

Test Data

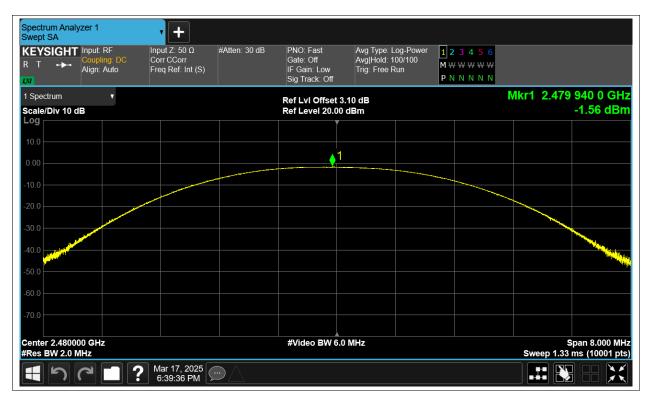
Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE	2402	Ant12	-1.653	30	Pass
NVNT	BLE	2442	Ant12	-1.226	30	Pass
NVNT	BLE	2480	Ant12	-1.562	30	Pass



		Test Gra	aphs		
		Power NVNT BLE 2	2402MHz Ant12		
Spectrum Analyzer 1 Swept SA	• +				
KEYSIGHT R T +++ Coupling: DC Align: Auto	Input Z: 50 Ω #Atten Corr CCorr Freq Ref: Int (S)	: 30 dB PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-Power Avg Hold: 100/100 Trig: Free Run	1 2 3 4 5 6 M₩₩₩₩₩₩ P N N N N N	
1 Spectrum		Ref LvI Offse			Mkr1 2.401 925 6 GHz
Scale/Div 10 dB Log		Ref Level 20.	00 dBm		-1.65 dBm
10.0					
0.00			1		
-10.0					
-20.0					
-30.0					
-40.0					
-50.0					
-60.0					
-70.0					
Center 2.402000 GHz #Res BW 2.0 MHz		#Video BW	6.0 MHz		Span 8.000 MHz Sweep 1.33 ms (10001 pts)
1 7 7 1 7	Mar 17, 2025 6:35:58 PM				
		Power NVNT BLE	2442MHz Ant12		
Spectrum Analyzer 1	+				
Swept SA KEYSIGHT Input: RF Coupling: DC	Input Z: 50 Ω #Atten		Avg Type: Log-Power		
Swept SA		: 30 dB PNO: Fast Gate: Off IF Gain: Low Sig Track: Off	Avg Hold: 100/100 Trig: Free Run	1 2 3 4 5 6 M ₩ ₩ ₩ ₩ ₩ P N N N N N	
Swept SA KEYSIGHT Input: RF R T I Spectrum Scale/Div 10 dB	Input Z: 50 Ω #Atten. Corr CCorr	Gate: Off IF Gain: Low	Avg Hold: 100/100 Trig: Free Run t 3.08 dB	M ₩ ₩ ₩ ₩ ₩ P N N N N N	Mkr1 2.441 910 4 GHz -1.23 dBm
Swept SA KEYSIGHT Input: RF R T ↔ Coupling: DC Align: Auto 1 Spectrum v Scale/Div 10 dB Log	Input Z: 50 Ω #Atten Corr CCorr	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offse	Avg Hold: 100/100 Trig: Free Run t 3.08 dB	M ₩ ₩ ₩ ₩ ₩ P N N N N N	
Swept SA KEYSIGHT Input: RF R T Align: Auto CVV 1 Spectrum V Scale/Div 10 dB Log 10.0	Input Z: 50 Ω #Atten Corr CCorr	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offse Ref Level 20.	Avg Hold: 100/100 Trig: Free Run t 3.08 dB	M ₩ ₩ ₩ ₩ ₩ P N N N N N	
Swept SA KEYSIGHT Input: RF R T J Spectrum V V Scale/Div 10 dB Log 10.0 0.00	Input Z: 50 Ω #Atten Corr CCorr	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offse Ref Level 20.	Avg Hold: 100/100 Trig: Free Run t 3.08 dB 00 dBm	M ₩ ₩ ₩ ₩ ₩ P N N N N N	
Swept SA KEYSIGHT Input: RF R T Align: Auto CVV 1 Spectrum V Scale/Div 10 dB Log 10.0	Input Z: 50 Ω #Atten Corr CCorr	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offse Ref Level 20.	Avg Hold: 100/100 Trig: Free Run t 3.08 dB 00 dBm	M ₩ ₩ ₩ ₩ ₩ P N N N N N	
Swept SA KEYSIGHT Input: RF Coupling: DC Align: Auto Scale/Div 10 dB Cog 10.0 0.00 -10.0	Input Z: 50 Ω #Atten Corr CCorr	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offse Ref Level 20.	Avg Hold: 100/100 Trig: Free Run t 3.08 dB 00 dBm	M ₩ ₩ ₩ ₩ ₩ P N N N N N	
Swept SA KEYSIGHT Input: RF R T → 1 Spectrum ▼ Scale/Div 10 dB □ 10.0 □ -10.0 □ -20.0 □	Input Z: 50 Ω #Atten Corr CCorr	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offse Ref Level 20.	Avg Hold: 100/100 Trig: Free Run t 3.08 dB 00 dBm	M ₩ ₩ ₩ ₩ ₩ P N N N N N	
Swept SA KEYSIGHT Input: RF R T → Gouping: DC Align: Auto Align: Auto IV v Scale/Div 10 dB 0.00 -10.0 - -20.0 - -30.0 -	Input Z: 50 Ω #Atten Corr CCorr	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offse Ref Level 20.	Avg Hold: 100/100 Trig: Free Run t 3.08 dB 00 dBm	M ₩ ₩ ₩ ₩ ₩ P N N N N N	
Swept SA KEYSIGHT Input: RF R T → Coupling: DC ////////////////////////////////////	Input Z: 50 Ω #Atten Corr CCorr	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offse Ref Level 20.	Avg Hold: 100/100 Trig: Free Run t 3.08 dB 00 dBm	M ₩ ₩ ₩ ₩ ₩ P N N N N N	
Swept SA KEYSIGHT Input: RF R T → Gouping: DC Align: Auto Align: Auto I Spectrum v Scale/Div 10 dB - Log - - 10.0 - - -10.0 - - -20.0 - - -30.0 - - -40.0 - - -50.0 - -	Input Z: 50 Ω #Atten Corr CCorr	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offse Ref Level 20.	Avg Hold: 100/100 Trig: Free Run t 3.08 dB 00 dBm	M ₩ ₩ ₩ ₩ ₩ P N N N N N	
Swept SA KEYSIGHT Input: RF R T → 1 Spectrum ▼ Scale/Div 10 dB ■ Log ■ 10.0 ■ -10.0 ■ -30.0 ■ -40.0 ■ -60.0 ■ -70.0 ■ Center 2.442000 GHz	Input Z: 50 Ω #Atten Corr CCorr	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offse Ref Level 20.	Avg Hold: 100/100 Trig: Free Run	M ₩ ₩ ₩ ₩ ₩ P N N N N N	-1.23 dBm
Swept SA KEYSIGHT Input: RF R T →→ Coupling: DC 1 Spectrum ▼ Scale/Div 10 dB ■ Log □ □ □ □ 10.0 □ □ □ □ -10.0 □ □ □ □ -20.0 □ □ □ □ -30.0 □ □ □ □ -60.0 □ □ □ □ -70.0 □ □ □ □ Center 2.442000 GHz #Res BW 2.0 MHz □ □	Input Z: 50 Ω Corr CCorr Freq Ref: Int (S) #Atten	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offse Ref Level 20.	Avg Hold: 100/100 Trig: Free Run	M ₩ ₩ ₩ ₩ ₩ P N N N N N	-1.23 dBm
Swept SA KEYSIGHT Input: RF R T → 1 Spectrum ▼ Scale/Div 10 dB ■ Log ■ 10.0 ■ -10.0 ■ -30.0 ■ -40.0 ■ -60.0 ■ -70.0 ■ Center 2.442000 GHz	Input Z' 50 Ω Corr CCorr Freq Ref: Int (S)	Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offse Ref Level 20.	Avg Hold: 100/100 Trig: Free Run	M ₩ ₩ ₩ ₩ ₩ P N N N N N	-1.23 dBm







-6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	limit	Verdic
NVNT	BLE	2402	Ant12	0.658	0.5	Pass
NVNT	BLE	2442	Ant12	0.661	0.5	Pass
NVNT	BLE	2480	Ant12	0.657	0.5	Pass







Occup	um Analy ied BW			• +								
KEYS R T	SIGHT +→-	Input: F Couplir Align: A	ng: DC	Input Z: 5 Corr CCo Freq Ref:	rr	Atten: 30 dB	Trig: Free Run Gate: Off #IF Gain: Low	Center Fre Avg Hold: Radio Std:		lz		
1 Grap	h		•				Ref LvI Offset 3	10 dB		Mk	r3 2.48032	24000 GHz
	/Div 10.0	dB					Ref Value 23.10					-8.06 dBm
Log 13.1												
3.10									3			
-6.90												
-16.9 -26.9												
-36.9	- And and the	-here here									and the second se	Party and a second s
-46.9	J											
-56.9 -66.9												
Cente	r 2.4800)0 GHz					#Video BW 300	.00 kHz				Span 2 MHz
#Res	BW 100.	00 kHz									Sweep 1.33 r	ns (10001 pts)
2 Metri	ics		•									
		00	cupied Ban	dwidth								
				1.0357	MHz				Total Power		4.35 dBm	
			nsmit Freq			4.983 kHz			% of OBW Pow	er	99.00 %	
		x dl	B Bandwidi	h		657.4 kHz			x dB		-6.00 dB	
	5]?	Mar 17, 6:40:0	2025 5 PM							



Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE	2402	Ant12	1.019
NVNT	BLE	2442	Ant12	1.019
NVNT	BLE	2480	Ant12	1.019







Sp	ectru ccupi	um Analy ed BW	zer 1		• +								
K R	Т	SIGHT	Input: Coupli Align: J	ng: DC	Input Ζ: 50 Ω Corr CCorr Freq Ref: Int (S)	Atter	: 30 dB	Trig: Free Run Gate: Off #IF Gain: Low	Avg Ho	Freq: 2.480000000 ld: 1000/1000 Std: None	GHz		
1	Grapt	ı		T				Ref LvI Offset	3.10 dB				
		Div 10.0	dB					Ref Value 23.1	0 dBm				
	og 3.1 –												
	.10												
	.90 -							\sim	<u> </u>				
	6.9					+	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~						
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	6.9 6.9	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~								~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
		0 40000					!						Course 0 Mills
		2.48000 W 30.00						#Video BW 91.	JUU KHZ			Sween 3 33	Span 3 MHz ms (10001 pts)
	Metric			•								Oneep 0.00	
2	Mound	~											
			Oc	cupied Ban	dwidth								
					1.0189 MHz					Total Power		4.61 dBm	
			Tra	ansmit Freq	Error	73	3 Hz			% of OBW P	ower	99.00 %	
			x d	B Bandwidt	h	1.244	MHz			x dB		-26.00 dB	
E	Ð	5 (2	Mar 17, 2025 6:39:53 PM		\langle						



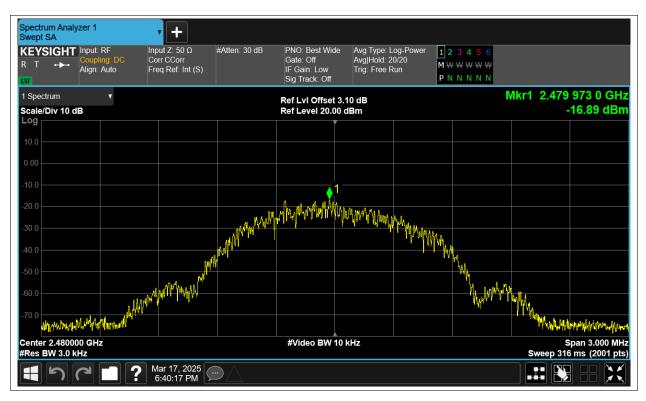
Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	BLE	2402	Ant12	-16.908	8	Pass
NVNT	BLE	2442	Ant12	-16.585	8	Pass
NVNT	BLE	2480	Ant12	-16.887	8	Pass











Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE	2402	Ant12	-54.34	-20	Pass
NVNT	BLE	2480	Ant12	-54.3	-20	Pass



				Test Grap	ohs				
			Band Edge	NVNT BLE 2	402MHz An	t12 Ref			
Spectrum Analyzer 1 Swept SA		• +							
	oling: DC C	orr CCorr	#Atten: 30 dB	PNO: Best Wide Gate: Off	Avg Hold: 3	00/300 M	2 3 4 5 6 ₩₩₩₩₩₩		
Align	: Auto Fi	eq Ref: Int (S)		IF Gain: Low Sig Track: Off	Trig: Free F	kun	NNNNN		
1 Spectrum Scale/Div 10 dB	V			Ref LvI Offset				Mkr1 2.4	01 744 GHz -2.12 dBm
Log									
10.0				<u> </u>					
0.00					\sim				
-10.0									
-20.0									
-30.0			/						
-40.0									
-50.0 -60.0	Janden of the second second	_ป ระหาราณสาวาร	water			have like the design of the second	ะ _{มีสังให้ว่าให้ส} ะเงาปู่ป _{าวจัง} ง	^ֈ Նվո _{ւ ե} լ ոն _ե ւթյդի չիսյակ	hart work have a latter
-70.0									
-10.0									
Center 2.402000 GH #Res BW 100 kHz	Iz			#Video BW 3	00 kHz				Span 8.000 MHz .0 ms (1001 pts)
1 7 7	[]?'	Mar 17, 2025 6:37:00 PM							
		Ba	and Edge N∖	/NT BLE 2402	2MHz Ant12	2 Emission			
Spectrum Analyzer 1		• +							
Swept SA KEYSIGHT Input		put Z: 50 Ω ;	#Atten: 30 dB	PNO: Fast	Avg Type: L	.og-Power 1	23456		
		orr CCorr eq Ref: Int (S)		Gate: Off IF Gain: Low Sig Track: Off	Avg Hold: 2 Trig: Free R	tun M	₩₩₩₩₩ N N N N N		
1 Spectrum	•			Ref Lvl Offset	3.06 dB			Mkr1 2	2.401 7 GHz
Scale/Div 10 dB				Ref Level 20.0					-2.78 dBm
10.0									<u>1</u>
-10.0 -20.0									DL1-22 12 dBm
-30.0									
-50.0 -60.0	۳۵۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰	New-Invations	๛๚๚๛๛๛๛๚๛๛๚๚๛๛๛๚๚๛	Jungar Julian and a substance of the	enstantin the solution	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	4	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	with the
-70.0									
Start 2.30600 GHz #Res BW 100 kHz				#Video BW 30	JU KHZ				op 2.40600 GHz .0 ms (1001 pts)
5 Marker Table	V								
Mode Trace	f		1 7 GHz	Y -2.777 dBm		Funct	ion Width	Functio	n Value
2 N 1 3 N 1	f f	2.39	0 0 GHz 0 0 GHz	-55.58 dBm -59.78 dBm					
4 N 1 5 6	f	2.37	5 0 GHz	-56.46 dBm					
	? '	Mar 17, 2025 6:37:02 PM							
		0.07.02 PWI	Band Edge	NVNT BLE 2	480MHz An	t12 Ref			
			-and Lugo						







Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE	2402	Ant12	-47.57	-20	Pass
NVNT	BLE	2442	Ant12	-46.85	-20	Pass
NVNT	BLE	2480	Ant12	-47.53	-20	Pass



	٦	Tx. Spurious	Test Graph	ns 102MHz Ant12	Ref		
Spectrum Analyzer 1	• +	•					
Swept SA KEYSIGHT Input: RF R T Coupling: DC Align: Auto		Atten: 30 dB	PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off	Avg Type: Log-Po Avg Hold: 300/300 Trig: Free Run			
1 Spectrum v			Ref LvI Offset 3.	06 dB		Mkr1 2.401 749 5	
Scale/Div 10 dB			Ref Level 20.00	dBm		-2.21	dBm
10.0							
0.00		1					
-10.0			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		Survey of the second		
-20.0						m	
-30.0						and a second sec	-
-30.0 mm// / -40.0							and and a
-50.0							
-60.0							
-70.0							
Center 2.4020000 GHz #Res BW 100 kHz			#Video BW 300	kHz		Span 1.5	
	Mar 17, 2025	\wedge				Sweep 1.00 ms (10	
	6:46:51 PM						
-	Tx.	Spurious N	VNT BLE 2402	MHz Ant12 Em	nission		
Spectrum Analyzer 1 Swept SA	• +						
KEYSIGHT Input: RF	Input Z: 50 Ω # Corr CCorr	Atten: 30 dB	PNO: Fast Gate: Off	Avg Type: Log-Po Avg Hold: 5/5			
R T ↔ Align: Auto	Freq Ref: Int (S)		IF Gain: Low Sig Track: Off	Trig: Free Run	M ₩ ₩ ₩ ₩ ₩ P N N N N N		
1 Spectrum 🔻			Ref LvI Offset 3.	0 I D		Mired 0 400	CH-
Scale/Div 10 dB				06 08		Mkr1 2.402	
Log			Ref Level 20.00			-2.74	
Log 10.0 0.00 -10.0						-2.74	
Log 10.0 -10.0 -20.0 -30.0 -20.0 -30.0						-2.74	dBm
Log 10.0 0.00 -10.0 -20.0 1 0 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0	2 2 3					-2.74	dBm
Log 10.0 -10.0 -20.0 -30.0 -40.0 -40.0	2 3					-2.74	dBm
Log 10.0 0.00 -10.0 -20.0 -30.0 -30.0 -30.0 -40.0 -50.0 -60.0 -70.0 Start 30 MHz	2 3	alerative for the				-2.74	dBm 2 21 dBm 00 GHz
Log 10.0 -10.0 -20.0 -30.0 -40.0 -50.0 -60.0 -70.0 Start 30 MHz #Res BW 100 kHz	2 3		Ref Level 20.00 (-2.74	dBm 2 21 dBm 00 GHz
Log 10.0 -10.0 -20.0 -30.0 -30.0 -40.0 -50.0 -50.0 -70.0 Start 30 MHz #Res BW 100 kHz 5 Marker Table			Ref Level 20.00 4	dBm	Function Width	-2.74	dBm 2 21 dBm 00 GHz
Log 10.0 .0.0 .10.0 .20.0 .30.0 .40.0 .50.0 .60.0 .70.0 Start 30 MHz #Res BW 100 kHz 5 Marker Table V Mode Trace Scale 1 N 1 f	×	2 GHz 74 GHz	Ref Level 20.00 (Function Width	-2.74	dBm 2 21 dBm 00 GHz
Log 10.0 .0000 .000 .000 .000 .000 .000 .000 .000 .000 .000 .000	X 2.4(4.9) 7.1-1	74 GHz 16 GHz	Ref Level 20.00 4	dBm	Function Width	-2.74	dBm 2 21 dBm 00 GHz
Log 10.0 -10.0 -20.0 -30.0 -40.0 -50.0 -60.0 -70.0 Start 30 MHz #Res BW 100 kHz 5 Marker Table V Mode Trace Scale 1 N 1 f 3 N 1 f 4 N 1 f 5 N 1 f	X 2.4(4.9 7.11 9.6(74 GHz	Ref Level 20.00 (#Video BW 300 Y -2.741 dBm -53.38 dBm	dBm	Function Width	-2.74	dBm 2 21 dBm 00 GHz
Log 10.0 -10.0 -20.0 -30.0 -40.0 -50.0 -50.0 -60.0 -70.0 Start 30 MHz #Res BW 100 kHz 5 Marker Table V Mode Trace Scale 1 N 1 f 3 N 1 f 4 N 1 f	X 2.4(4.9 7.11 9.6(74 GHz 46 GHz 93 GHz 54 GHz	Ref Level 20.00 4	dBm	Function Width	-2.74	dBm 2 21 dBm 00 GHz







