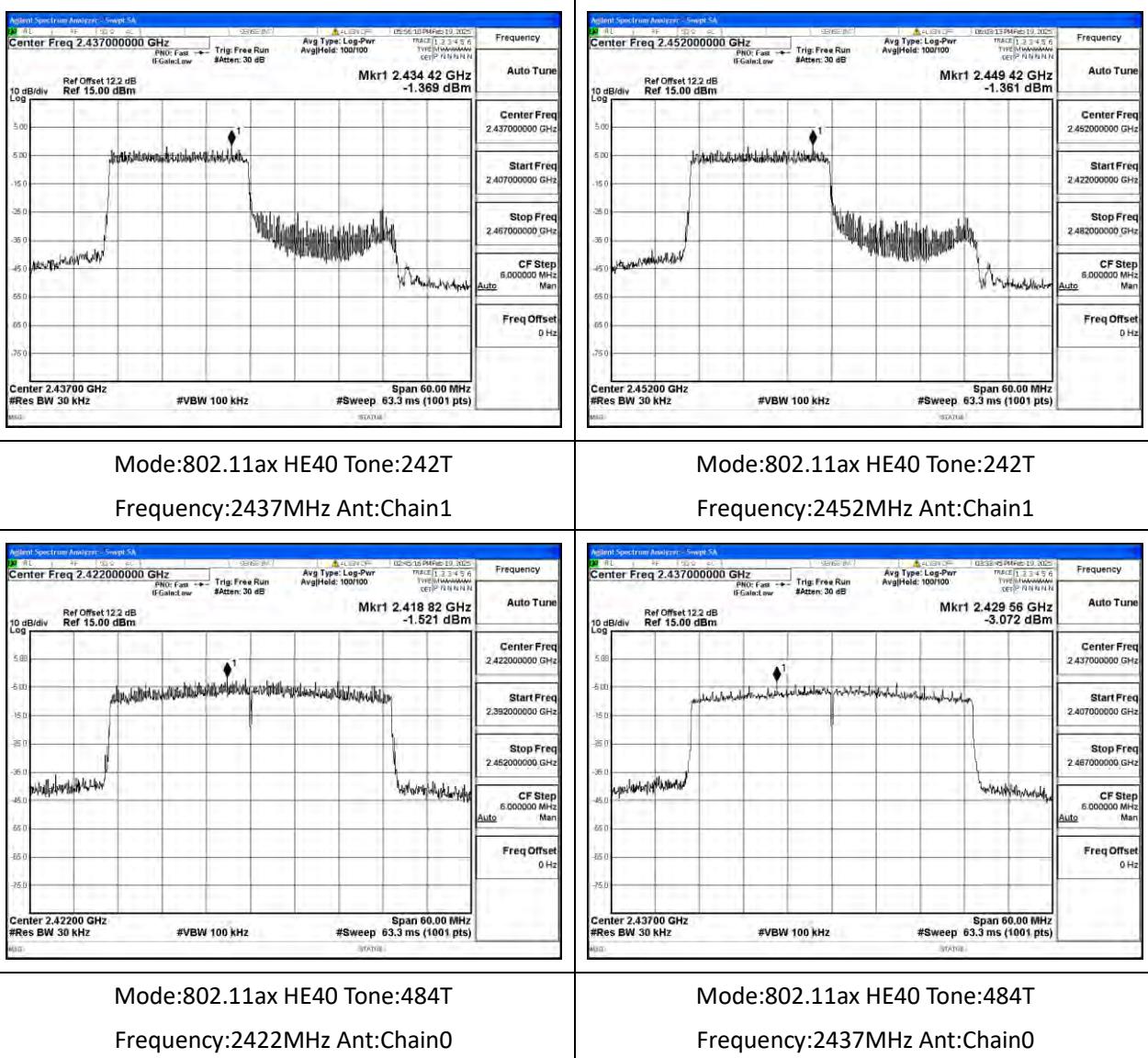




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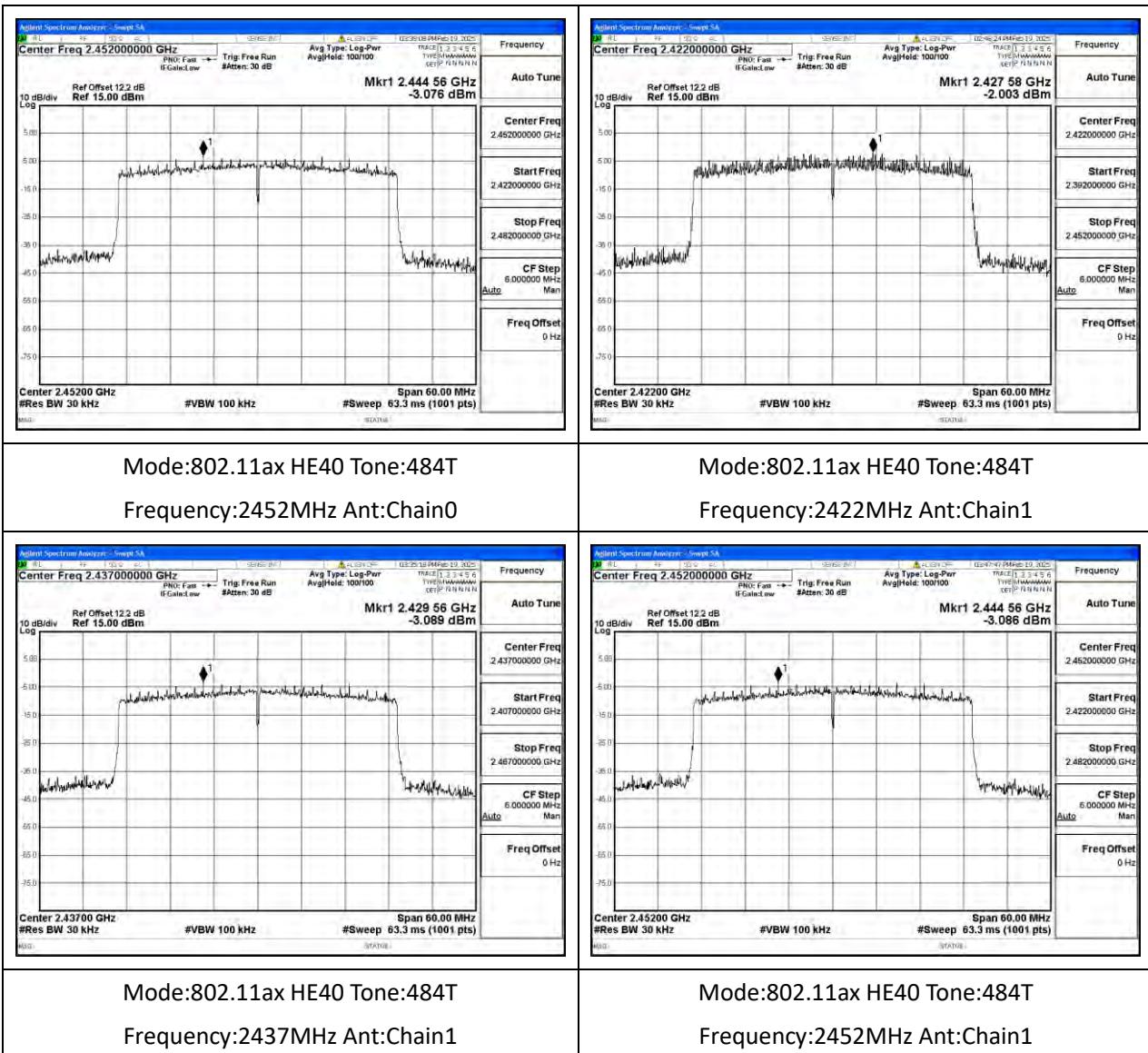
Test Report No.: PSU-NQN2502260117RF02





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Test Report No.: PSU-NQN2502260117RF02



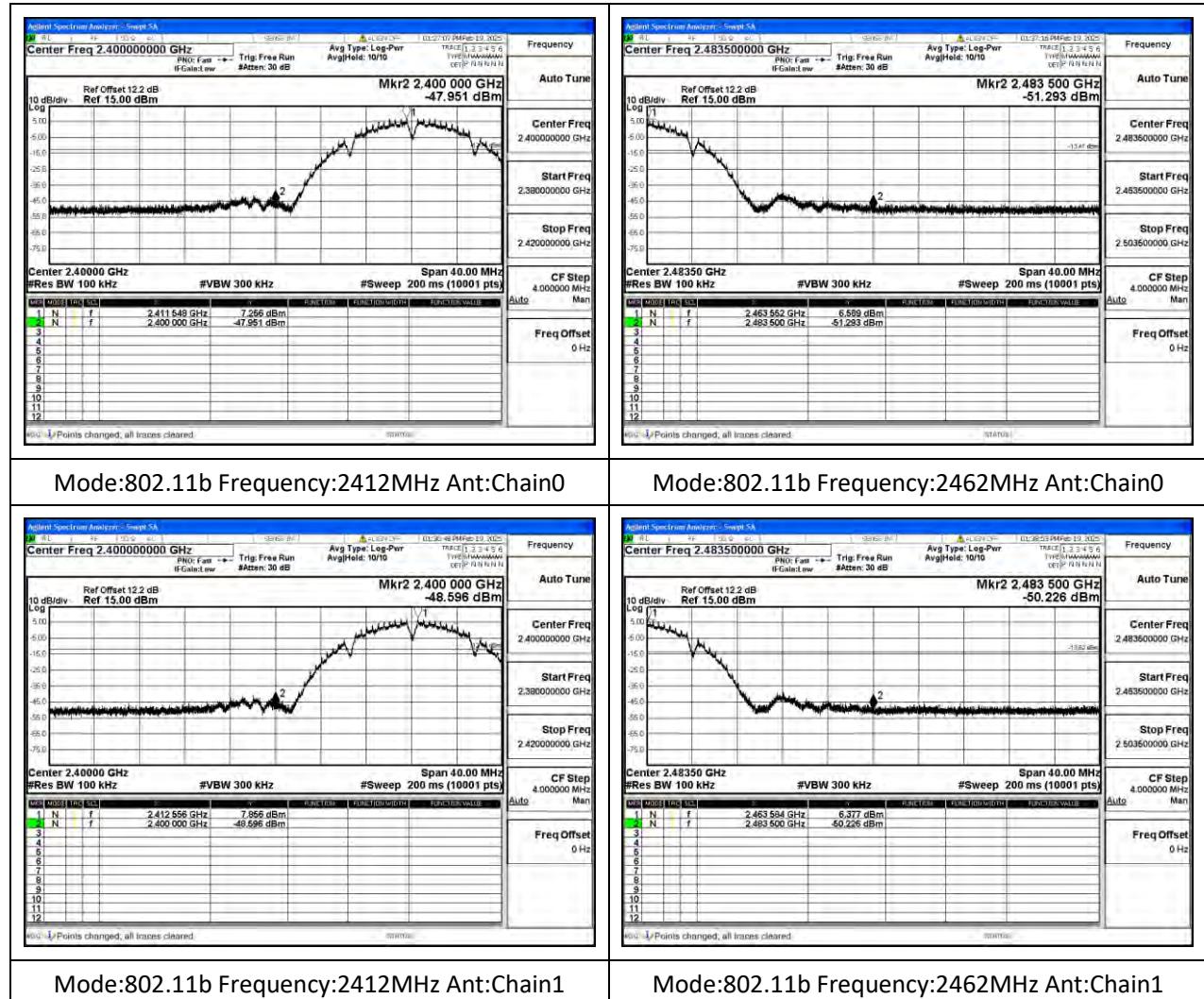


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VERITAS Test Report No.: PSU-NQN2502260117RF02

## BAND EDGE MEASUREMENTS

### TEST GRAPHS

Test Mode: 802.11b

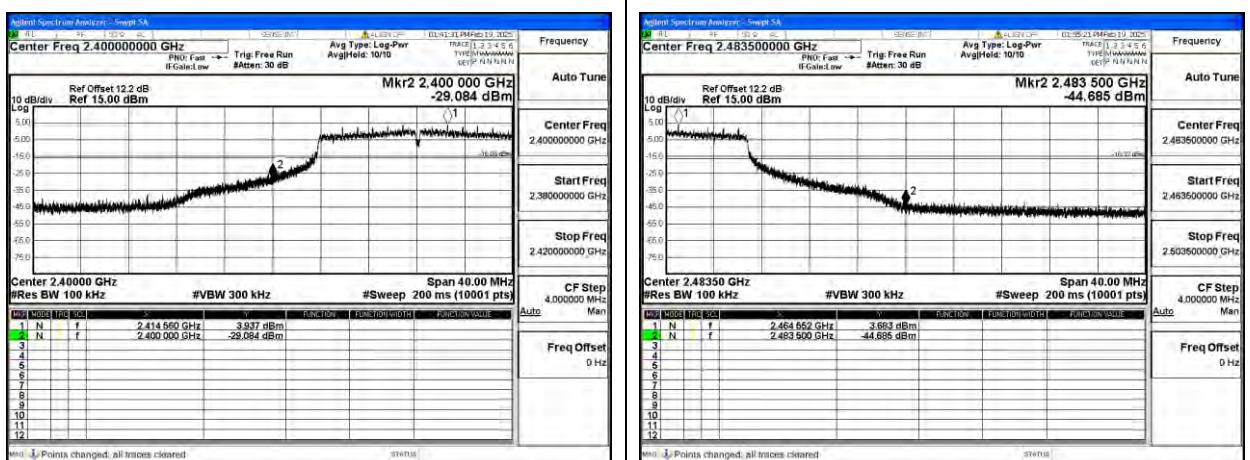


Test Mode: 802.11g

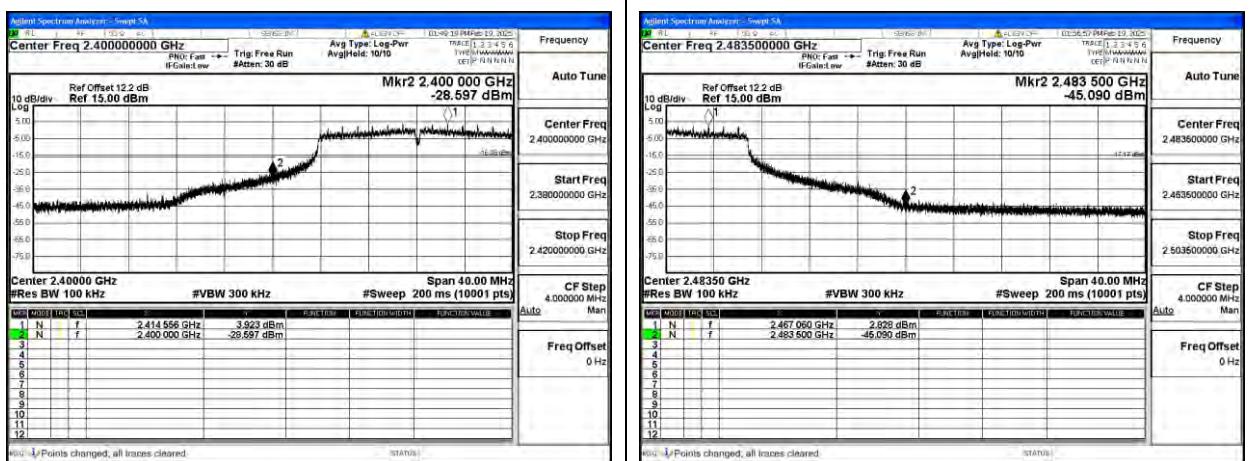


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Test Report No.: PSU-NQN2502260117RF02



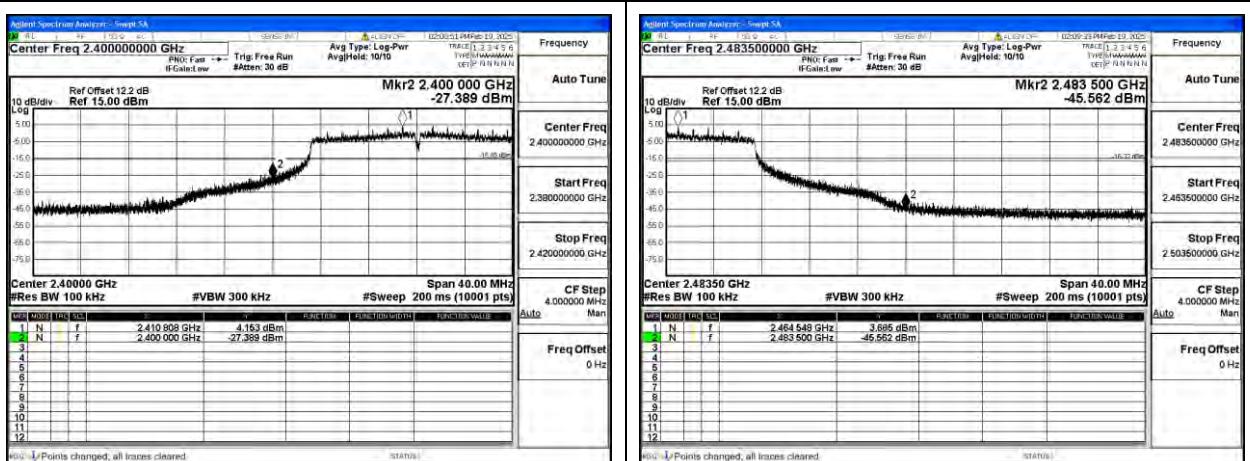
Mode:802.11g Frequency:2412MHz Ant:Chain0



Mode:802.11g Frequency:2412MHz Ant:Chain1

Mode:802.11g Frequency:2462MHz Ant:Chain1

Test Mode: 802.11n HT20



Mode:802.11n HT20 Frequency:2412MHz

Ant:Chain0

Mode:802.11n HT20 Frequency:2462MHz

Ant:Chain0

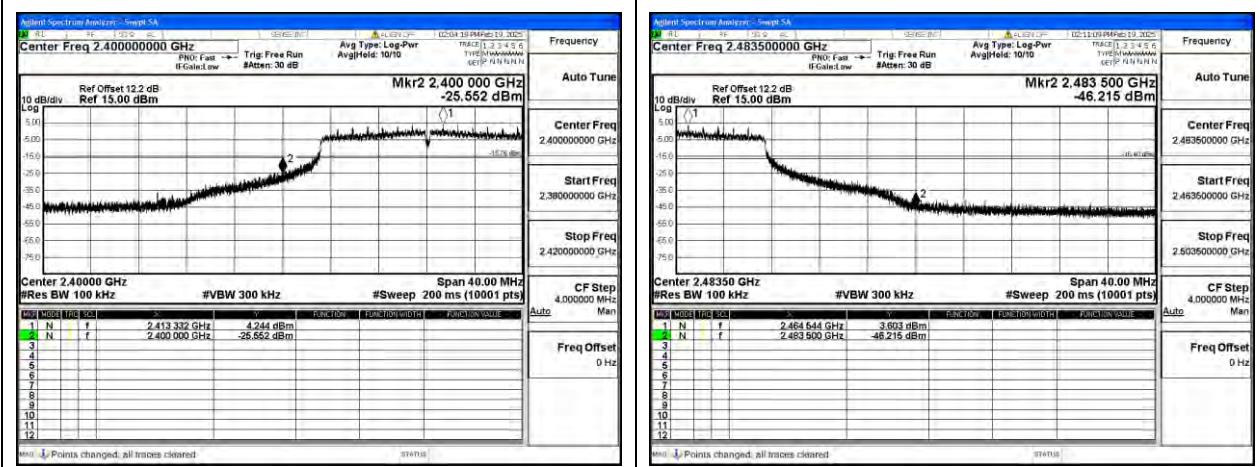
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(Suzhou) Co., Ltd.

Tower N, Innovation Center, 88 Zuyi Road, High-tech District, Suzhou City, Anhui Province

Tab. 22 (255Z) 268.1000



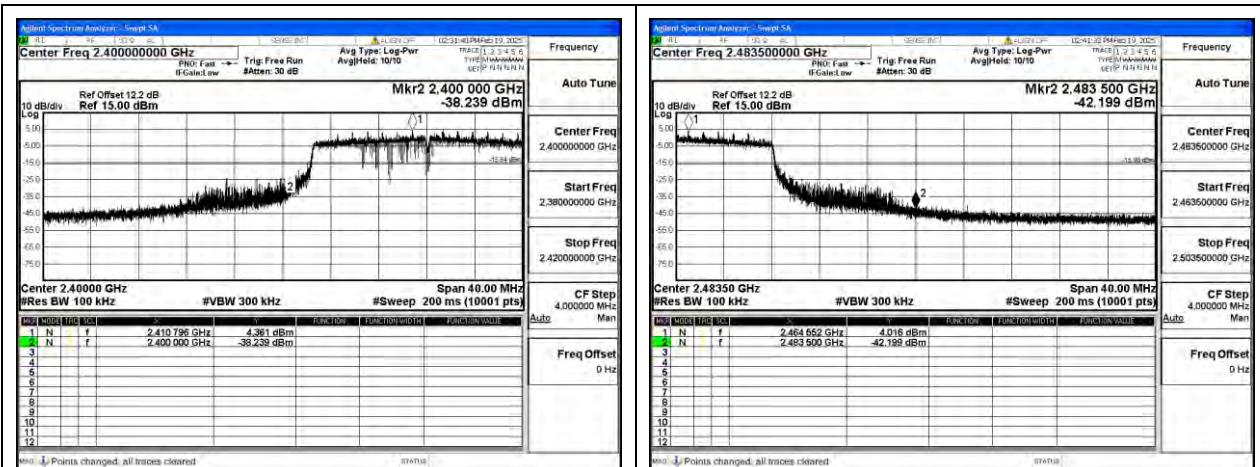
Test Report No.: PSU-NQN2502260117RF02



Mode:802.11n HT20 Frequency:2412MHz  
Ant:Chain1

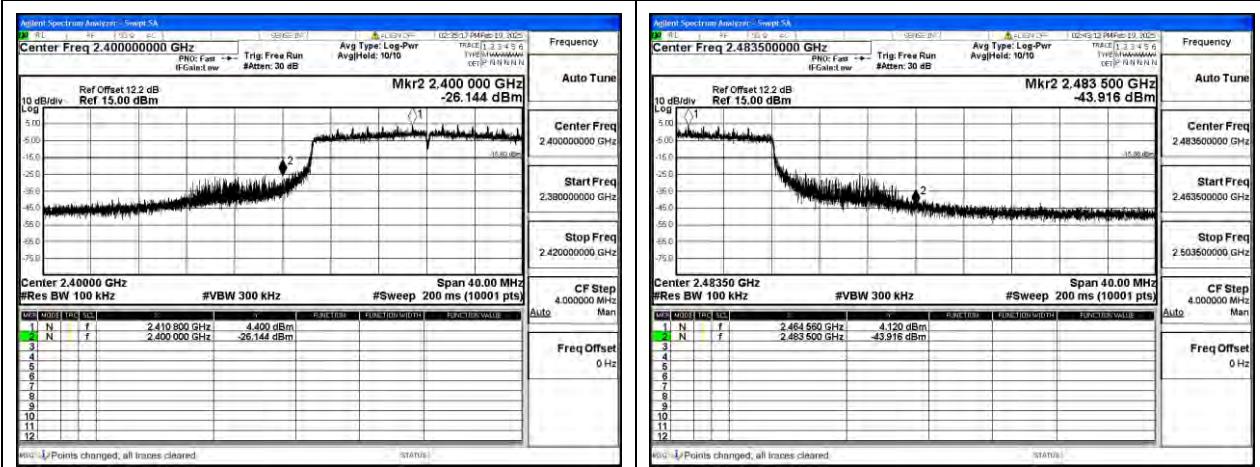
Mode:802.11n HT20 Frequency:2462MHz  
Ant:Chain1

## Test Mode: 802.11ax HE20



Mode:802.11ax HE20 Frequency:2412MHz  
Ant:Chain0

Mode:802.11ax HE20 Frequency:2462MHz  
Ant:Chain0



Mode:802.11ax HE20 Frequency:2412MHz

Mode:802.11ax HE20 Frequency:2462MHz

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T. L. 66 (2007) 666-1686



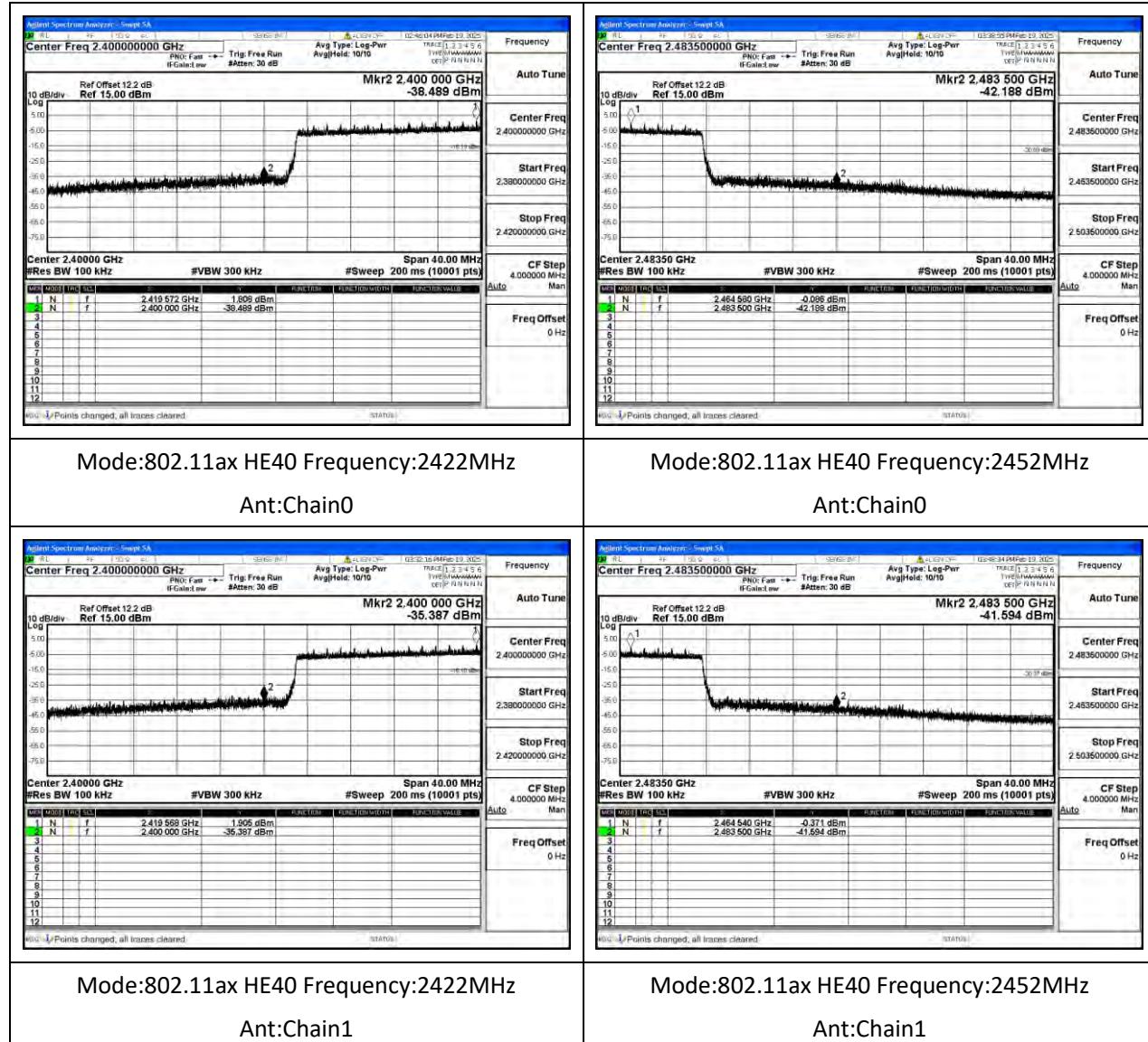
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Test Report No.: PSU-NQN2502260117RF02

Ant:Chain1

Ant:Chain1

Test Mode: 802.11ax HE40



Test Mode: 802.11n HT40

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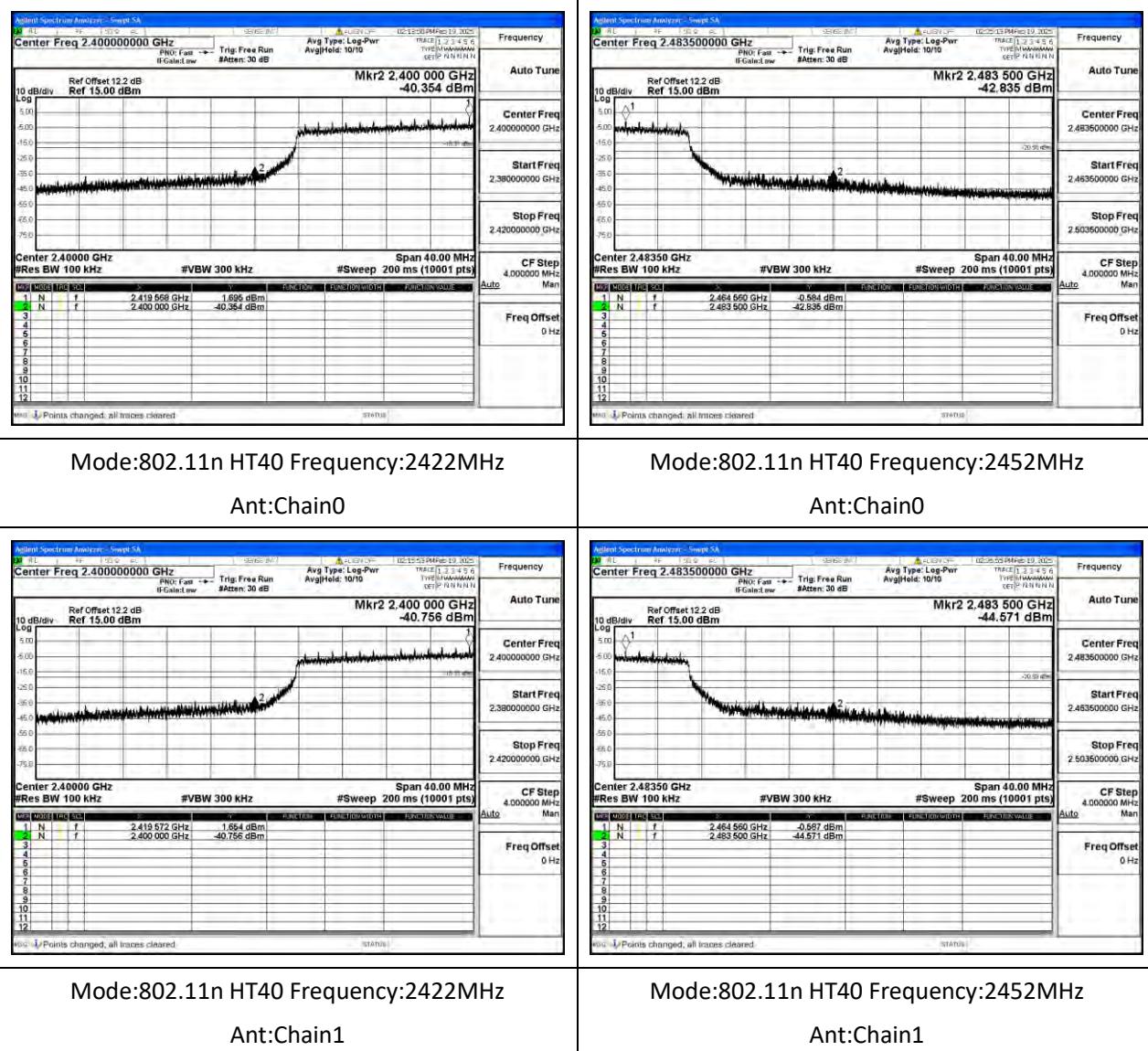
Tower N, Innovation Center, 88 Zuyi Road, High-tech  
District, Suzhou City, Anhui Province

Tel: +86 (0557) 368 1008



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VERITAS

Test Report No.: PSU-NQN2502260117RF02



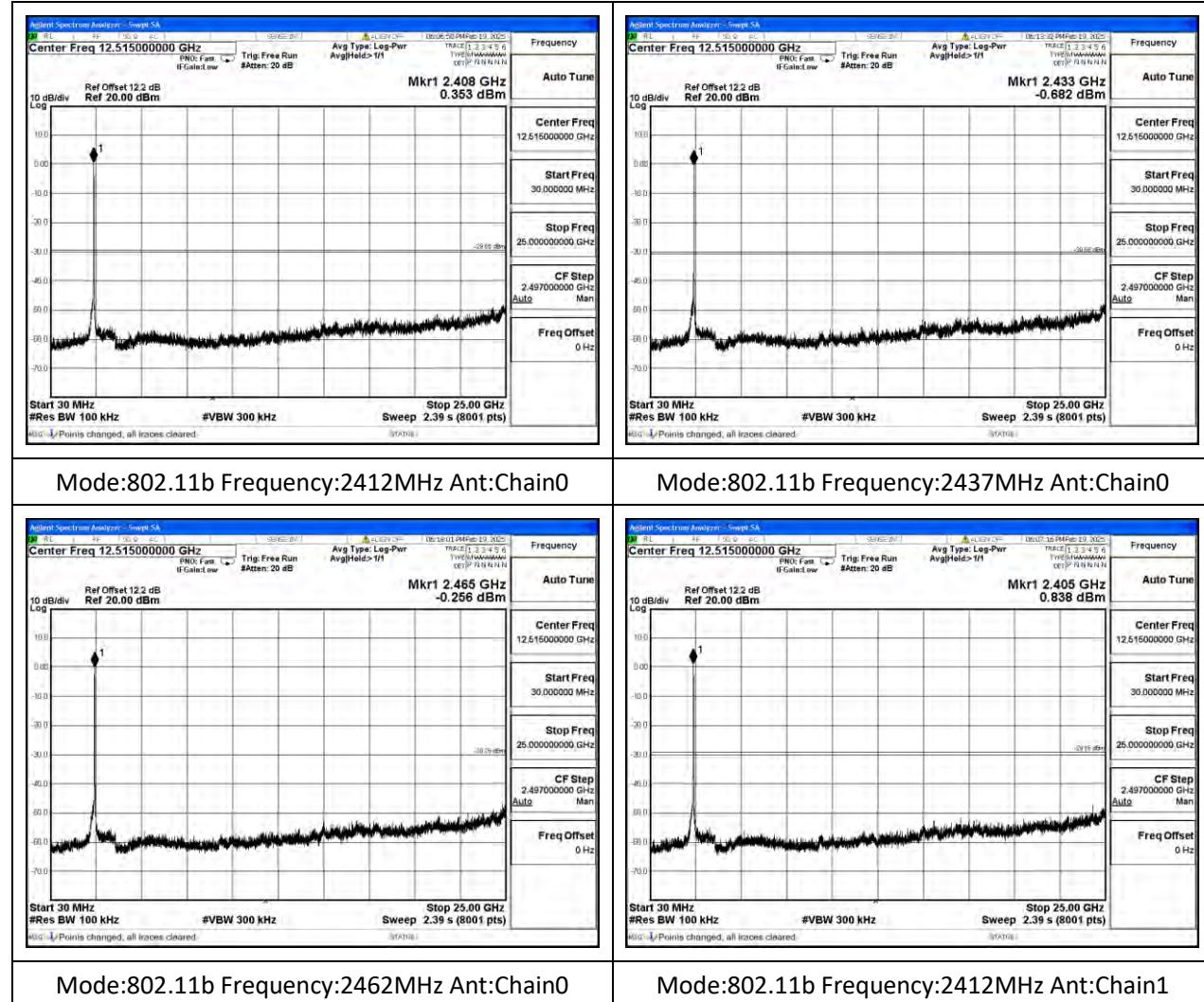


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VERITAS

Test Report No.: PSU-NQN2502260117RF02

## CONDUCTED SPURIOUS EMISSION TEST GRAPHS

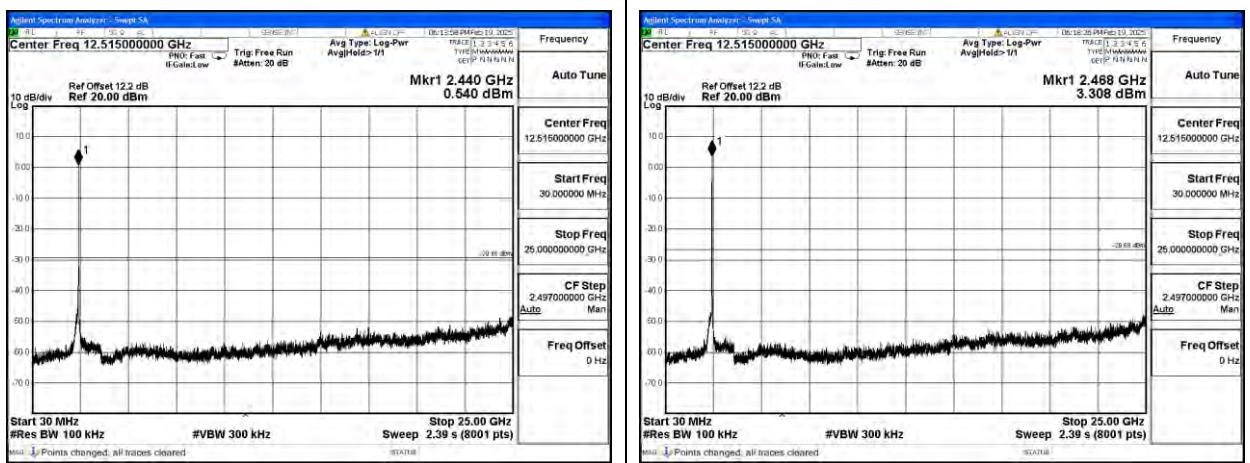
Test Mode: 802.11b





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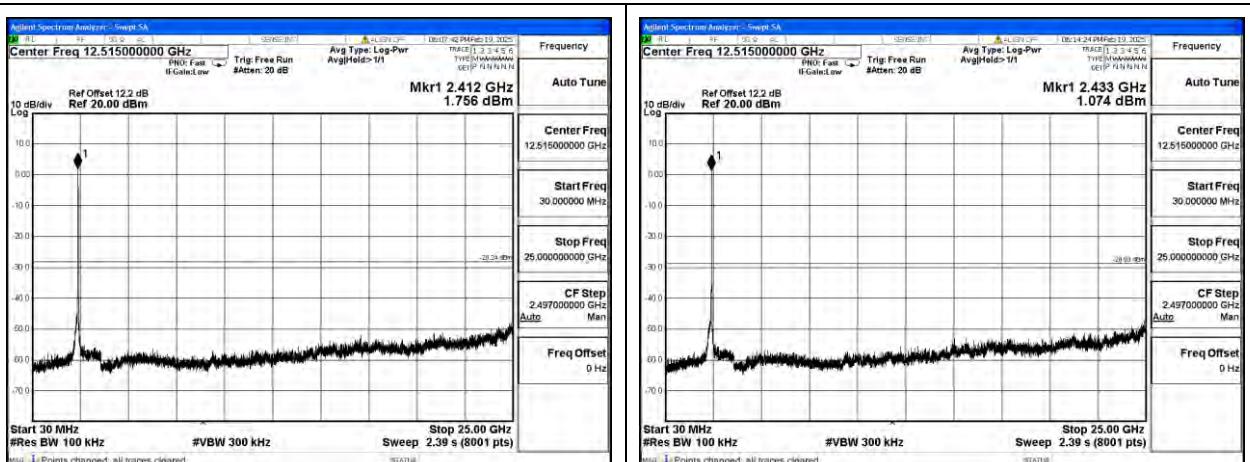
Test Report No.: PSU-NQN2502260117RF02



Mode:802.11b Frequency:2437MHz Ant:Chain1

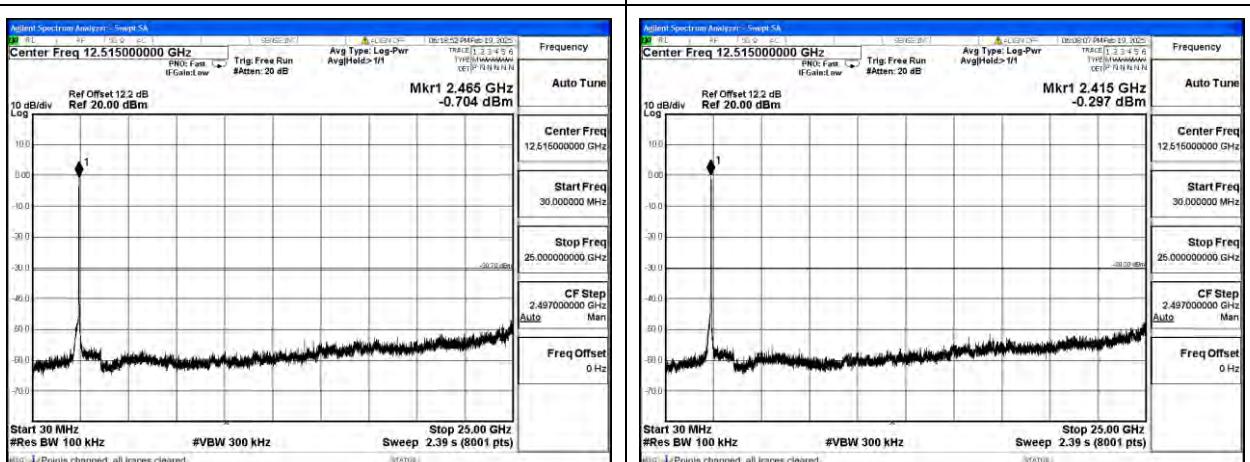
Mode:802.11b Frequency:2462MHz Ant:Chain1

Test Mode: 802.11g



Mode:802.11g Frequency:2412MHz Ant:Chain0

Mode:802.11g Frequency:2437MHz Ant:Chain0



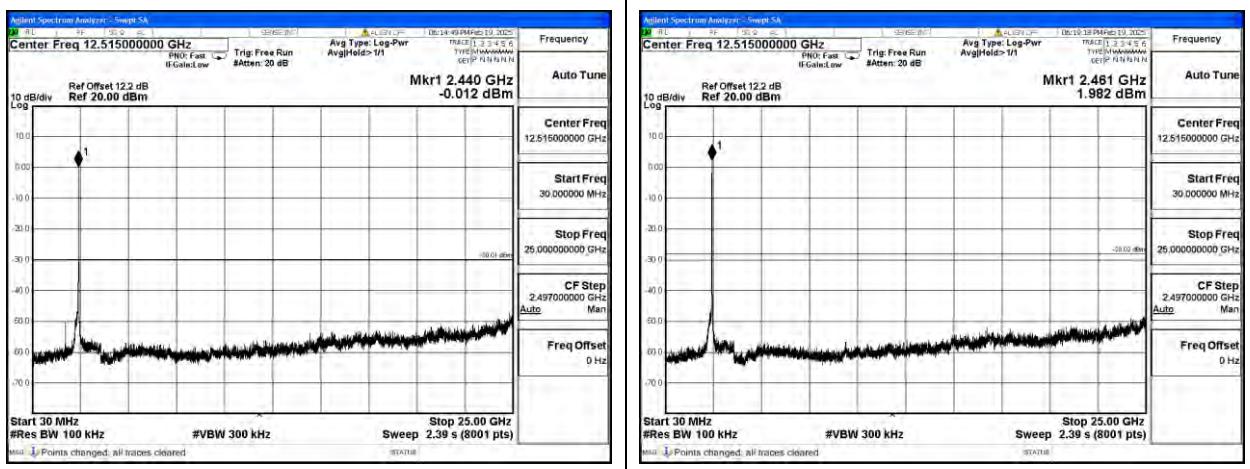
Mode:802.11g Frequency:2462MHz Ant:Chain0

Mode:802.11g Frequency:2412MHz Ant:Chain1



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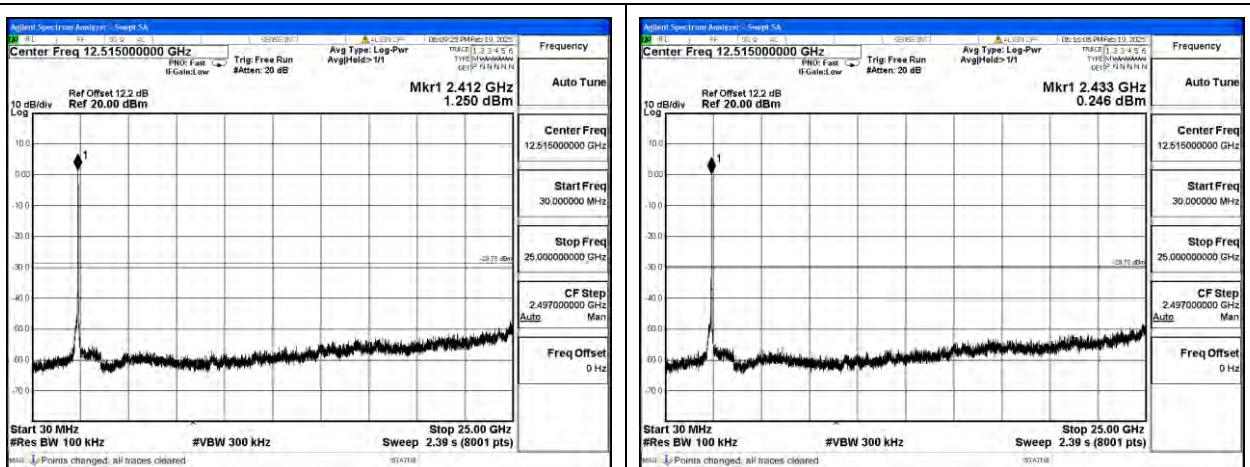
Test Report No.: PSU-NQN2502260117RF02



Mode:802.11g Frequency:2437MHz Ant:Chain1

Mode:802.11g Frequency:2462MHz Ant:Chain1

Test Mode: 802.11n HT20

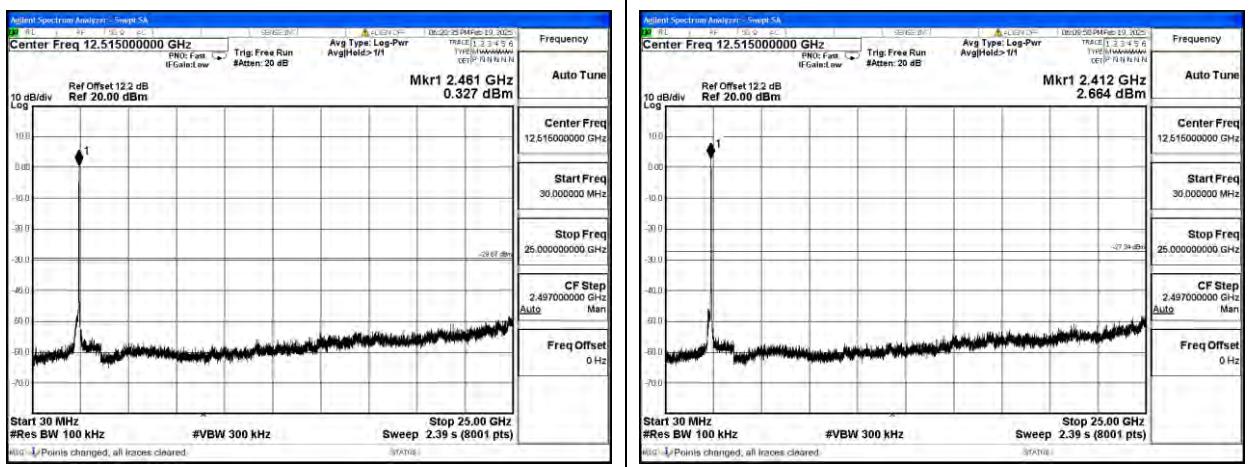


Mode:802.11n HT20 Frequency:2412MHz

Ant:Chain0

Mode:802.11n HT20 Frequency:2437MHz

Ant:Chain0



Mode:802.11n HT20 Frequency:2462MHz

Ant:Chain0

Mode:802.11n HT20 Frequency:2412MHz

Ant:Chain1

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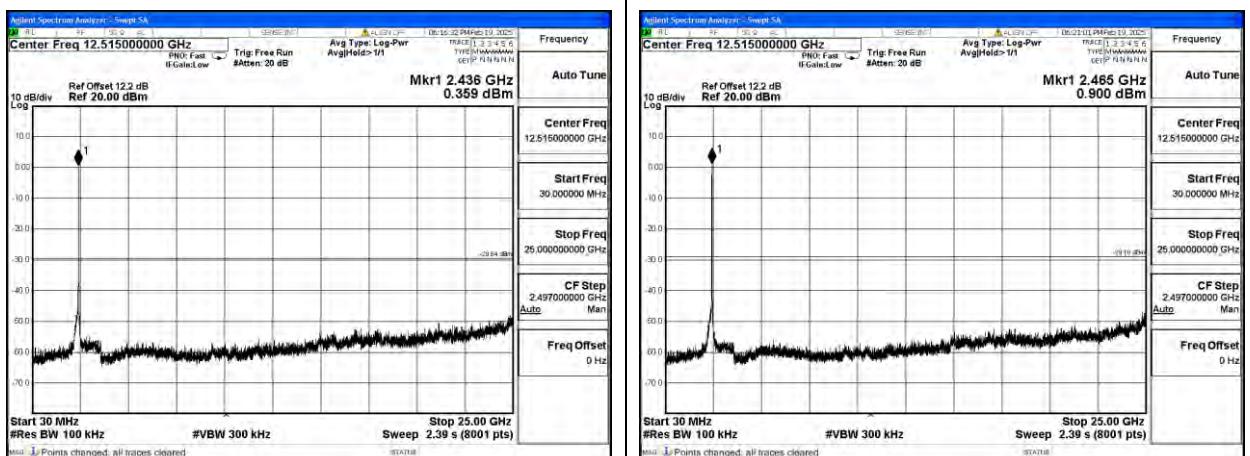
Tower N, Innovation Center, 88 Zuyi Road, High-tech  
District, Suzhou City, Anhui Province

Tel: +86 (0557) 368 1008



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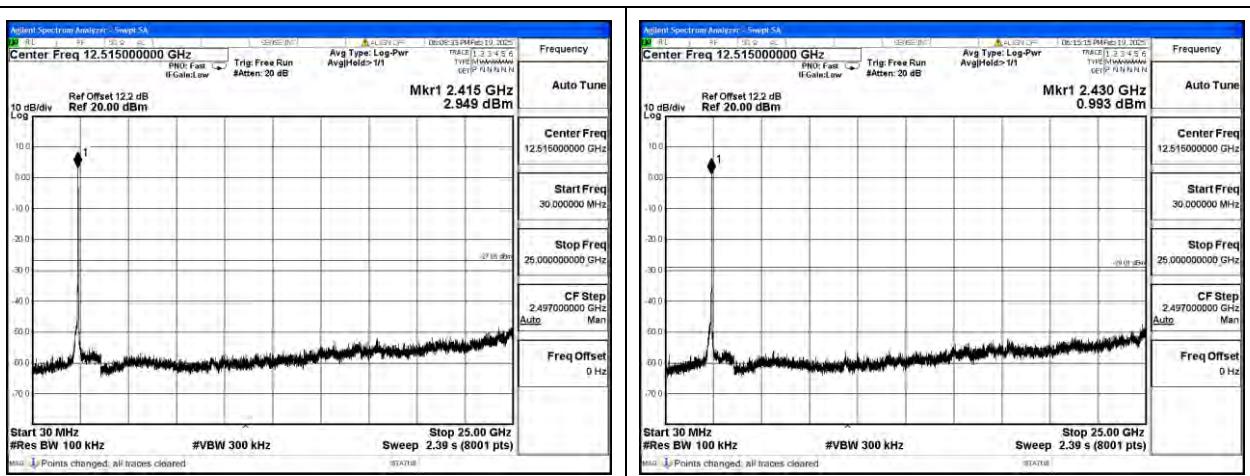
Test Report No.: PSU-NQN2502260117RF02



Mode:802.11n HT20 Frequency:2437MHz  
Ant:Chain1

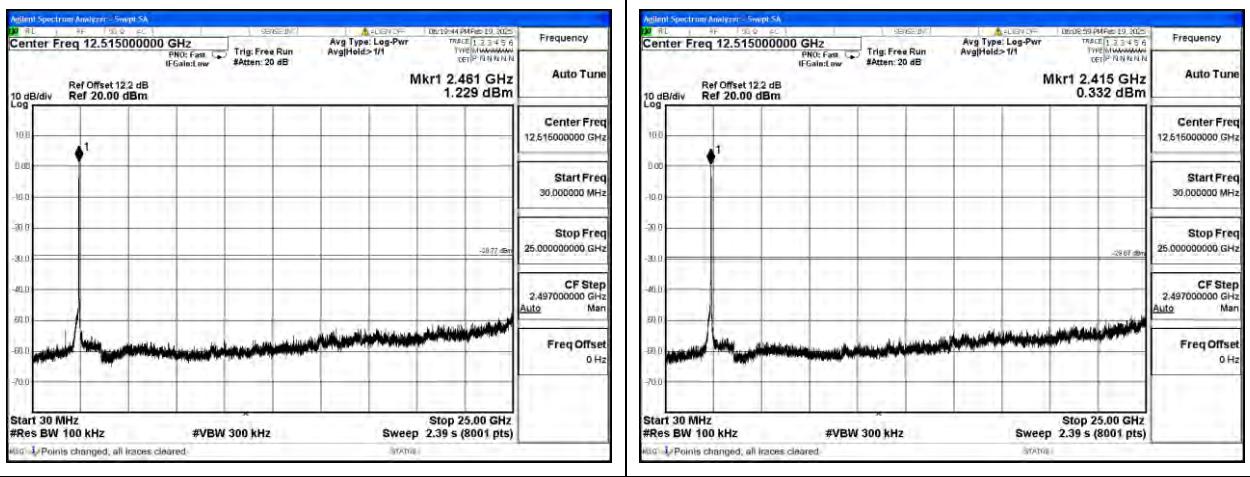
Mode:802.11n HT20 Frequency:2462MHz  
Ant:Chain1

Test Mode: 802.11ax HE20



Mode:802.11ax HE20 Frequency:2412MHz  
Ant:Chain0

Mode:802.11ax HE20 Frequency:2437MHz  
Ant:Chain0



Mode:802.11ax HE20 Frequency:2462MHz

Mode:802.11ax HE20 Frequency:2412MHz

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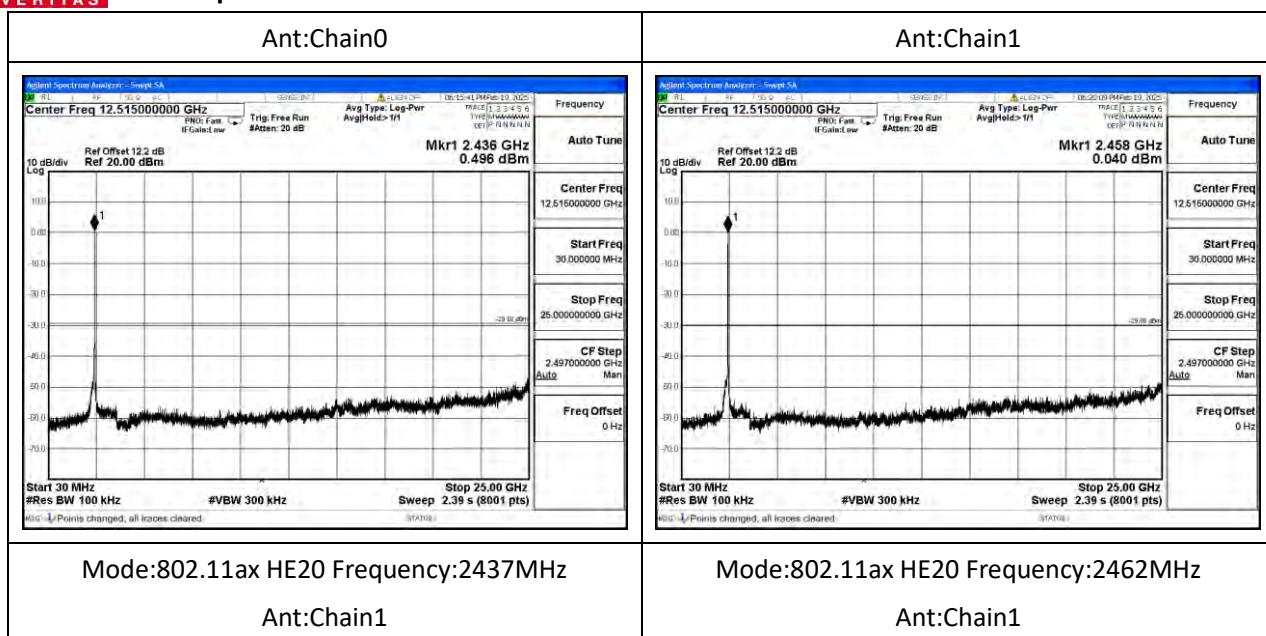
Tower N, Innovation Center, 88 Zuyi Road, High-tech  
District, Suzhou City, Anhui Province

Tel: +86 (0557) 368 1008



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Test Report No.: PSU-NQN2502260117RF02

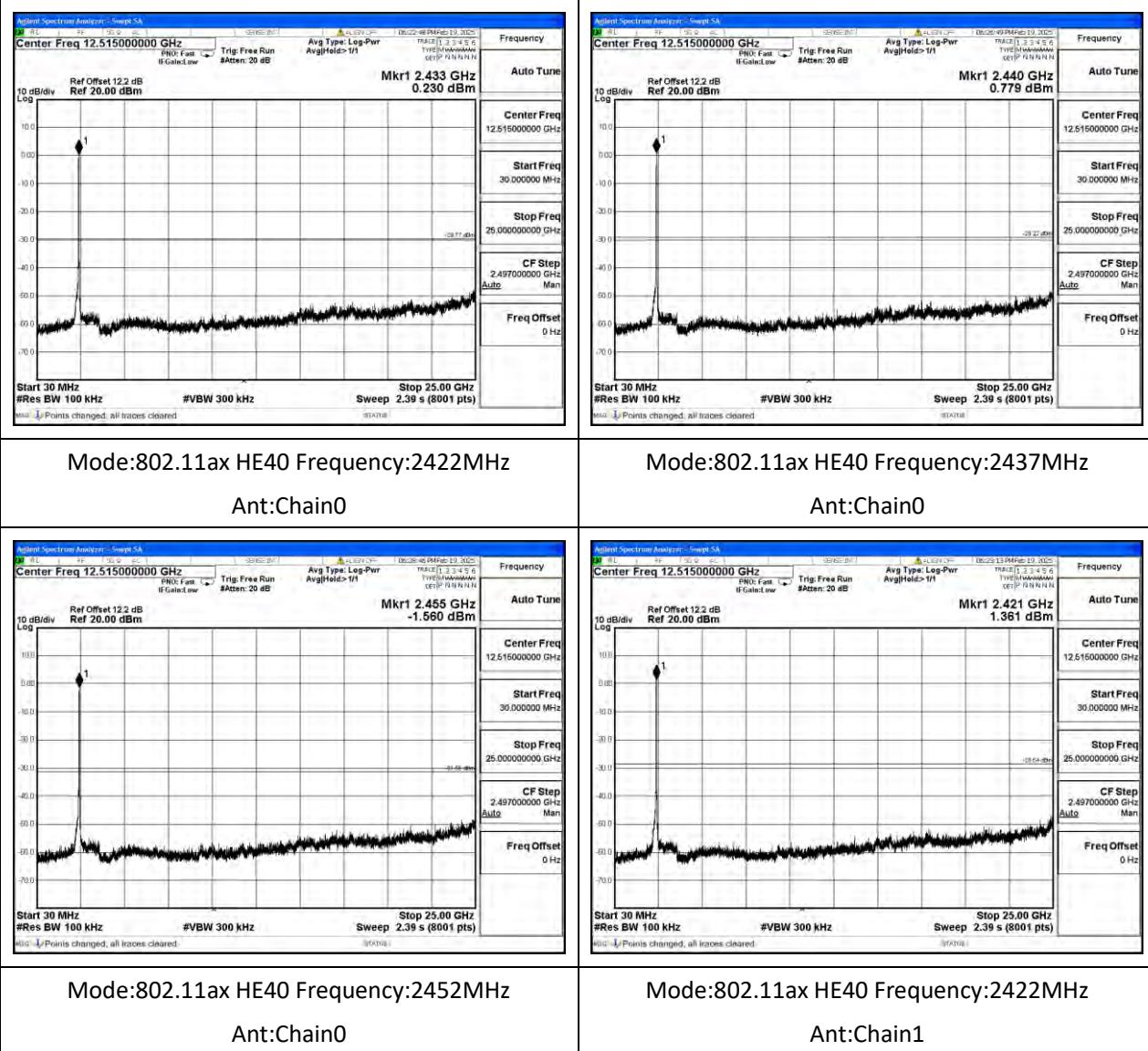




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Test Report No.: PSU-NQN2502260117RF02

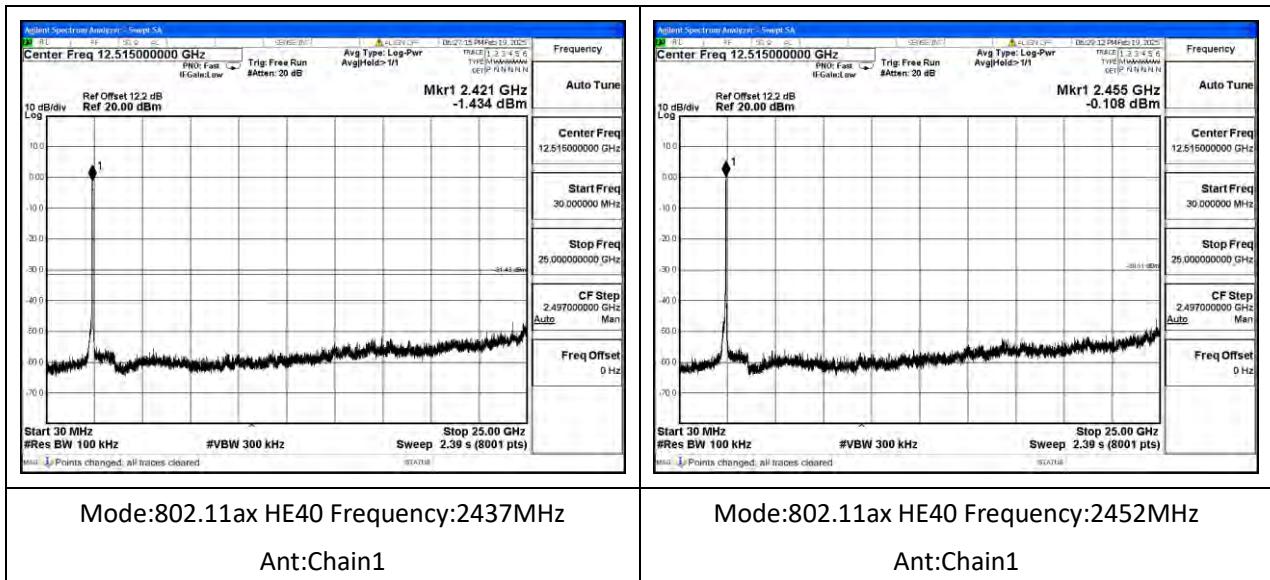
Test Mode: 802.11ax HE40



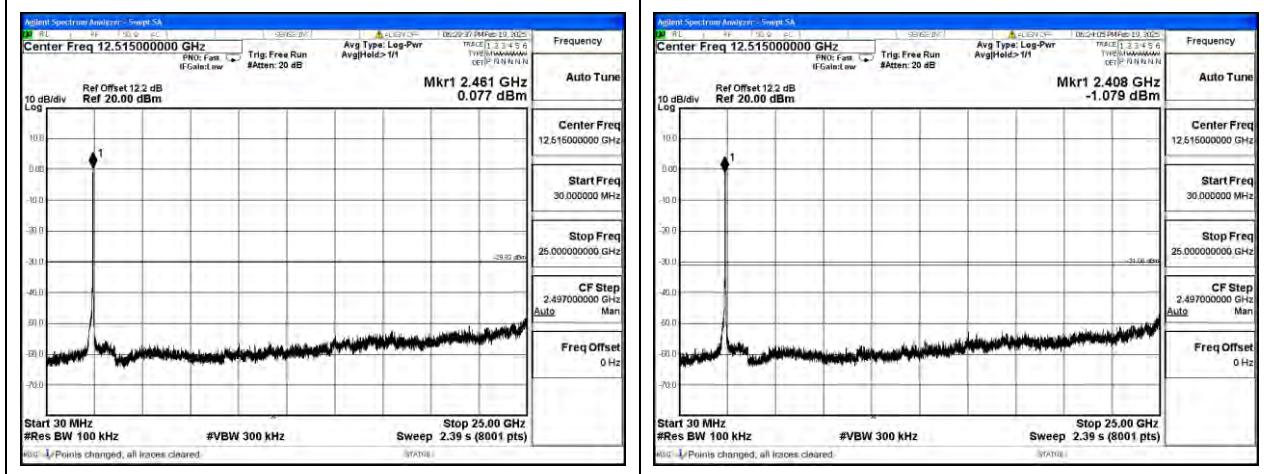
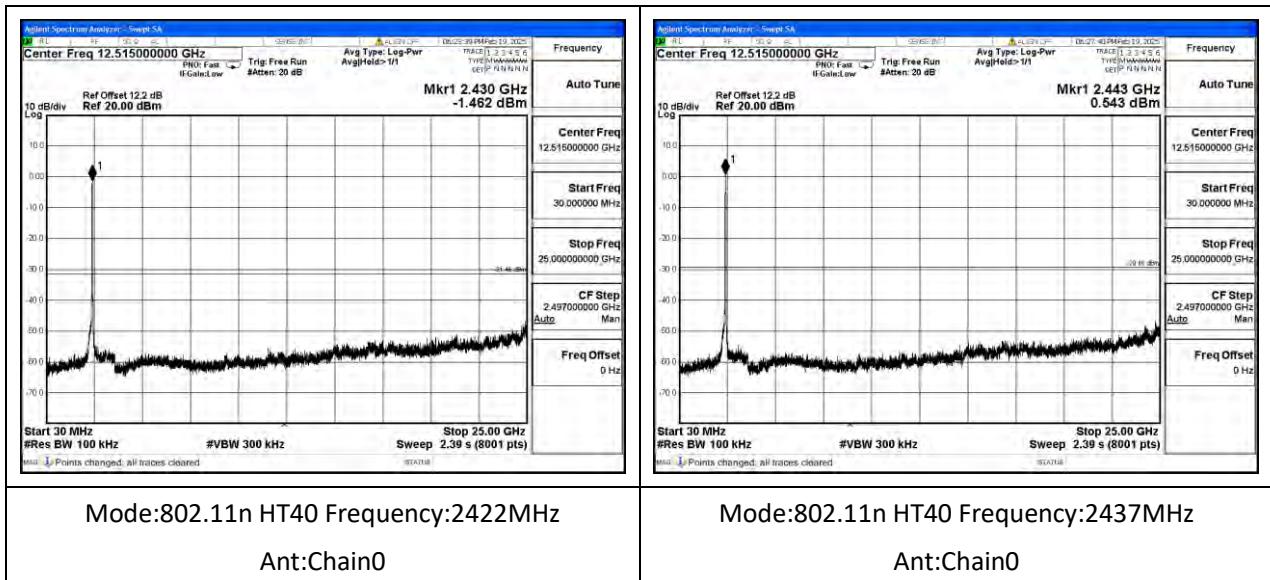


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Test Report No.: PSU-NQN2502260117RF02



Test Mode: 802.11n HT40

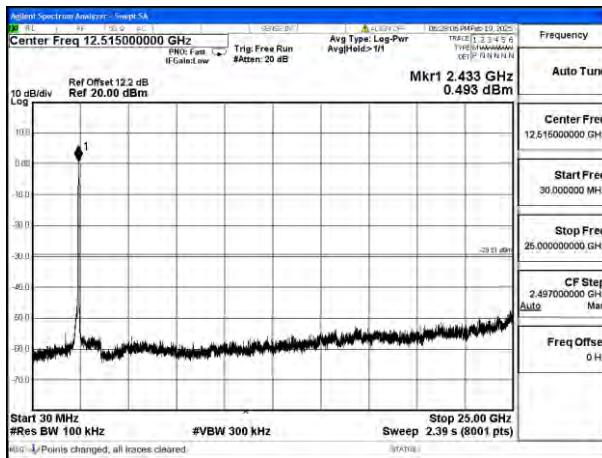




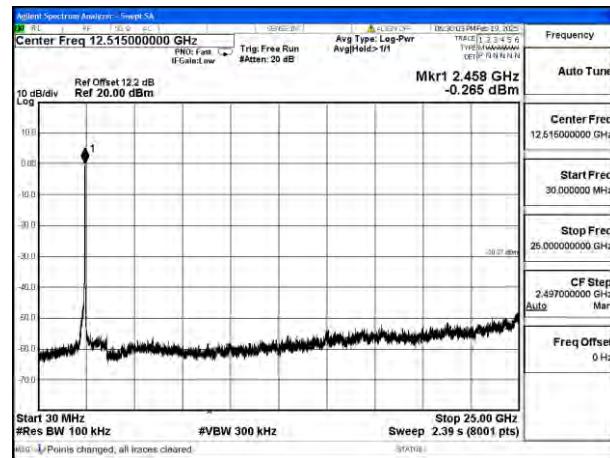
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Test Report No.: PSU-NQN2502260117RF02

Mode:802.11n HT40 Frequency:2452MHz  
Ant:Chain0



Mode:802.11n HT40 Frequency:2422MHz  
Ant:Chain1



Mode:802.11n HT40 Frequency:2437MHz  
Ant:Chain1

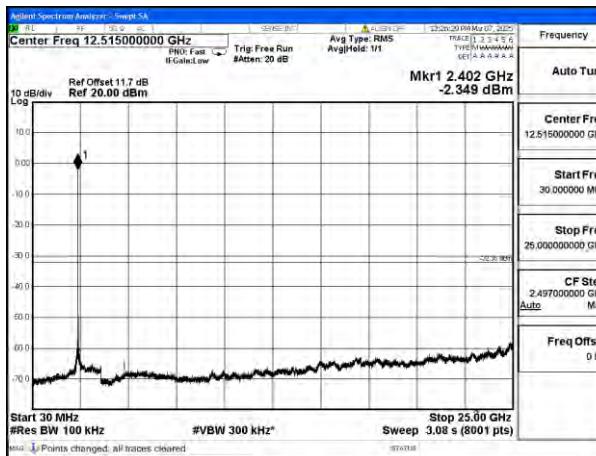
Mode:802.11n HT40 Frequency:2452MHz  
Ant:Chain1



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Test Report No.: PSU-NQN2502260117RF02

Test Mode: 802.11ax HE20 26T



Mode:802.11ax HE20 Tone:26T Frequency:2412MHz  
Ant:Chain0

Mode:802.11ax HE20 Tone:26T Frequency:2437MHz  
Ant:Chain0



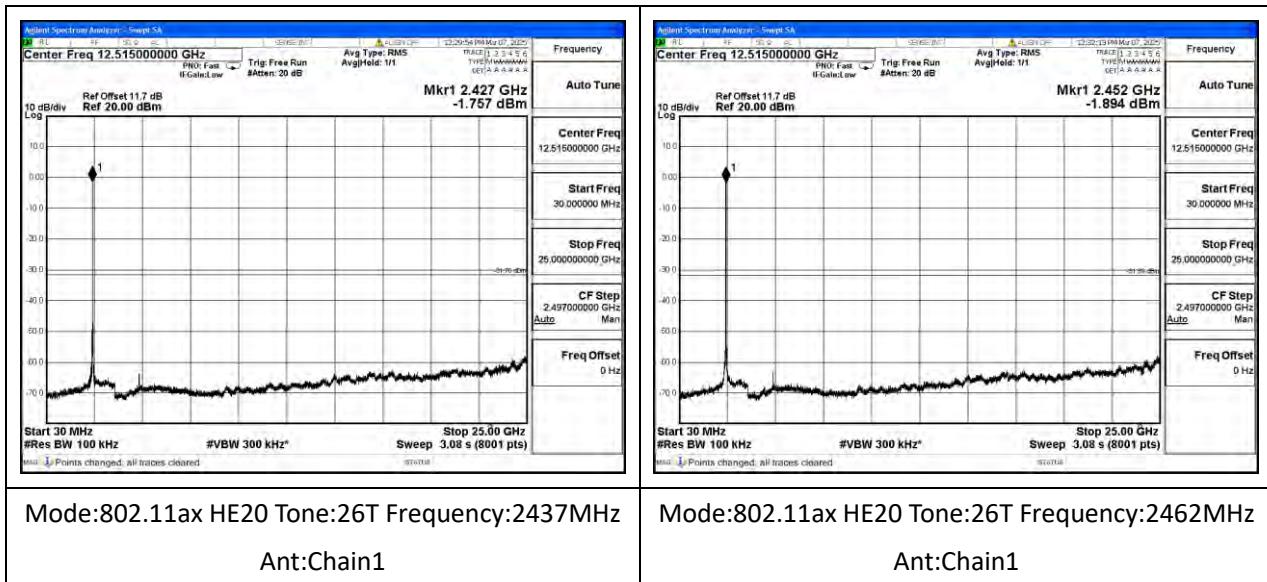
Mode:802.11ax HE20 Tone:26T Frequency:2462MHz  
Ant:Chain0

Mode:802.11ax HE20 Tone:26T Frequency:2412MHz  
Ant:Chain1

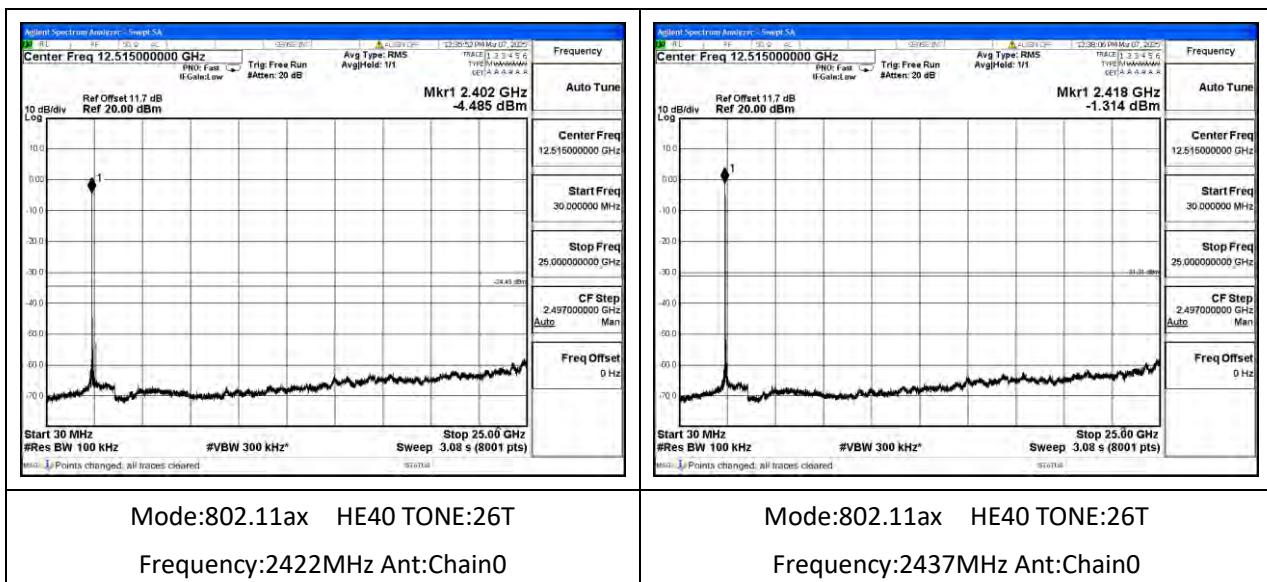


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Test Report No.: PSU-NQN2502260117RF02

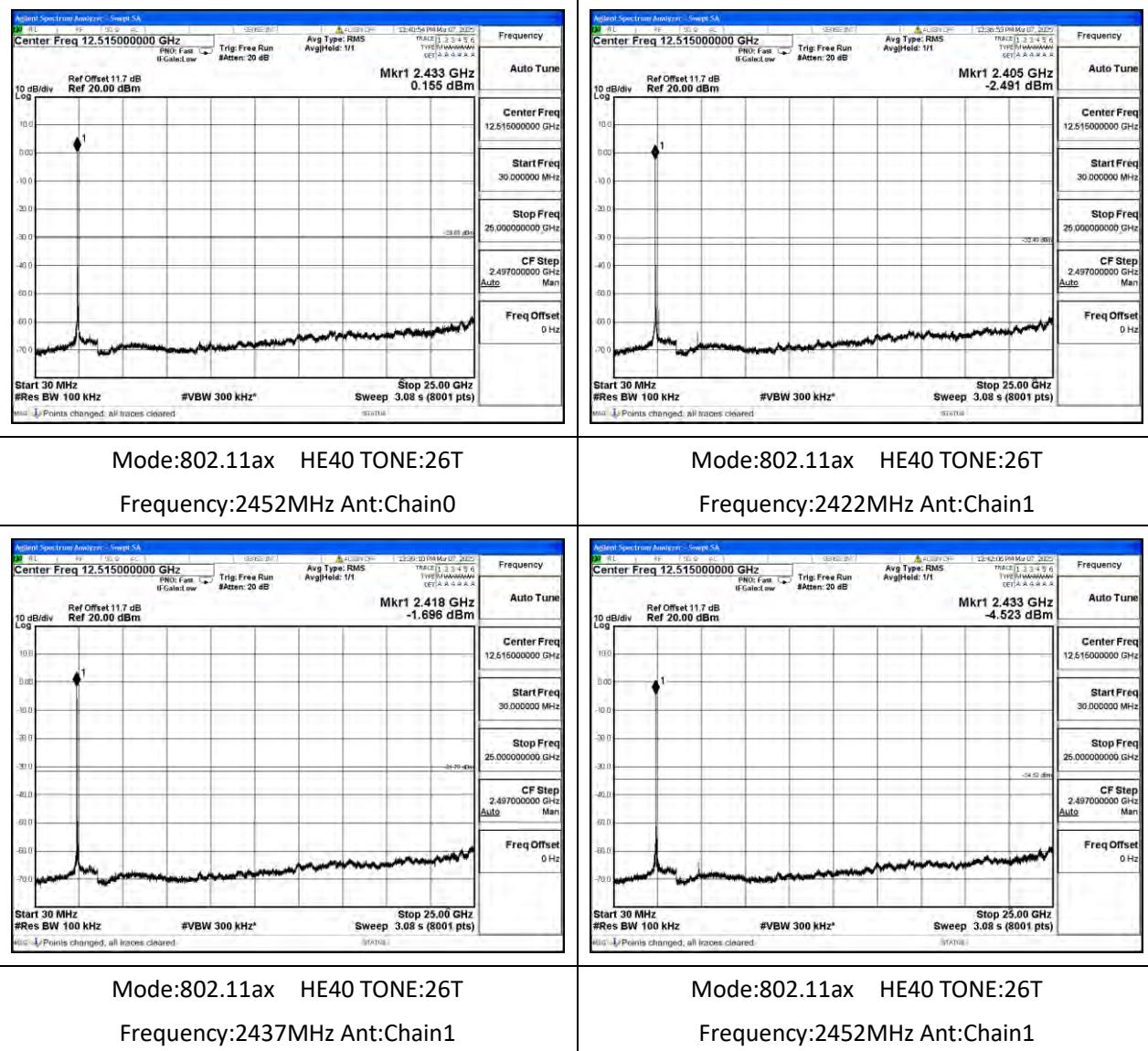


Test Mode: 802.11ax HE40 26T





## BUREAU VERITAS Test Report No.: PSU-NQN2502260117RF02





## DUTY CYCLE

## TEST RESULT

Modulation Type	Frequency (MHz)	Antenna	Plot	Duty Cycle	Correction Factor(dB)
802.11b	2412	Chain0	Fig.1	98.62%	0
802.11b	2412	Chain1	Fig.2	99.06%	0
802.11g	2412	Chain0	Fig.3	94.18%	0.26
802.11g	2412	Chain1	Fig.4	94.22%	0.26
802.11n HT20	2412	Chain0	Fig.5	93.79%	0.28
802.11n HT20	2412	Chain1	Fig.6	93.68%	0.28
802.11ax HE20	2412	Chain0	Fig.7	83.74%	0.77
802.11ax HE20	2412	Chain1	Fig.8	83.56%	0.78
802.11n HT40	2422	Chain0	Fig.9	89.14%	0.50
802.11n HT40	2422	Chain1	Fig.10	89.00%	0.51
802.11ax HE40	2422	Chain0	Fig.11	82.98%	0.81
802.11ax HE40	2422	Chain1	Fig.12	83.02%	0.81

Note: Correction Factor=10\*log (1/Duty Cycle)



BUREAU  
VERITAS

Test Report No.: PSU-NQN2502260117RF02

## TEST GRAPHS

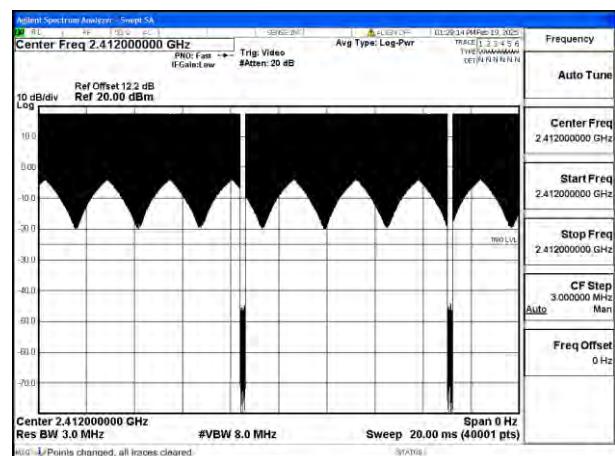
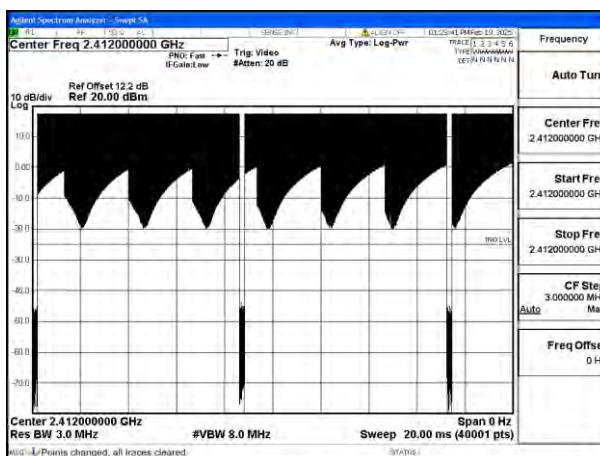


Fig.1

Fig.2

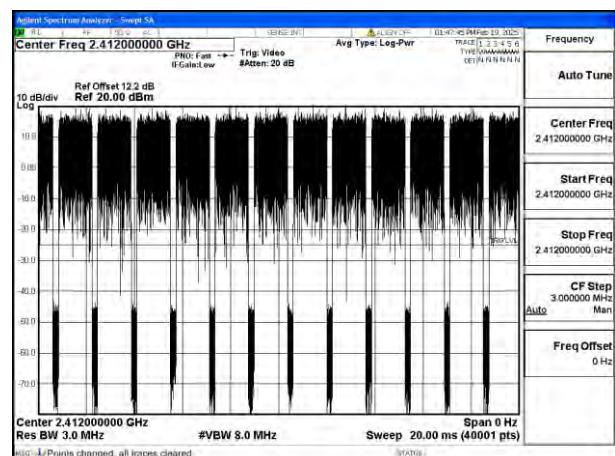
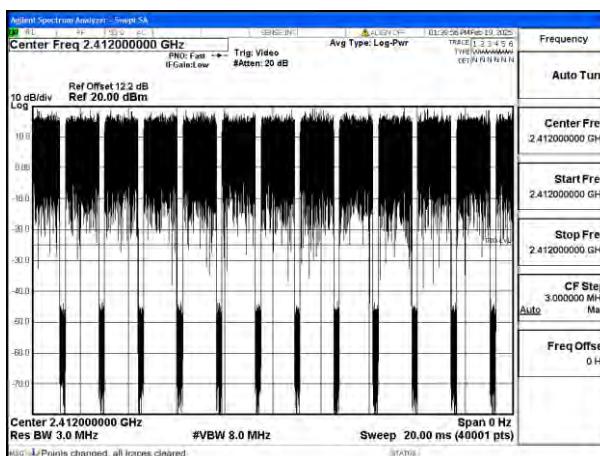


Fig.3

Fig.4

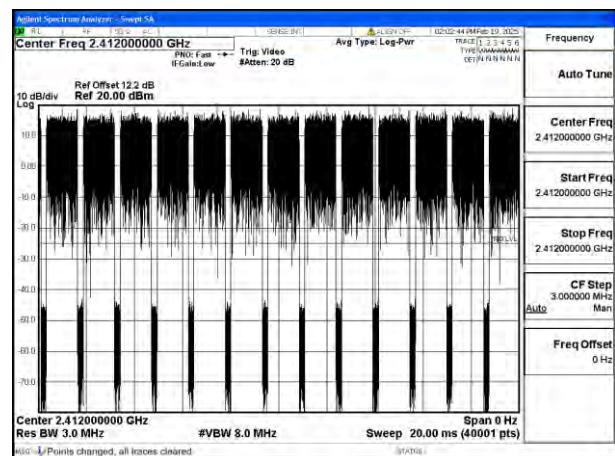
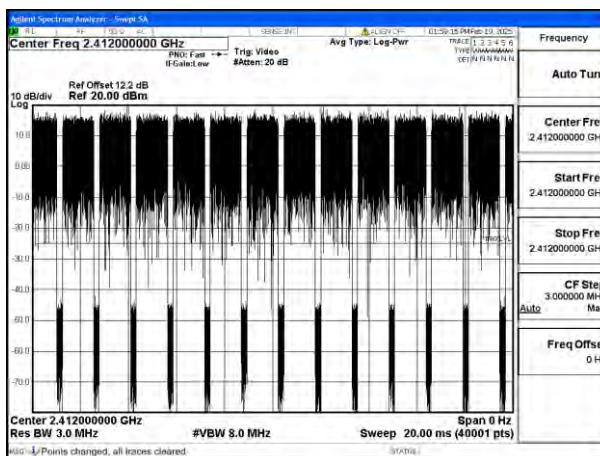


Fig.5

Fig.6



**BUREAU  
VERITAS** Test Report No.: PSU-NQN2502260117RF02

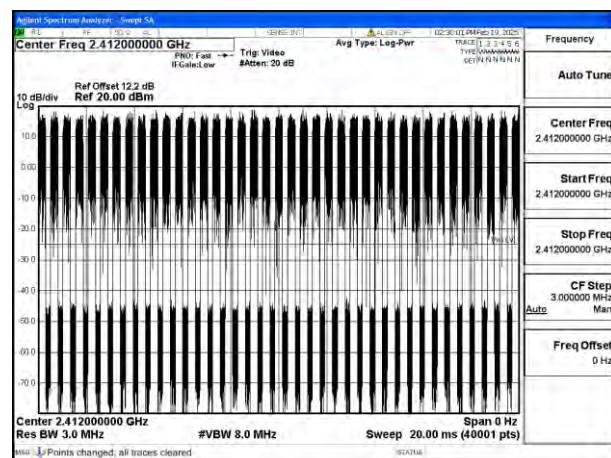


Fig.7

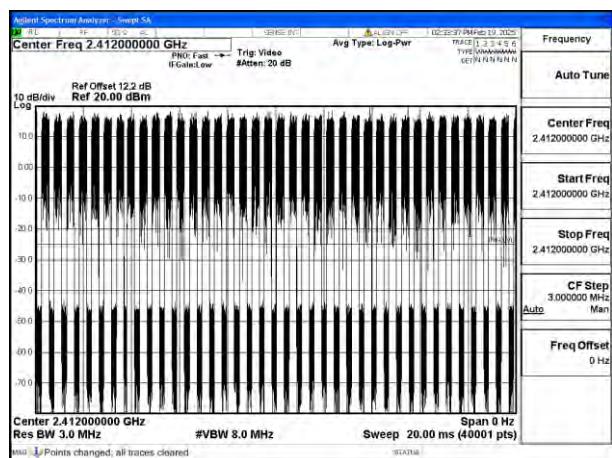


Fig.8

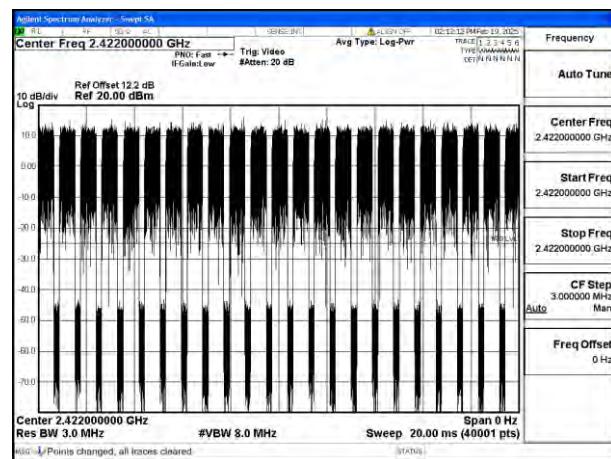


Fig.9

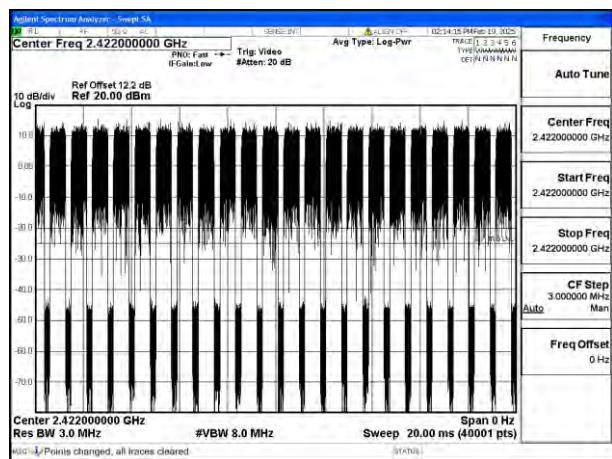


Fig.10

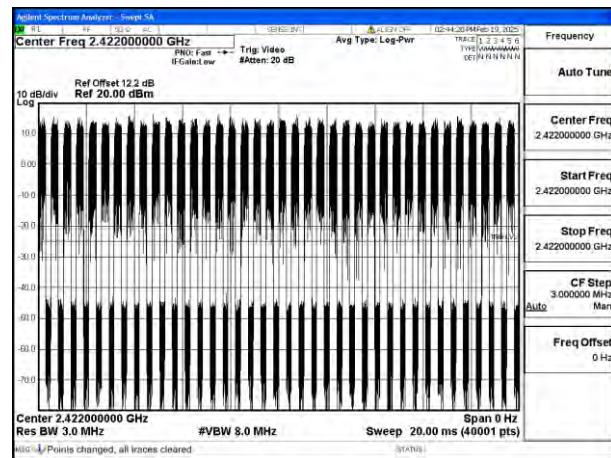


Fig.11

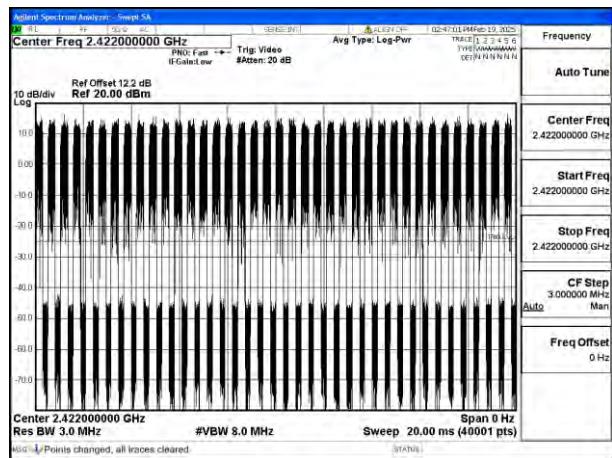


Fig.12



## 7 APPENDIX 2 BLE

### DTS BANDWIDTH

#### TEST RESULT

Test Mode	Carrier frequency (MHz)	6dB Bandwidth(KHz)
GFSK (LE 1Mbps)	2402	562.2
GFSK (LE 1Mbps)	2440	564.1
GFSK (LE 1Mbps)	2480	561.0

Test Mode	Carrier frequency (MHz)	6dB Bandwidth(KHz)
GFSK (LE 2Mbps)	2402	842.7
GFSK (LE 2Mbps)	2440	841.9
GFSK (LE 2Mbps)	2480	852.6

Test Mode	Carrier frequency (MHz)	6dB Bandwidth(KHz)
Coded 125K	2402	641.8
Coded 125K	2440	633.9
Coded 125K	2480	645.5

Test Mode	Carrier frequency (MHz)	6dB Bandwidth(KHz)
Coded 500K	2402	634.2
Coded 500K	2440	645.1
Coded 500K	2480	650.2



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Test Report No.: PSU-NQN2502260117RF02

## TEST GRAPHS

Test Mode: GFSK (LE 1Mbps)





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Test Report No.: PSU-NQN2502260117RF02

Test Mode: GFSK (LE 2Mbps)



Test Mode:GFSK (LE 2Mbps) 2402MHz

Test Mode:GFSK (LE 2Mbps) 2440MHz



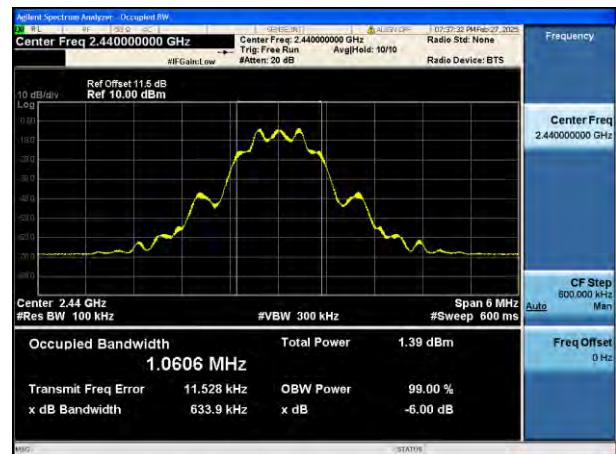
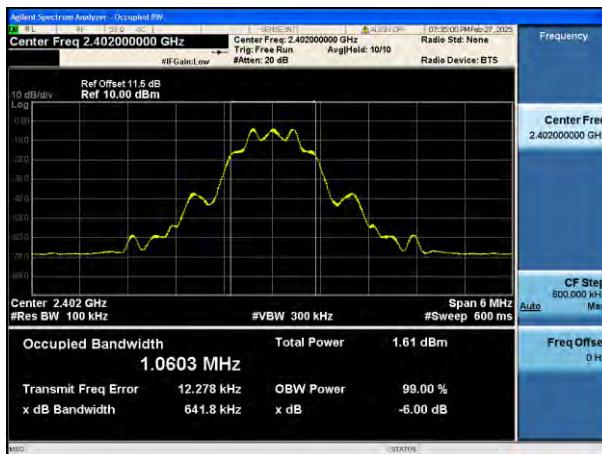
Test Mode:GFSK (LE 2Mbps) 2480MHz



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Test Report No.: PSU-NQN2502260117RF02

Test Mode: Coded 125K



Test Mode: Coded 125K 2402MHz



Test Mode: Coded 125K 2440MHz

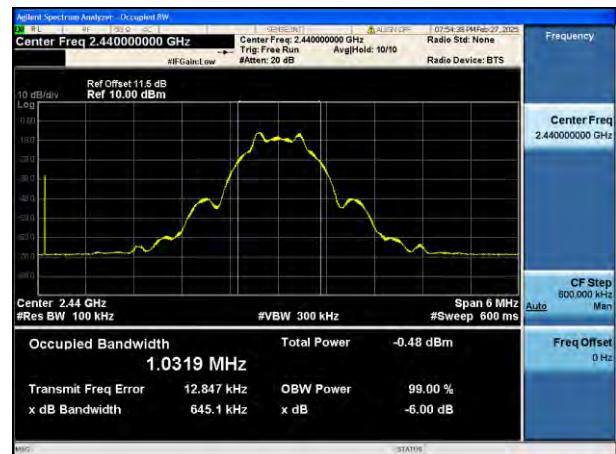
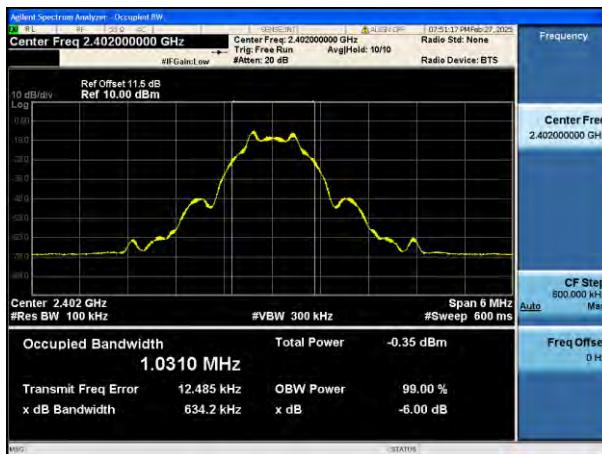
Test Mode: Coded 125K 2480MHz



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Test Report No.: PSU-NQN2502260117RF02

Test Mode: Coded 500K



Test Mode:Coded 500K 2402MHz



Test Mode:Coded 500K 2440MHz

Test Mode:Coded 500K 2480MHz



## OCCUPIED CHANNEL BANDWIDTH

### TEST RESULT

Test Mode	Carrier frequency (MHz)	99% Bandwidth(kHz)
GFSK (LE 1Mbps)	2402	1069.3
GFSK (LE 1Mbps)	2440	1069.1
GFSK (LE 1Mbps)	2480	1069.1

Test Mode	Carrier frequency (MHz)	99% Bandwidth(kHz)
GFSK (LE 2Mbps)	2402	2088.5
GFSK (LE 2Mbps)	2440	2089.2
GFSK (LE 2Mbps)	2480	2088.5

Test Mode	Carrier frequency (MHz)	99% Bandwidth(kHz)
Coded 125K	2402	1059.9
Coded 125K	2440	1060.5
Coded 125K	2480	1060.6

Test Mode	Carrier frequency (MHz)	99% Bandwidth(kHz)
Coded 500K	2402	1029.9
Coded 500K	2440	1030.2
Coded 500K	2480	1030.4

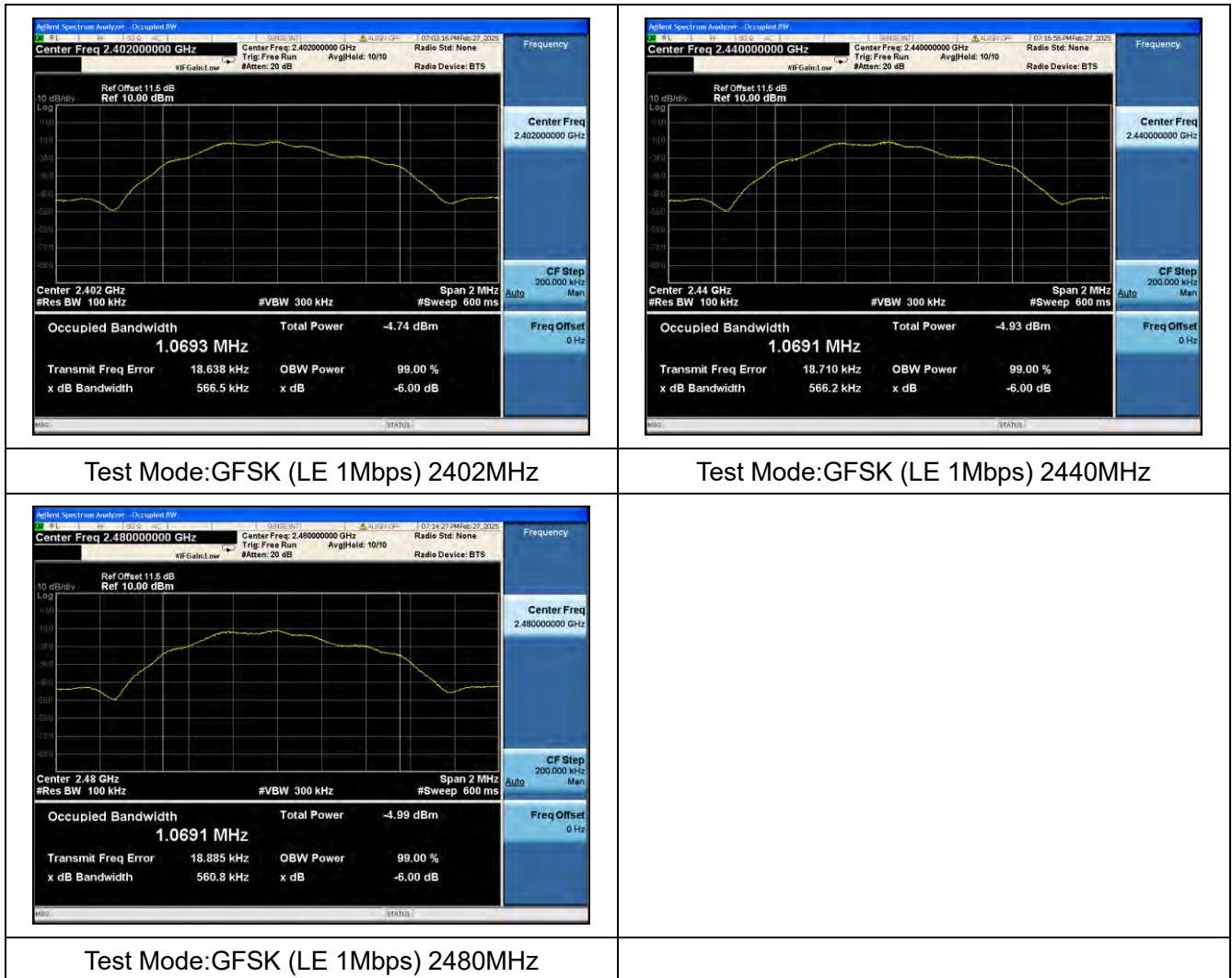


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Test Report No.: PSU-NQN2502260117RF02

## TEST GRAPHS

Test Mode: GFSK (LE 1Mbps)





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Test Report No.: PSU-NQN2502260117RF02

Test Mode: GFSK (LE 2Mbps)



Test Mode:GFSK (LE 2Mbps) 2402MHz

Test Mode:GFSK (LE 2Mbps) 2440MHz



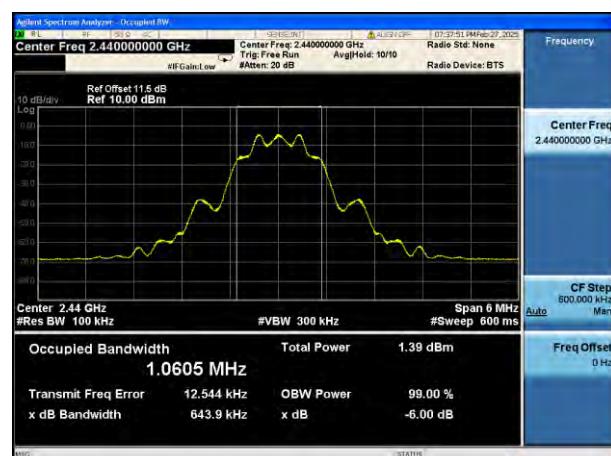
Test Mode:GFSK (LE 2Mbps) 2480MHz



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Test Report No.: PSU-NQN2502260117RF02

Test Mode: Coded 125K



Test Mode:Coded 125K 2402MHz



Test Mode:Coded 125K 2440MHz

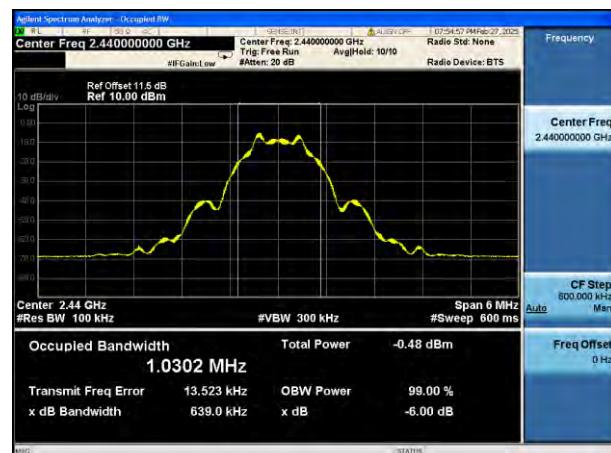
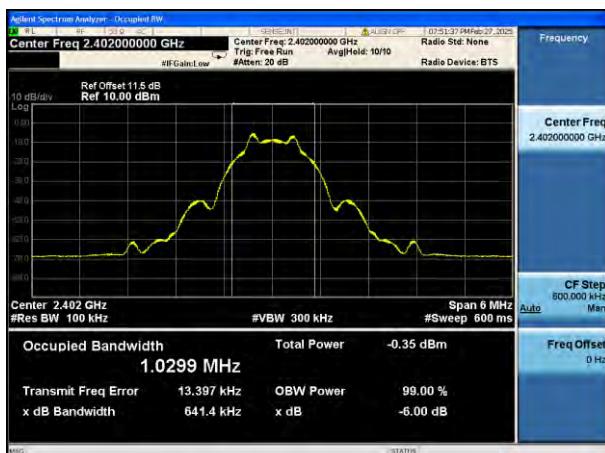
Test Mode:Coded 125K 2480MHz



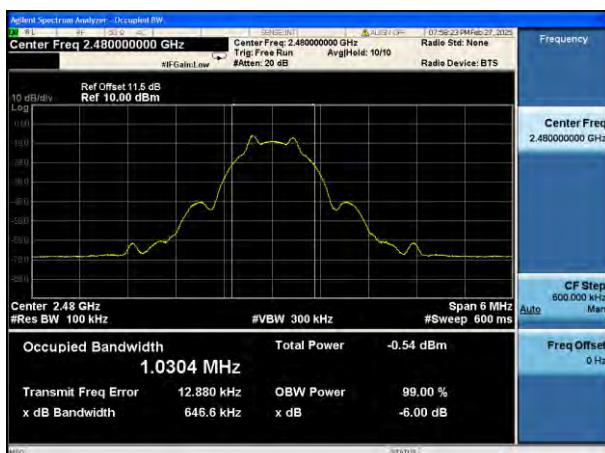
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Test Report No.: PSU-NQN2502260117RF02

Test Mode: Coded 500K



Test Mode: Coded 500K 2402MHz



Test Mode: Coded 500K 2440MHz

Test Mode: Coded 500K 2480MHz



## MAXIMUM CONDUCTED OUTPUT POWER

### TEST RESULT

#### Conducted Power

Modulation type	Conducted Peak Power(dBm)		
	2402MHz	2440MHz	2480MHz
GFSK (LE 1Mbps)	4.26	4.07	4.01
GFSK (LE 2Mbps)	4.15	3.96	3.98
Coded 125K	4.15	3.92	4.01
Coded 500K	4.22	4.02	3.97

Modulation type	Conducted Average Power(dBm)		
	2402MHz	2440MHz	2480MHz
GFSK (LE 1Mbps)	1.91	1.97	0.68
GFSK (LE 2Mbps)	2.24	0.13	-0.28
Coded 125K	4.01	3.27	3.28
Coded 500K	3.32	4.02	2.27

#### EIRP

Modulation type	Peak EIRP(dBm)		
	2402MHz	2440MHz	2480MHz
GFSK (LE 1Mbps)	7.81	7.62	7.56
GFSK (LE 2Mbps)	7.70	7.51	7.53
Coded 125K	7.70	7.46	7.56
Coded 500K	7.77	7.57	7.52

Modulation type	Average EIRP(dBm)		
	2402MHz	2440MHz	2480MHz
GFSK (LE 1Mbps)	5.46	5.52	4.23
GFSK (LE 2Mbps)	5.79	3.68	3.27
Coded 125K	7.56	6.82	6.83
Coded 500K	6.87	7.57	5.82

$$\text{EIRP (dBm)} = \text{Conducted Power(dBm)} + \text{Antenna Gain(dBi)}$$



## MAXIMUM POWER SPECTRAL DENSITY

### TEST RESULT

Test Mode	Carrier frequency (MHz)	Channel No.	Power Density (dBm/3kHz)
GFSK (LE 1Mbps)	2402	0	-15.2
GFSK (LE 1Mbps)	2440	19	-15.2
GFSK (LE 1Mbps)	2480	39	-15.2

Test Mode	Carrier frequency (MHz)	Channel No.	Power Density (dBm/3kHz)
GFSK (LE 2Mbps)	2402	0	-18.7
GFSK (LE 2Mbps)	2440	19	-18.7
GFSK (LE 2Mbps)	2480	39	-18.9

Test Mode	Carrier frequency (MHz)	Channel No.	Power Density (dBm/3kHz)
Coded 125K	2402	0	-2.1
Coded 125K	2440	19	-2.4
Coded 125K	2480	39	-2.4

Test Mode	Carrier frequency (MHz)	Channel No.	Power Density (dBm/3kHz)
Coded 500K	2402	0	-2.4
Coded 500K	2440	19	-2.3
Coded 500K	2480	39	-2.4

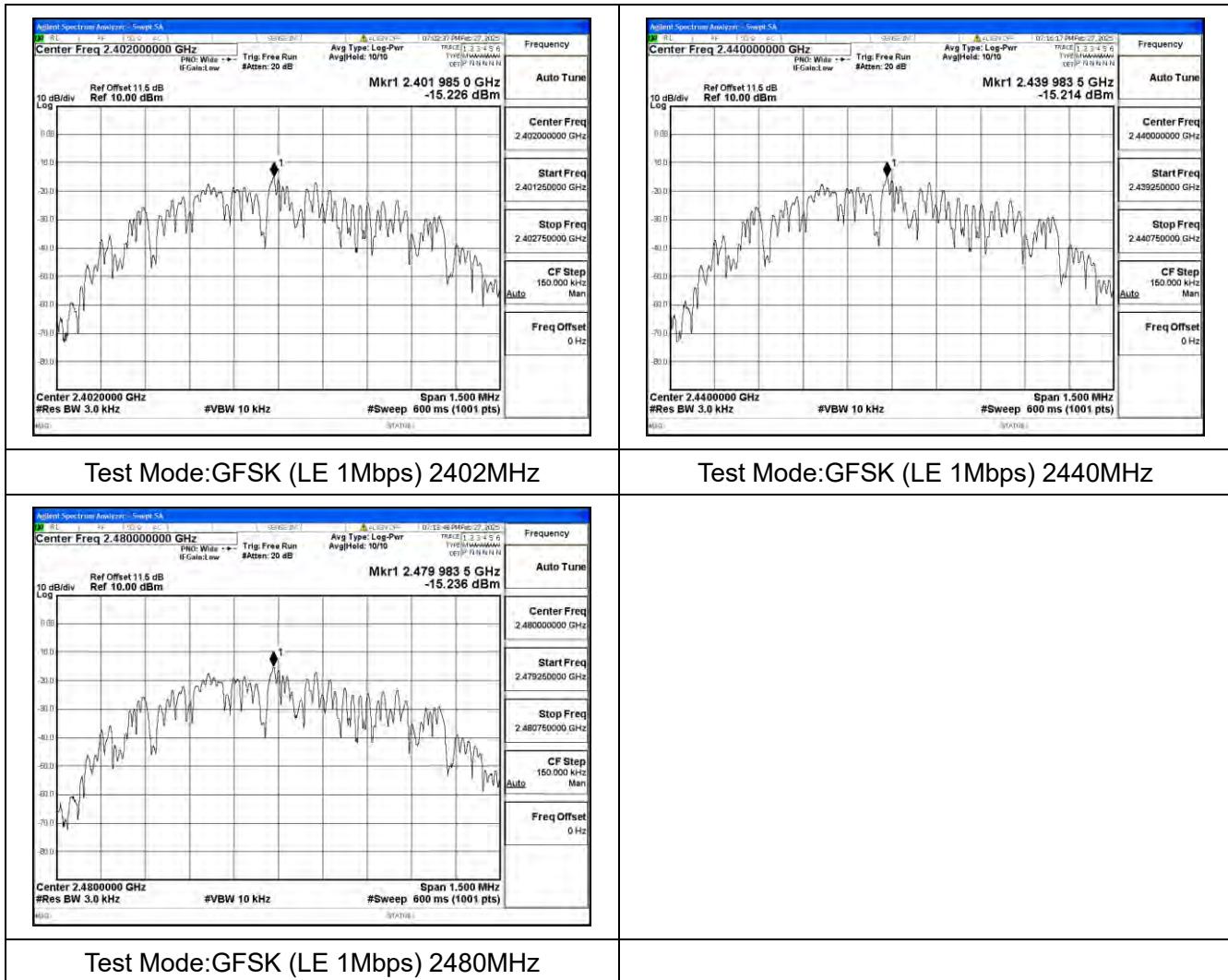


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VERITAS

Test Report No.: PSU-NQN2502260117RF02

## TEST GRAPHS

Test Mode: GFSK (LE 1Mbps)

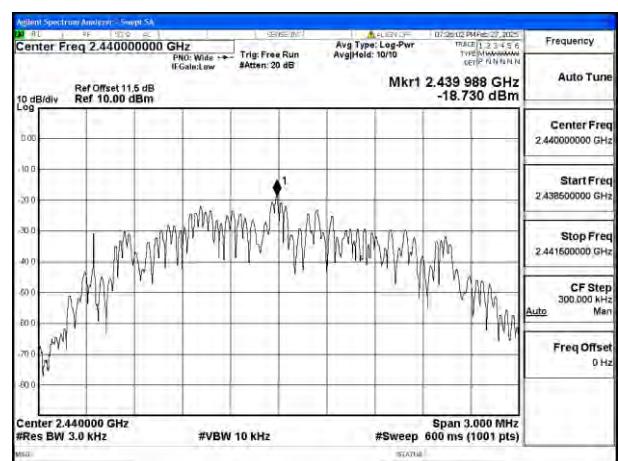
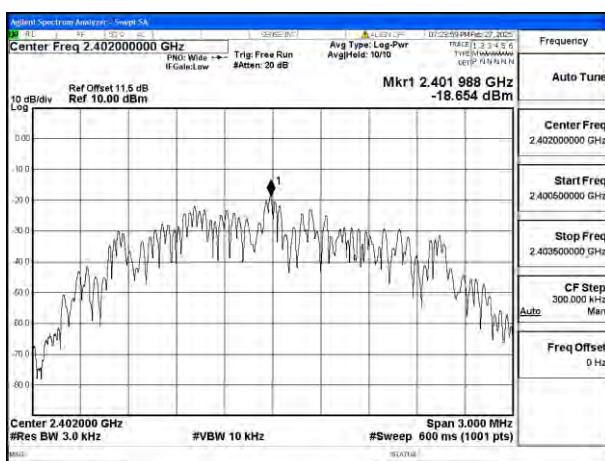




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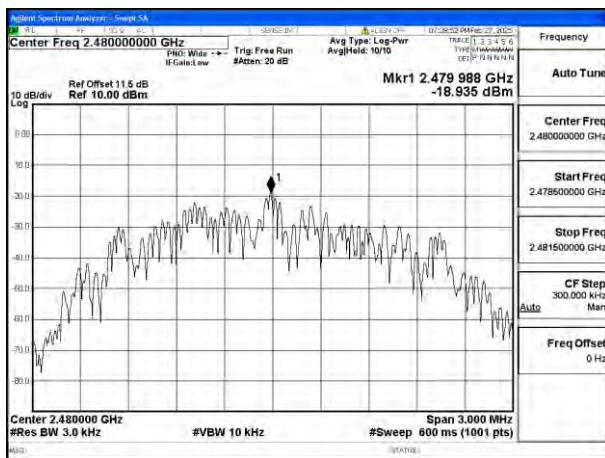
Test Report No.: PSU-NQN2502260117RF02

Test Mode: GFSK (LE 2Mbps)



Test Mode: GFSK (LE 2Mbps) 2402MHz

Test Mode: GFSK (LE 2Mbps) 2440MHz



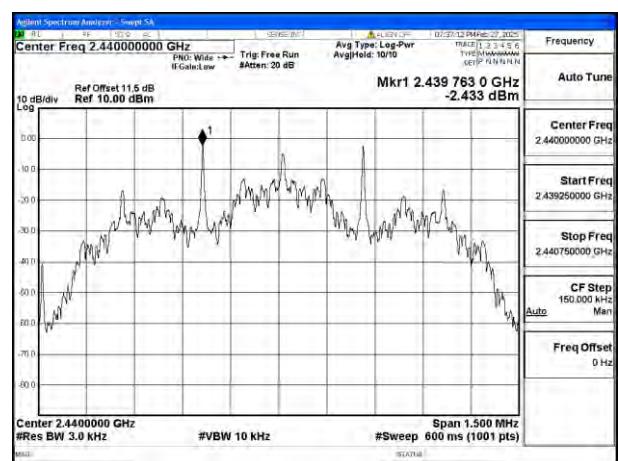
Test Mode: GFSK (LE 2Mbps) 2480MHz



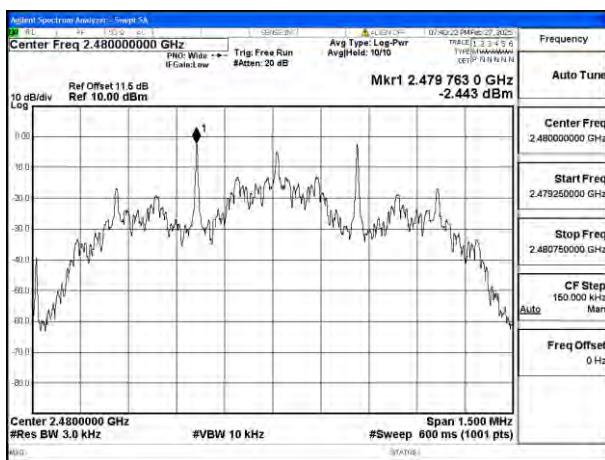
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Test Report No.: PSU-NQN2502260117RF02

Test Mode: Coded 125K



Test Mode: Coded 125K 2402MHz



Test Mode: Coded 125K 2440MHz

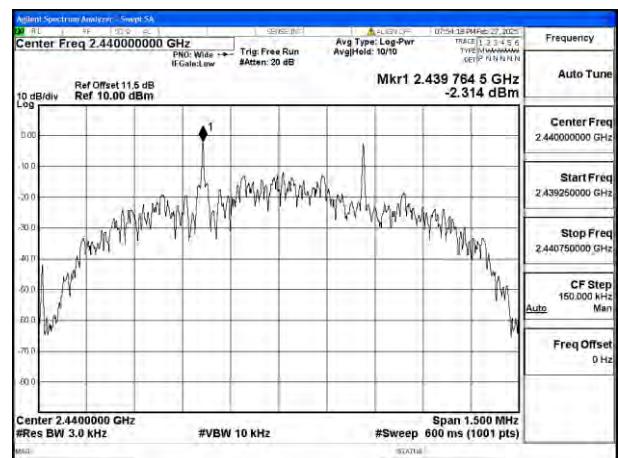
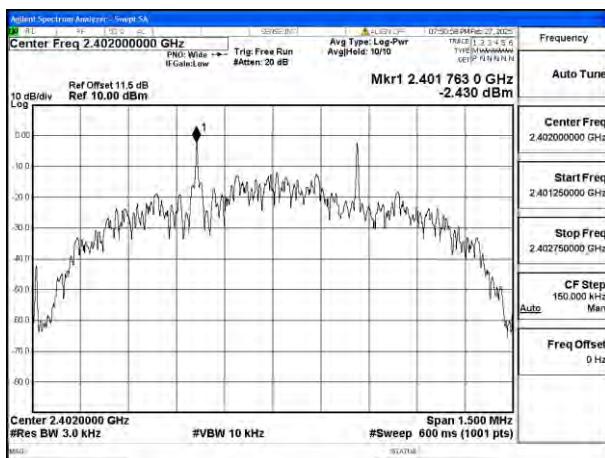
Test Mode: Coded 125K 2480MHz



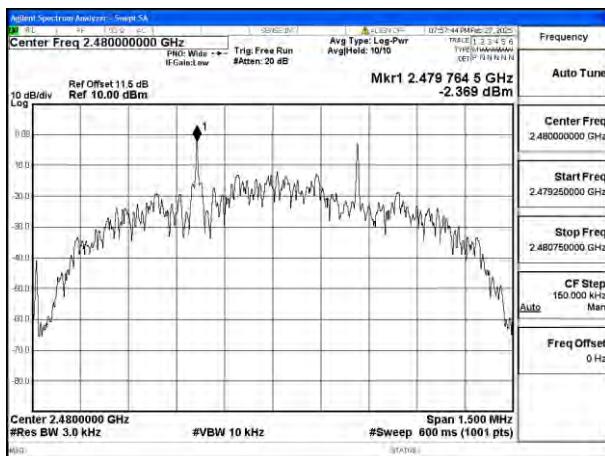
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Test Report No.: PSU-NQN2502260117RF02

Test Mode: Coded 500K



Test Mode:Coded 500K 2402MHz



Test Mode:Coded 500K 2440MHz

Test Mode:Coded 500K 2480MHz



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Test Report No.: PSU-NQN2502260117RF02

## BAND EDGE MEASUREMENTS

### TEST RESULT

#### TEST GRAPHS

Test Mode: GFSK (LE 1Mbps)



Test Mode: GFSK (LE 2Mbps)



Test Mode: Coded 125K

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## BUREAU VERITAS

### Test Report No.: PSU-NQN2502260117RF02



### Test Mode: Coded 500K



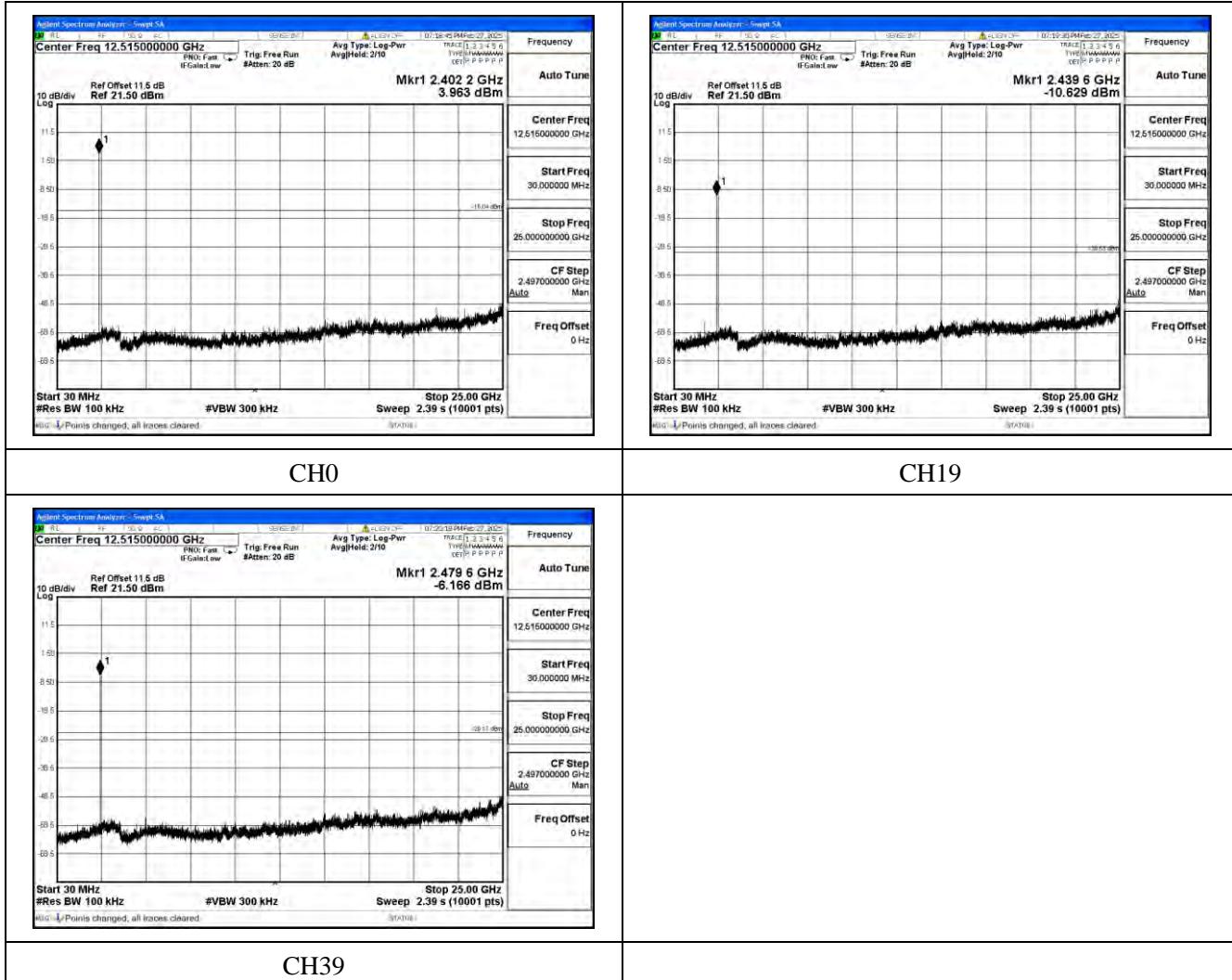


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Test Report No.: PSU-NQN2502260117RF02

## CONDUCTED SPURIOUS EMISSION TEST GRAPHS

Test Mode: GFSK (LE 1Mbps)

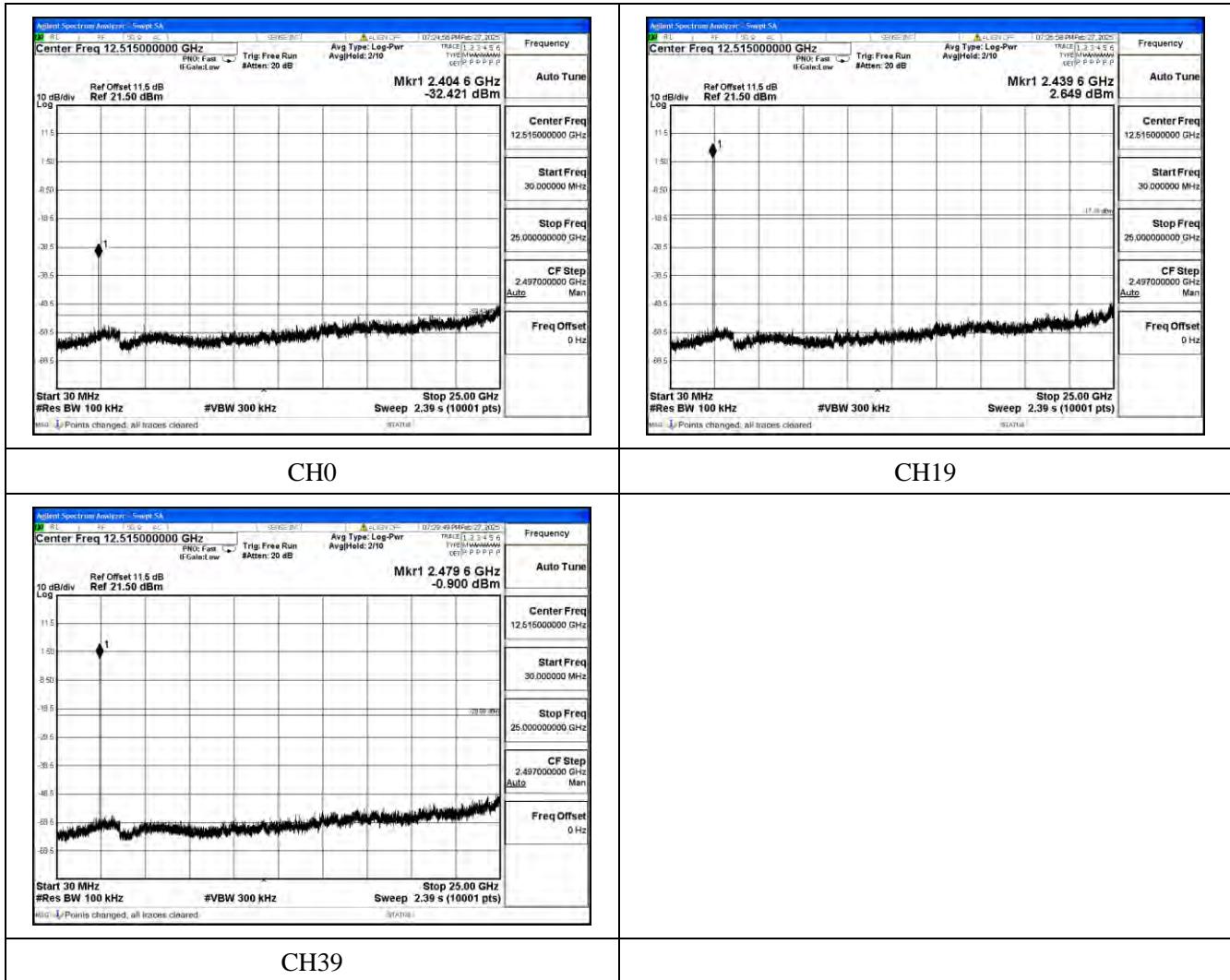




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Test Report No.: PSU-NQN2502260117RF02

Test Mode: GFSK (LE 2Mbps)

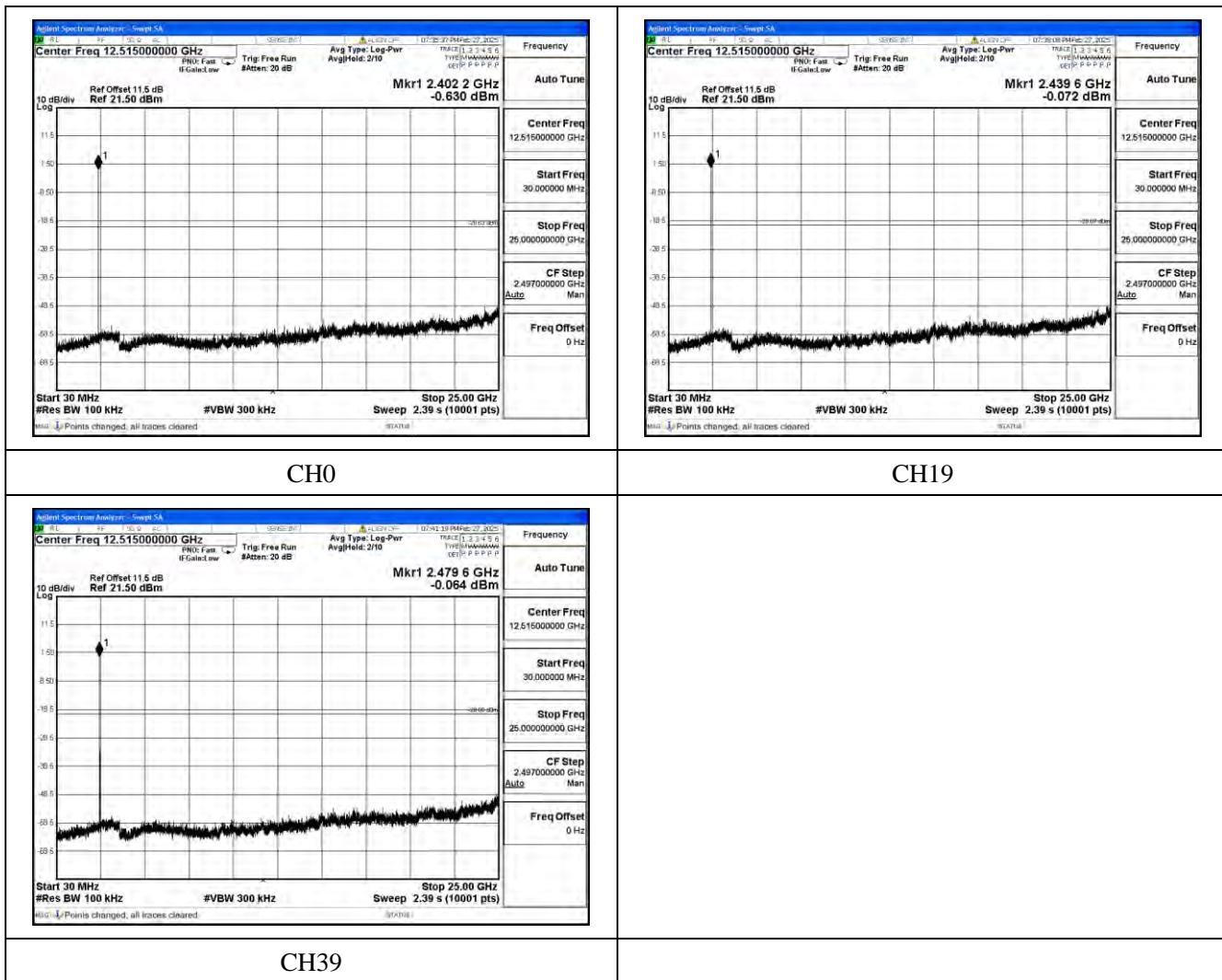




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Test Report No.: PSU-NQN2502260117RF02

Test Mode: Coded 125K



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District, Suzhou City, Anhui Province

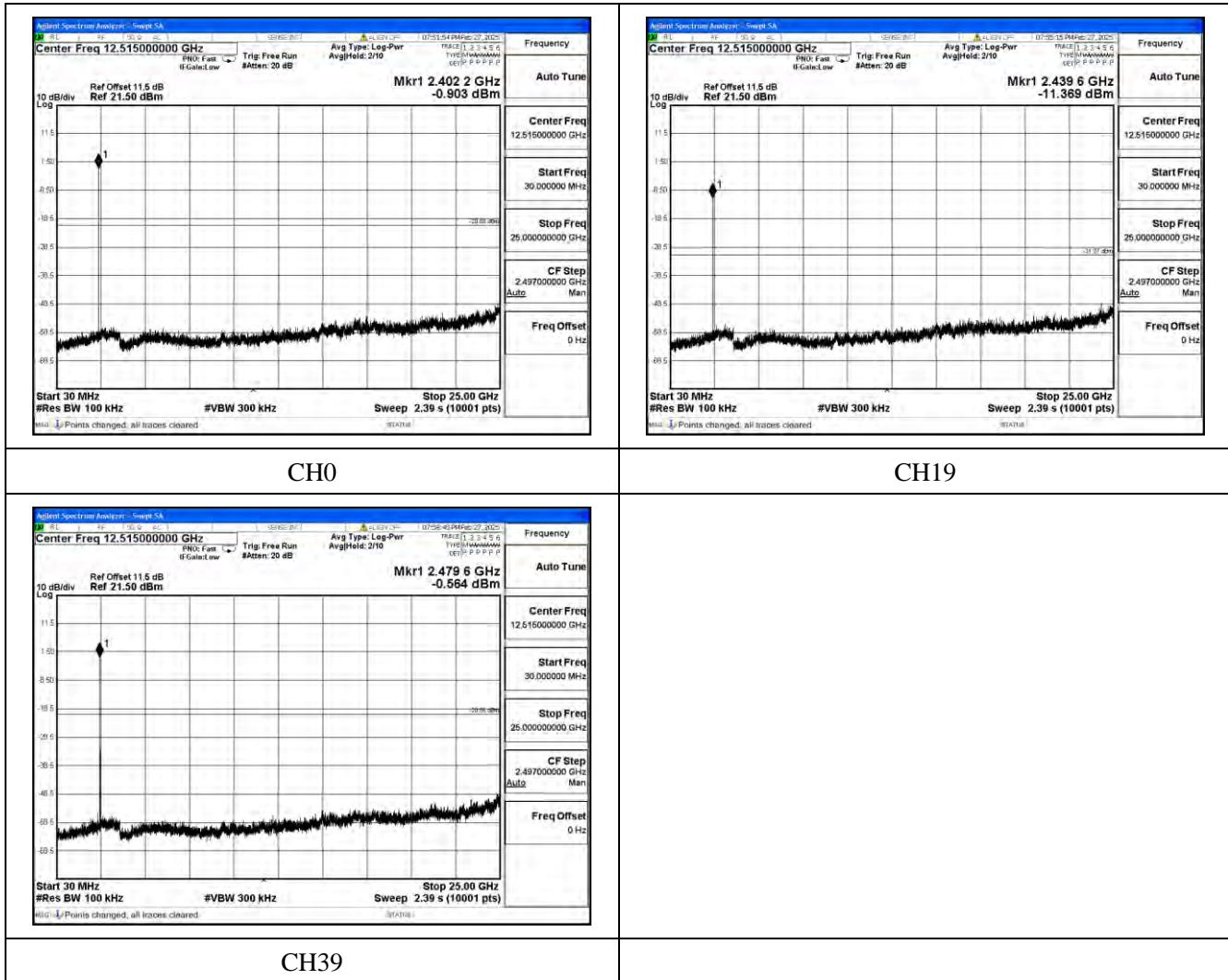
Tel: +86 (0557) 368 1008



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Test Report No.: PSU-NQN2502260117RF02

Test Mode: Coded 500K





## DUTY CYCLE

### TEST RESULT

Test Mode	Frequency (MHz)	Plot	Duty Cycle	Correction Factor(dB)	Antenna Gain(dBi)
GFSK (LE 1Mbps)	2402	Fig.1	19.50%	7.10	3.55

Note: Correction Factor=10\*log(1/Duty Cycle)

Test Mode	Frequency (MHz)	Plot	Duty Cycle	Correction Factor(dB)	Antenna Gain(dBi)
GFSK (LE 2Mbps)	2402	Fig.2	14.40%	8.42	3.55

Note: Correction Factor=10\*log(1/Duty Cycle)

Test Mode	Frequency (MHz)	Plot	Duty Cycle	Correction Factor(dB)	Antenna Gain(dBi)
Coded 125K	2402	Fig.3	61.10%	2.14	3.55

Note: Correction Factor=10\*log(1/Duty Cycle)

Test Mode	Frequency (MHz)	Plot	Duty Cycle	Correction Factor(dB)	Antenna Gain(dBi)
Coded 500K	2402	Fig.4	41.30%	3.84	3.55

Note: Correction Factor=10\*log(1/Duty Cycle)



## TEST GRAPHS

Test Mode: GFSK (LE 1Mbps)

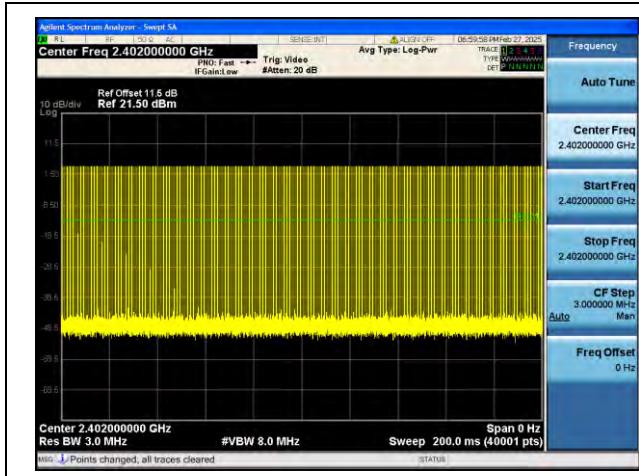


Fig.1

Test Mode: GFSK (LE 2Mbps)

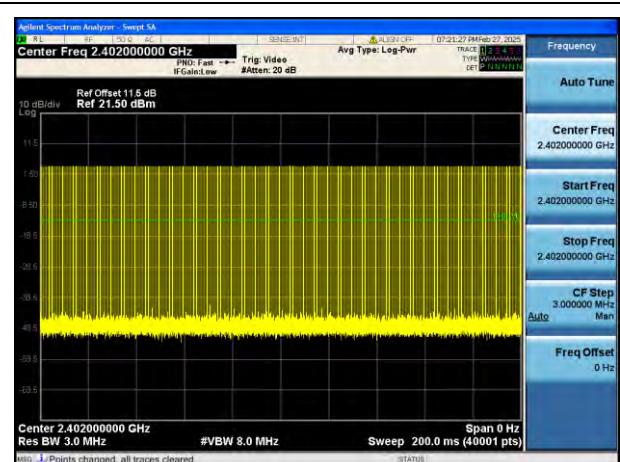


Fig.2

Test Mode: Coded 125K

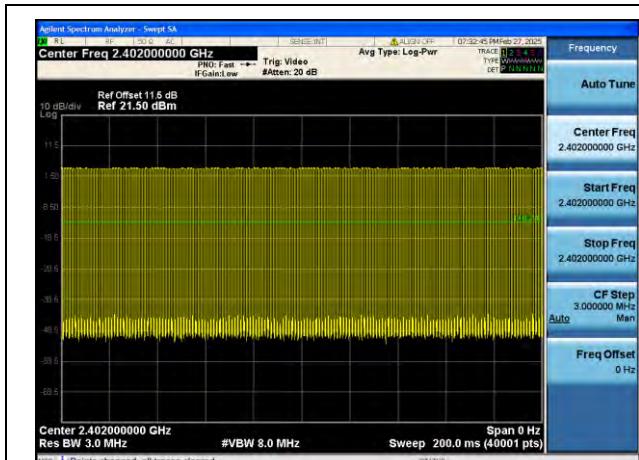


Fig.3

Test Mode: Coded 500K

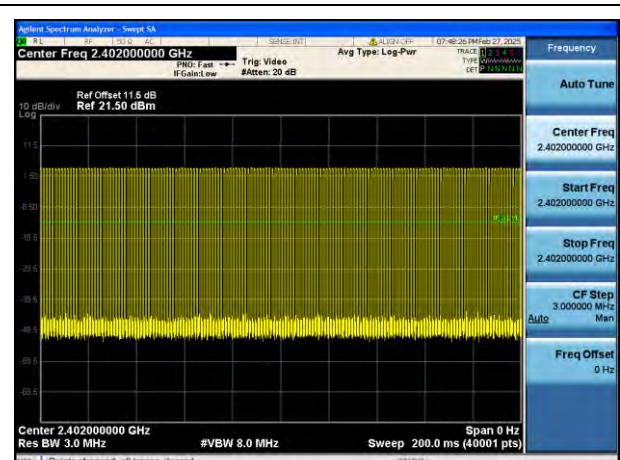


Fig.4

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