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RADIO REPORT FOR CERTIFICATION
to
FCC Part 15 Subpart C (Section 15.247)

FCC ID:	YIY-PROD1061
Device under Test:	Collison Avoidance System Personnel Protection Head Unit
Model Number:	PROD1061
Tested For:	GE Mining Australia
Report Number:	M161022-5R1
Issue Date:	03 May 2017

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RADIO REPORT
FOR CERTIFICATION

FCC PART 15 Subpart C (Section 15.247)

CONTENTS

RADIO REPORT FOR CERTIFICATION

Issued by: EMC Technologies Pty. Ltd.,
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FCC registration number: 90560 and ISED Canada iOATS number: IC 3569B

Device under Test:	Collison Avoidance System Personnel Protection Head Unit
Model Number:	PROD1061
Manufacturer:	GE Mining Australia
FCC ID:	YIY-PROD1061
Equipment Type:	Intentional Radiator (900 MHz Transmitter)
Tested for:	GE Mining Australia
Address:	3 Co-Wyn Close, Fountaindale, NSW, 2258, Australia
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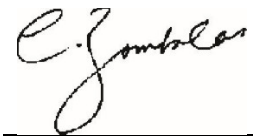
Contact:	Neil Mosley
Email:	neil.mosley@ge.com
Standard:	**CFR FCC Part 15 –** Radio Frequency Devices **Subpart C –** Intentional Radiators **Section 15.247 –** Operation within the bands 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz
Test Dates:	7 November 2016 to 30 January 2017
Issue Date:	03 May 2017
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.

Test Engineer:

Mahan Ghassempouri

Authorised Signatory:



Chris Zombolas
Technical Director
EMC TECHNOLOGIES PTY. LTD.

RADIO REPORT FOR CERTIFICATION
to
FCC PART 15 SUBPART C (section 15.247)

1.0 INTRODUCTION

Test results and procedures were performed in accordance with the following Federal Communications Commission (FCC) standards/regulations:

47 CFR, Part 15, Subpart C:	Rules for intentional radiators
Section 15.203:	Antenna requirements
Section 15.205:	Restricted bands of operation
Section 15.207:	Conducted Limits
Section 15.209:	Radiated Emission Limits (General requirements)
Section 15.247:	Operation in the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5850 MHz

The sample **complied** with the applicable requirements of 47 CFR, Part 15 Subpart C – Section 15.247.

1.1 Test Procedure

Radio measurements were performed in accordance with the procedures of ANSI C63.10: 2013. KDB 558074 v03r05 - Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247 was used to demonstrate compliance with FCC part 47CFR15.247.

1.2 Summary of Results

FCC Part 15 Subpart C	Test Performed	Results
15.203	Antenna requirement	**Complied**
15.205	Restricted bands of operation	**Complied**
15.207	Conducted limits	**Complied**
15.209	Radiated emissions limits; general requirements	**Complied**
15.247 (a)	Channel Bandwidth	**Complied**
15.247 (b)	Peak Output Power	**Complied**
15.247 (c)	Antenna Gain > 6 dBi	**Not Applicable.** Antenna gain < 6 dBi
15.247 (d)	Out of Band Emissions	**Complied**
15.247 (e)	Peak Power Spectral Density	**Complied**
15.247 (f)	*Hybrid Systems	**Not Applicable.** Did not employ a hybrid system
15.247 (g)	Frequency Hopping System with Transmitter and Receiver	**Not Applicable.** Did not employ frequency hopping
15.247 (h)	Simultaneous occupancy of individual hopping frequencies	**Not Applicable.** Did not employ frequency hopping
15.247 (i)	Radio Frequency Hazard	**Complied**
2.1049	Occupied Bandwidth	**1.058 MHz**

1.3 Modifications by EMC Technologies

No modifications were performed.

2.0 GENERAL INFORMATION

(Information supplied by the Client)

2.1 EUT (Transmitter) Details

The RF transmitter was a Short Range Device (SRD) operating in 920 MHz band. The EUT used a PCB antenna. A temporary SMA connector was mounted on the device to provide a means for measuring conducted output power. Transmitter specifications are shown in below table.

Test Sample:	Collison Avoidance System CAS-GPS-PPU, Personnel Protection Head Unit
Model Number:	PROD1061
Operating Frequency Band:	902 MHz to 928 MHz
Frequency Range:	Single Channel at 920 MHz
Modulation:	4GFSK
Number of Channels:	1
Nominal Output Power:	10 dBm
Antenna:	JOHANSON TECHNOLOGY 0915AT43A0026
Maximum Gain of Antenna Assembly:	-1.0 dBi
DC Supply Port Voltage Rating:	3.7 VDC (Internal Li-Ion battery)
Operating Temperature Range:	-20 °C to 55 °C

2.2 EUT (Host) Details

The CAS-GPS PPU is a two part 'wearable technology' device designed to give CAS-GPS (Collision Awareness System) enabled fleet situational awareness of the device wearer. The CAS-GPS PPU will provide warnings of potentially unsafe interactions between personnel and machinery. The CAS-GPS PPU utilises a GNSS receiver for global positioning, Triaxially Diversified Magnetoquasistatic Pick-Up for near field sensing in low permeability atmospheres and a short range digital transceiver for fleet and remote alarm connectivity.

2.3 Test Configuration

Testing was performed with the EUT set to continuously transmit (with modulation applied).

2.4 Test Facility

2.4.1 General

EMC Technologies Pty Ltd is listed by the FCC as a test laboratory able to perform compliance testing for the public. EMC Technologies is listed as an FCC part 47CFR2.948 test lab and may perform the testing required under Parts 15 and 18 – **FCC Registration Number 90560**

EMC Technologies Pty Ltd has also 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 Declaration of Conformity (DoC) and Certification under Parts 15 and 18 of the FCC Commission's rules – **Registration Number 494713 & Designation number AU0001.**

EMC Technologies indoor open are test site (iOATS) have been accepted by Industry Canada for the performance of radiated measurements in accordance with RSS-Gen, Issue 8 - **Industry Canada iOATS number - IC 3569B**

Measurements in this report were performed at EMC Technologies' laboratory in Keilor Park, Victoria Australia.

2.4.2 NATA Accreditation

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 9002. NATA has mutual recognition agreements with the National Voluntary Laboratory Accreditation Program (NVLAP) and the American Association for Laboratory Accreditation (A^2LA).

EMC Technologies is accredited in Australia by the National Association of Testing Authorities (NATA). 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.asn.au

2.5 Test Equipment Calibration

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) or in-house. All equipment calibration is traceable to Australian national standards at the National Measurements Institute.

Equipment Type	Make/Model/Serial Number	Last Cal. dd/mm/yyyy	Due Date dd/mm/yyyy	Cal. Interval
Chamber	Frankonia SAC-10-2 (R-139)	11/05/2016	11/05/2017	1 Year, *1
EMI Receiver	R&S ESU40 20 Hz – 40 GHz Sn: 100182 (R-037)	18/02/2016	18/02/2017	1 Year, *2
Antennas	EMCO 6502 Active Loop 9 kHz – 30 MHz Sn. 9311-2801 (A-231)	20/07/2015	20/07/2018	3 Year, *2
	SUNOL JB6 Biconilog 30 – 6000 MHz Sn. A012312 (A-363)	26/05/2016	26/05/2018	2 Year, *2
	EMCO 3115 Double Ridge Horn 1 – 18 GHz Sn: 8908-3282 (A-004)	15/07/2016	15/07/2019	3 Year, *1
Cables	Room 12 inbuilt cable Panel 1 to 10 m (C-422)	09/05/2016	09/05/2017	1 Year, *1
	Room 12 inbuilt cable Panel 1 to 3 m (C-421)	09/05/2016	09/05/2017	1 Year, *1
	Room 12 Antenna cable (C-437)	09/05/2016	09/05/2017	1 Year, *1

Note *1. Internal NATA calibration.
Note *2. External NATA / A2LA calibration

3.0 TEST RESULTS

3.1 §15.203 Antenna Requirement

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

EUT used a permanently attached PCB antenna therefore considered sufficient to comply with the provisions of this section. There was no external antenna connector available to the user.

3.2 §15.205 Restricted Bands of Operation

The limits of §15.205 were applied as applicable during the spurious emission tests.

3.3 §15.207 Conducted Limits

3.3.1 Test Procedure

The arrangement specified in ANSI C63.10: 2013 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: 2009 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 short duration peaks were captured.

3.3.2 Peak Maximising Procedure

The various operating modes of the system were investigated. 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 and the Average detector were then invoked to measure the actual Quasi-Peak and Average level of the most significant peaks, which were detected.

3.3.3 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:

$$V_{EMI} = V_{Rx} + L$$

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 = The insertion loss in dB of the LISN, cables and transient Limiter.

3.3.4 Plotting of Conducted Emission Measurement Data

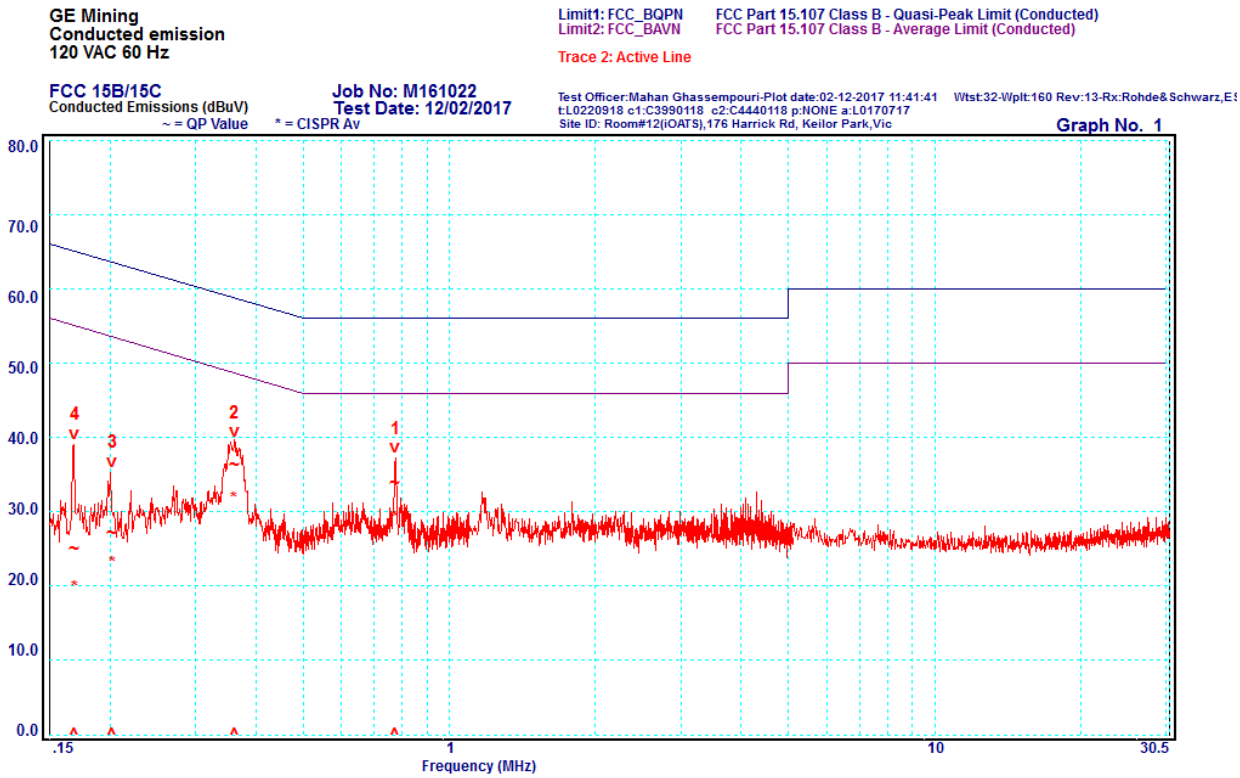
The measurement data pertaining to each frequency sub-range were concatenated to form a single graph of (peak) amplitude versus frequency. This was performed for both Active and Neutral lines and the composite graph was subsequently plotted. A list of the highest relevant peaks and the respective Quasi-Peak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

3.3.5 Test Climatic Conditions

Shielded Room Temperature:	23°C
Relative Humidity:	58%

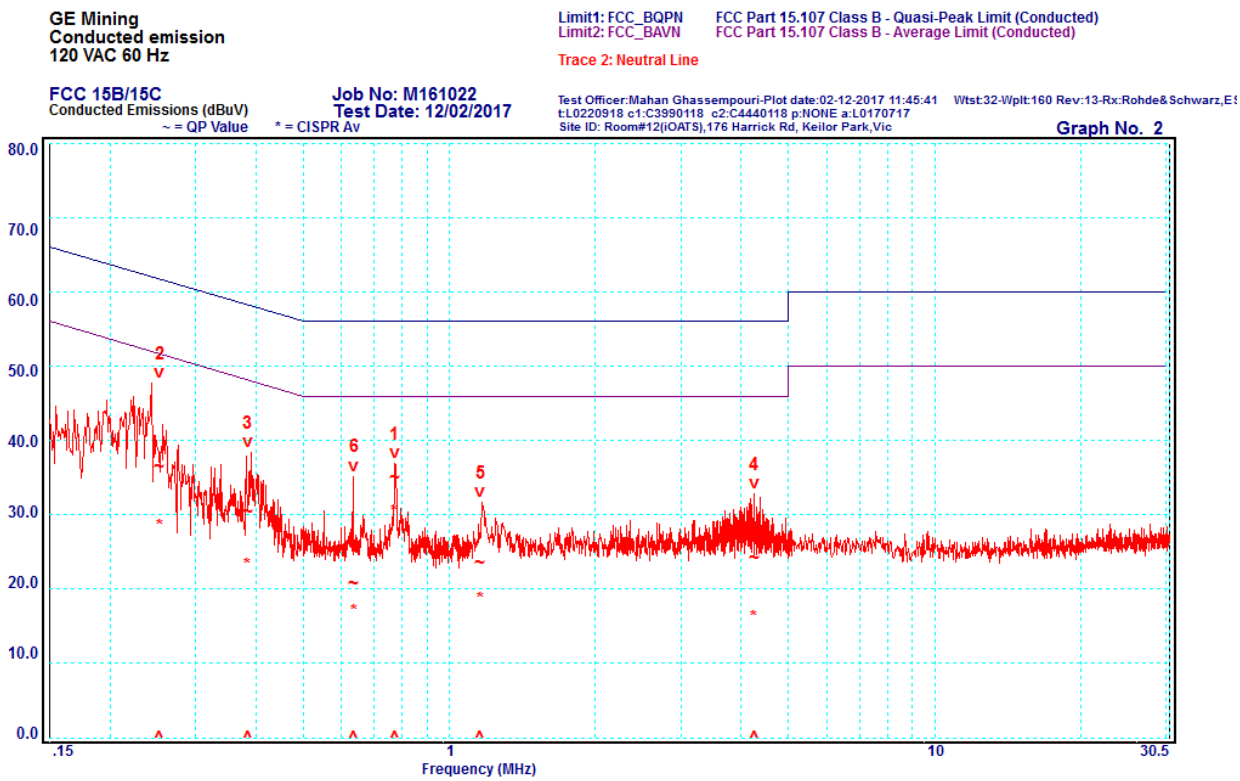
3.3.6 Results of Conducted Emission Measurements

Active Line, 0.15 - 30 MHz



Peak	Frequency [MHz]	Line	Quasi-Peak			Average		
			Level [dBµV]	Limit [dBµV]	Margin [±dB]	Level [dBµV]	Limit [dBµV]	Margin [±dB]
1	0.776	Active	33.9	56.0	-22.1	29.1	46.0	-16.9
2	0.362	Active	36.3	58.7	-22.4	31.6	48.7	-17.1
3	0.203	Active	27.1	63.5	-36.4	23.0	53.5	-30.5
4	0.169	Active	24.9	65.0	-40.1	19.8	55.0	-35.2

Neutral Line, 0.15 - 30 MHz



Peak	Frequency [MHz]	Line	Quasi-Peak			Average		
			Level [dBµV]	Limit [dBµV]	Margin [±dB]	Level [dBµV]	Limit [dBµV]	Margin [±dB]
1	0.774	Neutral	34.9	56.0	-21.1	30.4	46.0	-15.6
2	0.254	Neutral	36.4	61.6	-25.2	28.4	51.6	-23.2
3	0.385	Neutral	30.4	58.2	-27.8	23.1	48.2	-25.1
4	4.257	Neutral	24.2	56.0	-31.8	16.2	46.0	-29.8
5	1.161	Neutral	23.5	56.0	-32.5	18.6	46.0	-27.4
6	0.638	Neutral	20.6	56.0	-35.4	16.9	46.0	-29.1

The worst case conducted EMI occurred at 0.774 MHz on the neutral line and complied with the §15.207 quasi-peak and average limits by margins of 21.1 dB and 15.6 dB respectively.

3.4 §15.209 Radiated emission limits; general requirements

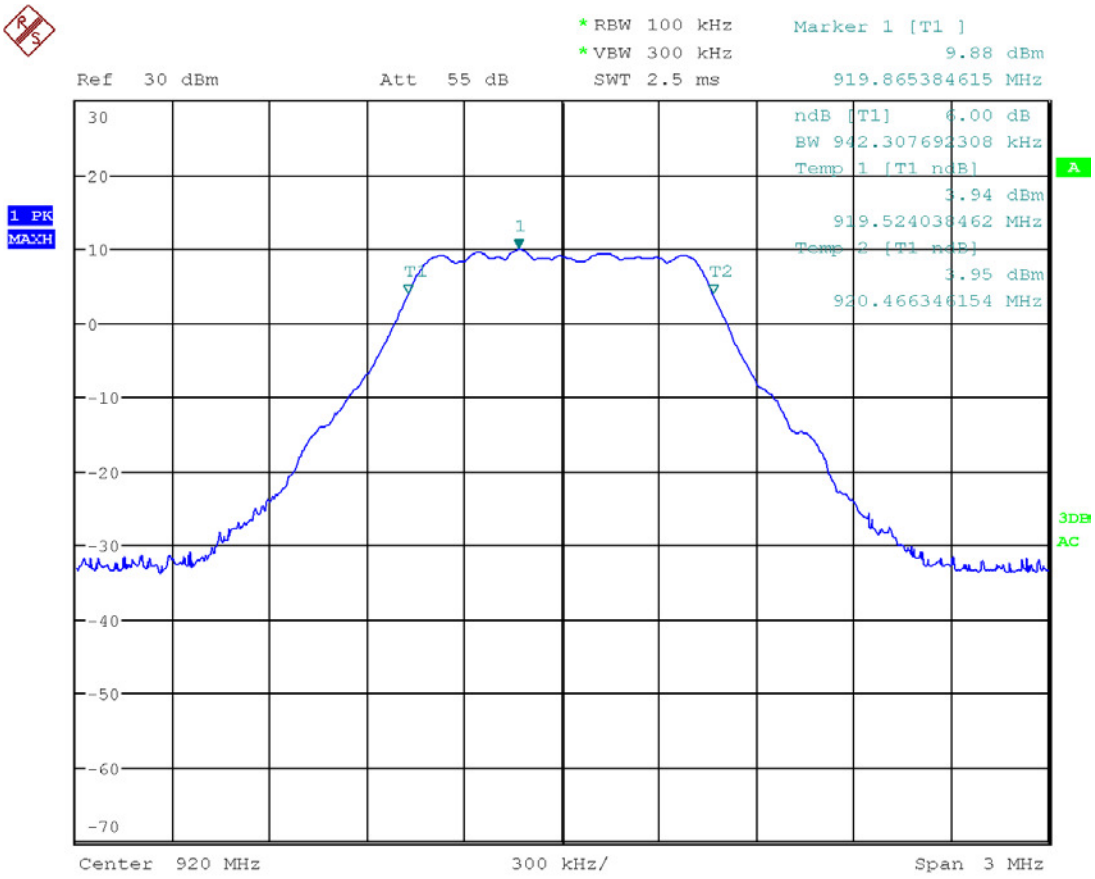
The limits given in §15.247 applied, however attenuation below the general levels was not required.

3.5 §15.247(a) Channel Bandwidth

In the band 902 - 928 MHz, the minimum 6 dB bandwidth is to be at least 500 kHz. The 6 dB bandwidth was measured while the device was transmitting with typical modulation applied.

The resolution bandwidth of 100 kHz and the video bandwidth of 300 kHz were utilised when measuring the bandwidth.

Centre Frequency [MHz]	Measured 6 dB Bandwidth [kHz]	Limit [kHz]	Result
920	942	> 500	Complied

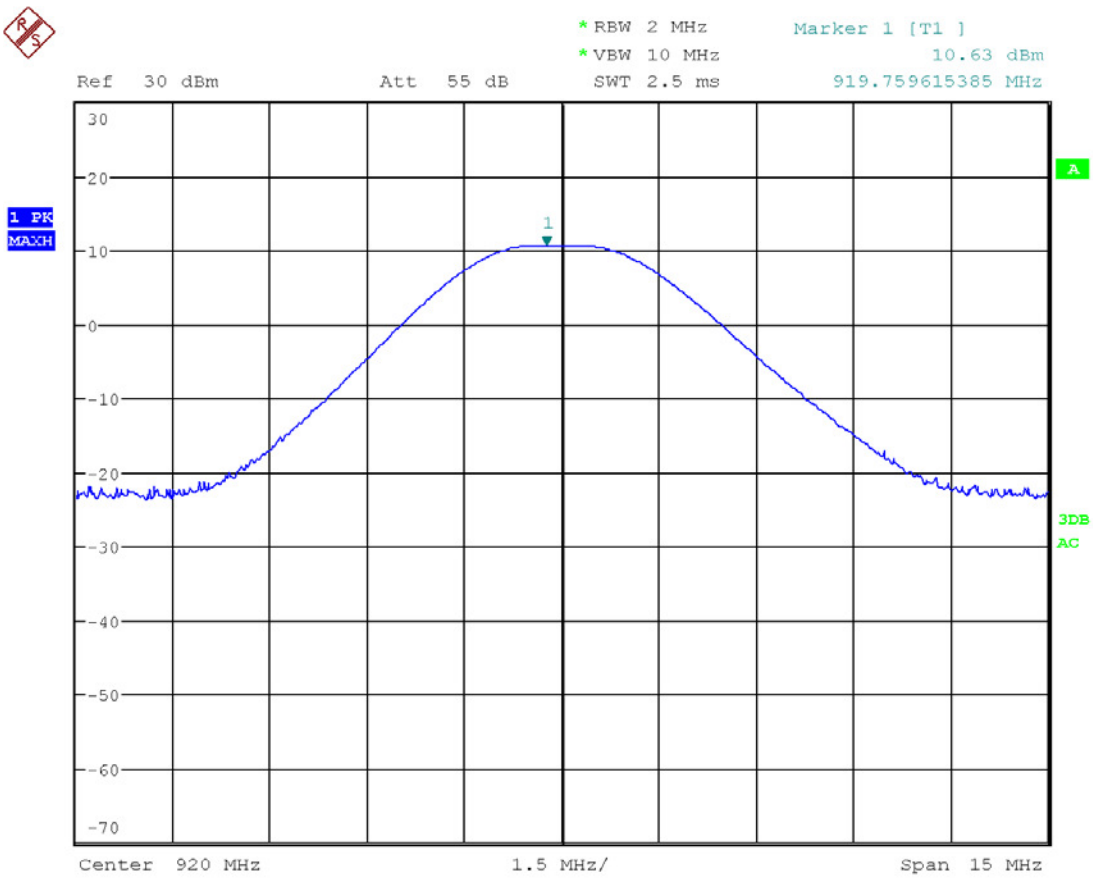


3.6 §15.247(b) Peak Output power

A sample with a temporary antenna connector on the PCB was supplied and the test was performed using conducted measurement. Maximum peak conducted power method (clause 9.1.1 of KDB 558074 v03r05) was used for measurement. Cable loss between connector and spectrum analyser were accounted for in reading.

3.6.1 Results

Measurement results are shown in the following graph.



Frequency (MHz)	Conducted Power (dBm)	Conducted Power (W)	Limit (W)	Margin (W)	Result
920	10.63	0.012	1	0.988	Complied

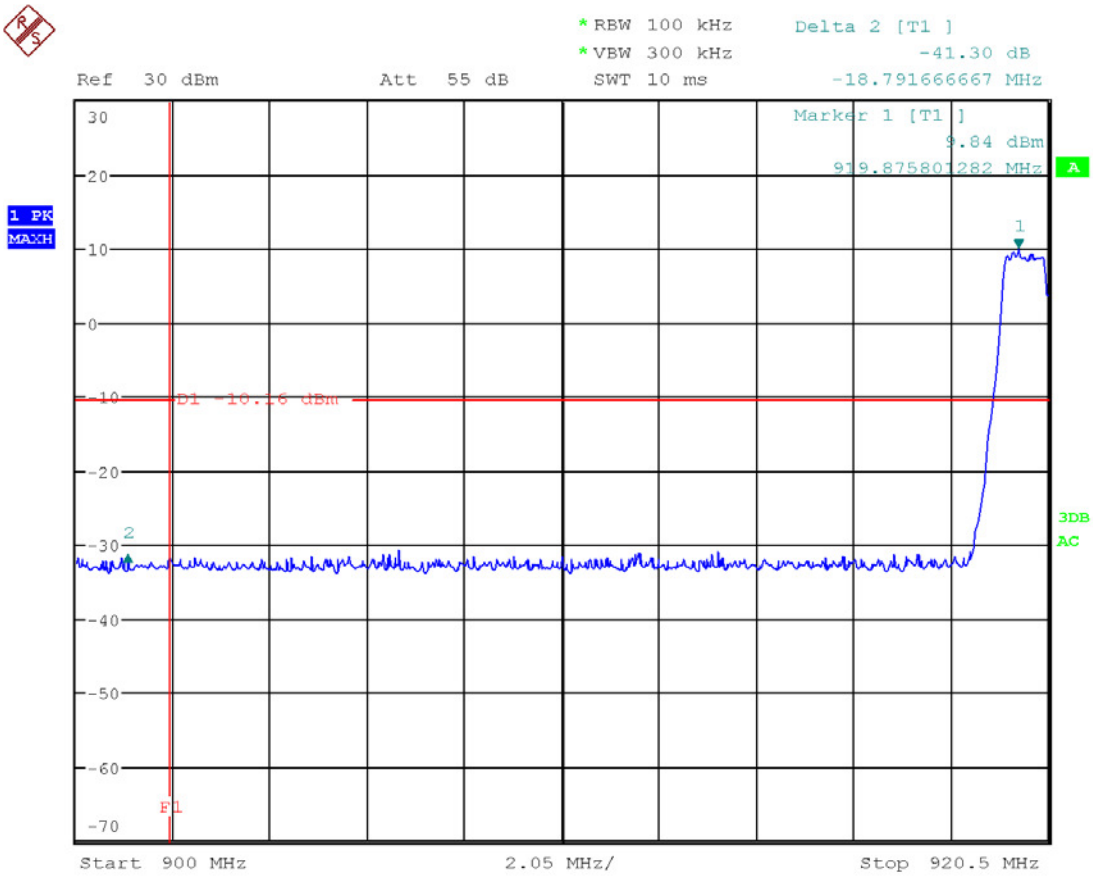
3.7 §15.247(d) Out of Band Emissions

3.7.1 Band-Edge Emission Measurements

Emissions within 2 MHz of an authorised band edge were measured using the marker-delta method. The in-band emission level of section 3.6 was used while applying marker-delta method. Emissions were measured using conducted method.

All emissions above and below the edge of the authorised band were more than 20 dB below the in band intentional emission.

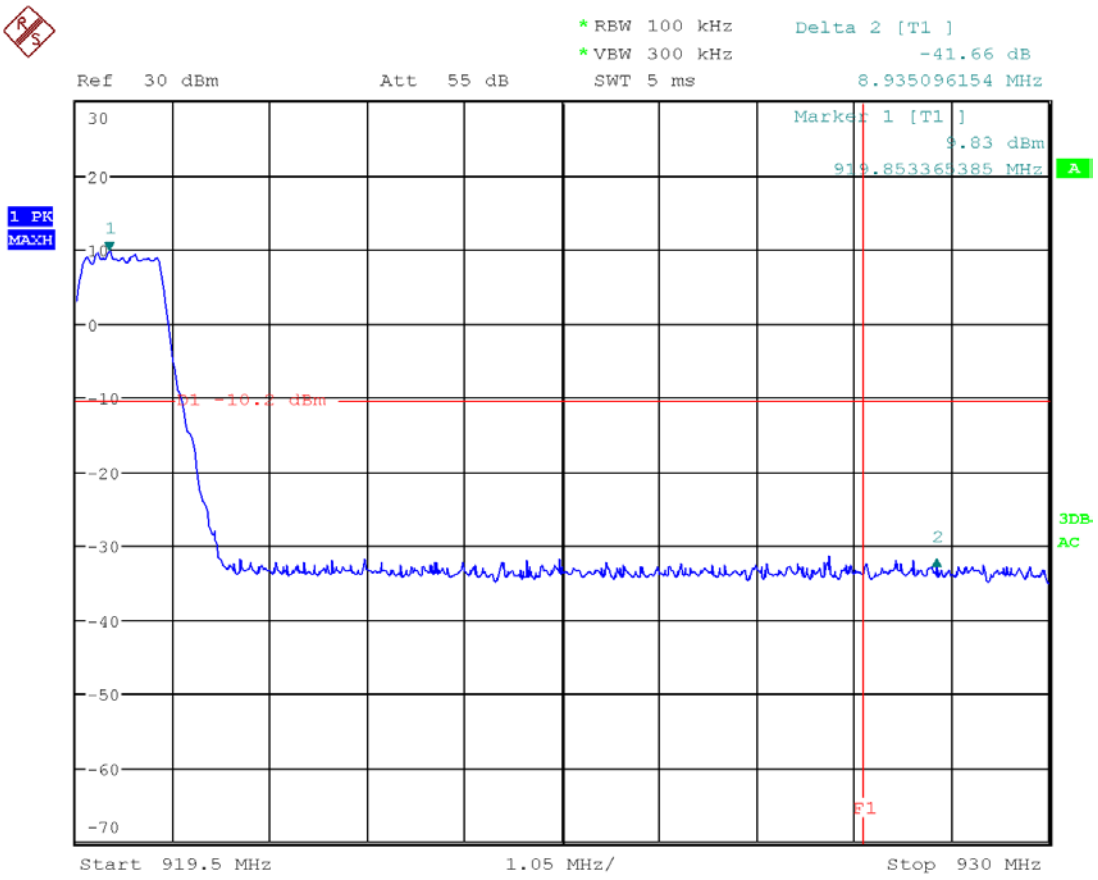
Lower Band Edge:



Vertical marker F1 positioned at lower band edge 902 MHz. Marker 1 shows the peak in band emission and marker 2 shows the peak emission within 2 MHz of the band edge.

In Band Emission (dBm)	Delta (dB)	Band Edge Emission (dBm)	Limit (10.63 – 20) (dBm)	Margin (dB)	Result
10.63	41.30	-30.67	-9.37	-21.3	Pass

Upper Band Edge:



Vertical marker F1 positioned at upper band edge 928 MHz. Marker 1 shows the peak in band emission and marker 2 shows the peak emission within 2 MHz of the band edge.

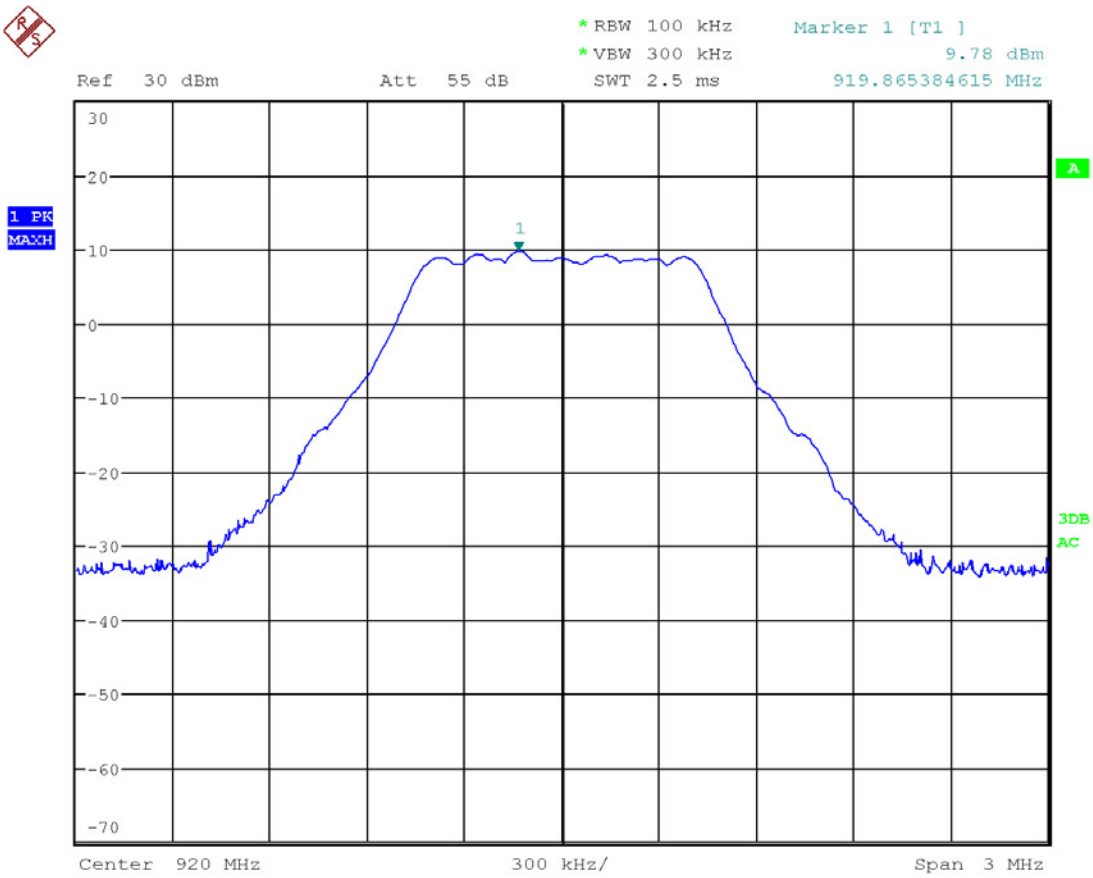
In Band Emission (dBm)	Delta (dB)	Band Edge Emission (dBm)	Limit (10.63 – 20) (dBm)	Margin (dB)	Result
10.63	-41.66	-31.03	-9.37	-21.66	Pass

3.7.2 Conducted Spurious Measurements

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power. Conducted method was used according to clause 11 of KDB 558074 D01.

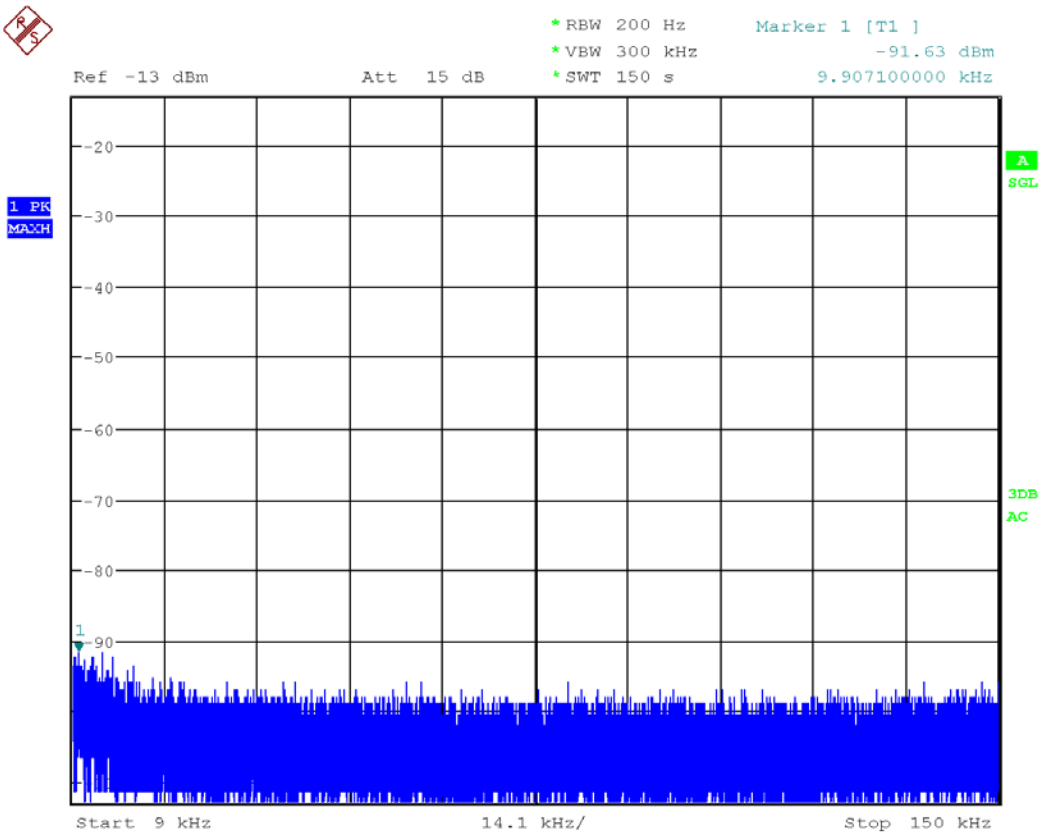
Results

No emissions were detected within 20 dB of the limit.

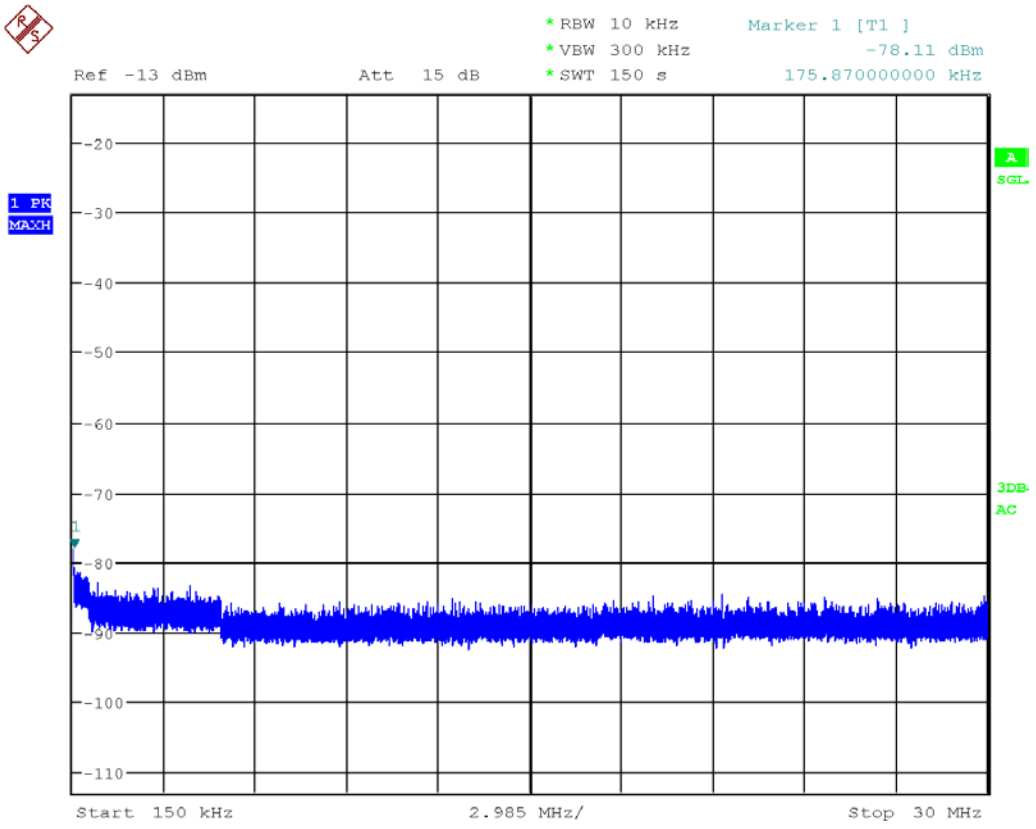


Peak	Frequency (MHz)	SA Reading (dBm)	Limit (dBm)
1	919.87	9.78	-10.22

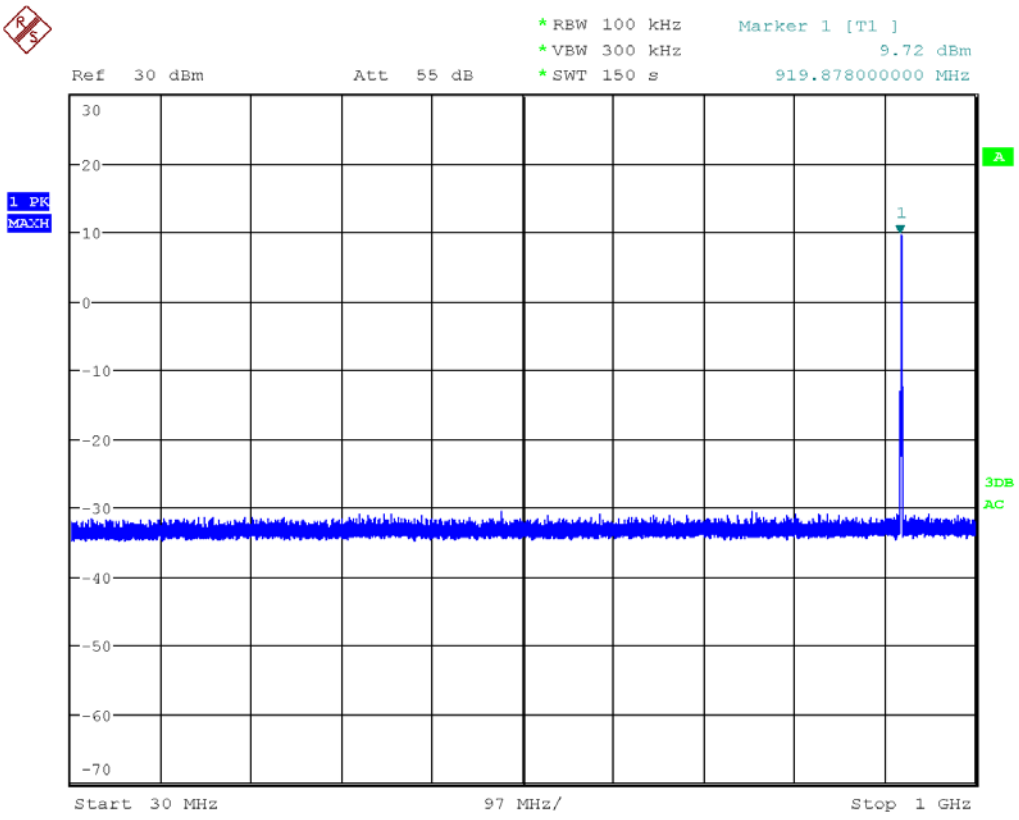
Reference level measurement (in band emission)



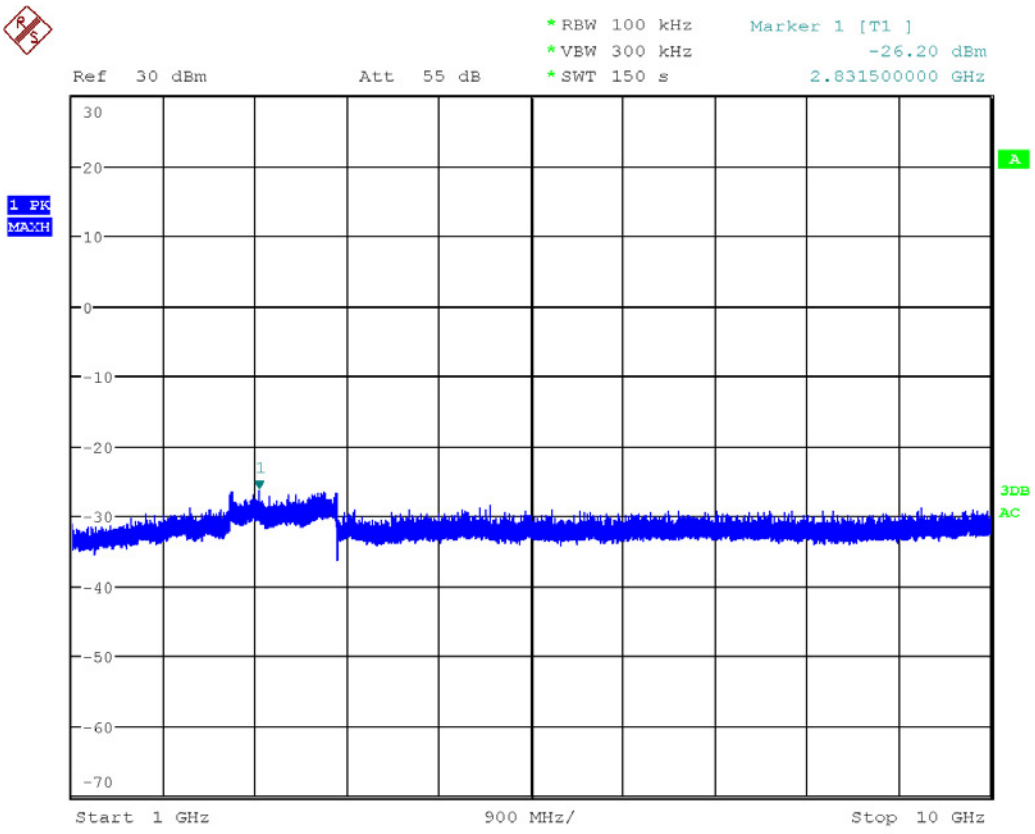
Conducted spurious emissions, 9 kHz-150 kHz



Conducted spurious emissions, 150 kHz-30 MHz



Conducted spurious emissions, 30 MHz-1 GHz



Conducted spurious emissions, 1 GHz-10 GHz

3.7.3 Radiated Spurious Measurements

Radiated EMI tests were performed in a semi-anechoic chamber compliant with ANSI C63.4: 2014.

The test frequency range was sub-divided into smaller bands with sufficient frequency resolution to permit reliable display and identification of possible EMI peaks. Measurements between 9 kHz and 30 MHz were made at 10 metres using a 0.6 metre loop antenna and calibrated Biconilog antenna for measurements between 30 MHz and 1000 MHz. Calibrated EMCO 3115, EMCO 3116 and ETS standard gain horn antennas were used for measurements between 1 to 25 GHz as applicable.

The EUT was slowly rotated with the spectrum analyser was set to Max-Hold. This was performed for two antenna heights. When an emission was located, it was positively identified and its maximum level found by rotating the automated turntable and by varying the antenna height. The procedure was repeated with the device orientated in three orthogonal axis to further maximise the emission.

Each significant peak was investigated with the Peak/Average Detectors. The measurement data for each frequency range was corrected for cable losses, antenna factors and preamplifier gain. This process was performed for both horizontal and vertical antenna polarisations.

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:

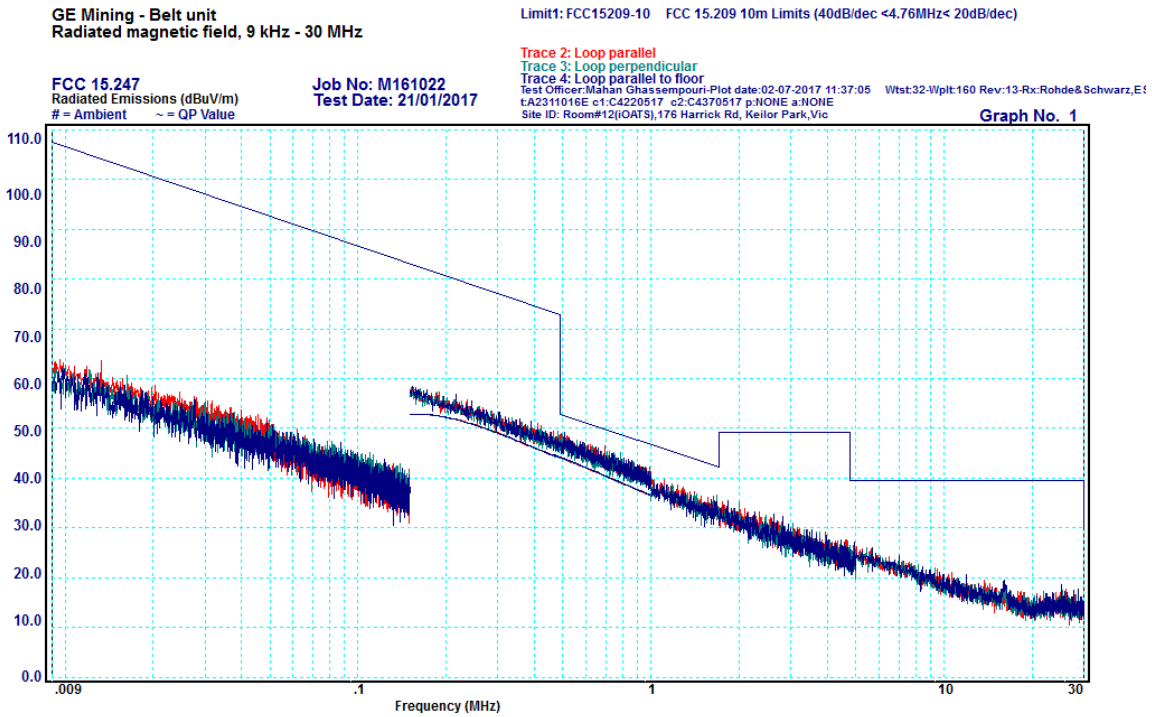
E	=	Radiated Field Strength in dBµV/m.
V	=	EMI Receiver Voltage in dBµV. (measured value)
AF	=	Antenna Factor in dB. (stored as a data array)
G	=	Preamplifier Gain in dB. (stored as a data array)
L	=	Cable loss in dB. (stored as a data array of Insertion Loss versus frequency)

Limit outside restricted bands

Measured conducted power	= 10.63 dBm
Antenna gain	= -1.0 dBi
E.I.R.P.	= 10.63 - 1.0 = 9.63 dBm
	= 94 dBµV/m at 10 metres
	= 105 dBµV/m at 3 metres
Limit	= 74 dBµV/m at 10 metres
	= 85 dBµV/m at 3 metres

Frequency Band: 9 kHz - 30 MHz

Measurements were made at a distance of 10 metres. The measurement of emissions between 9 kHz – 150 kHz were made with a resolution bandwidth (RBW) of 200 Hz and the video bandwidth (VBW) of 3 kHz, 150 kHz – 30 MHz were measured with the resolution bandwidth (RBW) of 9 kHz and the video bandwidth (VBW) of 30 kHz.

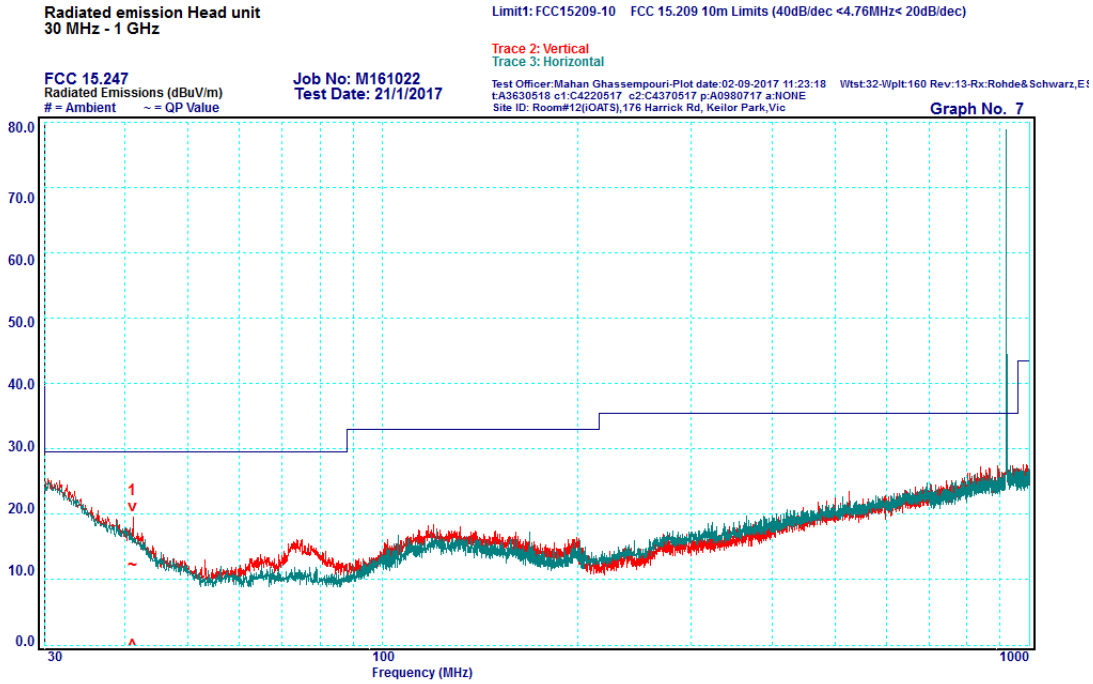


No emissions were detected above the noise floor of the measuring system and therefore complied with the FCC §15.205 and §15.209 average and quasi-peak limits.

Frequency Band: 30 - 1000 MHz

Measurements were made at a distance of 10 metres. The measurement of emissions between 30 - 1000 MHz were made with a resolution bandwidth (RBW) of 120 kHz and the video bandwidth (VBW) of 300 kHz.

No emissions detected above the 15.209 limit.



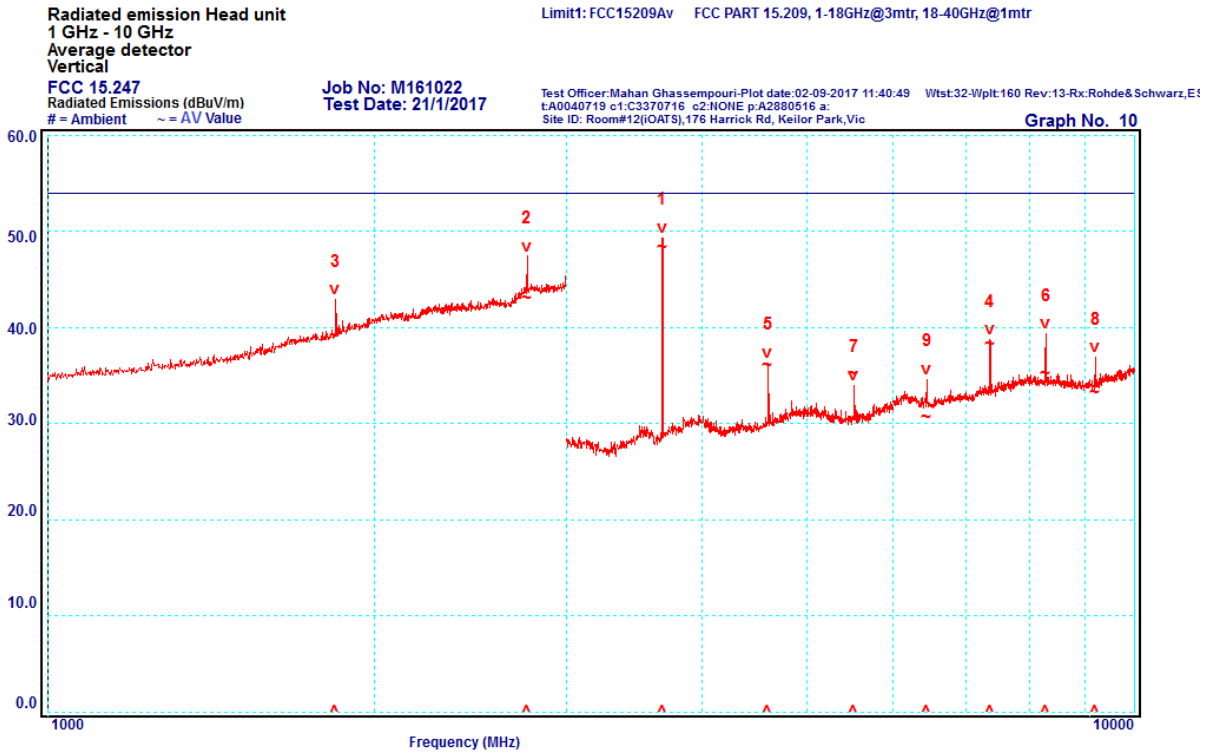
Note: The transmitter frequency and not subject to the 15.209 limit.

Peak	Frequency [MHz]	Polarisation	Measured QP Level [dBµV/m]	QP Limit [dBµV/m]	Margin [±dB]
1	41.10	Vertical	12.3	29.5	-17.2

Frequency Band: 1000 MHz – 10 GHz

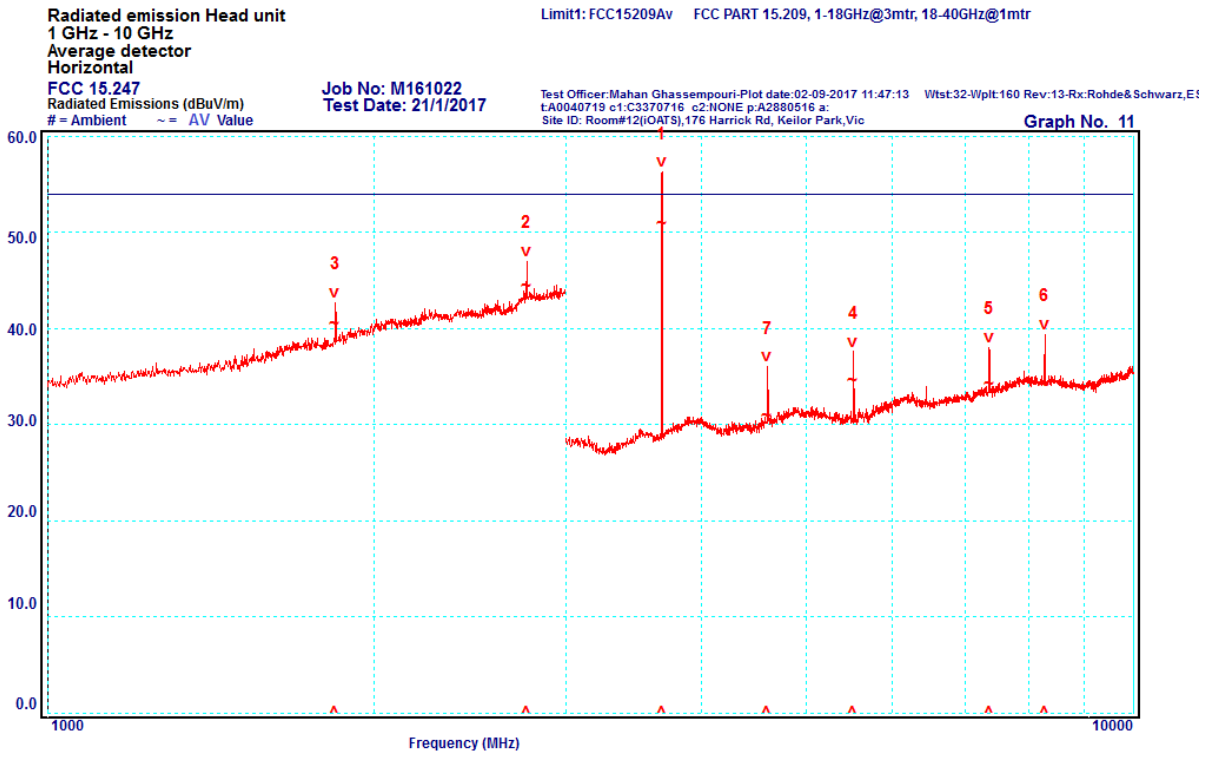
Measurements were made at a distance of 3 metres. The measurement of emissions between 1000 MHz - 10 GHz were made with a resolution bandwidth (RBW) of 1000 kHz and the video bandwidth (VBW) of 1000 kHz for peak and a video bandwidth (VBW) of 10 Hz for average.

Vertical Average Detector Emissions



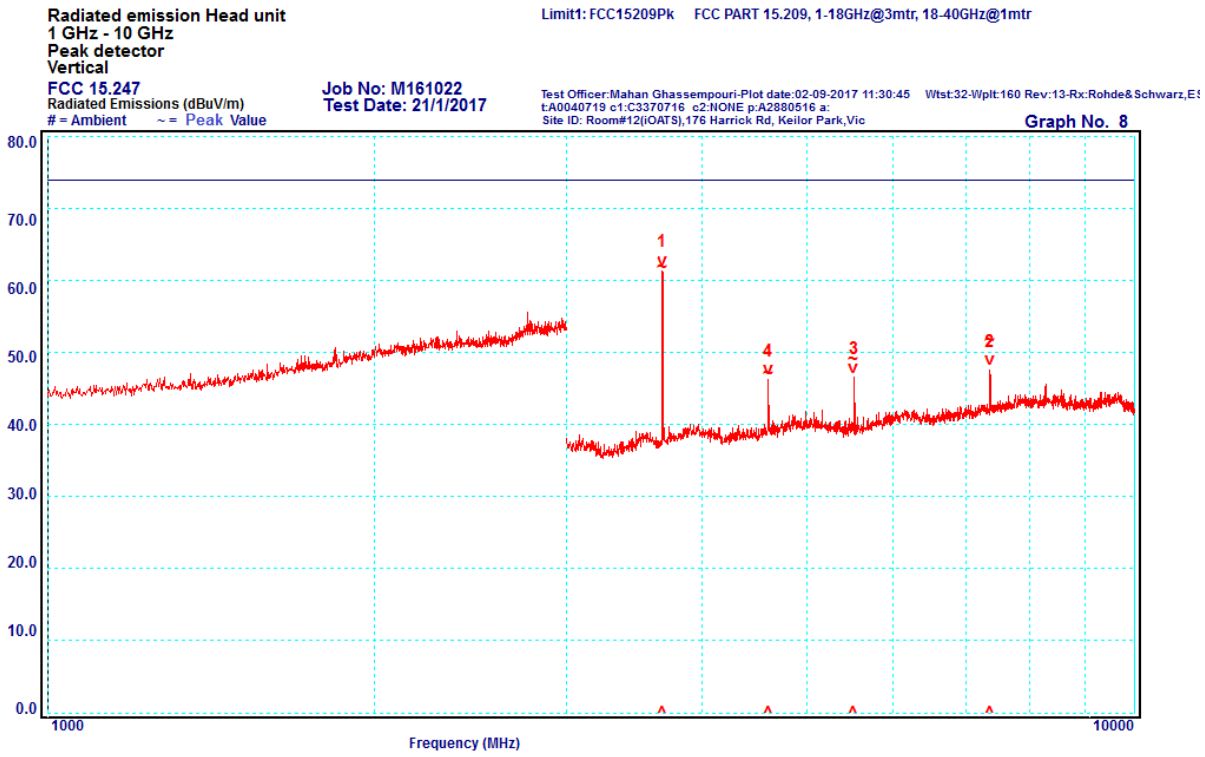
Point	Frequency (MHz)	Antenna Polarisation	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1	3678.69	Vertical	48.4	54	-5.6
2	2759.01	Vertical	43.0	54	-11.0
3	1839.79	Vertical	39.1	54	-14.9
4	7358.88	Vertical	38.3	54	-15.7
5	4599.41	Vertical	36.0	54	-18.0
6	8281.21	Vertical	35.2	54	-18.8
7	5519.04	Vertical	35.2	54	-18.8
8	9198.70	Vertical	33.2	54	-20.8
9	6440.16	Vertical	30.7	54	-23.3

Horizontal Average Detector Emissions



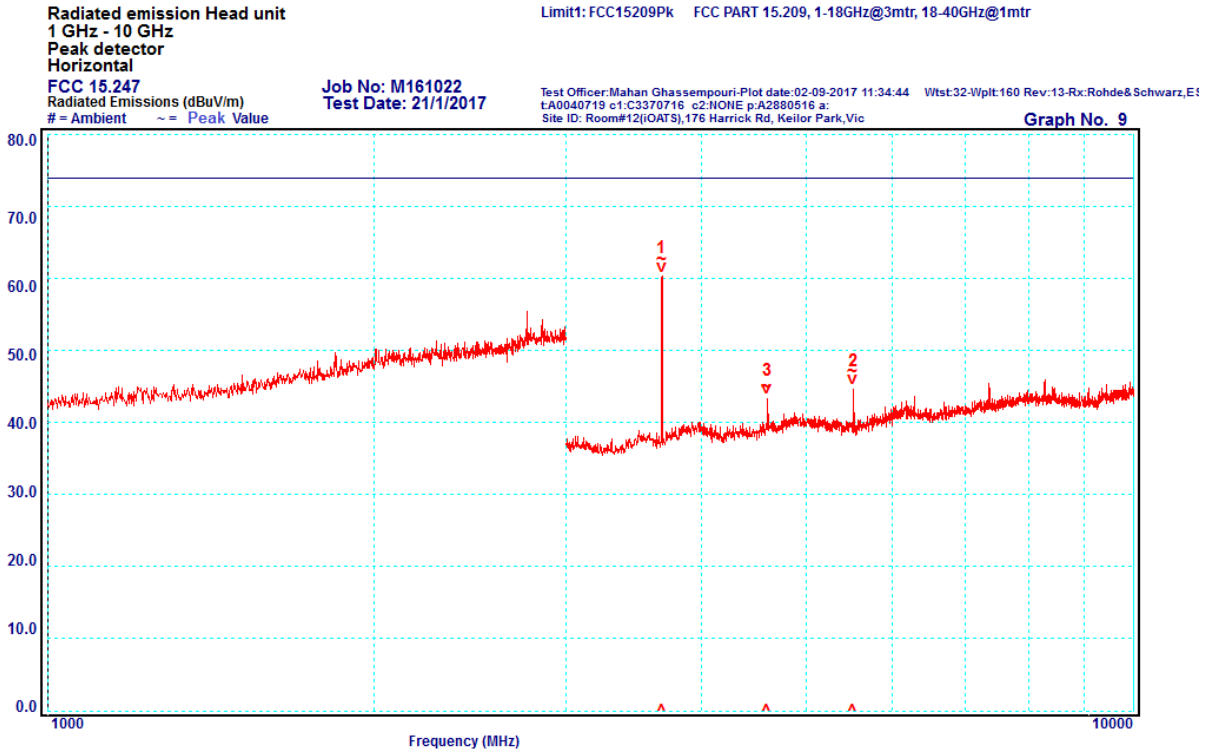
Point	Frequency (MHz)	Antenna Polarisation	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1	3678.78	11	50.9	54	-3.1
2	2759.10	11	44.3	54	-9.7
3	1839.59	11	40.4	54	-13.6
4	5519.26	11	34.6	54	-19.4
5	7360.96	11	34.2	54	-19.8
6	8279.39	11	34.1	54	-19.9
7	4598.10	11	30.9	54	-23.1

Vertical Peak Detector Emissions



Point	Frequency (MHz)	Antenna Polarisation	Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1	3678.36	Vertical	61.8	74	-12.2
2	7356.56	Vertical	51.6	74	-22.4
3	5519.26	Vertical	49.0	74	-25.0
4	4601.45	Vertical	47.0	74	-27.0

Horizontal Peak Detector Emissions



Point	Frequency (MHz)	Antenna Polarisation	Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)
1	3678.39	Horizontal	62.6	74	-11.4
2	5517.45	Horizontal	47.0	74	-27.0
3	4598.28	Horizontal	44.9	74	-29.1

Conclusion

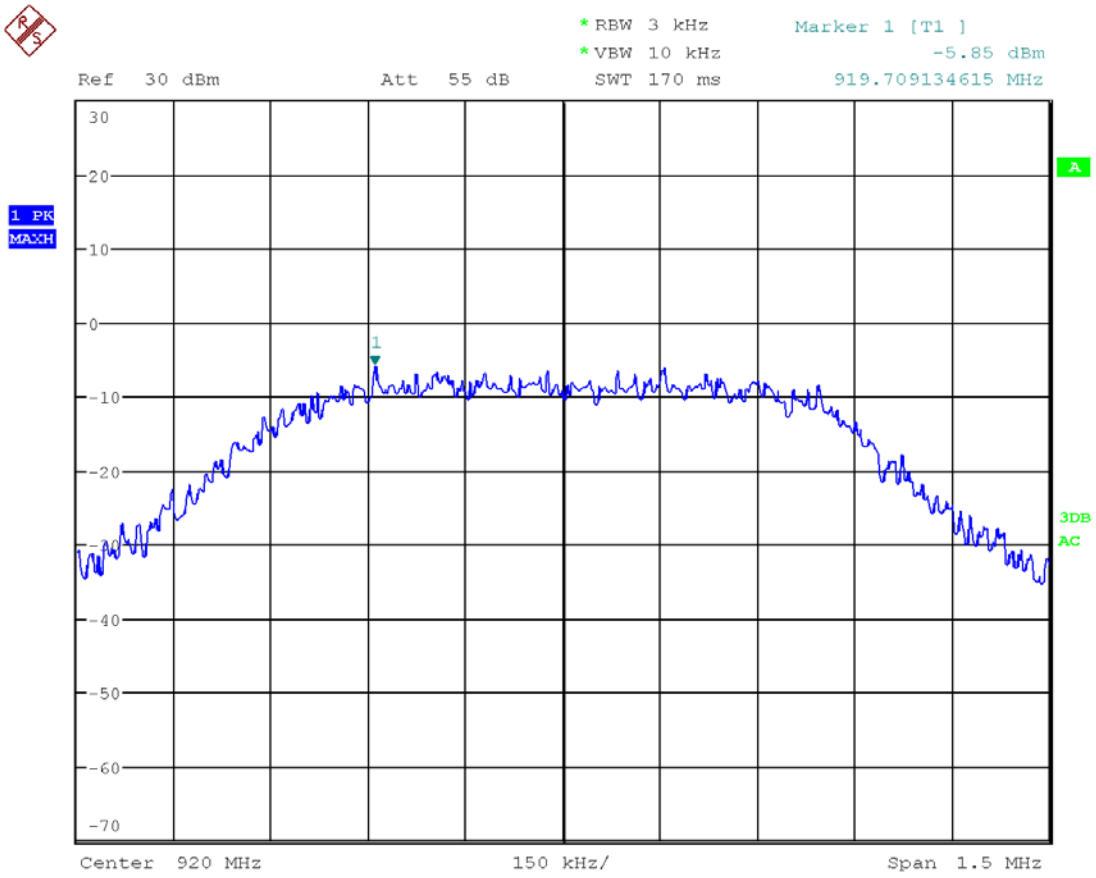
The spurious emissions complied with the general limits of FCC §15.205 and §15.209 by a margin of 3.1 dB.

3.8 §15.247(e) Power Spectral Density

The PKPSD method according to KDB 558074 was used to demonstrate compliance.

3.8.1 Results

Measurement results are shown in the following graphs.



Peak PSD (dBm/3 kHz)	Limit (dBm)	Margin (dB)	Result
-5.8	8	-13.8	Pass

3.9 §15.247(i) Maximum Permissable Exposure

KDB 447498 D01 V06 was used to calculate the minimum separation distance allowed before SAR measurements were required.

1-g Head or body:
[(*max. power of channel, including tune-up tolerance, mW*) / (*min. test separation distance, mm*)] · [$\sqrt{f_{(GHz)}}$] ≤ 3.0

10-g Extremity:
[(*max. power of channel, including tune-up tolerance, mW*) / (*min. test separation distance, mm*)] · [$\sqrt{f_{(GHz)}}$] ≤ 7.5

[12 mW / 5 mm] × [√0.920 GHz] = **2.3**

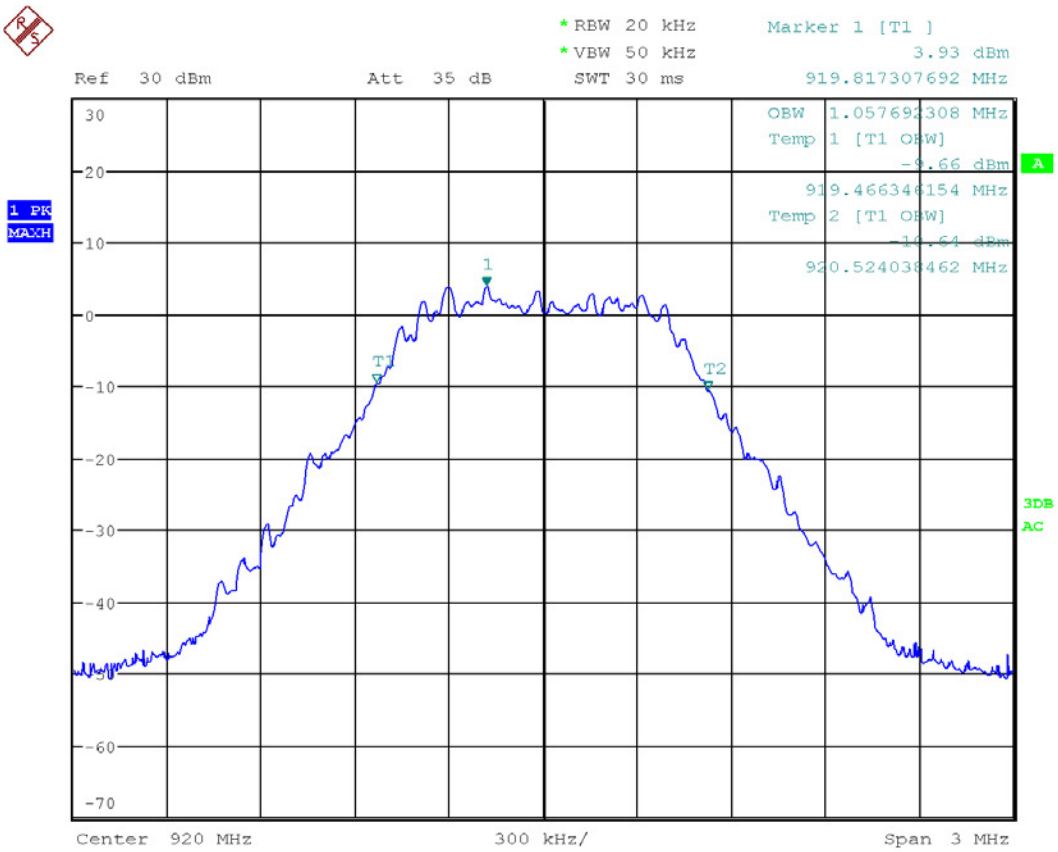
The sample was exempt from SAR testing and therefore complied with the maximum permissible exposure requirements of §1.1307.

Refer to EMC Technologies report M170309-1R1 for more details.

3.10 §2.1049 Occupied bandwidth – 99% power

The bandwidth containing 99% power of the transmitted signal was measured using the procedure from ANSI C63.10 section 6.9.

The 99% power bandwidth was **1.058 MHz**.



4.0 COMPLIANCE STATEMENT

The PROD1061 Personnel Protection Head Unit tested on behalf of GE Mining Australia **complied** with the requirements of 47 CFR, Part 15 Subpart C - Rules for Radio Frequency Devices (intentional radiators).

Results were as follows:

FCC Part 15 Subpart C	Test Performed	Results
15.203	Antenna requirement	**Complied**
15.205	Restricted bands of operation	**Complied**
15.207	Conducted limits	**Complied**
15.209	Radiated emissions limits; general requirements	**Complied**
15.247 (a)	Channel Bandwidth	**Complied**
15.247 (b)	Peak Output Power	**Complied**
15.247 (c)	Antenna Gain > 6 dBi	**Not Applicable.** Antenna gain < 6 dBi
15.247 (d)	Out of Band Emissions	**Complied**
15.247 (e)	Peak Power Spectral Density	**Complied**
15.247 (f)	Hybrid Systems	**Not Applicable.** Did not employ a hybrid system
15.247 (g)	Frequency Hopping System with Transmitter and Receiver	**Not Applicable.** Did not employ frequency hopping
15.247 (h)	Simultaneous occupancy of individual hopping frequencies	**Not Applicable.** Did not employ frequency hopping
15.247 (i)	Radio Frequency Hazard	**Complied, < 20 mW**
2.1049	Occupied Bandwidth	**1.058 MHz**

5.0 MEASUREMENT UNCERTAINTY

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:	9 kHz to 30 MHz	±3.2 dB
Radiated Emissions:	9 kHz to 30 MHz	±4.1 dB
	30 MHz to 300 MHz	±5.1 dB
	300 MHz to 1000 MHz	±4.7 dB
	1 GHz to 18 GHz	±4.6 dB
Peak Output Power:		±1.5 dB
Peak Power Spectral Density:		±1.5 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%.