

FCC RADIO TEST REPORT

FCC ID: 2AUVWPB3150P1

Product : InkPoster Affresco 31.5"

Trade Mark : PocketBook

Model Name : PB3150P1

Family Model : N/A

Report No. : N25093002122E

Prepared for

Pocketbook International SA.

Crocicchio Cortogna 6, 6900, Lugano, Switzerland

Prepared by

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TEST RESULT CERTIFICATION

Applicant's name : Pocketbook International SA.

Address : Crocicchio Cortogna 6, 6900, Lugano, Switzerland

Manufacturer's Name..... : Pocketbook International SA.

Address : Crocicchio Cortogna 6, 6900, Lugano, Switzerland

Product description

Product name : InkPoster Affresco 31.5"

Model and/or type reference : PB3150P1

Family Model : N/A

Sample number : S250331007017
S2509300084-1#

Standards : FCC Part15.407

Test procedure ANSI C63.10-2020+Cor 1-2023 and KDB 789033 D02 General
UNII Test Procedures New Rules v02r01

This device described above has been tested by NTEK, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements/ the Industry Canada requirements.. And it is applicable only to the tested sample identified in the report.

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Date of Test

Date (s) of performance of tests Mar. 31, 2025 ~ Jun. 25, 2025
Sept. 30, 2025 ~ Oct. 24, 2025

Date of Issue Oct. 24, 2025

Test Result..... **Pass**

Note: A part of test data of this report are based on the original test report S25033100716004, dated by Jun. 25, 2025

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Revision History

Report No.	Version	Description	Issued Date
S25033100716004	Rev.01	Initial issue of report	Jun. 25, 2025
N25093002122E	Rev.02	Based on the original report, a new power panel was reported and, after evaluation. Update the AC Conducted data and the low-frequency radiated data	Oct. 24, 2025

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 (15.407) , Subpart E			
Standard Section	Test Item	Judgment	Remark
15.207	AC Power Line Conducted Emissions	PASS	
15.209(a), 15.407 (b)(1) 15.407 (b)(4)	Spurious Radiated Emissions	PASS	
15.407 (a)(1) 15.407 (a)(3)	26 dB and 99% Emission Bandwidth	PASS	
15.407(e)	Minimum 6 dB bandwidth	PASS	
15.407 (a)(1) 15.407 (a)(3)	Maximum Conducted Output Power	PASS	
15.407(b)(1) 15.407(b)(4)	Band Edge	PASS	
15.407 (a)(1) 15.407 (a)(3)	Power Spectral Density	PASS	
15.407(b)	Spurious Emissions at Antenna Terminals	PASS	
15.203	Antenna Requirement	PASS	
15.407(c)	Automatically discontinue transmission	PASS	

NOTE:

- (1) "N/A" denotes test is not applicable in this Test Report
- (2) The test standard ANSI C63.10-2013 has been upgraded to ANSI C63.10-2020+Cor 1-2023 + Cor 1-2023. After evaluation, it does not affect the test data.

1.1 FACILITIES AND ACCREDITATIONS

FACILITIES

All measurement facilities used to collect the measurement data are located at No. 24 Xinfu East Road, Xiangshan Community, Xinqiao Street, Baoan District, Shenzhen, Guangdong, People's Republic of China.

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10 and CISPR Publication 22.

LABORATORY ACCREDITATIONS AND LISTINGS

Site Description

CNAS-Lab. : The Certificate Registration Number is L5516.

IC-Registration : The Certificate Registration Number is 9270A.
CAB identifier: CN0074

FCC- Accredited : Test Firm Registration Number: 463705.
Designation Number: CN1184

A2LA-Lab. : The Certificate Registration Number is 4298.01
This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009).

Name of Firm : Shenzhen NTEK Testing Technology Co., Ltd.

Site Location : No. 24 Xinfu East Road, Xiangshan Community, Xinqiao Street, Baoan District, Shenzhen, Guangdong, People's Republic of China.

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	Conducted Emission Test	$\pm 2.80\text{dB}$
2	RF power, conducted	$\pm 0.16\text{dB}$
3	Spurious emissions, conducted	$\pm 0.21\text{dB}$
4	All emissions, radiated(30MHz~1GHz)	$\pm 2.64\text{dB}$
5	All emissions, radiated(1GHz~6GHz)	$\pm 2.40\text{dB}$
6	All emissions, radiated(> 6GHz)	$\pm 2.52\text{dB}$
7	Temperature	$\pm 0.5^\circ\text{C}$
8	Humidity	$\pm 2\%$
9	All emissions, radiated(9KHz~30MHz)	$\pm 6\text{dB}$
10	Occupied bandwidth	$\pm 4.7\%$
11	Duty cycle	$\pm 2.5\%$

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	InkPoster Affresco 31.5"	
Trade Mark	PocketBook	
Model Name	PB3150P1	
Family Model	N/A	
Model Difference	N/A	
FCC ID	2AUVWPB3150P1	
Product Description	IEEE 802.11 WLAN Mode Supported	☒ 802.11a/n/ac/ax (20MHz channel bandwidth)
	Data Rate	802.11a: 6,9,12,18,24,36,48,54Mbps; 802.11n(20MHz):MCS0-MCS15; 802.11ac(20MHz):MCS0-MCS8; 802.11ax (20MHz): MCS0-11, up to 286.8Mbps
	Modulation	OFDM with BPSK/QPSK/16QAM/64QAM/256QAM for 802.11a/n/ac; 802.11ax: OFDMA (QPSK/BPSK/16QAM/64QAM/256QAM/1024QAM)
	Operating Frequency Range	☒ 5180-5240MHz for 802.11a/n20/ac20/ax20; ☒ 5745-5825 MHz for 802.11a/n20/ac20/ax20;
	Number of Channels	☒ 4 channels for 802.11a/n20/ac20/ax20 in the 5180-5240MHz band ; ☒ 5 channels for 802.11a/n20/ac20/ax20 in the 5745-5825MHz band ;
	Antenna Type	FPC Antenna
	Antenna Gain	band I : 5.56dBi; band IV: 5.56dBi
	Based on the application, features, or specification exhibited in User's Manual, More details of EUT technical specification, please refer to the User's Manual.	
Adapter	Model: FJ-GN127T30U Input: 100-240V~50/60Hz 1.0A Output: 5V---3.0A, 9V---3.0A, 12V---2.5A, 15V---2.0A, 20V---1.5A	
Battery	DC 3.85V, 5000mAh, 19.25Wh	
Power supply	DC 3.85V from battery or DC 12V from adapter	
Connecting I/O Port(s)	Please refer to the User's Manual	
HW Version	v. 1.0	
FW Version	3150.1.1.xxx	
SW Version	N/A	

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
2. Frequency and Channel list for 802.11a/n/ac(20MHz)/ax20 band I (5180-5240MHz):

802.11a/n/ac(20MHz)/ax20 Carrier Frequency Channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220	-	-	-	-
40	5200	48	5240	-	-	-	-

Frequency and Channel list for 802.11a/n/ac(20 MHz)/ax20 band IV (5745-5825MHz):

802.11a/n/ac(20 MHz)/ax20 Carrier Frequency Channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	153	5765	157	5785	161	5805
165	5825	-	-	-	-	-	-

2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	Normal Link Mode
Mode 2	802.11a / n 20 /ac 20/ax 20 CH36/ CH40/ CH 48 802.11a / n 20 / ac 20/ax 20 CH149/ CH157/ CH 165

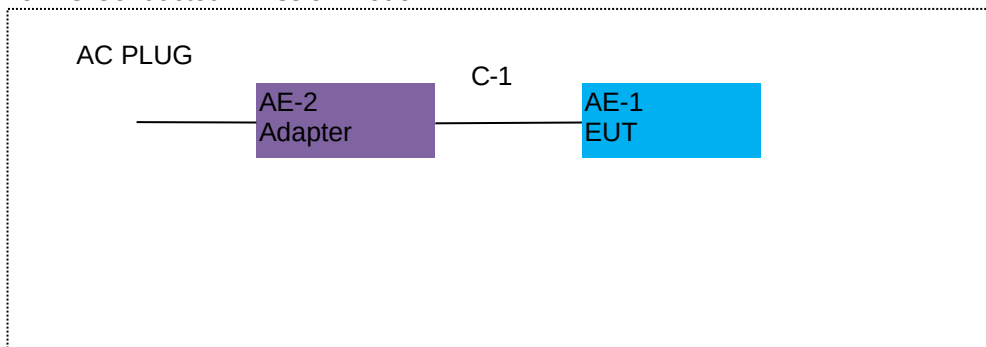
For Radiated Emission	
Final Test Mode	Description
Mode 1	Normal Link Mode
Mode 2	802.11a / n 20 /ac 20/ax 20 CH36/ CH40/ CH 48 802.11a / n 20 / ac 20/ax 20 CH149/ CH157/ CH 165

Note:

- (1) The measurements are performed at the highest, middle, lowest available channels.
- (2) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported
- (3) 802.11ax supports only full RU.

2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

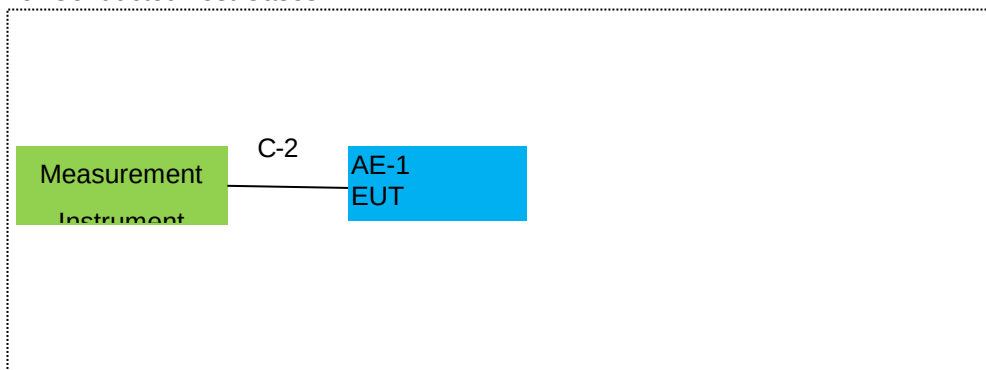
For AC Conducted Emission Mode



For Radiated Test Cases



For Conducted Test Cases



Note: 1. The temporary antenna connector is soldered on the PCB board in order to perform conducted tests and this temporary antenna connector is listed in the equipment list.
 2. EUT built-in battery-powered, the battery is fully-charged.

2.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

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.

Item	Equipment	Model/Type No.	Series No.	Note
AE-1	InkPoster Affresco 31.5"	PB3150P1	N/A	EUT
AE-2	Adapter	FJ-GN127T30E	N/A	Peripherals

Item	Cable Type	Shielded Type	Ferrite Core	Length
C-1	USB Cable	YES	NO	1.0m
C-2	RF Cable	YES	NO	0.1m

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.

2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation& Conducted Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Spectrum Analyzer	Agilent	E4440A	MY41000130	2024.04.26 2025.04.25	2025.04.25 2026.04.24	1 year
2	Spectrum Analyzer	Agilent	N9020A	MY49100060	2024.04.25 2025.04.17	2025.04.24 2026.04.16	1 year
3	Spectrum Analyzer	R&S	FSV40	101417	2024.04.25 2025.04.17	2025.04.24 2026.04.16	1 year
4	Test Receiver	R&S	ESPI7	101318	2024.04.26 2025.04.17	2025.04.25 2026.04.16	1 year
5	Bilog Antenna	TESEQ	CBL6111D	31216	2024.05.12 2025.04.17	2025.05.11 2026.04.16	1 year
6	50Ω Coaxial Switch	Anritsu	MP59B	6200983705	2024.04.26	2027.04.25	3 year
7	Horn Antenna	EM	EM-AH-10180	2011071402	2024.05.12	2027.05.11	3 year
8	Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	803	2024.05.12	2027.05.11	3 year
9	Amplifier	EMC	EMC051835SE	980246	2024.04.25 2025.04.24	2025.04.24 2026.04.23	1 year
10	Active Loop Antenna	SCHWARZBECK	FMZB 1519B	055	2024.05.17	2027.05.16	3 year
11	Power Meter	DARE	RPR3006W	15I00041SN084	2024.04.25 2025.04.17	2025.04.24 2026.04.16	1 year
12	Test Cable (9KHz-30MHz)	N/A	R-01	N/A	2023.05.06	2026.05.05	3 year
13	Test Cable (30MHz-1GHz)	N/A	R-02	N/A	2023.05.06	2026.05.05	3 year
14	High Test Cable(1G-40G Hz)	N/A	R-03	N/A	2023.06.17	2026.06.16	3 year
15	Filter	TRILTHIC	2400MHz	29	2024.04.26	2027.04.25	3 year
16	temporary antenna connector (Note)	NTS	R001	N/A	N/A	N/A	N/A

Note:

We will use the temporary antenna connector (soldered on the PCB board) When conducted test
And this temporary antenna connector is listed within the instrument list

AC Conduction Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Test Receiver	R&S	ESCI	101160	2024.04.26 2025.04.25	2025.04.25 2026.04.24	1 year
2	LISN	R&S	ENV216	101313	2024.04.25 2025.04.17	2025.04.24 2026.04.16	1 year
3	LISN	SCHWARZBECK	NNLK 8129	8129245	2024.04.25 2025.04.16	2025.04.24 2026.04.15	1 year
4	50Ω Coaxial Switch	ANRITSU CORP	MP59B	6200983704	2024.04.26	2027.04.25	3 year
5	Test Cable (9KHz-30MHz)	N/A	C01	N/A	2023.05.06	2026.05.05	3 year
6	Test Cable (9KHz-30MHz)	N/A	C02	N/A	2023.05.06	2026.05.05	3 year
7	Test Cable (9KHz-30MHz)	N/A	C03	N/A	2023.05.06	2026.05.05	3 year

Note: Each piece of equipment is scheduled for calibration once a year except the Test Cable& Aux Equipment which is scheduled for calibration every 3 years.

Measurement Software

Item	Manufacturer	Software Name	Software Version	Description
1	MWRFTtest	MTS 8310 2.4GHz/5GHz	2.0	RF Conducted Test
2	Farad	EZ-EMC_RE	AIT-03A	RadiatedTest
3	Farad	EZ-EMC_CE	AIT-03A	AC Conducted Test

3. TEST REQUIREMENTS

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 APPLICABLE STANDARD

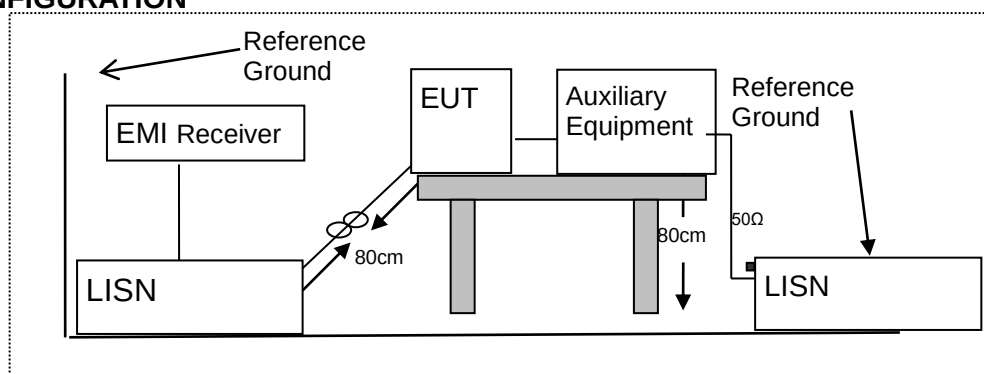
According to FCC Part 15.207(a)

3.1.2 CONFORMANCE LIMIT

Frequency(MHz)	Conducted Emission Limit	
	Quasi-peak	Average
0.15-0.5	66-56*	56-46*
0.5-5.0	56	46
5.0-30.0	60	50

Note: 1. *Decreases with the logarithm of the frequency
 2. The lower limit shall apply at the transition frequencies
 3. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

3.1.3 TEST CONFIGURATION



3.1.4 TEST PROCEDURE

According to the requirements in Section 13.1.4.1 of ANSI C63.10-2020+Cor 1-2023 Conducted emissions the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode.

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room.
2. The EUT was placed on a table which is 0.8m above ground plane.
3. Connect EUT to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
4. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40cm long.
5. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
6. LISN at least 80 cm from nearest part of EUT chassis.
7. The frequency range from 150KHz to 30MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth(IF bandwidth=9KHz) with Maximum Hold Mode
9. For the actual test configuration, please refer to the related Item –EUT Test Photos.

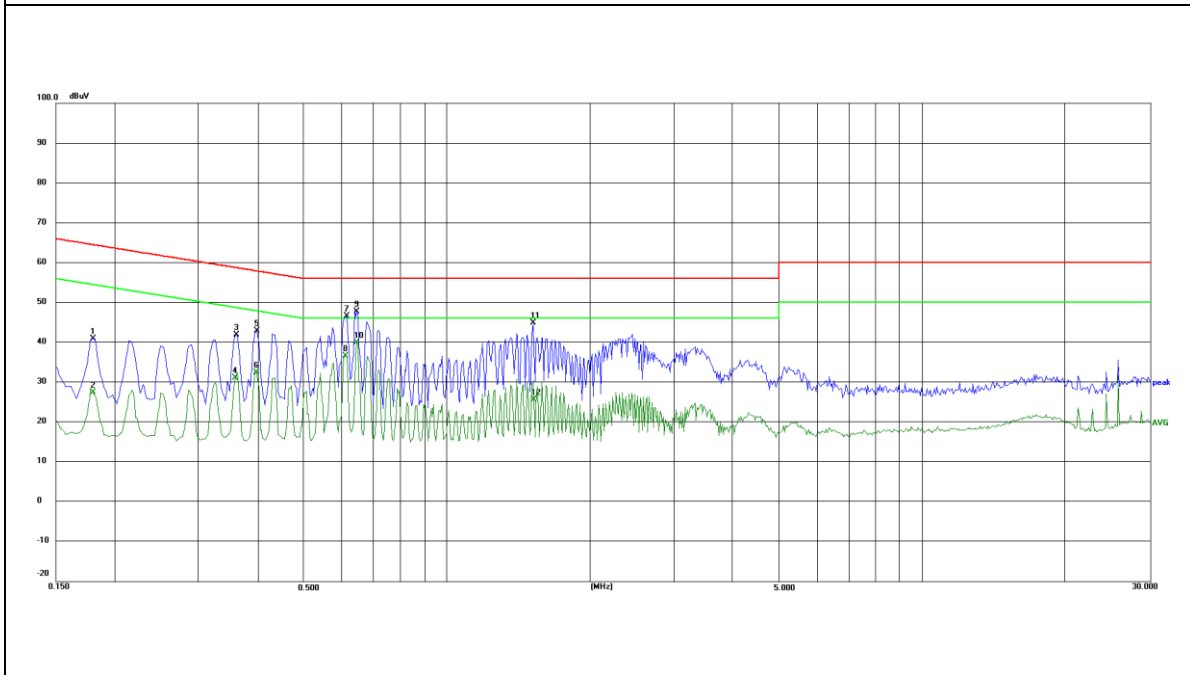
3.1.5 TEST RESULTS

EUT :	InkPoster Affresco 31.5"	Model Name :	PB3150P1
Temperature :	26.8°C	Relative Humidity :	54.2%
Pressure :	1010hPa	Phase :	L
Test Voltage :	DC 12V from Adapter AC 120V/60Hz	Test Mode :	Mode 1

Frequency (MHz)	Reading Level (dBμV)	Correct Factor (dB)	Measure-ment (dBμV)	Limits (dBμV)	Margin (dB)	Remark
0.1796	21.38	19.52	40.90	64.50	-23.60	peak
0.1796	8.00	19.52	27.52	54.50	-26.98	AVG
0.3595	22.33	19.54	41.87	58.74	-16.87	peak
0.3580	11.61	19.54	31.15	48.77	-17.62	AVG
0.3980	23.40	19.54	42.94	57.90	-14.96	peak
0.3955	12.94	19.54	32.48	47.95	-15.47	AVG
0.6140	26.90	19.59	46.49	56.00	-9.51	peak
0.6107	17.06	19.59	36.65	46.00	-9.35	AVG
0.6460	28.07	19.60	47.67	56.00	-8.33	peak
0.6460	20.36	19.60	39.96	46.00	-6.04	AVG
1.5180	25.21	19.65	44.86	56.00	-11.14	peak
1.5220	5.94	19.65	25.59	46.00	-20.41	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

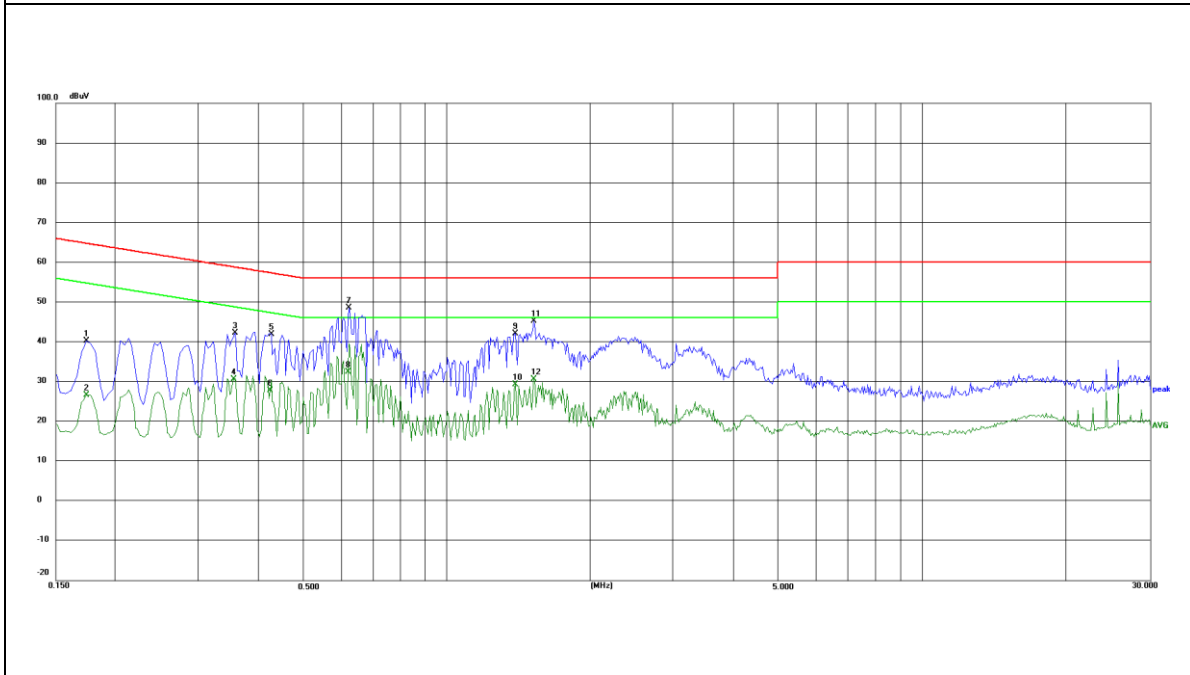


EUT :	InkPoster Affresco 31.5"	Model Name :	PB3150P1
Temperature :	26.8°C	Relative Humidity :	54.2%
Pressure :	1010hPa	Phase :	N
Test Voltage :	DC 12V from Adapter AC 120V/60Hz	Test Mode :	Mode 1

Frequency (MHz)	Reading Level (dBμV)	Correct Factor (dB)	Measure-ment (dBμV)	Limits (dBμV)	Margin (dB)	Remark
0.1740	20.65	19.53	40.18	64.77	-24.59	peak
0.1740	7.14	19.53	26.67	54.77	-28.10	AVG
0.3580	22.66	19.54	42.20	58.77	-16.57	peak
0.3557	11.15	19.54	30.69	48.83	-18.14	AVG
0.4260	22.32	19.55	41.87	57.33	-15.46	peak
0.4237	8.27	19.55	27.82	47.38	-19.56	AVG
0.6220	28.96	19.60	48.56	56.00	-7.44	peak
0.6180	12.81	19.60	32.41	46.00	-13.59	AVG
1.3940	22.51	19.64	42.15	56.00	-13.85	peak
1.3940	9.59	19.64	29.23	46.00	-16.77	AVG
1.5220	25.52	19.65	45.17	56.00	-10.83	peak
1.5220	10.95	19.65	30.60	46.00	-15.40	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.



3.2 RADIATED EMISSION MEASUREMENT

3.2.1 APPLICABLE STANDARD

According to FCC Part 15.407(b) and 15.209

3.2.2 CONFORMANCE LIMIT

According to FCC Part 15.407(b)(9)(10): radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

According to FCC Part 15.205, Restricted bands

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(2)
13.36-13.41			

. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Restricted Frequency(MHz)	Field Strength (μV/m)	Field Strength (dBμV/m)	Measurement Distance
0.009-0.490	2400/F(KHz)	20 log (uV/m)	300
0.490-1.705	24000/F(KHz)	20 log (uV/m)	30
1.705-30.0	30	29.5	30
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

Limits of Radiated Emission Measurement(Above 1000MHz)

Frequency(MHz)	Class B (dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

Remark :1. Emission level in dBuV/m=20 log (uV/m)

2. Measurement was performed at an antenna to the closed point of EUT distance of meters.

3. For Frequency 9kHz~30MHz:

Distance extrapolation factor =40log(Specific distance/ test distance)(dB);

Limit line=Specific limits(dBuV) + distance extrapolation factor.

For Frequency above 30MHz:

Distance extrapolation factor =20log(Specific distance/ test distance)(dB);

Limit line=Specific limits(dBuV) + distance extrapolation factor.

Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the

following limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band:

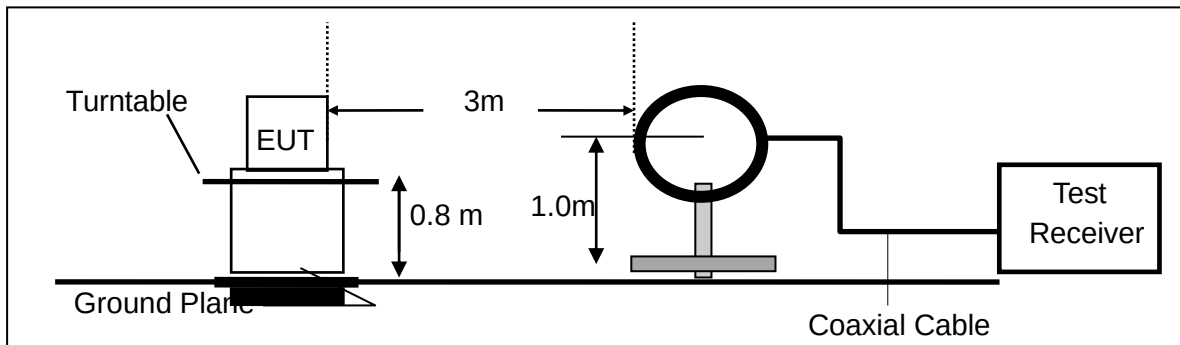
(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the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

3.2.3 MEASURING INSTRUMENTS

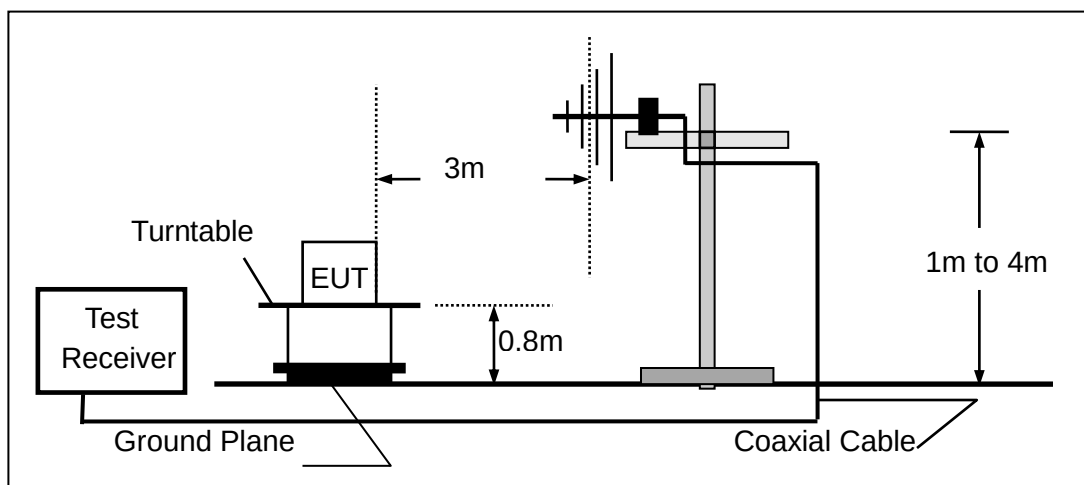
The Measuring equipment is listed in the section 6.3 of this test report.

3.2.4 TEST CONFIGURATION

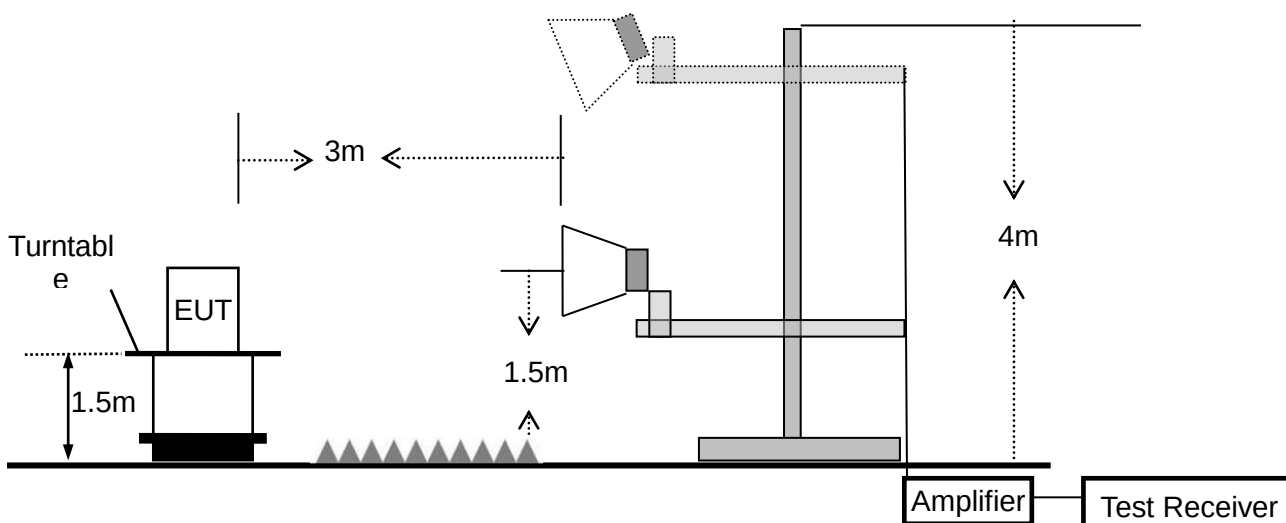
(a) For radiated emissions below 30MHz



(b) For radiated emissions from 30MHz to 1000MHz



(c) For radiated emissions above 1000MHz



3.2.5 TEST PROCEDURE

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.10-2020+Cor 1-2023. The test distance is 3m. The setup is according to the requirements in Section 13.1.4.1 of ANSI C63.10-2020+Cor 1-2023 and CAN/CSA-CEI/IEC CISPR 22.

This test is required for any spurious emission that falls in a Restricted Band, as defined in Section 15.205. It must be performed with the highest gain of each type of antenna proposed for use with the EUT.

Use the following spectrum analyzer settings:

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / 1MHz for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

- The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- The EUT was placed on the top of a rotating table 0.8 m for below 1GHz and 1.5m for above 1GHz the ground at a 3 meter. The table was rotated 360 degrees to determine the position of the highest radiation.
- The height of the equipment or of the substitution antenna shall be 0.8 m for below 1GHz and 1.5m for above 1GHz; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

During the radiated emission test, the Spectrum Analyzer was set with the following configurations:

Frequency Band (MHz)	Function	Resolution bandwidth	Video Bandwidth
30 to 1000	QP	120 kHz	300 kHz
Above 1000	Peak	1 MHz	1 MHz
	Average	1 MHz	1 MHz

Note: for the frequency ranges below 30 MHz, a narrower RBW is used for these ranges but the measured value should add a RBW correction factor (RBWCF) where $RBWCF [dB] = 10 \cdot \lg(100 [kHz] / \text{narrower RBW [kHz]})$. , the narrower RBW is 1 kHz and RBWCF is 20 dB for the frequency 9 kHz to 150 kHz, and the narrower RBW is 10 kHz and RBWCF is 10 dB for the frequency 150 kHz to 30 MHz.

3.2.6 TEST RESULTS (9KHz – 30 MHz)

EUT:	InkPoster Affresco 31.5"	Model Name. :	PB3150P1
Temperature:	20 °C	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.85V
Test Mode :	TX	Polarization :	--

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	N/A
--	--	--	--	N/A

NOTE:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

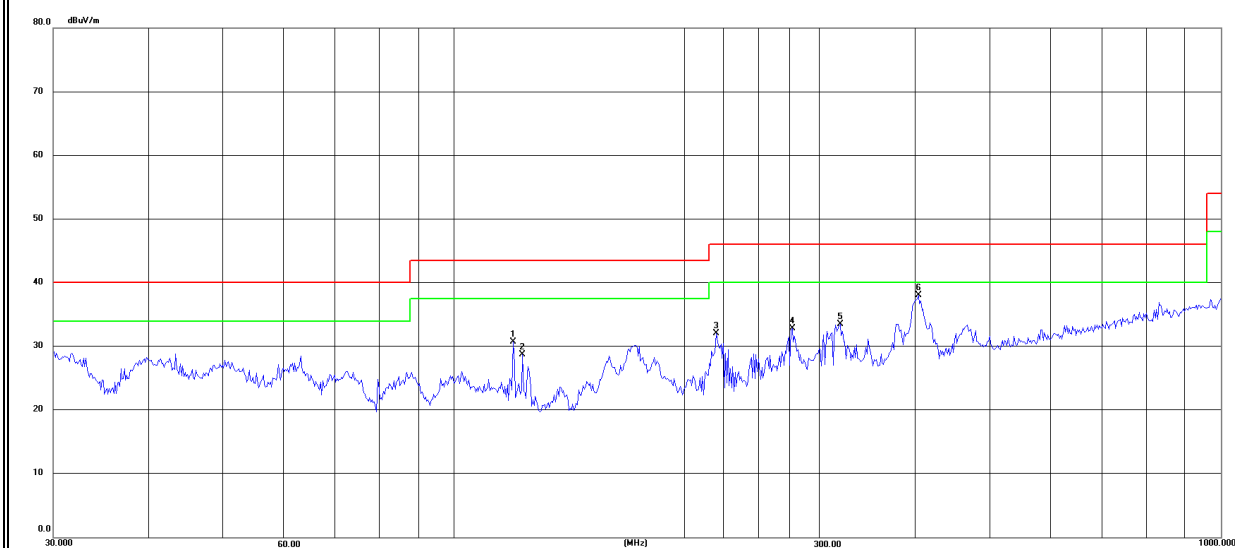
3.2.7 TEST RESULTS (30MHz – 1GHz)

EUT :	InkPoster Affresco 31.5"	Model Name. :	PB3150P1
Temperature :	25.8℃	Relative Humidity :	57%
Pressure :	1010 hPa	Test Voltage :	DC 3.85V
Test Mode :	TX(5G WIFI)- 802.11ax20 (High CH)		

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
V	119.4360	14.43	16.34	30.77	43.50	-12.73	peak
V	122.8340	13.06	15.74	28.80	43.50	-14.70	peak
V	219.8447	13.76	18.35	32.11	46.00	-13.89	peak
V	276.1234	13.10	19.79	32.89	46.00	-13.11	peak
V	318.8170	12.64	20.86	33.50	46.00	-12.50	peak
V	403.2500	15.26	22.84	38.10	46.00	-7.90	peak

Remark:

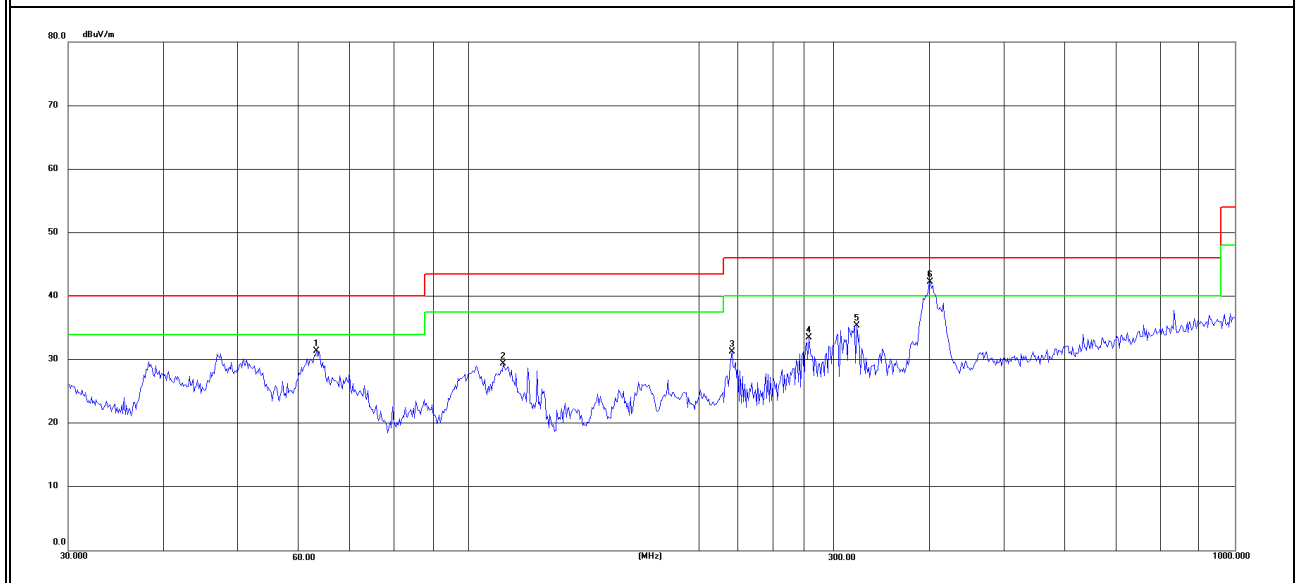
Emission Level = Meter Reading + Factor, Margin= Emission Level - Limit



Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
H	63.3132	13.32	18.07	31.39	40.00	-8.61	peak
H	110.9570	11.42	18.00	29.42	43.50	-14.08	peak
H	220.6170	12.90	18.41	31.31	46.00	-14.69	peak
H	278.0668	13.68	19.79	33.47	46.00	-12.53	peak
H	321.0607	14.40	20.99	35.39	46.00	-10.61	peak
H	400.4318	19.46	22.77	42.23	46.00	-3.77	peak

Remark:

Emission Level = Meter Reading + Factor, Margin= Emission Level - Limit



Note(1) "802.11ax20" mode is the worst mode.

(2) Other emissions are attenuated more than 20dB below the permissible limits, so it does not recorded in the report

3.2.8 TEST RESULTS (1GHz-18GHz)

EUT :	InkPoster Affresco 31.5"	Model Name. :	PB3150P1
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.85V
Test Mode :	TX(5.2G) - 802.11ax20_5180~5240MHz		

Polar	Frequency	Meter Reading	Cable loss	Antenna Factor	Preamplifier Factor	Emission Level	Limits	Margin	Detector Type
(H/V)	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5180 MHz)-Above 1G									
Vertical	3695.20	68.74	3.25	30.50	43.23	59.26	74.00	-14.74	Pk
Vertical	3695.20	49.98	3.25	30.50	43.23	40.50	54.00	-13.50	AV
Vertical	10361.04	60.82	5.62	38.96	43.41	61.98	68.20	-6.22	Pk
Vertical	15540.75	60.54	7.54	38.98	41.24	65.82	74.00	-8.18	Pk
Vertical	15540.75	40.84	7.54	38.98	41.24	46.12	54.00	-7.88	AV
Horizontal	3743.39	68.86	3.26	31.12	43.23	60.02	74.00	-13.98	Pk
Horizontal	3743.39	50.50	3.26	31.12	43.23	41.66	54.00	-12.34	AV
Horizontal	10361.39	60.61	5.62	38.96	43.41	61.77	68.20	-6.43	Pk
Horizontal	15541.03	56.24	7.54	38.98	41.24	61.52	74.00	-12.48	Pk
Horizontal	15541.03	40.32	7.54	38.98	41.24	45.60	54.00	-8.40	AV
middle Channel (5200 MHz)-Above 1G									
Vertical	3624.90	67.52	3.22	30.26	43.24	57.76	74.00	-16.24	Pk
Vertical	3624.90	51.15	3.22	30.26	43.24	41.39	54.00	-12.61	AV
Vertical	10402.03	60.38	5.64	38.81	43.40	61.42	68.20	-6.78	Pk
Vertical	15601.67	59.60	7.55	39.09	41.19	65.05	74.00	-8.95	Pk
Vertical	15601.67	40.45	7.55	39.09	41.19	45.90	54.00	-8.10	AV
Horizontal	4203.51	64.68	3.45	32.31	43.22	57.22	74.00	-16.78	Pk
Horizontal	4203.51	51.52	3.45	32.31	43.22	44.06	54.00	-9.94	AV
Horizontal	10401.82	63.31	5.64	38.81	43.40	64.35	68.20	-3.85	Pk
Horizontal	15601.65	59.34	7.55	39.09	41.19	64.79	74.00	-9.21	Pk
Horizontal	15601.65	40.86	7.55	39.09	41.19	46.31	54.00	-7.69	AV
High Channel (5240 MHz)-Above 1G									
Vertical	4599.96	71.72	3.67	32.30	43.26	64.43	74.00	-9.57	Pk
Vertical	4599.96	51.86	3.67	32.30	43.26	44.57	54.00	-9.43	AV
Vertical	10482.71	60.53	5.68	39.21	43.38	62.04	68.20	-6.16	Pk
Vertical	15723.02	60.98	7.56	38.22	41.09	65.67	74.00	-8.33	Pk
Vertical	15723.02	41.46	7.56	38.22	41.09	46.15	54.00	-7.85	AV
Horizontal	4591.43	69.82	3.67	32.37	43.26	62.60	74.00	-11.40	Pk
Horizontal	4591.43	49.85	3.67	32.37	43.26	42.63	54.00	-11.37	AV
Horizontal	10482.23	63.55	5.68	39.21	43.38	65.06	68.20	-3.14	Pk
Horizontal	15721.83	59.28	7.56	38.22	41.09	63.97	74.00	-10.03	Pk
Horizontal	15721.83	42.66	7.56	38.22	41.09	47.35	54.00	-6.65	AV

Note:"802.11ax20" mode is the worst mode.

The amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported. Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamplifier Factor = Level.

EUT :	InkPoster Affresco 31.5"	Model Name. :	PB3150P1
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.85V
Test Mode :	TX (5.8G) -- 802.11ax20_5745~5825MHz		

Polar	Frequency	Meter Reading	Cable loss	Antenna Factor	Preamplifier Factor	Emission Level	Limits	Margin	Detector Type
(H/V)	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5745 MHz)-Above 1G									
Vertical	5123.10	66.57	3.91	34.12	43.28	61.32	74.00	-12.68	Pk
Vertical	5123.10	48.09	3.91	34.12	43.28	42.84	54.00	-11.16	AV
Vertical	11491.94	61.34	6.20	39.44	43.13	63.86	74.00	-10.14	Pk
Vertical	11491.94	44.17	6.20	39.44	43.13	46.69	54.00	-7.31	AV
Vertical	17236.67	50.39	8.07	39.38	40.20	57.65	68.20	-10.55	Pk
Horizontal	5167.84	61.67	3.91	34.43	43.27	56.75	68.20	-11.45	Pk
Horizontal	11491.20	60.15	6.20	39.44	43.13	62.67	74.00	-11.33	Pk
Horizontal	11491.20	42.56	6.20	39.44	43.13	45.08	54.00	-8.92	AV
Horizontal	17236.06	48.64	8.07	39.38	40.20	55.90	68.20	-12.30	Pk
middle Channel (5785 MHz)-Above 1G									
Vertical	5133.90	66.21	3.95	34.24	43.21	61.18	74.00	-12.82	Pk
Vertical	5133.90	46.54	3.95	34.24	43.21	41.51	54.00	-12.49	AV
Vertical	11572.04	60.27	6.24	38.90	43.11	62.31	74.00	-11.69	Pk
Vertical	11572.04	43.06	6.24	38.90	43.11	45.10	54.00	-8.90	AV
Vertical	17357.40	53.00	8.11	39.93	40.30	60.74	68.20	-7.46	Pk
Horizontal	4868.39	65.08	3.82	33.39	43.29	59.00	74.00	-15.00	Pk
Horizontal	4868.39	48.73	3.82	33.39	43.29	42.65	54.00	-11.35	AV
Horizontal	11571.71	63.33	6.24	38.90	43.11	65.37	74.00	-8.63	Pk
Horizontal	11571.71	44.55	6.24	38.90	43.11	46.59	54.00	-7.41	AV
Horizontal	17356.19	53.53	8.11	39.92	40.30	61.27	68.20	-6.93	Pk
High Channel (5825 MHz)-Above 1G									
Vertical	5111.82	68.98	3.92	34.12	43.25	63.77	74.00	-10.23	Pk
Vertical	5111.77	50.57	3.92	34.12	43.09	45.52	54.00	-8.48	Pk
Vertical	11652.33	60.35	6.29	38.80	43.09	62.36	74.00	-11.64	AV
Vertical	11652.33	44.23	6.29	38.80	40.39	48.93	54.00	-5.07	Pk
Vertical	17473.65	54.93	8.15	40.98	40.39	63.66	68.20	-4.54	Pk
Horizontal	5119.15	66.52	3.92	34.12	43.25	61.31	74.00	-12.69	Pk
Horizontal	5119.15	47.55	3.92	34.12	43.25	42.34	54.00	-11.66	Pk
Horizontal	11652.86	60.60	6.29	38.80	43.09	62.61	74.00	-11.39	AV
Horizontal	11652.86	45.51	6.29	38.80	43.09	47.51	54.00	-6.49	Pk
Horizontal	17475.96	54.84	8.15	40.98	40.39	63.57	68.20	-4.63	Pk

Note:"802.11ax20" mode is the worst mode.

The amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

3.2.9 TEST RESULTS (18GHz-40GHz)

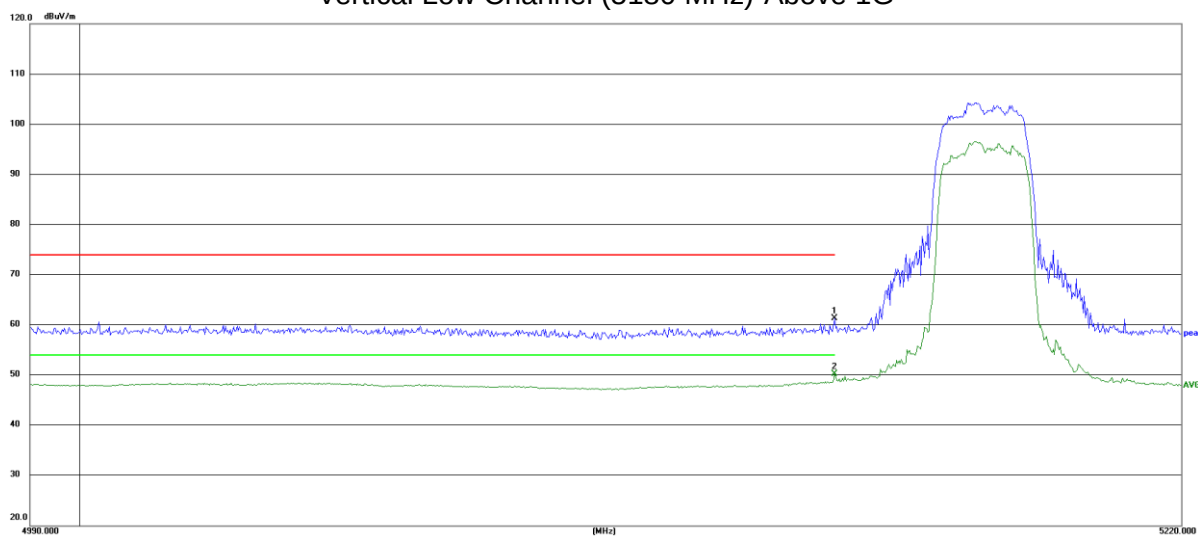
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

3.2.10 Spurious Emission in Restricted Band 4.5GHz~5.150 GHz& 5.350GHz~5460GHz

EUT :	InkPoster Affresco 31.5"	Model Name. :	PB3150P1
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 3.85V
Test Mode :	TX (5.2G)-802.11ax20 5150MHz~5250MHz,		

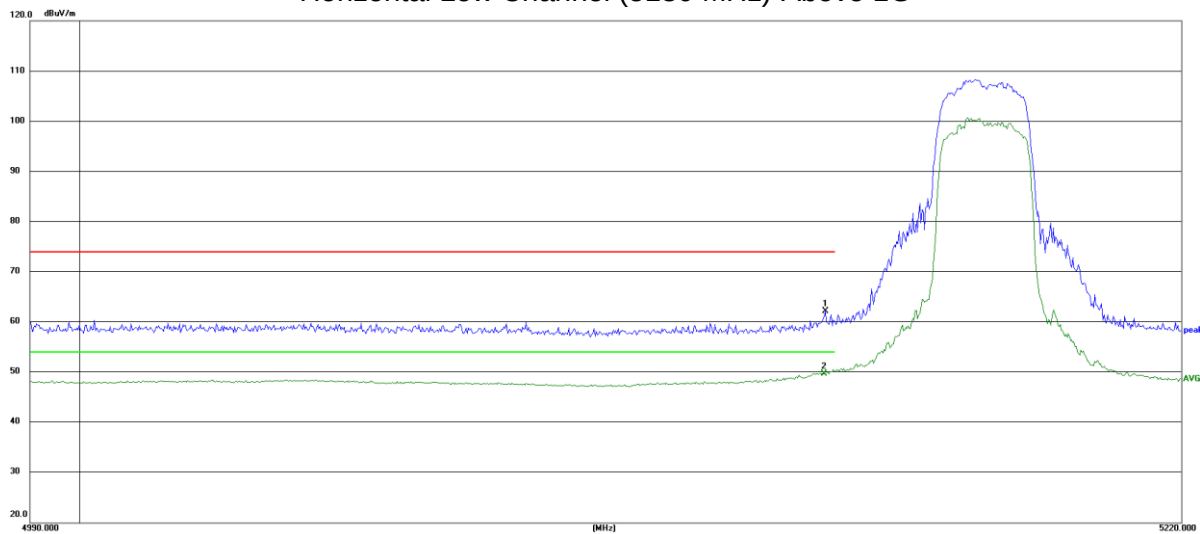
All the modulation modes have been tested, The report just record the worst data mode.

Vertical Low Channel (5180 MHz)-Above 1G



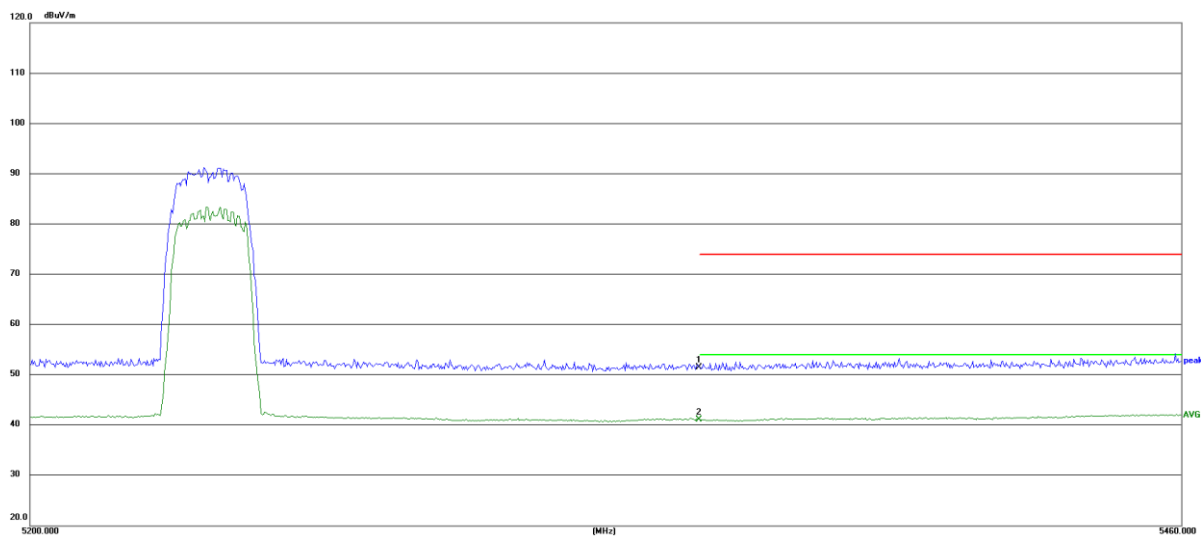
No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Det.
1	5149.850	55.20	6.10	61.30	74.00	-12.70	peak
2	5149.850	44.12	6.10	50.22	54.00	-3.78	AVG

Horizontal Low Channel (5180 MHz)-Above 1G



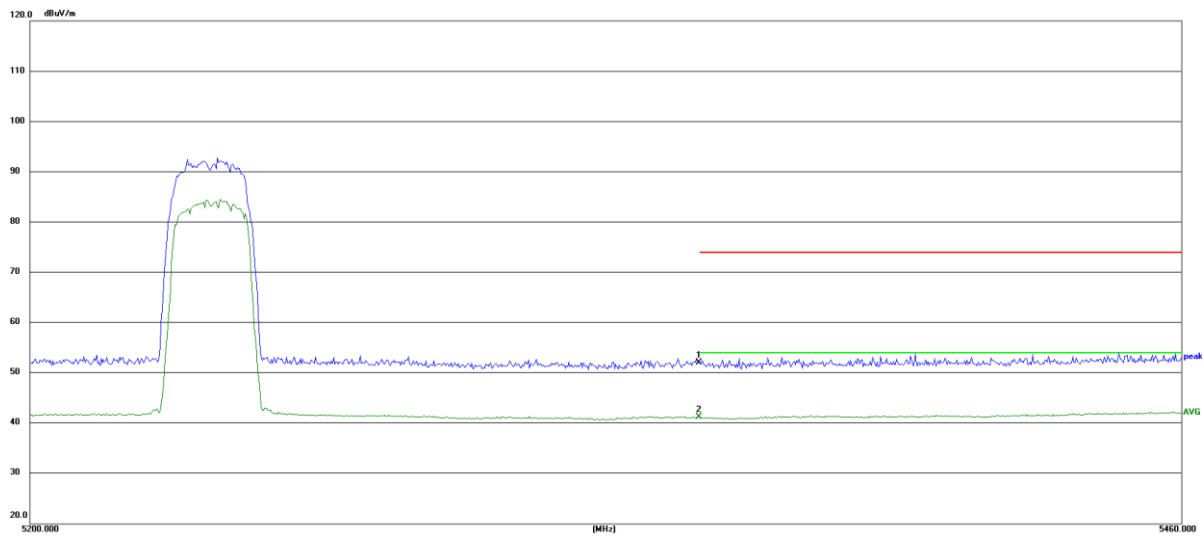
No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Det.
1	5148.010	56.09	6.06	62.15	74.00	-11.85	peak
2	5147.780	43.64	6.06	49.70	54.00	-4.30	AVG

Vertical High Channel (5240 MHz)-Above 1G



No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Det.
1	5350.000	52.34	-0.79	51.55	74.00	-22.45	peak
2	5350.000	41.96	-0.79	41.17	54.00	-12.83	AVG

Horizontal High Channel (5240 MHz)-Above 1G



No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Det.
1	5350.000	52.79	-0.79	52.00	74.00	-22.00	peak
2	5350.000	42.00	-0.79	41.21	54.00	-12.79	AVG

Note:

(1) Emission Level= Antenna Factor + Cable Loss + Read Level - Preamp Factor

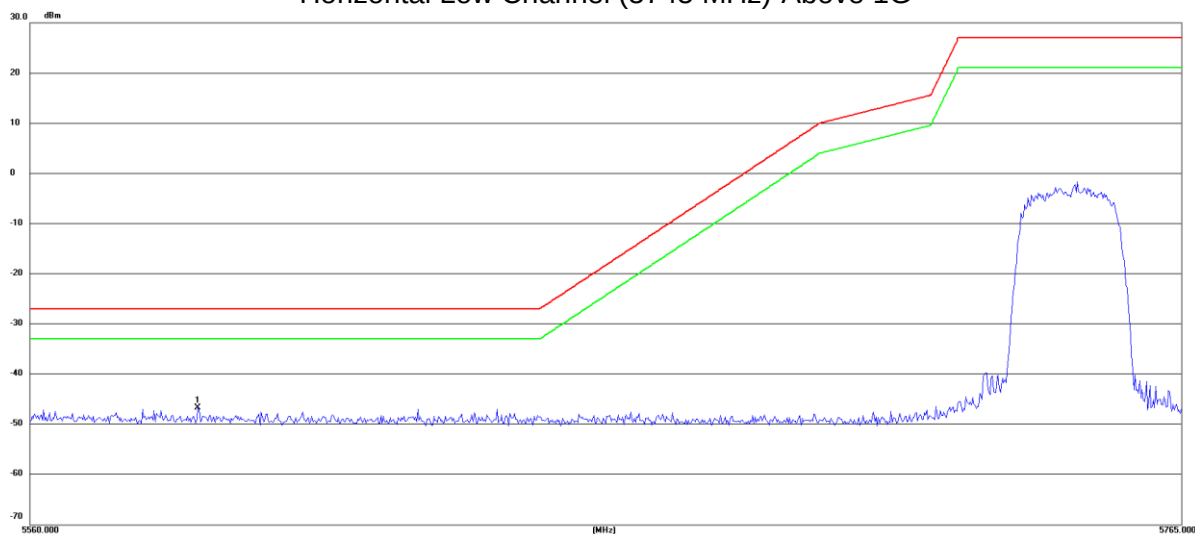
(2) "802.11ax20" mode is the worst mode. When PK value is lower than the Average value limit, average don't record.

Unwanted emission for operating in the band 5725-5850 MHz

EUT :	InkPoster Affresco 31.5"	Model Name. :	PB3150P1
Temperature :	24.5 °C	Relative Humidity :	51%
Pressure :	1010 hPa	Test Voltage :	DC 3.85V
Test Mode :	TX (5.8G)-802.11ax20 5745MHz~5825MHz		

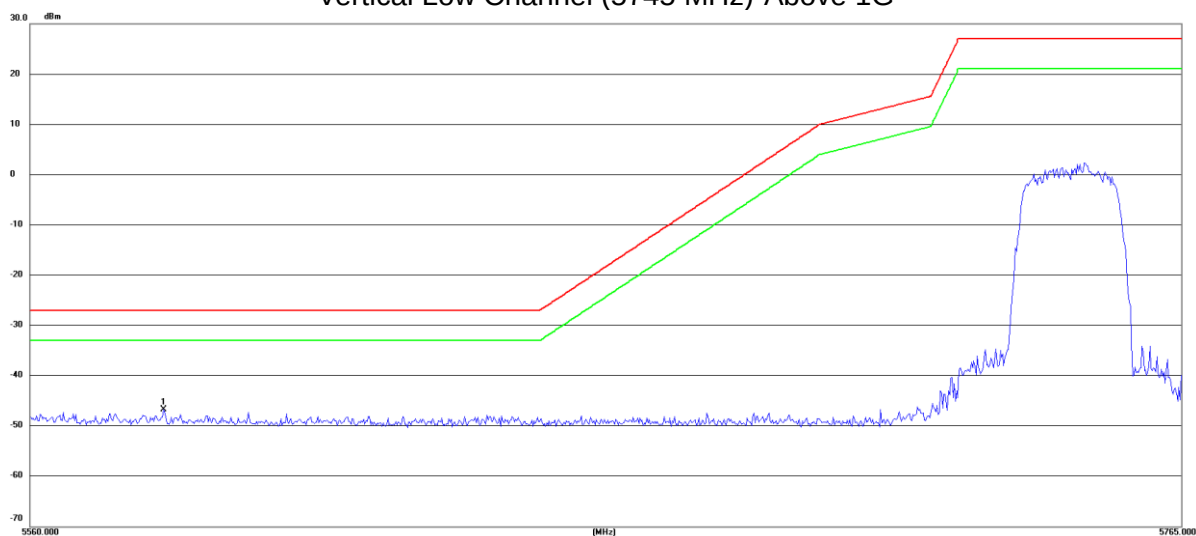
All the modulation modes have been tested, The report just record the worst data mode.

Horizontal Low Channel (5745 MHz)-Above 1G



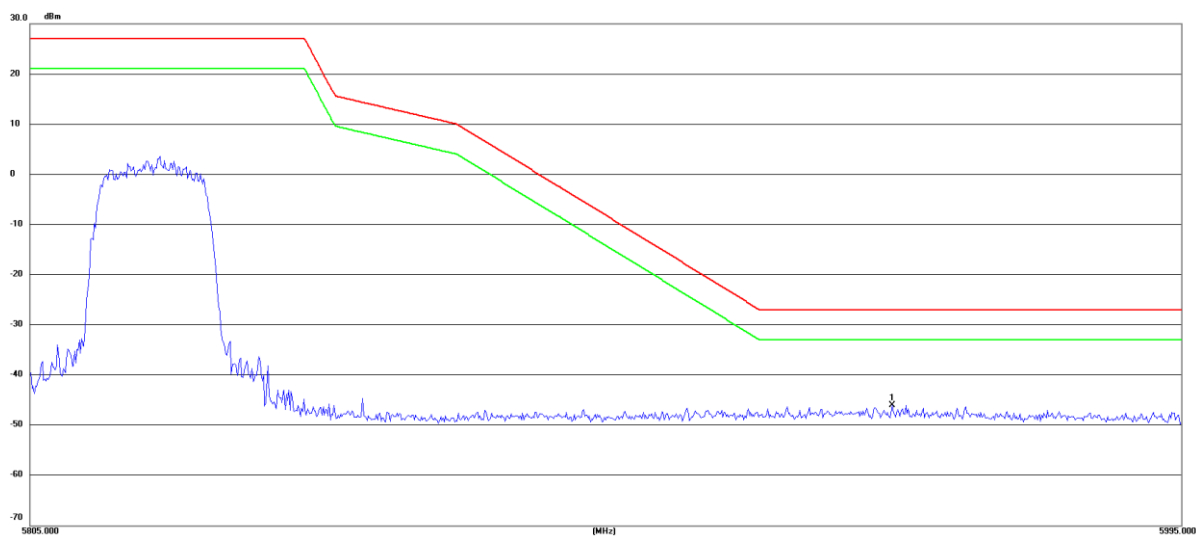
No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Det.
1	5589.520	-52.61	5.95	-46.66	-27.00	-19.66	peak

Vertical Low Channel (5745 MHz)-Above 1G



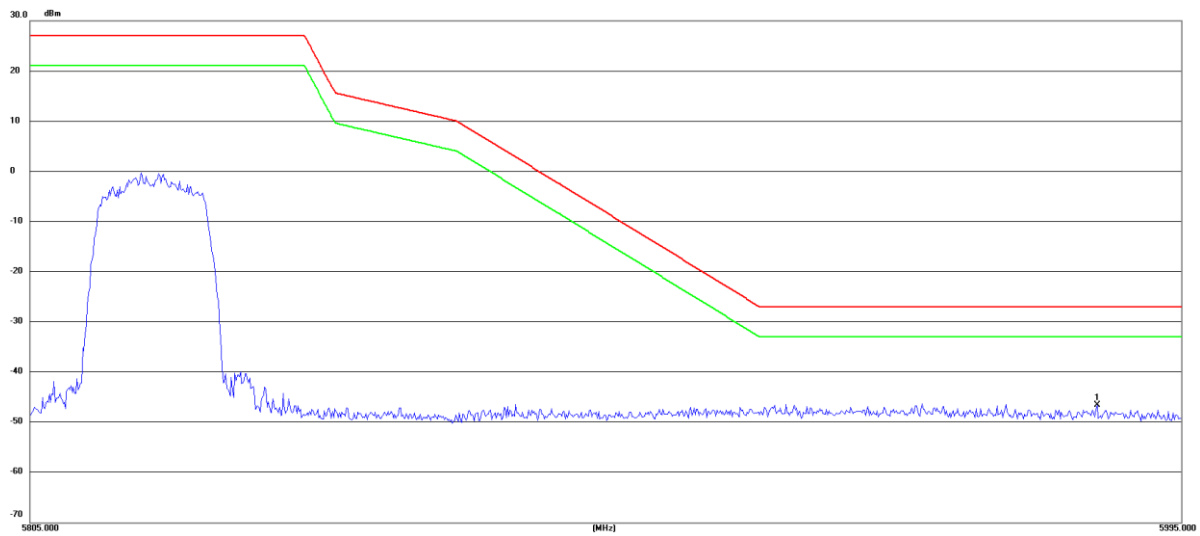
No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Det.
1	5583.575	-52.64	5.98	-46.66	-27.00	-19.66	peak

Vertical High Channel (5825 MHz)-Above 1G



No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Det.
1	5946.740	-53.43	7.40	-46.03	-27.00	-19.03	peak

Horizontal High Channel (5825 MHz)-Above 1G



No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Det.
1	5980.940	-53.36	6.81	-46.55	-27.00	-19.55	peak

3.3 POWER SPECTRAL DENSITY TEST

3.3.1 Applied procedures / limit

According to FCC §15.407(a)(1)(3)

For the band 5.15-5.25 GHz,

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz

(3) For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

,

3.3.2 TEST PROCEDURE

For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in § 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, “provided that the measured power is integrated over the full reference bandwidth” to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 KHz bandwidth, the following adjustments to the procedures apply:

- a) Measure the duty cycle D of the transmitter output signal as described in 12.2.
- b) Set span to encompass the entire 26 dB EBW or 99% OBW of the signal.
- c) Set RBW = 1 MHz.
- d) Set VBW ≥ 3 MHz.
- e) Number of points in sweep $\geq [2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing $\leq \text{RBW} / 2$, so that narrowband signals are not lost between frequency bins.)
- f) Sweep time = auto.
- g) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
- h) Do not use sweep triggering. Allow the sweep to “free run.”
- i) Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed such that the average accurately represents the true average over the ON and OFF periods of the transmitter.
- j) Compute power by integrating the spectrum across the 26 dB EBW or 99% OBW of the signal using the instrument’s band power measurement function with band limits set equal to the EBW or OBW band edges. If the instrument does not have a band power function, then sum the spectrum levels (in power units) at 1 MHz intervals extending across the 26 dB EBW or 99% OBW of the spectrum.
- k) Add $[10 \log (1 / D)]$, where D is the duty cycle, to the measured power to compute the average power during the actual transmission times (because the measurement represents an average over both the ON and OFF times of the transmission). For example, add $[10 \log (1 / 0.25)] = 6$ dB if the duty cycle is 25%.

Note: As a practical matter, it is recommended to use reduced RBW of 100 KHz for the sections 5.c) and 5.d) above, since RBW=100 KHz is available on nearly all spectrum analyzers.

3.3.3 DEVIATION FROM STANDARD

No deviation.

3.3.4 TEST SETUP



3.3.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.1 Unless otherwise a special operating condition is specified in the follows during the testing.

3.3.6 TEST RESULTS

EUT :	InkPoster Affresco 31.5"	Model Name. :	PB3150P1
Temperature :	25 °C	Relative Humidity :	56%
Pressure :	1015 hPa	Test Voltage :	DC 3.85V
Test Mode :	TX Frequency Band I (5150-5250MHz), Band IV (5725-5850MHz)		

Test data reference attachment.

3.4 26DB & 99% EMISSION BANDWIDTH

3.4.1 Applied procedures / limit

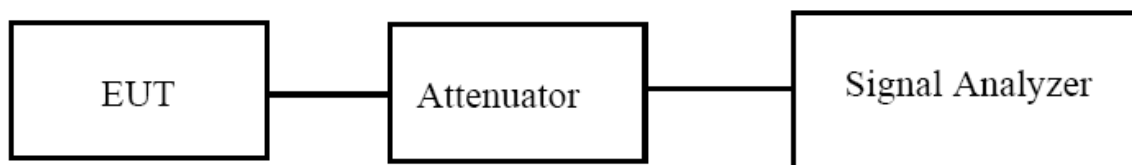
The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band are made over a reference bandwidth of 500 kHz or the 26 dB emission bandwidth of the device, whichever is less. Measurements in the 5.15-5.25 GHz, 5.25-5.35 GHz, and the 5.47-5.725 GHz bands are made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full reference bandwidth.

3.4.2 TEST PROCEDURE

- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = Peak.
- Trace mode = max hold.
- Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

The following procedure shall be used for measuring (99 %) power bandwidth:

- Set center frequency to the nominal EUT channel center frequency.
- Set span = 1.5 times to 5.0 times the OBW.
- Set RBW = 1 % to 5 % of the OBW
- Set VBW $\geq 3 \cdot$ RBW
- Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- Use the 99 % power bandwidth function of the instrument (if available).
- If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.



3.4.3 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

3.4.4 TEST RESULTS

EUT :	InkPoster Affresco 31.5"	Model Name. :	PB3150P1
Temperature :	25 °C	Relative Humidity :	56%
Pressure :	1012 hPa	Test Voltage :	DC 3.85V
Test Mode :	TX Frequency Band I (5150-5250MHz), Band IV (5725-5850MHz)		

Test data reference attachment.

3.5 MINIMUM 6 DB BANDWIDTH

3.5.1 Applied procedures / limit

According to FCC §15.407(e)

(e) Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

3.5.2 TEST PROCEDURE

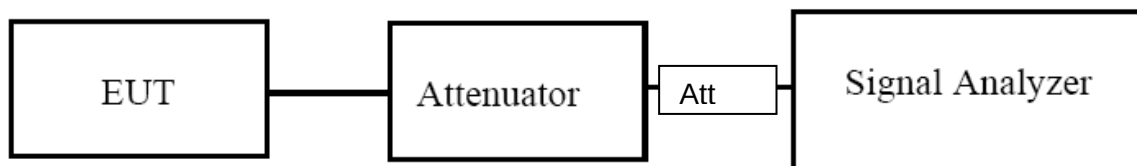
Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.715-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

3.5.3 DEVIATION FROM STANDARD

No deviation.

3.5.4 TEST SETUP



3.5.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

3.5.6 TEST RESULTS

EUT :	InkPoster Affresco 31.5"	Model Name. :	PB3150P1
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.85V
Test Mode :	TX (5G) Mode Frequency Band IV (5725-5850MHz)		

Test data reference attachment.

3.6 MAXIMUM CONDUCTED OUTPUT POWER

3.6.1 PPLIED PROCEDURES / LIMIT

According to FCC §15.407

The maximum conducted output power should not exceed:

Frequency Band(MHz)	Limit
5150~5250	250mW
5725~5850	1W

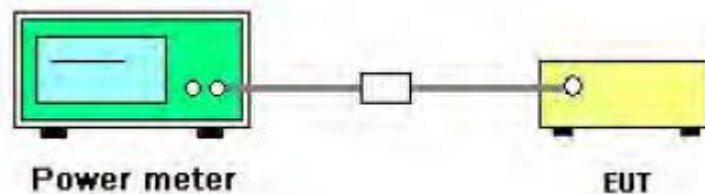
3.6.2 TEST PROCEDURE

Method PM-G is measurement using a gated RF average power meter. Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Because the measurement is made only during the ON time of the transmitter, no dutycycle correction factor is required.

3.6.3 DEVIATION FROM STANDARD

No deviation.

3.6.4 TEST SETUP



3.6.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

3.6.6 TEST RESULTS

EUT :	InkPoster Affresco 31.5"	Model Name. :	PB3150P1
Temperature :	25 °C	Relative Humidity :	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.85V
Test Mode :	TX (5G) Mode Frequency Band I (5150-5250MHz), Band IV (5725-5850MHz)		

Test data reference attachment.

3.7 FREQUENCY STABILITY MEASUREMENT

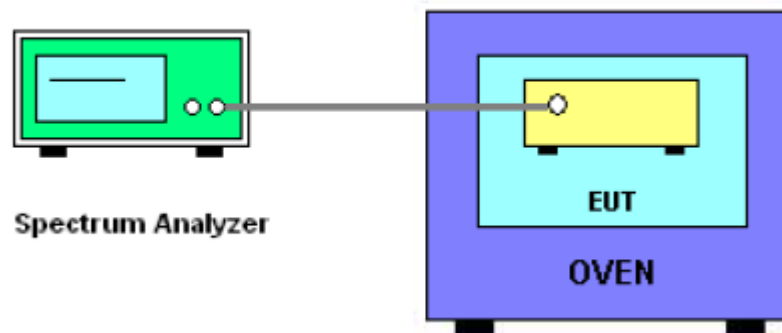
3.7.1 LIMIT

Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

3.7.2 TEST PROCEDURES

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. EUT have transmitted absence of modulation signal and fixed channelize.
3. Set the spectrum analyzer span to view the entire absence of modulation emissions bandwidth.
4. Set RBW = 10 kHz, VBW = 10 kHz with peak detector and maxhold settings.
5. f_c is declaring of channel frequency. Then the frequency error formula is $(f_c - f)/f_c \times 10^6 \text{ ppm}$.
6. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value
7. Extreme temperature is $-20^\circ\text{C} \sim 70^\circ\text{C}$.

3.7.3 TEST SETUP LAYOUT



3.7.4 EUT OPERATION DURING TEST

The EUT was programmed to be in continuously un-modulation transmitting mode.

3.7.5 TEST RESULTS

EUT :	InkPoster Affresco 31.5"	Model Name. :	PB3150P1
Temperature :	25 °C	Relative Humidity :	56%
Pressure :	1012 hPa	Test Voltage :	DC 3.85V
Test Mode :	TX Frequency Band I (5150-5250MHz)		

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	3.85	5180.0245	5180	0.0245	4.7297
		V max (V)	4.43	5180.0135	5180	0.0135	2.6062
		V min (V)	3.27	5180.0330	5180	0.0330	6.3707
Limits				Within 5150-5250MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.85	T (°C)	-20	5180.0099	5180	0.0099	1.9112
		T (°C)	-10	5180.0286	5180	0.0286	5.5212
		T (°C)	0	5180.0328	5180	0.0328	6.3320
		T (°C)	10	5180.0126	5180	0.0126	2.4324
		T (°C)	20	5180.0132	5180	0.0132	2.5483
		T (°C)	30	5180.0189	5180	0.0189	3.6486
		T (°C)	40	5180.0319	5180	0.0319	6.1583
		T (°C)	50	5180.0081	5180	0.0081	1.5637
		T (°C)	60	5180.0345	5180	0.0345	6.6602
		T (°C)	70	5180.0276	5180	0.0276	5.3282
Limits				Within 5150-5250MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	3.85	5200.0182	5200	0.0182	3.5000
		V max (V)	4.43	5200.0025	5200	0.0025	0.4808
		V min (V)	3.27	5200.0057	5200	0.0057	1.0962
Limits				Within 5150-5250MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.85	T (°C)	-20	5200.0065	5200	0.0065	1.2500
		T (°C)	-10	5200.0227	5200	0.0227	4.3654
		T (°C)	0	5200.0164	5200	0.0164	3.1538
		T (°C)	10	5200.0247	5200	0.0247	4.7500
		T (°C)	20	5200.0267	5200	0.0267	5.1346
		T (°C)	30	5200.0062	5200	0.0062	1.1923
		T (°C)	40	5200.0219	5200	0.0219	4.2115
		T (°C)	50	5200.0350	5200	0.0350	6.7308
		T (°C)	60	5200.0258	5200	0.0258	4.9615
		T (°C)	70	5200.0269	5200	0.0269	5.1731
Limits				Within 5150-5250MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	3.85	5240.0180	5240	0.0180	3.4351
		V max (V)	4.43	5240.0133	5240	0.0133	2.5382
		V min (V)	3.27	5240.0137	5240	0.0137	2.6145
Limits				Within 5150-5250MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.85	T (°C)	-20	5240.0196	5240	0.0196	3.7405
		T (°C)	-10	5240.0080	5240	0.0080	1.5267
		T (°C)	0	5240.0220	5240	0.0220	4.1985
		T (°C)	10	5240.0223	5240	0.0223	4.2557
		T (°C)	20	5240.0154	5240	0.0154	2.9389
		T (°C)	30	5240.0237	5240	0.0237	4.5229
		T (°C)	40	5240.0366	5240	0.0366	6.9847
		T (°C)	50	5240.0348	5240	0.0348	6.6412
		T (°C)	60	5240.0077	5240	0.0077	1.4695
		T (°C)	70	5240.0096	5240	0.0096	1.8321
Limits				Within 5150-5250MHz			
Result				Complies			

EUT :	InkPoster Affresco 31.5"	Model Name. :	PB3150P1
Temperature :	25 °C	Relative Humidity :	56%
Pressure :	1012 hPa	Test Voltage :	DC 3.85V
Test Mode :	TX Frequency(5745-5825MHz)		

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	3.85	5745.0138	5745	0.01380	2.4021
		V max (V)	4.43	5745.0355	5745	0.03550	6.1793
		V min (V)	3.27	5745.0184	5745	0.01840	3.2028
Limits				Within 5745-5850MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.85	T (°C)	-20	5745.0333	5745	0.03330	5.7963
		T (°C)	-10	5745.0290	5745	0.02900	5.0479
		T (°C)	0	5745.0042	5745	0.00420	0.7311
		T (°C)	10	5745.0127	5745	0.01270	2.2106
		T (°C)	20	5745.0246	5745	0.02460	4.2820
		T (°C)	30	5745.0091	5745	0.00910	1.5840
		T (°C)	40	5745.0371	5745	0.03710	6.4578
		T (°C)	50	5745.0202	5745	0.02020	3.5161
		T (°C)	60	5745.0129	5745	0.01290	2.2454
		T (°C)	70	5745.0136	5745	0.01360	2.3673
Limits				Within 5745-5850MHz			
Result				Complies			

Voltage vs. Frequency Stability

Page 101 Frequency Stability

TEST CONDITIONS				Reference Frequency: 5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	3.85	5785.0143	5785	0.01430	2.4719
		V max (V)	4.43	5785.0192	5785	0.01920	3.3189
		V min (V)	3.27	5785.0041	5785	0.00410	0.7087
Limits				Within 5745-5850MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.85	T (°C)	-20	5785.0268	5785	0.02680	4.6327
		T (°C)	-10	5785.0343	5785	0.03430	5.9291
		T (°C)	0	5785.0156	5785	0.01560	2.6966
		T (°C)	10	5785.0237	5785	0.02370	4.0968
		T (°C)	20	5785.0097	5785	0.00970	1.6768
		T (°C)	30	5785.0043	5785	0.00430	0.7433
		T (°C)	40	5785.0157	5785	0.01570	2.7139
		T (°C)	50	5785.0106	5785	0.01060	1.8323
		T (°C)	60	5785.0084	5785	0.00840	1.4520
		T (°C)	70	5785.0314	5785	0.03140	5.4278
Limits				Within 5745-5850MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	3.85	5825.0343	5825	0.03430	5.8884
		V max (V)	4.43	5825.0528	5825	0.05280	9.0644
		V min (V)	3.27	5825.0357	5825	0.03570	6.1288
Limits				Within 5745-5850MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	3.85	T (°C)	-20	5825.0034	5825	0.00340	0.5837
		T (°C)	-10	5825.0069	5825	0.00690	1.1845
		T (°C)	0	5825.0151	5825	0.01510	2.5923
		T (°C)	10	5825.0068	5825	0.00680	1.1674
		T (°C)	20	5825.0100	5825	0.01000	1.7167
		T (°C)	30	5825.0152	5825	0.01520	2.6094
		T (°C)	40	5825.0388	5825	0.03880	6.6609
		T (°C)	50	5825.0235	5825	0.02350	4.0343
		T (°C)	60	5825.0093	5825	0.00930	1.5966
		T (°C)	70	5825.0197	5825	0.01970	3.3820
Limits				Within 5745-5850MHz			
Result				Complies			

4. ANTENNA REQUIREMENT

4.1 STANDARD REQUIREMENT

15.203 requirement: For intentional device, according to 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.

4.2 EUT ANTENNA

The EUT antenna is permanent attached FPC antenna (antenna gain: band I: 5.56dBi; band IV: 5.56dBi). It comply with the standard requirement.

END OF REPORT