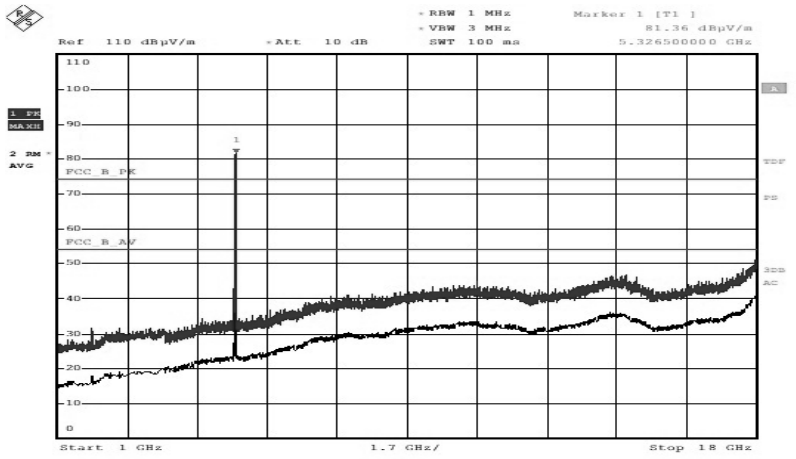
*802.11ac VHT20 Mode(was2)

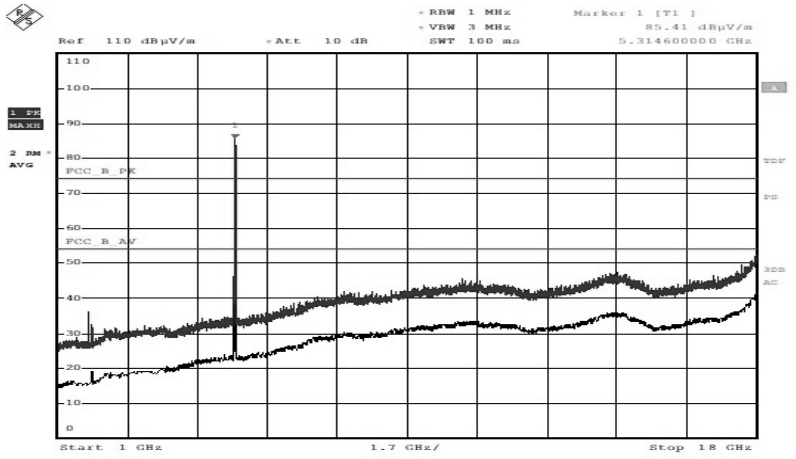
Band Edges(CH Low)

Polarity:Horizontal



ESTR-21-00231

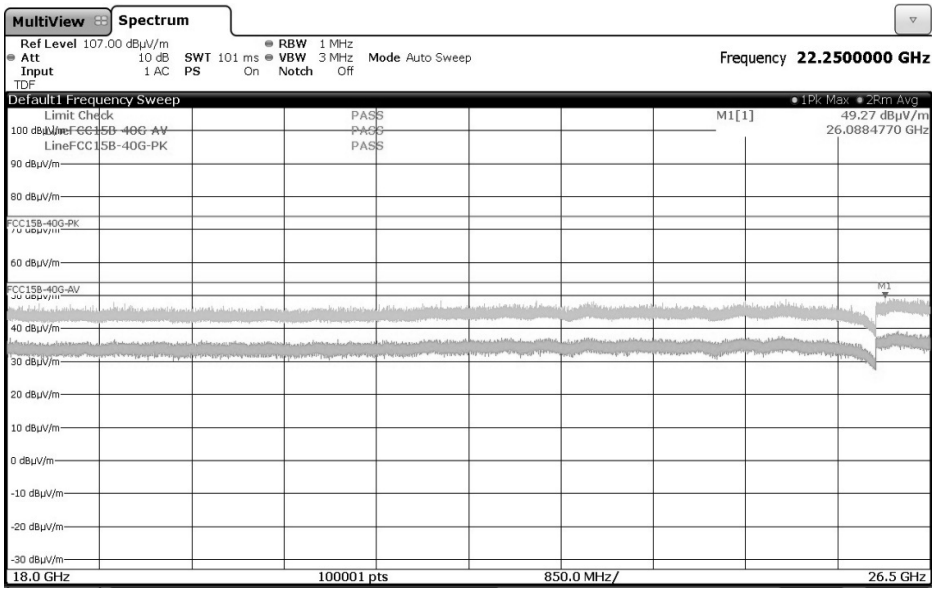
Polarity:Vertical



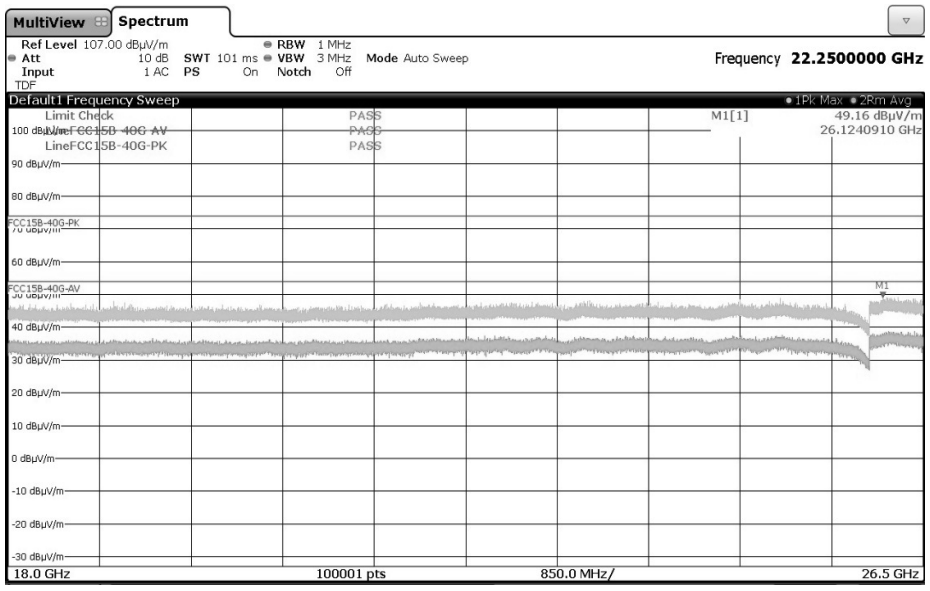
ESTR-21-00231

Band Edges(CH Low)

Polarity:Horizontal



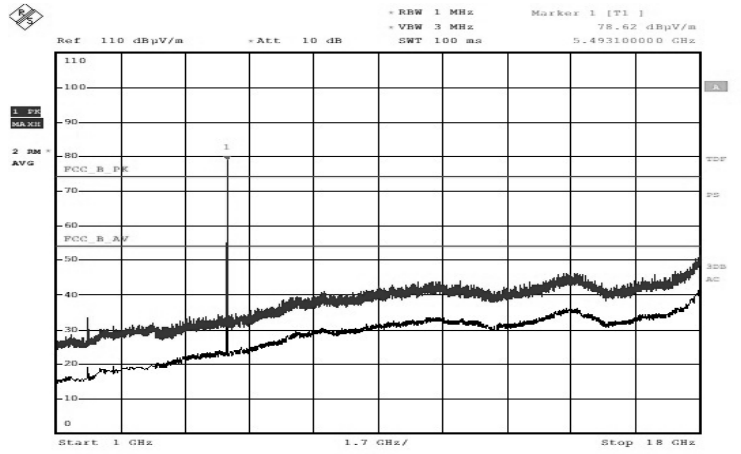
Polarity:Vertical



*802.11ac VHT20 Mode(was3)

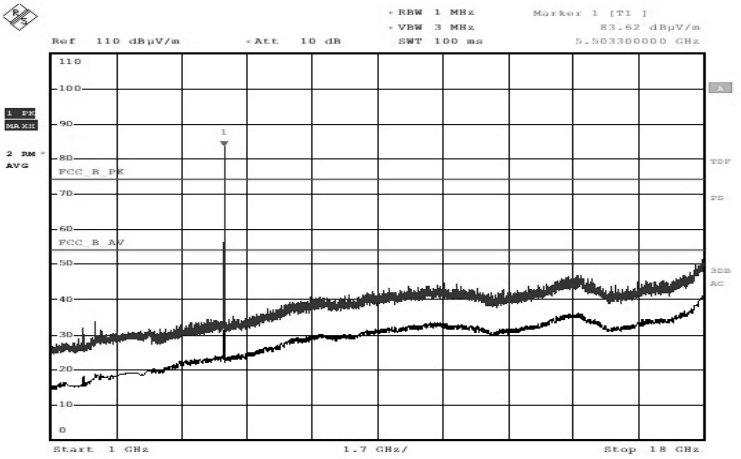
Band Edges(CH High)

Polarity:Horizontal



ESTR-21-00231

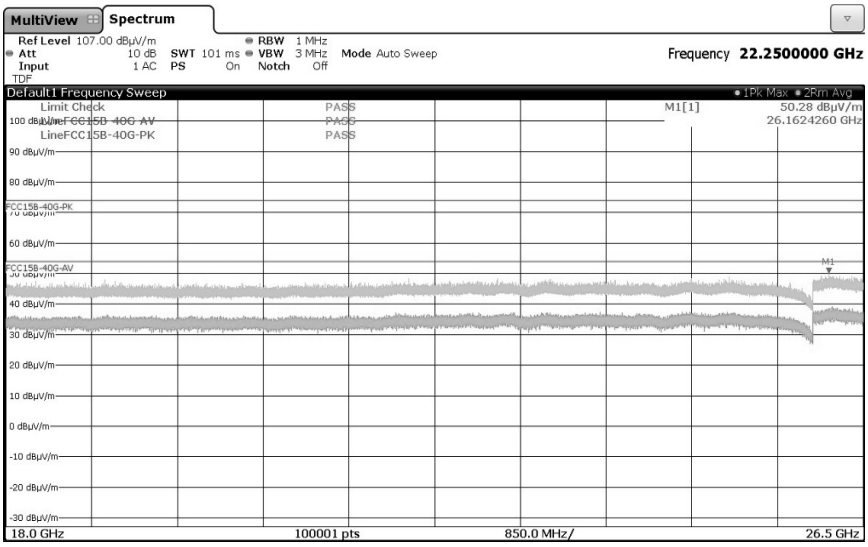
Polarity:Vertical



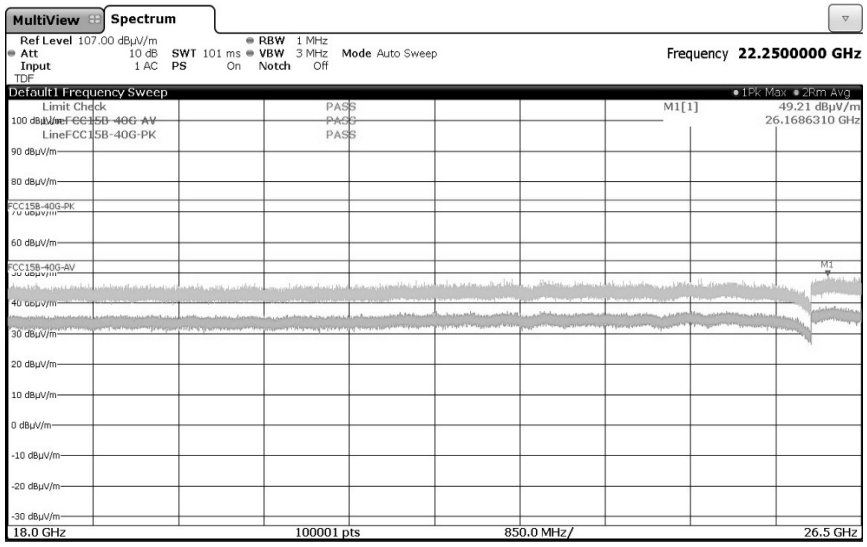
ESTR-21-00231

Band Edges(CH High)

Polarity:Horizontal

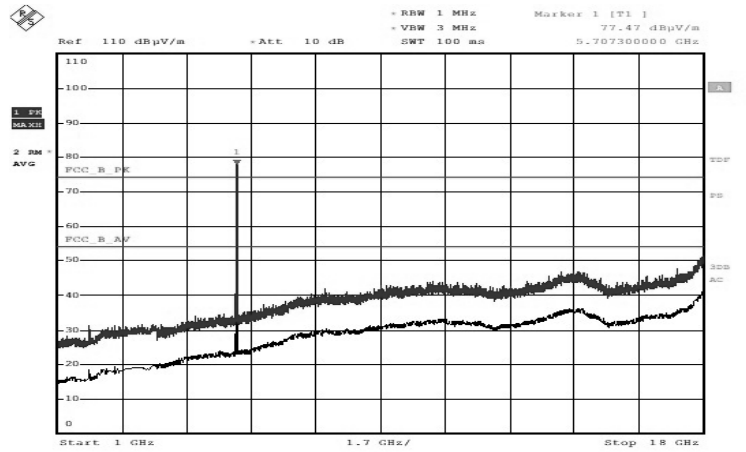


Polarity:Vertical



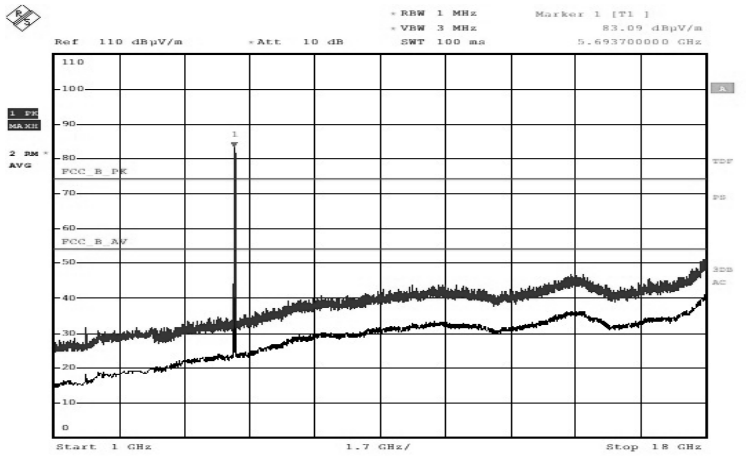
Band Edges(CH High)

Polarity:Horizontal



ESTR-21-00231

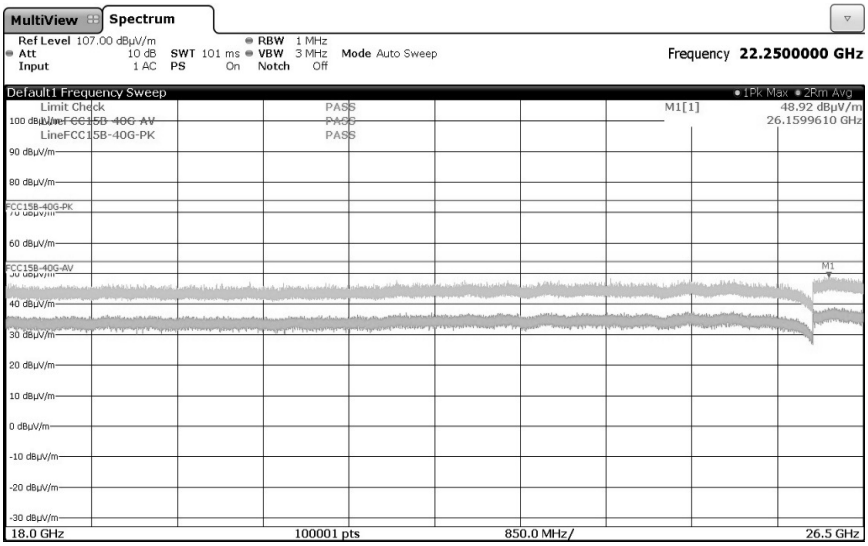
Polarity:Vertical



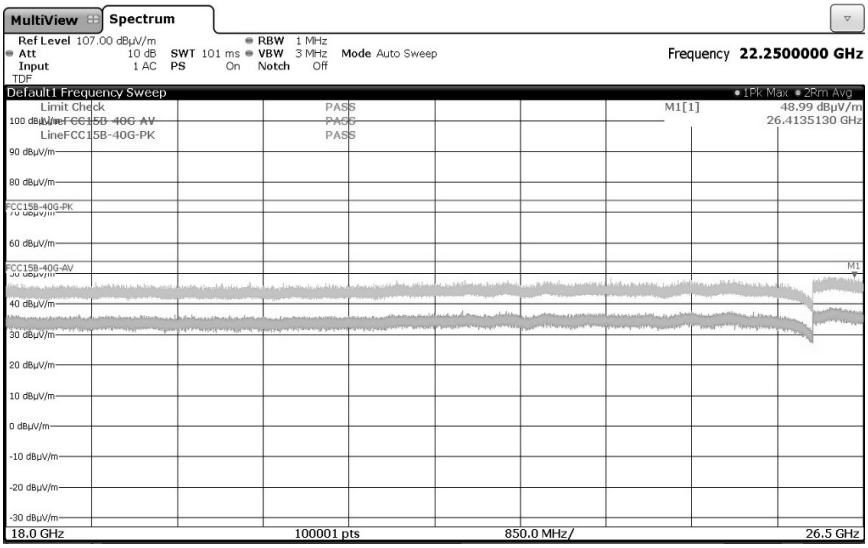
ESTR-21-00231

Band Edges(CH High)

Polarity:Horizontal



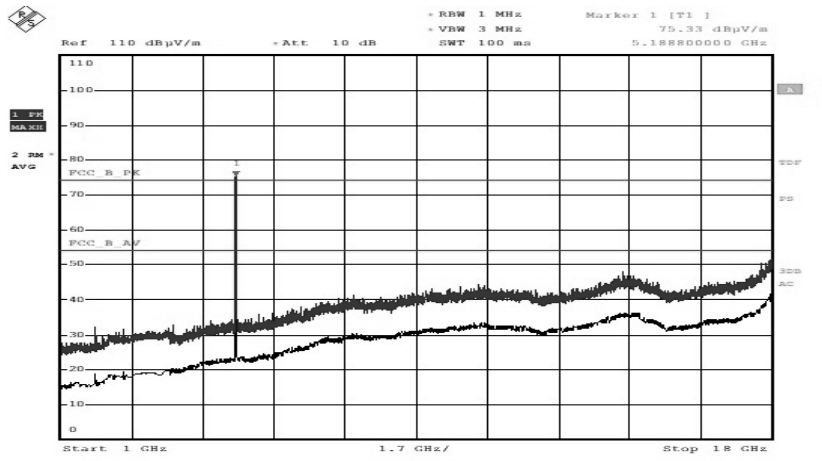
Polarity:Vertical



*802.11ac VHT40 Mode(was1)

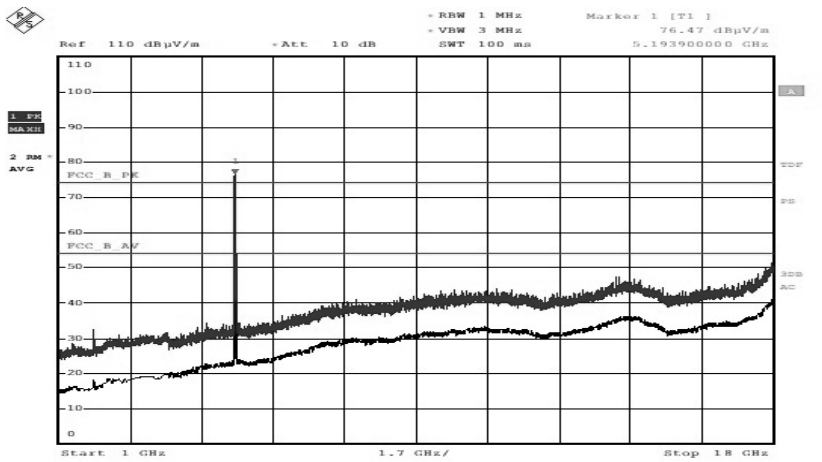
Band Edges(CH Low)

Polarity:Horizontal



ESTR-21-00231

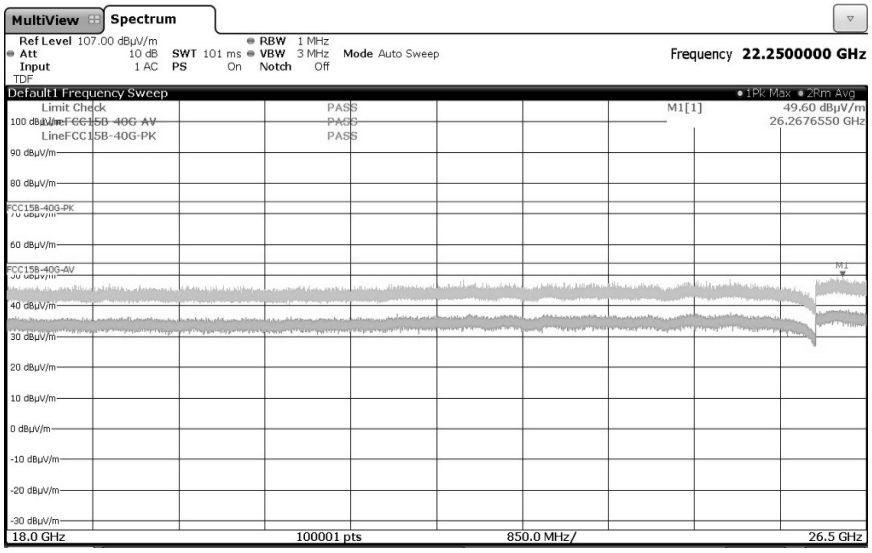
Polarity:Vertical



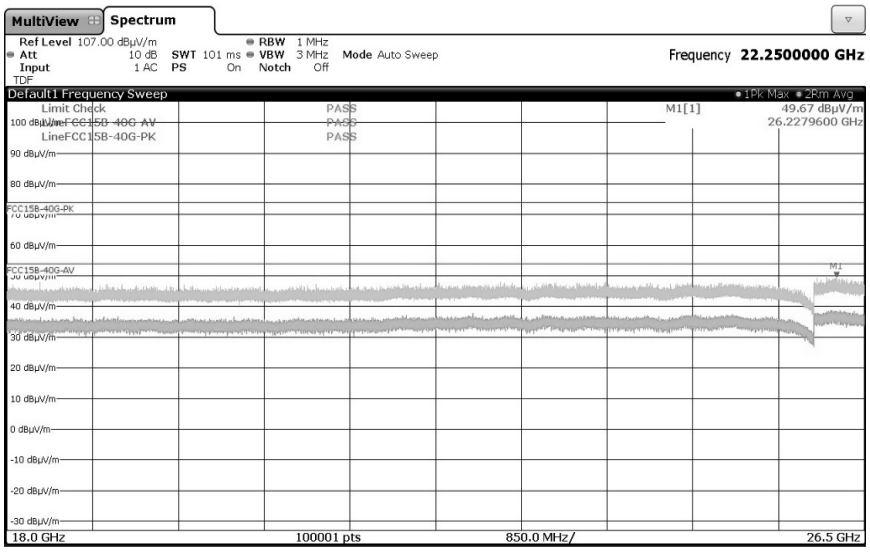
ESTR-21-00231

Band Edges(CH Low)

Polarity:Horizontal

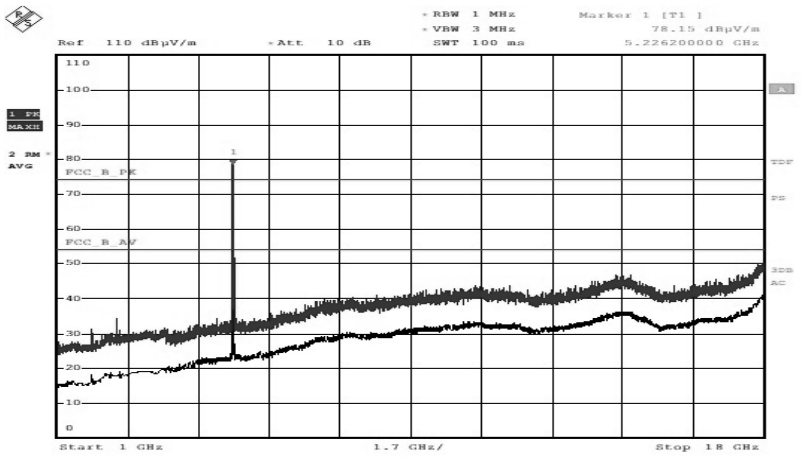


Polarity:Vertical



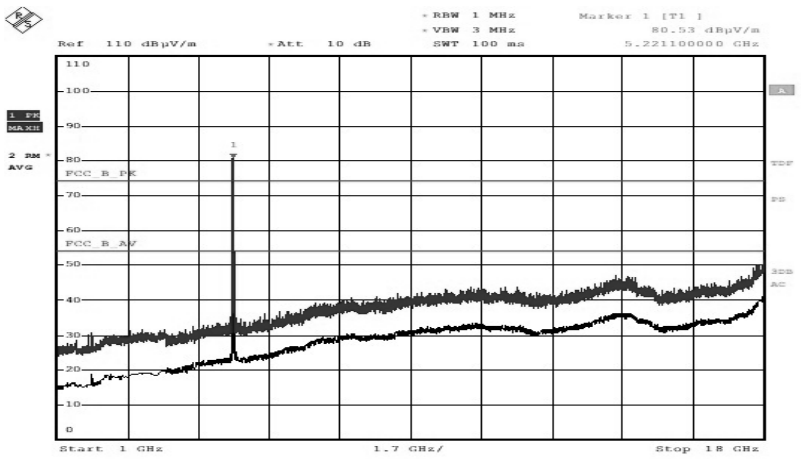
Band Edges(CH High)

Polarity:Horizontal



ESTR-21-00231

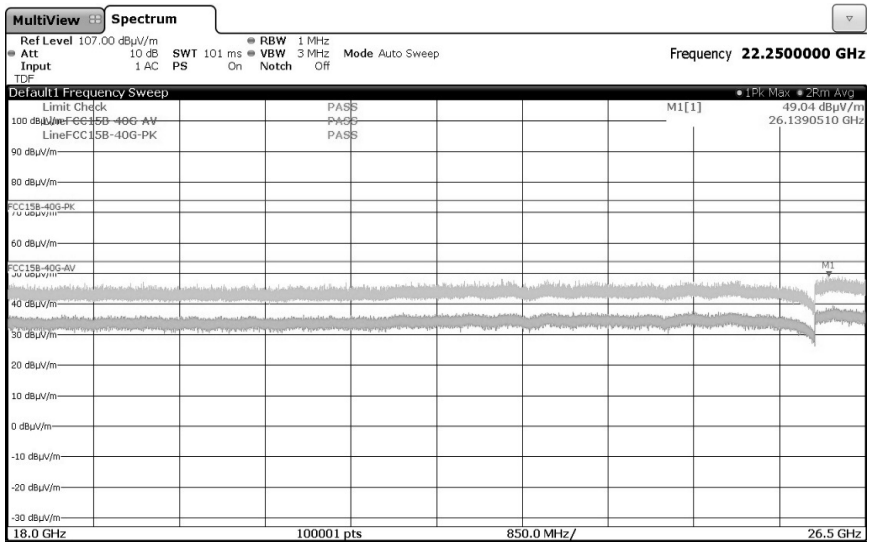
Polarity:Vertical



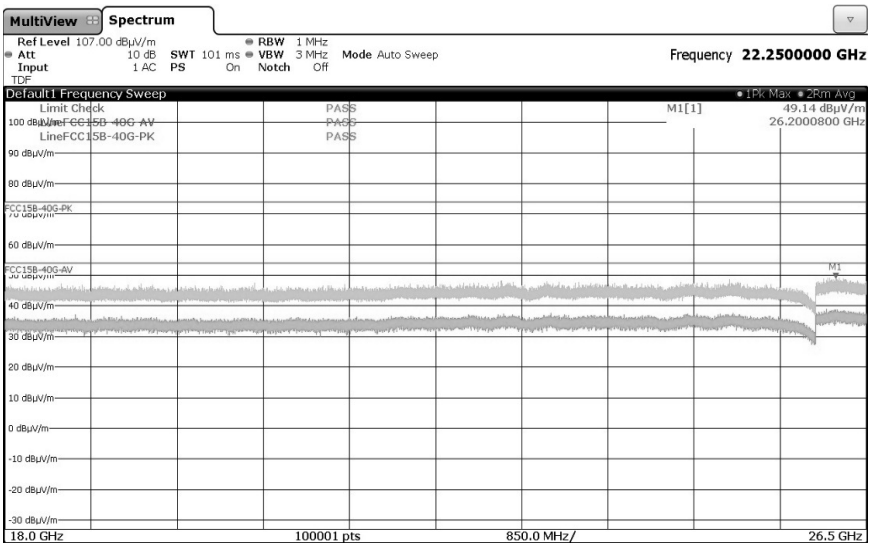
ESTR-21-00231

Band Edges(CH High)

Polarity:Horizontal



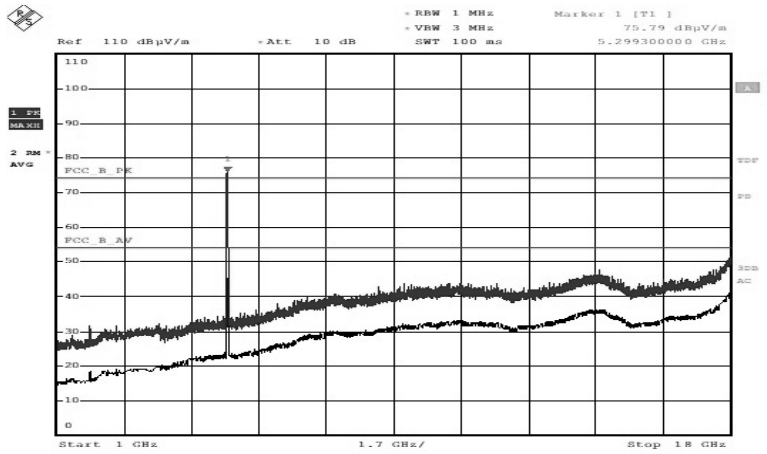
Polarity:Vertical



*802.11ac VHT40 Mode(was2)

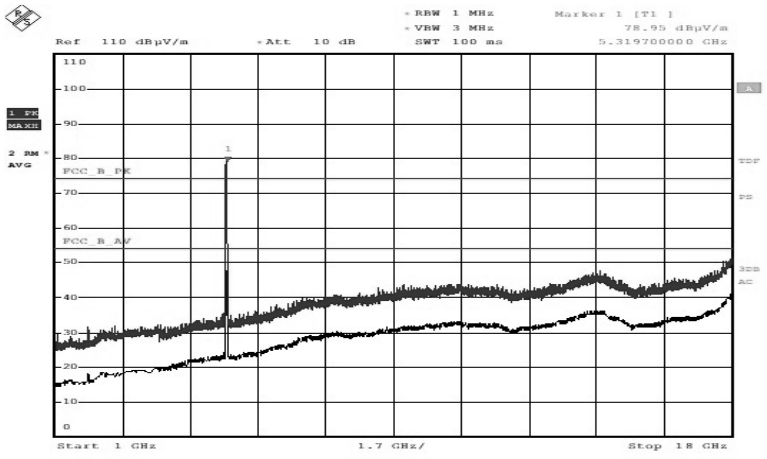
Band Edges(CH High)

Polarity:Horizontal



ESTR-21-00231

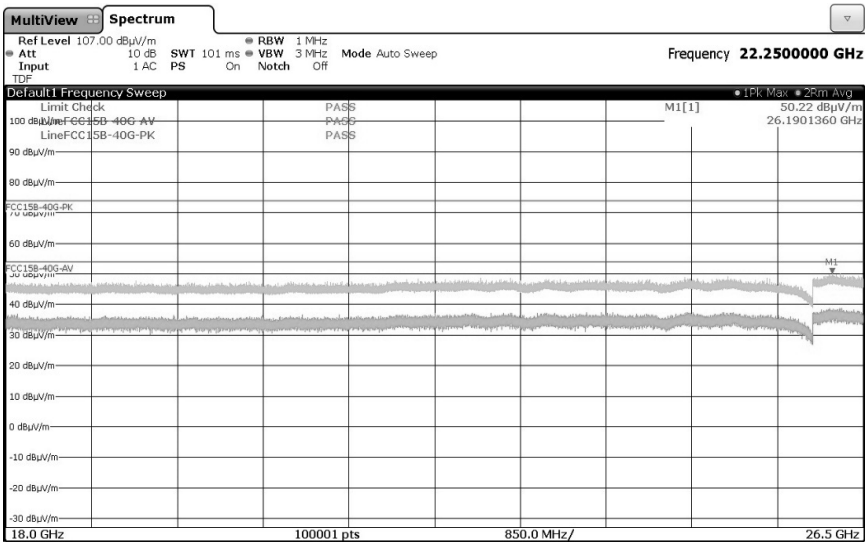
Polarity:Vertical



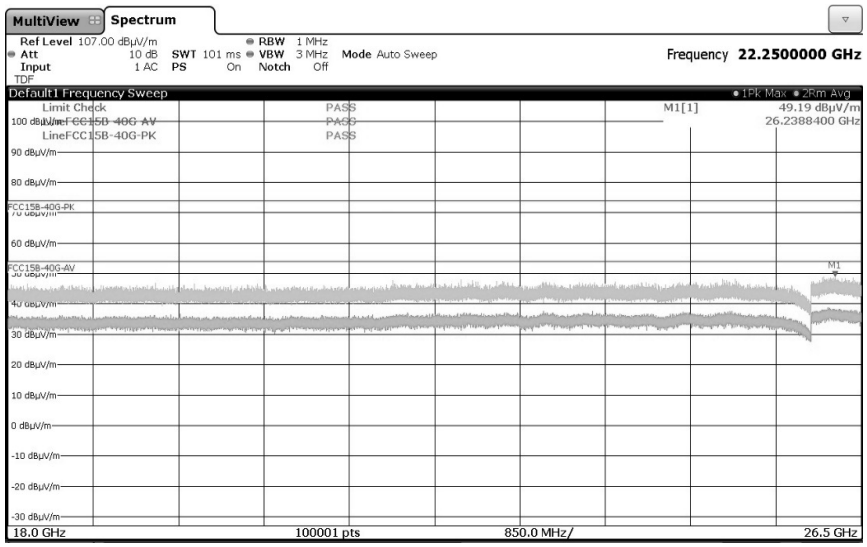
ESTR-21-00231

Band Edges(CH High)

Polarity:Horizontal



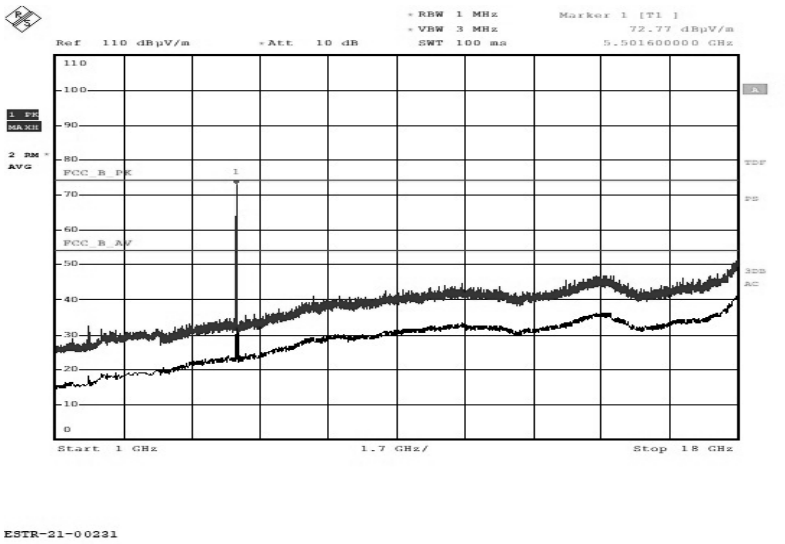
Polarity:Vertical



*802.11ac VHT40 Mode(was3)

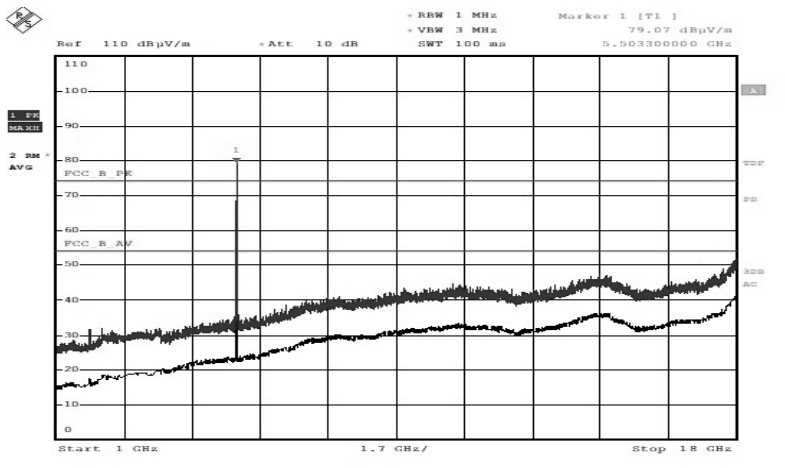
Band Edges(CH Low)

Polarity:Horizontal



ESTR-21-00231

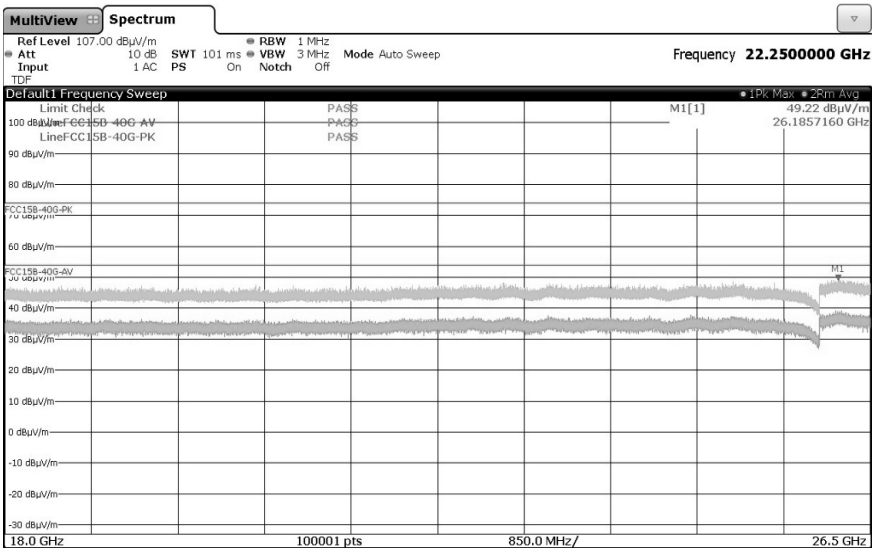
Polarity:Vertical



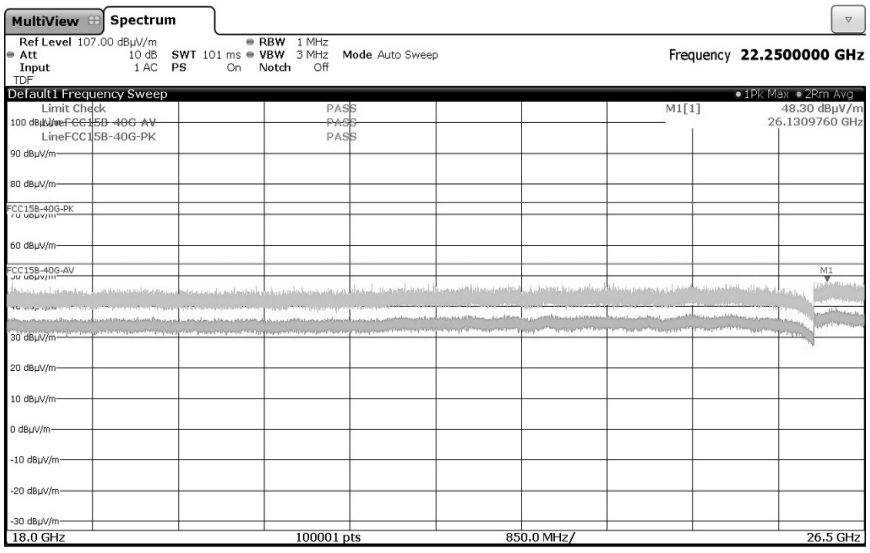
ESTR-21-00231

Band Edges(CH Low)

Polarity:Horizontal

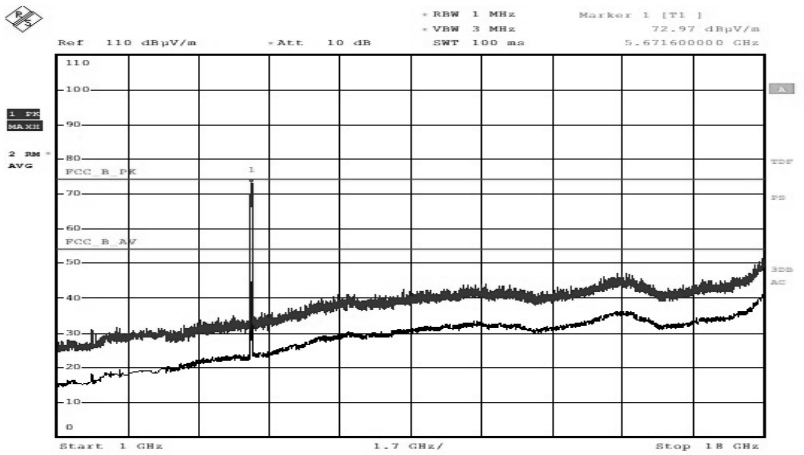


Polarity:Vertical



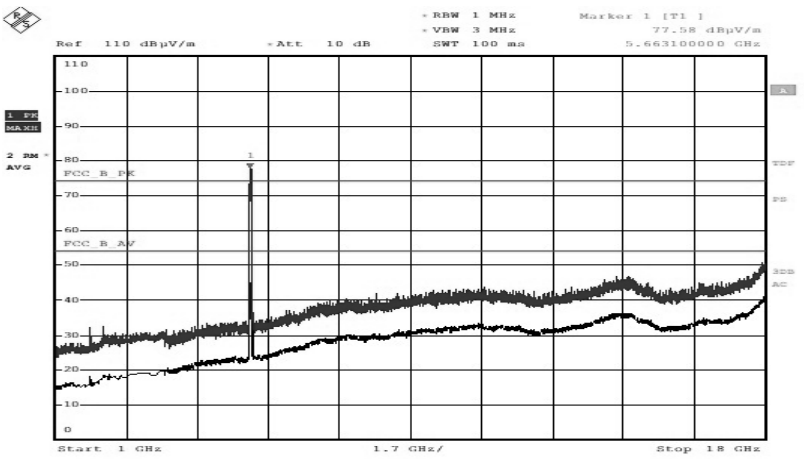
Band Edges(CH High)

Polarity:Horizontal



ESTR-21-00231

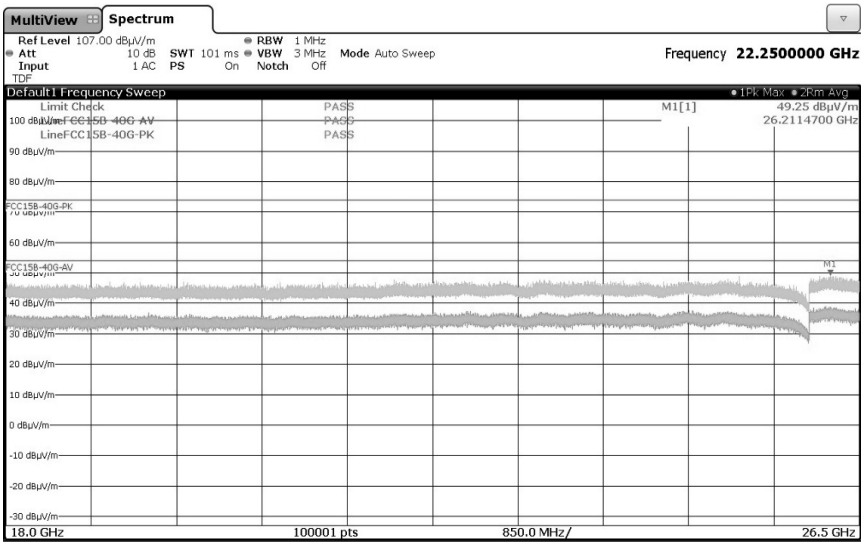
Polarity:Vertical



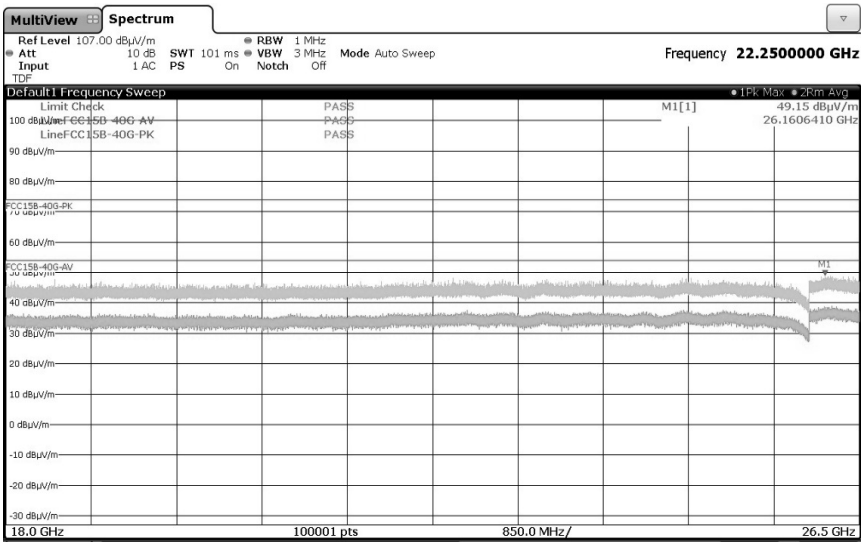
ESTR-21-00231

Band Edges(CH High)

Polarity:Horizontal



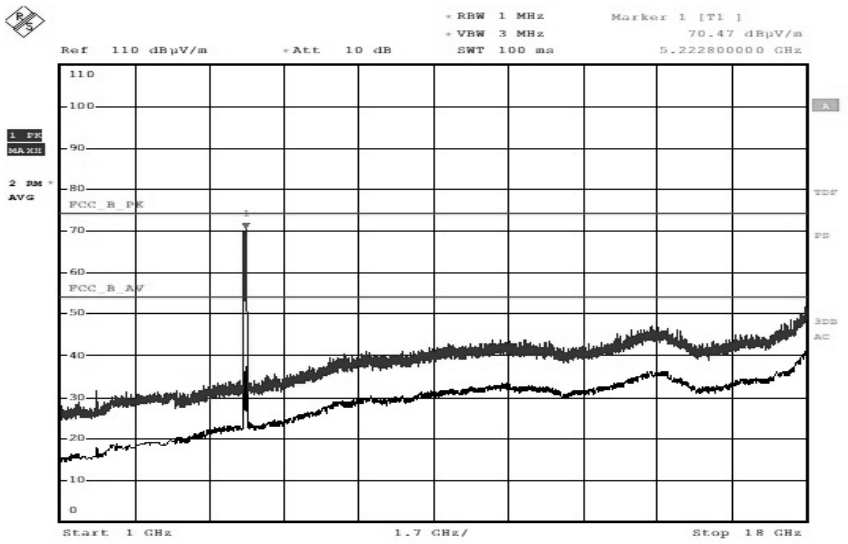
Polarity:Vertical



*802.11ac VHT80 Mode(was1)

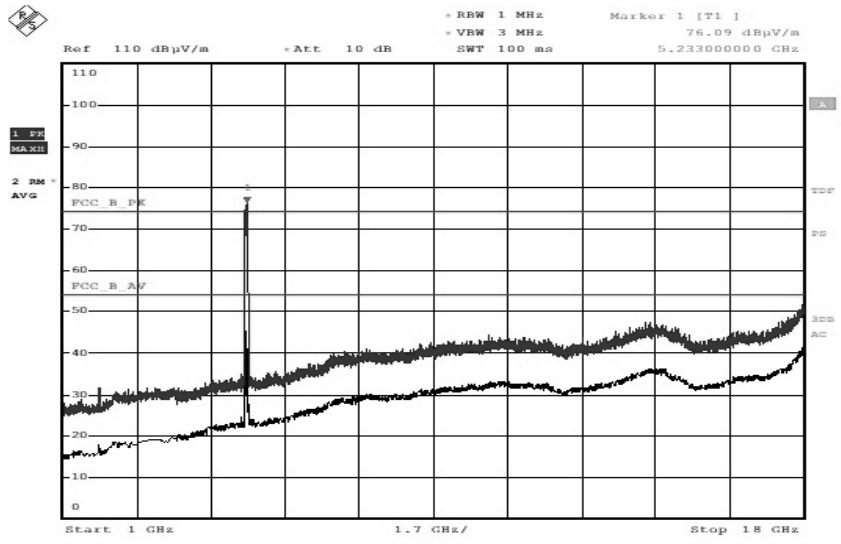
Band Edges(CH Low)

Polarity:Horizontal



ESTR-21-00231

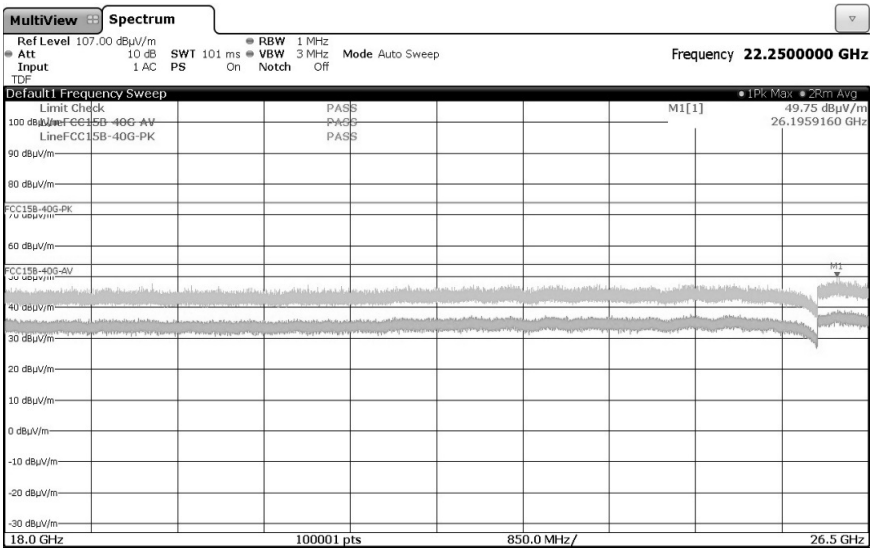
Polarity:Vertical



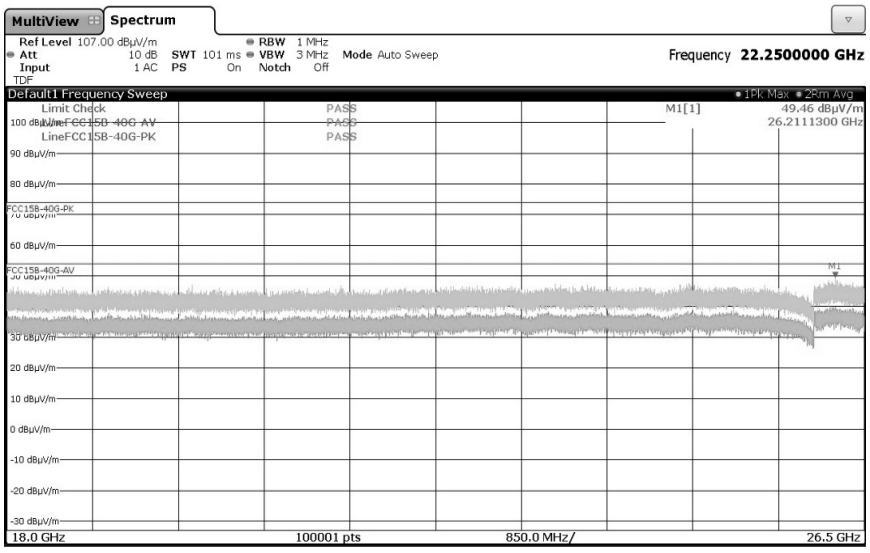
ESTR-21-00231

Band Edges(CH Low)

Polarity:Horizontal



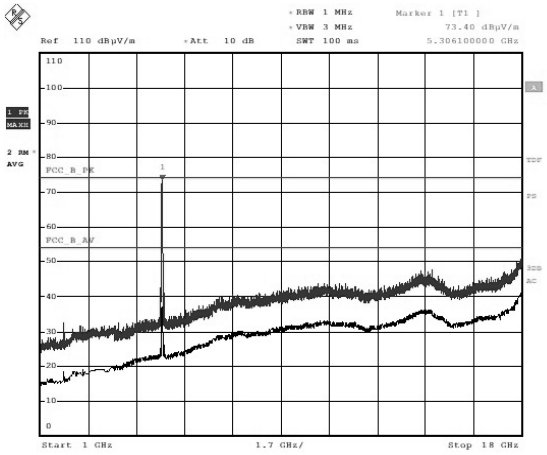
Polarity:Vertical



*802.11ac VHT80 Mode(was2)

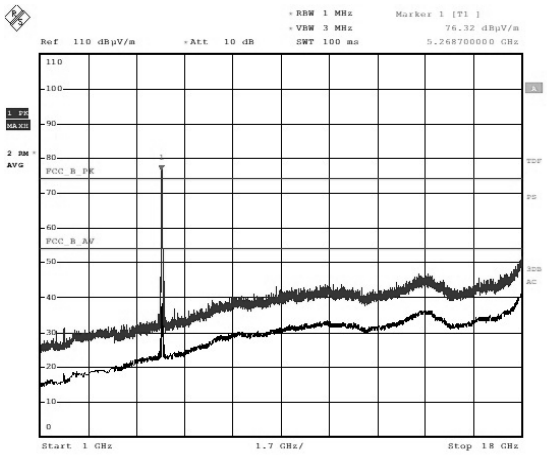
Band Edges(CH High)

Polarity:Horizontal



ESTR-21-00231

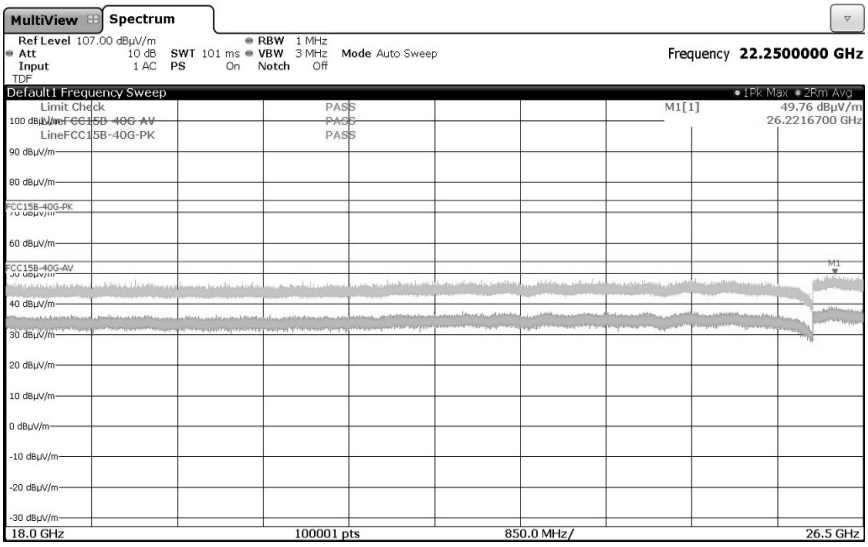
Polarity:Vertical



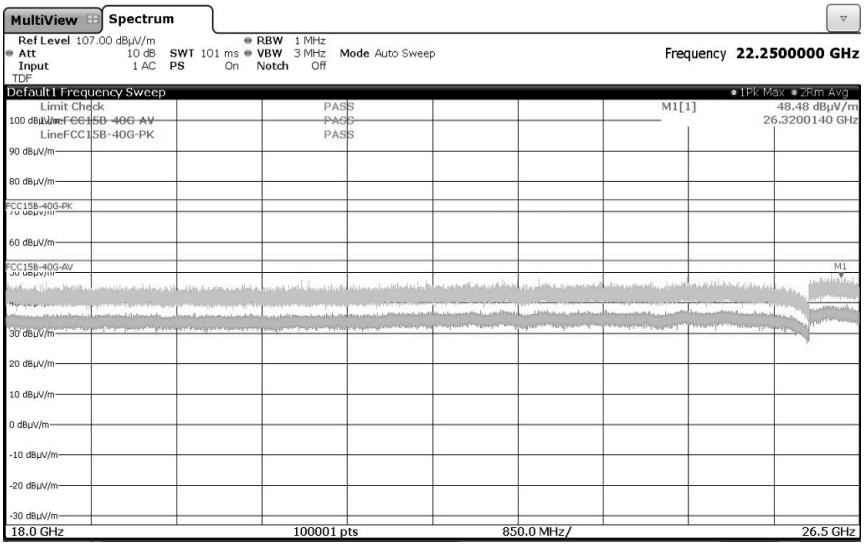
ESTR-21-00231

Band Edges(CH High)

Polarity:Horizontal



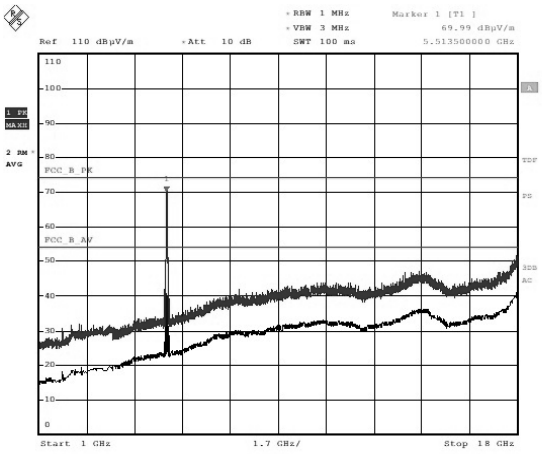
Polarity:Vertical



*802.11ac VHT80 Mode(was3)

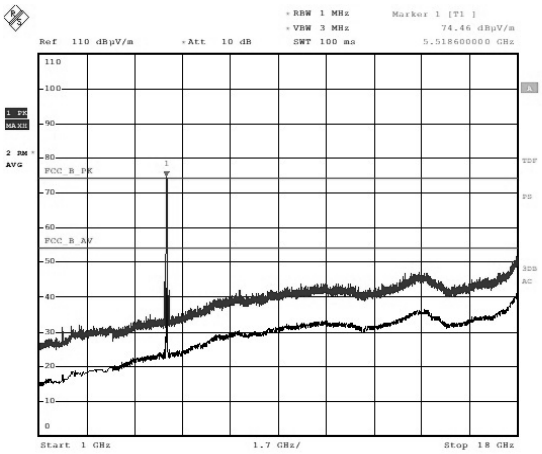
Band Edges(CH High)

Polarity:Horizontal



ESTR-21-00231

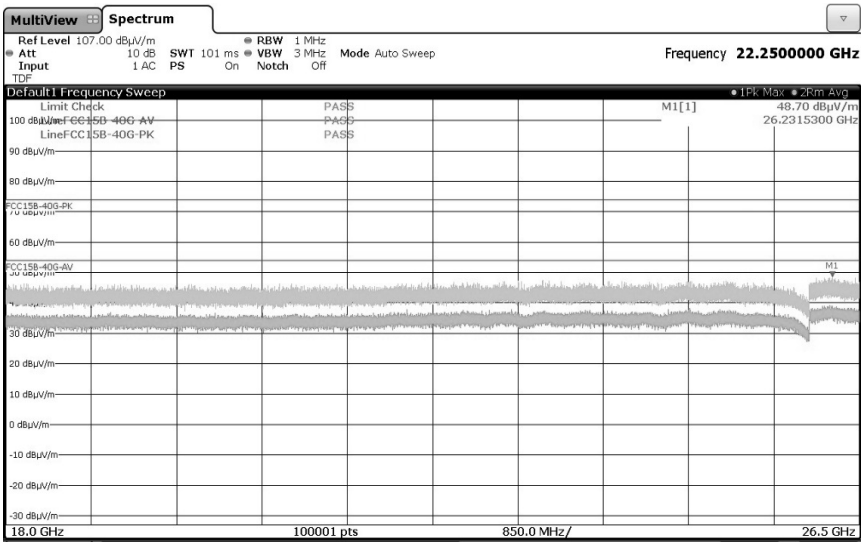
Polarity:Vertical



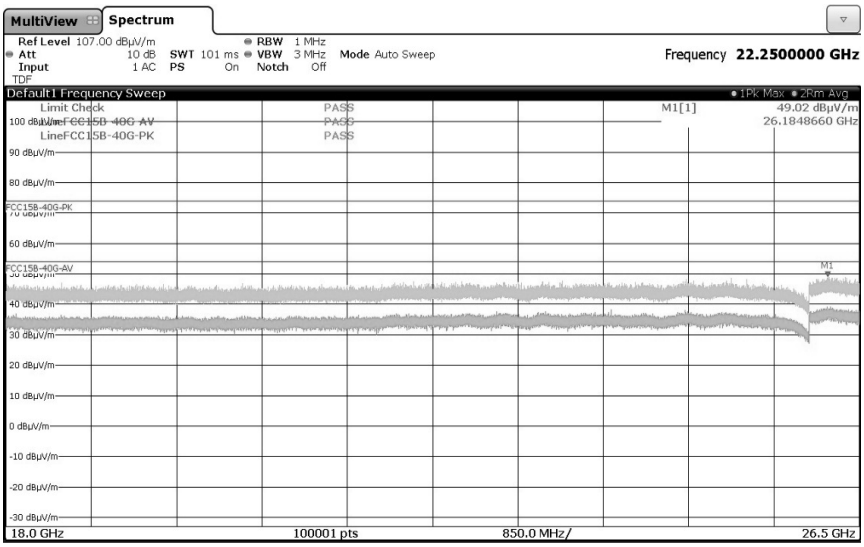
ESTR-21-00231

Band Edges(CH High)

Polarity:Horizontal

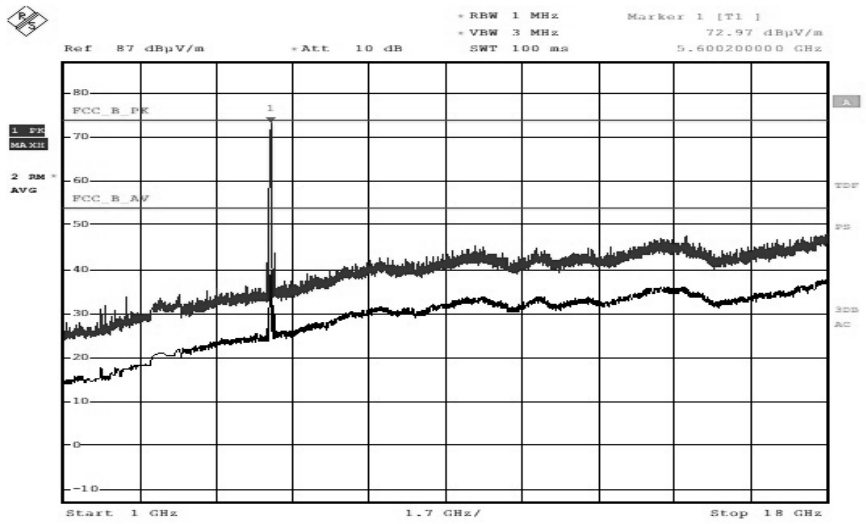


Polarity:Vertical



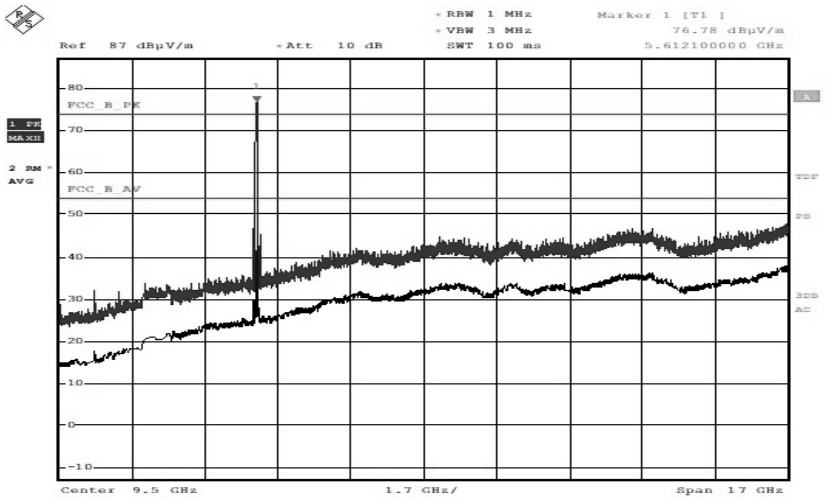
Band Edges(CH High)

Polarity:Horizontal



ESTR-21-00231

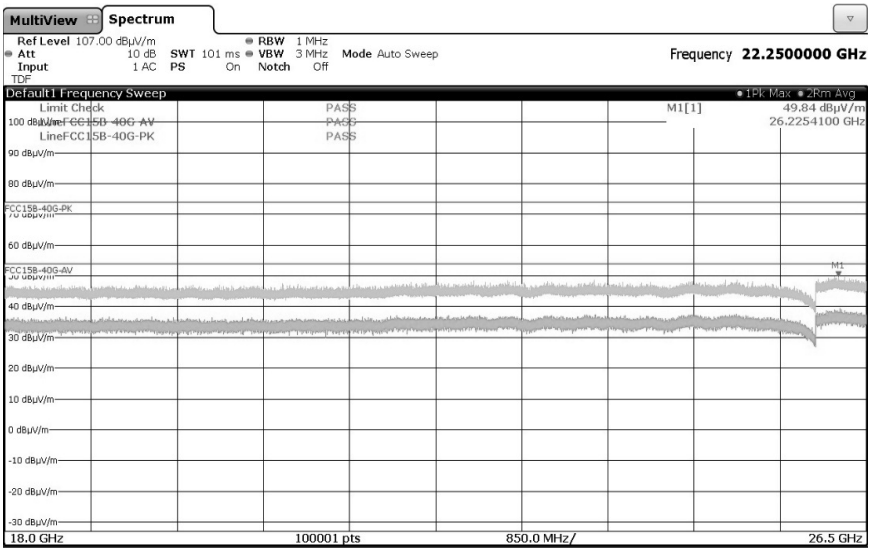
Polarity:Vertical



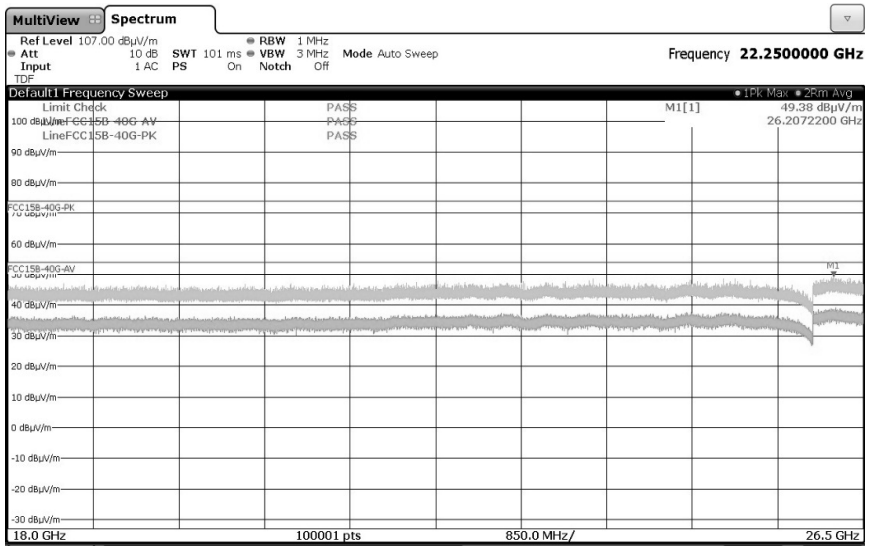
ESTR-21-00231

Band Edges(CH High)

Polarity:Horizontal

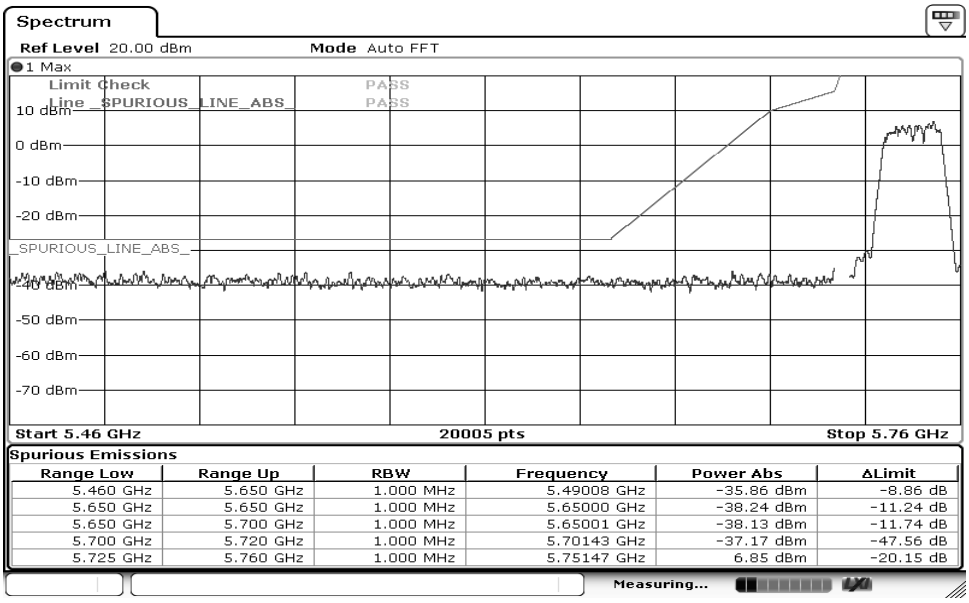


Polarity:Vertical

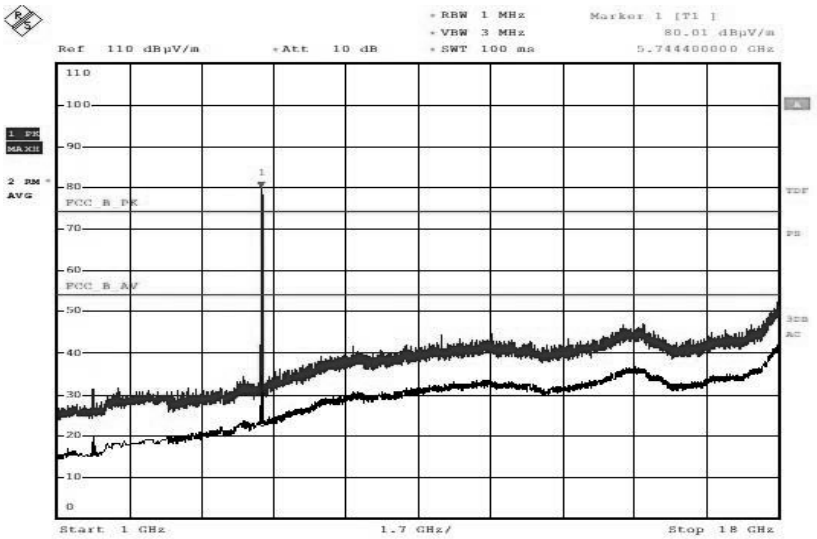


*802.11a Mode(was4)

Band Edges(CH 149)

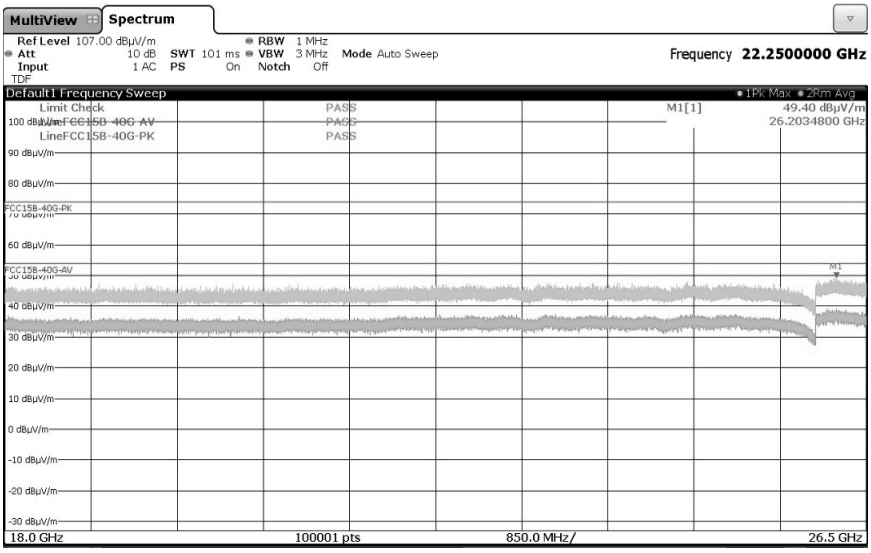


00231

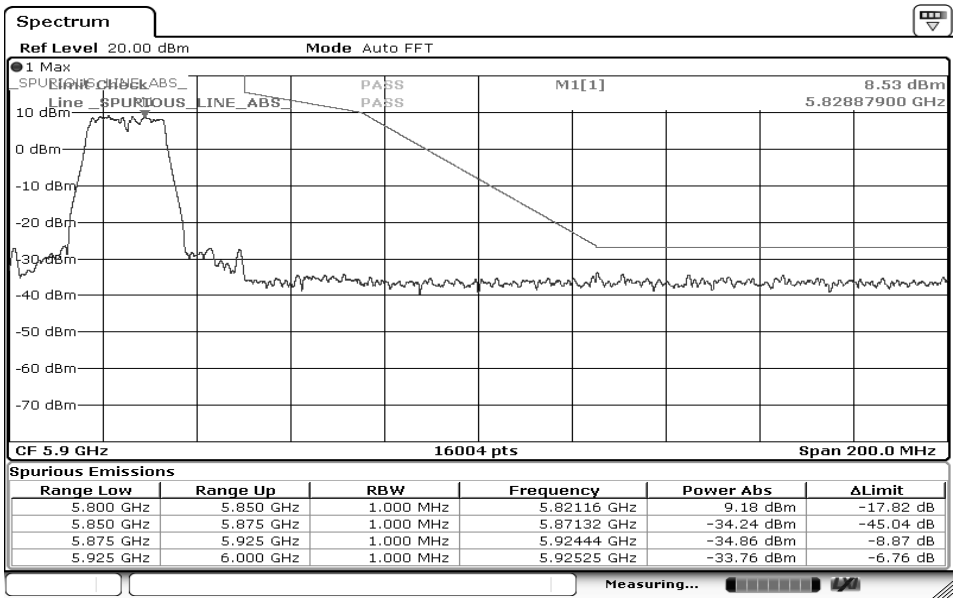


ESTR-21-00231

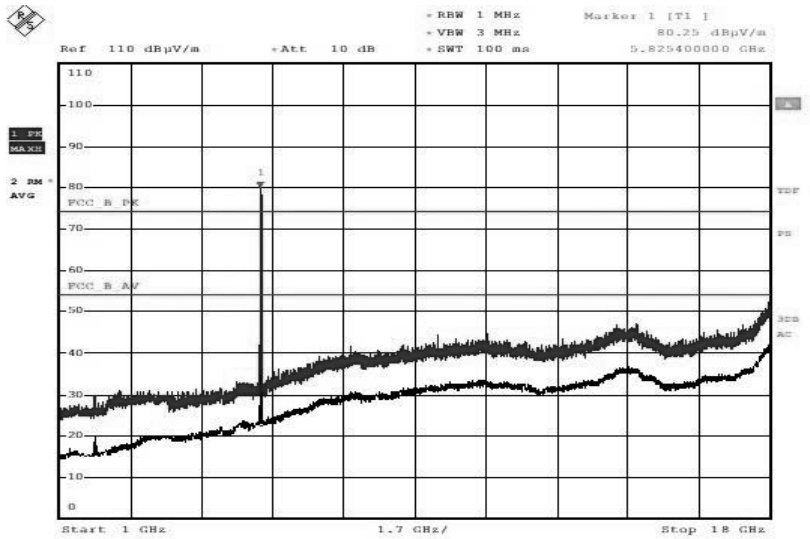
Band Edges(CH 149)



Band Edges(CH 165)



00231



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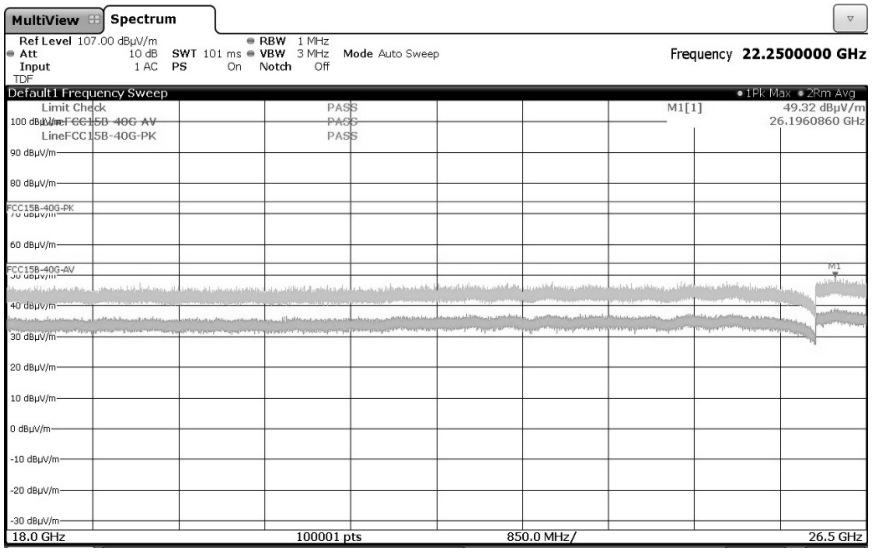
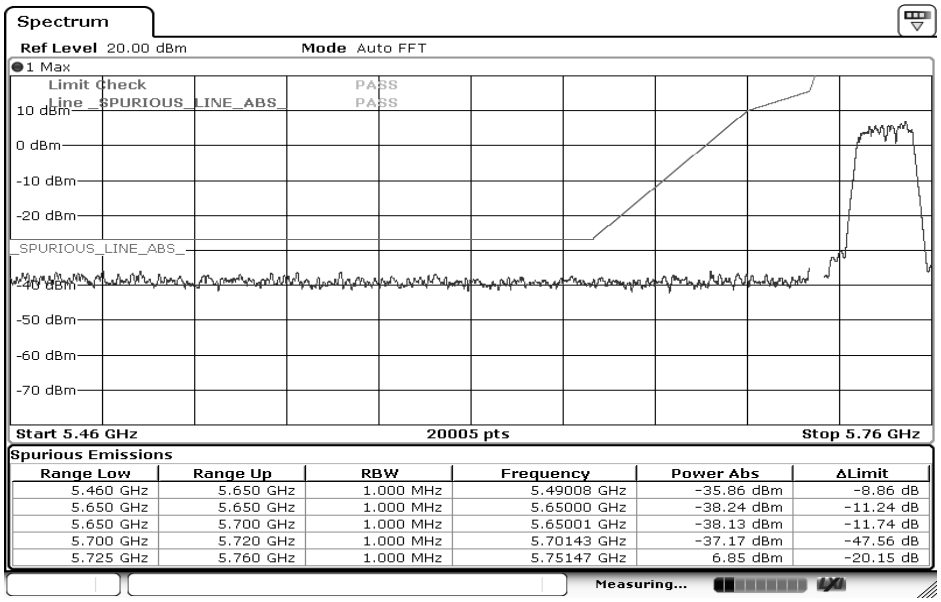
Band Edges(CH 165)

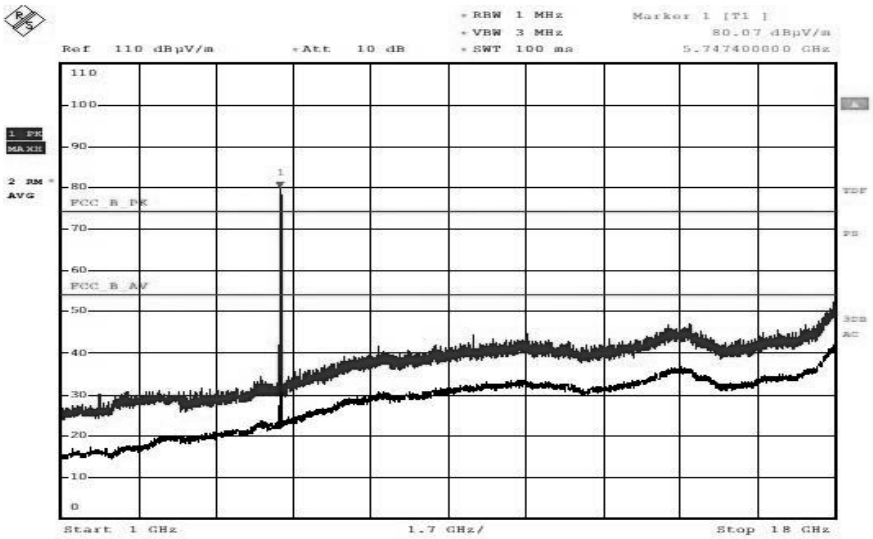


*802.11n HT20 Mode(was4)

Band Edges(CH 149)



00231



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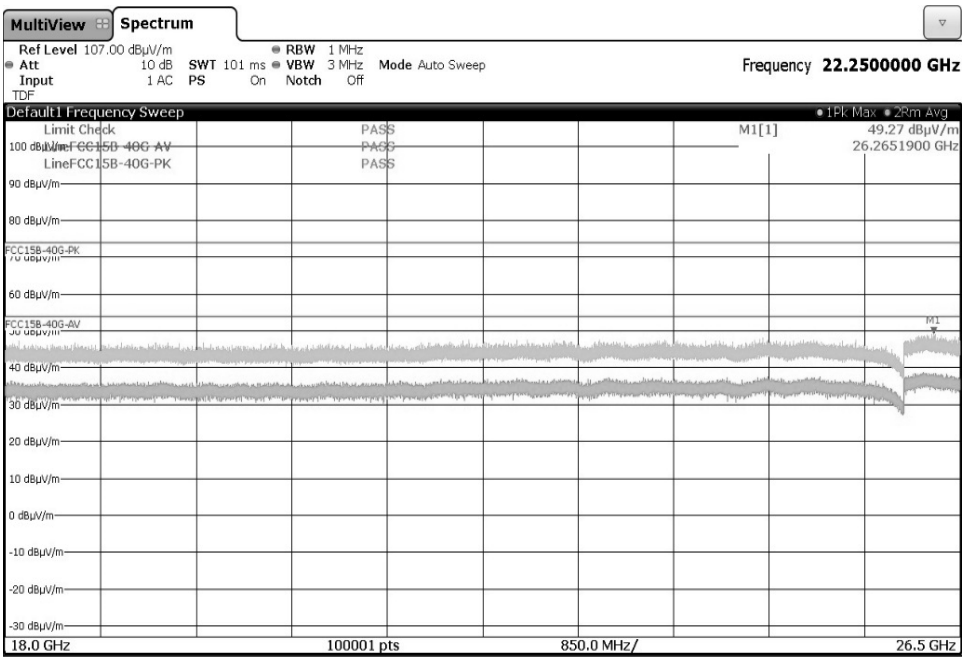
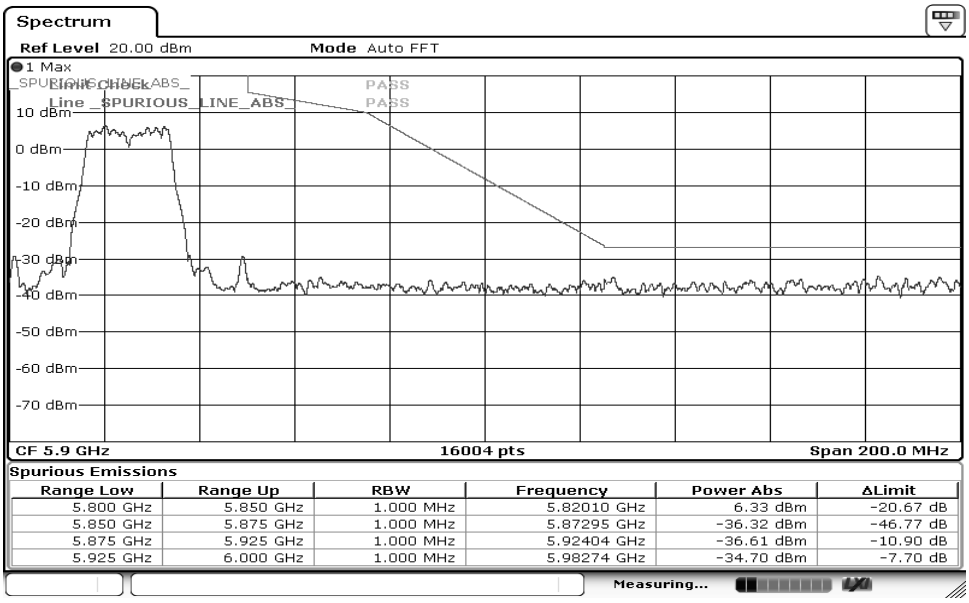
Band Edges(CH 149)



Band Edges(CH 165)



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
5.800 GHz	5.850 GHz	1.000 MHz	5.82010 GHz	6.33 dBm	-20.67 dB
5.850 GHz	5.875 GHz	1.000 MHz	5.87295 GHz	-36.32 dBm	-46.77 dB
5.875 GHz	5.925 GHz	1.000 MHz	5.92404 GHz	-36.61 dBm	-10.90 dB
5.925 GHz	6.000 GHz	1.000 MHz	5.98274 GHz	-34.70 dBm	-7.70 dB

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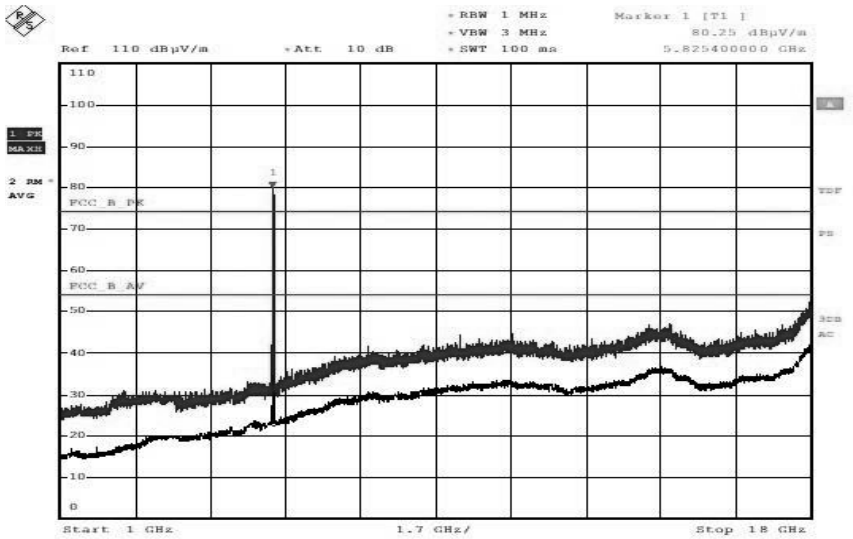

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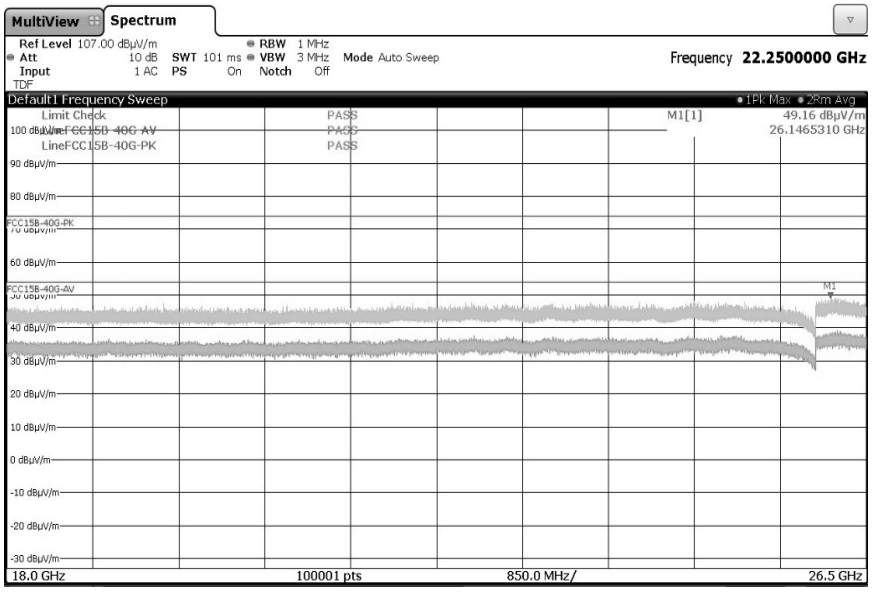
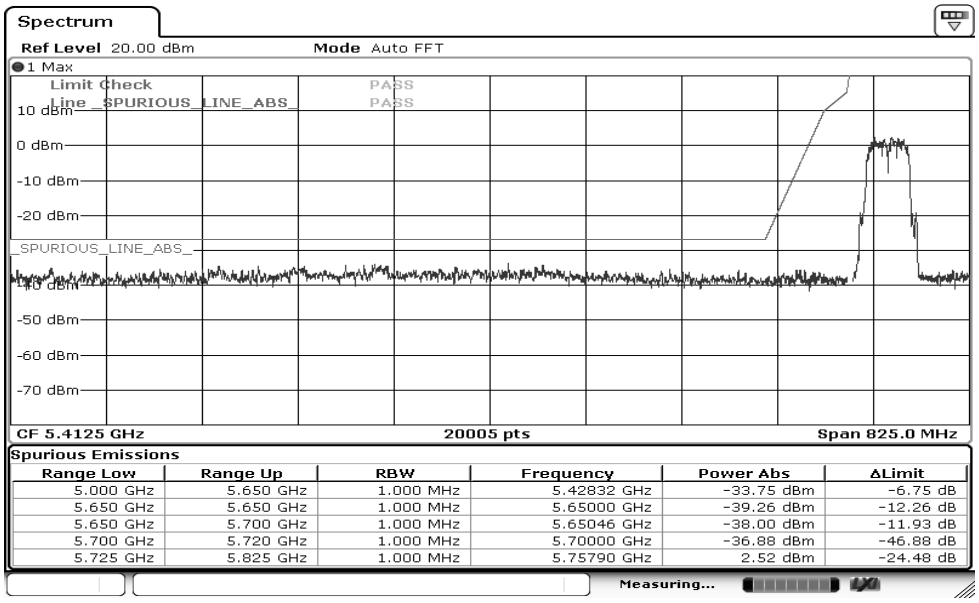
Band Edges(CH 165)



*802.11n HT40 Mode(was4)

Band Edges(CH 151)



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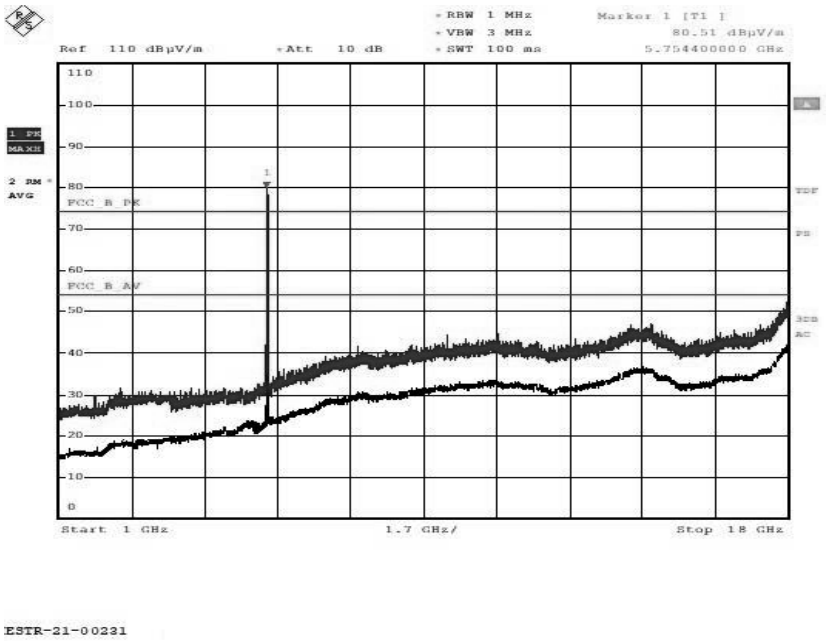

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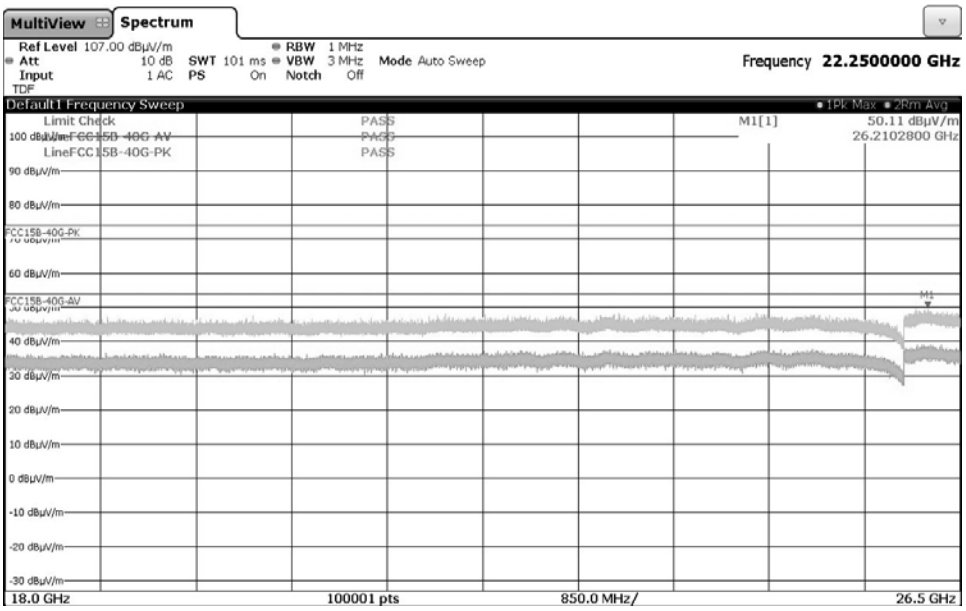
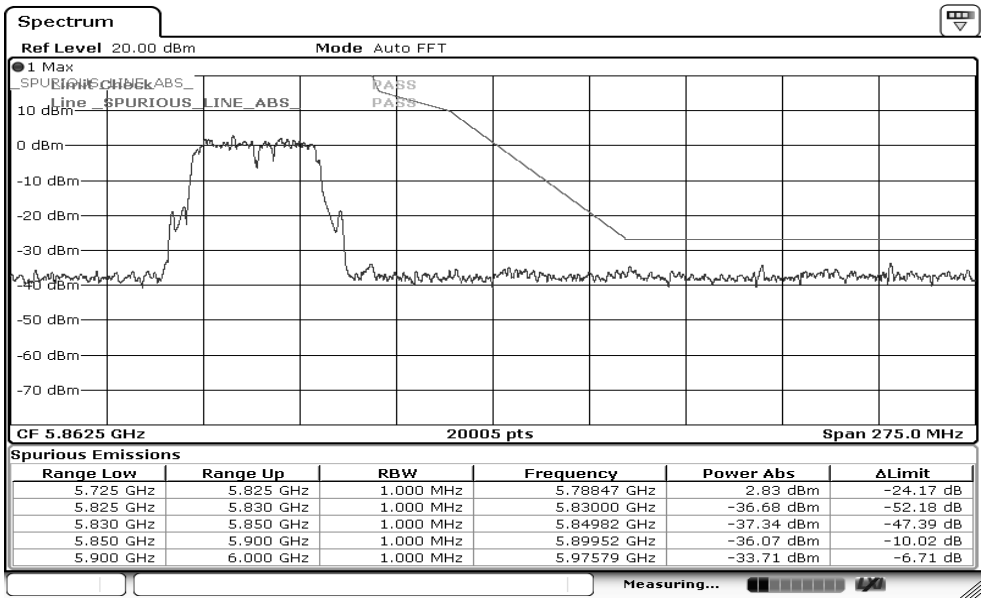
Band Edges(CH 151)



Band Edges(CH 159)



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
5.725 GHz	5.825 GHz	1.000 MHz	5.78847 GHz	2.83 dBm	-24.17 dB
5.825 GHz	5.830 GHz	1.000 MHz	5.83000 GHz	-36.68 dBm	-52.18 dB
5.830 GHz	5.850 GHz	1.000 MHz	5.84982 GHz	-37.34 dBm	-47.39 dB
5.850 GHz	5.900 GHz	1.000 MHz	5.89952 GHz	-36.07 dBm	-10.02 dB
5.900 GHz	6.000 GHz	1.000 MHz	5.97579 GHz	-33.71 dBm	-6.71 dB

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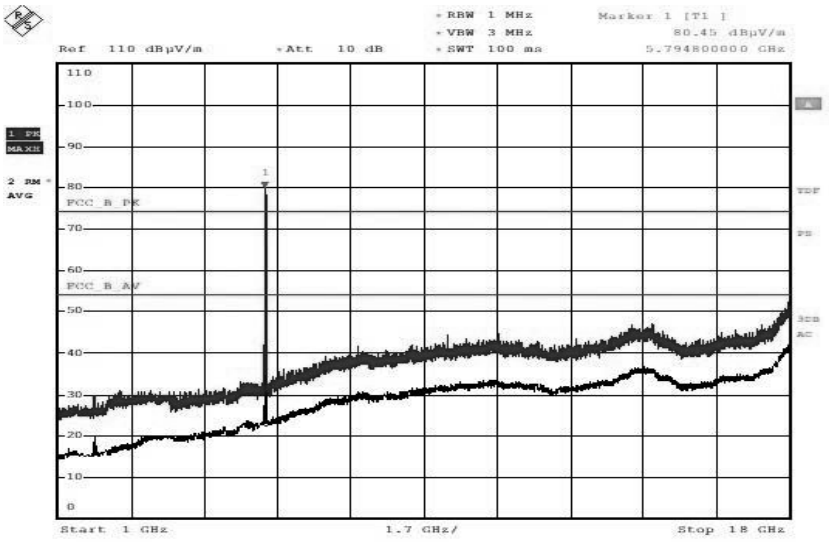

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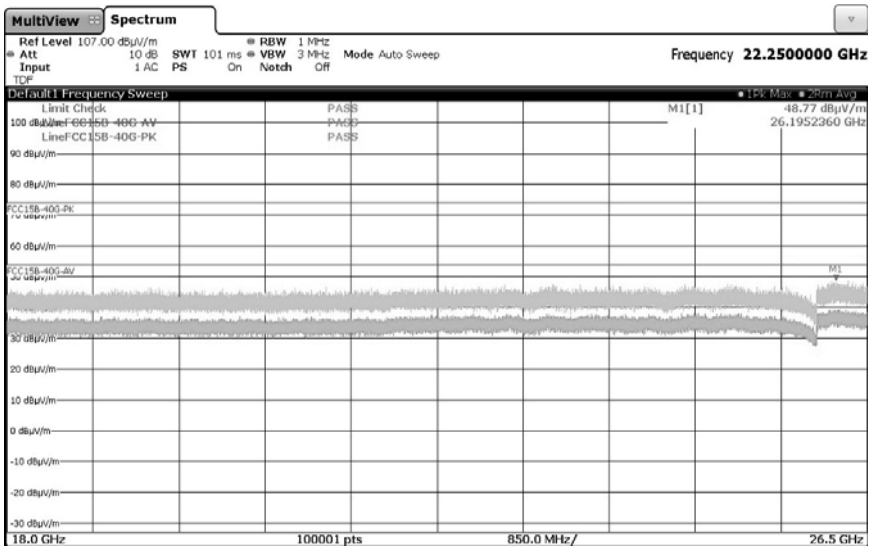
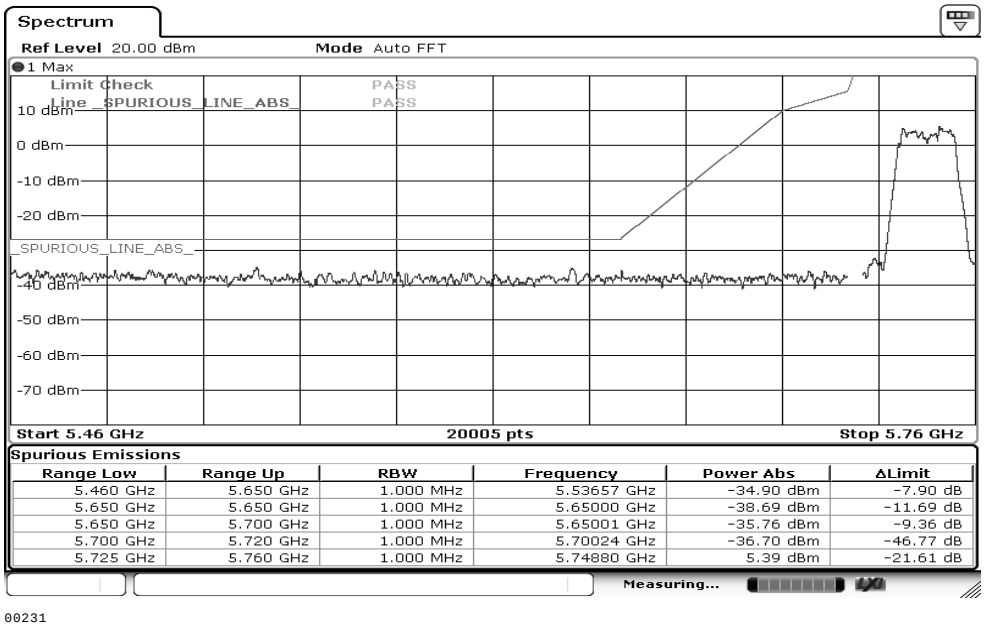
Band Edges(CH 159)



*802.11ac VHT20 Mode(was4)

Band Edges(CH 149)



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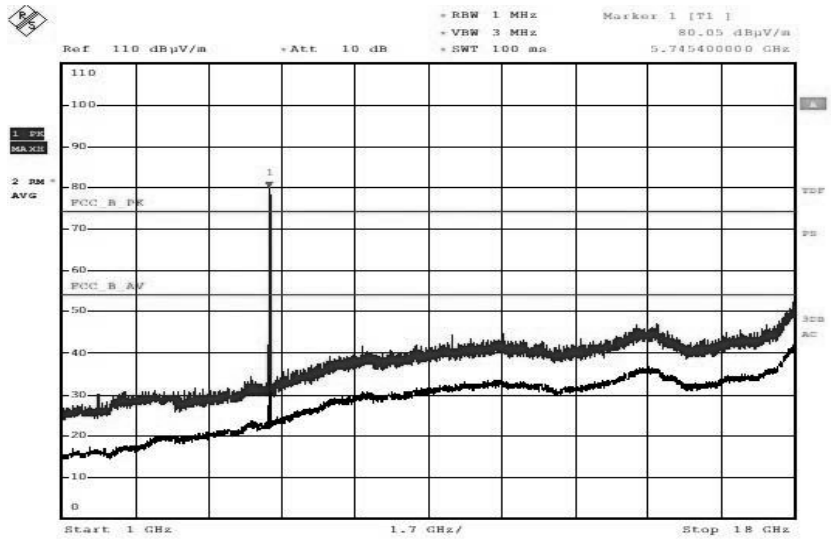

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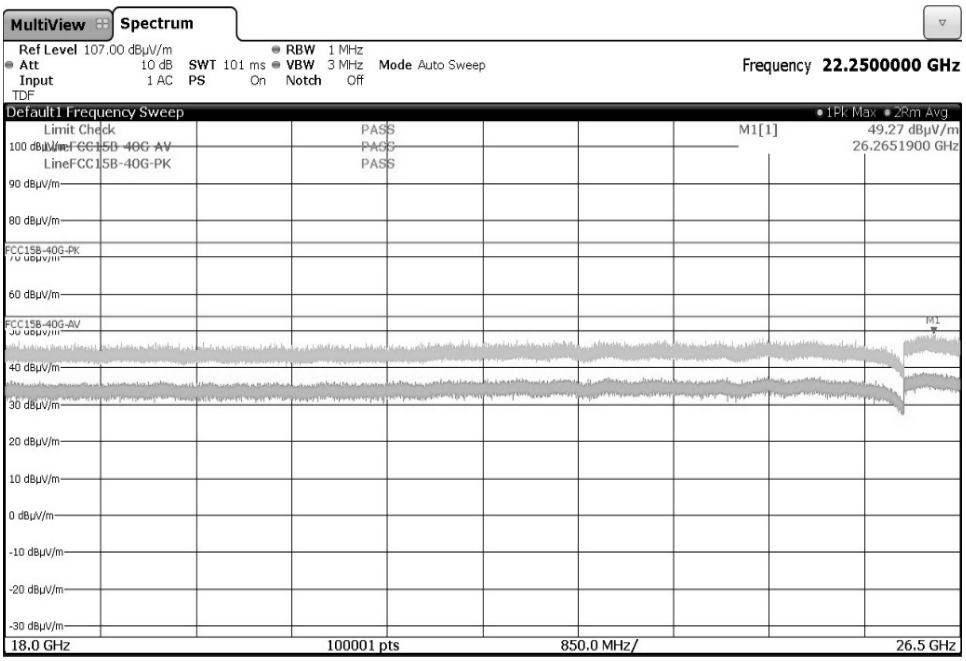
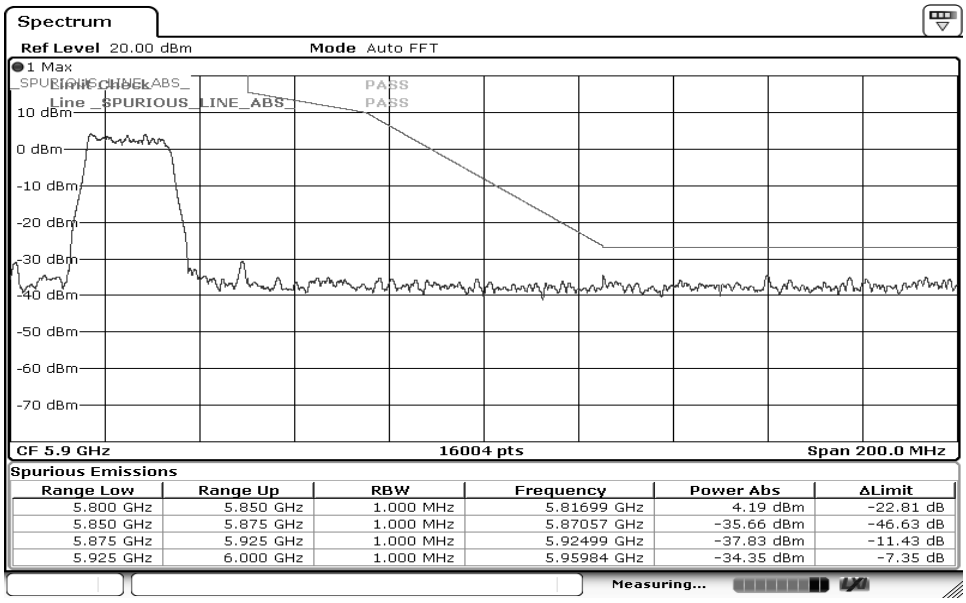
Band Edges(CH 149)



Band Edges(CH 165)



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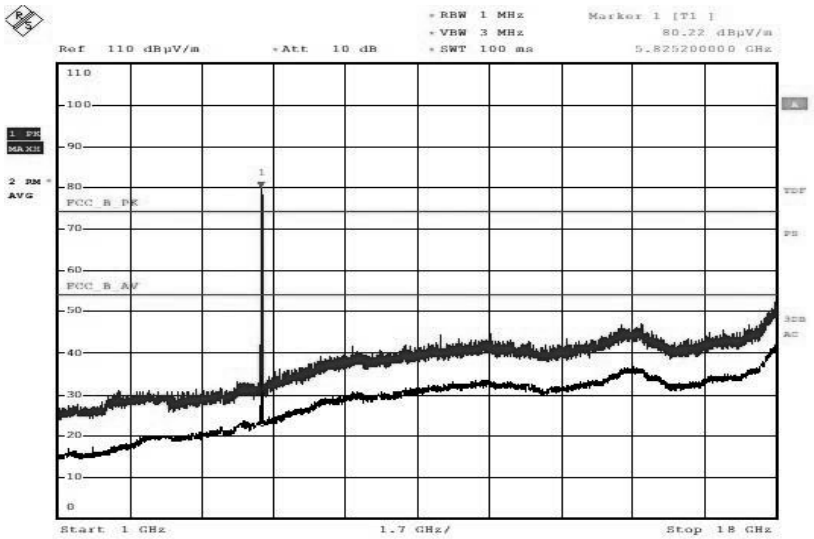
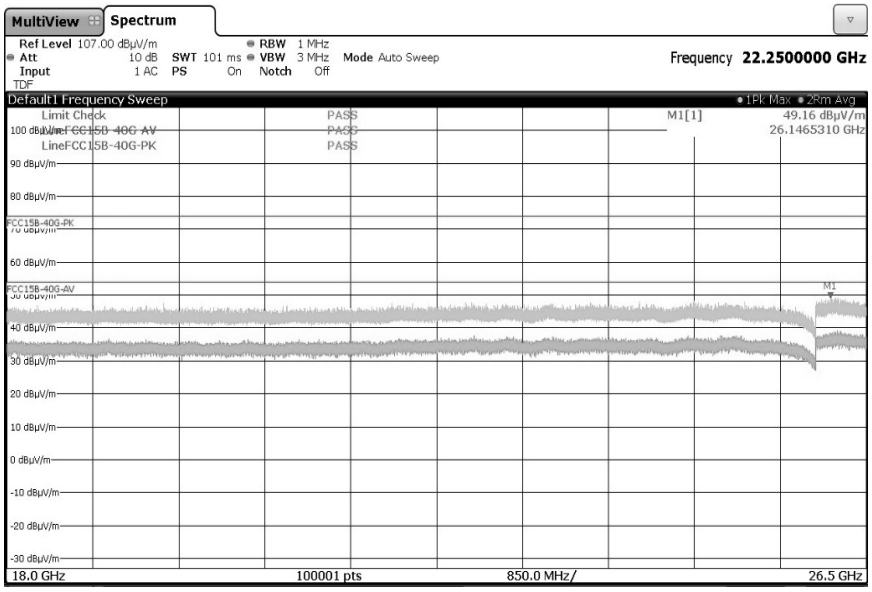


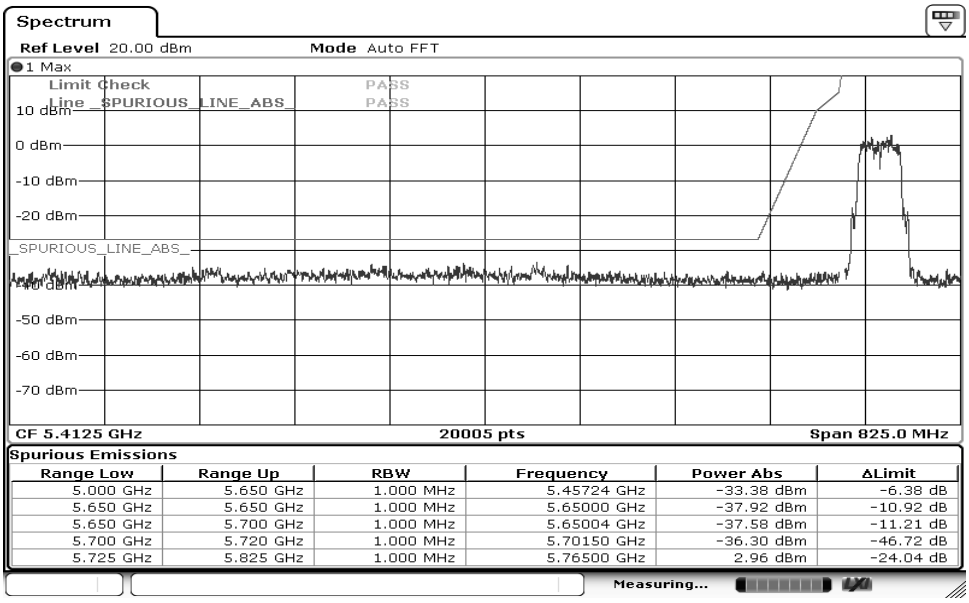
ESTR-21-00231

Band Edges(CH 165)



*802.11ac VHT40 Mode(was4)

Band Edges(CH 151)



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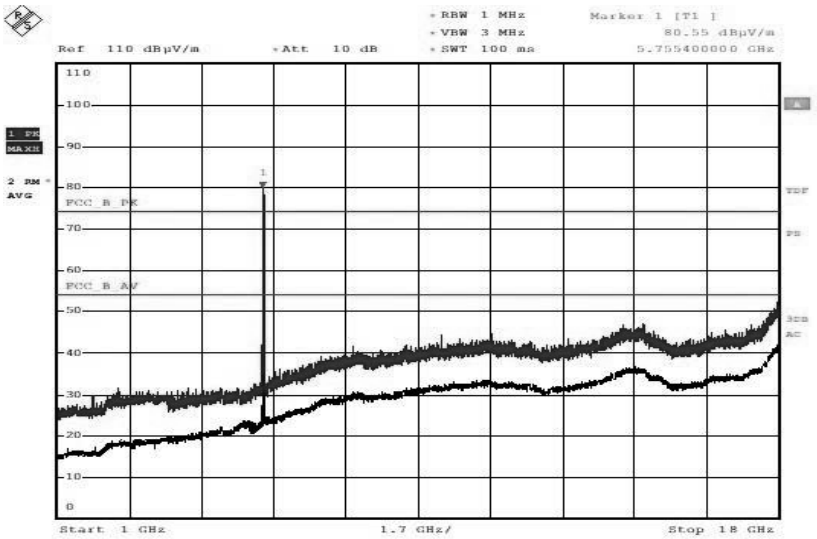
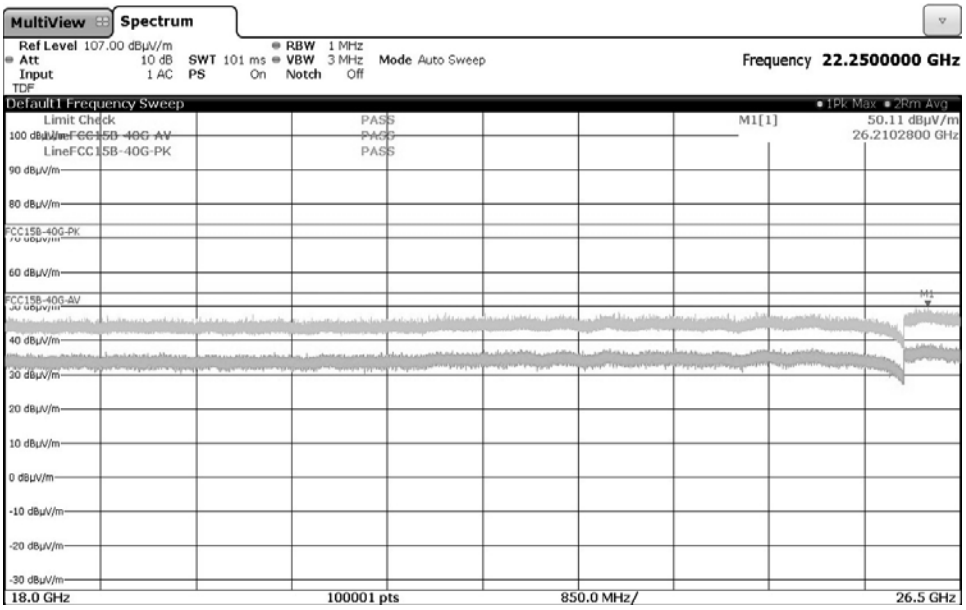
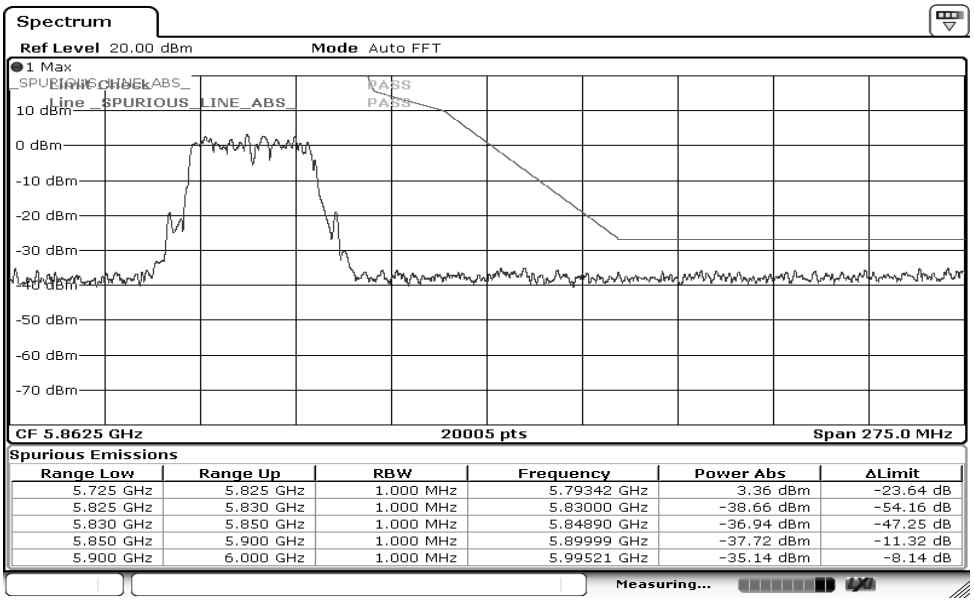


ESTR-21-00231

Band Edges(CH 151)



Band Edges(CH 159)



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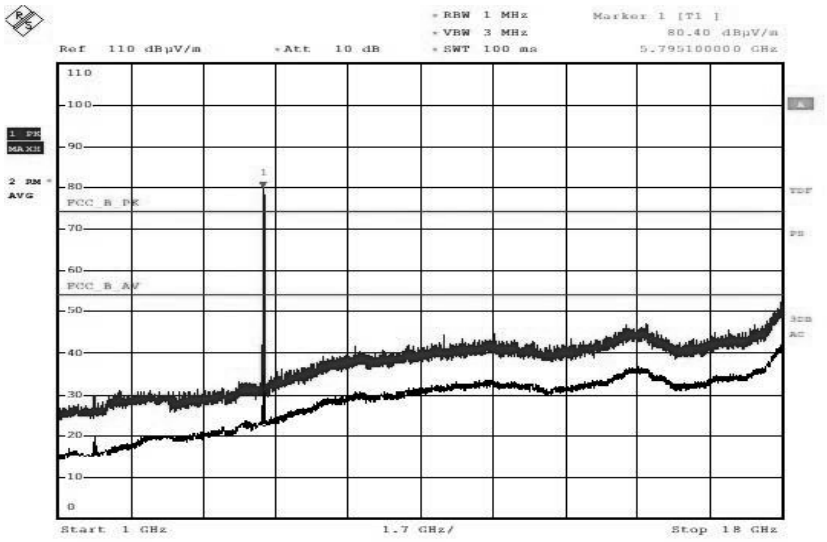

ESTR-21-00231

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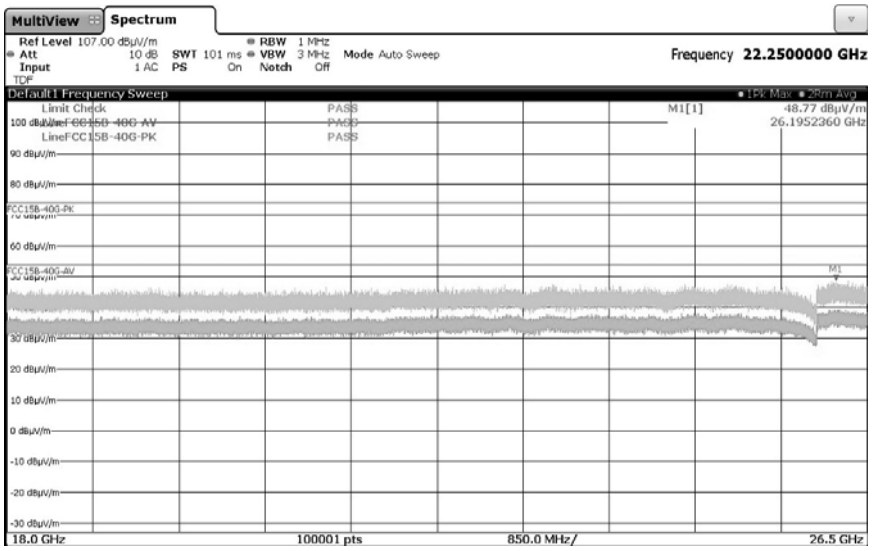
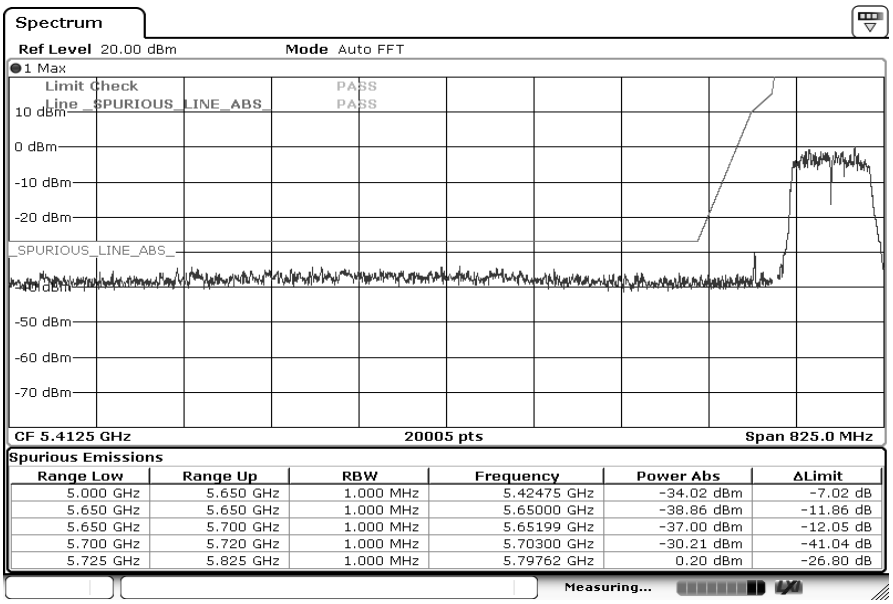


*802.11ac VHT80 Mode(was4)

Band Edges(CH 155)



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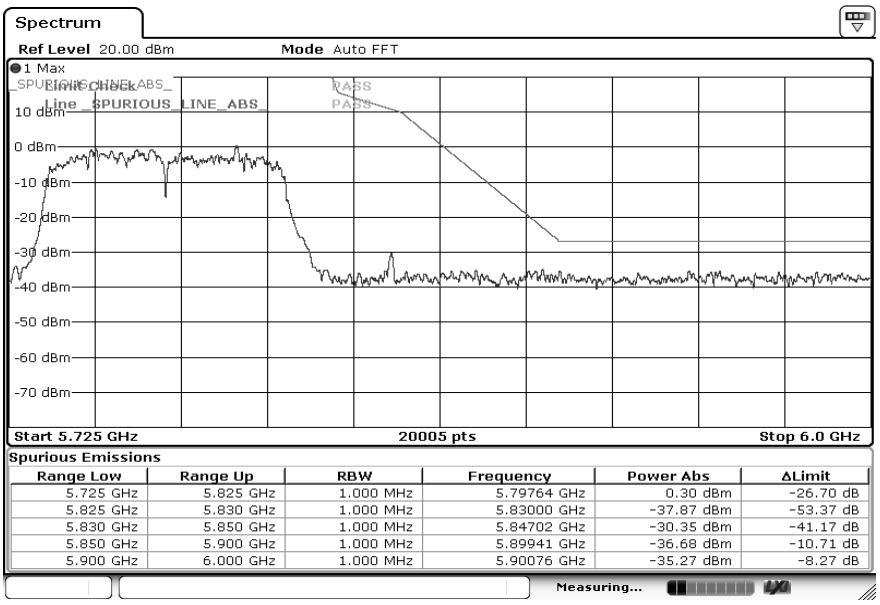

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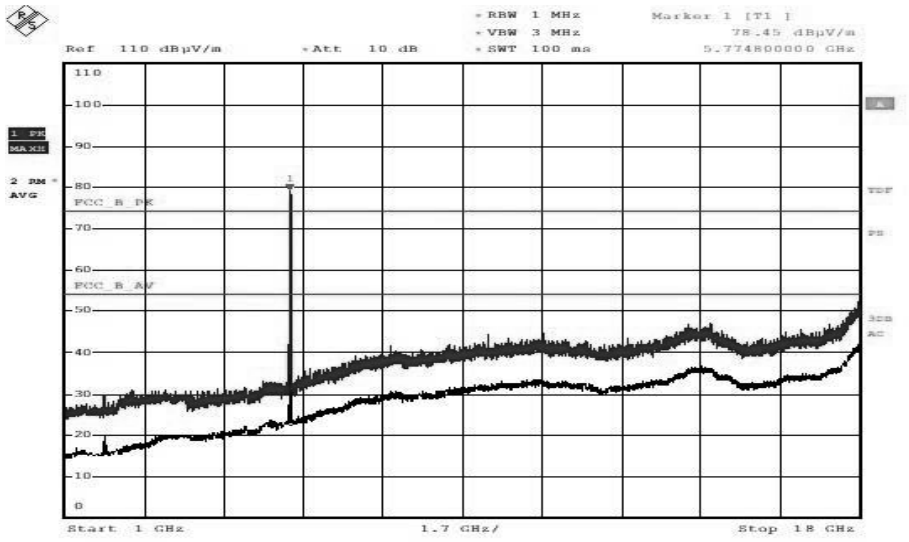
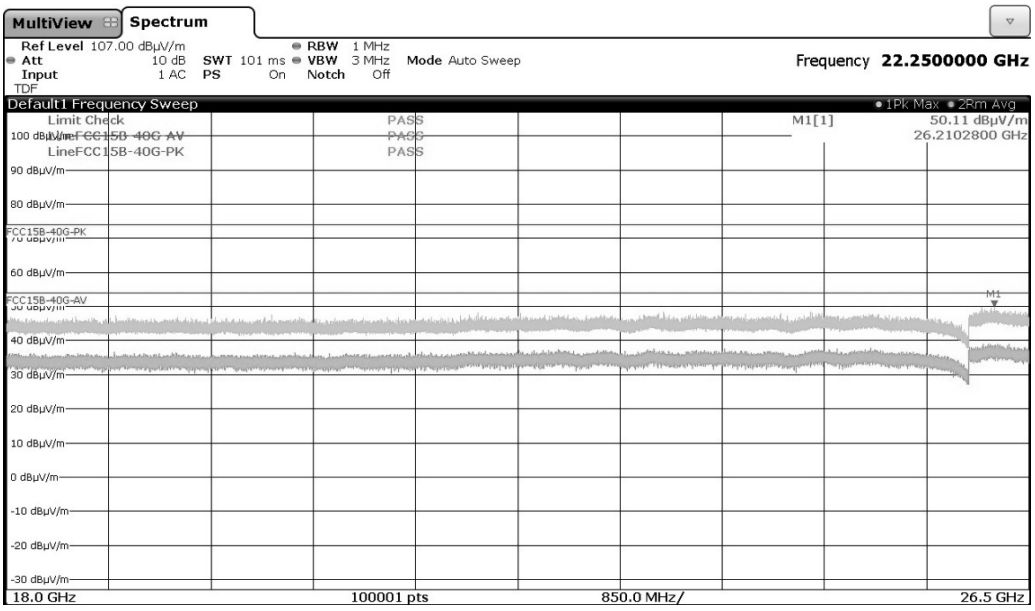
Band Edges(CH 155)



ESTR-21-00231



10. Measurement of conducted disturbance

The continuous disturbance voltage of AC Mains in the frequency from 0.15 MHz to 30 MHz was measured in accordance to FCC PART 15.207. The test setup was made according to ANSI C 63.10 (2009) in a shielded room. The EUT was placed on a non-conductive table at least 0.8 m above the ground plan. A grounded vertical reference plane was positioned in a distance of 0.4 m from the EUT. The distance from the EUT to other metal surfaces was at least 0.8 m. The EUT was only earthen by its power cord through the line impedance stabilizing network. The power cord has been bundled to a length of 1.0 m. The test receiver with Quasi Peak detector complies with CISPR 16.

10.1 Measurement equipments

Equipment Name	Type	Manufacturer	Serial No.	Next Calibration date
TEST RECEIVER	ESPI	Rohde & Schwarz	100005	19-Jul-22
LISN	ESH3-Z5	Rohde & Schwarz	836679/025	19-Jul-22
Pulse Limiter	ESH3Z2	Rohde & Schwarz	NONE	19-Jul-22

10.2 Environmental Condition

Test Place : Shielded Room

Temperature (°C) : 22.4 °C
Humidity (% R.H.) : 51.2 % R.H.

10.3-1 Test Data

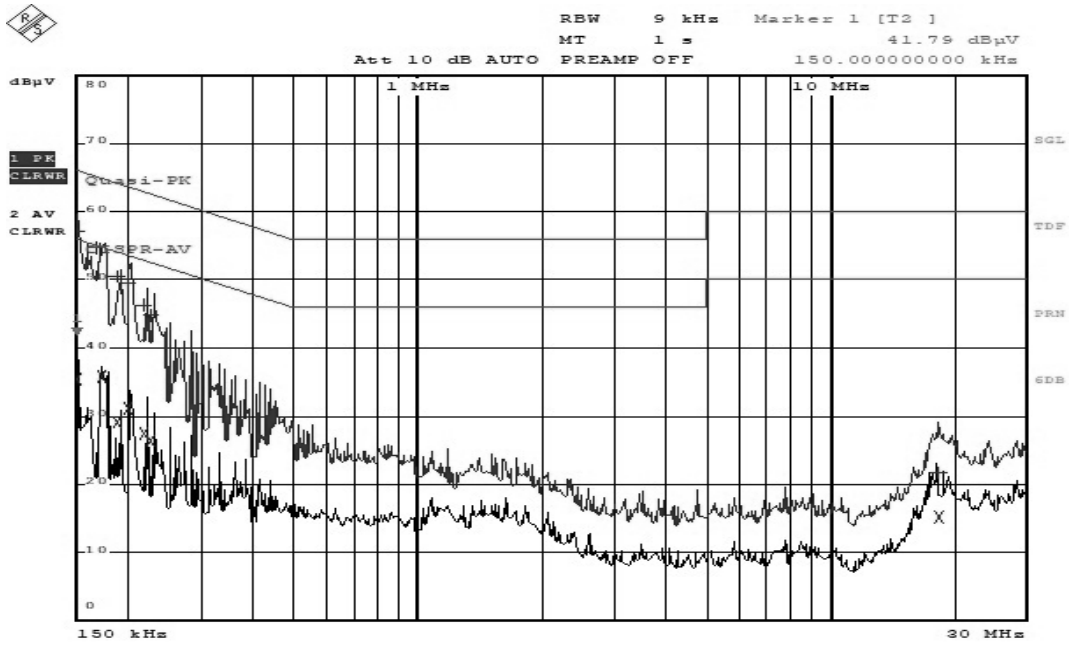
Test Date : 13-Aug-21

Frequency (MHz)	Correction Factor		Line (H/N)	Quasi-peak Value			Average Value		
	Lisn (dB)	Cable (dB)		Limit (dBμV)	Reading (dBμV)	Result (dBμV)	Limit (dBμV)	Reading (dBμV)	Result (dB)
0.15	0.09	0.12	N	66.00	51.32	51.53	56.00	29.48	29.69
0.16	0.16	0.13	H	65.52	54.50	54.79	55.52	33.47	33.76
0.17	0.16	0.15	H	64.91	52.77	53.08	54.91	33.72	34.03
0.19	0.16	0.18	H	64.08	50.14	50.48	54.08	31.02	31.36
0.20	0.09	0.19	N	63.82	46.72	32.92	53.82	26.29	26.57
0.21	0.16	0.20	H	63.21	45.11	45.47	53.21	25.59	25.95

Remark	H : Hot Line, N : Neutral Line *Correction Factor = Lisn + Cable *Result = Correction Factor + Reading

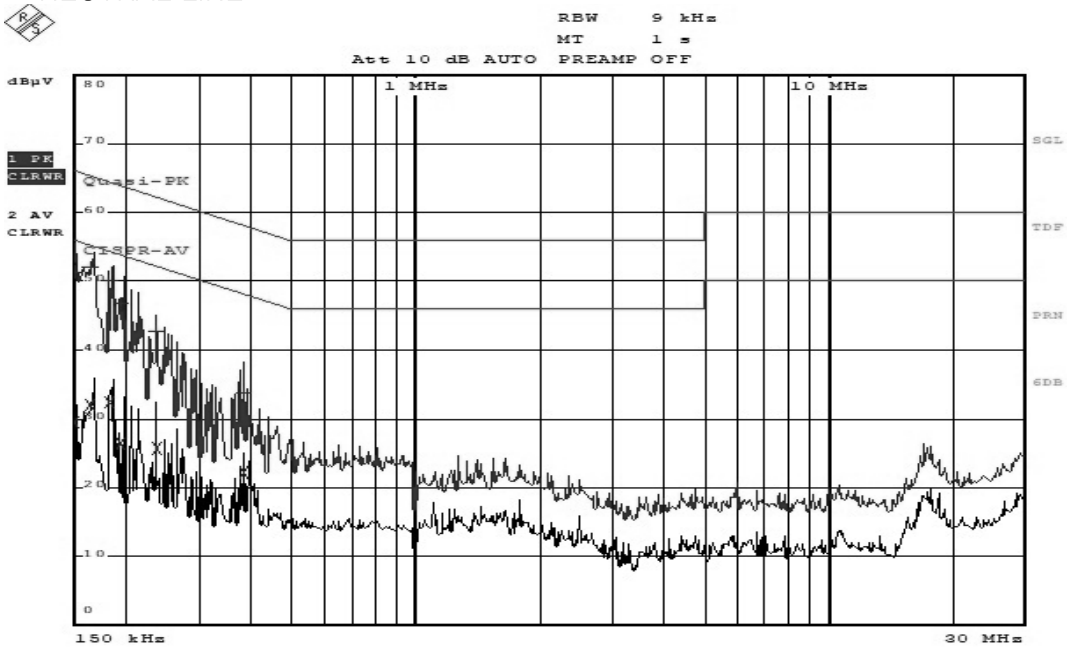
Appendix 1. Special diagram

* HOT LINE



Comment: ESTR-21-00231

* NEUTRAL LINE



Comment: ESTR-21-00231

Appendix 2. Antenna Requirement

1. Antenna information

antenna type : Dielectric Chip Antenna.
antenna location : Integnal
antenna gain : U-NII 1 : 1.249 dBi
U-NII 2A : 0.245 dBi
U-NII 2C : 2.641 dBi
U-NII 3 : 1.597 dBi
No temporary RF connector provided