



Compliance Testing, LLC

Previously Flom Test Lab

EMI, EMC, RF Testing Experts Since 1963

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Test Report

Prepared for: Honeywell International

Model: A781

Description: A781 SATCOM Transceiver

Serial Number: 740

FCC ID: K6KA781

To

FCC Part 87

Date of Issue: November 6, 2017

On the behalf of the applicant:

**Honeywell International
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Attention of:

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Project No: p17a0001**

**Greg Corbin
Project Test Engineer**

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All results contained herein relate only to the sample tested.

Test Report Revision History

Revision	Date	Revised By	Reason for Revision
1.0	November 2, 2017	Greg Corbin	Original Document

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ILAC / A2LA

Compliance Testing, LLC, has been accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF Communiqué dated January 2009).

The tests results contained within this test report all fall within our scope of accreditation, unless noted in the table below

Please refer to <http://www.compliancetesting.com/labscope.html> for current scope of accreditation.

Testing Certificate Number: **2152.01**



FCC Site Reg. #349717

IC Site Reg. #2044A-2

Non-accredited tests contained in this report:

N/A

Standard Test Conditions Engineering Practices

Except as noted herein, the following conditions and procedures were observed during the testing:

All tests and measurement data shown were performed in accordance with FCC Rules and Regulations, Volume II; Part 2, Sub-part J, Sections 2.947, 2.1033(c), 2.1041, 2.1046, 2.1047, 2.1051, 2.1053, 2.1055, 2.1057 and the following individual Parts: FCC Part 87.

Measurement results, unless otherwise noted, are worst-case measurements.

Environmental Conditions		
Temperature (°C)	Humidity (%)	Pressure (mbar)
21.8 – 24.2	30.9 – 39.1	961.0 – 971.0

EUT Description

Model: A781-310

P/N: 1394-A-3100

Description: A781 SATCOM Transceiver

Software: LI-4394.21028, Version: J00, DO-178B Level D

Serial Number: 740

Additional Information:

The EUT is a SATCOM transceiver that operates from 1626.5 – 1660.5 MHz.

It has 3 types of emissions, BPSK, QPSK, QAM that are defined in the Table below.

The data in this test report is for a Class 2 Permissive Change (C2PC) to the original filing.

The C2PC is for part obsolescence. 3 power amplifier chips and a digital attenuator were replaced with form, fit, function replacement parts. The new parts did not alter the operating characteristics of the original filing.

Output power, Emission Masks, and Conducted Spurious Emissions were performed to support this C2PC.

Type of Service	Data Rate (kbps)	Symbol Rate (ksym/sec)	Modulation Type	FCC Emission Designator
Classic R/T	0.6	0.6	Pi/2 BPSK	840HG1D
Classic R/T	1.2	1.2	Pi/2 BPSK	1K68G1D
Classic R/T	10.5	5.25	Aviation QPSK	10K5G1D
Classic C	8.4	4.2	Aviation QPSK	6K80G1E
Swiftbroadband	33.6	16.8	QPSK	25K0G7W
Swiftbroadband	67.2	33.6	QPSK	50K0G7W
Swiftbroadband	134.4	67.2	QPSK	100KG7W
Swiftbroadband	302.4	151.2	QPSK	200KG7W
Swiftbroadband	134.4	33.6	QAM	50K0D7W
Swiftbroadband	268.8	67.2	QAM	100KD7W
Swiftbroadband	604.8	151.2	QAM	200KD7W

EUT Operation during Tests

The manufacturer was present during the test and controlled the EUT via a custom GUI to set the type of service, data rate, and power levels.

Test Results Summary

Specification	Test Name	Pass, Fail, N/A	Comments
2.1046, 87.131	Carrier Output Power (Conducted)	Pass	
2.1051, 87.139(i)(1)	Unwanted Emissions (Transmitter Conducted)	Pass	
2.1049, 87.139(i)(3)	Emission Masks (Occupied Bandwidth)	Pass	See FCC waiver for allowable variance

Carrier Output Power (Conducted)

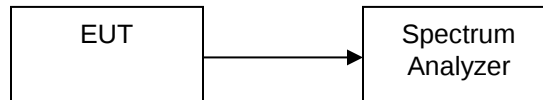
Engineer: Greg Corbin

Test Date: 11/1/2017

Test Procedure

The Equipment Under Test (EUT) was connected directly to a spectrum analyzer with the RBW set to 1 MHz and the VBW set to 3 X RBW which set the RBW greater than the transmit signal ensuring there was no signal suppression while measuring a modulated signal. The peak readings were taken for each modulation type and the result was then compared to the limit.

Test Setup



BPSK Transmitter Peak Output Power

Tuned Frequency (MHz)	Measured Power (dBm)	Measured Power (W)	Limit (W)	Result
1626.5	44.90	30.90	60	Pass
1643.5	44.54	28.44	60	Pass
1660.5	44.85	30.54	60	Pass

QPSK Transmitter Peak Output Power

Tuned Frequency (MHz)	Measured Power (dBm)	Measured Power (W)	Limit (W)	Result
1626.5	44.99	31.55	60	Pass
1643.5	44.99	31.55	60	Pass
1660.5	44.99	31.55	60	Pass

QAM Transmitter Peak Output Power

Tuned Frequency (MHz)	Measured Power (dBm)	Measured Power (W)	Limit (W)	Result
1626.5	44.99	31.55	60	Pass
1643.5	44.99	31.55	60	Pass
1660.5	44.99	31.55	60	Pass

Conducted Spurious Emissions

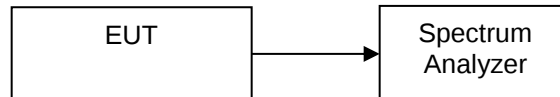
Engineer: Greg Corbin

Test Date: 11/2/2017

Test Procedure

The EUT was connected directly to a spectrum analyzer to verify that the UUT met the requirements for spurious emissions. The RBW was set according to the requirements of 87139 (i)(1). The dBc limit, the DLNA rejection, and output power were summed together to determine the necessary dBm value of the EUT to provide a system rejection greater than the FCC limit. This necessary value was compared to the measured value to ensure compliance to the specification, which is expressed as the margin. A negative value indicates a passing result.

Test Setup



BPSK 1626.5 MHz Conducted Spurious Emissions

Frequency (MHz)	Limit (dBc)	RBW (MHz)	F Type DLNA Rejection (dB)	Measured Power (dBm)	Necessary Level (dBm)	Measured Level (dBm)	Margin (dB)
.010 to 1525	-135	0.004	80	44.30	-10.70	-47.3	-36.60
1525 to 1559	-203	0.004	120	44.30	-38.70	-46.8	-8.10
1559 to 1585	-155	1	111	44.94	0.94	-22.6	-23.54
1585 to 1605	-143	1	95	44.94	-3.06	-24.3	-21.24
1605 to 1610	-117	1	62	44.94	-10.06	-22.5	-12.44
1610 to 1610.6	-95	1	40	44.94	-10.06	-21.9	-11.84
1610.6 to 1613.8	-49	1	40	44.94	35.94	-21.8	-57.74
1613.8 to 1614	-95	1	40	44.94	-10.06	-20.9	-10.84
1614 to 1620	-70	0.004	30	44.30	4.30	-32.9	-37.20
1620 to 1624.5	-70	0.004	20	44.30	-5.70	-34.4	-28.70
1624.5 to 1625.5	-70	0.004	10	44.30	-15.70	-31.1	-15.40
1625.5 to 1626.5	-70	0.004	1.3	44.30	-24.40	-30.7	-6.30
1626.5 to 1660	-70	0.004	0.8	44.30	-24.90	-30.8	-5.90
1660 to 1670	-19.5	0.02	0.8	44.30	25.60	-36.1	-61.70
1670 to 1735	-60	0.004	0.8	44.30	-14.90	-41.4	-26.50
1735 to 1865	-105	0.004	50	44.30	-10.70	-44.4	-33.70
1865 to 3250	-105	0.004	20	44.30	-40.70	-46.5	-5.80
3250 to 3330	-105	0.004	50	44.30	-10.70	-18	-7.30
3330 to 4000	-105	0.004	40	44.30	-20.70	-46.3	-25.60
4000 to 12000	-105	0.004	50	44.30	-10.70	-30.2	-19.50
12000 to 18000	-70	0.004	15	44.30	-10.70	-35.4	-24.70

BPSK 1643.5 MHz Conducted Spurious Emissions

Frequency (MHz)	Limit (dBc)	RBW (MHz)	F Type DLNA Rejection (dB)	Measured Power (dBm)	Necessary Level (dBm)	Measured Level (dBm)	Margin (dB)
.010 to 1525	-135	0.004	80	44.40	-10.60	-47.5	-36.90
1525 to 1559	-203	0.004	120	44.40	-38.60	-45.7	-7.10
1559 to 1585	-155	1	111	44.74	0.74	-24.4	-25.14
1585 to 1605	-143	1	95	44.74	-3.26	-22.6	-19.34
1605 to 1610	-117	1	62	44.74	-10.26	-23	-12.74
1610 to 1610.6	-95	1	40	44.74	-10.26	-23.7	-13.44
1610.6 to 1613.8	-49	1	40	44.74	35.74	-23.6	-59.34
1613.8 to 1614	-95	1	40	44.74	-10.26	-23.7	-13.44
1614 to 1620	-70	0.004	30	44.40	4.40	-38.5	-42.90
1620 to 1624.5	-70	0.004	20	44.40	-5.60	-44.5	-38.90
1624.5 to 1625.5	-70	0.004	10	44.40	-15.60	-40.4	-24.80
1625.5 to 1626.5	-70	0.004	1.3	44.40	-24.30	-40	-15.70
1626.5 to 1660	-70	0.004	0.8	44.40	-24.80	-30.6	-5.80
1660 to 1670	-19.5	0.02	0.8	44.60	25.90	-36.3	-62.20
1670 to 1735	-60	0.004	0.8	44.40	-14.80	-40	-25.20
1735 to 1865	-105	0.004	50	44.40	-10.60	-43.4	-32.80
1865 to 3250	-105	0.004	20	44.40	-40.60	-47	-6.40
3250 to 3330	-105	0.004	50	44.40	-10.60	-18.3	-7.70
3330 to 4000	-105	0.004	40	44.40	-20.60	-45.7	-25.10
4000 to 12000	-105	0.004	50	44.40	-10.60	-28.1	-17.50
12000 to 18000	-70	0.004	15	44.40	-10.60	-30.7	-20.10

BPSK 1660.5 MHz Conducted Spurious Emissions

Frequency (MHz)	Limit (dBc)	RBW (MHz)	F Type DLNA Rejection (dB)	Measured Power (dBm)	Necessary Level (dBm)	Measured Level (dBm)	Margin (dB)
.010 to 1525	-135	0.004	80	44.60	-10.40	-36	-25.60
1525 to 1559	-203	0.004	120	44.60	-38.40	-47.4	-9.00
1559 to 1585	-155	1	111	44.93	0.93	-24.5	-25.43
1585 to 1605	-143	1	95	44.93	-3.07	-22.8	-19.73
1605 to 1610	-117	1	62	44.93	-10.07	-23.1	-13.03
1610 to 1610.6	-95	1	40	44.93	-10.07	-24.2	-14.13
1610.6 to 1613.8	-49	1	40	44.93	35.93	-21.1	-57.03
1613.8 to 1614	-95	1	40	44.93	-10.07	-21.3	-11.23
1614 to 1620	-70	0.004	30	44.60	4.60	-44.3	-48.90
1620 to 1624.5	-70	0.004	20	44.60	-5.40	-38.1	-32.70
1624.5 to 1625.5	-70	0.004	10	44.60	-15.40	-39.7	-24.30
1625.5 to 1626.5	-70	0.004	1.3	44.60	-24.10	-40.6	-16.50
1626.5 to 1660	-70	0.004	0.8	44.60	-24.60	-31.5	-6.90
1660 to 1670	-19.5	0.02	0.8	44.50	25.80	-23.5	-49.30
1670 to 1735	-60	0.004	0.8	44.60	-14.60	-37.3	-22.70
1735 to 1865	-105	0.004	50	44.60	-10.40	-43.5	-33.10
1865 to 3250	-105	0.004	20	44.60	-40.40	-46.8	-6.40
3250 to 3330	-105	0.004	50	44.60	-10.40	-18.7	-8.30
3330 to 4000	-105	0.004	40	44.60	-20.40	-46	-25.60
4000 to 12000	-105	0.004	50	44.60	-10.40	-36.8	-26.40
12000 to 18000	-70	0.004	15	44.60	-10.40	-36	-25.60

QPSK 1626.5 MHz Conducted Spurious Emissions

Frequency (MHz)	Limit (dBc)	RBW (MHz)	F Type DLNA Rejection (dB)	Measured Power (dBm)	Necessary Level (dBm)	Measured Level (dBm)	Margin (dB)
.010 to 1525	-135	0.004	80	44.7	-10.30	-51.90	-41.60
1525 to 1559	-203	0.004	120	44.7	-38.30	-50.30	-12.00
1559 to 1585	-155	1	111	44.99	0.99	-25.02	-26.01
1585 to 1605	-143	1	95	44.99	-3.01	-28.20	-25.19
1605 to 1610	-117	1	62	44.99	-10.01	-27.50	-17.49
1610 to 1610.6	-95	1	40	44.99	-10.01	-25.50	-15.49
1610.6 to 1613.8	-49	1	40	44.99	35.99	-25.40	-61.39
1613.8 to 1614	-95	1	40	44.99	-10.01	-24.40	-14.39
1614 to 1620	-70	0.004	30	44.7	4.70	-40.10	-44.80
1620 to 1624.5	-70	0.004	20	44.7	-5.30	-34.70	-29.40
1624.5 to 1625.5	-70	0.004	10	44.7	-15.30	-33.20	-17.90
1625.5 to 1626.5	-70	0.004	1.3	44.7	-24.00	-28.00	-4.00
1626.5 to 1660	-70	0.004	0.8	44.7	-24.50	-28.80	-4.30
1660 to 1670	-19.5	0.02	0.8	44.72	26.02	-39.80	-65.82
1670 to 1735	-60	0.004	0.8	44.7	-14.50	-48.20	-33.70
1735 to 1865	-105	0.004	50	44.7	-10.30	-48.70	-38.40
1865 to 3250	-105	0.004	20	44.7	-40.30	-51.70	-11.40
3250 to 3330	-105	0.004	50	44.7	-10.30	-22.80	-12.50
3330 to 4000	-105	0.004	40	44.7	-20.30	-41.10	-20.80
4000 to 12000	-105	0.004	50	44.7	-10.30	-35.20	-24.90
12000 to 18000	-70	0.004	15	44.7	-10.30	-35.90	-25.60

QPSK 1643.5 MHz Conducted Spurious Emissions

Frequency (MHz)	Limit (dBc)	RBW (MHz)	F Type DLNA Rejection (dB)	Measured Power (dBm)	Necessary Level (dBm)	Measured Level (dBm)	Margin (dB)
.010 to 1525	-135	0.004	80	44.72	-10.28	-42.8	-32.52
1525 to 1559	-203	0.004	120	44.72	-38.28	-46.8	-8.52
1559 to 1585	-155	1	111	44.99	0.99	-24.1	-25.09
1585 to 1605	-143	1	95	44.99	-3.01	-21.6	-18.59
1605 to 1610	-117	1	62	44.99	-10.01	-25.2	-15.19
1610 to 1610.6	-95	1	40	44.99	-10.01	-26.8	-16.79
1610.6 to 1613.8	-49	1	40	44.99	35.99	-24	-59.99
1613.8 to 1614	-95	1	40	44.99	-10.01	-24	-13.99
1614 to 1620	-70	0.004	30	44.72	4.72	-40.3	-45.02
1620 to 1624.5	-70	0.004	20	44.72	-5.28	-43.4	-38.12
1624.5 to 1625.5	-70	0.004	10	44.72	-15.28	-41.2	-25.92
1625.5 to 1626.5	-70	0.004	1.3	44.72	-23.98	-40.9	-16.92
1626.5 to 1660	-70	0.004	0.8	44.72	-24.48	-30.7	-6.22
1660 to 1670	-19.5	0.02	0.8	44.71	26.01	-37.5	-63.51
1670 to 1735	-60	0.004	0.8	44.72	-14.48	-39.6	-25.12
1735 to 1865	-105	0.004	50	44.72	-10.28	-44.9	-34.62
1865 to 3250	-105	0.004	20	44.72	-40.28	-46.9	-6.62
3250 to 3330	-105	0.004	50	44.72	-10.28	-21.9	-11.62
3330 to 4000	-105	0.004	40	44.72	-20.28	-46.6	-26.32
4000 to 12000	-105	0.004	50	44.72	-10.28	-31.9	-21.62
12000 to 18000	-70	0.004	15	44.72	-10.28	-41.7	-31.42

QPSK 1660.5 MHz Conducted Spurious Emissions

Frequency (MHz)	Limit (dBc)	RBW (MHz)	F Type DLNA Rejection (dB)	Measured Power (dBm)	Necessary Level (dBm)	Measured Level (dBm)	Margin (dB)
.010 to 1525	-135	0.004	80	44.35	-10.65	-46.8	-36.15
1525 to 1559	-203	0.004	120	44.35	-38.65	-46.7	-8.05
1559 to 1585	-155	1	111	44.99	0.99	-23.9	-24.89
1585 to 1605	-143	1	95	44.99	-3.01	-24.3	-21.29
1605 to 1610	-117	1	62	44.99	-10.01	-24.3	-14.29
1610 to 1610.6	-95	1	40	44.99	-10.01	-26.1	-16.09
1610.6 to 1613.8	-49	1	40	44.99	35.99	-21.7	-57.69
1613.8 to 1614	-95	1	40	44.99	-10.01	-22.6	-12.59
1614 to 1620	-70	0.004	30	44.35	4.35	-44.5	-48.85
1620 to 1624.5	-70	0.004	20	44.35	-5.65	-44.2	-38.55
1624.5 to 1625.5	-70	0.004	10	44.35	-15.65	-40.3	-24.65
1625.5 to 1626.5	-70	0.004	1.3	44.35	-24.35	-40.3	-15.95
1626.5 to 1660	-70	0.004	0.8	44.35	-24.85	-32.8	-7.95
1660 to 1670	-19.5	0.02	0.8	44.36	25.66	-24.4	-50.06
1670 to 1735	-60	0.004	0.8	44.35	-14.85	-41.3	-26.45
1735 to 1865	-105	0.004	50	44.35	-10.65	-45.2	-34.55
1865 to 3250	-105	0.004	20	44.35	-40.65	-46.9	-6.25
3250 to 3330	-105	0.004	50	44.35	-10.65	-20.4	-9.75
3330 to 4000	-105	0.004	40	44.35	-20.65	-46.2	-25.55
4000 to 12000	-105	0.004	50	44.35	-10.65	-36.6	-25.95
12000 to 18000	-70	0.004	15	44.35	-10.65	-40.5	-29.85

QAM 1626.5 MHz Conducted Spurious Emissions

Frequency (MHz)	Limit (dBc)	RBW (MHz)	F Type DLNA Rejection (dB)	Measured Power (dBm)	Necessary Level (dBm)	Measured Level (dBm)	Margin (dB)
.010 to 1525	-135	0.004	80	44.64	-10.36	-47.00	-36.64
1525 to 1559	-203	0.004	120	44.64	-38.36	-47.20	-8.84
1559 to 1585	-155	1	111	44.99	0.99	-24.00	-24.99
1585 to 1605	-143	1	95	44.99	-3.01	-24.10	-21.09
1605 to 1610	-117	1	62	44.99	-10.01	-25.10	-15.09
1610 to 1610.6	-95	1	40	44.99	-10.01	-25.30	-15.29
1610.6 to 1613.8	-49	1	40	44.99	35.99	-21.80	-57.79
1613.8 to 1614	-95	1	40	44.99	-10.01	-23.30	-13.29
1614 to 1620	-70	0.004	30	44.64	4.64	-39.60	-44.24
1620 to 1624.5	-70	0.004	20	44.64	-5.36	-35.20	-29.84
1624.5 to 1625.5	-70	0.004	10	44.64	-15.36	-31.20	-15.84
1625.5 to 1626.5	-70	0.004	1.3	44.64	-24.06	-26.60	-2.54
1626.5 to 1660	-70	0.004	0.8	44.64	-24.56	-30.70	-6.14
1660 to 1670	-19.5	0.02	0.8	44.54	25.84	-38.20	-64.04
1670 to 1735	-60	0.004	0.8	44.64	-14.56	-45.60	-31.04
1735 to 1865	-105	0.004	50	44.64	-10.36	-47.30	-36.94
1865 to 3250	-105	0.004	20	44.64	-40.36	-46.20	-5.84
3250 to 3330	-105	0.004	50	44.64	-10.36	-20.30	-9.94
3330 to 4000	-105	0.004	40	44.64	-20.36	-36.20	-15.84
4000 to 12000	-105	0.004	50	44.64	-10.36	-37.90	-27.54
12000 to 18000	-70	0.004	15	44.64	-10.36	-35.90	-25.54

QAM 1643.5 MHz Conducted Spurious Emissions

Frequency (MHz)	Limit (dBc)	RBW (MHz)	F Type DLNA Rejection (dB)	Measured Power (dBm)	Necessary Level (dBm)	Measured Level (dBm)	Margin (dB)
.010 to 1525	-135	0.004	80	44.70	-10.30	-48.5	-38.20
1525 to 1559	-203	0.004	120	44.70	-38.30	-47.1	-8.80
1559 to 1585	-155	1	111	44.99	0.99	-25.3	-26.29
1585 to 1605	-143	1	95	44.99	-3.01	-21.7	-18.69
1605 to 1610	-117	1	62	44.99	-10.01	-25.7	-15.69
1610 to 1610.6	-95	1	40	44.99	-10.01	-24.7	-14.69
1610.6 to 1613.8	-49	1	40	44.99	35.99	-24.7	-60.69
1613.8 to 1614	-95	1	40	44.99	-10.01	-25	-14.99
1614 to 1620	-70	0.004	30	44.70	4.70	-40.8	-45.50
1620 to 1624.5	-70	0.004	20	44.70	-5.30	-44.3	-39.00
1624.5 to 1625.5	-70	0.004	10	44.70	-15.30	-40.2	-24.90
1625.5 to 1626.5	-70	0.004	1.3	44.70	-24.00	-40.8	-16.80
1626.5 to 1660	-70	0.004	0.8	44.70	-24.50	-29.3	-4.80
1660 to 1670	-19.5	0.02	0.8	44.65	25.95	-37.2	-63.15
1670 to 1735	-60	0.004	0.8	44.70	-14.50	-39.2	-24.70
1735 to 1865	-105	0.004	50	44.70	-10.30	-46.4	-36.10
1865 to 3250	-105	0.004	20	44.70	-40.30	-46.4	-6.10
3250 to 3330	-105	0.004	50	44.70	-10.30	-20	-9.70
3330 to 4000	-105	0.004	40	44.70	-20.30	-46	-25.70
4000 to 12000	-105	0.004	50	44.70	-10.30	-35.5	-25.20
12000 to 18000	-70	0.004	15	44.70	-10.30	-35.6	-25.30

QAM 1660.5 MHz Conducted Spurious Emissions

Frequency (MHz)	Limit (dBc)	RBW (MHz)	F Type DLNA Rejection (dB)	Measured Power (dBm)	Necessary Level (dBm)	Measured Level (dBm)	Margin (dB)
.010 to 1525	-135	0.004	80	44.24	-10.76	-47.4	-36.64
1525 to 1559	-203	0.004	120	44.24	-38.76	-46.8	-8.04
1559 to 1585	-155	1	111	44.99	0.99	-24.9	-25.89
1585 to 1605	-143	1	95	44.99	-3.01	-24.8	-21.79
1605 to 1610	-117	1	62	44.99	-10.01	-23.7	-13.69
1610 to 1610.6	-95	1	40	44.99	-10.01	-26.7	-16.69
1610.6 to 1613.8	-49	1	40	44.99	35.99	-22.2	-58.19
1613.8 to 1614	-95	1	40	44.99	-10.01	-23.3	-13.29
1614 to 1620	-70	0.004	30	44.24	4.24	-45.1	-49.34
1620 to 1624.5	-70	0.004	20	44.24	-5.76	-43.4	-37.64
1624.5 to 1625.5	-70	0.004	10	44.24	-15.76	-40.7	-24.94
1625.5 to 1626.5	-70	0.004	1.3	44.24	-24.46	-40.3	-15.84
1626.5 to 1660	-70	0.004	0.8	44.24	-24.96	-32.2	-7.24
1660 to 1670	-19.5	0.02	0.8	44.22	25.52	-24.2	-49.72
1670 to 1735	-60	0.004	0.8	44.24	-14.96	-44	-29.04
1735 to 1865	-105	0.004	50	44.24	-10.76	-46.8	-36.04
1865 to 3250	-105	0.004	20	44.24	-40.76	-47	-6.24
3250 to 3330	-105	0.004	50	44.24	-10.76	-24.9	-14.14
3330 to 4000	-105	0.004	40	44.24	-20.76	-46.6	-25.84
4000 to 12000	-105	0.004	50	44.24	-10.76	-34.9	-24.14
12000 to 18000	-70	0.004	15	44.24	-10.76	-41.2	-30.44

Refer to Annex A for Conducted Spurious Emission Plots

Emission Masks (Occupied Bandwidth)

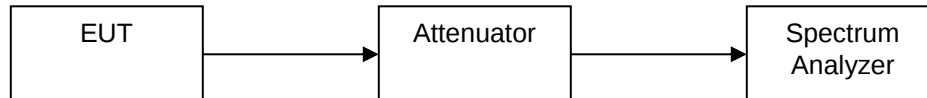
Engineer: Greg Corbin

Test Date: 11/1/2017

Test Procedure

The EUT was connected directly to a spectrum analyzer to verify that the EUT meets the required emissions mask. A reference level plot is provided to verify that the peak power was established prior to testing the mask. The transmitter is digital modulation therefore no data input is required to measure the emission mask. The RBW was set as close as possible to 1% of the occupied bandwidth to ensure accurate readings.

Test Setup



Refer to Annex B for Emission Mask Test plots.

Test Equipment Utilized

Description	Manufacturer	Model #	CT Asset #	Last Cal Date	Cal Due Date
Humidity / Temp Meter	Newport	IBTHX-W-5	i00282	6/9/17	6/9/18
Spectrum Analyzer	Textronix	RSA5126A	i00424	5/3/17	5/3/18
PSA Spectrum Analyzer	Agilent	E4445A	i00471	9/6/17	9/6/18

In addition to the above listed equipment standard RF connectors and cables were utilized in the testing of the described equipment. Prior to testing these components were tested to verify proper operation.

END OF TEST REPORT