

Date: 23.OCT.2019 03:54:04

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
SweepTime	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

Band Edge low (2412 MHz; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v05 8.7 and ANSI C63.10-2013

Measurement uncertainty calculated in accordance with ETSI TR 100 028-1.
Expanded Uncertainty (K=2) < 0.8 dB

Result

DUT Frequency (MHz)	Result
2412.000000	PASS

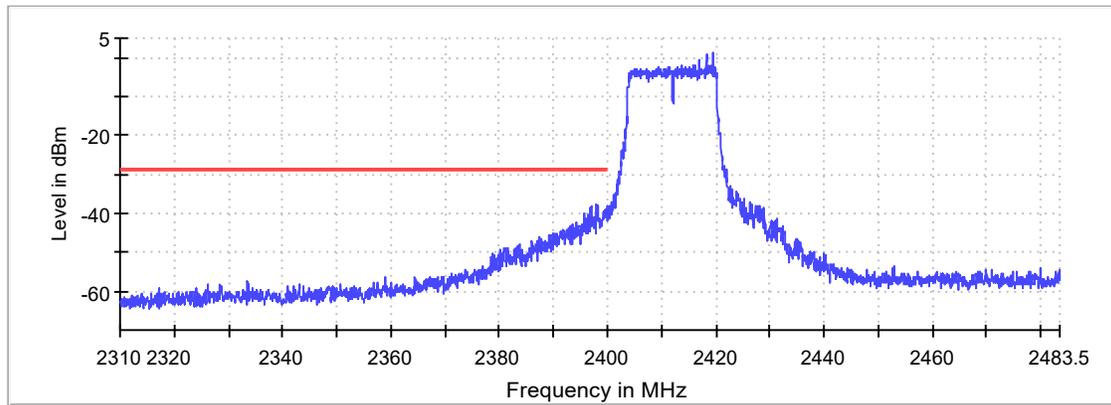
Inband Peak

Frequency (MHz)	Level (dBm)
2419.475000	1.0

Measurements

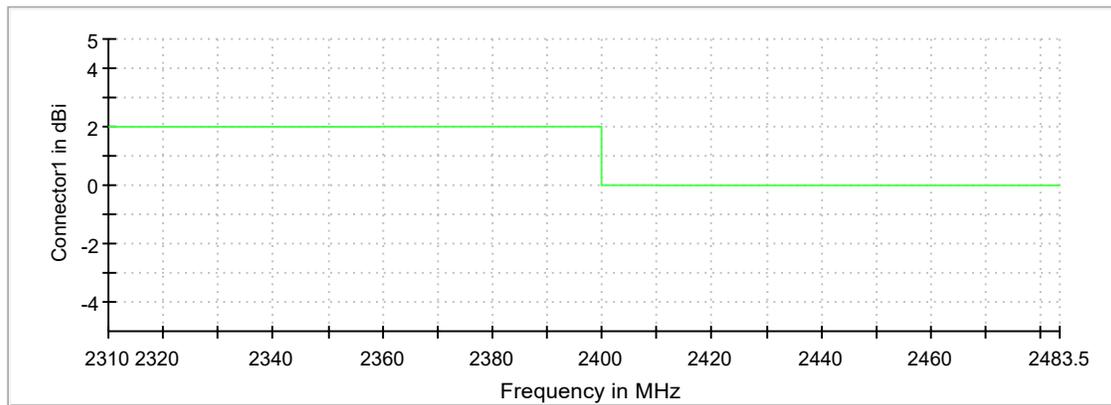
Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2397.975000	-37.5	8.6	-29.0	PASS
2397.925000	-37.9	8.9	-29.0	PASS
2398.225000	-37.9	9.0	-29.0	PASS
2396.975000	-38.0	9.0	-29.0	PASS
2398.025000	-38.1	9.2	-29.0	PASS
2397.025000	-38.2	9.2	-29.0	PASS
2396.625000	-38.4	9.5	-29.0	PASS
2396.675000	-38.4	9.5	-29.0	PASS
2398.275000	-38.5	9.6	-29.0	PASS
2398.175000	-39.0	10.0	-29.0	PASS
2399.475000	-39.0	10.1	-29.0	PASS
2399.725000	-39.1	10.1	-29.0	PASS
2399.525000	-39.1	10.1	-29.0	PASS
2399.775000	-39.1	10.2	-29.0	PASS
2396.925000	-39.2	10.2	-29.0	PASS

Band Edge



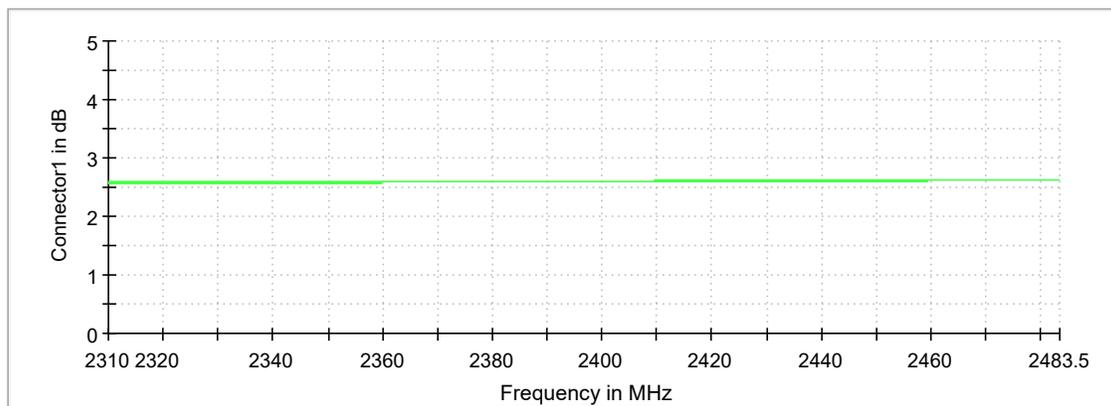
— Limit — Sum Level × Fail

Gain



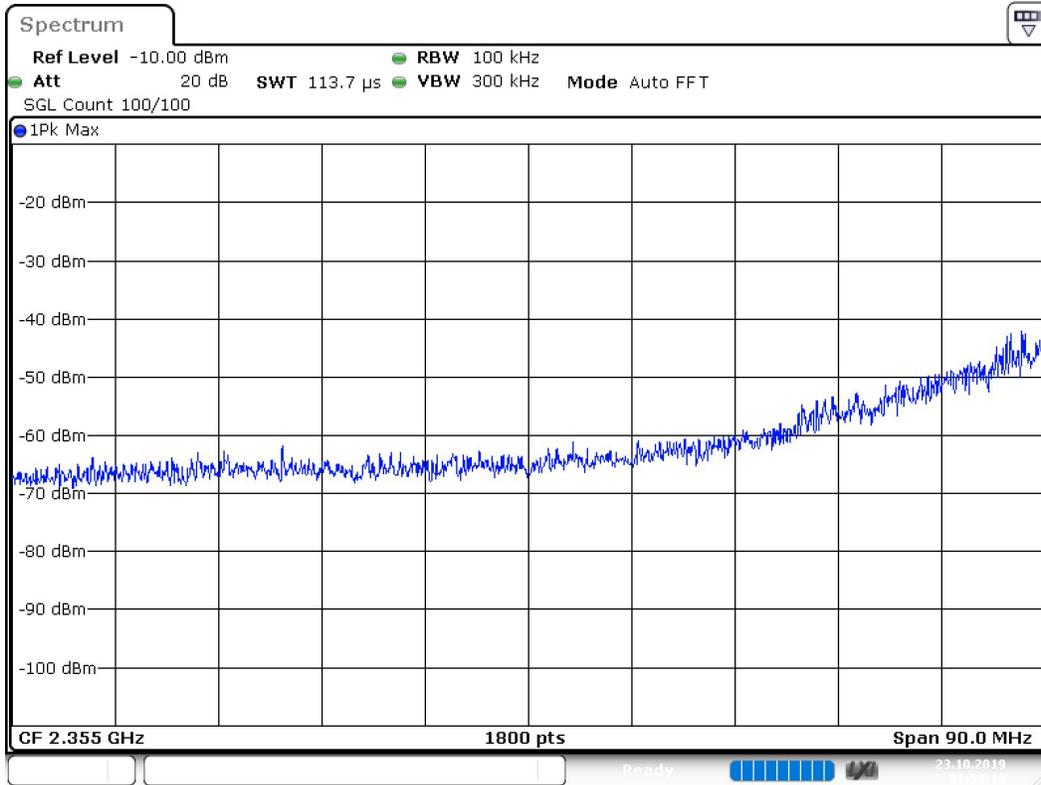
— Connector1

Attenuation



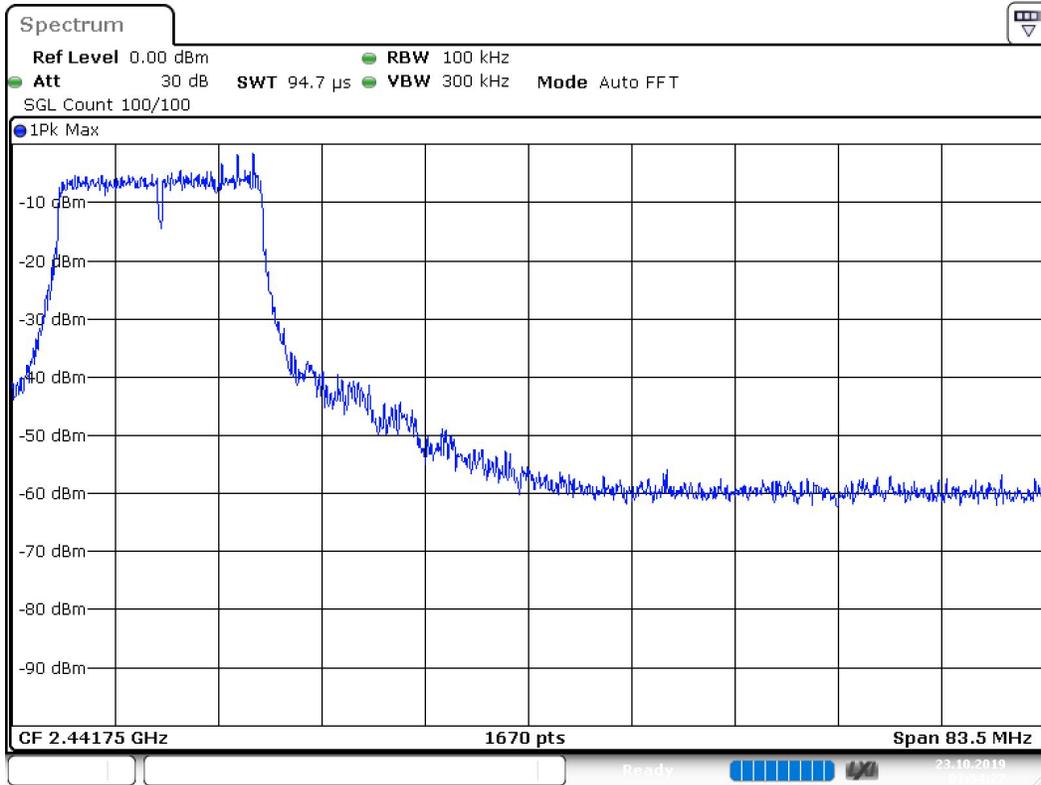
— Connector1

Band Edge Connector 1_0



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Band Edge Connector 1_1



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Measurement 1

Setting	Instrument Value	Target Value
Start Frequency	2.31000 GHz	2.31000 GHz
Stop Frequency	2.40000 GHz	2.40000 GHz
Span	90.000 MHz	90.000 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	1800	~ 1800
SweepTime	113.672 μs	AUTO
Reference Level	-10.000 dBm	-30.000 dBm
Attenuation	20.000 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

Measurement 2

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.48350 GHz	2.48350 GHz
Span	83.500 MHz	83.500 MHz
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	1670	~ 1670
SweepTime	94.727 μs	AUTO
Reference Level	0.000 dBm	-30.000 dBm

Setting	Instrument Value	Target Value
Attenuation	30.000 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 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v05 8.5 and ANSI C63.10-2013 11.11.2 & 11.11.3

Measurement uncertainty calculated in accordance with ETSI TR 100 028-1.
Expanded Uncertainty (K=2) < 1.8 dB

Result

DUT Frequency (MHz)	Result
2412.000000	PASS

Final measurements

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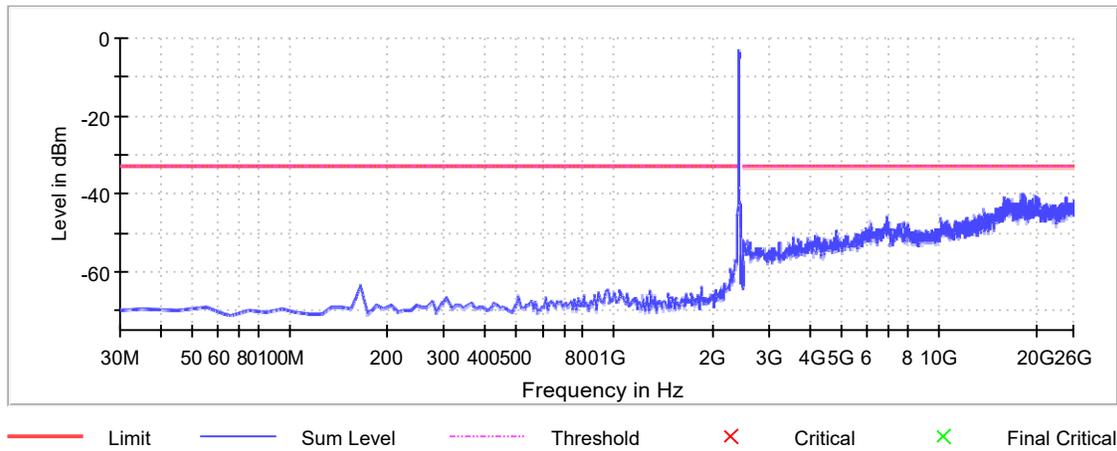
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
17899.650127	-40.0	7.4	-32.6
18269.437845	-40.5	7.9	-32.6
19888.508394	-40.6	7.9	-32.6
19848.531343	-40.7	8.1	-32.6
24555.829048	-40.8	8.1	-32.6
19908.496919	-40.9	8.2	-32.6
15880.809074	-40.9	8.3	-32.6
19528.714938	-41.1	8.4	-32.6
20248.301849	-41.3	8.6	-32.6
18279.432108	-41.3	8.7	-32.6
19868.519868	-41.4	8.7	-32.6
19968.462495	-41.4	8.8	-32.6
16180.636953	-41.4	8.8	-32.6
20258.296111	-41.5	8.8	-32.6
19898.502656	-41.5	8.8	-32.6

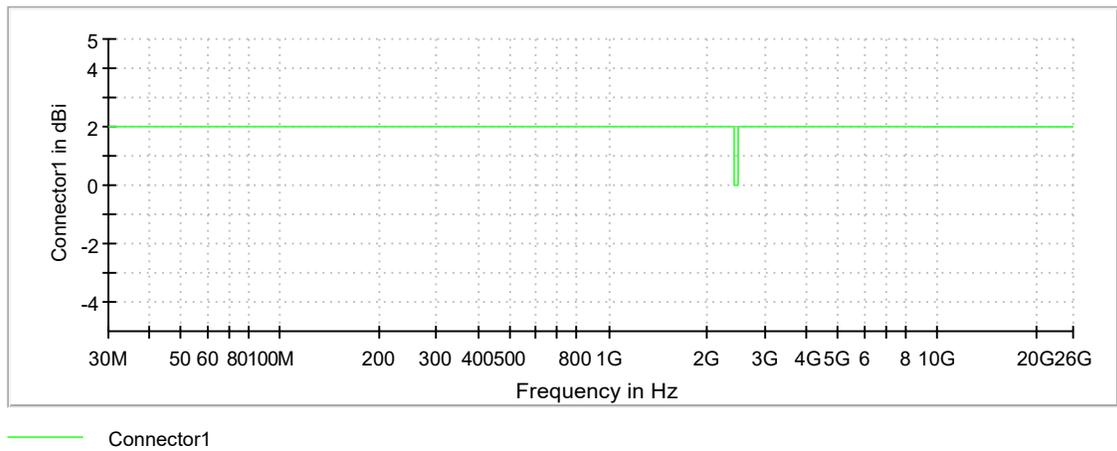
Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	2400.000000	1	1
2400.000000	2483.500000	1	1
2483.500000	26000.000000	1	1

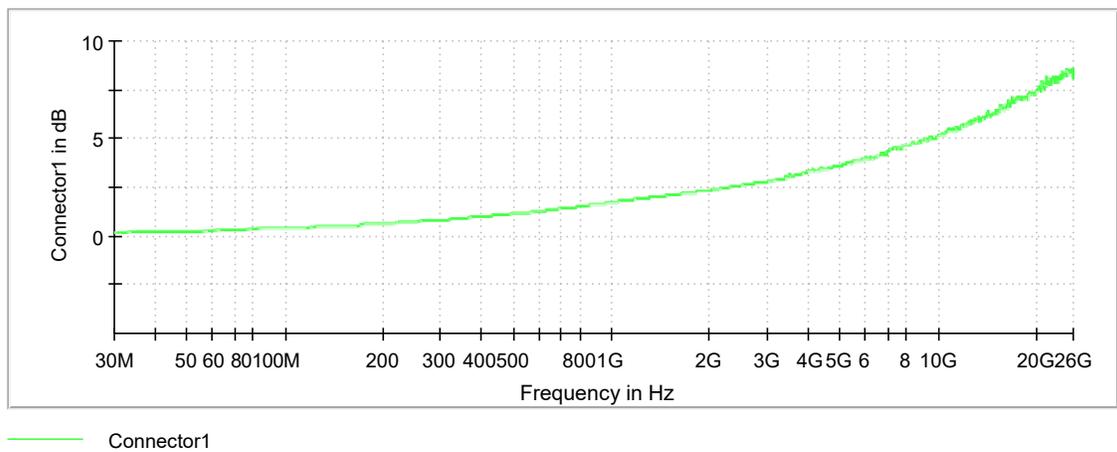
Spurious



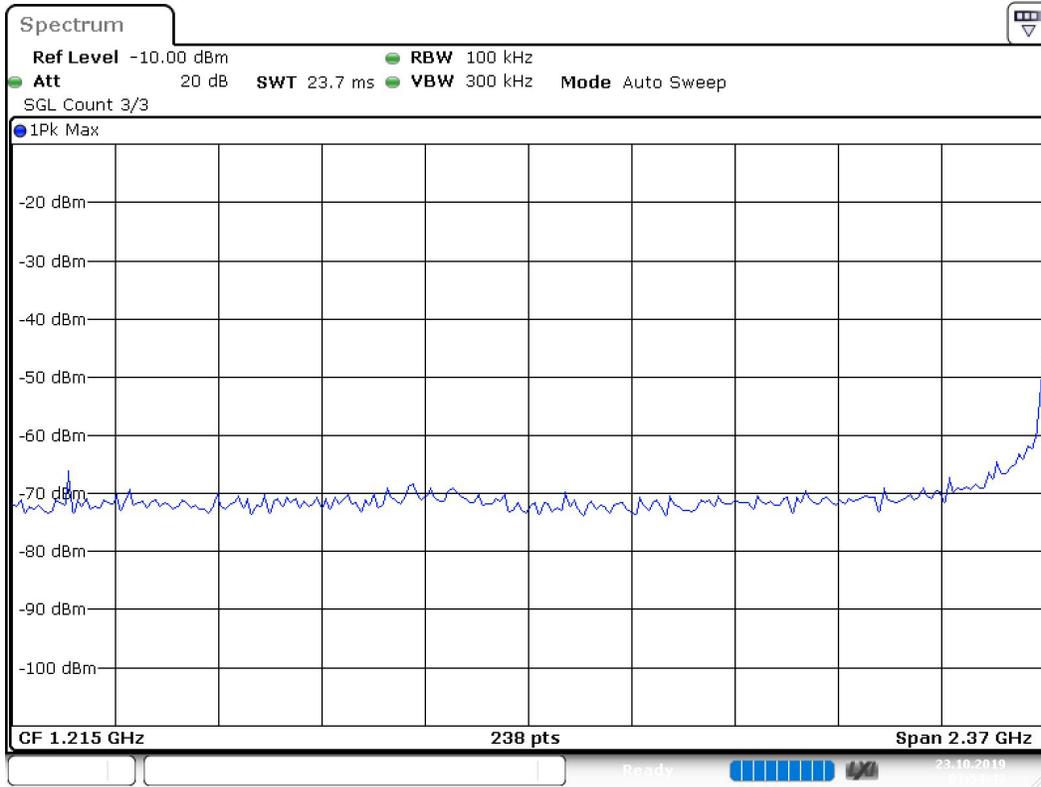
Gain



Attenuation

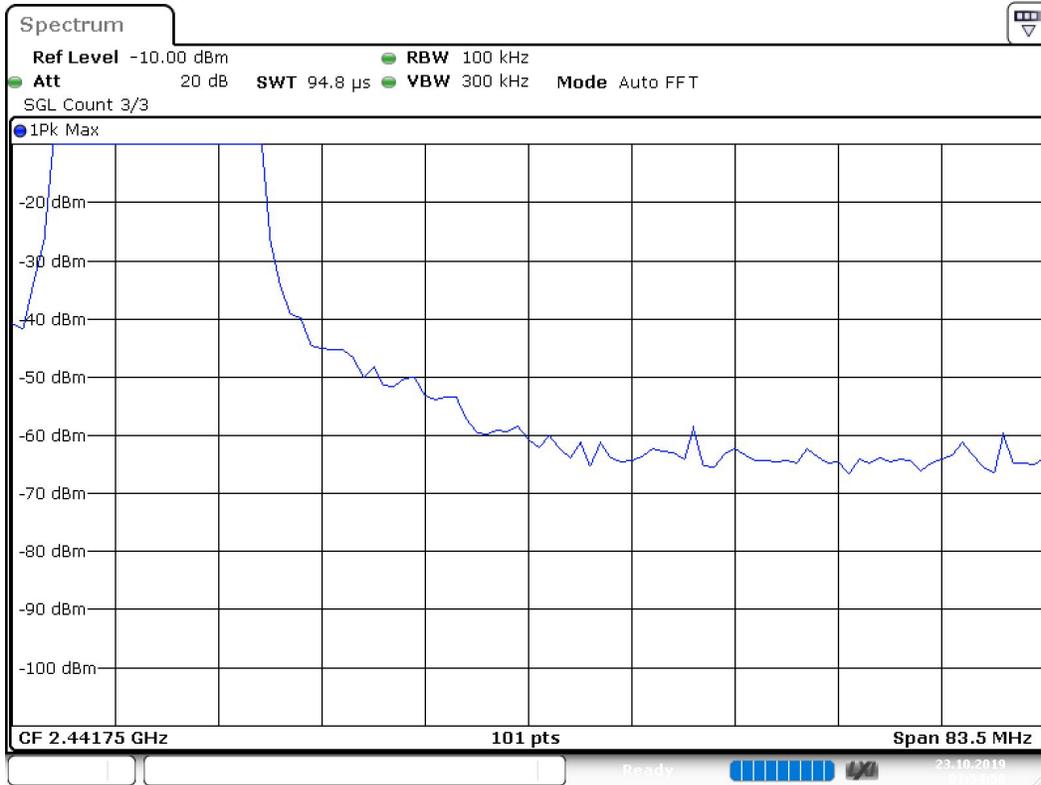


Spurious Connector 1_0



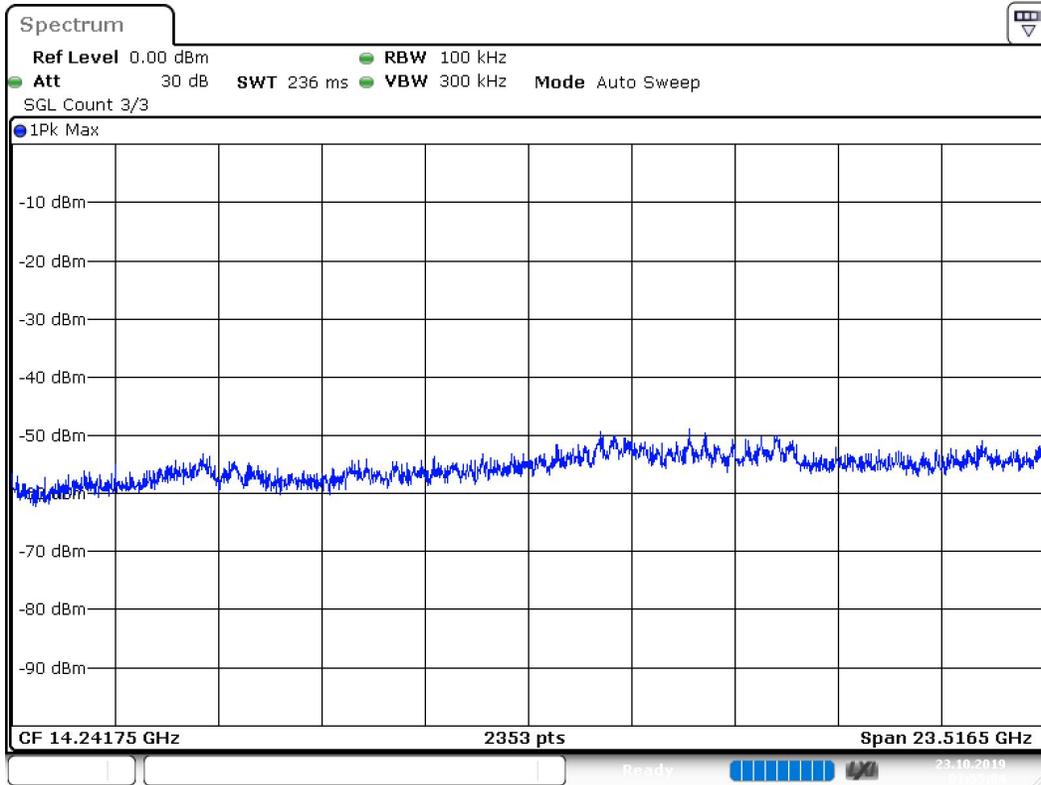
Date: 23.OCT.2019 03:54:43

Spurious Connector 1_1



Date: 23.OCT.2019 03:54:50

Spurious Connector 1_2



Date: 23.OCT.2019 03:55:04

Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	238	~ 238
Sweeptime	23.700 ms	AUTO
Reference Level	-10.000 dBm	-30.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	3	3
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off

Emissions in restricted frequency bands (Average) (2412 MHz; 20 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v05 8.6 and ANSI C63.10-2013 11.12.2.6

Measurement uncertainty calculated in accordance with ETSI TR 100 028-1.
Expanded Uncertainty (K=2) < 1.8 dB

Result

DUT Frequency (MHz)	Result
2412.000000	PASS

Final measurements

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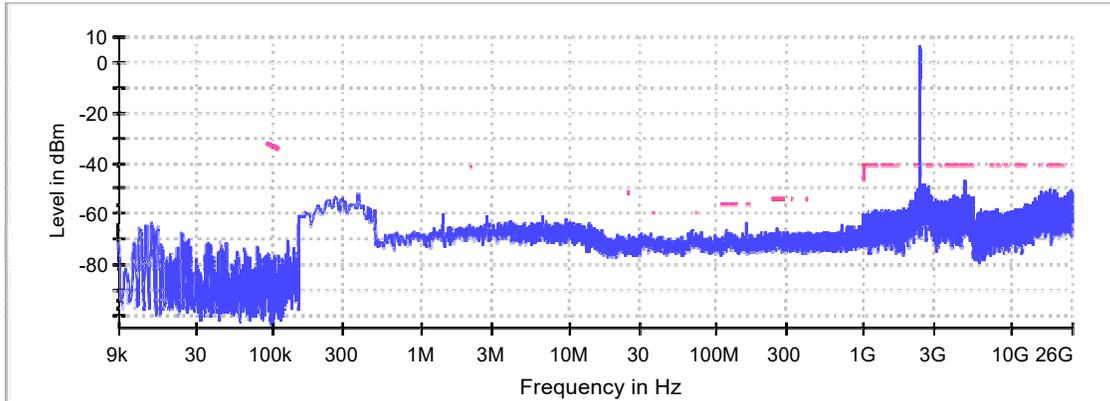
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
4819.750000	-46.5	5.3	-41.2
4825.250000	-47.1	5.9	-41.2
4821.250000	-47.4	6.2	-41.2
4821.750000	-47.5	6.3	-41.2
4823.250000	-48.0	6.8	-41.2
4822.750000	-48.1	6.9	-41.2
2489.750000	-48.1	6.9	-41.2
4825.750000	-48.1	6.9	-41.2
2389.750000	-48.5	7.3	-41.2
4816.750000	-48.5	7.3	-41.2
2492.750000	-48.8	7.6	-41.2
4816.250000	-49.0	7.8	-41.2
4832.750000	-49.2	8.0	-41.2
4829.750000	-49.2	8.0	-41.2
4829.250000	-49.2	8.0	-41.2

Measurement Settings

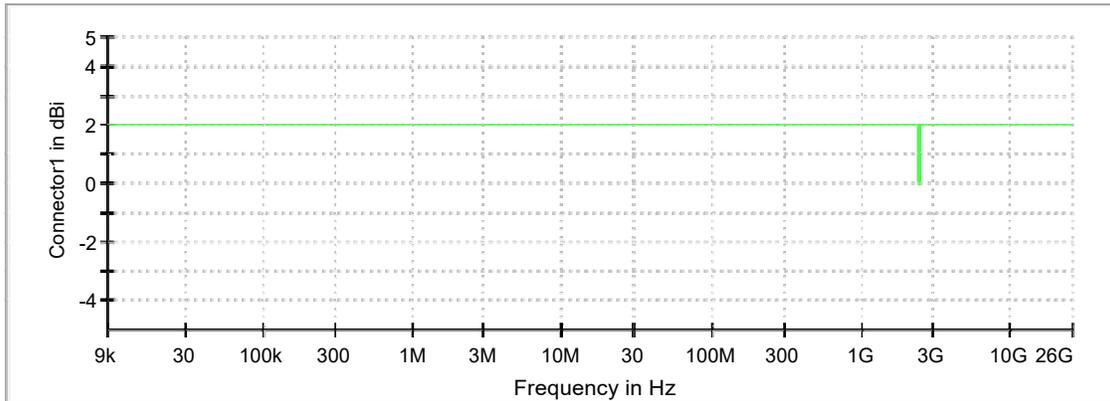
Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
0.009000	0.090000	2	2
0.090000	0.110000	2	2
0.110000	0.150000	2	2
0.150000	0.490000	2	2
0.490000	30.000000	2	2
30.000000	1000.000000	2	2
1000.000000	2400.000000	1	1
2400.000000	2483.500000	1	1
2483.500000	5470.000000	1	1
5470.000000	7000.000000	1	1
7000.000000	16000.000000	1	1
16000.000000	26000.000000	1	1

Restricted Band



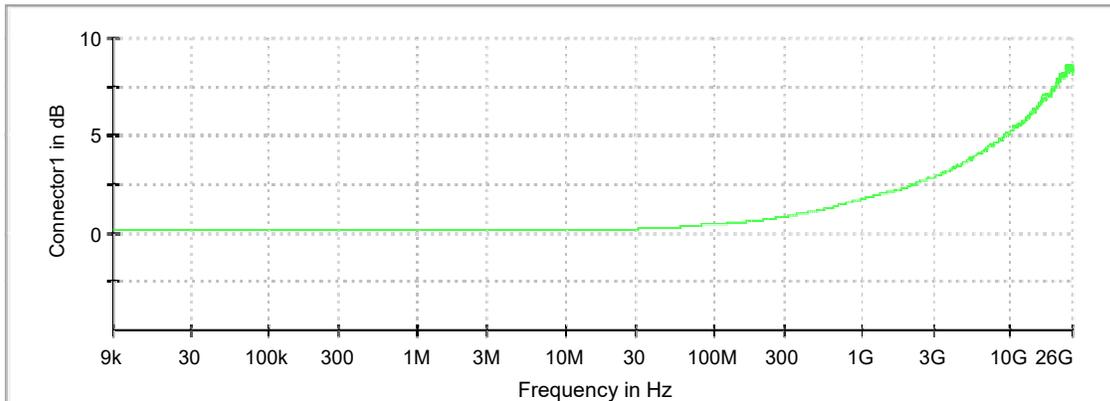
— Limit - - - - Threshold × Critical — Sum Level × Final Critical

Gain



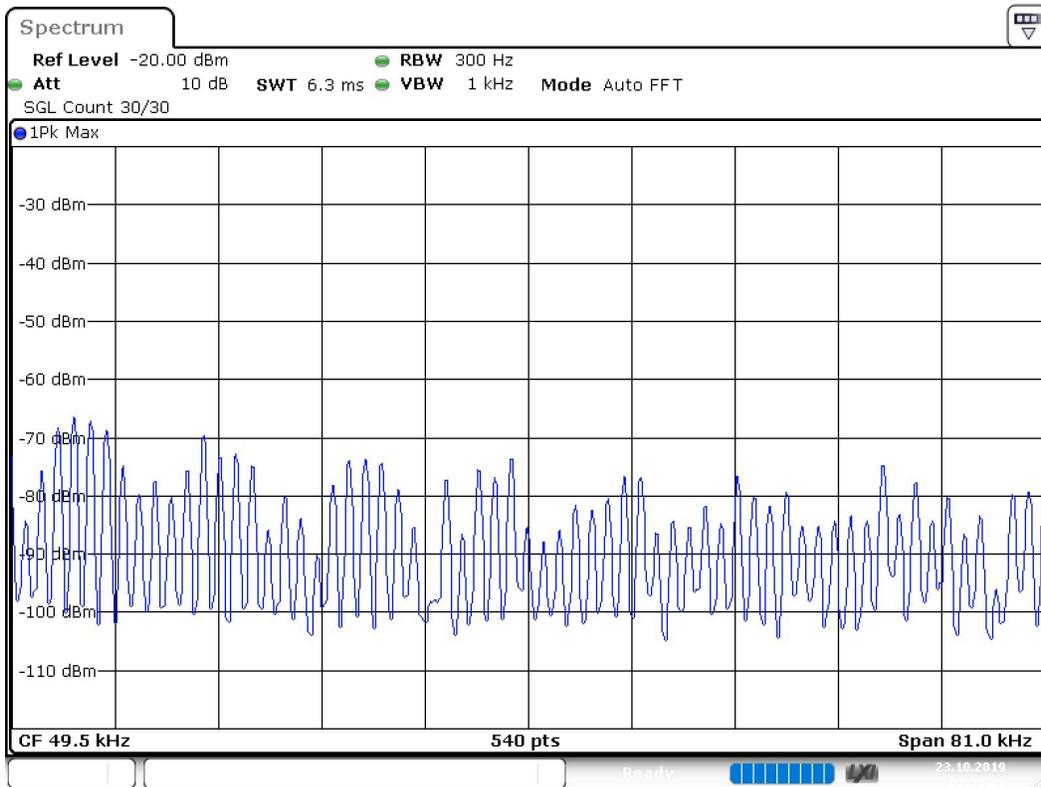
— Connector1

Attenuation



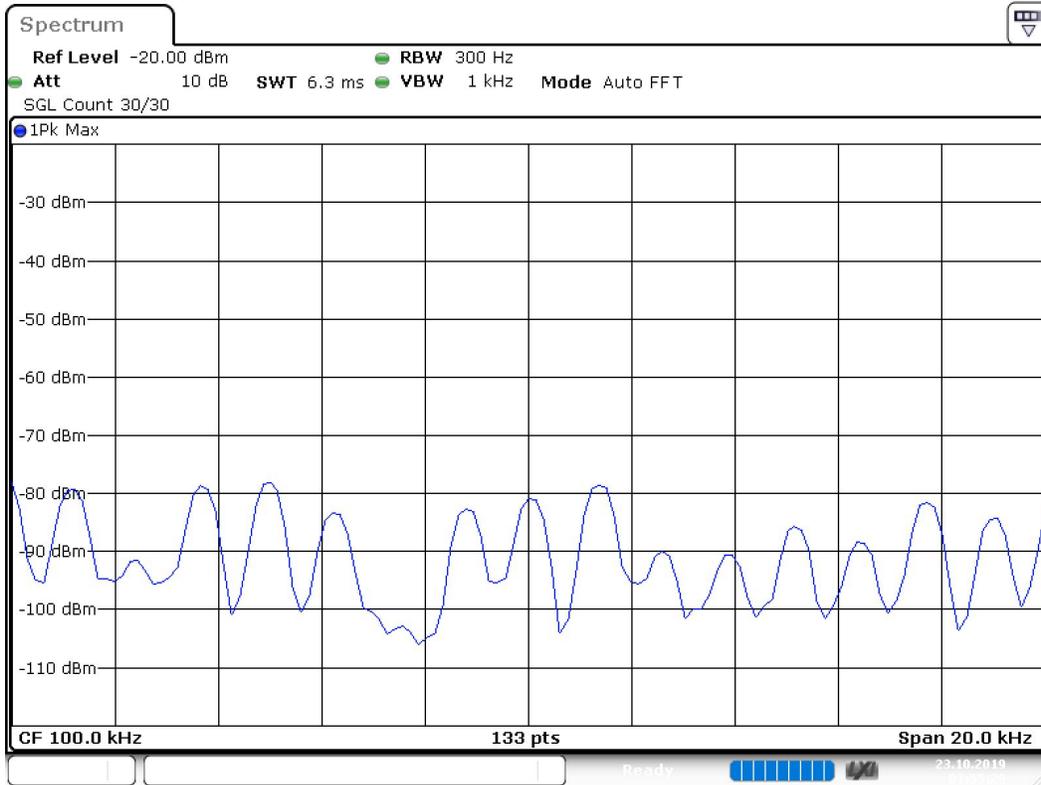
— Connector1

Restricted Band Connector 1_0



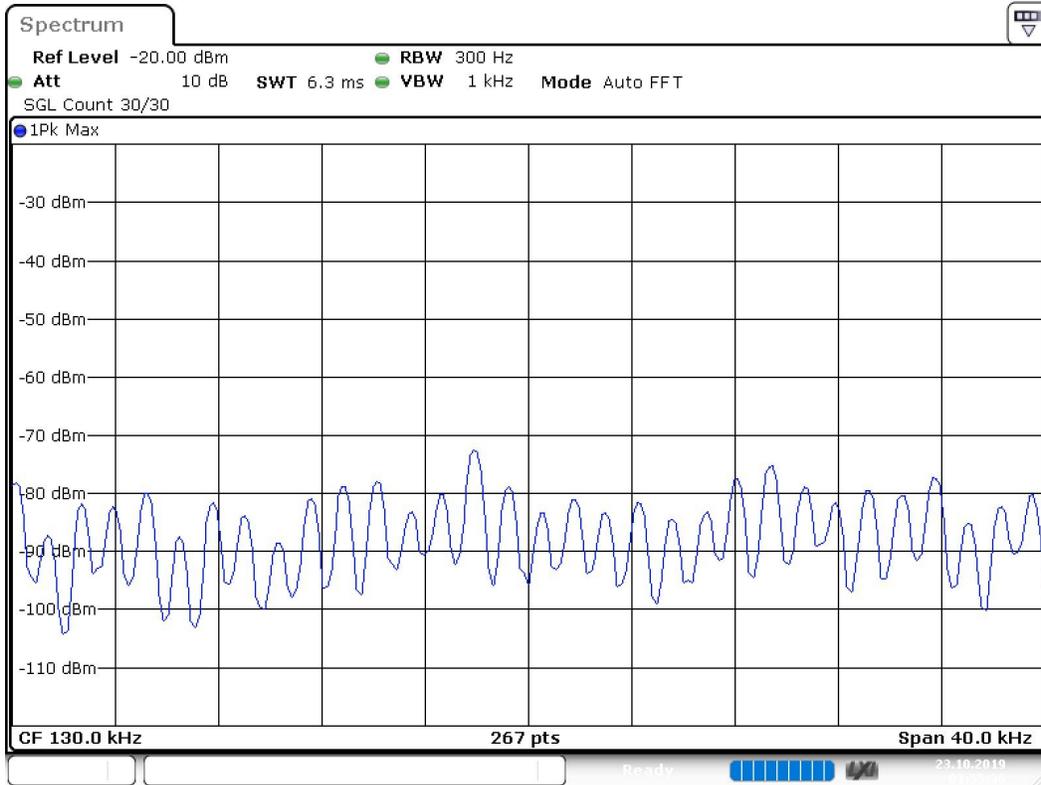
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Restricted Band Connector 1_1



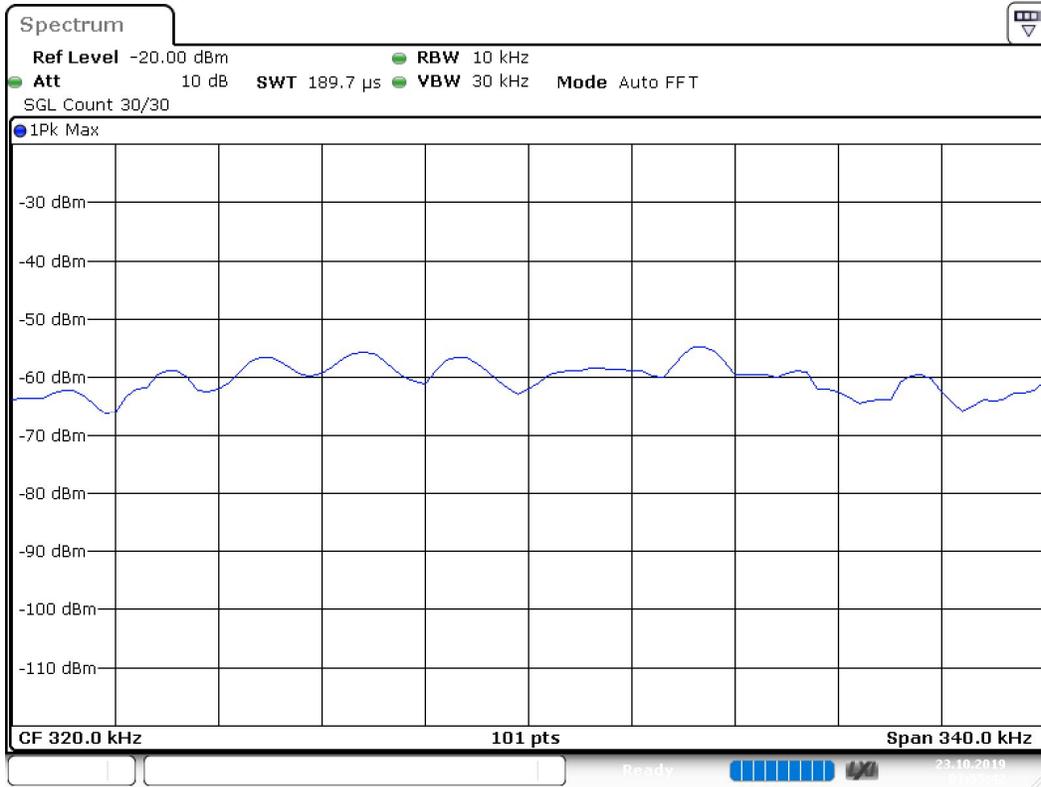
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Restricted Band Connector 1_2



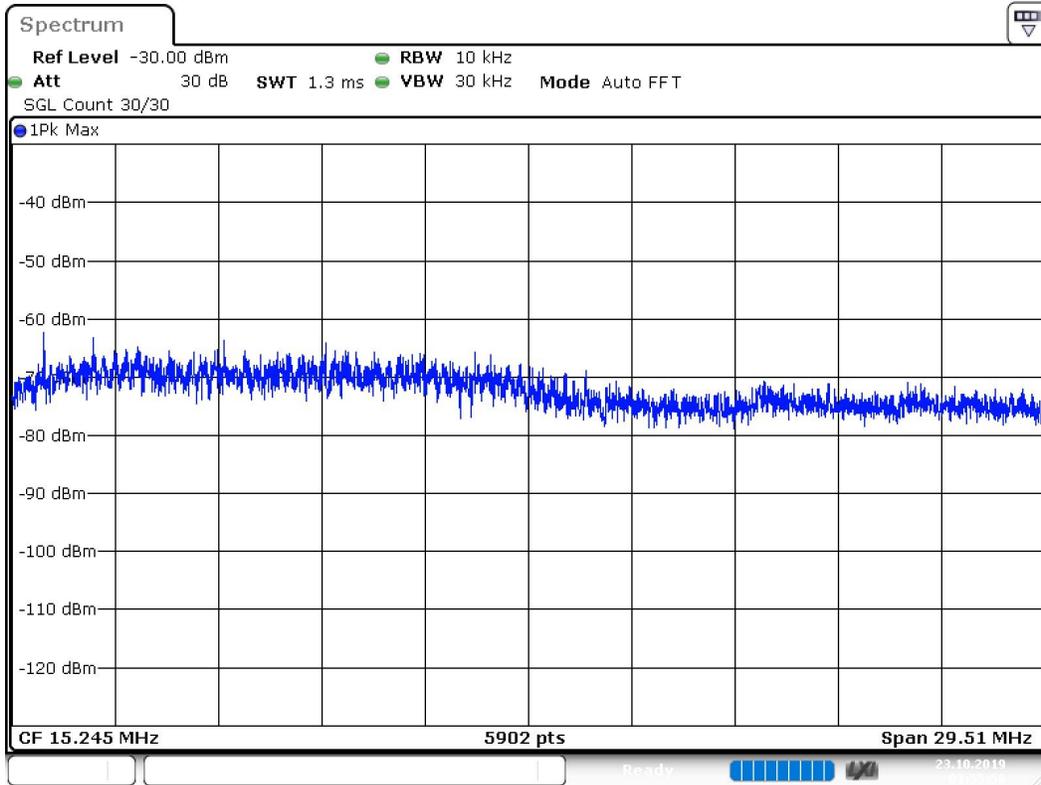
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Restricted Band Connector 1_3



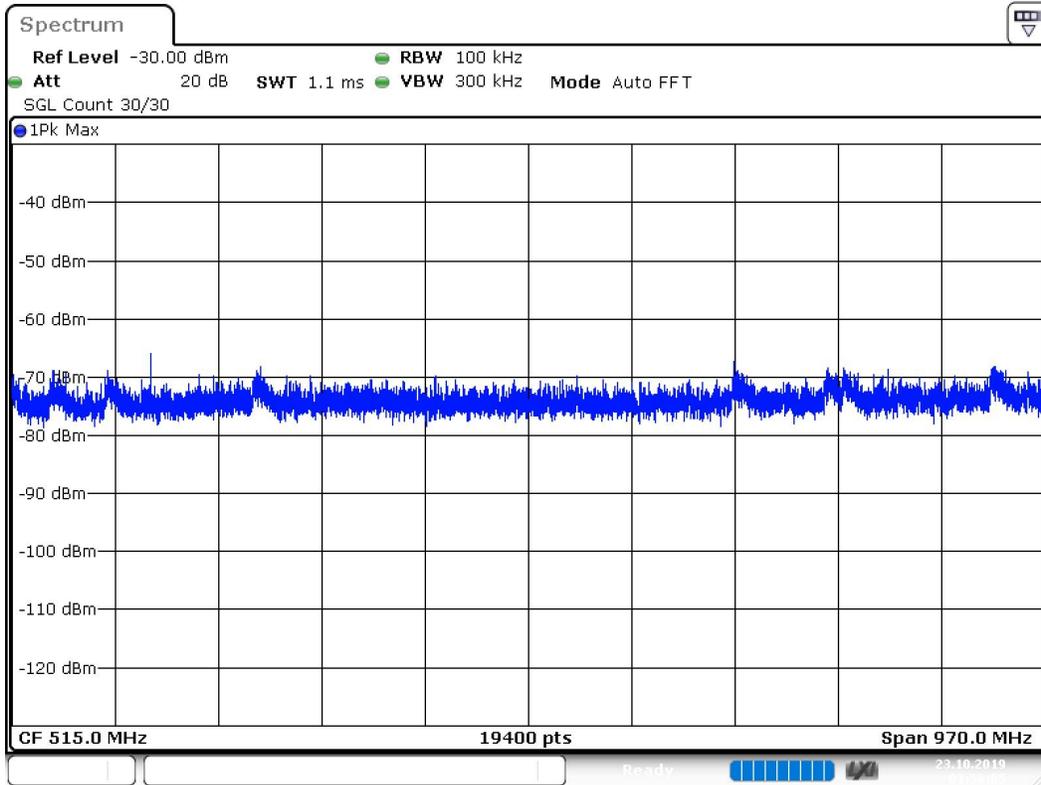
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Restricted Band Connector 1_4



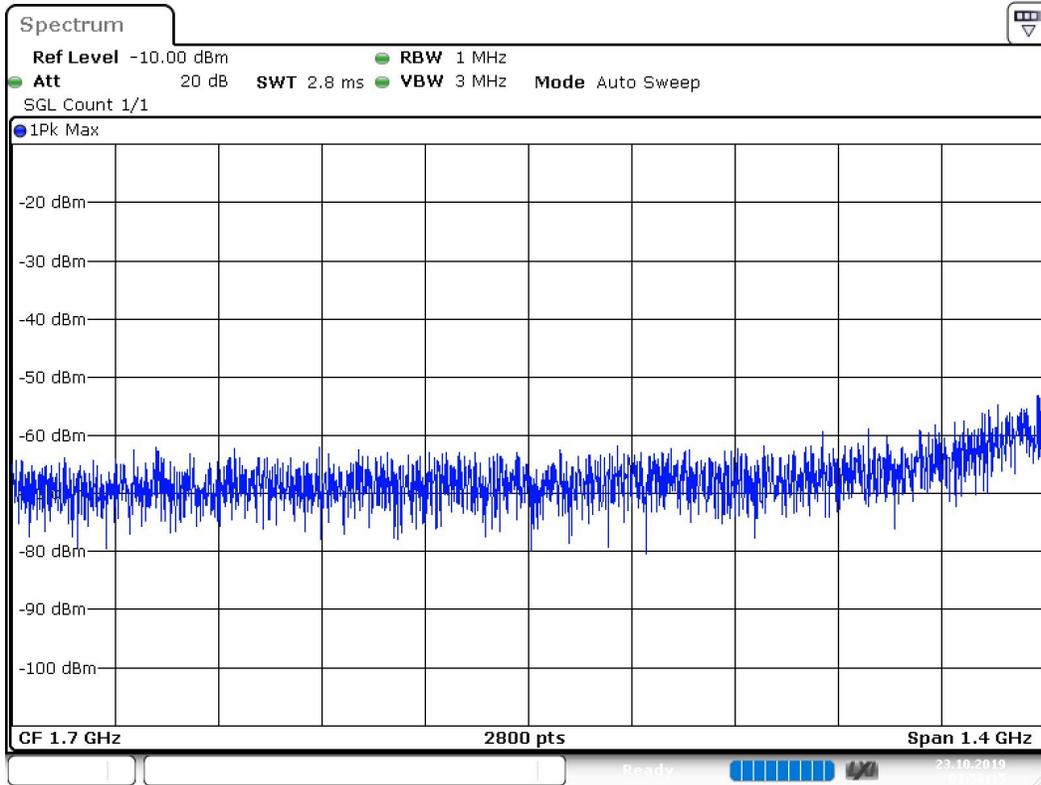
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Restricted Band Connector 1_5



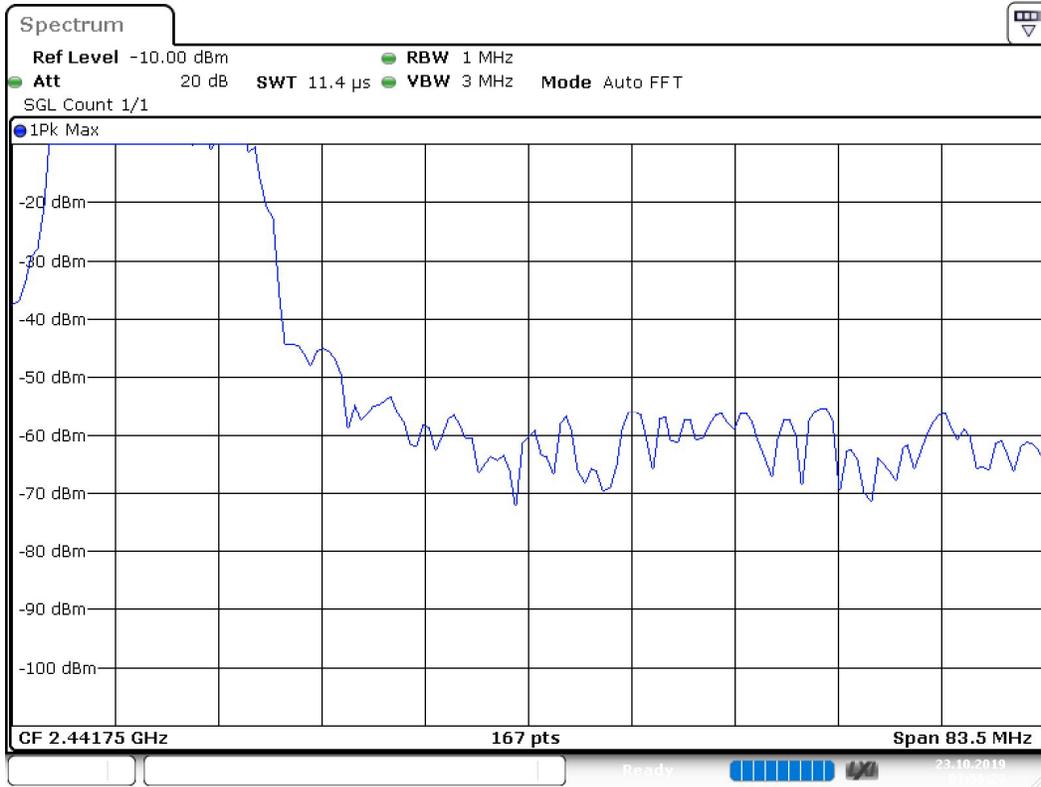
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Restricted Band Connector 1_6



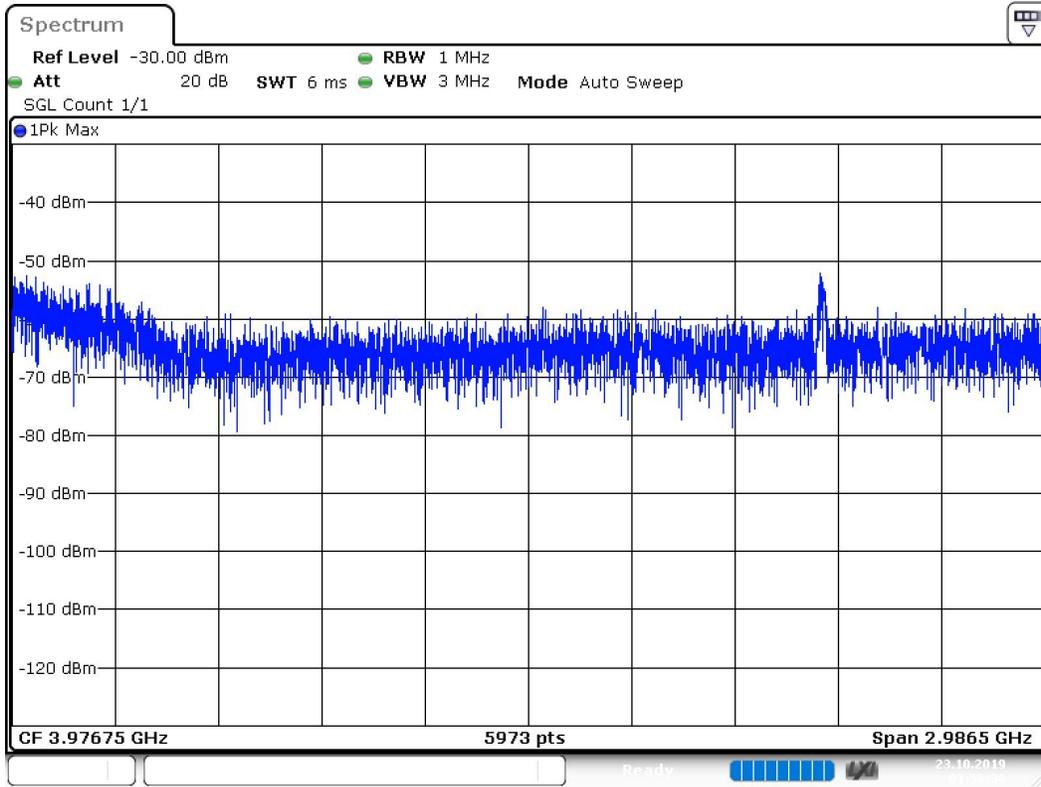
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Restricted Band Connector 1_7



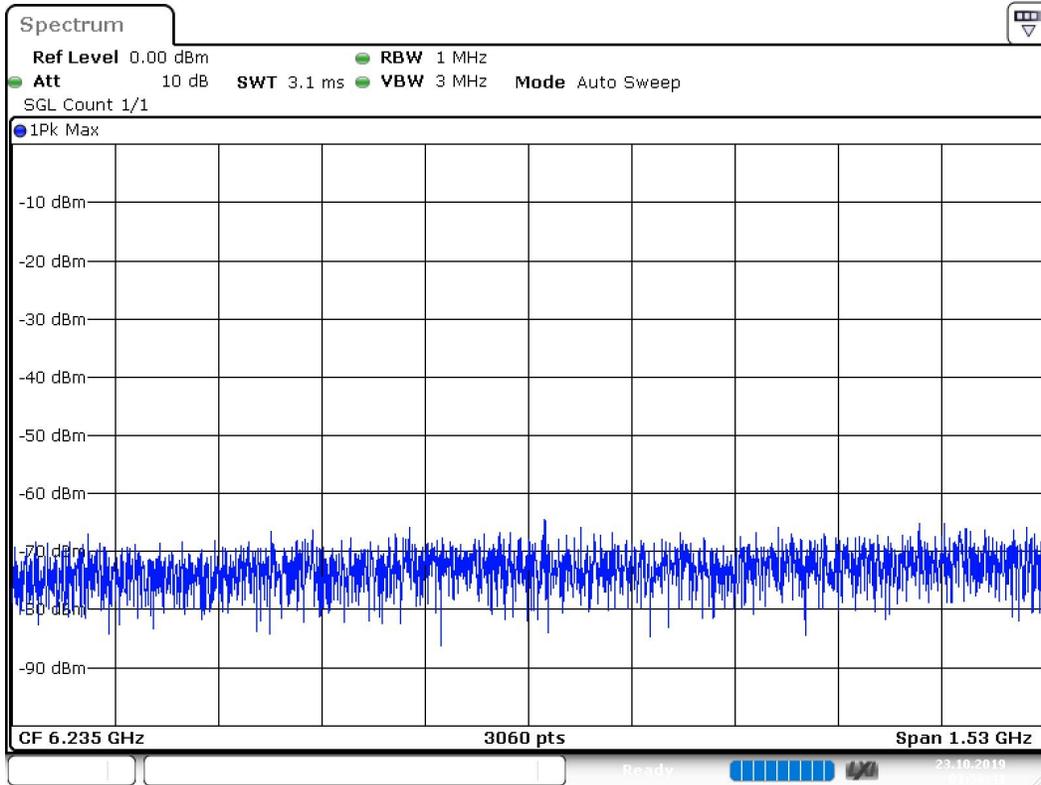
Date: 23.OCT.2019 03:56:23

Restricted Band Connector 1_8



Date: 23.OCT.2019 03:56:30

Restricted Band Connector 1_9



Date: 23.OCT.2019 03:56:41

Restricted Band Connector 1_10