



TEST REPORT

Product Name: Intelligent TFT instrument panel for motorcycles
FCC ID: 2BEZV-P14A
Trademark: N/A
Model Number: 351000—P14A
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Prepared By: Shenzhen CTB Testing Technology Co., Ltd.
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Sample Received Date: Dec. 13, 2023
Sample tested Date: Dec. 13, 2023 to Feb. 20, 2024
Issue Date: Feb. 20, 2024
Report No.: CTB240124015RF
Test Standards: FCC Part15.247
ANSI C63.10:2013
Test Results: PASS
Remark: This is Bluetooth radio test report.

Compiled by:

Reviewed by:

Approved by:

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Note: If there is any objection to the inspection results in this report, please submit a written report to the company within 15 days from the date of receiving the report. The test report is effective only with both signature and specialized stamp. This result(s) shown in this report refer only to the sample(s) tested. Without written approval of Shenzhen CTB Testing Technology Co., Ltd. this report can't be reproduced except in full. The tested sample(s) and the sample information are provided by the client. "*" indicates the testing items were fulfilled by subcontracted lab. "#" indicates the items are not in CNAS accreditation scope.

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(Note: N/A means not applicable)



1. VERSION

Report No.	Issue Date	Description	Approved
CTB240124015RF	Feb. 20, 2024	Original	Valid

2. TEST SUMMARY

The Product has been tested according to the following specifications:

Test Item	Test Requirement	Test method	Result
AC Power Line Conducted Emission	47 CFR Part 15 Subpart C Section 15.207	ANSI C63.10-2013	N/A
Radiated Spurious emissions	47 CFR Part 15 Subpart C Section 15.205/15.209	ANSI C63.10-2013	PASS
Band edge and RF Conducted Spurious Emissions	47 CFR Part 15 Subpart C Section 15.247(d)/15.205(a)	ANSI C63.10-2013	PASS
Conducted Peak Output Power	47 CFR Part 15 Subpart C Section 15.247 (b)(1)	ANSI C63.10-2013	PASS
20dB Occupied Bandwidth	47 CFR Part 15 Subpart C Section 15.247 (a)(1)	ANSI C63.10-2013	PASS
Carrier Frequencies Separation	47 CFR Part 15 Subpart C Section 15.247 (a)(1)	ANSI C63.10-2013	PASS
Hopping Channel Number	47 CFR Part 15 Subpart C Section 15.247 (b)	ANSI C63.10-2013	PASS
Dwell Time	47 CFR Part 15 Subpart C Section 15.247 (a)(1)	ANSI C63.10-2013	PASS
Pseudorandom Frequency Hopping Sequence	47 CFR Part 15 Subpart C Section 15.247(a)&TCB Exclusion List (7 July 2002)	ANSI C63.10-2013	PASS
Antenna Requirement	47 CFR Part 15 Subpart C Section 15.203/15.247 (b)	/	PASS
RF Exposure Evaluation	47 CFR Part 15 Subpart C Section 15.247 (i)/1.1310/2.1093	KDB447498D01v06	PASS

Remark:

Test according to ANSI C63.10-2013.

3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the Product as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Item	Uncertainty
Occupancy bandwidth	54.3kHz
Conducted output power Above 1G	0.9dB
Conducted output power below 1G	0.9dB
Power Spectral Density , Conduction	0.9dB
Conduction spurious emissions	2.0dB
Out of band emission	2.0dB
3m chamber Radiated spurious emission(9KHz-30MHz)	4.8dB
3m chamber Radiated spurious emission(30MHz-1GHz)	4.6dB
3m chamber Radiated spurious emission(1GHz-18GHz)	5.1dB
3m chamber Radiated spurious emission(18GHz-40GHz)	3.4dB
humidity uncertainty	5.5%
Temperature uncertainty	0.63°C
frequency	1×10 ⁻⁷
Conducted Emission (150KHz-30MHz)	3.2 dB
Radiated Emission(30MHz ~ 1000MHz)	4.8 dB
Radiated Emission(1GHz ~6GHz)	4.9 dB

4. PRODUCT INFORMATION AND TEST SETUP

4.1 Product Information

Model(s):	351000—P14A
Model Description:	N/A
Bluetooth Version:	Bluetooth 5.0
Hardware Version:	V1.1
Software Version:	V1.0
Operation Frequency:	Bluetooth: 2402-2480MHz
Max. RF output power:	Bluetooth: BW121 module: 5.554dBm QW850-1 module: 7.018dBm QW850-2 module: 4.678dBm
Type of Modulation:	Bluetooth: GFSK, $\pi/4$ DQPSK, 8DPSK
Antenna installation:	Bluetooth: Internal antenna
Antenna Gain:	BW121 module: 1.95dBi QW850-1 module: 4.98dBi QW850-2 module: 3.45dBi
Ratings:	DC 12V by battery

4.2 Test Setup Configuration

See test photographs attached in EUT TEST SETUP PHOTOGRAPHS for the actual connections between Product and support equipment.

4.3 Support Equipment

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
1	Battery	JUXIANG	6-QW-45(430)-C	/	/

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

4.4 Channel List

CH	Frequency (MHz)	CH	Frequency (MHz)	CH	Frequency (MHz)	CH	Frequency (MHz)
0	2402	1	2403	2	2404	3	2405
4	2406	5	2407	6	2408	7	2409
8	2410	9	2411	10	2412	11	2413
12	2414	13	2415	14	2416	15	2417
16	2418	17	2419	18	2420	19	2421
20	2422	21	2423	22	2424	23	2425
24	2426	25	2427	26	2428	27	2429
28	2430	29	2431	30	2432	31	2433
32	2434	33	2435	34	2436	35	2437
36	2438	37	2439	38	2440	39	2441
40	2442	41	2443	42	2444	43	2445
44	2446	45	2447	46	2448	47	2449
48	2450	49	2451	50	2452	51	2453
52	2454	53	2455	54	2456	55	2457
56	2458	57	2459	58	2460	59	2461
60	2462	61	2463	62	2464	63	2465
64	2466	65	2467	66	2468	67	2469
68	2470	69	2471	70	2472	71	2473
72	2474	73	2475	74	2476	75	2477
76	2478	77	2479	78	2480	79	/

4.5 Test Mode

All test mode(s) and condition(s) mentioned were considered and evaluated respectively by performing full tests, the worst data were recorded and reported.

Test mode	Low channel	Middle channel	High channel
Transmitting (GFSK, $\pi/4$ DQPSK, 8DPSK)	2402MHz	2441MHz	2480MHz
Receiving (GFSK, $\pi/4$ DQPSK, 8DPSK)	2402MHz	2441MHz	2480MHz

4.6 Test Environment

Humidity(%):	54
Atmospheric Pressure(kPa):	101
Normal Voltage(DC):	12V
Normal Temperature($^{\circ}$ C)	23
Low Temperature($^{\circ}$ C)	0
High Temperature($^{\circ}$ C)	40

5. TEST FACILITY AND TEST INSTRUMENT USED

5.1 Test Facility

All measurement facilities used to collect the measurement data are located at 1&2F., Building A, No. 26, Xinghe Road, Xinqiao, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, China. The site and apparatus are constructed in conformance with the requirements of ANSI C63.4 and CISPR 16-1-1 other equivalent standards.

5.2 Test Instrument Used

Item	Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	Agilent	N9020A	MY52090073	2024.07.05
2	Power Sensor	Agilent	U2021XA	MY56120032	2024.07.05
3	Power Sensor	Agilent	U2021XA	MY56120034	2024.07.05
4	Communication test set	R&S	CMW500	108058	2024.07.05
5	Spectrum Analyzer	KEYSIGHT	N9020A	MY51289897	2024.07.05
6	Signal Generator	Agilent	N5181A	MY50140365	2024.07.05
7	Vector signal generator	Agilent	N5182A	MY47420195	2024.07.05
8	Communication test set	Agilent	E5515C	MY50102567	2024.07.06
9	2.4 GHz Filter	Shenxiang	MSF2400-2483.5MS-1154	20181015001	2024.07.05
10	5 GHz Filter	Shenxiang	MSF5150-5850 MS-1155	20181015001	2024.07.06
11	Filter	Xingbo	XBLBQ-DZA120	190821-1-1	2024.07.06
12	BT&WI-FI Automatic test software	Microwave	MTS8000	Ver. 2.0.0.0	/
13	Rohde & Schwarz SFU Broadcast Test System	R&S	SFU	101017	2024.10.30
14	Temperature humidity chamber	Hongjing	TH-80CH	DG-15174	2024.07.05
15	234G Automatic test software	Microwave	MTS8200	Ver. 2.0.0.0	/
16	966 chamber	C.R.T.	966	/	2024.08.11
17	Receiver	R&S	ESPI	100362	2024.07.05
18	Amplifier	HP	8447E	2945A02747	2024.07.05
19	Amplifier	Agilent	8449B	3008A01838	2024.07.05
20	TRILOG Broadband Antenna	Schwarzbeck	VULB 9168	00869	2024.07.08

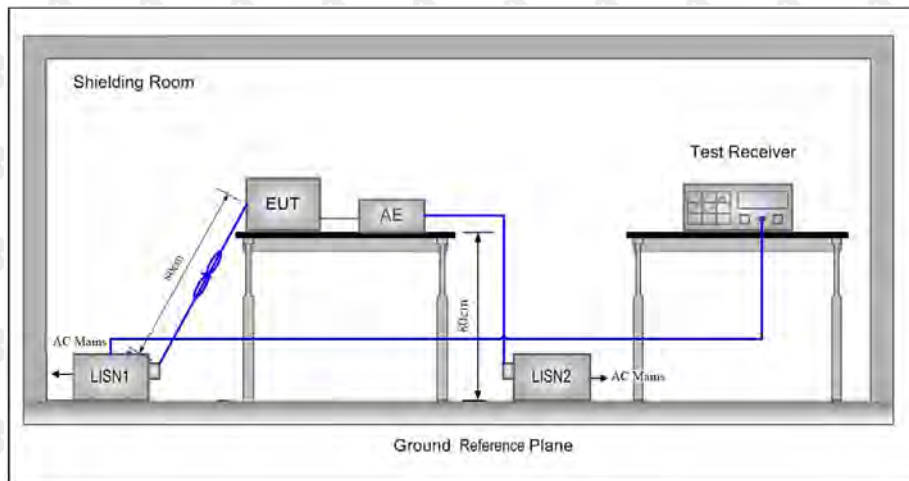
21	Double Ridged Broadband Horn Antenna	Schwarzbeck	BBHA9120D	01911	2024.07.08
22	EMI test software	Fala	EZ-EMC	FA-03A2 RE	/
23	Loop Antenna	Schwarzbeck	FMZB 1519B	1519B-224	2024.07.08
24	loop antenna	ZHINAN	ZN30900A	GTS534	/
25	40G Horn antenna	A/H/System	SAS-574	588	2024.10.30
26	Amplifier	AEROFLEX	Aeroflex	097	2024.07.05

Continuous disturbance					
No.	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
1	LISN	ROHDE&SCHWARZ	ESH3-Z5	100318	2024.07.05
2	Pulse limiter	ROHDE&SCHWARZ	ESH3Z2	357881052	2024.07.05
3	EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI	100428/003	2024.07.05
4	Coaxial cable	ZDECL	Z302S-NJ-SMA J-12M	18091905	2024.07.05
5	ISN	Schwarzbeck	NTFM8158	183	2024.07.05
6	Communication test set	Agilent	E5515C	MY50102567	2024.07.05
7	Communication test set	R&S	CMW500	108058	2024.07.05
8	EZ-EMC	Frad	EMC-con3A1.1	/	/

Radiated emission					
No.	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
1	Double Ridged Broadband Horn Antenna	Schwarzbeck	BBHA 9120 D	01911	2024.07.08
2	TRILOG Broadband Antenna	Schwarzbeck	VULB 9168	00869	2024.07.08
3	Amplifier	Agilent	8449B	3008A01838	2024.07.05
4	Amplifier	HP	8447E	2945A02747	2024.07.05
5	EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI	100428/003	2024.07.05
6	Coaxial cable	ETS	RFC-SNS-100-NMS-80 NI	/	2024.07.05
7	Coaxial cable	ETS	RFC-SNS-100-NMS-20 NI	/	2024.07.05
8	Coaxial cable	ETS	RFC-SNS-100-SMS-20 NI	/	2024.07.05
9	Coaxial cable	ETS	RFC-NNS-100-NMS-300 NI	/	2024.07.05
10	Communication test set	Agilent	E5515C	MY50102567	2024.07.05
11	Communication test set	R&S	CMW500	108058	2024.07.05
12	EZ-EMC	Frad	EMC-con3A1.1	/	/

6. AC POWER LINE CONDUCTED EMISSION

6.1 Block Diagram Of Test Setup



6.2 Limit

Table 4 – AC power-line conducted emissions limits

Frequency (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56 ^{Note 1}	56 to 46 ^{Note 1}
0.5 - 5	56	46
5 - 30	60	50

Note 1: The level decreases linearly with the logarithm of the frequency.

* Decreasing linearly with the logarithm of the frequency

6.3 Test procedure

- 1) The mains terminal disturbance voltage test was conducted in a shielded room.
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
- 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,
- 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane.

This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.

- 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2013 on conducted measurement.
- 6) All modes were tested at AC 120V and 240V, only the worst result of AC 120V 60Hz was reported.
- 7) If a EUT received DC power from the USB Port of Notebook PC, the PC's adapter received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.

6.4 Test Result

N/A

NOTE: This EUT is the vehicle product DC 12V power supply, this test project is not applicable.

7. RADIATED SPURIOUS EMISSION

7.1 Block Diagram Of Test Setup

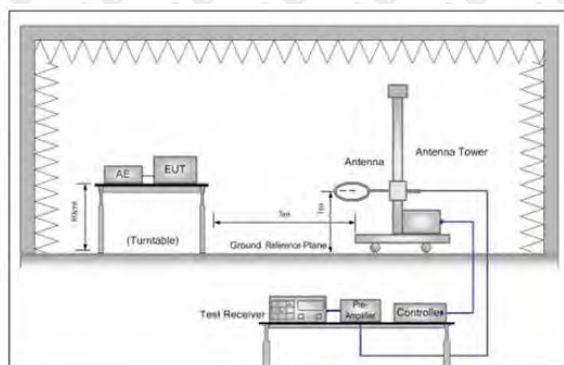


Figure 1. Below 30MHz

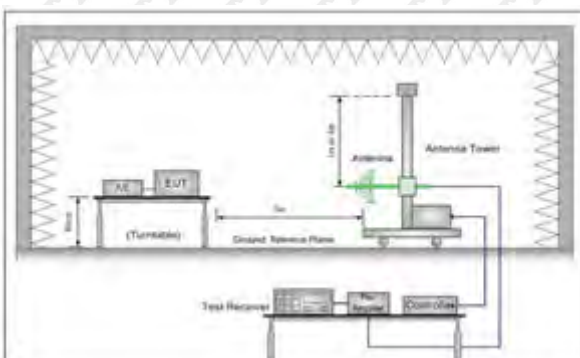


Figure 2. 30MHz to 1GHz

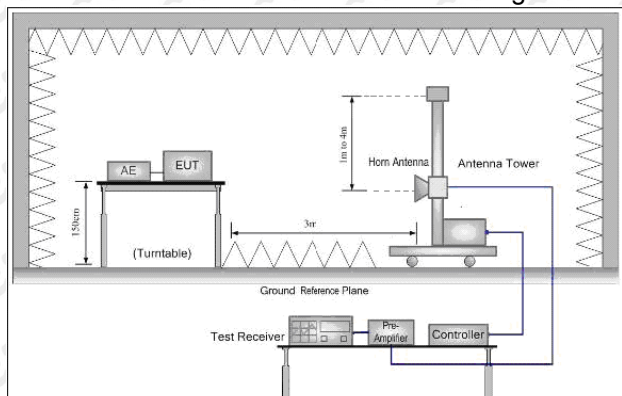


Figure 3. Above 1GHz

7.2 Limit

Spurious Emissions:

Frequency	Field strength (microvolt/meter)	Limit (dB μ V/m)	Remark	Measurement distance (m)
0.009MHz-0.490MHz	2400/F(kHz)	-	-	300
0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
1.705MHz-30MHz	30	-	-	30
30MHz-88MHz	100	40.0	Quasi-peak	3
88MHz-216MHz	150	43.5	Quasi-peak	3
216MHz-960MHz	200	46.0	Quasi-peak	3
960MHz-1GHz	500	54.0	Quasi-peak	3
Above 1GHz	500	54.0	Average	3

Note: 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.

7.3 Test procedure

Below 1GHz test procedure as below:

- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rota table table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

Above 1GHz test procedure as below:

- Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.8 meter to 1.5 meter(Above 18GHz the distance is 1 meter and table is 1.5 meter).
- Test the EUT in the lowest channel ,the middle channel ,the Highest channel
- Repeat above procedures until all frequencies measured was complete.
- Full battery is used during test

Receiver set:

Frequency	Detector	RBW	VBW	Remark
0.009MHz-0.090MHz	Peak	10kHz	30KHz	Peak
0.009MHz-0.090MHz	Average	10kHz	30KHz	Average
0.090MHz-0.110MHz	Quasi-peak	10kHz	30KHz	Quasi-peak
0.110MHz-0.490MHz	Peak	10kHz	30KHz	Peak
0.110MHz-0.490MHz	Average	10kHz	30KHz	Average
0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
30MHz-1GHz	Quasi-peak	120 kHz	300KHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

7.4 Test Result

Below 1GHz Test Results:

Antenna polarity: H

Worst case –GFSK (low channel) -QW850-1 module



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB/m	Over dB	Detector
1		31.3442	25.92	-6.71	19.21	40.00	-20.79	QP
2		80.7857	31.93	-9.15	22.78	40.00	-17.22	QP
3		109.7959	31.65	-7.08	24.57	43.50	-18.93	QP
4	*	239.5669	43.08	-7.02	36.06	46.00	-9.94	QP
5		377.9211	29.87	-2.72	27.15	46.00	-18.85	QP
6		789.2335	27.31	6.22	33.53	46.00	-12.47	QP

Remark: Factor = Cable lose + Antenna factor - Pre-amplifier; Margin = Measurement– Limit

Antenna polarity: V
Worst case –GFSK (low channel) -QW850-1 module



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB/m	Over dB	Detector
1		45.2959	33.31	-5.76	27.55	40.00	-12.45	QP
2		78.6887	32.57	-8.94	23.63	40.00	-16.37	QP
3	*	219.4597	42.86	-7.25	35.61	46.00	-10.39	QP
4		458.3101	28.72	-0.87	27.85	46.00	-18.15	QP
5		704.2261	25.87	4.63	30.50	46.00	-15.50	QP
6		948.7609	27.27	7.36	34.63	46.00	-11.37	QP

Remark: Factor = Cable lose + Antenna factor - Pre-amplifier; Margin = Measurement– Limit

Above 1 GHz Test Results:

CH Low (2402MHz)

Horizontal:

Worst case -QW850-1 module

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4804	56.65	-3.65	53.00	74.00	-21.00	peak
4804	50.22	-3.65	46.57	54.00	-7.43	AVG
7206	60.71	-0.95	59.76	74.00	-14.24	peak
7206	41.05	-0.95	40.10	54.00	-13.90	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4804	58.32	-3.65	54.67	74.00	-19.33	peak
4804	50.36	-3.65	46.71	54.00	-7.29	AVG
7206	61.49	-0.95	60.54	74.00	-13.46	peak
7206	41.59	-0.95	40.64	54.00	-13.36	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits

CH Middle (2441MHz)
Horizontal:
Worst case -QW850-1 module

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4882.00	58.81	-3.54	55.27	74.00	-18.73	peak
4882.00	49.52	-3.54	45.98	54.00	-8.02	AVG
7323.00	57.06	-0.81	56.25	74.00	-17.75	peak
7323.00	42.76	-0.81	41.95	54.00	-12.05	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4882.00	58.62	-3.54	55.08	74.00	-18.92	peak
4882.00	50.92	-3.54	47.38	54.00	-6.62	AVG
7323.00	56.79	-0.81	55.98	74.00	-18.02	peak
7323.00	41.31	-0.81	40.50	54.00	-13.50	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

CH High (2480MHz)
Horizontal:
Worst case -QW850-1 module

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4960	58.46	-3.43	55.03	74.00	-18.97	peak
4960	49.97	-3.44	46.53	54.00	-7.47	AVG
7440	59.92	-0.77	59.15	74.00	-14.85	peak
7440	40.88	-0.77	40.11	54.00	-13.89	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4960	57.68	-3.43	54.25	74.00	-19.75	peak
4960	50.11	-3.44	46.67	54.00	-7.33	AVG
7440	59.78	-0.77	59.01	74.00	-14.99	peak
7440	39.72	-0.77	38.95	54.00	-15.05	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

The test range is 9K ~10 times the main wave, and other spurious below the limit of 20dB will not be reflected in the report

Restricted bands around fundamental frequency (Radiated)

hopping

Operation Mode: TX CH Low (2402MHz)

Horizontal (Worst case-GFSK)- QW850-1 module

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2310.00	57.92	-5.81	52.11	74.00	-21.89	peak
2310.00	/	-5.81	/	54.00	/	AVG
2390.00	54.91	-5.84	49.07	74.00	-24.93	peak
2390.00	/	-5.84	/	54.00	/	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2310.00	56.70	-5.81	50.89	74.00	-23.11	peak
2310.00	/	-5.81	/	54.00	/	AVG
2390.00	56.02	-5.84	50.18	74.00	-23.82	peak
2390.00	/	-5.84	/	54.00	/	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits

When the peak value is smaller than the AVG limit, AVG is not reflected.

Operation Mode: TX CH High (2480MHz)
Horizontal (Worst case-GFSK)- QW850-1 module

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.50	54.69	-5.81	48.88	74.00	-25.12	peak
2483.50	/	-5.81	/	54.00	/	AVG
2500.00	53.60	-6.06	47.54	74.00	-26.46	peak
2500.00	/	-6.06	/	54.00	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.50	56.99	-5.81	51.18	74.00	-22.82	peak
2483.50	/	-5.81	/	54.00	/	AVG
2500.00	54.62	-6.06	48.56	74.00	-25.44	peak
2500.00	/	-6.06	/	54.00	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

When the peak value is smaller than the AVG limit, AVG is not reflected.

NO hopping

Operation Mode: TX CH Low (2402MHz)
Horizontal (Worst case-GFSK)- QW850-1 module

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2310.00	54.83	-5.81	49.02	74.00	-24.98	peak
2310.00	/	-5.81	/	54.00	/	AVG
2390.00	54.42	-5.84	48.58	74.00	-25.42	peak
2390.00	/	-5.84	/	54.00	/	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor,
Margin = Emission level - I limits

Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2310.00	55.14	-5.81	49.33	74.00	-24.67	peak
2310.00	/	-5.81	/	54.00	/	AVG
2390.00	52.96	-5.84	47.12	74.00	-26.88	peak
2390.00	/	-5.84	/	54.00	/	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor,
Margin = Emission level - I limits

When the peak value is smaller than the AVG limit, AVG is not reflected.

Operation Mode: TX CH High (2480MHz)
Horizontal (Worst case-GFSK)- QW850-1 module

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2483.50	57.34	-5.81	51.53	74.00	-22.47	peak
2483.50	/	-5.81	/	54.00	/	AVG
2500.00	55.81	-6.06	49.75	74.00	-24.25	peak
2500.00	/	-6.06	/	54.00	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						

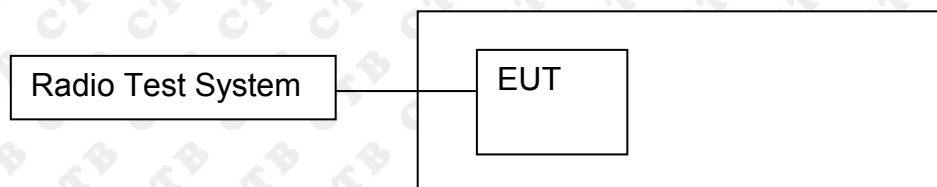
Vertical:

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2483.50	55.61	-5.81	49.80	74.00	-24.20	peak
2483.50	/	-5.81	/	54.00	/	AVG
2500.00	54.41	-6.06	48.35	74.00	-25.65	peak
2500.00	/	-6.06	/	54.00	/	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Emission level = Reading Result + Factor, Margin = Emission level - Limits						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						

When the peak value is smaller than the AVG limit, AVG is not reflected.

8. BAND EDGE AND RF CONDUCTED SPURIOUS EMISSIONS

8.1 Block Diagram Of Test Setup



8.2 Limit

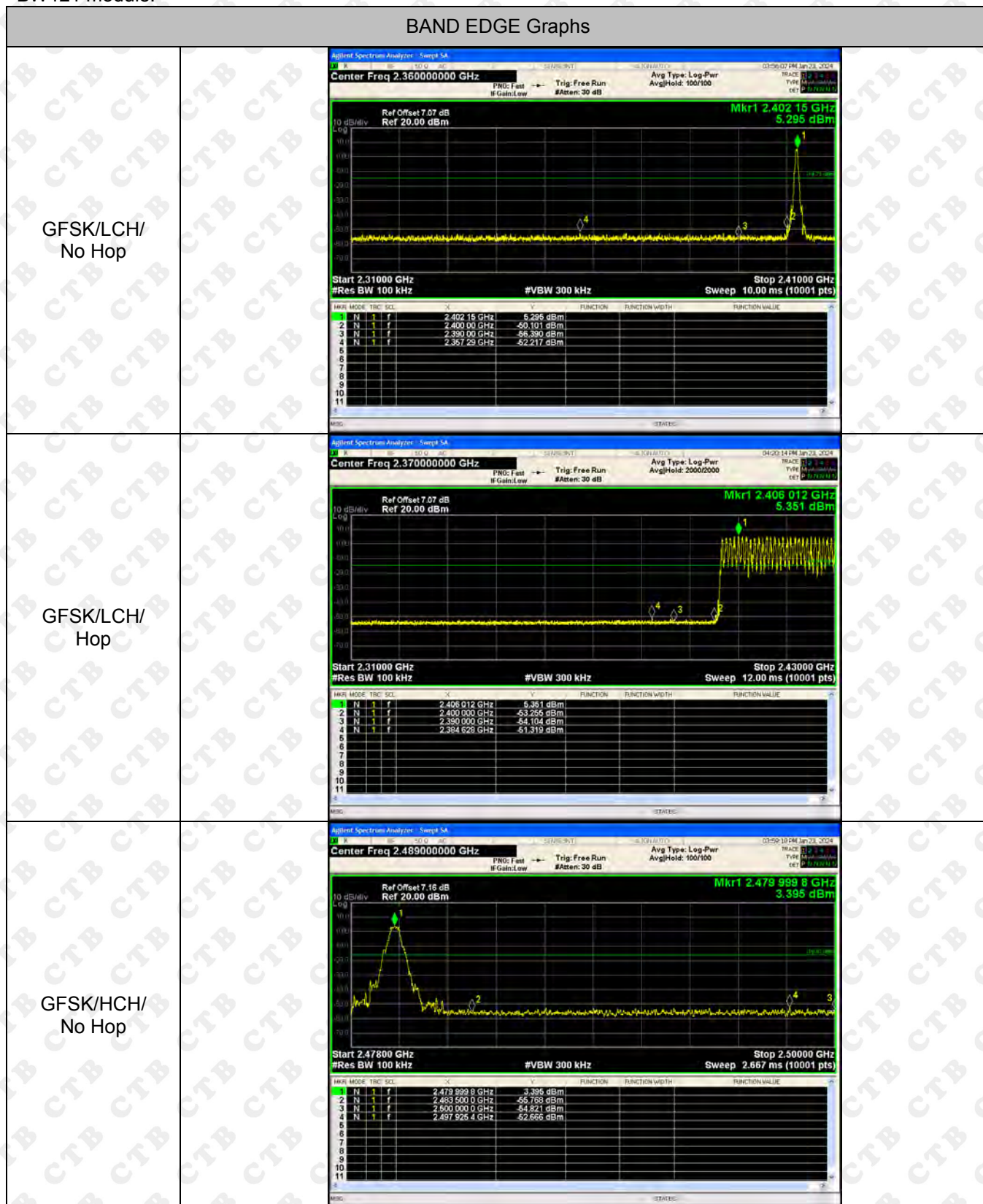
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted 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)).

8.3 Test procedure

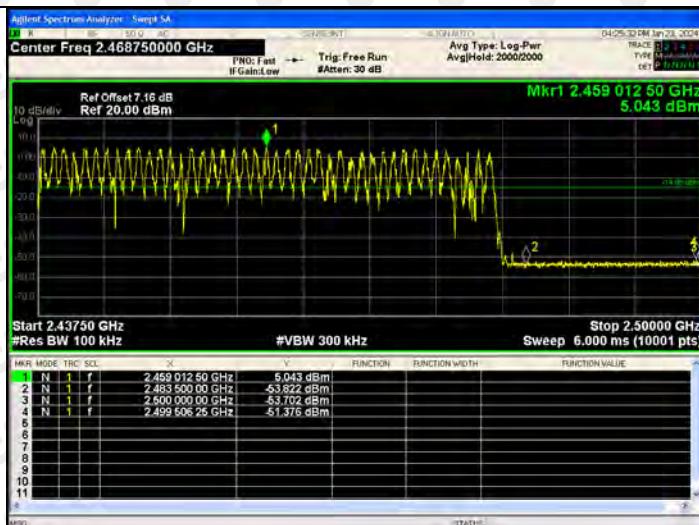
1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;
2. Set the spectrum analyzer:
 - Below 30MHz:
 - RBW = 100kHz, VBW = 300kHz, Sweep = auto
 - Detector function = peak, Trace = max hold
 - Above 30MHz:
 - RBW = 100KHz, VBW = 300KHz, Sweep = auto
 - Detector function = peak, Trace = max hold

8.4 Test Result

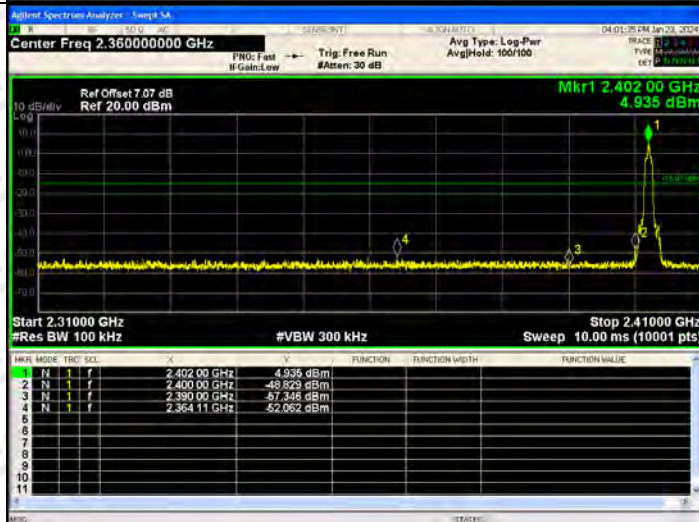
BW121 module:



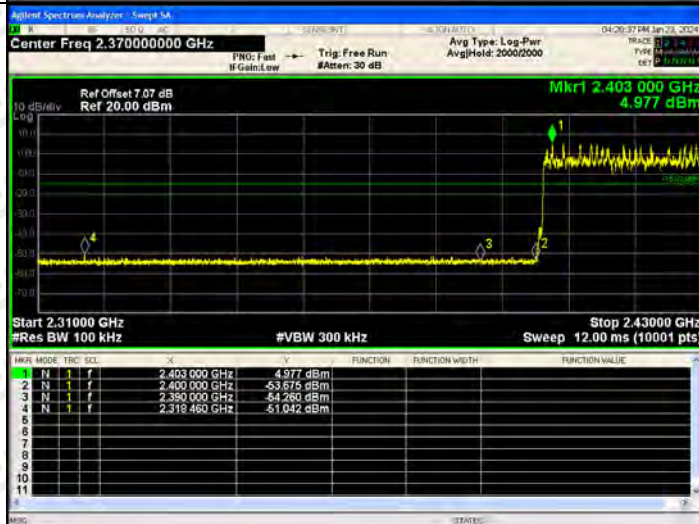
GFSK/HCH/
Hop

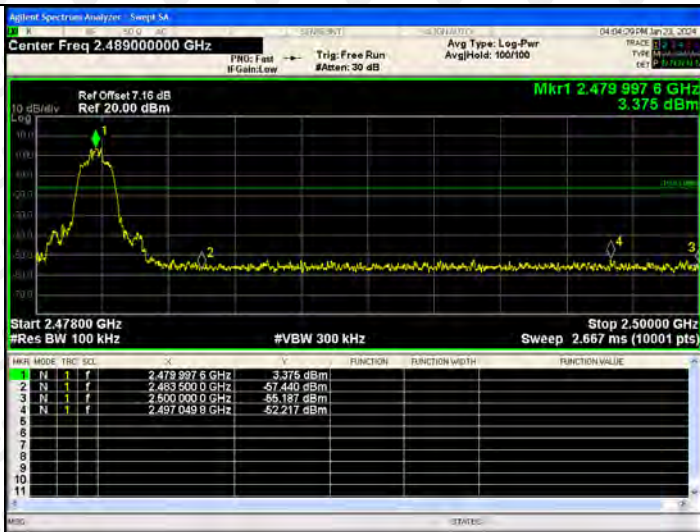
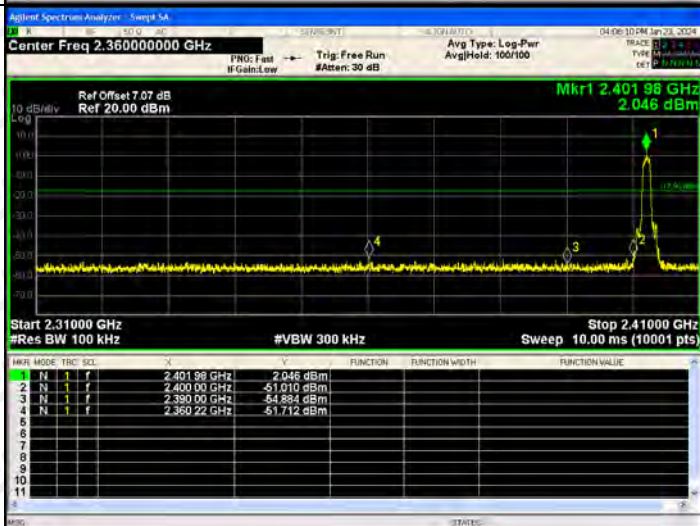


$\pi/4$ DQPSK/LCH/
No Hop

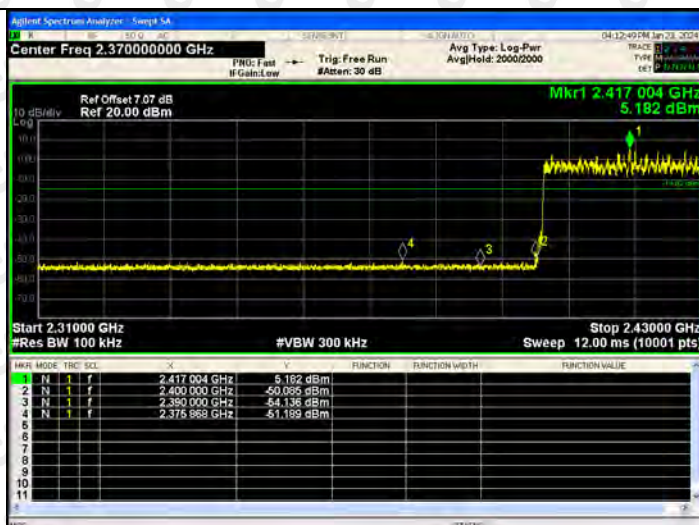


$\pi/4$ DQPSK/LCH/
Hop

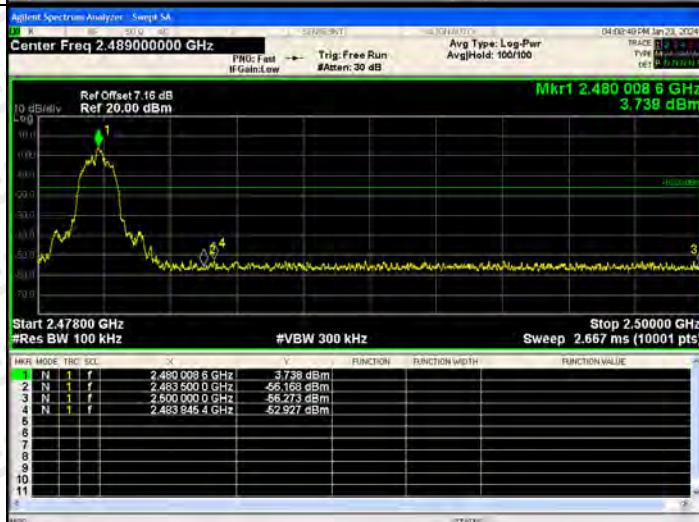


π /4DQPSK/HCH/ No Hop	 Agilent Spectrum Analyzer - Sweep 5A Center Freq 2.489000000 GHz Ref Offset 7.16 dB Ref 20.00 dBm Mkr1 2.479 997 6 GHz 3.375 dBm Start 2.47800 GHz #Res BW 100 kHz #VBW 300 kHz Stop 2.50000 GHz Sweep 2.667 ms (10001 pts) <table><tr><th>MNR</th><th>MODE</th><th>TRC</th><th>SCL</th><th>F</th><th>V</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>2.479 997 6 GHz</td><td>3.375 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>2.483 500 0 GHz</td><td>-57.440 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td>N</td><td>1</td><td>f</td><td>2.500 000 0 GHz</td><td>-55.187 dBm</td><td></td><td></td><td></td></tr><tr><td>4</td><td>N</td><td>1</td><td>f</td><td>2.497 049 8 GHz</td><td>-52.217 dBm</td><td></td><td></td><td></td></tr></table>	MNR	MODE	TRC	SCL	F	V	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	2.479 997 6 GHz	3.375 dBm				2	N	1	f	2.483 500 0 GHz	-57.440 dBm				3	N	1	f	2.500 000 0 GHz	-55.187 dBm				4	N	1	f	2.497 049 8 GHz	-52.217 dBm			
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π /4DQPSK/HCH/ Hop	 Agilent Spectrum Analyzer - Sweep 5A Center Freq 2.468750000 GHz Ref Offset 7.16 dB Ref 20.00 dBm Mkr1 2.457 012 50 GHz 4.720 dBm Start 2.43750 GHz #Res BW 100 kHz #VBW 300 kHz Stop 2.50000 GHz Sweep 6.000 ms (10001 pts) <table><tr><th>MNR</th><th>MODE</th><th>TRC</th><th>SCL</th><th>F</th><th>V</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>2.457 012 50 GHz</td><td>4.720 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>2.483 500 00 GHz</td><td>-54.147 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td>N</td><td>1</td><td>f</td><td>2.500 000 00 GHz</td><td>-54.160 dBm</td><td></td><td></td><td></td></tr><tr><td>4</td><td>N</td><td>1</td><td>f</td><td>2.496 625 00 GHz</td><td>-50.943 dBm</td><td></td><td></td><td></td></tr></table>	MNR	MODE	TRC	SCL	F	V	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	2.457 012 50 GHz	4.720 dBm				2	N	1	f	2.483 500 00 GHz	-54.147 dBm				3	N	1	f	2.500 000 00 GHz	-54.160 dBm				4	N	1	f	2.496 625 00 GHz	-50.943 dBm			
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8DPSK/LCH/No Hop	 Agilent Spectrum Analyzer - Sweep 5A Center Freq 2.360000000 GHz Ref Offset 7.07 dB Ref 20.00 dBm Mkr1 2.401 98 GHz 2.046 dBm Start 2.31000 GHz #Res BW 100 kHz #VBW 300 kHz Stop 2.41000 GHz Sweep 10.00 ms (10001 pts) <table><tr><th>MNR</th><th>MODE</th><th>TRC</th><th>SCL</th><th>F</th><th>V</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>2.401 98 GHz</td><td>2.046 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>2.400 00 GHz</td><td>-51.010 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td>N</td><td>1</td><td>f</td><td>2.390 00 GHz</td><td>-54.884 dBm</td><td></td><td></td><td></td></tr><tr><td>4</td><td>N</td><td>1</td><td>f</td><td>2.360 22 GHz</td><td>-51.712 dBm</td><td></td><td></td><td></td></tr></table>	MNR	MODE	TRC	SCL	F	V	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	2.401 98 GHz	2.046 dBm				2	N	1	f	2.400 00 GHz	-51.010 dBm				3	N	1	f	2.390 00 GHz	-54.884 dBm				4	N	1	f	2.360 22 GHz	-51.712 dBm			
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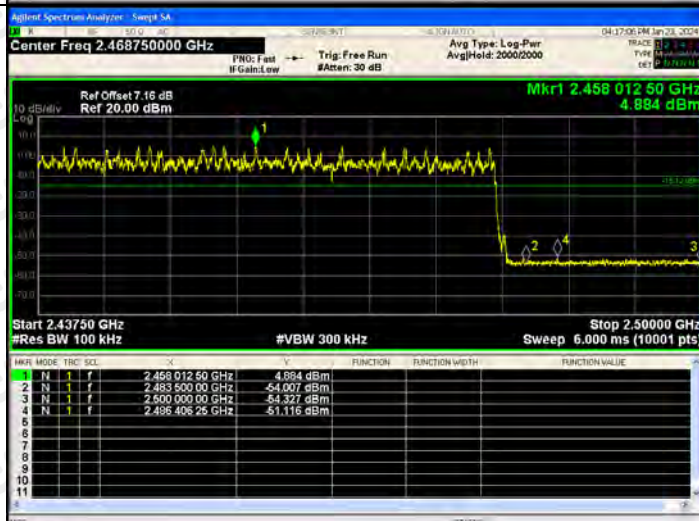
8DPSK
/LCH/Hop



8DPSK /HCH/No
Hop

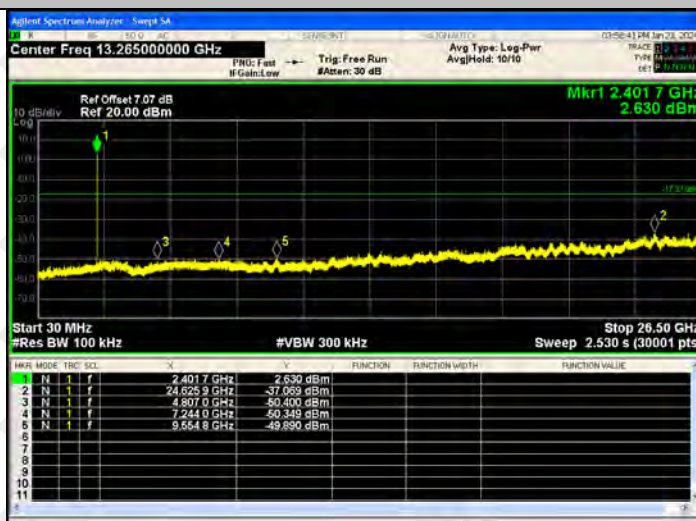


8DPSK
/HCH/Hop

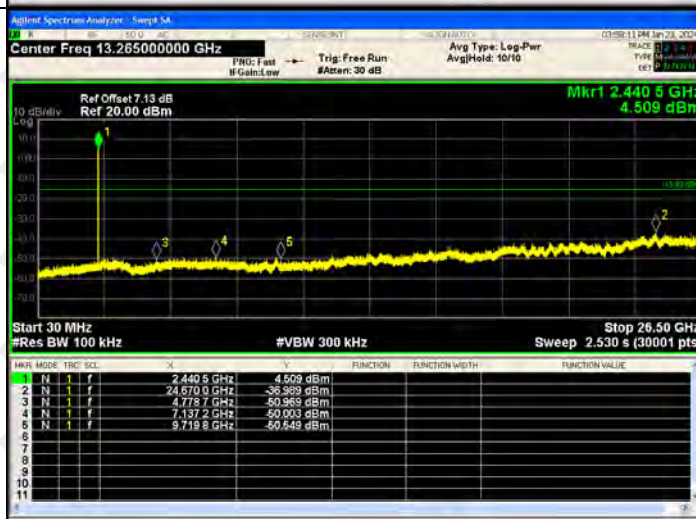


RF Conducted Spurious Emissions Graphs

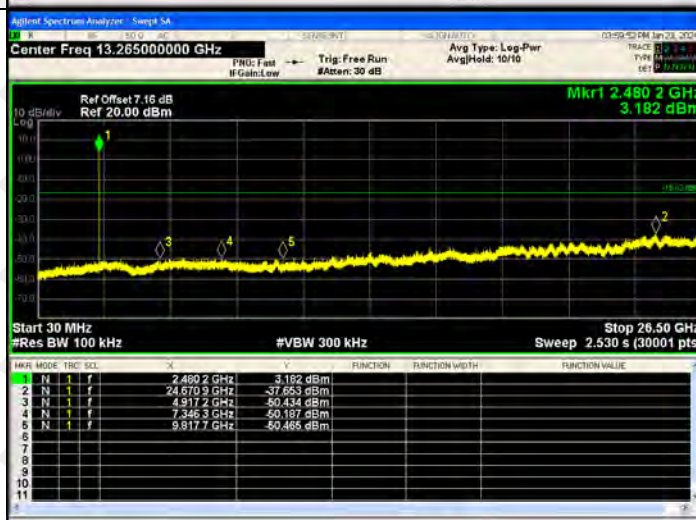
GFSK/LCH

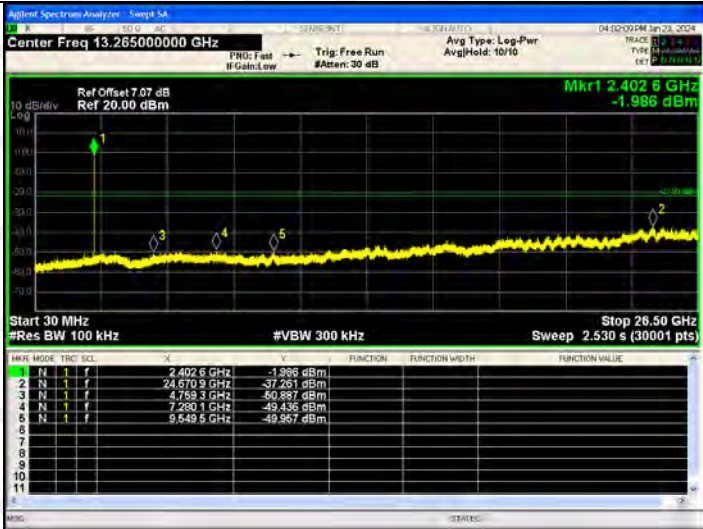
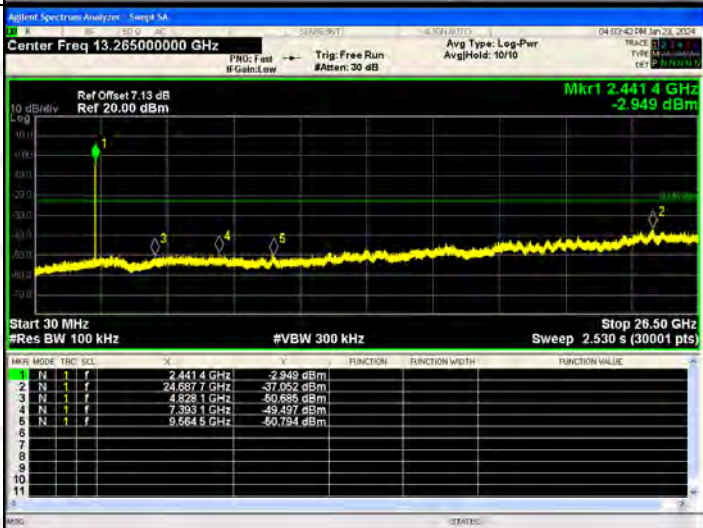
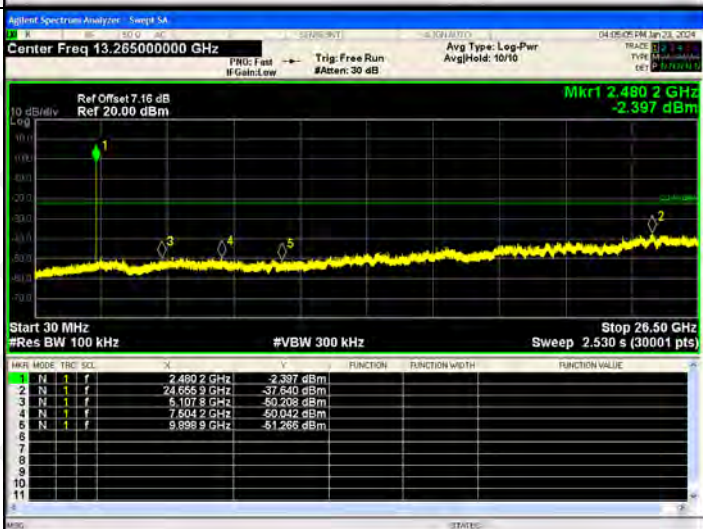


GFSK/MCH

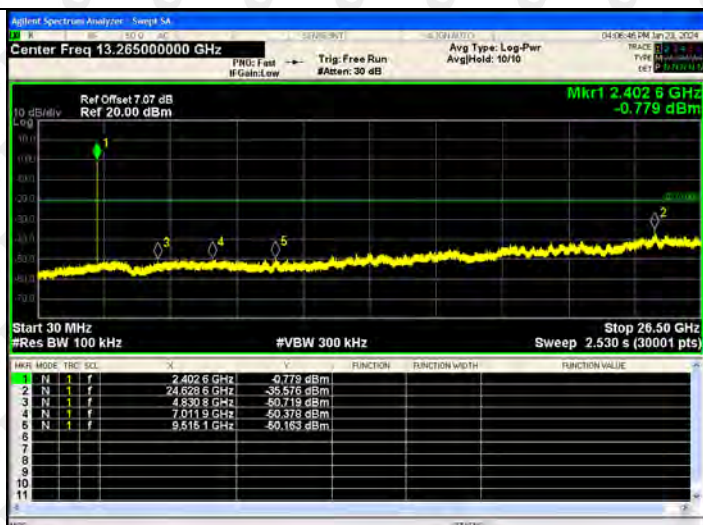


GFSK/HCH

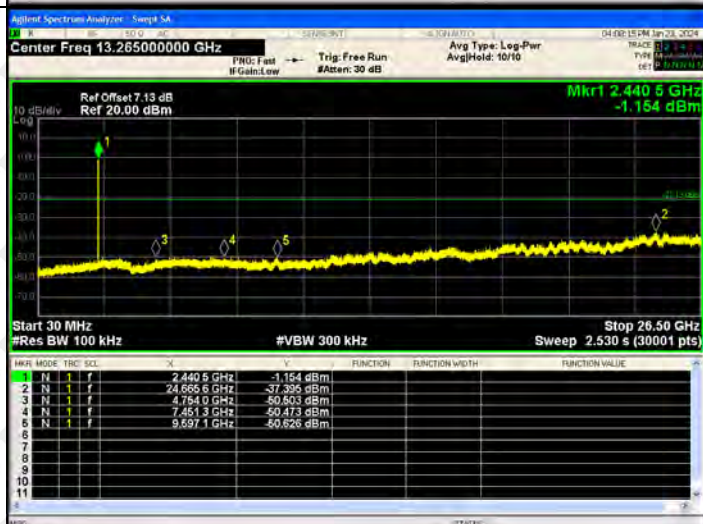


$\pi/4$ DQPSK /LCH	 Agilent Spectrum Analyzer - Sweep SA Center Freq 13.26500000 GHz Ref Offset 7.07 dB Ref 20.00 dBm Mkr1 2.4026 GHz -1.986 dBm Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Stop 26.50 GHz Sweep 2.530 s (30001 pts) <table><tr><th>MKR</th><th>MODE</th><th>FREQ</th><th>POWER</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>2.4026 GHz</td><td>-1.986 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>24.6709 GHz</td><td>-37.281 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td>N</td><td>4.7593 GHz</td><td>-50.887 dBm</td><td></td><td></td><td></td></tr><tr><td>4</td><td>N</td><td>7.2801 GHz</td><td>-49.436 dBm</td><td></td><td></td><td></td></tr><tr><td>5</td><td>N</td><td>9.5495 GHz</td><td>-49.957 dBm</td><td></td><td></td><td></td></tr></table>	MKR	MODE	FREQ	POWER	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	2.4026 GHz	-1.986 dBm				2	N	24.6709 GHz	-37.281 dBm				3	N	4.7593 GHz	-50.887 dBm				4	N	7.2801 GHz	-49.436 dBm				5	N	9.5495 GHz	-49.957 dBm			
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$\pi/4$ DQPSK/MCH	 Agilent Spectrum Analyzer - Sweep SA Center Freq 13.26500000 GHz Ref Offset 7.13 dB Ref 20.00 dBm Mkr1 2.4414 GHz -2.949 dBm Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Stop 26.50 GHz Sweep 2.530 s (30001 pts) <table><tr><th>MKR</th><th>MODE</th><th>FREQ</th><th>POWER</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>2.4414 GHz</td><td>-2.949 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>24.6877 GHz</td><td>-37.052 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td>N</td><td>4.8281 GHz</td><td>-50.685 dBm</td><td></td><td></td><td></td></tr><tr><td>4</td><td>N</td><td>7.3931 GHz</td><td>-49.437 dBm</td><td></td><td></td><td></td></tr><tr><td>5</td><td>N</td><td>9.5645 GHz</td><td>-50.734 dBm</td><td></td><td></td><td></td></tr></table>	MKR	MODE	FREQ	POWER	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	2.4414 GHz	-2.949 dBm				2	N	24.6877 GHz	-37.052 dBm				3	N	4.8281 GHz	-50.685 dBm				4	N	7.3931 GHz	-49.437 dBm				5	N	9.5645 GHz	-50.734 dBm			
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$\pi/4$ DQPSK/HCH	 Agilent Spectrum Analyzer - Sweep SA Center Freq 13.26500000 GHz Ref Offset 7.16 dB Ref 20.00 dBm Mkr1 2.4802 GHz -2.397 dBm Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Stop 26.50 GHz Sweep 2.530 s (30001 pts) <table><tr><th>MKR</th><th>MODE</th><th>FREQ</th><th>POWER</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>2.4802 GHz</td><td>-2.397 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>24.6559 GHz</td><td>-37.640 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td>N</td><td>5.1078 GHz</td><td>-50.208 dBm</td><td></td><td></td><td></td></tr><tr><td>4</td><td>N</td><td>7.5042 GHz</td><td>-50.042 dBm</td><td></td><td></td><td></td></tr><tr><td>5</td><td>N</td><td>9.9989 GHz</td><td>-51.286 dBm</td><td></td><td></td><td></td></tr></table>	MKR	MODE	FREQ	POWER	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	2.4802 GHz	-2.397 dBm				2	N	24.6559 GHz	-37.640 dBm				3	N	5.1078 GHz	-50.208 dBm				4	N	7.5042 GHz	-50.042 dBm				5	N	9.9989 GHz	-51.286 dBm			
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2	N	24.6559 GHz	-37.640 dBm																																								
3	N	5.1078 GHz	-50.208 dBm																																								
4	N	7.5042 GHz	-50.042 dBm																																								
5	N	9.9989 GHz	-51.286 dBm																																								

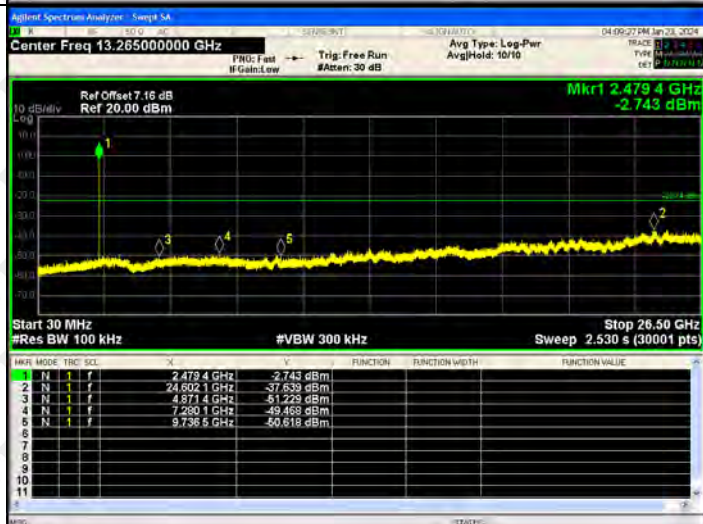
8DPSK /LCH



8DPSK /MCH

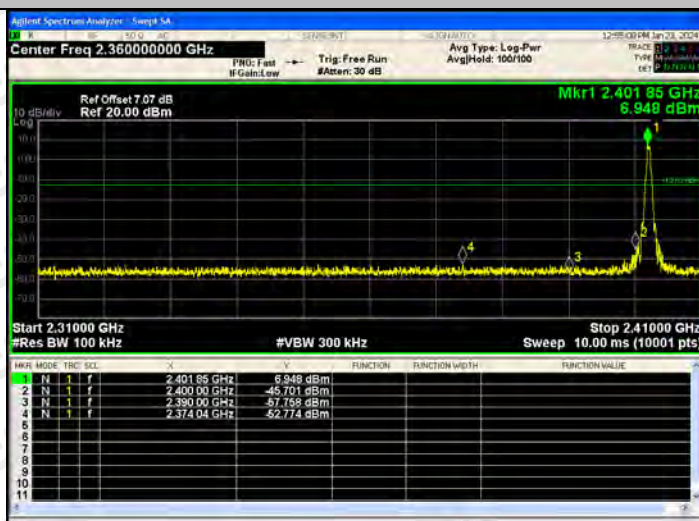
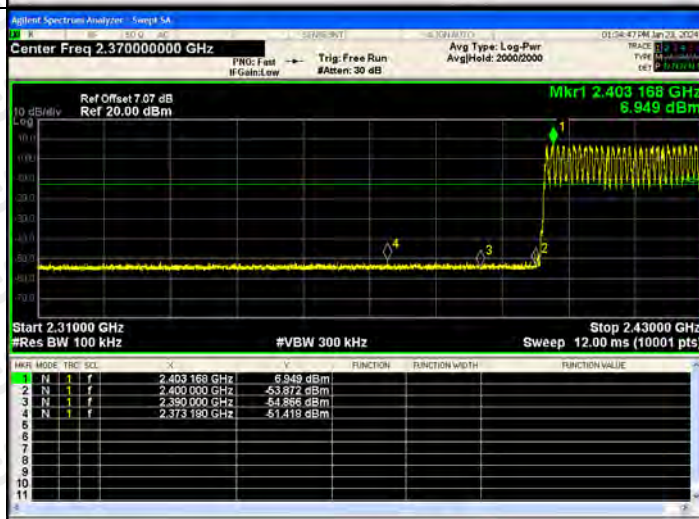
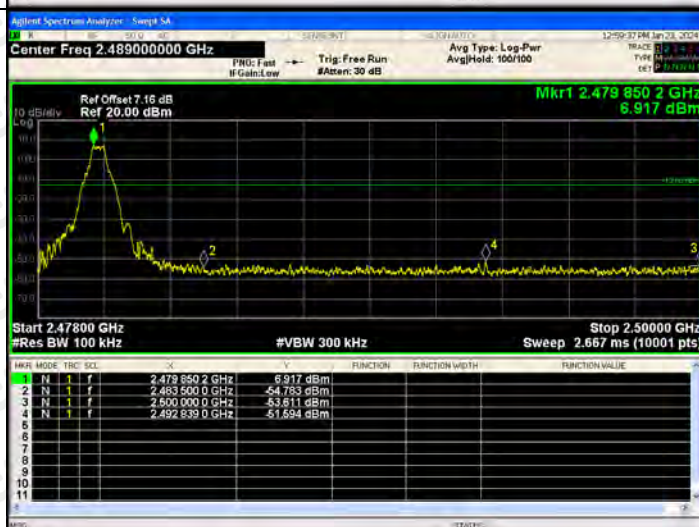


8DPSK /HCH

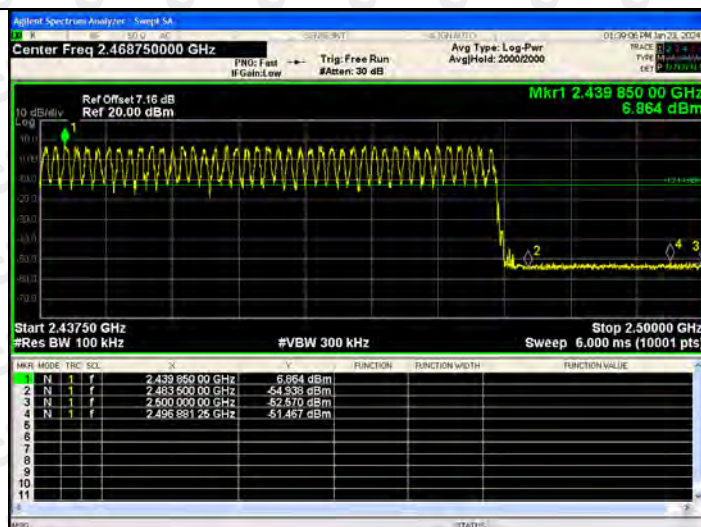


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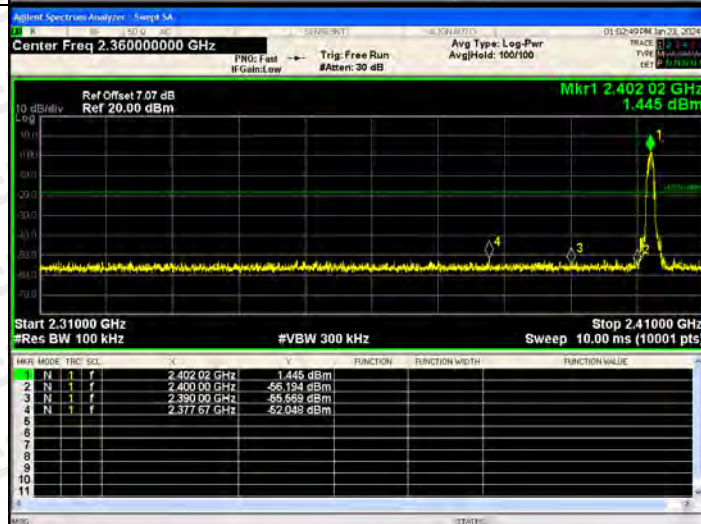
BAND EDGE Graphs

GFSK/LCH/
No Hop

GFSK/LCH/
Hop

GFSK/HCH/
No Hop


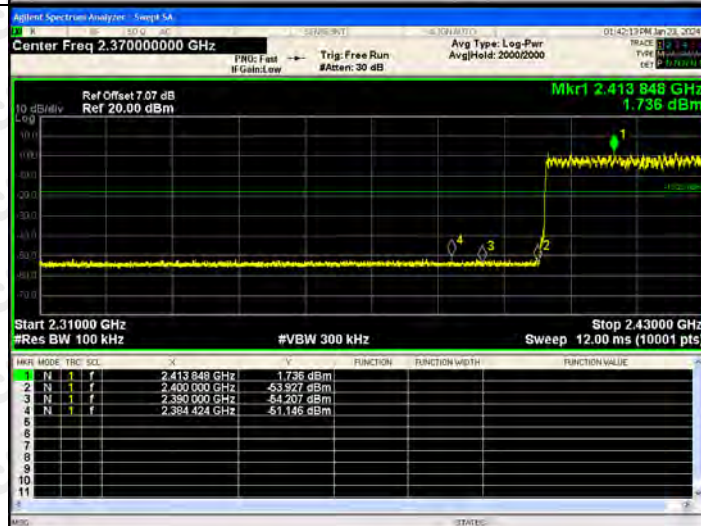
GFSK/HCH/
Hop



$\pi/4$ DQPSK/LCH/
No Hop

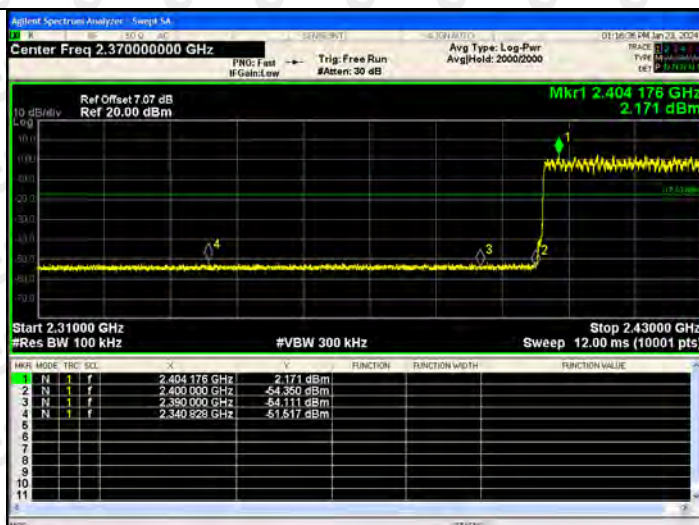


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Hop

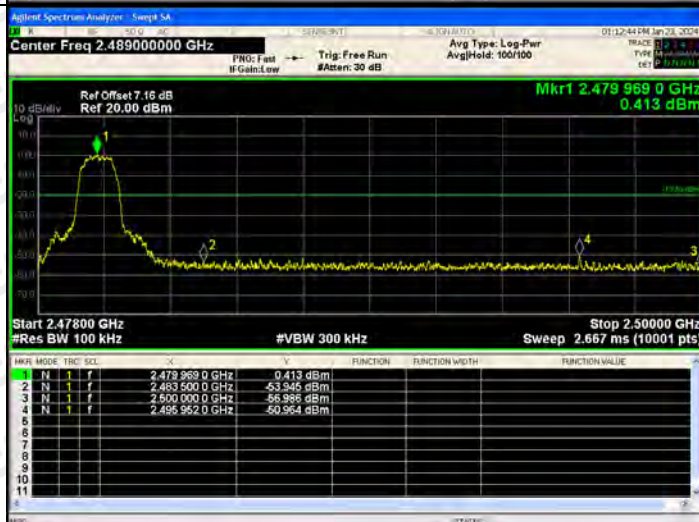


$\pi/4$ DQPSK/HCH/ No Hop	<table><thead><tr><th>MNR</th><th>MODE</th><th>TRC</th><th>SCL</th><th>F</th><th>V</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr></thead><tbody><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>2.4798370 GHz</td><td>1.340 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>2.4835000 GHz</td><td>-55.883 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td>N</td><td>1</td><td>f</td><td>2.5000000 GHz</td><td>-55.842 dBm</td><td></td><td></td><td></td></tr><tr><td>4</td><td>N</td><td>1</td><td>f</td><td>2.4892112 GHz</td><td>-52.175 dBm</td><td></td><td></td><td></td></tr></tbody></table>	MNR	MODE	TRC	SCL	F	V	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	2.4798370 GHz	1.340 dBm				2	N	1	f	2.4835000 GHz	-55.883 dBm				3	N	1	f	2.5000000 GHz	-55.842 dBm				4	N	1	f	2.4892112 GHz	-52.175 dBm			
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8DPSK
/LCH/Hop



8DPSK /HCH/No
Hop

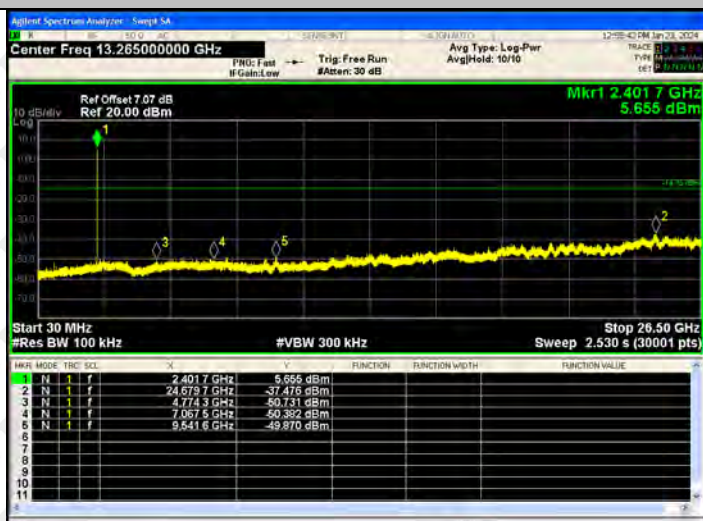


8DPSK
/HCH/Hop

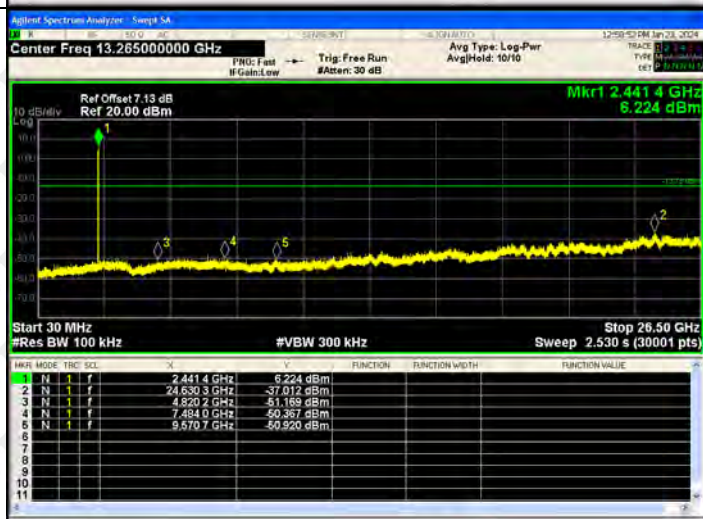


RF Conducted Spurious Emissions Graphs

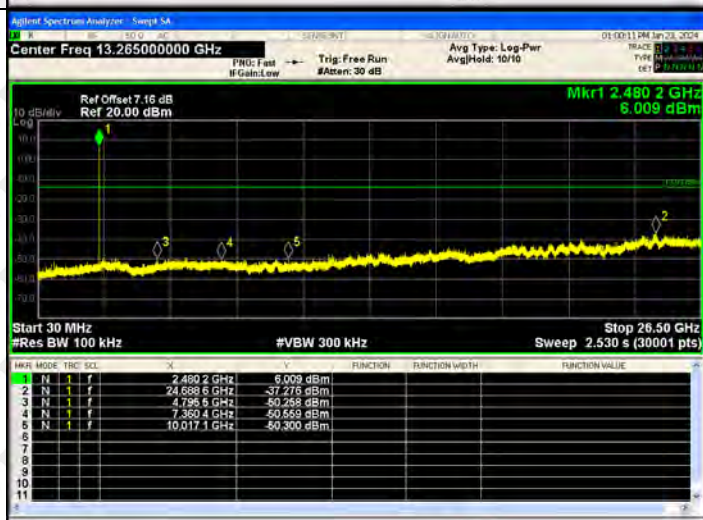
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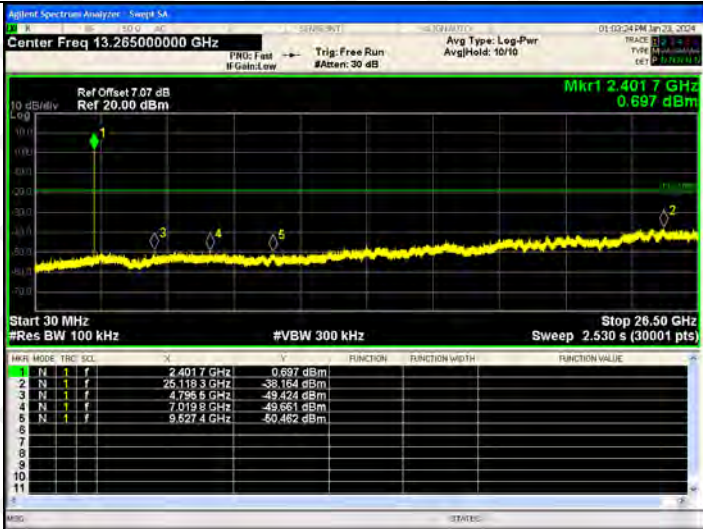
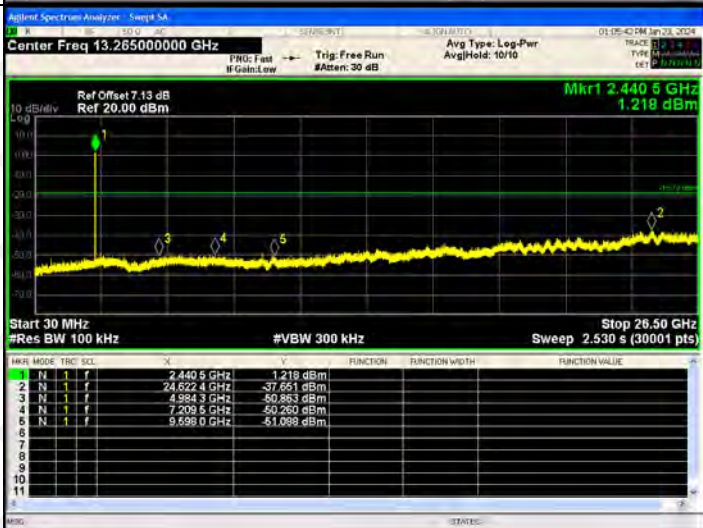
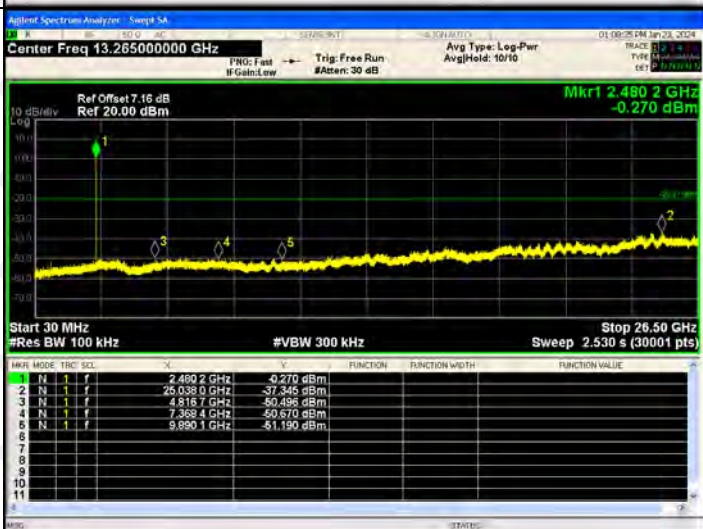


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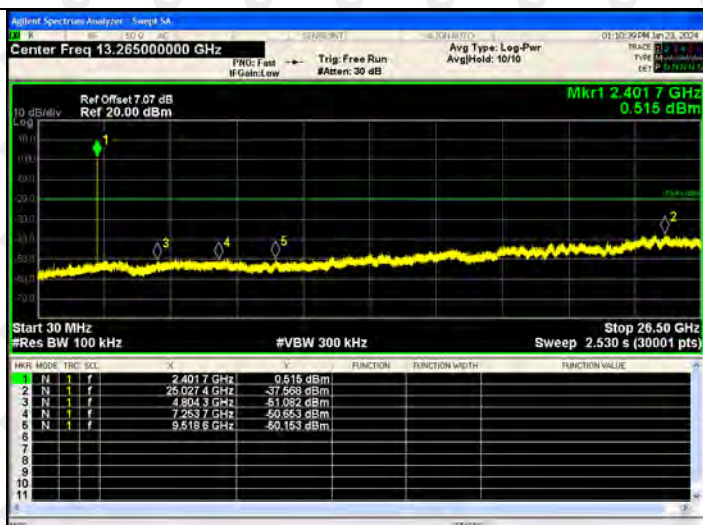


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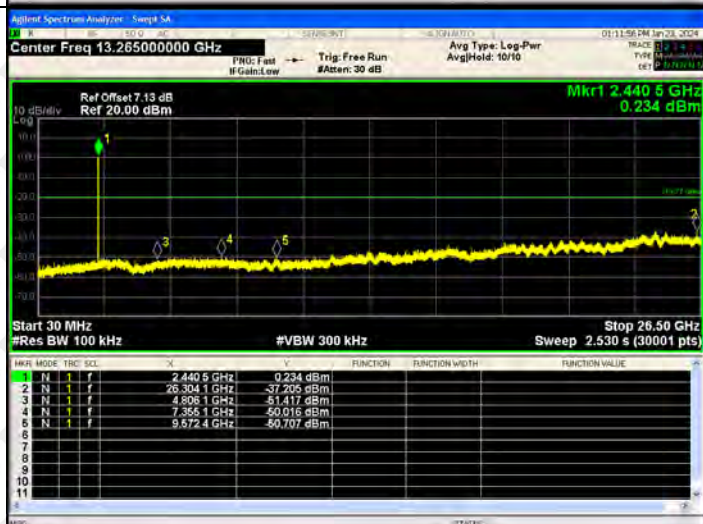


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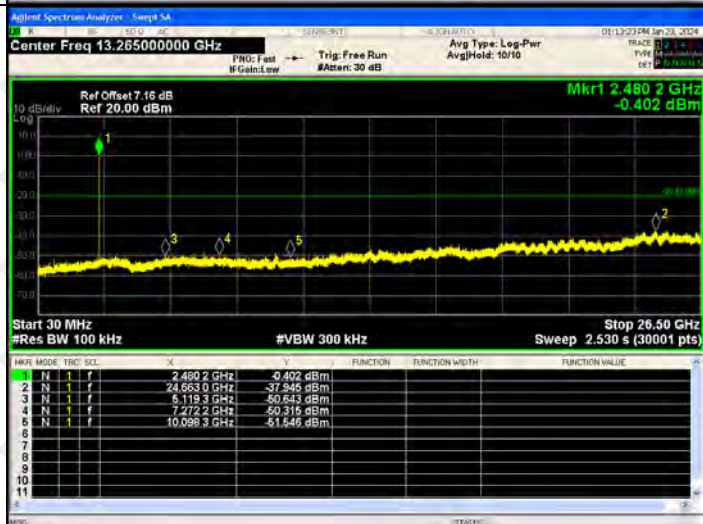
8DPSK /LCH



8DPSK /MCH



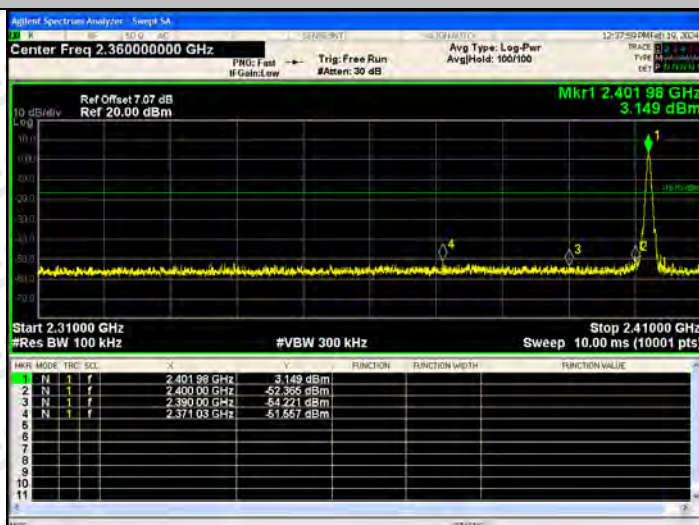
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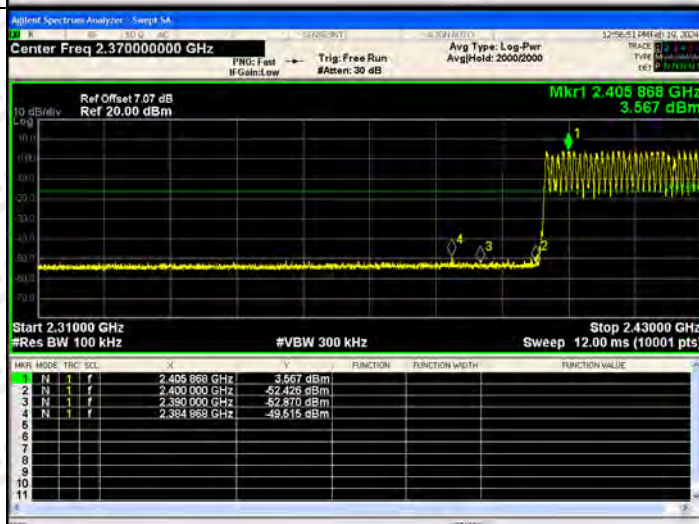
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BAND EDGE Graphs

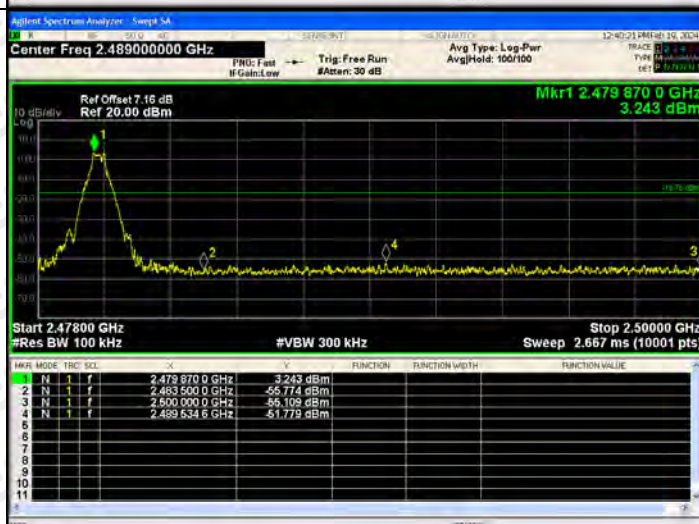
GFSK/LCH/
No Hop



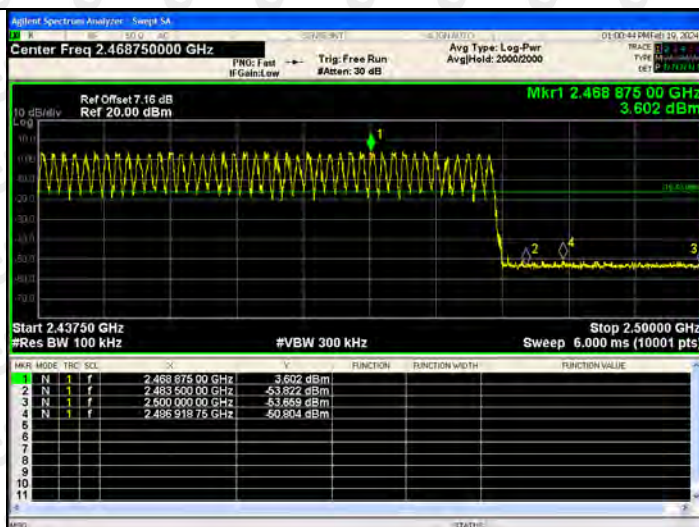
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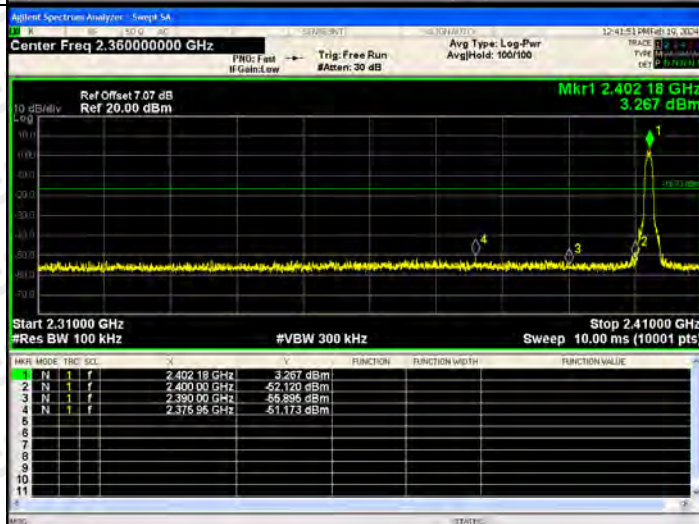
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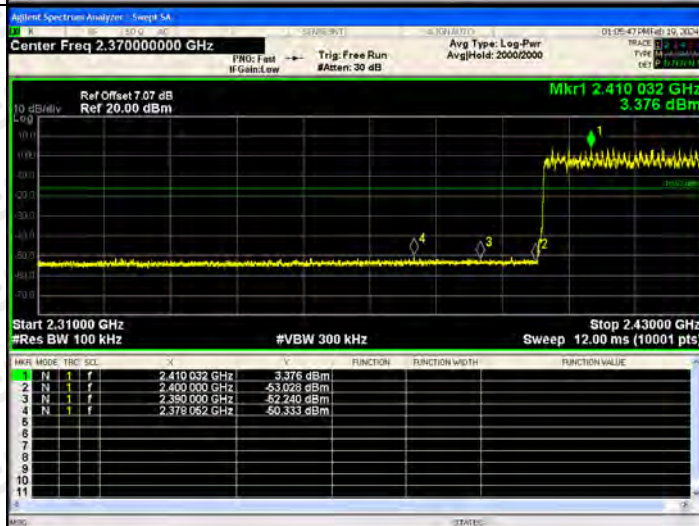
GFSK/HCH/
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$\pi/4$ DQPSK/LCH/
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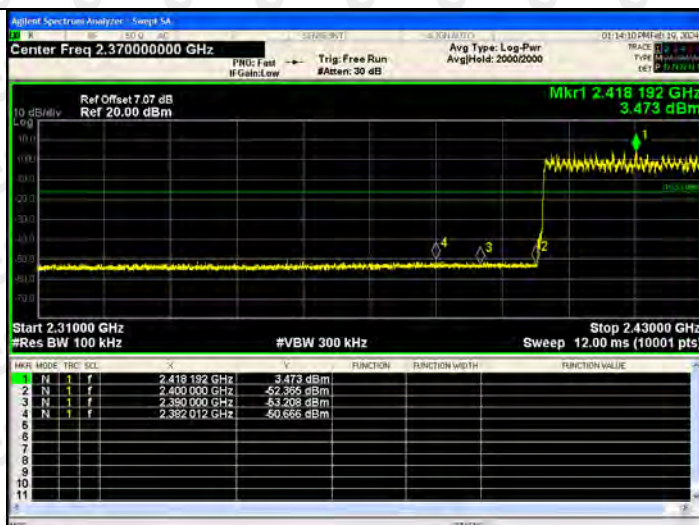


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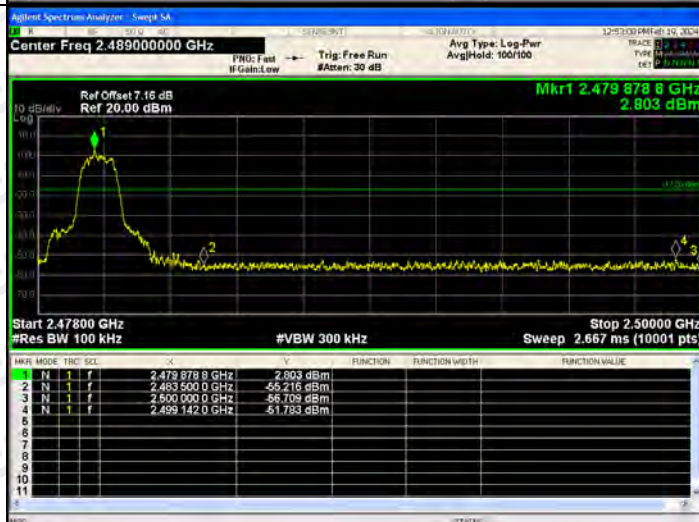


$\pi/4$ DQPSK/HCH/ No Hop	Center Freq 2.489000000 GHz Ref Offset 7.16 dB Ref 20.00 dBm Mkr1 2.479 885 6 GHz 2.569 dBm Start 2.47800 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.667 ms (10001 pts) <table><thead><tr><th>MARK</th><th>MODE</th><th>FREQ</th><th>POWER</th></tr></thead><tbody><tr><td>1</td><td>N</td><td>2.479 885 6 GHz</td><td>2.569 dBm</td></tr><tr><td>2</td><td>N</td><td>2.483 500 0 GHz</td><td>-56.276 dBm</td></tr><tr><td>3</td><td>N</td><td>2.500 000 0 GHz</td><td>-55.973 dBm</td></tr><tr><td>4</td><td>N</td><td>2.486 173 0 GHz</td><td>-51.976 dBm</td></tr></tbody></table>	MARK	MODE	FREQ	POWER	1	N	2.479 885 6 GHz	2.569 dBm	2	N	2.483 500 0 GHz	-56.276 dBm	3	N	2.500 000 0 GHz	-55.973 dBm	4	N	2.486 173 0 GHz	-51.976 dBm
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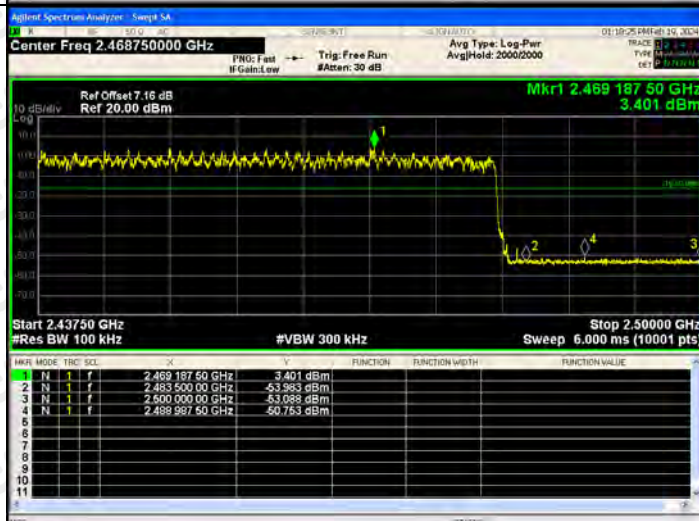
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/LCH/Hop



8DPSK /HCH/No
Hop

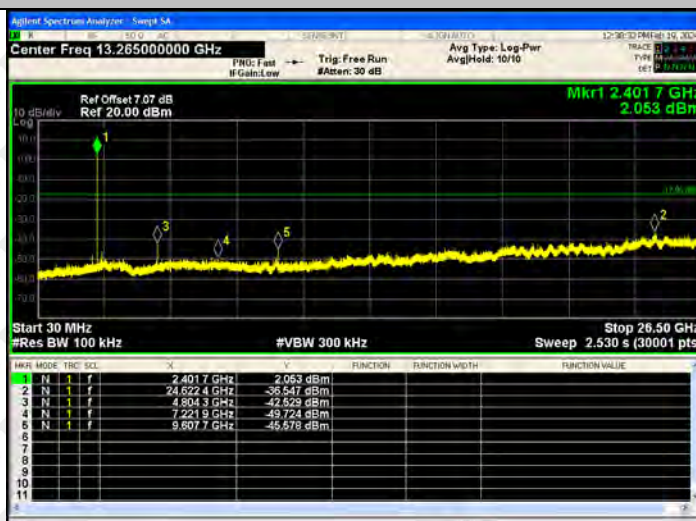


8DPSK
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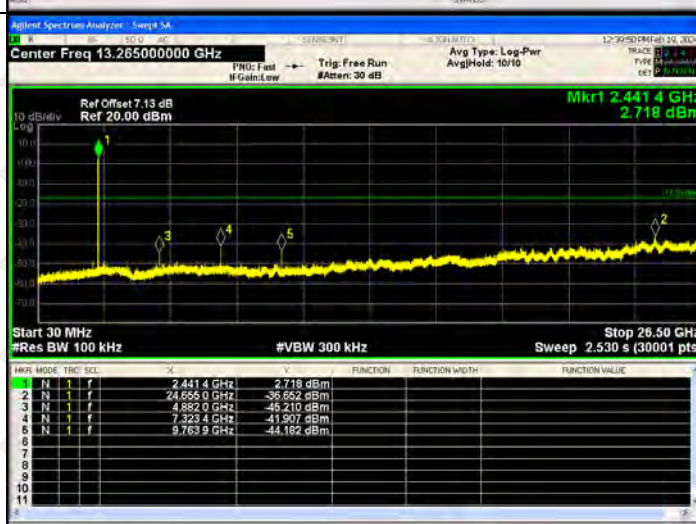


RF Conducted Spurious Emissions Graphs

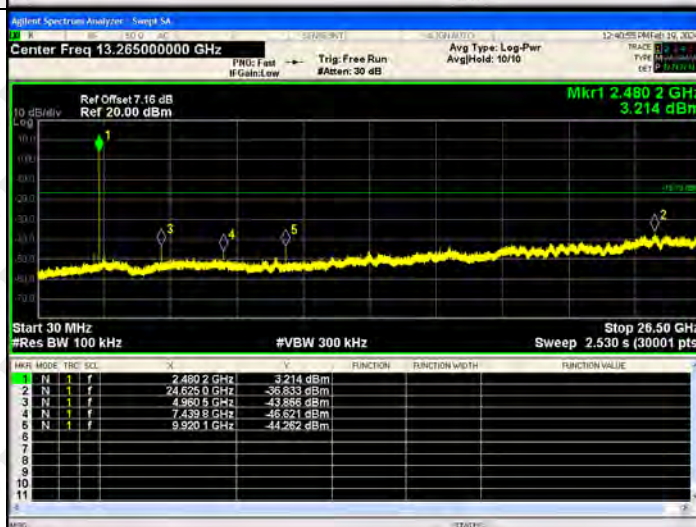
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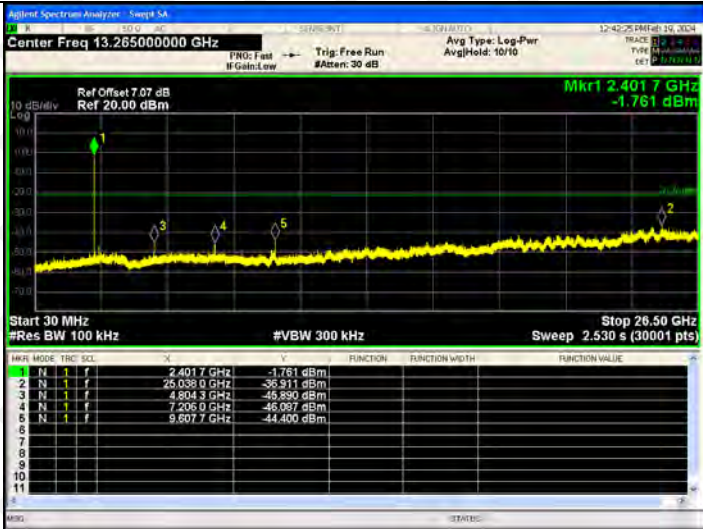
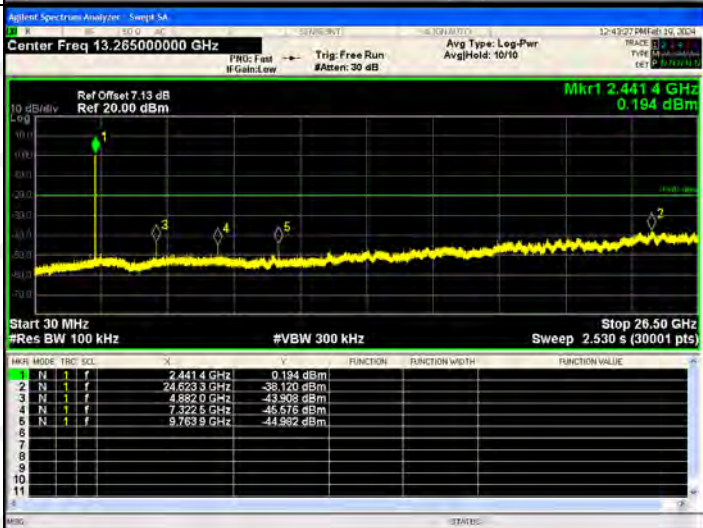
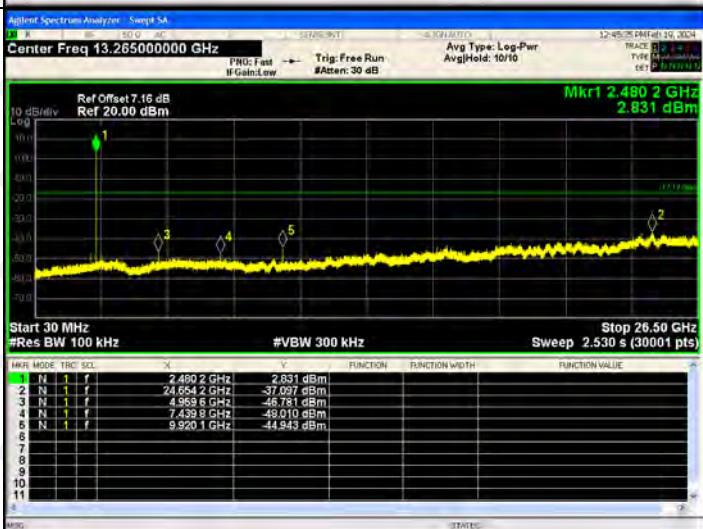


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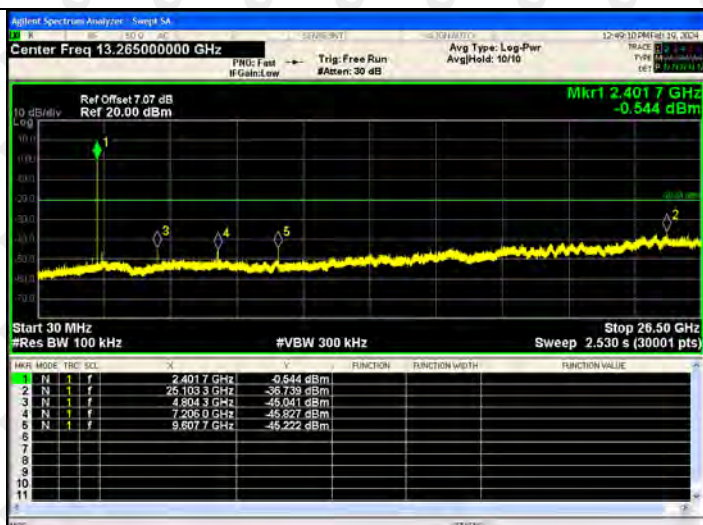


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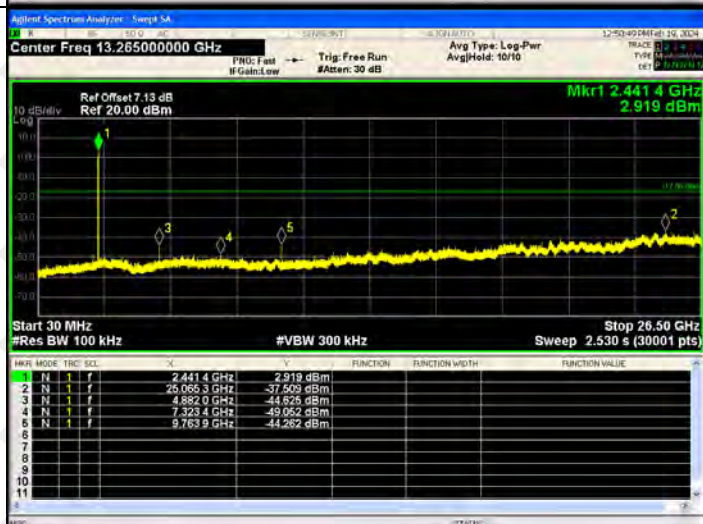


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$\pi/4$ DQPSK/MCH	 <table><tr><th>MARKER</th><th>FREQ (GHz)</th><th>POWER (dBm)</th></tr><tr><td>1</td><td>2.4414</td><td>0.194</td></tr><tr><td>2</td><td>24.623</td><td>-38.120</td></tr><tr><td>3</td><td>4.882</td><td>-43.908</td></tr><tr><td>4</td><td>7.322</td><td>-46.576</td></tr><tr><td>5</td><td>9.763</td><td>-44.982</td></tr></table>	MARKER	FREQ (GHz)	POWER (dBm)	1	2.4414	0.194	2	24.623	-38.120	3	4.882	-43.908	4	7.322	-46.576	5	9.763	-44.982
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$\pi/4$ DQPSK/HCH	 <table><tr><th>MARKER</th><th>FREQ (GHz)</th><th>POWER (dBm)</th></tr><tr><td>1</td><td>2.4802</td><td>2.831</td></tr><tr><td>2</td><td>24.654</td><td>-37.097</td></tr><tr><td>3</td><td>4.958</td><td>-46.781</td></tr><tr><td>4</td><td>7.438</td><td>-46.010</td></tr><tr><td>5</td><td>9.920</td><td>-44.943</td></tr></table>	MARKER	FREQ (GHz)	POWER (dBm)	1	2.4802	2.831	2	24.654	-37.097	3	4.958	-46.781	4	7.438	-46.010	5	9.920	-44.943
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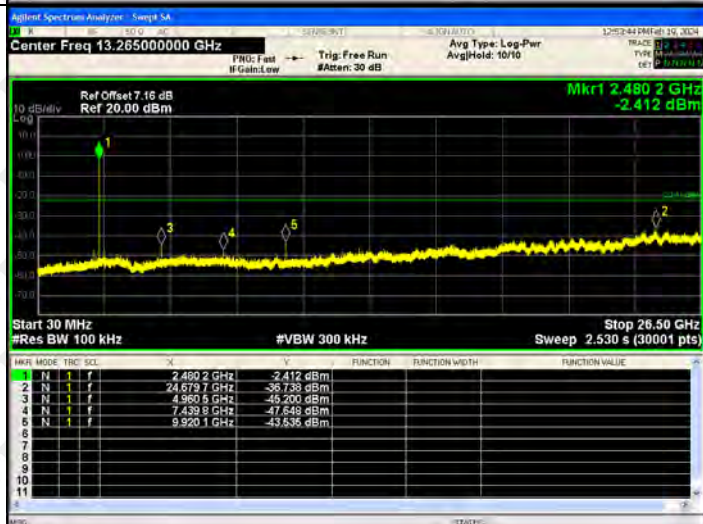
8DPSK /LCH



8DPSK /MCH

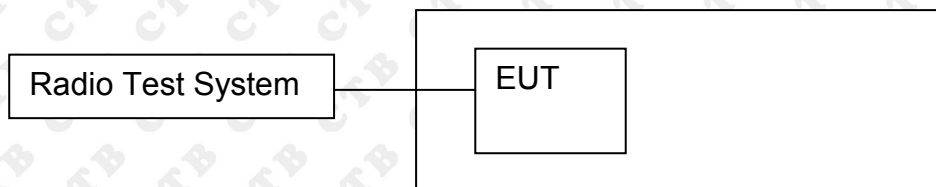


8DPSK /HCH



9. COUDUCTED PEAK OUTPUT POWER

9.1 Block Diagram Of Test Setup



9.2 Limit

For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

9.3 Test procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Set the spectrum analyzer: RBW = 2MHz. VBW = 6MHz. Sweep = auto; Detector Function = Peak.
3. Keep the EUT in transmitting at lowest, middle and highest channel individually. Record the max value.

9.4 Test Result

BW121 module:

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
EDR mode (GFSK)	LCH	5.554	20.97	PASS
	MCH	4.975	20.97	PASS
	HCH	3.981	20.97	PASS
EDR mode ($\pi/4$ DQPSK)	LCH	5.451	20.97	PASS
	MCH	4.968	20.97	PASS
	HCH	3.914	20.97	PASS
EDR mode (8DPSK)	LCH	5.455	20.97	PASS
	MCH	4.927	20.97	PASS
	HCH	3.889	20.97	PASS

QW850-1 module:

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
EDR mode (GFSK)	LCH	7.002	20.97	PASS
	MCH	6.969	20.97	PASS
	HCH	7.018	20.97	PASS
EDR mode ($\pi/4$ DQPSK)	LCH	4.654	20.97	PASS
	MCH	4.711	20.97	PASS
	HCH	4.537	20.97	PASS
EDR mode (8DPSK)	LCH	5.218	20.97	PASS
	MCH	5.272	20.97	PASS
	HCH	5.215	20.97	PASS

QW850-2 module:

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
EDR mode (GFSK)	LCH	3.589	20.97	PASS
	MCH	3.398	20.97	PASS
	HCH	3.365	20.97	PASS
EDR mode ($\pi/4$ DQPSK)	LCH	4.355	20.97	PASS
	MCH	4.134	20.97	PASS
	HCH	3.989	20.97	PASS
EDR mode (8DPSK)	LCH	4.678	20.97	PASS
	MCH	4.427	20.97	PASS
	HCH	4.289	20.97	PASS

BW121 module:
Test Graph:

Graphs	
GFSK/LCH	 Agilent Spectrum Analyzer - Sweep SA Center Freq 2.402000000 GHz Ref Offset 7.07 dB Ref 20.00 dBm Mkr1 2.402 06 GHz 5.564 dBm #Res BW 2.0 MHz #VBW 6.0 MHz Span 10.00 MHz Sweep 1.000 ms (1001 pts)
GFSK/MCH	 Agilent Spectrum Analyzer - Sweep SA Center Freq 2.441000000 GHz Ref Offset 7.13 dB Ref 20.00 dBm Mkr1 2.441 04 GHz 4.976 dBm #Res BW 2.0 MHz #VBW 6.0 MHz Span 10.00 MHz Sweep 1.000 ms (1001 pts)
GFSK/HCH	 Agilent Spectrum Analyzer - Sweep SA Center Freq 2.480000000 GHz Ref Offset 7.16 dB Ref 20.00 dBm Mkr1 2.480 11 GHz 3.981 dBm #Res BW 2.0 MHz #VBW 6.0 MHz Span 10.00 MHz Sweep 1.000 ms (1001 pts)

$\pi/4$ DQPSK/LCH	 Agilent Spectrum Analyzer - Sweep SA Center Freq 2.40200000 GHz Ref Offset 7.07 dB Ref 20.00 dBm Mkr1 2.40185 GHz 5.451 dBm Center 2.402000 GHz #Res BW 2.0 MHz #VBW 6.0 MHz Span 10.00 MHz Sweep 1.000 ms (1001 pts)
$\pi/4$ DQPSK/MCH	 Agilent Spectrum Analyzer - Sweep SA Center Freq 2.44100000 GHz Ref Offset 7.13 dB Ref 20.00 dBm Mkr1 2.44109 GHz 4.968 dBm Center 2.441000 GHz #Res BW 2.0 MHz #VBW 6.0 MHz Span 10.00 MHz Sweep 1.000 ms (1001 pts)
$\pi/4$ DQPSK/HCH	 Agilent Spectrum Analyzer - Sweep SA Center Freq 2.48000000 GHz Ref Offset 7.16 dB Ref 20.00 dBm Mkr1 2.47981 GHz 3.914 dBm Center 2.480000 GHz #Res BW 2.0 MHz #VBW 6.0 MHz Span 10.00 MHz Sweep 1.000 ms (1001 pts)