



427 West 12800 South
Draper, UT 84020

Test Report Attachment

FCC ID	SWX-USB
ISED ID	6545A-USB
Equipment Under Test	USB
Test Report Serial Number	TR9363_01
Date of Test	14 August 2024
Report Issue Date	12 September 2024

Test Personnel

Testing performed by	Evan Hartzell
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Test Location

Testing was performed at the Unified Compliance Laboratory located at 427 West 12800 South, Draper, UT 84020. Unified Compliance Laboratory is accredited by National Voluntary Laboratory Accreditation Program (NVLAP); NVLAP Code 600241-0 which is effective until 30 June 2025. This site has also been registered with Innovations, Science and Economic Development (ISED) department as was accepted under Appendix B, Phase 1 procedures of the APEC Tel MRA for Canadian recognition. ISED No.: 25346, effective until 30 June 2025. Unified Compliance Laboratory has been assigned Conformity Assessment Number US0223 by ISED and MRA US5037.



1 WiFi Band – External Antenna

1.1 Summary

Test	Frequency (MHz)	Nominal Power (dBm)	Nominal Bandwidth (MHz)	Result
RF output power	2412.000	24.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	2412.000	24.0	20.000000	PASS
Power Spectral Density	2412.000	24.0	20.000000	PASS
Occupied Channel Bandwidth 99%	2412.000	24.0	20.000000	PASS
Tx Spurious Emission	2412.000	24.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	2437.000	24.0	20.000000	PASS
Power Spectral Density	2437.000	24.0	20.000000	PASS
Occupied Channel Bandwidth 99%	2437.000	24.0	20.000000	PASS
Tx Spurious Emission	2437.000	24.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	2462.000	24.0	20.000000	PASS
Power Spectral Density	2462.000	24.0	20.000000	PASS
Occupied Channel Bandwidth 99%	2462.000	24.0	20.000000	PASS
Tx Spurious Emission	2462.000	24.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	2422.000	24.0	40.000000	PASS
Power Spectral Density	2422.000	24.0	40.000000	PASS
Occupied Channel Bandwidth 99%	2422.000	24.0	40.000000	PASS
Tx Spurious Emission	2422.000	24.0	40.000000	PASS
Minimum Emission Bandwidth 6 dB	2437.000	24.0	40.000000	PASS
Power Spectral Density	2437.000	24.0	40.000000	PASS
Occupied Channel Bandwidth 99%	2437.000	24.0	40.000000	PASS
Tx Spurious Emission	2437.000	24.0	40.000000	PASS
Minimum Emission Bandwidth 6 dB	2452.000	24.0	40.000000	PASS
Power Spectral Density	2452.000	24.0	40.000000	PASS
Occupied Channel Bandwidth 99%	2452.000	24.0	40.000000	PASS
Tx Spurious Emission	2452.000	24.0	40.000000	PASS

RF output power (2412 MHz; 24.000 dBm; 20 MHz)

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
2412.000000	16.6	30.0	16.6	95.788	PASS

OSP PowerMeter settings

Setting	Instrument Value	Target Value
Measurement Time	1.000 s	1.000 s
Points	1000000	1000000
Time resolution	1.000 μ s	1.000 μ s

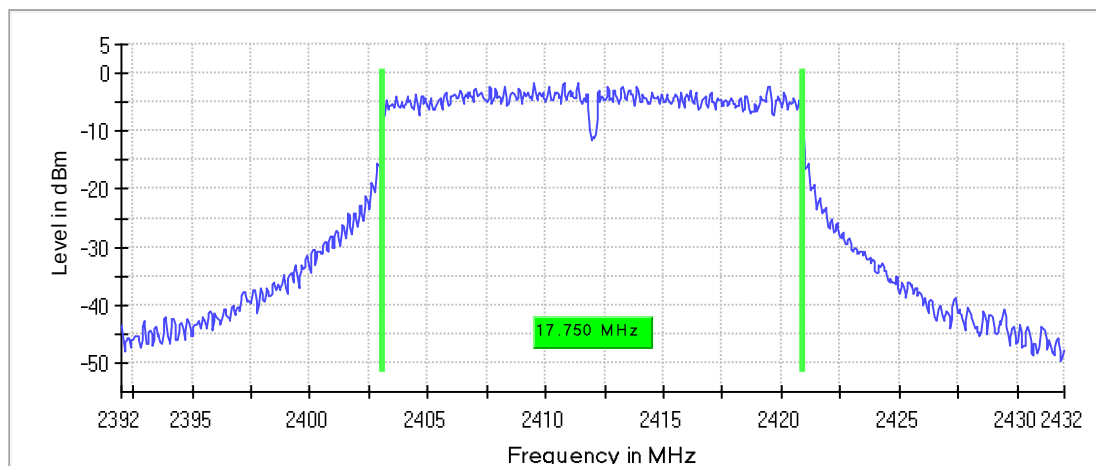
Minimum Emission Bandwidth 6 dB (2412 MHz; 24.000 dBm; 20 MHz)

6 dB Bandwidth

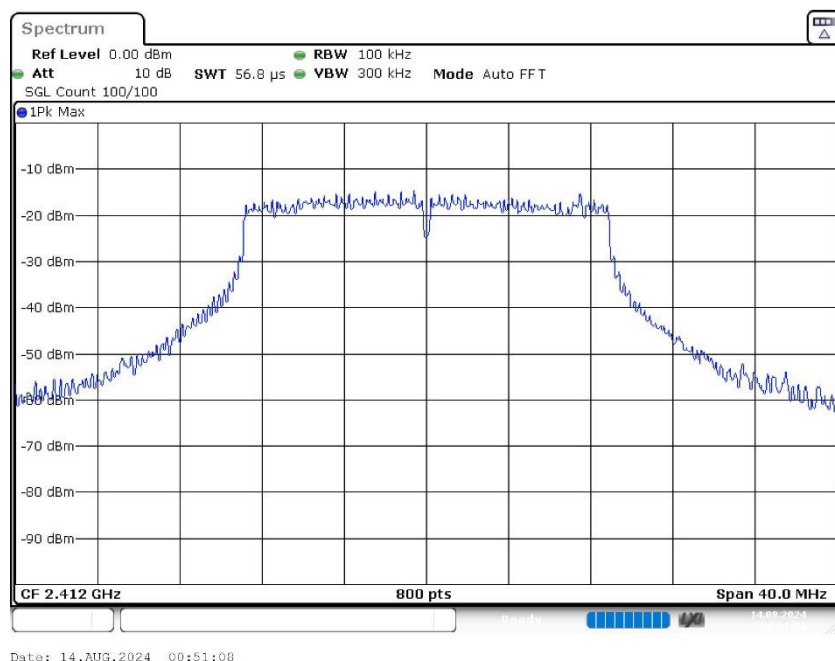
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2412.000000	17.750000	0.500000	---	2403.125000	2420.875000

DUT Frequency (MHz)	Max Level (dBm)	Result
2412.000000	-1.5	PASS

6 dB Bandwidth



Bandwidth



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.39200 GHz	2.39200 GHz
Stop Frequency	2.43200 GHz	2.43200 GHz
Span	40.000 MHz	40.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	800	~ 800
SweepTime	56.836 μ s	AUTO
Reference Level	0.000 dBm	AUTO
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

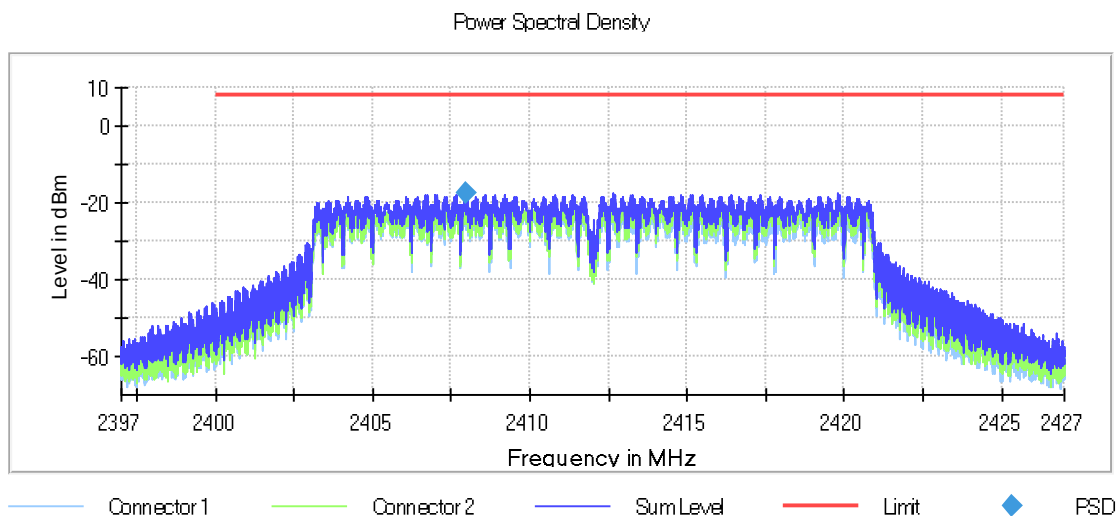
Power Spectral Density (2412 MHz; 24.000 dBm; 20 MHz)

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2412.000000	2407.955250	-17.661	8.0	PASS

Ports

Port	State
1	used
2	used



Measurement

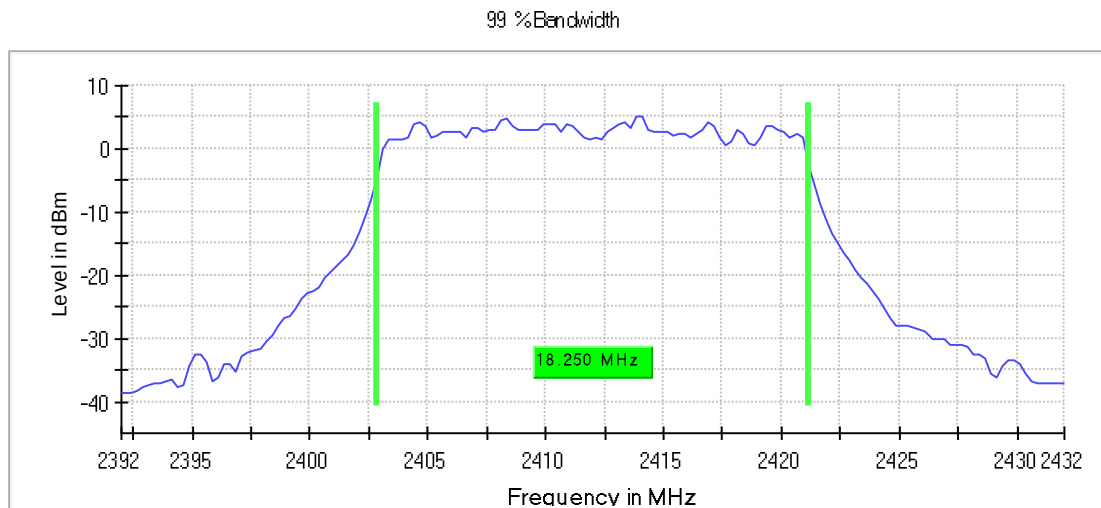
Setting	Instrument Value	Target Value
Start Frequency	2.39700 GHz	2.39700 GHz
Stop Frequency	2.42700 GHz	2.42700 GHz
Span	30.000 MHz	30.000 MHz
RBW	3.000 kHz	<= 3.000 kHz
VBW	10.000 kHz	>= 9.000 kHz
SweepPoints	20000	~ 20000
SweepTime	4.424 ms	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	RMS	RMS
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Average Power	Average Power
SweepType	FFT	AUTO
Preamp	off	off

Occupied Channel Bandwidth 99% (2412 MHz; 24.000 dBm; 20 MHz)

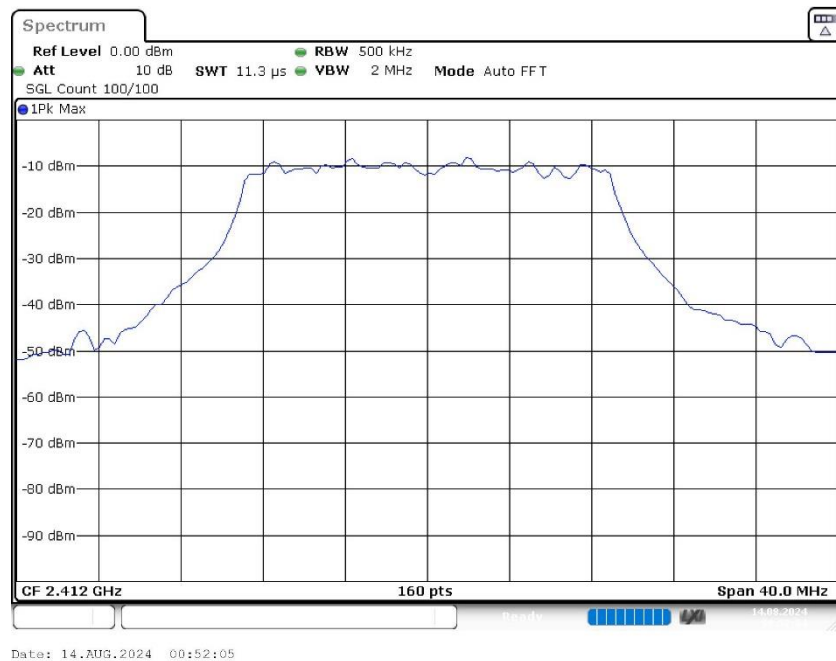
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2412.000000	18.250000	---	---	2402.875000	2421.125000

DUT Frequency (MHz)	Result
2412.000000	PASS



Bandwidth



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.39200 GHz	2.39200 GHz
Stop Frequency	2.43200 GHz	2.43200 GHz
Span	40.000 MHz	40.000 MHz
RBW	500.000 kHz	≥ 500.000 kHz
VBW	2.000 MHz	≥ 1.500 MHz
SweepPoints	160	~ 160
Sweptime	11.344 μ s	AUTO
Reference Level	0.000 dBm	AUTO

Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

Tx Spurious Emission (2412 MHz; 24.000 dBm; 20 MHz)

Result

DUT Frequency (MHz)	Result
2412.000000	PASS

Final measurements

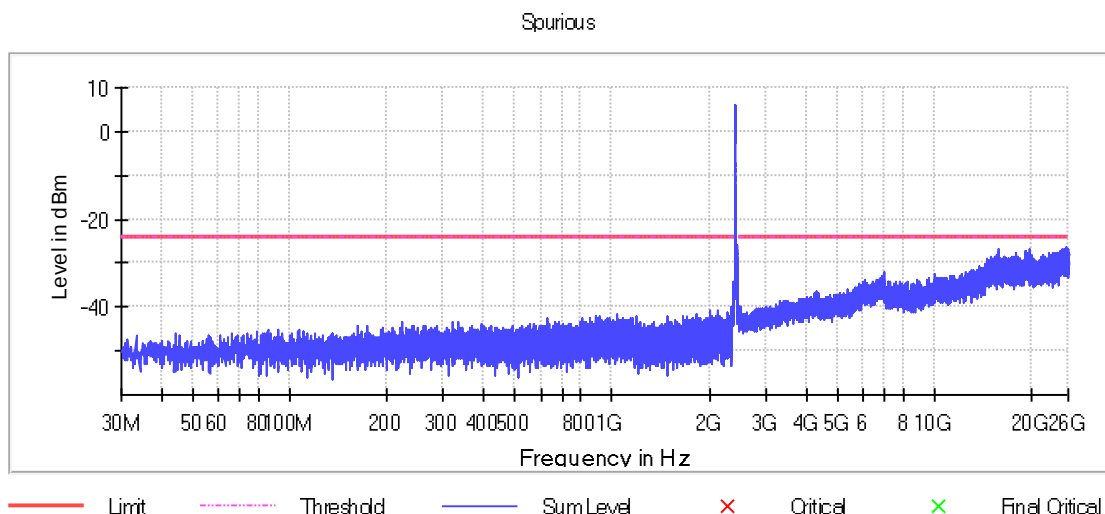
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
2399.925000	-25.8	1.8	-23.9
2399.875000	-25.8	1.9	-23.9
2399.425000	-26.2	2.3	-23.9
2399.475000	-26.2	2.3	-23.9
25649.835560	-26.4	2.5	-23.9
2399.975000	-26.5	2.5	-23.9
2399.375000	-26.5	2.6	-23.9
25611.622441	-26.5	2.6	-23.9
2399.175000	-26.6	2.6	-23.9
2399.225000	-26.6	2.7	-23.9
25316.205642	-26.6	2.7	-23.9
19800.288983	-26.7	2.7	-23.9
2399.825000	-26.7	2.8	-23.9
2399.625000	-26.8	2.8	-23.9
25101.624285	-26.8	2.9	-23.9

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	2350.000000	1	1
2350.000000	2483.500000	2	1
2483.500000	26000.000000	1	1



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	32001	~ 46400
SweepTime	32.100 ms	AUTO
Reference Level	20.000 dBm	20.000 dBm
Attenuation	40.000 dB	40.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	3	3
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off

Pre Measurement 2

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	2670	~ 2670
SweepTime	151.563 μ s	AUTO
Reference Level	20.000 dBm	20.000 dBm
Attenuation	40.000 dB	40.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	300	300
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

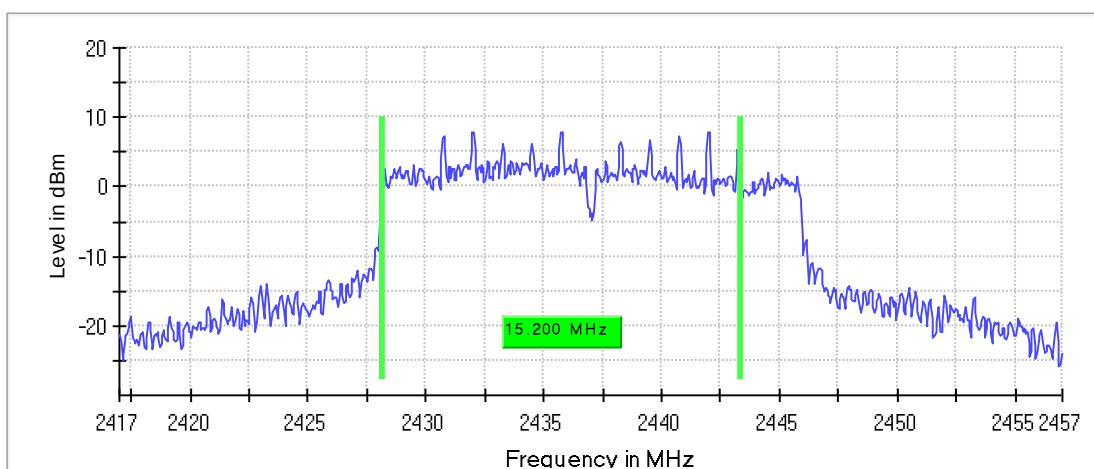
Minimum Emission Bandwidth 6 dB (2437 MHz; 24.000 dBm; 20 MHz)

6 dB Bandwidth

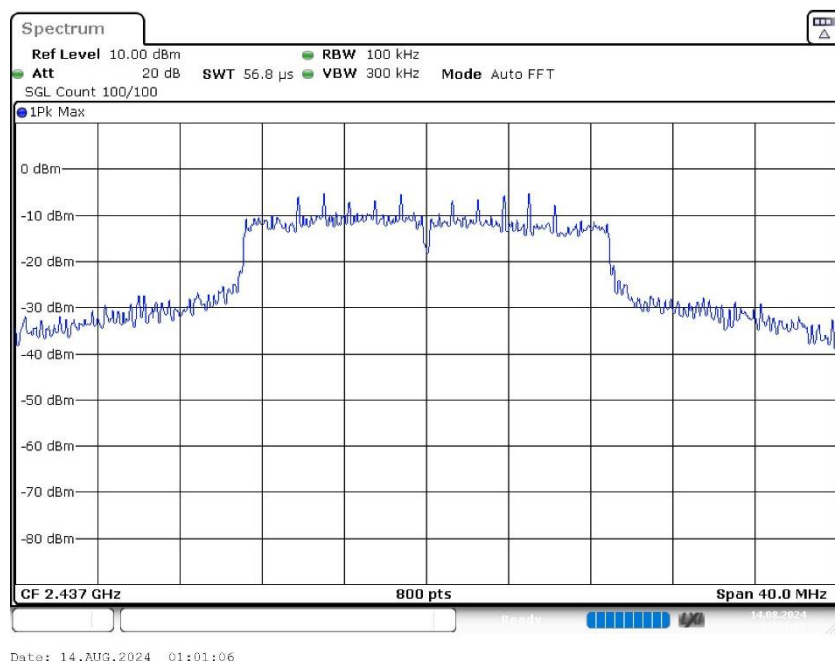
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2437.000000	15.200000	0.500000	---	2428.175000	2443.375000

DUT Frequency (MHz)	Max Level (dBm)	Result
2437.000000	8.0	PASS

6 dB Bandwidth



Bandwidth



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.41700 GHz	2.41700 GHz
Stop Frequency	2.45700 GHz	2.45700 GHz
Span	40.000 MHz	40.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	800	~ 800
SweepTime	56.836 μ s	AUTO
Reference Level	10.000 dBm	AUTO
Attenuation	20.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

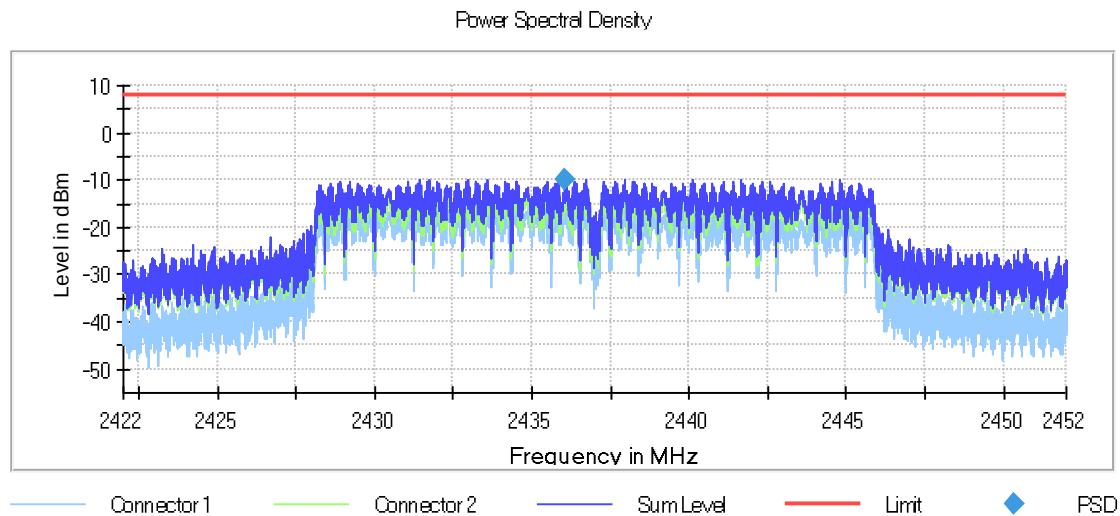
Power Spectral Density (2437 MHz; 24.000 dBm; 20 MHz)

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2437.000000	2436.058750	-9.710	8.0	PASS

Ports

Port	State
1	used
2	used

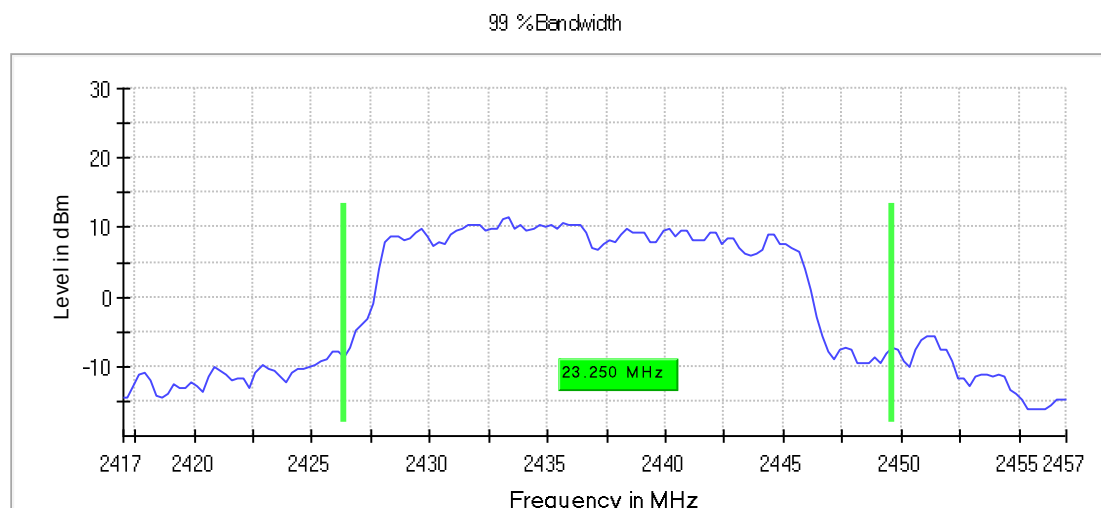


Occupied Channel Bandwidth 99% (2437 MHz; 24.000 dBm; 20 MHz)

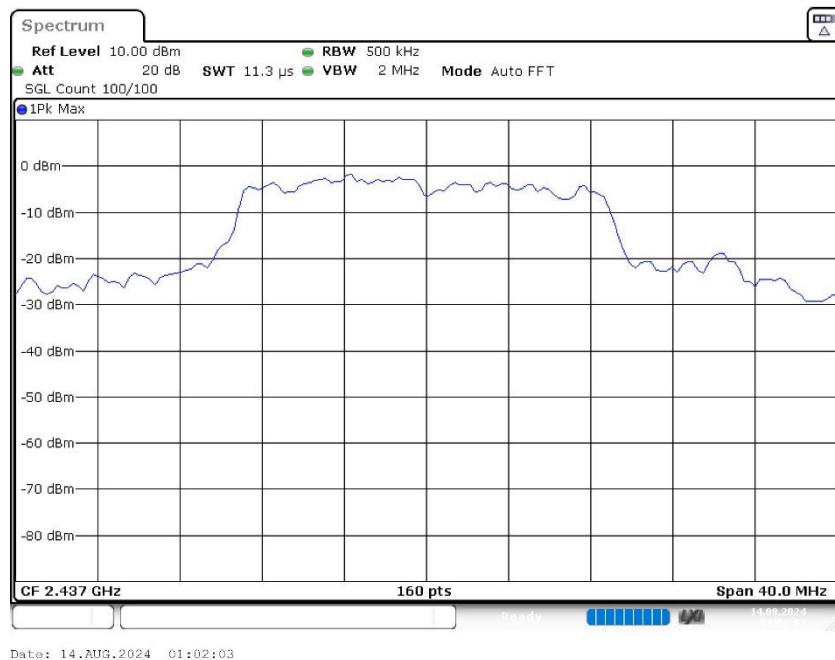
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2437.000000	23.250000	---	---	2426.375000	2449.625000

DUT Frequency (MHz)	Result
2437.000000	PASS



Bandwidth



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.41700 GHz	2.41700 GHz
Stop Frequency	2.45700 GHz	2.45700 GHz
Span	40.000 MHz	40.000 MHz
RBW	500.000 kHz	$\geq$ 500.000 kHz
VBW	2.000 MHz	$\geq$ 1.500 MHz
SweepPoints	160	$\sim$ 160
SweepTime	11.344 μ s	AUTO
Reference Level	10.000 dBm	AUTO
Attenuation	20.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

Tx Spurious Emission (2437 MHz; 24.000 dBm; 20 MHz)

Result

DUT Frequency (MHz)	Result
2437.000000	PASS

Final measurements

Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

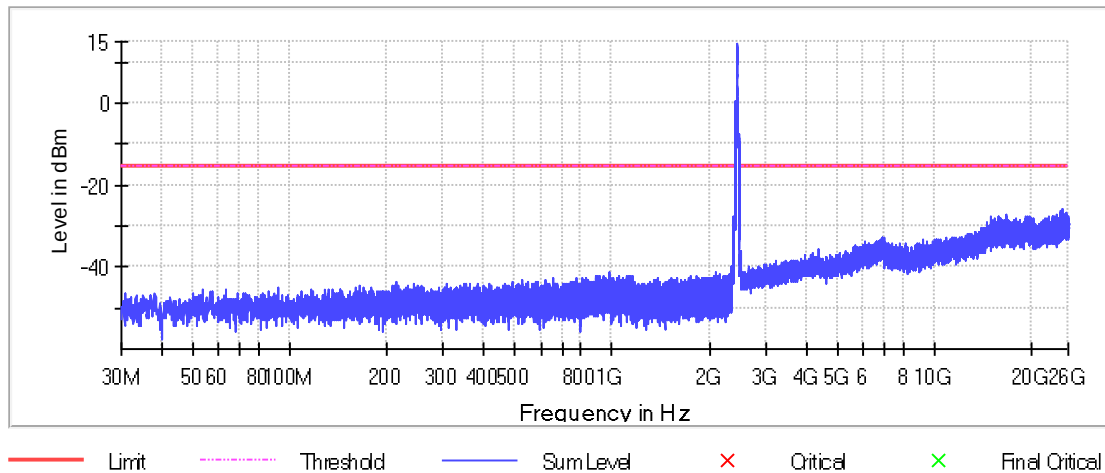
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
2399.525000	-21.9	6.4	-15.5
2399.475000	-21.9	6.4	-15.5
2396.375000	-22.3	6.7	-15.5
2396.425000	-22.5	7.0	-15.5
2399.175000	-22.6	7.1	-15.5
2399.125000	-23.0	7.5	-15.5
2395.725000	-23.2	7.7	-15.5
2396.325000	-23.2	7.7	-15.5
2395.775000	-23.2	7.7	-15.5
2398.875000	-23.3	7.8	-15.5
2399.225000	-23.5	7.9	-15.5
2398.825000	-23.5	8.0	-15.5
2398.925000	-23.7	8.2	-15.5
2396.625000	-23.7	8.2	-15.5
2399.575000	-23.7	8.2	-15.5

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	2350.000000	1	1
2350.000000	2483.500000	2	1
2483.500000	26000.000000	1	1

Spurious



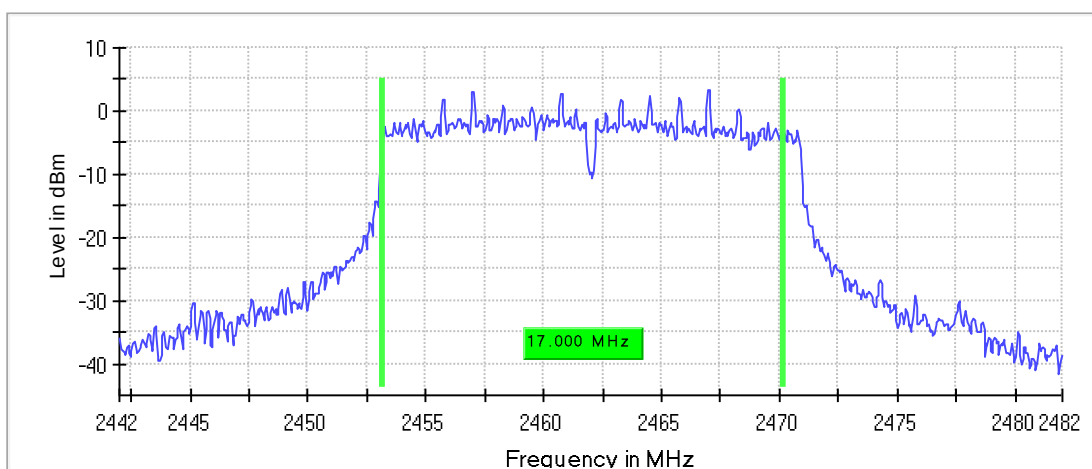
Minimum Emission Bandwidth 6 dB (2462 MHz; 24.000 dBm; 20 MHz)

6 dB Bandwidth

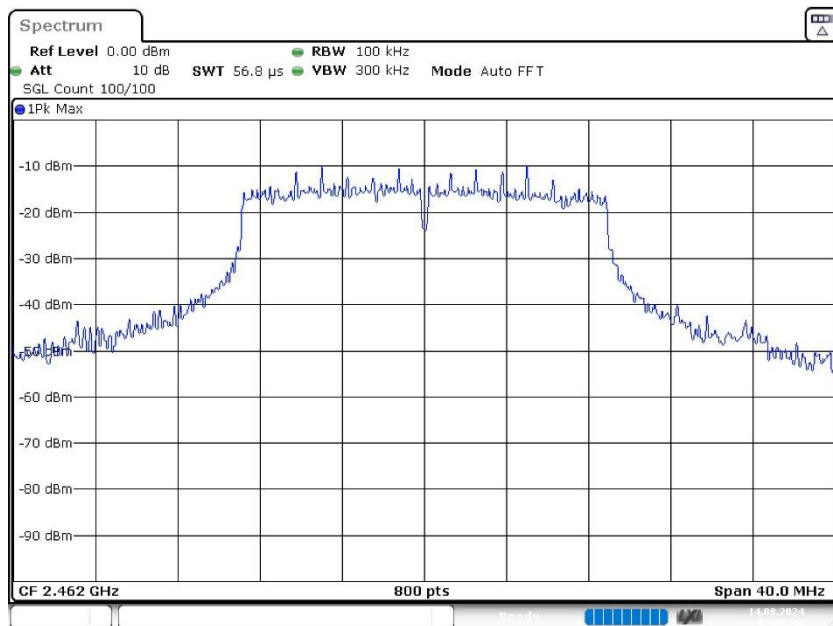
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2462.000000	17.000000	0.500000	---	2453.175000	2470.175000

DUT Frequency (MHz)	Max Level (dBm)	Result
2462.000000	3.3	PASS

6 dB Bandwidth



Bandwidth



Date: 14.AUG.2024 02:06:43

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.44200 GHz	2.44200 GHz
Stop Frequency	2.48200 GHz	2.48200 GHz
Span	40.000 MHz	40.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	800	~ 800
SweepTime	56.836 μ s	AUTO
Reference Level	0.000 dBm	AUTO
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

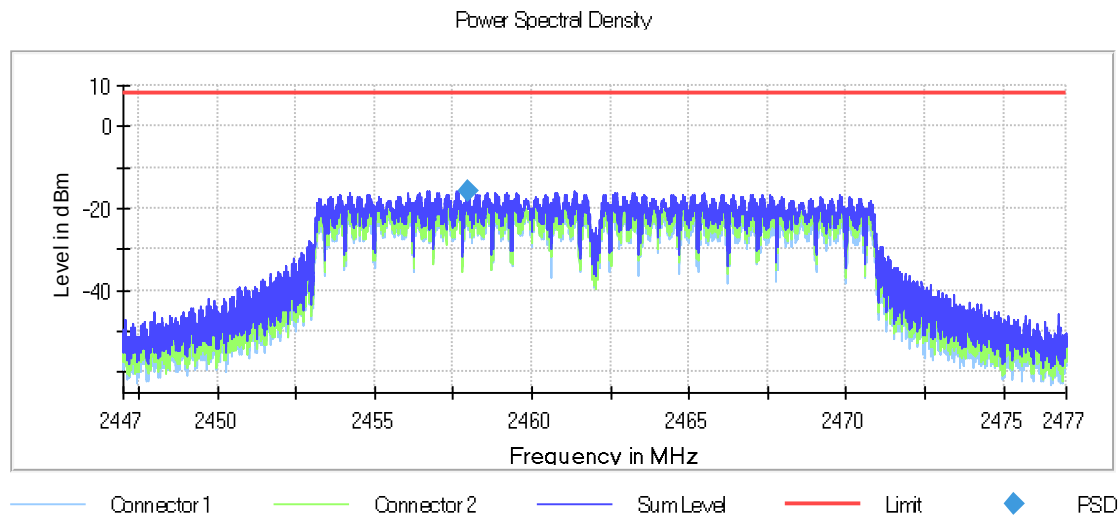
Power Spectral Density (2462 MHz; 24.000 dBm; 20 MHz)

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2462.000000	2457.950750	-15.705	8.0	PASS

Ports

Port	State
1	used
2	used

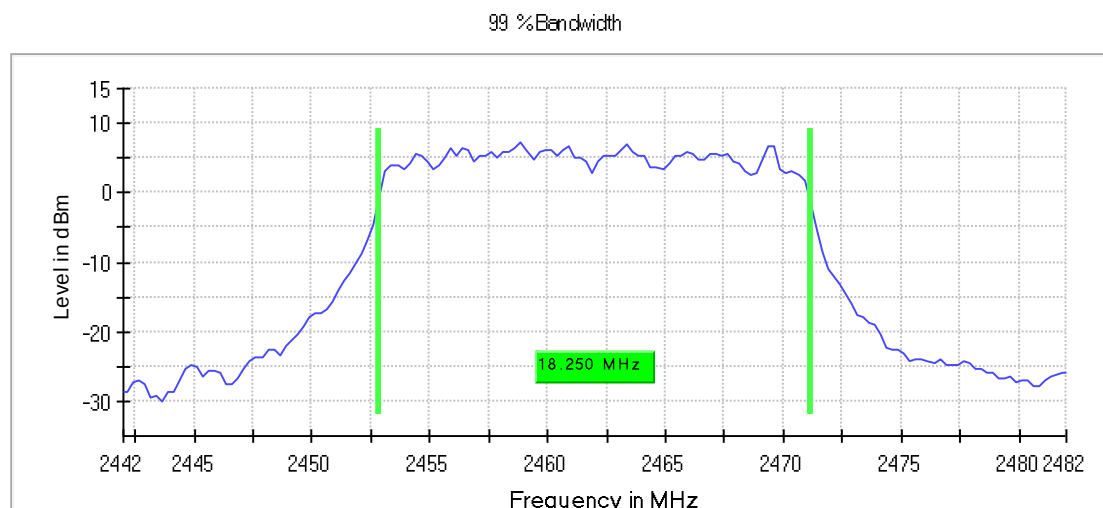


Occupied Channel Bandwidth 99% (2462 MHz; 24.000 dBm; 20 MHz)

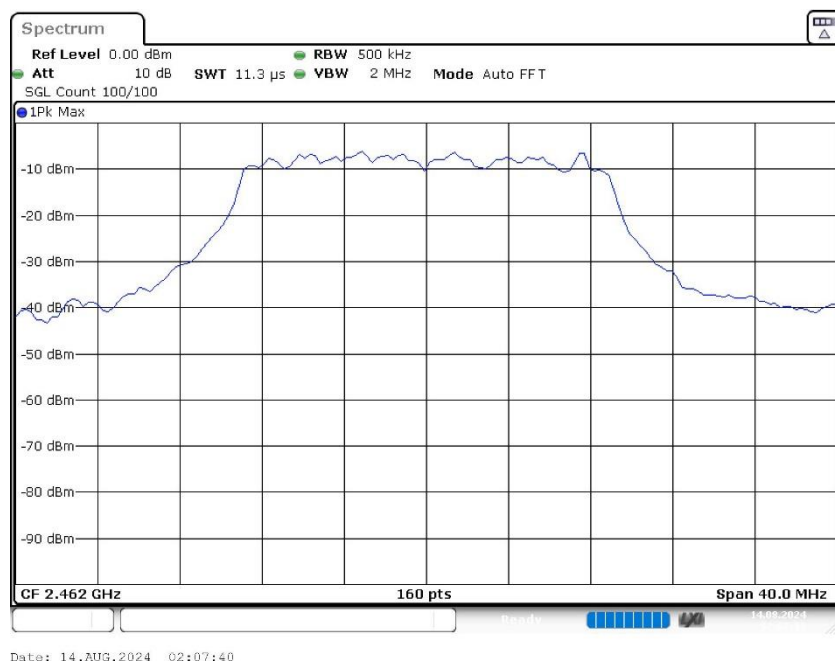
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2462.000000	18.250000	---	---	2452.875000	2471.125000

DUT Frequency (MHz)	Result
2462.000000	PASS



Bandwidth



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.44200 GHz	2.44200 GHz
Stop Frequency	2.48200 GHz	2.48200 GHz
Span	40.000 MHz	40.000 MHz
RBW	500.000 kHz	≥ 500.000 kHz
VBW	2.000 MHz	≥ 1.500 MHz
SweepPoints	160	~ 160
SweepTime	11.344 μ s	AUTO
Reference Level	0.000 dBm	AUTO
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

Tx Spurious Emission (2462 MHz; 24.000 dBm; 20 MHz)

Result

DUT Frequency (MHz)	Result
2462.000000	PASS

Final measurements

Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

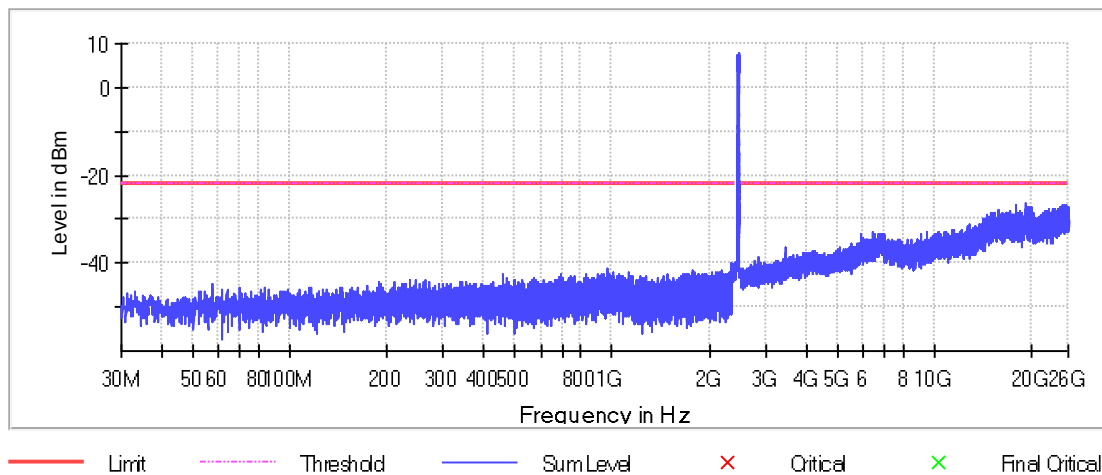
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
19078.648941	-26.5	4.5	-22.0
17781.607520	-26.6	4.6	-22.0
25145.716345	-26.7	4.7	-22.0
25757.861106	-26.7	4.7	-22.0
25042.100005	-26.9	4.9	-22.0
25318.410245	-27.0	4.9	-22.0
19446.082771	-27.0	5.0	-22.0
19801.023851	-27.0	5.0	-22.0
25567.530382	-27.0	5.0	-22.0
25067.820373	-27.1	5.1	-22.0
25337.516804	-27.2	5.1	-22.0
24704.795749	-27.2	5.1	-22.0
25982.730610	-27.2	5.2	-22.0
25485.960072	-27.2	5.2	-22.0
24831.927854	-27.2	5.2	-22.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	2350.000000	1	1
2350.000000	2483.500000	2	1
2483.500000	26000.000000	1	1

Spurious



Minimum Emission Bandwidth 6 dB (2422 MHz; 24.000 dBm; 40 MHz)

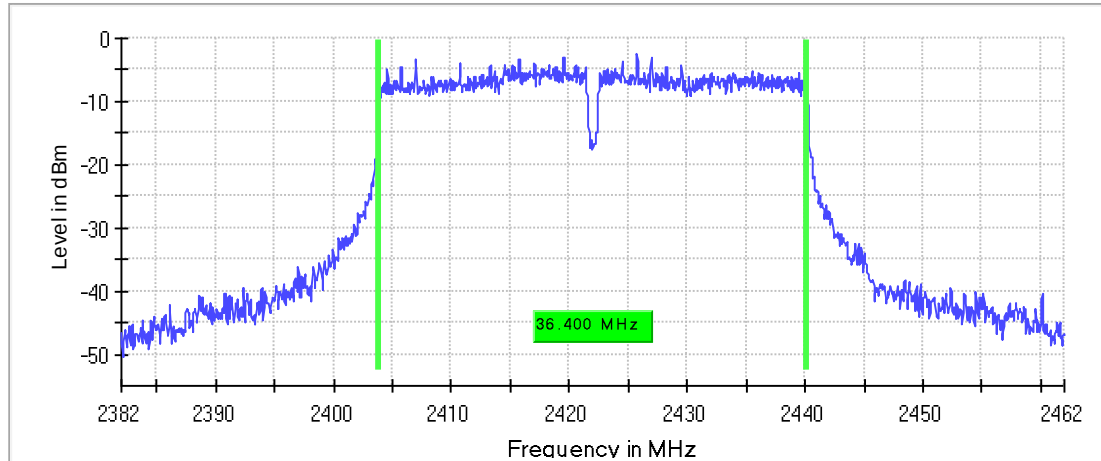
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2422.000000	36.400000	0.500000	---	2403.825000	2440.225000

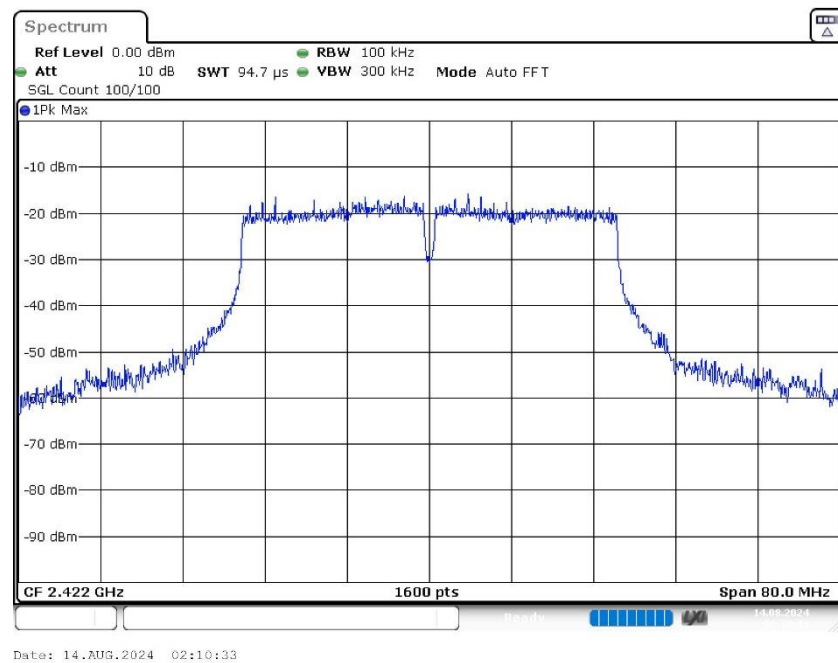
DUT Frequency (MHz)	Max Level (dBm)	Result
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2422.000000	-2.5	PASS
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6 dB Bandwidth



Bandwidth



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.38200 GHz	2.38200 GHz
Stop Frequency	2.46200 GHz	2.46200 GHz
Span	80.000 MHz	80.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz

SweepPoints	1600	~ 1600
Sweptime	94.727 μ s	AUTO
Reference Level	0.000 dBm	AUTO
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

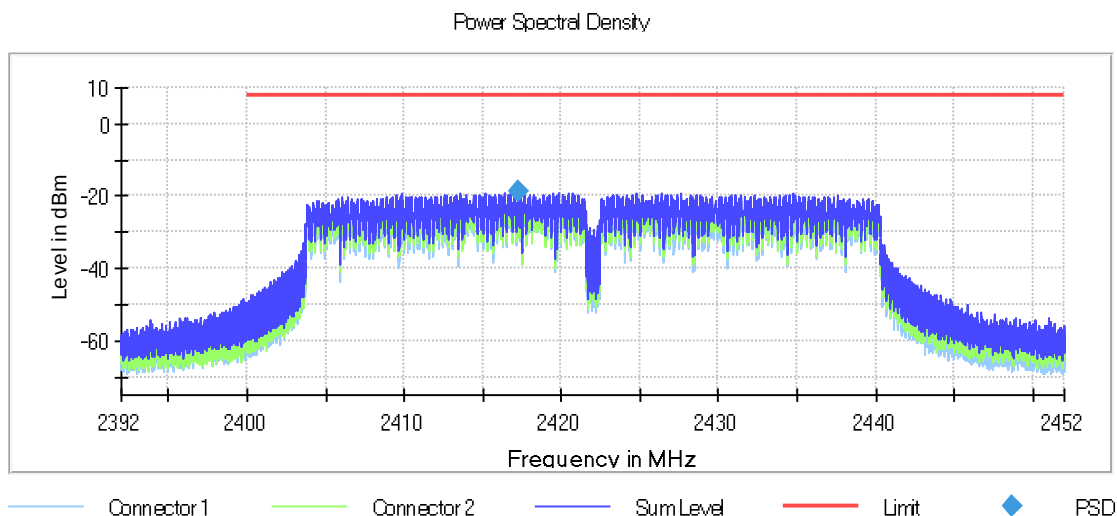
Power Spectral Density (2422 MHz; 24.000 dBm; 40 MHz)

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2422.000000	2417.303272	-18.939	8.0	PASS

Ports

Port	State
1	used
2	used

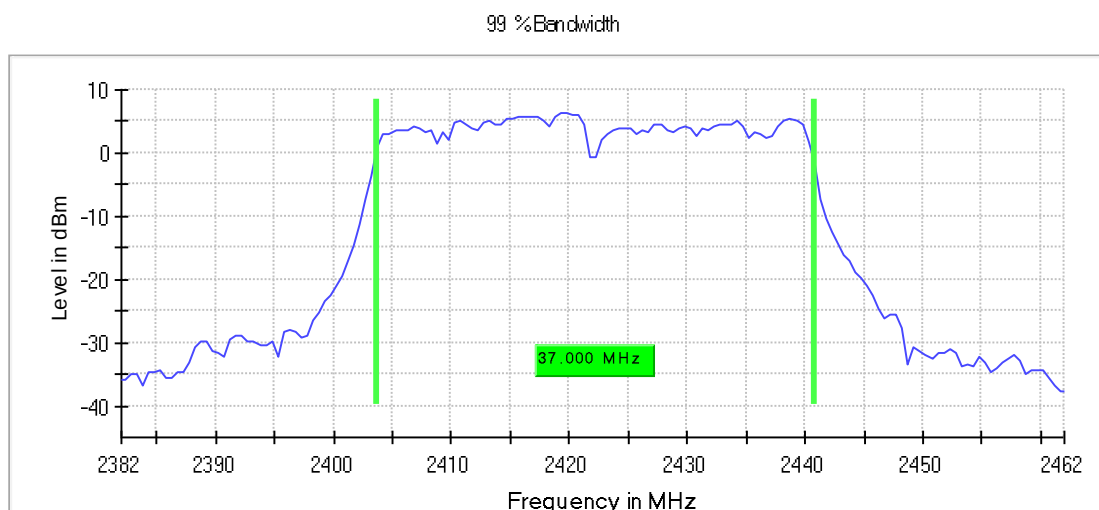


Occupied Channel Bandwidth 99% (2422 MHz; 24.000 dBm; 40 MHz)

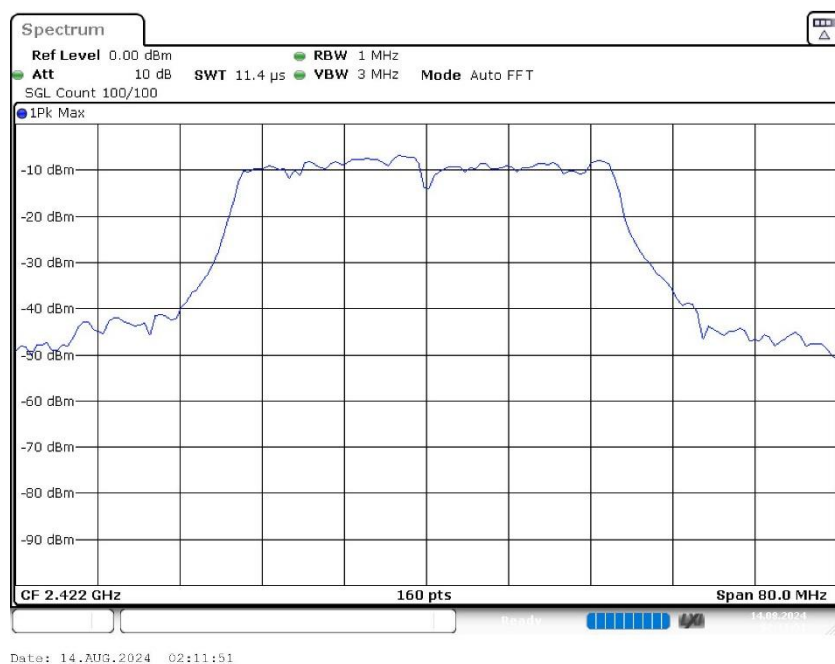
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2422.000000	37.000000	---	---	2403.750000	2440.750000

DUT Frequency (MHz)	Result
2422.000000	PASS



Bandwidth



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.38200 GHz	2.38200 GHz
Stop Frequency	2.46200 GHz	2.46200 GHz
Span	80.000 MHz	80.000 MHz
RBW	1.000 MHz	≥ 1.000 MHz
VBW	3.000 MHz	≥ 3.000 MHz
SweepPoints	160	~ 160
SweepTime	11.438 μ s	AUTO

Reference Level	0.000 dBm	AUTO
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

Tx Spurious Emission (2422 MHz; 24.000 dBm; 40 MHz)

Result

DUT Frequency (MHz)	Result
2422.000000	PASS

Final measurements

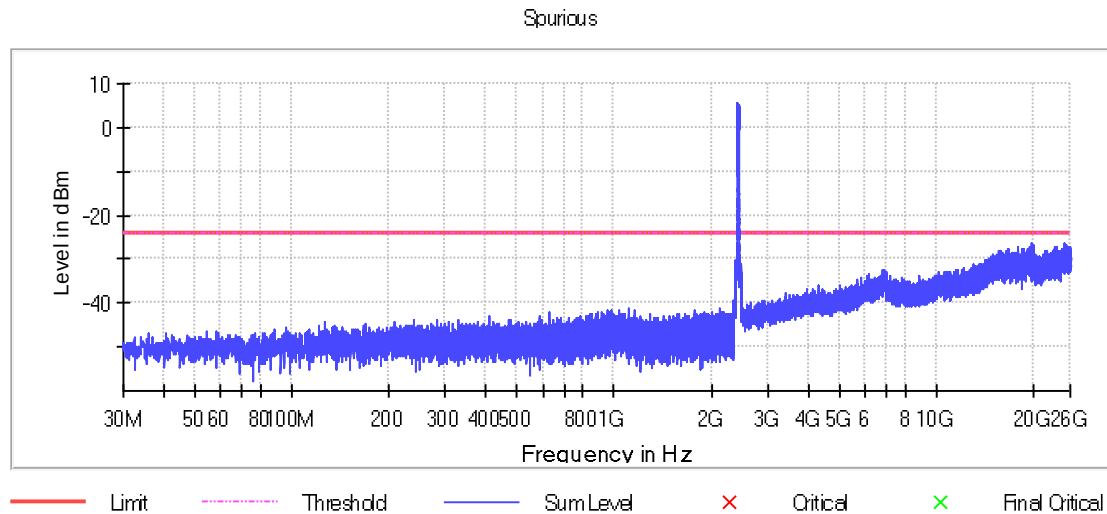
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
25059.736829	-26.3	2.2	-24.2
19809.107395	-26.4	2.2	-24.2
2399.225000	-26.7	2.6	-24.2
19859.813264	-26.8	2.6	-24.2
2399.775000	-26.9	2.7	-24.2
2399.175000	-27.0	2.8	-24.2
25119.261109	-27.0	2.8	-24.2
23747.263187	-27.0	2.8	-24.2
17804.388418	-27.0	2.8	-24.2
2398.875000	-27.0	2.8	-24.2
2399.725000	-27.0	2.8	-24.2
25122.200580	-27.0	2.9	-24.2
25566.060647	-27.1	2.9	-24.2
25544.749484	-27.1	2.9	-24.2
23404.814857	-27.1	3.0	-24.2

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	2350.000000	1	1
2350.000000	2483.500000	2	1
2483.500000	26000.000000	1	1

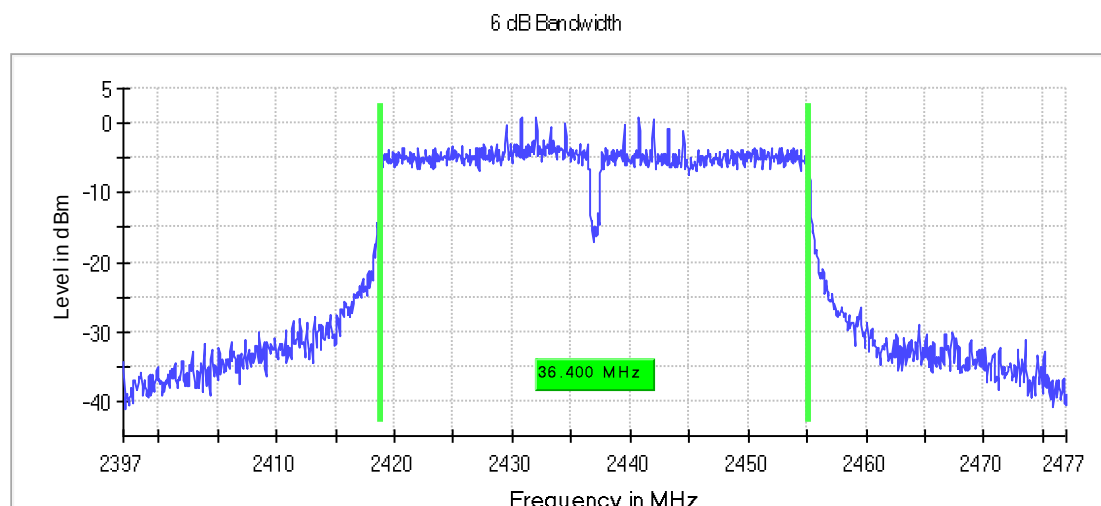


Minimum Emission Bandwidth 6 dB (2437 MHz; 24.000 dBm; 40 MHz)

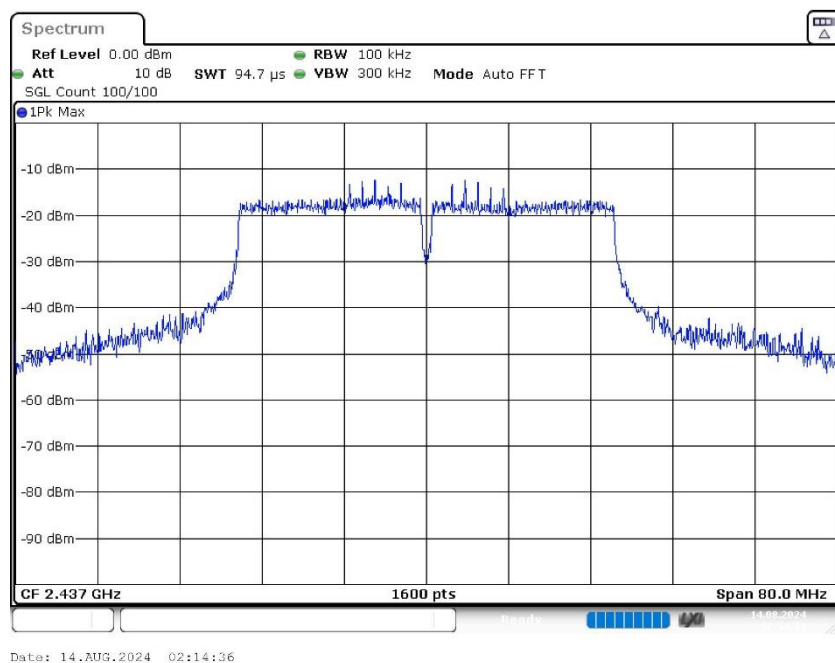
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2437.000000	36.400000	0.500000	---	2418.825000	2455.225000

DUT Frequency (MHz)	Max Level (dBm)	Result
2437.000000	0.9	PASS



Bandwidth



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.39700 GHz	2.39700 GHz
Stop Frequency	2.47700 GHz	2.47700 GHz
Span	80.000 MHz	80.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	1600	~ 1600
Sweptime	94.727 μ s	AUTO
Reference Level	0.000 dBm	AUTO
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off

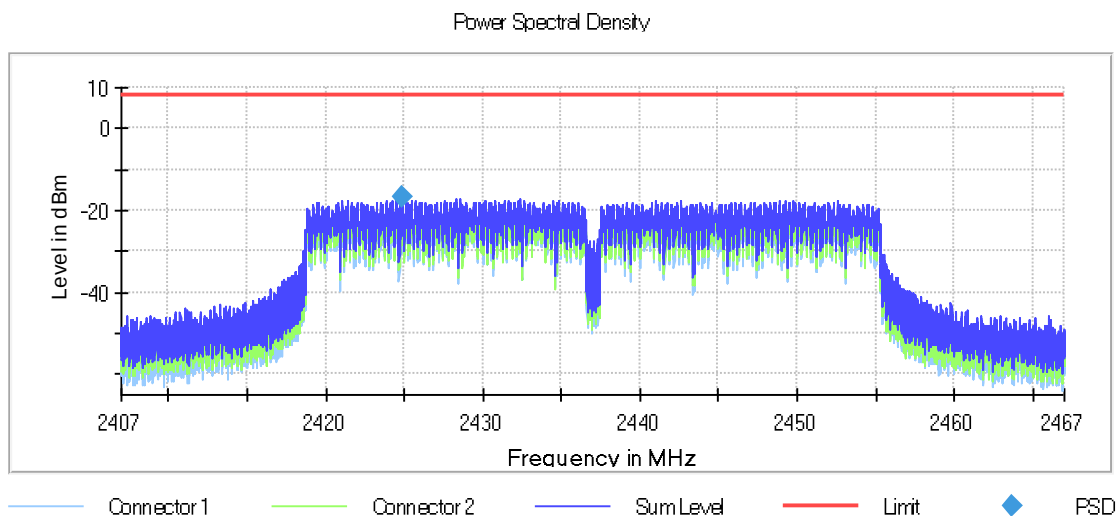
Power Spectral Density (2437 MHz; 24.000 dBm; 40 MHz)

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2437.000000	2424.803506	-16.801	8.0	PASS

Ports

Port	State
1	used
2	used

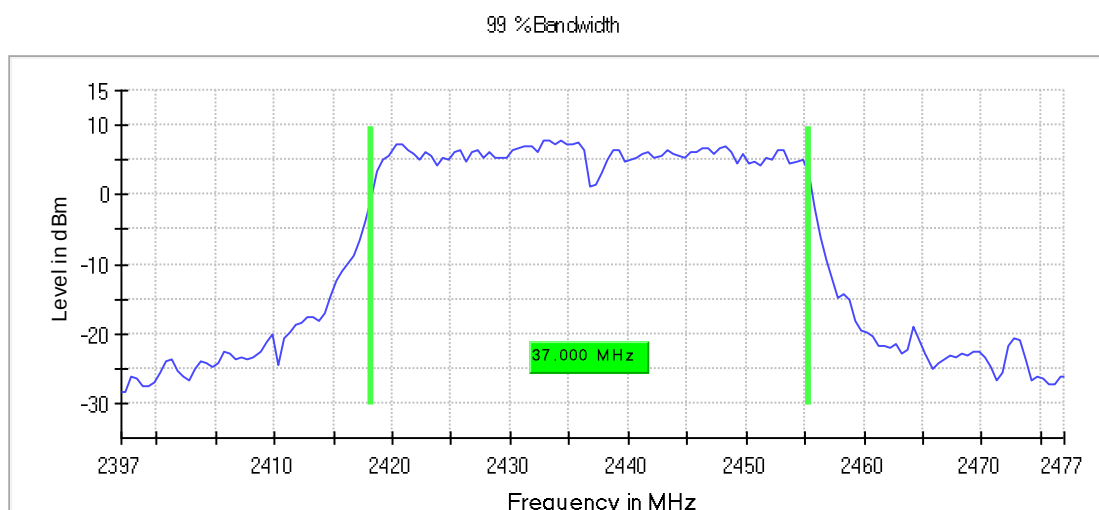


Occupied Channel Bandwidth 99% (2437 MHz; 24.000 dBm; 40 MHz)

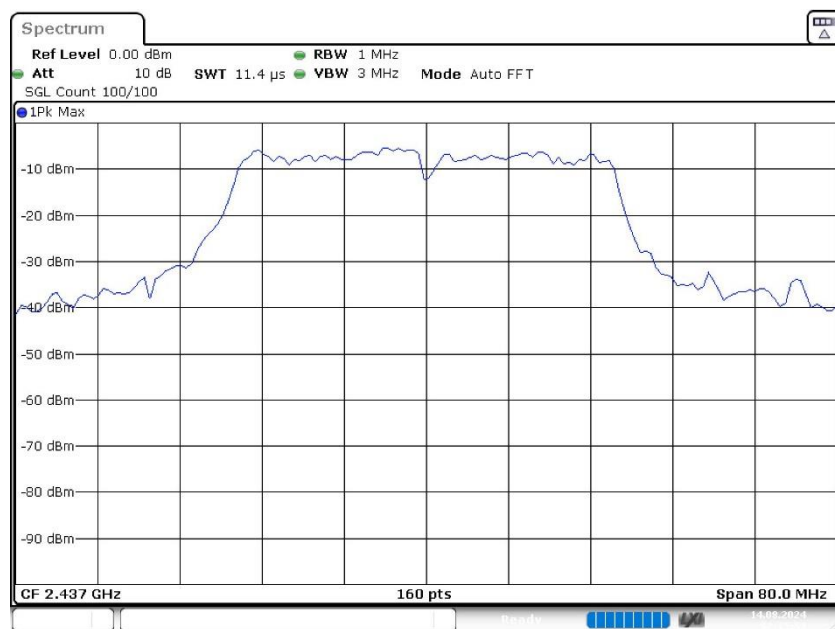
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2437.000000	37.000000	---	---	2418.250000	2455.250000

DUT Frequency (MHz)	Result
2437.000000	PASS



Bandwidth



Date: 14.AUG.2024 02:15:54

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.39700 GHz	2.39700 GHz
Stop Frequency	2.47700 GHz	2.47700 GHz
Span	80.000 MHz	80.000 MHz
RBW	1.000 MHz	>= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	160	~ 160
SweepTime	11.438 μ s	AUTO
Reference Level	0.000 dBm	AUTO
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

Tx Spurious Emission (2437 MHz; 24.000 dBm; 40 MHz)

Result

DUT Frequency (MHz)	Result
2437.000000	PASS

Final measurements

Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

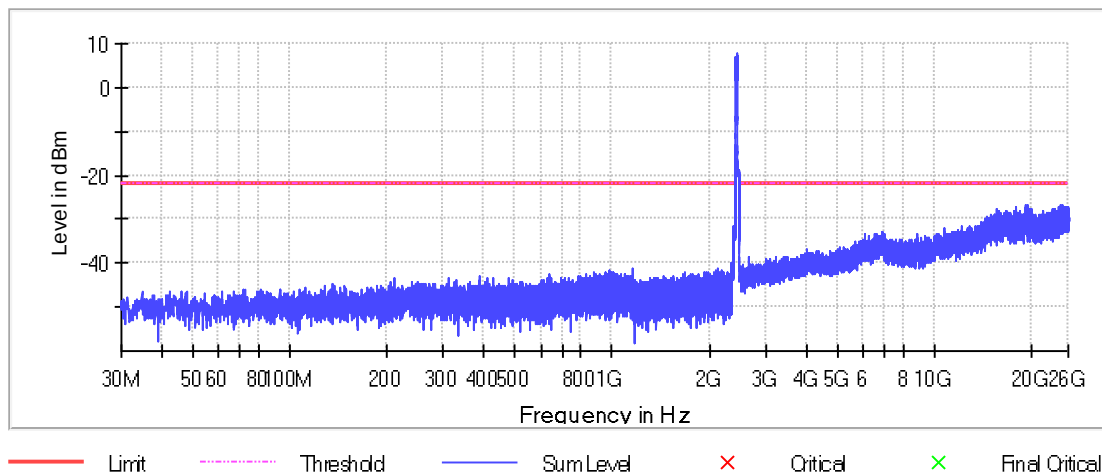
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
2398.875000	-26.3	4.3	-22.1
2397.025000	-26.6	4.5	-22.1
2399.525000	-26.6	4.6	-22.1
19090.406823	-26.7	4.6	-22.1
24735.660190	-26.7	4.6	-22.1
2396.975000	-26.7	4.7	-22.1
2399.225000	-26.7	4.7	-22.1
2398.925000	-26.8	4.7	-22.1
19336.587489	-26.8	4.7	-22.1
25111.912432	-26.8	4.8	-22.1
25934.229344	-27.1	5.0	-22.1
25352.949025	-27.1	5.1	-22.1
2398.825000	-27.2	5.1	-22.1
24407.909214	-27.2	5.1	-22.1
24686.424057	-27.2	5.1	-22.1

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	2350.000000	1	1
2350.000000	2483.500000	2	1
2483.500000	26000.000000	1	1

Spurious



Minimum Emission Bandwidth 6 dB (2452 MHz; 24.000 dBm; 40 MHz)

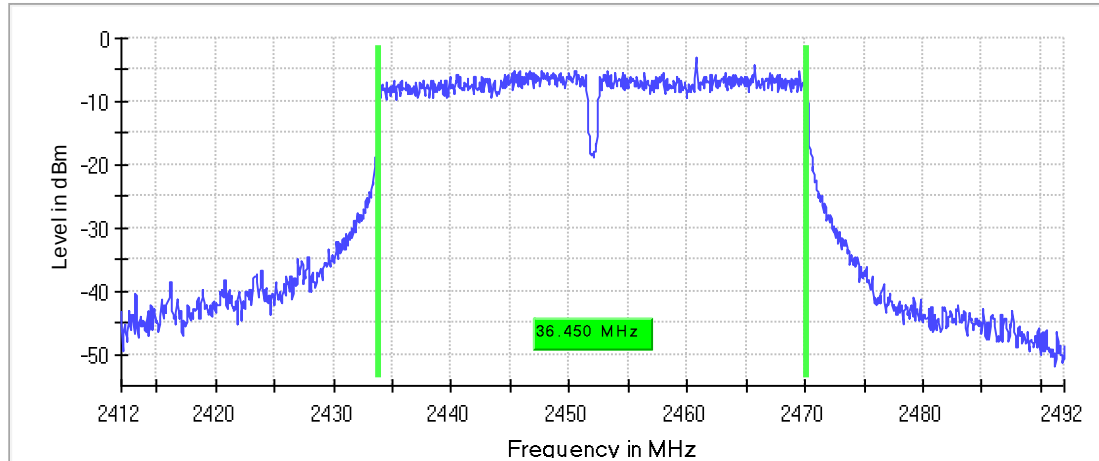
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2452.000000	36.450000	0.500000	---	2433.775000	2470.225000

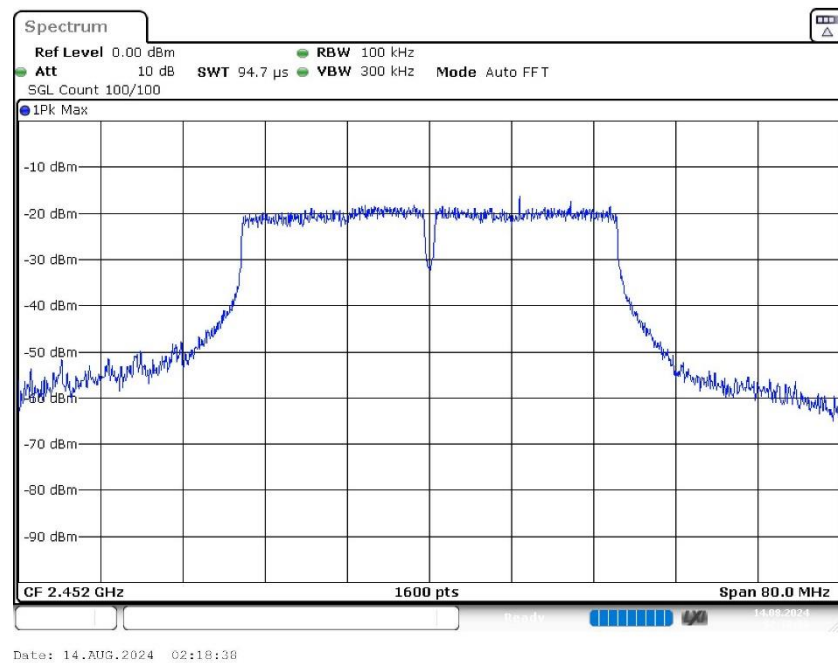
DUT Frequency (MHz)	Max Level (dBm)	Result
---------------------	-----------------	--------

2452.000000	-3.1	PASS
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6 dB Bandwidth



Bandwidth



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.41200 GHz	2.41200 GHz
Stop Frequency	2.49200 GHz	2.49200 GHz
Span	80.000 MHz	80.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz

SweepPoints	1600	~ 1600
Sweeptime	94.727 μ s	AUTO
Reference Level	0.000 dBm	AUTO
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

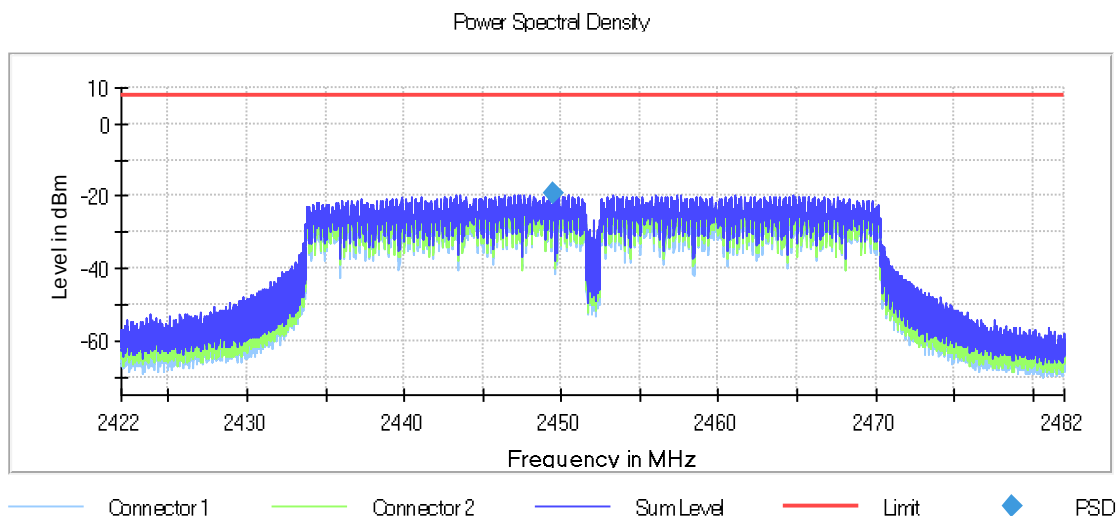
Power Spectral Density (2452 MHz; 24.000 dBm; 40 MHz)

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2452.000000	2449.530702	-19.252	8.0	PASS

Ports

Port	State
1	used
2	used

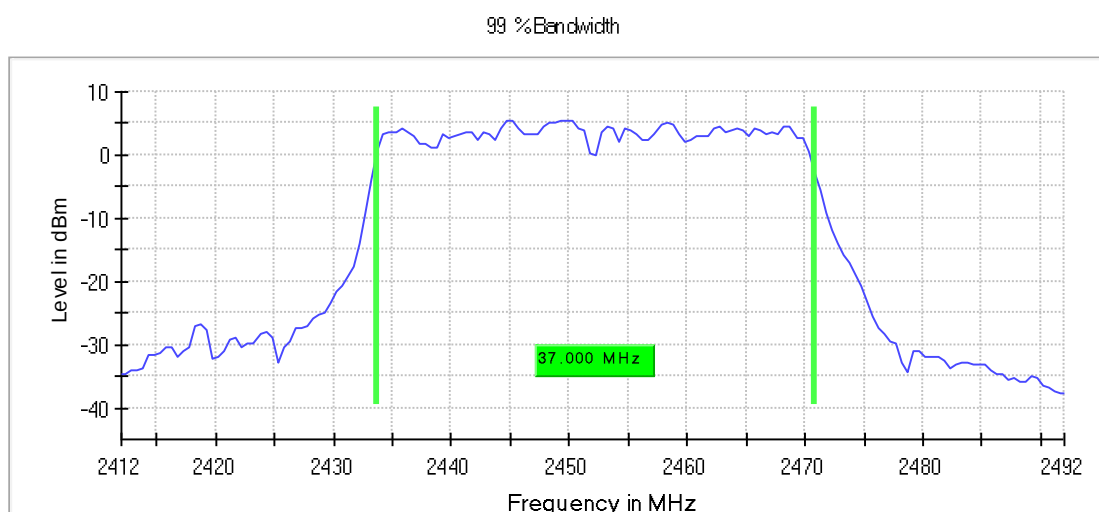


Occupied Channel Bandwidth 99% (2452 MHz; 24.000 dBm; 40 MHz)

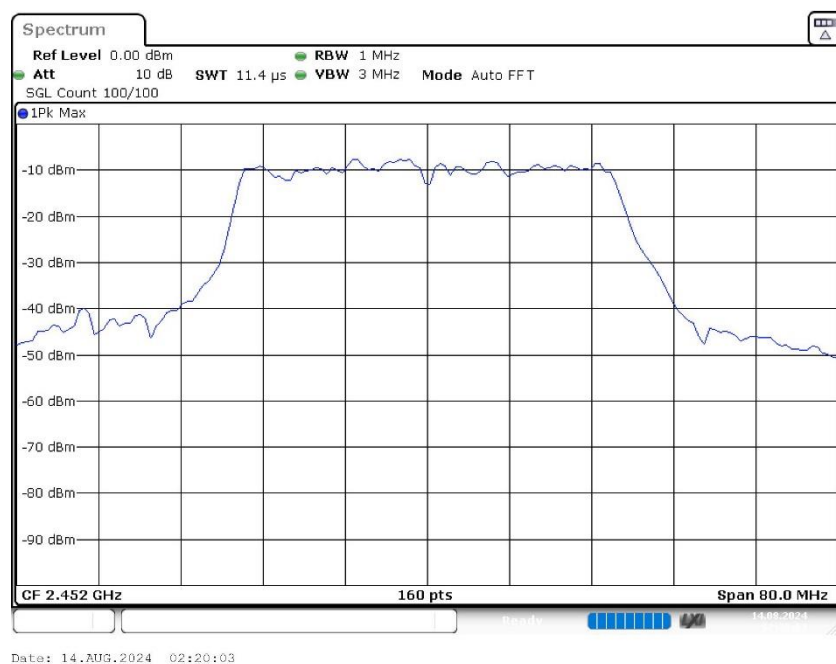
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2452.000000	37.000000	---	---	2433.750000	2470.750000

DUT Frequency (MHz)	Result
2452.000000	PASS



Bandwidth



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.41200 GHz	2.41200 GHz
Stop Frequency	2.49200 GHz	2.49200 GHz
Span	80.000 MHz	80.000 MHz
RBW	1.000 MHz	≥ 1.000 MHz
VBW	3.000 MHz	≥ 3.000 MHz
SweepPoints	160	~ 160
SweepTime	11.438 μ s	AUTO

Reference Level	0.000 dBm	AUTO
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

Tx Spurious Emission (2452 MHz; 24.000 dBm; 40 MHz)

Result

DUT Frequency (MHz)	Result
2452.000000	PASS

Final measurements

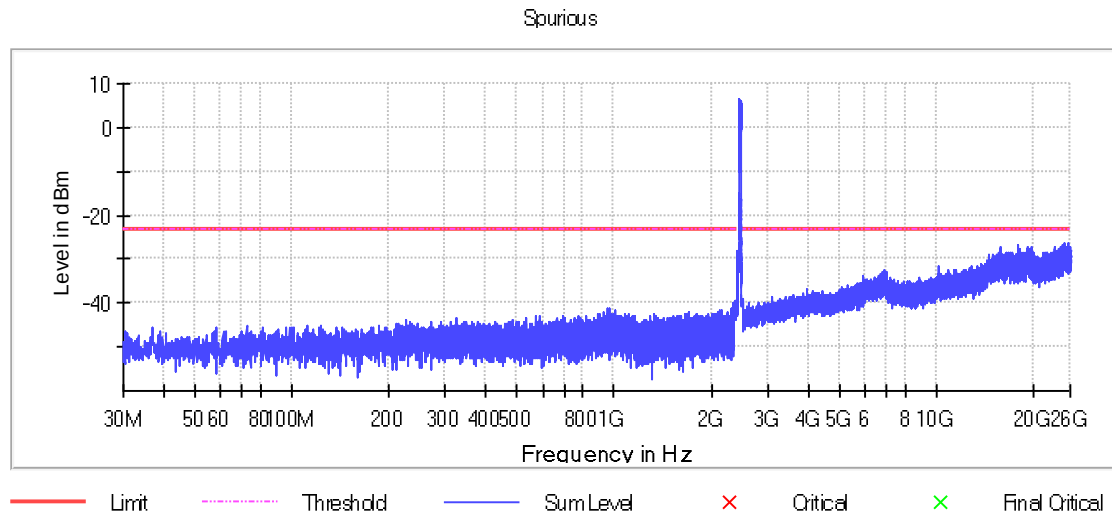
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
25072.964446	-26.4	3.0	-23.4
25733.610473	-26.4	3.0	-23.4
24712.144425	-26.7	3.3	-23.4
17808.062756	-26.7	3.3	-23.4
17843.336404	-26.9	3.5	-23.4
24792.979868	-26.9	3.5	-23.4
15712.220188	-27.0	3.6	-23.4
25189.073537	-27.0	3.6	-23.4
25089.131535	-27.1	3.7	-23.4
19105.839044	-27.1	3.7	-23.4
24715.083896	-27.1	3.7	-23.4
25055.327623	-27.1	3.7	-23.4
24780.487118	-27.2	3.8	-23.4
25919.531991	-27.2	3.8	-23.4
25047.978946	-27.2	3.8	-23.4

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	2350.000000	1	1
2350.000000	2483.500000	2	1
2483.500000	26000.000000	1	1



-- End of Report --