

U6-Extender WiFi Annex

Summary – ax Mode

Test	Frequency (MHz)	Nominal Power (dBm)	Nominal Bandwidth (MHz)	Result
RF output power	2412.000	20.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	2412.000	20.0	20.000000	PASS
Power Spectral Density	2412.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	2412.000	20.0	20.000000	PASS
Tx Spurious Emission	2412.000	20.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	2437.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	2437.000	20.0	20.000000	PASS
Tx Spurious Emission	2437.000	20.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	2462.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	2462.000	20.0	20.000000	PASS
Tx Spurious Emission	2462.000	20.0	20.000000	PASS
Minimum Emission Bandwidth 6 dB	2422.000	20.0	40.000000	PASS
Occupied Channel Bandwidth 99%	2422.000	20.0	40.000000	PASS
Tx Spurious Emission	2422.000	20.0	40.000000	PASS
Minimum Emission Bandwidth 6 dB	2437.000	20.0	40.000000	PASS
Occupied Channel Bandwidth 99%	2437.000	20.0	40.000000	PASS
Tx Spurious Emission	2437.000	20.0	40.000000	PASS
Minimum Emission Bandwidth 6 dB	2452.000	20.0	40.000000	PASS
Occupied Channel Bandwidth 99%	2452.000	20.0	40.000000	PASS
Tx Spurious Emission	2452.000	20.0	40.000000	PASS

RF output power (2412 MHz; 20.000 dBm; 20 MHz)

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
2412.000000	16.2	30.0	16.2	88.572	PASS

OSP PowerMeter settings

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

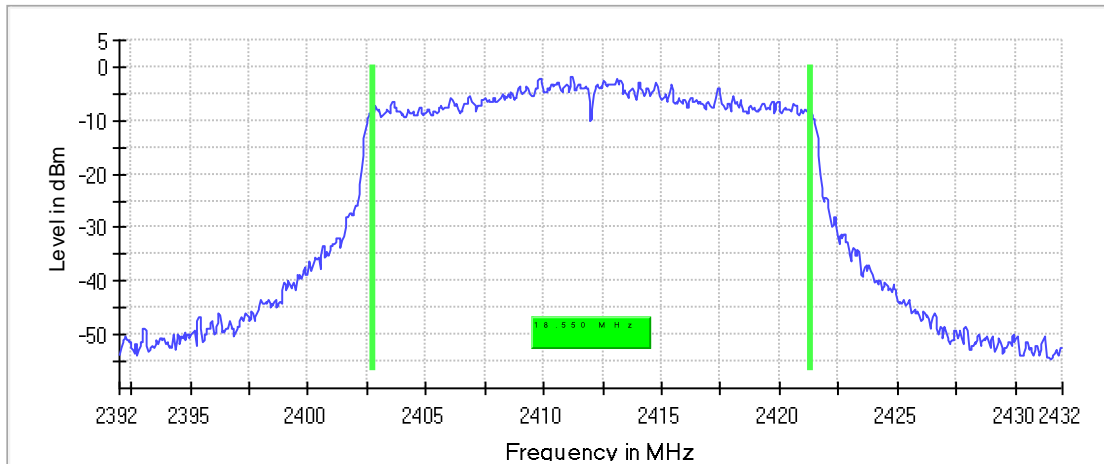
Minimum Emission Bandwidth 6 dB (2412 MHz; 20.000 dBm; 20 MHz)

6 dB Bandwidth

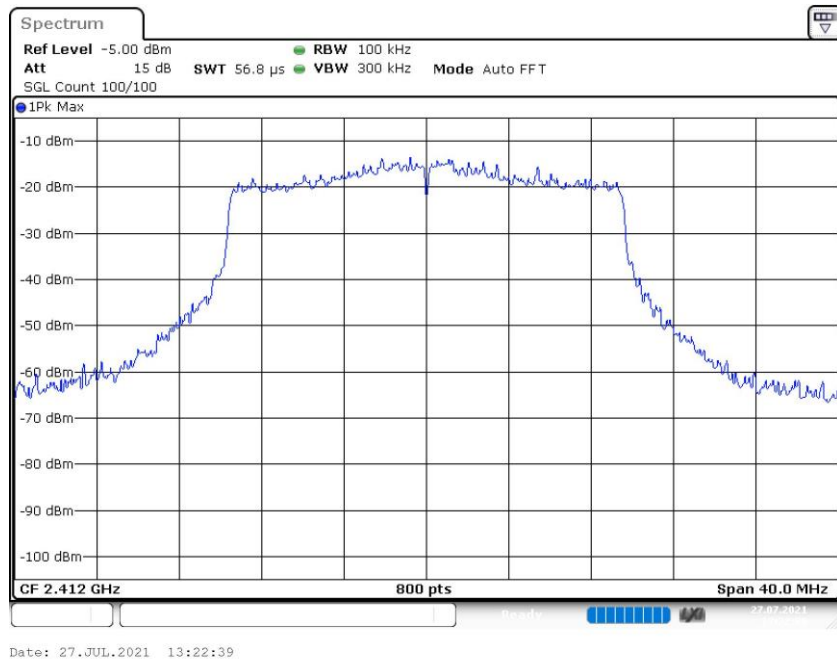
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2412.000000	18.550000	0.500000	---	2402.775000	2421.325000

DUT Frequency (MHz)	Max Level (dBm)	Result
2412.000000	-1.8	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 μs	AUTO
Reference Level	-5.000 dBm	-5.000 dBm
Attenuation	15.000 dB	AUTO
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; 20.000 dBm; 20 MHz)

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2412.000000	2412.999750	-19.091	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	334.000 ms	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Average Power	Average Power
SweepType	Sweep	Sweep
Preamp	off	off

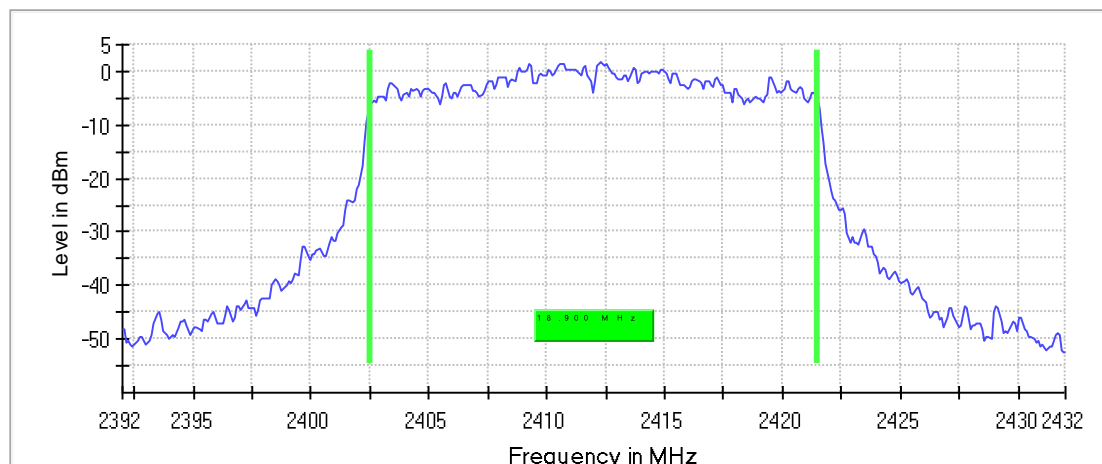
Occupied Channel Bandwidth 99% (2412 MHz; 20.000 dBm; 20 MHz)

99 % Bandwidth

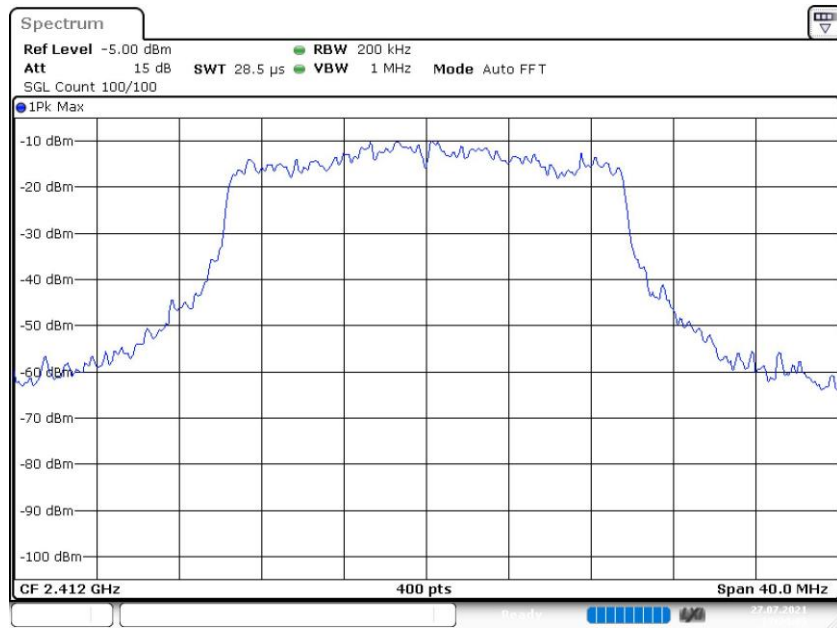
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2412.000000	18.900000	---	---	2402.550000	2421.450000

DUT Frequency (MHz)	Result
2412.000000	PASS

99 %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	200.000 kHz	>= 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	400	~ 400
Sweptime	28.477 μs	AUTO
Reference Level	-5.000 dBm	-5.000 dBm
Attenuation	15.000 dB	AUTO
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; 20.000 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

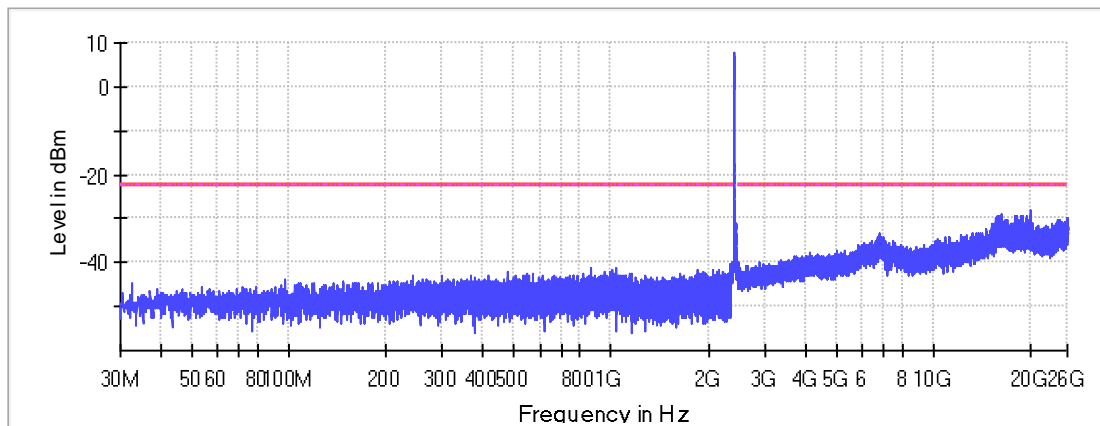
Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
19899.496117	-27.9	5.6	-22.2
16206.051256	-29.1	6.9	-22.2
17874.935713	-29.2	7.0	-22.2
19890.677705	-29.2	7.0	-22.2
19892.147441	-29.3	7.0	-22.2

18847.165628	-29.3	7.0	-22.2
16130.359887	-29.3	7.1	-22.2
18526.763328	-29.4	7.1	-22.2
17897.716610	-29.5	7.2	-22.2
19537.206361	-29.5	7.2	-22.2
16191.353903	-29.5	7.3	-22.2
15875.360809	-29.5	7.3	-22.2
18235.755734	-29.6	7.3	-22.2
15815.101661	-29.6	7.4	-22.2
16114.927666	-29.6	7.4	-22.2

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

Spurious



— Limit - - - - - Threshold — Sum Level × Critical × Final Critical

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 μs	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

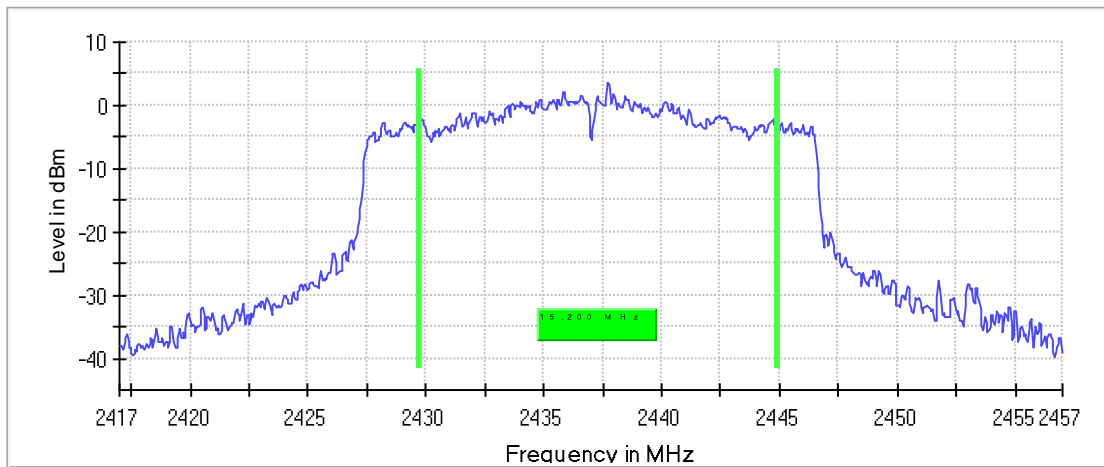
Minimum Emission Bandwidth 6 dB (2437 MHz; 20.000 dBm; 20 MHz)

6 dB Bandwidth

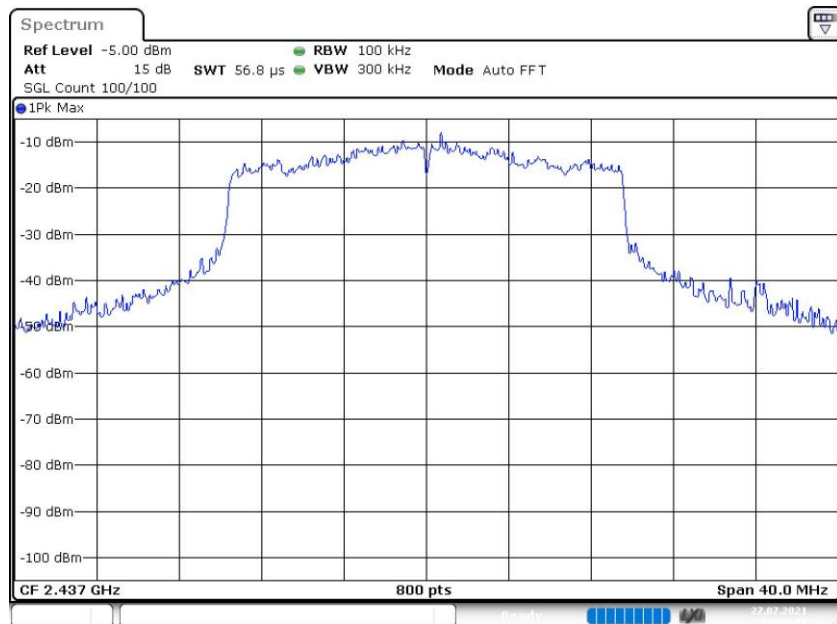
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2437.000000	15.200000	0.500000	---	2429.725000	2444.925000

DUT Frequency (MHz)	Max Level (dBm)	Result
2437.000000	3.7	PASS

6 dB Bandwidth



Bandwidth



Date: 27.JUL.2021 13:30:11

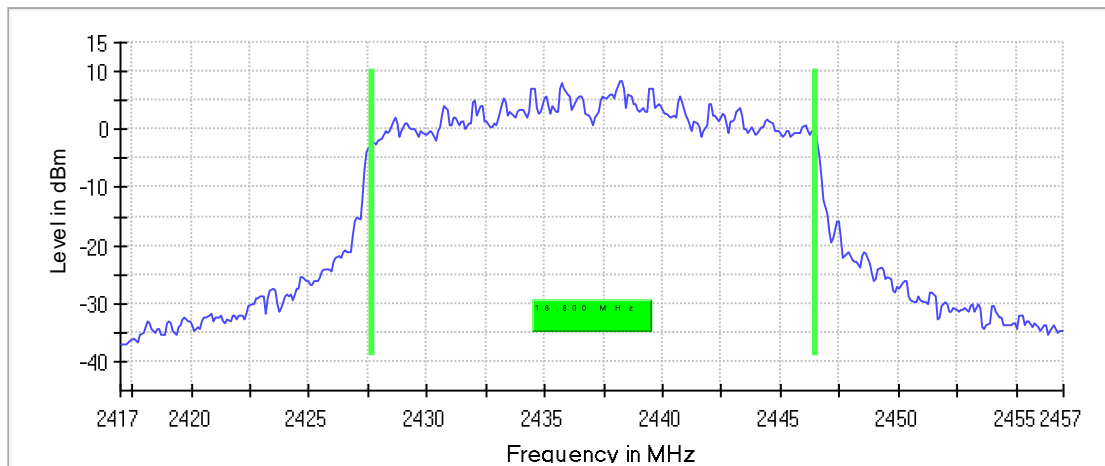
Occupied Channel Bandwidth 99% (2437 MHz; 20.000 dBm; 20 MHz)

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2437.000000	18.800000	---	---	2427.650000	2446.450000

DUT Frequency (MHz)	Result
2437.000000	PASS

99 %Bandwidth



Bandwidth



Date: 27.JUL.2021 13:32:44

Tx Spurious Emission (2437 MHz; 20.000 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
---	---	---	---	---	---

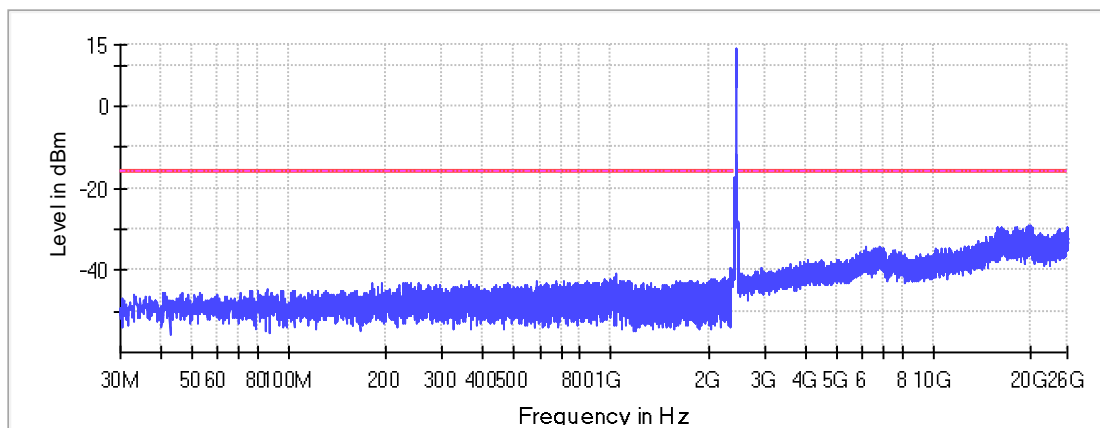
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
19915.663206	-29.0	13.1	-15.9
19612.897730	-29.0	13.1	-15.9
19832.623160	-29.3	13.4	-15.9
16186.209829	-29.3	13.4	-15.9
16154.610520	-29.3	13.4	-15.9
17941.073802	-29.3	13.4	-15.9
19939.178971	-29.4	13.5	-15.9
19528.387949	-29.5	13.6	-15.9
20211.080005	-29.5	13.6	-15.9
18223.262984	-29.5	13.6	-15.9
15864.337794	-29.6	13.7	-15.9
19519.569537	-29.6	13.7	-15.9
15855.519382	-29.6	13.7	-15.9
19912.723735	-29.6	13.7	-15.9
25875.439932	-29.7	13.8	-15.9

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

Spurious



— Limit - - - - - Threshold — Sum Level × Critical × Final Critical

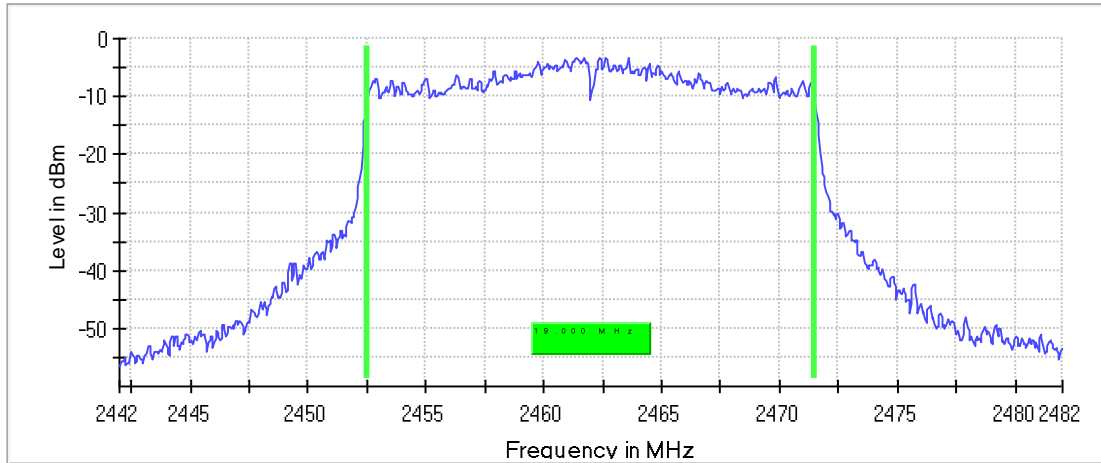
Minimum Emission Bandwidth 6 dB (2462 MHz; 20.000 dBm; 20 MHz)

6 dB Bandwidth

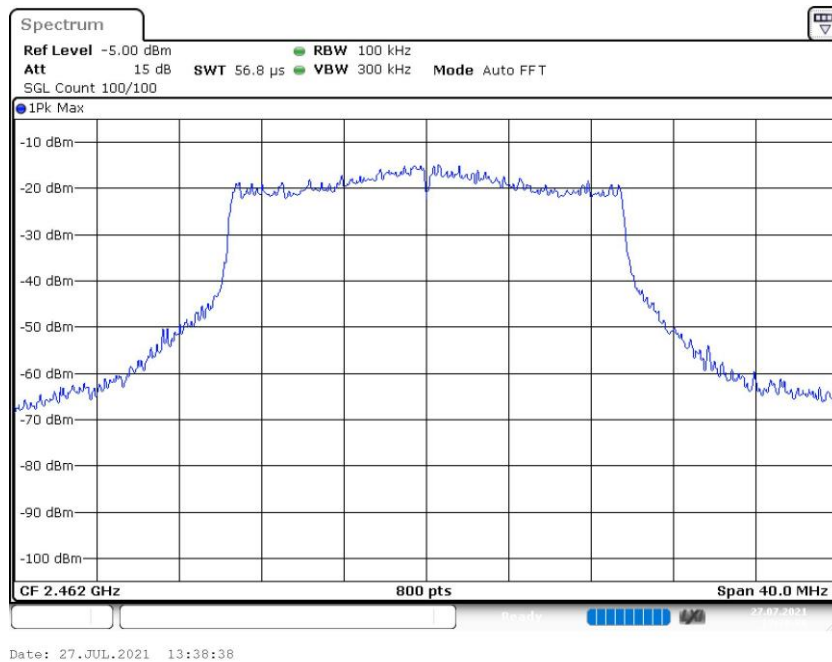
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2462.000000	19.000000	0.500000	---	2452.525000	2471.525000

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

6 dB Bandwidth



Bandwidth



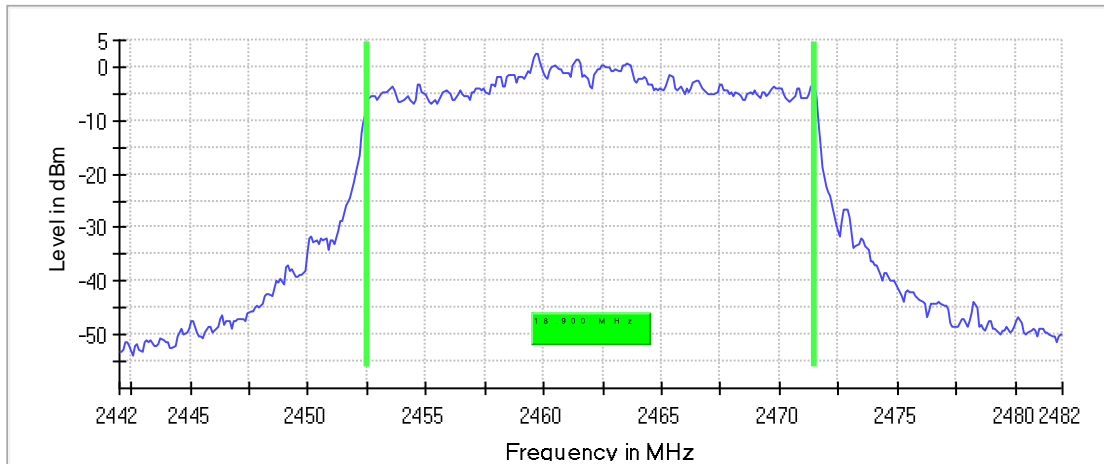
Occupied Channel Bandwidth 99% (2462 MHz; 20.000 dBm; 20 MHz)

99 % Bandwidth

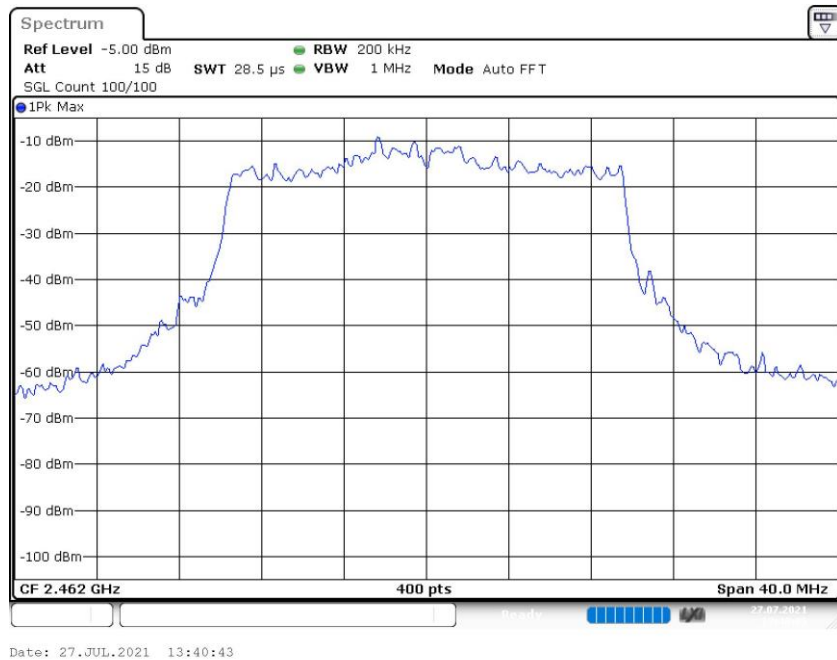
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2462.000000	18.900000	---	---	2452.550000	2471.450000

DUT Frequency (MHz)	Result
2462.000000	PASS

99 %Bandwidth



Bandwidth



Tx Spurious Emission (2462 MHz; 20.000 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

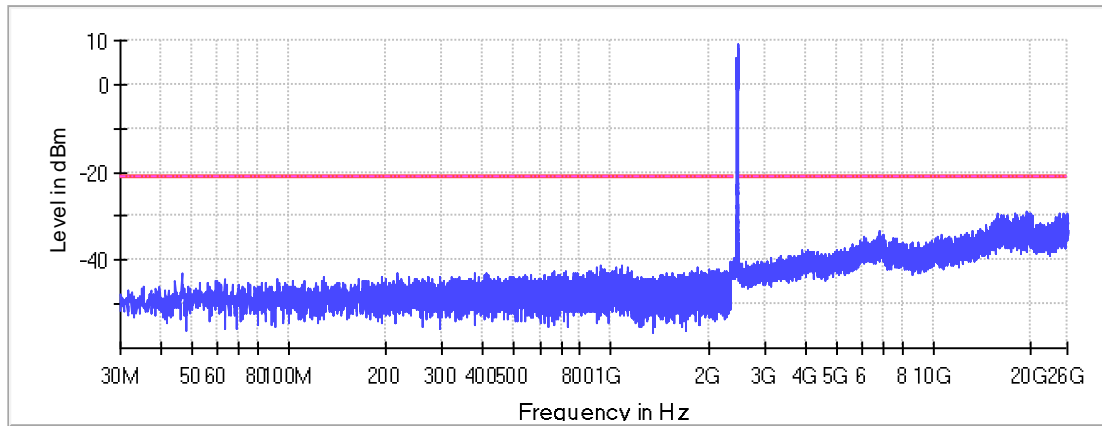
Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
---	---	---	---

19512.220860	-28.8	7.8	-21.0
19575.419479	-29.1	8.2	-21.0
17893.307404	-29.2	8.2	-21.0
17906.535022	-29.2	8.2	-21.0
24568.845231	-29.3	8.3	-21.0
19947.262515	-29.4	8.4	-21.0
24475.517039	-29.4	8.5	-21.0
15807.018117	-29.4	8.5	-21.0
19626.860215	-29.5	8.5	-21.0
19637.883230	-29.5	8.5	-21.0
19925.951353	-29.5	8.5	-21.0
25971.707595	-29.6	8.6	-21.0
25251.537288	-29.6	8.6	-21.0
19907.579662	-29.6	8.6	-21.0
19539.410964	-29.6	8.7	-21.0

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



— Limit - - - - Threshold — Sum Level × Critical × Final Critical

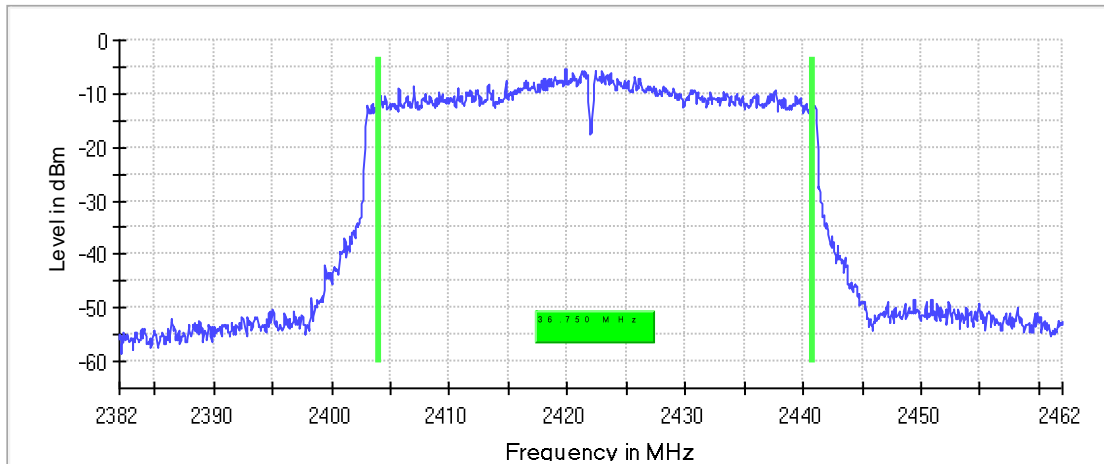
Minimum Emission Bandwidth 6 dB (2422 MHz; 20.000 dBm; 40 MHz)

6 dB Bandwidth

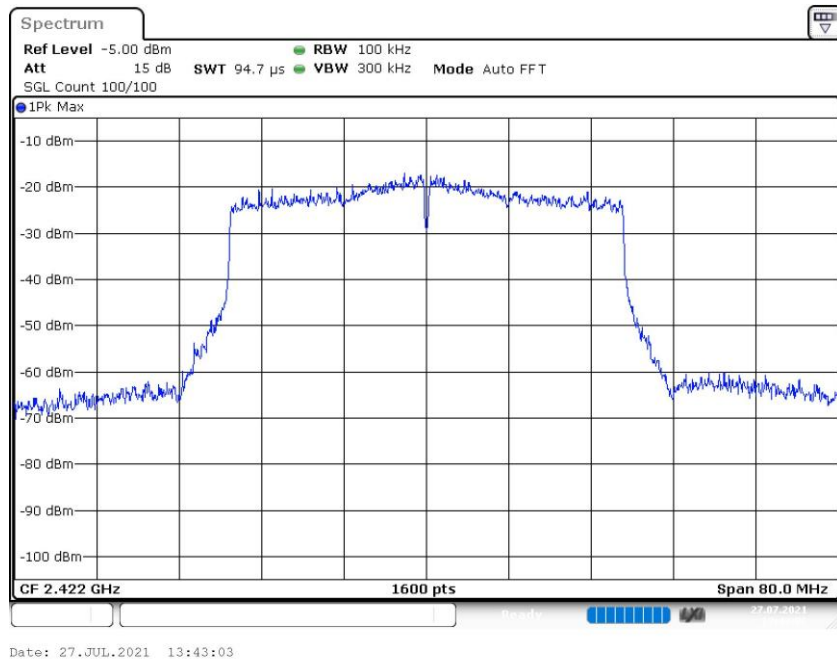
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2422.000000	36.750000	0.500000	---	2404.075000	2440.825000

DUT Frequency (MHz)	Max Level (dBm)	Result
2422.000000	-5.3	PASS

6 dB Bandwidth



Bandwidth



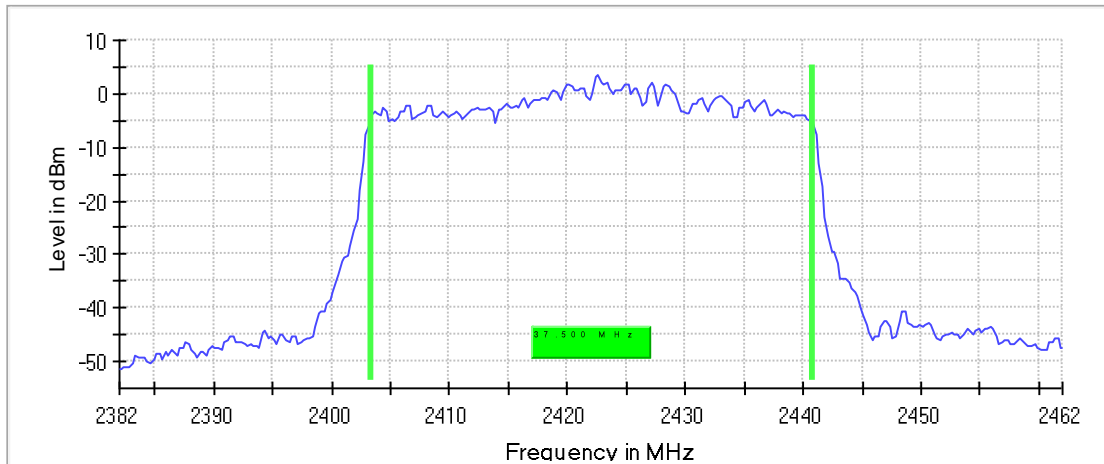
Occupied Channel Bandwidth 99% (2422 MHz; 20.000 dBm; 40 MHz)

99 % Bandwidth

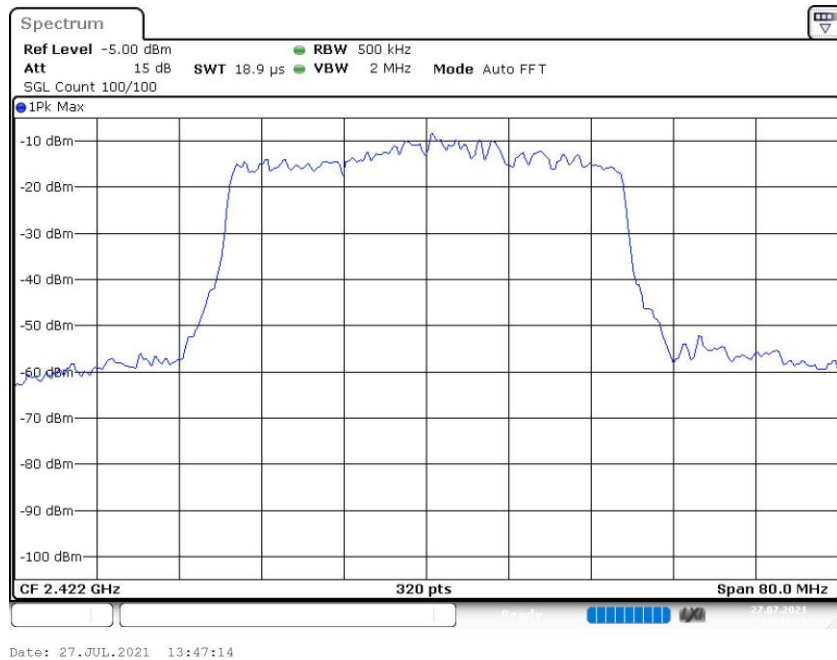
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2422.000000	37.500000	---	---	2403.375000	2440.875000

DUT Frequency (MHz)	Result
2422.000000	PASS

99 %Bandwidth



Bandwidth



Tx Spurious Emission (2422 MHz; 20.000 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

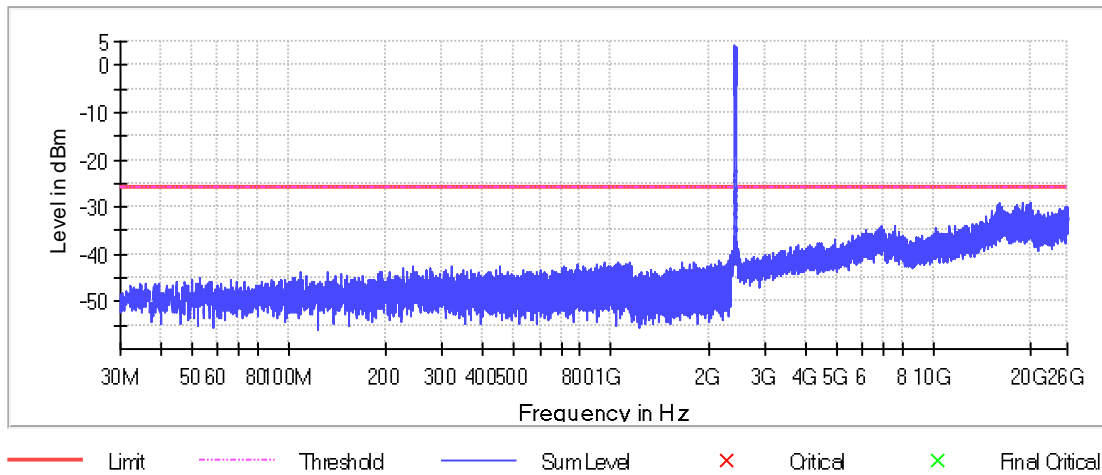
Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
19899.496117	-29.1	3.3	-25.8

18902.280702	-29.1	3.3	-25.8
18846.430760	-29.3	3.4	-25.8
15912.839060	-29.3	3.5	-25.8
19903.170456	-29.3	3.5	-25.8
19873.775749	-29.4	3.6	-25.8
19892.882308	-29.4	3.6	-25.8
15881.239750	-29.5	3.7	-25.8
18201.951822	-29.5	3.7	-25.8
19597.465509	-29.6	3.7	-25.8
19878.919823	-29.6	3.7	-25.8
19914.193471	-29.7	3.8	-25.8
19531.327419	-29.7	3.9	-25.8
19901.700720	-29.7	3.9	-25.8
19561.456994	-29.7	3.9	-25.8

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



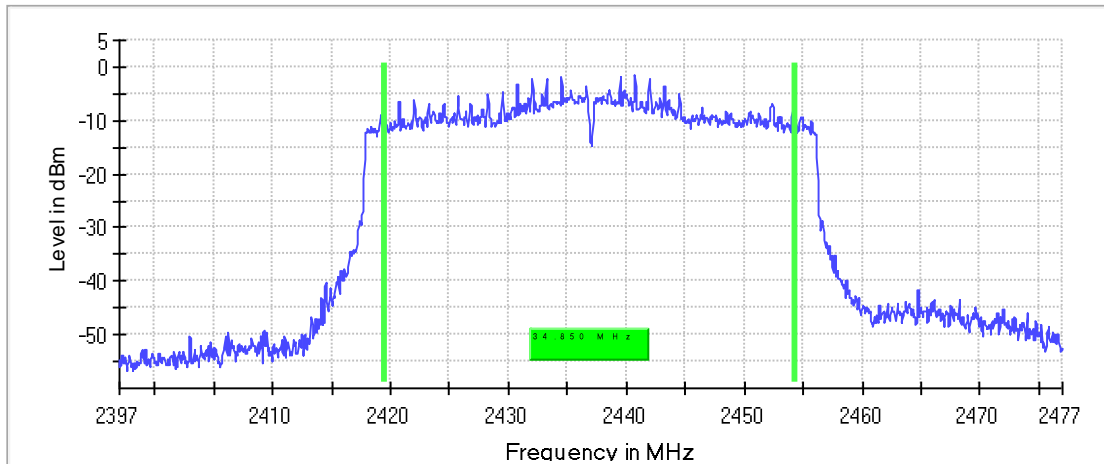
Minimum Emission Bandwidth 6 dB (2437 MHz; 20.000 dBm; 40 MHz)

6 dB Bandwidth

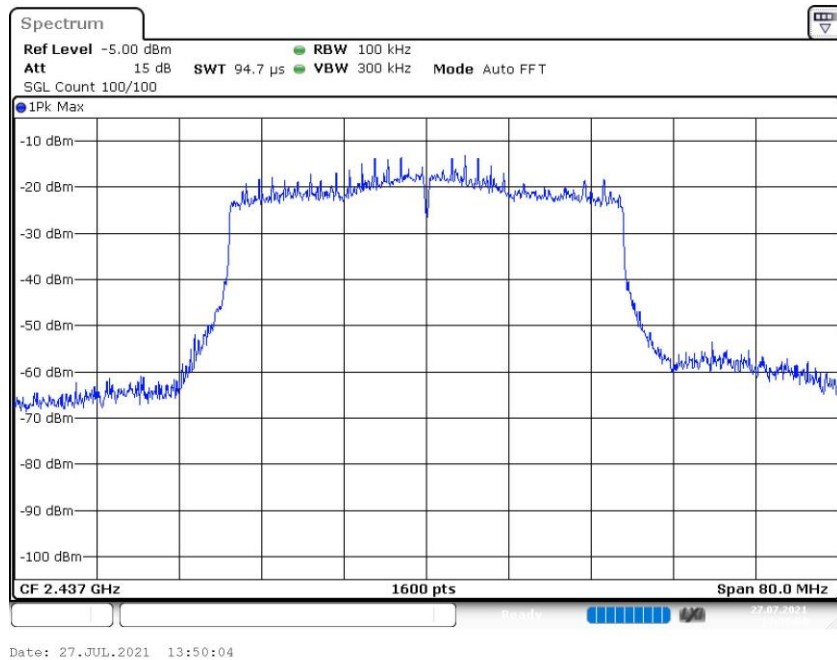
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2437.000000	34.850000	0.500000	---	2419.475000	2454.325000

DUT Frequency (MHz)	Max Level (dBm)	Result
2437.000000	-1.5	PASS

6 dB Bandwidth



Bandwidth



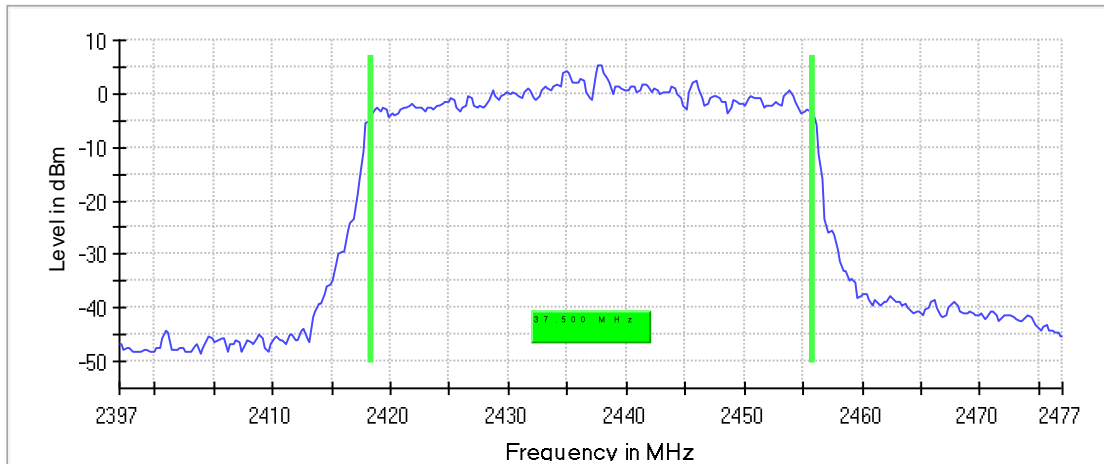
Occupied Channel Bandwidth 99% (2437 MHz; 20.000 dBm; 40 MHz)

99 % Bandwidth

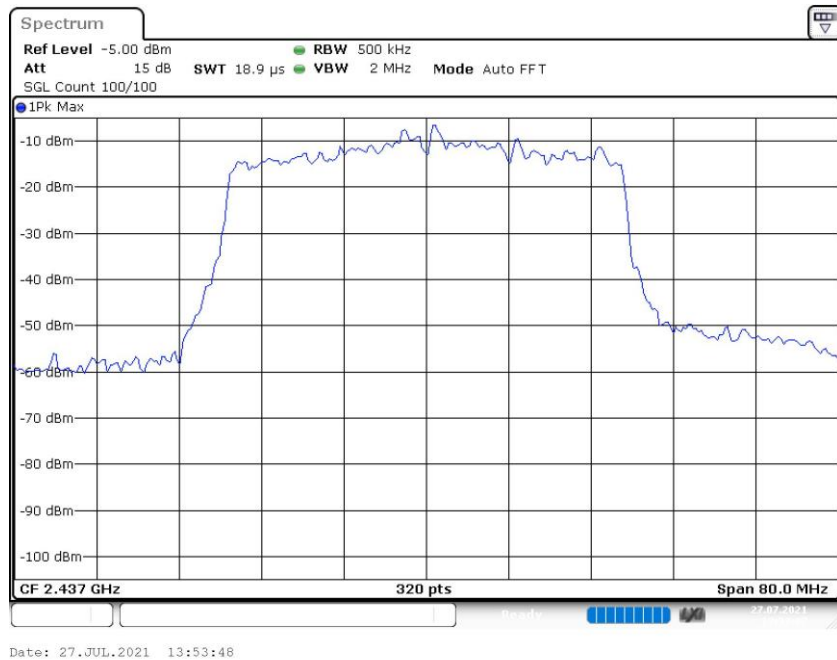
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2437.000000	37.500000	---	---	2418.375000	2455.875000

DUT Frequency (MHz)	Result
2437.000000	PASS

99 %Bandwidth



Bandwidth



Tx Spurious Emission (2437 MHz; 20.000 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

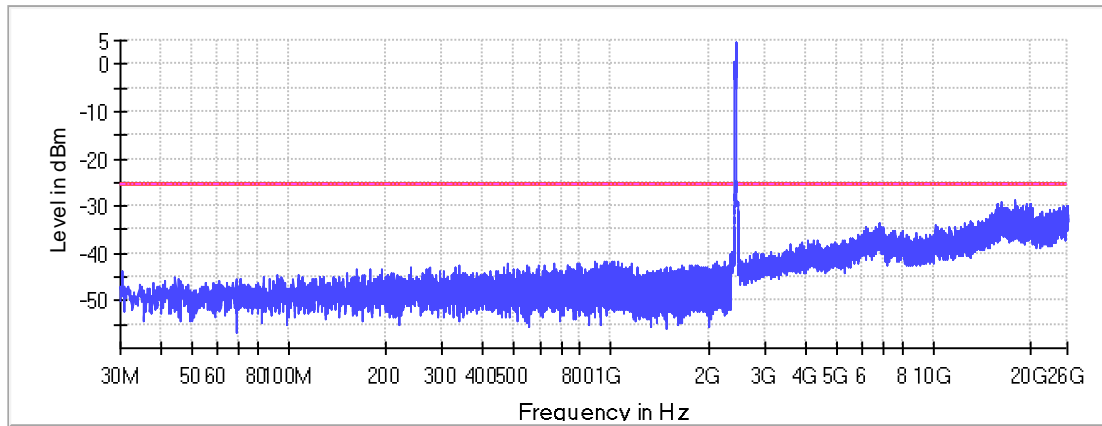
Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
---	---	---	---

17921.232376	-28.9	3.6	-25.3
16175.921682	-29.0	3.7	-25.3
17885.223860	-29.3	4.0	-25.3
19906.109926	-29.4	4.2	-25.3
15804.813514	-29.5	4.2	-25.3
19895.086911	-29.5	4.2	-25.3
19537.206361	-29.6	4.3	-25.3
15887.118692	-29.6	4.3	-25.3
19940.648706	-29.6	4.3	-25.3
18216.649175	-29.8	4.5	-25.3
18905.955040	-29.8	4.5	-25.3
19887.003367	-29.8	4.5	-25.3
15855.519382	-29.8	4.5	-25.3
19867.161940	-29.8	4.5	-25.3
18245.309014	-29.8	4.5	-25.3

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



— Limit - - - - Threshold — Sum Level × Critical × Final Critical

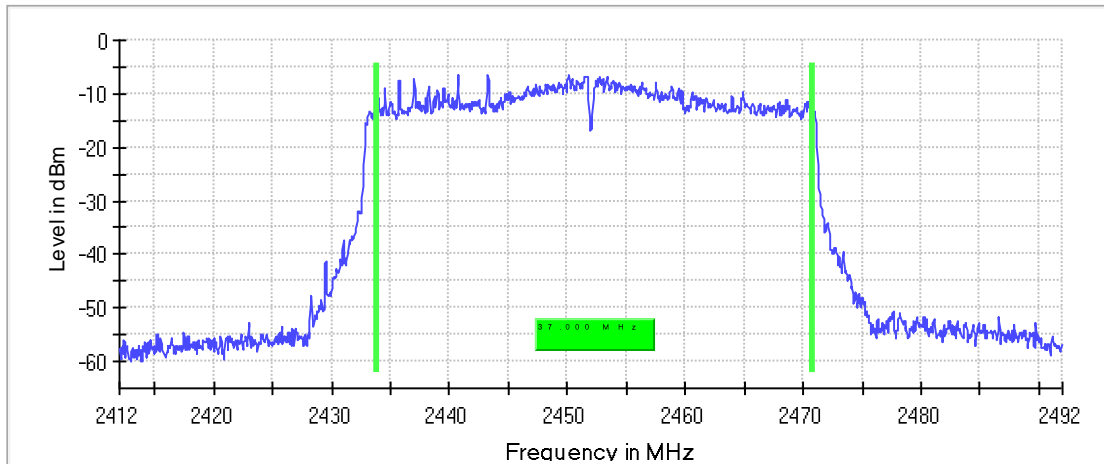
Minimum Emission Bandwidth 6 dB (2452 MHz; 20.000 dBm; 40 MHz)

6 dB Bandwidth

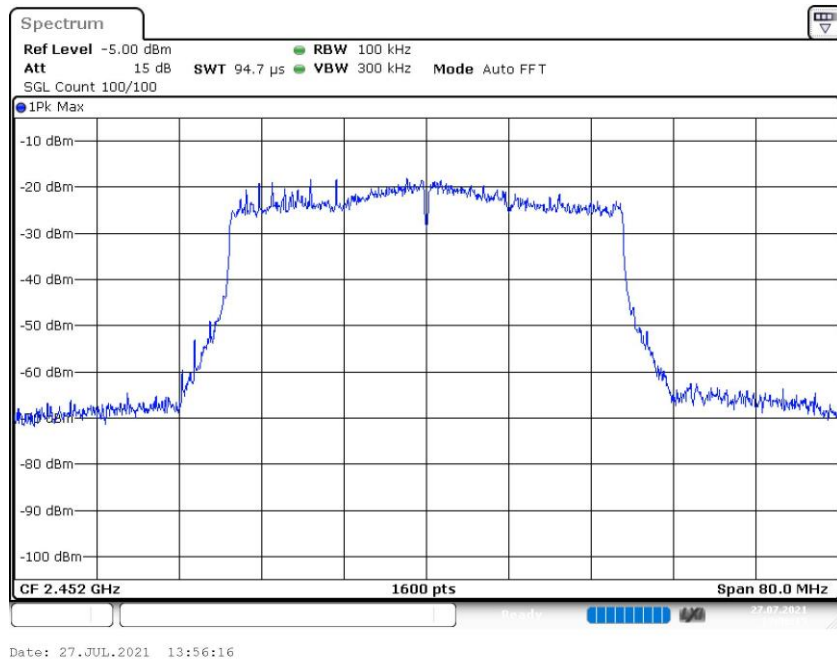
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2452.000000	37.000000	0.500000	---	2433.875000	2470.875000

DUT Frequency (MHz)	Max Level (dBm)	Result
2452.000000	-6.4	PASS

6 dB Bandwidth



Bandwidth

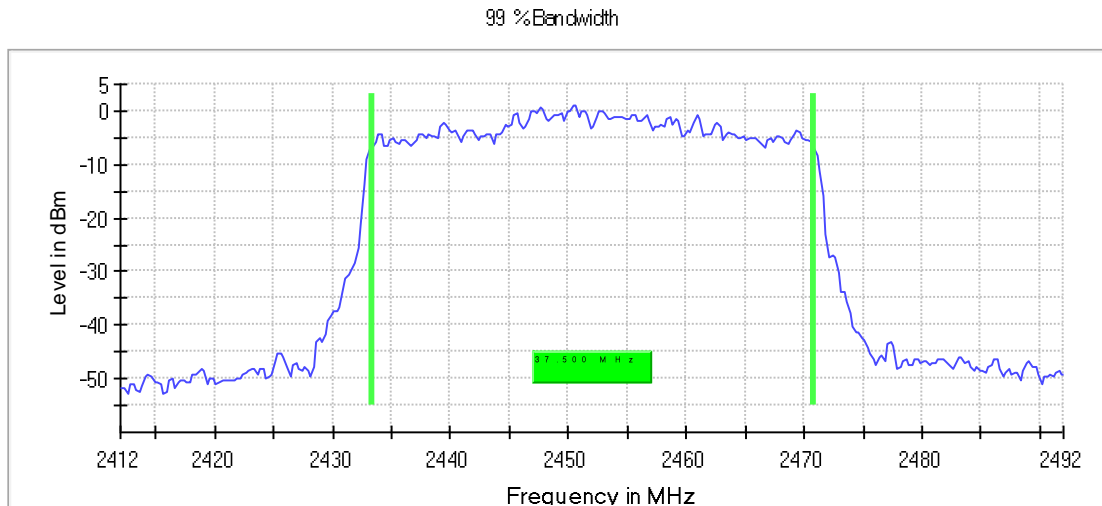


Occupied Channel Bandwidth 99% (2452 MHz; 20.000 dBm; 40 MHz)

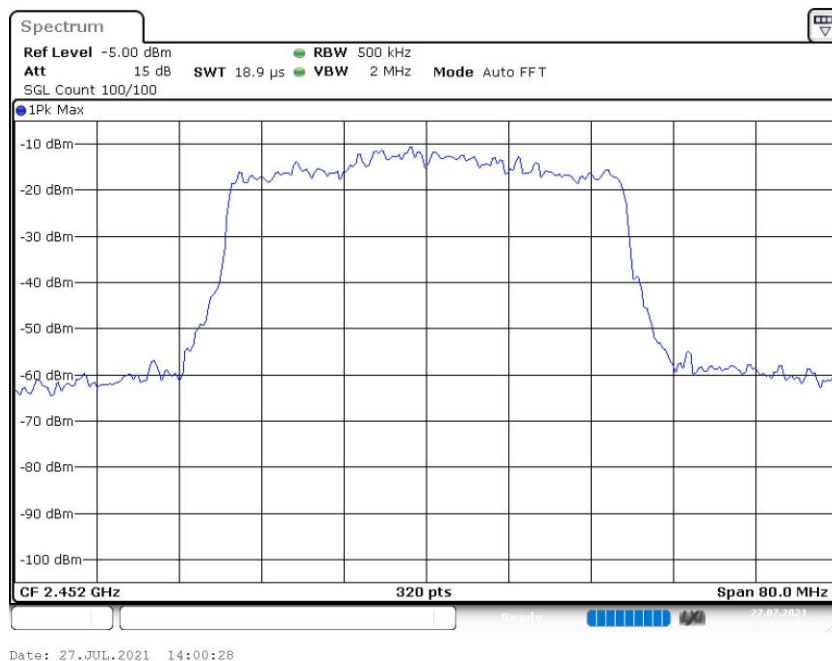
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2452.000000	37.500000	---	---	2433.375000	2470.875000

DUT Frequency (MHz)	Result
2452.000000	PASS



Bandwidth



Tx Spurious Emission (2452 MHz; 20.000 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
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Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
19880.389558	-28.4	1.1	-27.3

17890.367934	-28.7	1.4	-27.3
18897.871496	-28.8	1.5	-27.3
19889.207970	-28.8	1.5	-27.3
19888.473102	-29.1	1.8	-27.3
16155.345388	-29.2	1.9	-27.3
18221.058381	-29.2	1.9	-27.3
19865.692205	-29.3	1.9	-27.3
18872.885996	-29.4	2.0	-27.3
18233.551131	-29.4	2.1	-27.3
19583.503023	-29.4	2.1	-27.3
16195.028241	-29.4	2.1	-27.3
17880.079787	-29.4	2.1	-27.3
17885.958728	-29.5	2.1	-27.3
16146.526976	-29.6	2.2	-27.3

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

