



Certification Test Report

**FCC ID: ONTJETIDS24US
IC: 10491A-JETIDS24US**

**FCC Rule Part: 15.247
ISED Canada's Radio Standards Specification: RSS-247**

Report Number: BO72131445.200

Applicant: Esprit Model, Inc.

Model(s): JETIDS24US

**Test Begin Date: October 3, 2017
Test End Date: January 3, 2018**

Report Issue Date: January 22, 2018



FOR THE SCOPE OF ACCREDITATION UNDER CERTIFICATE NUMBER AT-1533

This report must not be used by the client to claim product certification, approval, or endorsement by ANAB, ANSI, or any agency of the Federal Government.

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This report contains 30 pages

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1 GENERAL

1.1 Purpose

The purpose of this report is to demonstrate compliance with Part 15 Subpart C of the FCC's Code of Federal Regulations Section 15.247 and Innovation Science and Economic Development Canada's Radio Standards Specification RSS-247 for the tests documented herein.

1.2 Applicant Information

Esprit Model, Inc.
1240 Clearmont st. NW
Palm Bay, FL 32905

1.3 Product Description

The Esprit Model JETIDS24US is a remote control. The device includes a 900 MHz transceiver and two 2.4 GHz transceivers which are identified as primary and secondary, respectively. The radios are not capable of transmitting simultaneously. Each of the 2.4 GHz transceivers provides two antennas ports. Transmission occurs from one antenna at the time based on signal strength.. The test report documents the compliance of the 900 MHz transceiver.

Technical Details

Mode of Operation:	IEEE 802.15.4
Frequency Range:	905.663 MHz - 923.9654 MHz
Number of Channels:	16
Channel Separation:	1.2 MHz
Modulations:	O-QPSK
Antenna Type/Gain:	whip antenna, 2 dBi
Input Power:	12 VDC

Model Number: JETIDS24US

Test Sample Serial Number(s): SAMPLE20, SAMPLE19

Test Sample Condition: The EUT was in good operating condition without any physical damage.

1.4 Test Methodology and Considerations

The EUT was evaluated for radiated and RF conducted emissions. The EUT is software configured to turn off within five seconds of being connected to the AC Mains. The power line conducted emissions evaluation was performed with the EUT charging while being off.

For the radiated emissions evaluation, preliminary evaluation were performed for the EUT in three orthogonal orientations. The highest emissions were obtained with the EUT set vertically on the tabletop.

For the RF conducted measurements, a temporary RF connector was used at the antenna port to facilitate direct coupling to a spectrum analyzer.

The EUT was evaluated for the 2.4 GHz radios and for unintentional emissions. Ferrites were used for compliance to the unintentional emissions evaluation. The results and modifications on the EUT are documented in separate test reports.

Test Software power Settings: Channels 11 to 26: Attenuation 7

2 TEST FACILITIES

2.1 Location

The radiated and conducted emissions test sites are located at the following address:

TÜV SÜD America, Inc.
3998 FAU Blvd, Suite 310
Boca Raton, Florida 33431
Phone: (561) 961-5585
Fax: (561) 961-5587
<http://www.tuv-sud-america.com>

2.2 Laboratory Accreditations/Recognitions/Certifications

TÜV SÜD America, Inc. is accredited to ISO/IEC 17025 by ANSI-ASQ National Accreditation Board under their ANAB program and has been issued certificate number AT-1533 in recognition of this accreditation. Unless otherwise specified, all test methods described within this report are covered under the ISO/IEC 17025 scope of accreditation.

FCC Test Firm Registration #: 475089
Innovation, Science and Economic Development Canada Lab Code: 4175C

2.3 Radiated & Conducted Emissions Test Site Description

2.3.1 Semi-Anechoic Chamber Test Site

The EMC radiated test facility consists of an RF-shielded enclosure. The interior dimensions of the indoor semi-anechoic chamber are approximately 48 feet (14.6 m) long by 36 feet (10.8 m) wide by 24 feet (7.3 m) high and consist of rigid, 1/8 inch (0.32 cm) steel-clad, wood core modular panels with steel framing. In the shielded enclosure, the faces of the panels are galvanized and the chamber is self-supporting. 8-foot RF absorbing cones are installed on 4 walls and the ceiling. The steel-clad ground plane is covered with vinyl flooring.

The turntable is driven by pneumatic motor, which can support a 2000 lb. load. The turntable is flush with the chamber floor which it is connected to, around its circumference, with a continuous metallic loaded spring. An EMCO Model 1060 Multi-device controller controls the turntable position.

A pneumatic motor is used to control antenna polarizations and height relative to the ground. The height information is displayed on the control unit EMCO Model 1050.

The control room is an RF shielded enclosure attached to the semi-anechoic chamber with two bulkhead panels for connecting RF, and control cables. The dimension of the room is 7.3 m x 4.9 m x 3 m high and the entrance doors of both control and conducted rooms are 3 feet (0.91 m) by 7 feet (2.13 m).

A diagram of the Semi-Anechoic Chamber Test Site is shown in Figure 2.3.1-1 below:

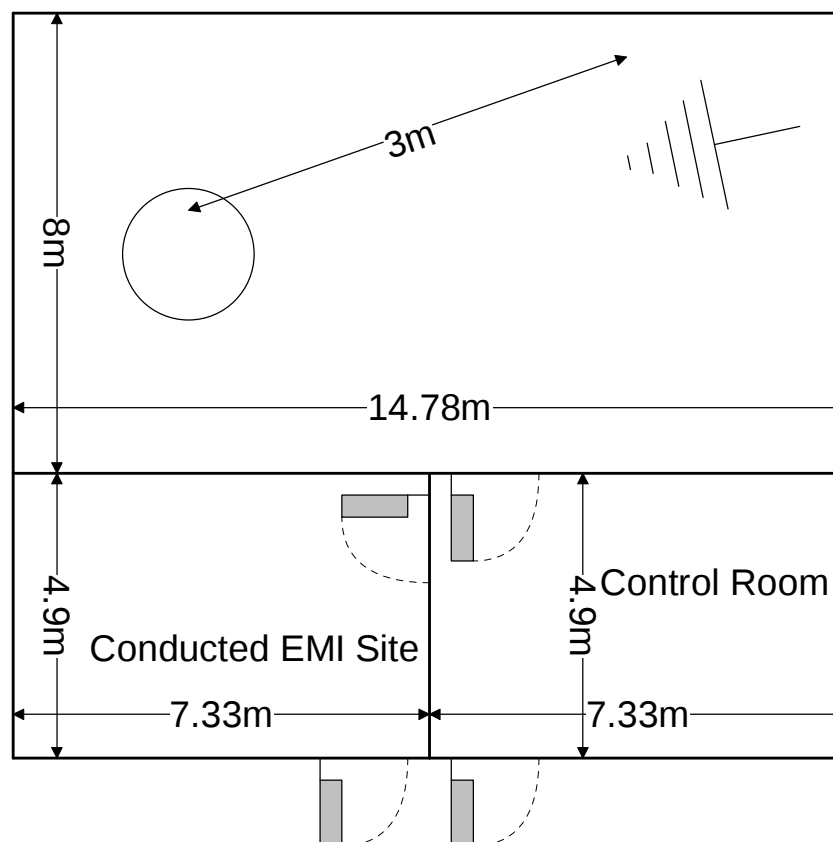


Figure 2.3.1-1: Semi-Anechoic Chamber Test Site

2.3.2 Conducted Emissions Test Site Description

The dimensions of the shielded conducted room are 7.3 x 4.9 x 3 m³. The power line conducted emission site includes two LISNs: a Solar Model 8028-50 50 Ω /50 μ H and a Rohde and Schwarz Model ESH3-Z5, which are installed as shown in the figure below. For evaluations requiring 230 V, 50 Hz AC input, a Polarad LISN (S/N 879341/048) is used in conjunction with a California Instruments signal generator Model 2001RP-OP1.

A diagram of the room is shown below in figure 2.3.2-1:

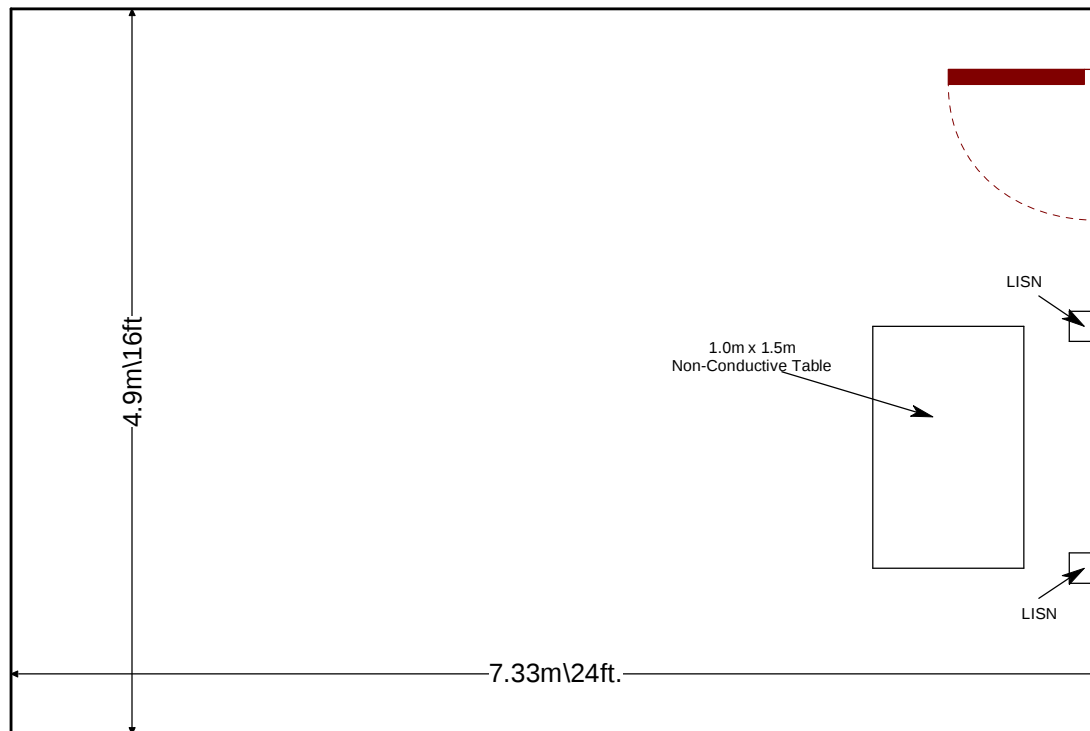


Figure 2.3.2-1: AC Mains Conducted EMI Site

3 APPLICABLE STANDARD REFERENCES

The following standards were used:

- ❖ ANSI C63.10-2013: American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
- ❖ US Code of Federal Regulations (CFR): Title 47, Part 2, Subpart J: Equipment Authorization Procedures, 2017.
- ❖ US Code of Federal Regulations (CFR): Title 47, Part 15, Subpart C: Radio Frequency Devices, Intentional Radiators, 2017
- ❖ FCC KDB 558074 D01 DTS Meas Guidance v04 - Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under 15.247, April 5, 2017.
- ❖ Innovation, Science and Economic Development Canada Radio Standards Specification: RSS-247 — Digital Transmission Systems (DTSS), Frequency Hopping Systems (FHSS) and Licence-Exempt Local Area Network (LE-LAN) Devices, Issue 2, February 2017.
- ❖ Innovation, Science and Economic Development Canada Radio Standards Specification: RSS-GEN – General Requirements for Compliance of Radio Apparatus, Issue 4, November 2014.

4 LIST OF TEST EQUIPMENT

The calibration interval of test equipment is annually or the manufacturer's recommendations. Where the calibration interval deviates from the annual cycle based on the instrument manufacturer's recommendations, it shall be stated below.

Table 4-1: Test Equipment List

AssetID	Manufacturer	Model #	Equipment Type	Serial #	Last Calibration Date	Calibration Due Date
BEMC00078	EMCO	6502	Antennas	9104-2608	5/11/2016	5/11/2018
BEMC00283	Rohde & Schwarz	FSP40	Spectrum Analyzers	1000033	7/21/2016	7/21/2018
BEMC00523	Agilent	E7405	Spectrum Analyzers	MY45103293	12/9/2016	12/9/2018
BEMC02003	EMCO	3108	Antennas	2148	2/29/2016	2/28/2018
BEMC02005	FAU EMI R&D Lab	Lazarus	Antennas	EM001	2/16/2016	2/16/2018
BEMC02006	EMCO	3115	Antennas	2573	4/7/2017	4/7/2019
BEMC02011	Hewlett-Packard	HP 8447D	Amplifiers	2443A03952	10/27/2017	10/27/2018
BEMC02045	ACS Boca	Conducted Cable Set	Cable Set	2045	10/26/2017	10/26/2018
BEMC02069	Trilithic, Inc.	7NM867/122-X1-AA	Notch Filter	200315126	3/28/2017	2/28/2018
BEMC02071	Trilithic, Inc.	4HC1400-1-KK	Filter	9643263	10/28/2017	10/28/2018
BEMC02086	Merrimac	FAN-6-10K	Attenuators	23148-83-1	10/27/2027	10/27/2018
BEMC02089	Agilent Technologies, Inc.	83017A	Amplifiers	3123A00214	12/2/2016	12/2/2017
BEMC02095	ETS Lindgren	TILE4! - Version 4.2.A	Software	85242	NCR	NCR
BEMC02111	Aeroflex Inmet	40AH2W-20	Attenuator	2111	7/20/2017	7/20/2018
BEMC02121	ACS Boca	Radiated Cable Set	Cable Set	2121	7/31/2017	7/31/2018
BEMC02138	Hewlett-Packard	8449B	Pre-Amplifier	3008A00320	12/1/2017	12/1/2018
BEMC03004	Teseq	CFL 9206A	Attenuators	34720	8/29/2017	8/29/2018
NBLE03366	Agilent	E4440A	Spectrum Analyzer	MY42510427	10/24/2017	10/24/2018
TEMC00153	Rohde and Schwarz	ESH3-Z5	LISN	894785/012	9/27/2017	9/27/2018

Notes:

- NCR=No Calibration Required
- The assets were only used during the active period of the calibration cycle.

5 SUPPORT EQUIPMENT**Table 5-1: EUT and Support Equipment (Radiated Emissions)**

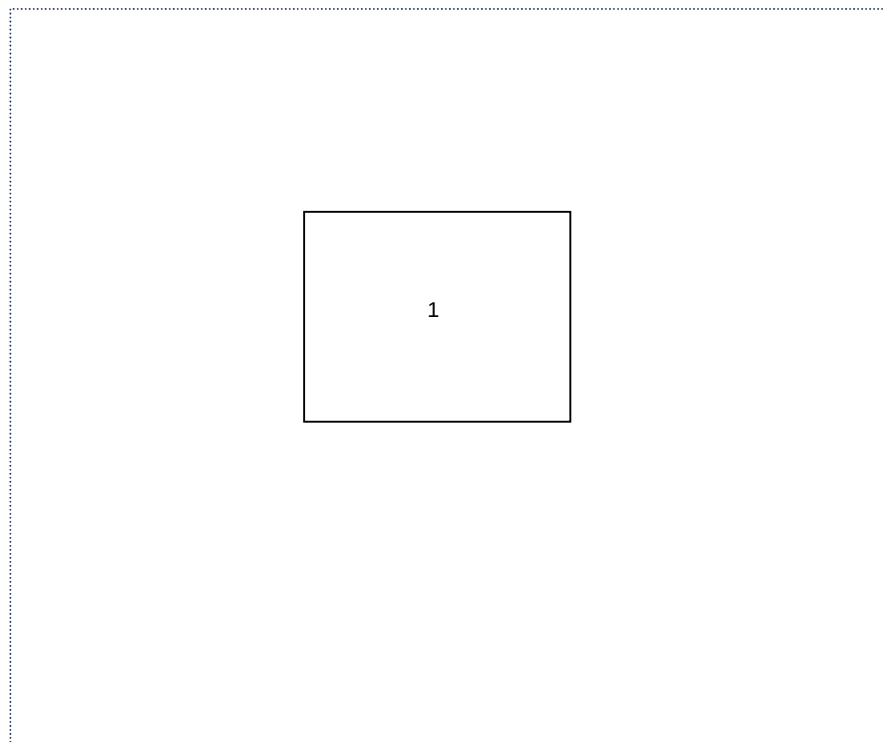
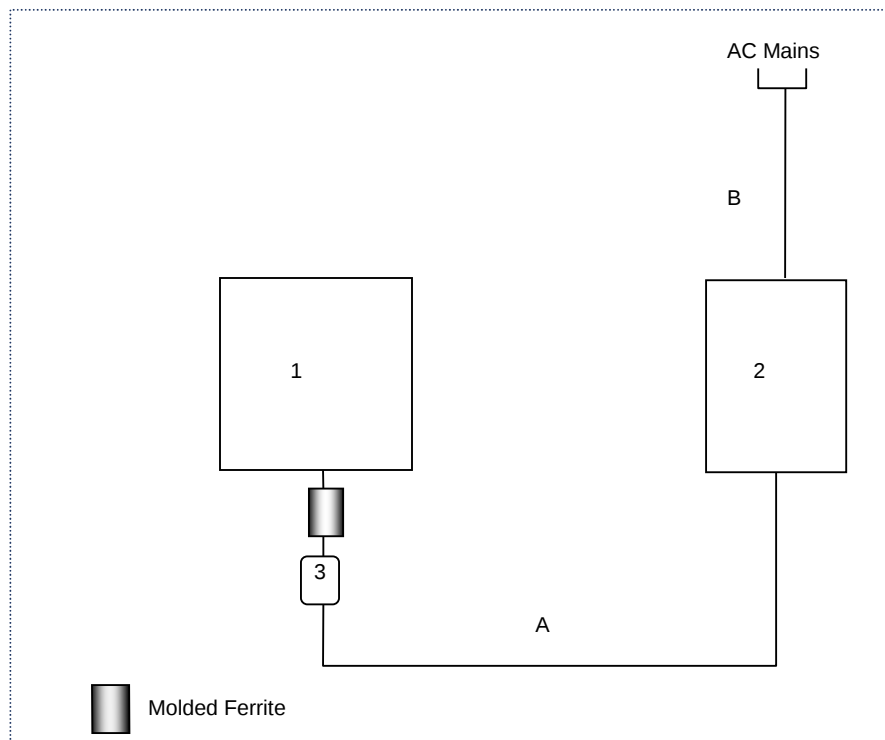
Item #	Type Device	Manufacturer	Model/Part #	Serial #
1	EUT	Esprit Model	JETIDS24US	SAMPLE20

Table 5-2: EUT and Support Equipment (Power Line Conducted Emissions)

Item #	Type Device	Manufacturer	Model/Part #	Serial #
1	EUT	Esprit Model	JETIDS24US	SAMPLE19
2	EUT Switching AC Adapter	SUNNY Computer Technology Europe s.r.o.	SYS1531-2412-W2	G160404103657
3	Ferrite	Laird	28A0807-0A2	N/A

Table 5-3: Cable Description (Power Line Conducted Emissions)

Cable #	Cable Type	Length	Shield	Termination
A	Power	1.40 m	No	EUT to AC Adapter
B	Extension Power Cord	1.82 m	No	EUT AC Adapter to AC Mains

6 EQUIPMENT UNDER TEST SETUP BLOCK DIAGRAM**Figure 6-1: EUT and Support Equipment Block Diagram – Radiated Emissions****Figure 6-2: EUT and Support Equipment Block Diagram – Power Line Conducted Emissions**

7 SUMMARY OF TESTS

Along with the tabular data shown below, plots were taken of all signals deemed important enough to document.

7.1 Antenna Requirement – FCC: Section 15.203

The EUT uses a 2.0 dBi whip antennas for the 900 MHz radio which is connected to PCB via a u. FL. connector. The connector is considered unique and therefore meets the requirements of FCC Section 15.203.

7.2 6 dB Bandwidth - FCC: Section 15.247(a)(2); ISED Canada: RSS-247 5.2(a); 99% Bandwidth ISED Canada: RSS-GEN 6.6

7.2.1 Measurement Procedure

The 6dB bandwidth was measured in accordance with the FCC KDB 558074 D01 DTS Meas Guidance v04 Section 8.1 Option 2. The RBW of the spectrum analyzer was set to 100 kHz and VBW 300 kHz. Span was set large enough to capture the emissions and >> RBW. A peak detector was used for the measurements.

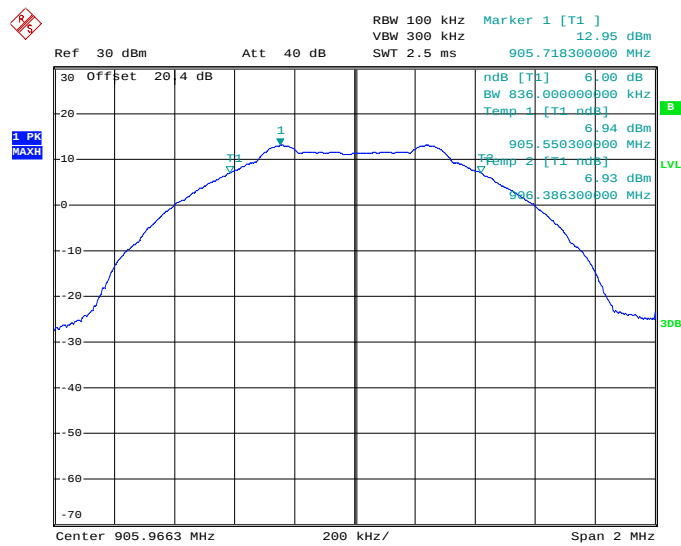
The 99% occupied bandwidth was measured with the spectrum analyzer span set to fully display the emission. The RBW was set to 1% to 5% of the approximated bandwidth. The occupied 99% bandwidth was measured by using 99% bandwidth equipment function of the spectrum analyzer using a peak detector.

7.2.2 Measurement Results

Performed by: Thierry Jean-Charles

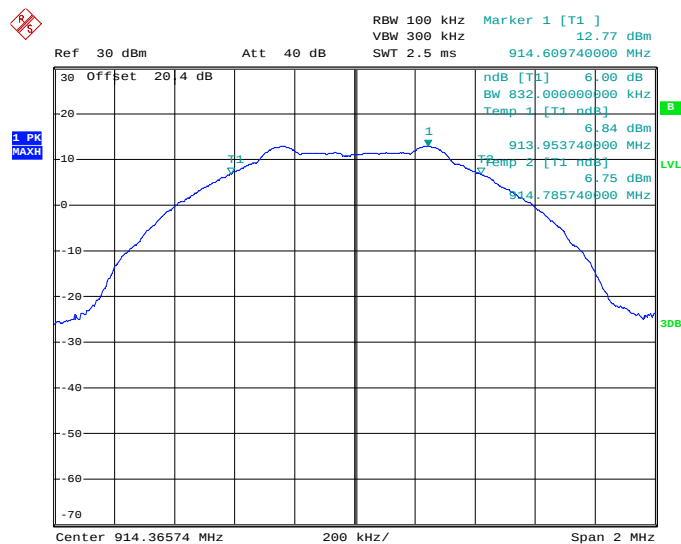
Table 7.2.2-1: 6dB / 99% Bandwidth

Frequency (MHz)	6dB Bandwidth (kHz)	99% Bandwidth (kHz)
905.9663	836	1220
914.36574	832	1220
923.9654	836	1220



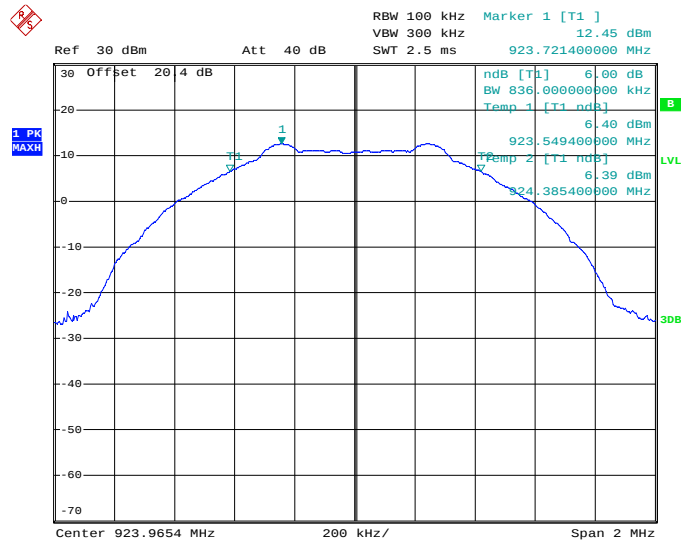
Date: 28.DEC.2017 13:31:11

Figure 7.2.2-1: 6dB BW - Low Channel



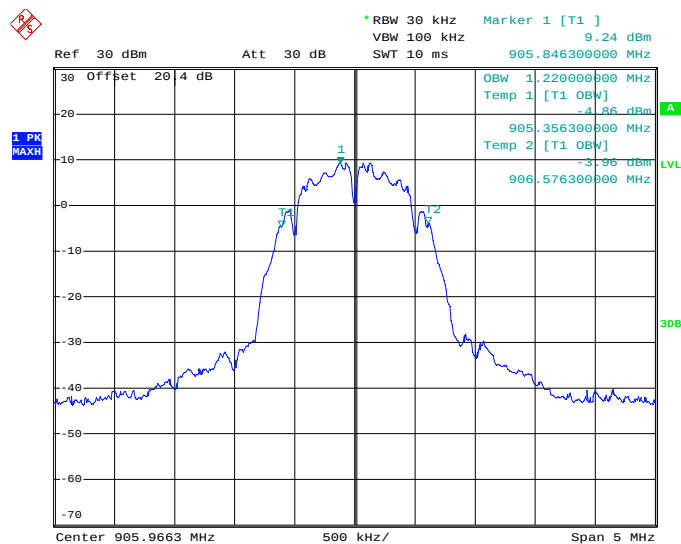
Date: 28.DEC.2017 13:37:16

Figure 7.2.2-2: 6dB BW - Middle Channel



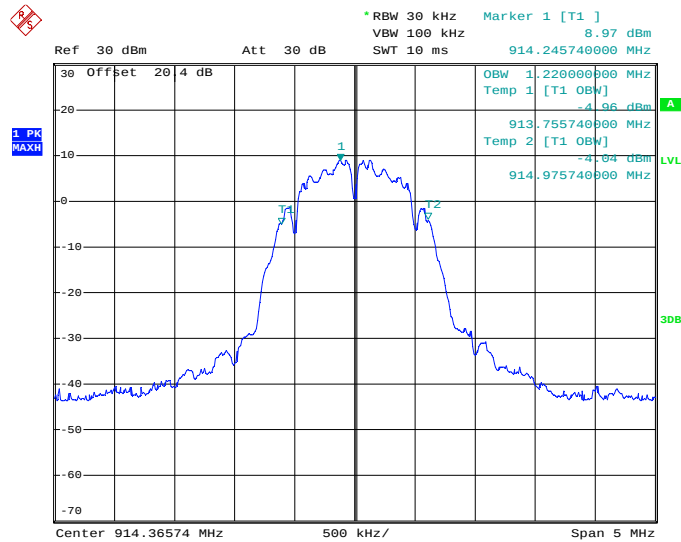
Date: 28.DEC.2017 13:46:19

Figure 7.2.2-3: 6dB BW - High Channel



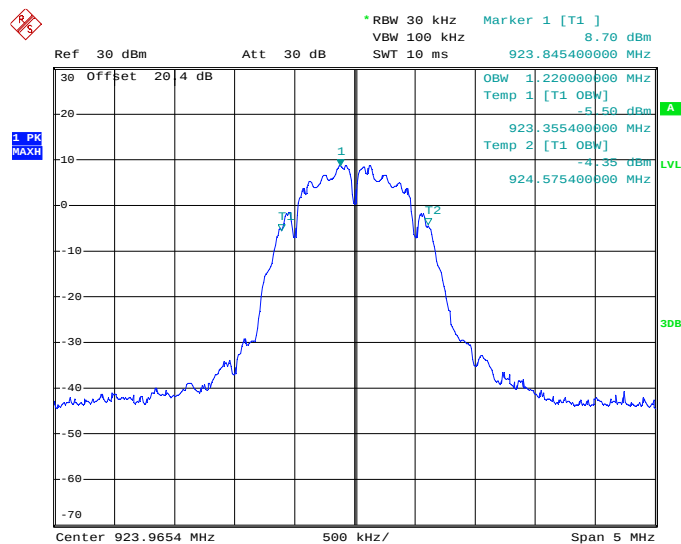
Date: 28.DEC.2017 13:28:03

Figure 7.2.2-4: 99% OBW - Low Channel



Date: 28.DEC.2017 13:42:22

Figure 7.2.2-5: 99% OBW - Middle Channel



Date: 28.DEC.2017 13:44:30

Figure 7.2.2-6: 99% OBW - High Channel

7.3 Peak Output Power – FCC: Section 15.247(b)(3); ISED Canada: RSS-247 5.4(d)

7.3.1 Measurement Procedure (Conducted Method)

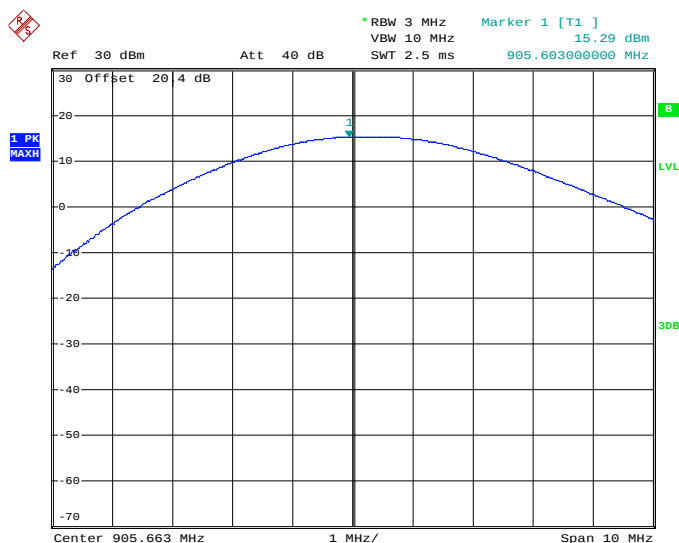
The fundamental emission output power was measured in accordance with the FCC KDB 558074 D01 DTS Meas Guidance v04 Section 9.1.1 RBW $\geq$ DTS bandwidth. The RF output of the equipment under test was directly connected to the input of the spectrum analyzer through suitable attenuation.

7.3.2 Measurement Results

Performed by: Thierry Jean-Charles

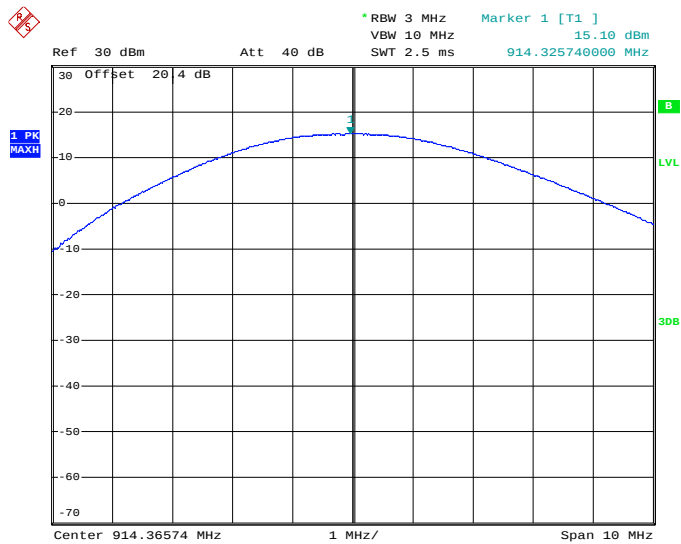
Table 7.3.2-1: RF Output Power

Frequency (MHz)	Level (dBm)
905.9663	15.29
914.36574	15.10
923.9654	14.77



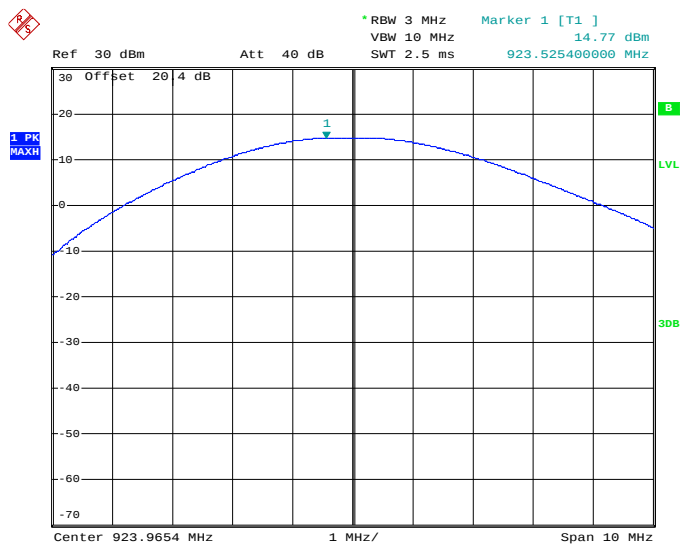
Date: 28.DEC.2017 14:01:01

Figure 7.3.2-1: RF Output Power - Low Channel



Date: 28.DEC.2017 14:57:15

Figure 7.3.2-2: RF Output Power - Middle Channel



Date: 28.DEC.2017 13:50:34

Figure 7.3.2-3: RF Output Power - High Channel

Figure 7.4.1.2-2: Upper Band-edge

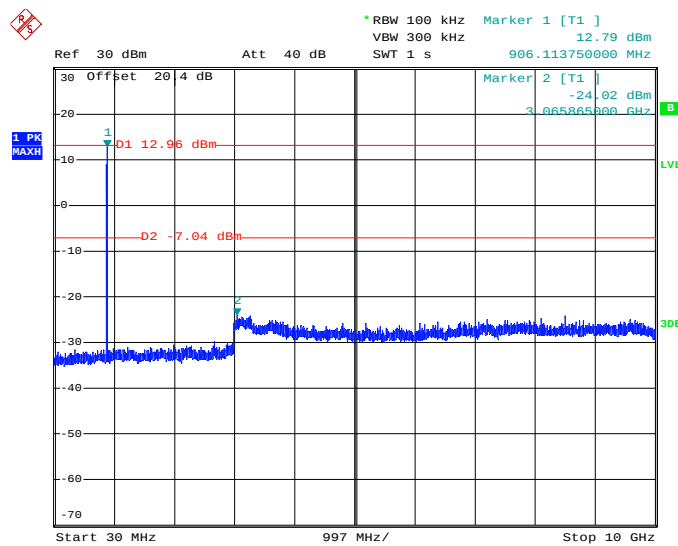
7.4.2 RF Conducted Spurious Emissions – FCC: Section 15.247(d); ISCED Canada: RSS-247 5.5

7.4.2.1 Measurement Procedure

The RF Conducted Spurious Emissions were measured in accordance with the FCC KDB 558074 D01 DTS Meas Guidance v04 Section 11.3 Emission level measurement. The RF output port of the equipment under test was directly connected to the input of the spectrum analyzer. The EUT was investigated for conducted spurious emissions from 30 MHz to 10 GHz, 10 times the highest fundamental frequency. Measurements were made at the low, center and high channels of the EUT. For each measurement, the spectrum analyzer's RBW was set to 100 kHz and the VBW was set to 300 kHz. The peak Max Hold function of the analyzer was utilized. The reference level was determined by measuring the Peak PSD level in any 100-kHz bandwidth within the DTS channel bandwidth.

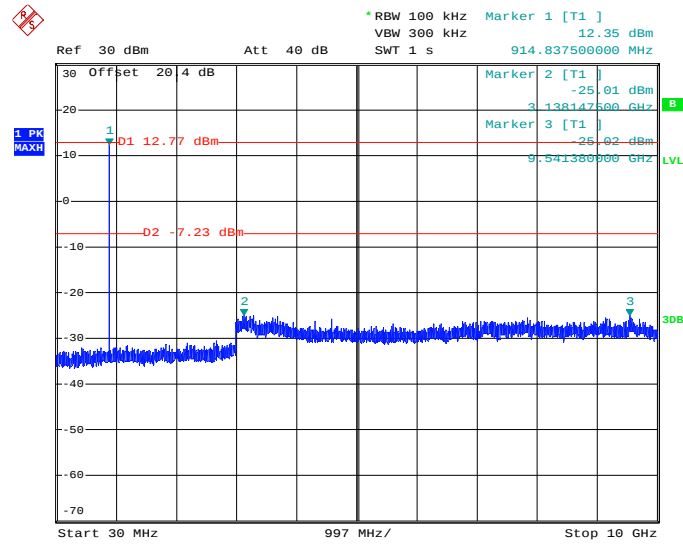
7.4.2.2 Measurement Results

Performed by: Thierry Jean-Charles



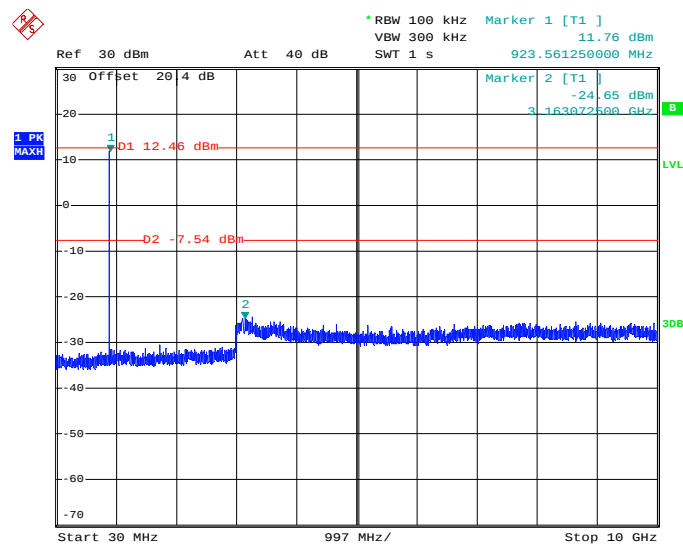
Date: 28.DEC.2017 15:22:31

Figure 7.4.2.2-1: 30 MHz – 10 GHz – Low Channel



Date: 28.DEC.2017 15:02:19

Figure 7.4.2.2-2: 30 MHz – 10 GHz – Middle Channel



Date: 28.DEC.2017 15:06:51

Figure 7.4.2.2-3: 30 MHz – 10 GHz – High Channel

7.4.3 Radiated Spurious Emissions into Restricted Frequency Bands – FCC: Sections 15.205, 15.209; ISD Canada: RSS-Gen 8.9, 8.10

7.4.3.1 Measurement Procedure

Radiated emissions tests were made over the frequency range of 9 kHz to 10 GHz, 10 times the highest fundamental frequency. Each emission found to be in a restricted band as defined by section 15.205, including any emission at the operational band-edge, was compared to the radiated emission limits as defined in Section 15.209.

For measurements below 30 MHz, the receive antenna height was set to 1m and the EUT was rotated through 360 degrees. The resolution bandwidth was set to 200 Hz below 150 kHz and to 9 kHz above 150 kHz.

The EUT was rotated through 360° and the receive antenna height was varied from 1m to 4m so that the maximum radiated emissions level would be detected. For frequencies below 1000 MHz, quasi-peak measurements were made using a resolution bandwidth RBW of 120 kHz and a video bandwidth VBW of 300 kHz. For frequencies above 1000 MHz, peak measurements are made with RBW of 1 MHz and VBW of 3 MHz. Average measurements are performed in the linear scale using VBW of 30 Hz.

7.4.3.2 Measurement Results

Performed by: Jean Rene

Radiated band-edge and spurious emissions found in the restricted frequency bands of 9 kHz to 10 GHz are reported in the tables below.

Table 7.4.3.2-1: Radiated Spurious Emissions Tabulated Data

Frequency (MHz)	Level (dBuV)		Antenna Polarity (H/V)	Correction Factors (dB)	Corrected Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
	pk	Qpk/Avg			pk	Qpk/Avg	pk	Qpk/Avg	pk	Qpk/Avg
Low Channel = 905.98 MHz										
2717.94	55.01	44.89	H	-3.06	51.95	41.83	74.0	54.0	22.0	12.2
2717.94	58.56	50.95	V	-3.06	55.50	47.89	74.0	54.0	18.5	6.1
3623.92	52.21	46.03	H	0.43	52.64	46.46	74.0	54.0	21.4	7.5
3623.92	52.77	47.18	V	0.43	53.20	47.61	74.0	54.0	20.8	6.4
Middle Channel = 914.35 MHz										
2743.05	54.78	46.83	H	-2.84	51.94	43.99	74.0	54.0	22.1	10.0
2743.05	60.11	53.55	V	-2.84	57.27	50.71	74.0	54.0	16.7	3.3
3657.4	52.87	46.33	H	0.65	53.52	46.98	74.0	54.0	20.5	7.0
3657.4	51.54	44.24	V	0.65	52.19	44.89	74.0	54.0	21.8	9.1
7314.8	45.96	33.30	H	9.36	55.32	42.66	74.0	54.0	18.7	11.3
7314.8	47.28	37.03	V	9.36	56.64	46.39	74.0	54.0	17.4	7.6
High Channel = 923.98 MHz										
2771.94	54.43	46.31	H	-2.70	51.73	43.61	74.0	54.0	22.3	10.4
2771.94	58.73	51.83	V	-2.70	56.03	49.13	74.0	54.0	18.0	4.9
3695.92	53.94	47.57	H	0.81	54.75	48.38	74.0	54.0	19.3	5.6
3695.92	53.38	46.80	V	0.81	54.19	47.61	74.0	54.0	19.8	6.4
7391.84	47.20	36.35	H	9.52	56.72	45.87	74.0	54.0	17.3	8.1
7391.84	48.83	39.16	V	9.52	58.35	48.68	74.0	54.0	15.6	5.3

Notes: All emissions above 7.392 GHz were attenuated below the limits and the noise floor of the measurement equipment.

Sample Calculation:

$$R_C = R_U + CF_T$$

Where:

CF_T	=	Total Correction Factor (AF+CA+AG)-DC (Average Measurements Only)
R_U	=	Uncorrected Reading
R_C	=	Corrected Level
AF	=	Antenna Factor
CA	=	Cable Attenuation
AG	=	Amplifier Gain
DC	=	Duty Cycle Correction Factor

Example Calculation: Peak

Corrected Level: $55.01 + (-3.06) = 51.95 \text{ dB}\mu\text{V/m}$

Margin: $74 \text{ dB}\mu\text{V/m} - 51.95 \text{ dB}\mu\text{V/m} = 22.0 \text{ dB}$

Example Calculation: Average

Corrected Level: $44.89 + (-3.06) = 41.89 \text{ dB}\mu\text{V/m}$

Margin: $54 \text{ dB}\mu\text{V/m} - 41.89 \text{ dB}\mu\text{V/m} = 12.2 \text{ dB}$

7.5 Power Spectral Density – FCC: Section 15.247(e); ISED Canada: RSS-247 5.2(b)

7.5.1 PSD Measurement Procedure (Conducted Method)

The power spectral density was measured in accordance with the FCC KDB 558074 D01 DTS Meas Guidance v04 Section 10.2 Method PKPSD (peak PSD). The RF output port of the EUT was directly connected to the input of the spectrum analyzer. Offset values were input for cable and external attenuation. The spectrum analyzer RBW was set to 3 kHz and VBW 10 kHz. Span was adjusted to 1.5 times the DTS bandwidth and the sweep time was set to auto.

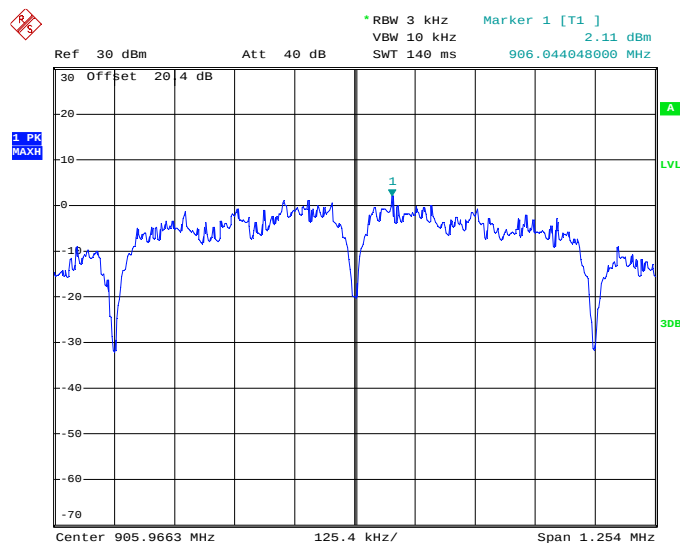
7.5.2 Measurement Results

Performed by: Thierry Jean-Charles

Results are shown below.

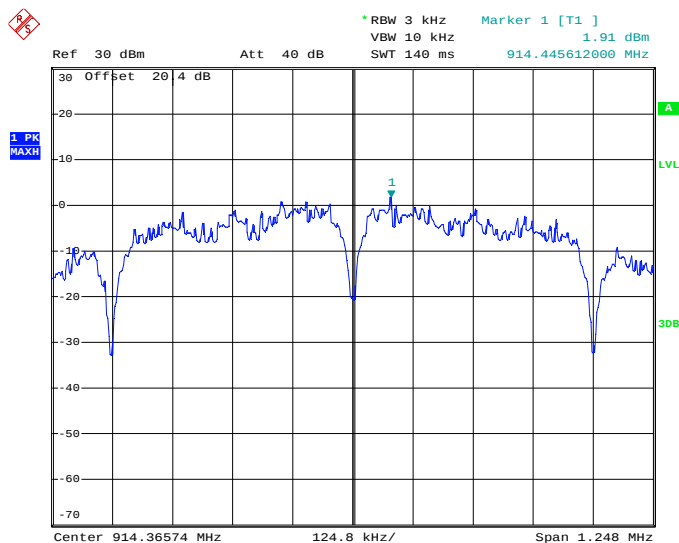
Table 7.5.2-1: Power Spectral Density

Frequency (MHz)	PSD (dBm)	Limit (dBm)	Margin (dB)
905.9663	2.11	8	5.89
914.36574	1.91	8	6.09
923.9654	1.57	8	6.43



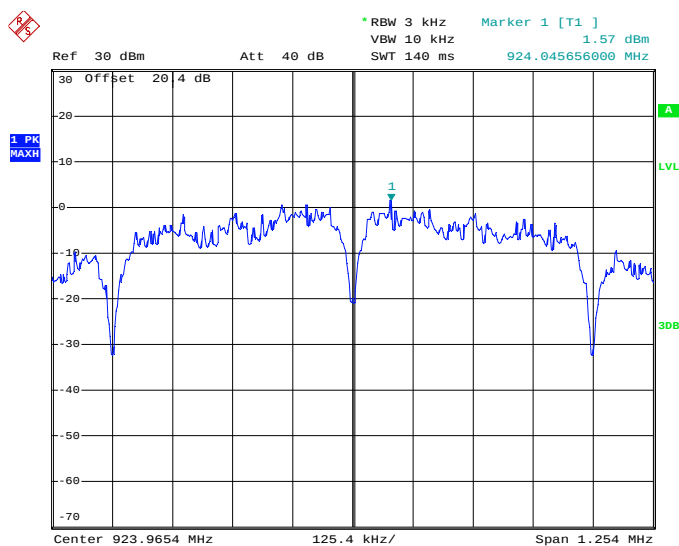
Date: 28.DEC.2017 14:49:13

Figure 7.5.2-1: Power Spectral Density - Low Channel



Date: 28.DEC.2017 14:53:36

Figure 7.5.2-2: Power Spectral Density - Middle Channel



Date: 28.DEC.2017 13:52:30

Figure 7.5.2-3: Power Spectral Density – High Channel

7.6 Power Line Conducted Emissions – FCC: Section 15.207; ISED Canada: RSS-Gen 8.8

7.6.1 Measurement Procedure

ANSI C63.10 section 6.2 was the guiding document for this evaluation. Conducted emissions were performed from 150 kHz to 30 MHz with the spectrum analyzer's resolution bandwidth set to 9 kHz and the video bandwidth set to 30 kHz. The calculation for the conducted emissions is as follows:

Corrected Reading = Analyzer Reading + LISN Loss + Cable Loss

Margin = Applicable Limit - Corrected Reading

7.6.2 Measurement Results

Performed by: Thierry Jean-Charles

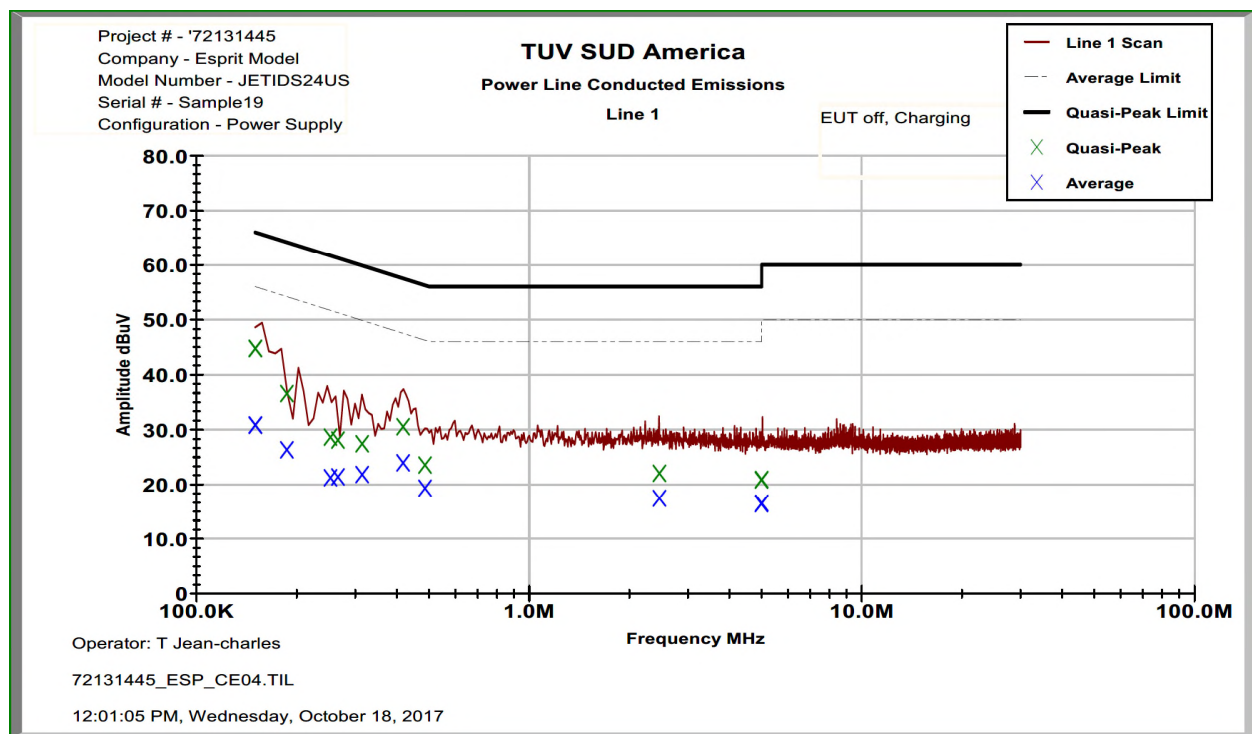


Figure 7.6.2-1: Conducted Emissions Results – Line 1

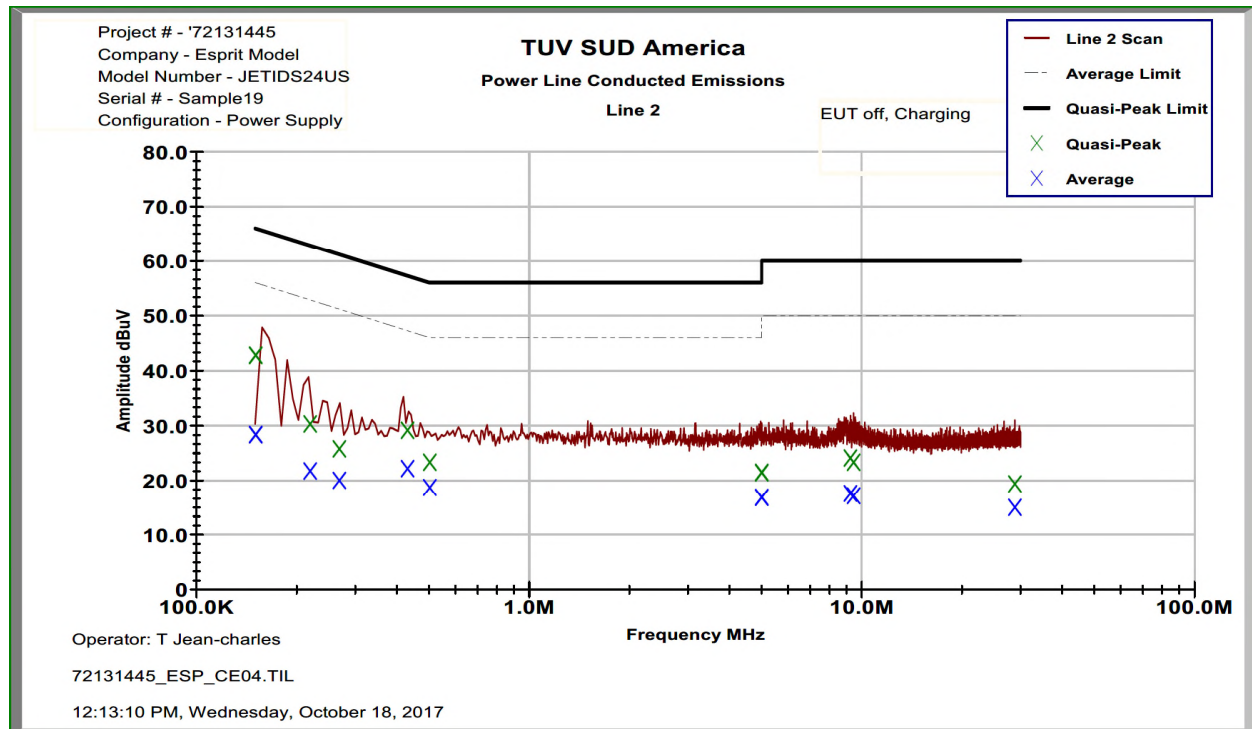


Figure 7.6.2-2: Conducted Emissions Results – Line 2

Table 7.6.2-1: Conducted EMI Results

☒ Line 1 ☒ Line 2 ☐ Line 3 ☐ Line 4 ☐ To Ground ☒ Floating ☐ Telecom Port _____ ☒ dBμV ☐ dBμA Plot Number: 72131445 ESP CE04 Power Supply Description: 12 VDC Power Supply										
Frequency (MHz)	Uncorrected Reading		Total Correction Factor (dB)	Corrected Level		Limit		Margin (dB)		
	Quasi- Peak	Average		Quasi-Peak	Average	Quasi-Peak	Average	Quasi-Peak	Average	
Line 1										
0.150126	34.461	20.545	10.01	44.47	30.56	65.99	55.99	21.5	25.4	
0.186788	26.248	15.999	10.01	36.26	26.01	64.18	54.18	27.9	28.2	
0.252612	18.301	10.908	10.01	28.31	20.92	61.67	51.67	33.4	30.8	
0.266012	17.773	11.058	10.01	27.78	21.07	61.24	51.24	33.5	30.2	
0.314524	17.107	11.468	10.03	27.14	21.50	59.85	49.85	32.7	28.4	
0.41765	20.208	13.611	10.04	30.25	23.65	57.49	47.49	27.2	23.8	
0.48615	13.232	8.966	10.04	23.28	19.01	56.23	46.23	33.0	27.2	
2.46036	11.462	6.863	10.20	21.66	17.06	56.00	46.00	34.3	28.9	
4.98765	10.06	5.626	10.41	20.47	16.03	56.00	46.00	35.5	30.0	
5.00025	10.104	5.737	10.49	20.59	16.22	60.00	50.00	39.4	33.8	
Line 2										
0.150617	32.527	18.078	10.06	42.59	28.14	65.97	55.97	23.4	27.8	
0.219613	19.998	11.44	10.06	30.06	21.50	62.83	52.83	32.8	31.3	
0.268599	15.491	9.699	10.06	25.55	19.76	61.16	51.16	35.6	31.4	
0.4303	18.848	11.848	10.08	28.93	21.93	57.25	47.25	28.3	25.3	
0.5026	12.985	8.362	10.08	23.07	18.44	56.00	46.00	32.9	27.6	
5.00085	10.715	6.041	10.50	21.21	16.54	60.00	50.00	38.8	33.5	
5.00135	10.643	6.129	10.50	21.14	16.63	60.00	50.00	38.9	33.4	
9.23707	13.026	6.501	10.83	23.85	17.33	60.00	50.00	36.1	32.7	
9.44141	12.207	6.053	10.84	23.05	16.89	60.00	50.00	37.0	33.1	
28.8415	7.133	2.783	11.94	19.07	14.72	60.00	50.00	40.9	35.3	

8 MEASUREMENT UNCERTAINTIES

The expanded laboratory measurement uncertainty figures (U_{Lab}) provided below correspond to an expansion factor (coverage factor) $k = 1.96$ which provide confidence levels of 95%.

Table 8-1: Measurement Uncertainties

Parameter	U_{lab}
Occupied Channel Bandwidth	$\pm 0.009 \%$
RF Conducted Output Power	$\pm 1.15 \text{ dB}$
Power Spectral Density	$\pm 1.15 \text{ dB}$
Antenna Port Conducted Emissions	$\pm 1.15 \text{ dB}$
Radiated Emissions $\leq 1\text{GHz}$	$\pm 5.86 \text{ dB}$
Radiated Emissions $> 1\text{GHz}$	$\pm 4.65 \text{ dB}$
Temperature	$\pm 0.860 \text{ }^{\circ}\text{C}$
Radio Frequency	$\pm 2.832 \times 10^{-8}$
AC Power Line Conducted Emissions	$\pm 3.72 \text{ dB}$

9 CONCLUSION

In the opinion of TÜV SÜD America, Inc. the model JETIDS24US, manufactured by Esprit Model, Inc., meets the requirements of FCC Part 15.247 and Industry Canada's Radio Standards Specification RSS-247 for the tests documented herein.

END REPORT