Test Report

Report No.:	MTi220105011-01E6
Date of issue:	Jun. 06, 2022
Applicant:	UP(Guangzhou)Electronics Co., Ltd.
Product name:	+iAndroid Link smart iA box
Model(s):	iA01F60AEUA, iA01F60ANA, iA01F60AW, iA02F60AEUA, iA02F60ANA, iA02F60AW, iA03F60AEUA, iA03F60ANA, iA03F60AW, iA04F60AEUA, iA04F60ANA, iA04F60AW, iA05F60AEUA, iA05F60ANA, iA05F60AW, iA06F60AEUA, iA06F60ANA, iA06F60AW
FCC ID:	2A4GI-IA01F60AEUA

Shenzhen Microtest Co., Ltd.
http://www.mtitest.com

Address: 101, No. 7, Zone 2, Xinxing Industrial Park, Fuhai Avenue, Xinhe Community, Fuhai Street, Bao' an District, Shenzhen, Guangdong, China.
Tel: (86-755)88850135 Fax: (86-755) 88850136 Web:www.mtitest.com E-mail: mti@51mti.com

Instructions

1. The report shall not be partially reproduced without the written consent of the laboratory;
2. The test results of this report are only responsible for the samples submitted;
3. This report is invalid without the seal and signature of the laboratory;
4. This report is invalid if transferred, altered or tampered with in any form without authorization;
5. Any objection to this report shall be submitted to the laboratory within 15 days from the date of receipt of the report.

Table of Contents

TEST RESULT CERTIFICATION	
Applicant's name.....	UP(Guangzhou)Electronics Co., Ltd.
Address.....	2/F, Block 2, No. 13 Chaosheng Road, Jinghu Ave., Huadu Dist., Guangzhou, China
Manufacturer's Name	UP(Guangzhou)Electronics Co., Ltd.
Address.....	2/F, Block 2, No. 13 Chaosheng Road, Jinghu Ave., Huadu Dist., Guangzhou, China
Product description	
Product name	+iAndroid Link smart iA box
Trademark	N/A
Model Name	iA01F60AEUA
Serial Model	iA01F60ANA, iA01F60AW, iA02F60AEUA, iA02F60ANA, iA02F60AW, iA03F60AEUA, iA03F60ANA, iA03F60AW, iA04F60AEUA, iA04F60ANA, iA04F60AW, iA05F60AEUA, iA05F60ANA, iA05F60AW, iA06F60AEUA, iA06F60ANA, iA06F60AW
Standards.....	FCC Part 15.407
Test procedure	ANSI C63.10-2013 KDB 789033 D02 General UNII Test Procedures New Rules v02r01
Date of Test	
Date (s) of performance of tests..... :	2022-02-15 ~2022-05-30
Test Result ..... :	Pass

Testing Engineer : Danny Xu

(Danny Xu)

Technical Manager : Leon Chen

(Leon Chen)

Authorized Signatory : Tom Xue

(Tom Xue)

1 General information

1.1 Description of EUT

Equipment:	+iAndroid Link smart iA box
Model name:	iA01F60AEUA
Serial model:	iA01F60ANA, iA01F60AW, iA02F60AEUA, iA02F60ANA, iA02F60AW, iA03F60AEUA, iA03F60ANA, iA03F60AW, iA04F60AEUA, iA04F60ANA, iA04F60AW, iA05F60AEUA, iA05F60ANA, iA05F60AW, iA06F60AEUA, iA06F60ANA, iA06F60AW
Model difference:	All the models are the same circuit and RF module, except the model name and color.
Frequency range:	U-NII-1: 5180 MHz to 5240 MHz, U-NII-3: 5745 MHz to 5825 MHz
Modulation type:	OFDM with BPSK/QPSK/16QAM/64QAM/256QAM for 802.11a/n/ac;
Transfer rate:	802.11a: 6,9,12,18,24,36,48,54Mbps; 802.11n(HT20/HT40): MCS0-MCSz15; 802.11ac(VHT20): NSS1, MCS0-MCS8 802.11ac(VHT40):NSS1, MCS0-MCS9 802.11ac(VHT80) :NSS1,MCS0-MCS9
Channel bandwidth:	802.11a: 20 MHz 802.11n: 20 MHz, 40 MHz 802.11ac: 20 MHz, 40 MHz, 80MHz
Antenna type:	FPC antenna
Antenna gain:	1dBi
Max. output power:	U-NII-1: 16.88dBm U-NII-3: 20.90dBm
Hardware version:	V1.3
Software version:	103
Power supply:	DC 5V from adapter AC 120V/60Hz
Adapter information:	N/A
Serial number:	MTi220105011-01-S0001

1.2 Operation channel list

For U-NII-1:

20 MHz		40 MHz		80 MHz	
Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)
36	5180	38	5190	42	5120
40	5200	46	5230	--	--
44	5220	--	--	--	--
48	5240	--	--	--	--

For U-NII-3:

20 MHz		40 MHz		80 MHz	
Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)
149	5745	151	5755	155	5775
153	5765	159	5795	--	--
157	5785	--	--	--	--
161	5805	--	--	--	--
165	5825	--	--	--	--

1.3 Test channel list

U-NII-1 (5150 - 5250 MHz)			U-NII-3(5725 - 5850 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
36	Low	5180	149	Low	5745
44	Mid	5220	157	Mid	5785
48	High	5240	165	High	5825

80 MHz	
Channel Number	Frequency (MHz)
42	5210

For 802.11n/ac (HT40)

U-NII-1 (5150 - 5250 MHz)			U-NII-3(5725 - 5850 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
38	Low	5190	151	Low	5755
46	High	5230	159	High	5795

80 MHz	
Channel Number	Frequency (MHz)
155	5775

1.4 Ancillary equipment list

Equipment	Model	S/N	Manufacturer	Certificate type
Adapter	HW-090200CH0	/	Huizhou BYD Electronics Co., Ltd.	/

1.5 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.

Item	Equipment	Brand	Model/Type No.	Series No.	Note
/	/	/	/	/	/

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 Summary of the Test Results

Test procedures according to the technical standards:

No.	Standard Section	Test Item	Result	Remark
1	15.203/15.407	Antenna Requirement	Pass	
2	15.407(a)	RF Output Power	Pass	
3	15.207	Power Line Conducted Emission	Pass	
4	15.407(a)	26dB Emission Bandwidth and Occupied bandwidth	Pass	
5	15.407(e)	6 dB bandwidth	Pass	
6	15.407(a)	Power Spectral Density	Pass	
7	15.407(b) 15.209	Radiation Spurious Emission	Pass	

3 Test Facilities and Accreditations

3.1 Test laboratory

Test Laboratory	Shenzhen Microtest Co., Ltd
Location	101, No. 7, Zone 2, Xinxing Industrial Park, Fuhai Avenue, Xinhe Community, Fuhai Street, Bao' an District, Shenzhen, Guangdong, China.
FCC Registration No.:	448573

3.2 Environmental conditions

Temperature:	15ºC~35ºC
Humidity	20%~75%
Atmospheric pressure	98kPa~101kPa

3.3 Measurement uncertainty

The reported uncertainty of measurement y ± U · where expended 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	±1.38dB
2	RF power, conducted	±0.16dB
3	Spurious emissions, conducted	±0.21dB
4	All emissions, radiated(<1G)	±4.68dB
5	All emissions, radiated(>1G)	±4.89dB
6	Temperature	±0.5°C
7	Humidity	±2%

3.4 Test software

Software Name	Manufacturer	Model	Version
Bluetooth and WiFi Test System	Shenzhen JS tonscend co., ltd	JS1120-3	2.5.77.0418

4 Equipment list

Equipment No.	Equipment Name	Manufacturer	Model	Serial No.	Calibration date	Due date
MTI-E043	EMI Test Receiver	Rohde&schwarz	ESCI7	101166	2021/06/02	2022/06/01
MTI-E044	TRILOG Broadband Antenna	schwarabeck	VULB 9163	9163-1338	2021/05/30	2023/05/29
MTI-E047	Amplifier	Hewlett-Packard	8447F	3113A06150	2021/06/02	2022/06/01
MTI-E089	ESG Vector Signal Generator	Agilent	N5182A	MY49060455	2021/06/02	2022/06/01
MTI-E058	ESG Series Analog Ssignal Generator	Agilent	E4421B	GB40051240	2021/06/02	2022/06/01
MTI-E062	PXA Signal Analyzer	Agilent	N9030A	MY51350296	2021/06/02	2022/06/01
MTI-E066	MXA Signal Analyzer	Agilent	N9020A	MY50143483	2021/06/02	2022/06/01
MTI-E078	Synthesized Sweeper	Agilent	83752A	3610A01957	2021/06/02	2022/06/01
MTI-E079	DC Power Supply	Agilent	E3632A	MY40027695	2021/06/02	2022/06/01
MTI-E045	Double Ridged Broadband Horn Antenna	schwarabeck	BBHA 9120D	9120D-2278	2021/05/30	2023/05/29
MTI-E021	EMI Test Receiver	Rohde&schwarz	ESCS30	100210	2021/06/02	2022/06/01
MTI-E022	Pulse Limiter	Schwarzbeck	VSTD 9561-F	00679	2021/06/02	2022/06/01
MTI-E023	Artificial mains network	Schwarzbeck	NSLK 8127	NSLK 8127 #841	2021/06/02	2022/06/01
MTI-E046	Active Loop Antenna	Schwarzbeck	FMZB 1519 B	00044	2021/05/30	2023/05/29
MTI-E048	Amplifier	Agilent	8449B	3008A02400	2021/06/02	2022/06/01
MTI-E072	Thermometer Clock Humidity Monitor	-	HTC-1	/	2021/06/02	2022/06/01

Note: the calibration interval of the above test instruments is 12 or 24 months and the calibrations are traceable to international system unit (SI).

5 Test Results

5.1 Antenna requirement

5.1.1 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.

5.1.2 EUT Antenna

The antenna is FPC antenna, which was permanently affixed to the device and un-replaced, complies with 15.203. In addition, the maximum antenna gain is 1dBi.

5.2 RF output power

5.2.1 Limit

For the 5.15-5.25 GHz band

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, 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 5.25-5.35 GHz and 5.47-5.725 GHz band

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, 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.

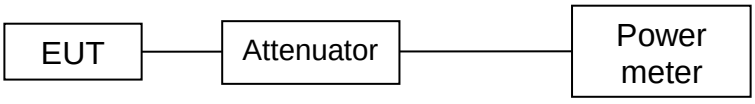
For the band 5.725-5.85 GHz

The maximum conducted output power over the frequency band of operation shall not exceed 1 W. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

5.2.2 Test procedure

The maximum peak conducted output power may be measured using a broadband Average RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the emission bandwidth and utilize a fast-responding diode detector.

5.2.3 Test setup



5.2.4 Test results

For U-NII-1

Modulation mode	Test Channel	Frequency(MHz)	Average Conducted Power		Limit(mW)
			(dBm)	(mW)	
11a	CH36	5180	16.00	39.81	250
11a	CH40	5200	16.34	43.05	250
11a	CH48	5240	16.25	42.17	250
11n (HT20)	CH36	5180	14.04	25.35	250
11n (HT20)	CH40	5200	14.28	26.79	250
11n (HT20)	CH48	5240	16.88	48.75	250
11n (HT40)	CH38	5190	13.73	23.60	250
11n (HT40)	CH46	5230	13.25	21.13	250

Modulation mode	Test Channel	Frequency(MHz)	Average Conducted Power		Limit(mW)
			(dBm)	(mW)	
11ac (HT20)	CH36	5180	14.68	29.38	250
11ac (HT20)	CH40	5200	12.49	17.74	250
11ac (HT20)	CH48	5240	11.95	15.67	250
11ac (HT40)	CH38	5190	11.68	14.72	250
11ac (HT40)	CH46	5230	11.16	13.06	250
11ac (HT80)	CH42	5210	9.45	8.81	250

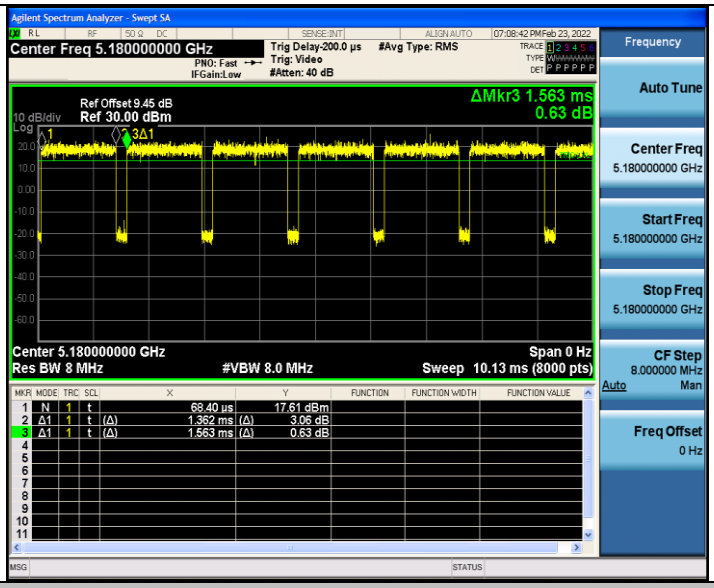
For U-NII-3

Modulation mode	Test Channel	Frequency(MHz)	Average Conducted Power		Limit(mW)
			(dBm)	(mW)	
11a	CH149	5745	17.87	61.24	1000
11a	CH157	5785	16.03	40.09	1000
11a	CH165	5825	20.90	123.03	1000
11n (HT20)	CH149	5745	14.39	27.48	1000
11n (HT20)	CH157	5785	14.64	29.11	1000
11n (HT20)	CH165	5825	15.11	32.43	1000
11n (HT40)	CH151	5755	13.63	23.07	1000
11n (HT40)	CH159	5795	14.11	25.76	1000

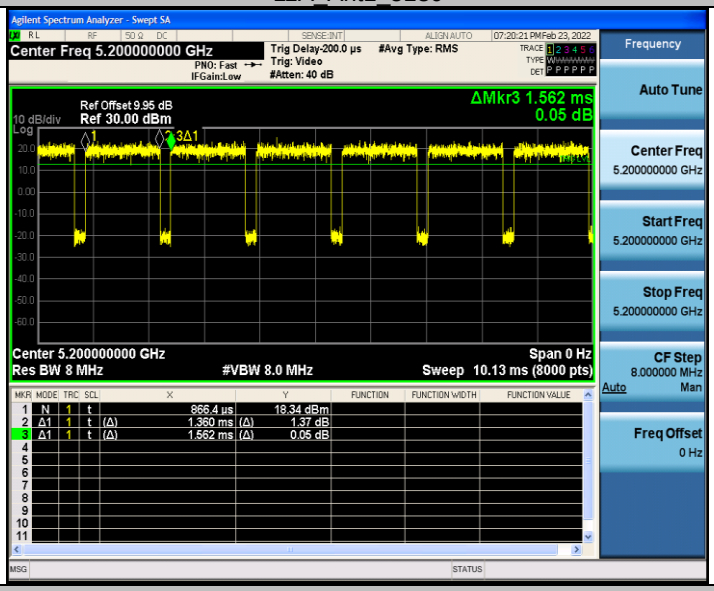
Modulation mode	Test Channel	Frequency(MHz)	Average Conducted Power		Limit(mW)
			(dBm)	(mW)	
11ac (HT20)	CH149	5745	11.87	15.38	1000
11ac (HT20)	CH157	5785	12.86	19.32	1000
11ac (HT20)	CH165	5825	13.15	20.65	1000
11ac (HT40)	CH151	5755	11.10	12.88	1000
11ac (HT40)	CH159	5795	10.66	11.64	1000
11ac (HT80)	CH155	5775	10.28	10.67	1000

Duty cycle

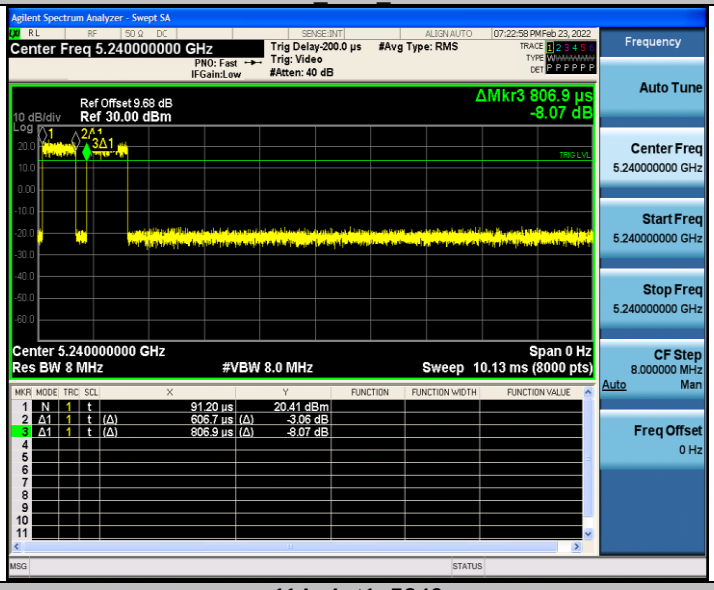
Test Mode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Verdict
11A	Ant1	5180	1.36	1.56	0.8718	87.18	0.60	PASS
		5200	1.36	1.56	0.8718	87.18	0.60	PASS
		5240	0.61	0.81	0.7531	75.31	1.23	PASS
		5745	1.04	1.24	0.8387	83.87	0.76	PASS
		5785	1.04	1.24	0.8387	83.87	0.76	PASS
		5825	1.04	1.24	0.8387	83.87	0.76	PASS
11N20SISO	Ant1	5180	1.36	1.56	0.8718	87.18	0.60	PASS
		5200	1.36	1.56	0.8718	87.18	0.60	PASS
		5240	1.36	1.56	0.8718	87.18	0.60	PASS
		5745	0.97	1.17	0.8291	82.91	0.81	PASS
		5785	0.97	1.17	0.8291	82.91	0.81	PASS
		5825	0.97	1.17	0.8291	82.91	0.81	PASS
11N40SISO	Ant1	5190	0.63	0.83	0.7590	75.90	1.20	PASS
		5230	0.63	0.83	0.7590	75.90	1.20	PASS
		5755	0.49	0.69	0.7101	71.01	1.49	PASS
		5795	0.49	0.69	0.7101	71.01	1.49	PASS
11AC20SISO	Ant1	5180	0.97	1.17	0.8291	82.91	0.81	PASS
		5200	0.97	1.17	0.8291	82.91	0.81	PASS
		5240	0.97	1.17	0.8291	82.91	0.81	PASS
		5745	0.97	1.17	0.8291	82.91	0.81	PASS
		5785	0.97	1.17	0.8291	82.91	0.81	PASS
		5825	0.97	1.17	0.8291	82.91	0.81	PASS
11AC40SISO	Ant1	5190	0.49	0.69	0.7101	71.01	1.49	PASS
		5230	0.49	0.69	0.7101	71.01	1.49	PASS
		5755	0.49	0.69	0.7101	71.01	1.49	PASS
		5795	0.49	0.69	0.7101	71.01	1.49	PASS
11AC80SISO	Ant1	5210	0.24	0.45	0.5333	53.33	2.73	PASS
		5775	0.25	0.45	0.5556	55.56	2.55	PASS



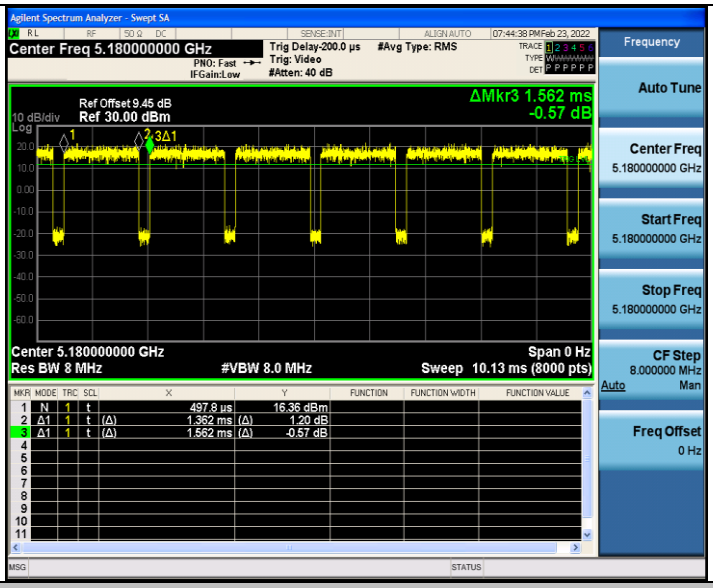
11A_Ant1_5180



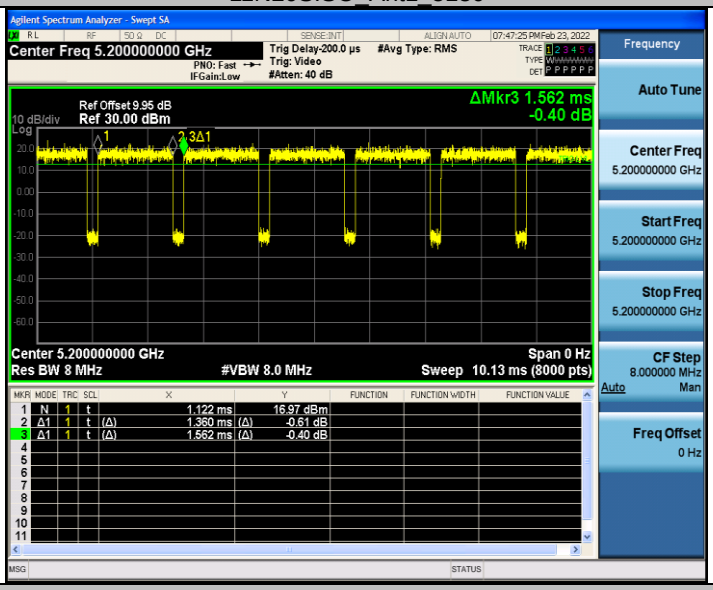
11A_Ant1_5200



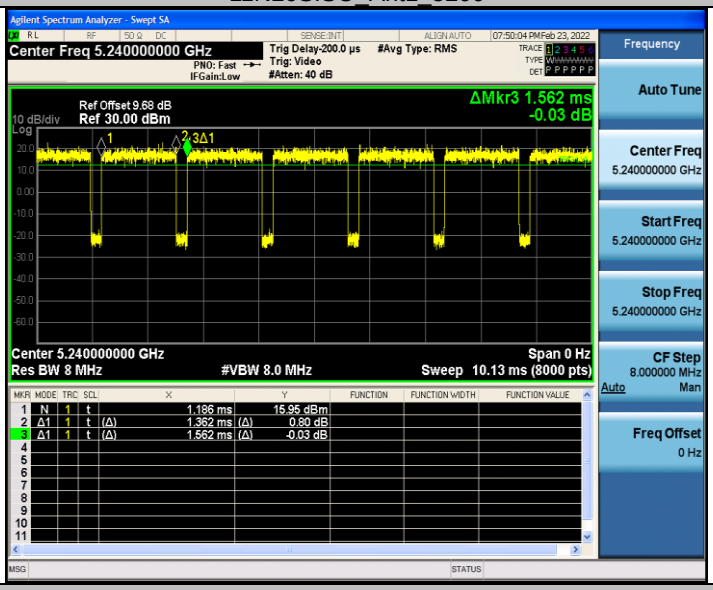
11A_Ant1_5240



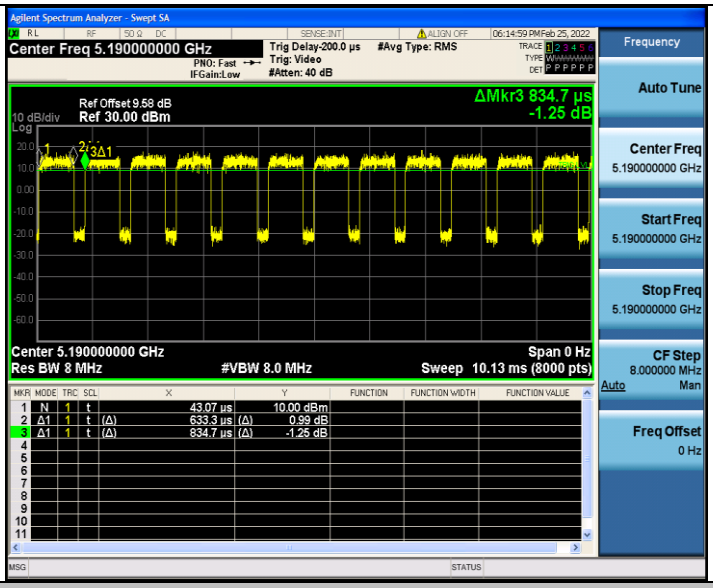
11N20SISO_Ant1_5180



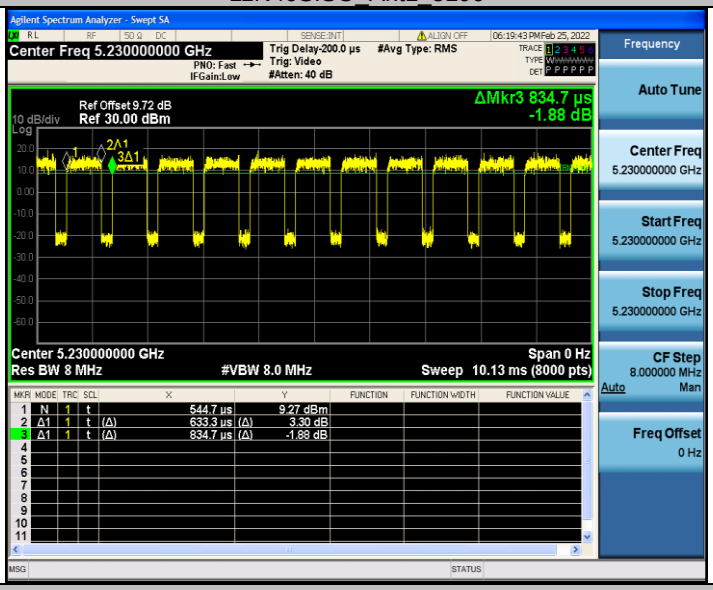
11N20SISO_Ant1_5200



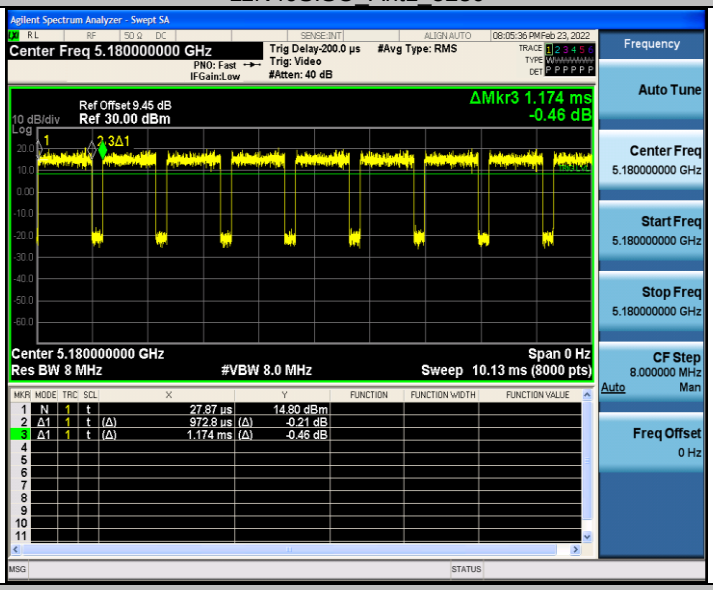
11N20SISO_Ant1_5240



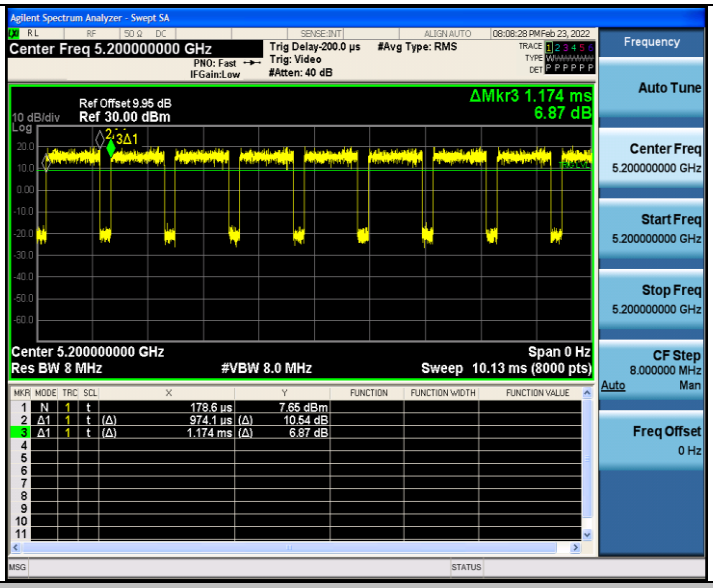
11N40SISO_Ant1_5190



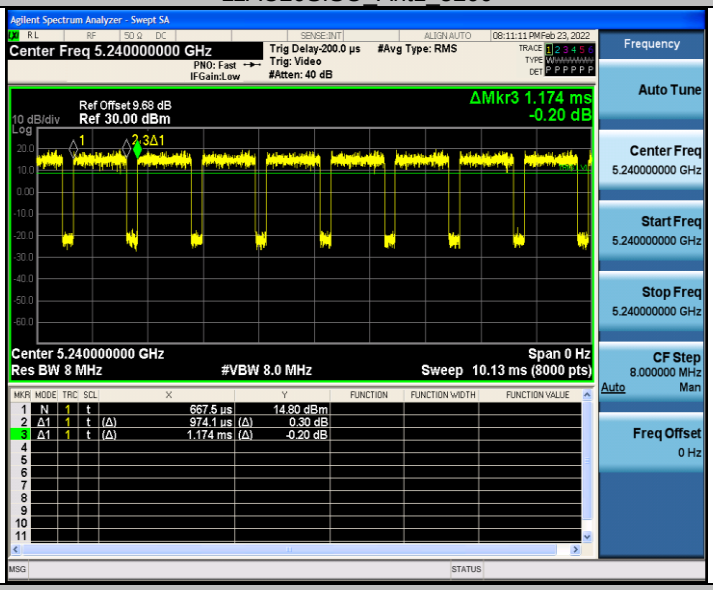
11N40SISO_Ant1_5230



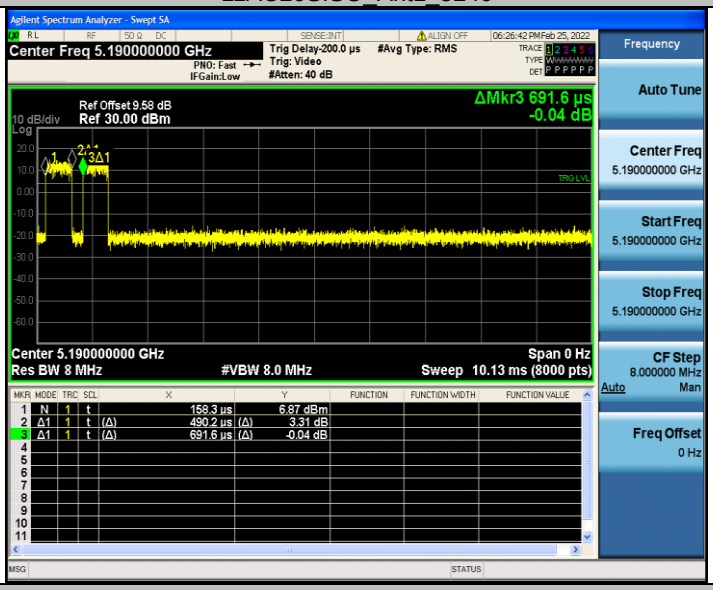
11AC20SISO_Ant1_5180



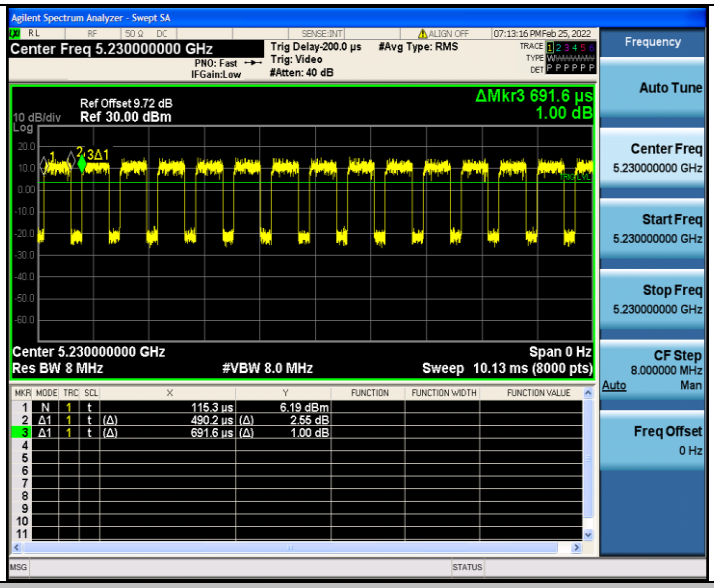
11AC20SISO_Ant1_5200



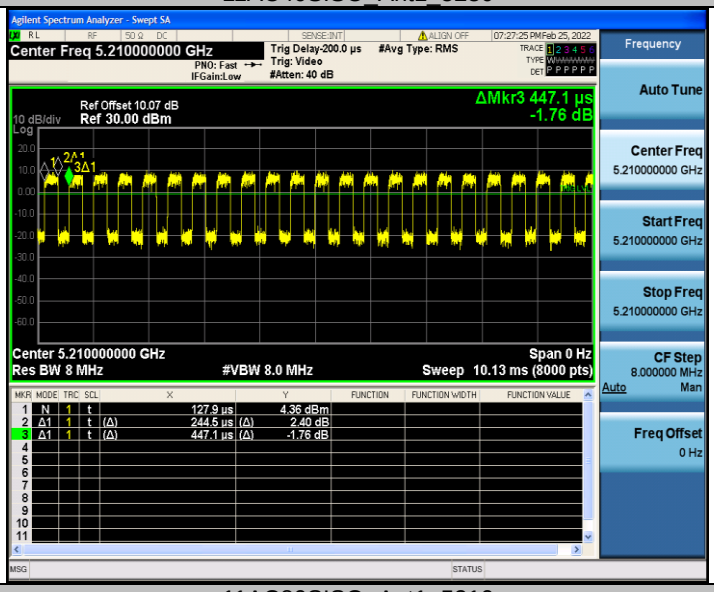
11AC20SISO_Ant1_5240



11AC40SISO_Ant1_5190

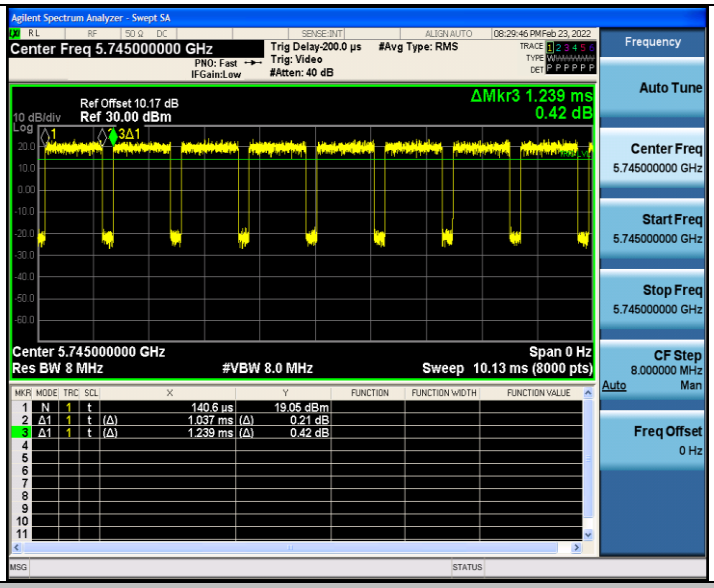


11AC40SISO_Ant1_5230

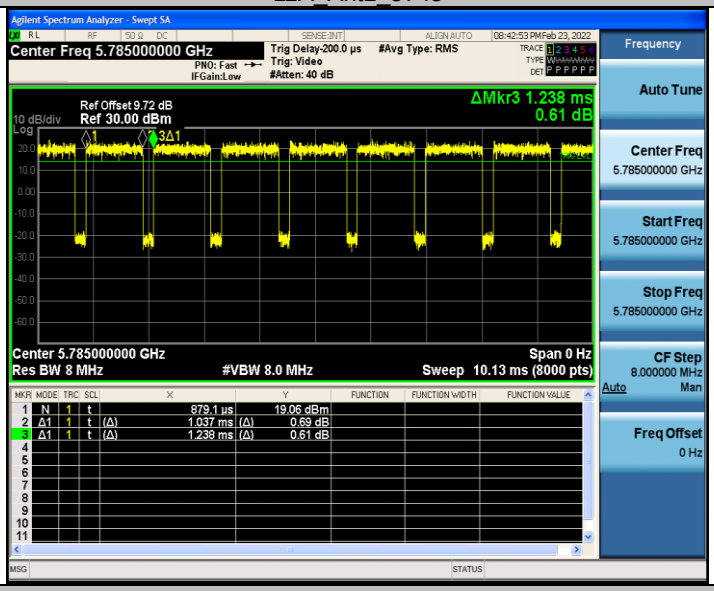


11AC80SISO_Ant1_5210

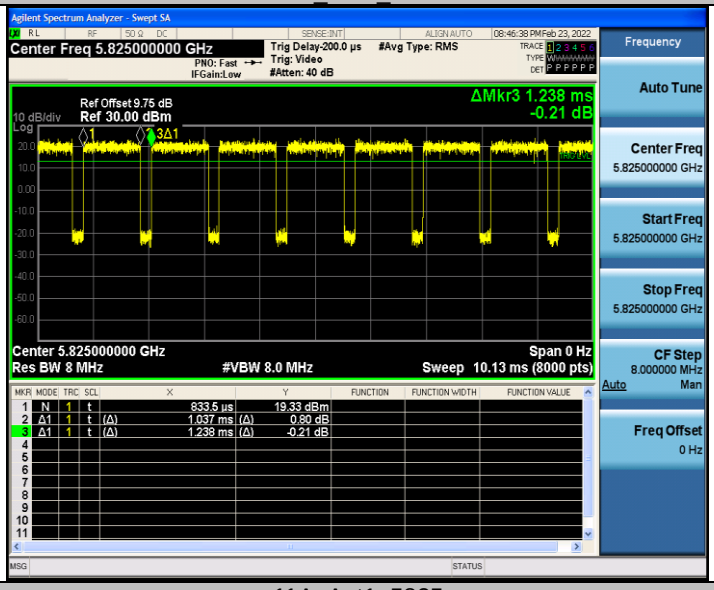
Test Mode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Verdict
11A	Ant1	5180	1.36	1.56	0.8718	87.18	0.60	PASS
		5200	1.36	1.56	0.8718	87.18	0.60	PASS
		5240	0.61	0.81	0.7531	75.31	1.23	PASS
		5745	1.04	1.24	0.8387	83.87	0.76	PASS
		5785	1.04	1.24	0.8387	83.87	0.76	PASS
		5825	1.04	1.24	0.8387	83.87	0.76	PASS
11N20SISO	Ant1	5180	1.36	1.56	0.8718	87.18	0.60	PASS
		5200	1.36	1.56	0.8718	87.18	0.60	PASS
		5240	1.36	1.56	0.8718	87.18	0.60	PASS
		5745	0.97	1.17	0.8291	82.91	0.81	PASS
		5785	0.97	1.17	0.8291	82.91	0.81	PASS
		5825	0.97	1.17	0.8291	82.91	0.81	PASS
11N40SISO	Ant1	5190	0.63	0.83	0.7590	75.90	1.20	PASS
		5230	0.63	0.83	0.7590	75.90	1.20	PASS
		5755	0.49	0.69	0.7101	71.01	1.49	PASS
		5795	0.49	0.69	0.7101	71.01	1.49	PASS
11AC20SISO	Ant1	5180	0.97	1.17	0.8291	82.91	0.81	PASS
		5200	0.97	1.17	0.8291	82.91	0.81	PASS
		5240	0.97	1.17	0.8291	82.91	0.81	PASS
		5745	0.97	1.17	0.8291	82.91	0.81	PASS
		5785	0.97	1.17	0.8291	82.91	0.81	PASS
		5825	0.97	1.17	0.8291	82.91	0.81	PASS
11AC40SISO	Ant1	5190	0.49	0.69	0.7101	71.01	1.49	PASS
		5230	0.49	0.69	0.7101	71.01	1.49	PASS
		5755	0.49	0.69	0.7101	71.01	1.49	PASS
		5795	0.49	0.69	0.7101	71.01	1.49	PASS
11AC80SISO	Ant1	5210	0.24	0.45	0.5333	53.33	2.73	PASS
		5775	0.25	0.45	0.5556	55.56	2.55	PASS



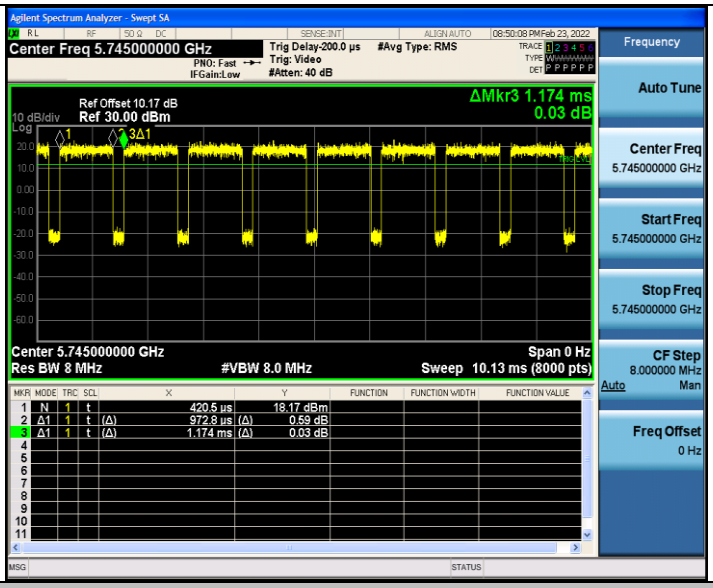
11A_Ant1_5745



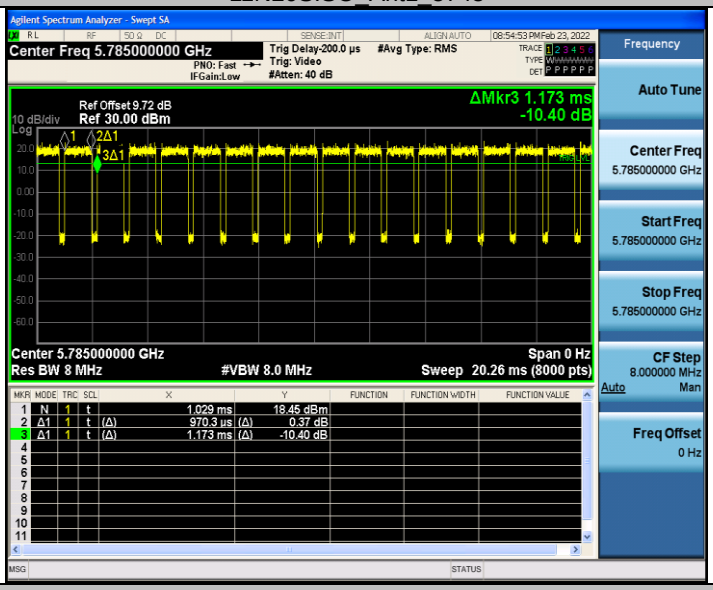
11A_Ant1_5785



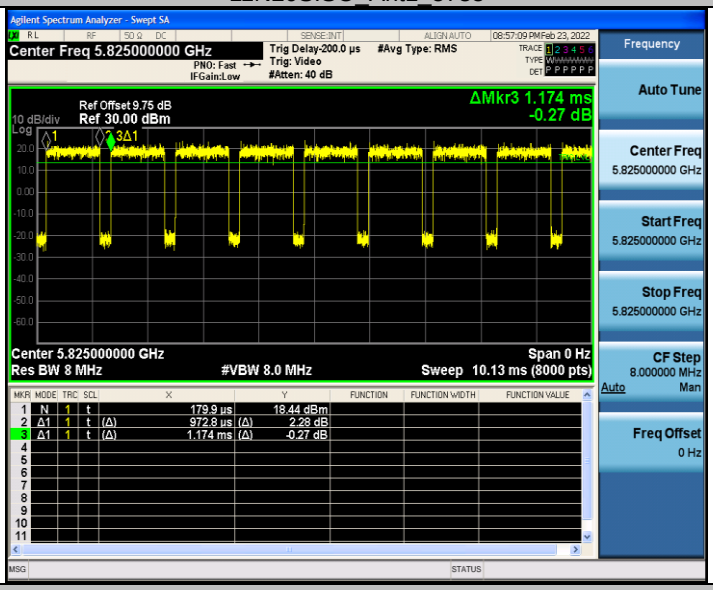
11A_Ant1_5825



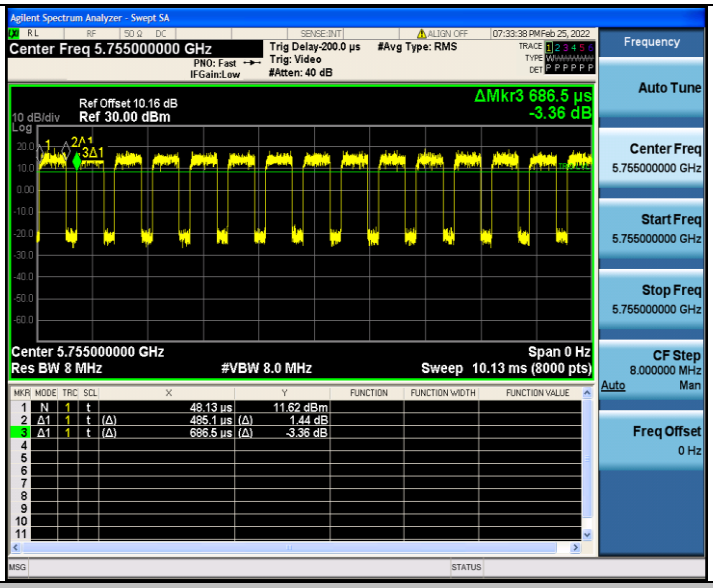
11N20SISO_Ant1_5745



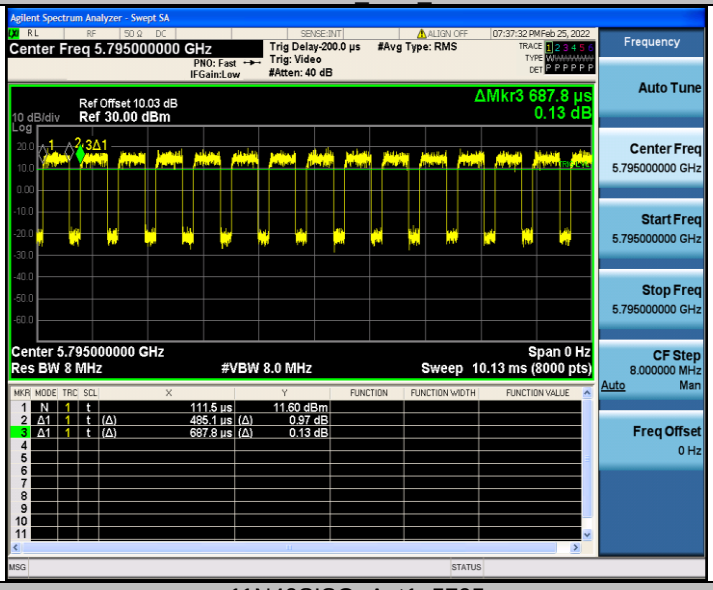
11N20SISO_Ant1_5785



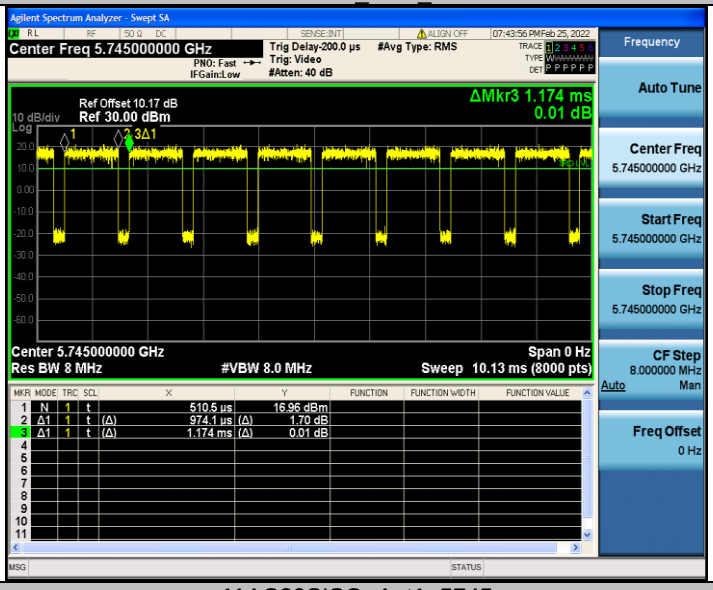
11N20SISO_Ant1_5825



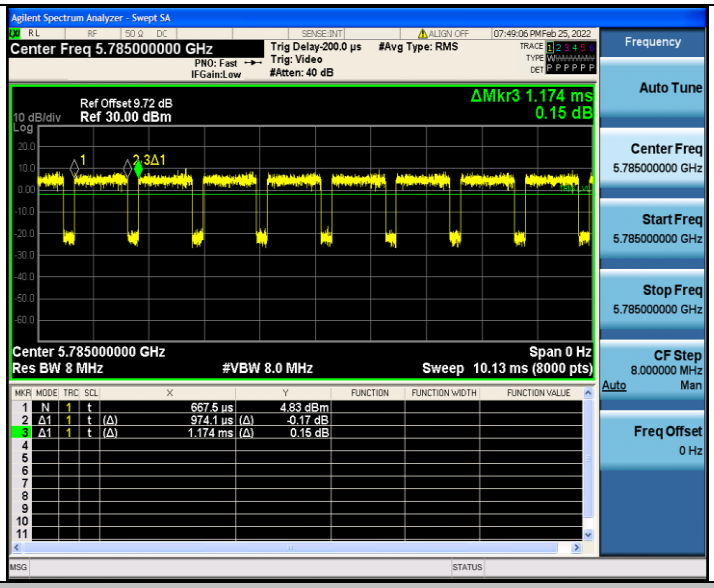
11N40SISO_Ant1_5755



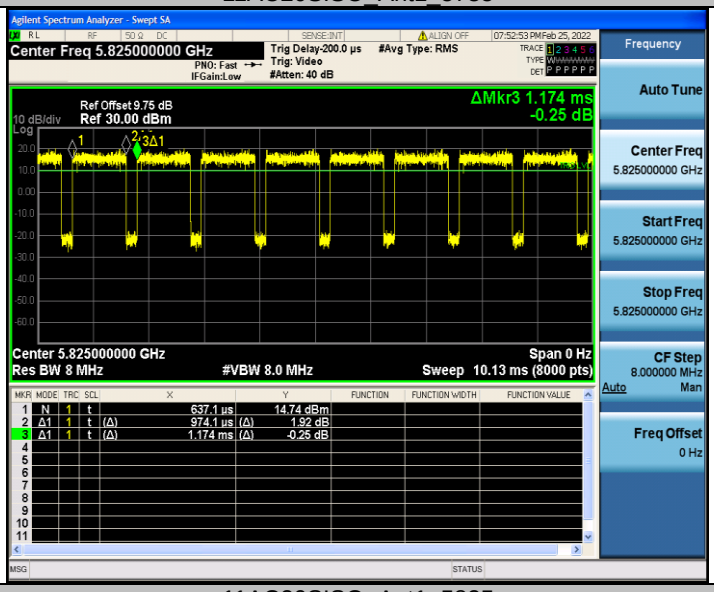
11N40SISO_Ant1_5795



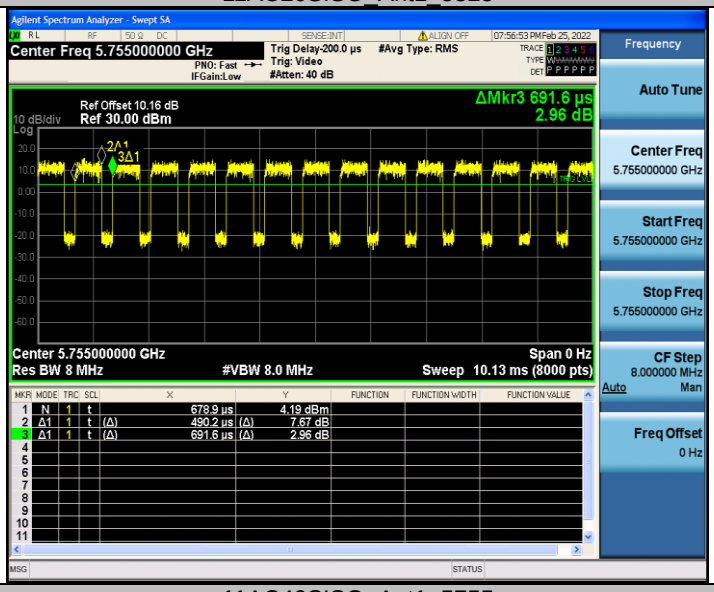
11AC20SISO_Ant1_5745



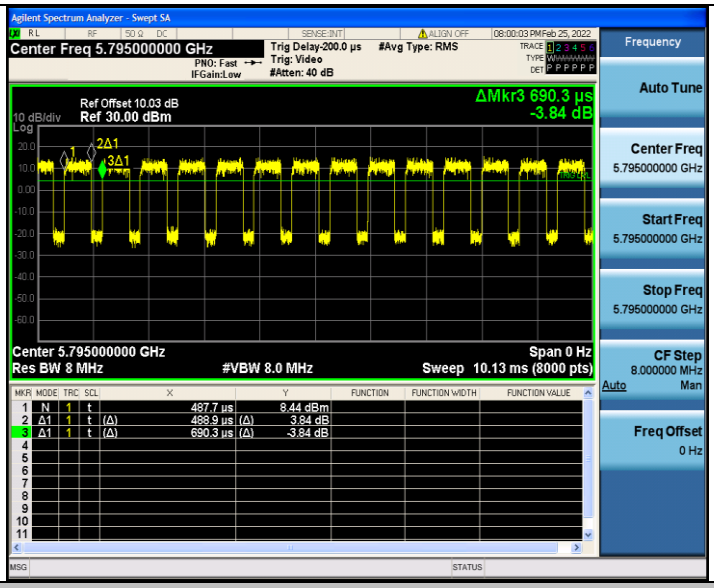
11AC20SISO_Ant1_5785



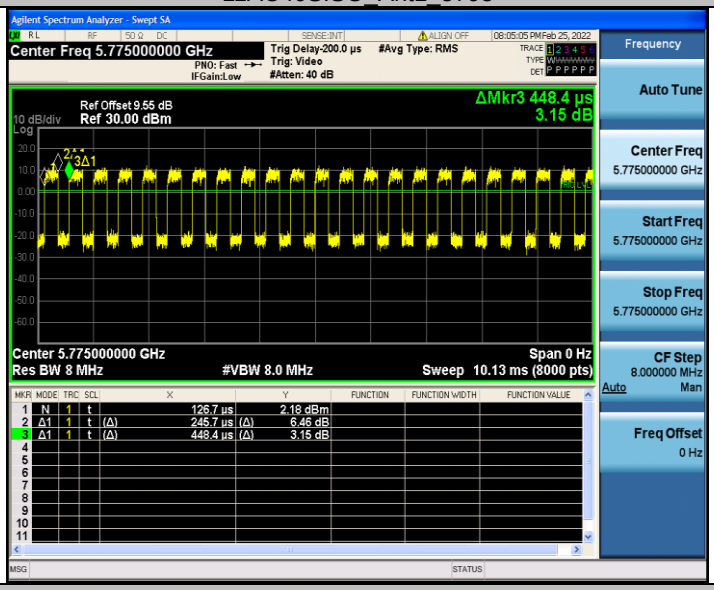
11AC20SISO_Ant1_5825



11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



11AC80SISO_Ant1_5775

5.3 Power line conducted emission

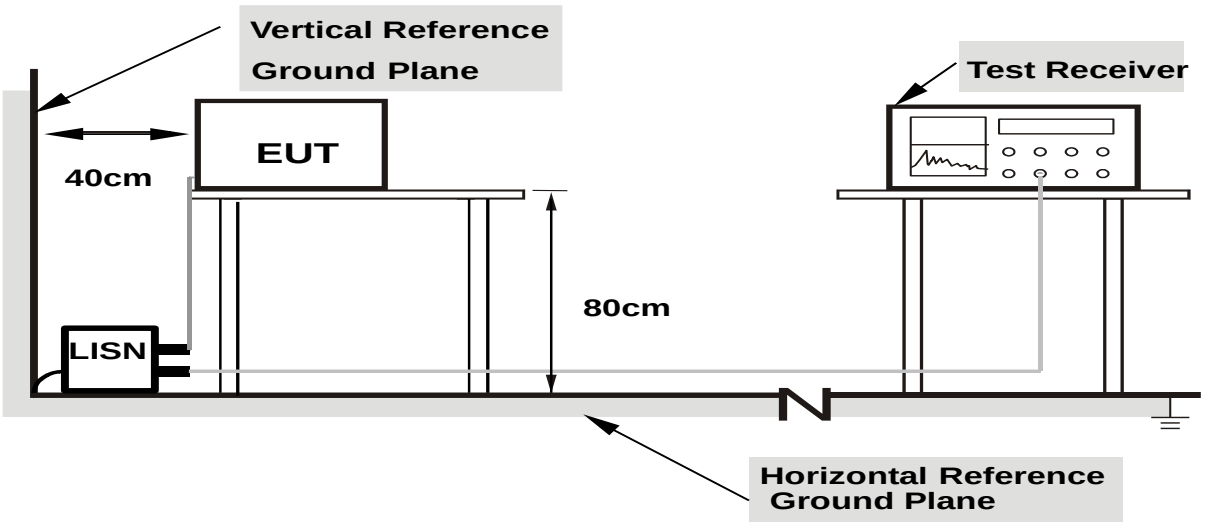
5.3.1 Limits

FREQUENCY (MHz)	Class B (dBuV)	
	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

Note

1. The tighter limit applies at the band edges.
2. The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

5.3.2 Test setup



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

5.3.3 Test procedure

a. EUT Operating Conditions

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

b. The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

c. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected 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.

d. 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 40 cm long.

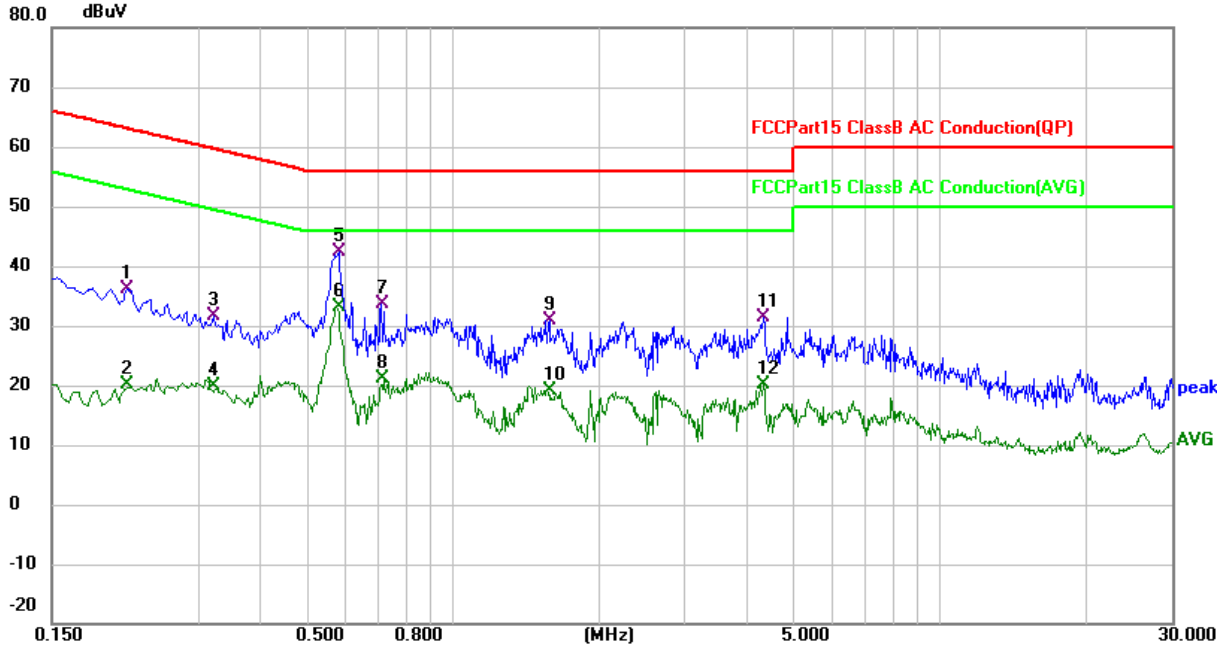
e. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

f. LISN at least 80 cm from nearest part of EUT chassis.

For the actual test configuration, please refer to the related Item –EUT Test Photos.

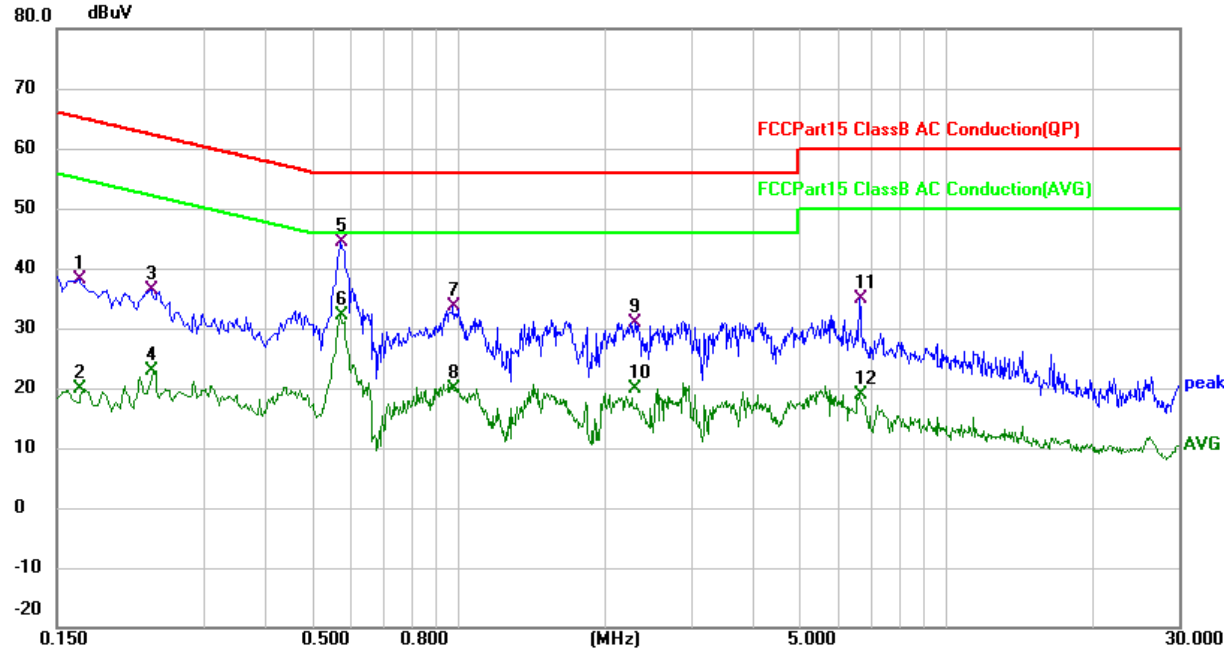
5.3.4 Test results

EUT:	+iAndroid Link smart iA box	Model Name:	iA01F60AEUA
Pressure:	1010hPa	Phase:	L
Test Voltage:	DC 5V from adapter AC 120V/60Hz	Test Mode:	TX



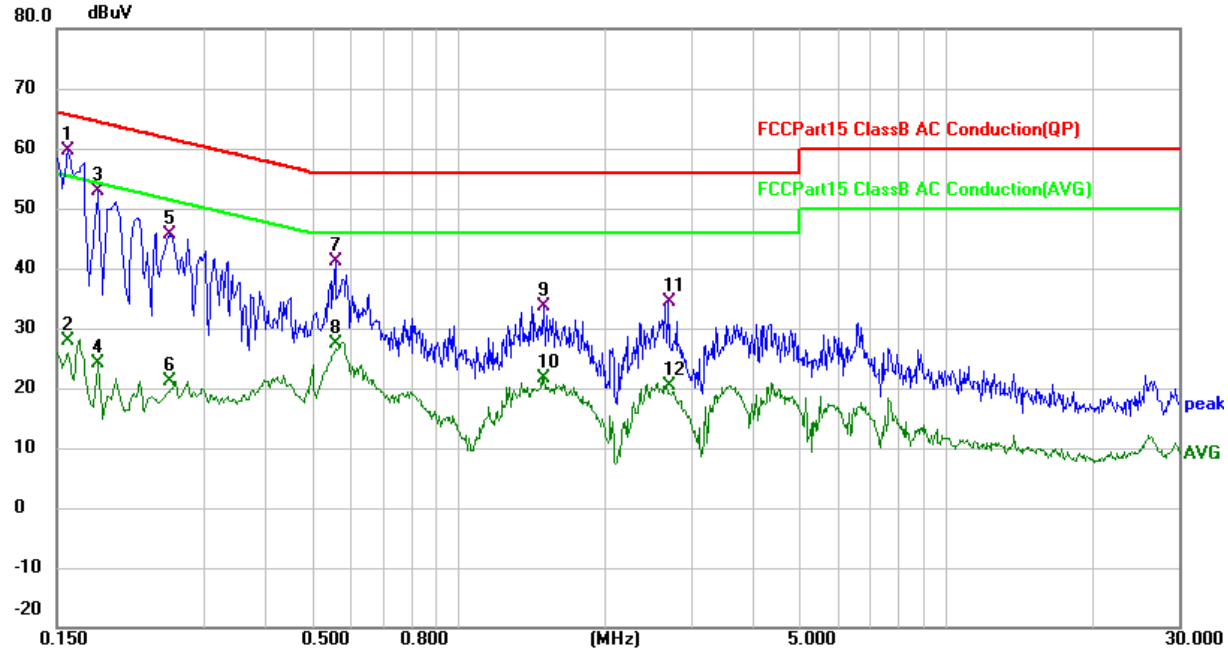
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.2139	25.12	10.98	36.10	63.05	-26.95	QP
2		0.2139	9.19	10.98	20.17	53.05	-32.88	AVG
3		0.3220	20.55	10.97	31.52	59.66	-28.14	QP
4		0.3220	8.84	10.97	19.81	49.66	-29.85	AVG
5		0.5819	31.26	11.08	42.34	56.00	-13.66	QP
6	*	0.5819	22.16	11.08	33.24	46.00	-12.76	AVG
7		0.7139	22.55	11.09	33.64	56.00	-22.36	QP
8		0.7139	10.09	11.09	21.18	46.00	-24.82	AVG
9		1.5780	16.26	14.52	30.78	56.00	-25.22	QP
10		1.5780	4.71	14.52	19.23	46.00	-26.77	AVG
11		4.3379	20.04	11.45	31.49	56.00	-24.51	QP
12		4.3379	8.75	11.45	20.20	46.00	-25.80	AVG

EUT:	+iAndroid Link smart iA box	Model Name:	iA01F60AEUA
Pressure:	1010hPa	Phase:	N
Test Voltage:	DC 5V from adapter AC 120V/60Hz	Test Mode:	TX



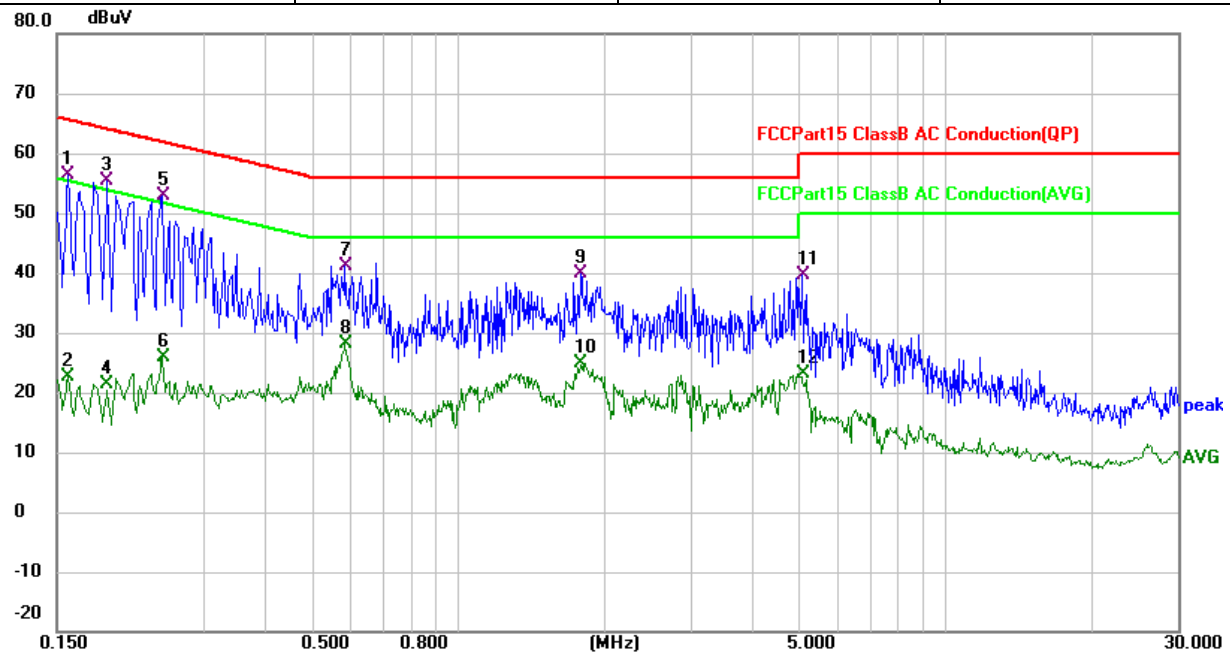
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.1660	27.06	10.97	38.03	65.16	-27.13	QP
2		0.1660	8.89	10.97	19.86	55.16	-35.30	AVG
3		0.2340	25.41	10.91	36.32	62.31	-25.99	QP
4		0.2340	11.95	10.91	22.86	52.31	-29.45	AVG
5	*	0.5738	33.35	10.96	44.31	56.00	-11.69	QP
6		0.5738	21.13	10.96	32.09	46.00	-13.91	AVG
7		0.9779	20.38	13.16	33.54	56.00	-22.46	QP
8		0.9779	6.72	13.16	19.88	46.00	-26.12	AVG
9		2.3020	14.84	15.98	30.82	56.00	-25.18	QP
10		2.3020	3.99	15.98	19.97	46.00	-26.03	AVG
11		6.6338	23.38	11.39	34.77	60.00	-25.23	QP
12		6.6338	7.50	11.39	18.89	50.00	-31.11	AVG

EUT:	+iAndroid Link smart iA box	Model Name:	iA01F60AEUA
Pressure:	1010hPa	Phase:	L
Test Voltage:	DC 5V from adapter AC 240V/60Hz	Test Mode:	TX



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1	*	0.1580	48.68	10.99	59.67	65.57	-5.90	QP
2		0.1580	16.86	10.99	27.85	55.57	-27.72	AVG
3		0.1819	41.92	10.97	52.89	64.40	-11.51	QP
4		0.1819	13.17	10.97	24.14	54.40	-30.26	AVG
5		0.2540	34.59	10.99	45.58	61.63	-16.05	QP
6		0.2540	10.12	10.99	21.11	51.63	-30.52	AVG
7		0.5580	30.11	11.07	41.18	56.00	-14.82	QP
8		0.5580	16.21	11.07	27.28	46.00	-18.72	AVG
9		1.5020	19.25	14.35	33.60	56.00	-22.40	QP
10		1.5020	7.28	14.35	21.63	46.00	-24.37	AVG
11		2.7020	23.05	11.40	34.45	56.00	-21.55	QP
12		2.7020	9.10	11.40	20.50	46.00	-25.50	AVG

EUT:	+iAndroid Link smart iA box	Model Name:	iA01F60AEUA
Pressure:	1010hPa	Phase:	N
Test Voltage:	DC 5V from adapter AC 240V/60Hz	Test Mode:	TX



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.1580	45.40	10.98	56.38	65.57	-9.19	QP
2		0.1580	11.58	10.98	22.56	55.57	-33.01	AVG
3	*	0.1900	44.35	10.93	55.28	64.04	-8.76	QP
4		0.1900	10.54	10.93	21.47	54.04	-32.57	AVG
5		0.2460	41.99	10.91	52.90	61.89	-8.99	QP
6		0.2460	15.00	10.91	25.91	51.89	-25.98	AVG
7		0.5860	30.20	10.97	41.17	56.00	-14.83	QP
8		0.5860	17.24	10.97	28.21	46.00	-17.79	AVG
9		1.7900	24.95	14.94	39.89	56.00	-16.11	QP
10		1.7900	9.84	14.94	24.78	46.00	-21.22	AVG
11		5.0860	28.29	11.39	39.68	60.00	-20.32	QP
12		5.0860	11.82	11.39	23.21	50.00	-26.79	AVG

Note:

1. All the mode has been tested for this test, just incarnate report the worst mode 11a CH165 data.
2. Emission Level =Reading Level + Factor, Margin= Emission Level- Limit, Factor = LISN modulus + Cable Loss.

5.4 26dB Emission Bandwidth and Occupied bandwidth

5.4.1 Limit

For purposes of this subpart the emission bandwidth shall be determined by measuring the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, that are 26 dB down relative to the maximum level of the modulated carrier

5.4.2 Test procedure

26d Emission bandwidth

Set RBW = approximately 1% of the emission bandwidth.

Set VBW ≥ 3*RBW

Detector = Peak.

Trace mode = Max hold.

Measure the maximum width of the emission that is 26 dB down from the peak of the emission.

Occupied Bandwidth

Set Span = 1.5 times to 5.0 times the OBW

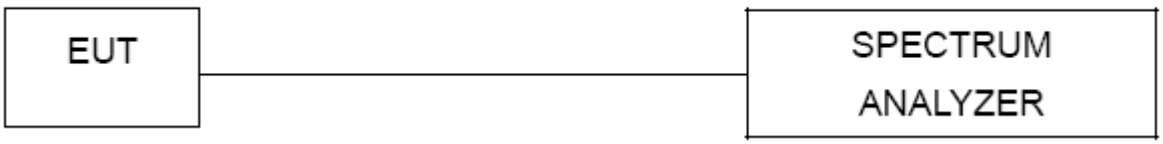
Set RBW = 1% to 5% of the OBW.

Set VBW ≥ 3*RBW, Detector = Peak.

Trace mode = Max hold.

Use the 99% power bandwidth function of the instrument.

5.4.3 Test setup



5.4.4 Test results

For U-NII-1

Channel	Test Channel	Frequency (MHz)	26dB bandwidth (MHz)	99% bandwidth	Limit (kHz)	Result
11a	CH36	5180	20.55	17.666	/	Pass
11a	CH40	5200	20.36	17.615	/	Pass
11a	CH48	5240	20.21	17.605	/	Pass
11n (HT20)	CH36	5180	20.21	17.604	/	Pass
11n (HT20)	CH40	5200	20.35	17.615	/	Pass
11n (HT20)	CH48	5240	20.20	17.612	/	Pass
11n (HT40)	CH38	5190	40.59	36.005	/	Pass
11n (HT40)	CH46	5230	39.73	35.890	/	Pass

Channel	Test Channel	Frequency (MHz)	26dB bandwidth (MHz)	99% bandwidth	Limit (kHz)	Result
11ac (HT20)	CH36	5180	20.31	17.625	/	Pass
11ac (HT20)	CH40	5200	20.44	17.615	/	Pass
11ac (HT20)	CH48	5240	20.26	17.621	/	Pass
11ac (HT40)	CH38	5190	42.62	36.056	/	Pass
11ac (HT40)	CH46	5230	39.58	35.875	/	Pass
11ac (HT80)	CH42	5210	80.76	75.282	/	Pass

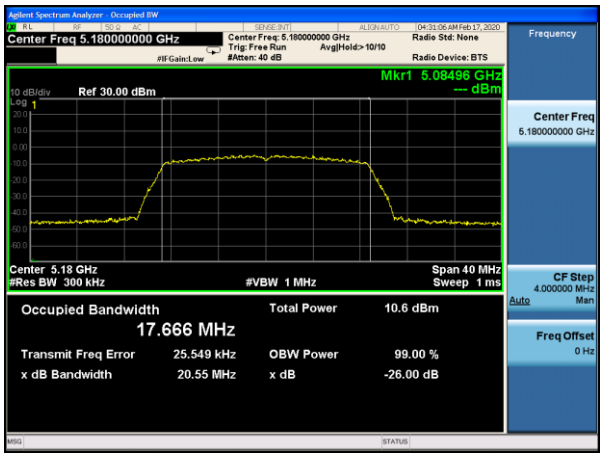
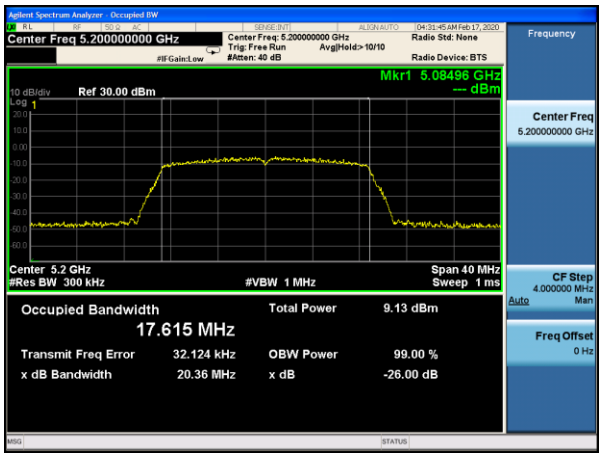
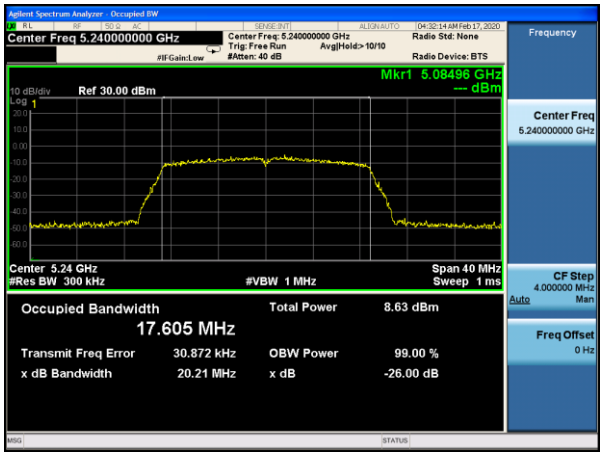
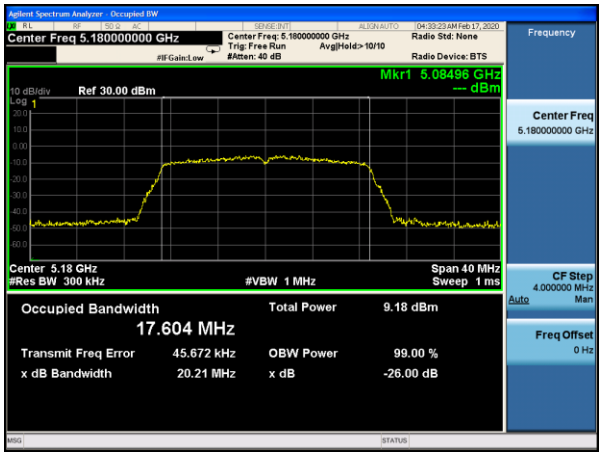
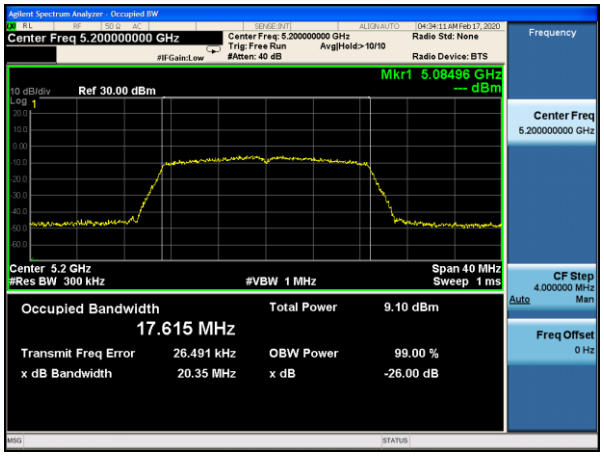
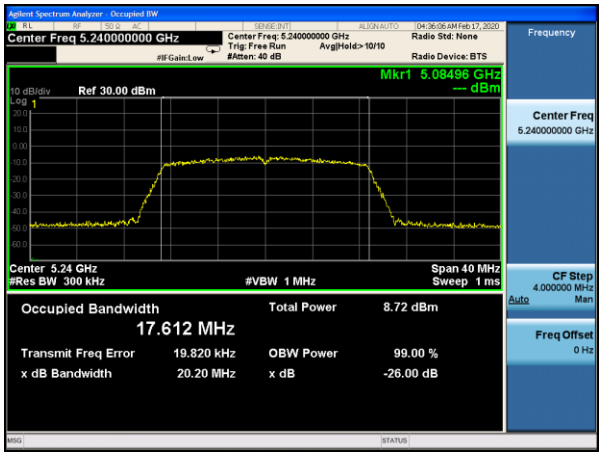
For U-NII-3

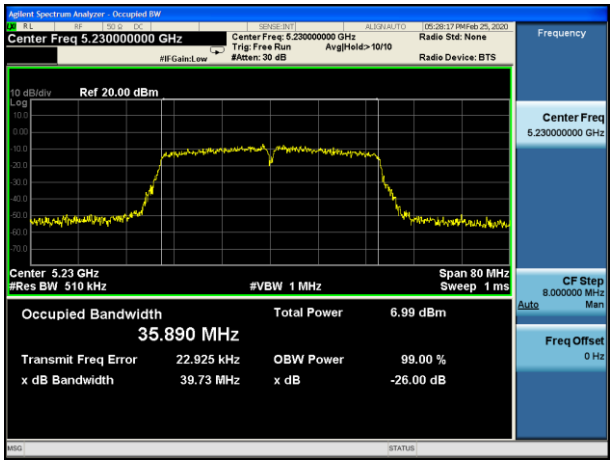
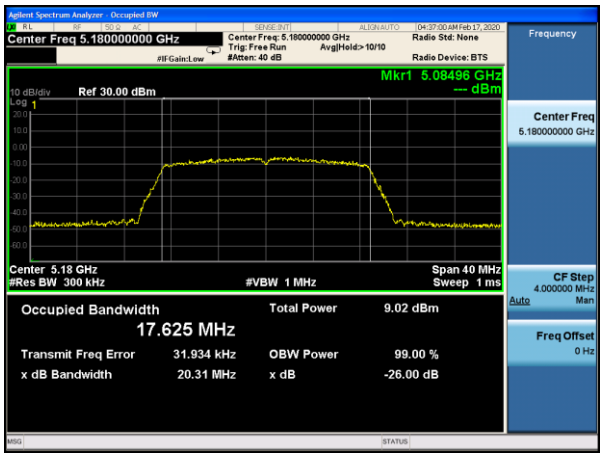
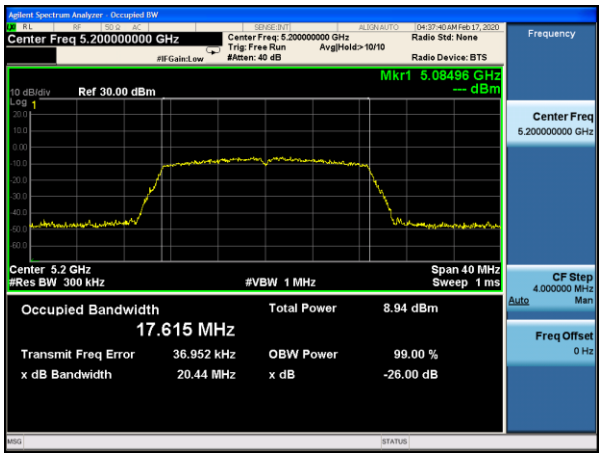
Channel	Test Channel	Frequency (MHz)	99% bandwidth	Limit (kHz)	Result
11a	CH149	5745	16.995	/	Pass
11a	CH157	5785	16.898	/	Pass
11a	CH165	5825	16.923	/	Pass
11n (HT20)	CH149	5745	17.987	/	Pass
11n (HT20)	CH157	5785	17.929	/	Pass
11n (HT20)	CH165	5825	17.931	/	Pass
11n (HT40)	CH151	5755	35.875	/	Pass
11n (HT40)	CH159	5795	36.006	/	Pass

Channel	Test Channel	Frequency (MHz)	99% bandwidth	Limit (kHz)	Result
11ac (HT20)	CH149	5745	17.901	/	Pass
11ac (HT20)	CH157	5785	17.851	/	Pass
11ac (HT20)	CH165	5825	17.905	/	Pass
11ac (HT40)	CH151	5755	36.004	/	Pass
11ac (HT40)	CH159	5795	35.886	/	Pass
11ac (HT80)	CH155	5775	75.372	/	Pass

Test plots:

For U-NII-1

11a CH36	11a CH40
	
11a CH48	**11n (HT20) CH36**
	
11n (HT20) CH40	**11n (HT20) CH48**
	

11n (HT40) CH38	11n (HT40) CH46
	
11ac (HT20) CH36	**11ac (HT20) CH40**
	
11ac (HT20) CH48	**11ac (HT40) CH38**