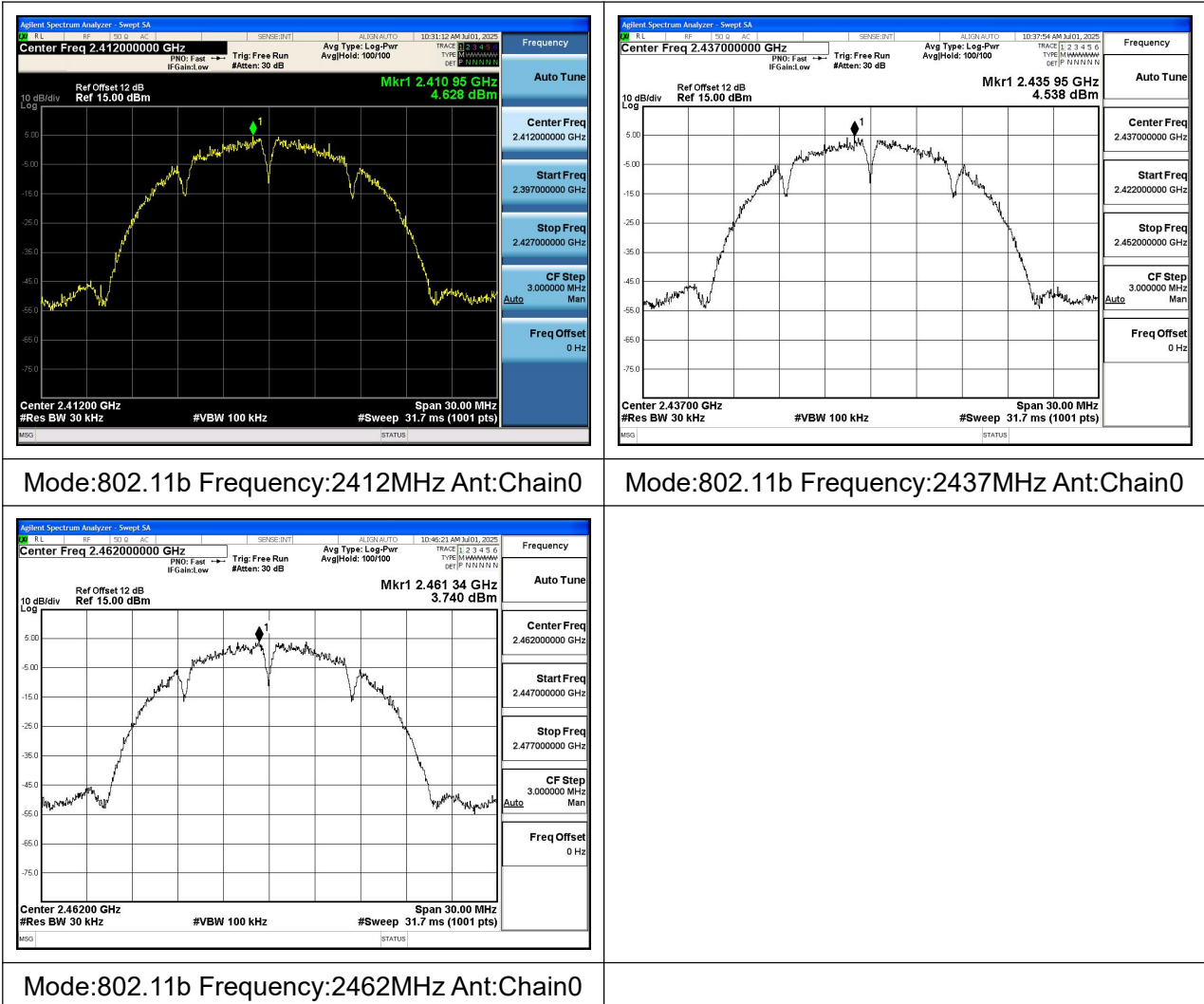




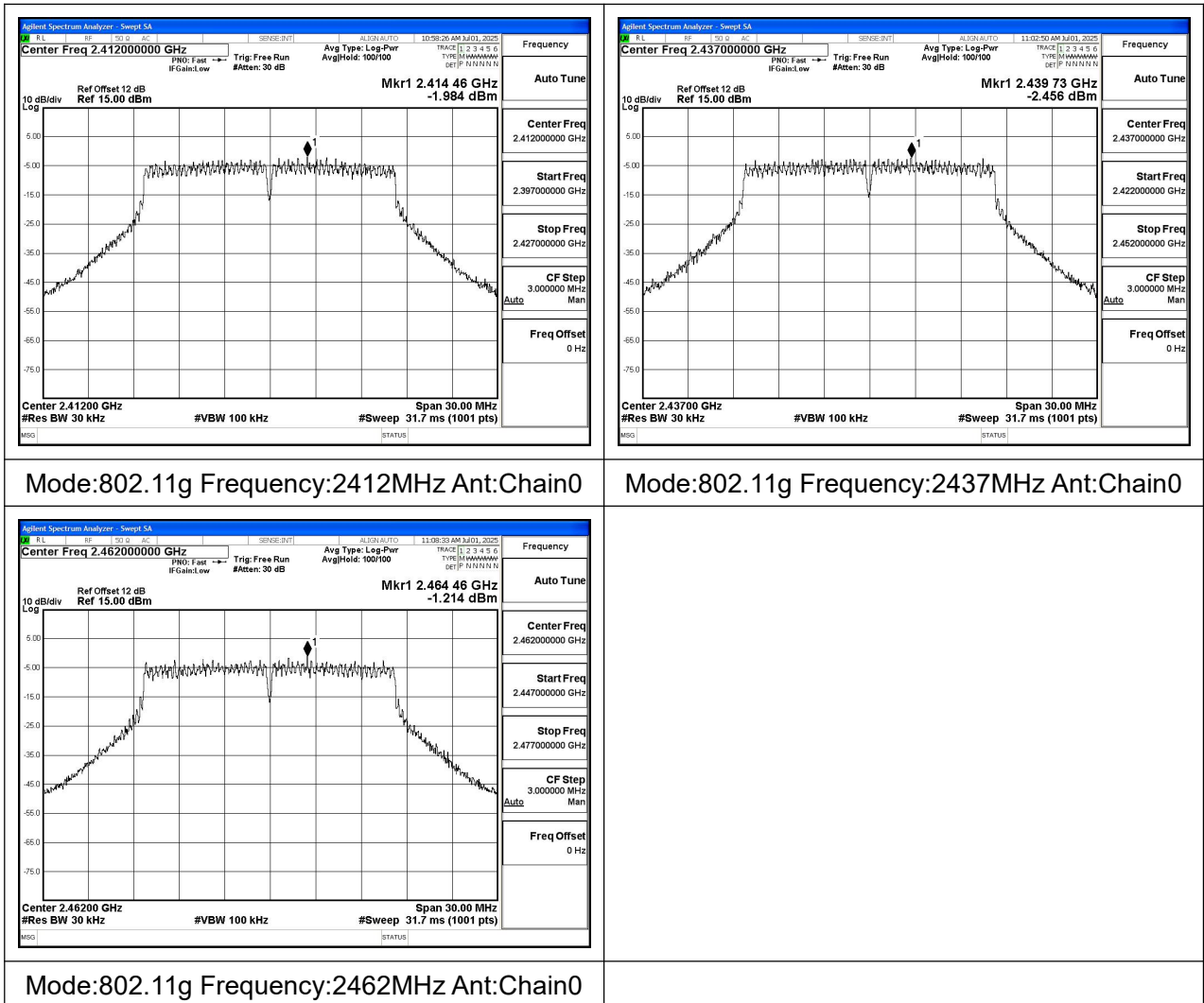
**BUREAU VERITAS** Test Report No.: PSU-NQN2507020111RF01  
**TEST GRAPHS**

Test Mode: 802.11b





Test Mode: 802.11g





**BUREAU VERITAS** Test Report No.: PSU-NQN2507020111RF01

Test Mode: 802.11n HT20

<div><div>Agilent Spectrum Analyzer - Sweep SA</div><div><div>Center Freq 2.412000000 GHz</div><div>Ref Offset 12 dB</div><div>Ref 15.00 dBm</div><div>Mkr1 2.417 58 GHz</div><div>-2.472 dBm</div></div><div><div>10 dB/div</div><div>Log</div><div>5.00</div><div>-5.00</div><div>-15.0</div><div>-25.0</div><div>-35.0</div><div>-45.0</div><div>-55.0</div><div>-65.0</div><div>-75.0</div></div><div><div>Center 2.41200 GHz</div><div>#Res BW 30 kHz</div><div>#VBW 100 kHz</div><div>#Sweep 31.7 ms (1001 pts)</div><div>Span 30.00 MHz</div><div>Auto Tune</div><div>Center Freq 2.412000000 GHz</div><div>Start Freq 2.397000000 GHz</div><div>Stop Freq 2.427000000 GHz</div><div>CF Step 3.000000 MHz</div><div>Auto</div><div>Freq Offset 0 Hz</div></div></div>	<div><div>Agilent Spectrum Analyzer - Sweep SA</div><div><div>Center Freq 2.437000000 GHz</div><div>Ref Offset 12 dB</div><div>Ref 15.00 dBm</div><div>Mkr1 2.444 47 GHz</div><div>-2.104 dBm</div></div><div><div>10 dB/div</div><div>Log</div><div>5.00</div><div>-5.00</div><div>-15.0</div><div>-25.0</div><div>-35.0</div><div>-45.0</div><div>-55.0</div><div>-65.0</div><div>-75.0</div></div><div><div>Center 2.43700 GHz</div><div>#Res BW 30 kHz</div><div>#VBW 100 kHz</div><div>#Sweep 31.7 ms (1001 pts)</div><div>Span 30.00 MHz</div><div>Auto Tune</div><div>Center Freq 2.437000000 GHz</div><div>Start Freq 2.422000000 GHz</div><div>Stop Freq 2.452000000 GHz</div><div>CF Step 3.000000 MHz</div><div>Auto</div><div>Freq Offset 0 Hz</div></div></div>
Mode:802.11n HT20 Frequency:2412MHz Ant:Chain0	Mode:802.11n HT20 Frequency:2437MHz Ant:Chain0
<div><div>Agilent Spectrum Analyzer - Sweep SA</div><div><div>Center Freq 2.462000000 GHz</div><div>Ref Offset 12 dB</div><div>Ref 15.00 dBm</div><div>Mkr1 2.469 44 GHz</div><div>-2.043 dBm</div></div><div><div>10 dB/div</div><div>Log</div><div>5.00</div><div>-5.00</div><div>-15.0</div><div>-25.0</div><div>-35.0</div><div>-45.0</div><div>-55.0</div><div>-65.0</div><div>-75.0</div></div><div><div>Center 2.46200 GHz</div><div>#Res BW 30 kHz</div><div>#VBW 100 kHz</div><div>#Sweep 31.7 ms (1001 pts)</div><div>Span 30.00 MHz</div><div>Auto Tune</div><div>Center Freq 2.462000000 GHz</div><div>Start Freq 2.447000000 GHz</div><div>Stop Freq 2.477000000 GHz</div><div>CF Step 3.000000 MHz</div><div>Auto</div><div>Freq Offset 0 Hz</div></div></div>	
Mode:802.11n HT20 Frequency:2462MHz Ant:Chain0	



**BUREAU VERITAS** Test Report No.: PSU-NQN2507020111RF01

## BAND EDGE MEASUREMENTS

### TEST GRAPHS

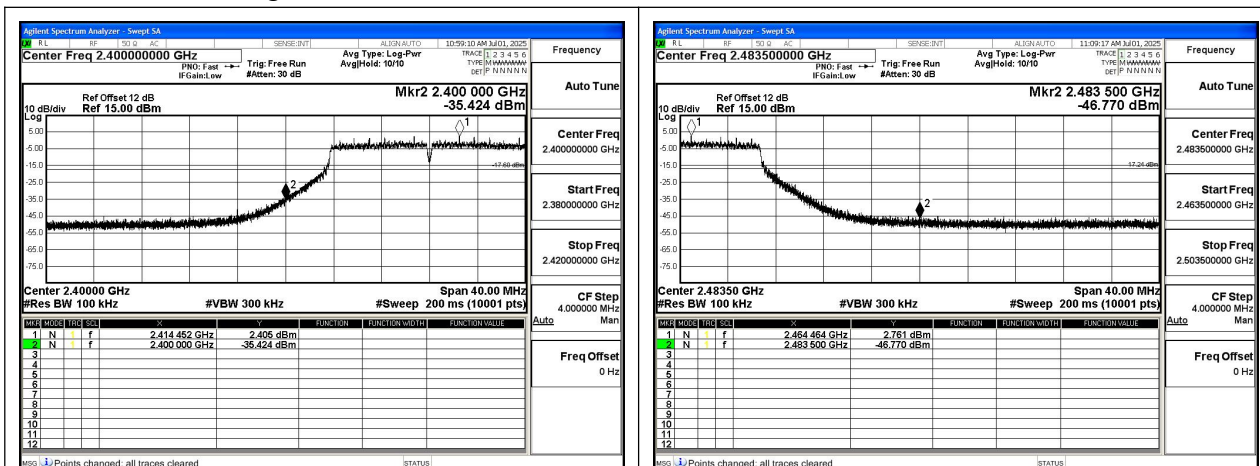
Test Mode: 802.11b



Mode:802.11b Frequency:2412MHz Ant:Chain0

Mode:802.11b Frequency:2462MHz Ant:Chain0

Test Mode: 802.11g



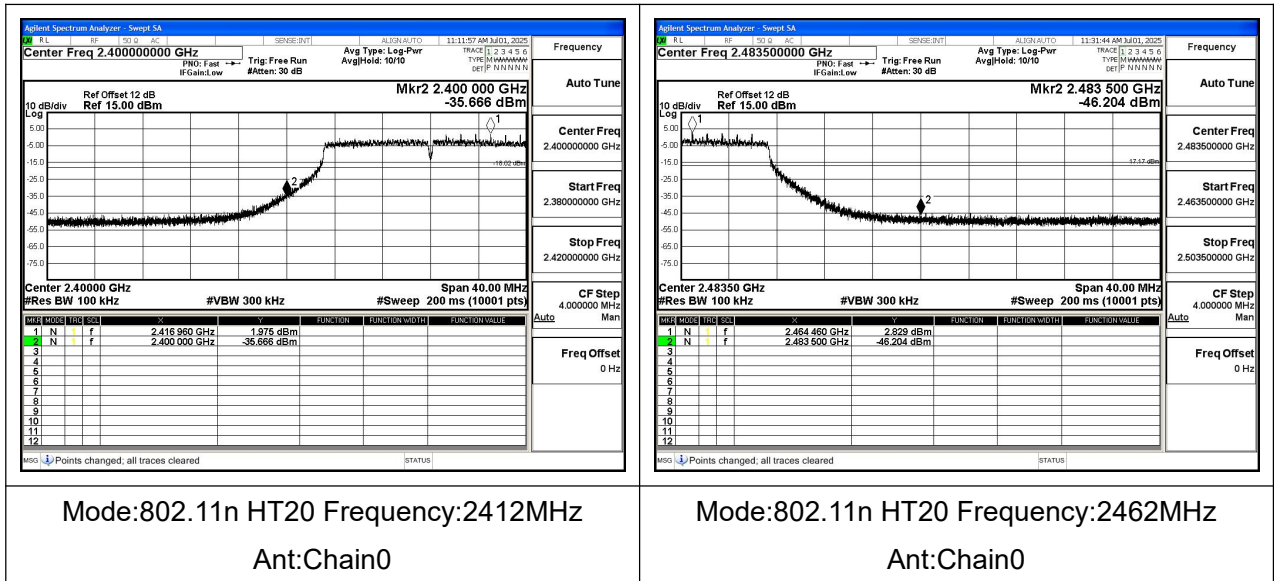
Mode:802.11g Frequency:2412MHz Ant:Chain0

Mode:802.11g Frequency:2462MHz Ant:Chain0



**BUREAU VERITAS** Test Report No.: PSU-NQN2507020111RF01

Test Mode: 802.11n HT20





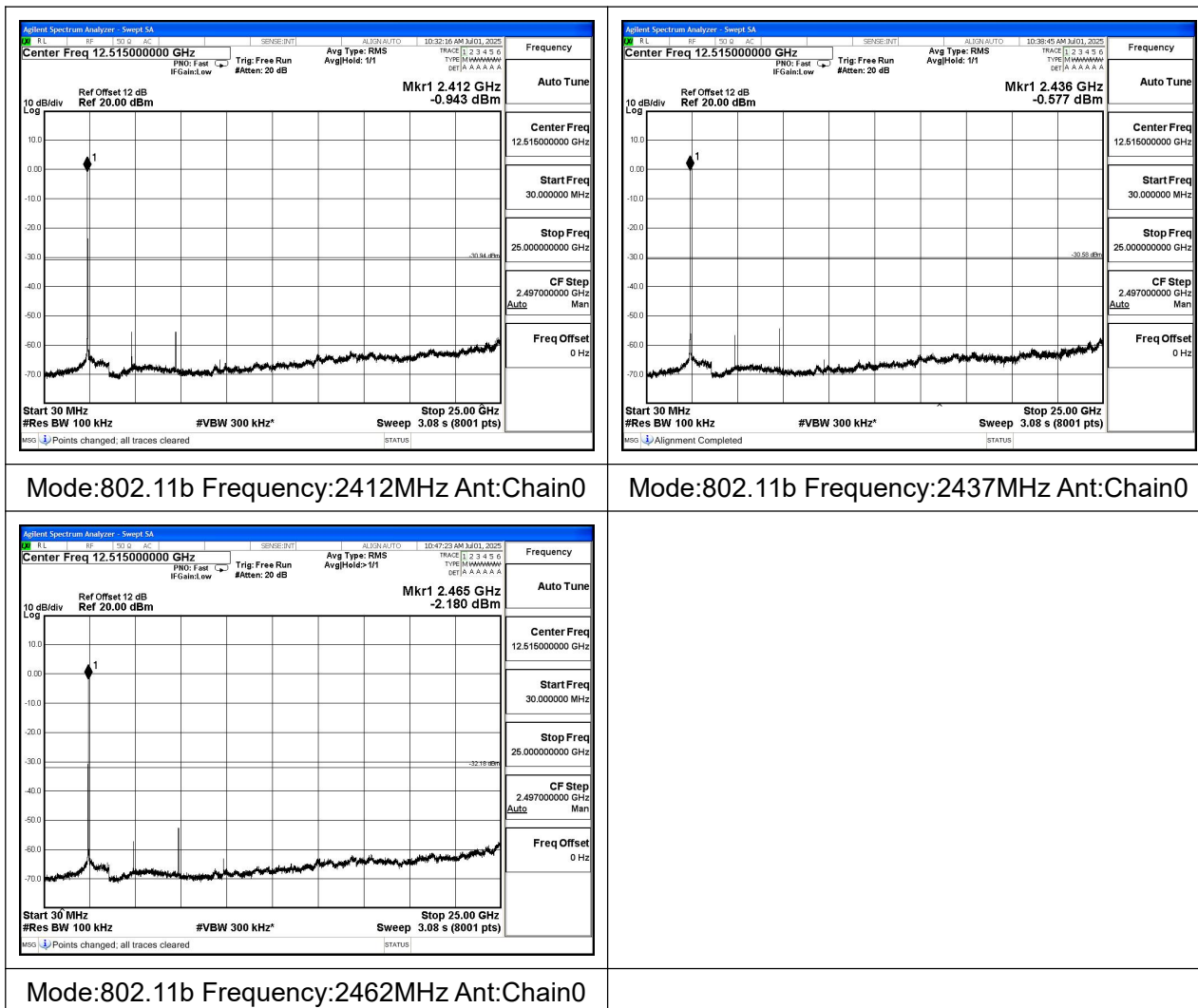
**BUREAU  
VERITAS**

Test Report No.: PSU-NQN2507020111RF01

## CONDUCTED SPURIOUS EMISSION

### TEST GRAPHS

Test Mode: 802.11b





**BUREAU VERITAS** Test Report No.: PSU-NQN2507020111RF01

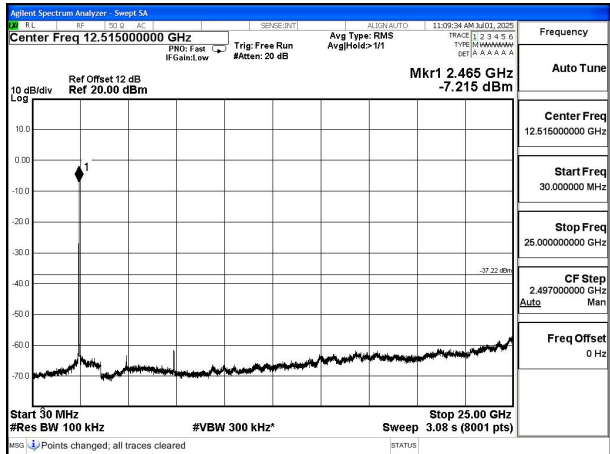
Test Mode: 802.11g



Mode:802.11g Frequency:2412MHz Ant:Chain0



Mode:802.11g Frequency:2437MHz Ant:Chain0



Mode:802.11g Frequency:2462MHz Ant:Chain0

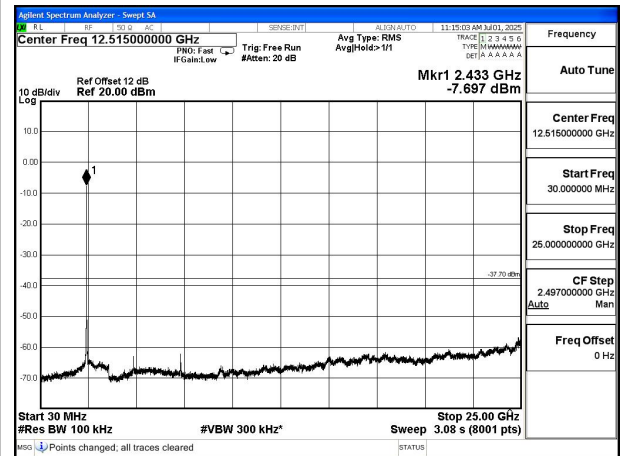


**BUREAU VERITAS** Test Report No.: PSU-NQN2507020111RF01

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





Test Report No.: PSU-NQN2507020111RF01

## DUTY CYCLE

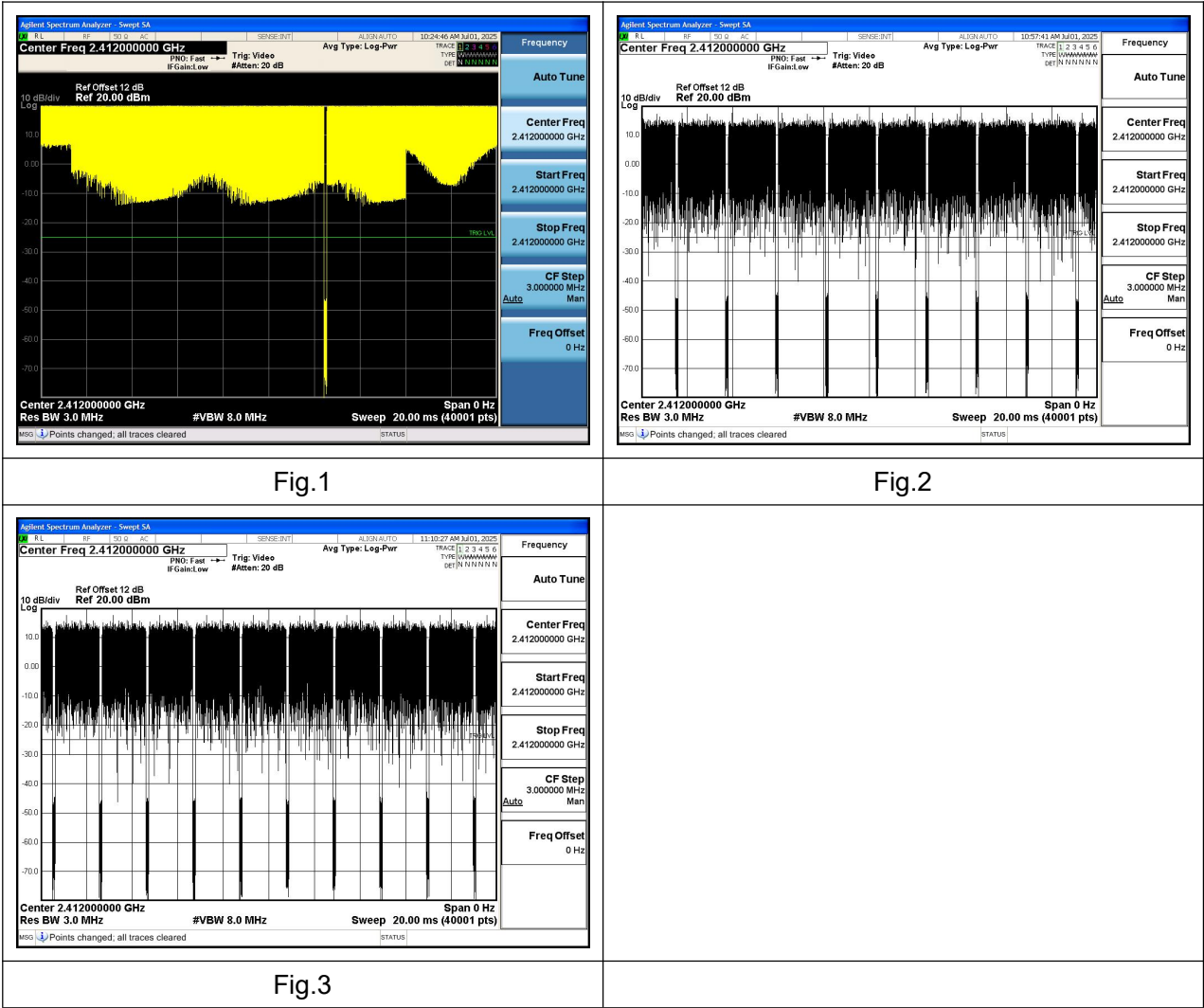
### TEST RESULT

Modulation Type	Frequency (MHz)	Antenna	Plot	Duty Cycle	Correction Factor(dB)
802.11b	2412	Chain0	Fig.1	99.74%	0
802.11g	2412	Chain0	Fig.2	97.58%	0.11
802.11n HT20	2412	Chain0	Fig.3	97.25%	0.12

Note: Correction Factor= $10 \cdot \log(1/\text{Duty Cycle})$



TEST GRAPHS





## 7 APPENDIX 2 BLE

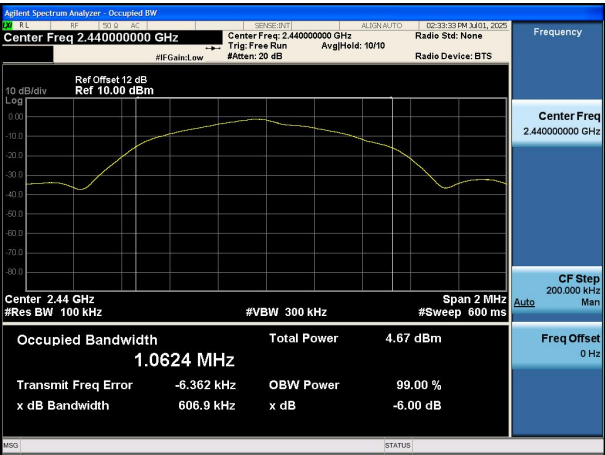

### DTS BANDWIDTH

#### TEST RESULT

Test Mode	Carrier frequency (MHz)	6dB Bandwidth(KHz)
GFSK (LE 1Mbps)	2402	675.9
GFSK (LE 1Mbps)	2440	606.9
GFSK (LE 1Mbps)	2480	653.5

#### TEST GRAPHS

Test Mode: GFSK (LE 1Mbps)

	
Test Mode:GFSK (LE 1Mbps) 2402MHz	Test Mode:GFSK (LE 1Mbps) 2440MHz
	
Test Mode:GFSK (LE 1Mbps) 2480MHz	



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Test Report No.: PSU-NQN2507020111RF01

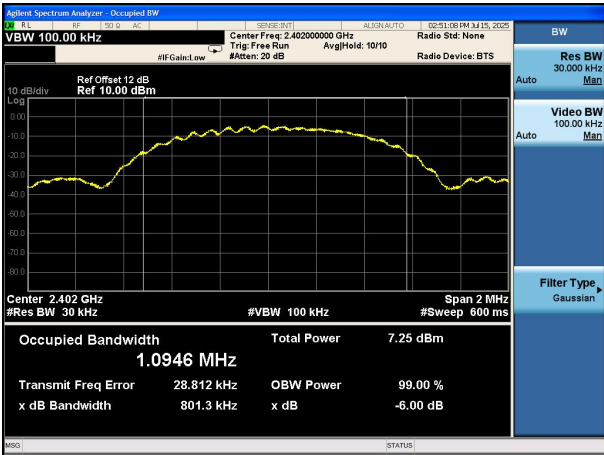
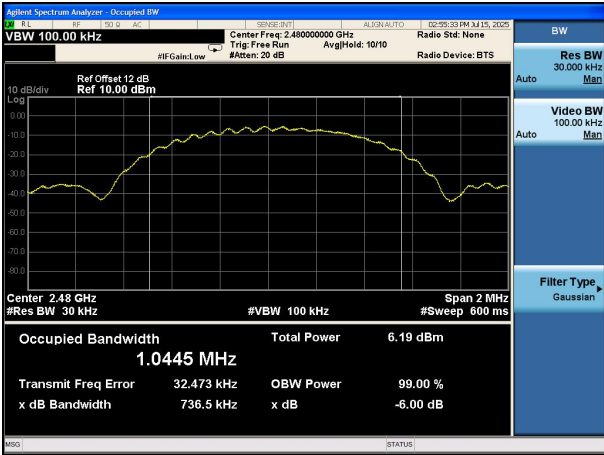
## OCCUPIED CHANNEL BANDWIDTH

### TEST RESULT

Test Mode	Carrier frequency (MHz)	99% Bandwidth(kHz)
GFSK (LE 1Mbps)	2402	1094.6
GFSK (LE 1Mbps)	2440	1073.0
GFSK (LE 1Mbps)	2480	1044.5

### TEST GRAPHS

Test Mode: GFSK (LE 1Mbps)

	
Test Mode:GFSK (LE 1Mbps) 2402MHz	Test Mode:GFSK (LE 1Mbps) 2440MHz
	
Test Mode:GFSK (LE 1Mbps) 2480MHz	



## MAXIMUM CONDUCTED OUTPUT POWER

### TEST RESULT

#### Conducted Power

Modulation type	Conducted Peak Power(dBm)		
	2402MHz	2440MHz	2480MHz
GFSK (LE 1Mbps)	6.51	6.93	6.63

Modulation type	Conducted Average Power(dBm)		
	2402MHz	2440MHz	2480MHz
GFSK (LE 1Mbps)	5.61	6.18	6.33

#### EIRP

Modulation type	Peak EIRP(dBm)		
	2402MHz	2440MHz	2480MHz
GFSK (LE 1Mbps)	6.81	7.23	6.93

Modulation type	Average EIRP(dBm)		
	2402MHz	2440MHz	2480MHz
GFSK (LE 1Mbps)	5.91	6.48	6.63

EIRP (dBm)=Conducted Power(dBm)+Antenna Gain(dBi)



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VERITAS

Test Report No.: PSU-NQN2507020111RF01

## MAXIMUM POWER SPECTRAL DENSITY

### TEST RESULT

Test Mode	Carrier frequency (MHz)	Channel No.	Power Density (dBm/3kHz)
GFSK (LE 1Mbps)	2402	0	-9.1
GFSK (LE 1Mbps)	2440	19	-8.3
GFSK (LE 1Mbps)	2480	39	-9.8

### TEST GRAPHS

Test Mode: GFSK (LE 1Mbps)

