

#### Test Data

# **Maximum Conducted Output Power**

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE	2402	Ant1	0.329	30	Pass
NVNT	BLE	2442	Ant1	2.631	30	Pass
NVNT	BLE	2480	Ant1	1.695	30	Pass



			Test Gra				
		Power	r NVNT BLE 2	2402MHz Ant1			
Spectrum Analyzer 1 Swept SA	<b>•</b> +						
KEYSIGHT Input: RF R T ↔ Coupling: DC Align: Auto	Input Z: 50 Ω Corr CCorr Freq Ref: Int (S)	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-Pow Avg Hold: 100/100 Trig: Free Run	ver 1 2 3 4 5 6 M ₩ ₩ ₩ ₩ ₩ P N N N N N		
1 Spectrum v			Ref LvI Offset			Mkr1 2.401	
Scale/Div 10 dB Log			Ref Level 20.0	00 dBm			0.33 dBm
10.0							
0.00				,1			
-10.0							
-20.0							
-30.0							A Stand of the state of the sta
-40.0							The second se
-50.0							
-60.0							
-70.0							
Center 2.402000 GHz #Res BW 2.0 MHz			#Video BW 6	5.0 MHz		Sweep 1.33	pan 8.000 MHz ms (10001 pts)
	2 Mar 25, 2025						
	6:05:32 PM 🔰						
		Davida					,
<b>.</b>		Power	NVNT BLE 2	2442MHz Ant1			
Spectrum Analyzer 1 Swept SA	• +						
Spectrum Analyzer 1 Swept SA KEYSIGHT Input: RF R T	Input Z: 50 Ω Corr CCorr Freq Ref: Int (S)	Power #Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	2442MHz Ant1 Avg Type: Log-Pow Avg Hold: 100/100 Trig: Free Run	/er 123456 M₩₩₩₩₩₩ PNNNNN		
Swept SA       KEYSIGHT       Input: RF       R T       Align: Auto	Input Z: 50 Ω Corr CCorr		PNO: Fast Gate: Off IF Gain: Low	Avg Type: Log-Pow Avg Hold: 100/100 Trig: Free Run 3.08 dB	$M \nleftrightarrow \Downarrow \Downarrow \Downarrow \Downarrow$	Mkr1 2.441	848 8 GHz 2.63 dBm
Swept SA KEYSIGHT Input: RF R T  Align: Auto VV 1 Spectrum Scale/Div 10 dB Log	Input Z: 50 Ω Corr CCorr		PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset	Avg Type: Log-Pow Avg Hold: 100/100 Trig: Free Run 3.08 dB	$M \nleftrightarrow \Downarrow \Downarrow \Downarrow \Downarrow$	Mkr1 2.441	
Swept SA KEYSIGHT Input: RF R T  Align: Auto I 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	Avg Type: Log-Pow Avg Hold: 100/100 Trig: Free Run 3.08 dB	$M \nleftrightarrow \Downarrow \Downarrow \Downarrow \Downarrow$	Mkr1 2.441	
Swept SA KEYSIGHT Input: RF R T  Align: Auto VV 1 Spectrum Scale/Div 10 dB Log	Input Z: 50 Ω Corr CCorr		PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset Ref Level 20.0	Avg Type: Log-Pow Avg Hold: 100/100 Trig: Free Run 3.08 dB	$M \nleftrightarrow \Downarrow \Downarrow \Downarrow \Downarrow$	Mkr1 2.441	
Swept SA KEYSIGHT Input: RF R T  Align: Auto I 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 Ref Level 20.0	Avg Type: Log-Pow Avg Hold: 100/100 Trig: Free Run 3.08 dB	$M \nleftrightarrow \Downarrow \Downarrow \Downarrow \Downarrow$	Mkr1 2.441	
Swept SA KEYSIGHT Input: RF R T  Align: Auto VV 1 Spectrum  Scale/Div 10 dB Log 10.0 0.00	Input Z: 50 Ω Corr CCorr		PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset Ref Level 20.0	Avg Type: Log-Pow Avg Hold: 100/100 Trig: Free Run 3.08 dB	$M \nleftrightarrow \Downarrow \Downarrow \Downarrow \Downarrow$	Mkr1 2.441	
Swept SA KEYSIGHT Input: RF R T  Ispectrum Scale/Div 10 dB Cog 10.0 0.00 10.0	Input Z: 50 Ω Corr CCorr		PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset Ref Level 20.0	Avg Type: Log-Pow Avg Hold: 100/100 Trig: Free Run 3.08 dB	$M \nleftrightarrow \Downarrow \Downarrow \Downarrow \Downarrow$	Mkr1 2.441	
Swept SA           KEYSIGHT         Input: RF           R         T         →→         Coupling: DC           I/V/         Auto         Input: RF         Coupling: Auto           I/V/         Scale/Div 10 dB         Input: RF         Input: RF           Log         Input: RF         Input: RF         Input: RF           10.0         Input: RF         Input: RF         Input: RF           -10.0         Input: RF         Input: RF         Input: RF	Input Z: 50 Ω Corr CCorr		PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset Ref Level 20.0	Avg Type: Log-Pow Avg Hold: 100/100 Trig: Free Run 3.08 dB	$M \nleftrightarrow \Downarrow \Downarrow \Downarrow \Downarrow$	Mkr1 2.441	
Swept SA           KEYSIGHT         Input: RF           R         T         →         Coupling: DC Align: Auto           V/         Y           1 Spectrum         ▼           Scale/Div 10 dB         ↓           Log         ↓           10.0         ↓           -20.0         ↓           -30.0         ↓	Input Z: 50 Ω Corr CCorr		PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset Ref Level 20.0	Avg Type: Log-Pow Avg Hold: 100/100 Trig: Free Run 3.08 dB	$M \nleftrightarrow \Downarrow \Downarrow \Downarrow \Downarrow$	Mkr1 2.441	
Swept SA           KEYSIGHT         Input: RF           R         T         →         Coupling: DC           I/V         Auto         Y           Scale/Div 10 dB         0         0         0           10.0         0         0         0         0           -10.0	Input Z: 50 Ω Corr CCorr		PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset Ref Level 20.0	Avg Type: Log-Pow Avg Hold: 100/100 Trig: Free Run 3.08 dB	$M \nleftrightarrow \Downarrow \Downarrow \Downarrow \Downarrow$	Mkr1 2.441	
Swept SA           KEYSIGHT         Input: RF           R         T         →         Coupling: DC Align: Auto           U//         Y           Scale/Div 10 dB         ✓           Log         ✓           10.0         ✓           20.0         ✓           -30.0         ✓           -50.0         ✓	Input Z: 50 Ω Corr CCorr		PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset Ref Level 20.0	Avg Type: Log-Pow Avg Hold: 100/100 Trig: Free Run 3.08 dB	$M \nleftrightarrow \Downarrow \Downarrow \Downarrow \Downarrow$	Mkr1 2.441	
Swept SA           KEYSIGHT         Input: RF           R         T         T           I Spectrum         Y           Scale/Div 10 dB         O           Log         Image: Complex of the second secon	Input Z: 50 Ω Corr CCorr		PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref Level 20.0	Avg Type: Log-Pow Avg Hold: 100/100 Trig: Free Run 3.08 dB 10 dBm	$M \nleftrightarrow \Downarrow \Downarrow \Downarrow \Downarrow$		2.63 dBm
Swept SA           KEYSIGHT         Input: RF           R         T         Auto           INPUT: Scale/Div 10 dB         V           Scale/Div 10 dB         Outomatic           10.0         Outomatic         Outomatic           -10.0         Outomatic         Outomatic           -30.0         Outomatic         Outomatic           -50.0         Outomatic         Outomatic	Input Z: 50 Ω Corr CCorr		PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset Ref Level 20.0	Avg Type: Log-Pow Avg Hold: 100/100 Trig: Free Run 3.08 dB 10 dBm	$M \nleftrightarrow \Downarrow \Downarrow \Downarrow \Downarrow$	S	
Swept SA         KEYSIGHT       Input: RF         R       T       →→         I Spectrum       ▼         Scale/Div 10 dB       ■         Log       ■         10.0       ■         -0.00       ■         -10.0       ■         -20.0       ■         -30.0       ■         -50.0       ■         -60.0       ■         -70.0       ■         Center 2.442000 GHz         #Res BU 2.0 MHz	Input Z 50 Ω Corr CCorr Freq Ref. Int (S)		PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref Level 20.0	Avg Type: Log-Pow Avg Hold: 100/100 Trig: Free Run 3.08 dB 10 dBm	$M \nleftrightarrow \Downarrow \Downarrow \Downarrow \Downarrow$	S	2.63 dBm







#### -6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	limit	Verdic
NVNT	BLE	2402	Ant1	0.663	0.5	Pass
NVNT	BLE	2442	Ant1	0.661	0.5	Pass
NVNT	BLE	2480	Ant1	0.664	0.5	Pass







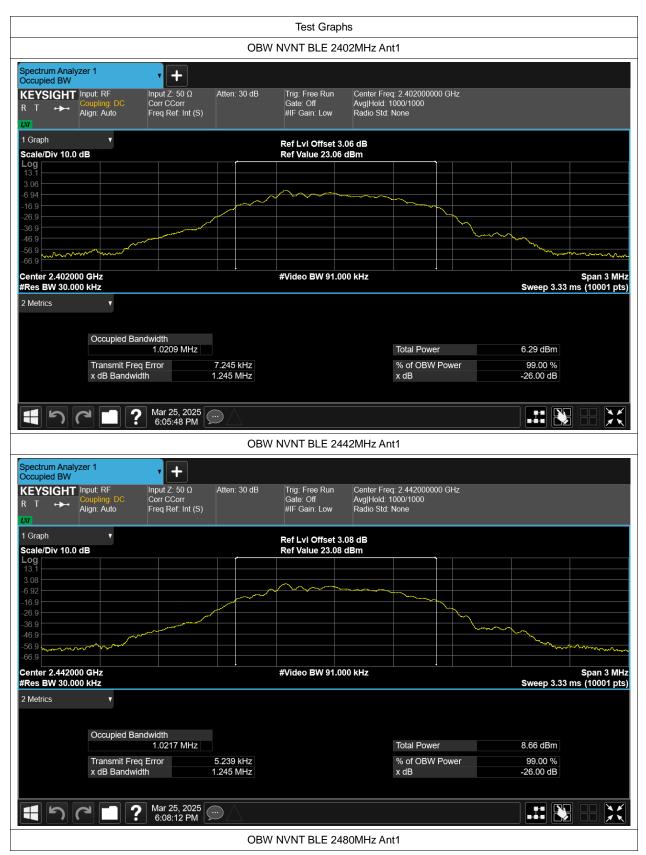
Spectr Occup	um Anal ied BW	yzer 1		• +	•						
KEYS R T	SIGHT • <b>•</b> ••	Input: RI Coupling Align: Au	J: DC	Input Z: 50 Corr CCor Freq Ref:		Atten: 30 dB	Trig: Free Run Gate: Off #IF Gain: Low	Center Fre Avg Hold: Radio Std:			
1 Grap	h	· · · · ·	•				Ref LvI Offset 3			Mkr3 2.4803	331000 GHz
	Div 10.0	dB					Ref Value 23.10				-5.33 dBm
Log 13.1 3.10						<u> </u>			3		
-6.90 -16.9 -26.9											
-36.9 -46.9 -56.9	www.ww										and the second
-66.9											
	r 2.4800 3W 100.				•		#Video BW 300	.00 kHz		Sweep 1.33	Span 2 MHz ms (10001 pts)
2 Metri	cs		v								
		0.00	upied Bar	- duriatta							
		Occi	иріец Баг	1.0376	MHz				Total Power	7.41 dBm	
			smit Freq Bandwid			-624 Hz 664.1 kHz			% of OBW Power x dB	99.00 % -6.00 dB	
	5	2	]?	Mar 25, 6:09:49	2025 PM						



# **Occupied Channel Bandwidth**

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE	2402	Ant1	1.021
NVNT	BLE	2442	Ant1	1.022
NVNT	BLE	2480	Ant1	1.022







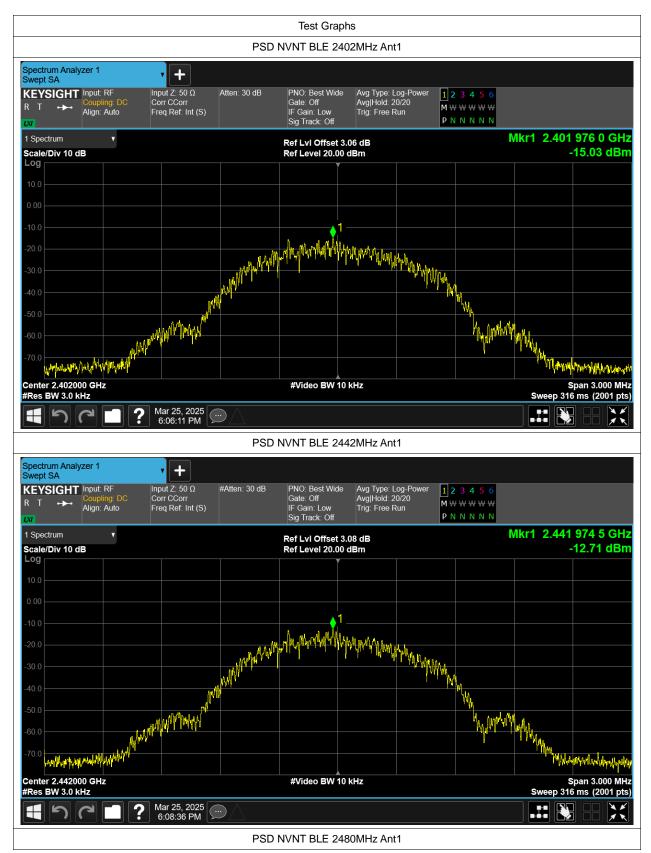
Spect Occup	rum Analy bied BW	zer 1		• +										
KEY R T	′SIGHT .≁-	Input: F Couplir Align: A	ng: DC	Input Ζ: 50 Ω Corr CCorr Freq Ref: Int (S)	Atter	n: 30 dB	Trig: Free Run Gate: Off #IF Gain: Low	A	Center Freq Avg Hold: 1 Radio Std: 1		00 GH	Ηz		
1 Gra			v				Ref LvI Offset							
	e/Div 10.0	dB					Ref Value 23.1	10 dBi	m					
Log 13.1														
3.10														
-6.90							$\sim\sim\sim\sim$	~~~~	~~~~~	~				
-16.9					-	$\sim$								
-26.9					~							~		
-36.9												h		
-46.9			- mana										~~~~	
-56.9 -66.9	$\sim \sim $	~~~~~	~~~~											m. m
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	er 2.48000 BW 30.00						#Video BW 91	.000 k	Hz				Swoon 2 22	Span 3 MHz ms (10001 pts)
													Sweep 3.55	ms (10001 pts)
2 Met	rics		•											
		0												
		UC	cupied Band	1.0224 MHz						Total Powe	er		7.70 dBm	
		Tra	nsmit Freq	Error	4.845	5 kHz				% of OBW	Pow	ver	99.00 %	
		x d	B Bandwidt	h	1.247	MHz				x dB			-26.00 dB	
	5		2	Mar 25, 2025 6:09:36 PM										



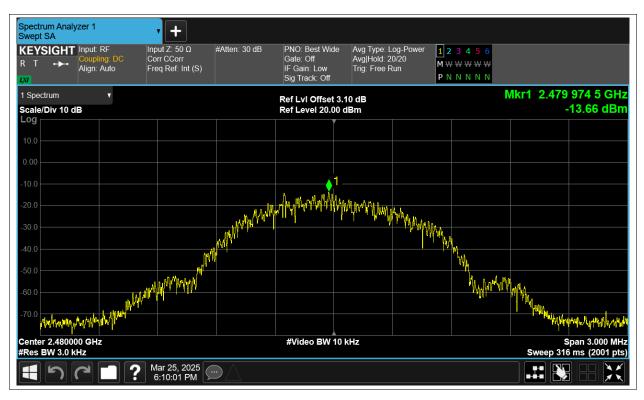
#### **Maximum Power Spectral Density Level**

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	BLE	2402	Ant1	-15.027	8	Pass
NVNT	BLE	2442	Ant1	-12.709	8	Pass
NVNT	BLE	2480	Ant1	-13.663	8	Pass











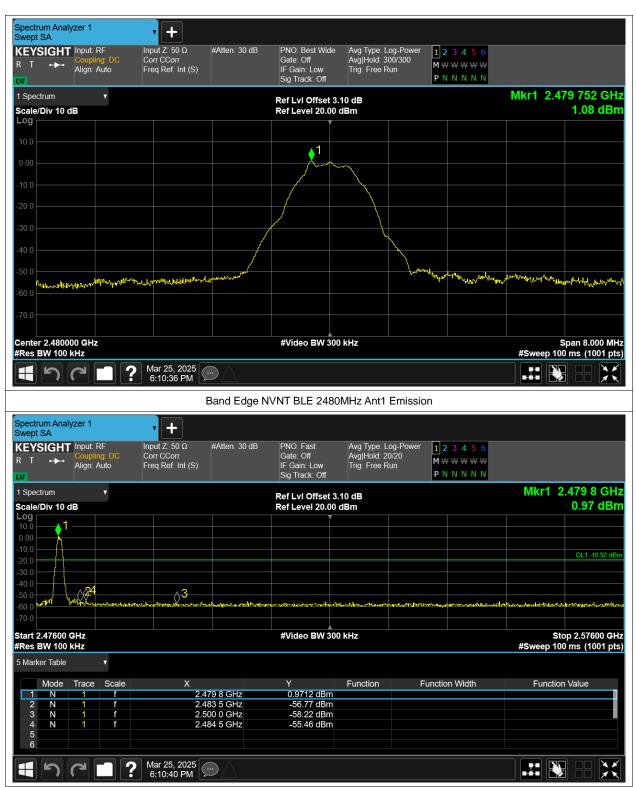
# **Band Edge**

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE	2402	Ant1	-56.43	-20	Pass
NVNT	BLE	2480	Ant1	-56.54	-20	Pass



			Test Grap	ohs		
		Band Edge	NVNT BLE 2	2402MHz Ant1	Ref	
Spectrum Analyzer 1 Swept SA	<b>•</b> +					
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	e Avg Type: Log- Avg Hold: 300/: Trig: Free Run		w .
1 Spectrum V			Ref LvI Offset			Mkr1 2.401 752 GHz
Scale/Div 10 dB			Ref Level 20.00	) dBm		-0.36 dBm
10.0						
0.00			1			
-10.0				~		
-20.0						
-30.0						
-40.0						
-50.0						
-60.0	enter warden and with	mplathan			hone bold be with a part	ulanaturalisetising and the second
-70.0						
Center 2.402000 GHz #Res BW 100 kHz			#Video BW 30	00 kHz		Span 8.000 MHz #Sweep 50.0 ms (1001 pts)
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	0.00.32 Pivi [ )=					
		and Edge N			minoion	
		Band Edge N	VNT BLE 240	2MHz Ant1 Er	mission	
Spectrum Analyzer 1 Swept SA	• +					
Swept SA KEYSIGHT Input: RF R T Coupling: DC	Input Z: 50 Ω Corr CCorr	3and Edge N #Atten: 30 dB	PNO: Fast Gate: Off	Avg Type: Log- Avg Hold: 20/2	Power 12345	6
Swept SA KEYSIGHT Input: RF Counting: DC	<b>τ</b>		PNO: Fast	Avg Type: Log-	Power 12345	6 ₩ N
Swept SA KEYSIGHT Input: RF 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 Avg Hold: 20/2 Trig: Free Run 3.06 dB	Power 1 2 3 4 5 0 M W W W	6 ₩ N Mkr1 2.402 0 GHz
Swept SA KEYSIGHT Input: RF Coupling: DC Align: Auto I Spectrum ▼ Scale/Div 10 dB Log	Input Z: 50 Ω Corr CCorr		PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log Avg Hold: 20/2 Trig: Free Run 3.06 dB	Power 1 2 3 4 5 0 M W W W	6 ₩ N
Sivept SA KEYSIGHT Input: RF Coupling: DC Align: Auto 1 Spectrum Scale/Div 10 dB Log 10.0 0.00	Input Z: 50 Ω Corr CCorr		PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3	Avg Type: Log Avg Hold: 20/2 Trig: Free Run 3.06 dB	Power 1 2 3 4 5 0 M W W W	6 ₩ N Mkr1 2.402 0 GHz
Swept SA           KEYSIGHT         Input: RF           Coupling: DC           Align: Auto           I Spectrum           Scale/Div 10 dB           Log           10.0           .00           .00           .00	Input Z: 50 Ω Corr CCorr		PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3	Avg Type: Log Avg Hold: 20/2 Trig: Free Run 3.06 dB	Power 1 2 3 4 5 0 M W W W	6 ₩ N Mkr1 2.402 0 GHz
Sivept SA KEYSIGHT Input: RF Coupling: DC Align: Auto  V Scale/Div 10 dB Log 10.0 0.00 -10.0	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 Avg Hold: 20/2 Trig: Free Run 3.06 dB	Power 1 2 3 4 5 0 M W W W	6 W Mkr1 2.402 0 GHz -1.52 dBm
Sivept SA           KEYSIGHT         Input: RF           R         T         →         Aign: Auto           INPUt: RF         Coupling: DC         Aign: Auto           I Spectrum         ▼         Scale/Div 10 dB         ■           Log         □         □         □         □           10.0         □ <th□< th="">         &lt;</th□<>	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 Avg Hold: 20/2 Trig: Free Run 3.06 dB	Power 1 2 3 4 5 0 M W W W	6 W Mkr1 2.402 0 GHz -1.52 dBm
Sivept SA           KEYSIGHT         Input: RF           R         T         →→         Goupling: DC Align: Auto           I/V         V         Scale/Div 10 dB         V           10.0	Input Z: 50 Ω Corr CCorr	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset : Ref Level 20.00	Avg Type: Log- Avg Hold: 20/2 Trig: Free Run 3.06 dB 0 dBm	Power 1 2 3 4 5 0 M W W W	6 ₩ N Mkr1 2.402 0 GHz -1.52 dBm
Sivept SA           KEYSIGHT         Input: RF           R         T         →         Coupling: DC           Align: Auto         V           Scale/Div 10 dB         V           Log         0         0           10.0         0         0           -20.0         0         0           -30.0         0         0           -60.0         Investit/funementhalpyrectory.pt	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- Avg Hold: 20/2 Trig: Free Run 3.06 dB 0 dBm	Power 1 2 3 4 5 0 M W W W	6 ₩ N Mkr1 2.402 0 GHz -1.52 dBm
Swept SA           KEYSIGHT         Input: RF           R         T         →         Goupling: DC Align: Auto           I         Spectrum         v           Scale/Div 10 dB         0         0           10.0         0         0           -20.0         -         -           -30.0         -         -           -40.0         -         -           -70.0         -         -           Start 2.30600 GHz         -         -	Input Z: 50 Ω Corr CCorr	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset : Ref Level 20.00	Avg Type: Log- Avg Hold: 20/2 Trig: Free Run 3.06 dB 0 dBm	Power 1 2 3 4 5 0 M W W W	6 ₩ N Mkr1 2.402 0 GHz -1.52 dBm 0L1-2/3¢ dBm 0L1-2/3¢ dBm 0L1-2/3¢ dBm 0L1-2/3¢ dBm 5top 2.40600 GHz
Swept SA         KEYSIGHT       Input: RF         Coupling: DC         Align: Auto         1 Spectrum         Scale/Div 10 dB         Log         10.0         0.00         -0.00         -30.0         -40.0         -60.0         Start 2.30600 GHz         #Res BW 100 kHz         5 Marker Table         Mode         Trace	Linput Z: 50 Ω Corr CCorr Freq Ref: Int (S)	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref Level 20.00	Avg Type: Log- Avg Hold: 20/2 Trig: Free Run 3.06 dB 0 dBm	Power 1 2 3 4 5 0 M W W W	6 ₩ N Mkr1 2.402 0 GHz -1.52 dBm 0L1-2/3¢ dBm 0L1-2/3¢ dBm 0L1-2/3¢ dBm 0L1-2/3¢ dBm 5top 2.40600 GHz
Swept SA           KEYSIGHT         Input: RF           R         T         →         Gouping: DC Align: Auto           I         Spectrum         v           Scale/Div 10 dB         0         0           Log         0         0         0           10.0         0         0         0         0           -20.0         -30.0         -40.0         -50.0         -40.0         -40.0         -40.0         -40.0         -50.0         -40.0         -40.0         -50.0         -40.0 <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 Level 20.00 4 4 #Video BW 30 Y -1.516 dBm -60.53 dBm</td><td>Avg Type: Log- Avg Hold: 20/2 Trig: Free Run 3.06 dB 0 dBm</td><td>Power 0 1 2 3 4 5 M W W W W P N N N N</td><td>6 W Mkr1 2.402 0 GHz -1.52 dBm DL1 20 36 dBm DL1 20 36 dBm Stop 2.40600 GHz #Sweep 50.0 ms (1001 pts)</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 Level 20.00 4 4 #Video BW 30 Y -1.516 dBm -60.53 dBm	Avg Type: Log- Avg Hold: 20/2 Trig: Free Run 3.06 dB 0 dBm	Power 0 1 2 3 4 5 M W W W W P N N N N	6 W Mkr1 2.402 0 GHz -1.52 dBm DL1 20 36 dBm DL1 20 36 dBm Stop 2.40600 GHz #Sweep 50.0 ms (1001 pts)
Swept SA           KEYSIGHT         Input: RF           R         T         →→         Goupling: DC Align: Auto           I         Spectrum         ▼           Scale/Div 10 dB         □         □           Log         □         □           10.0         □         □           -20.0         □         □           -30.0         □         □           -40.0         □         □           -50.0         □         □           -60.0         □         □           Start 2.30600 GHz         ▼           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 Level 20.00 4 4 #Video BW 30	Avg Type: Log- Avg Hold: 20/2 Trig: Free Run 3.06 dB 0 dBm	Power 0 1 2 3 4 5 M W W W W P N N N N	6 W Mkr1 2.402 0 GHz -1.52 dBm DL1 20 36 dBm DL1 20 36 dBm Stop 2.40600 GHz #Sweep 50.0 ms (1001 pts)
Swept SA         Coupling: DC           R         T         F           R         T         F           1         Spectrum         Coupling: DC           1         Spectrum         Image: Spectrum           1         Spectrum         Image: Spectrum           1         Spectrum         Image: Spectrum           1         Spectrum         Image: Spectrum           Scale/Div 10 dB         Image: Spectrum           10         Image: Spectrum         Image: Spectrum           20.0         Image: Spectrum         Image: Spectrum           -20.0         Image: Spectrum         Image: Spectrum           -30.0         Image: Spectrum         Image: Spectrum           -40.0         Image: Spectrum         Image: Spectrum           -50.0         Image: Spectrum         Image: Spectrum           -60.0         Image: Spectrum         Image: Spectrum           -50.0         Image: Spectrum	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 4 4 #Video BW 30 Y -1.516 dBm -60.53 dBm -59.90 dBm	Avg Type: Log- Avg Hold: 20/2 Trig: Free Run 3.06 dB 0 dBm	Power 0 1 2 3 4 5 M W W W W P N N N N	6 W Mkr1 2.402 0 GHz -1.52 dBm DL1 20 36 dBm DL1 20 36 dBm Stop 2.40600 GHz #Sweep 50.0 ms (1001 pts)
Swept SA           KEYSIGHT         Input: RF           R         T         →         Gouping: DC Align: Auto           I         Spectrum         v           Scale/Div 10 dB         u         out           Log         I         Out         I           10.0         I         I         I           20.0         I         I         I           30.0         I         I         I           40.0         I         I         I           50.0         I         I         I         I           50.0         I         I         I         I           Start 2.30600 GHz         I         I         I         I           5 Marker Table         V         I         I         I         I           Mode         Trace         Scale         I         I         I         I         I           4         N         1         I         I         I         I         I         I	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 4 4 #Video BW 30 Y -1.516 dBm -60.53 dBm -59.90 dBm	Avg Type: Log- Avg Hold: 20/2 Trig: Free Run 3.06 dB 0 dBm	Power 0 1 2 3 4 5 M W W W W P N N N N	6 W Mkr1 2.402 0 GHz -1.52 dBm DL1 20 36 dBm DL1 20 36 dBm Stop 2.40600 GHz #Sweep 50.0 ms (1001 pts)







# **Conducted RF Spurious Emission**

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE	2402	Ant1	-48.33	-20	Pass
NVNT	BLE	2442	Ant1	-50.55	-20	Pass
NVNT	BLE	2480	Ant1	-50.03	-20	Pass



			Test Graph	IS			
		Tx. Spuriou	us 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 V			Ref LvI Offset 3.			Mkr1 2.401	
Scale/Div 10 dB			Ref Level 20.00 o	dBm			-0.37 dBm
10.0							
0.00		<b>↓</b> 1					
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Center 2.4020000 GHz #Res BW 100 kHz			#Video BW 300	kHz		S Success d 00	pan 1.500 MHz
	7 Mar 25, 2025	) /\					ms (1001 pts)
	6:06:40 PM						
	1	Tx. Spurious I	NVNT BLE 2402	2MHz Ant1 Emissi	on		
Spectrum Analyzer 1 Swept SA	۲ +	Tx. Spurious I	NVNT BLE 2402	2MHz Ant1 Emissi	on		
		Tx. Spurious I	NVNT BLE 2402 PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	2MHz Ant1 Emissi Avg Type: Log-Power Avg Hold: 5/5 Trig: Free Run	0N 1 2 3 4 5 6 M W W W W W P N N N N N		
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 Lvl Offset 3.	Avg Type: Log-Power Avg]Hold: 5/5 Trig: Free Run 06 dB	<b>1</b> 2 3 4 5 6 M ₩ ₩ ₩ ₩ ₩		2.402 GHz -5.44 dBm
Swept SA       KEYSIGHT       R T →       Coupling: DC       Align: Auto       1 Spectrum       Scale/Div 10 dB       Log       10	Input Z: 50 Ω Corr CCorr		PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-Power Avg]Hold: 5/5 Trig: Free Run 06 dB	<b>1</b> 2 3 4 5 6 M ₩ ₩ ₩ ₩ ₩		2.402 GHz -5.44 dBm
Swept SA       KEYSIGHT       R T →       I Spectrum       Scale/Div 10 dB       Log       0.00	Input Z: 50 Ω Corr CCorr		PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref Lvl Offset 3.	Avg Type: Log-Power Avg]Hold: 5/5 Trig: Free Run 06 dB	<b>1</b> 2 3 4 5 6 M ₩ ₩ ₩ ₩ ₩		-5.44 dBm
Sivept SA           KEYSIGHT         Input: RF           R         T         +           Ispectrum         V           Scale/Div 10 dB         1           Log         1         1           10.0         1         1           -20.0         1         1	Input Z: 50 Ω Corr CCorr		PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref Lvl Offset 3.	Avg Type: Log-Power Avg]Hold: 5/5 Trig: Free Run 06 dB	<b>1</b> 2 3 4 5 6 M ₩ ₩ ₩ ₩ ₩		
Sivept SA           KEYSIGHT         Input: RF:           R         T         →         Auto           I         Spectrum         ▼           Scale/Div 10 dB         ↓         ↓           100         ↓         ↓         ↓           -10.0         -40.0         -40.0         -40.0         -40.0	Input 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 o	Avg Type: Log-Power Avg]Hold: 5/5 Trig: Free Run 06 dB	<b>1</b> 2 3 4 5 6 M ₩ ₩ ₩ ₩ ₩		-5.44 dBm
Sivept SA         Input: RF           R         T          Auto           INPUT: RF         Coupling: DC         Auto           INPUT: RF         Coupling: Auto         Input: RF           Scale/Div 10 dB         V         Scale/Div 10 dB           10.0	Input Z: 50 Ω Corr CCorr Freq Ref: Int (S)		PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 3. Ref Level 20.00 o	Avg Type: Log-Power Avg]Hold: 5/5 Trig: Free Run 06 dB	<b>1</b> 2 3 4 5 6 M ₩ ₩ ₩ ₩ ₩		-5.44 dBm
Sivept SA           KEYSIGHT         Input: RF           R         T         →         Auto           I         Spectrum         v           Scale/Div 10 dB         u         1         1           Log         1         0         1         <	Input 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 3.1 Ref Level 20.00 (	Avg Type: Log-Power Avg Hold: 5/5 Trig: Free Run 06 dB JBm	<b>1</b> 2 3 4 5 6 M ₩ ₩ ₩ ₩ ₩		-5.44 dBm DL1-20.36 dBm
Sivept SA         Input: RF           R         T          Auto           INPUT: RF         Coupling: DC         Auto           INPUT: RF         Coupling: Auto         Input: RF           Scale/Div 10 dB         V         Scale/Div 10 dB           10.0	Input 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 o	Avg Type: Log-Power Avg Hold: 5/5 Trig: Free Run 06 dB JBm	<b>1</b> 2 3 4 5 6 M ₩ ₩ ₩ ₩ ₩		-5.44 dBm
Sivept SA         Input: RF           R         T          Auto           I         Spectrum         v           Scale/Div 10 dB          1           10.0          1             1             1             1             1             1             1             1             1             1             1             1	Input 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 3.1 Ref Level 20.00 (	Avg Type: Log-Power Avg Hold: 5/5 Trig: Free Run 06 dB JBm	<b>1</b> 2 3 4 5 6 M ₩ ₩ ₩ ₩ ₩		-5.44 dBm DL1 -20 36 dBm 5 5 5 5 5 5 0 9 5 0 9 5 0 9 5 0 9 1 2 5 0 9 1 2 5 0 1 1 1 2 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Sivept SA           KEYSIGHT         Input: RF           R         T            I Spectrum         V           Scale/Div 10 dB         0           Log         1            100         0         0         0           -20.0          1            -30.0          1            -50.0              Start 30 MHz          Start 30 MHz            5 Marker Table	Linput Z: 50 Ω Corr CCorr Freq Ref: Int (S)	#Atten: 30 dB	PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref Level 20.000 With the second secon	Avg Type: Log-Power Avg Hold: 5/5 Trig: Free Run 06 dB 18m	<b>1</b> 2 3 4 5 6 M ₩ ₩ ₩ ₩ ₩		-5.44 dBm DL1 -20 36 dBm 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Swept SA           KEYSIGHT         Input: RF           R         T         P           I Spectrum         V           Scale/Div 10 dB         Output: RF           Log         1         Imput: RF           100         Imput: RF         Output: RF           Scale/Div 10 dB         Imput: RF         Imput: RF           Start 30 MHz         Imput: RF         Imput: RF           Mode         Trace         Scale           Imput: No         Imput: RF         Imput: RF           Mode         Trace         Scale           Imput: No         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 3.1 Ref Level 20.00 of #Video BW 300 #Video BW 300	Avg Type: Log-Power Avg Hold: 5/5 Trig: Free Run 06 dB 18m	1 2 3 4 5 6 M W W W W W P N N N N N 	Sweep ~2.4	-5.44 dBm DL1 -20 36 dBm 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Swept SA           KEYSIGHT         Input: RF           R         T            Ispectrum         V           Scale/Div 10 dB            Log             1.00             Scale/Div 10 dB             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 0 #Video BW 300 #Video BW 300 Y -5.441 dBm -52.67 dBm -54.07 dBm -54.07 dBm	Avg Type: Log-Power Avg Hold: 5/5 Trig: Free Run 06 dB 18m	1 2 3 4 5 6 M W W W W W P N N N N N 	Sweep ~2.4	-5.44 dBm DL1 -20 36 dBm 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Swept SA           KEYSIGHT         Input: RF           R         T            I Spectrum         V           Scale/Div 10 dB            Log             Scale/Div 10 dB             20.0              30.0                    Start 30 MHz              Start 30 MHz              Mode         Trace         Scale            1         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 d #Video BW 300 Y -5.441 dBm -52.67 dBm -54.07 dBm	Avg Type: Log-Power Avg Hold: 5/5 Trig: Free Run 06 dB 18m	1 2 3 4 5 6 M W W W W W P N N N N N 	Sweep ~2.4	-5.44 dBm DL1 -20 36 dBm 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Swept SA           KEYSIGHT         Input: RF           R         T            I Spectrum         V           Scale/Div 10 dB            Log          1           1.00          1            Scale/Div 10 dB           1           20.0           1	Left Here 25, 2025	#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 -5.441 dBm -52.67 dBm -54.07 dBm -54.07 dBm	Avg Type: Log-Power Avg Hold: 5/5 Trig: Free Run 06 dB 18m	1 2 3 4 5 6 M W W W W W P N N N N N 	Sweep ~2.4	-5.44 dBm DL1 -20 36 dBm 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5







