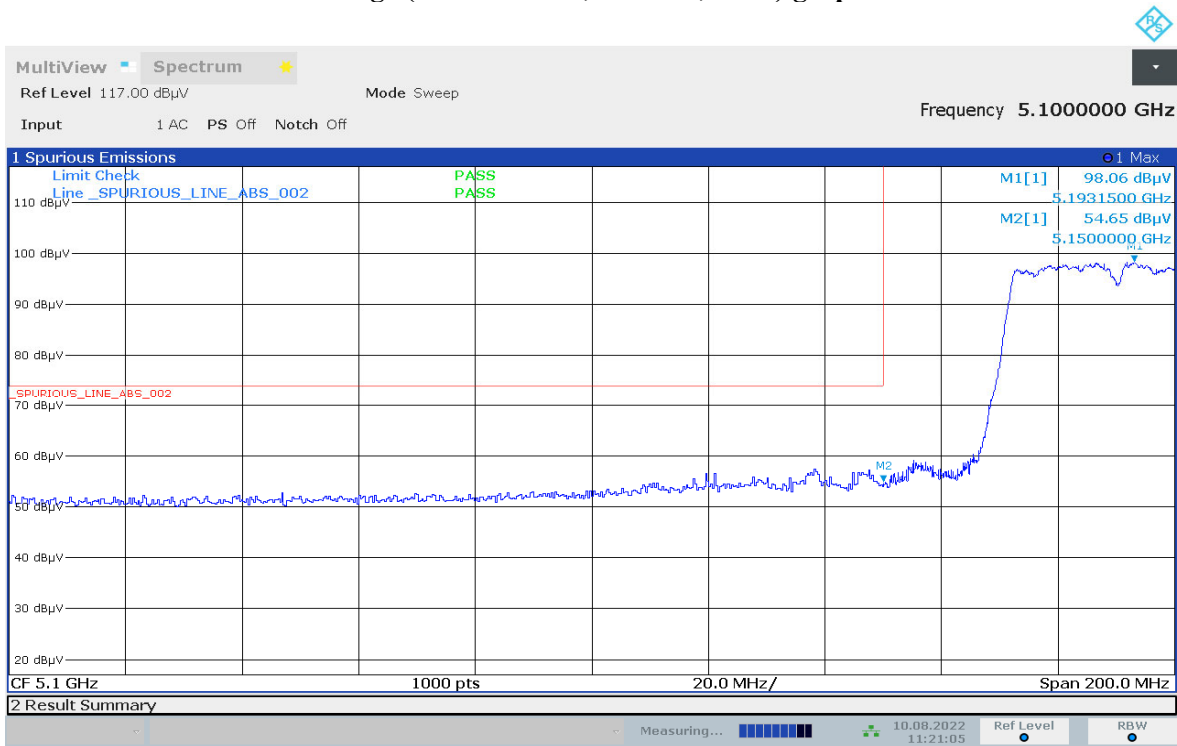
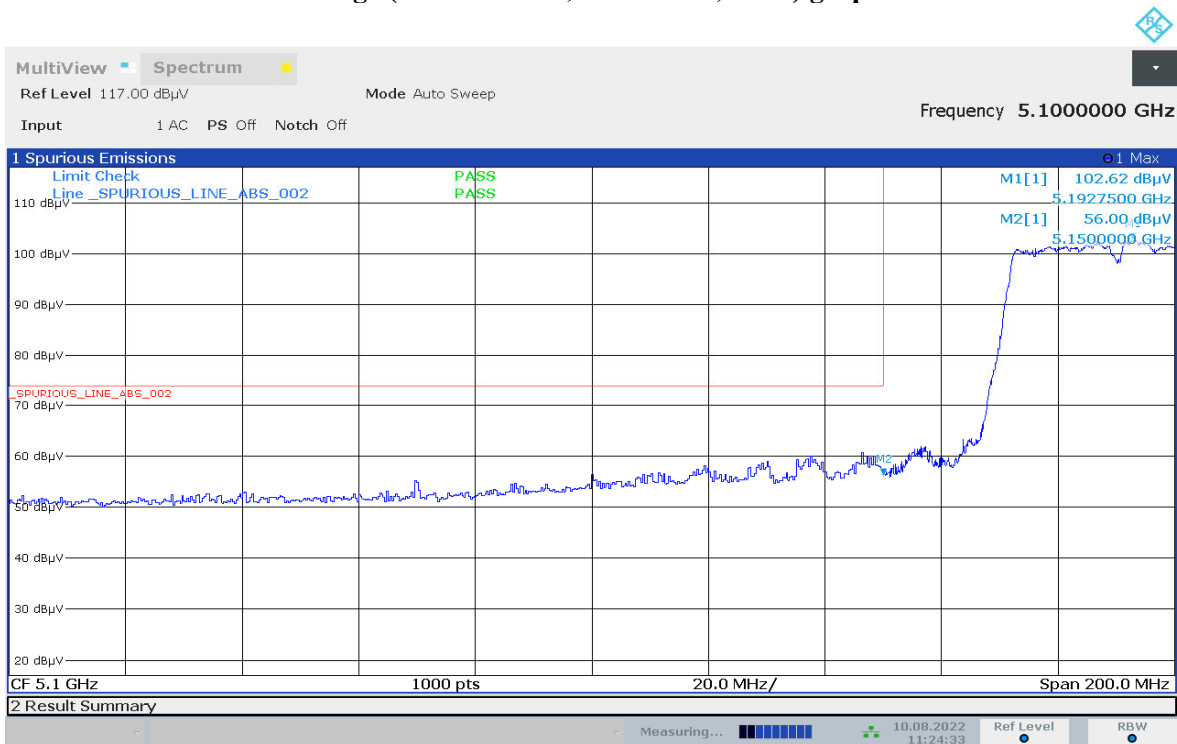


Restricted Band Edge (Low Channel, Vertical, Peak) graphical screen shot



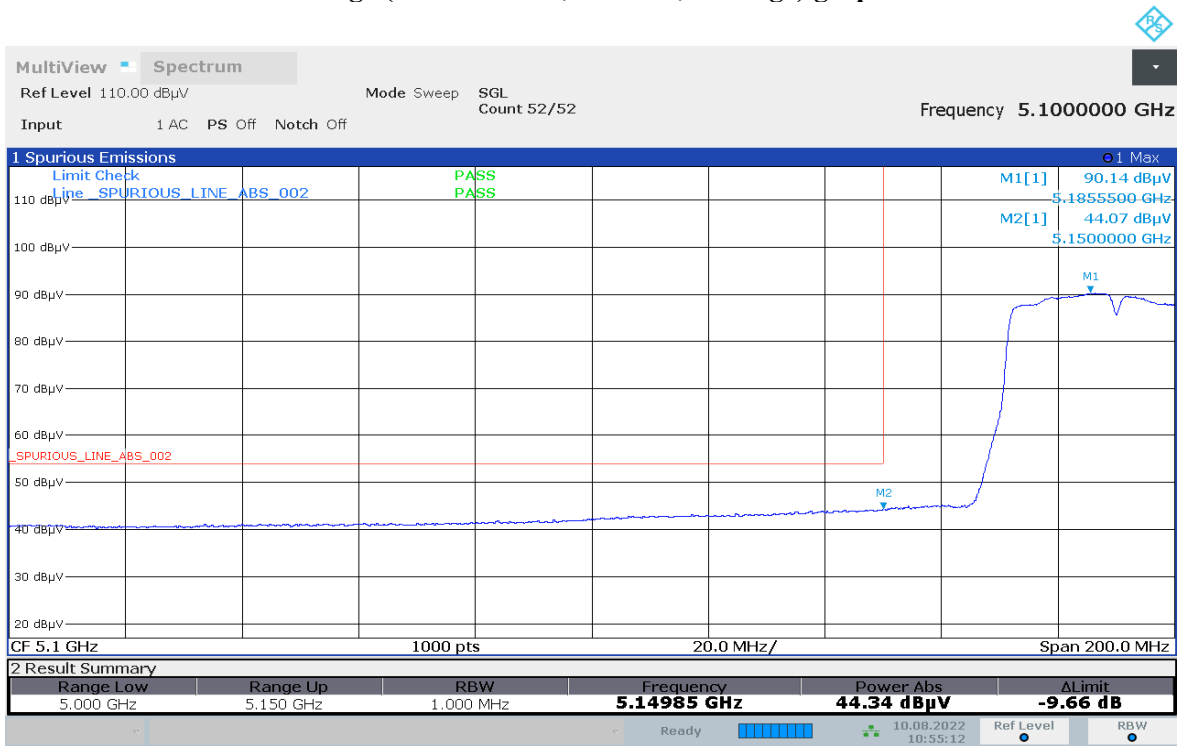
11:21:05 10.08.2022

Restricted Band Edge (Low Channel, Horizontal, Peak) graphical screen shot



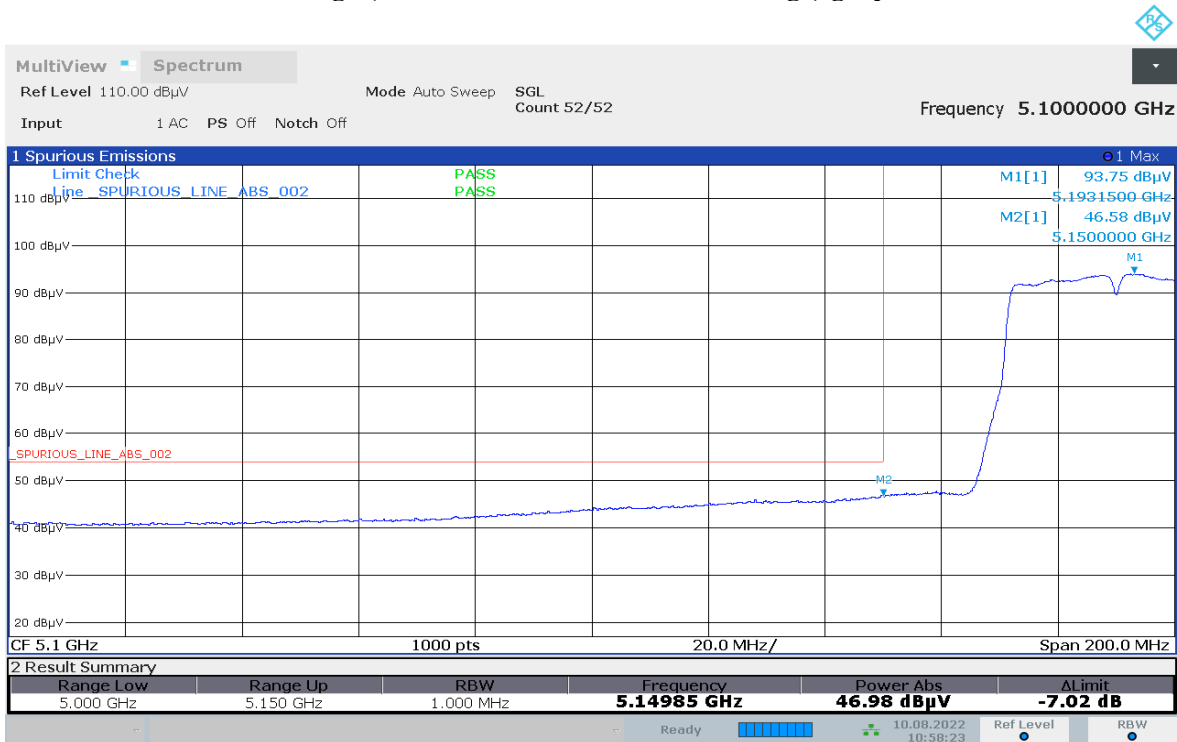
11:24:33 10.08.2022

Restricted Band Edge (Low Channel, Vertical, Average) graphical screen shot



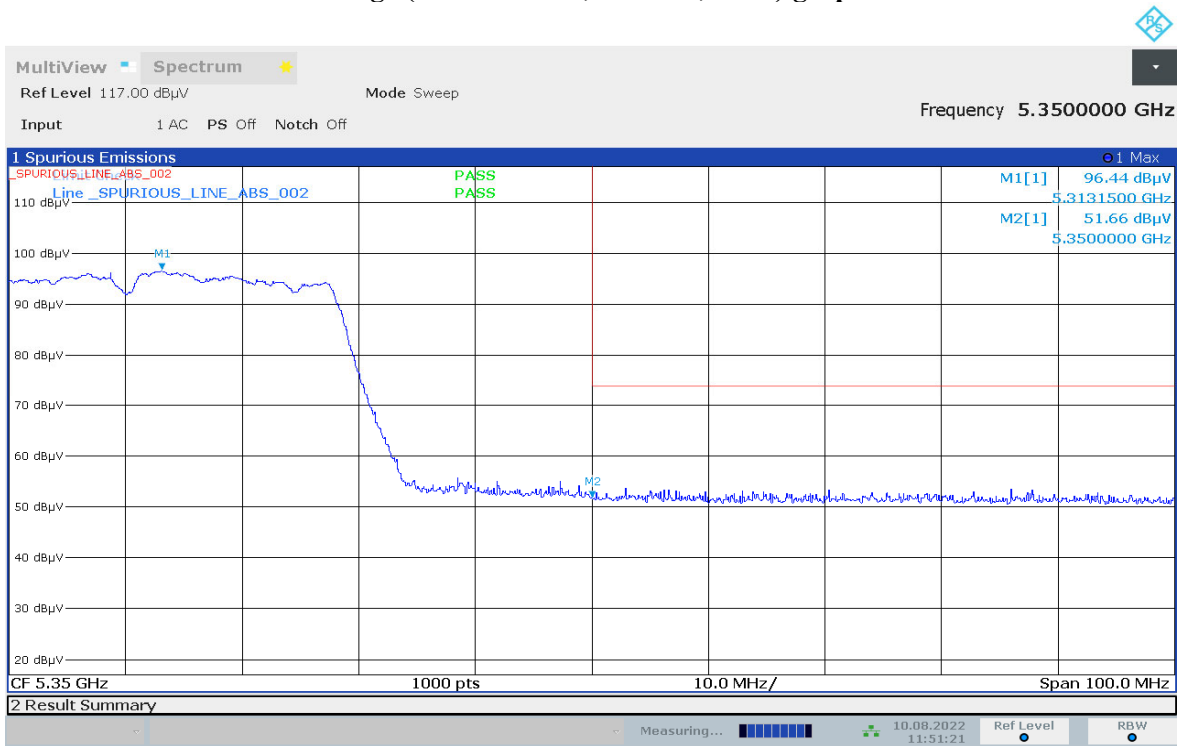
10:55:13 10.08.2022

Restricted Band Edge (Low Channel, Horizontal, Average) graphical screen shot



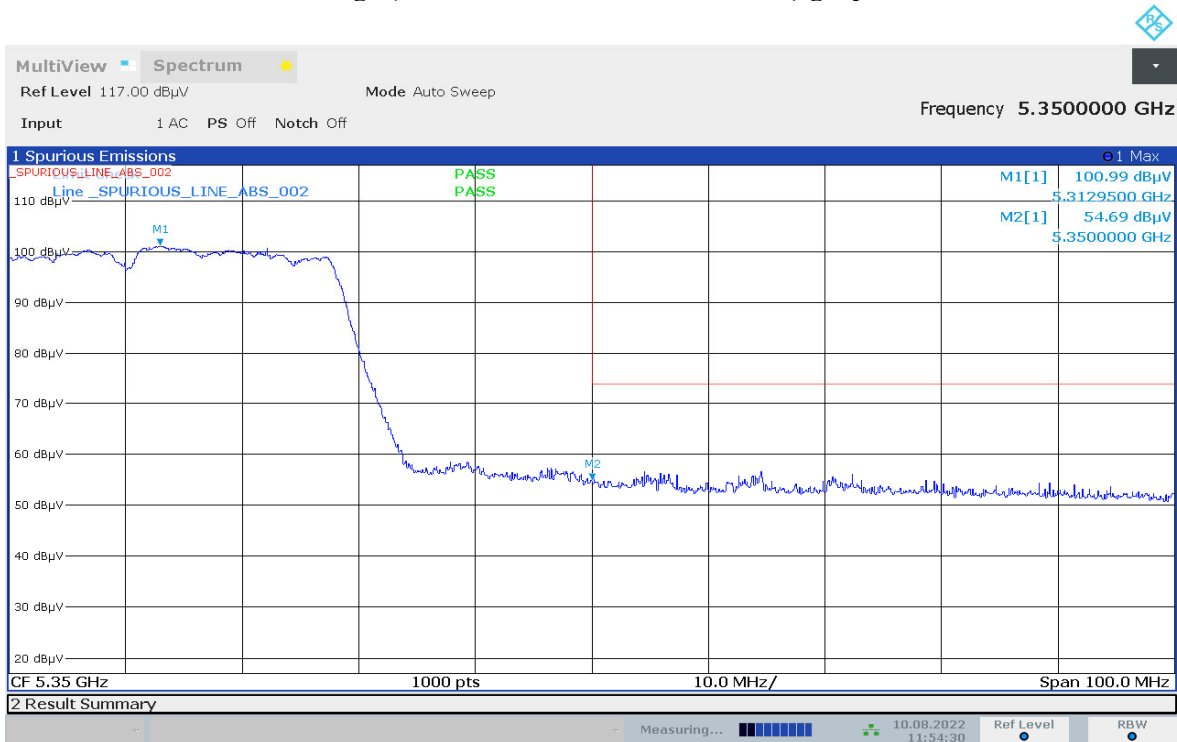
10:58:24 10.08.2022

Restricted Band Edge (Low Channel, Vertical, Peak) graphical screen shot



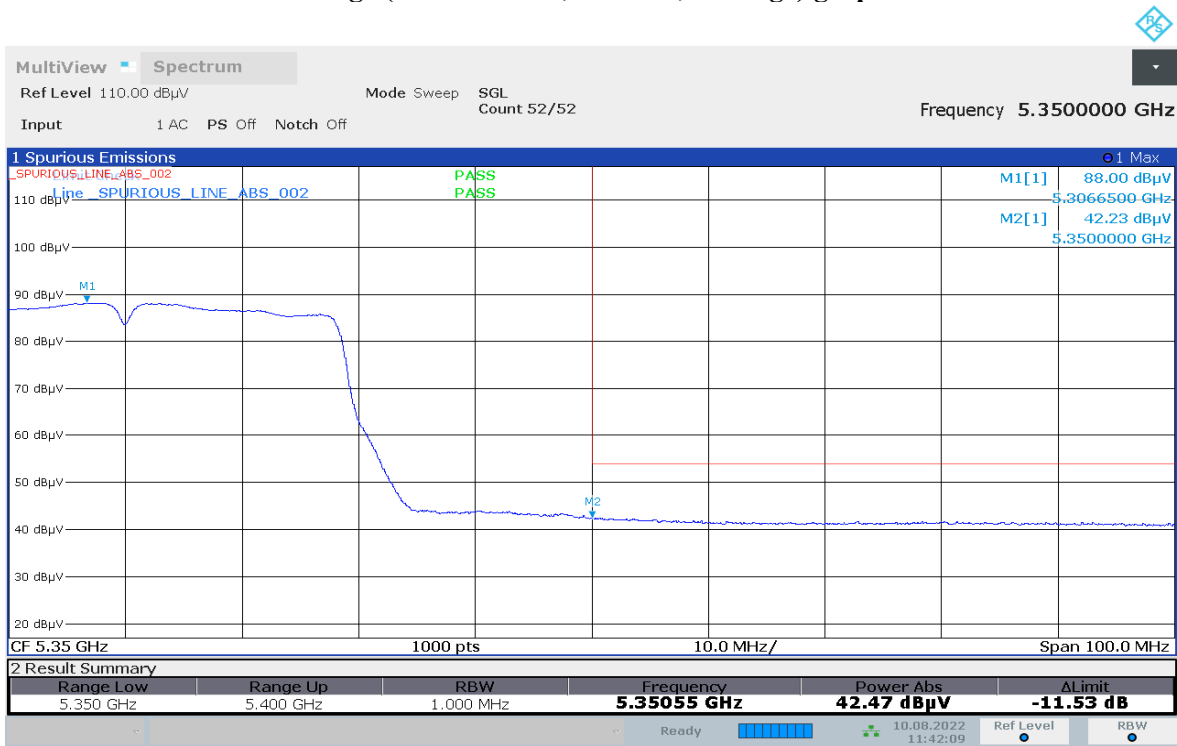
11:51:21 10.08.2022

Restricted Band Edge (Low Channel, Horizontal, Peak) graphical screen shot



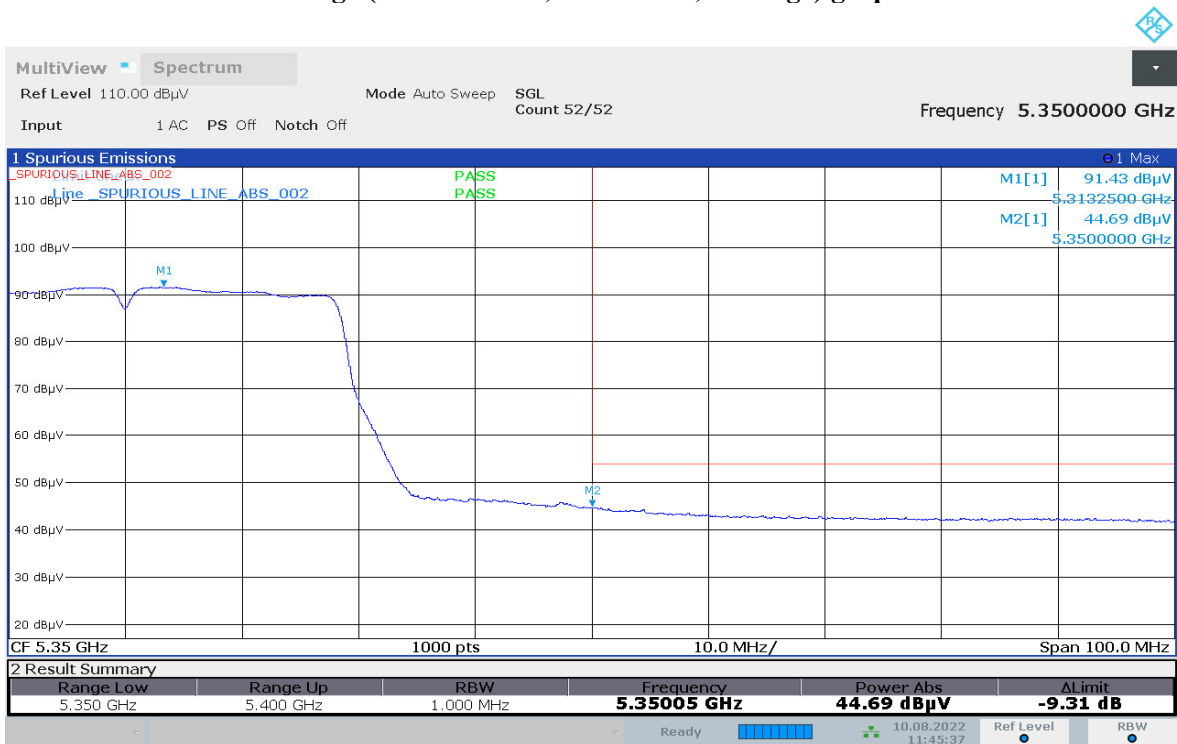
11:54:30 10.08.2022

Restricted Band Edge (Low Channel, Vertical, Average) graphical screen shot



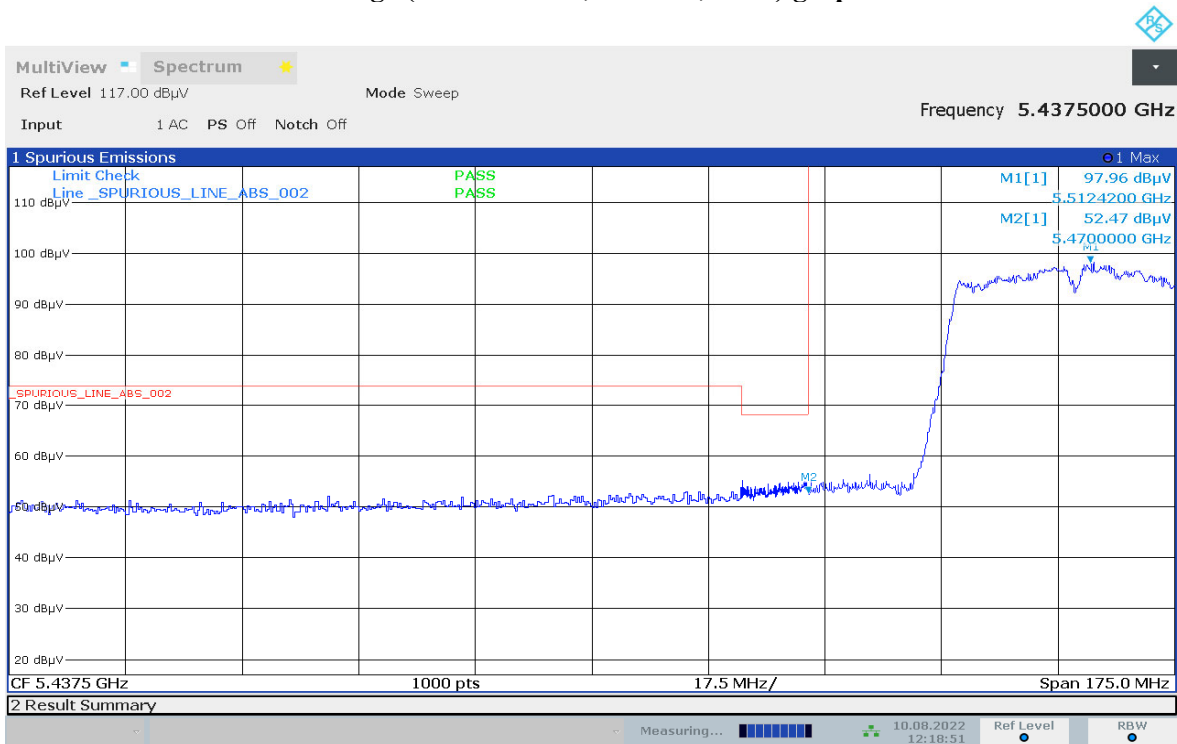
11:42:10 10.08.2022

Restricted Band Edge (Low Channel, Horizontal, Average) graphical screen shot



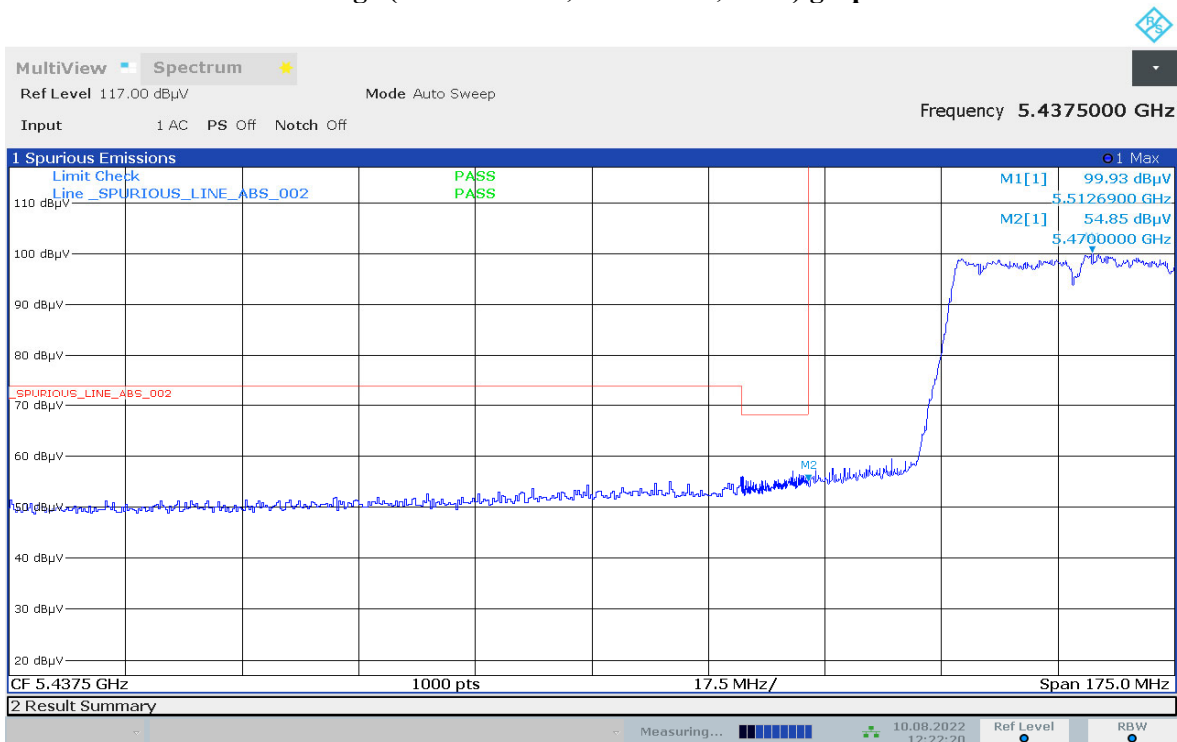
11:45:38 10.08.2022

Restricted Band Edge (Low Channel, Vertical, Peak) graphical screen shot



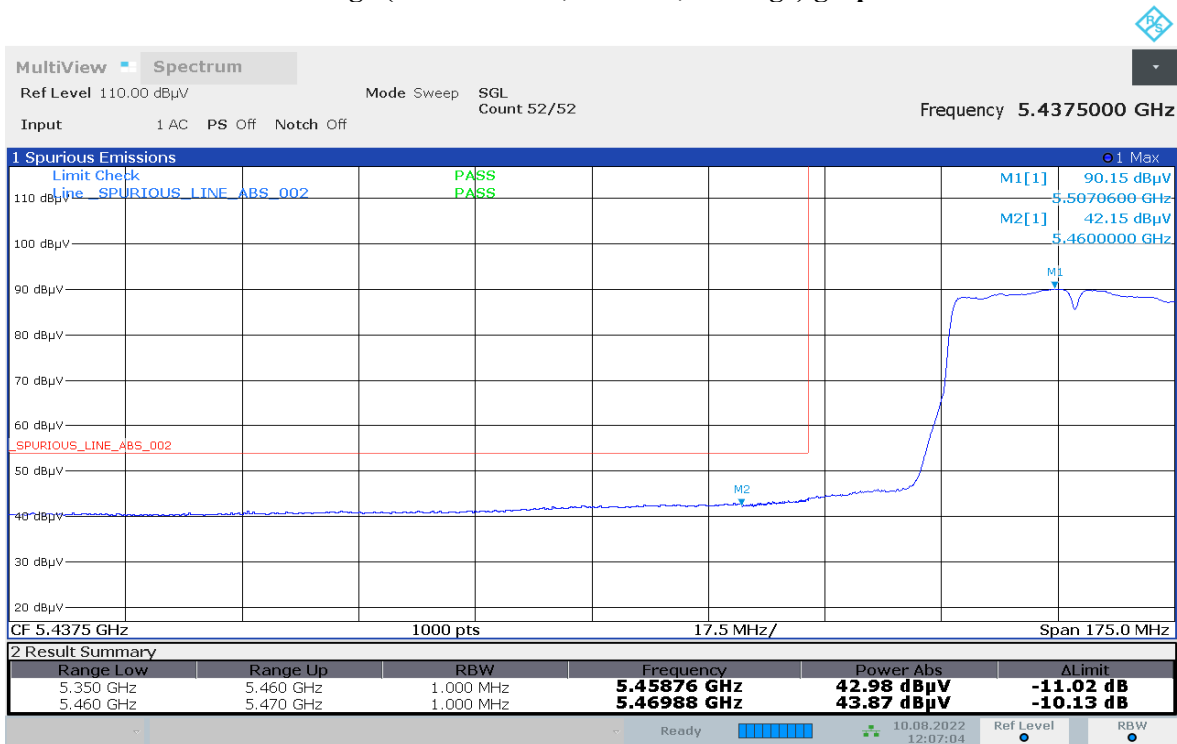
12:18:51 10.08.2022

Restricted Band Edge (Low Channel, Horizontal, Peak) graphical screen shot



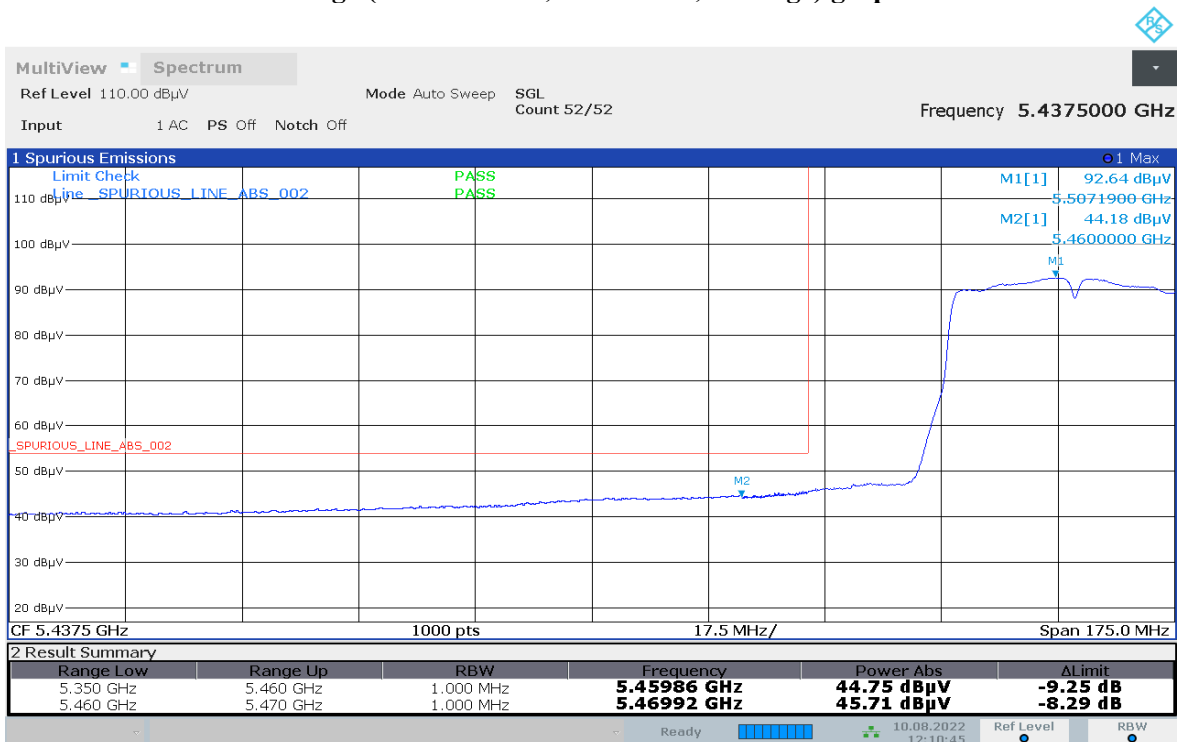
12:22:20 10.08.2022

Restricted Band Edge (Low Channel, Vertical, Average) graphical screen shot



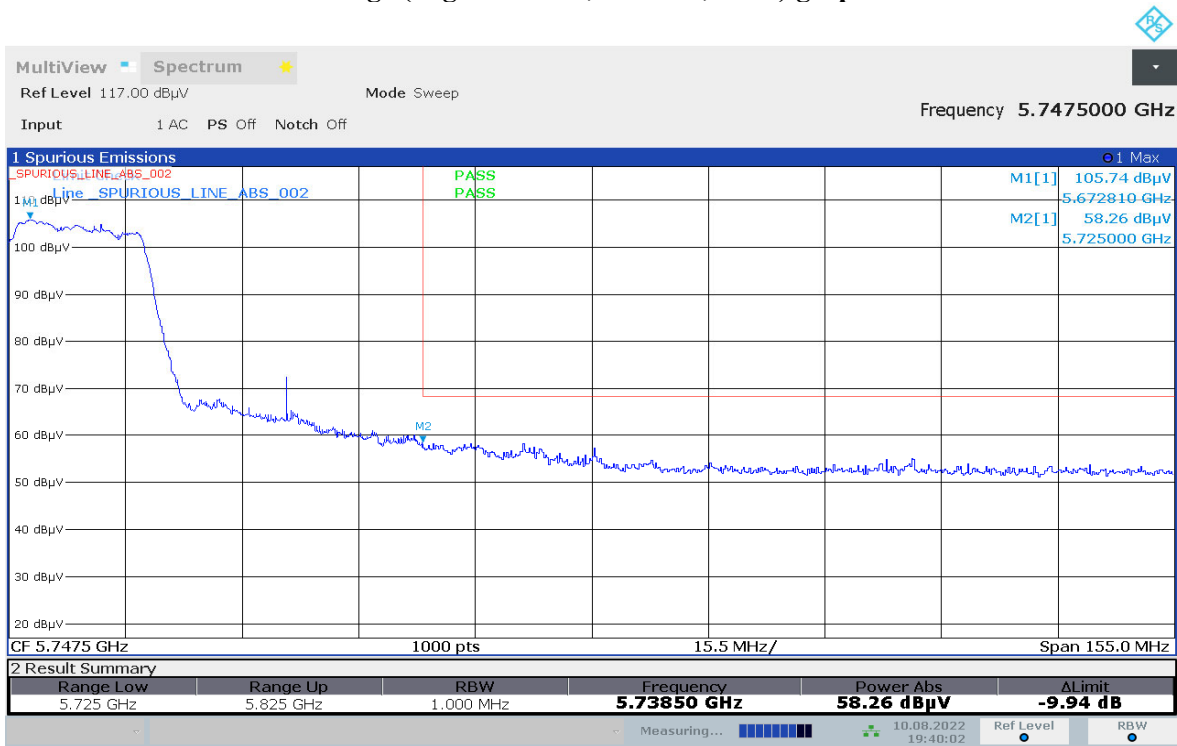
12:07:04 10.08.2022

Restricted Band Edge (Low Channel, Horizontal, Average) graphical screen shot



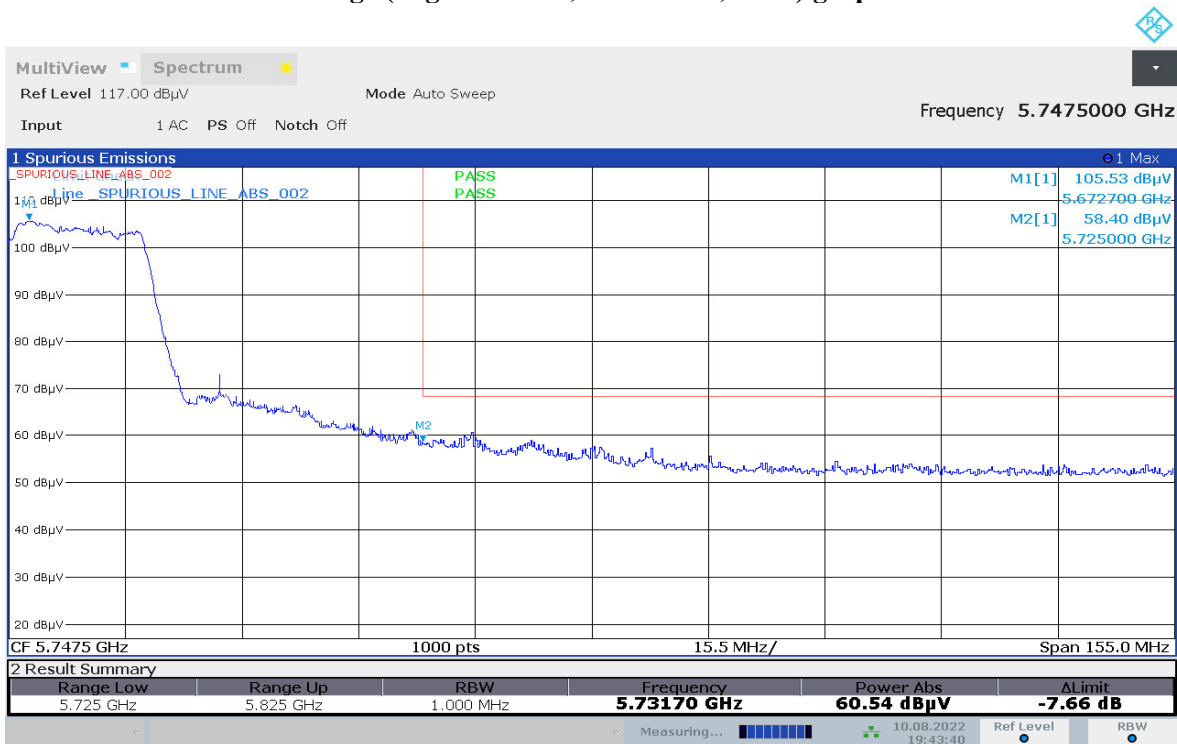
12:10:45 10.08.2022

Restricted Band Edge (High Channel, Vertical, Peak) graphical screen shot



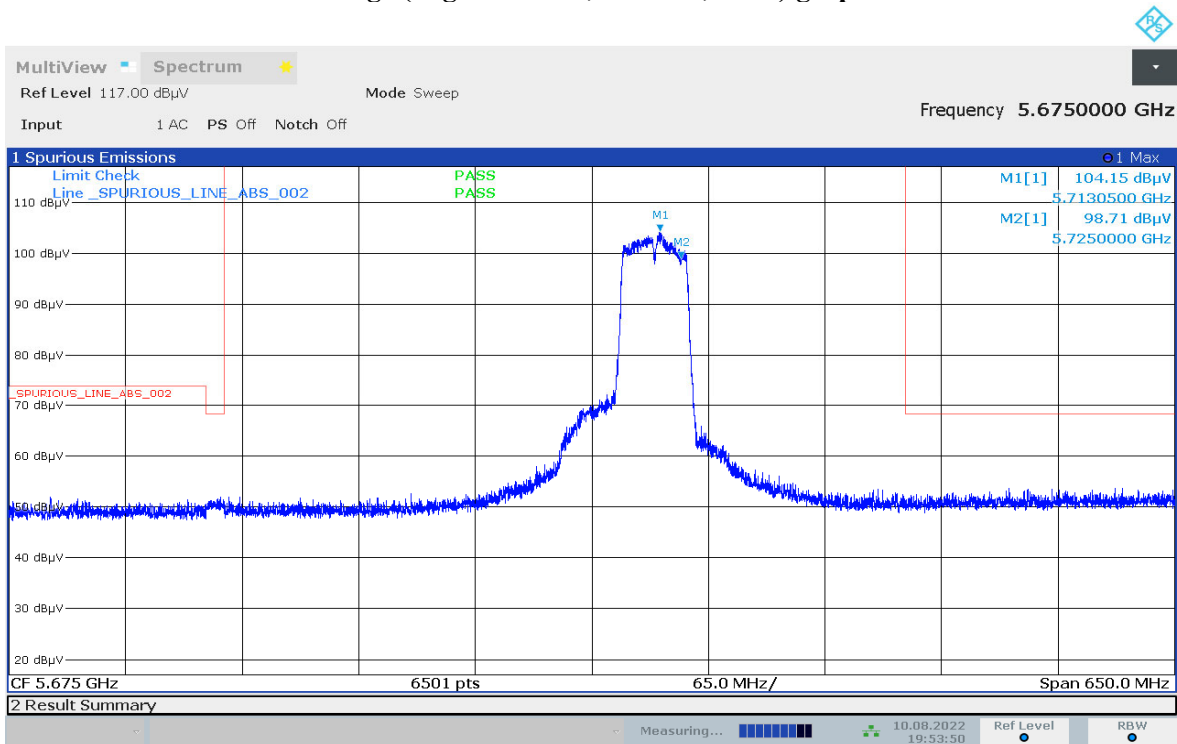
19:40:03 10.08.2022

Restricted Band Edge (High Channel, Horizontal, Peak) graphical screen shot



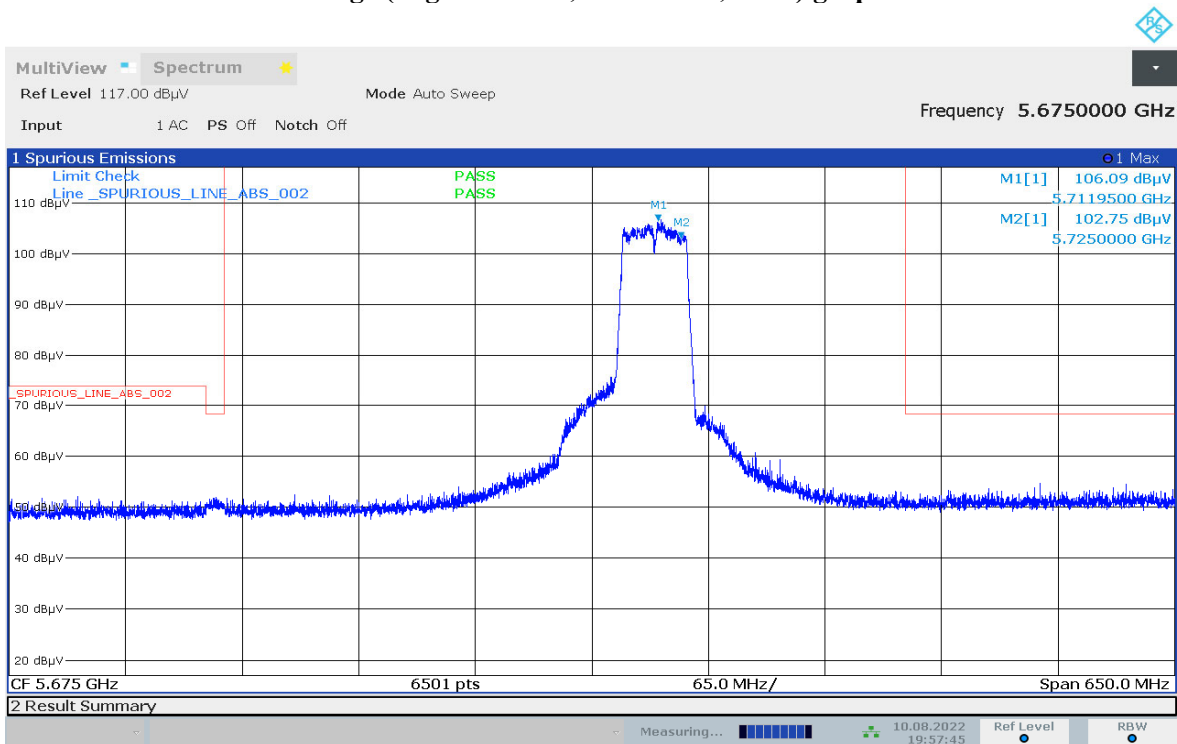
19:43:41 10.08.2022

Restricted Band Edge (High Channel, Vertical, Peak) graphical screen shot



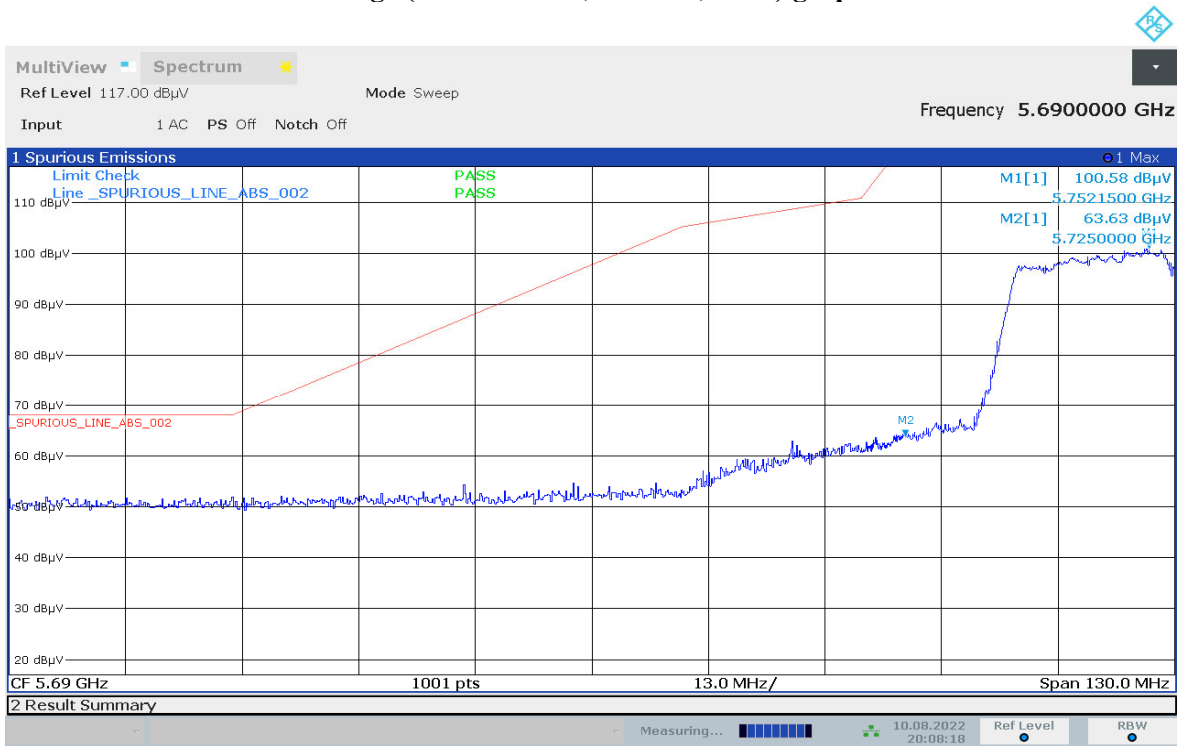
19:53:50 10.08.2022

Restricted Band Edge (High Channel, Horizontal, Peak) graphical screen shot



19:57:45 10.08.2022

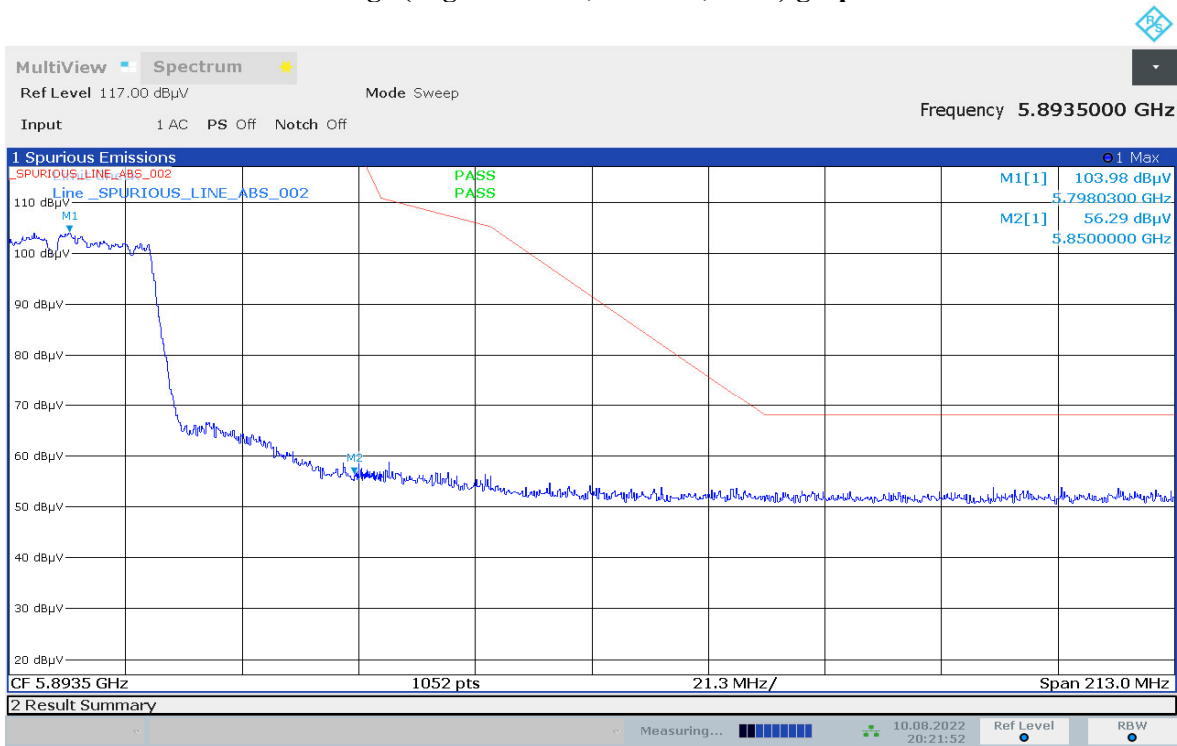
Restricted Band Edge (Low Channel, Vertical, Peak) graphical screen shot



Restricted Band Edge (Low Channel, Horizontal, Peak) graphical screen shot

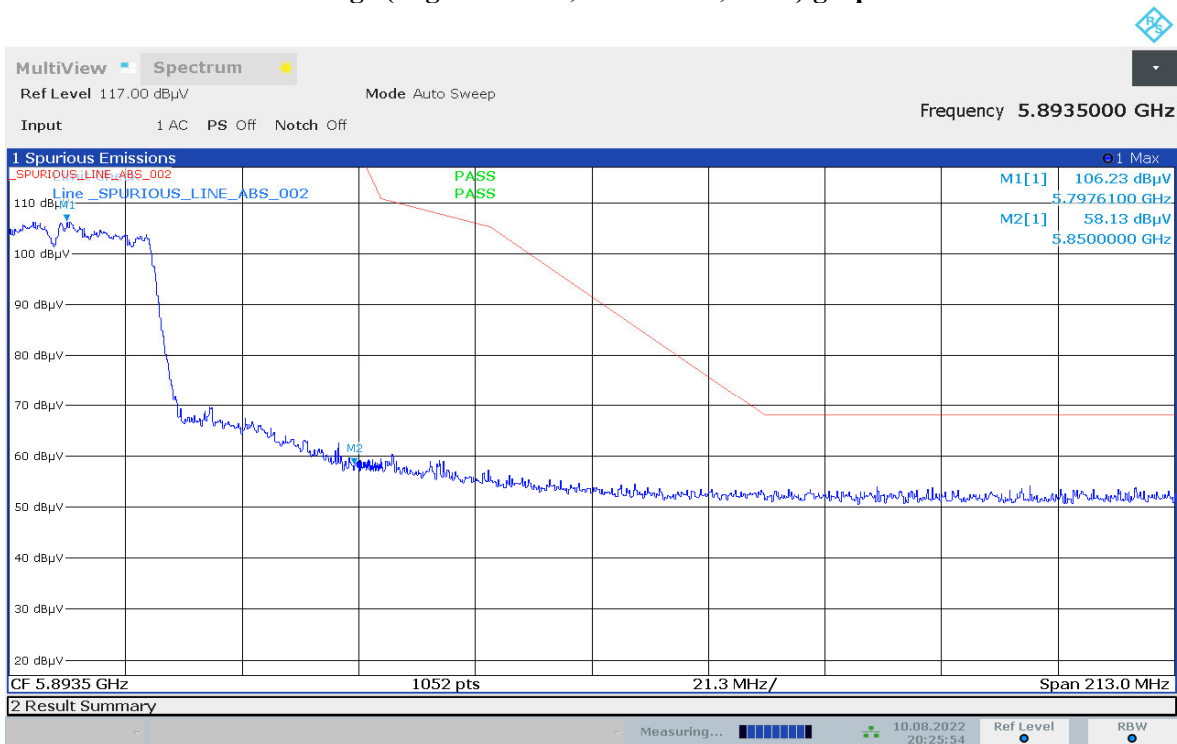


Restricted Band Edge (High Channel, Vertical, Peak) graphical screen shot



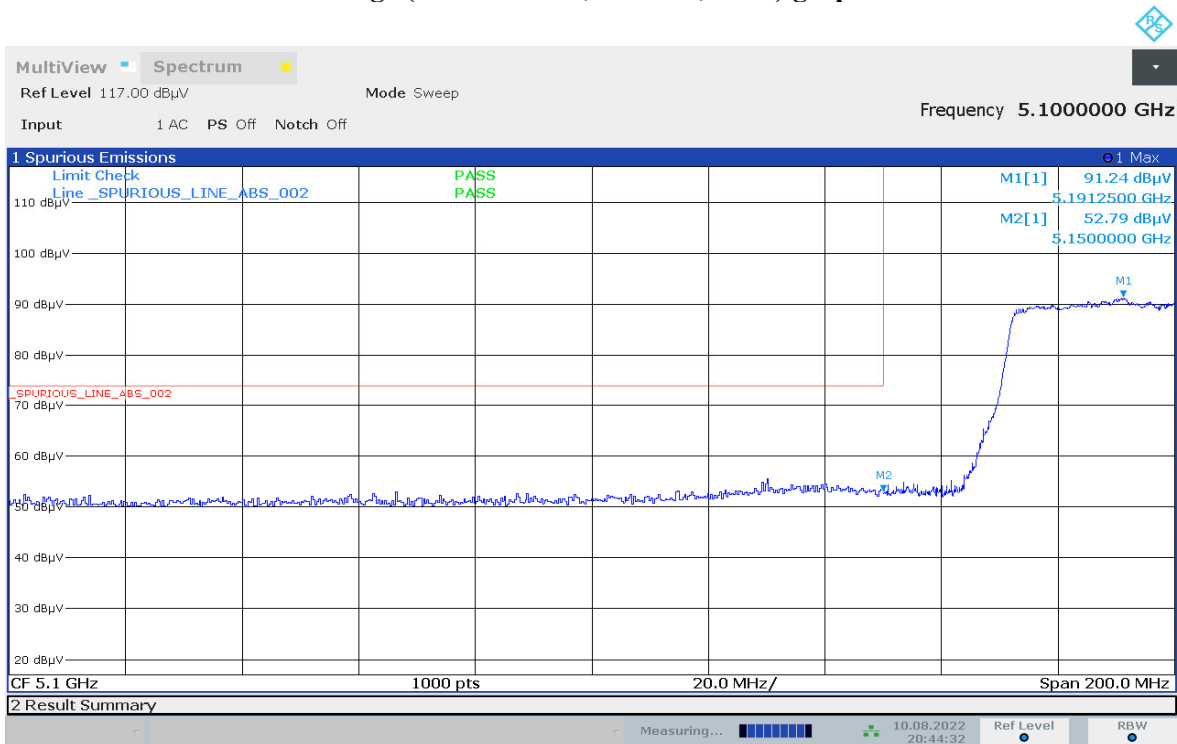
20:21:53 10.08.2022

Restricted Band Edge (High Channel, Horizontal, Peak) graphical screen shot



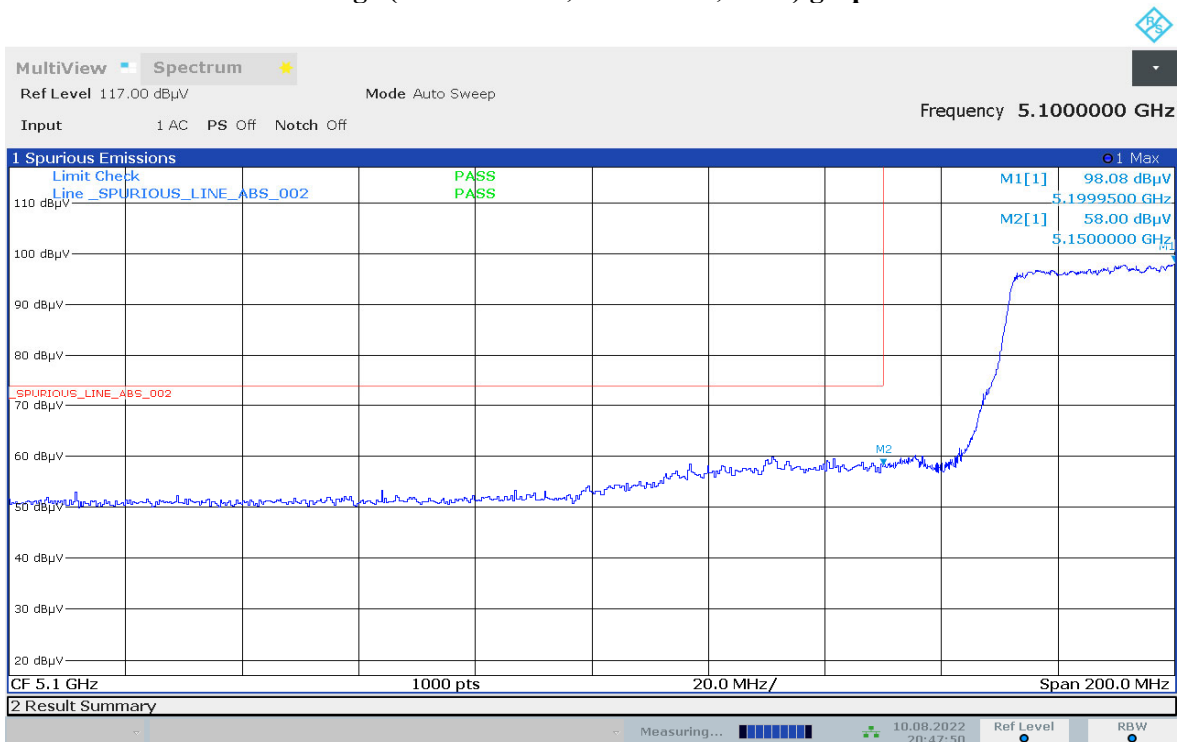
20:25:55 10.08.2022

Restricted Band Edge (Low Channel, Vertical, Peak) graphical screen shot



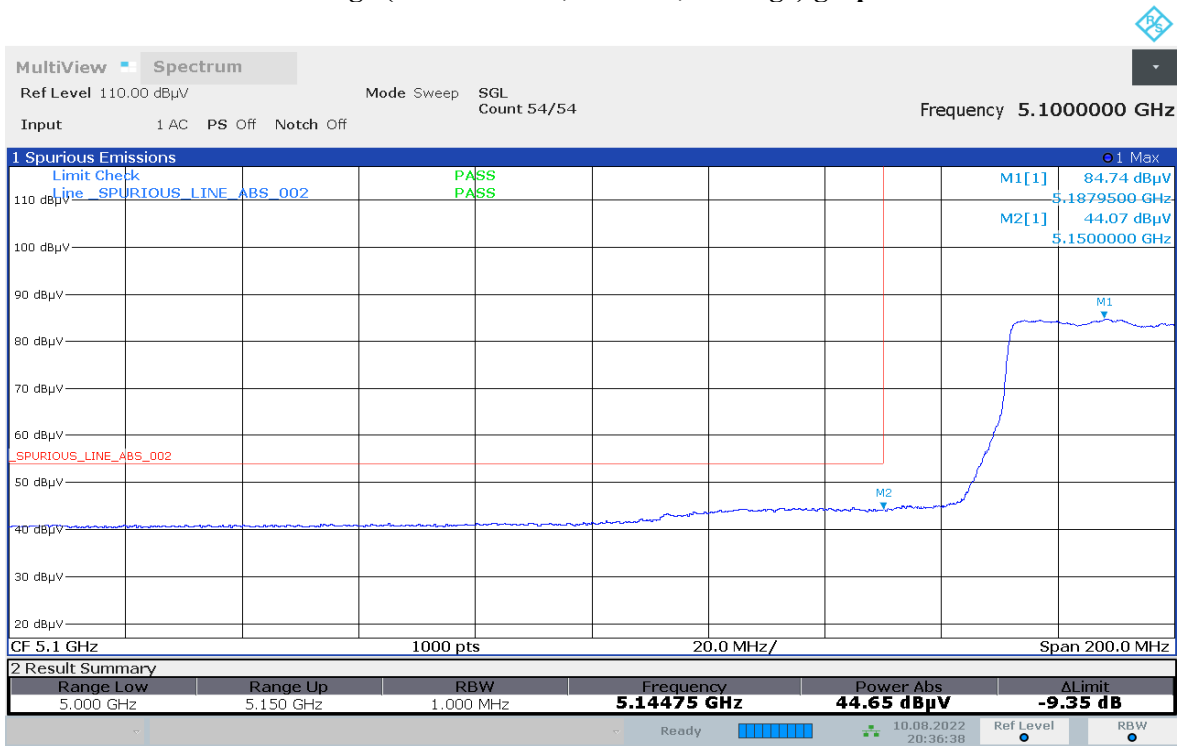
20:44:33 10.08.2022

Restricted Band Edge (Low Channel, Horizontal, Peak) graphical screen shot



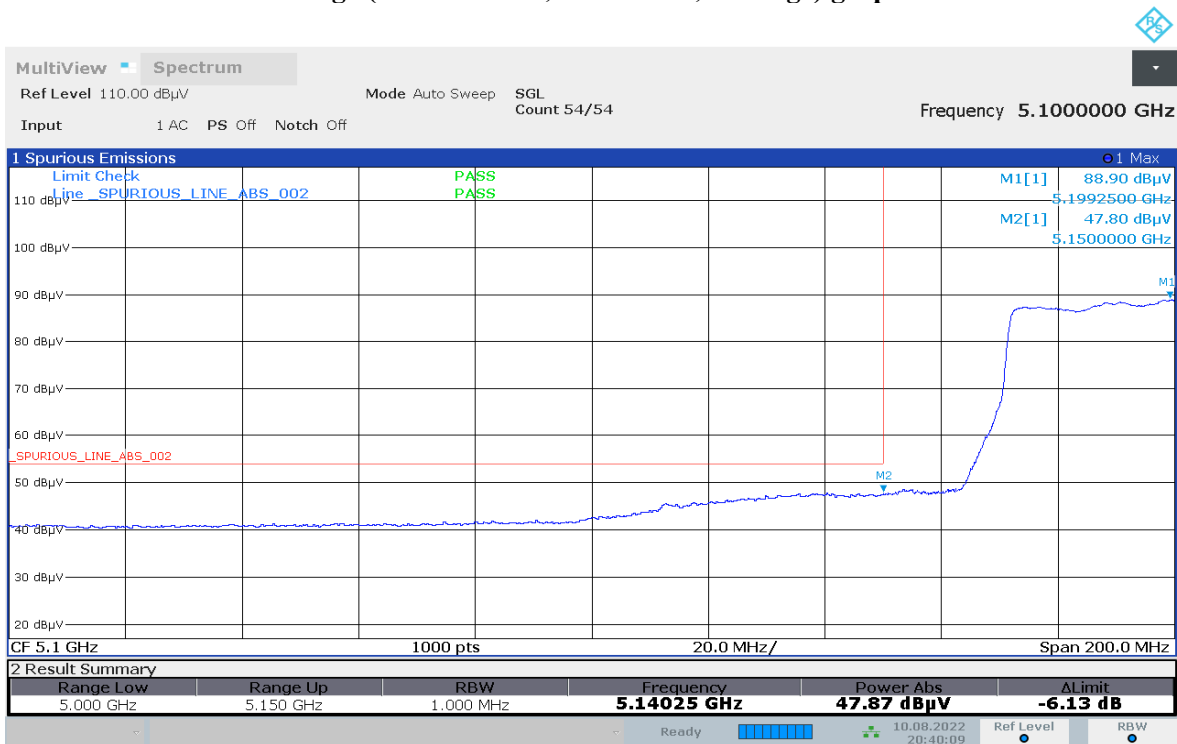
20:47:50 10.08.2022

Restricted Band Edge (Low Channel, Vertical, Average) graphical screen shot



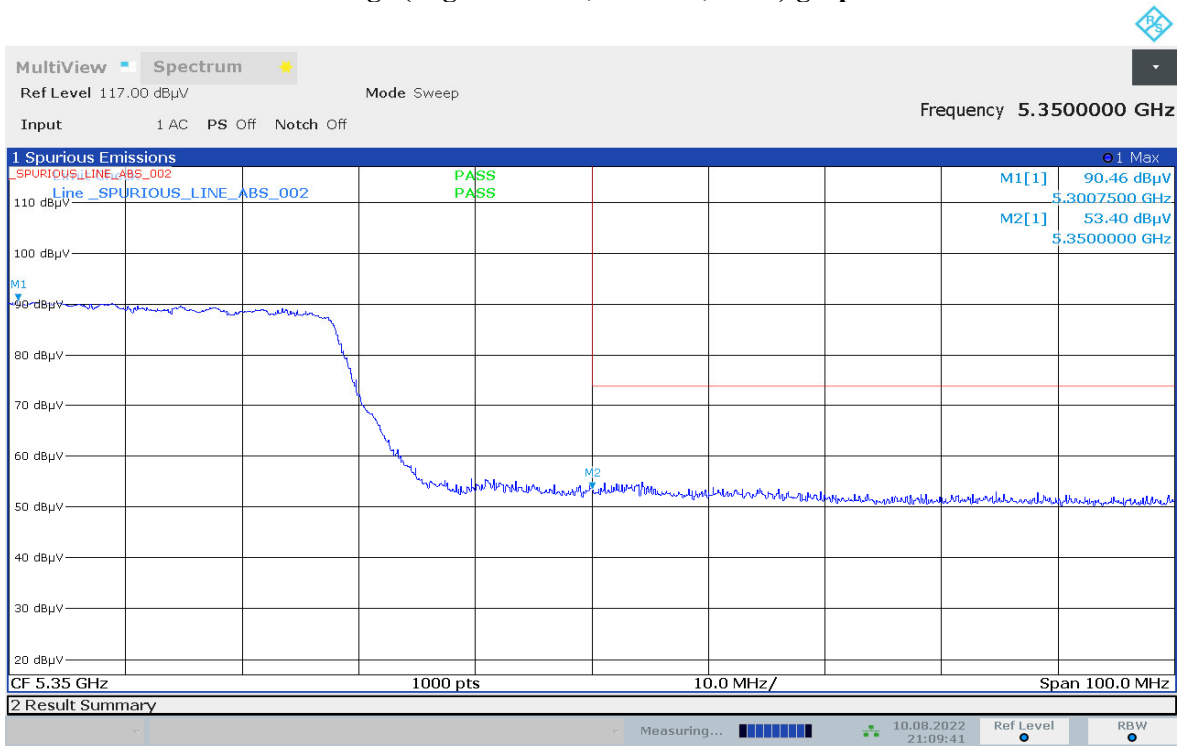
20:36:39 10.08.2022

Restricted Band Edge (Low Channel, Horizontal, Average) graphical screen shot



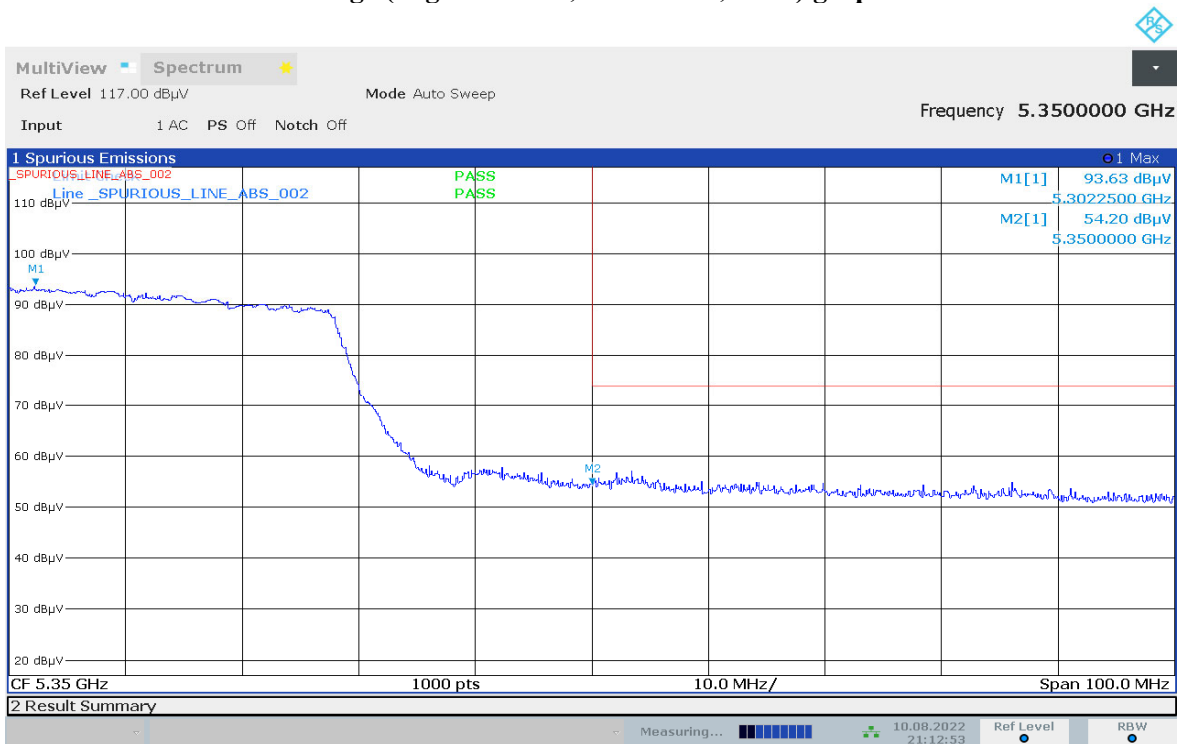
20:40:10 10.08.2022

Restricted Band Edge (High Channel, Vertical, Peak) graphical screen shot



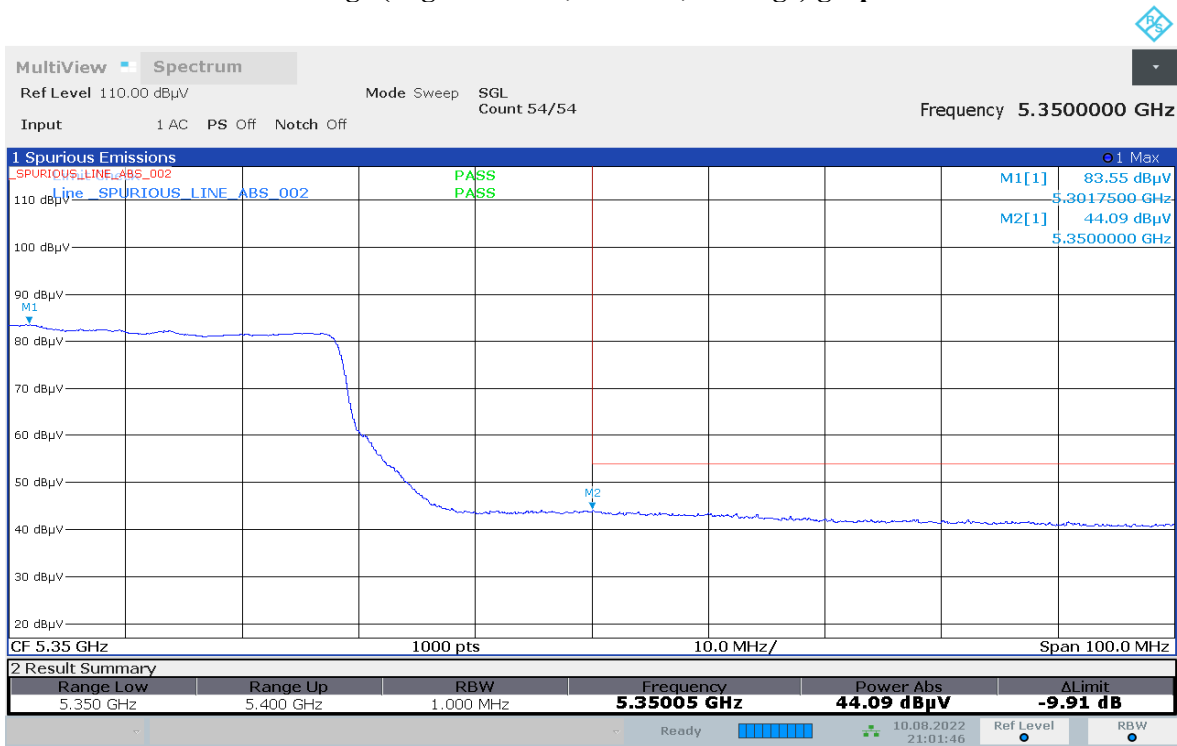
21:09:41 10.08.2022

Restricted Band Edge (High Channel, Horizontal, Peak) graphical screen shot



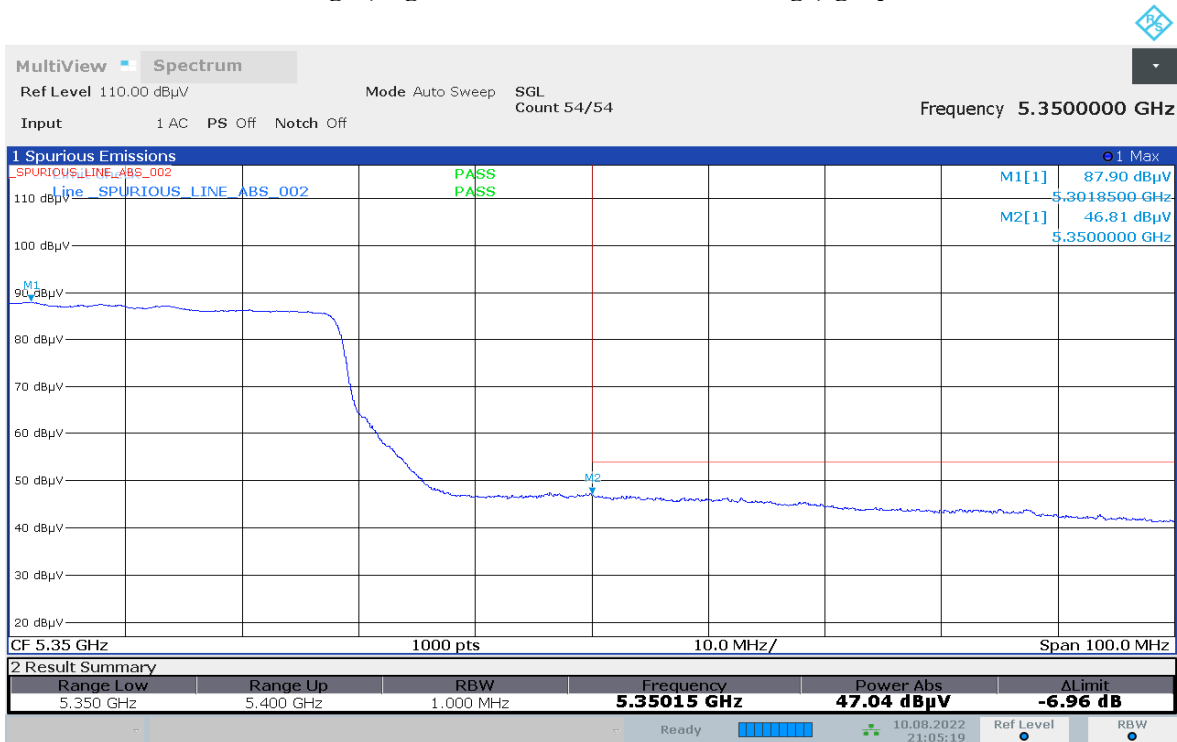
21:12:53 10.08.2022

Restricted Band Edge (High Channel, Vertical, Average) graphical screen shot



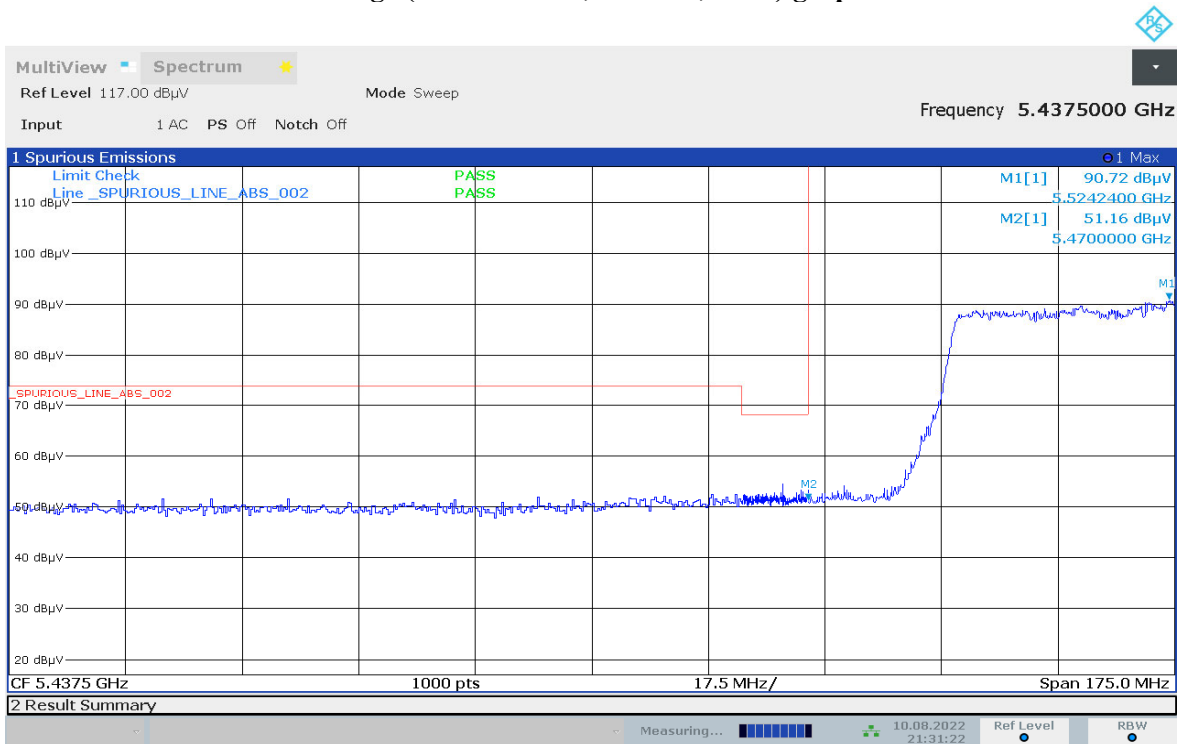
21:01:46 10.08.2022

Restricted Band Edge (High Channel, Horizontal, Average) graphical screen shot



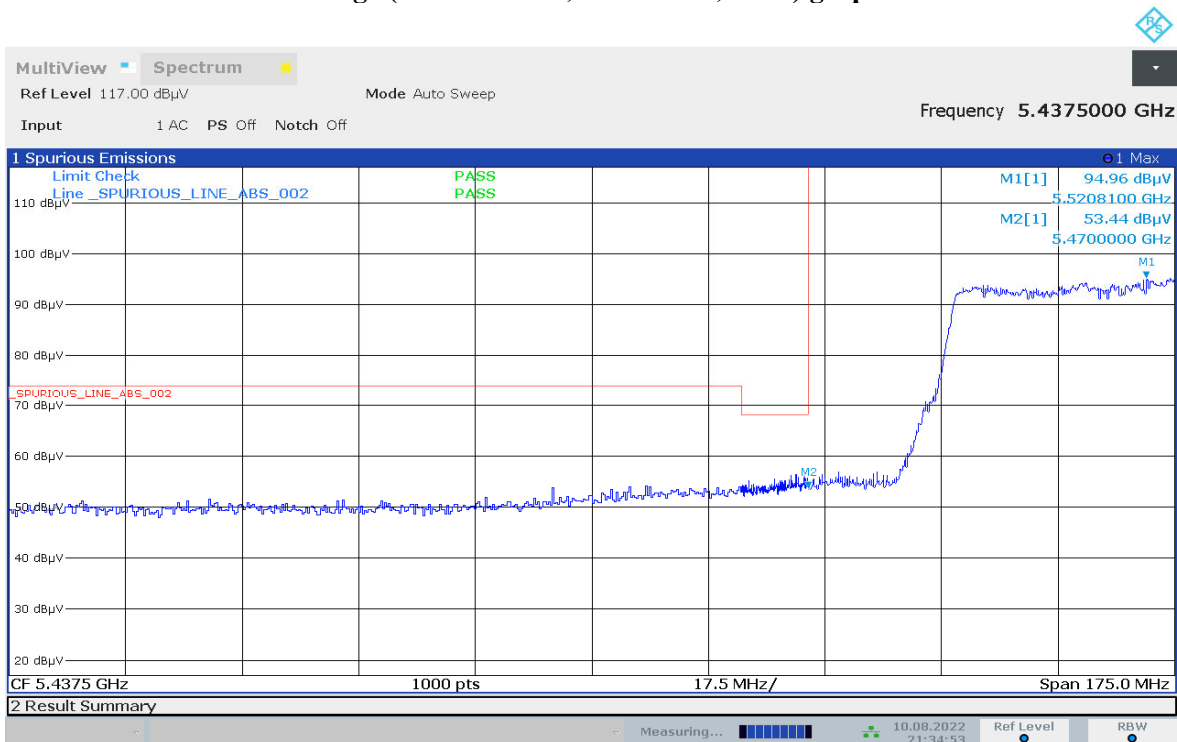
21:05:20 10.08.2022

Restricted Band Edge (Low Channel, Vertical, Peak) graphical screen shot



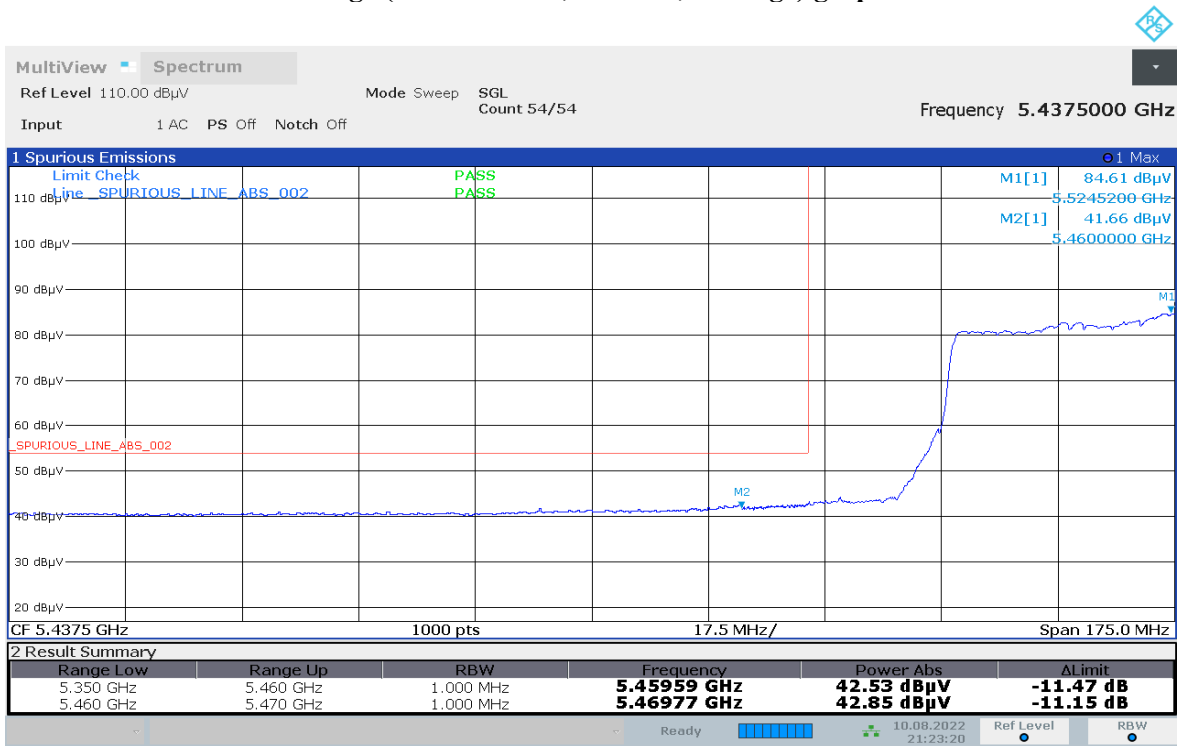
21:31:22 10.08.2022

Restricted Band Edge (Low Channel, Horizontal, Peak) graphical screen shot



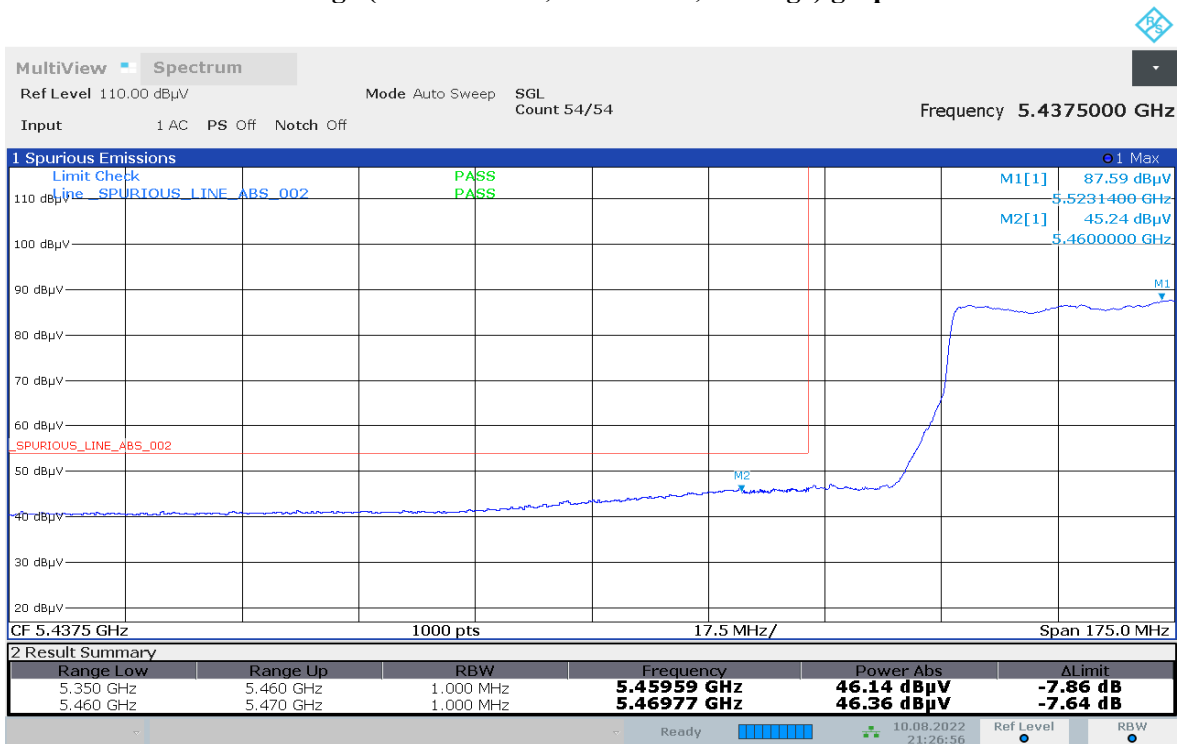
21:34:53 10.08.2022

Restricted Band Edge (Low Channel, Vertical, Average) graphical screen shot



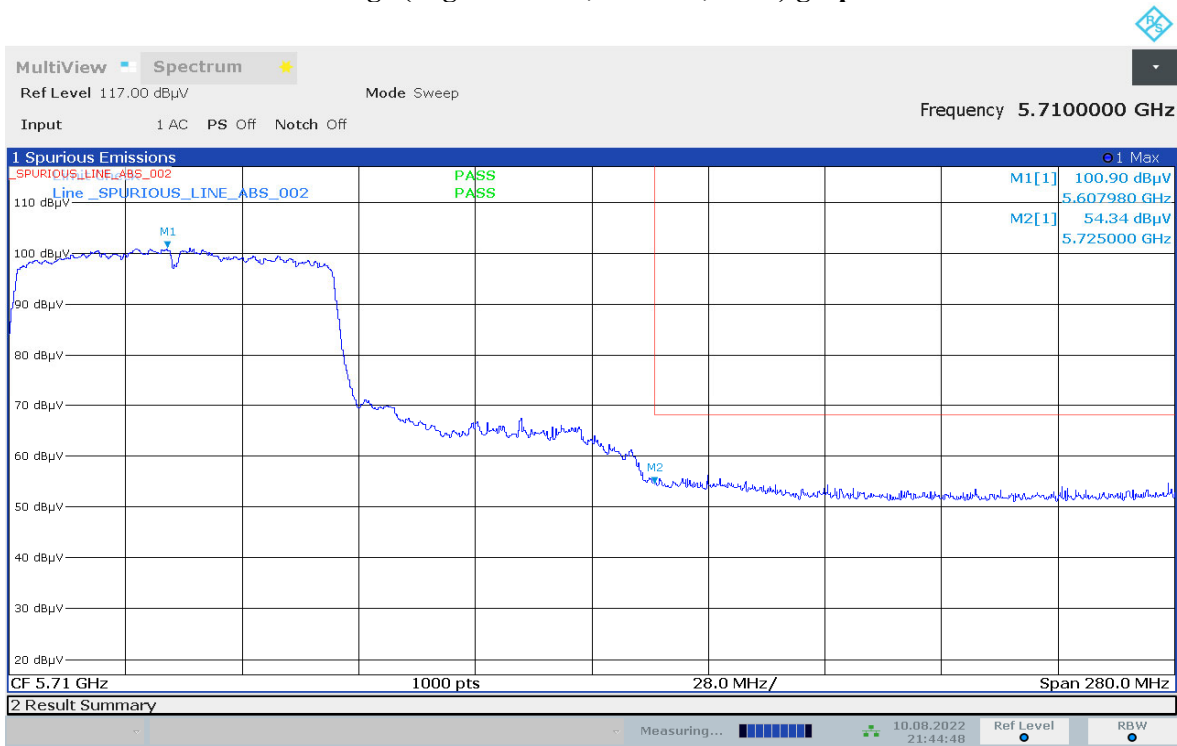
21:23:21 10.08.2022

Restricted Band Edge (Low Channel, Horizontal, Average) graphical screen shot



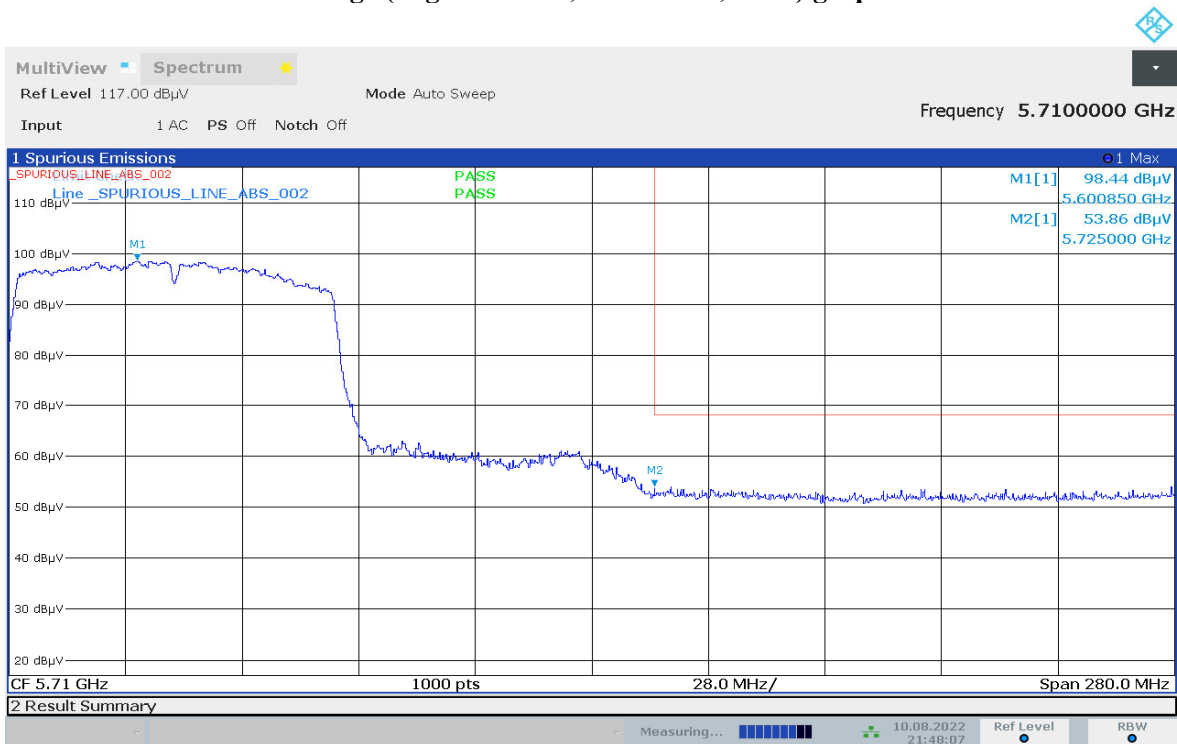
21:26:56 10.08.2022

Restricted Band Edge (High Channel, Vertical, Peak) graphical screen shot



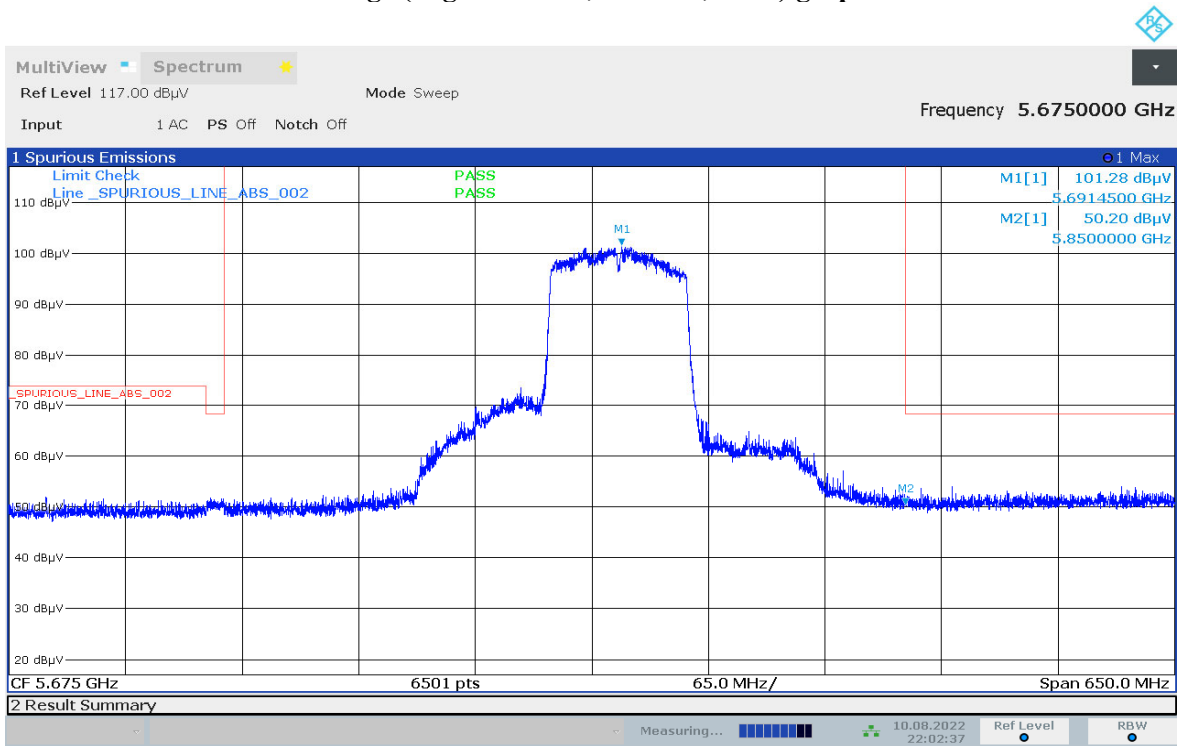
21:44:48 10.08.2022

Restricted Band Edge (High Channel, Horizontal, Peak) graphical screen shot



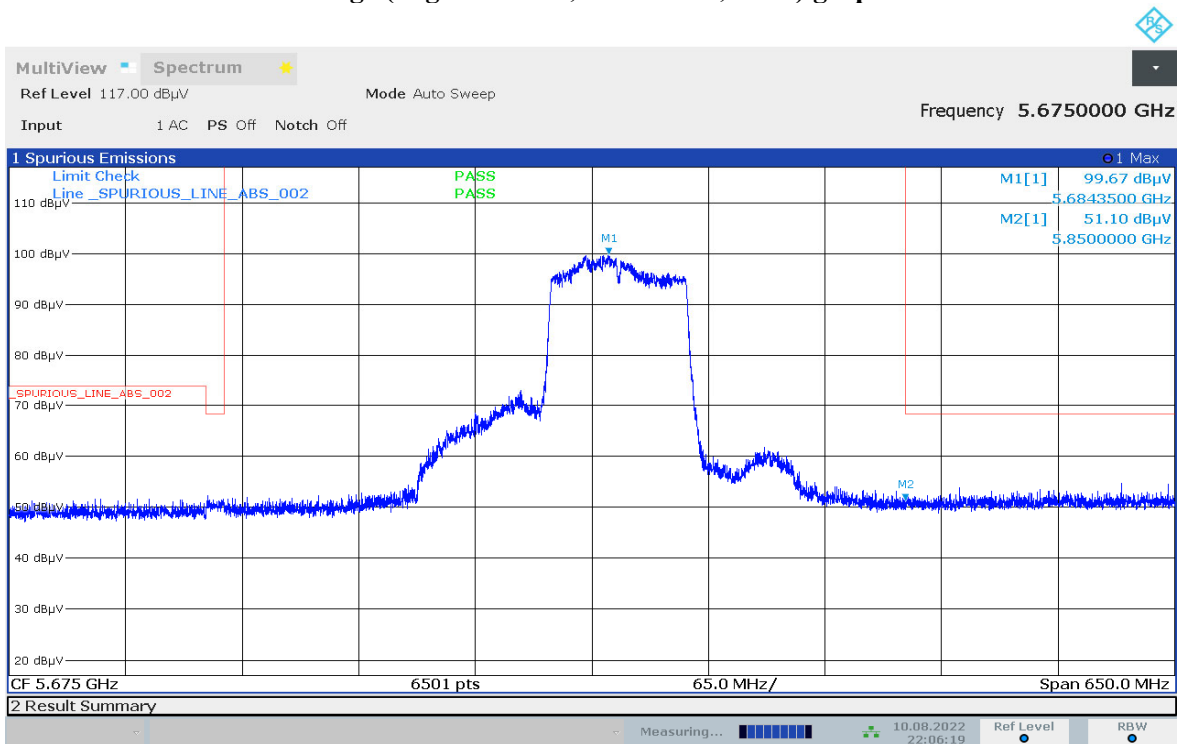
21:48:07 10.08.2022

Restricted Band Edge (High Channel, Vertical, Peak) graphical screen shot



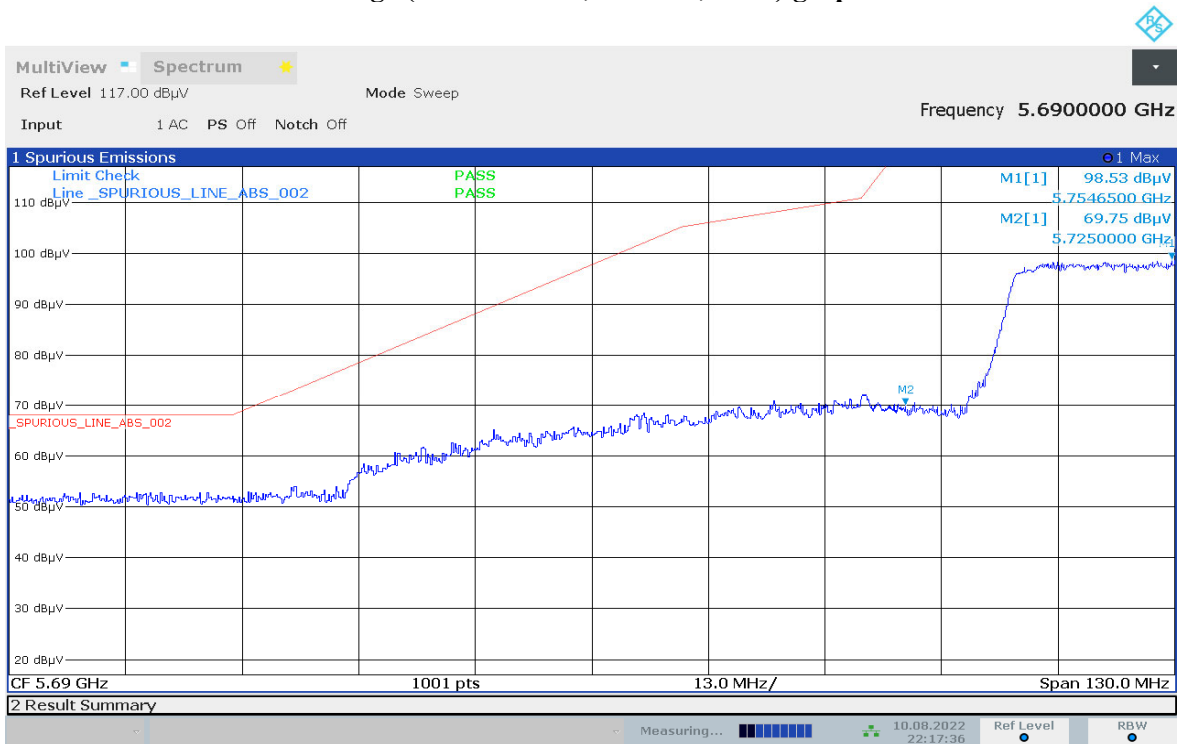
22:02:37 10.08.2022

Restricted Band Edge (High Channel, Horizontal, Peak) graphical screen shot

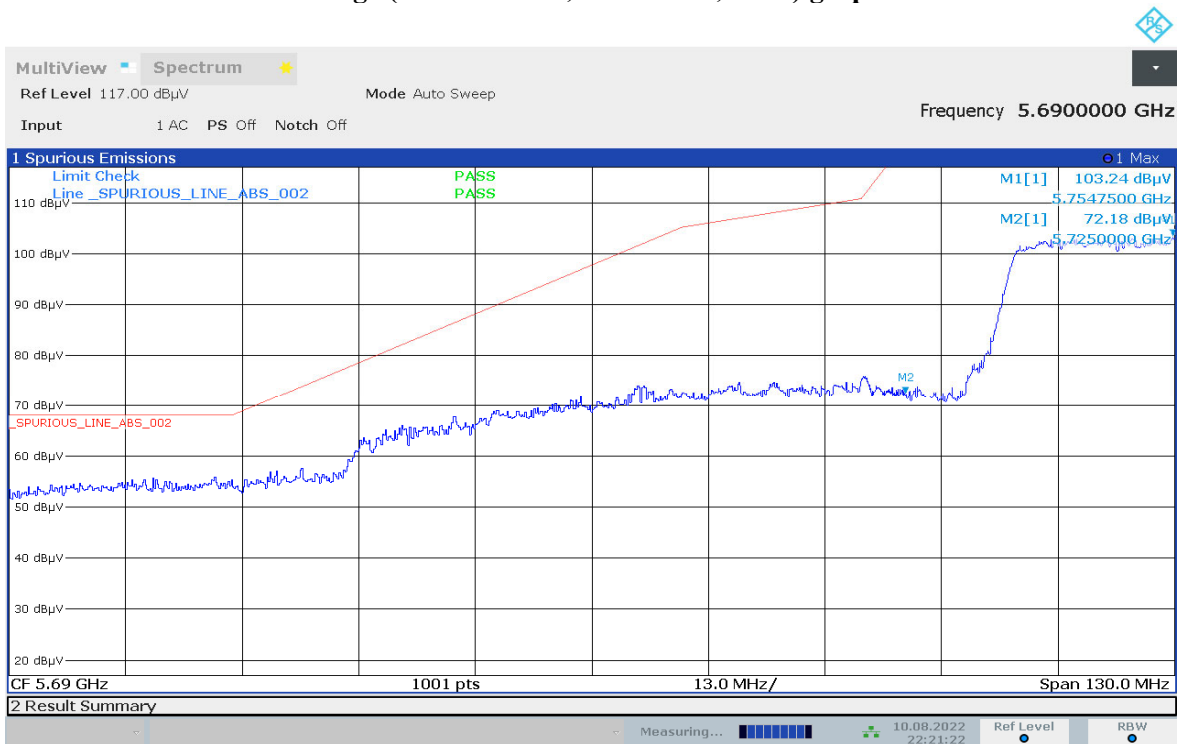


22:06:19 10.08.2022

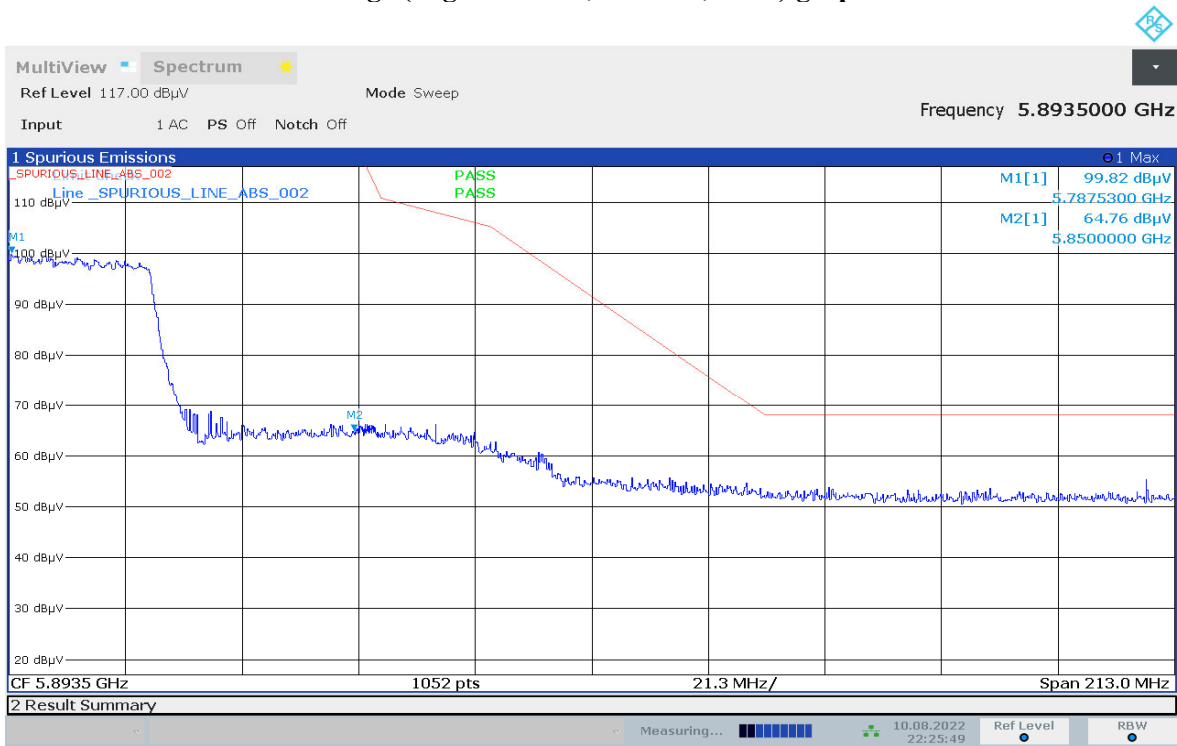
Restricted Band Edge (Low Channel, Vertical, Peak) graphical screen shot



Restricted Band Edge (Low Channel, Horizontal, Peak) graphical screen shot

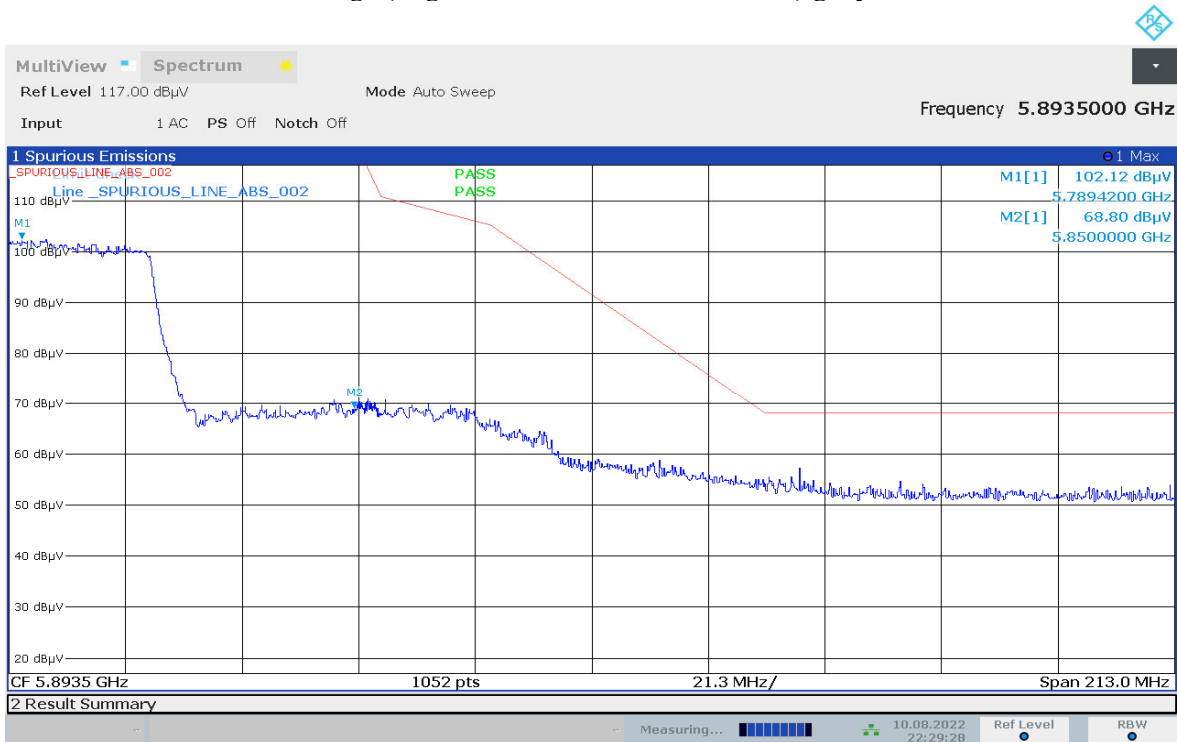


Restricted Band Edge (High Channel, Vertical, Peak) graphical screen shot



22:25:49 10.08.2022

Restricted Band Edge (High Channel, Horizontal, Peak) graphical screen shot

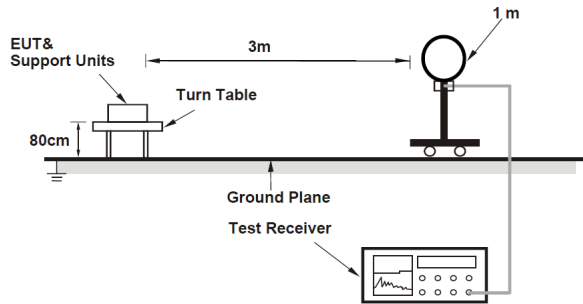


22:29:28 10.08.2022

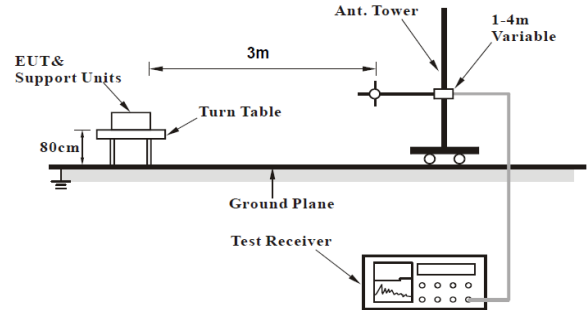
7.7. Radiated Spurious Emission Measurement

7.7.1. Test Setup

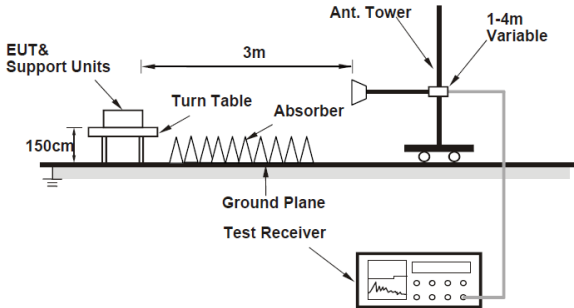
<Radiated emission below 30MHz>



<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



1. The EUT is placed on the top of a rotating table 0.8m/1.5m above the ground at a 3m semi-anechoic chamber. The table is rotated 360 degrees to determine the position of the highest radiation.
2. The EUT is set 3m away from the interference-receiving antenna, which is mounted on the top of a variable-height antenna tower.
3. The antenna is Bilog/Horn antenna depend on which frequency range uses, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT is arranged to its worst case and then the antenna is tuned to heights from 1m to 4m and the rotatable table is turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system is set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode is fall within the range of 10dB from the limit specified, the emissions would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. Otherwise, the testing could be stopped and the peak values of the EUT would be reported.

NOTE:

- The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1 GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz for Average detection using reduced video bandwidth (Duty cycle ≥98%) at frequency above 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 1/ τ Hz, where τ is minimum transmitter on time (Duty cycle <98%) for Average detection using reduced video bandwidth at frequency above 1GHz.
- All modes of operation were investigated and the worst-case emissions are reported.

7.7.2. Test Limits

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

NOTE:

- The lower limit shall apply at the transition frequencies.
- Emission level (dBuV/m) = 20 log Emission level (uV/m).
- For frequencies above 1000 MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

For Radiated emissions which fall out of the restricted bands must comply with the radiated emission limits specified as below table.

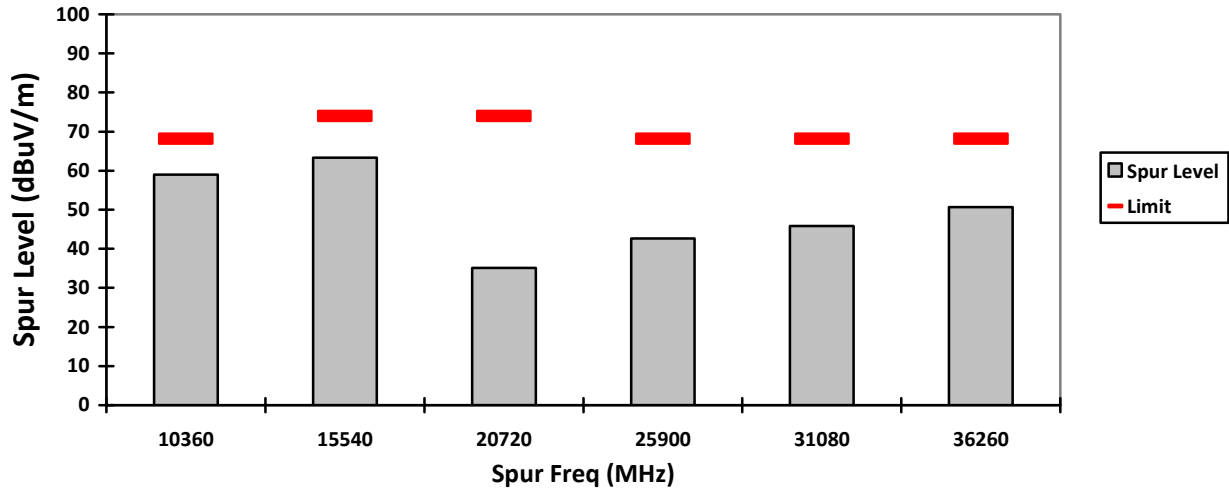
Applicable To		Limit	
789033 D02 General UNII Test Procedures New Rules v01r03		Field Strength at 3 m	
		PK: 74 (dBµV/m)	AV: 54 (dBµV/m)
Frequency Band	Applicable To	EIRP Limit	Equivalent Field Strength at 3 m
5150~5250 MHz	15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2 (dBµV/m)
5250~5350 MHz	15.407(b)(2)		
5470~5725 MHz	15.407(b)(3)		
5725~5850 MHz	15.407(b)(4)(i)	PK:-27 (dBm/MHz) ¹¹ PK:10 (dBm/MHz) ¹² PK:15.6 (dBm/MHz) ¹³ PK:27 (dBm/MHz) ¹⁴	PK: 68.2 (dBµV/m) ¹¹ PK:105.2 (dBµV/m) ¹² PK: 110.8 (dBµV/m) ¹³ PK:122.2 (dBµV/m) ¹⁴
	15.407(b)(4)(ii)	Emission limits in section 15.247(d)	
¹¹ beyond 75 MHz or more above of the band edge. ¹² below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above. ¹³ below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above. ¹⁴ from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.			

NOTE:

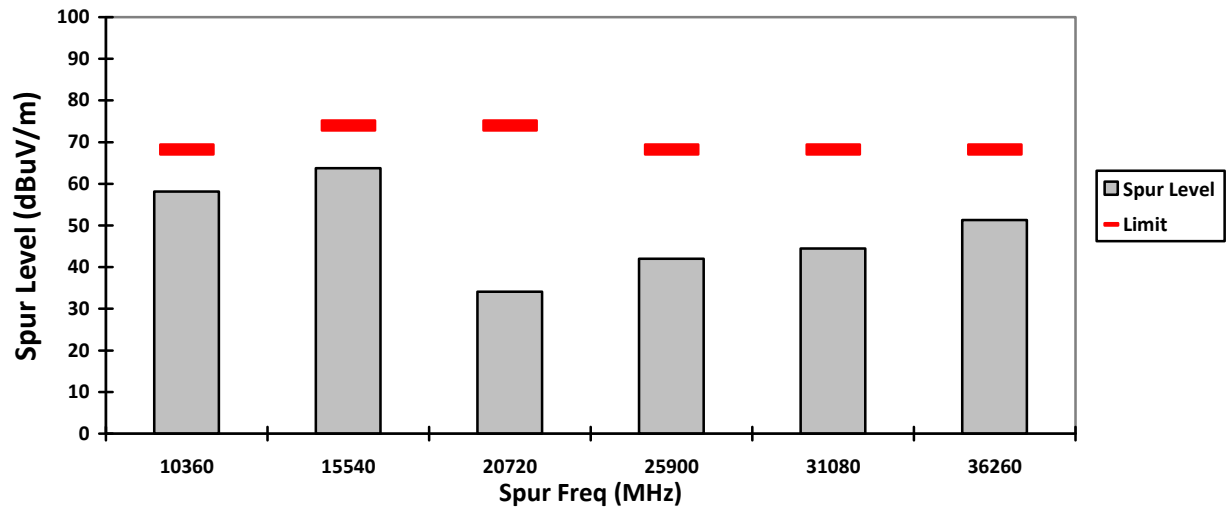
The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = ((1000000 \sqrt{(30P)}) / 3) \mu\text{V/m, where P is the eirp (Watts)}$$

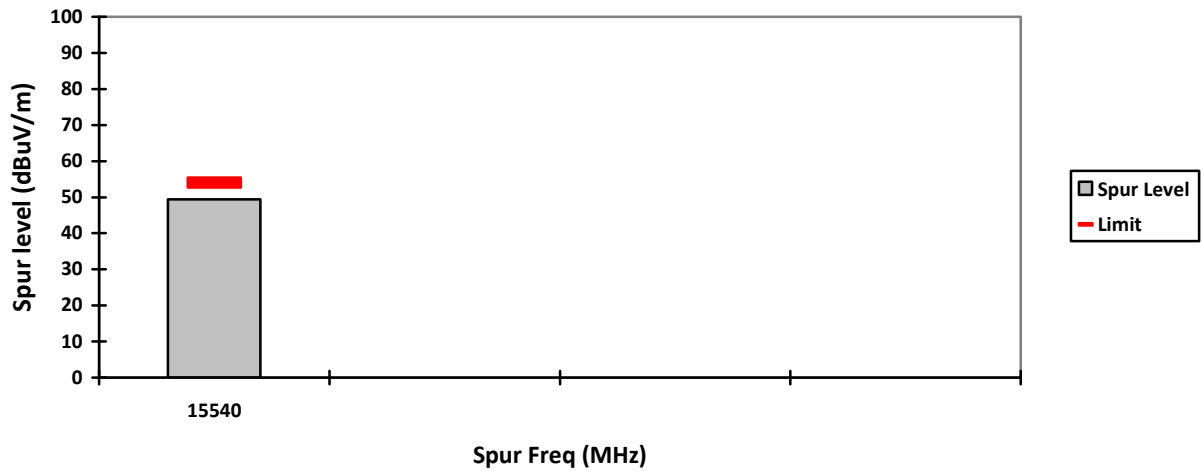
VERTICAL, PK



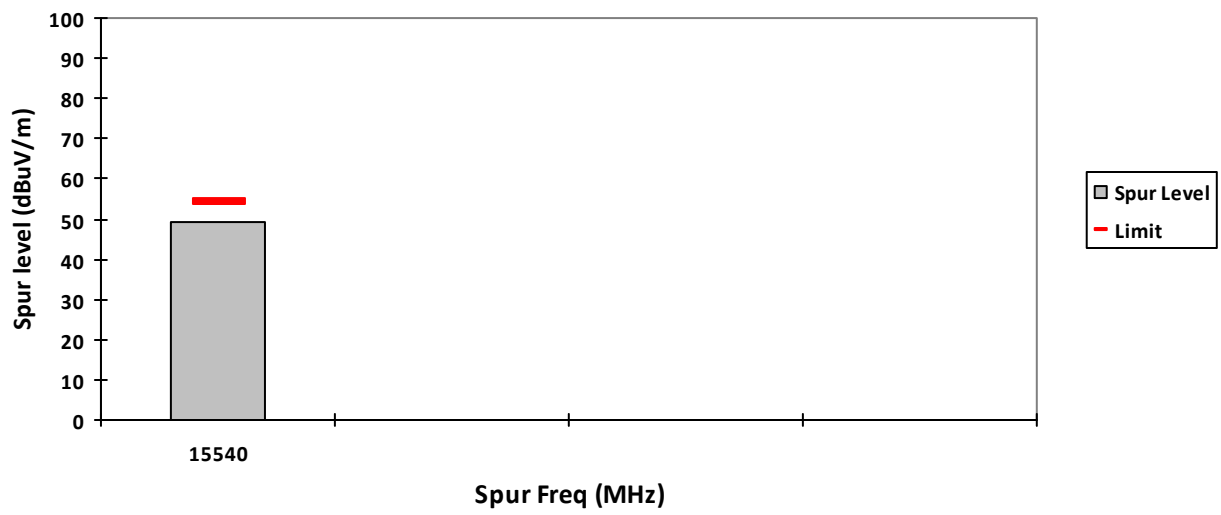
HORIZONTAL, PK



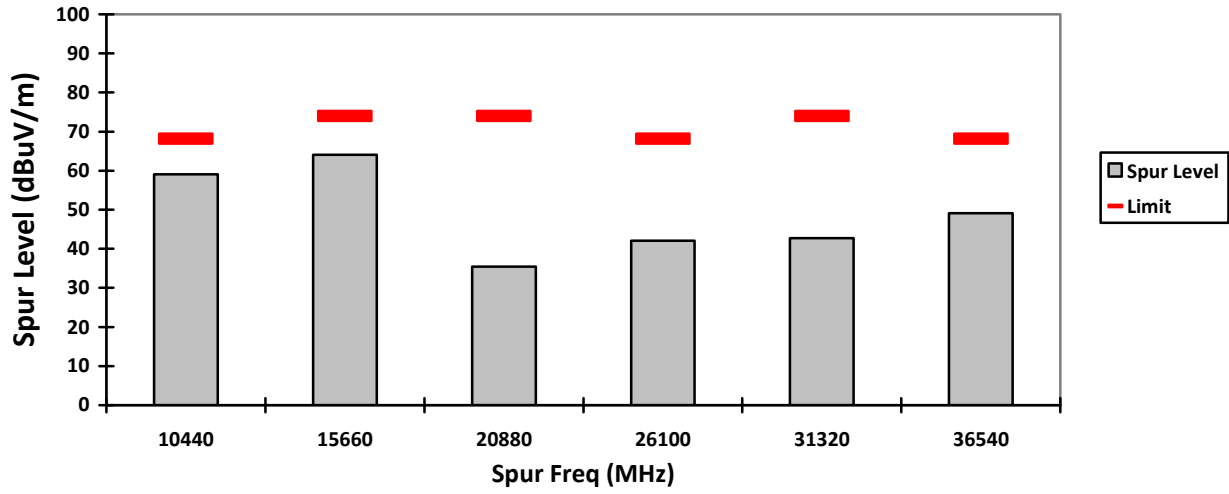
VERTICAL, AV



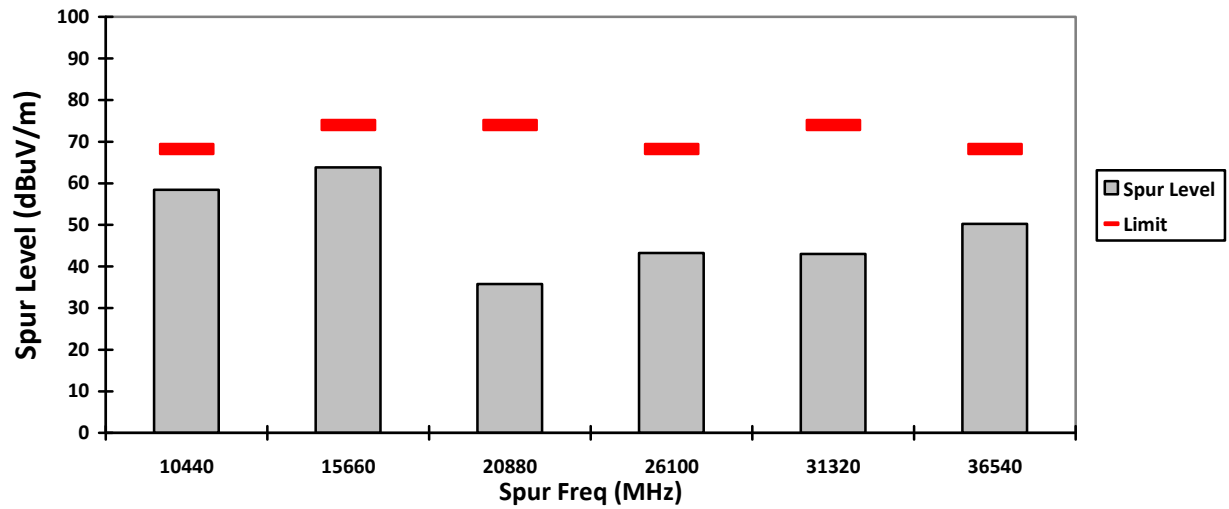
HORIZONTAL, AV



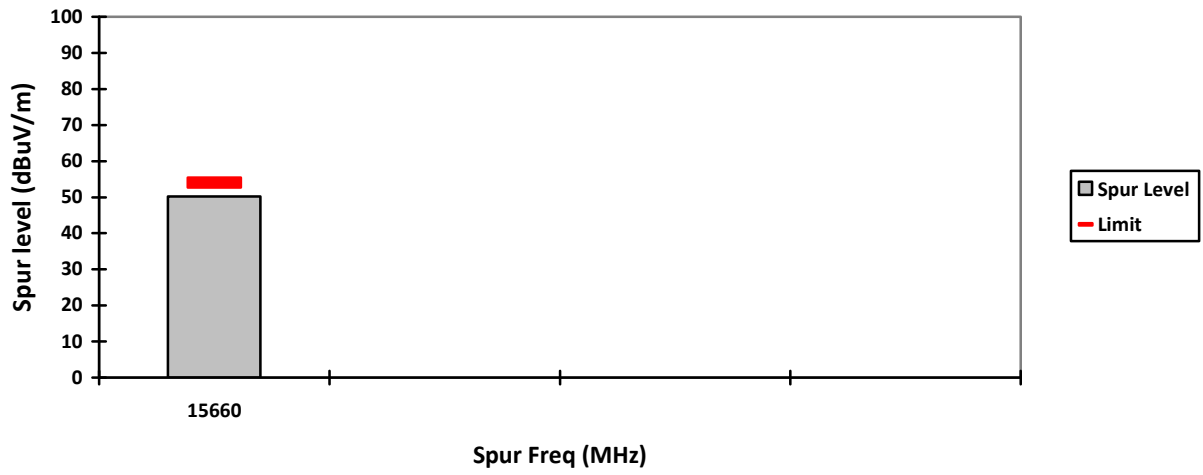
VERTICAL, PK



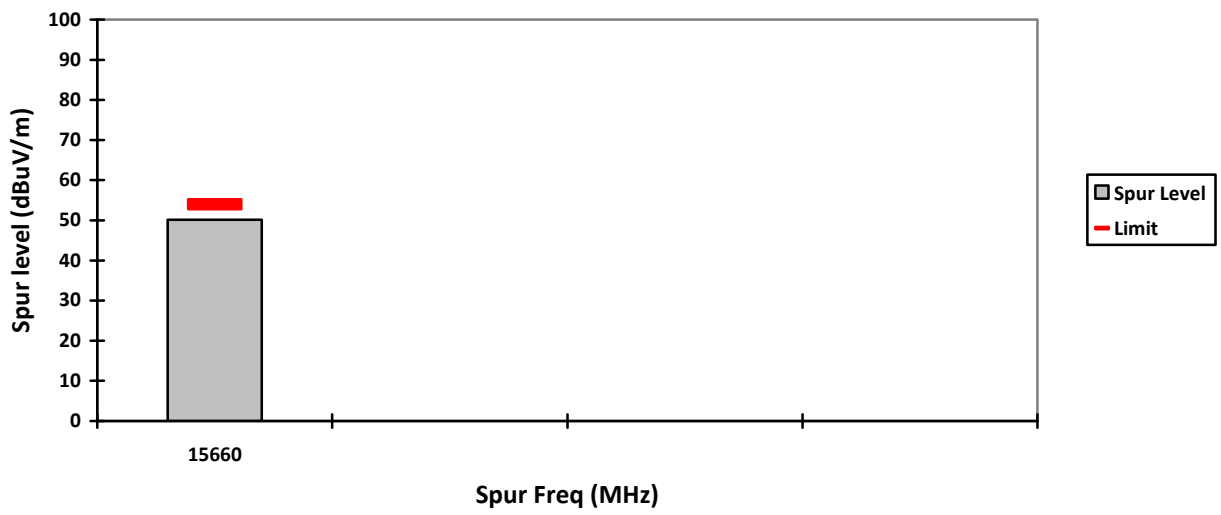
HORIZONTAL, PK



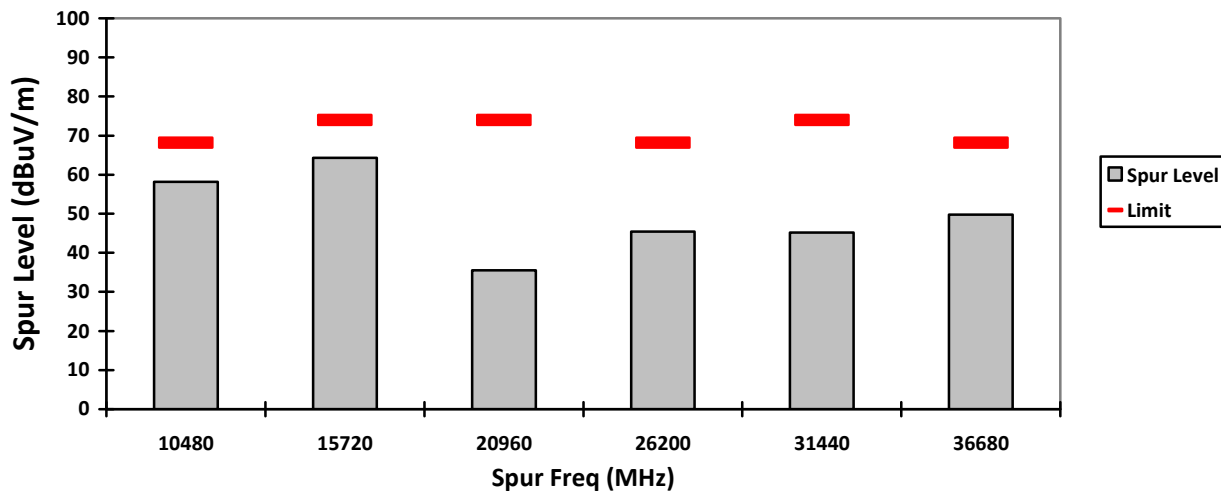
VERTICAL, AV



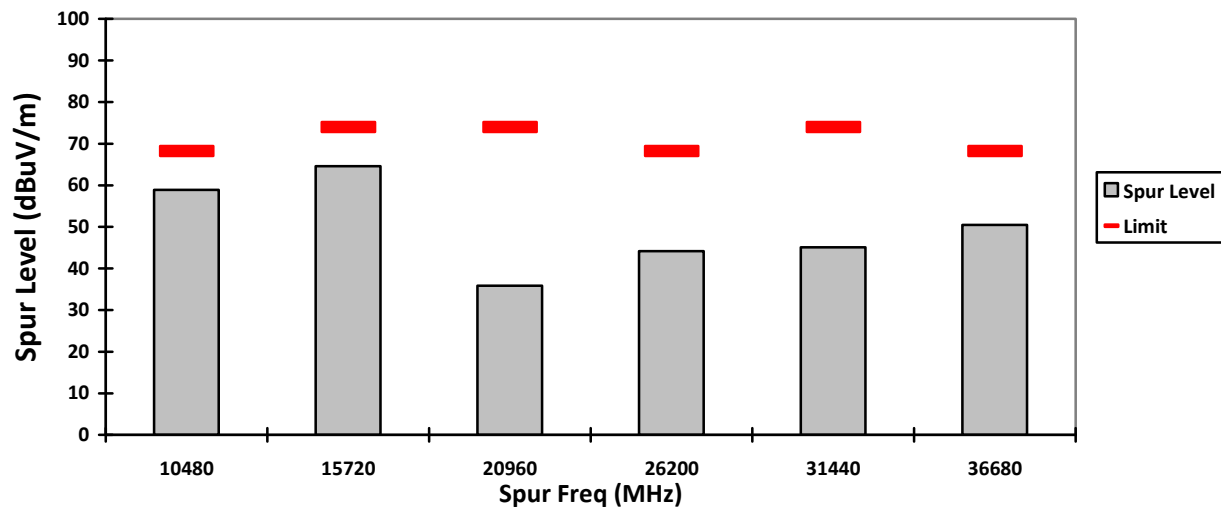
HORIZONTAL, AV



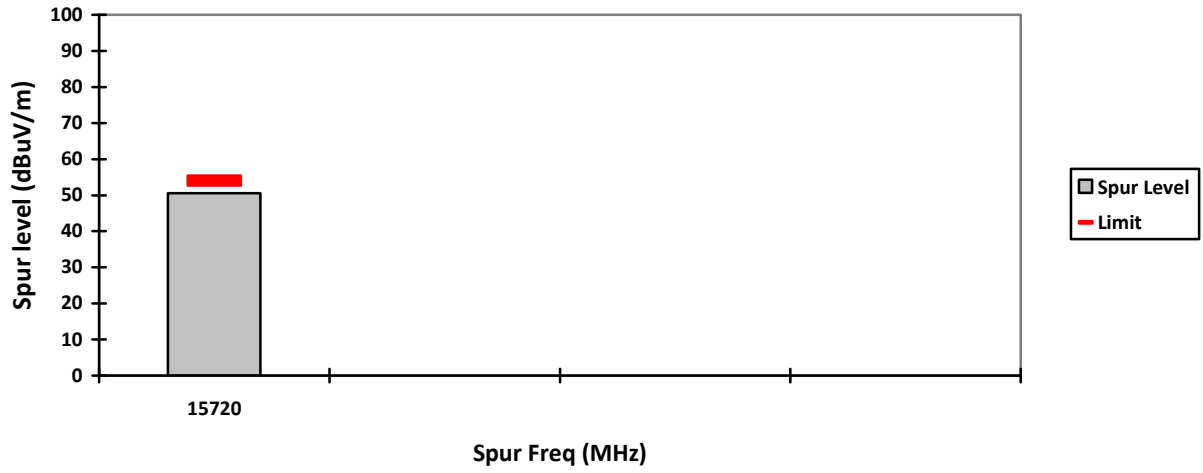
VERTICAL, PK



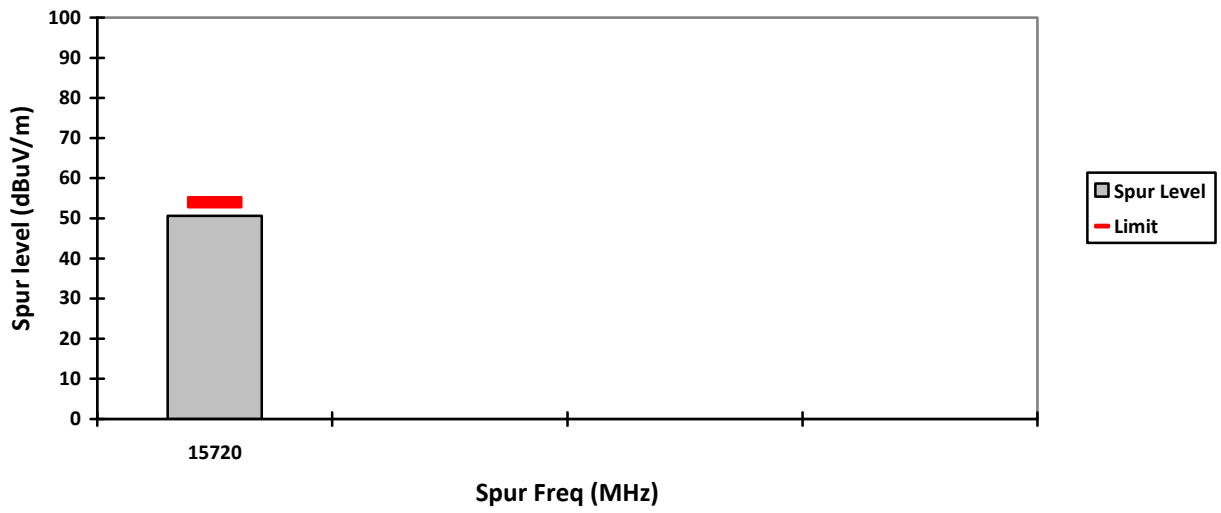
HORIZONTAL, PK



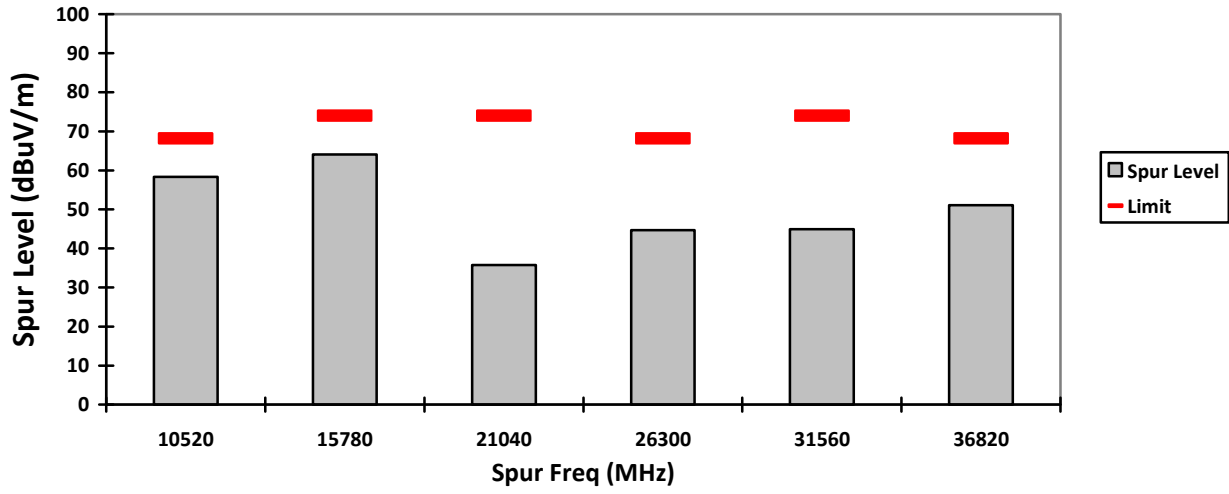
VERTICAL, AV



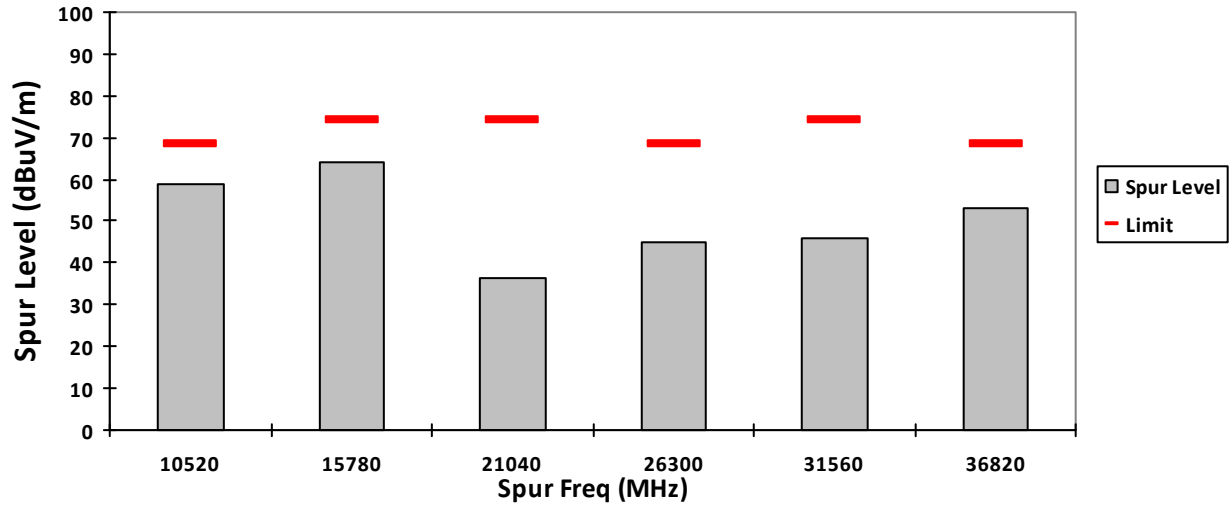
HORIZONTAL, AV



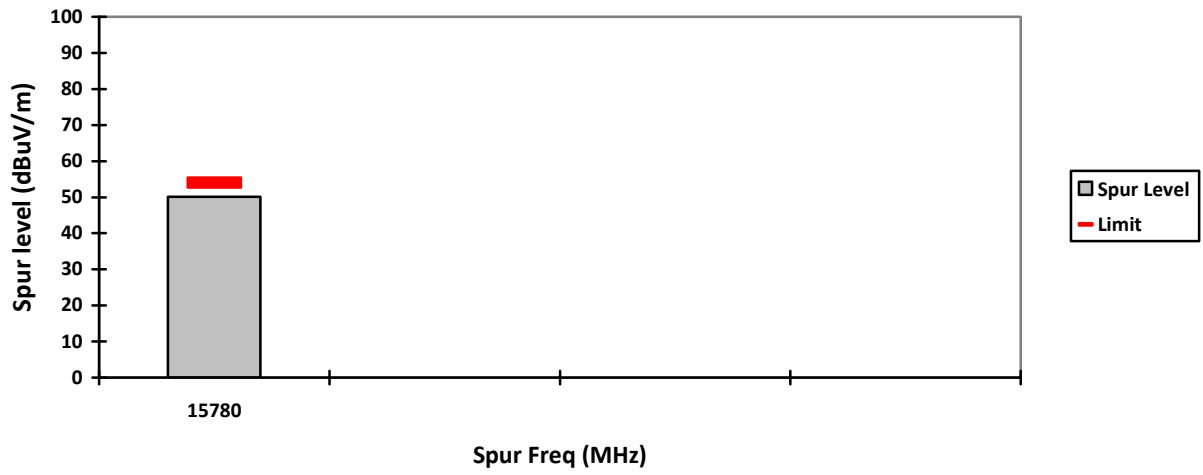
VERTICAL, PK



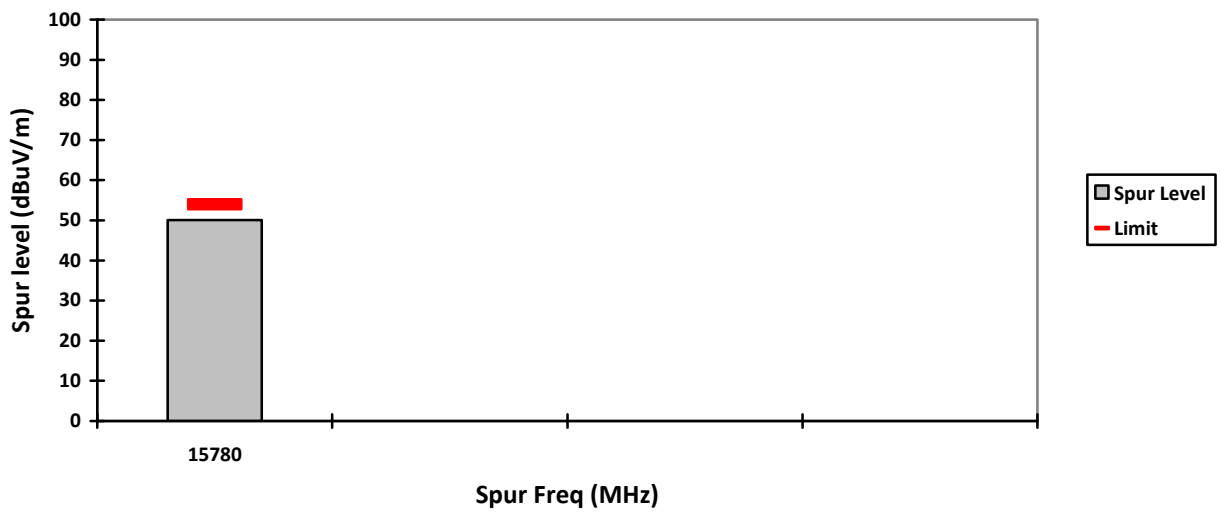
HORIZONTAL, PK



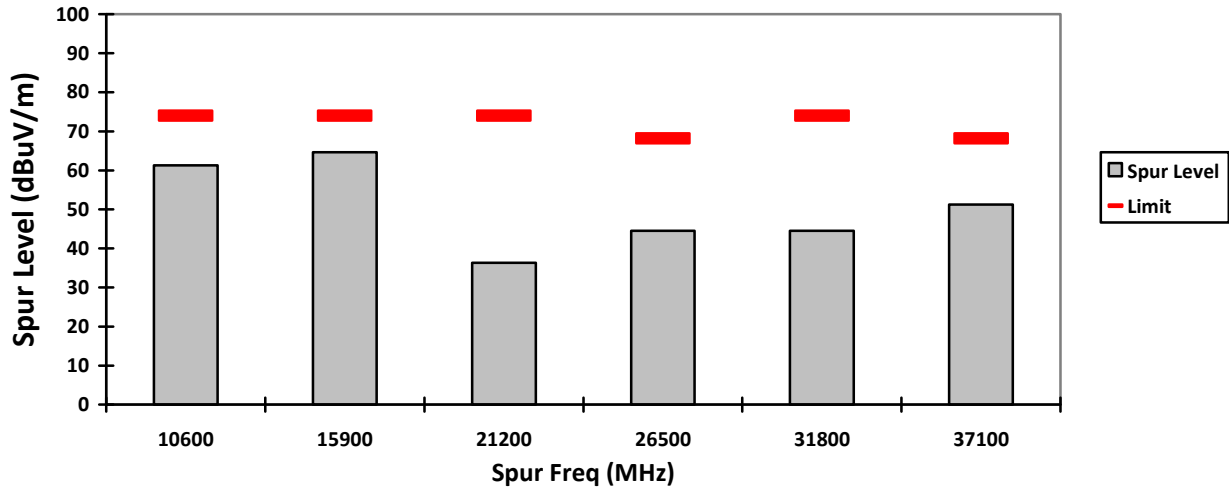
VERTICAL, AV



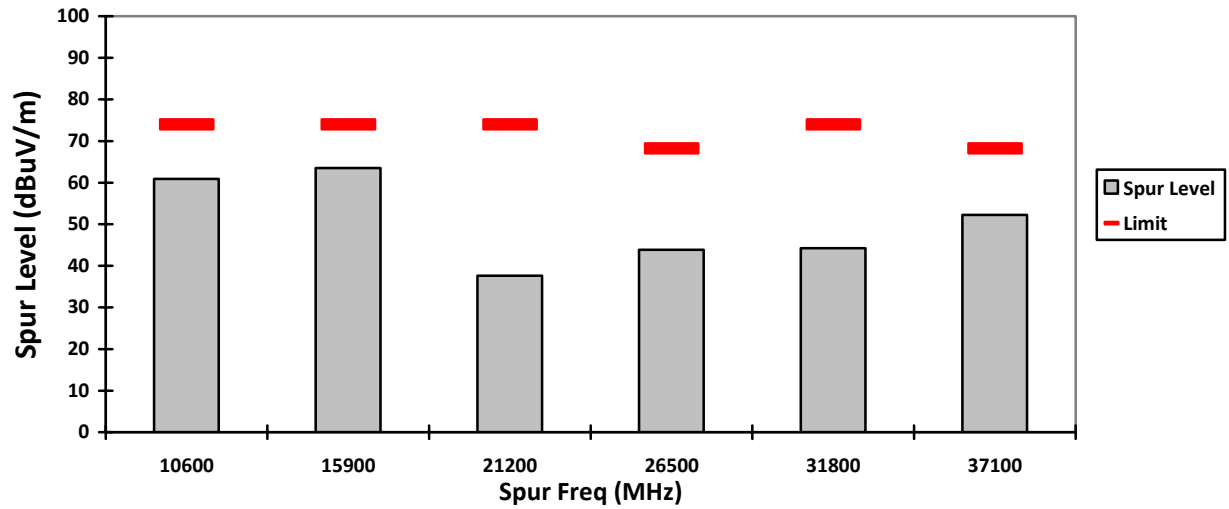
HORIZONTAL, AV



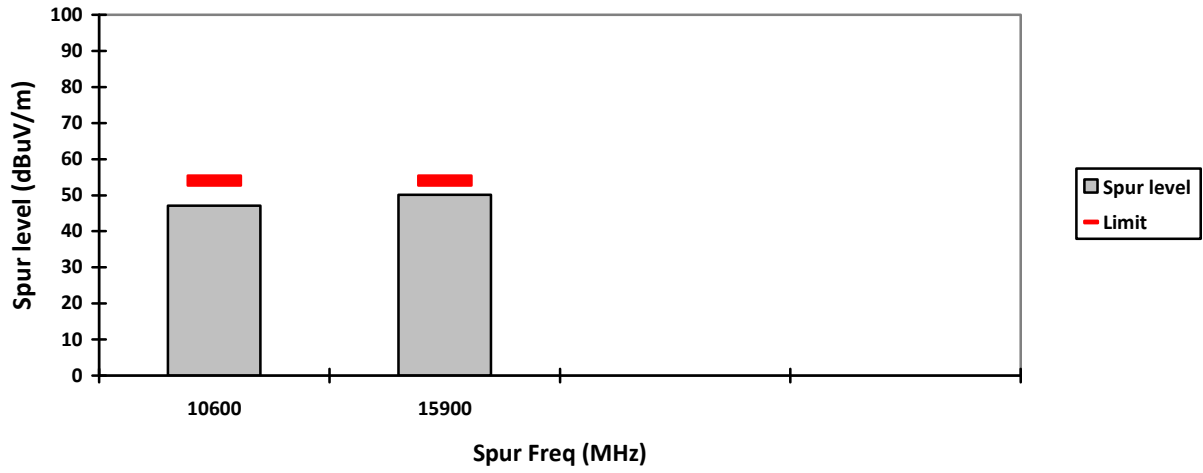
VERTICAL, PK



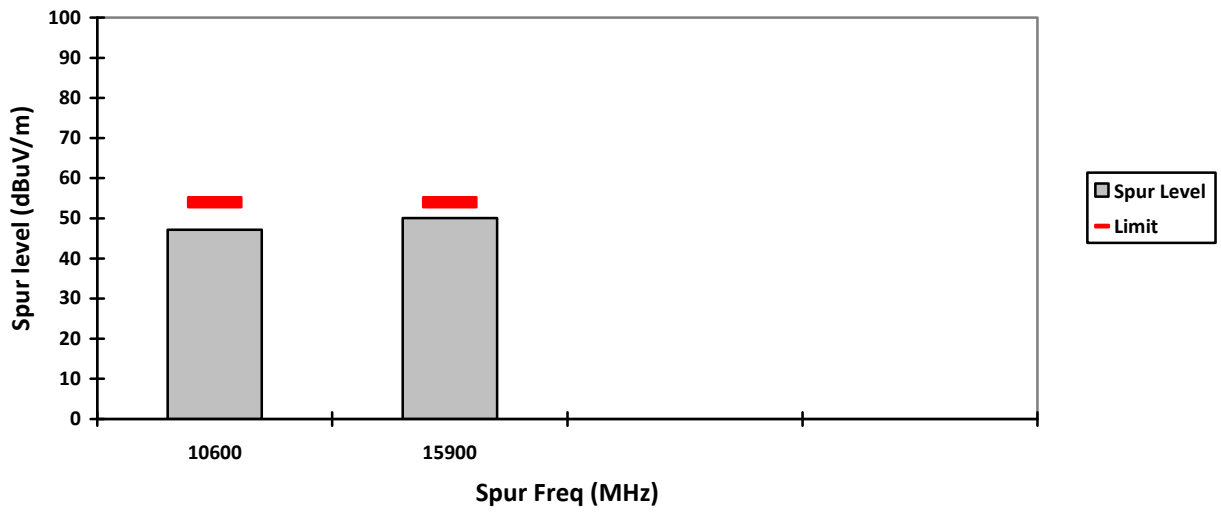
HORIZONTAL, PK



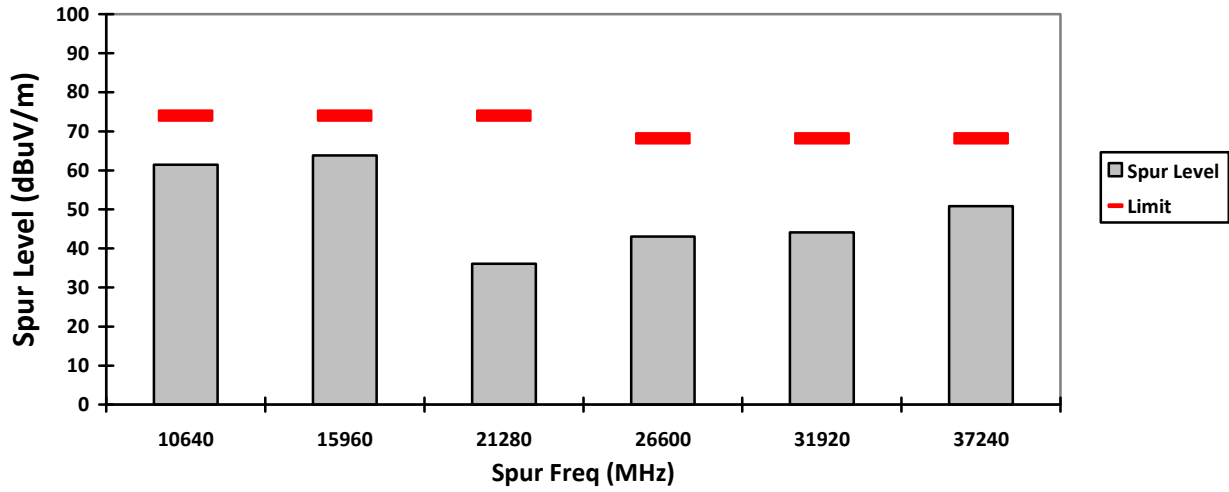
VERTICAL, AV



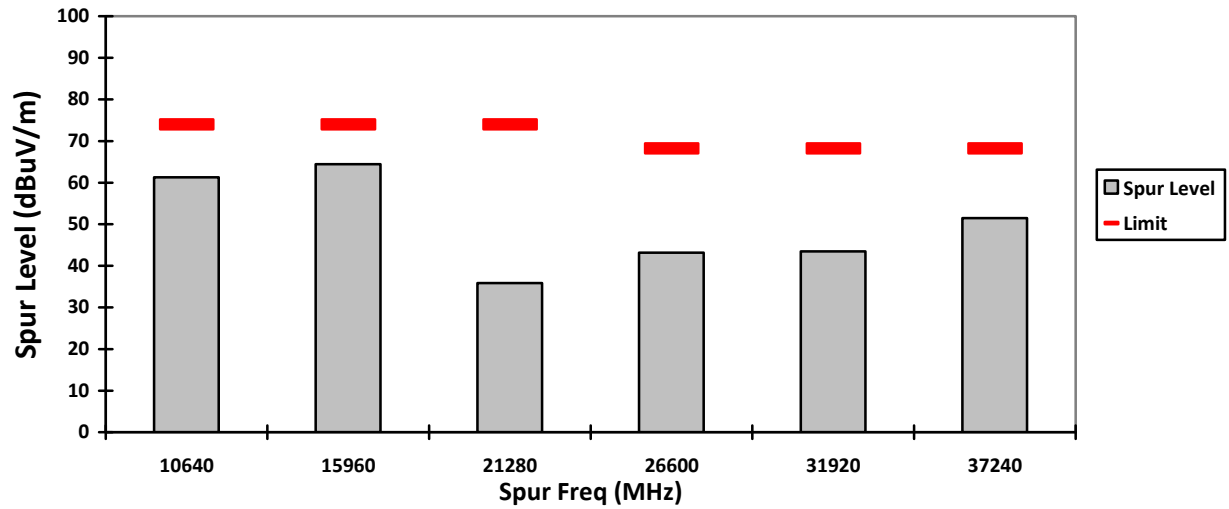
HORIZONTAL, AV



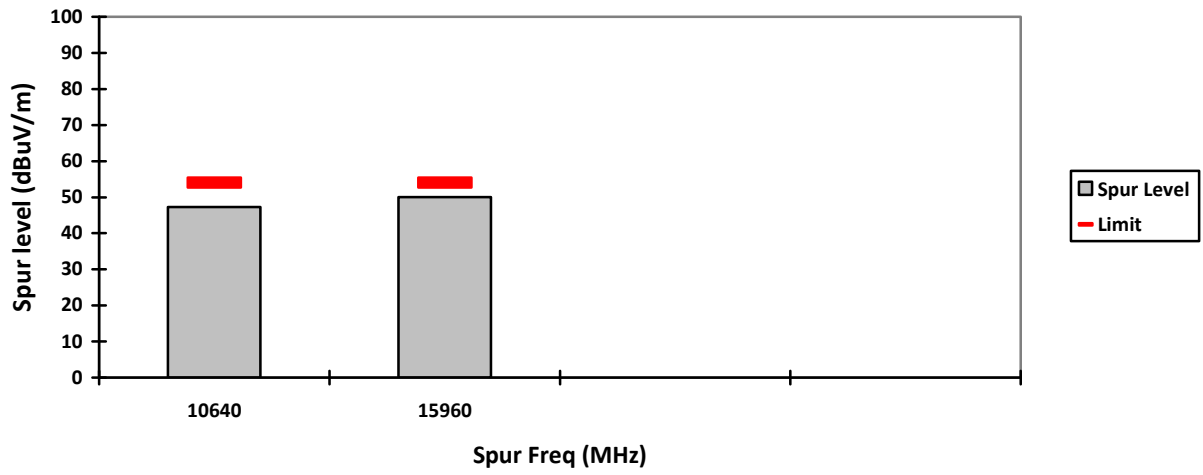
VERTICAL, PK



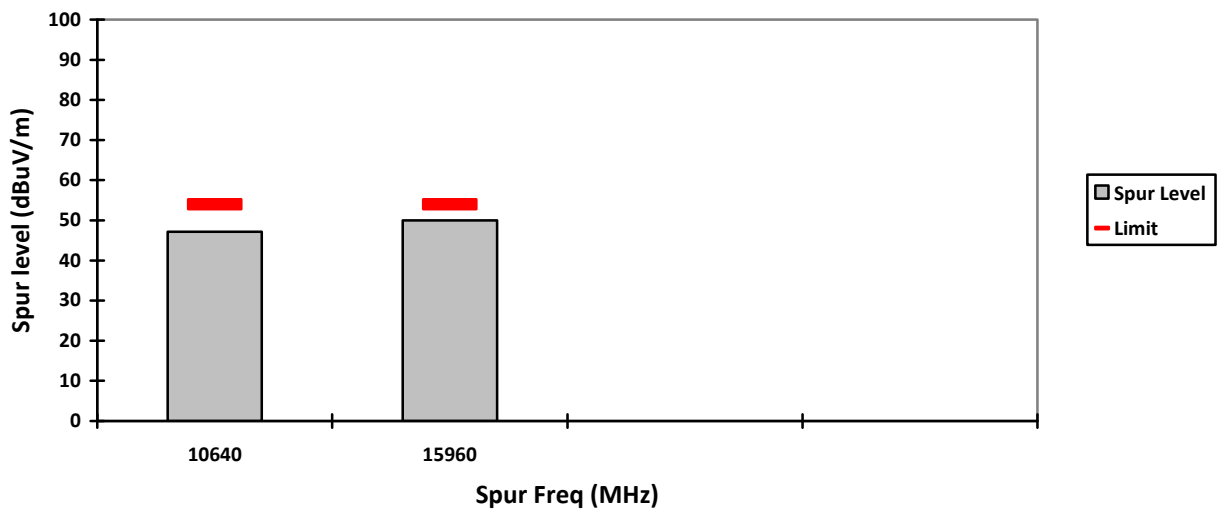
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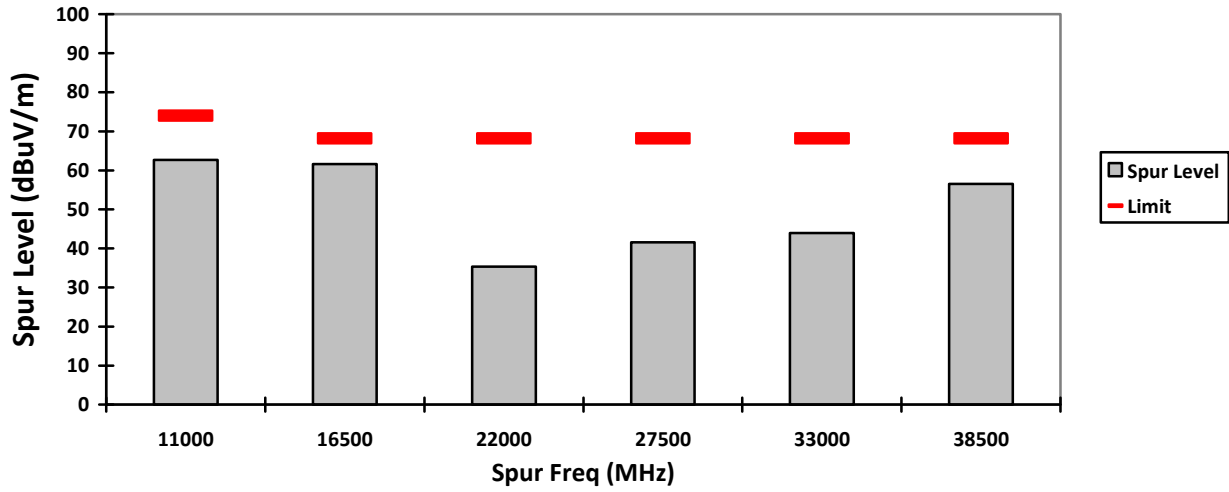
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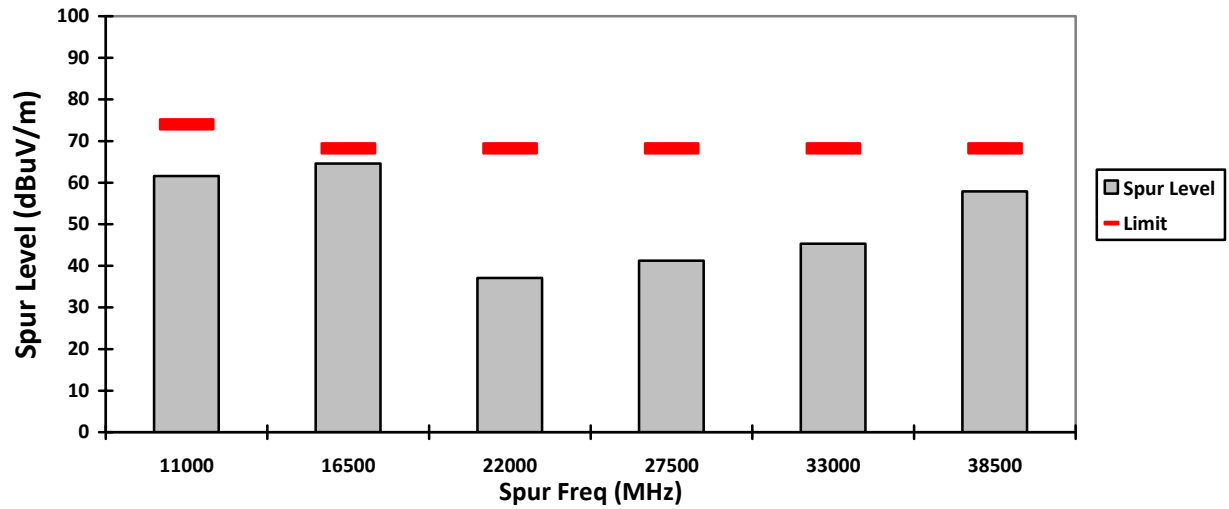
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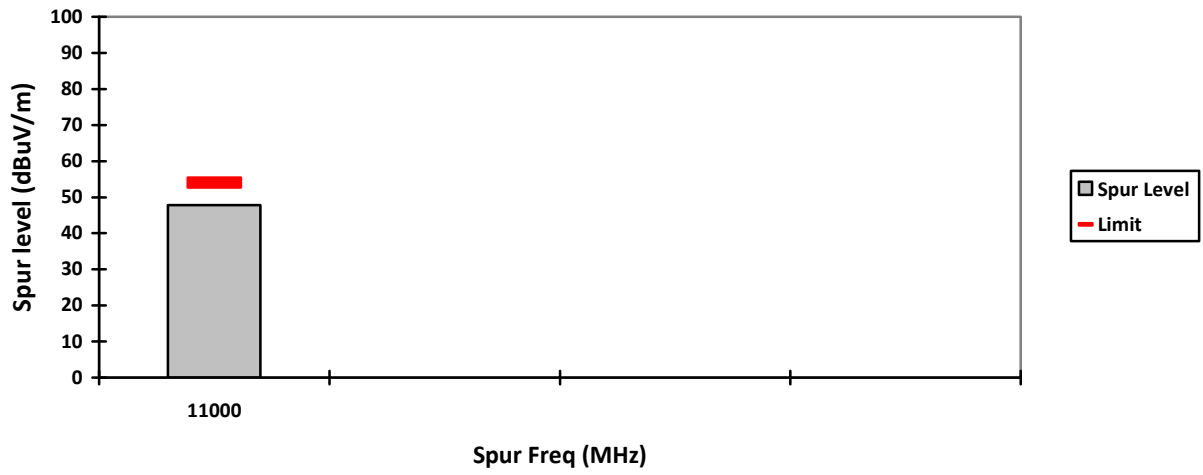
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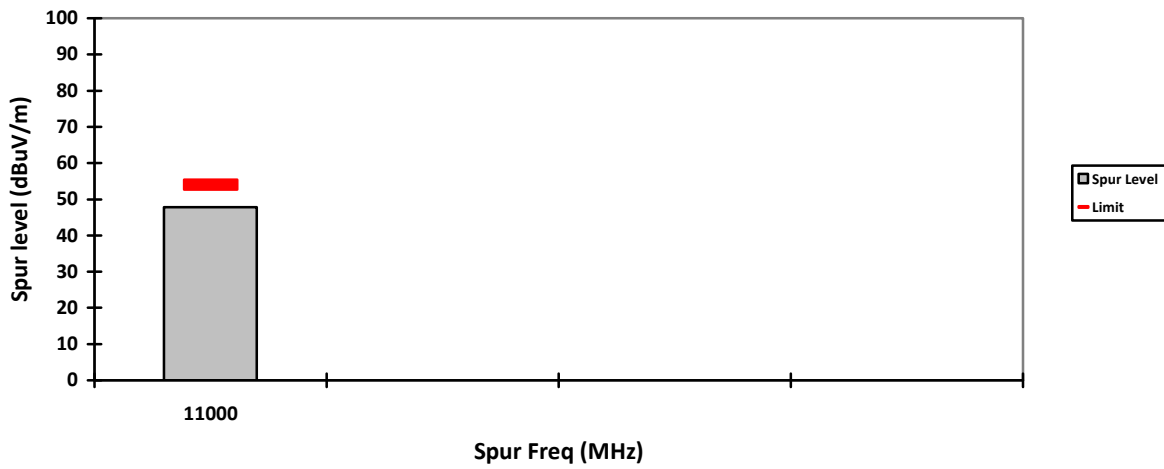
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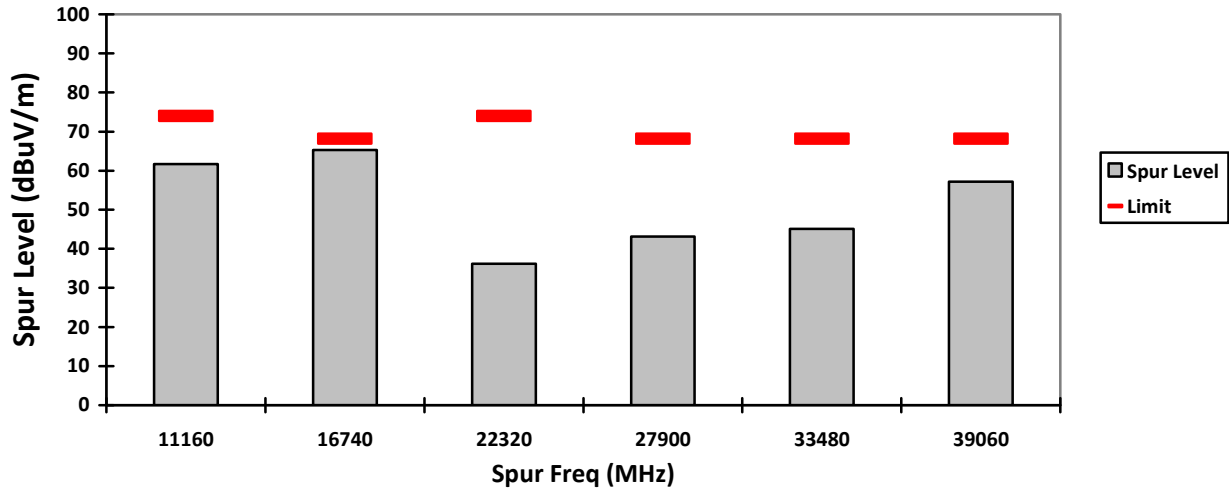
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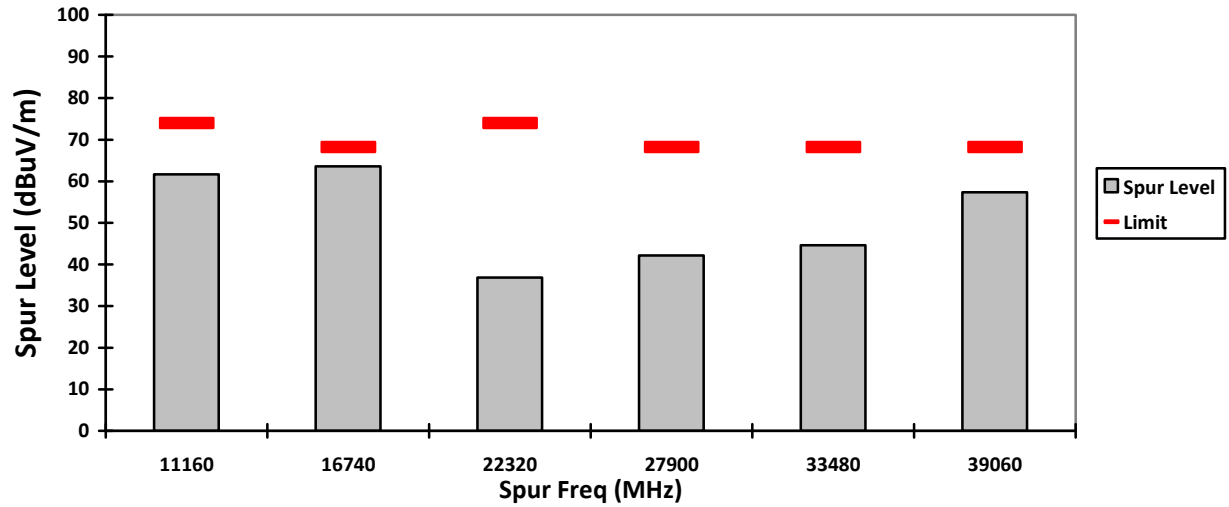
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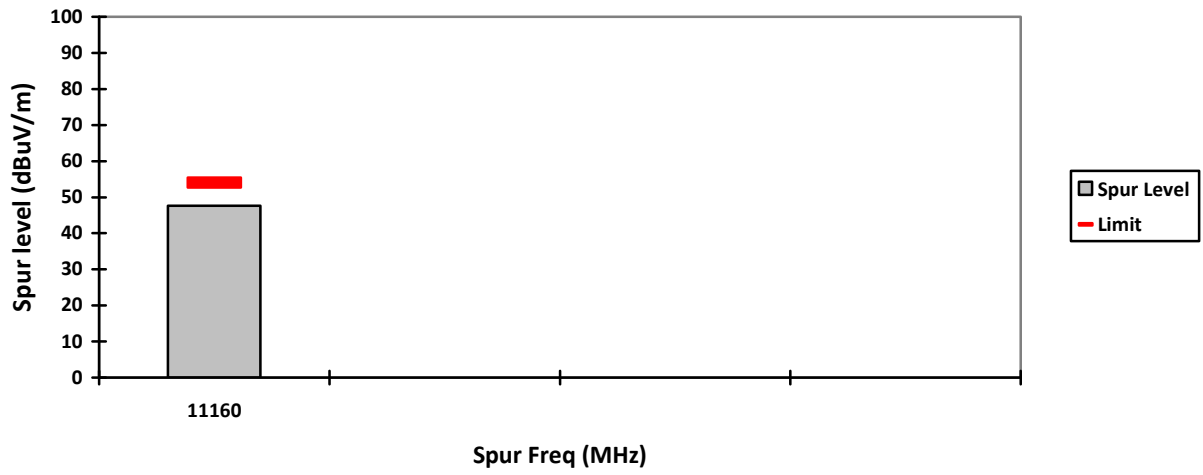
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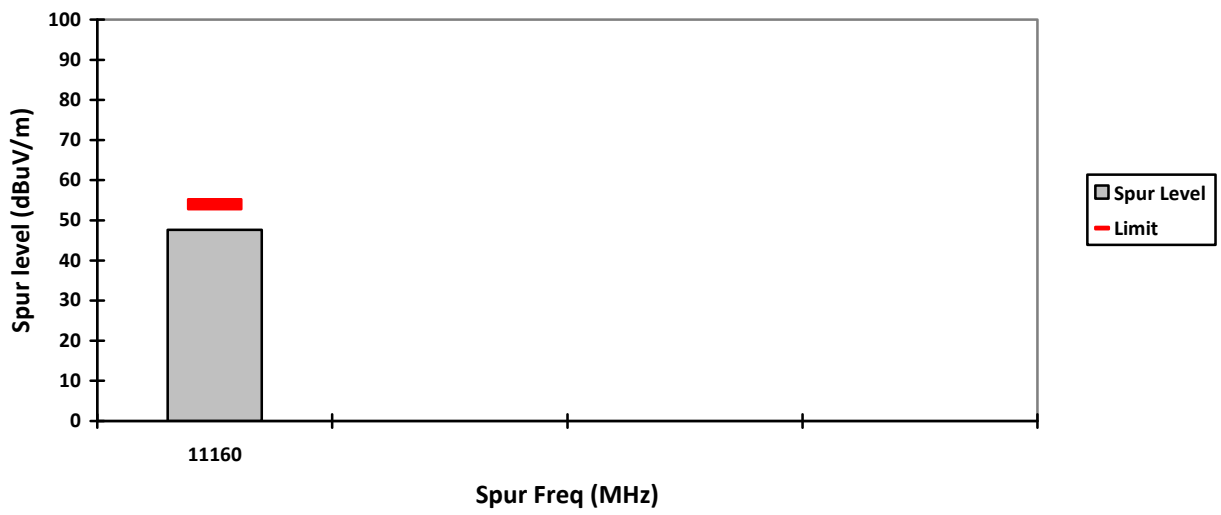
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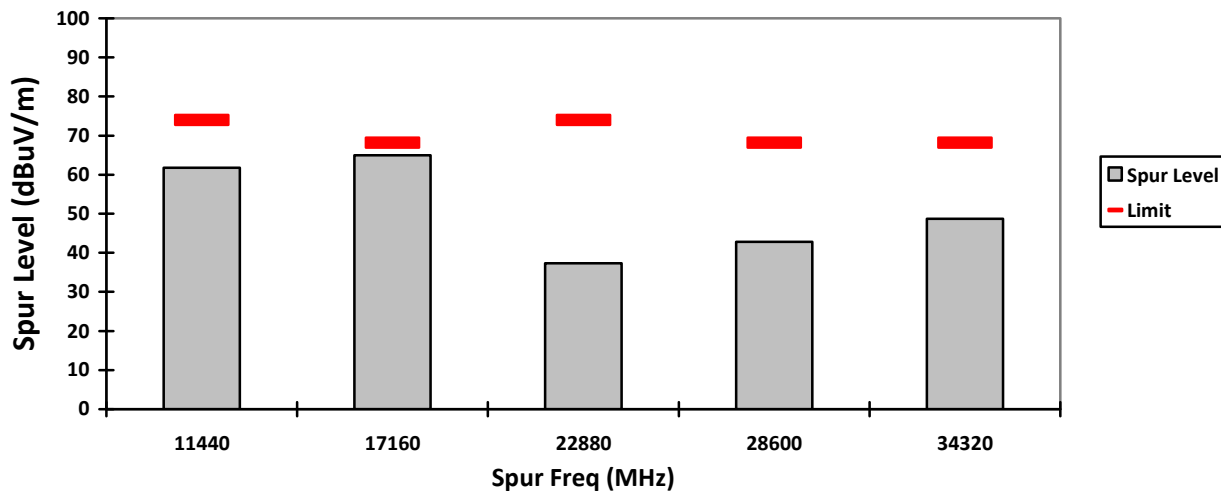
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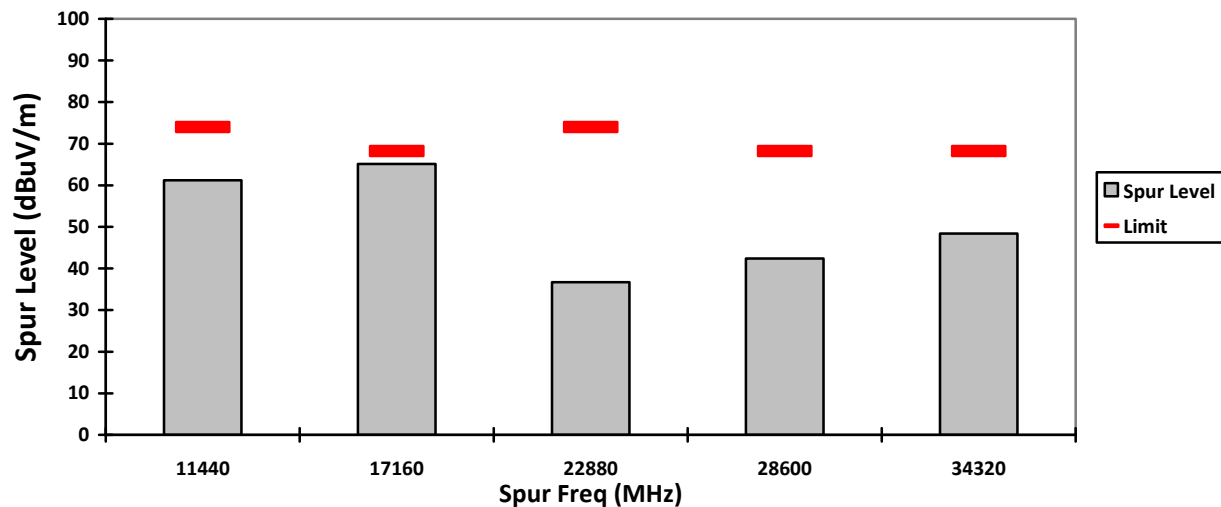
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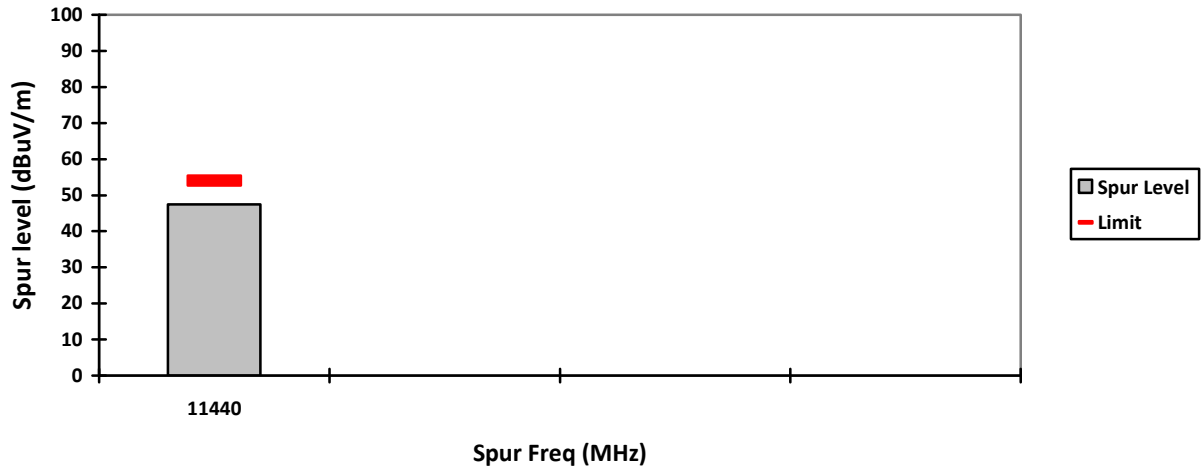
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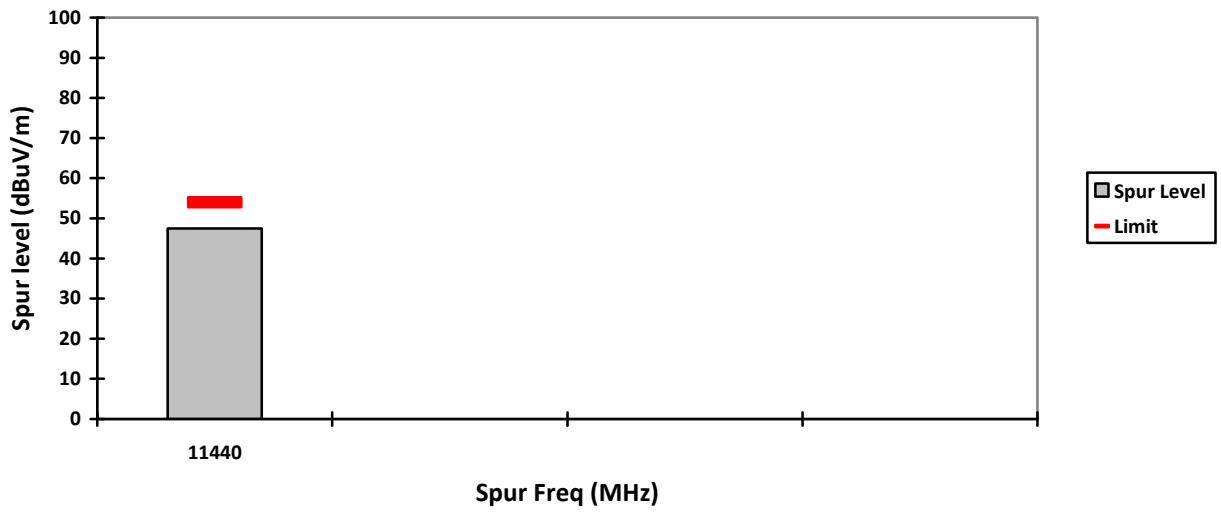
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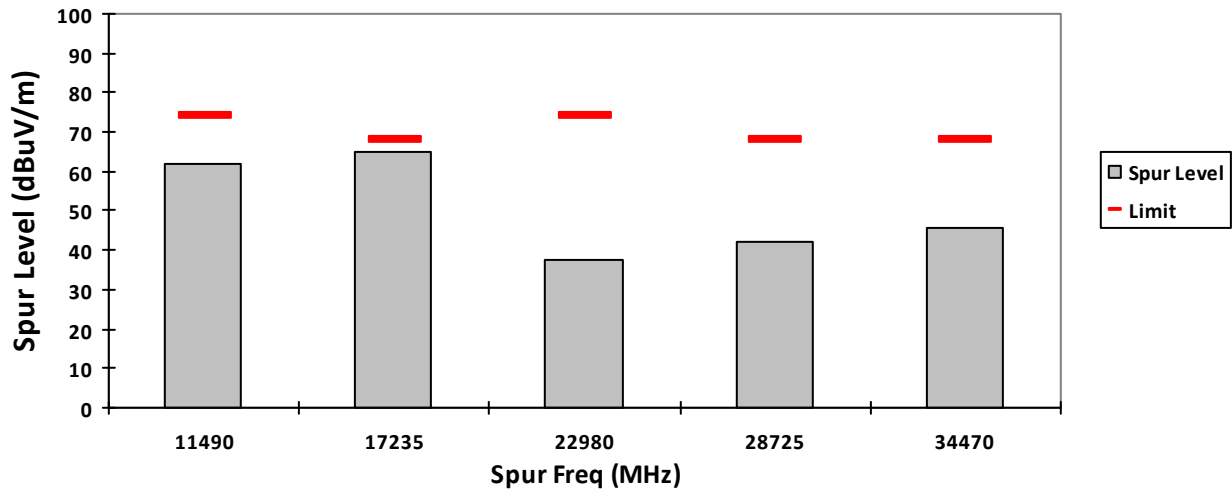
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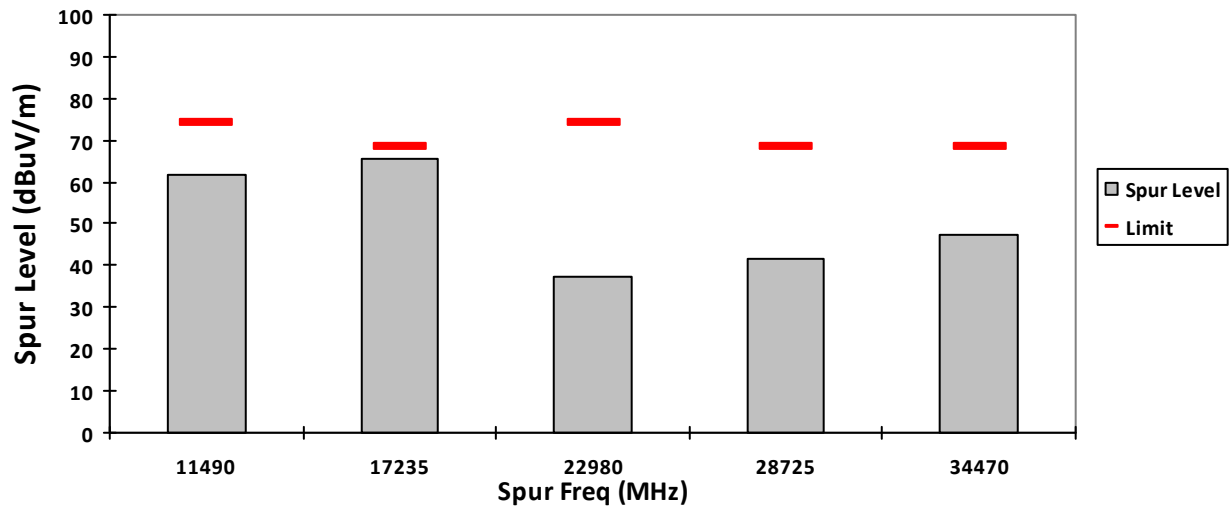
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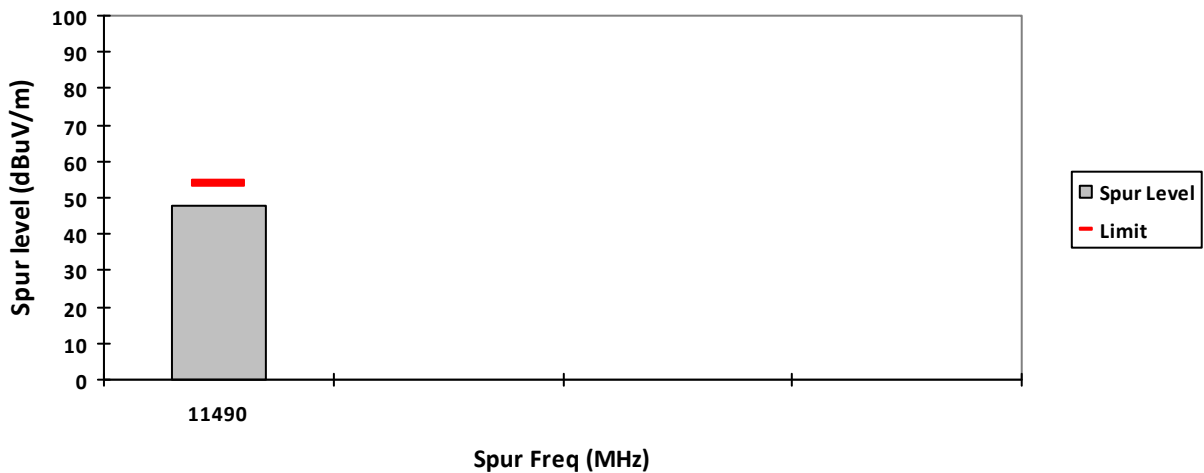
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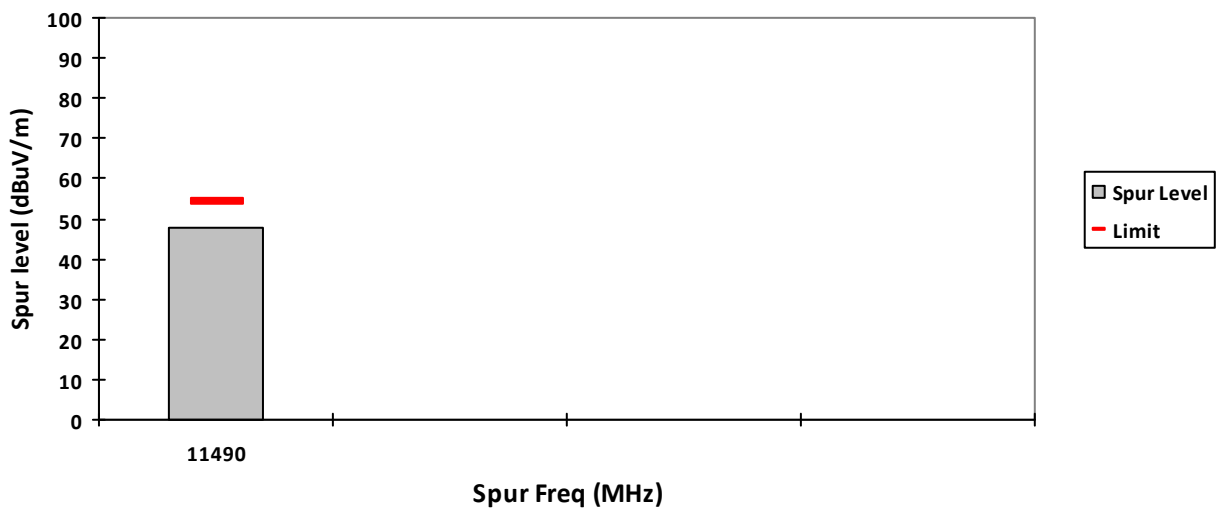
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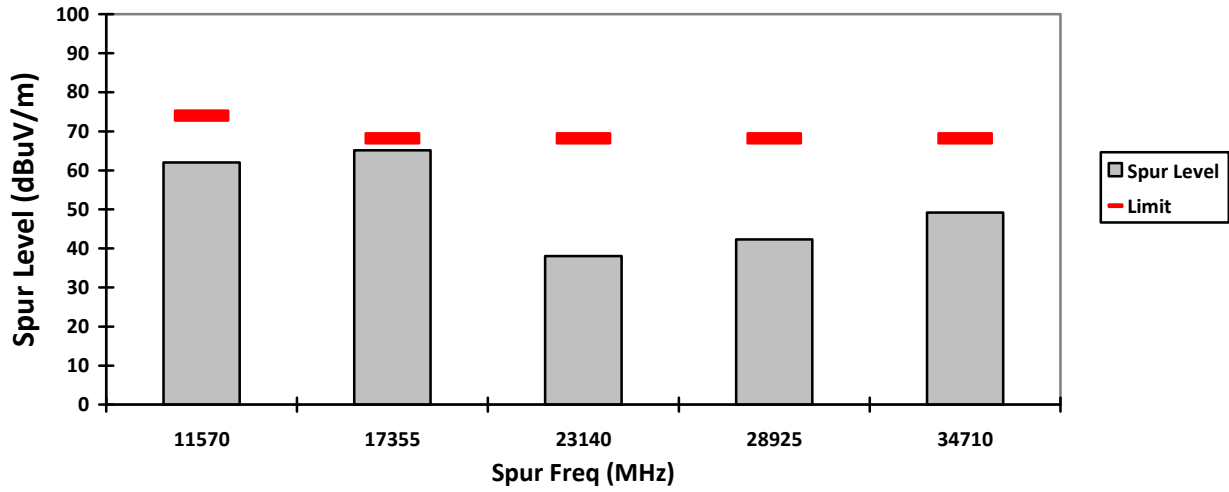
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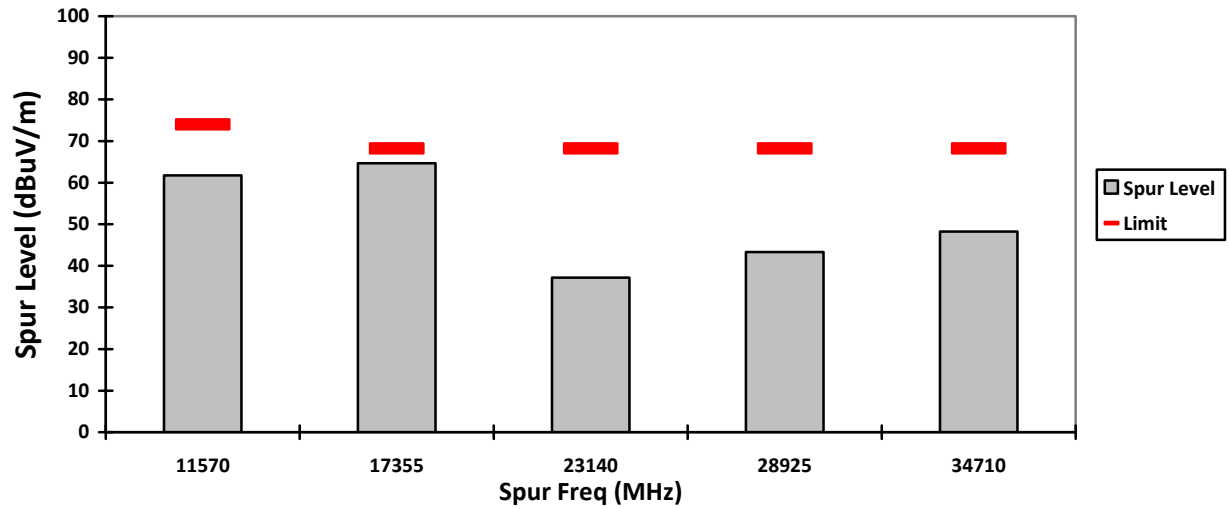
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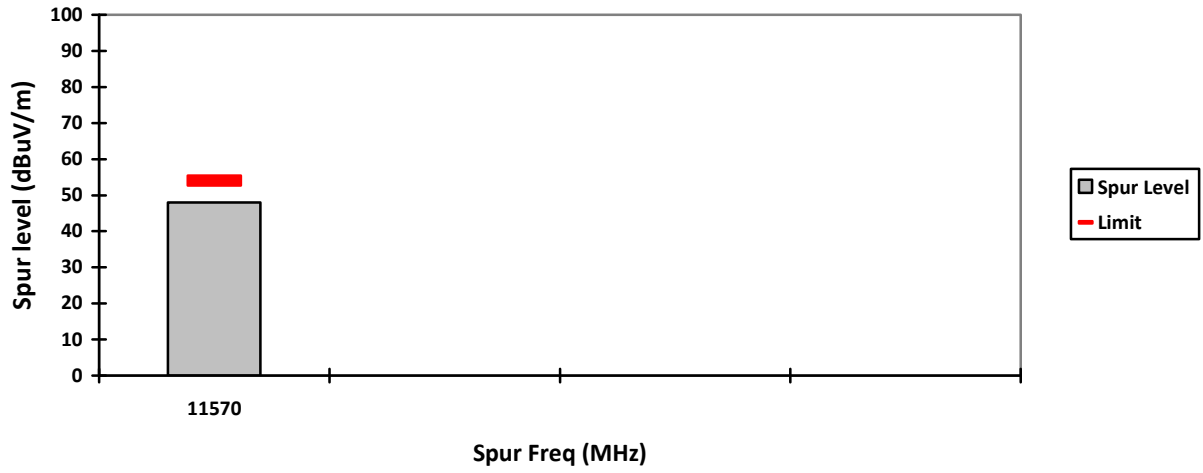
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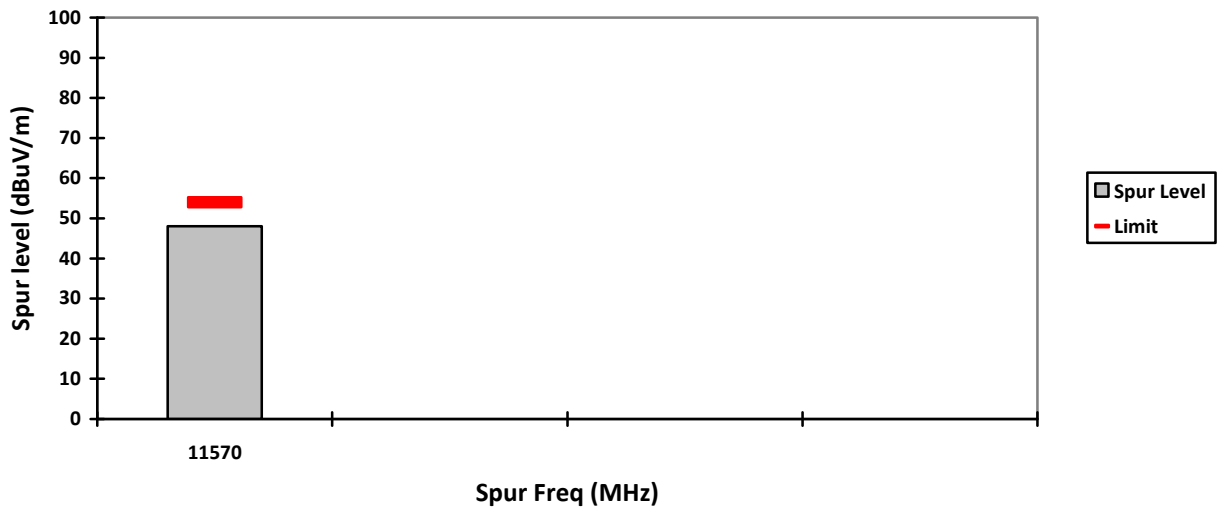
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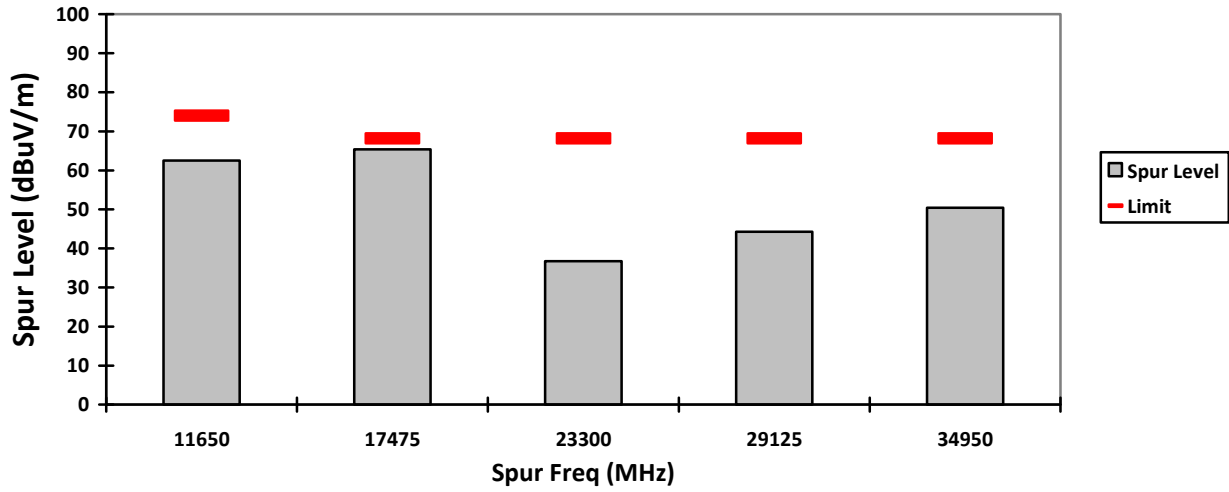
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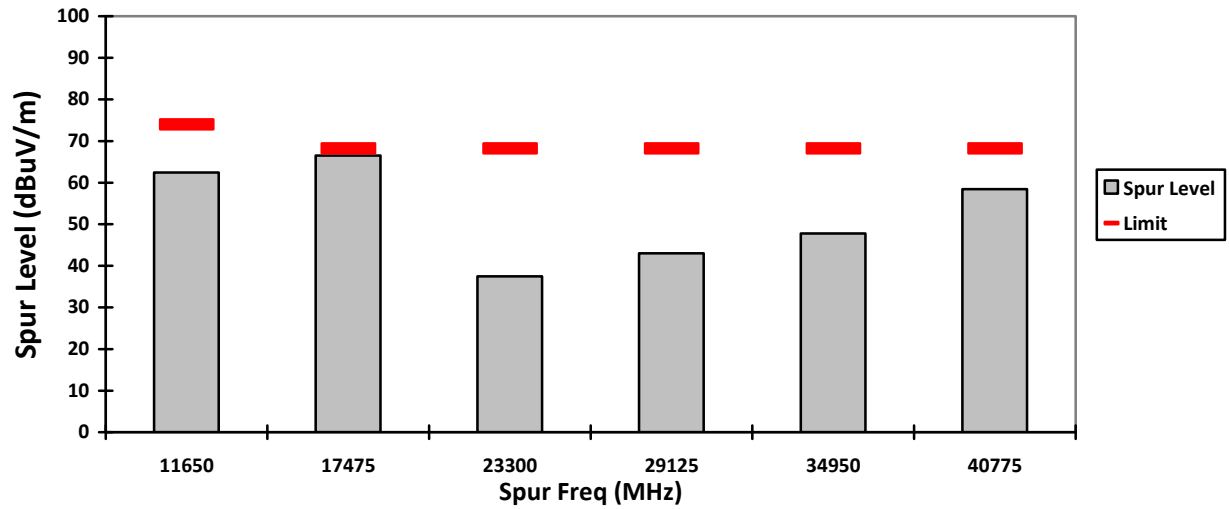
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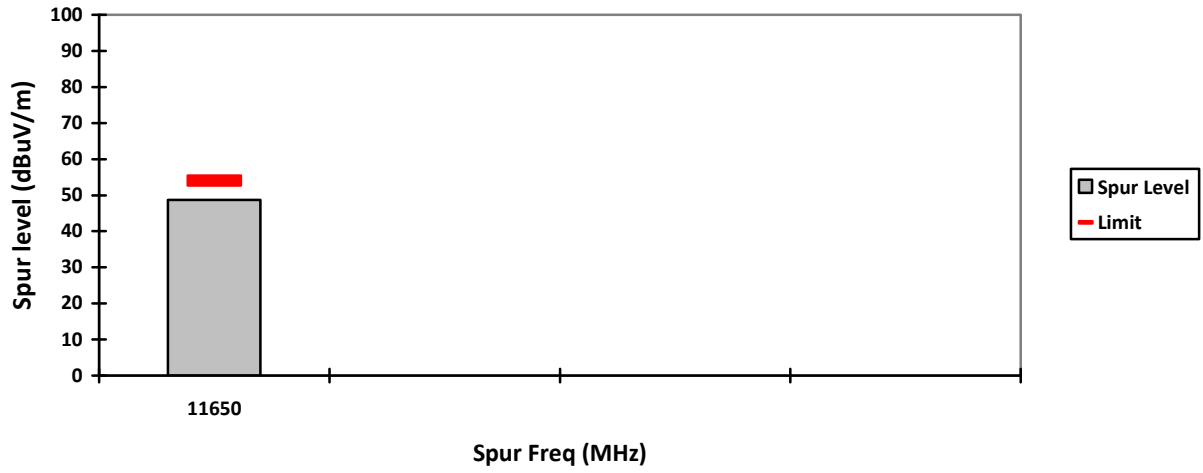
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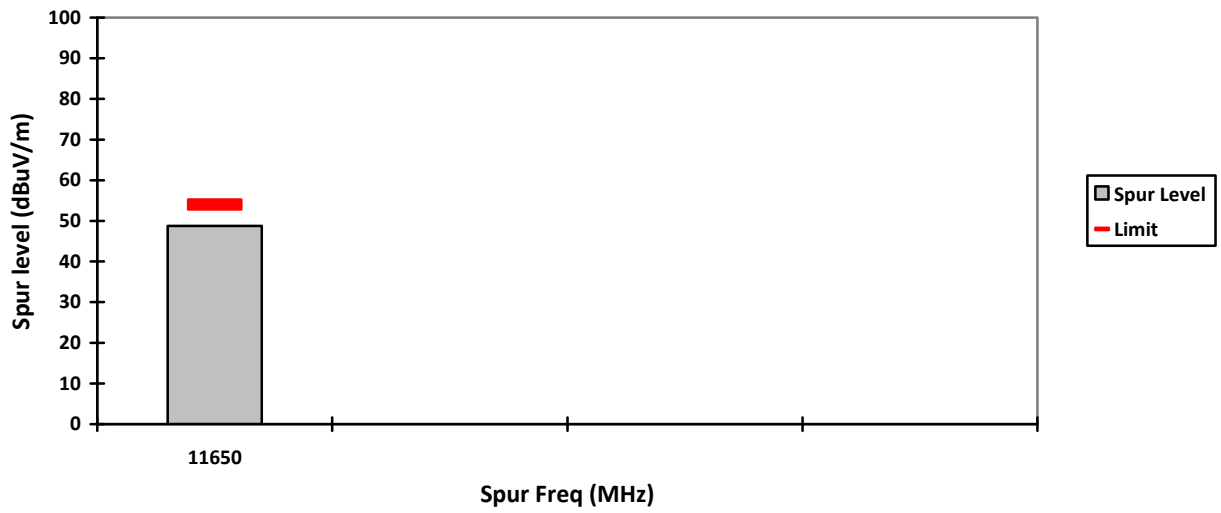
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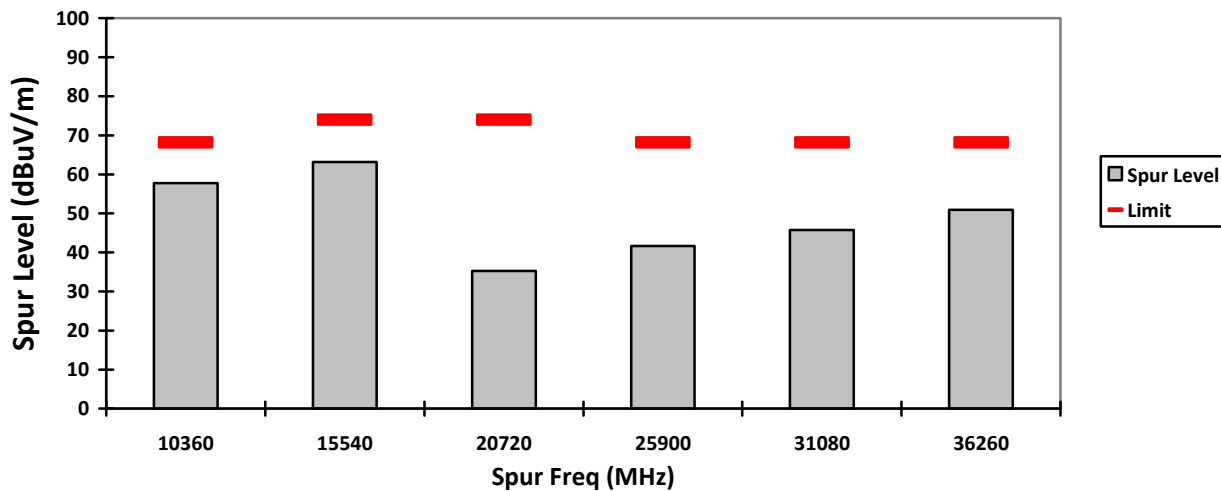
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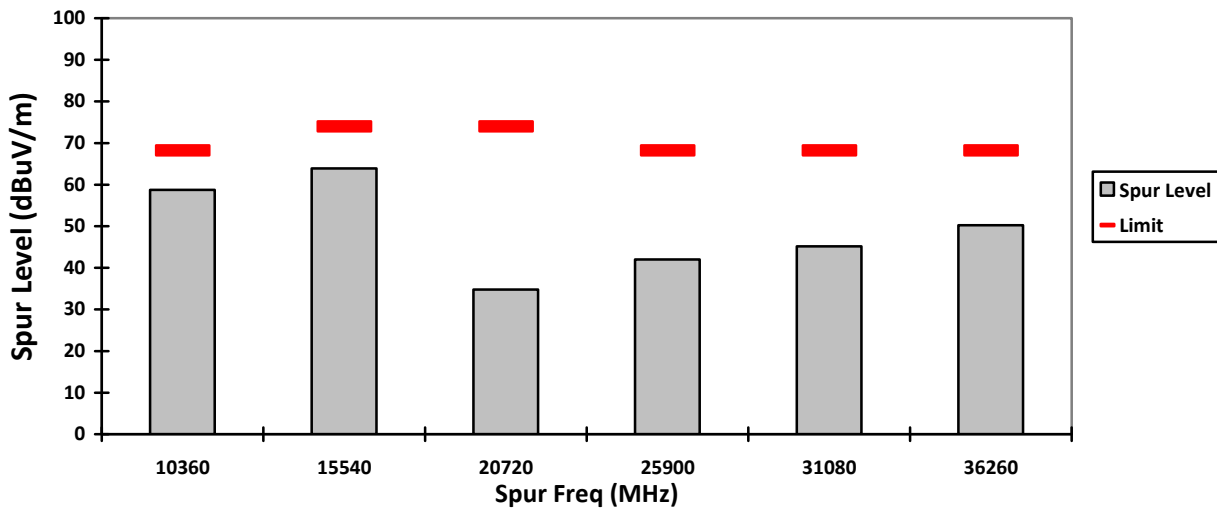
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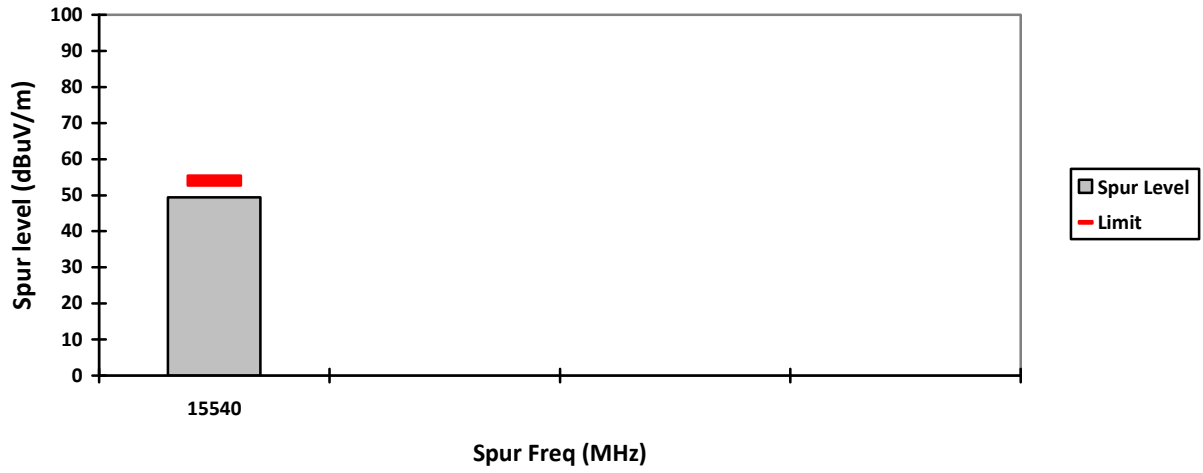
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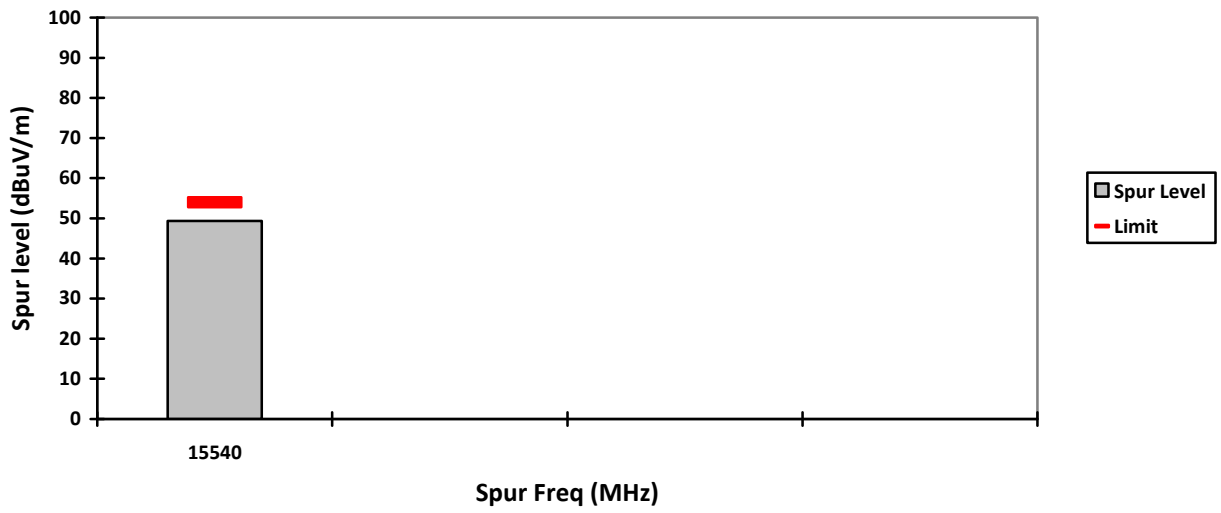
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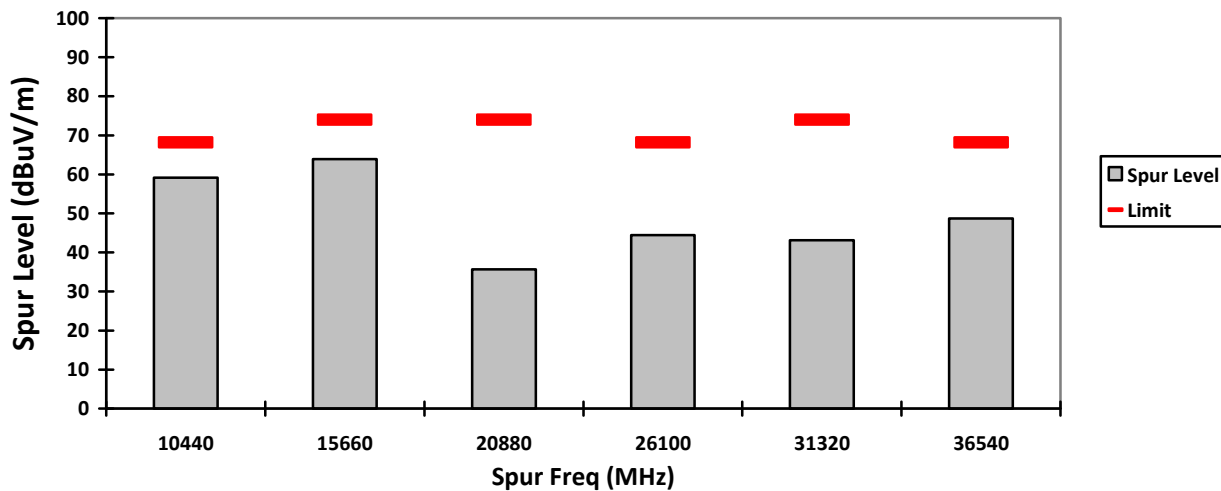
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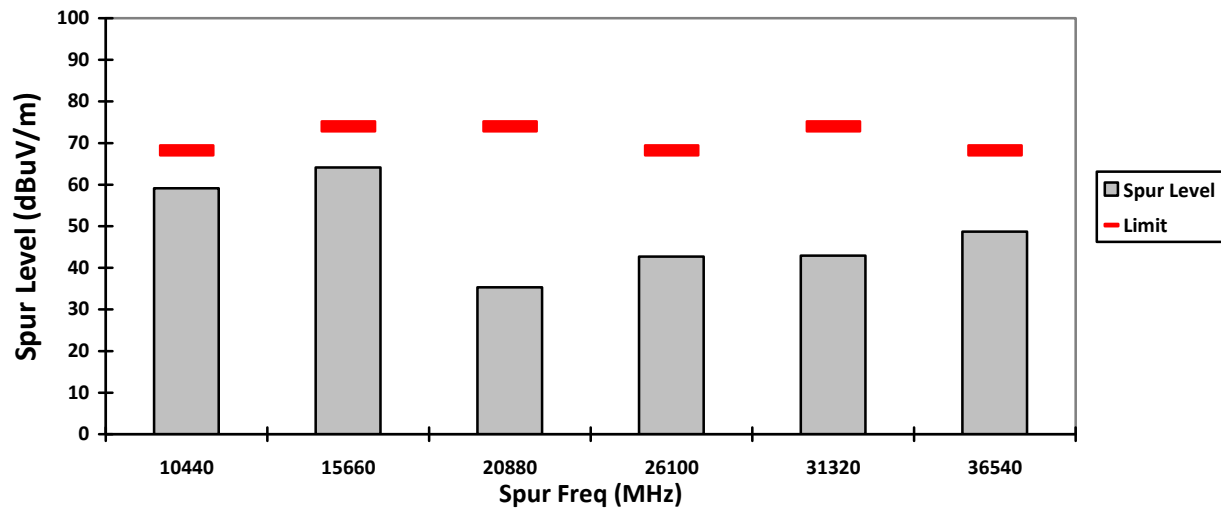
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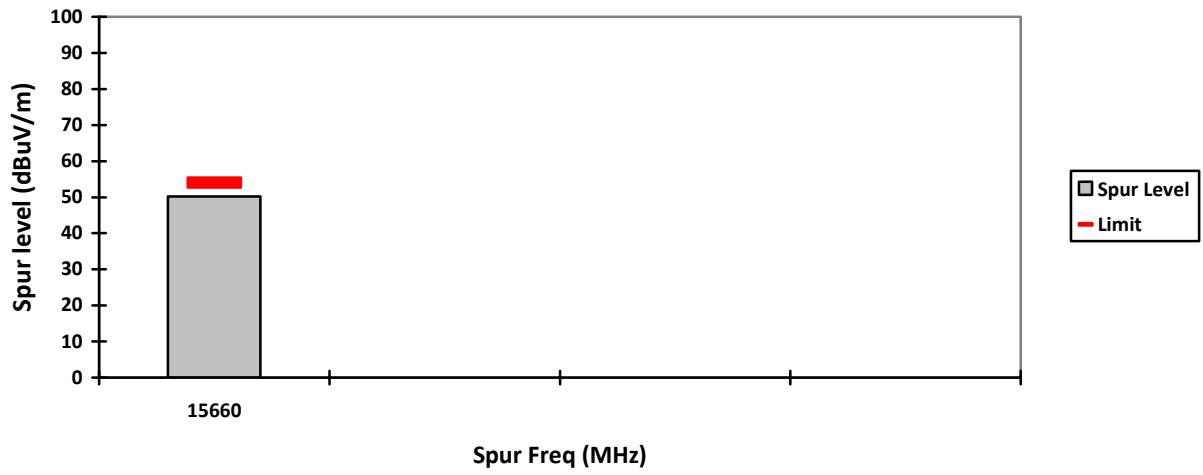
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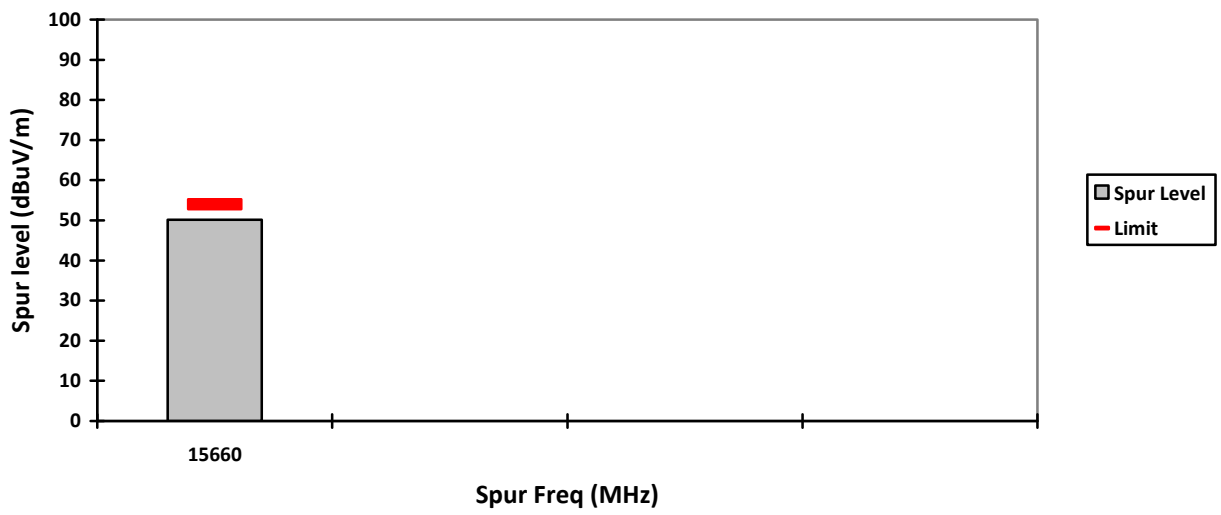
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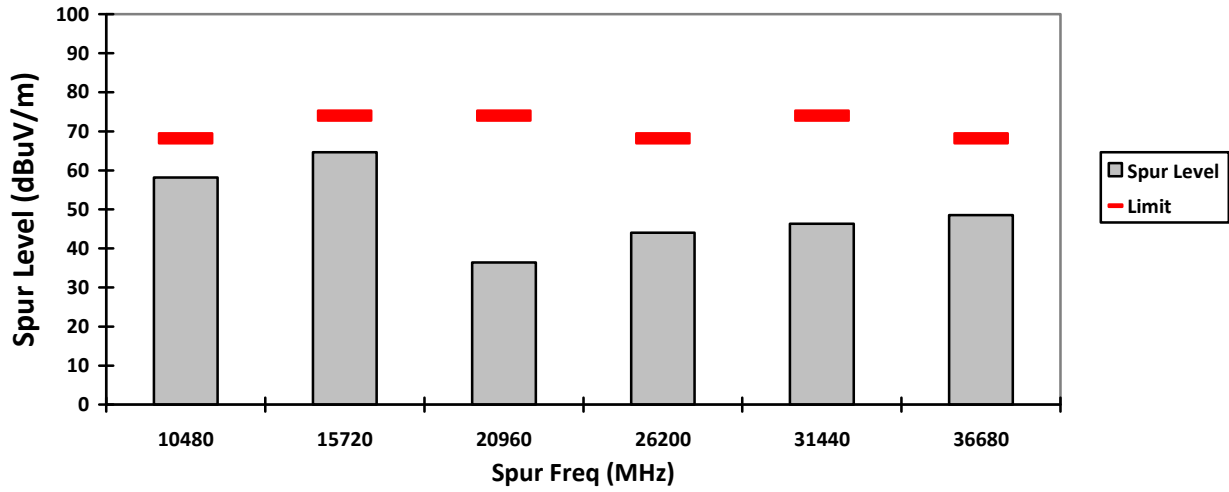
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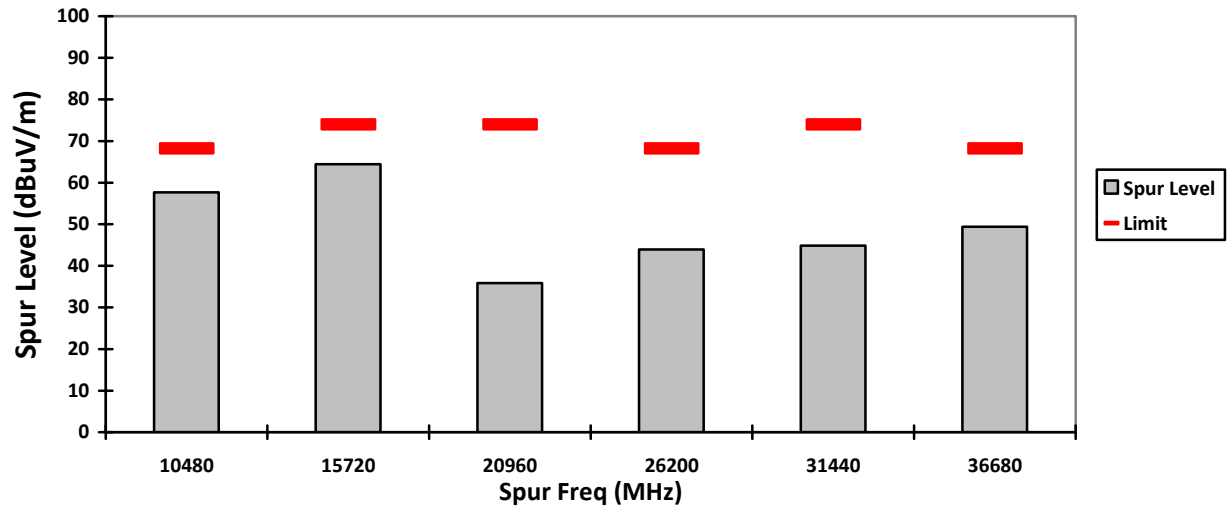
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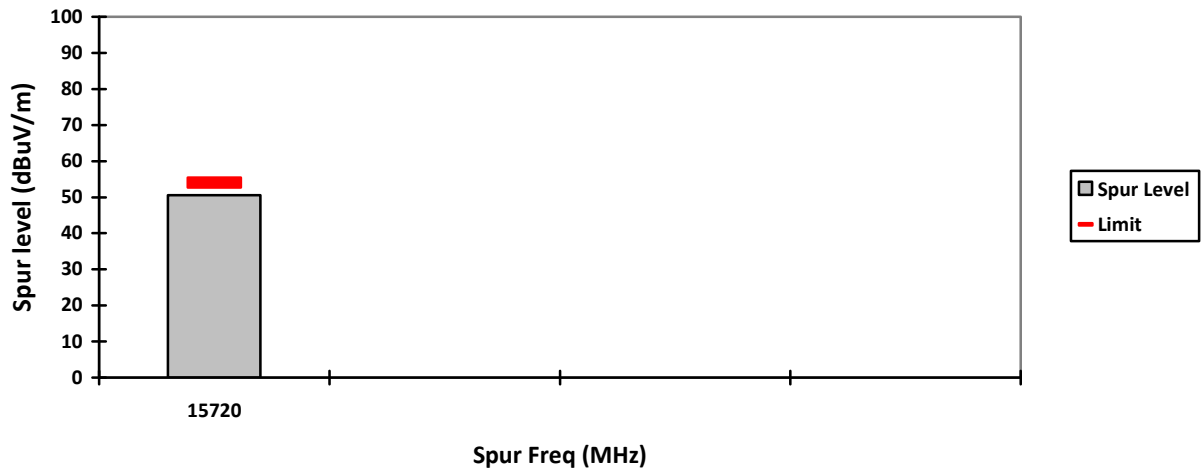
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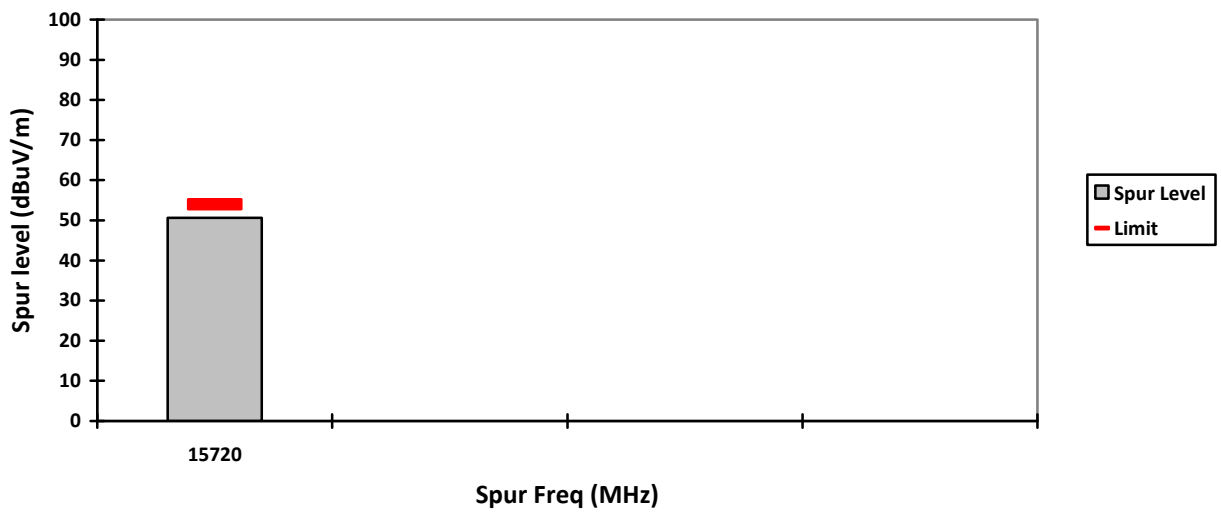
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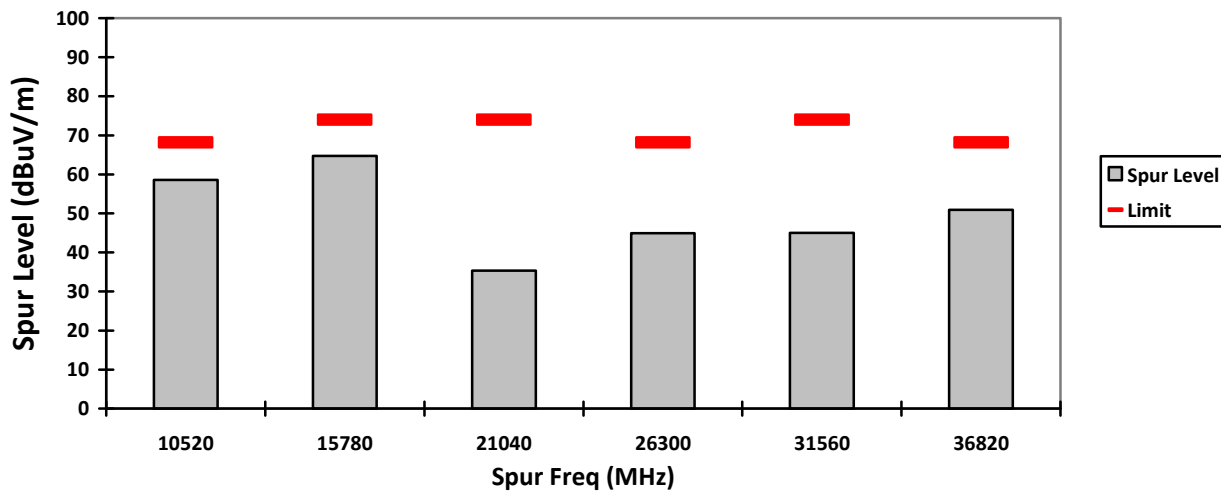
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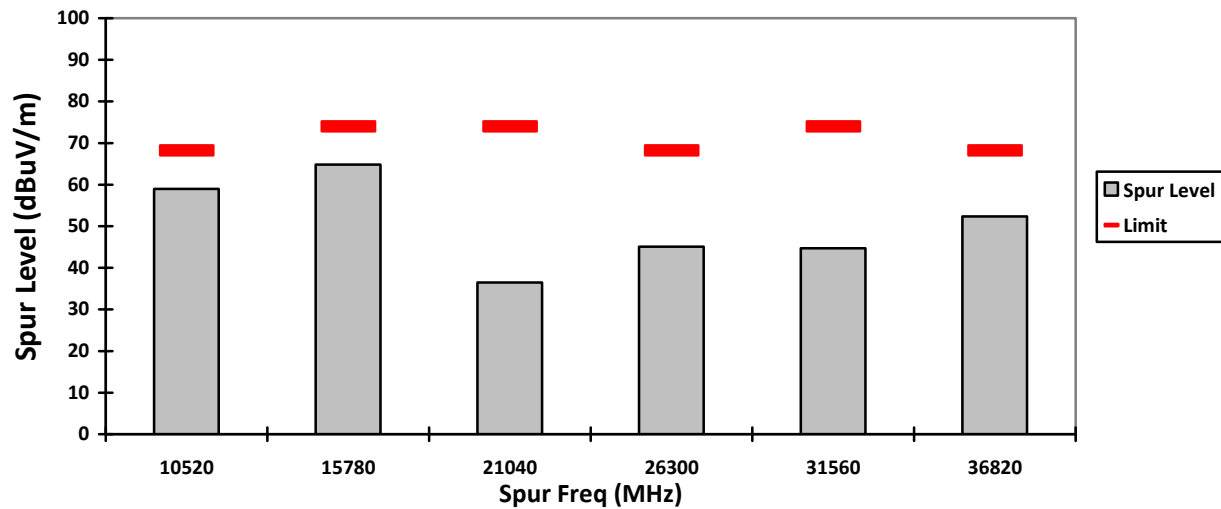
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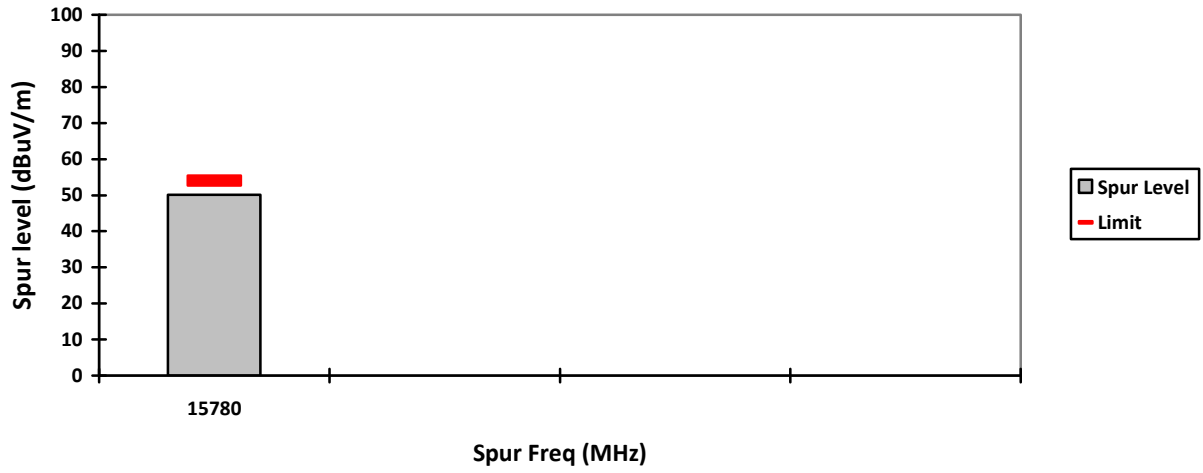
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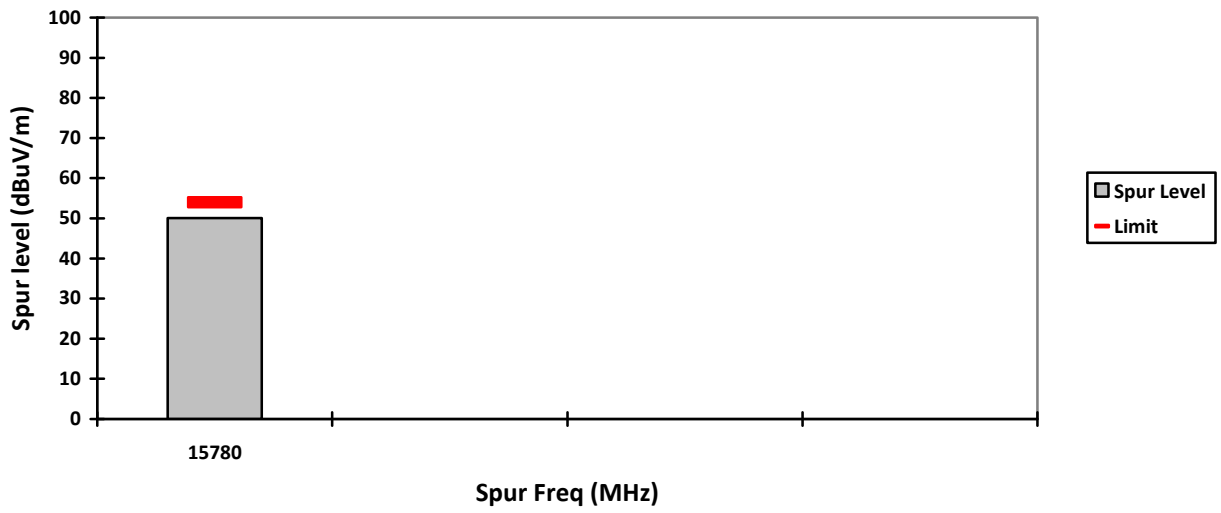
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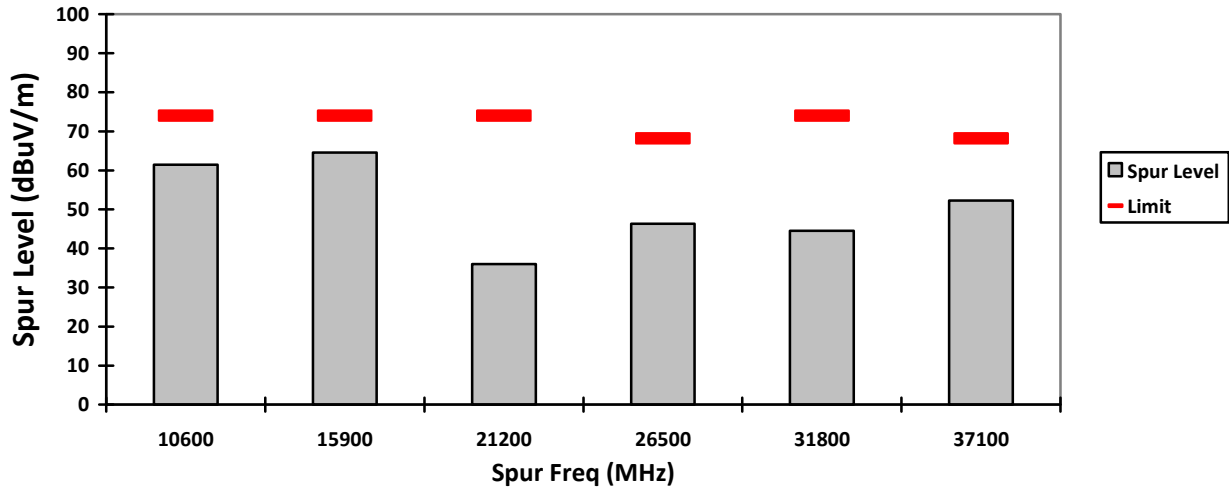
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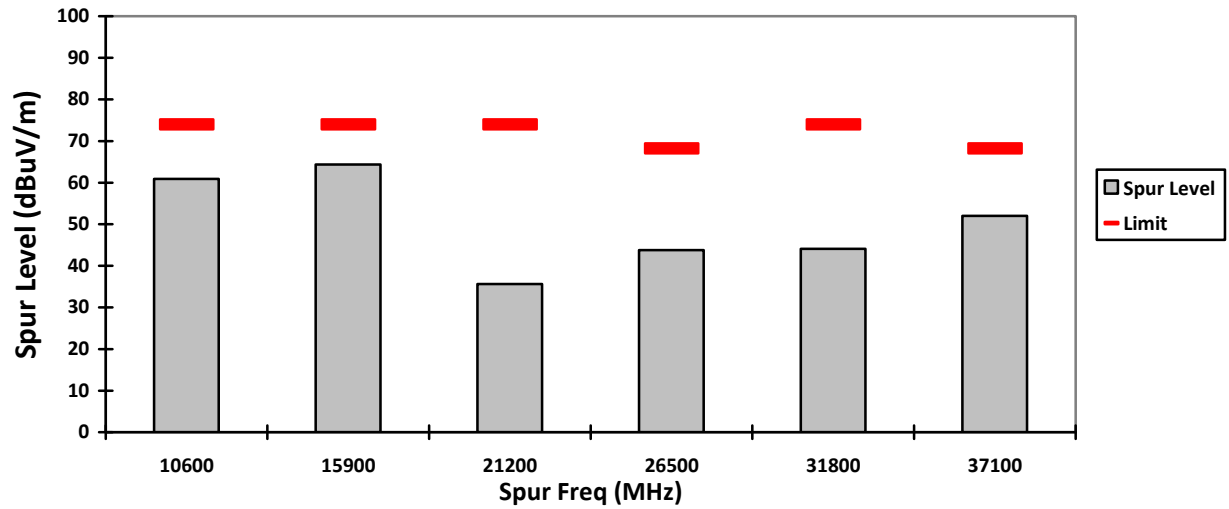
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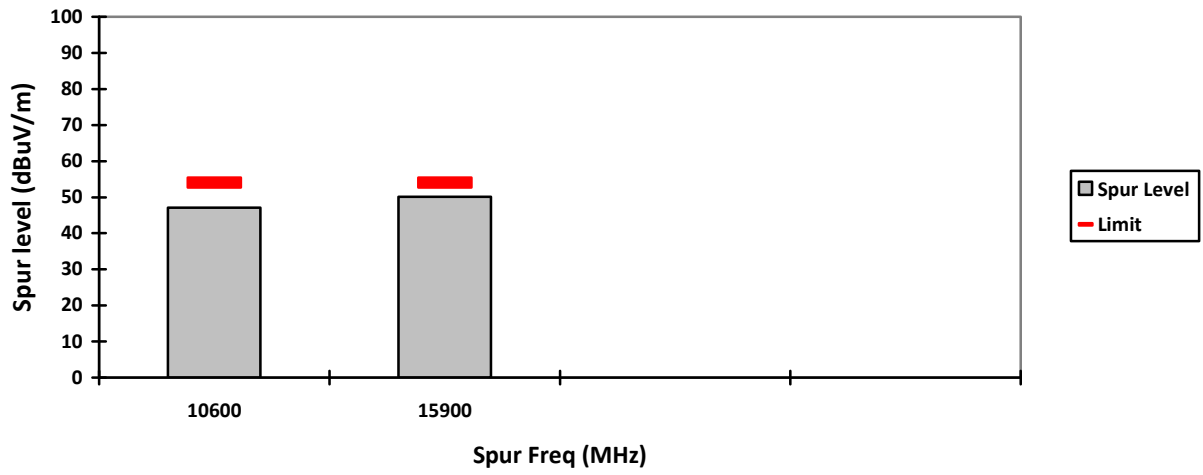
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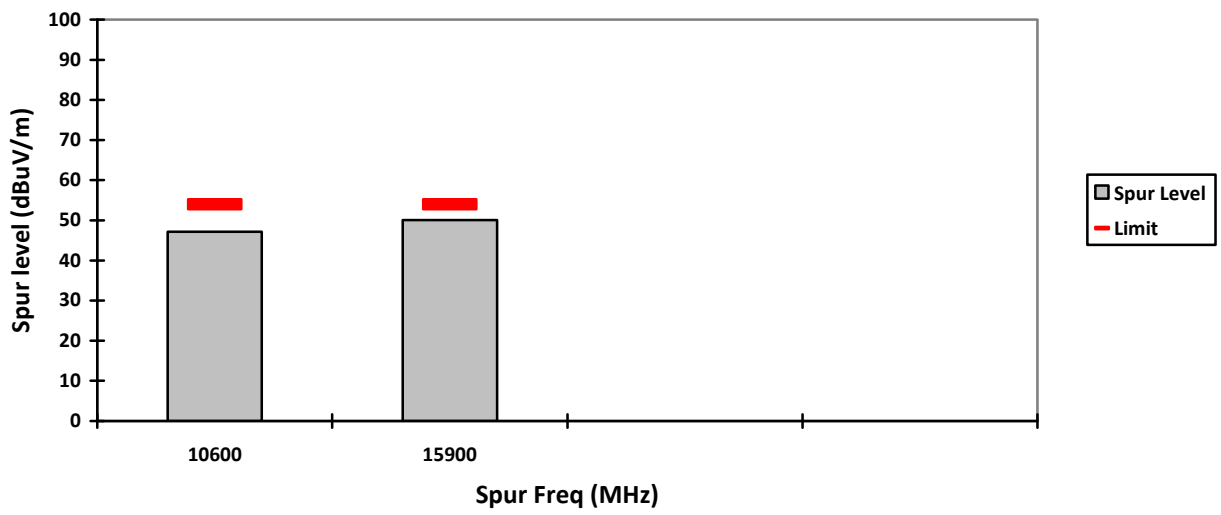
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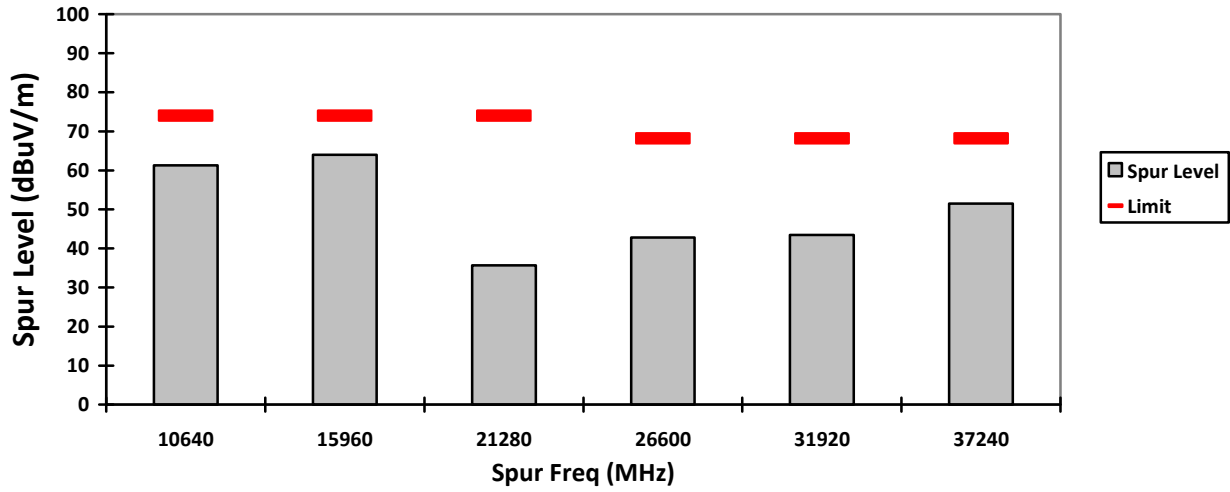
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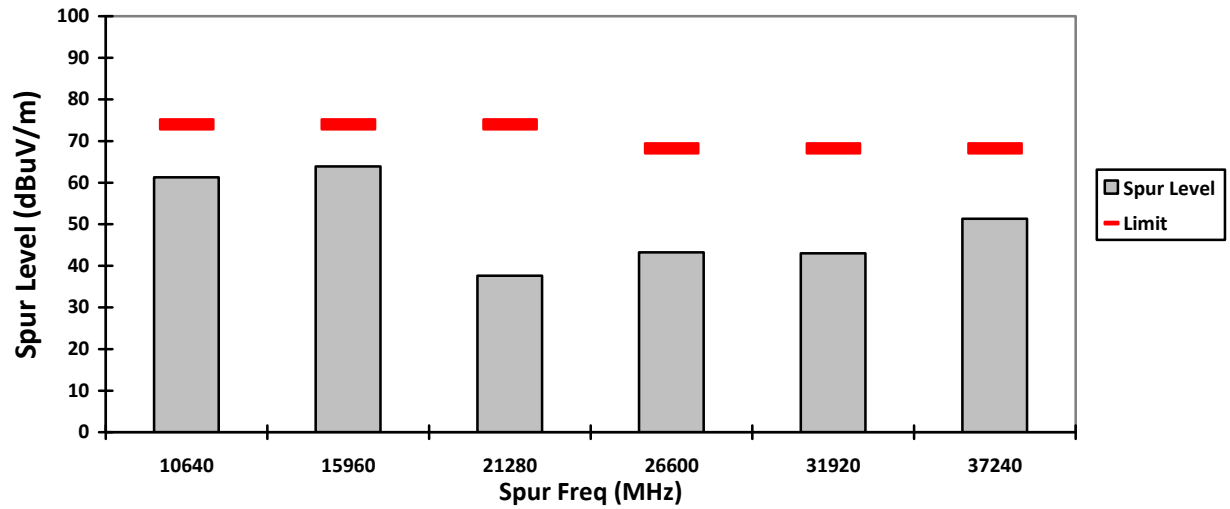
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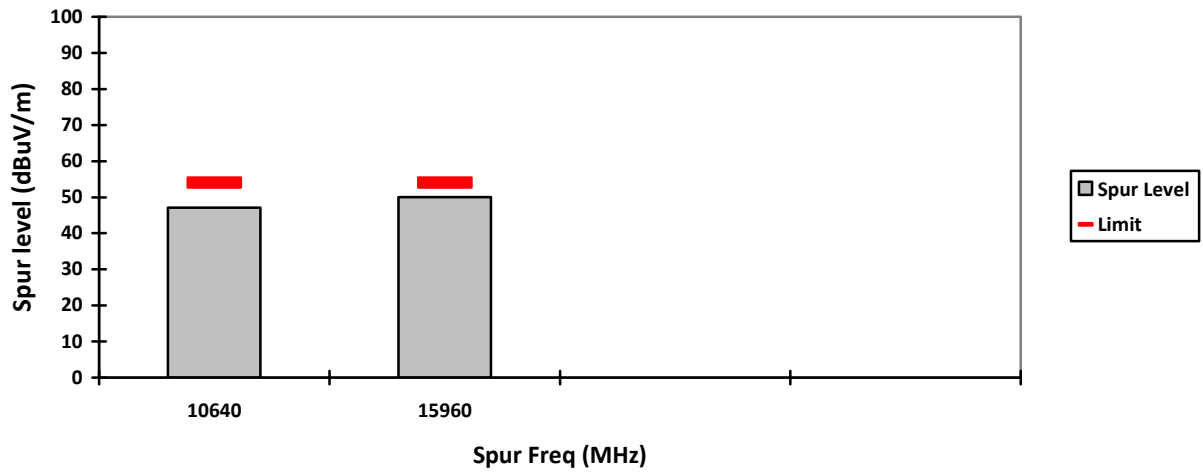
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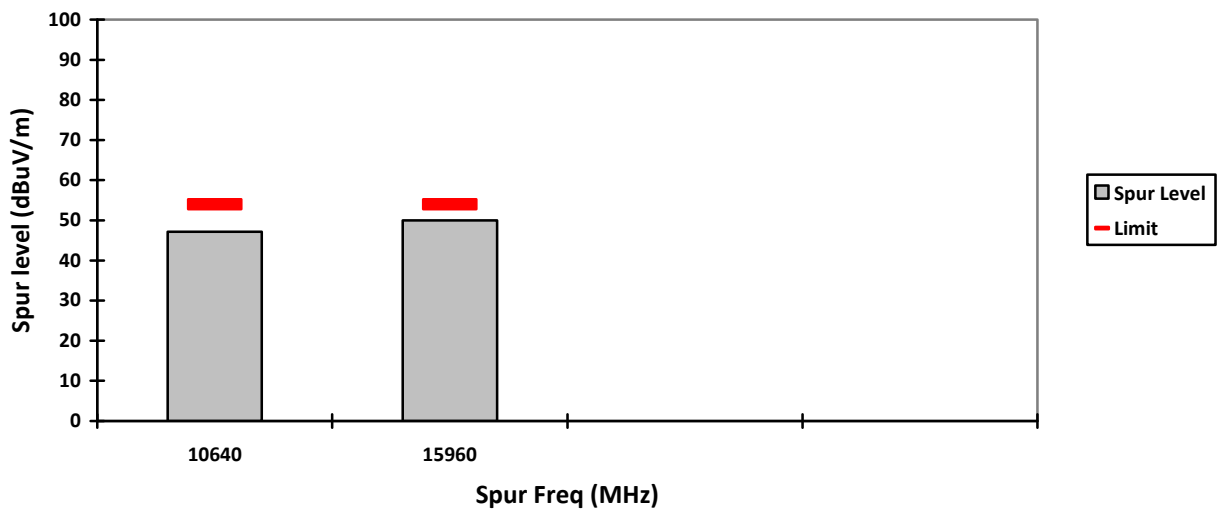
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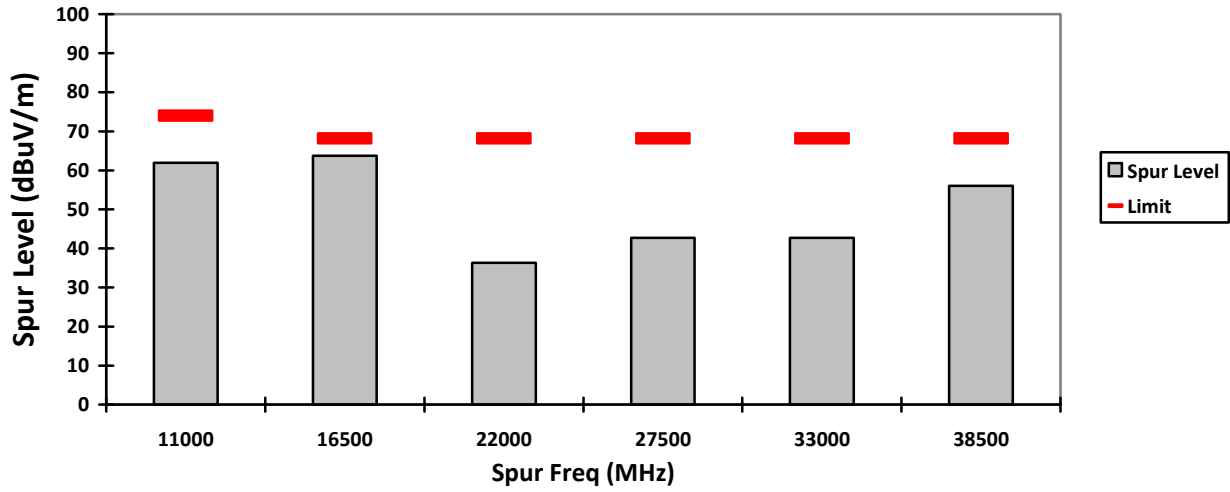
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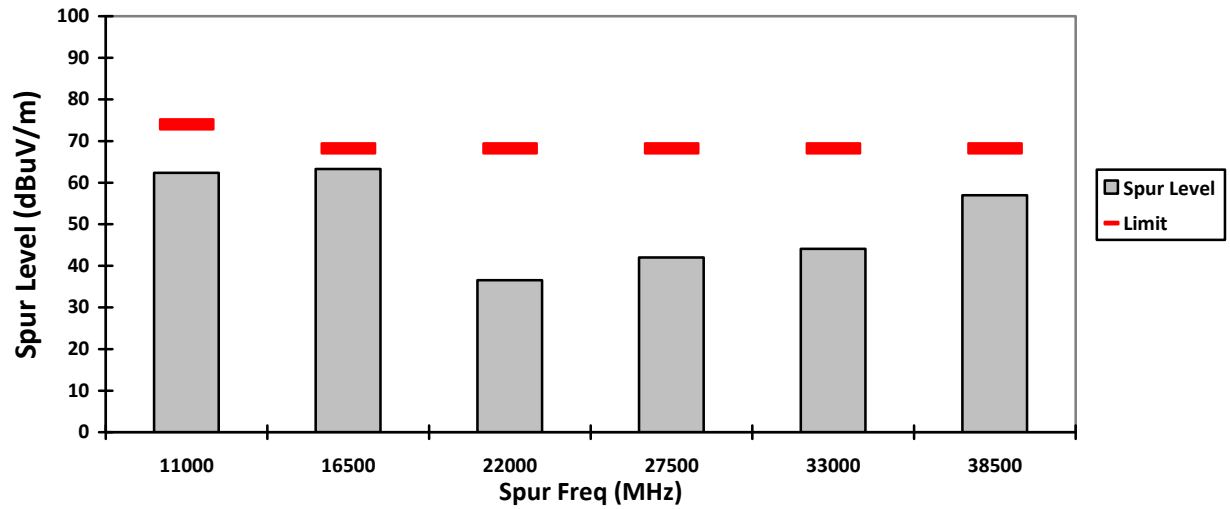
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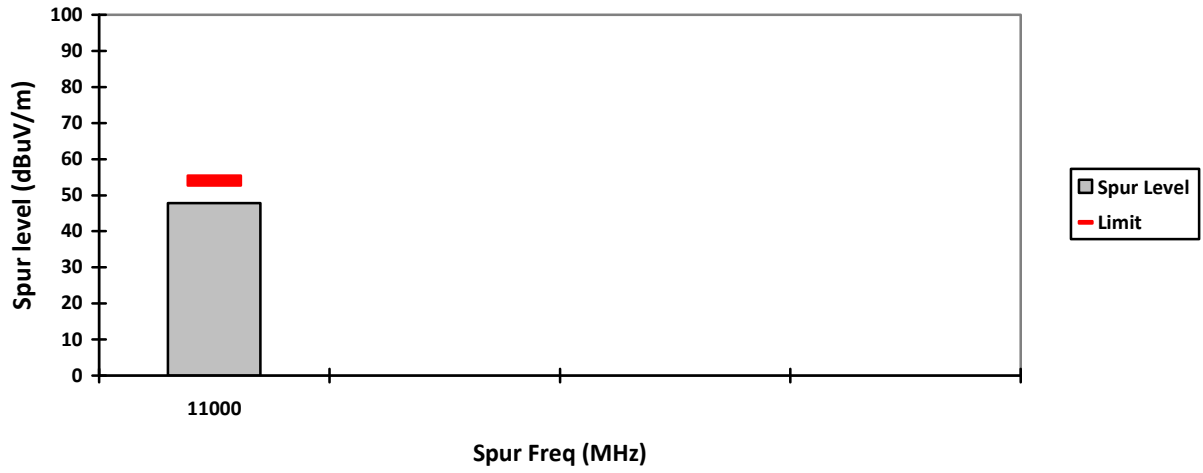
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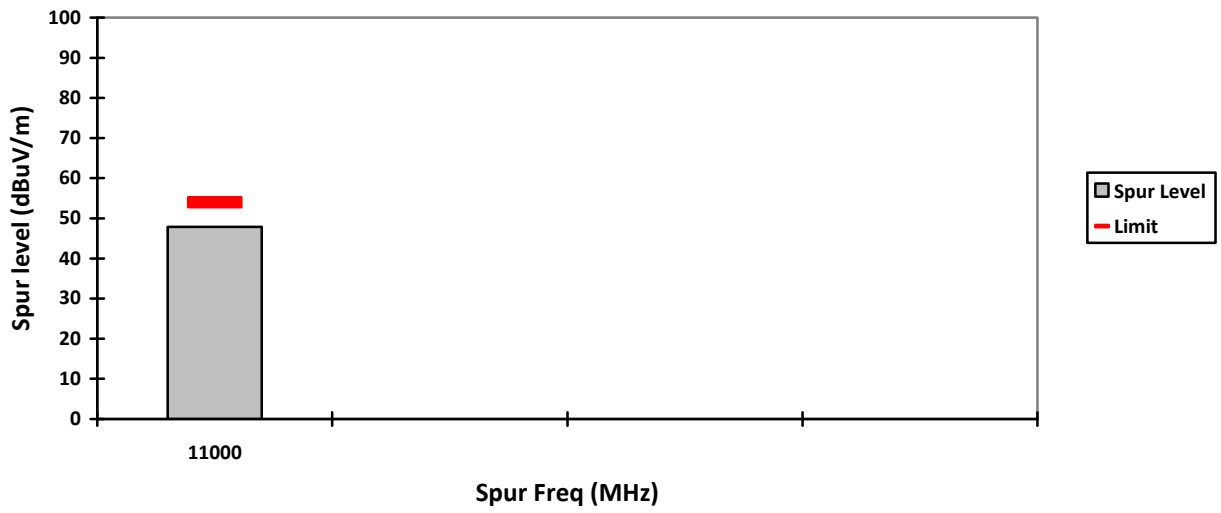
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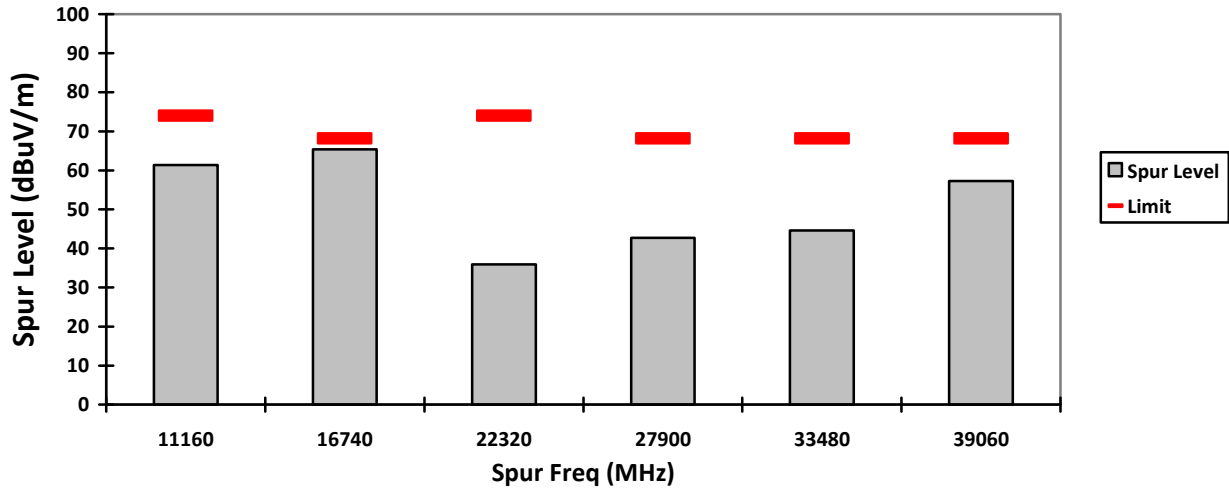
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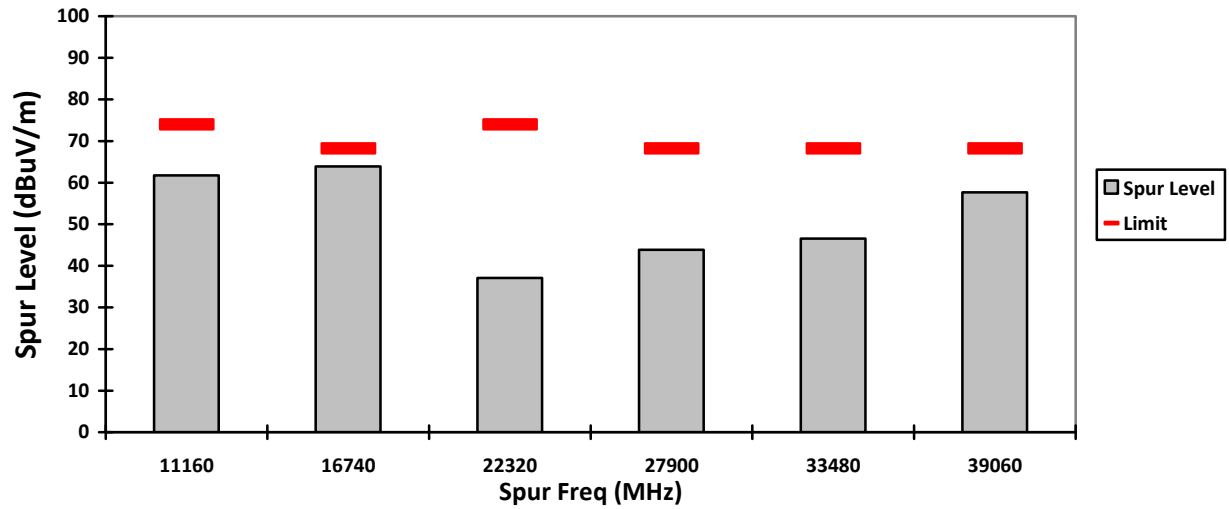
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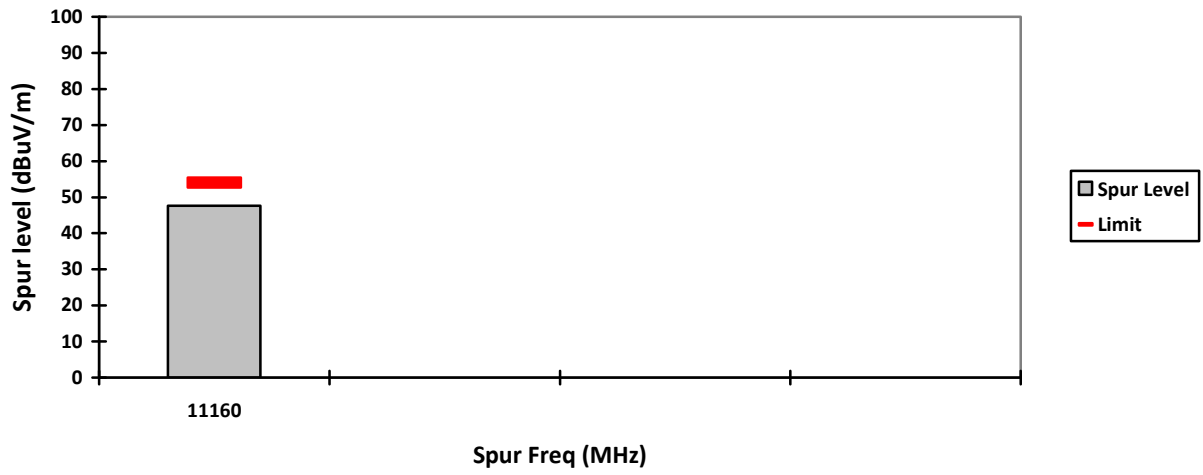
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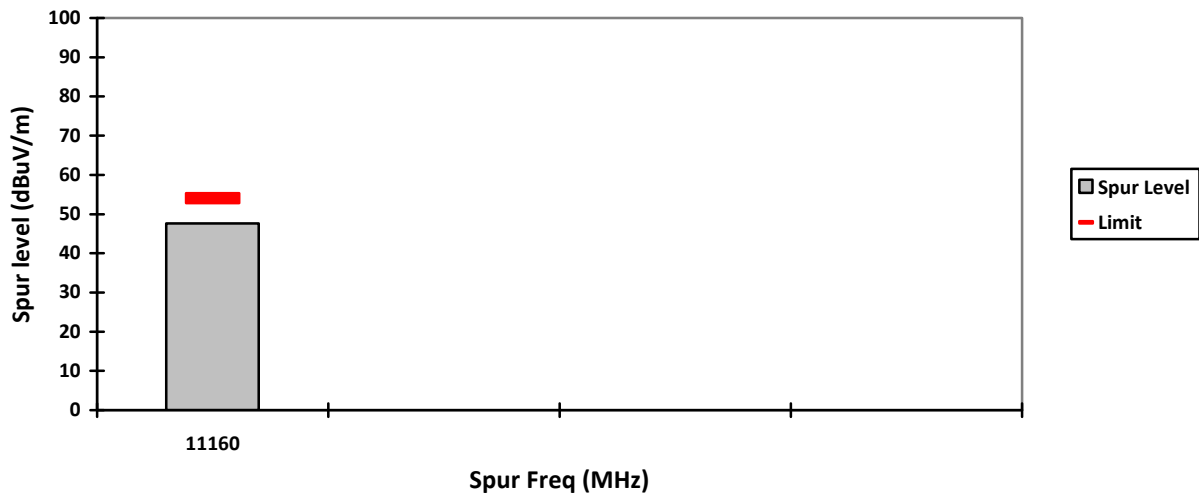
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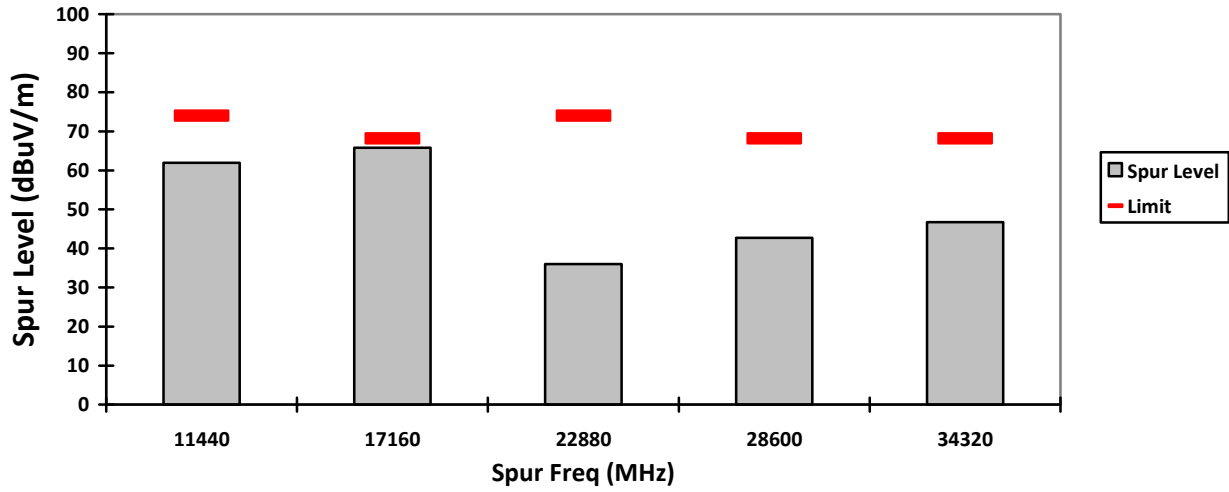
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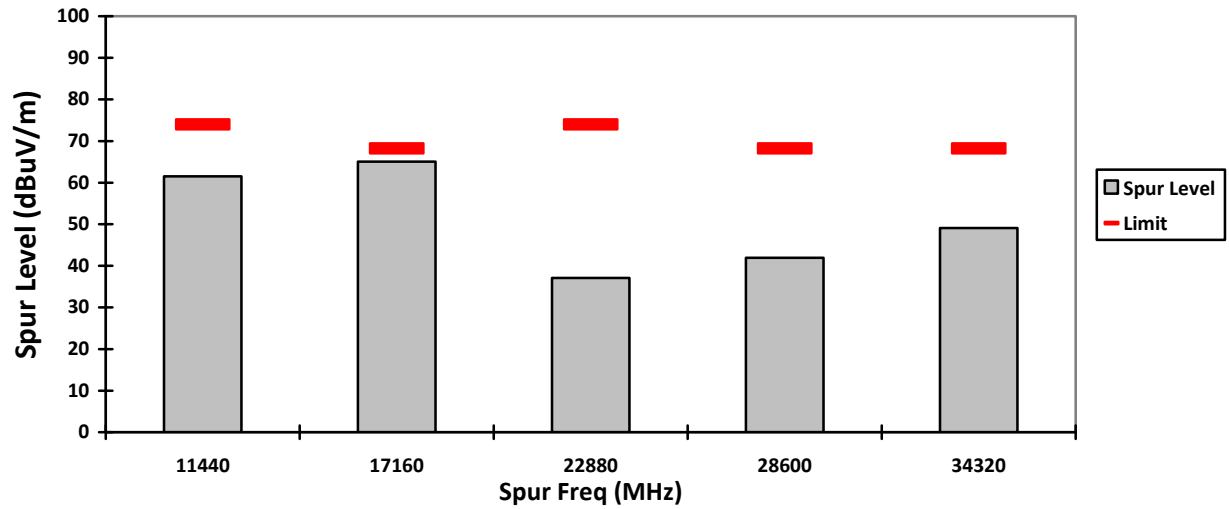
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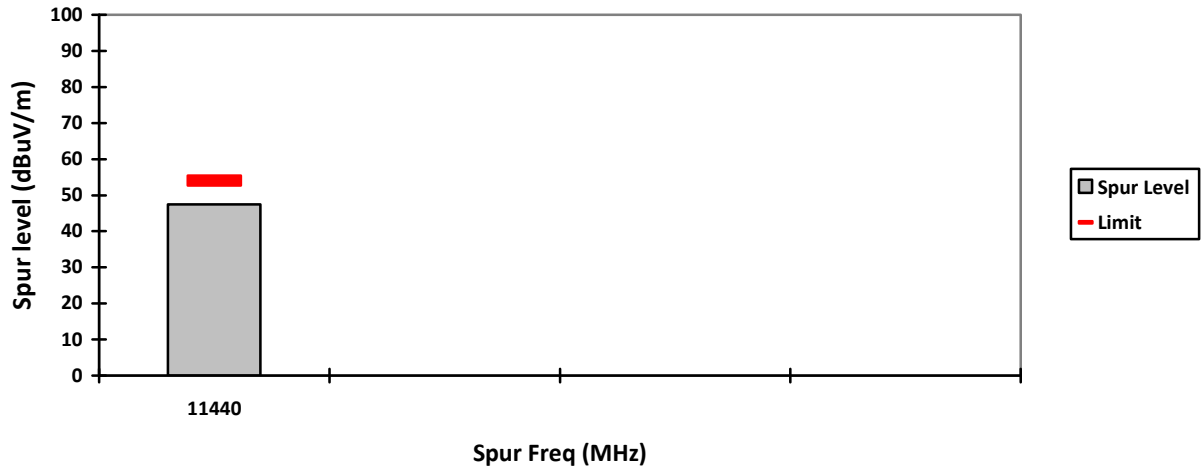
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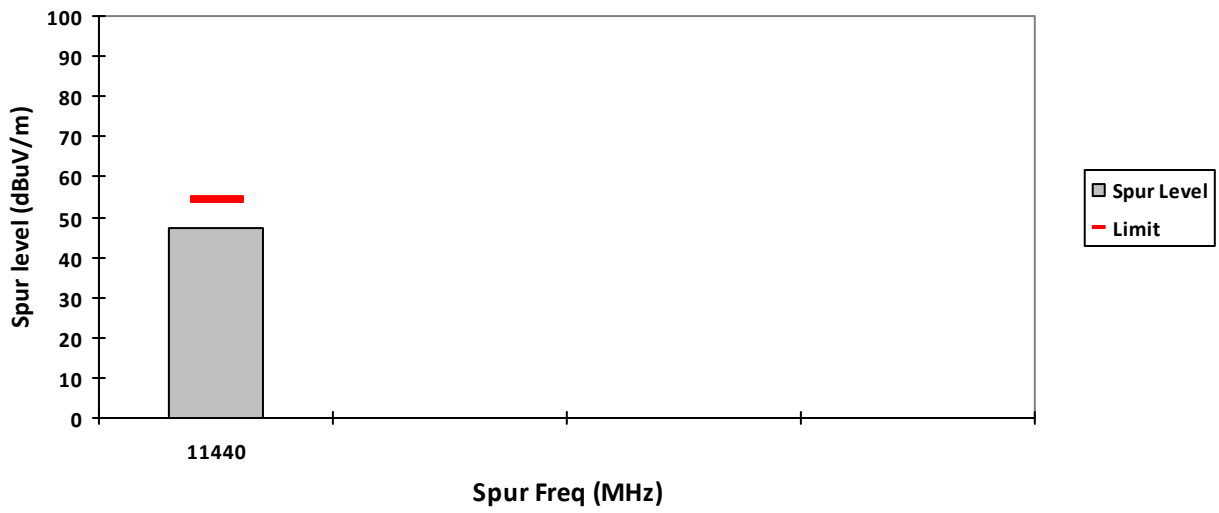
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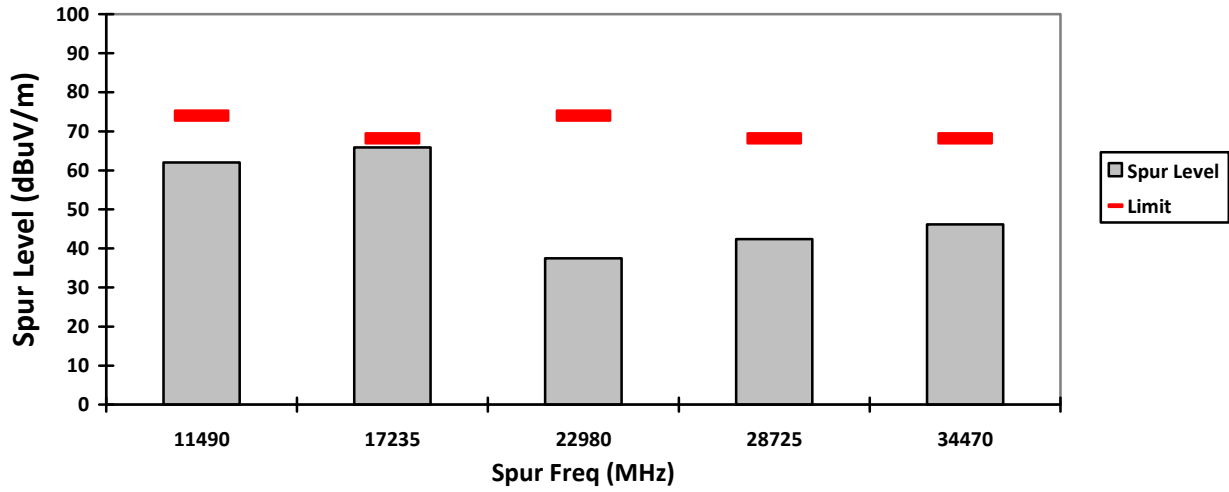
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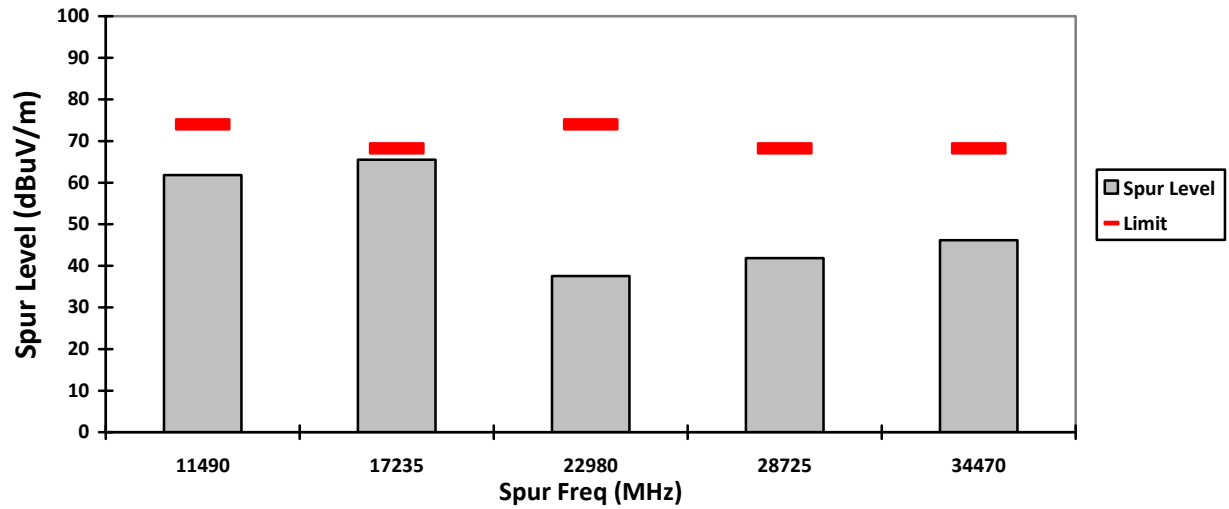
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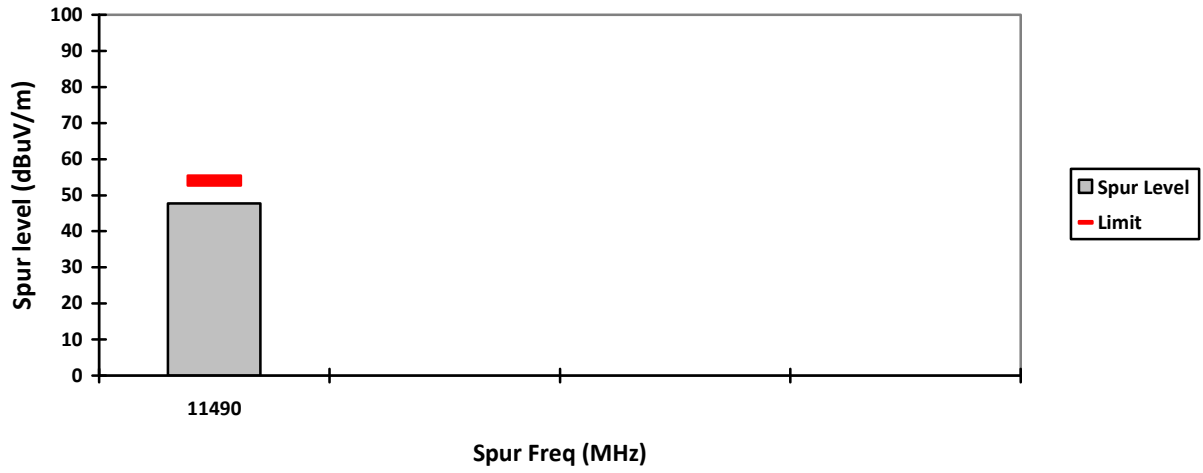
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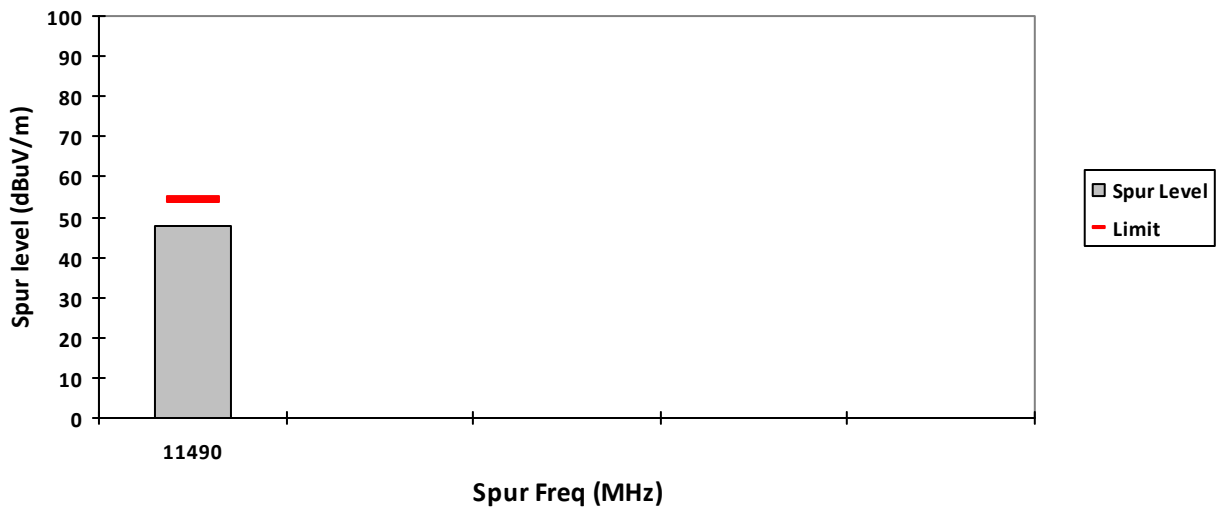
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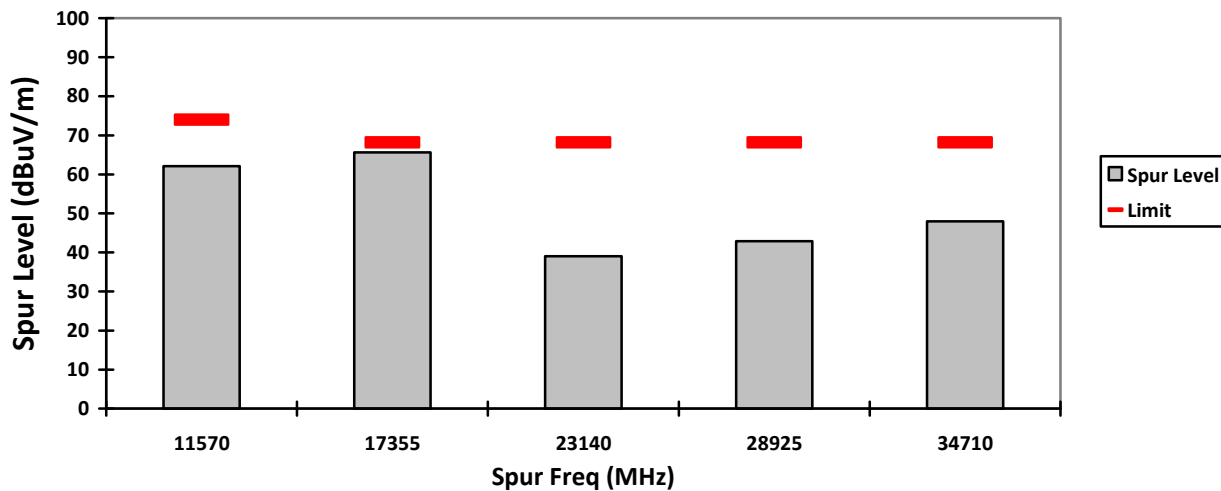
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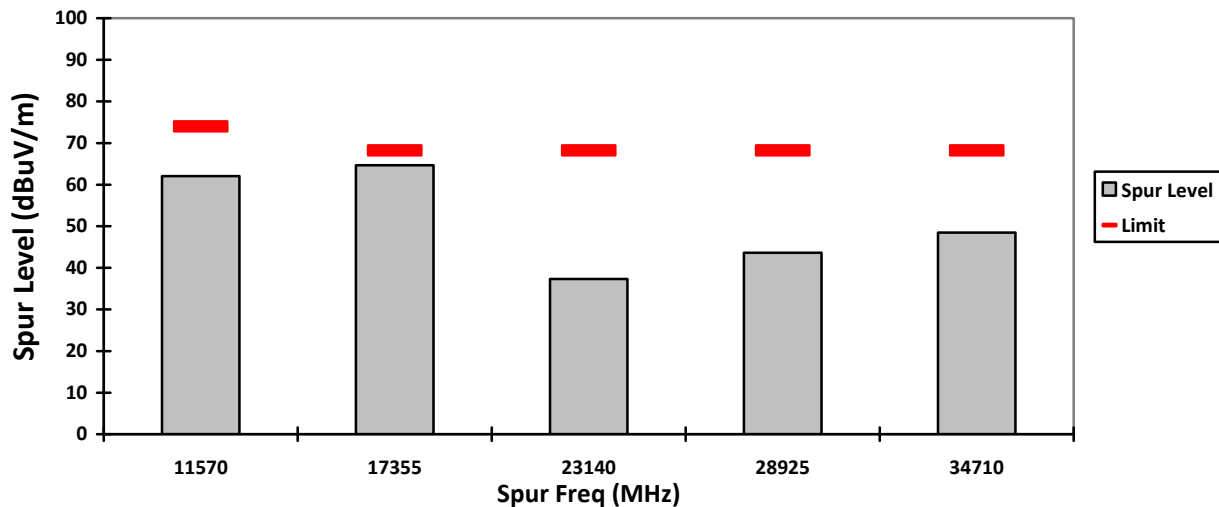
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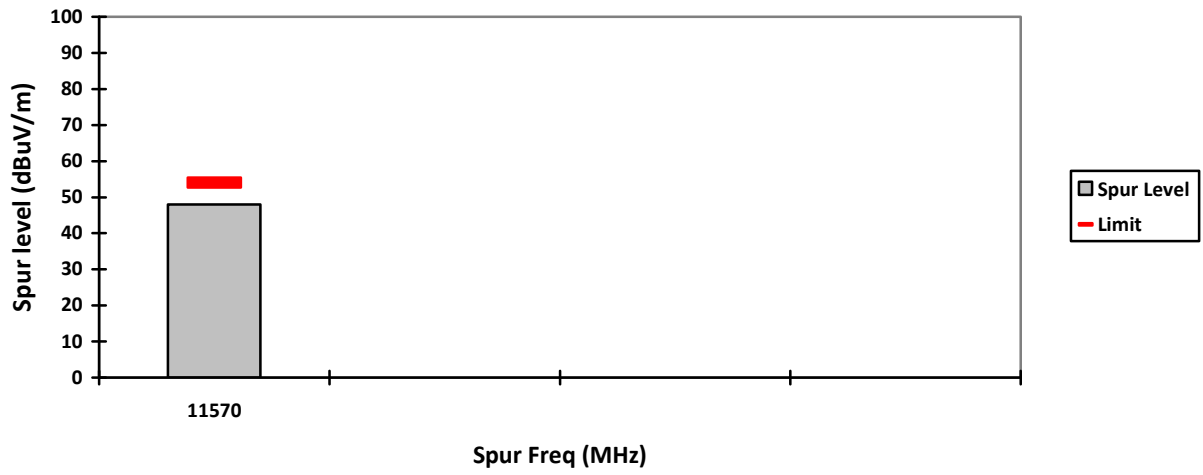
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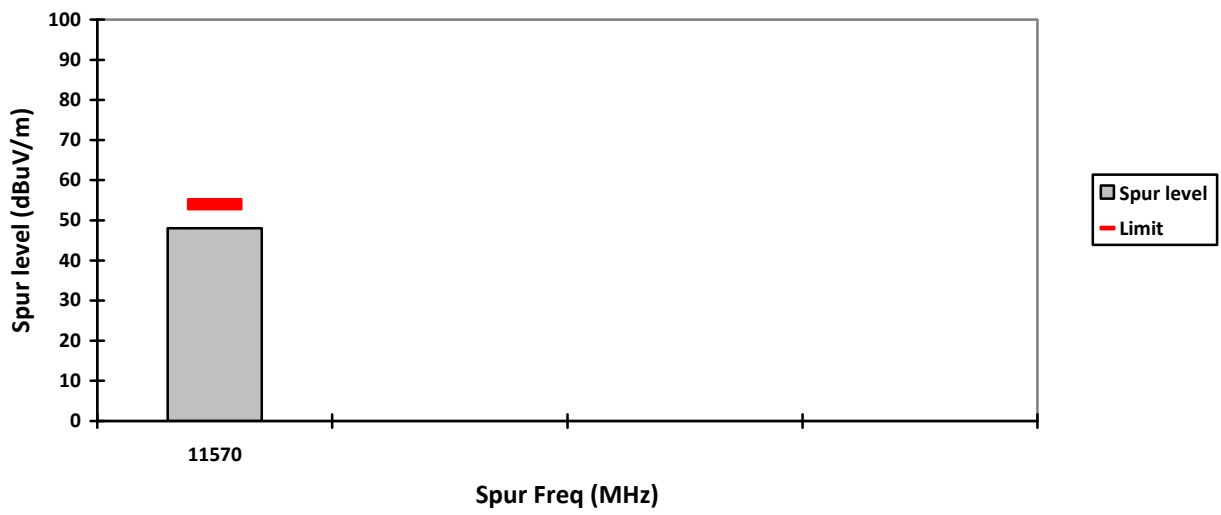
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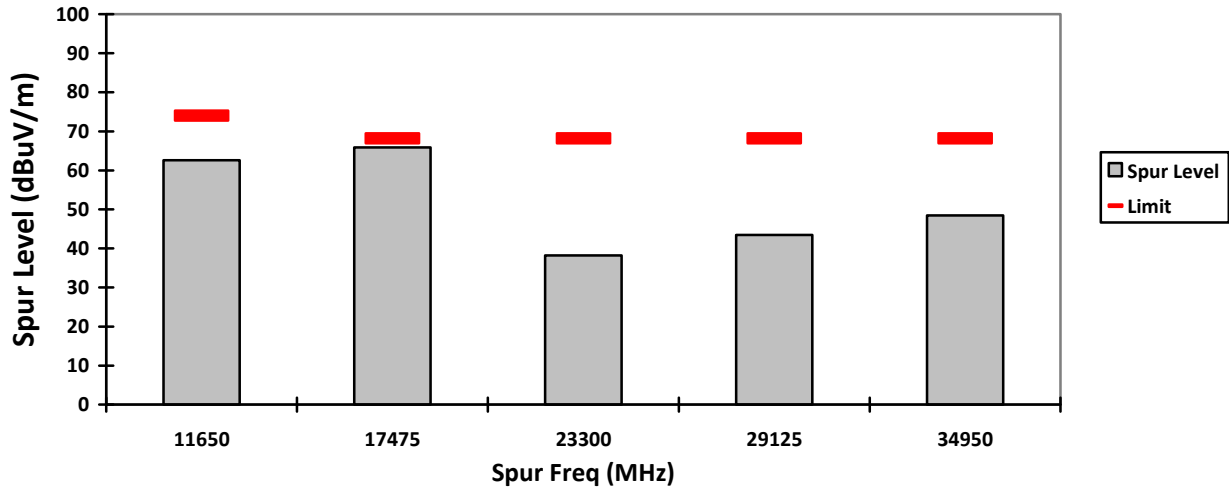
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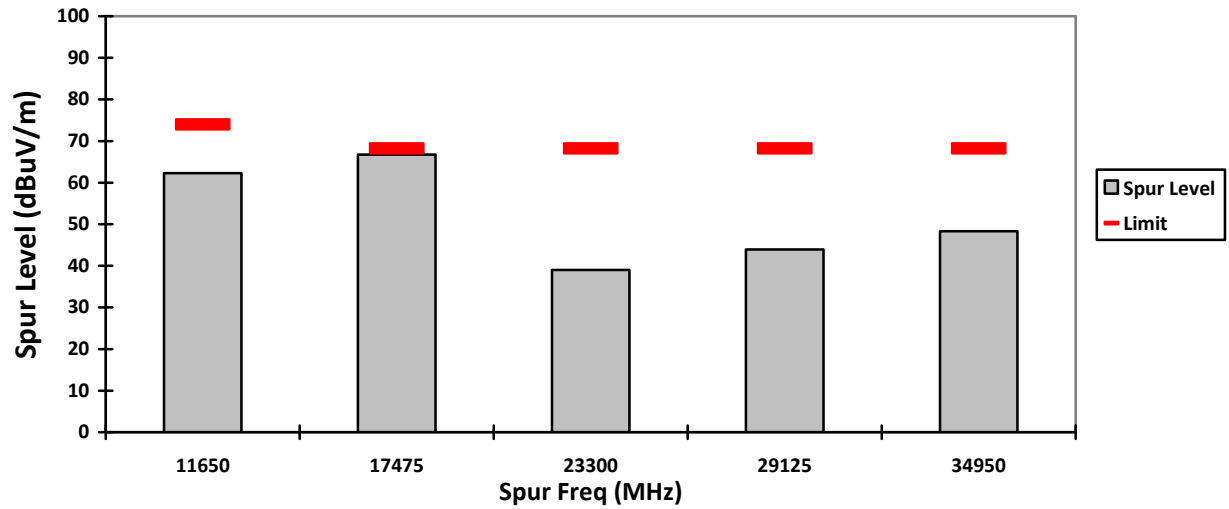
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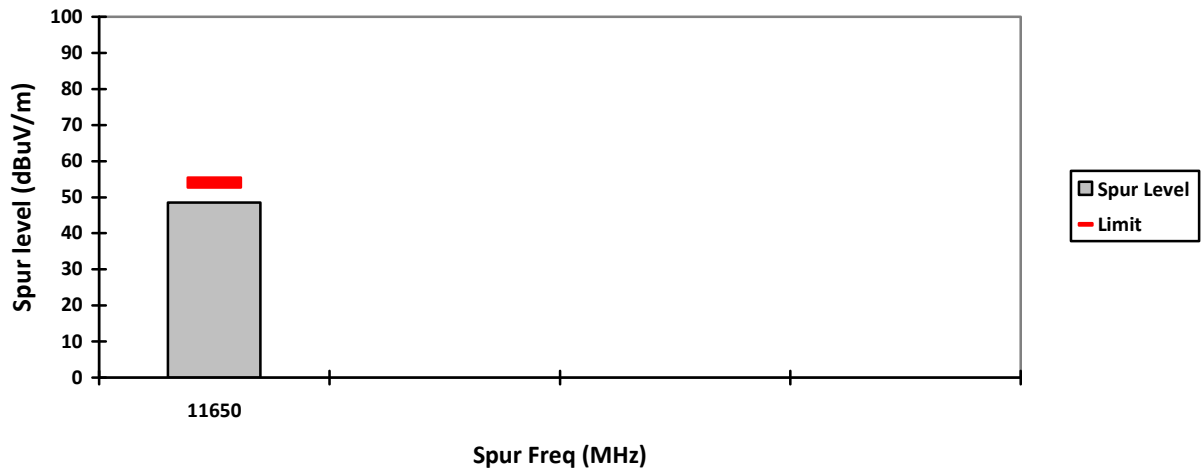
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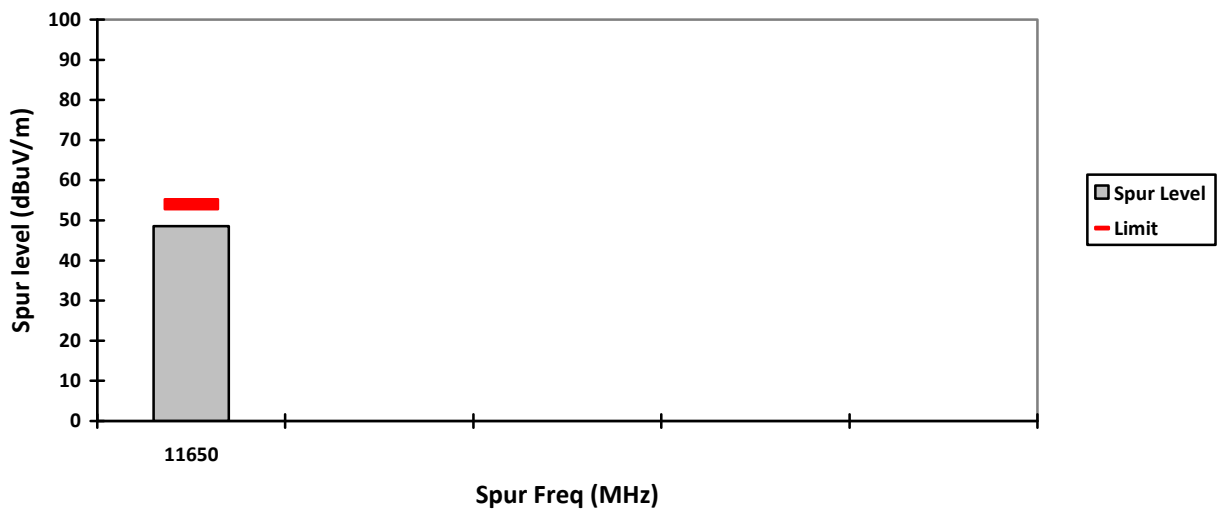
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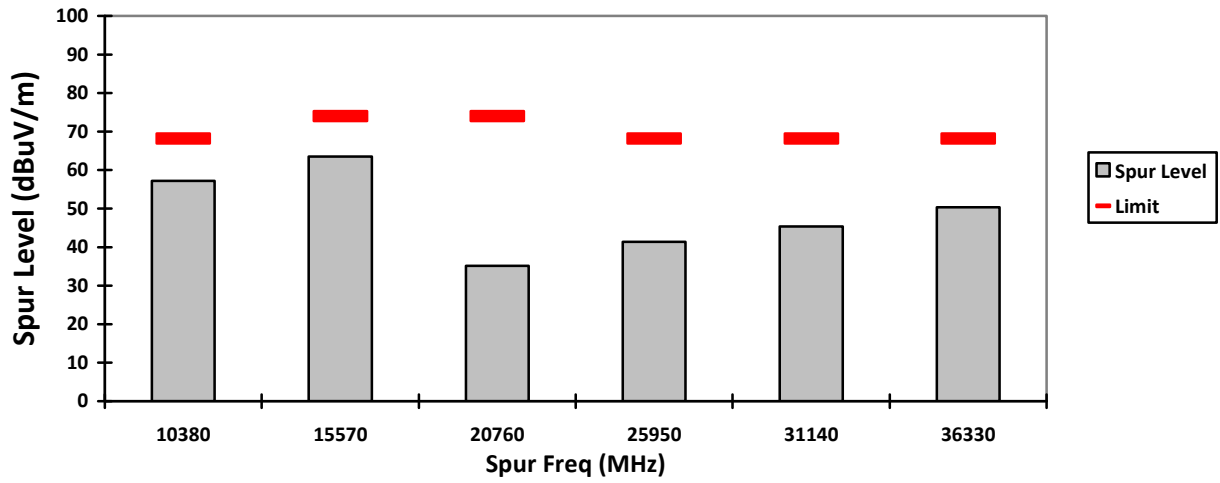
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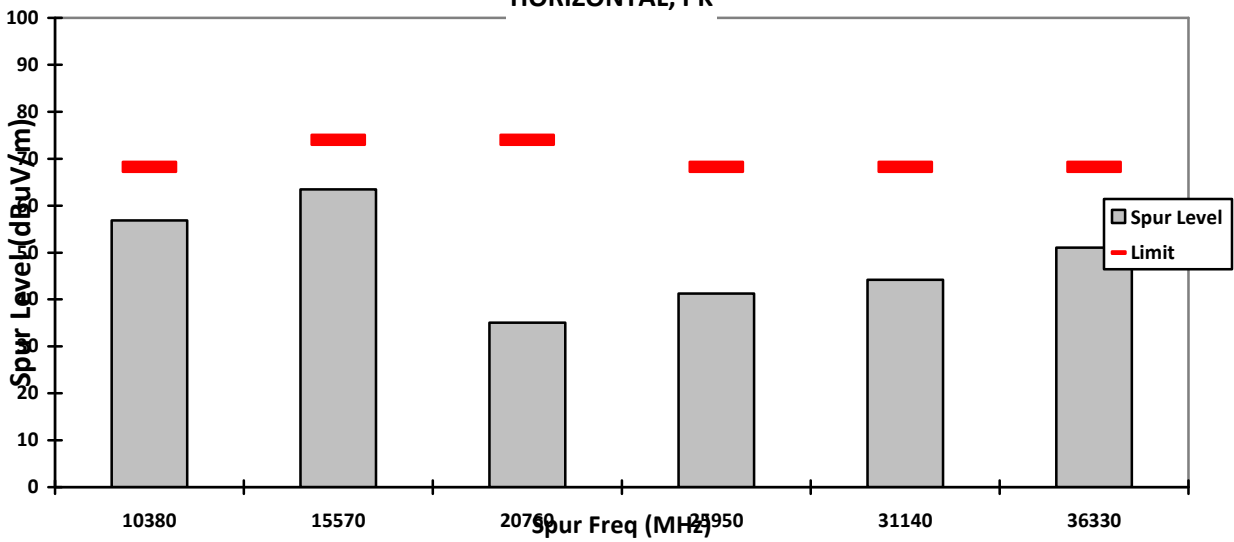
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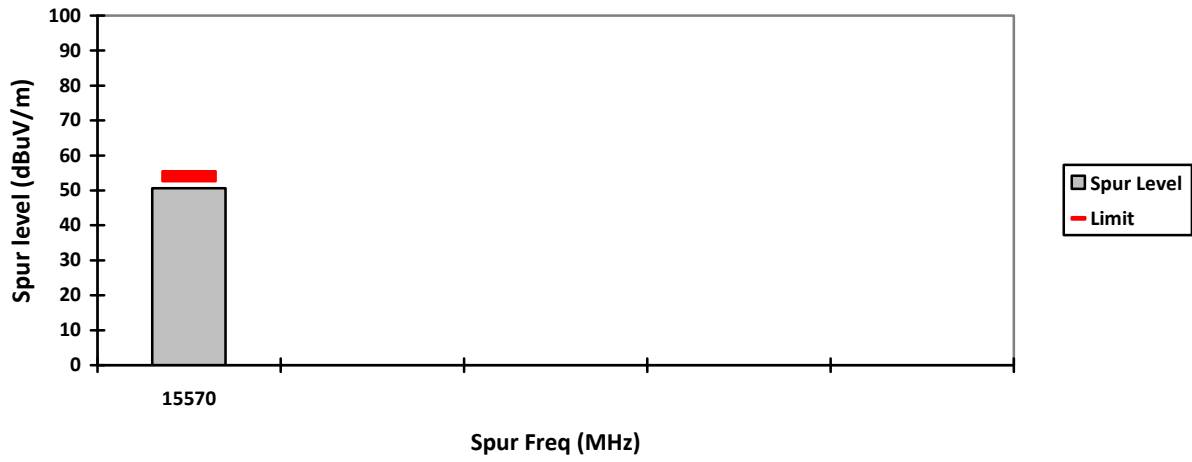
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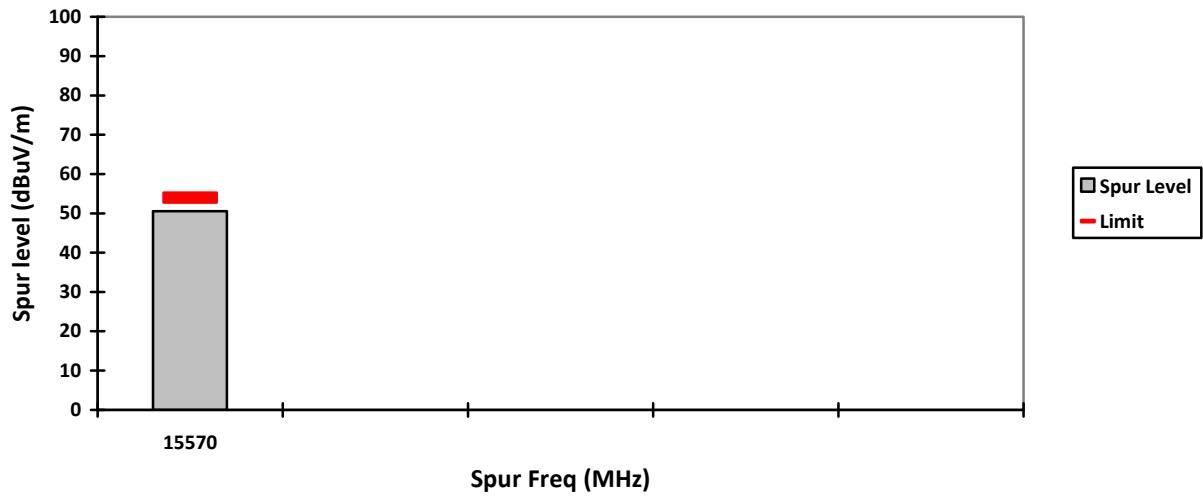
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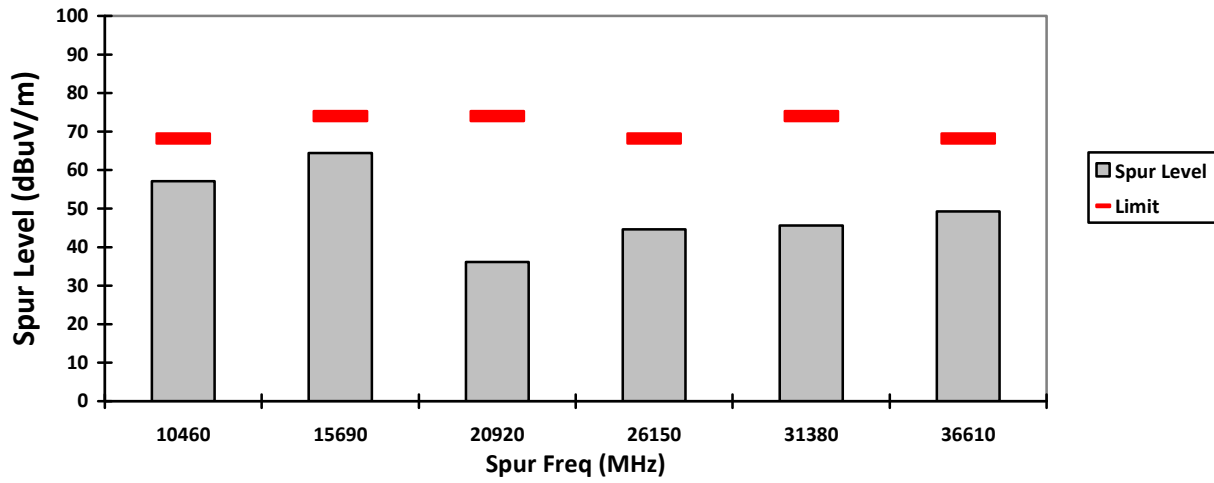
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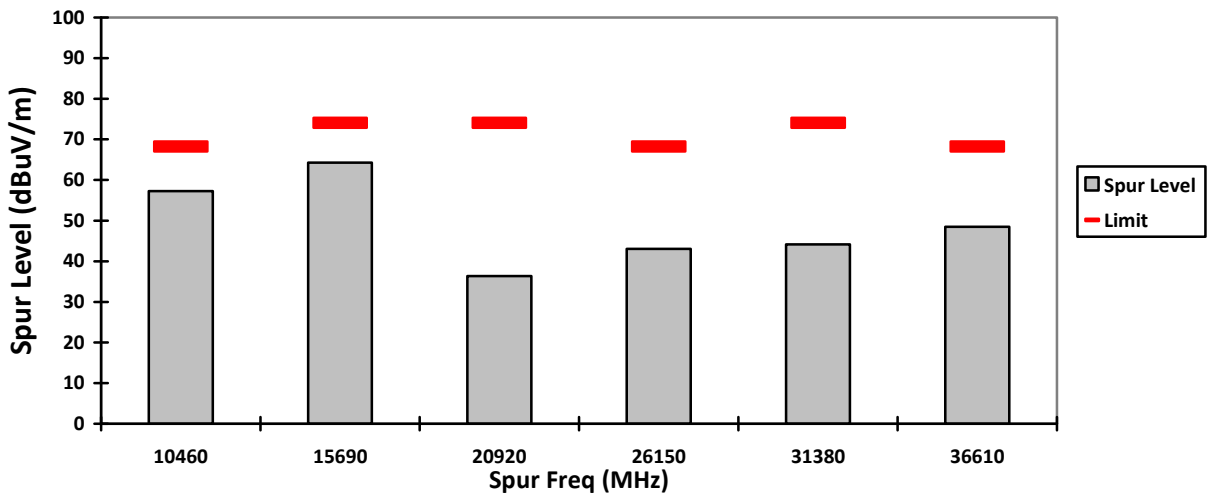
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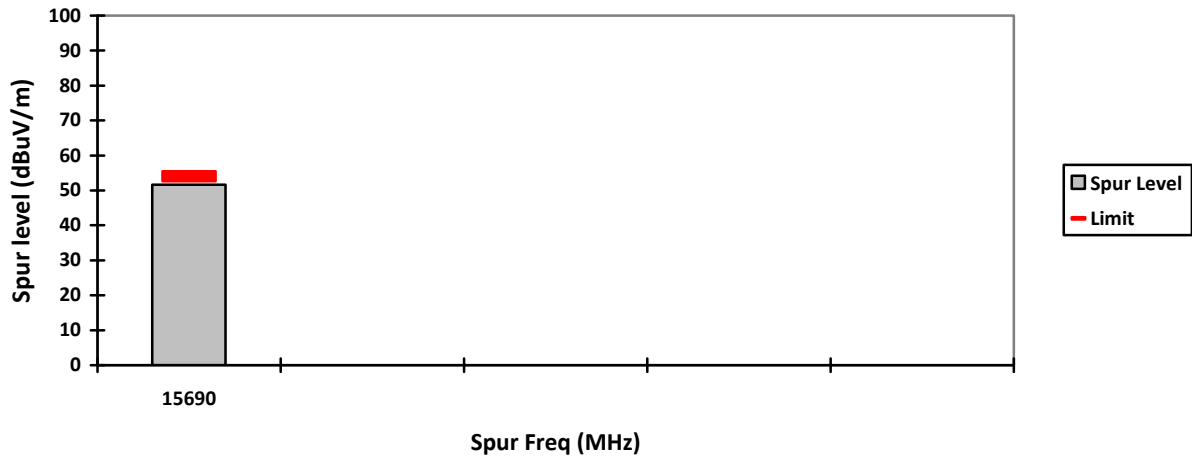
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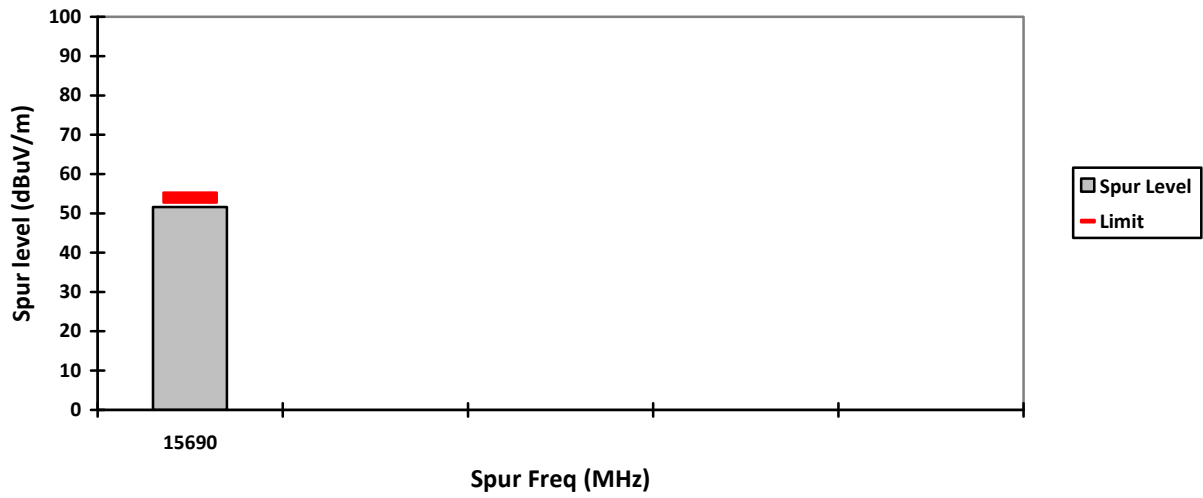
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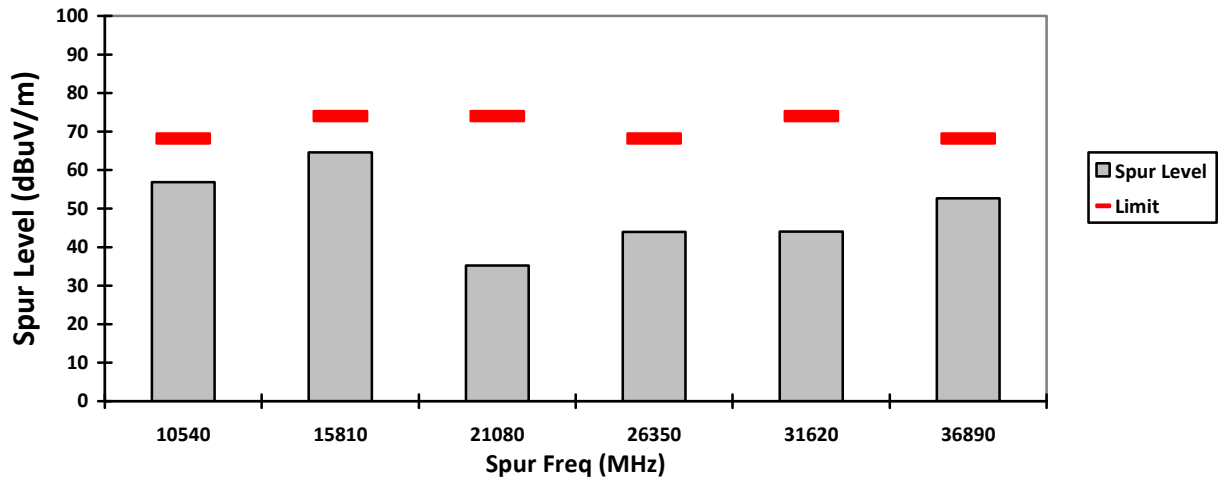
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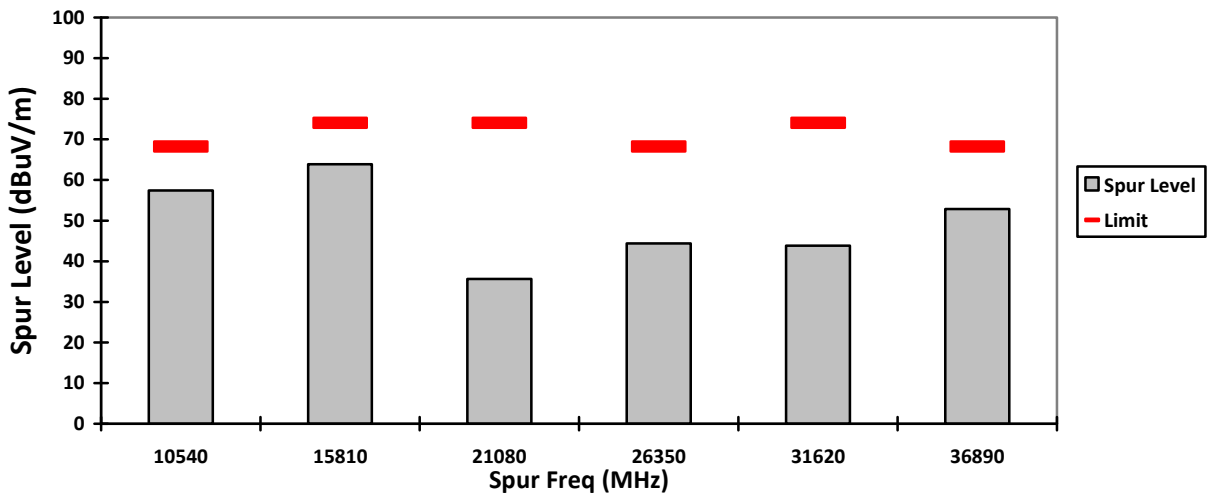
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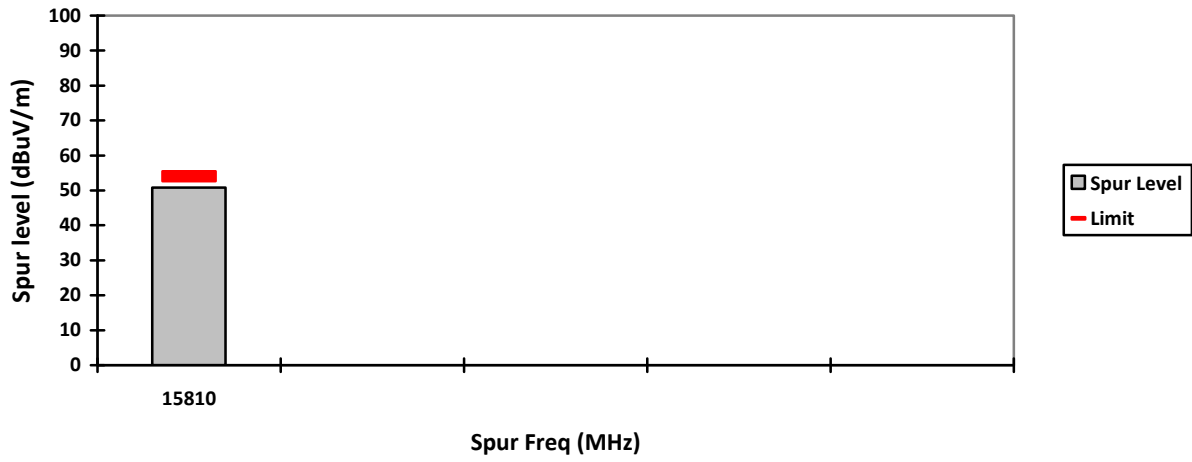
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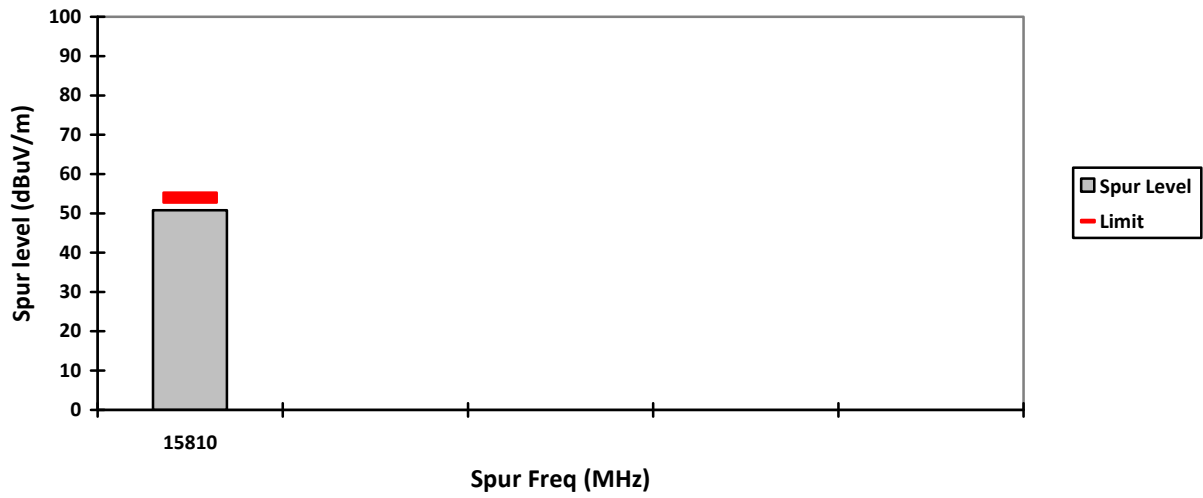
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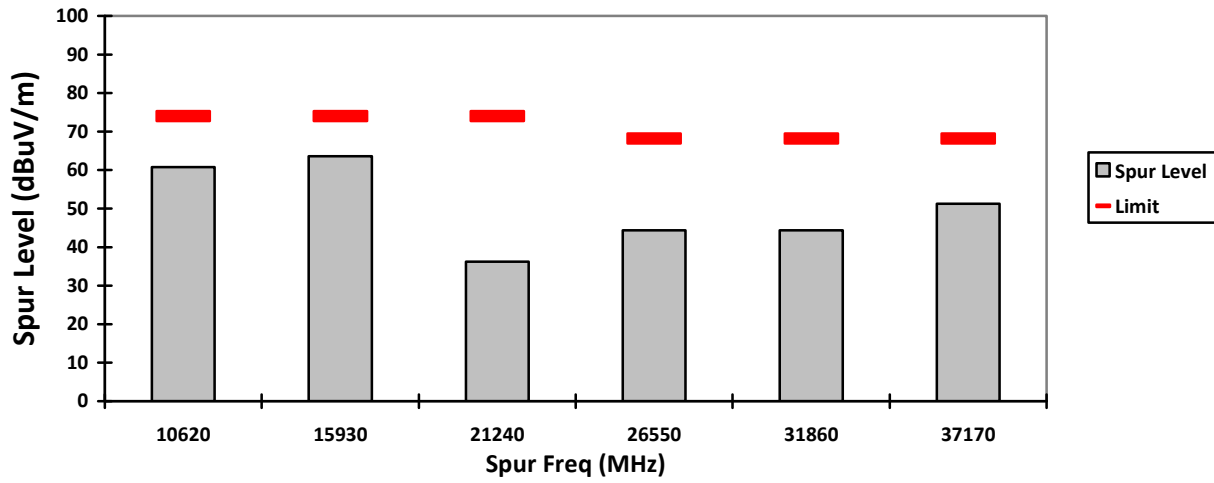
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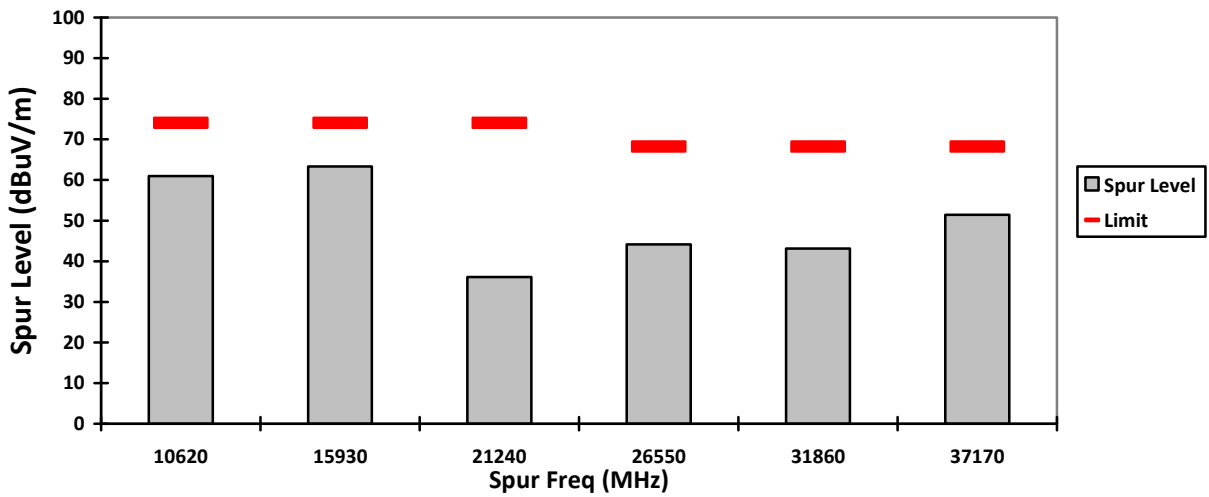
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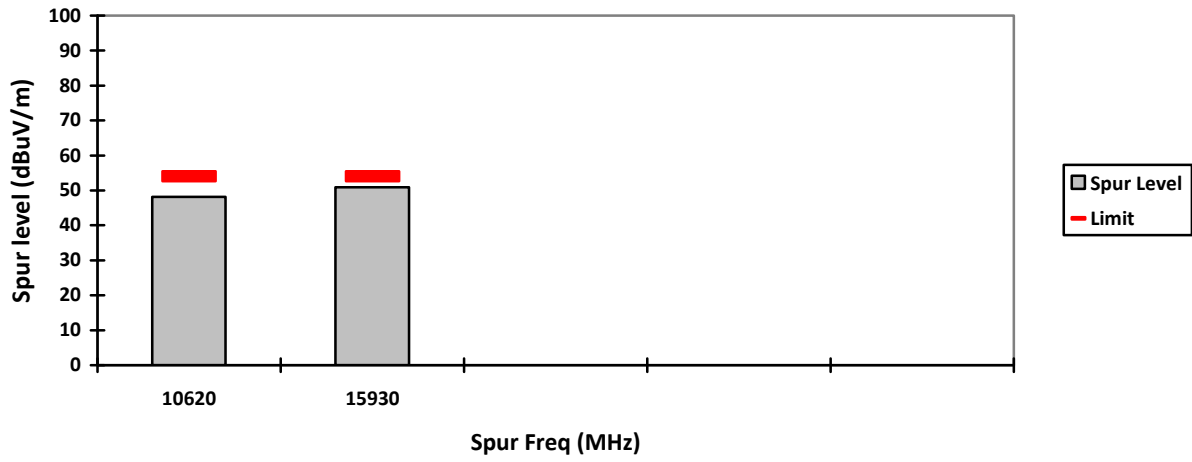
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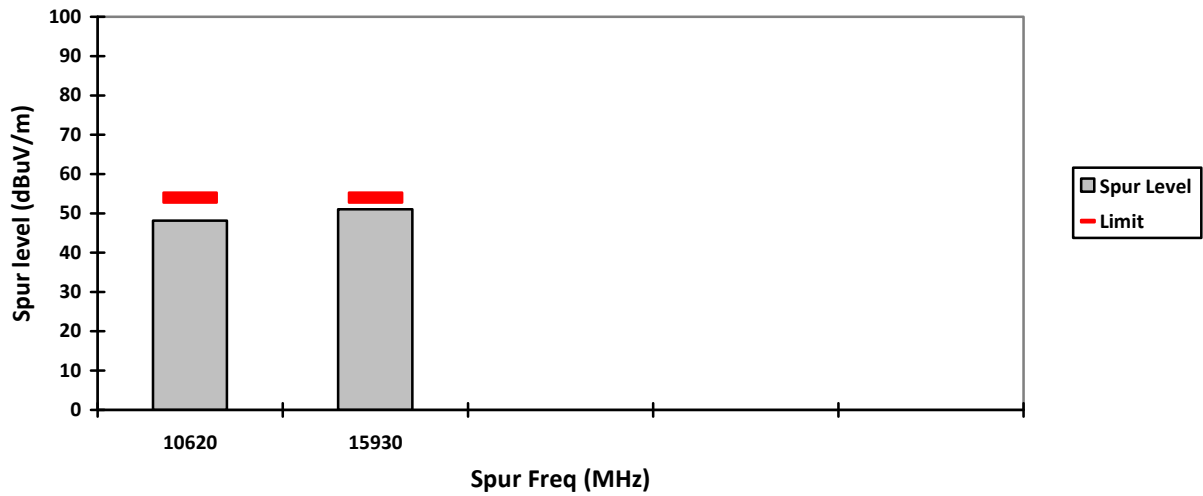
HORIZONTAL, PK



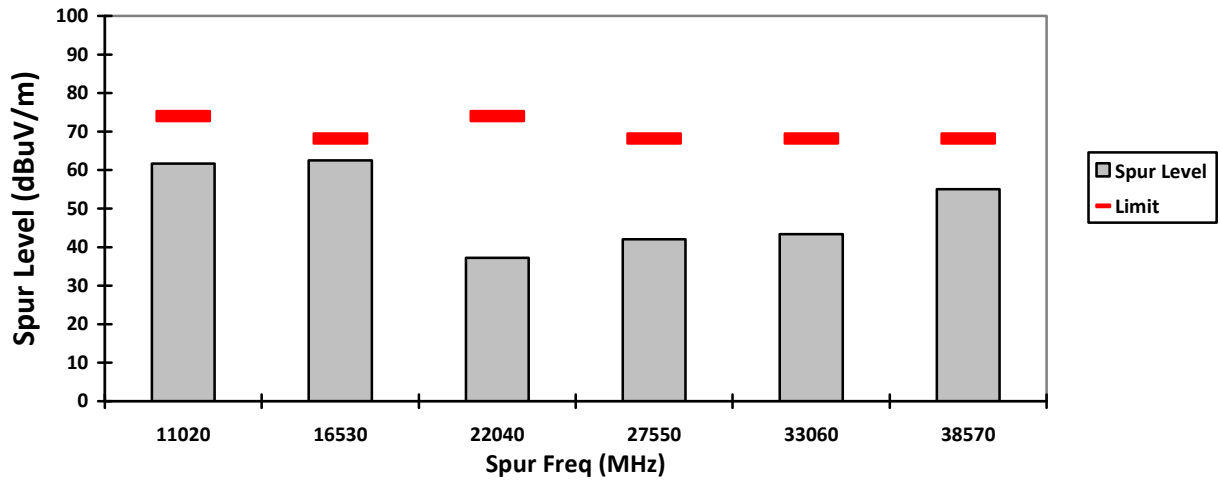
VERTICAL, AV



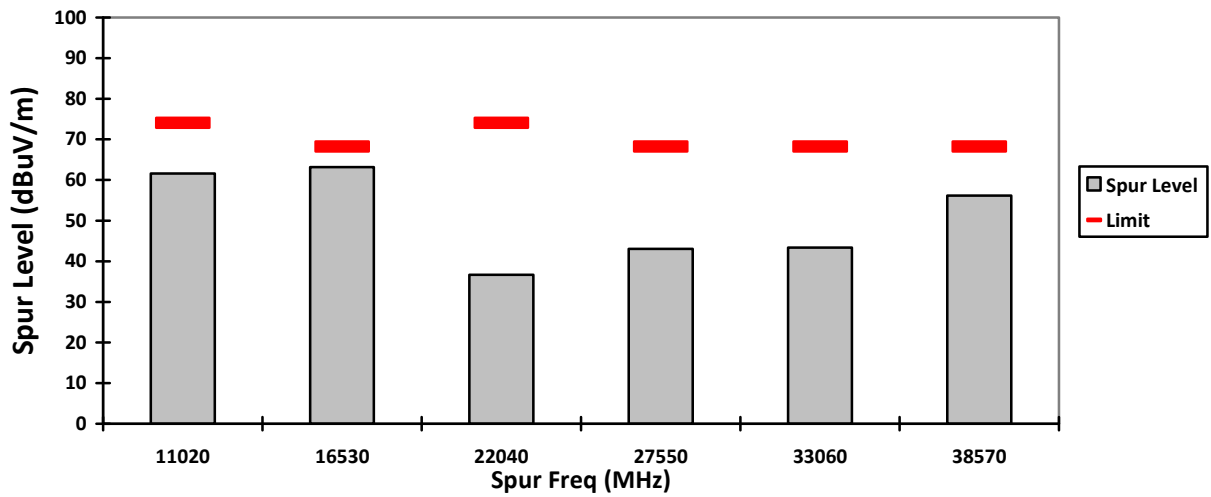
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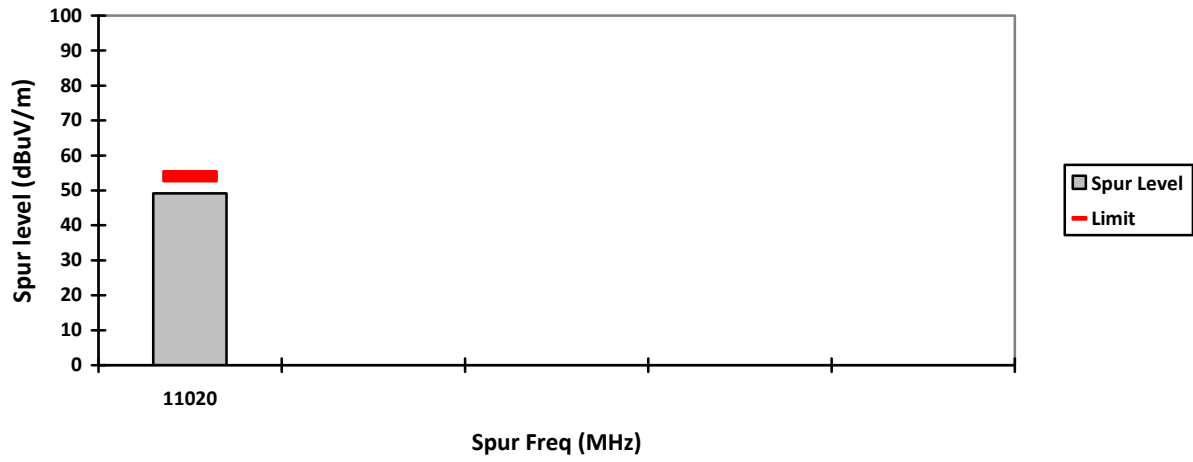
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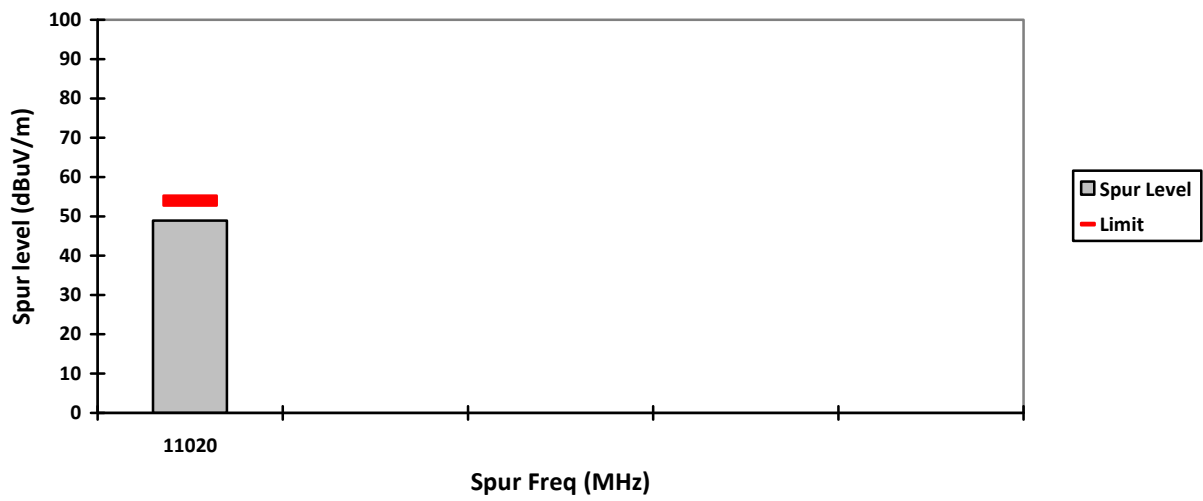
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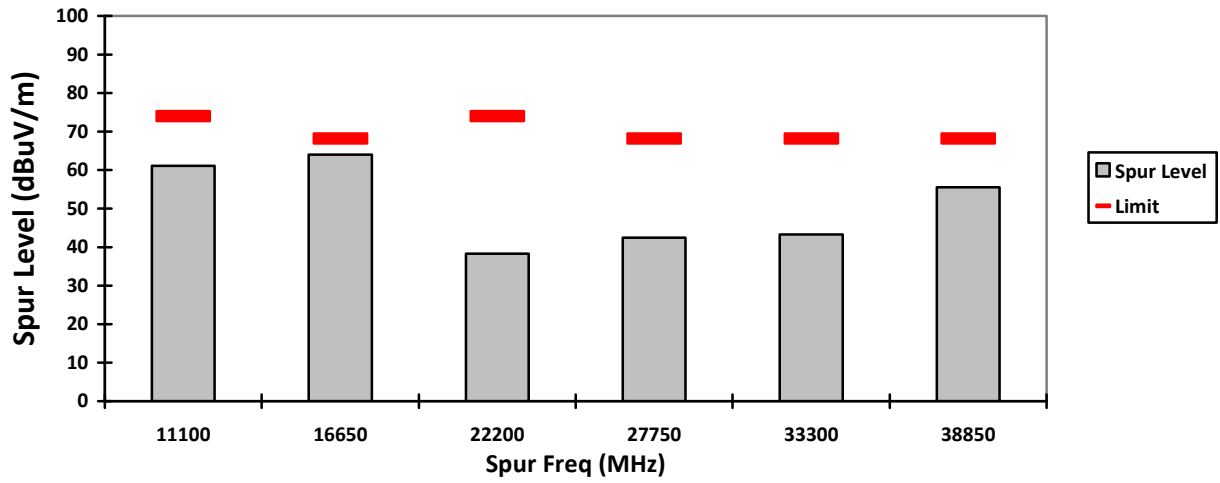
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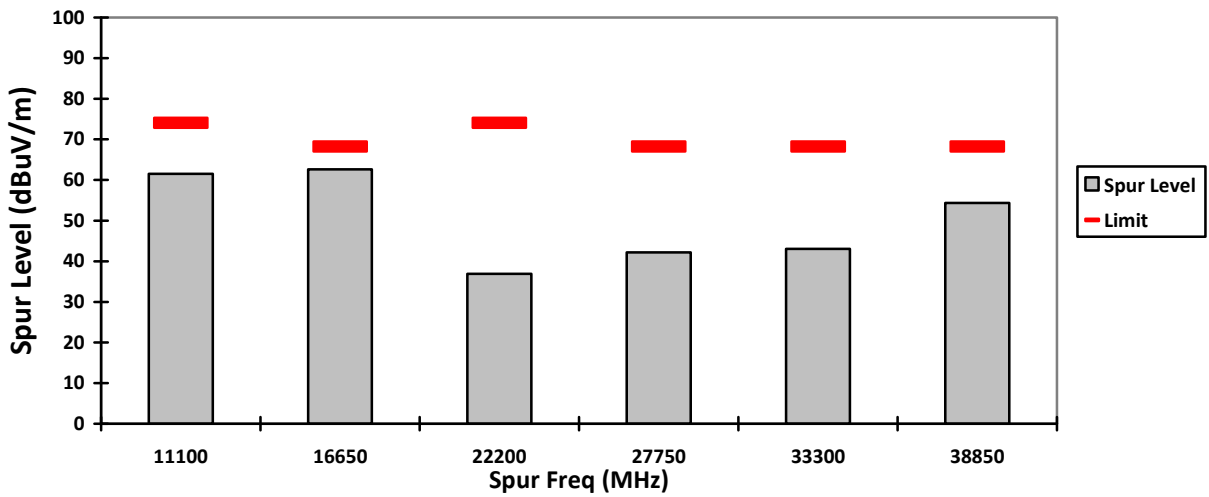
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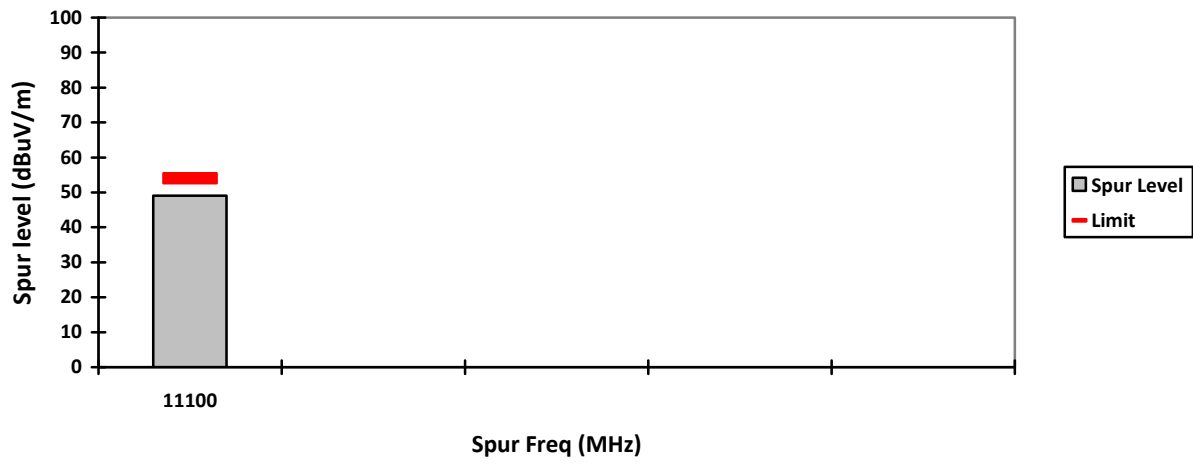
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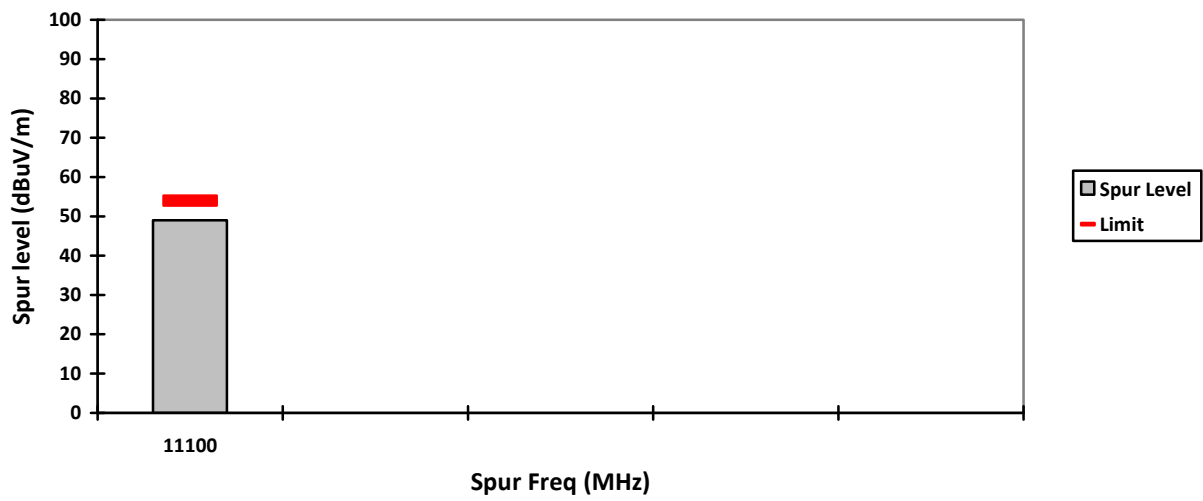
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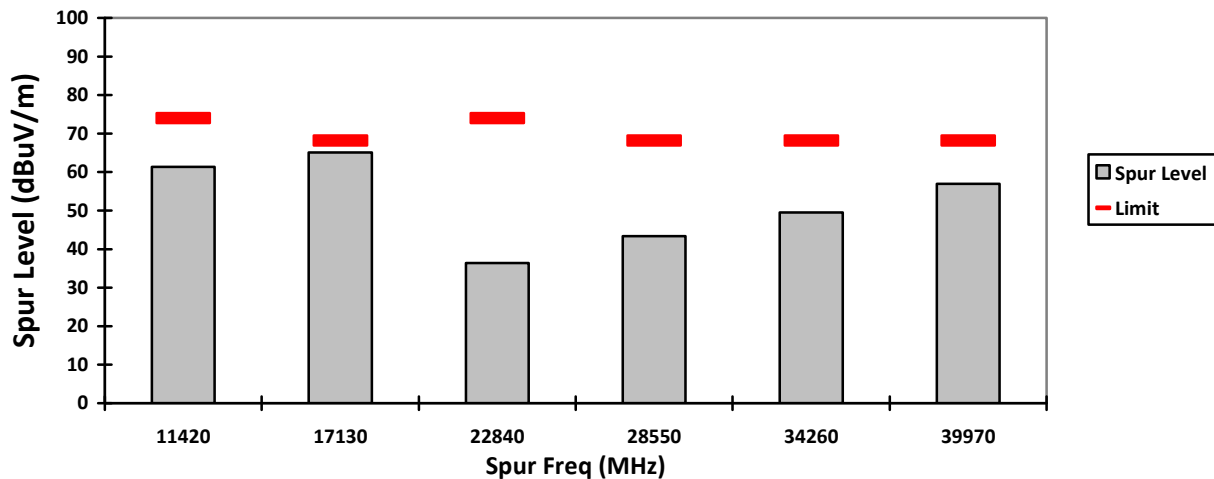
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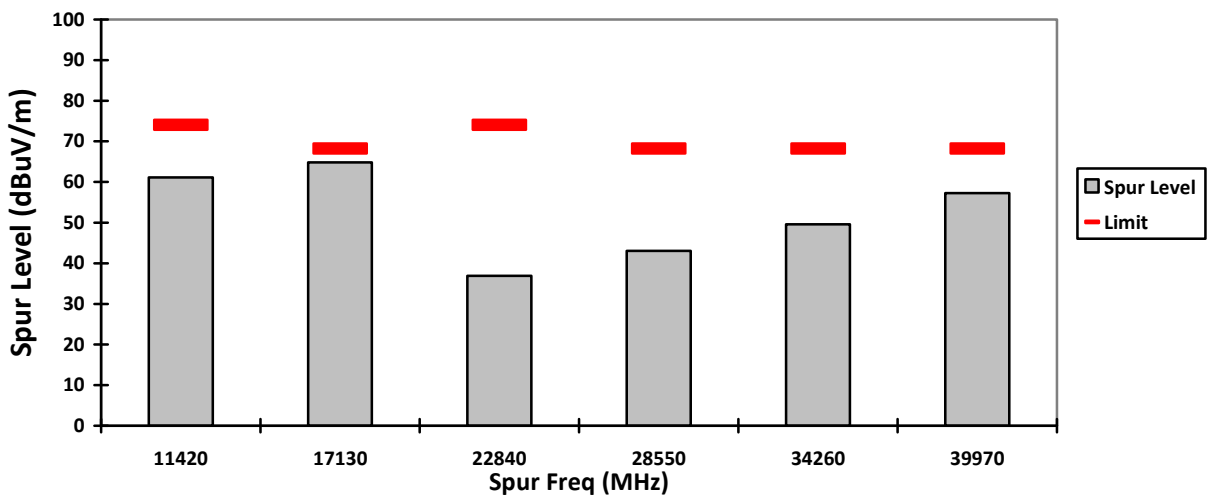
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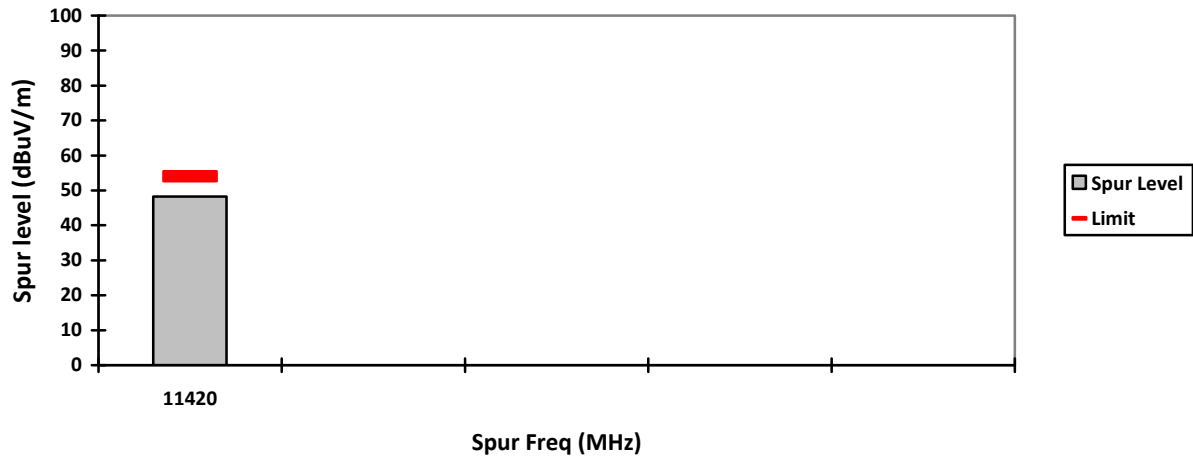
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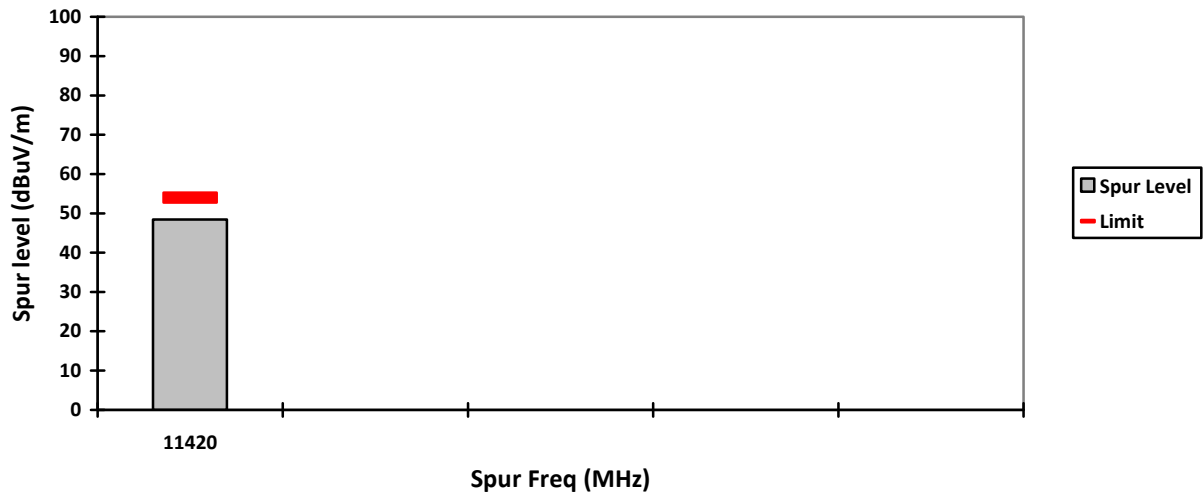
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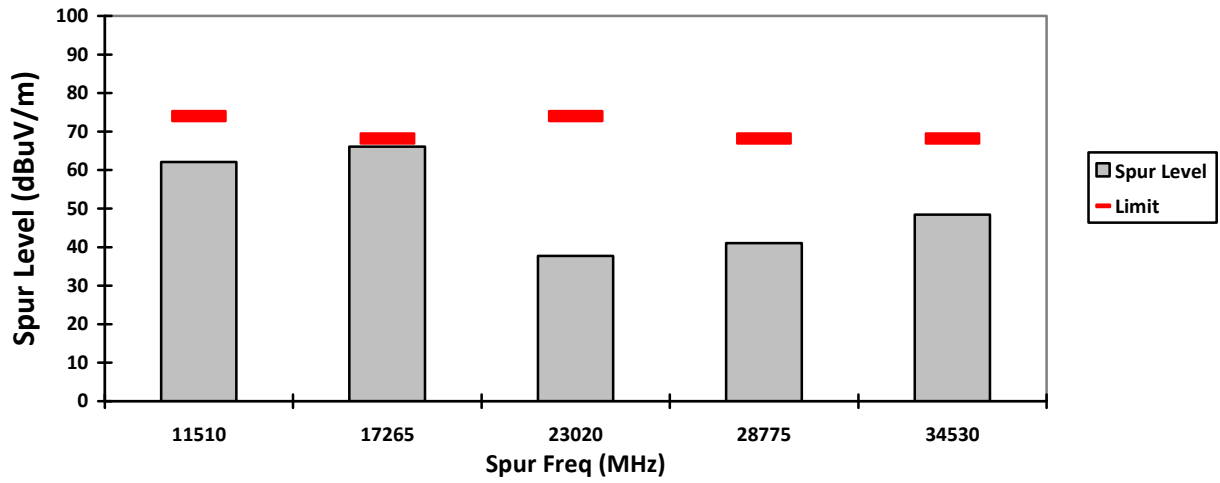
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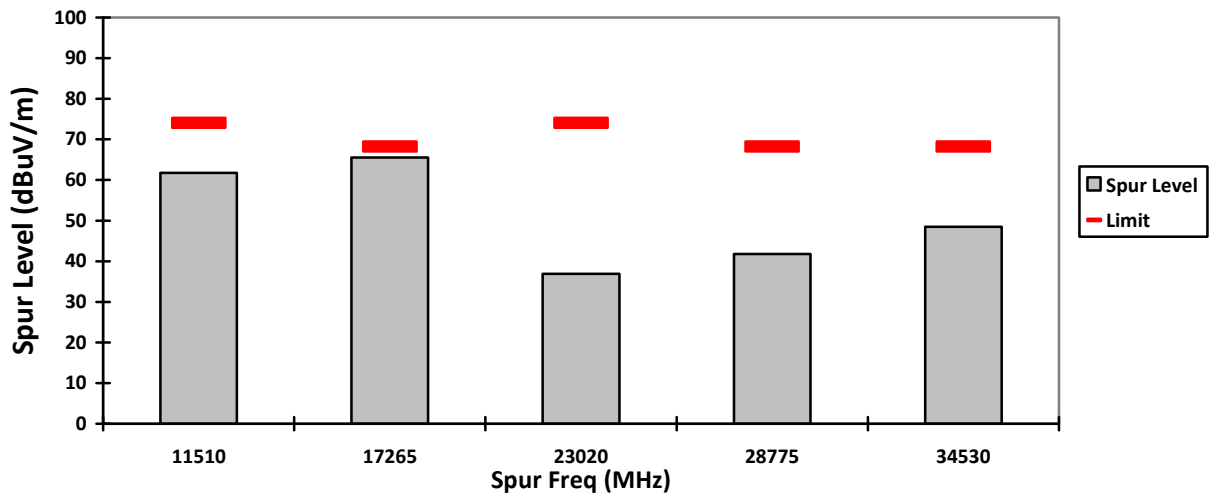
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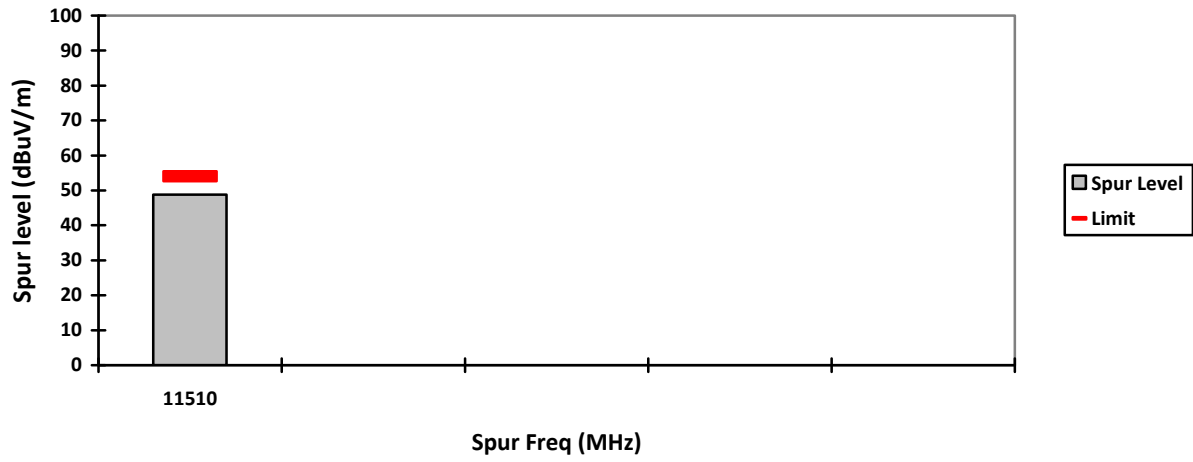
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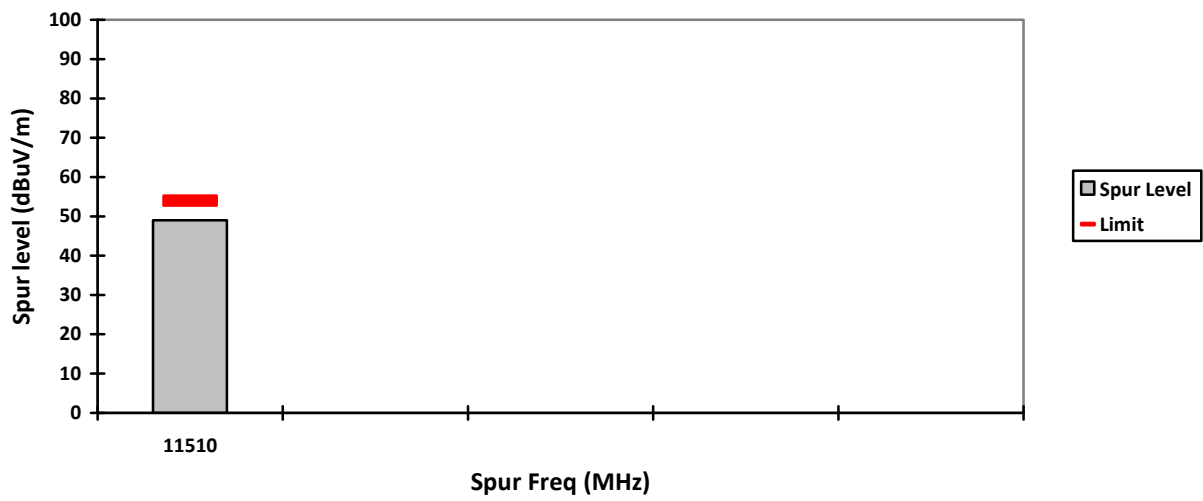
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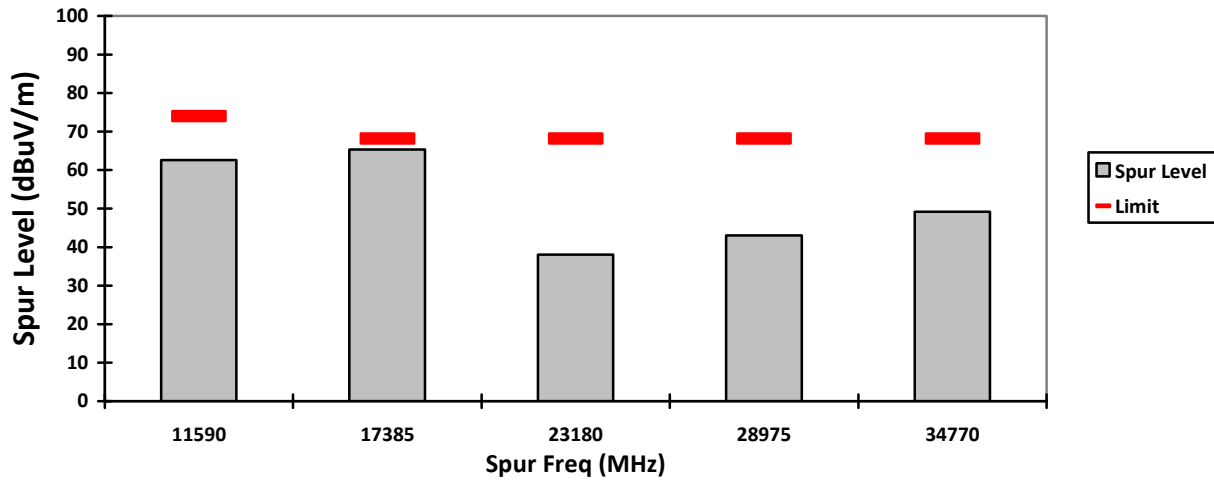
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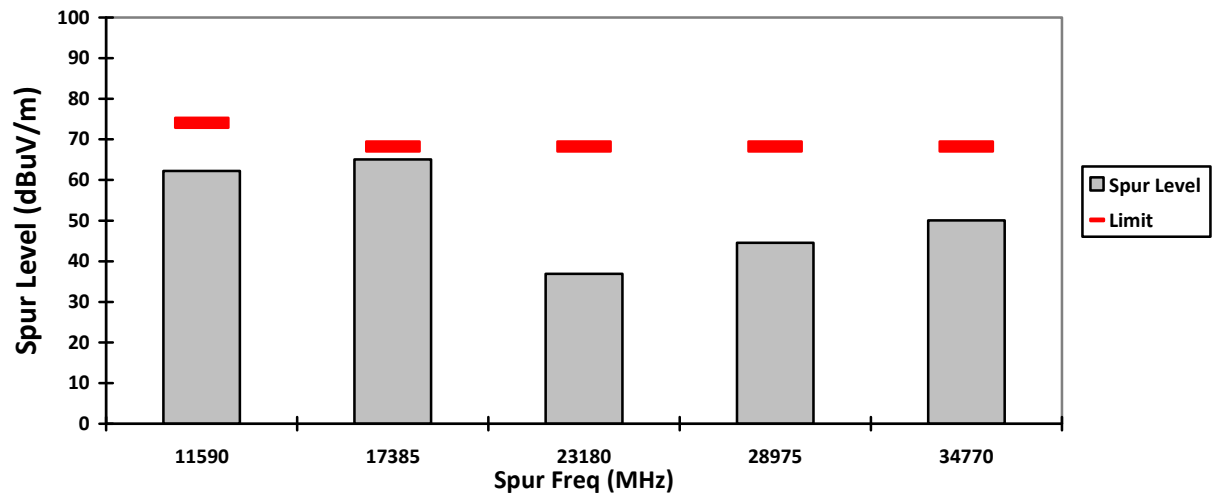
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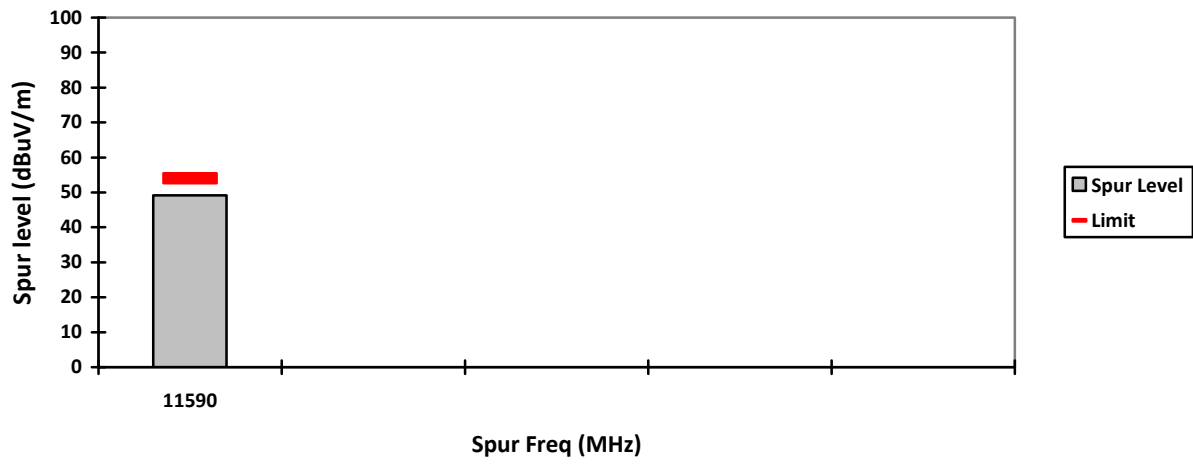
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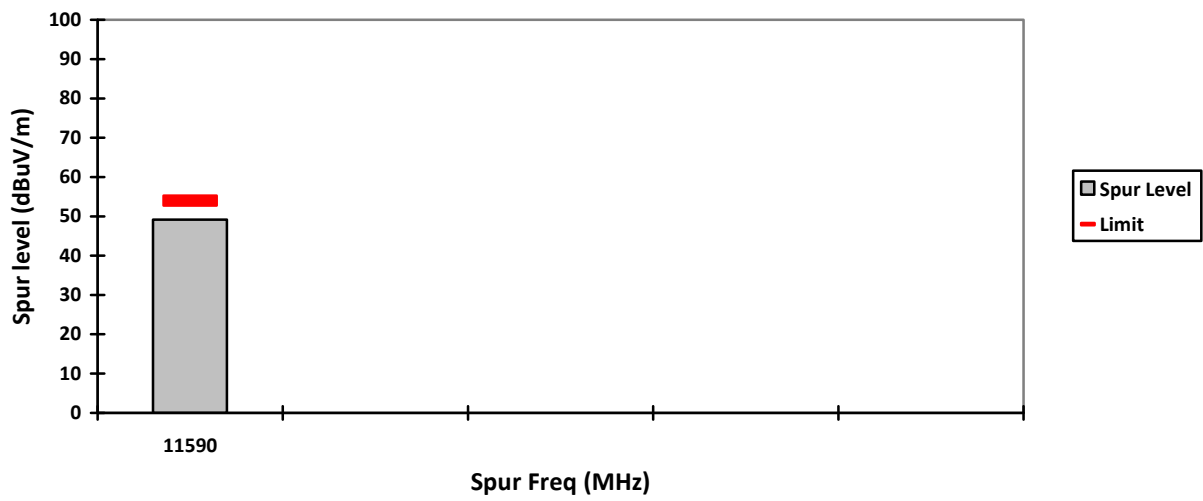
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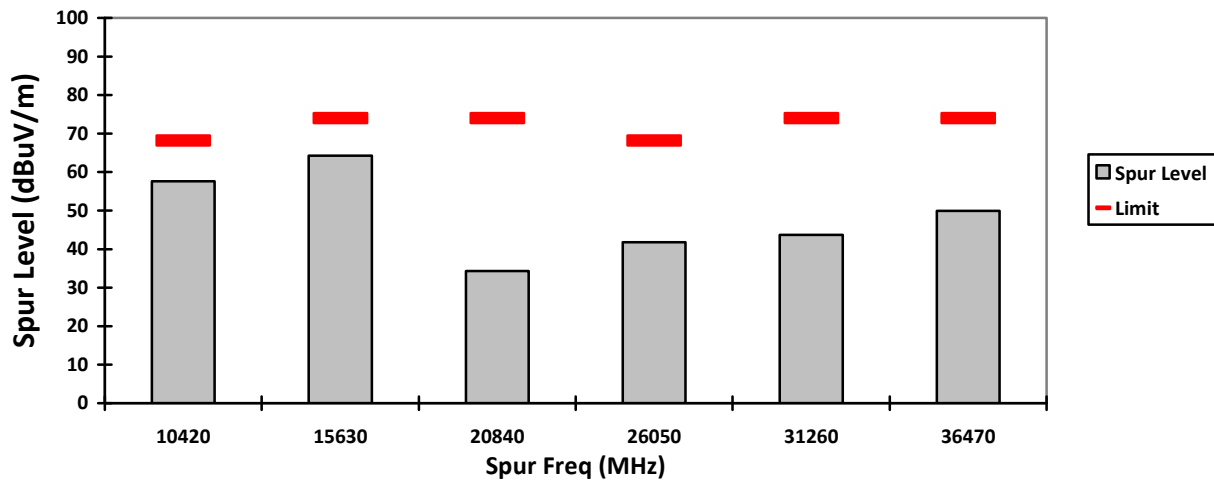
VERTICAL, AV



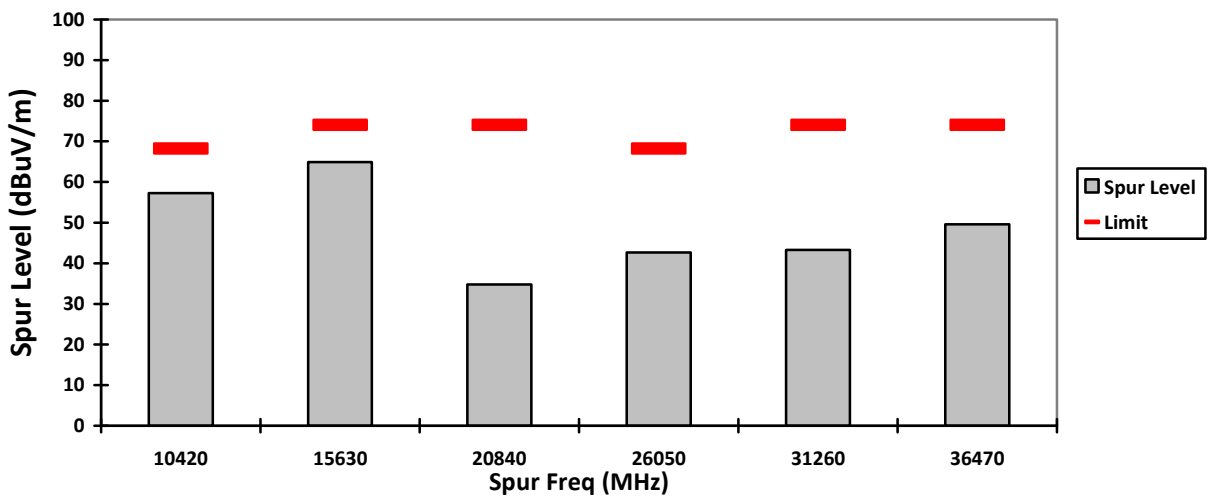
HORIZONTAL, AV

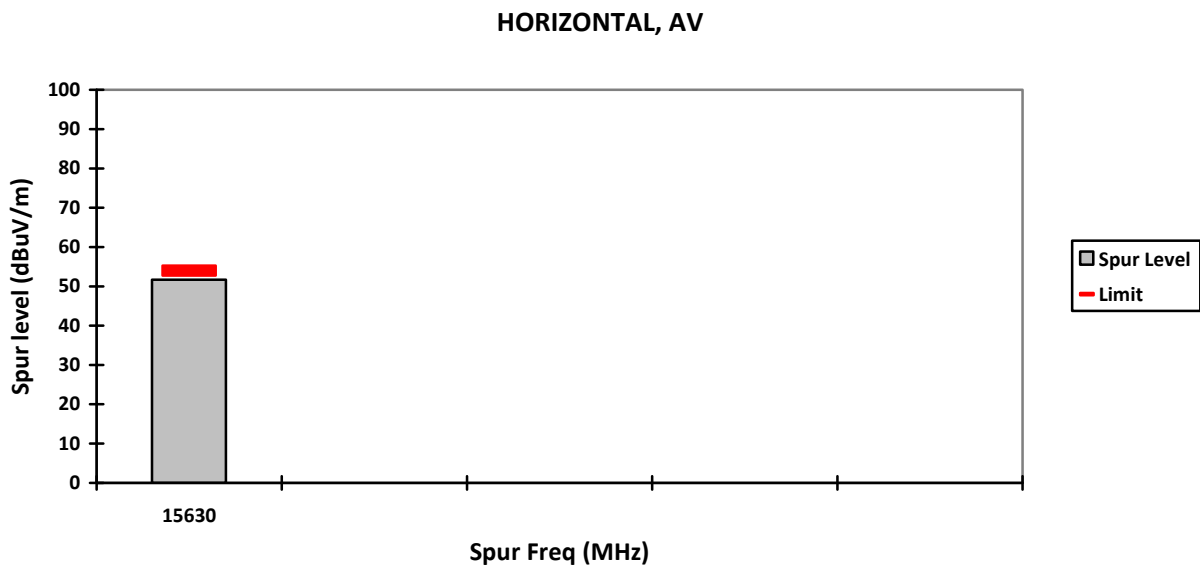
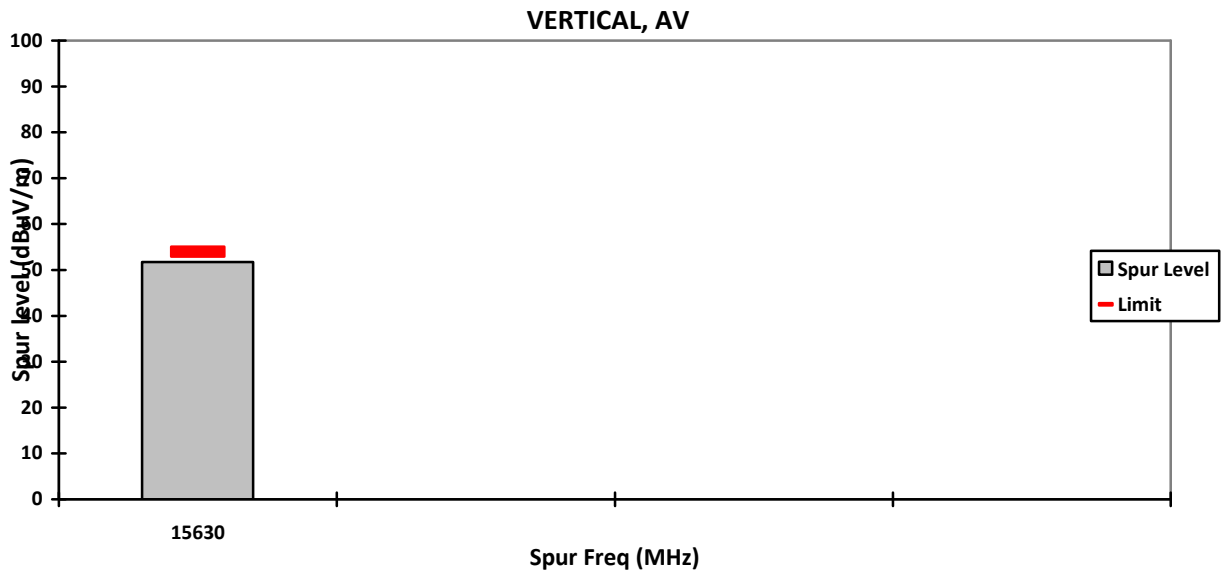


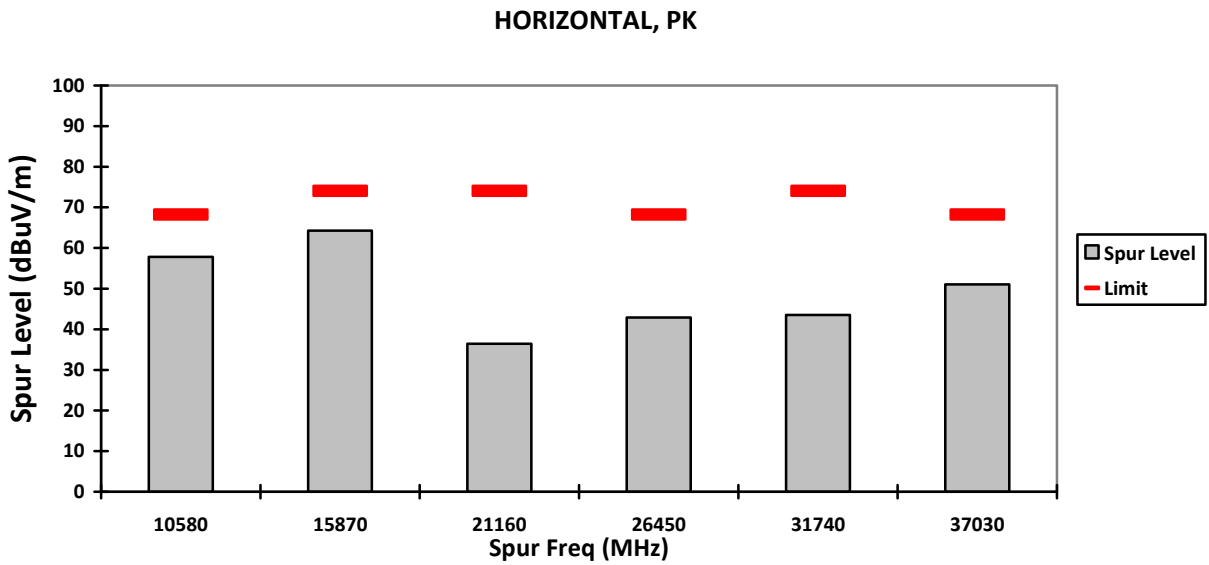
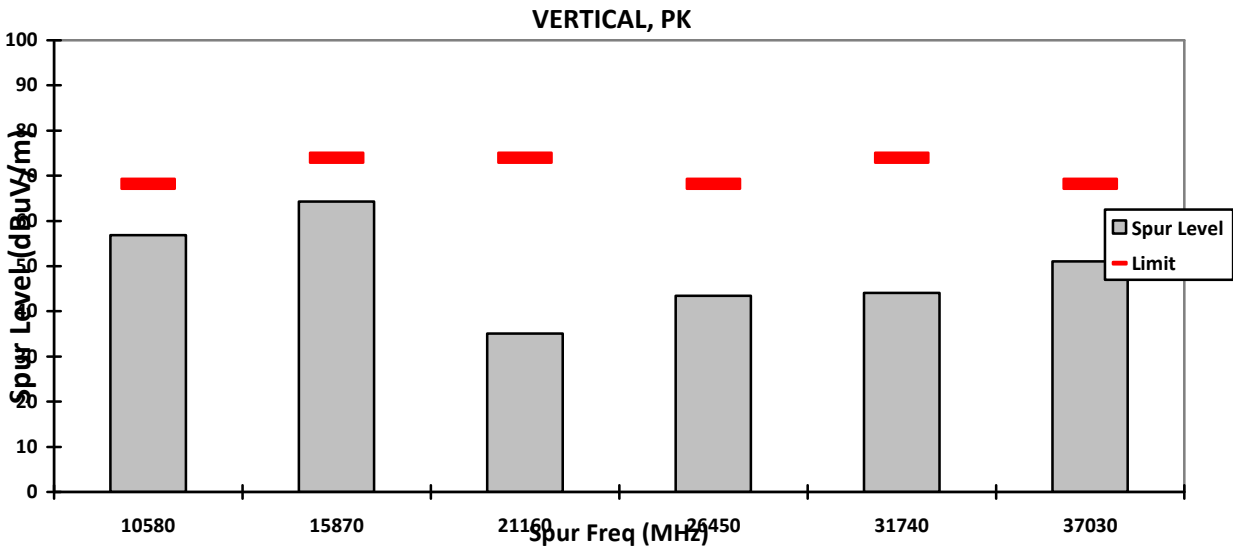
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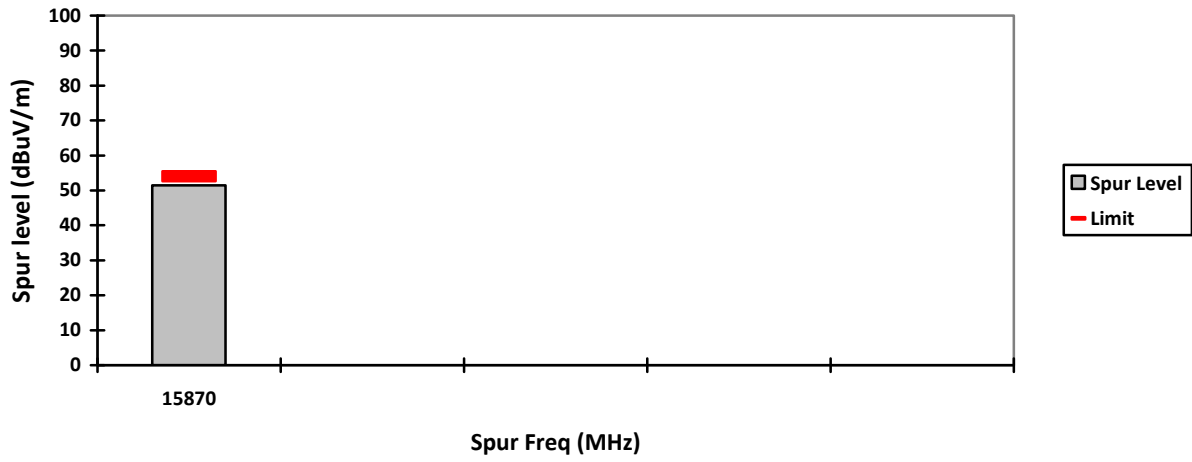
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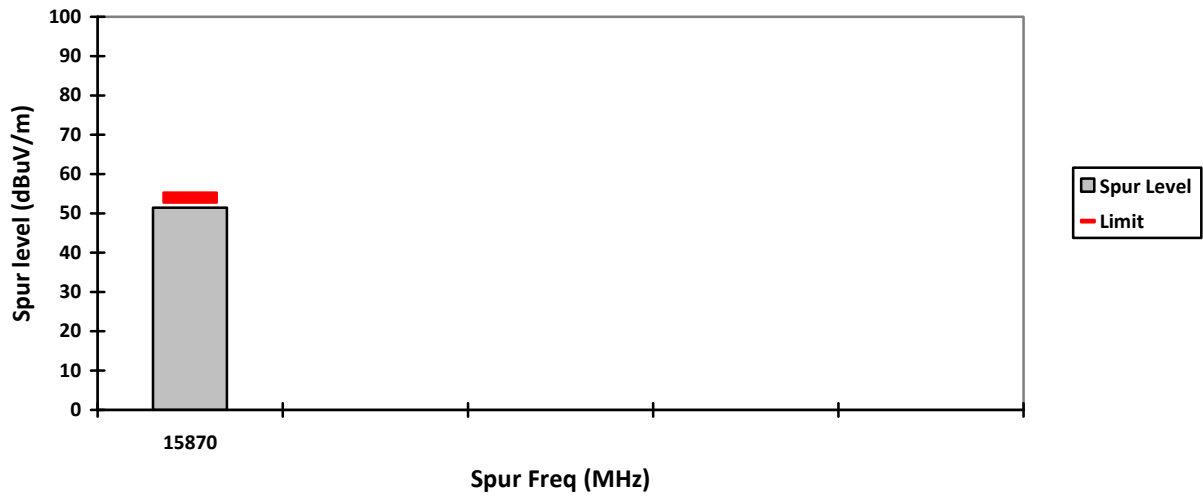


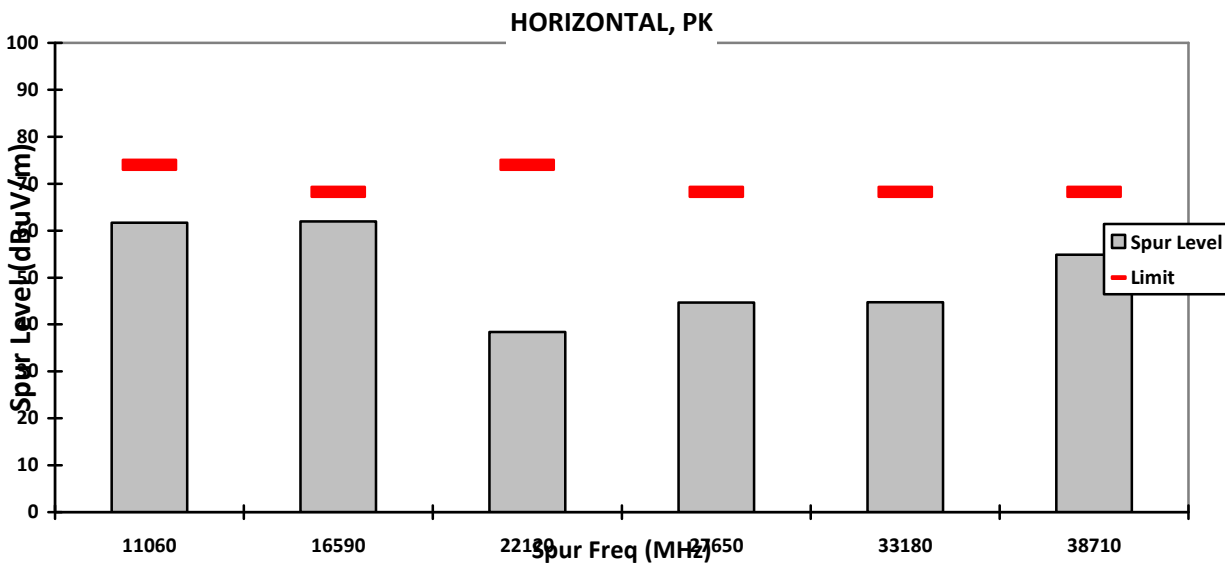
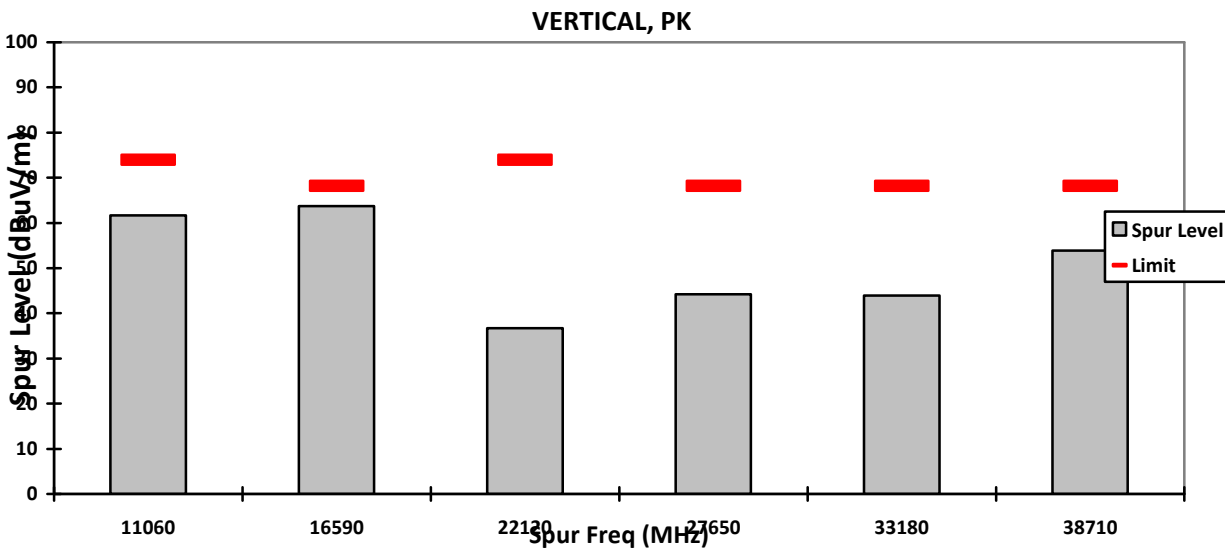


VERTICAL, AV

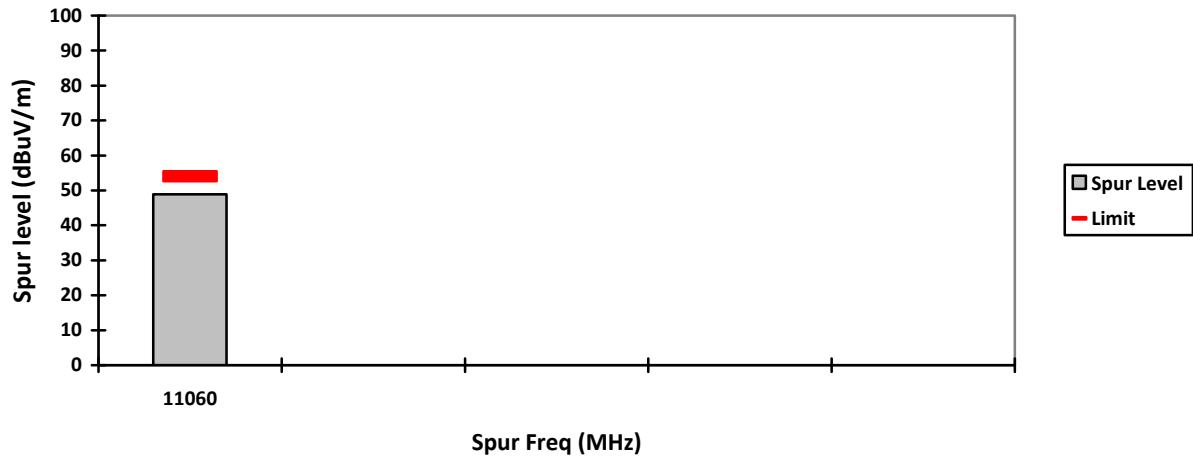


HORIZONTAL, AV

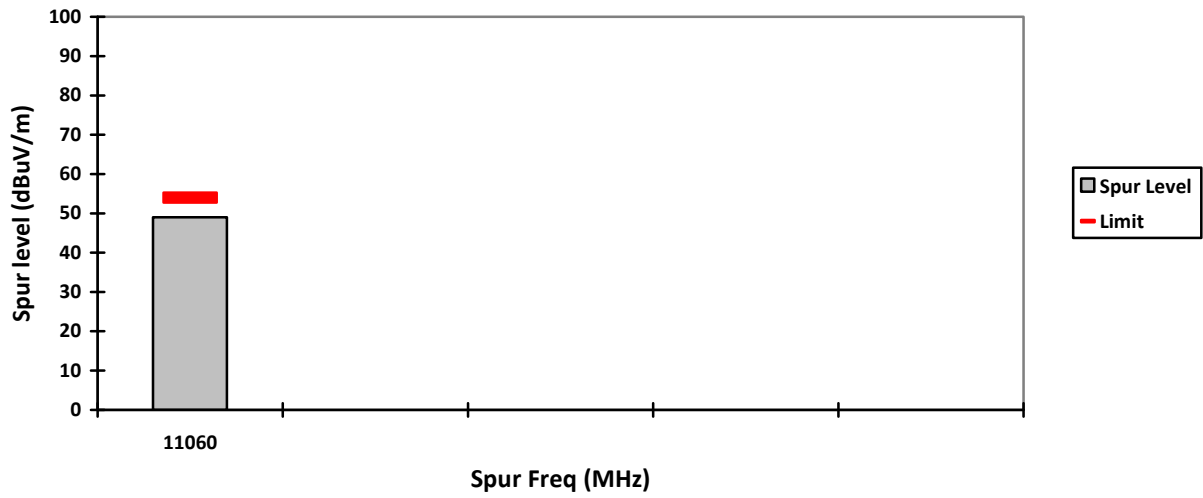


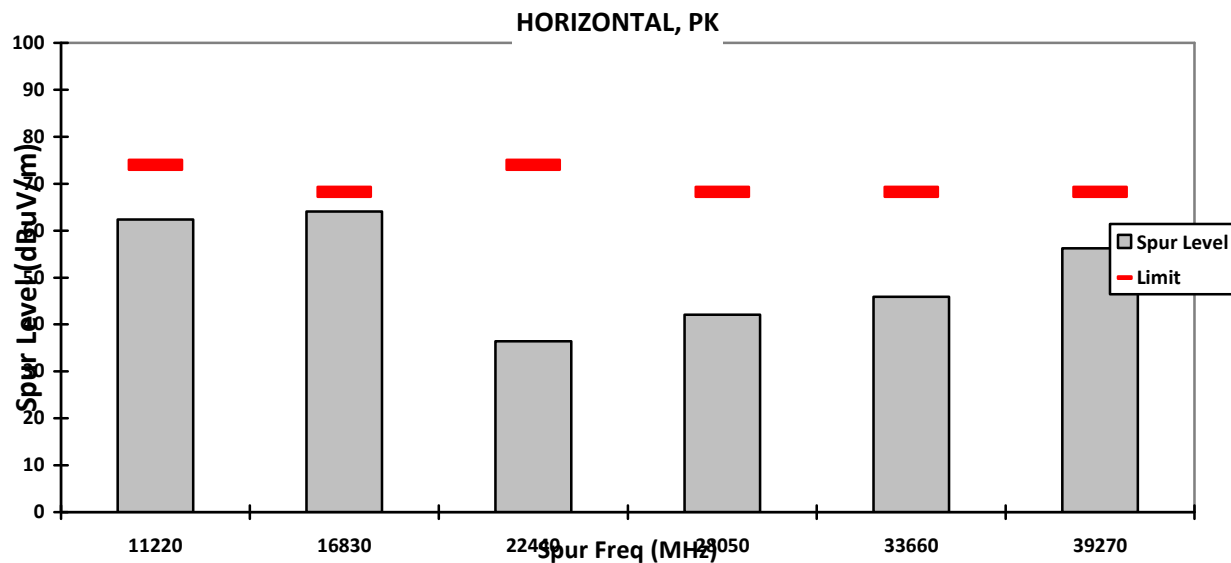
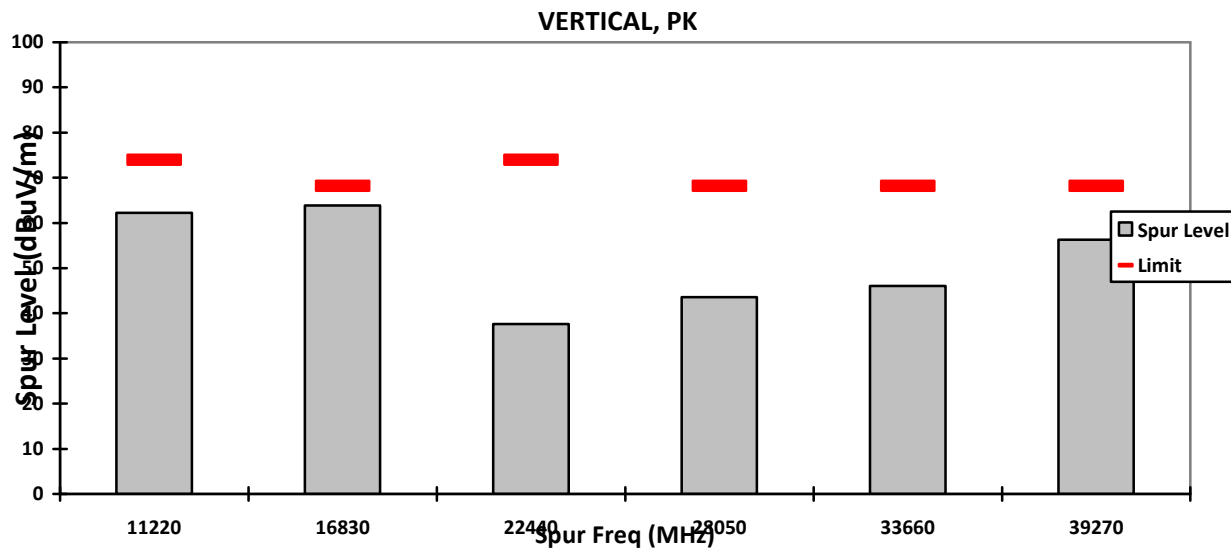


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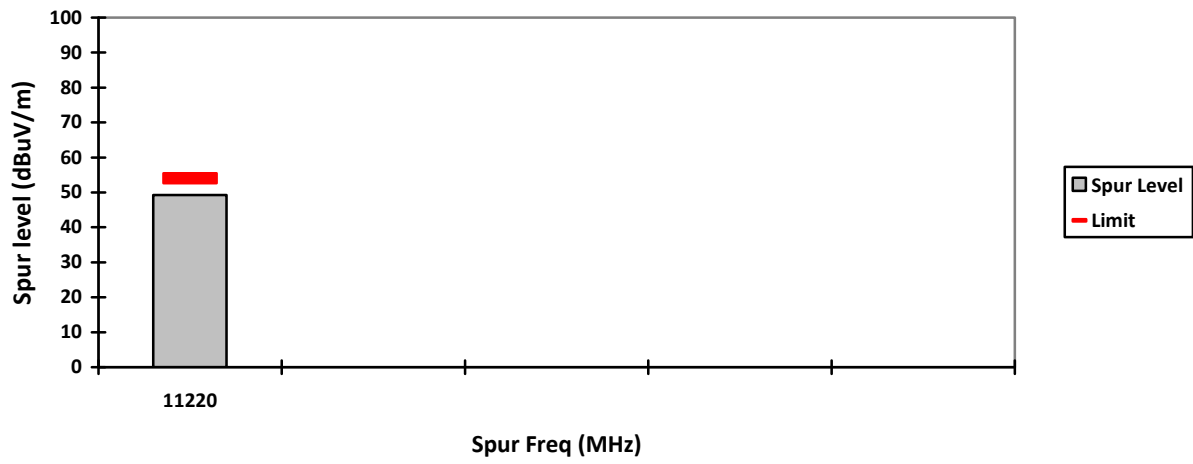


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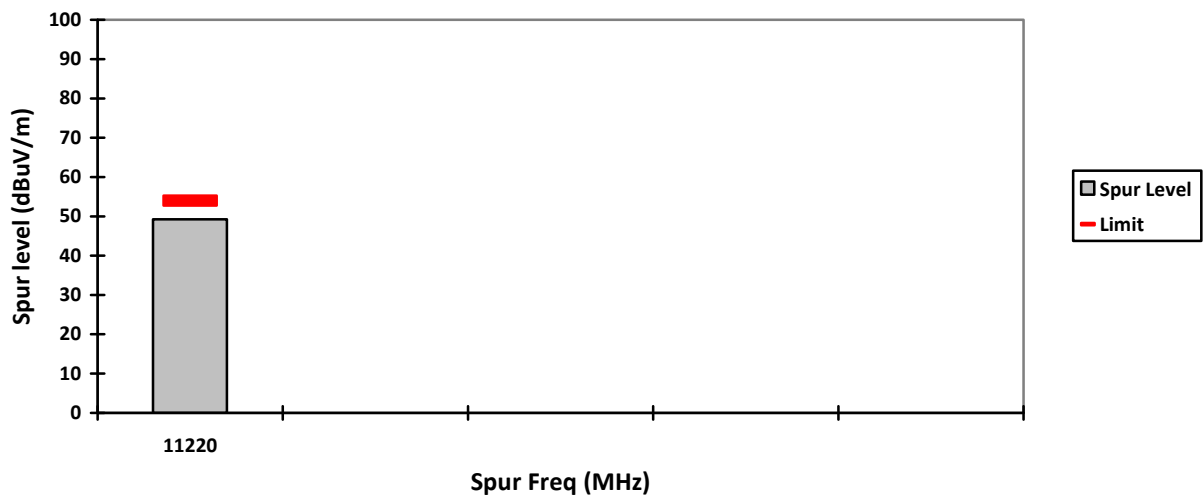


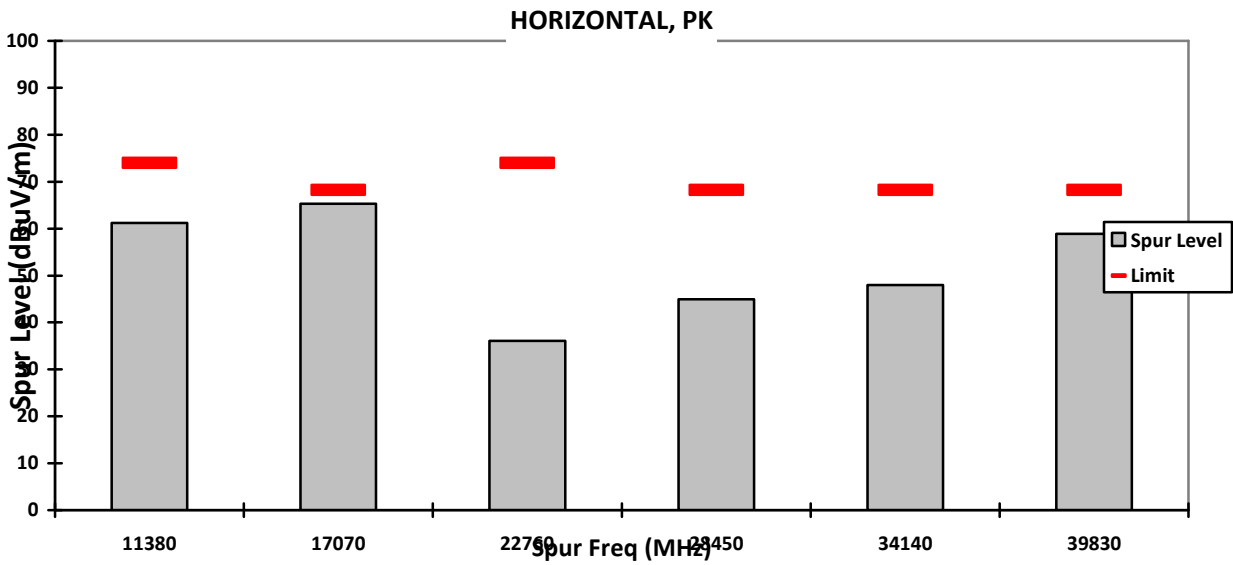
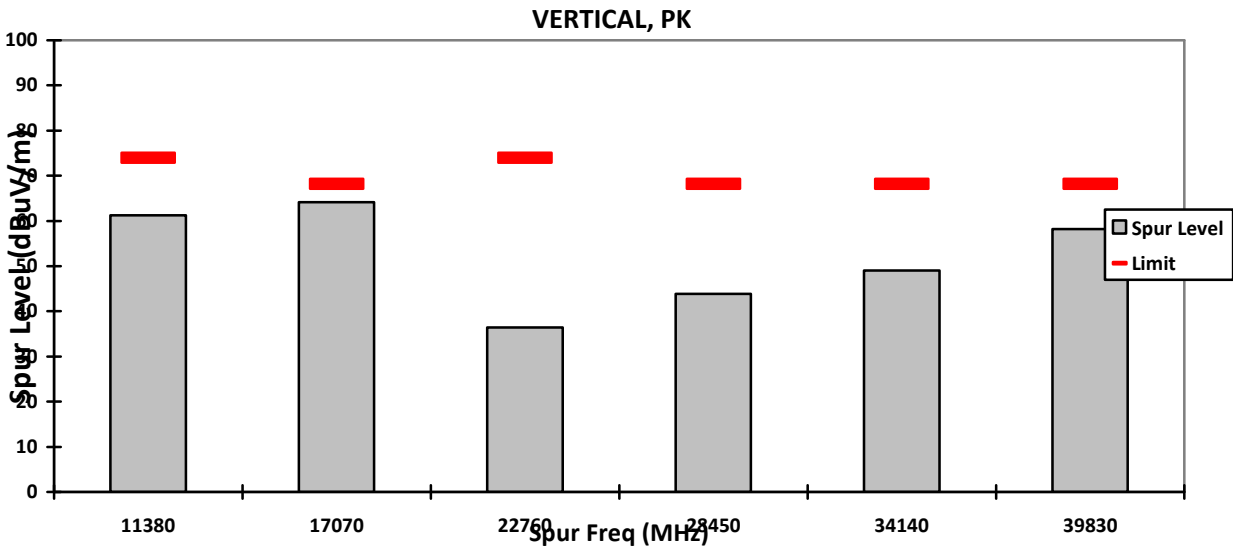


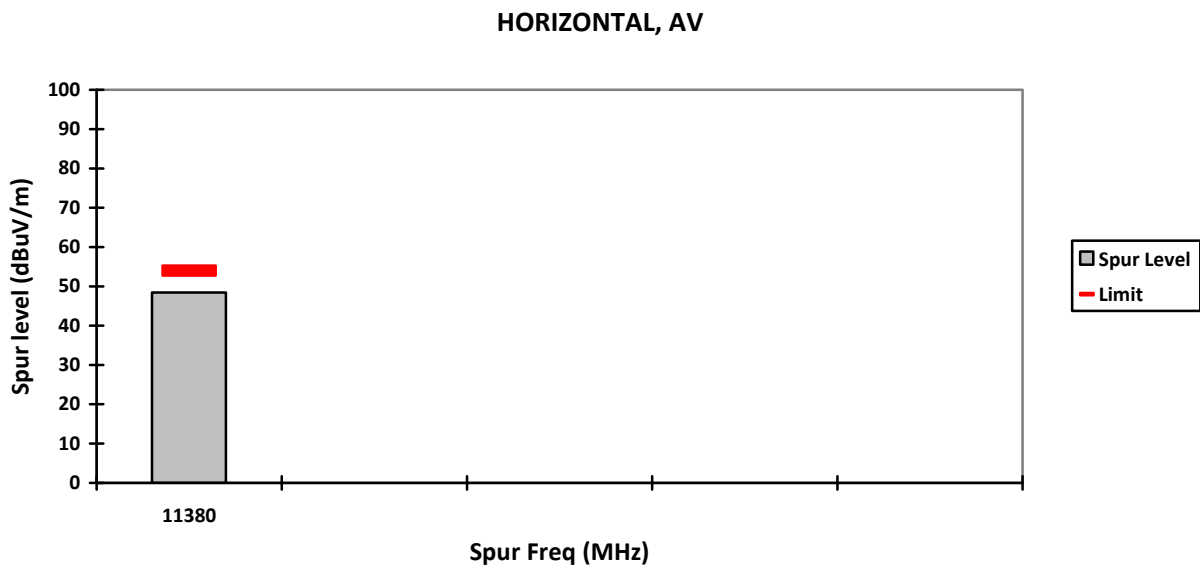
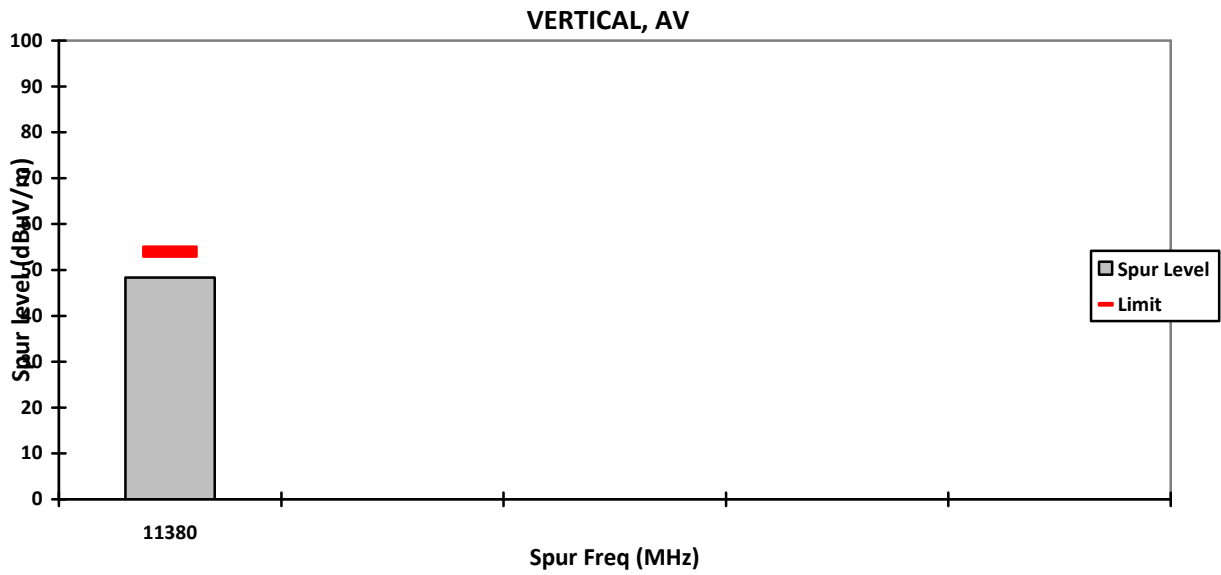
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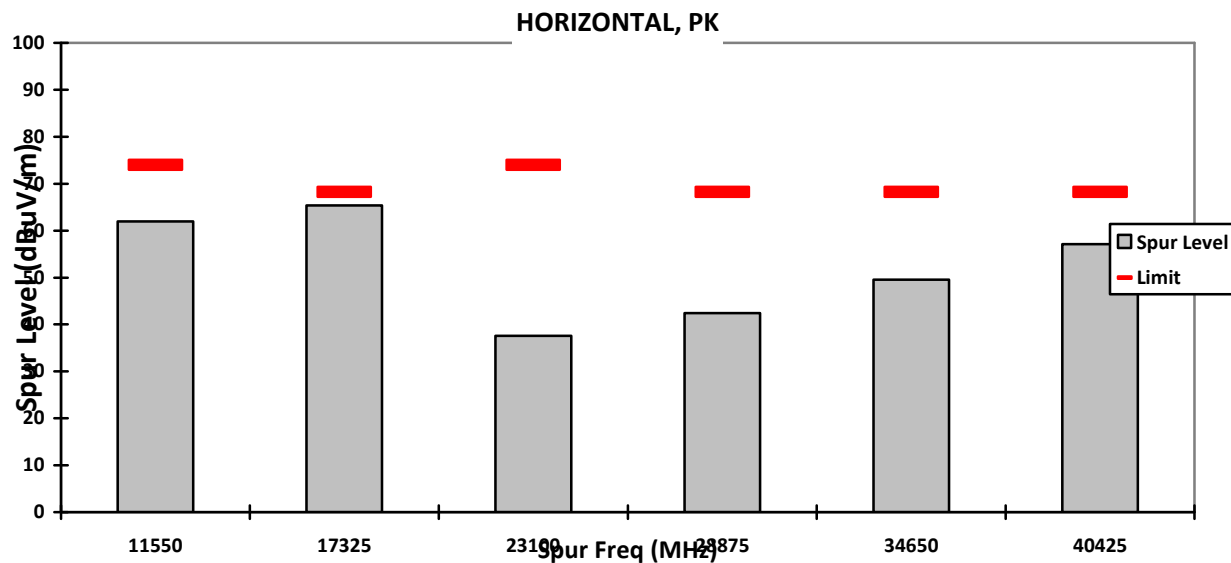
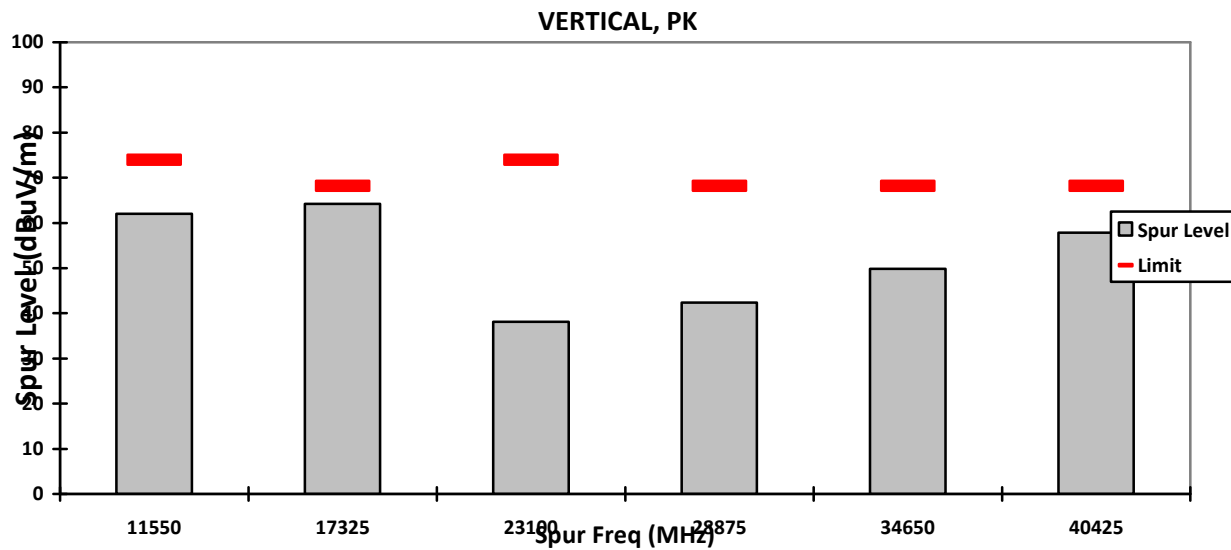


HORIZONTAL, AV

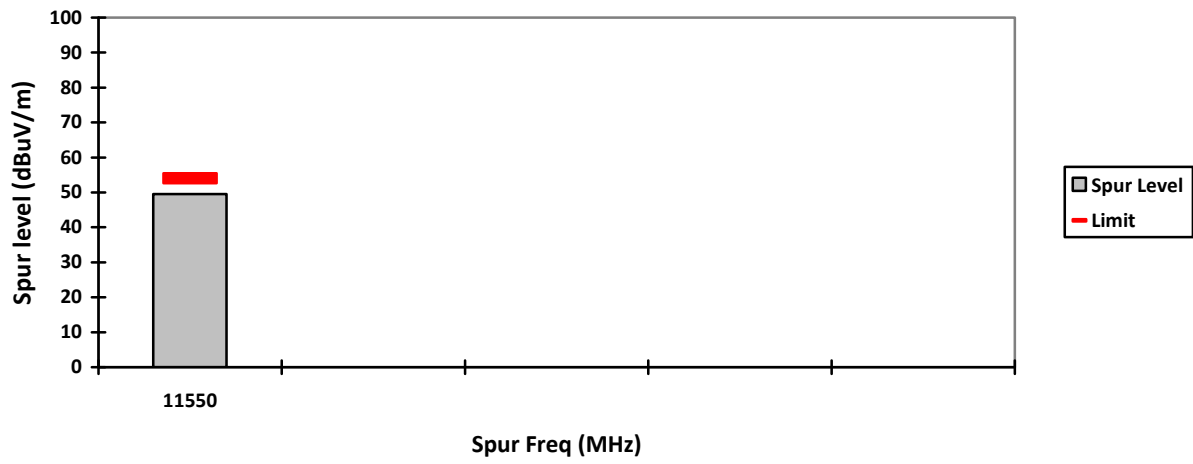




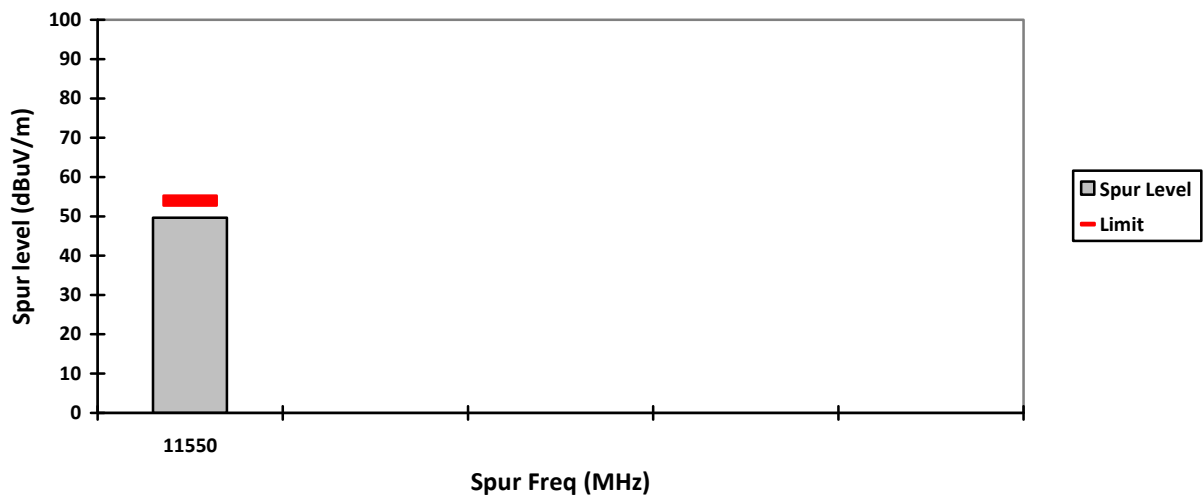




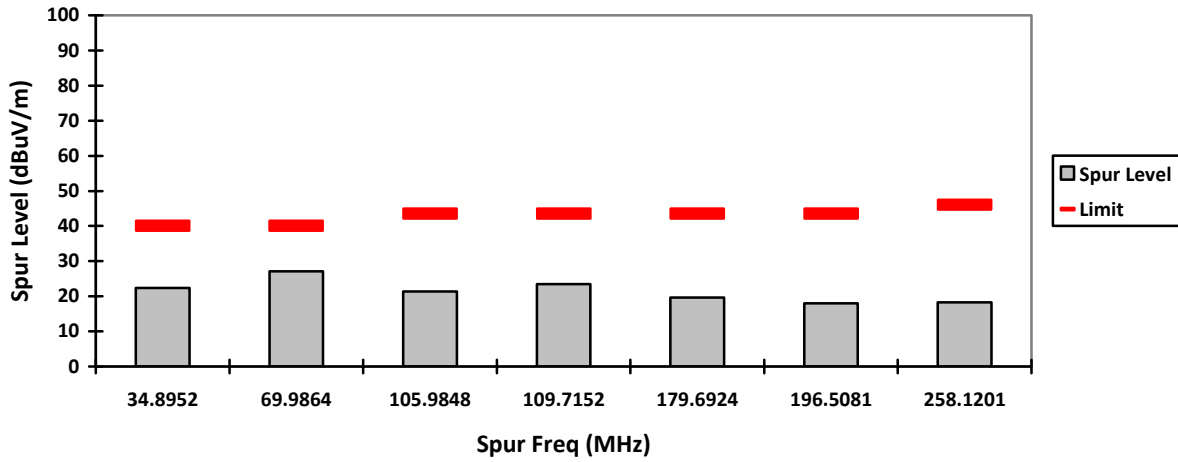
VERTICAL, AV



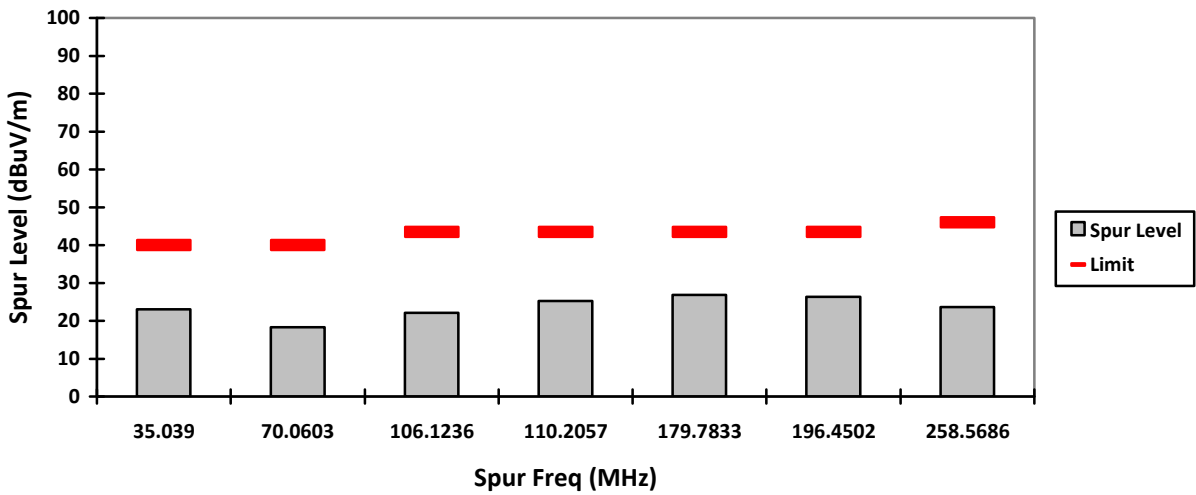
HORIZONTAL, AV



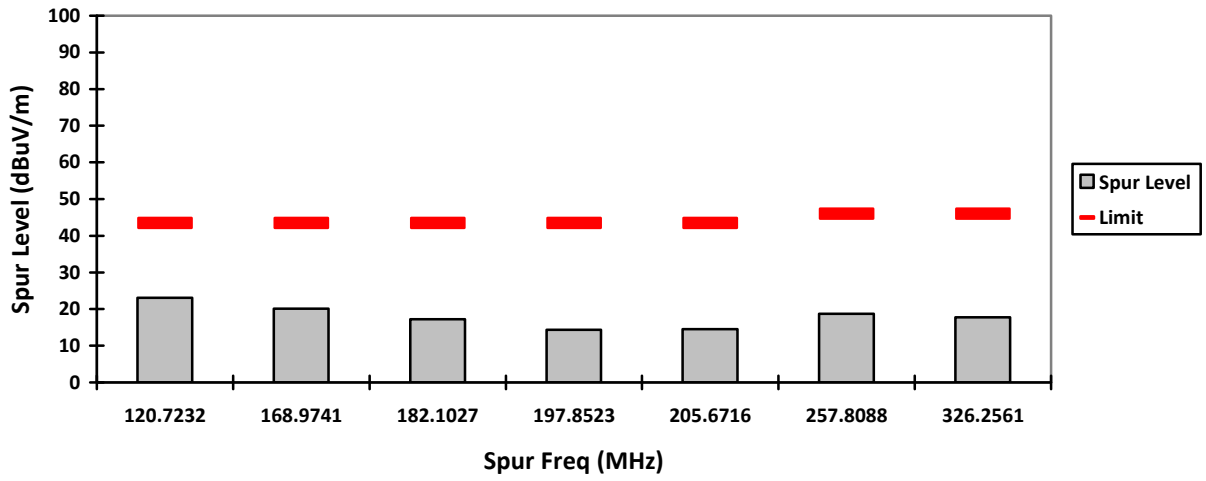
VERTICAL, QPK



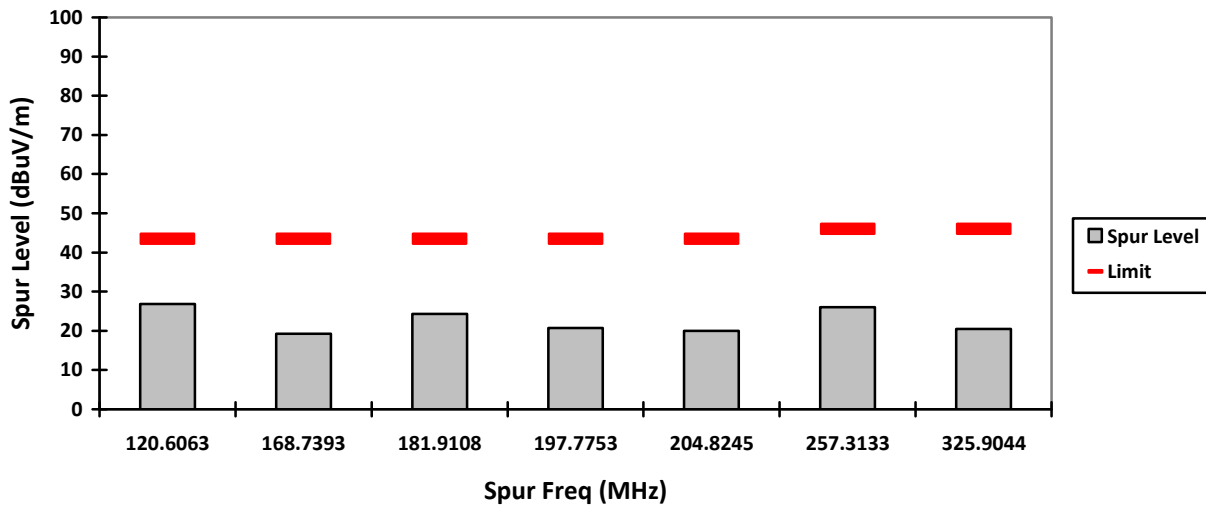
HORIZONTAL, QPK



VERTICAL, QPK

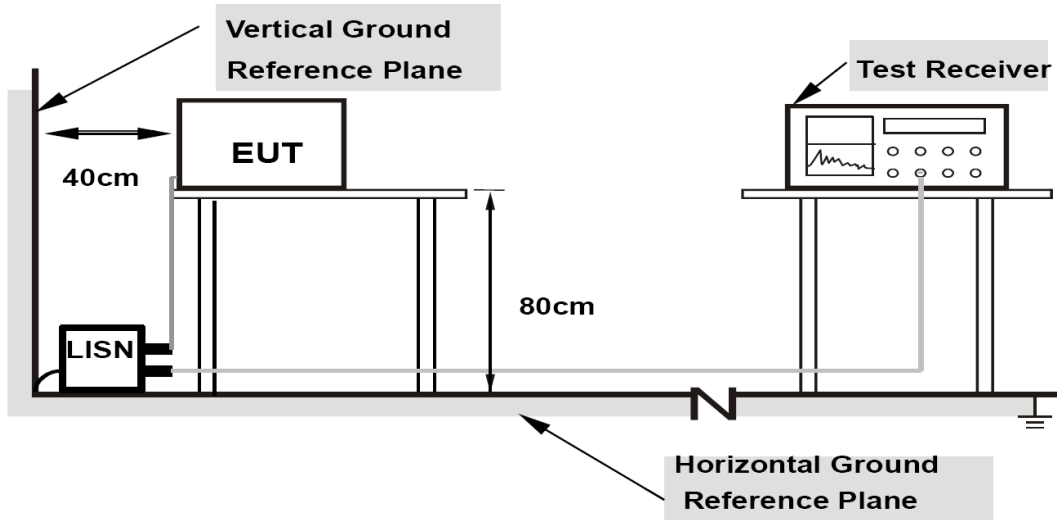


HORIZONTAL, QPK



7.8. AC Powerline Conducted Emission

7.8.1. Test Setup



- 1) Tests were conducted for both Receive and Transmit Mode of the EUT.
- 2) The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/50uH of coupling impedance for the measuring instrument.
- 3) Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- 4) The frequency range from 150 kHz to 30MHz was measured.

7.8.2. Test Limits

For AC Power Line Conducted Test Limit can be Class A or B depends on product classification.

**Limits for conducted disturbance at the mains ports
of class A ITE**

Frequency range MHz	Limits dB(μ V)	
	Quasi-peak	Average
0,15 to 0,50	79	66
0,50 to 30	73	60
NOTE The lower limit shall apply at the transition frequency.		

Table 1: Limits for Conducted Disturbance at the Mains Ports of Class A ITE.

**Limits for conducted disturbance at the mains ports
of class B ITE**

Frequency range MHz	Limits dB(μ V)	
	Quasi-peak	Average
0,15 to 0,50	66 to 56	56 to 46
0,50 to 5	56	46
5 to 30	60	50

NOTE 1 The lower limit shall apply at the transition frequencies.
NOTE 2 The limit decreases linearly with the logarithm of the frequency in the range 0,15 MHz to 0,50 MHz.

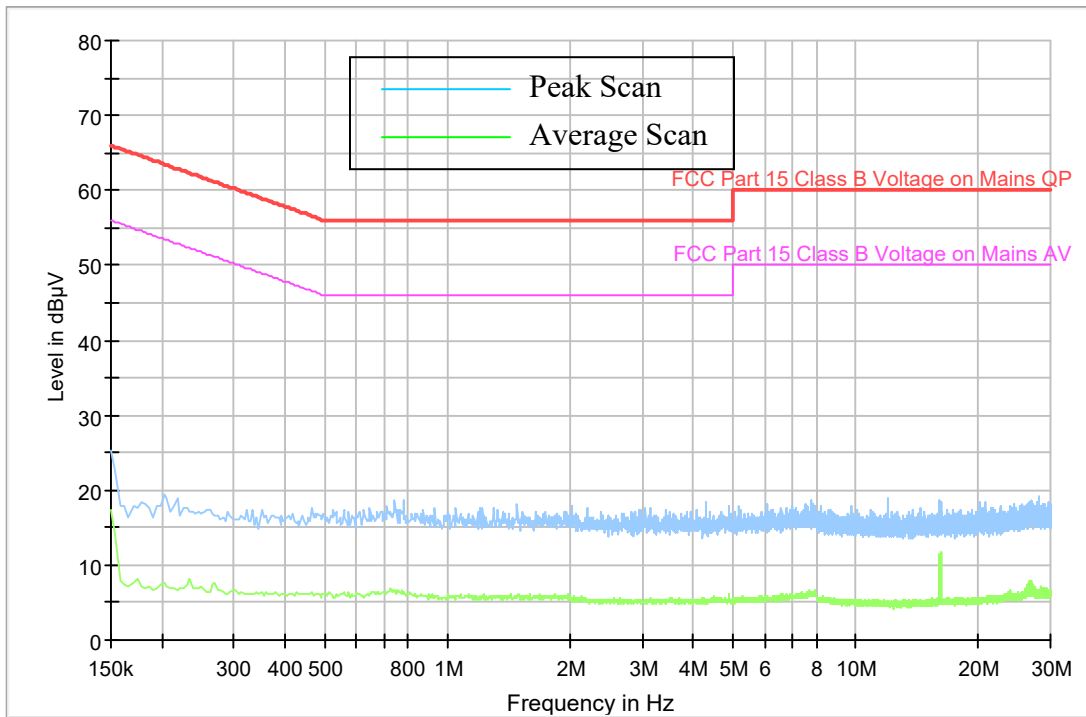
Table 2: Limits for Conducted Disturbance at the Mains Ports of Class B ITE

7.8.3. Test Data

Report ID.:	: 26977-EMC-00119
Ambient Temperature:	: 23.0 °C
Humidity:	: 69.3 %RH
Tester:	: Azil
Date of test:	: 23 August 2022

1) Ambient

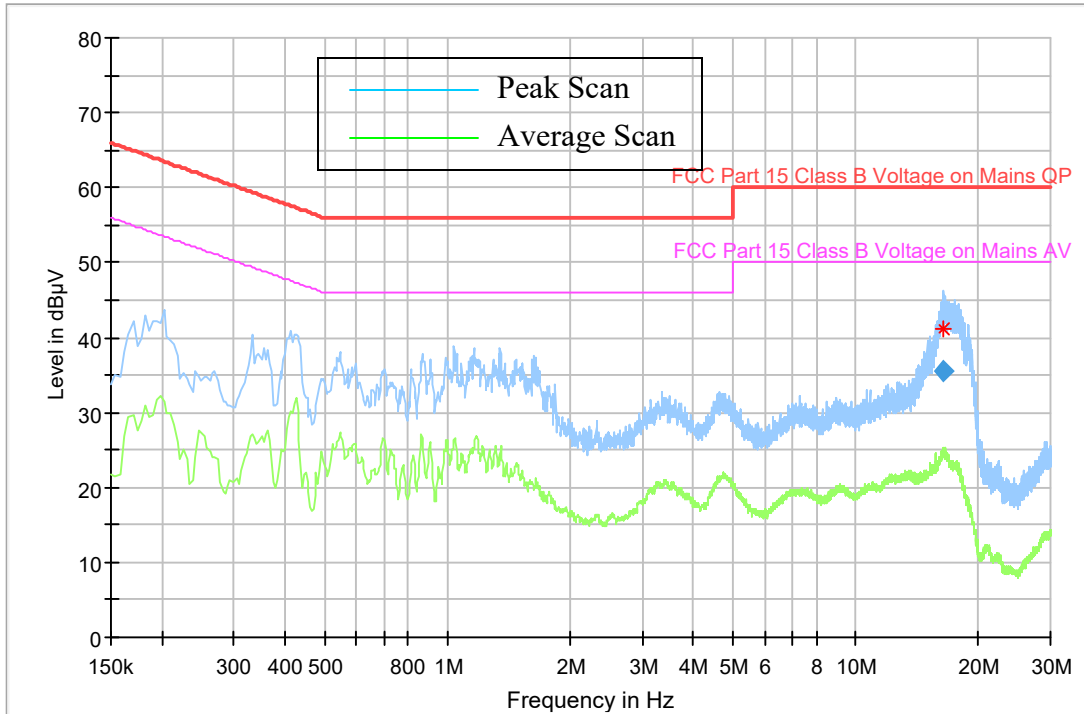
Full Spectrum



120 VAC , 60Hz

1) Charger + Radio in WIFI 5GHz test mode (5220MHz, 802.11a 20MHz)

Full Spectrum



Quasipeak and Average Measurement

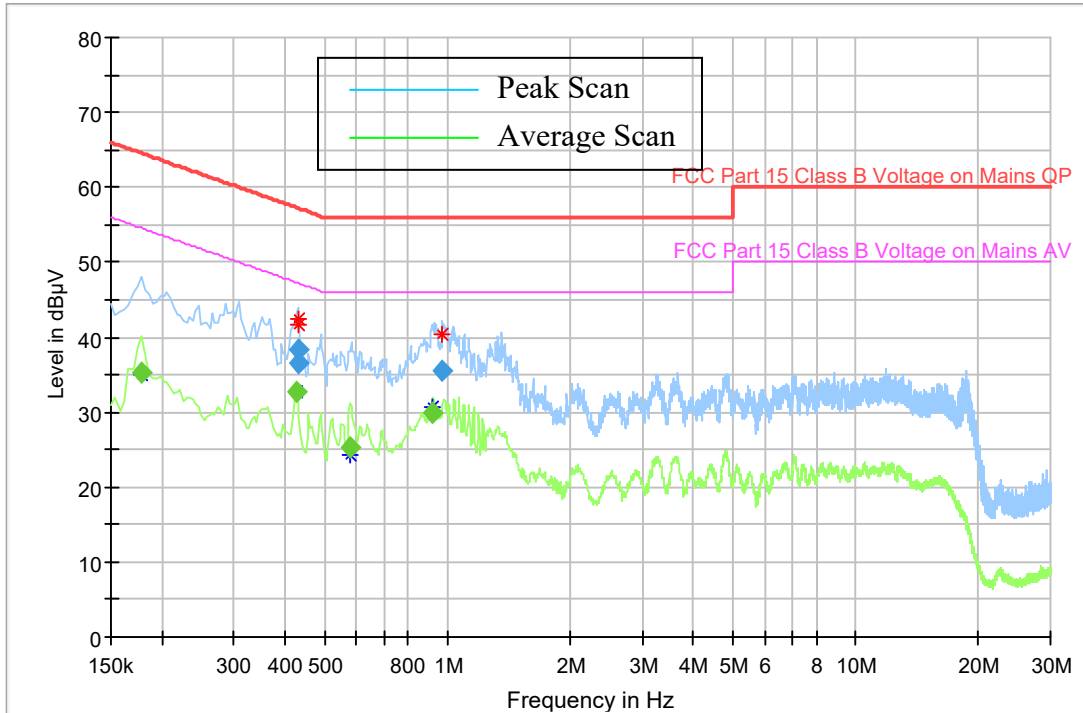
Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)	Comment
16.482000	35.56	---	60.00	24.44	1000.0	9.000	N	ON	10.4	PASS

* Expanded Uncertainty (U) = +/- 3.48dB

240 VAC , 50Hz

2) Charger + Radio in WIFI 5GHz test mode (5220MHz, 802.11a 20MHz)

Full Spectrum



Quasipeak and Average Measurement

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)	Comment
0.178000	---	35.15	54.58	19.43	1000.0	9.000	N	ON	10.3	PASS
0.426000	---	32.74	47.33	14.59	1000.0	9.000	N	ON	10.4	PASS
0.430000	38.40	---	57.25	18.85	1000.0	9.000	L1	ON	10.4	PASS
0.434000	36.46	---	57.18	20.72	1000.0	9.000	L1	ON	10.4	PASS
0.578000	---	25.39	46.00	20.61	1000.0	9.000	L1	ON	10.4	PASS
0.922000	---	30.03	46.00	15.97	1000.0	9.000	L1	ON	10.3	PASS
0.974000	35.44	---	56.00	20.56	1000.0	9.000	L1	ON	10.3	PASS

* Expanded Uncertainty (U) = +/- 3.48dB

END OF TEST REPORT