

Note: Because the signal from the same chip, so we chose to use the power of the largest port for measurement

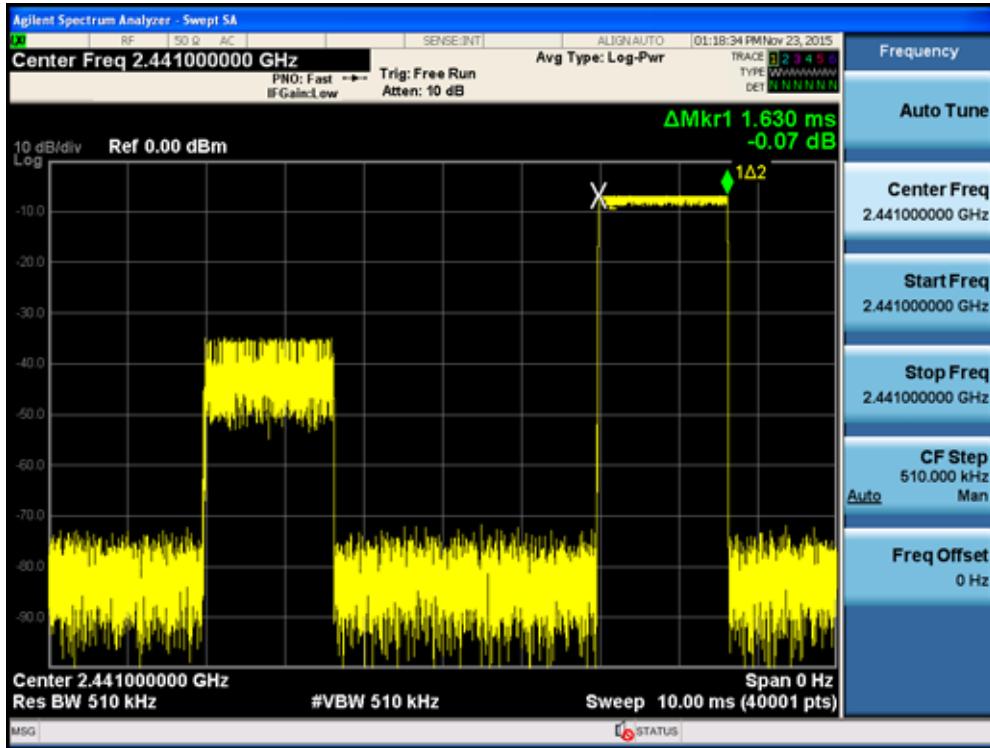
Product	:	Bluetooth headset
Test Item	:	Time of Occupancy (Dwell Time)
Test Site	:	TR-8
Test Mode	:	Transmitter-1Mbps (GFSK_DH3)

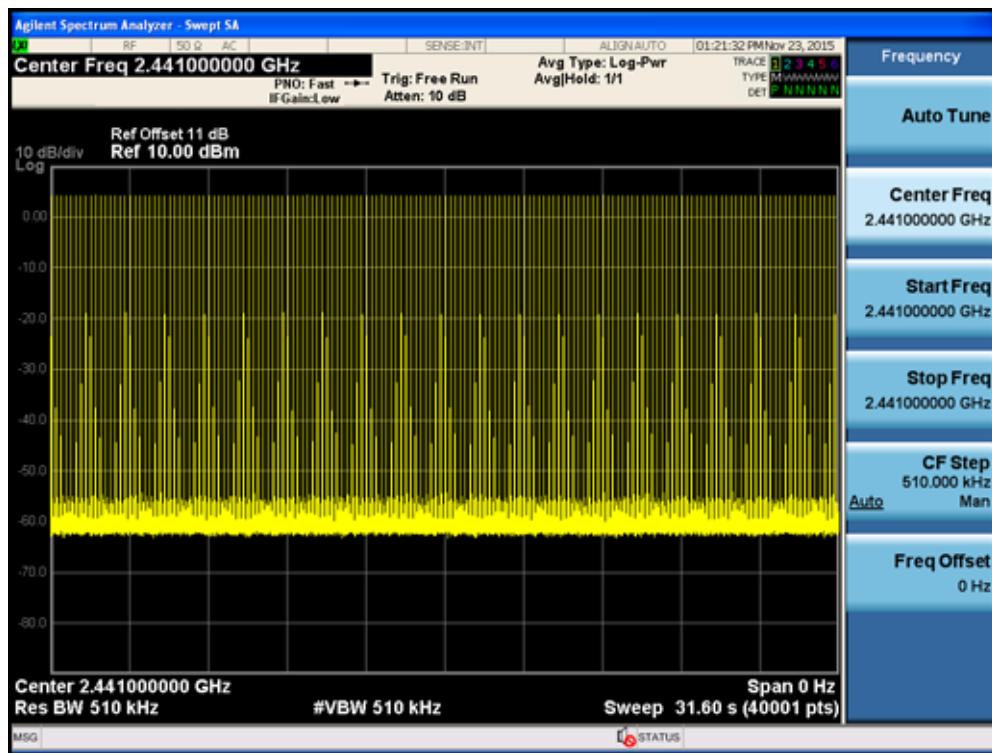
Channel No.	Frequency (MHz)	Time of Occupancy (ms)	Limit (ms)	Result
39	2441	308.07	< 400	Pass

Test Time Period: $0.4 \times 79 = 31.6$ sec.

- 2441MHz, The Maximum Occupancy Time Within 31.6sec: $1.630\text{ms} \times 189 = 308.07\text{msec}$

Channel 39 (2441MHz) - (DH3)





Note: Because the signal from the same chip, so we chose to use the power of the largest port for measurement

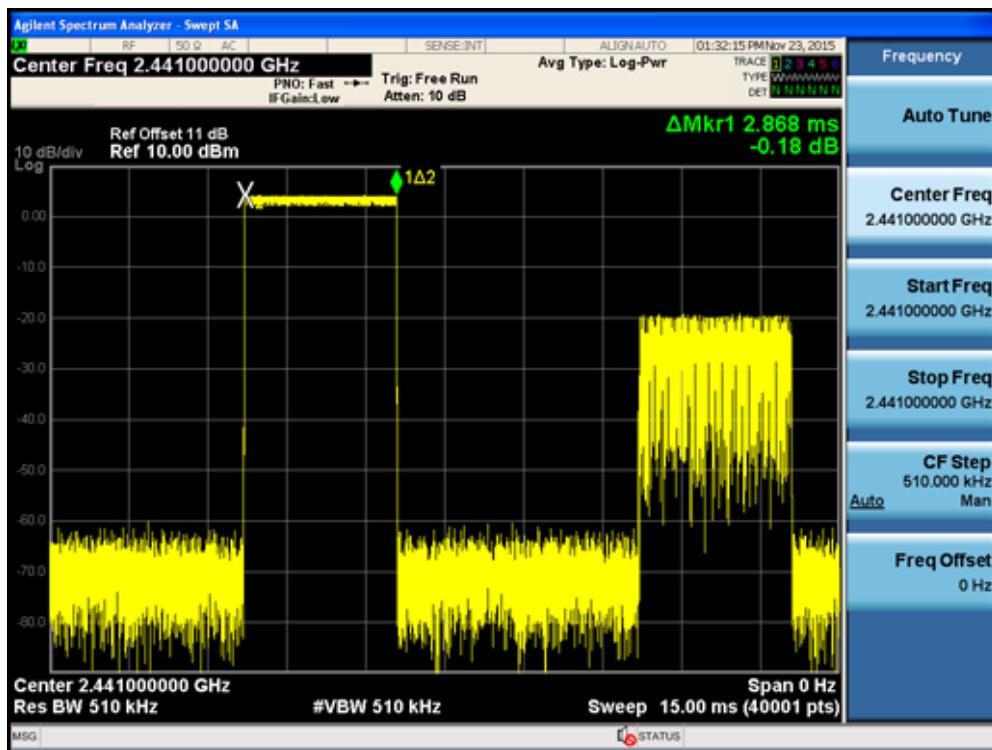
Product	:	Bluetooth headset
Test Item	:	Time of Occupancy (Dwell Time)
Test Site	:	TR-8
Test Mode	:	Transmitter-1Mbps (GFSK_DH5)

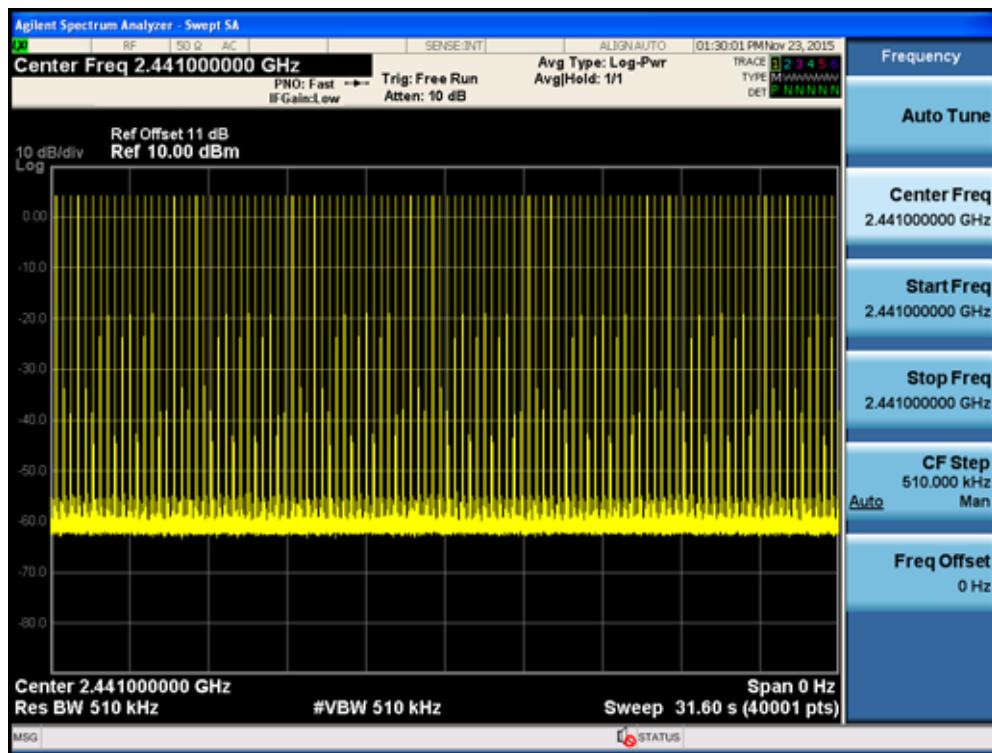
Channel No.	Frequency (MHz)	Time of Occupancy (ms)	Limit (ms)	Result
39	2441	338.424	< 400	Pass

Test Time Period: $0.4 \times 79 = 31.6$ sec.

- 2441MHz, The Maximum Occupancy Time Within 31.6sec: $2.868\text{ms} \times 118 = 338.424\text{msec}$

Channel 39 (2441MHz) - (DH5)





Note: Because the signal from the same chip, so we chose to use the power of the largest port for measurement

9. Peak Output Power

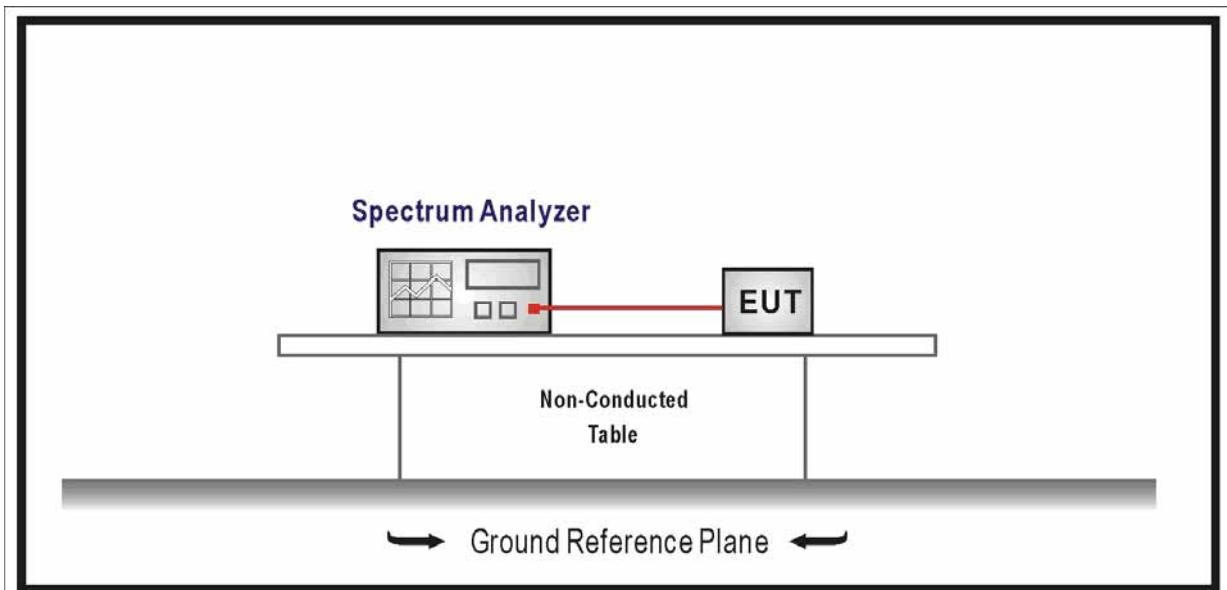
9.1. Test Equipment

Peak Output Power / TR-8

Instrument	Manufacturer	Type No.	Serial No.	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2016.03.10
Temperature/Humidity Meter	Zhicheng	ZC1-2	TR8-TH	2016.04.09

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

9.2. Test Setup



9.3. Limit

- For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.
- For frequency hopping systems operating in the 902-928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0.25 watts for systems employing less than 50 hopping channels, but at least 25 hopping channels.

Note: the conducted output power limit specified above is based on the use the antennas with

directional gains that do not exceed 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values above, as appropriate, by the amount in dB that the directional gain of antenna exceeds 6 dBi.

9.4. Test Procedure

According to ANSI C63.10: 2013& ANSI C63.4: 2014

Use the following spectrum analyzer settings:

Span = approximately 5 times the 20dB bandwidth, centered on a hopping channel

RBW > the 20 dB bandwidth of the emission being measured.

VBW \geq RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. The indicated level is the peak output power (don't forget added the external attenuation and cable loss).

9.5. Uncertainty

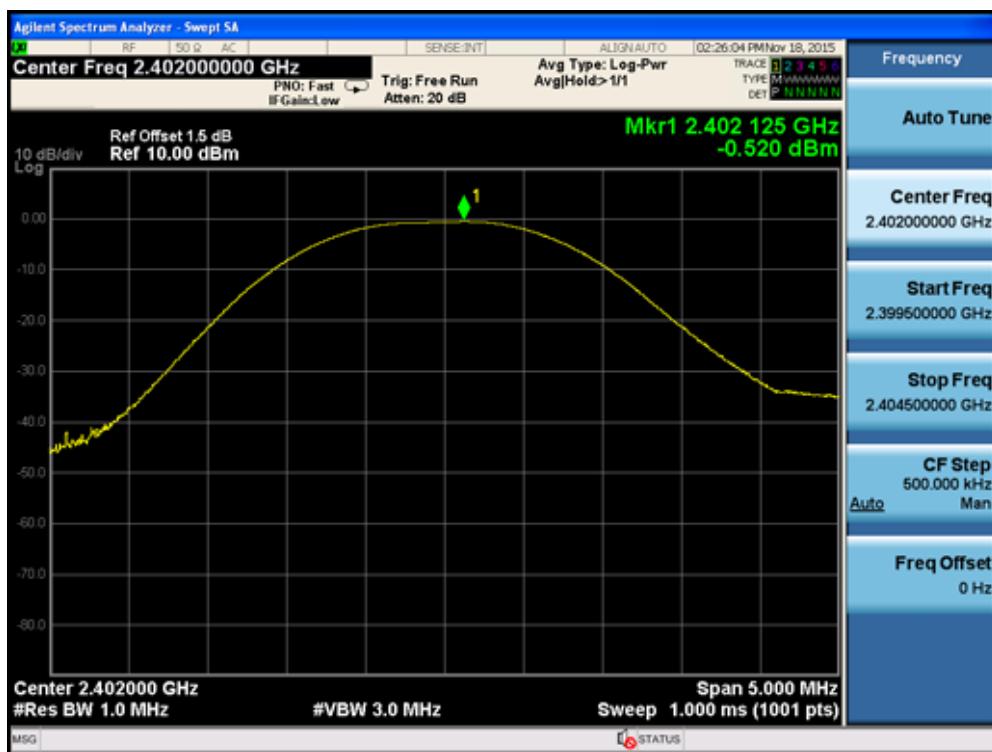
The measurement uncertainty is defined as \pm 1.0 dB

9.6. Test Result

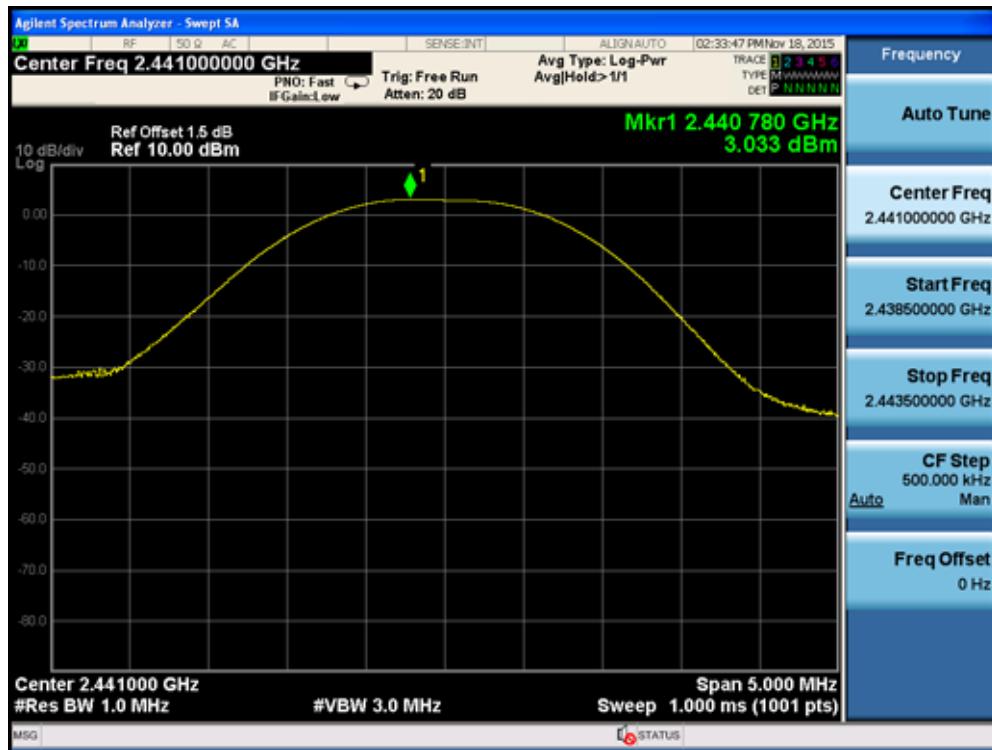
Product	:	Cassia Hub
Test Item	:	Power Output
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmitter-1Mbps (GFSK_DH5)

Channel No.	Frequency (MHz)	Ant1	Ant2	Ant3	Measurement Power Output (dBm)	Limit (dBm)	Result
0	2402	-0.52	-2.352	-2.962	2.95	23.30	Pass
39	2441	3.033	-2.845	-3.243	4.78	23.30	Pass
78	2480	2.568	1.760	1.089	6.62	23.30	Pass

Ant1
DH5 2402MHz



DH5 2441MHz



DH5 2480MHz



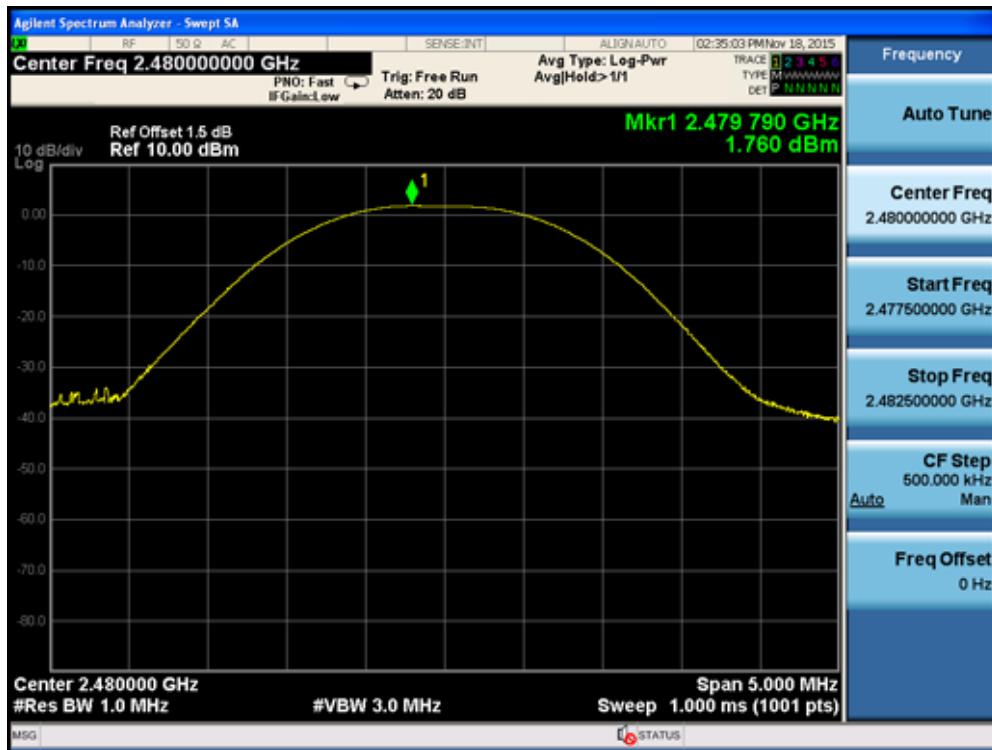
Ant2 DH5 2402MHz



DH5 2441MHz

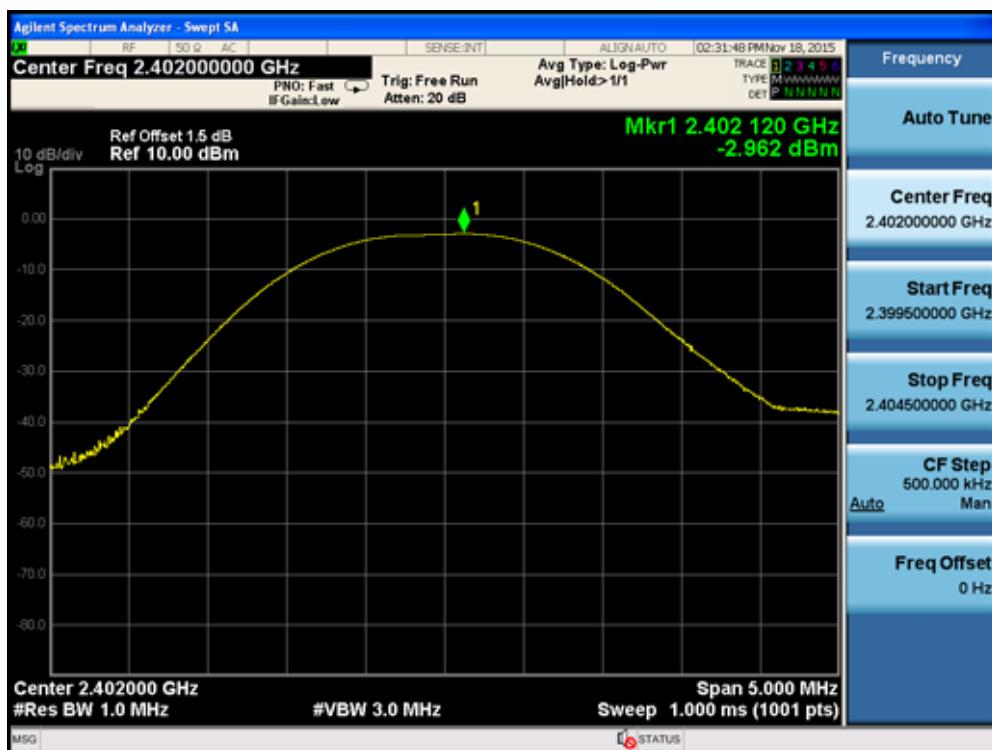


DH5 2480MHz

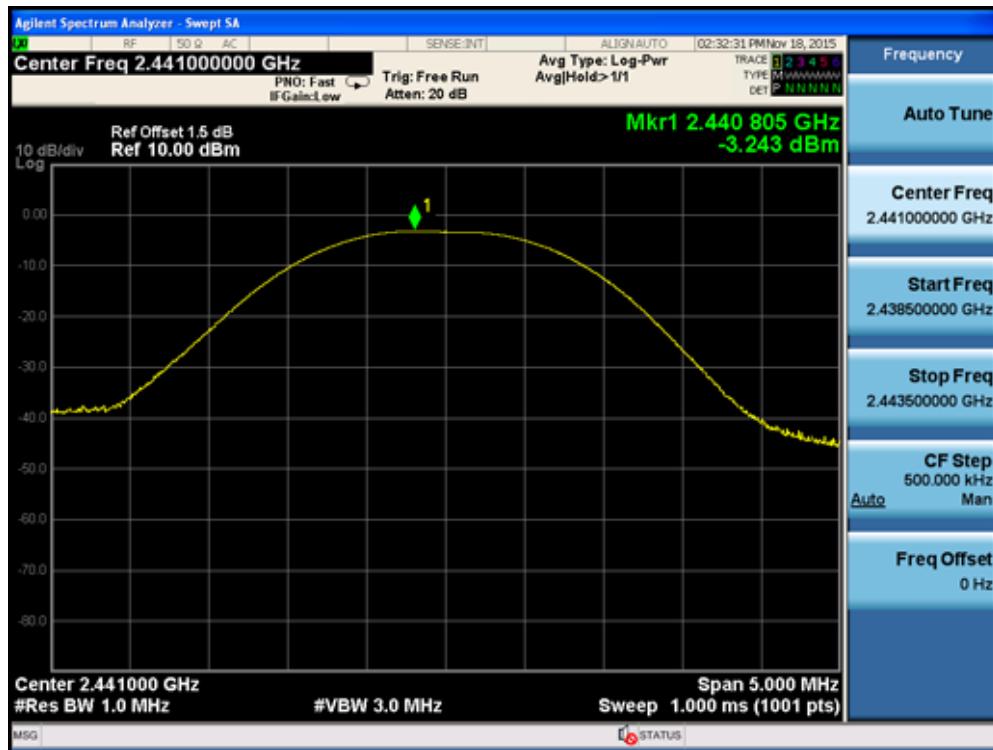


Ant3

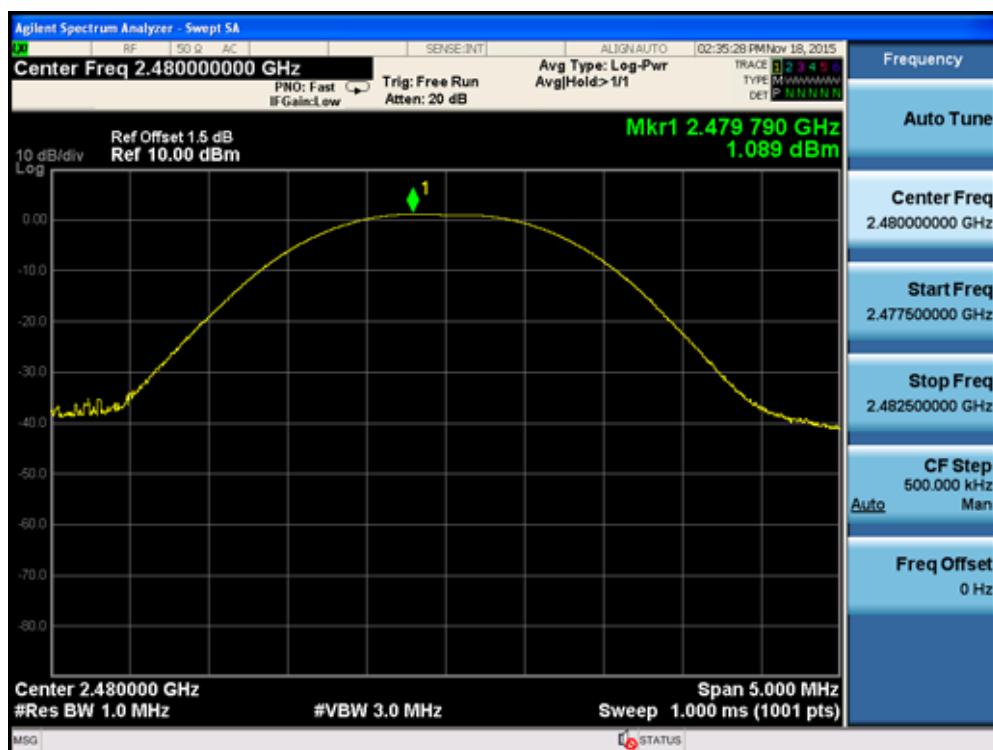
DH5 2402MHz



DH5 2441MHz



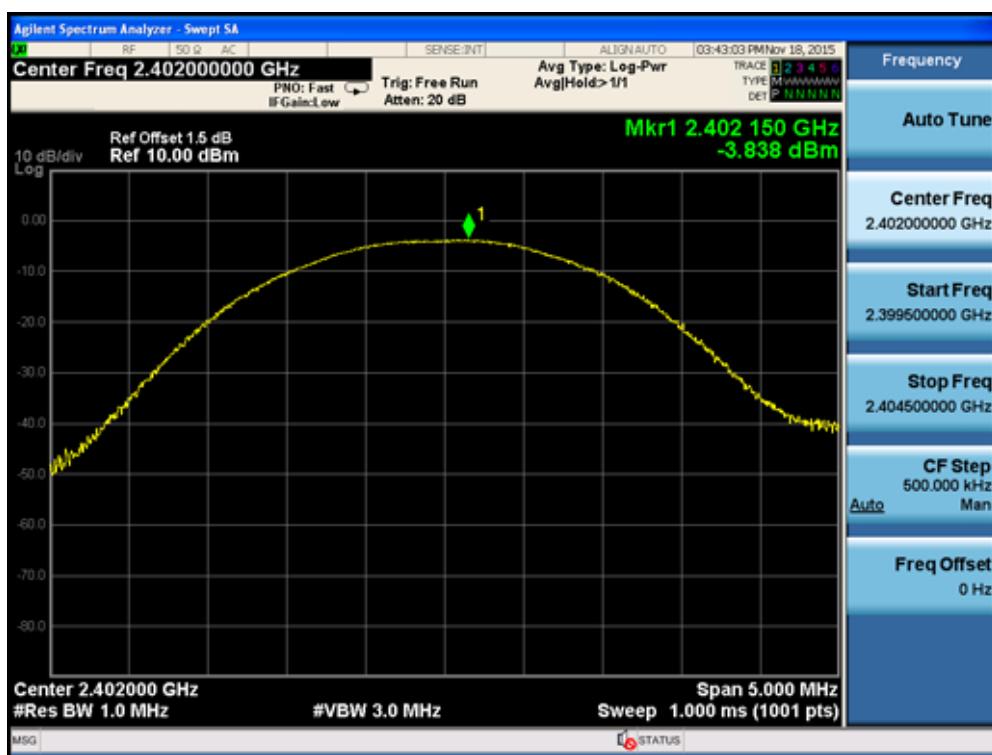
DH5 2480MHz



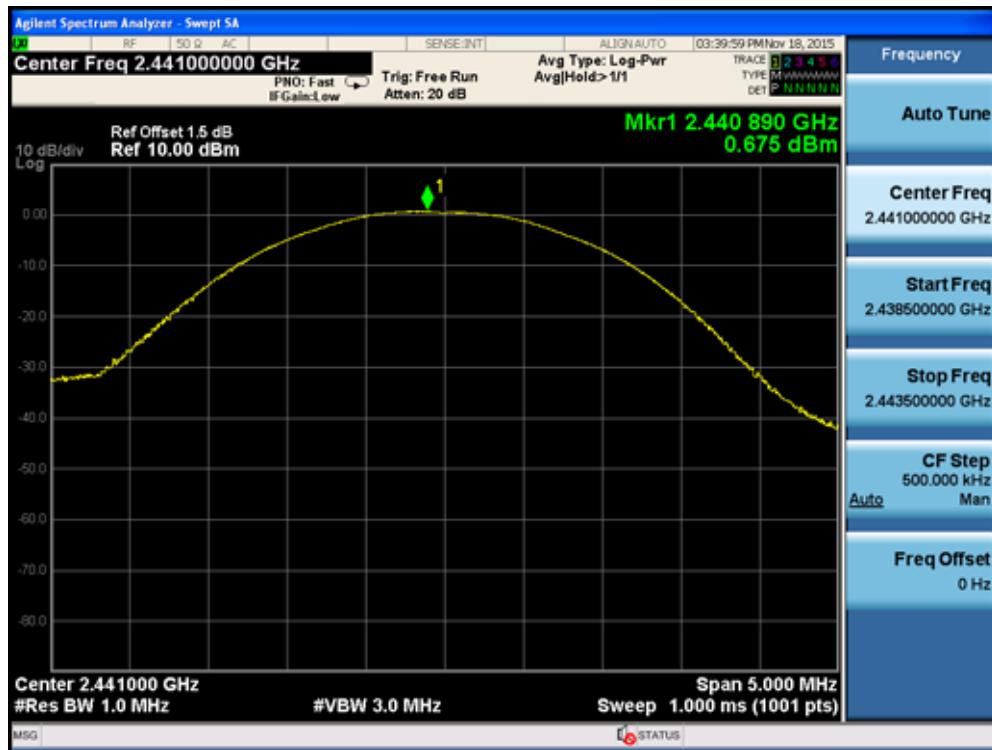
Product	:	Cassia Hub
Test Item	:	Power Output
Test Site	:	TR-8
Test Mode	:	Mode 2: Transmitter-2Mbps (Pi/4 DQPSK_DH5)

Channel No.	Frequency (MHz)	Ant1	Ant2	Ant3	Measurement Power Output (dBm)	Limit (dBm)	Result
0	2402	-3.838	-4.970	-5.242	0.13	23.30	Pass
39	2441	0.675	-4.797	-4.893	2.61	23.30	Pass
78	2480	-1.098	-0.399	-0.712	4.04	23.30	Pass

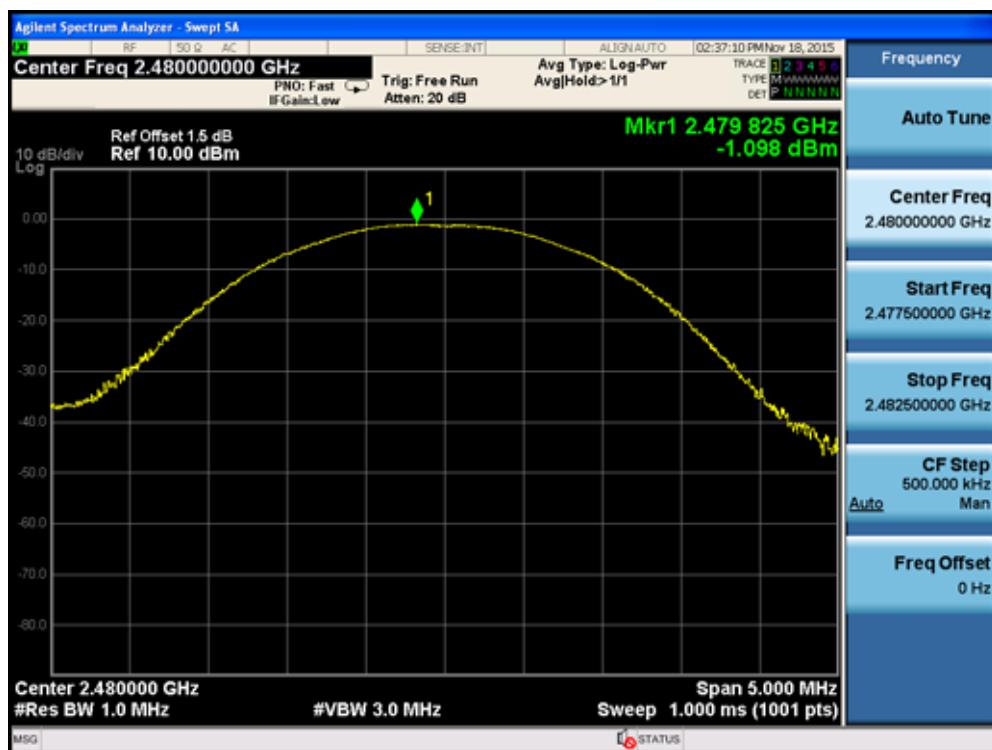
Ant1
2DH5 2402MHz



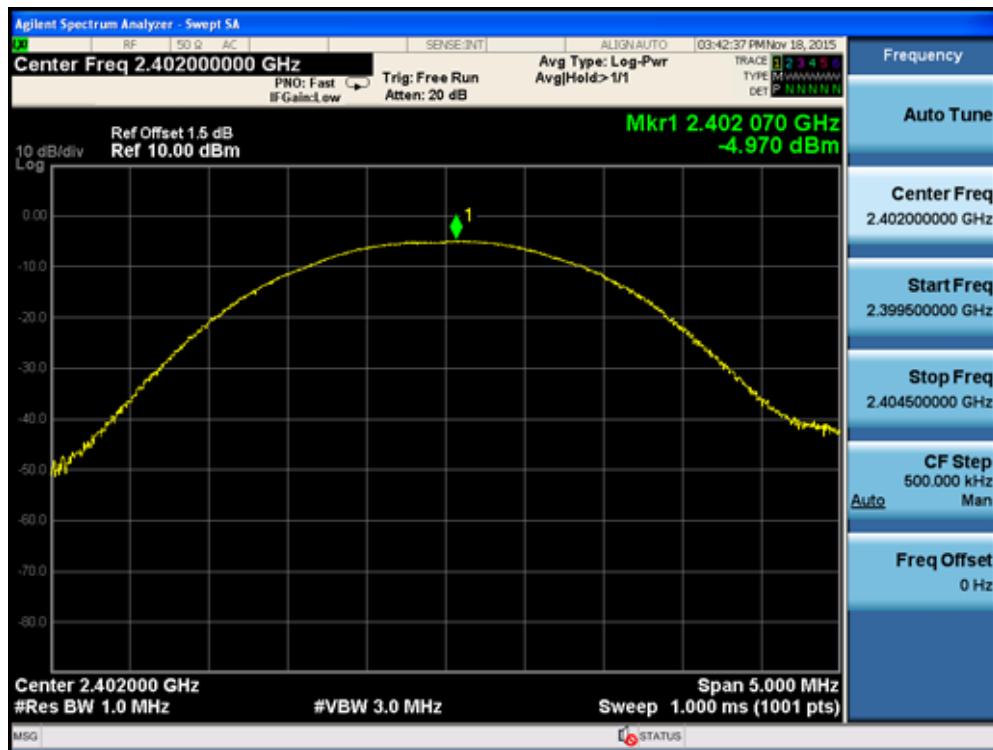
2DH5 2441MHz



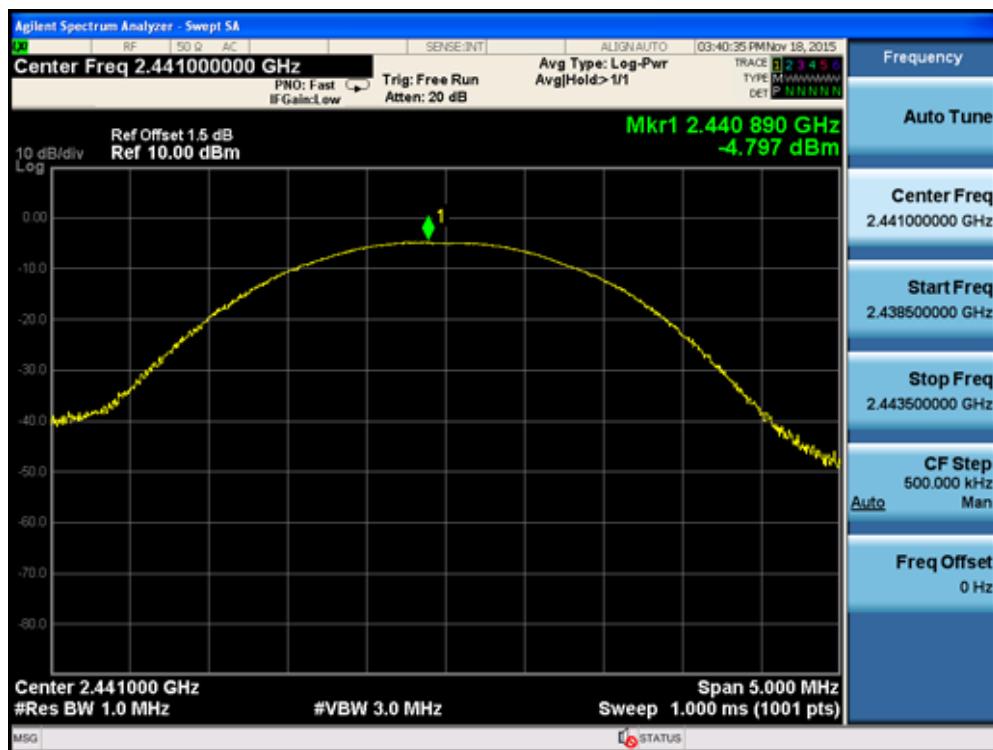
2DH5 2480MHz



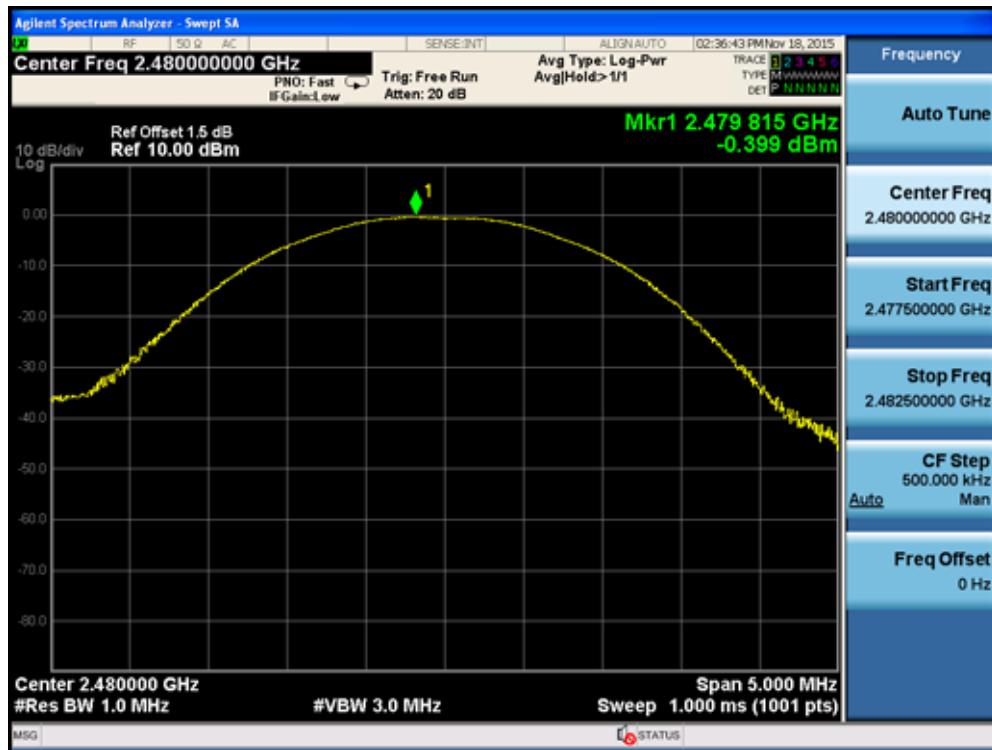
Ant2 2DH5 2402MHz



2DH5 2441MHz

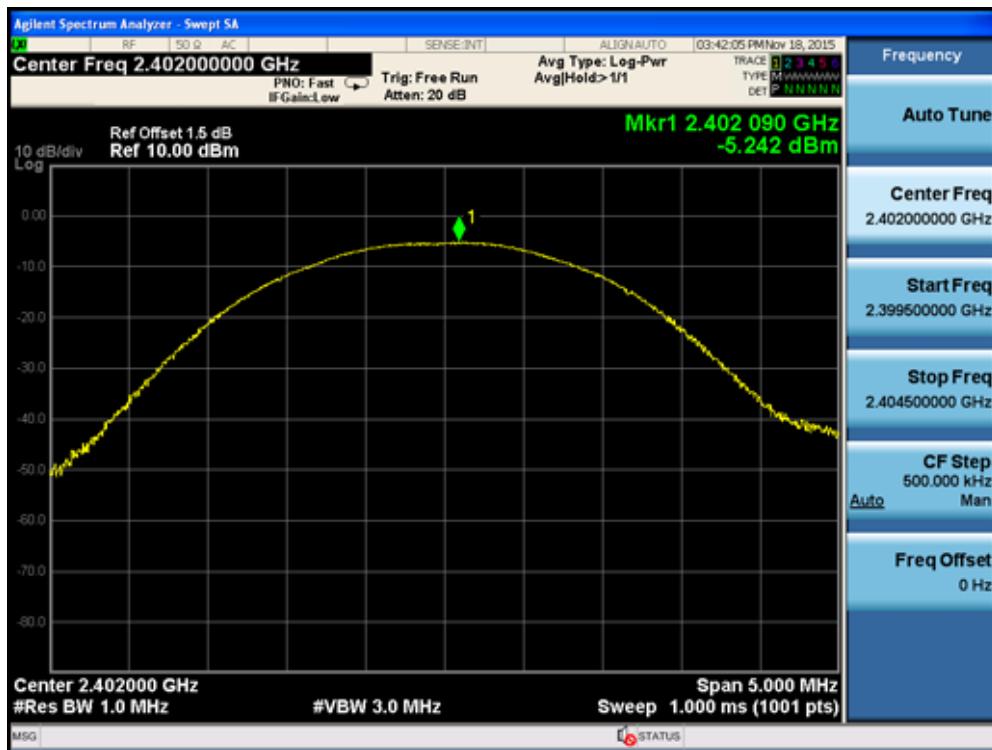


2DH5 2480MHz

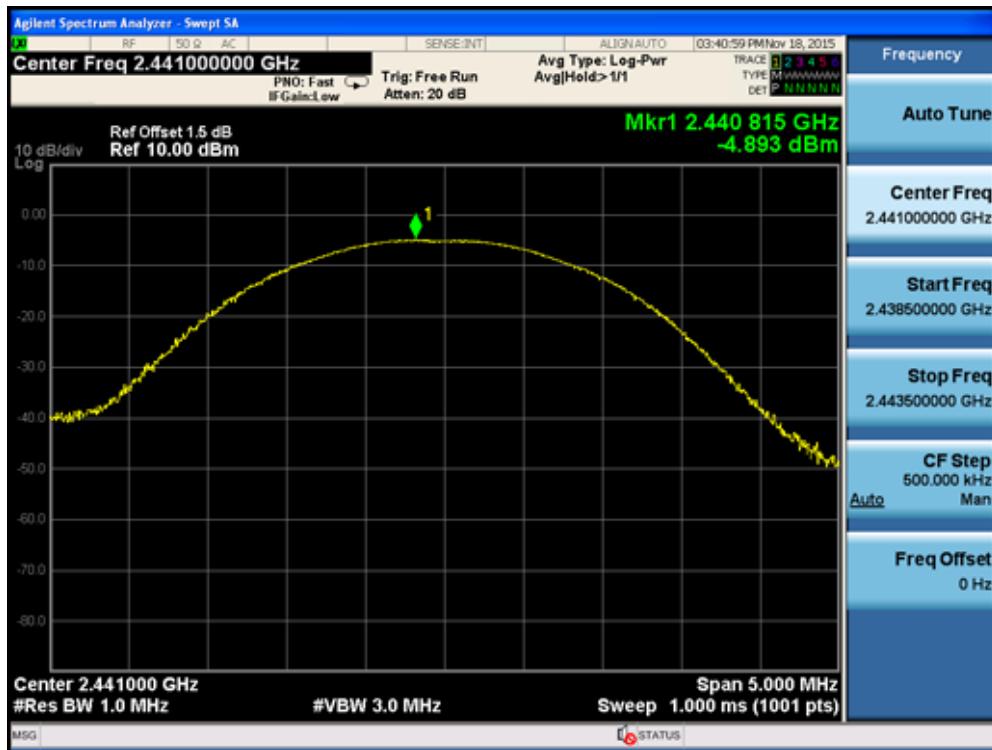


Ant3

2DH5 2402MHz



2DH5 2441MHz



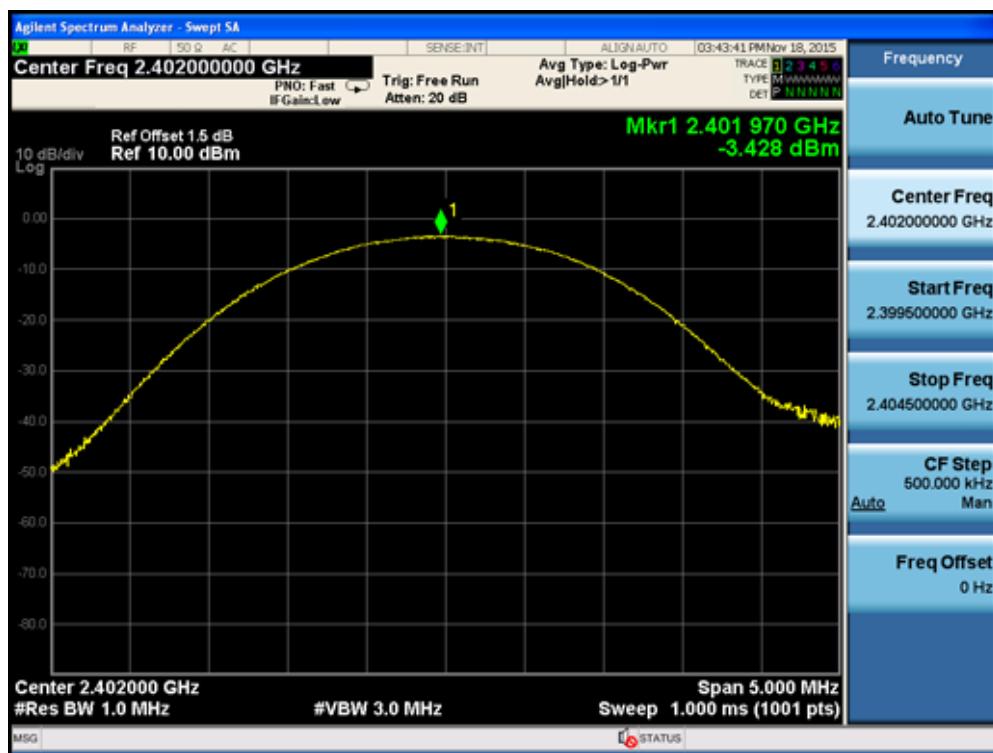
2DH5 2480MHz



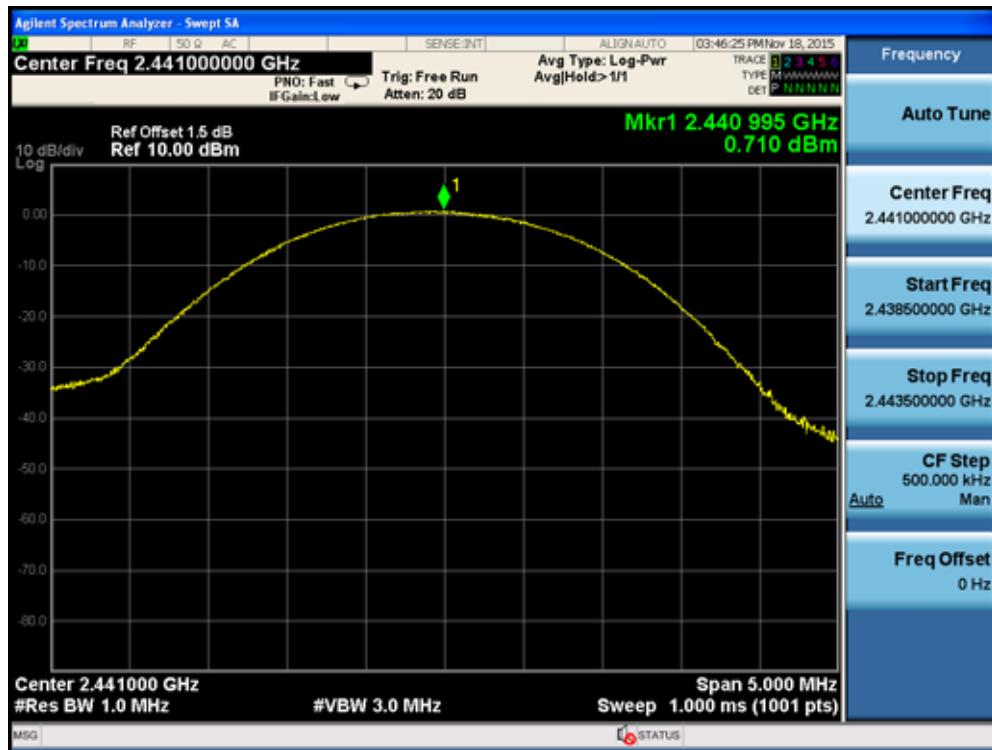
Product	:	Cassia Hub
Test Item	:	Power Output
Test Site	:	TR-8
Test Mode	:	Mode 3: Transmitter-3Mbps (8DPSK_DH5)

Channel No.	Frequency (MHz)	Ant1	Ant2	Ant3	Measurement Power Output (dBm)	Limit (dBm)	Result
0	2402	-3.428	-4.687	-4.978	0.46	23.30	Pass
39	2441	0.710	-4.522	-4.569	2.74	23.30	Pass
78	2480	-0.455	-0.316	-0.360	4.39	23.30	Pass

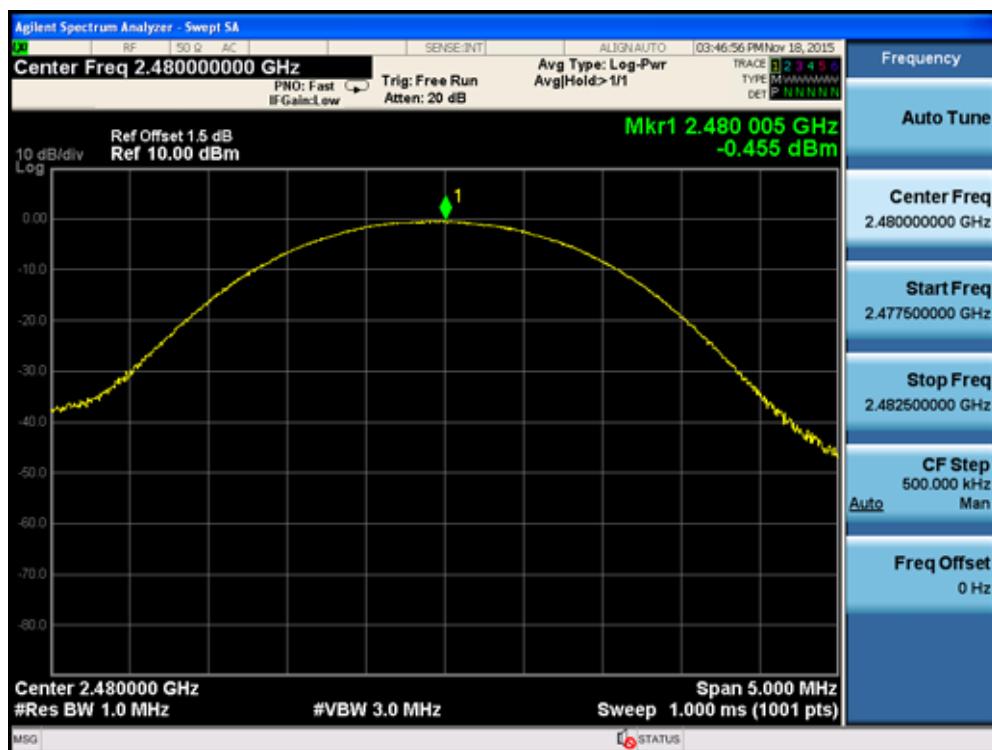
Ant1
3DH5 2402MHz



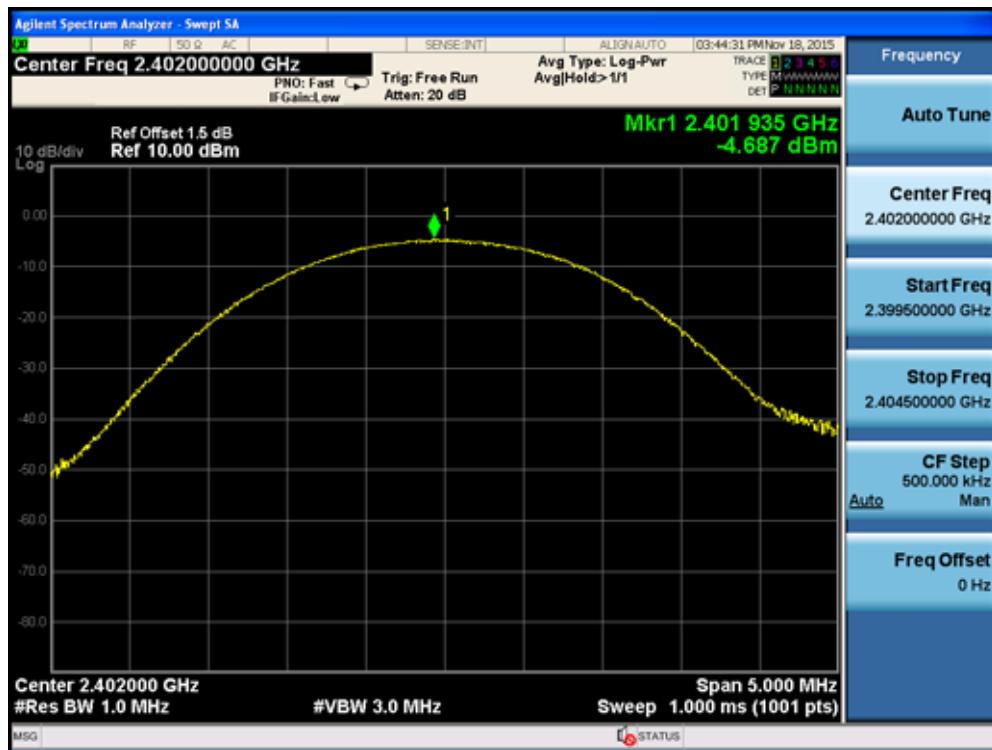
3DH5 2441MHz



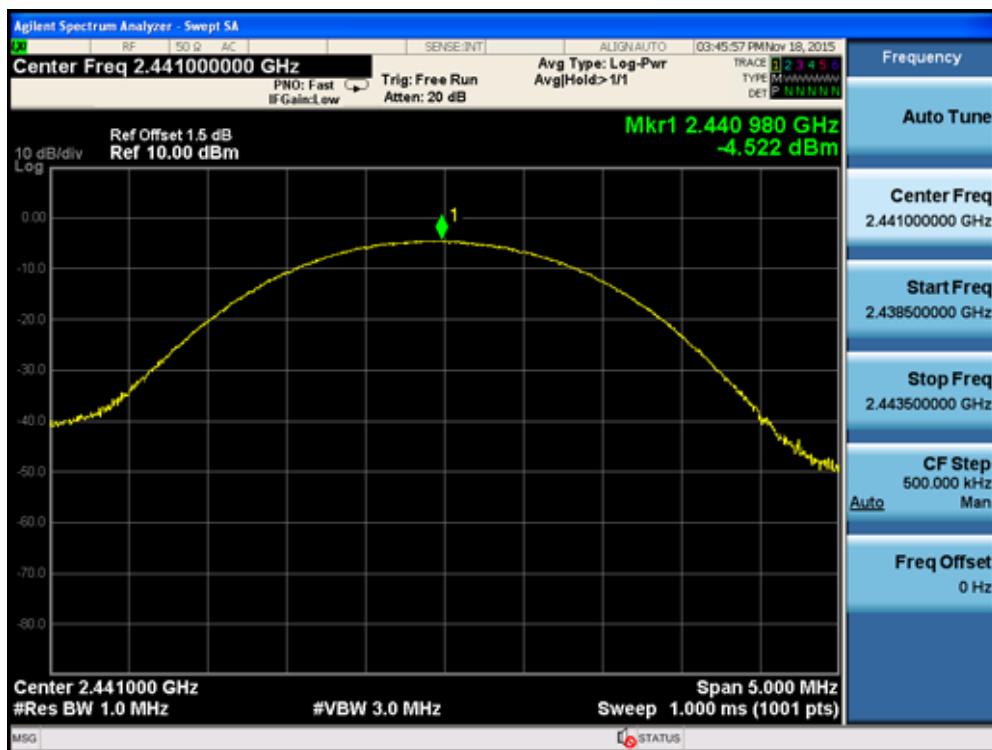
3DH5 2480MHz



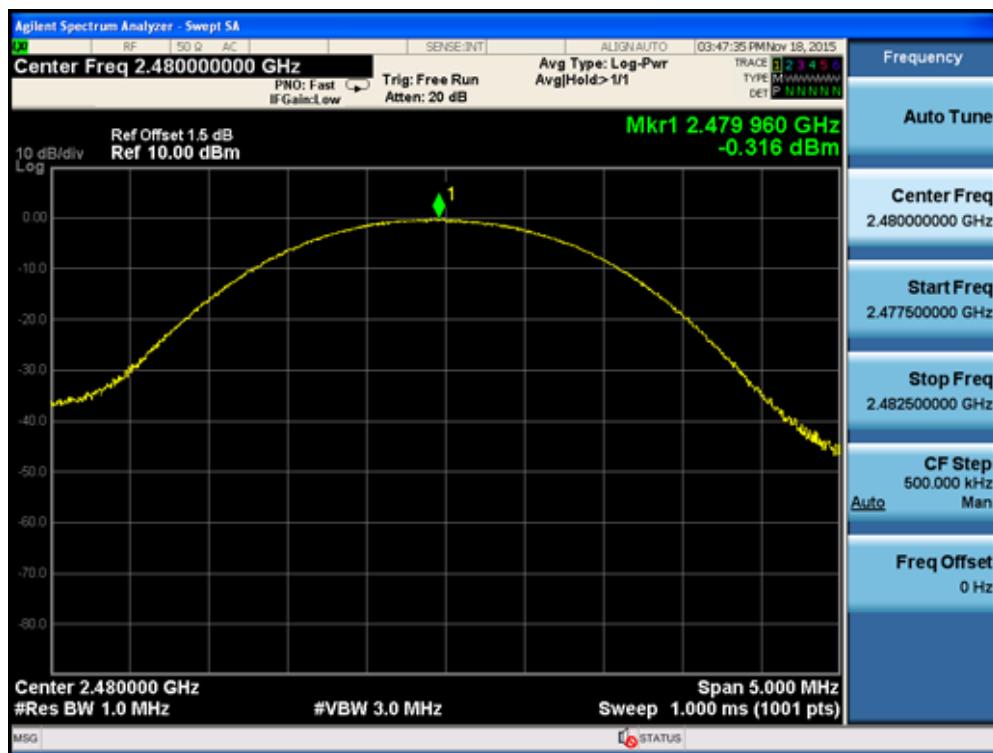
Ant2 3DH5 2402MHz



3DH5 2441MHz

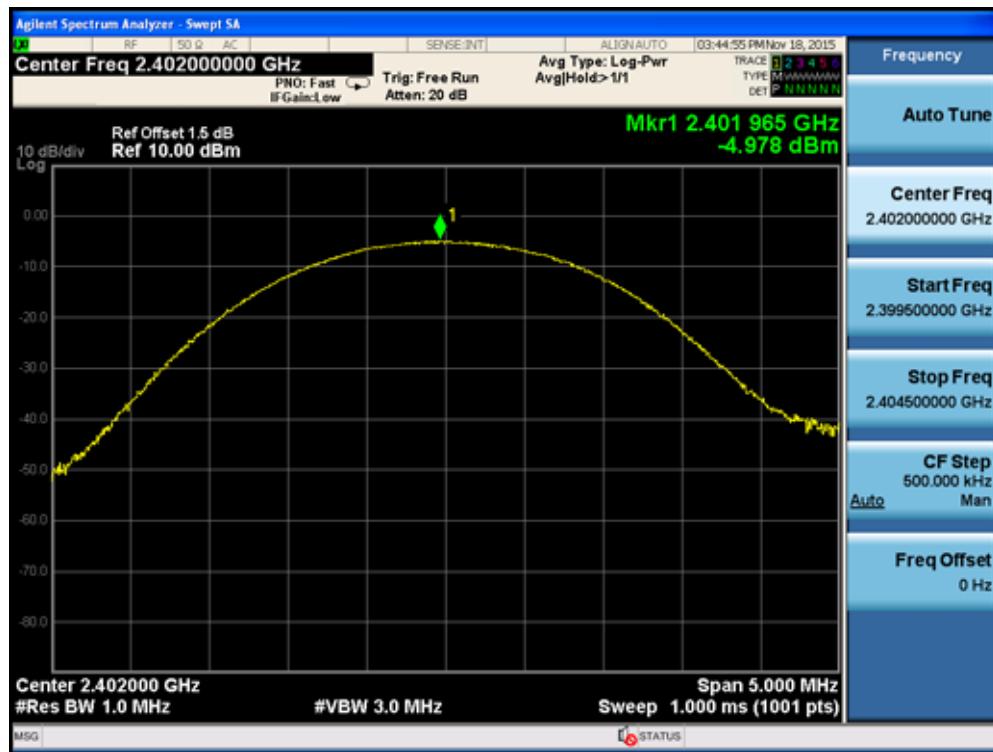


3DH5 2480MHz

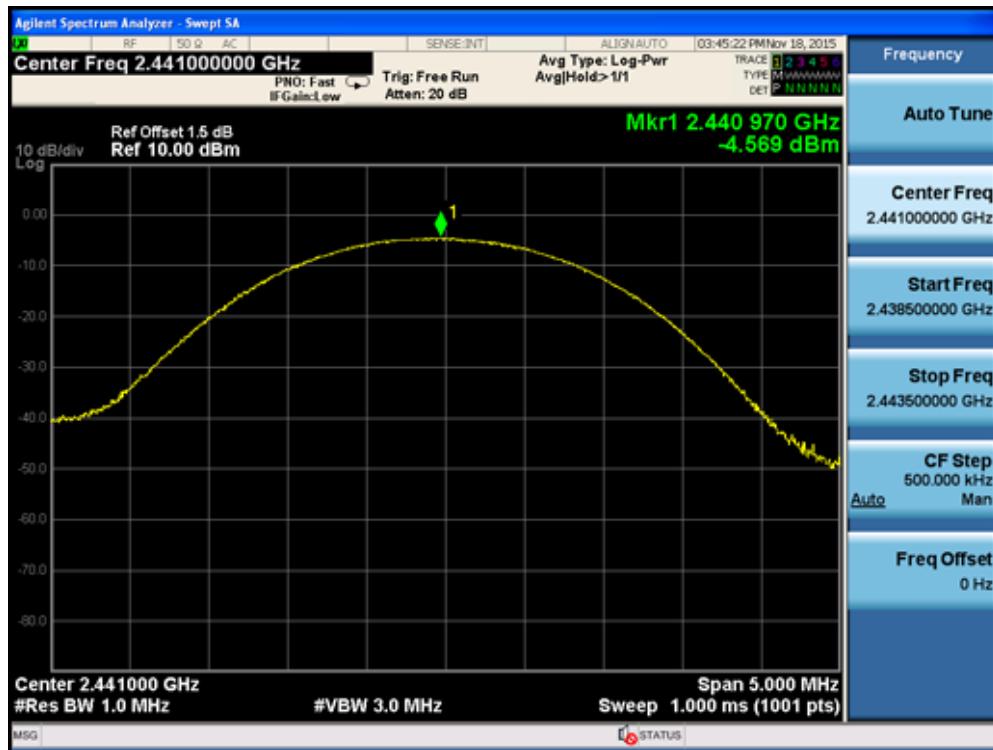


Ant3

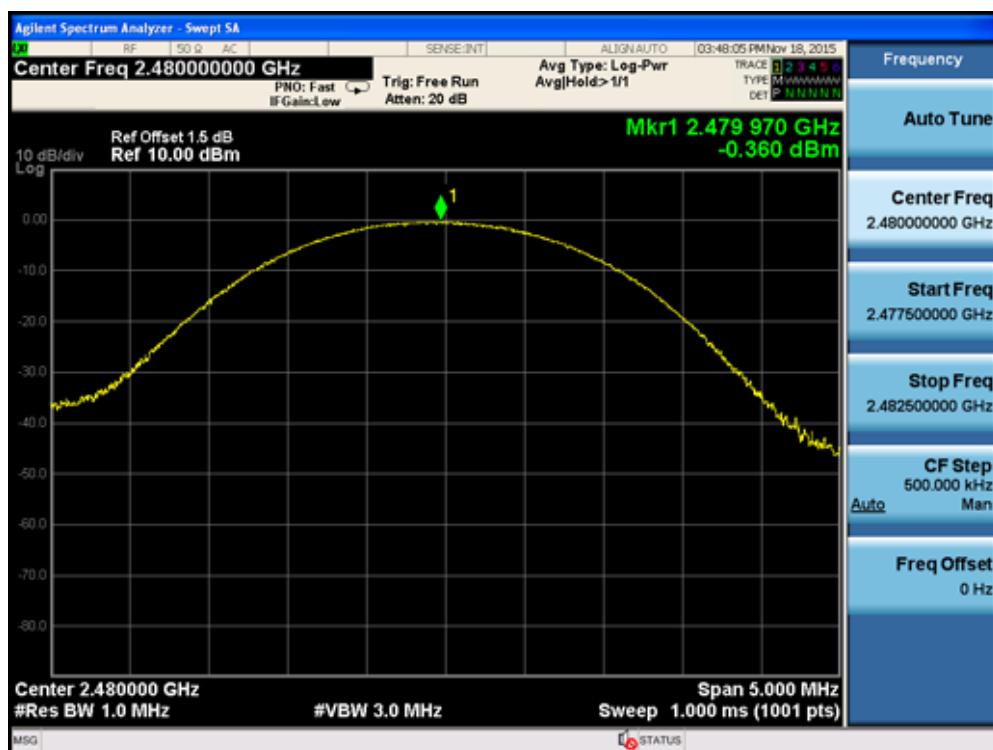
3DH5 2402MHz



3DH5 2441MHz



3DH5 2480MHz



10. Band-edge Compliance of RF Conducted Emissions

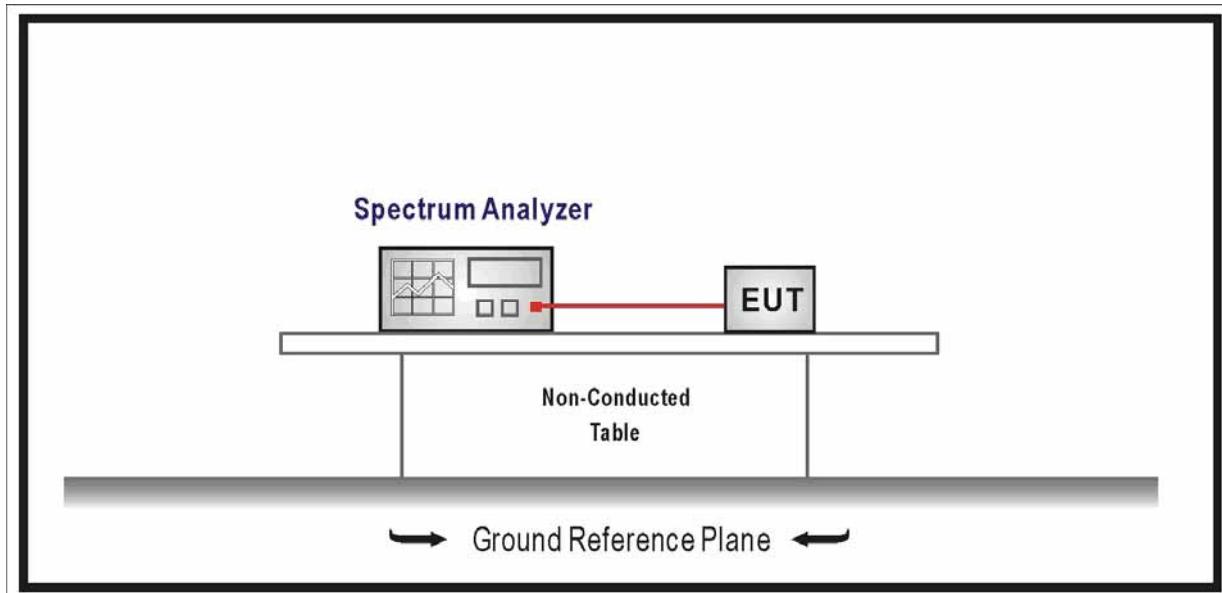
10.1. Test Equipment

Band-edge Compliance of RF Conducted Emissions / TR-8

Instrument	Manufacturer	Type No.	Serial No.	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2016.03.10
Temperature/Humidity Meter	Zhicheng	ZC1-2	TR8-TH	2016.04.09

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

10.2. Test Setup



10.3. Limit

- Intentional radiators operating under the alternative provisions to the general emission limits as contained in 15.217 through 15.257 and in Subpart E of FCC part 15, must be designed to ensure that 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.
- 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, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) of FCC part 15 is not required.

10.4. Test Procedure

According to ANSI C63.10: 2013& ANSI C63.4: 2014

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the emission operating on the channel closest to the bandedge, as well as any modulation products which fall outside of the authorized band of operation.

RBW \geq 1% of the span

VBW \geq RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize. Set the marker on the emission at the bandedge, or on the highest modulation product outside of the band, if this level is greater than that at the bandedge.

Enable the marker-delta function, then use the marker-to-peak function to move the marker to the peak of the in-band emission. The marker-delta value now displayed must comply with the limit specified in this Section.

Now, using the same instrument settings, enable the hopping function of the EUT. Allow the trace to stabilize. Follow the same procedure listed above to determine if any spurious emissions caused by the hopping function also comply with the specified limit.

10.5. Uncertainty

The measurement uncertainty is defined as \pm 1.0 dB

10.6. Test Result

Product	:	Cassia Hub
Test Item	:	Band-edge Compliance of RF Conducted Emissions
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmitter-1Mbps (GFSK_DH5)

Ant 1

Channel 00 (2402MHz)



Channel 78 (2480MHz)



Ant 2

Channel 00 (2402MHz)



Channel 78 (2480MHz)



Ant 3

Channel 00 (2402MHz)



Channel 78 (2480MHz)



Product	:	Cassia Hub
Test Item	:	Band-edge Compliance of RF Conducted Emissions
Test Site	:	TR-8
Test Mode	:	Mode 2: Transmitter-2Mbps (Pi/4 DQPSK_DH5)

Ant 1

Channel 00 (2402MHz)



Channel 78 (2480MHz)



Ant 2

Channel 00 (2402MHz)



Channel 78 (2480MHz)



Ant 3

Channel 00 (2402MHz)



Channel 78 (2480MHz)



Product	:	Cassia Hub
Test Item	:	Band-edge Compliance of RF Conducted Emissions
Test Site	:	TR-8
Test Mode	:	Mode 3: Transmitter-3Mbps (8DPSK_DH5)

Ant 1

Channel 00 (2402MHz)



Channel 78 (2480MHz)



Ant 2

Channel 00 (2402MHz)



Channel 78 (2480MHz)



Ant 3

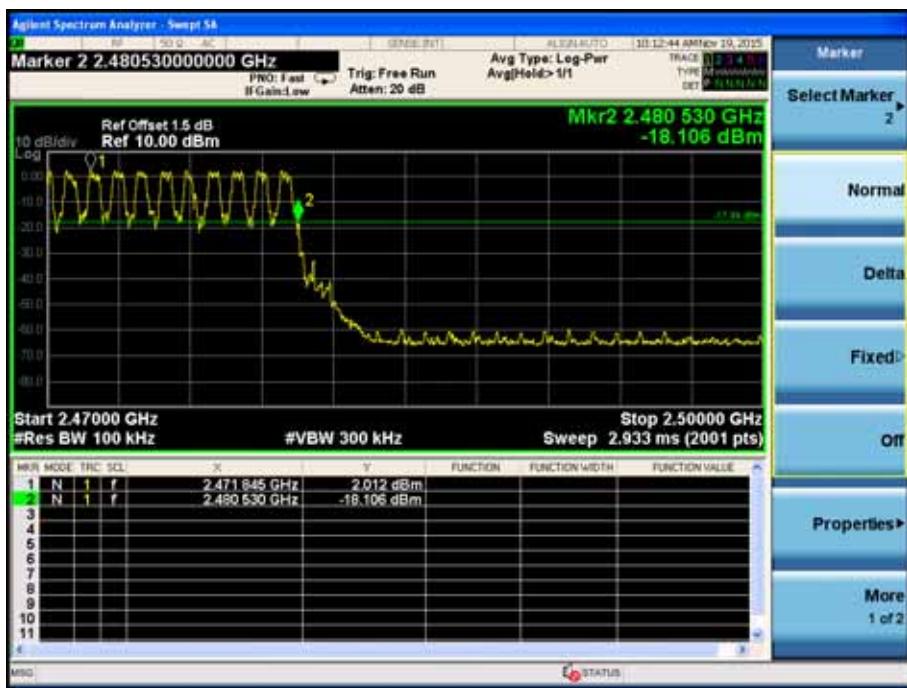
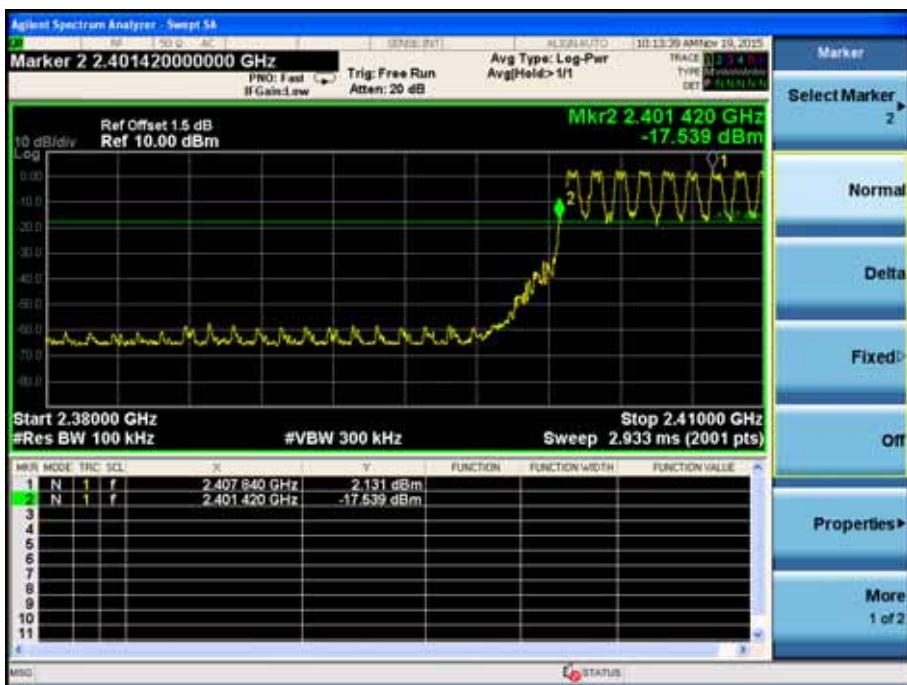
Channel 00 (2402MHz)



Channel 78 (2480MHz)



Product	:	Cassia Hub
Test Item	:	Band-edge Compliance of RF Conducted Emissions
Test Site	:	TR-8
Test Mode	:	Mode: Hopping Mode



11. Spurious RF Conducted Emissions

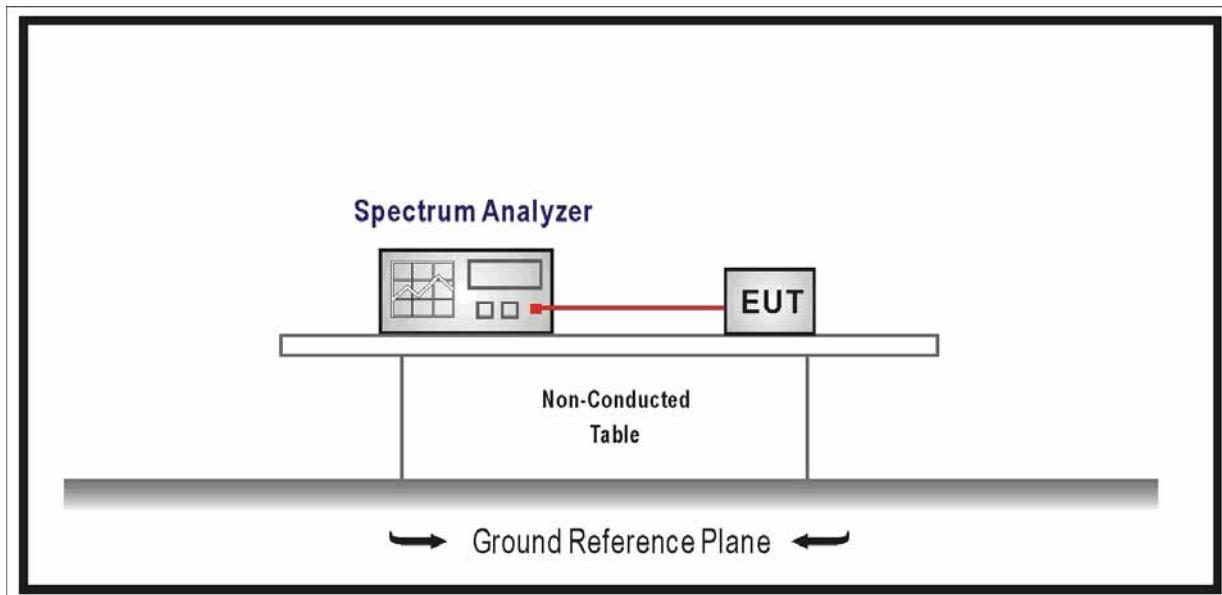
11.1. Test Equipment

Spurious RF Conducted Emissions / TR-8

Instrument	Manufacturer	Type No.	Serial No.	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2016.03.10
Temperature/Humidity Meter	Zhicheng	ZC1-2	TR8-TH	2016.04.09

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

11.2. Test Setup



11.3. Limit

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, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in

Section 15.209(a) of FCC part 15 is not required.

11.4. Test Procedure

According to ANSI C63.10: 2013.

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10th harmonic. Typically, several plots are required to cover this entire span.

RBW = 100 kHz

VBW \geq RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize. Set the marker on the peak of any spurious emission recorded.

The level displayed must comply with the limit specified in this section.

11.5. Uncertainty

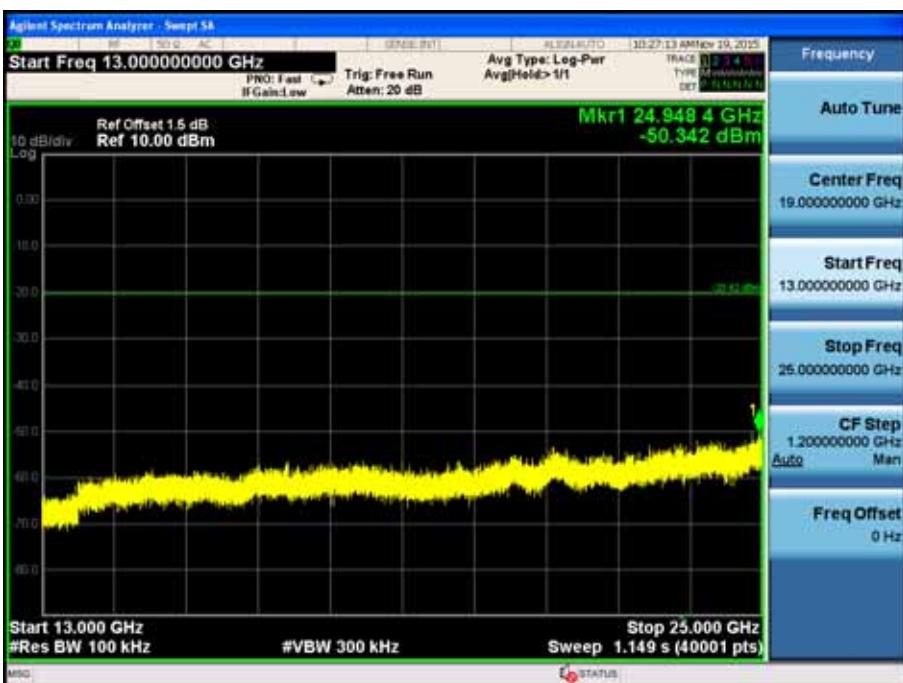
The measurement uncertainty is defined as \pm 1.0 dB

11.6. Test Result

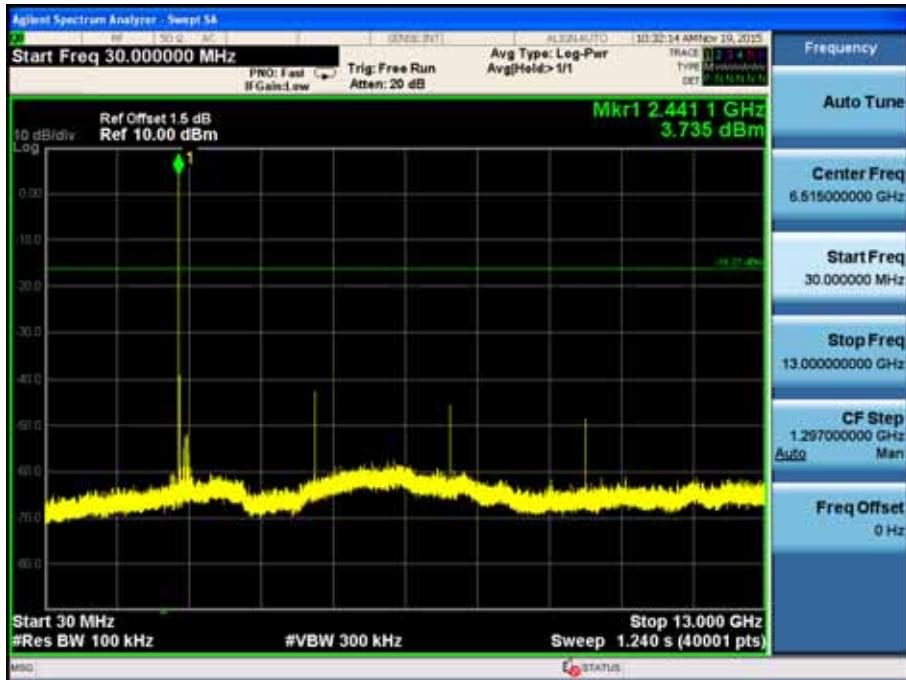
Product	:	Cassia Hub
Test Item	:	Spurious RF Conducted Emissions
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmitter-1Mbps (GFSK_DH5)

Ant 1

Channel 00 (2402MHz)



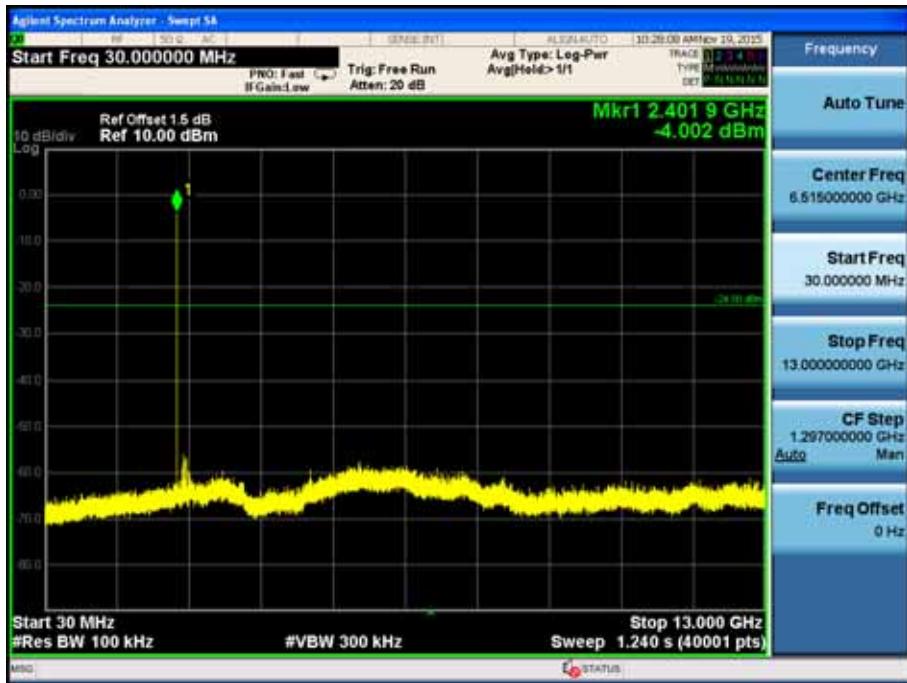
Channel 39 (2441MHz)



Channel 78 (2480MHz)



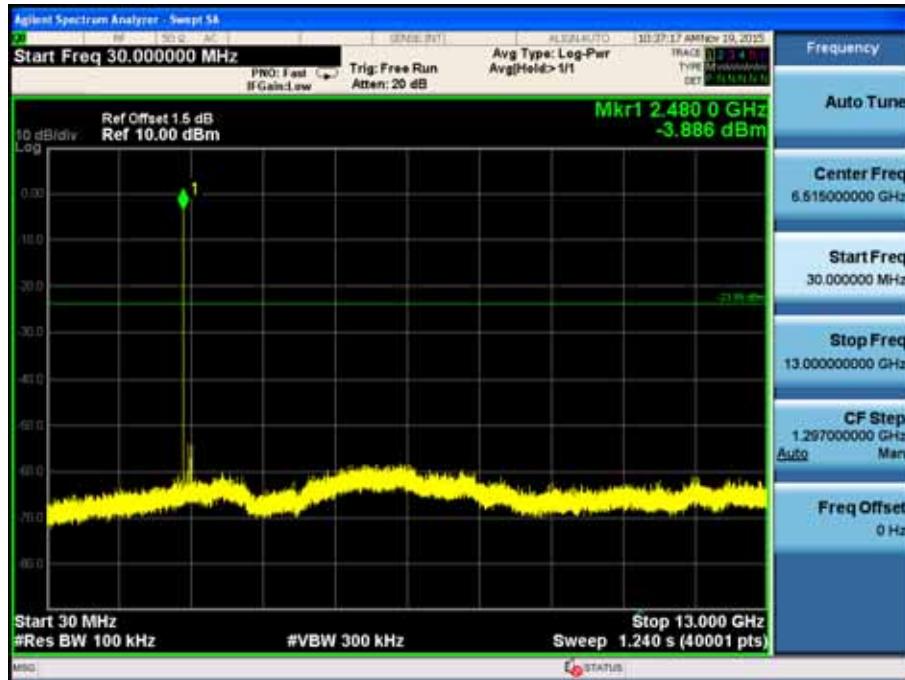
Ant 2
Channel 00 (2402MHz)



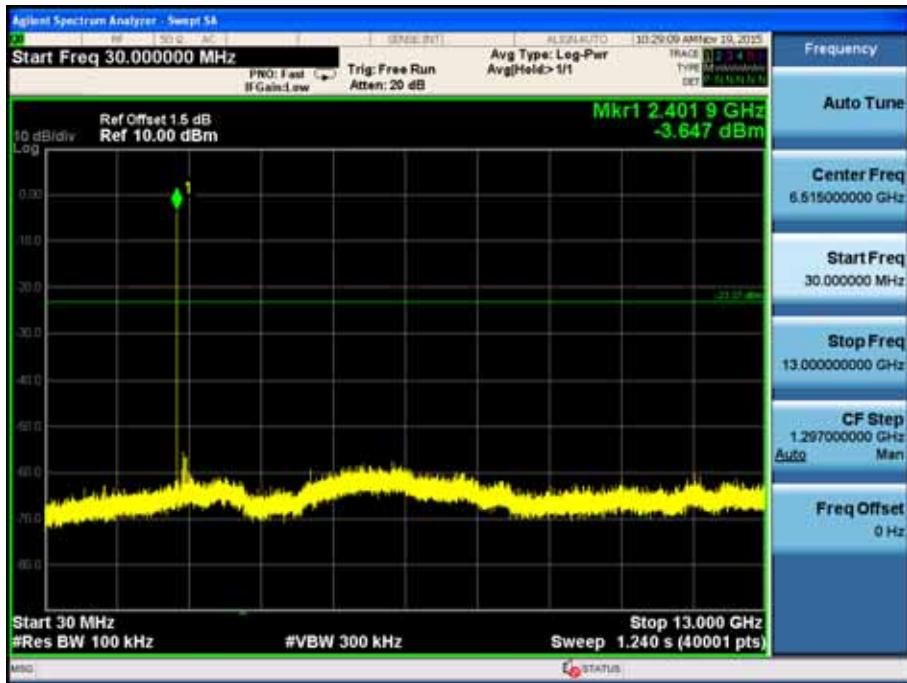
Channel 39 (2441MHz)



Channel 78 (2480MHz)



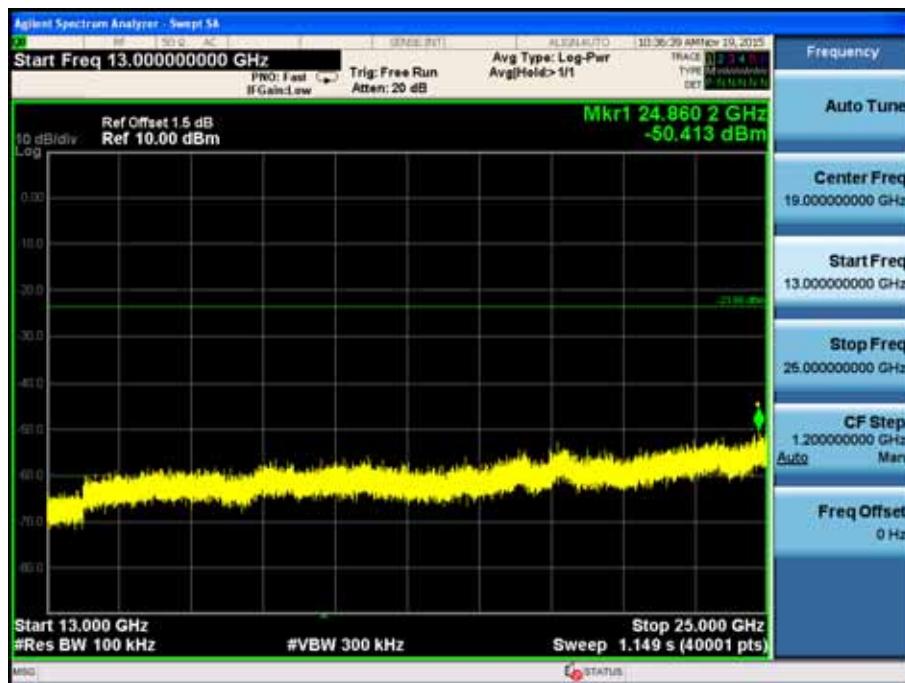
Ant 3 Channel 00 (2402MHz)



Channel 39 (2441MHz)



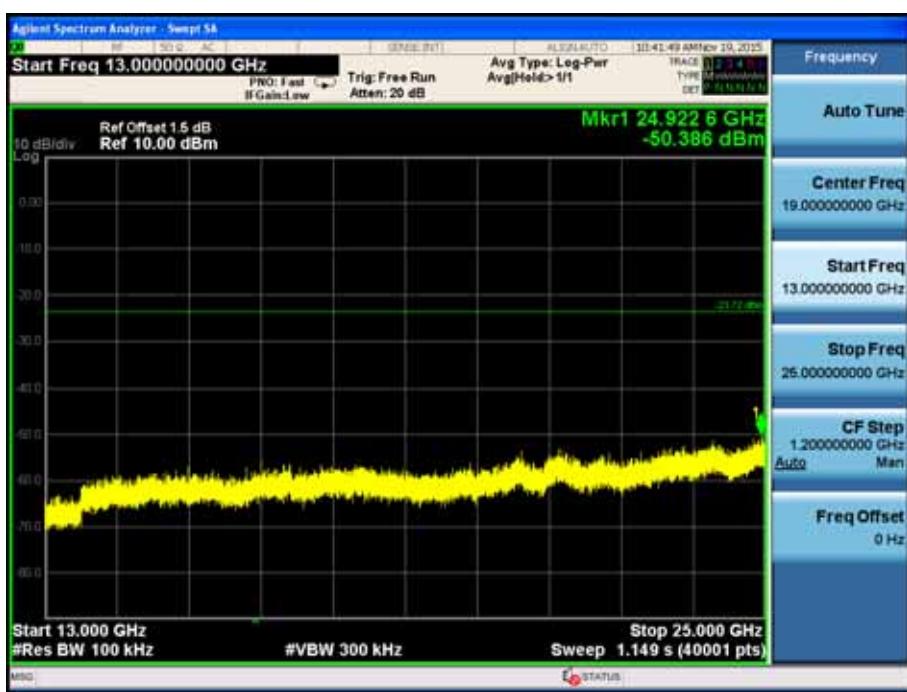
Channel 78 (2480MHz)



Product	:	Cassia Hub
Test Item	:	Spurious RF Conducted Emissions
Test Site	:	TR-8
Test Mode	:	Mode 2: Transmitter-2Mbps (Pi/4 DQPSK_DH5)

Ant 1

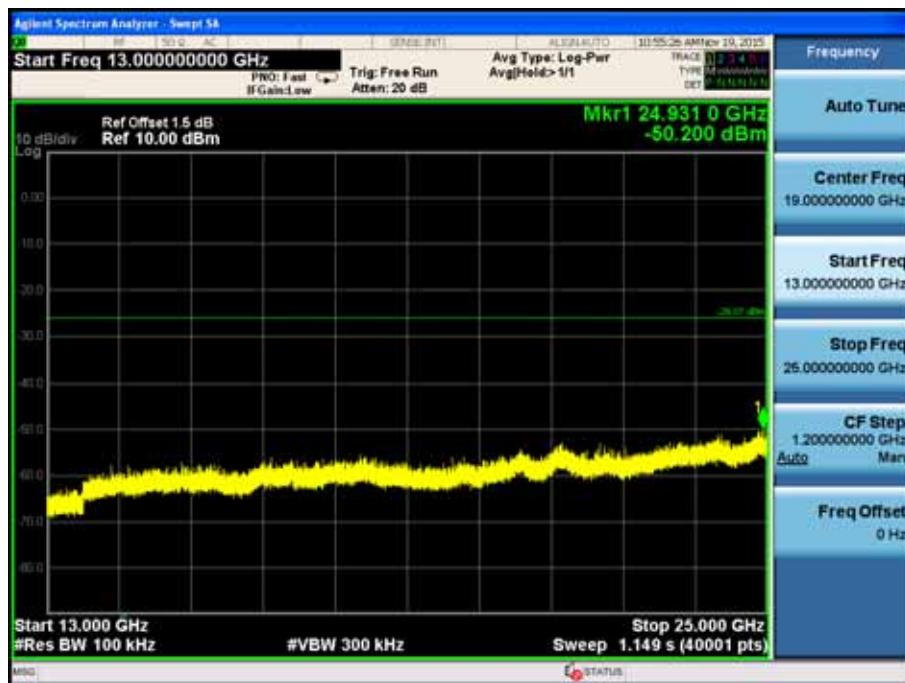
Channel 00 (2402MHz)



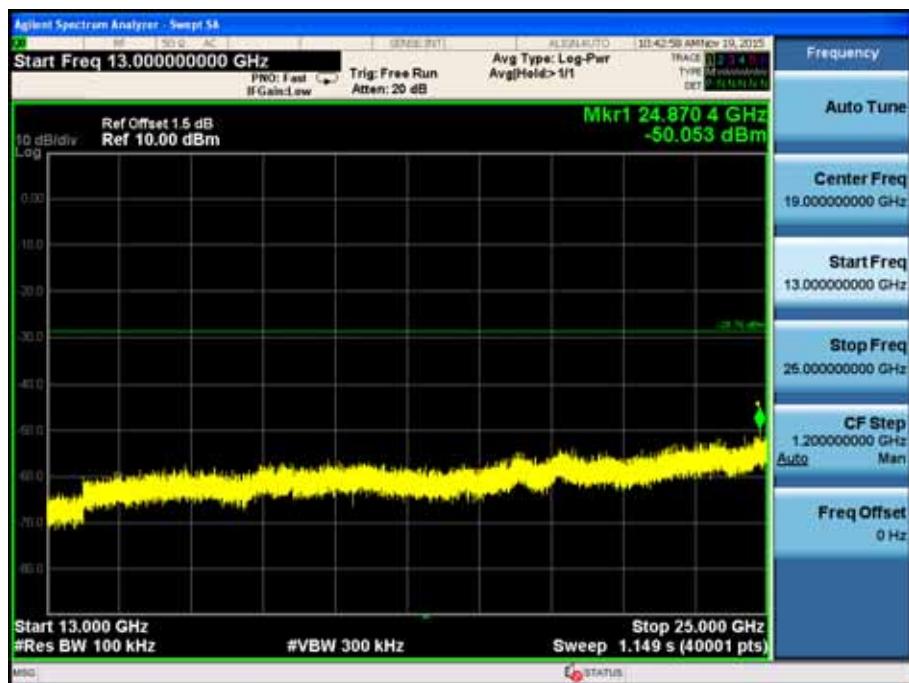
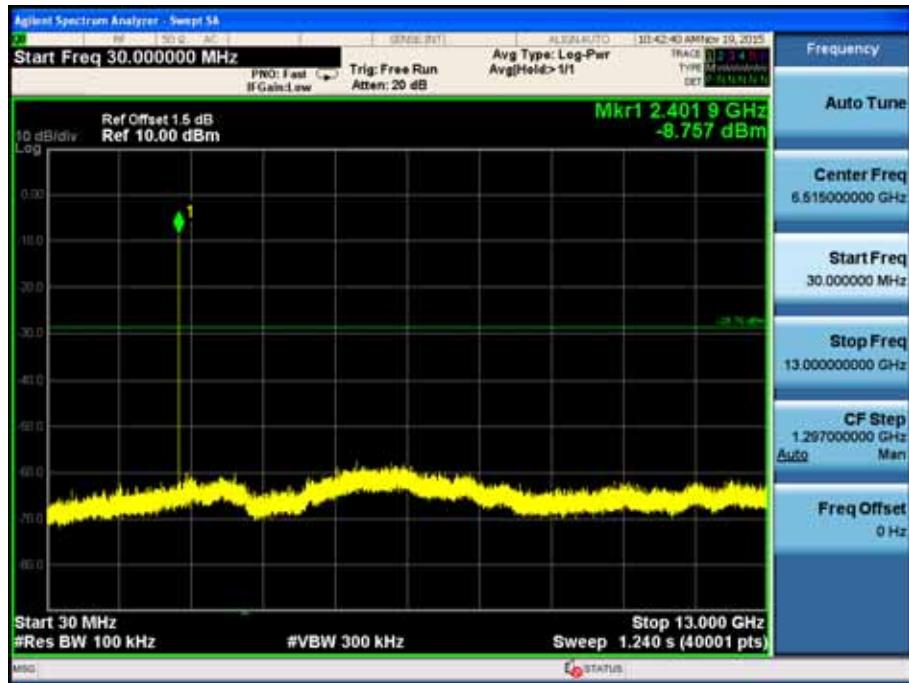
Channel 39 (2441MHz)



Channel 78 (2480MHz)



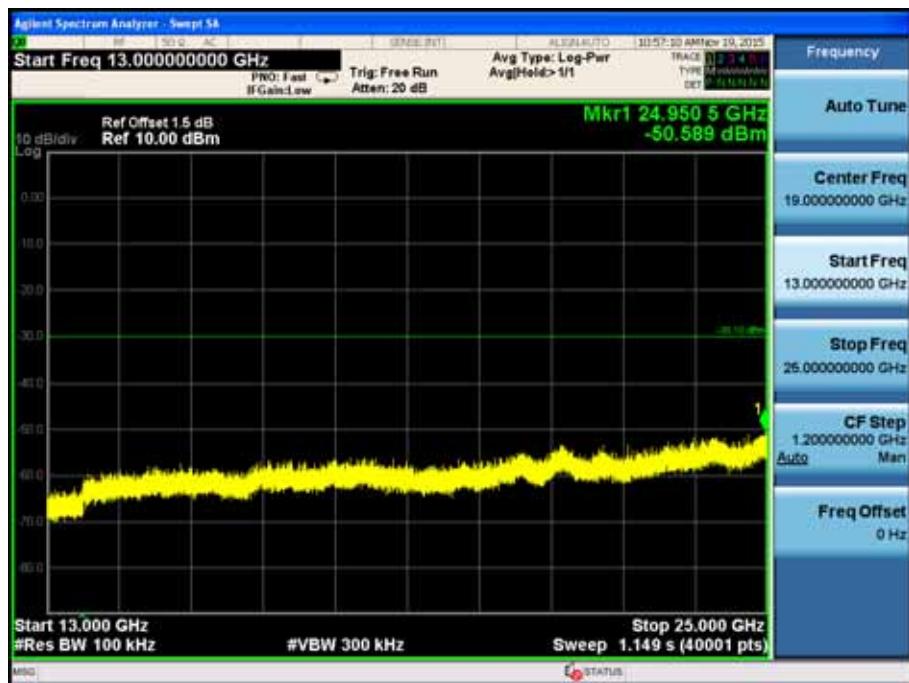
Ant 2 Channel 00 (2402MHz)



Channel 39 (2441MHz)



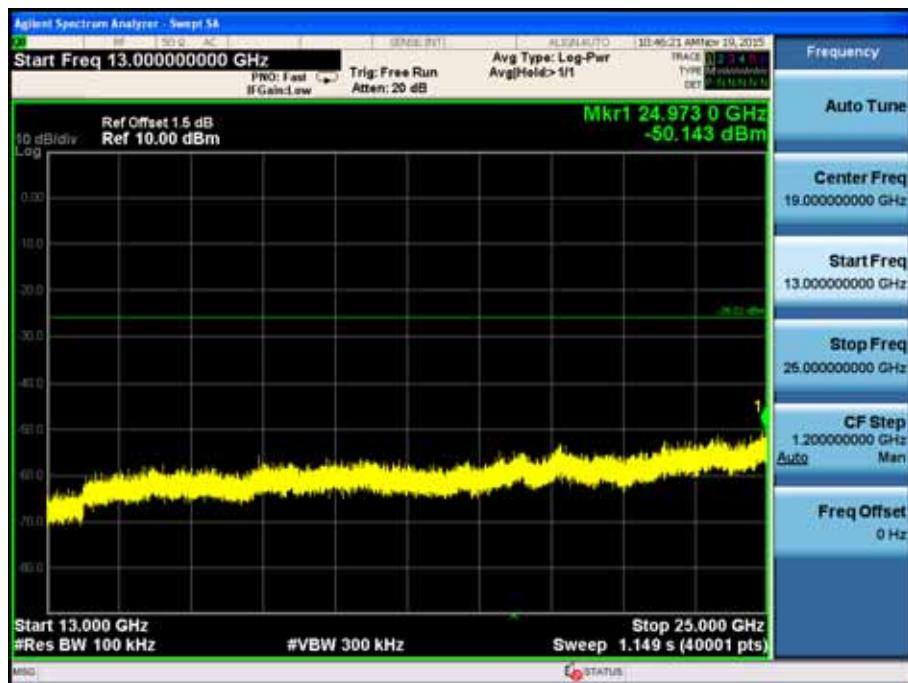
Channel 78 (2480MHz)



Ant 3
Channel 00 (2402MHz)



Channel 39 (2441MHz)



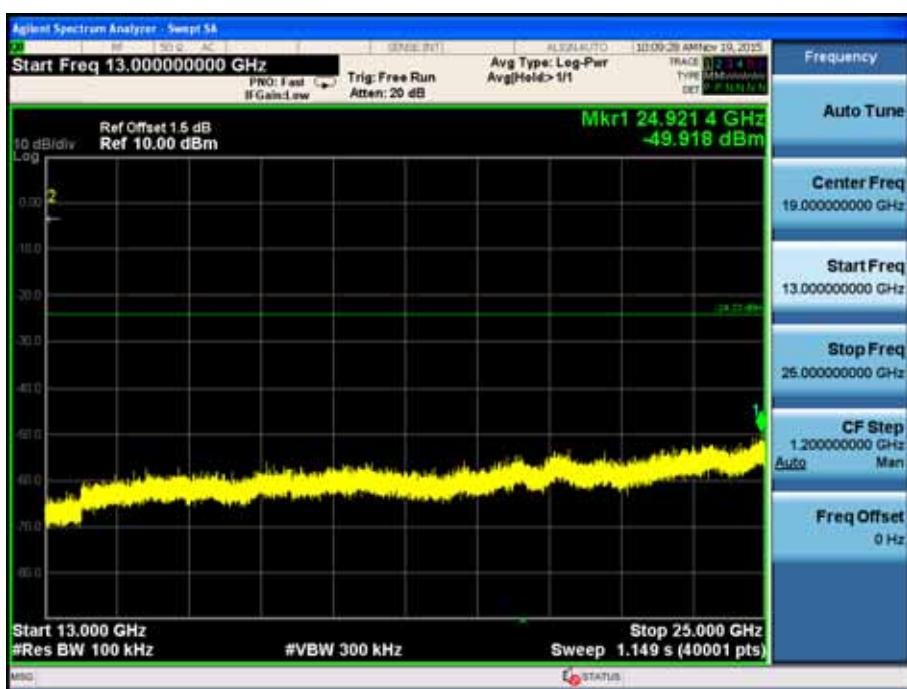
Channel 78 (2480MHz)



Product	:	Cassia Hub
Test Item	:	Spurious RF Conducted Emissions
Test Site	:	TR-8
Test Mode	:	Mode 3: Transmitter-3Mbps (8DPSK_DH5)

Ant 1

Channel 00 (2402MHz)



Channel 39 (2441MHz)



Channel 78 (2480MHz)



Ant 1 Channel 00 (2402MHz)



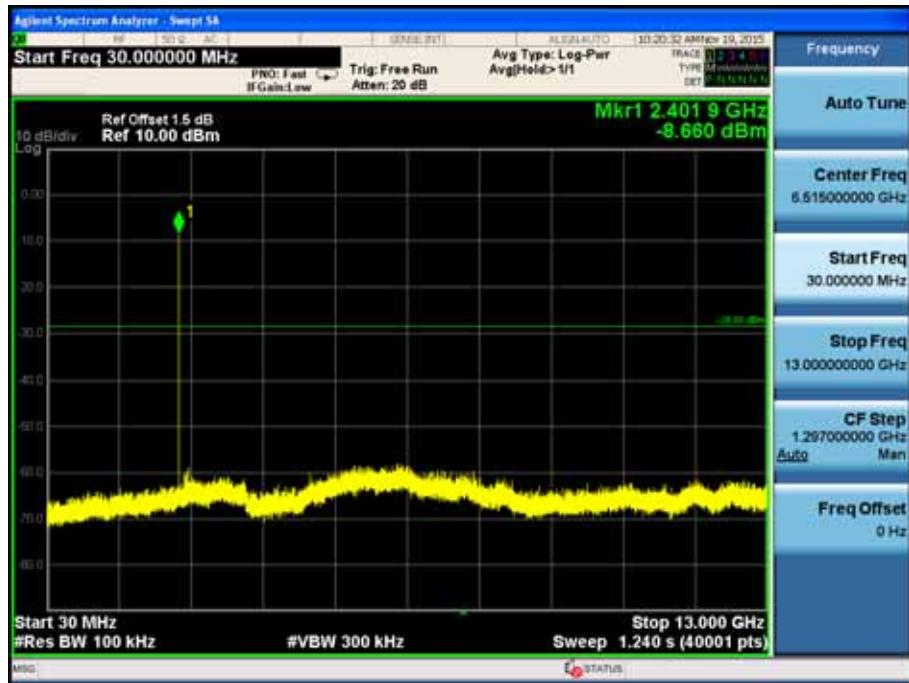
Channel 39 (2441MHz)



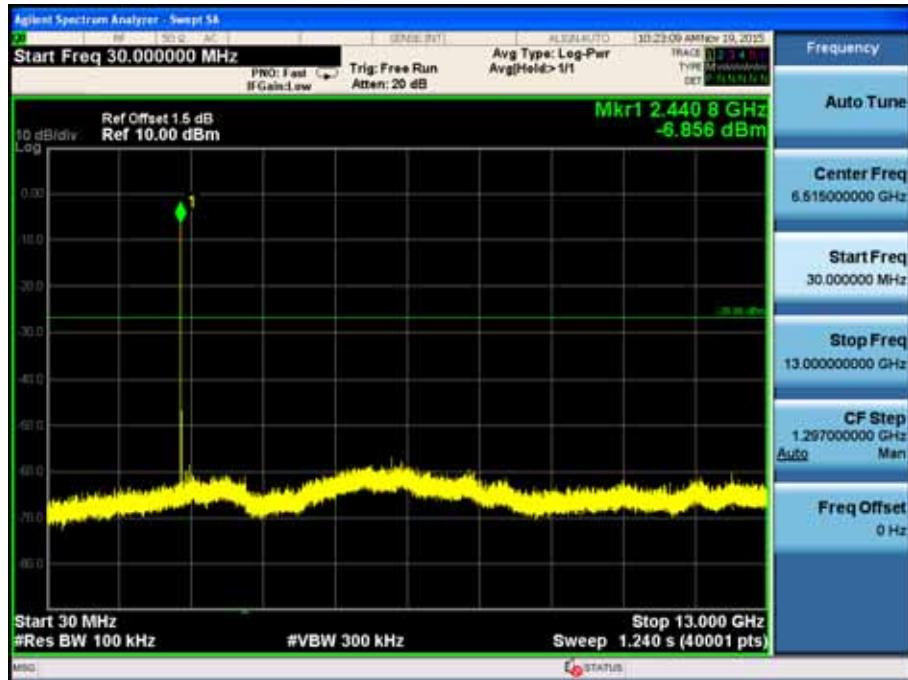
Channel 78 (2480MHz)



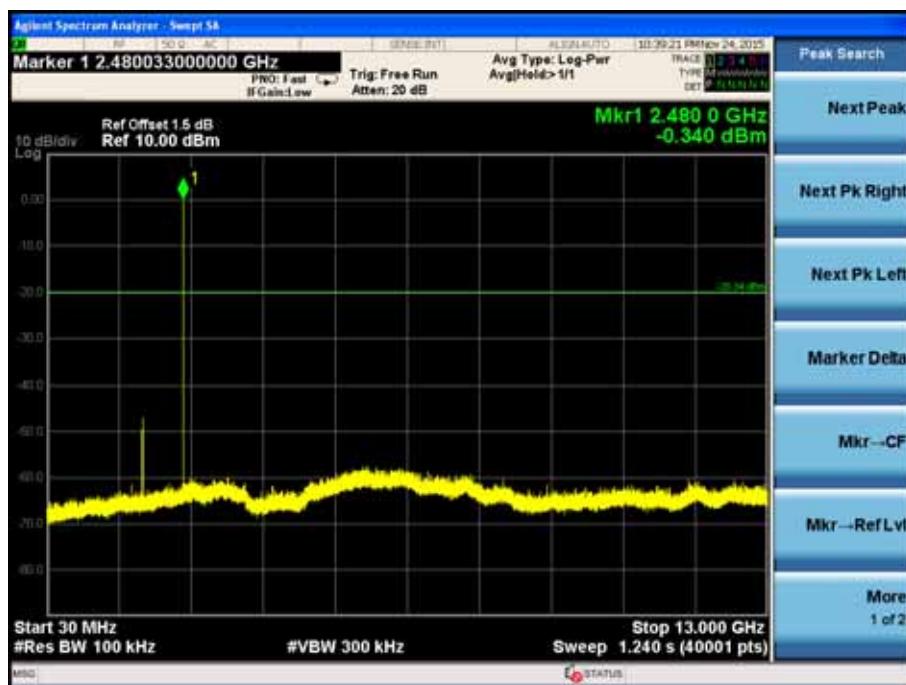
Ant 3 Channel 00 (2402MHz)



Channel 39 (2441MHz)



Channel 78 (2480MHz)



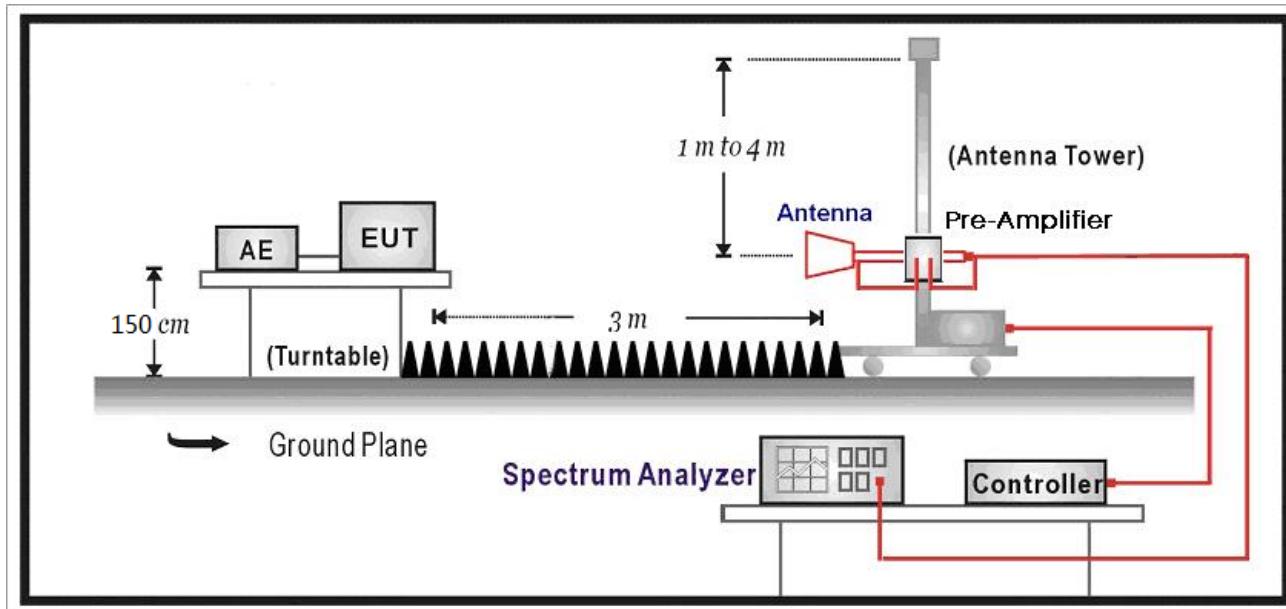
12. Radiated Emission Band Edge

12.1. Test Equipment

Radiated Emission Band Edge / AC-5

Instrument	Manufacturer	Type No.	Serial No.	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2016.03.10
Preamplifier	Miteq	NSP1800-25	1364185	2016.05.03
Preamplifier	QuieTek	AP-040G	CHM-0906001	2016.05.03
Bilog Antenna	Teseq GmbH	CBL6112D	27612	2016.10.15
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	733	2016.02.26
DRG Horn	ETS-Lindgren	3117	00167055	2016.07.16
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2016.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2016.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2016.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2016.08.07
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC5-TH	2016.01.07

12.2. Test Setup



12.3. Limit

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a) of FCC part 15.

12.4. Test Procedure

According to ANSI C63.10: 2013& ANSI C63.4: 2014

This test is required for any spurious emission or modulation product that falls in a Restricted Band, as defined in Section 15.205 of FCC part 15. It must be performed with the highest gain of each type of antenna proposed for use with the EUT. Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured

RBW = 1 MHz for $f \geq 1$ GHz, 100 kHz for $f < 1$ GHz

VBW \geq RBW

Sweep = auto

Detector function = peak

Trace = max hold

Follow the guidelines in ANSI C63.4 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization, etc. A pre-amp and a high pass filter are required for this test, in order to provide the measuring system with

sufficient sensitivity. Allow the trace to stabilize. The peak reading of the emission, after being corrected by the antenna factor, cable loss, pre-amp gain, etc., is the peak field strength, which must comply with the limit specified in Section 15.35(b) of FCC part 15.

Now set the VBW to 10 Hz, while maintaining all of the other instrument settings. This peak level, once corrected, must comply with the limit specified in Section 15.209 of FCC Part 15. If the dwell time per channel of the hopping signal is less than 100 ms, then the reading obtained with the 10 Hz VBW may be further adjusted by a “duty cycle correction factor”, derived from $20\log(\text{dwell time}/100 \text{ ms})$, in an effort to demonstrate compliance with the 15.209 limit of FCC part 15.

If the emission on which a radiated measurement must be made is located at the edge of the authorized band of operation, then the alternative “marker-delta” method may be employed.

12.5. Uncertainty

The measurement uncertainty above 1G is defined as $\pm 3.9 \text{ dB}$
below 1G is defined as $\pm 3.8 \text{ dB}$

12.6. Test Result

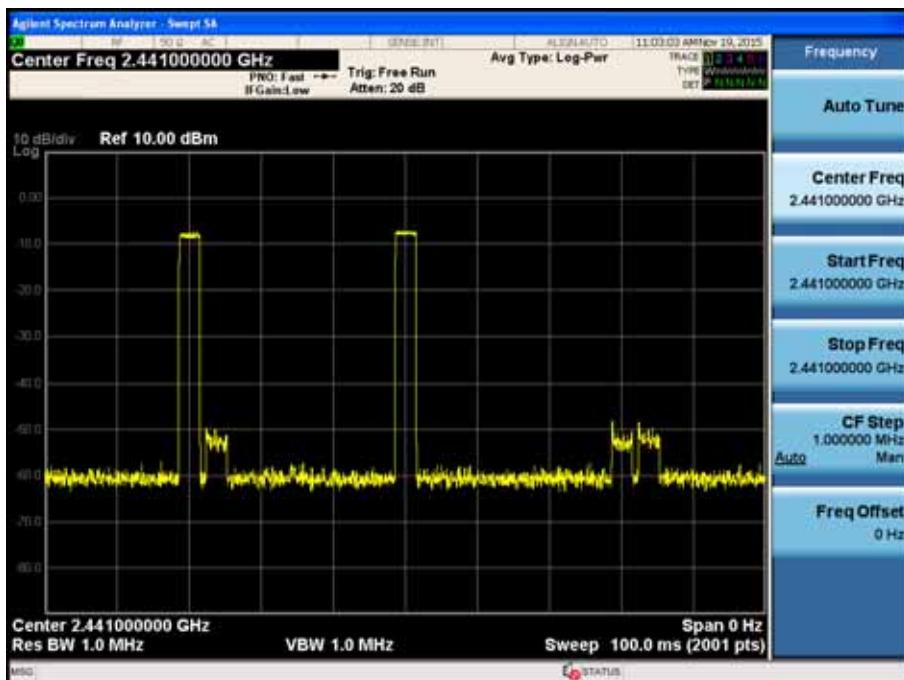
All of the test result shown indicates the worst case, and spectrum analyzer parameters setting as shown below:

Peak detector: RBW = 1MHz, VBW = 3MHz, sweep time = 200ms;

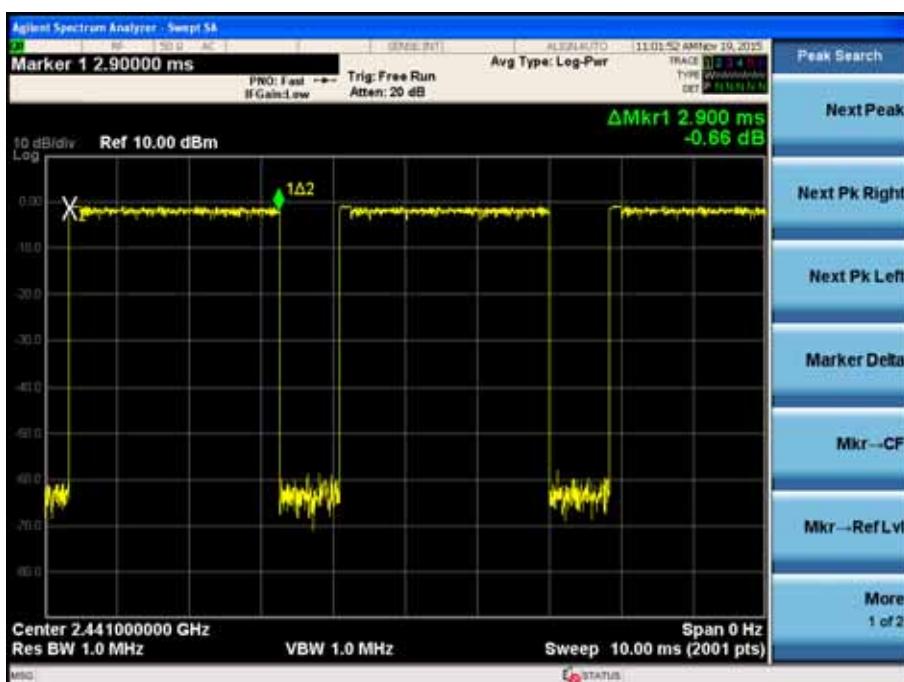
Average = Peak Measure Level+ Duty Factor

Duty Factor= $20 \times \text{LOG}(\text{Pulse Number} \times \text{On Time}/100) = -24.73\text{dB}$ in worst condition in normal use.

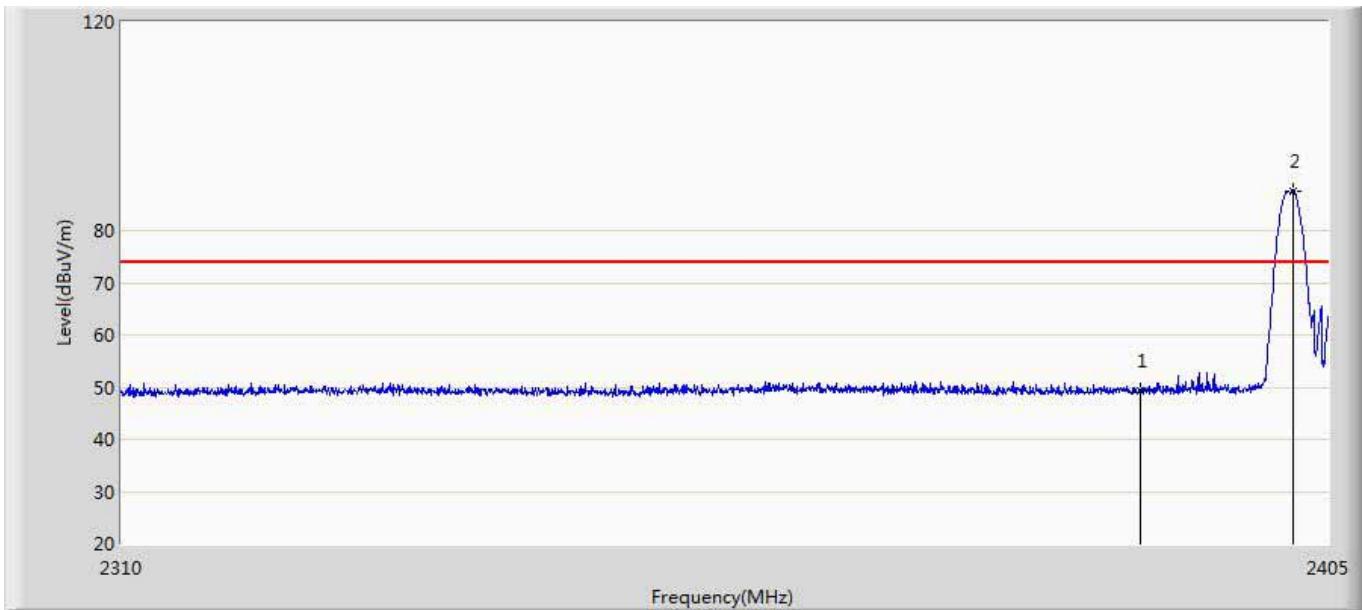
Pulse Number



On Time



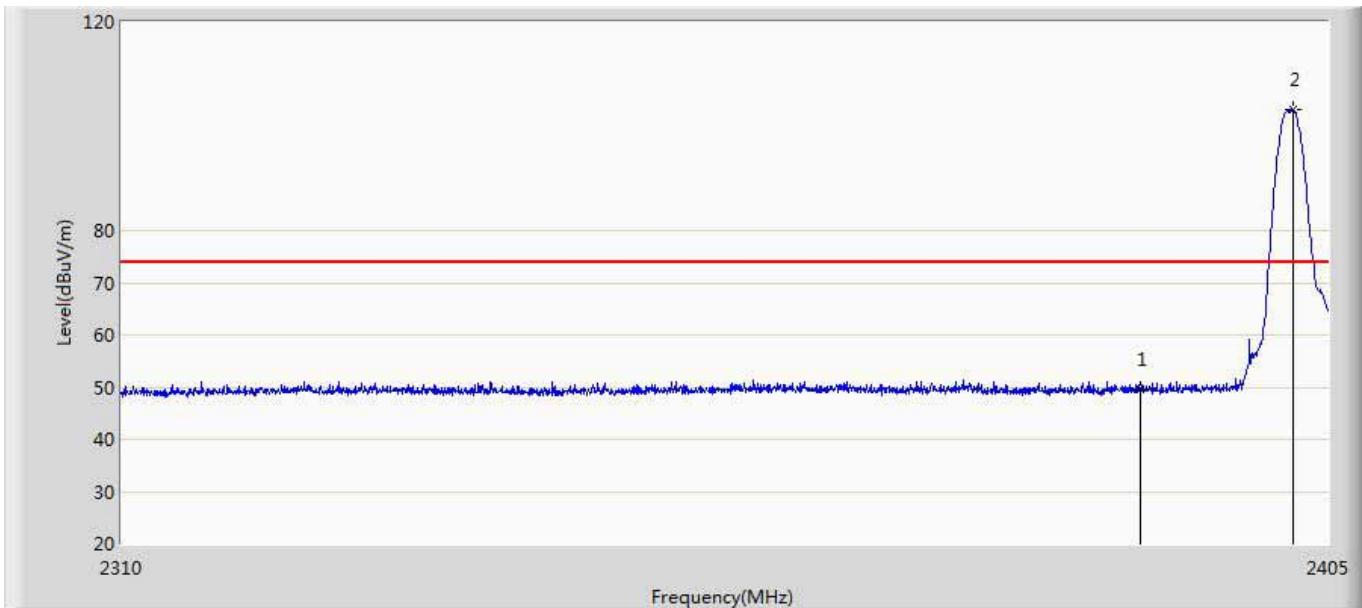
Site: AC5	Time: 2015/11/23 - 14:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: CASSIA HUB	Power: AC 120V/60Hz
Note: Mode 1 Transmit at CH2402 by DH5	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	49.306	11.443	-24.694	74.000	37.863	PK
2	*	2402.198	87.653	49.813	N/A	N/A	37.840	PK

No	Mark	Frequency (MHz)	Peak Level (dBuV/m)	AV Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Factor (dB)	Type
1		2390.000	49.306	24.576	-29.424	54.000	-24.73	AV
2		2402.198	87.653	62.923	N/A	N/A	-24.73	AV

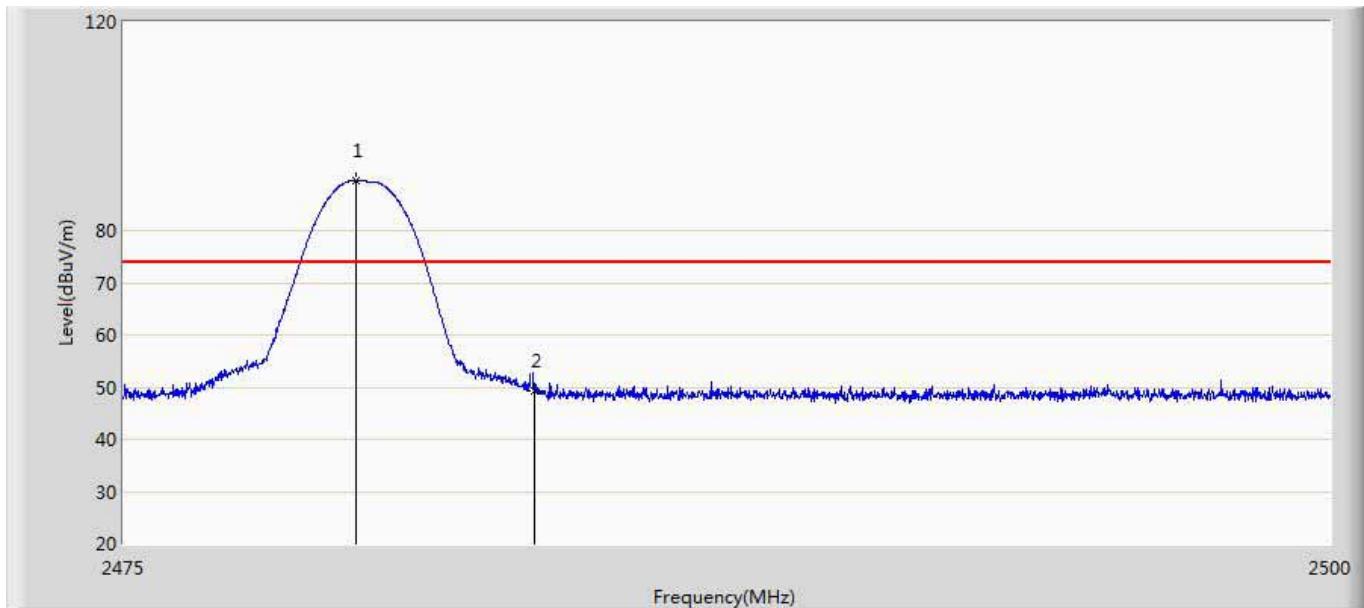
Site: AC5	Time: 2015/11/23 - 14:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: CASSIA HUB	Power: AC 120V/60Hz
Note: Mode 1 Transmit at CH2402 by DH5	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	49.604	11.741	-24.396	74.000	37.863	PK
2	*	2402.198	103.150	65.310	29.150	74.000	37.840	PK

No	Mark	Frequency (MHz)	Peak Level (dBuV/m)	AV Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Factor (dB)	Type
1		2390.000	49.604	24.874	-29.126	54.000	-24.73	AV
2	*	2402.198	103.150	78.420	N/A	N/A	-24.73	AV

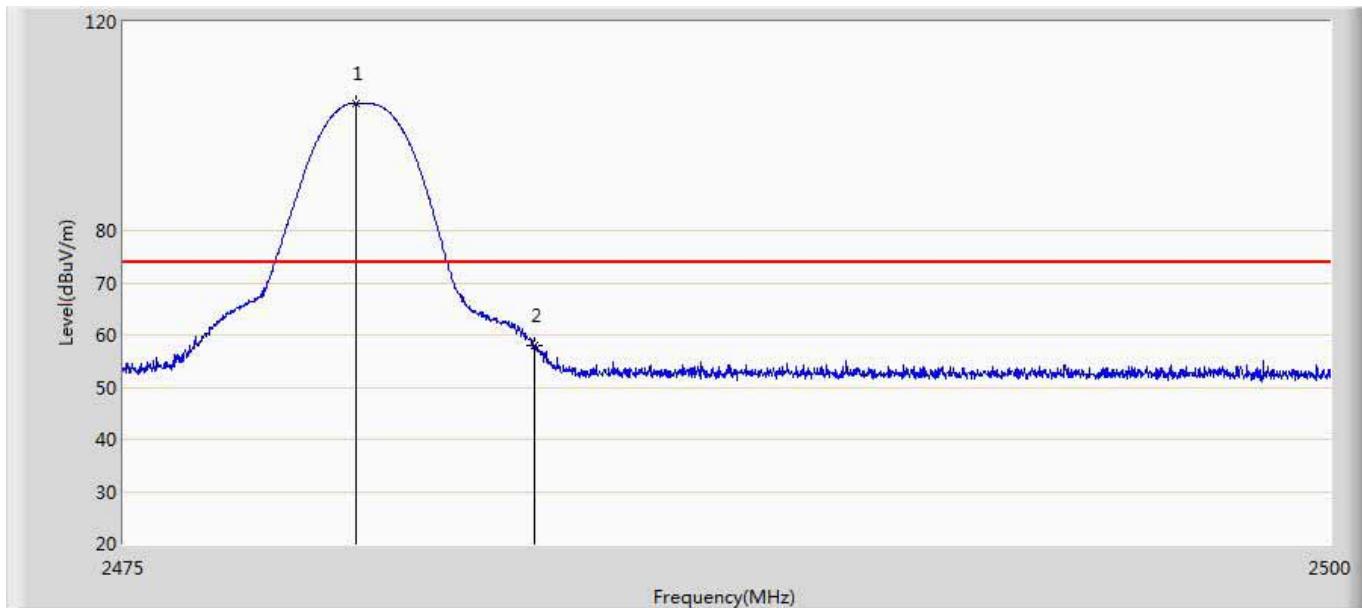
Site: AC5	Time: 2015/11/23 - 14:37
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: CASSIA HUB	Power: AC 120V/60Hz
Note: Mode 1 Transmit at CH2480 by DH5	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.812	89.590	51.578	15.590	74.000	38.012	PK
2		2483.500	49.241	11.203	-24.759	74.000	38.038	PK

No	Mark	Frequency (MHz)	Peak Level (dBuV/m)	AV Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Factor (dB)	Type
1	*	2479.812	89.590	64.860	N/A	N/A	-24.73	AV
2		2483.500	49.241	24.511	-29.489	54.000	-24.73	AV

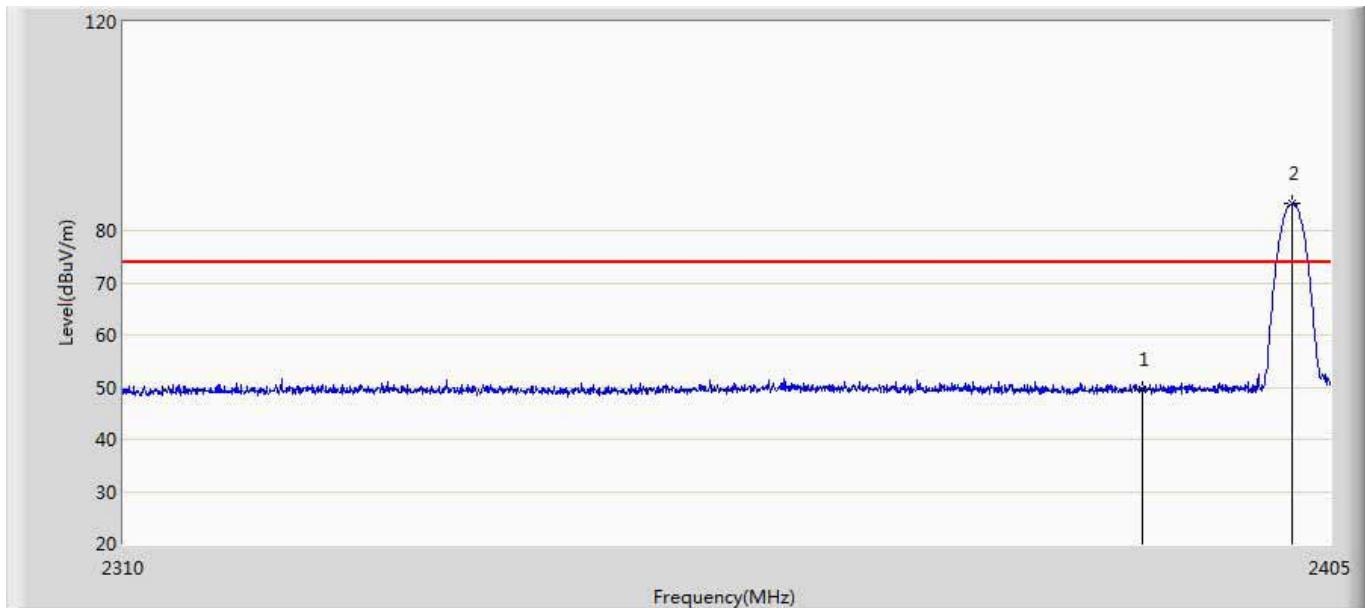
Site: AC5	Time: 2015/11/23 - 14:40
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: CASSIA HUB	Power: AC 120V/60Hz
Note: Mode 1 Transmit at CH2480 by DH5	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.812	104.440	66.428	30.440	74.000	38.012	PK
2		2483.500	57.912	19.874	-16.088	74.000	38.038	PK

No	Mark	Frequency (MHz)	Peak Level (dBuV/m)	AV Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Factor (dB)	Type
1	*	2479.812	104.440	79.710	N/A	N/A	-24.73	AV
2		2483.500	57.912	33.182	-20.818	54.000	-24.73	AV

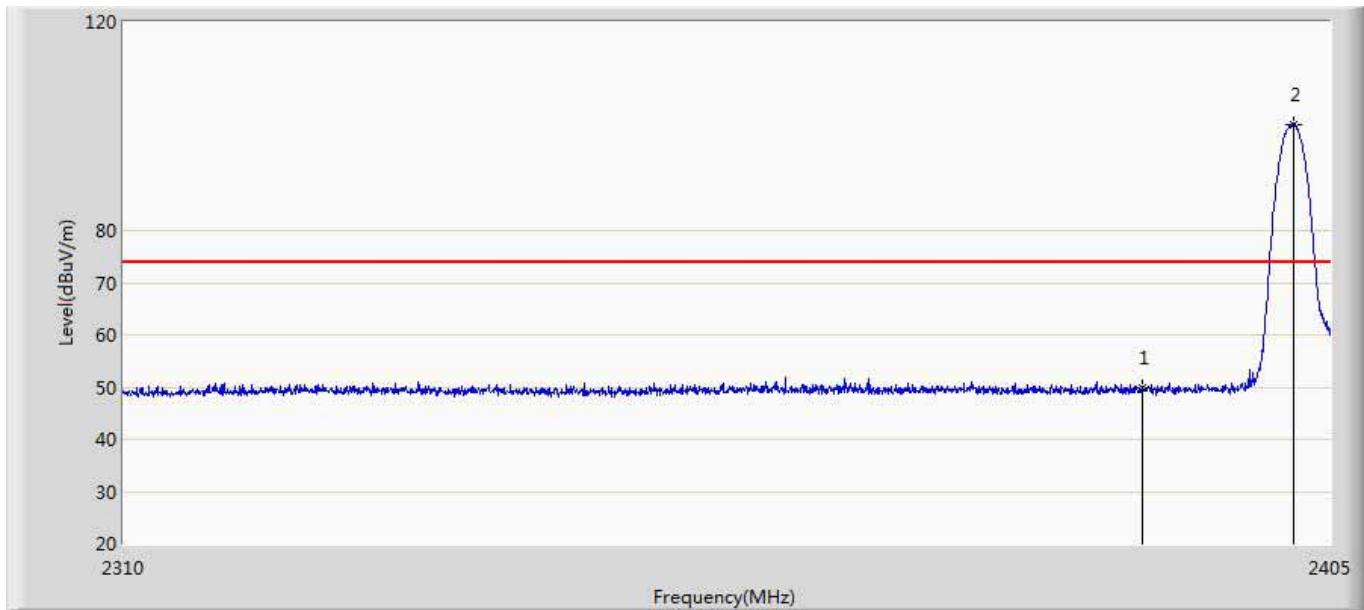
Site: AC5	Time: 2015/11/23 - 14:43
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: CASSIA HUB	Power: AC 120V/60Hz
Note: Mode 2 Transmit at CH2402 by 2DH5	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	49.430	11.567	-24.570	74.000	37.863	PK
2	*	2402.008	85.246	47.406	11.246	74.000	37.840	PK

No	Mark	Frequency (MHz)	Peak Level (dBuV/m)	AV Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Factor (dB)	Type
1		2390.000	49.430	24.700	-29.300	54.000	-24.73	AV
2	*	2402.008	85.246	60.516	N/A	N/A	-24.73	AV

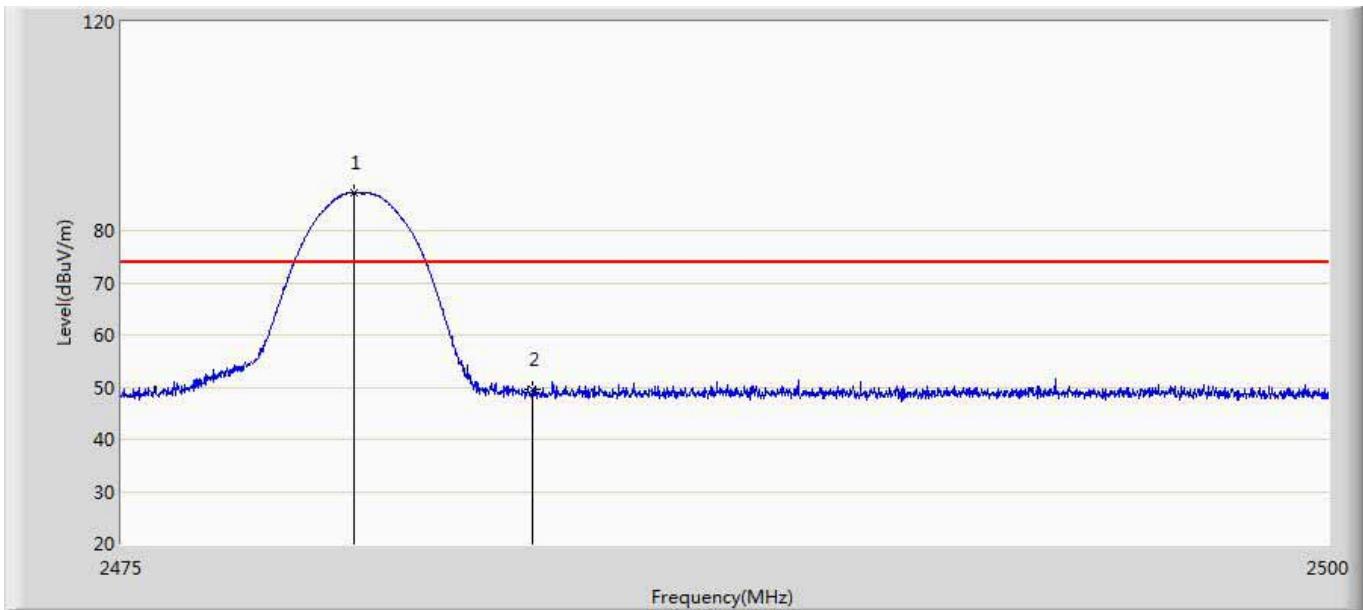
Site: AC5	Time: 2015/11/23 - 14:47
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: CASSIA HUB	Power: AC 120V/60Hz
Note: Mode 2 Transmit at CH2402 by 2DH5	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	49.726	11.863	-24.274	74.000	37.863	PK
2	*	2402.055	100.414	62.574	26.414	74.000	37.840	PK

No	Mark	Frequency (MHz)	Peak Level (dBuV/m)	AV Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Factor (dB)	Type
1		2390.000	49.726	24.996	-29.004	54.000	-24.73	AV
3	*	2402.055	100.414	75.684	N/A	N/A	-24.73	AV

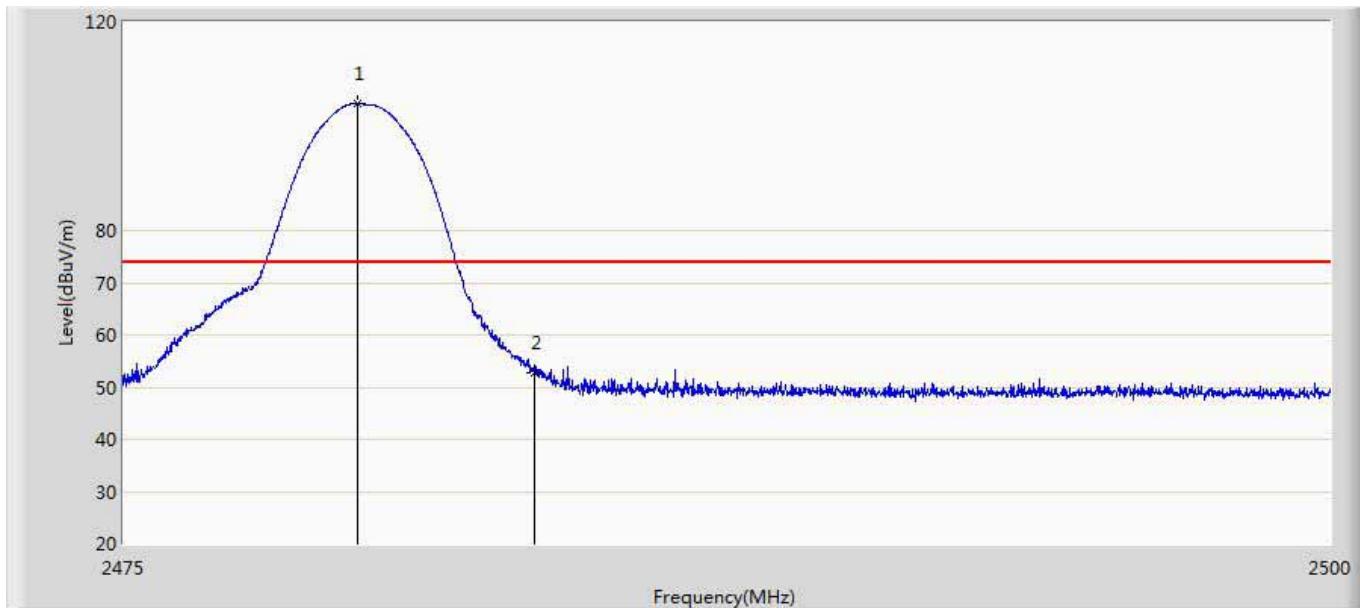
Site: AC5	Time: 2015/11/23 - 14:48
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: CASSIA HUB	Power: AC 120V/60Hz
Note: Mode 2 Transmit at CH2480 by 2DH5	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.812	87.267	49.255	13.267	74.000	38.012	PK
2		2483.500	49.685	11.647	-24.315	74.000	38.038	PK

No	Mark	Frequency (MHz)	Peak Level (dBuV/m)	AV Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Factor (dB)	Type
1	*	2479.812	87.267	62.537	N/A	N/A	-24.73	AV
2		2483.500	49.685	24.955	-29.045	54.000	-24.73	AV

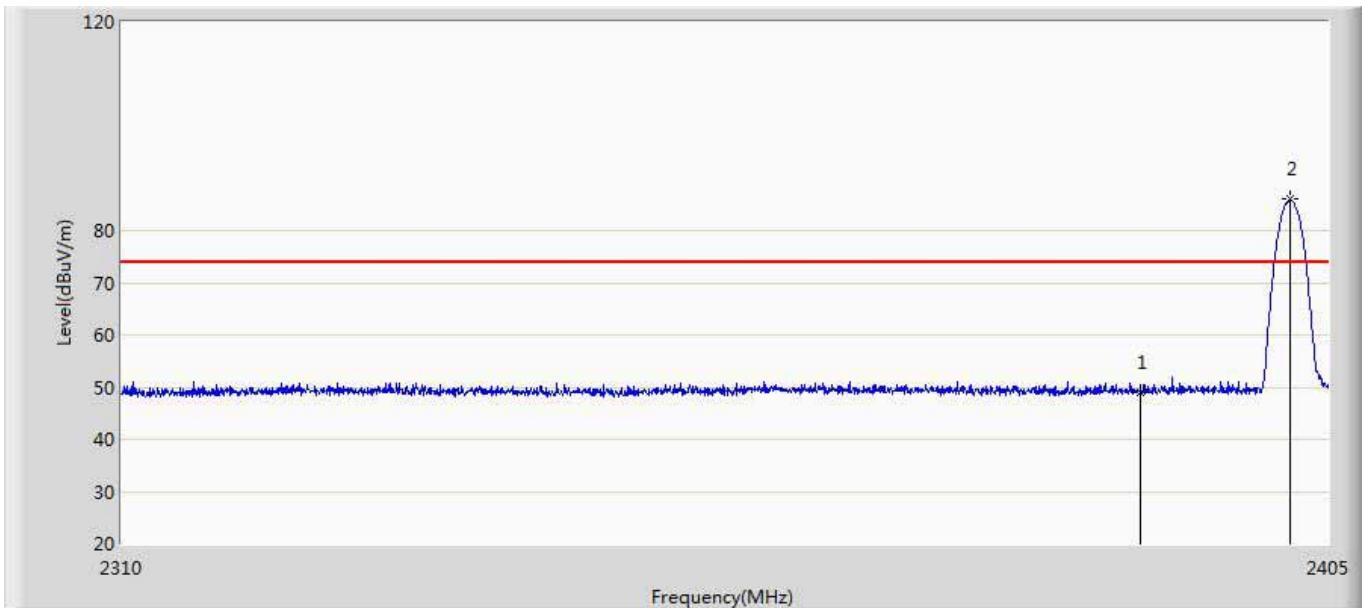
Site: AC5	Time: 2015/11/23 - 14:51
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: CASSIA HUB	Power: AC 120V/60Hz
Note: Mode 2 Transmit at CH2480 by 2DH5	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.850	104.357	66.345	30.357	74.000	38.012	PK
2		2483.500	52.769	14.731	-21.231	74.000	38.038	PK

No	Mark	Frequency (MHz)	Peak Level (dBuV/m)	AV Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Factor (dB)	Type
1	*	2479.850	104.357	79.627	N/A	N/A	-24.73	AV
2		2483.500	52.769	28.039	-25.961	54.000	-24.73	AV

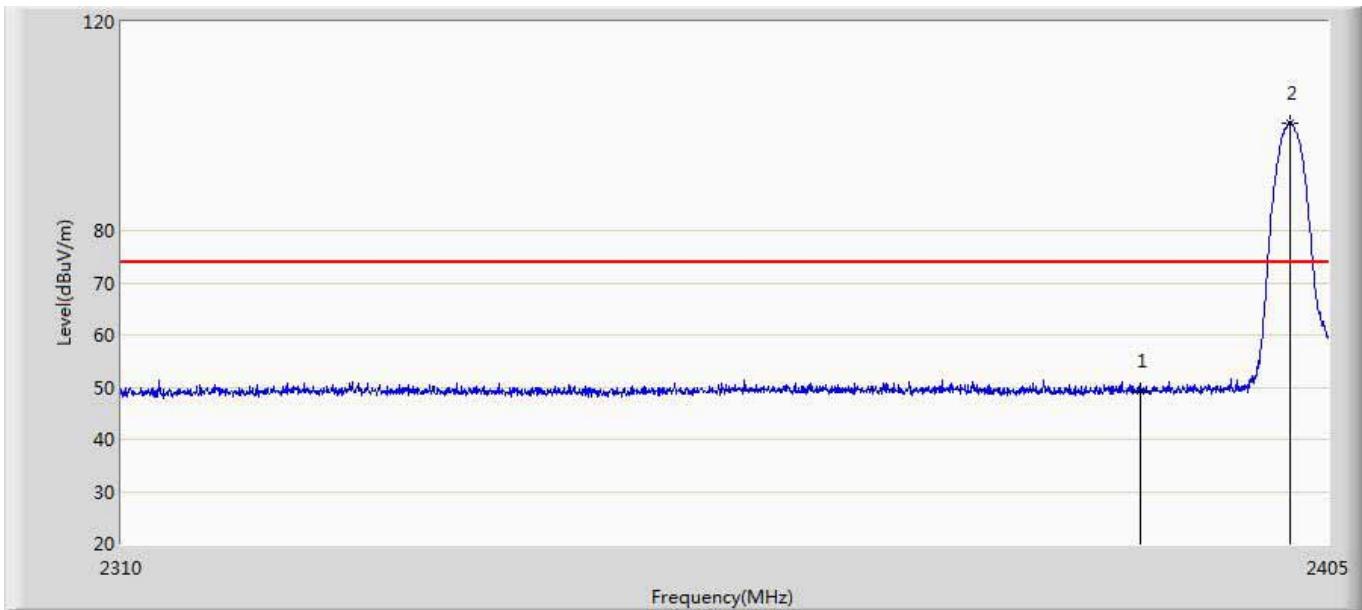
Site: AC5	Time: 2015/11/23 - 14:52
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: CASSIA HUB	Power: AC 120V/60Hz
Note: Mode 3 Transmit at CH2402 by 3DH5	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	49.024	11.161	-24.976	74.000	37.863	PK
2	*	2401.913	86.068	48.228	12.068	74.000	37.840	PK

No	Mark	Frequency (MHz)	Peak Level (dBuV/m)	AV Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Factor (dB)	Type
1		2390.000	49.024	24.294	-29.706	54.000	-24.73	AV
2	*	2401.913	86.068	61.338	N/A	N/A	-24.73	AV

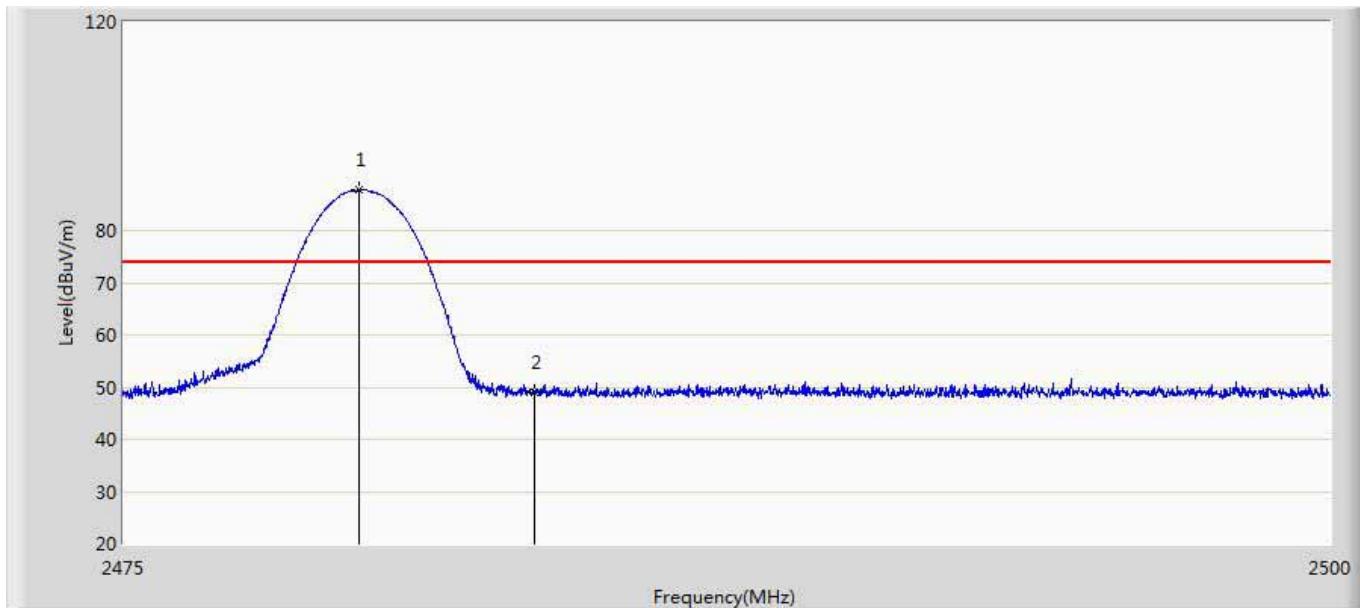
Site: AC5	Time: 2015/11/23 - 14:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: CASSIA HUB	Power: AC 120V/60Hz
Note: Mode 3 Transmit at CH2402 by 3DH5	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	49.291	11.428	-24.709	74.000	37.863	PK
2	*	2401.913	100.711	62.871	26.711	74.000	37.840	PK

No	Mark	Frequency (MHz)	Peak Level (dBuV/m)	AV Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Factor (dB)	Type
1		2390.000	49.291	24.561	-29.439	54.000	-24.73	AV
2	*	2401.913	100.711	75.981	N/A	N/A	-24.73	AV

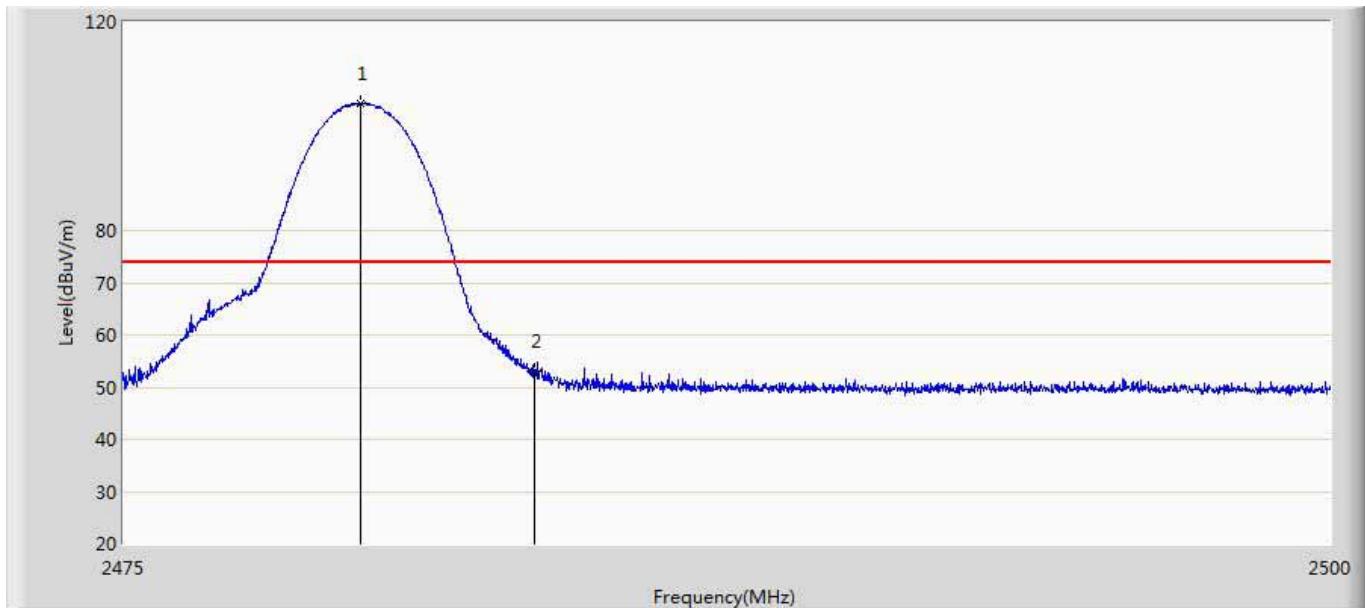
Site: AC5	Time: 2015/11/23 - 14:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: CASSIA HUB	Power: AC 120V/60Hz
Note: Mode 3 Transmit at CH2480 by 3DH5	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.863	87.720	49.707	13.720	74.000	38.013	PK
2		2483.500	49.027	10.989	-24.973	74.000	38.038	PK

No	Mark	Frequency (MHz)	Peak Level (dBuV/m)	AV Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Factor (dB)	Type
1	*	2479.863	87.720	62.990	N/A	N/A	-24.73	AV
2		2483.500	49.027	24.297	-29.703	54.000	-24.73	AV

Site: AC5	Time: 2015/11/23 - 15:00
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: CASSIA HUB	Power: AC 120V/60Hz
Note: Mode 3 Transmit at CH2480 by 3DH5	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2479.900	104.457	66.444	30.457	74.000	38.013	PK
2		2483.500	53.139	15.101	-20.861	74.000	38.038	PK

No	Mark	Frequency (MHz)	Peak Level (dBuV/m)	AV Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Duty Factor (dB)	Type
1	*	2479.900	104.457	79.727	N/A	N/A	-24.73	AV
2		2483.500	53.139	28.409	-25.591	54.000	-24.73	AV

The End