

# Appendix for 5G WiFi (RSE)

**1. Appendix G: Unwanted Emissions that fall Outside of the Restricted Bands& Unwanted Emissions in the Restricted Bands (Radiated)**

Note:

1. We tested all modes & antennas, the data presented below is the worst case.
2. The simultaneous transmission has been considered
3. The whole testing range is from “9 KHz to 40 GHz (10th harmonics)” is divided into 5 parts according to the test site settings, which are:
  - (Part 1): Test range of “9 KHz to 30 MHz”, RBW =9 kHz, VBW = 30 kHz
  - (Part 2): Test range of “30 GHz to 1 GHz”, RBW = 100 kHz, VBW = 300 kHz.
  - (Part 3): Test range of “1 GHz to 8 GHz”. RBW = 1 MHz, VBW = 3 MHz.
  - (Part 4): Test range of “8 GHz to 18 GHz”, RBW = 1 MHz, VBW = 3 MHz.
  - (Part 5): Test range of “18 GHz to 40 GHz”. RBW = 1 MHz, VBW = 3 MHz.

**1.1. Test Results**

**1.1.1. 11a20 SISO**

Test Mode	Antenna Port	Test Channel	Spurious Emissions Result	Spurious Emissions Limit	Verdict
11a20 SISO	Ant1	5180	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5200	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5300	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5320	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5500	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5520	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5680	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5700	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5745	(see Test Graphs)	(see Test Graphs)	PASS
Ant1	5825	(see Test Graphs)	(see Test Graphs)	PASS	

**1.1.2. 11n20 SISO**

Test Mode	Antenna Port	Test Channel	Spurious Emissions Result	Spurious Emissions Limit	Verdict
11n20 SISO	Ant1	5180	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5200	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5300	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5320	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5500	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5520	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5680	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5700	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5745	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5825	(see Test Graphs)	(see Test Graphs)	PASS

**1.1.3. 11n40 SISO**

Test Mode	Antenna Port	Test Channel	Spurious Emissions Result	Spurious Emissions Limit	Verdict
11n40 SISO	Ant1	5190	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5230	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5270	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5310	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5510	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5550	(see Test Graphs)	(see Test Graphs)	PASS

	Ant1	5630	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5670	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5755	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5795	(see Test Graphs)	(see Test Graphs)	PASS

**1.1.4. 11ac20SISO**

Test Mode	Antenna Port	Test Channel	Spurious Emissions Result	Spurious Emissions Limit	Verdict
11ac20 SISO	Ant1	5180	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5200	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5300	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5320	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5500	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5520	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5680	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5700	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5745	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5825	(see Test Graphs)	(see Test Graphs)	PASS

**1.1.5. 11ac40 SISO**

Test Mode	Antenna Port	Test Channel	Spurious Emissions Result	Spurious Emissions Limit	Verdict
11ac40 SISO	Ant1	5190	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5230	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5270	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5310	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5510	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5550	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5630	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5670	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5755	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5795	(see Test Graphs)	(see Test Graphs)	PASS

**1.1.6. 11ac80 SISO**

Test Mode	Antenna Port	Test Channel	Spurious Emissions Result	Spurious Emissions Limit	Verdict
11ac80 SISO	Ant1	5210	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5290	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5530	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5610	(see Test Graphs)	(see Test Graphs)	PASS
	Ant1	5775	(see Test Graphs)	(see Test Graphs)	PASS

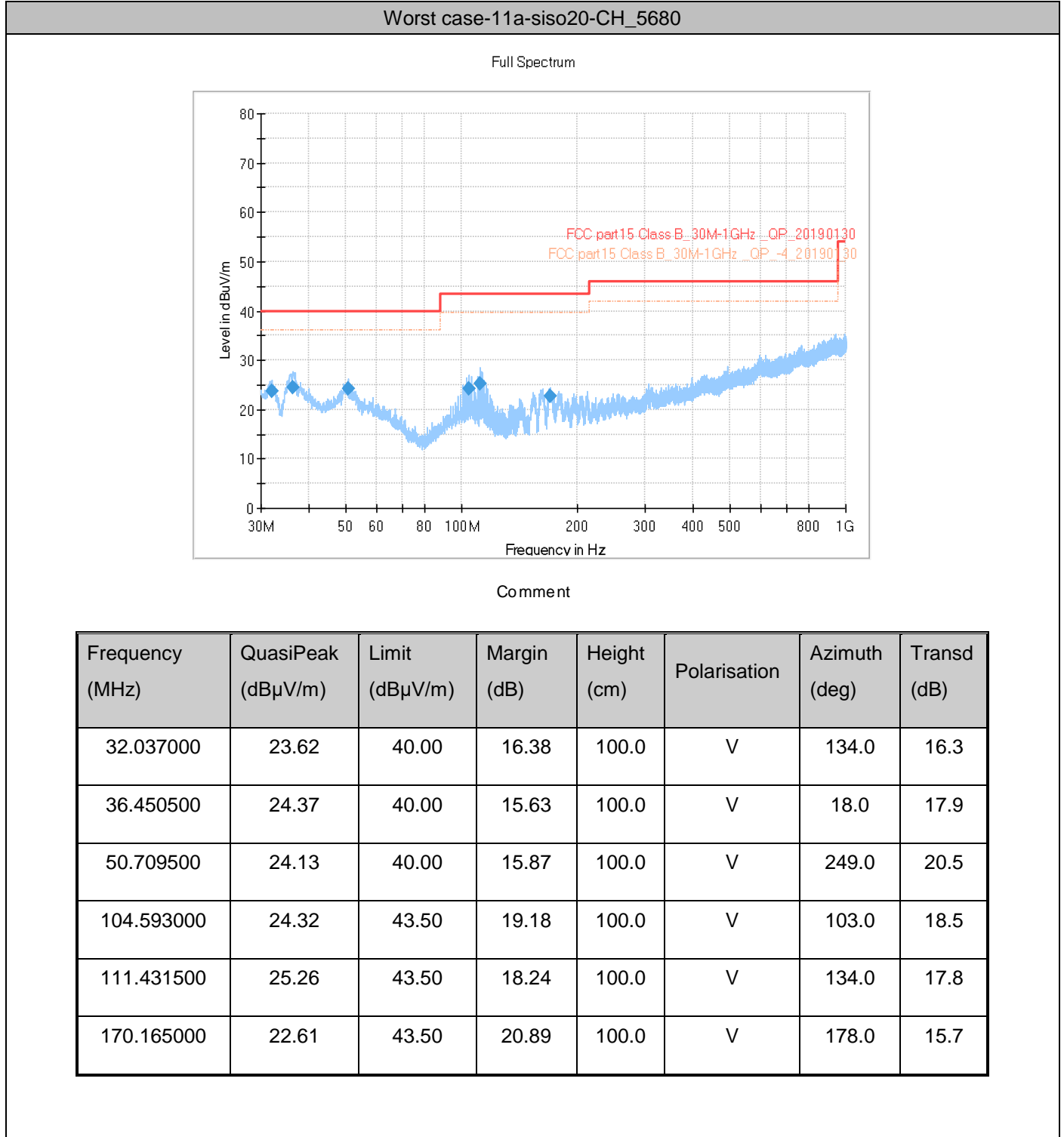




**1.2.2. Part 2: Testing Range of “30 MHz to 1 GHz”**

Note 1: The test results and plot for testing range of “30 MHz to 1 GHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.

Note 2: The emissions in this range are mainly from the Platform Device (Notepad PC and its ancillary components).



### 1.2.3. Part 3: Testing Range of “1 GHz to 8 GHz”

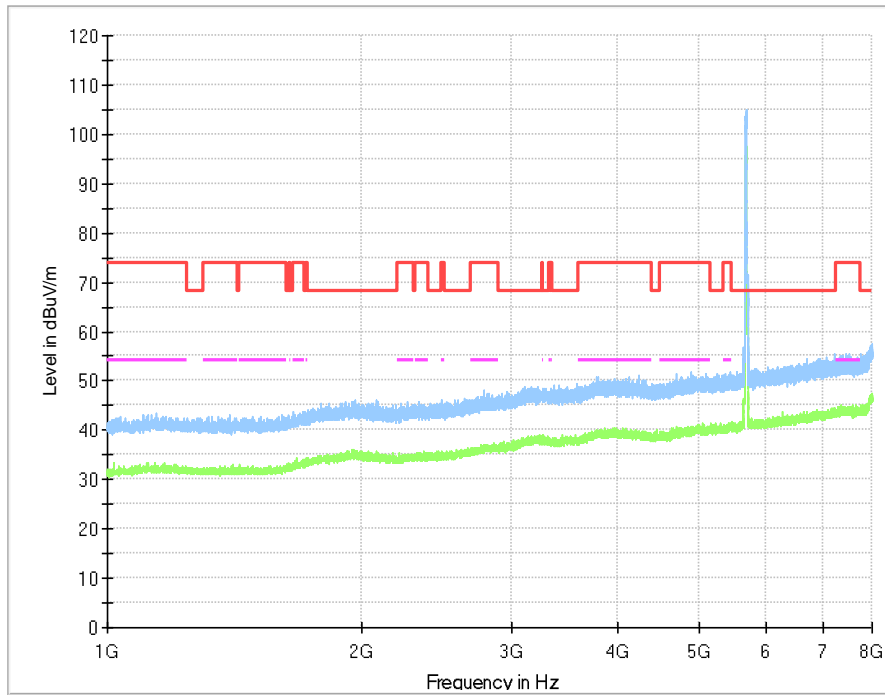
Note 1: The test results and plot for testing range of “1 GHz to 8 GHz” showed as below is the worst case for each Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.

Note 2: The testing range of “1 GHz to 8 GHz” is for checking radiated emissions located in restricted bands near the EUT operating bands.

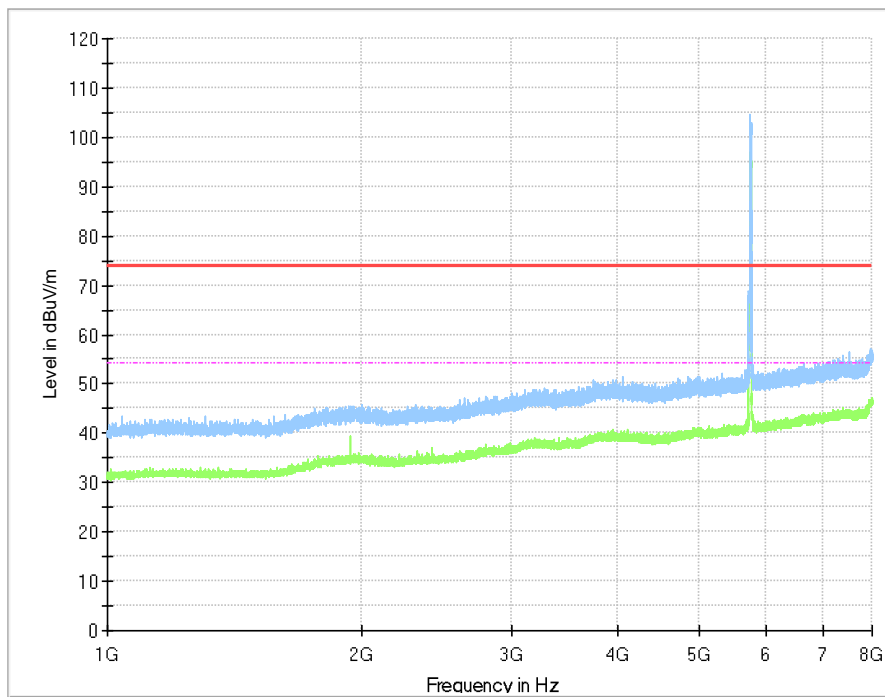
Note 3: The peak spike exceeds the limit line is EUT’s operating frequency.

## 1.2.3.1. 11a20 SISO

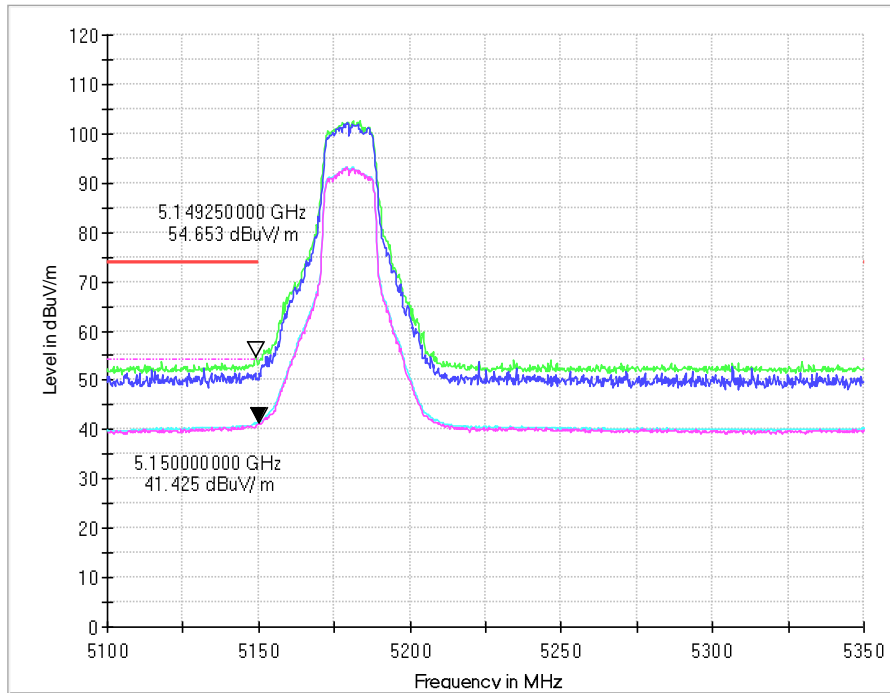
Worst case CH\_5680 (1 GHz to 8 GHz)



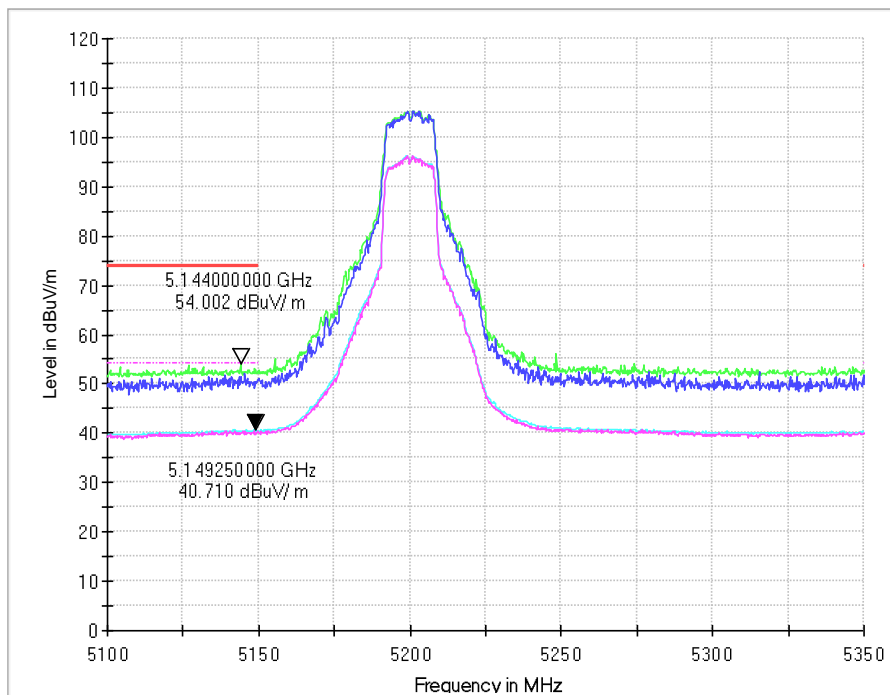
Worst case CH\_5745 (1 GHz to 8 GHz)



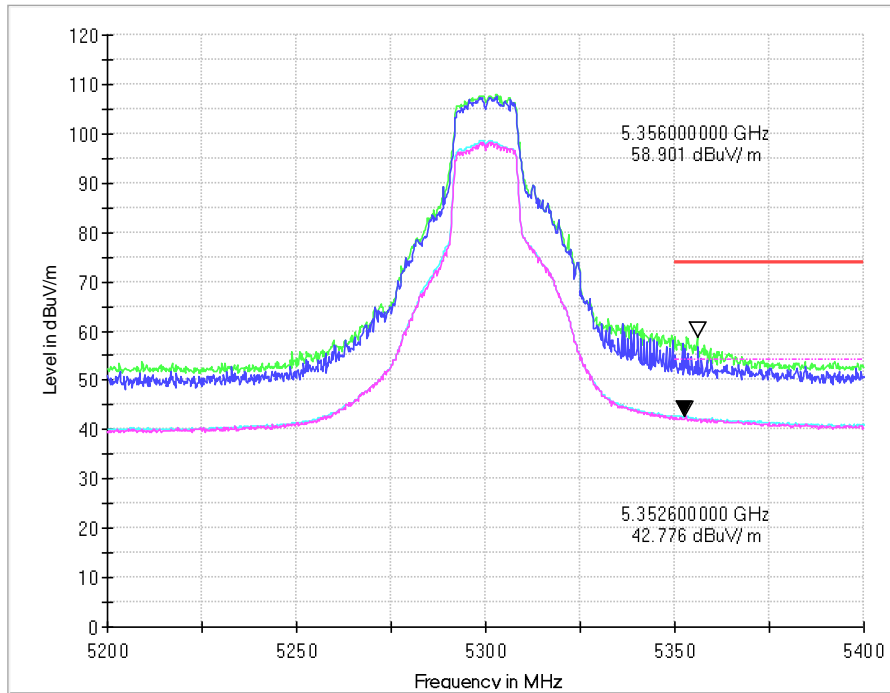
## CH\_5180 (Band Edge)



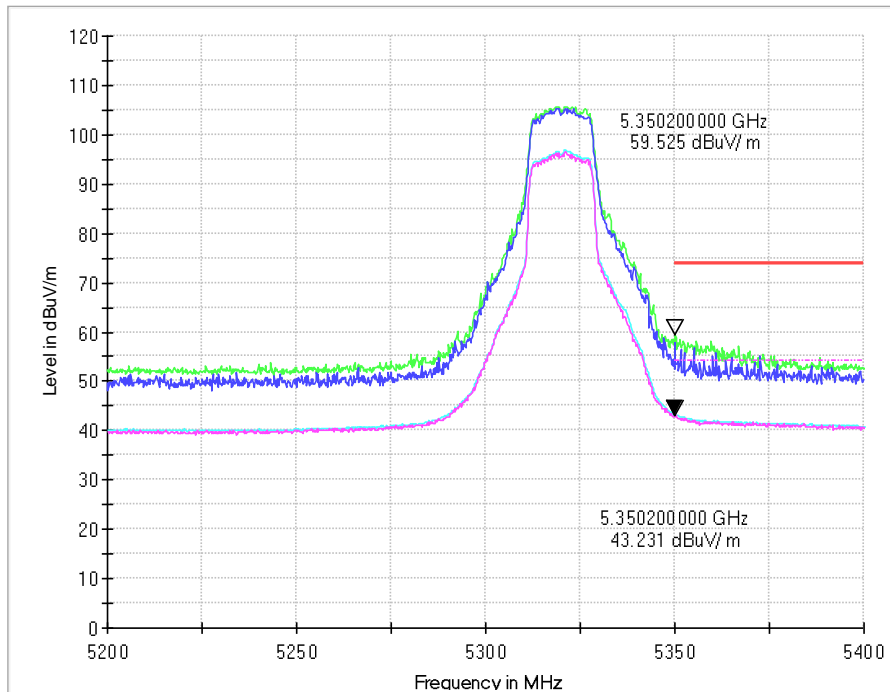
## CH\_5200 (Band Edge)



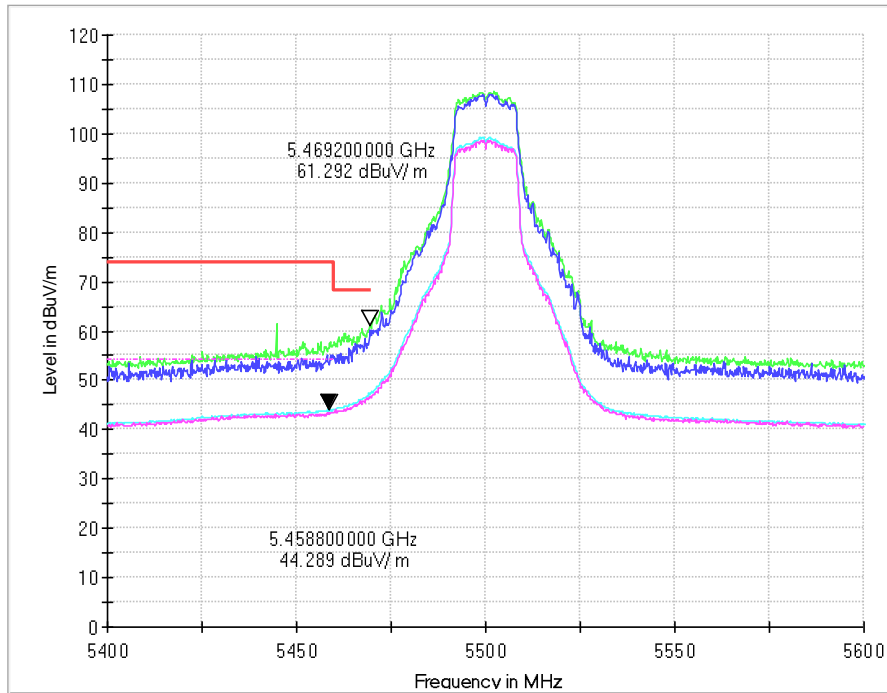
## CH\_5300(Band Edge)



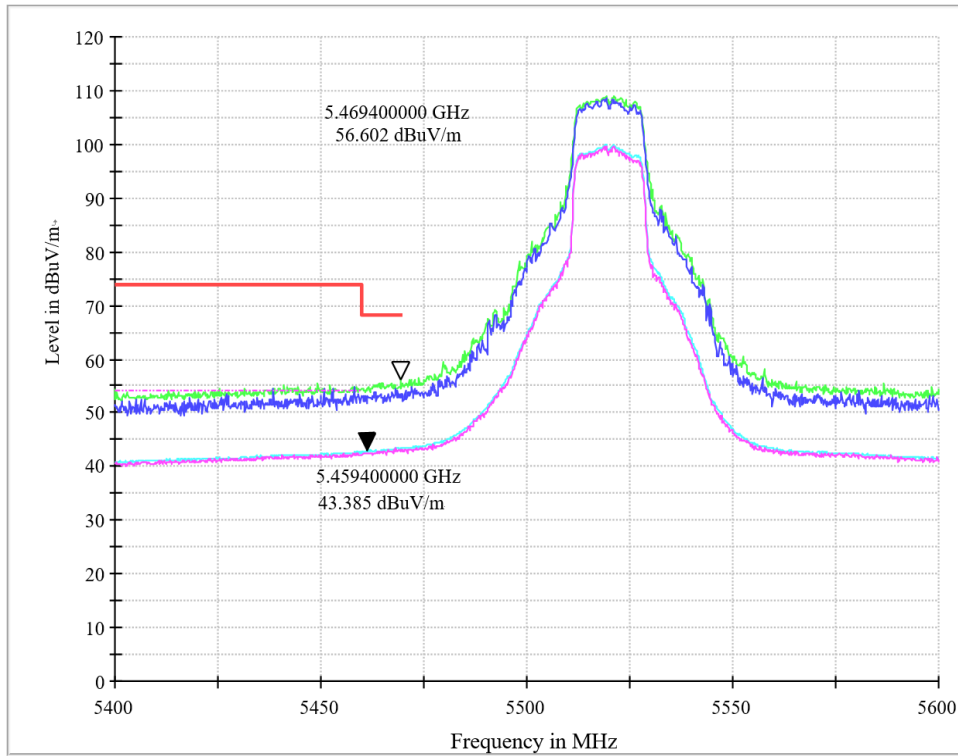
## CH\_5320(Band Edge)



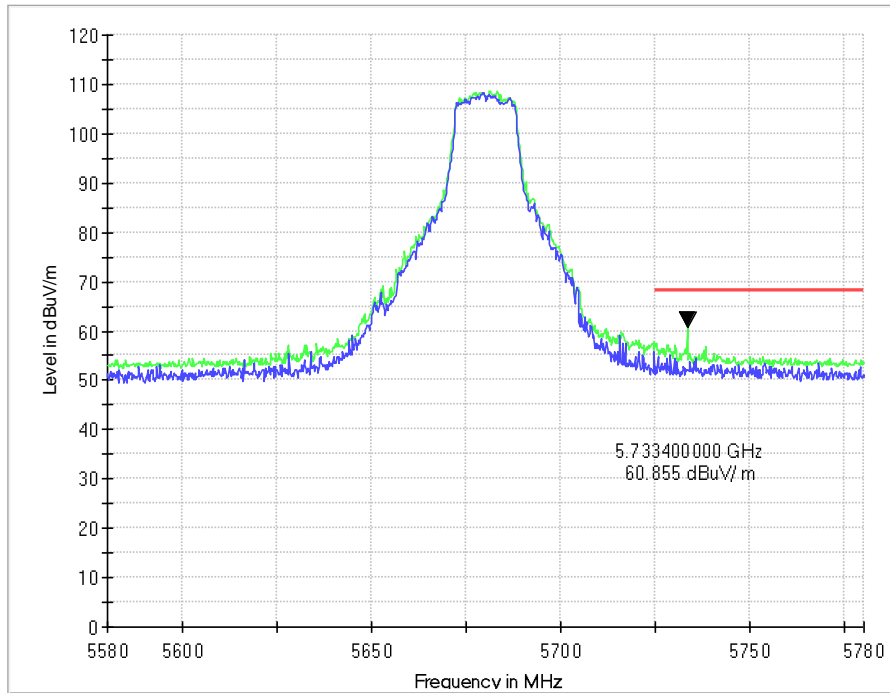
## CH\_5500(Band Edge)



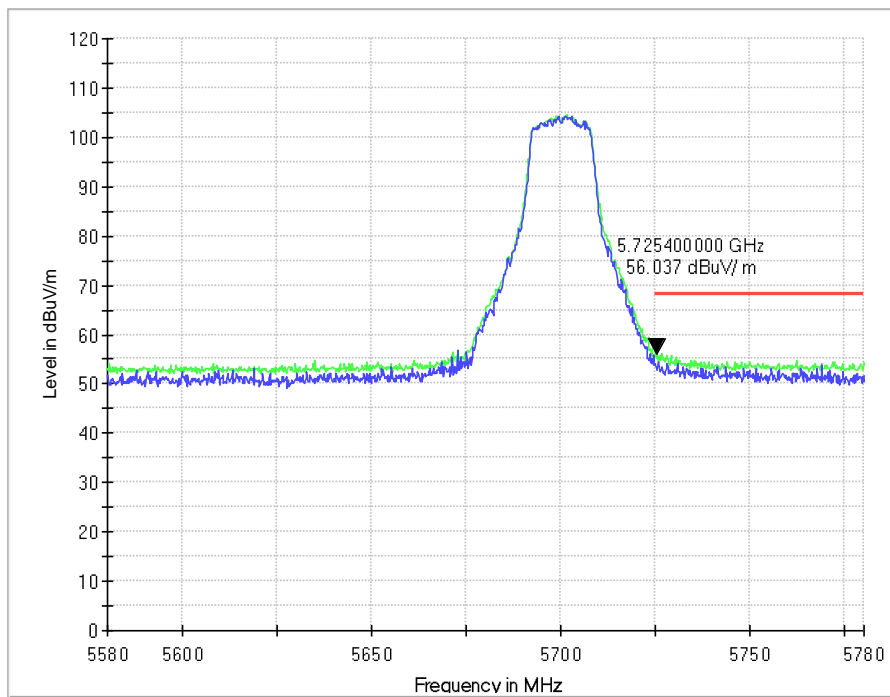
## CH\_5520(Band Edge)



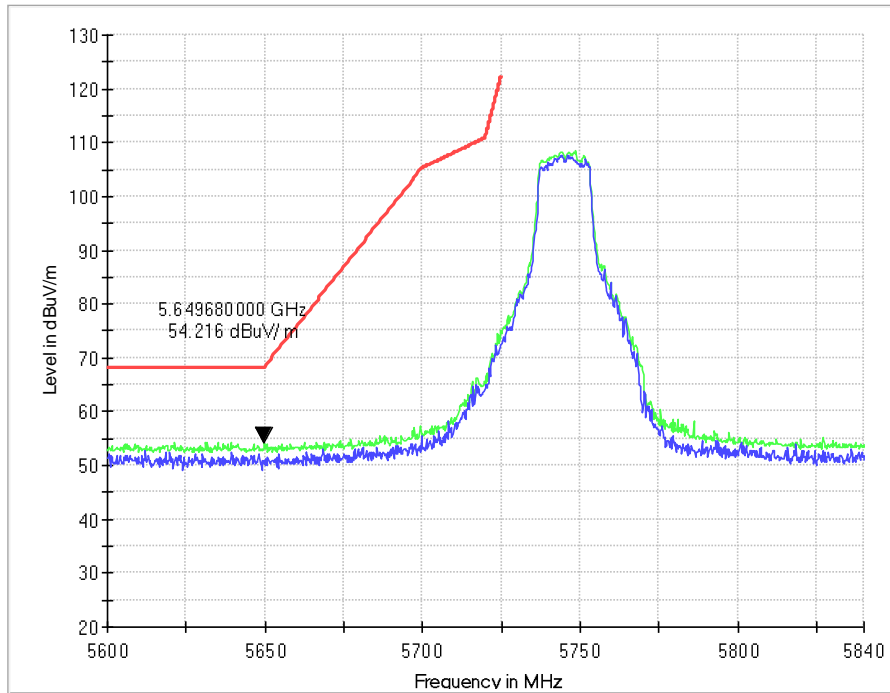
## CH\_5680(Band Edge)



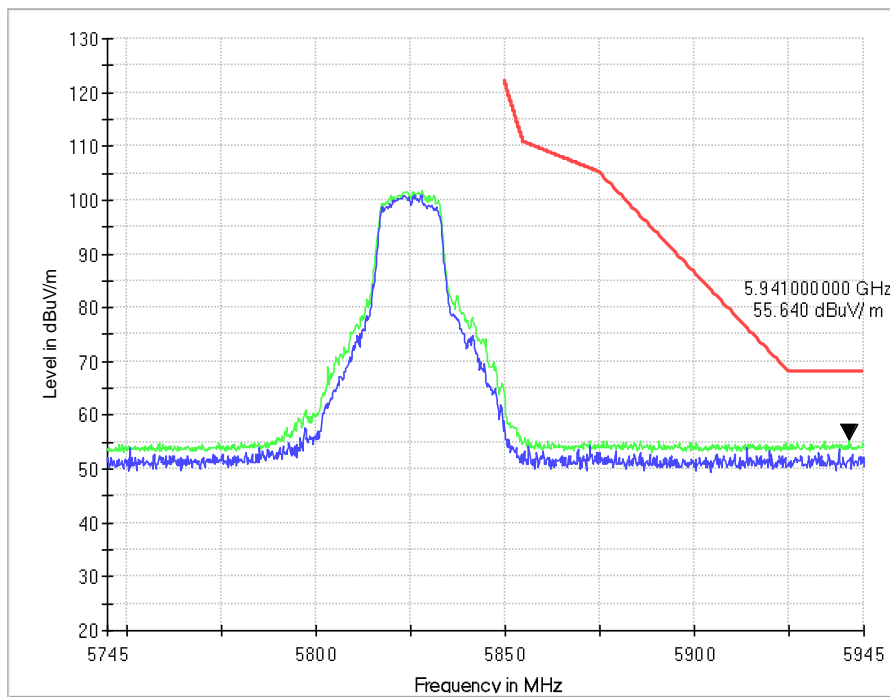
## CH\_5700(Band Edge)



## CH\_5745(Band Edge)



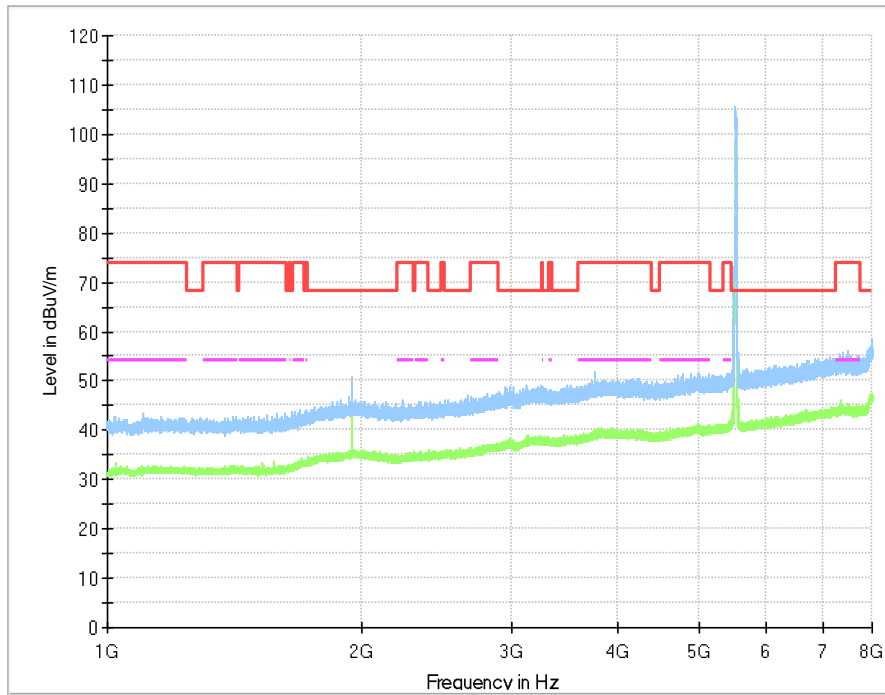
## CH\_5825(Band Edge)



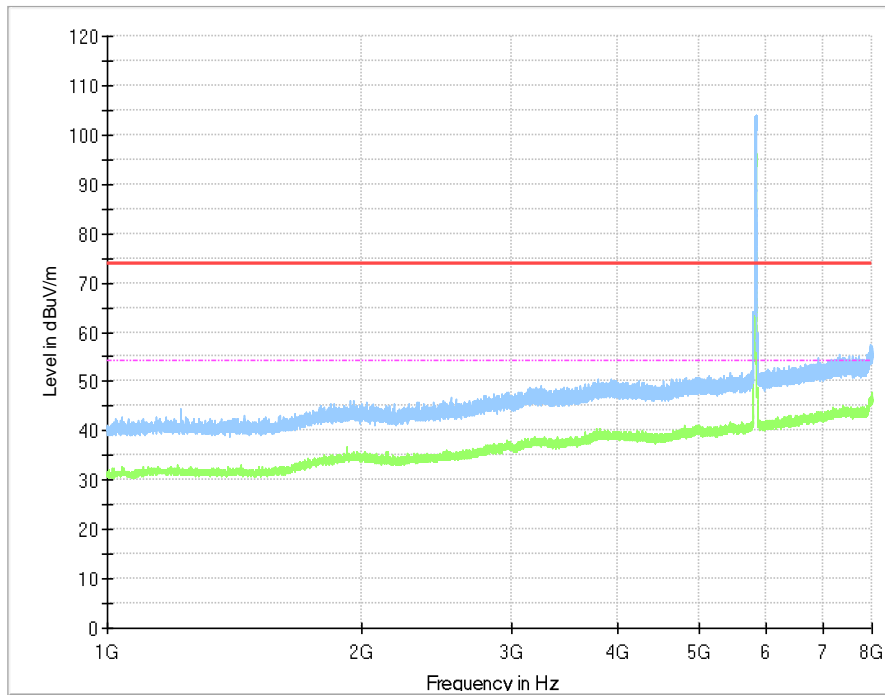


## 1.2.3.2. 11n20SISO

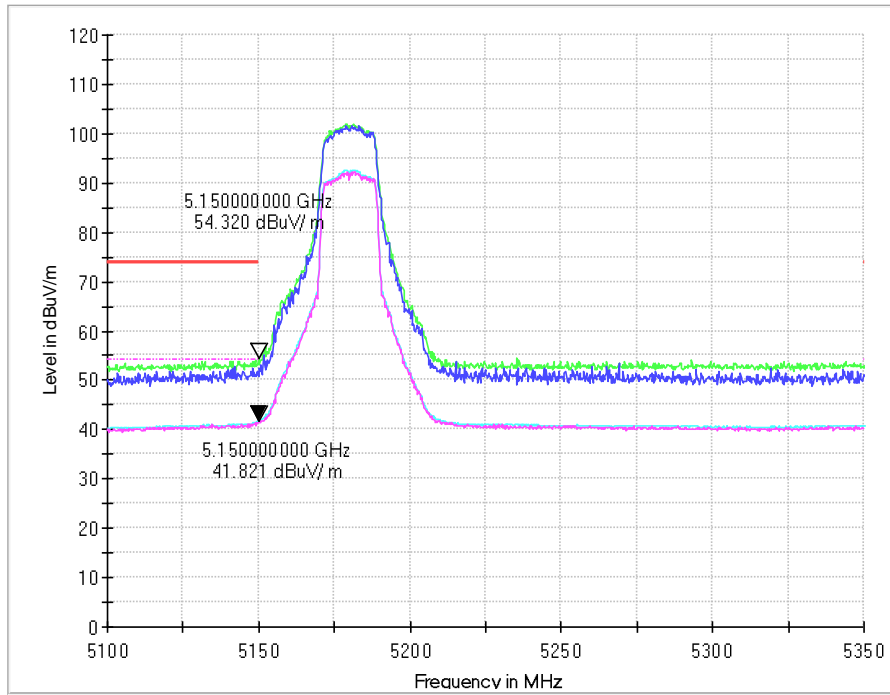
Worst case CH\_5520 (1 GHz to 8 GHz)



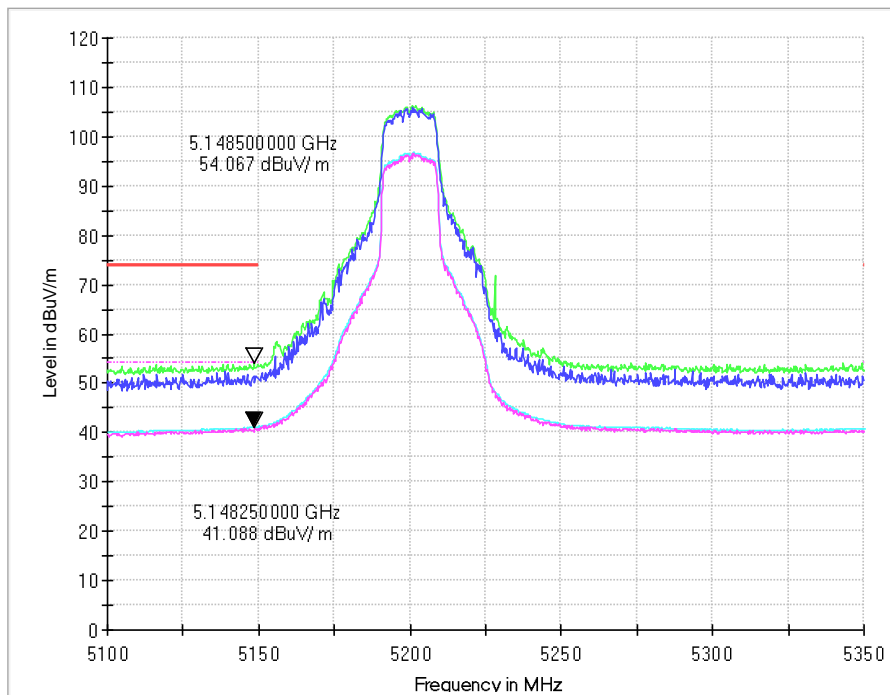
Worst case CH\_5825 (1 GHz to 8 GHz)



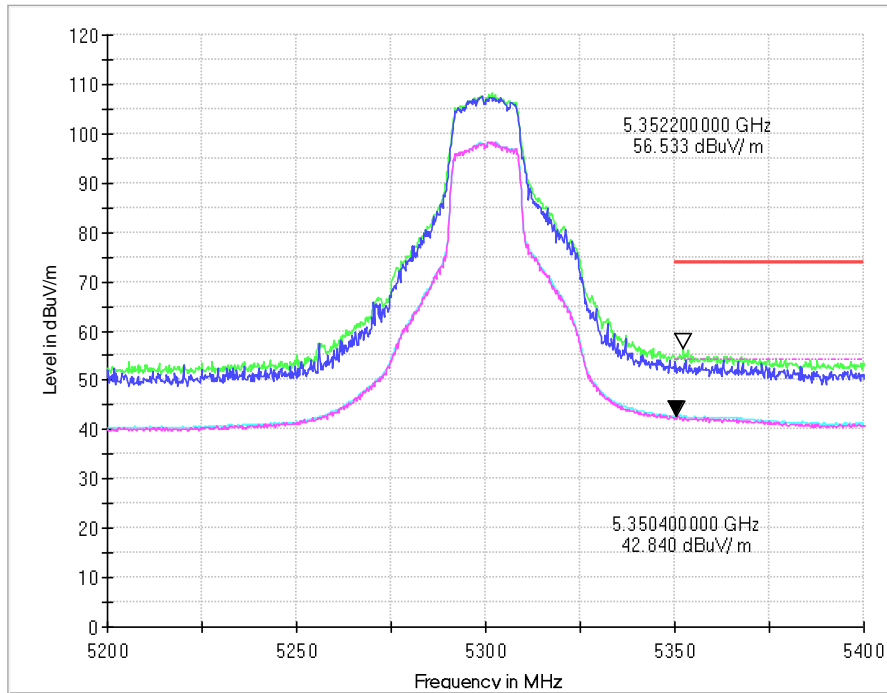
## CH\_5180 (Band Edge)



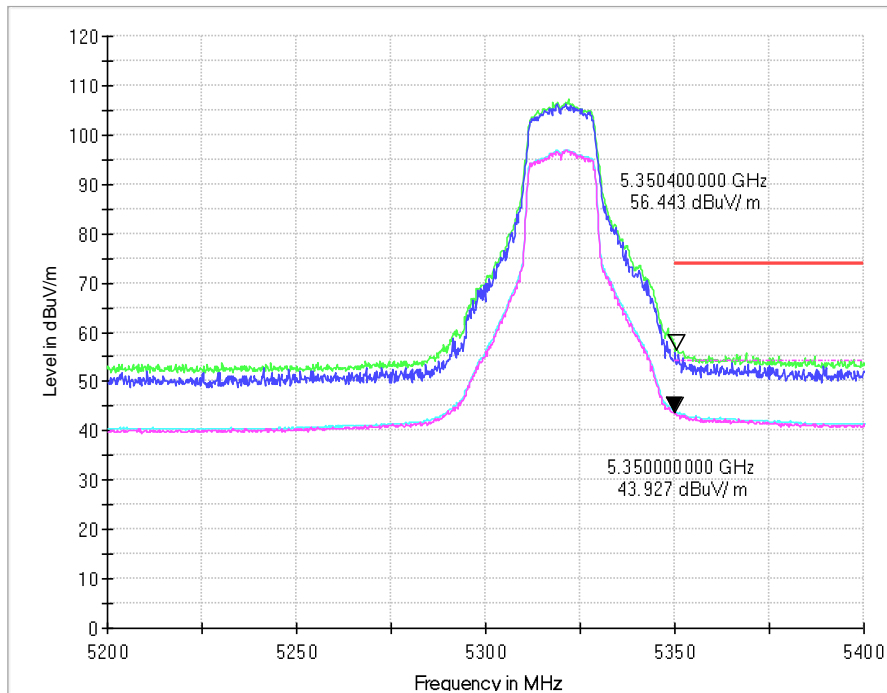
## CH\_5200 (Band Edge)



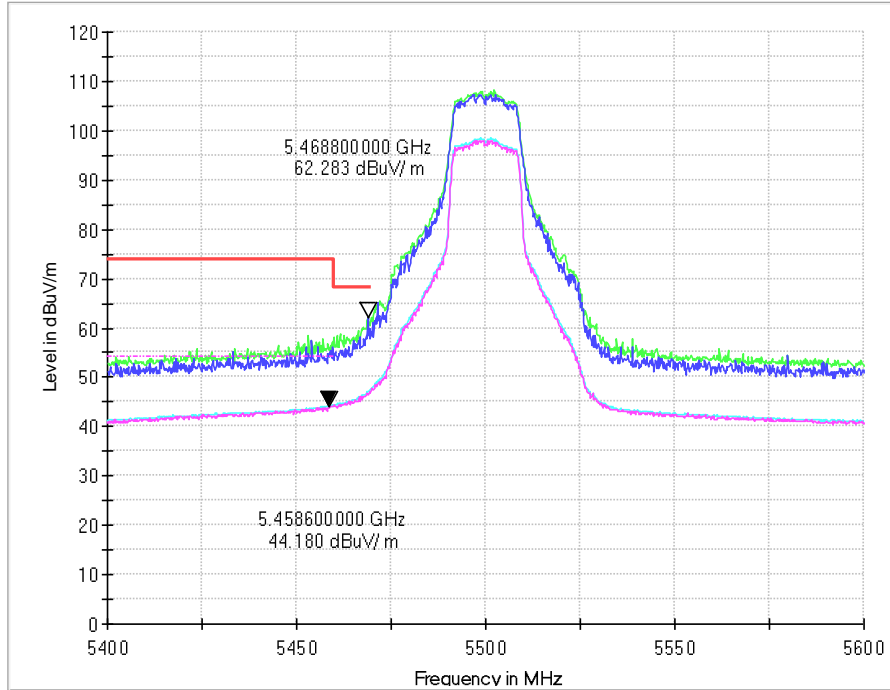
## CH\_5300(Band Edge)



## CH\_5320(Band Edge)



CH\_5500(Band Edge)



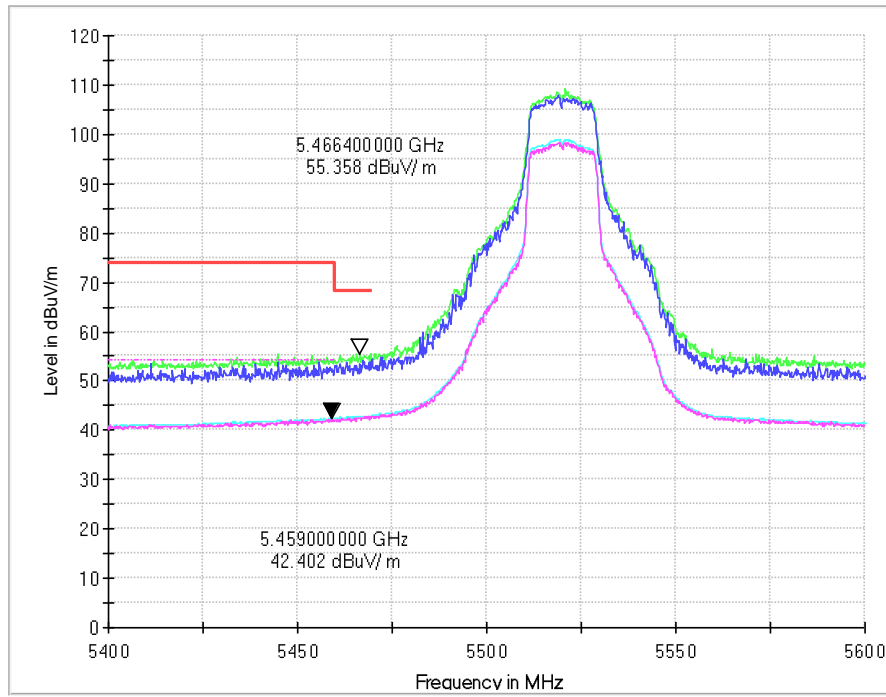
MEASUREMENT RESULT: PK Detector

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)
5468.80	62.28	68.3	6.02	150	H	204

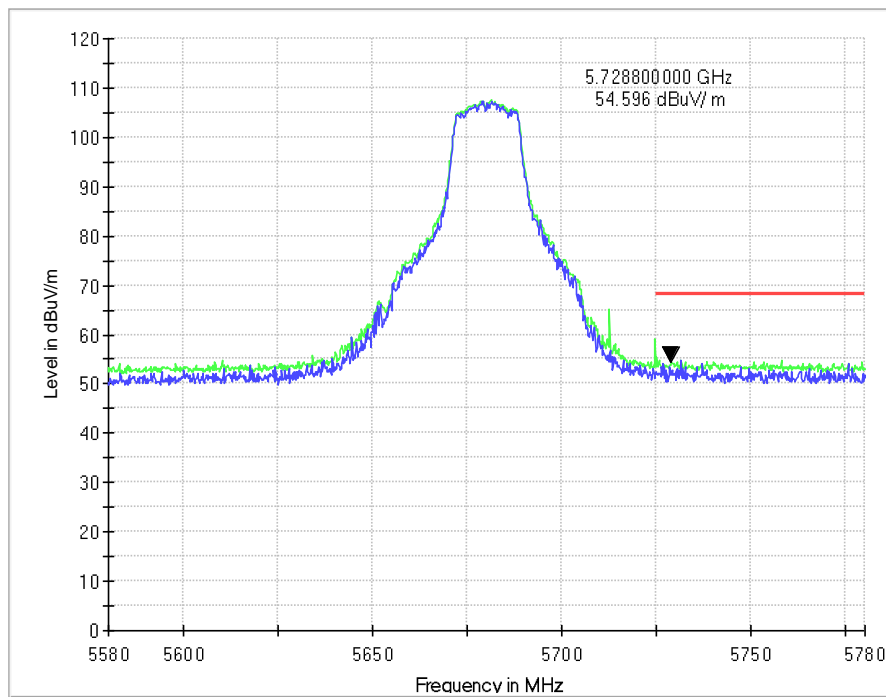
MEASUREMENT RESULT: AV Detector

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)
5458.60	44.18	54.00	9.82	150	H	204

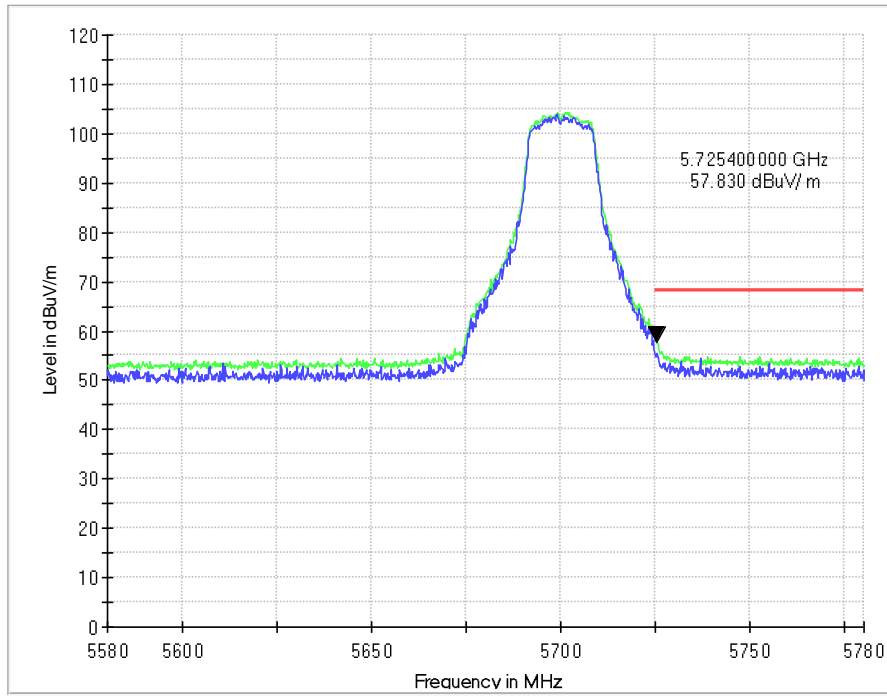
## CH\_5520(Band Edge)



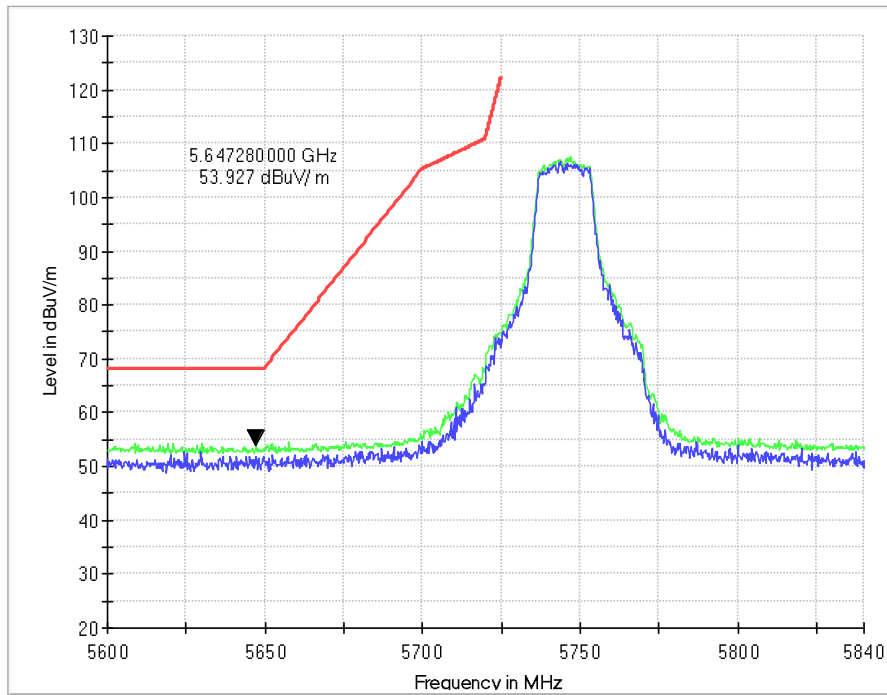
## CH\_5680(Band Edge)



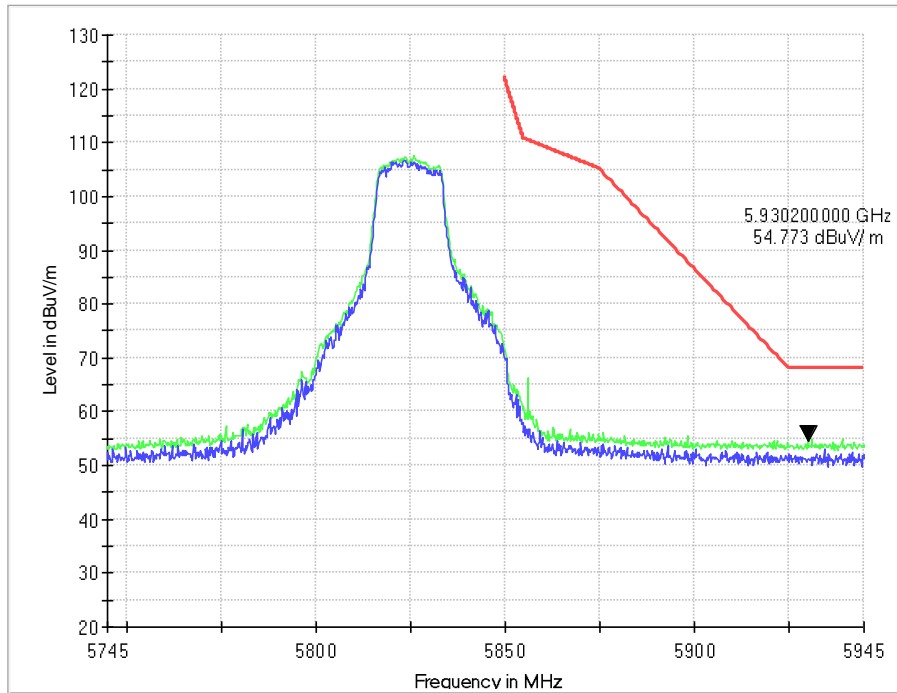
## CH\_5700(Band Edge)



## CH\_5745(Band Edge)

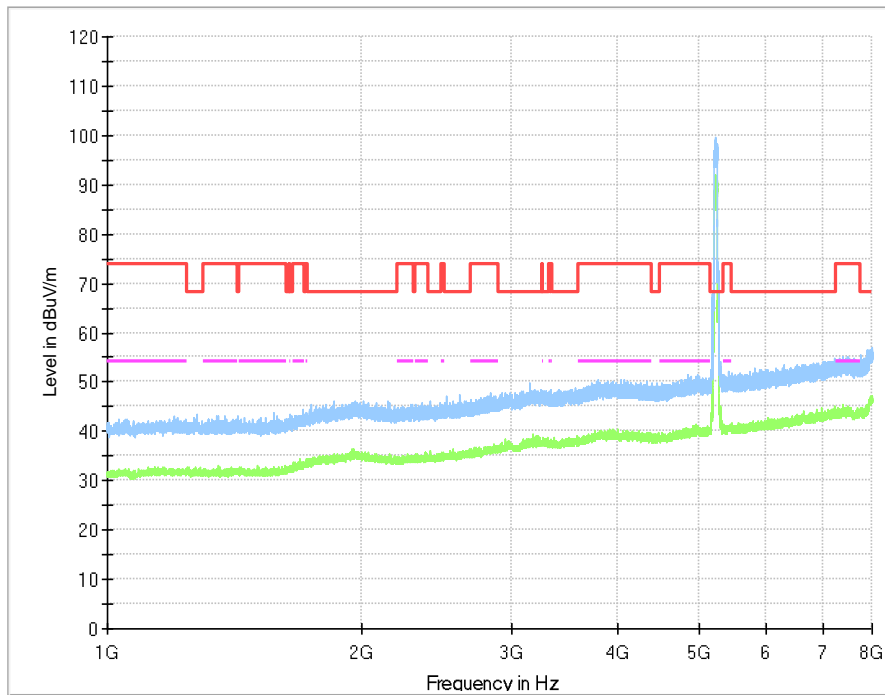


## CH\_5825(Band Edge)

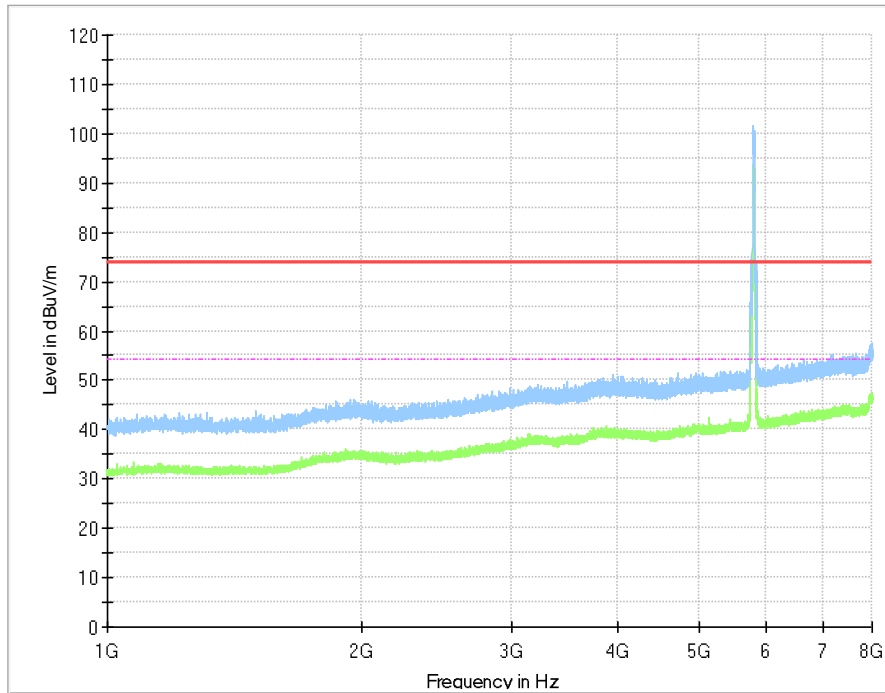


## 1.2.3.3. 11n40SISO

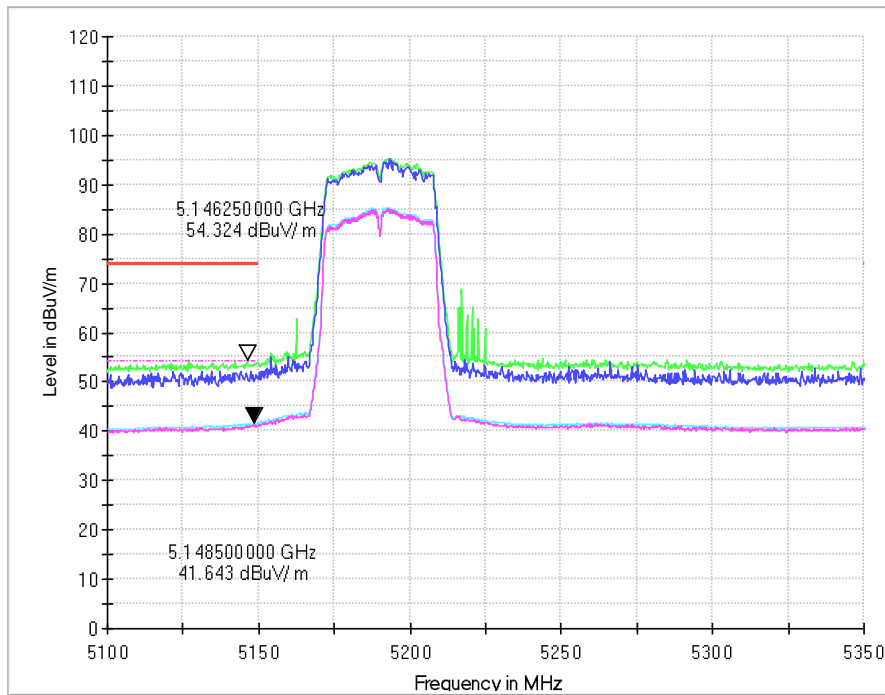
## Worst case CH\_5230 (1 GHz to 8 GHz)



## Worst case CH\_5795 (1 GHz to 8 GHz)

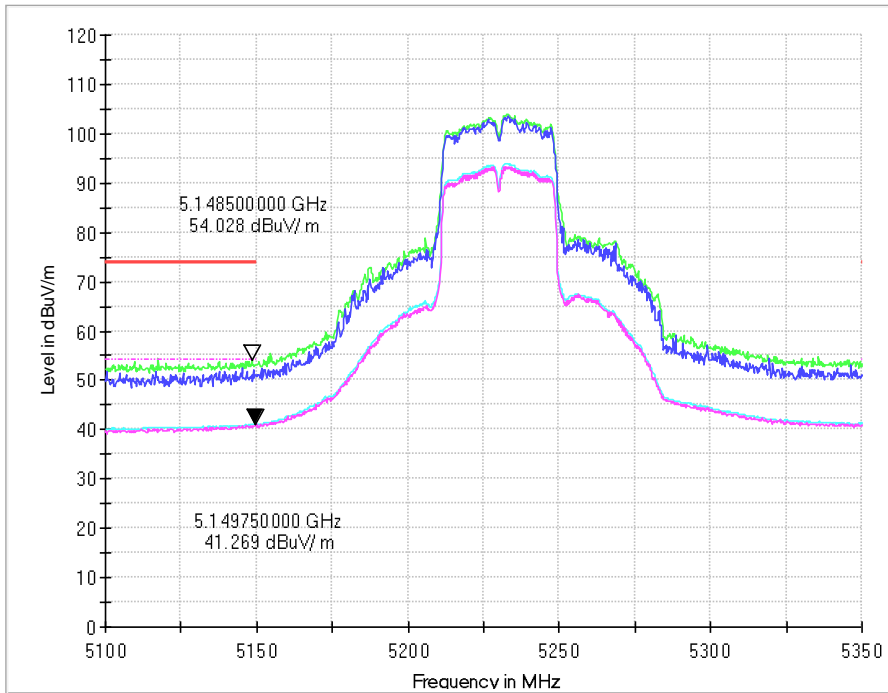


## CH\_5190 (Band Edge)

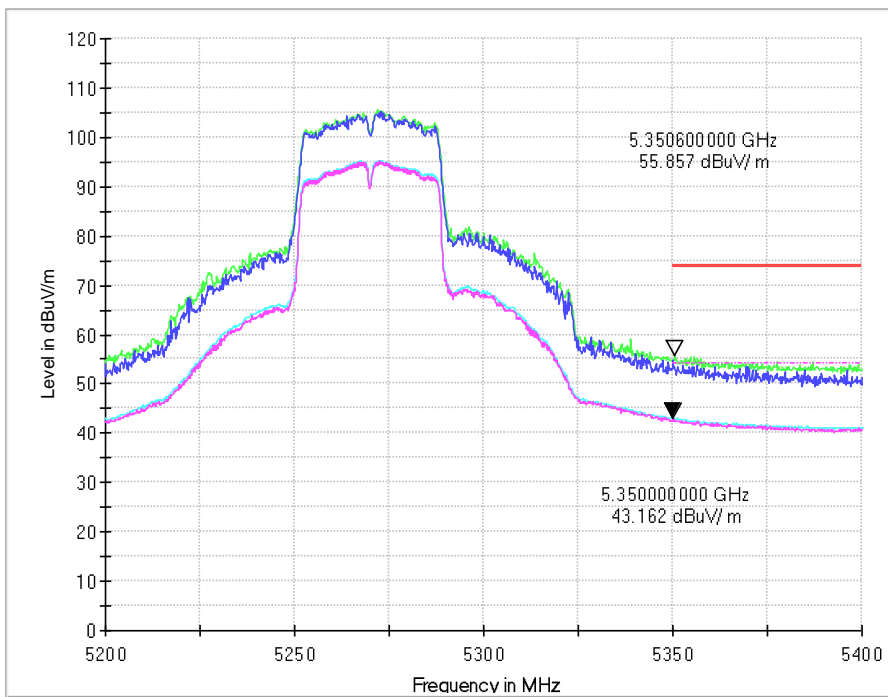




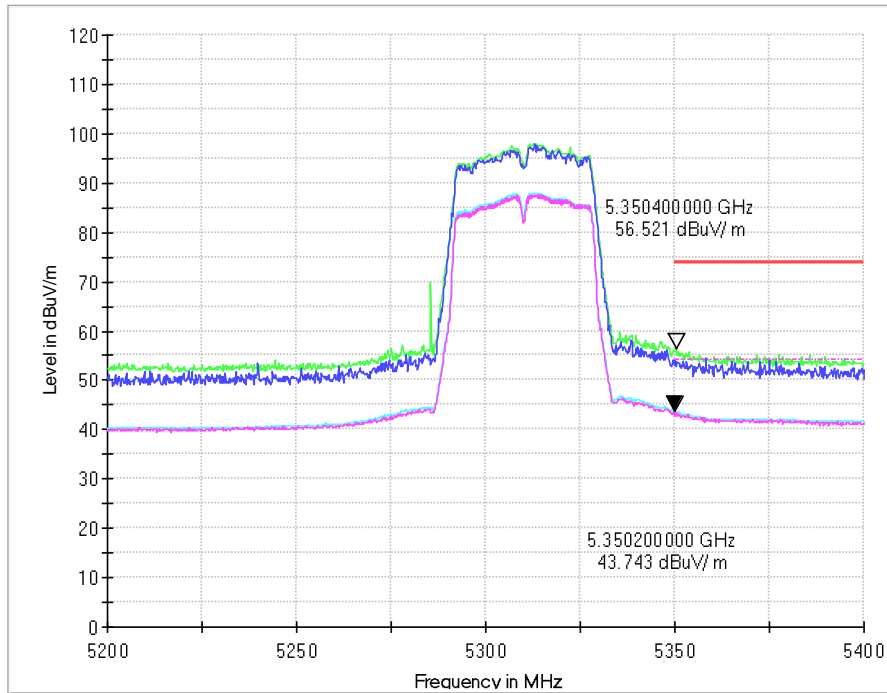
## CH\_5230 (Band Edge)



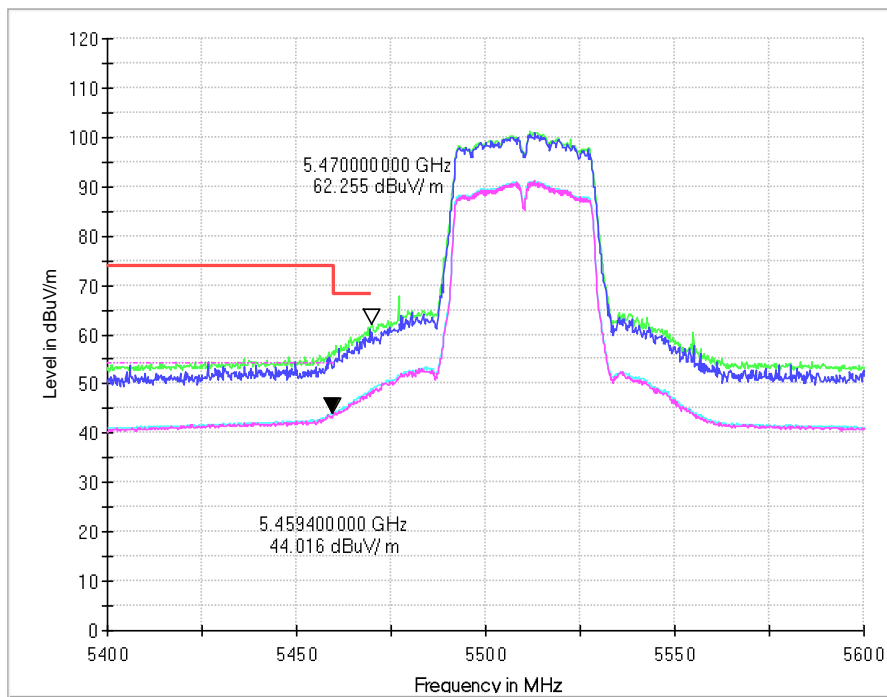
## CH\_5270 (Band Edge)



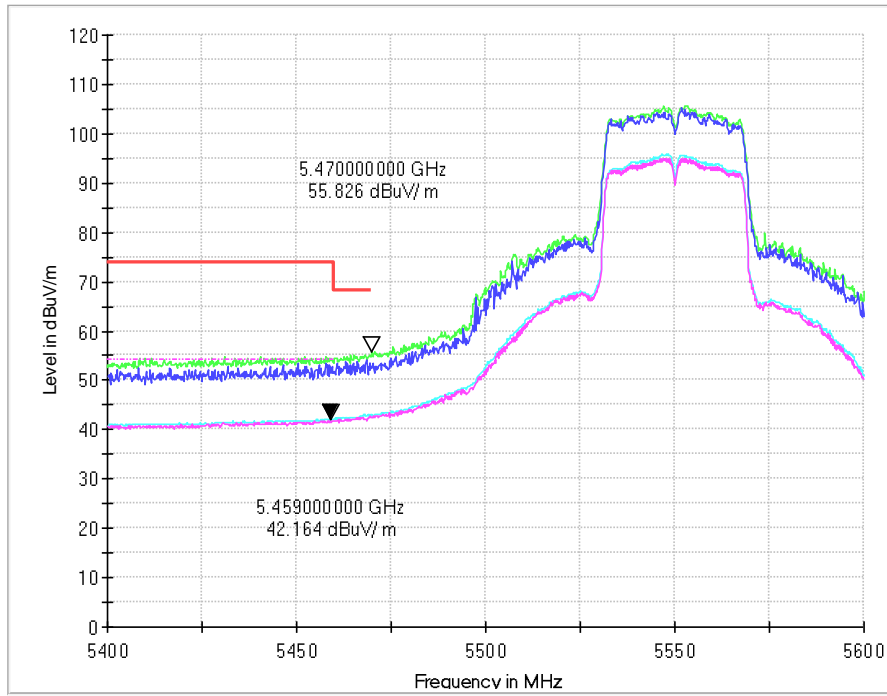
## CH\_5310(Band Edge)



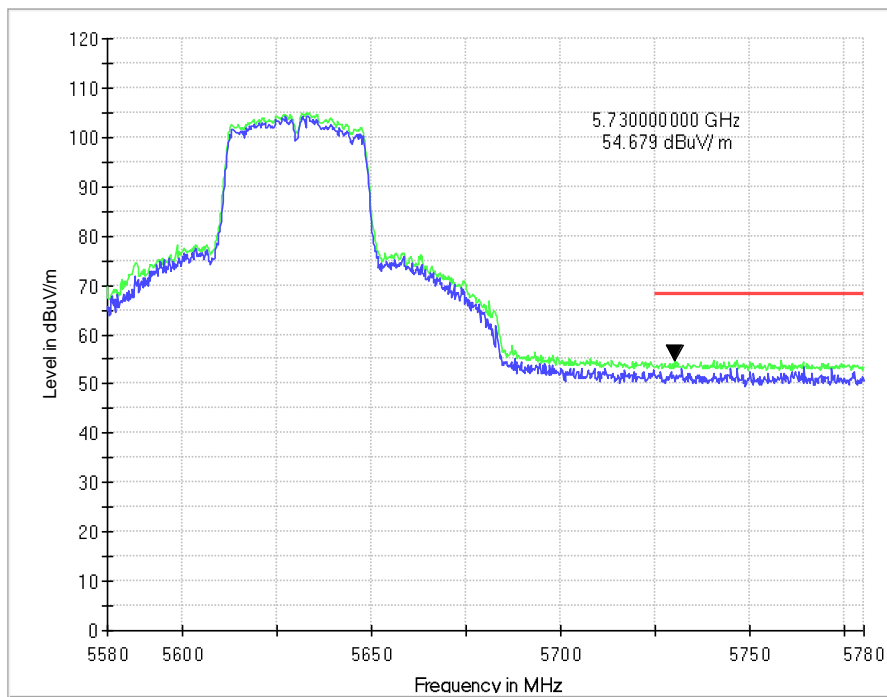
## CH\_5510(Band Edge)



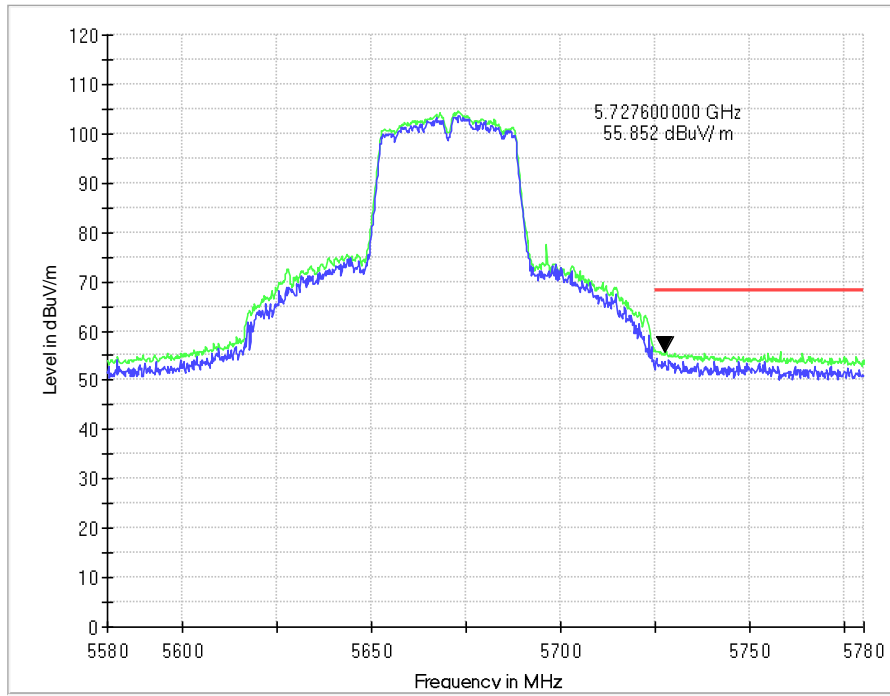
## CH\_5550(Band Edge)



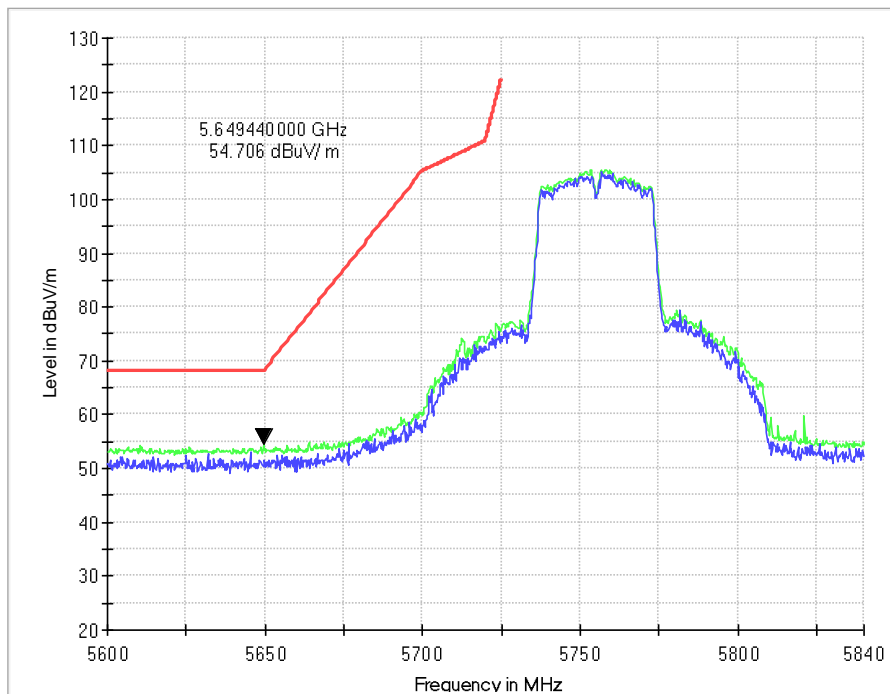
## CH\_5630(Band Edge)



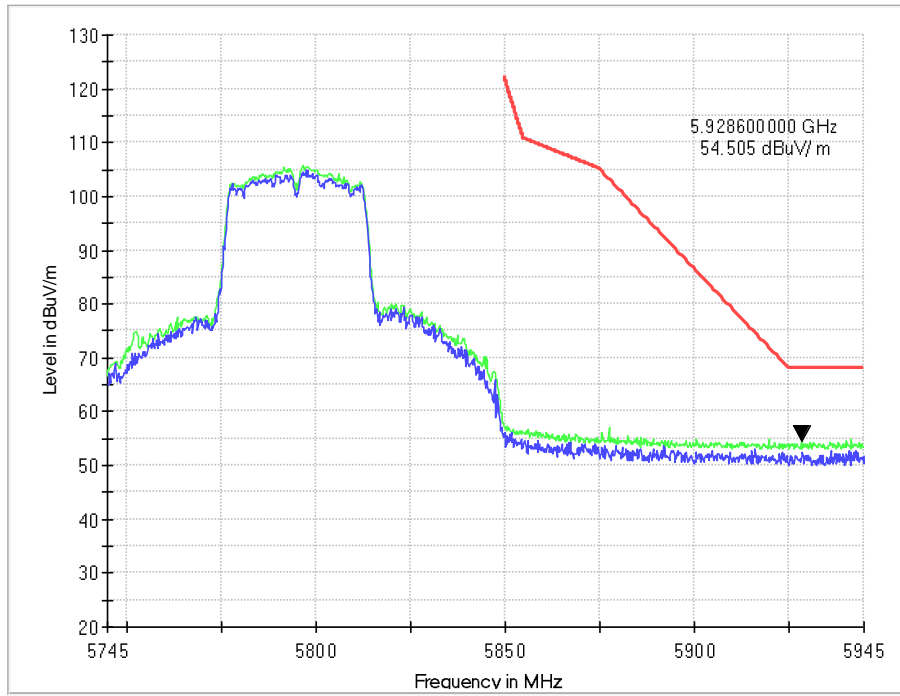
## CH\_5670(Band Edge)



## CH\_5755(Band Edge)

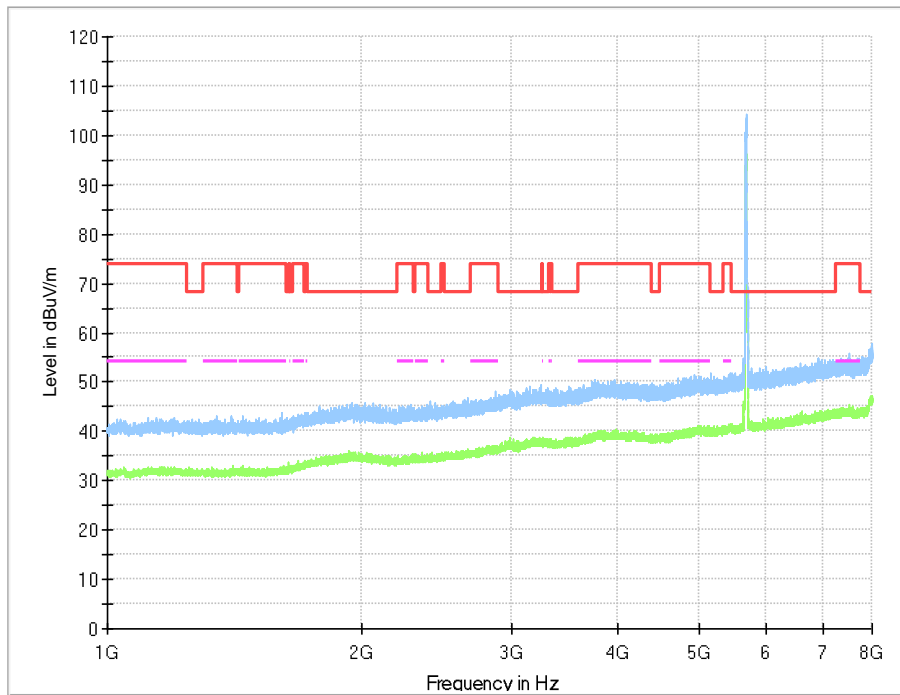


## CH\_5795(Band Edge)

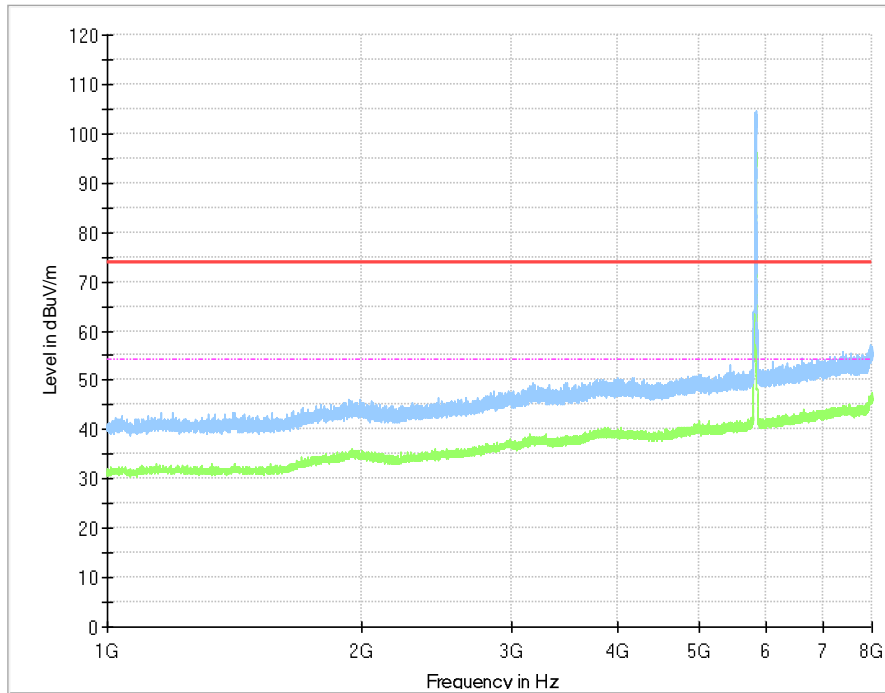


## 1.2.3.4. 11ac20 SISO

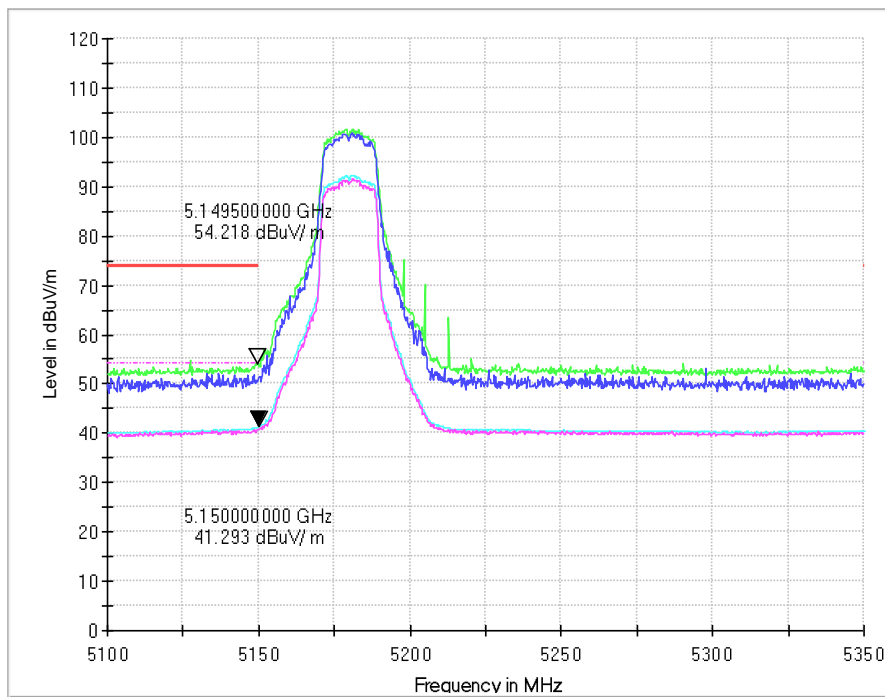
## Worst case CH\_5680 (1 GHz to 8 GHz)



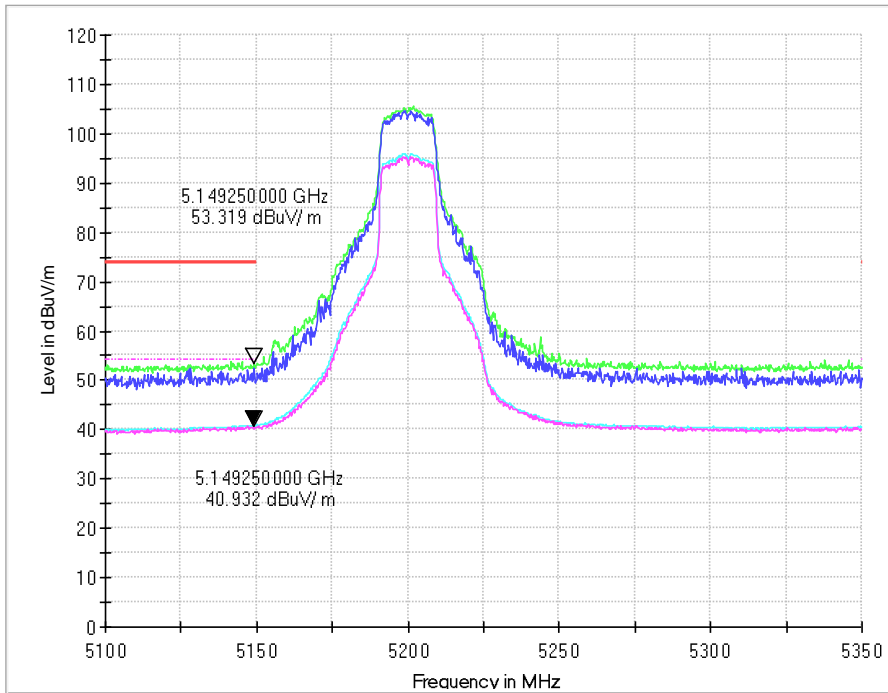
## Worst case CH\_5825 (1 GHz to 8 GHz)



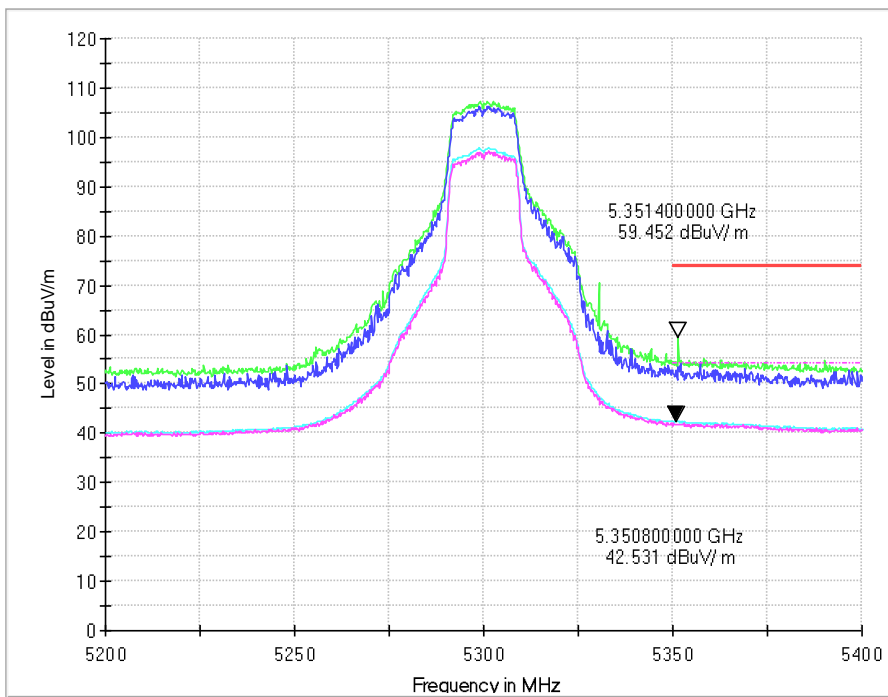
## CH\_5180 (Band Edge)



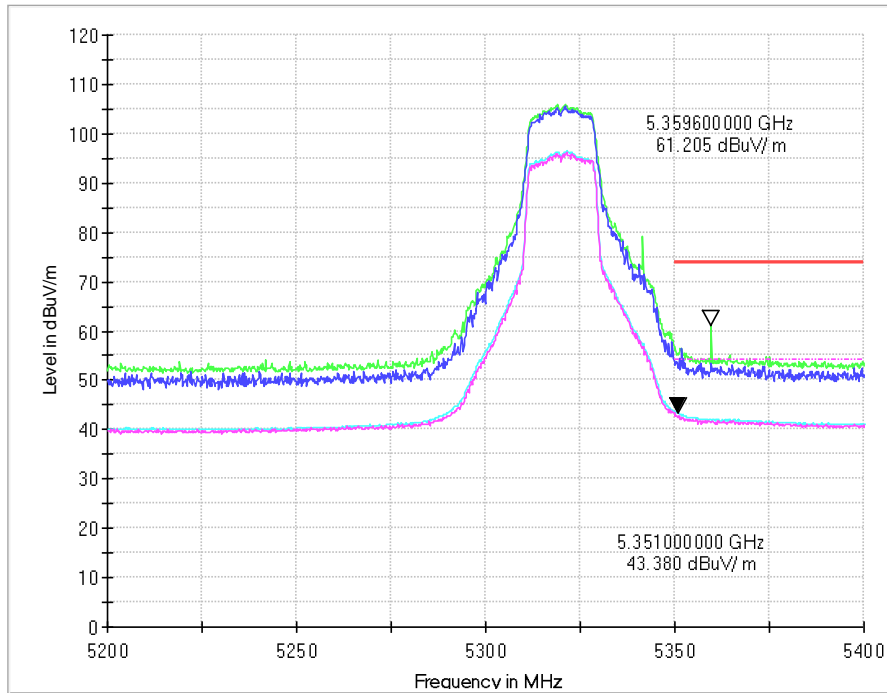
## CH\_5200 (Band Edge)



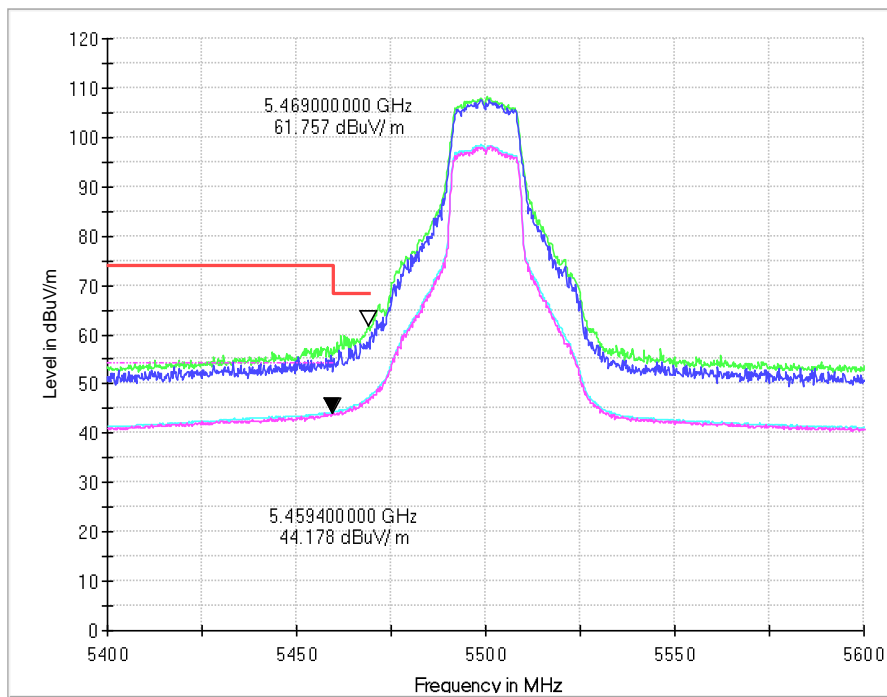
## CH\_5300(Band Edge)



## CH\_5320(Band Edge)

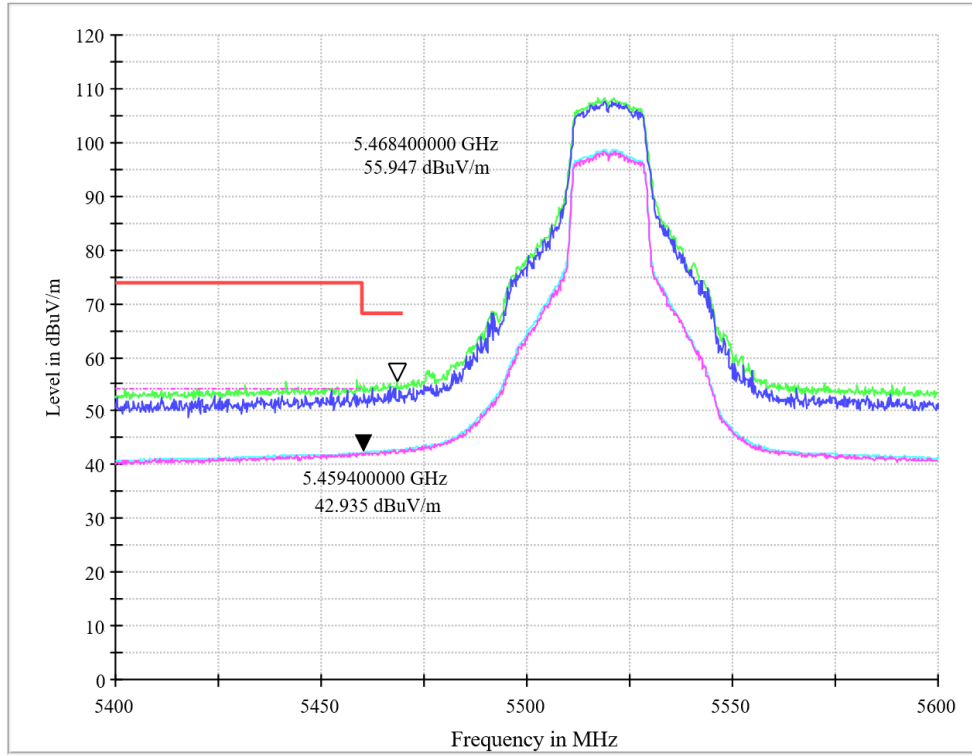


## CH\_5500(Band Edge)

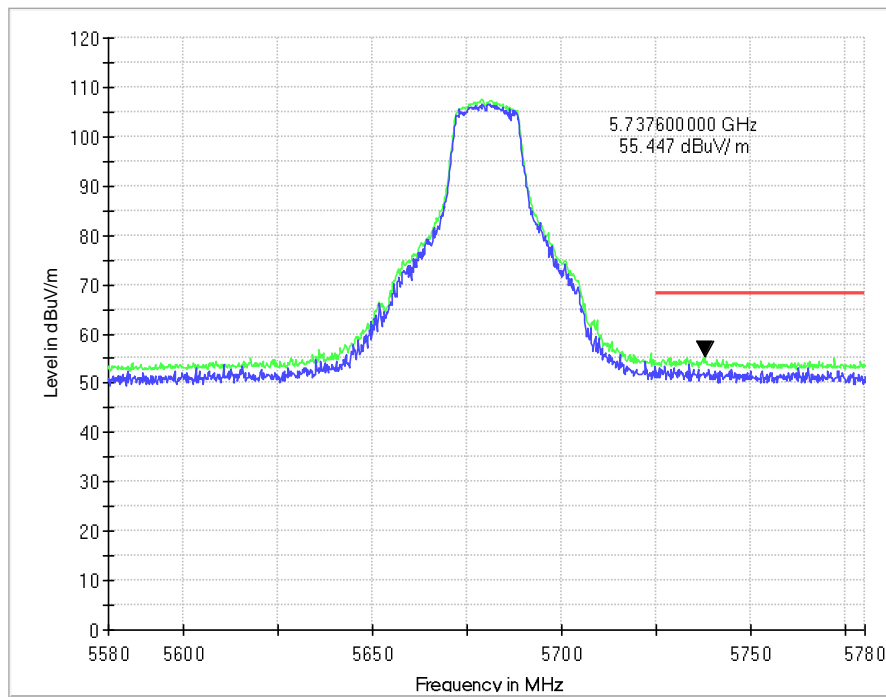




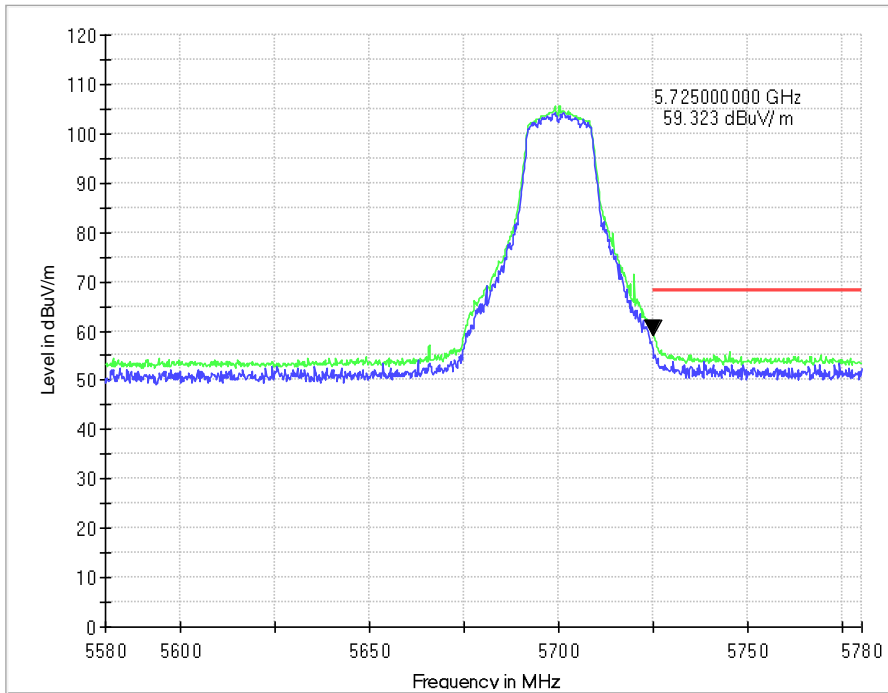
## CH\_5520(Band Edge)



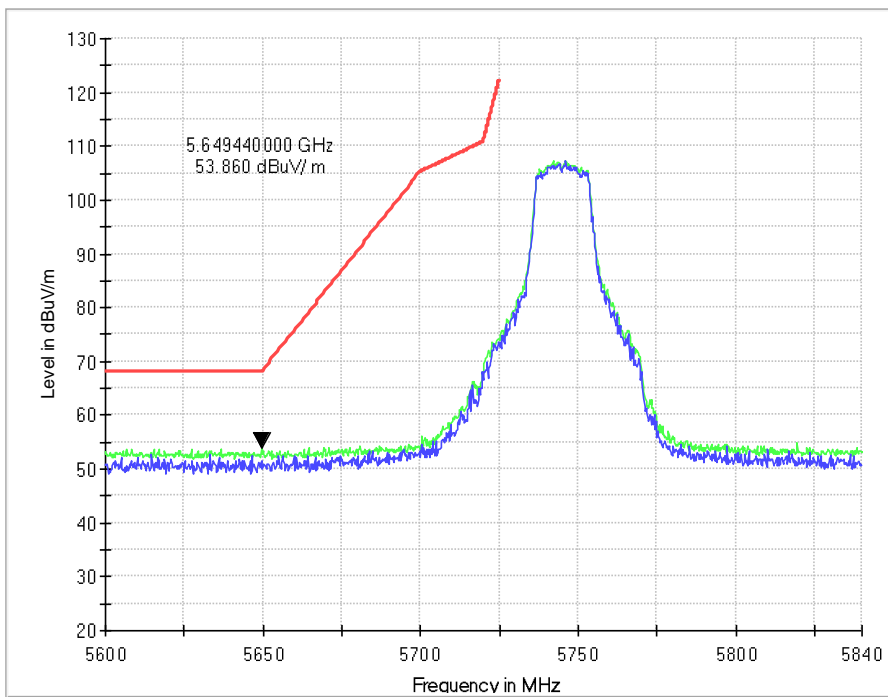
## CH\_5680(Band Edge)



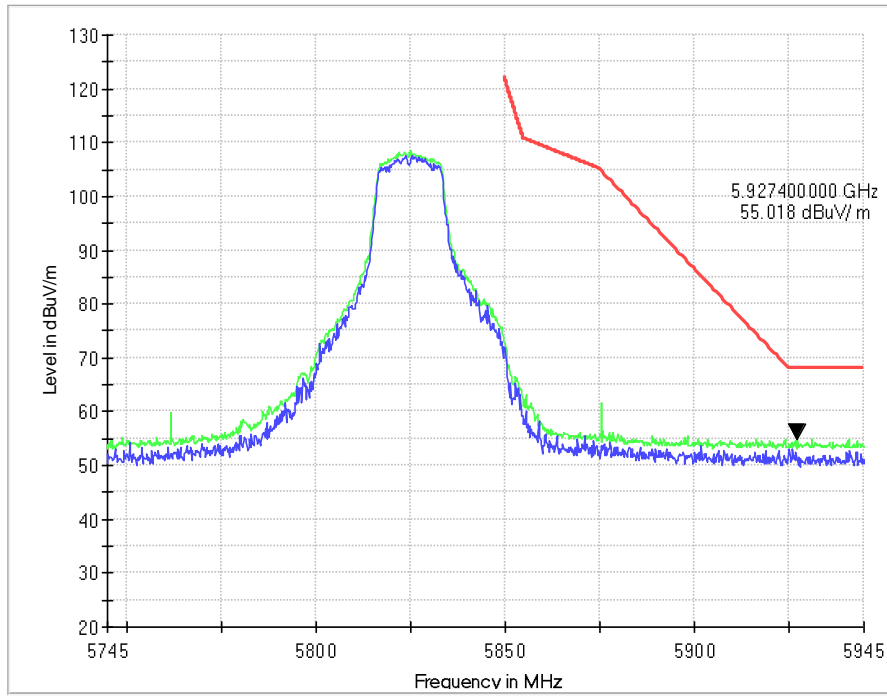
## CH\_5700(Band Edge)



## CH\_5745(Band Edge)

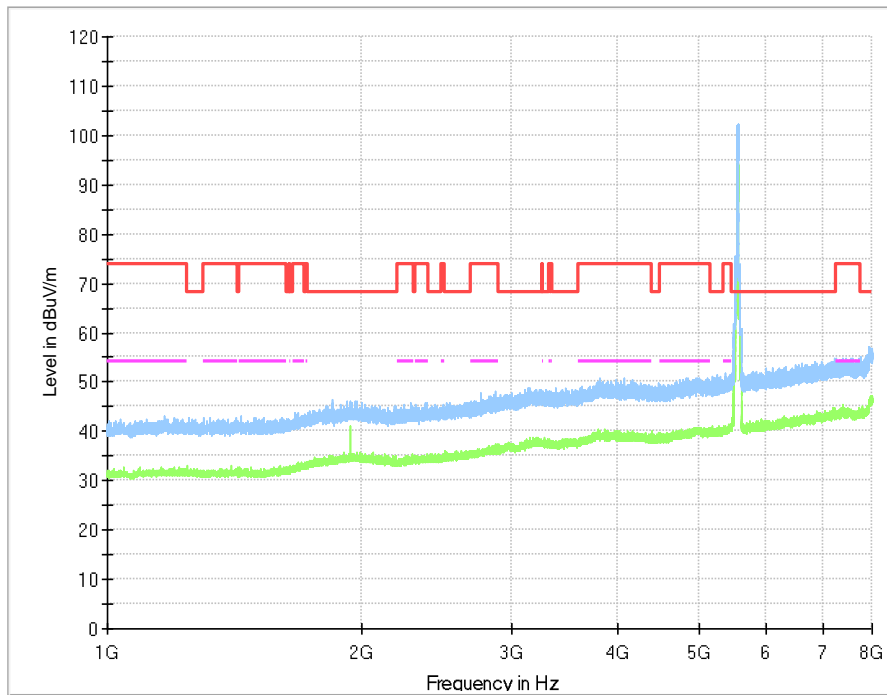


## CH\_5825(Band Edge)

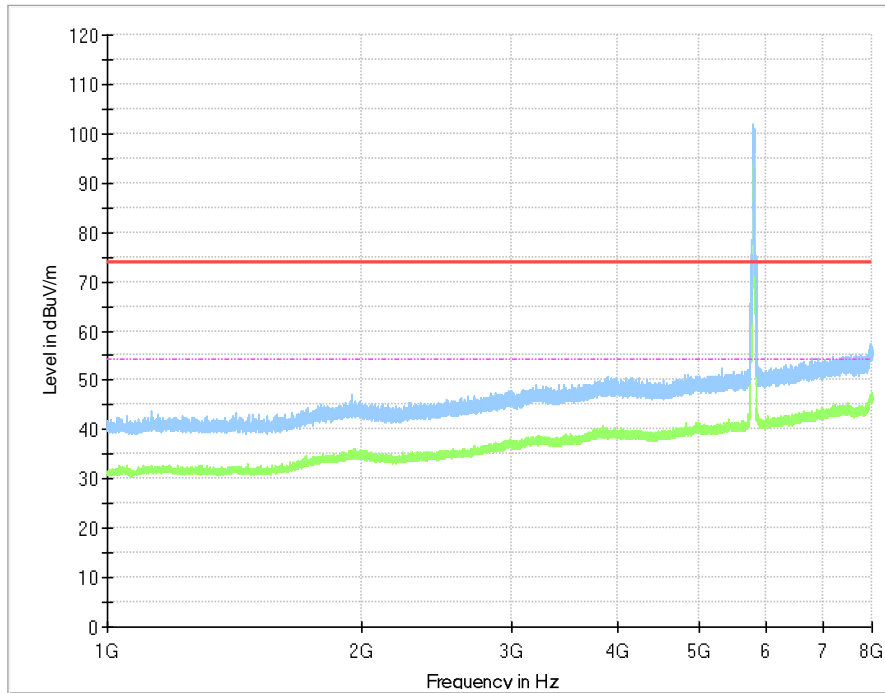


## 1.2.3.5. 11ac40 SISO

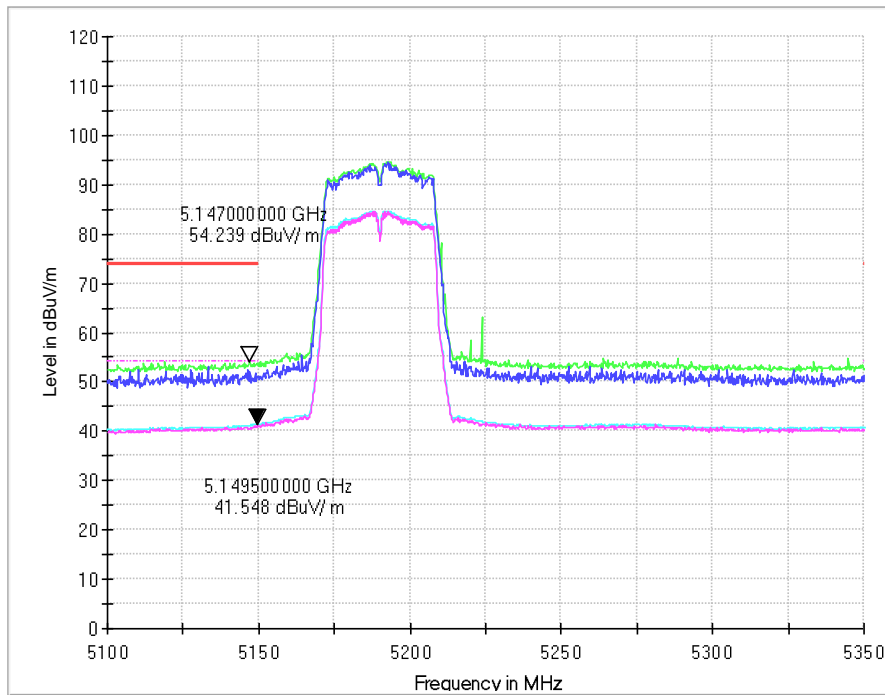
## Worst case CH\_5550 (1 GHz to 8 GHz)



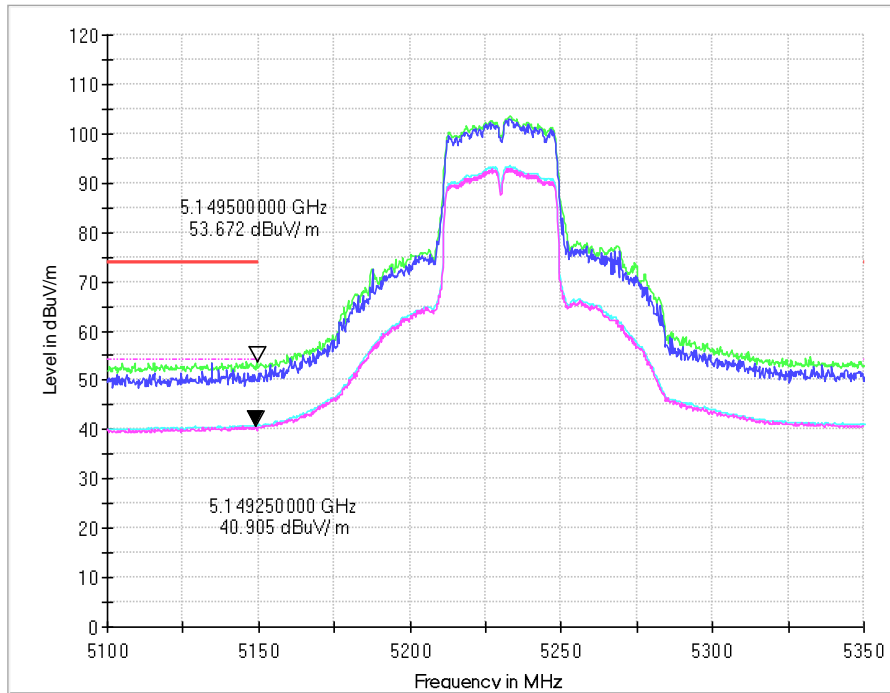
## Worst case CH\_5795 (1 GHz to 8 GHz)



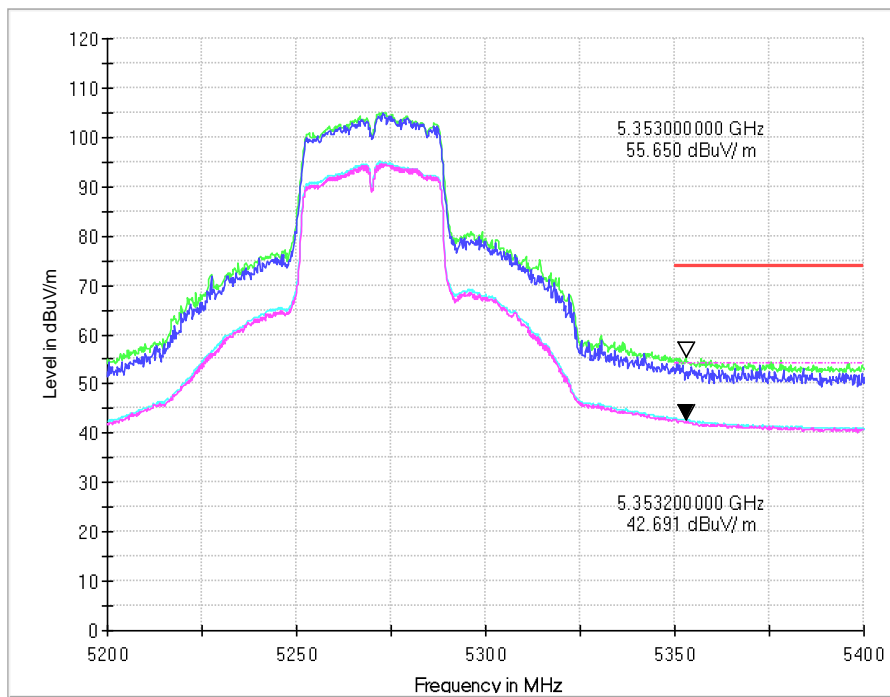
## CH\_5190 (Band Edge)



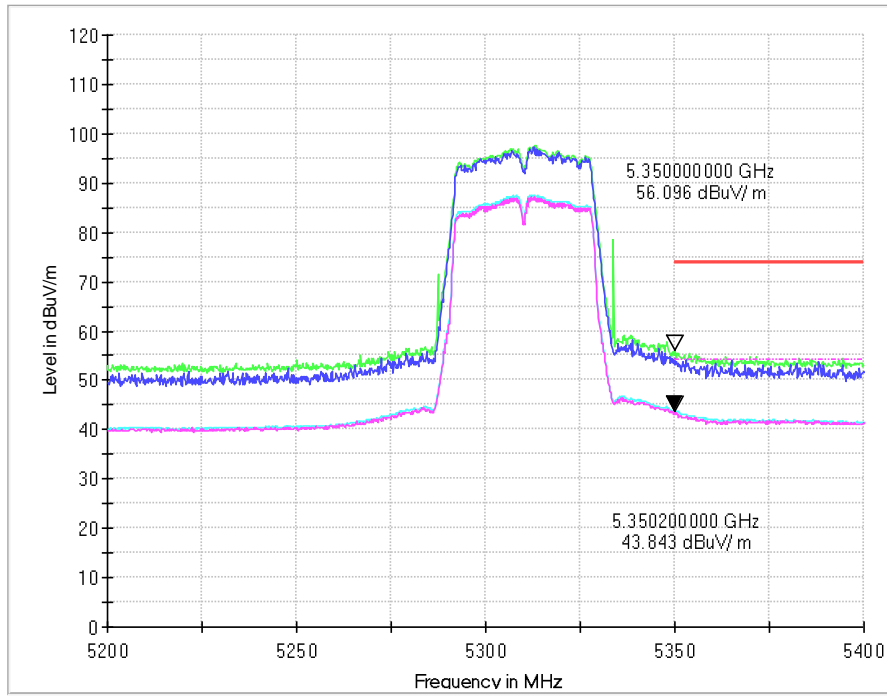
## CH\_5230 (Band Edge)



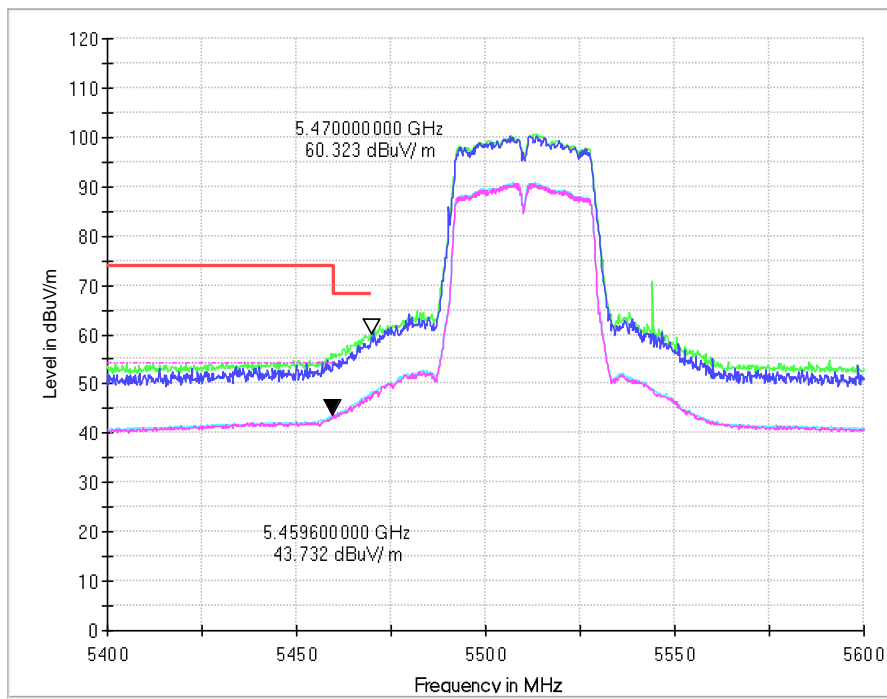
## CH\_5270 (Band Edge)



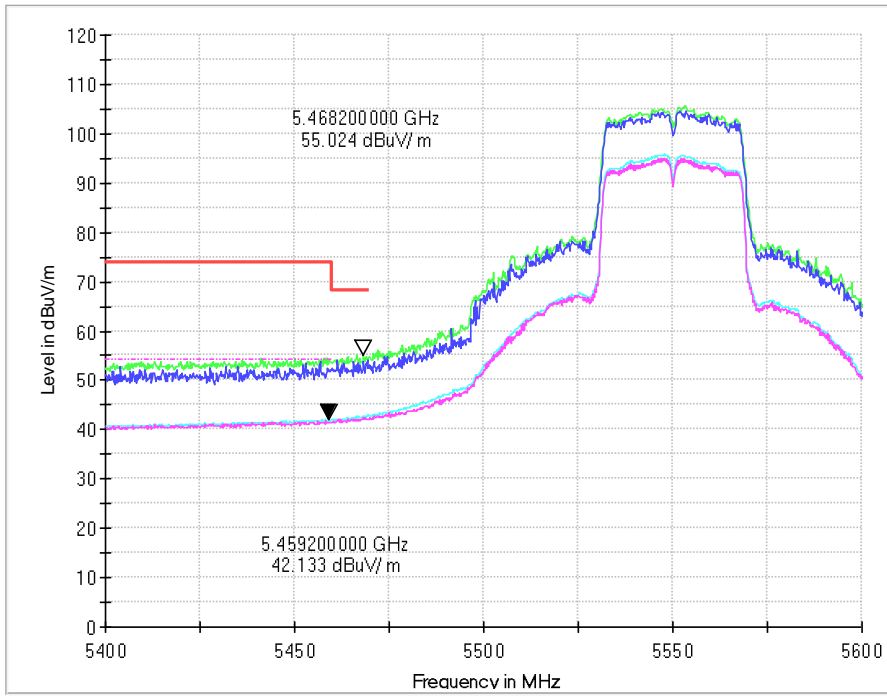
## CH\_5310(Band Edge)



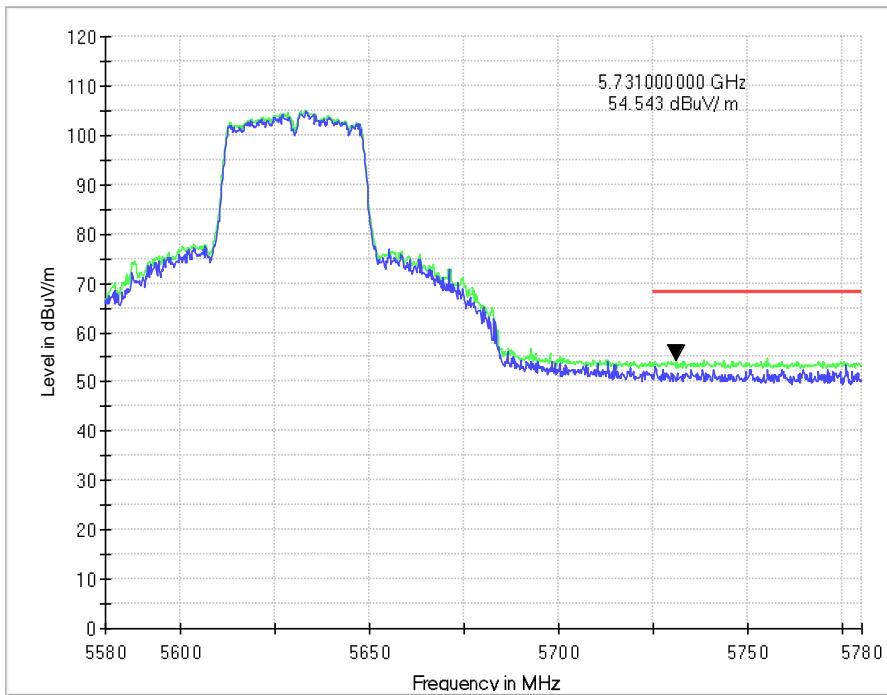
## CH\_5510(Band Edge)



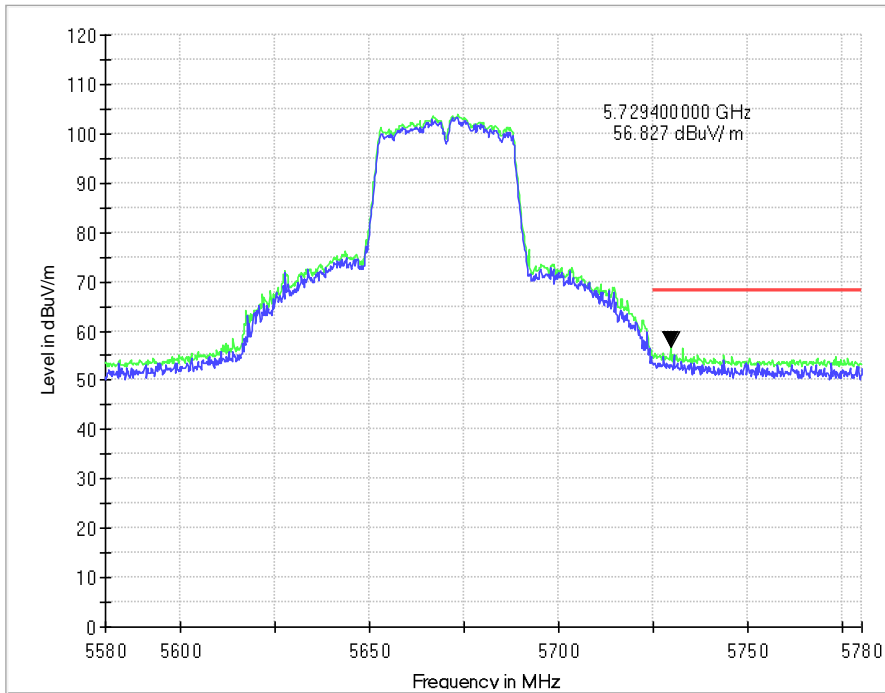
## CH\_5550(Band Edge)



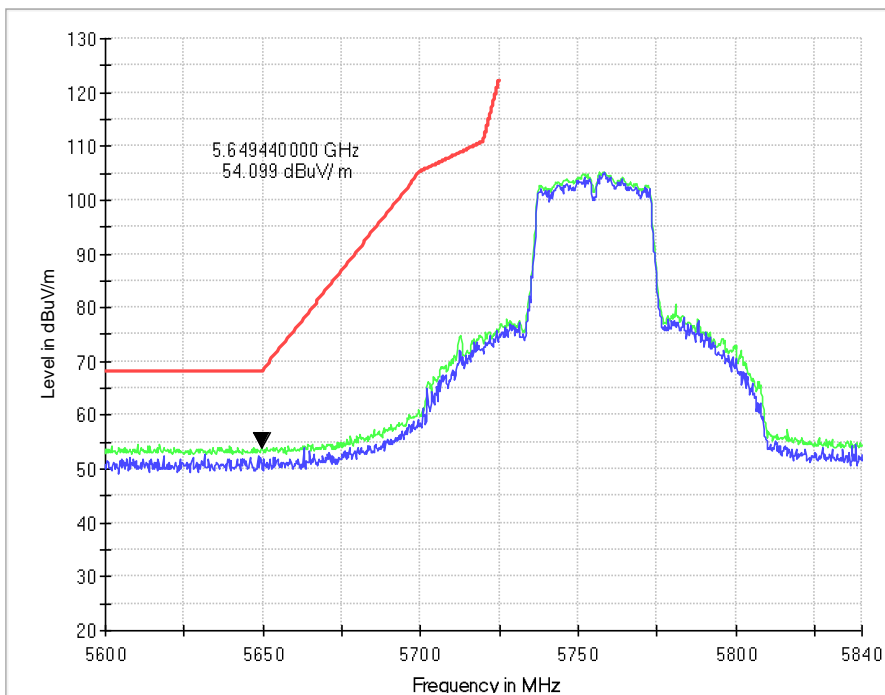
## CH\_5630(Band Edge)



## CH\_5670(Band Edge)

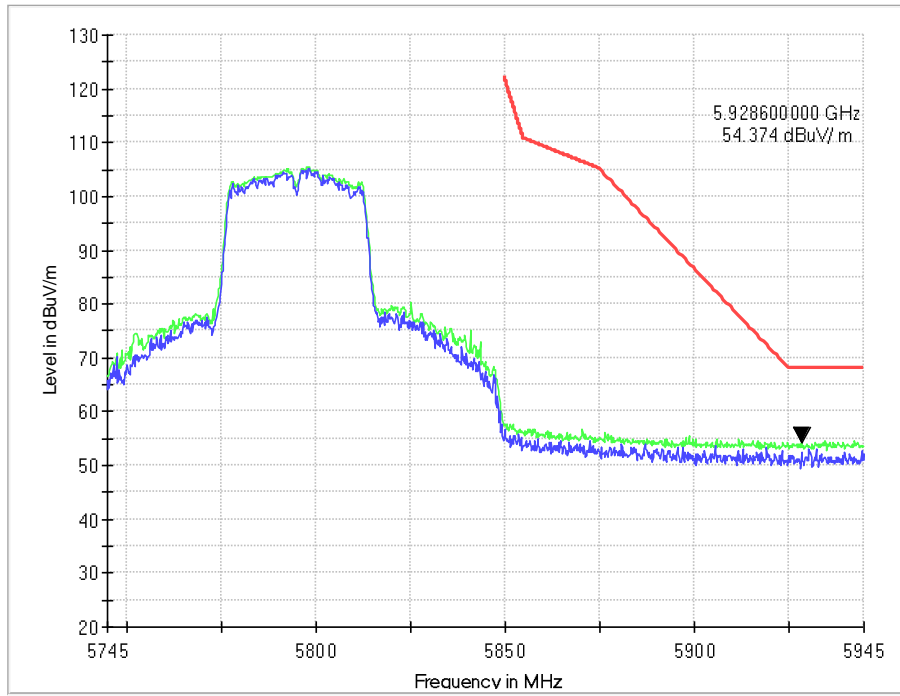


## CH\_5755(Band Edge)



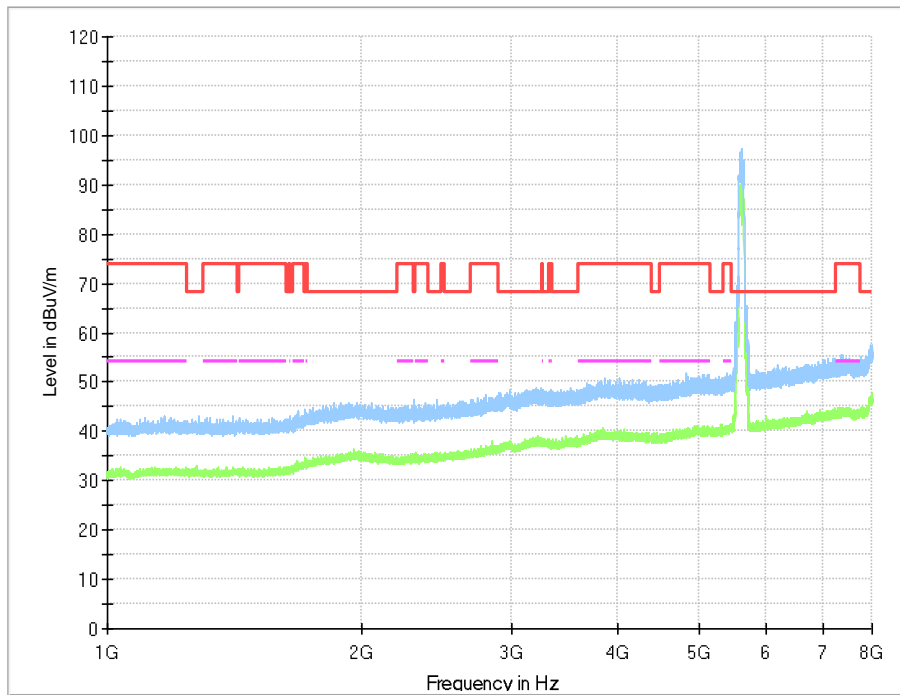


## CH\_5795(Band Edge)

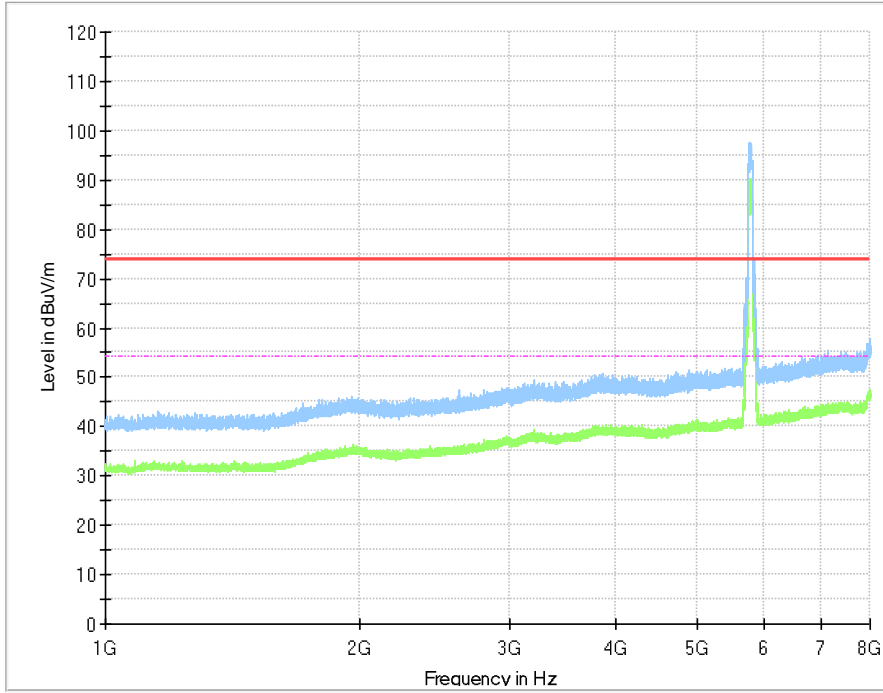


## 1.2.3.6. 11ac80 SISO

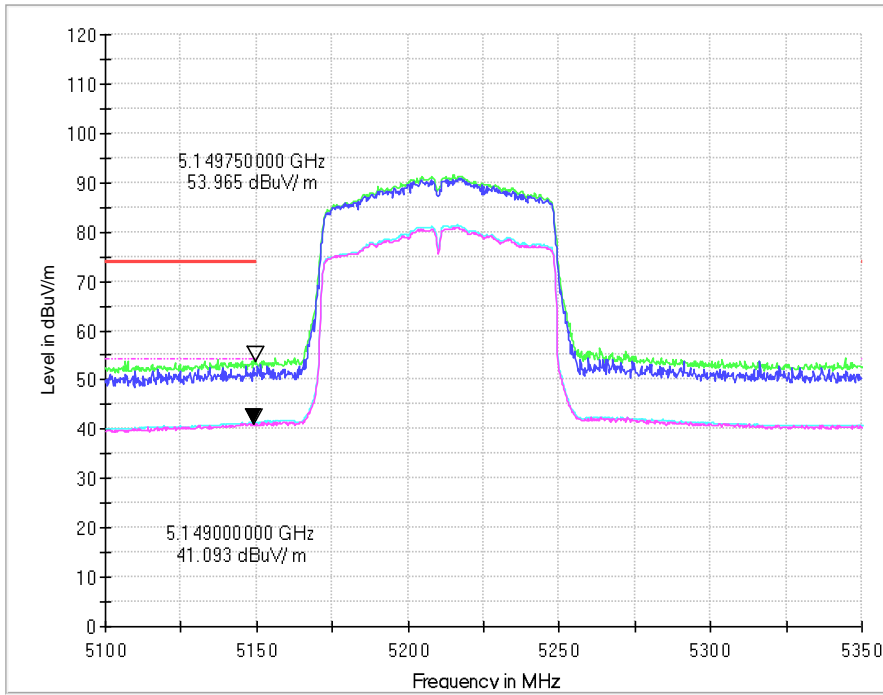
## Worst case CH\_5610 (1 GHz to 8 GHz)



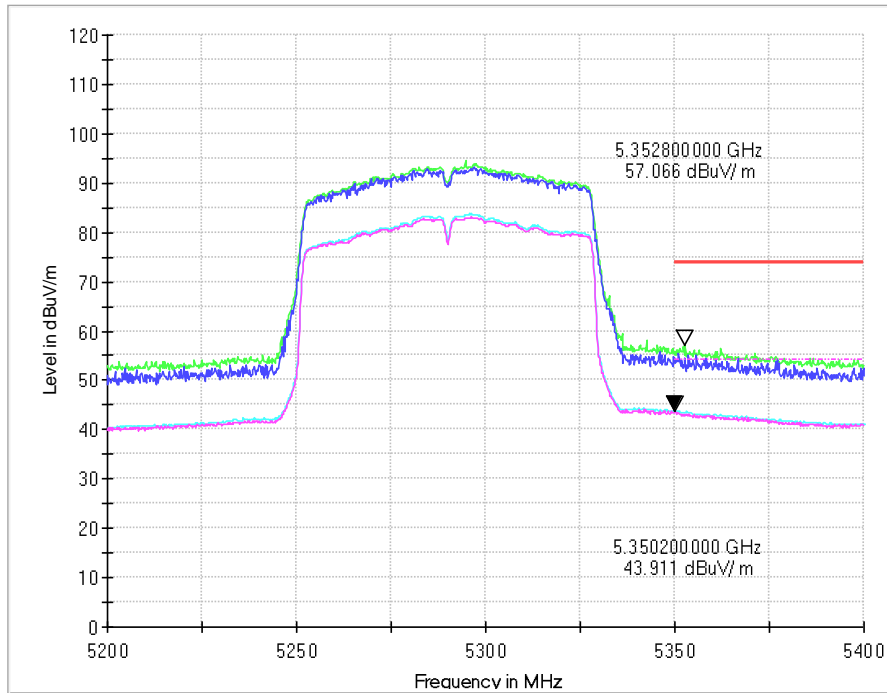
## Worst case CH\_5775 (1 GHz to 8 GHz)



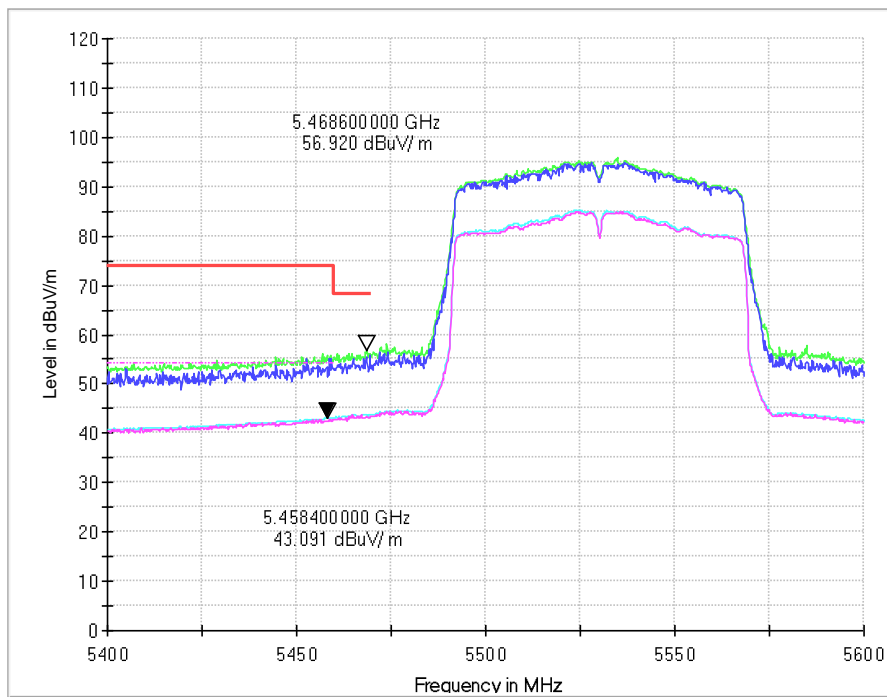
## CH\_5210 (Band Edge)



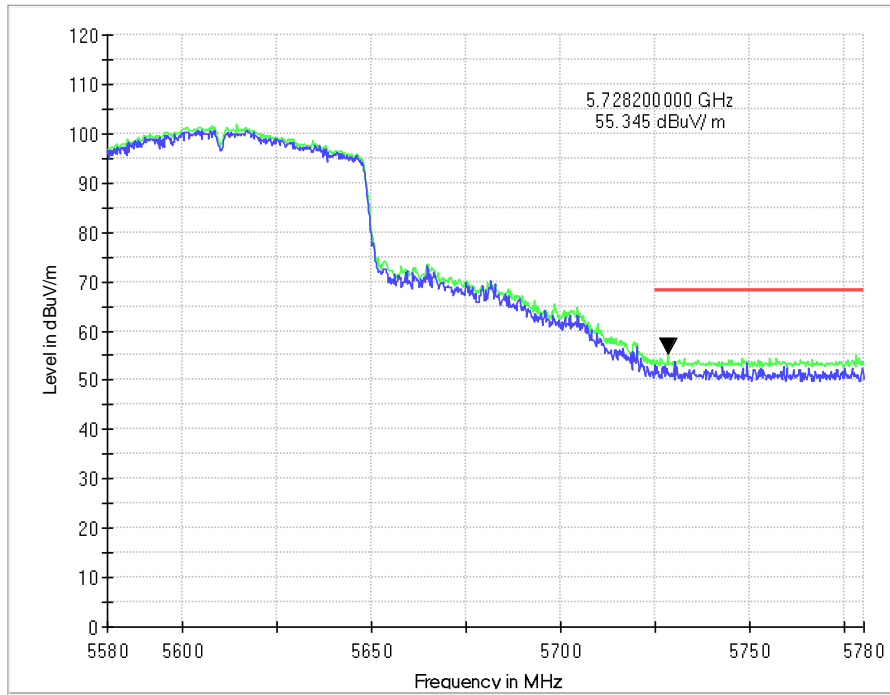
## CH\_5290 (Band Edge)



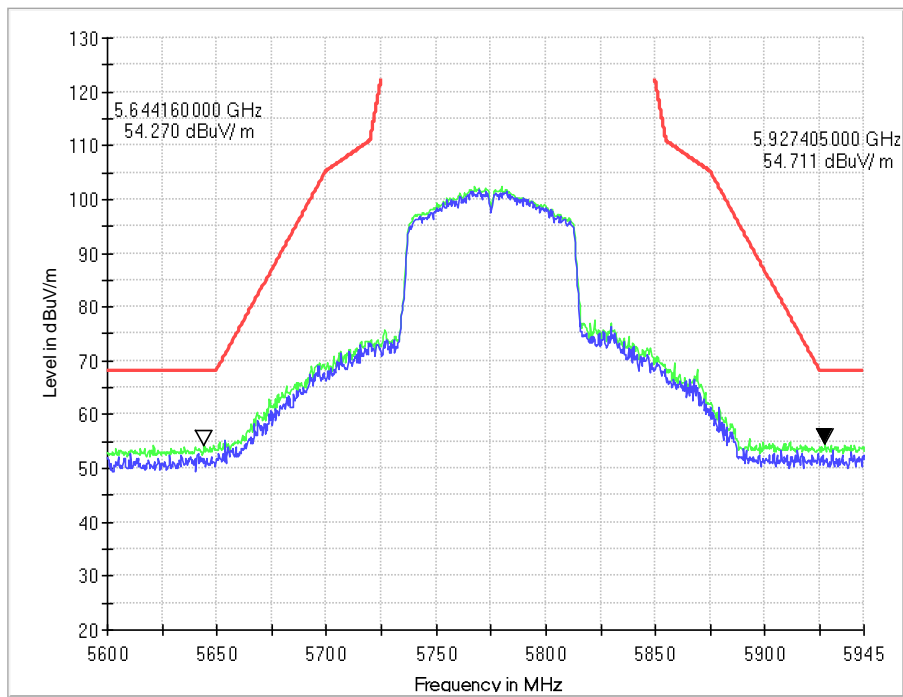
## CH\_5530 (Band Edge)



## CH\_5610(Band Edge)



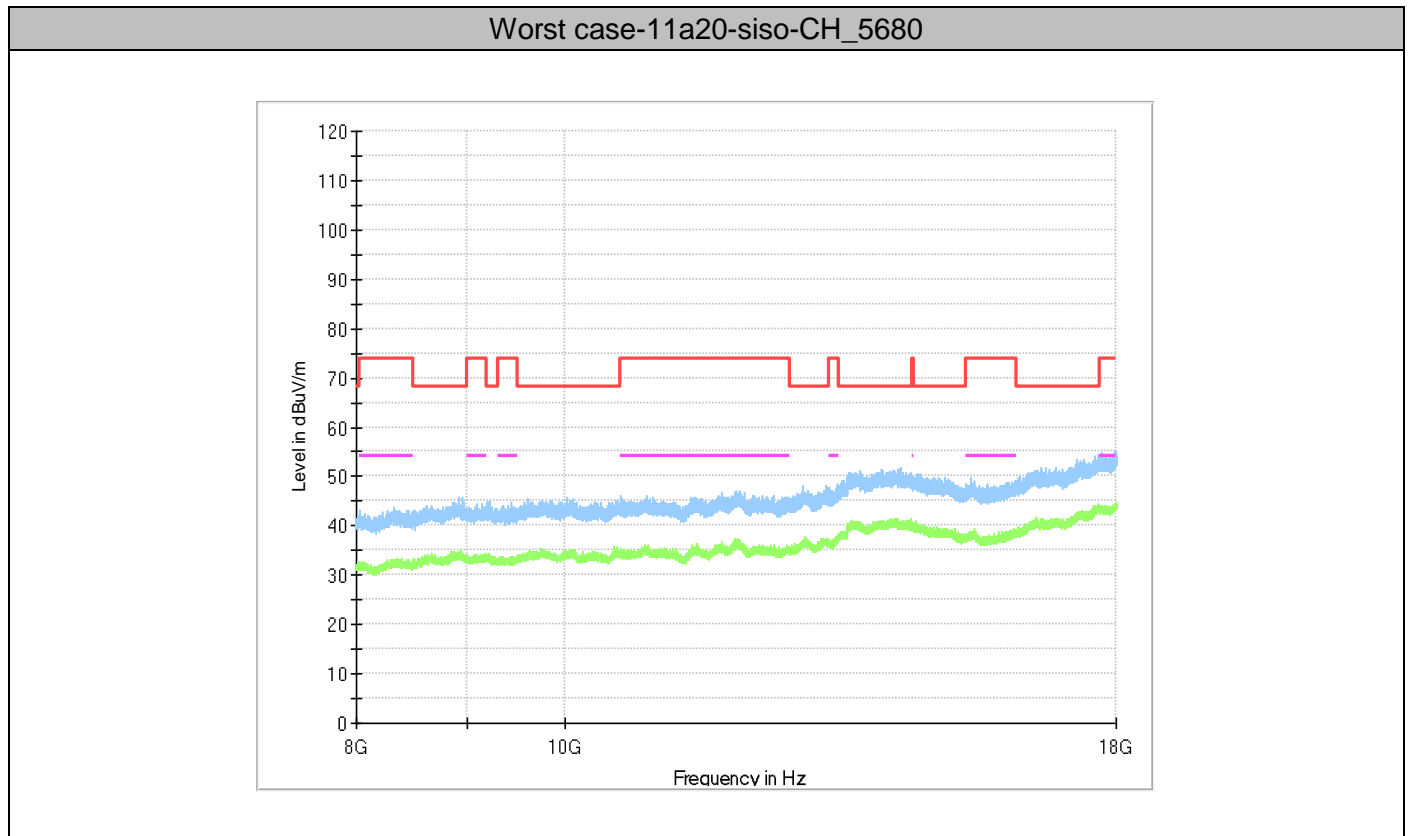
## CH\_5775(Band Edge)



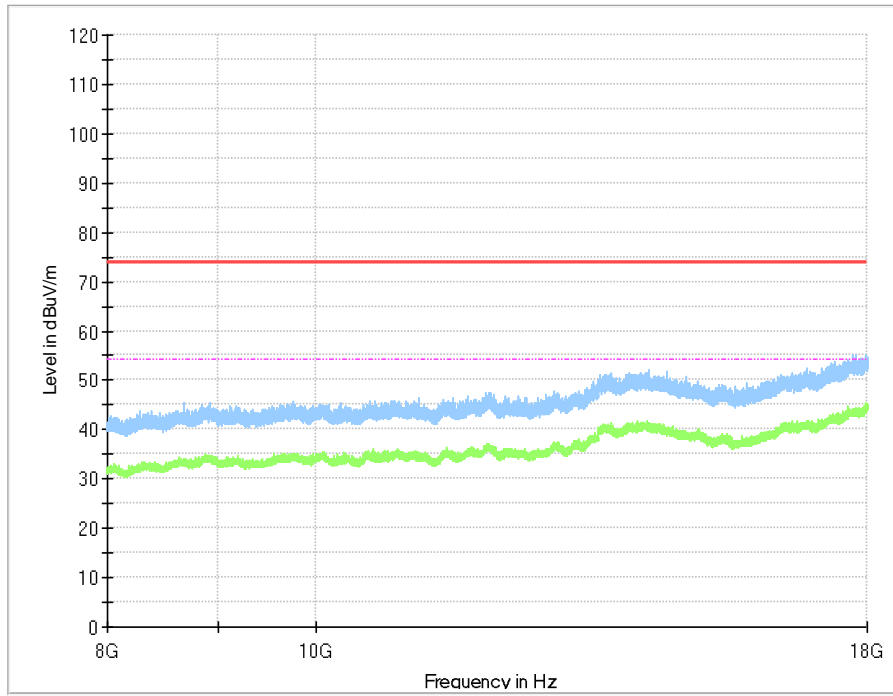
#### 1.2.4. Part 4: Testing Range of “8 GHz to 18 GHz”

Note 1: The test results and plot for testing range of “8 GHz to 18 GHz” showed as below is the worst case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.

Note 2: The testing range of “8 GHz to 18 GHz” is for checking radiated emissions located in restricted bands faraway from the EUT operating bands.



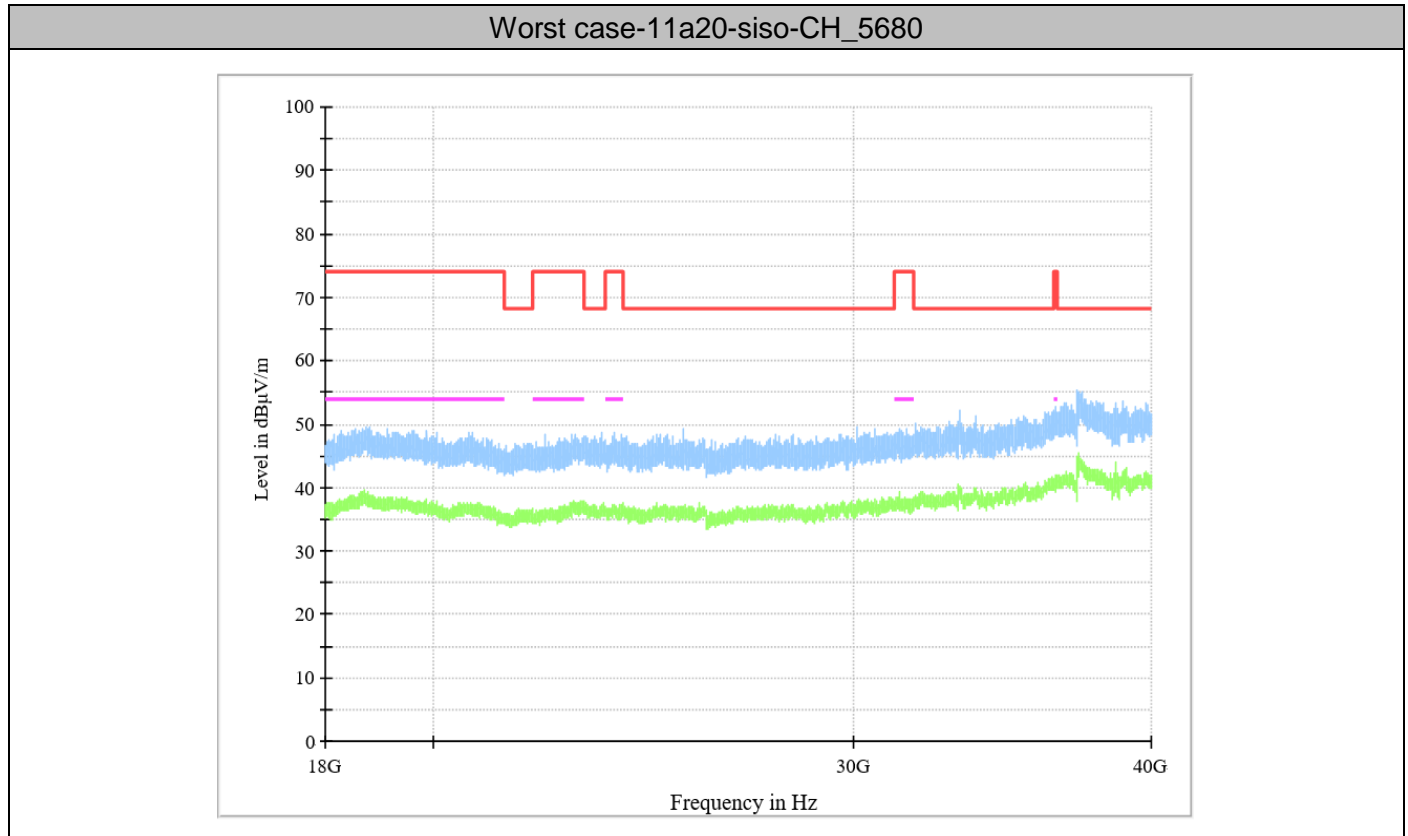
Worst case-11a20-iso CH\_5745



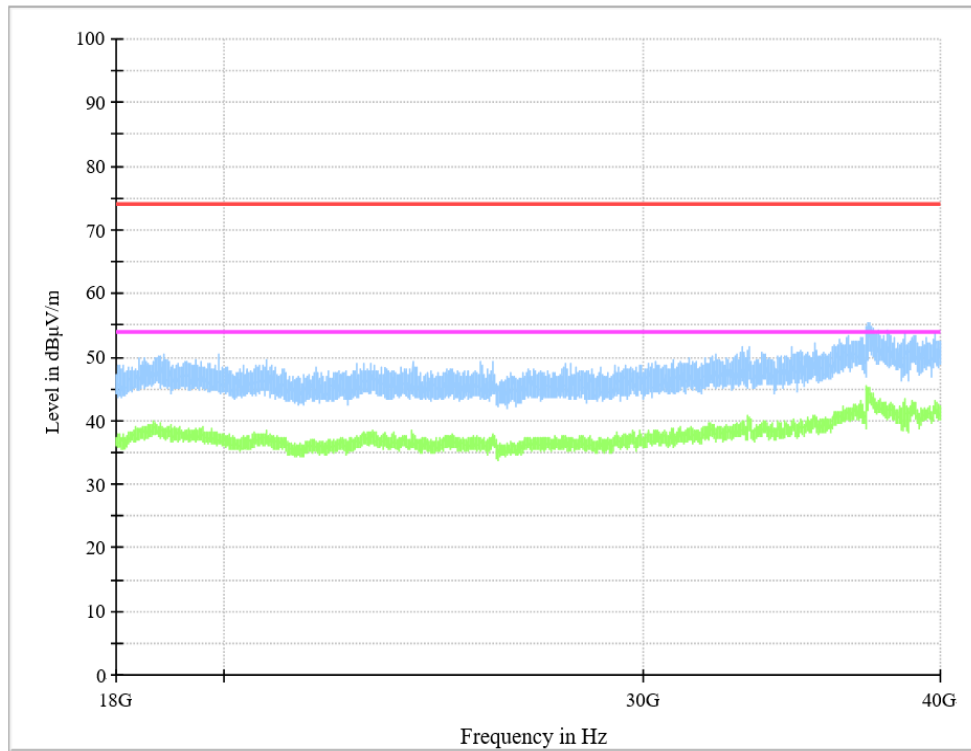
### 1.2.5. Part 5: Testing Range of “18 GHz to 40 GHz”

Note 1: The test results and plot for testing range of “18 GHz to 40 GHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.

Note 2: The testing range of “18 GHz to 40 GHz” is for checking radiated emissions located in restricted bands faraway from the EUT operating bands.



## Worst case-11a20-iso-CH\_5745





## 2. Appendix H: Conducted Emission at Power Port

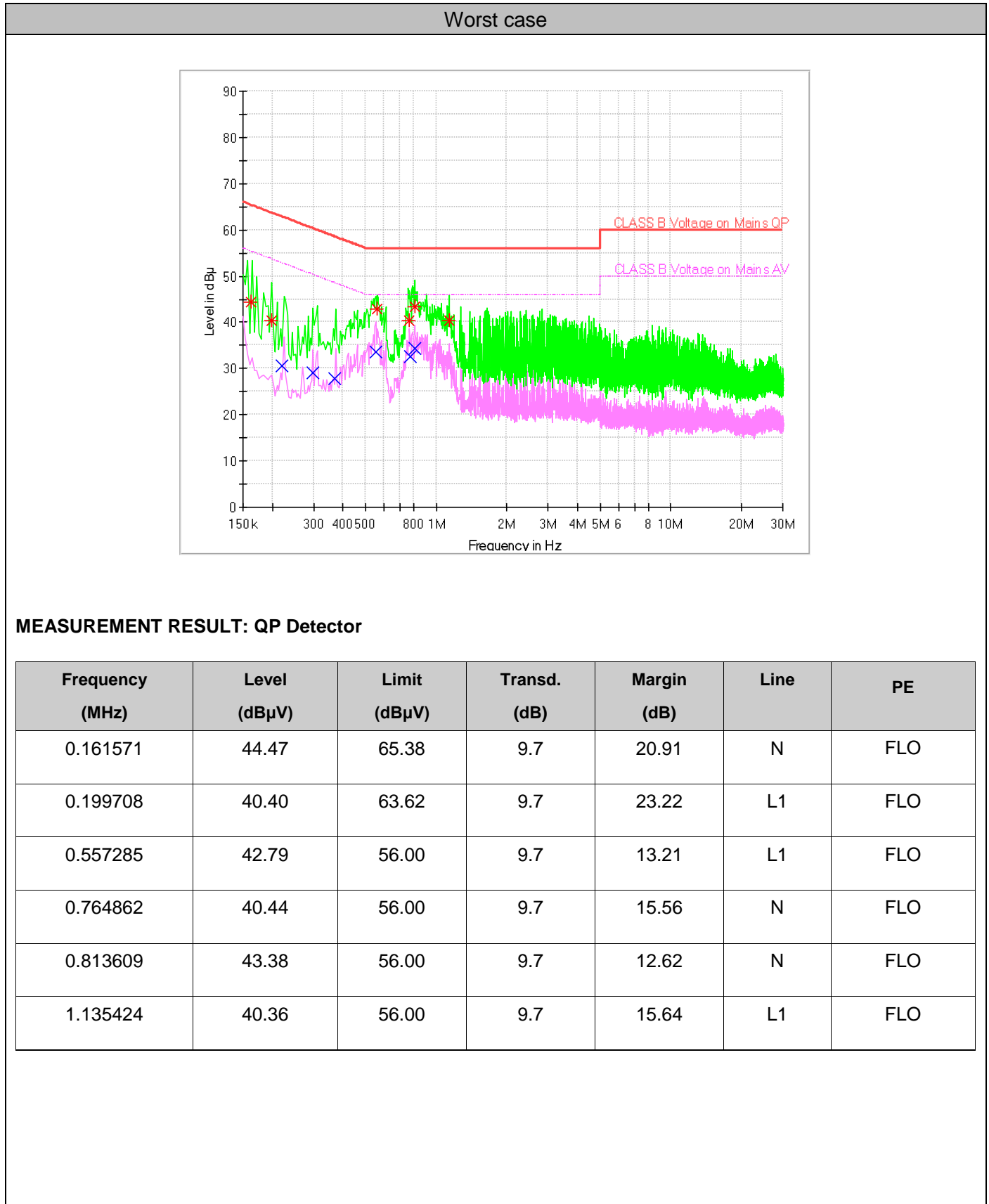
Note 1: The test results and plot for testing range of “150 kHz to 30 MHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.

Note 2: RBW =9 kHz; VBW = 30 kHz

### 2.1. Test Results

Test Mode	Antenna Port	Test Channel	Maximum Emissions	Limit	Verdict
11a20 SISO	Ant1	5680	(see Test Graphs)	(see Test Graphs)	PASS

2.2. Test Graphs



**MEASUREMENT RESULT: AV Detector**

Frequency (MHz)	Level (dBμV)	Limit (dBμV)	Transd. (dB)	Margin (dB)	Line	PE
0.220473	30.64	52.80	9.7	22.16	N	FLO
0.298659	28.98	50.28	9.7	21.30	L1	FLO
0.369426	27.93	48.51	9.7	20.58	L1	FLO
0.551559	33.71	46.00	9.7	12.29	L1	FLO
0.773285	32.50	46.00	9.7	13.50	N	FLO
0.813479	34.36	46.00	9.7	11.64	N	FLO

Note:

1, Level =Reading level by receiver + Transd (Antenna factor + cable loss – preamplifier gain)

The reading level is calculated by software which is not shown in the sheet.

2, Margin=Limit - Level

END