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 50121721 001
 Auftrags-Nr.:
 114072368
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 Test Report No.:
 Order No.:
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Kunden-Referenz-Nr.: N/A Auftragsdatum: 07-Dec-2017

Client Reference No.: Order date:

Auftraggeber: General Life Biotechnology Co., Ltd.

Client: 5F, No. 240, Shinshu Rd., Shin Juang Dist., New Taipei City 242, Taiwan

Prüfgegenstand: BeneCheck Supreme Multi-Monitoring System

Test item:

Bezeichnung / Typ-Nr.: See Annex I

Identification / Type No.:

Auftrags-Inhalt: FCC Part15C Test report

Order content:

Prüfgrundlage:

Test specification: FCC 47CFR Part 15: Subpart C Section 15.247(DTS)

Wareneingangsdatum: 22-Dec-2017

Date of receipt:

Prüfmuster-Nr.: A000672355-001~002

Test sample No .:

Prüfzeitraum: 08-Jan-2018 - 15-Jan-2018

Testing period:

Ort der Prüfung: EMC/RF Laboratory Taipei

Place of testing:

Prüflaboratorium: TUV Rheinland Taiwan Ltd.

Testing laboratory:

Report Date / tested by:

Prüfergebnis*: Pass

Test result*:

kontrolliert von / reviewed by:

BeneCheck®

24-Jan-2018 Brenda Chen / Project Engineer 24-Jan-2018 Arvin Ho / Wice General Manager Datum Name / Stellung Unterschrift Datum Name / Stellung Unterschrift Name / Position Name / Position Date Signature Date Signature

Sonstiges / Other:

Zustand des Prüfgegenstandes bei Anlieferung: Prüfmuster vollständig und unbeschädigt Condition of the test item at delivery: Test item complete and undamaged

* Legende: 2 = gut 1 = sehr gut 4 = ausreichend 5 = mangelhaft 3 = befriedigend P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet Legend: 1 = very good 2 = good3 = satisfactory 4 = sufficient 5 = poorN/T = not tested P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable

Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.

This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.



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ANNEX 1

Model Number: BX-MYZD

• MX: Function type

➤ M - Multi Function Y: 0~9, A~Z ...

> D - Dual Function

Y: 0~9, A~Z...

➤ S - Single Function Y: G \ C \ U...

z: means different IDeg: 0~9, A~Z...

• D: BT Function



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TEST SUMMARY

5.1.1 ANTENNA REQUIREMENT

RESULT: Passed

5.1.2 PEAK OUTPUT POWER

RESULT: Passed

5.1.3 6dB Bandwidth and 99% Bandwidth

RESULT: Passed

5.1.4 POWER DENSITY

RESULT: Passed

5.1.5 CONDUCTED SPURIOUS EMISSIONS AND FREQUENCY BAND EDGE MEASURED IN 100kHz BANDWIDTH

RESULT: Passed

5.1.6 Spurious Emission

RESULT: Passed

5.2.1 MAINS CONDUCTED EMISSIONS

RESULT: N/A

6.1.1 ELECTROMAGNETIC FIELDS

RESULT: Passed

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1. General Remarks

1.1 Complementary Materials

The following attachments are integral parts of this test report:

Appendix P: Photo Documentation internal view (File Name: 50121721APPENDIX P)

Appendix D: Test Result of Radiated Emissions

(File Name: 50121721APPENDIX D)

Test Specifications

The following standards were applied.

Table 1: Applied Standard and Test Levels

Radio

FCC CFR47 Part 15: Subpart C Section 15.247 ANSI C63.10:2013 KDB558074 D01 DTS Meas Guidance v03r05



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2. Test Sites

2.1 Test Laboratory

TUV Rheinland Taiwan Ltd. Taichung Branch Office

No.9, Lane 36, Minsheng Rd., Sec. 3, Daya District, Taichung City 428
Taiwan (R.O.C.)

2.2 Test Facility

TUV Rheinland Taiwan Ltd. Taipei Office

11F. No.758, Sec. 4, Bade Rd., Songshan Dist. Taipei City 105
Taiwan (R.O.C.)

FCC RegistrationNo.: 340738

IC Canada Registration No.: 9465A-1 TAF Accredited NCC Test Lab. No.:0759

TAF ISO17025 Certification effective period: 2016-Jul-1st to 2019-Jun-30th



Testing Laboratory 0759



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2.3 List of Test and Measurement Instruments

Table 2: List of Test and Measurement Equipment

Kind of Equipment	Manu-facturer	Туре	S/N	Last Calibration	Next Calibration
Test Software	Farad	EZ_EMC	Ver. TUV3A1	N/A	N/A
EMI Test Receiver	R&S	ESR 7	101549	2017/11/10	2018/11/10
Spectrum Analyzer	R&S	FSV 40	100921	2017/05/02	2018/05/01
Spectrum Analyzer	Agilent	N9010A	MY53470241	2017/05/23	2018/05/22
Preamplifier (30MHz -1GHz)	HP	8447F	2805A03335	2017/08/14	2018/08/14
Preamplifier (18 GHz -40 GHz)	COM- POWER	PAM-840	461257	2016/12/01	2018/01/15
Pre-Amplifier (1GHz~18GHz)	EM Electronics	EM01G18G	60558	2017/11/21	2018/11/21
Bilog Antenna	TESEQ	CBL6111D	29804	2017/08/18	2018/08/18
Horn Antenna	ETS- Lindgren	3117	201918	2017/08/18	2018/08/18
Horn Antenna (18GHz~40GHz)	COM- POWER	AH-840	101029	2017/11/28	2018/11/28
Loop Antenna	Schwarzbeck	FMZB 1513	1513-076	2017/06/14	2018/06/14
EMI Test Receiver	R&S	ESR 7	101549	2017/11/10	2018/11/10
Spectrum Analyzer	R&S	FSL3	101943	2015/09/07	2018/09/07
Temp. & Humid. Chamber	Giant Force	GCT-099- 40-S	MAF0103- 007	2017/03/09	2019/03/09
LISN (1 phase)	R&S	ENV216	101243	2017/06/18	2018/06/18
LISN	R&S	ENV216	101262	2017/06/22	2018/06/21
Test Software	Audix	e3	Ver. 9	N/A	N/A
Test Software	Agilent	300328 testsystem	V1.9.1	N/A	N/A
Power sensor	Agilent	U2021XA	MY54020001	2017/03/08	2018/03/07

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2.4 Traceability

All measurement equipment calibrations are traceable to NML(Taiwan)/NIST(USA) or where calibration is performed outside Taiwan, to equivalent nationally recognized standards organizations.

2.5 Calibration

Equipment requiring calibration is calibrated periodically in a suitably accredited Calibration Lab. Additionally all equipment is verified for proper performance on a regular schedule using in house standards or comparisons.

2.6 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements .

Table 3: Emission Measurement Uncertainty

Parameter	Uncertainty
Radio Frequency	± 1 x 10 ⁻⁷
RF power, conducted	± 1.5 dB
RF power density, conducted	± 3 dB
spurious emissions, conducted	± 3 dB
all emissions, radiated	± 6 dB
Temperature	± 1 ºC
Humidity	± 5 %
DC and low frequency voltages	±3 %

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3. General Product Information

3.1 Product Function and Intended Use

The EUT is a Blood Glucose monitoring system sensor. It contains a Bluetooth Low Energy compatible module enabling the user to communicate data through a Wireless interface.

For details refer to the User Guide, Data Sheet and Circuit Diagram.

3.2 System Details and Ratings

Table 4: Basic Information of EUT

Item	EUT information	
Kind of Equipment/Test Item	BeneCheck Supreme Multi-Monitoring System	
Type Identification	See Annex I	
FCC ID	2AKJC-17PN005	

Table 5: Technical Specification of EUT

Technical Specification	Value
Operating Frequencies	2402~2480 MHz
Channel Spacing	2 MHz
Channel number	40
Operation Voltage	3 Vdc
Modulation	GFSK
Antenna gain	-6.2853 dBi



Produkte Products

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3.3 Independent Operation Modes

Basic operation modes are:

- A. Transmitting
 - 1. Low channel
 - 2. Middle channel
 - 3. High channel
- B. Receiving
- C. Standby
- D. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

3.5 Submitted Documents

- Circuit Diagram
- Instruction Manual
- Rating Label
- Technical Description



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4. Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

The equipment under test (EUT) was configured to measure its maximum power level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Setup for testing:

Test samples are provided with a button which makes it possible to control them.

It was used to enable the operation modes listed in section 3.3 as appropriate.

The samples were used as follows:

Conducted: A000672355-001 Radiation: A000672355-002

Full test was applied on all test modes, but only worst case was shown

4.3 Special Accessories and Auxiliary Equipment

The product has been tested together with the following additional accessories: N/A

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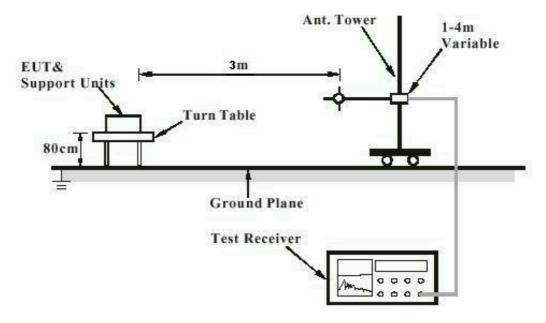
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4.4 Countermeasures to achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Constructional Data Form or the Technical Construction File. No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test



Note: Measurements above 1 GHz are done with a table height of 1.5m



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Diagram of Measurement Equipment Configuration for Mains Conduction Measurement (if applicable)

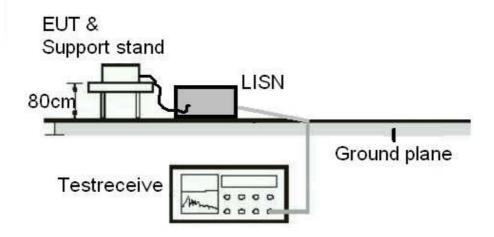
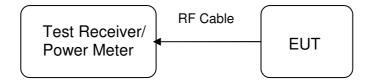


Diagram of Measurement Equipment Configuration for Conducted Transmitter Measurement





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5. Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT: Passed

Test standard : LP0002(2018): 2.2, 3.10.1, (3)

FCC Part 15.247(b)(4), Part 15.203 and RSS-

Gen 8.3

Requirement : use of approved antennas only with directional gains that

do not exceed 6 dBi

According to the manufacturer declaration, the EUT has an antenna with a directional gain of -6.2853 dBi. The antenna is a printed PCB trace with no possibility of replacement with a non-approved antenna by the end-user. Therefore, the EUT is considered to comply with this provision.

Refer to EUT photo for details.



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Test Report No.

5.1.2 Peak Output Power

RESULT: Passed

: : : Test standard LP0002(2018): 3.10.1, (2)

FCC Part 15.247(b)(3), RSS-247 5.4(4)

Basic standard ANSI C63.10:2013, KDB558074

1 Watt Limit

Kind of test site Shielded room

Test setup

Test Channel Low/ Middle/ High

Operation Mode

Ambient temperature : Relative humidity : Atmospheric pressure : 20-24 °C 50-65 % 100-103 kPa

Table 6: Test result of Peak Output Power

Channel	Channel Frequency	Output Power		Limit
	(MHz)	(dBm)	(W)	(W)
Low Channel	2402	5.06	0.00321	1
Middle Channel	2440	4.02	0.00252	1
High Channel	2480	3.02	0.00200	1

Pmax: 3.2063 mW



Products

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Test Report No.

5.1.3 6dB Bandwidth and 99% Bandwidth

RESULT: Passed

Test standard LP0002(2018): 3.10.1, (5)

FCC Part 15.247(a)(2), RSS-247 5.2(1)

RSS-Gen (Issue 4)

ANSI C63.10:2013, KDB558074 Basic standard

Kind of test site Shielded room

Test setup

Test Channel Low/ Middle/ High for 6 dB Bandwidth and

Middle for 99% Bandwidth

Operation Mode

Ambient temperature 20-24°C Relative humidity 50-65% Atmospheric pressure : 100-103 kPa

Table 7: Test result of 6dB Bandwidth

Channel	Channel Frequency (MHz)	6dB Bandwidth (kHz)	Limit (kHz)	Result
Low Channel	2402	668.3	>500	Pass
Mid Channel	2440	704.3	>500	Pass
High Channel	2480	683.3	>500	Pass

Table 8: Test result of 99% Bandwidth,

Channel Channel Frequency (MHz)		99% Bandwidth (MHz)	
Mid Channel	2440	1.0609	



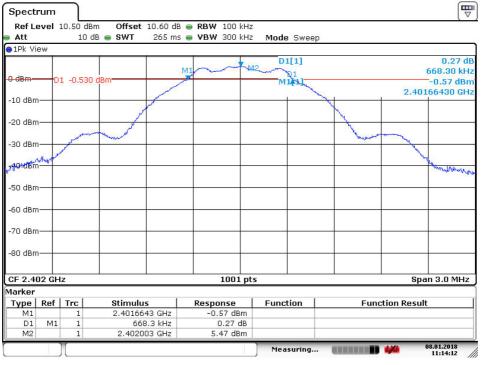
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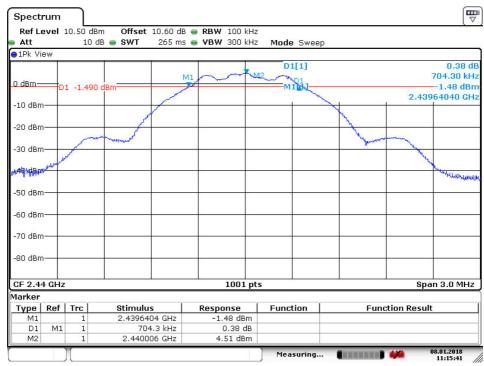
Test Plot of 6dB Bandwidth

Low Channel



Date: 8.JAN.2018 11:14:12

Middle Channel

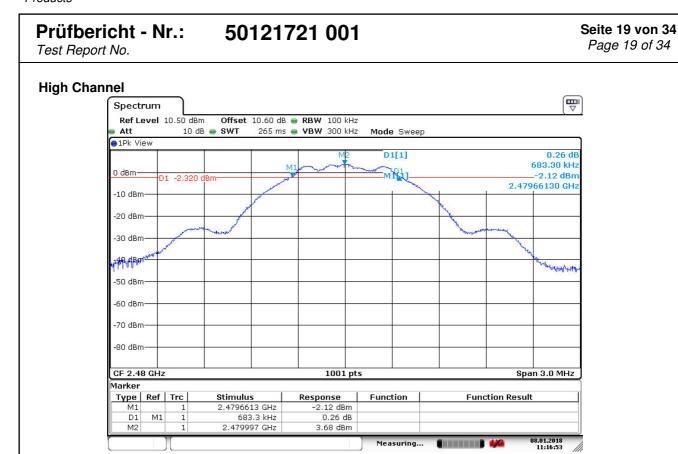


Date: 8.JAN.2018 11:15:40



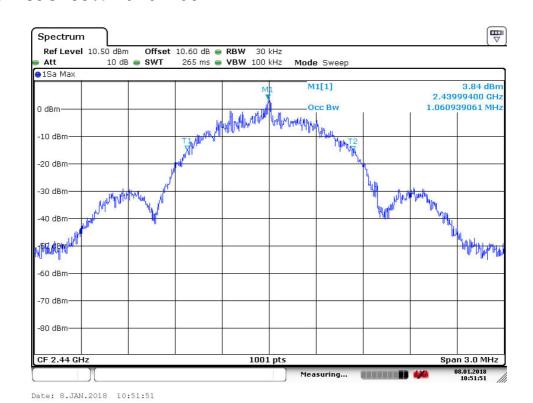
Products

Products



Test Plot of 99% Bandwidth

Date: 8.JAN.2018 11:16:53





Products

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Test Report No.

5.1.4 Power Density

RESULT: Passed

Test standard LP0002(2018): 3.10.1, (6.2.2)

FCC Part 15.247(e), RSS-247 5.2(2)

Basic standard ANSI C63.10:2013, KDB558074

Kind of test site Shielded room

Test setup

Low/ Middle/ High

Test Channel .
Operation Mode :
Ambient temperature : 20-24°C 50-65% Atmospheric pressure 100-103 kPa

Table 9: Test result of Power Density

Channel	Channel Frequency	Power Density	Limit
	(MHz)	(dBm)	(dBm)
Low Channel	2402	-6.82	8
Middle Channel	2440	-8.32	8
High Channel	2480	-8.98	8



Produkte Products

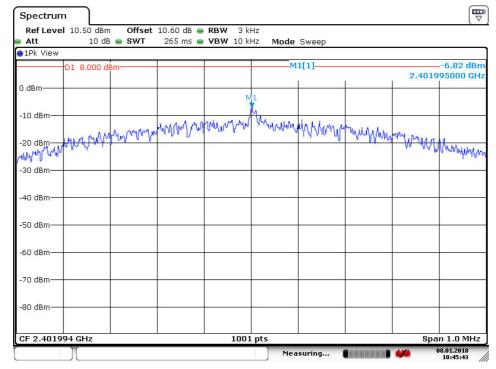
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Test Plot of Power Density

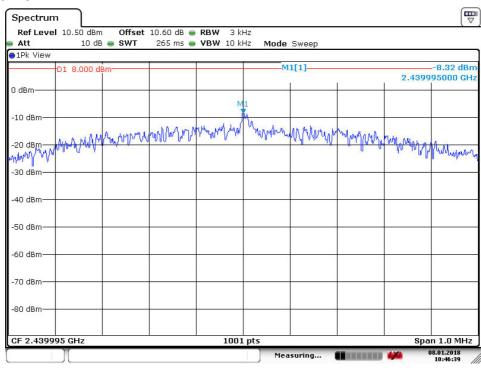
Low Channel

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Date: 8.JAN.2018 10:45:43

Middle Channel



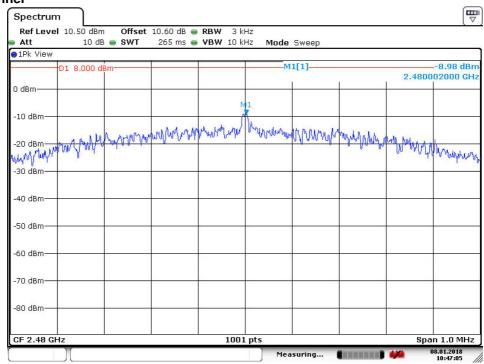
Date: 8.JAN.2018 10:46:39



Products

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High Channel



Date: 8.JAN.2018 10:47:05



Products

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Test Report No.

5.1.5 Conducted spurious emissions and Frequency Band Edge measured in 100kHz Bandwidth

RESULT: Passed

Test standard LP0002(2018): 3.10.1, (5)

FCC part 15.247(d), RSS-247 5.5

Basic standard : ANSI C63.10:2013, KDB558074

Limit 20dB (below that in the 100kHz bandwidth within the

band that contains the highest level of the desired power)

Kind of test site Shielded room

Test setup

Test Channel Low/ Middle/ High for Conducted spurious

emissions and Low/ High for Frequency Band

Edge

Operation mode

Ambient temperature 20-24°C Relative humidity 50-65% Atmospheric pressure 100-103 kPa

All emissions are more than 20dB below fundamental, details refer to following test plot, and compliance is achieved as well.

Due to the small size of the product and that there are no inductive components of significant size, 9kHz to 30MHz frequency range is not tested based on technical judgment.



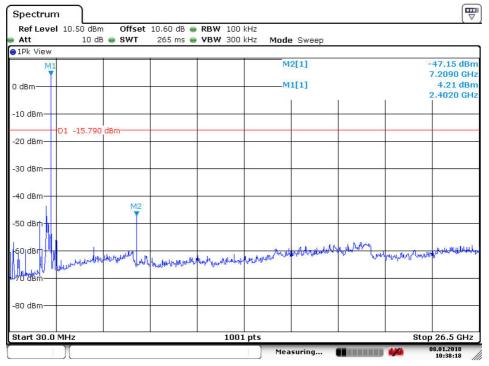
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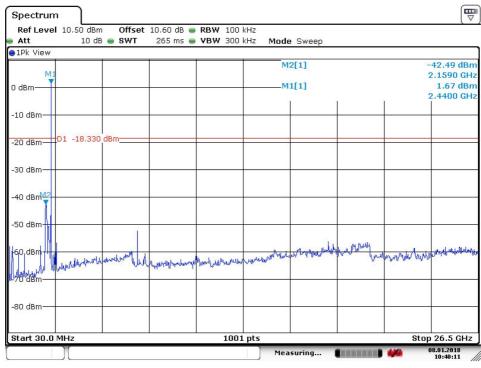
Test Plot 100kHz Conducted Emissions

Low Channel



Date: 8.JAN.2018 10:38:18

Middle Channel



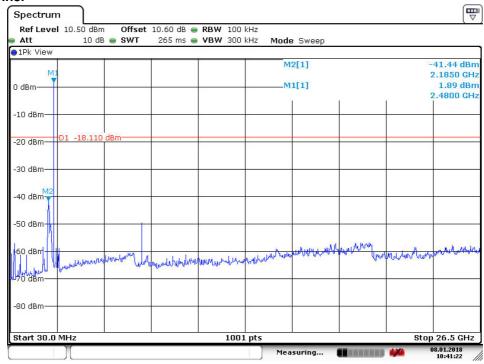
Date: 8.JAN.2018 10:40:11



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High Channel



Date: 8.JAN.2018 10:41:22



Products

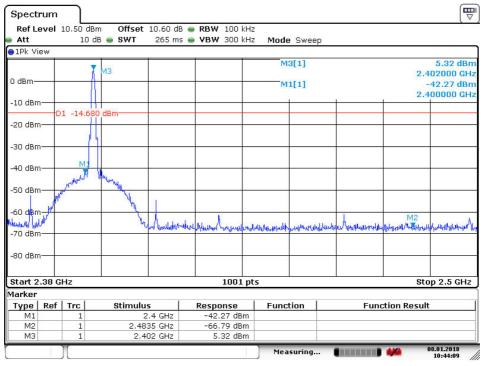
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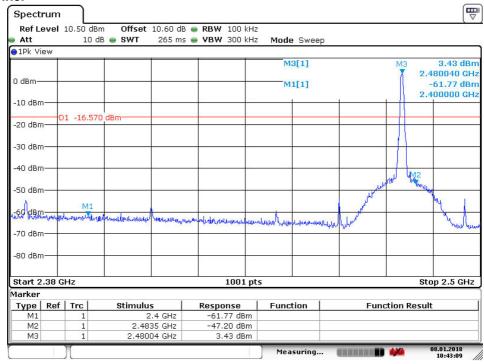
Test Plot 100kHz RBW of Band Edge

Low Channel



Date: 8.JAN.2018 10:44:09

High Channel



Date: 8.JAN.2018 10:43:08



Products

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Test Report No.

5.1.6 Spurious Emission

RESULT: Passed

FCC part 15.247(d), FCC 15.205, FCC 15.209, RSS-210 Test standard :

2.2, RSS-247 5.5 and RSS-Gen 8.9

LP0002(2018): 3.10.1, (5)

Basic standard ANSI C63.10: 2013

Limits Radiated emissions which fall in the restricted bands, as

> defined in FCC 15.205(a) and RSS-Gen i4, 8.9 (Table 6), must comply with the radiated emission limits specified in FCC 15.209(a) and RSS-Gen i4, 8.9 (Table 4 and 5). Radiated emissions which fall in the restricted bands, as defined in LP0002(2016): 2.7, must comply with the radiated emission limits specified in LP0002(2016): 2.8 Emission radiated outside the specified frequency bands must comply with the radiated emission limits specified in FCC 15.209(a) and FCC 15.249(a), RSS-Gen i4, 8.9

(Table 4 and 5) and RSS-210 A2.9(a).

Emission radiated outside the specified frequency bands must comply with the radiated emission limits specified in

LP0002(2016): 2.8

3m Semi-Anechoic Chamber Kind of test site

Test setup

Low/ Middle/ High Test Channel

Operation mode A, B

Remark: Testing was carried out within frequency range 30MHz to the tenth harmonic.

For details refer to Appendix D.

Testing was carried out within frequency range 30MHz to the tenth harmonic. For details refer to Appendix D. The Radiated Emissions testing was performed in the X, Y and Z axis orientation. The worst-case Axis orientation is recorded in this test report. Due to the small size of the product and that there are no inductive components of significant size, 9kHz to 30MHz frequency range is not tested based on technical judgment.



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Test Report No.

5.2 Mains Emissions

5.2.1 Mains Conducted Emissions

RESULT: N/A

FCC Part 15.207 Test standard

FCC Part 15.107 RSS-Gen 8.8 LP0002(2016): 2.3

Limits Mains Conducted emissions as defined in :

above test standards must comply with the mains conducted emission limits specified

Kind of test site Shielded Room

Test setup

Test Channel Middle Operation mode Α

Remark: For details refer to Appendix D.



Products

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Test Report No.

6. Safety Human exposure

6.1 Radio Frequency Exposure Compliance

6.1.1 Electromagnetic Fields

RESULT: Passed

FCC KDB Publication 447498 D01 v06 Test standard

RSS-102 issue 5, Table 1

FCC:

Since maximum peak output power of the transmitter is 3.2063 mW < 10mW, hence the EUT is excluded from SAR evaluation according to FCC KDB publication 447498: Mobile Portable RF Exposure

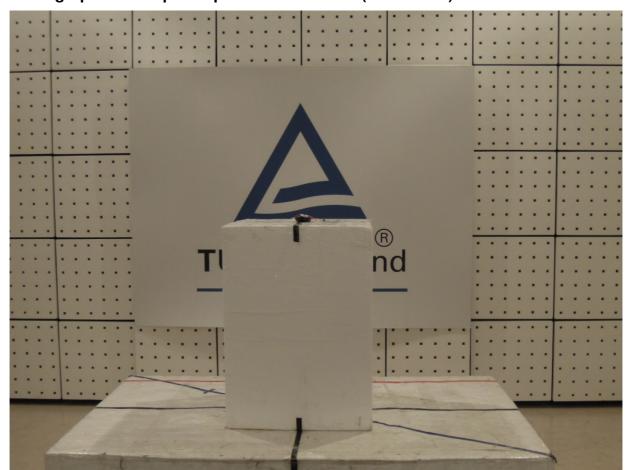


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7. Photographs of the Test Set-Up

Photograph 1: Set-up for Spurious Emissions (Front View)



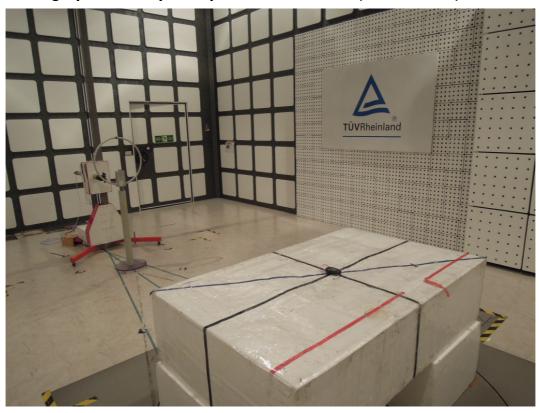


Prüfbericht - Nr.: 50121721 001

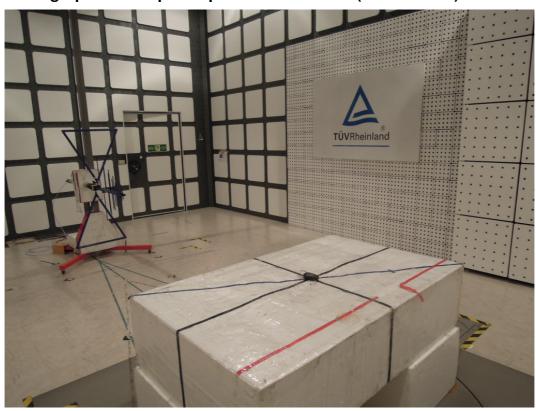
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Photograph 2: Set-up for Spurious Emissions (Back View 1)



Photograph 3: Set-up for Spurious Emissions (Back View 2)



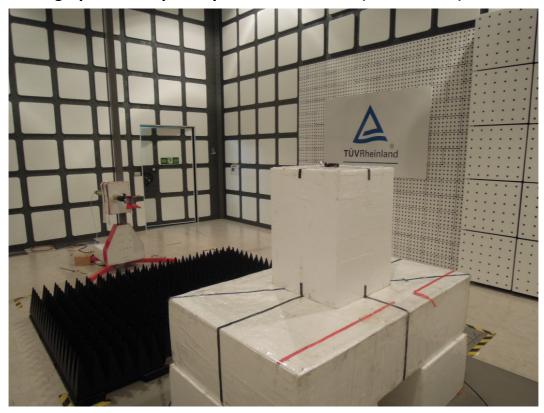


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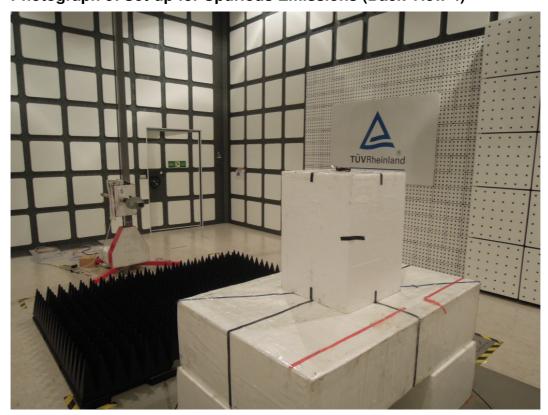
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Photograph 4: Set-up for Spurious Emissions (Back View 3)



Photograph 5: Set-up for Spurious Emissions (Back View 4)





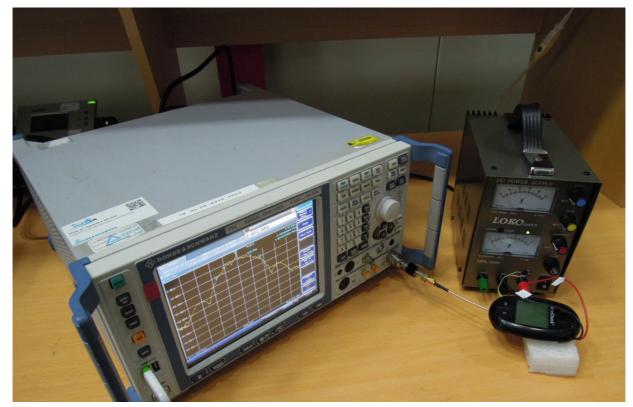
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Photograph 6: Set-up for Conducted testing I





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