

### **Test Data**

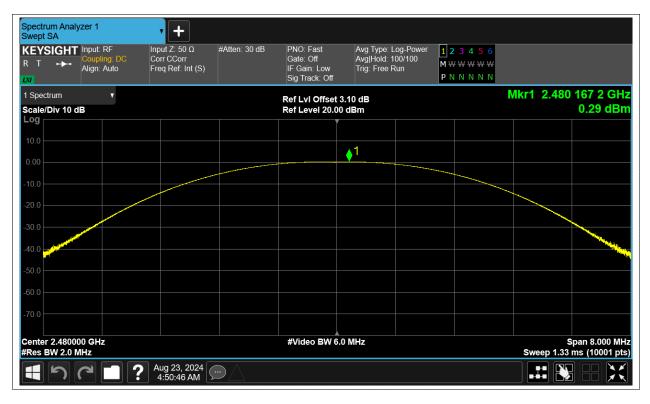
# **Maximum Conducted Output Power**

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE	2402	Ant1	0.753	30	Pass
NVNT	BLE	2442	Ant1	2.213	30	Pass
NVNT	BLE	2480	Ant1	0.292	30	Pass



		Test Gra					
	Power	· NVNT BLE 2	2402MHz An	t1			
Spectrum Analyzer 1							
KEYSIGHT     Input: RF     Input Z: 50 Ω       R     T     ↔     Coupling: DC       Align: Auto     Freq Ref: Int (S)	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Lo Avg Hold: 10 Trig: Free R	00/100	1 2 3 4 5 6 M W W W W P N N N N N		
1 Spectrum 🔹		Ref LvI Offset				Mkr1 2.402	
Scale/Div 10 dB Log		Ref Level 20.0	0 dBm				0.75 dBm
10.0							
0.00			<b>↓</b> 1				
-10.0							
-20.0							
-30.0							
-40.0							
-50.0							
-60.0							
-70.0							
Center 2.402000 GHz		#Video BW 6	.0 MHz				Span 8.000 MHz
#Res BW 2.0 MHz	$\odot$						ms (10001 pts)
	Power	NVNT BLE 2	2442MHz An	t1			
Spectrum Analyzer 1							
KEYSIGHT Input: RF Input Z: 50 Ω Counting: DC Corr CCorr	#Atten: 30 dB	PNO: Fast	Avg Type: Lo	00/100	<b>1</b> 2 3 4 5 6		
R T + Coupling: DC Corr CCorr Align: Auto Freq Ref: Int (S)	#Atten: 30 dB	Gate: Off IF Gain: Low	Avg Type: Lo Avg Hold: 10 Trig: Free R	00/100	1 2 3 4 5 6 M₩₩₩₩₩₩ P N N N N N		
D T Coupling: DC Corr CCorr	#Atten: 30 dB	Gate: Off	Avg Hold: 10 Trig: Free R	00/100	M <del>W W W W W</del>	Mkr1 2.442	
R T ↔ Coupling DC Align: Auto 1 Spectrum Scale/Div 10 dB	#Atten: 30 dB	Gate: Off IF Gain: Low Sig Track: Off	Avg Hold: 10 Trig: Free R 3.08 dB	00/100	M <del>W W W W W</del>	Mkr1 2.442	180 8 GHz 2.21 dBm
R T ↔ Coupling: DC Align: Auto 1 Spectrum ¥	#Atten: 30 dB	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset	Avg Hold: 10 Trig: Free R 3.08 dB 0 dBm	00/100	M <del>W W W W W</del>	Mkr1 2.442	
R T →→ Coupling: DC Align: Auto 1 Spectrum Scale/Div 10 dB Log	#Atten: 30 dB	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset	Avg Hold: 10 Trig: Free R 3.08 dB	00/100	M <del>W W W W W</del>	Mkr1 2.442	
R T →→ Coupling: DC Align: Auto Corr CCorr Freq Ref: Int (S) Scale/Div 10 dB	#Atten: 30 dB	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset	Avg Hold: 10 Trig: Free R 3.08 dB 0 dBm	00/100	M <del>W W W W W</del>	Mkr1 2.442	
R T ↔ Coupling: DC Align: Auto 1 Spectrum Scale/Div 10 dB Log 10.0	#Atten: 30 dB	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset	Avg Hold: 10 Trig: Free R 3.08 dB 0 dBm	00/100	M <del>W W W W W</del>	Mkr1 2.442	
R     T     →→     Coupling: DC Align: Auto     Corr CCorr Freq Ref: Int (S)       1     Spectrum     ▼       Scale/Div 10 dB     ↓       10.0     ↓       -10.0     ↓       -20.0     ↓	#Atten: 30 dB	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset	Avg Hold: 10 Trig: Free R 3.08 dB 0 dBm	00/100	M <del>W W W W W</del>	Mkr1 2.442	
R     T     →     Coupling: DC Align: Auto     Corr CCorr Freq Ref: Int (S)       1     Spectrum     ▼       Scale/Div 10 dB     ■       Log     ■       10.0     ■       -0.00     ■       -10.0     ■       -20.0     ■       -30.0     ■	#Atten: 30 dB	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset	Avg Hold: 10 Trig: Free R 3.08 dB 0 dBm	00/100	M <del>W W W W W</del>	Mkr1 2.442	
R     T     →→     Coupling: DC Align: Auto     Corr CCorr Freq Ref: Int (S)       1     Spectrum     ▼       Scale/Div 10 dB     ■       Log     ■       10.0     ■       -0.00     ■       -20.0     ■       -30.0     ■       -40.0     ■	#Atten: 30 dB	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset	Avg Hold: 10 Trig: Free R 3.08 dB 0 dBm	00/100	M <del>W W W W W</del>	Mkr1 2.442	
R     T     →     Coupling: DC Align: Auto     Corr CCorr Freq Ref: Int (S)       1     Spectrum     ▼       Scale/Div 10 dB     ■       Log     ■       10.0     ■       -10.0     ■       -20.0     ■       -30.0     ■       -40.0     ■       -50.0     ■	#Atten: 30 dB	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset	Avg Hold: 10 Trig: Free R 3.08 dB 0 dBm	00/100	M ** ** ** **	Mkr1 2.442	
R     T     →     Coupling: DC Align: Auto     Corr CCorr Freq Ref: Int (S)       1     Spectrum     ▼       Scale/Div 10 dB     ■       Log     ■       10.0     ■       0.00     ■       -10.0     ■       -20.0     ■       -30.0     ■       -50.0     ■       -60.0     ■	#Atten: 30 dB	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset	Avg Hold: 10 Trig: Free R 3.08 dB 0 dBm	00/100	M ** ** ** **	Mkr1 2.442	
R     T     →     Coupling: DC Align: Auto     Corr CCorr Freq Ref: Int (S)       1     Spectrum     ▼       Scale/Div 10 dB     ■       Log     ■       10.0     ■       -10.0     ■       -20.0     ■       -30.0     ■       -40.0     ■       -50.0     ■	#Atten: 30 dB	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset	Avg Hold: 10 Trig: Free R 3.08 dB 0 dBm	00/100	M ** ** ** **	Mkr1 2.442	
R       T       →→       Coupling: DC       Corr CCorr         I Spectrum       ▼       Scale/Div 10 dB       □         Log       □       □       □         10.0       □       □       □         -10.0       □       □       □         -20.0       □       □       □         -30.0       □       □       □         -50.0       □       □       □         -60.0       □       □       □         -70.0       □       □       □         Center 2.442000 GHz       □       □	#Atten: 30 dB	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset	Avg Hold: 11 Trig: Free R 3.08 dB 0 dBm	00/100	M ** ** ** **		2.21 dBm
R       T       →→       Coupling: DC       Corr CCorr         Align: Auto       Freq Ref: Int (S)         V       1       Spectrum       ▼         Scale/Div 10 dB       ▼       ■         Log       ●       ●       ●         10.0       ●       ●       ●         0.00       ●       ●       ●         10.0       ●       ●       ●         -10.0       ●       ●       ●         -20.0       ●       ●       ●         -30.0       ●       ●       ●         -50.0       ●       ●       ●         -60.0       ●       ●       ●         -70.0       ●       ●       ●         Center 2.442000 GHz       #Res BW 2.0 MHz       ●	#Atten: 30 dB	Gate: Off IF Gain: Low Sig Track: Off Ref Level 20.0	Avg Hold: 11 Trig: Free R 3.08 dB 0 dBm	00/100	M ** ** ** **		2.21 dBm



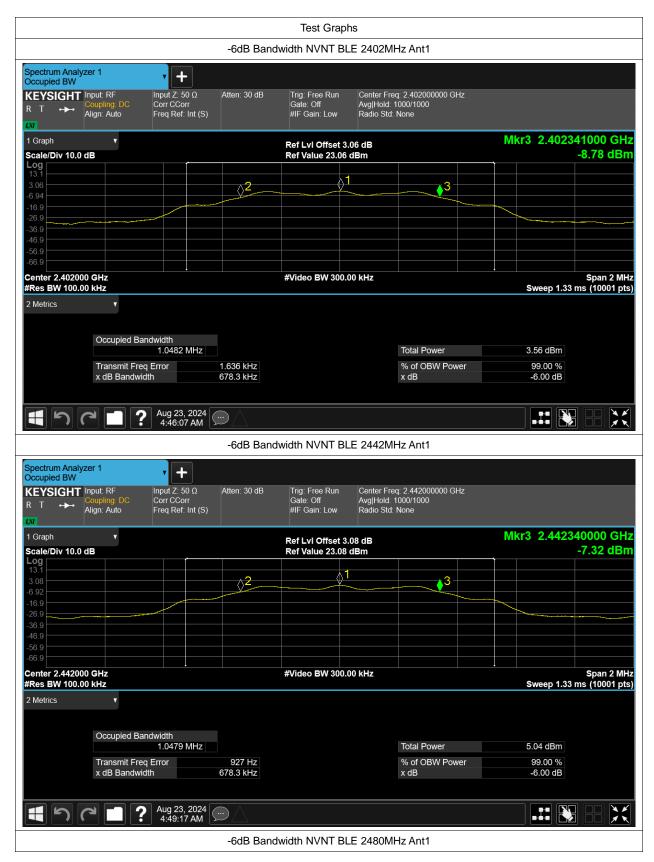




### -6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	limit	Verdic
NVNT	BLE	2402	Ant1	0.678	0.5	Pass
NVNT	BLE	2442	Ant1	0.678	0.5	Pass
NVNT	BLE	2480	Ant1	0.677	0.5	Pass







Spectrum / Occupied I			• +					
KEYSIG RTF	Coup	: RF Iling: DC : Auto	Input Ζ: 50 Ω Corr CCorr Freq Ref: Int (S)	Atten: 30 dB	Trig: Free Run Gate: Off #IF Gain: Low	Center Freq: 2.48000000 GHz Avg Hold: 1000/1000 Radio Std: None		
1 Graph		•			Ref LvI Offset 3.	10 dB	Mkr3 2.4803	
Scale/Div	10.0 dB				Ref Value 23.10	dBm		-9.18 dBm
Log 13.1								
3.10				<u></u>		3		
-6.90								
-16.9 -26.9								
-26.9								
-46.9								
-56.9								
-66.9								
Center 2.4 #Res BW					#Video BW 300.0	00 kHz	Sweep 1.33	Span 2 MHz ms (10001 pts)
2 Metrics								
	0	ccupied Bar	1.0484 MHz			Total Power	3.13 dBm	
	-			550 11-				
		ransmit Frec dB Bandwid		559 Hz 677.4 kHz		% of OBW Power x dB	99.00 % -6.00 dB	
	~	ab Banawia					-0.00 4D	
			A					
٤	7		Aug 23, 2024 4:51:18 AM	$\Box$				



# **Occupied Channel Bandwidth**

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE	2402	Ant1	1.044
NVNT	BLE	2442	Ant1	1.044
NVNT	BLE	2480	Ant1	1.044











# **Maximum Power Spectral Density Level**

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	BLE	2402	Ant1	-5.635	8	Pass
NVNT	BLE	2442	Ant1	-4.19	8	Pass
NVNT	BLE	2480	Ant1	-6.094	8	Pass



	Test Graphs PSD NVNT BLE 2402MHz Ant1	
Spectrum Analyzer 1		
Swept SA	Atten: 30 dB PNO: Best Wide Avg Type: Log-Power	1 2 3 4 5 6
R T ↔ Coupling: DC Corr CCorr Align: Auto Freq Ref: Int (S)	Gate: Off Avg Hold: 100/100 IF Gain: Low Trig: Free Run Sig Track: Off	м
1 Spectrum v Scale/Div 10 dB	Ref LvI Offset 3.06 dB Ref Level 20.00 dBm	Mkr1 2.402 250 5 GHz -5.63 dBm
Log		
10.0		
-10.0		
-20.0	Jow Mound	
-30.0	agentation and part and portioned	May .
-40.0		M almanta
-50.0	<u>/</u>	
-60.0		
-70.0 Watching of the		ne for the start of the start o
Center 2.402000 GHz #Res BW 3.0 kHz	#Video BW 10 kHz	Span 3.000 MHz Sweep 316 ms (2001 pts)
Aug 23, 2024 4:46:44 AM		
	PSD NVNT BLE 2442MHz Ant1	
Spectrum Analyzer 1		
Swept SA		
KEYSIGHT         Input: RF         Input Z: 50 Ω           Coupling: DC         Corr CCorr	#Atten: 30 dB PNO: Best Wide Avg Type: Log-Power Gate: Off Avg Hold: 100/100	
KEYSIGHT Input: RF Input Z: 50 Ω		M
KEYSIGHT         Input: RF         Input: Coupling: DC         Input: Z : 50 Ω           R         T         →         Align: Auto         Corr CCorr         Freq Ref: Int (S)	Gate: Off Avg Hold: 100/100 IF Gain: Low Trig: Free Run	M W W W W
Imput: RF       Input: RF         R T →       Coupling: DC         Align: Auto       Corr Corr         I Spectrum       ▼         Scale/Div 10 dB       Log	Gate: Off Avg Hold: 100/100 IF Gain: Low Trig: Free Run Sig Track: Off Ref Lvl Offset 3.08 dB	Mwwwww PNNNN Mkr1 2.442 250 5 GHz
Input: RF     Input: RF       R T →     Coupling: DC       Align: Auto     Corr Corr       I Spectrum     v       Scale/Div 10 dB       Log       10.0	Gate: Off Avg Hold: 100/100 IF Gain: Low Trig: Free Run Sig Track: Off Ref Lvl Offset 3.08 dB	Mwwwww PNNNN Mkr1 2.442 250 5 GHz
Imput: RF       Input: RF         R T →       Coupling: DC         Align: Auto       Corr Corr         I Spectrum       ▼         Scale/Div 10 dB       Log	Gate: Off Avg Hold: 100/100 IF Gain: Low Trig: Free Run Sig Track: Off Ref Level 20.00 dBm	Mwwwww PNNNN Mkr1 2.442 250 5 GHz
KEYSIGHT     Input: RF       R T →     Coupling: DC       Align: Auto     Corr Corr       I Spectrum     ▼       Scale/Div 10 dB       Log       10.0       0.00	Gate: Off Avg Hold: 100/100 IF Gain: Low Trig: Free Run Sig Track: Off Ref Level 20.00 dBm	Mwwwww PNNNN Mkr1 2.442 250 5 GHz
KEYSIGHT     Input: RF       R T →     Coupling: DC       Align: Auto     Corr Corr       I Spectrum        Scale/Div 10 dB       Log       10.0	Gate: Off Avg Hold: 100/100 IF Gain: Low Trig: Free Run Sig Track: Off Ref Level 20.00 dBm	Mwwwww PNNNN Mkr1 2.442 250 5 GHz
Input: RF     Input: RF       R T →     Coupling DC       Align: Auto     Corr Corr       I Spectrum        Scale/Div 10 dB       Log       10.0       -10.0       -20.0	Gate: Off Avg Hold: 100/100 IF Gain: Low Trig: Free Run Sig Track: Off Ref Level 20.00 dBm	Mwwwww PNNNN Mkr1 2.442 250 5 GHz
Imput: RF     Input: RF       R T →     Coupling DC       Align: Auto     Corr Corr       I Spectrum     Imput: RF       Scale/Div 10 dB       10.0       10.0       -10.0       -20.0       -30.0	Gate: Off Avg Hold: 100/100 IF Gain: Low Trig: Free Run Sig Track: Off Ref Level 20.00 dBm	M W W W W P N N N N Mkr1 2.442 250 5 GHz -4.19 dBm -4.19 dBm -4.19 dBm -4.19 dBm -4.19 dBm -4.19 dBm -4.19 dBm
KEYSIGHT         Input: RF         Input: Z: 50 Ω           R T         Imput: RF         Coupling: DC         Corr Corr           1 Spectrum         Imput: RF         Corr Corr         Freq Ref: Int (S)           200         Imput: RF         Imput: RF         Imput: RF           1 Spectrum         Imput: RF         Imput: RF         Imput: RF           10.0         Imput: RF         Imput: RF         Imput: RF           -20.0         Imput: RF         Imput: RF         Imput: RF           -30.0         Imput: RF         Imput: RF         Imput: RF           -60.0         Imput: RF         Imput: RF         Imput: RF	Gate: Off Avg Hold: 100/100 IF Gain: Low Trig: Free Run Sig Track: Off Ref Level 20.00 dBm	M W W W W P N N N N Mkr1 2.442 250 5 GHz -4.19 dBm -4.19 dBm -4.19 dBm -4.19 dBm -4.19 dBm -4.19 dBm -4.19 dBm
KEYSIGHT     Input: RF       R     T       Align: Auto       I Spectrum       Scale/Div 10 dB       Log       10.0       -20.0       -30.0       -40.0       -50.0	Gate: Off Avg Hold: 100/100 IF Gain: Low Trig: Free Run Sig Track: Off Ref Level 20.00 dBm	M W W W W P N N N N Mkr1 2.442 250 5 GHz -4.19 dBm -4.19 dBm -4.19 dBm -4.19 dBm -4.19 dBm -4.19 dBm
KEYSIGHT         Input: RF         Input: Z: 50 Ω           R T         Imput: RF         Coupling: DC         Corr Corr           1 Spectrum         Imput: RF         Corr Corr         Freq Ref: Int (S)           200         Imput: RF         Imput: RF         Imput: RF           1 Spectrum         Imput: RF         Imput: RF         Imput: RF           10.0         Imput: RF         Imput: RF         Imput: RF           -20.0         Imput: RF         Imput: RF         Imput: RF           -30.0         Imput: RF         Imput: RF         Imput: RF           -60.0         Imput: RF         Imput: RF         Imput: RF	Gate: Off Avg Hold: 100/100 IF Gain: Low Trig: Free Run Sig Track: Off Ref Level 20.00 dBm	M W W W W P N N N N N Mkr1 2.442 250 5 GHz -4.19 dBm -4.19 dBm -4.19 dBm -4.19 dBm -4.19 dBm -4.19 dBm -4.19 dBm -4.19 dBm -4.19 dBm -4.19 dBm
Imput: RF       Input: RF       Input Z: 50 Ω         R T ···       Coupling: DC       Input Z: 50 Ω         I Spectrum ·       ·       Corr Corr         Scale/Div 10 dB       ·       ·         100       ·       ·         100       ·       ·         -200       ·       ·         -300       ·       ·         -50.0       ·       ·         -60.0       ·       ·         -70.0       ·       ·         Center 2.442000 GHz       ·	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3.08 dB Ref Level 20.00 dBm	M W W W W P N N N N Mkr1 2.442 250 5 GHz -4.19 dBm







# **Band Edge**

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE	2402	Ant1	-53.01	-20	Pass
NVNT	BLE	2480	Ant1	-52.35	-20	Pass



			Test Grap				
		Band Edg	e NVNT BLE 24	402MHz Ant1 Ref			
Spectrum Analyzer 1 Swept SA	• +						
KEYSIGHT Input: RF R T +++ Align: Auto	Input Ζ: 50 Ω Corr CCorr Freq Ref: Int (S)	#Atten: 30 dB	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-Power Avg Hold: 300/300 Trig: Free Run	1 2 3 4 5 6 M₩₩₩₩₩₩ P N N N N N		
1 Spectrum			Ref LvI Offset 3	.06 dB		Mkr1 2.4	02 000 GHz
Scale/Div 10 dB Log			Ref Level 20.00				-2.78 dBm
10.0							
0.00				I			
-10.0				$\sim$			
-20.0				$\sim$			
-30.0		<u> </u>					
-40.0					٩,		
-50.0	and when the seal of the seal	Marin			Wangerer broken was	hipsonthed your the	Hupphresentanter
-60.0							
-70.0							
Center 2.402000 GHz #Res BW 100 kHz			#Video BW 30	0 kHz		#Sween 50	Span 8.000 MHz 0 ms (1001 pts)
	Aug 23, 2024					#Sweep 50.	
	4:47:04 AM						
_	E	Band Edge N	IVNT BLE 2402	2MHz Ant1 Emissi	on		
Spectrum Analyzer 1 Swept SA	• +	Band Edge N	IVNT BLE 2402	2MHz Ant1 Emissi	on		
Swept SA KEYSIGHT Input: RF Coupling: DC		Band Edge N #Atten: 30 dB	IVNT BLE 2402 PNO: Fast Gate: Off	2MHz Ant1 Emissi Avg Type: Log-Power Avg Hold: 300/300	123456		
Swept SA	<b>τ</b> Input Z: 50 Ω	_	PNO: Fast	Avg Type: Log-Power			
Swept SA       KEYSIGHT       R T →       Coupling: DC       Align: Auto       1 Spectrum	Input Z: 50 Ω Corr CCorr	_	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3	Avg Type: Log-Power Avg]Hold: 300/300 Trig: Free Run .06 dB	123456 M₩₩₩₩₩₩	Mkr1 2	.402 0 GHz
Swept SA KEYSIGHT R T  Coupling: DC Align: Auto Scale/Div 10 dB Log	Input Z: 50 Ω Corr CCorr	_	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-Power Avg]Hold: 300/300 Trig: Free Run .06 dB	123456 M₩₩₩₩₩₩	Mkr1 2	.402 0 GHz -2.81 dBm
Swept SA KEYSIGHT Input: RF Coupling: DC Align: Auto	Input Z: 50 Ω Corr CCorr	_	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3	Avg Type: Log-Power Avg]Hold: 300/300 Trig: Free Run .06 dB	123456 M₩₩₩₩₩₩	Mkr1 2	
Swept SA KEYSIGHT R T  Align: Auto CO 1 Spectrum Scale/Div 10 dB Log 10.0	Input Z: 50 Ω Corr CCorr	_	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3	Avg Type: Log-Power Avg]Hold: 300/300 Trig: Free Run .06 dB	123456 M₩₩₩₩₩₩	Mkr1 2	
Swept SA           KEYSIGHT         Input: RF.           R         T         →           1 Spectrum         ▼           Scale/Div 10 dB         ■           10.0         ■           -20.0         ■           -30.0         ■	Input Z: 50 Ω Corr CCorr	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3	Avg Type: Log-Power Avg]Hold: 300/300 Trig: Free Run .06 dB	123456 M₩₩₩₩₩₩	Mkr1 2	-2.81 dBm
Swept SA           KEYSIGHT         Input: RF           R         T         Coupling: DC           Align: Auto         Align: Auto           I Spectrum         V           Scale/Div 10 dB         0.00           10.0         0.00           -20.0         0           -30.0         0           -40.0         0	Input Z: 50 Ω Corr CCorr	_	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3	Avg Type: Log-Power Avg]Hold: 300/300 Trig: Free Run .06 dB	123456 M₩₩₩₩₩₩	Mkr1 2	-2.81 dBm
Swept SA           KEYSIGHT         Input: RF:           R         T	Input Z: 50 Ω Corr CCorr	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3	Avg Type: Log-Power Avg]Hold: 300/300 Trig: Free Run .06 dB	123456 M₩₩₩₩₩₩		-2.81 dBm
Swept SA           KEYSIGHT         Input: RF           R         T         Coupling: DC           Align: Auto         Align: Auto           I         Spectrum         V           Scale/Div 10 dB         0         0           10.0         0         0           -20.0         0         0           -30.0         0         0           -60.0         v         reserve dender digender dige	Input Z: 50 Ω Corr CCorr	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3	Avg Type: Log-Power Avg Hold: 300/300 Trig: Free Run .06 dB dBm	123456 M₩₩₩₩₩₩		-2.81 dBm
Swept SA           KEYSIGHT         Input: RF           R         T         Coupling: DC           I         Spectrum         Y           Scale/Div 10 dB         Q           10.0         Q	Input Z: 50 Ω Corr CCorr	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3 Ref Level 20.00	Avg Type: Log-Power Avg Hold: 300/300 Trig: Free Run .06 dB dBm	123456 M₩₩₩₩₩₩		-2.81 dBm
Swept SA           KEYSIGHT         Input: RF           R         T         →         Coupling: DC           I Spectrum         ▼         Scale/Div 10 dB         ■           Log         1         ■         ■         ■           Scale/Div 10 dB         ■	Linput Z: 50 Ω Corr CCorr Freq Ref: Int (S)	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3 Ref Level 20.00	Avg Type: Log-Power Avg Hold: 300/300 Trig: Free Run .06 dB dBm	123456 M₩₩₩₩₩₩		-2.81 dBm
Swept SA           KEYSIGHT         Input: RF           R         T         Coupling: DC           J Spectrum         Y           Scale/Div 10 dB         Out           Log         Out         Out           10.0         Out         Out           20.0         Out         Out           30.0         Out         Out           40.0         Out         Out           50.0         Out         Out           60.0         Out         Out           Start 2.30600 GHz         #Res BW 100 kHz         V           Mode         Trace         Scale           1         N         1         f	Length 2: 50 Ω Corr CCorr Freq Ref: Int (S)	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3 Ref Level 20.00 # #Video BW 30 Y -2.812 dBm -54.17 dBm	Avg Type: Log-Power Avg Hold: 300/300 Trig: Free Run .06 dB dBm	1 2 3 4 5 6 M W W W W W P N N N N N 	3 St #Sweep 50.	-2.81 dBm
Swept SA           KEYSIGHT         Input: RF           R         T         →         Auto           I Spectrum         ▼         State/Div 10 dB         ■           Log         □         □         □         □           10.0         □         □         □         □           20.0         □         □         □         □	Linput Z: 50 Ω Corr CCorr Freq Ref: Int (S)	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3 Ref Level 20.00 #Video BW 300 #Video BW 300	Avg Type: Log-Power Avg Hold: 300/300 Trig: Free Run .06 dB dBm	1 2 3 4 5 6 M W W W W W P N N N N N 	3 St #Sweep 50.	-2.81 dBm
Swept SA           KEYSIGHT         Input: RF           R         T         →         Auto           I Spectrum         ▼         Scale/Div 10 dB         ■           Log         1         ■         ■         ■           Scale/Div 10 dB         ■         ■         ■         ■           20.0         ■ <t< td=""><td>Linput Z: 50 Ω Corr CCorr Freq Ref: Int (S)</td><td>#Atten: 30 dB</td><td>PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3 Ref Level 20.00 #Video BW 300 #Video BW 300 Y -2.812 dBm -54.17 dBm -54.17 dBm</td><td>Avg Type: Log-Power Avg Hold: 300/300 Trig: Free Run .06 dB dBm</td><td>1 2 3 4 5 6 M W W W W W P N N N N N </td><td>3 St #Sweep 50.</td><td>-2.81 dBm</td></t<>	Linput Z: 50 Ω Corr CCorr Freq Ref: Int (S)	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3 Ref Level 20.00 #Video BW 300 #Video BW 300 Y -2.812 dBm -54.17 dBm -54.17 dBm	Avg Type: Log-Power Avg Hold: 300/300 Trig: Free Run .06 dB dBm	1 2 3 4 5 6 M W W W W W P N N N N N 	3 St #Sweep 50.	-2.81 dBm
Swept SA           KEYSIGHT         Input: RF           R         T         →         Coupling: DC           I Spectrum         ▼         Scale/Div 10 dB         ■           Log         1         0         0         0           0.00         0         0         0         0         0           20.0         30.0         0 <t< td=""><td>Length 2 and a second second</td><td>#Atten: 30 dB</td><td>PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3 Ref Level 20.00 #Video BW 300 #Video BW 300 Y -2.812 dBm -54.17 dBm -54.17 dBm</td><td>Avg Type: Log-Power Avg Hold: 300/300 Trig: Free Run .06 dB dBm</td><td>1 2 3 4 5 6 M W W W W W P N N N N N </td><td>3 St #Sweep 50.</td><td>-2.81 dBm</td></t<>	Length 2 and a second	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3 Ref Level 20.00 #Video BW 300 #Video BW 300 Y -2.812 dBm -54.17 dBm -54.17 dBm	Avg Type: Log-Power Avg Hold: 300/300 Trig: Free Run .06 dB dBm	1 2 3 4 5 6 M W W W W W P N N N N N 	3 St #Sweep 50.	-2.81 dBm







# **Conducted RF Spurious Emission**

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE	2402	Ant1	-46.32	-20	Pass
NVNT	BLE	2442	Ant1	-48.32	-20	Pass
NVNT	BLE	2480	Ant1	-45.16	-20	Pass



			Test Graph				
		Tx. Spuriou	us NVNT BLE 24	402MHz Ant1 Ref			
Spectrum Analyzer 1 Swept SA	• +						
KEYSIGHT Input: RF R T ↔ Coupling: DC Align: Auto	Input Ζ: 50 Ω Corr CCorr Freq Ref: Int (S)	#Atten: 30 dB	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-Power Avg Hold: 300/300 Trig: Free Run	1 2 3 4 5 6 M W W W W W P N N N N N		
1 Spectrum v			Ref LvI Offset 3.			Mkr1 2.402 001 5 0	
Scale/Div 10 dB Log			Ref Level 20.00 o	dBm		-2.81 d	IBM
10.0							
0.00			1				
-10.0							
-20.0							
-30.0							
							~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
-40.0							
-50.0							
-60.0							
-70.0							
Center 2.4020000 GHz			#Video BW 300	kHz		Span 1.500	) MHz
#Res BW 100 kHz						Sweep 1.00 ms (100	
エットロ	Aug 23, 2024 4:47:27 AM	$\square$					
	-						
		x. Spurious I	NVNT BLE 2402	2MHz Ant1 Emissi	on		
Spectrum Analyzer 1 Swept SA	• +	x. Spurious I	NVNT BLE 2402	2MHz Ant1 Emissi	ion		
Swept SA KEYSIGHT Input: RF Counting: DC	<b>Φ</b>	#Atten: 30 dB	PNO: Fast	Avg Type: Log-Power	123456		
Swept SA       KEYSIGHT       Input: RF       R     T       Align: Auto	• +	·	PNO: Fast Gate: Off IF Gain: Low		<b>1</b> 2 3 4 5 6 M₩₩₩₩₩₩		
Swept SA KEYSIGHT Input: RF Coupling: DC	Input Ζ: 50 Ω Corr CCorr	·	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-Power Avg Hold: 10/10 Trig: Free Run	123456	Mkr1 2.402 (	GHz
Swept SA       KEYSIGHT       R     T       J       I       Spectrum       Scale/Div 10 dB	Input Ζ: 50 Ω Corr CCorr	·	PNO: Fast Gate: Off IF Gain: Low	Avg Type: Log-Power Avg]Hold: 10/10 Trig: Free Run 06 dB	<b>1</b> 2 3 4 5 6 M₩₩₩₩₩₩	Mkr1 2.402 0 -2.82 d	
Swept SA       KEYSIGHT       Input: RF       R     T       Align: Auto       I       Spectrum       Scale/Div 10 dB       Log       10.0	Input Ζ: 50 Ω Corr CCorr	·	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref Lvl Offset 3.	Avg Type: Log-Power Avg]Hold: 10/10 Trig: Free Run 06 dB	<b>1</b> 2 3 4 5 6 M₩₩₩₩₩₩		
Swept SA       KEYSIGHT       R T ↔       I Spectrum       1 Spectrum       Scale/Div 10 dB       Log       10.0       10.0	Input Ζ: 50 Ω Corr CCorr	·	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref Lvl Offset 3.	Avg Type: Log-Power Avg]Hold: 10/10 Trig: Free Run 06 dB	<b>1</b> 2 3 4 5 6 M₩₩₩₩₩₩	-2.82 d	lBm
Swept SA       KEYSIGHT       R T →       Coupling: DC       Align: Auto       I Spectrum       Scale/Div 10 dB       Log       10.0       0.00	Input Ζ: 50 Ω Corr CCorr	·	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref Lvl Offset 3.	Avg Type: Log-Power Avg]Hold: 10/10 Trig: Free Run 06 dB	<b>1</b> 2 3 4 5 6 M₩₩₩₩₩₩	-2.82 d	IBm 31.dBm
Sivept SA         Input: RF           R         T         →           1         Spectrum         ✓           Scale/Div 10 dB         ✓           10.0         ↓           -10.0         ↓           -30.0         ↓	Input Ζ: 50 Ω Corr CCorr Freq Ref: Int (S)	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3. Ref Level 20.00 0	Avg Type: Log-Power Avg]Hold: 10/10 Trig: Free Run 06 dB	<b>1</b> 2 3 4 5 6 M₩₩₩₩₩₩	-2.82 d	IBm 31.dBm
Sivept SA         Input: RF           R         T         →           1 Spectrum         ✓           1 Spectrum         ✓           Scale/Div 10 dB         ✓           10.0         ✓           -30.0         ✓           -30.0         ✓           -60.0         ++++++++++++++++++++++++++++++++++++	Input Ζ: 50 Ω Corr CCorr Freq Ref: Int (S)	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3. Ref Level 20.00 0	Avg Type: Log-Power Avg]Hold: 10/10 Trig: Free Run 06 dB	<b>1</b> 2 3 4 5 6 M₩₩₩₩₩₩	-2.82 d	IBm 31.dBm
Sivept SA         Input: RF           R         T         +         Coupling: DC           I Spectrum         I Spectrum         I Spectrum         I Spectrum           1 Spectrum         I Spectrum         I Spectrum         I Spectrum           1 Spectrum         I Spectrum         I Spectrum         I Spectrum           10.0         I Spectrum         I Spectrum         I Spectrum           20.0         I Spectrum         I Spectrum         I Spectrum           -0.0         I Spectrum         I Spectrum         I Spectrum           -0.0         I Spectrum         I Spectrum         I Spectrum	Input Ζ: 50 Ω Corr CCorr Freq Ref: Int (S)	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3.1 Ref Level 20.00 (	Avg Type: Log-Power Avg Hold: 10/10 Trig: Free Run D6 dB JBm	<b>1</b> 2 3 4 5 6 M₩₩₩₩₩₩	-2.82 d	1 <b>Bm</b> 81.dBm 5
Sivept SA         Input: RF           R         T            I Spectrum         I Spectrum           1 Spectrum         I Spectrum           Scale/Div 10 dB            10.0            -20.0            -30.0            -40.0            -70.0            Start 30 MHz         #Res BW 100 kHz	Input Ζ: 50 Ω Corr CCorr Freq Ref: Int (S)	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3. Ref Level 20.00 0	Avg Type: Log-Power Avg Hold: 10/10 Trig: Free Run D6 dB JBm	<b>1</b> 2 3 4 5 6 M₩₩₩₩₩₩	-2.82 d	IBm 31.dBm 5
Swept SA         Input: RF           R         T         T           1 Spectrum         Align: Auto           1 Spectrum         Scale/Div 10 dB           Log         1           10.0         1           -20.0         1           -30.0         -40.0           -70.0         -40.0           Start 30 MHz         -40.0	Input Ζ: 50 Ω Corr CCorr Freq Ref: Int (S)	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3.1 Ref Level 20.00 (	Avg Type: Log-Power Avg Hold: 10/10 Trig: Free Run D6 dB JBm	<b>1</b> 2 3 4 5 6 M₩₩₩₩₩₩	-2.82 d	IBm 31.dBm 5
Sivept SA KEYSIGHT R T  Soupling: DC Align: Auto Scale/Div 10 dB Log 100 200 300 400 500 600 For a start 30 MHz #Res BW 100 kHz 5 Marker Table Mode Trace Scale	Length 2: 50 Ω Corr CCorr Freq Ref: Int (S)	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3. Ref Level 20.000 4 4 #Video BW 300	Avg Type: Log-Power Avg Hold: 10/10 Trig: Free Run 06 dB 1Bm	<b>1</b> 2 3 4 5 6 M₩₩₩₩₩₩	-2.82 d	IBm 31.dBm 5
Swept SA         Input: RF           R         T	Linput Z: 50 Ω Corr CCorr Freq Ref: Int (S)	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3. Ref Level 20.00 d #Video BW 300 Y -2.820 dBm -52.73 dBm	Avg Type: Log-Power Avg Hold: 10/10 Trig: Free Run 06 dB 1Bm	1 2 3 4 5 6 M W W W W W P N N N N N 	-2.82 d	IBm 31.dBm 5
Swept SA         Input: RF           R         T            I Spectrum         I Spectrum         I Spectrum           1 Spectrum         I Spectrum         I Spectrum           Scale/Div 10 dB         I I Spectrum         I I Spectrum           Scale/Div 10 dB         I I I I I I I I I I I I I I I I I I I	Length 2:50 Ω Corr CCorr Freq Ref: Int (S)	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3./ Ref Level 20.000 4 4 #Video BW 300	Avg Type: Log-Power Avg Hold: 10/10 Trig: Free Run 06 dB 1Bm	1 2 3 4 5 6 M W W W W W P N N N N N 	-2.82 d	IBm 31.dBm 5
Swept SA         Input: RF           R         T            1 Spectrum         V           1 Spectrum         V           Scale/Div 10 dB            Log            1.0            -20.0            -30.0            -40.0            -50.0            -70.0            Start 30 MHz            #Res BW 100 kHz            5 Marker Table            Mode         Trace         Scale           1         1         f           3         1         f           4         N         1         f	Linput Z: 50 Ω Corr CCorr Freq Ref: Int (S)	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3. Ref Level 20.00 0 #Video BW 300 #Video BW 300 Y -2.820 dBm -52.73 dBm -54.66 dBm -54.66 dBm	Avg Type: Log-Power Avg Hold: 10/10 Trig: Free Run 06 dB 1Bm	1 2 3 4 5 6 M W W W W W P N N N N N 	-2.82 d	IBm 31.dBm 5
Sivept SA         Input: RF           R         T          Coupling: DC           1         Spectrum         Imput: RF         Coupling: DC           20:0         Imput: RF         Imput: RF         Imput: RF           20:0         Imput: RF         Imput: RF         Imput: RF           30:0         Imput: RF         Imput: RF         Imput: RF           Start 30 MHz         #Res BW 100 kHz         Imput: RF         Imput: RF           5         Marker Table         Imput: RF         Imput: RF         Imput: RF           1         N         1         Imput: RF         Imput: RF	Linput Z: 50 Ω Corr CCorr Freq Ref: Int (S)	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3. Ref Level 20.00 0 #Video BW 300 #Video BW 300 Y -2.820 dBm -52.73 dBm -54.66 dBm -54.66 dBm	Avg Type: Log-Power Avg Hold: 10/10 Trig: Free Run 06 dB 1Bm	1 2 3 4 5 6 M W W W W W P N N N N N 	-2.82 d	IBm 31.dBm 5







