

FCC TEST REPORT

(Part 15, Subpart E)

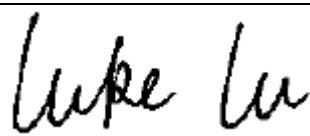
Applicant:	Telrad Networks Ltd.
Address:	Israel Lod Industrial Center PO Box 6118

Manufacturer or Supplier:	Asiatelco
Address:	No 289 Bisheng Road,Building 8,1F,Zhangjiang Hi-Tech Park,Pudong,Shanghai,PRC
Product:	Out Door Unit
Brand Name:	Telrad
Model Name:	CPE12000U PRO
FCC ID:	ARA-CPE12000PRO5X
Date of tests:	Jul. 17, 2019 ~ Aug. 05, 2019

The tests have been carried out according to the requirements of the following standard:

☒ **FCC Part 15, Subpart E, Section 15.407**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Prepared by Alex Chen Engineer / Mobile Department	Approved by Luke Lu Manager / Mobile Department
 Date: Aug. 05, 2019	 Date: Aug. 05, 2019

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Test Report No.: RF190116W005

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF190116W005	Original release	Aug. 5, 2019

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART E (SECTION 15.407)		
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT
15.407(b)(6) & 15.207	AC Power Conducted Emission	PASS
15.407(b) (1/4/5/6/7)	Radiated Emission & Band Edge Measurement	PASS
15.407(a)(1/3)	Maximum conducted output Power	PASS
15.407(a)(1/3/5)	Peak Power Spectral Density	PASS
15.407(e) & 15.403(i) & 15.215 (c)	Emission Bandwidth(6 dB & 26dB Bandwidth)	PASS
15.203	Antenna Requirement	PASS

1.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	UNCERTAINTY
AC Power Conducted emissions	$\pm 2.70\text{dB}$
All Radiated emissions	$\pm 2.35\text{dB}$
Conducted emissions	$\pm 2\text{ dB}$
Occupied Channel Bandwidth	$\pm 21.7\text{KHz}$
Conducted Output power	$\pm 1.03\text{ dB}$
Power Spectral Density	$\pm 0.43\text{ dB}$

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

EUT	Out Door Unit
MODEL NO.	CPE12000U PRO
POWER SUPPLY	54Vdc (POE)
MODULATION TYPE	64QAM, 16QAM, QPSK
MODULATION TECHNOLOGY	OFDM
OPERATING FREQUENCY	5150 ~ 5250MHz, 5725 ~ 5850MHz
DEVICE CAPABILITIES	LTE-TDD BAND 46 (10/20MHz BW) Support SISO and MIMO mode: 2TX 4RX
AVERAGE POWER	31.62mW for 5150 ~ 5250MHz(10MHz) 31.62mW for 5725 ~ 5850MHz(10MHz) 31.62mW for 5150 ~ 5250MHz(20MHz) 31.62mW for 5725 ~ 5850MHz(20MHz)
ANTENNA TYPE	Directional Antenna with 21dBi gain
HW VERSION	P2
SW VERSION	KT2A_OTE29_TRD_1.0.0.21
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	RJ45 cable: non-shielded, detachable, 1.0 m

NOTE:

- For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
- The EUT was powered by the following POE:

POE	
BRAND:	N/A
MODEL:	PSE801G
INPUT:	AC 100-240V, 700mA
OUTPUT:	DC 48-56V, 500mA

- The EUT support SISO and MIMO function. Physically, the EUT provides two completed transmitter and four receiver.

MODULATION MODE	TX FUNCTION
QPSK/16QAM/64QAM	2TX/4RX

- For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
- The device will automatically discontinue transmission in case of either absence of information to transmit or operational failure.

2.2 DESCRIPTION OF TEST MODES

The testing channels are provided for QPSK/16QAM/64QAM

LTE-TDD BAND 46	CHANNEL	FREQUENCY	BANDWIDTH
5150-5250MHz	L	5180	10 MHz
	M	5200	10 MHz
	H	5245	10 MHz
5725-5850MHz	L	5730	10 MHz
	M	5800	10 MHz
	H	5845	10 MHz
5150-5250MHz	L	5180	20 MHz
	M	5200	20 MHz
	H	5240	20 MHz
5725-5850MHz	L	5745	20 MHz
	M	5785	20 MHz
	H	5825	20 MHz

2.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE $\geq$ 1G	RE<1G	PLC	APCM	
A	√	√	√	√	Powered by POE with LTE transmitting

Where

RE $\geq$ 1G: Radiated Emission above 1GHz

RE<1G: Radiated Emission below 1GHz

PLC: Power Line Conducted Emission

APCM: Antenna Port Conducted Measurement

NOTE:

The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-plane**.

NOTE: "-" means no effect.

RADIATED EMISSION TEST (ABOVE 1GHz):

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	BANDWIDTH	FREQ. BAND (MHz)	MODE	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE
A	10MHz	5150-5250	SISO & MIMO	L/M/H	OFDM	QPSK
A	20MHz		SISO & MIMO	L/M/H	OFDM	QPSK
A	10MHz	5725-5850	SISO & MIMO	L/M/H	OFDM	QPSK
A	20MHz		SISO & MIMO	L/M/H	OFDM	QPSK



RADIATED EMISSION TEST (BELOW 1GHz):

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	BANDWIDTH	FREQ. BAND (MHz)	MODE	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE
A	20MHz	5725-5850	SISO ANT2	L	OFDM	QPSK

POWER LINE CONDUCTED EMISSION TEST:

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	BANDWIDTH	FREQ. BAND (MHz)	MODE	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE
A	20MHz	5725-5850	SISO ANT2	L	OFDM	QPSK

BANDEDGE MEASUREMENT:

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	BANDWIDTH	FREQ. BAND (MHz)	MODE	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE
A	10MHz	5180-5240	SISO & MIMO	L & H	OFDM	QPSK
A	20MHz		SISO & MIMO	L & H	OFDM	QPSK
A	10MHz	5725-5850	SISO & MIMO	L & H	OFDM	QPSK
A	20MHz		SISO & MIMO	L & H	OFDM	QPSK



ANTENNA PORT CONDUCTED MEASUREMENT:

- ☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	BANDWIDTH	FREQ. BAND (MHz)	MODE	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE
A	10MHz	5180-5240	SISO & MIMO	L & M & H	OFDM	QPSK/16QAM/64QAM
A	20MHz		SISO & MIMO	L & M & H	OFDM	QPSK/16QAM/64QAM
A	10MHz	5725-5850	SISO & MIMO	L & M & H	OFDM	QPSK/16QAM/64QAM
A	20MHz		SISO & MIMO	L & M & H	OFDM	QPSK/16QAM/64QAM

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE<1G	25.6deg. C, 53%RH	DC 54V By POE	Aisa
RE≥1G	25.6deg. C, 53%RH	DC 54V By POE	Aisa
PLC	23.2deg. C, 54%RH	DC 54V By POE	Bert
APCM	23.5deg. C, 60%RH	DC 54V By POE	Wenliang Wu

2.3 ANTENNA REQUIREMENT

Per FCC Part 15.203. An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Conclusion:

The EUT use four directional antennas that were permanently attached and the detail information list as below:

ANT	ANT Gain	Type	TX/RX	Frequency range
ANT 0	21	Directional	TX & RX	5150-5850MHz
ANT 1	21	Directional	RX Only	5150-5850MHz
ANT 2	21	Directional	TX & RX	5150-5850MHz
ANT 3	21	Directional	RX Only	5150-5850MHz



2.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

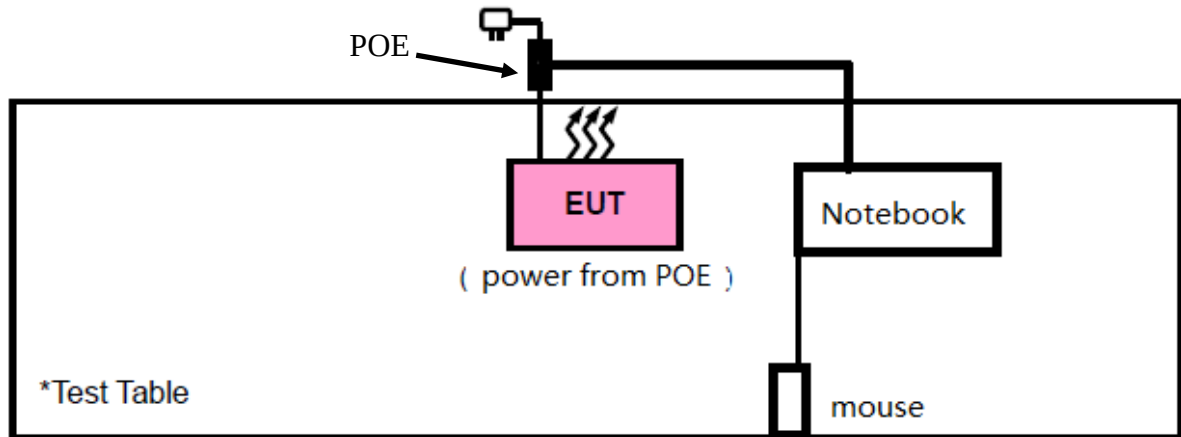
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Notebook	Lenovo	Thnikpad X520	SL10H14859JS	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	N/A

NOTE:

1. All power cords of the above support units are non shielded (1.8m).

2.4.1 CONFIGURATION OF SYSTEM UNDER TEST



2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart E (15.407)

KDB 789033 D02 General U-NII Test Procedures New Rules v02r01

KDB 662911 D01 Multiple Transmitter Output v02r01

ANSI C63.10-2013

All test items have been performed and recorded as per the above standards.

NOTE: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (Certification). The test report has been issued separately.

3 TEST TYPES AND RESULTS

3.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

3.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

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

FREQUENCIES (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:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, 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.

3.1.2 LIMITS OF UNWANTED EMISSION

RESTRICTED BANDS	APPLICABLE TO	LIMIT	
	789033 D02 General UNII Test Procedures New Rules v02r01	FIELD STRENGTH AT 3m (dBμV/m)	
		PK : 74	AV : 54
OUT OF THE RESTRICTED BANDS	APPLICABLE TO	EIRP LIMIT (dBm/MHz)	EQUIVALENT FIELD STRENGTH AT 3m (dBμV/m)
	15.407(b)(1)	PK : -27	PK : 68.3
	15.407(b)(2)		
	15.407(b)(3)		
	15.407(b)(4)	See note 2 (FCC 16-24)	

NOTE: 1.The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

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

2. All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

3.1.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	Euroshieldpn-CT0001143-1216	Feb. 26,19	Feb. 25,20
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Feb. 26,19	Feb. 25,20
Horn Antenna	ETS-LINDGREN	3117	00168728	Feb. 26,19	Feb. 25,20
Loop antenna	Daze	ZN30900A	0708	Oct. 23,18	Oct. 22, 19
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K-SG/QMS-00361	15433	Nov. 21, 18	Nov. 20, 19
Test Software	E3	V 9.160323	N/A	N/A	N/A
Test Software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	N/A	N/A
10dB Attenuator	JFW/USA	50HF-010-SMA	1505	Jun. 24,19	Jun. 23,20
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Feb. 26,19	Feb. 25,20
Signal Pre-Amplifier	EMSI	EMC 9135	980249	Jun. 24,19	Jun. 23,20
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	Jun. 24,19	Jun. 23,20
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Jun. 24,19	Jun. 23,20
Band Rejection Filter(5150-5880MHz)	Micro-Tronics	BRM50716	G1868	Jun. 24,19	Jun. 23,20

NOTE:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
2. The test was performed in 3m Chamber.
3. The FCC Site Registration No. is 525120; The Designation No. is CN1171.

3.1.4 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters (for below 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, 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.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

NOTE:

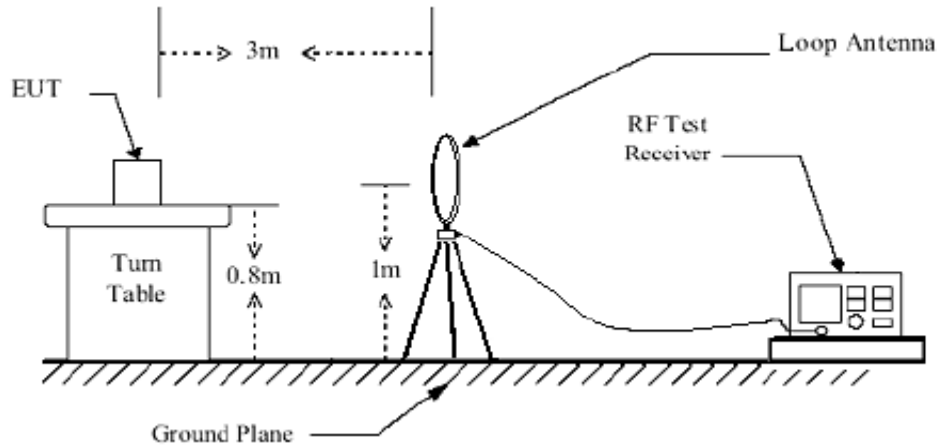
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The average data was measured by EMI receiver.
4. All modes of operation were investigated and the worst-case emissions are reported.

3.1.5 DEVIATION FROM TEST STANDARD

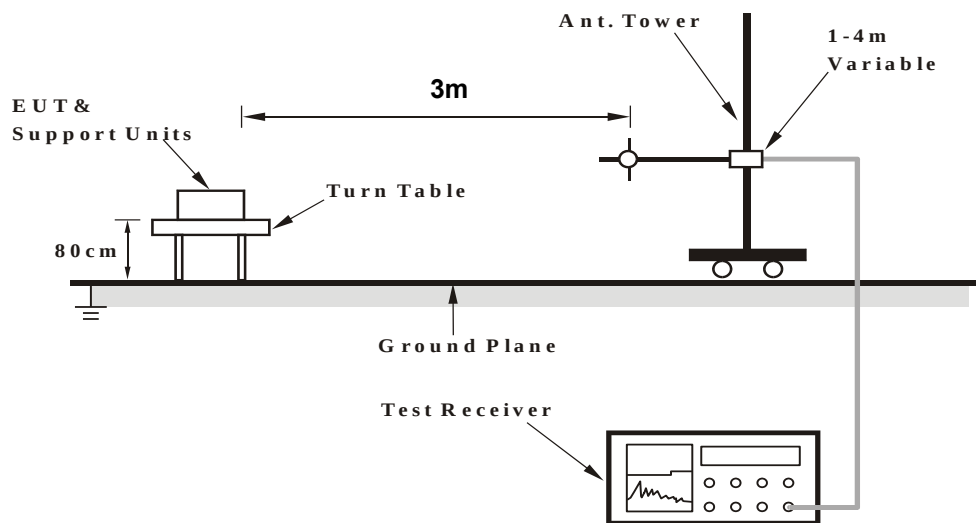
No deviation.

3.1.6 TEST SETUP

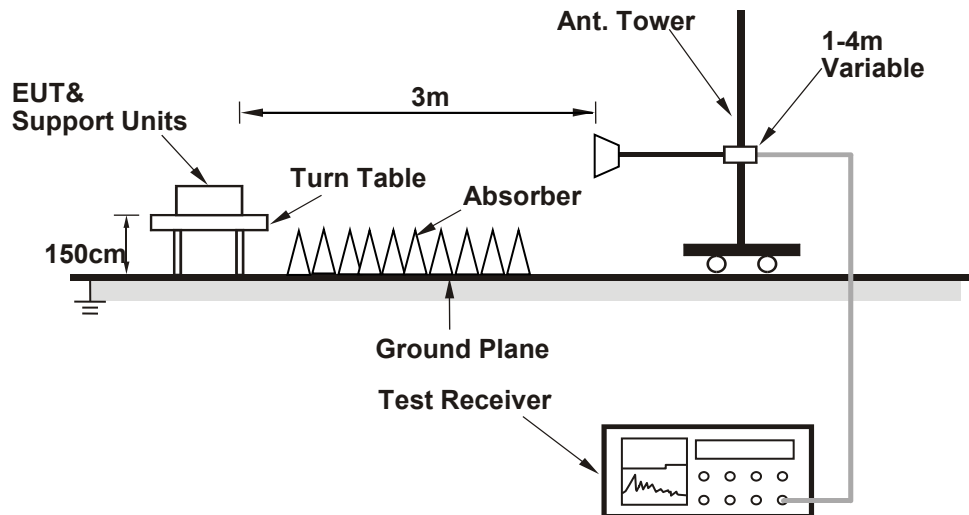
< Frequency Range below 30MHz >



< Frequency Range 30MHz~1GHz >



<Frequency Range above 1GHz>



For the actual test configuration, please refer to the attached file (Test Setup Photo).

3.1.7 EUT OPERATING CONDITION

- Set the EUT under full load condition and placed them on a testing table.
- Set the transmitter part of EUT under transmission condition continuously at specific channel frequency.
- The necessary accessories enable the EUT in full functions.

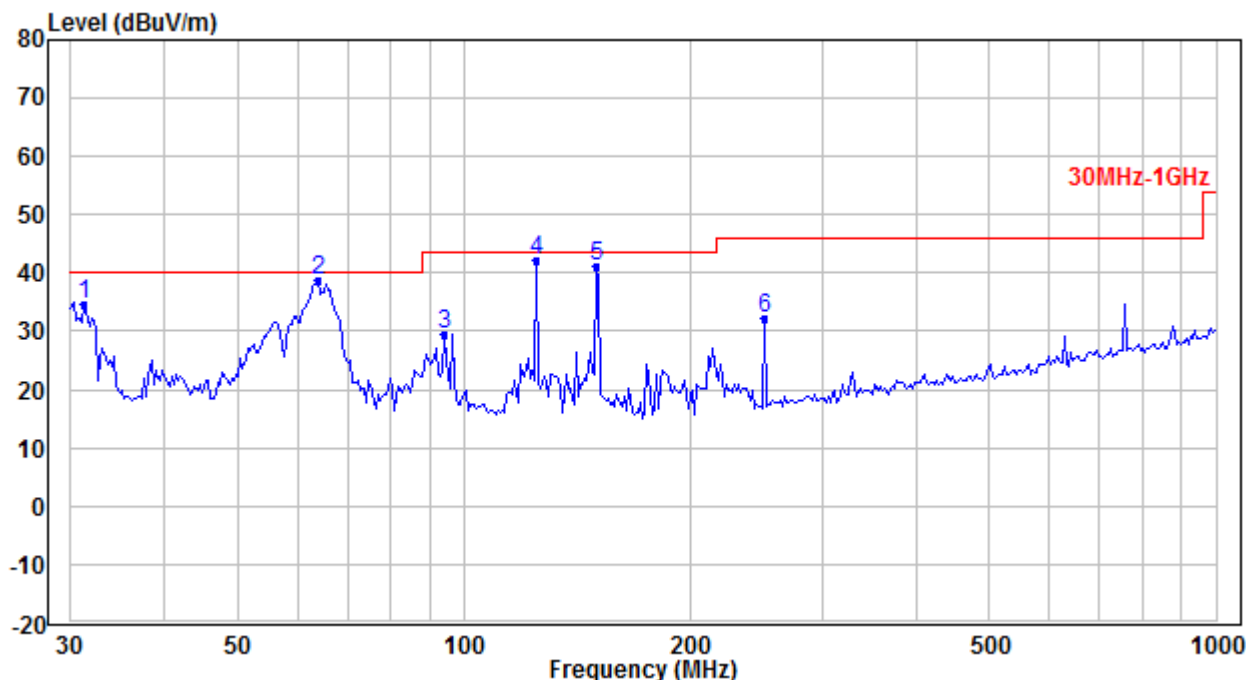
3.1.8 TEST RESULTS

BELOW 1GHz WORST-CASE DATA:

9 KHz – 30 MHz data: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

BELOW 1GHz WORST-CASE DATA:

QPSK-SISO ANT 2-20MHz-HORIZONTAL AT 3M



30 MHz – 1GHz data:

CHANNEL	TX Channel 5745MHz	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

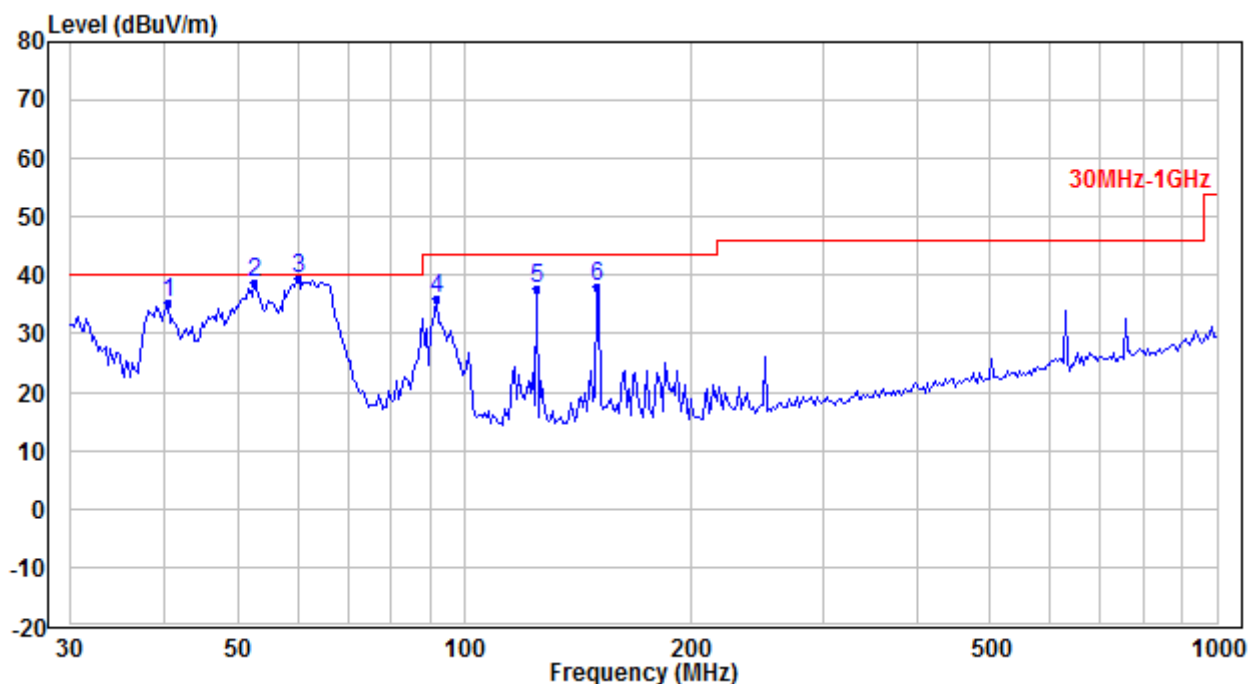
	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	31.2919	39.44	23.10	28.85	0.87	34.56	40.00	-5.44	Peak
2 PP	64.0800	53.12	13.46	28.78	1.09	38.89	40.00	-1.11	Peak
3	94.3137	41.71	15.25	28.71	1.37	29.62	43.50	-13.88	Peak
4	124.9249	53.80	15.40	28.61	1.70	42.29	43.50	-1.21	Peak
5	149.9676	52.27	15.50	28.53	1.80	41.04	43.50	-2.46	Peak
6	250.4859	40.82	17.52	28.17	2.09	32.26	46.00	-13.74	Peak

REMARKS:

1. Emission level (dBuV/m) = Read level (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.



QPSK-SISO ANT 2-20MHz-VERTICAL AT 3M



30 MHz – 1GHz data:

CHANNEL	TX Channel 5745MHz	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	40.2995	45.75	17.43	28.83	0.97	35.32	40.00	-4.68	Peak
2	52.6345	52.09	14.34	28.81	1.00	38.62	40.00	-1.38	Peak
3 PP	60.1528	53.88	13.31	28.79	1.07	39.47	40.00	-0.53	Peak
4	91.6996	48.58	15.04	28.72	1.26	36.16	43.50	-7.34	Peak
5	124.9249	49.11	15.40	28.61	1.70	37.60	43.50	-5.90	Peak
6	149.9676	49.21	15.50	28.53	1.80	37.98	43.50	-5.52	Peak

REMARKS:

1. Emission level (dBuV/m) = Read Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.



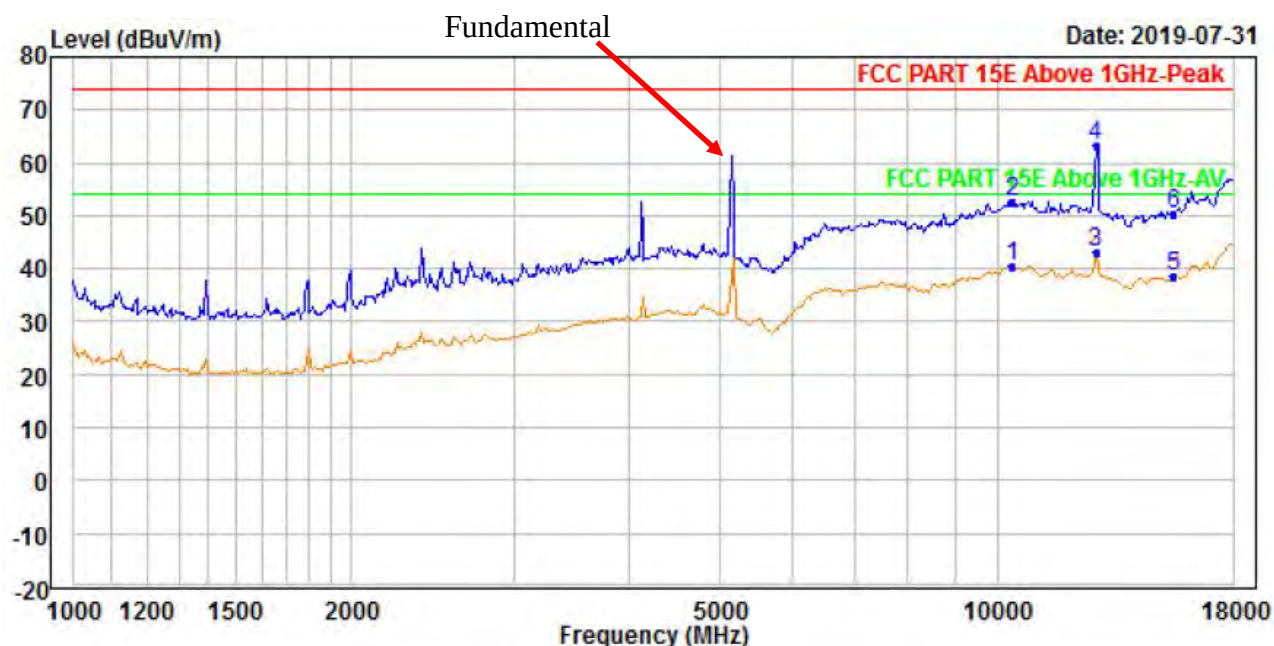
ABOVE 1GHz WORST-CASE DATA:

Note: For higher frequency, the emission is too low to be detected.

5150-5250MHz BAND SISO 10MHz MODE:

CHANNEL	TX Channel 5180MHz	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:



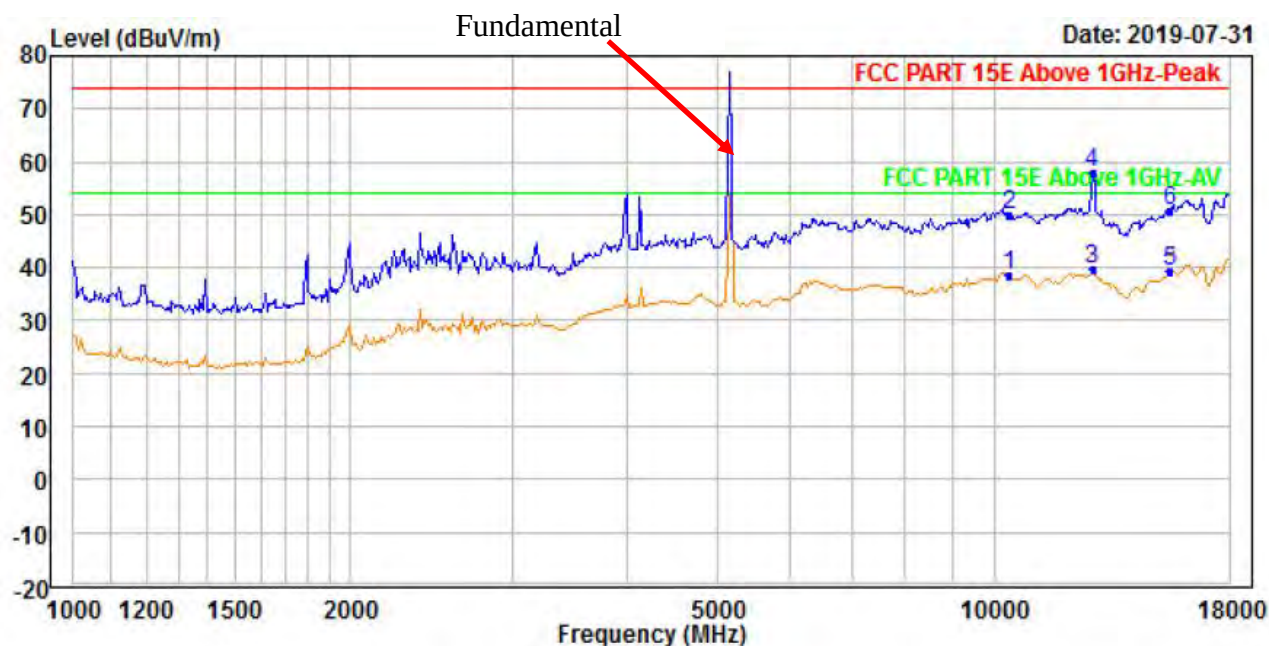
	Read Freq	Level	Ant Factor	Preamp Factor	Cable Loss	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	10360.000	29.45	39.29	45.23	17.05	40.56	54.00	-13.44 Average
2	10360.000	41.36	39.29	45.23	17.05	52.47	74.00	-21.53 Peak
3	AV12789.500	31.12	39.65	44.81	17.13	43.09	54.00	-10.91 Average
4	PP12789.500	51.40	39.65	44.81	17.13	63.37	74.00	-10.63 Peak
5	15540.000	27.75	39.43	45.78	17.11	38.51	54.00	-15.49 Average
6	15540.000	39.57	39.43	45.78	17.11	50.33	74.00	-23.67 Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5180MHz: Fundamental frequency.



VERTICAL:



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	10360.000	29.06	37.57	45.23	17.05	38.45	54.00	-15.55	Average
2	10360.000	40.65	37.57	45.23	17.05	50.04	74.00	-23.96	Peak
3	PP12789.500	28.30	39.14	44.81	17.13	39.76	54.00	-14.24	Average
4	PK12789.500	46.62	39.14	44.81	17.13	58.08	74.00	-15.92	Peak
5	15540.000	27.54	40.26	45.78	17.11	39.13	54.00	-14.87	Average
6	15540.000	39.27	40.26	45.78	17.11	50.86	74.00	-23.14	Peak

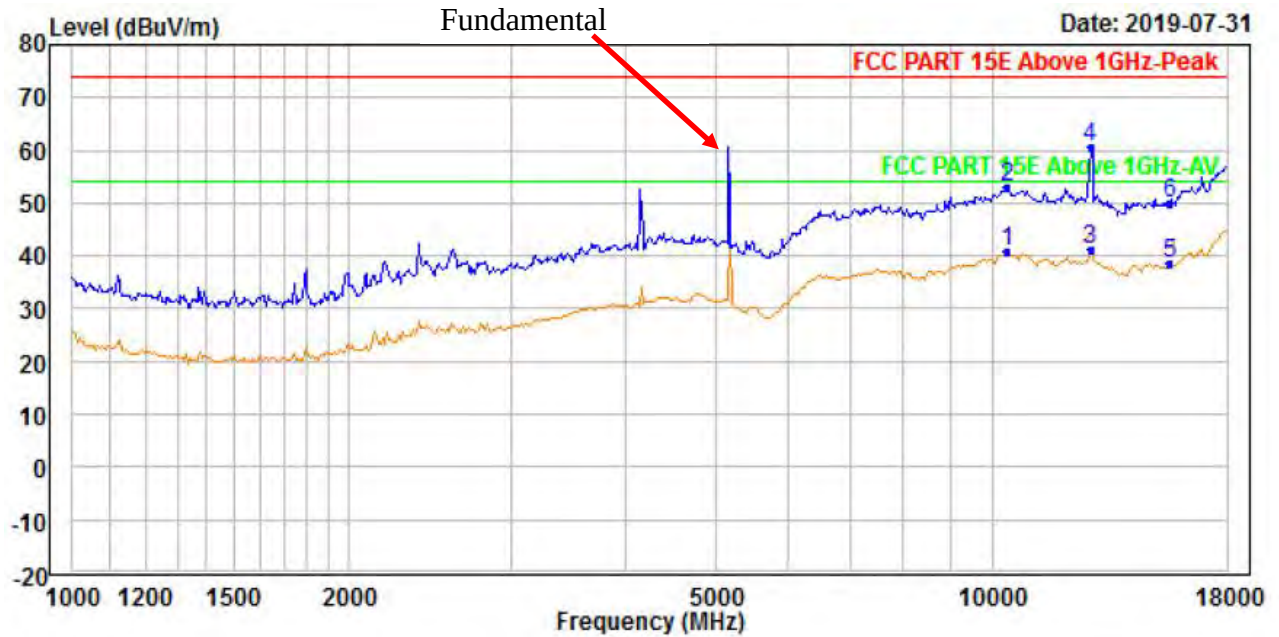
REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5180MHz: Fundamental frequency.



CHANNEL	TX Channel 5200MHz	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	10400.000	29.50	39.38	45.22	17.05	40.71	54.00	-13.29	Average
2	10400.000	41.62	39.38	45.22	17.05	52.83	74.00	-21.17	Peak
3	PP12789.500	29.34	39.65	44.81	17.13	41.31	54.00	-12.69	Average
4	PK12789.500	48.77	39.65	44.81	17.13	60.74	74.00	-13.26	Peak
5	15600.000	27.66	39.48	45.74	17.17	38.57	54.00	-15.43	Average
6	15600.000	39.10	39.48	45.74	17.17	50.01	74.00	-23.99	Peak

REMARKS:

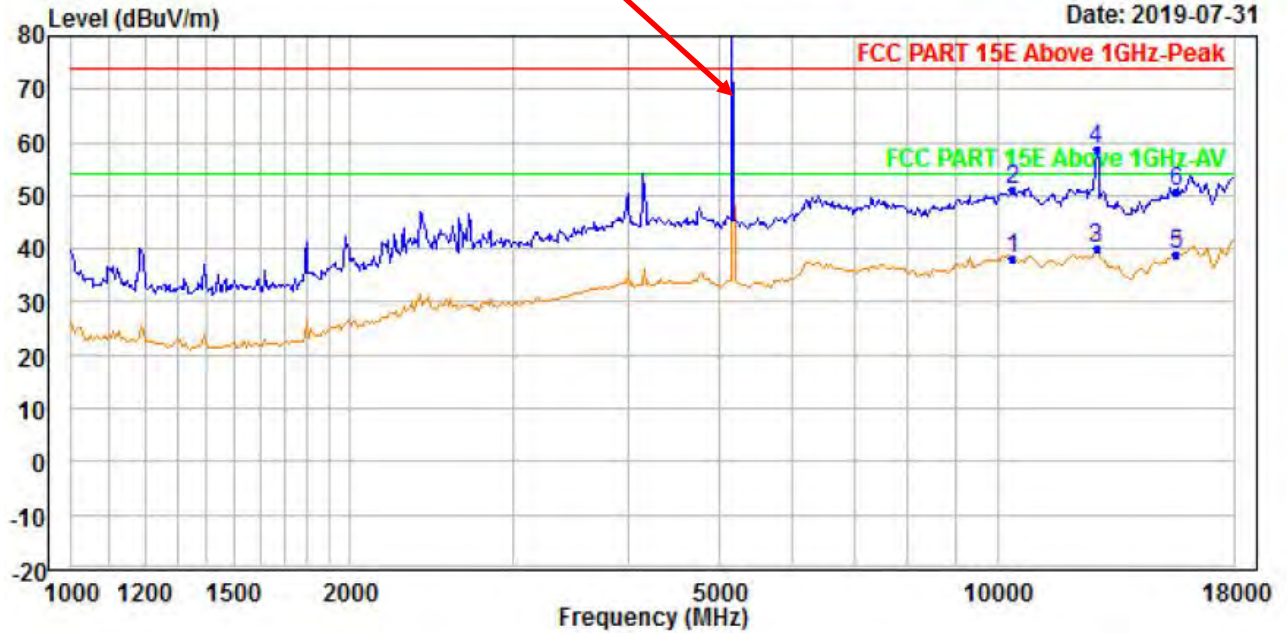
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5200MHz: Fundamental frequency.



VERTICAL:

Fundamental

Date: 2019-07-31



		Read	Ant	Preamp	Cable		Limit	Over	
	Freq	Level	Factor	Factor	Loss	Level	Line	Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	10400.000	28.88	37.58	45.22	17.05	38.29	54.00	-15.71	Average
2	10400.000	41.88	37.58	45.22	17.05	51.29	74.00	-22.71	Peak
3	PP12789.500	28.63	39.14	44.81	17.13	40.09	54.00	-13.91	Average
4	PK12789.500	47.19	39.14	44.81	17.13	58.65	74.00	-15.35	Peak
5	15600.000	27.28	40.36	45.74	17.17	39.07	54.00	-14.93	Average
6	15600.000	39.10	40.36	45.74	17.17	50.89	74.00	-23.11	Peak

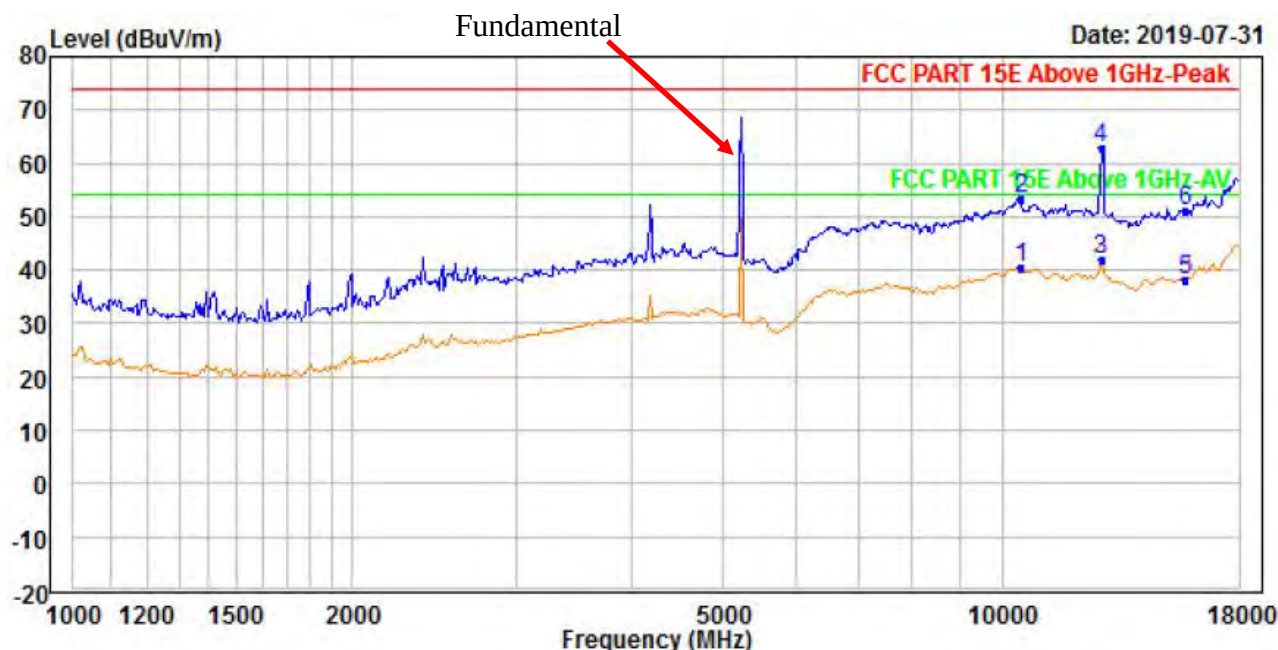
REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5200MHz: Fundamental frequency.



CHANNEL	TX Channel 5245MHz	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:



	Read	Ant	Preamp	Cable	Limit	Over	
Freq	Level	Factor	Factor	Loss	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	10490.000	28.85	39.58	45.20	17.05	40.28	54.00 -13.72 Average
2	10490.000	41.83	39.58	45.20	17.05	53.26	74.00 -20.74 Peak
3	AV12789.500	30.10	39.65	44.81	17.13	42.07	54.00 -11.93 Average
4	PP12789.500	50.99	39.65	44.81	17.13	62.96	74.00 -11.04 Peak
5	15735.000	27.20	39.59	45.66	17.17	38.30	54.00 -15.70 Average
6	15735.000	39.85	39.59	45.66	17.17	50.95	74.00 -23.05 Peak

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.

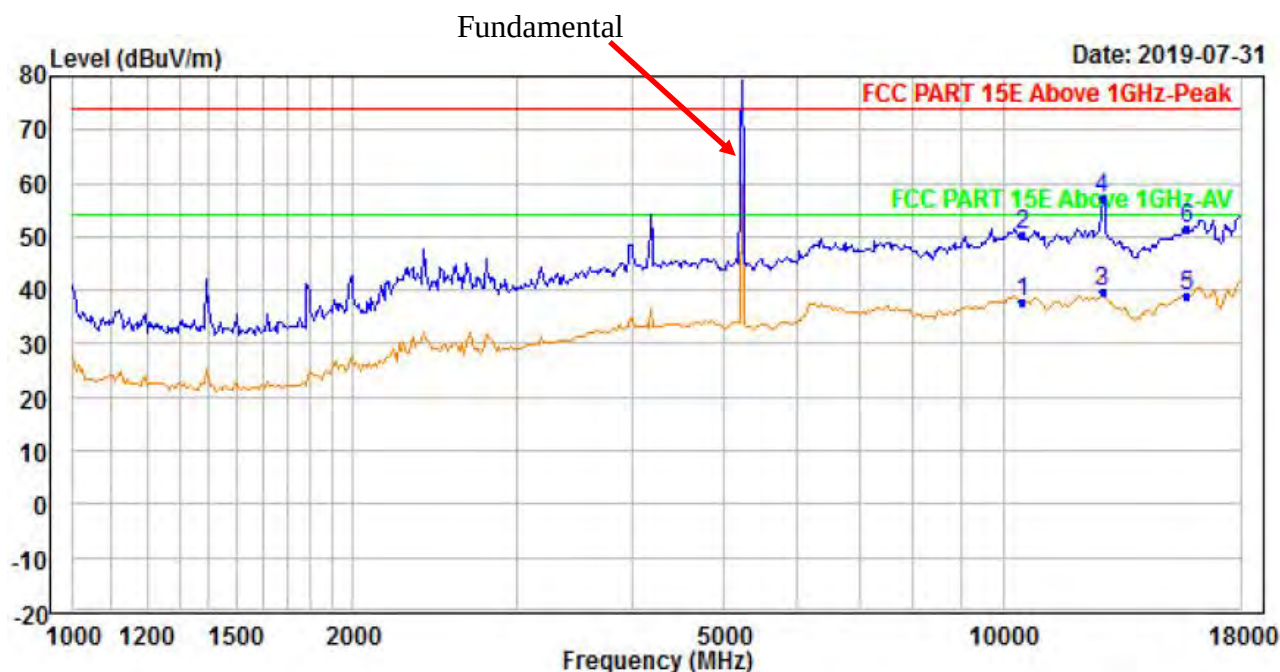
2. 5245MHz: Fundamental frequency.



**BUREAU
VERITAS**

Test Report No.: RF190116W005

VERTICAL:



		Read	Ant	Preamp	Cable		Limit	Over	
	Freq	Level	Factor	Factor	Loss	Level	Line	Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	10490.000	28.18	37.60	45.20	17.05	37.63	54.00	-16.37	Average
2	10490.000	40.79	37.60	45.20	17.05	50.24	74.00	-23.76	Peak
3	PP12789.500	28.41	39.14	44.81	17.13	39.87	54.00	-14.13	Average
4	PK12789.500	45.63	39.14	44.81	17.13	57.09	74.00	-16.91	Peak
5	15735.000	26.69	40.58	45.66	17.17	38.78	54.00	-15.22	Average
6	15735.000	39.27	40.58	45.66	17.17	51.36	74.00	-22.64	Peak

REMARKS:

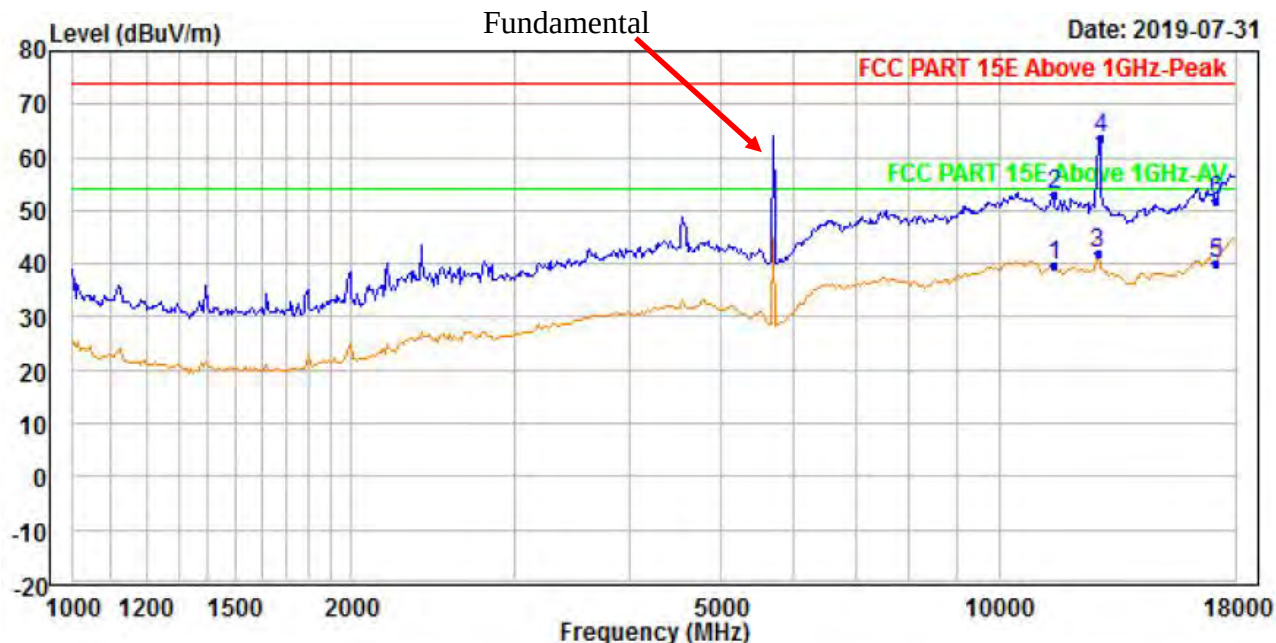
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5245MHz: Fundamental frequency.



5725-5850MHz BAND SISO 10MHz MODE:

CHANNEL	TX Channel 5730MHz	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	11460.000	29.83	39.70	46.57	16.67	39.63	54.00	-14.37	Average
2	11460.000	43.20	39.70	46.57	16.67	53.00	74.00	-21.00	Peak
3	AV12789.500	30.05	39.65	44.81	17.13	42.02	54.00	-11.98	Average
4	PP12863.790	51.26	39.74	44.74	17.23	63.49	74.00	-10.51	Peak
5	17190.000	26.43	42.35	45.96	17.40	40.22	54.00	-13.78	Average
6	17190.000	38.24	42.35	45.96	17.40	52.03	74.00	-21.97	Peak

REMARKS:

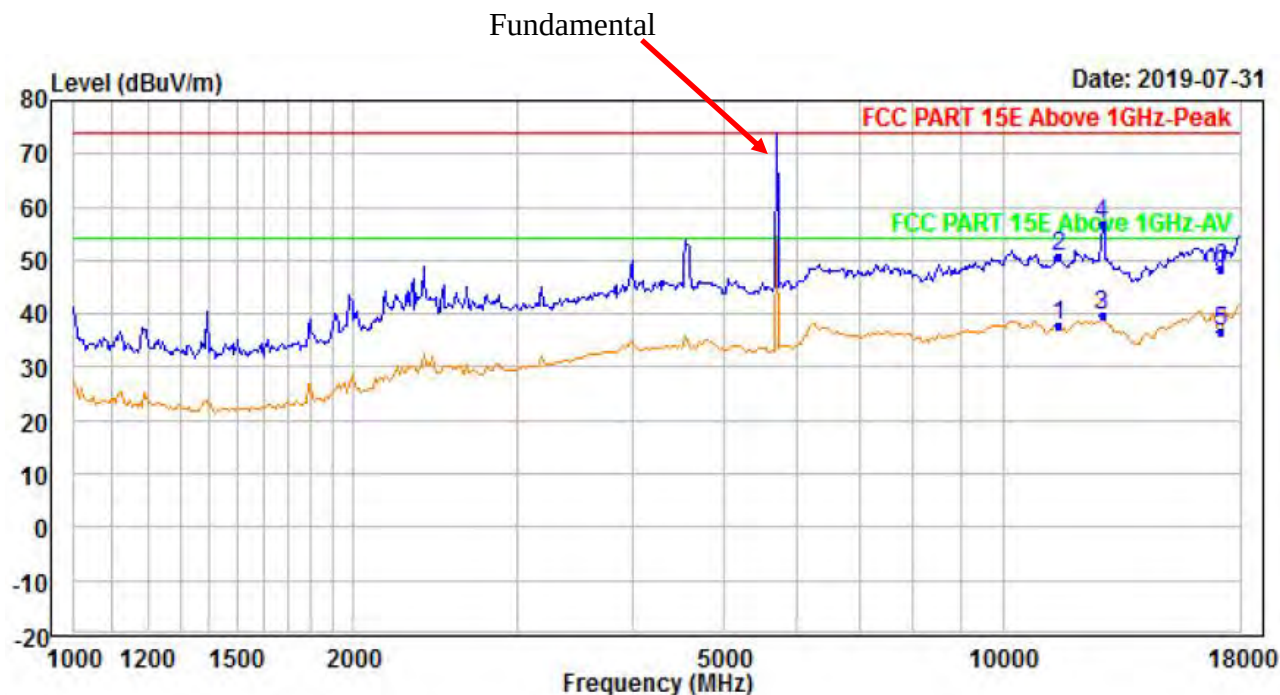
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5730MHz: Fundamental frequency.



**BUREAU
VERITAS**

Test Report No.: RF190116W005

VERTICAL:



	Read Freq	Ant Level	Preamp Factor	Cable Factor	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dBuV/m	dB	
1	11460.000	29.64	38.18	46.57	16.67	37.92	54.00 -16.08 Average
2	11460.000	42.35	38.18	46.57	16.67	50.63	74.00 -23.37 Peak
3	PP12789.500	28.08	39.14	44.81	17.13	39.54	54.00 -14.46 Average
4	PK12789.500	45.28	39.14	44.81	17.13	56.74	74.00 -17.26 Peak
5	17190.000	23.69	41.64	45.96	17.40	36.77	54.00 -17.23 Average
6	17190.000	35.54	41.64	45.96	17.40	48.62	74.00 -25.38 Peak

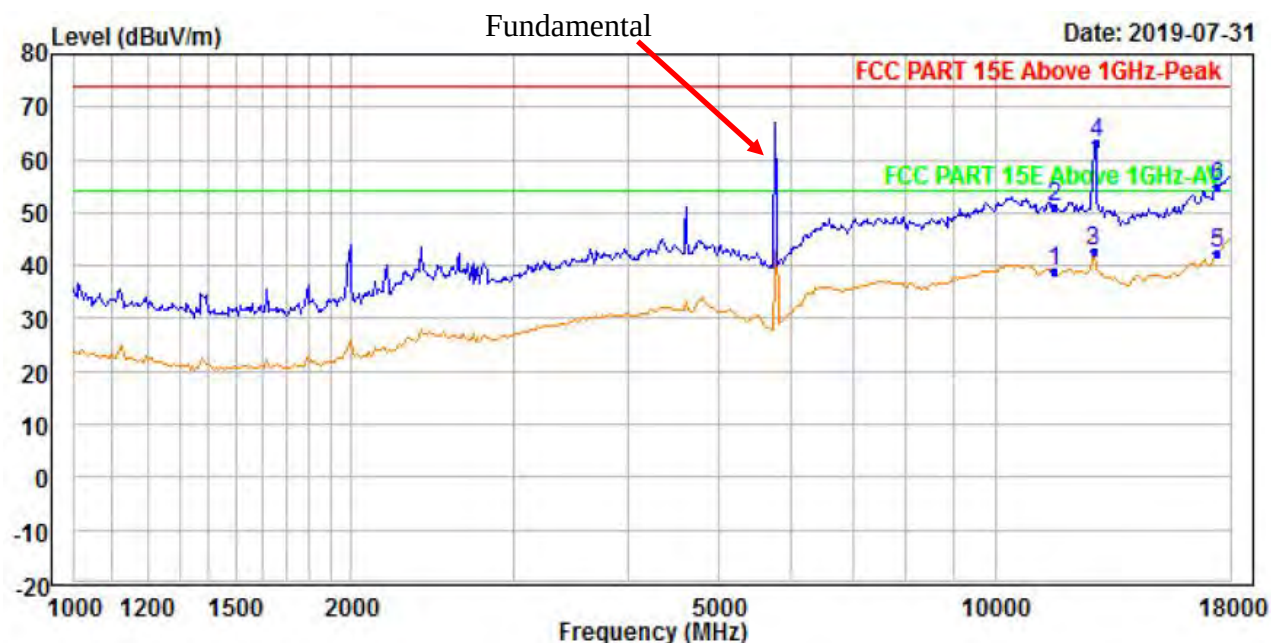
REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5730MHz: Fundamental frequency.



CHANNEL	TX Channel 5800MHz	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:



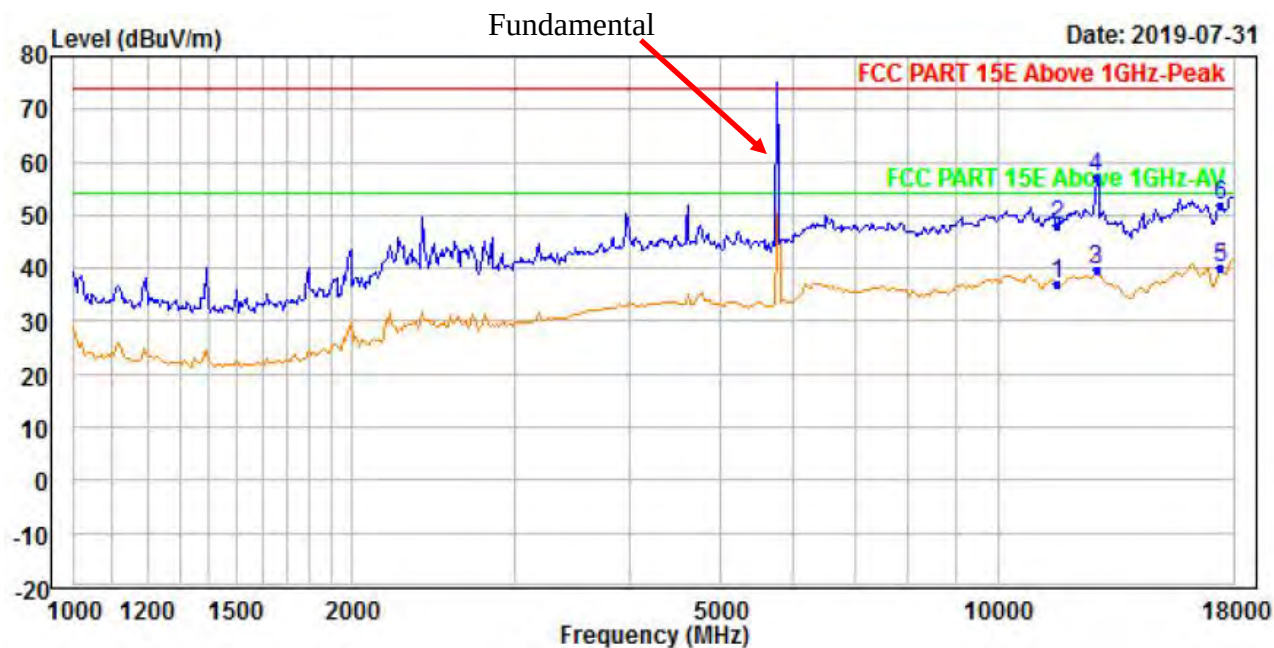
	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	11600.000	28.98	39.66	46.42	16.65	38.87	54.00	-15.13	Average
2	11600.000	41.15	39.66	46.42	16.65	51.04	74.00	-22.96	Peak
3	AV12789.500	30.67	39.65	44.81	17.13	42.64	54.00	-11.36	Average
4	PP12863.790	51.05	39.74	44.74	17.23	63.28	74.00	-10.72	Peak
5	17400.000	27.72	42.52	45.58	17.74	42.40	54.00	-11.60	Average
6	17400.000	40.14	42.52	45.58	17.74	54.82	74.00	-19.18	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5800MHz: Fundamental frequency.



VERTICAL:



	Read	Ant	Preamp	Cable		Limit	Over	
Freq	Level	Factor	Factor	Loss	Level	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	11600.000	28.38	38.32	46.42	16.65	36.93	54.00	-17.07 Average
2	11600.000	39.65	38.32	46.42	16.65	48.20	74.00	-25.80 Peak
3	12789.500	28.24	39.14	44.81	17.13	39.70	54.00	-14.30 Average
4	PK12789.500	45.76	39.14	44.81	17.13	57.22	74.00	-16.78 Peak
5	PP17400.000	26.11	41.68	45.58	17.74	39.95	54.00	-14.05 Average
6	17400.000	37.95	41.68	45.58	17.74	51.79	74.00	-22.21 Peak

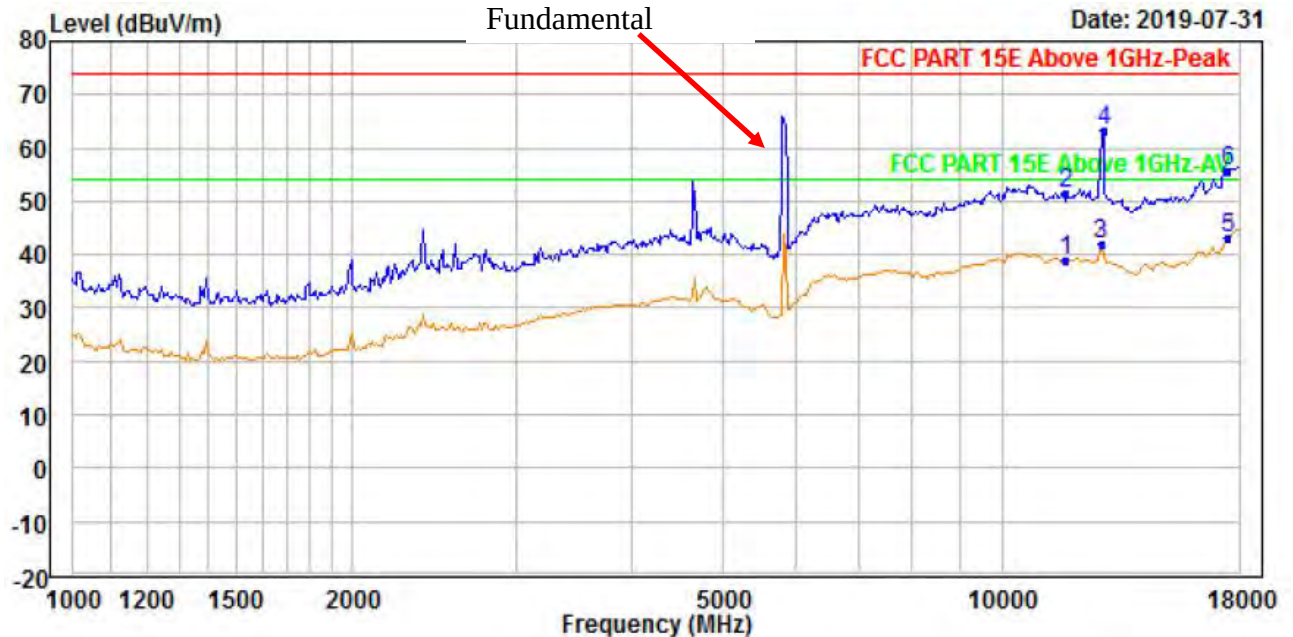
REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5800MHz: Fundamental frequency.



CHANNEL	TX Channel 5845	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:



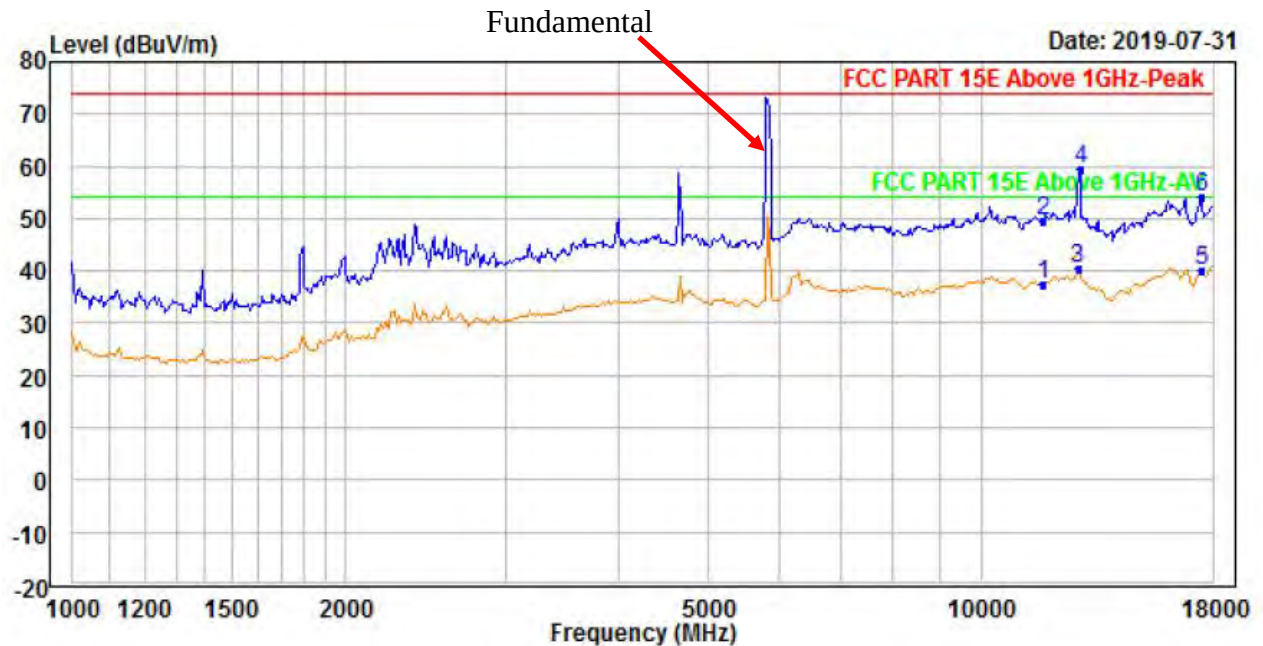
	Read	Ant	Preamp	Cable	Limit	Over		
Freq	Level	Factor	Factor	Loss	Line	Limit	Remark	
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	11690.000	29.01	39.62	46.26	16.64	39.01	54.00	-14.99 Average
2	11690.000	41.42	39.62	46.26	16.64	51.42	74.00	-22.58 Peak
3	12789.500	29.92	39.65	44.81	17.13	41.89	54.00	-12.11 Average
4	PP12863.790	50.91	39.74	44.74	17.23	63.14	74.00	-10.86 Peak
5	AV17535.000	27.65	42.70	45.18	17.76	42.93	54.00	-11.07 Average
6	17535.000	40.49	42.70	45.18	17.76	55.77	74.00	-18.23 Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5845MHz: Fundamental frequency.



VERTICAL:



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	11690.000	28.69	38.43	46.26	16.64	37.50	54.00	-16.50	Average
2	11690.000	40.90	38.43	46.26	16.64	49.71	74.00	-24.29	Peak
3	PP12789.500	29.05	39.14	44.81	17.13	40.51	54.00	-13.49	Average
4	PK12863.790	47.92	39.13	44.74	17.23	59.54	74.00	-14.46	Peak
5	17535.000	25.97	41.71	45.18	17.76	40.26	54.00	-13.74	Average
6	17535.000	39.82	41.71	45.18	17.76	54.11	74.00	-19.89	Peak

REMARKS:

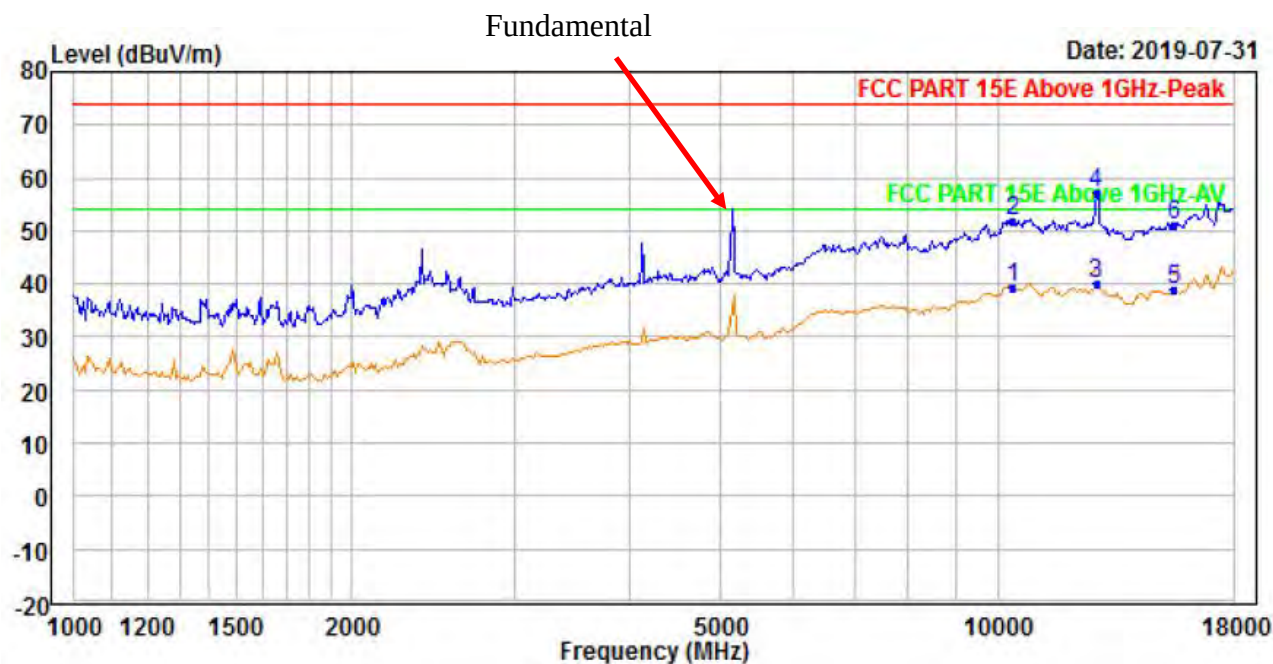
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5845MHz: Fundamental frequency.



5150-5250MHz BAND SISO 20MHz MODE:

CHANNEL	TX Channel 5180MHz	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	10360.000	28.13	39.29	45.23	17.05	39.24	54.00	-14.76	Average
2	10360.000	40.66	39.29	45.23	17.05	51.77	74.00	-22.23	Peak
3	PP12789.500	28.18	39.65	44.81	17.13	40.15	54.00	-13.85	Average
4	PK12789.500	45.32	39.65	44.81	17.13	57.29	74.00	-16.71	Peak
5	15540.000	28.16	39.43	45.78	17.11	38.92	54.00	-15.08	Average
6	15540.000	40.37	39.43	45.78	17.11	51.13	74.00	-22.87	Peak

REMARKS:

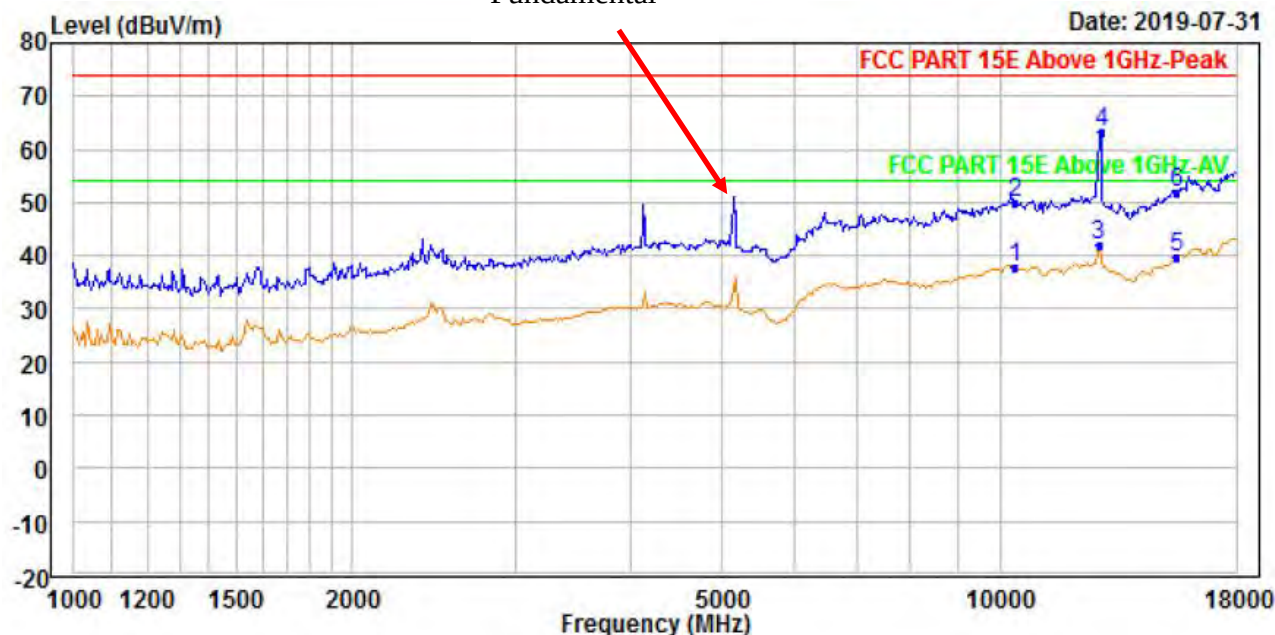
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5180MHz: Fundamental frequency.



VERTICAL:

Fundamental

Date: 2019-07-31



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	10360.000	28.52	37.57	45.23	17.05	37.91	54.00	-16.09	Average
2	10360.000	40.62	37.57	45.23	17.05	50.01	74.00	-23.99	Peak
3	AV12789.500	30.42	39.14	44.81	17.13	41.88	54.00	-12.12	Average
4	PP12863.790	51.61	39.13	44.74	17.23	63.23	74.00	-10.77	Peak
5	15540.000	28.16	40.26	45.78	17.11	39.75	54.00	-14.25	Average
6	15540.000	40.26	40.26	45.78	17.11	51.85	74.00	-22.15	Peak

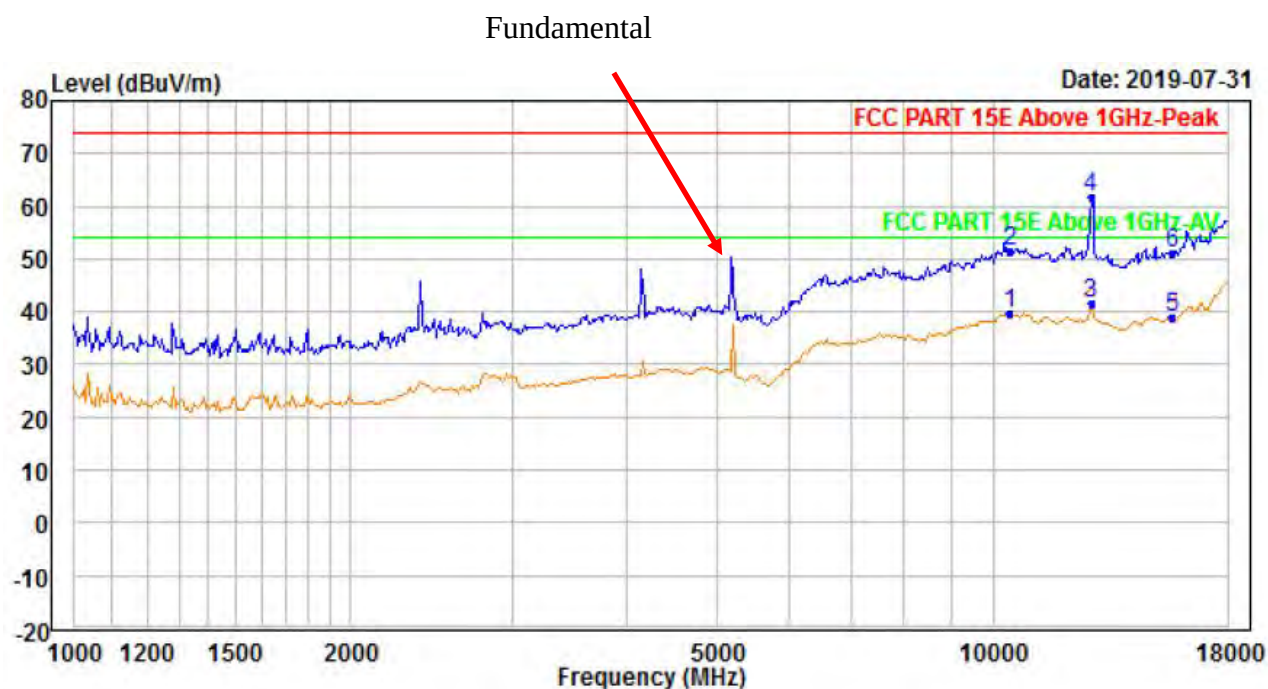
REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5180MHz: Fundamental frequency.



CHANNEL	TX Channel 5220	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	10440.000	28.41	39.47	45.21	17.05	39.72	54.00	-14.28	Average
2	10440.000	40.14	39.47	45.21	17.05	51.45	74.00	-22.55	Peak
3	PP12789.500	29.78	39.65	44.81	17.13	41.75	54.00	-12.25	Average
4	PK12789.500	49.77	39.65	44.81	17.13	61.74	74.00	-12.26	Peak
5	15660.000	27.96	39.53	45.70	17.17	38.96	54.00	-15.04	Average
6	15660.000	40.07	39.53	45.70	17.17	51.07	74.00	-22.93	Peak

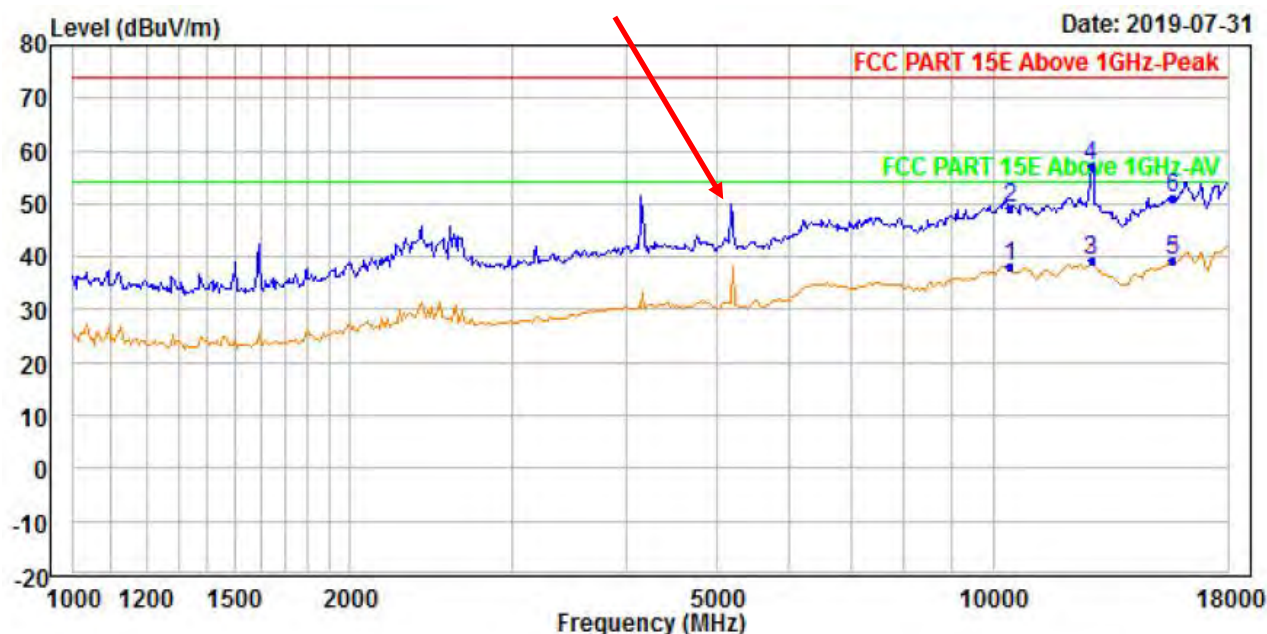
REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5220MHz: Fundamental frequency.



VERTICAL:

Fundamental



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	10440.000	28.57	37.59	45.21	17.05	38.00	54.00	-16.00	Average
2	10440.000	39.84	37.59	45.21	17.05	49.27	74.00	-24.73	Peak
3	12789.500	27.78	39.14	44.81	17.13	39.24	54.00	-14.76	Average
4	PK12789.500	45.57	39.14	44.81	17.13	57.03	74.00	-16.97	Peak
5	PP15660.000	27.55	40.46	45.70	17.17	39.48	54.00	-14.52	Average
6	15660.000	39.02	40.46	45.70	17.17	50.95	74.00	-23.05	Peak

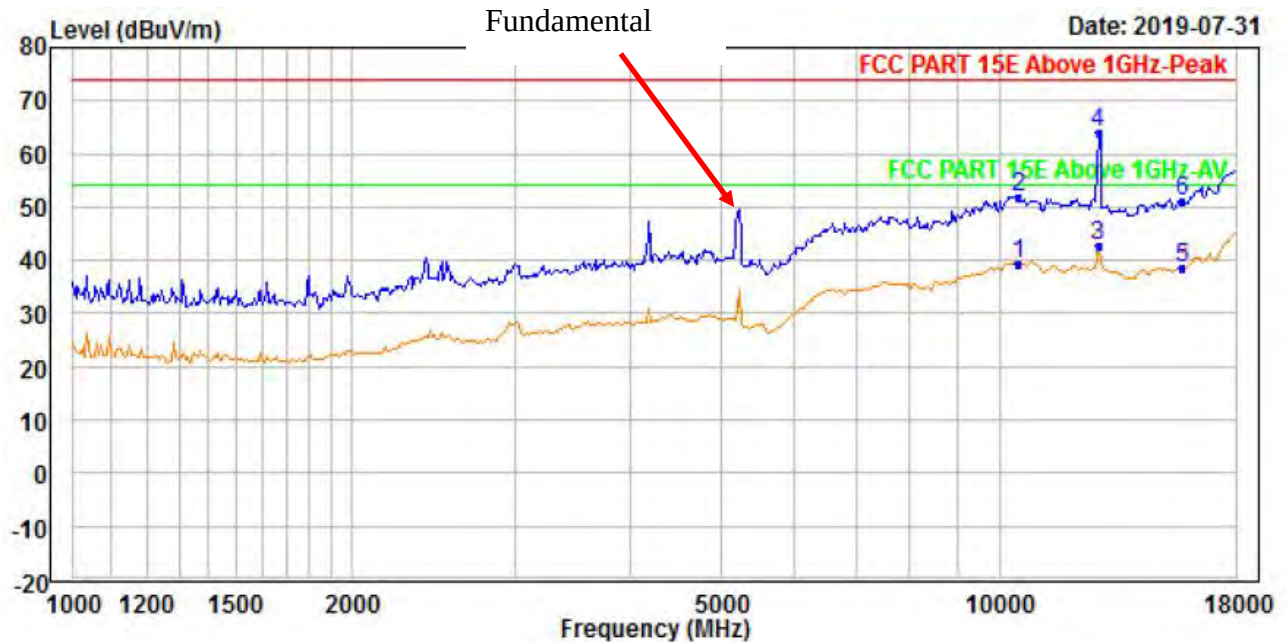
REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5220MHz: Fundamental frequency.



CHANNEL	TX Channel 5240	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	10480.000	27.99	39.56	45.20	17.05	39.40	54.00	-14.60	Average
2	10480.000	40.64	39.56	45.20	17.05	52.05	74.00	-21.95	Peak
3	AV12789.500	30.71	39.65	44.81	17.13	42.68	54.00	-11.32	Average
4	PP12789.500	52.13	39.65	44.81	17.13	64.10	74.00	-9.90	Peak
5	15720.000	27.47	39.58	45.67	17.17	38.55	54.00	-15.45	Average
6	15720.000	40.10	39.58	45.67	17.17	51.18	74.00	-22.82	Peak

REMARKS:

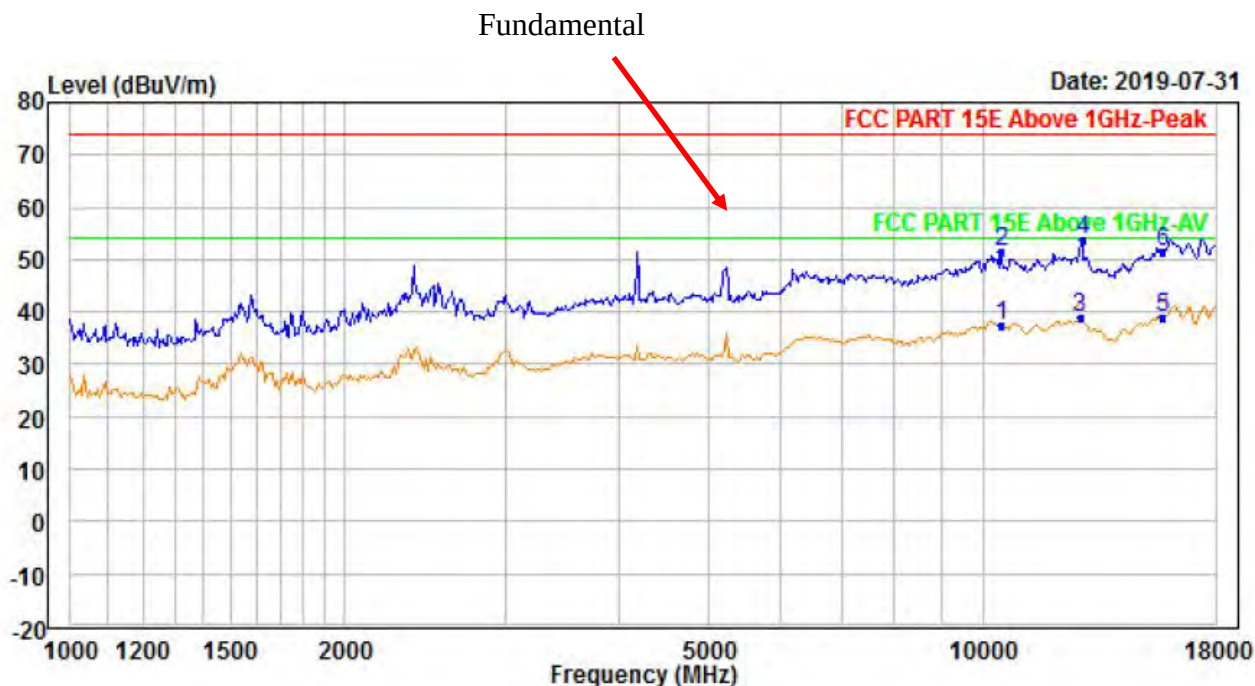
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5240MHz: Fundamental frequency.



**BUREAU
VERITAS**

Test Report No.: RF190116W005

VERTICAL:



	Read Freq	Ant Level	Preamp Factor	Cable Factor	Loss	Level	Limit	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	10480.000	27.96	37.60	45.20	17.05	37.41	54.00	-16.59	Average
2	10480.000	42.15	37.60	45.20	17.05	51.60	74.00	-22.40	Peak
3	12789.500	27.30	39.14	44.81	17.13	38.76	54.00	-15.24	Average
4	PK12863.790	42.17	39.13	44.74	17.23	53.79	74.00	-20.21	Peak
5	PP15720.000	27.06	40.55	45.67	17.17	39.11	54.00	-14.89	Average
6	15720.000	39.53	40.55	45.67	17.17	51.58	74.00	-22.42	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5240MHz: Fundamental frequency.



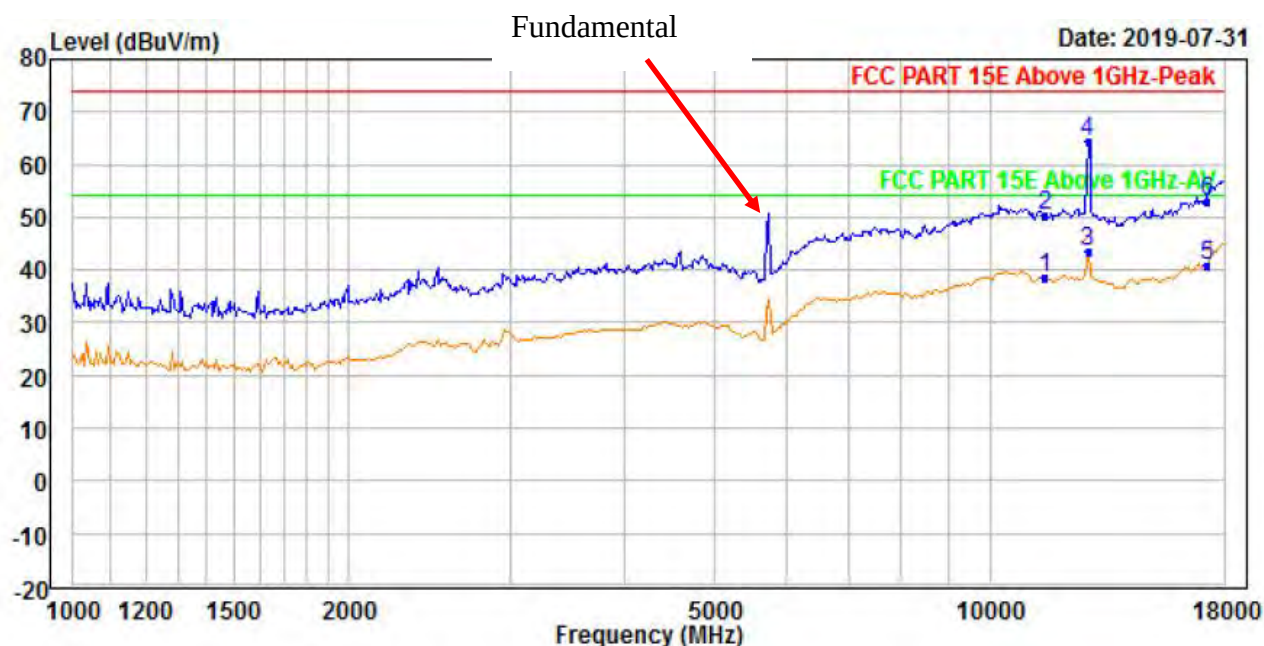
**BUREAU
VERITAS**

Test Report No.: RF190116W005

5725-5850MHz BAND SISO 20MHz MODE:

CHANNEL	TX Channel 5745MHz	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:



	Read Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	11490.000	28.75	39.70	46.59	16.67	38.53	54.00	-15.47	Average
2	11490.000	40.44	39.70	46.59	16.67	50.22	74.00	-23.78	Peak
3	AV12789.500	31.67	39.65	44.81	17.13	43.64	54.00	-10.36	Average
4	PP12789.500	52.37	39.65	44.81	17.13	64.34	74.00	-9.66	Peak
5	17235.000	26.86	42.39	45.88	17.47	40.84	54.00	-13.16	Average
6	17235.000	38.94	42.39	45.88	17.47	52.92	74.00	-21.08	Peak

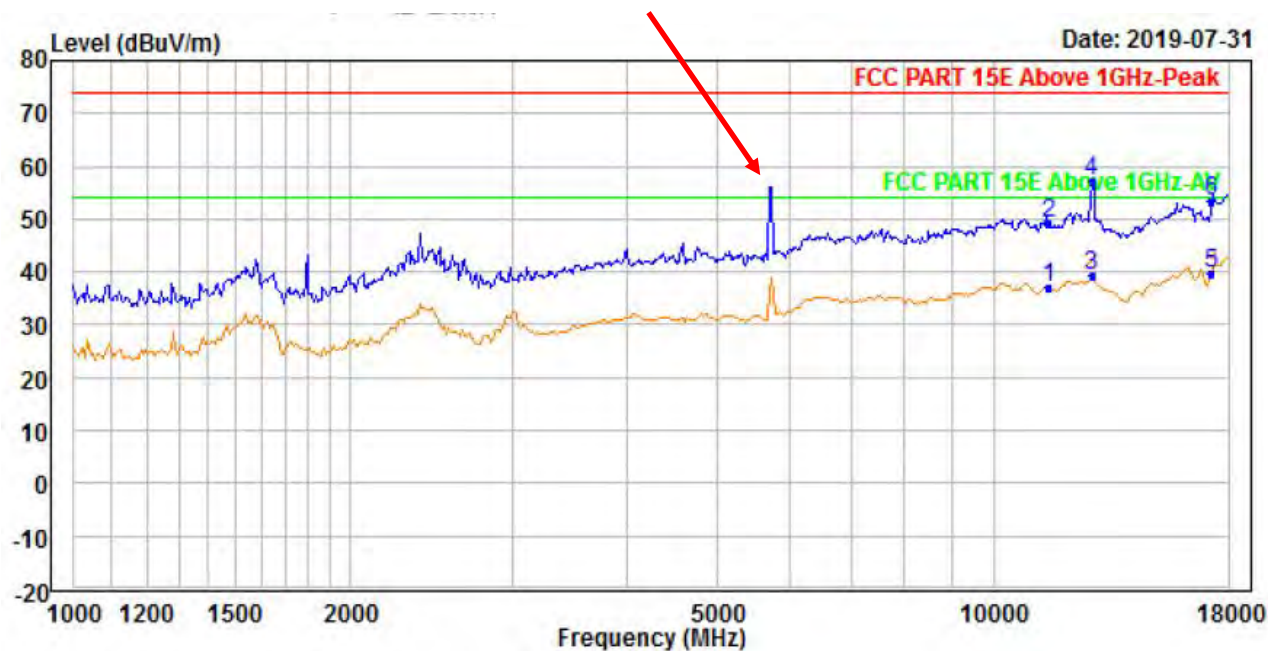
REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5745MHz: Fundamental frequency.



VERTICAL:

Fundamental



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	11490.000	28.74	38.19	46.59	16.67	37.01	54.00	-16.99	Average
2	11490.000	40.85	38.19	46.59	16.67	49.12	74.00	-24.88	Peak
3	12789.500	27.78	39.14	44.81	17.13	39.24	54.00	-14.76	Average
4	PK12789.500	45.82	39.14	44.81	17.13	57.28	74.00	-16.72	Peak
5	PP17235.000	26.49	41.65	45.88	17.47	39.73	54.00	-14.27	Average
6	17235.000	39.96	41.65	45.88	17.47	53.20	74.00	-20.80	Peak

REMARKS:

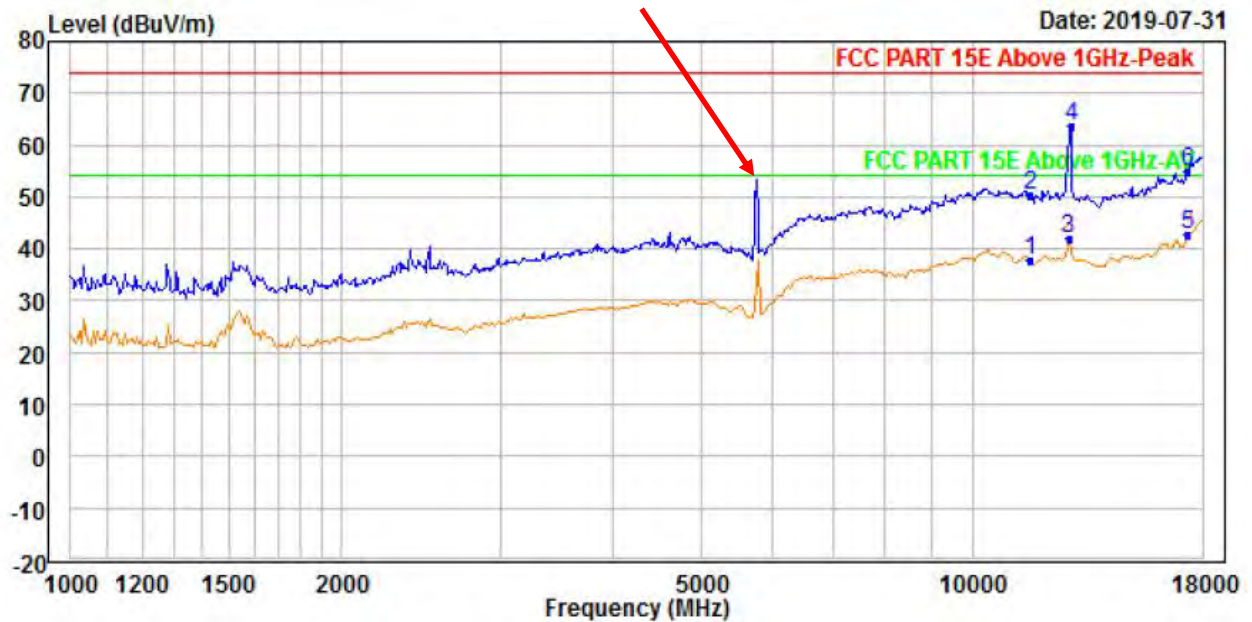
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5745MHz: Fundamental frequency.



CHANNEL	TX Channel 5785	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:

Fundamental



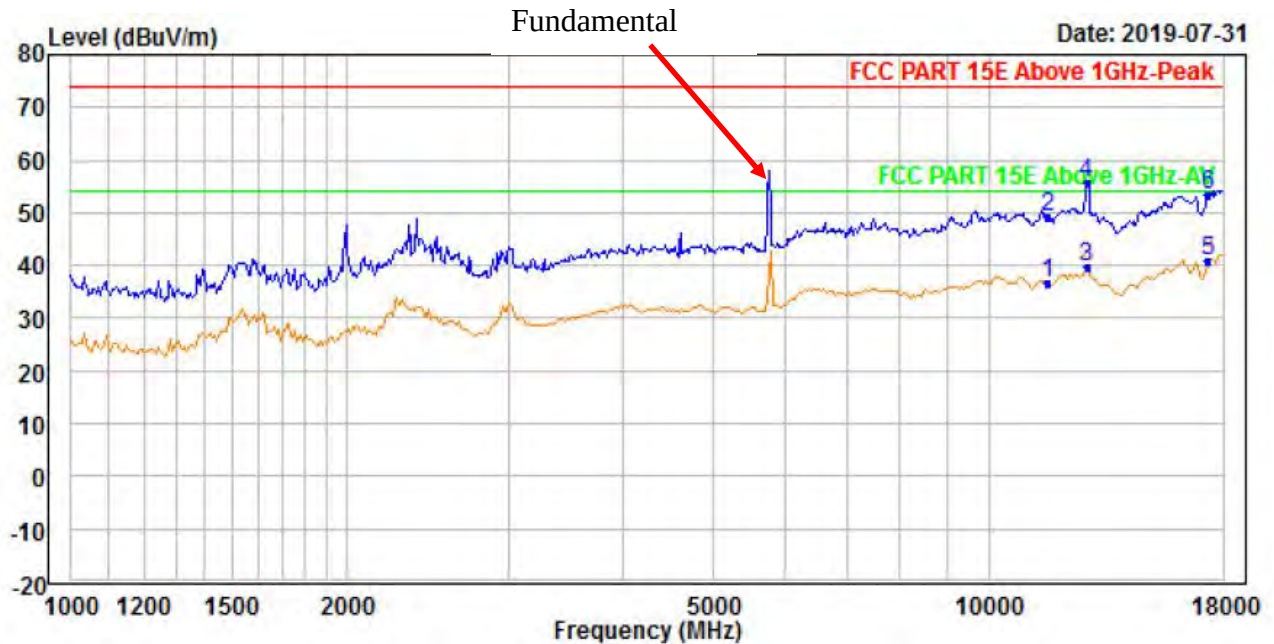
	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	11570.000	27.86	39.67	46.47	16.66	37.72	54.00	-16.28	Average
2	11570.000	40.30	39.67	46.47	16.66	50.16	74.00	-23.84	Peak
3	12789.500	30.14	39.65	44.81	17.13	42.11	54.00	-11.89	Average
4	PP12863.790	51.32	39.74	44.74	17.23	63.55	74.00	-10.45	Peak
5	AV17355.000	28.42	42.48	45.66	17.67	42.91	54.00	-11.09	Average
6	17355.000	40.30	42.48	45.66	17.67	54.79	74.00	-19.21	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5785MHz: Fundamental frequency.



VERTICAL:



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	11570.000	28.24	38.28	46.47	16.66	36.71	54.00	-17.29	Average
2	11570.000	40.75	38.28	46.47	16.66	49.22	74.00	-24.78	Peak
3	12789.500	28.08	39.14	44.81	17.13	39.54	54.00	-14.46	Average
4	PK12789.500	44.33	39.14	44.81	17.13	55.79	74.00	-18.21	Peak
5	PP17355.000	27.34	41.67	45.66	17.67	41.02	54.00	-12.98	Average
6	17355.000	39.69	41.67	45.66	17.67	53.37	74.00	-20.63	Peak

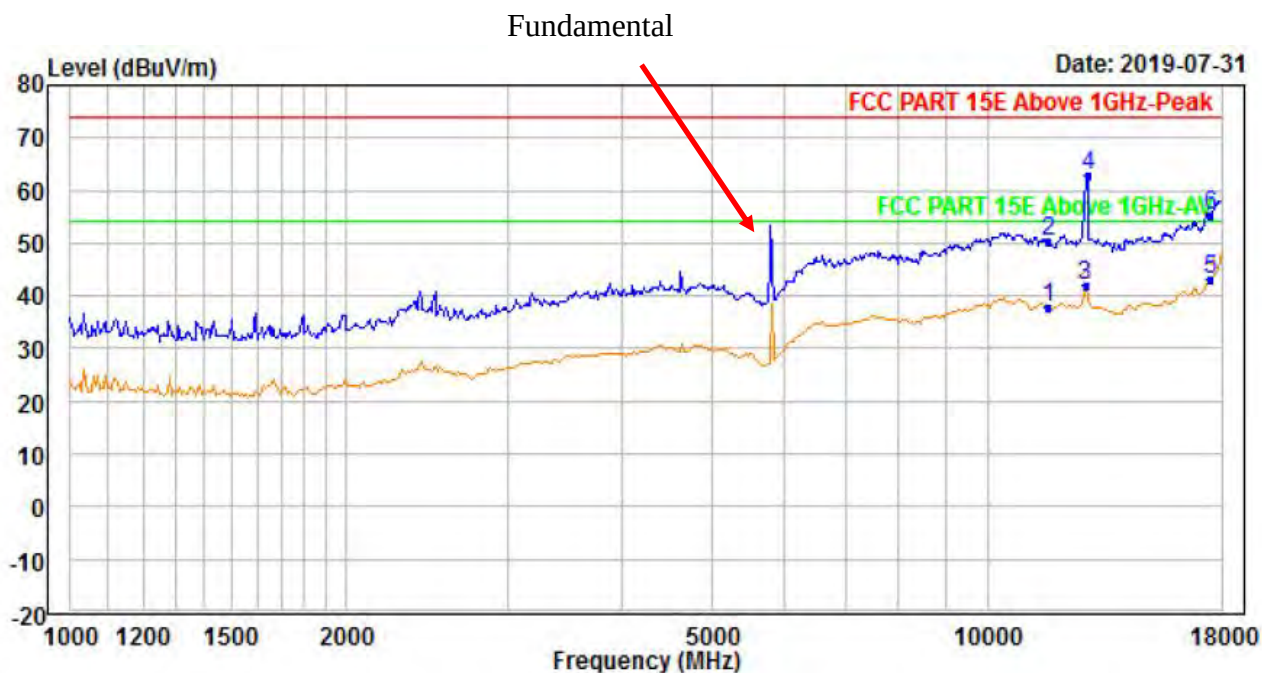
REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5785MHz: Fundamental frequency.



CHANNEL	TX Channel 5825MHz	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:



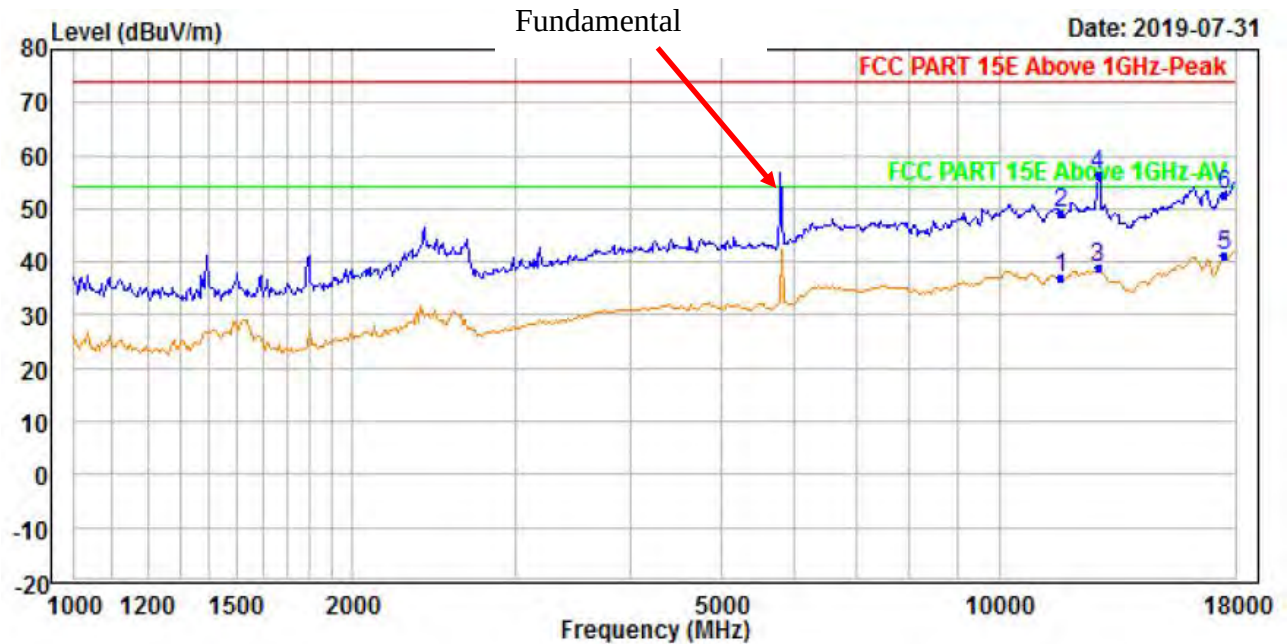
	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	11650.000	27.73	39.64	46.33	16.64	37.68	54.00	-16.32	Average
2	11650.000	40.27	39.64	46.33	16.64	50.22	74.00	-23.78	Peak
3	12789.500	29.96	39.65	44.81	17.13	41.93	54.00	-12.07	Average
4	PK12863.790	50.62	39.74	44.74	17.23	62.85	74.00	-11.15	Peak
5	PP17475.000	28.32	42.58	45.44	17.75	43.21	54.00	-10.79	Average
6	17475.000	40.48	42.58	45.44	17.75	55.37	74.00	-18.63	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5825MHz: Fundamental frequency.



VERTICAL:



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	11650.000	28.32	38.38	46.33	16.64	37.01	54.00	-16.99	Average
2	11650.000	40.56	38.38	46.33	16.64	49.25	74.00	-24.75	Peak
3	12789.500	27.42	39.14	44.81	17.13	38.88	54.00	-15.12	Average
4	PK12789.500	44.99	39.14	44.81	17.13	56.45	74.00	-17.55	Peak
5	PP17475.000	27.07	41.69	45.44	17.75	41.07	54.00	-12.93	Average
6	17475.000	38.71	41.69	45.44	17.75	52.71	74.00	-21.29	Peak

REMARKS:

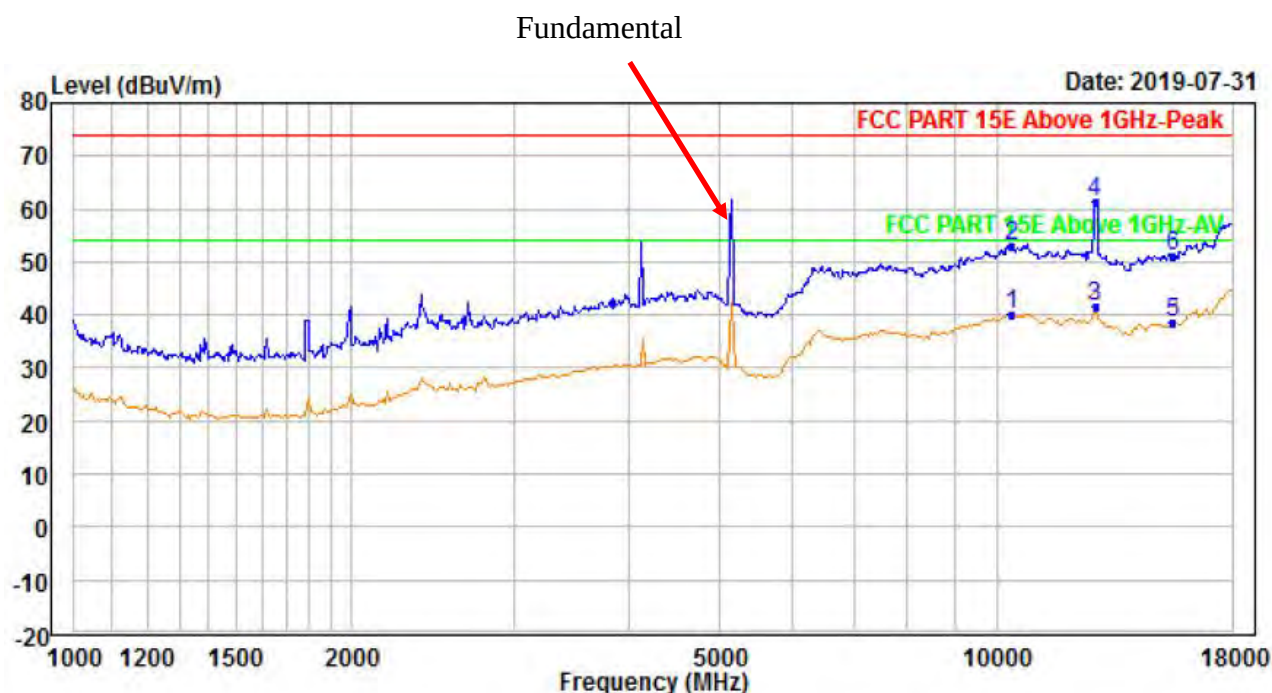
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5825MHz: Fundamental frequency.



5150-5250MHz BAND MIMO 10MHz MODE:

CHANNEL	TX Channel 5180MHz	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:



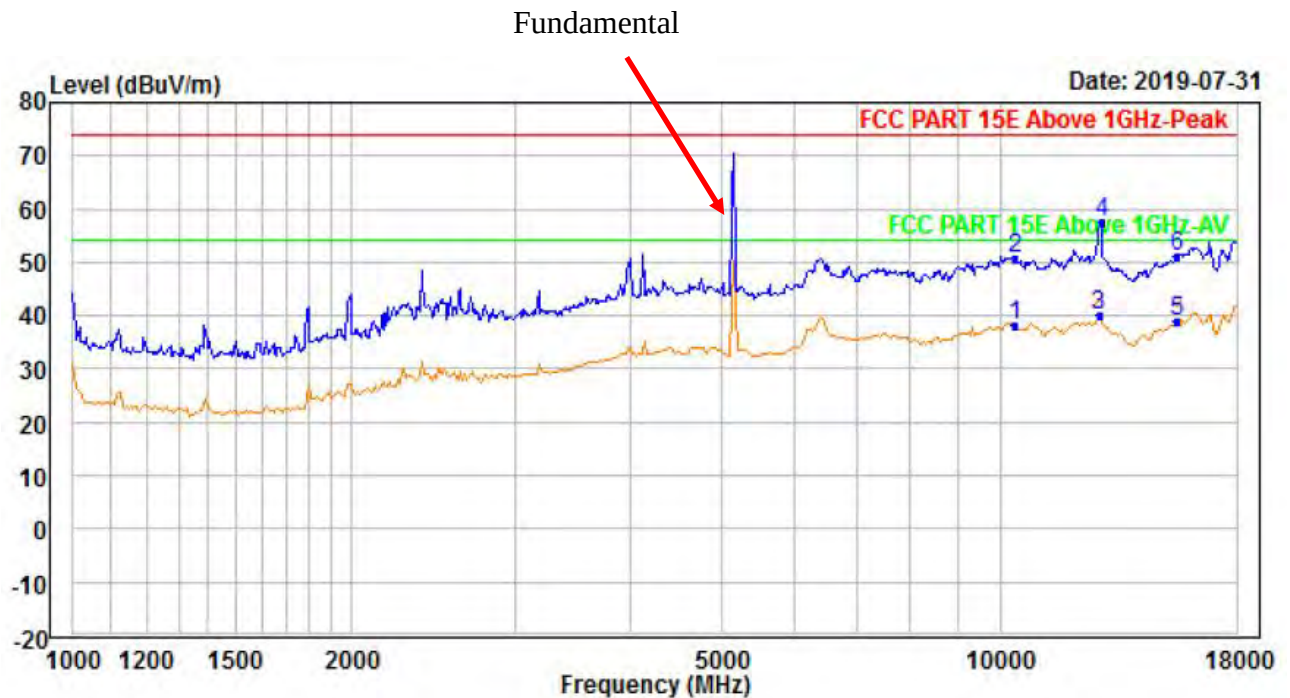
	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	10360.000	29.05	39.29	45.23	17.05	40.16	54.00	-13.84	Average
2	10360.000	41.87	39.29	45.23	17.05	52.98	74.00	-21.02	Peak
3	PP12789.500	29.64	39.65	44.81	17.13	41.61	54.00	-12.39	Average
4	PK12789.500	49.32	39.65	44.81	17.13	61.29	74.00	-12.71	Peak
5	15540.000	27.81	39.43	45.78	17.11	38.57	54.00	-15.43	Average
6	15540.000	40.25	39.43	45.78	17.11	51.01	74.00	-22.99	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5180MHz: Fundamental frequency.



VERTICAL:



	Read	Ant	Preamp	Cable	Limit	Over	
Freq	Level	Factor	Factor	Loss	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	10360.000	28.90	37.57	45.23	17.05	38.29	54.00 -15.71 Average
2	10360.000	41.30	37.57	45.23	17.05	50.69	74.00 -23.31 Peak
3	PP12789.500	28.52	39.14	44.81	17.13	39.98	54.00 -14.02 Average
4	PK12863.790	45.94	39.13	44.74	17.23	57.56	74.00 -16.44 Peak
5	15540.000	27.48	40.26	45.78	17.11	39.07	54.00 -14.93 Average
6	15540.000	39.33	40.26	45.78	17.11	50.92	74.00 -23.08 Peak

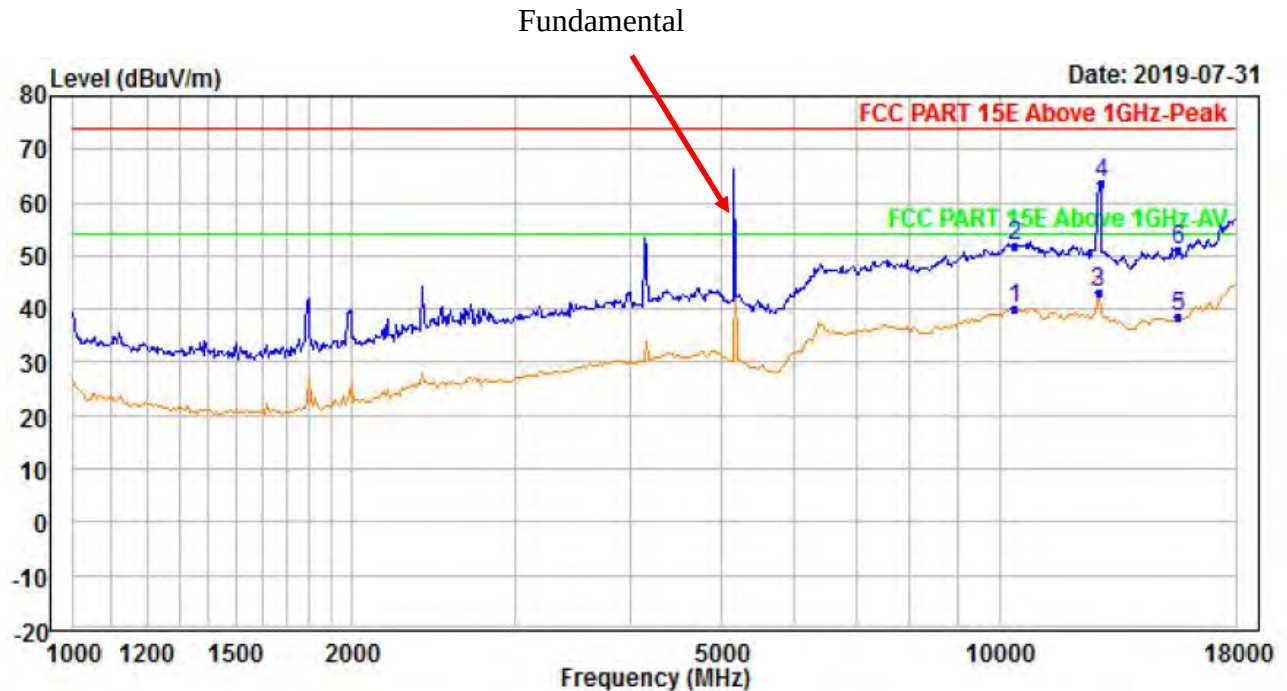
REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5180MHz: Fundamental frequency.



CHANNEL	TX Channel 5200MHz	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:



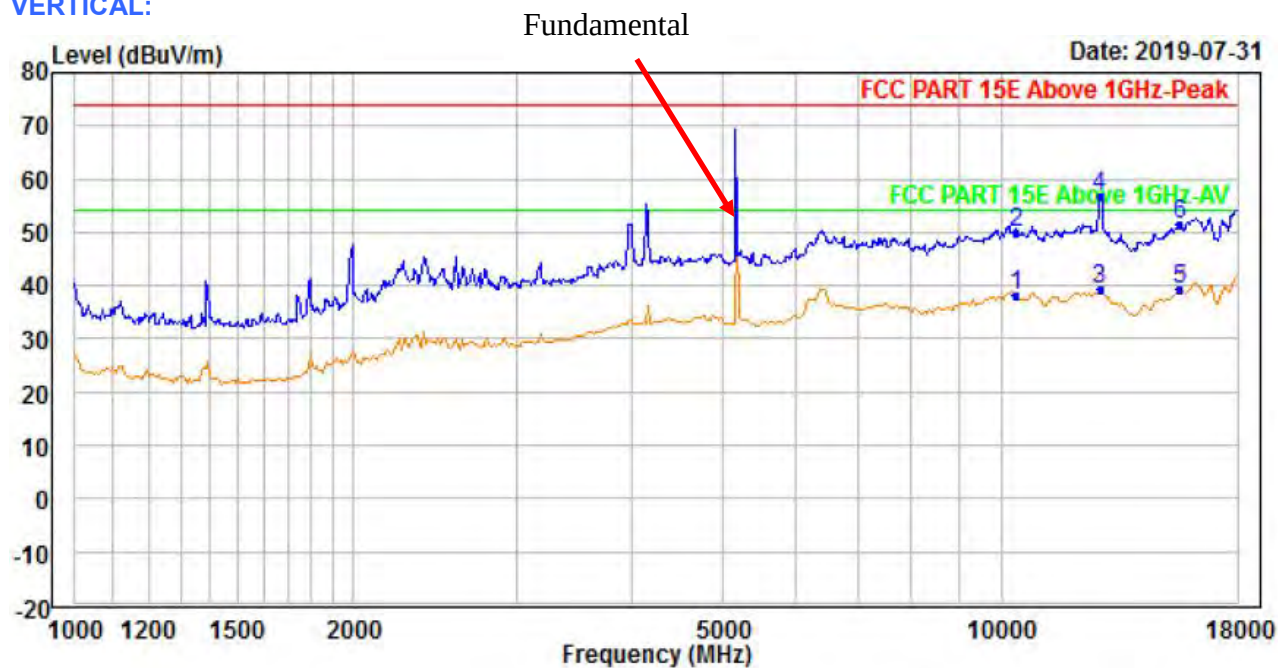
	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	10400.000	28.85	39.38	45.22	17.05	40.06	54.00	-13.94	Average
2	10400.000	40.66	39.38	45.22	17.05	51.87	74.00	-22.13	Peak
3	AV12789.500	30.96	39.65	44.81	17.13	42.93	54.00	-11.07	Average
4	PP12863.790	51.33	39.74	44.74	17.23	63.56	74.00	-10.44	Peak
5	15600.000	27.54	39.48	45.74	17.17	38.45	54.00	-15.55	Average
6	15600.000	40.26	39.48	45.74	17.17	51.17	74.00	-22.83	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5200MHz: Fundamental frequency.



VERTICAL:



	Read Freq	Ant Level	Preamp Factor	Cable Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	10400.000	28.72	37.58	45.22	17.05	38.13	54.00	-15.87	Average
2	10400.000	40.49	37.58	45.22	17.05	49.90	74.00	-24.10	Peak
3	12789.500	27.67	39.14	44.81	17.13	39.13	54.00	-14.87	Average
4	PK12789.500	45.40	39.14	44.81	17.13	56.86	74.00	-17.14	Peak
5	PP15600.000	27.34	40.36	45.74	17.17	39.13	54.00	-14.87	Average
6	15600.000	39.65	40.36	45.74	17.17	51.44	74.00	-22.56	Peak

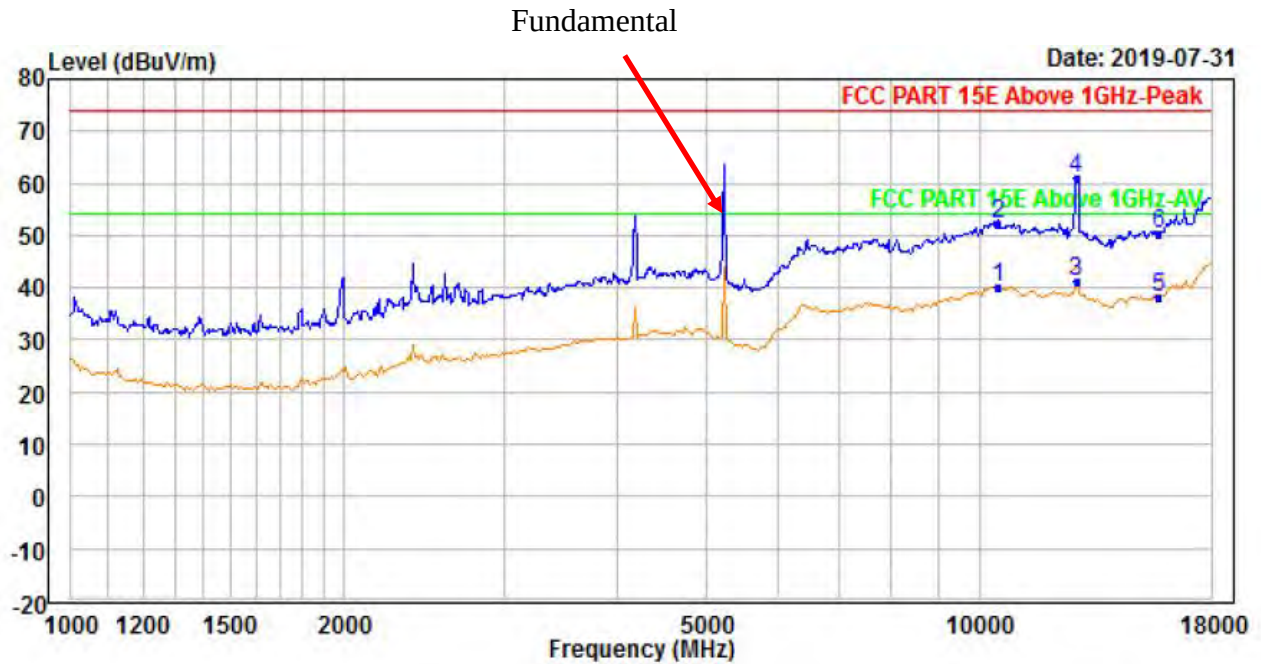
REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5200MHz: Fundamental frequency.



CHANNEL	TX Channel 5245MHz	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:



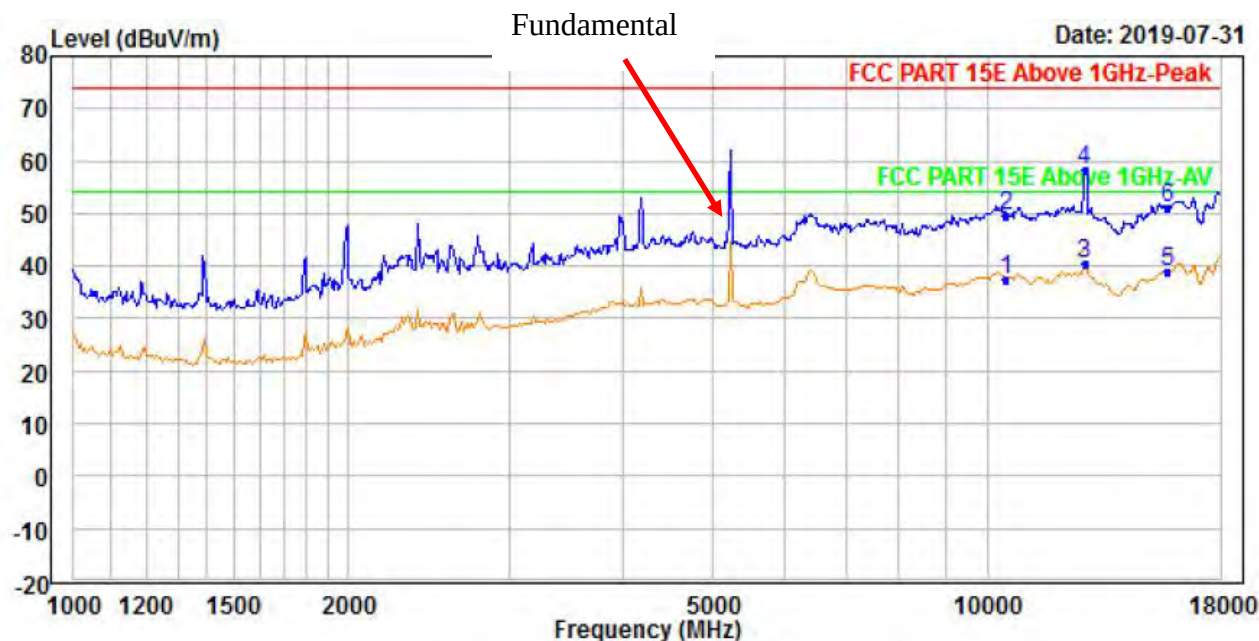
	Read Freq	Ant Factor	Preamp Factor	Cable Loss	Level	Limit	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	
1	10490.000	28.48	39.58	45.20	17.05	39.91	54.00	-14.09 Average
2	10490.000	40.86	39.58	45.20	17.05	52.29	74.00	-21.71 Peak
3	PP12789.500	29.24	39.65	44.81	17.13	41.21	54.00	-12.79 Average
4	PK12789.500	49.12	39.65	44.81	17.13	61.09	74.00	-12.91 Peak
5	15735.000	27.13	39.59	45.66	17.17	38.23	54.00	-15.77 Average
6	15735.000	39.29	39.59	45.66	17.17	50.39	74.00	-23.61 Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5245MHz: Fundamental frequency.



VERTICAL:



	Read	Ant	Preamp	Cable		Limit	Over	
Freq	Level	Factor	Factor	Loss	Level	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	10490.000	28.01	37.60	45.20	17.05	37.46	54.00	-16.54 Average
2	10490.000	40.07	37.60	45.20	17.05	49.52	74.00	-24.48 Peak
3	PP12789.500	28.89	39.14	44.81	17.13	40.35	54.00	-13.65 Average
4	PK12789.500	46.69	39.14	44.81	17.13	58.15	74.00	-15.85 Peak
5	15735.000	26.76	40.58	45.66	17.17	38.85	54.00	-15.15 Average
6	15735.000	38.90	40.58	45.66	17.17	50.99	74.00	-23.01 Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5245MHz: Fundamental frequency.



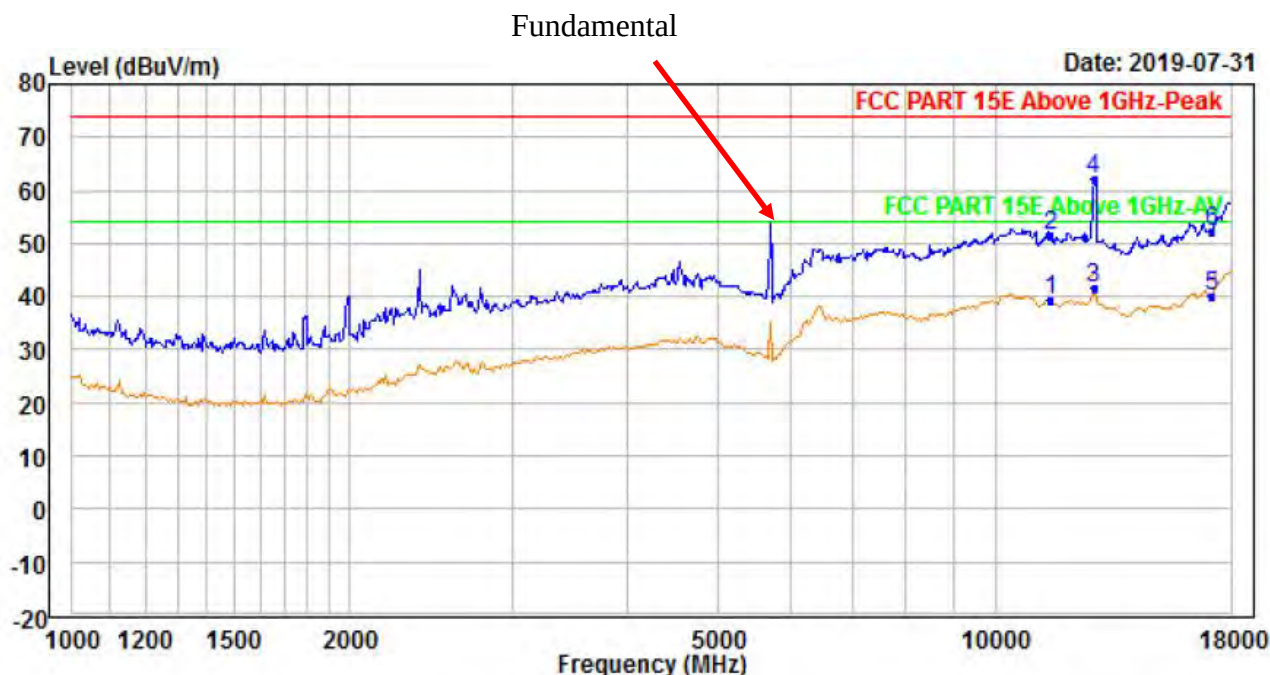
**BUREAU
VERITAS**

Test Report No.: RF190116W005

5725-5850MHz BAND MIMO 10MHz MODE:

CHANNEL	TX Channel 5730MHz	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:



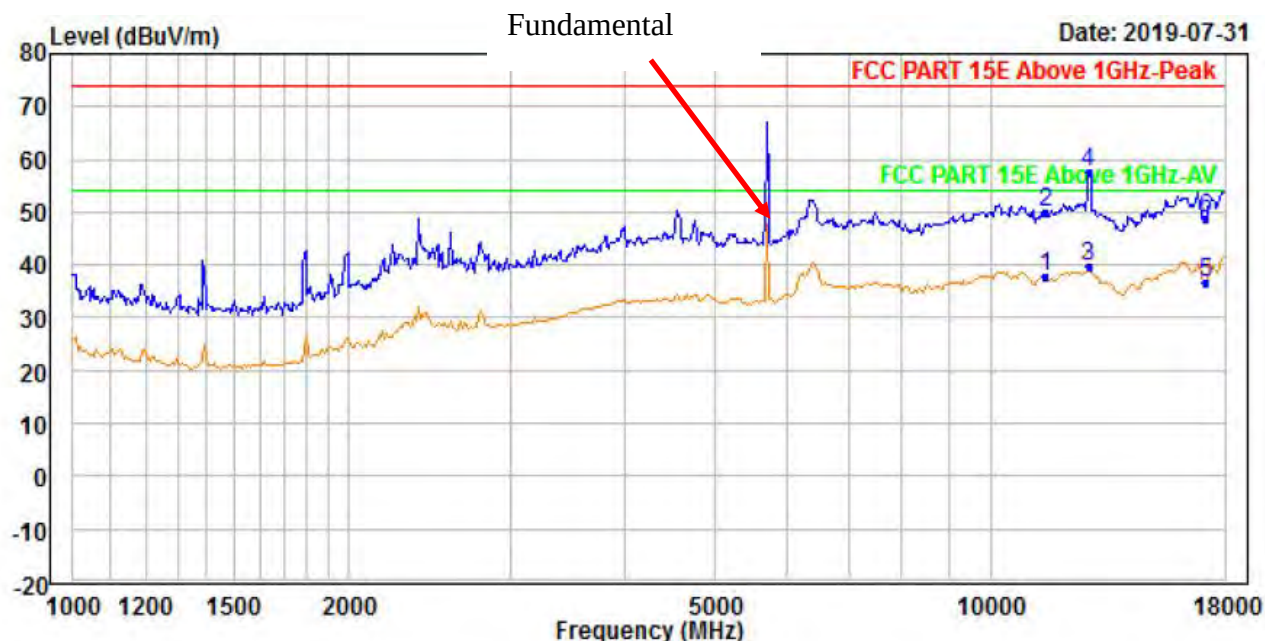
	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	11460.000	29.60	39.70	46.57	16.67	39.40	54.00	-14.60	Average
2	11460.000	41.79	39.70	46.57	16.67	51.59	74.00	-22.41	Peak
3	AV12789.500	29.78	39.65	44.81	17.13	41.75	54.00	-12.25	Average
4	PP12789.500	50.23	39.65	44.81	17.13	62.20	74.00	-11.80	Peak
5	17190.000	26.29	42.35	45.96	17.40	40.08	54.00	-13.92	Average
6	17190.000	38.43	42.35	45.96	17.40	52.22	74.00	-21.78	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5730MHz: Fundamental frequency.



VERTICAL:



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	11460.000	29.69	38.18	46.57	16.67	37.97	54.00	-16.03	Average
2	11460.000	41.84	38.18	46.57	16.67	50.12	74.00	-23.88	Peak
3	PP12789.500	28.08	39.14	44.81	17.13	39.54	54.00	-14.46	Average
4	PK12789.500	46.04	39.14	44.81	17.13	57.50	74.00	-16.50	Peak
5	17190.000	23.60	41.64	45.96	17.40	36.68	54.00	-17.32	Average
6	17190.000	35.66	41.64	45.96	17.40	48.74	74.00	-25.26	Peak

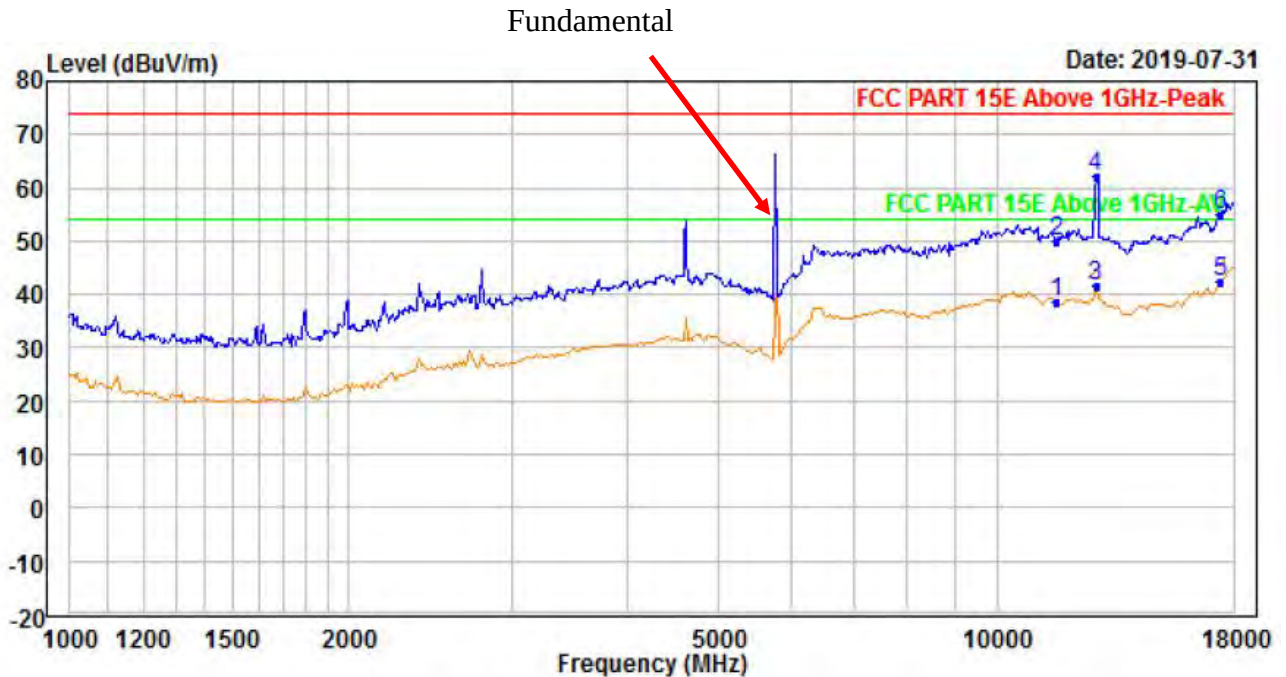
REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5730MHz: Fundamental frequency.



CHANNEL	TX Channel 5800MHz	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	11600.000	28.61	39.66	46.42	16.65	38.50	54.00	-15.50	Average
2	11600.000	40.14	39.66	46.42	16.65	50.03	74.00	-23.97	Peak
3	12789.500	29.64	39.65	44.81	17.13	41.61	54.00	-12.39	Average
4	PK12789.500	50.24	39.65	44.81	17.13	62.21	74.00	-11.79	Peak
5	PP17400.000	27.66	42.52	45.58	17.74	42.34	54.00	-11.66	Average
6	17400.000	40.11	42.52	45.58	17.74	54.79	74.00	-19.21	Peak

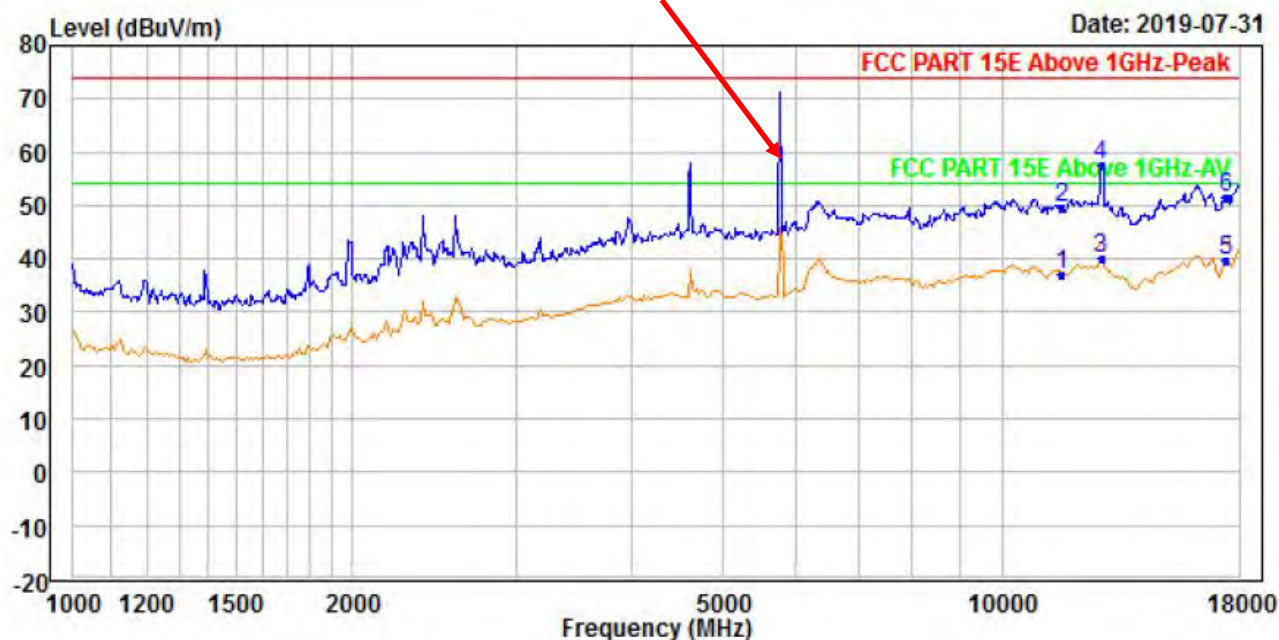
REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5800MHz: Fundamental frequency.



VERTICAL:

Fundamental



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	11600.000	28.49	38.32	46.42	16.65	37.04	54.00	-16.96	Average
2	11600.000	41.05	38.32	46.42	16.65	49.60	74.00	-24.40	Peak
3	PP12789.500	28.47	39.14	44.81	17.13	39.93	54.00	-14.07	Average
4	PK12789.500	46.06	39.14	44.81	17.13	57.52	74.00	-16.48	Peak
5	17400.000	26.04	41.68	45.58	17.74	39.88	54.00	-14.12	Average
6	17400.000	37.62	41.68	45.58	17.74	51.46	74.00	-22.54	Peak

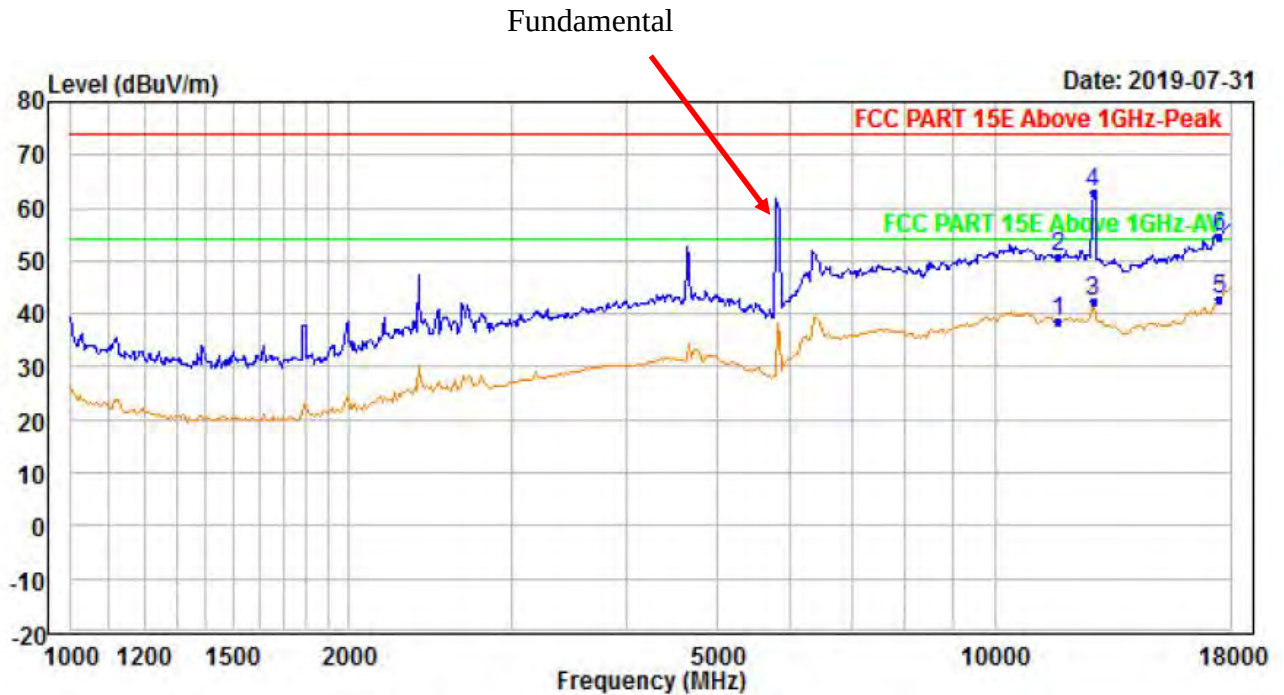
REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5800MHz: Fundamental frequency.



CHANNEL	TX Channel 5845MHz	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	11690.000	28.69	39.62	46.26	16.64	38.69	54.00	-15.31	Average
2	11690.000	40.67	39.62	46.26	16.64	50.67	74.00	-23.33	Peak
3	12789.500	30.23	39.65	44.81	17.13	42.20	54.00	-11.80	Average
4	PP12789.500	50.99	39.65	44.81	17.13	62.96	74.00	-11.04	Peak
5	AV17535.000	27.36	42.70	45.18	17.76	42.64	54.00	-11.36	Average
6	17545.000	39.16	42.73	45.12	17.76	54.53	74.00	-19.47	Peak

REMARKS:

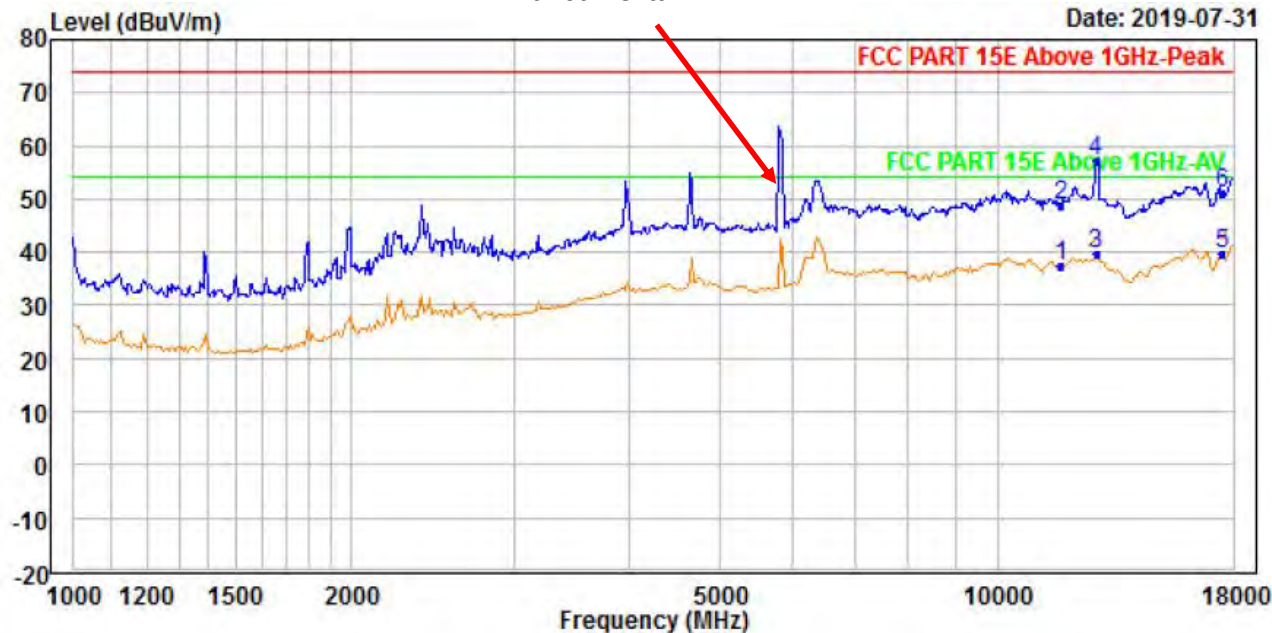
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5845MHz: Fundamental frequency.



VERTICAL:

Fundamental

Date: 2019-07-31



	Read	Ant	Preamp	Cable	Limit	Over	
Freq	Level	Factor	Factor	Loss	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1	11690.000	28.42	38.43	46.26	16.64	37.23	54.00 -16.77 Average
2	11690.000	40.11	38.43	46.26	16.64	48.92	74.00 -25.08 Peak
3	12789.500	28.08	39.14	44.81	17.13	39.54	54.00 -14.46 Average
4	PK12789.500	45.81	39.14	44.81	17.13	57.27	74.00 -16.73 Peak
5	PP17535.000	25.46	41.71	45.18	17.76	39.75	54.00 -14.25 Average
6	17535.000	36.80	41.71	45.18	17.76	51.09	74.00 -22.91 Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5845MHz: Fundamental frequency.



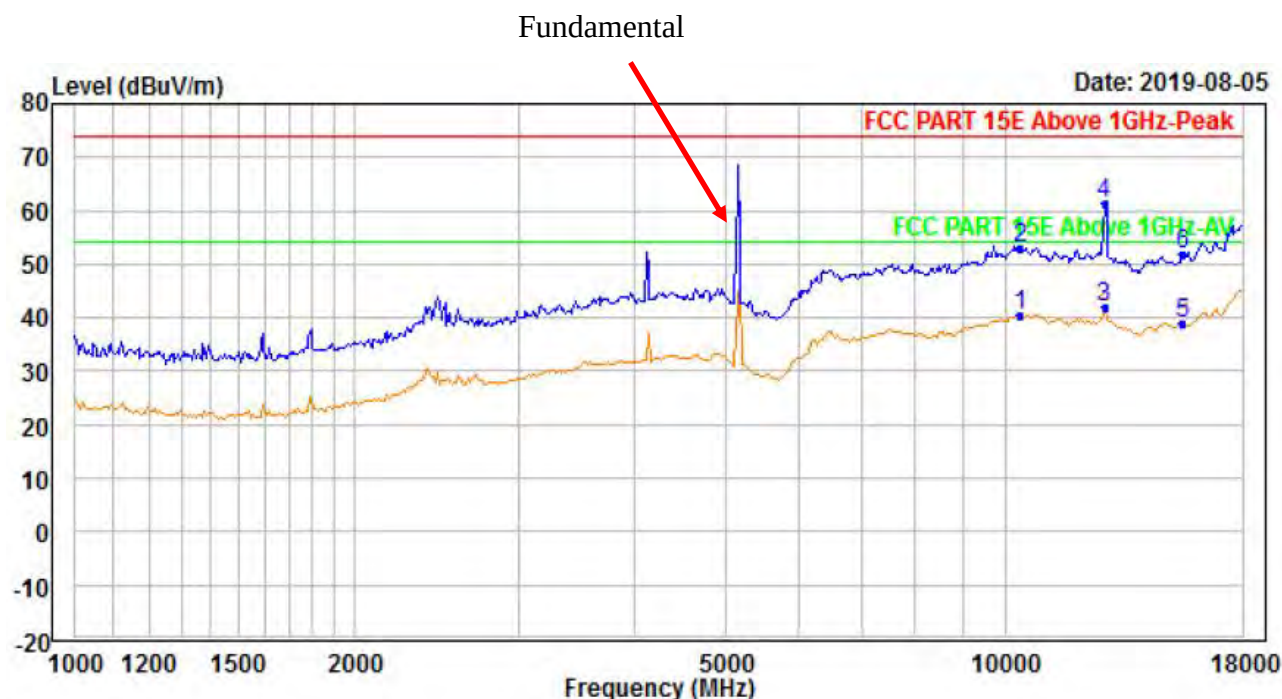
**BUREAU
VERITAS**

Test Report No.: RF190116W005

5150-5250MHz BAND MIMO 20MHz MODE:

CHANNEL	TX Channel 5180MHz	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:



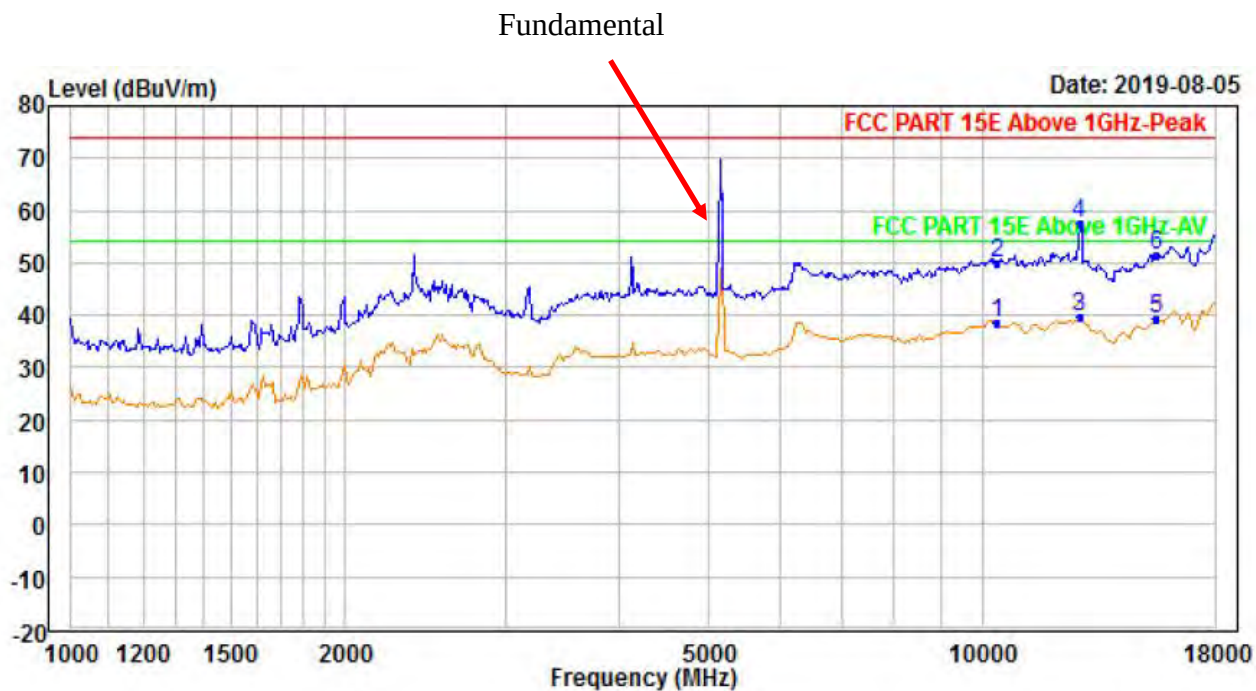
	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	10360.000	29.45	39.29	45.23	17.05	40.56	54.00	-13.44	Average
2	10360.000	41.74	39.29	45.23	17.05	52.85	74.00	-21.15	Peak
3	PP12789.500	29.92	39.65	44.81	17.13	41.89	54.00	-12.11	Average
4	PK12789.500	49.30	39.65	44.81	17.13	61.27	74.00	-12.73	Peak
5	15540.000	28.05	39.43	45.78	17.11	38.81	54.00	-15.19	Average
6	15540.000	41.00	39.43	45.78	17.11	51.76	74.00	-22.24	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5180MHz: Fundamental frequency.



VERTICAL:



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	10360.000	29.06	37.57	45.23	17.05	38.45	54.00	-15.55	Average
2	10360.000	40.76	37.57	45.23	17.05	50.15	74.00	-23.85	Peak
3	PP12789.500	28.36	39.14	44.81	17.13	39.82	54.00	-14.18	Average
4	PK12789.500	46.04	39.14	44.81	17.13	57.50	74.00	-16.50	Peak
5	15540.000	27.54	40.26	45.78	17.11	39.13	54.00	-14.87	Average
6	15540.000	40.07	40.26	45.78	17.11	51.66	74.00	-22.34	Peak

REMARKS:

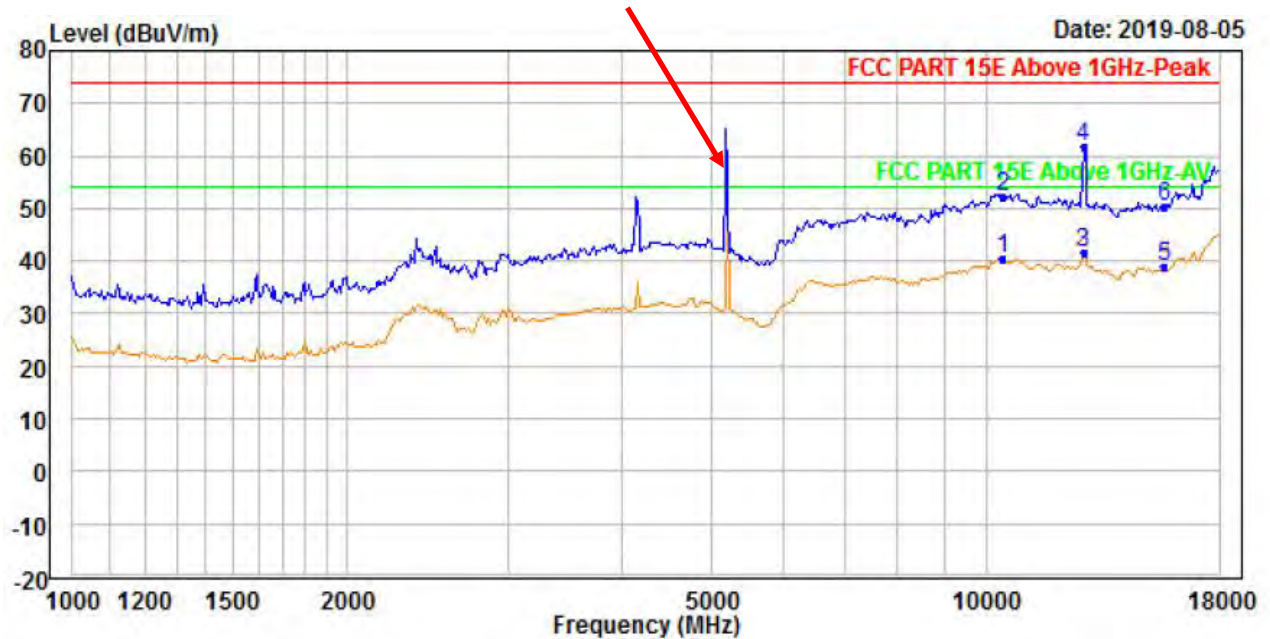
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5180MHz: Fundamental frequency.



CHANNEL	TX Channel 5220MHz	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:

Fundamental



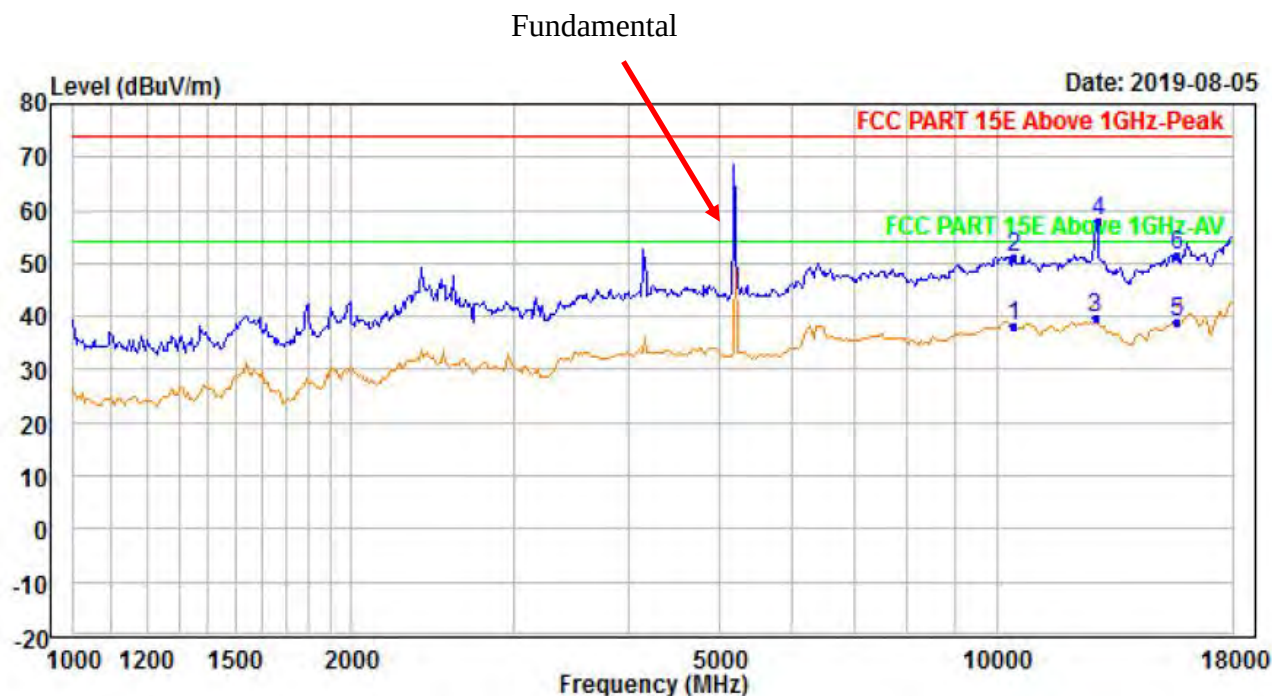
		Read	Ant	Preamp	Cable		Limit	Over	
	Freq	Level	Factor	Factor	Loss	Level	Line	Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	10440.000	29.15	39.47	45.21	17.05	40.46	54.00	-13.54	Average
2	10440.000	41.05	39.47	45.21	17.05	52.36	74.00	-21.64	Peak
3	AV12789.500	29.73	39.65	44.81	17.13	41.70	54.00	-12.30	Average
4	PP12789.500	49.96	39.65	44.81	17.13	61.93	74.00	-12.07	Peak
5	15660.000	27.78	39.53	45.70	17.17	38.78	54.00	-15.22	Average
6	15660.000	39.46	39.53	45.70	17.17	50.46	74.00	-23.54	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5220MHz: Fundamental frequency.



VERTICAL:



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	10440.000	28.89	37.59	45.21	17.05	38.32	54.00	-15.68	Average
2	10440.000	41.76	37.59	45.21	17.05	51.19	74.00	-22.81	Peak
3	PP12789.500	28.36	39.14	44.81	17.13	39.82	54.00	-14.18	Average
4	PK12863.790	46.15	39.13	44.74	17.23	57.77	74.00	-16.23	Peak
5	15660.000	26.98	40.46	45.70	17.17	38.91	54.00	-15.09	Average
6	15660.000	39.57	40.46	45.70	17.17	51.50	74.00	-22.50	Peak

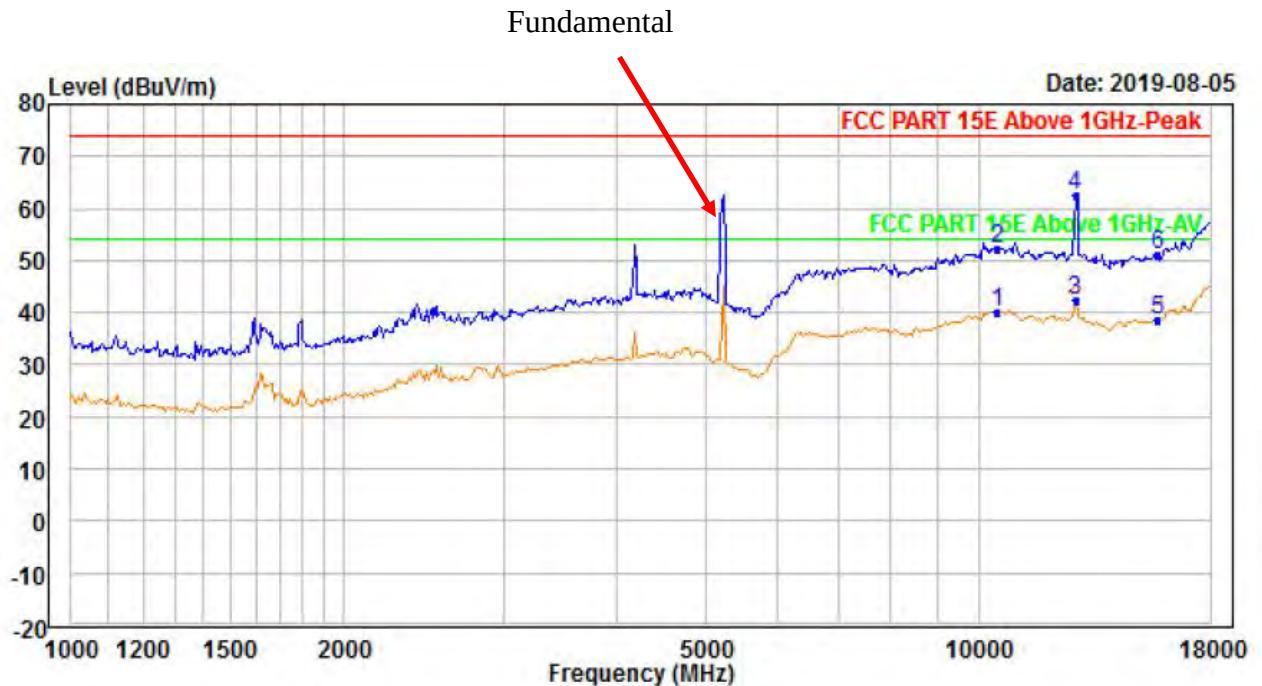
REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5220MHz: Fundamental frequency.



CHANNEL	TX Channel 5240MHz	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:



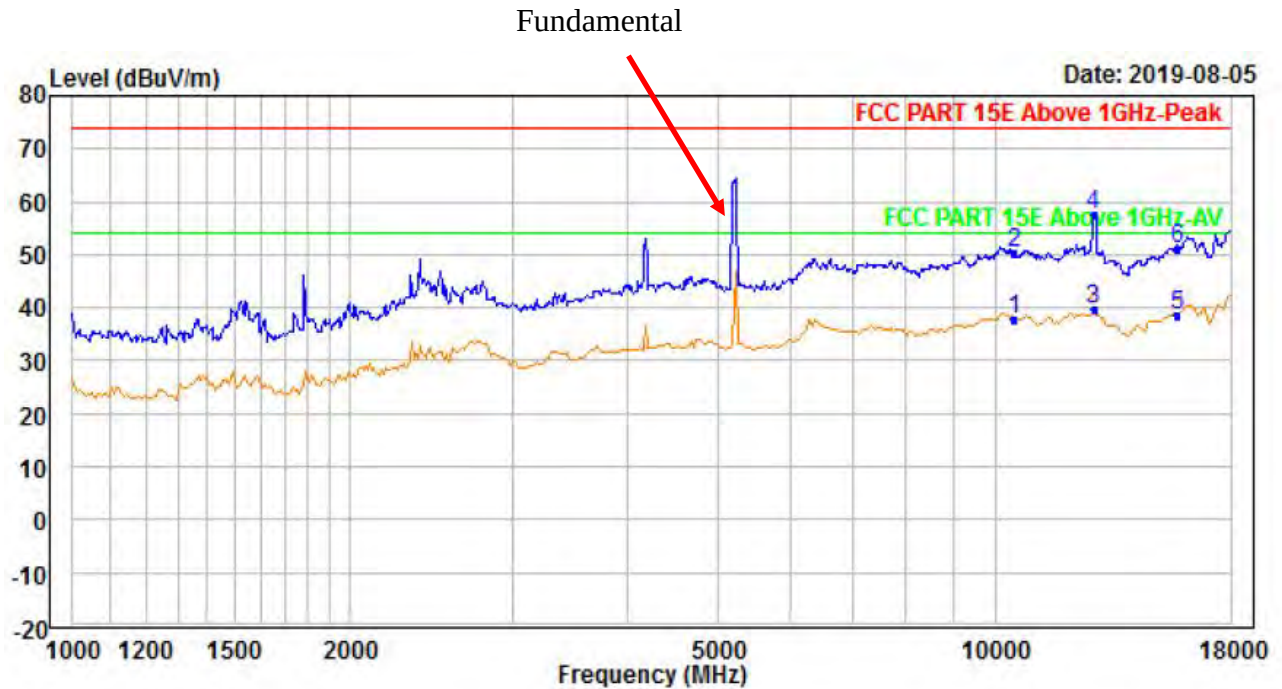
	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	10480.000	28.56	39.56	45.20	17.05	39.97	54.00	-14.03	Average
2	10480.000	40.89	39.56	45.20	17.05	52.30	74.00	-21.70	Peak
3	AV12789.500	30.37	39.65	44.81	17.13	42.34	54.00	-11.66	Average
4	PP12789.500	50.63	39.65	44.81	17.13	62.60	74.00	-11.40	Peak
5	15720.000	27.34	39.58	45.67	17.17	38.42	54.00	-15.58	Average
6	15720.000	40.13	39.58	45.67	17.17	51.21	74.00	-22.79	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5240MHz: Fundamental frequency.



VERTICAL:



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	10480.000	28.18	37.60	45.20	17.05	37.63	54.00	-16.37	Average
2	10480.000	40.85	37.60	45.20	17.05	50.30	74.00	-23.70	Peak
3	PP12789.500	28.30	39.14	44.81	17.13	39.76	54.00	-14.24	Average
4	PK12789.500	45.99	39.14	44.81	17.13	57.45	74.00	-16.55	Peak
5	15720.000	26.66	40.55	45.67	17.17	38.71	54.00	-15.29	Average
6	15720.000	39.21	40.55	45.67	17.17	51.26	74.00	-22.74	Peak

REMARKS:

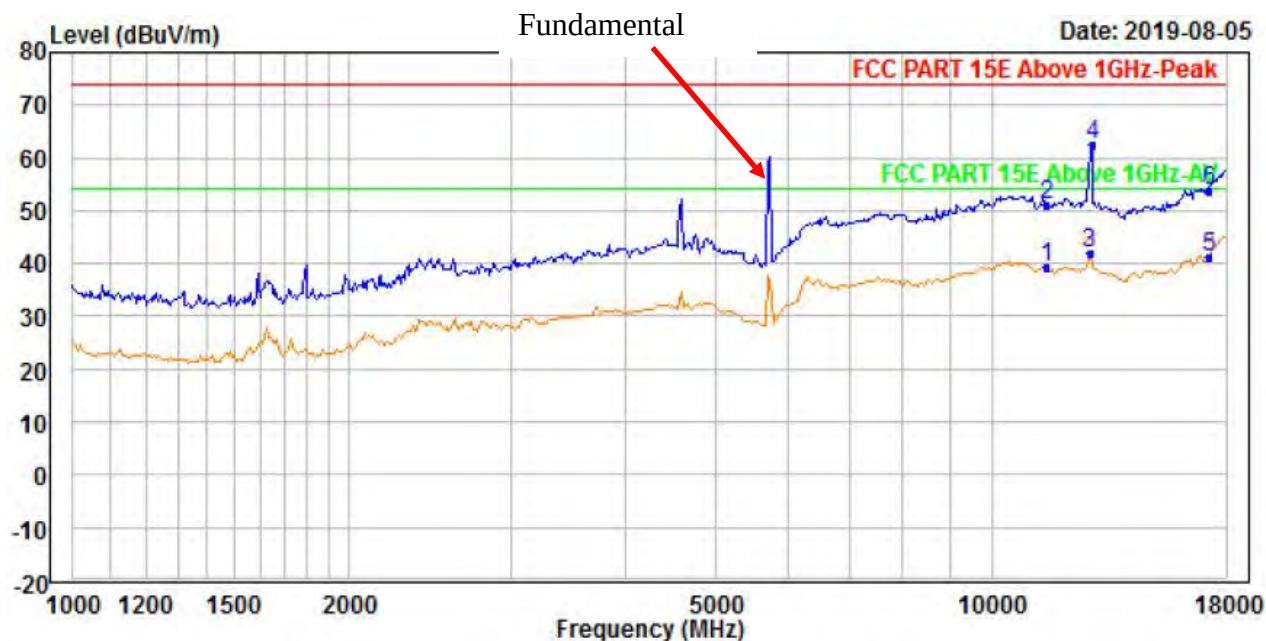
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5240MHz: Fundamental frequency.



5725-5850MHz BAND MIMO 20MHz MODE:

CHANNEL	TX Channel 5745MHz	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:



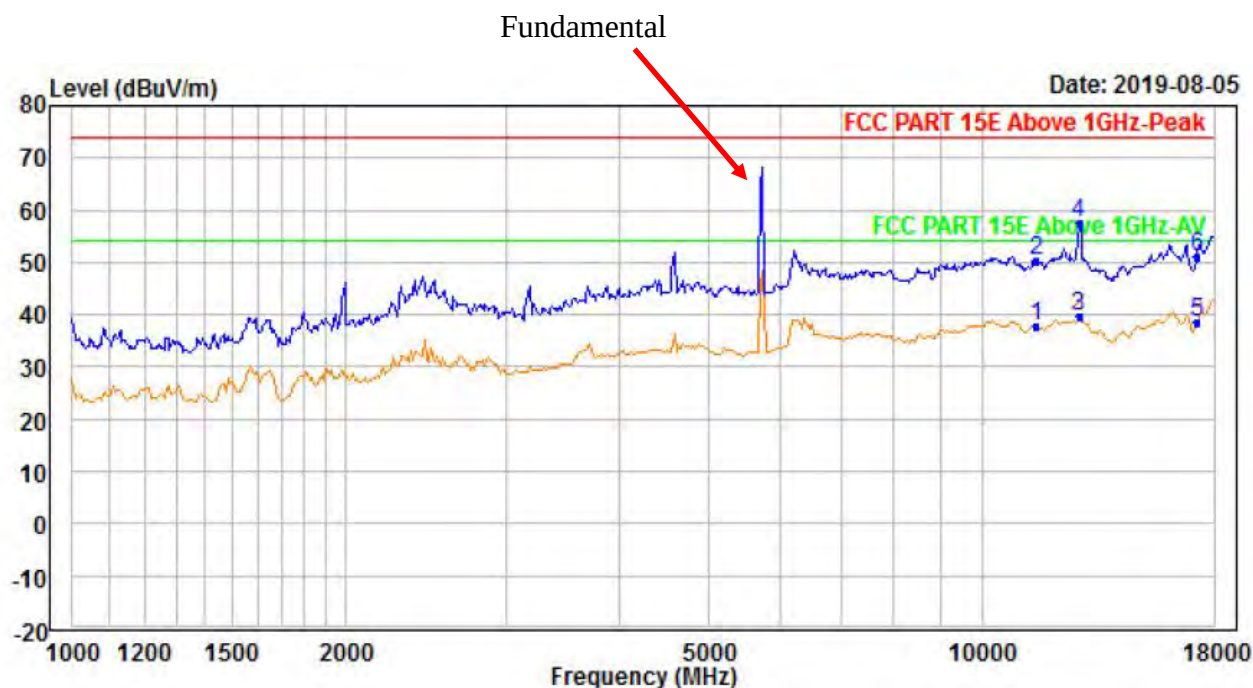
	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	11490.000	29.41	39.70	46.59	16.67	39.19	54.00	-14.81	Average
2	11490.000	41.48	39.70	46.59	16.67	51.26	74.00	-22.74	Peak
3	AV12789.500	29.87	39.65	44.81	17.13	41.84	54.00	-12.16	Average
4	PP12863.790	50.37	39.74	44.74	17.23	62.60	74.00	-11.40	Peak
5	17235.000	27.32	42.39	45.88	17.47	41.30	54.00	-12.70	Average
6	17235.000	39.71	42.39	45.88	17.47	53.69	74.00	-20.31	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5745MHz: Fundamental frequency.



VERTICAL:



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	11490.000	29.46	38.19	46.59	16.67	37.73	54.00	-16.27	Average
2	11490.000	42.10	38.19	46.59	16.67	50.37	74.00	-23.63	Peak
3	PP12789.500	28.08	39.14	44.81	17.13	39.54	54.00	-14.46	Average
4	PK12789.500	45.92	39.14	44.81	17.13	57.38	74.00	-16.62	Peak
5	17235.000	25.45	41.65	45.88	17.47	38.69	54.00	-15.31	Average
6	17235.000	37.84	41.65	45.88	17.47	51.08	74.00	-22.92	Peak

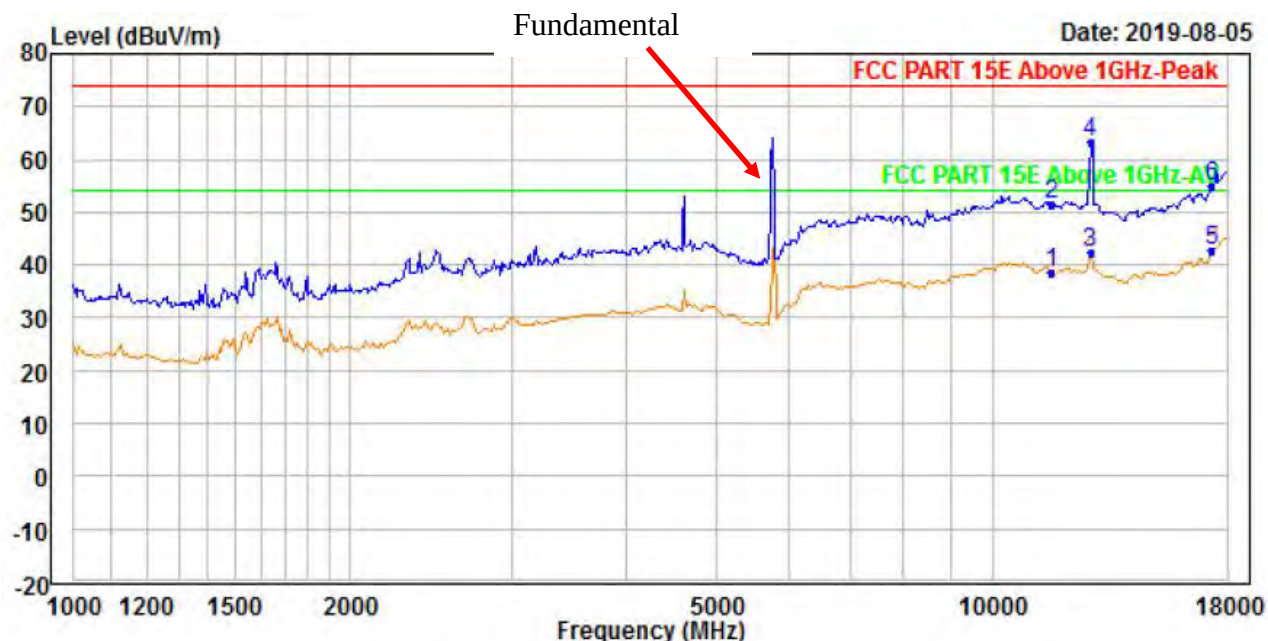
REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5745MHz: Fundamental frequency.



CHANNEL	TX Channel 5785MHz	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:



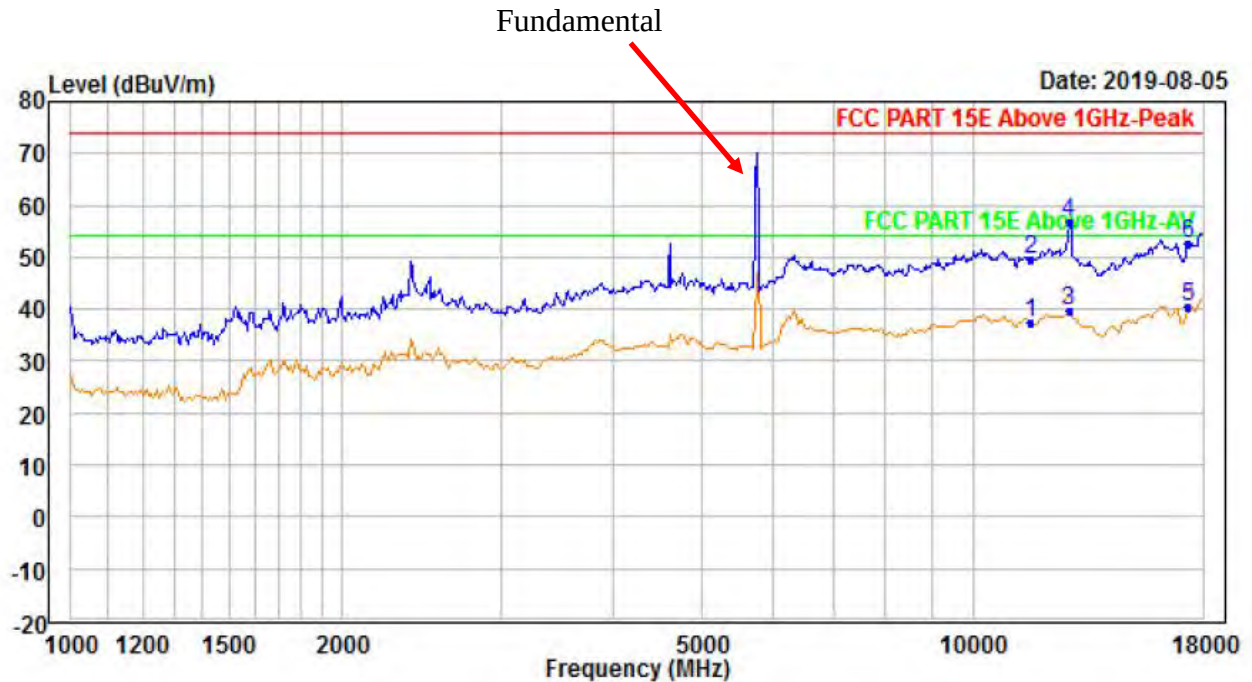
	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	11570.000	28.86	39.67	46.47	16.66	38.72	54.00	-15.28	Average
2	11570.000	41.64	39.67	46.47	16.66	51.50	74.00	-22.50	Peak
3	12789.500	30.50	39.65	44.81	17.13	42.47	54.00	-11.53	Average
4	PP12789.500	51.13	39.65	44.81	17.13	63.10	74.00	-10.90	Peak
5	AV17355.000	28.31	42.48	45.66	17.67	42.80	54.00	-11.20	Average
6	17355.000	40.49	42.48	45.66	17.67	54.98	74.00	-19.02	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5785MHz: Fundamental frequency.



VERTICAL:



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	11570.000	28.84	38.28	46.47	16.66	37.31	54.00	-16.69	Average
2	11570.000	41.28	38.28	46.47	16.66	49.75	74.00	-24.25	Peak
3	12789.500	28.13	39.14	44.81	17.13	39.59	54.00	-14.41	Average
4	PK12789.500	45.29	39.14	44.81	17.13	56.75	74.00	-17.25	Peak
5	PP17355.000	26.89	41.67	45.66	17.67	40.57	54.00	-13.43	Average
6	17355.000	38.86	41.67	45.66	17.67	52.54	74.00	-21.46	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5785MHz: Fundamental frequency.

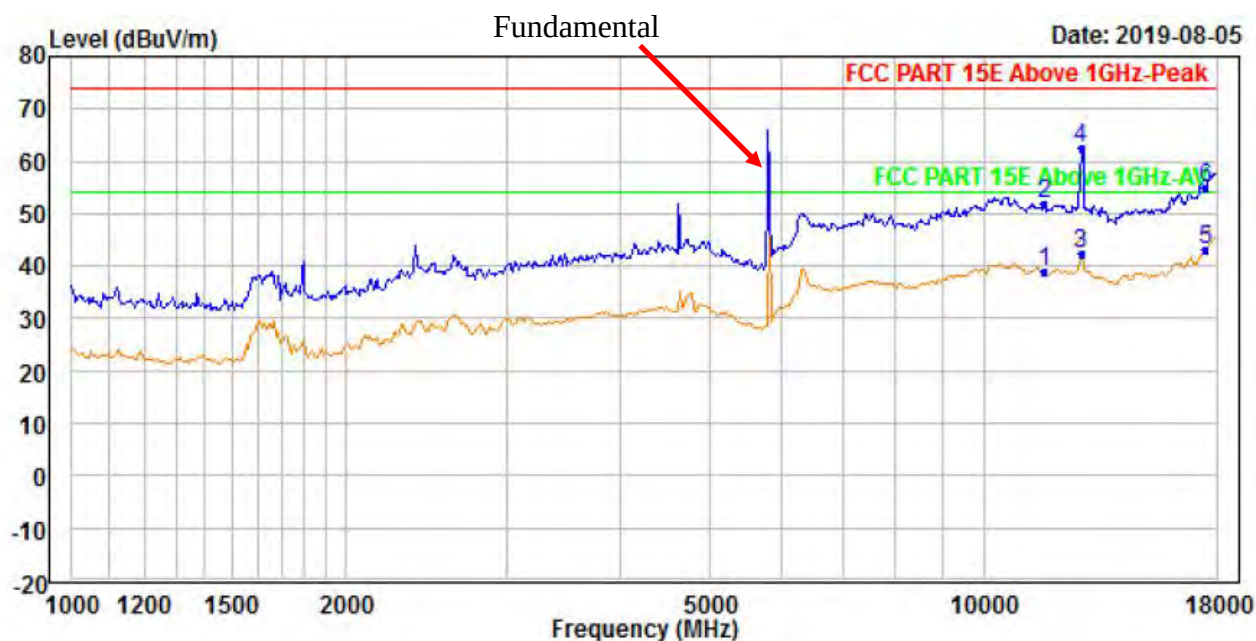


**BUREAU
VERITAS**

Test Report No.: RF190116W005

CHANNEL	TX Channel 5825MHz	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

HORIZONTAL:



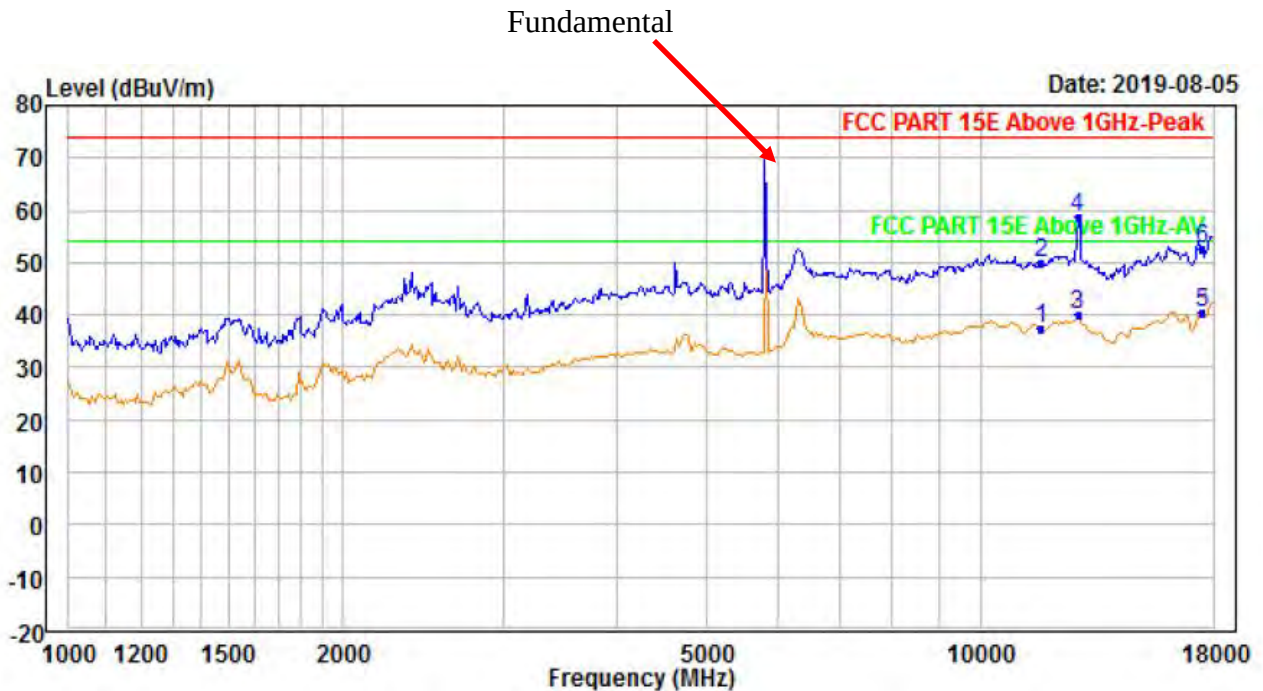
	Freq	Read Level	Ant Factor	Preamplifier Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	11650.000	28.85	39.64	46.33	16.64	38.80	54.00	-15.20	Average
2	11650.000	41.92	39.64	46.33	16.64	51.87	74.00	-22.13	Peak
3	12789.500	30.32	39.65	44.81	17.13	42.29	54.00	-11.71	Average
4	PK12789.500	50.43	39.65	44.81	17.13	62.40	74.00	-11.60	Peak
5	PP17475.000	28.15	42.58	45.44	17.75	43.04	54.00	-10.96	Average
6	17475.000	40.18	42.58	45.44	17.75	55.07	74.00	-18.93	Peak

REMARKS:

- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5825MHz: Fundamental frequency.



VERTICAL:



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	11650.000	28.76	38.38	46.33	16.64	37.45	54.00	-16.55	Average
2	11650.000	41.37	38.38	46.33	16.64	50.06	74.00	-23.94	Peak
3	12789.500	28.63	39.14	44.81	17.13	40.09	54.00	-13.91	Average
4	PK12789.500	47.31	39.14	44.81	17.13	58.77	74.00	-15.23	Peak
5	PP17475.000	26.54	41.69	45.44	17.75	40.54	54.00	-13.46	Average
6	17475.000	38.47	41.69	45.44	17.75	52.47	74.00	-21.53	Peak

REMARKS:

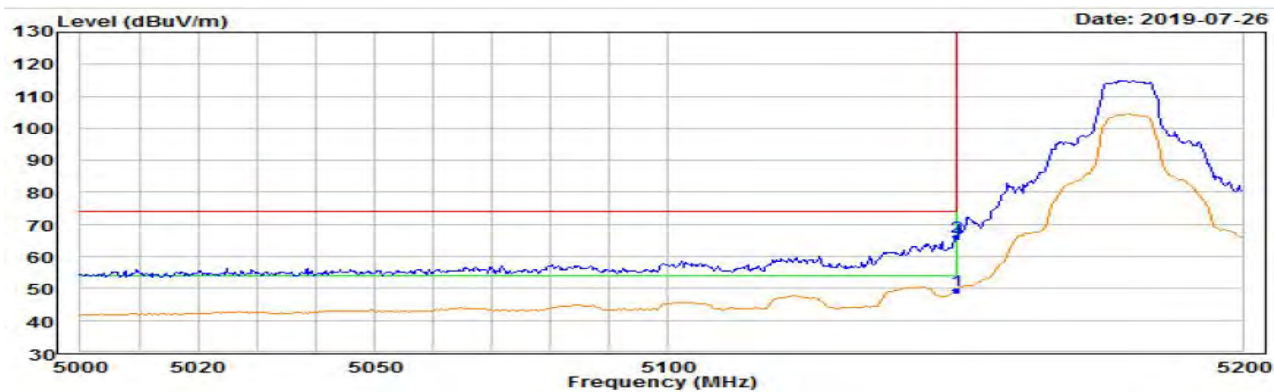
- Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
Margin value = Emission level – Limit value.
- 5825MHz: Fundamental frequency.



OOBE DATA

5150-5250 band SISO 10MHz MODE-left :

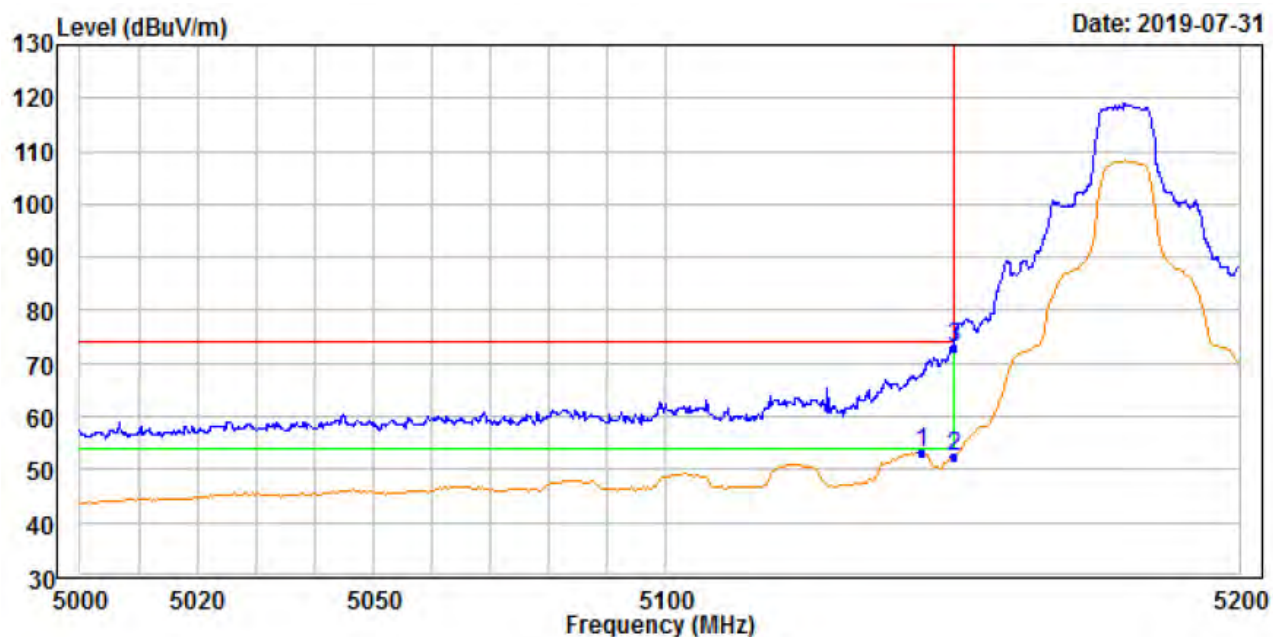
Horizontal :



	Read	Ant	Preamp	Cable		Limit	Over	
Freq	Level	Factor	Factor	Loss	Level	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 PP5150.0000	44.96	33.45	45.57	16.47	49.31	54.00	-4.69	Average
2 PK5150.0000	61.69	33.45	45.57	16.47	66.04	74.00	-7.96	Peak



Vertical :

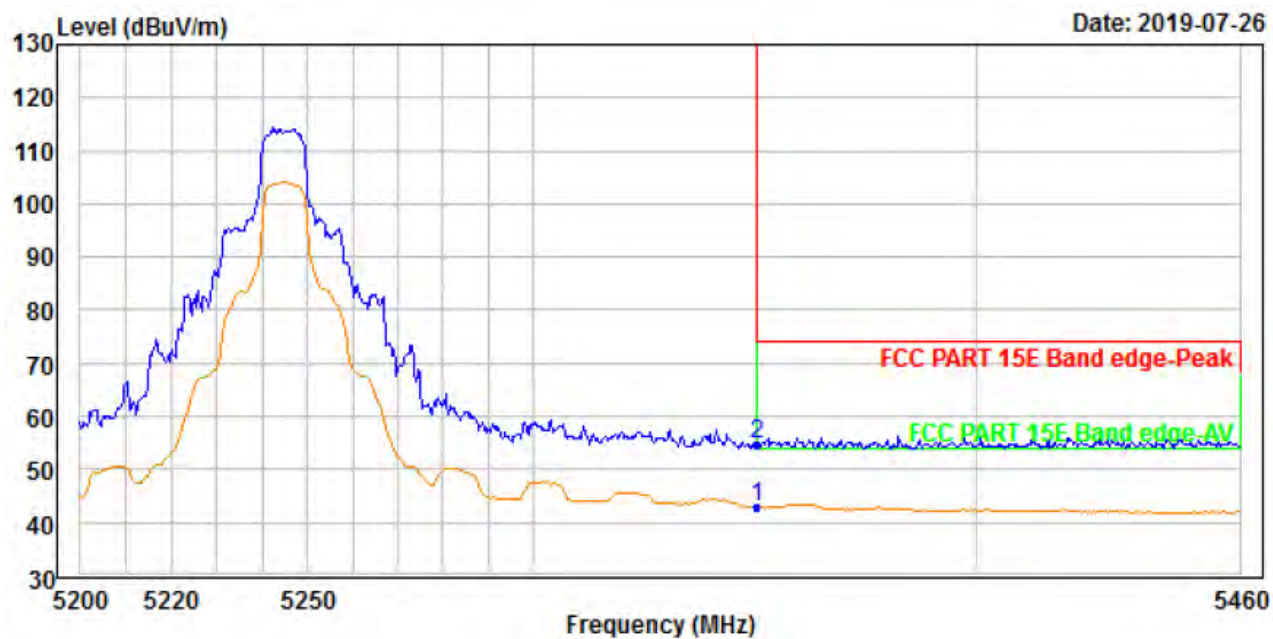


	Read Freq	Ant Level	Preamp Factor	Cable Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	PP5144.2890	47.85	34.42	45.57	16.46	53.16	54.00	-0.84	Average
2	5150.0000	47.10	34.42	45.57	16.47	52.42	54.00	-1.58	Average
3	PK5150.0000	67.51	34.42	45.57	16.47	72.83	74.00	-1.17	Peak



5150-5250 band SISO 10MHz MODE-right :

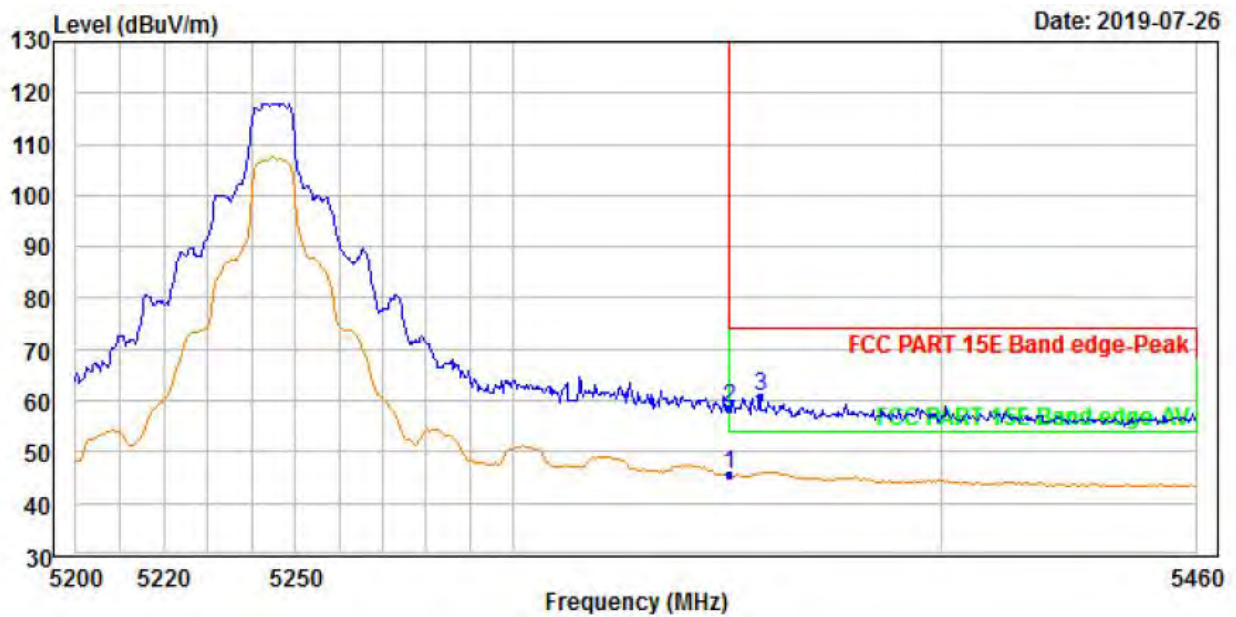
Horizontal :



	Read	Ant	Preamp	Cable	Limit	Over	
Freq	Level	Factor	Factor	Loss	Level	Line	Limit Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1 PP5350.0000	38.56	33.65	45.53	16.29	42.97	54.00	-11.03 Average
2 PK5350.0000	50.24	33.65	45.53	16.29	54.65	74.00	-19.35 Peak



Vertical :



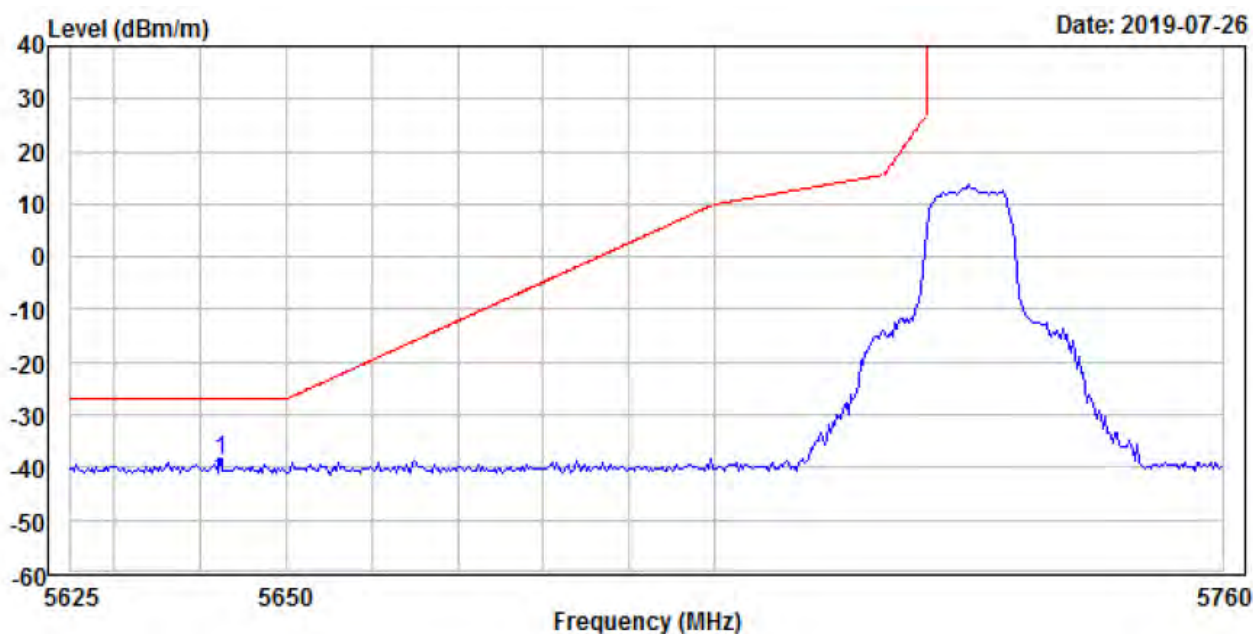
	Read Freq	Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	PP5350.0000	40.22	34.58	45.53	16.29	45.56	54.00	-8.44	Average
2	5350.0000	53.28	34.58	45.53	16.29	58.62	74.00	-15.38	Peak
3	PK5357.3540	55.61	34.59	45.53	16.28	60.95	74.00	-13.05	Peak



OOBE DATA

5725-5850 band SISO 10MHz MODE-left :

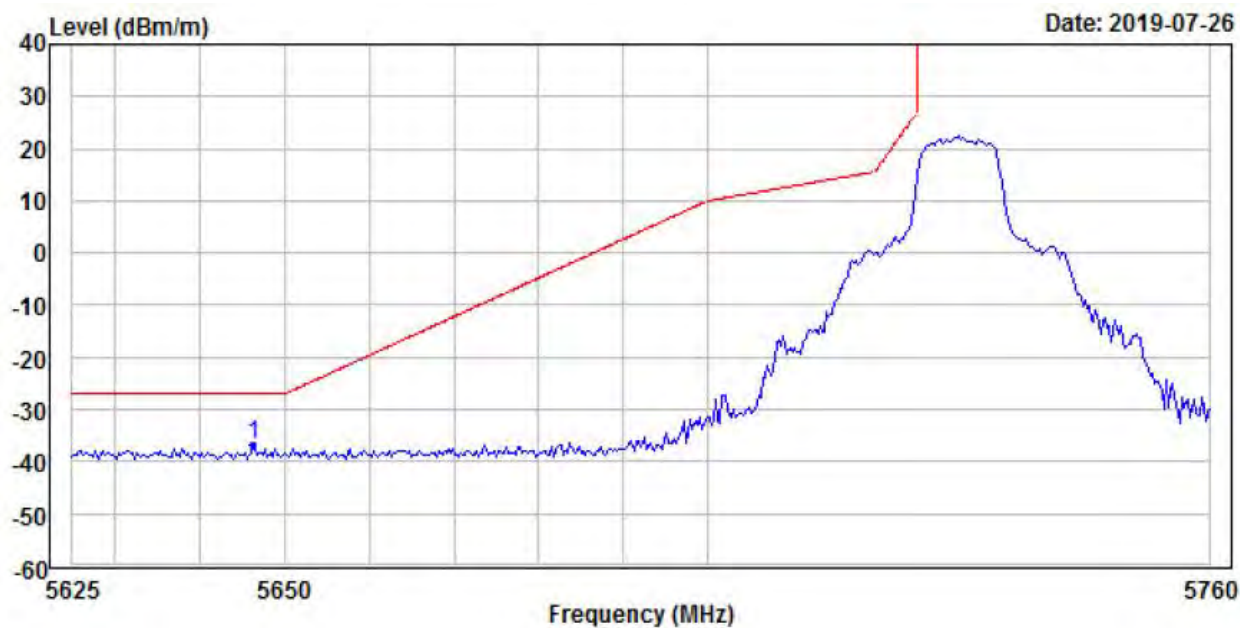
Horizontal :



Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
MHz	dBm	dB/m	dB	dB	dBm/m	dBm/m	dB	
1 PP5642.3140	-54.95	34.00	45.53	27.63	-38.85	-27.00	-11.85	Peak



Vertical :

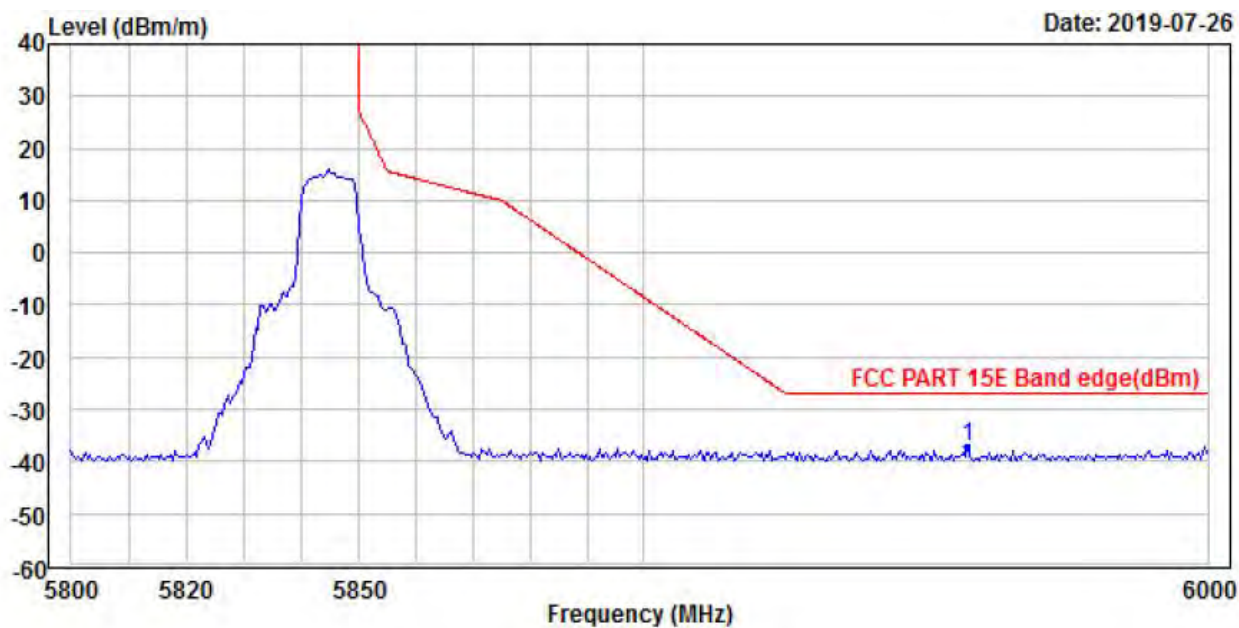


	Read	Ant	Preamp	Cable		Limit	Over	
Freq	Level	Factor	Factor	Loss	Level	Line	Limit	Remark
MHz	dBm	dB/m	dB	dB	dBm/m	dBm/m	dB	
1 PP5646.3730	-53.64	34.88	45.53	27.64	-36.65	-27.00	-9.65	Peak



5725-5850 band SISO 10MHz MODE-right :

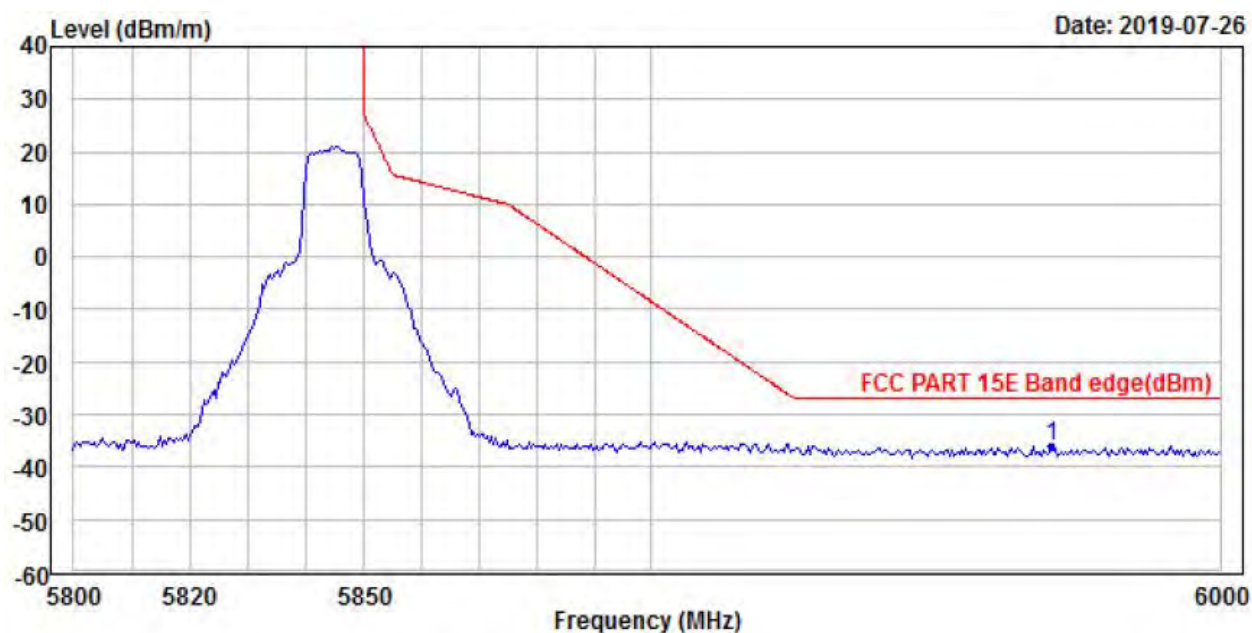
Horizontal :



Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
MHz	dBm	dB/m	dB	dB	dBm/m	dBm/m	dB	
1 PP5957.1140	-54.20	34.44	45.59	28.01	-37.34	-27.00	-10.34	Peak



Vertical :

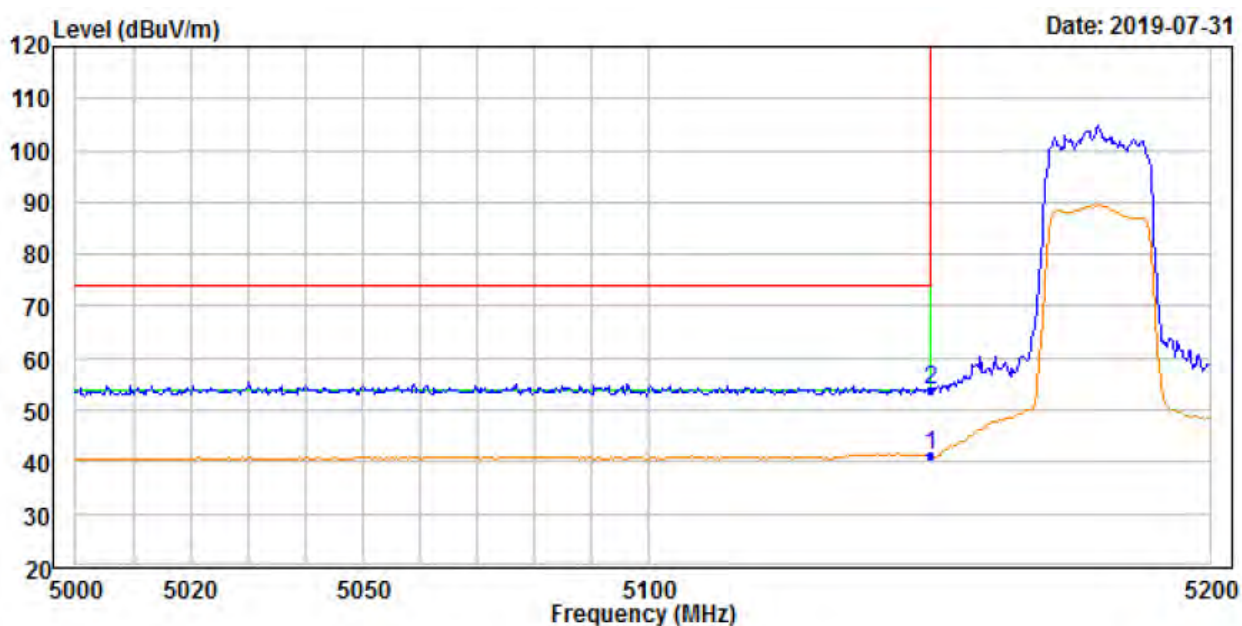


	Read	Ant	Preamp	Cable		Limit	Over	
Freq	Level	Factor	Factor	Loss	Level	Line	Limit	Remark
MHz	dBm	dB/m	dB	dB	dBm/m	dBm/m	dB	
1 PP5970.3410	-53.76	35.26	45.59	28.02	-36.07	-27.00	-9.07	Peak



5150-5250 band SISO 20MHz MODE-left :

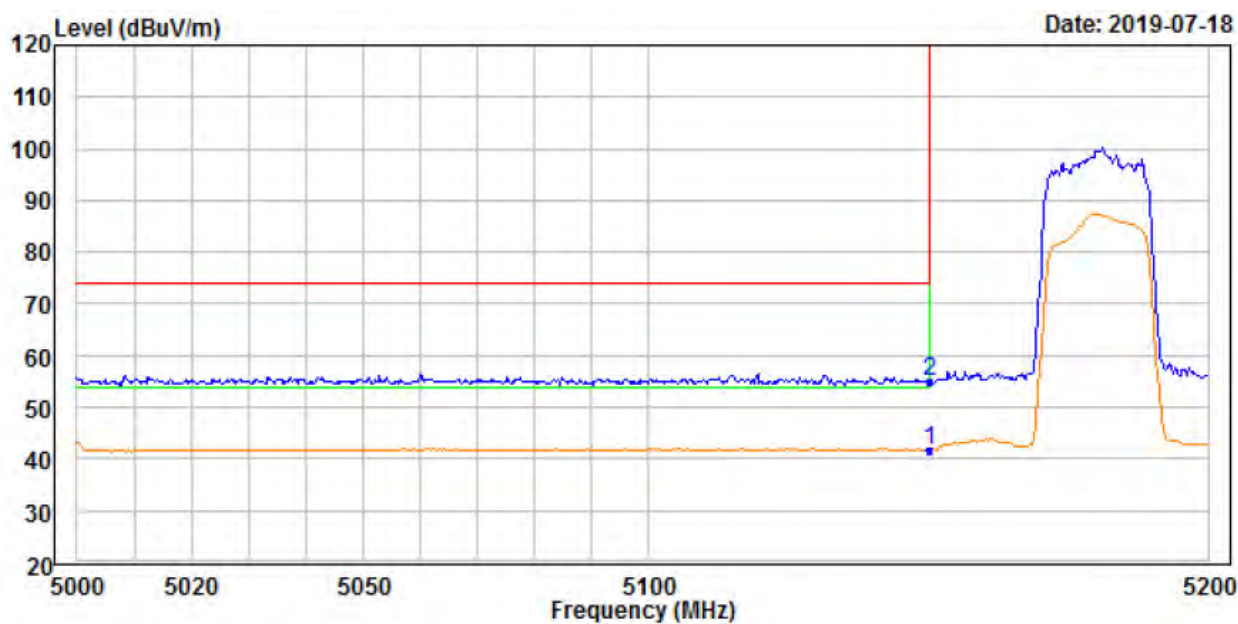
Horizontal :



	Read	Ant	Preamp	Cable		Limit	Over	
Freq	Level	Factor	Factor	Loss	Level	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 PP5150.0000	36.79	33.45	45.57	16.47	41.14	54.00	-12.86	Average
2 PK5150.0000	49.39	33.45	45.57	16.47	53.74	74.00	-20.26	Peak



Vertical :

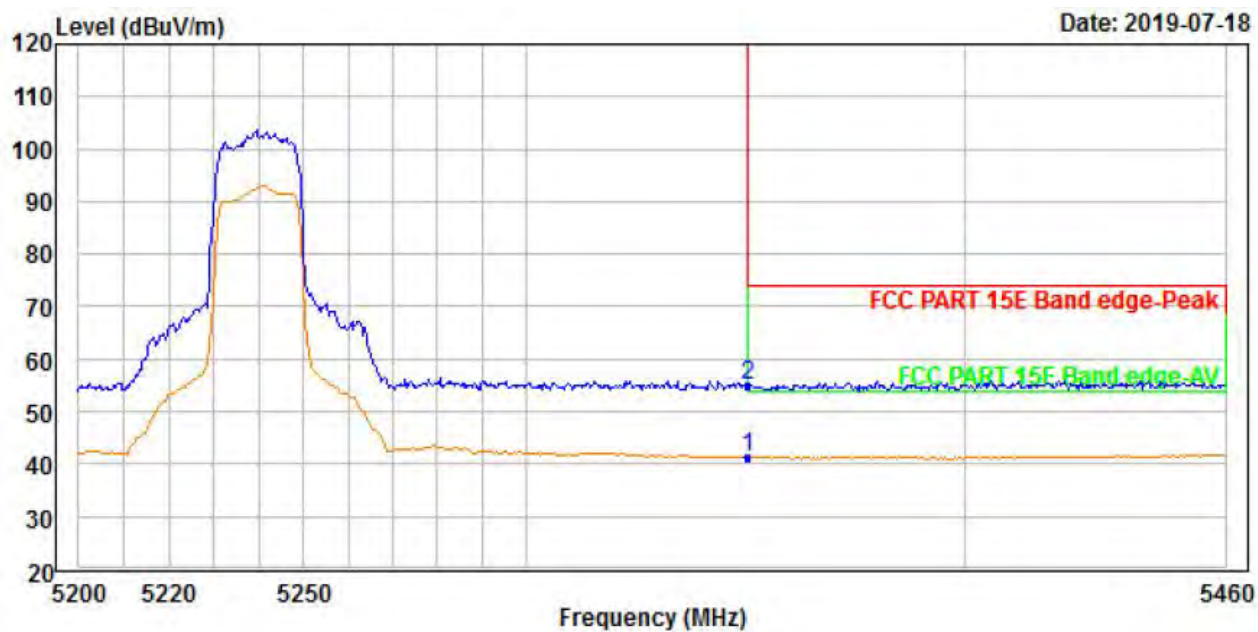


	Read	Ant	Preamp	Cable		Limit	Over	
Freq	Level	Factor	Factor	Loss	Level	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 PP5150.0000	36.48	34.42	45.57	16.47	41.80	54.00	-12.20	Average
2 PK5150.0000	49.84	34.42	45.57	16.47	55.16	74.00	-18.84	Peak



5150-5250 band SISO 20MHz MODE-right :

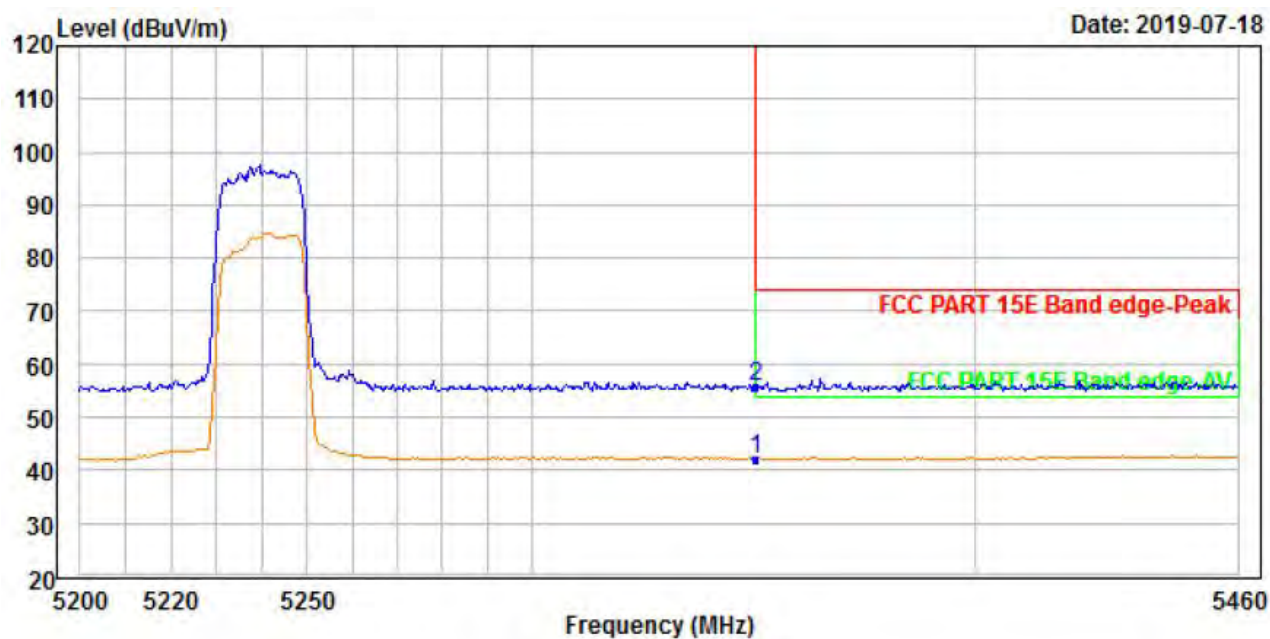
Horizontal :



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	PP5350.0000	36.87	33.65	45.53	16.29	41.28	54.00	-12.72	Average
2	PK5350.0000	50.56	33.65	45.53	16.29	54.97	74.00	-19.03	Peak



Vertical :

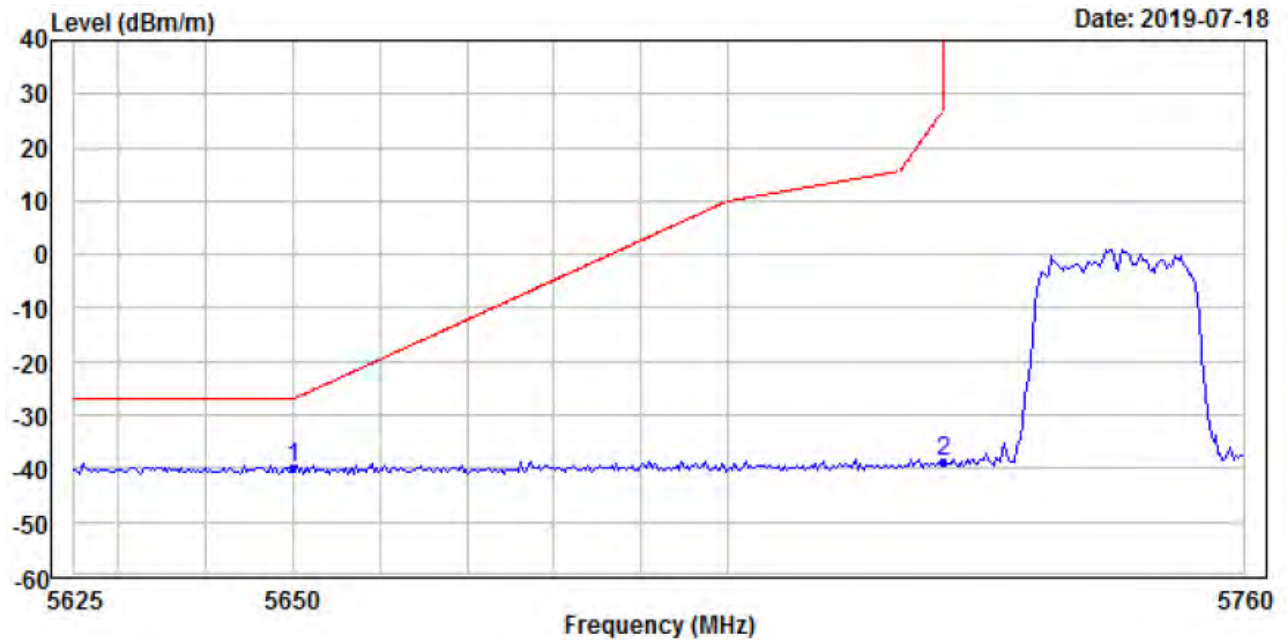


	Read	Ant	Preamp	Cable	Limit	Over	
Freq	Level	Factor	Factor	Loss	Level	Line	Limit Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1 PP5350.0000	36.90	34.58	45.53	16.29	42.24	54.00	-11.76 Average
2 PK5350.0000	50.41	34.58	45.53	16.29	55.75	74.00	-18.25 Peak



5725-5850 band SISO 20MHz MODE-left :

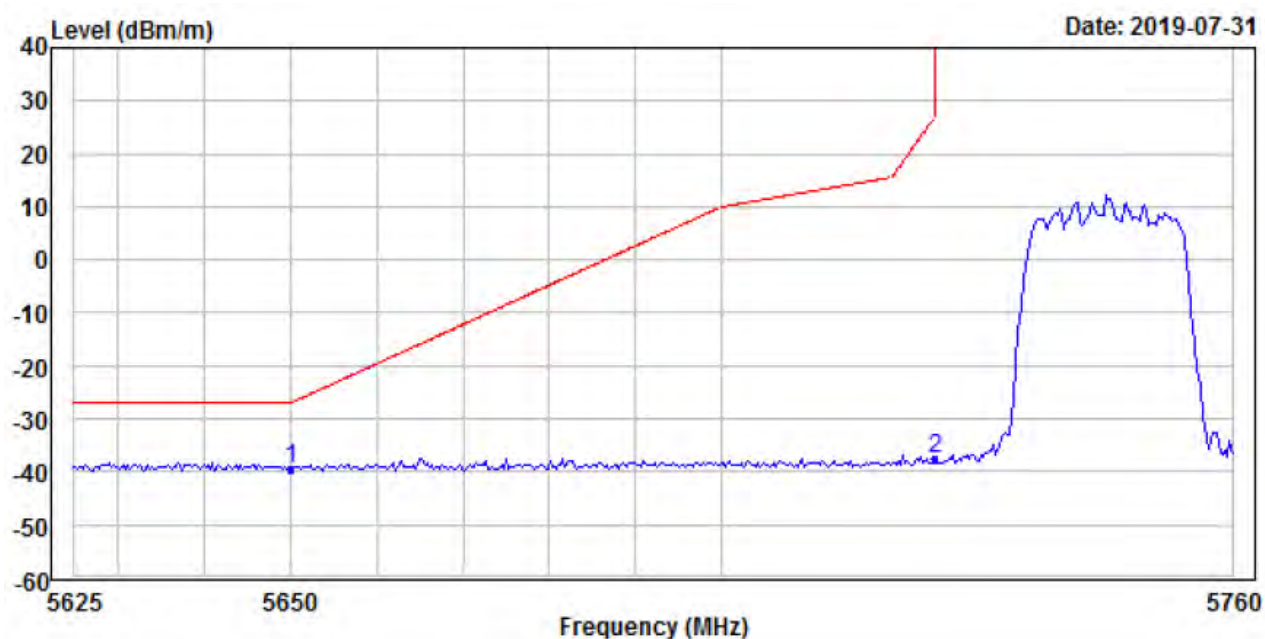
Horizontal :



	Read	Ant	Preamp	Cable		Limit	Over	
Freq	Level	Factor	Factor	Loss	Level	Line	Limit	Remark
MHz	dBm	dB/m	dB	dB	dBm/m	dBm/m	dB	
1 PP5650.0000	-56.15	34.01	45.53	27.65	-40.02	-27.00	-13.02	Peak
2 5725.0000	-55.12	34.11	45.54	27.79	-38.76	27.00	-65.76	Peak



Vertical :

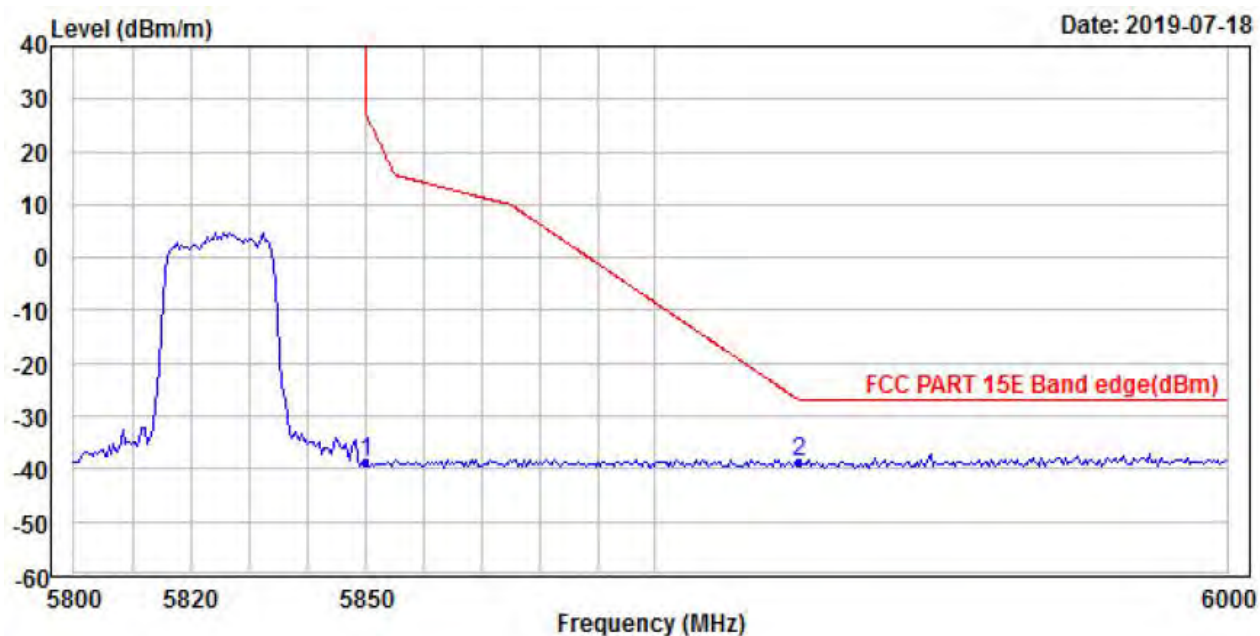


	Read	Ant	Preamp	Cable	Limit	Over	
Freq	Level	Factor	Factor	Loss	Line	Limit	Remark
MHz	dBm	dB/m	dB	dB	dBm/m	dB	
1 PP5650.0000	-56.37	34.88	45.53	27.65	-39.37	-27.00	-12.37 Peak
2 5725.0000	-54.75	34.97	45.54	27.79	-37.53	27.00	-64.53 Peak



5725-5850 band SISO 20MHz MODE-right :

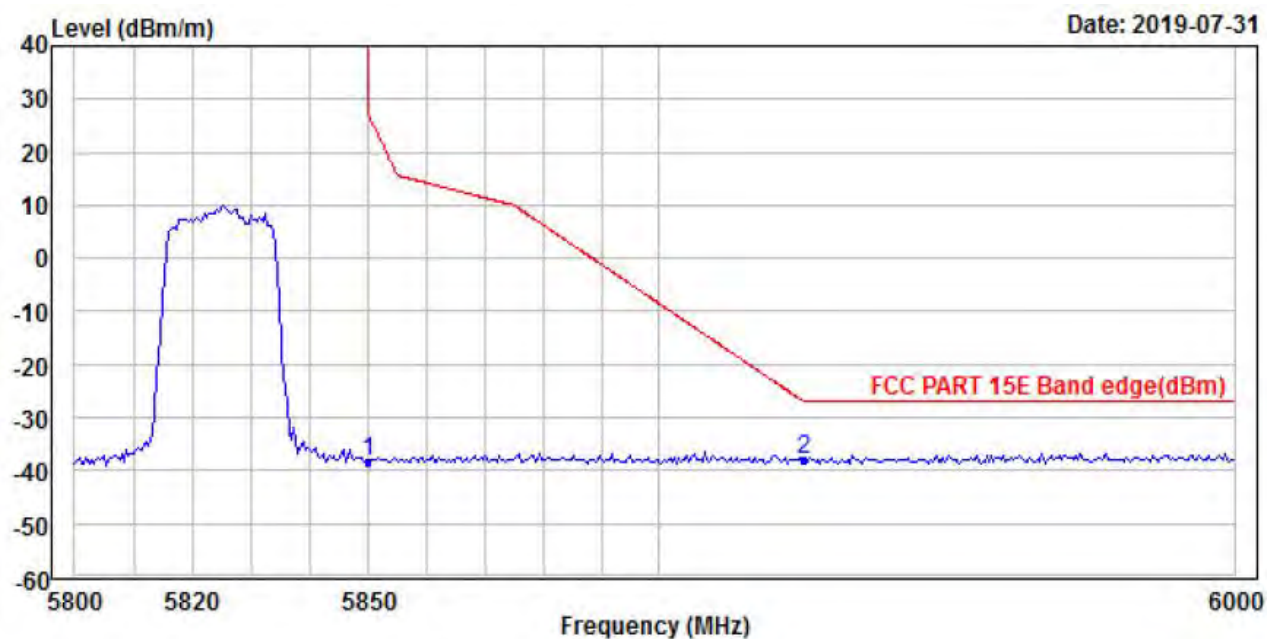
Horizontal :



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBm	dB/m	dB	dB	dBm/m	dBm/m	dB	
1	5850.0000	-55.22	34.29	45.57	27.95	-38.55	27.00	-65.55	Peak
2	PP5925.0000	-55.70	34.40	45.58	27.99	-38.89	-27.00	-11.89	Peak



Vertical :



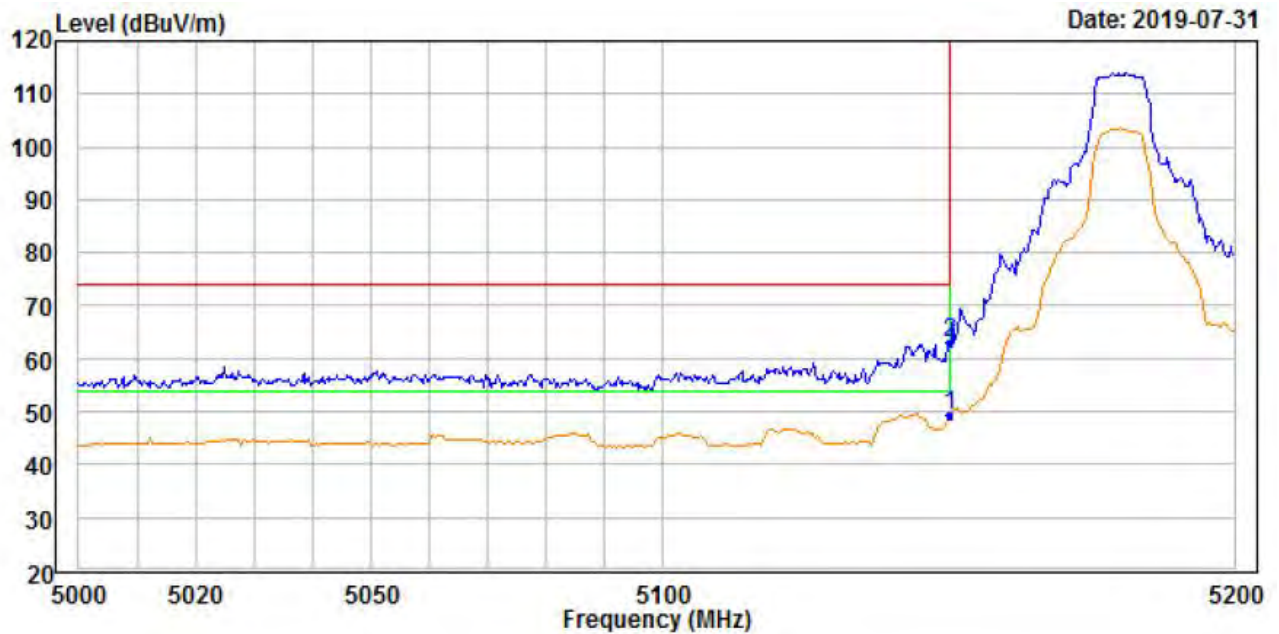
	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBm	dB/m	dB	dB	dBm/m	dBm/m	dB	
1	5850.0000	-55.70	35.12	45.57	27.95	-38.20	27.00	-65.20	Peak
2	PP5925.0000	-55.68	35.21	45.58	27.99	-38.06	-27.00	-11.06	Peak



OOBE DATA

5150-5250 band MIMO 10MHz MODE-left :

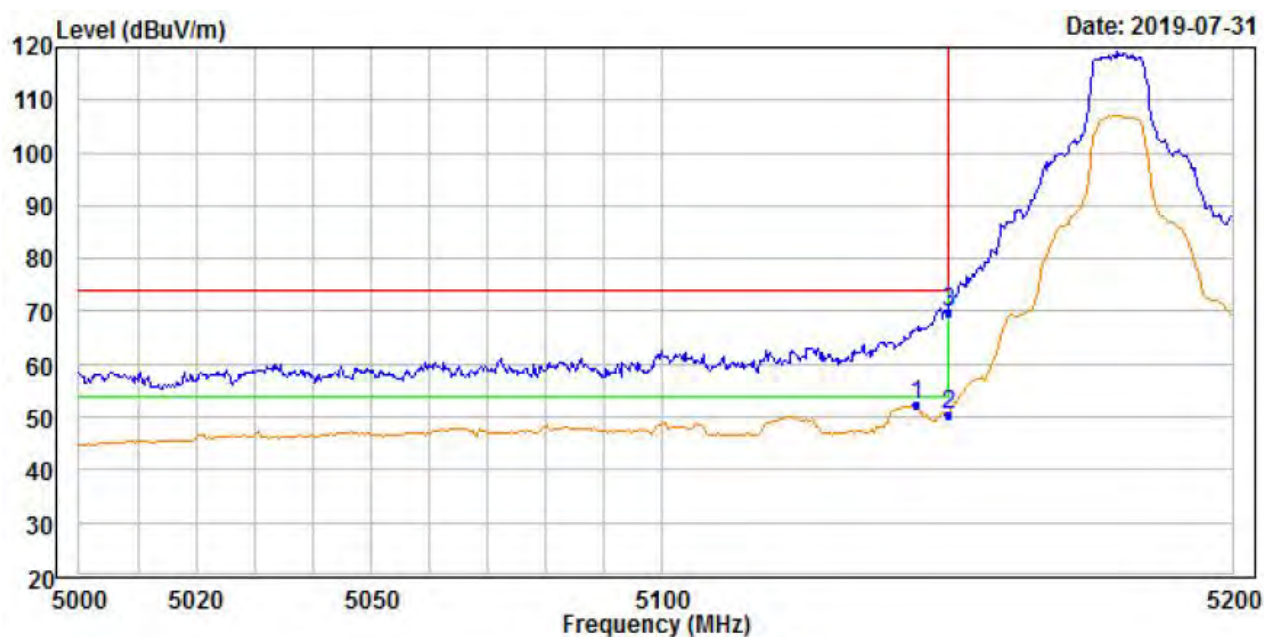
Horizontal :



	Read	Ant	Preamp	Cable		Limit	Over	
Freq	Level	Factor	Factor	Loss	Level	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 PP5150.0000	44.96	33.45	45.57	16.47	49.31	54.00	-4.69	Average
2 PK5150.0000	58.69	33.45	45.57	16.47	63.04	74.00	-10.96	Peak



Vertical :



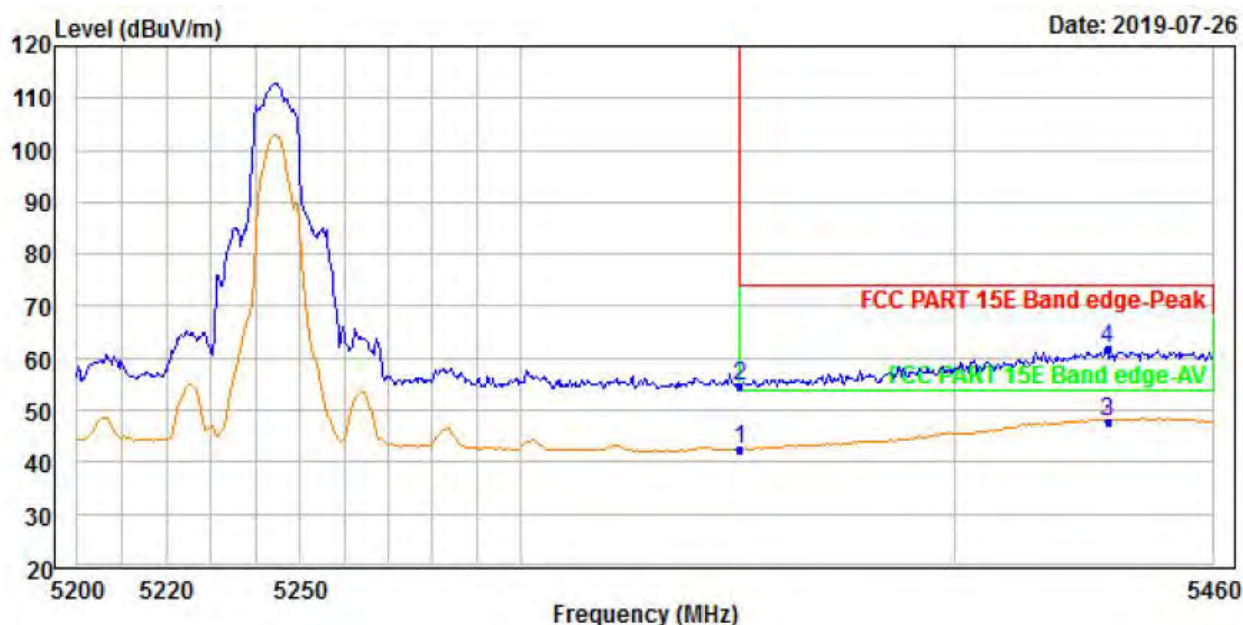
	Read	Ant	Preamp	Cable	Limit	Over	
Freq	Level	Factor	Factor	Loss	Level	Line	Limit Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
1 PP5144.2890	46.85	34.42	45.57	16.46	52.16	54.00	-1.84 Average
2 5150.0000	45.10	34.42	45.57	16.47	50.42	54.00	-3.58 Average
3 PK5150.0000	64.51	34.42	45.57	16.47	69.83	74.00	-4.17 Peak



Oobe DATA

5150-5250 band MIMO 10MHz MODE-right :

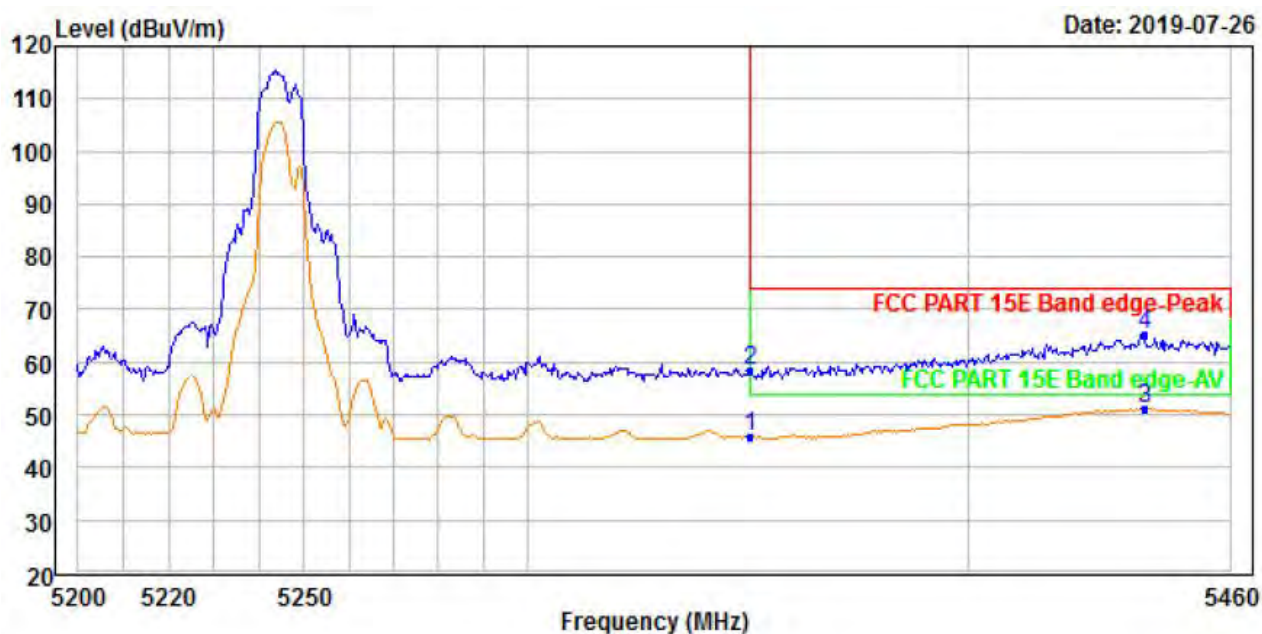
Horizontal :



	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	5350.0000	38.04	33.65	45.53	16.29	42.45	54.00	-11.55	Average
2	5350.0000	50.08	33.65	45.53	16.29	54.49	74.00	-19.51	Peak
3	PP5435.5110	43.57	33.74	45.51	16.14	47.94	54.00	-6.06	Average
4	PK5435.5110	57.32	33.74	45.51	16.14	61.69	74.00	-12.31	Peak



Vertical:



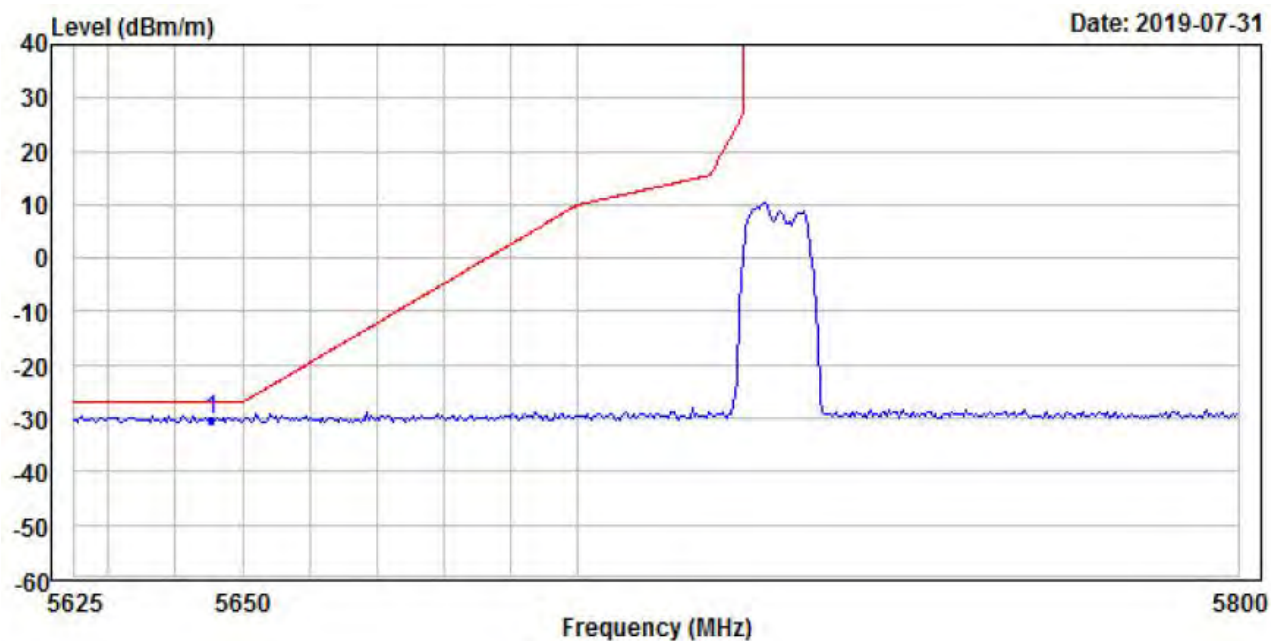
	Freq	Read Level	Ant Factor	Preamp Factor	Cable Loss	Level	Limit	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	5350.0000	40.36	34.58	45.53	16.29	45.70	54.00	-8.30	Average
2	5350.0000	53.24	34.58	45.53	16.29	58.58	74.00	-15.42	Peak
3	PP5440.2000	45.89	34.65	45.51	16.13	51.16	54.00	-2.84	Average
4	PK5440.2000	59.99	34.65	45.51	16.13	65.26	74.00	-8.74	Peak



OOBE DATA

5725-5850 band MIMO 10MHz MODE-left :

Horizontal :



	Read	Ant	Preamp	Cable		Limit	Over	
Freq	Level	Factor	Factor	Loss	Level	Line	Limit	Remark
MHz	dBm	dB/m	dB	dB	dBm/m	dBm/m	dB	
1 PP5645.3410	-56.31	34.00	45.53	37.64	-30.20	-27.00	-3.20	Peak