electronic GmbH

a member of the STC

Test report

according to ISO/IEC 17025:2005

FCC
(Federal Communications Commission)
Test Firm Registration Number: 768032
Designation Number DE0022

Electromagnetic compatibility

e-CFR Title 47 Chapter I Subchapter A Part 15 Subpart C

Intentional Radiators

RF Exposure

e-CFR Title 47 Chapter I Subchapter A
§1.1310

ilac-MRA

DAkkS
Deutsche
Akkreditierungsstelle
D-PL-17379-01-00
D-PL-17379-01-02
D-PL-17379-01-03

Bundesnetzagentur

BNetzA-CAB-18/21-19

EMC-SAFETY-MULTIMEDIA pkm SINCE 1978 TESTED IN GERMANY	**PKM electronic GmbH** Ohmstrasse 1 84160 Frontenhausen, Germany Tel.: + 49 (0) 8732 6381 Fax: + 49 (0) 8732 2345 E-mail: info@pkm.eu.com	Test report no.: **19/09-0020A** Page 1 of 72 pages

Table of contents

1. Client information 3
2. Equipment under test (EUT) 3
3. Description of the Equipment under test and test conditions 4
4. Performed measurements and results 5
5. AC Mains conducted emissions 6
6. Radiated emission measurements 12
7. Operation within the band 902-928 MHz, 2400-2483,5 MHz and 5725-5850 MHz 22
8. RF Exposure 58
9. Test equipment 60
10. Test Setups 62
11. Measurement uncertainty 65
12. Photos setup 66
13. Conclusions 67
14. Photos of tested sample 68

Location of test facility:

PKM electronic GmbH
Ohmstrasse 1
84160 Frontenhausen
Germany

1. Client information

Name:	Christie Digital Systems Canada Inc.
Address:	809 Wellington Street North, N2G 4Y7 KITCHENER, ONTARIO, CANADA
Name of contact:	Mr. Masud Attayi
Telephone:	+1 (519) 7448005
Fax:	-/-
E-mail:	Masud.attayi@christiedigital.com

2. Equipment under test (EUT)

2.1 Identification of the EUT

Equipment:	98" Monitor
Model:	UHD982-P
Brand name:	Christie
Serial no.:	135-030104-01
Manufacturer:	Christie Digital Systems Canada Inc., 809 Wellington Street North, N2G 4Y7 KITCHENER, ONTARIO, CANADA
Country of origin:	CANADA
Power rating:	110 – 240 V ~ / 50 – 60 Hz / 5.5 A
Highest frequency generated or used in the device or on which the device operates or tunes (MHz):	2,48 GHz
Date Sample Received:	18.07.2019
Tests were performed:	12.09.2019 – 04.11.2019

2.2 Additional information about the EUT:

To duplicate parts of this test report needs the written confirmation of the test laboratory.

The test results relate only to the above mentioned test sample(s).

3. Description of the Equipment under test and test conditions

Cables:	AC: 132 cm IR extension: 145 cm		
Approx. Size (l x w x h):	(2230 x 90 x 1270) mm		
Test conditions:	The “98" Monitor – UHD982-P (= equipment under test – EUT) had been tested, where applicable, in the following modes: (1) Bluetooth 4.2: Tx mode GFSK (FHSS) 2402.0 MHz (2) Bluetooth 4.2: Tx mode GFSK (FHSS) 2441.0 MHz (3) Bluetooth 4.2: Tx mode GFSK (FHSS) 2480.0 MHz (4) Bluetooth 4.2: Tx mode π/4-DQPSK 2402.0 MHz (5) Bluetooth 4.2: Tx mode π/4-DQPSK 2441.0 MHz (6) Bluetooth 4.2: Tx mode π/4-DQPSK 2480.0 MHz (7) Bluetooth 4.2: Tx mode 8DPSK 2402.0 MHz (8) Bluetooth 4.2: Tx mode 8DPSK 2441.0 MHz (9) Bluetooth 4.2: Tx mode 8DPSK 2480.0 MHz with an active Bluetooth connection as well as controlled by a test software with maximum RF-output power and different data rate in order to find the worst case. During the tests the EUT was powered with 120 V~ 50/60Hz, as well as 240 V~ 50/60 Hz.		
Additional information:	-/-		
RF Module Model Number:	17BT02		
FCC ID:	XU6-UHD982P		
Frequency range:	2.400 GHz – 2.483,5 GHz		
Operating frequencies:	2.402 GHz – 2.480 GHz		
Module Tranmission Type:	Bluetooth 4.2 (FHSS)		
Modulation:	GFSK	π/4-DQPSK	8DPSK
Date Rates:	1 MBit/s	2 MBit/s	3 MBit/s
Channel separation:	1 MHz	1 MHz	1 MHz
Number of channels:	79	79	79
Environmental conditions during tests:	Ambient temperature: 20 °C Relative humitity 40 % Atmospheric pressure 965 mbar		
Antenna specification:	Model: Printet PCB Antenna Type: ☐ External (with accessible antenna socket) ☒ Internal (integrated) Gain: 0,84 dBi without housing -7,16 dBi Antenna gain (installation in a metal housing)		
Test standard:	e-CFR Title 47 Chapter I Subchapter A Part 15 Subpart C §15.247: Operation within the bands 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz		

Channel List

Bluetooth 4.2

Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	42	2444
1	2403	43	2445
2	2404	44	2446
3	2405	45	2447
4	2406	46	2448
5	2407	47	2449
6	2408	48	2450
7	2409	…	…
8	2410	67	2469
9	2411	68	2470
…	…	69	2471
33	2435	70	2472
34	2436	71	2473
35	2437	72	2474
36	2438	73	2475
37	2439	74	2476
38	2440	75	2477
39	2441	76	2478
40	2442	77	2479

41	2443	78	2480

4. Performed measurements and results

The complete list of measurements required in e-CFR Title 47 Chapter I Subchapter A Part 15 Subpart C §15.247 is given below.

Standard:	Test Method:		test requirements applicable fulfilled: yes	no	yes	no
§ 15.207	ANSI 63.10 Section 6.2	AC Mains Conducted Emissions	☒	☐	☒	☐
§ 15.209	ANSI 63.10 Section 6.3 - 6.6	Radiated Emissions	☒	☐	☒	☐
§15.247	ANSI 63.10 Section 7.8.7	20dB Bandwidth	☒	☐	☒	☐
§15.247	ANSI 63.10 Section 7.8.5	Output Power of Fundamental Emissions	☒	☐	☒	☐
§15.247	ANSI 63.10 Section 7.8.3	Number of Operating Channel	☒	☐	☒	☐
§15.247	ANSI 63.10 Section 7.8.2	Hopping Frequency Separation	☒	☐	☒	☐
§15.247	ANSI 63.10 Section 7.8.6	Band Edges Measurement Out-of-band Emission	☒	☐	☒	☐
§15.247	ANSI 63.10 Section 7.8.4	Occupancy Time (Dwell time)	☒	☐	☒	☐
§1.1310	Evaluation	RF Exposure	☒	☐	☒	☐

All required / applicable tests according to the following standards were performed under PKM-Ref-No. 19/09-0020 and 19/07-0030.

- e-CFR Title 47 Chapter I Subchapter A Part 15 Subpart C §15.247 with test Method according to ANSI C63.10-2013

e-CFR data is current as of October 09, 2019

This test report replaces the test report no. 19/09-0020 dated 10.10.2019.

5. AC Mains conducted emissions

Applied standards
e-CFR Title 47 Chapter I Subchapter A Part 15 Subpart B, § 15.207 Conducted limits

Test site
Measurements of conducted emission from EUT was made in the shielded chamber (DC - 10GHz) located in the test facility.

Test equipment and test set up:
Test equipment used for conducted measurements on Mains as given in clause 10 Test equipment of this report.
Test setup used for conducted measurements on Mains as given in clause 11 Test setups of this report.

Detector function selection and bandwidth
In conducted emissions measurement CISPR quasi-peak- and average-detector were used.
The bandwidth of the detector of instrument is 10 kHz over the frequency range of 150 kHz to 30 MHz.

Frequency range to be scanned
For conducted emission measurements, the spectrum in the range of 150 kHz to 30 MHz was investigated.

Test conditions and configuration of EUT
The EUT was configured and operated under following operation modes:

1. HDMI mode (3840x2160/50Hz) Color bar file playing,
   Screen filled with moving elements
2. USB (2.0) Port 1,Port 2, Port Type C; Video file playing with open Fire, as moving element
3. LAN IP-Stream playing; Screen filled with colour bars and moving element
4. DP IN; Video file playing; Screen filled with colour bars and moving element
5. VGA IN; Audio IN; Video file playing; Screen filled with colour bars and moving element

Additional in all listed modes the Bluetooth transmitter was connected to a host Bluetooth speaker, to find the maximum conducted emission generated from EUT.
All modes are investigated by operating the EUT in a range of typical modes of operation, with typical cable positions, and with a typical system equipment configuration and arrangement. For each mode of operation and for each ac power current-carrying conductor, cable manipulation are performed within the range of likely configurations. The highest values measured are shown in the table below. The corresponding configuration is shown in the “Photo(s) of test setup”.
The EUT was placed on a 80 cm high non metallic table. Measurements were performed on the AC terminals of the AC-Adaptor, on neutral (N)- and live (L1)-wire had been performed.

Limit:

Limit for Conducted Emissions

Frequency Range [MHz]	Quasi-Peak Limits [dBµV]	Average [dBµV]
0.15 - 0.5	66 to 56 Note 1	56 to 46 Note 1
0.5 - 5.0	56	46
5.0 - 30.0	60	50
Note 1: The level decreases linearly with the logarithm of the frequency		

Measurement:

Measruement performened on 16.09.2019

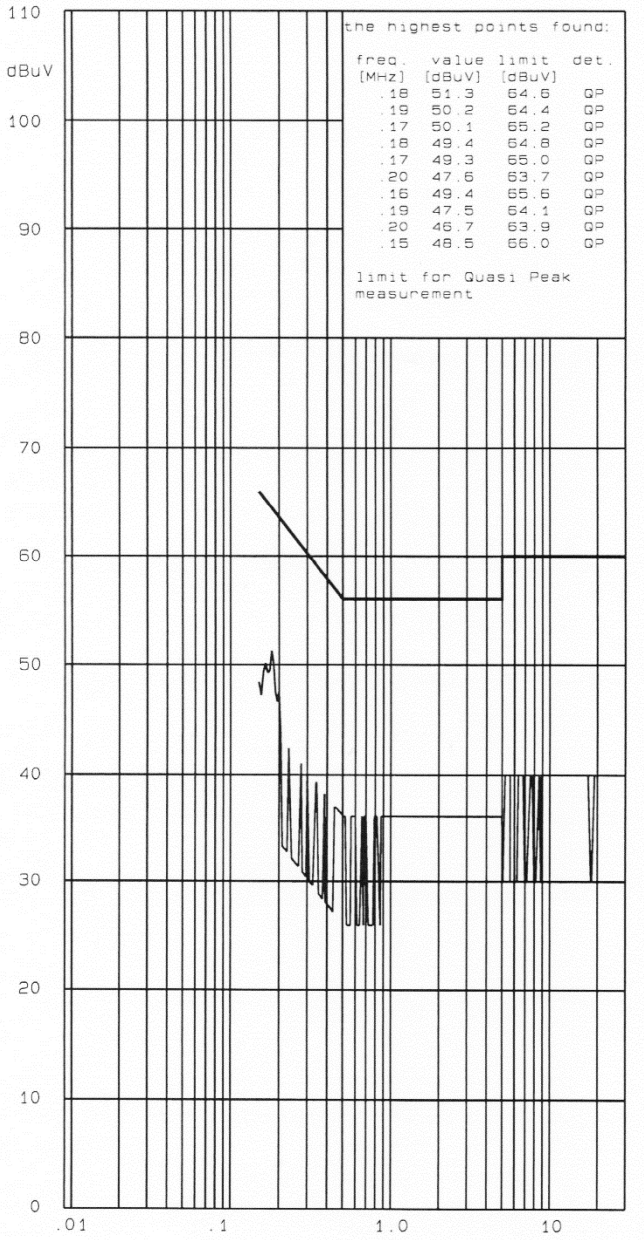
As worst case the HDMI mode powered by 120V~ / 60 Hz in combination with an connected Bluetooth speaker was found and documented in this report.

I T 1 / 2

Interference Voltage 150 KHz - 30 MHz

acc. FCC PART 15.209 / RSS-Gen

Cabin 1



the highest points found:

freq. [MHz]	value [dBuV]	limit [dBuV]	det.
.18	51.3	64.6	QP
.19	50.2	64.4	QP
.17	50.1	65.2	QP
.18	49.4	64.8	QP
.17	49.3	65.0	QP
.20	47.6	63.7	QP
.16	49.4	65.6	QP
.19	47.5	64.1	QP
.20	46.7	63.9	QP
.15	48.5	66.0	QP

limit for Quasi Peak measurement

Ref.-No.: 19/07-0030

Product: Monitor

Sample: 01

Date: 16 Sep 2019

Operator: Au

Test equipment:

Rohde & Schwarz ESHS 30

Rohde & Schwarz ESH 2-Z5

Connected sets:

Input Voltage: 120V/60Hz
DVD-Player

Operating mode:

HDIM 1 in (3840x2160/50Hz)
Color bar file playing
BT-Speaker on
Tested on N

RFI suppression parts:

* two dB safety margin for type approval recommended

Result: pass [X] fail [ ]

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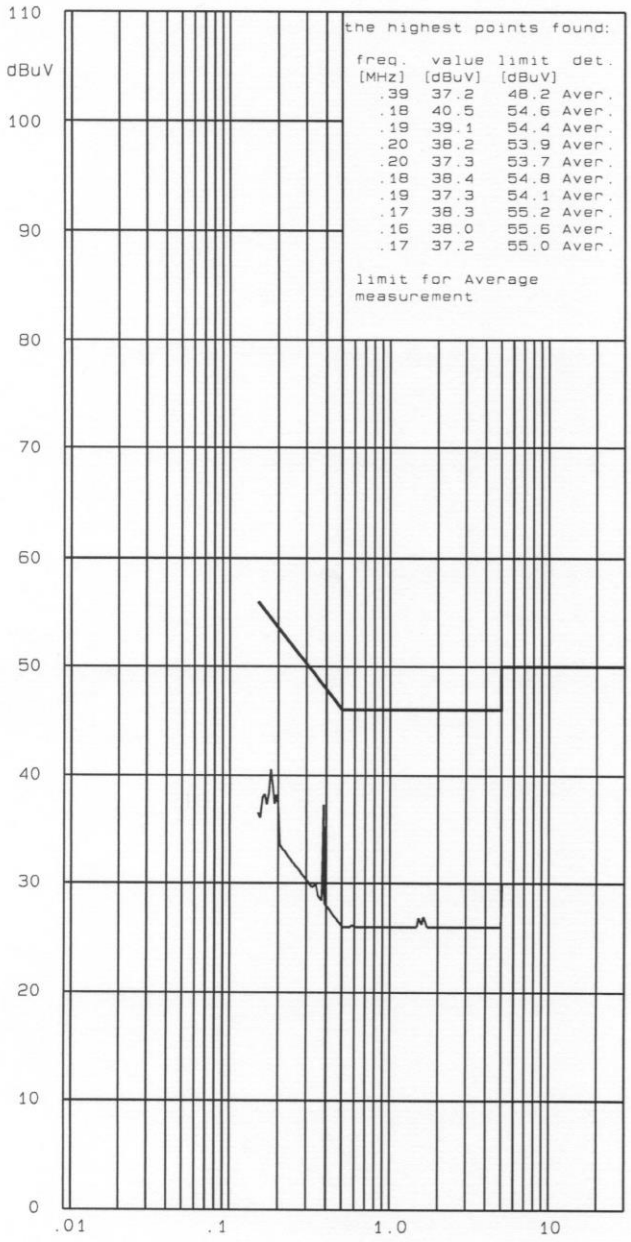
IT 1/2

Interference Voltage 150 KHz - 30 MHz

acc. FCC PART 15.209 / RSS-Gen

Cabin 1



the highest points found:

freq. [MHz]	value [dBuV]	limit [dBuV]	det.
.39	37.2	48.2	Aver.
.18	40.5	54.6	Aver.
.19	39.1	54.4	Aver.
.20	38.2	53.9	Aver.
.20	37.3	53.7	Aver.
.18	38.4	54.8	Aver.
.19	37.3	54.1	Aver.
.17	38.3	55.2	Aver.
.16	38.0	55.6	Aver.
.17	37.2	55.0	Aver.

limit for Average measurement

Ref.-No.: 19/07-0030

Product: Monitor

Sample: 01

Date: 16 Sep 2019

Operator: Au

Test equipment:

Rohde & Schwarz ESHS 30

Rohde & Schwarz ESH 2-Z5

Connected sets:

Input Voltage: 120V/60Hz
DVD-Player

Operating mode:

HDIM 1 in (3840x2160/50Hz)
Color bar file playing
BT-Speaker on
Tested on N

RFI suppression parts:

* two dB safety margin for type approval recommended

Result: pass [X] fail [ ]

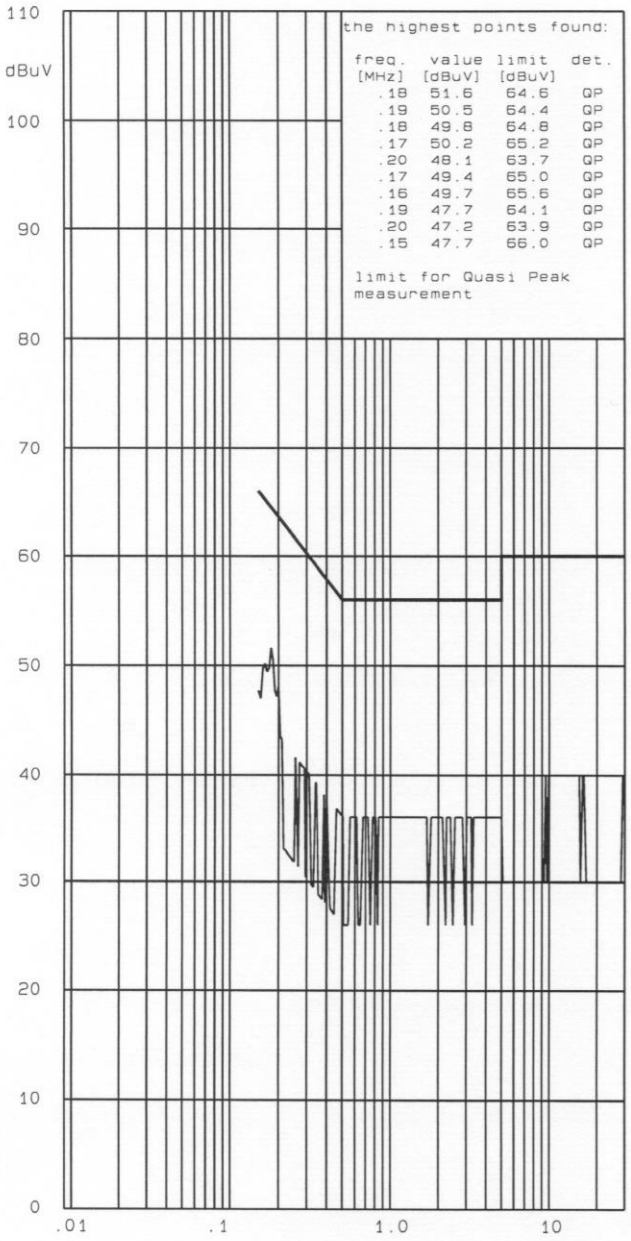
PKM electronic GmbH
Frontenhausen

IT 1/2

Interference Voltage 150 KHz - 30 MHz

acc. FCC PART 15.209 / RSS-Gen

Cabin 1



the highest points found:

freq. [MHz]	value [dBuV]	limit [dBuV]	det.
.18	51.6	64.6	QP
.19	50.5	64.4	QP
.18	49.8	64.8	QP
.17	50.2	65.2	QP
.20	48.1	63.7	QP
.17	49.4	65.0	QP
.16	49.7	65.6	QP
.19	47.7	64.1	QP
.20	47.2	63.9	QP
.15	47.7	66.0	QP

limit for Quasi Peak measurement

Ref.-No.: 19/07-0030

Product: Monitor

Sample: 01

Date: 16 Sep 2019

Operator: Au

Test equipment:

Rohde & Schwarz ESHS 30

Rohde & Schwarz ESH 2-Z5

Connected sets:

Input Voltage: 120V/60Hz
DVD-Player

Operating mode:

HDIM 1 in (3840x2160/50Hz)
Color bar file playing
BT-Speaker on
Tested on L1

RFI suppression parts:

* two dB safety margin for type approval recommended

Result: pass [X] fail [ ]

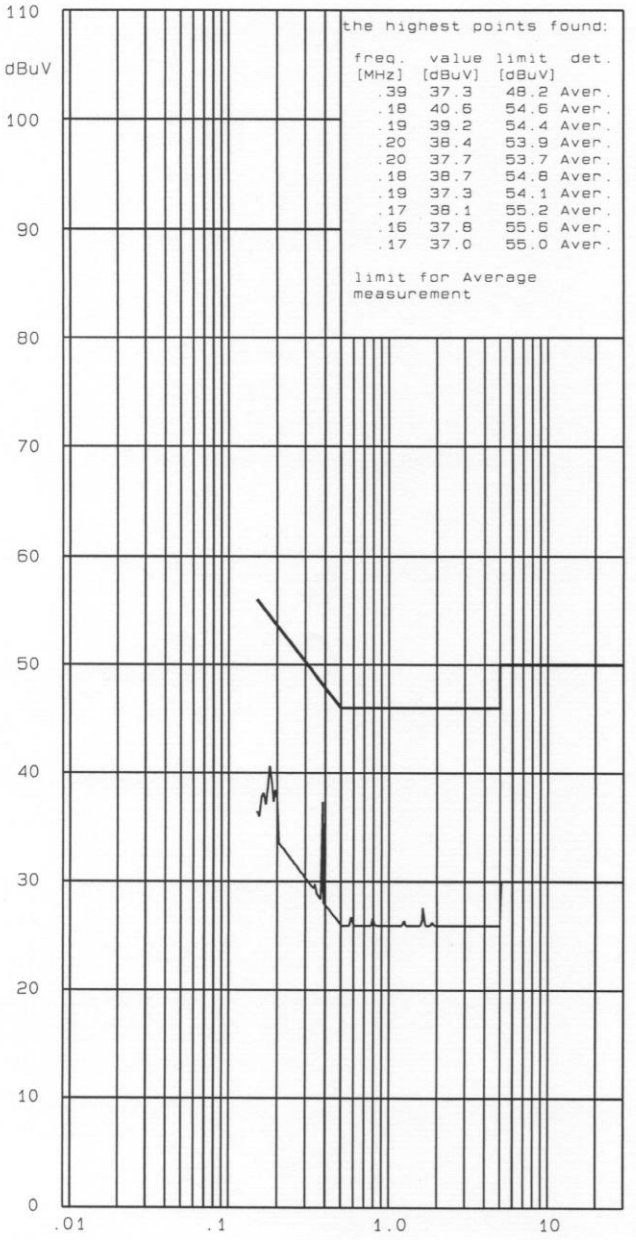
PKM electronic GmbH
Frontenhausen

IT 1/2

Interference Voltage 150 KHz - 30 MHz

acc. FCC PART 15.209 / RSS-Gen

Cabin 1



the highest points found:

freq. [MHz]	value [dBuV]	limit [dBuV]	det.
.39	37.3	48.2	Aver.
.18	40.6	54.6	Aver.
.19	39.2	54.4	Aver.
.20	38.4	53.9	Aver.
.20	37.7	53.7	Aver.
.18	38.7	54.8	Aver.
.19	37.3	54.1	Aver.
.17	38.1	55.2	Aver.
.16	37.8	55.6	Aver.
.17	37.0	55.0	Aver.

limit for Average measurement

Ref.-No.: 19/07-0030

Product: Monitor

Sample: 01

Date: 16 Sep 2019

Operator: Au

Test equipment:

Rohde & Schwarz ESHS 30

Rohde & Schwarz ESH 2-Z5

Connected sets:

Input Voltage: 120V/60Hz
DVD-Player

Operating mode:

HDIM 1 in (3840x2160/50Hz)
Color bar file playing
BT-Speaker on
Tested on L1

RFI suppression parts:

* two dB safety margin for type approval recommended

Result: pass [X] fail [ ]

PKM electronic GmbH
Frontenhausen

The six highest emissions for each port (L/N)/detector are as following:

Frequency [MHz] (1)	Reading of test receiver [dBµV] (2)	Detector (3)	Port (4)	loss of cable between LISN and test receiver [dB] (5)	LISN correction [dB] (6)	AC power line conducted emission [dBµV] (7)	Limit [dBµV] (8)	Result (9)
0.18	51,10	QP	N	0,10	0,10	51,30	64,60	PASS
0.19	50,00	QP	N	0,10	0,10	50,20	64,40	PASS
0.17	49,90	QP	N	0,10	0,10	50,10	65,20	PASS
0.20	47,40	QP	N	0,10	0,10	47,60	63,70	PASS
0.16	49,20	QP	N	0,10	0,10	49,40	65,60	PASS
0.15	48,30	QP	N	0,10	0,10	48,50	66,00	PASS
0.39	37,00	AV	N	0,10	0,10	37,20	48,20	PASS
0,18	40,30	AV	N	0,10	0,10	40,50	54,60	PASS
0,19	38,90	AV	N	0,10	0,10	39,10	54,40	PASS
0,20	38,00	AV	N	0,10	0,10	38,20	53,90	PASS
0,17	28,10	AV	N	0,10	0,10	28,30	55,20	PASS
0,16	37,80	AV	N	0,10	0,10	38,00	55,60	PASS
0,18	51,40	QP	L1	0,10	0,10	51,60	64,60	PASS
0,19	50,30	QP	L1	0,10	0,10	50,50	64,60	PASS
0,17	50,00	QP	L1	0,10	0,10	50,20	65,20	PASS
0,20	47,90	QP	L1	0,10	0,10	48,10	63,70	PASS
0,16	49,50	QP	L1	0,10	0,10	49,70	65,60	PASS
0,15	47,50	QP	L1	0,10	0,10	47,70	66,00	PASS
0,39	37,10	AV	L1	0,10	0,10	37,30	48,20	PASS
0,18	40,40	AV	L1	0,10	0,10	40,60	54,60	PASS
0,19	39,00	AV	L1	0,10	0,10	39,20	54,40	PASS
0,20	38,20	AV	L1	0,10	0,10	38,40	53,90	PASS
0,17	37,90	AV	L1	0,10	0,10	38,10	55,20	PASS
0,16	37,60	AV	L1	0,10	0,10	37,80	55,60	PASS

(1) = test frequency
(2) = Reading of test receiver in dBµV without correction factors
(3) = used detector
(4) = tested port Phase (live, L1) or Neutral (N)
(5) = loss of cable between LISN and test receiver in dB
(6) = correction factor of LISN in dB
(7) = Reading of test receiver [dBµV] (2) + loss of cable between Line impedance stabilisation network (LISN) and test receiver (dB) (5) + LISN correction [dB] (6)
(8) = relevant limit in dBµV
(9) = comparison between Limit [dBµV] (7) / (8) and AC power line conducted emission [dBµV] (6)

Results

From the measurement data obtained, the tested sample was considered to have **COMPLIED** with the requirements for the conducted emission measurements.

6. Radiated emission measurements

Test site
Measurement of radiated emissions from EUT was made in the semi-anechoic chamber SAC3 from DC to 40 GHz located in the test facility.

The Measurement was performed on: 12.09.2019 & 20.09.2019

Test equipment and test set up:
Test equipment used for radiated measurements as given in clause 10 Test equipment of this report.
Test setup used for radiated measurements as given in clause 11 Test setups of this report.

Detector function selection and bandwidth
In radiated emissions measurement, an EMI test receiver that have CISPR detectors was used.

Frequency range:		**Bandwidth**
9KHz – 150kHz (Quasi Peak & Average* Detector)	RBW:	200Hz
150KHz – 30MHz (Quasi Peak & Average* Detector)	RBW:	9kHz
30MHz – 1GHz (Quasi Peak Detector)	RBW:	120kHz
Above 1GHz (Peak & Average Detector)	RBW:	1MHz

***Average Detector only in specify frequency range.**

Antennas
Measurements were made using a calibrated loop antenna in the range 9 kHz – 30 MHz, as well as a calibrated bilog antenna in the range of 30 to 1000 MHz to determine the emission characteristics of the EUT. Measurements were also made for both horizontal and vertical polarization.
The horizontal distance between the receiving antenna and the EUT was 3 meters.
In the range of 1 GHz to 26 GHz measurements were made using a calibrated horn antenna to determine the emission characteristics of the EUT. Measurements were also made for both horizontal and vertical polarization.
The horizontal distance between the receiving antenna and the EUT was 3 meters.

Frequency range to be scanned
For radiated emissions measurements, the spectrum in the range of 9kHz MHz to 26 GHz was investigated as the highest frequency generated in the EUT is 2.48 GHz.

Test conditions and configuration of EUT

The EUT was configured and operated under following operation modes:

6. HDMI mode (3840x2160/50Hz) Color bar file playing,
   Screen filled with moving elements
7. USB (2.0) Port 1,Port 2, Port Type C; Video file playing with open Fire, as moving element
8. LAN IP-Stream playing; Screen filled with colour bars and moving element
9. DP IN; Video file playing; Screen filled with colour bars and moving element
10. VGA IN; Audio IN; Video file playing; Screen filled with colour bars and moving element

Additional in all listed modes the Bluetooth transmitter was set to continuous transmission (hopping), transmission on each transmission typ as mentioned under “Test conditions” in clause 3 of this report, to find the maximum radiated emission generated from EUT. As Bluetooth client a host Bluetooth speaker was used.

During test the EUT was operated as specified in the user manual of the EUT. For frequencies below 1000 MHz the EUT was placed on a 80 cm and for frequencies above 1000 MHz the RF Transmitter modul was placed on a 150 cm high non metallic table placed on the turntable (Note: Due to the size of the EUT, it was decided to set the EUT so high that the transmitter is at a height of 150 cm). The EUT was rotated and the antenna height was varied between 1 m to 4 m to find the maximum RF energy generated from EUT. The procedure according to ANSI C63.10:2013 is used and all modes are investigated by operating the EUT in a range of typical modes of operation, with typical cable positions, and with a typical system equipment configuration and arrangement. For each mode of operation, cable manipulation are performed within the range of likely configurations. The highest values measured are shown in the table below.

As worst case the mode EDR (8-DPSK with 3 MBit/s) continuous transmission (hopping) in combination with HDMI mode powered by 120 V~ / 60Hz was found and documented.

Applied standards
e-CFR Title 47 Chapter I Subchapter A Part 15 Subpart B, § 15.209 Radiated emission limits

Requirements

Frequency MHz	Limits [µV/m] Quasi-peak	Limits [dBµV/m] Quasi-peak	Limits [µV/m] Average	Limits [dBµV/m] Average	Test distance [m]
0.009 – 0.090	-/-	-/-	2400/F (kHz)	48.5 – 28.5	300
0.090 - 0.110	2400/F (kHz)	28.5 – 26.8	-/-	-/-	300
0.110 – 0.490	-/-	-/-	2400/F (kHz)	26.8 – 13.8	300
0.490 - 1.705	24000/F (kHz)	33.8 – 23.0	-/-	-/-	30
1.705 - 30.0	30	29.5	-/-	-/-	30
30 - 88	100	40	-/-	-/-	3
88 - 216	150	43.5	-/-	-/-	3
216 - 960	200	46	-/-	-/-	3
960 - 1000	500	54	-/-	-/-	3
Above 1000	/-	-/-	500	54	3

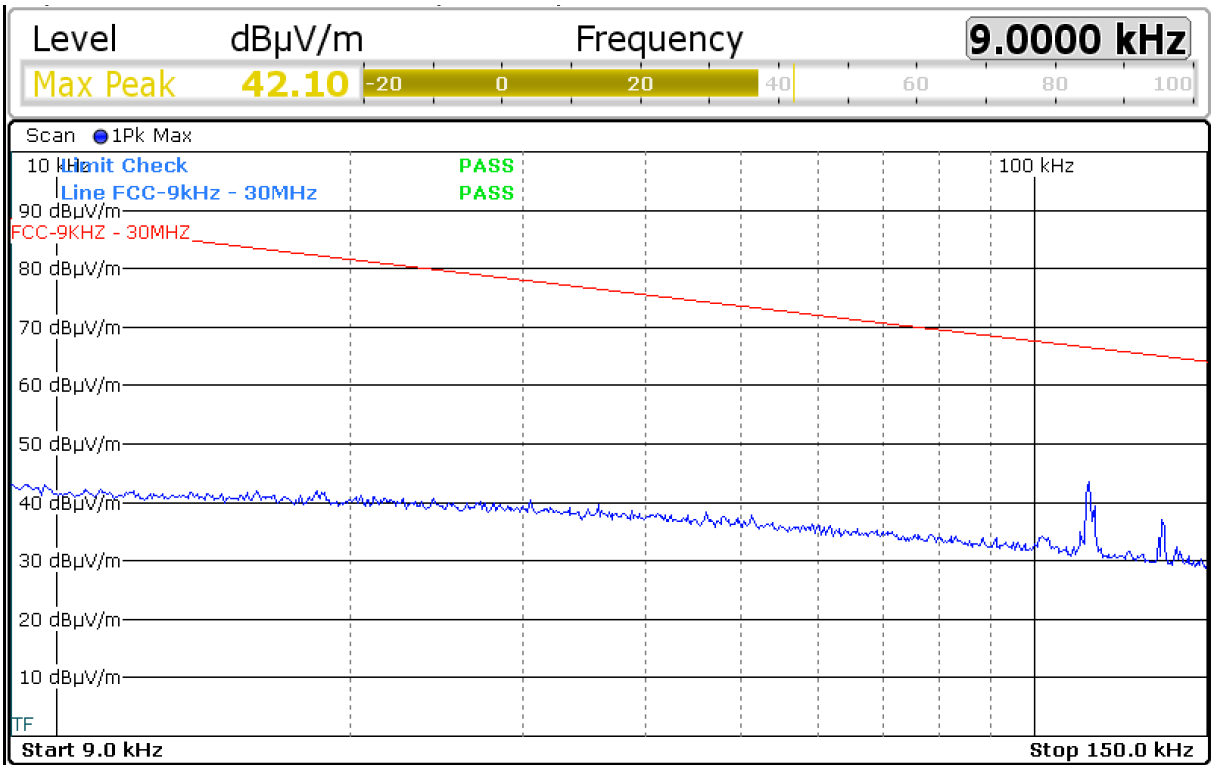
Measurements

The Measurement was performed on: 12.09.2019 and 20.09.2019

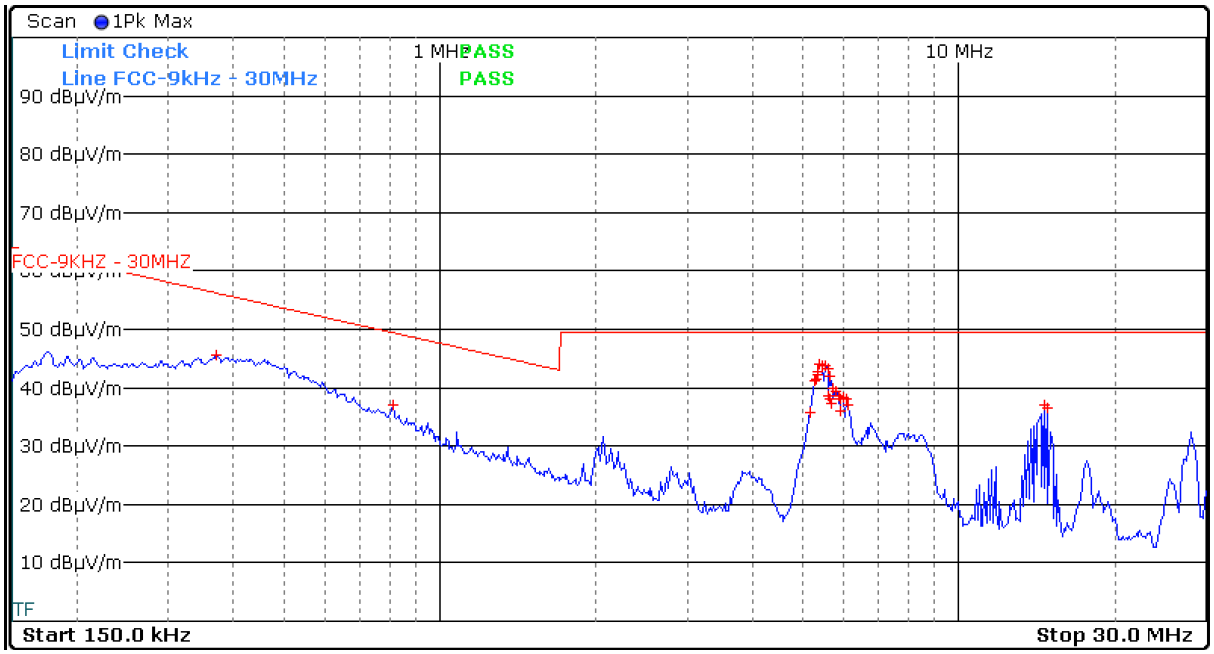
Operation mode:
HDMI mode (3840x2160/50Hz) File playing, Screen filled with moving elements,
Bluetooth speaker connected, modulation typ 8-DPSK with 3 MBit/s.

Result 9 kHz – 30 MHz

In the frequency range 9 kHz – 30 MHz the EUT had been scanned in a distance of 3 m and the relevant limit was adjused to this distance using a factor with 20 dB/decade.



Limit is convert to 3 m Measurement distance



Limit is convert to 3 m Measurement distance

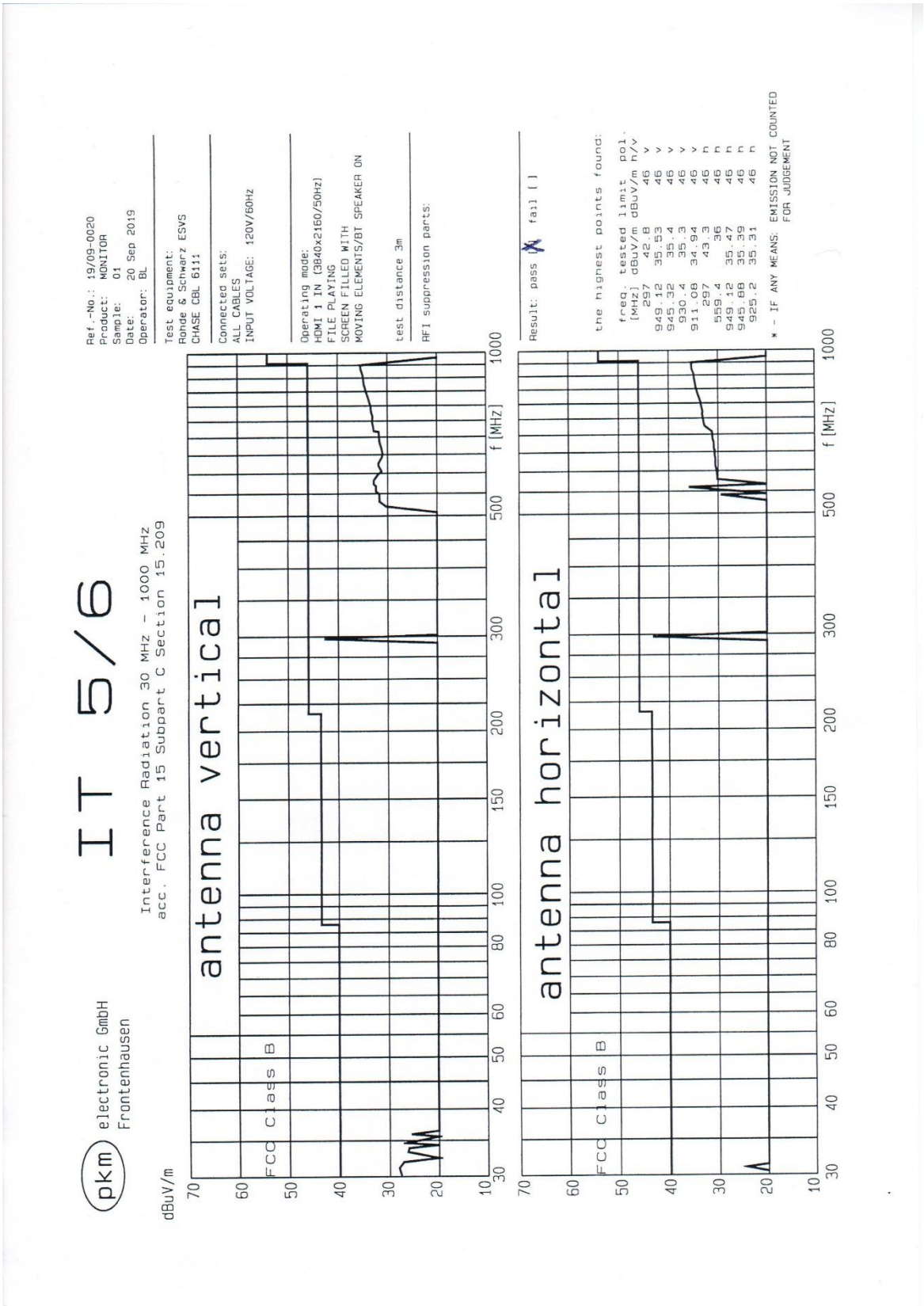
The highest emissions in the frequency range 9 kHz – 30 MHz in 3 m distance are as following:

Frequency [MHz] (1)	Reading of test receiver [dBµV] (2)	Correction factor [dB/m] (3)	Radiated emission [dBµV/m] (4)	Margin to Limit [dB] (5)	Limit [dBµV/m] (6)	Result (7)
5.394750	33.3	10.7	44.0	-5.5	49.5	**PASS**
5.460000	33.2	10.7	43.9	-5.6	49.5	**PASS**
5.527500	33.0	10.8	43.8	-5.7	49.5	**PASS**
5.592750	32.5	10.8	43.3	-6.2	49.5	**PASS**
5.345250	32.1	10.7	42.8	-6.7	49.5	**PASS**
5.365500	31.6	10.7	42.3	-7.2	49.5	**PASS**

Radiated emission [dBµV/m] (4) = Reading of test receiver [dBµV] (2) + Correction factor [dB] (3) (= loss of cable between antenna and test receiver + antenna factor)

(1) = test frequency
(3) = polarization of the test antenna (Horizontal/Vertical)
(6) = relevant limit corrected to 3 m test distance using a correction factor with 20 dB/decade
(300 m to 3 m : +40 dB, 30 m to 3 m : +20 dB)
(7) = comparison between Limit [dBµV/m] (7) and Radiated emission [dBµV/m] (6)

Result 30 MHz – 1000 MHz



The six highest emissions for each polarization (H/V) in the frequency range 30 MHz – 1000 MHz are as following:

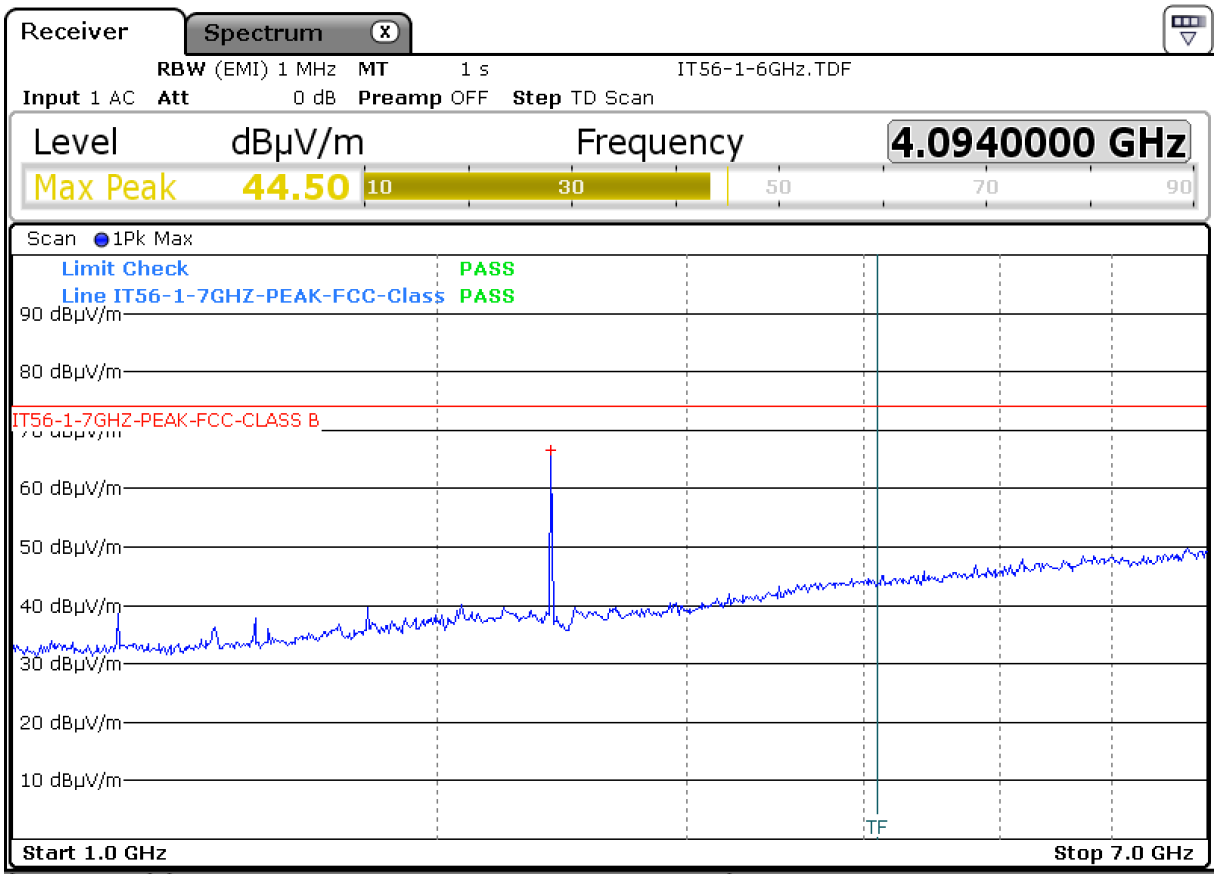
Frequency [MHz] (1)	Reading of test receiver [dBµV] (2)	Detector (3)	Antenna polarization (4)	correction factor [dB] (5)	Radiated emission [dBµV/m] (6)	Radiated emission [µV/m] (7)	Limit [dBµV/m] (3 m) (8)	Limit [µV/m] (3 m) (9)	Result (10)
297,00	23,71	QP	V	19,09	42,80	138,04	46,00	199,53	PASS
949,12	6,60	QP	V	28,93	35,53	59,77	46,00	199,53	PASS
945,32	6,47	QP	V	28,93	35,40	58,88	46,00	199,53	PASS
930,40	6,95	QP	V	28,35	35,30	58,21	46,00	199,53	PASS
911,08	7,64	QP	V	27,30	34,94	55,85	46,00	199,53	PASS
-/-	-/-	QP	V	-/-	-/-	-/-	-/-	-/-	PASS
297,00	24,21	QP	H	19,09	43,30	146,22	46,00	199,53	PASS
559,40	10,22	QP	H	25,78	36,00	63,10	46,00	199,53	PASS
949,12	6,54	QP	H	28,93	35,47	59,36	46,00	199,53	PASS
945,88	6,46	QP	H	28,93	35,39	58,82	46,00	199,53	PASS
925,20	7,30	QP	H	28,01	35,31	58,28	46,00	199,53	PASS
-/-	-/-	QP	H	-/-	-/-	-/-	-/-	-/-	PASS

Radiated emission [dBµV/m] (6) = Reading of test receiver [dBµV] (2) + correction factor (5)
Radiated emission [µV/m] (7) = 10 ^ ((Radiated emission [dBµV/m] (6))/20)

(1) = test frequency
(3) = used detector - quasi peak (QP), peak, average (AV)
(4) = polarization of the test antenna (Horizontal/Vertical)
(5) = correction factor = loss of cable between antenna and test receiver (dB) + antenna factor [dB]
(8) = relevant limit in dBµV/m
(9) = relevant limit in µV/m
(10) = comparison between Limit [dBµV/m] (8) and Radiated emission [dBµV/m] (6)

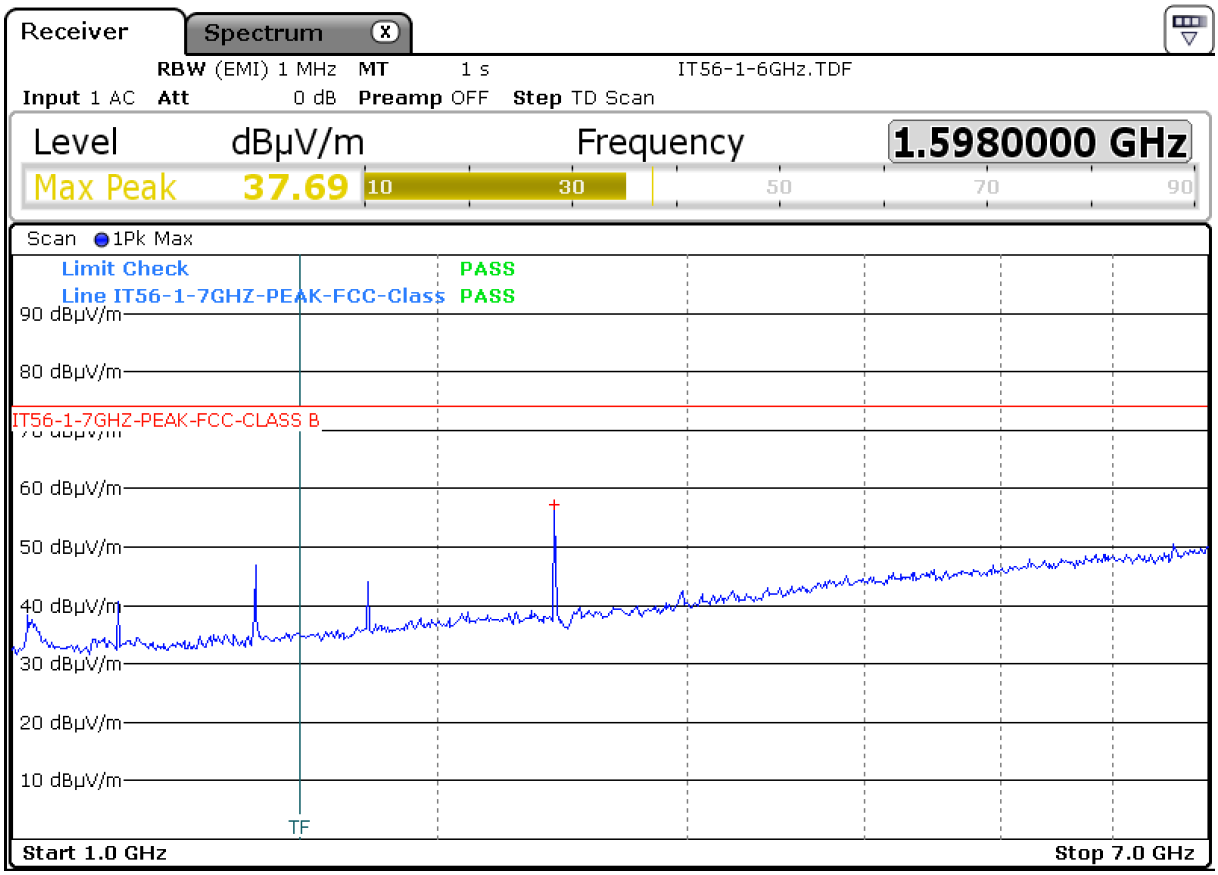
Result 1GHz – 7 GHz

Polarisation: V Detector: peak



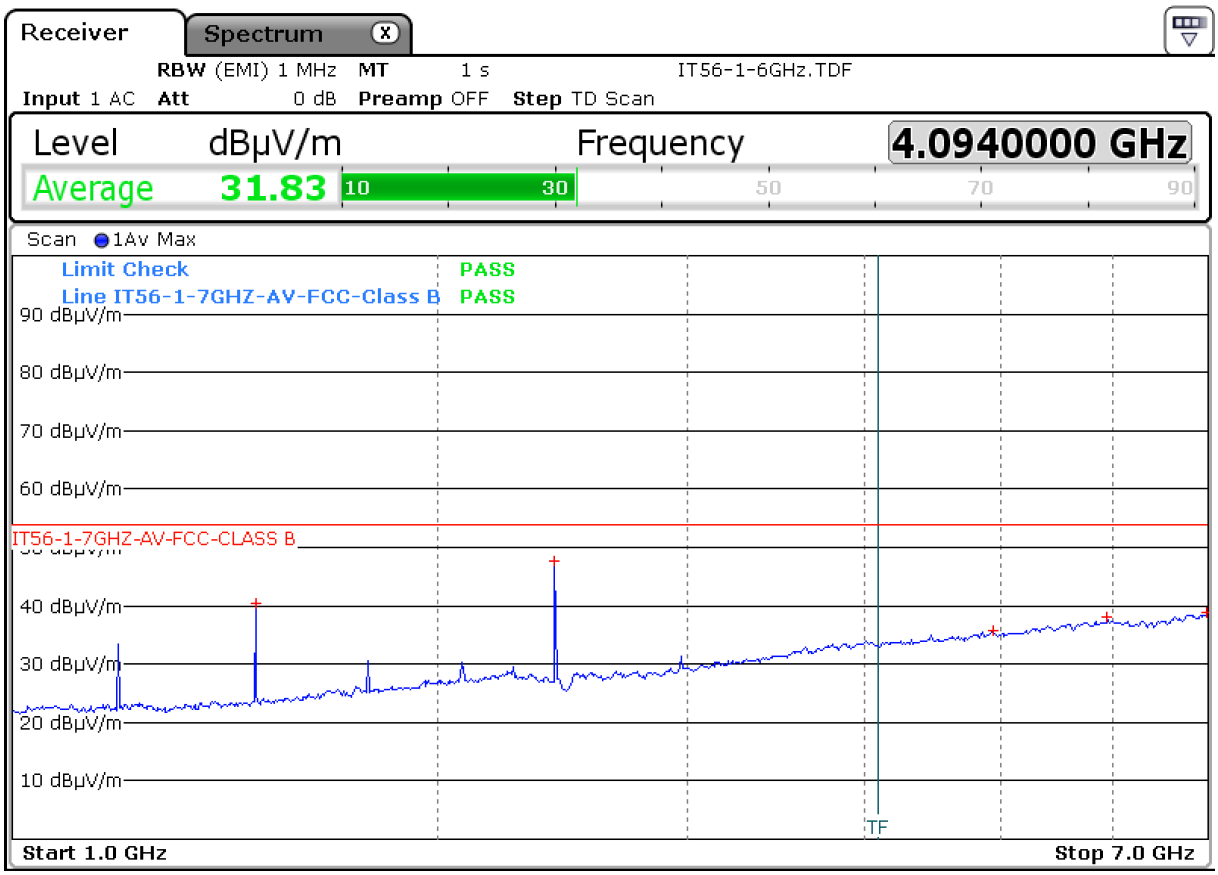
Frequency [MHz]	Radiated emission [dBµV/m]	Radiated emission [µV/m]	Margin to Limit [dB]	Limit [dBµV/m] (3 m)	Limit [µV/m] (3 m)	Result
2404,250000	66,7	2162,71	-7,3	74	5000	Not counted for judgement

Polarisation: H Detector: peak



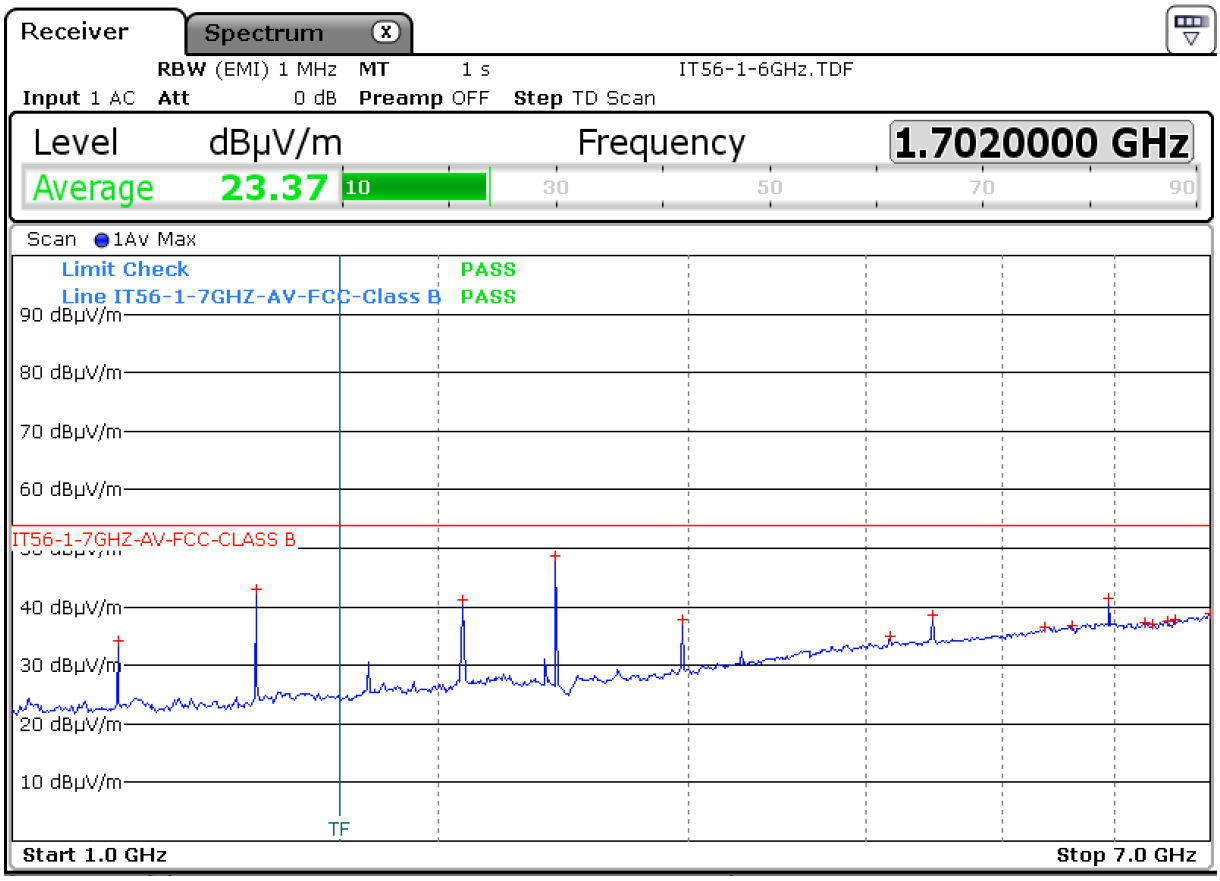
Frequency [MHz]	Radiated emission [dBµV/m]	Radiated emission [µV/m]	Margin to Limit [dB]	Limit [dBµV/m] (3 m)	Limit [µV/m] (3 m)	Result
2404,250000	57,4	741,31	-16,6	74	5000	Not counted for judgement

Polarisation: V Detector: average



Frequency [MHz]	Radiated emission [dBµV/m]	Radiated emission [µV/m]	Margin to Limit [dB]	Limit [dBµV/m] (3 m)	Limit [µV/m] (3 m)	Result
2417,000000	47,8	245,47	-6,3	54	500	Not counted for judgement
1485,000000	40,3	103,51	-13,7	54	500	pass
6991,250000	39,0	89,125	-15,0	54	500	pass
5940,000000	38,2	81,28	-15,8	54	500	pass
4934,000000	35,9	62,37	-18,2	54	500	pass

Polarisation: H Detector: average



Frequency [MHz]	Radiated emission [dBµV/m]	Radiated emission [µV/m]	Margin to Limit [dB]	Limit [dBµV/m] (3 m)	Limit [µV/m] (3 m)	Result
2416,000000	48,8	275,4	-5,2	54	500	Not counted for judgement
1485,000000	43,1	142,9	-10,9	54	500	pass
5940,000000	41,5	118,9	-12,5	54	500	pass
2079,000000	41,1	113,5	-12,9	54	500	pass
7000,000000	38,9	88,1	-15,1	54	500	pass
4455,000000	38,7	86,1	-15,3	54	500	pass

Result 7GHz – 26GHz

All emissions in the frequency range 7 GHz – 26 GHz are at least 20 dB below the relevant limit

Remarks:

Correction Factor included Antenna Factor and Cable Attenuation.

Results
From the measurement data obtained, the tested sample was considered to have **COMPLIED** with the requirements for the radiated emission measurements.