

Appendix A

RF Test Data for 5.2G (Conducted Measurement)

Product Name: Wireless Video Transmission System

Trade Mark: Hollyland

Test Model: SYSCOM1200

Environmental Conditions

Temperature:	23.6 ° C
Relative Humidity:	53.9%
ATM Pressure:	100.0 kPa
Test Engineer:	Wang Chuang
Supervised by:	Tom Liu

A.1 Duty Cycle

Antenna 0

Test Mode	Test Frequency (MHz)	Duty Cycle (%)	10log(1/x) Factor (dB)	1/B Minimum VBW (KHz)
OFDM-16QAM	5190	100	0.00	0.01

Antenna 1

Test Mode	Test Frequency (MHz)	Duty Cycle (%)	10log(1/x) Factor (dB)	1/B Minimum VBW (KHz)
OFDM-16QAM	5190	100	0.00	0.01

On Time and Duty Cycle

Keysight Spectrum Analyzer - Swept SA

Sweep Time 10.13 ms

PNO: Fast IFGain:Low Trig: Free Run Atten: 40 dB Avg Type: Log-Pwr AvgHold:>100/100

03:42:20 PM Jun 26, 2019

10 dB/div Ref 30.00 dBm

Center 5.190000000 GHz Res BW 8 MHz #VBW 50 MHz Sweep 10.13 ms (1001 pts) Span 0 Hz

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								

Sweep/Control: Sweep Time 10.13 ms

Sweep Setup >

Gate [Off,LO]

Points 1001

OFDM-16QAM_Ant0

Keysight Spectrum Analyzer - Swept SA

Sweep Time 10.13 ms

PNO: Fast IFGain:Low Trig: Free Run Atten: 40 dB Avg Type: Log-Pwr AvgHold:>100/100

03:42:40 PM Jun 26, 2019

10 dB/div Ref 30.00 dBm

Center 5.190000000 GHz Res BW 8 MHz #VBW 50 MHz Sweep 10.13 ms (1001 pts) Span 0 Hz

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								

Sweep/Control: Sweep Time 10.13 ms

Sweep Setup >

Gate [Off,LO]

Points 1001

OFDM-16QAM_Ant1

A.2 Maximum Conduct Output Power

Antenna 0

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor (dB)	Report Conducted Power (dBm)	Limit (dBm)
OFDM-16QAM	0	5190	15.56	0	15.56	30
	1	5230	12.45	0	12.45	

Antenna 1

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor (dB)	Report Conducted Power (dBm)	Limit (dBm)
OFDM-16QAM	0	5190	15.37	0	15.37	30
	1	5230	12.39	0	12.39	

Antenna 0+Antenna 1

Test Mode	Channel	Frequency (MHz)	Duty Cycle Factor (dB)	Report Conducted Power (dBm)			Limit (dBm)
				Ant0	Ant1	Sum	
OFDM-16QAM	0	5190	0	15.56	15.37	18.48	30
	1	5230	0	12.45	12.39	15.43	

A.3 Power Spectral Density

Antenna 0

Test Mode	Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Cycle Factor (dB)	Report Power Density (dBm/MHz)	Limit (dBm/MHz)
OFDM-16QAM	0	5190	5.427	0	5.427	17.00
	1	5230	2.051	0	2.051	

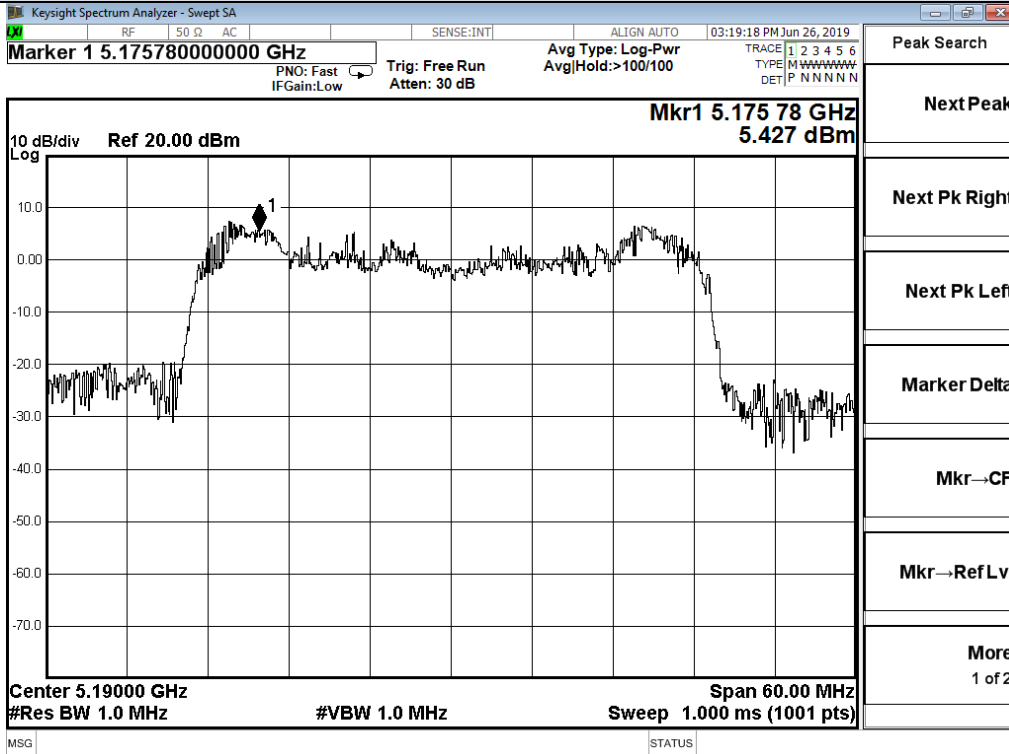
Antenna 1

Test Mode	Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Cycle Factor (dB)	Report Power Density (dBm/MHz)	Limit (dBm/MHz)
OFDM-16QAM	0	5190	6.532	0	6.532	17.00
	1	5230	1.838	0	1.838	

Antenna 0+Antenna 1

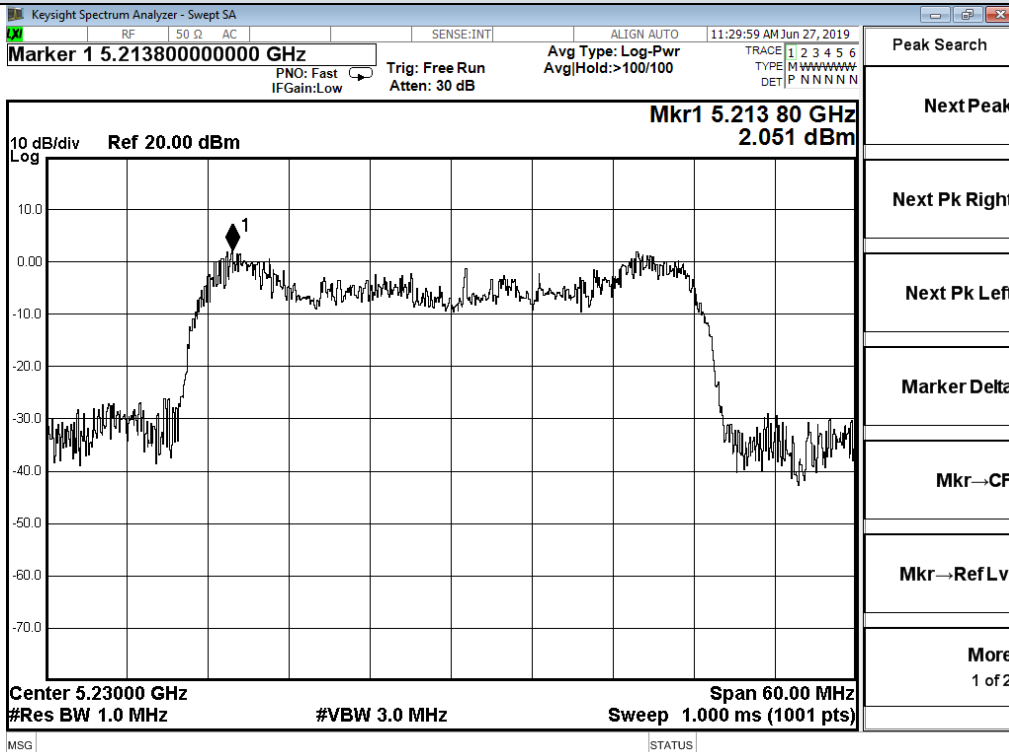
Test Mode	Channel	Frequency (MHz)	Duty Cycle Factor (dB)	Report Power Density (dBm/MHz)			Limit (dBm/MHz)
				Ant0	Ant1	Sum	
OFDM-16QAM	0	5190	0	5.427	6.532	9.02	17.00
	1	5230	0	2.051	1.838	4.96	

Power Spectral Density



- Peak Search
- Next Peak
- Next Pk Right
- Next Pk Left
- Marker Delta
- Mkr→CF
- Mkr→Ref Lvl
- More 1 of 2

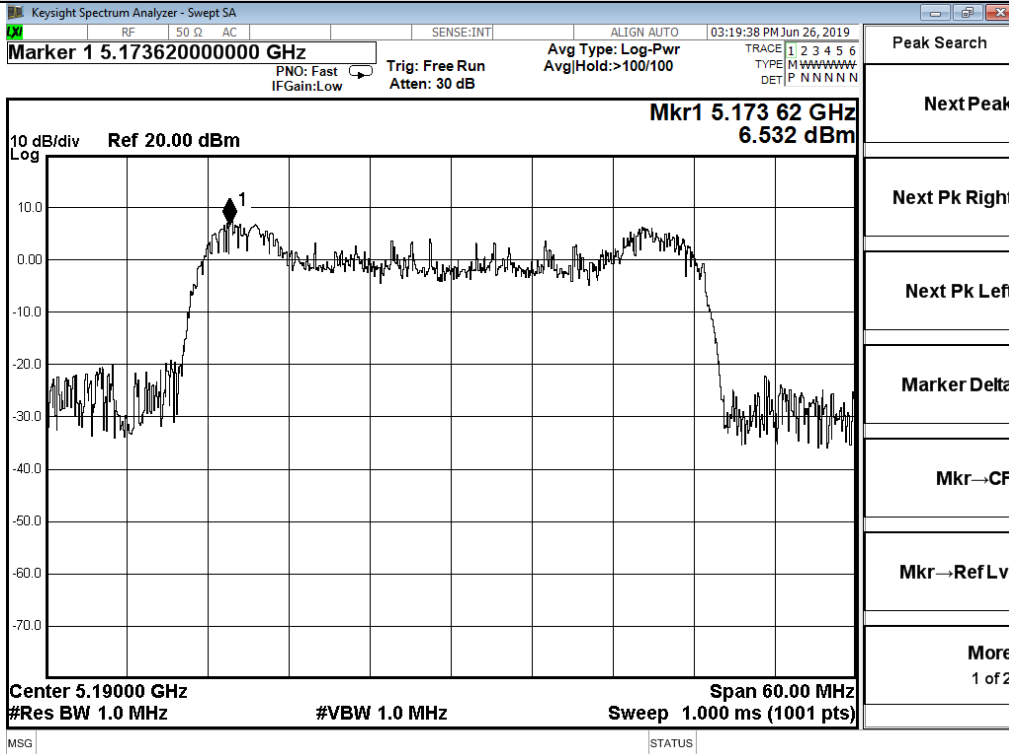
OFDM-16QAM / Channel 0 / 5190 MHz_Ant0



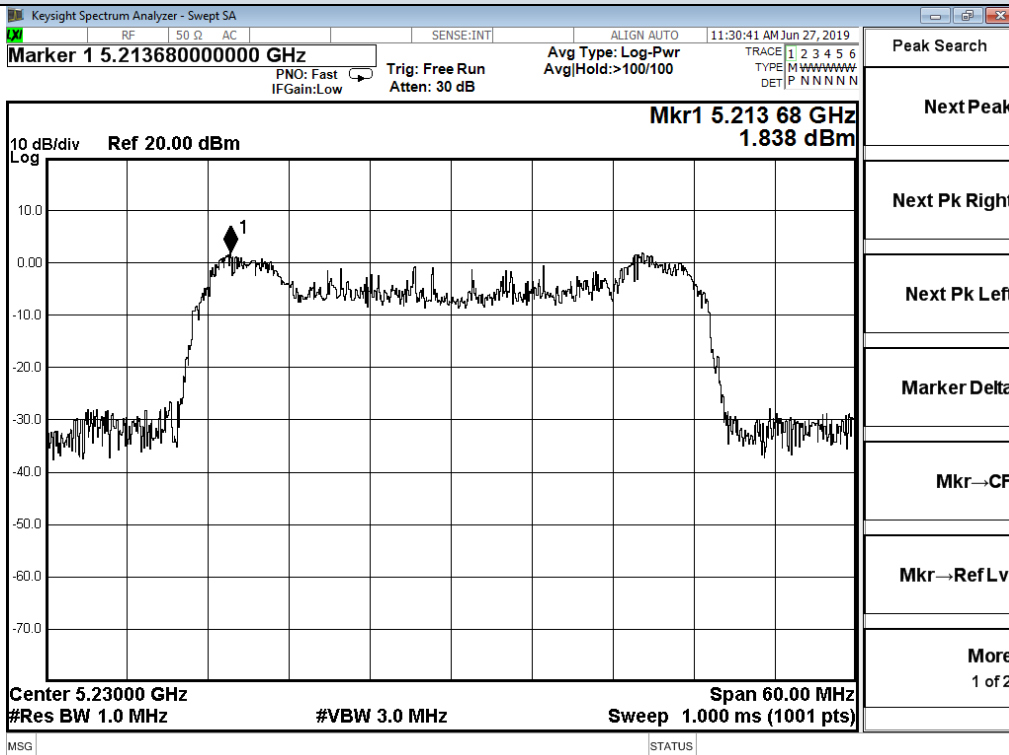
- Peak Search
- Next Peak
- Next Pk Right
- Next Pk Left
- Marker Delta
- Mkr→CF
- Mkr→Ref Lvl
- More 1 of 2

OFDM-16QAM / Channel 1 / 5230 MHz_Ant0

Power Spectral Density



OFDM-16QAM / Channel 0 / 5190 MHz_Ant1



OFDM-16QAM / Channel 1 / 5230 MHz_Ant1

A.4 Emission Bandwidth

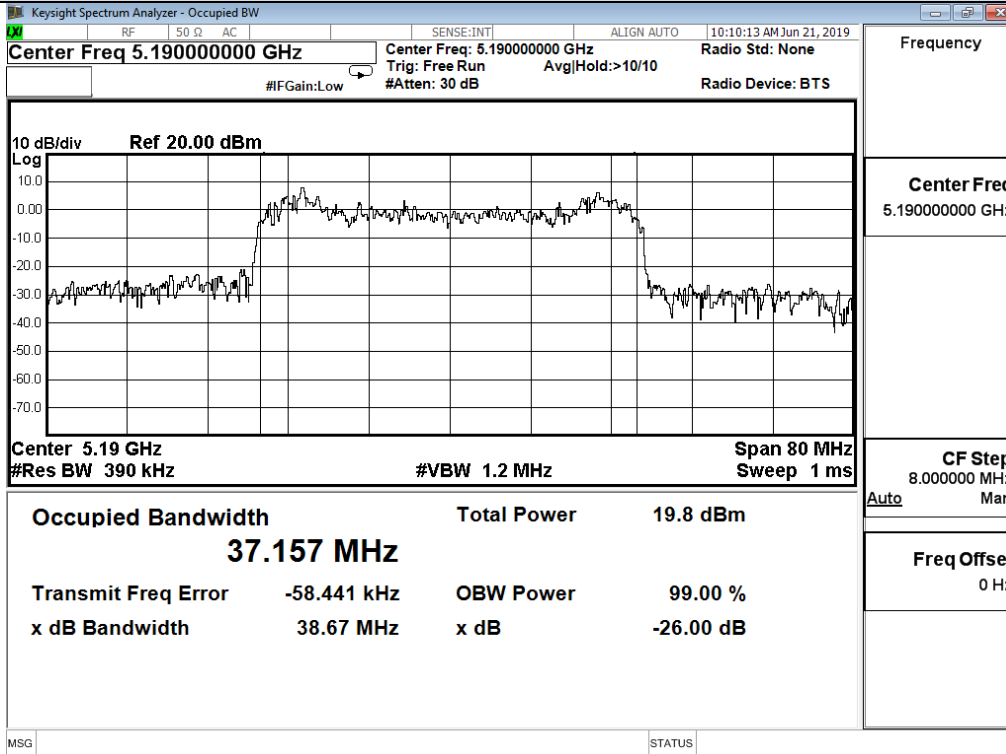
Antenna 0

Test Mode	Channel	Frequency (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)
OFDM-16QAM	0	5190	37.157	38.67	No Limit
	1	5230	37.196	38.77	

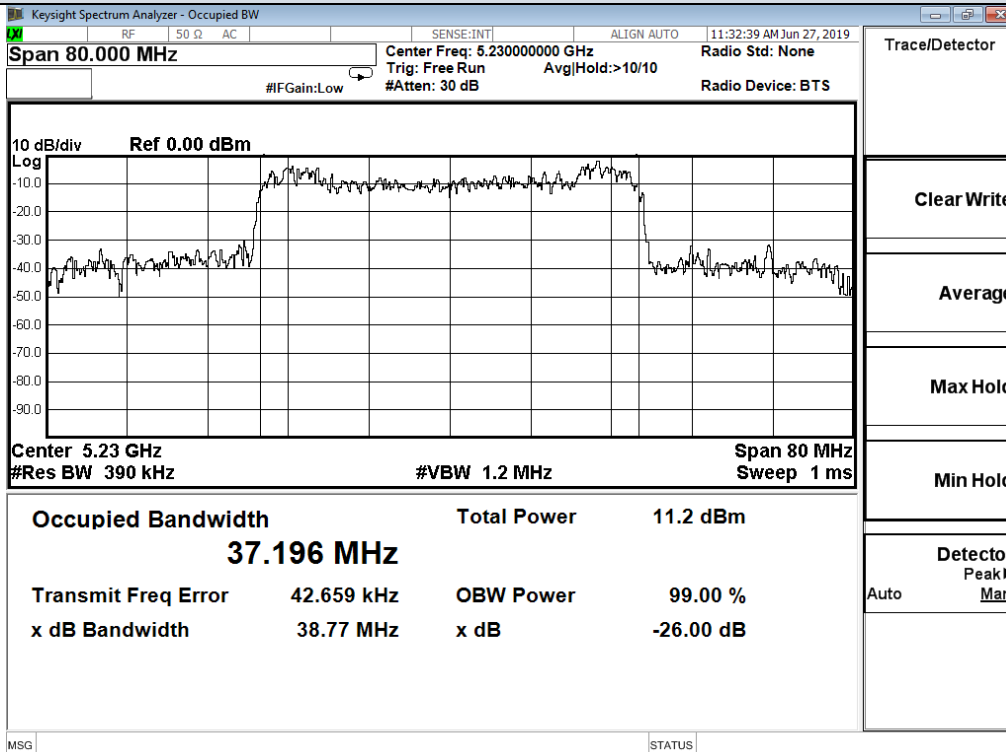
Antenna 1

Test Mode	Channel	Frequency (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)
OFDM-16QAM	0	5190	37.336	38.89	No Limit
	1	5230	37.396	38.78	

99% and 26dB Bandwidth

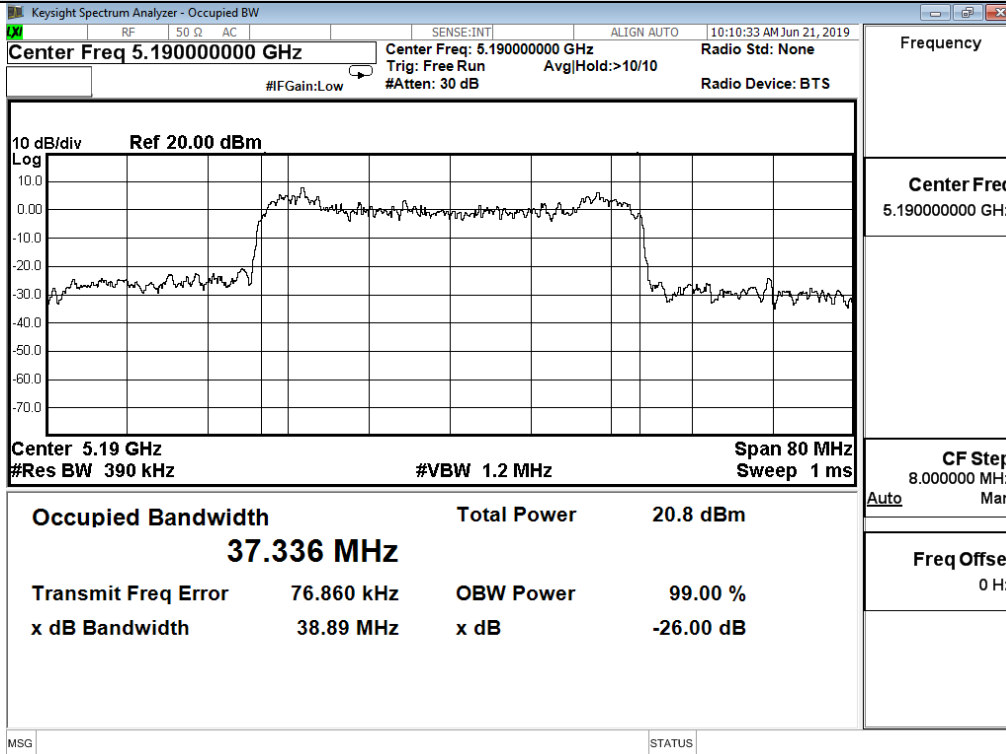


OFDM-16QAM / Channel 0 / 5190 MHz_Ant0

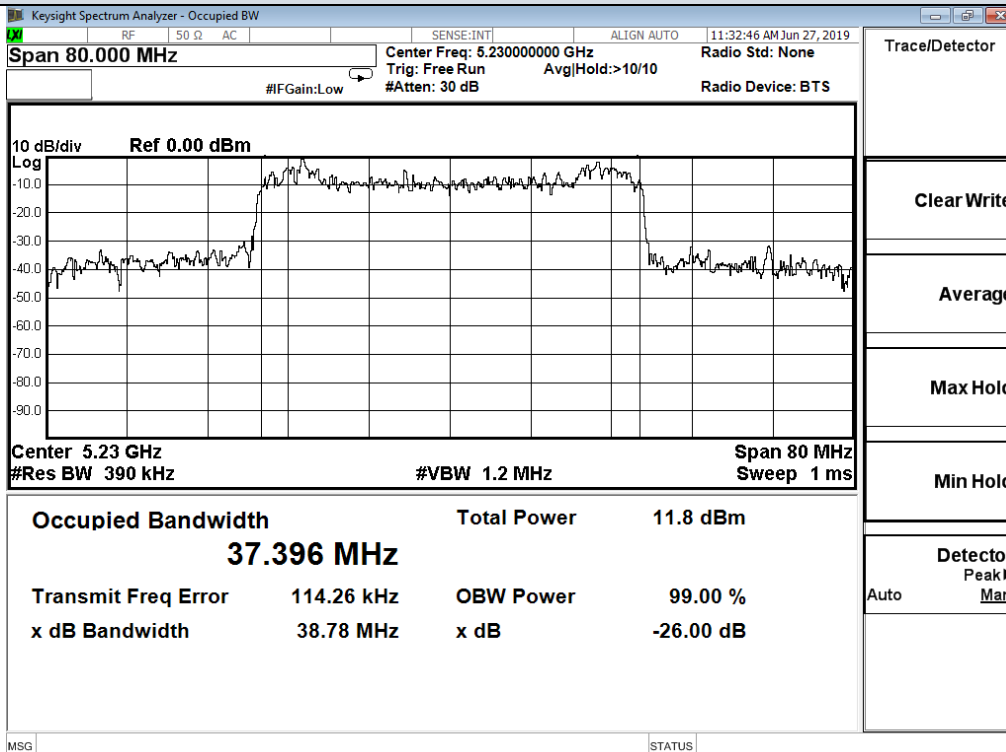


OFDM-16QAM / Channel 1 / 5230 MHz_Ant0

99% and 26dB Bandwidth



OFDM-16QAM / Channel 0 / 5190 MHz_Ant1



OFDM-16QAM / Channel 1 / 5230 MHz_Ant1

A.5 Undesirable Emissions Measurement

Antenna 0

Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)
OFDM-16QAM SISO	0	4500.0	-61.351	5.00	0	38.849	Peak	68.20
		4500.0	-72.331	5.00	0	27.869	Average	54.00
		5150.0	-45.439	5.00	0	54.761	Peak	68.20
		5150.0	-57.616	5.00	0	42.584	Average	54.00
	1	5350.0	-51.331	5.00	0	48.869	Peak	68.20
		5350.0	-61.989	5.00	0	38.211	Average	54.00
		5150.0	-50.618	5.00	0	49.582	Peak	68.20
		5150.0	-62.625	5.00	0	37.575	Average	54.00

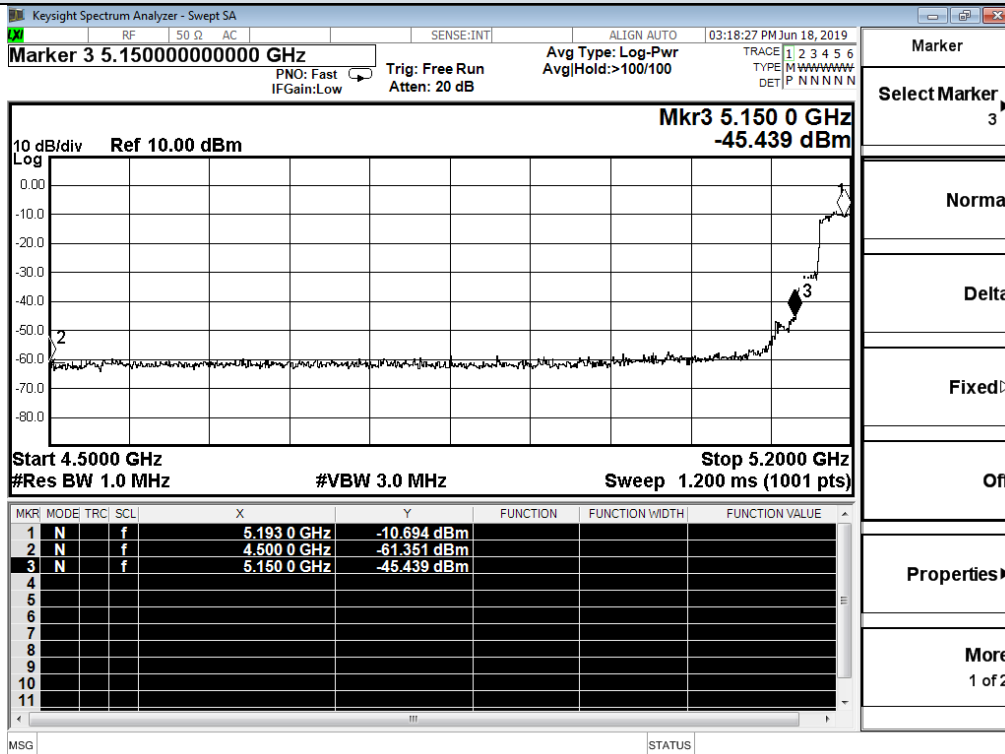
Antenna 1

Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)
OFDM-16QAM SISO	0	4500.0	-61.400	5.00	0	38.800	Peak	68.20
		4500.0	-72.211	5.00	0	27.989	Average	54.00
		5150.0	-43.385	5.00	0	56.815	Peak	68.20
		5150.0	-57.717	5.00	0	42.483	Average	54.00
	1	5350.0	-51.934	5.00	0	48.266	Peak	68.20
		5350.0	-62.025	5.00	0	38.175	Average	54.00
		5150.0	-52.254	5.00	0	47.946	Peak	68.20
		5150.0	-62.615	5.00	0	37.585	Average	54.00

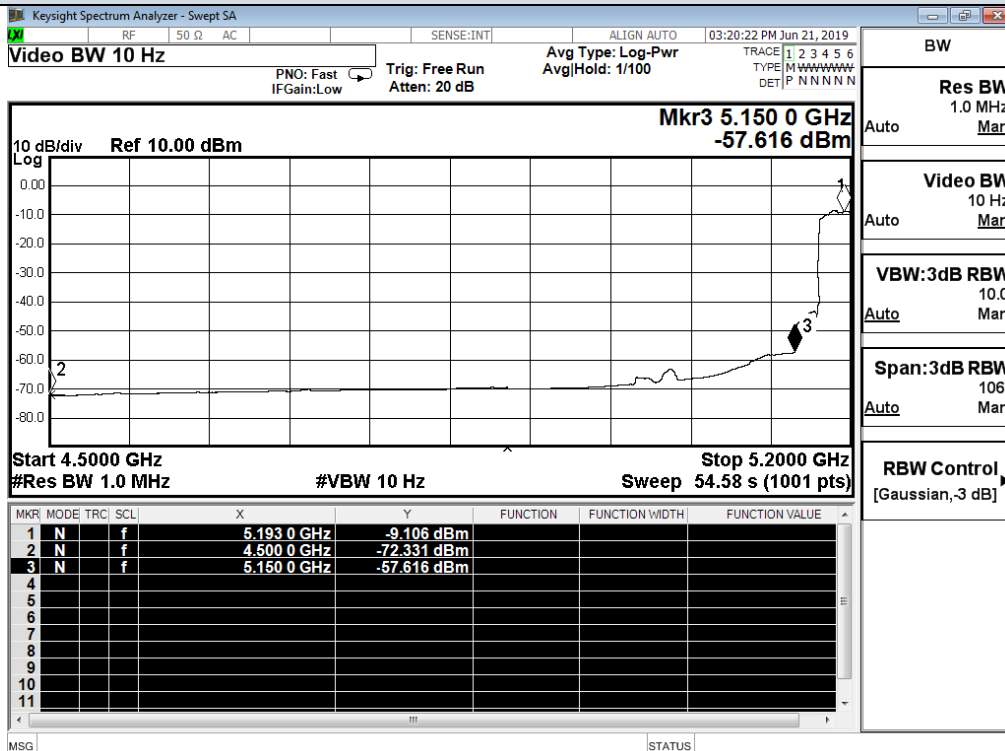
Antenna 0+Antenna 1

Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)			Directional Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)
			Ant0	Ant1	Sum					
OFDM-16QAM	0	4500.0	-61.351	-61.400	-58.37	8.01	0	44.84	Peak	68.20
		4500.0	-72.331	-72.211	-69.26	8.01	0	33.95	Average	54.00
		5150.0	-45.439	-43.385	-41.28	8.01	0	61.93	Peak	68.20
		5150.0	-57.616	-57.717	-54.66	8.01	0	48.55	Average	54.00
	1	5350.0	-51.331	-51.934	-48.61	8.01	0	54.60	Peak	68.20
		5350.0	-61.989	-62.025	-59.00	8.01	0	44.21	Average	54.00
		510.0	-50.618	-52.254	-48.35	8.01	0	54.86	Peak	68.20
		510.0	-62.625	-62.615	-59.61	8.01	0	43.60	Average	54.00

Undesirable Emissions Measurement

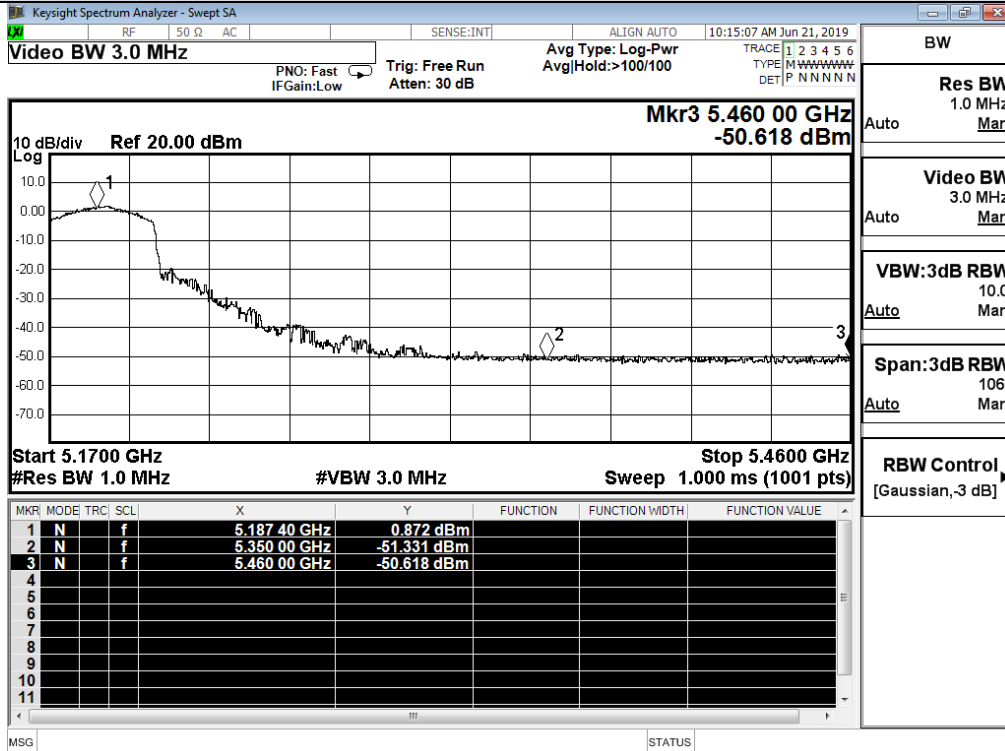


OFDM-16QAM / Channel 0 / 5190 MHz / Peak_Ant0

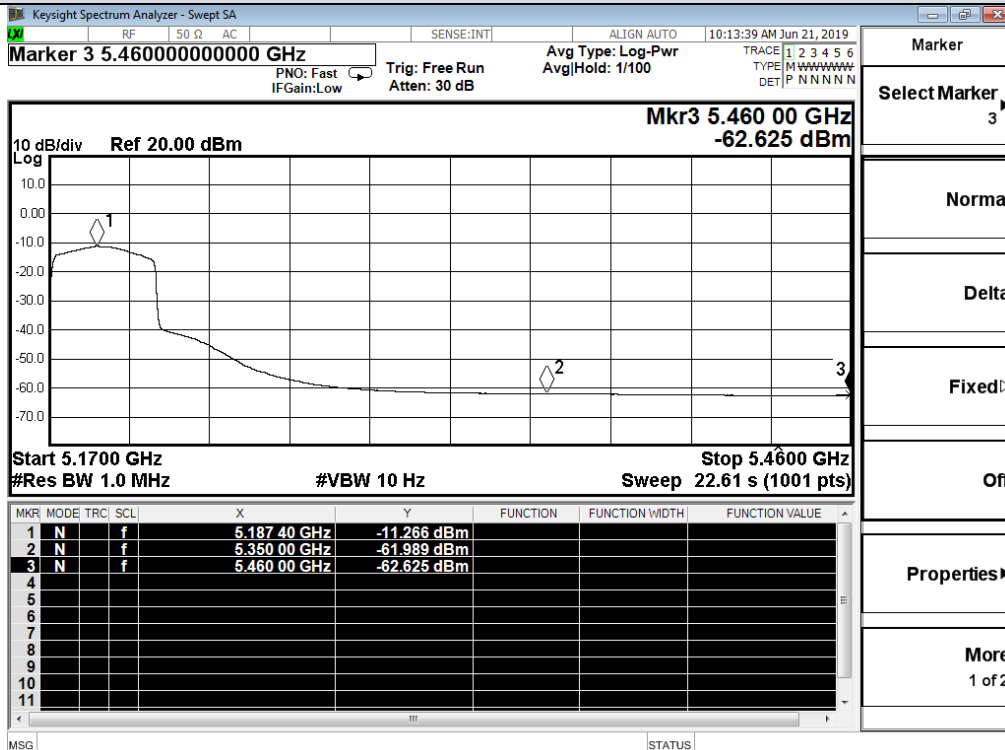


OFDM-16QAM / Channel 0 / 5190 MHz / Average_Ant0

Undesirable Emissions Measurement

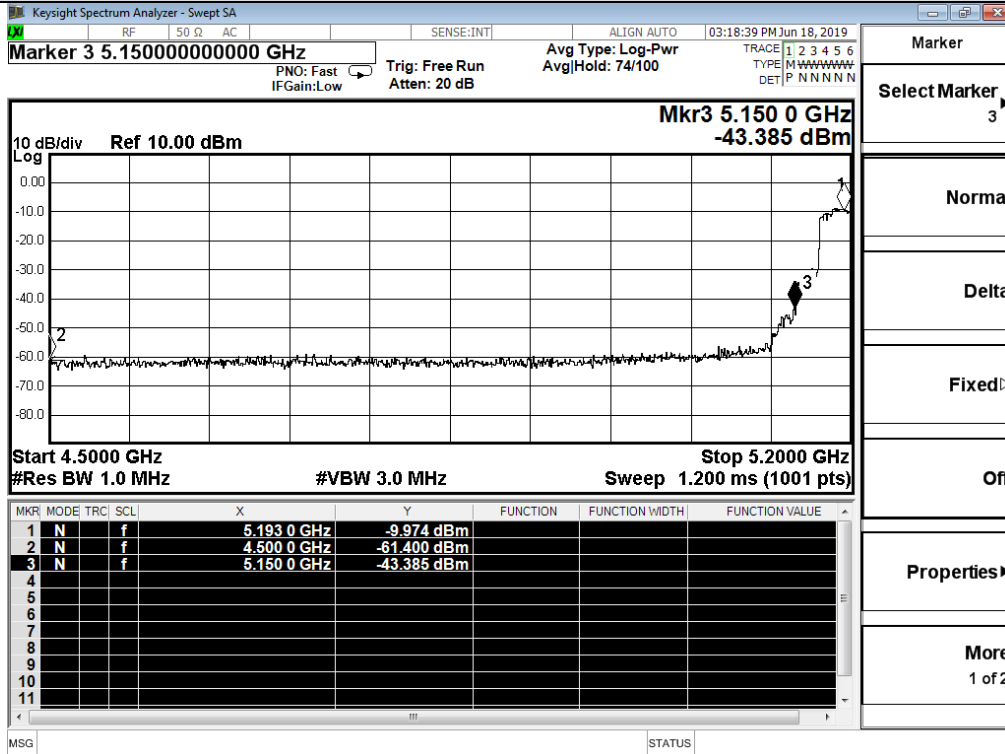


OFDM-16QAM / Channel 1 / 5230 MHz / Peak_Ant0

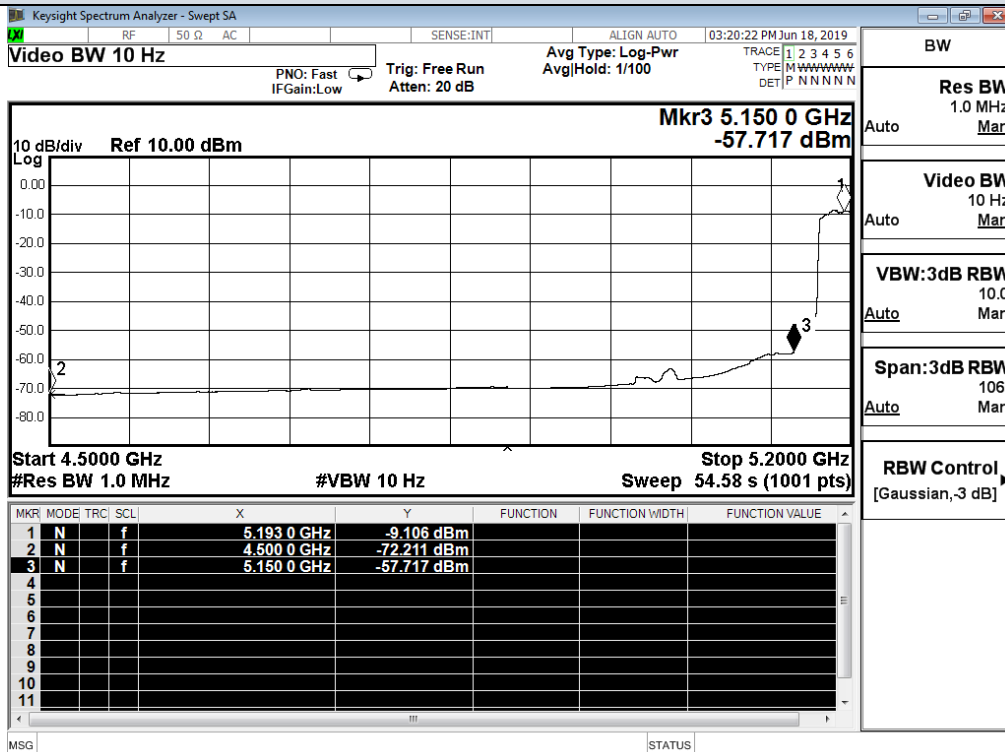


OFDM-16QAM / Channel 1 / 5230 MHz / Average_Ant0

Undesirable Emissions Measurement

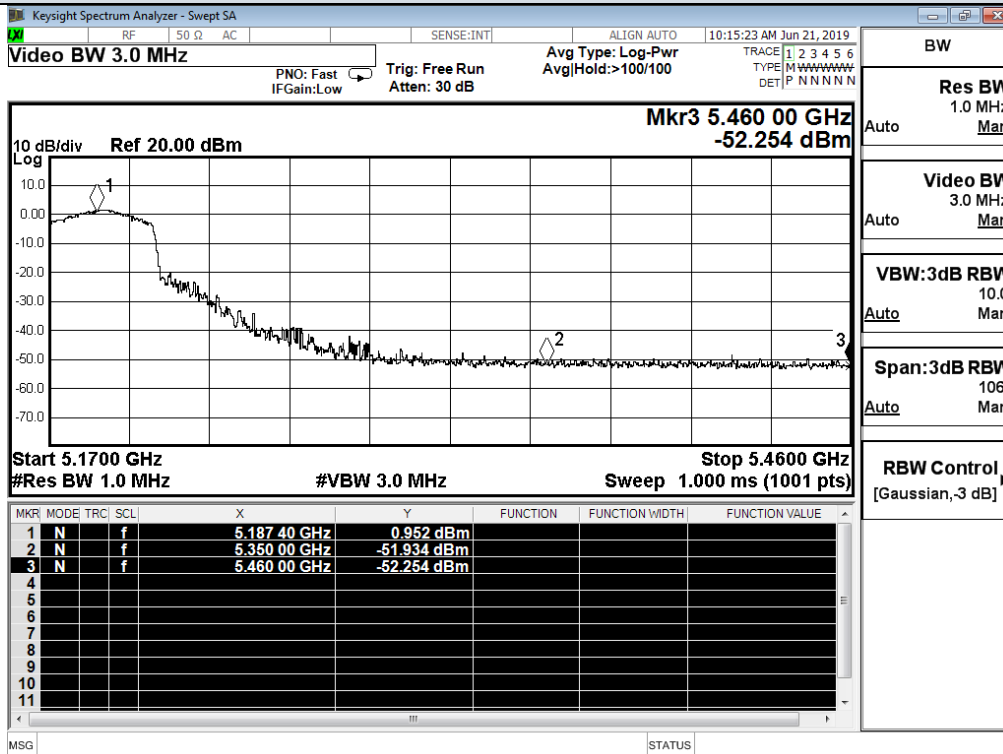


OFDM-16QAM / Channel 0 / 5190 MHz / Peak_Ant1

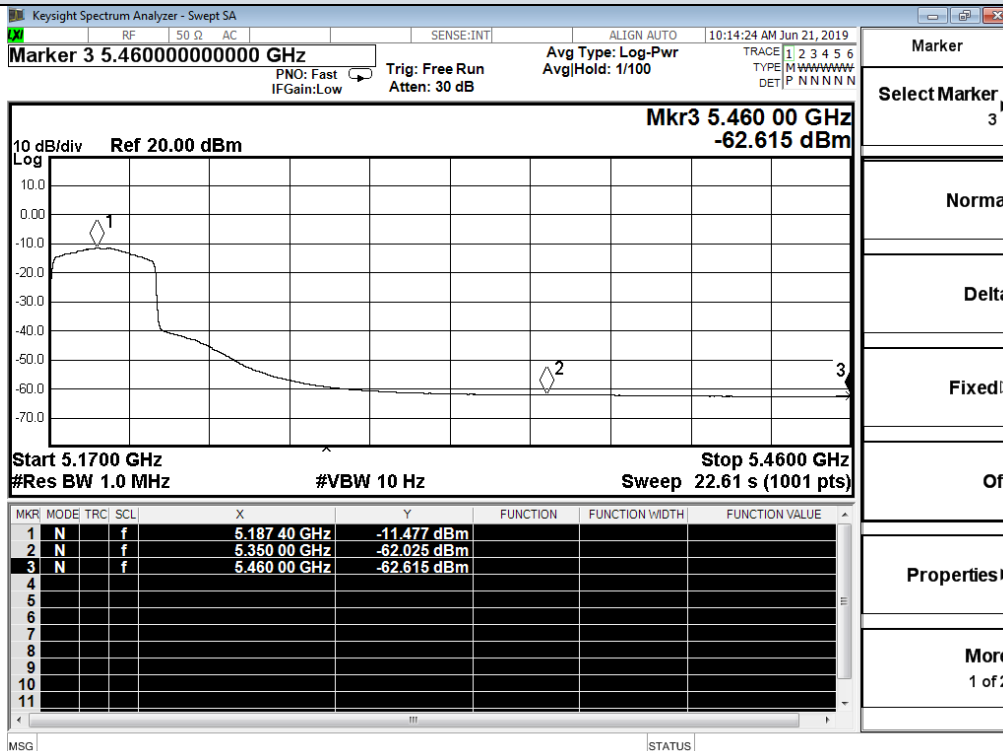


OFDM-16QAM / Channel 0 / 5190 MHz / Average_Ant1

Undesirable Emissions Measurement



OFDM-16QAM / Channel 1 / 5230 MHz / Peak_Ant1



OFDM-16QAM / Channel 1 / 5230 MHz / Average_Ant1