



RF TEST REPORT

Report No: FCS202507157W02

Issued for

Applicant:	Mid Ocean Brands B.V.
Address:	Unit 711-716, 7/F., Tower A, 83 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong.
Product Name:	Charging cable with charger
Brand Name:	N/A
Model Name:	MO3145
Series Model:	N/A
Test Standard:	ETSI EN 300 330 V2.1.1(2017-02)
Issued By: Dongguan Funas Testing Technology Co.,Ltd. Add: Room 105 Floor Bao hao Technology Building 1 NO.15 Gong ye West Road Hi-Tech Industrial, Song shan lake Dongguan, China Tel: 769-27280901 Fax:769-27280901 http://www.fcs-lab.com E-mail: andy.yue@fcs-lab.com	

TEST REPORT CERTIFICATION**Applicant's name**.....: Mid Ocean Brands B.V.Address.....: Unit 711-716, 7/F., Tower A, 83 King Lam Street,
Cheung Sha Wan, Kowloon, Hong Kong.**Manufacture's Name**.....: Mid Ocean Brands B.V.Address.....: Unit 711-716, 7/F., Tower A, 83 King Lam Street,
Cheung Sha Wan, Kowloon, Hong Kong.**Product description**

Product Name.....: Charging cable with charger

Brand Name: N/A

Model Name:.....: MO3145

Series Model.....: See the first page of the report

Test Standards.....: ETSI EN 300 330 V2.1.1(2017-02)

This device described above has been tested by FCS, and the test results show that the equipment under test (EUT) is in compliance with the 2014/53/EU RED Directive Art.3.2 requirements. And it is applicable only to the tested sample identified in the report.

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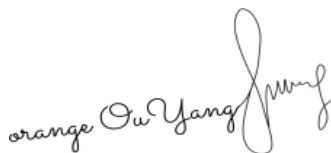
Date of Test.....:

Date (s) of performance of tests.....: July 10, 2026~July 20, 2026

Date of Issue.....: July 20, 2026

Test Result.....: Pass

Tested by :



(orange OuYang)

Reviewed by :



(jayden)

Approved by :



(Jack Wang)

Revision history

Rev.	Issue Date	Report No.	Effect Page	Contents
00	July 20, 2026	FCS202607157W02	N/A	Initial Issue

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1. TEST RESULT CERTIFICATION

See the below report

Note: The test results of this report relate only to the tested sample identified in this report.

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2. EUT DESCRIPTION

Details of technical specification for WPT refer to the description in follows:

EUT* Name	Charging cable with charger
Model Number	MO3145
EUT function description	Please reference user manual of this device
Power Rating:	Input: DC 5V 1A Output: DC 5V 0.5A
Wireless charging Operation frequency	Apple Watch:325kHz~360kHz
Antenna Type	Inductive loop coil antenna
WPT operational modes	Mode 4: energy transmission
Sample Type	Series production

NOTE: For more information, please refer to User's Manual.

3. DESCRIPTION OF TEST MODES

The EUT has been tested under Normal Operation and standby condition.

4. TEST FACILITY

Company Name:	Dongguan Funas Testing Technology Co.,Ltd.
Address:	Room 105 Floor Bao hao Technology Building 1 NO.15 Gong ye West Road Hi-Tech Industrial, Song shan lake Dongguan, China

5. TEST ITEMS AND THE RESULTS

The EUT has been tested according to ETSI EN 300 330 V2.1.1(2017-02).

ETSI EN 300330 V2.1.1(2017-02)	Short Range Devices (SRD); Radio equipment in the frequency range 9 kHz to 25 MHz and inductive loop systems in the frequency range 9 kHz to 30 MHz; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU
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No	Basic Standard	Test Type	Test Mode	Result
1	ETSI EN 300 330 4.3.1	Permitted range of operating frequencies	TX	Pass
2	ETSI EN 300 330 4.3.2	Operating frequency ranges	TX	Pass
3	ETSI EN 300 330 4.3.3	Modulation bandwidth	TX	Pass
4	ETSI EN 300 330 4.3.4	Transmitter H-field requirements	TX	Pass
5	ETSI EN 300 330 4.3.8	Transmitter radiated spurious domain emission limits < 30 MHz	TX	Pass
6	ETSI EN 300 330 4.3.9	Transmitter radiated spurious domain emission limits > 30 MHz	TX	Pass
7	ETSI EN 300 330 4.4.2	Receiver spurious emissions	RX	Pass
8	ETSI EN 300 330 4.4.3	Adjacent channel selectivity	RX	N/A
9	ETSI EN 300 330 4.4.4	Receiver blocking or desensitization	RX	N/A

Note: 1.N/A means not applicable.

2. According to the standard section 4.4.1, this equipment belongs to other equipment (WPT system), and only has a single working channel, so it is not necessary to meet 4.3.3&4.3.4.

3. The EUT support 5V/9V/12V voltage input and recorded in this report as the worst case.

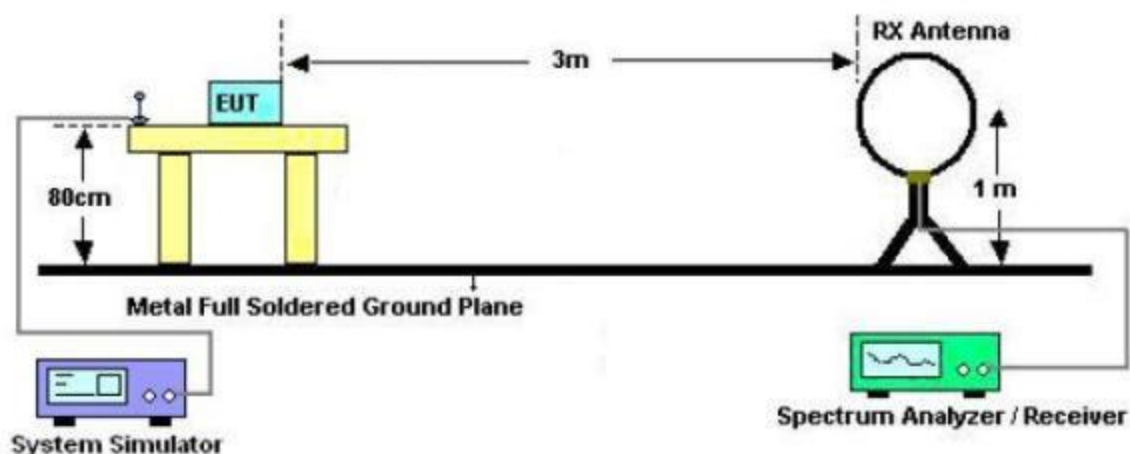
6. ETSI EN 300 330 REQUIREMENT TO TRANSMITTER

6.1 RF H-FIELD (RADIATED)

MEASUREMENT EQUIPMENT USED:

Kind of Equipment	Manufacturer	Model	Last calibration	Calibrated until
EMI Test Receiver	R&S	ESCI	2024.08.28	2025.08.27
Amplifier	Schwarzbeck	BBV 9718	2024.08.28	2025.08.27
WIDEBAND REQUENCY ANTENNA	SCHWARZBECK	VULB9168	2024.08.28	2025.08.27
WIDEBAND REQUENCY ANTENNA	SCHWARZBECK	VULB9168	2024.08.28	2025.08.27
LOOP ANTENNA	ZHINAN	ZN30900C	2024.08.28	2025.08.27

TEST SETUP:



TEST LIMITS:**Table 2: H-field limits at 10 m**

Frequency range (MHz)	H-field strength limit (H_f) dB μ A/m at 10 m or specified in mW e.r.p.
$0,009 \leq f < 0,090$	72 descending 3 dB/oct above 0,03 MHz or according to note 1 (see note 5)
$0,09 \leq f < 0,119$	42
$0,119 \leq f < 0,135$	66 descending 3 dB/oct above 0,119 MHz or according to note 1 (see notes 3 and 5)
$0,135 \leq f < 0,140$	42
$0,140 \leq f < 0,1485$	37,7
$0,1485 \leq f < 30$	-5 (see note 4)
$0,315 \leq f < 0,600$	-5
$3,155 \leq f < 3,400$	13,5
4,234	9 (see note 9)
4,516	7
$7,400 \leq f < 8,800$	9
$10,2 \leq f < 11,00$	9
$12,5 \leq f \leq 20$	-7
$6,765 \leq f \leq 6,795$	42 (see notes 3 and 7)
$26,957 \leq f \leq 27,283$	42 (see note 3)
$13,410 \leq f \leq 13,553$, $13,567 \leq f \leq 13,710$	9 (see note 6)
$13,110 \leq f \leq 13,410$, $13,710 \leq f \leq 14,010$	-3,5 (see note 6)
$12,660 \leq f \leq 13,110$, $14,010 \leq f \leq 14,460$	-10 (see note 6)
$11,810 \leq f \leq 12,660$, $14,460 \leq f \leq 15,310$	-16 (see note 6)
$13,460 \leq f \leq 13,553$, $13,567 \leq f \leq 13,660$	27 (see note 6)
$13,360 \leq f \leq 13,460$, $13,660 \leq f \leq 13,760$	Linear transition from 27 to -3,5 (see note 6)
$13,110 \leq f \leq 13,360$, $13,760 \leq f \leq 14,010$	-3,5 (see note 6)
$12,660 \leq f \leq 13,110$, $14,010 \leq f \leq 14,460$	-5 (see note 6)
$13,553 \leq f \leq 13,567$	42 (see note 3) or 60 (see notes 2 and 3)
27,095	42

Frequency range (MHz)	H-field strength limit (H_f) dB μ A/m at 10 m or specified in mW e.r.p.
26,995, 27,045, 27,095, 27,145, 27,195 (see note 8)	100 mW
NOTE 1: For the frequency ranges 9 kHz to 135 kHz, the following additional restrictions apply to limits above 42 dBμA/m: - for loop coil antennas with an area $\geq 0,16 \text{ m}^2$ this table and table B.1 with the antenna limitations apply; - for loop coil antennas with an area between $0,05 \text{ m}^2$ and $0,16 \text{ m}^2$ table B.1 applies with a correction factor. The limit is: table value + $10 \times \log(\text{area}/0,16 \text{ m}^2)$; - for loop coil antennas with an area $< 0,05 \text{ m}^2$ the limit is 10 dB below table B.1. NOTE 2: For RFID (incl. NFC) and EAS applications only. NOTE 3: Spectrum mask limit, see annex I. NOTE 4: For further information see annex G. NOTE 5: Limit is 42 dBμA/m for the following spot frequencies: 60 kHz $\pm$ 250 Hz, 66,6 kHz $\pm$ 750 Hz, 75 kHz $\pm$ 250 Hz, 77,5 kHz $\pm$ 250 Hz, and 129,1 kHz $\pm$ 500 Hz. NOTE 6: Only in conjunction with spectrum mask, see annex I. NOTE 7: The frequency range 6,765 MHz - 6,795 MHz is not a harmonised ISM frequency band according article 5.138 of the ITU Radio Regulations [i.13]. NOTE 8: Center frequencies for channelized systems by using $\leq 10 \text{ kHz}$ bandwidth. NOTE 9: The limit is valid in the range 984 kHz - 7 484 kHz for Transmitting only on receipt of a Balise/Eurobalise tele-powering signal from a train.	

The H-field limit in dB μ A/m at 3 m, H_{3m} , is determined by the following equation:

$$H_{3m} = H_{10m} + C_3 \text{ (F.2)}$$

Where: H_{10m} is the H-field limit in dB μ A/m at 10 m distance according to the present document; and C_3 is a conversion factor in dB determined from figure F.2.

The limit at 10 m(H_{10m}) is -5 dB μ A/m

For 325.7KHz:

Owing to the frequency EUT is 0.3265MHz, so the C_3 approach to 31.65dB.

Then the limit at 3m(H_{3m}) = $H_{10m} + C_3 = -5 + 31.65 = 26.65$ dB μ A/m.

The H Field Strength shall not exceed the values 26.65dB μ A/m 3m Distance under normal test conditions.

- $E(\text{dB}\mu\text{V/m}) = \text{dB}\mu\text{A/m} + 51.5$;
- $\text{ERP (dBm)} = E(\text{dB}\mu\text{V/m}) + 20\lg(D) - 104.8$, D is the measurement distance;
- $\text{ERP} = 10\lg P(\text{mW})$

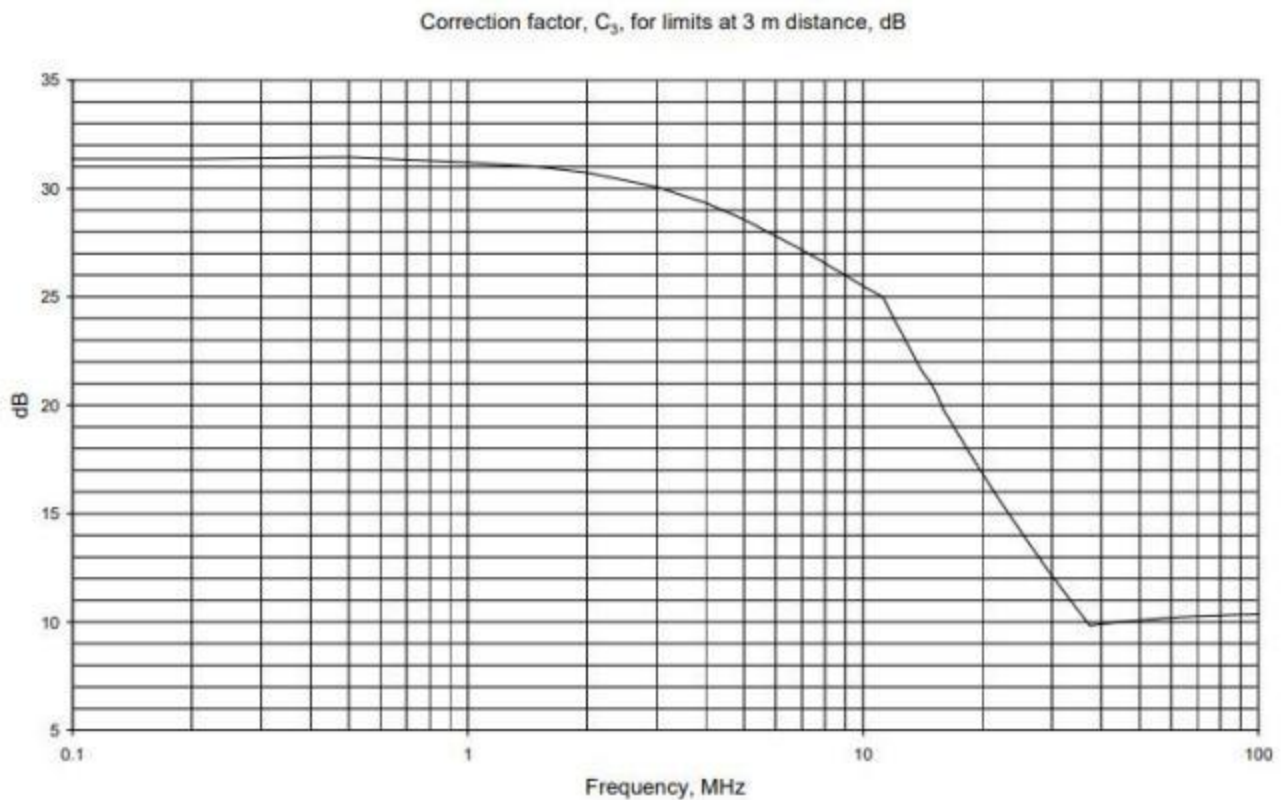


Figure H.2: Conversion factor C_3 versus frequency

TEST PROCEDURE:

The EUT was placed on the top of an insulating table 0.8 meters above the ground at a semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

The H-field is measured with a shielded loop antenna connected to a measurement receiver.

The measuring bandwidth and detector type of the measurement receiver shall be in accordance with EN 300 330 V2.1.1 clause 5.12.

The EUT operate with modulation under normal and extreme conditions.

TEST RESULTS:

Test Mode: Transmitting
Extreme conditions state

conditions	Test Temp	Test Volt.(V)	Note
TN/VN	25℃	9.0	Worst case
TL/ VL	-10℃	9.9	
TH/VL	40℃	9.9	
TL/VH	-10℃	8.1	
TH/VH	40℃	8.1	

Frequency	Reading	Corrected Factor	Corrected Amplitude E-field	Corrected Amplitude H-field(3m)	Corrected Amplitude H-field(10m)	Limit (10m)	Result
MHz	dBμV/m	dB	dBμV/m	dBμA/m	dBμA/m	dBμA/m	Pass
0.3257	25.94	21.86	47.80	-3.70	-35.35	-5	

Remark:

- (1) Corrected Level (dBuA/m) = Reading Level + Antenna Factor
- (2) For the calculated method, please refer to Annex F at EN 300330.
- (3) All extreme conditions were considered for test, but only record the worst case.
- (4) $EIRP(dBm) = E(dBuV/m) + 20lg(D) - 104.8$, D is the measurement distance.
 $E(dBuV/m) = dBuA/m + 51.5$, so the $dBuA/m = EIRP(dBm) + 43.7$, $EIRP = 10lgP(mW)$

6.2 PERMITTED FREQUENCY RANGE AND THE MODULATION BANDWIDTH

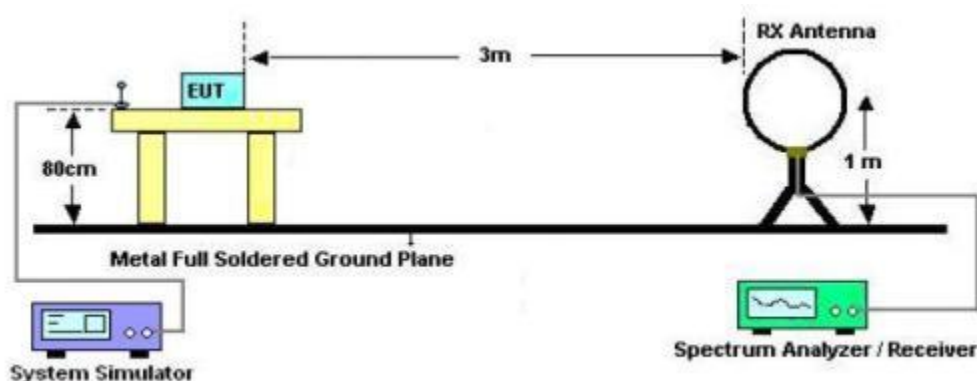
TEST LIMITS

The modulation bandwidth shall be within the assigned frequency band see table 1 or $\pm 7.5\%$ of the carrier frequency whichever is the smallest. For RFID and EAS Systems, the modulation bandwidth shall be within the transmitter emission boundary of figures I.1, I.2, I.3 and I.4. For further information, see CEPT/ERC/REC 70-03 [i.1] or ERC/ECC/CEPT Decisions as implemented through National Radio Interfaces (NRI) and additional NRI as relevant.

MEASUREMENT EQUIPMENT USED:

Kind of Equipment	Manufacturer	Model	Last calibration	Calibrated until
EMI Test Receiver	R&S	ESCI	2024.08.28	2025.08.27
Amplifier	Schwarzbeck	BBV 9718	2024.08.28	2025.08.27
WIDEBAND FREQUENCY ANTENNA	SCHWARZBECK	VULB9168	2024.08.28	2025.08.27
LOOP ANTENNA	ZHINAN	ZN30900C	2024.08.28	2025.08.27

TEST SETUP:



TEST PROCEDURE:

- 1). The EUT was placed on a turn table which is 0.8m above ground plane.
- 2). The EUT was modulated by normal signal,
- 3). Set SPA Center Frequency = fundamental frequency, RBW:300Hz, VBW=1000Hz, Span=2MHz.
- 4). Both normal test condition and extreme test condition applied

Test Limit

Table 1: Short Range Devices within the 9 kHz to 30 MHz permitted frequency bands

	Frequency Bands/frequencies	Applications
Transmit and Receive	9 kHz to 90 kHz	Inductive devices, Generic use
Transmit and Receive	90 kHz to 119 kHz	Inductive devices, Generic use
Transmit and Receive	119 kHz to 140 kHz	Inductive devices, Generic use
Transmit and Receive	140 kHz to 148,5 kHz	Inductive devices, Generic use
Transmit and Receive	148,5 kHz to 5 MHz	Inductive devices, Generic use
Transmit and Receive	400 kHz to 600 kHz	RFID only
Transmit and Receive	5 MHz to 30 MHz	Inductive devices, Generic use
Transmit and Receive	3 155 kHz to 3 400 kHz	Inductive devices, Generic use
Transmit and Receive	984 kHz to 7 484 kHz (Note 3, Centre frequency is 4 234 kHz)	Inductive devices, Railway applications
Transmit and Receive	4 516 kHz	Inductive devices, Railway applications
Transmit and Receive	6 765 kHz to 6 795 kHz	Inductive devices, Generic use
Transmit and Receive	7 400 kHz to 8 800 kHz	Inductive devices, Generic use
Transmit and Receive	10 200 kHz to 11,000 MHz	Inductive devices, Generic use
Transmit and Receive	11,810 MHz to 15,310 MHz (Centre frequency is 13,56 MHz)	RFID only
Transmit and Receive	12,5 MHz to 20 MHz	Inductive devices, Wireless healthcare
Transmit and Receive	13,553 MHz to 13,567 MHz	Inductive devices, Generic use
Transmit and Receive	26,957 MHz to 27,283 MHz	Inductive devices, Generic use
Transmit and Receive	27,090 MHz to 27,100 MHz	Inductive devices, Railway applications
NOTE 1: In addition, it should be noted that other frequency bands may be available in a country within the frequency range 9 kHz to 30 MHz.		
NOTE 2: On non-harmonised parameters, national administrations may impose certain conditions such as the type of modulation, frequency, channel/frequency separations, maximum transmitter radiated power, duty cycle, and the inclusion of an automatic transmitter shut-off facility, as a condition for the issue of an Individual Rights for use of spectrum or General Authorization, or as a condition for use under "licence exemption" as it is in most cases for Short Range Devices.		
NOTE 3: Transmitting only on receipt of a Balise/Eurobalise tele-powering signal from a train.		

TEST RESULT

Test Conditions			99% Bandwidth (kHz)	F _L at 99% BW (kHz)	F _H at 99% BW (kHz)	Limit Band (kHz)	Result
Frequency (kHz)	Temperature (°C)	Voltage (V)					
325.7	25°C	9.0	0.925	325.2375	326.1625	148.5 to5000	Pass
	-10°C	9.9	0.917	325.2415	326.1585		Pass
	40°C	9.9	0.934	325.233	326.167		Pass
	-10°C	8.1	0.954	325.223	326.177		Pass
	40°C	8.1	0.915	325.2425	326.1575		Pass

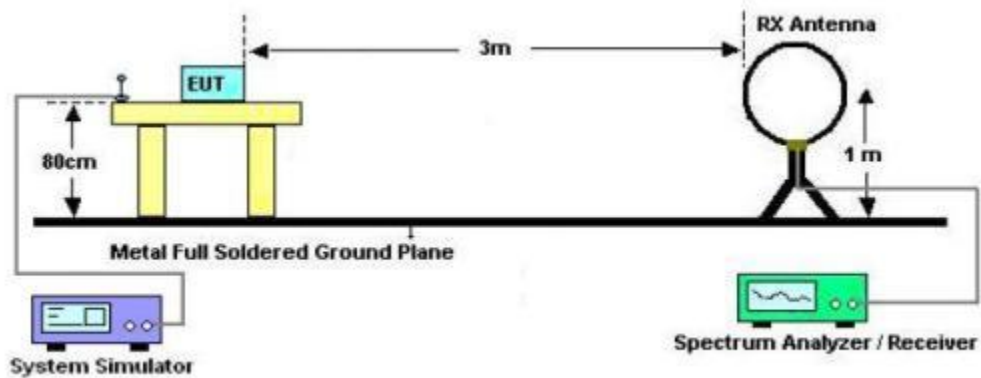
6.3 SPURIOUS DOMAIN EMISSION

MEASUREMENT EQUIPMENT USED:

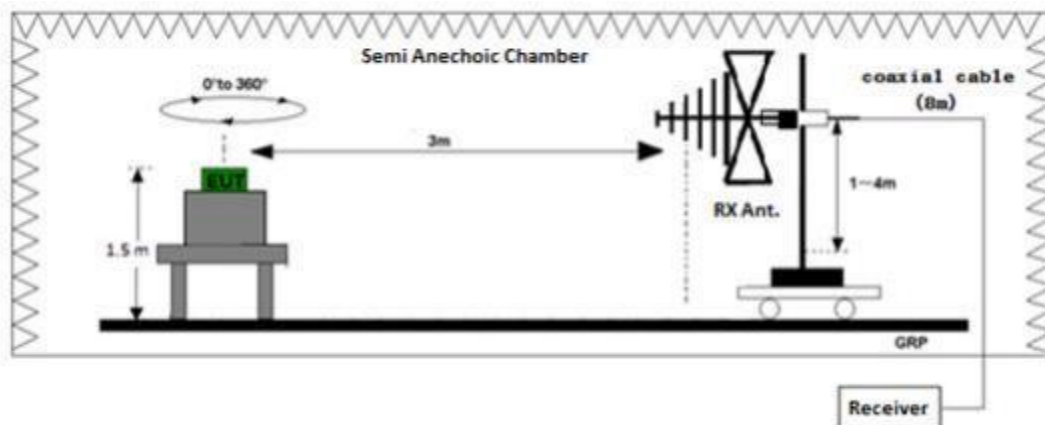
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TEST SETUP:

FREQUENCY RANGE (9KHZ-30MHZ)



FREQUENCY RANGE (ABOVE 30MHZ)



For test method of frequency range (9 kHz-30MHz)

The EUT was placed on the top of an insulating table 0.8 meters above the ground at a semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

The H-field is measured with a shielded loop antenna connected to a measurement receiver.

The measuring bandwidth and detector type of the measurement receiver shall be in accordance with EN 300 330 V2.1.1 clause 5.12

The EUT operate with modulation under normal and extreme conditions.

For test method of frequency range (30 MHz-1000MHz)

EUT was placed on a 1.5m height wooden table. The search antenna is placed at 3m distances from the EUT and search antenna height is from 1-4m. With the transmitter operating at continuously mode, the turntable was slowly rotated to locate the direction of maximum emission. Once maximum direction is determined, the search antenna was raised and lowered in both vertical and horizontal polarizations.

The EUT was removed from the turntable and replaced with a linearly polarized antenna connected to a calibrated RF signal generator. The RF generator was set to a measured emission frequency and the search antenna was raised and lowered to produce a maximum received reading. The generator output was increased to match the radiated emission reading measured previously, and the result expressed in dB EIRP or ERP, correcting for substitution antenna gain at each frequency.

LIMITS OF RADIATED DISTURBANCES

Below 30MHz

Operating		
Frequency (MHz)	Distance (m)	Maximum Field Strength Limit (dB μ A/m Q.P.)
9 kHz $\leq$ f < 10 MHz	10	27dB μ A/m at 9 kHz descending 3 dB/oct
10 MHz $\leq$ f < 30 MHz	10	-3,5 dB μ A/m

Standby		
Frequency (MHz)	Distance (m)	Maximum Field Strength Limit (dB μ A/m Q.P.)
9 kHz $\leq$ f < 10 MHz	10	5,5 dB μ A/m at 9 kHz descending 3 dB/oct
10 MHz $\leq$ f < 30 MHz	10	-25 dB μ A/m

TEST LIMITS & RESULT

FREQUENCY RANGE (9KHZ-30MHZ)

OPERATION MODE					
Frequency	Reading level	Total Factor	Emission level	10M Limit	Margin
(MHz)	(dBμA/m)	(dB)	(dB μA/m)	(dBμA/m)	(dBμA/m)
--	--	--	--	27 dBμA/m at 9KHz descending 3dB/oct(9KHz – 10MHz)	--
--	--	--	--		--
--	--	--	--	-3.5 dBμA/m(10MHz – 30MHz)	--
--	--	--	--		--

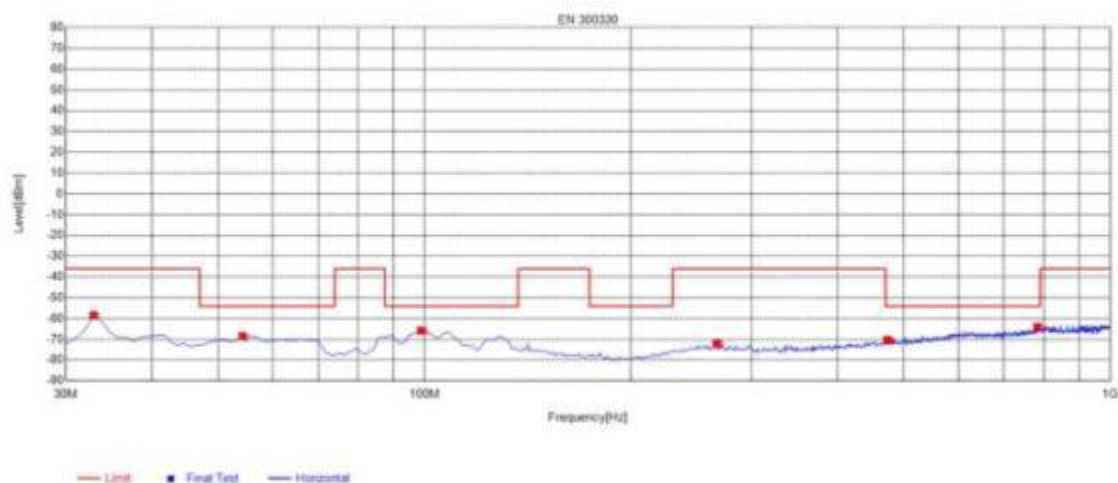
STANDBY MODE					
Frequency	Reading level	Total Factor	Emission level	10M Limit	Margin
(MHz)	(dBμA/m)	(dB)	(dB μA/m)	(dBμA/m)	(dBμA/m)
--	--	--	--	5.5 dBμA/m at 9KHz descending 3dB/oct (9KHz – 10MHz)	--
--	--	--	--		--
--	--	--	--	-25 dBμA/m (10MHz – 30MHz)	--
--	--	--	--		--

Remark:

- (1) Corrected Power (dBm) = Total Factor + Reading Level
- (2) Measuring frequencies from 9KHz to the 30MHz.
- (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.

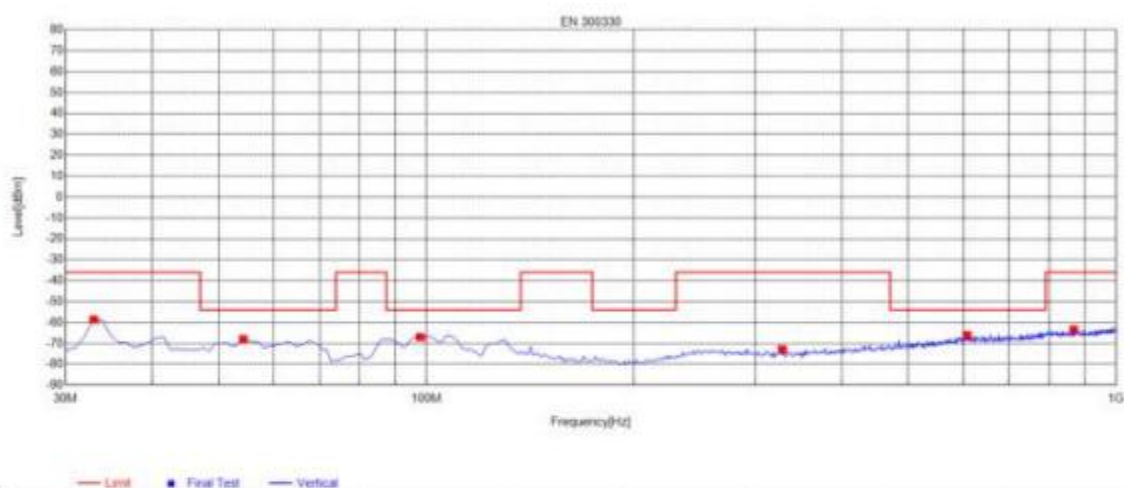
FREQUENCY RANGE (ABOVE 30MHZ)

EUT OPERATION MODE – HORIZONTAL



NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	32.91	-87.57	-58.39	-36.00	22.39	29.18	360	Horizontal
2	54.25	-96.17	-68.47	-54.00	14.47	27.70	170	Horizontal
3	98.87	-86.41	-65.86	-54.00	11.86	20.55	160	Horizontal
4	266.68	-100.49	-72.04	-36.00	36.04	28.45	100	Horizontal
5	473.29	-101.69	-70.29	-54.00	16.29	31.40	330	Horizontal
6	782.72	-101.03	-64.03	-54.00	10.03	37.00	340	Horizontal

EUT OPERATION MODE – VERTICAL



NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	32.91	-87.82	-58.64	-36.00	22.64	29.18	310	Vertical
2	54.25	-95.64	-67.94	-54.00	13.94	27.70	320	Vertical
3	97.9	-87.73	-66.98	-54.00	12.98	20.75	260	Vertical
4	327.79	-101.07	-72.89	-36.00	36.89	28.18	230	Vertical
5	607.15	-100.84	-66.01	-54.00	12.01	34.83	330	Vertical
6	867.11	-100.62	-63.37	-36.00	27.37	37.25	280	Vertical

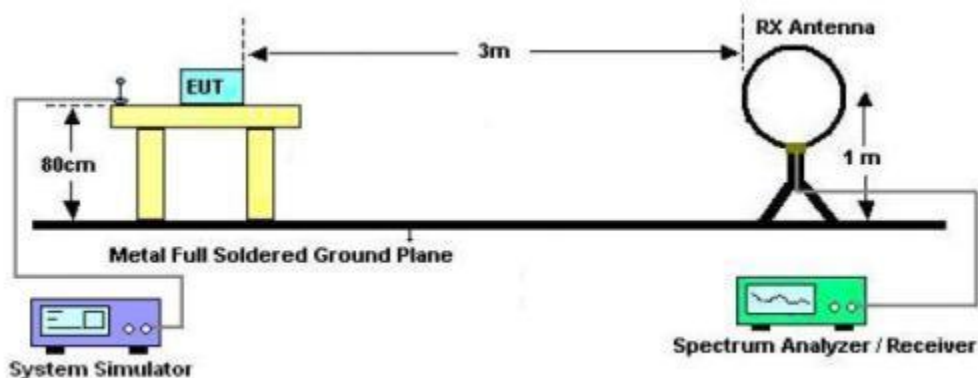
6.4 ETSI EN 300 330 Subclasses 4.4.2: Receiver spurious radiation

MEASUREMENT EQUIPMENT USED:

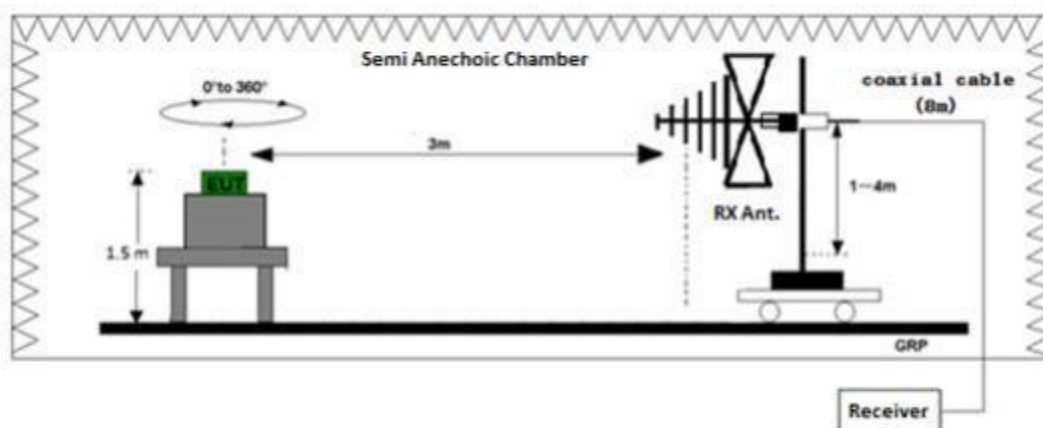
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TEST SETUP:

FREQUENCY RANGE (9KHZ-30MHZ)



FREQUENCY RANGE (ABOVE 30MHZ)



TEST RESULT AND LIMIT

FREQUENCY RANGE (9 KHZ-30 MHZ)

Frequency (MHz)	Distance (m)	Maximum Field Strength Limit (dBμA/m Q.P.)
9 kHz ≤ f < 10 MHz	10	5.5dB μ A/m at 9 kHz descending 3 dB/oct
10 MHz ≤ f < 30 MHz	10	-25 dB μ A/m

RECEIVER MODE					
Frequency (MHz)	Reading level (dBμA/m)	Total Factor (dB)	Emission level (dBμA/m)	10M Limit (dBμA/m)	Margin (dBμA/m)
--	--	--	--	5.5 dBuA/m at 9KHz descending 3dB/oct (9KHz – 10MHz)	--
--	--	--	--		--
--	--	--	--	-25 dBuA/m (10MHz – 30MHz)	--
--	--	--	--		--

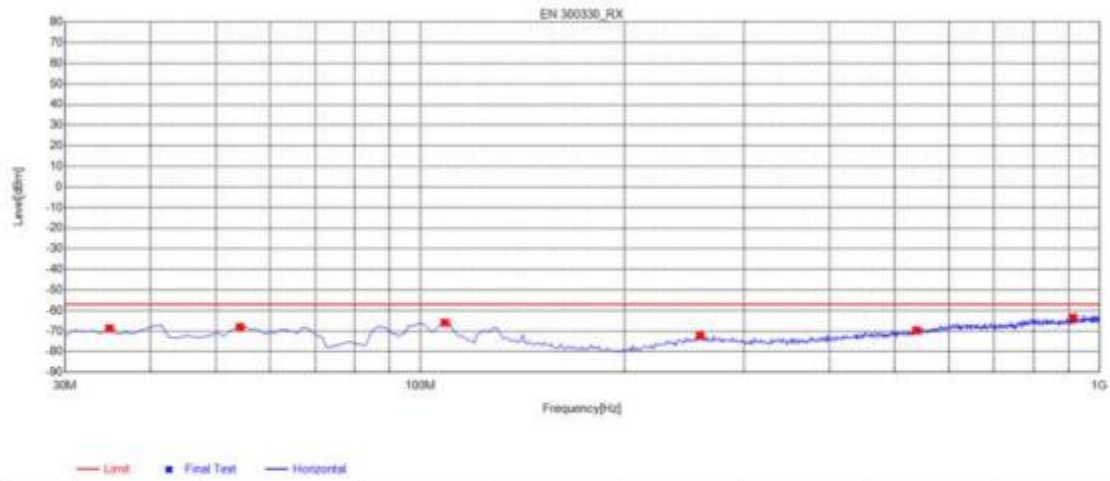
Remark:

- (1) Corrected Power (dBm) = Total Factor + Reading Level
- (2) Measuring frequencies from 9KHz to the 30MHz.

- (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.

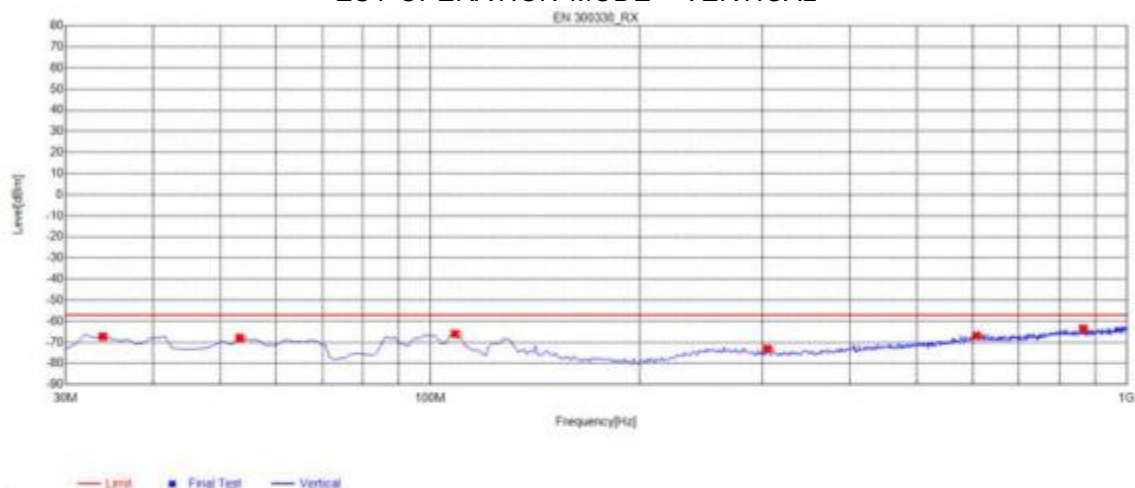
FREQUENCY RANGE (ABOVE 30MHZ)

EUT OPERATION MODE – HORIZONTAL



NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	34.85	-97.93	-68.67	-57.00	11.67	29.26	160	Horizontal
2	54.25	-95.67	-67.97	-57.00	10.97	27.70	250	Horizontal
3	108.57	-86.44	-65.85	-57.00	8.85	20.59	20	Horizontal
4	257.95	-100.81	-72.24	-57.00	15.24	28.57	330	Horizontal
5	537.31	-102.17	-69.60	-57.00	12.60	32.57	210	Horizontal
6	913.67	-101.20	-63.41	-57.00	6.41	37.79	80	Horizontal

EUT OPERATION MODE – VERTICAL



NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Factor [dB]	Angle [°]	Polarity
1	33.88	-96.47	-67.26	-57.00	10.26	29.21	170	Vertical
2	53.28	-95.80	-67.88	-57.00	10.88	27.92	60	Vertical
3	108.57	-86.61	-66.02	-57.00	9.02	20.59	200	Vertical
4	304.51	-101.11	-73.08	-57.00	16.08	28.03	210	Vertical
5	608.12	-101.70	-66.87	-57.00	9.87	34.83	60	Vertical
6	865.17	-100.77	-63.53	-57.00	6.53	37.24	270	Vertical

7. ETSI EN 300 330 V2.1.1: INTERPRETATION OF MEASUREMENT RESULTS

All the measurement equipments and accessories have been carefully selected to meet the maximum measurement uncertainty specified below:

RF Frequency	$\pm 1 \times 10^{-7}$
RF Power, Conducted	$\pm 0.75\text{dB}$
Maximum Frequency Deviation: _ Within 300Hz and 6KHz of Audio Frequency _ Within 6KHz and 25KHz of Audio Frequency	$\pm 5\%$ $\pm 3\text{dB}$
Adjacent channel power	$\pm 3\text{dB}$
Conducted Emission of Transmitter, Valid Up to 12.75GHz	$\pm 4\text{dB}$
Conducted Emissions of Receivers	$\pm 3\text{dB}$
Radiated Emission of Transmitter, Valid Up to 12.75GHz	$\pm 6\text{dB}$
Radiated Emissions of Receivers	$\pm 6\text{dB}$

P.S. Uncertainty figures are valid to confidence level of 95% calculated according to the methods described in the ETR 028[3].

APPENDIX II PHOTOGRAPHS OF TEST SETUP ----END OF REPORT---



RF TEST REPORT

Report No: FCS202607157W01

Issued for

Applicant::	Mid Ocean Brands B.V.
Address:	Unit 711-716, 7/F., Tower A, 83 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong.
Product Name:	Charging cable with charger
Brand Name:	N/A
Model Name:	MO3145
Series Model:	N/A
Test Standard:	ETSI EN 303 417 V1.1.1 (2017-09)
Issued By: Dongguan Funas Testing Technology Co.,Ltd Add: Room 105 Floor Bao hao Technology Building 1 NO.15 Gong ye West Road Hi-Tech Industrial, Song shan lake Dongguan, China Tel: 0769-27280901 Fax:0769-27280901 http://www.fcs-lab.com E-mail: andy.yue@fcs-lab.com	

**TEST REPORT CERTIFICATION**

Applicant's Name.....: Mid Ocean Brands B.V.
Address.....: Unit 711-716, 7/F., Tower A, 83 King Lam Street,
Cheung Sha Wan, Kowloon, Hong Kong.
Manufacturer's Name.....: Mid Ocean Brands B.V.
Address.....: Unit 711-716, 7/F., Tower A, 83 King Lam Street,
Cheung Sha Wan, Kowloon, Hong Kong.

Product Description

Product Name.....: Charging cable with charger
Brand Name: N/A
Model Name.....: MO3145
Series Model.....: See the first page of the report

Test Standards.....: ETSI EN 303 417 V1.1.1 (2017-09)

This device described above has been tested by FCS, and the test results show that the equipment under test (EUT) is in compliance with the 2014/53/EU RED Directive requirements. And it is applicable only to the tested sample identified in the report.

This report shall not be reproduced except in full, without the written approval of FCS, this document may be altered or revised by FCS, personal only, and shall be noted in the revision of the document.

Date of Test.....:

Date (s) of performance of tests.....: July 10, 2026~July 20, 2026

Date of Issue.....: July 20, 2026

Test Result.....: Pass

Tested by :

(orange OuYang)

Reviewed by :

(jayden)

Approved by :

(Jack Wang)



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Revision History

Rev.	Issue Date	Report No.	Effect Page	Contents
00	July 20, 2026	FCS202607157W01	N/A	Initial Issue



1. GENERAL INFORMATION

Product Name:	Charging cable with charger
Brand Name:	N/A
Model Name:	MO3145
Series Name:	See the first page of the report
Model Discrepancy:	N/A
Frequency Range:	Samsung Watch: 110kHz~205kHz
Modulation Technique:	Load modulation
Antenna gain:	0 dBi
Power Rating:	Input: DC 5V 1A Output: DC 5V 0.5A
Hardware version number:	V1.0
Software version number:	V1.0
Temperature Range:	10°C ~ 35°C

Channel List

Operational Mode	Channel	Frequency(KHz)
Mode 1	01	145.55
Mode 2	02	120.55
Mode 3/4	03	130.55

2. SETUP OF EQUIPMENT UNDER TEST

2.1 SETUP CONFIGURATION OF THE EUT

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

Remark:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

2.2 TEST FACTORY

Company Name:	Dongguan Funas Testing Technology Co., Ltd.
Address:	Room 105, 1/F.. Baohao Technology Building 1, No.15, Gongye West Road.Songshan Lake Hi-Tech Industrial Area, Dongguan, Guangdong, China
Telephone:	+86-0769-27280901
Fax:	+86-0769-27280901
FCC Test Firm Registration Number: 514908 CNAS Number: L15566 Designation number: CN0127 A2LA accreditation number: 5545.01 ISED Number: 25801	

2.3 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, 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	RF output power, conducted	$\pm 0.68\text{dB}$
2	Unwanted Emissions, conducted	$\pm 2.988\text{dB}$
3	All emissions, radiated below 1GHz	$\pm 2.26\text{dB}$
4	All emissions, radiated 1GHz-18GHz	$\pm 2\text{dB}$
5	All emissions, radiated >18G	$\pm 2.88\text{dB}$



2.4 EQUIPMENTS LIST

Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Company No.	Last calibration	Calibrated until
EMI Test Receiver	R&S	ESRP 3	FCS-E001	2025.08.25	2026.08.24
Signal Analyzer	R&S	FSV40-N	FCS-E012	2025.08.25	2026.08.24
Loop Antenna	HTC	Loop Antenna	FCS-E030	2025.08.25	2026.08.24
Bilog Antenna	SCHWARZBECK	VULB 9168	FCS-E002	2025.08.25	2026.08.24
Horn Antenna	SCHWARZBECK	BBHA 9120D	FCS-E003	2025.08.25	2026.08.24
SHF-EHF Horn Antenna (18G-40GHz)	A-INFO	LB-180400-KF	FCS-E018	2025.08.25	2026.08.24
Pre-Amplifier(0.1M-3G Hz)	EMCI	EM330N	FCS-E004	2025.08.25	2026.08.24
Pre-Amplifier (1G-18GHz)	N/A	TSAMP-0518SE	FCS-E014	2025.08.25	2026.08.24
Pre-Amplifier (18G-40GHz)	TERA-MW	TRLA-0400	FCS-E019	2025.08.25	2026.08.24
Temperature & Humidity	HTC-1	victor	FCS-E005	2025.08.25	2026.08.24

Conduction Test equipment

Kind of Equipment	Manufacturer	Type No.	Company No.	Last calibration	Calibrated until
EMI Test Receiver	R&S	ESPI	FCS-E020	2025.08.25	2026.08.24
LISN	R&S	ENV216	FCS-E007	2025.08.25	2026.08.24
LISN	ETS	3810/2NM	FCS-E009	2025.08.25	2026.08.24
Temperature & Humidity	HTC-1	victor	FCS-E008	2025.08.25	2026.08.24

RF Connected Test

Kind of Equipment	Manufacturer	Type No.	Company No.	Last calibration	Calibrated until
Spectrum Analyzer	Keysight	N9020A	FCS-E015	2025.08.25	2026.08.24
Spectrum Analyzer	Agilent	E4447A	MY50180039	2025.08.25	2026.08.24
Spectrum Analyzer	R&S	FSV-40	101499	2025.08.25	2026.08.24

NOTE: Equipments listed above have been calibrated and are in the period of validation.



2.5 TEST SUMMARY

Test Item	Test Mode	Applicable(Y/N)	Result
Permitted range of operating frequencies	declare	Y	PASS
Operating frequency ranges	Mode 1/2/3/4	Y	PASS
Transmitter H-field requirements	Mode 1/2/3/4	Y	PASS
Transmitter spurious emissions	Mode 1/2/3/4	Y	PASS
Transmitter out of band (OOB) emissions	Mode 1/2/3/4	Y	PASS
WPT system unwanted conducted emissions	Mode 1/2/3/4	Y	PASS
Receiver blocking	Mode 1/2/3	Y	PASS
RF Exposure	Mode 1/2/3/4	Y	PASS

Remark:

N/A: Not Applicable

RF: In this whole report RF means Radio Frequency.

The manufacture declare the test mode is mode 1, mode 2, mode 3, mode 4.

Mode 3 and Mode 4 are tested together.

For Transmitter spurious emissions test items: "Operating" means mode 2, 3 and 4; "standby" means mode 1.

Operational Mode	Set-up	Function of base station	Function of mobile device
Mode 1: base station in stand-by, idle mode	Single device	Transmitter	Not applicable
Mode 2: Communication before charging, adjustment charging mode / position	In combination	TX and RX	TX and RX
Mode 3: Communication	WPT system alignment	TX and RX	TX and RX
Mode 4: energy transmission	WPT system alignment	TX and RX	TX and RX

3. TEST METHODOLOGY

3.1 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT has been tested according to ETSI EN 303 417 V1.1.1 (2017-09)

ETSI EN 303 417 V1.1.1 (2017-09)	Wireless power transmission systems, using technologies other than radio frequency beam in the 19 - 21 kHz, 59 - 61 kHz, 79 - 90 kHz, 100 - 300 kHz, 6 765 - 6 795 kHz ranges; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU
-------------------------------------	---

3.2 TEST MODES

The EUT has been tested under normal operating condition. Control the EUT for staying in continuous transmitting for testing.

The field strength of spurious radiation emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The following data show only with the worst case setup. The worst case of Y axis without cradle was reported.

3.3 TEST CONDITIONS

During the measurement the environmental conditions were within the listed ranges:

- Temperature: 15-35°C
- Humidity: 20-75 %
- Atmospheric pressure: 86-106 kPa

1). Mains voltage

The extreme test voltage for equipment to be connected to an AC mains source shall be the nominal mains voltage $\pm 10\%$.

2). Lead-acid battery power sources used on vehicles

When radio equipment is intended for operation from the usual type of alternator fed lead-acid battery power source used on vehicles, then extreme test voltage shall be 1,3 and 0,9 times the nominal voltage of the battery (5 V, 9 V, etc.).

3). Power sources using other types of batteries

The Low extreme test voltages for equipment with power sources using the following types of battery shall be:

- for the Leclanché or lithium type battery: 0,85 times the nominal voltage of the battery;
 - for the mercury or nickel-cadmium type of battery: 0,9 times the nominal voltage of the battery.
- In both cases, the High extreme test voltage shall be 1,15 times the nominal voltage of the battery.

4). Other power sources

For equipment using other power sources, or capable of being operated from a variety of power sources (primary or secondary), the extreme test voltages shall be those stated by the manufacturer and shall be recorded.

The follow condition is applicable

Test Conditions	Normal	LTLV	LTHV	HTHV	HTLV
Temperature (°C)	22	10	10	35	35
Voltage (VDC)	24	23	25	25	23

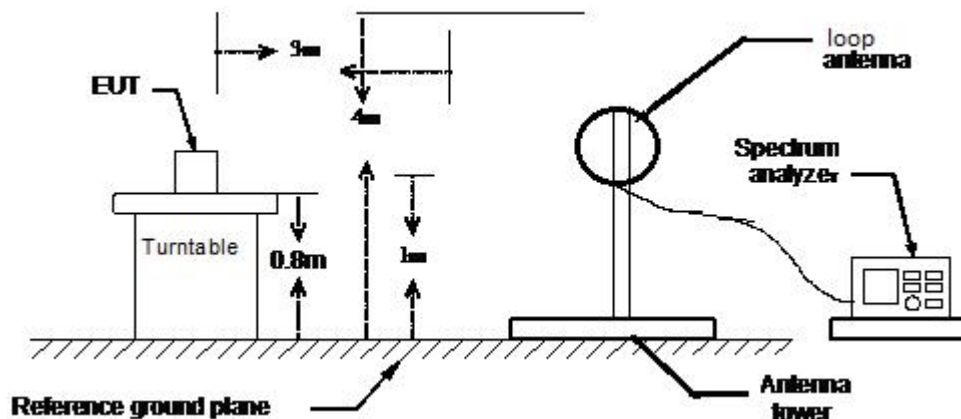
4. PERMITTED RANGE OF OPERATING FREQUENCIES

4.1 LIMIT

The permitted range of operating frequencies used by the EUT shall be declared by the manufacturer. The permitted range of operating frequencies for intentional emissions shall be entirely within the frequency bands in below table.

Table 1			
	WPT frequency range	Frequency Bands	Applications
Transmit and Receive	1	19 kHz to 21 kHz	WPT systems
Transmit and Receive	2	59 kHz to 61 kHz	WPT systems
Transmit and Receive	3	79 kHz to 90 kHz	WPT systems
Transmit and Receive	4	100 kHz to 119 kHz	WPT systems
Transmit and Receive		119 kHz to 140 kHz	WPT systems
Transmit and Receive		140 kHz to 148,5 kHz	WPT systems
Transmit and Receive		148,5 kHz to 300 kHz	WPT systems
Transmit and Receive	5	6 765 kHz to 6 795 kHz	WPT systems

4.2 TEST CONFIGURATION





4.3 TEST RESULTS

Mode 1

Test Conditions		Frequency Range			
		fL (KHz)	fH (KHz)	fL Limit (KHz)	fH Limit (KHz)
Normal		143.5500	147.5500	100	300
Extreme	LTLV	143.5600	147.5500	100	300
	LTHV	143.5300	147.5400	100	300
	HTLT	143.5300	147.5300	100	300
	HTHV	143.5200	147.5500	100	300

Mode 2

Test Conditions		Frequency Range			
		fL Low Channel (KHz)	fH High Channel (KHz)	fL Limit (KHz)	fH Limit (KHz)
Normal		118.5700	125.5300	100	300
Extreme	LTLV	118.5700	125.5400	100	300
	LTHV	118.5800	125.5500	100	300
	HTLT	118.5500	124.5600	100	300
	HTHV	118.5600	125.5200	100	300

Mode 3/4

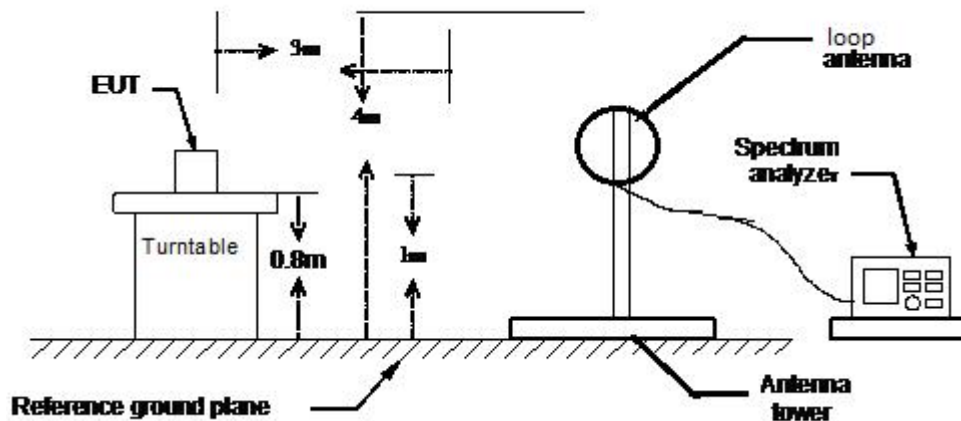
Test Conditions		Frequency Range			
		fL Low Channel (KHz)	fH High Channel (KHz)	fL Limit (KHz)	fH Limit (KHz)
Normal		120.5500	132.5000	100	300
Extreme	LTLV	120.5600	132.5500	100	300
	LTHV	120.4800	132.5500	100	300
	HTLT	120.4900	132.5500	100	300
	HTHV	120.5000	133.5500	100	300

5. OPERATING FREQUENCY RANGES

5.1 LIMIT

The operating frequency ranges for intentional emissions shall be entirely within the frequency bands in table 1

5.2 TEST CONFIGURATION



5.3 TEST PROCEDURE

1. Please refer to ETSI EN 303 417 (V.1.1.1) Sub-clause 5 for the test conditions.
2. Please refer to ETSI EN 303 417 (V.1.1.1) Sub-clause 6.2 for the measurement method.

5.4 TEST RESULTS

Mode 1

Test Conditions		Frequency Range			
		fL (KHz)	fH (KHz)	fL Limit (KHz)	fH Limit (KHz)
Normal		143.5500	147.5400	100	300
Extreme	LTLV	143.5600	147.5200	100	300
	LTHV	143.5400	147.5400	100	300
	HTLT	143.5400	147.5800	100	300
	HTHV	143.5100	147.5100	100	300

Mode 2

Test Conditions		Frequency Range			
		fL Low Channel (KHz)	fH High Channel (KHz)	fL Limit (KHz)	fH Limit (KHz)
Normal		118.6500	123.1700	100	300
Extreme	LTLV	118.7100	123.1800	100	300
	LTHV	118.7800	123.1800	100	300
	HTLT	118.6000	123.1900	100	300
	HTHV	118.6900	123.1600	100	300

Mode 3/4

Test Conditions		Frequency Range			
		fL Low Channel (KHz)	fH High Channel (KHz)	fL Limit (KHz)	fH Limit (KHz)
Normal		128.4400	132.5500	100	300
Extreme	LTLV	128.4500	132.5800	100	300
	LTHV	128.4500	132.6100	100	300
	HTLT	128.4300	132.5300	100	300
	HTHV	128.4900	132.5300	100	300

6. H-FIELD REQUIREMENTS

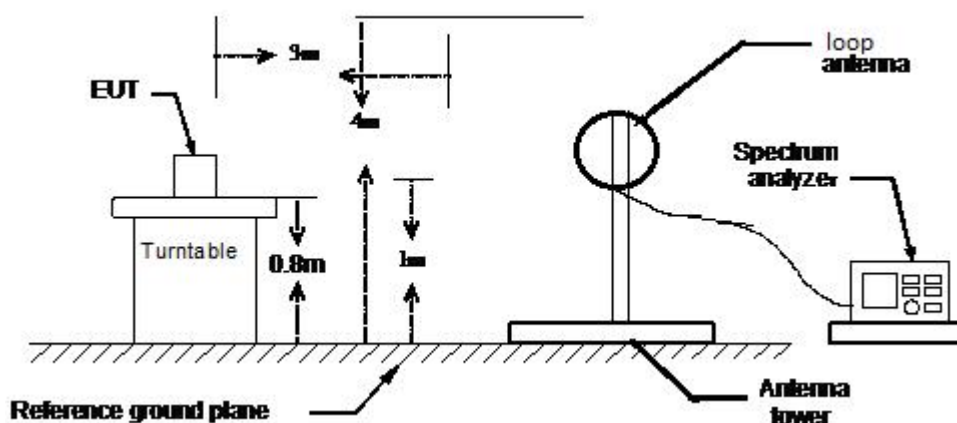
6.1 LIMIT

Table 3: H-field limits

Frequency range [MHz]	H-field strength limit [dB μ A/m at 10 m]	Comments
$0,019 \leq f < 0,021$	72	
$0,059 \leq f < 0,061$	69,1 descending 10 dB/dec above 0,059 MHz	See note 1
$0,079 \leq f < 0,090$	67,8 descending 10 dB/dec above 0,079 MHz	See note 2
$0,100 \leq f < 0,119$	42	
$0,119 \leq f < 0,135$	66 descending 10 dB/dec above 0,119 MHz	See note 1
$0,135 \leq f < 0,140$	42	
$0,140 \leq f < 0,1485$	37,7	
$0,1485 \leq f < 0,30$	-5	
$6,765 \leq f < 6,795$	42	

NOTE 1: Limit is 42 dB μ A/m for the following spot frequencies: 60 kHz $\pm$ 250 Hz and 129,1 kHz $\pm$ 500 Hz.
NOTE 2: At the time of preparation of the present document the feasibility of increased limits for high power wireless power transmission systems to charge vehicles [i.4] was prepared. New specific requirements for such systems (e.g. higher H-field emission limits in the 79 - 90 kHz band) will be reflected within a future revision of the present document.

6.2 TEST CONFIGURATION



6.3 TEST PROCEDURE

1. Please refer to ETSI EN 303 417 (V.1.1.1) Sub-clause 5 for the test conditions.
2. Please refer to ETSI EN 303 417 (V.1.1.1) Sub-clause 6.2 for the measurement method.



6.4 TEST RESULTS

Mode 1

Frequency (KHz)	Reading (dBμA)	Corrected Factor (dB)	Corrected Amplitude E-field (dBμV/m)	Corrected Amplitude H-field_3m (dBμA/m)	Corrected Amplitude H-field_10m (dBμA/m)	Limit_10m (dBμA/m)	Margin (dB)	Result
145.55	62.163	5.25	118.913	67.413	36.213	37.7	-1.49	Pass

Mode 2

Frequency (KHz)	Reading (dBμA)	Corrected Factor (dB)	Corrected Amplitude E-field (dBμV/m)	Corrected Amplitude H-field_3m (dBμA/m)	Corrected Amplitude H-field_10m (dBμA/m)	Limit_10m (dBμA/m)	Margin (dB)	Result
120.50	43.179	5.25	99.929	48.429	17.229	66.049	-48.82	Pass
122.85	42.059	5.25	98.809	47.309	16.109	66.138	-50.02	Pass

Mode 3/4

Frequency (KHz)	Reading (dBμA)	Corrected Factor (dB)	Corrected Amplitude E-field (dBμV/m)	Corrected Amplitude H-field_3m (dBμA/m)	Corrected Amplitude H-field_10m (dBμA/m)	Limit_10m (dBμA/m)	Margin (dB)	Result
122.30	26.212	5.25	82.962	31.462	0.262	66.119	-65.85	Pass
130.55	29.508	5.25	86.258	34.758	3.558	66.406	-62.84	Pass

7. TRANSMITTER SPURIOUS EMISSIONS

7.1 LIMIT

Limit below 30MHz

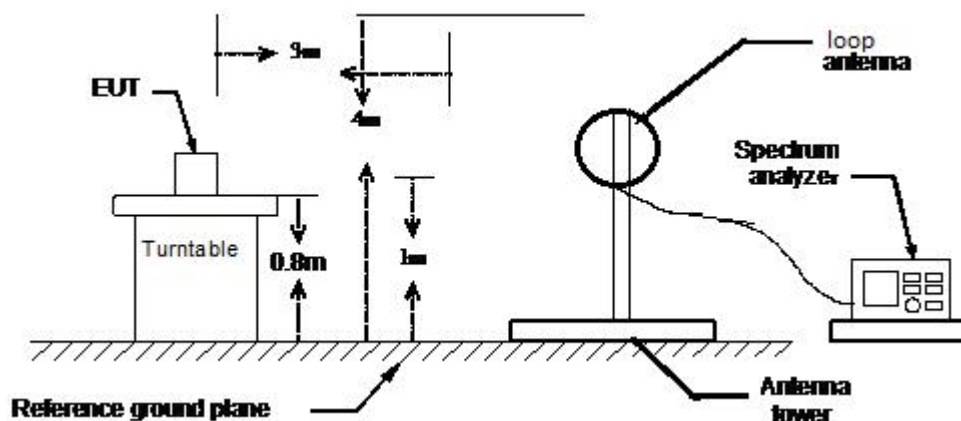
State	Frequency $9 \text{ kHz} \leq f < 10 \text{ MHz}$	Frequency $10 \text{ MHz} \leq f < 30 \text{ MHz}$
Operating	27 dB μ A/m at 9 kHz descending 10 dB/oct	-3,5 dB μ A/m
Standby	5,5 dB μ A/m at 9 kHz descending 10 dB/oct	-25 dB μ A/m

Limit above 30MHz

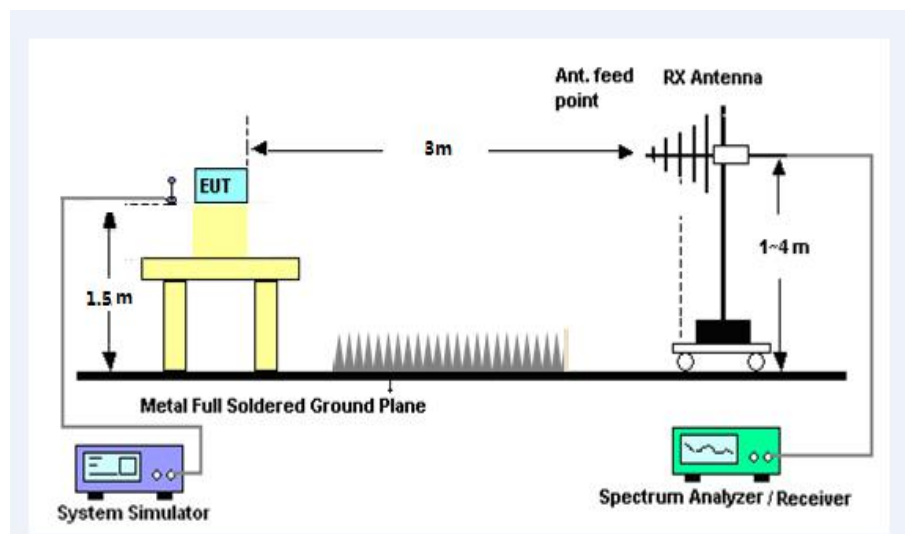
State	47 MHz to 74 MHz 87,5 MHz to 118 MHz 174 MHz to 230 MHz 470 MHz to 862 MHz	Other frequencies between 30 MHz to 1000 MHz
Operating	4nW(-54dBm)	250nW(-36dBm)
Standby	2nW(-57dBm)	2nW(-57dBm)

7.2 TEST CONFIGURATION

Below 30MHz



30MHz-1GHz



7.3 TEST PROCEDURE

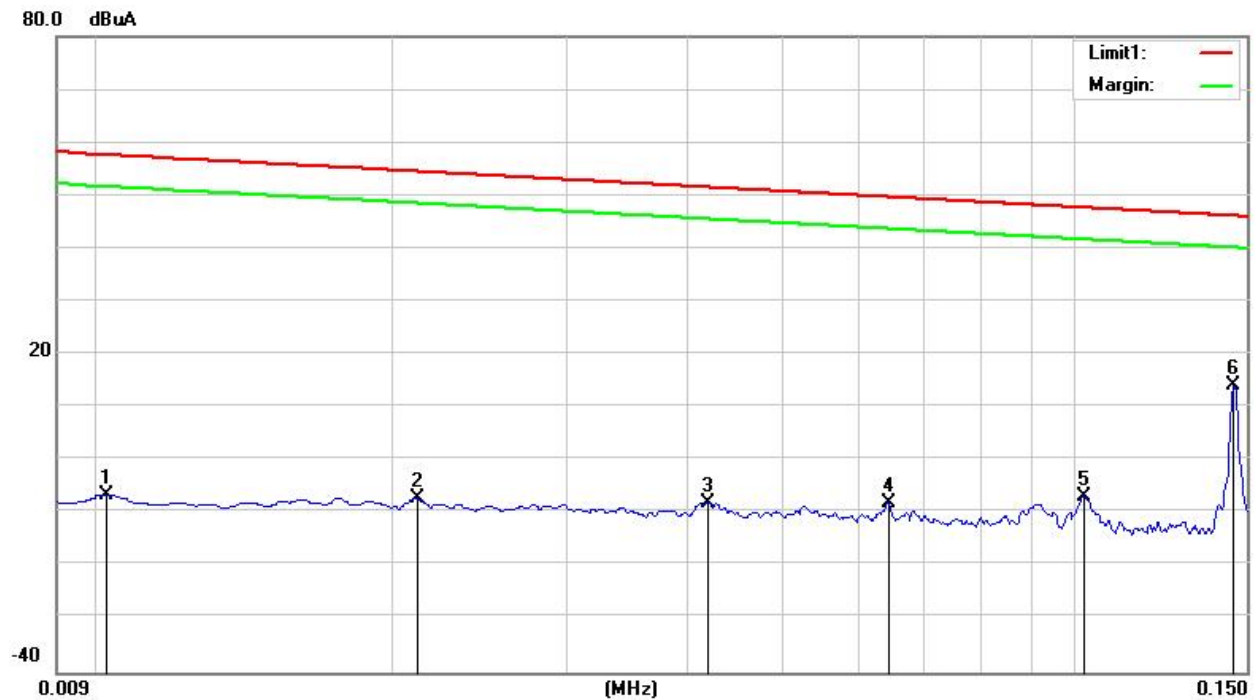
1. Please refer to ETSI EN 303 417 (V.1.1.1) Sub-clause 5 for the test conditions.
2. Please refer to ETSI EN 303 417 (V.1.1.1) Sub-clause 6.2 for the measurement method.

7.4 TEST RESULT

Note: The test report only show the worst case.

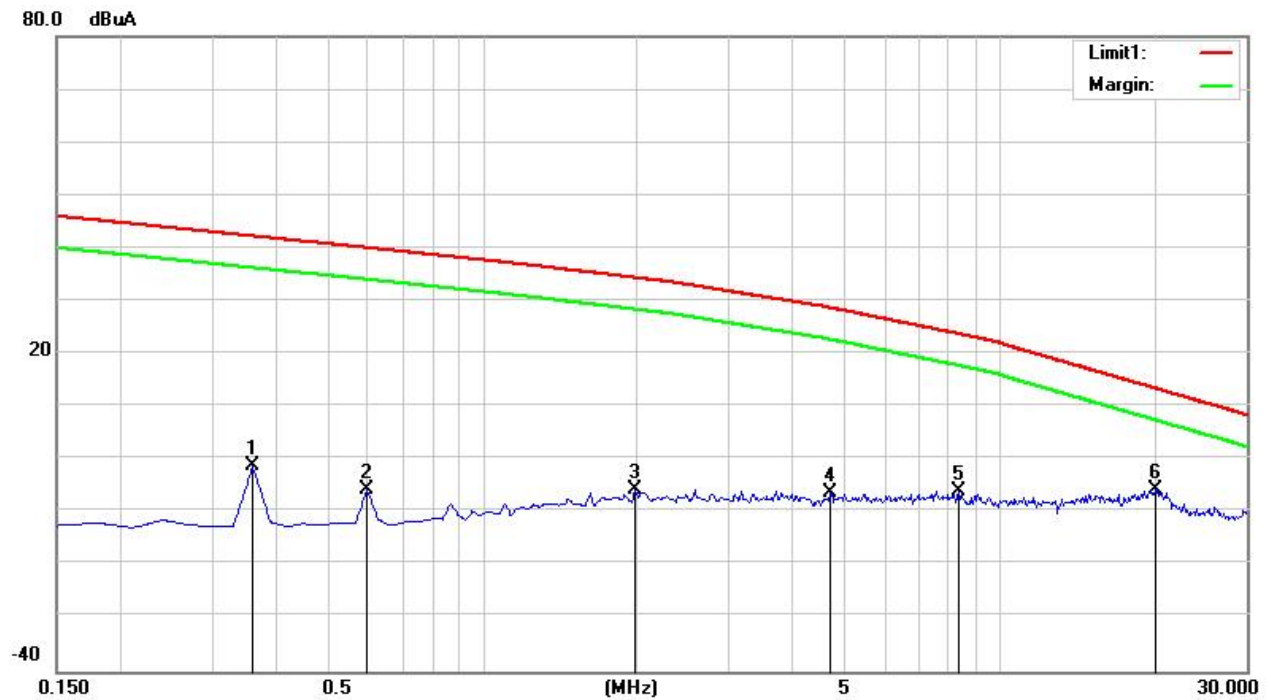
Operating mode

Mode 2
9KHz – 150KHz



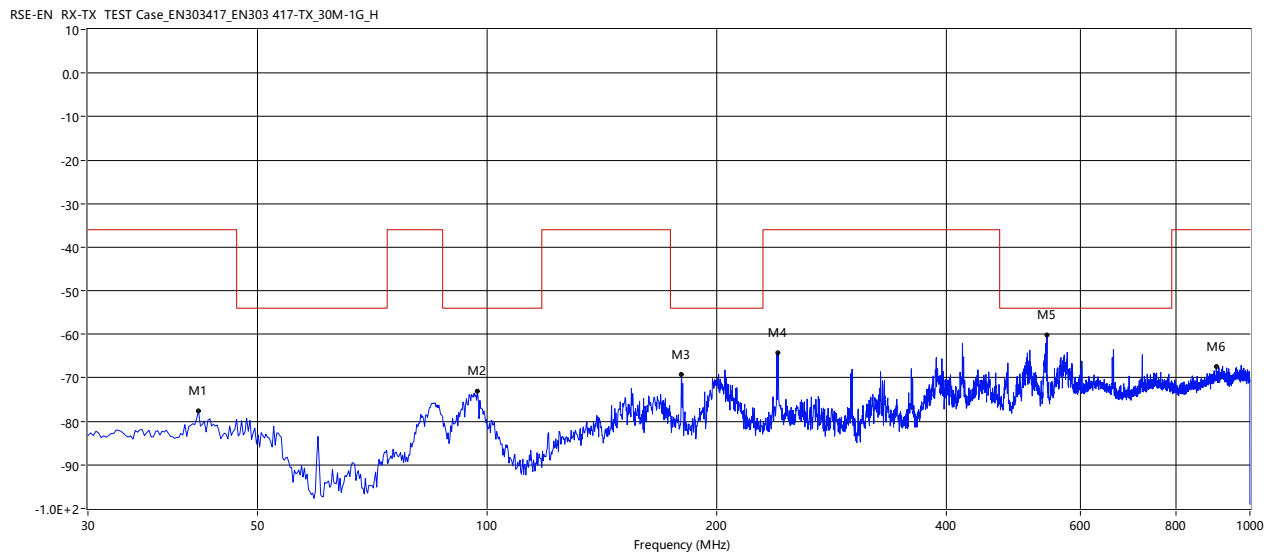
No.	Frequency (KHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.0101	-25.92	19.38	-6.54	57.70	-64.24	peak
2	0.0211	-27.33	20.08	-7.25	54.51	-61.76	peak
3	0.0418	-27.57	19.66	-7.91	51.55	-59.46	peak
4	0.0643	-27.03	19.10	-7.93	49.69	-57.62	peak
5	0.1022	-24.45	17.60	-6.85	47.68	-54.53	peak
6	0.1453	-3.22	17.51	14.29	46.16	-31.87	peak

150KHz – 30MHz



No.	Frequency (MHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.3590	-21.42	20.14	-1.28	42.25	-43.53	peak
2	0.5978	-25.79	20.24	-5.55	40.03	-45.58	peak
3	1.9708	-26.04	20.39	-5.65	34.39	-40.04	peak
4	4.7171	-26.84	20.47	-6.37	28.70	-35.07	peak
5	8.3290	-26.29	20.30	-5.99	23.78	-29.77	peak
6	20.0003	-28.26	22.50	-5.76	13.48	-19.24	peak

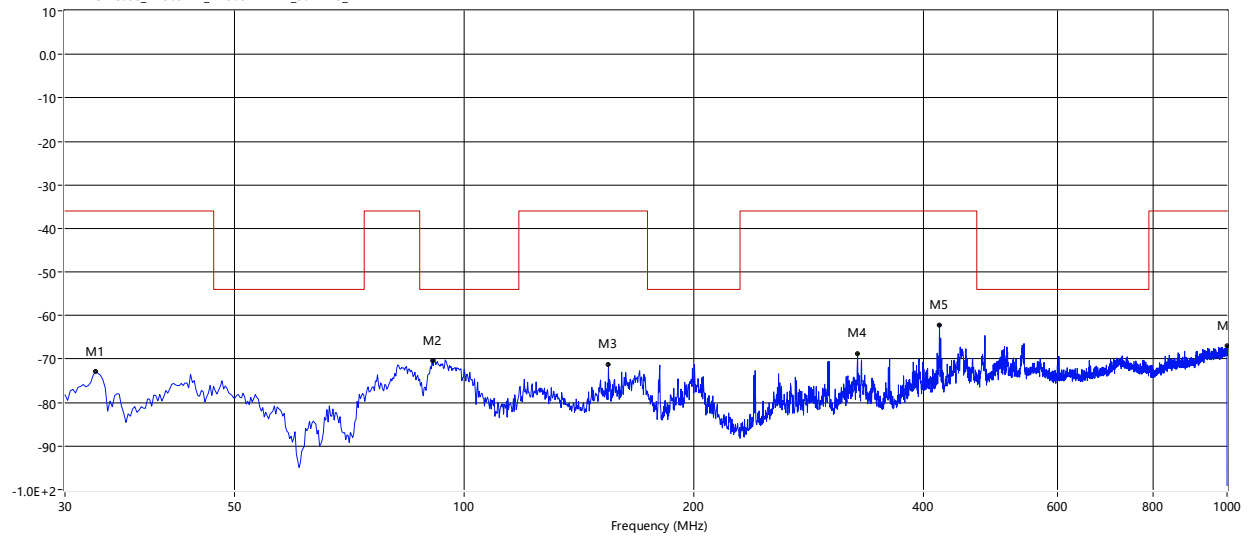
30MHz -1GHz Horizontal



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
41.883	-77.62	-5.65	-36.0	-41.62	84.60	Horizontal	Vertical	Pass
97.173	-73.17	-13.98	-54.0	-19.17	64.50	Horizontal	Vertical	Pass
179.865	-69.27	-10.62	-54.0	-15.27	165.70	Horizontal	Vertical	Pass
240.732	-64.16	-1.98	-36.0	-28.16	302.90	Horizontal	Vertical	Pass
541.918	-60.23	2.92	-54.0	-6.23	256.40	Horizontal	Vertical	Pass
903.485	-67.47	8.96	-36.0	-31.47	111.30	Horizontal	Vertical	Pass

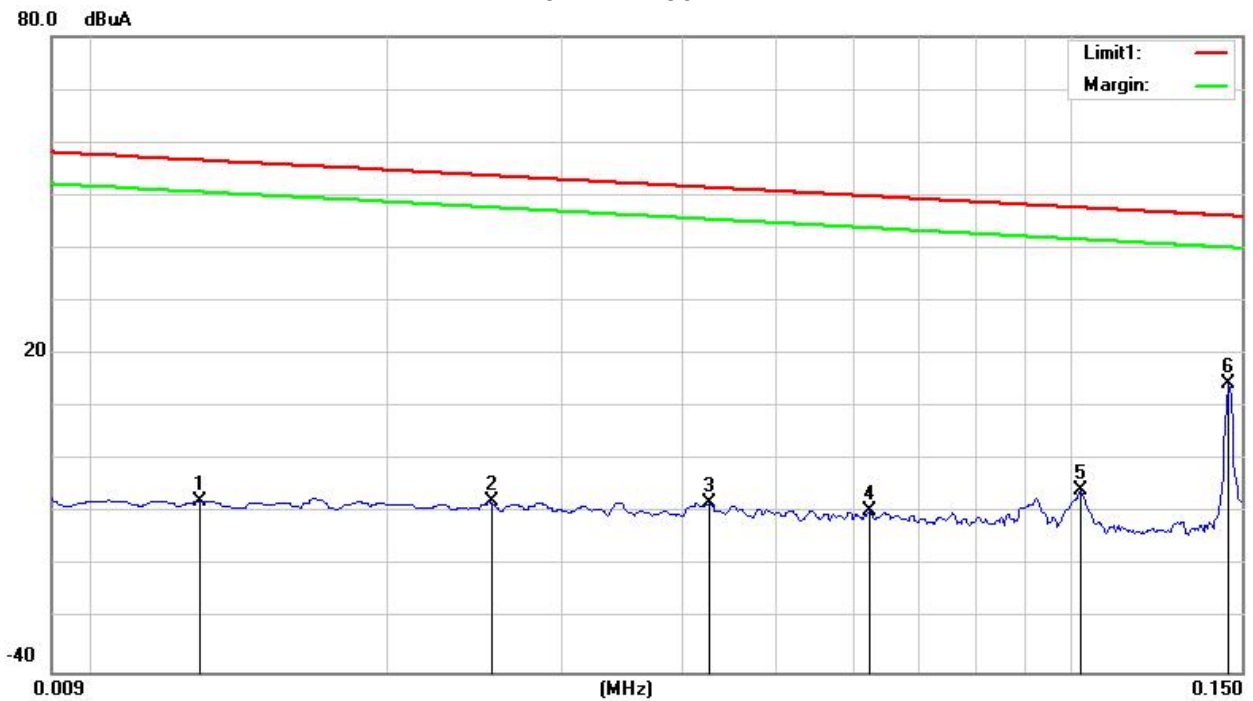
Vertical

RSE-EN RX-TX TEST Case_EN303417_EN303 417-TX_30M-1G_V



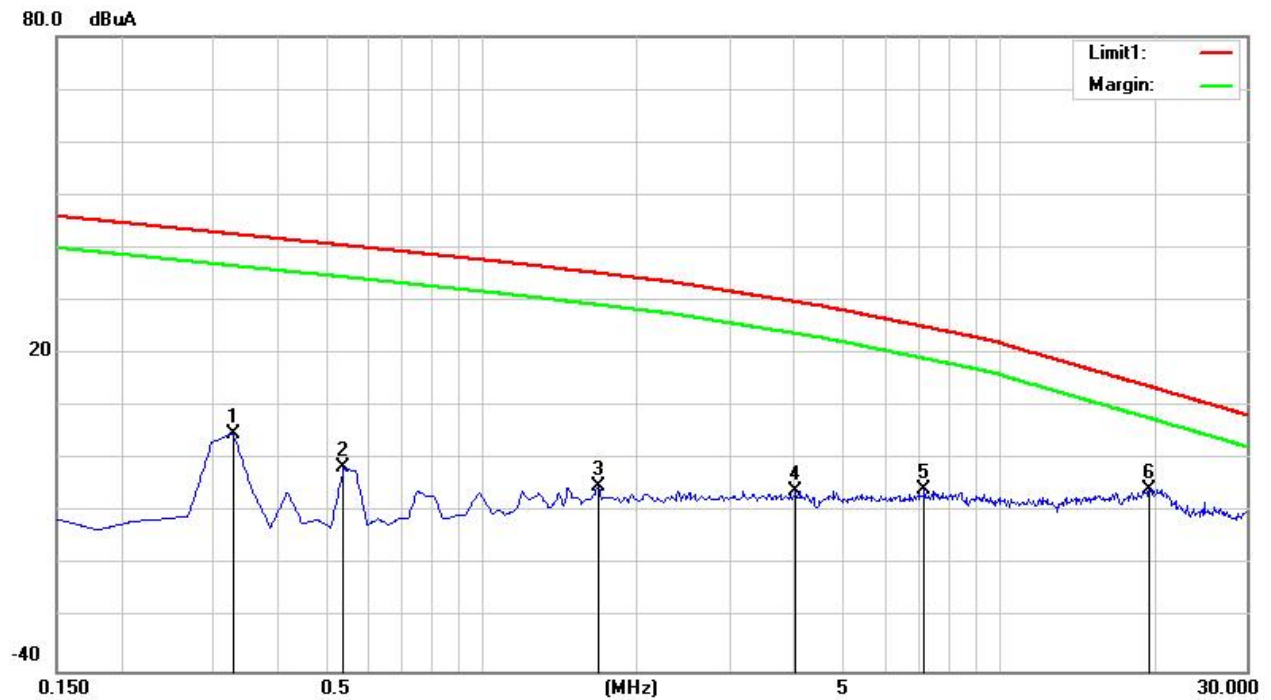
Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
32.910	-72.93	-8.00	-36.0	-36.93	346.20	Vertical	Vertical	Pass
90.868	-70.27	-9.49	-54.0	-16.27	192.20	Vertical	Vertical	Pass
154.645	-71.16	-3.52	-36.0	-35.16	322.80	Vertical	Vertical	Pass
328.033	-68.66	-2.33	-36.0	-32.66	178.80	Vertical	Vertical	Pass
419.940	-62.12	1.26	-36.0	-26.12	45.20	Vertical	Vertical	Pass
999.030	-66.99	10.64	-36.0	-30.99	255.50	Vertical	Vertical	Pass

Mode 3/4
9KHz – 150KHz



No.	Frequency (KHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.0128	-27.25	19.58	-7.67	56.68	-64.35	peak
2	0.0253	-27.87	19.99	-7.88	53.73	-61.61	peak
3	0.0427	-27.79	19.65	-8.14	51.46	-59.60	peak
4	0.0623	-28.75	19.16	-9.59	49.83	-59.42	peak
5	0.1024	-23.37	17.60	-5.77	47.68	-53.45	peak
6	0.1453	-3.12	17.51	14.39	46.16	-31.77	peak

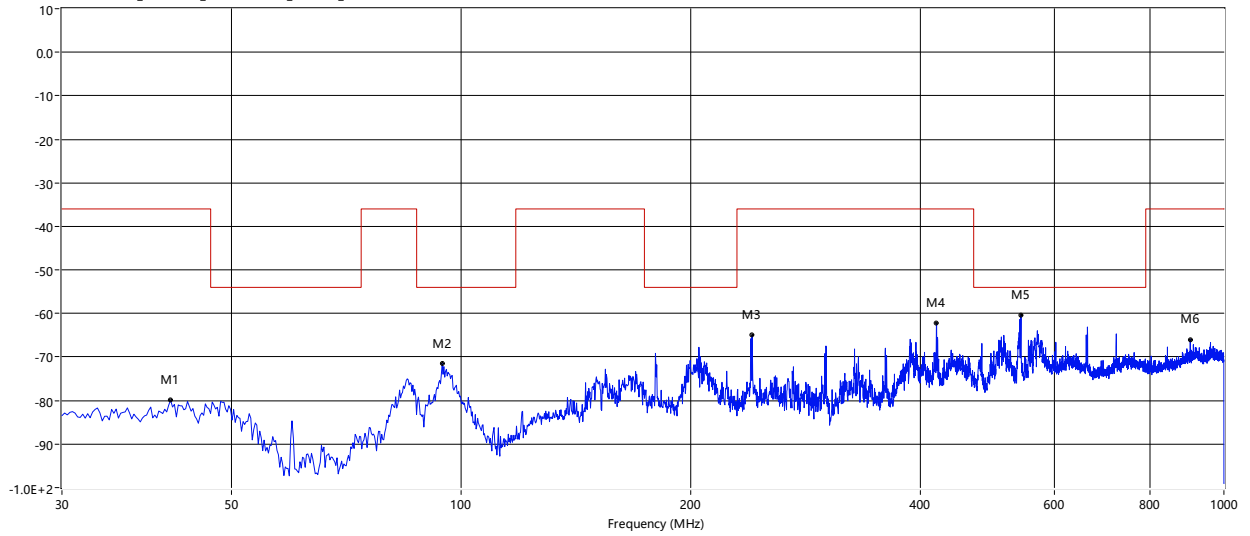
150KHz – 30MHz



No.	Frequency (MHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.3291	-15.16	20.13	4.97	42.62	-37.65	peak
2	0.5381	-21.78	20.22	-1.56	40.49	-42.05	peak
3	1.6724	-25.24	20.33	-4.91	35.22	-40.13	peak
4	4.0305	-26.28	20.40	-5.88	29.81	-35.69	peak
5	7.1647	-26.11	20.37	-5.74	25.08	-30.82	peak
6	19.4928	-27.93	22.38	-5.55	13.80	-19.35	peak

30MHz -1GHz Horizontal

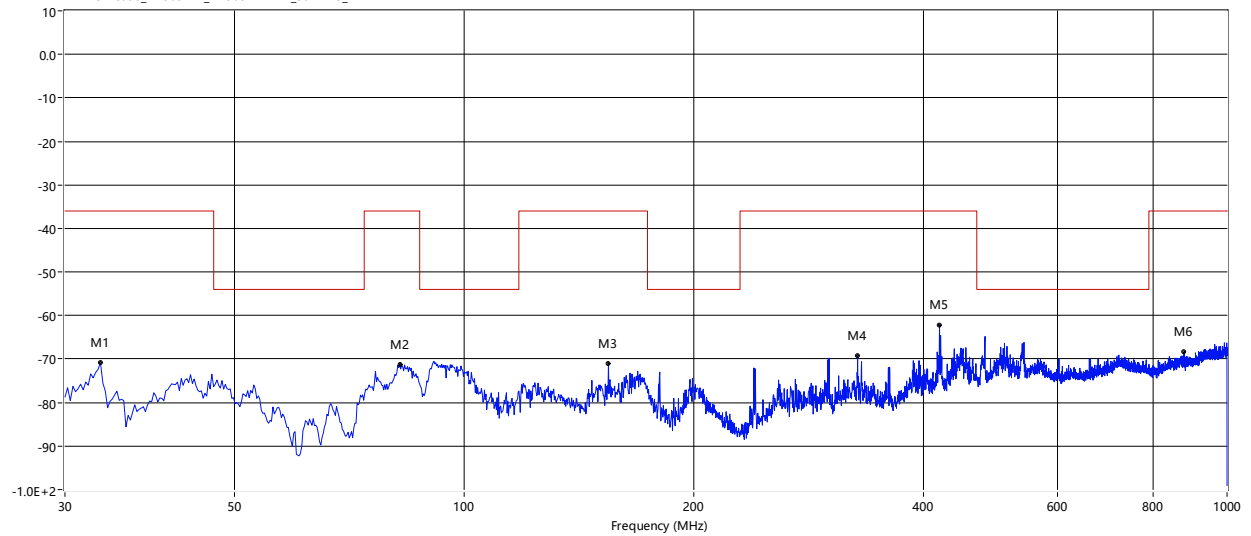
RSE-EN RX-TX TEST Case_EN303417_EN303 417-TX_30M-1G_H



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
41.640	-79.90	-5.47	-36.0	-43.90	36.20	Horizontal	Vertical	Pass
94.505	-71.51	-14.26	-54.0	-17.51	56.30	Horizontal	Vertical	Pass
240.732	-64.98	-1.98	-36.0	-28.98	106.90	Horizontal	Vertical	Pass
419.940	-62.15	2.23	-36.0	-26.15	319.40	Horizontal	Vertical	Pass
541.918	-60.34	2.92	-54.0	-6.34	137.40	Horizontal	Vertical	Pass
903.485	-65.94	8.96	-36.0	-29.94	110.60	Horizontal	Vertical	Pass

Vertical

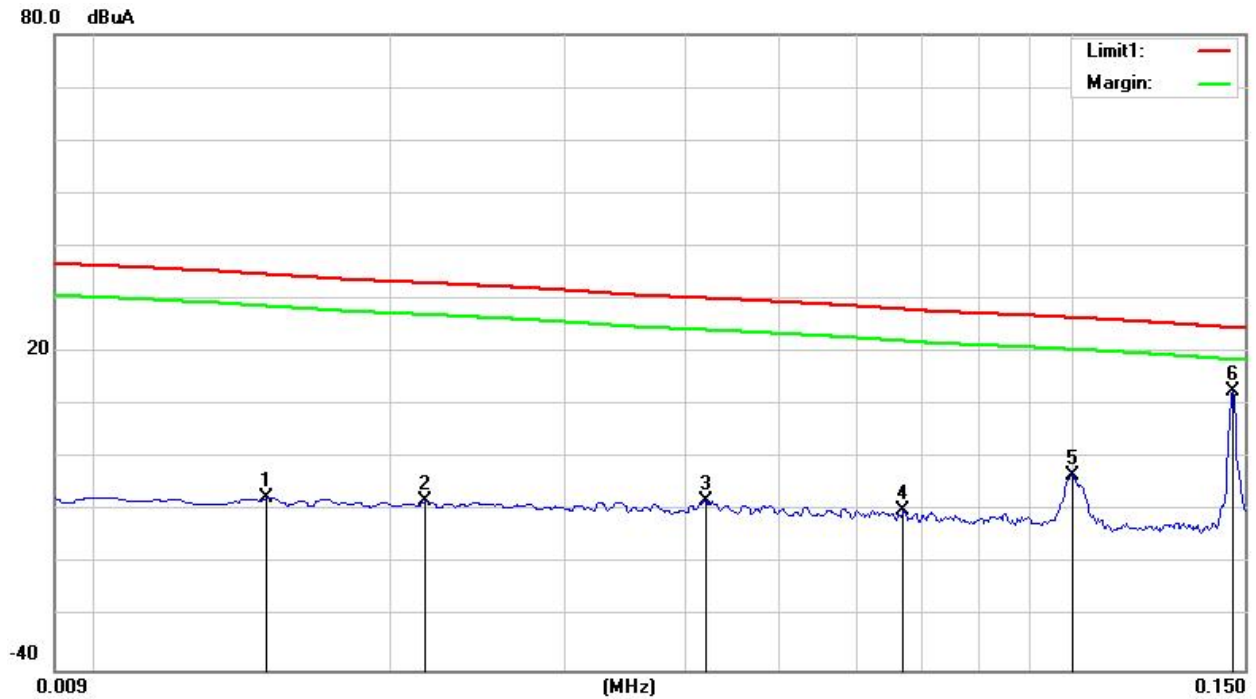
RSE-EN RX-TX TEST Case_EN303417_EN303 417-TX_30M-1G_V



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
33.395	-70.84	-8.31	-36.0	-34.84	357.40	Vertical	Vertical	Pass
82.380	-71.23	-13.74	-36.0	-35.23	360.00	Vertical	Vertical	Pass
154.645	-71.05	-3.52	-36.0	-35.05	321.20	Vertical	Vertical	Pass
328.033	-69.25	-2.33	-36.0	-33.25	317.80	Vertical	Vertical	Pass
419.940	-62.31	1.26	-36.0	-26.31	51.40	Vertical	Vertical	Pass
878.265	-68.33	8.24	-36.0	-32.33	277.30	Vertical	Vertical	Pass

Standby mode

Mode 1
9KHz – 150KHz



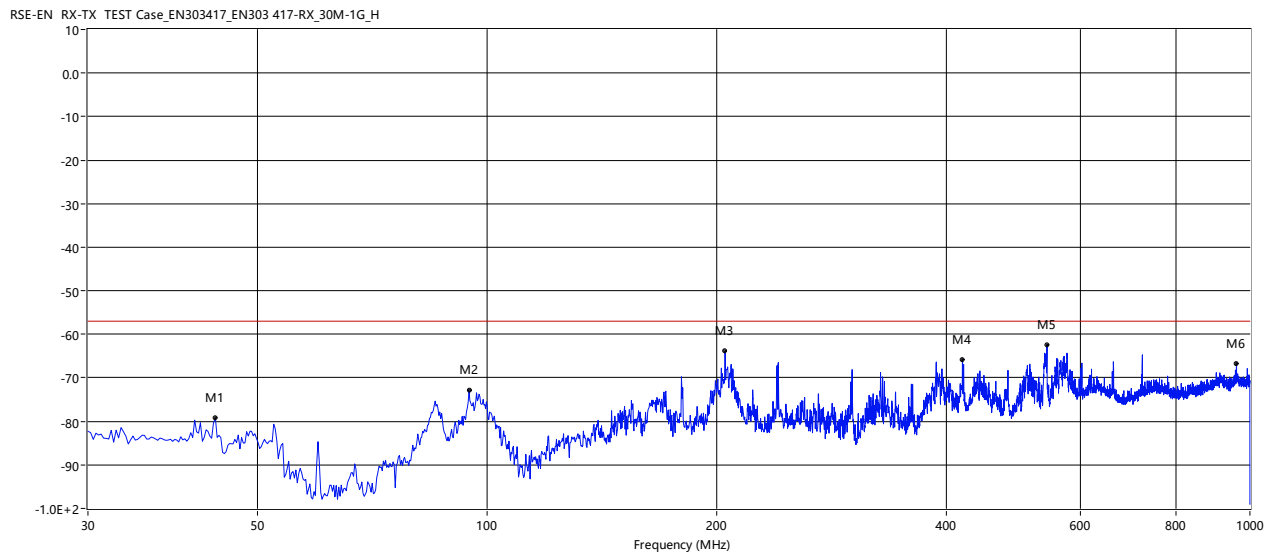
No.	Frequency (KHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.0150	-27.28	19.74	-7.54	34.70	-42.24	peak
2	0.0216	-28.26	20.07	-8.19	33.10	-41.29	peak
3	0.0418	-27.67	19.66	-8.01	30.22	-38.23	peak
4	0.0670	-28.96	19.02	-9.94	28.12	-38.06	peak
5	0.1000	-20.85	17.60	-3.25	26.53	-29.78	peak
6	0.1460	-4.88	17.51	12.63	24.66	-12.03	peak

150KHz – 30MHz



No.	Frequency (MHz)	Reading (dBuA)	Correct Factor(dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Remark
1	0.4187	-25.03	20.17	-4.86	20.34	-25.20	peak
2	1.2843	-27.21	20.26	-6.95	15.20	-22.15	peak
3	1.7917	-26.28	20.36	-5.92	13.66	-19.58	peak
4	4.0901	-26.07	20.41	-5.66	8.46	-14.12	peak
5	8.0304	-26.97	20.32	-6.65	2.94	-9.59	peak
6	13.5228	-28.23	20.98	-7.25	-1.88	-5.37	peak

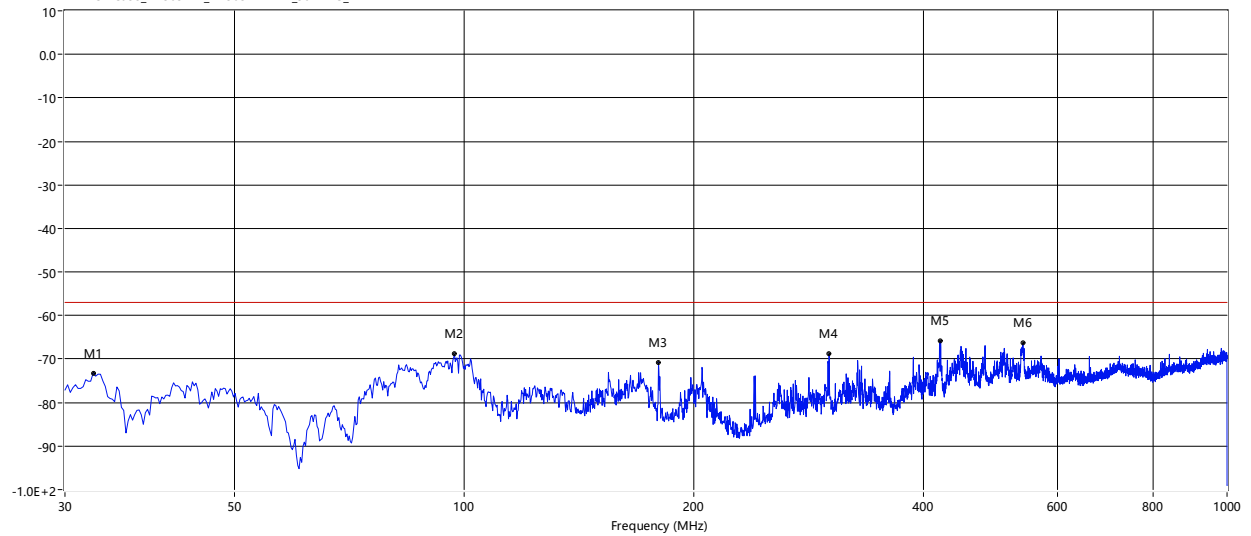
30MHz -1GHz Horizontal



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
44.065	-79.28	-7.28	-57.0	-22.28	89.90	Horizontal	Vertical	Pass
94.747	-72.95	-14.23	-57.0	-15.95	86.60	Horizontal	Vertical	Pass
205.085	-63.80	-11.09	-57.0	-6.80	26.30	Horizontal	Vertical	Pass
419.940	-65.75	2.23	-57.0	-8.75	143.50	Horizontal	Vertical	Pass
541.918	-62.37	2.92	-57.0	-5.37	163.90	Horizontal	Vertical	Pass
960.472	-66.73	9.63	-57.0	-9.73	319.80	Horizontal	Vertical	Pass

Vertical

RSE-EN RX-TX TEST Case_EN303417_EN303 417-RX_30M-1G_V



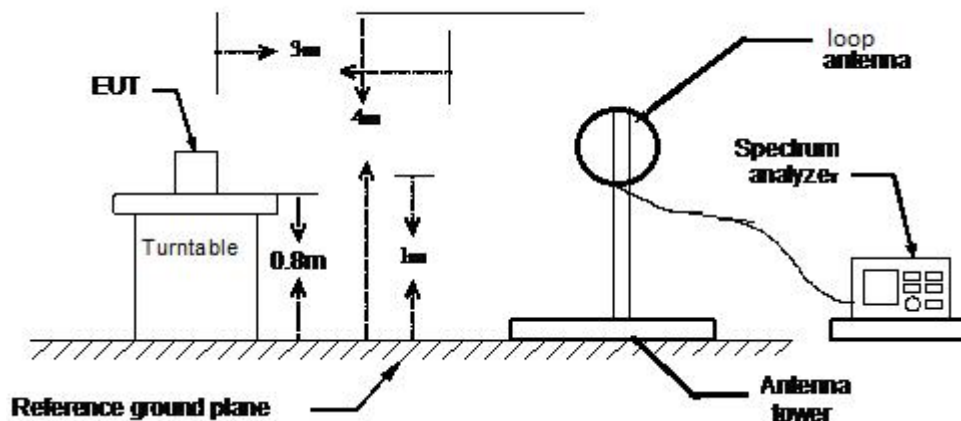
Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
32.667	-73.25	-7.84	-57.0	-16.25	30.90	Vertical	Vertical	Pass
97.173	-68.81	-6.34	-57.0	-11.81	4.40	Vertical	Vertical	Pass
179.865	-70.83	-8.31	-57.0	-13.83	356.40	Vertical	Vertical	Pass
300.873	-68.77	-3.44	-57.0	-11.77	288.80	Vertical	Vertical	Pass
421.395	-65.82	1.25	-57.0	-8.82	34.20	Vertical	Vertical	Pass
539.977	-66.37	5.95	-57.0	-9.37	349.00	Vertical	Vertical	Pass

8. TRANSMITTER OUT OF BAND (OOB) EMISSIONS

8.1 LIMIT

The OOB limits are visualized in Figures 4 and 5; they are descending from the intentional limits from Table 3 at f_H/f_L with 10 dB/decade.

8.2 TEST CONFIGURATION



8.3 TEST PROCEDURE

1. Please refer to ETSI EN 303 417 (V.1.1.1) Sub-clause 5 for the test conditions.
2. Please refer to ETSI EN 303 417 (V.1.1.1) Sub-clause 6.2 for the measurement method.

8.4 TEST RESULT

Mode 1

Out of Band emission	F_{SL}	F_L	F_H	F_{SH}
Operation Frequency (KHz)	133.75	147.58	147.750	157.750
Reading (dB μ A)	30.615	39.215	39.324	29.826
limit (dB μ A/m)	68.127	68.900	26.700	69.325
Result	Pass	Pass	Pass	Pass

Mode 2

Out of Band emission	F _{SL}	F _L	F _H	F _{SH}
Operation Frequency (KHz)	108.35	118.35	124.850	134.850
Reading (dBμA)	10.115	29.136	29.215	9.315
limit (dBμA/m)	96.419	97.338	26.700	97.749
Result	Pass	Pass	Pass	Pass

Mode 3/4

Out of Band emission	F _{SL}	F _L	F _H	F _{SH}
Operation Frequency (KHz)	110.30	120.30	132.650	142.650
Reading (dBμA)	-14.997	11.864	17.256	-13.282
limit (dBμA/m)	96.742	97.606	26.700	98.022
Result	Pass	Pass	Pass	Pass

9. WPT SYSTEM UNWANTED CONDUCTED EMISSIONS

9.1 LIMIT

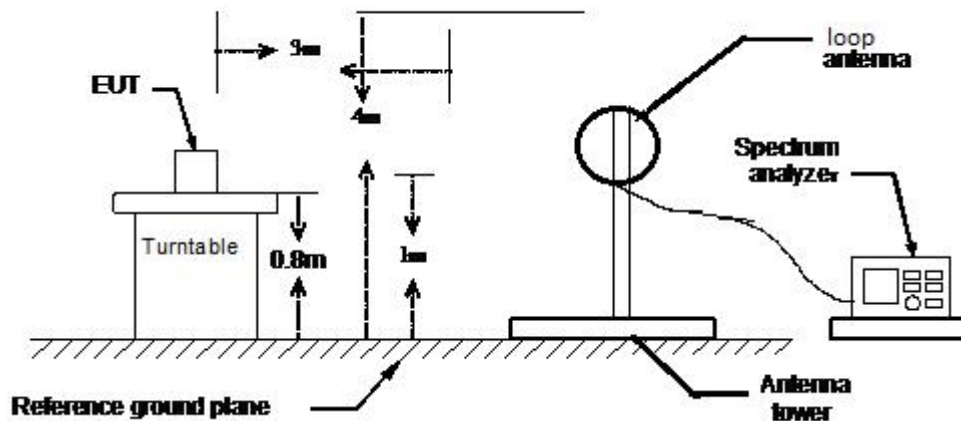
The common mode current (ICM) between 1 MHz and 30 MHz shall not exceed the following limit:

$$I_{CM} = 47 - 8 \times \log(f) \text{ dB}\mu\text{A}$$

NOTE: f is the frequency in MHz.

9.2 TEST CONFIGURATION

Below 30MHz



9.3 TEST PROCEDURE

1. Please refer to ETSI EN 303 417 (V.1.1.1) Sub-clause 5 for the test conditions.
2. Please refer to ETSI EN 303 417 (V.1.1.1) Sub-clause 6.2 for the measurement method.

9.4 TEST RESULT

Note: Not applicable.

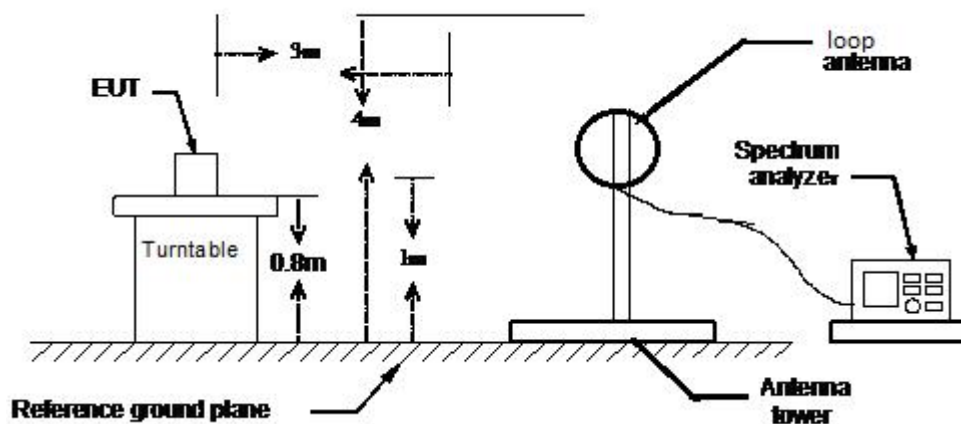
10. RECEIVER BLOCKING

10.1 LIMIT

Table 6: Receiver blocking limits

	In-band signal	OOB signal	Remote-band signal
Frequency	Centre frequency (f_c) of the WPT system (see clause 4.3.3)	$f = f_c \pm F$ (see note)	$f = f_c \pm 10 \times F$ (see note)
Signal level field strength at the EUT	72 dB μ A/m	72 dB μ A/m	82 dB μ A/m
NOTE: F = OFR see clause 4.3.3.			

10.2 TEST CONFIGURATION



10.3 TEST PROCEDURE

1. Please refer to ETSI EN 303 417 (V.1.1.1) Sub-clause 5 for the test conditions.
2. Please refer to ETSI EN 303 417 (V.1.1.1) Sub-clause 6.3 for the measurement method.

10.4 TEST RESULT

Note: Only show the worst case in the report.

Mode 1

operation frequency (KHz)	In-band signal(dB μ A/m)	OOB signal (dB μ A/m)	Remote-band signal(dB μ A/m)
174.9	72	/	/
171.5	/	72	/
178.3	/	72	/
140.9	/	/	82
208.9	/	/	82
Limit	Input the interference signal can work normally		
result	PASS	PASS	PASS

Note: F=OFR=4KHz

Mode 2

operation frequency (KHz)	In-band signal(dBμA/m)	OOB signal (dBμA/m)	Remote-band signal(dBμA/m)
174.9	72	/	/
171.5	/	72	/
178.3	/	72	/
140.9	/	/	82
208.9	/	/	82
Limit	Input the interference signal can work normally		
result	PASS	PASS	PASS

Note: F=OFR=4KHz

Mode 3

operation frequency (KHz)	In-band signal(dBμA/m)	OOB signal (dBμA/m)	Remote-band signal(dBμA/m)
174.9	72	/	/
171.5	/	72	/
178.3	/	72	/
140.9	/	/	82
208.9	/	/	82
Limit	Input the interference signal can work normally		
result	PASS	PASS	PASS

Note: F=OFR=4KHz

※※※※※ END OF THE REPORT※※※※※



EN62311: TEST Report

Report No: FCS202607157H01

Issued for

Applicant:	Mid Ocean Brands B.V.
Address:	Unit 711-716, 7/F., Tower A, 83 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong.
Product Name:	Charging cable with charger
Brand Name:	N/A
Model Name:	MO3145
Series Model:	N/A
Test Standard:	EN 62311:2020 EN 50665:2017
Issued By: Dongguan Funas Testing Technology Co.,Ltd Add: Room 105 Floor Bao hao Technology Building 1 NO.15 Gong ye West Road Hi-Tech Industrial, Song shan lake Dongguan, China Tel: 769-27280901 Fax:769-27280901 http://www.fcs-lab.com E-mail: andy.yue@fcs-lab.com	



TEST RESULT CERTIFICATION

Applicant's Name.....: Mid Ocean Brands B.V.
 Address.....: Unit 711-716, 7/F., Tower A, 83 King Lam Street,
 Cheung Sha Wan, Kowloon, Hong Kong.
 Manufacture's Name.....: Mid Ocean Brands B.V.
 Address.....: Unit 711-716, 7/F., Tower A, 83 King Lam Street,
 Cheung Sha Wan, Kowloon, Hong Kong.
 Address.....:

Product Description Charging cable with charger
 Product Name.....: N/A
 Brand Name: MO3145
 Model Name.....: See the first page of the report
 Series Model.....: Mid Ocean Brands B.V.
 Test Standards.....: EN 62311:2020
 EN 50665:2017

This device described above has been tested by FCS, and the test results show that the equipment under test (EUT) is in compliance with the 2014/53/EU RED Directive requirements. And it is applicable only to the tested sample identified in the report.

This report shall not be reproduced except in full, without the written approval of FCS, this document may be altered or revised by FCS, personal only, and shall be noted in the revision of the document.

Date of Test.....:
 Date (s) of performance of tests.: July 10, 2026~July 20, 2026
 Date of Issue.....: July 20, 2026
 Test Result.....: Pass

Tested by :

(orange OuYang)

Reviewed by :

(jayden)

Approved by :

(Jack Wang)



Table of Contents

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2. GENERAL INFORMATION	5
GENERAL DESCRIPTION OF EUT	5
3.EN 62311 REQUIREMENT	6
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LIMIT	6
4. TEST PROCEDURE	7
11.4 TEST SETUP	8
4. RESULT	8



1. Testing laboratory

Company Name:	Dongguan Funas Testing Technology Co.,Ltd.
Address:	Room 105 Floor Bao hao Technology Building 1 NO.15 Gong ye West Road Hi-Tech Industrial, Song shan lake Dongguan, China
Telephone:	+86-769-27280901
Fax:	+86-769-27280901
Laboray Accreditations	
FCC Test Firm Registration Number: 514908 CNAS Number: L15566 Designation number: CN0127 A2LA accreditation number: 5545.01 ISED Number: 25801	



2. GENERAL INFORMATION

Equipment	Charging cable with charger	
Brand Name	N/A	
Model Name.	MO3145	
Serial Model	See the first page of the report	
Model Difference	N/A	
Product Description	The is a Wireless Charging Module.	
	Operation Frequency	Samsung Watch:110kHz-205kHz Apple Watch: 325kHz~360kHz
	Antenna Designation	Coil antenna
	Antenna Gain(Peak)	0 dBi
	More details of EUT technical specification, please refer to the User's Manual.	
Power Rating:	Input: DC 5V 1A Output: DC 5V 0.5A	
Battery	N/A	

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

GENERAL DESCRIPTION OF EUT



1.2 Test Equipment List and Details

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Electric and Magnetic Field Probe-Analyzer	Narda S.T.S./PMM	EHP-200A	EST-E106	June 11,25	June 10,26
Test Software	Narda	EHP200-TS	Rel 1.92	N/A	N/A
Note: Test uncertainty: ± 1.62 dB (H-field); ± 1.64 dB (E-field) at a level of confidence of 95%.					

3.EN 62311 REQUIREMENT

GENERAL INFORMATION

Equipment complying with the requirements for the general public is deemed to comply with the requirements for workers without further testing.

The measurements and calculations to demonstrate equipment compliance shall be made according to EN IEC 62311:2020, Clauses 4 and 5, The general considerations as defined in EN IEC 62311:2020, Clauses 4 and 5 shall apply to all equipment.

EN IEC 62311: 2020	Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz to 300 GHz)
--------------------	---

LIMIT

According to EN IEC 62311:2020, the criteria listed in the following table shall be used to evaluate the environmental impact of human exposure to radio-frequency (RF) radiation as specified 1999/519/EC.



Reference levels for electric, magnetic and electromagnetic fields
(0 Hz to 300 GHz, unperturbed rms values)

Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (μT)	Equivalent plane wave power density S_{eq} (W/m ²)
0-1 Hz	—	$3,2 \times 10^4$	4×10^4	—
1-8 Hz	10 000	$3,2 \times 10^4/f^2$	$4 \times 10^4/f^2$	—
8-25 Hz	10 000	$4\,000/f$	$5\,000/f$	—
0,025-0,8 kHz	$250/f$	$4/f$	$5/f$	—
0,8-3 kHz	$250/f$	5	6,25	—
3-150 kHz	87	5	6,25	—
0,15-1 MHz	87	$0,73/f$	$0,92/f$	—
1-10 MHz	$87/f^{1/2}$	$0,73/f$	$0,92/f$	—
10-400 MHz	28	0,073	0,092	2
400-2 000 MHz	$1,375\ f^{1/2}$	$0,0037\ f^{1/2}$	$0,0046\ f^{1/2}$	$f/200$
2-300 GHz	61	0,16	0,20	10

Notes:

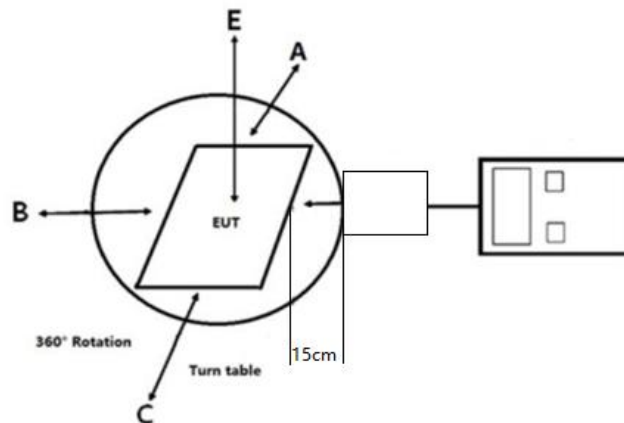
1. f as indicated in the frequency range column.
2. For frequencies between 100 kHz and 10 GHz, S_{eq} , E^2 , H^2 , and B^2 are to be averaged over any six-minute period.
3. For frequencies exceeding 10 GHz, S_{eq} , E^2 , H^2 , and B^2 are to be averaged over any $68/f^{1.05}$ -minute period (f in GHz).
4. No E-field value is provided for frequencies < 1 Hz, which are effectively static electric fields. For most people annoying perception of surface electric charges will not occur at field strengths less than 25 kV/m. Spark discharges causing stress or annoyance should be avoided.

4. TEST PROCEDURE

For devices designed for typical desktop applications, such as wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of 15 cm (Top) and 15 cm (Center). E and H field strength measurements or numerical modeling may be used to demonstrate compliance. Measurements should be made from all sides and the top of the primary/client pair, with the 15 cm (Top) and 15 cm (Center) measured from the center of the probe(s) to the edge of the device.



4.1 TEST SETUP



5. RESULT

EUT Position	Operatinh Frequency (KHz)	Distance (cm)	H-field test data (A/m)	H-field Limit (A/m)	Results
Front	127.7	15	0.14	5	PASS
Rear	127.7	15	0.17	5	PASS
Left	127.7	15	0.15	5	PASS
Right	127.7	15	0.18	5	PASS
Top	127.7	15	0.09	5	PASS

※※※※※ END OF THE REPORT※※※※※