

Appendix A: Test Results of Conducted Test for Left and Right Ears

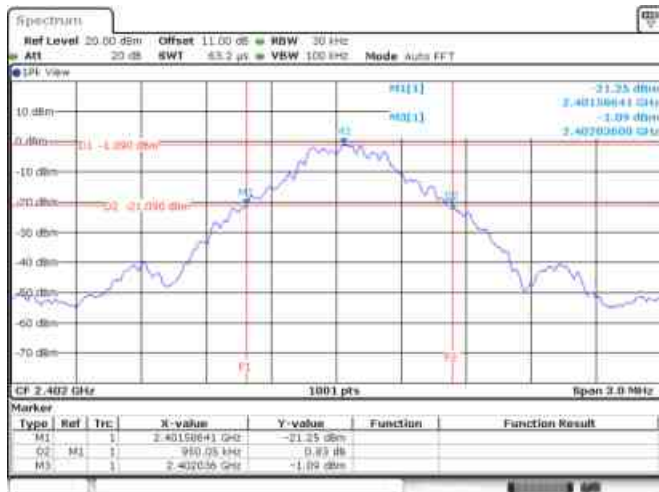
Left Ear

Test Result of 20 dB Bandwidth

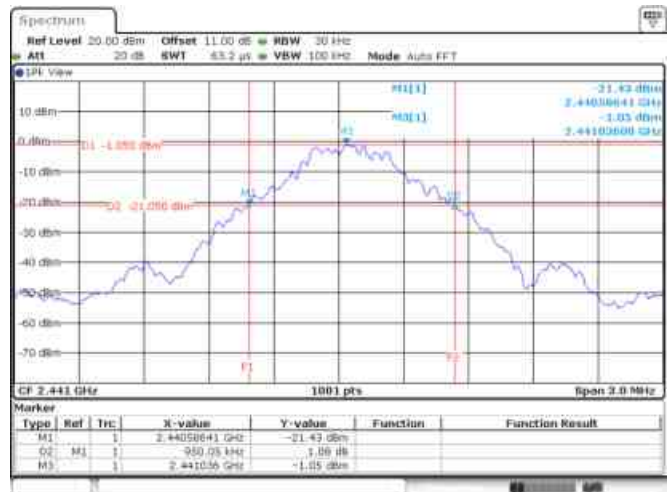
GFSK

Channel	Channel Frequency (MHz)	20 dB Bandwidth (kHz)
Low Channel	2402	950.05
Middle Channel	2441	950.05
High Channel	2480	950.05

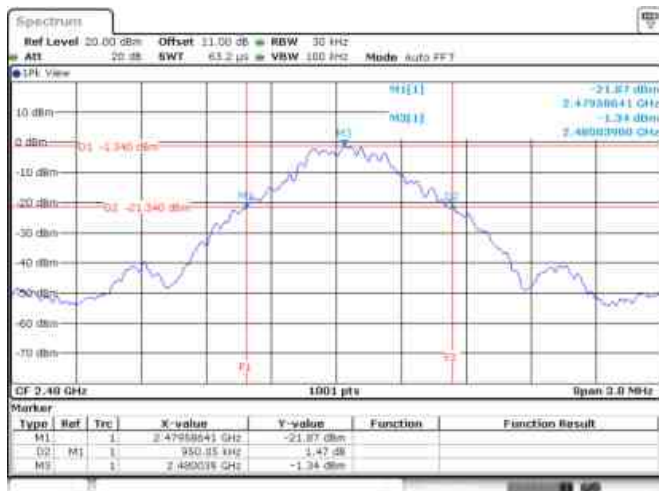
Low Channel



Middle Channel



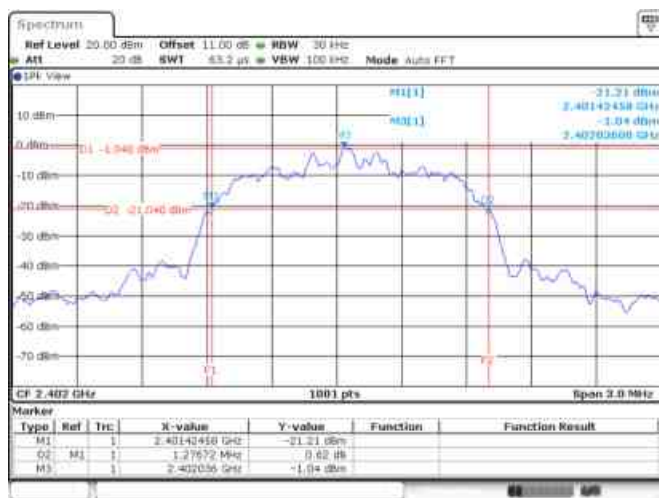
High Channel



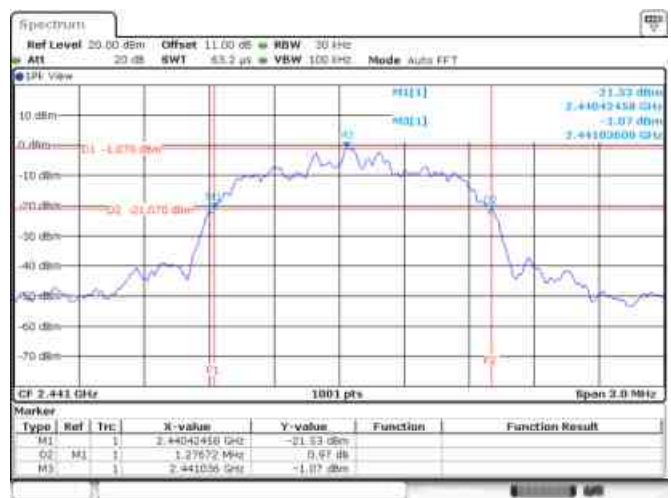
$\pi/4$ -DQPSK

Channel	Channel Frequency (MHz)	20 dB Bandwidth (kHz)
Low Channel	2402	1276.72
Middle Channel	2441	1276.72
High Channel	2480	1276.72

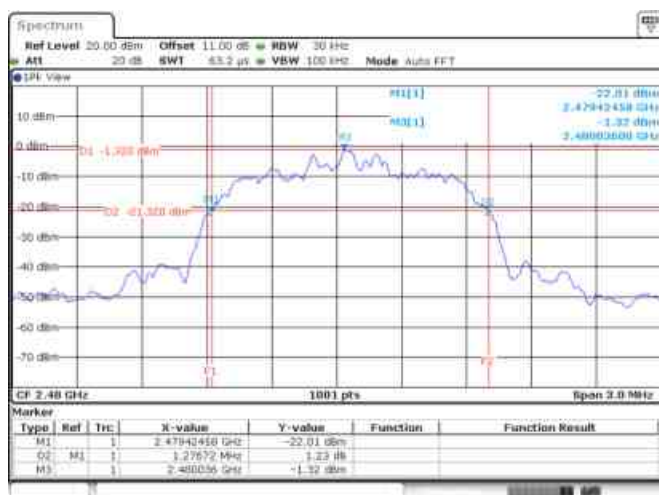
Low Channel



Middle Channel



High Channel

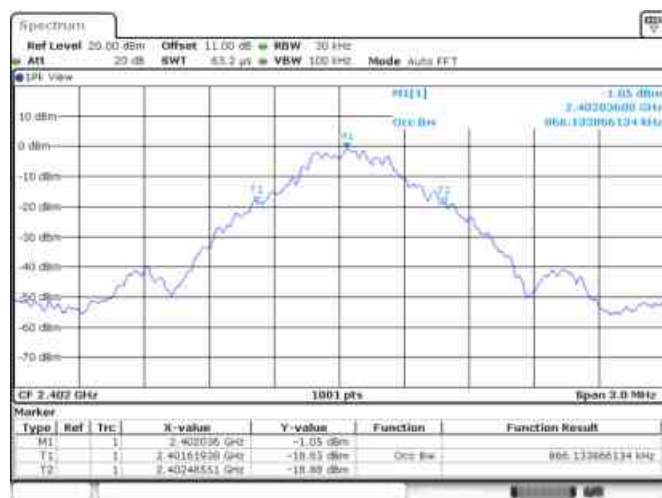


Test Result of 99% Occupied Bandwidth

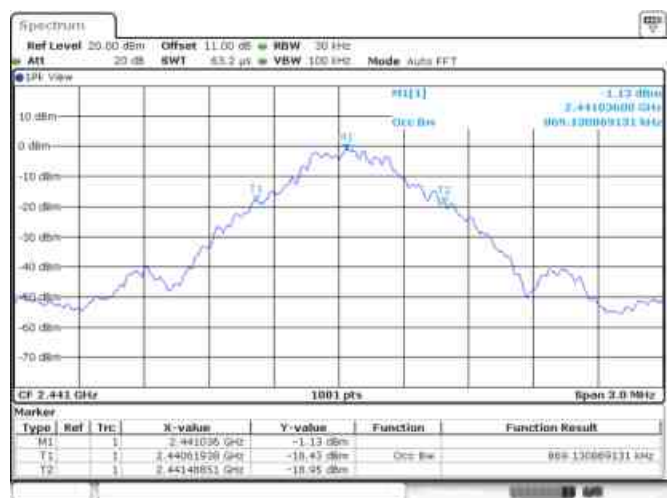
GFSK

Channel	Channel Frequency (MHz)	99% Bandwidth (kHz)
Low Channel	2402	866.13
Middle Channel	2441	869.13
High Channel	2480	869.13

Low Channel



Middle Channel



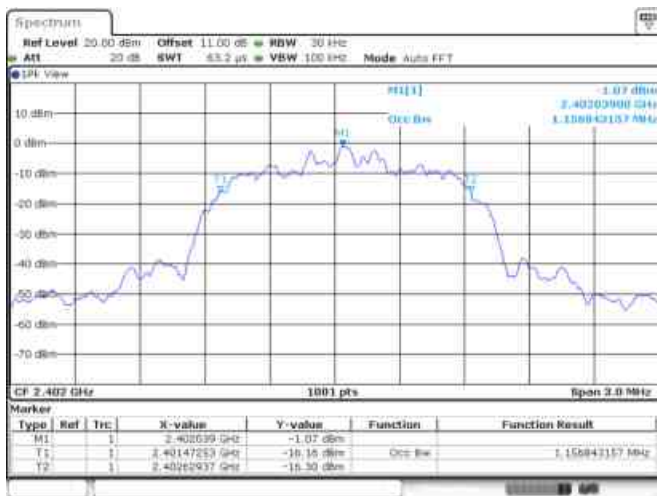
High Channel



$\pi/4$ -DQPSK

Channel	Channel Frequency (MHz)	99% Bandwidth (kHz)
Low Channel	2402	1156.84
Middle Channel	2441	1156.84
High Channel	2480	1156.84

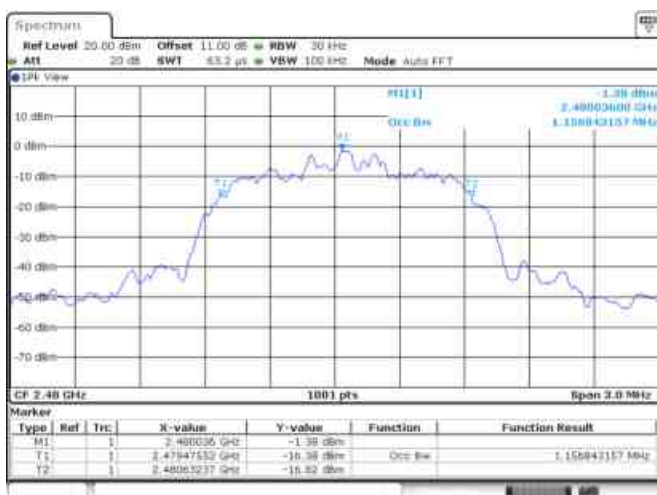
Low Channel



Middle Channel



High Channel

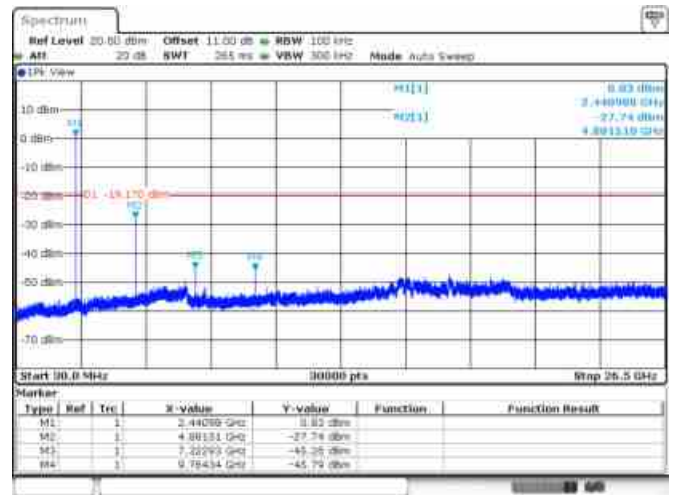
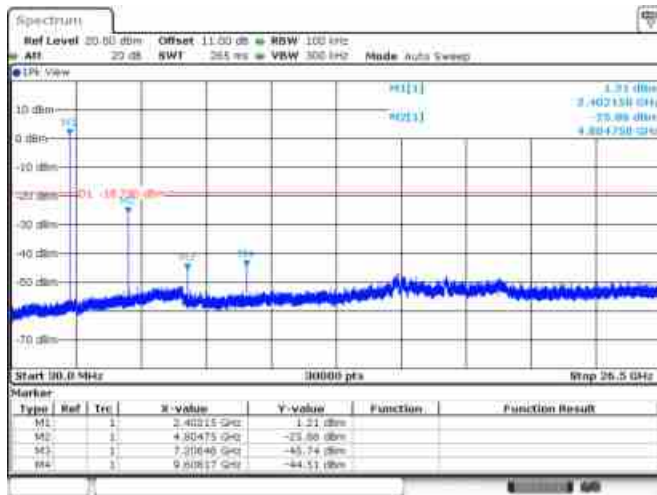


Test Result of Conducted Spurious Emissions, Tx Mode

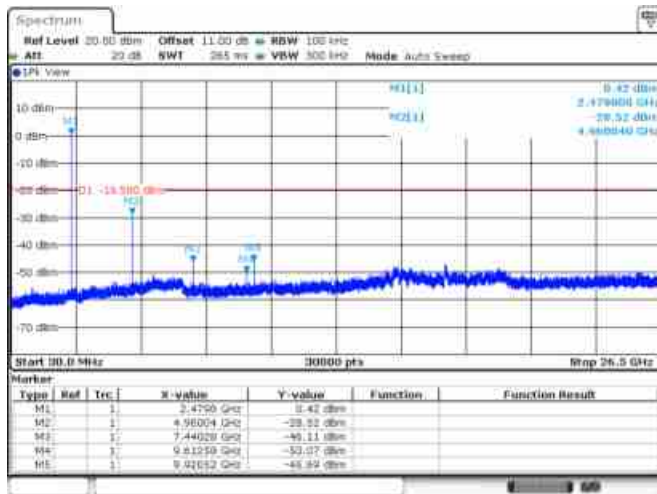
GFSK

Low Channel

Middle Channel

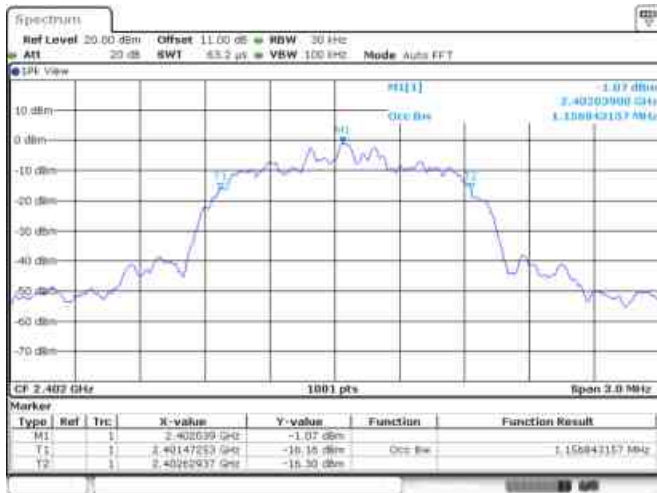


High Channel



$\pi/4$ -DQPSK

Low Channel



Middle Channel

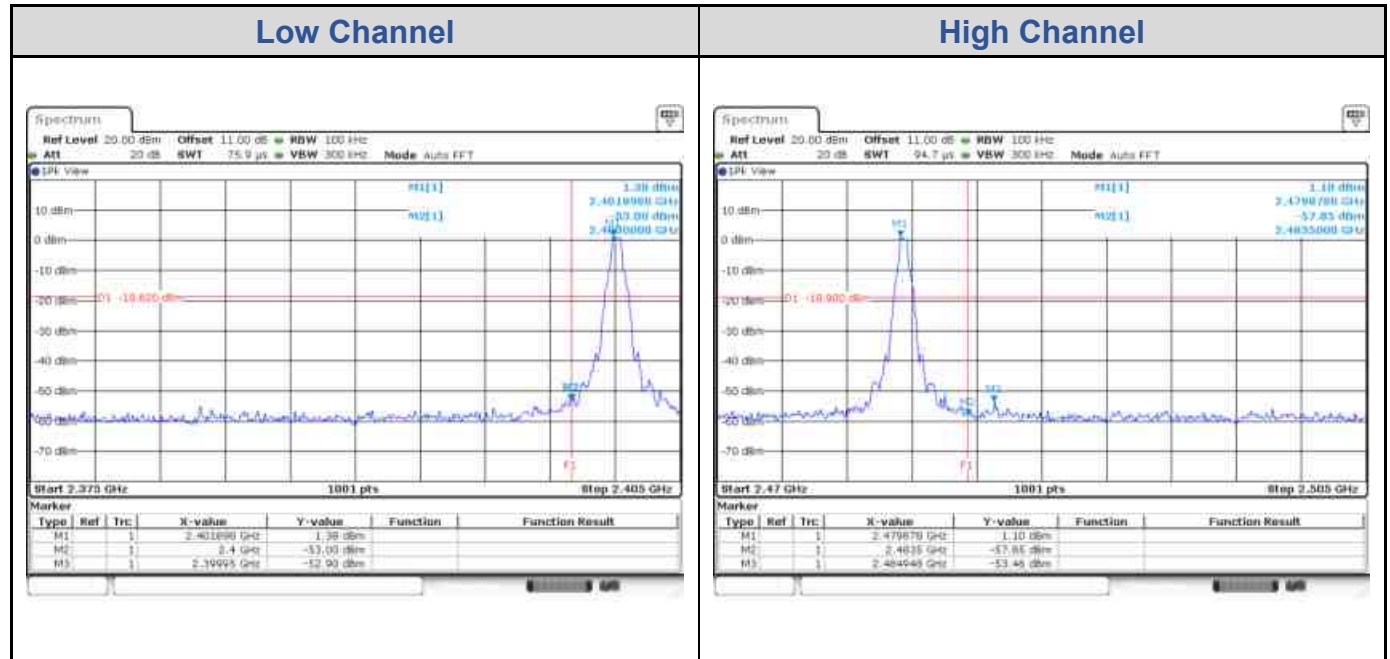


High Channel

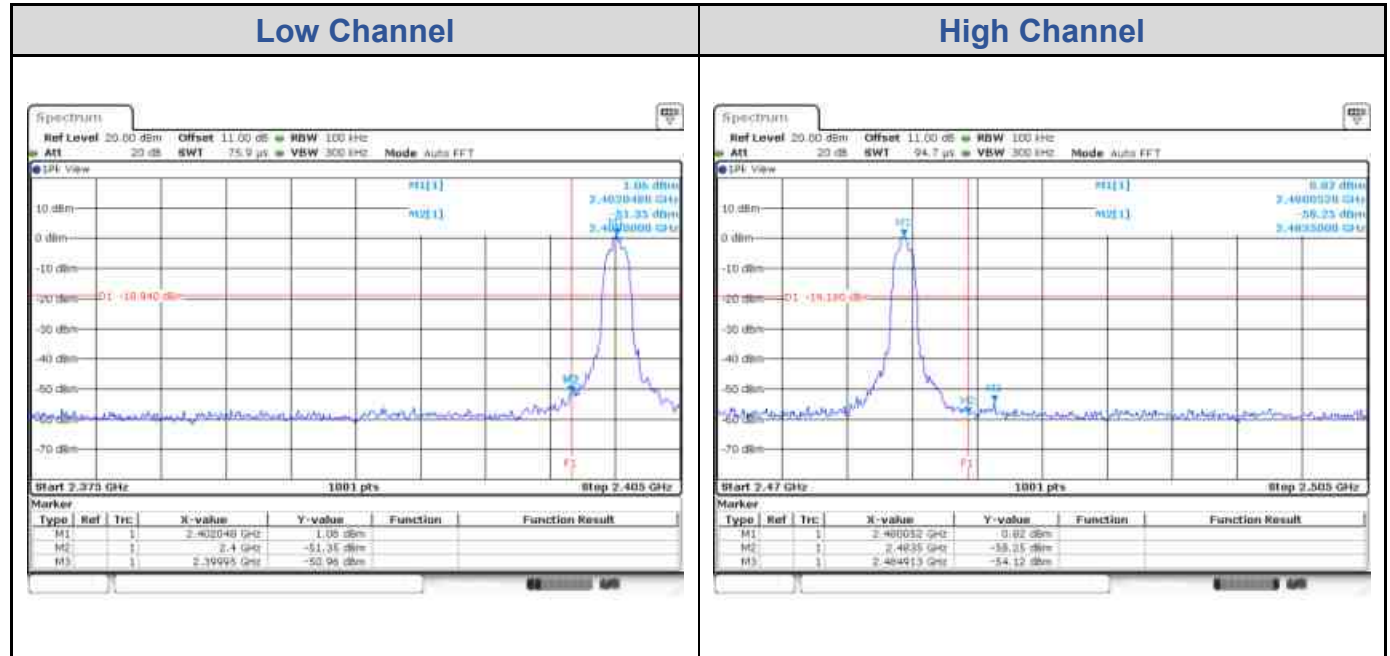


Test Result of Conducted Band Edge, Tx Mode

GFSK

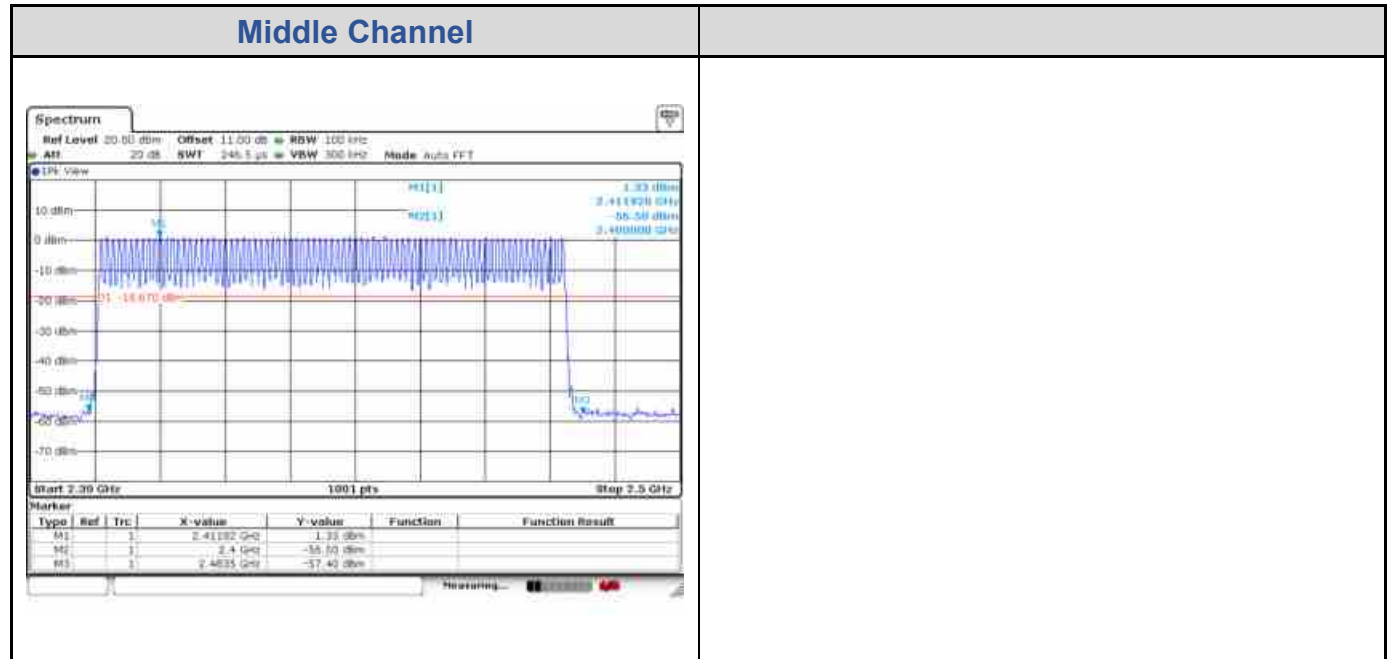


$\pi/4$ -DQPSK

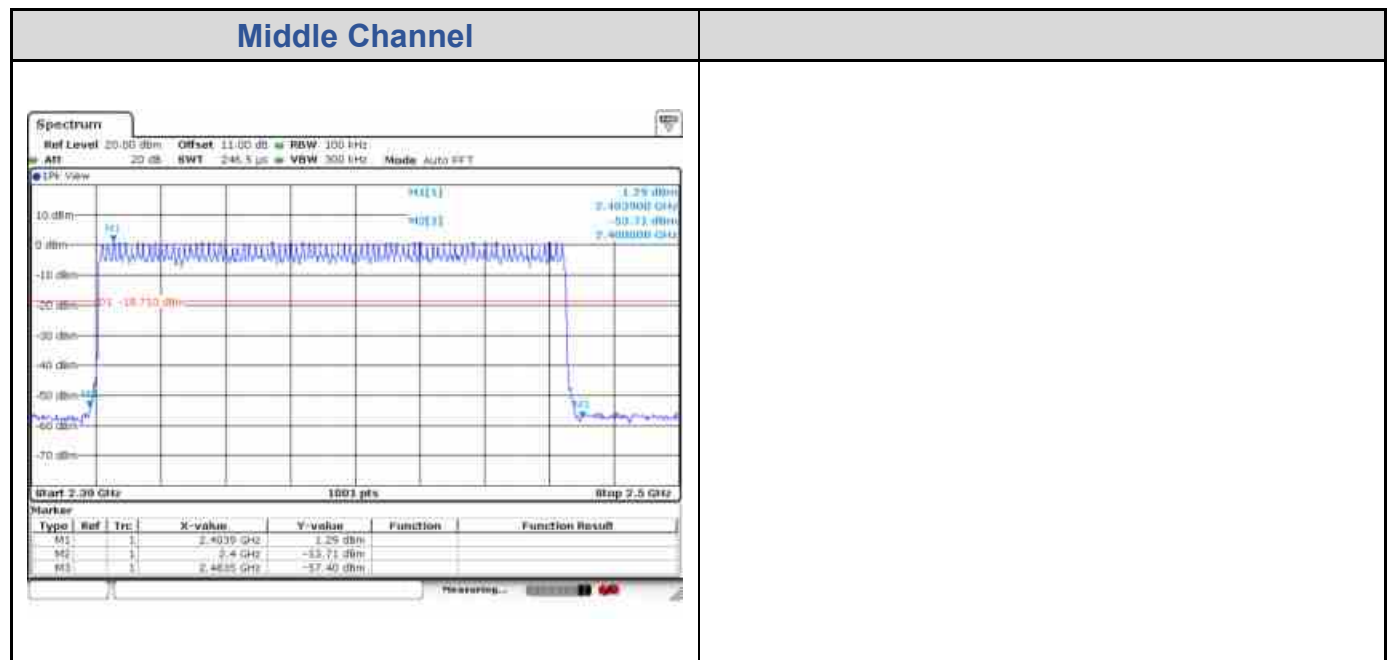


Test Result of Hopping Band Edge

GFSK



$\pi/4$ -DQPSK

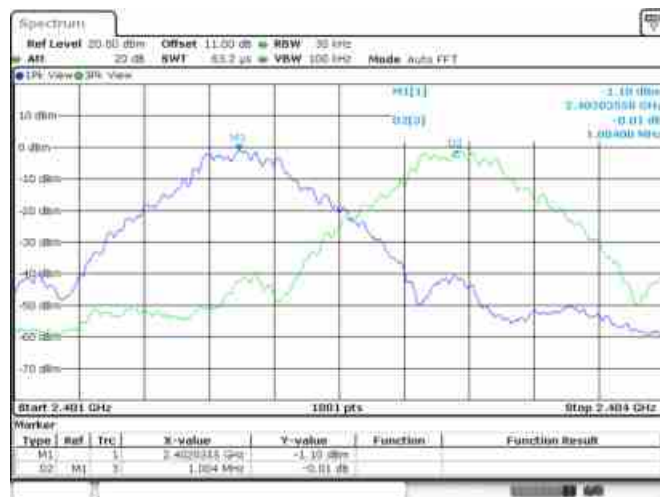


Test Result of Hopping Channel Separation

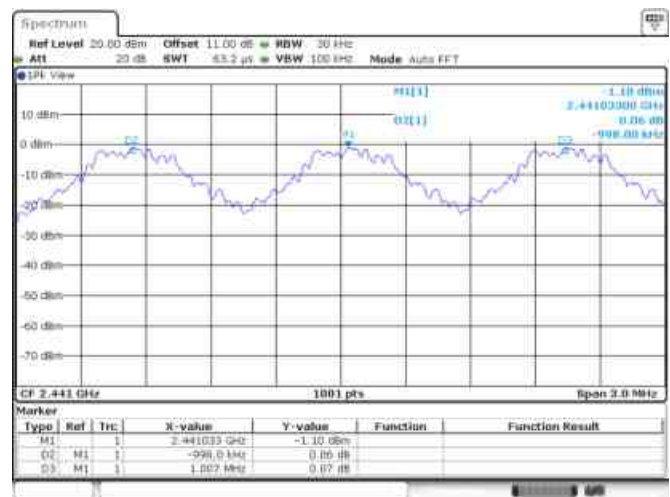
GFSK

Channel	Channel Frequency (MHz)	Adjacent Channel Separation (MHz)	20 dB Bandwidth (kHz)	Minimum Limit (MHz)	Result
0	2402	1.00	0.95	0.63	Pass
39	2441	1.01	0.95	0.63	Pass
78	2480	1.00	0.95	0.63	Pass

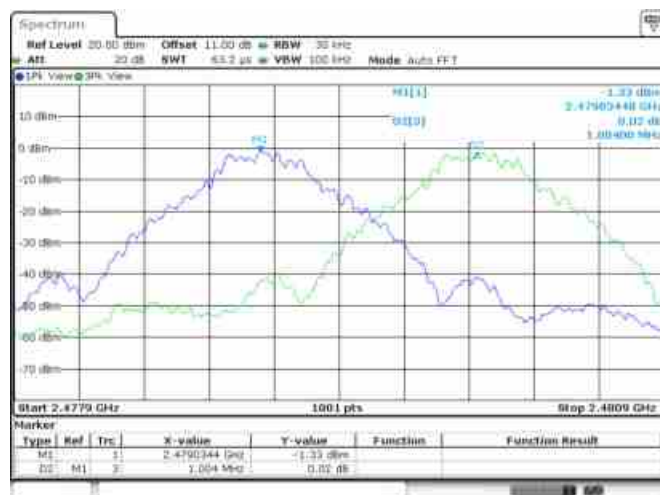
Low Channel



Middle Channel



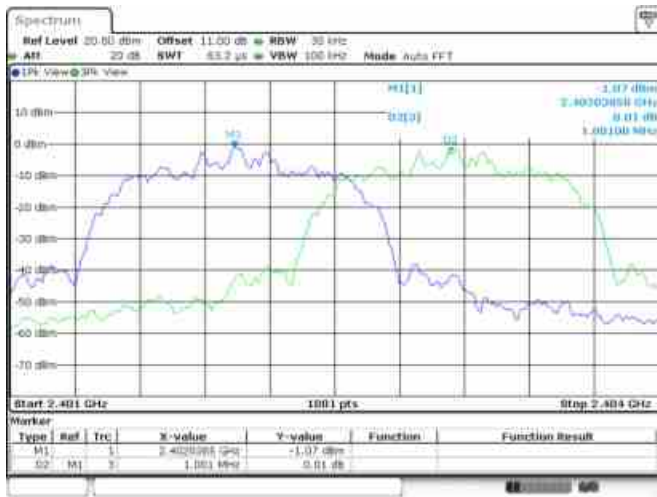
High Channel



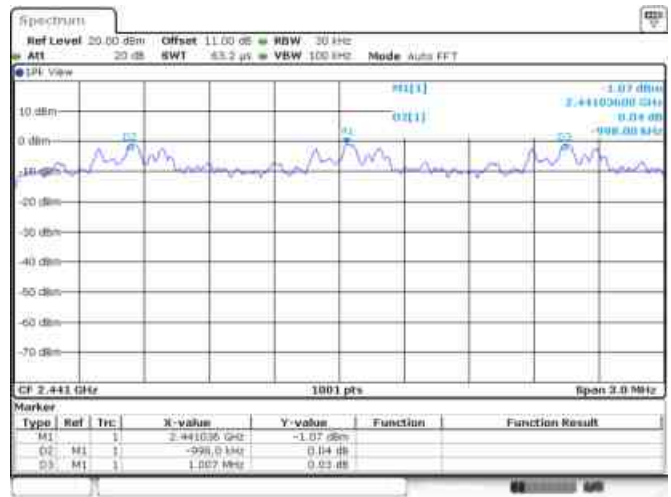
$\pi/4$ -DQPSK

Channel	Channel Frequency (MHz)	Adjacent Channel Separation (MHz)	20 dB Bandwidth (kHz)	Minimum Limit (MHz)	Result
0	2402	1.00	1.28	0.85	Pass
39	2441	1.01	1.28	0.85	Pass
78	2480	1.00	1.28	0.85	Pass

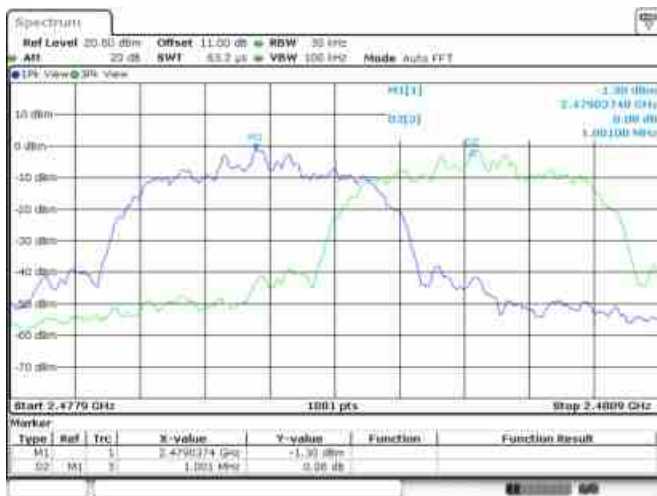
Low Channel



Middle Channel



High Channel



Test Result of Number of Hopping Frequency

Frequency Range	Measured Quantity of Hopping Channel	Limit	Result
2400 to 2483.5 MHz	79	≥15	Pass

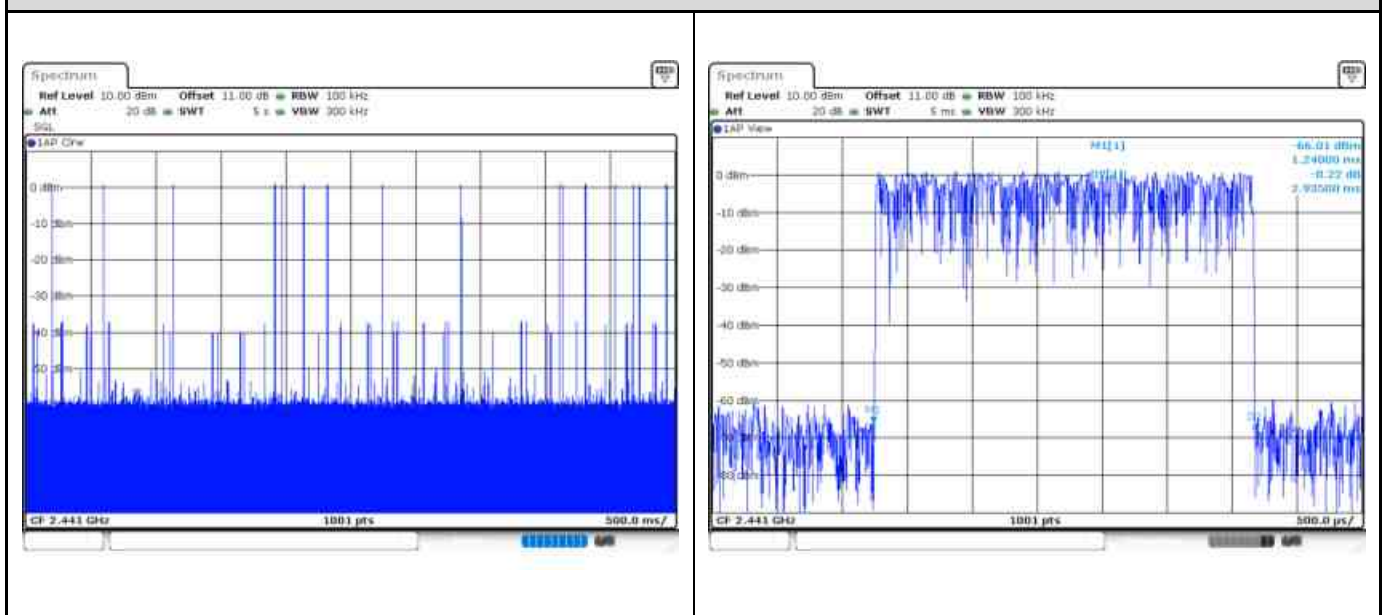


Test Result of Dwell Time

GFSK

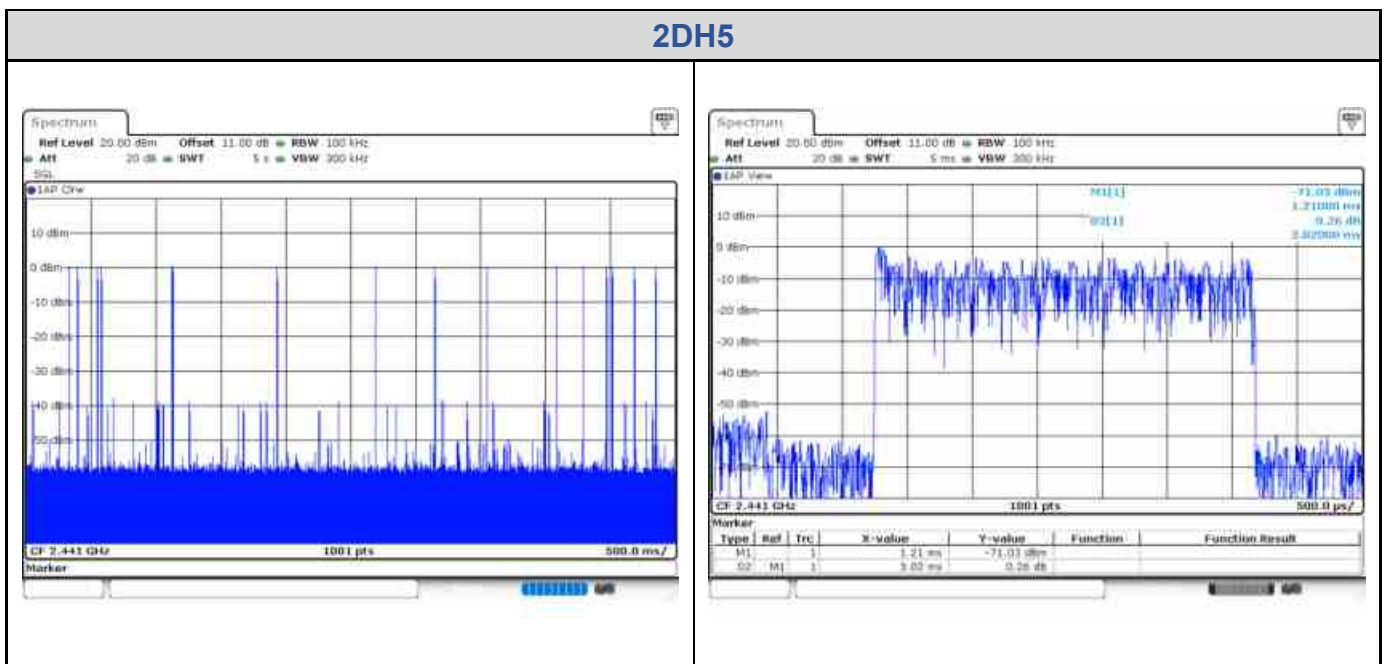
Data Mode	Number of transfer in a 31.6 (79Hopping*0.4s)	Package transfer time (msec)	Dwell time (s)	Limit (s)	Result
1DH5	16 (times /5 sec) * 6.32= 101.12 times	2.94	0.30	0.4	Pass

1DH5



$\pi/4$ -DQPSK

Data Mode	Number of transfer in a 31.6 (79Hopping*0.4s)	Package transfer time (msec)	Dwell time (s)	Limit (s)	Result
2DH5	12 (times /5 sec) * 6.32= 75.84 times	2.94	0.22	0.4	Pass



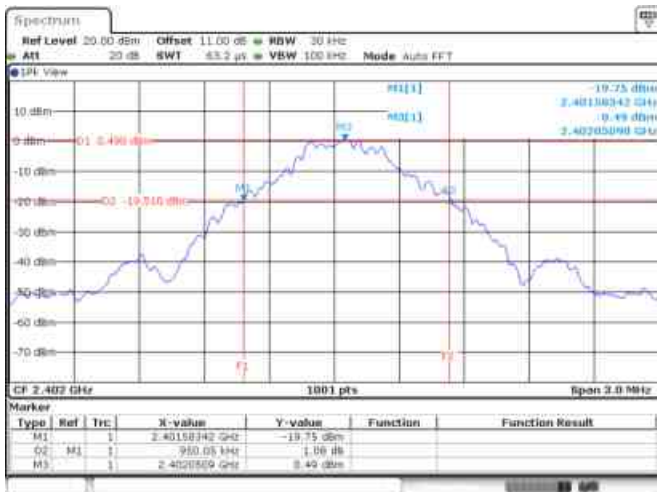
Right Ear

Test Result of 20 dB Bandwidth

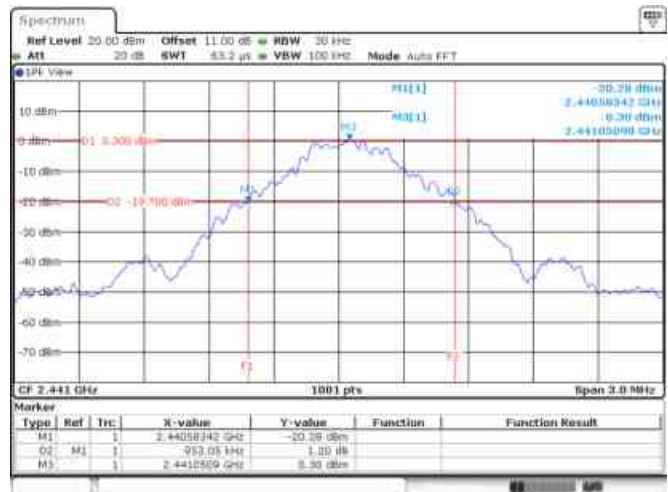
GFSK

Channel	Channel Frequency (MHz)	20 dB Bandwidth (kHz)
Low Channel	2402	950.05
Middle Channel	2441	953.05
High Channel	2480	953.05

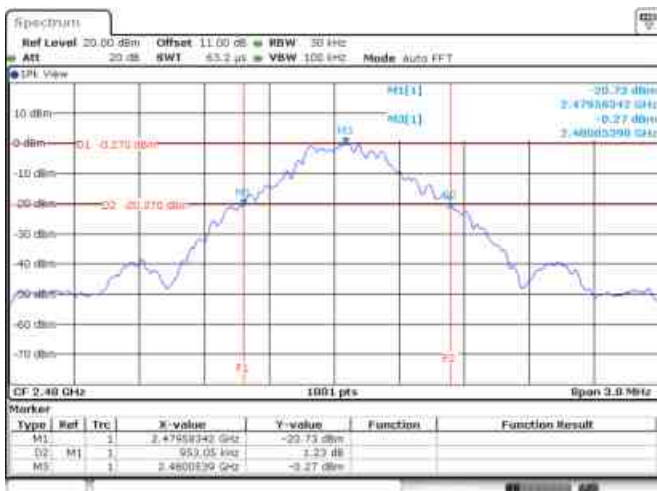
Low Channel



Middle Channel



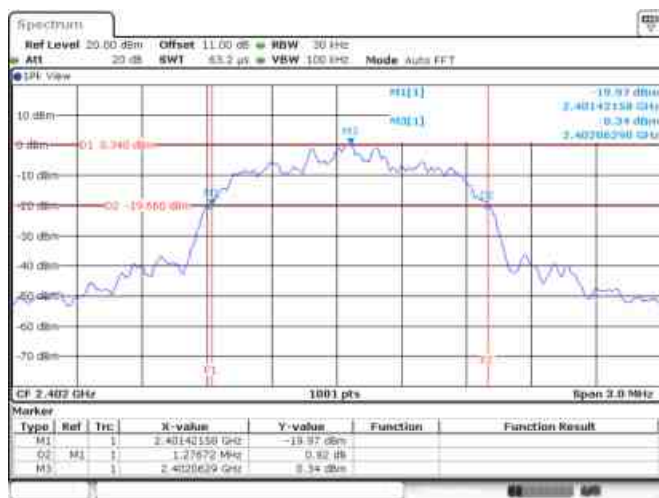
High Channel



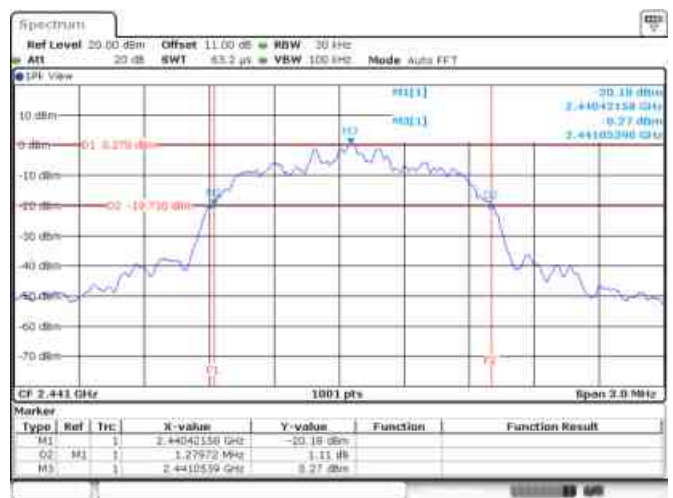
$\pi/4$ -DQPSK

Channel	Channel Frequency (MHz)	20 dB Bandwidth (kHz)
Low Channel	2402	1276.72
Middle Channel	2441	1279.72
High Channel	2480	1276.72

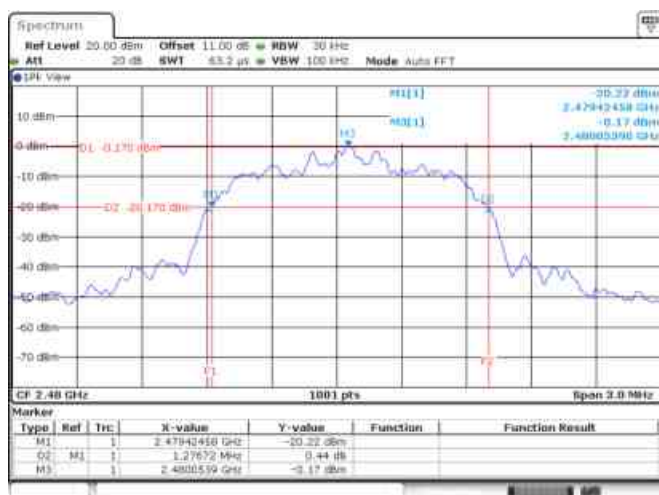
Low Channel



Middle Channel



High Channel

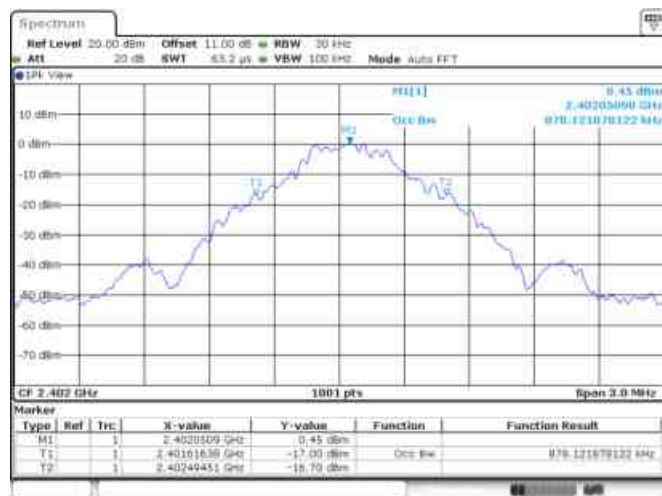


Test Result of 99% Occupied Bandwidth

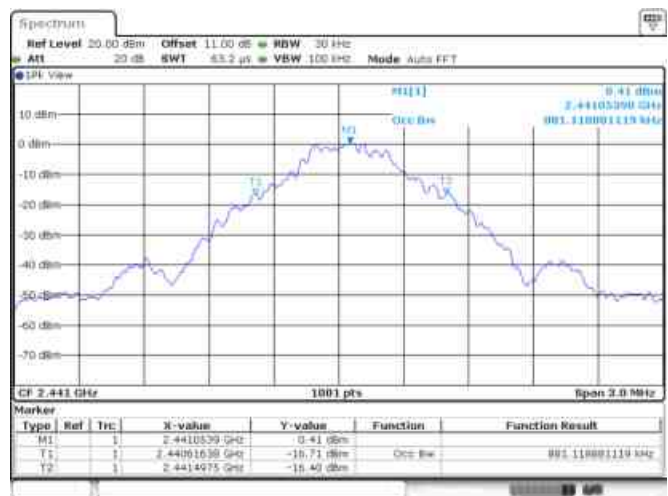
GFSK

Channel	Channel Frequency (MHz)	99% Bandwidth (kHz)
Low Channel	2402	878.12
Middle Channel	2441	881.12
High Channel	2480	881.12

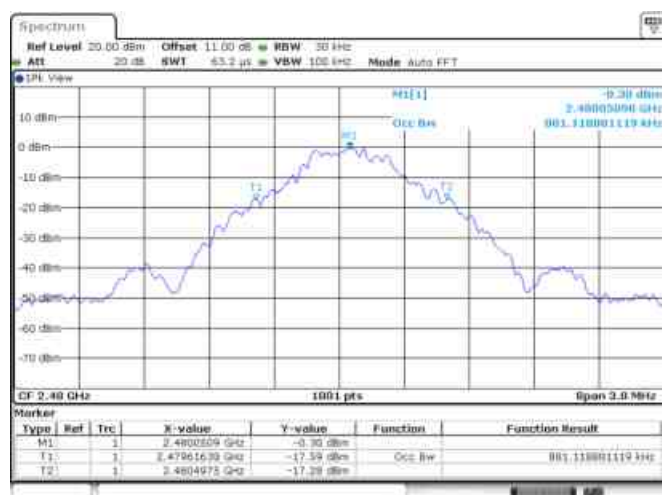
Low Channel



Middle Channel



High Channel



$\pi/4$ -DQPSK

Channel	Channel Frequency (MHz)	99% Bandwidth (kHz)
Low Channel	2402	1156.84
Middle Channel	2441	1156.84
High Channel	2480	1156.84

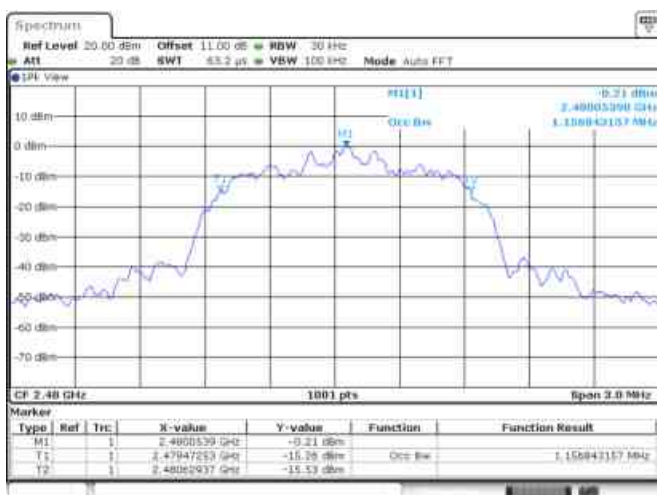
Low Channel



Middle Channel



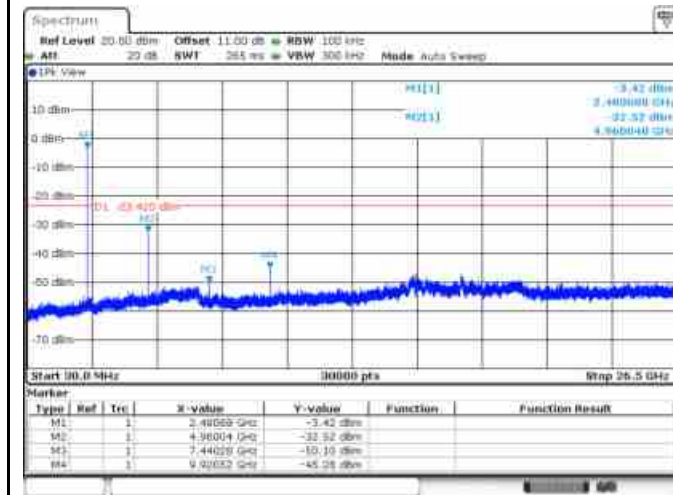
High Channel



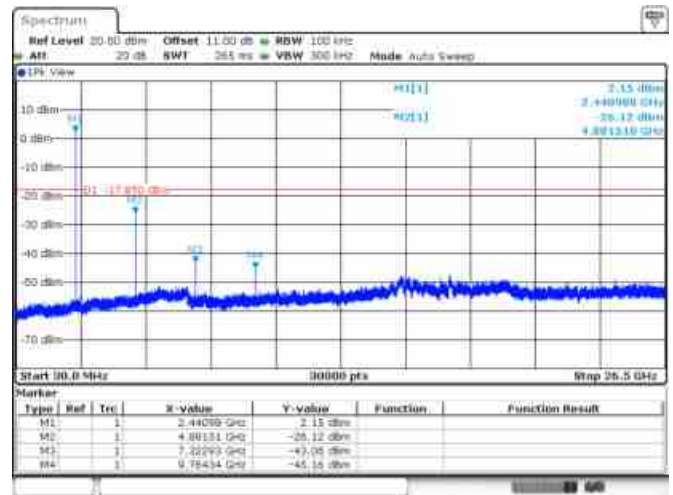
Test Result of Conducted Spurious Emissions, Tx Mode

GFSK

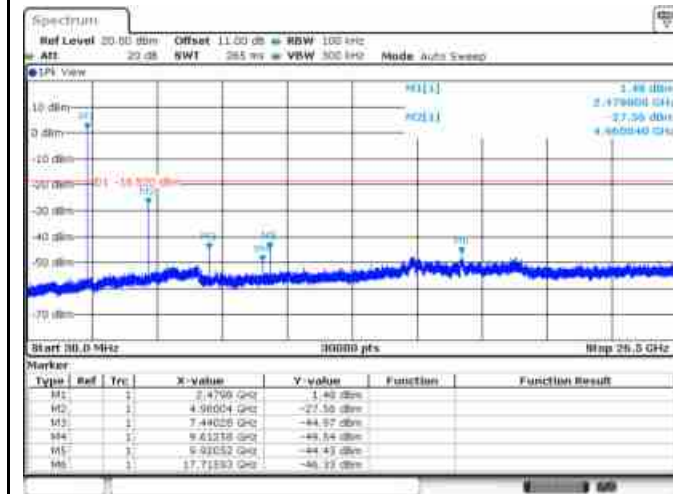
Low Channel



Middle Channel

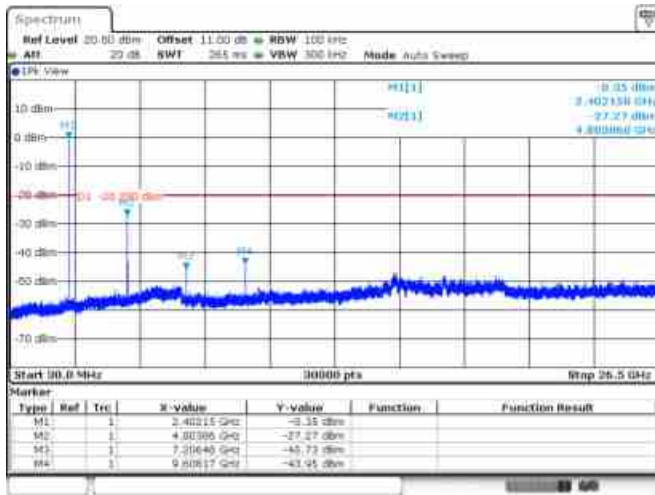


High Channel

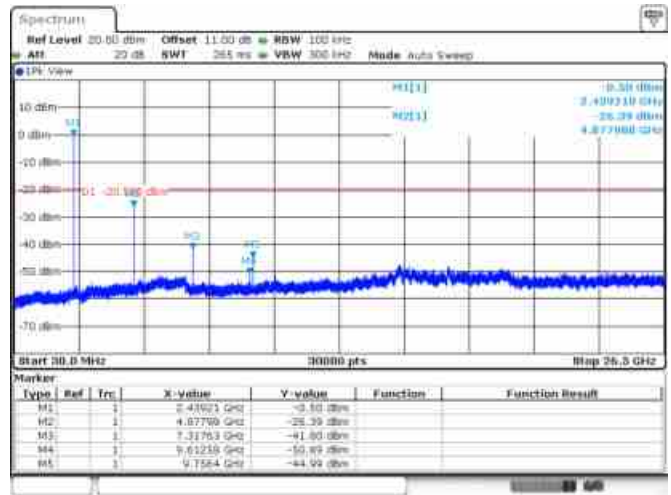


$\pi/4$ -DQPSK

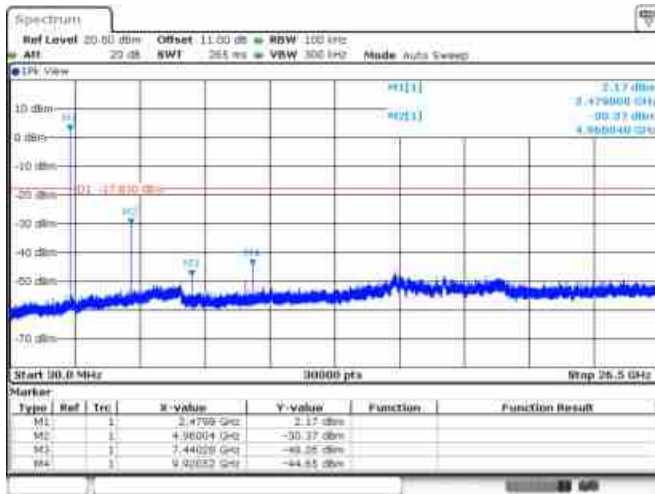
Low Channel



Middle Channel

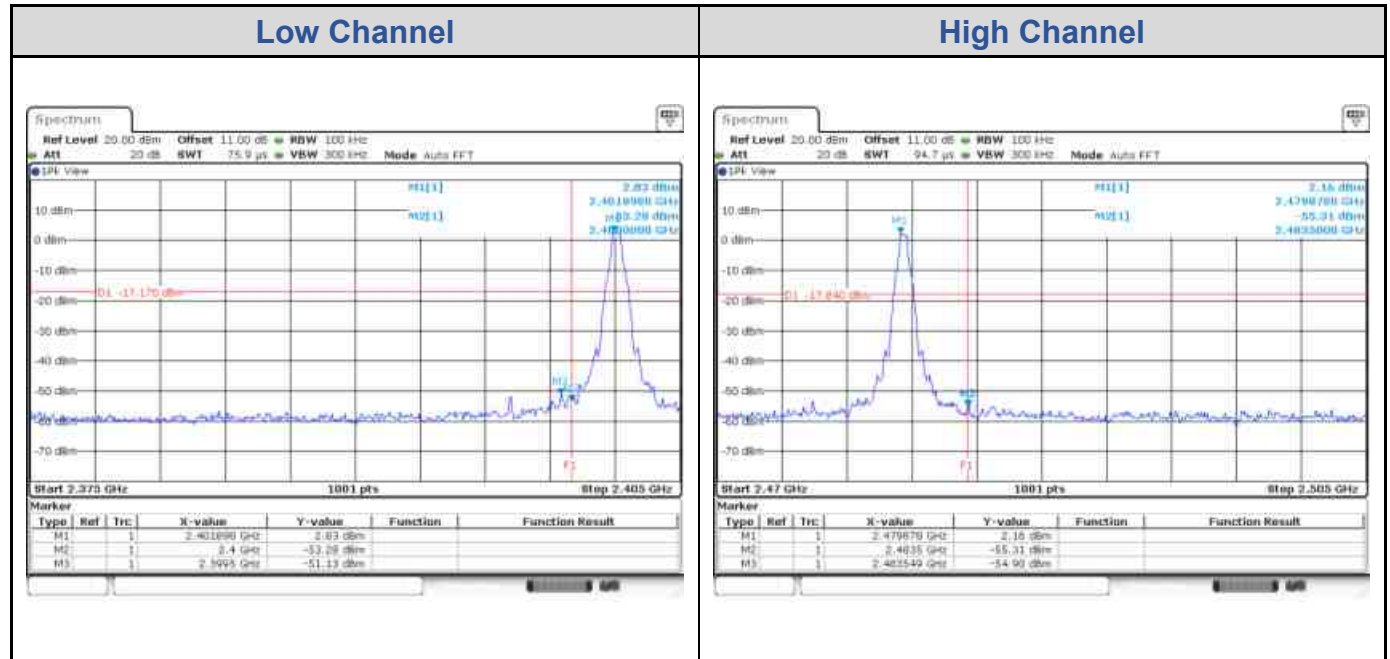


High Channel

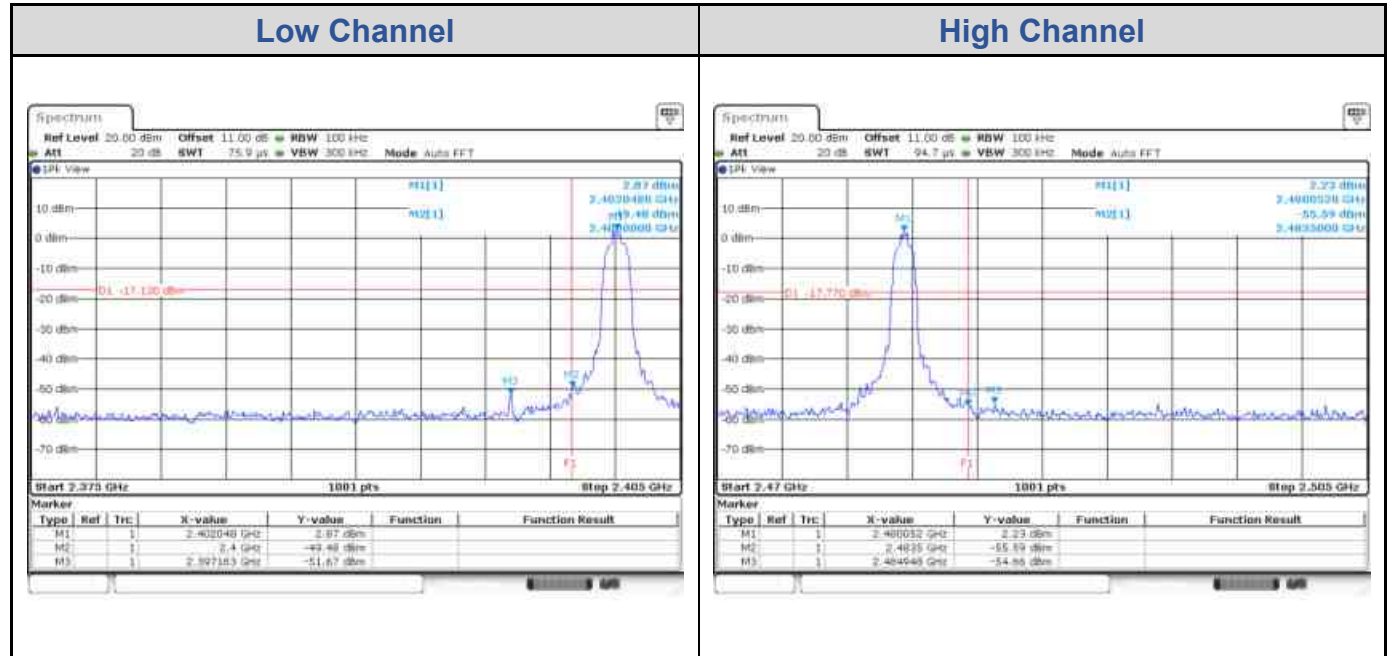


Test Result of Conducted Band Edge, Tx Mode

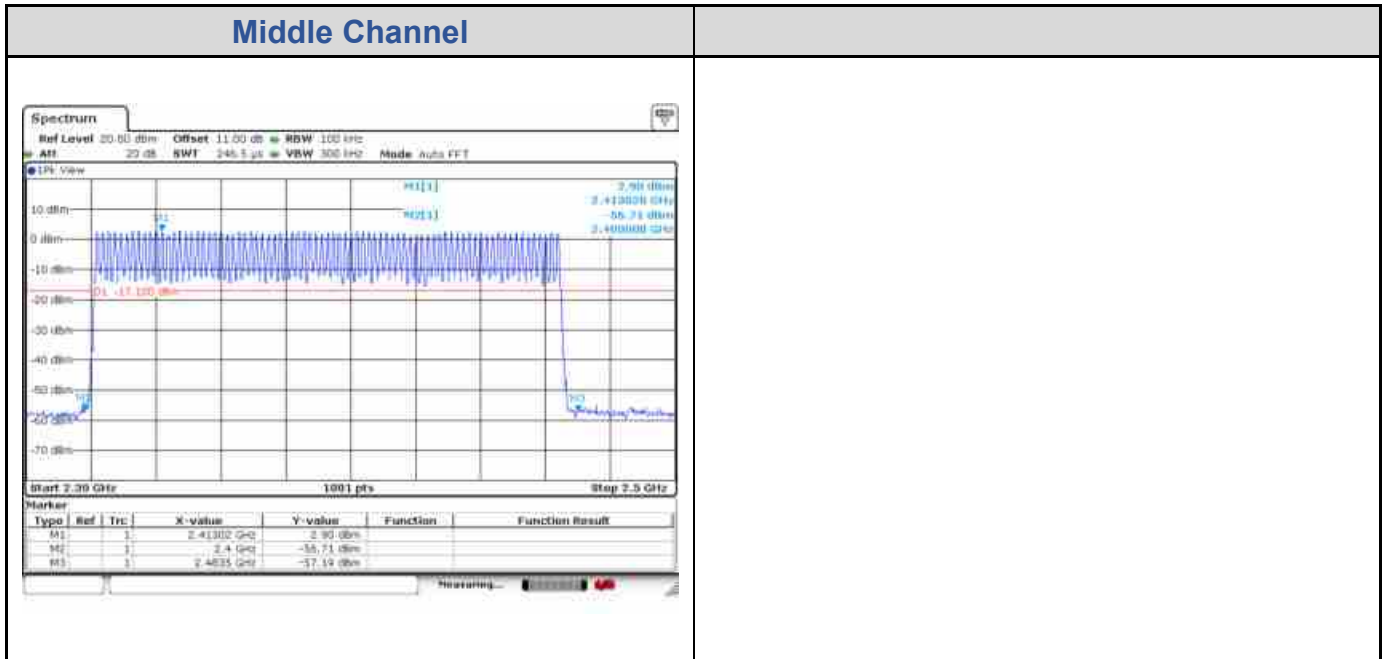
GFSK



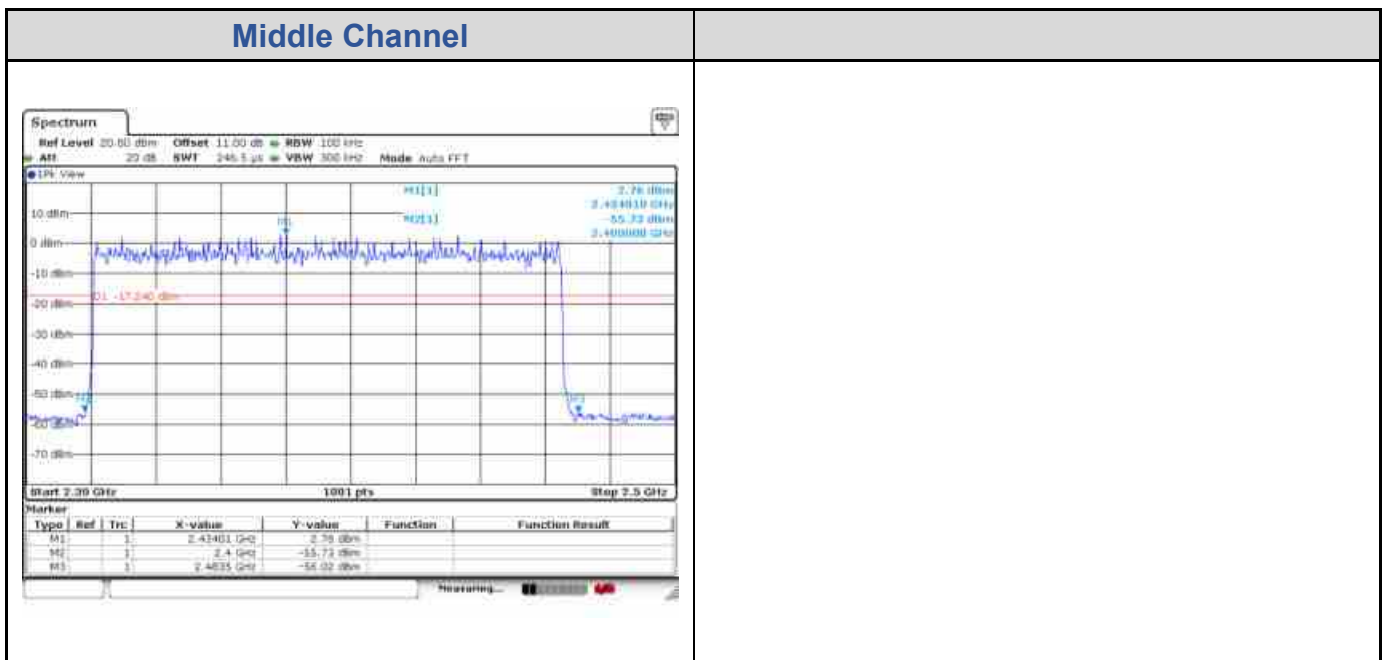
$\pi/4$ -DQPSK



Test Result of Hopping Band Edge GFSK



$\pi/4$ -DQPSK

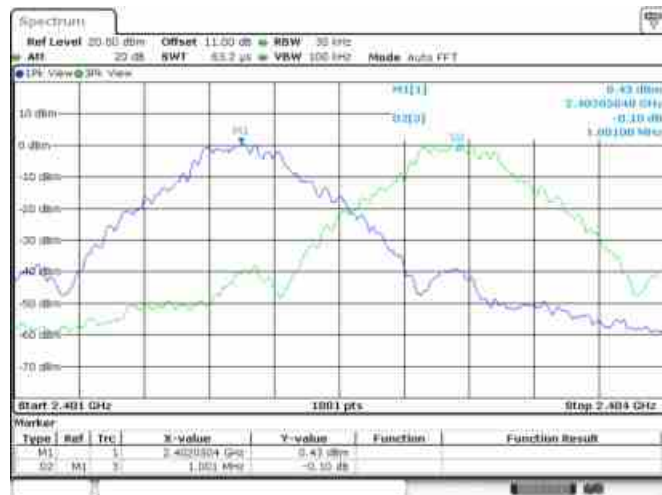


Test Result of Hopping Channel Separation

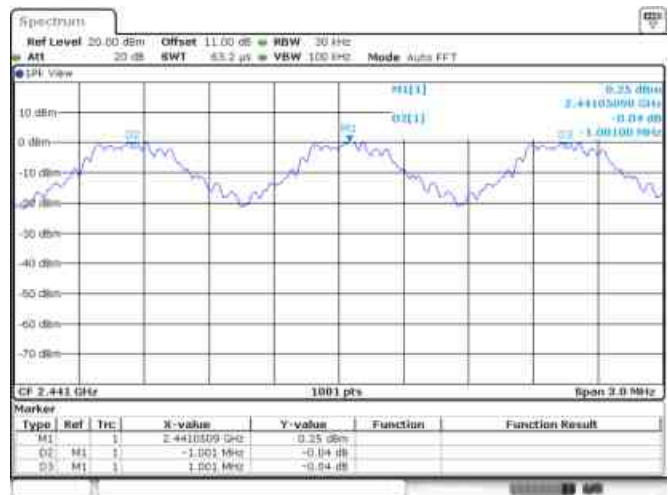
GFSK

Channel	Channel Frequency (MHz)	Adjacent Channel Separation (MHz)	20 dB Bandwidth (kHz)	Minimum Limit (MHz)	Result
0	2402	1.00	0.95	0.63	Pass
39	2441	1.00	0.95	0.64	Pass
78	2480	1.00	0.95	0.64	Pass

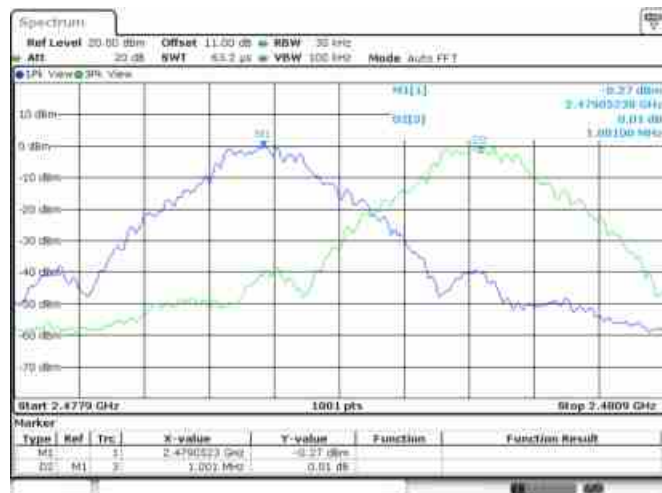
Low Channel



Middle Channel



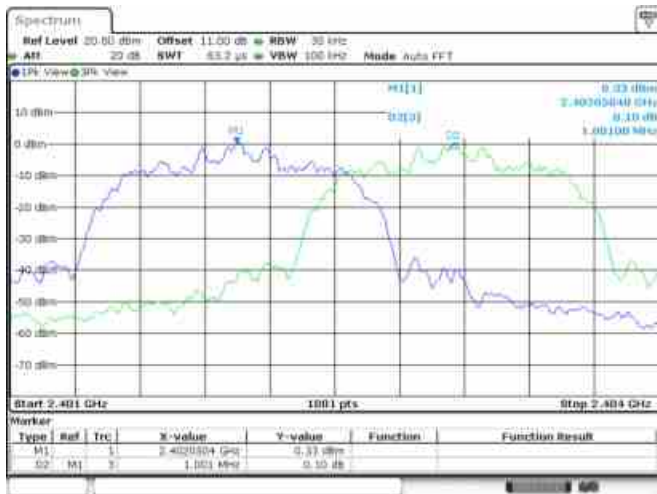
High Channel



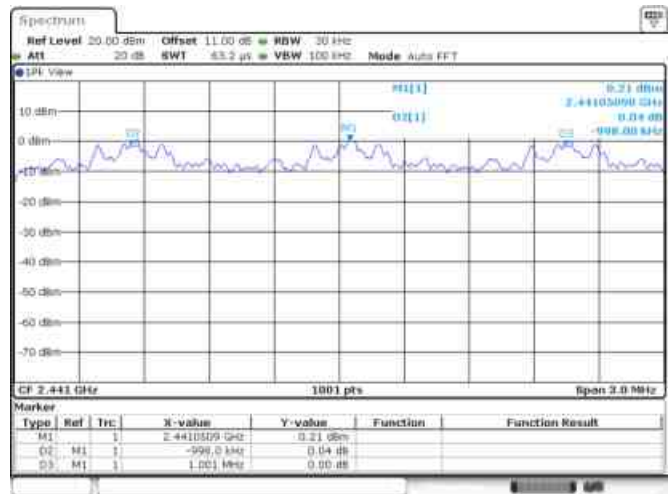
$\pi/4$ -DQPSK

Channel	Channel Frequency (MHz)	Adjacent Channel Separation (MHz)	20 dB Bandwidth (kHz)	Minimum Limit (MHz)	Result
0	2402	1.00	1.28	0.85	Pass
39	2441	1.00	1.28	0.85	Pass
78	2480	1.00	1.28	0.85	Pass

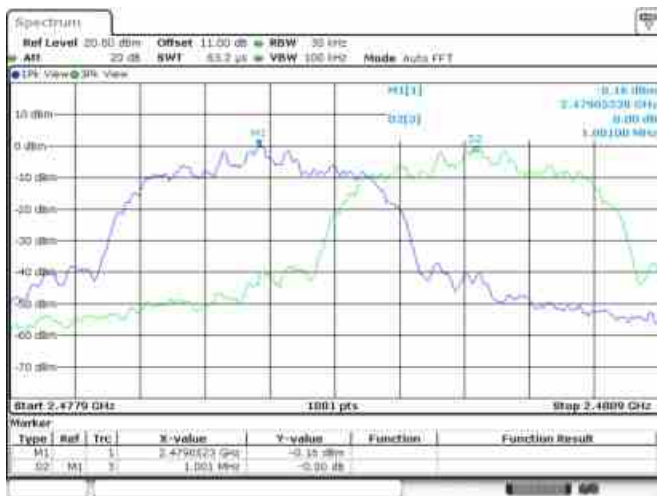
Low Channel



Middle Channel

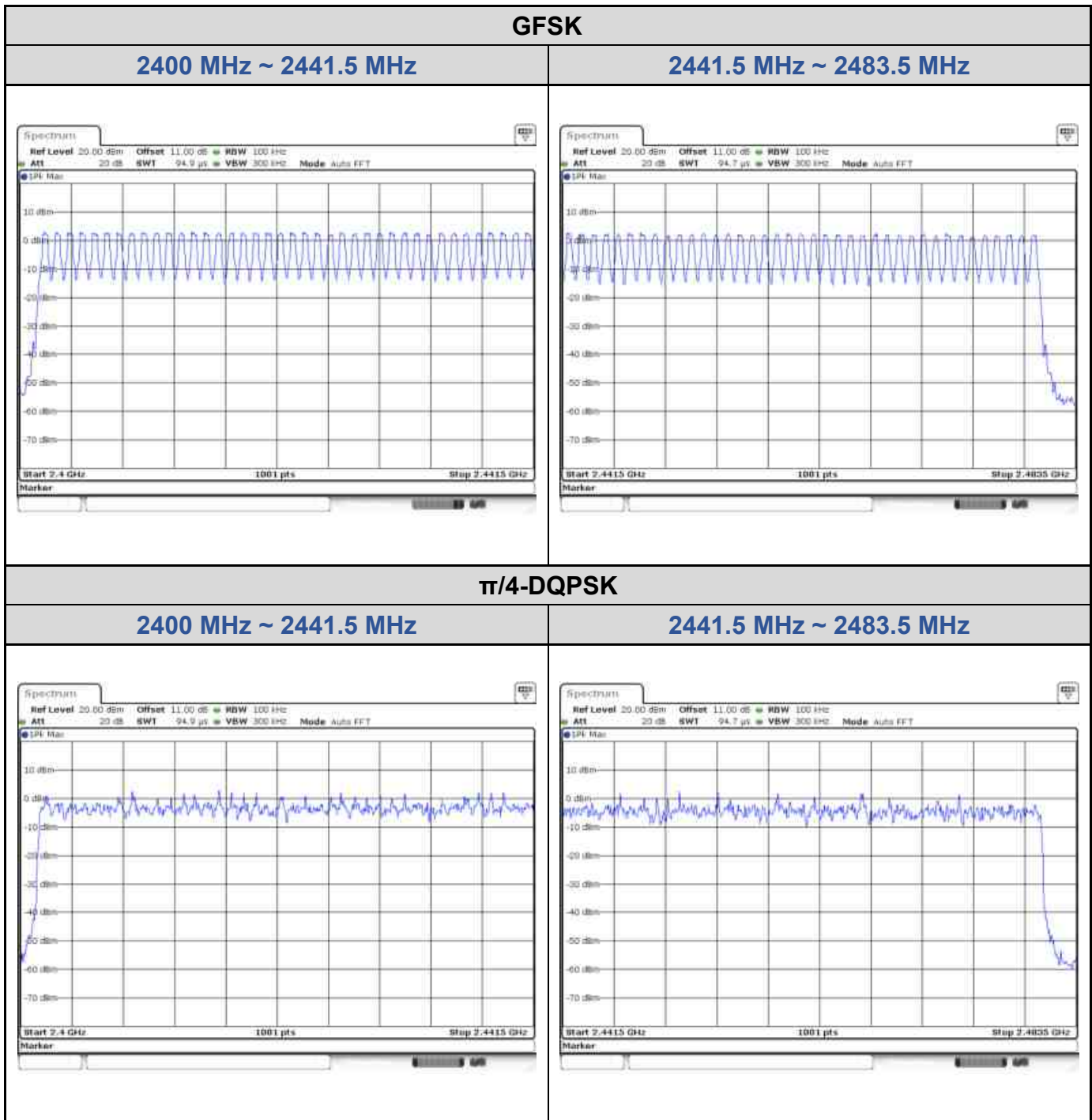


High Channel



Test Result of Number of Hopping Frequency

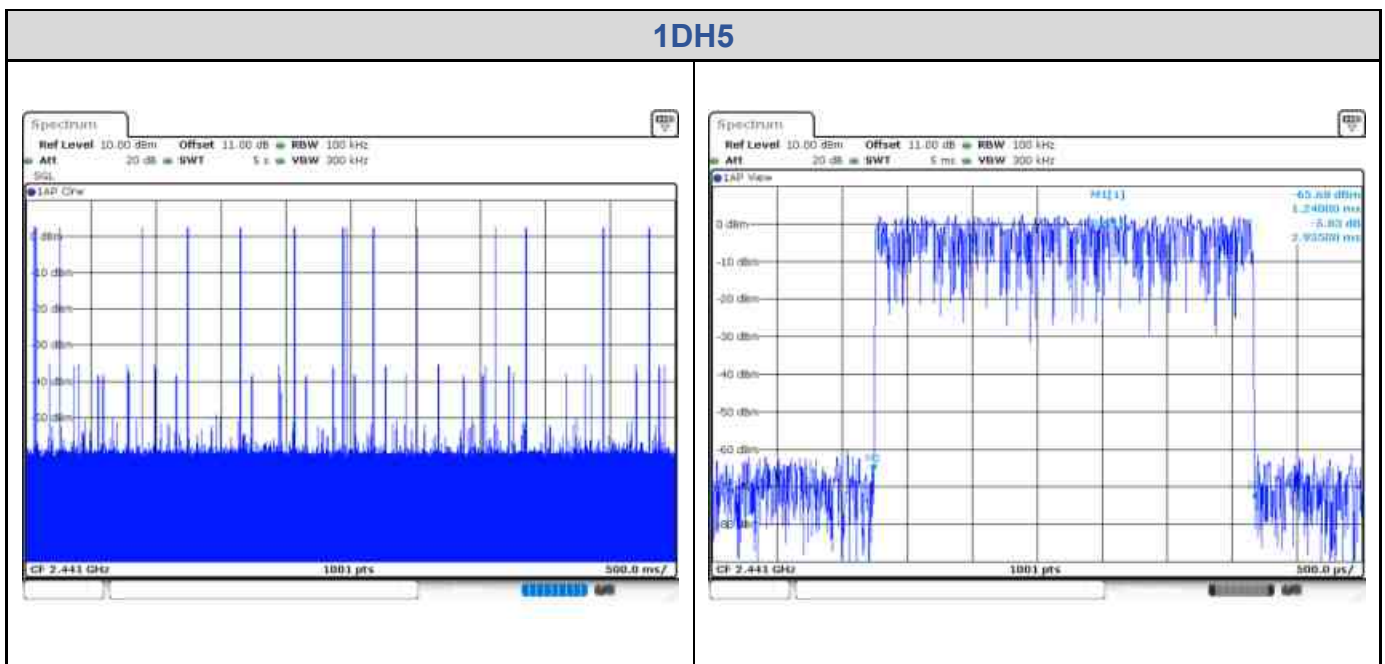
Frequency Range	Measured Quantity of Hopping Channel	Limit	Result
2400 to 2483.5 MHz	79	≥15	Pass



Test Result of Dwell Time

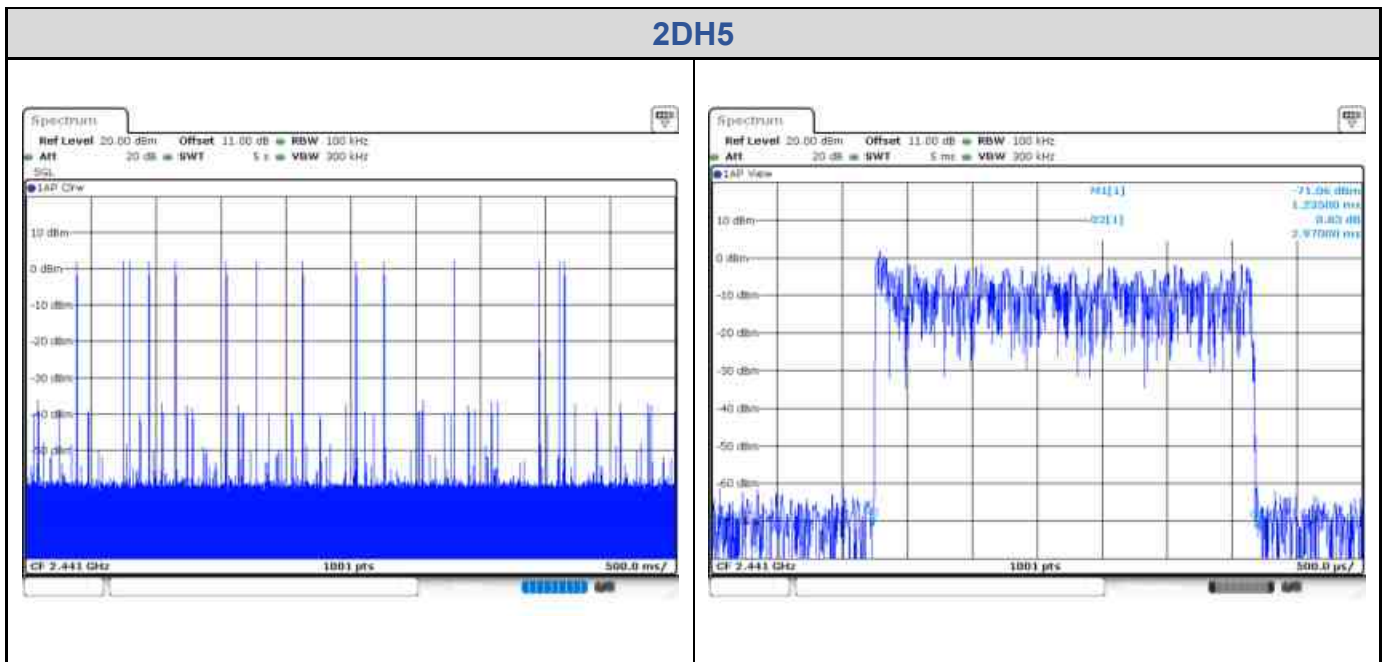
GFSK

Data Mode	Number of transfer in a 31.6 (79Hopping*0.4s)	Package transfer time (msec)	Dwell time (s)	Limit (s)	Result
1DH5	15 (times /5 sec) * 6.32= 94.8times	2.94	0.28	0.4	Pass



$\pi/4$ -DQPSK

Data Mode	Number of transfer in a 31.6 (79Hopping*0.4s)	Package transfer time (msec)	Dwell time (s)	Limit (s)	Result
2DH5	13 (times /5 sec) * 6.32= 82.16 times	2.94	0.24	0.4	Pass



Appendix B: Test Results of Radiated Spurious Emissions & Mains Conducted Emission Test For Left and Right Ears

Left Ear

Band Edges, 2.31GHz ~ 2.9GHz

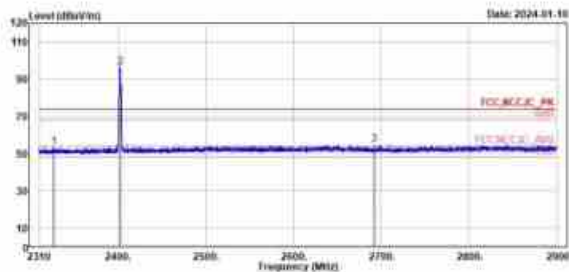
GFSK

Low Channel (Horizontal) Peak

Low Channel (Vertical) Peak



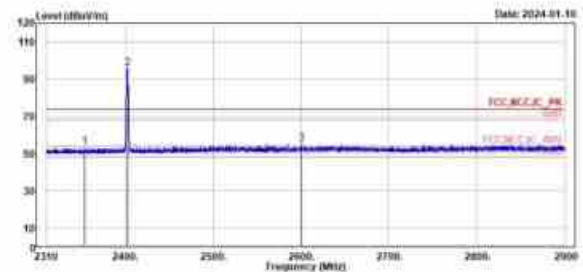
ISO Registered Screen 5.08
No. 04-18, Rev. 2.0 (1/2018), Lohse Str. 1, New Taipei City 222, Taiwan (R.O.C.)
Tel: +886-2-2511-8888 Fax: +886-2-2511-2222



Freq	Level	Read	Level	Factor	Limit	Over	APos	THes	Remark	PoL/Phase	Note
MHz	dBµV/m	dBµV	dBµV	dBµV	dBµV	dB	dB	deg			
1	2326.52	53.61	16.31	37.30	74.00	-20.39	335	256 Peak	Horizontal		
2	2401.49	96.97	58.24	37.65	74.00	22.97	555	256 Peak	Horizontal		
3	2491.61	54.08	16.37	37.71	74.00	-18.12	335	256 Peak	Horizontal		



ISO Registered Screen 5.08
No. 04-18, Rev. 2.0 (1/2018), Lohse Str. 1, New Taipei City 222, Taiwan (R.O.C.)
Tel: +886-2-2511-8888 Fax: +886-2-2511-2222



Freq	Level	Read	Level	Factor	Limit	Over	APos	THes	Remark	PoL/Phase	Note
MHz	dBµV/m	dBµV	dBµV	dBµV	dBµV	dB	dB	deg			
1	2355.15	53.42	16.05	37.39	74.00	-20.58	100	245 Peak	Vertical		
2	2401.49	95.97	58.24	37.65	74.00	22.97	100	245 Peak	Vertical		
3	2498.84	55.82	17.85	37.67	74.00	-16.18	100	245 Peak	Vertical		

GFSK

Low Channel (Horizontal) Average

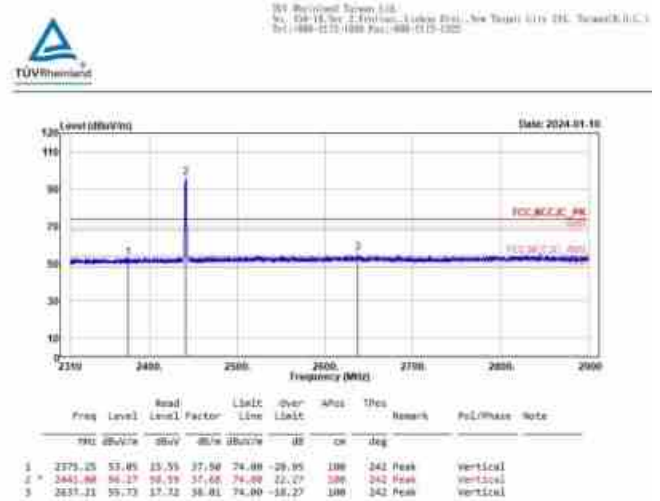
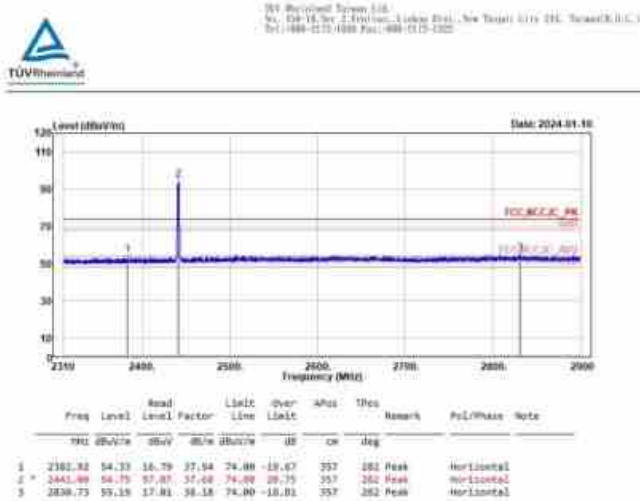
Low Channel (Vertical) Average



GFSK

Middle Channel (Horizontal) Peak

Middle Channel (Vertical) Peak



GFSK

Middle Channel (Horizontal) Average



Middle Channel (Vertical) Average



GFSK

High Channel (Horizontal) Peak



High Channel (Vertical) Peak



GFSK

High Channel (Horizontal) Average

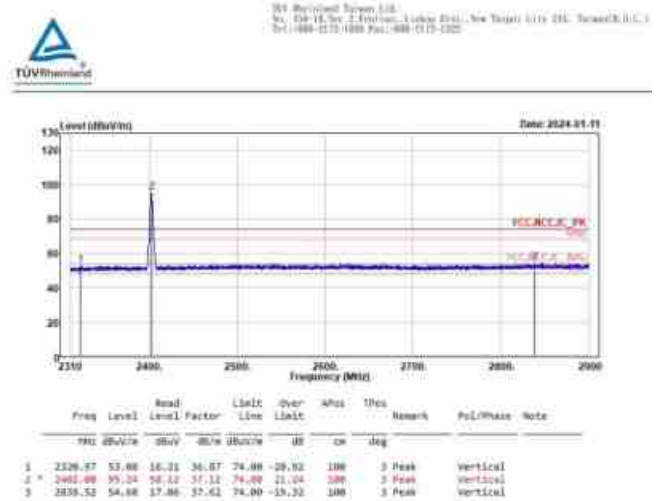
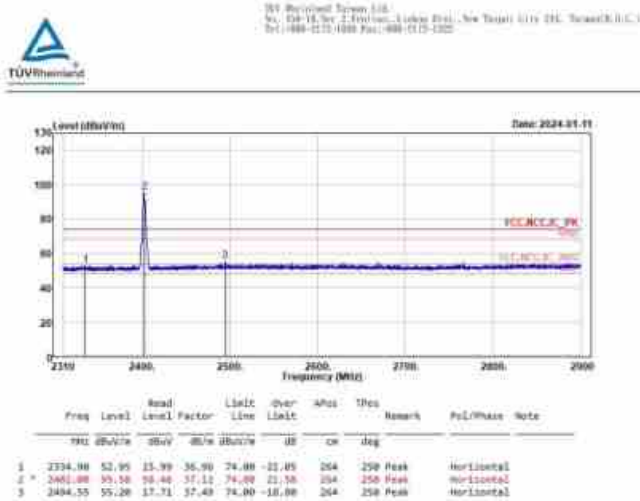
High Channel (Vertical) Average



$\pi/4$ -DQPSK

Low Channel (Horizontal) Peak

Low Channel (Vertical) Peak

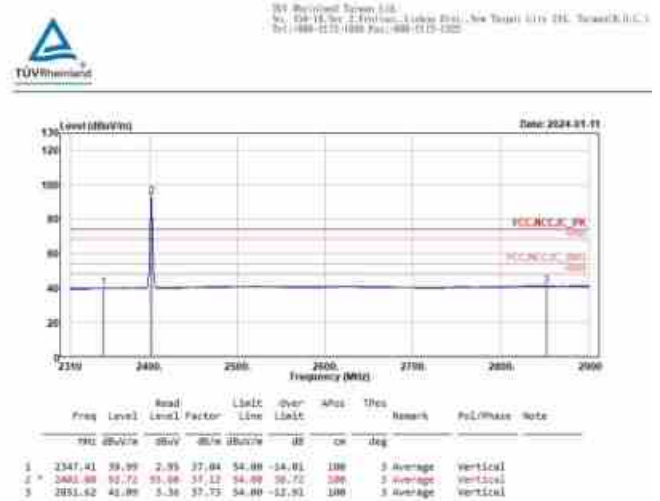


$\pi/4$ -DQPSK

Low Channel (Horizontal) Average



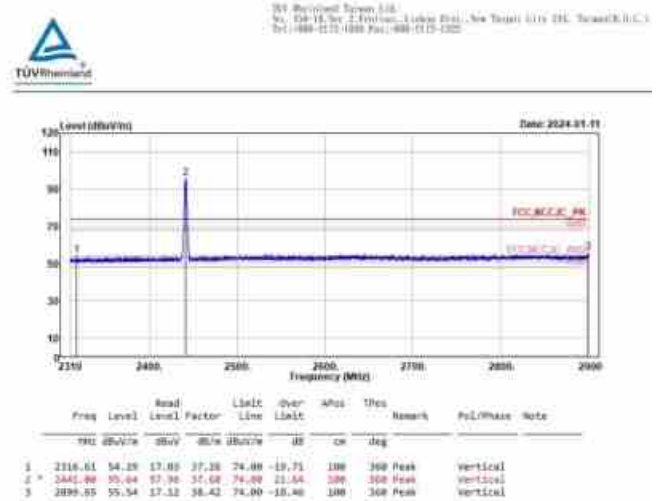
Low Channel (Vertical) Average



$\pi/4$ -DQPSK

Middle Channel (Horizontal) Peak

Middle Channel (Vertical) Peak



$\pi/4$ -DQPSK

Middle Channel (Horizontal) Average

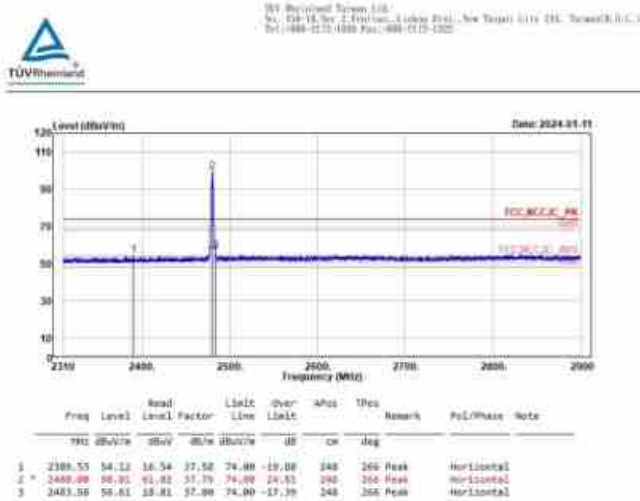
Middle Channel (Vertical) Average



$\pi/4$ -DQPSK

High Channel (Horizontal) Peak

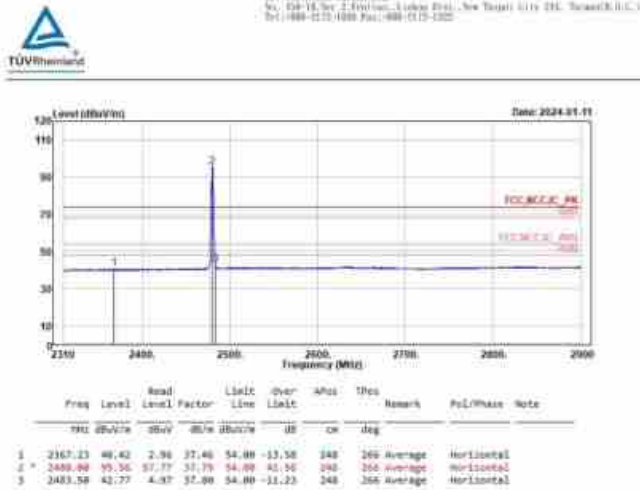
High Channel (Vertical) Peak



$\pi/4$ -DQPSK

High Channel (Horizontal) Average

High Channel (Vertical) Average



Spurious Emissions, Tx Mode, 9kHz ~ 30MHz

GFSK

Low Channel(Open) 9kHz~150kHz

Low Channel(Open) 150kHz~30MHz



Spurious Emissions, Tx Mode, 30MHz ~ 1GHz

GFSK

Low Channel (Horizontal)



Low Channel (Vertical)

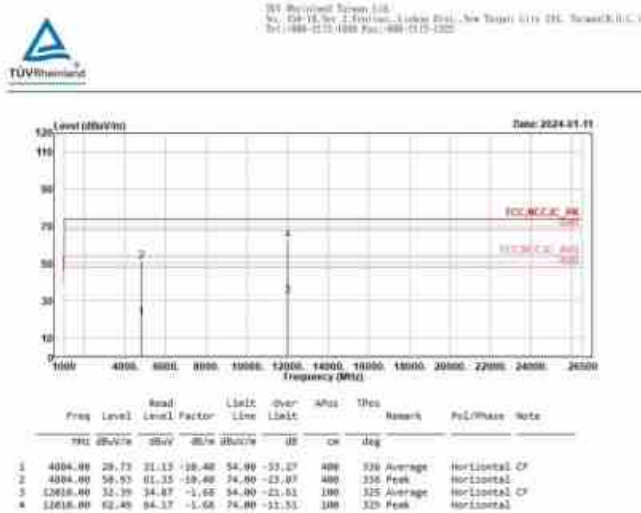


Spurious Emissions, Tx Mode, 1GHz ~ 26.5GHz

GFSK

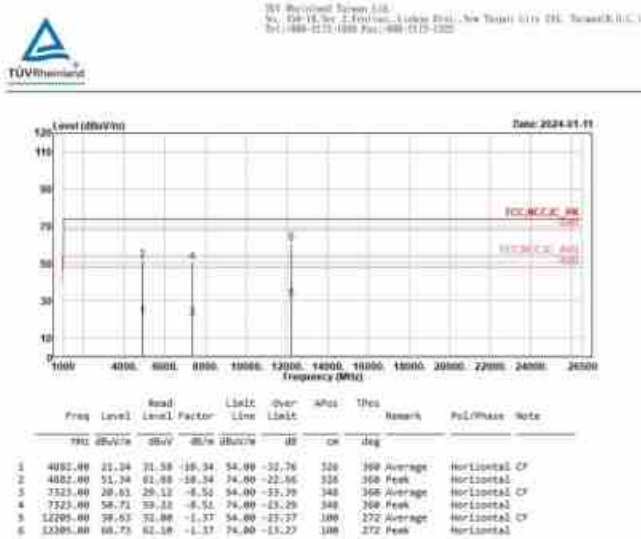
Low Channel (Horizontal)

Low Channel (Vertical)

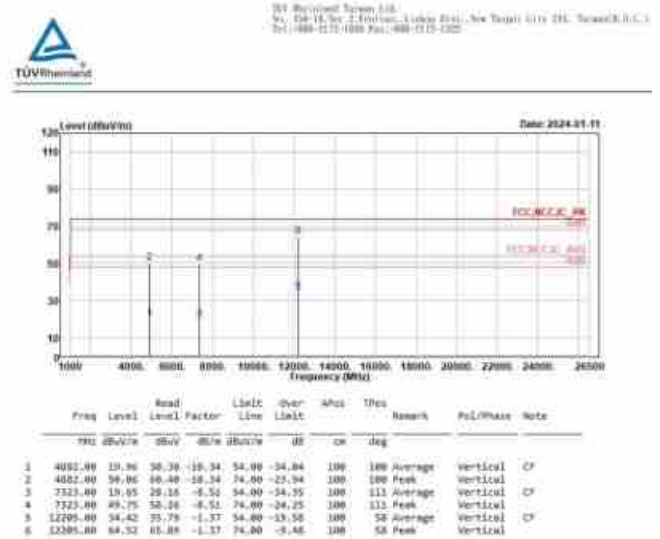


GFSK

Middle Channel (Horizontal)

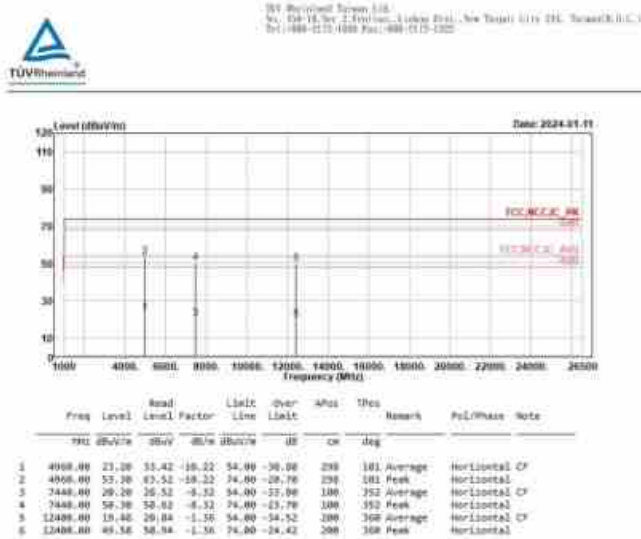


Middle Channel (Vertical)



GFSK

High Channel (Horizontal)



High Channel (Vertical)



$\pi/4$ -DQPSK

Low Channel (Horizontal)

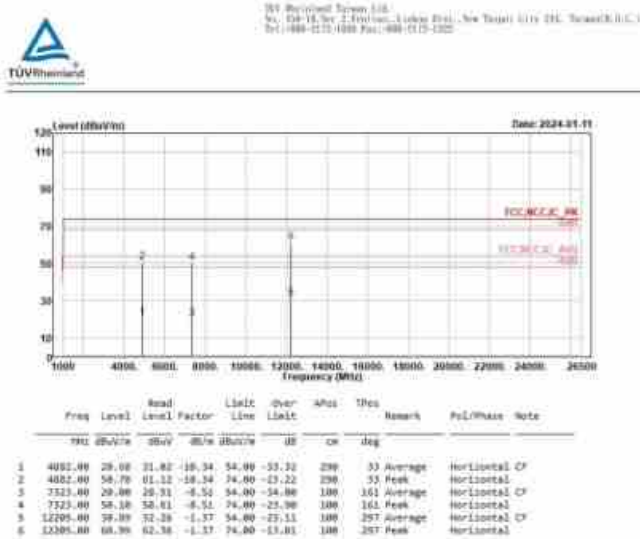
Low Channel (Vertical)



$\pi/4$ -DQPSK

Middle Channel (Horizontal)

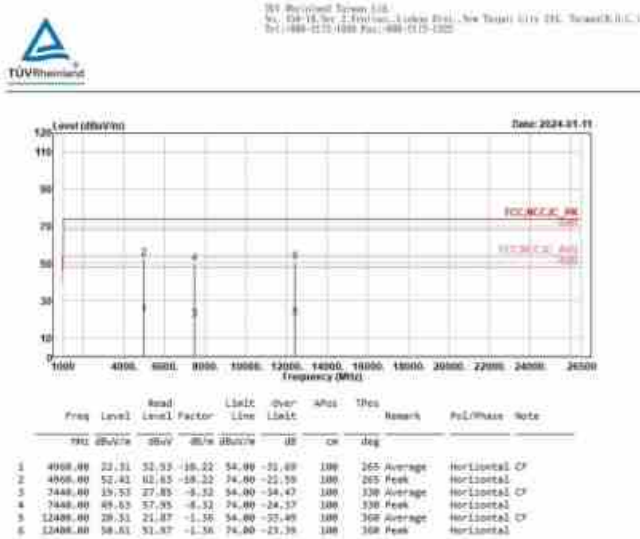
Middle Channel (Vertical)



$\pi/4$ -DQPSK

High Channel (Horizontal)

High Channel (Vertical)



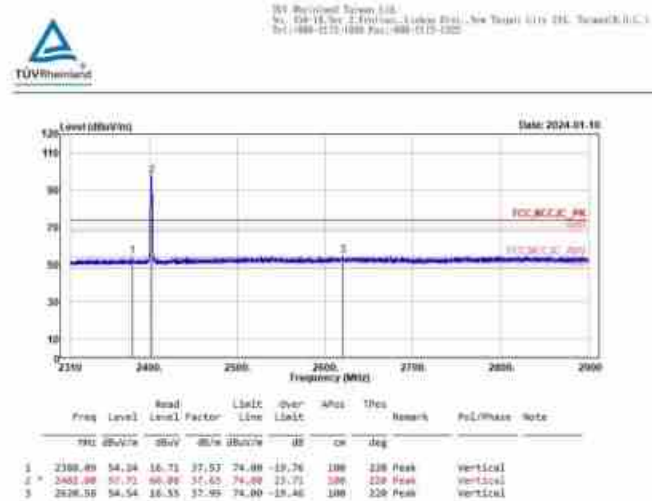
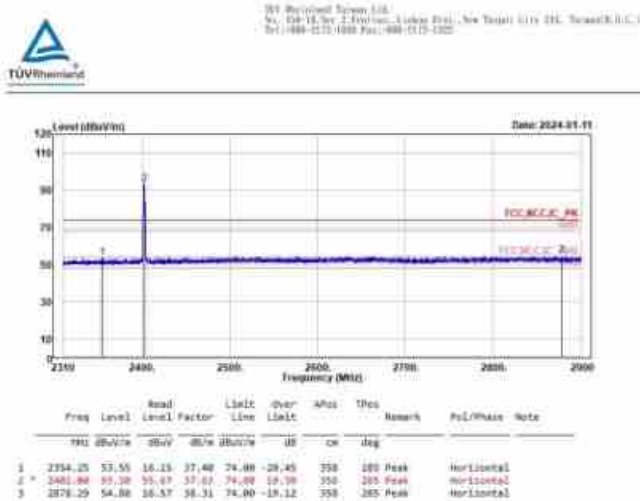
Right Ear

Band Edges, 2.31GHz ~ 2.9GHz

GFSK

Low Channel (Horizontal) Peak

Low Channel (Vertical) Peak



GFSK

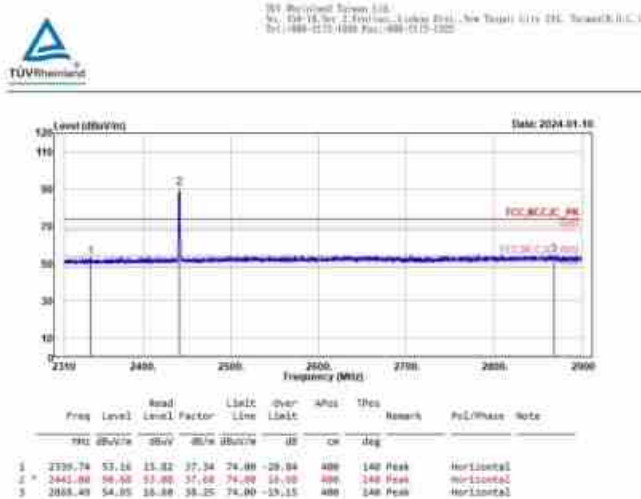
Low Channel (Horizontal) Average

Low Channel (Vertical) Average



GFSK

Middle Channel (Horizontal) Peak



Middle Channel (Vertical) Peak



GFSK

Middle Channel (Horizontal) Average

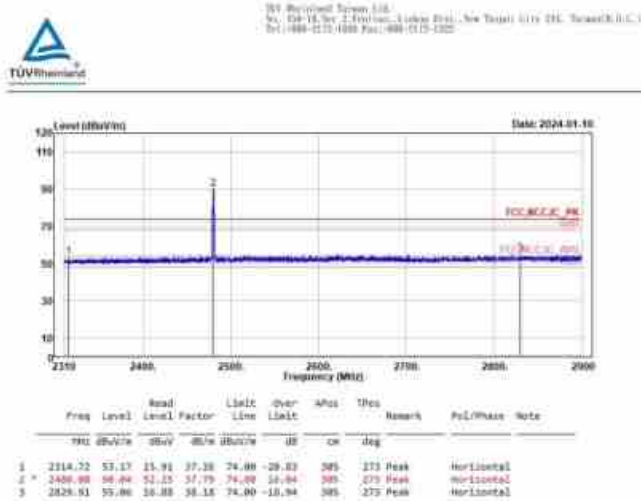


Middle Channel (Vertical) Average



GFSK

High Channel (Horizontal) Peak



High Channel (Vertical) Peak



GFSK

High Channel (Horizontal) Average

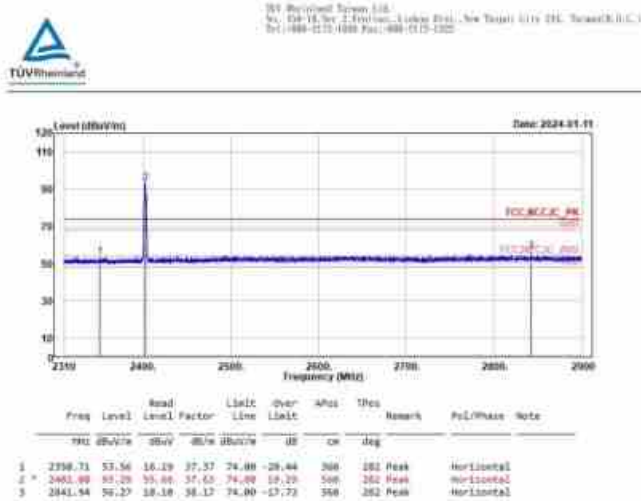


High Channel (Vertical) Average

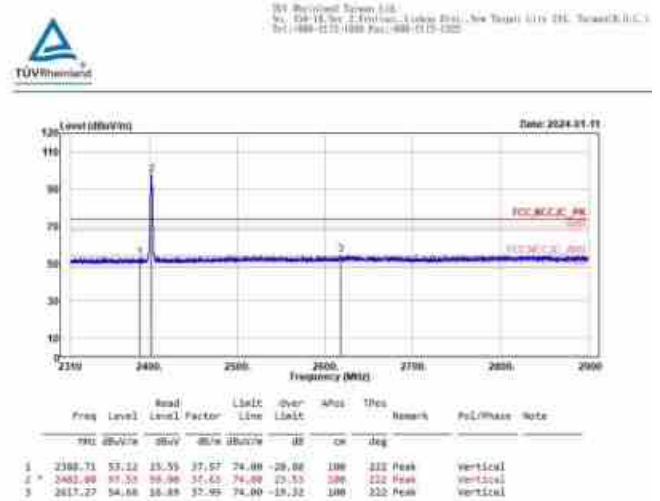


$\pi/4$ -DQPSK

Low Channel (Horizontal) Peak



Low Channel (Vertical) Peak



$\pi/4$ -DQPSK

Low Channel (Horizontal) Average



Low Channel (Vertical) Average



$\pi/4$ -DQPSK

Middle Channel (Horizontal) Peak

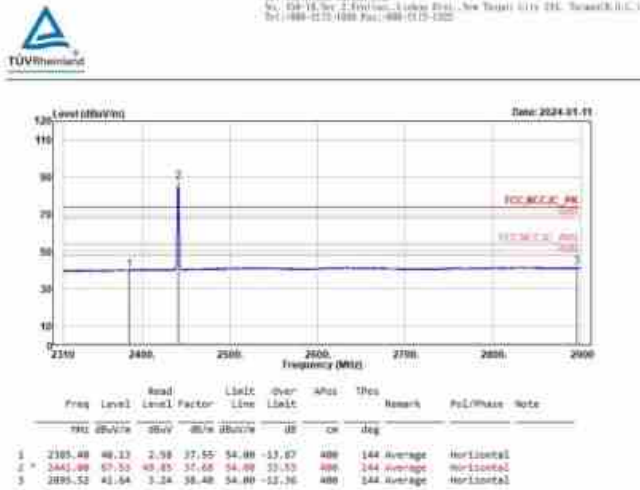
Middle Channel (Vertical) Peak



$\pi/4$ -DQPSK

Middle Channel (Horizontal) Average

Middle Channel (Vertical) Average



$\pi/4$ -DQPSK

High Channel (Horizontal) Peak



High Channel (Vertical) Peak



$\pi/4$ -DQPSK

High Channel (Horizontal) Average

High Channel (Vertical) Average



Spurious Emissions, Tx Mode, 9kHz ~ 30MHz

GFSK

Low Channel(Open) 9kHz~150kHz



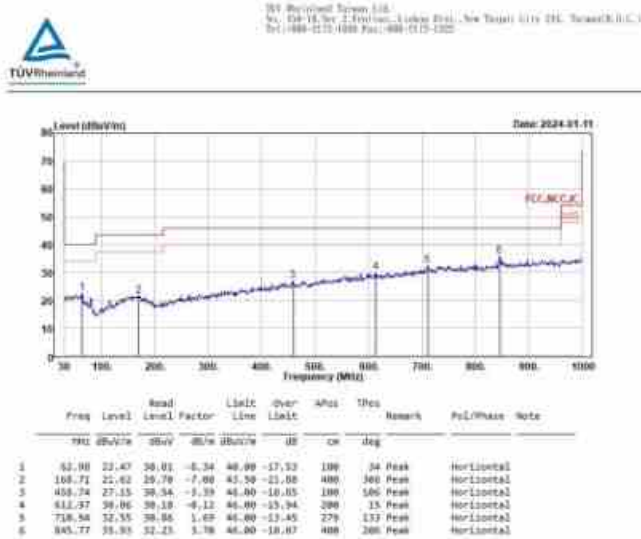
Low Channel(Open) 150kHz~30MHz



Spurious Emissions, Tx Mode, 30MHz ~ 1GHz

GFSK

Low Channel (Horizontal)



Low Channel (Vertical)



Spurious Emissions, Tx Mode, 1GHz ~ 26.5GHz

GFSK

Low Channel (Horizontal)



Low Channel (Vertical)



GFSK

Middle Channel (Horizontal)



Middle Channel (Vertical)



GFSK

High Channel (Horizontal)

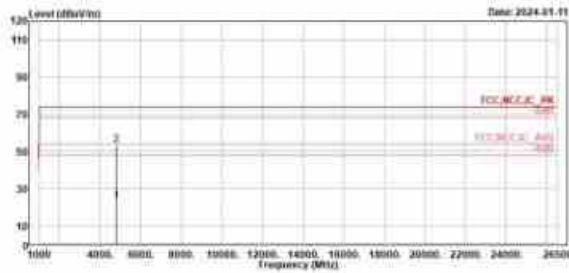
High Channel (Vertical)



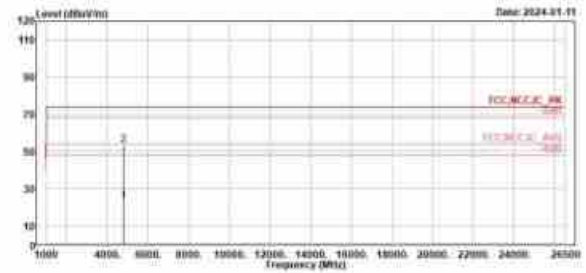
$\pi/4$ -DQPSK

Low Channel (Horizontal)

Low Channel (Vertical)



Freq	Level	Read	Level	Factor	Limit	Over	APos	Thes	Remark	PoL/Phase	Note
MHz	dBμV/m	dBμV	dBμV	dBμV	dBμV	dBμV	dBμV	deg			
1	4004.00	23.18	33.58	-10.40	54.00	-36.90	300	267 Average	Horizontal	CF	
2	4004.00	53.26	63.66	-10.40	74.00	-20.60	300	267 Peak	Horizontal		

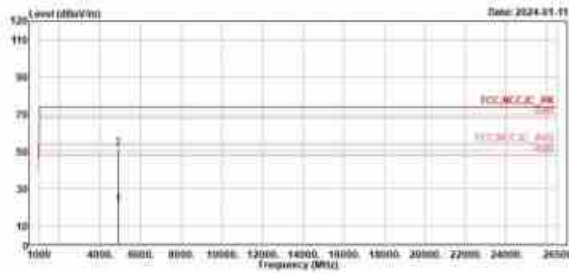


Freq	Level	Read	Level	Factor	Limit	Over	APos	Thes	Remark	PoL/Phase	Note
MHz	dBμV/m	dBμV	dBμV	dBμV	dBμV	dBμV	dBμV	deg			
1	4004.00	23.18	33.58	-10.40	54.00	-36.62	300	179 Average	Vertical	CF	
2	4004.00	53.26	63.66	-10.40	74.00	-20.72	300	179 Peak	Vertical		

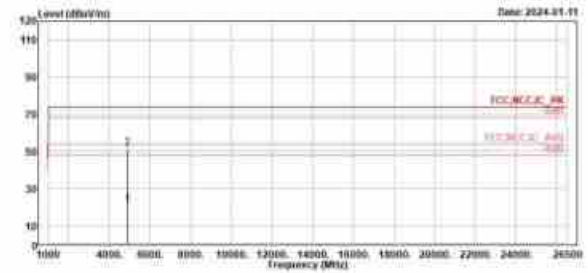
$\pi/4$ -DQPSK

Middle Channel (Horizontal)

Middle Channel (Vertical)



Freq	Level	Read	Level	Factor	Limit	Over	APos	THes	Remark	PoL/Phase	Note
MHz	dBμV/m	dBμV	dBμV	dBμV	dBμV	dBμV	dBμV	dBμV	dBμV	deg	
1	4882.00	71.34	71.38	-18.34	54.00	-32.76	100	33	Average	Horizontal	CF
2	4882.00	71.34	71.38	-18.34	74.00	-22.66	100	33	Peak	Horizontal	

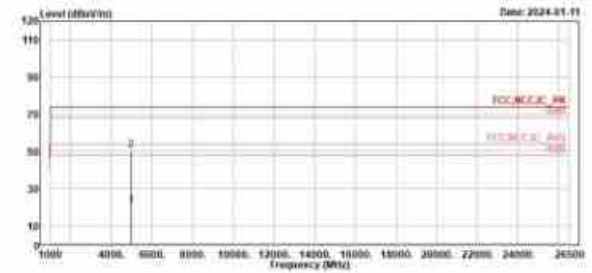
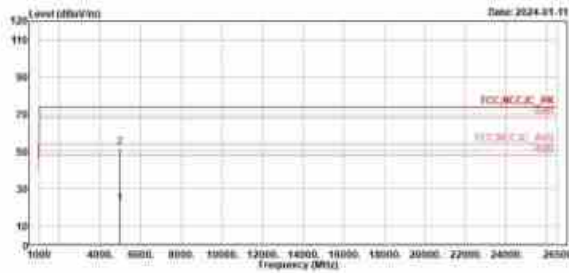


Freq	Level	Read	Level	Factor	Limit	Over	APos	THes	Remark	PoL/Phase	Note
MHz	dBμV/m	dBμV	dBμV	dBμV	dBμV	dBμV	dBμV	dBμV	dBμV	deg	
1	4882.00	71.30	71.32	-18.34	54.00	-32.42	200	143	Average	Vertical	CF
2	4882.00	71.30	71.32	-18.34	74.00	-22.52	200	143	Peak	Vertical	

$\pi/4$ -DQPSK

High Channel (Horizontal)

High Channel (Vertical)



Freq	Level	Read	Level	Factor	Limit	Over	APos	THes	Remark	PoL/Phase	Note
MHz	dBμV/m	dBμV	dBμV	dBμV	dBμV	dBμV	dB	dB	deg		
1	4968.00	51.96	51.96	-18.22	54.00	-31.26	400	193	Average	Horizontal	CF
2	4968.00	51.96	51.96	-18.22	54.00	-22.58	400	353	Peak	Horizontal	

Freq	Level	Read	Level	Factor	Limit	Over	APos	THes	Remark	PoL/Phase	Note
MHz	dBμV/m	dBμV	dBμV	dBμV	dBμV	dBμV	dB	dB	deg		
1	4968.00	50.55	50.55	-18.22	54.00	-33.55	100	289	Average	Vertical	CF
2	4968.00	50.55	50.55	-18.22	54.00	-23.45	100	266	Peak	Vertical	

Mains Conducted Emission, 150kHz ~ 30MHz

Worst Band

(Line)

(Neutral)

