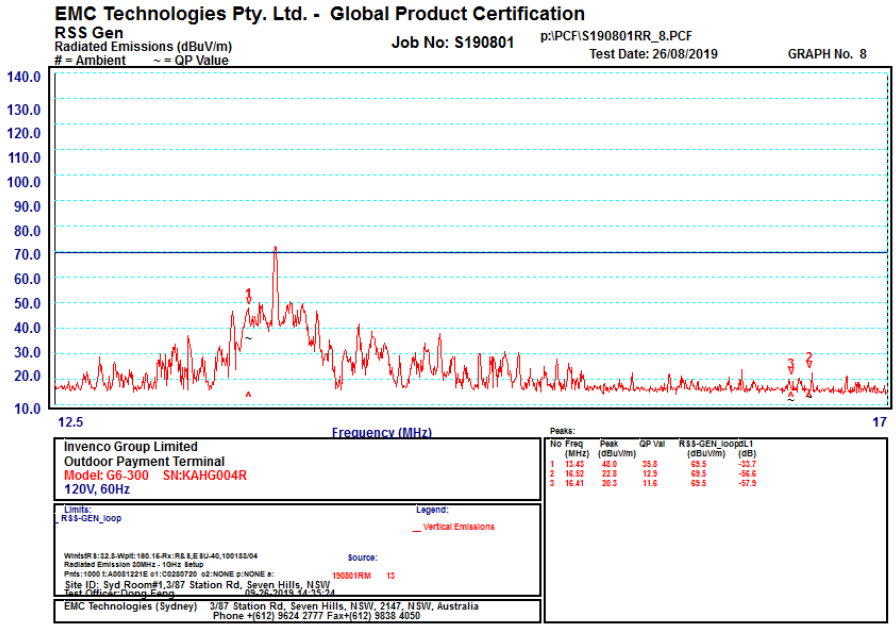
All measured frequencies complied with the Peak limits of RSS-Gen Issue 5 Section 8.9 by a margin of greater than 10dB.

4.6.5 Restricted-band band-edge

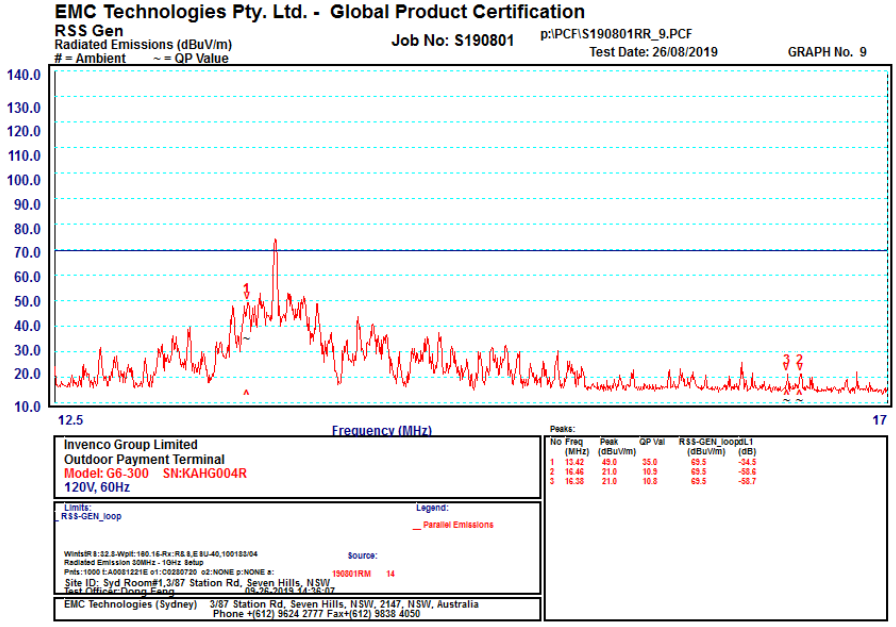
This was done by radiated measurement according to C63.10 Clause 6.10.5.
Mark1 and Mark2 being set to around 13.41MHz and 16.42MHz.

Results:
The measured results complied with the restricted band requirements.

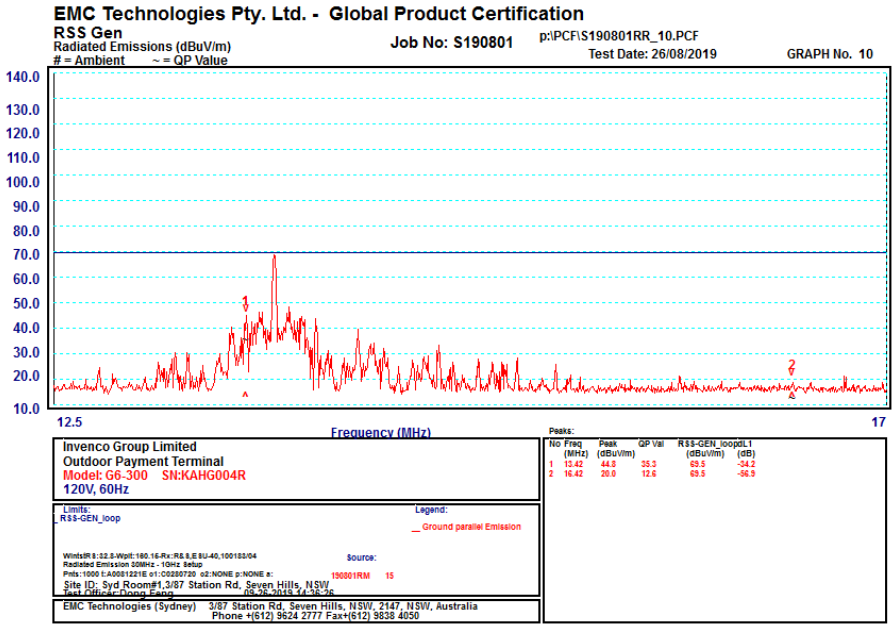
Graph 8 **Vertical Polarization** **12.5 to 17MHz**



Graph 9 **Parallel Polarization** **12.5 to 17MHz**



Graph 10 **Ground Parellel Polarization** **12.5 to 17MHz**



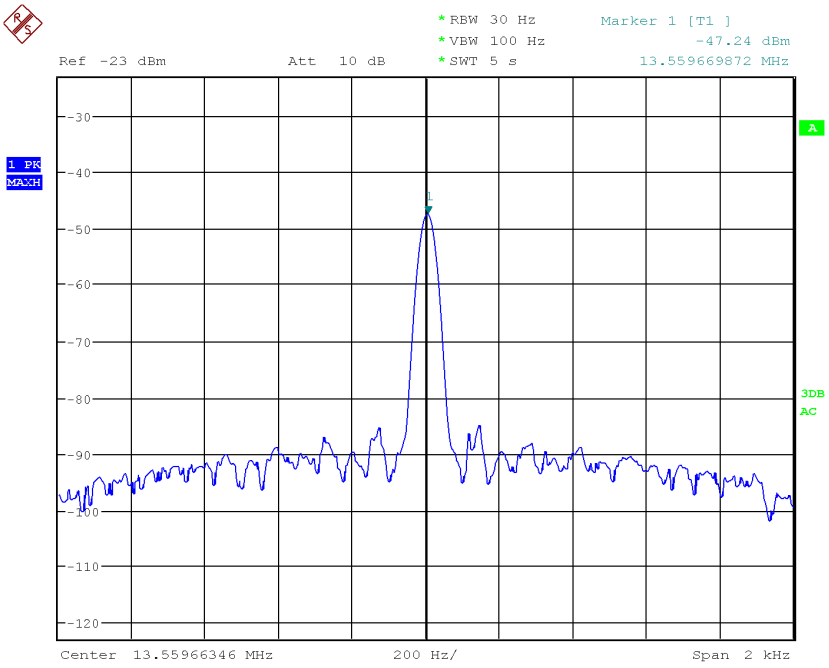
5.0 FREQUENCY TOLERANCE (FCC Part 15 Section 15.225e & RSS-210 Section B.6e)

The frequency stability of the unit was verified under abnormal operating supply voltage and temperature.

FCC Sub Part C Section 15.225 e & RSS-210 Section B.6e.

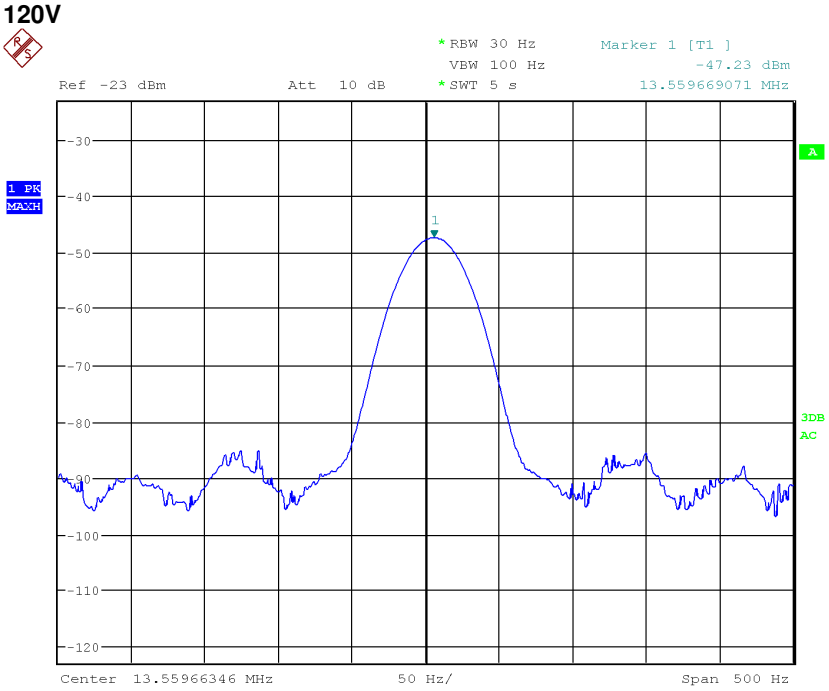
Supply Voltage Variation
The mains supply was lowered from 120V 60Hz to 102V (85% of nominal supply) and maintained until the frequency was stable. The mains supply was then increased from 120V 60Hz to 138V (115% of nominal supply) and maintained until the frequency was stable.

102V



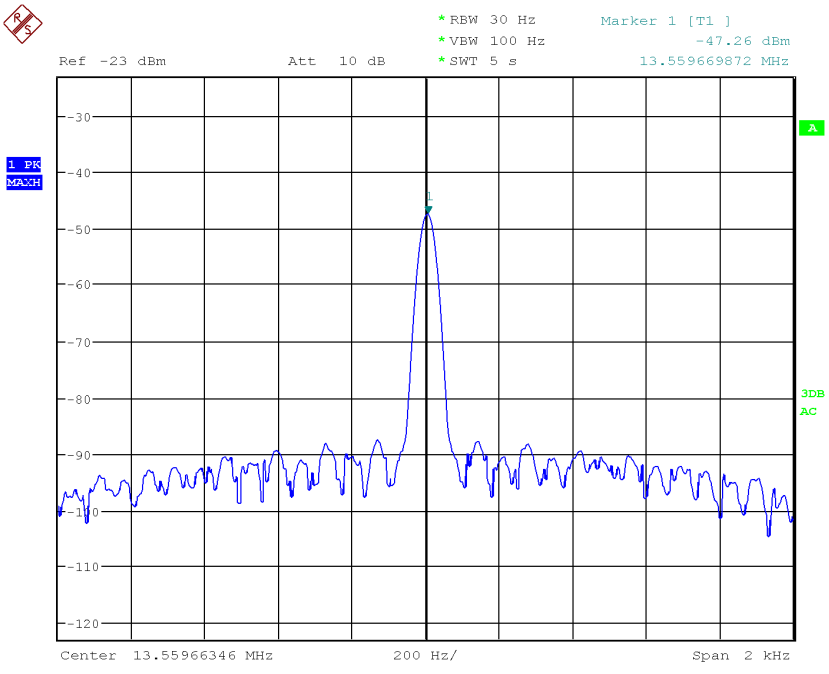
Date: 22.JAN.2003 07:08:49

120V



Date: 22.JAN.2003 06:43:29

138V



Date: 22.JAN.2003 07:10:12

Nominal Voltage	Temperature	Voltage Variation	Frequency Reading [MHz]	Frequency Variation [%]
120 V	20°C	85% (102 V)	13.559669872	0.0000059%
120 V	20°C	115% (138 V)	13.559669872	0.0000059%

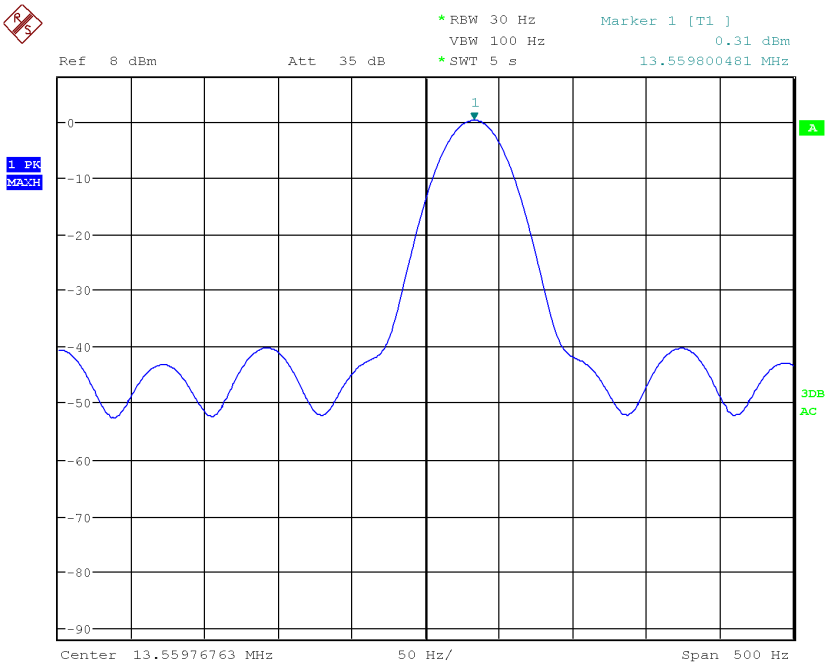
Maximum Frequency Variation to Nominal Frequency:	13.559669872	0.0000059%

The frequency tolerance of the carrier signal was maintained within ± 0.01% of the operating frequency during the voltage variation test.

Temperature Variation

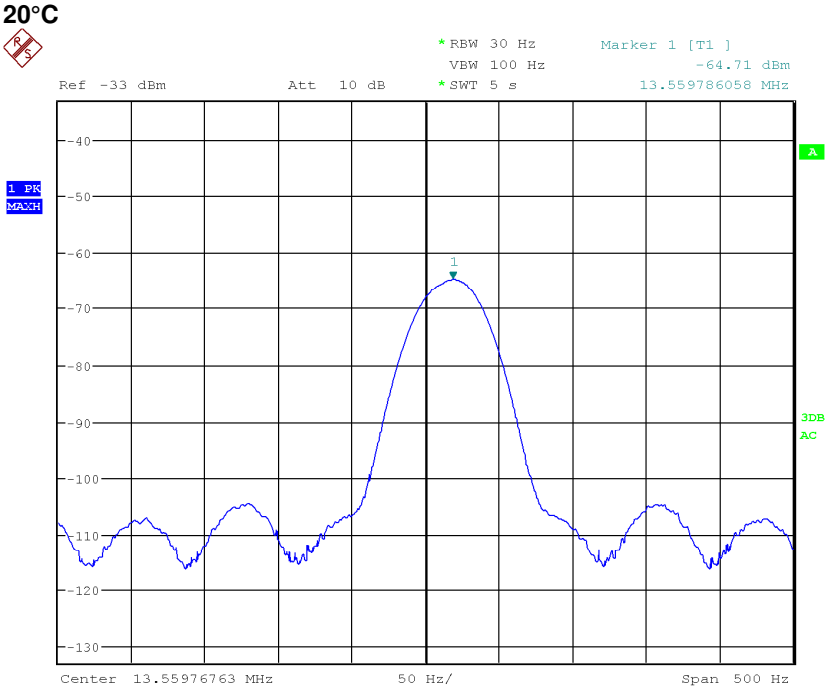
The ambient temperature with a supply voltage of 120V 60Hz was varied between -20°C and +50°C. At each 10°C interval the temperature was maintained until the EUT temperature had stabilised. The frequency of the carrier was observed at each 10°C increments and compared to the nominal frequency.

-20°C



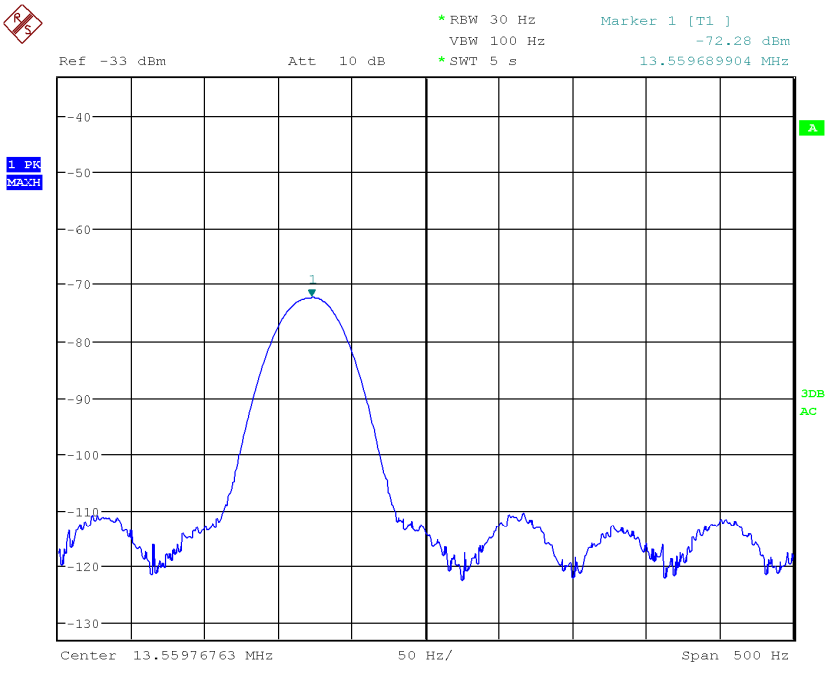
Date: 24.JAN.2003 01:12:53

20°C



Date: 24.JAN.2003 01:24:14

50°C



Date: 24.JAN.2003 01:44:33

Nominal Voltage	Ambient Temperature	Frequency Reading [MHz]	Frequency Variation [%]
120 V	-20°C	13.559800481	0.00041%
120 V	20°C	13.559786058	
120 V	50°C	13.559689904	-0.00071%

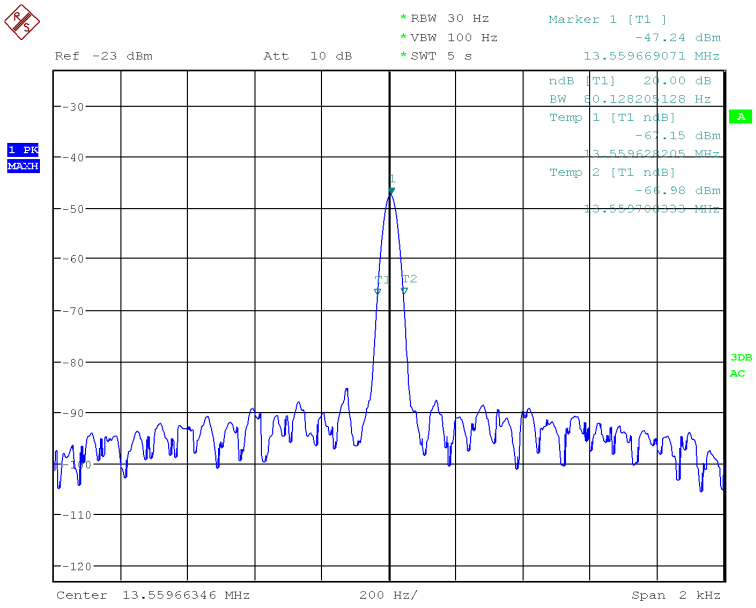
Maximum Frequency Variation to Nominal Frequency:	13.559689904	-0.00071%

The frequency tolerance of the carrier signal was maintained within ± 0.01% of the operating frequency during the temperature variation test.

§15.215c 20dB bandwidth

The method employed was by using a 20dB bandwidth margin, where each point was measured at the edge of the in-band emission, at which the power level was 20dB below the maximum inband power level of the signal.

20dBBW



Date: 22.JAN.2003 07:07:13

Channel [MHz]	Low Frequency [MHz]	High Frequency [MHz]	Permitted Operating Band [MHz]
13.56	13.559628205	13.559708333	13.110MHz to 14.010MHz

6.0 CONCLUSION

The Outdoor Payment Terminal, Model: G6-300, complied with the requirements of FCC Part 15 Rules for intentional radiator when tested in accordance with FCC Part 15.205, 15.207, 15.209, 15.215, 15.225, RSS-Gen Issue 5 Section 8.8 and RSS-210 Issue 9 Section B.6

Part 15.205 a	
Restructed Band:	Complied
Part 15.207	
Conducted Emissions:	Complied
Part 15.215	
20dB Bandwidth	Complied
Part 15.225 a, b &c	
Carrier Signal Field Strength 13.110 – 14.010MHz:	Complied
Part 15.225 d (15.209)	
Field Strength Outside 13.110 – 14.010MHz:	Complied
Part 15.225 e	
Frequency Tolerance:	Complied
RSS-Gen Issue 5 Section 8.8	
Conducted Emissions:	Complied
RSS-210 Issue 9 Section B.6	
Devices Operating in Frequency Band 13.110 – 14.010MHz:	Complied

7.0 UNCERTAINTIES

EMC Technologies has evaluated the equipment and the methods used to perform the emissions testing. The estimated measurement uncertainties for emissions tests shown within this report are as follows:

Conducted Emissions

9kHz to 30 MHz	±3.2 dB

Radiated Emissions

9kHz to 30MHz	±4.1 dB
30MHz to 300MHz	±5.1 dB
300MHz to 1000MHz	±4.7 dB
1GHz to 18GHz	±4.6 dB

The above expanded uncertainties are based on standard uncertainties multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

8.0 MEASUREMENT EQUIPMENT

EQUIPMENT TYPE	MAKE/MODEL SERIAL NUMBER	DUE DATE DD/MM/YY
EMI RECEIVER	Rohde & Schwarz, 20Hz -40GHz Model: ESCI, S/N: 100012 (Asset No: R029)	10/05/20
	Rohde & Schwarz EMI Receiver 20Hz to 40GHz Model: ESU40 S/N: 100183 (Asset No R038)	11/04/20
ANTENNA	Sunar RF Motion Bilog Antenna Model: JB1 S/N: A021318 (Asset No: A430)	08/03/21
	EMCO 6502 S/N: 9108-2660 Model: 6502 (Asset No: A008)	12/12/21
	Double Ridged Horn Antenna 1-18GHz (Asset No: A324) Model: EMCO 3115 S/N: 3823	29/01/21
LISN	Rohde & Schwarz (Asset No: L036) Model: ESH3-Z5 S/N: 832479/014	17/04/20
PREAMPLIFIER	Hewlett Packard Preamp 1-26.5GHz, 30dB Gain Model: HP8449B S/N: 3008A01113 (Asset No: A138)	07/08/20
LIMITER/BPF	Hewlett Packard, 9kHz – 200MHz Model: 11947A S/N: 3107A01261 (Asset No: L010)	01/07/20
CABLE	13m RG214 N-Type, 0.1- 6000MHz (Asset No: SC028)	16/07/20
	Sucoflex 4m 10MHz – 18GHz Cable Model: SF104A/2x11N-47/4m (Asset No: SC041)	02/07/20
	Huber Suhner, Sucoflex 3m, 10MHz – 18GHz (Asset No: SC043) S/N: 503146 /4A	02/07/20

Test Sites

AREA	LOCATION	DUE DATE DD/MM/YY
Indoor Open Area Test Site	RFI Industries S800 (Asset No: S032) Serial Number: 876, 3 metres test site iOATS situated at Seven Hills, NSW	02/07/21

SOFTWARE

Software	Version	Build
WinTst RS	B032	8
WinPlt	160	15

APPENDIX A1

TEST SETUP PHOTOGRAPHS

SUBMITTED AS ATTACHMENT

APPENDIX A2

EXTERNAL IDENTIFICATION PHOTOGRAPHS

SUBMITTED AS ATTACHMENT

APPENDIX A3

INTERNAL IDENTIFICATION PHOTOGRAPHS

SUBMITTED AS ATTACHMENT