

# Test Report No.50129425 001

## Appendix D: Radiated and Mains Spurious Emission Data

(File: 50129425AppendixD)

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# Emissions, Fundamental



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<b>Service No.:</b>	<b>114072120</b>	<b>Test Distance:</b>	<b>1.2m</b>
<b>Test Standard:</b>	<b>FCC 15.225_Fundamental_1.2m(dBuV/m)</b>	<b>Ant. Polarization:</b>	
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2018/2/1 19:44:35</b>
<b>Applicant:</b>	<b>HiTi Digital, Inc.</b>	<b>Test Rating:</b>	<b>AC 120V/60Hz</b>
<b>Product:</b>	<b>HITI X610 PHOTO PRINTER</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>19(°C)/56%</b>
<b>Model No.:</b>	<b>X610</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>13.56-Tx</b>		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	13.5591	20.84	19.86	40.70	139.90	-99.20	QP	100	82	

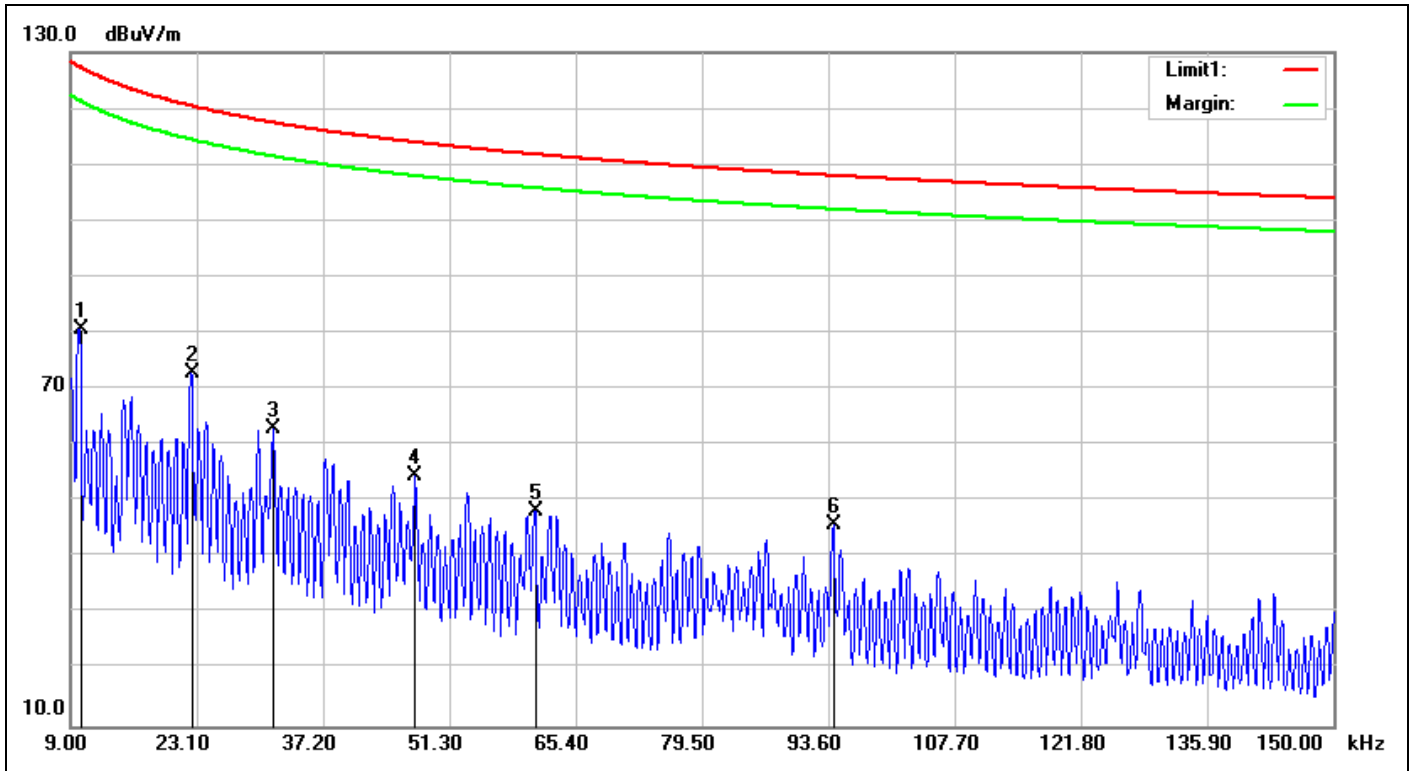
# Spurious Emissions, TX Mode, 0.009-30M



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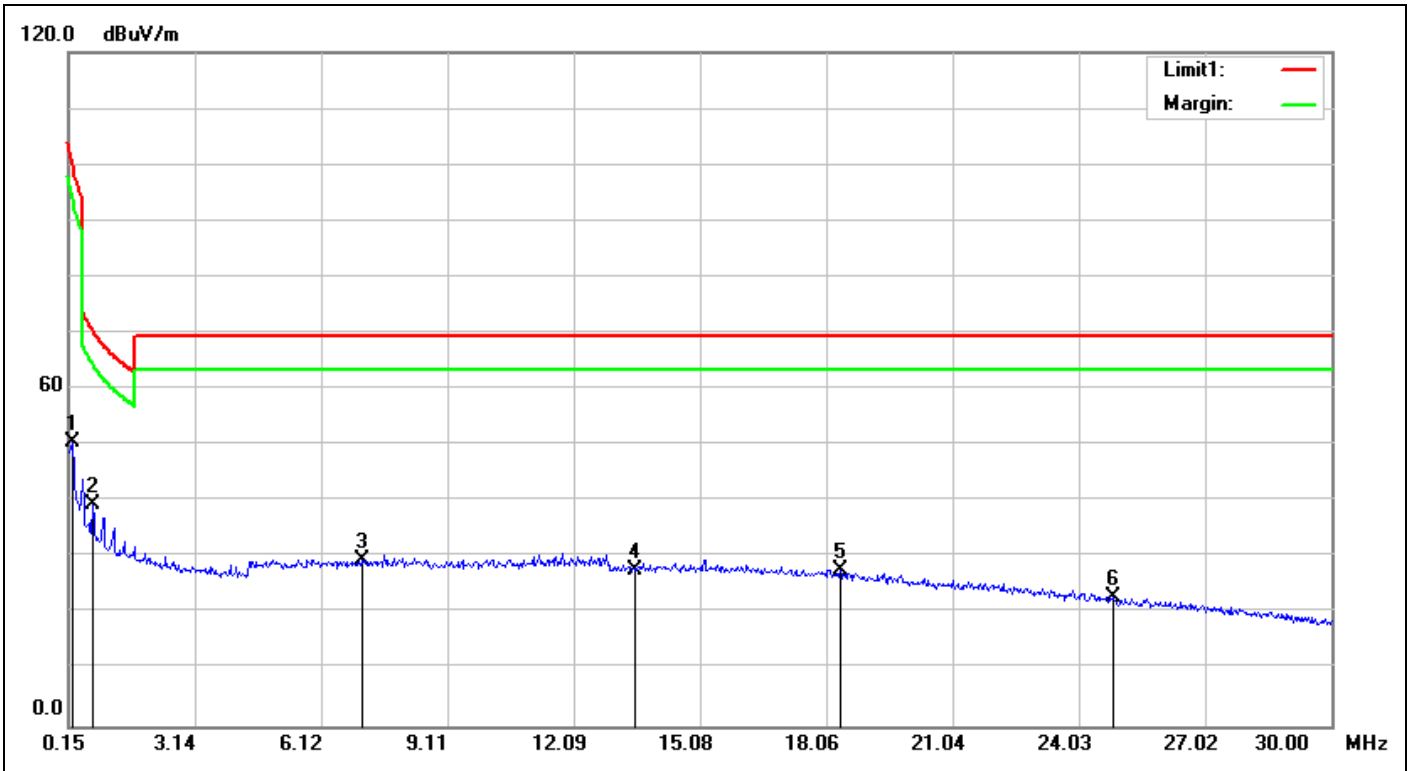
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<b>Service No.:</b>	114072120	<b>Test Distance:</b>	3m
<b>Test Standard:</b>	FCC15.209_9k-1G_3m	<b>Ant. Polarization:</b>	
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2018/2/1 19:19:14
<b>Applicant:</b>	HiTi Digital, Inc.	<b>Test Rating:</b>	AC 120V/60Hz
<b>Product:</b>	HITI X610 PHOTO PRINTER	<b>Temp.(°C)/Hum.(%):</b>	19(°C)/56%
<b>Model No.:</b>	X610	<b>Test Engineer:</b>	Kai Wang
<b>Test Mode:</b>	13.56-Tx		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.0100	19.93	60.84	80.77	127.40	-46.63	QP	100	245	
2	0.0224	20.06	52.78	72.84	120.43	-47.59	QP	100	269	
3	0.0316	20.07	42.90	62.97	117.46	-54.49	QP	100	215	
4	0.0475	19.52	35.00	54.52	113.94	-59.42	QP	100	195	
5	0.0609	19.36	28.99	48.35	111.80	-63.45	QP	100	267	
6	0.0942	19.16	26.71	45.87	108.03	-62.16	QP	100	183	

# Spurious Emissions, TX 9k-30M



<b>Service No.:</b>	<b>114072120</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC15.209_9k-1G_3m</b>	<b>Ant. Polarization:</b>	
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2018/2/1 19:25:28</b>
<b>Applicant:</b>	<b>HiTi Digital, Inc.</b>	<b>Test Rating:</b>	<b>AC 120V/60Hz</b>
<b>Product:</b>	<b>HITI X610 PHOTO PRINTER</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>19(°C)/56%</b>
<b>Model No.:</b>	<b>X610</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>13.56-Tx</b>		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.2396	19.00	31.59	50.59	99.97	-49.38	QP	100	259	
2	0.7171	18.91	20.59	39.50	70.50	-31.00	QP	100	57	
3	7.0752	19.95	9.55	29.50	69.50	-40.00	QP	100	137	
4	13.5600	20.85	6.88	27.73	69.50	-41.77	QP	100	82	
5	18.3883	21.70	5.93	27.63	69.50	-41.87	QP	100	205	
6	24.8360	22.31	0.52	22.83	69.50	-46.67	QP	100	164	

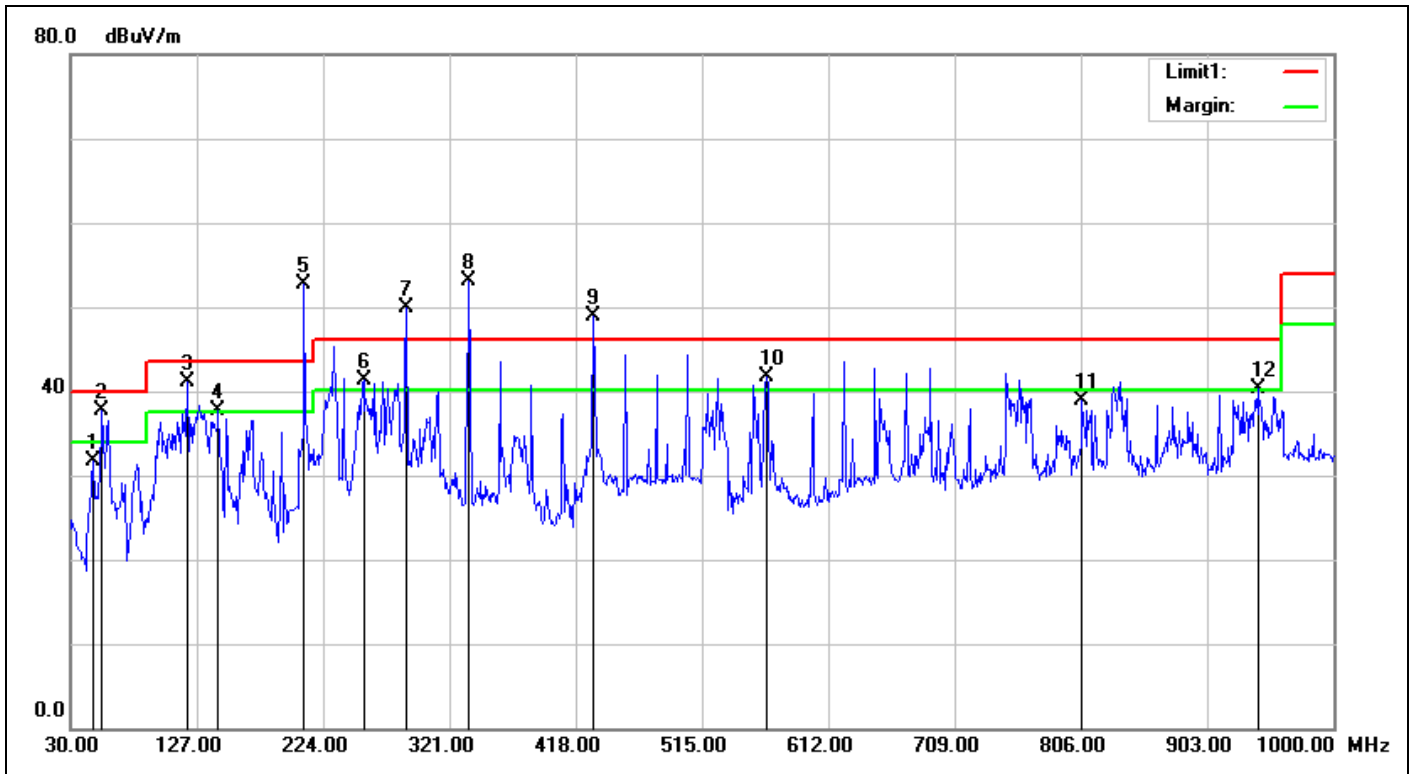
# Spurious Emissions, TX Mode, 30M-1G



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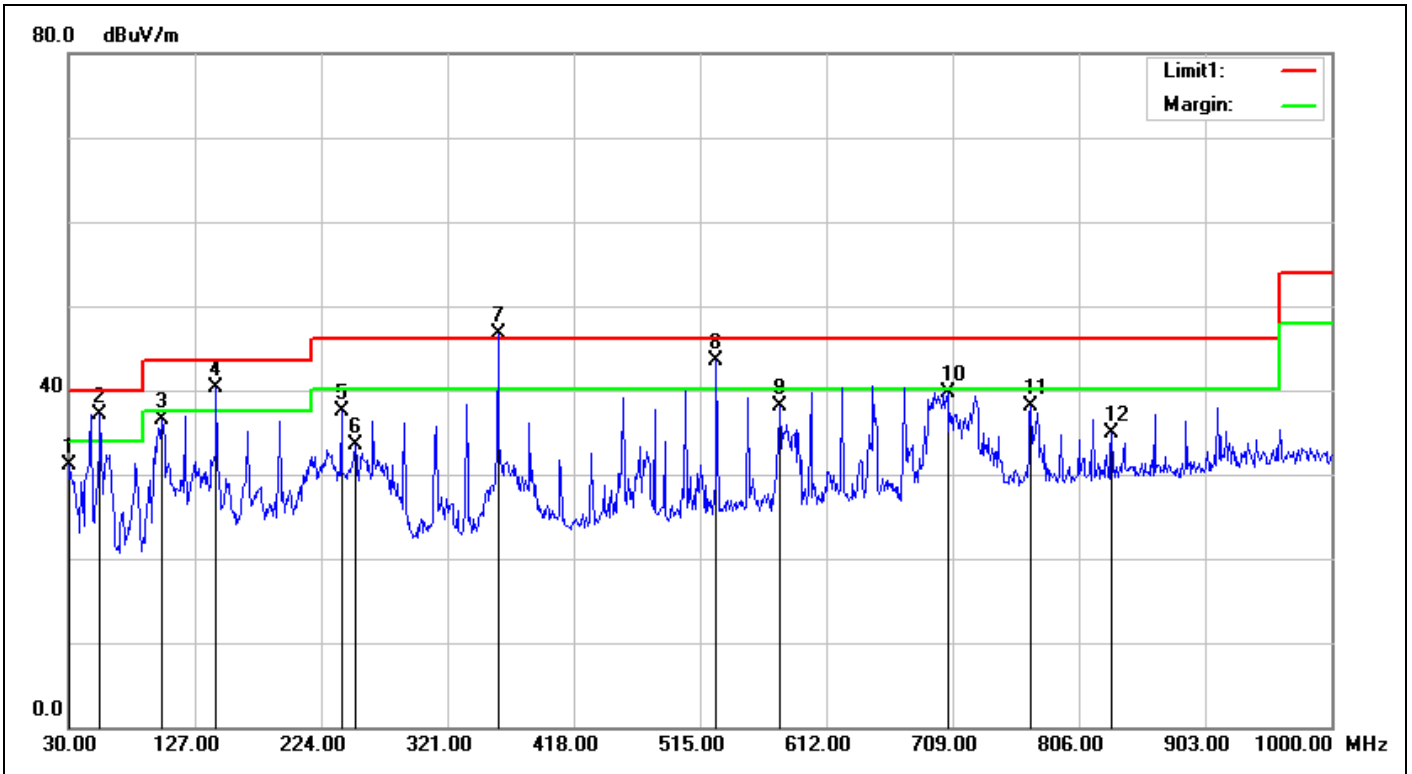


<b>Service No.:</b>	114072120	<b>Test Distance:</b>	3m
<b>Test Standard:</b>	FCC 15.209_30M-40G_3m	<b>Ant. Polarization:</b>	Horizontal
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2018/2/1 20:16:13
<b>Applicant:</b>	HiTi Digital, Inc.	<b>Test Rating:</b>	AC 120V/60Hz
<b>Product:</b>	HITI X610 PHOTO PRINTER	<b>Temp.(°C)/Hum.(%):</b>	19(°C)/56%
<b>Model No.:</b>	X610	<b>Test Engineer:</b>	Kai Wang
<b>Test Mode:</b>	13.56-Tx		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	47.4600	-10.07	41.74	31.67	40.00	-8.33	QP	300	257	
2	54.2500	-12.39	50.08	37.69	40.00	-2.31	QP	258	348	EUT motor
3	119.2399	-7.50	48.51	41.01	43.52	-2.51	QP	300	359	EUT motor
4	143.4900	-7.12	44.91	37.79	43.52	-5.73	QP	300	124	
5	209.4499	-8.57	61.28	52.71	43.52	9.19	QP	200	87	EUT motor
6	255.0398	-5.35	46.67	41.32	46.02	-4.70	QP	200	162	
7	288.0199	-4.87	54.86	49.99	46.02	3.97	QP	200	227	EUT motor
8	335.5500	-3.70	56.78	53.08	46.02	7.06	QP	200	133	EUT motor

## Spurious Emissions, TX 30M-1G

9	431.5800	-2.10	50.97	48.87	46.02	2.85	QP	164	358	EUT motor
10	564.4699	-0.30	42.01	41.71	46.02	-4.31	QP	200	257	
11	806.9699	2.90	35.92	38.82	46.02	-7.20	QP	200	149	
12	941.7998	5.26	34.96	40.22	46.02	-5.80	QP	200	265	



<b>Service No.:</b>	<b>114072120</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC 15.209_30M-40G_3m</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2018/2/1 20:21:33</b>
<b>Applicant:</b>	<b>HiTi Digital, Inc.</b>	<b>Test Rating:</b>	<b>AC 120V/60Hz</b>
<b>Product:</b>	<b>HITI X610 PHOTO PRINTER</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>19(°C)/56%</b>
<b>Model No.:</b>	<b>X610</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>13.56-Tx</b>		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	30.9697	-0.79	31.91	31.12	40.00	-8.88	QP	100	168	
2	54.2500	-12.39	49.55	37.16	40.00	-2.84	QP	100	46	EUT motor
3	101.7800	-9.27	45.86	36.59	43.52	-6.93	QP	100	249	
4	143.4900	-7.12	47.38	40.26	43.52	-3.26	QP	100	341	EUT motor
5	239.5200	-6.85	44.28	37.43	46.02	-8.59	QP	144	354	EUT motor
6	250.1897	-5.76	39.19	33.43	46.02	-12.59	QP	100	219	
7	359.8000	-3.17	49.96	46.79	46.02	0.77	QP	100	329	EUT motor
8	527.6100	-0.78	44.36	43.58	46.02	-2.44	QP	118	105	EUT motor
9	576.1100	-0.17	38.28	38.11	46.02	-7.91	QP	200	175	EUT motor
10	705.1200	1.38	38.36	39.74	46.02	-6.28	QP	100	227	

11	769.1399	2.52	35.53	38.05	46.02	-7.97	QP	100	163	
12	831.2199	3.36	31.48	34.84	46.02	-11.18	QP	100	248	



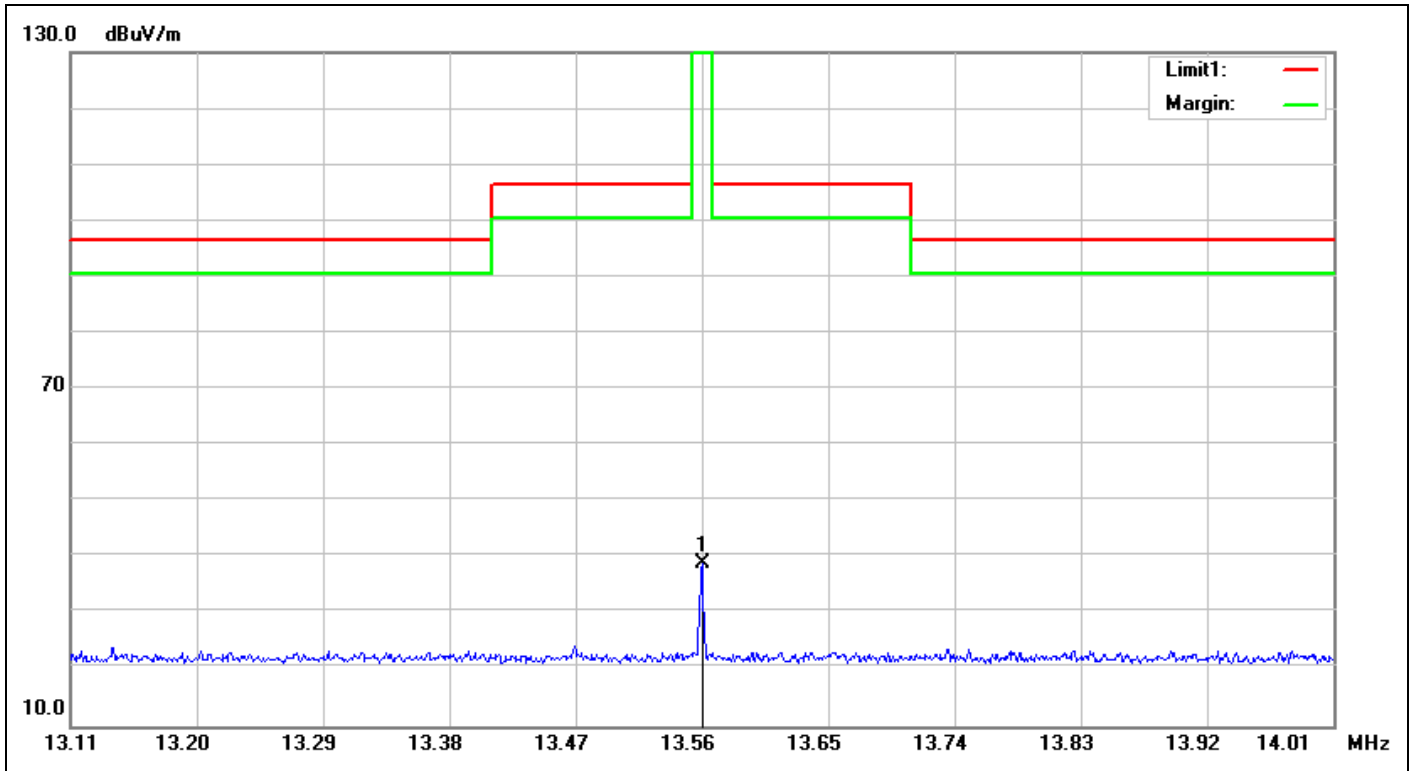
# Emission Mask



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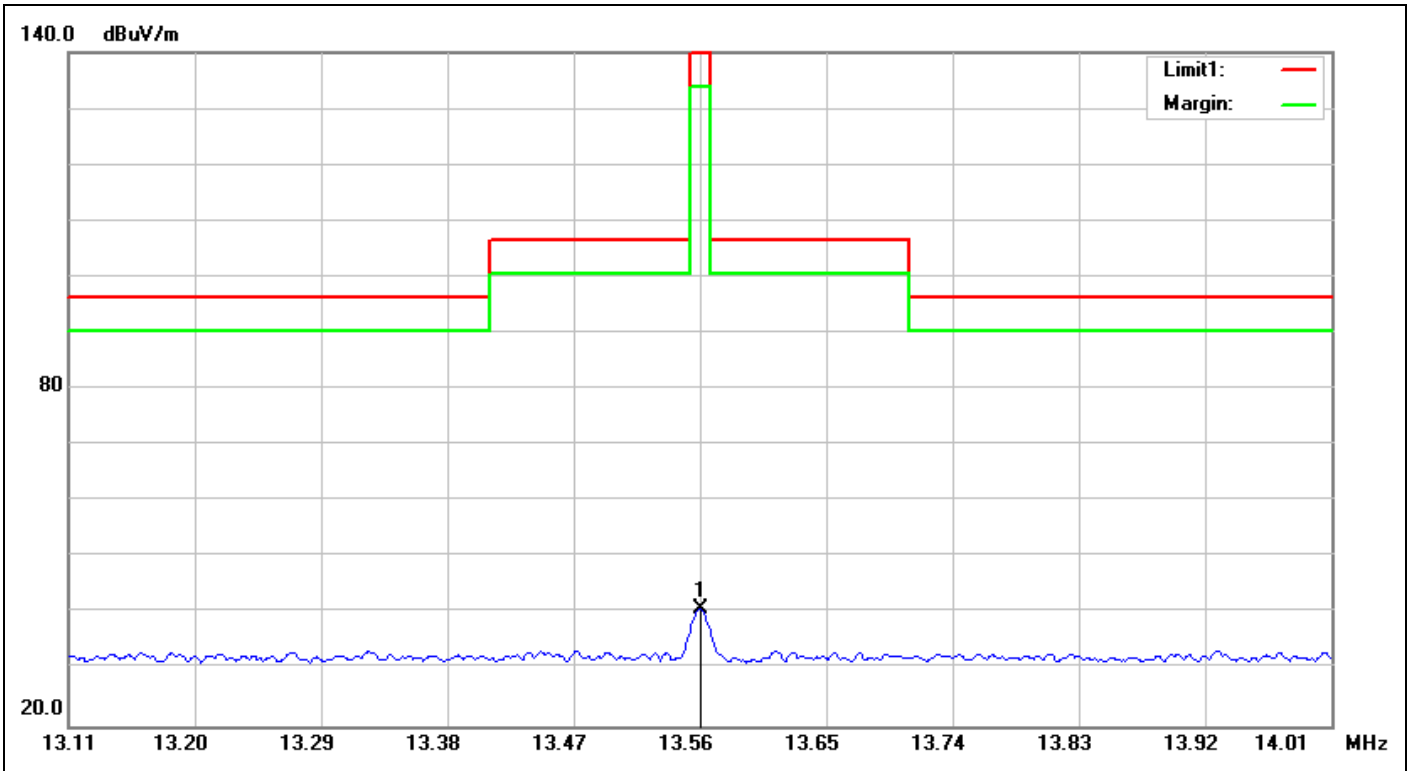
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<b>Service No.:</b>	<b>114072120</b>	<b>Test Distance:</b>	<b>1.2m</b>
<b>Test Standard:</b>	<b>FCC 15.225_Fundamental_1.2m(dBuV/m)</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2018/2/1 19:52:27</b>
<b>Applicant:</b>	<b>HiTi Digital, Inc.</b>	<b>Test Rating:</b>	<b>AC 120V/60Hz</b>
<b>Product:</b>	<b>HITI X610 PHOTO PRINTER</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>19(°C)/56%</b>
<b>Model No.:</b>	<b>X610</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>13.56-Tx</b>		
<b>Remark:</b>	<b>1k</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	13.5600	20.85	18.23	39.08	139.90	-100.82	QP	100	82	



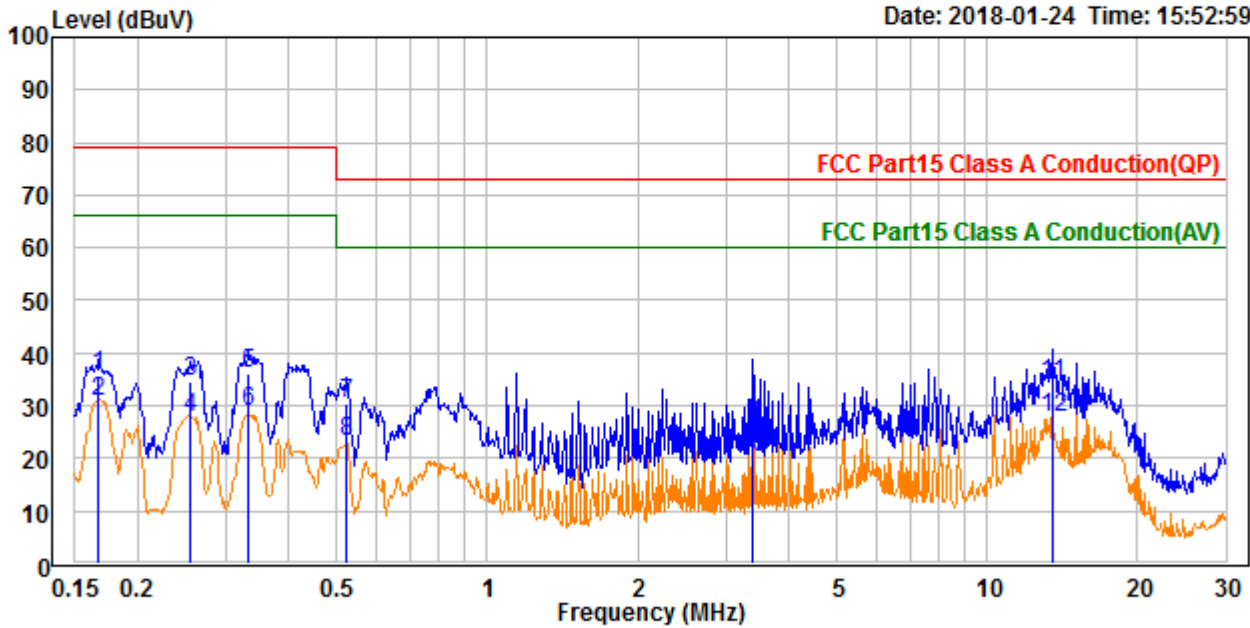
<b>Service No.:</b>	<b>114072120</b>	<b>Test Distance:</b>	<b>1.2m</b>
<b>Test Standard:</b>	<b>FCC 15.225_Fundamental_1.2m(dBuV/m)</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2018/2/1 20:03:52</b>
<b>Applicant:</b>	<b>HiTi Digital, Inc.</b>	<b>Test Rating:</b>	<b>AC 120V/60Hz</b>
<b>Product:</b>	<b>HITI X610 PHOTO PRINTER</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>19(°C)/56%</b>
<b>Model No.:</b>	<b>X610</b>	<b>Test Engineer:</b>	<b>Kai Wang</b>
<b>Test Mode:</b>	<b>13.56-Tx</b>		
<b>Remark:</b>	<b>9k</b>		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	13.5600	20.85	20.05	40.90	139.90	-99.00	QP	100	82	

# Mains Emission

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Date: 2018-01-24 Time: 15:52:59



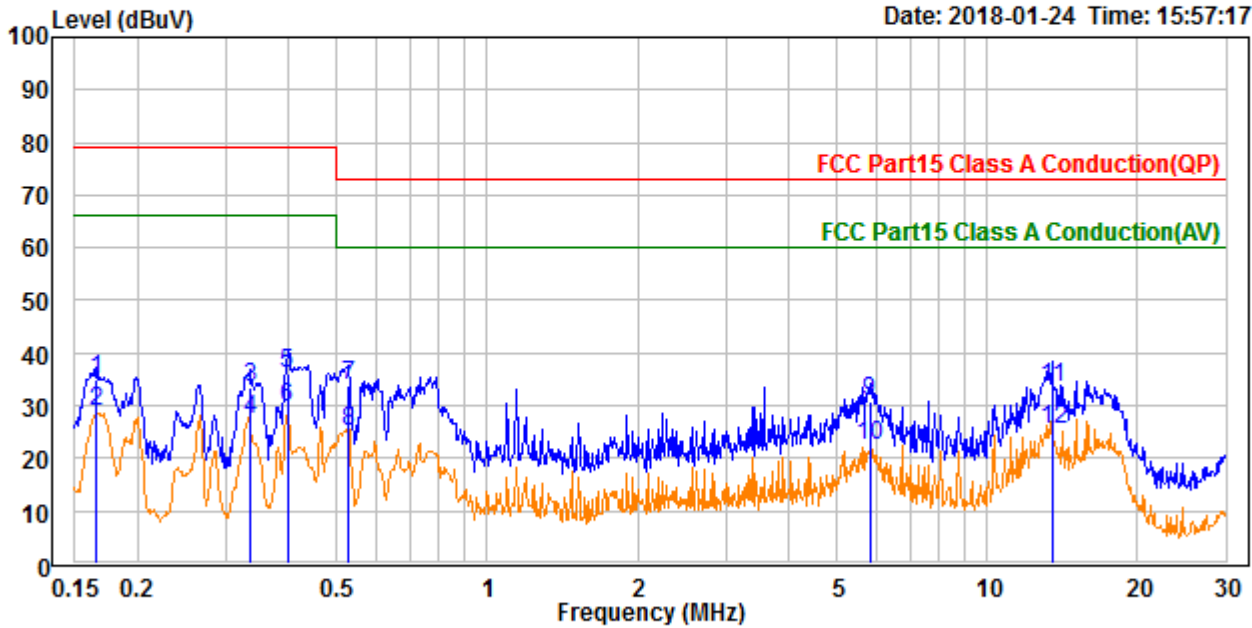
Trace: 1

Site : Conduction room  
 Condition : FCC Part15 Class A Conduction(QP) line1  
 Test Engineer: Kai Wang  
 Applicant : HiTi  
 Product : Photo printer  
 Model No. : X610  
 Test Rating : 120Vac/60Hz  
 Tmp/Hum : 23.1 °C / 42 %  
 Memo : (a) Normal operation (USB connect + RFID Tag + print)

	Read		Limit	Over		
Freq	Level	Factor	Level	Line	Limit	Remark
MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.167	25.93	9.66	35.59	79.00	-43.41 QP
2	0.167	20.96	9.66	30.62	66.00	-35.38 Average
3	0.254	25.01	9.66	34.67	79.00	-44.33 QP
4	0.254	18.18	9.66	27.84	66.00	-38.16 Average
5	0.333	26.53	9.66	36.19	79.00	-42.81 QP
6	0.333	19.10	9.66	28.76	66.00	-37.24 Average
7	0.524	20.85	9.66	30.51	73.00	-42.49 QP
8	0.524	13.39	9.66	23.05	60.00	-36.95 Average
9	3.381	16.88	9.71	26.59	73.00	-46.41 QP
10	3.381	10.44	9.71	20.15	60.00	-39.85 Average
11	13.514	24.35	9.80	34.15	73.00	-38.85 QP
12	13.514	17.99	9.80	27.79	60.00	-32.21 Average

File: C:\EMC\Report\2018\HiTi\114072120(X610)\114072120(X610)\_00015.EMI

Date: 2018-01-24 Time: 15:57:17



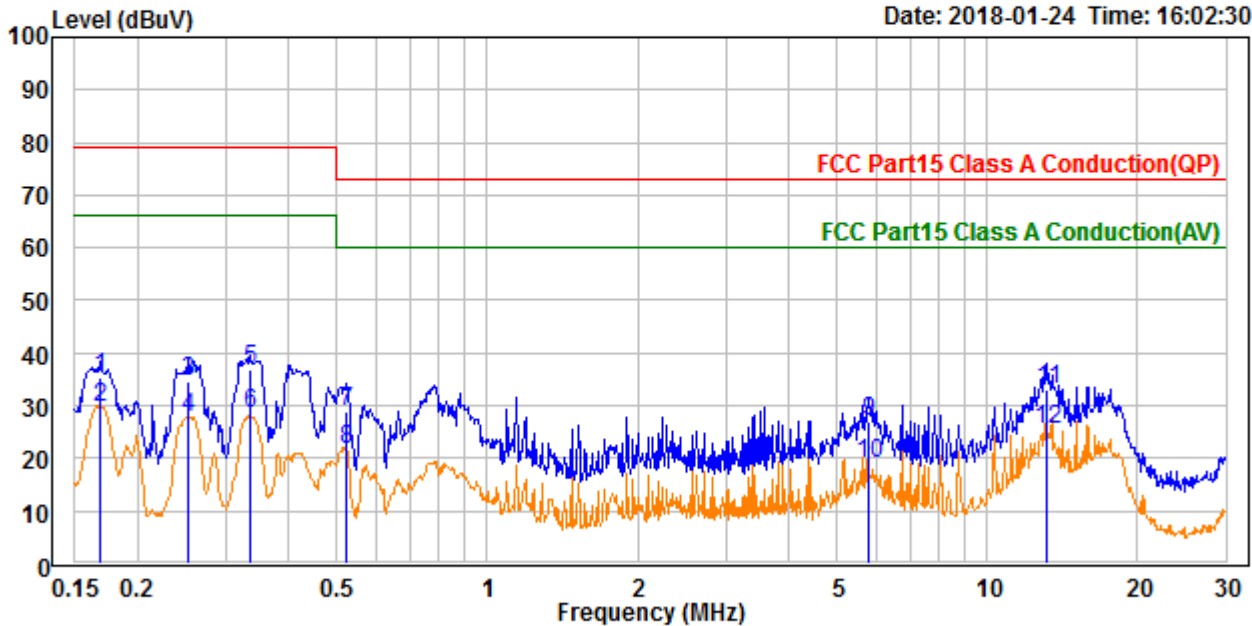
Trace: 1

Site : Conduction room  
 Condition : FCC Part15 Class A Conduction(QP) neutral  
 Test Engineer: Kai Wang  
 Applicant : HiTi  
 Product : Photo printer  
 Model No. : X610  
 Test Rating : 120Vac/60Hz  
 Tmp/Hum : 23.1 °C / 42 %  
 Memo : (a) Normal operation (USB connect + RFID Tag + print)

	Read	Limit	Over				
Freq	Level	Factor	Level	Line	Limit	Remark	
MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.166	25.31	9.67	34.98	79.00	-44.02	QP
2	0.166	19.09	9.67	28.76	66.00	-37.24	Average
3	0.335	23.66	9.66	33.32	79.00	-45.68	QP
4	0.335	17.53	9.66	27.19	66.00	-38.81	Average
5	0.398	26.55	9.66	36.21	79.00	-42.79	QP
6	0.398	19.95	9.66	29.61	66.00	-36.39	Average
7	0.527	24.11	9.66	33.77	73.00	-39.23	QP
8	0.527	15.35	9.66	25.01	60.00	-34.99	Average
9	5.820	20.97	9.75	30.72	73.00	-42.28	QP
10	5.820	12.53	9.75	22.28	60.00	-37.72	Average
11	13.514	23.72	9.83	33.55	73.00	-39.45	QP
12	13.514	15.81	9.83	25.64	60.00	-34.36	Average

File: C:\EMC\Report\2018\HiTi\114072120(X610)\114072120(X610)\_00017.EMI

Date: 2018-01-24 Time: 16:02:30



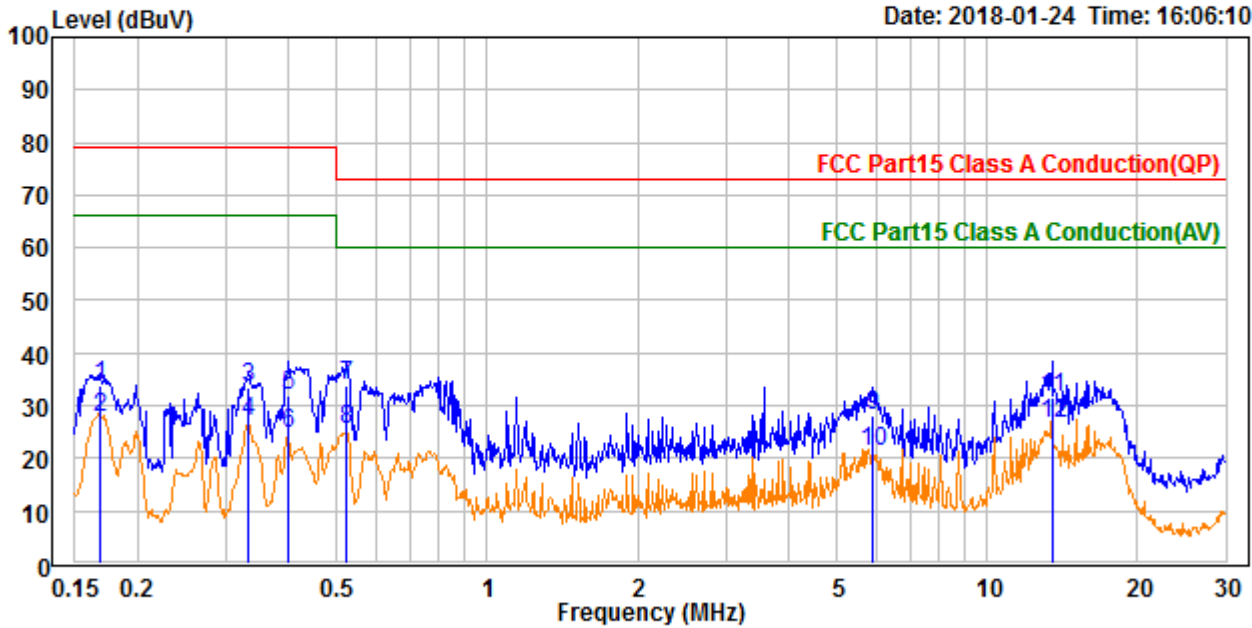
Trace: 1

Site : Conduction room  
 Condition : FCC Part15 Class A Conduction(QP) line1  
 Test Engineer: Kai Wang  
 Applicant : HiTi  
 Product : Photo printer  
 Model No. : X610  
 Test Rating : 240Vac/60Hz  
 Tmp/Hum : 23.1 °C / 42 %  
 Memo : (a) Normal operation (USB connect + RFID Tag + print)

	Read		Limit	Over		
Freq	Level	Factor	Level	Line	Limit	Remark
MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.168	25.68	9.66	35.34	79.00	-43.66 QP
2	0.168	19.82	9.66	29.48	66.00	-36.52 Average
3	0.253	24.88	9.66	34.54	79.00	-44.46 QP
4	0.253	18.10	9.66	27.76	66.00	-38.24 Average
5	0.335	27.34	9.66	37.00	79.00	-42.00 QP
6	0.335	18.83	9.66	28.49	66.00	-37.51 Average
7	0.524	19.34	9.66	29.00	73.00	-44.00 QP
8	0.524	12.11	9.66	21.77	60.00	-38.23 Average
9	5.791	17.44	9.73	27.17	73.00	-45.83 QP
10	5.791	9.44	9.73	19.17	60.00	-40.83 Average
11	13.181	23.20	9.80	33.00	73.00	-40.00 QP
12	13.181	15.53	9.80	25.33	60.00	-34.67 Average

File: C:\EMC\Report\2018\HiTi\114072120(X610)\114072120(X610)\_00019.EMI

Date: 2018-01-24 Time: 16:06:10



Trace: 1

Site : Conduction room  
 Condition : FCC Part15 Class A Conduction(QP) neutral  
 Test Engineer: Kai Wang  
 Applicant : HiTi  
 Product : Photo printer  
 Model No. : X610  
 Test Rating : 240Vac/60Hz  
 Tmp/Hum : 23.1 °C / 42 %  
 Memo : (a) Normal operation (USB connect + RFID Tag + print)

	Read		Limit	Over		
Freq	Level	Factor	Level	Line	Limit	Remark
MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.168	24.08	9.67	33.75	79.00	-45.25 QP
2	0.168	18.07	9.67	27.74	66.00	-38.26 Average
3	0.333	23.70	9.66	33.36	79.00	-45.64 QP
4	0.333	17.15	9.66	26.81	66.00	-39.19 Average
5	0.400	22.21	9.66	31.87	79.00	-47.13 QP
6	0.400	15.22	9.66	24.88	66.00	-41.12 Average
7	0.524	24.30	9.66	33.96	73.00	-39.04 QP
8	0.524	15.76	9.66	25.42	60.00	-34.58 Average
9	5.879	18.28	9.75	28.03	73.00	-44.97 QP
10	5.879	11.53	9.75	21.28	60.00	-38.72 Average
11	13.514	21.65	9.83	31.48	73.00	-41.52 QP
12	13.514	16.64	9.83	26.47	60.00	-33.53 Average