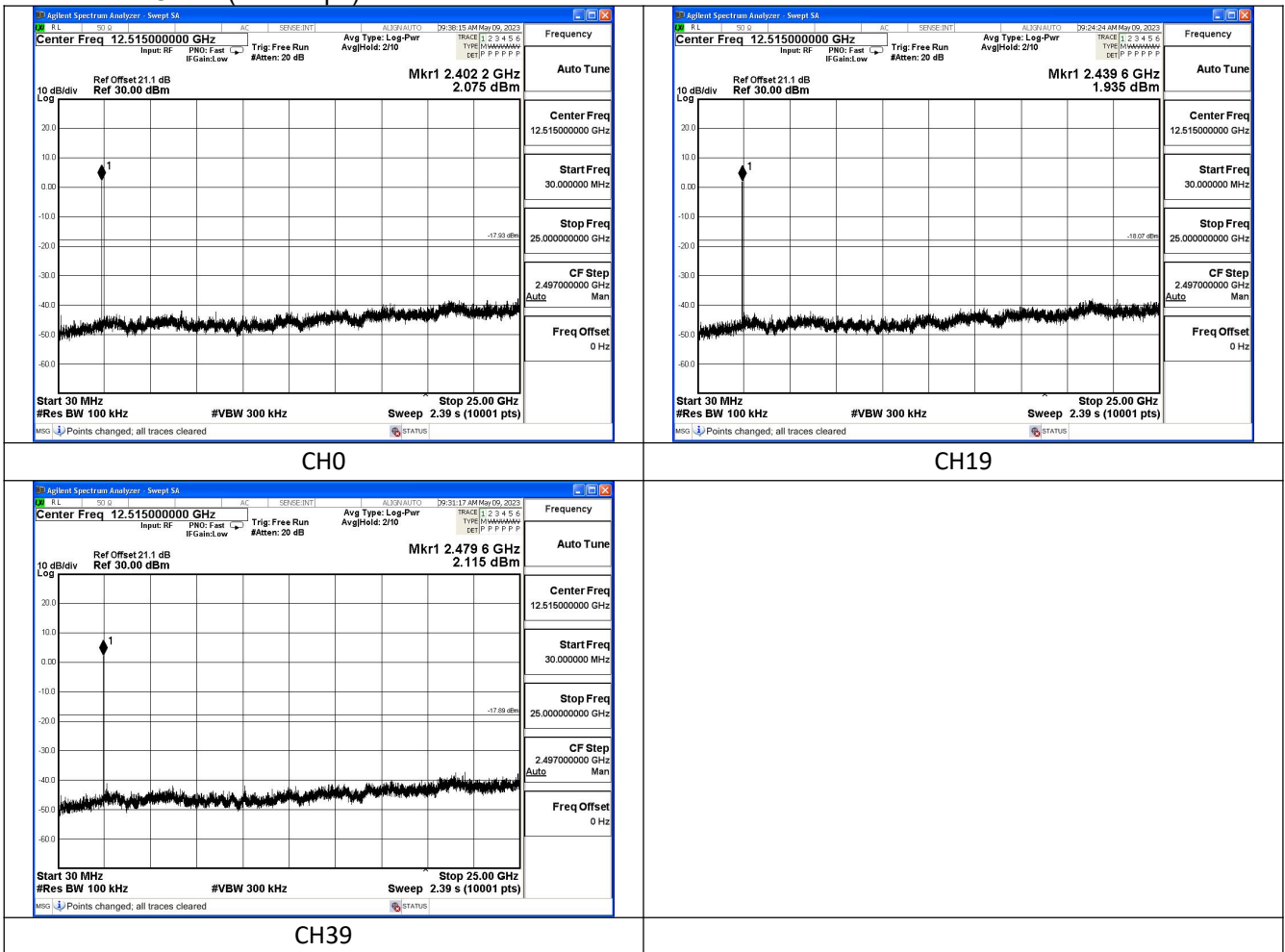
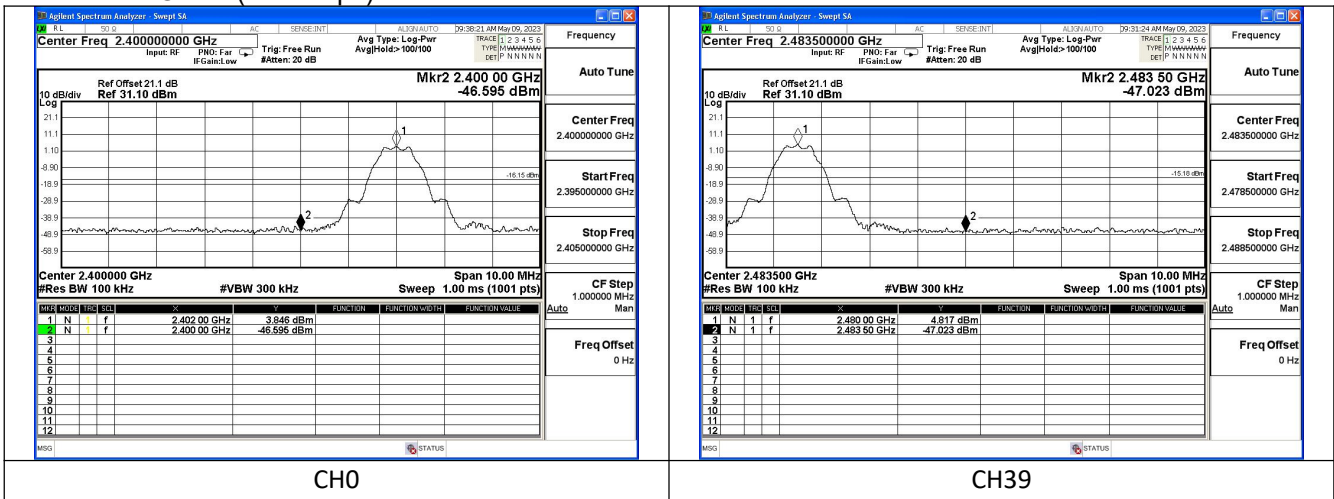


**5 Conducted Out of band emission measurement**  
Test Mode: GFSK (LE 1Mbps)



## 6 Band Edge measurement

Test Mode: GFSK (LE 1Mbps)



### BLE (ANT7)

#### 1 Duty Cycle and Antenna Gain

Test Mode	Frequency (MHz)	Plot	Duty Cycle	Correction Factor(dB)	Antenna Gain(dBi)
GFSK (LE 1Mbps)	2402	Fig.1	97.40%	0.11	-3.90

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

Test Mode	Frequency (MHz)	Plot	Duty Cycle	Correction Factor(dB)	Antenna Gain(dBi)
GFSK (LE 2Mbps)	2402	Fig.2	97.10%	0.13	-3.90

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

Test Mode	Frequency (MHz)	Plot	Duty Cycle	Correction Factor(dB)	Antenna Gain(dBi)
Coded 125K	2402	Fig.3	99.80%	0.01	-3.90

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

Test Mode	Frequency (MHz)	Plot	Duty Cycle	Correction Factor(dB)	Antenna Gain(dBi)
Coded 500K	2402	Fig.4	99.40%	0.03	-3.90

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

Test Mode: GFSK (LE 1Mbps)

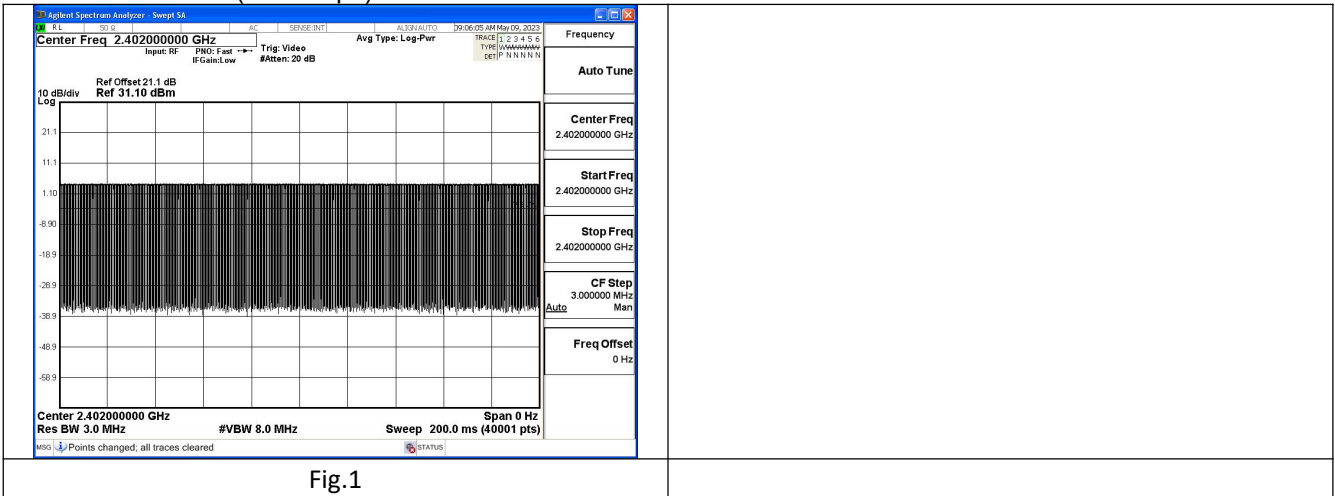


Fig.1

Test Mode: GFSK (LE 2Mbps)

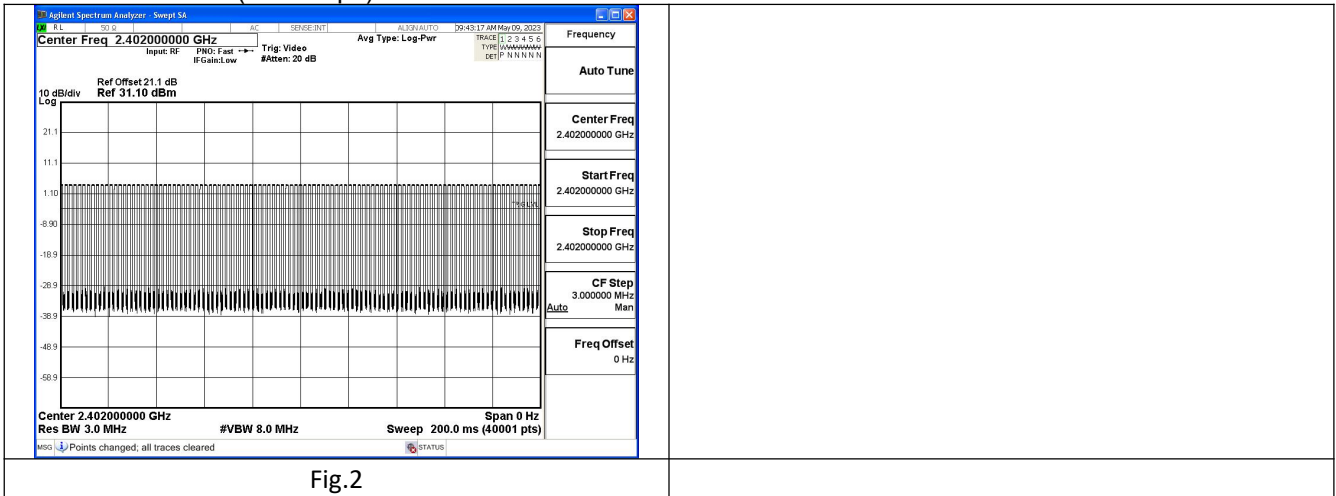


Fig.2

Test Mode: Coded 125K

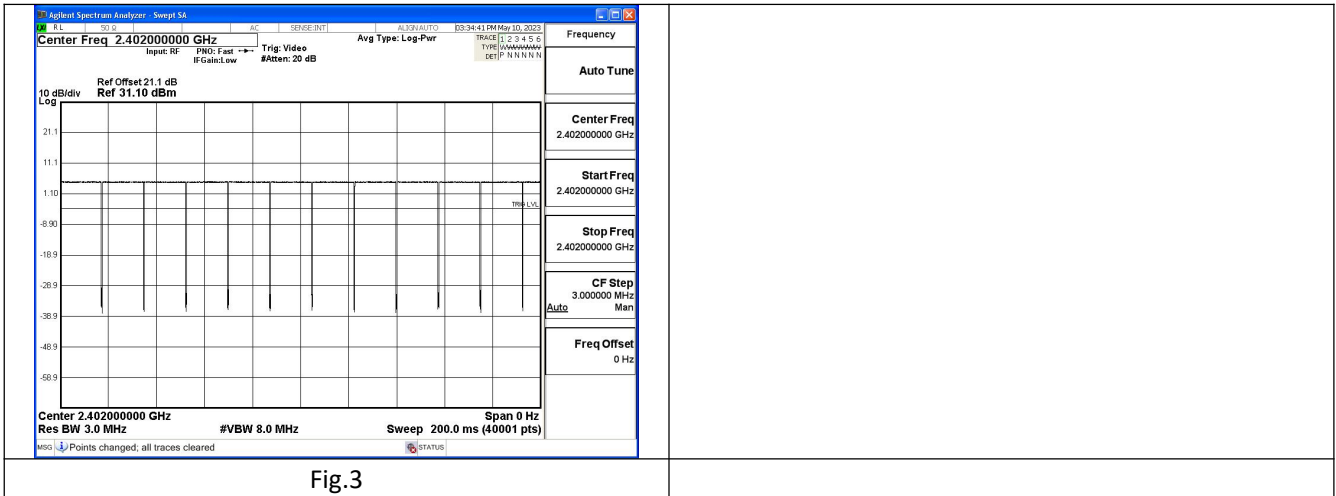


Fig.3

Test Mode: Coded 500K

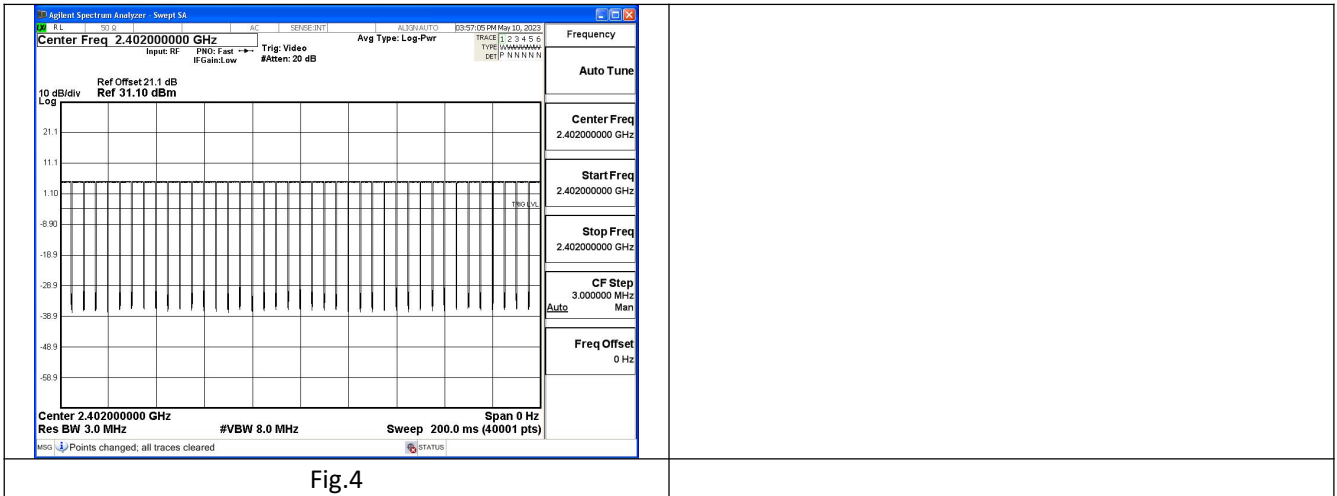


Fig.4

**2 EIRP  
Conducted Power**

Modulation type	Conducted Peak Power(dBm)		
	2402MHz	2440MHz	2480MHz
GFSK (LE 1Mbps)	7.67	6.19	6.38
GFSK (LE 2Mbps)	7.93	6.18	6.25
Coded 125K	7.41	5.90	6.08
Coded 500K	7.38	7.15	6.20

Modulation type	Conducted Average Power(dBm)		
	2402MHz	2440MHz	2480MHz
GFSK (LE 1Mbps)	5.26	5.28	5.54
GFSK (LE 2Mbps)	5.10	5.33	5.37
Coded 125K	6.75	5.22	5.53
Coded 500K	6.50	6.31	5.24

**EIRP**

Modulation type	Peak EIRP(dBm)		
	2402MHz	2440MHz	2480MHz
GFSK (LE 1Mbps)	3.77	2.29	2.48
GFSK (LE 2Mbps)	4.03	2.28	2.35
Coded 125K	3.51	2.00	2.18
Coded 500K	3.48	3.25	2.30

Modulation type	Average EIRP(dBm)		
	2402MHz	2440MHz	2480MHz
GFSK (LE 1Mbps)	1.36	1.38	1.64
GFSK (LE 2Mbps)	1.20	1.43	1.47
Coded 125K	2.85	1.32	1.63
Coded 500K	2.60	2.41	1.34

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



**3 Occupied Bandwidth**  
**6dB Bandwidth**

Test Mode	Carrier frequency (MHz)	6dB Bandwidth(KHz)
GFSK (LE 1Mbps)	2402	676.9
GFSK (LE 1Mbps)	2440	685.3
GFSK (LE 1Mbps)	2480	681.4

Test Mode	Carrier frequency (MHz)	6dB Bandwidth(KHz)
GFSK (LE 2Mbps)	2402	1315.2
GFSK (LE 2Mbps)	2440	1352.1
GFSK (LE 2Mbps)	2480	1352.6

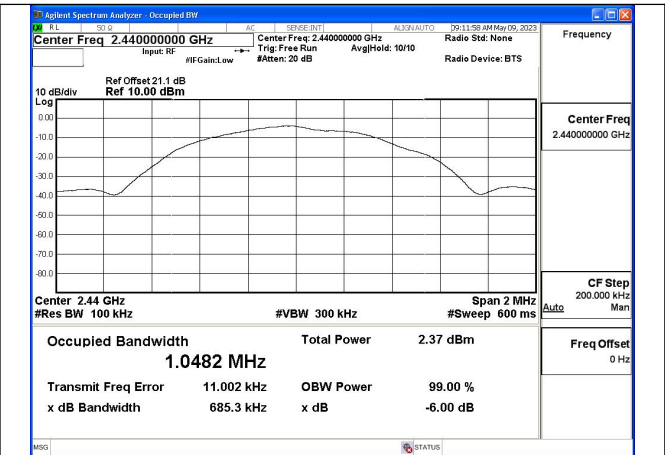
Test Mode	Carrier frequency (MHz)	6dB Bandwidth(KHz)
Coded 125K	2402	649.4
Coded 125K	2440	649.6
Coded 125K	2480	648.6

Test Mode	Carrier frequency (MHz)	6dB Bandwidth(KHz)
Coded 500K	2402	705.7
Coded 500K	2440	707.4
Coded 500K	2480	704.5

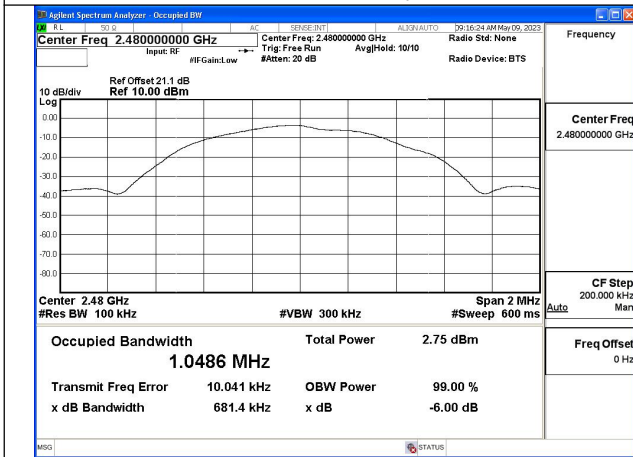
Test Mode: GFSK (LE 1Mbps)



Test Mode:GFSK (LE 1Mbps) 2402MHz

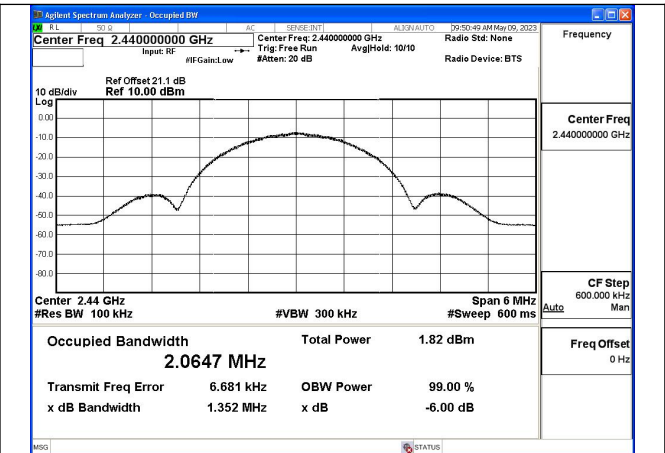
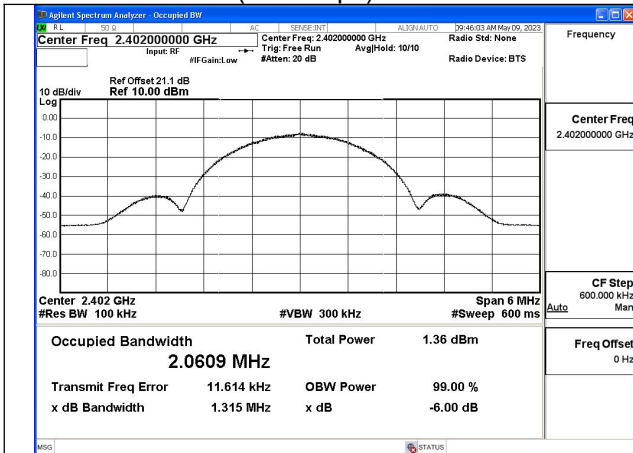


Test Mode:GFSK (LE 1Mbps) 2440MHz



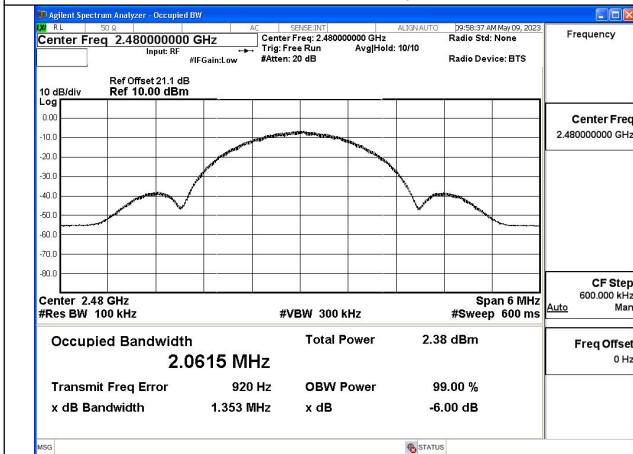
Test Mode:GFSK (LE 1Mbps) 2480MHz

Test Mode: GFSK (LE 2Mbps)



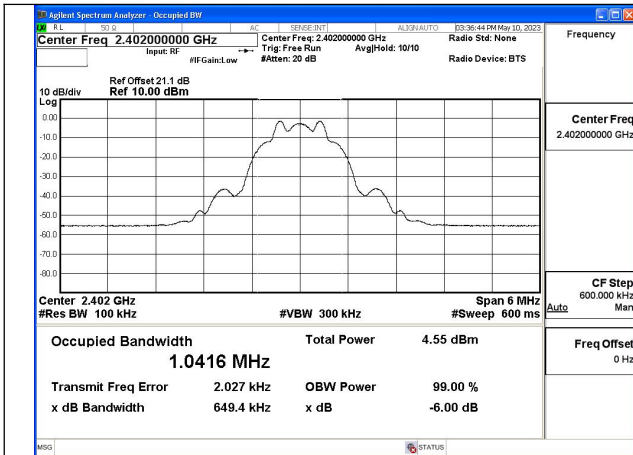
Test Mode:GFSK (LE 2Mbps) 2402MHz

Test Mode:GFSK (LE 2Mbps) 2440MHz

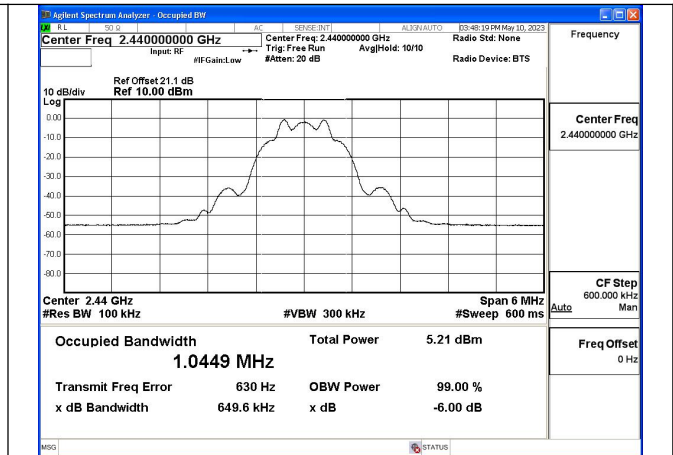


Test Mode:GFSK (LE 2Mbps) 2480MHz

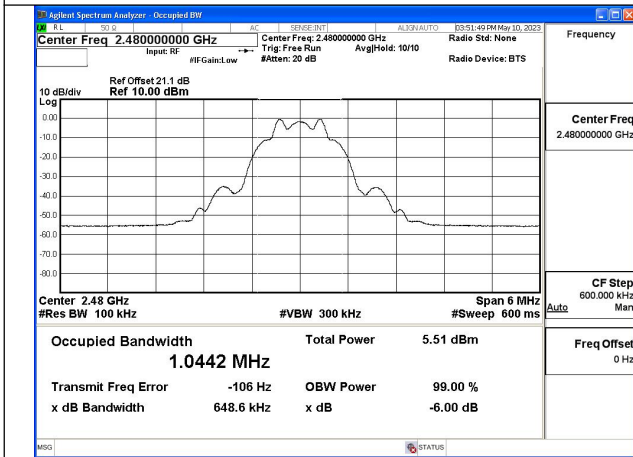
Test Mode: Coded 125K



Test Mode:Coded 125K 2402MHz

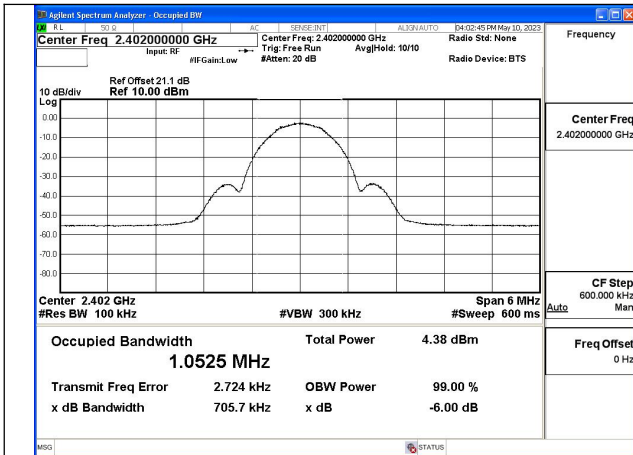


Test Mode:Coded 125K 2440MHz

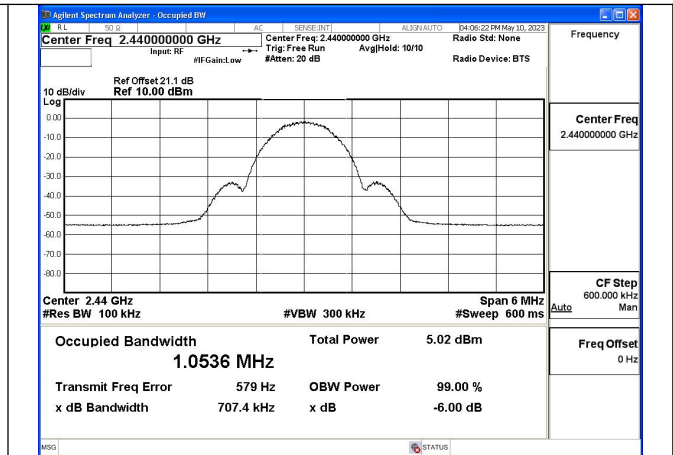


Test Mode:Coded 125K 2480MHz

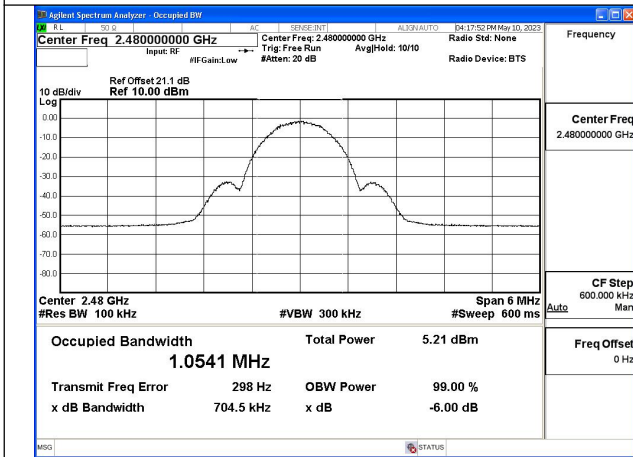
Test Mode: Coded 500K



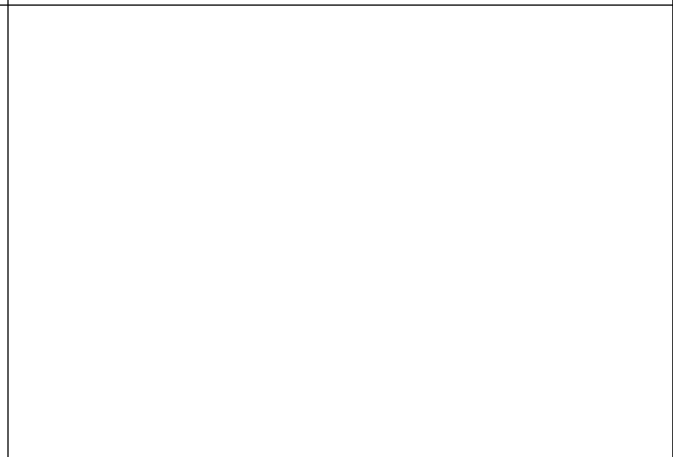
Test Mode:Coded 500K 2402MHz



Test Mode:Coded 500K 2440MHz



Test Mode:Coded 500K 2480MHz





**99% Bandwidth**

Test Mode	Carrier frequency (MHz)	99% Bandwidth(kHz)
GFSK (LE 1Mbps)	2402	1023.5
GFSK (LE 1Mbps)	2440	1025.1
GFSK (LE 1Mbps)	2480	1025.2

Test Mode	Carrier frequency (MHz)	99% Bandwidth(kHz)
GFSK (LE 2Mbps)	2402	2048.2
GFSK (LE 2Mbps)	2440	2053.0
GFSK (LE 2Mbps)	2480	2054.4

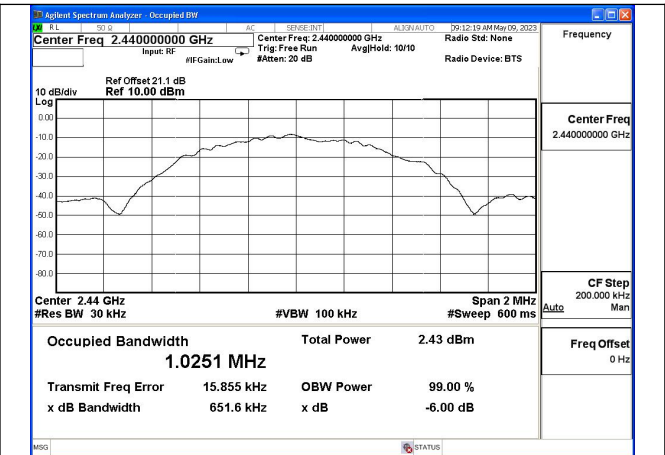
Test Mode	Carrier frequency (MHz)	99% Bandwidth(kHz)
Coded 125K	2402	1021.0
Coded 125K	2440	1021.9
Coded 125K	2480	1023.3

Test Mode	Carrier frequency (MHz)	99% Bandwidth(kHz)
Coded 500K	2402	1030.8
Coded 500K	2440	1030.8
Coded 500K	2480	1030.8

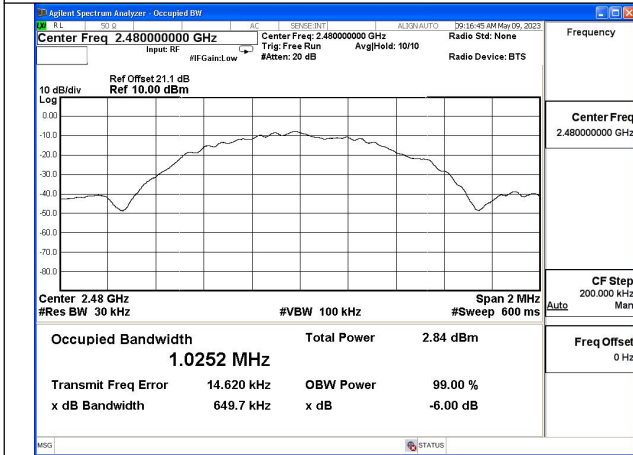
Test Mode: GFSK (LE 1Mbps)



Test Mode:GFSK (LE 1Mbps) 2402MHz

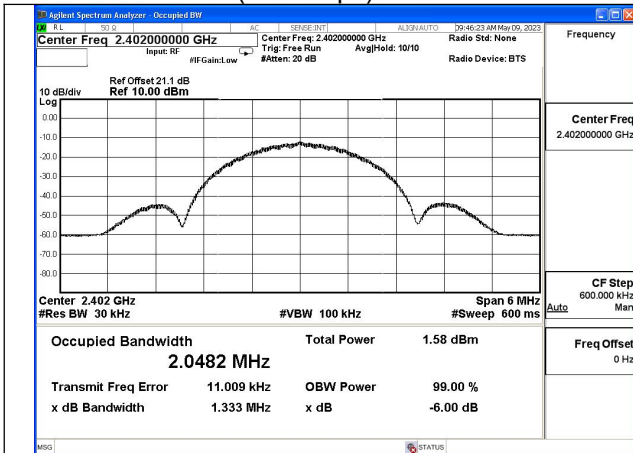


Test Mode:GFSK (LE 1Mbps) 2440MHz

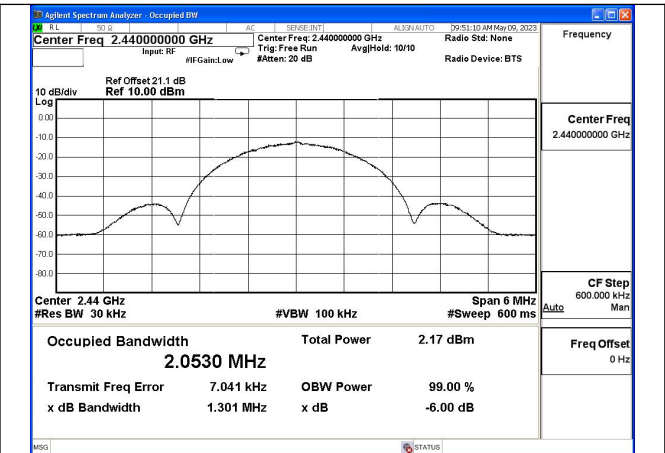


Test Mode:GFSK (LE 1Mbps) 2480MHz

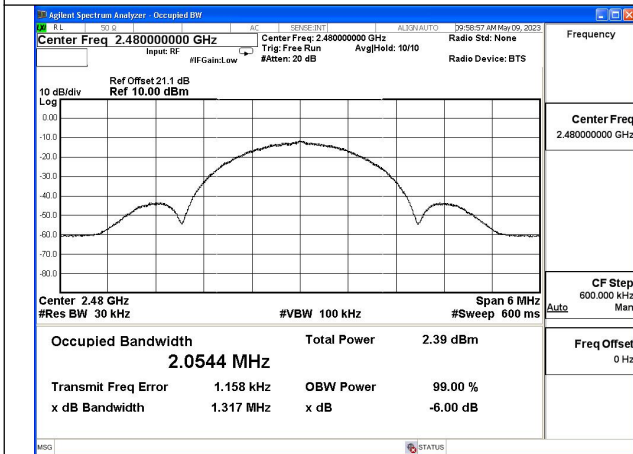
Test Mode: GFSK (LE 2Mbps)



Test Mode:GFSK (LE 2Mbps) 2402MHz

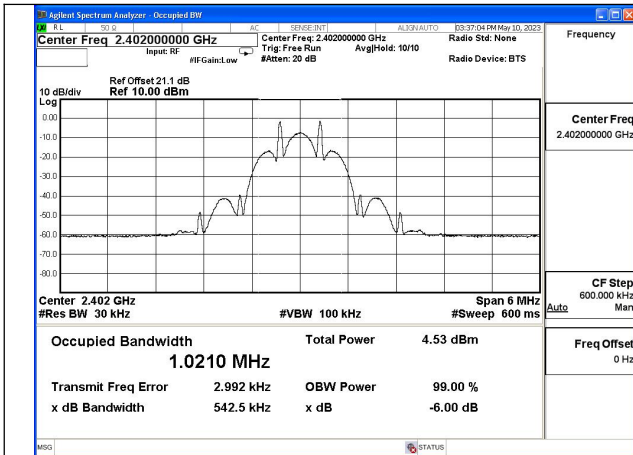


Test Mode:GFSK (LE 2Mbps) 2440MHz

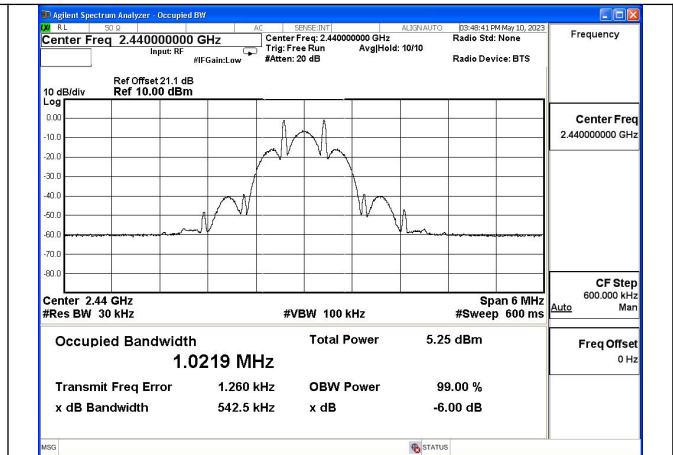


Test Mode:GFSK (LE 2Mbps) 2480MHz

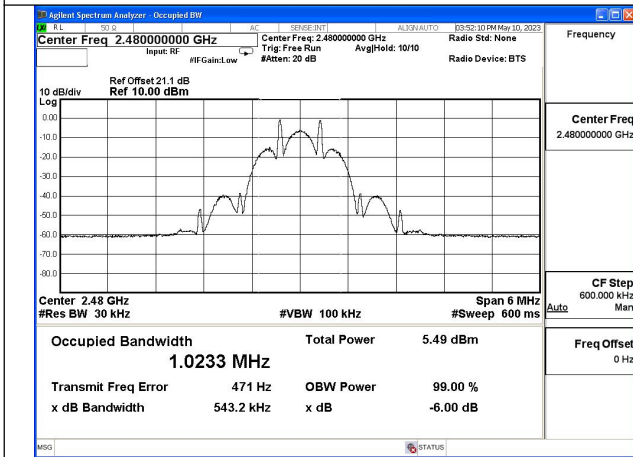
Test Mode: Coded 125K



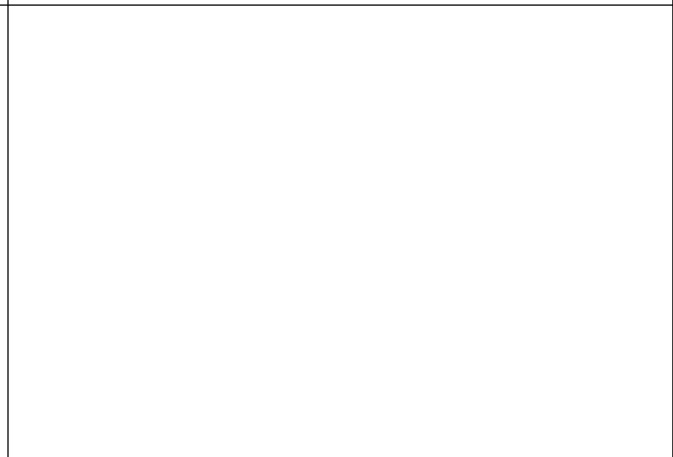
Test Mode:Coded 125K 2402MHz



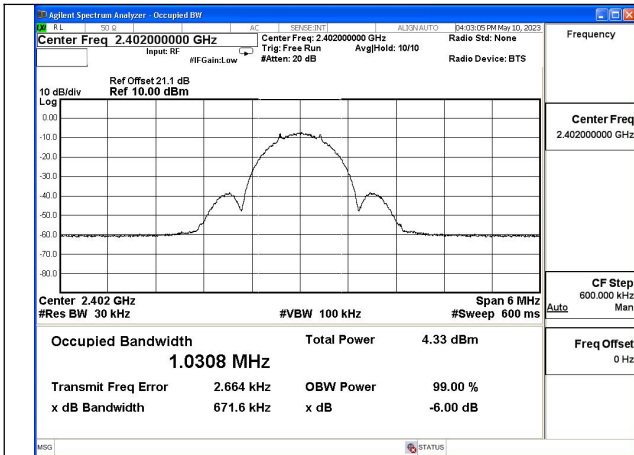
Test Mode:Coded 125K 2440MHz



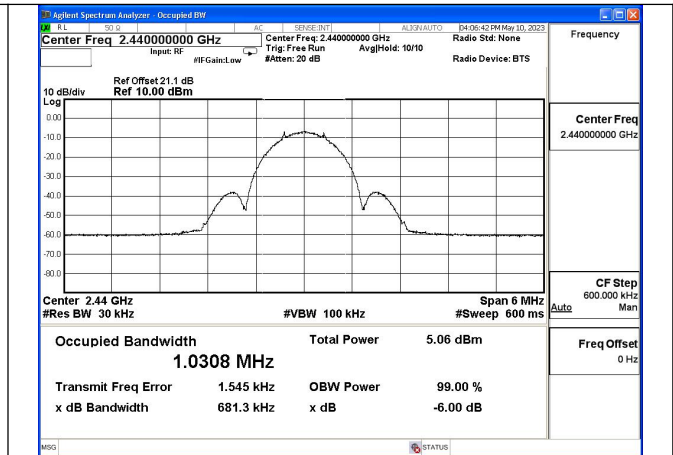
Test Mode:Coded 125K 2480MHz



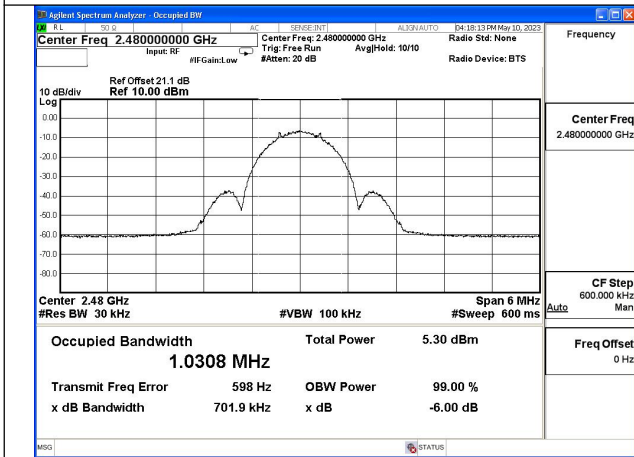
Test Mode: Coded 500K



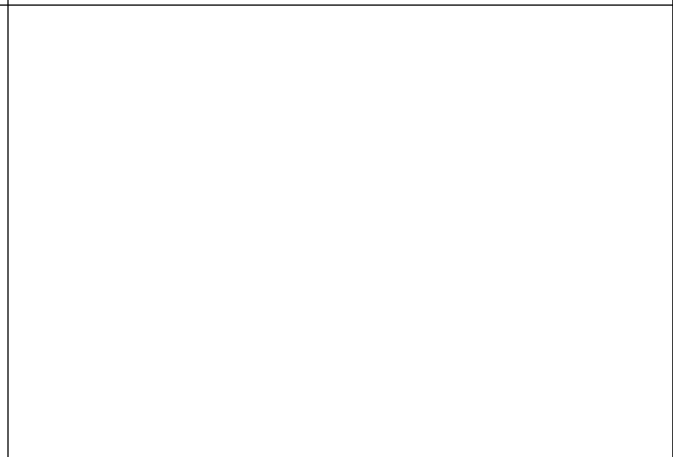
Test Mode:Coded 500K 2402MHz



Test Mode:Coded 500K 2440MHz



Test Mode:Coded 500K 2480MHz





#### 4 Transmitter Power Spectral Density

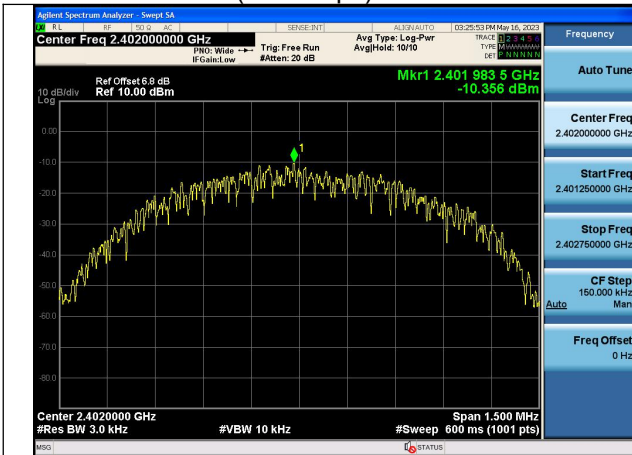
Test Mode	Carrier frequency (MHz)	Channel No.	Power Density (dBm/3kHz)
GFSK (LE 1Mbps)	2402	0	-10.4
GFSK (LE 1Mbps)	2440	19	-11.0
GFSK (LE 1Mbps)	2480	39	-10.4

Test Mode	Carrier frequency (MHz)	Channel No.	Power Density (dBm/3kHz)
GFSK (LE 2Mbps)	2402	0	-14.9
GFSK (LE 2Mbps)	2440	19	-15.2
GFSK (LE 2Mbps)	2480	39	-14.2

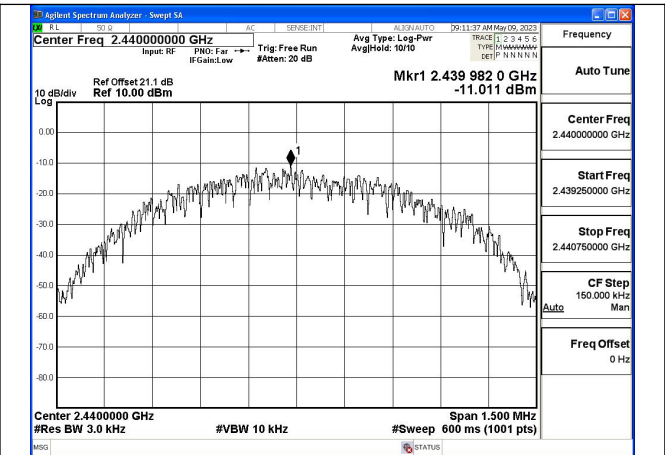
Test Mode	Carrier frequency (MHz)	Channel No.	Power Density (dBm/3kHz)
Coded 125K	2402	0	-1.3
Coded 125K	2440	19	-0.5
Coded 125K	2480	39	-0.6

Test Mode	Carrier frequency (MHz)	Channel No.	Power Density (dBm/3kHz)
Coded 500K	2402	0	-1.6
Coded 500K	2440	19	-1.0
Coded 500K	2480	39	-1.1

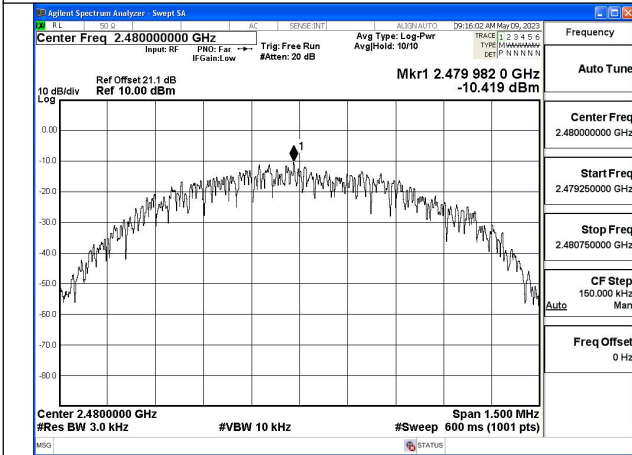
Test Mode: GFSK (LE 1Mbps)



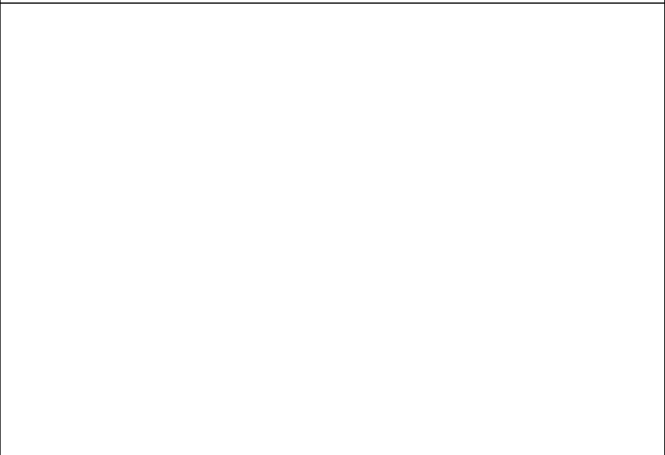
Test Mode:GFSK (LE 1Mbps) 2402MHz



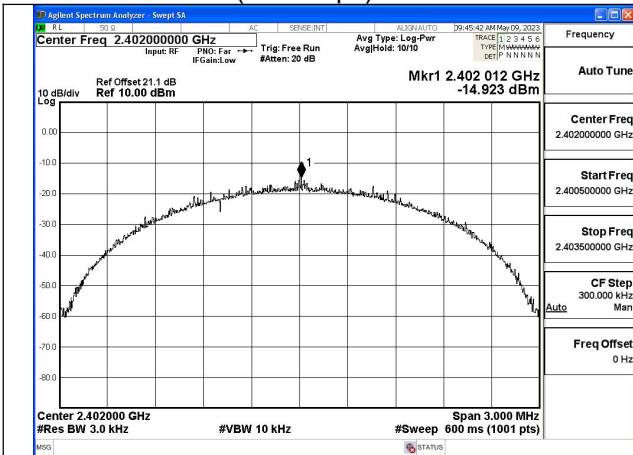
Test Mode:GFSK (LE 1Mbps) 2440MHz



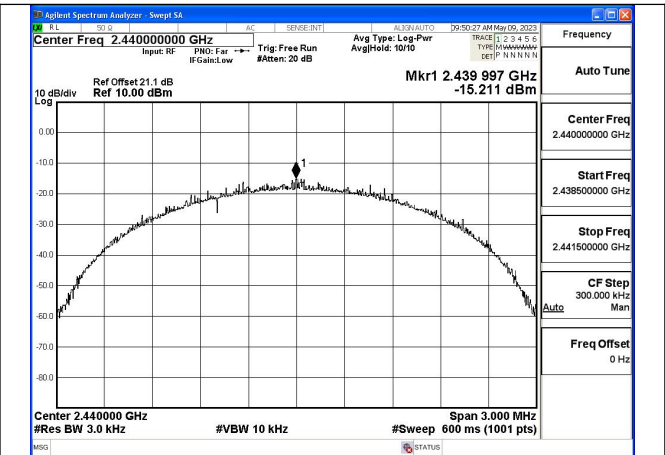
Test Mode:GFSK (LE 1Mbps) 2480MHz



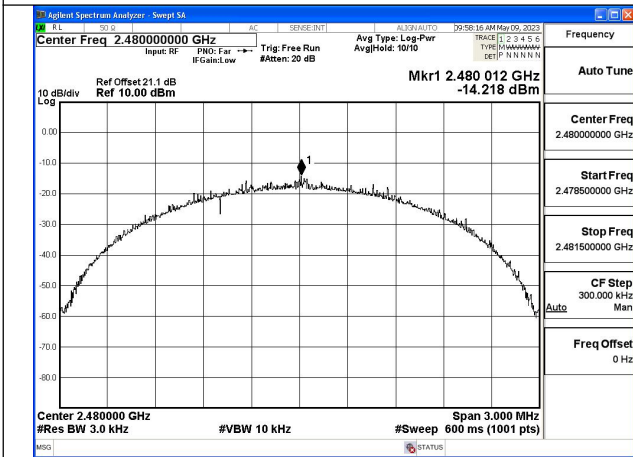
Test Mode: GFSK (LE 2Mbps)



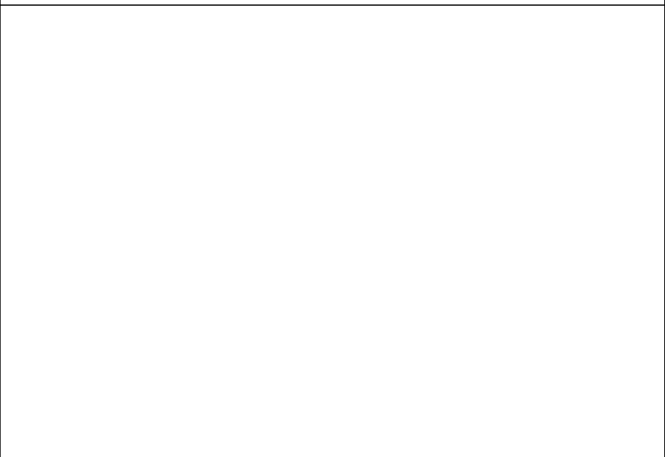
Test Mode:GFSK (LE 2Mbps) 2402MHz



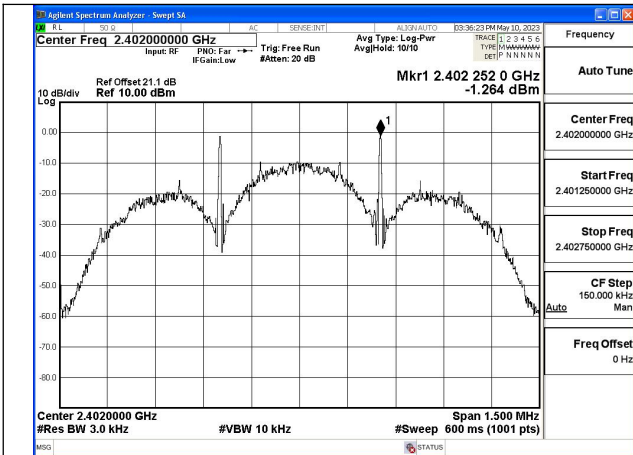
Test Mode:GFSK (LE 2Mbps) 2440MHz



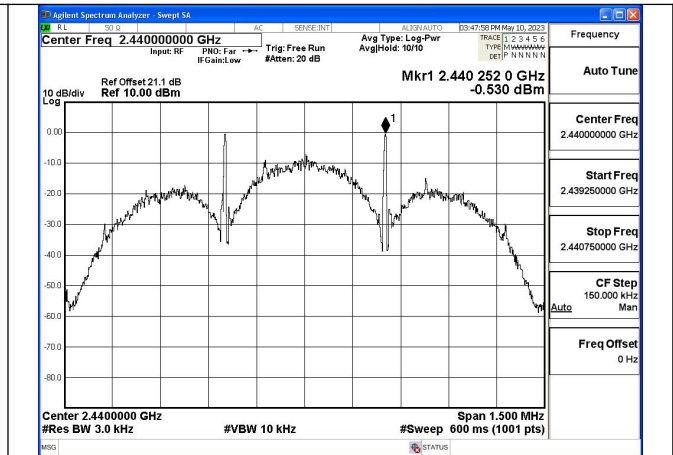
Test Mode:GFSK (LE 2Mbps) 2480MHz



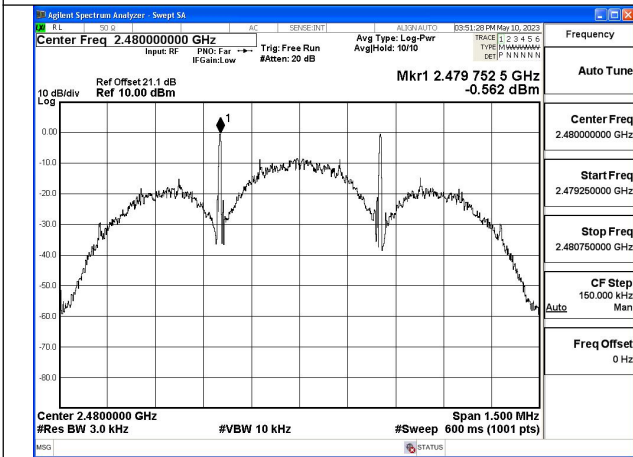
Test Mode: Coded 125K



Test Mode:Coded 125K 2402MHz



Test Mode:Coded 125K 2440MHz



Test Mode:Coded 125K 2480MHz

