Test Data

Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE	2402	Ant1	0.781	30	Pass
NVNT	BLE	2442	Ant1	0.622	30	Pass
NVNT	BLE	2480	Ant1	0.44	30	Pass

Test Graphs

Power NVNT BLE 2402MHz Ant1

Power NVNT BLE 2442MHz Ant1

Power NVNT BLE 2480MHz Ant1

Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
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 Spectrum
Scale/Div 10 dB
Log
Ref Lvl Offset 2.60 dB
Ref Level 20.00 dBm
Mkr1 2.479 945 6 GHz
0.44 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.480000 GHz
#Res BW 2.0 MHz
#Video BW 6.0 MHz
Span 8.000 MHz
Sweep 1.33 ms (10001 pts)
Jun 21, 2024
3:59:45 AM

-6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	limit	Verdic
NVNT	BLE	2402	Ant1	0.655	0.5	Pass
NVNT	BLE	2442	Ant1	0.654	0.5	Pass
NVNT	BLE	2480	Ant1	0.653	0.5	Pass

Test Graphs

-6dB Bandwidth NVNT BLE 2402MHz Ant1

-6dB Bandwidth NVNT BLE 2442MHz Ant1

-6dB Bandwidth NVNT BLE 2480MHz Ant1

Spectrum Analyzer 1
Occupied BW
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
Atten: 30 dB
Trig: Free Run
Gate: Off
#IF Gain: Low
Center Freq: 2.480000000 GHz
Avg|Hold: 1000/1000
Radio Std: None
1 Graph
Scale/Div 10.0 dB
Log
12.6
2.60
-7.40
-17.4
-27.4
-37.4
-47.4
-57.4
-67.4
Ref Lvl Offset 2.60 dB
Ref Value 22.60 dBm
Mkr3 2.480308000 GHz
-5.39 dBm
Center 2.480000 GHz
#Res BW 100.00 kHz
#Video BW 300.00 kHz
Span 2 MHz
Sweep 1.33 ms (10001 pts)
2 Metrics
Occupied Bandwidth
1.0382 MHz
Transmit Freq Error -18.796 kHz
x dB Bandwidth 653.2 kHz
Total Power 6.90 dBm
% of OBW Power 99.00 %
x dB -6.00 dB
Jun 21, 2024
4:00:16 AM

Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE	2402	Ant1	1.013
NVNT	BLE	2442	Ant1	1.013
NVNT	BLE	2480	Ant1	1.012

Test Graphs

OBW NVNT BLE 2402MHz Ant1

OBW NVNT BLE 2442MHz Ant1

OBW NVNT BLE 2480MHz Ant1

Spectrum Analyzer 1
Occupied BW
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 50 Ω
Corr CCorr
Freq Ref: Int (S)
Atten: 30 dB
Trig: Free Run
Gate: Off
#IF Gain: Low
Center Freq: 2.480000000 GHz
Avg|Hold: 1000/1000
Radio Std: None
1 Graph
Ref Lvl Offset 2.60 dB
Ref Value 22.60 dBm
Scale/Div 10.0 dB
Log
12.6
2.60
-7.40
-17.4
-27.4
-37.4
-47.4
-57.4
-67.4
Center 2.480000 GHz
#Res BW 30.000 kHz
#Video BW 91.000 kHz
Span 3 MHz
Sweep 3.33 ms (10001 pts)
2 Metrics
Occupied Bandwidth
1.0125 MHz
Transmit Freq Error -20.146 kHz
x dB Bandwidth 1.273 MHz
Total Power 7.99 dBm
% of OBW Power 99.00 %
x dB -26.00 dB
Jun 21, 2024
4:00:00 AM

Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	BLE	2402	Ant1	-5.371	8	Pass
NVNT	BLE	2442	Ant1	-5.524	8	Pass
NVNT	BLE	2480	Ant1	-5.753	8	Pass

Test Graphs

PSD NVNT BLE 2402MHz Ant1

PSD NVNT BLE 2442MHz Ant1

PSD NVNT BLE 2480MHz Ant1

Spectrum Analyzer 1
Swept SA
KEYSIGHT
Input: RF
Coupling: DC
Align: Auto
Input Z: 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: 100/100
Trig: Free Run
1 Spectrum
Scale/Div 10 dB
Log
Ref Lvl Offset 2.60 dB
Ref Level 20.00 dBm
Mkr1 2.479 728 5 GHz
-5.75 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.480000 GHz
#Res BW 3.0 kHz
#Video BW 10 kHz
Span 3.000 MHz
Sweep 316 ms (2001 pts)
Jun 21, 2024
4:00:54 AM

Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE	2402	Ant1	-56.87	-20	Pass
NVNT	BLE	2480	Ant1	-54.82	-20	Pass

Test Graphs

Band Edge NVNT BLE 2402MHz Ant1 Ref

Band Edge NVNT BLE 2402MHz Ant1 Emission

Band Edge NVNT BLE 2480MHz Ant1 Ref

Band Edge NVNT BLE 2480MHz Ant1 Emission

Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE	2402	Ant1	-36.08	-20	Pass
NVNT	BLE	2442	Ant1	-35.93	-20	Pass
NVNT	BLE	2480	Ant1	-38.07	-20	Pass

Test Graphs

Tx. Spurious NVNT BLE 2402MHz Ant1 Ref

Tx. Spurious NVNT BLE 2402MHz Ant1 Emission

Tx. Spurious NVNT BLE 2442MHz Ant1 Ref

Tx. Spurious NVNT BLE 2442MHz Ant1 Emission

Tx. Spurious NVNT BLE 2480MHz Ant1 Ref

Tx. Spurious NVNT BLE 2480MHz Ant1 Emission