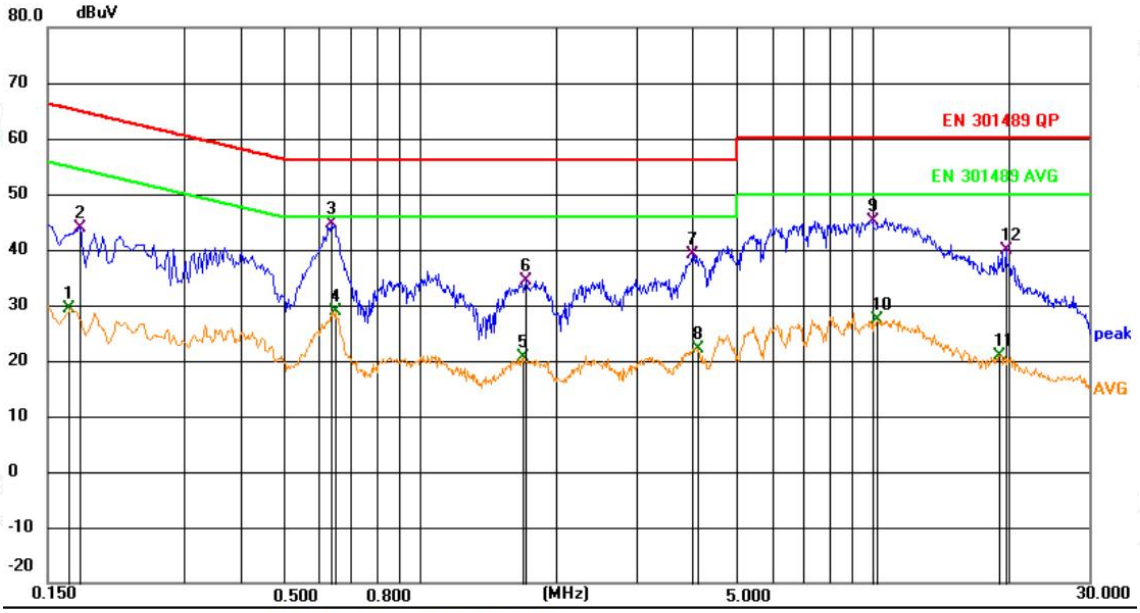
Appendix A for Emission and Immunity test results

Product Name: Media Player

Test Model: Stix3800

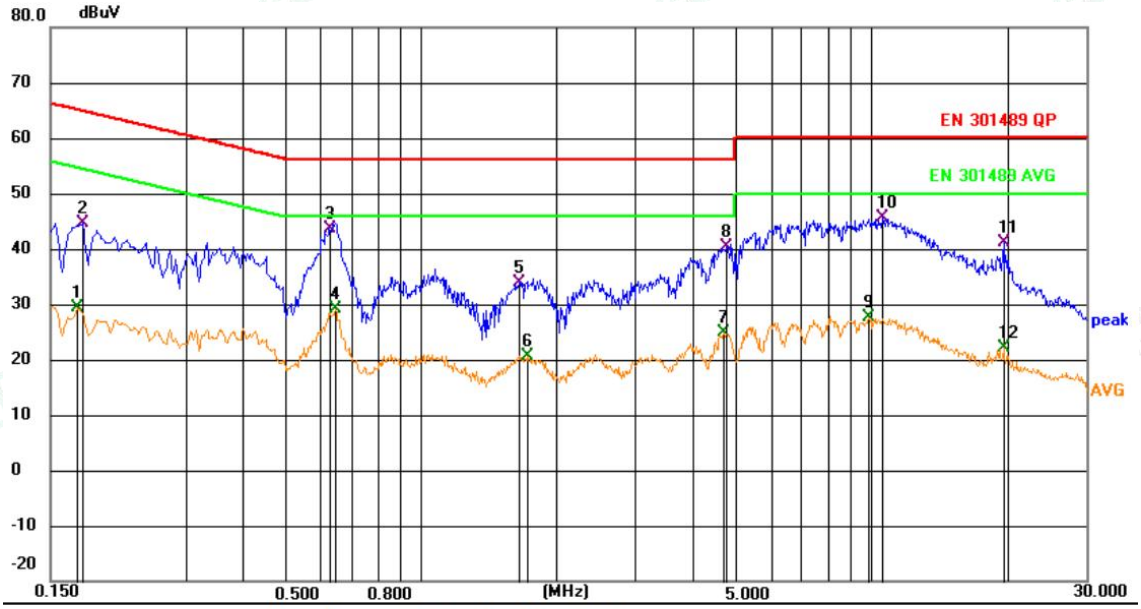
A.1 Line Conducted Emission

Test Model	Stix3800	Test Mode	TM1
Environmental Conditions	24.4℃, 53.0% RH	Test Engineer	Jay Luo
Pol.	Line	Test Voltage	AC 230V/50Hz



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1680	9.68	19.63	29.31	55.06	-25.75	AVG	
2		0.1771	24.35	19.63	43.98	64.62	-20.64	QP	
3	*	0.6360	25.09	19.66	44.75	56.00	-11.25	QP	
4		0.6495	9.25	19.65	28.90	46.00	-17.10	AVG	
5		1.6845	0.91	19.67	20.58	46.00	-25.42	AVG	
6		1.7115	14.72	19.67	34.39	56.00	-21.61	QP	
7		4.0021	19.32	19.70	39.02	56.00	-16.98	QP	
8		4.1191	2.52	19.70	22.22	46.00	-23.78	AVG	
9		9.9736	25.28	19.85	45.13	60.00	-14.87	QP	
10		10.2166	7.50	19.85	27.35	50.00	-22.65	AVG	
11		18.9376	0.79	20.18	20.97	50.00	-29.03	AVG	
12		19.6621	19.78	20.20	39.98	60.00	-20.02	QP	

Test Model	Stix3800	Test Mode	TM1
Environmental Conditions	24.4℃, 53.0% RH	Test Engineer	Jay Luo
Pol.	Neutral	Test Voltage	AC 230V/50Hz



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1726	9.69	19.63	29.32	54.83	-25.51	AVG	
2		0.1771	24.92	19.63	44.55	64.62	-20.07	QP	
3	*	0.6271	23.94	19.66	43.60	56.00	-12.40	QP	
4		0.6450	9.51	19.66	29.17	46.00	-16.83	AVG	
5		1.6486	14.30	19.67	33.97	56.00	-22.03	QP	
6		1.7251	0.95	19.67	20.62	46.00	-25.38	AVG	
7		4.6996	5.03	19.80	24.83	46.00	-21.17	AVG	
8		4.7581	20.68	19.80	40.48	56.00	-15.52	QP	
9		9.8611	7.76	19.85	27.61	50.00	-22.39	AVG	
10		10.6171	25.75	19.84	45.59	60.00	-14.41	QP	
11		19.6621	21.00	20.20	41.20	60.00	-18.80	QP	
12		19.6621	2.05	20.20	22.25	50.00	-27.75	AVG	

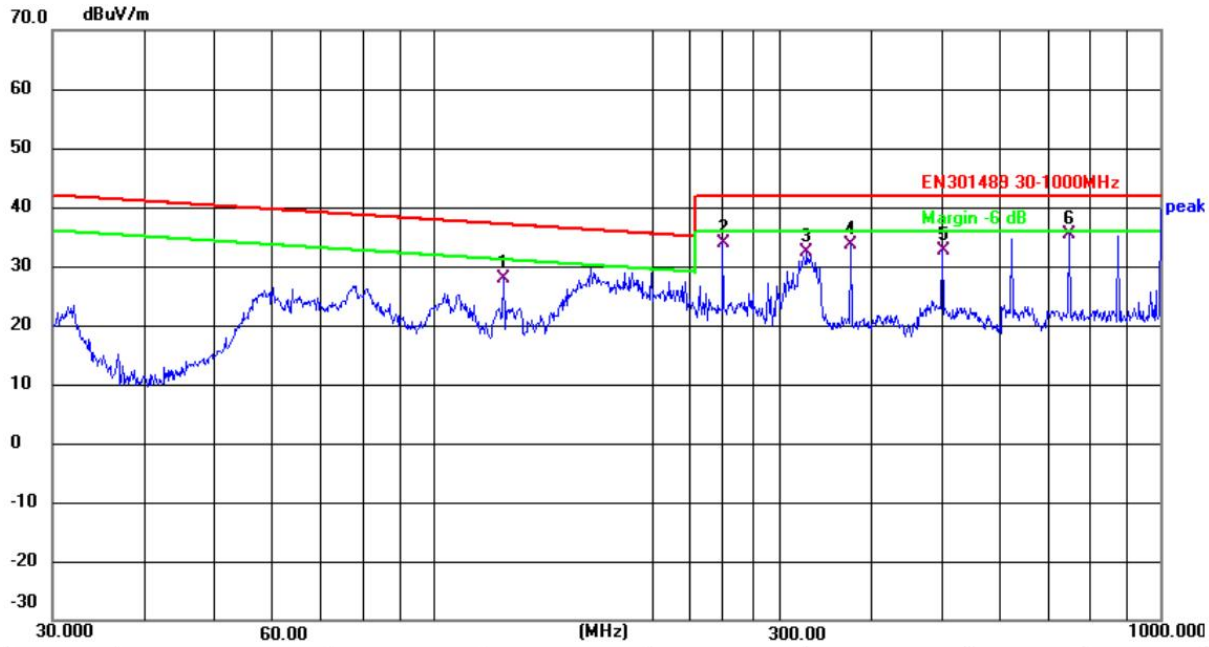
Note: For conducted emission and radiated emission test, a power supply of 230VAC and 120VAC was used for testing respectively, and only recorded the worst case of 230VAC.

Margin= Reading level + Correct factor – Limit

Correct Factor= Lisn Factor+Cable Factor

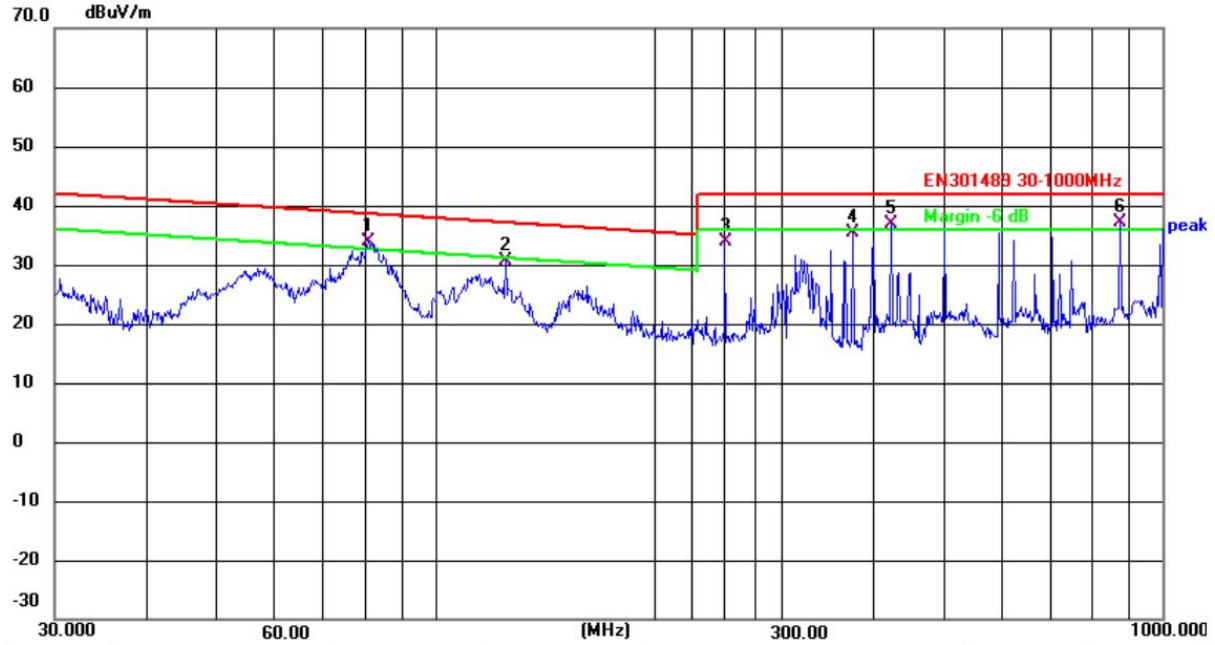
A.3 Radiated Disturbance

Test Model	Stix3800	Test Mode	TM1
Environmental Conditions	23.8℃, 52.1% RH	Test Engineer	Jay Luo
Pol.	Horizontal	Detector Function	Quasi-peak
Distance	3m	Test Voltage	AC 230V/50Hz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	125.0065	48.05	-20.26	27.79	37.10	-9.31	QP
2	250.3010	49.38	-15.61	33.77	42.00	-8.23	QP
3	326.7395	46.72	-14.24	32.48	42.00	-9.52	QP
4	375.9384	48.33	-14.72	33.61	42.00	-8.39	QP
5	501.1789	45.73	-13.14	32.59	42.00	-9.41	QP
6	750.1082	45.41	-10.13	35.28	42.00	-6.72	QP

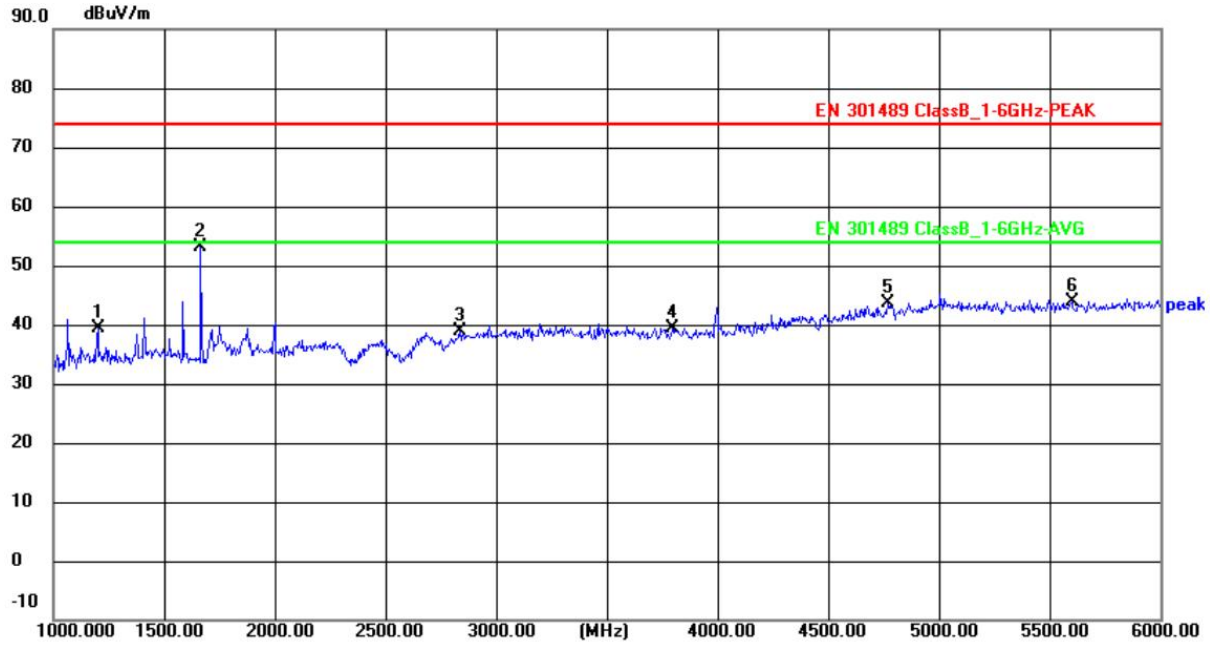
Test Model	Stix3800	Test Mode	TM1
Environmental Conditions	23.8℃, 52.1% RH	Test Engineer	Jay Luo
Pol.	Vertical	Detector Function	Quasi-peak
Distance	3m	Test Voltage	AC 230V/50Hz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	80.9274	53.61	-19.79	33.82	38.59	-4.77	QP
2	125.0065	50.86	-20.26	30.60	37.10	-6.50	QP
3	250.3010	49.52	-15.61	33.91	42.00	-8.09	QP
4	375.9384	50.10	-14.72	35.38	42.00	-6.62	QP
5	423.5402	51.24	-14.44	36.80	42.00	-5.20	QP
6	875.2468	45.75	-8.69	37.06	42.00	-4.94	QP

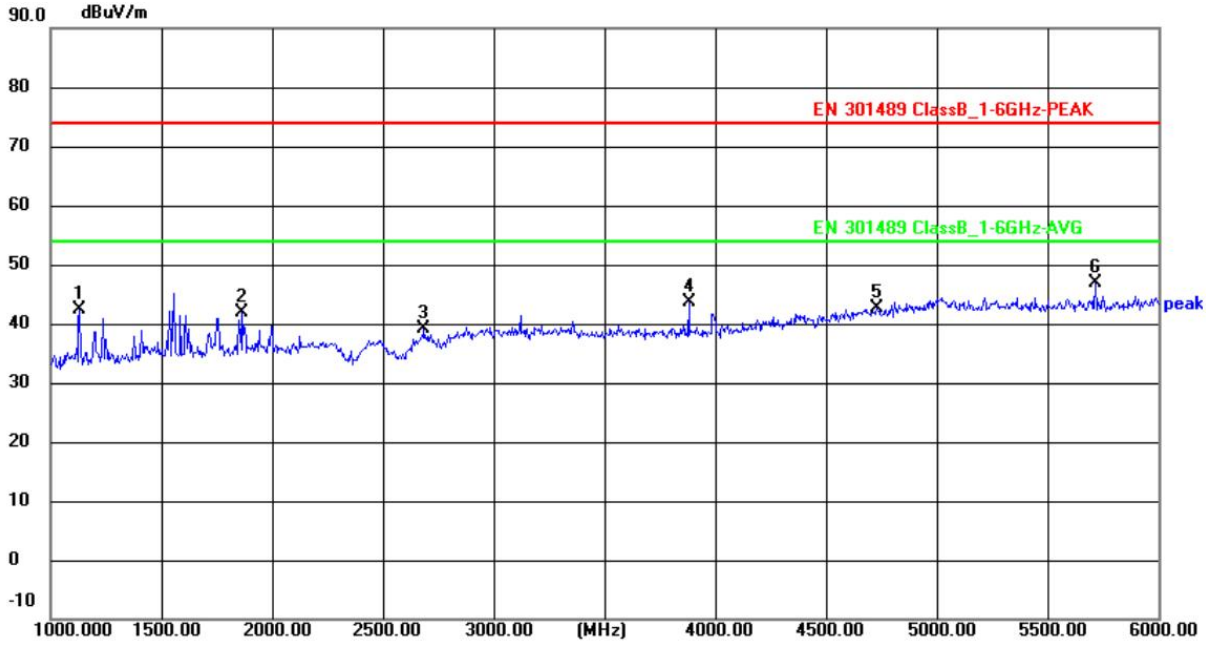
Note: Margin= Reading level + Correct factor – Limit
Correct Factor=Antenna Factor+Cable Factor- Pre-amplifier Factor

Test Model	Stix3800	Test Mode	TM1 (Above 1GHz)
Environmental Conditions	23.9℃, 52.1% RH	Test Engineer	Jay Luo
Pol.	Horizontal	Detector Function	Peak+Average
Distance	3m	Test Voltage	AC 230V/50Hz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1200.000	54.68	-15.21	39.47	74.00	-34.53	peak
2	1665.000	67.63	-14.45	53.18	74.00	-20.82	peak
3	2835.000	49.07	-10.18	38.89	74.00	-35.11	peak
4	3795.000	48.32	-8.90	39.42	74.00	-34.58	peak
5	4770.000	49.00	-5.25	43.75	74.00	-30.25	peak
6	5600.000	47.13	-3.31	43.82	74.00	-30.18	peak

Test Model	Stix3800	Test Mode	TM1 (Above 1GHz)
Environmental Conditions	23.9℃, 52.1% RH	Test Engineer	Jay Luo
Pol.	Vertical	Detector Function	Peak+Average
Distance	3m	Test Voltage	AC 230V/50Hz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	1130.000	57.61	-15.29	42.32	74.00	-31.68	peak
2	1865.000	55.77	-13.81	41.96	74.00	-32.04	peak
3	2685.000	49.84	-10.70	39.14	74.00	-34.86	peak
4	3880.000	52.41	-8.74	43.67	74.00	-30.33	peak
5	4730.000	48.19	-5.45	42.74	74.00	-31.26	peak
6	5715.000	50.24	-3.42	46.82	74.00	-27.18	peak

Note:

1. Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB.
2. Measurements above show only up to 6 maximum emissions noted.
3. Data of measurement within this frequency range shown " -- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
4. Margin= Reading level + Correct factor – Limit
   Correct Factor=Antenna Factor+Cable Factor- Pre-amplifier Factor

A.4 Harmonic Current Emissions

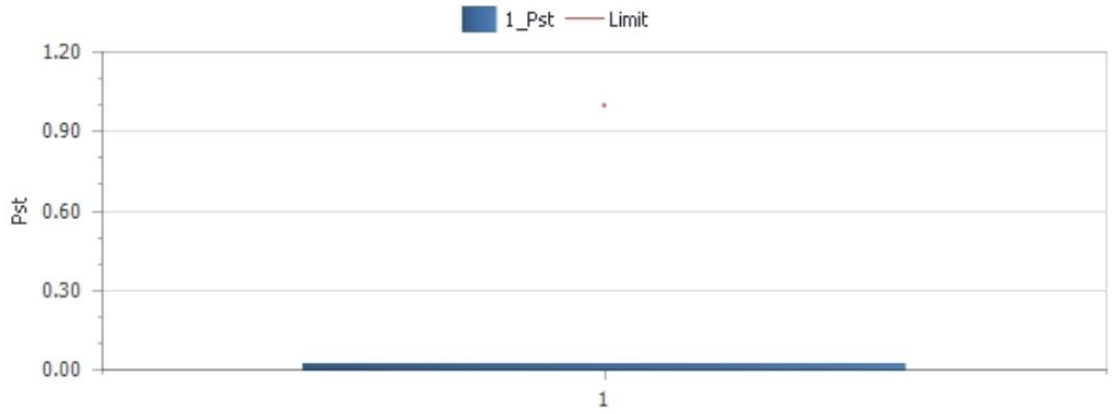
Because power of EUT less than 75W, According standard EN 61000-3-2, Harmonic current unnecessary to test.

A.5 Voltage Fluctuation and Flicker

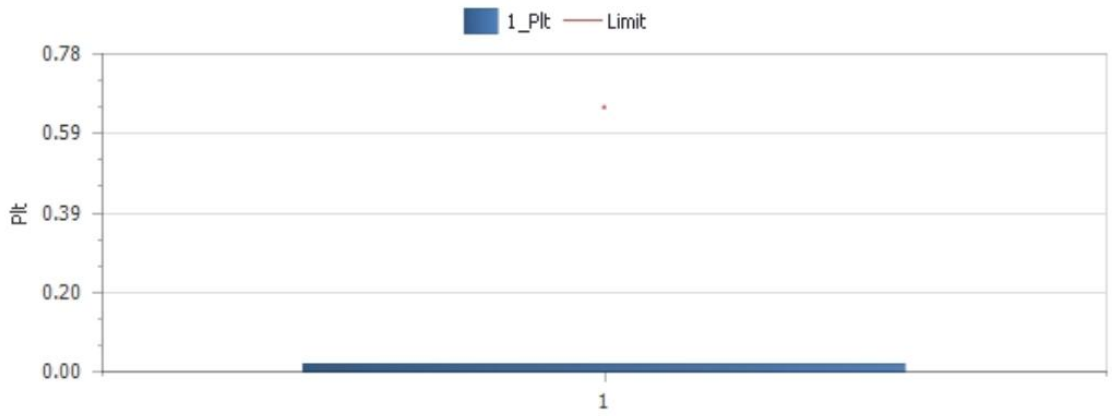
Test Model	Stix3800	Test Engineer	Jay Luo
Environmental Conditions	25.7℃, 55.1% RH	Test Voltage	AC 230V/50Hz

Customer : Result : Pass

Pst and Limit



Plt and Limit



Relevant Parameter and Judgement During Test Period

Vrms at the end of test(V)	229.99			
Error Max(%)		Test Limit(%)		
T-max(ms)	0.00	Test Limit(ms)	500	Pass
dc(%)	0.00	Test Limit(%)	3.30	Pass
dmax(%)	0.00	Test Limit(%)	4.00	Pass
Pst	0.020	Test Limit	1.000	Pass
Plt	0.020	Test Limit	0.650	Pass

A.6 RF Electromagnetic Field (80 MHz - 6000 MHz)

Test Model	Stix3800	Test Engineer	Jay Luo
Environmental Conditions	23.1℃, 52.5% RH	Test Voltage	AC 230V/50Hz

TM1-TM4 Test Result:

EUT Working Mode	Antenna Polarity	Frequency (MHz)	Fielded Strength (V/m)	Observation	Position	Conclusion
Operating Mode	Vertical	80-6000	3	CT, CR	Front, Right, Left, Back, Top, Bottom	Pass
	Horizontal	80-6000	3	CT, CR	Front, Right, Left, Back, Top, Bottom	Pass

TM5-TM9 Test Result:

EUT Working Mode	Antenna Polarity	Frequency (MHz)	Fielded Strength (V/m)	Observation	Position	Conclusion
Operating Mode	Vertical	80-6000	3	See Note	Front, Right, Left, Back, Top, Bottom	Pass
	Horizontal	80-6000	3	See Note	Front, Right, Left, Back, Top, Bottom	Pass
Idle	Vertical	80-6000	3	See Note	Front, Right, Left, Back, Top, Bottom	Pass
	Horizontal	80-6000	3	See Note	Front, Right, Left, Back, Top, Bottom	Pass

Note: The EUT performance complied with performance criteria for CT&CR to MS Function and there is no any degradation of performance and function.
During the test, the Maximum Bit Error Ratio was less than 0.001
During the test, the Maximum Block Error Ratio was less than 0.01

A.7 Electrostatic Discharge

Electrostatic Discharge Test Results			
Standard	☐ IEC 61000-4-2 ☑ EN 61000-4-2		
Applicant	Navori SA		
EUT	Media Player	**Temperature**	23.5℃
M/N	Stix3800	**Humidity**	53.5%
Criterion	B	**Pressure**	1021mbar
Test Mode	TM1-TM9	**Test Engineer**	Jay Luo

TEST RESULT OF TM1-TM4

Test Voltage	Coupling	Observation	Result (Pass/Fail)
±2KV, ±4kV	Contact Discharge	TT, TR	Pass
±2KV, ±4kV, ±8kV	Air Discharge	TT, TR	Pass
±2KV, ±4kV	Indirect Discharge HCP	TT, TR	Pass
±2KV, ±4kV	Indirect Discharge VCP	TT, TR	Pass

TEST RESULT OF TM5-TM9

Test Voltage	Coupling	Result (Pass/Fail)
±2KV, ±4kV	Contact Discharge	Pass
±2KV, ±4kV, ±8kV	Air Discharge	Pass
±2KV, ±4kV	Indirect Discharge HCP	Pass
±2KV, ±4kV	Indirect Discharge VCP	Pass

Note: The EUT performance complied with performance criteria for TT&TR Function and there is no any degradation of performance and function.

A.8 Electrical Fast Transient Immunity

Electrical Fast Transient/Burst Test Results			
Standard	☐ IEC 61000-4-4 ☑ EN 61000-4-4		
Applicant	Navori SA		
EUT	Media Player	**Temperature**	22.8℃
M/N	Stix3800	**Humidity**	52.4％
Test Mode	TM1-TM9	**Criterion**	B
Test Engineer	Jay Luo		

TEST RESULT OF TM1-TM4				
Line	**Test Voltage**	**Polarity**	**Observation**	**Result (Pass/Fail)**
L	1KV	+/-	TT, TR	Pass
N	1KV	+/-	TT, TR	Pass
L-N	1KV	+/-	TT, TR	Pass

TEST RESULT OF TM5-TM9			
Line	**Test Voltage**	**Polarity**	**Result (Pass/Fail)**
L	1KV	+/-	Pass
N	1KV	+/-	Pass
L-N	1KV	+/-	Pass

A.9 RF Common Mode

Injected Currents Susceptibility Test Results			
Standard	☐ IEC 61000-4-6 ☑ EN 61000-4-6		
Applicant	Navori SA		
EUT	Media Player	**Temperature**	21.9℃
M/N	Stix3800	**Humidity**	53.5%
Test Mode	TM1-TM9	**Criterion**	A
Test Engineer	Jay Luo		

TEST RESULT OF TM1-TM4				
Frequency Range (MHz)	**Strength (Unmodulated)**	**Injected Position**	**Observation**	**Result (Pass/Fail)**
0.15 ~ 80	3V	AC Mains	CT, CR	Pass

TEST RESULT OF TM5-TM9			
Frequency Range (MHz)	**Strength (Unmodulated)**	**Injected Position**	**Result (Pass/Fail)**
0.15 ~ 80	3V	AC Mains	Pass

Remark:
1. Modulation Signal:1kHz 80% AM

Note: The EUT performance complied with performance criteria for CT&CR Function and there is no any degradation of performance and function.

A.10 Surges, Line to Line and Line to Ground

Surge Immunity Test Result			
Standard	☐ IEC 61000-4-5 ☑ EN 61000-4-5		
Applicant	Navori SA		
EUT	Media Player	**Temperature**	23.3℃
M/N	Stix3800	**Humidity**	52.6%
Test Mode	TM1-TM9	**Criterion**	B
Test Engineer	Jay Luo		

TEST RESULT OF TM1-TM4						
Location	**Polarity**	**Phase Angle**	**Number of Pulse**	**Pulse Voltage (KV)**	**Observation**	**Result (Pass/Fail)**
L-N	+	0º, 90º, 180º, 270º	5	1.0	TT, TR	Pass
	-	0º, 90º, 180º, 270º	5	1.0	TT, TR	Pass

TEST RESULT OF TM5-TM9					
Location	**Polarity**	**Phase Angle**	**Number of Pulse**	**Pulse Voltage (KV)**	**Result (Pass/Fail)**
L-N	+	0º, 90º, 180º, 270º	5	1.0	Pass
	-	0º, 90º, 180º, 270º	5	1.0	Pass

A.11 Voltage Dips/Interruptions Immunity Test

Voltage Dips And Interruptions Test Results			
Standard	☐ IEC 61000-4-11 ☑ EN 61000-4-11		
Applicant	Navori SA		
EUT	Media Player	**Temperature**	23.2℃
M/N	Stix3800	**Humidity**	54.3%
Test Mode	TM1-TM9	**Criterion**	B&C
Test Engineer	Jay Luo		

TEST RESULT OF TM1-TM4				
Test Level % U_T	**Voltage Dips & Short Interruptions % U_T**	**Duration (in periods)**	**Observation**	**Result (Pass/Fail)**
0	100	0.5P	TT, TR	Pass
0	100	1P	TT, TR	Pass
70	30	25P	TT, TR	Pass
0	100	250P	TT, TR	Pass

TEST RESULT OF TM5-TM9			
Test Level % U_T	**Voltage Dips & Short Interruptions % U_T**	**Duration (in periods)**	**Result (Pass/Fail)**
0	100	0.5P	Pass
0	100	1P	Pass
70	30	25P	Pass
0	100	250P	Pass