



Change

# **FCC Radio Test Report**

FCC ID: KA2CS8515LHA1

This report concerns (chec	k one): ⊠Original Grant □Class I Change □Class II			
Project No. Equipment Test Model Series Model Applicant Address	<ul> <li>: 1810H009</li> <li>: HD Pan &amp; Tilt Wi-Fi Camera</li> <li>: DCS-8515LH</li> <li>: N/A</li> <li>: D-Link Corporation</li> <li>: 17595 Mt. Herrmann, Fountain Valley, California, United States 92708</li> </ul>			
Date of Receipt Date of Test Issued Date Tested by	: Oct. 31, 2018 : Nov. 19, 2018 ~ Dec. 07, 2018 : Feb. 19, 2019 : BTL Inc.			
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Certificate #5123.02

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#### Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

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# **REPORT ISSUED HISTORY**

Report Version	Description	Issued Date
R00	Original Issue.	Feb. 19, 2019





#### 1. GENERAL SUMMARY

Equipment : HD Pan & Tilt Wi-Fi Camera

Brand Name: D-Link

Test Model : DCS-8515LH

Series Model: N/A

Applicant : D-Link Corporation Manufacturer: D-Link Corporation

Address : 17595 Mt. Herrmann, Fountain Valley, California, United States 92708

Date of Test : Nov. 19, 2018 ~ Dec. 07, 2018

Test Sample: Engineering Sample No.: B181100202

Standard(s) : FCC Part15, Subpart C (15.247)/ ANSI C63.10-2013

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCP-1-1810H009) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of A2LA according to the ISO/IEC 17025 quality assessment standard and technical standard(s).

Test results included in this report is only for the Bluetooth EDR part.

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# 2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

Applied Standard(s): FCC Part15, Subpart C (15.247)					
Standard(s) Section	Test Item	Judgment	Remark		
15.207	Conducted Emission	PASS			
15.247(d)	Antenna conducted Spurious Emission	PASS			
15.247 (a)(1)	Hopping Channel Separation	PASS			
15.247(a)(1)	Bandwidth	PASS			
15.247 (a)(1)	Maximum Output Power	PASS			
15.247(d) 15.209 15.205	Radiated Spurious Emission	PASS			
15.247 (a)(1)(iii)	Number of Hopping Frequency	PASS			
15.247 (a)(1)(iii)	Average Time Of Occupancy	PASS			
15.203	Antenna Requirement	PASS			

## Note:

(1) "N/A" denotes test is not applicable in this test report





#### 2.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China

BTL's test firm number for FCC: 854385 BTL's designation number for FCC: CN5020

## 2.2 MEASUREMENT UNCERTAINTY

The measurement uncertainty figures shall be calculated according the methods described in the ETSI TR 100 028 and shall correspond to an expansion factor (coverage factor) k=1.96 or k=2(which provide confidence levels of respectively 90% and 95.45% in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)). Measurement Uncertainty for a Level of Confidence of 95 %, U=2xUc(y).

The BTL measurement uncertainty as below table:

#### A. Conducted Measurement:

Test Site	Method	Measurement Frequency Range	U, (dB)
DG-C02	CISPR	150 kHz ~ 30 MHz	2.32

# B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U, (dB)
		9 kHz~30 MHz	V	3.79
		9 kHz~30 MHz	Н	3.57
		30 MHz~200 MHz	V	3.82
		30 MHz~200 MHz	Н	3.78
DG-CB03	CISPR	200 MHz~1,000 MHz	V	4.10
DG-CB03		200 MHz~1,000 MHz	Н	4.06
		1 GHz~18 GHz	V	3.12
		1 GHz~18 GHz	Н	3.68
		18 GHz~40 GHz	V	4.15
		18 GHz~40 GHz	Н	4.14

# C. Other Measurement:

Test Item	Uncertainty
Conducted Spurious Emission	2.67 dB
Hopping Channel Separation	53.46 MHz
Output Power	0.95 dB
Number of Hopping Frequency	53.46 MHz
Temperature	0.08°C
Humidity	1.5%

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

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# 3. GENERAL INFORMATION

# 3.1 GENERAL DESCRIPTION OF EUT

Equipment	HD Pan & Tilt Wi-Fi Camera		
Brand Name	D-Link		
Test Model	DCS-8515LH		
Series Model	N/A		
Model Difference(s)	N/A		
Software Version	1		
Hardware Version	A1		
	Operation Frequency	2402 MHz ~2480 MHz	
	Modulation Technology	GFSK(1Mbps)  π/4-DQPSK(2Mbps)	
Product Description	Bit Rate of Transmitter	8-DPSK(3Mbps)	
	Output Power Max.	5.24 dBm(1Mbps) 6.86 dBm(3Mbps)	
Power Source	DC Voltage supplied from AC/DC adapter. #1 Model:SW-1780 #2 Model: F06W-050120SPACP L.P.S		
Power Rating	I/P:100-240V~ 50/60Hz 0.2A O/P:5.0V === 1.2A		

## Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.





# 2. Channel List:

Channel	Frequency	Channel	Frequency	Channel	Frequency
	(MHz)	07	(MHz)	F 4	(MHz)
00	2402	27	2429	54	2456
01	2403	28	2430	55	2457
02	2404	29	2431	56	2458
03	2405	30	2432	57	2459
04	2406	31	2433	58	2460
05	2407	32	2434	59	2461
06	2408	33	2435	60	2462
07	2409	34	2436	61	2463
08	2410	35	2437	62	2464
09	2411	36	2438	63	2465
10	2412	37	2439	64	2466
11	2413	38	2440	65	2467
12	2414	39	2441	66	2468
13	2415	40	2442	67	2469
14	2416	41	2443	68	2470
15	2417	42	2444	69	2471
16	2418	43	2445	70	2472
17	2419	44	2446	71	2473
18	2420	45	2447	72	2474
19	2421	46	2448	73	2475
20	2422	47	2449	74	2476
21	2423	48	2450	75	2477
22	2424	49	2451	76	2478
23	2425	50	2452	77	2479
24	2426	51	2453	78	2480
25	2427	52	2454		
26	2428	53	2455		

# 3. Table for Filed Antenna:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	T&W	N/A	Internal	N/A	3

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#### 3.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	TX Mode Note (1)

The EUT system operated these modes were found to be the worst case during the pre-scanning test as following:

	For Conducted Emission
Final Test Mode	Description
Mode 1	TX Mode

For Radiated Emission	
Final Test Mode	Description
Mode 1	TX Mode Note (1)

#### Note:

- (1) The measurements are performed at the high, middle, low available channels.
- (2) The measurements for Hopping Channel Separation, Bandwidth and Peak Output Power were tested during 1Mbps, 2Mbps and 3Mbps, the worst case are 1Mbps and 3Mbps, only worst case was documented.

#### 3.3 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING

During testing, channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of FHSS

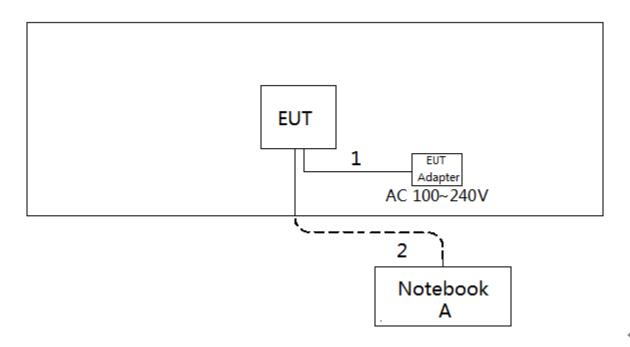
Test Software Version		CMD	
Frequency (MHz)	2402	2441	2480
Parameters(1Mbps)	5	5	5
Parameters(3Mbps)	5	5	5

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# 3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



## 3.5 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.
Α	Notebook	Lenovo	V310-14ISK	N/A	LR07GZNB

Item	Shielded Type	Ferrite Core	Length	Note
1	NO	NO	3m	DC Cable
2	NO	NO	10m	RJ45 Cable





#### 4. EMC EMISSION TEST

#### 4.1 CONDUCTED EMISSION MEASUREMENT

# 4.1.1 POWER LINE CONDUCTED EMISSION LIMITS (Frequency Range 150 kHz-30 MHz)

Fraguency of Emission (MHz)	Conducted Limit (dBµV)		
Frequency of Emission (MHz)	Quasi-peak	Average	
0.15 - 0.50	66 to 56*	56 to 46*	
0.50 - 5.0	56	46	
5.0 - 30.0	60	50	

#### Note:

(1) The limit of " \* " decreases with the logarithm of the frequency

(2) The test result calculated as following: Measurement Value = Reading Level + Correct Factor Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor(if use) Margin Level = Measurement Value - Limit Value

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

#### 4.1.2 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

# 4.1.3 DEVIATION FROM TEST STANDARD

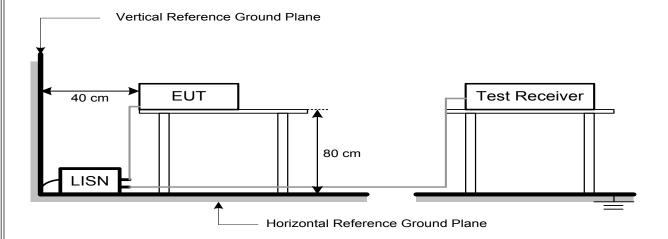
No deviation

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#### 4.1.4 TEST SETUP



#### 4.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical function (as a customer would normally use it), EUT was programmed to be in continuously transmitting/receiving data or hopping on mode.

## **4.1.6 EUT TEST CONDITIONS**

Temperature: 25°C Relative Humidity: 55% Test Voltage: AC 120V/60Hz

#### 4.1.7 TEST RESULTS

Please refer to the Appendix A.

#### Remark:

- (1) All readings are QP Mode value unless otherwise stated AVG in column of Note ... If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform in this case, a "\*" marked in AVG Mode column of Interference Voltage Measured.
- (2) Measuring frequency range from 150 kHz to 30 MHz.

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#### 4.2 RADIATED EMISSION MEASUREMENT

#### 4.2.1 RADIATED EMISSION LIMITS

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

# LIMITS OF RADIATED EMISSION MEASUREMENT (9 kHz-1000 MHz)

Frequency	Field Strength	Measurement Distance
(MHz)	(microvolts/meter)	(meters)
0.009~0.490	2400/F(kHz)	300
0.490~1.705	24000/F(kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

# LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000 MHz)

Fraguency (MHz)	(dBuV/m) (at 3 meters)	
Frequency (MHz)	Peak	Average
Above 1000	74	54

#### Note:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).
- (4) The test result calculated as following: Measurement Value = Reading Level + Correct Factor Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use) Margin Level = Measurement Value - Limit Value

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Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW	1 MHz / 1 MHz for Dook 1 MHz / 10Hz for Average
(emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average

Spectrum Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9 kHz~90 kHz for PK/AVG detector
Start ~ Stop Frequency	90 kHz~110 kHz for QP detector
Start ~ Stop Frequency	110 kHz~490 kHz for PK/AVG detector
Start ~ Stop Frequency	490 kHz~30 MHz for QP detector
Start ~ Stop Frequency	30 MHz~1000 MHz for QP detector

#### 4.2.2 TEST PROCEDURE

- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
- b. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. (above 1 GHz)
- c. The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.
- f. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- g. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform. (below 1 GHz)
- h. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured. but AVG Mode didn't perform. (above 1 GHz)
- i. For the actual test configuration, please refer to the related Item –EUT Test Photos.

#### 4.2.3 DEVIATION FROM TEST STANDARD

No deviation

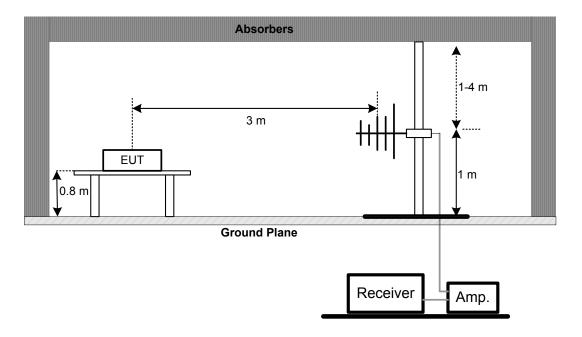
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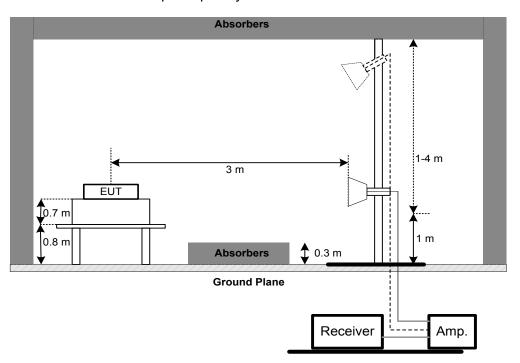


# 4.2.4 TEST SETUP

(A) Radiated Emission Test Set-Up Frequency 30 MHz-1000 MHz



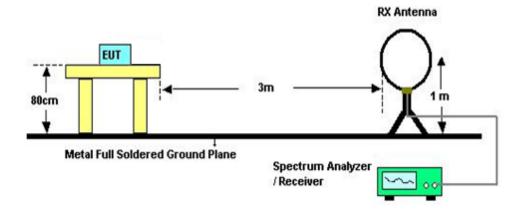
(B) Radiated Emission Test Set-Up Frequency Above 1 GHz







## (C) For Radiated Emissions 9 kHz-30 MHz



#### 4.2.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

#### 4.2.6 EUT TEST CONDITIONS

Temperature: 25°C Relative Humidity: 60% Test Voltage: AC 120V/60Hz

# 4.2.7 TEST RESULTS (9 kHz TO 30 MHz)

Please refer to the Appendix B

# Remark:

- (1) The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.
- (2) Distance extrapolation factor = 40 log (specific distance / test distance) (dB).
- (3) Limit line = specific limits (dBuV) + distance extrapolation factor.

# 4.2.8 TEST RESULTS (30 MHz TO 1000 MHz)

Please refer to the Appendix C.

## 4.2.9 TEST RESULTS (ABOVE 1000 MHz)

Please refer to the Appendix D.

#### Remark:

(1) No limit: This is fundamental signal, the judgment is not applicable. For fundamental signal judgment was referred to Peak output test.

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# 5. NUMBER OF HOPPING CHANNEL

## **5.1 APPLIED PROCEDURES**

FCC Part15 (15.247) , Subpart C			
Section	Test Item	Frequency Range (MHz)	Result
15.247(a)(1)(iii)	Number of Hopping Channel	2400-2483.5	PASS

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	> Operating Frequency Range
RBW	100 kHz
VBW	100 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

#### **5.1.1 TEST PROCEDURE**

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Spectrum Setting: RBW=100 kHz, VBW=100 kHz, Sweep time = Auto.

#### **5.1.2 DEVIATION FROM STANDARD**

No deviation.

#### 5.1.3 TEST SETUP

EUT	SPECTRUM
	ANALYZER

# **5.1.4 EUT OPERATION CONDITIONS**

The EUT tested system was configured as the statements of 4.1.5 unless otherwise a special operating condition is specified in the follows during the testing.

## **5.1.5 EUT TEST CONDITIONS**

Temperature: 26°C Relative Humidity: 45% Test Voltage: AC 120V/60Hz

#### **5.1.6 TEST RESULTS**

Please refer to the Appendix E

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# 6. AVERAGE TIME OF OCCUPANCY

## **6.1 APPLIED PROCEDURES / LIMIT**

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(1)(iii)	Average Time of Occupancy	0.4sec	2400-2483.5	PASS

## **6.1.1 TEST PROCEDURE**

- a. The transmitter output (antenna port) was connected to the spectrum analyzer
- b. Set RBW of spectrum analyzer to 1 MHz and VBW to 1 MHz
- C. Use a video trigger with the trigger level set to enable triggering only on full pulses
- d Sweep Time is more than once pulse time
- e. Set the center frequency on any frequency would be measure and set the frequency span to zero span
- f. Measure the maximum time duration of one single pulse
- g. Set the EUT for DH5, DH3 and DH1 packet transmitting
- h. Measure the maximum time duration of one single pulse
- i DH5 Packet permit maximum 1600/79 / 6 = 3.37 hops per second in each channel (5 time slots TX, 1 time slot RX). So, the dwell time is the time duration of the pulse times 3.37 x 31.6 = 106.6 within 31.6 seconds
- j. DH3 Packet permit maximum 1600 / 79 / 4 = 5.06 hops per second in each channel (3 time slots TX, 1 time slot RX). So, the dwell time is the time duration of the pulse times 5.06 x 31.6 = 160 within 31.6 seconds
- k. DH1 Packet permit maximum 1600 / 79 /2 = 10.12 hops per second in each channel (1 time slot TX, 1 time slot RX). So, the dwell time is the time duration of the pulse times 10.12 x 31.6 = 320 within 31.6 seconds

# **6.1.2 DEVIATION FROM STANDARD**

No deviation.

#### 6.1.3 TEST SETUP

EUT	SPECTRUM
	ANALYZER

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## **6.1.4 EUT OPERATION CONDITIONS**

The EUT tested system was configured as the statements of 4.1.5 unless otherwise a special operating condition is specified in the follows during the testing.

# **6.1.5 EUT TEST CONDITIONS**

Temperature: 26°C Relative Humidity: 45% Test Voltage:AC 120V/60Hz

# 6.1.6 TEST RESULTS

Please refer to the Appendix F





## 7. HOPPING CHANNEL SEPARATION MEASUREMENT

## 7.1 APPLIED PROCEDURES / LIMIT

Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	> Measurement Bandwidth or Channel Separation
RBW	30 kHz
VBW	100 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

#### 7.1.1 TEST PROCEDURE

- a. The EUT must have its hopping function enabled
- b. Span = wide enough to capture the peaks of two adjacent channels Resolution (or IF) Bandwidth (RBW) ≥ 1% of the span Video (or Average) Bandwidth (VBW) ≥ RBW Sweep = Auto Detector function = Peak Trace = Max Hold

## 7.1.2 DEVIATION FROM STANDARD

No deviation.

# **7.1.3 TEST SETUP**

EUT	SPECTRUM
	ANALYZER

#### 7.1.4 EUT TEST CONDITIONS

Temperature: 26°C Relative Humidity: 45% Test Voltage: AC 120V/60Hz

#### 7.1.5 TEST RESULTS

Please refer to the Appendix G

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## **8. BANDWIDTH TEST**

## **8.1 APPLIED PROCEDURES**

FCC Part15 (15.247) , Subpart C			
Section Test Item Frequency Range (MHz)			
15.247(a)(2)	Bandwidth	2400-2483.5	

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	> Measurement Bandwidth or Channel Separation
RBW	30 kHz (20dB Bandwidth) / 30 kHz (Channel Separation)
VBW	100 kHz (20dB Bandwidth) / 100 kHz (Channel Separation)
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

#### **8.1.1 TEST PROCEDURE**

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b Spectrum Setting: RBW= 30 kHz, VBW=100 kHz, Sweep Time = Auto.

#### 8.1.2 DEVIATION FROM STANDARD

No deviation.

#### 8.1.3 TEST SETUP

EUT	•	SPECTRUM
		ANALYZER

#### **8.1.4 EUT OPERATION CONDITIONS**

The EUT tested system was configured as the statements of 4.1.5 unless otherwise a special operating condition is specified in the follows during the testing.

## **8.1.5 EUT TEST CONDITIONS**

Temperature: 26°C Relative Humidity: 45% Test Voltage: AC 120V/60Hz

#### 8.1.6 TEST RESULTS

Please refer to the Appendix H

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# 9. MAXIMUM OUTPUT POWER

#### 9.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(1)	Maximum Output Power	0.125Watt or 21dBm	2400-2483.5	PASS

Note: Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB band width of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

#### 9.1.1 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Spectrum Setting: RBW= 1 MHz/3 MHz, VBW= 1 MHz/3 MHz, Sweep time = Auto.

#### 9.1.2 DEVIATION FROM STANDARD

No deviation.

# 9.1.3 TEST SETUP

EUT	SPECTRUM
	ANALYZER

#### 9.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.5 unless otherwise a special operating condition is specified in the follows during the testing.

#### 9.1.5 EUT TEST CONDITIONS

Temperature: 26°C Relative Humidity: 45% Test Voltage: AC 120V/60Hz

#### 9.1.6 TEST RESULTS

Please refer to the Appendix I

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#### 10. ANTENNA CONDUCTED SPURIOUS EMISSION

#### 10.1 APPLIED PROCEDURES / 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 Output Power limits. If the transmitter complies with the Output Power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, 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) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

#### **10.1.1 TEST PROCEDURE**

- a The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b Spectrum Setting: RBW= 100 kHz, VBW=100 kHz, Sweep time = Auto.

#### 10.1.2 DEVIATION FROM STANDARD

No deviation.

#### **10.1.3 TEST SETUP**

EUT	SPECTRUM
	ANALYZER

#### **10.1.4 EUT OPERATION CONDITIONS**

The EUT tested system was configured as the statements of 4.1.5 unless otherwise a special operating condition is specified in the follows during the testing.

#### **10.1.5 EUT TEST CONDITIONS**

Temperature: 26°C Relative Humidity: 45% Test Voltage: AC 120V/60Hz

#### 10.1.6 TEST RESULTS

Please refer to the Appendix J

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# 11. MEASUREMENT INSTRUMENTS LIST

	Conducted Emission Measurement						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until		
1	EMI Test Receiver	R&S	ESCI	100382	Mar. 11, 2019		
2	LISN	EMCO	3816/2	52765	Mar. 11, 2019		
3	50Ω Terminator	SHX	TF2-3G-A	8122901	Mar. 11, 2019		
4	TWO-LINE V-NETWORK	R&S	ENV216	101447	Mar. 11, 2019		
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A		
6	Cable	N/A	RG223	12m	Mar. 23, 2019		

Radiated Emission Measurement - 9kHz TO 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Loop Antenna	EM	EM-6876-1	230	Feb. 07, 2019
2	Cable	N/A	RG 213/U	C-102	Jun. 01, 2019
3	EMI Test Receiver	R&S	ESCI	100382	Mar. 11, 2019
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

	Radiated Emission Measurement – 30 MHz TO 1000 MHz						
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until		
1	Antenna	Schwarbeck	VULB9160	9160-3232	Mar. 11, 2019		
2	Amplifier	HP	8447D	2944A09673	Aug. 11, 2019		
3	Receiver	Agilent	N9038A	MY52130039	Aug. 11, 2019		
4	Cable	emci	LMR-400(30MHz-1 GHz)(8m+5m)	N/A	May 25, 2019		
5	Controller	CT	SC100	N/A	N/A		
6	Controller	MF	MF-7802	MF780208416	N/A		
7	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A		





	Radiated Emission Measurement - Above 1 GHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until	
1	Double Ridged Guide Antenna	ETS	3115	75789	Mar. 11, 2019	
2	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 30, 2019	
3	Amplifier	Agilent	8449B	3008A02274	Mar. 11, 2019	
4	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 11, 2019	
5	Receiver	Agilent	N9038A	MY52130039	Aug. 11, 2019	
6	Controller	СТ	SC100	N/A	N/A	
7	Controller	MF	MF-7802	MF780208416	N/A	
8	Cable	mitron	B10-01-01-12M	18072744	Jul. 30, 2019	
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A	

Number of Hopping Channel					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 11, 2019

Average Time of Occupancy					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 11, 2019

Hopping Channel Separation Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 11, 2019

Bandwidth					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 11, 2019

Peak Output Power					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 11, 2019

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	Antenna Conducted Spurious Emission				
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP40	100185	Aug. 11, 2019

Remark "N/A" denotes no model name, serial no. or calibration specified. All calibration period of equipment list is one year.

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# **12. EUT TEST PHOTO**





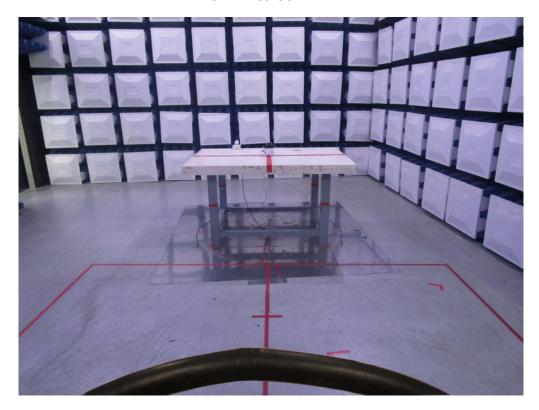






# **Radiated Measurement Photos**

9 kHz to 30 MHz









# **Radiated Measurement Photos**

30 MHz to 1000 MHz





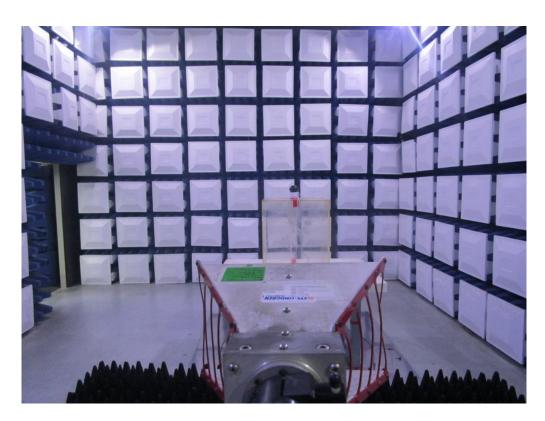




# **Radiated Measurement Photos**

# Above 1000 MHz









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APPENDIX A - CONDUCTI	ED EMISSION

Report No.: BTL-FCCP-1-1810H009

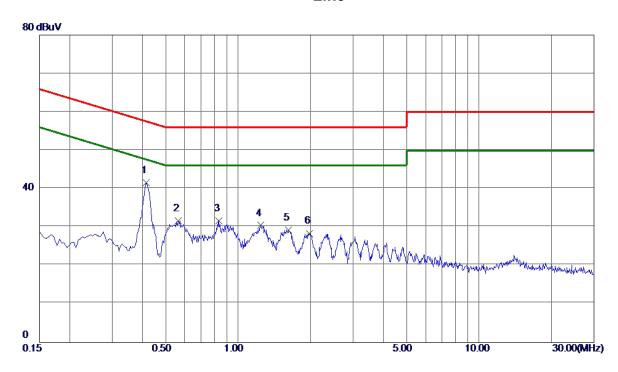
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Test Mode: TX Mode(Adapter: F06W-050120SPACP L.P.S)

# Line



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0.4155	31.73	9.81	41.54	57.54	-16. 00	Peak	
2	0.5639	21.92	9.82	31.74	<b>56.00</b>	-24. 26	Peak	
3	0.8295	21.82	9. 91	31.73	<b>56.00</b>	-24. 27	Peak	
4	1. 2435	20. 54	9. 94	30. 48	<b>56. 00</b>	-25. 52	Peak	
5	1.6215	19. 35	9. 97	29. 32	56.00	-26. 68	Peak	
6	1.9725	18.40	10.00	28.40	<b>56.00</b>	-27.60	Peak	

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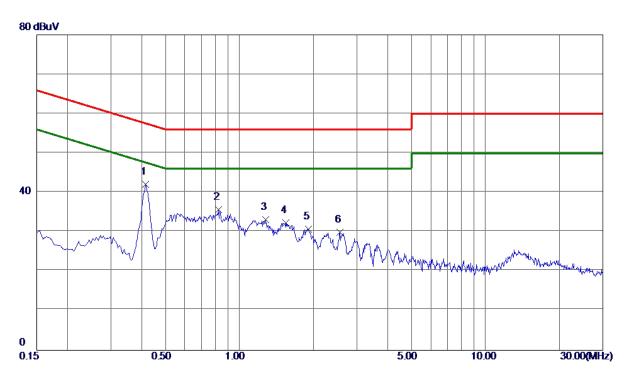
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Test Mode: TX Mode(Adapter: F06W-050120SPACP L.P.S)

# Neutral

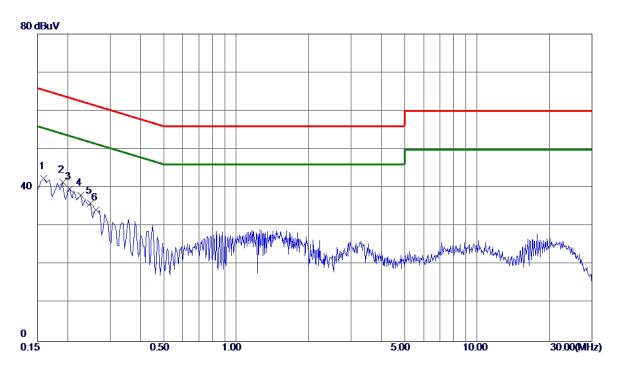


No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1 *	0.4155	32. 18	9. 95	42. 13	57.54	-15.41	Peak	
2	0.8205	25.65	10.09	35. 74	56.00	-20. 26	Peak	
3	1. 2750	22.94	10. 14	33. 08	<b>56.00</b>	-22. 92	Peak	
4	1. 5450	22. 12	10. 16	32. 28	<b>56.00</b>	-23.72	Peak	
5	1. 9095	20.60	10. 18	30. 78	<b>56. 00</b>	-25. 22	Peak	
6	2. 5665	19.69	10. 22	29. 91	56.00	-26. 09	Peak	





## Line



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0. 1590	32.63	9.82	42.45	65. 52	-23. 07	Peak	
2 *	0. 1905	31.63	9.82	41.45	64.01	-22. 56	Peak	
3	0.2040	29.94	9.82	39. 76	63.45	-23.69	Peak	
4	0. 2265	28. 32	9. 82	38. 14	62. 58	-24.44	Peak	
5	0. 2490	26. 25	9. 82	36. 07	61.79	-25.72	Peak	
6	0. 2625	24.46	9.82	34. 28	61.35	-27.07	Peak	

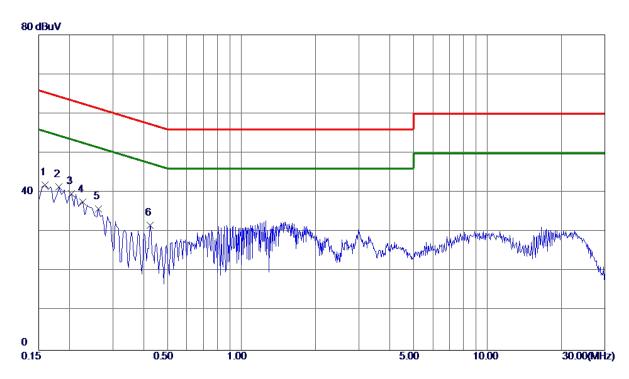
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## Neutral



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1590	32.05	9. 91	41.96	65. 52	-23. 56	Peak	
2 *	0. 1815	31. 50	9. 91	41.41	64.42	-23.01	Peak	
3	0.2040	29.76	9. 91	39. 67	63.45	-23.78	Peak	
4	0. 2265	27.71	9. 92	37.63	62.58	-24.95	Peak	
5	0. 2625	25. 97	9. 92	35. 89	61.35	-25.46	Peak	
6	0.4245	21.69	9. 95	31.64	57. 36	-25.72	Peak	

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APPENDIX B - RADIATED EMISSION (9 KHZ-30 MHZ)	

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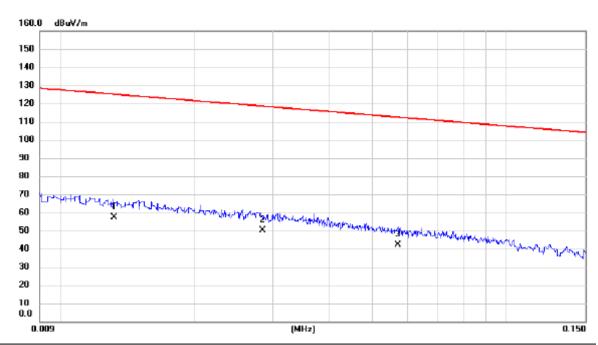
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Test Mode: TX Mode(Adapter: F06W-050120SPACP L.P.S)

## Ant 0°



	eq. Level	Factor	ment	Limit	Margin		
Mi	łz dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 * 0.01	32 36.30	20.97	57.27	125.19	-67.92	AVG	
2 0.02	84 30.30	19.88	50.18	118.54	-68.36	AVG	
3 0.05	70 22.90	19.39	42.29	112.49	-70.20	AVG	

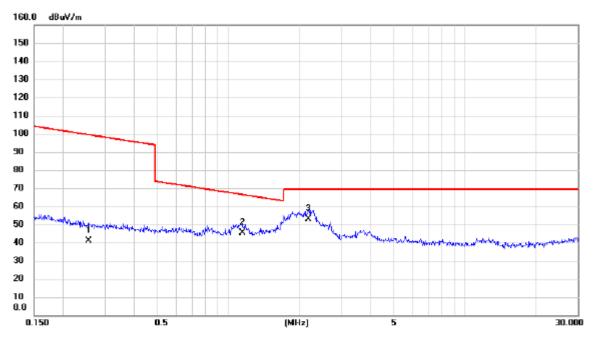
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Test Mode: TX Mode(Adapter: F06W-050120SPACP L.P.S)

## Ant 0°



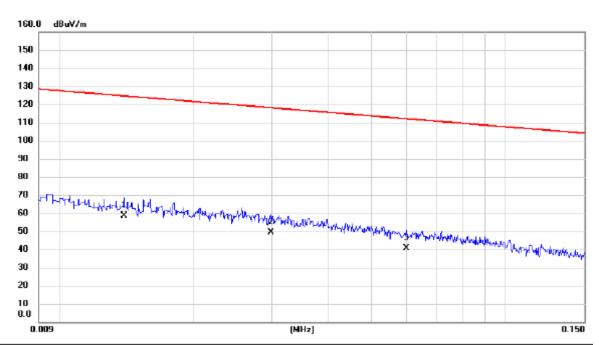
No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	0.2562	23.90	17.06	40.96	99.43	-58.47	AVG		
2	1.1413	28.80	16.67	45.47	66.46	-20.99	QP		
3 *	2.1783	36.10	17.01	53.11	69.54	-16.43	QP		





Test Mode: TX Mode(Adapter: F06W-050120SPACP L.P.S)

## Ant 90°



No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	0.0140	37.60	20.86	58.46	124.68	-66.22	AVG	
2		0.0298	29.70	19.86	49.56	118.12	-68.56	AVG	
3		0.0600	21.40	19.33	40.73	112.04	-71.31	AVG	

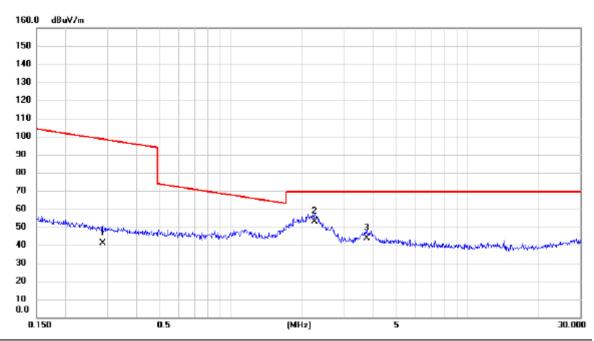
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Test Mode: TX Mode(Adapter: F06W-050120SPACP L.P.S)

## Ant 90°

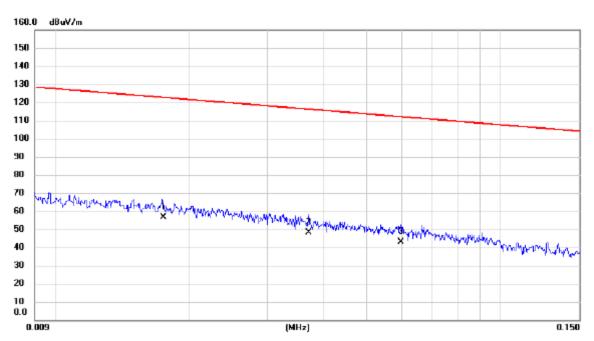


No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin			
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment	
1	0.2863	23.80	17.05	40.85	98.47	-57.62	AVG		
2 *	2.2486	35.90	16.97	52.87	69.54	-16.67	QP		
3	3.7395	27.70	15.95	43.65	69.54	-25.89	QP		





Ant 0°



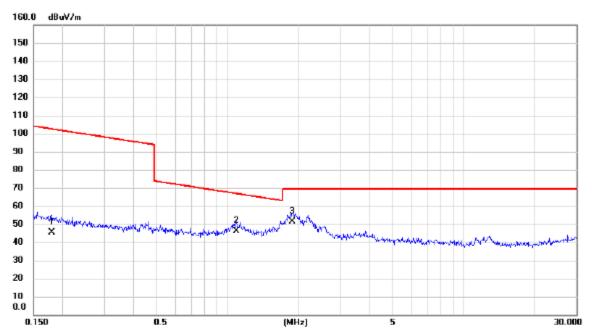
No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	*	0.0175	36.20	20.37	56.57	122.74	-66.17	AVG	
2		0.0371	28.60	19.74	48.34	116.22	-67.88	AVG	
3		0.0598	23.50	19.33	42.83	112.07	-69.24	AVG	

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## Ant 0°



No. Mk.	Freq.		Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.1796	28.10	17.20	45.30	102.52	-57.22	AVG	
2	1.0881	29.70	16.64	46.34	66.87	-20.53	QP	
3 *	1.8780	34.30	17.05	51.35	69.54	-18.19	QP	

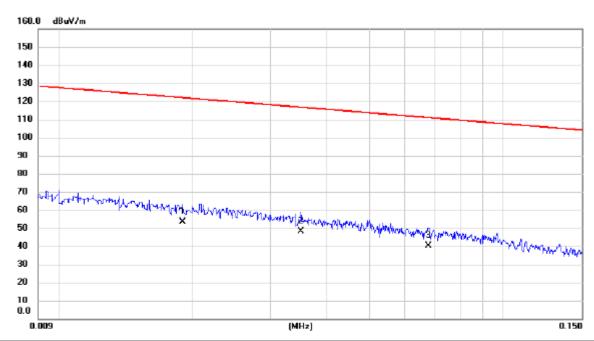
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## Ant 90°

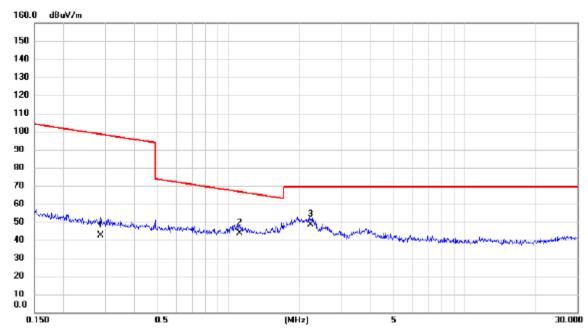


No. Mk.	Freq.			Measure- ment		Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.0190	33.20	20.16	53.36	122.03	-68.67	AVG	
2 *	0.0351	28.30	19.78	48.08	116.70	-68.62	AVG	
3	0.0678	20.90	19.17	40.07	110.98	-70.91	AVG	





## Ant 90°



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	0.2863	25.50	17.05	42.55	98.47	-55.92	AVG	
2	1.1114	27.10	16.66	43.76	66.69	-22.93	QP	
3 *	2.2132	31.60	16.99	48.59	69.54	-20.95	QP	

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APPENDIX C - RADIATED EMISSION (30 MHZ TO 1000 MHZ)

Report No.: BTL-FCCP-1-1810H009

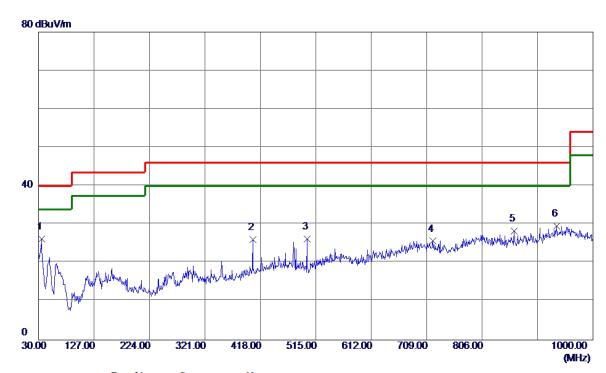
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Test Mode: TX 2402 MHz \_CH00\_1Mbps(Adapter: F06W-050120SPACP L.P.S)

# **Vertical**



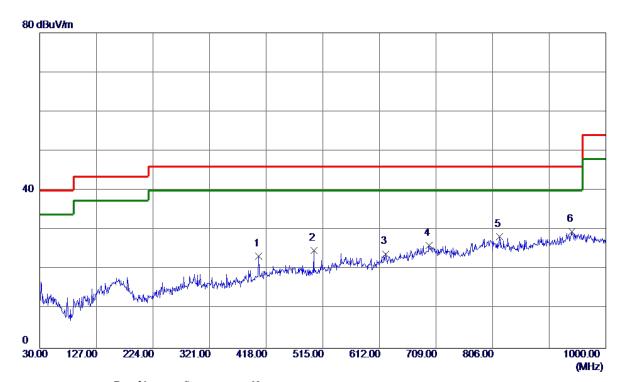
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	35. 3350	41. 13	-14. 93	26. 20	40.00	-13.80	Peak	
2	404.9050	35. 22	-9. 19	26. 03	46.00	-19.97	Peak	
3	499. 9650	34.84	-8. 53	26. 31	46.00	-19.69	Peak	
4	719.6700	28. 94	-3. 26	25. 68	46.00	-20. 32	Peak	
5	862. 2600	29.80	-1. 52	28. 28	46.00	-17.72	Peak	
6	936. 4650	28. 73	0.87	29.60	46.00	-16.40	Peak	





Test Mode: TX 2402 MHz \_CH00\_1Mbps(Adapter: F06W-050120SPACP L.P.S)

# **Horizontal**



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	404.9050	32.60	-9. 19	23.41	46.00	-22.59	Peak	
2	499. 9650	33. 26	-8. 53	24.73	46.00	-21. 27	Peak	
3	623. 1550	29.70	-5. 78	23. 92	46.00	<b>-22.08</b>	Peak	
4	697. 3600	28. 99	-2.87	26. 12	46.00	-19.88	Peak	
5	817.6400	29. 57	-1. 32	28. 25	46.00	-17.75	Peak	
6 *	941. 3150	28. 47	1.06	29. 53	46.00	-16.47	Peak	

Report No.: BTL-FCCP-1-1810H009

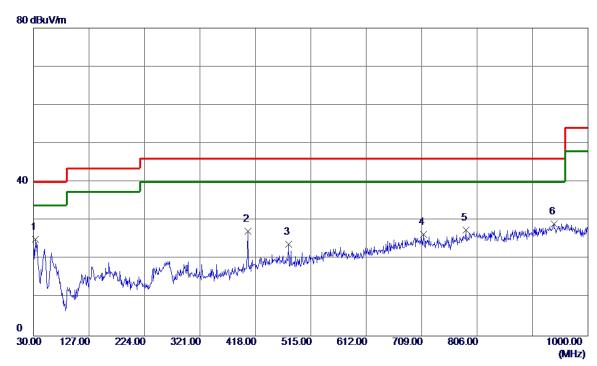
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Test Mode: TX 2441 MHz \_CH39\_1Mbps(Adapter: F06W-050120SPACP L.P.S)

# **Vertical**



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	33. 3950	39. 99	-14.88	25. 11	40.00	-14.89	Peak	
2	404.9050	36. 33	-9. 19	27. 14	46.00	-18.86	Peak	
3	476.6850	31. 91	-8. 00	23. 91	46.00	-22.09	Peak	
4	711. 9099	29. 51	-3. 05	26. 46	46.00	-19.54	Peak	
5	787. 0850	29. 37	-1.82	27. 55	46.00	-18.45	Peak	
6	940. 3450	28. 07	1. 02	29. 09	46. 00	-16. 91	Peak	

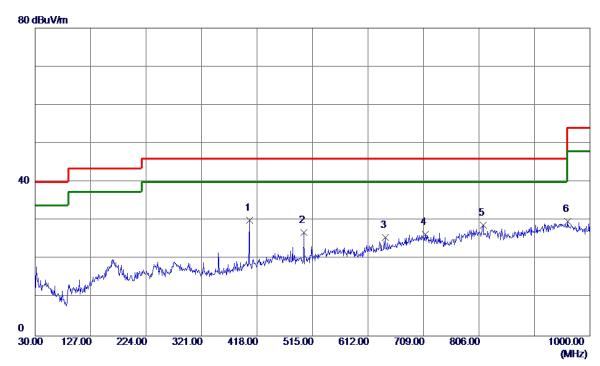
Report No.: BTL-FCCP-1-1810H009 Page





Test Mode: TX 2441 MHz \_CH39\_1Mbps(Adapter: F06W-050120SPACP L.P.S)

# **Horizontal**



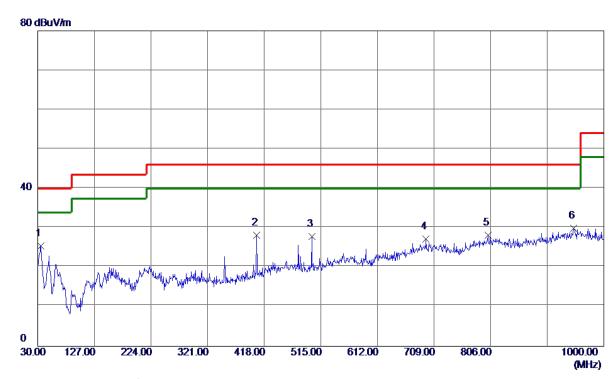
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	404. 9050	39. 25	-9. 19	30.06	46.00	-15. 94	Peak	
2	499. 9650	35. 37	-8. 53	26. 84	46.00	-19. 16	Peak	
3	642. 5550	30. 90	-5. 34	25. 56	46.00	-20.44	Peak	
4	712. 3950	29.41	-3. 07	26. 34	46.00	-19.66	Peak	
5	813. 2750	30. 11	-1. 25	28. 86	46.00	-17. 14	Peak	
6	960. 7150	28. 60	1. 15	29. 75	54. 00	-24. 25	Peak	





Test Mode: TX 2480 MHz \_CH78\_1Mbps(Adapter: F06W-050120SPACP L.P.S)

# Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	34.8500	40.31	-14.89	25. 42	40.00	-14.58	Peak	
2	404.9050	37. 34	-9. 19	28. 15	46.00	-17.85	Peak	
3	499. 9650	36. 31	-8. 53	27.78	46.00	-18. 22	Peak	
4	695. 4200	30. 16	-2.97	27. 19	46.00	-18.81	Peak	
5	801.6350	29. 17	-1.07	28. 10	46.00	-17.90	Peak	
6	948. 5900	28. 62	1. 35	29. 97	46.00	-16. 03	Peak	

Report No.: BTL-FCCP-1-1810H009

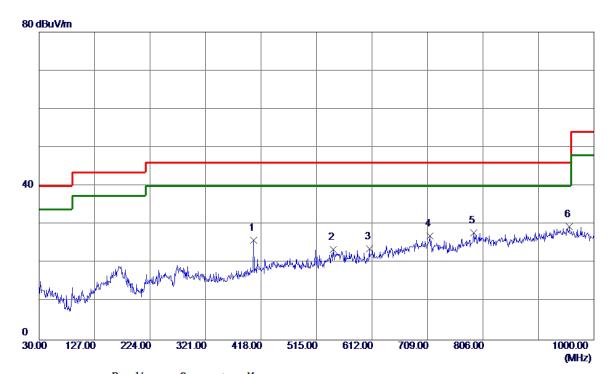
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Test Mode: TX 2480 MHz \_CH78\_1Mbps(Adapter: F06W-050120SPACP L.P.S)

# **Horizontal**



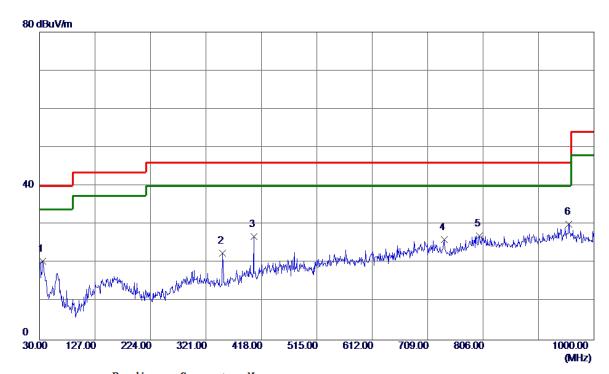
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	404.9050	35. 14	-9. 19	25. 95	46.00	-20.05	Peak	
2	544. 1000	29. 33	-5.82	23. 51	46.00	-22.49	Peak	
3	607.6350	29.84	-6. 13	23.71	46.00	-22. 29	Peak	
4	713. 3650	30. 20	-3. 09	27. 11	46.00	-18.89	Peak	
5	789. 5100	29. 50	-1.67	27.83	46.00	-18. 17	Peak	
6 *	957. 3200	28. 23	1. 24	29. 47	46.00	-16. 53	Peak	





Test Mode: TX 2402 MHz\_CH00\_1Mbps(Adapter: SW-1780)

# **Vertical**



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	35.8200	35. 52	-14. 97	20. 55	40.00	-19.45	Peak	
2	350. 1000	33.64	-11.07	22. 57	46.00	-23.43	Peak	
3	404.9050	36. 10	-9. 19	26. 91	46.00	-19.09	Peak	
4	737. 6150	29.84	-3.72	26. 12	46.00	-19.88	Peak	
5	799. 6950	28. 14	-1.06	27. 08	46.00	-18. 92	Peak	
6 *	956. 3500	28. 75	1. 26	30. 01	46.00	-15. 99	Peak	

Report No.: BTL-FCCP-1-1810H009

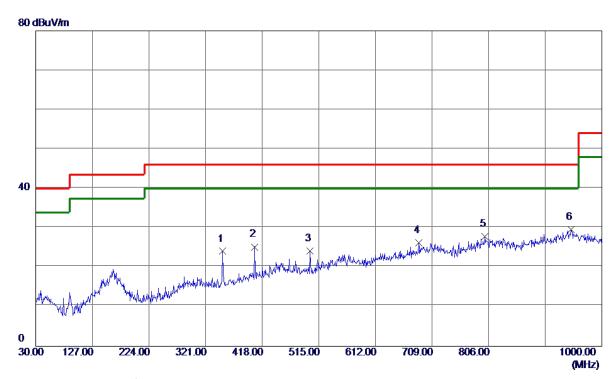
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Test Mode: TX 2402 MHz\_CH00\_1Mbps(Adapter: SW-1780)

# **Horizontal**



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	350. 1000	35. 15	-11. 07	24. 08	46.00	-21.92	Peak	
2	404.9050	34. 39	-9. 19	25. 20	46.00	-20.80	Peak	
3	499. 9650	32.72	-8. 53	24. 19	46.00	-21.81	Peak	
4	686. 2050	29.61	-3.41	26. 20	46.00	-19.80	Peak	
5	799. 6950	28. 91	-1.06	27. 85	46.00	-18. 15	Peak	
6 *	947. 6200	28. 32	1. 31	29.63	46.00	-16. 37	Peak	

Report No.: BTL-FCCP-1-1810H009

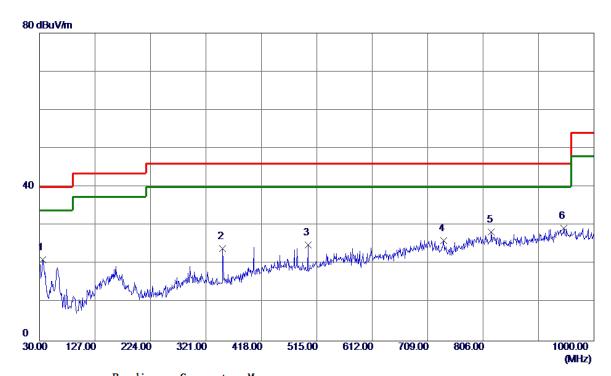
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Test Mode: TX 2441 MHz\_CH39\_1Mbps(Adapter: SW-1780)

# **Vertical**



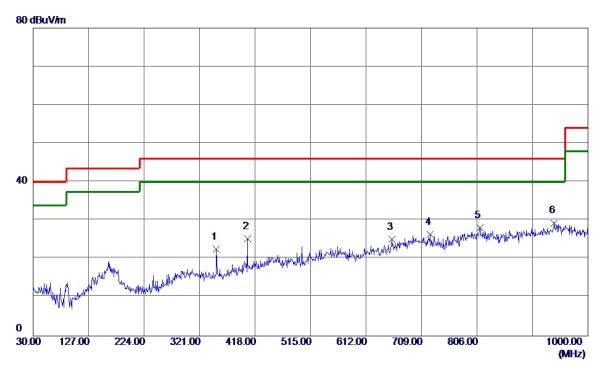
No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	35. 3350	36. 09	-14. 93	21. 16	40.00	-18.84	Peak	
2	350. 1000	35. 12	-11. 07	24. 05	46.00	-21.95	Peak	
3	499. 9650	33. 56	-8.53	25. 03	46.00	-20.97	Peak	
4	736. 6450	29.80	-3.70	26. 10	46.00	-19.90	Peak	
5	820. 5500	29.74	-1.36	28. 38	46.00	-17.62	Peak	
6 *	947.6200	27. 99	1. 31	29. 30	46.00	-16.70	Peak	





Test Mode: TX 2441 MHz\_CH39\_1Mbps(Adapter: SW-1780)

# **Horizontal**



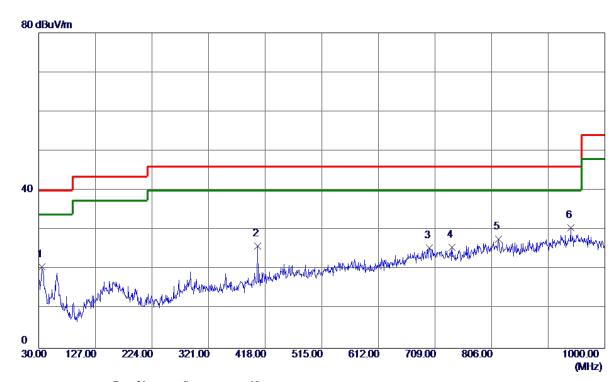
No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	350. 1000	33.70	-11.07	22. 63	46.00	-23. 37	Peak	
2	404.9050	34.49	-9. 19	25. 30	46.00	-20.70	Peak	
3	657. 1050	29. 92	-4.83	25. 09	46.00	-20.91	Peak	
4	724. 0349	29.71	-3. 37	26. 34	46.00	-19.66	Peak	
5	810.8500	29. 43	-1. 21	28. 22	46.00	-17.78	Peak	
6 *	940. 8300	28. 32	1. 04	29. 36	46. 00	-16. 64	Peak	





Test Mode: TX 2480 MHz\_CH78\_1Mbps(Adapter: SW-1780)

# Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	35. 3350	35. 50	-14.93	20. 57	40.00	-19.43	Peak	
2	404.9050	35. 12	-9. 19	25. 93	46.00	-20.07	Peak	
3	699. 3000	28. 28	-2.78	25. 50	46.00	-20.50	Peak	
4	738. 5850	29. 29	-3.75	25. 54	46.00	-20.46	Peak	
5	818. 1250	28. 97	-1. 32	27.65	46.00	-18. 35	Peak	
6 *	941. 3150	29.43	1.06	30. 49	46.00	-15. 51	Peak	

Report No.: BTL-FCCP-1-1810H009

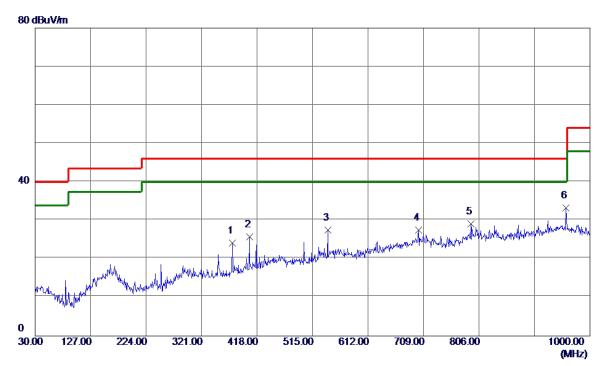
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Test Mode: TX 2480 MHz\_CH78\_1Mbps(Adapter: SW-1780)

# Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	374.8350	34. 35	-10. 24	24. 11	46.00	-21.89	Peak	
2	404.9050	34.94	-9. 19	25. 75	46.00	-20. 25	Peak	
3	541.6750	33. 48	-5. 97	27. 51	46.00	-18.49	Peak	
4	700. 7550	30. 35	-2.76	27. 59	46.00	-18.41	Peak	
5	791. 4500	30.61	-1.55	29.06	46.00	-16. 94	Peak	
6 *	958. 2900	32. 08	1. 21	33. 29	46. 00	-12.71	Peak	





APPENDIX D - RADIATED EMISSION (ABOVE 1000 MHZ)

Report No.: BTL-FCCP-1-1810H009

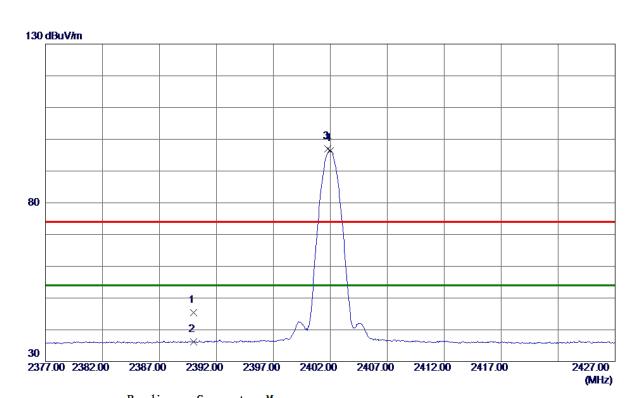
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Test Mode: TX 2402 MHz \_CH00\_1Mbps

## **Vertical**



No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	38. 79	6. 62	45.41	74.00	-28. 59	Peak	
2	2390.0000	29.64	6. 62	36. 26	54.00	-17.74	AVG	
3	2401.8000	90. 37	6. 62	96. 99	74.00	22.99	Peak	No Limit
4 *	2402.0000	89. 87	6. 62	96. 49	54.00	42.49	AVG	No Limit

Report No.: BTL-FCCP-1-1810H009

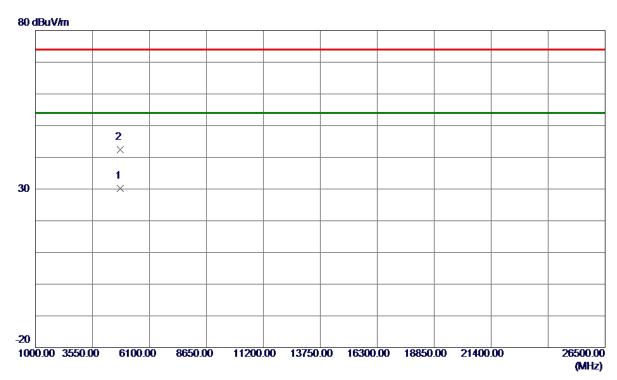
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Test Mode: TX 2402 MHz \_CH00\_1Mbps

## Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4802.3070	26. 68	3. 52	30. 20	54.00	-23.80	AVG	
2	4805. 4750	38. 93	3. 53	42.46	74.00	-31.54	Peak	

Report No.: BTL-FCCP-1-1810H009

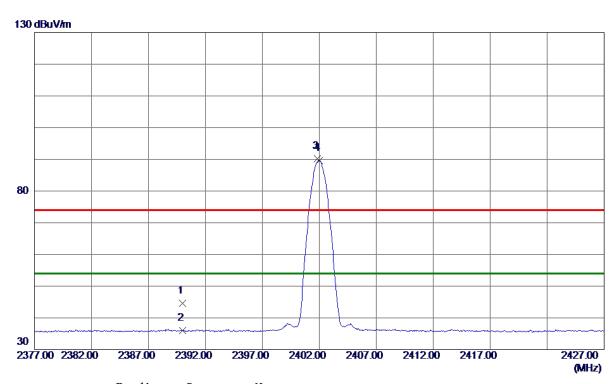
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Test Mode: TX 2402 MHz \_CH00\_1Mbps

## Horizontal



MHz dBuV/m dB dBuV/m dBuV/m dB Detector Comment	
MIZ adday/m adday/m ad Detector Comment	
1 2390.0000 37.99 6.62 44.61 74.00 -29.39 Peak	
2 2390. 0000 29. 32 6. 62 35. 94 54. 00 -18. 06 AVG	
3 2401.8250 83.49 6.62 90.11 74.00 16.11 Peak No Limit	
4 * 2401.9750 83.03 6.62 89.65 54.00 35.65 AVG No Limit	

Report No.: BTL-FCCP-1-1810H009

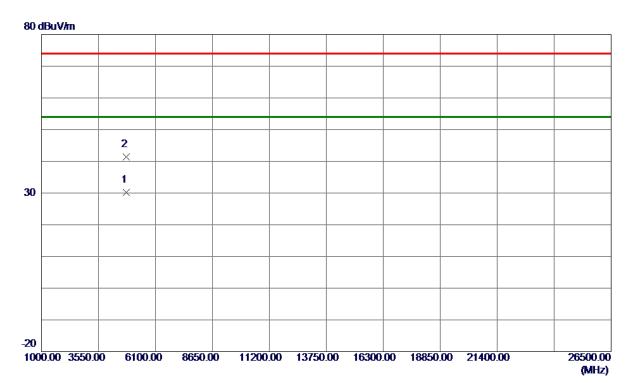
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## Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4803.9250	26.64	3. 53	30. 17	54.00	-23.83	AVG	
2	4806. 3750	37.86	3. 53	41. 39	74.00	-32.61	Peak	

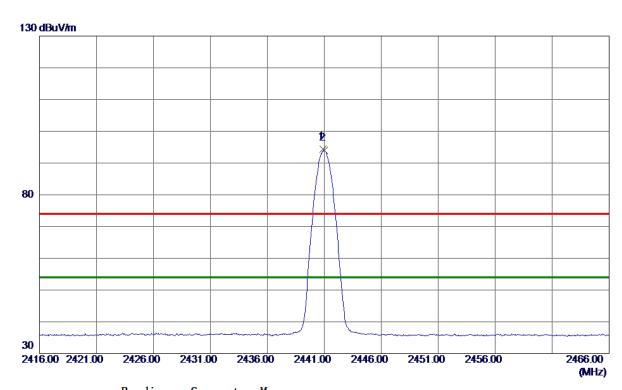
Report No.: BTL-FCCP-1-1810H009

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## **Vertical**



No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2440.9000	87.80	6.61	94.41	74.00	20.41	Peak	No Limit
2 *	2440. 9750	87. 39	6. 61	94.00	54.00	40.00	AVG	No Limit

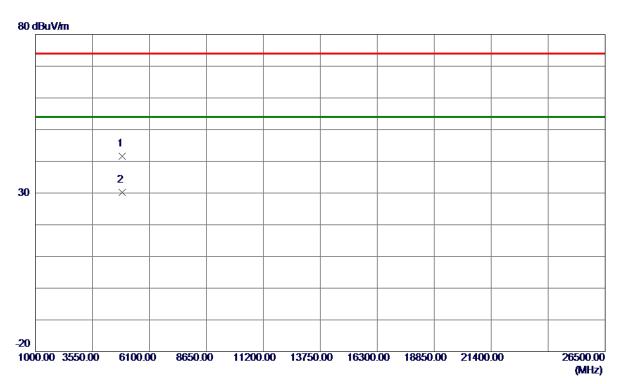
Report No.: BTL-FCCP-1-1810H009

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## Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4879.7450	37.94	3. 69	41.63	74.00	-32. 37	Peak	
2 *	4881.3470	26. 52	3. 70	30. 22	54.00	-23.78	AVG	

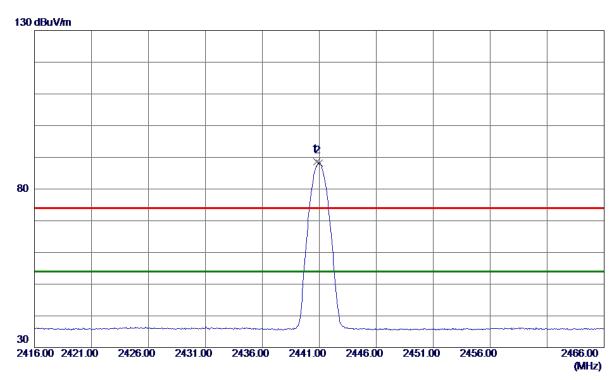
Report No.: BTL-FCCP-1-1810H009

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## Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2440.8000	81. 97	6. 61	88. 58	74.00	14.58	Peak	No Limit
2 *	2440. 9750	81.61	6. 61	88. 22	54.00	34. 22	AVG	No Limit

Report No.: BTL-FCCP-1-1810H009

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## Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4880.0450	37.66	3. 69	41.35	74.00	-32.65	Peak	
2 *	4881.7030	26. 57	3. 70	30. 27	54.00	-23.73	AVG	

Report No.: BTL-FCCP-1-1810H009

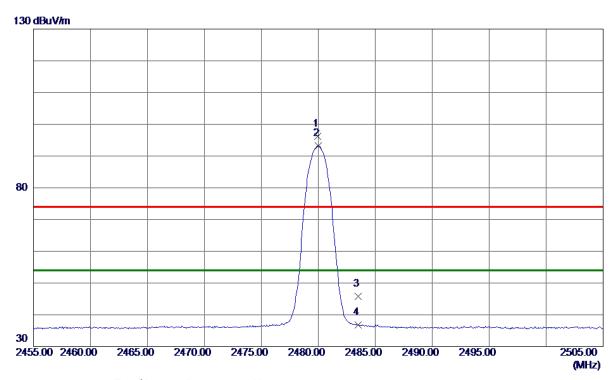
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Test Mode: TX 2480 MHz \_CH78\_1Mbps

## **Vertical**



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2479. 9250	89. 61	6. 61	96. 22	74.00	22. 22	Peak	No Limit
2 *	2480. 0250	86. 63	6. 61	93. 24	54.00	39. 24	AVG	No Limit
3	2483. 5000	39. 13	6. 61	45. 74	74.00	-28. 26	Peak	
4	2483. 5000	30. 27	6. 61	36. 88	54.00	-17. 12	AVG	

Report No.: BTL-FCCP-1-1810H009

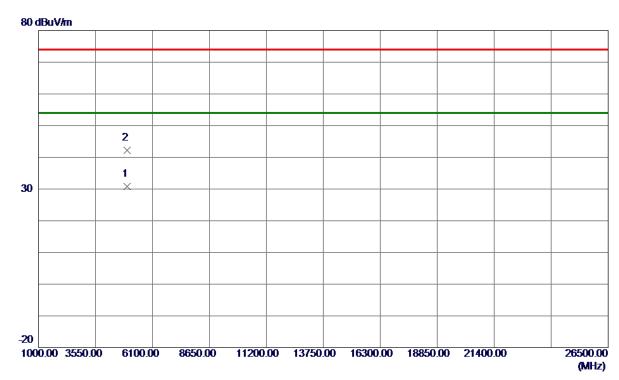
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Test Mode: TX 2480 MHz \_CH78\_1Mbps

## Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4960. 3920	26. 97	3. 87	30.84	54.00	-23. 16	AVG	
2	4962. 2300	38. 34	3. 88	42. 22	74.00	-31.78	Peak	

Report No.: BTL-FCCP-1-1810H009

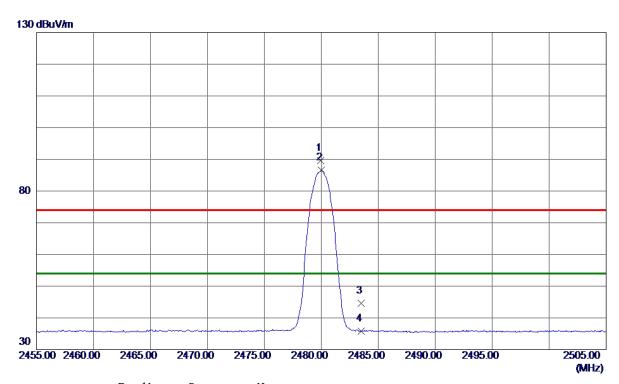
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Test Mode: TX 2480 MHz \_CH78\_1Mbps

## Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2479.9500	82. 97	6. 61	89. 58	74.00	15. 58	Peak	No Limit
2 *	2480.0000	79. 91	6. 61	86. 52	54.00	32. 52	AVG	No Limit
3	2483. 5000	38. 07	6. 61	44.68	74.00	-29. 32	Peak	
4	2483. 5000	29. 27	6. 61	35. 88	54.00	-18. 12	AVG	

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## Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4960. 4000	38. 57	3. 87	42.44	74.00	-31. 56	Peak	
2 *	4960. 5230	27.07	3. 87	30. 94	54.00	-23.06	AVG	

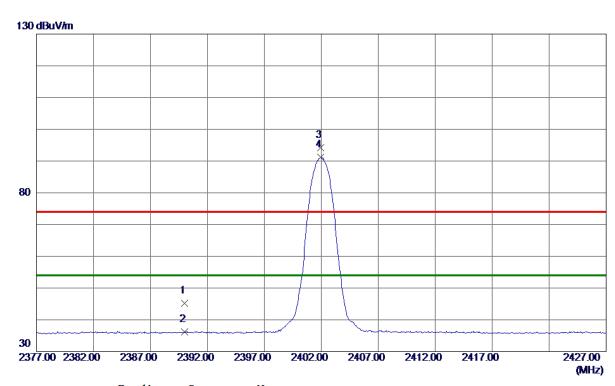
Report No.: BTL-FCCP-1-1810H009

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## **Vertical**



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2390.0000	38. 66	6. 62	45. 28	74.00	-28.72	Peak	
2	2390.0000	29. 51	6. 62	36. 13	54.00	-17.87	AVG	
3	2401. 9250	87. 49	6. 62	94. 11	74.00	20.11	Peak	No Limit
4 *	2401. 9250	84. 57	6. 62	91. 19	54.00	37. 19	AVG	No Limit

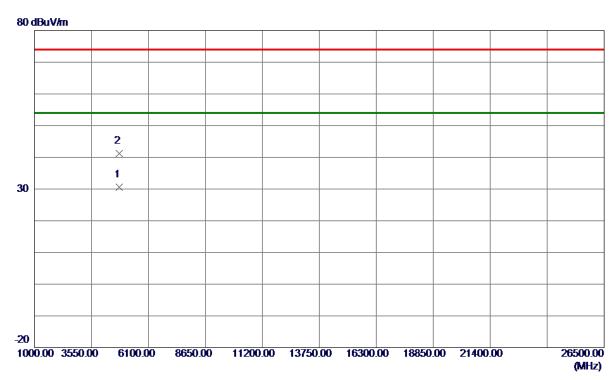
Report No.: BTL-FCCP-1-1810H009

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## **Vertical**



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4804. 1950	26. 98	3. 53	30. 51	54.00	-23.49	AVG	
2	4804. 5800	37.60	3. 53	41. 13	74.00	-32.87	Peak	

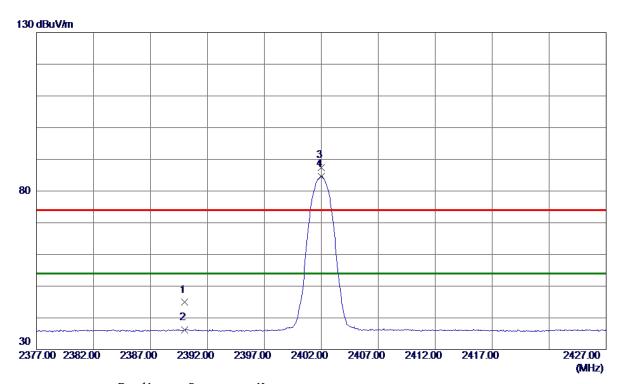
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## Horizontal



MHz         dBuV/m         dB         dBuV/m         dB         Detector         Comment           1         2390.0000 38.28         6.62         44.90         74.00         -29.10         Peak           2         2390.0000 29.50         6.62         36.12         54.00         -17.88         AVG	No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
2 2390.0000 29.50 6.62 36.12 54.00 -17.88 AVG		MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
	1	2390.0000	38. 28	6. 62	44.90	74.00	-29. 10	Peak	
0 0404 0750 00 04 0 00 07 40 74 00 40 10 40 70 1	2	2390.0000	29. 50	6. 62	36. 12	54.00	-17.88	AVG	
3 2401.9750 80.84 6.62 87.46 74.00 13.46 Peak No Limit	3	2401.9750	80.84	6. 62	87.46	74.00	13.46	Peak	No Limit
4 * 2402.0250 78.00 6.62 84.62 54.00 30.62 AVG No Limit	4 *	2402. 0250	78. 00	6. 62	84. 62	54.00	30.62	AVG	No Limit

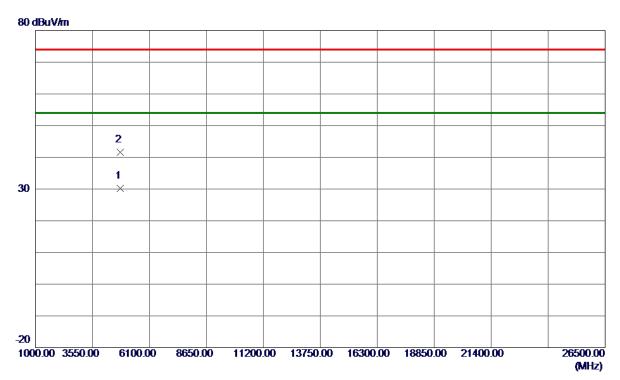
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## Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4803. 2030	26.70	3. 53	30. 23	54.00	-23.77	AVG	
2	4805. 3400	38. 03	3. 53	41.56	74.00	-32.44	Peak	

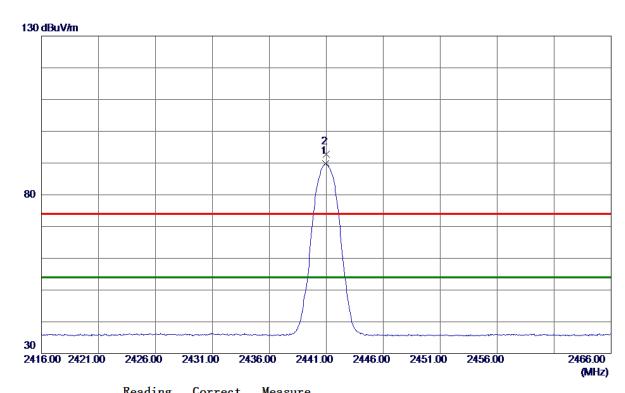
Report No.: BTL-FCCP-1-1810H009

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## **Vertical**



No.	Freq.	Keading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	2440. 9250	83. 13	6. 61	89.74	54.00	35. 74	AVG	No Limit
2	2441.0000	86. 10	6. 61	92.71	74.00	18.71	Peak	No Limit

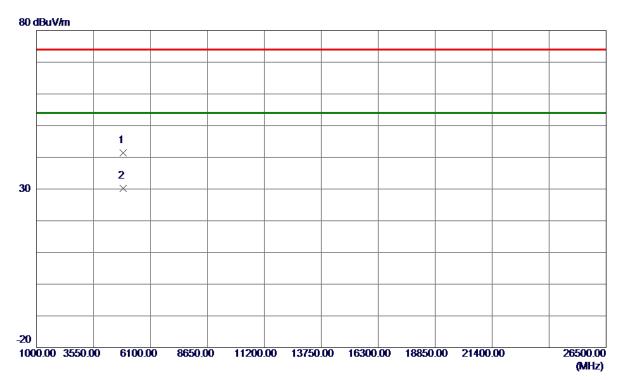
Report No.: BTL-FCCP-1-1810H009

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## **Vertical**



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4880. 3150	37.68	3.70	41.38	74.00	-32.62	Peak	
2 *	4882. 0419	26. 58	3.70	30. 28	54.00	-23.72	AVG	

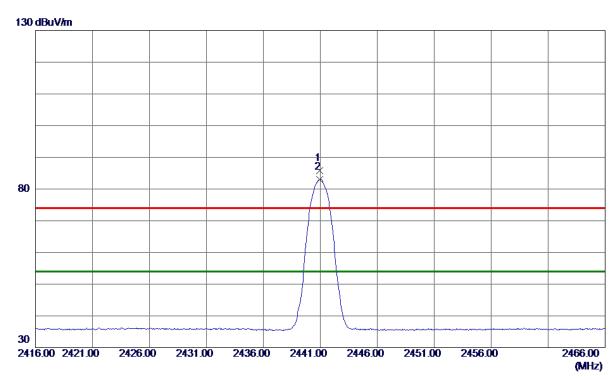
Report No.: BTL-FCCP-1-1810H009

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## Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2440.9500	79. 27	6. 61	85.88	74.00	11.88	Peak	No Limit
2 *	2440.9500	76. 43	6. 61	83. 04	54.00	29.04	AVG	No Limit

Report No.: BTL-FCCP-1-1810H009

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## Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4882. 2730	26. 87	3. 70	30. 57	54.00	-23.43	AVG	
2	4882. 5350	38. 41	3. 70	42.11	74.00	-31.89	Peak	

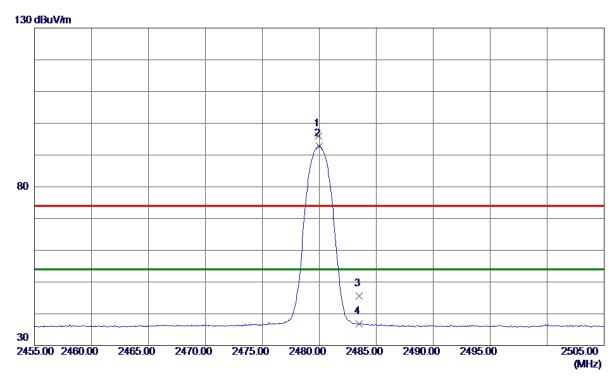
Report No.: BTL-FCCP-1-1810H009

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## **Vertical**



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2479. 9250	89. 30	6. 61	95. 91	74.00	21.91	Peak	No Limit
2 *	2479.9750	86. 21	6. 61	92.82	54.00	38.82	AVG	No Limit
3	2483. 5000	38. 91	6. 61	45. 52	74.00	-28.48	Peak	
4	2483. 5000	30. 15	6. 61	36. 76	54.00	-17.24	AVG	

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## Vertical



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	4957.8400	38.00	3. 87	41.87	74.00	-32. 13	Peak	
2 *	4959. 5250	26.86	3. 87	30. 73	54.00	-23. 27	AVG	

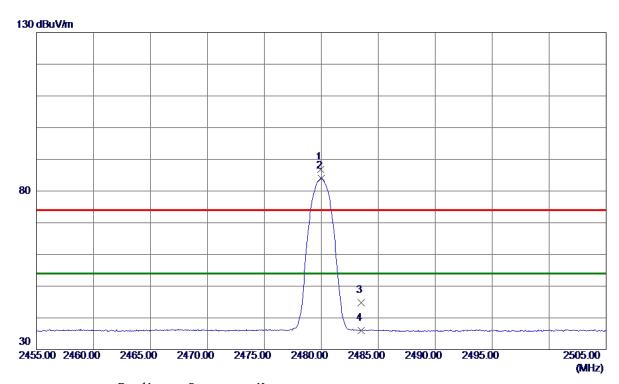
Report No.: BTL-FCCP-1-1810H009

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## Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1	2479. 9250	80. 27	6. 61	86. 88	74.00	12.88	Peak	No Limit
2 *	2480.0000	77. 34	6. 61	83. 95	54.00	29. 95	AVG	No Limit
3	2483. 5000	38. 12	6. 61	44.73	74.00	-29. 27	Peak	
4	2483. 5000	29. 37	6. 61	35. 98	54.00	-18. 02	AVG	

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## Horizontal



No.	Freq.	Reading Level	Correct Factor	Measure ment	Limit	Margin		
	MHz	dBuV/m	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1 *	4957.8050	26. 98	3. 87	30.85	54.00	-23. 15	AVG	
2	4960.0570	38. 91	3. 87	42.78	74.00	-31. 22	Peak	

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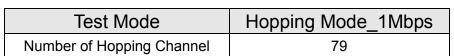
		1100 1
AF	PPENDIX E - NUMBER OF HOPPING CHANNEL	

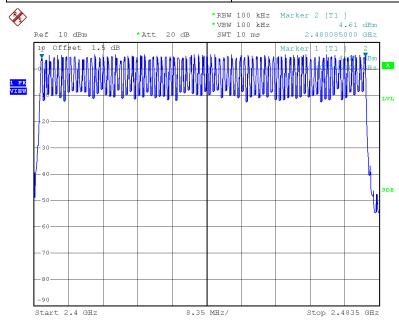
Report No.: BTL-FCCP-1-1810H009

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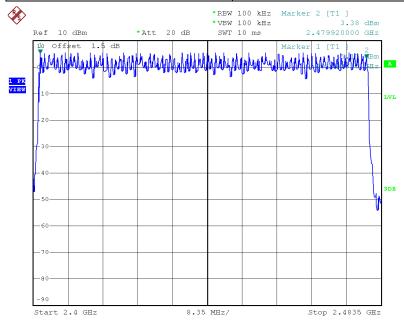






Date: 23.NOV.2018 16:06:48

Test Mode	Hopping Mode_3Mbps		
Number of Hopping Channel	79		



Date: 23.NOV.2018 16:24:27

Report No.: BTL-FCCP-1-1810H009

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<b>APPENDIX F - AVERAGE</b>	TIME OF C	CCUPANCY

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Test Mode: TX Mode\_1Mbps

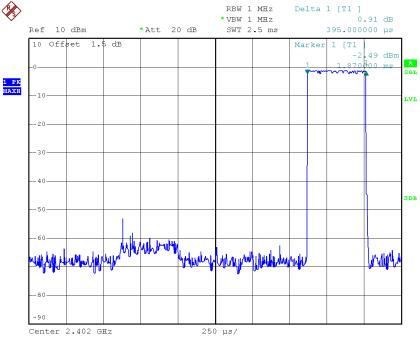
Data Packet	Frequency	Pulse Duration	Dwell Time	Limits	Test Result
Data Facket	(MHz)	(ms)	(s)	(s)	rest Result
DH5	2402	2.9200	0.3115	0.4000	Pass
DH3	2402	1.6600	0.2656	0.4000	Pass
DH1	2402	0.3950	0.1264	0.4000	Pass
DH5	2441	2.9200	0.3115	0.4000	Pass
DH3	2441	1.6400	0.2624	0.4000	Pass
DH1	2441	0.4000	0.1280	0.4000	Pass
DH5	2480	2.8800	0.3072	0.4000	Pass
DH3	2480	1.6600	0.2656	0.4000	Pass
DH1	2480	0.3950	0.1264	0.4000	Pass

Report No.: BTL-FCCP-1-1810H009



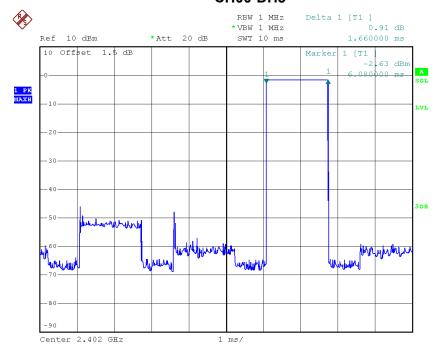






Date: 23.NOV.2018 16:01:18

#### CH00-DH3



Date: 23.NOV.2018 16:13:38

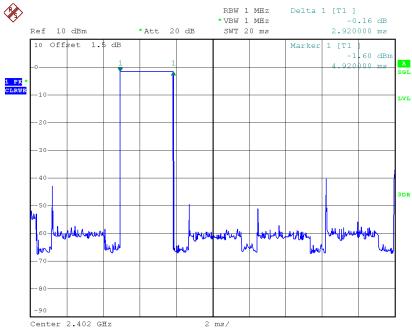
Report No.: BTL-FCCP-1-1810H009

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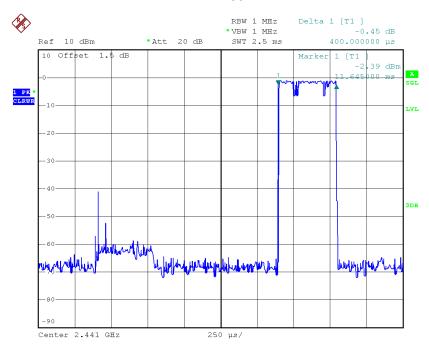






Date: 23.NOV.2018 16:14:52

#### CH39-DH1



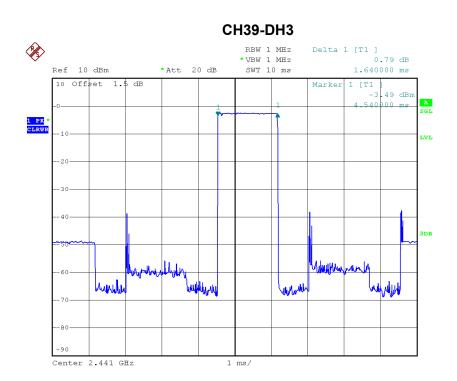
Date: 23.NOV.2018 16:01:25

Report No.: BTL-FCCP-1-1810H009

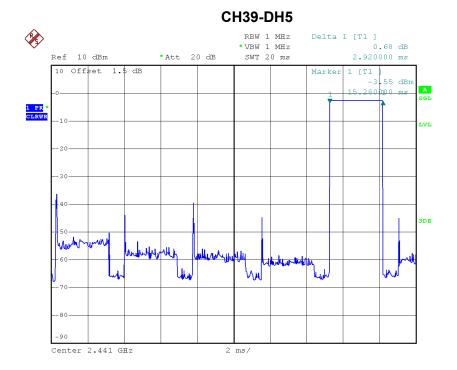
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Date: 23.NOV.2018 16:13:50



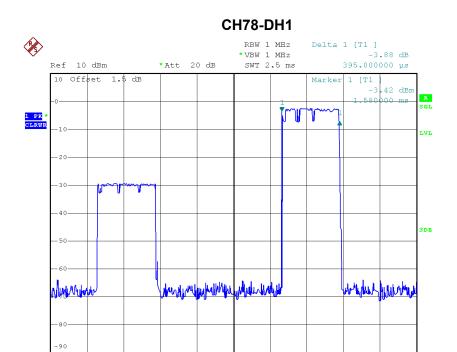
Date: 23.NOV.2018 16:14:59

Report No.: BTL-FCCP-1-1810H009

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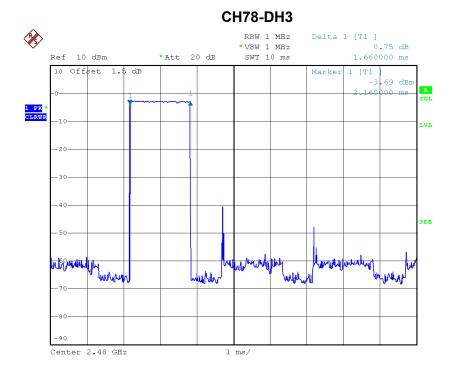






Date: 23.NOV.2018 16:01:36

Center 2.48 GHz



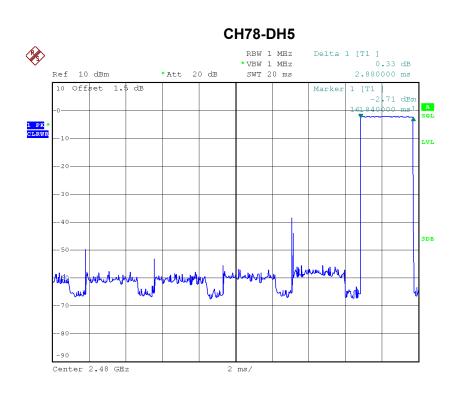
Date: 23.NOV.2018 16:14:11

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Date: 23.NOV.2018 16:15:07

Report No.: BTL-FCCP-1-1810H009

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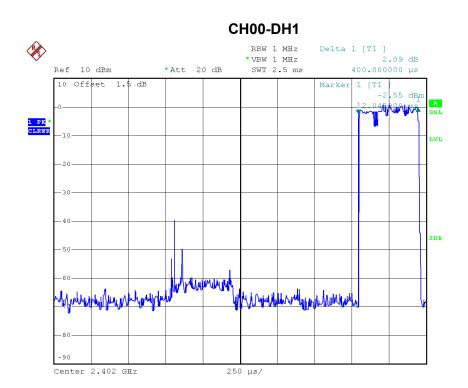


Test Mode: TX Mode\_3Mbps

Data Packet	Eroguenov	Pulse	Dwell	Limits(s)	Test Result	
Dala Facket	Frequency	Duration(ms)	Time(s)	Lillins(5)	103t Nesult	
DH5	2402	2.9200	0.3115	0.4000	Pass	
DH3	2402	1.6600	0.2656	0.4000	Pass	
DH1	2402	0.4000	0.1280	0.4000	Pass	
DH5	2441	2.8800	0.3072	0.4000	Pass	
DH3	2441	1.6600	0.2656	0.4000	Pass	
DH1	2441	0.4000	0.1280	0.4000	Pass	
DH5	2480	2.9200	0.3115	0.4000	Pass	
DH3	2480	1.6600	0.2656	0.4000	Pass	
DH1	2480	0.4050	0.1296	0.4000	Pass	







Date: 23.NOV.2018 16:17:04

# 

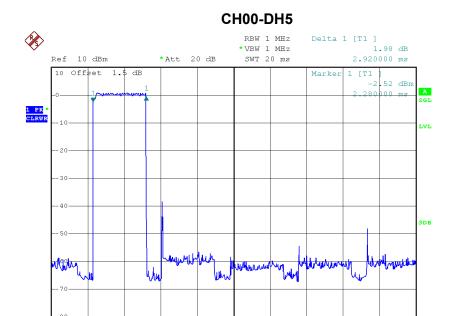
Date: 23.NOV.2018 16:30:07

Report No.: BTL-FCCP-1-1810H009

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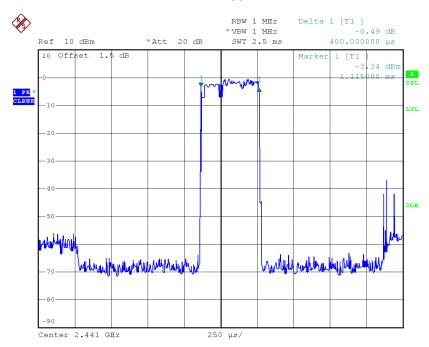


Date: 23.NOV.2018 16:31:21

Center 2.402 GHz

#### CH39-DH1

2 ms/



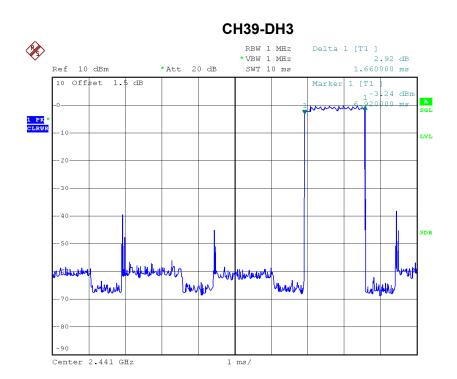
Date: 23.NOV.2018 16:17:12

Report No.: BTL-FCCP-1-1810H009

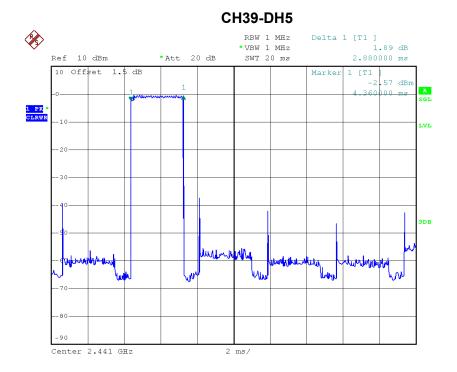
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Date: 23.NOV.2018 16:28:28



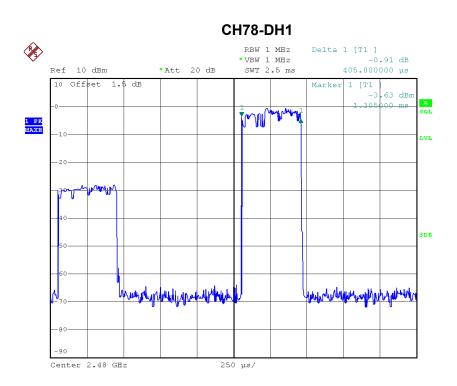
Date: 23.NOV.2018 16:31:52

Report No.: BTL-FCCP-1-1810H009

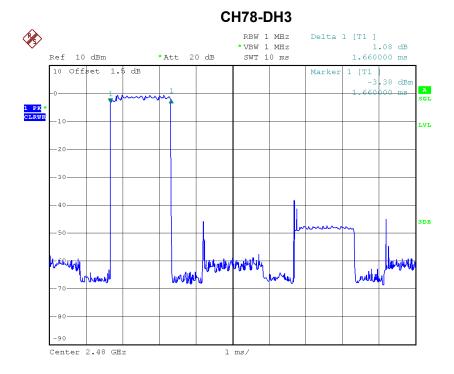
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Date: 23.NOV.2018 16:17:57



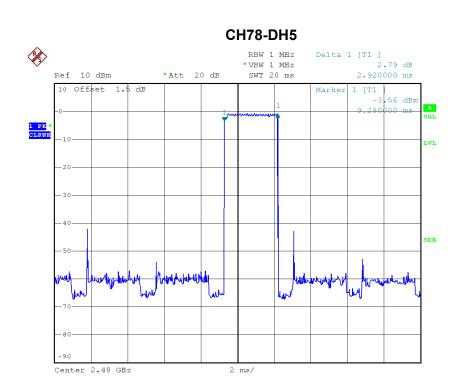
Date: 23.NOV.2018 16:30:12

Report No.: BTL-FCCP-1-1810H009

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Date: 23.NOV.2018 16:31:57

Report No.: BTL-FCCP-1-1810H009

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# **APPENDIX G - HOPPING CHANNEL SEPARATION MEASUREMENT**

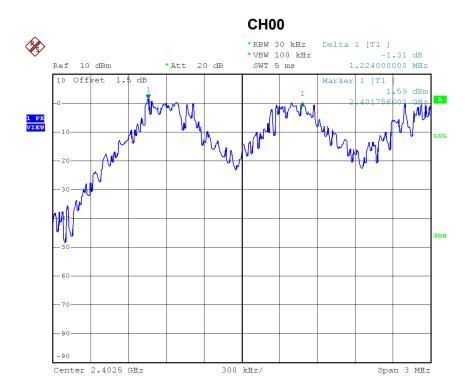
Report No.: BTL-FCCP-1-1810H009





Test Mode: Hopping on \_1Mbps

Frequency	Channel Separation	2/3 of 20 dB Bandwidth	Took Dooult	
(MHz)	(MHz)	(MHz)	Test Result	
2402	1.224	0.699	Pass	
2441	0.993	0.659	Pass	
2480	1.008	0.709	Pass	



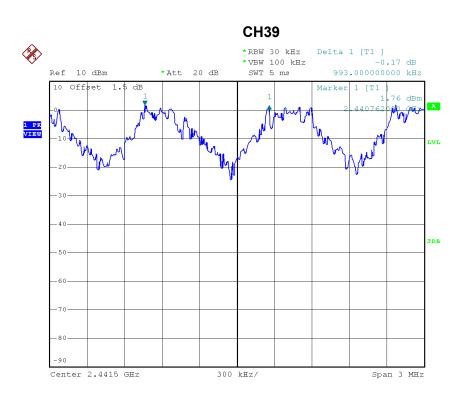
Date: 23.NOV.2018 16:02:42

Report No.: BTL-FCCP-1-1810H009

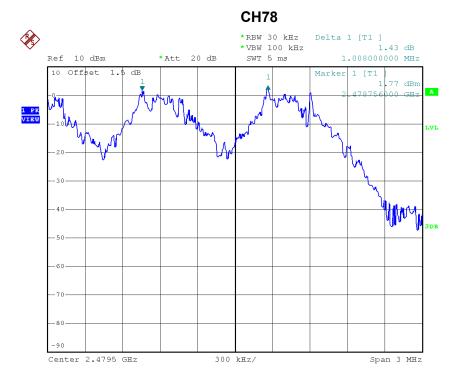
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Date: 23.NOV.2018 16:03:53



Date: 23.NOV.2018 16:04:58

Report No.: BTL-FCCP-1-1810H009

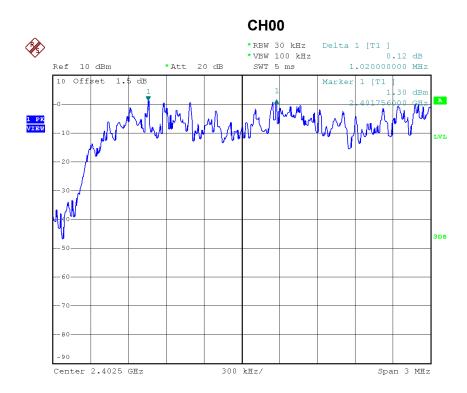
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Test Mode: Hopping on \_3Mbps

Frequency	Channel Separation	2/3 of 20 dB Bandwidth	Test Result	
(MHz)	(MHz)	(MHz)		
2402	1.020	0.896	Pass	
2441	1.002	0.892	Pass	
2480	1.338	0.876	Pass	



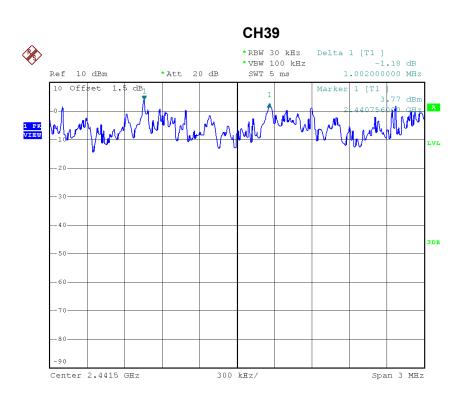
Date: 23.NOV.2018 16:19:03

Report No.: BTL-FCCP-1-1810H009

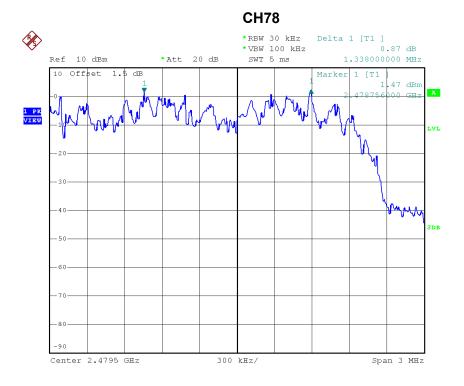
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Date: 23.NOV.2018 16:20:08



Date: 23.NOV.2018 16:22:37

Report No.: BTL-FCCP-1-1810H009

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APPENDIX H - BANDWIDTH		

Report No.: BTL-FCCP-1-1810H009

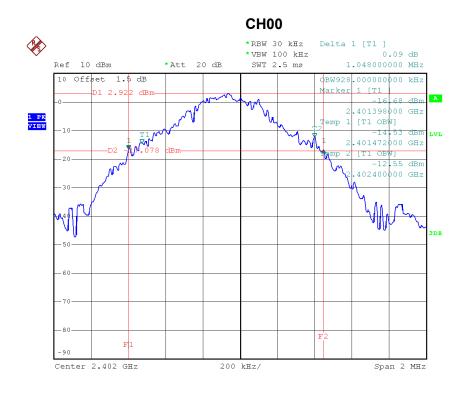
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Test Mode: TX Mode \_1Mbps

Frequency	20 dB Bandwidth	99% Occupied BW	Toot Dooult	
(MHz)	(MHz)	(MHz)	Test Result	
2402	1.048	0.928	Pass	
2441	0.988	0.912	Pass	
2480	1.064	0.924	Pass	



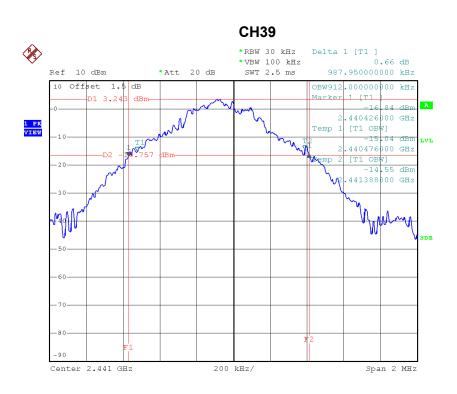
Date: 21.NOV.2018 20:31:11

Report No.: BTL-FCCP-1-1810H009

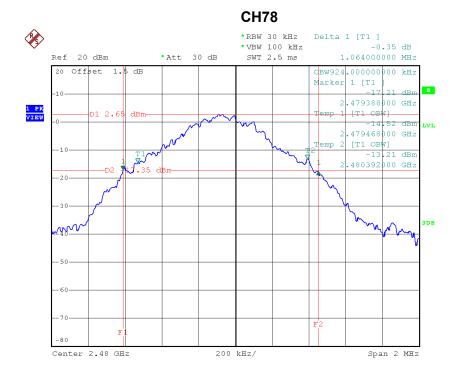
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Date: 21.NOV.2018 20:44:01



Date: 3.DEC.2018 08:56:46

Report No.: BTL-FCCP-1-1810H009

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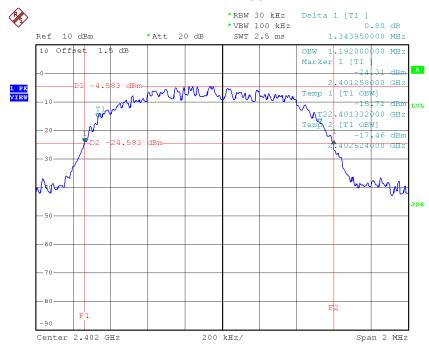




Test Mode: TX Mode \_3Mbps

Frequency	20 dB Bandwidth	99% Occupied BW	Test Result	
(MHz)	(MHz)	(MHz)		
2402	1.344	1.192	Pass	
2441	1.338	1.188	Pass	
2480	1.314	1.184	Pass	

#### **CH00**



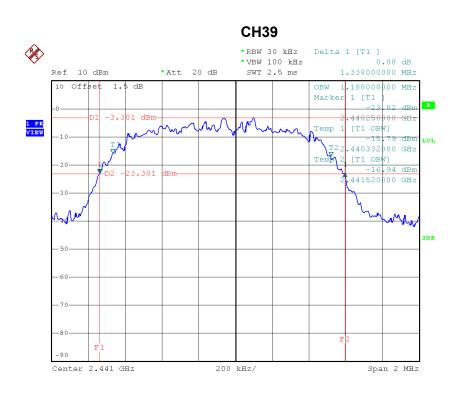
Date: 23.NOV.2018 16:34:28

Report No.: BTL-FCCP-1-1810H009

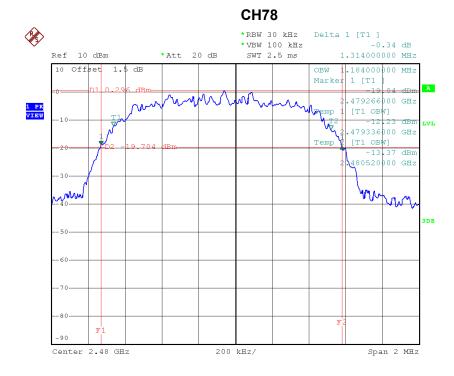
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Date: 23.NOV.2018 16:41:16



Date: 23.NOV.2018 16:43:44

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APPENDIX I - MAXIMUM OUTPUT POWER

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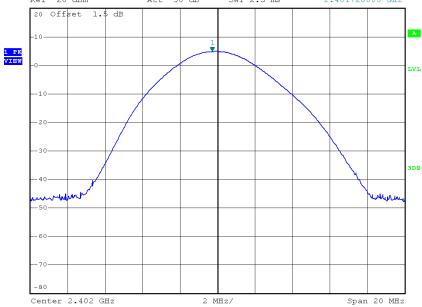


TX Mode \_1Mbps Test Mode:

Frequency	Output Power	Output Power	Max. Limit	Max. Limit	Toot Dooult
(MHz)	(dBm)	(W)	(dBm)	(W)	Test Result
2402	4.97	0.0031	21.00	0.125	Pass
2441	5.09	0.0032	21.00	0.125	Pass
2480	5.24	0.0033	21.00	0.125	Pass

**CH00** 





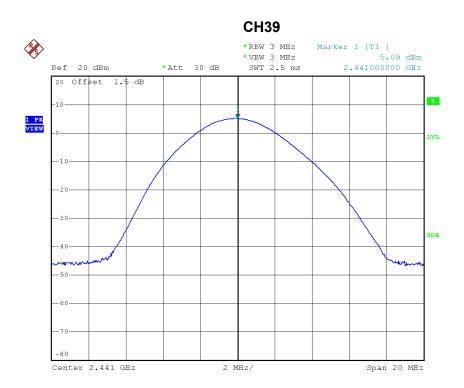
Date: 3.DEC.2018 09:18:40

Report No.: BTL-FCCP-1-1810H009

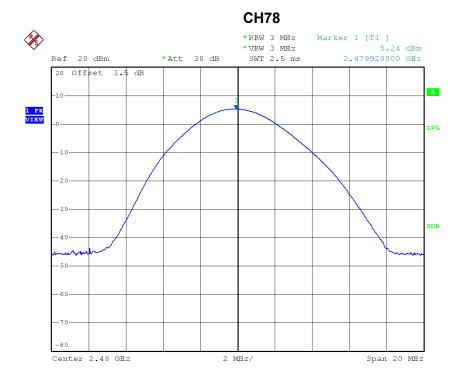
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Date: 3.DEC.2018 09:18:00



Date: 3.DEC.2018 08:53:55

Report No.: BTL-FCCP-1-1810H009

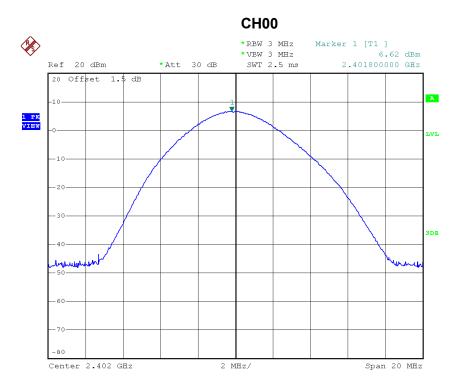
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Test Mode: TX Mode \_3Mbps

Frequency	Output Power	Output Power	Max. Limit	Max. Limit	Toot Dooult
(MHz)	(dBm)	(W)	(dBm)	(W)	Test Result
2402	6.62	0.0046	21.00	0.125	Pass
2441	6.86	0.0049	21.00	0.125	Pass
2480	6.65	0.0046	21.00	0.125	Pass



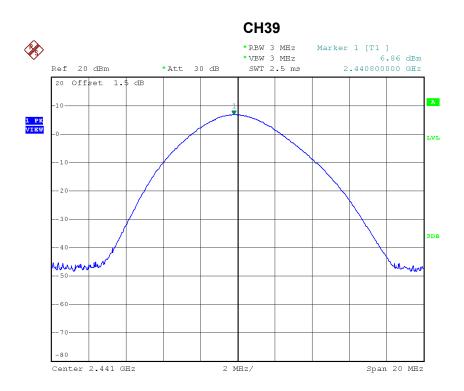
Date: 3.DEC.2018 09:32:18

Report No.: BTL-FCCP-1-1810H009

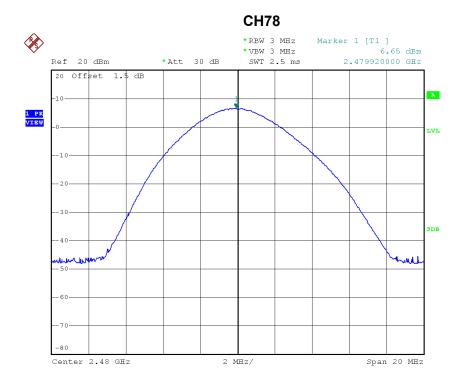
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Date: 3.DEC.2018 09:33:22



Date: 3.DEC.2018 09:33:56

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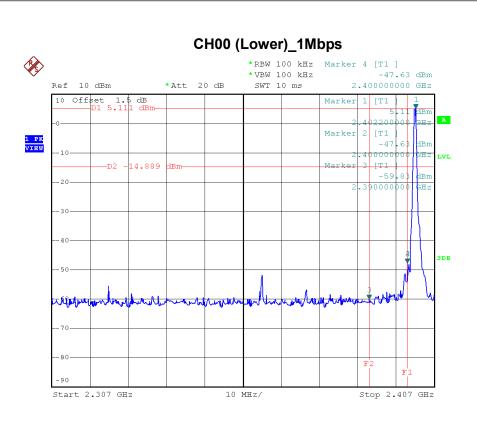
APPENDIX J - ANTENNA CONDUCTED SPURIOUS EMISSION

Report No.: BTL-FCCP-1-1810H009

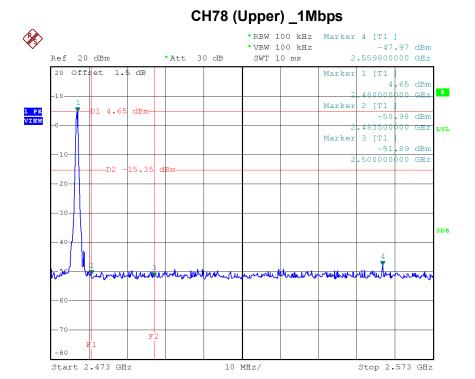
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Date: 3.DEC.2018 08:59:30

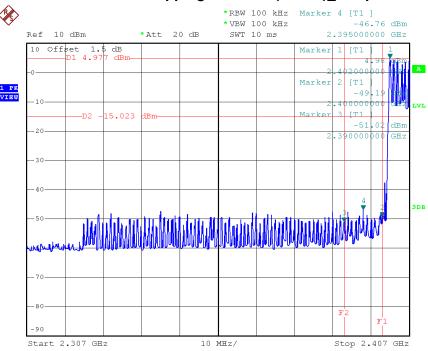
Report No.: BTL-FCCP-1-1810H009

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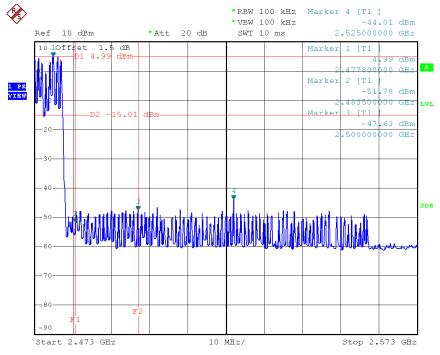






Date: 23.NOV.2018 16:07:30

## CH78 Hopping on mode (Upper) \_1Mbps



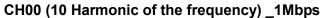
Date: 23.NOV.2018 16:08:11

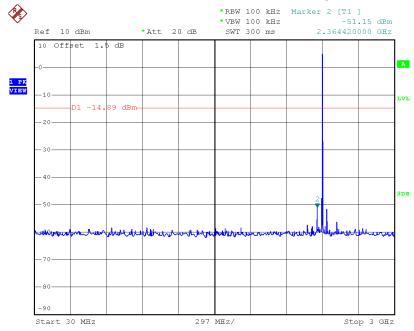
Report No.: BTL-FCCP-1-1810H009

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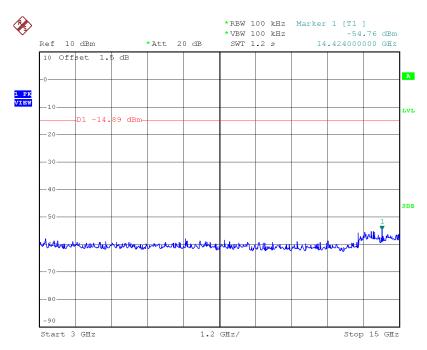








Date: 21.NOV.2018 20:35:18



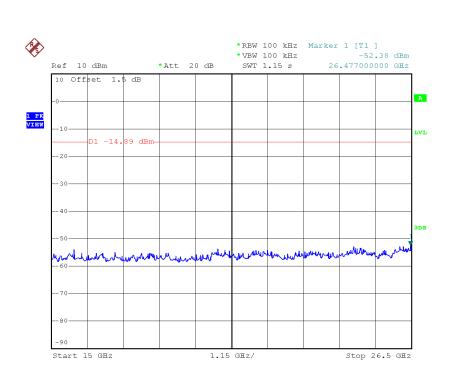
Date: 21.NOV.2018 20:35:26

Report No.: BTL-FCCP-1-1810H009

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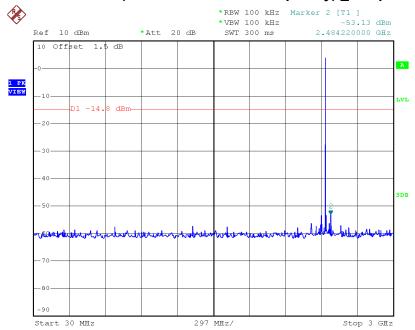






Date: 21.NOV.2018 20:35:35

# CH39 (10 Harmonic of the frequency) \_1Mbps



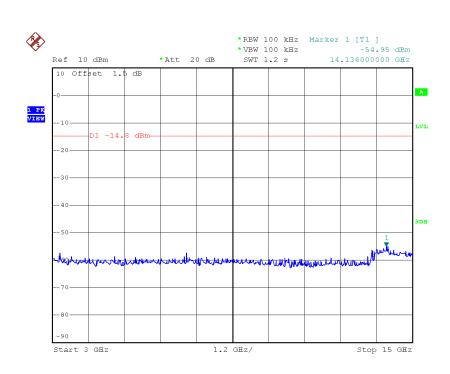
Date: 21.NOV.2018 20:43:18

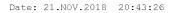
Report No.: BTL-FCCP-1-1810H009

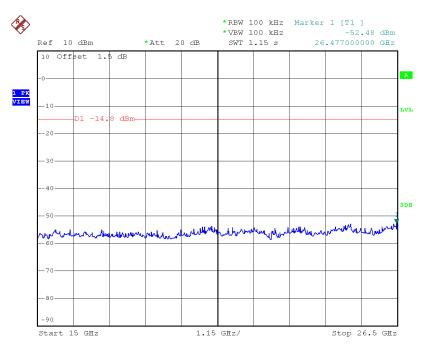
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Date: 21.NOV.2018 20:43:34

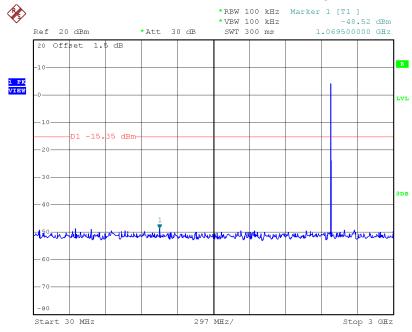
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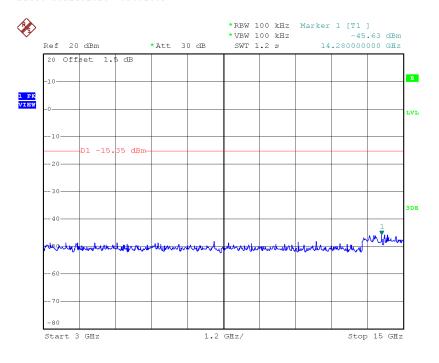




### CH78 (10 Harmonic of the frequency) \_1Mbps



Date: 3.DEC.2018 09:01:09



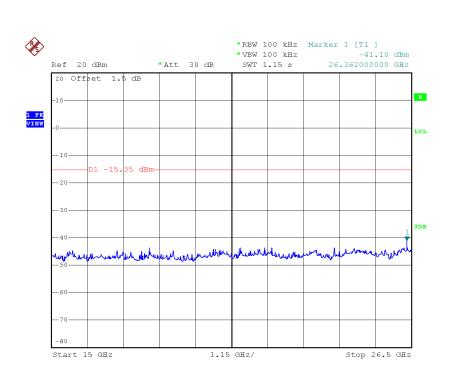
Date: 3.DEC.2018 09:01:36

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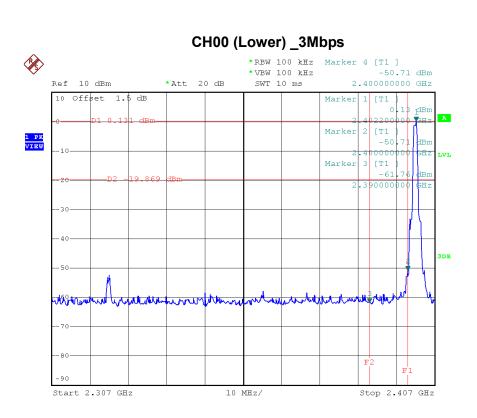
Date: 3.DEC.2018 09:02:05

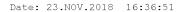
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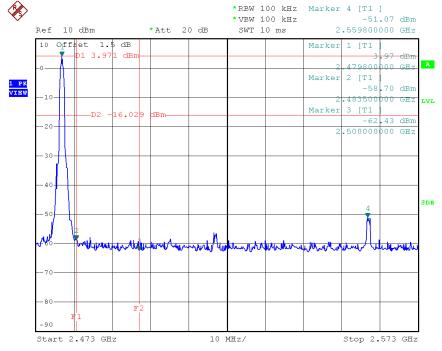












Date: 23.NOV.2018 16:43:18

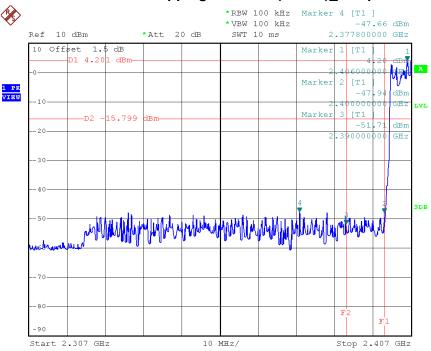
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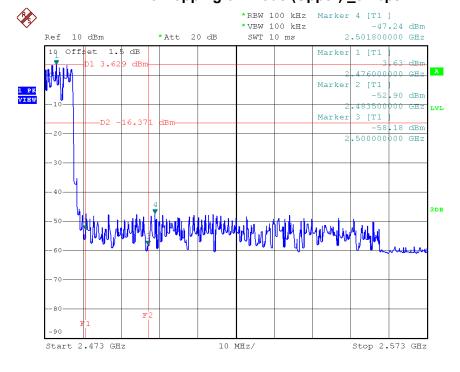






Date: 23.NOV.2018 16:26:49

## CH78 Hopping on mode (Upper) \_3Mbps



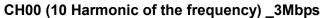
Date: 23.NOV.2018 16:27:28

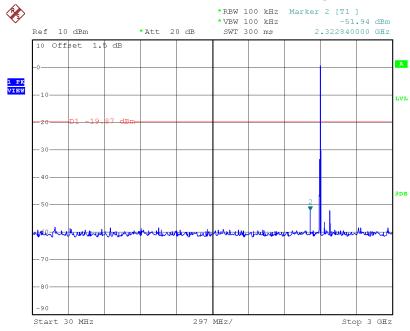
Report No.: BTL-FCCP-1-1810H009

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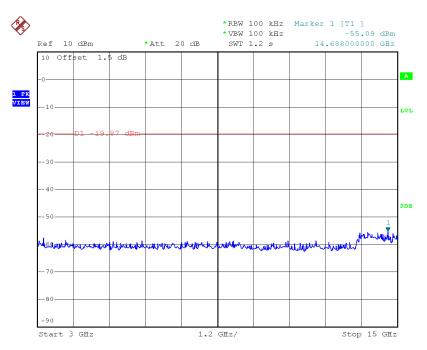








Date: 23.NOV.2018 16:37:05



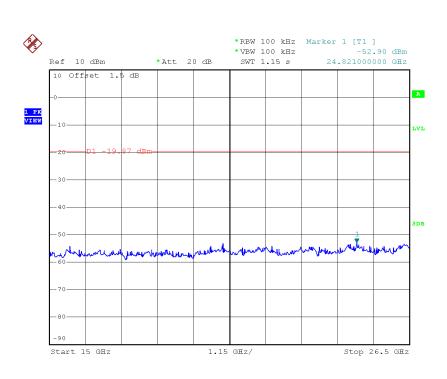
Date: 23.NOV.2018 16:37:14

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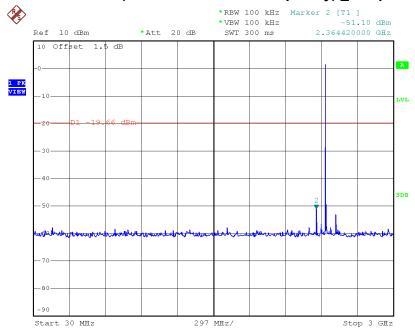






Date: 23.NOV.2018 16:37:24

# CH39 (10 Harmonic of the frequency) \_3Mbps



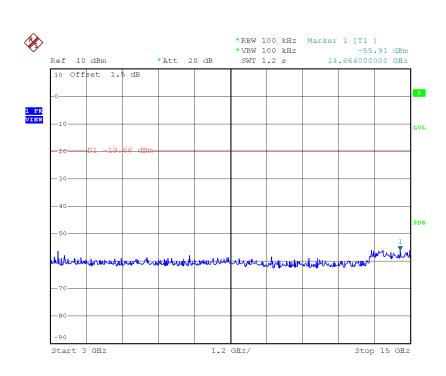
Date: 23.NOV.2018 16:40:33

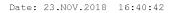
Report No.: BTL-FCCP-1-1810H009

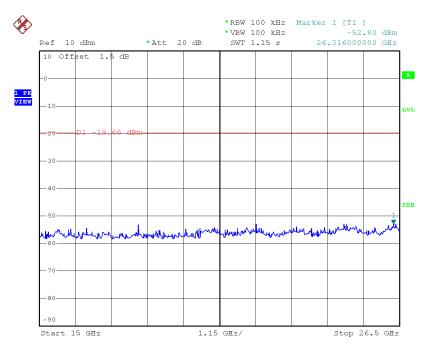
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Date: 23.NOV.2018 16:40:51

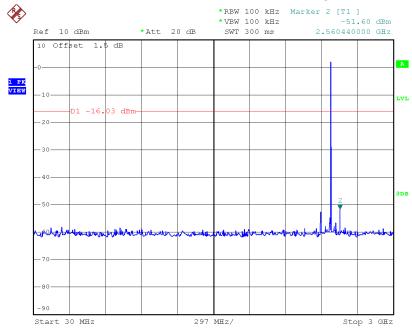
Report No.: BTL-FCCP-1-1810H009

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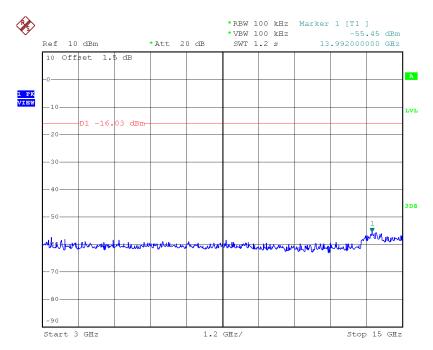




### CH78 (10 Harmonic of the frequency) \_3Mbps



Date: 23.NOV.2018 16:43:59



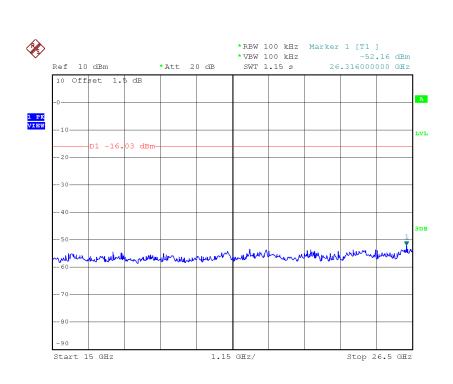
Date: 23.NOV.2018 16:44:08

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Date: 23.NOV.2018 16:44:17

**End of Test Report**