

Test Data

Maximum Conducted Output Power

| Condition | Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Limit (dBm) | Verdict |
|-----------|------|-----------------|---------|-----------------------|-------------|---------|
| NVNT | BLE | 2402 | ANT14 | -3.384 | 30 | Pass |
| NVNT | BLE | 2442 | ANT14 | -2.486 | 30 | Pass |
| NVNT | BLE | 2480 | ANT14 | -2.952 | 30 | Pass |



| | | | Test Grap | ohs | | | |
|--|--|------------------------|--|--|--|------------|--|
| | | Power | NVNT BLE 24 | 02MHz ANT14 | | | |
| Spectrum Analyzer 1 Swept SA | • + | | | | | | |
| 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-Power Avg Hold: 500/500 Trig: Free Run | 1 2 3 4 5 6 M \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | |
| 1 Spectrum V | | | Ref LvI Offset 2 | | | Mkr1 2.402 | |
| Scale/Div 10 dB Log | | | Ref Level 20.00 |) dBm | | | -3.38 dBm |
| 10.0 | | | | | | | |
| 0.00 | | | | ↓ 1 | | | |
| -10.0 | | | | | | | |
| -20.0 | | | | | | \square | |
| -30.0 | | | | | | | |
| -40.0 | | | | | | | |
| -50.0 | | | | | | | MANUAL AND |
| -60.0 | | | | | | | |
| -70.0 | | | | | | | |
| | | | | | | | |
| Center 2.402000 GHz #Res BW 2.0 MHz | | | #Video BW 6. | 0 MHz | | | Span 8.000 MHz ms (10001 pts) |
| H 5 C - | ? Jul 16, 2024 6:04:27 AM | | | | | | |
| | • 0.04.27 AW | | | | | | |
| | • 0.04.27 AW | Power | NVNT BLE 24 | 42MHz ANT14 | | | |
| Spectrum Analyzer 1 Swept SA | • 0.04.21 AM | Power | NVNT BLE 24 | 42MHz ANT14 | | | |
| Swept SA KEYSIGHT Input: RF | Γ + Input Z: 50 Ω | Power #Atten: 30 dB | NVNT BLE 24 PNO: Fast Gate: Off | Avg Type: Log-Power | 123456 | | |
| Swept SA | Γ + Input Z: 50 Ω | | PNO: Fast | | 123456 M \vee \vee \vee \vee \vee \vee \vee \ve | | |
| Swept SA KEYSIGHT R T ↔ Coupling: DC Align: Auto | Input Z: 50 Ω Corr CCorr | | PNO: Fast Gate: Off IF Gain: Low | Avg Type: Log-Power Avg Hold: 500/500 Trig: Free Run 2.58 dB | M ₩ ₩ ₩ ₩ ₩ P N N N N N | Mkr1 2.442 | |
| Swept SA KEYSIGHT Input: RF R T I Spectrum | Input Z: 50 Ω Corr CCorr | | PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 2 | Avg Type: Log-Power Avg Hold: 500/500 Trig: Free Run 2.58 dB | M ₩ ₩ ₩ ₩ ₩ P N N N N N | | 058 4 GHz |
| Swept SA KEYSIGHT Input: RF R T ↔ Coupling: DC Align: Auto V// 1 Spectrum ¥ Scale/Div 10 dB | Input Z: 50 Ω Corr CCorr | | PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 2 | Avg Type: Log-Power Avg Hold: 500/500 Trig: Free Run 2.58 dB | M ₩ ₩ ₩ ₩ ₩ P N N N N N | | 058 4 GHz |
| Swept SA KEYSIGHT Input: RF R T \longrightarrow Coupling: DC Align: Auto 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 2 | Avg Type: Log-Power Avg Hold: 500/500 Trig: Free Run 2.58 dB | M ₩ ₩ ₩ ₩ ₩ P N N N N N | | 058 4 GHz |
| Swept SA KEYSIGHT Input: RF R T I Spectrum V 1 Scale/Div 10 dB Log 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 2 | Avg Type: Log-Power Avg Hold: 500/500 Trig: Free Run 2.58 dB | M ₩ ₩ ₩ ₩ ₩ P N N N N N | | 058 4 GHz |
| Swept SA KEYSIGHT Input: RF Coupling: DC Align: Auto 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 2 | Avg Type: Log-Power Avg Hold: 500/500 Trig: Free Run 2.58 dB | M ₩ ₩ ₩ ₩ ₩ P N N N N N | | 058 4 GHz |
| Swept SA KEYSIGHT Input: RF R T I Spectrum V 1 Scale/Div 10 dB Log 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 2 | Avg Type: Log-Power Avg Hold: 500/500 Trig: Free Run 2.58 dB | M ₩ ₩ ₩ ₩ ₩ P N N N N N | | 058 4 GHz |
| Swept SA KEYSIGHT R T Align: Auto VV 1 Spectrum 1.00 0.00 -10.0 -20.0 | Input Z: 50 Ω Corr CCorr | | PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 2 | Avg Type: Log-Power Avg Hold: 500/500 Trig: Free Run 2.58 dB | M ₩ ₩ ₩ ₩ ₩ P N N N N N | | 058 4 GHz |
| Swept SA KEYSIGHT Input: RF R T Coupling. DC I Spectrum V Scale/Div 10 dB O Log O O 10.0 O O -20.0 O O -30.0 O O | Input Z: 50 Ω Corr CCorr | | PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 2 | Avg Type: Log-Power Avg Hold: 500/500 Trig: Free Run 2.58 dB | M ₩ ₩ ₩ ₩ ₩ P N N N N N | | 058 4 GHz |
| Swept SA KEYSIGHT R T Sector Main Coupling DC Align: Auto CVT 1 Spectrum Scale/Div 10 dB Log 10.0 .000 | Input Z: 50 Ω Corr CCorr | | PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 2 | Avg Type: Log-Power Avg Hold: 500/500 Trig: Free Run 2.58 dB | M ₩ ₩ ₩ ₩ ₩ P N N N N N | | 058 4 GHz |
| Swept SA KEYSIGHT Input: RF R T Coupling. DC I Spectrum V 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 2 | Avg Type: Log-Power Avg Hold: 500/500 Trig: Free Run 2.58 dB | M ₩ ₩ ₩ ₩ ₩ P N N N N N | | 058 4 GHz |
| Swept SA KEYSIGHT Input: RF R T Particular I Spectrum V Scale/Div 10 dB Out 10.0 Out Out -10.0 Out Out -30.0 Out Out Out -50.0 Out Out Out -70.0 Out Out Out Out Center 2.442000 GHz Out Out Out | Input Z: 50 Ω Corr CCorr | | PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 2 | Avg Type: Log-Power Avg Hold: 500/500 Trig: Free Run 2.58 dB 0 dBm 1 | M ₩ ₩ ₩ ₩ ₩ P N N N N N | Mkr1 2.442 | 058 4 GHz -2.49 dBm |
| Swept SA KEYSIGHT Input: RF R T Coupling. DC I Spectrum V Scale/Div 10 dB Log | Input 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-Power Avg Hold: 500/500 Trig: Free Run 2.58 dB 0 dBm 1 | M ₩ ₩ ₩ ₩ ₩ P N N N N N | Mkr1 2.442 | 058 4 GHz -2.49 dBm |
| Swept SA KEYSIGHT Input: RF R T Particular I Spectrum V Scale/Div 10 dB Out 10.0 Out Out -10.0 Out Out -30.0 Out Out Out -50.0 Out Out Out -70.0 Out Out Out Out Center 2.442000 GHz Out Out Out | Input 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-Power Avg Hold: 500/500 Trig: Free Run 2.58 dB 0 dBm 1 | M ₩ ₩ ₩ ₩ ₩ P N N N N N | Mkr1 2.442 | 058 4 GHz -2.49 dBm |







-6dB Bandwidth

| Condition | Mode | Frequency (MHz) | Antenna | -6 dB Bandwidth (MHz) | limit | Verdic |
|-----------|------|-----------------|---------|-----------------------|-------|--------|
| NVNT | BLE | 2402 | ANT14 | 0.662 | 0.5 | Pass |
| NVNT | BLE | 2442 | ANT14 | 0.661 | 0.5 | Pass |
| NVNT | BLE | 2480 | ANT14 | 0.661 | 0.5 | Pass |







| Spectr Occup | um Anal <u>i</u> ied BW | /zer 1 | | • | - | | | | | | | |
|-----------------|----------------------------|------------------------------------|--|------------------------------------|--------------|--------------------|--|---------------------------------------|----------------|---|--------------|------------------------------|
| KEYS R T | SIGHT | Input: RI Coupling Align: Au | g: DC | Input Z: 5 Corr CCo Freq Ref | orr | Atten: 30 dB | Trig: Free Run Gate: Off #IF Gain: Low | Center Fre Avg Hold: Radio Std: | | | | |
| 1 Grap | h | | v | | | | Ref Lvl Offset 2 | 2 60 dB | | M | kr3 2.48033 | 34000 GHz |
| | Div 10.0 | dB | | | | | Ref Value 22.60 | | | | | -9.16 dBm |
| Log 12.6 | | | | | Í | | | | | | | |
| 2.60 | | | | | | <u> </u> | | | 3 | | | |
| -7.40 | | | | | | | | | | | | |
| -17.4 | | | | | | | | | | | ~ | |
| -37.4 | | | the second s | | | | | | | | | |
| -47.4 -57.4 | | | | | | | | | | | | |
| -67.4 | | | | | | | | | | | | |
| | 2.4800 3W 100. | | | | • | | #Video BW 300 | .00 kHz | | • | Sweep 1.33 r | Span 2 MHz ns (10001 pts) |
| 2 Metri | cs | | v | | | | | | | | | |
| | | | | | | | | | | | | |
| | | Occi | upied Bar | ndwidth | | | | | | | | |
| | | | | 1.0533 | MHz | | | | Total Power | | 3.11 dBm | |
| | | | smit Freq | | | 3.246 kHz | | | % of OBW Power | r | 99.00 % | |
| | | x dB | Bandwid | th | | 660.6 kHz | | | x dB | | -6.00 dB | |
| | | | | | | | | | | | | |
| | 5 | |]? | Jul 16, 5:59:06 | 2024 5 AM | $\bullet 	riangle$ | | | | | | |



Occupied Channel Bandwidth

| Condition | Mode | Frequency (MHz) | Antenna | 99% OBW (MHz) |
|-----------|------|-----------------|---------|---------------|
| NVNT | BLE | 2402 | ANT14 | 1.022 |
| NVNT | BLE | 2442 | ANT14 | 1.022 |
| NVNT | BLE | 2480 | ANT14 | 1.021 |







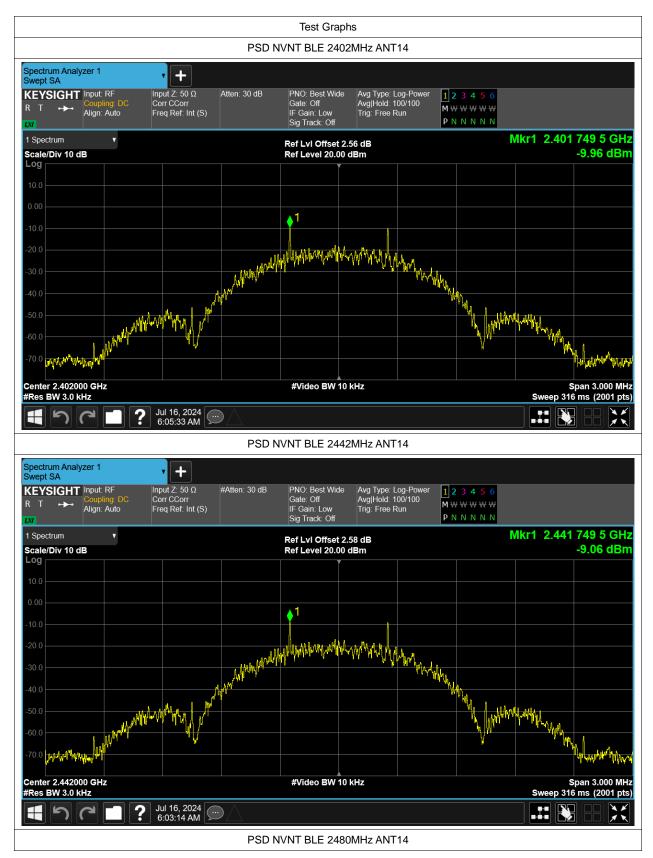
| Spectr Occup | um Analy ied BW | zer 1 | | • + | | | | | | | | | | |
|-----------------|--------------------|--------------------------------------|-------------|--|-------|----------|--|---------|----------------------------------|-----------|---------|-----|------------|--|
| KEYS R T | SIGHT | Input: RF Coupling: Align: Aut | DC | Input Ζ: 50 Ω Corr CCorr Freq Ref: Int (S) | Atter | n: 30 dB | Trig: Free Run Gate: Off #IF Gain: Low | Avg H | r Freq: 2 old: 100 Std: No | | 00 GH | Ηz | | |
| 1 Grap | | ٦ | 7 | | | | Ref LvI Offset | 2.60 dB | | | | | | |
| | 'Div 10.0 | dB | | | | | Ref Value 22.6 | 0 dBm | | | | | | |
| Log 12.6 | | | | | | | | | | | | | | |
| 2.60 | | | | | | | | | | | | | | |
| -7.40 | | | | | | | \sim | | | | | | | |
| -17.4 | | | | | + | | | | | ~~~~~ | <u></u> | | | |
| -27.4 | | | | | | | | | | | | | | |
| -37.4 -47.4 | | | | ~~~~~~ | | | | | | | | | | |
| -47.4 | | | <u></u> | | | | | | | | | | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |
| -67.4 | ~~~~ | | | | | | | | | | | | | - 00000 + 0 |
| Center | r 2.48000 | | | | | 1 | #Video BW 91. | | | | | | | Span 3 MHz |
| | 3W 30.00 | | | | | | #video Bvv 51. | | | | | | Sweep 3.33 | ms (10001 pts) |
| 2 Metri | | , | , | | | | | | | | | | | , , , |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | Occu | pied Band | | | | | | | | | | | |
| | | | | 1.0210 MHz | | | | | Т | otal Powe | er | | 3.98 dBm | |
| | | | smit Freq E | | |) kHz | | | | % of OBW | Pow | ver | 99.00 % | |
| | | x dB | Bandwidth | | 1.278 | MHz | | | х | dB | | | -26.00 dB | |
| | | | | | | | | | | | | | | |
| | 5 | |]? | Jul 16, 2024 5:58:52 AM | | 7 | | | | | | | | |



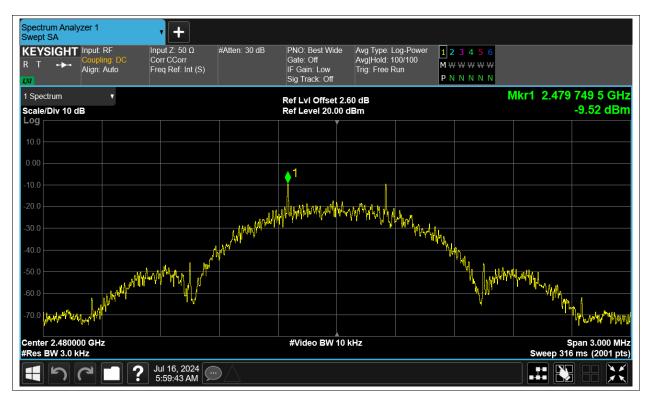
Maximum Power Spectral Density Level

| Condition | Mode | Frequency (MHz) | Antenna | Max PSD (dBm) | Limit (dBm) | Verdict |
|-----------|------|-----------------|---------|---------------|-------------|---------|
| NVNT | BLE | 2402 | ANT14 | -9.961 | 8 | Pass |
| NVNT | BLE | 2442 | ANT14 | -9.062 | 8 | Pass |
| NVNT | BLE | 2480 | ANT14 | -9.524 | 8 | Pass |











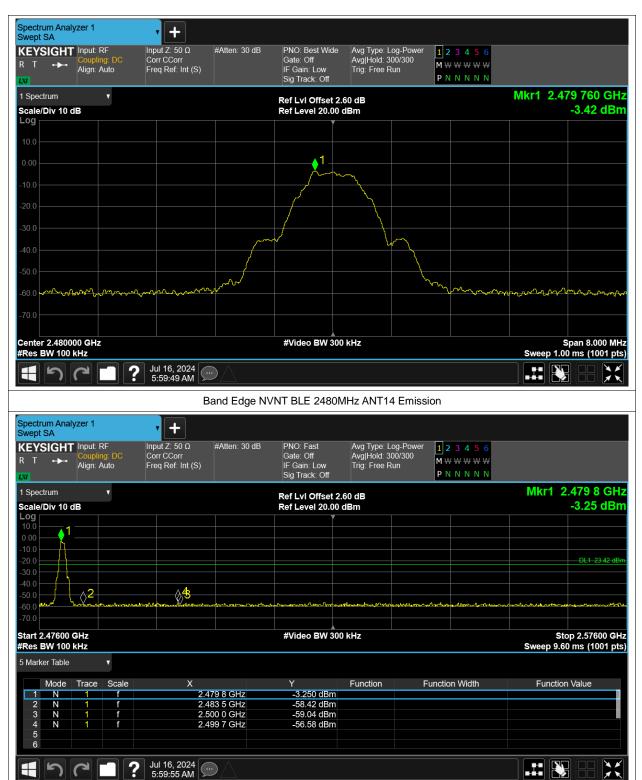
Band Edge

| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|------|-----------------|---------|-----------------|-------------|---------|
| NVNT | BLE | 2402 | ANT14 | -52.28 | -20 | Pass |
| NVNT | BLE | 2480 | ANT14 | -53.16 | -20 | Pass |



| | | | Test Grap | hs | | |
|---|---|------------------------------|--|---|---|--|
| | | Band Edge | NVNT BLE 24 | 02MHz ANT14 | 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-Pe Avg Hold: 300/30 Trig: Free Run | | |
| 1 Spectrum | | | Ref Lvl Offset 2 | 56 dB | | Mkr1 2.401 752 GHz |
| Scale/Div 10 dB Log | | | Ref Level 20.00 | | | -3.85 dBm |
| | | | Ĭ | | | |
| 10.0 | | | | | | |
| 0.00 | | | | ~ | | |
| -10.0 | | | - A | | | |
| -20.0 | | | | | | |
| -30.0 | | | | | | |
| -40.0 | | | | \sim | | |
| -50.0 | | | | | | |
| -60.0 Washard - 60.0 | r_{μ} | nom | | | month and the second | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |
| | | | | | | |
| -70.0 | | | | | | |
| Center 2.402000 GHz | | | #Video BW 30 | 0 kHz | | Span 8.000 MHz Sweep 1.00 ms (1001 pts) |
| #Res BW 100 kHz | Jul 16, 2024 | | | | | |
| 1 7 C 1 ? | Jul 16, 2024 6:05:40 AM | | | | | |
| | | | | | | |
| | В | and Edge N∖ | /NT BLE 24021 | MHz ANT14 Er | mission | |
| Spectrum Analyzer 1 | | and Edge N∖ | 'NT BLE 24021 | MHz ANT14 Er | nission | |
| Swept SA | B • + Input Z: 50 Ω | and Edge NV #Atten: 30 dB | NT BLE 24021 | MHz ANT14 Er Avg Type: Log-Pa | | |
| Spectrum Analyzer 1 Swept SA KEYSIGHT Input: RF Coupling: DC Align: Auto | • + | | | | ower 123456 M ₩ ₩ ₩ ₩ ₩ | |
| Swept SA KEYSIGHT Input: RF R T LM Coupling: DC Align: Auto | Input Ζ: 50 Ω Corr CCorr | | PNO: Fast Gate: Off | Avg Type: Log-Pe Avg Hold: 300/30 | ower 123456 | |
| Swept SA KEYSIGHT Input: RF Coupling: DC Align: Auto 1 Spectrum | Input Ζ: 50 Ω Corr CCorr | | PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 2 | Avg Type: Log-P Avg Hold: 300/30 Trig: Free Run .56 dB | ower 123456 M ₩ ₩ ₩ ₩ ₩ | Mkr1 2.401 8 GHz -3.81 dBm |
| Swept SA KEYSIGHT Input: RF Coupling: DC Align: Auto VV 1 Spectrum Scale/Div 10 dB Log | Input Ζ: 50 Ω Corr CCorr | | PNO: Fast Gate: Off IF Gain: Low Sig Track: Off | Avg Type: Log-P Avg Hold: 300/30 Trig: Free Run .56 dB | ower 123456 M ₩ ₩ ₩ ₩ ₩ | Mkr1 2.401 8 GHz -3.81 dBm |
| Swept SA KEYSIGHT Input: RF R T 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 LvI Offset 2 | Avg Type: Log-P Avg Hold: 300/30 Trig: Free Run .56 dB | ower 123456 M ₩ ₩ ₩ ₩ ₩ | |
| Swept SA KEYSIGHT Input: RF Coupling: DC Align: Auto VV 1 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 LvI Offset 2 | Avg Type: Log-P Avg Hold: 300/30 Trig: Free Run .56 dB | ower 123456 M ₩ ₩ ₩ ₩ ₩ | |
| Swept SA Input RF R T Coupling: DC Align: Auto Align: Auto I Spectrum V Scale/Div 10 dB 000 10.0 000 30.0 000 | Input Ζ: 50 Ω Corr CCorr | | PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 2 | Avg Type: Log-P Avg Hold: 300/30 Trig: Free Run .56 dB | ower 123456 M ₩ ₩ ₩ ₩ ₩ | -3.81 dBm |
| Swept SA KEYSIGHT Input: RF R T Coupling: DC Align: Auto Align: Auto V/r V 1 Spectrum V Scale/Div 10 dB Log 10.0 | Input Ζ: 50 Ω Corr CCorr | | PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 2 | Avg Type: Log-P Avg Hold: 300/30 Trig: Free Run .56 dB | ower 123456 M ₩ ₩ ₩ ₩ ₩ | |
| Swept SA Input: RF R T Coupling: DC Align: Auto 1 Spectrum V Scale/Div 10 dB Log 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 2 | Avg Type: Log-P Avg Hold: 300/30 Trig: Free Run .56 dB | ower 123456 M ₩ ₩ ₩ ₩ ₩ | -3.81 dBm |
| Swept SA KEYSIGHT Input: RF R T Coupling: DC Align: Auto Align: Auto V/ V 1 Spectrum V Scale/Div 10 dB Coupling: DC Log 0 10.0 0 20.0 0 30.0 0 -0.0 | Input Z: 50 Ω Corr CCorr Freq Ref: Int (S) | | PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 2 | Avg Type: Log-Pr Avg Hold: 300/30 Trig: Free Run .56 dB dBm | ower 123456 M ₩ ₩ ₩ ₩ ₩ | -3.81 dBm |
| Swept SA Input: RF R T Coupling: DC Align: Auto 1 Spectrum V Scale/Div 10 dB 0 Log 0 10.0 0 0.00 0 20.0 0 30.0 0 40.0 0 50.0 < | Input Z: 50 Ω Corr CCorr Freq Ref: Int (S) | | PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref Level 20.00 | Avg Type: Log-Pr Avg Hold: 300/30 Trig: Free Run .56 dB dBm | ower 123456 M ₩ ₩ ₩ ₩ ₩ | -3.81 dBm |
| Swept SA KEYSIGHT R T Sectrum Scale/Div 10 dB Construction Complexed by 10 dB Complexed by 10 dB Comp | Input Z: 50 Ω Corr CCorr Freq Ref: Int (S) | | PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 2 Ref Level 20.00 | Avg Type: Log-Pr Avg Hold: 300/30 Trig: Free Run .56 dB dBm | ower 1 2 3 4 5 6 M W W W W P N N N N N | -3.81 dBm |
| Swept SA KEYSIGHT Input: RF R T Coupling: DC I Spectrum V Scale/Div 10 dB Out Log Out Out 100 Out Out 200 Out Out 300 Out Out Out 40.0 Out Out Out 500 Out Out Out Out 500 Out Out Out Out 500 Out Out Out Out Start 2.30600 CHz Start 2.30600 CHz 5 Marker Table V 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 2 Ref Level 20.00 # #Video BW 30 ¥ Video BW 30 | Avg Type: Log-Pr Avg Hold: 300/30 Trig: Free Run .56 dB dBm | ower 123456 M ₩ ₩ ₩ ₩ ₩ | -3.81 dBm |
| Swept SA KEYSIGHT Input: RF R T Coupling: DC I Spectrum V Scale/Div 10 dB Out Log I I 0.00 I I 0.00 I I 0.00 I I Scale/Div 10 dB I I 0.00 I I I 0.00 I I I I 0.00 I I I I 20.0 I I I I 0.00 I I I I 0.00 I I I I Start 2.30600 GHz Mode Trace Scale 1 N 1 I I | 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 2 Ref Level 20.00 #Video BW 30 #Video BW 30 | Avg Type: Log-Pr Avg Hold: 300/30 Trig: Free Run .56 dB dBm | ower 1 2 3 4 5 6 M W W W W P N N N N N | -3.81 dBm |
| Swept SA KEYSIGHT Input: RF R T Coupling: DC I Spectrum V Scale/Div 10 dB Log 10.0 20.0 30.0 40.0 50.0 60.0 Start 2.30600 GHz #Res BW 100 kHz 5 Marker Table Mode Trace Scale 1 f 3 1 4 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 2 Ref Level 20.00 #Video BW 30 #Video BW 30 | Avg Type: Log-Pr Avg Hold: 300/30 Trig: Free Run .56 dB dBm | ower 1 2 3 4 5 6 M W W W W P N N N N N | -3.81 dBm |
| Swept SA KEYSIGHT Input: RF R T Coupling: DC I Spectrum V Scale/Div 10 dB Log I 100 I 200 I 30.0 I 40.0 I 500 I Start 2.30600 GHz Res BW 100 kHz 5 Marker Table V Mode Trace Scale 1 4 1 5 6 | 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 2 Ref Level 20.00 #Video BW 30 #Video BW 30 | Avg Type: Log-Pr Avg Hold: 300/30 Trig: Free Run .56 dB dBm | ower 1 2 3 4 5 6 M W W W W P N N N N N | -3.81 dBm |
| Swept SA KEYSIGHT Input: RF R T Coupling: DC I Spectrum V Scale/Div 10 dB Log 10.0 20.0 30.0 40.0 50.0 60.0 Start 2.30600 GHz #Res BW 100 kHz 5 Marker Table Mode Trace Scale 1 f 3 1 4 1 | Input Z: 50 Q Corr CCorr Freq Ref: Int (S) | #Atten: 30 dB | PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 2 Ref Level 20.00 #Video BW 30 #Video BW 30 | Avg Type: Log-Pr Avg Hold: 300/30 Trig: Free Run .56 dB dBm | ower 1 2 3 4 5 6 M W W W W P N N N N N | -3.81 dBm |







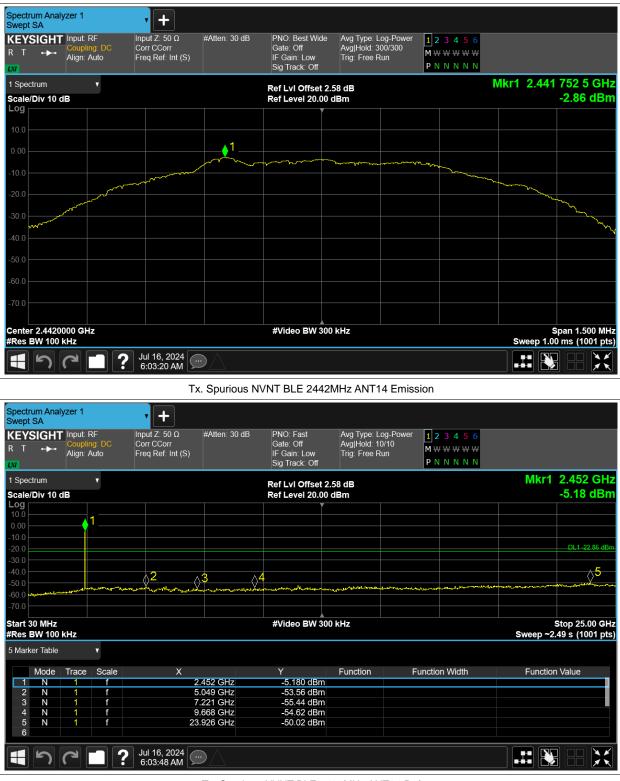
Conducted RF Spurious Emission

| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|------|-----------------|---------|-----------------|-------------|---------|
| NVNT | BLE | 2402 | ANT14 | -45.73 | -20 | Pass |
| NVNT | BLE | 2442 | ANT14 | -47.16 | -20 | Pass |
| NVNT | BLE | 2480 | ANT14 | -45.62 | -20 | Pass |



| | | | Test Graph | IS | | | |
|---|---|--------------------------------|--|---|---|-----------------------------|----------------------------|
| | | Tx. Spurious | NVNT BLE 24 | 02MHz ANT14 Re | f | | |
| 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₩₩₩₩₩₩ P N N N N N N | | |
| 1 Spectrum | | | Ref LvI Offset 2. | | | Mkr1 2.401 | 761 5 GHz -3.89 dBm |
| Scale/Div 10 dB Log | | | Ref Level 20.00 o | aBm | | | -3.69 UDIII |
| 10.0 | | | | | | | |
| 0.00 | | 11 | | | | | |
| -10.0 | | | | and the second | | ~ | |
| -20.0 | ~~~~~ | | | | | and the second | \ |
| -30.0 | | | | | | | John Mark |
| -40.0 | | | | | | | <u>ገ</u> ሌሳ |
| -50.0 | | | | | | | |
| -60.0 | | | | | | | |
| -70.0 | | | | | | | |
| Center 2.4020000 GHz | | | #Video BW 300 | kHz | | SI | oan 1.500 MHz |
| #Res BW 100 kHz | | ~ ^ | | | | Sweep 1.00 | ms (1001 pts) |
| | Jul 16, 2024 6:05:52 AM | | | | | | |
| | | | | | | | |
| | T> | . Spurious N | VNT BLE 2402 | MHz ANT14 Emiss | sion | | |
| Spectrum Analyzer 1 Swept SA | T> | k. Spurious N | VNT BLE 24021 | MHz ANT14 Emiss | sion | | |
| Swept SA KEYSIGHT Input: RF Coupling: DC | Γ | K. Spurious N #Atten: 30 dB | PNO: Fast | Avg Type: Log-Power | 1 2 3 4 5 6 | | |
| Swept SA | • + | | | | | | |
| Sivept 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 2.3 | Avg Type: Log-Power Avg]Hold: 10/10 Trig: Free Run 56 dB | 1 2 3 4 5 6 M ₩ ₩ ₩ ₩ ₩ | | 2.402 GHz |
| Swept SA KEYSIGHT Input: RF Coupling: DC Align: Auto I Spectrum v 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: 10/10 Trig: Free Run 56 dB | 1 2 3 4 5 6 M ₩ ₩ ₩ ₩ ₩ | | 2.402 GHz -6.03 dBm |
| Swept SA KEYSIGHT Input: RF R T Align: Auto 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 LvI Offset 2.3 | Avg Type: Log-Power Avg]Hold: 10/10 Trig: Free Run 56 dB | 1 2 3 4 5 6 M ₩ ₩ ₩ ₩ ₩ | | |
| Swept SA KEYSIGHT Input: RF R T Imput: RF Align: Auto Align: Auto Scale/Div 10 dB Imput: RF Log Imput: RF Imput: RF 1 Spectrum Imput: RF Imput: RF Imput: RF Imput: RF Imput: RF Log Imput: RF Imput: RF 10.0 Imput: RF Imput: RF 20.0 Imput: RF Imput: RF | Input Z: 50 Ω Corr CCorr | | PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 2.3 | Avg Type: Log-Power Avg]Hold: 10/10 Trig: Free Run 56 dB | 1 2 3 4 5 6 M ₩ ₩ ₩ ₩ ₩ | | |
| Sivept SA KEYSIGHT Input: RF R T ISpectrum Scale/Div 10 dB Log 10.0 0.00 -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 2.: Ref Level 20.00 o | Avg Type: Log-Power Avg]Hold: 10/10 Trig: Free Run 56 dB | 1 2 3 4 5 6 M ₩ ₩ ₩ ₩ ₩ | | -6.03 dBm DL1-23.89 dBm |
| Swept SA KEYSIGHT Input: RF R T → Coupling: DC Align: Auto v Scale/Div 10 dB v Scale/Div 10 dB 1 1 1 10.0 1 1 1 -10.0 -20.0 -4 1 | Input Z: 50 Ω Corr CCorr Freq Ref: Int (S) | | PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Ref LvI Offset 2.: Ref Level 20.00 o | Avg Type: Log-Power Avg]Hold: 10/10 Trig: Free Run 56 dB | 1 2 3 4 5 6 M ₩ ₩ ₩ ₩ ₩ | | -6.03 dBm |
| Sivept SA KEYSIGHT Input: RF R T Coupling: DC Align: Auto I Spectrum V Scale/Div 10 dB 0 0 10.0 1 1 -20.0 -30.0 -40.0 -40.0 -50.0 | 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 2.: Ref Level 20.00 (| Avg Type: Log-Power Avg Hold: 10/10 Trig: Free Run 56 dB JBm | 1 2 3 4 5 6 M ₩ ₩ ₩ ₩ ₩ | | -6.03 dBm |
| Swept SA KEYSIGHT Input: RF R T Coupling: DC Align: Auto I Spectrum V Scale/Div 10 dB 0 1 100 1 1 100 1 1 200 1 1 30.0 1 1 -30.0 -40.0 -40.0 -40.0 -60.0 reconstruction of the standard of t | 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 2.: Ref Level 20.00 o | Avg Type: Log-Power Avg Hold: 10/10 Trig: Free Run 56 dB JBm | 1 2 3 4 5 6 M ₩ ₩ ₩ ₩ ₩ | | -6.03 dBm DL1-23.89 dBm |
| Sivept SA KEYSIGHT Input: RF R T Coupling: DC Align: Auto I Spectrum V Scale/Div 10 dB 0 0 10.0 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 2.: Ref Level 20.00 (| Avg Type: Log-Power Avg Hold: 10/10 Trig: Free Run 56 dB JBm | 1 2 3 4 5 6 M ₩ ₩ ₩ ₩ ₩ | | -6.03 dBm |
| Swept SA KEYSIGHT Input: RF R T Coupling: DC Align: Auto I Spectrum v Scale/Div 10 dB 0 Log 1 100 1 | L 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 2.: Ref Level 20.00 (#Video BW 300 #Video BW 300 | Avg Type: Log-Power Avg Hold: 10/10 Trig: Free Run 56 dB 18m | 1 2 3 4 5 6 M ₩ ₩ ₩ ₩ ₩ | | -6.03 dBm |
| Swept SA KEYSIGHT Input: RF R T Coupling: DC Align: Auto V Scale/Div 10 dB V Log 1 1 100 1 1 -20.0 1 1 -30.0 1 1 -50.0 | 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 2.: Ref Level 20.00 d #Video BW 300 Y -6.034 dBm -52.63 dBm -55.52 dBm | Avg Type: Log-Power Avg Hold: 10/10 Trig: Free Run 56 dB 18m | 1 2 3 4 5 6 M W W W W W P N N N N N | S Sweep ~2.4 | -6.03 dBm |
| Swept SA KEYSIGHT Input: RF R T Coupling: DC Align: Auto I Spectrum v Scale/Div 10 dB 0 Log 1 1 100 1 1 200 1 1 30.0 1 1 40.0 50.0 1 1 Start 30 MHz #Res BW 100 kHz 5 1 f Mode Trace Scale 1 1 1 4 N 1 f 3 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 2.: Ref Level 20.00 of #Video BW 300 #Video BW 300 | Avg Type: Log-Power Avg Hold: 10/10 Trig: Free Run 56 dB 18m | 1 2 3 4 5 6 M W W W W W P N N N N N | S Sweep ~2.4 | -6.03 dBm |
| Swept SA KEYSIGHT Input: RF R T Coupling: DC Align: Auto V Scale/Div 10 dB V Log 1 100 1 -20.0 1 -30.0 1 -50.0 | 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 2.: Ref Level 20.00 0 #Video BW 300 #Video BW 300 Y -6.034 dBm -55.52 dBm -55.52 dBm | Avg Type: Log-Power Avg Hold: 10/10 Trig: Free Run 56 dB 18m | 1 2 3 4 5 6 M W W W W W P N N N N N | S Sweep ~2.4 Function | -6.03 dBm |
| Swept SA KEYSIGHT Input: RF R T Coupling: DC Align: Auto I Spectrum v Scale/Div 10 dB 0 Log 1 1 100 1 1 200 1 1 30.0 1 1 40.0 50.0 1 1 Start 30 MHz #Res BW 100 kHz 5 1 f Mode Trace Scale 1 1 1 4 N 1 f 3 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 2.: Ref Level 20.00 0 #Video BW 300 #Video BW 300 Y -6.034 dBm -55.52 dBm -55.52 dBm | Avg Type: Log-Power Avg Hold: 10/10 Trig: Free Run 56 dB 18m | 1 2 3 4 5 6 M W W W W W P N N N N N | S Sweep ~2.4 | -6.03 dBm |





Tx. Spurious NVNT BLE 2480MHz ANT14 Ref



