

FCC RF Test Report

(NFC)

Applicant: Blackshark Technologies (Nanchang) Co., Ltd.
Address of Applicant: Room 815-1, 8th floor, Block A, Huajiang Building, No. 1 Tsinghua Science Park

Equipment Under Test (EUT)

Product Name: 5G Digital Mobile Phone
Model No.: SHARK KTUS-H0
Trade Mark: BLACK SHARK

FCC ID: 2A2ZHKTUS-H0

Applicable Standards: FCC CFR Title 47 Part 15C (§15.225)

Date of Sample Receipt: 11 Mar., 2022

Date of Test: 12 Mar., to 16 May, 2022

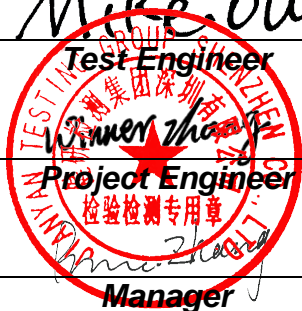
Date of Report Issue: 17 May, 2022

Test Result: PASS

Tested by: Mike OU **Date:** 17 May, 2022
Test Engineer

Reviewed by: Wenwen Zhao **Date:** 17 May, 2022
Project Engineer

Approved by: Wenwen Zhao **Date:** 17 May, 2022
Manager



This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in above the application standard version. Test results reported herein relate only to the item(s) tested.

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2 Version

Version No.	Date	Description
00	17 May, 2022	Original

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4 General Information

4.1 Client Information

Applicant:	Blackshark Technologies (Nanchang) Co., Ltd.
Address:	Room 815-1, 8th floor, Block A, Huajiang Building, No. 1 Tsinghua Science Park
Manufacturer:	Blackshark Technologies (Nanchang) Co., Ltd.
Address:	Room 815-1, 8th floor, Block A, Huajiang Building, No. 1 Tsinghua Science Park

4.2 General Description of E.U.T.

Product Name:	5G Digital Mobile Phone
Model No.:	SHARK KTUS-H0
Operation Frequency:	13.56MHz
Channel Numbers:	1
Modulation Type:	ASK
Antenna Type:	Induction Coil Antenna
Power Supply:	Rechargeable Li-ion polymer Battery DC7.78V, 2240mAh
AC Adapter:	Model: MDY-13-EG-1 Input: AC100-240V, 50/60Hz, 1.7A Normal Output: DC 5.0V, 3A Fast Output:DC 3.6-20V, 3-6A (120W Max)
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

4.3 Test Mode and Environment

Test Mode:	
Transmitting mode:	Keep the EUT in transmitting mode with modulation
<i>Remark: Pre-scan The EUT was placed on three different polar directions tested: i.e. X axis, Y axis, Z axis, and found Y axis was worse case, so the report only reflects the worse axis tested data.</i>	
Operating Environment:	
Temperature:	15°C ~ 35°C
Humidity:	20 % ~ 75 % RH
Atmospheric Pressure:	1010 mbar

4.4 Description of Support Units

N/A

4.5 Measurement Uncertainty

Parameter	Expanded Uncertainty (Confidence of 95%(U = 2Uc(y)))
Conducted Emission for LISN (9kHz ~ 150kHz)	±3.11 dB
Conducted Emission for LISN (150kHz ~ 30MHz)	±2.62 dB
Radiated Emission (9kHz ~ 30MHz) (3m SAC)	±3.13 dB
Radiated Emission (30MHz ~ 1GHz) (3m SAC)	±4.45 dB
Radiated Emission (1GHz ~ 18GHz) (3m SAC)	±5.34 dB
Radiated Emission (18GHz ~ 40GHz) (3m SAC)	±5.34 dB

Note: All the measurement uncertainty value were shown with a coverage k=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

4.6 Additions to, Deviations, or Exclusions From the Method

No

4.7 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

● **FCC - Designation No.: CN1211**

JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

● **ISED – CAB identifier.: CN0021**

The 3m Semi-anechoic chamber and 10m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

● **CNAS - Registration No.: CNAS L15527**

JianYan Testing Group Shenzhen Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L15527.

● **A2LA - Registration No.: 4346.01**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: <https://portal.a2la.org/scopepdf/4346-01.pdf>

4.8 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.
 Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.
 Tel: +86-755-23118282, Fax: +86-755-23116366
 Email: info-JYTee@lets.com, Website: <http://jyt.lets.com>

4.9 Test Instruments List

Radiated Emission(3m SAC):					
Test Equipment	Manufacturer	Model No.	Manage No.	Cal.Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
3m SAC	ETS	9m*6m*6m	WXJ001-1	01-19-2021	01-18-2024
BiConiLog Antenna	Schwarzbeck	VULB9163	WXJ002	02-17-2022	02-16-2023
Biconical Antenna	Schwarzbeck	VUBA9117	WXJ002-1	06-20-2021	06-19-2022
Horn Antenna	Schwarzbeck	BBHA9120D	WXJ002-2	02-17-2022	02-16-2023
Horn Antenna	Schwarzbeck	BBHA9120D	WXJ002-3	06-18-2021	06-17-2022
Loop Antenna	Schwarzbeck	FMZB 1519 B	WXJ002-4	02-17-2022	02-16-2023
Pre-amplifier (30MHz ~ 1GHz)	Schwarzbeck	BBV9743B	WXG001-7	02-17-2022	02-16-2023
Pre-amplifier (1GHz ~ 18GHz)	SKET	LNPA_0118G-50	WXG001-3	02-17-2022	02-16-2023
Pre-amplifier (18GHz ~ 40GHz)	RF System	TRLA-180400G45B	WXG001-9	02-17-2022	02-16-2023
EMI Test Receiver	Rohde & Schwarz	ESRP7	WXJ003-1	02-17-2022	02-16-2023
Spectrum Analyzer	KEYSIGHT	N9010B	WXJ004-2	11-27-2021	11-26-2022
Band Reject Filter Group	Tonscend	JS0806-F	WXJ089	N/A	
Coaxial Cable (30MHz ~ 1GHz)	JYTSZ	JYT3M-1G-NN-8M	WXG001-4	02-17-2022	02-16-2023
Coaxial Cable (1GHz ~ 18GHz)	JYTSZ	JYT3M-18G-NN-8M	WXG001-5	02-17-2022	02-16-2023
Coaxial Cable (18GHz ~ 40GHz)	JYTSZ	JYT3M-40G-SS-8M	WXG001-7	02-17-2022	02-16-2023
Coaxial Cable (9kHz ~ 30MHz)	JYT	JYT3M-1G-BB-5M	WXG001-6	02-17-2022	02-16-2023
Test Software	Tonscend	TS+	Version: 3.0.0.1		

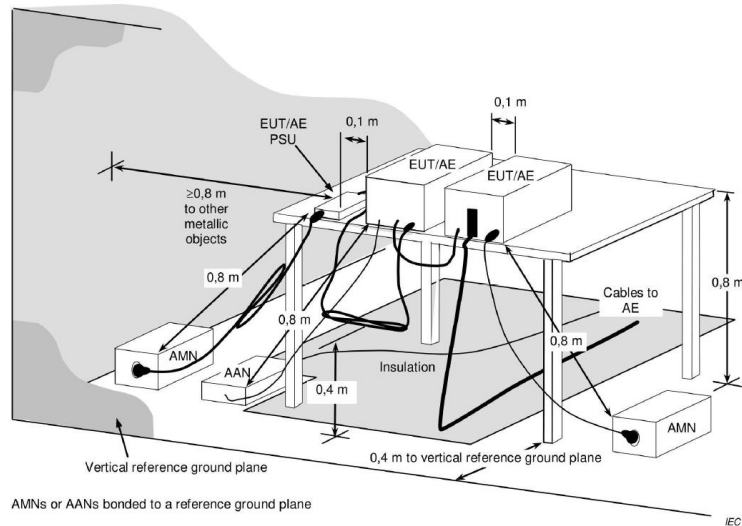
Conducted Emission:					
Test Equipment	Manufacturer	Model No.	Manage No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
EMI Test Receiver	Rohde & Schwarz	ESR3	WXJ003-2	10-21-2021	10-20-2022
LISN	Schwarzbeck	NSLK 8127	QCJ001-13	02-17-2022	02-16-2023
LISN	Rohde & Schwarz	ESH3-Z5	WXJ005-1	06-18-2021	06-17-2022
LISN Coaxial Cable (9kHz ~ 30MHz)	JYTSZ	JYTCE-1G-NN-2M	WXG003-1	02-17-2022	02-16-2023
RF Switch	TOP PRECISION	RSU0301	WXG003	N/A	
Test Software	AUDIX	E3	Version: 6.110919b		

Conducted method:					
Test Equipment	Manufacturer	Model No.	Manage No.	Cal.Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
EMI Test Receiver	Rohde & Schwarz	FSP 30	WXJ004	01-20-2022	01-19-2023

5 Measurement Setup and Procedure

5.1 Test Setup

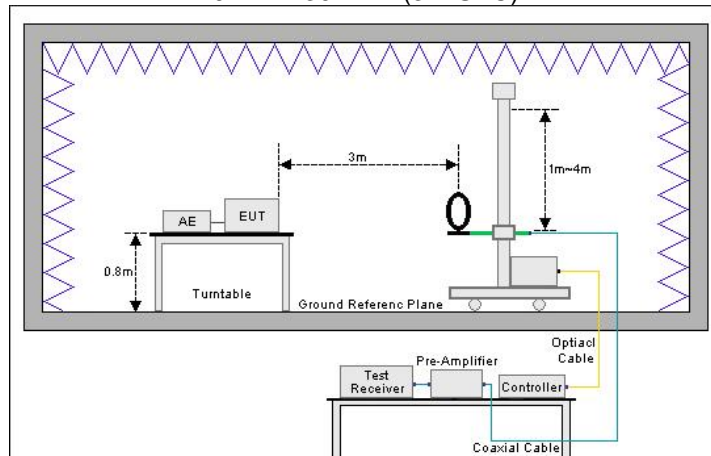
1) Conducted emission measurement:



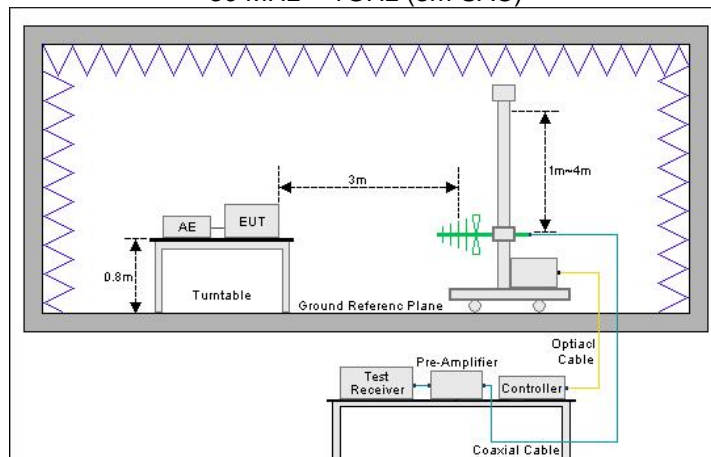
Note: The 0.8 m distance specified between EUT/AE/PSU and AMN/AAN, is applicable only to the EUT being measured. If the device is AE then it shall be >0.8 m.

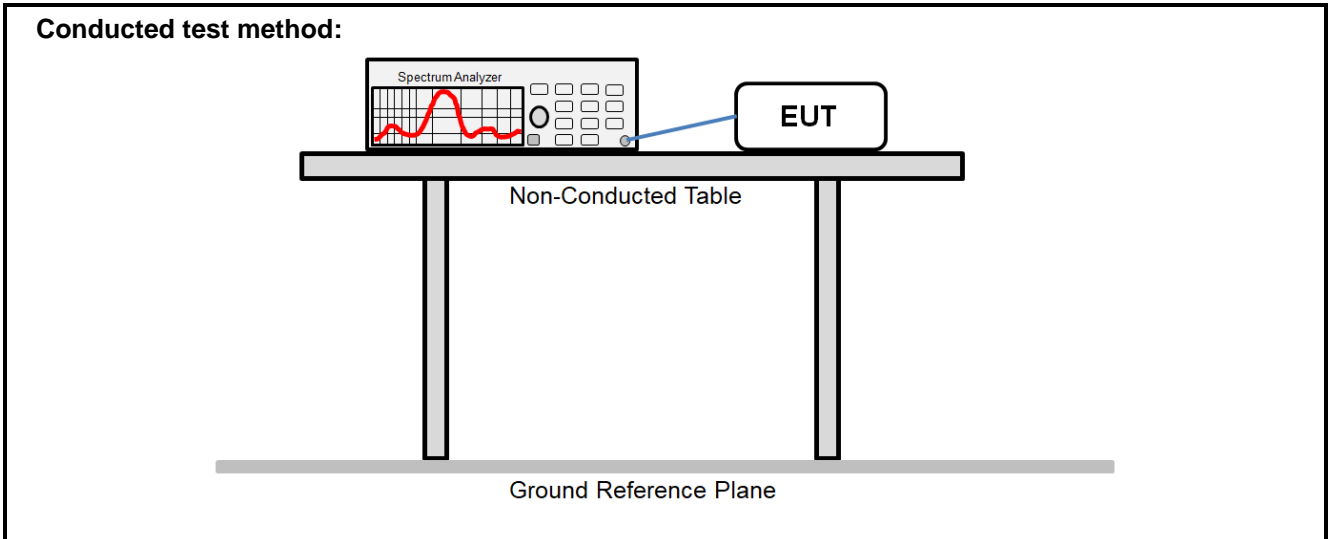
2) Radiated emission measurement:

9kHz ~ 30 MHz (3m SAC)



30 MHz ~ 1GHz (3m SAC)





5.2 Test Procedure

Test method	Test step
Conducted emission	<ol style="list-style-type: none"> 1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.
Radiated emission	<ol style="list-style-type: none"> 1. The EUT was placed on the tabletop of a rotating table 0.8 m the ground at a 3 m semi anechoic chamber. The measurement distance from the EUT to the receiving antenna is 3 m. 2. EUT works in each mode of operation that needs to be tested, and having the EUT continuously working, respectively on 3 axis (X, Y & Z) and considered typical configuration to obtain worst position. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations. 3. Open the test software to control the test antenna and test turntable. Perform the test, save the test results, and export the test data.
Conducted test method	<ol style="list-style-type: none"> 1. The antenna port of EUT was connected to the RF port of the spectrum analyzer through an RF cable. 2. The EUT is keeping in continuous transmission mode and tested in all modulation modes. 3. The test data is saved by the screenshot function of the spectrum analyzer.

6 Test Results

6.1 Summary

6.1.1 Clause and Data Summary

Test items	Standard clause	Test data	Result
Antenna Requirement	15.203	See Section 6.2	Pass
AC Power Line Conducted Emission	15.207	See Section 6.3	Pass
20dB Bandwidth	15.215(c)	See Section 6.4	Pass
Field Strength of Fundamental	15.225 (a)(b)(c)	See Section 6.5	Pass
Field Strength of Spurious Emissions	15.209 15.225 (d)	See Section 6.6	Pass
Frequency Tolerance	15.225 (e)	See Section 6.7	Pass
Remark:			
1. Pass: The EUT complies with the essential requirements in the standard.			
Test Method:	ANSI C63.10-2013		

6.1.2 Test Limit

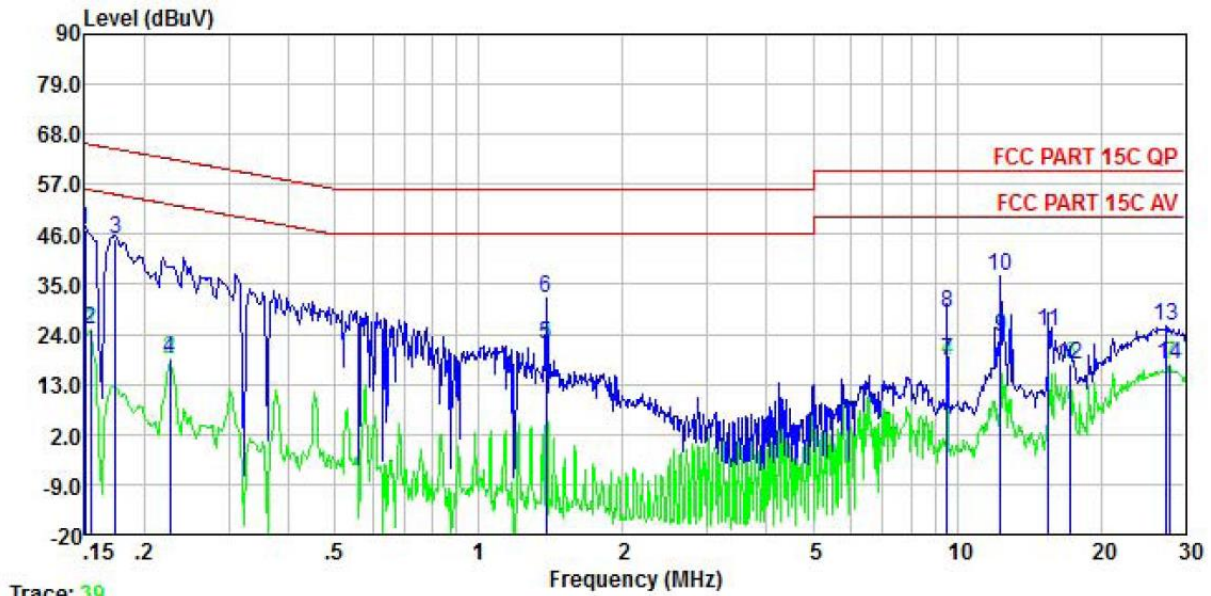
Items	Limit																								
AC Power Line Conducted Emission	<table border="1"> <thead> <tr> <th rowspan="2">Frequency (MHz)</th> <th colspan="2">Limit (dBµV)</th> </tr> <tr> <th>Quasi-Peak</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>0.15 – 0.5</td> <td>66 to 56 ^{Note 1}</td> <td>56 to 46 ^{Note 1}</td> </tr> <tr> <td>0.5 – 5</td> <td>56</td> <td>46</td> </tr> <tr> <td>5 – 30</td> <td>60</td> <td>50</td> </tr> </tbody> </table> <p>Note 1: The limit level in dBµV decreases linearly with the logarithm of frequency. Note 2: The more stringent limit applies at transition frequencies.</p>	Frequency (MHz)	Limit (dBµV)		Quasi-Peak	Average	0.15 – 0.5	66 to 56 ^{Note 1}	56 to 46 ^{Note 1}	0.5 – 5	56	46	5 – 30	60	50										
Frequency (MHz)	Limit (dBµV)																								
	Quasi-Peak	Average																							
0.15 – 0.5	66 to 56 ^{Note 1}	56 to 46 ^{Note 1}																							
0.5 – 5	56	46																							
5 – 30	60	50																							
20dB Bandwidth	N/A																								
Field Strength of Fundamental Emissions	<p>(a) The field strength of any emissions within the band 13.553-13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.</p> <p>(b) Within the bands 13.410-13.553 MHz and 13.567-13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.</p> <p>(c) Within the bands 13.110-13.410 MHz and 13.710-14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.</p> <p>(d) The field strength of any emissions appearing outside of the 13.110-14.010 MHz band shall not exceed the general radiated emission limits in § 15.209.</p>																								
Field Strength of Spurious Emissions	<table border="1"> <thead> <tr> <th>Frequency (MHz)</th> <th>Field strength (microvolts/meter)</th> <th>Measurement distance (meters)</th> </tr> </thead> <tbody> <tr> <td>0.009 – 0.490</td> <td>2400/F(kHz)</td> <td>300</td> </tr> <tr> <td>0.490 – 1.705</td> <td>24000/F(kHz)</td> <td>30</td> </tr> <tr> <td>1.705 – 30.0</td> <td>30</td> <td>30</td> </tr> <tr> <td>30 – 88</td> <td>100**</td> <td>3</td> </tr> <tr> <td>88 – 216</td> <td>150**</td> <td>3</td> </tr> <tr> <td>216 – 960</td> <td>200**</td> <td>3</td> </tr> <tr> <td>Above 960</td> <td>500</td> <td>3</td> </tr> </tbody> </table> <p>** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.</p>	Frequency (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
Frequency (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																							
Frequency Tolerance	<p>The frequency tolerance of the carrier signal shall be maintained within ±0.01% of the operating frequency over a temperature variation of -20 degrees to + 50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.</p>																								

6.2 Antenna Requirement

Standard requirement:	FCC Part15 C Section 15.203
15.203 requirement:	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, 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.
E.U.T Antenna:	The EUT make use of an induction coil antenna.

6.3 AC Power Line Conducted Emission

Product name:	5G Digital Mobile Phone	Product model:	SHARK KTUS-H0
Test by:	Mike	Test mode:	NFC mode
Test frequency:	150 kHz ~ 30 MHz	Phase:	Line
Test voltage:	AC 120 V/60 Hz		



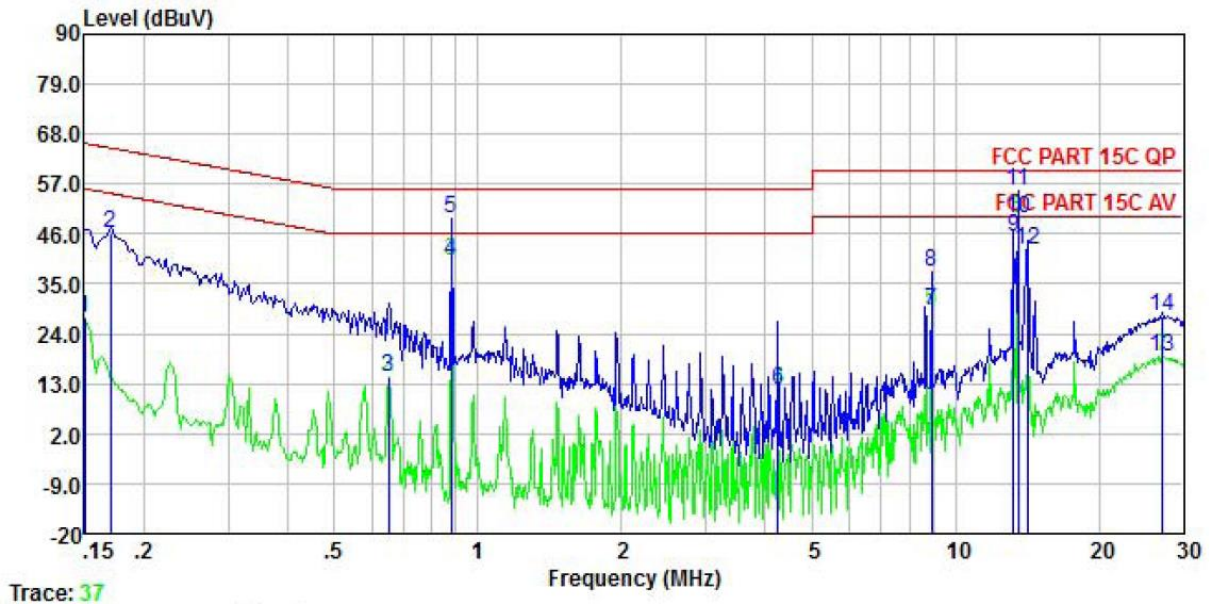
Trace: 39

	Read	LISN	Cable	Limit	Over	Remark
Freq	Level	Factor	Loss	Line	Limit	
MHz	dBuV	dB	dB	dBuV	dBuV	dB
1	0.150	46.90	0.04	0.01	46.95	66.00 -19.05 QP
2	0.154	24.94	0.04	0.01	24.99	55.78 -30.79 Average
3	0.174	44.72	0.04	0.01	44.77	64.77 -20.00 QP
4	0.226	18.39	0.04	0.02	18.45	52.61 -34.16 Average
5	1.381	21.64	0.06	0.13	21.83	46.00 -24.17 Average
6	1.381	31.63	0.06	0.13	31.82	56.00 -24.18 QP
7	9.552	17.94	0.20	0.12	18.26	50.00 -31.74 Average
8	9.552	28.41	0.20	0.12	28.73	60.00 -31.27 QP
9	12.318	22.93	0.24	0.10	23.27	50.00 -26.73 Average
10	12.318	36.51	0.24	0.10	36.85	60.00 -23.15 QP
11	15.552	24.31	0.28	0.15	24.74	60.00 -35.26 QP
12	17.291	16.88	0.29	0.15	17.32	50.00 -32.68 Average
13	27.416	25.30	0.38	0.19	25.87	60.00 -34.13 QP
14	27.855	16.74	0.39	0.19	17.32	50.00 -32.68 Average

Remark:

1. Level = Read level + LISN Factor + Cable Loss.

Product name:	5G Digital Mobile Phone	Product model:	SHARK KTUS-H0
Test by:	Mike	Test mode:	NFC mode
Test frequency:	150 kHz ~ 30 MHz	Phase:	Neutral
Test voltage:	AC 120 V/60 Hz		



	Read Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.150	27.42	0.05	0.01	27.48	56.00	-28.52	Average
2	0.170	46.23	0.05	0.01	46.29	64.94	-18.65	QP
3	0.651	14.23	0.04	0.03	14.30	46.00	-31.70	Average
4	0.880	39.79	0.05	0.04	39.88	46.00	-6.12	Average
5	0.880	49.25	0.05	0.04	49.34	56.00	-6.66	QP
6	4.247	11.31	0.09	0.08	11.48	46.00	-34.52	Average
7	8.916	28.68	0.17	0.11	28.96	50.00	-21.04	Average
8	8.916	37.38	0.17	0.11	37.66	60.00	-22.34	QP
9	13.267	45.11	0.23	0.11	45.45	60.00	-14.55	QP
10	13.551	49.08	0.23	0.12	49.43	50.00	-0.57	Average
11	13.551	55.17	0.23	0.12	55.52	60.00	-4.48	QP
12	14.138	42.09	0.24	0.12	42.45	60.00	-17.55	QP
13	27.127	18.49	0.38	0.20	19.07	50.00	-30.93	Average
14	27.127	27.13	0.38	0.20	27.71	60.00	-32.29	QP

Remark:

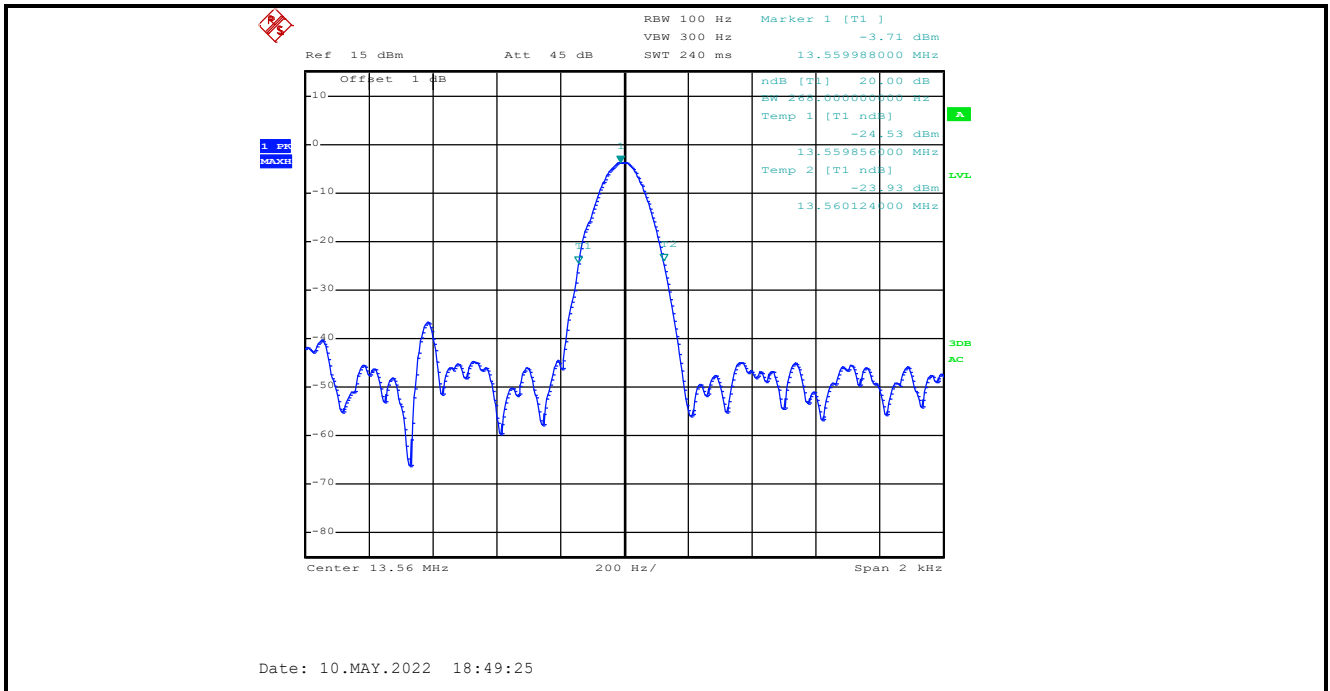
1. Level = Read level + LISN Factor + Cable Loss.

6.4 20dB Bandwidth

20dB bandwidth (kHz)	Limit (kHz)	Results
0.268	11.2	Passed

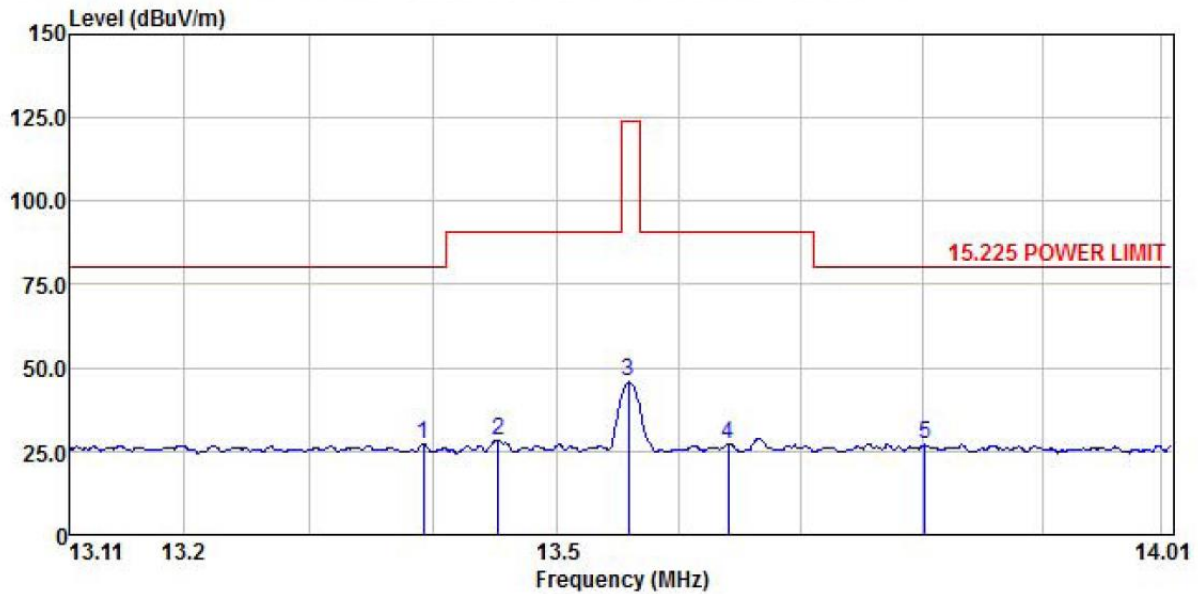
Note: For 13.56MHz, permitted Band is 14 kHz, so the Limit is 11.2 kHz.

Test plot as follows:



6.5 Field Strength of Fundamental

Product Name:	5G Digital Mobile Phone	Product Model:	SHARK KTUS-H0
Test By:	Mike	Test mode:	NFC Tx mode
Test Voltage:	DC 7.78V		

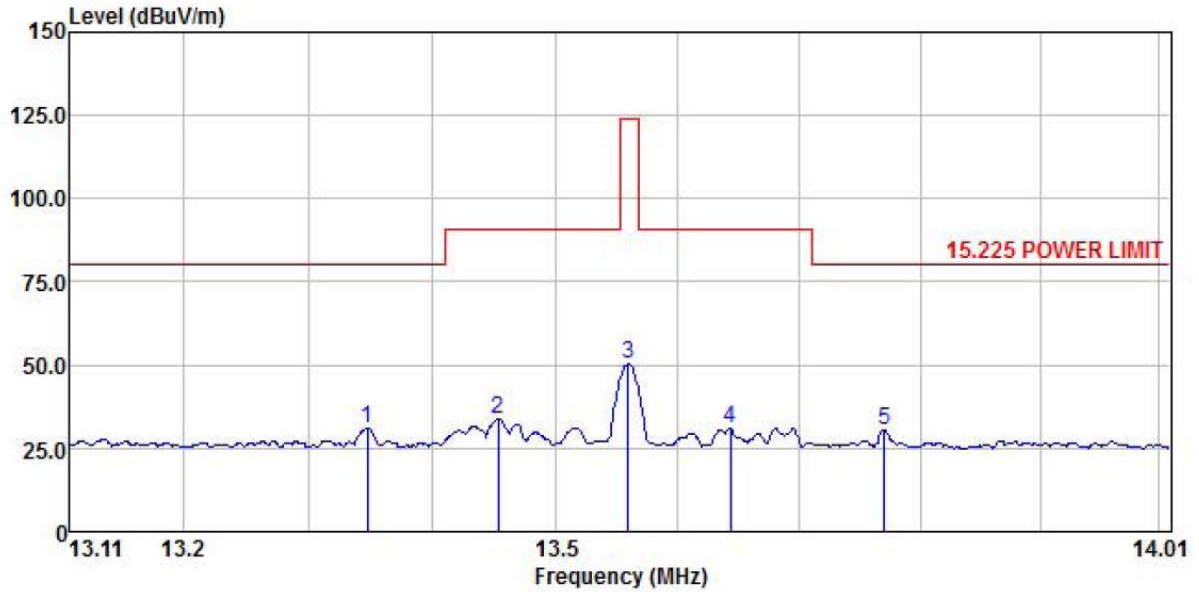


	ReadAntenna	Cable Preamp	Limit	Over					
Freq	Level	Loss	Line	Limit	Remark				
MHz	dBuV	dB/m	dB	dB	dBuV/m				
1	13.392	7.05	19.61	0.41	0.00	27.07	80.50	-53.43	Peak
2	13.452	8.32	19.61	0.41	0.00	28.34	90.50	-62.16	Peak
3	13.558	25.81	19.59	0.41	0.00	45.81	124.00	-78.19	Peak
4	13.640	7.36	19.57	0.42	0.00	27.35	90.50	-63.15	Peak
5	13.802	6.90	19.54	0.43	0.00	26.87	80.50	-53.63	Peak

Remark:

1. Level = Read level + Antenna Factor + Cable Loss – Preamp Factor.

Product Name:	5G Digital Mobile Phone	Product Model:	SHARK KTUS-H0
Test By:	Mike	Test mode:	NFC Tx mode
Test Voltage:	DC 7.78V		



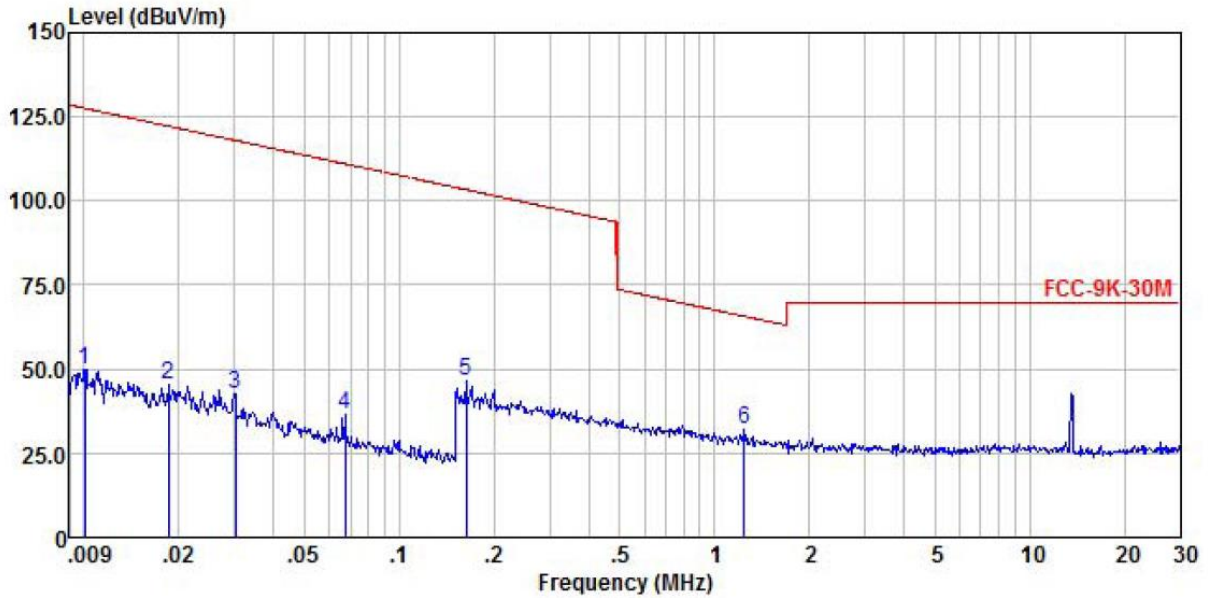
	Read Freq	Antenna Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	13.347	11.19	19.63	0.40	0.00	31.22	80.50	-49.28	Peak
2	13.453	13.85	19.61	0.41	0.00	33.87	90.50	-56.63	Peak
3	13.559	30.61	19.59	0.41	0.00	50.61	124.00	-73.39	Peak
4	13.643	10.90	19.57	0.42	0.00	30.89	90.50	-59.61	Peak
5	13.770	10.69	19.54	0.43	0.00	30.66	80.50	-49.84	Peak

Remark:

1. Level = Read level + Antenna Factor + Cable Loss – Preamplifier Factor.

6.6 Field Strength of Spurious Emissions

Product Name:	5G Digital Mobile Phone	Product Model:	SHARK KTUS-H0
Test By:	Mike	Test mode:	NFC Tx mode
Test Frequency:	9 kHz – 30 MHz	Polarization:	Coxial
Test Voltage:	DC 7.78V		

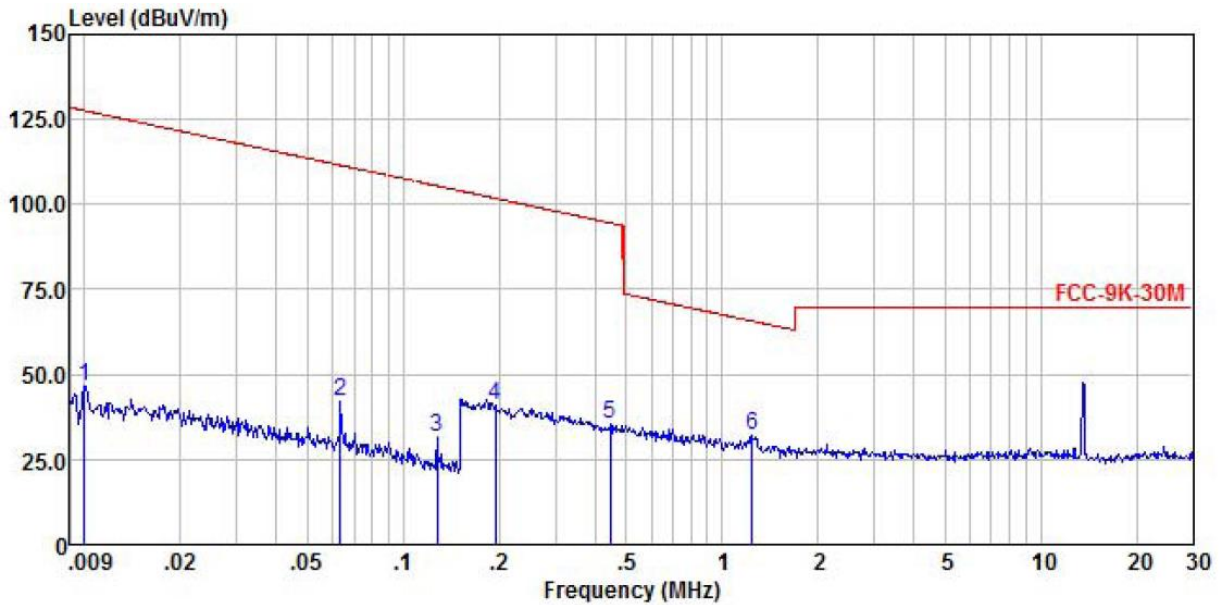


	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	0.010	29.55	20.50	0.01	0.00	50.06	127.51	-77.45	Peak
2	0.019	25.23	20.33	0.01	0.00	45.57	122.23	-76.66	Peak
3	0.030	22.57	20.21	0.02	0.00	42.80	118.00	-75.20	Peak
4	0.067	16.02	20.51	0.02	0.00	36.55	111.03	-74.48	Peak
5	0.163	25.98	20.24	0.03	0.00	46.25	103.38	-57.13	Peak
6	1.248	11.68	20.48	0.17	0.00	32.33	65.70	-33.37	Peak

Remark:

1. Level = Read level + Antenna Factor + Cable Loss – Preamp Factor.

Product Name:	5G Digital Mobile Phone	Product Model:	SHARK KTUS-H0
Test By:	Mike	Test mode:	NFC Tx mode
Test Frequency:	9 kHz – 30 MHz	Polarization:	Coplanar
Test Voltage:	DC 7.78V		

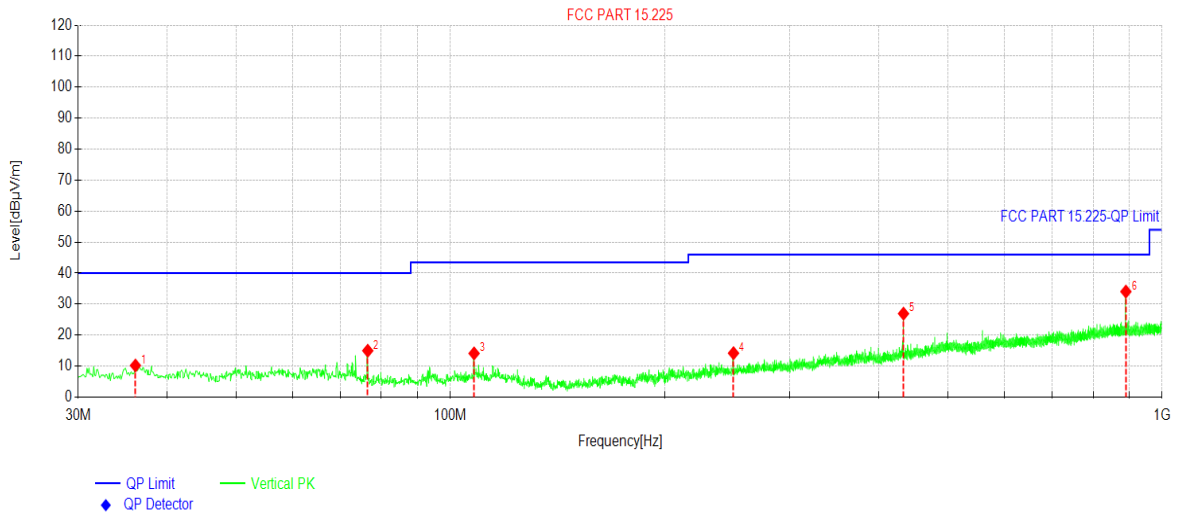


	Read Freq	Antenna Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	0.010	26.13	20.50	0.01	0.00	46.64	127.58	-80.94	
2	0.064	21.78	20.53	0.02	0.00	42.33	111.52	-69.19	
3	0.128	11.63	19.94	0.03	0.00	31.60	105.50	-73.90	
4	0.195	20.78	20.33	0.04	0.00	41.15	101.83	-60.68	
5	0.445	14.60	20.74	0.07	0.00	35.41	94.63	-59.22	
6	1.248	11.39	20.48	0.17	0.00	32.04	65.70	-33.66	

Remark:

1. Level = Read level + Antenna Factor + Cable Loss – Pre-amplifier Factor.

Product Name:	5G Digital Mobile Phone	Product Model:	SHARK KTUS-H0
Test By:	Mike	Test mode:	NFC Tx mode
Test Frequency:	30 MHz – 1000 MHz	Polarization:	Vertical
Test Voltage:	DC 7.78V		

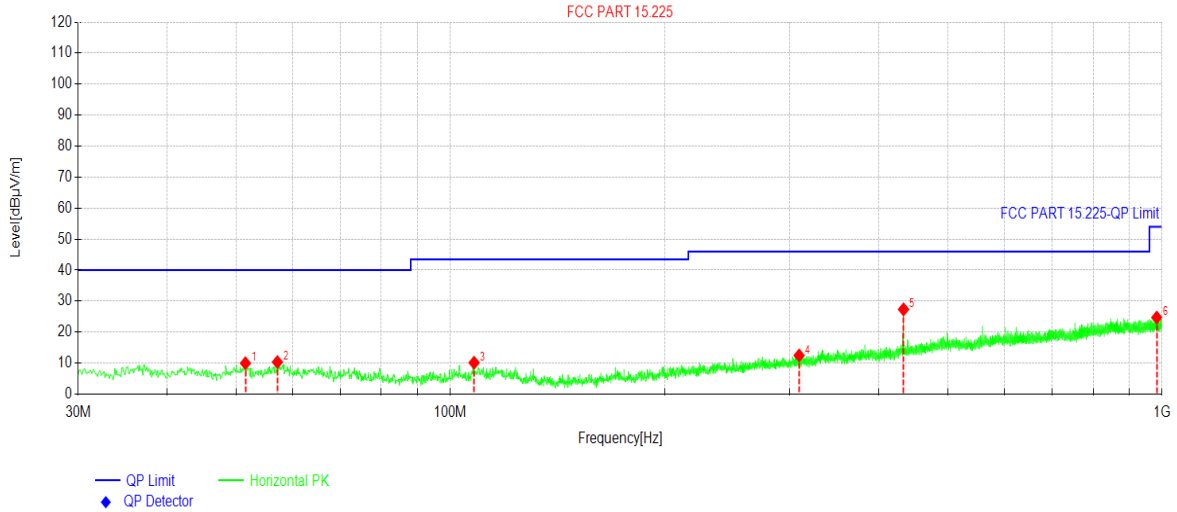


Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	36.1116	25.08	10.19	-14.89	40.00	29.81	PK	Vertical
2	76.5647	32.15	14.98	-17.17	40.00	25.02	PK	Vertical
3	107.995	30.05	14.11	-15.94	43.50	29.39	PK	Vertical
4	250.018	27.97	14.18	-13.79	46.00	31.82	PK	Vertical
5	433.269	36.24	26.94	-9.30	46.00	19.06	PK	Vertical
6	889.603	35.43	34.04	-1.39	46.00	11.96	PK	Vertical

Remark:

1. Level = Read level + Antenna Factor + Cable Loss – Preamplifier Factor.

Product Name:	5G Digital Mobile Phone	Product Model:	SHARK KTUS-H0
Test By:	Mike	Test mode:	NFC Tx mode
Test Frequency:	30 MHz – 1000 MHz	Polarization:	Horizontal
Test Voltage:	DC 7.78V		



Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity
1	51.5362	24.65	9.97	-14.68	40.00	30.03	PK	Horizontal
2	57.1627	25.13	10.34	-14.79	40.00	29.66	PK	Horizontal
3	107.995	26.07	10.13	-15.94	43.50	33.37	PK	Horizontal
4	309.096	24.93	12.47	-12.46	46.00	33.53	PK	Horizontal
5	433.269	36.64	27.34	-9.30	46.00	18.66	PK	Horizontal
6	983.023	25.57	24.72	-0.85	54.00	29.28	PK	Horizontal

Remark:

1. Level = Read level + Antenna Factor + Cable Loss – Preamplifier Factor.

6.7 Frequency Tolerance

Frequency Stability V.S. Temperature Measurement:

Voltage (Vdc)	Temperature (°C)	Frequency Tolerance (kHz)	Frequency Error (%)	Limit (%)	Results
7.78	-20	-0.012	-0.000088	±0.01	Pass
	-10	-0.007	-0.000052	±0.01	Pass
	0	-0.011	-0.000081	±0.01	Pass
	+10	-0.009	-0.000066	±0.01	Pass
	+20	-0.006	-0.000044	±0.01	Pass
	+30	-0.008	-0.000059	±0.01	Pass
	+40	-0.007	-0.000052	±0.01	Pass
	+50	-0.010	-0.000074	±0.01	Pass

Frequency Stability V.S. Voltage Measurement:

Temperature (°C)	Voltage (Vdc)	Frequency Tolerance (kHz)	Frequency Error (%)	Limit (%)	Results
25.0	7.2	-0.010	-0.000074	±0.01	Pass
	7.78	-0.007	-0.000052	±0.01	Pass
	8.96	-0.011	-0.000081	±0.01	Pass

-----End of report-----