



## FCC - TEST REPORT

Report Number : **68.760.18.0444.01** Date of Issue: August 13, 2018

Model : **MX-STAND-BODY**

Product Type : **Smart Stand**

Applicant : **Ingenico Inc.**

Address : **101 Federal St, Suite 700, 7th flr, Boston, MA 02110, United States**

Manufacturer : **Ingenico Inc.**

Address : **101 Federal St, Suite 700, 7th flr, Boston, MA 02110, United States**

Test Result :  **Positive**     **Negative**

Total pages including Appendices : **21**

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## 2 Details about the Test Laboratory

### Details about the Test Laboratory

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch  
Building 12&13, Zhiheng Wisdomland Business Park,  
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FCC Registration Number: 514049

IC Registration Number: 10320A-1

Telephone: 86 755 8828 6998  
Fax: 86 755 8828 5299

### 3 Description of the Equipment Under Test

#### Description of the Equipment Under Test

Product:	Smart Stand
Model no.:	MX-STAND-BODY
Serial number:	NIL
FCC ID:	2AOMA-MX-STAND-BODY
Options and accessories:	Tablet Supplied by Wanlida
Rated Input:	5Vdc, 3A (Supplied by an External adapter, Model: DSA-24CB-05 Input: 100-240VAC, 50/60Hz, 0.8A Output: 5VDC, 3.0A)
Description of the EUT:	The MX-STAND-BODY is smart stand without Radio function.

## 4 Summary of Test Standards

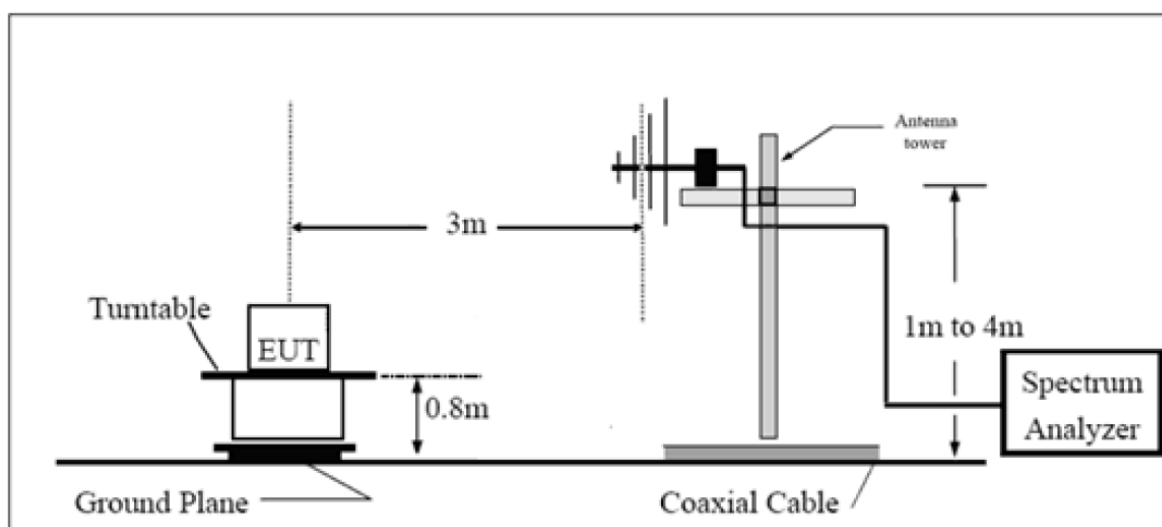
Test Standards	
FCC Part 15 Subpart B, 10-1-2017 Edition	PART 15 - RADIO FREQUENCY DEVICES Subpart B - Unintentional Radiators

### Test Method

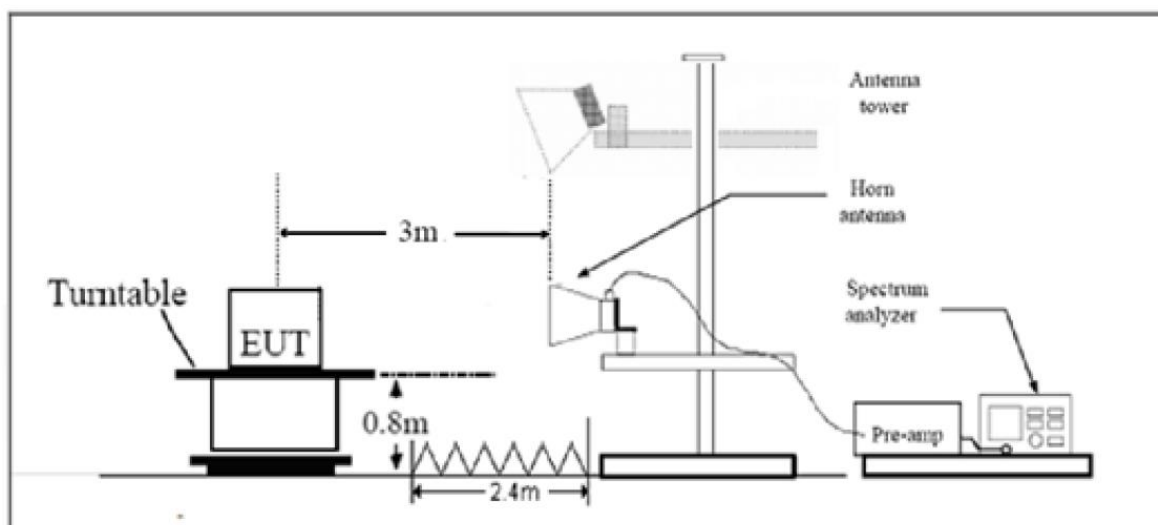
1: ANSI C63.4-2014, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.

### Test Setup

Below 1GHz



Above 1GHz



## 5 Summary of Test Results

Emission Tests				
FCC Part 15 Subpart B,10-1-2017 Edition				
Test Condition Class B	Pages	Test Result		
		Pass	Fail	N/A
Radiated Emission * 30MHz to 1000MHz	8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Radiated Emission * 1GHz to 18GHz	12	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Conducted Emission on AC * 150kHz to 30MHz	17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remark: All test modes were performed and the worst case was shown on the report.

System Measurement Uncertainty	
Test Items	Extended Uncertainty
Uncertainty for Conducted Emission 150kHz-30MHz (for test using AMN ENV216 or ENV4200)	3.46dB
Uncertainty for Radiated Emission in 3m chamber 30MHz-1000MHz	Horizontal: 4.99dB; Vertical: 4.97dB;
Uncertainty for Radiated Emission in 3m chamber 1000MHz-18000MHz	Horizontal: 4.96dB; Vertical: 4.95dB;

## 6 General Remarks

### Remarks

NIL

### SUMMARY:

All tests according to the regulations cited on page 5 were

■ - Performed

□ - **Not** Performed

The Equipment Under Test

■ - **Fulfills** the general approval requirements.

□ - **Does not** fulfill the general approval requirements.

Sample Received Date: July 18, 2018

Testing Start Date: July 18, 2018

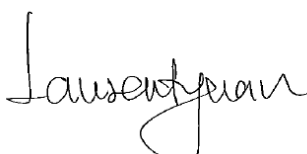
Testing End Date: August 01, 2018

- TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch-

Reviewed by:

Prepared by:

Tested by:



Laurent Yuan  
EMC Project Manager



Aaron Lai  
EMC Project Engineer

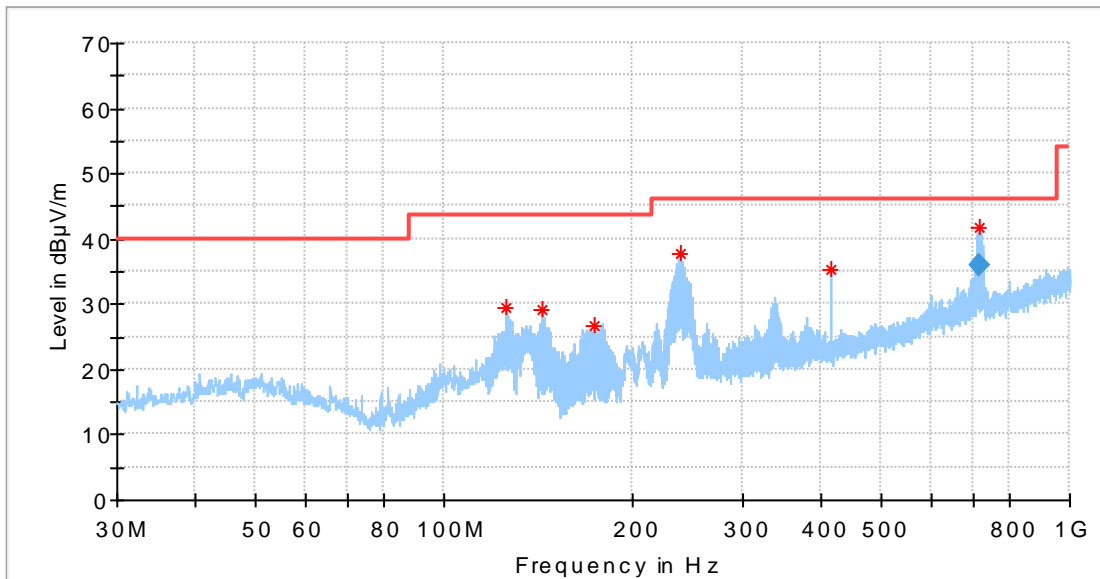


Louise Liu  
EMC Test Engineer

## 7 Emission Test Results

### 7.1 Radiated Emission Test 30MHz – 1000MHz

Product Type : Smart Stand  
 M/N : MX-STAND-BODY  
 Operating Condition : Charging + Ethernet (Ping)  
 Test Specification : Horizontal  
 Comment : AC 120V/60Hz  
 Temperature (°C): 23.1 Relative Humidity (%): 43.4 Atmospheric Pressure(mbar) : 1017



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
125.848125	29.58	43.50	13.92	200.0	H	312.0	13.0
143.490000	29.08	43.50	14.42	200.0	H	77.0	12.5
173.499375	26.64	43.50	16.86	200.0	H	54.0	13.7
238.246875	37.79	46.00	8.21	200.0	H	22.0	17.6
415.938750	35.19	46.00	10.81	100.0	H	236.0	21.9
717.680938	41.89	46.00	4.11	141.0	H	76.0	27.3

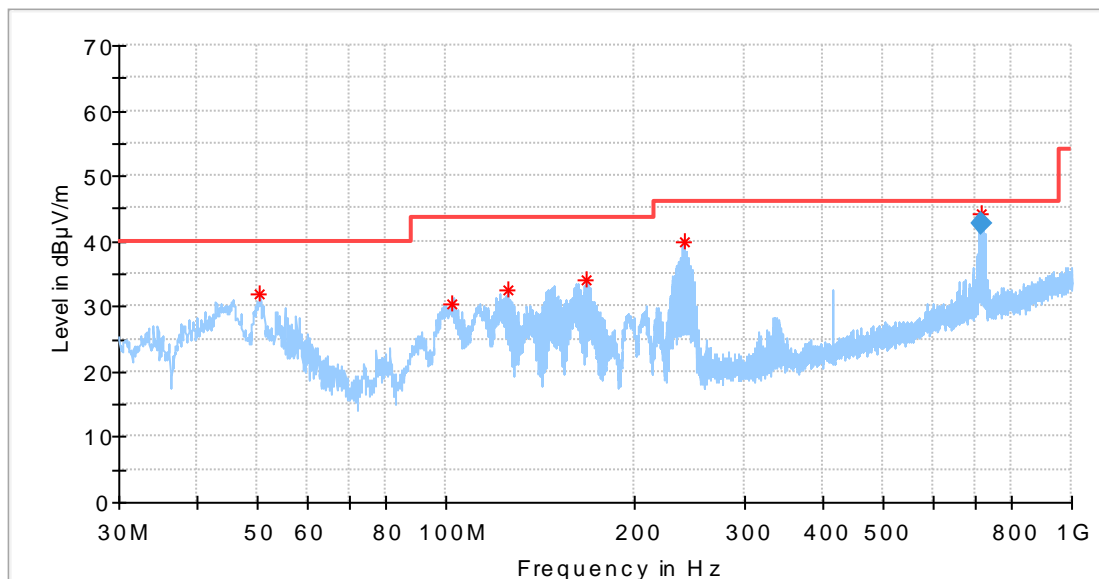
### Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
717.680938	36.02	46.00	9.98	141.0	H	76.0	27.4



## Radiated Emission Test 30MHz – 1000MHz

Product Type : Smart Stand  
 M/N : MX-STAND-BODY  
 Operating Condition : Charging + Ethernet (Ping)  
 Test Specification : Vertical  
 Comment : AC 120V/60Hz  
 Temperature (°C): 23.1 Relative Humidity (%): 43.4 Atmospheric Pressure(mbar) : 1017



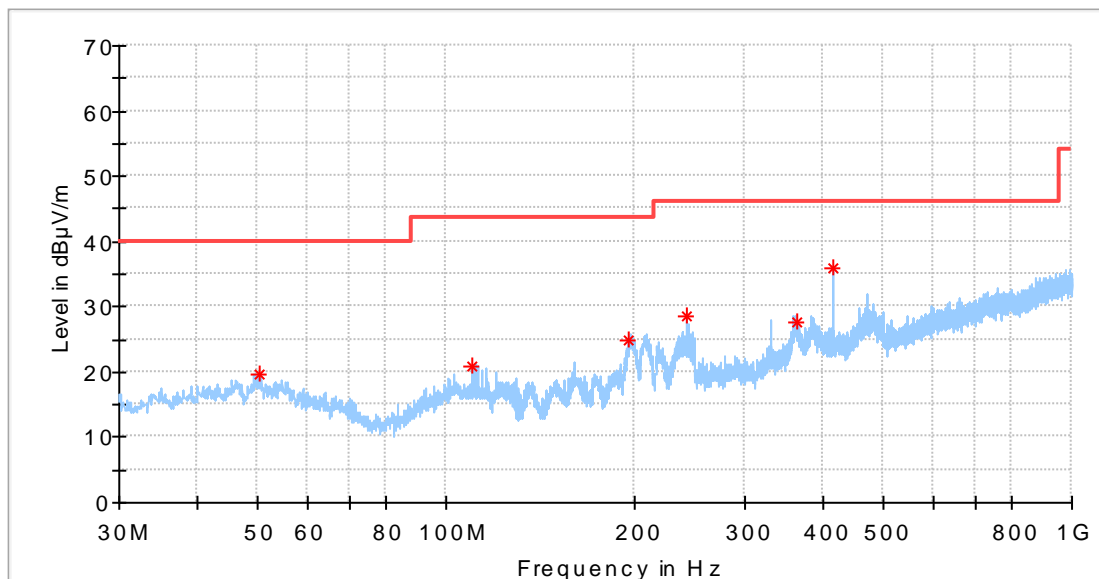
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
50.370000	32.06	40.00	7.94	100.0	V	0.0	18.0
102.386250	30.39	43.50	13.11	100.0	V	338.0	16.3
125.969375	32.49	43.50	11.01	100.0	V	132.0	13.3
167.618750	33.96	43.50	9.54	100.0	V	155.0	13.8
240.005000	39.85	46.00	6.15	200.0	V	15.0	18.1
718.859062	44.16	46.00	1.84	100.0	V	148.0	27.8

### Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
718.859062	42.68	46.00	3.32	100.0	V	148.0	27.8

## Radiated Emission Test 30MHz – 1000MHz

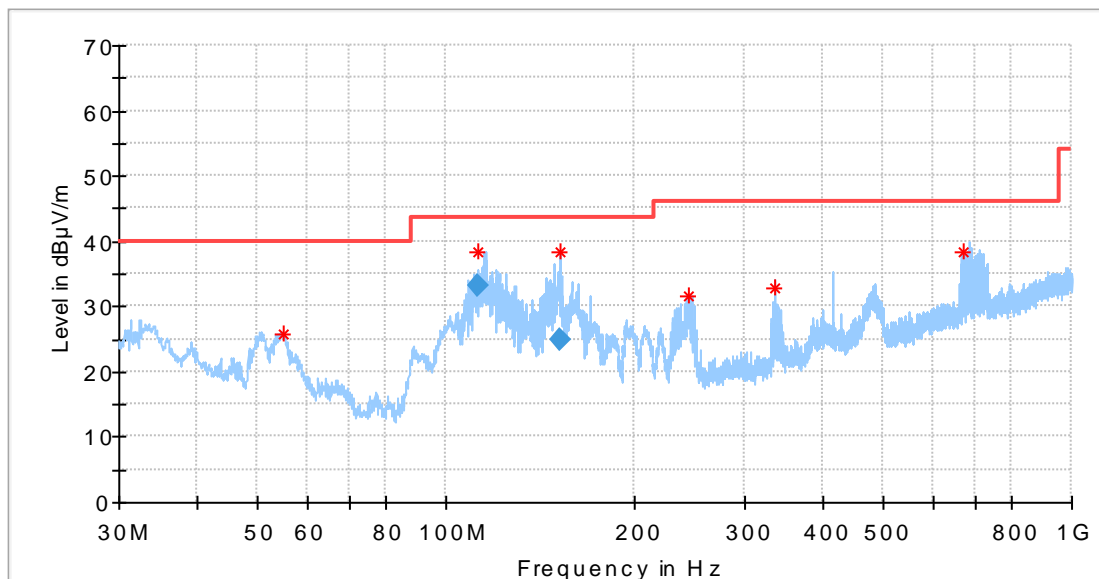
Product Type : Smart Stand  
 M/N : MX-STAND-BODY  
 Operating Condition : Charging + USB playing  
 Test Specification : Horizontal  
 Comment : AC 120V/60Hz  
 Temperature (°C): 23.1 Relative Humidity (%): 43.4 Atmospheric Pressure(mbar) : 1017



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
50.430625	19.73	40.00	20.27	100.0	H	103.0	17.7
109.782500	20.91	43.50	22.59	100.0	H	351.0	15.8
195.870000	24.81	43.50	18.69	100.0	H	351.0	15.9
242.551250	28.40	46.00	17.60	100.0	H	267.0	17.8
364.043750	27.71	46.00	18.29	100.0	H	4.0	20.6
415.999375	36.04	46.00	9.96	200.0	H	205.0	21.9

## Radiated Emission Test 30MHz – 1000MHz

Product Type : Smart Stand  
 M/N : MX-STAND-BODY  
 Operating Condition : Charging + USB playing  
 Test Specification : Vertical  
 Comment : AC 120V/60Hz  
 Temperature (°C): 23.1 Relative Humidity (%): 43.4 Atmospheric Pressure(mbar) : 1017



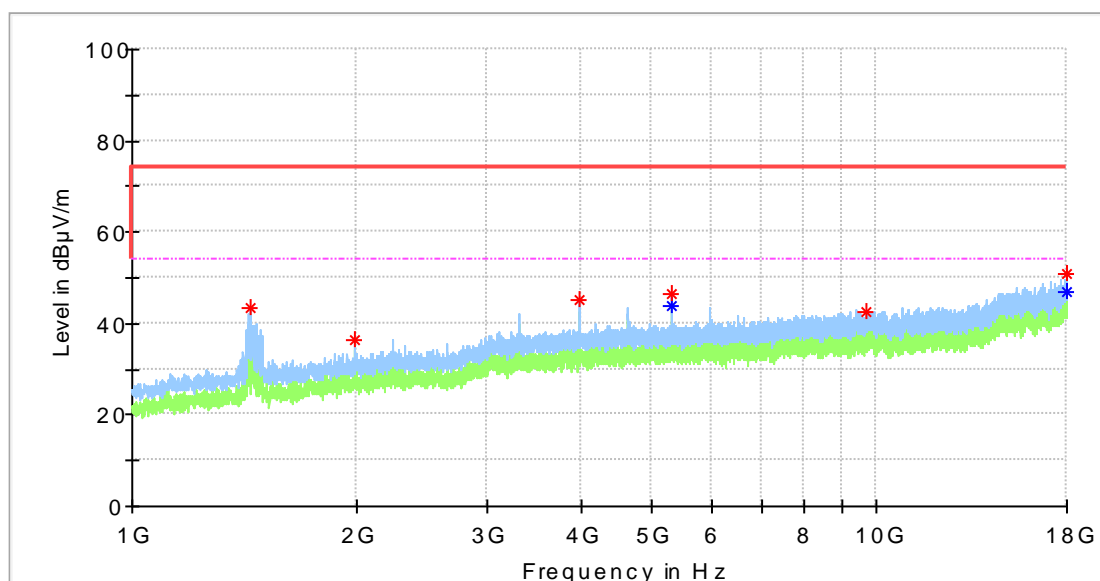
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
54.977500	25.81	40.00	14.19	100.0	V	134.0	17.8
112.706250	38.39	43.50	5.11	100.0	V	79.0	15.7
152.100312	38.29	43.50	5.21	100.0	V	229.0	13.0
244.188125	31.53	46.00	14.47	100.0	V	204.0	18.1
336.035000	32.96	46.00	13.04	200.0	V	241.0	20.5
672.140000	38.46	46.00	7.54	100.0	V	134.0	27.3

## Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
112.706250	33.02	43.50	10.48	100.0	V	79.0	15.8
152.100312	24.82	43.50	18.68	100.0	V	229.0	13.0

## 7.2 Radiated Emission Test 1000MHz – 18000MHz

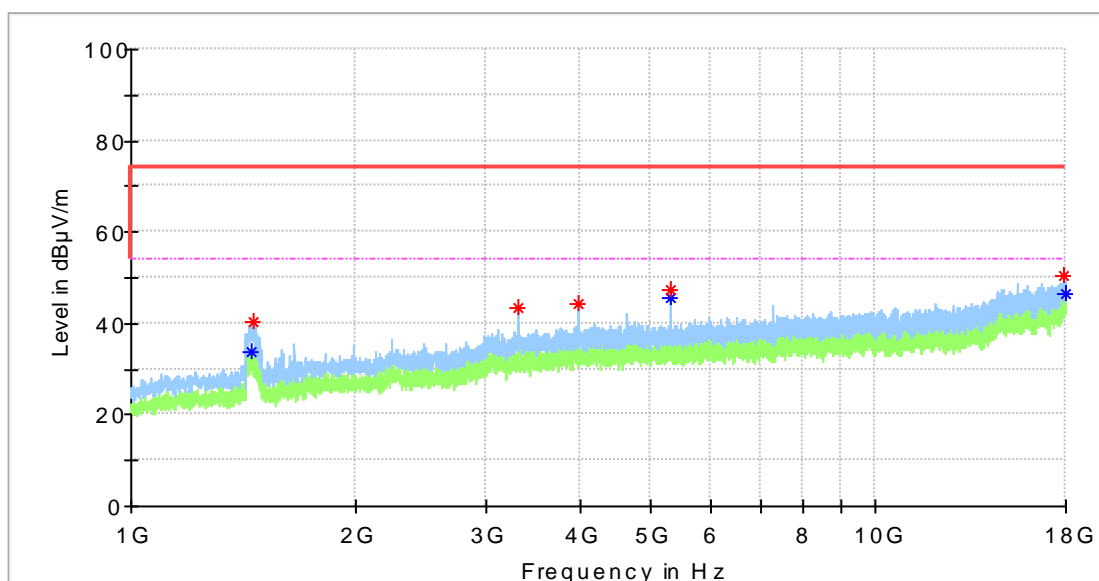
Product Type : Smart Stand  
 M/N : MX-STAND-BODY  
 Operating Condition : Charging + Ethernet (Ping)  
 Test Specification : Horizontal  
 Comment : AC 120V/60Hz  
 Frequency : 1GHz – 18GHz  
 Temperature (°C): 23.1 Relative Humidity (%): 43.4 Atmospheric Pressure(mbar) : 1017



Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1438.458333	43.61	---	74.00	30.39	100.0	H	324.0	-13.0
1988.833333	36.24	---	74.00	37.76	100.0	H	298.0	-9.3
3977.833333	45.29	---	74.00	28.71	100.0	H	12.0	-1.4
5303.833333	---	43.91	54.00	10.09	100.0	H	298.0	1.4
5304.541667	46.42	---	74.00	27.58	100.0	H	270.0	1.5
9707.541667	42.40	---	74.00	31.60	100.0	H	0.0	6.2
17954.666667	---	46.81	54.00	7.19	100.0	H	192.0	18.3
17985.833333	50.92	---	74.00	23.08	100.0	H	192.0	18.4

## Radiated Emission Test 1000MHz – 18000MHz

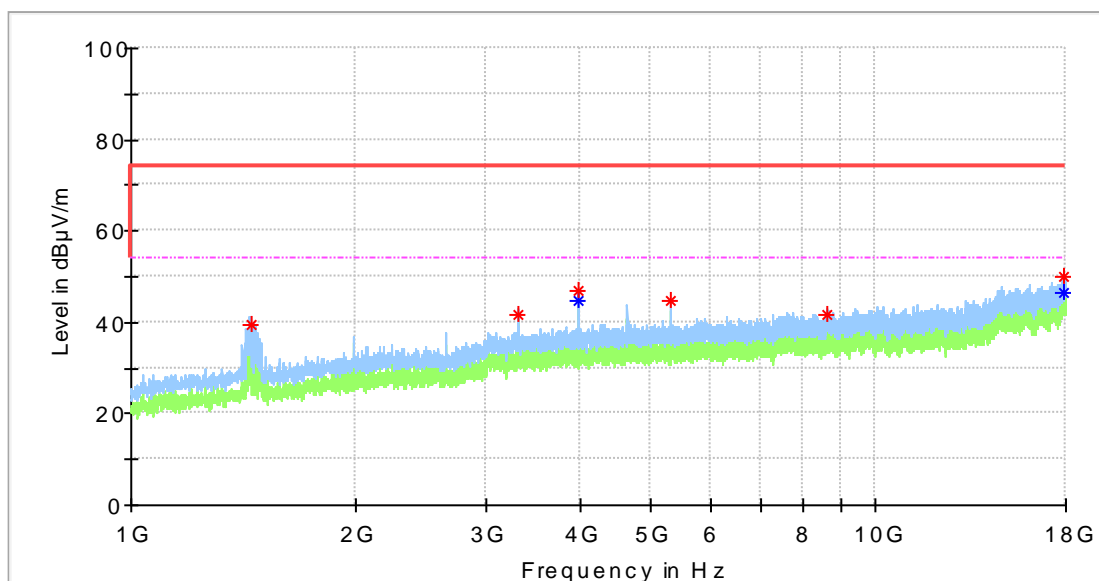
Product Type : Smart Stand  
 M/N : MX-STAND-BODY  
 Operating Condition : Charging + Ethernet (Ping)  
 Test Specification : Vertical  
 Comment : AC 120V/60Hz  
 Frequency : 1GHz – 18GHz  
 Temperature (°C): 23.1 Relative Humidity (%): 43.4 Atmospheric Pressure(mbar) : 1017



Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1447.666667	---	33.90	54.00	20.10	100.0	V	0.0	-12.7
1461.833333	40.56	---	74.00	33.44	100.0	V	0.0	-12.7
3314.833333	43.41	---	74.00	30.59	100.0	V	357.0	-3.1
3977.833333	44.49	---	74.00	29.51	100.0	V	0.0	-1.2
5303.833333	47.38	---	74.00	26.62	100.0	V	277.0	1.5
5303.833333	---	45.83	54.00	8.17	100.0	V	277.0	1.5
17935.541667	50.43	---	74.00	23.57	100.0	V	182.0	18.4
17972.375000	---	46.30	54.00	7.70	100.0	V	0.0	18.6

## Radiated Emission Test 1000MHz – 18000MHz

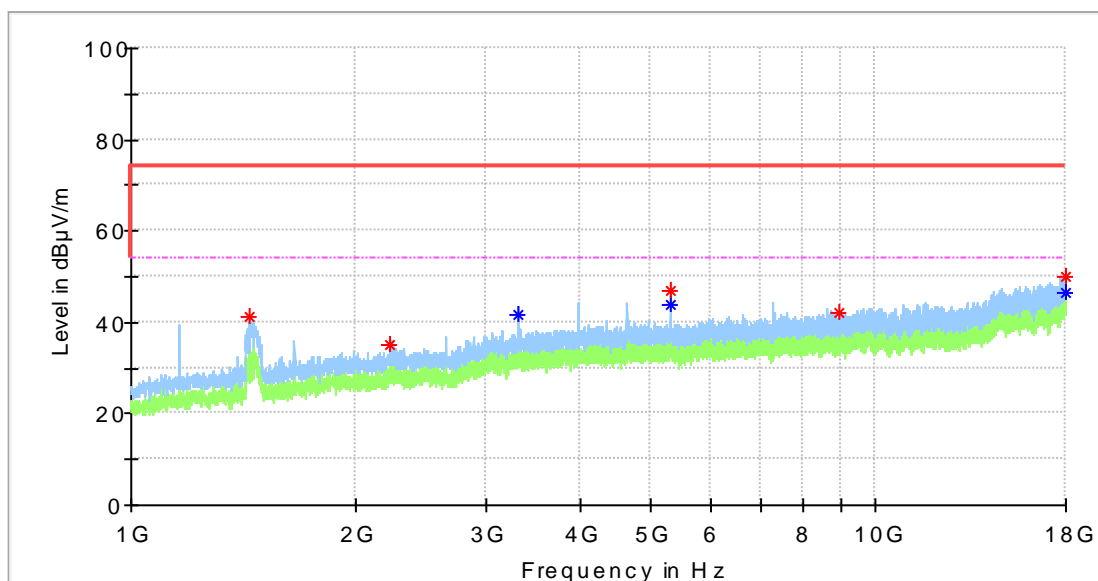
Product Type : Smart Stand  
 M/N : MX-STAND-BODY  
 Operating Condition : Charging + USB playing  
 Test Specification : Horizontal  
 Comment : AC 120V/60Hz  
 Frequency : 1GHz – 18GHz  
 Temperature (°C): 23.1 Relative Humidity (%): 43.4 Atmospheric Pressure(mbar) : 1017



Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1447.666667	39.49	---	74.00	34.51	100.0	H	316.0	-12.9
3315.541667	41.54	---	74.00	32.46	100.0	H	0.0	-3.1
3977.833333	---	44.80	54.00	9.20	100.0	H	12.0	-1.4
3977.833333	46.86	---	74.00	27.14	100.0	H	12.0	-1.4
5303.833333	44.78	---	74.00	29.22	100.0	H	303.0	1.4
8616.708333	41.62	---	74.00	32.38	100.0	H	221.0	5.0
17931.291667	---	46.67	54.00	7.33	100.0	H	23.0	18.2
17936.250000	49.98	---	74.00	24.02	100.0	H	250.0	18.2

## Radiated Emission Test 1000MHz – 18000MHz

Product Type : Smart Stand  
 M/N : MX-STAND-BODY  
 Operating Condition : Charging + USB playing  
 Test Specification : Vertical  
 Comment : AC 120V/60Hz  
 Frequency : 1GHz – 18GHz  
 Temperature (°C): 23.1 Relative Humidity (%): 43.4 Atmospheric Pressure(mbar) : 1017



Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1443.416667	41.14	---	74.00	32.86	100.0	V	4.0	-12.8
2221.166667	35.20	---	74.00	38.80	100.0	V	284.0	-8.3
3314.833333	---	41.87	54.00	12.13	100.0	V	356.0	-3.1
5303.833333	---	43.92	54.00	10.08	100.0	V	284.0	1.5
5304.541667	46.99	---	74.00	27.01	100.0	V	284.0	1.5
8930.500000	42.24	---	74.00	31.76	100.0	V	0.0	5.4
17956.083333	---	46.66	54.00	7.34	100.0	V	0.0	18.5
17985.833333	49.96	---	74.00	24.04	100.0	V	244.0	18.6

## Test Equipment List

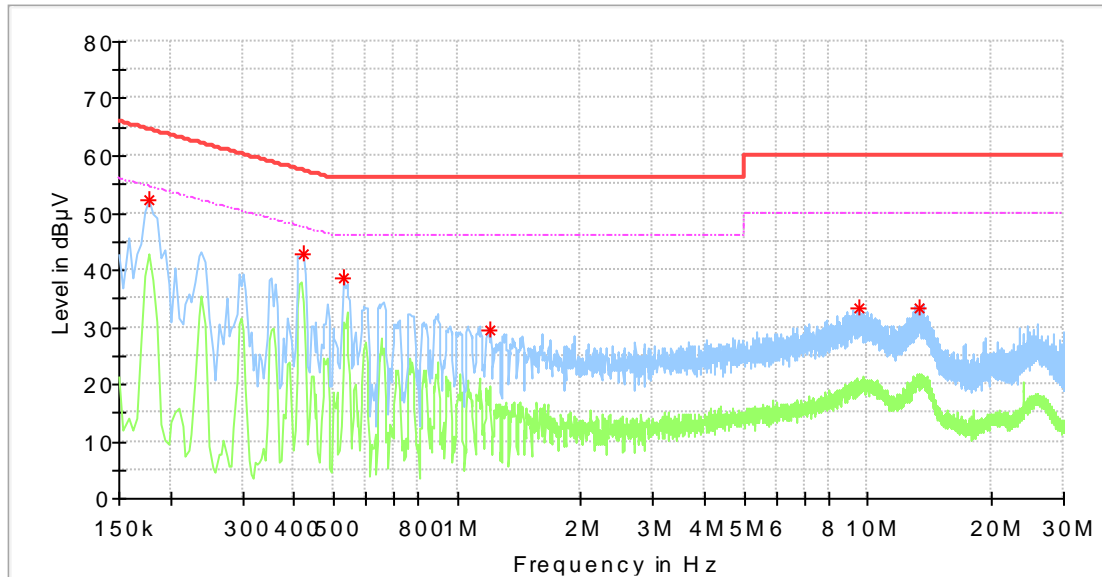
### Radiated Emission Test

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 26	101269	2019-7-6
Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9163	707	2019-7-13
Horn Antenna	Rohde & Schwarz	HF907	102294	2019-7-13
Pre-amplifier	Rohde & Schwarz	SCU 18	102230	2019-7-6
Signal Generator	Rohde & Schwarz	SMY01	839369/005	2019-7-6
Attenuator	Agilent	8491A	MY39264334	2019-7-6
3m Semi-anechoic chamber	TDK	9X6X6	----	2020-7-7
Test software	Rohde & Schwarz	EMC32	Version 9.15.00	N/A



### 7.3 Conducted Emission Test 0.15MHz – 30MHz

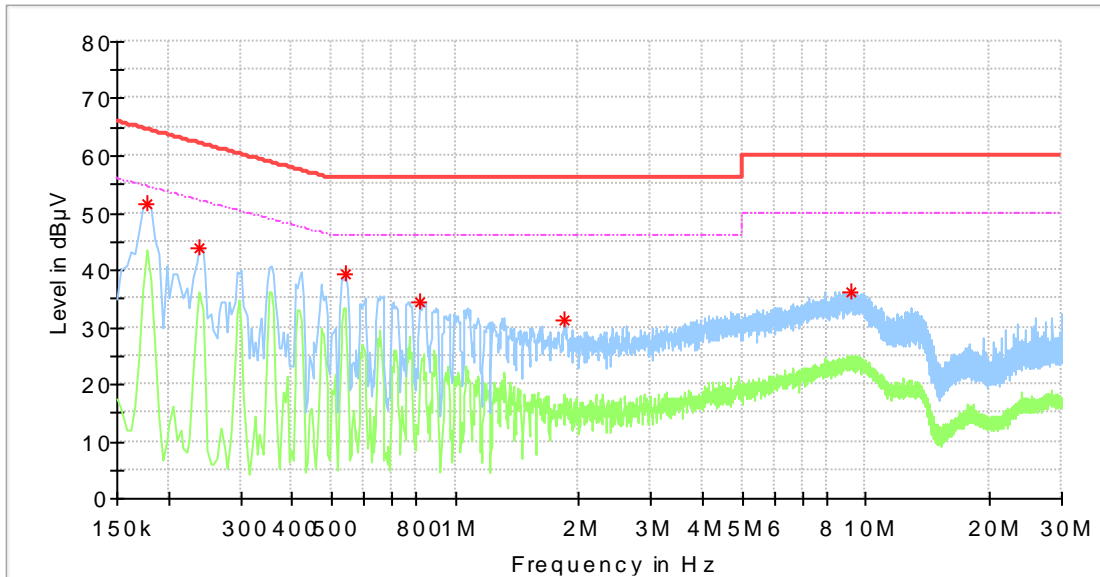
Product Type : Smart Stand  
 M/N : MX-STAND-BODY  
 Operating Condition : Charging + Ethernet (Ping)  
 Test Specification : Power line, Live  
 Comment : AC 120V/60Hz  
 Temperature (°C): 23.7 Relative Humidity (%): 56.4 Atmospheric Pressure(mbar) : 102.0



Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.178000	52.22	---	64.58	12.36	L1	10.2
0.422000	42.96	---	57.41	14.45	L1	11.4
0.530000	38.51	---	56.00	17.49	L1	10.2
1.206000	29.61	---	56.00	26.39	L1	10.2
9.478000	33.17	---	60.00	26.83	L1	10.6
13.382000	33.41	---	60.00	26.59	L1	10.6

## Conducted Emission Test 0.15MHz – 30MHz

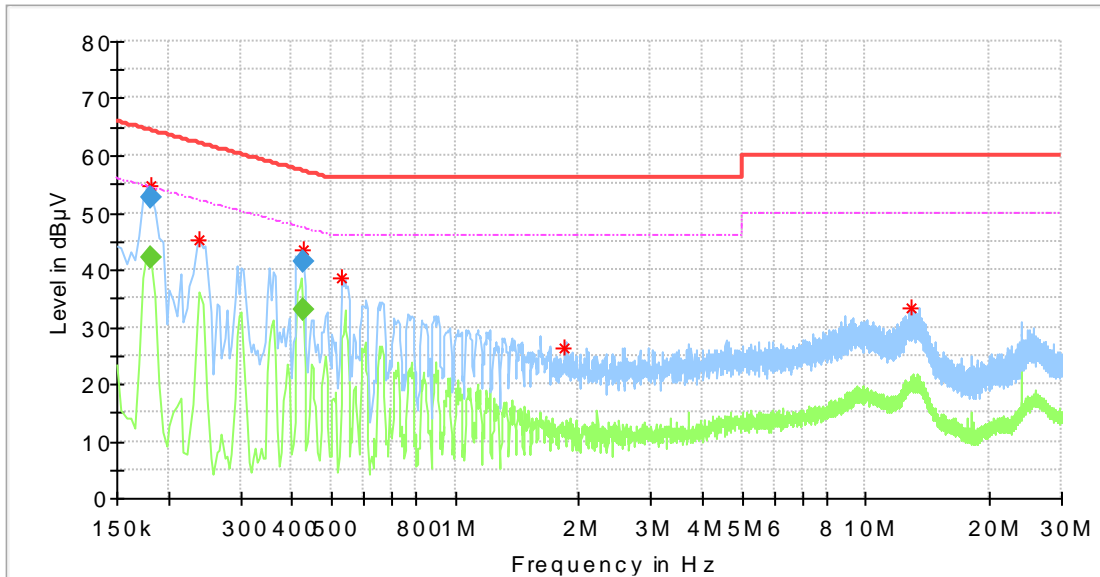
Product Type : Smart Stand  
 M/N : MX-STAND-BODY  
 Operating Condition : Charging + Ethernet (Ping)  
 Test Specification : Power line, Neutral  
 Comment : AC 120V/60Hz  
 Temperature (°C): 23.7 Relative Humidity (%): 56.4 Atmospheric Pressure(mbar) : 102.0



Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.178000	51.41	---	64.58	13.17	N	10.3
0.238000	43.72	---	62.17	18.44	N	10.3
0.542000	39.13	---	56.00	16.87	N	10.4
0.822000	34.28	---	56.00	21.72	N	10.4
1.850000	31.12	---	56.00	24.88	N	10.4
9.194000	36.14	---	60.00	23.86	N	10.8

## Conducted Emission Test 0.15MHz – 30MHz

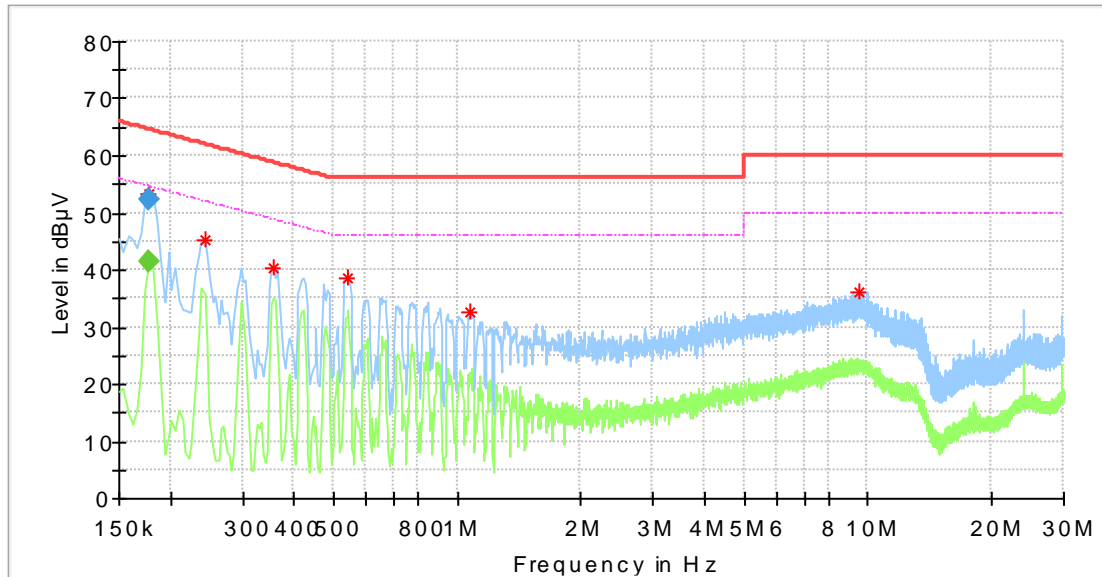
Product Type : Smart Stand  
 M/N : MX-STAND-BODY  
 Operating Condition : Charging + USB playing  
 Test Specification : Power line, Live  
 Comment : AC 120V/60Hz  
 Temperature (°C): 23.7 Relative Humidity (%): 56.4 Atmospheric Pressure(mbar) : 102.0



Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.182500	54.60	---	64.58	9.98	L1	10.2
0.238000	45.14	---	62.17	17.03	L1	10.2
0.425500	43.50	---	57.41	13.91	L1	11.4
0.530000	38.68	---	56.00	17.32	L1	10.2
1.850000	26.35	---	56.00	29.65	L1	10.3
12.858000	33.37	---	60.00	26.63	L1	10.6

## Conducted Emission Test 0.15MHz – 30MHz

Product Type : Smart Stand  
 M/N : MX-STAND-BODY  
 Operating Condition : Charging + USB playing  
 Test Specification : Power line, Neutral  
 Comment : AC 120V/60Hz  
 Temperature (°C): 23.7 Relative Humidity (%): 56.4 Atmospheric Pressure(mbar) : 102.0



Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.177500	53.41	---	64.58	11.17	N	10.3
0.242000	45.11	---	62.03	16.92	N	10.3
0.358000	40.34	---	58.77	18.43	N	10.3
0.538000	38.69	---	56.00	17.31	N	10.4
1.078000	32.61	---	56.00	23.39	N	10.4
9.482000	36.01	---	60.00	23.99	N	10.8

## Test Equipment List

### Conducted Emission Test

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 3	101782	2019-7-6
LISN	Rohde & Schwarz	ENV4200	100249	2019-7-6
LISN	Rohde & Schwarz	ENV432	101318	2019-7-6
LISN	Rohde & Schwarz	ENV216	100326	2019-7-6
ISN	Rohde & Schwarz	ENY81	100177	2019-7-6
ISN	Rohde & Schwarz	ENY81-CA6	101664	2019-7-6
High Voltage Probe	Rohde & Schwarz	TK9420(VT94 20)	9420-584	2019-6-30
RF Current Probe	Rohde & Schwarz	EZ-17	100816	2019-6-30
Attenuator	Shanghai Huaxiang	TS2-26-3	080928189	2019-7-6
Test software	Rohde & Schwarz	EMC32	Version9.15.00	N/A