

Test Report

No. 1-2366-26-01-06_TR1-R02

2026-07-03

Applicant	WSAUD A/S Nymøllevej 6 DK-3540 Lyngby/ DENMARK
Product	RF Module for Hearing Instruments
Model	RF Module 030
Frequency band	2400 MHz to 2483.5 MHz
Technology	Bluetooth® + EDR
Test Standard(s)	FCC 47 CFR Part 15 RSS-247:Issue 4 (2025-07) RSS - Gen Issue 5 incl. Amendment 1 & 2
Verdict	☒ PASS: All of the performed measurements acc. to the standard(s) are PASSED

The test results relate only to devices specified in this document

This test report is electronically signed and valid without handwritten signature.
Public keys for verification of the electronic signatures can be requested at the testing laboratory.



cn=Michael Dorongovski-
Kerbusch, o, ou,
email=michael.dorongovski@c
etecomadvanced.com, c=DE
2026.07.06 09:23:21 +02'00'

authorized by Michael Dorongovski
Lab Manager
Regulatory Services Radio



cn=Marco Bertolino, o=cetecom
advanced GmbH, ou=BTL-251205,
email=Marco.Bertolino@cetecom
advanced.com, c=DE
2026.07.06 09:25:13 +02'00'

created by Marco Bertolino
Supervisor Radio Lab
Regulatory Services Radio

Table of content

1	Disclaimer	4
2	Related cetecom advanced documents.....	4
3	Document history	5
3.1	Current release	5
3.2	Previous releases	5
4	Test laboratory	5
4.1	Involved test locations	5
4.2	Subcontracted laboratories	5
4.3	Common report information	5
4.4	Abbreviations	6
5	Client information	7
5.1	Applicant.....	7
5.2	Manufacturer.....	7
6	Test sample information	8
6.1	Equipment under test.....	8
7	Additional details	9
7.1	Scheduling.....	9
7.2	Climatic laboratory data	9
7.3	Test environmental EUT.....	9
8	Decision rule and plot legend.....	10
8.1	Reporting statements of conformity – decision rule.....	10
8.2	Plot legend.....	10
9	Measurement details.....	11
9.1	Test methodology	11
10	Description of the test setup.....	12
10.1	Shielded semi anechoic chamber	13
10.2	Shielded fully anechoic chamber	14
10.3	Radiated measurements > 18 GHz	15
10.4	Conducted measurements Bluetooth system.....	16
11	Sequence of testing.....	17
11.1	Sequence of testing radiated spurious 9 kHz to 30 MHz	17
11.2	Sequence of testing radiated spurious 30 MHz to 1 GHz.....	18
11.3	Sequence of testing radiated spurious 1 GHz to 18 GHz	19
11.4	Sequence of testing radiated spurious above 18 GHz.....	20
12	Summary of measurement results	21
13	Additional comments	22
14	Measurement results	23
14.1	Antenna gain.....	23
14.2	Carrier frequency separation	24

14.3	Number of hopping channels	25
14.4	Time of occupancy (dwell time)	26
14.5	Spectrum bandwidth of a FHSS system	27
14.6	Maximum output power	28
14.7	Band edge compliance radiated	29
14.8	Spurious emissions conducted	34
14.9	Spurious emissions radiated below 30 MHz	35
14.10	Spurious emissions radiated 30 MHz to 1 GHz	38
14.11	Spurious emissions radiated above 1 GHz	40
15	Measurement uncertainty	44

1 Disclaimer

The test results of this test report relate exclusively to the test item specified in chapter "Test sample information". cetecom advanced does not assume responsibility for any conclusions and generalizations drawn from the test results regarding other specimens or samples of the type of the equipment represented by the test item.

The testing service provided by cetecom advanced has been rendered under the current "General Terms and Conditions for cetecom advanced".

cetecom advanced will not be liable for any loss or damage resulting from false, inaccurate, inappropriate, or incomplete product information provided by the customer.

Under no circumstances does the cetecom advanced test report include any endorsement or warranty regarding the functionality, quality or performance of any other product or service provided.

Under no circumstances does the cetecom advanced test report include or imply any product or service warranties from cetecom advanced, including, without limitation, any implied warranties of merchantability, fitness for purpose, or non-infringement, all of which are expressly disclaimed by cetecom advanced.

All rights and remedies regarding vendor's products and services for which cetecom advanced has prepared this test report shall be provided by the party offering such products or services and not by cetecom advanced. In no case this test report can be considered as a Letter of Approval.

The test report must always be reproduced in full; reproduction of an excerpt only is subject to written approval of the testing laboratory. The documentation of the testing performed on the tested devices is archived for 10 years at cetecom advanced.

2 Related cetecom advanced documents

Document	Content	Reference
Annex 101	External photographs of EUT	1-2366-26-01-01_TR1-A101-R01
Annex 102	Internal photographs of EUT	1-2366-26-01-01_TR1-A102-R01
Annex 103	Test set-up photographs	1-2366-26-01-01_TR1-A104-R01
Annex 201	Results	1-2366-26-01-06_TR1-A201-R01
Annex 301	Declaration of untested variant	-/-

3 Document history

3.1 Current release

Release No.: R02
Date of release: 2026-07-03
Applied changes: RSS-Gen added to the standard list

3.2 Previous releases

Release No.	Applied changes	Date of release
-R01	-/-	2026-06-10

This test report replaces the test report 1-2366-26-01-06_TR1-R01 dated 2026-06-10.

4 Test laboratory

4.1 Involved test locations

Saarbruecken lab



cetecom advanced GmbH
Untertuerkheimer Strasse 6 – 10
66117 Saarbruecken / Germany
Phone: + 49 681 5 98 - 0
Fax: + 49 681 5 98 - 9075
Internet: <https://cetecomadvanced.com>
e-mail: mail@cetecomadvanced.com

Essen lab



cetecom advanced GmbH
Im Teelbruch 116
45219 Essen / Germany
Phone: + 49 2054 95190
Internet: <https://cetecomadvanced.com>
e-mail: mail@cetecomadvanced.com

4.2 Subcontracted laboratories

None.

4.3 Common report information

The period is used as a decimal separator and the comma as a thousand separator.

4.4 Abbreviations

AVG	Average
C	Compliant
C/N₀	Carrier to noise-density ratio, expressed in dB-Hz
CAC	Channel availability check
CW	Clean wave
DC	Duty cycle
DFS	Dynamic frequency selection
DSSS	Dynamic sequence spread spectrum
DUT	Device under test
EN	European Standard
ETSI	European Telecommunications Standards Institute
EMC	Electromagnetic Compatibility
EUT	Equipment under test
FCC	Federal Communications Commission
FCC ID	Combination of Grantee Code and Equipment Product Code
FHSS	Frequency hopping spread spectrum
FVIN	Firmware version identification number
GNSS	Global Navigation Satellite System
GUE	GNSS User Equipment
HMN	Host marketing name
HVIN	Hardware version identification number
HW	Hardware
ISED	Innovation, Science and Economic Development Canada
Inv. No.	Inventory number
MC	Modulated carrier
NA	Not applicable
NC	Not compliant
NOP	Non occupancy period
NP	Not performed
OBW	Occupied bandwidth
OC	Operating channel
OCW	Operating channel bandwidth
OFDM	Orthogonal frequency division multiplexing
OOB	Out of band
OP	Occupancy period
PER	Packet error rate
PMN	Product marketing name
PP	Positive peak
QP	Quasi peak
RLAN	Radio local area network
S/N or SN	Serial number
SW	Software
UUT	Unit under test
WLAN	Wireless local area network

5 Client information

5.1 Applicant

Name: WSAUD A/S
Address: Nymøllevej 6
DK-3540 Lynge/ DENMARK

Contact Person: Richard Rose
Contact Person's Email: richard.rose@wsa.com

5.2 Manufacturer

Name: WSAUD A/S
Address: Nymøllevej 6
DK-3540 Lynge / DENMARK

6 Test sample information

The data about the test samples is given/supplied by the customer and not under control by cetecom advanced GmbH.

6.1 Equipment under test

6.1.1 EUT

EUT no. *)	Product	Model	Serial number	Hardware version	Software version
EUT 1	RF Module for Hearing Instruments	RF Module 030	ANK8051 (conducted)	F1050_v1E_ECO-097744	21.24
EUT 2	RF Module for Hearing Instruments	RF Module 030	ANK8045 (radiated)	F1050_v1E_ECO-097744	21.24

*) EUT short description is used to simplify the identification of the EUT in this test report.

6.1.2 Auxiliary equipment from customer

AE *)	Auxiliary equipment	Type	Serial number	Hardware version	Software version
-/-	-/-	-/-	-/-	-/-	-/-

*) AE short description is used to simplify the identification of the auxiliary equipment in this test report.

6.1.3 Auxiliary equipment from cetecom advanced

AE *)	Auxiliary equipment	Type
AE1	CBT Bluetooth Tester (signaling)	S/N: 100313

*) AE short description is used to simplify the identification of the auxiliary equipment in this test report.
 **The model used can be requested if required.

6.1.4 IDs and certification numbers

FCC ID	2AXDT-RFM030
ISED certification number	26428-RFM030
HMN	N/A
PMN	RF Module 30
HVIN	RFM030
FVIN	N/A

7 Additional details

7.1 Scheduling

Date of receipt of order: 2026-02-23
 Date of receipt of test item: 2026-05-11
 Start of test:* 2026-05-11
 End of test:* 2026-05-18
 Person(s) present during the test: -/-

*Date of each measurement, if not shown in the plot, can be requested. Dates are stored in the measurement software.

7.2 Climatic laboratory data

Temperature:	15°C - 35°C
Relative. humidity:	30%rH - 60%rH
Barometric pressure:	860hPa - 1060hPa

7.3 Test environmental EUT

Nominal temperature [°C]:	+22
Low temperature [°C]:	0
High temperature [°C]:	+50
Nominal voltage [V]:	3.85
Low voltage [V]:	3.50
High voltage [V]:	4.20
Nominal power supply:	3.85 DC by battery
Test power supply:	3.85 DC by battery

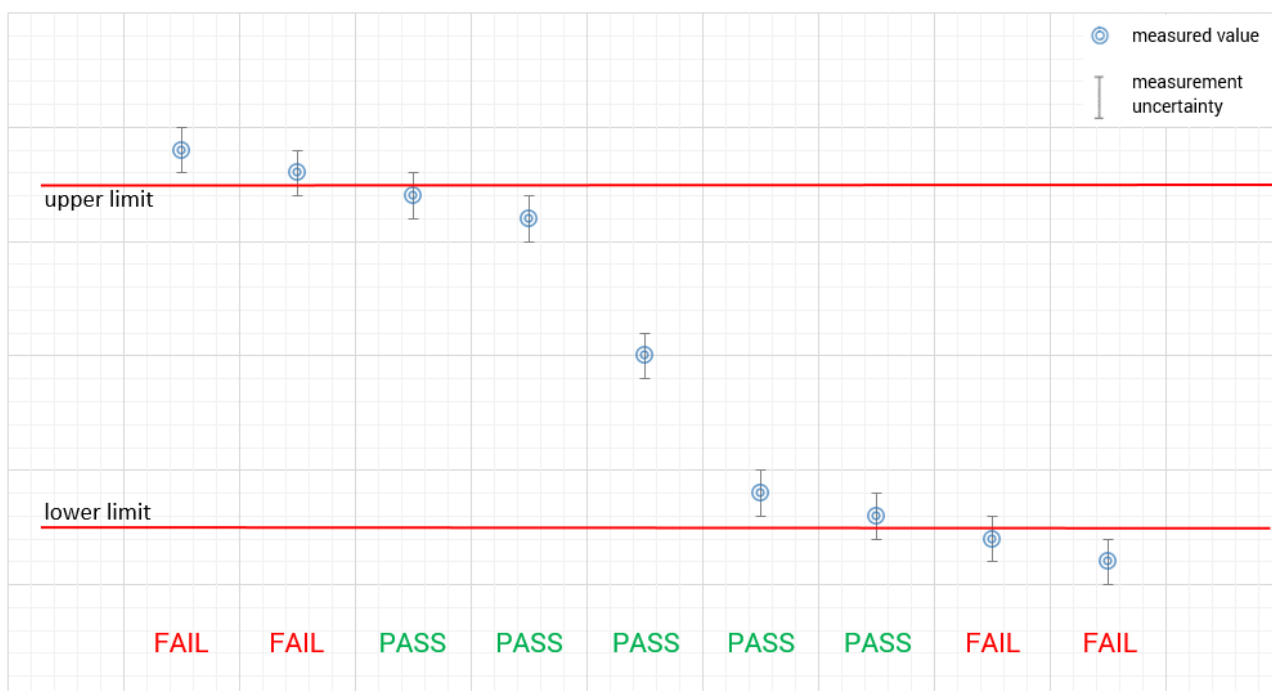
8 Decision rule and plot legend

8.1 Reporting statements of conformity – decision rule

Only the measured values related to their corresponding limits will be used to decide whether the equipment under test meets the requirements of the test standards listed in chapter 6.1.1.

The measurement uncertainty is mentioned in this test report, see chapter 15, but is not taken into account - neither to the limits nor to the measurement results. Measurement results with a smaller margin to the corresponding limits than the measurement uncertainty have a potential risk of more than 5% that the decision might be wrong."

measured value, measurement uncertainty, verdict



8.2 Plot legend

Plot legend (radiated plots)	
Blue Trace (Measured Spectrum)	Represents the measured emission levels of the Equipment Under Test (EUT) over the specified frequency range.
Red Line (Limit Line)	Indicates the applicable regulatory limit according to the specified standard Emissions below the limit: compliant Emissions above the limit: non-compliant Emissions above the limit: Peak pre-measurement points may exceed the limit, but should then be evaluated using the method described in the specific standard (see results table)
X-Axis (Frequency)	Shows the frequency range of the measurement
Y-Axis (Level in dBm)	Displays the emission level in dBm.
Marker (yellow)	Indicates a specific frequency of interest for the final measurement the fundamental frequency (wanted signal) or a critical spurious emission
Markers (green)	Green data points indicate the measured level at various polarizations and spatial positions. The highest measured values are recorded in a table. The pre-measurement is always performed as a peak measurement. Once the maximum value has been determined, the measurement procedure specified in the relevant standard is then carried out.

9 Measurement details

9.1 Test methodology

FCC / ISED:

The accreditation is valid for the scope of testing procedures as stated in the accreditation certificate with the registration number: D-PL-12047-01-00.

ISED Testing Laboratory Recognized Listing Number: DE0001

FCC designation number: DE0002

Applied test method, standard, rule	Date	Description
FCC 47 CFR Part 15	-/-	FCC - Title 47 of the Code of Federal Regulations; Chapter I; Part 15 - Radio frequency devices
RSS-247:Issue 4 (2025-07)	2025-07-24	RSS-247 – Digital Transmission Systems, Frequency Hopping Systems and Licence-Exempt Local Area Network Devices in 902-928 MHz, 2400-2483.5 MHz, 5150-5350 MHz, and 5470-5895 MHz bands
RSS - Gen Issue 5 incl. Amendment 1 & 2	February 2021	Spectrum Management and Telecommunications Radio Standards Specification - General Requirements for Compliance of Radio Apparatus
KDB 558074 D01	v05r02	GUIDANCE FOR COMPLIANCE MEASUREMENTS ON DIGITAL TRANSMISSION SYSTEM, FREQUENCY HOPPING SPREAD SPECTRUM SYSTEM, AND HYBRID SYSTEM DEVICES OPERATING UNDER SECTION 15.247 OF THE FCC RULES
ANSI C63.10-2020	-/-	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
ANSI/USEMCSC C63.10a-2024 Amendment 1	2024-08-08	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices Amendment 1
ANSI/USEMCSC C63.10a-2024 Amendment 1 Errata	2024-11-18	Errata to American National Standard for Procedures for Compliance Testing of Unlicensed Wireless Devices Amendment 1 Correction Sheet

10 Description of the test setup

Typically, the calibrations of the test apparatus are commissioned to and performed by an accredited calibration laboratory. The calibration intervals are determined in accordance with the DIN EN ISO/IEC 17025. In addition to the external calibrations, the laboratory executes comparison measurements with other calibrated test systems or effective verifications. Weekly chamber inspections and range calibrations are performed. Where possible, RF generating and signaling equipment as well as measuring receivers and analyzers are connected to an external high-precision 10 MHz reference (GPS-based or rubidium frequency standard).

In order to simplify the identification of the equipment used at some special tests, some items of test equipment and ancillaries can be provided with an identifier or number in the equipment list below (Lab/Item).

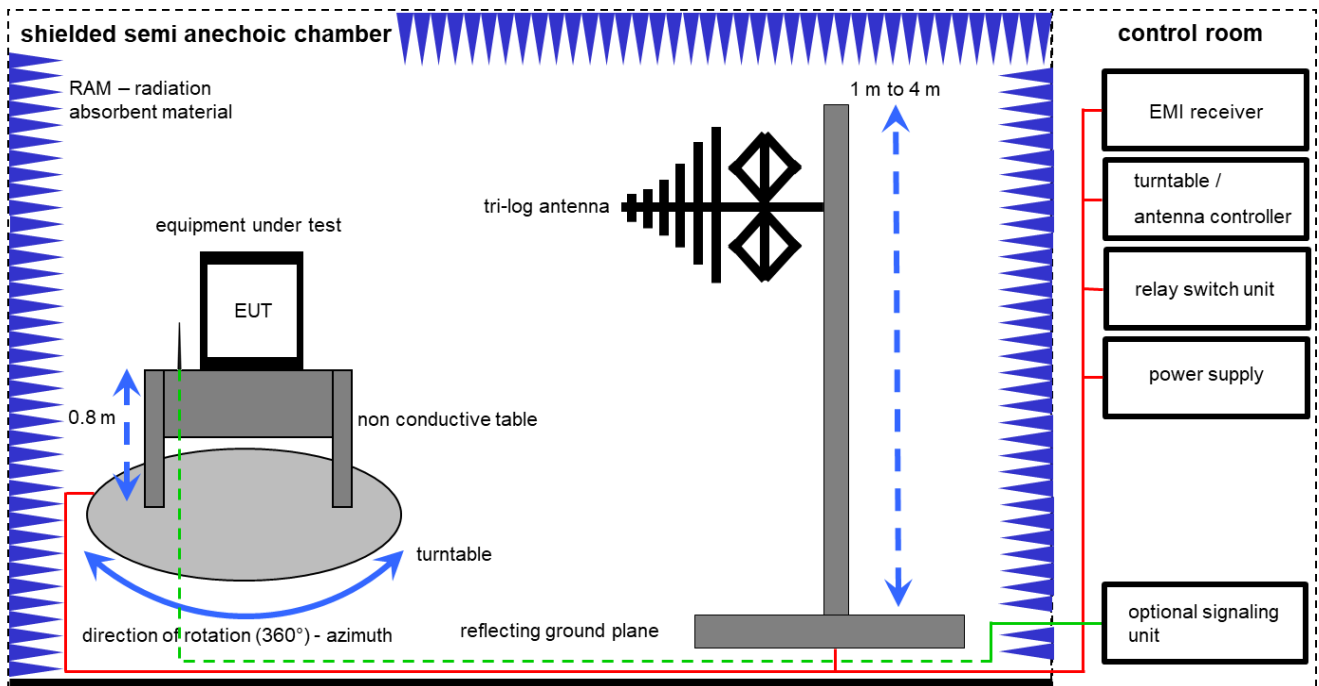
Each block diagram listed can contain several test setup configurations. All devices belonging to a test setup are identified with the same letter syntax. For example: Column Setup and all devices with an A.

Agenda: Kind of Calibration

k/cal	calibration / calibrated	EK	limited calibration
Ne/cnn	not required (k, ev, izw, zw not required)	zw	cyclical maintenance (external cyclical maintenance)
Ev/chk	periodic self verification	izw	internal cyclical maintenance
Ve	long-term stability recognized	g	blocked for accredited testing
vlkl!	Attention: extended calibration interval		
NK!	Attention: not calibrated	*)	next calibration ordered / currently in progress
cpu	check prior usage		

10.1 Shielded semi anechoic chamber

The radiated measurements are performed in vertical and horizontal plane in the frequency range from 30 MHz to 1 GHz in semi-anechoic chambers. The EUT is positioned on a non-conductive support with a height of 0.80 m above a conductive ground plane that covers the whole chamber. The receiving antennas are conform to specifications ANSI C63. These antennas can be moved over the height range between 1.0 m and 4.0 m in order to search for maximum field strength emitted from EUT. The measurement distances between EUT and receiving antennas are indicated in the test setups for the various frequency ranges. For each measurement, the EUT is rotated in all three axes until the maximum field strength is received. The wanted and unwanted emissions are received by spectrum analyzers where the detector modes and resolution bandwidths over various frequency ranges are set according to requirement ANSI C63.



Measurement distance: tri-log antenna 10 meter; EMC32 software version: 10.59.00

$$FS = UR + CL + AF$$

(FS-field strength; UR-voltage at the receiver; CL-loss of the cable; AF-antenna factor)

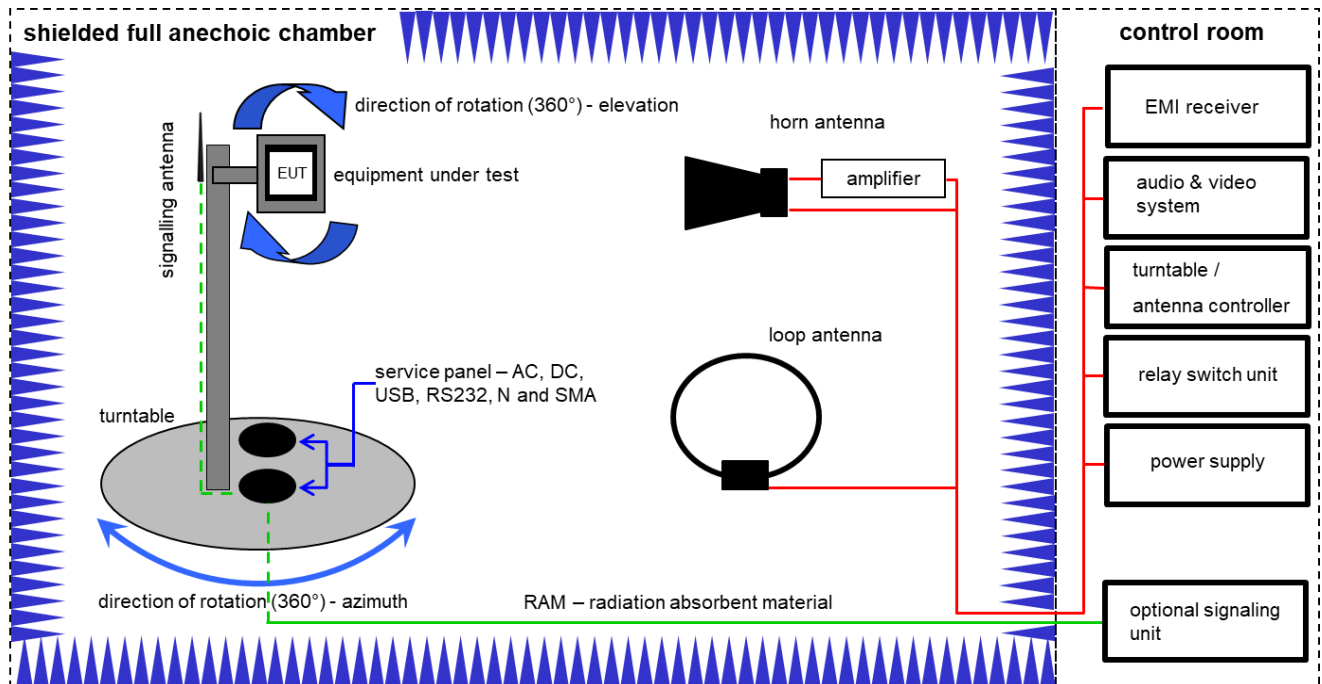
Example calculation:

$$FS [dB\mu V/m] = 12.35 [dB\mu V] + 1.90 [dB] + 16.80 [dB/m] = 31.05 [dB\mu V/m] \quad (35.69 \mu V/m) @ \text{distance}$$

Equipment table:

No.	Setup	Equipment	Type	Manufacturer	Serial No.	INV. No.	Kind of Calibration	Last Calibration	Next Calibration
1	A	Switch-Unit	Switch-Unit 3488A	Hewlett Packard	2719A14505	50160	cpu	-/-	-/-
2	A	Positioning Controller	Positioning Controller 2090	ETS-Lindgren GmbH Taufkirchen	64672	50280	cnn	-/-	-/-
3	A	TRILOG Broadband Antenna	TRILOG Broadband Antenna VULB9163	Schwarzbeck MESS-ELEKTRONIK OHG Schönaun	1029	50403	cal	07.11.2025	30.11.2027
4	A	EMI Test Receiver	EMI Test Receiver ESR3 9kHz-3.6GHz	Rohde & Schwarz Messgerätebau GmbH Memmingen	102587	50417	cal	08.12.2025	31.12.2026

10.2 Shielded fully anechoic chamber



Measurement distance: horn antenna 3 meter; loop antenna 3 meter

OP = AV + D - G + CA

(OP-radiated output power; AV-analyzer value; D-free field attenuation of measurement distance; G-antenna gain+amplifier gain; CA-loss signal path)

Example calculation:

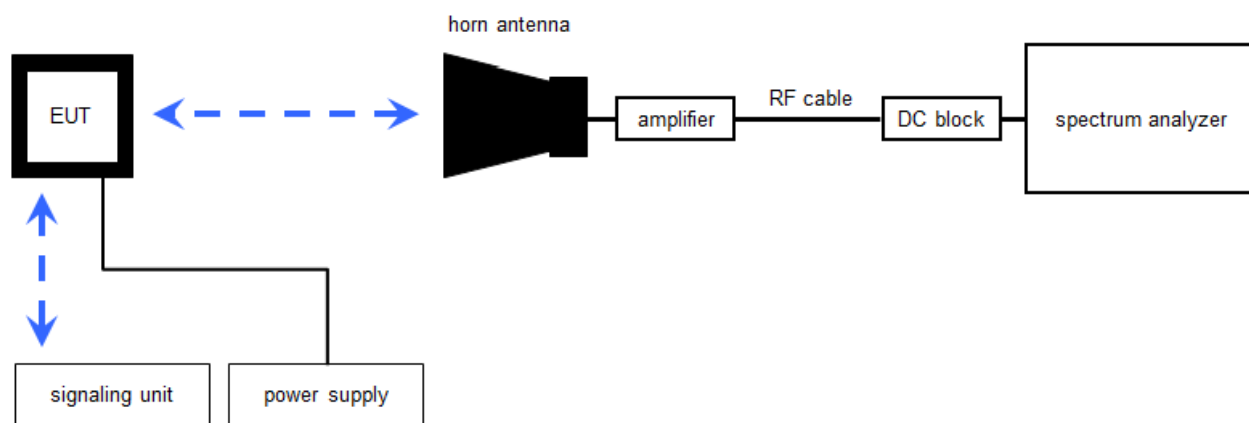
OP [dBm] = -39.0 [dBm] + 57.0 [dB] - 12.0 [dBi] + (-36.0) [dB] = -30 [dBm] (1 µW)

Equipment table:

No.	Setup	Equipment	Type	Manufacturer	Serial No.	INV. No.	Kind of Calibration	Last Calibration	Next Calibration
1	A, B, C	Anechoic chamber	Anechoic chamber FAC 3/5m	MEC Import: MWB TDK	87400/02	40349	cpu	-/-	-/-
2	A, B, C	Switch / Control Unit	Switch / Control Unit 3488A	Hewlett Packard	*	40350	cnn	-/-	-/-
3	B	Band Reject filter	Band Reject filter WRCG2400/2483-2375/2505-50/10SS	Wainwright Instruments GmbH Andechs	11	40356	cpu	-/-	-/-
4	B	Highpass Filter	Highpass Filter WHK1.1/15G-10SS	Wainwright Instruments GmbH Andechs	3	40361	cpu	-/-	-/-
5	B	Highpass Filter	Highpass Filter WHKX7.0/18G-8SS	Wainwright Instruments GmbH Andechs	19	40365	cnn	-/-	-/-
6	B	High Pass Filter	High Pass Filter VHF-3500+	Mini-Circuits Brooklyn	-/-	40369	cnn	-/-	-/-
7	B	Broadband Amplifier 0.5-18 GHz	Broadband Amplifier 0.5-18 GHz CBLU5184540	MEC Import: CERNEX	22049	40373	cpu	-/-	-/-
8	A, B, C	4U RF Switch Platform	4U RF Switch Platform L4491A	Agilent Technologies Deutschland GmbH Böblingen	MY500000 37	40375	cnn	-/-	-/-
9	A, B, C	NEXIO EMV-Software	NEXIO EMV-Software BAT EMC V2022.0.32.0	MEC Import: Nexio	-/-	40383	cnn	-/-	-/-
10	B	RF-Amplifier	RF-Amplifier AMF-6F06001800-30-10P-R	MEC Import: NARDA-MITEQ Inc	2011572	40400	cpu	-/-	-/-
11	C	Active Loop Antenna	Active Loop Antenna 6502	EMCO Elektronik GmbH Gilching	2210	50044	cal	07.07.2025	31.07.2027
12	A, B, C	EMI Test Receiver	EMI Test Receiver ESU26	Rohde & Schwarz Messgerätebau GmbH Memmingen	100037	50254	cal	11.12.2025	31.12.2026
13	B	Low Noise Amplifier	Low Noise Amplifier LNA-40-00100800-15-10P	Miteq Inc.	2336093	50483	cnn	-/-	-/-

10.3 Radiated measurements > 18 GHz

Radiated measurements > 18 GHz



Measurement distance: horn antenna 50 cm

FS = UR + CA + AF

(FS-field strength; UR-voltage at the receiver; CA-loss signal path & distance correction; AF-antenna factor)

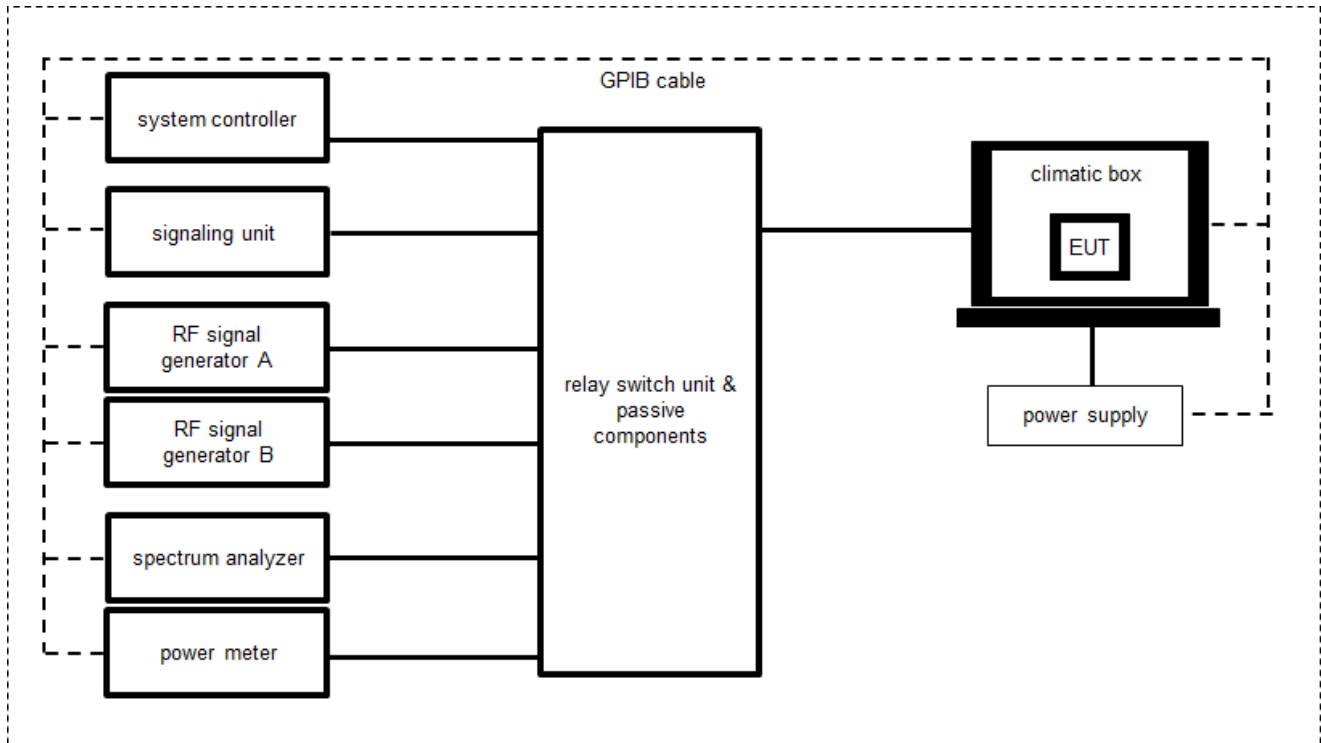
Example calculation:

FS [dBμV/m] = 40.0 [dBμV] + (-60.1) [dB] + 36.74 [dB/m] = 16.64 [dBμV/m] (6.79 μV/m) @ distance

Equipment table:

No.	Setup	Equipment	Type	Manufacturer	Serial No.	INV. No.	Kind of Calibration	Last Calibration	Next Calibration
1	A	Microwave System Amplifier, 0.5-26.5 GHz	Microwave System Amplifier, 0.5-26.5 GHz 83017A	Hewlett Packard	00419	40014	cpu	-/-	-/-
2	A	Std. Gain Horn Antenna 18.0-26.5 GHz	Std. Gain Horn Antenna 18.0-26.5 GHz 638	Narda Microwave	8205	40085	cal	16.01.2026	31.01.2028
3	A	Signal analyzer	Signal analyzer FSV40	Rohde & Schwarz Messgerätebau GmbH Memmingen	101042	40292	cal	08.01.2026	31.01.2027
4	A	RF-Cable	RF-Cable ST18/SMAM/SMAM /72	Huber & Suhner GmbH Unterhaching	Batch no. 699714	40389	cpu	-/-	-/-
5	A	DC-Blocker 0.1-40 GHz	DC-Blocker 0.1-40 GHz 8141A	MEC Import: Inmet	-/-	40390	cpu	-/-	-/-

10.4 Conducted measurements Bluetooth system



$$OP = AV + CA$$

(OP-output power; AV-analyzer value; CA-loss signal path)

Example calculation:

$$OP \text{ [dBm]} = 6.0 \text{ [dBm]} + 11.7 \text{ [dB]} = 17.7 \text{ [dBm]} \text{ (58.88 mW)}$$

Equipment table:

No.	Setup	Equipment	Type	Manufacturer	Serial No.	INV. No.	Kind of Calibration	Last Calibration	Next Calibration
1	A	Signal analyzer	Signal analyzer FSV30	Rohde & Schwarz Messgerätebau GmbH Memmingen	1321.3008K30/103170	18373	cal	15.01.2025	15.01.2027
2	A	Switch Matrix	USM/RSM	cetecom advanced GmbH Saarbrücken	A001	40338	chk	13.08.2025	13.08.2026
3	A	Hygro-Thermometer	Hygro-Thermometer -/-, 5-45°C, 20-100%rF	Adolf Thies GmbH & Co. KG, Meteorologie - Umweltmesstechnik Göttingen	without	40353	chk	25.09.2024	25.09.2026
4	A	Power supply	Power supply HMP2020	Rohde & Schwarz Messgerätebau GmbH Memmingen	102123	40401	cal	04.12.2024	31.12.2026
5	A	Test software RadioStar (C.BER2 for BT LE RFPHY)	Test software RadioStar (C.BER2 for BT LE RFPHY)	cetecom advanced GmbH Saarbrücken	1	40407	cnn	-/-	-/-
6	A	Wideband Radio Communication Tester	Wideband Radio Communication Tester CMW270	Rohde & Schwarz Messgerätebau GmbH Memmingen	1201.0002k75/102550	40329	cal	10.12.2025	31.12.2027

11 Sequence of testing

11.1 Sequence of testing radiated spurious 9 kHz to 30 MHz

Setup

- The equipment is set up to simulate normal operation mode as described in the user manual or defined by the manufacturer.
- If the EUT is a tabletop system, it is placed on a table with 0.8 m height.
- If the EUT is a floor standing device, it is placed directly on the turn table.
- Auxiliary equipment and cables are positioned to simulate normal operation conditions as described in ANSI C 63.4.
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- Measurement distance is 3 m (see ANSI C 63.4) – see test details.
- EUT is set into operation.

Premeasurement*

- The turntable rotates from 0° to 315° using 45° steps.
- The antenna height is 1 m.
- At each turntable position the analyzer sweeps with positive-peak detector to find the maximum of all emissions.

Final measurement

- Identified emissions during the pre-measurement are maximized by the software by rotating the turntable from 0° to 360°.
- Loop antenna is rotated about its vertical axis for maximum response at each azimuth about the EUT. (For certain applications, the loop antenna plane may also need to be positioned horizontally at the specified distance from the EUT)
- The final measurement is done in the position (turntable and elevation) causing the highest emissions with quasi-peak (as described in ANSI C 63.4).
- Final levels, frequency, measuring time, bandwidth, turntable position, correction factor, margin to the limit and limit will be recorded. A plot with the graph of the premeasurement and the limit is stored.

*Note: The sequence will be repeated three times with different EUT orientations.

11.2 Sequence of testing radiated spurious 30 MHz to 1 GHz

Setup

- The equipment is set up to simulate normal operation mode as described in the user manual or defined by the manufacturer.
- If the EUT is a tabletop system, a table with 0.8 m height is used, which is placed on the ground plane.
- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- Auxiliary equipment and cables are positioned to simulate normal operation conditions as described in ANSI C 63.4.
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- Measurement distance is 10 m or 3 m (see ANSI C 63.4) – see test details.
- EUT is set into operation.

Premeasurement

- The turntable rotates from 0° to 315° using 45° steps.
- The antenna is polarized vertical and horizontal.
- The antenna height changes from 1 m to 3 m.
- At each turntable position, antenna polarization and height the analyzer sweeps three times in peak to find the maximum of all emissions.

Final measurement

- The final measurement is performed for at least six highest peaks according to the requirements of the ANSI C63.4.
- Based on antenna and turntable positions at which the peak values are measured the software maximize the peaks by changing turntable position $\pm 45^\circ$ and antenna height between 1 and 4 m.
- The final measurement is done with quasi-peak detector (as described in ANSI C 63.4).
- Final levels, frequency, measuring time, bandwidth, antenna height, antenna polarization, turntable angle, correction factor, margin to the limit and limit are recorded. A plot with the graph of the premeasurement with marked maximum final results and the limit is stored.

11.3 Sequence of testing radiated spurious 1 GHz to 18 GHz

Setup

- The equipment is set up to simulate normal operation mode as described in the user manual or defined by the manufacturer.
- If the EUT is a tabletop system, a 2-axis positioner with 1.5 m height is used.
- If the EUT is a floor standing device, it is placed directly on the turn table.
- Auxiliary equipment and cables are positioned to simulate normal operation conditions as described in ANSI C 63.4.
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- Measurement distance is 3 m (see ANSI C 63.4) – see test details.
- EUT is set into operation.

Premeasurement

- The turntable rotates from 0° to 315° using 45° steps.
- The antenna is polarized vertical and horizontal.
- The antenna height is 1.5 m.
- At each turntable position and antenna polarization the analyzer sweeps with positive peak detector to find the maximum of all emissions.

Final measurement

- The final measurement is performed for at least six highest peaks according to the requirements of the ANSI C63.4.
- Based on antenna and turntable positions at which the peak values are measured the software maximizes the peaks by rotating the turntable from 0° to 360°. This measurement is repeated for different EUT-table positions (0° to 150° in 30°-steps) and for both antenna polarizations.
- The final measurement is done in the position (turntable, EUT-table and antenna polarization) causing the highest emissions with Peak and RMS detector (as described in ANSI C 63.4).
- Final levels, frequency, measuring time, bandwidth, turntable position, EUT-table position, antenna polarization, correction factor, margin to the limit and limit are recorded. A plot with the graph of the premeasurement with marked maximum final results and the limit is stored.

11.4 Sequence of testing radiated spurious above 18 GHz

Setup

- The equipment is set up to simulate normal operation mode as described in the user manual or defined by the manufacturer.
- Auxiliary equipment and cables are positioned to simulate normal operation conditions as described in ANSI C 63.4.
- The AC power port of the EUT (if available) is connected to a power outlet.
- The measurement distance is as appropriate (e.g. 0.5 m).
- The EUT is set into operation.

Premeasurement

- The test antenna is handheld and moved carefully over the EUT to cover the EUT's whole sphere and different polarizations of the antenna.

Final measurement

- The final measurement is performed at the position and antenna orientation causing the highest emissions with Peak and RMS detector (as described in ANSI C 63.4).
- Final levels, frequency, measuring time, bandwidth, correction factor, margin to the limit and limit are recorded. A plot with the graph of the premeasurement and the limit is stored.

12 Summary of measurement results

☒	No deviations from the technical specifications were ascertained
☐	There were deviations from the technical specifications ascertained
☐	This test report is only a partial test report. The content and verdict of the performed test cases are listed below.

TC Identifier	Description			Verdict		Date		Remark
RF-Testing	CFR Part 15 RSS - 247, Issue 4			See table!		2026-07-06		-
Test specification clause	Test case	Temperature & voltage conditions	Mode	C	NC	NA	NP	Remark
§15.247(b)(4) RSS - 247 / 6.2.3	Antenna gain	Nominal	GFSK	☒	☐	☐	☐	-
§15.247(a)(1) RSS - 247 / 6.2.3	Carrier frequency separation	Nominal	GFSK	☒	☐	☐	☐	-
§15.247(a)(1) RSS - 247 / 6.2.3	Number of hopping channels	Nominal	GFSK	☒	☐	☐	☐	-
§15.247(a)(1) (iii) RSS - 247 / 6.2.3	Time of occupancy (dwell time)	Nominal	GFSK	☒	☐	☐	☐	-
			Pi/4 DQPSK	☒	☐	☐	☐	
			8 DPSK	☒	☐	☐	☐	
§15.247(a)(1) RSS - 247 / 6.2.3	Spectrum bandwidth of a FHSS system bandwidth	Nominal	GFSK	☒	☐	☐	☐	-
			Pi/4 DQPSK	☒	☐	☐	☐	
			8 DPSK	☒	☐	☐	☐	
§15.247(b)(1) RSS - 247 / 6.2.3	Maximum output power	Nominal	GFSK	☒	☐	☐	☐	-
			Pi/4 DQPSK	☒	☐	☐	☐	
			8 DPSK	☒	☐	☐	☐	
§15.205 RSS - 247 / 6.6 RSS - Gen	Band edge compliance radiated	Nominal	GFSK	☒	☐	☐	☐	-
			Pi/4 DQPSK	☒	☐	☐	☐	
			8 DPSK	☒	☐	☐	☐	
§15.247(d) RSS - 247 / 6.6	Spurious emissions conducted	Nominal	GFSK	☒	☐	☐	☐	-
			Pi/4 DQPSK	☒	☐	☐	☐	
			8 DPSK	☒	☐	☐	☐	
§15.209(a) RSS - Gen	Spurious emissions radiated below 30 MHz	Nominal	GFSK	☒	☐	☐	☐	-
§15.247(d) RSS - 247 / 6.6 §15.109 RSS - Gen	Spurious emissions radiated 30 MHz to 1 GHz	Nominal	GFSK	☒	☐	☐	☐	-
§15.247(d) RSS - 247 / 6.6 §15.109 RSS - Gen	Spurious emissions radiated above 1 GHz	Nominal	GFSK	☒	☐	☐	☐	-
§15.107(a) §15.207	Conducted emissions below 30 MHz (AC conducted)	Nominal	GFSK	☐	☐	☒	☐	-

Notes:

C	Compliant	NC	Not compliant	NA	Not applicable	NP	Not performed
----------	-----------	-----------	---------------	-----------	----------------	-----------	---------------

13 Additional comments

The Bluetooth® word mark and logos are owned by the Bluetooth SIG Inc. and any use of such marks by cetecom advanced GmbH is under license.

Reference documents: Bluetooth® Core Specification
1-2366-26-01-06_TR1-A201-R01
Test report no. 1-2366-26-01-07_TR1-R01

Special test descriptions: None

Configuration descriptions: TX tests: were performed with x-DH5 packets and static PRBS pattern payload. RX/Standby tests: BT test mode enabled, scan enabled, TX Idle

Bluetooth EDR capabilities	
Used frequency range	2402 MHz - 2480 MHz
Test channels	lowest: 2402 MHz (Ch 0) middle: 2441 MHz (Ch 39) highest: 2480 MHz (Ch 78)
Number of channels	79 (FHSS), > 15 @ all the time
	More than 70% of band used with more than 20 channels
Channel separation	1 MHz
Bandwidth appr. 1MHz	1MHz, 1.35 MHz, 1.35 MHz for single hop frequency
Modulation types	GFSK, P/4-DQPSK, 8DPSK

Test mode: ☒ Bluetooth test mode enabled
(EUT is controlled via CBT/CMW)
☐ Special software is used.
EUT is transmitting pseudo random data by itself

EUT selection: ☐ Only one device available
☐ Devices selected by the customer
☒ Devices selected by the laboratory (Randomly)

Antennas and transmit ☒ Operating mode 1 (single antenna)

- Equipment with 1 antenna,
- Equipment with 2 diversity antennas operating in switched diversity mode by which at any moment in time only 1 antenna is used,
- Smart antenna system with 2 or more transmit/receive chains, but operating in a mode where only 1 transmit/receive chain is used)

☐ Operating mode 2 (multiple antennas, no beamforming)

- Equipment operating in this mode contains a smart antenna system using two or more transmit/receive chains simultaneously but without beamforming.

☐ Operating mode 3 (multiple antennas, with beamforming)

- Equipment operating in this mode contains a smart antenna system using two or more transmit/receive chains simultaneously with beamforming.
In addition to the antenna assembly gain (G), the beamforming gain (Y) may have to be taken into account when performing the measurements.

14 Measurement results

14.1 Antenna gain

Limits:

FCC	ISED
6 dBi / > 6 dBi output power and power density reduction required	

Results: Extracted from test report no. 1-2366-26-01-07_TR1-R01

T_{nom}	V_{nom}	lowest channel 2402 MHz	middle channel 2441 MHz	highest channel 2480 MHz
Gain [dBi] Calculated		-19.6	-19.1	-16.9

14.2 Carrier frequency separation

Description:

Measurement of the carrier frequency separation of a hopping system. The carrier frequency separation is constant for all modulation-modes. We use GFSK modulation to show compliance. EUT in hopping mode.

Measurement parameters	
External result file	1-2366-26-01-06_TR1-A201-R01 FCC Part 15.247 Carrier Frequency Separation FHSS
Test setup	See sub clause 10.4 setup A
Measurement uncertainty	See sub clause 15

Limits:

FCC	ISED
Carrier frequency separation	
Minimum 25 kHz or two-thirds of the 20 dB bandwidth of the hopping system whichever is greater.	

Result:

Carrier frequency separation	~ 1 MHz
------------------------------	---------

14.3 Number of hopping channels

Description:

Measurement of the total number of used hopping channels. The number of hopping channels is constant for all modulation-modes. We use GFSK-modulation to show compliance. EUT in hopping mode.

Measurement parameters	
External result file	1-2366-26-01-06_TR1-A201-R01 FCC Part 15.247 Number of Hopping Channels FHSS
Test setup	See sub clause 10.4 setup A
Measurement uncertainty	See sub clause 15

Limits:

FCC	ISED
Number of hopping channels	
At least 15 non overlapping hopping channels	

Result:

Number of hopping channels	79
----------------------------	----

14.4 Time of occupancy (dwell time)

Measurement:

For Bluetooth® devices no measurements mandatory depending on the fixed requirements according to the Bluetooth® Core Specifications!

For Bluetooth® devices:

The channel staying time of 0.4 s within a 31.6 second period in data mode is constant for Bluetooth® devices and independent from the packet type (packet length). The calculation for a 31.6 second period is as follows:

Channel staying time = time slot length * hop rate / number of hopping channels * 31.6 s

Example for a DH1 packet (with a maximum length of one time slot)

Channel staying time = $625 \mu\text{s} * 1600 * 1/\text{s} / 79 * 31.6 \text{ s} = 0.4 \text{ s}$ (in a 31.6 s period)

For multi-slot packets the hopping is reduced according to the length of the packet.

Example for a DH3 packet (with a maximum length of three time slots)

Channel staying time = $3 * 625 \mu\text{s} * 1600/3 * 1/\text{s} / 79 * 31.6 \text{ s} = 0.4 \text{ s}$ (in a 31.6 s period)

Example for a DH5 packet (with a maximum length of five time slots)

Channel staying time = $5 * 625 \mu\text{s} * 1600/5 * 1/\text{s} / 79 * 31.6 \text{ s} = 0.4 \text{ s}$ (in a 31.6 s period)

This is according to the Bluetooth® Core Specification 5.3 (and lower) for all Bluetooth® devices and all modulations.

The following table shows the relations:

Packet Size	Pulse Width [ms] *	Max. number of transmissions per channel in 31.6 sec
DH1	0.366	640
DH3	1.622	214
DH5	2.870	128

* according Bluetooth® specification

Results:

Packet Size	Pulse Width [ms]*	Max. number of transmissions in 31.6 sec	Time of occupancy (dwell time) [Pulse width * Number of transmissions]
DH1	0.366	640	234.2 ms
DH3	1.622	214	347.1 ms
DH5	2.870	128	367.4 ms

Limits:

FCC	ISED
Time of occupancy (dwell time)	
The frequency hopping operation shall have an average time of occupancy on any frequency not exceeding 0.4 seconds within a duration in seconds equal to the number of hopping frequencies multiplied by 0.4.	

14.5 Spectrum bandwidth of a FHSS system

Description:

Measurement of the 20dB bandwidth and 99% bandwidth of the modulated signal. EUT in single channel mode.

Measurement parameters	
External result file	1-2366-26-01-06_TR1-A201-R01 FCC Part 15.247 Bandwidth 99PCT
Test setup	See sub clause 8.4 setup A
Measurement uncertainty	See sub clause 9

Limits:

FCC	ISED
Spectrum bandwidth of a FHSS system	
The complete bandwidth has to be within the frequency range of the band.	

Results:

Modulation	20 dB bandwidth [kHz]		
Frequency	2402 MHz	2441 MHz	2480 MHz
GFSK	892	892	891
Pi/4 DQPSK	1255	1258	1252
8DPSK	1250	1249	1251

Results:

Modulation	99 % bandwidth [kHz]		
Frequency	2402 MHz	2441 MHz	2480 MHz
GFSK	849	852	851
Pi/4 DQPSK	1177	1176	1174
8DPSK	1183	1177	1176

14.6 Maximum output power

Description:

Measurement of the maximum output power conducted. EUT in single channel mode.

Measurement parameters	
External result file	1-2366-26-01-06_TR1-A201-R01 FCC Part 15.247 Maximum Peak Conducted Output Power FHSS
Test setup	See sub clause 10.4 setup A
Measurement uncertainty	See sub clause 15

Limits:

FCC	ISED
Maximum output power	
[Conducted: 0.125 W – antenna gain max. 6 dBi] Systems using more than 75 hopping channels: Conducted: 1.0 W – antenna gain max. 6 dBi	

Results:

Modulation	Maximum output power conducted [dBm]		
Frequency	2402 MHz	2441 MHz	2480 MHz
GFSK	5.0	5.5	4.6
Pi/4 DQPSK	5.0	5.5	4.5
8 DPSK	-1.1	-0.6	-1.5

14.7 Band edge compliance radiated

Description:

Measurement of the radiated band edge compliance. The EUT is turned in the position that results in the maximum level at the band edge. Then a sweep over the corresponding restricted band is performed. The EUT is set to single channel mode and the transmit channel is channel 00 for the lower restricted band and channel 78 for the upper restricted band. The measurement is repeated for all modulations. Measurement distance is 3m.

Measurement parameters	
Detector	Peak / RMS
Sweep time	Auto
Resolution bandwidth	1 MHz
Video bandwidth	3 MHz
Span	Lower Band: 2370 – 2400 MHz Upper Band: 2480 – 2500 MHz
Trace mode	Max hold
Test setup	See sub clause 10.2 setup A
Measurement uncertainty	See sub clause 15

Limits:

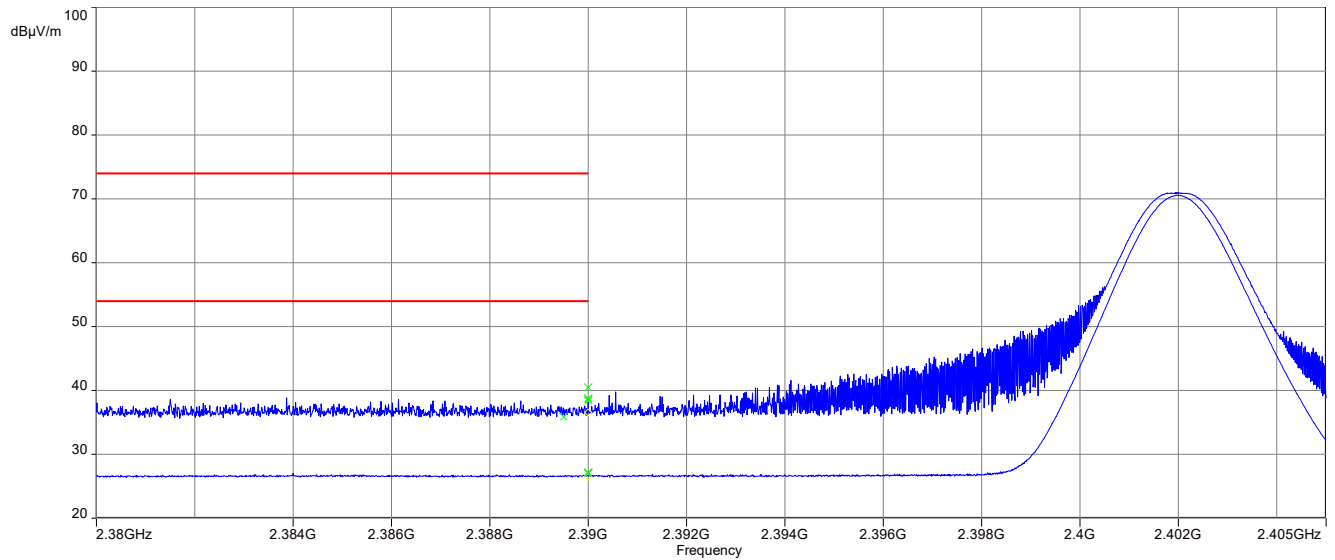
FCC	ISED
Band edge compliance radiated	
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 5.205(c)).	
54 dB μ V/m AVG 74 dB μ V/m Peak	

Results:

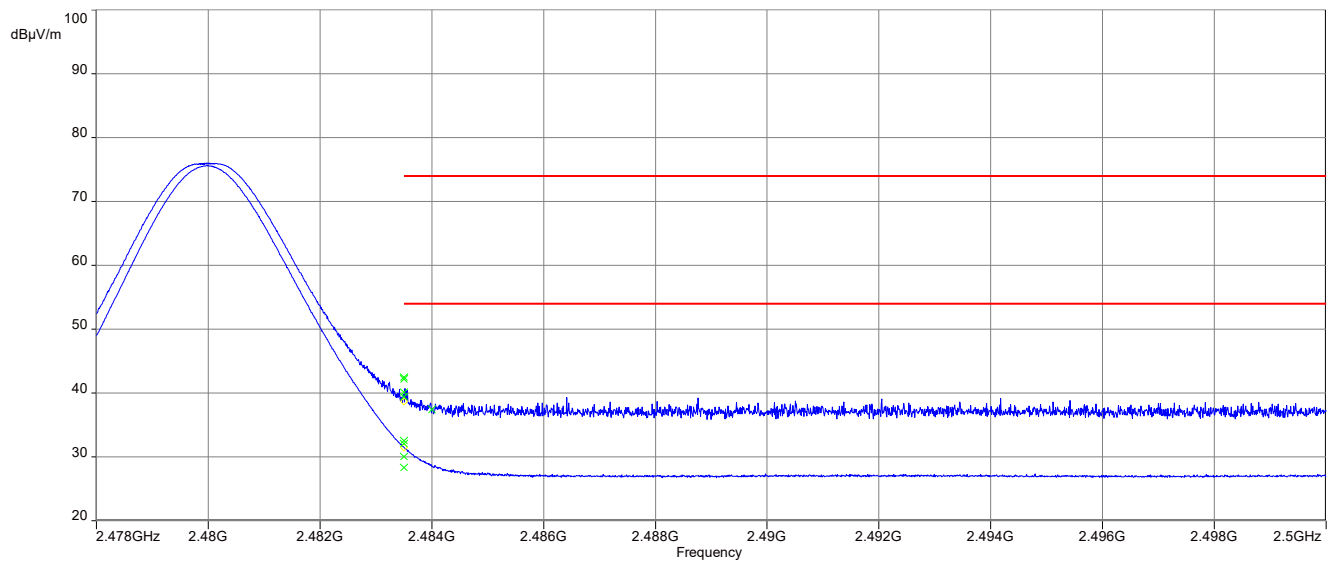
Scenario	Band edge compliance radiated [dB μ V/m@3m]	
Data rate	GFSK	
Lower restricted band	40.5 dB μ V/m	Peak
	27.2 dB μ V/m	AVG
Upper restricted band	42.5 dB μ V/m	Peak
	32.1 dB μ V/m	AVG
Data rate	Pi/4DQPSK	
Lower restricted band	40.9 dB μ V/m	Peak
	27.2 dB μ V/m	AVG
Upper restricted band	47.0 dB μ V/m	Peak
	36.3 dB μ V/m	AVG
Data rate	8DPSK	
Lower restricted band	40.7 dB μ V/m	Peak
	27.1 dB μ V/m	AVG
Upper restricted band	49.2 dB μ V/m	Peak
	33.7 dB μ V/m	AVG

Plots:

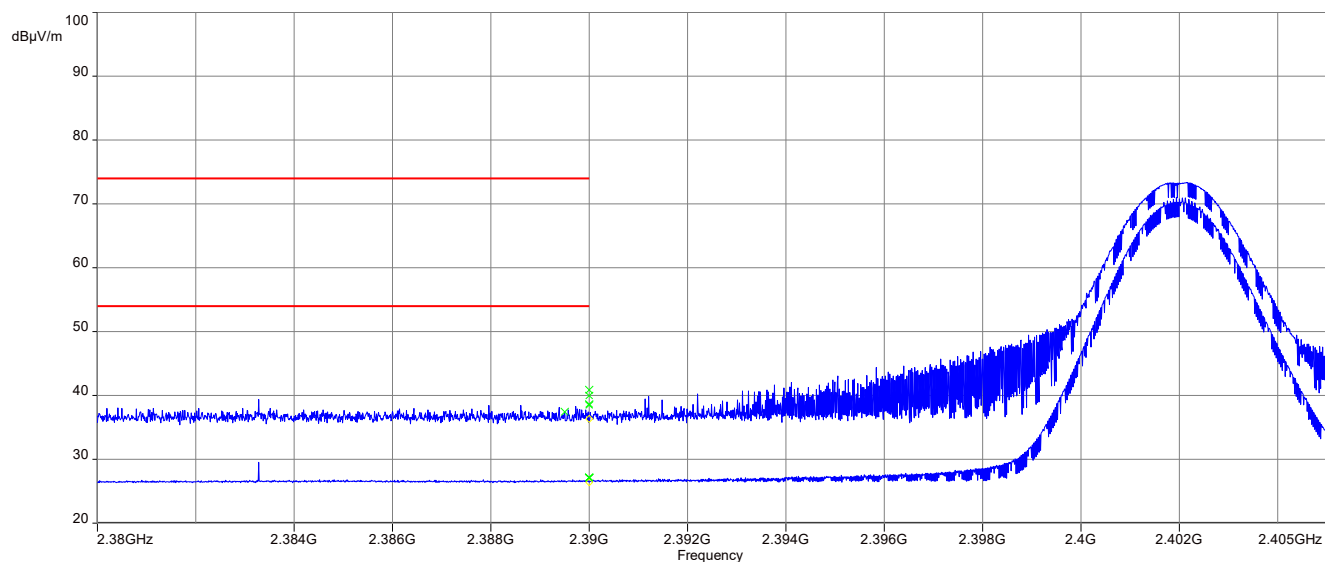
Plot 1: Lower band edge, GFSK modulation, vertical & horizontal polarization



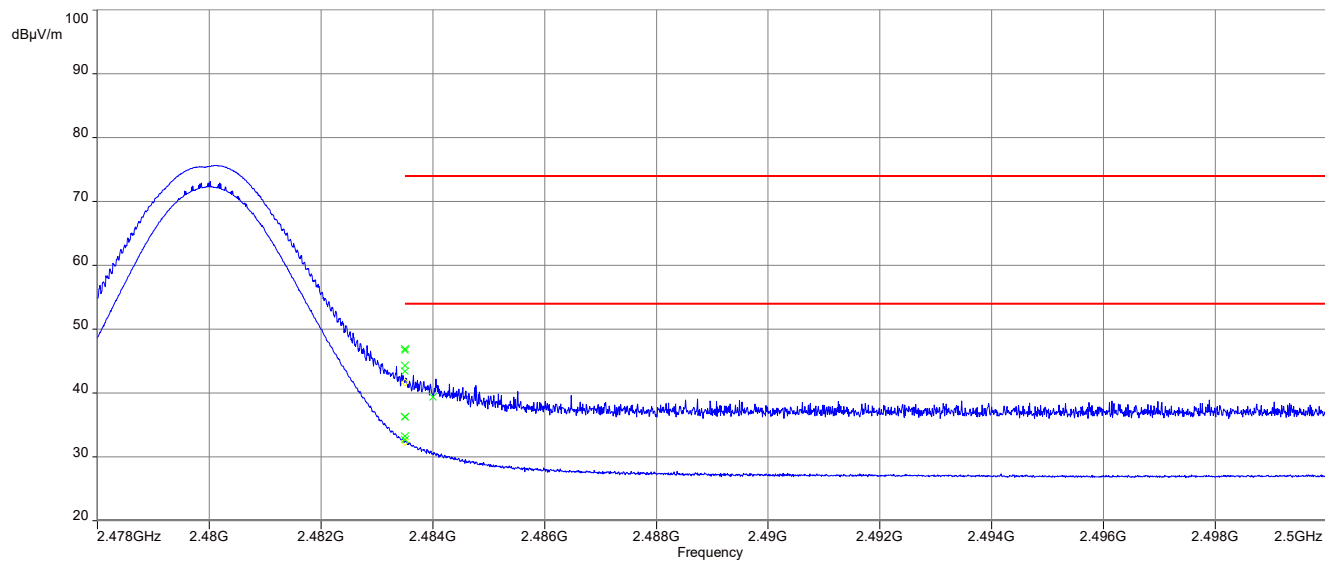
Plot 2: Upper band edge, GFSK modulation, vertical & horizontal polarization



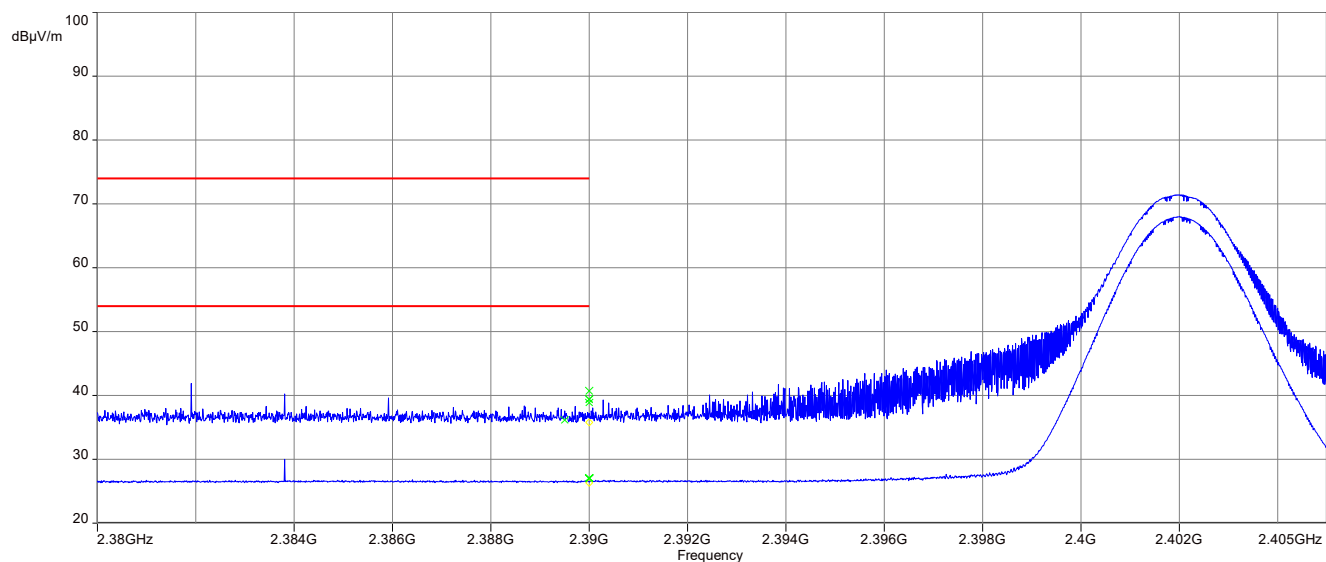
Plot 3: Lower band edge, Pi/4DQPSK modulation, vertical & horizontal polarization



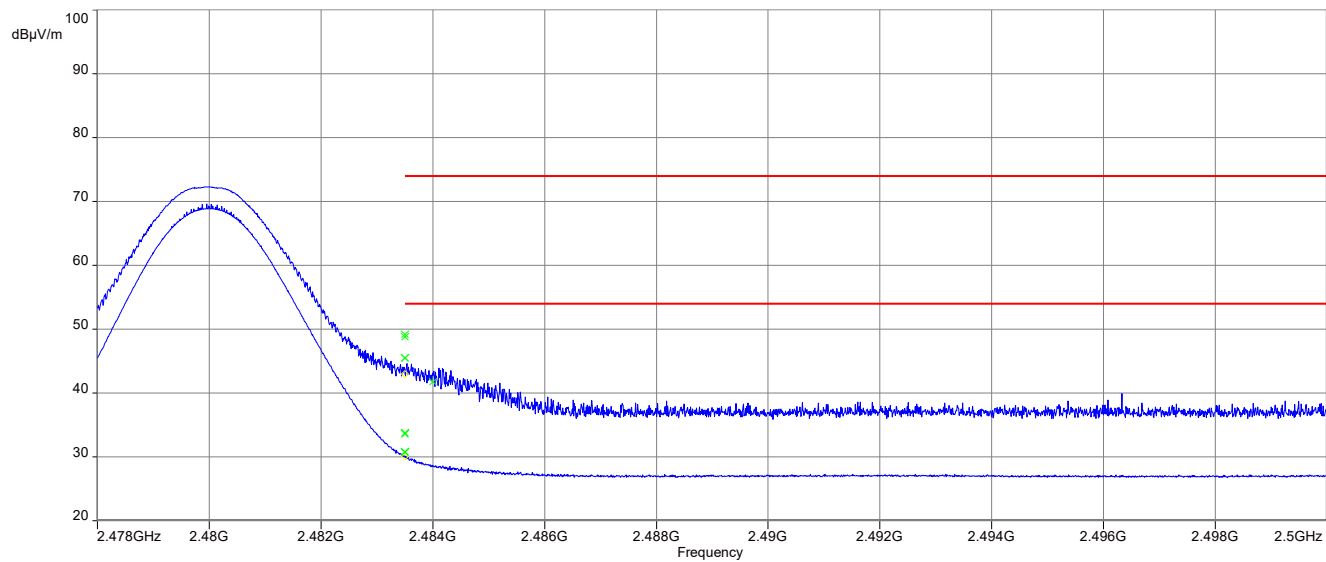
Plot 4: Upper band edge, Pi/4DQPSK modulation, vertical & horizontal polarization



Plot 5: Lower band edge, 8DPSK modulation, vertical & horizontal polarization



Plot 6: Upper band edge, 8DPSK modulation, vertical & horizontal polarization



14.8 Spurious emissions conducted

Description:

Measurement of the conducted spurious emissions in transmit mode. The EUT is set to single channel mode and the transmit channel is channel 00, channel 39 and channel 78. The measurement is repeated for all modulations.

Measurement parameters	
External result file	1-2366-26-01-06_TR1-A201-R01 FCC Part 15.247 TX Spurious Conducted
Test setup	See sub clause 10.4 setup A
Measurement uncertainty	See sub clause 15

Limits:

FCC	ISED
TX spurious emissions conducted	
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required	

Results: Compliant (see external result file)

14.9 Spurious emissions radiated below 30 MHz

Description:

Measurement of the radiated spurious emissions in transmit mode below 30 MHz. The EUT is set to single channel mode and the transmit channels are 00; 39 and 78. The measurement is performed in the mode with the highest output power. The limits are recalculated to a measurement distance of 3 m according to the ANSI C63.10.

Measurement parameters	
Detector	Peak / Quasi peak
Sweep time	Auto
Resolution bandwidth	F < 150 kHz: 200 Hz F > 150 kHz: 9 kHz
Video bandwidth	F < 150 kHz: 1 kHz F > 150 kHz: 100 kHz
Span	9 kHz to 30 MHz
Trace mode	Max hold
Test setup	See sub clause 10.2 setup C
Measurement uncertainty	See sub clause 15

Limits:

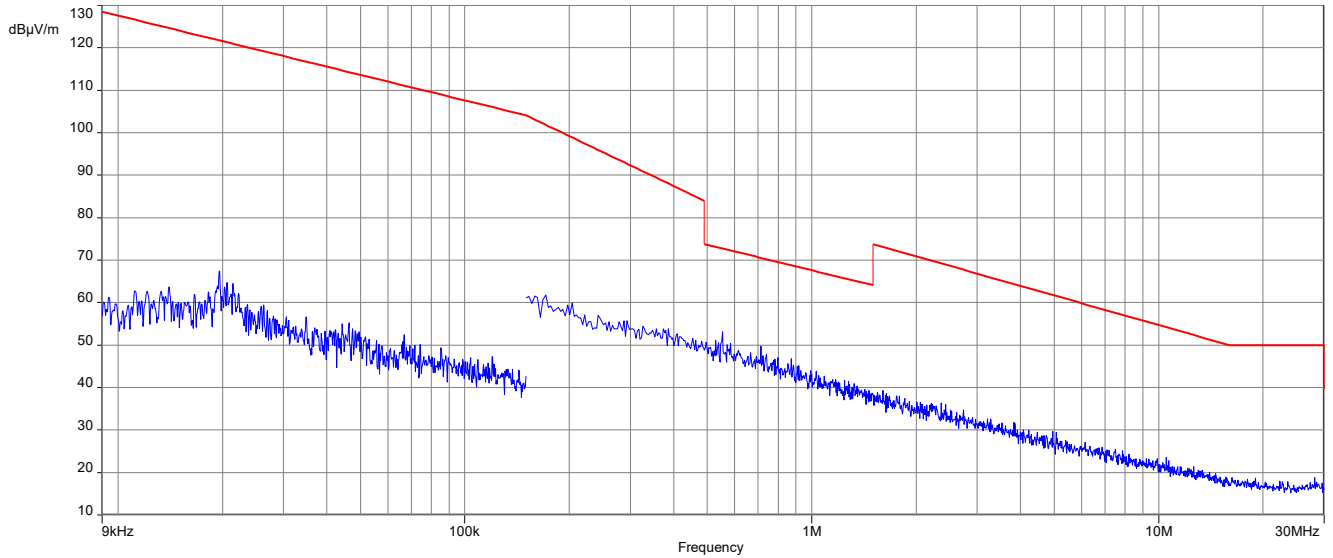
FCC		ISED
TX spurious emissions radiated below 30 MHz		
Frequency (MHz)	Field strength (μV/m)	Measurement distance (m)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30

Results:

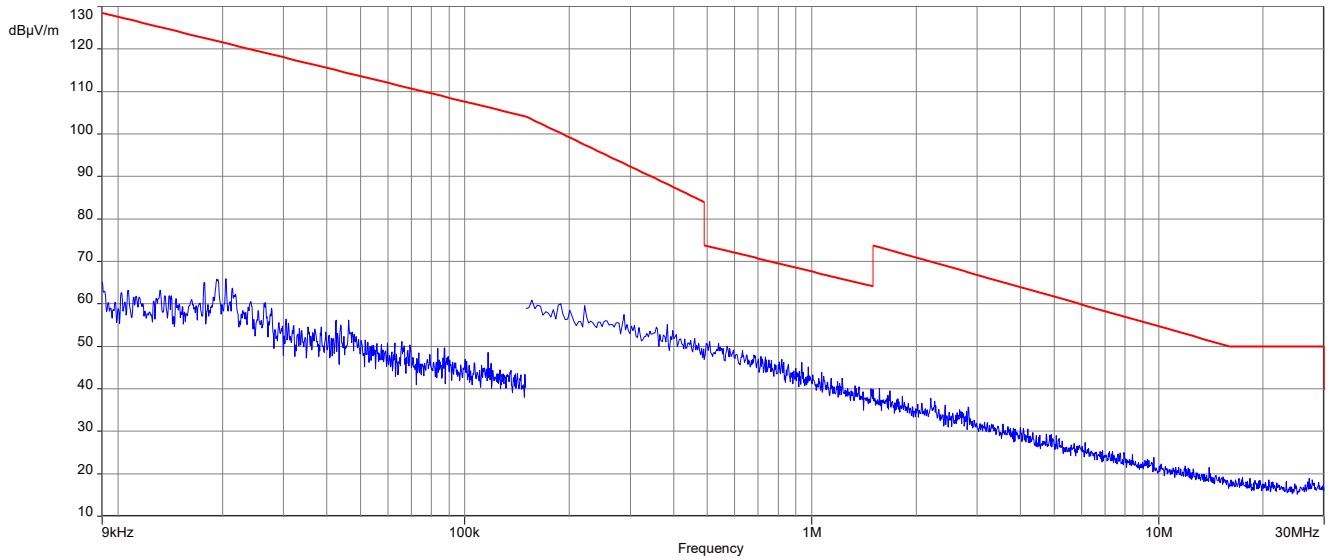
TX spurious emissions radiated below 30 MHz [dBμV/m]			
F [MHz]	Detector	Level [dBμV/m]	Margin [dB]
All detected emissions are more than 20 dB below the limit.			

Plots:

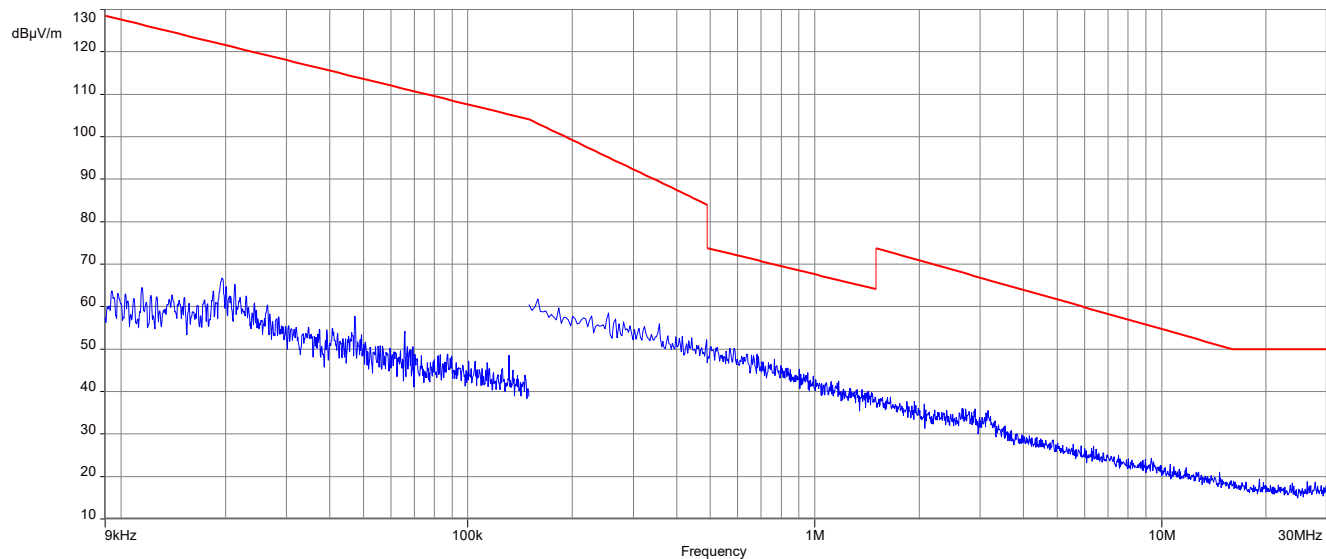
Plot 1: 9 kHz to 30 MHz, channel 00, transmit mode



Plot 2: 9 kHz to 30 MHz, channel 39, transmit mode



Plot 3: 9 kHz to 30 MHz, channel 78, transmit mode



14.10 Spurious emissions radiated 30 MHz to 1 GHz

Description:

Measurement of the radiated spurious emissions in transmit mode. The EUT is set to single channel mode and the transmit channel is channel 00, channel 39 and channel 78. The measurement is performed in the mode with the highest output power.

Measurement parameters	
Detector	Peak / Quasi Peak
Sweep time	Auto
Resolution bandwidth	120 kHz
Video bandwidth	3 x RBW
Span	30 MHz to 1 GHz
Trace mode	Max hold
Measured modulation	☒ GFSK ☐ Pi/4 DQPSK ☐ 8DPSK
Test setup	See sub clause 10.1 setup A
Measurement uncertainty	See sub clause 15

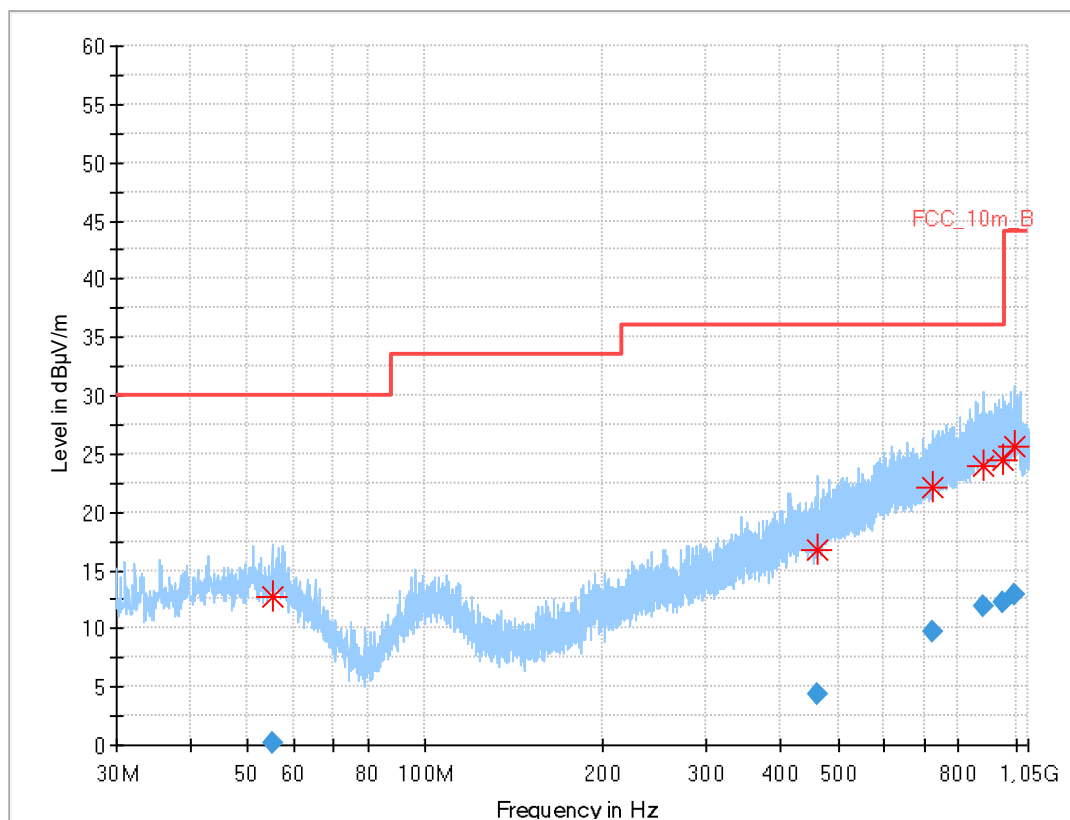
The modulation with the highest output power was used to perform the transmitter spurious emissions. If spurious were detected a re-measurement was performed on the detected frequency with each modulation.

Limits:

FCC		ISED
TX spurious emissions radiated		
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).		
§15.209		
Frequency (MHz)	Field strength (dBµV/m)	Measurement distance (m)
30 - 88	30.0	10
88 – 216	33.5	10
216 – 960	36.0	10
Above 960	54.0	3

Plots: Transmit mode

Plot 1: 30 MHz to 1 GHz, TX mode, vertical & horizontal polarization (valid for all channels)



Final results:

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
55.061520	0.23	30.00	29.77	1000.0	120.000	138.0	V	199.0	14.7
461.704080	4.40	36.00	31.60	1000.0	120.000	195.0	H	-32.0	18.0
722.622000	9.69	36.00	26.31	1000.0	120.000	195.0	H	4.0	22.3
883.487880	11.96	36.00	24.04	1000.0	120.000	124.0	V	-23.0	24.5
954.630240	12.29	36.00	23.71	1000.0	120.000	195.0	V	199.0	24.8
994.867440	12.89	44.00	31.11	1000.0	120.000	195.0	H	104.0	25.3

14.11 Spurious emissions radiated above 1 GHz

Description:

Measurement of the radiated spurious emissions in transmit mode. The EUT is set to single channel mode and the transmit channel is channel 00, channel 39 and channel 78. The measurement is performed in the mode with the highest output power.

Measurement parameters	
Detector	Peak / RMS
Sweep time	Auto
Resolution bandwidth	1 MHz
Video bandwidth	3 x RBW
Span	1 GHz to 26 GHz
Trace mode	Max hold
Measured modulation	☒ GFSK ☐ Pi/4 DQPSK ☐ 8DPSK
Test setup	See sub clause 10.2 setup B (1 GHz - 18 GHz) See sub clause 10.3 setup A (18 GHz - 26 GHz)
Measurement uncertainty	See sub clause 15

The modulation with the highest output power was used to perform the transmitter spurious emissions. If spurious were detected a re-measurement was performed on the detected frequency with each modulation.

Limits:

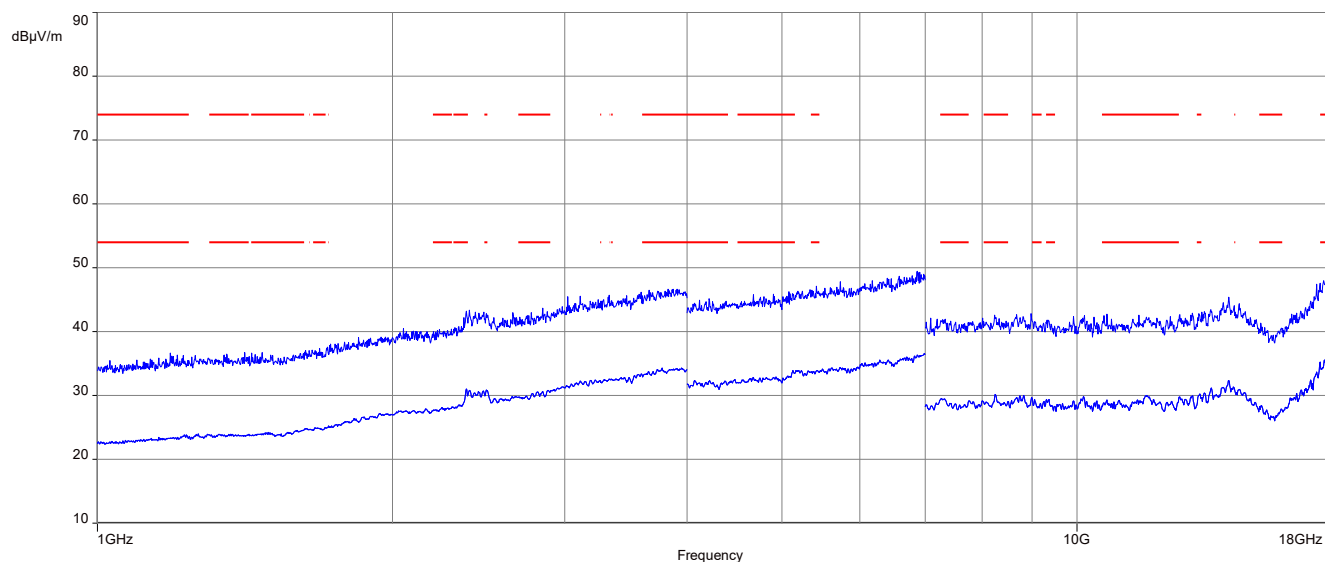
FCC		ISED
TX spurious emissions radiated		
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).		
§15.209		
Frequency (MHz)	Field strength (dBµV/m)	Measurement distance (m)
Above 960	54.0	3

Results: Transmitter mode

TX spurious emissions radiated [dBμV/m]											
2402 MHz				2441 MHz				2480 MHz			
F [MHz]	Detector	Level [dBμV/m]	Margin [dB]	F [MHz]	Detector	Level [dBμV/m]	Margin [dB]	F [MHz]	Detector	Level [dBμV/m]	Margin [dB]
All detected emissions are more than 20 dB below the limit.											
	Peak				Peak				Peak		
	AVG				AVG				AVG		
	Peak				Peak				Peak		
	AVG				AVG				AVG		

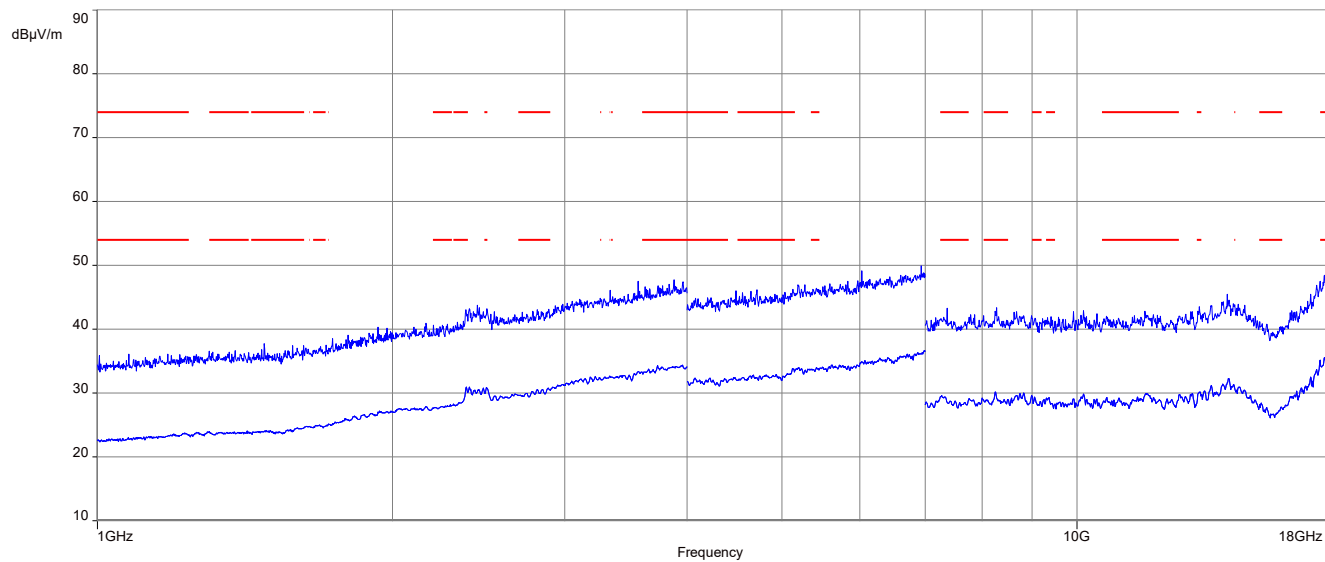
Plots: Transmitter mode

Plot 1: 1 GHz to 18 GHz, TX mode, channel 00, vertical & horizontal polarization



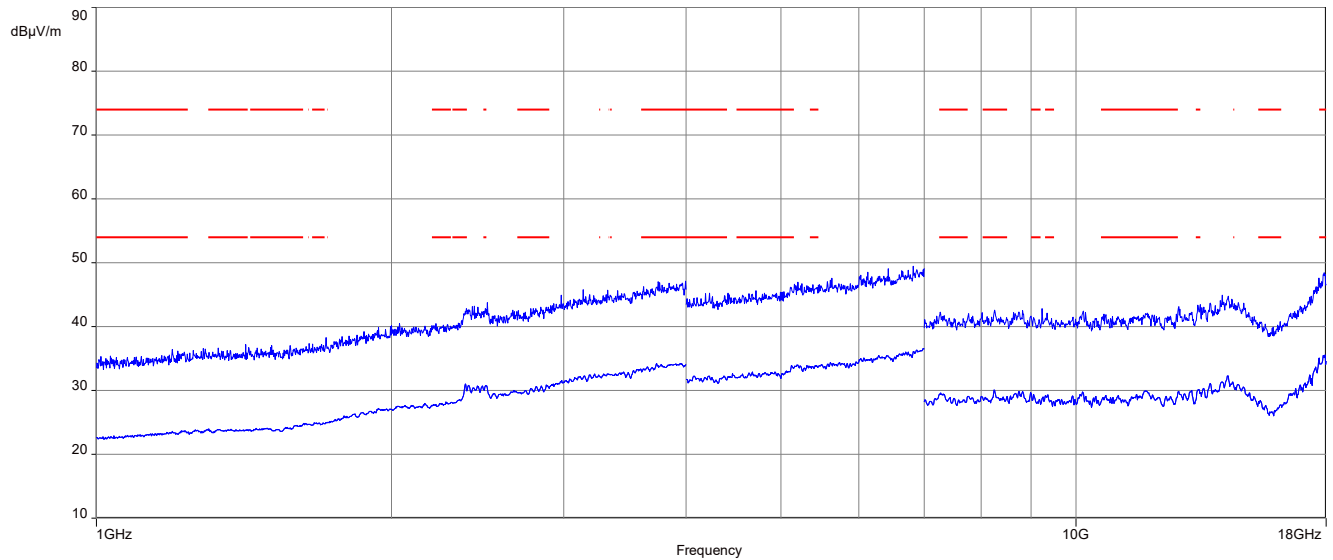
The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 2: 1 GHz to 18 GHz, TX mode, channel 39, vertical & horizontal polarization



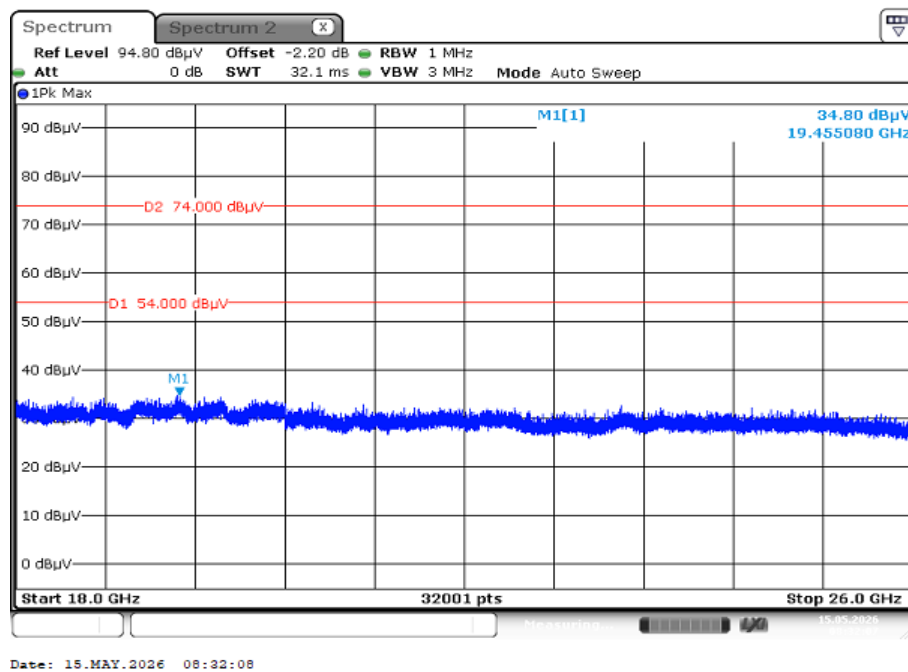
The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 3: 1 GHz to 18 GHz, TX mode, channel 78, vertical & horizontal polarization



The carrier signal is notched with a 2.4 GHz band rejection filter.

Plot 4: 18 GHz to 26 GHz, TX mode, vertical & horizontal polarization, valid for all channels and modes



15 Measurement uncertainty

Measurement uncertainty	
Test case	Uncertainty
Antenna gain	± 3 dB
Carrier frequency separation	± 21.5 kHz
Number of hopping channels	-/-
Time of occupancy	According BT Core specification
Spectrum bandwidth	± 21.5 kHz absolute; ± 15.0 kHz relative
Maximum output power	± 1 dB
Detailed conducted spurious emissions @ the band edge	± 1 dB
Band edge compliance radiated	± 3 dB
Spurious emissions conducted	± 3 dB
Spurious emissions radiated below 30 MHz	± 3 dB
Spurious emissions radiated 30 MHz to 1 GHz	± 4.1 dB
Spurious emissions radiated 1 GHz to 12.75 GHz	± 3.7 dB
Spurious emissions radiated above 12.75 GHz	± 4.5 dB
Spurious emissions conducted below 30 MHz (AC conducted)	± 2.6 dB

END OF TEST REPORT