

FCC / IC Test Report

For:
Resmed Pty Ltd.

Brand:
Resmed Pty Ltd.

Marketing Name:
AIRMINI AUTOSET W AMER

Model Number:
38113

Product Description:
Continuous Positive Airway Pressure (CPAP) Device

FCC ID: 2ACHL-AMBT122
IC: 9103A-AMBT122

Applied Rules and Standards:
47 CFR Part 15.247 (DSS)
RSS-247 Issue 4 (FHSS) & RSS-Gen Issue 5

REPORT : EMC_RSEME_041_25001_15_247_FHSS_Rev3

DATE: 2026-08-07



IC recognized #
3462B

CETECOM Inc.

411 Dixon Landing Road ♦ Milpitas, CA 95035 ♦ U.S.A.

Phone: + 1 (408) 586 6200 ♦ Fax: + 1 (408) 586 6299 ♦ E-mail: info@cetecom.com ♦ <http://www.cetecom.com>
CETECOM Inc. is a Delaware Corporation with Corporation number: 2905571

TABLE OF CONTENTS

1	ASSESSMENT.....	3
2	ADMINISTRATIVE DATA	4
2.1	IDENTIFICATION OF THE TESTING LABORATORY ISSUING THE EMC TEST REPORT	4
2.2	IDENTIFICATION OF THE CLIENT	4
2.3	IDENTIFICATION OF THE MANUFACTURER.....	4
3	EQUIPMENT UNDER TEST (EUT).....	5
3.1	EUT SPECIFICATIONS	5
3.2	EUT POWER SETTING.....	6
3.3	EUT SAMPLE DETAILS	6
3.4	ACCESSORY EQUIPMENT (AE) DETAILS.....	6
3.5	TEST SAMPLE CONFIGURATION	6
3.6	JUSTIFICATION FOR A MODE OF OPERATION	7
4	SUBJECT OF INVESTIGATION	8
5	MEASUREMENT RESULTS SUMMARY	8
6	MEASUREMENTS.....	10
6.1	MEASUREMENT UNCERTAINTY	10
6.2	ENVIRONMENTAL CONDITIONS DURING TESTING:.....	10
6.3	DATES OF TESTING:	10
6.4	DECISION RULE:.....	10
7	MEASUREMENT PROCEDURES	11
7.1	RADIATED MEASUREMENT.....	11
7.2	POWER LINE CONDUCTED MEASUREMENT PROCEDURE	13
7.3	RF CONDUCTED MEASUREMENT PROCEDURE	14
8	TEST RESULT DATA	15
8.1	MAXIMUM PEAK CONDUCTED OUTPUT POWER.....	15
8.2	BAND EDGE COMPLIANCE	22
8.3	20DB BANDWIDTH AND 99% OCCUPIED BANDWIDTH	33
8.4	CARRIER FREQUENCY SEPARATION	45
8.5	NUMBER OF HOPPING CHANNELS	48
8.6	TIME OF OCCUPANCY (DWELL TIME)	51
8.7	TRANSMITTER SPURIOUS EMISSIONS AND RESTRICTED BANDS	58
8.8	AC POWER LINE CONDUCTED EMISSIONS	80
9	TEST SETUP PHOTOS	82
10	TEST EQUIPMENT AND ANCILLARIES USED FOR TESTING	82
11	REVISION HISTORY	83

1 Assessment

The following device was evaluated against the applicable criteria specified in FCC rules Parts 15.247 of Title 47 of the Code of Federal Regulations and the relevant ISED Canada standard RSS-247.

There were no additions, deviations, or exclusions made from the test method.

Company Name	Product Description	Model No.
Resmed Pty Ltd.	Continuous Positive Airway Pressure (CPAP) Device	38113

Report Authorized by:

Responsible for testing Laboratory:

2026-08-07	Compliance	Cheng Song (EMC Engineer)	
Date	Section	Name	Signature

Responsible for the Report:

2026-08-07	Compliance	Art Thammanavarat (Lead Engineer)	
Date	Section	Name	Signature

The test results of this test report relate exclusively to the test item specified in Section3.
CETECOM Inc. USA does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item. The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written approval of CETECOM Inc. USA.

2 **Administrative Data**

2.1 Identification of the Testing Laboratory Issuing the EMC Test Report

Company Name:	CETECOM Inc.
Department:	Compliance
Street Address:	411 Dixon Landing Road
City/Zip Code	Milpitas, CA 95035
Country	USA
Telephone:	+1 (408) 586 6200
Fax:	+1 (408) 586 6299
EMC Lab Manager:	David, Bare
Responsible Project Leader:	Ruby, Hall

2.2 Identification of the Client

Client Firm/Name:	Resmed Pty Ltd.
Street Address:	1 Elizabeth Macarthur Dr.
City/Zip Code	Bella Vista NSW 2153
Country	Australia

2.3 Identification of the Manufacturer

Manufacturer's Name:	Same as client
Manufacturers Address:	
City/Zip Code	
Country	

3 Equipment Under Test (EUT)

3.1 EUT Specifications

Model No:	38113
HW Version :	R380-71035
SW Version :	SW03900
FCC-ID :	2ACHL-AMBT122
IC:	9103A-AMBT122
FVIN:	SW03900
HVIN:	38113
PMN:	AIRMINI AUTOSET W AMER
Product Description:	Continuous Positive Airway Pressure (CPAP) Device
Frequency Range / number of channels:	Nominal band: 2400 MHz – 2483.5 MHz Center to center: 2402 MHz (ch 0) – 2480 MHz (ch 78), 79 Channels
Bands/Modes Supported	<u>Bluetooth Modules</u> Brand Name : Silicon Labs Model Number : BT122-A FCC_: QOQ-BT122 IC_: 5123A-BT122 <u>Wireless Technologies</u> Bluetooth BDR/EDR: GFSK, $\pi/4$ DQPSK, 8DPSK
Modes of Operation:	Hopping
Antenna Information as declared:	Please refer to Antenna information "AirMini BT122 FCC ISSED BT Antenna Data Information" Peak gain : 2.1 dBi
Power Supply/ Rated Operating Voltage Range:	20W AC Adapter AC Input range: 100-240V, 50-60Hz, 0.5-0.3A, 115V, 400Hz (Aircraft use), 0.4A DC Output: 24V, 0.83A Typical power consumption: 6.3W, Standby: 1W, Peak: 27W
Operating Temperature Range	Low : 5 °C to High 35 °C
Other Radios included in the device:	None
Sample Revision	☐ Production ☒ Pre-Production
EUT Dimensions	136mm x 84mm x 52mm
Note: The information of the EUT specifications in the table above is provided by the client.	

3.2 EUT Power Setting

Channel Number	2400 – 2483.5 MHz		
	GFSK	π /4 DQPSK	8DPSK
Low	10	4	7
Mid	11	5	8
High	12	6	9

Note: The device supports 12 different test modes, each configured with a single transmit power level of 11 dBm.

3.3 EUT Sample details

EUT #	Model Number	Serial Number	HW Version	SW Version	Notes/Comments
1	38113 (TT21)	22261209621	R380-71035	SW03900	Radiated Emission
2	38113 (TT19)	22261209638	R380-71035	SW03900	Radiated Emission
3	38113 (TT21)	22261209626	R380-71035	SW03900	Conducted power port

Note: The differences between the TT21 and TT19 DUTs are limited to the internal motor design. This variation does not affect the device's electrical performance, wireless functionality, RF characteristics, or compliance with applicable regulatory requirements. Therefore, the test results obtained from one DUT are considered representative of the other.

3.4 Accessory Equipment (AE) details

AE #	Type	Model	Manufacturer	Serial Number	Comments
1	AC Adaptor	380002	ResMed	VP30004010A1	-

3.5 Test Sample Configuration

EUT Set-up #	Combination of AE used for test set up	Comments
1	EUT1 (TT21)+AE1	The radio of the EUT was configured for fixed-channel transmission with a 100% duty cycle using customer proprietary software. The software was used to configure the EUT to automatically enter Bluetooth test mode in loopback operation and establish a connection with the CMW500 simulator. The EUT was tested using its internal antenna and was powered by 120 Vac during testing.
2	EUT2 (TT19)+AE1	The radio of the EUT was configured for fixed-channel transmission with a 100% duty cycle using customer proprietary software. The software was used to configure the EUT to automatically enter Bluetooth test mode in loopback operation and establish a connection with the CMW500 simulator. The EUT was tested using its internal antenna and was powered by 120 Vac during testing.
3	EUT3+AE1	The EUT connected to the 50 ohm RF port of the EUT.

3.6 Justification for a Mode of Operation

During the testing process, the EUT was tested with transmitter sets on low, mid and high channels, and 100% duty cycle.

For radiated measurements, all data in this report shows the worst case between horizontal and vertical antenna polarizations and for all orientations of the EUT.

For conducted measurements, the operating mode with the highest output power and widest occupied bandwidth was selected to evaluate the worst-case performance of the EUT, including band-edge compliance and transmitter radiated spurious emissions testing. Maximum peak conducted output power and spectrum bandwidth were measured for all supported modulation modes of the EUT

4 Subject of Investigation

The objective of the measurements done by CETECOM Inc. was to assess the performance of the EUT according to the relevant requirements specified in FCC rules Part 15.247 of Title 47 of the Code of Federal Regulations and Radio Standard Specification RSS-247 Issue 4 of ISED Canada.

This test report is to support a request for new equipment authorization under the:

- FCC ID: 2ACHL-AMBT122
- IC : 9103A-AMBT122

Testing procedures are based on ANSI C63.10:2020.

5 Measurement Results Summary

Test Specification	Test Case	Measurement		Limit	Result	
§15.247(a) RSS-247 5.2(a)	Emission Bandwidth	GFSK	0.875 MHz	N/A	PASS	
		DQPSK	1.340 MHz			
		8DPSK	1.370 MHz			
§15.247(a)(1) RSS-247 5.1(b)	Carrier Frequency Separation	GFSK	1.013 MHz	0.643 MHz	PASS	
		DQPSK	0.994 MHz	0.903 MHz		
		8DPSK	1.013 MHz	0.917 MHz		
§15.247(a)(1)(iii) RSS-247 5.1(d)	Number of Hopping Channels	79h		≥ 15 Channels	PASS	
§15.247(a)(1)(iii) RSS-247 5.1(d)	Time of occupancy	148		<0.4 sec in 31.6sec period	PASS	
§15.247(b)(1) RSS-247 5.4(b)	Maximum Conducted Output Power (Peak)	GFSK:	11.10 dBm:	1 Watt (30 dBm)	PASS	
			0.013 Watts			
		DQPSK	6.70 dBm:			
			0.005 Watts			
	Maximum Conducted Output Power (EIRP)	8DPSK	7.30 dBm:	4 Watt (36 dBm)	PASS	
			0.005 Watts			
		GFSK:	13.20 dBm:			
			0.021 Watts			
§15.247(d) RSS-247 5.5 RSS-Gen 8.10	Band edge compliance Unrestricted Band Edges		-45.4 dBm	Peak <20dBc Avg. <30dBc	PASS	
§15.247; 15.209; 15.205 RSS-Gen 8.9; 8.10	Band edge compliance Restricted Band Edges			Peak:57.35 dBµV/m AVG: 40.99 dBµV/m	*PEAK LIMIT= 74 dBµV/m @3m =- 21.23 dBm *AVG. LIMIT= 54 dBµV/m @3m =- 41.23 dBm	PASS
‘Test Specification	Test Case		Lowest Margin Emission			Result

§15.247(d); §15.209 RSS-Gen 6.13	TX Spurious Emissions- Radiated	60.42 dB μ V/m	PASS
§15.207(a) RSS Gen 8.8	AC Conducted Emissions	26.34 dB μ V/m	PASS
Note: Pass=Complies, NA=Not Applicable, NP=Not Performed			

6 **Measurements**

6.1 **Measurement Uncertainty**

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus, with 95% confidence interval (in dB delta to result), based on a coverage factor k=2.

Measurement System		EMC-1	EMC-2
Conducted emissions (mains port)	150 kHz – 30 MHz	2.45 dB	N/A
Radiated emissions	9 kHz – 30 MHz	2.68 dB	2.53 dB
	30 – 100 MHz	4.39 dB	3.85 dB
	100 MHz – 1 GHz	5.65 dB	5.24 dB
	1 – 6 GHz	5.0 dB	4.88 dB
	6 – 18 GHz	4.76 dB	4.58 dB
	18 – 40 GHz	4.65 dB	4.61 dB

RF conducted measurement ± 0.5 dB

According to TR 102 273 a multiplicative propagation of error is assumed for RF measurement systems. For this reason the RMS method is applied to dB values and not to linear values as appropriate for additive propagation of error. Also used: <http://physics.nist.gov/cuu/Uncertainty/typeb.html>. The above calculated uncertainties apply to direct application of the Substitution method. The Substitution method is always used when the EUT comes closer than 3dB to the limit.

6.2 **Environmental Conditions During Testing:**

The following environmental conditions were maintained during the course of testing:

- Ambient Temperature: 20-25°C
- Relative humidity: 40-60%

6.3 **Dates of Testing:**

2026-05-13 – 2026-05-28

6.4 **Decision Rule:**

Cetecom Inc follows ILAC G8:09/2019 chapter 4.2.1 (Simple Acceptance Rule).

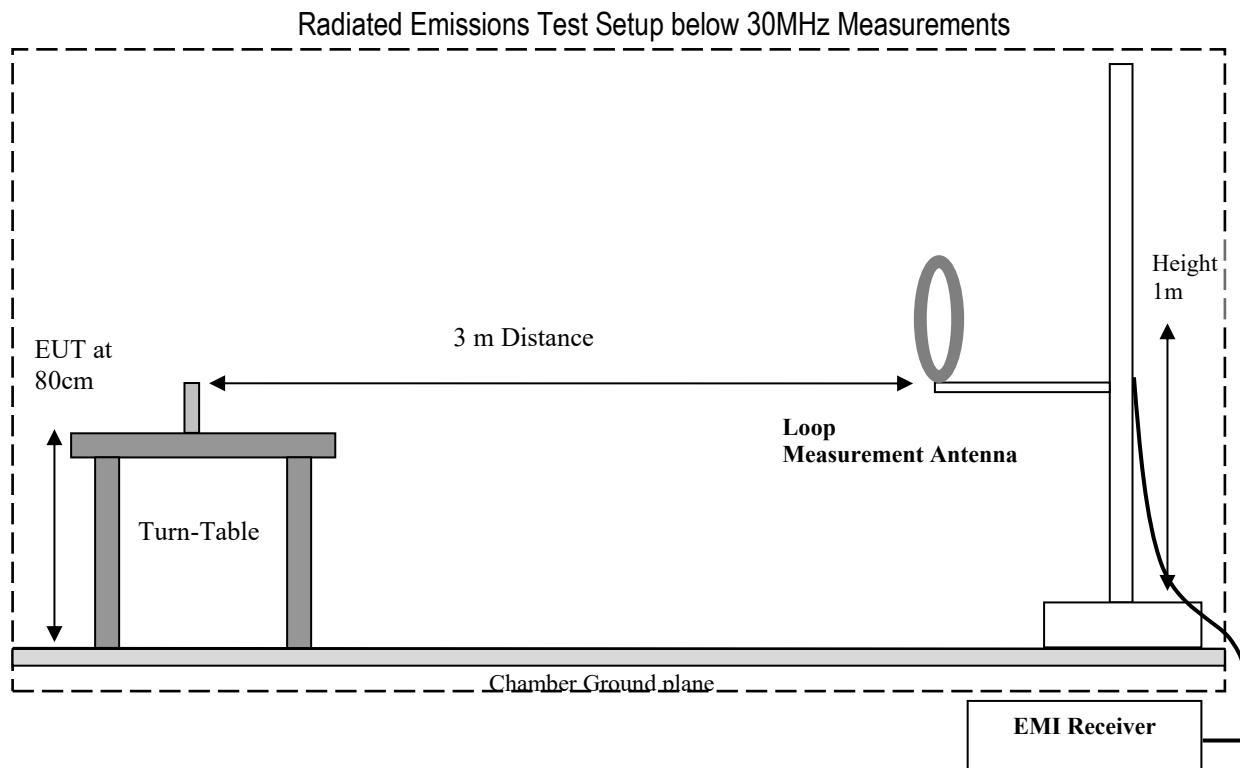
Only the measured values related to their corresponding limits will be used to decide whether the equipment under test meets the requirements of the test standards listed in chapter 3. The measurement uncertainty is mentioned in this test report, See chapter 9, but is not taken into account – neither to the limits nor to the measurement results. Measurement results with a smaller margin to the corresponding limits than the measurement uncertainty have a potential risk of more than 5% that the decision might be wrong.

7 Measurement Procedures

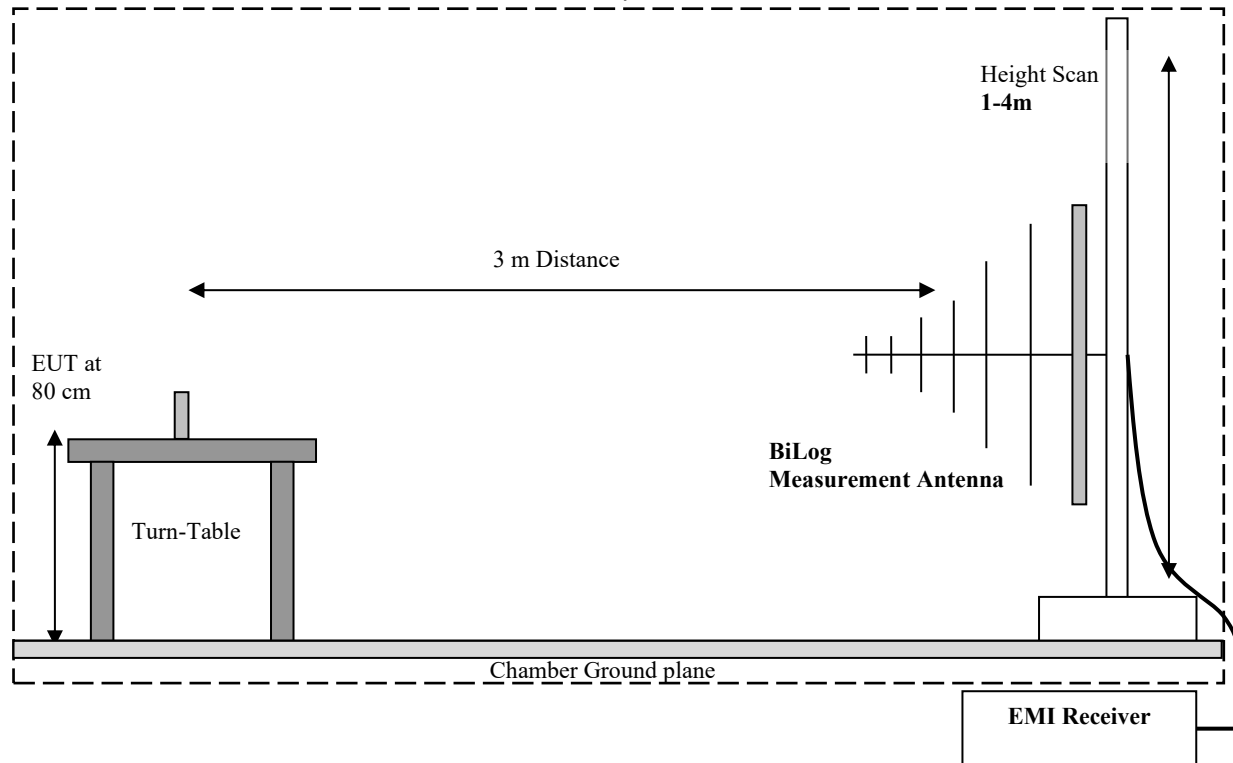
7.1 Radiated Measurement

The radiated measurement is performed according to: ANSI C63.10:2020.

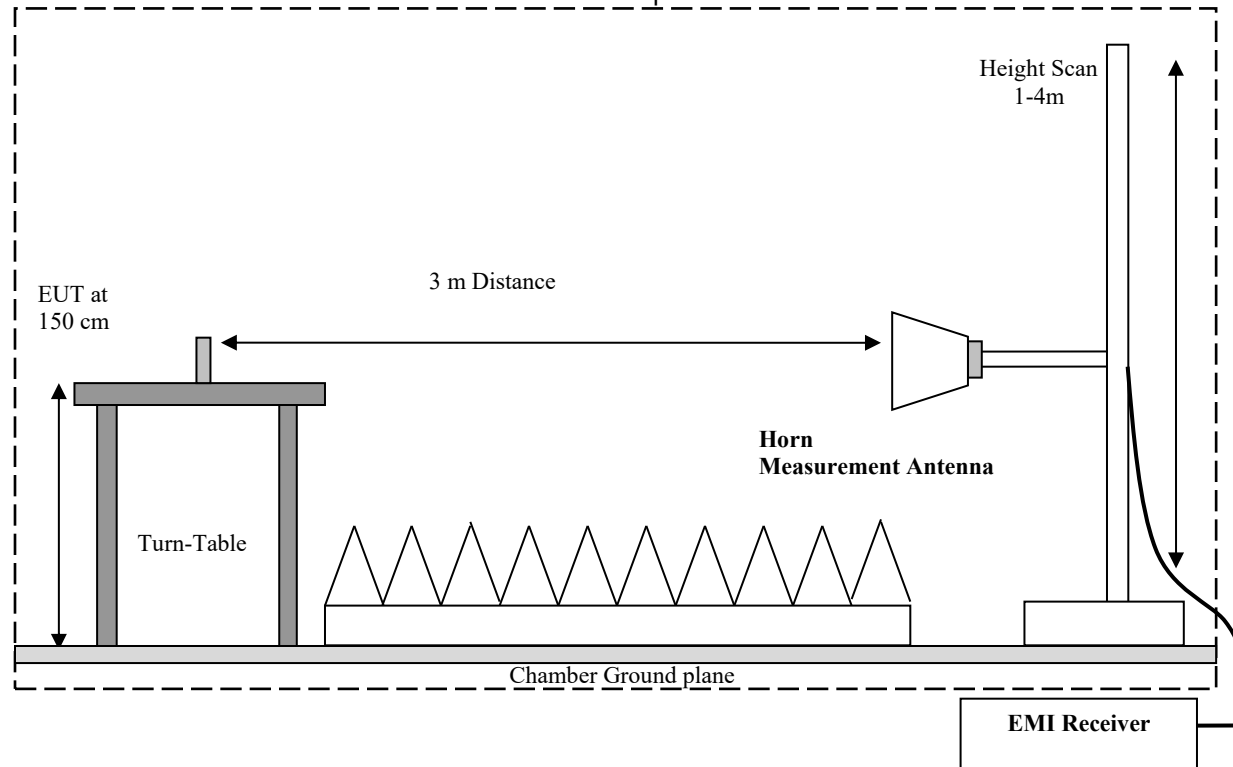
- The exploratory measurement is accomplished by running a matrix of sweeps over the required frequency range with R&S Test-SW EMC32 and continuous turntable movements during Preview (360°), two orthogonal positions of the EUT, and both antenna polarizations (Horizontal/Vertical) at three antenna heights (1, 1.5, 2 meters). This procedure exceeds the requirement of the above standards to cover the 3 orthogonal axes of the EUT. A max peak detector is utilized during the exploratory measurement. The Test-SW creates an overall maximum trace for all sweeps and saves the settings for each point of this trace. The maximum trace is part of the test report.
- The 6 highest emissions (emission level 6 dB higher than the noise floor and margin to the limit < 20 dB) are selected with an automatic algorithm of EMC32 searching for peaks in the noise floor and ensuring that broadband signals are not selected multiple times.
- Add a marker to the highest emissions that does not exceed the margin threshold for final measurement.
- The maxima are then put through the final measurement and again maximized in a 90-degree range of the turntable, fine search in the frequency domain, and height scan between 1m and 4m.
- In case there are no emissions above noise floor level only the maximum trace is reported as described above.
- The results are split up into up to 5 frequency ranges due to antenna bandwidth restrictions. A magnetic loop is used from 9 kHz to 30 MHz, a Biconilog antenna is used from 30 MHz to 1 GHz, and three different horn antennas are used to cover frequencies up to 40 GHz.



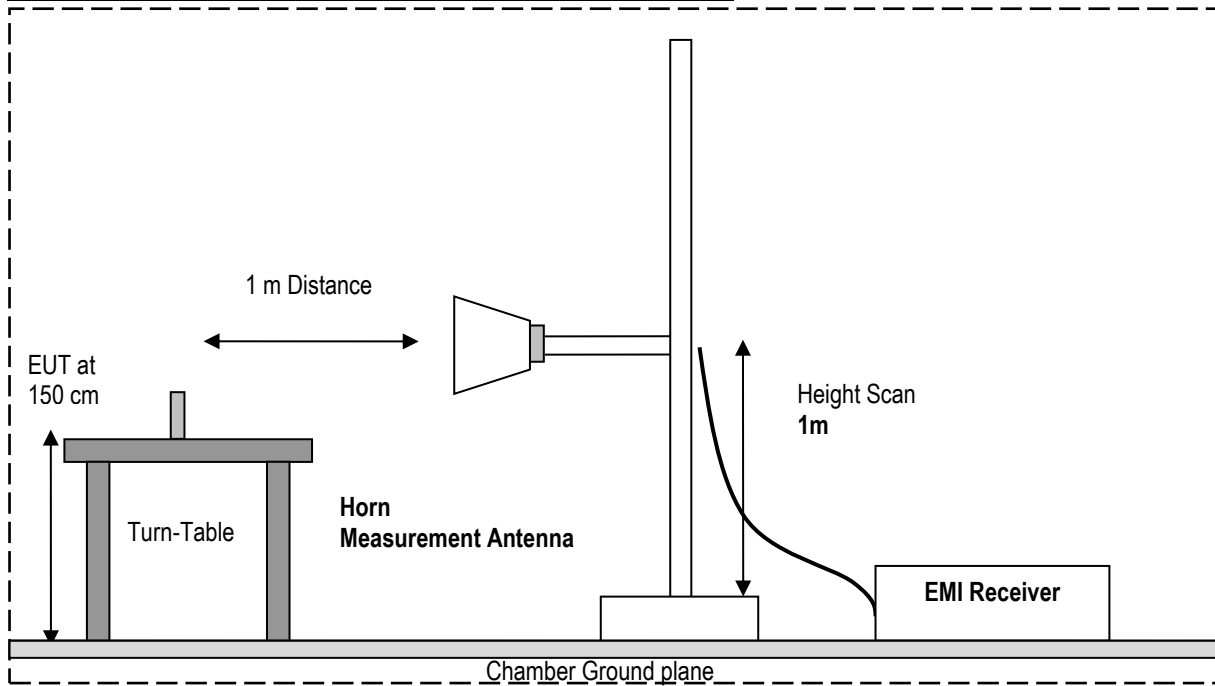
Radiated Emissions Test Setup 30MHz-1GHz Measurements



Radiated Emissions Test Setup above 1GHz Measurements



Radiated Emissions Test Setup 18GHz-40GHz Measurements



7.1.1 Sample Calculations for Field Strength Measurements

Field Strength is calculated from the Spectrum Analyzer/ Receiver readings, taking into account the following parameters:

1. Measured reading in dB μ V
2. Cable Loss between the receiving antenna and SA in dB and
3. Antenna Factor in dB/m

All radiated measurement plots in this report are taken from a test SW that calculates the Field Strength based on the following equation:

$$FS \text{ (dB}\mu\text{V/m)} = \text{Measured Value on SA (dB}\mu\text{V)} + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$$

Example:

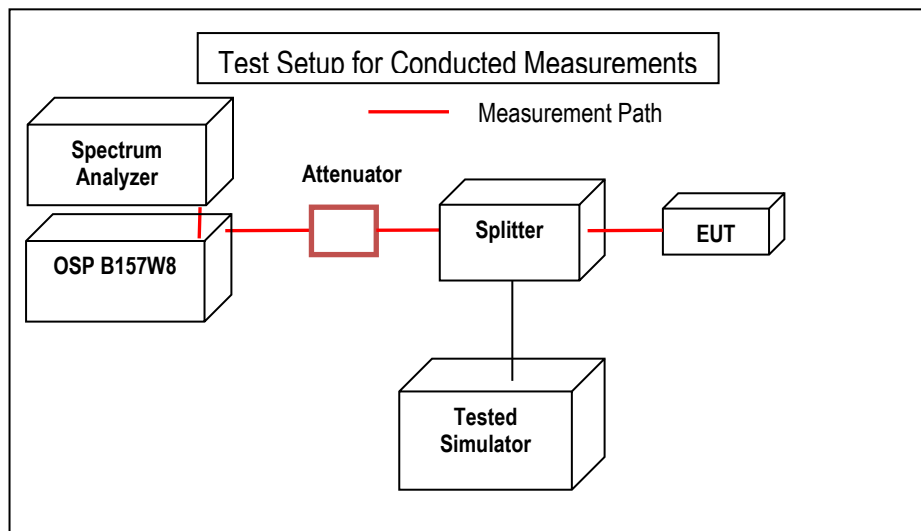
Frequency (MHz)	Measured SA (dB μ V)	Cable Loss (dB)	Antenna Factor Correction (dB)	Field Strength Result (dB μ V/m)
1000	80.5	3.5	14	98.0

7.2 Power Line Conducted Measurement Procedure

AC Power Line conducted emissions measurements performed according to: ANSI C63.4 (2014)

7.3 RF Conducted Measurement Procedure

Reference: ANSI C63.4:2014 Section 6.9, 6.10, and 7.8



- Connect the equipment as shown in the above diagram.
- Adjust the settings of the SA (Rohde-Schwarz Spectrum Analyzer) to connect the EUT at the required mode of test.
- Measurements are to be performed with the EUT set to the low, middle and high channels and for worst case modulation schemes.

8 Test Result Data

8.1 Maximum Peak Conducted Output Power

8.1.1 Measurement according to ANSI C63.10 Section 7.8.5

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2020 (incl. Cor1-2023 and C63.10a-2024) 7.8.5

Spectrum Analyzer settings:

- Span = approximately 5 times the 20 dB bandwidth
- RBW > the 20 dB bandwidth of the emission being measured
- VBW ≥ RBW
- Sweep = Auto Couple
- Detector function = Peak
- Trace = Max hold
- Use the marker-peak function to set the marker to the peak of the emission.

8.1.2 Limits:

Maximum Peak Output Power:

FCC §15.247: (b) The maximum peak conducted output power of the intentional radiator shall not exceed the following:

- (1) 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.

IC RSS-247 5.4:

- (b) For FHSs operating in the band 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1.0 W if the hopset uses 75 or more hopping channels; the maximum peak conducted output power shall not exceed 0.125 W if the hopset uses less than 75 hopping channels.

8.1.3 Test conditions and setup:

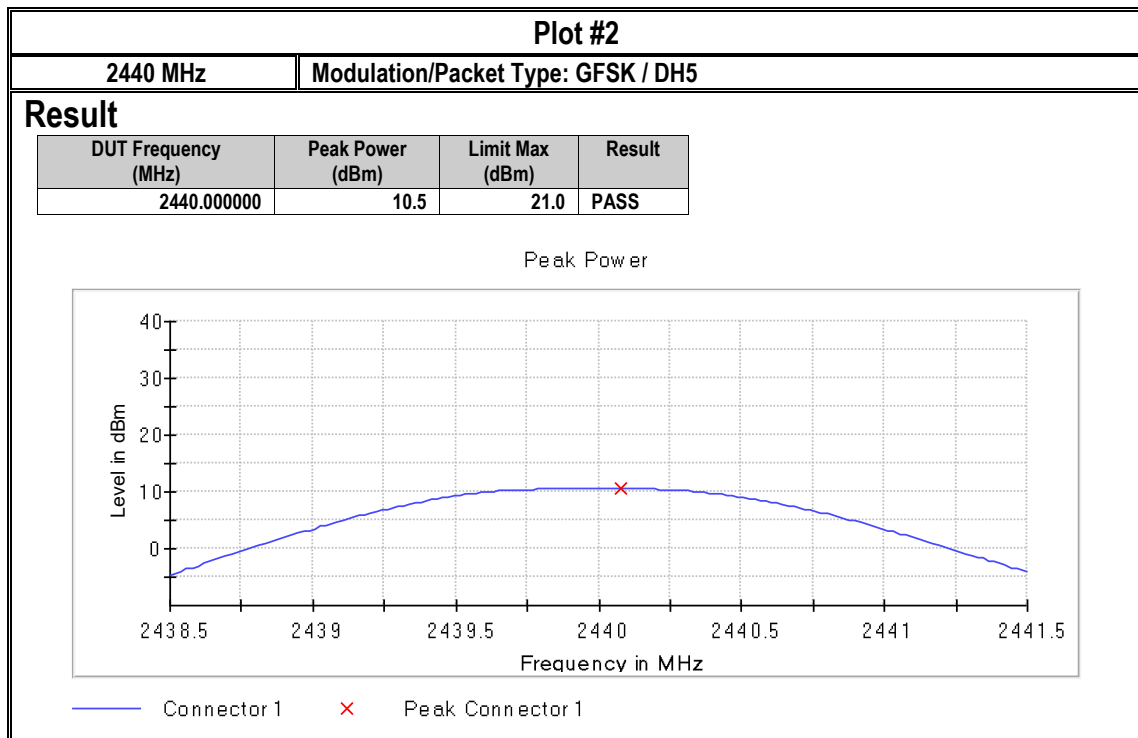
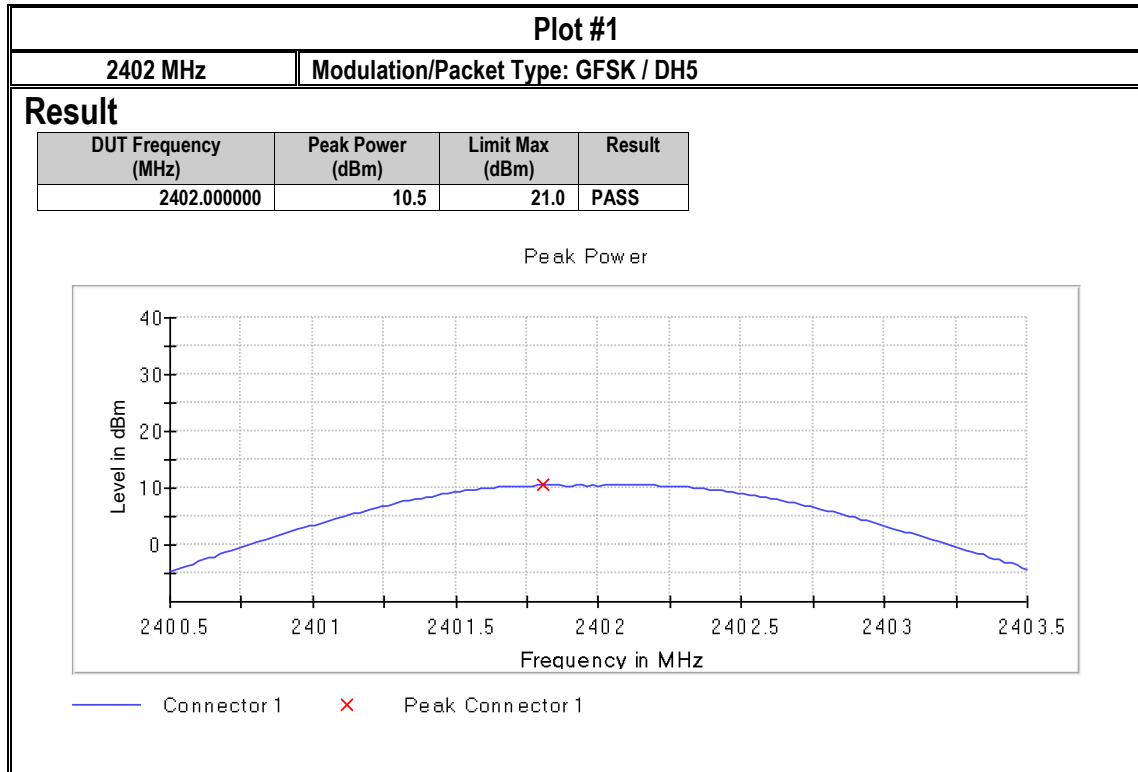
Ambient Temperature	EUT Set-Up #	EUT operating mode	Power Input	Antenna Gain
23° C	3	GFSK, DQPSK, 8DPSK – DH5	120 Vac	2.1 dBi

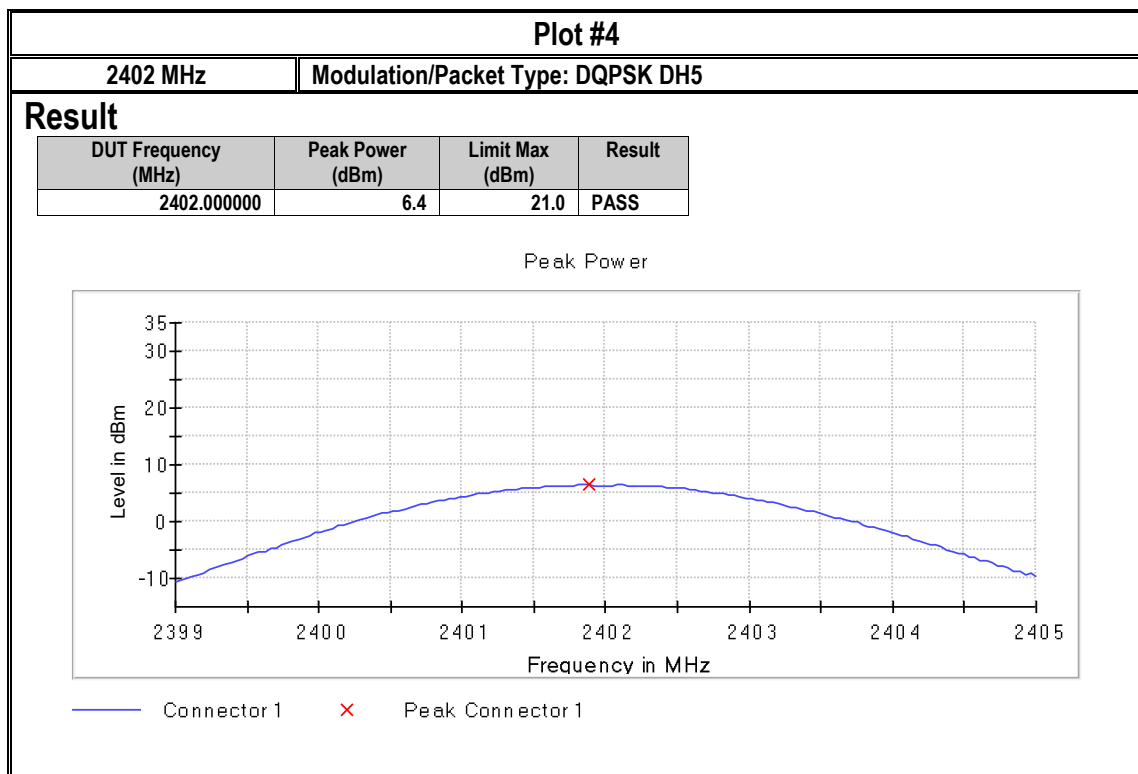
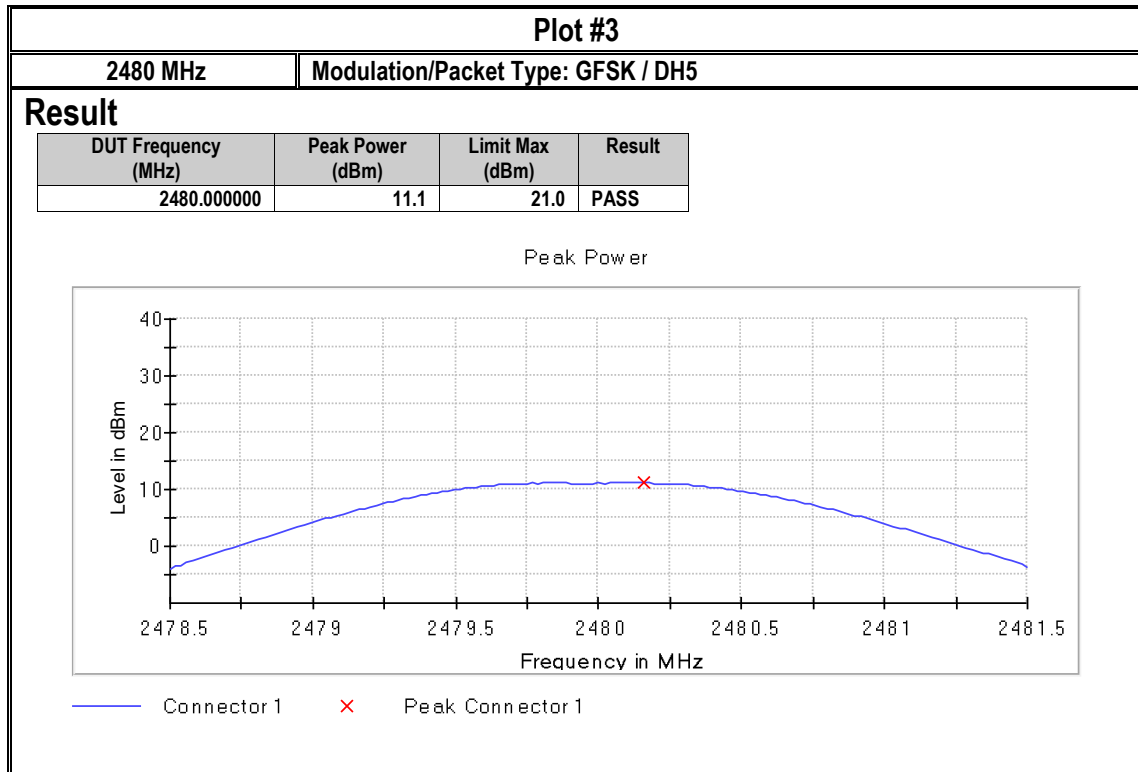
8.1.4 Measurement result:

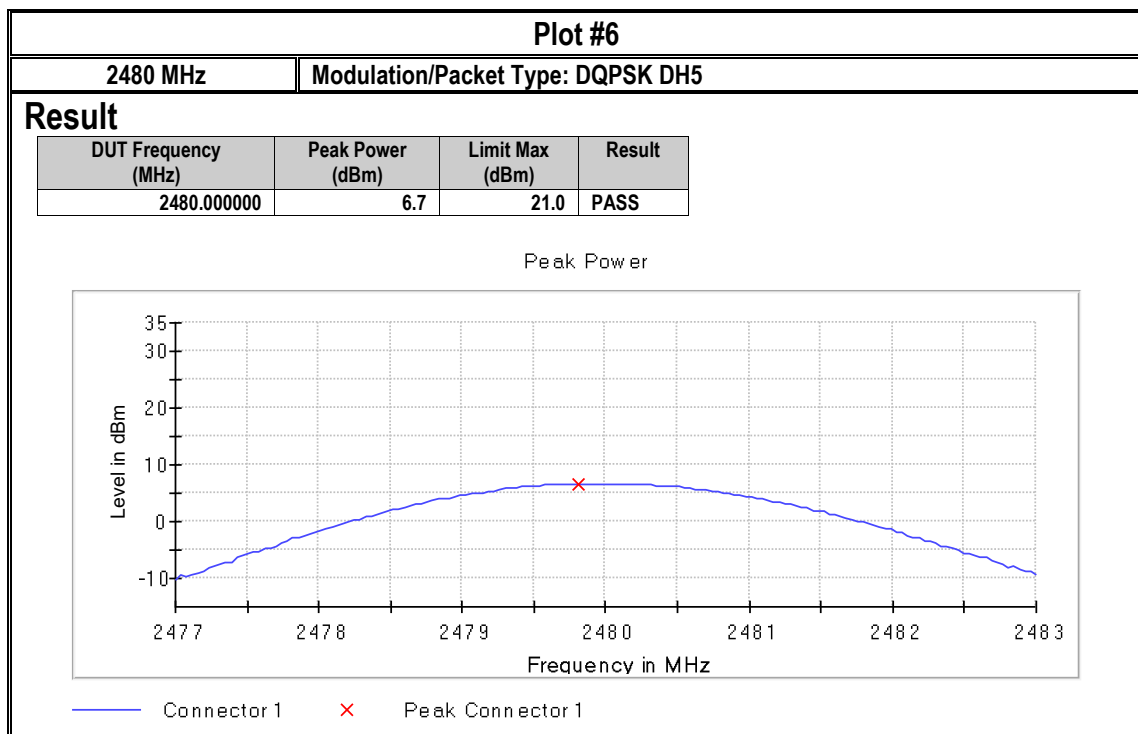
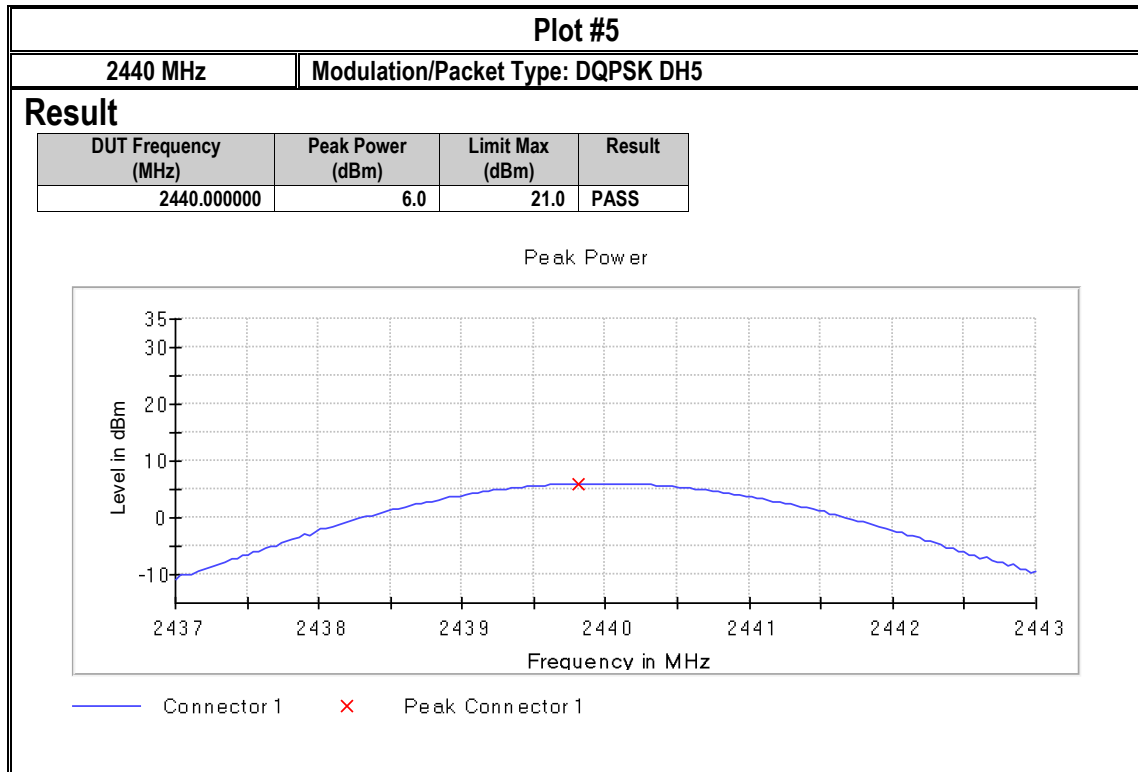
Plot #	Frequency (MHz)	EUT operating mode	Maximum Peak Conducted Output Power (dBm)	EIRP (dBm)	Limit (dBm)	Result
1	2402	GFSK DH5	10.50	12.60	21	Pass
2	2440		10.50	12.60	21	Pass
3	2480		11.10	13.20	21	Pass
4	2402	DQPSK DH5	6.40	8.50	21	Pass
5	2440		6.00	8.10	21	Pass
6	2480		6.70	8.80	21	Pass
7	2402	8DPSK DH5	7.00	9.10	21	Pass
8	2440		6.80	8.90	21	Pass
9	2480		7.30	9.40	21	Pass

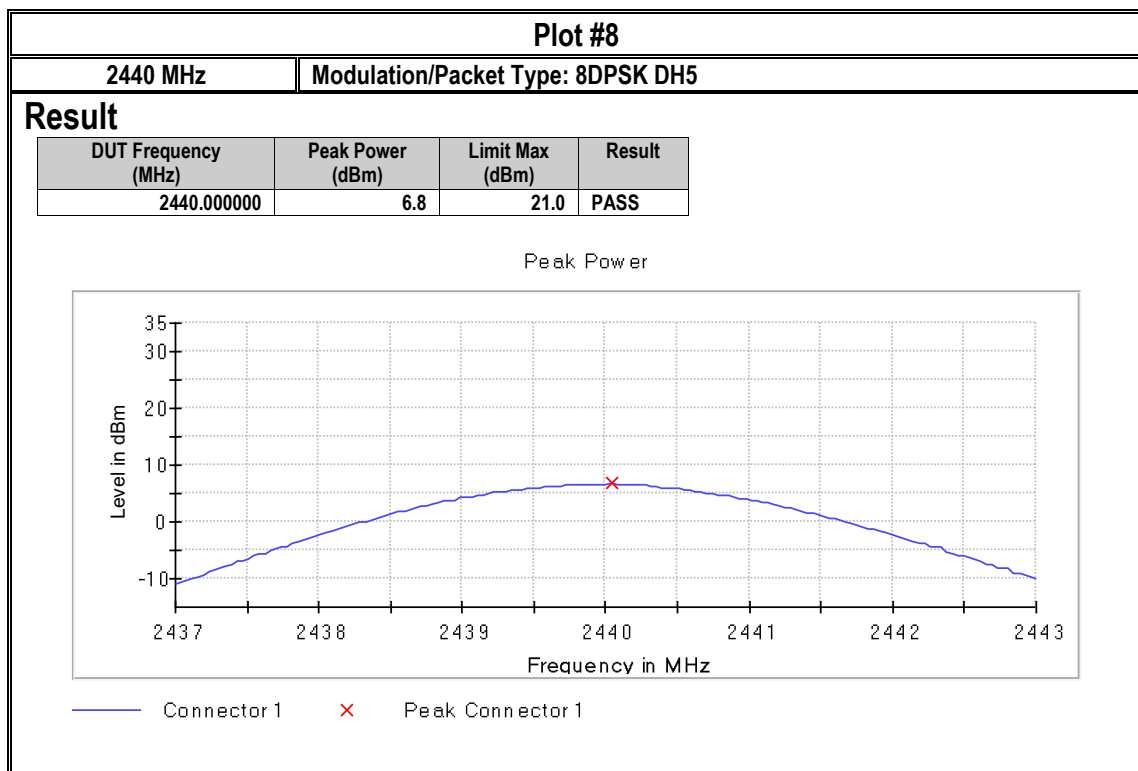
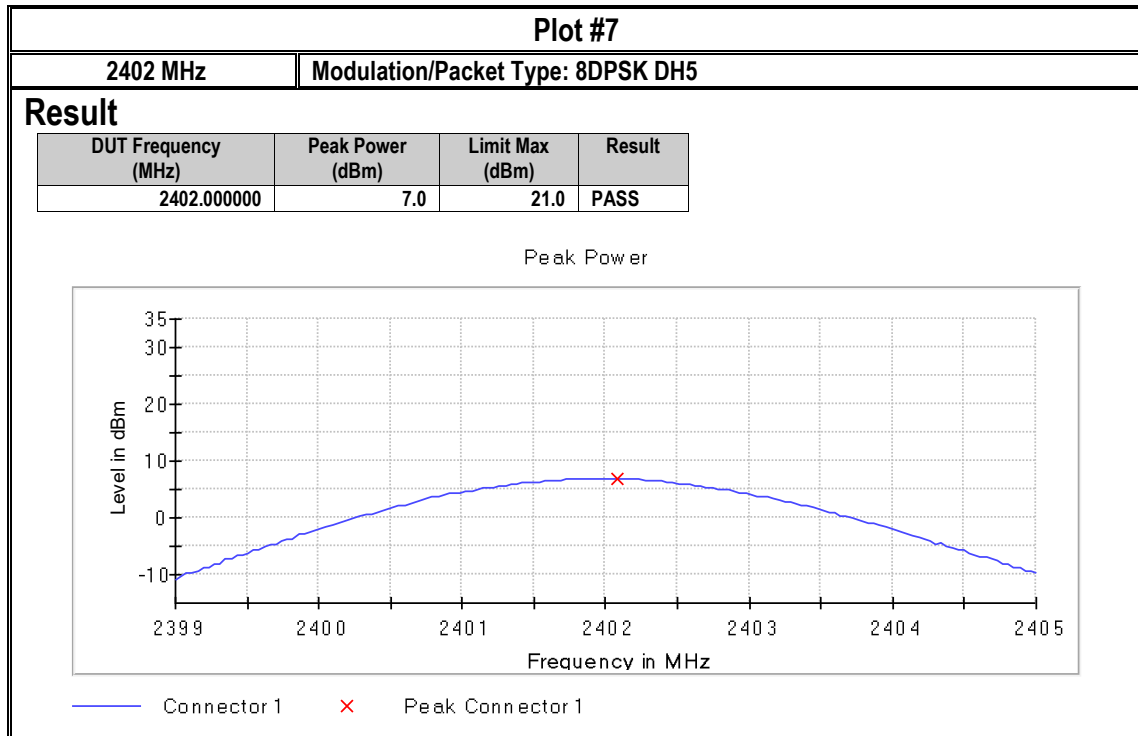
Note 1: The test results and plots are generated by the R&S WMS32 software, which automatically performs the measurements.

8.1.5 Measurement Plots:









Plot #9

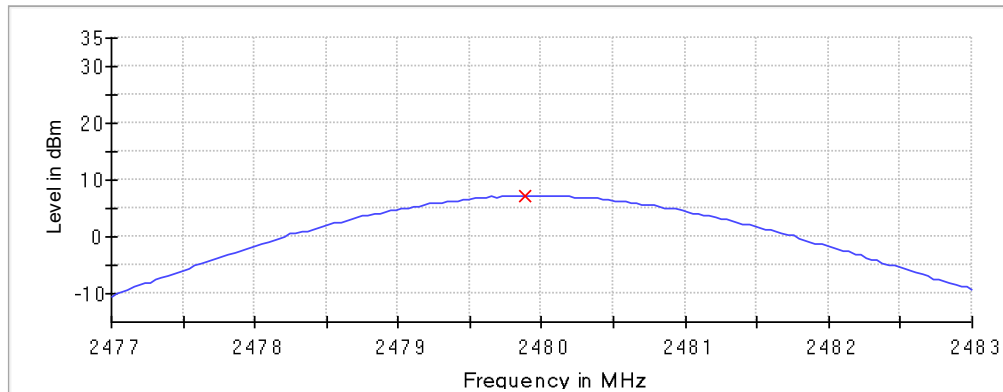
2480 MHz

Modulation/Package Type: 8DPSK DH5

Result

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2480.000000	7.3	21.0	PASS

Peak Power



Connector 1 X Peak Connector 1

8.2 Band Edge Compliance

8.2.1 Measurement according to ANSI C63.10 Section 6.10

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2020 (incl. Cor1-2023 and C63.10a-2024 7.8.6)

Spectrum Analyzer settings for non-restricted band edge:

- Span: wide enough to capture the peak level of the emission operating on the channel closest to the band edge, 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 Time: Auto couple
- Detector = Peak
- Trace = Max hold
- Allow the trace to stabilize. Set the marker on the emission at the band edge, or on the highest modulation product outside of the band, if this level is greater than that at the band edge.
- Enable the marker-delta function, and then use the marker-to-peak function to move the marker to the peak of the in-band emission.
- 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.

Spectrum Analyzer settings for restricted band:

- Peak measurements are made using a peak detector and RBW=1 MHz

8.2.2 Limits: Restricted Band FCC 15.209 and RSS-Gen 8.10

- PEAK LIMIT= 74 dB μ V/m @3 m =-21.23 dBm
- AVG. LIMIT= 54 dB μ V/m @3 m =-41.23 dBm
- Start frequency & stop frequency according to frequency range specified in the restricted band table in FCC section 15.205

Restricted bands of operation:

- Except as shown in CFR 47 Part 15.205 paragraph (d), only spurious emissions are permitted in any of the frequency bands listed below

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
10.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			

8.2.3 Limits: Non-restricted Band §15.247 and RSS-247 5.5

FCC15.247 (d)

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 power limits. If the transmitter complies with the conducted 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 §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

RSS-247 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced 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 that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

8.2.4 Test conditions and setup:

Ambient Temperature	EUT Set-Up #	EUT operating mode	Power Input	Antenna gain
22° C	3	GFSK, DQPSK, 8DPSK – DH5	120 Vac	2.1 dBi

8.2.5 Measurement result:

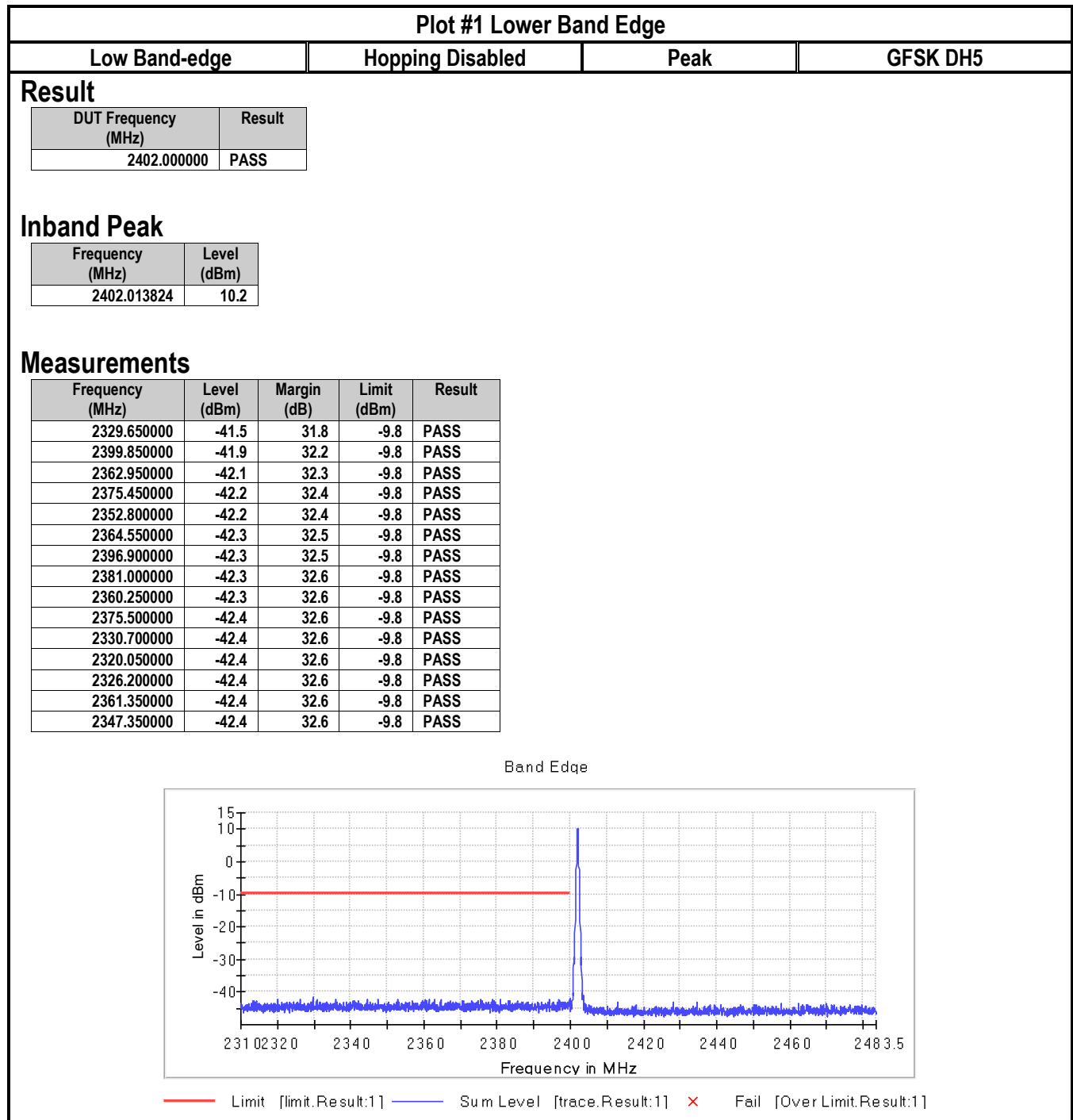
Test #	Frequency	EUT Operation Mode	Data Rate	Band Edge	In band Peak Level	Level (dBm)	Margin (dBm)	Limit (dBm)	Result
	(MHz)				(dBm)				
1	2402	GFSK – DH5	1M	Lower, Non-restricted (conducted)	10.2	-41.5	31.8	-9.8	Pass
2	2402	DQPSK – DH5	2M	Lower, Non-restricted (conducted)	2.6	-45.4	27.9	-17.4	Pass
3	2402	8DPSK -DH5	3M	Lower, Non-restricted (conducted)	3.4	-45.4	28.7	-16.6	Pass
4	2480	GFSK – DH5	1M	Upper, Non-restricted (conducted)	11.0	-41.3	32.3	-9.0	Pass
5	2480	DQPSK – DH5	2M	Upper, Non-restricted (conducted)	2.3	-49.2	31.5	-17.7	Pass
6	2480	8DPSK -DH5	3M	Upper, Non-restricted (conducted)	2.5	-49.5	32.0	-17.5	Pass

Note: The test results and plots are generated by the R&S WMS32 software, which automatically performs the measurements.

Plot #	Frequency	EUT Operation Mode	Band Edge	Measured Peak Value	Limit	Result
	(MHz)			(dBμV/m)	(dBμV/m)	
7	2402	GFSK – DH5	Lower Restricted Peak	55.88	74 Peak	Pass
			Lower Restricted AVG	37.90	54 AVG	Pass
8	2480		Upper Restricted Peak	57.35	74 Peak	Pass
			Upper Restricted AVG	40.99	54 AVG	Pass

Note: The peak measurement passes both peak and average limits.

8.2.6 Measurement Plots:



Plot #2 Lower Band Edge

Low Band-edge

Hopping Disabled

Peak

DQPSK DH5

Result

DUT Frequency (MHz)	Result
2402.000000	PASS

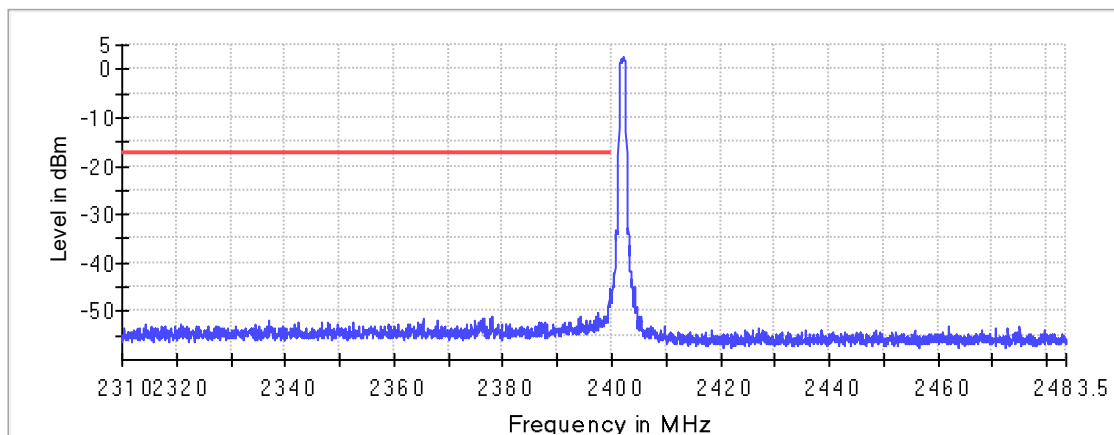
Inband Peak

Frequency (MHz)	Level (dBm)
2402.259412	2.6

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2399.800000	-45.4	27.9	-17.4	PASS
2399.550000	-45.5	28.0	-17.4	PASS
2399.500000	-45.5	28.0	-17.4	PASS
2399.850000	-45.7	28.3	-17.4	PASS
2399.900000	-46.0	28.6	-17.4	PASS
2399.950000	-47.0	29.6	-17.4	PASS
2399.450000	-47.4	30.0	-17.4	PASS
2399.750000	-47.5	30.0	-17.4	PASS
2400.000000	-47.8	30.3	-17.4	PASS
2399.600000	-48.2	30.7	-17.4	PASS
2399.700000	-48.8	31.3	-17.4	PASS
2399.650000	-48.9	31.4	-17.4	PASS
2399.400000	-49.2	31.8	-17.4	PASS
2397.500000	-50.4	33.0	-17.4	PASS
2397.050000	-50.9	33.4	-17.4	PASS

Band Edge



— Limit [limit.Result:1] — Sum Level [trace.Result:1] × Fail [Over Limit.Result:1]

Plot #3 Lower Band Edge

Low Band-edge

Hopping Disabled

Peak

8DPSK DH5

Result

DUT Frequency (MHz)	Result
2402.000000	PASS

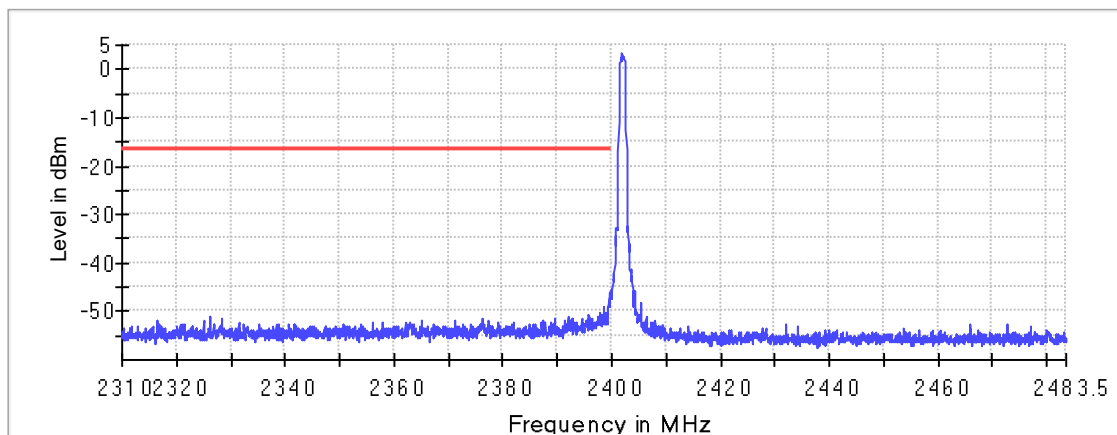
Inband Peak

Frequency (MHz)	Level (dBm)
2401.964706	3.4

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2399.850000	-45.4	28.7	-16.6	PASS
2400.000000	-45.8	29.2	-16.6	PASS
2399.800000	-46.0	29.4	-16.6	PASS
2399.550000	-46.2	29.5	-16.6	PASS
2399.900000	-46.3	29.7	-16.6	PASS
2399.600000	-46.4	29.8	-16.6	PASS
2399.450000	-47.0	30.3	-16.6	PASS
2399.650000	-47.1	30.5	-16.6	PASS
2399.750000	-47.5	30.9	-16.6	PASS
2399.950000	-47.5	30.9	-16.6	PASS
2399.700000	-48.4	31.7	-16.6	PASS
2399.500000	-49.1	32.4	-16.6	PASS
2399.200000	-49.1	32.4	-16.6	PASS
2398.500000	-49.2	32.5	-16.6	PASS
2399.400000	-49.4	32.7	-16.6	PASS

Band Edge



— Limit [limit.Result:1] — Sum Level [trace.Result:1] × Fail [Over Limit.Result:1]

Plot #4 Higher Band Edge

High Band-edge

Hopping Disabled

Peak

GFSK DH5

Result

DUT Frequency (MHz)	Result
2480.000000	PASS

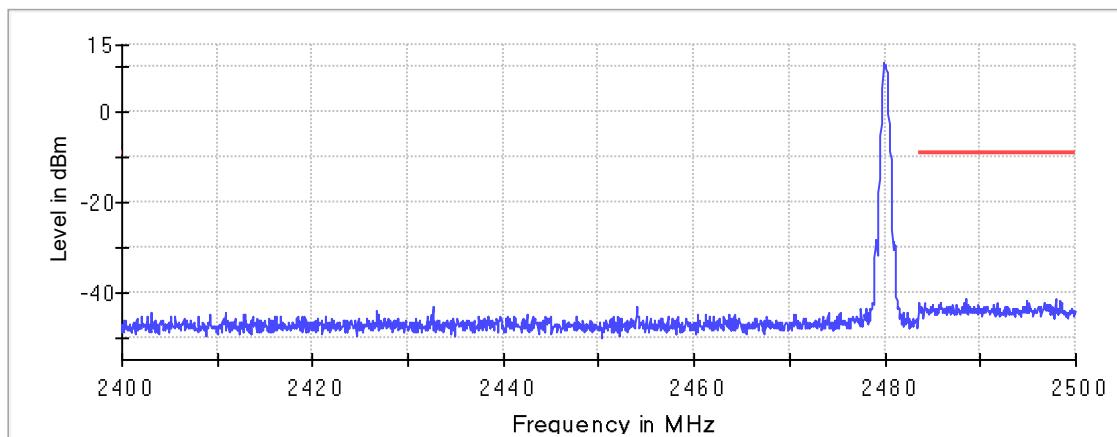
Inband Peak

Frequency (MHz)	Level (dBm)
2479.865294	11.0

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2497.884615	-41.3	32.3	-9.0	PASS
2488.524038	-41.3	32.4	-9.0	PASS
2494.870192	-42.0	33.0	-9.0	PASS
2498.360577	-42.0	33.1	-9.0	PASS
2483.552885	-42.2	33.2	-9.0	PASS
2483.605769	-42.3	33.3	-9.0	PASS
2498.466346	-42.4	33.4	-9.0	PASS
2496.668269	-42.4	33.4	-9.0	PASS
2491.697115	-42.4	33.5	-9.0	PASS
2485.826923	-42.5	33.5	-9.0	PASS
2488.312500	-42.5	33.5	-9.0	PASS
2484.134615	-42.5	33.6	-9.0	PASS
2495.134615	-42.5	33.6	-9.0	PASS
2488.735577	-42.6	33.7	-9.0	PASS
2497.250000	-42.7	33.7	-9.0	PASS

Band Edge



— Limit [limit.Result:1] — Sum Level [trace.Result:1] × Fail [Over Limit.Result:1]

Plot #5 Higher Band Edge

High Band-edge

Hopping Disabled

Peak

DQPSK DH5

Result

DUT Frequency (MHz)	Result
2480.000000	PASS

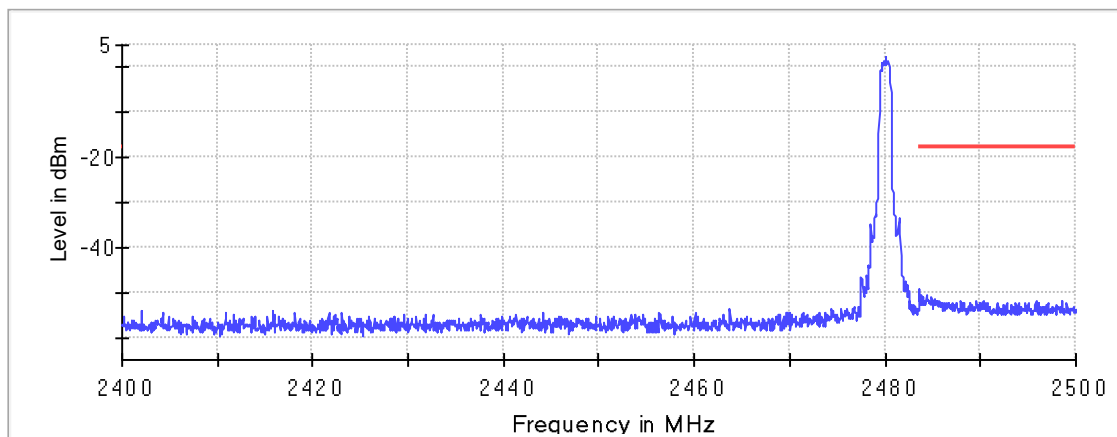
Inband Peak

Frequency (MHz)	Level (dBm)
2480.061765	2.3

Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2483.552885	-49.2	31.5	-17.7	PASS
2483.870192	-50.4	32.7	-17.7	PASS
2484.293269	-50.7	33.0	-17.7	PASS
2484.346154	-50.9	33.2	-17.7	PASS
2484.875000	-51.0	33.3	-17.7	PASS
2483.605769	-51.0	33.3	-17.7	PASS
2484.028846	-51.2	33.5	-17.7	PASS
2484.451923	-51.3	33.6	-17.7	PASS
2485.139423	-51.3	33.6	-17.7	PASS
2487.942308	-51.7	33.9	-17.7	PASS
2485.403846	-51.7	34.0	-17.7	PASS
2483.658654	-51.7	34.0	-17.7	PASS
2495.822115	-51.9	34.2	-17.7	PASS
2484.610577	-51.9	34.2	-17.7	PASS
2484.504808	-51.9	34.2	-17.7	PASS

Band Edge



— Limit [limit.Result:1] — Sum Level [trace.Result:1] × Fail [Over Limit.Result:1]

Plot #6 Higher Band Edge

High Band-edge

Hopping Disabled

Peak

8DPSK DH5

Result

DUT Frequency (MHz)	Result
2480.000000	PASS

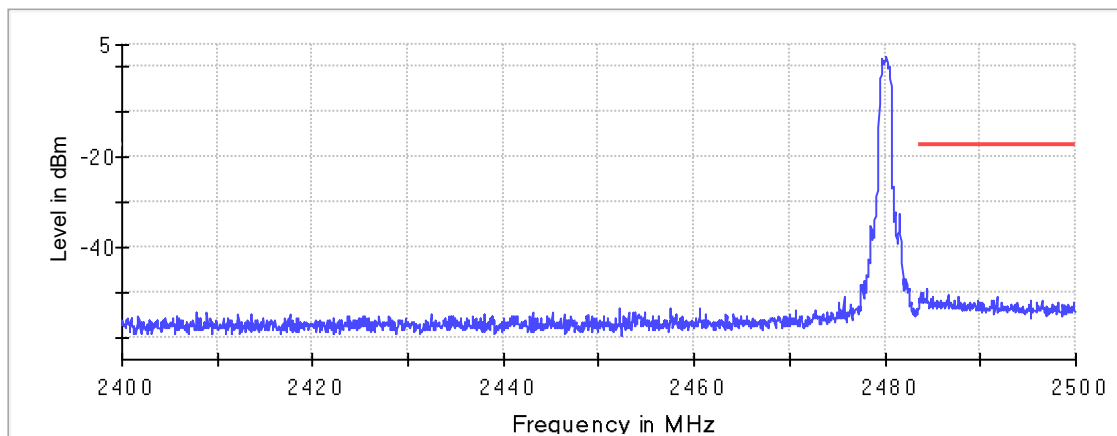
Inband Peak

Frequency (MHz)	Level (dBm)
2480.160000	2.5

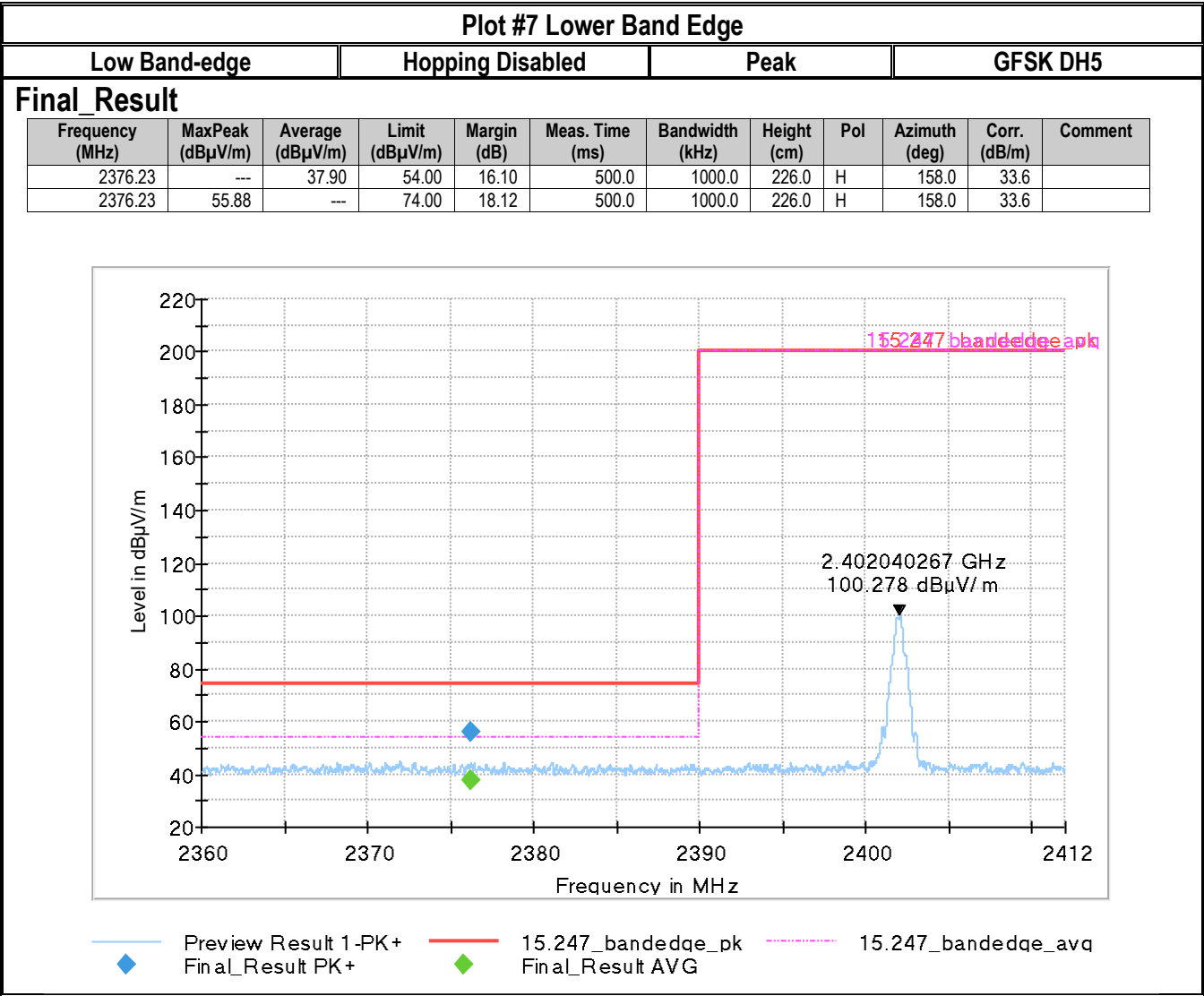
Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2484.346154	-49.5	32.0	-17.5	PASS
2483.975962	-50.2	32.8	-17.5	PASS
2483.711538	-50.2	32.8	-17.5	PASS
2486.567308	-50.6	33.2	-17.5	PASS
2485.033654	-50.9	33.4	-17.5	PASS
2491.697115	-51.0	33.6	-17.5	PASS
2484.293269	-51.0	33.6	-17.5	PASS
2486.673077	-51.1	33.7	-17.5	PASS
2487.677885	-51.2	33.7	-17.5	PASS
2483.764423	-51.3	33.8	-17.5	PASS
2484.187500	-51.3	33.8	-17.5	PASS
2484.134615	-51.3	33.9	-17.5	PASS
2483.552885	-51.4	33.9	-17.5	PASS
2484.875000	-51.5	34.0	-17.5	PASS
2491.168269	-51.7	34.2	-17.5	PASS

Band Edge



— Limit [limit.Result:1] — Sum Level [trace.Result:1] × Fail [Over Limit.Result:1]



Plot #8 Higher Band Edge

Higher Band-edge

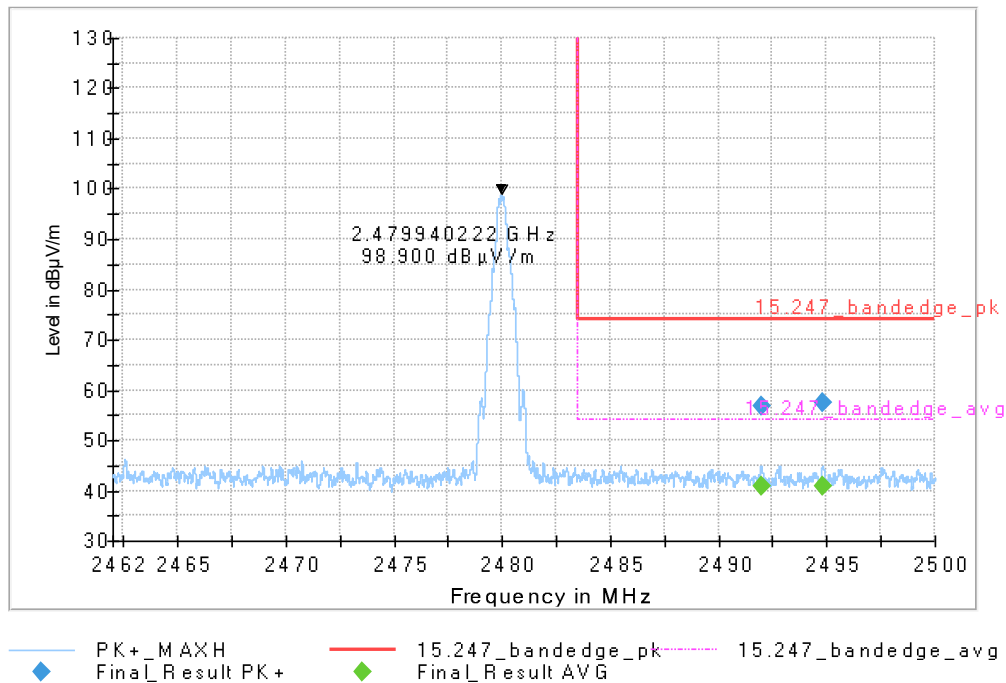
Hopping Disabled

Peak

GFSK DH5

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Comment
2491.96	---	40.96	54.00	13.04	500.0	1000.0	100.0	H	19.0	34.0	
2491.96	56.87	---	74.00	17.13	500.0	1000.0	100.0	H	19.0	34.0	
2494.80	---	40.99	54.00	13.01	500.0	1000.0	114.0	V	60.0	34.0	
2494.80	57.35	---	74.00	16.65	500.0	1000.0	114.0	V	60.0	34.0	



8.3 20dB Bandwidth and 99% Occupied Bandwidth

8.3.1 Measurement according to ANSI C63.10 Section 6.9.2

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2020 (incl. Cor1-2023 and C63.10a-2024) 7.8.6

Spectrum Analyzer settings:

20dB Bandwidth:

- Span: approximately 2 to 5 times the 20 dB bandwidth, centered on the hopping channel
- RBW = 1% to 5% of the 20 dB bandwidth
- VBW = 3 x RBW
- Sweep Time = Auto couple
- Detector = Peak
- Trace = Max hold

99% Occupied Bandwidth:

- Set frequency = nominal EUT channel center frequency
- Set Span = 1.5 x to 5.0 x OBW
- Set RBW = 1% to 5% of OBW
- Set the video bandwidth (VBW) $\approx 3 \times$ RBW
- Detector = Peak
- Trace mode = Max hold
- Sweep = Auto couple
- Allow the trace to stabilize
- Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth
- If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.

8.3.2 Limits: FCC §15.247(a)(1), RSS-247 5.1(b)

FCC §15.247(a)(1):

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, provided the systems operate with an output power no greater than 125 mW.

RSS-247 5.1(b):

FHSs operating in the band 2400-2483.5 MHz 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, provided that the systems operate with an output power no greater than 0.125 W

8.3.3 Test conditions and setup:

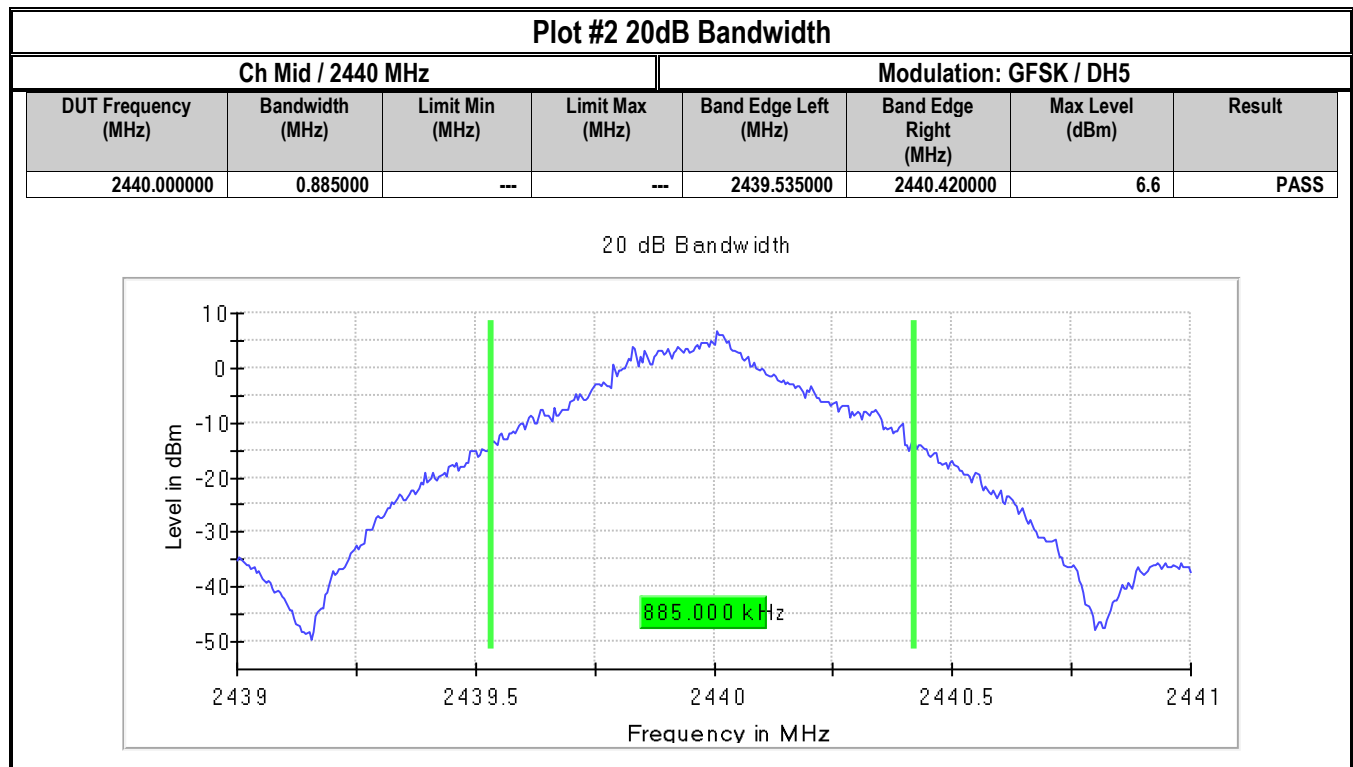
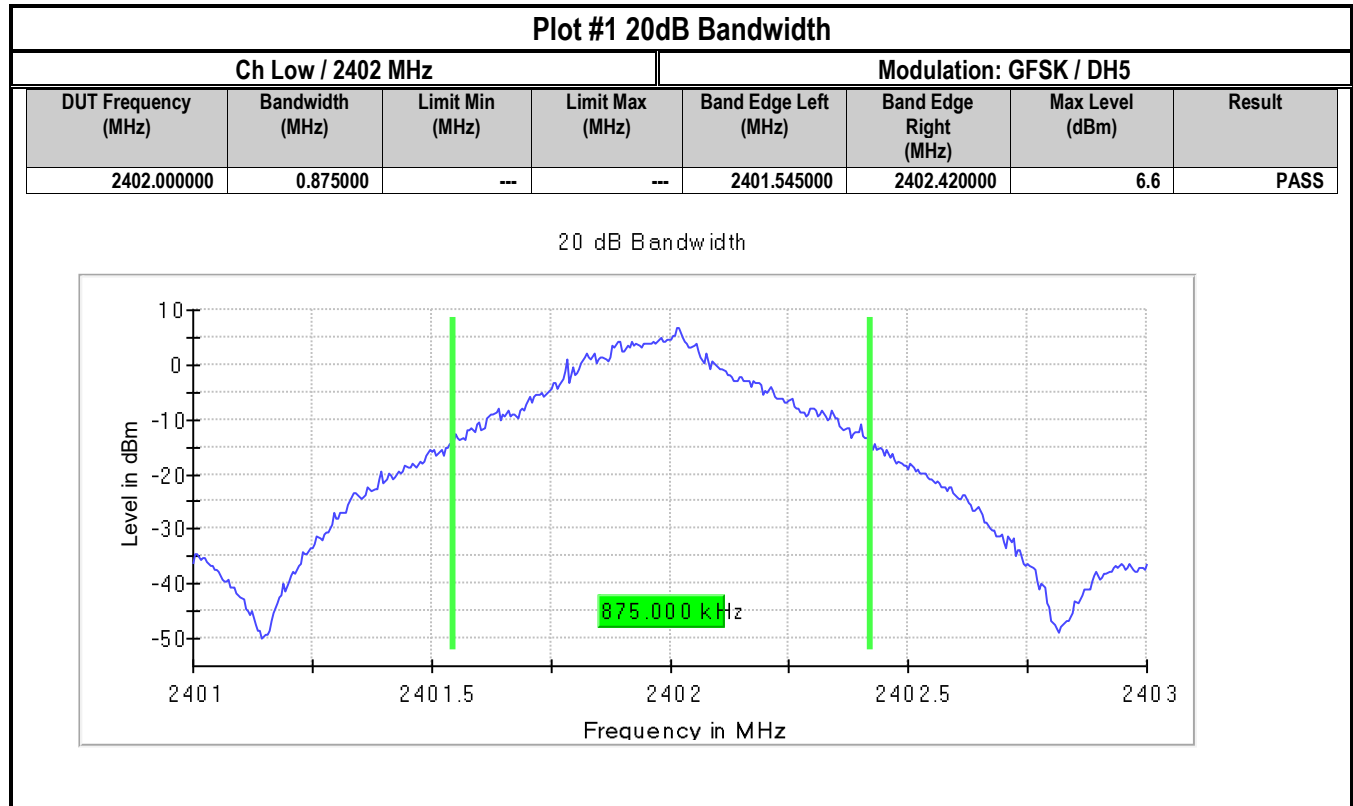
Ambient Temperature	EUT Set-Up #	EUT operating mode	Power Input
22° C	3	GFSK, DQPSK, 8DPSK – DH5	120 Vac

8.3.4 Measurement result:

Plot #	EUT Operating Mode	Data Rate	Frequency	20dB Emissions Bandwidth	Limit	Result
			(MHz)	(MHz)	(MHz)	
1	GFSK – DH5	1	2402	0.875	N/A	Pass
2			2440	0.885	N/A	Pass
3			2480	0.965	N/A	Pass
4	DQPSK – DH5	2	2402	1.355	N/A	Pass
5			2440	1.340	N/A	Pass
6			2480	1.350	N/A	Pass
7	8DPSK – DH5	3	2402	1.375	N/A	Pass
8			2440	1.370	N/A	Pass
9			2480	1.375	N/A	Pass

Plot #	EUT Operating Mode	Data Rate	Frequency	99% Occupied Bandwidth	Limit	Result
			(MHz)	(MHz)	(MHz)	
10	GFSK – DH5	1	2402	0.850	N/A	Pass
11			2440	0.855	N/A	Pass
12			2480	0.865	N/A	Pass
13	DQPSK – DH5	2	2402	1.210	N/A	Pass
14			2440	1.205	N/A	Pass
15			2480	1.200	N/A	Pass
16	8DPSK – DH5	3	2402	1.215	N/A	Pass
17			2440	1.210	N/A	Pass
18			2480	1.215	N/A	Pass

8.3.5 Measurement Plots:



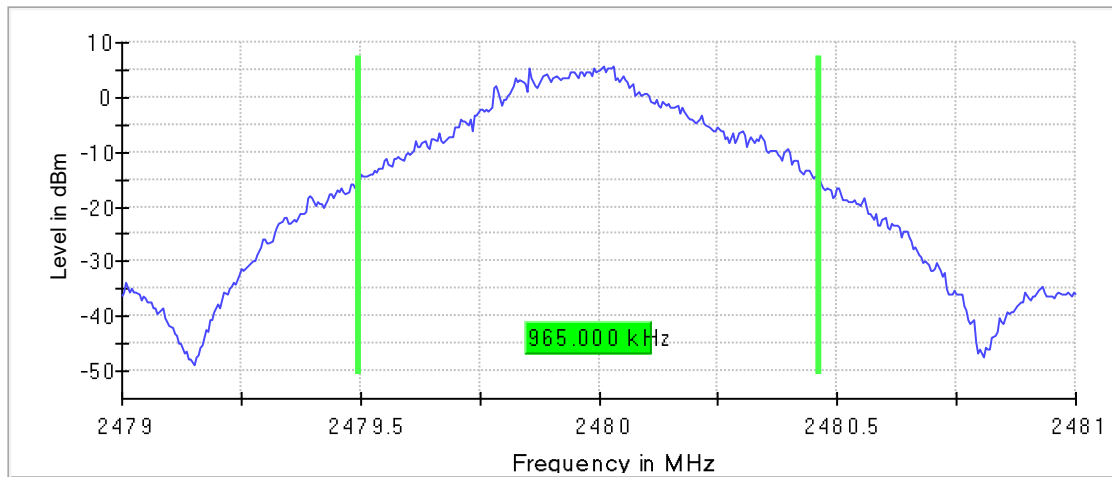
Plot #3 20dB Bandwidth

Ch High / 2480 MHz

Modulation: GFSK / DH5

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Max Level (dBm)	Result
2480.000000	0.965000	---	---	2479.495000	2480.460000	5.6	PASS

20 dB Bandwidth



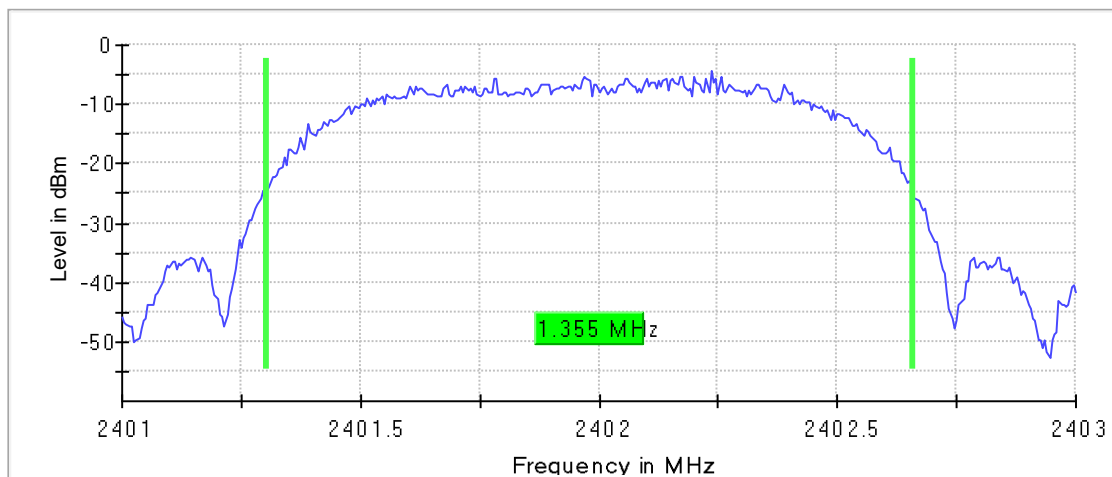
Plot #4 20dB Bandwidth

Ch Low / 2402 MHz

Modulation: DQPSK / DH5

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Max Level (dBm)	Result
2402.000000	1.355000	---	---	2401.305000	2402.660000	-4.4	PASS

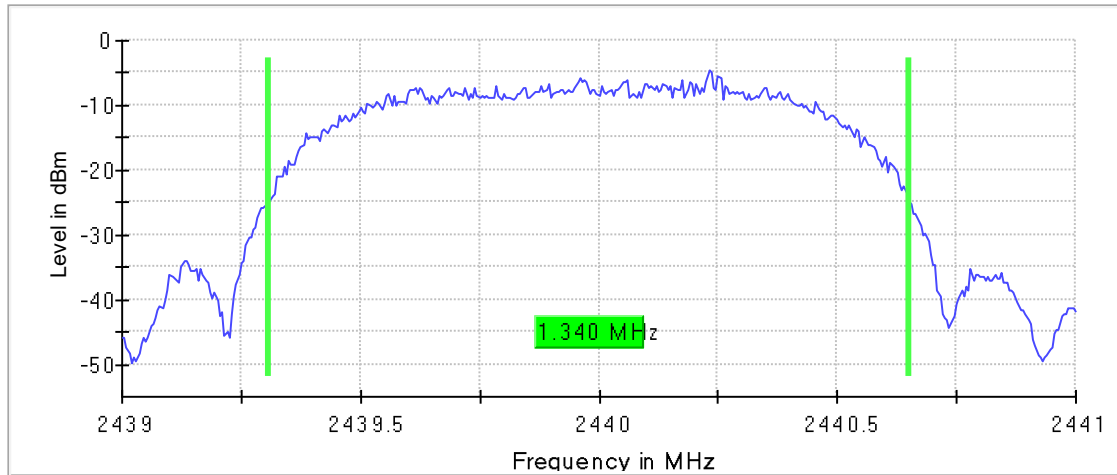
20 dB Bandwidth



Plot #5 20dB Bandwidth

Ch Mid / 2440 MHz				Modulation: DQPSK / DH5			
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Max Level (dBm)	Result
2440.000000	1.340000	---	---	2439.310000	2440.650000	-4.7	PASS

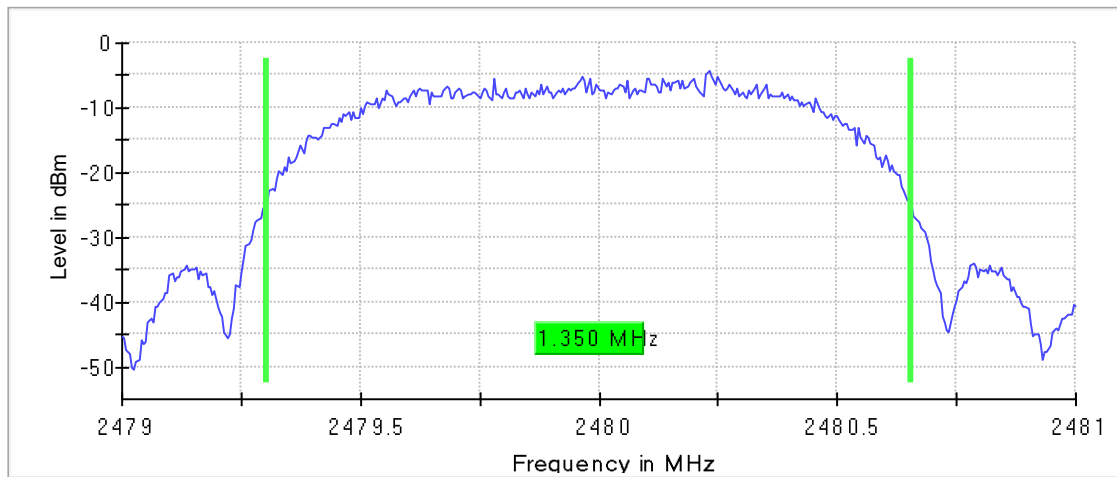
20 dB Bandwidth



Plot #6 20dB Bandwidth

Ch High / 2480 MHz				Modulation: DQPSK / DH5			
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Max Level (dBm)	Result
2480.000000	1.350000	---	---	2479.305000	2480.655000	-4.3	PASS

20 dB Bandwidth



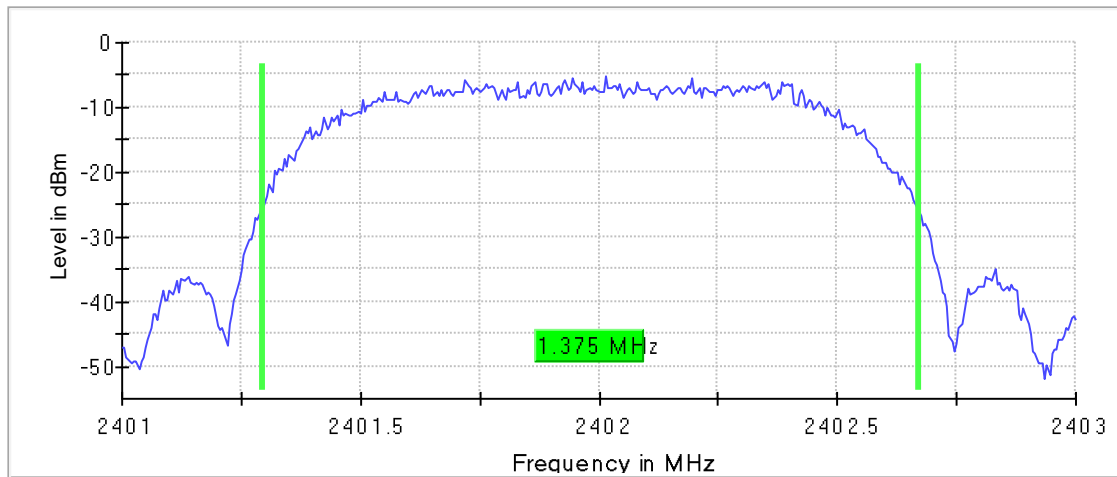
Plot #7 20dB Bandwidth

Ch Low / 2402 MHz

Modulation: DQPSK / DH5

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Max Level (dBm)	Result
2402.000000	1.375000	---	---	2401.295000	2402.670000	-5.2	PASS

20 dB Bandwidth



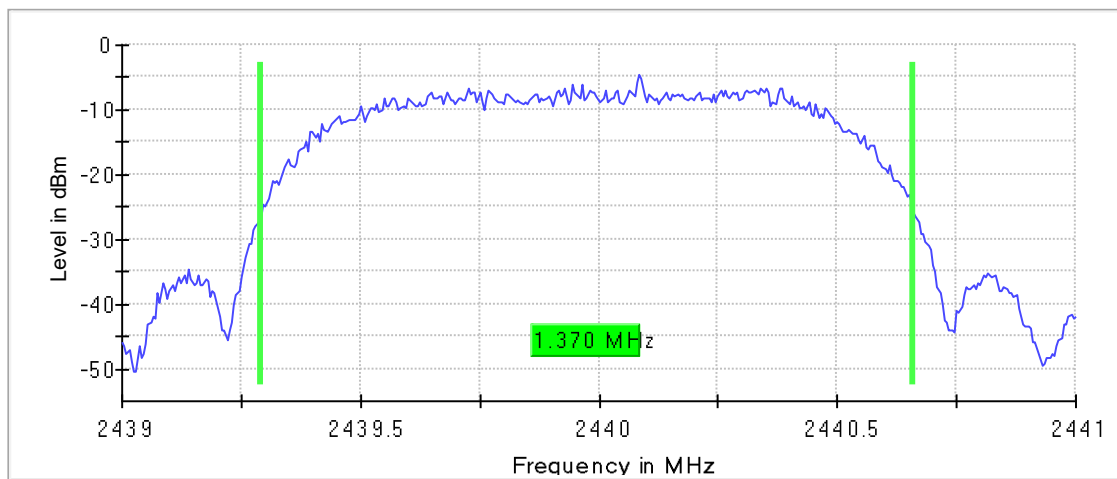
Plot #8 20dB Bandwidth

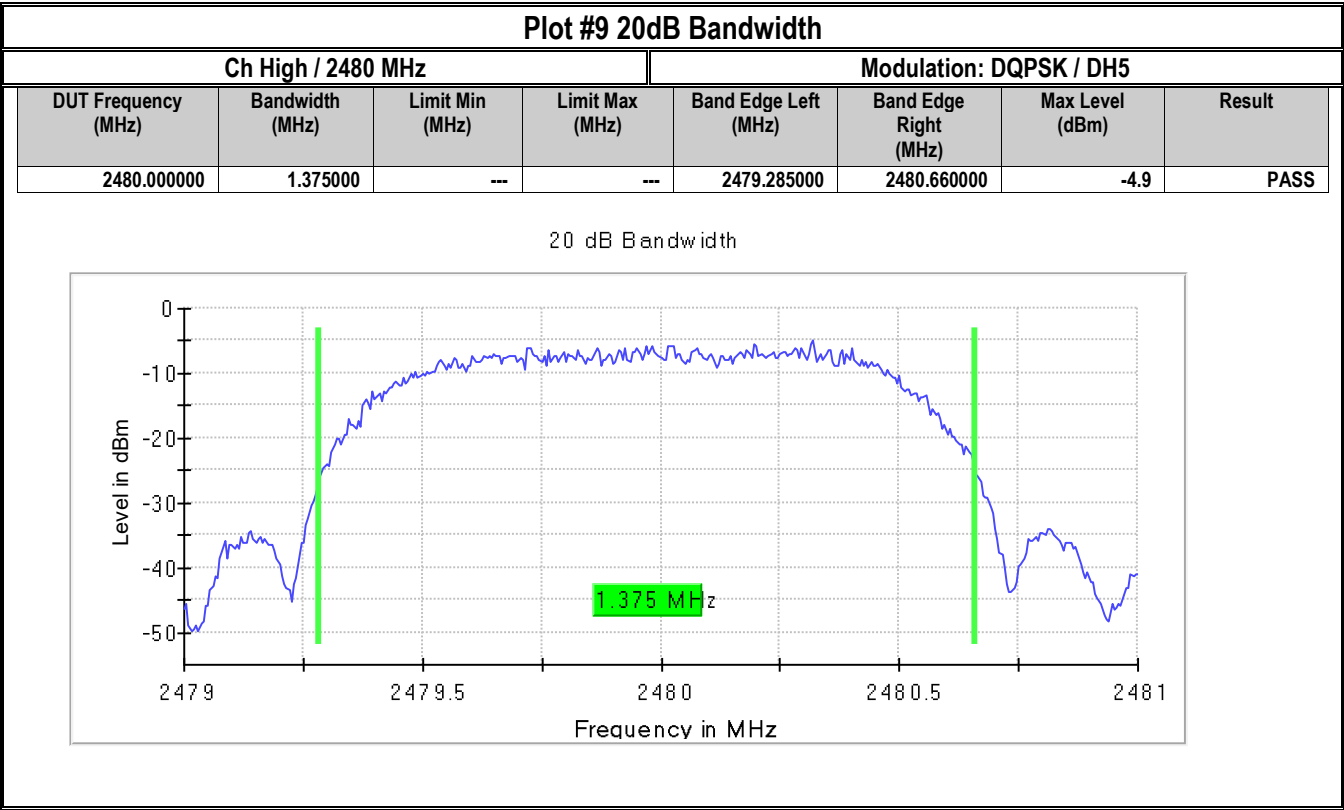
Ch Mid / 2440 MHz

Modulation: DQPSK / DH5

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Max Level (dBm)	Result
2440.000000	1.370000	---	---	2439.290000	2440.660000	-4.6	PASS

20 dB Bandwidth

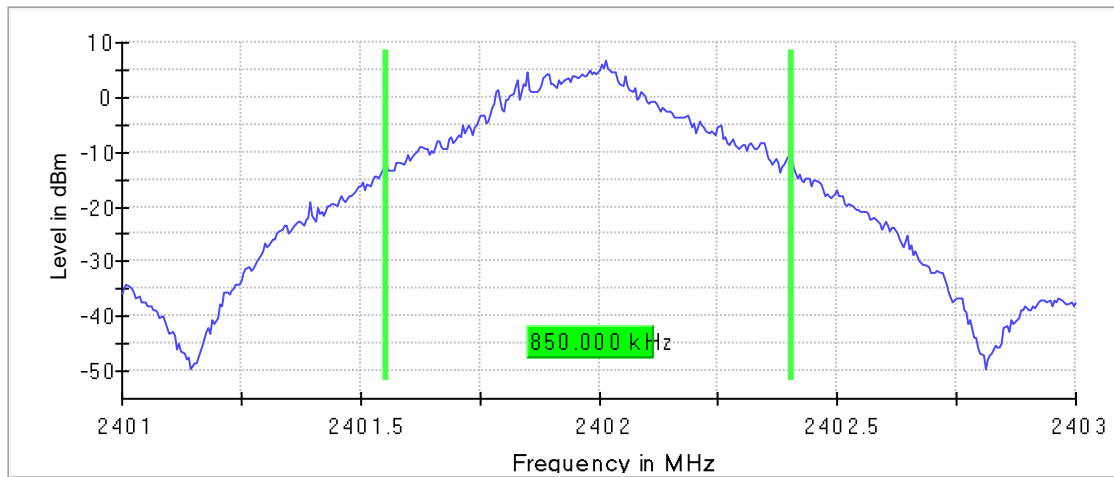




Plot #10 99% Bandwidth

Ch Low / 2402 MHz				Modulation: GFSK / DH5		
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2402.000000	0.850000	---	---	2401.555000	2402.405000	PASS

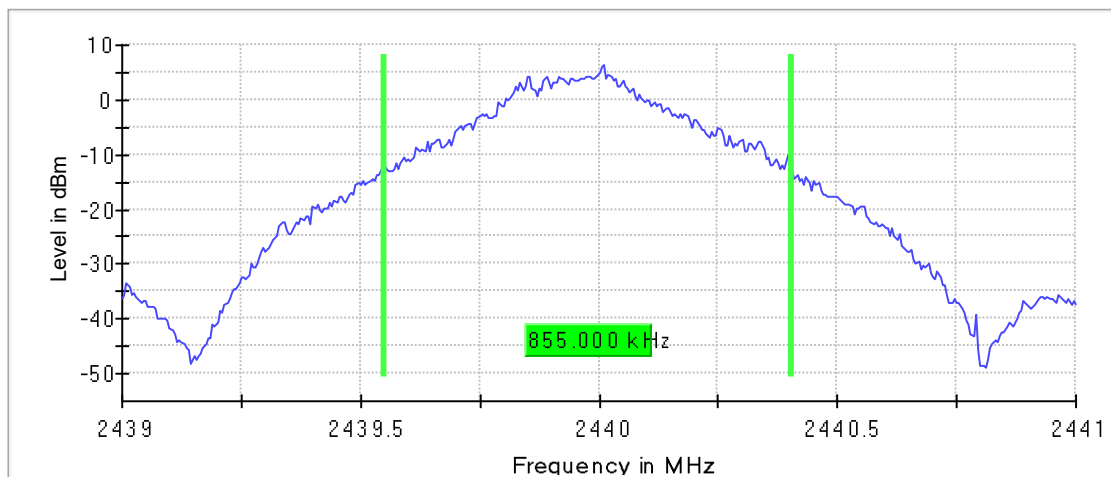
99 % Bandwidth



Plot #11 99% Bandwidth

Ch Mid / 2440 MHz				Modulation: GFSK / DH5		
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2440.000000	0.855000	---	---	2439.550000	2440.405000	PASS

99 % Bandwidth



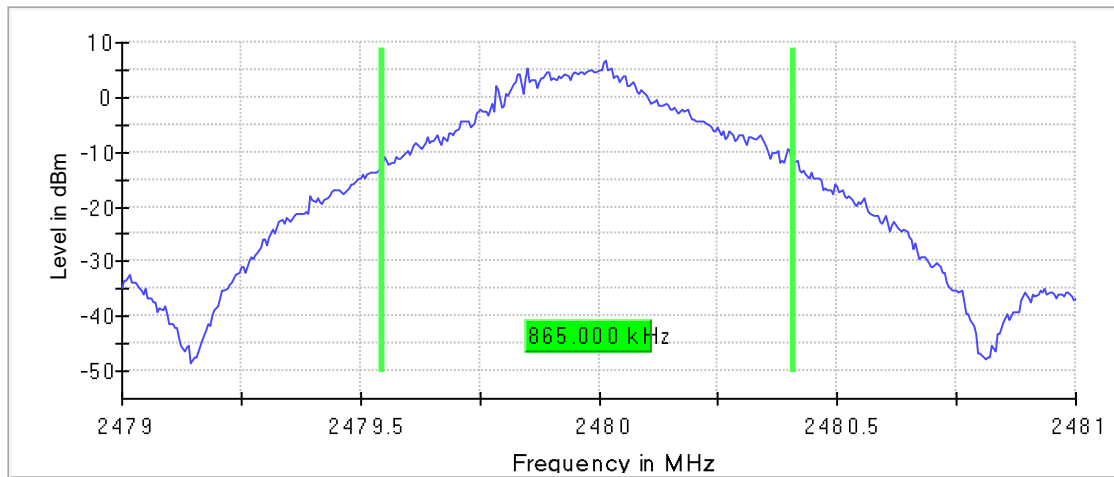
Plot #12 99% Bandwidth

Ch High / 2480 MHz

Modulation: GFSK / DH5

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2480.000000	0.865000	---	---	2479.545000	2480.410000	PASS

99 % Bandwidth



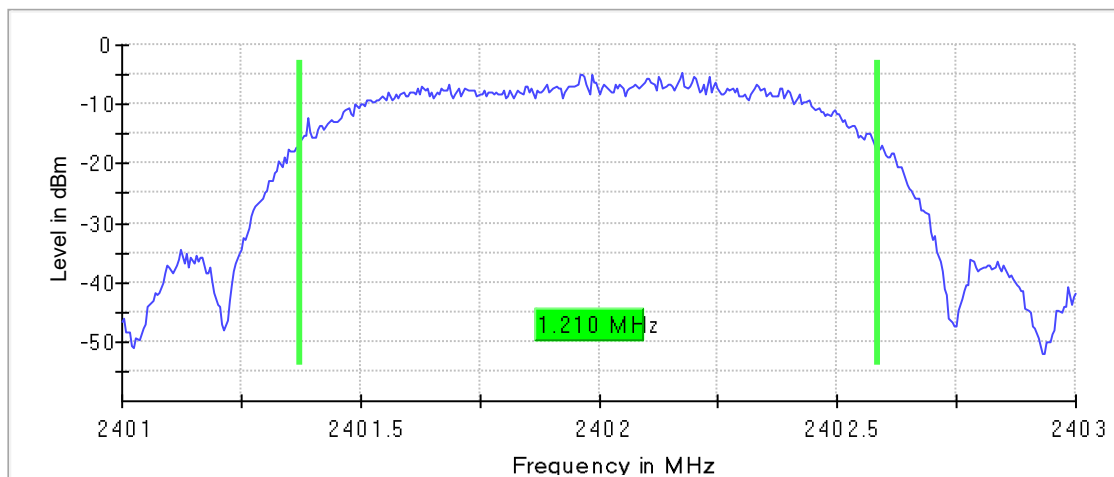
Plot #13 99% Bandwidth

Ch Low / 2402 MHz

Modulation: DQPSK / DH5

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2402.000000	1.210000	---	---	2401.375000	2402.585000	PASS

99 % Bandwidth



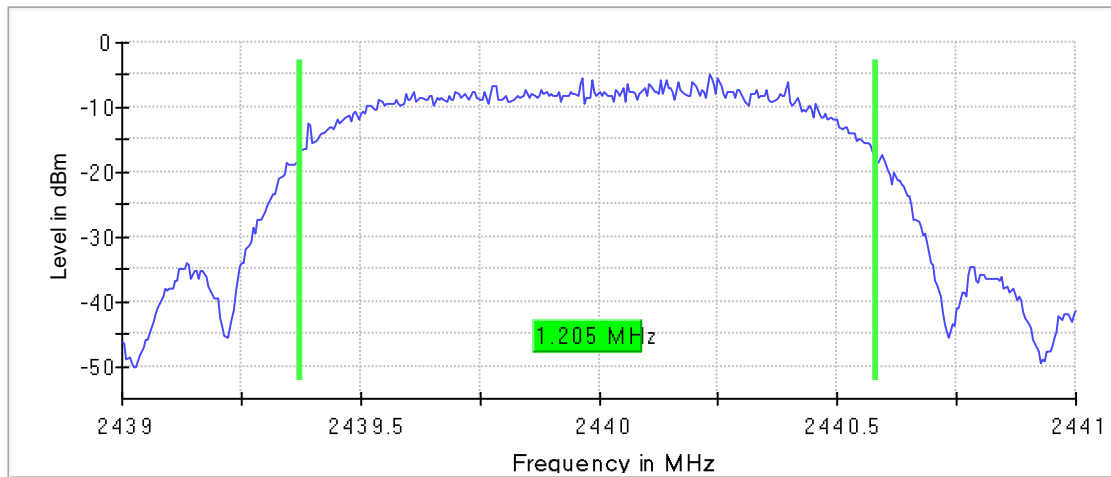
Plot #14 99% Bandwidth

Ch Mid / 2440 MHz

Modulation: DQPSK / DH5

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2440.000000	1.205000	---	---	2439.375000	2440.580000	PASS

99 % Bandwidth



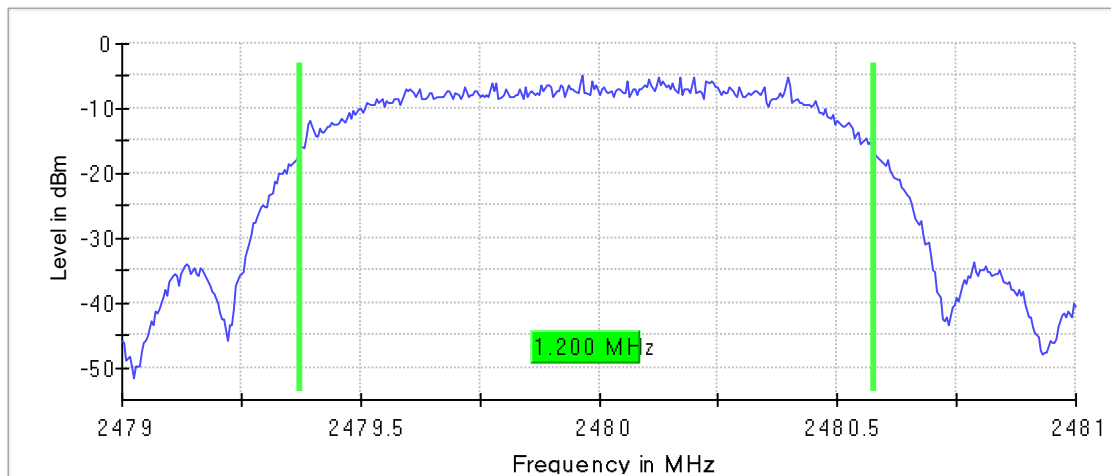
Plot #15 99% Bandwidth

Ch High / 2480 MHz

Modulation: DQPSK / DH5

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2480.000000	1.200000	---	---	2479.375000	2480.575000	PASS

99 % Bandwidth



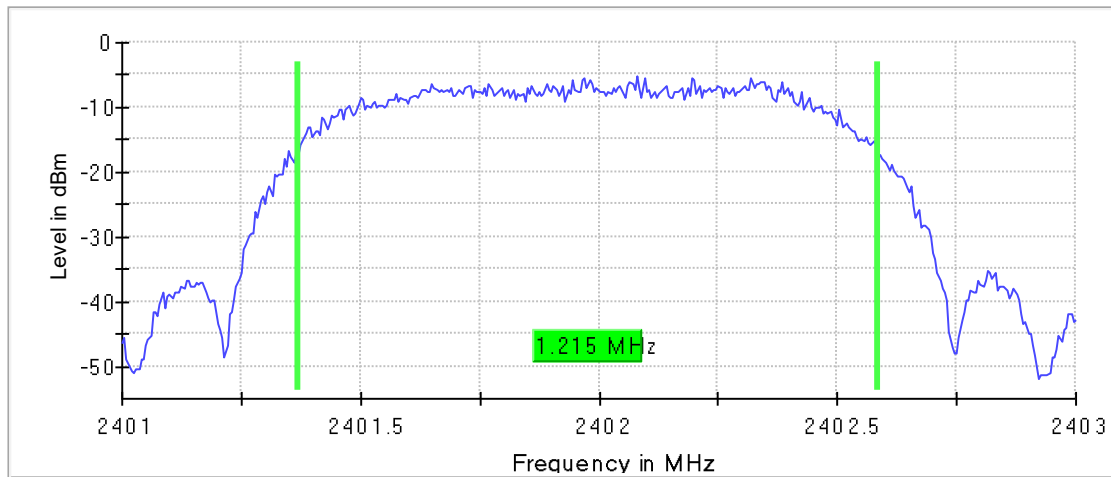
Plot #16 99% Bandwidth

Ch Low / 2402 MHz

Modulation: DQPSK / DH5

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2402.000000	1.215000	---	---	2401.370000	2402.585000	PASS

99 % Bandwidth



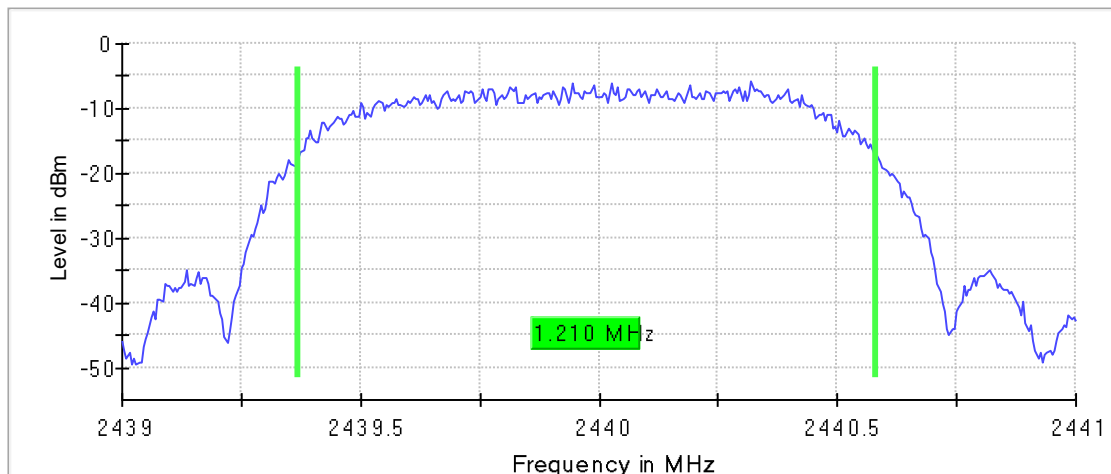
Plot #17 99% Bandwidth

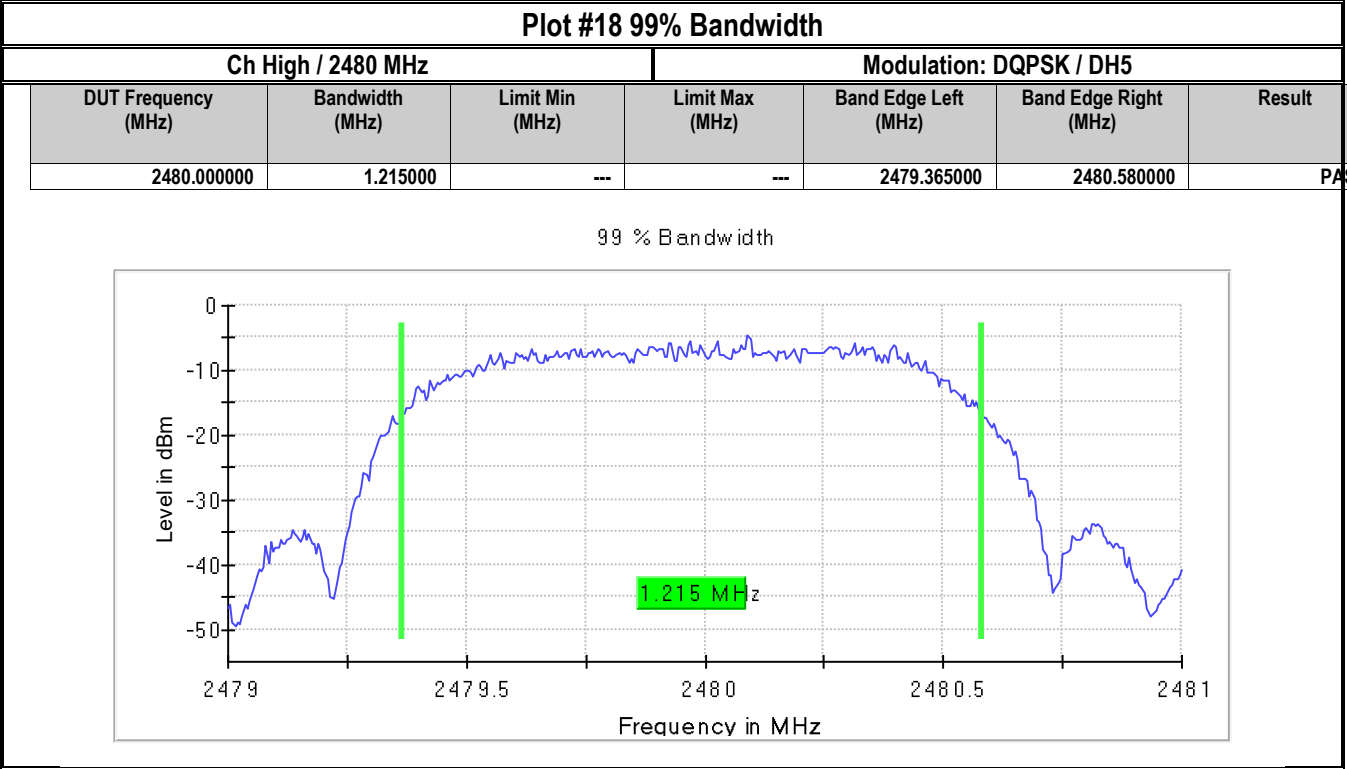
Ch Mid / 2440 MHz

Modulation: DQPSK / DH5

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
2440.000000	1.210000	---	---	2439.370000	2440.580000	PASS

99 % Bandwidth





8.4 Carrier Frequency Separation

8.4.1 Measurement according to ANSI C63.10 Section 7.8.2

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v05r02 9 and ANSI C63.10-2020 (incl. Cor1-2023 and C63.10a-2024) 7.8.2

Spectrum Analyzer settings:

- Span = Wide enough to capture the peaks of the two adjacent channels
- RBW $\geq$ 1% of the span
- VBW $\geq$ RBW or 3 x
- Sweep = Auto couple
- Detector function = Peak
- Trace = Max hold
- Use marker-delta function to determine the separation between the peaks of the two adjacent channels.

8.4.2 Limits: FCC §15.247(a)(1) & RSS-247 5.1(b)

FCC §15.247(a)(1):

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 bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

RSS-247 5.1(b):

FHSs 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, FHSs operating in the band 2400-2483.5 MHz 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, provided that the systems operate with an output power no greater than 0.125 W.

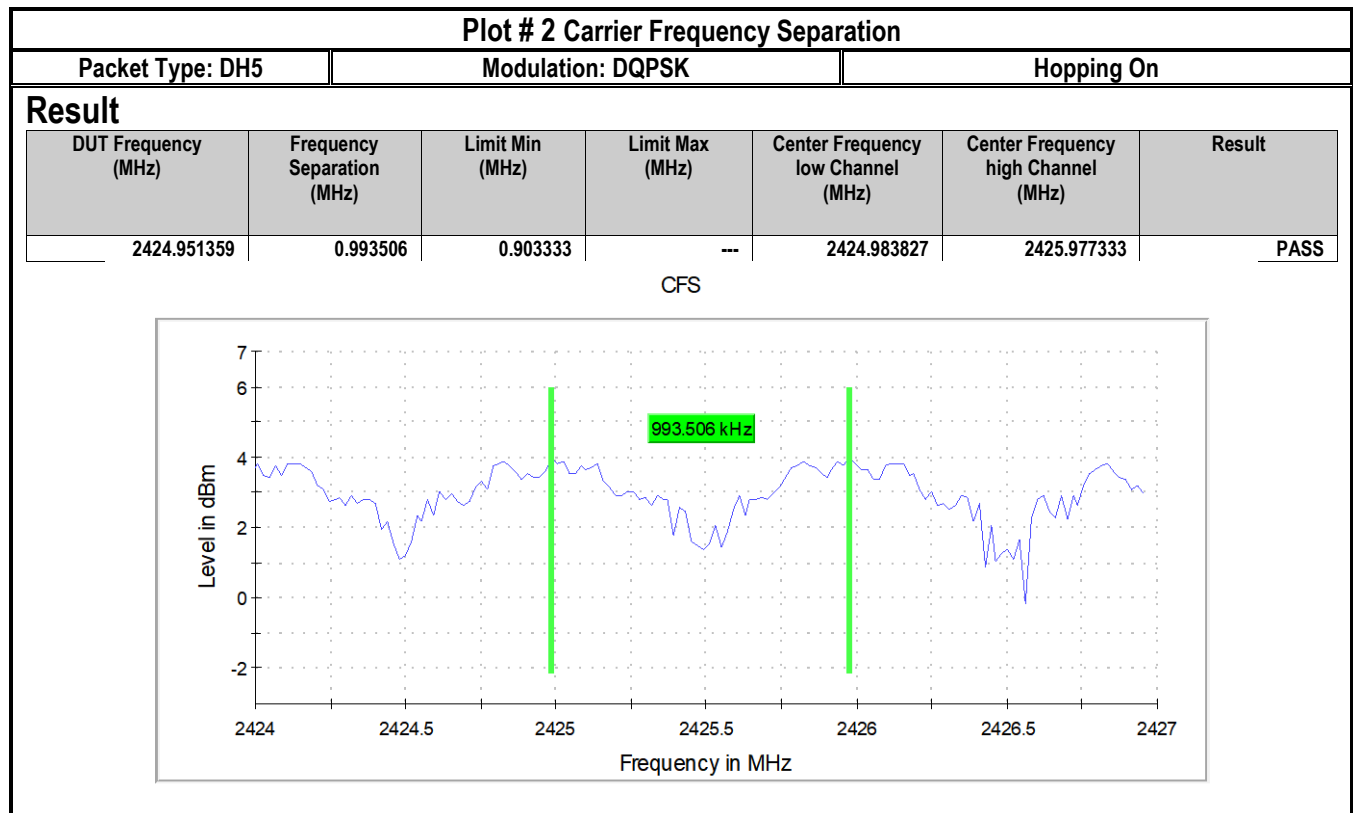
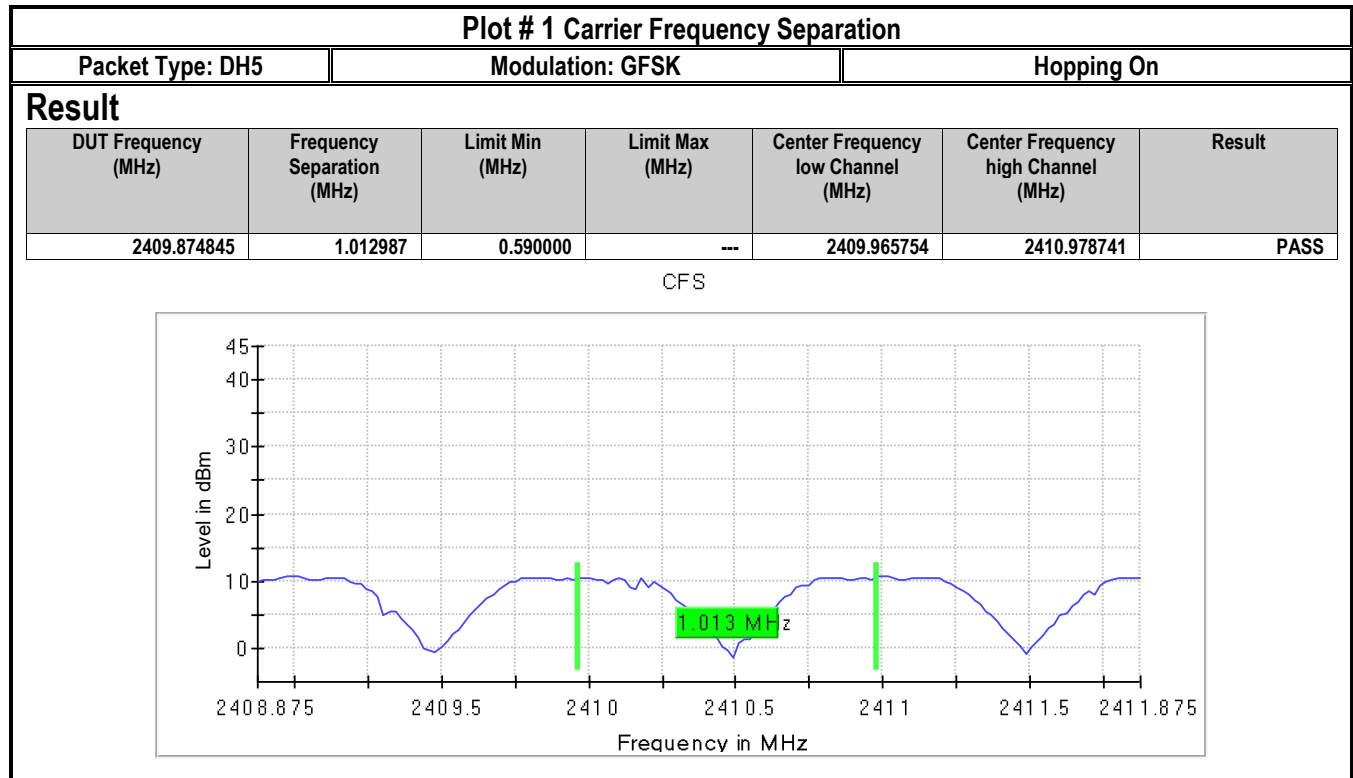
8.4.3 Test conditions and setup:

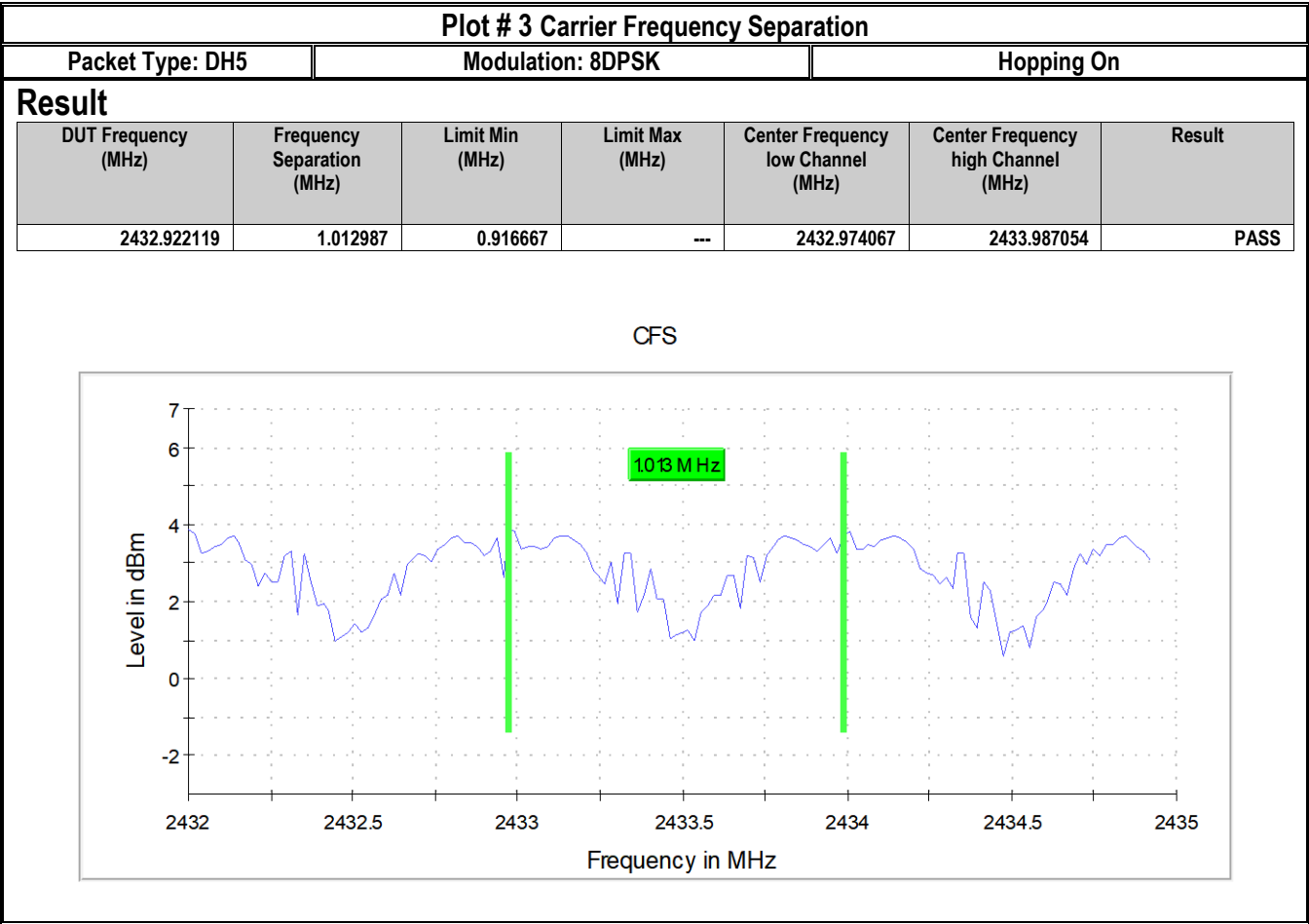
Ambient Temperature	EUT Set-Up #	EUT operating mode	Power Input
23° C	3	GFSK, DQPSK, 8DPSK – DH5	120 Vac

8.4.4 Measurement result:

Plot #	EUT Operating Mode	Carrier Frequency Separation (MHz)	Limit (MHz)	Result
1	GFSK – DH5	1.013	0.643	Pass
2	DQPSK – DH5	0.994	0.903	Pass
3	8DPSK – DH5	1.013	0.917	Pass

8.4.5 Measurement Plots:





8.5 Number of hopping channels

8.5.1 Measurement according to ANSI C63.10 Section 7.8.3

Test according to FCC title 47 part 15 §15.247(a),(g), KDB 558074 D01 DTS Meas Guidance v05r02 9 and ANSI C63.10-2020 (incl. Cor1-2023 and C63.10a-2024) 7.8.3

Spectrum Analyzer settings:

- Span: The frequency band of operation. Depending on the number of channels the device supports, it may be necessary to divide the frequency range of operation across multiple spans, to allow the individual channels to be clearly seen.
- RBW: To identify clearly the individual channels, set the RBW to less than 30% of the channel spacing or the 20 dB bandwidth, whichever is smaller.
- VBW $\geq$ RBW
- Sweep = Auto couple
- Detector function = Peak
- Trace = Max hold
- Allow the trace to stabilize

8.5.2 Limits: FCC §15.247(a)(1)(ii)(iii) & RSS-247 5.1(d)

At least 15 non-overlapping channels

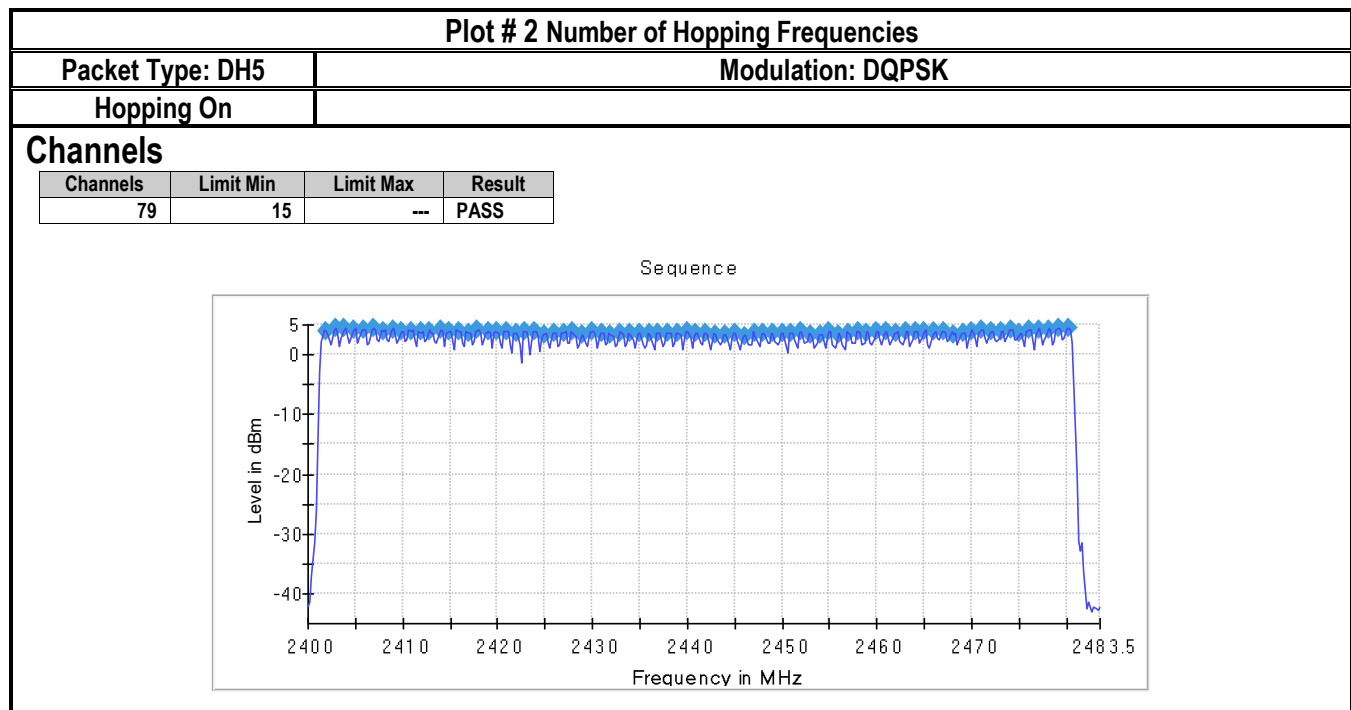
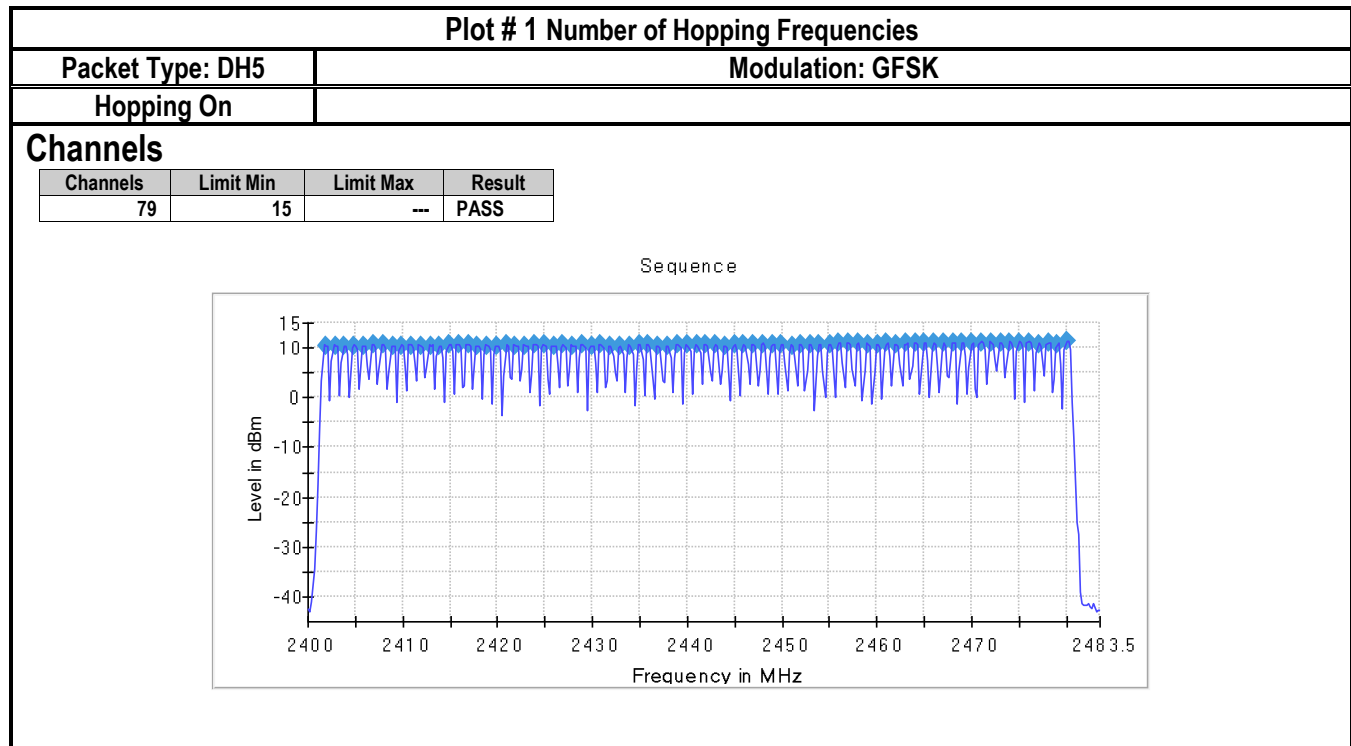
8.5.3 Test conditions and setup:

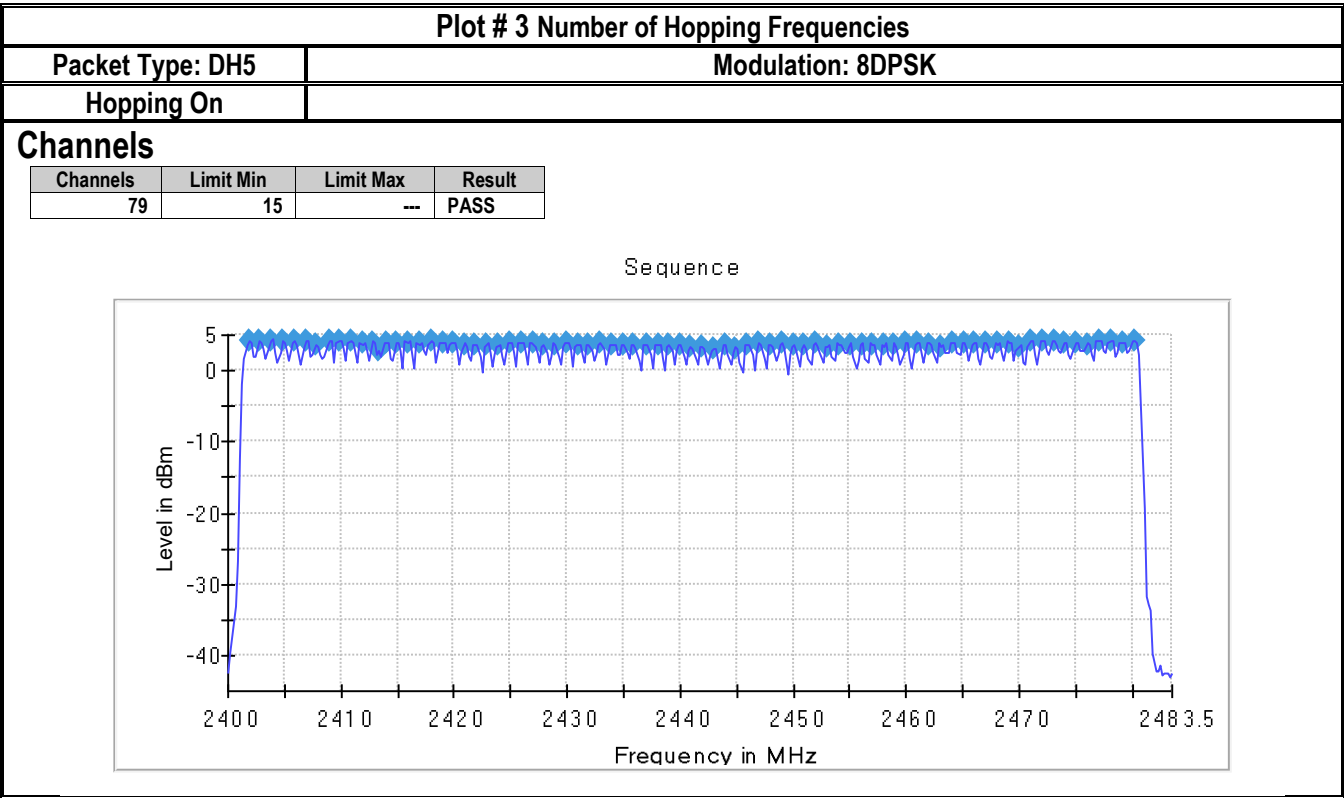
Ambient Temperature	EUT Set-Up #	EUT operating mode	Power Input
23° C	3	GFSK, DQPSK, 8DPSK – DH5	120 VAC

8.5.4 Measurement result:

Plot #	Number of Hopping Frequencies	Limit	Result
1	79	15 non-overlapping channels	Pass
2	79	15 non-overlapping channels	Pass
3	79	15 non-overlapping channels	Pass

8.5.5 Measurement Plots:





8.6 Time of Occupancy (Dwell Time)

8.6.1 Measurement according to ANSI C63.10 Section 7.8.4

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2020 (incl. Cor1-2023 and C63.10a-2024) 7.8.3

Spectrum Analyzer settings:

Duration of Pulse Measurement

- RBW = 1 MHz
- VBW = 3 MHz
- Span = Zero Span
- Sweep Time = 10 ms
- Sweep Mode = Single
- Detector = Peak
- Trigger = Video

Observation Period

- RBW = 1 MHz
- VBW = 3 MHz
- Span = Zero Span
- Sweep Time = 31.6 s
- Sweep Mode = Single
- Detector = Peak
- Trigger = Free Run

Observation Period = 0.4s x No. of hopping channels = 0.4 x 79 = 31.6 s

8.6.2 Limits: FCC §15.247(a)(1)(iii) & RSS-247 5.1(d)

FCC §15.247(a)(1)(iii):

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

RSS-247 5.1(d):

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds, multiplied by the number of hopping channels employed. Transmissions on particular hopping frequencies may be avoided or suppressed provided that at least 15 hopping channels are used.

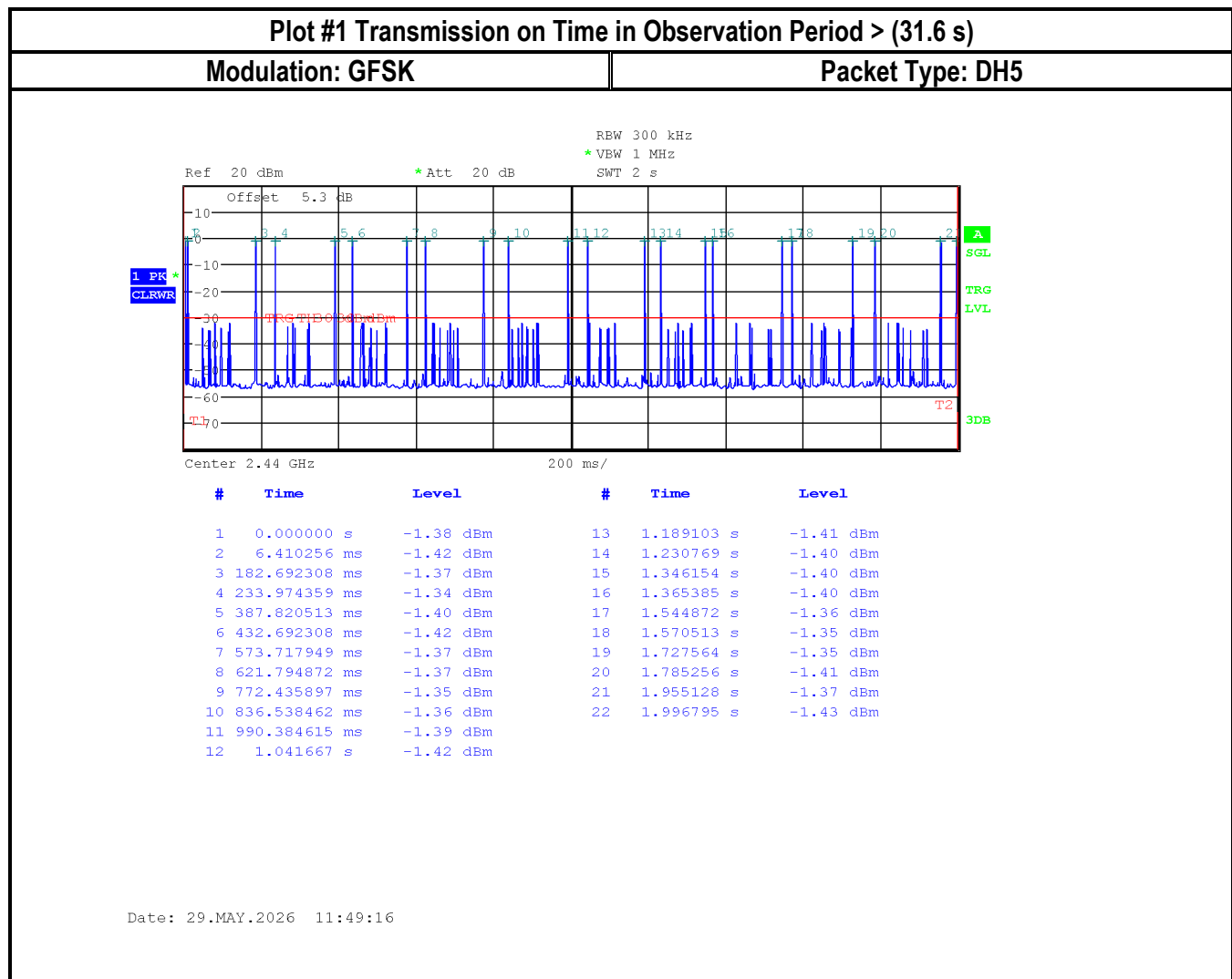
8.6.3 Test conditions and setup:

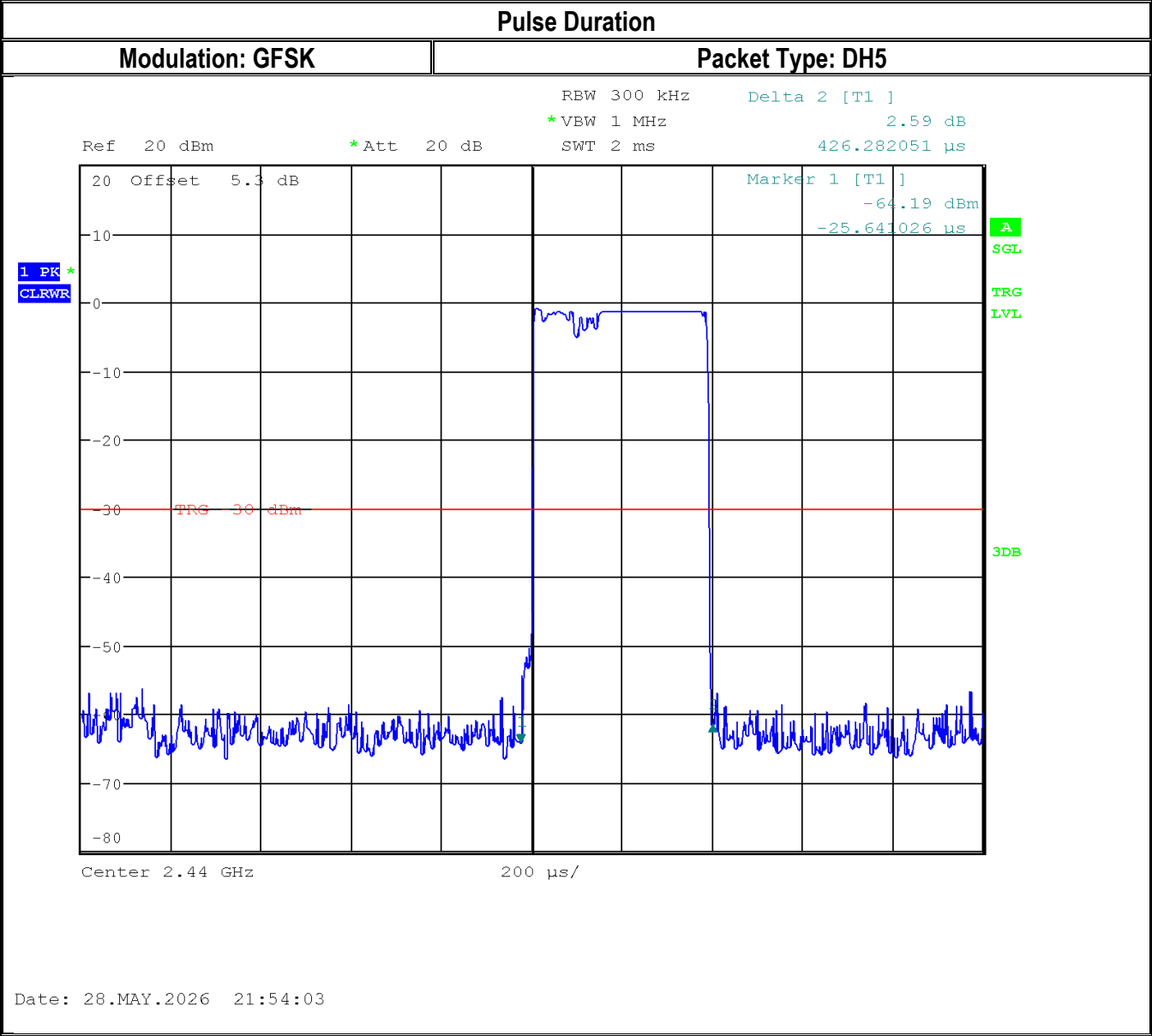
Ambient Temperature	EUT Set-Up #	EUT operating mode	Power Input
23° C	3	GFSK, DQPSK, 8DPSK – DH5	120 VAC

8.6.4 Measurement result:

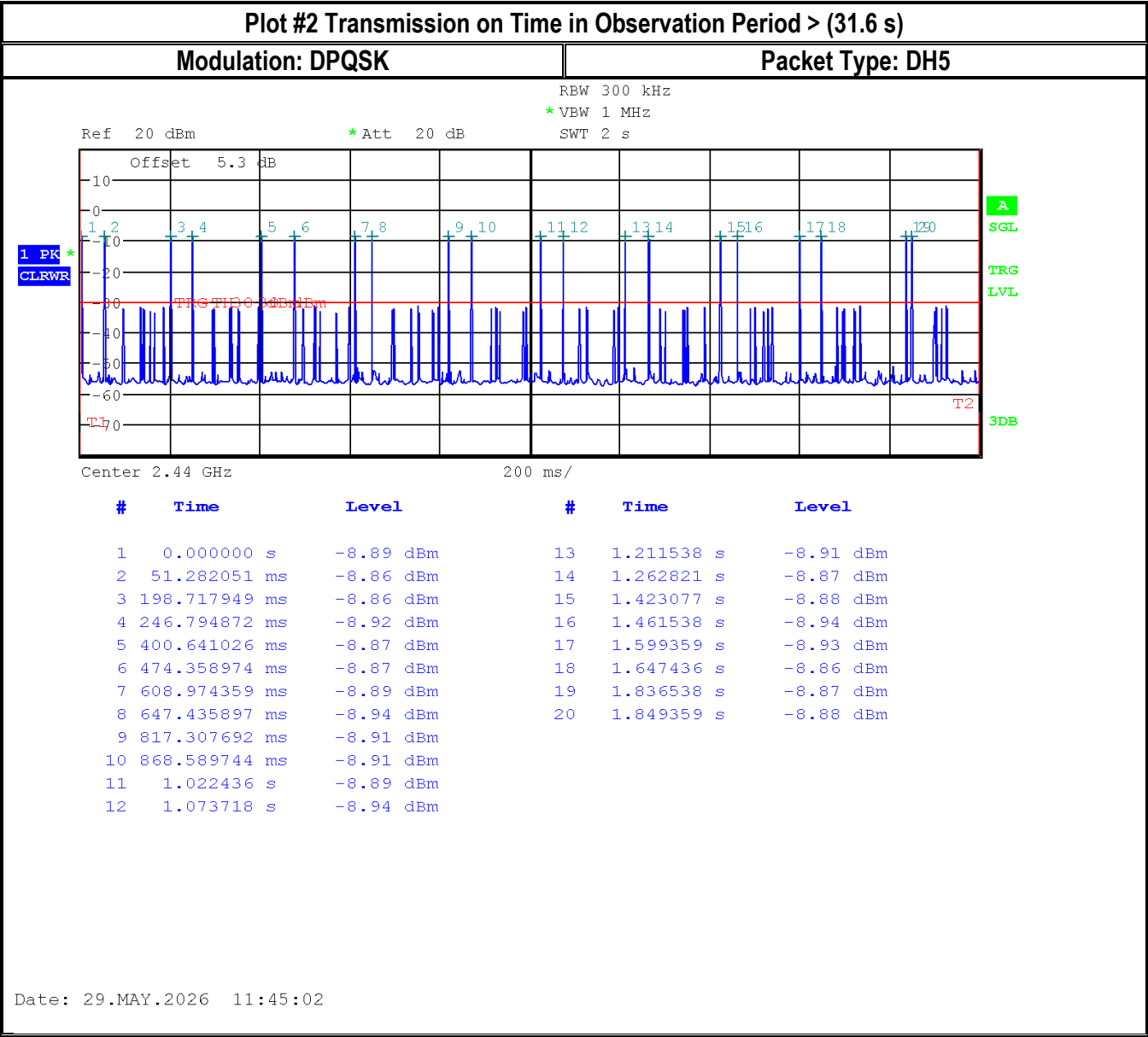
Plot #	Modulation	Timing	Number of hops 31.6s	Pulse Width (ms)	Total Dwell Time in 31.6s (ms)	Limit (ms)	Result
1	GFSK	DH5	347.6	0.426	148	< 400 in 31.6s	Pass
1	DQPSK	DH5	316.0	0.439	138	< 400 in 31.6s	Pass
1	8DPSK	DH5	347.6	0.439	152	< 400 in 31.6s	Pass

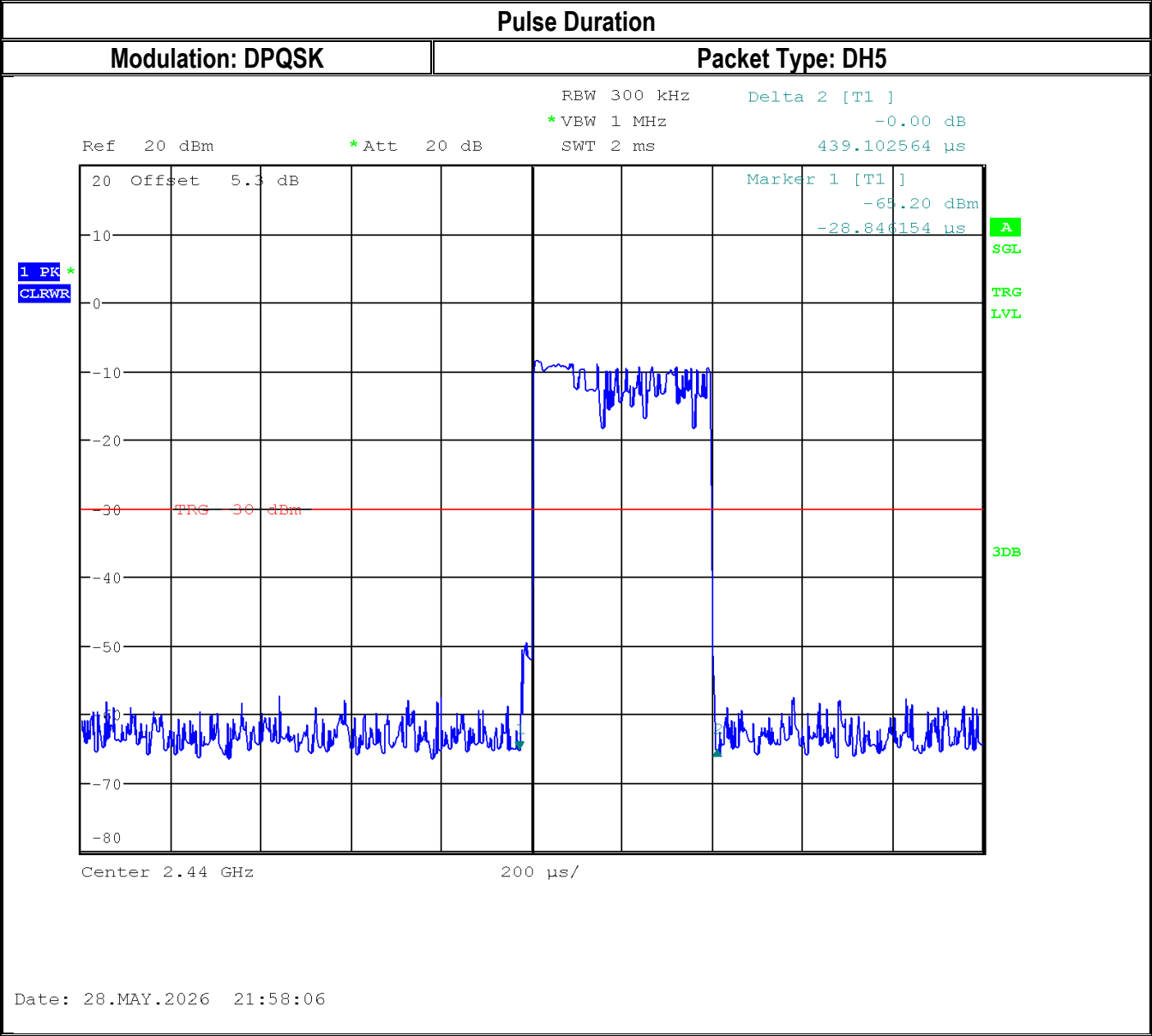
8.6.5 Measurement Plots:





Date: 28.MAY.2026 21:54:03



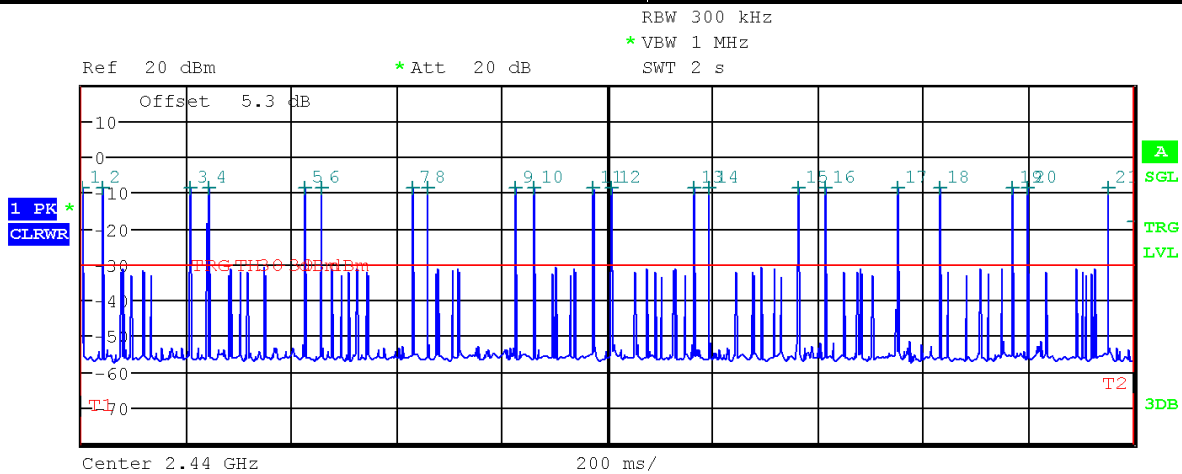


Date: 28.MAY.2026 21:58:06

Plot #3 Transmission on Time in Observation Period > (31.6 s)

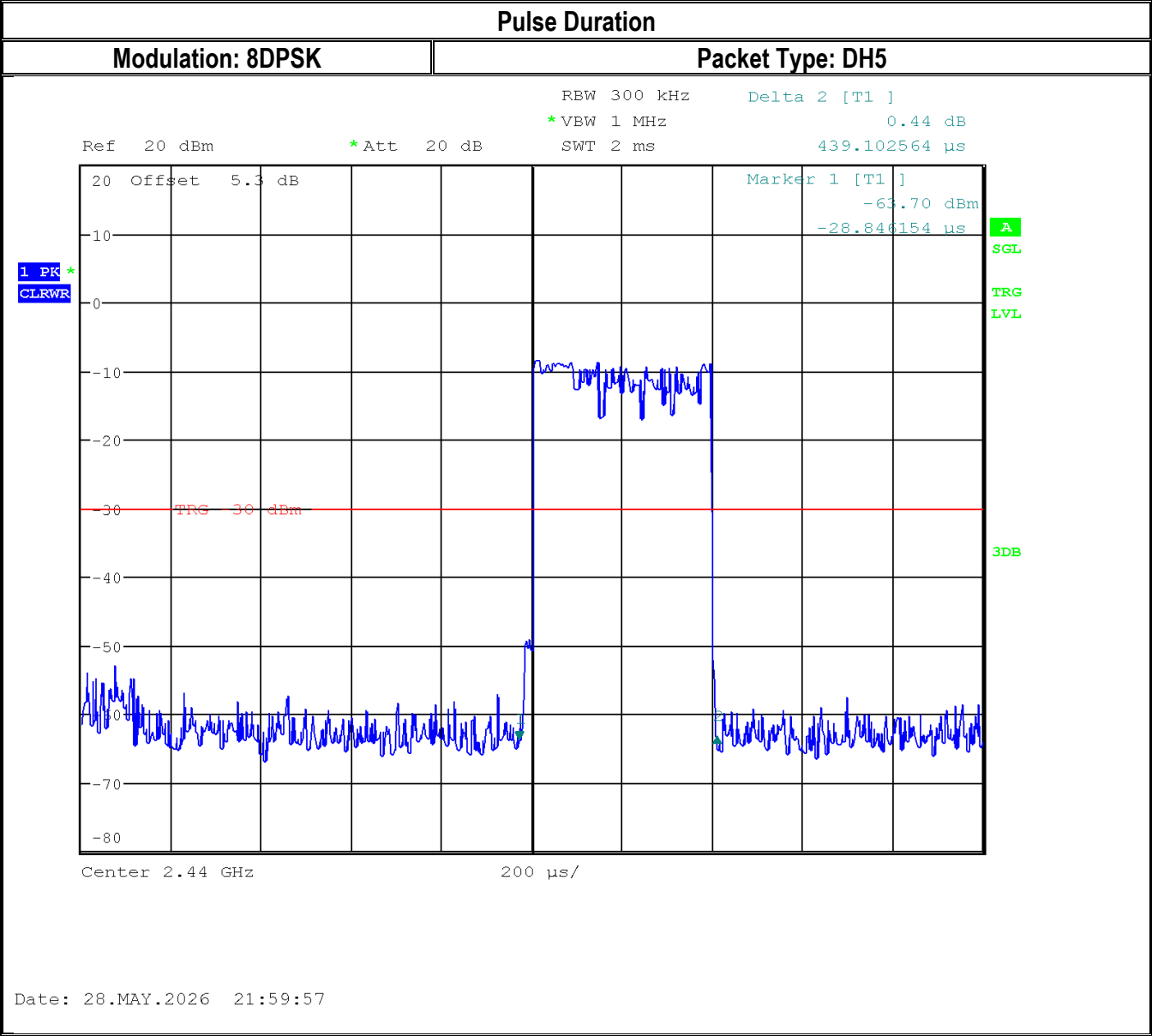
Modulation: 8DPSK

Packet Type: DH5



#	Time	Level	#	Time	Level
1	0.000000 s	-8.95 dBm	13	1.163462 s	-8.91 dBm
2	38.461538 ms	-8.89 dBm	14	1.192308 s	-8.93 dBm
3	205.128205 ms	-8.91 dBm	15	1.362179 s	-8.89 dBm
4	240.384615 ms	-8.88 dBm	16	1.413462 s	-8.89 dBm
5	423.076923 ms	-8.90 dBm	17	1.551282 s	-8.90 dBm
6	455.128205 ms	-8.91 dBm	18	1.631410 s	-8.89 dBm
7	628.205128 ms	-8.88 dBm	19	1.769231 s	-8.92 dBm
8	657.051282 ms	-8.88 dBm	20	1.798077 s	-8.90 dBm
9	823.717949 ms	-8.88 dBm	21	1.951923 s	-8.89 dBm
10	858.974359 ms	-8.88 dBm	22	2.000000 s	-18.22 dBm
11	971.153846 ms	-8.89 dBm			
12	1.006410 s	-8.89 dBm			

Date: 29.MAY.2026 11:47:18



8.7 Transmitter Spurious Emissions and Restricted Bands

8.7.1 Measurement according to ANSI C63.10

Analyzer Settings:

- Frequency = 9 KHz – 30 MHz
- RBW = 9 KHz
- Detector = Peak

- Frequency = 30 MHz – 1 GHz
- Detector = Peak / Quasi-Peak
- RBW = 120 KHz (<1 GHz)

- Frequency > 1 GHz
- Detector = Peak / Average
- RBW = 1MHz

- Radiated spurious emissions shall be measured for the transmit frequencies, transmit power, and data rate for the lowest, middle and highest channel in each frequency band of operation and for the highest gain antenna for each antenna type, and using the appropriate parameters and test requirements.
- The highest (or worst-case) data rate shall be recorded for each measurement.
- For testing frequencies below 30 MHz at distance other than the specified in the standard, the limit conversion is calculated by using the FCC materials for the ANSI 63 committee issued on January, 27 1991.

8.7.2 Limits: FCC 15.247(d)/15.209(a) /RSS-Gen 6.13

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
10.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			

- Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).
- PEAK LIMIT= 74dB μ V/m
- AVG. LIMIT= 54dB μ V/m
- Except as shown in CFR 47 Part 15.205 paragraph (d), only spurious emissions are permitted in any of the frequency bands listed below

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (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
Above 960	500	3

8.7.3 Test conditions and setup:

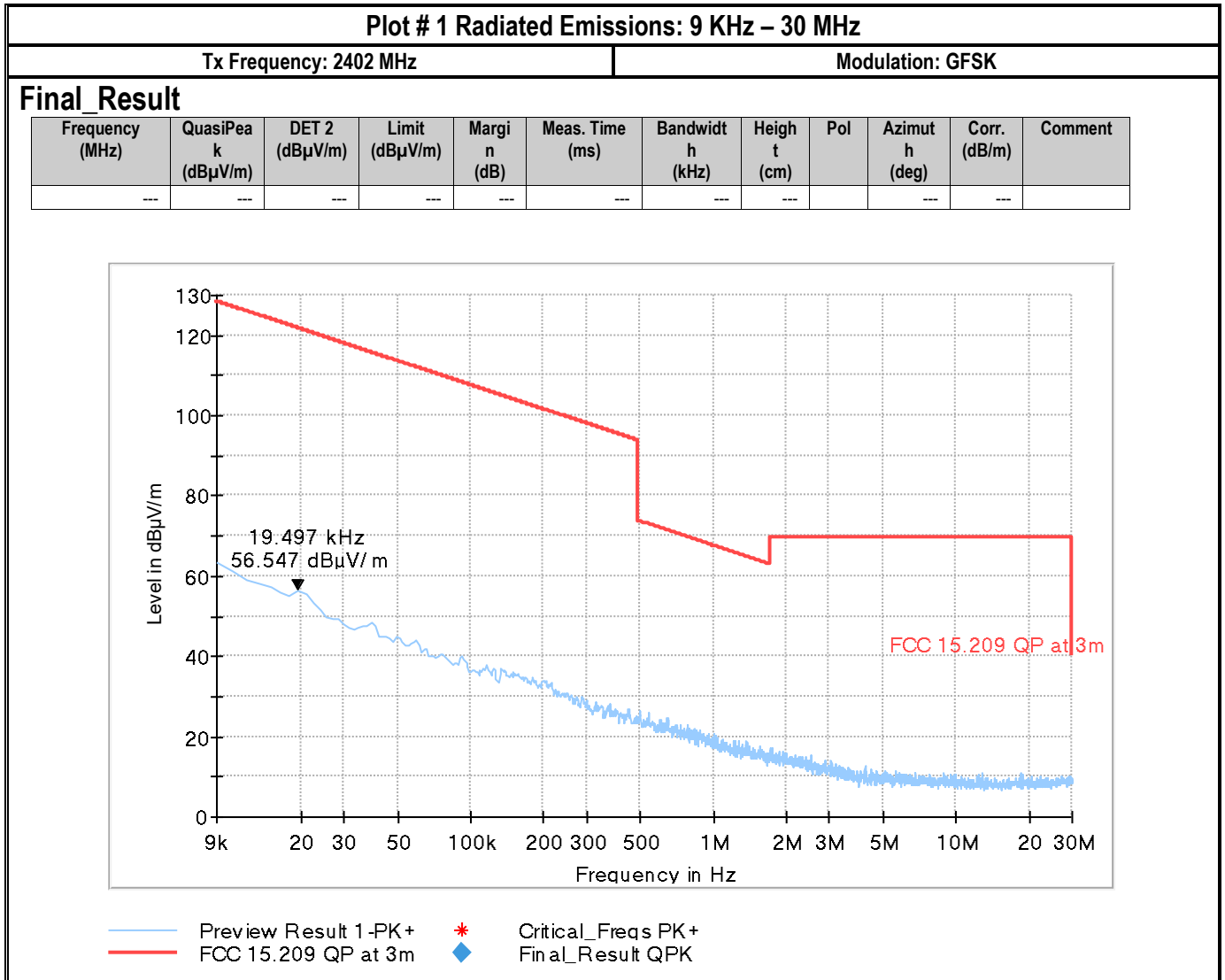
Ambient Temperature	EUT Set-Up #	EUT operating mode	Power Input
23° C	1,2	1,2	120 Vac

8.7.4 Measurement result:

Plot #	Channel #	Scan Frequency	Lowest Margin Emission (dB μ V/m)	Limit	Result
1-5	Low	9 kHz – 26 GHz	55.41	See section 8.7.2	Pass
6-10	Mid	9 kHz – 26 GHz	59.89	See section 8.7.2	Pass
11-15	High	9 kHz – 26 GHz	54.53	See section 8.7.2	Pass
16-20	Mid	9 kHz – 26 GHz	60.42	See section 8.7.2	Pass

Note: Plots #16–#20 correspond to EUT Setup #2 and are included as additional test data to perform a spot check and evaluate potential differences in product similarity.

8.7.5 Measurement Plots:



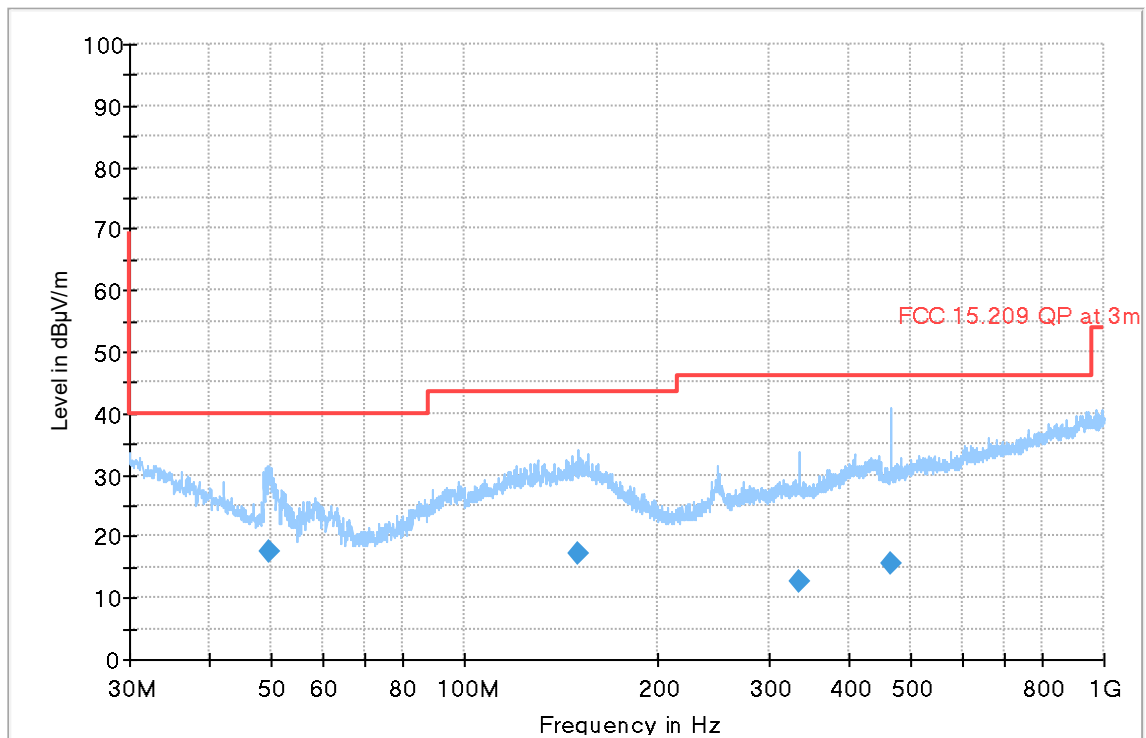
Plot # 2 Radiated Emissions: 30 – 1000MHz

Tx Frequency: 2402 MHz

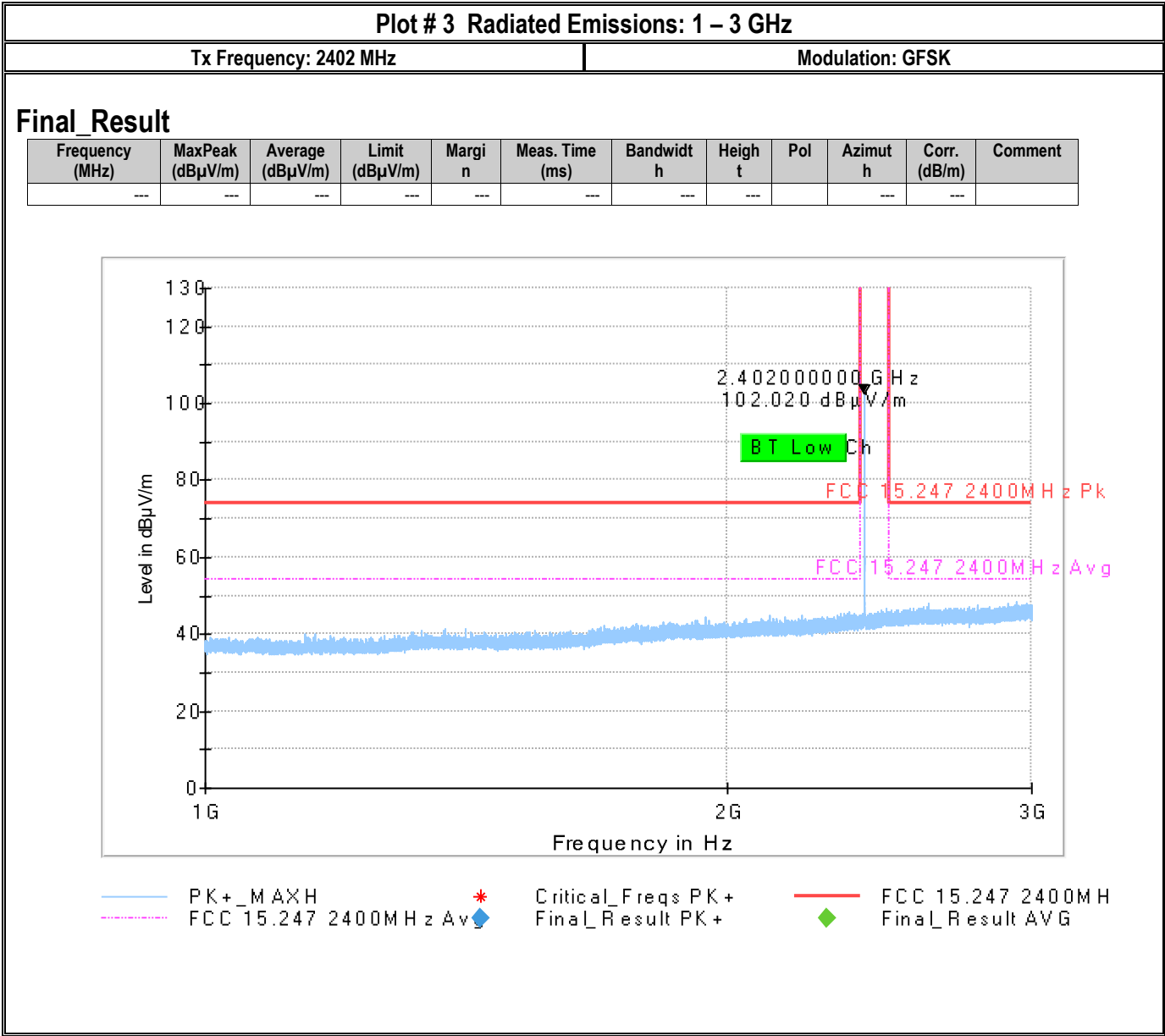
Modulation: GFSK

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	DET 2 (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Comment
49.40	17.47	---	40.00	22.53	500.0	120.0	233.0	V	152.0	-19.7	
150.57	17.35	---	43.50	26.15	500.0	120.0	203.0	V	58.0	-7.5	
334.00	12.67	---	46.02	33.35	500.0	120.0	170.0	V	308.0	-12.3	
464.80	15.58	---	46.02	30.44	500.0	120.0	335.0	H	325.0	-8.9	



Preview Result 1-PK+ FCC 15.209 QP at 3m Final_Result QPK



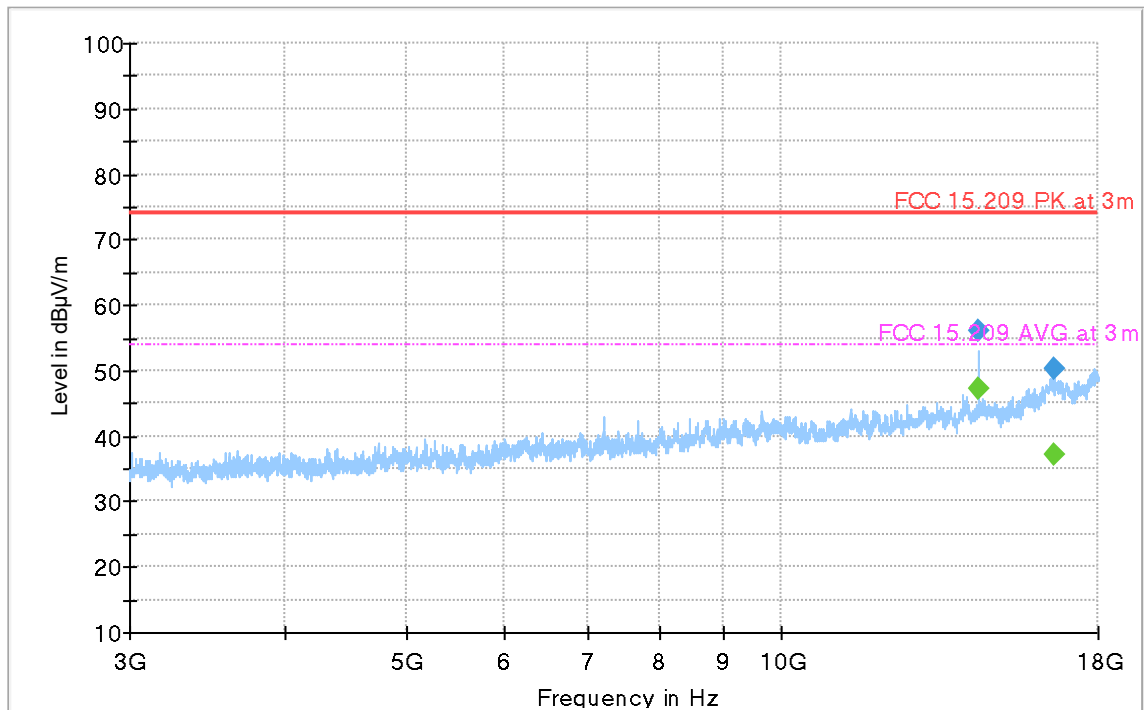
Plot # 4 Radiated Emissions: 3 - 18 GHz

Tx Frequency: 2402 MHz

Modulation: GFSK

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth (Hz)	Height (dB)	Pol	Azimuth (°)	Corr. (dB/m)	Comment
14411.54	56.04	---	73.98	17.94	500.0	1000.0	133.0	H	189.0	8.5	
14411.54	---	47.36	53.98	6.62	500.0	1000.0	133.0	H	189.0	8.5	
16620.92	50.31	---	73.98	23.67	500.0	1000.0	258.0	H	8.0	14.2	
16620.92	---	37.07	53.98	16.91	500.0	1000.0	258.0	H	8.0	14.2	



Preview Result 1-PK+ Final_Result PK+ FCC 15.209 PK at 3m Final_Result AVG FCC 15.209 AVG at 3m

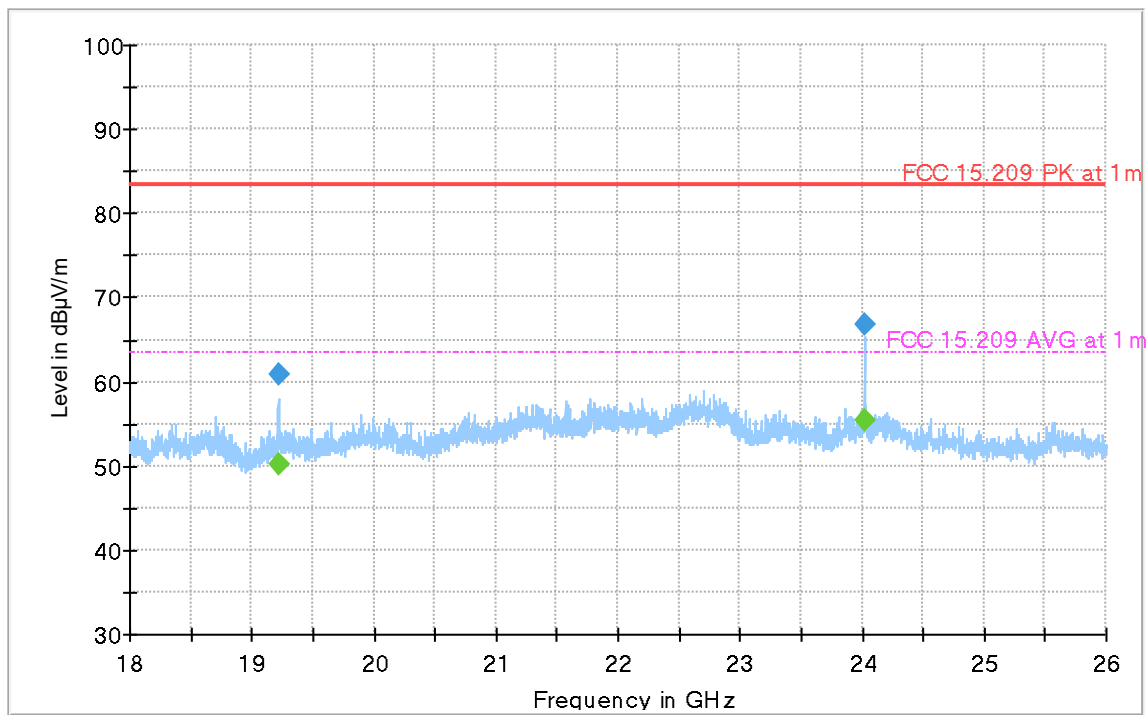
Plot # 5 Radiated Emissions: 18 - 26GHz

Tx Frequency: 2402 MHz

Modulation: GFSK

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Comment
19217.00	---	50.08	63.50	13.42	500.0	1000.0	140.0	H	298.0	15.7	
19217.00	60.85	---	83.50	22.65	500.0	1000.0	140.0	H	298.0	15.7	
24021.50	---	55.41	63.50	8.09	500.0	1000.0	140.0	V	321.0	19.2	
24021.50	66.71	---	83.50	16.79	500.0	1000.0	140.0	V	321.0	19.2	



Preview Result 1-PK+ Final_Result PK+ FCC 15.209 PK at 1m Final_Result AVG FCC 15.209 AVG at 1m

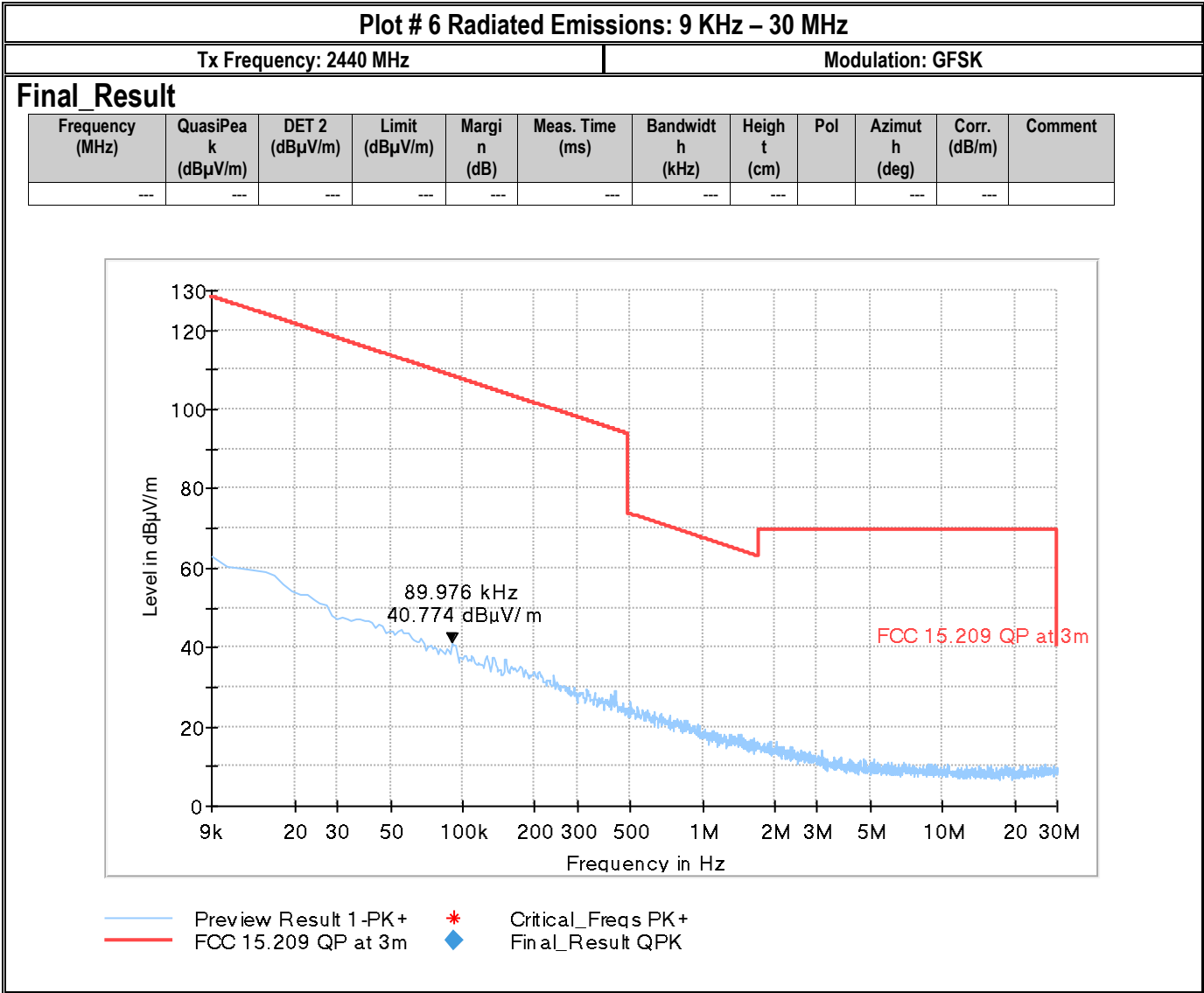
Note: Testing was performed at a measurement distance of 1 meter. The table below provides the corresponding correction factors used to extrapolate results to a 3-meter reference distance.

Example :

$$3m = 1m - 20\log_{10}(3)$$

$$20\log_{10}(3) = 9.542\text{dB}$$

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Corr. @3m (dB/m)
19217	---	40.54	54.0	13.42	25.24
19217	51.31	---	74.0	22.65	25.24
24021.5	---	45.87	54.0	8.09	28.74
24021.5	57.17	---	74.0	16.79	28.74



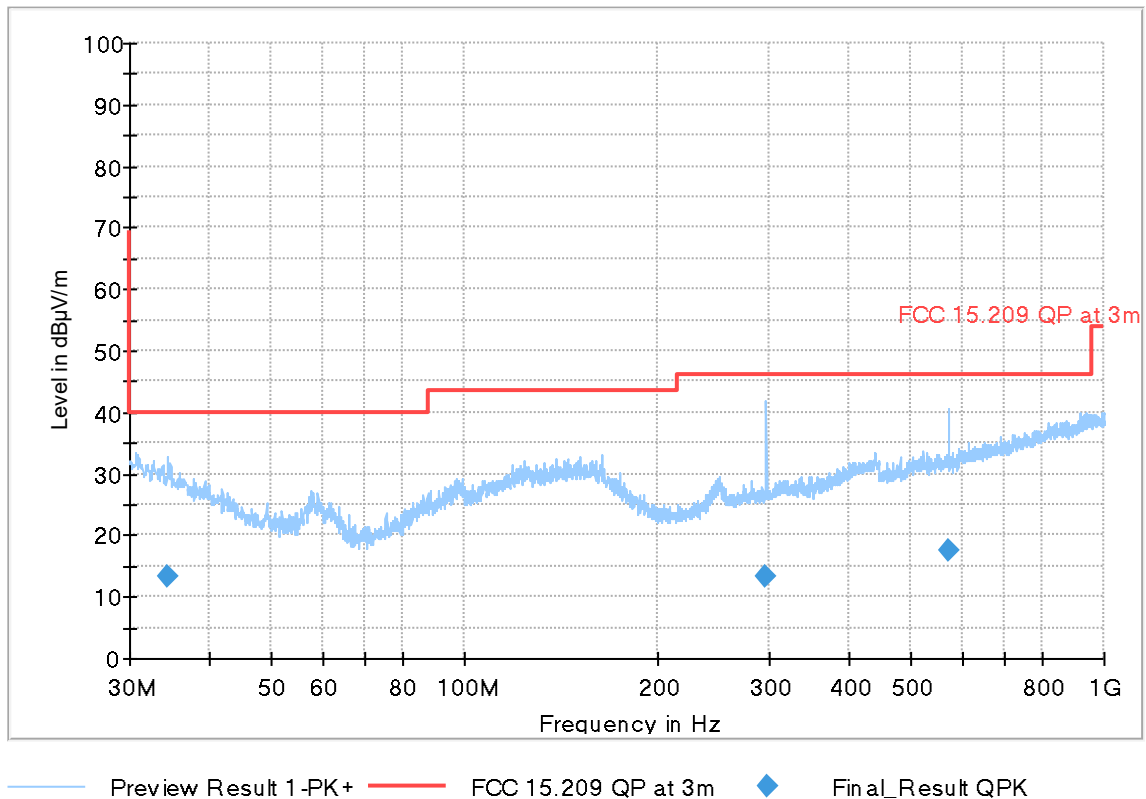
Plot # 7 Radiated Emissions: 30 – 1000MHz

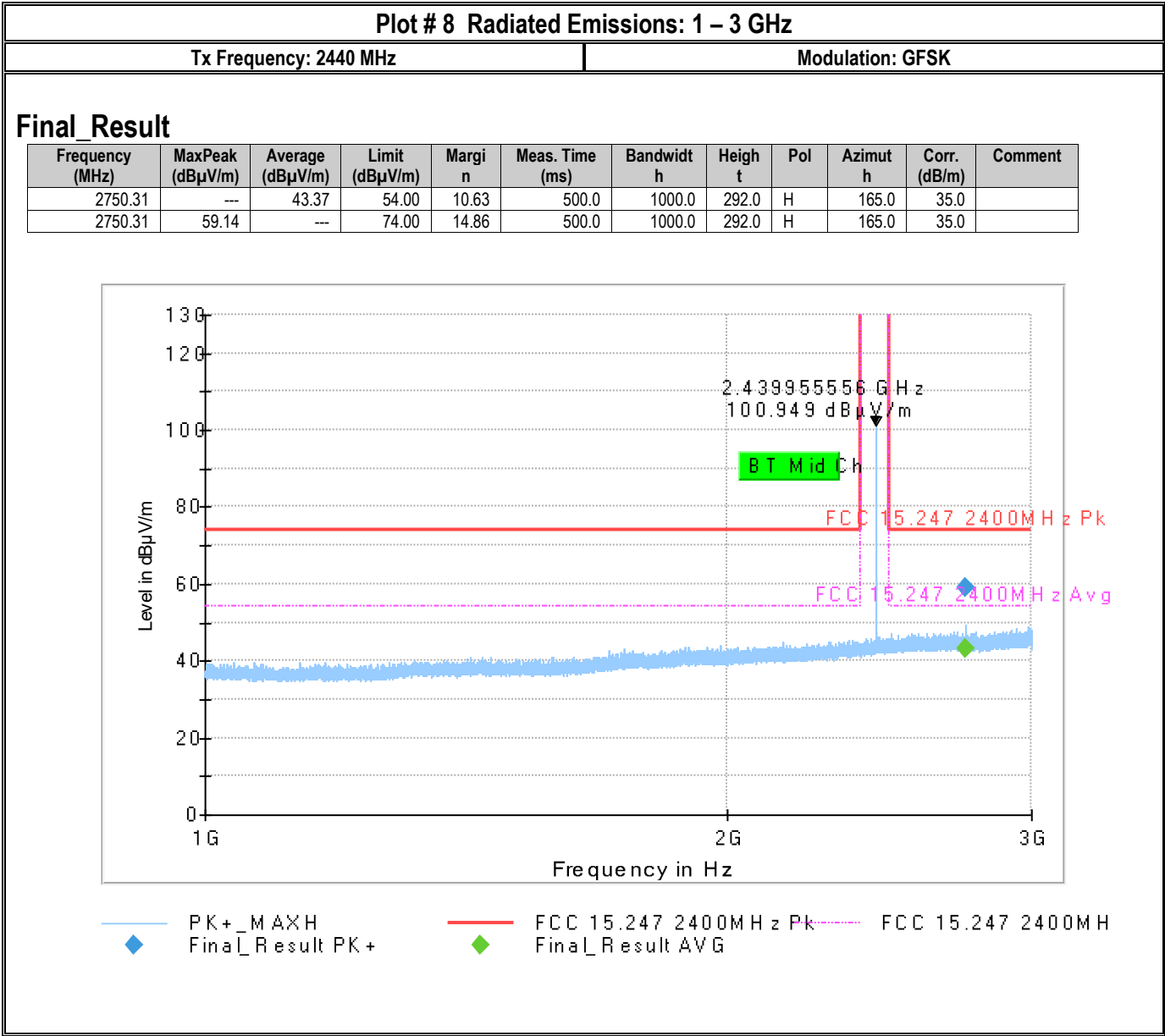
Tx Frequency: 2440 MHz

Modulation: GFSK

Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	DET 2 (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Comment
34.32	13.46	---	40.00	26.54	500.0	120.0	223.0	H	50.0	-11.3	
296.36	13.37	---	46.02	32.65	500.0	120.0	100.0	H	279.0	-12.3	
572.28	17.47	---	46.02	28.55	500.0	120.0	193.0	H	327.0	-6.9	





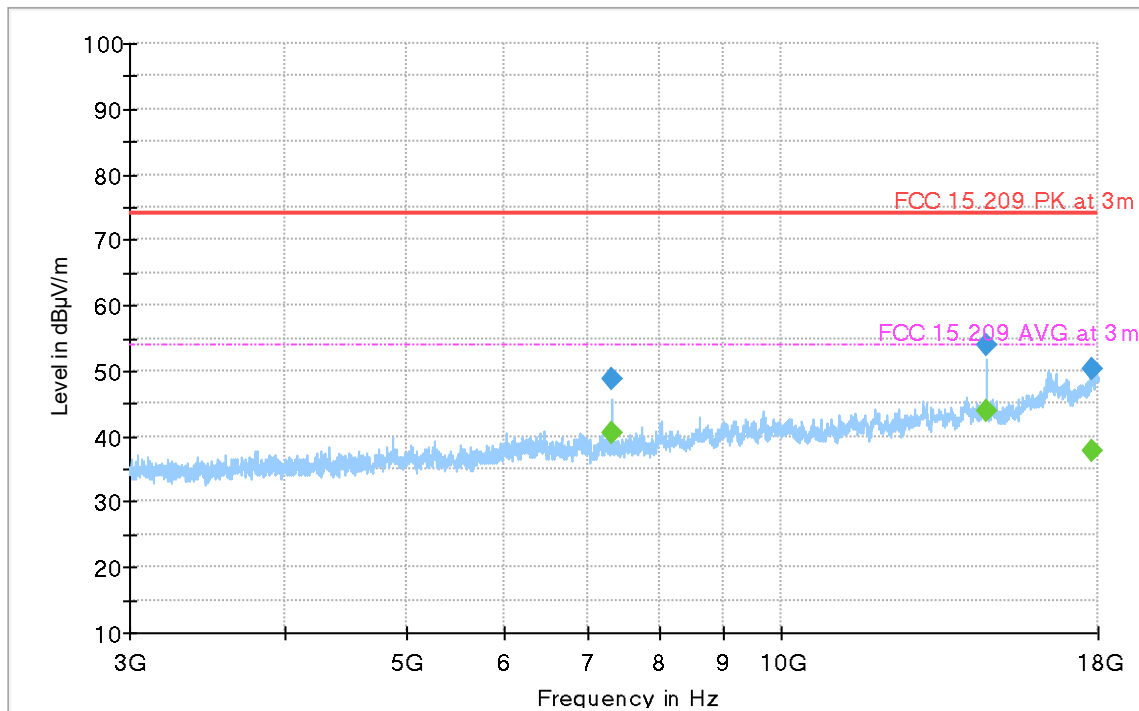
Plot # 9 Radiated Emissions: 3 - 18 GHz

Tx Frequency: 2440 MHz

Modulation: GFSK

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth	Height	Pol	Azimuth	Corr. (dB/m)	Comment
7319.54	---	40.54	53.98	13.44	500.0	1000.0	127.0	H	138.0	1.3	
7319.54	48.75	---	73.98	25.23	500.0	1000.0	127.0	H	138.0	1.3	
14640.92	54.00	---	73.98	19.98	500.0	1000.0	127.0	H	191.0	8.5	
14640.92	---	43.99	53.98	9.98	500.0	1000.0	127.0	H	191.0	8.5	
17804.31	50.33	---	73.98	23.65	500.0	1000.0	202.0	H	212.0	16.5	
17804.31	---	37.68	53.98	16.30	500.0	1000.0	202.0	H	212.0	16.5	



Preview Result 1-PK+ Final_Result PK+ FCC 15.209 PK at 3m Final_Result AVG FCC 15.209 AVG at 3m

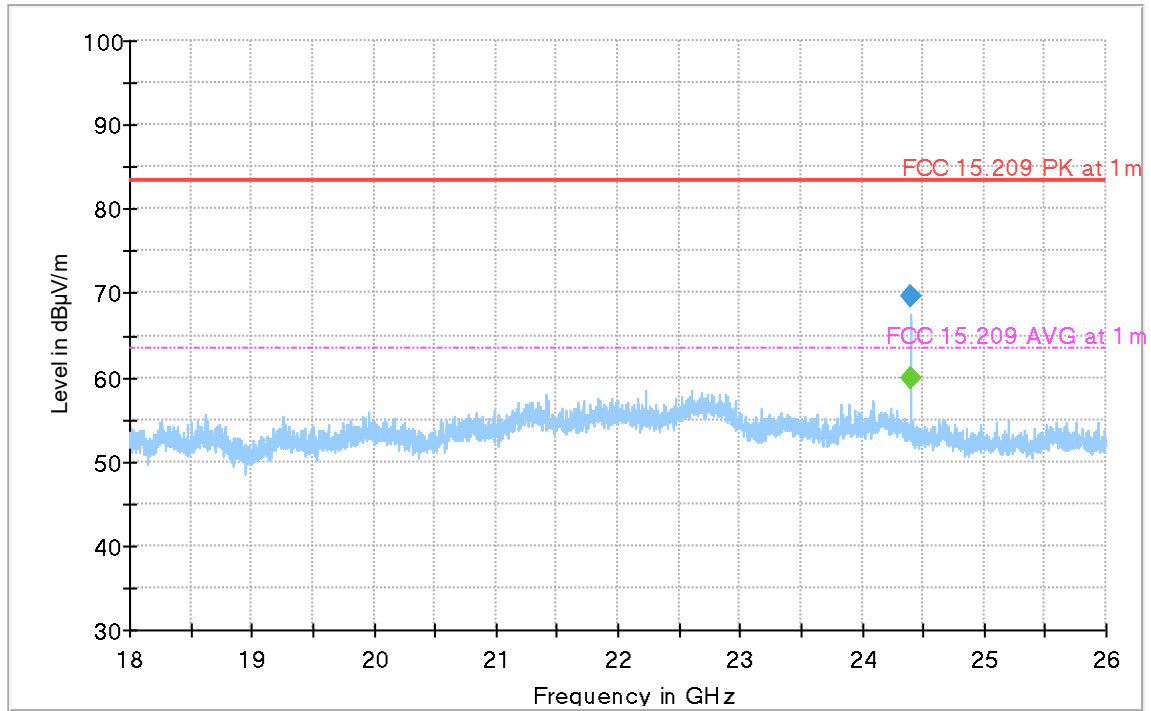
Plot # 10 Radiated Emissions: 18 - 26GHz

Tx Frequency: 2440 MHz

Modulation: GFSK

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Comment
24401.50	---	59.89	63.50	3.61	500.0	1000.0	140.0	H	324.0	17.9	
24401.50	69.51	---	83.50	13.99	500.0	1000.0	140.0	H	324.0	17.9	



Preview Result 1-PK+ Final_Result PK+ FCC 15.209 PK at 1m Final_Result AVG FCC 15.209 AVG at 1m

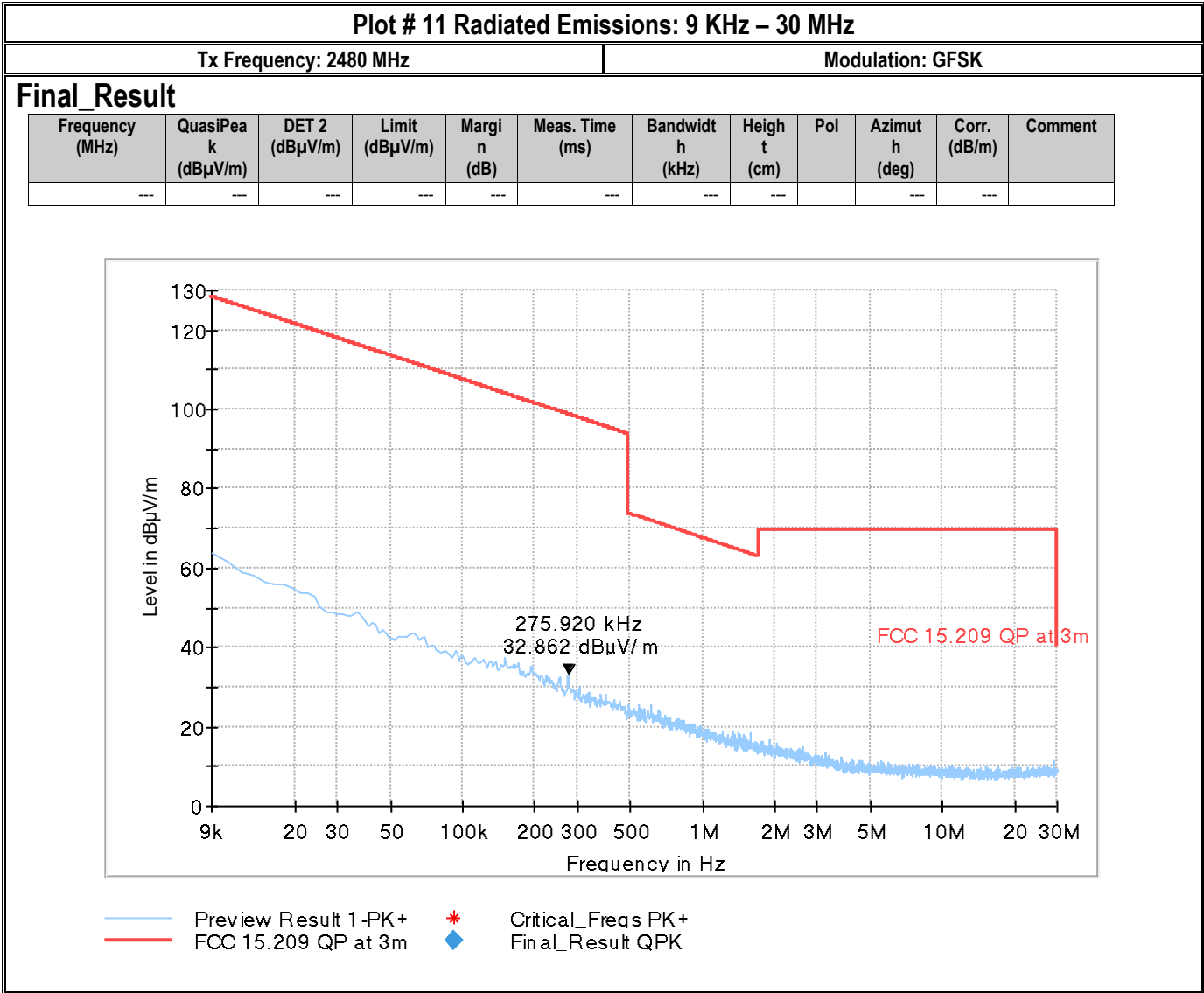
Note: Testing was performed at a measurement distance of 1 meter. The table below provides the corresponding correction factors used to extrapolate results to a 3-meter reference distance.

Example :

$$3m = 1m - 20\log_{10}(3)$$

$$20\log_{10}(3) = 9.542\text{dB}$$

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Corr. @ 3m (dB/m)
24401.50	---	50.35	54.0	3.61	27.44
24401.50	59.97	---	74.0	13.99	27.44



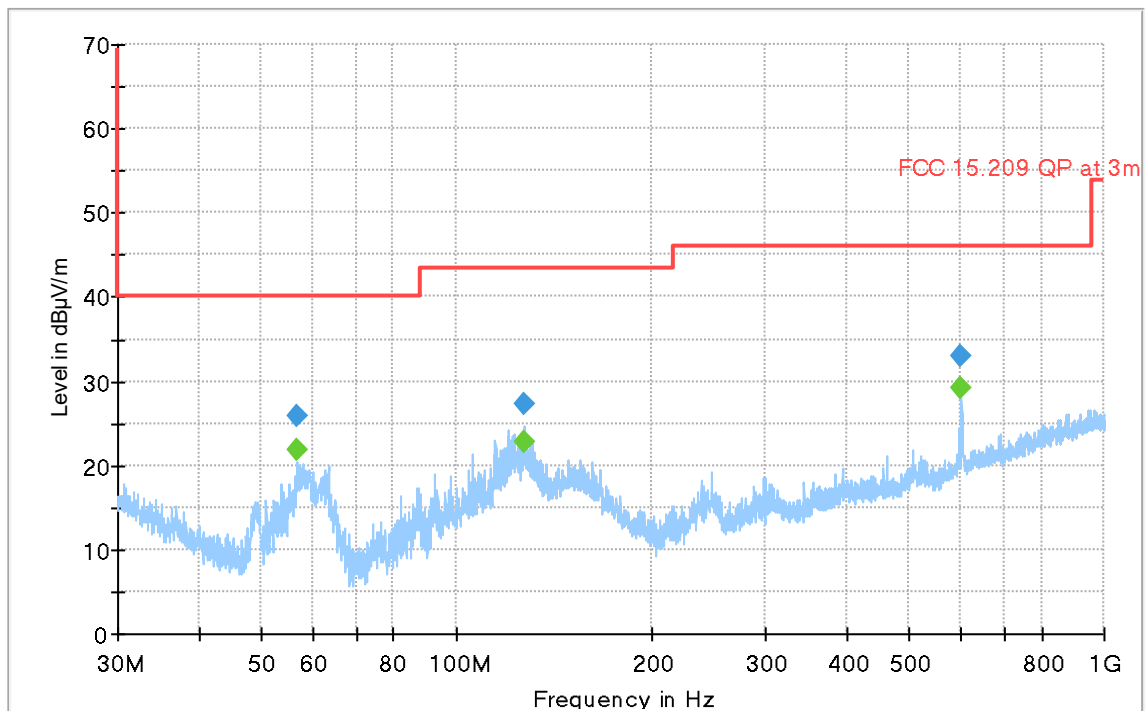
Plot # 12 Radiated Emissions: 30 – 1000MHz

Tx Frequency: 2480 MHz

Modulation: GFSK

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Comment
56.84	25.89	---	40.00	14.11	500.0	120.0	100.0	V	45.0	-21.5	
56.84	---	21.74	---	---	500.0	120.0	100.0	V	45.0	-21.5	
127.56	27.30	---	43.50	16.20	500.0	120.0	108.0	V	249.0	-9.5	
127.56	---	22.74	---	---	500.0	120.0	108.0	V	249.0	-9.5	
602.30	---	29.23	---	---	500.0	120.0	100.0	H	31.0	-6.1	
602.30	33.10	---	46.02	12.92	500.0	120.0	100.0	H	31.0	-6.1	



Preview Result 1-PK+ Final_Result PK+ FCC 15.209 QP at 3m Final_Result QPK

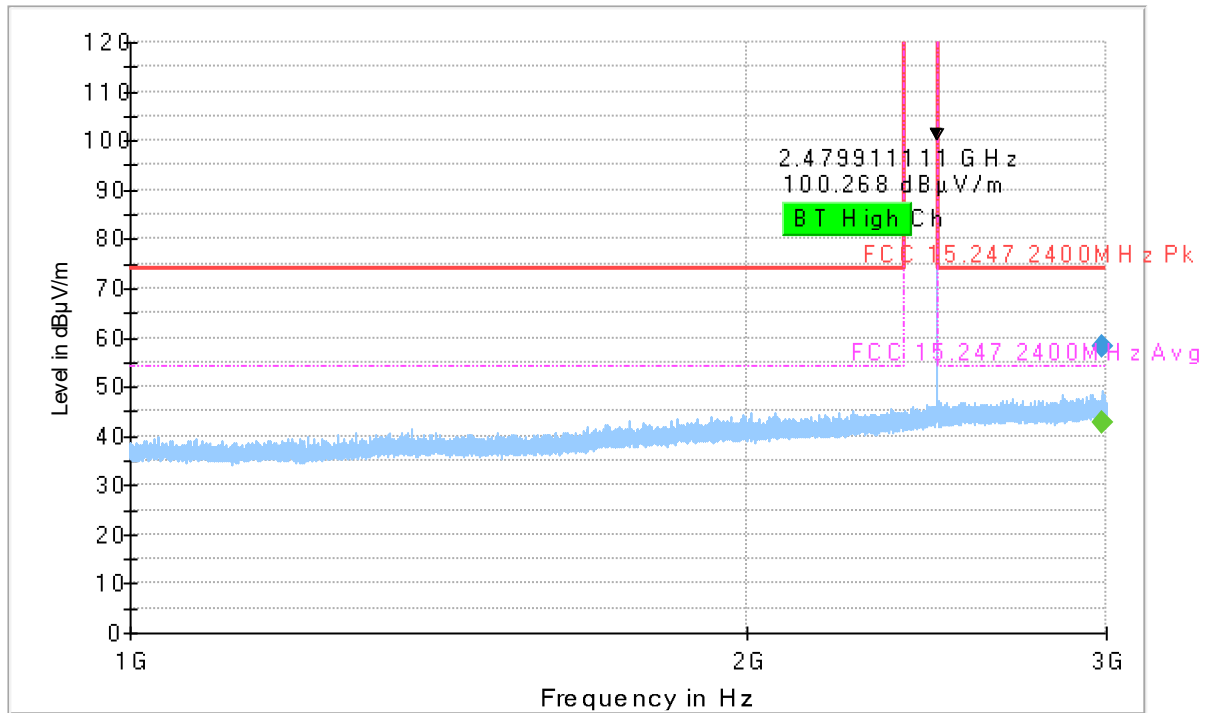
Plot # 13 Radiated Emissions: 1 – 3 GHz

Tx Frequency: 2480 MHz

Modulation: GFSK

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth (kHz)	Height	Pol	Azimuth	Corr. (dB/m)	Comment
2989.47	---	42.60	54.00	11.40	500.0	1000.0	275.0	H	214.0	35.9	
2989.47	58.06	---	74.00	15.94	500.0	1000.0	275.0	H	214.0	35.9	

◆ PK+_MAXH
Final Result PK+◆ FCC 15.247 2400 MHz Pk
Final Result AVG

FCC 15.247 2400 MHz

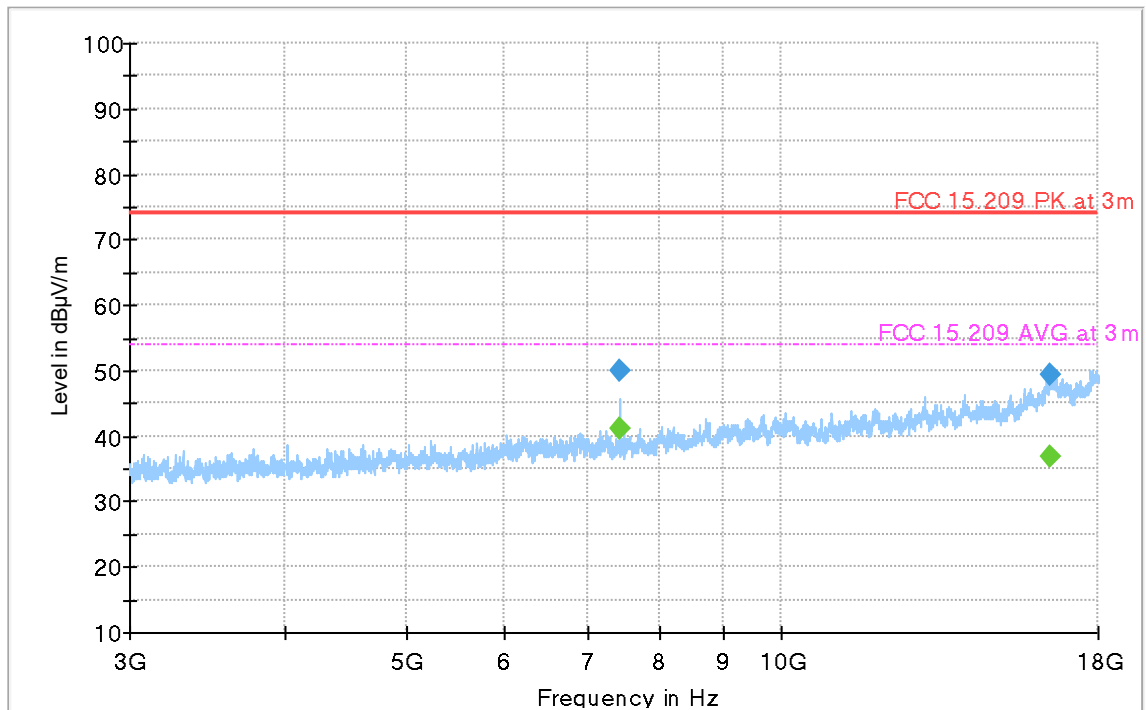
Plot # 14 Radiated Emissions: 3 - 18 GHz

Tx Frequency: 2480 MHz

Modulation: GFSK

Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth (Hz)	Height (m)	Pol	Azimuth (°)	Corr. (dB/m)	Comment
7440.46	---	41.22	53.98	12.76	500.0	1000.0	176.0	H	140.0	1.5	
7440.46	49.99	---	73.98	23.99	500.0	1000.0	176.0	H	140.0	1.5	
16469.54	---	36.72	53.98	17.26	500.0	1000.0	115.0	V	357.0	14.0	
16469.54	49.22	---	73.98	24.76	500.0	1000.0	115.0	V	357.0	14.0	



Preview Result 1-PK+ Final_Result PK+ FCC 15.209 PK at 3m Final_Result AVG FCC 15.209 AVG at 3m

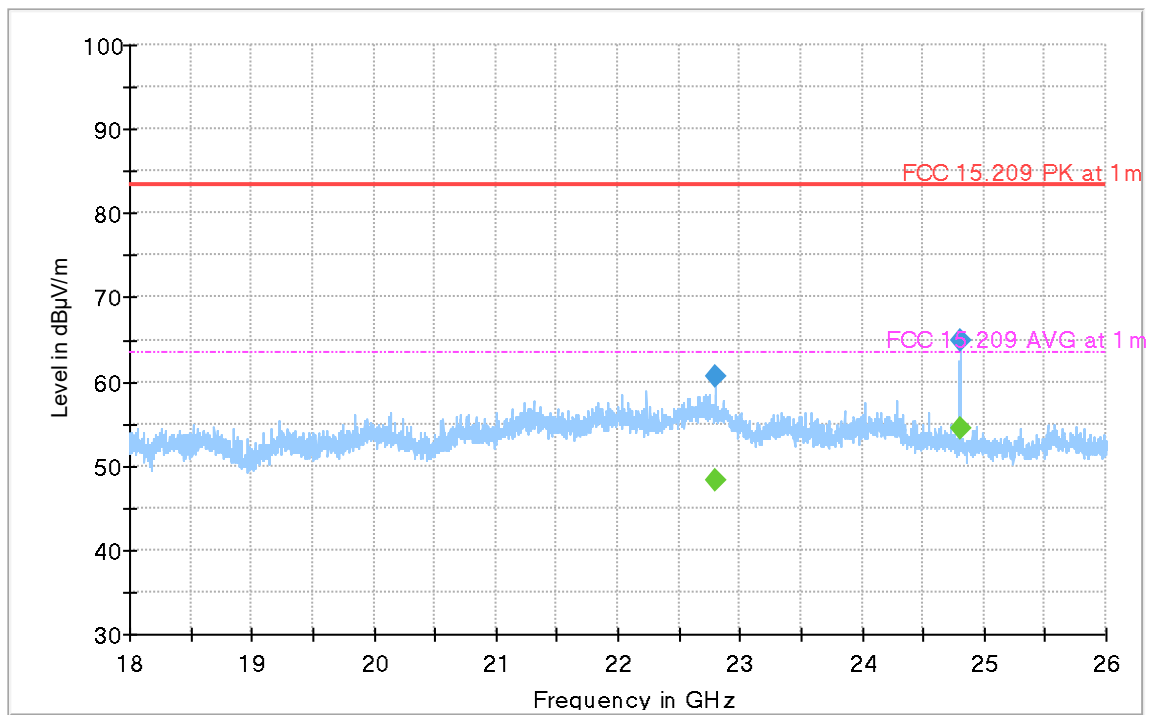
Plot # 15 Radiated Emissions: 18 - 26GHz

Tx Frequency: 2480 MHz

Modulation: GFSK

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Comment
22804.25	60.69	---	83.50	22.81	500.0	1000.0	140.0	V	65.0	21.0	
22804.25	---	48.21	63.50	15.29	500.0	1000.0	140.0	V	65.0	21.0	
24801.50	64.97	---	83.50	18.53	500.0	1000.0	140.0	H	124.0	17.0	
24801.50	---	54.53	63.50	8.97	500.0	1000.0	140.0	H	124.0	17.0	



Preview Result 1-PK+ Final_Result PK+ FCC 15.209 PK at 1m FCC 15.209 AVG at 1m
Final_Result AVG

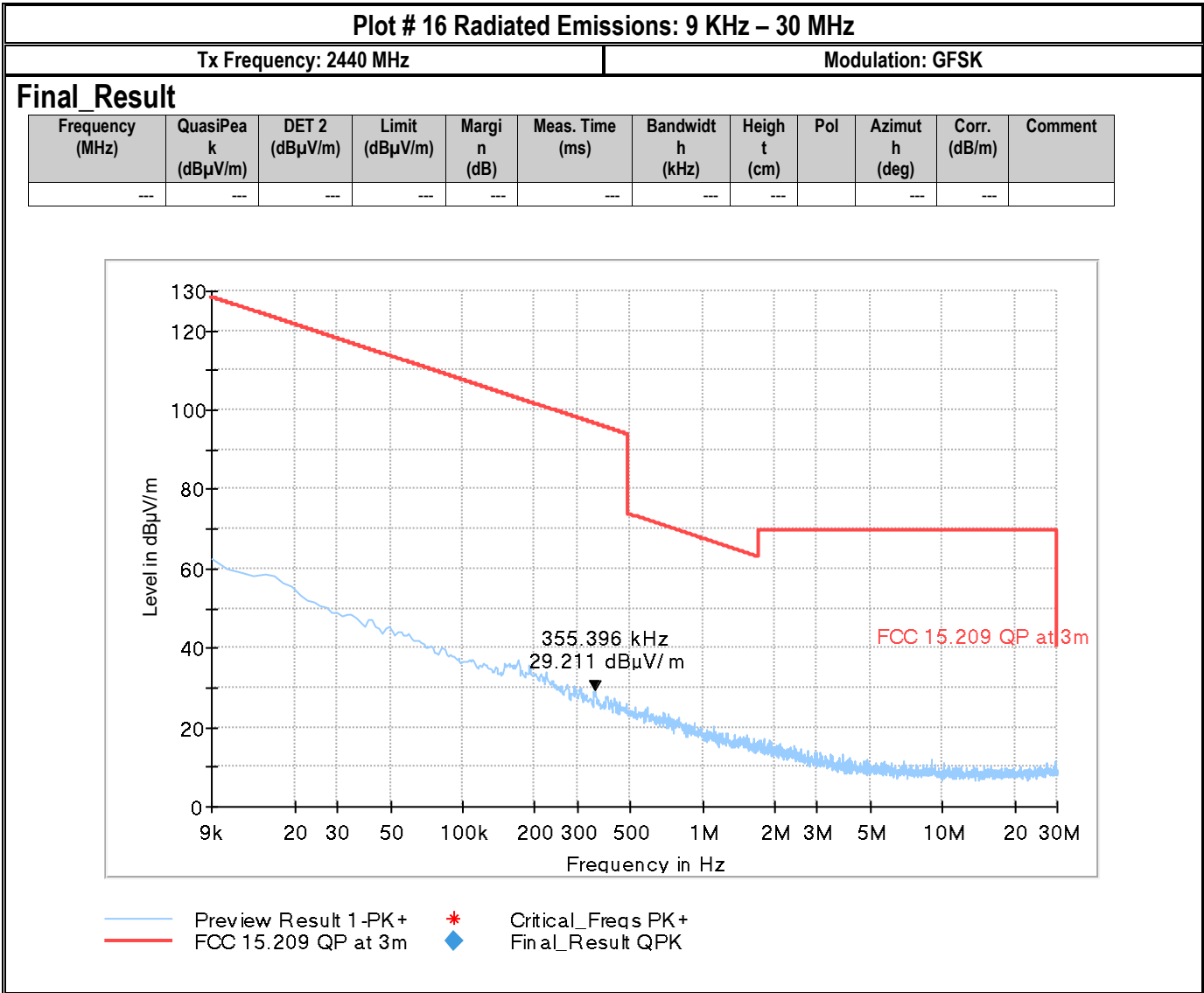
Note: Testing was performed at a measurement distance of 1 meter. The table below provides the corresponding correction factors used to extrapolate results to a 3-meter reference distance.

Example :

$$3m = 1m - 20 \log_{10}(3)$$

$$20 \log_{10}(3) = 9.542 \text{ dB}$$

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Corr. @ 3m (dB/m)
22804.25	51.15	---	74.0	22.81	30.54
22804.25	---	38.67	54.0	15.29	30.54
24801.50	55.43	---	74.0	18.53	26.54
24801.50	---	44.99	54.0	8.97	26.54



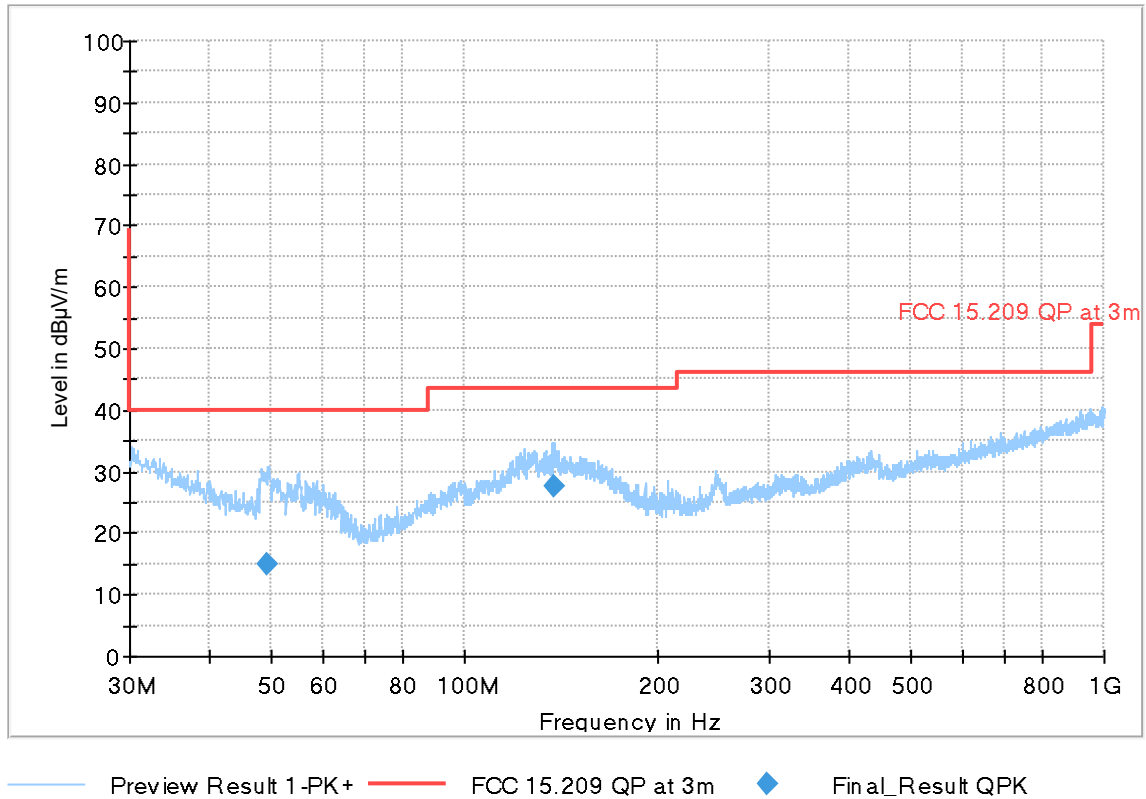
Plot # 17 Radiated Emissions: 30 – 1000MHz

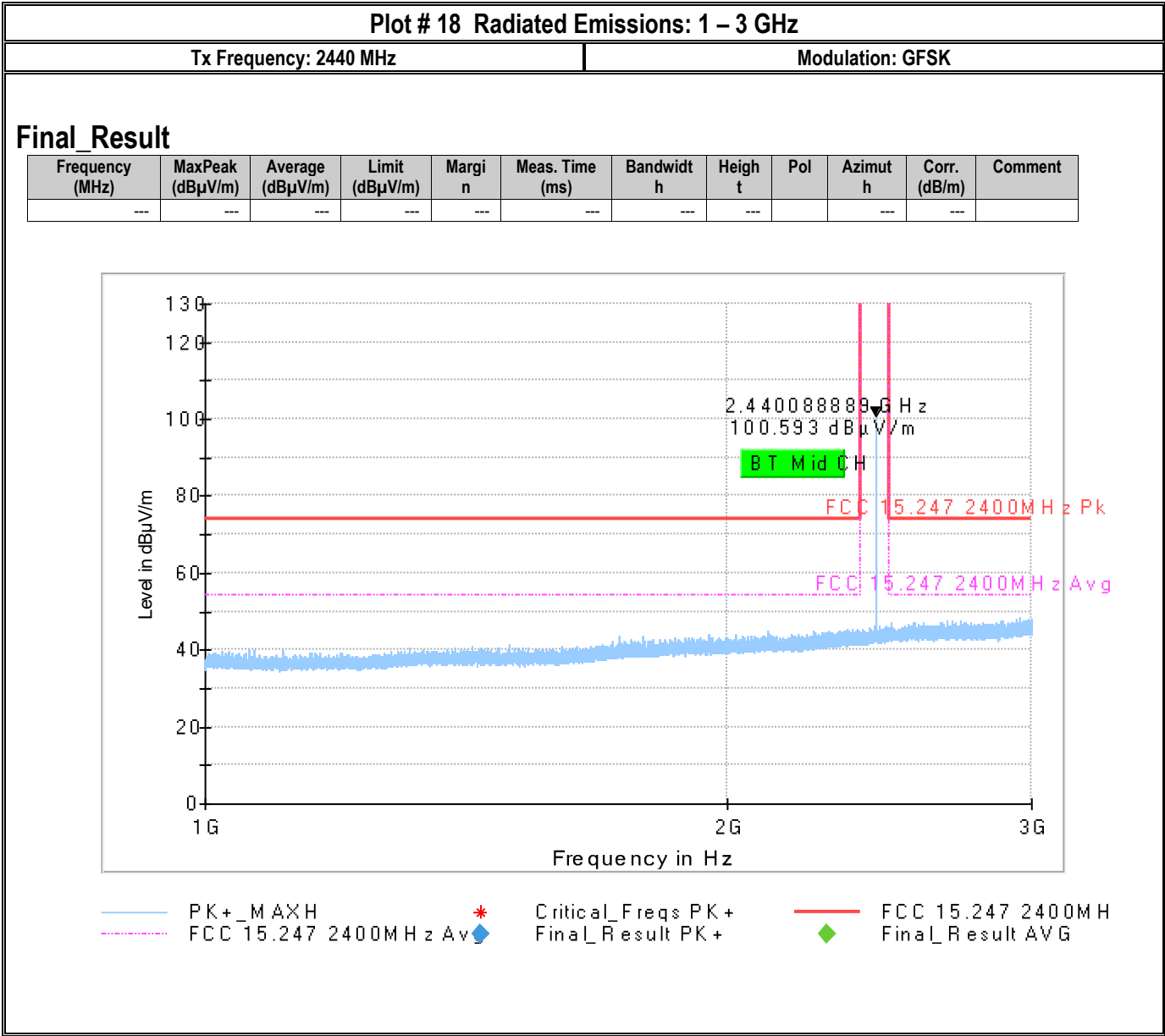
Tx Frequency: 2440 MHz

Modulation: GFSK

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	DET 2 (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Comment
49.35	14.94	---	40.00	25.06	500.0	120.0	103.0	V	154.0	-19.7	
138.20	27.63	---	43.50	15.87	500.0	120.0	135.0	V	317.0	-8.4	





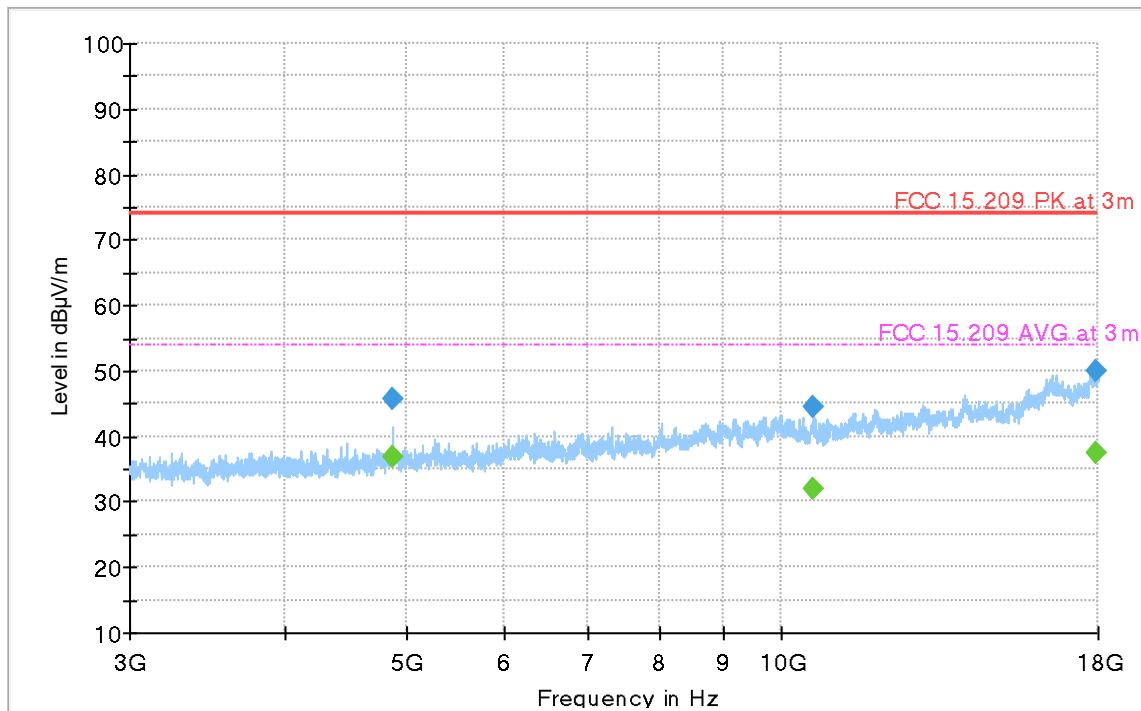
Plot # 19 Radiated Emissions: 3 - 18 GHz

Tx Frequency: 2440 MHz

Modulation: GFSK

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth (Hz)	Height (dBμV/m)	Pol	Azimuth (°)	Corr. (dB/m)	Comment
4879.62	---	36.79	53.98	17.19	500.0	1000.0	216.0	H	273.0	-2.0	
4879.62	45.69	---	73.98	28.29	500.0	1000.0	216.0	H	273.0	-2.0	
10641.23	44.56	---	73.98	29.42	500.0	1000.0	115.0	V	206.0	4.7	
10641.23	---	31.91	53.98	22.07	500.0	1000.0	115.0	V	206.0	4.7	
17917.62	49.84	---	73.98	24.13	500.0	1000.0	268.0	H	300.0	17.6	
17917.62	---	37.57	53.98	16.41	500.0	1000.0	268.0	H	300.0	17.6	



Preview Result 1-PK+ Final Result PK+ FCC 15.209 PK at 3m Final Result AVG FCC 15.209 AVG at 3m

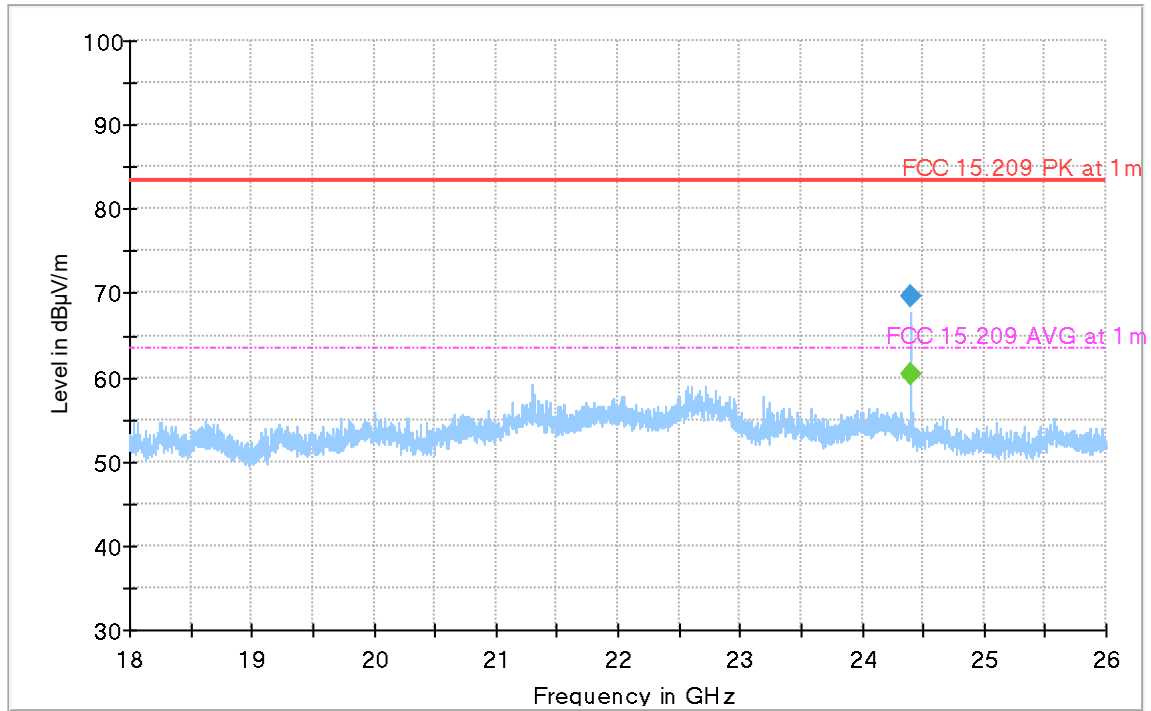
Plot # 20 Radiated Emissions: 18 - 26GHz

Tx Frequency: 2440 MHz

Modulation: GFSK

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Comment
24401.50	---	60.42	63.50	3.08	500.0	1000.0	140.0	H	337.0	17.9	
24401.50	69.65	---	83.50	13.85	500.0	1000.0	140.0	H	337.0	17.9	



◆ Preview Result 1-PK+ Final_Result PK+ ◆ FCC 15.209 PK at 1m Final_Result AVG

— FCC 15.209 PK at 1m - - - - - FCC 15.209 AVG at 1m

Note: Testing was performed at a measurement distance of 1 meter. The table below provides the corresponding correction factors used to extrapolate results to a 3-meter reference distance.

Example :

$$3m = 1m - 20\log_{10}(3)$$

$$20\log_{10}(3) = 9.542\text{dB}$$

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Corr. @ 3m (dB/m)
24401.5	---	50.88	54.0	3.08	27.44
24401.5	60.11	---	74.0	13.85	27.44

8.8 AC Power Line Conducted Emissions

8.8.1 Measurement according to ANSI C63.4

Analyzer Settings:

- RBW = 9 KHz (CISPR Bandwidth)
- Pre-scan Detector = Peak / Average for
- Final Measurements Detector = Quasi-Peak / Average

8.8.2 Limits: FCC 15.207 & RSS-Gen 8.8

(a) Except as shown in paragraphs (b) and (c) of this section of the CFR, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table (1), as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between frequency ranges.

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15–0.5	66 to 56*	56 to 46*
0.5–5	56	46
5–30	60	50

*Decreases with the logarithm of the frequency.

8.8.3 Test conditions and setup:

Ambient Temperature (C)	EUT Set-Up #	EUT operating mode	Power line (L1, L2, L3, N)	Power Input
22	1	1	Line & Neutral	120 V / 60 Hz

8.8.4 Measurement Result:

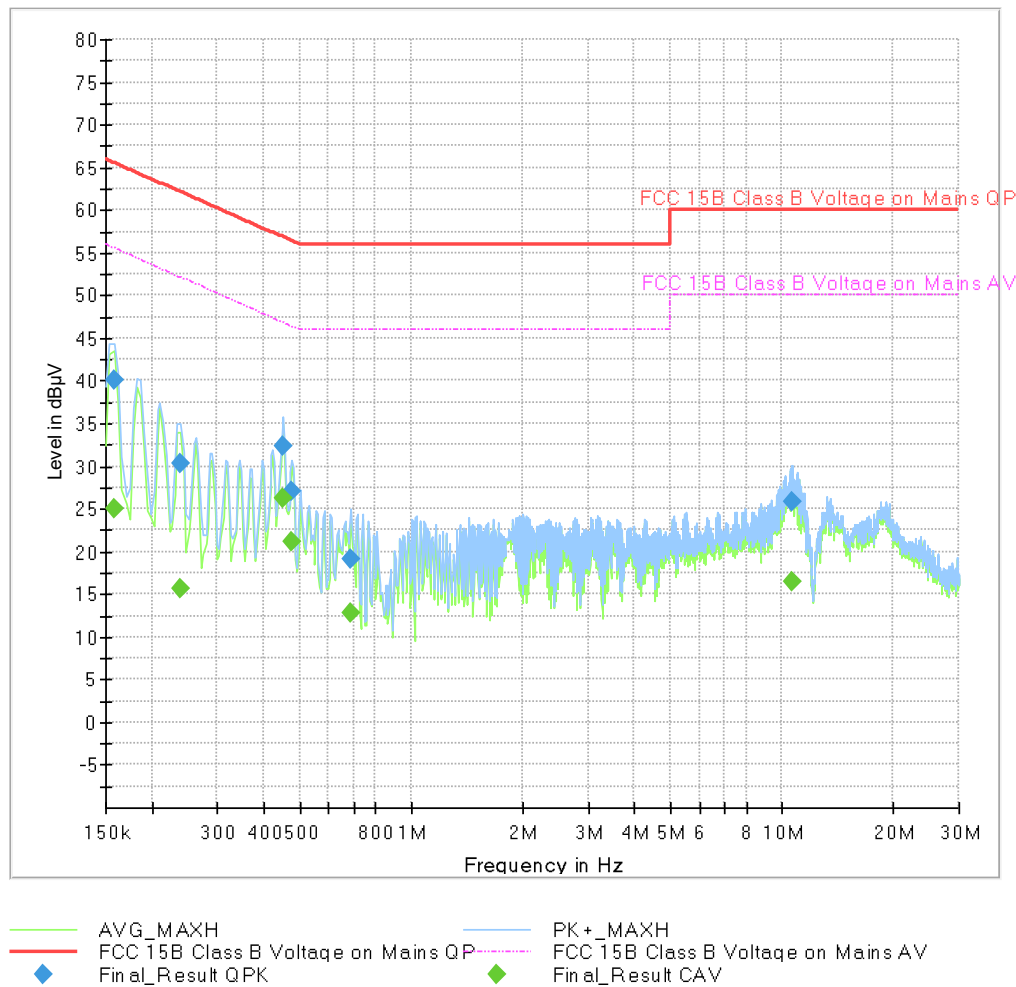
Plot #	Port	EUT Set-Up #	EUT operating mode	Scan Frequency	Limit	Result
1	AC Mains	1	GFSK continuous fixed channel	150 kHz – 30 MHz	See section 8.8.2	Pass

8.8.5 Measurement Plots:

Plot # 1 Conducted Emissions: 150kHz – 30MHz

Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margi n	Meas. Time (ms)	Bandwid th	Line	PE	Corr. (dB)
0.16	----	25.00	55.57	30.57	1000.0	9.0	L1	GND	10.1
0.16	40.04	---	65.57	25.52	1000.0	9.0	L1	GND	10.1
0.24	----	15.74	52.14	36.40	1000.0	9.0	L1	GND	10.0
0.24	30.24	---	62.14	31.90	1000.0	9.0	L1	GND	10.0
0.45	----	26.34	46.83	20.49	1000.0	9.0	L1	GND	9.9
0.45	32.34	---	56.83	24.49	1000.0	9.0	L1	GND	9.9
0.48	27.09	----	56.40	29.30	1000.0	9.0	L1	GND	9.9
0.48	----	21.08	46.40	25.32	1000.0	9.0	L1	GND	9.9
0.69	19.21	----	56.00	36.79	1000.0	9.0	L1	GND	9.9
0.69	----	12.78	46.00	33.22	1000.0	9.0	L1	GND	9.9
10.60	----	16.47	50.00	33.53	1000.0	9.0	L1	GND	10.0
10.60	25.76	----	60.00	34.24	1000.0	9.0	L1	GND	10.0



9 Test setup photos

Setup photos are included in supporting file name: "EMC_RSEME_041_25001_15_247_FHSS_Setup_Photos.pdf"

10 Test Equipment And Ancillaries Used For Testing

Equipment Type	Manufacturer	Model	Serial #	Calibration Cycle	Last Calibration Date
PASSIVE LOOP ANTENNA	ETS LINDGREN	6512	00049838	3 Years	09/18/2025
BILOG ANTENNA	A.H. SYSTEMS	BiLA2G	569	3 Years	09/08/2025
HORN ANTENNA	EMCO	3115	00035114	3 Years	09/04/2025
HORN ANTENNA	ETS.LINDGREN	3117	00215984	3 Years	09/22/2025
HORN ANTENNA	ETS LINDGREN	3116C-PA	00169535	3 Years	09/04/2025
TEST RECEIVER	R&S	ESW44	103143	2 Years	09/12/2024
Signal Analyzer	R&S	FSV40	101022	3 Years	09/30/2025
DIGITAL THERMOMETER	CONTROL COMPANY	4410,90080-03	230713059	3 Years	10/18/2023
PULSE LIMITER	R&S	ESH3-Z2	102473	3 Years	09/08/2025
LISN	FCC	FCC-LISN-50-25-2-08	08014	2 Years	09/08/2025
Multimeter	Fluke	115	56090717MV	3 Years	09/25/2025
Software	EMC32	Version 11.40.00	-	-	-

Equipment Type	Manufacturer	Model	Serial #	Calibration Cycle	Last Calibration Date
Spectrum Analyzer	ROHDE & SCHWARZ	FSU	200302	3 Years	12/18/2025
Power Meter and switch Module	ROHDE & SCHWARZ	OSP B157W8	100948	3 Years	01/08/2026
Digital Thermometer	Traceable	-	230713047	3 Years	5/4/2026
Software	WMS32	12.00.01	-	-	N/A
Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	1201.0002K50 109825	3 Years	10/1/2024
Power Splitter	Mini-Circuits	ZN2PD-63-S+	S UU81401626	N/A	N/A

Note: Equipment used meets the measurement uncertainty requirements as required per applicable standards for 95% confidence levels.

Calibration due dates, unless defined specifically, falls on the last day of the month. Items indicated "N/A" for cal status either do not specifically require calibration or is internally characterized before use.

11 Revision History

Date	Report Name	Changes to report	Prepared by
2026-06-10	EMC_RSEME_041_25001_FCC_15_247_FHSS	Initial Version	Art Thammanavarat
2026-07-07	EMC_RSEME_041_25001_FCC_15_247_FHSS_Rev1	Updated IC Section 3.3: Added Serial Number and Added note. Section 3.4: Added AC adaptor. Section 3.5: Added note. Section 8.4.5: Updated Plots Section 8.7.4: Added note. Section 8.7.5: Added note for above 18GHz. Section 10: Added Equipment lists.	Art Thammanavarat
2026-07-28	EMC_RSEME_041_25001_FCC_15_247_FHSS_Rev2	Updated Product Description.	Art Thammanavarat
2026-08-07	EMC_RSEME_041_25001_FCC_15_247_FHSS_Rev3	Section 4: Updated statement. Section 5: Updated table. Section 7.1: Updated. Section 7.3: Updated. Section 8.4.4: Updated table.	Art Thammanavarat

<<< The End >>>