



Test report issued under the responsibility of:
EMITECH LYON LABORATORY
MRA US-EU Designation Number: FR0013
Canadian CAB Identifier: FR0007

This report cancels and replaces the test report N° RCE-EMIESS22P941FIS-02AV0

F.C.C. / IC REPORT

CFR47 FCC Part 15: 2022
ICES-003 / NMB-003 edition 7: 2020
ANSI C63.4: 2014

FCCID: 2BBS9-HBK06

Company: **Fischer Connectors**
Address.....: Chemin du Glapin 20
CH-1162 Saint Prex
SWITZERLAND

Test item description.: **USB HUB**
Trade Mark.: Fischer Connectors
Manufacturer.....: Fischer Connectors
Model/Type reference.....: KEYSTONE 6
Ratings.....: 10 - 20Vdc

Testing Laboratory: **EMITECH LYON LABORATORY**
Address.....: ZI de Mi-Plaine
7 rue Georges Méliès
69680 CHASSIEU
FRANCE

Report Reference No.: **RCE-EMIESS22P941FIS-02AV1**
Test procedure.: FCC Certification
IC Verification process
Diffusion.....: John SPEYRER
Applicant's name.: Fischer Connectors
Date of issue.....: January, the 24th of 2024
Total number of pages.....: 24
Revision.: 1
Compiled by.....: R. NICOLAS
Approved by (+ signature).: T. LEDRESSEUR
(Technical Manager)

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This document is the result of testing a specimen or a sample of the product submitted. It does not imply an assessment of the conformity of
the whole manufactured products of the tested sample.*

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REVISION HISTORY:

Revision	Date	Modified pages	Modifications
0	March, the 21 st of 2023	/	Creation
1	September, the 25 th of 2023	See vertical lines	Changes due to the certification procedure

1. GENERAL INFORMATIONS

This document submits the results of Electromagnetic Compatibility tests performed on the equipment **USB HUB KEYSTONE 6** (denominated hereafter E.U.T.: equipment under test) according to documents listed in §2 of this test report.

In addition of technical requirements, additional administrative requirements are mandatory in order to fully respect FCC Rules:

User/Integration manual must include required statement.

Special accessories (shielded cable, special connectors...) required to enable compliance must be marketed with the device.

Device must be labelled as required per FCC Rules.

Device sample and/or technical construction file shall be made available upon reasonable request of the Commission.

Failure to comply with any of these requirements may cause forfeiture penalty according to §1.80 of FCC Rules.

- See identifying sheet on EUT (appendix 1).

Definition of class from CFR47 FCC Part 15: 2022

Class A digital device. A digital device that is marketed for use in a commercial, industrial or business environment, exclusive of a device which is marketed for use by the general public or is intended to be used in the home.

Class B digital device. A digital device that is marketed for use in a residential environment notwithstanding use in commercial, business and industrial environments. Examples of such devices include, but are not limited to, personal computers, calculators, and similar electronic devices that are marketed for use by the general public.

Page 4 on 24

2. REFERENCE DOCUMENTS

NORMATIVE REFERENCES:

The testing methods related throughout this report are those listed below.

They are applied on the whole test report even though the extensions (version, date and amendment) are not repeated.

CFR47 FCC part 15 Edition 2022: Code of federal regulations.
Title 47 – Telecommunication.
Chapter 1 – Federal communication commission.
Part 15 – Radio frequency devices.
Subpart B – Unintentional radiators.

ANSI C63.4 Edition 2014: Methods of Measurement of radio-noise.
Emissions from low-voltage electrical and electronic equipment in the
range of 9 kHz to 40 GHz.

ICES-003 / NMB-003 edition 7: 2020 and ICES-Gen / NMB-Gen: 2018
Information Technology Equipment (Including Digital Apparatus) — Limits and Methods of Measurement

3. EQUIPMENT TECHNICAL DESCRIPTION

3.1. Test Conditions

Test item description. : *USB HUB*
Model/Type reference..... : *KEYSTONE 6*
Trade Mark. : *Fischer Connectors*
Serial number (S/N)..... : *1000-1724912-00000010*
Part number (P/N). : *141955*
Software version..... : *Not communicated*
Firmware version. : *0.6.3*
Type of sample..... : *Pre-serial*
Function(s)..... : *Wearable USB 2.0 Hub, System powered by battery or telephone.*
Enables communication between the host (i.e. telephone) and up to 3 devices using USB 2.0 communication.
Manufacturer name. : *Fischer Connectors*
Address. : *Chemin du Glapin 20*
CH-1162 Saint Prex
SWITZERLAND
General product information..... : *N/A*

3.2.E.U.T. Marking plate

See certification documents

3.3.E.U.T. General view

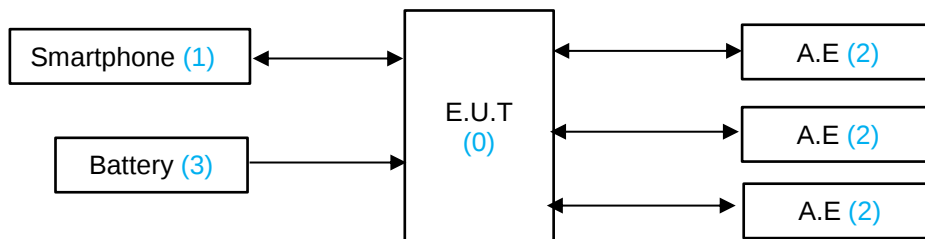
See certification documents

3.4.E.U.T. Mechanical and Electrical Design

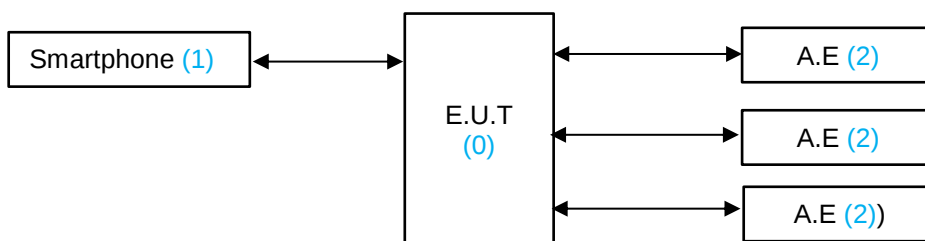
Power supply.	: 15Vdc
Power supply range.....	: 10 - 20Vdc
Power type.....	: Battery
Power (W).....	: <5W
Nominal current (A).	: <1A
Dimensions (L x W x H) (m).	: 0.019 x 0.293 x 0.089
Weight (kg).	: 0.240
Temperature range (°C).	: -32 to +49
Ground bounding strap.....	: No
Comments.	: N/A

3.5.E.U.T. Input/Output ports

Supply with battery



Supply with Smartphone



PORT	NAME	TYPE	LENGTH	CABLE TYPE	COMMENTS
0	Enclosure	N/E	N/A	Metal	
1	Smartphone link	N/E	N/A	U.S.B	
2	A.E link	N/E	N/A	U.S.B	
3	Battery link	DC	N/A	Shielded	

DC ...: Direct current port

N/E ...: Non Electrical port

3.6. Supporting Equipment Used During Test

Sample subject to the tests was tested with following equipment.

PRODUCT TYPE	MANUFACTURER	MODEL	COMMENTS
Phone	Samsung	/	Provided by the customer
Metal box	/	/	Fischer Connectors
USB loads x 3	/	/	Fischer Connectors
Battery	Nerv centr		

3.7. Auxilliary Equipement (A.E.)

See certification documents

3.8. EMC Environment and Performance Criteria

According to manufacturer's declarations :

Electromagnetic environment..... : *Industrial*
Professional use ? : *Yes*
Typical mounting : *Transportable equipment*
Internal frequencies : *2.17 MHz, 3.1 MHz, 6 MHz, 24 MHz, 250 MHz*
Higher frequency : *250 MHz*
Configurations..... : *- E.U.T. supplied by phone*
- E.U.T. supplied by battery
Comments : *N/A*

a) EUT OPERATION MODES:

MODE #	DESCRIPTION
1	<i>Supplied by battery</i>
2	<i>Supplied by Phone</i>

4. E.U.T. REQUIREMENTS FOR FCC RULES

4.1. Subpart A - General

This part sets out the regulations under which an intentional, unintentional, or incidental radiator may be operated without an individual license. It also contains the technical specifications, administrative requirements and other conditions relating to the marketing of part 15 devices.

The user notice “**USB HUB KEYSTONE 6**”, shall include the following informations:

a) LABELLING REQUIREMENTS (§15.19):
Equipment authorization: Supplier's Declaration of Conformity (SDoC) or Certification List of different type of devices and associated “<i>statement on product</i>”: §15.19(a)(3) - All other devices: <i>“This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:</i> <i>(1) This device may not cause harmful interference, and</i> <i>(2) this device must accept any interference received, including interference that may cause undesired operation.</i> §15.19(a)(5) - When the device is so small: The statement of §15.19(a) shall be placed in the user manual and must also either be placed on the device packaging or on a removable label attached to the device. Compliance information (§2.1077): The identification, by name, address and telephone number or internet contact information, of the responsible party, as defined in § 2.909 of the standard. The responsible party for Supplier’s Declaration of Conformity must be located within the United States. Identification (§2.1074): (a) Devices subject only to Supplier’s Declaration of Conformity shall be uniquely identified by the party responsible for marketing or importing the equipment within the United States. (b) Devices subject to authorization under Supplier’s Declaration of Conformity may be labelled with the following logo on a voluntary basis as a visual indication that the product complies with the applicable FCC requirements.  (image size: 6.7 x 2.8" ;3.5 x 1.4" ;1.6 x .7")

The label shall be located in a conspicuous location on the device.

The label shall not be a stick-on, paper label. The label on these products shall be permanently affixed to the product and shall be readily visible (font of at least 4-point or larger) to the purchaser at the time of purchase.

b) INFORMATION TO USER (§15.21):
The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that: <i>“The party responsible is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user’s authority to operate the equipment”</i>

4.2. Subpart B - Unintentional Radiators

In addition to Subpart A, the user notice “**USB HUB KEYSTONE 6**”, shall include the following informations:

a) INFORMATION TO USER (§15.105):
Equipment authorization: Supplier's Declaration of Conformity (SDoC) or Certification §15.105(a) - For a Class A digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual: <i>“NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.”</i>

4.3. ISED

Labelling Requirements

The label shall contain:

CAN ICES-3 (A)/NMB-3(A)

Information to user required by RSS-Gen standard:

User Notice

User manuals for licence-exempt radio apparatus shall contain the following text, or an equivalent notice, that shall be displayed in a conspicuous location, either in the user manual or on the device, or both:

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le manuel d'utilisation des appareils radio exempts de licence doit contenir l'énoncé qui suit, ou l'équivalent, à un endroit bien en vue dans le manuel d'utilisation ou sur l'appareil, ou encore aux deux endroits :

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes :

- 1) L'appareil ne doit pas produire de brouillage;
- 2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The user manual shall contain each statement ask by the OEM integrator manual of the module.

5. RESULT SUMMARY

5.1. CFR47 FCC Part 15: 2022

TEST DESIGNATION	SEVERITY	VERDICT	BASIC STANDARDS / COMMENTS
Equipment under test Power Supply: Auxiliary Equipment Power Supply :			15 Vdc
Subpart A - general 15.19 labelling requirements 15.21 Information to user 15.23 Home-built devices 15.25 Kits 15.27 Special Accessories 15.29 Inspection by the Commission 15.31 Measurement standards 15.32 Test procedure for CPU boards and computer power supplies 15.33 Frequency range of radiated measurements 15.35 Measurement detector functions and bandwidths 15.37 Transition provisions for compliance with the rules		Done N/P N/A N/A N/P N/P N/P N/A Done Done Done	Note 1 Note 2 Note 3 Note 4 Note 5 Note 6, Noticed in the § 7.2 Noticed in the § 7.2 Noticed in the § 7.2
Subpart B – Unintentional radiators 15.101 Equipment authorization Supplier's Declaration of Conformity (SDoC) Certification 15.102 CPU boards and power supplies used in personal computers 15.103 Exempted device 15.105 Information to the user 15.107 (b) Conducted voltage emission (measurement: 150kHz – 30MHz) 15.109 (b) Radiated Electric field emission (measurement: 30MHz – 2GHz) 15.111 Antenna power conduction limits for receivers 15.113 Power line carrier systems 15.115 TV interface devices, including cable system terminal devices 15.117 TV broadcast receivers 15.118 Cable ready consumer electronics equipment 15.120 Program blocking technology requirements for TV receivers 15.121 Scanning receivers and frequency converters used with scanning receivers 15.123 Labelling of digital cable ready products	Class A	N/A N/A N/A Done N/A Pass N/A N/A N/A N/A N/A N/A N/A N/A N/A	Certification Note 7 Battery supplied or Phone supplied Measurement up to 2GHz Nothing to report Measuring distance: 3 meters

Note 1: Device must be labelled as required.

Note 2: User/Integration manual must include required statement.

Note 3: Special accessories (shielded cable, special connectors...) required to enable compliance must be marketed with the device.

Note 4: Device sample and/or technical construction file shall be made available upon reasonable request of the Commission.

Note 5: See ANSI C63.4-2014.

Note 6: Upper frequency depending on the highest frequency generated or used in the device (including certified RF Modular if applicable).

Note 7: User/Integration manual must include required statement.

▪ In emission:

Sample subject to the test complies with technical prescriptions of the following standards according to limits specified in this test report:

- CFR47 FCC part 15 Edition 2022
- ICES-003 / NMB-003 edition 7: 2020

Measuring distance of 3 meters: quote from CFR47 FCC part 15 Edition 2022, §15.31.f.1

"At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated that the signal levels needed to be measured at the distance employed can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 meters unless it can be further demonstrated that measurements at a distance of 30 meters or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements)."

Nota Bene: To declare, or not, the compliance with the specifications, it was not explicitly taken into account of uncertainty associated with the results with the exception of emission tests based on CISPR standards.

5.2. ICES-003 / NMB-003 edition 7: 2020

TEST DESIGNATION	SEVERITY	VERDICT	BASIC STANDARDS / COMMENTS
Equipment under test Power Supply: Auxiliary Equipment Power Supply :			15 Vdc
Test procedure ICES-003 § 2.3 Normative reference		Done	ANSI C63.4
Test procedure ANSI 63.4 §7 AC power-line conducted emission measurements §8 Radiated emission measurements	Class A	N/A Pass	Battery supplied or Phone supplied Verification report Class A Nothing to report

TESTS PERFORMED	MODIFICATION
Part 15.109 (b) Radiated emission: Electric field	None

6. MEASUREMENT UNCERTAINTY

Uncertainties values presented below are required by standards:

PARAMETER	MAXIMAL EMITECH UNCERTAINTY	STANDARD UNCERTAINTY
Radiated emission (SAC) 30MHz – 1GHz (FAR) 1GHz - 2GHz	± 5.1 - 5.2 dB ± 5.0 / 5.2 dB	± 5.3 - 6.3 dB ± 5.2 dB

For the calculation of expanded uncertainty, the confidence interval is 95 % (k=2).

SAC: Semi Anechoic Chamber

FAR: Fully Anechoic Room

7. TEST CONDITIONS AND RESULTS

7.1. Radiated Electric Field emission (measurement 30 MHz – 2 GHz)

Reference standard:	CFR47 FCC part 15 Edition 2022 ICES-003 / NMB-003 Edition 7 : 2020
Test method:	Part 15.109(b) & ANSI C63.4 : 2014
General test setup: EUT is set on an insulating support at 80/150cm above the ground reference plane. First (peak) measurements were performed at an antenna to EUT separation distance of 3-meter. The EUT was rotated 360° about its azimuth with the receive antenna located in horizontal and vertical polarities and, for SAC method, at various heights. Final measurements (quasi-peak) were then performed in a reference test site that complies to CISPR 16-1-4. The EUT was rotated 360° about its azimuth and, for SAC method, adjusting the receive antenna height from 1 to 4 m. All frequencies were investigated in both horizontal and vertical antenna polarization, where applicable.	

Following measurements are performed all around the E.U.T. (0° → 360°)

TESTED CONFIGURATION	PARAMETER	SEVERITY	RESULT TAB.	VERDICT
Operating mode #1	30MHz-1GHz	Class A	EMI4567	PASS
Operating mode #2	30MHz-1GHz	Class A	EMI4566	PASS
Operating mode #1	1GHz-2GHz	Class A	EMI4496	PASS
Operating mode #2	1GHz-2GHz	Class A	EMI4495	PASS
E.U.T. OFF / Phone only	1GHz-2GHz	Class A	EMI4497	PASS

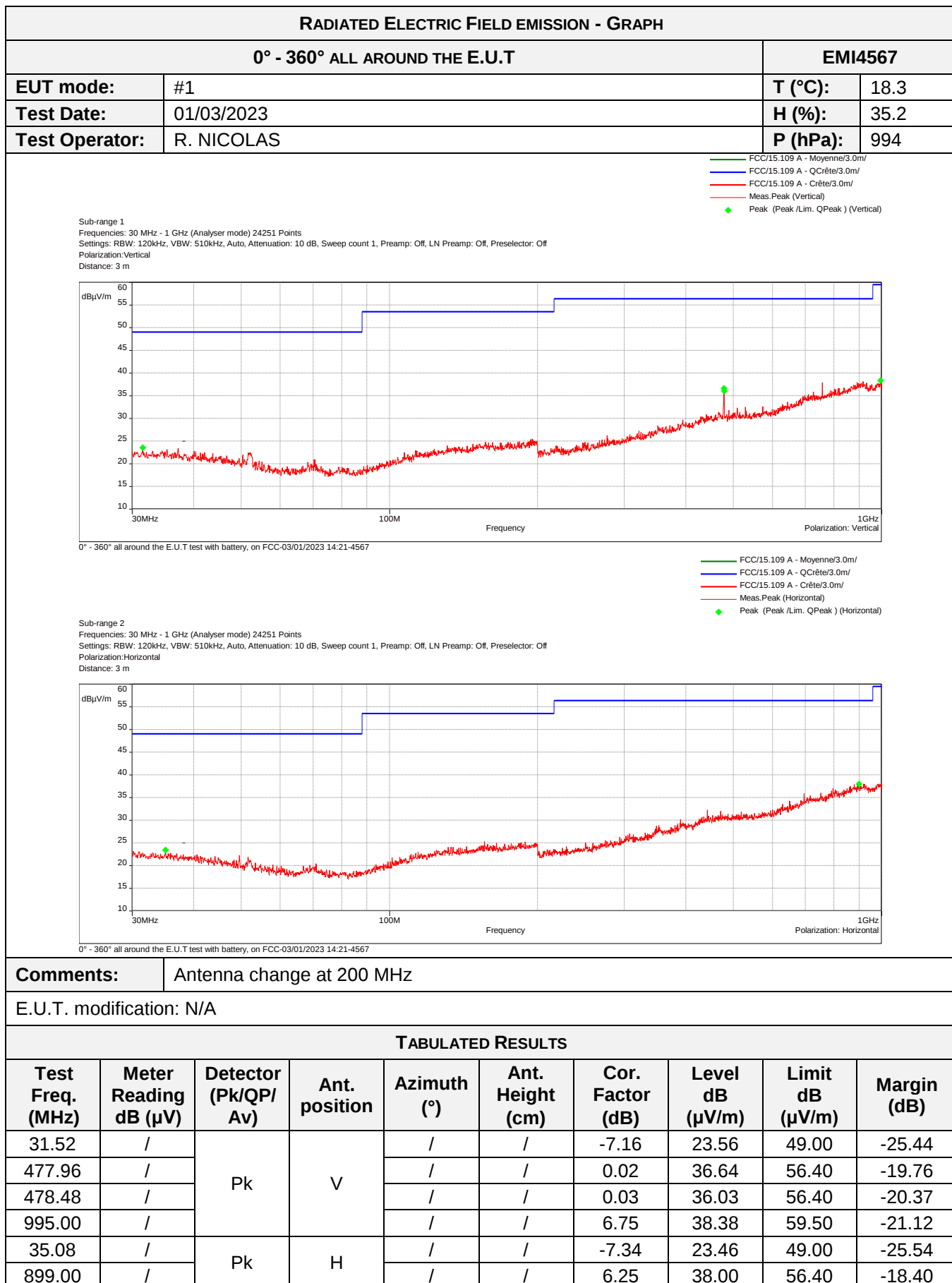
LABORATORY PARAMETERS:	REQUIRED PRIOR TO THE TEST	DURING THE TEST
Ambient Temperature	15 to 35 °C	See Graph
Relative Humidity	30 to 60 %	See Graph
Atmospheric pressure	860 to 1060 hPa	See Graph
TEST METHOD DEVIATION: N/A		
Supplementary information: Fmax = 250 MHz, measurement up to 2 GHz		

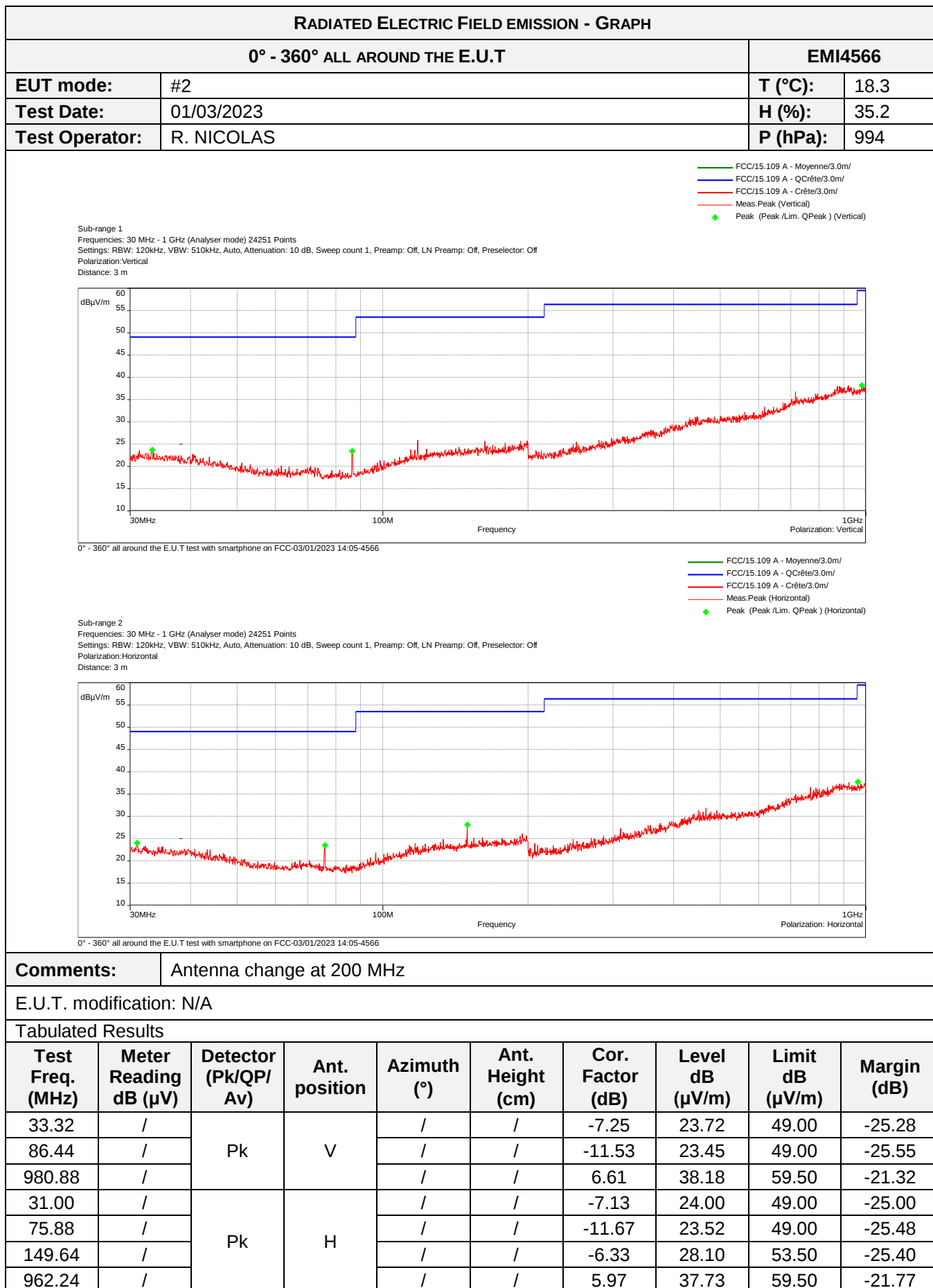
TEST EQUIPMENT USED					
CATEGORY	BRAND	TYPE	IDENTIFIER	CAL. DATE	CAL. DUE
Software	Nexio		0000		
Thermohygrometer	Testo	608-H1	15787	20/02/2023	20/02/2025
Barometer	Ranchet	50224	5199		
Shielded enclosure	Siepel-Hyfral	L:8.17m, l:5.67m, h:5.13m	7651	12/01/2022	12/01/2025
From 30 MHz to 300 MHz					
Antenna	Electro Metrics	BIA-30HF	1107	21/08/2021	21/08/2024
Attenuator	Weinschel Associates	WA1W/6-3-34	14006	01/10/2021	01/10/2024
Cable	MegaPhase	F135N1N28	16661	17/01/2022	17/01/2024
Cable	/	N-10m	7537	03/04/2021	03/04/2023
Cable	HYTEM	N-10.5m	7655	03/04/2021	03/04/2023
Cable	H&S	N-3m	15202	26/07/2022	26/07/2024
Preamplifier	RFPA	RF30400-27-LNA	6136	04/07/2022	04/07/2023
Receiver	Agilent Technologies	N9010A (A.16.17)	11316	05/09/2022	05/09/2023
From 300 MHz to 1 GHz					
Antenna	Rohde & Schwarz	HL223	1137	21/08/2021	21/08/2024
Attenuator	Weinschel Associates	WA1W/6-3-34	14006	01/10/2021	01/10/2024
Cable	MegaPhase	F135N1N28	16662	17/01/2022	17/01/2024
Cable	/	N-10m	7537	03/04/2021	03/04/2023
Cable	HYTEM	N-10.5m	7655	03/04/2021	03/04/2023
Cable	H&S	N-3m	15202	26/07/2022	26/07/2024
Preamplifier	RFPA	RF30400-27-LNA	6136	04/07/2022	04/07/2023
Receiver	Agilent Technologies	N9010A (A.16.17)	11316	05/09/2022	05/09/2023
From 1 GHz to 2 GHz					
Antenna	Schwarzbeck	BBHA 9120D	6970	16/12/2021	16/12/2024
Cable	H&S	SF104N	15892	02/04/2021	02/04/2023
Cable	MECHANC	N-6m	18430	01/03/2022	01/03/2024
Cable	HYTEM	N-6m	7695	02/04/2021	02/04/2023
Preamplifier	Agilent Technologies	8449B	10262	25/08/2022	25/08/2023
receiver	Agilent Technologies	N9010A	11316	05/09/2022	05/09/2023

BAT-EMC software version: V3.18.0.27

Blank cells = Permanent validity

TEST SETUP PHOTOS – E.U.T. ON AZIMUTH 0° / FROM 30 MHz TO 200 MHz / VP
See certification documents





RADIATED ELECTRIC FIELD EMISSION - GRAPH			
0° - 360° ALL AROUND THE E.U.T		EMI4496	
EUT mode:	#1	T (°C):	16.6
Test Date:	27/02/2023	H (%):	32.6
Test Operator:	R. NICOLAS	P (hPa):	984

TABULATED RESULTS									
0° - 360° ALL AROUND THE E.U.T								EMI4496	
Test Freq. (MHz)	Meter Reading dB (μV)	Detector (Pk/QP/ Av)	Ant. position	Azimuth (°)	Ant. Height (cm)	Cor. Factor (dB)	Level dB (μV/m)	Limit dB (μV/m)	Margin (dB)
1205.52	/	Pk	V	/	/	-7.42	43.48 (1)	79.50	-36.02
1306.28	/			/	/	-7.13	42.02 (1)	79.50	-37.48
1711.6	/			/	/	-6.19	51.91 (1)	79.50	-27.59
1716.36	/			/	/	-6.19	52.10 (1)	79.50	-27.4
1718.64	/			/	/	-6.18	52.60 (1)	79.50	-26.9
1723.56	/			/	/	-6.17	50.14 (1)	79.50	-29.36
1727.72	/			/	/	-6.15	48.89 (1)	79.50	-30.61
1885.32	/			/	/	-5.20	50.95 (1)	79.50	-28.55
1922.32	/			/	/	-5.00	43.94 (1)	79.50	-35.56
1925.84	/			/	/	-4.98	49.00 (1)	79.50	-30.5
1718.72	/	Avg	V	/	/	-6.18	42.62	59.50	-16.88
1742.52	/			/	/	-6.07	32.70	59.50	-26.80
1887.00	/			/	/	-5.19	33.05	59.50	-26.45
1889.00	/			/	/	-5.17	33.70	59.50	-25.80
1892.36	/			/	/	-5.16	32.77	59.50	-26.73
Supplementary information: N/A									

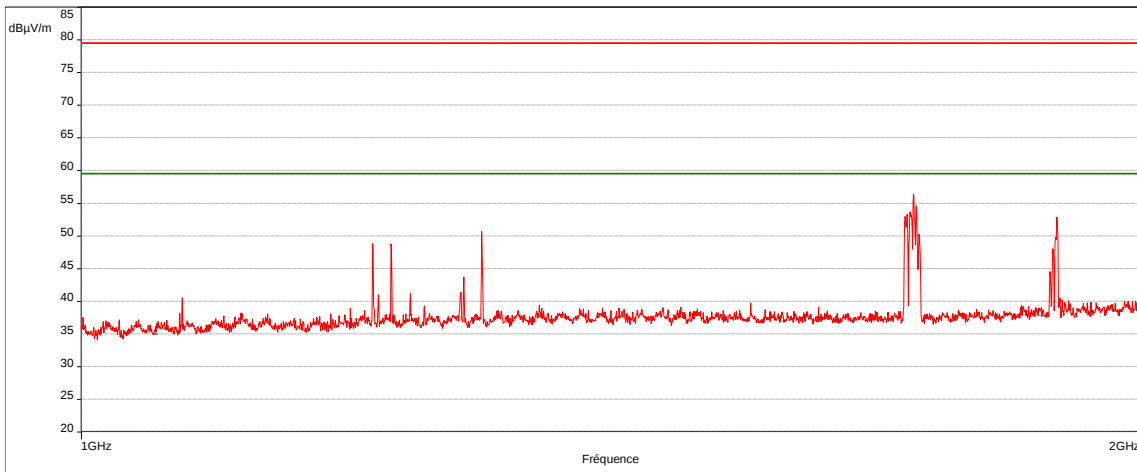
(1) The peak level is lower than the average limit (59.5 dBμV/m)


Comments: N.T.R

E.U.T. modification: N/A

TABULATED RESULTS											
0° - 360° ALL AROUND THE E.U.T								EMI4495			
Test Freq. (MHz)	Meter Reading dB (μV)	Detector (Pk/QP/ Av)	Ant. position	Azimuth (°)	Ant. Height (cm)	Cor. Factor (dB)	Level dB (μV/m)	Limit dB (μV/m)	Margin (dB)		
1002.00	/	Pk	V	/	/	-9.17	40.29 (1)	79.50	-39.21		
1110.56	/			/	/	-7.74	45.96 (1)	79.50	-33.54		
1143.76	/			/	/	-8.05	49.83 (1)	79.50	-29.67		
1147.76	/			/	/	-8.05	41.84 (1)	79.50	-37.66		
1149.88	/			/	/	-8.05	45.49 (1)	79.50	-34.01		
1169.08	/			/	/	-8.07	48.17 (1)	79.50	-31.33		
1218.92	/			/	/	-7.32	47.57 (1)	79.50	-31.93		
1231.80	/			/	/	-7.31	43.46 (1)	79.50	-36.04		
1247.04	/			/	/	-7.27	51.30 (1)	79.50	-28.2		
1295.88	/			/	/	-7.15	51.94 (1)	79.50	-27.56		
1310.20	/			/	/	-7.12	43.42 (1)	79.50	-36.08		
1329.12	/			/	/	-6.96	45.16 (1)	79.50	-34.34		
1340.12	/			/	/	-6.80	42.35 (1)	79.50	-37.15		
1711.68	/			/	/	-6.19	48.00 (1)	79.50	-31.5		
1716.96	/			/	/	-6.19	45.36 (1)	79.50	-34.14		
1720.92	/			/	/	-6.18	49.22 (1)	79.50	-30.28		
1724.96	/			/	/	-6.16	44.17 (1)	79.50	-35.33		
1728.28	/			/	/	-6.15	47.43 (1)	79.50	-32.07		
1767.20	/			/	/	-5.89	53.23 (1)	79.50	-26.27		
1781.52	/			/	/	-5.81	48.63 (1)	79.50	-30.87		
1783.16	/			/	/	-5.81	49.57 (1)	79.50	-29.93		
1712.72	/			Pk	H	/	/	-6.19	43.68 (1)	79.50	-35.82
1712.76	/			Av	V	/	/	-6.19	43.22	59.50	-16.28
1731.16	/	/	/			-6.13	33.72	59.50	-25.78		
1921.68	/	/	/			-5.00	39.45	59.50	-20.05		
1924.36	/	/	/			-4.99	35.29	59.50	-24.21		
1931.28	/	/	/			-4.96	31.69	59.50	-27.81		
Supplementary information: N/A											

(1) The peak level is lower than the average limit (59.5 dBμV/m)

RADIATED ELECTRIC FIELD EMISSION - GRAPH			
PHONE ALONE		EMI4497	
EUT mode:	#1	T (°C):	16.6
Test Date:	27/02/2023	H (%):	32.6
Test Operator:	L. ROCHE	P (hPa):	984
FCC/15.109 - Classe:A - Moyenne/3.0m/ FCC/15.109 - Classe:A - QCrête/3.0m/ FCC/15.109 - Classe:A - Crête/3.0m/ Mes.Peak (Verticale)  0° - 360° all around the E.U.T test with smartphone only, on FCC-27/02/2023 14:33-4497			
Comments:		The main radiated emission is generated by the phone, even if the phone is placed in a metal box. (For information)	
E.U.T. modification: N/A			

8. APPENDIX I: TECHNICAL SHEET



EMC TECHNICAL SHEETS

Important : To be completed in English if report in English. This information will be reflected in the tests report.

EQUIPMENT	
Business N°/Quote :	EMIESS22P941FIS-00V02
Product designation :	USB HUB
Product reference :	KEYSTONE 6
Trad mark :	Fischer Connectors
Manufacturer's name :	Fischer Connectors SA
Manufacturer address :	Ch. Du Glapin 20
Type :	☐ Serial Equipment ☒ Pre-series ☐ Prototype
Serial number (S/N) :	1000-1724912-00000010
Part number (P/N) :	141955
Software version :	-
Firmware version :	0.6.3
FCC ID (if radio module) :	--
N° IC (if radio module) :	--
Function (s) :	Wearable USB 2.0 Hub, System powered by battery or telephone. Enables communication between the host (i.e. telephone) and up to 3 devices using USB 2.0 communication.

TECHNICAL PART	
Power (Voltage/freq) :	VAC 15 VDC ☐ 50 Hz ☐ 60 Hz ☐ Other :
Power supply range :	10 - 20 VDC
Power type (AC, DC..) :	Battery
Power (W) :	<5W
Ground bounding strap :	No
Product Weight (kg) :	240g
Product Dimensions (LxIxxH)(m) :	89mm x 293mm x 19mm
Temperature range :	-32°C-+49°C

EMC PART							
Electromagnetic environment	☐ Residential ☐ Commercial ☐ Medical ☐ Railway ☐ Light industry ☒ Industrial (production site) ☐ Telecom Center ☐ Military ☐ Marine ☐ Aéronautics/Aviation ☐ Automobile ☐ 1ere Monte ☐ 2eme Monte						
Professionnal use :	☒ Professionnal device ☐ Device intended for the general public						
Typical mounting :	☐ Transportable ☐ Mobile ☐ To integrate ☐ Ground moun ☒ Portable ☐ Wall Mounted						
Description of the operating modes	<table border="1"> <tr> <td>#1 Supplied by battery</td> <td>#4</td> </tr> <tr> <td>#2 Supplied by telephone</td> <td>#5</td> </tr> <tr> <td>#3</td> <td>#6</td> </tr> </table>	#1 Supplied by battery	#4	#2 Supplied by telephone	#5	#3	#6
#1 Supplied by battery	#4						
#2 Supplied by telephone	#5						
#3	#6						
Description of the right operation criteria for the immunity tests	Telephone should be fonctional. During the tests, log file is created with coomunication status during the tests. This file should be check after the test.						
Sensitive/ critical frequencies :	<table border="1"> <tr> <td>Not known</td> <td>Internal frequencies :</td> <td>2.17M, 3.1M, 6M, 24M</td> </tr> </table>	Not known	Internal frequencies :	2.17M, 3.1M, 6M, 24M			
Not known	Internal frequencies :	2.17M, 3.1M, 6M, 24M					

Tolérances/Criteria	
Criterion A :	Product is fully functional. No perturbation or loss in USB communication.
Criterion B :	Loss of some fonctionlities is possible (USB communication). Product is not damaged following exposure.

Person (s) present during the tests :	Yes ☒ No ☐ Name : Tomislav HAJAK, Ameny CHAABANI
Name, Date et Signature :	



Siège Social : Emitech - 3, rue des Coudriers - CAP 78 - ZA de l'Observatoire - 78180 MONTIGNY LE BX - France
 Siret : 344 545 645 00022 - Tél. : 33 (0)1 30 57 55 55 - Fax : 33 (0)1 30 43 74 48 - E-mail : contact@emitech.fr - URL : www.emitech.fr
 S.A. au capital de 1 560 000 € - R.C.S. VERSAILLES 344 545 645 - APE 7112B

Générer

End of test report