Annex 1: Measurement diagrams to Test Report 20-1-0159101T01a-A1

Number of pages:	52	**Date of Report:**	2021-May-12
Testing company:	CETECOM GmbH Im Teelbruch 116 45219 Essen Germany Tel. + 49 (0) 20 54 / 95 19-0 Fax: + 49 (0) 20 54 / 95 19-150	**Applicant:**	MobilityCloud Inc.
Product: **Model:**	**Bikeshare System Controller** **QR Controller**		
FCC ID:	2AY2H010321QR1	**IC:**	27012-010321QR1
Testing has been carried out in accordance with:	**Title 47 CFR, Chapter I** **FCC Regulations, Subchapter A** Subpart C: §15.247 (DTS) , **RSS-247, Issue 2 (DTS)** **RSS-Gen., Issue 5** Deviations, modifications or clarifications (if any) to above mentioned documents are written in each section under "Test method and limit".		

The test results relate only to the individual items which have been tested. This report shall not be reproduced in parts without the written approval of the testing laboratory © Copyright: All rights reserved by CETECOM

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1 Measurement diagrams

1.1 Radiated measurements

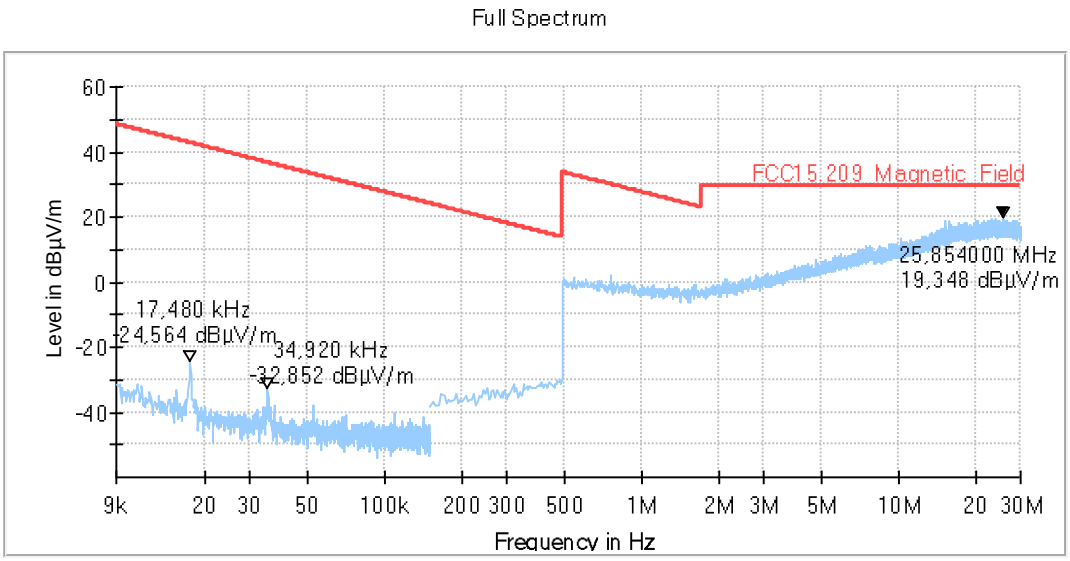
2.01a_BLE_low_laying

Common Information

Test Description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used Filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
	BLE Low channel
Operator:	GHu
Operating Mode:	ch01
Comment 1:	-
Comment 2:	-
Environmental Conditions::	Humidity : 41%rH; Temperature: 21°C
EUT Setup:	1
Verdict:	Passed
Comment:	laying

EUT Information

PMT number:	20-1-01591S11_C01



2.01a_BLE_low_standing

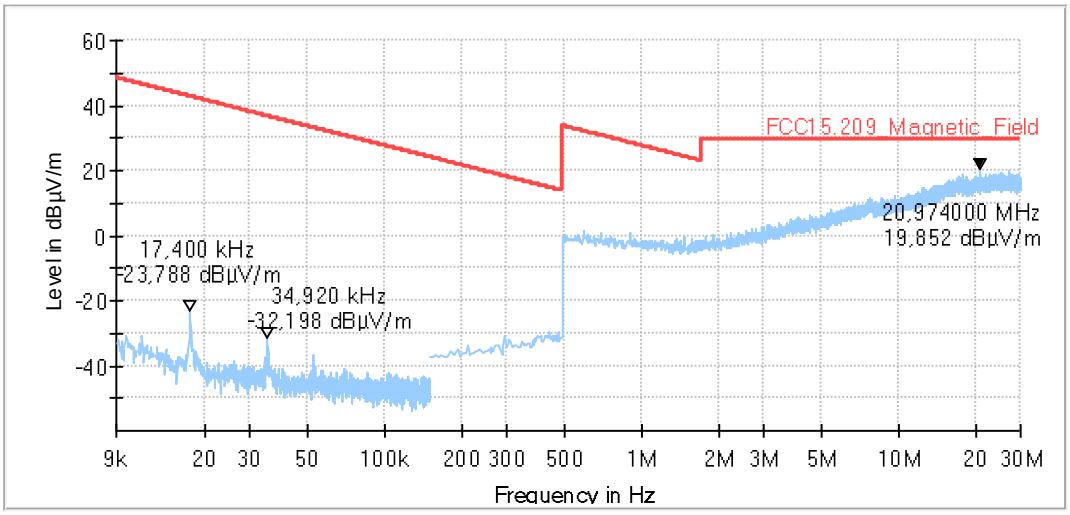
Common Information

Test Description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used Filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
	BLE Low channel
Operator:	GHu
Operating Mode:	ch01
Comment 1:	-
Comment 2:	-
Environmental Conditions::	Humidity : 41%rH; Temperature: 21°C
EUT Setup:	1
Verdict:	Passed
Comment:	

EUT Information

PMT number:	20-1-01591S11_C01

Full Spectrum



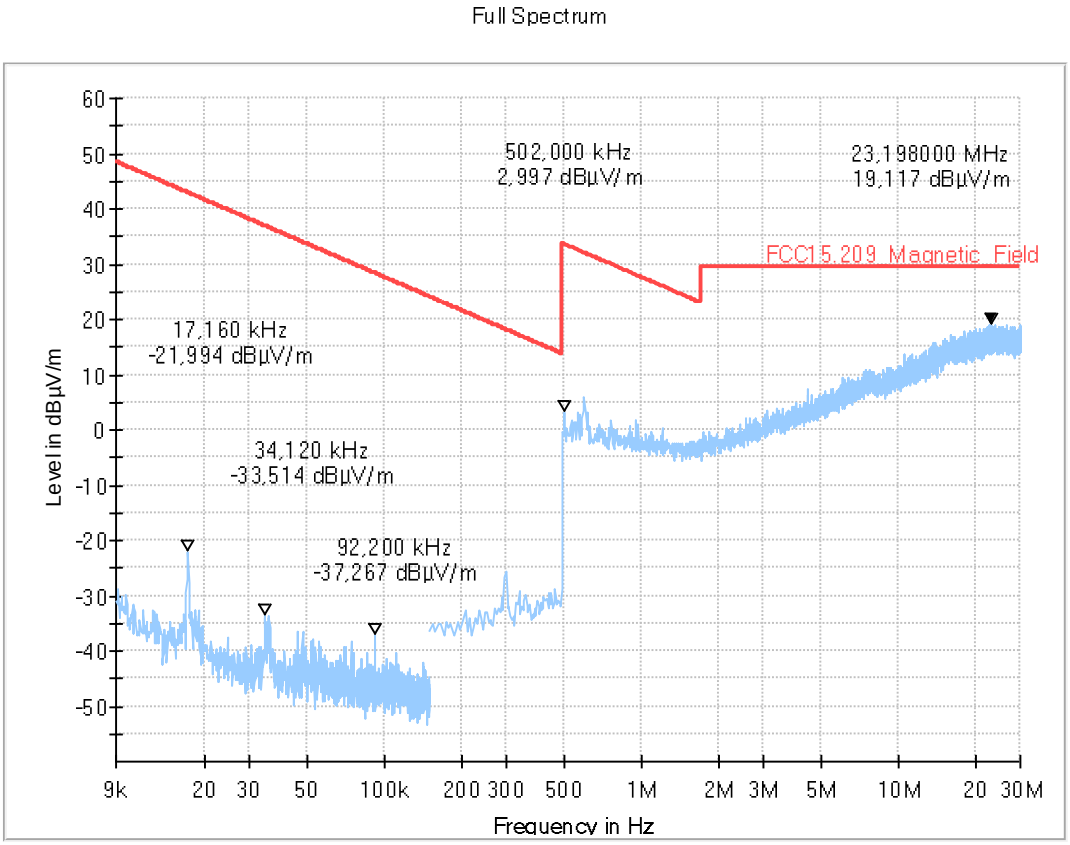
2.02a_BLE_mid_laying

Common Information

Test Description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used Filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
Operator:	TFra
Operating Mode:	BLE 2440 MHz
Comment 2:	-
Environmental Conditions::	Humidity : 40%rH; Temperature: 20°C
EUT Setup:	1
Verdict:	Passed
Comment:	-

EUT Information

PMT number:	20-1-01591S11_C01



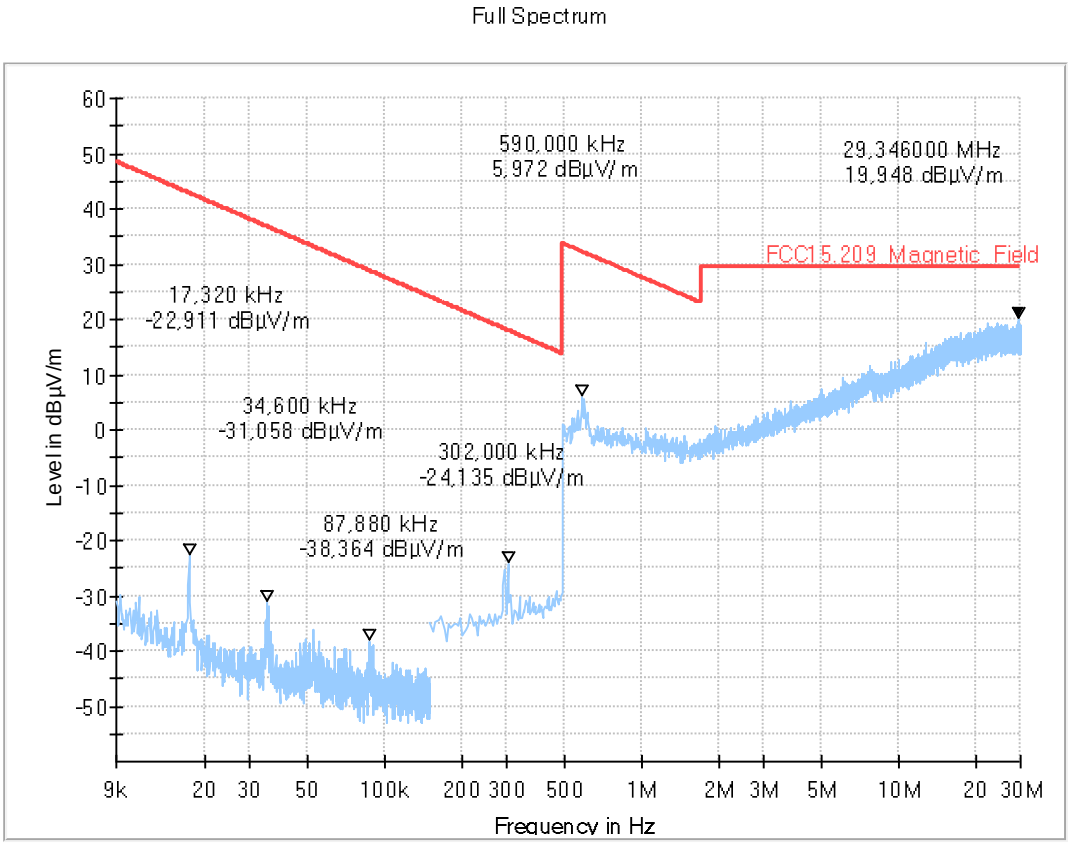
2.02b_BLE_mid_standing

Common Information

Test Description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used Filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
Operator:	TFra
Operating Mode:	BLE 2440 MHz
Comment 2:	-
Environmental Conditions::	Humidity : 40%rH; Temperature: 20°C
EUT Setup:	1
Verdict:	Passed
Comment:	-

EUT Information

PMT number:	20-1-01591S11_C01



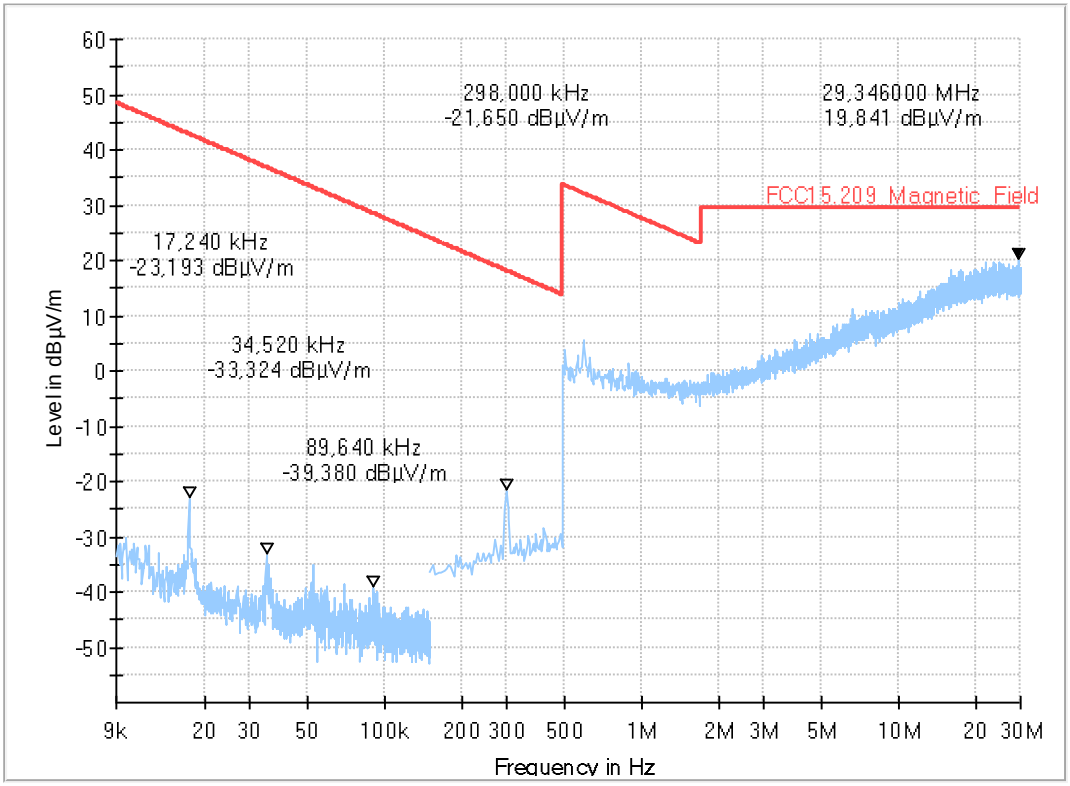
2.03a_BLE_high_laying

Common Information

Test Description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used Filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
Operator:	TFra
Operating Mode:	BLE 2480 MHz
Comment 2:	-
Environmental Conditions::	Humidity : 40%rH; Temperature: 20°C
EUT Setup:	1
Verdict:	Passed
Comment:	-

EUT Information

PMT number:	20-1-01591S11_C01



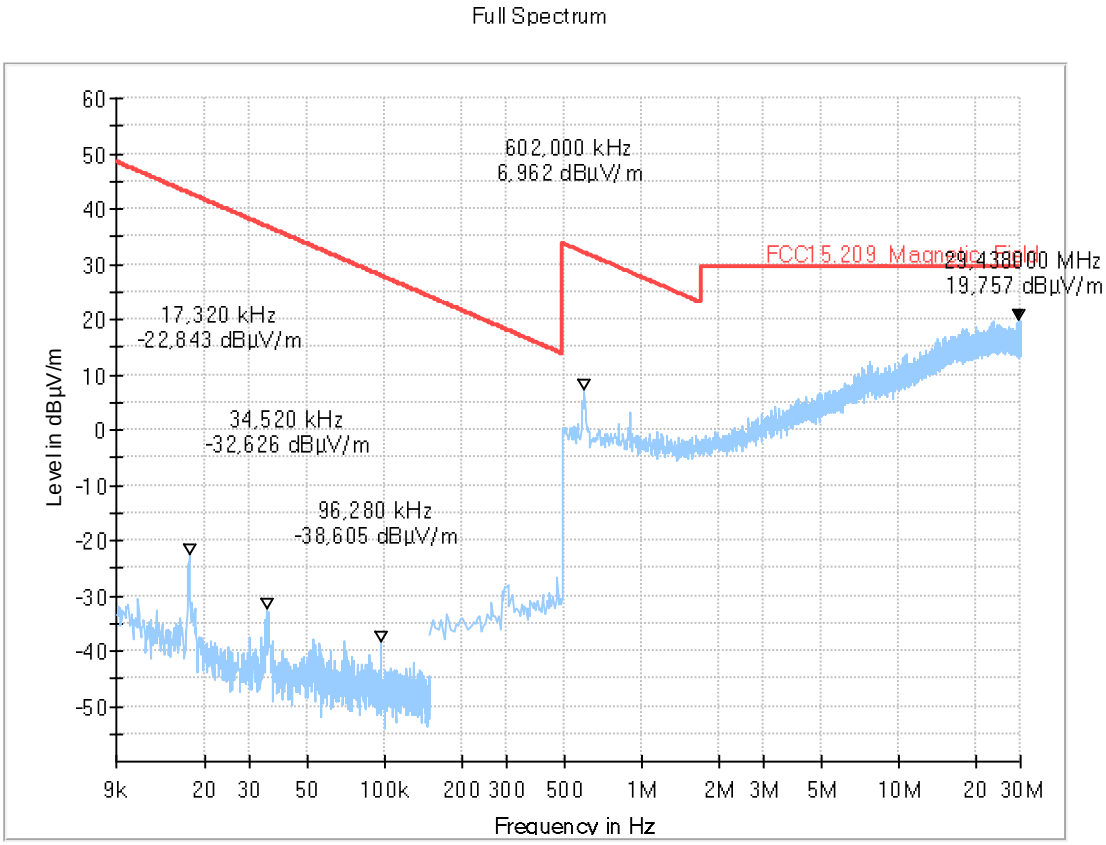
2.03b_BLE_high_standing

Common Information

Test Description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used Filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
Operator:	TFra
Operating Mode:	BLE 2480 MHz
Comment 2:	-
Environmental Conditions::	Humidity : 40%rH; Temperature: 20°C
EUT Setup:	1
Verdict:	Passed
Comment:	-

EUT Information

PMT number:	20-1-01591S11_C01



3.01a_BLE_low_laying

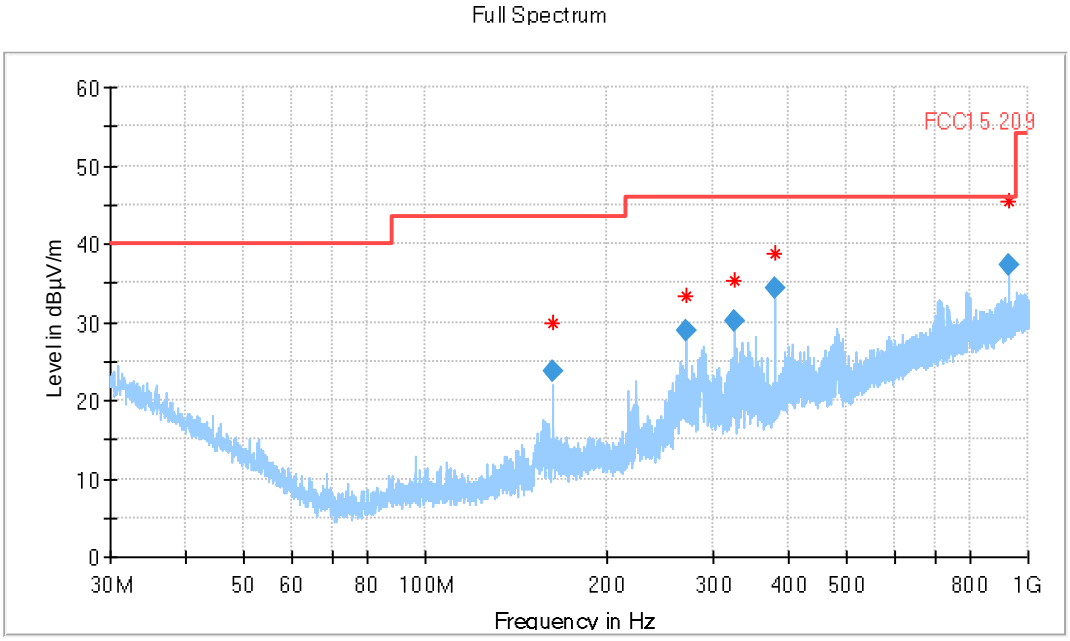
Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.205&15.209 & RSS Gen. Issue 5
Antenna polarisation:	horizontal/vertical
Environmental Conditions::	Humidity : 40%rH; Temperature: 20°C
Operating Mode:	BLE _ CH : Low_ 2402 MHz
Comment:	-
Verdict:	Passed

EUT Information

PMT number:	20-1-01591S11_C01

Full Spectrum



Remark: The peak at 928 MHz is known external disturbance and does not come from EUT.

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Comment
162.724000	23.60	43.50	19.90	120.000	200.0	H	258.0	9.5	18:07:47 - 26.01.2021
271.210000	28.83	46.00	17.17	120.000	120.0	H	104.0	14.6	17:57:24 - 26.01.2021
325.450000	30.25	46.00	15.75	120.000	100.0	H	280.0	16.1	18:02:41 - 26.01.2021
379.686000	34.21	46.00	11.79	120.000	263.0	H	96.0	17.4	17:51:35 - 26.01.2021
928.316000	37.20	46.00	8.80	120.000	338.0	V	48.0	27.0	18:13:10 - 26.01.2021

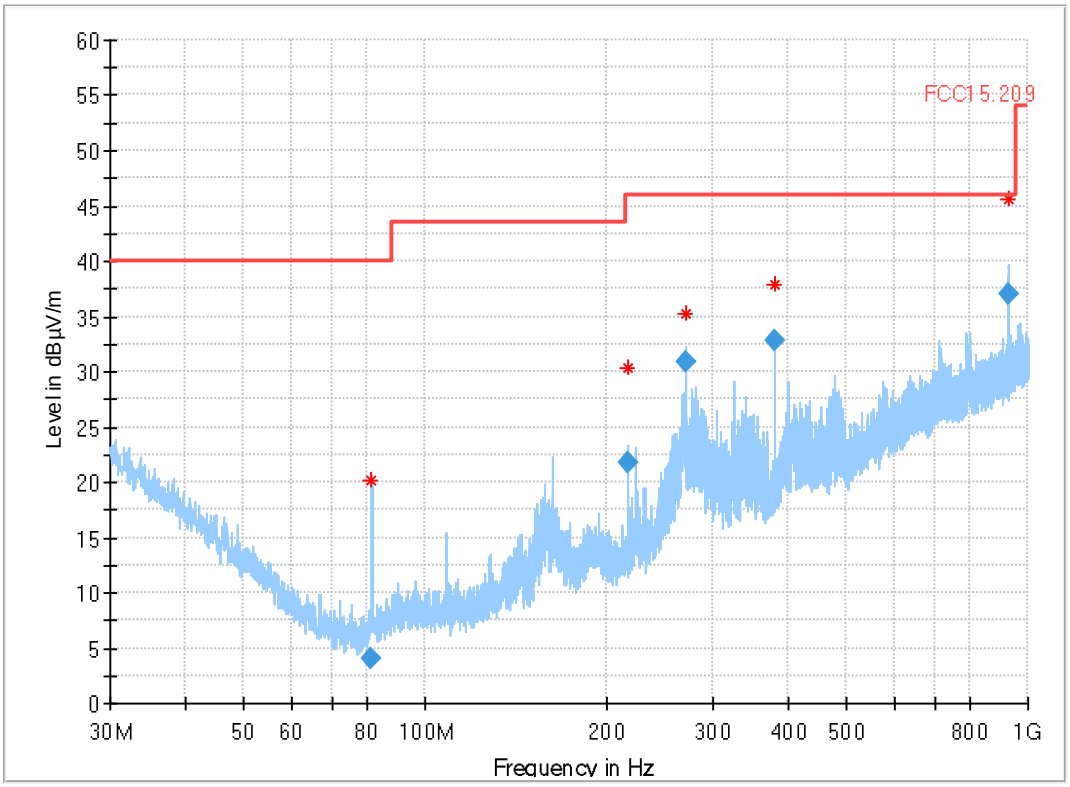
3.01b_BLE_low_standing

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.205&15.209 & RSS Gen. Issue 5
Antenna polarisation:	horizontal/vertical
Environmental Conditions::	Humidity : 40%rH; Temperature: 20°C
Operating Mode:	BLE _ CH : Low_ 2402 MHz
Comment:	-
Verdict:	Passed

EUT Information

PMT number:	20-1-01591S11_C01



Remark: The peak at 928 MHz is known external disturbance and does not come from EUT.

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Comment
81.524000	4.06	40.00	35.94	120.000	145.0	V	222.0	7.2	19:21:25 - 26.01.2021
217.004000	21.79	46.00	24.21	120.000	148.0	H	334.0	12.0	19:01:12 - 26.01.2021
271.196000	30.93	46.00	15.07	120.000	115.0	H	200.0	14.6	19:06:27 - 26.01.2021
379.652000	32.89	46.00	13.11	120.000	104.0	H	201.0	17.4	19:11:26 - 26.01.2021
928.372000	37.07	46.00	8.93	120.000	146.0	H	306.0	27.0	19:16:23 - 26.01.2021

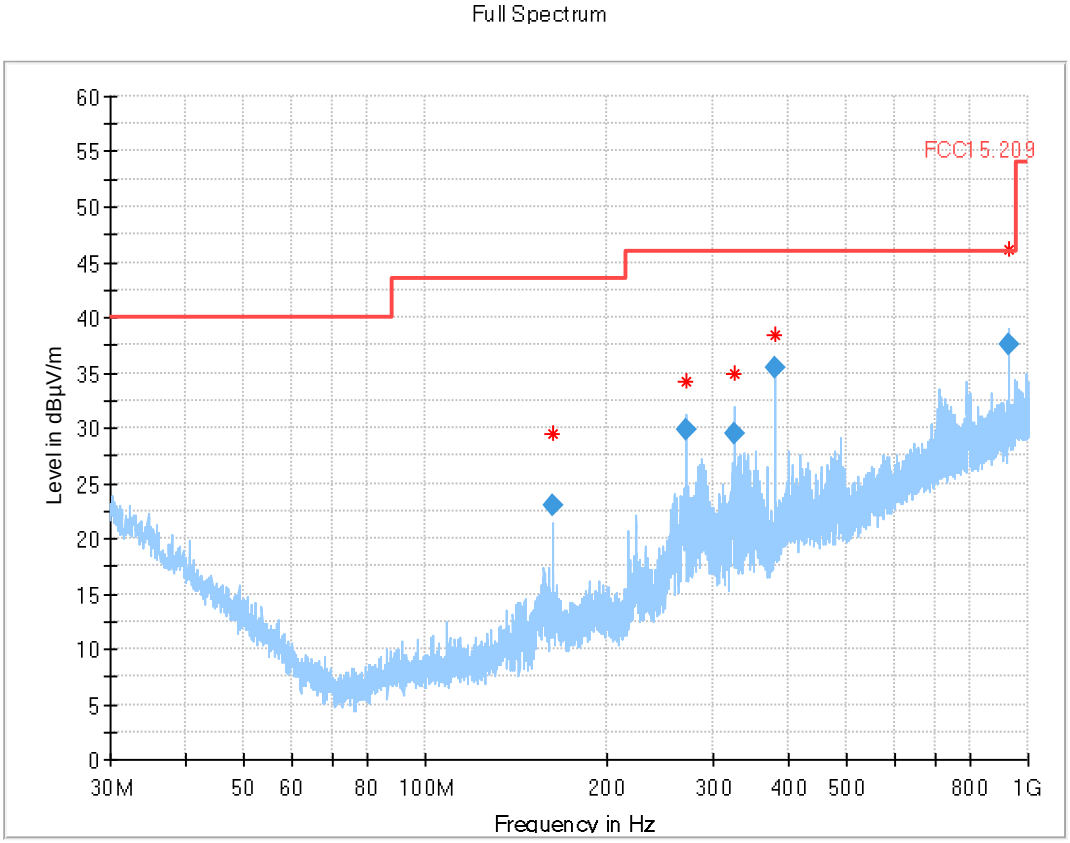
3.02a_BLE_mid_laying

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.205&15.209 & RSS Gen. Issue 5
Antenna polarisation:	horizontal/vertical
Environmental Conditions::	Humidity : 40%rH; Temperature: 20°C
Operating Mode:	BLE _ CH : Mid_ 2440 MHz
Comment:	-
Verdict:	Passed

EUT Information

PMT number:	20-1-01591S11_C01



Remark: The peak at 928 MHz is known external disturbance and does not come from EUT.

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Comment
162.712000	22.96	43.50	20.54	120.000	164.0	H	258.0	9.5	20:09:43 - 26.01.2021
271.224000	29.77	46.00	16.23	120.000	100.0	H	264.0	14.6	19:54:05 - 26.01.2021
325.424000	29.44	46.00	16.56	120.000	107.0	H	276.0	16.1	19:59:03 - 26.01.2021
379.696000	35.38	46.00	10.63	120.000	100.0	H	100.0	17.4	20:04:14 - 26.01.2021
928.368000	37.59	46.00	8.41	120.000	360.0	V	127.0	27.0	20:14:43 - 26.01.2021

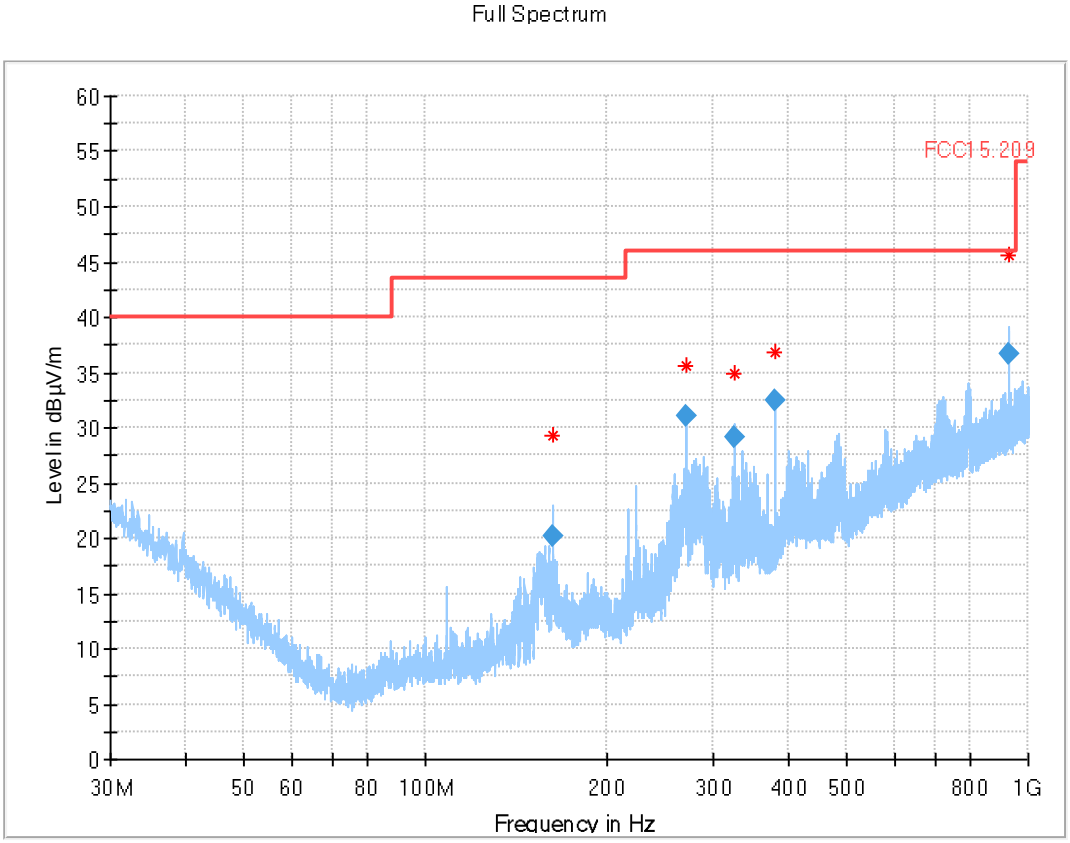
3.02b_BLE_mid_standing

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.205&15.209 & RSS Gen. Issue 5
Antenna polarisation:	horizontal/vertical
Environmental Conditions::	Humidity : 40%rH; Temperature: 20°C
Operating Mode:	BLE _ CH : Mid_ 2440 MHz
Comment:	-
Verdict:	Passed

EUT Information

PMT number:	20-1-01591S11_C01



Remark: The peak at 928 MHz is known external disturbance and does not come from EUT.

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Comment
162.780000	20.19	43.50	23.31	120.000	229.0	H	26.0	9.5	21:10:04 - 26.01.2021
271.198000	31.05	46.00	14.95	120.000	107.0	H	316.0	14.6	20:54:56 - 26.01.2021
325.452000	29.19	46.00	16.81	120.000	100.0	H	153.0	16.1	21:00:02 - 26.01.2021
379.724000	32.43	46.00	13.57	120.000	249.0	H	177.0	17.4	21:04:53 - 26.01.2021
928.358000	36.65	46.00	9.35	120.000	267.0	V	295.0	27.0	21:14:47 - 26.01.2021

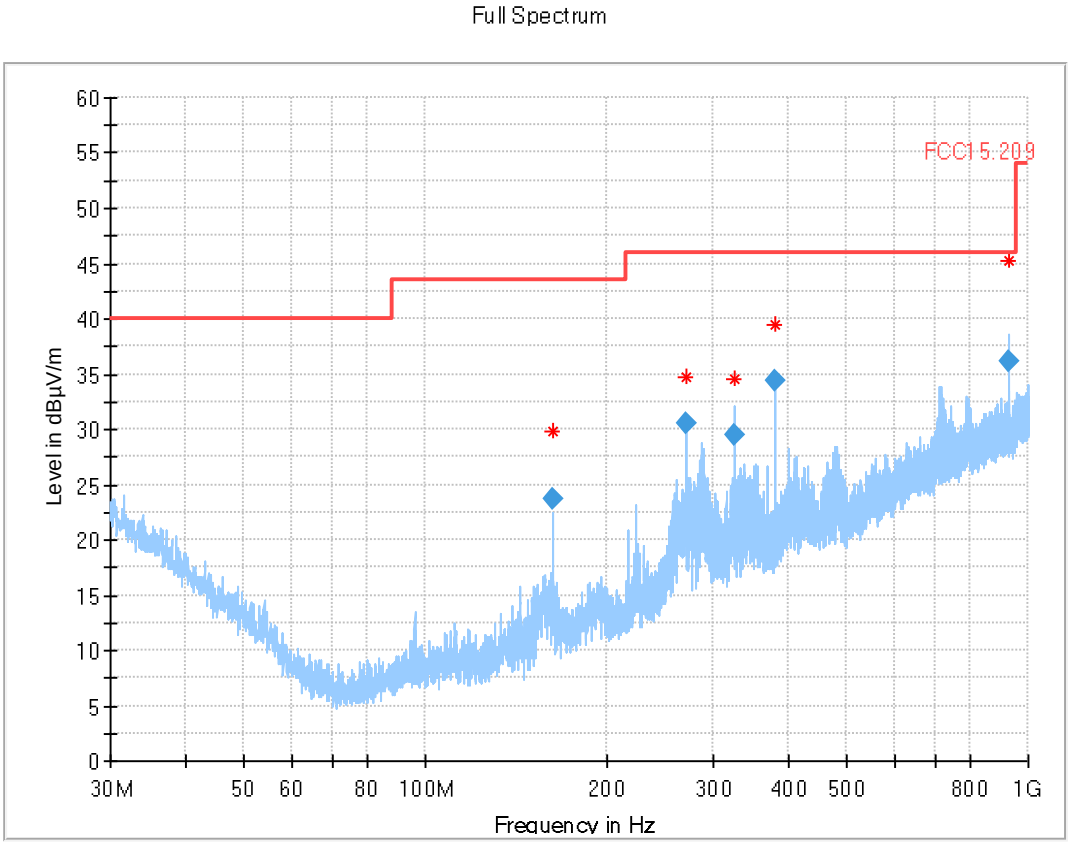
3.03a_BLE_high_laying

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.205&15.209 & RSS Gen. Issue 5
Antenna polarisation:	horizontal/vertical
Environmental Conditions::	Humidity : 40%rH; Temperature: 20°C
Operating Mode:	BLE _ CH : High_ 2480 MHz
Comment:	-
Verdict:	Passed

EUT Information

PMT number:	20-1-01591S11_C01



Remark: The peak at 928 MHz is known external disturbance and does not come from EUT.

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Comment
162.732000	23.72	43.50	19.78	120.000	190.0	H	258.0	9.5	22:15:30 - 26.01.2021
271.212000	30.47	46.00	15.53	120.000	100.0	H	265.0	14.6	22:05:31 - 26.01.2021
325.426000	29.53	46.00	16.47	120.000	104.0	H	271.0	16.1	22:10:28 - 26.01.2021
379.654000	34.33	46.00	11.67	120.000	103.0	H	94.0	17.4	21:55:35 - 26.01.2021
928.396000	36.14	46.00	9.86	120.000	368.0	H	236.0	27.0	22:00:04 - 26.01.2021

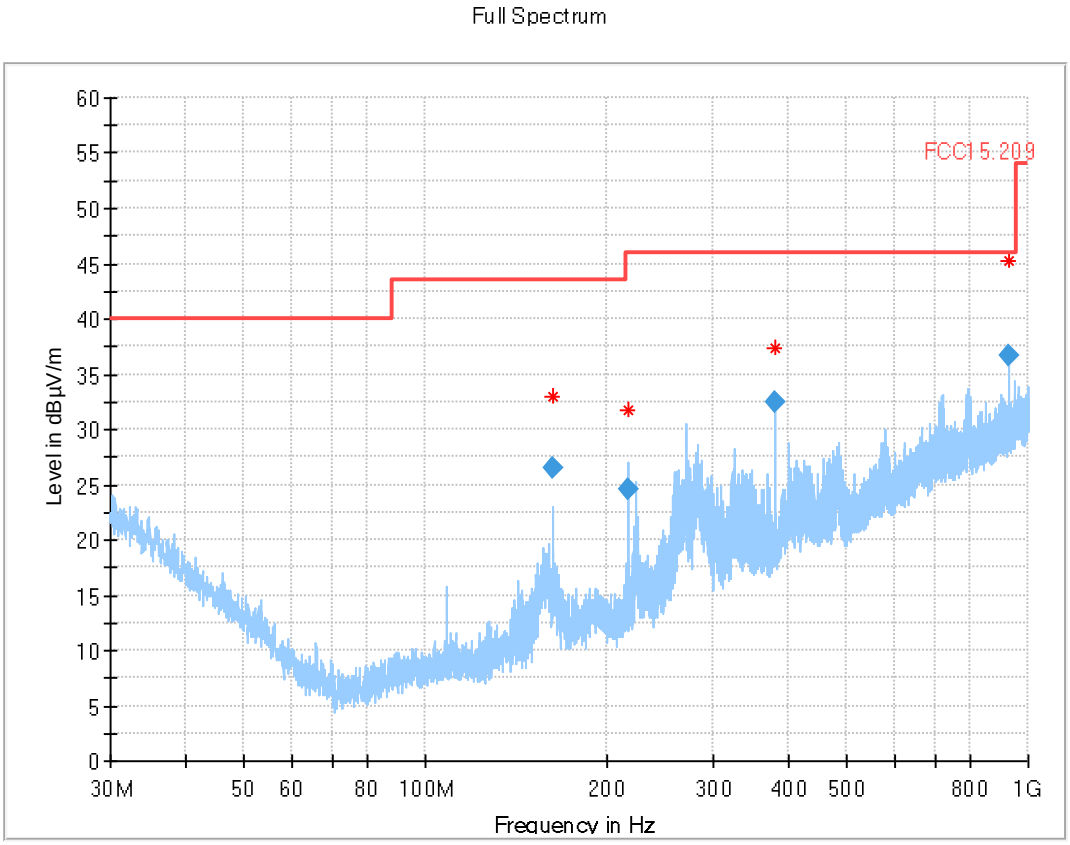
3.03b_BLE_high_standing

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.205&15.209 & RSS Gen. Issue 5
Antenna polarisation:	horizontal/vertical
Environmental Conditions::	Humidity : 40%rH; Temperature: 20°C
Operating Mode:	BLE _ CH : High_ 2480 MHz
Comment:	-
Verdict:	Passed

EUT Information

PMT number:	20-1-01591S11_C01



Remark: The peak at 928 MHz is known external disturbance and does not come from EUT.

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Comment
162.728000	26.41	43.50	17.09	120.000	174.0	H	35.0	9.5	22:53:26 - 26.01.2021
216.980000	24.53	46.00	21.47	120.000	152.0	H	42.0	12.0	23:04:25 - 26.01.2021
379.714000	32.42	46.00	13.58	120.000	271.0	H	170.0	17.4	22:58:37 - 26.01.2021
928.364000	36.64	46.00	9.36	120.000	181.0	H	271.0	27.0	23:09:56 - 26.01.2021

4.01a_BLE_low

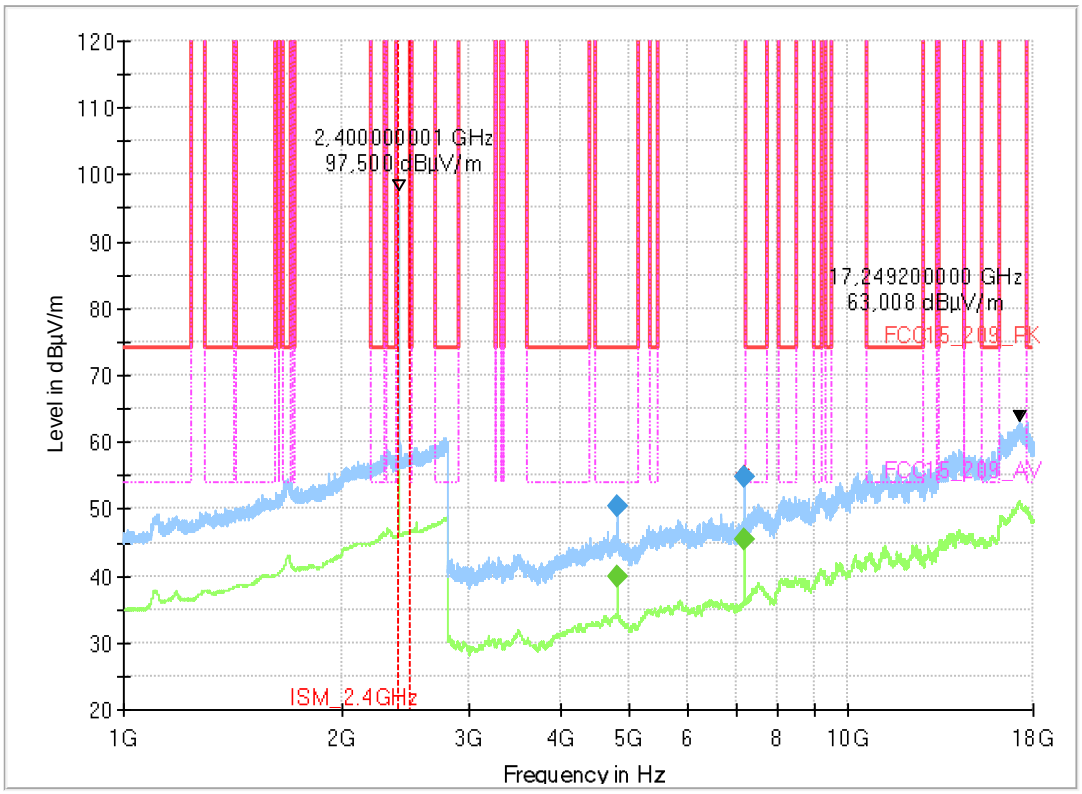
Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	Fully Anechoic Chamber (FAC2) - EMC32 V10.50.0
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 5
Antenna polarisation:	horizontal/vertical
Operating Mode:	BLE low (2402MHz | ch 01)
Operator:	TFra
Comment:	Channel no. low
Comment2:	-
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number: 20-1-01591S11_C01

Full Spectrum



Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)
4803.600000	---	39.87	54.00	14.13	100.0	1000.000	155.0	H	184.0	90.0
4804.000000	50.42	---	74.00	23.58	100.0	1000.000	155.0	H	321.0	90.0
7205.200000	54.77	---	150.00	95.23	100.0	1000.000	155.0	V	47.0	0.0
7205.600000	---	45.34	150.00	104.66	100.0	1000.000	155.0	V	48.0	0.0

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Corr. (dB/m)	Comment
4803.600000	6	13:57:52 - 07.12.2020
4804.000000	6	13:54:02 - 07.12.2020
7205.200000	12	13:52:06 - 07.12.2020
7205.600000	12	13:56:07 - 07.12.2020

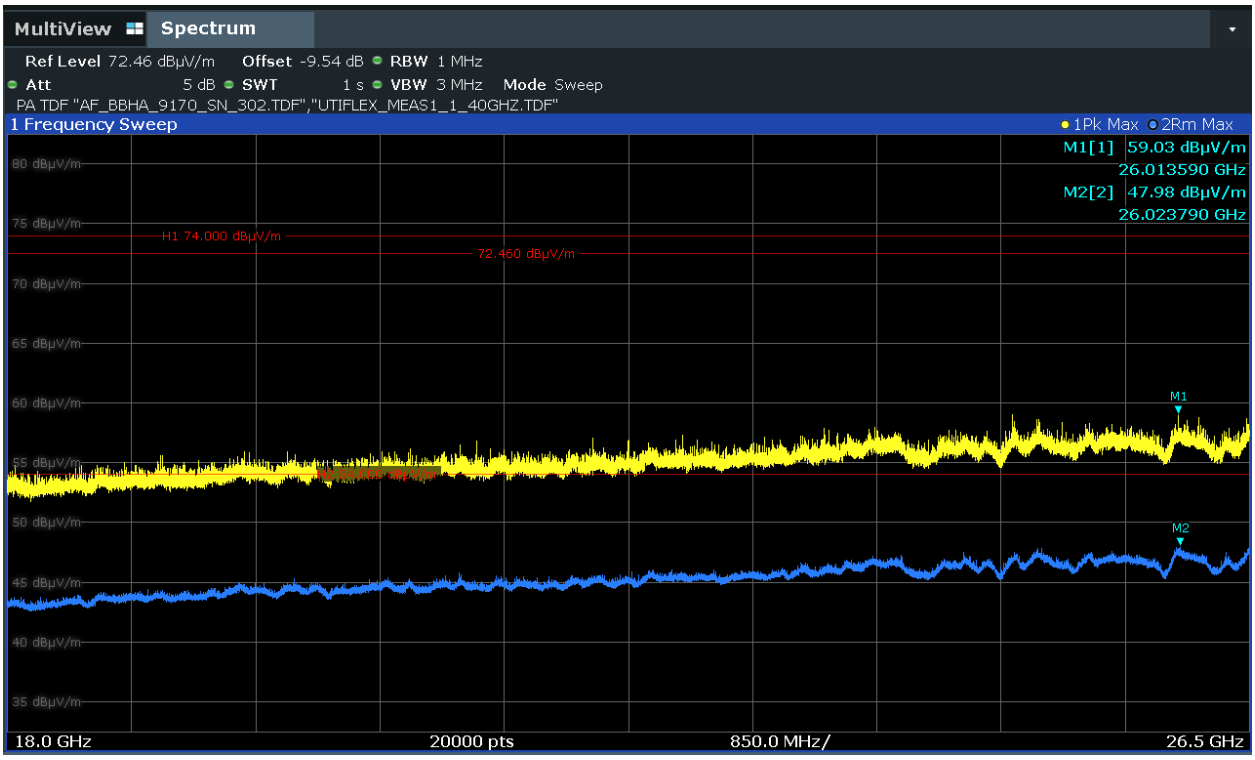
4.01b_BLE_low

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	Fully Anechoic Chamber (FAC2) - EMC32 V10.50.0
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 5
Antenna polarisation:	horizontal/vertical
Operating Mode:	BLE low (2402MHz | ch 01)
Operator:	TFra
Comment:	Channel no. low
Comment2:	-
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	20-1-01591S11_C01

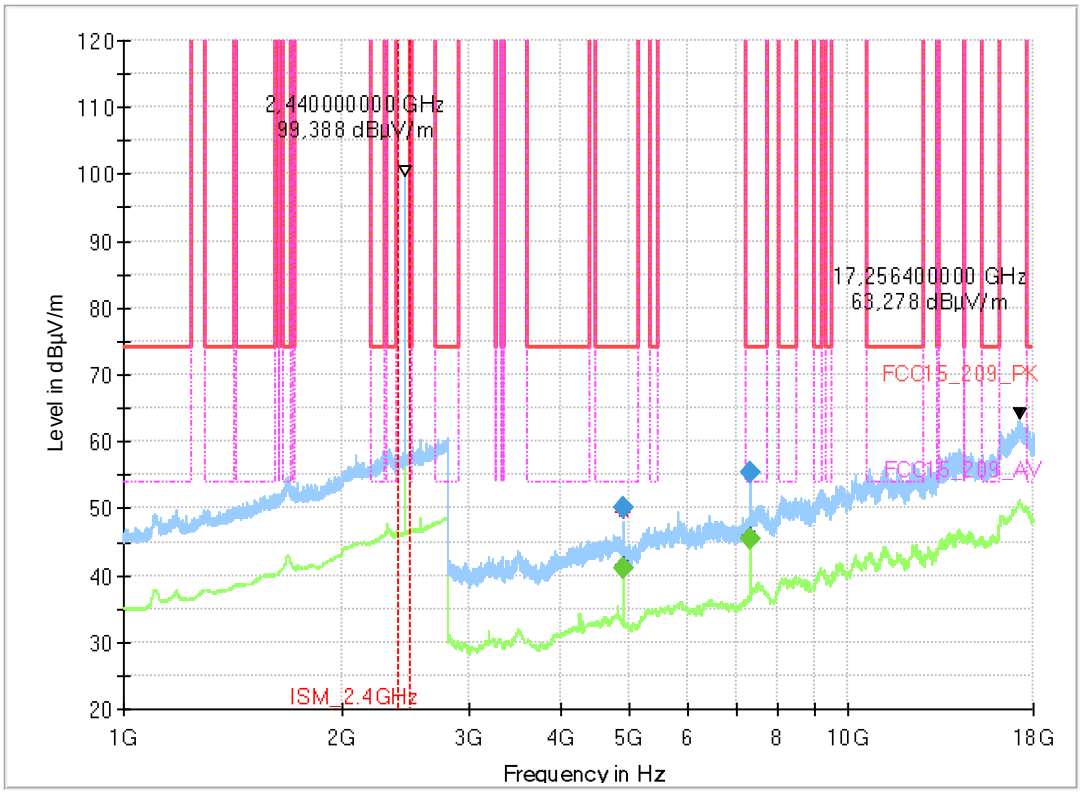


4.02a_BLE_mid

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.50.0
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 5
Antenna polarisation:	horizontal/vertical
Operating Mode:	BLE mid (2440MHz)
Operator:	HEI
Comment:	Channel no. middle
Comment2:	-
EUT Setup:	1
Verdict:	Passed

Full Spectrum



Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)
4880.400000	50.26	---	74.00	23.74	100.0	1000.000	155.0	H	49.0	90.0
4880.400000	---	41.13	54.00	12.87	100.0	1000.000	155.0	H	52.0	90.0
7319.200000	---	45.45	54.00	8.55	100.0	1000.000	155.0	H	114.0	90.0
7320.800000	55.34	---	74.00	18.66	100.0	1000.000	155.0	H	75.0	90.0

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Corr. (dB/m)	Comment
4880.400000	6	16:18:24 - 07.12.2020
4880.400000	6	16:21:06 - 07.12.2020
7319.200000	13	16:22:22 - 07.12.2020
7320.800000	13	16:19:42 - 07.12.2020

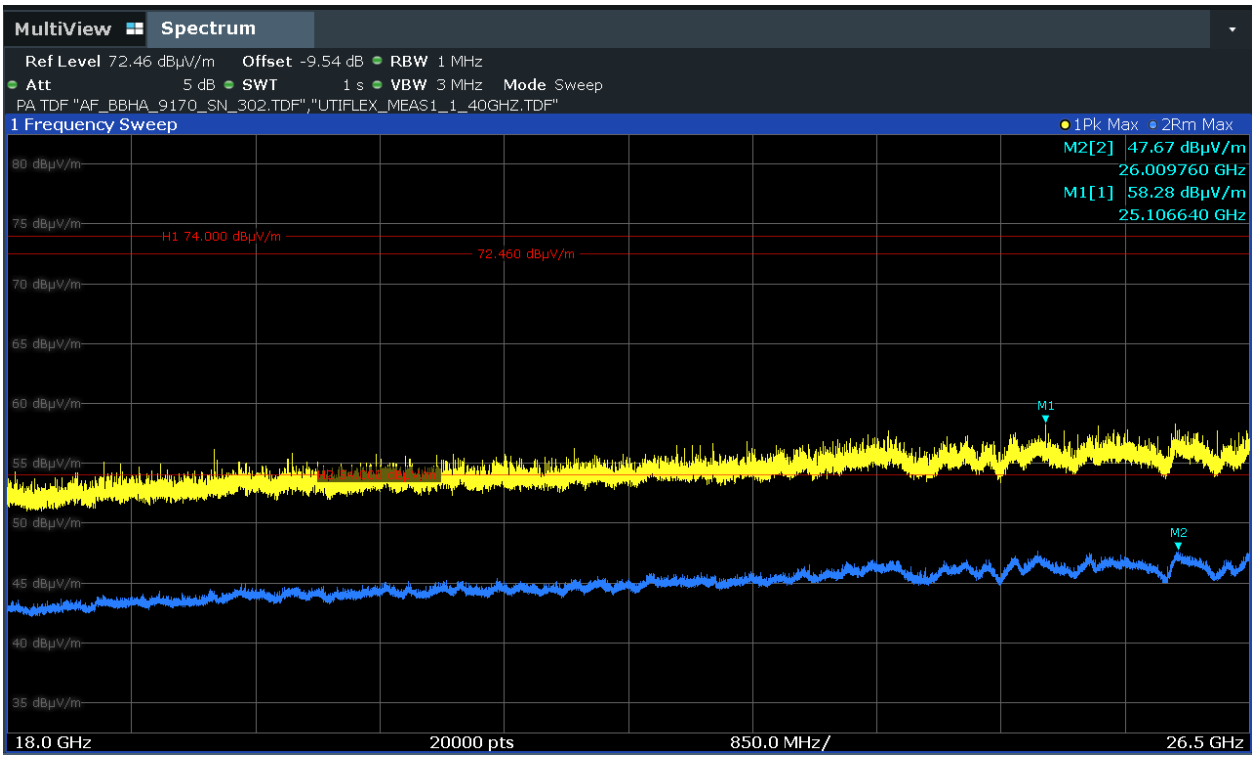
4.02b_BLE_mid

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	Fully Anechoic Chamber (FAC2) - EMC32 V10.50.0
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 5
Antenna polarisation:	horizontal/vertical
Operating Mode:	BLE mid (2440MHz)
Operator:	TFra
Comment:	Channel no. mid
Comment2:	-
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	20-1-01591S11_C01



4.03a_BLE_high

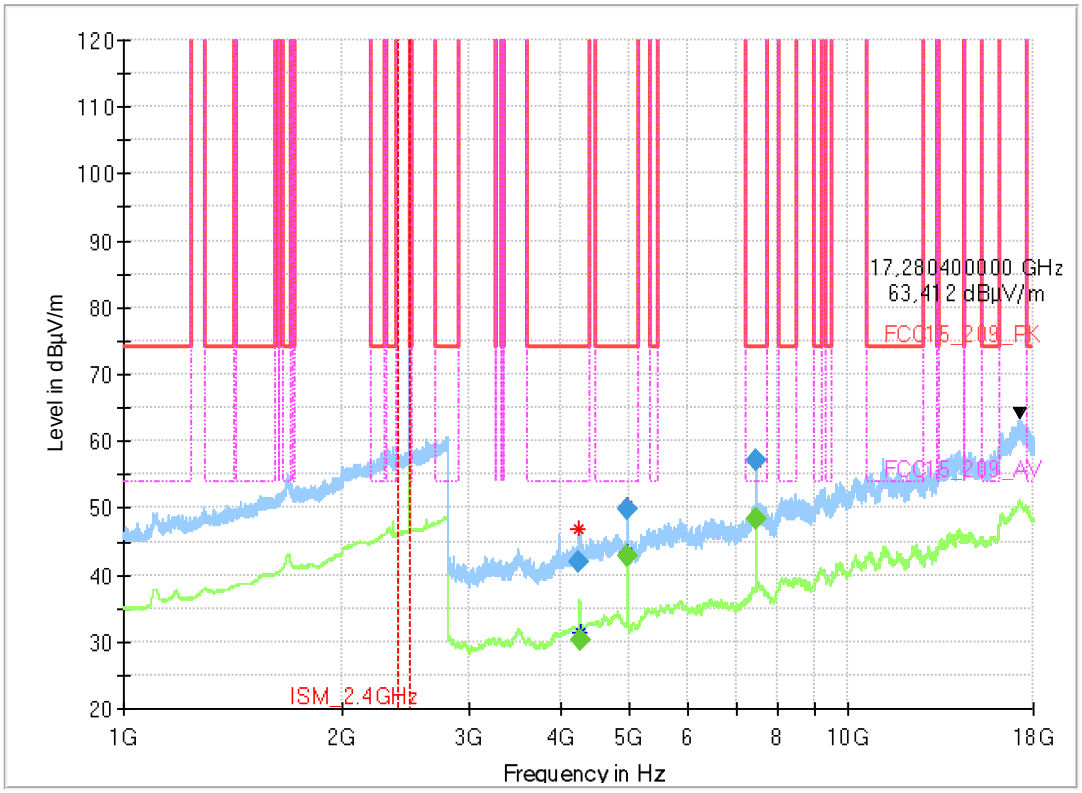
Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.50.0
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 5
Antenna polarisation:	horizontal/vertical
Operating Mode:	BLE high (2480MHz)
Operator:	HEI
Comment:	Channel no.high
Comment2:	-
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	20-1-01591S11_C01

Full Spectrum



Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)
4252.400000	41.92	---	74.00	32.08	100.0	1000.000	155.0	V	112.0	90.0
4260.000000	---	30.32	54.00	23.68	100.0	1000.000	155.0	V	121.0	90.0
4960.000000	49.83	---	74.00	24.17	100.0	1000.000	155.0	H	53.0	90.0
4960.000000	---	42.67	54.00	11.33	100.0	1000.000	155.0	H	56.0	90.0
7439.200000	---	48.28	54.00	5.72	100.0	1000.000	155.0	H	88.0	90.0
7440.800000	57.14	---	74.00	16.86	100.0	1000.000	155.0	H	223.0	90.0

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Corr. (dB/m)
4252.400000	4
4260.000000	4
4960.000000	5
4960.000000	5
7439.200000	13
7440.800000	13

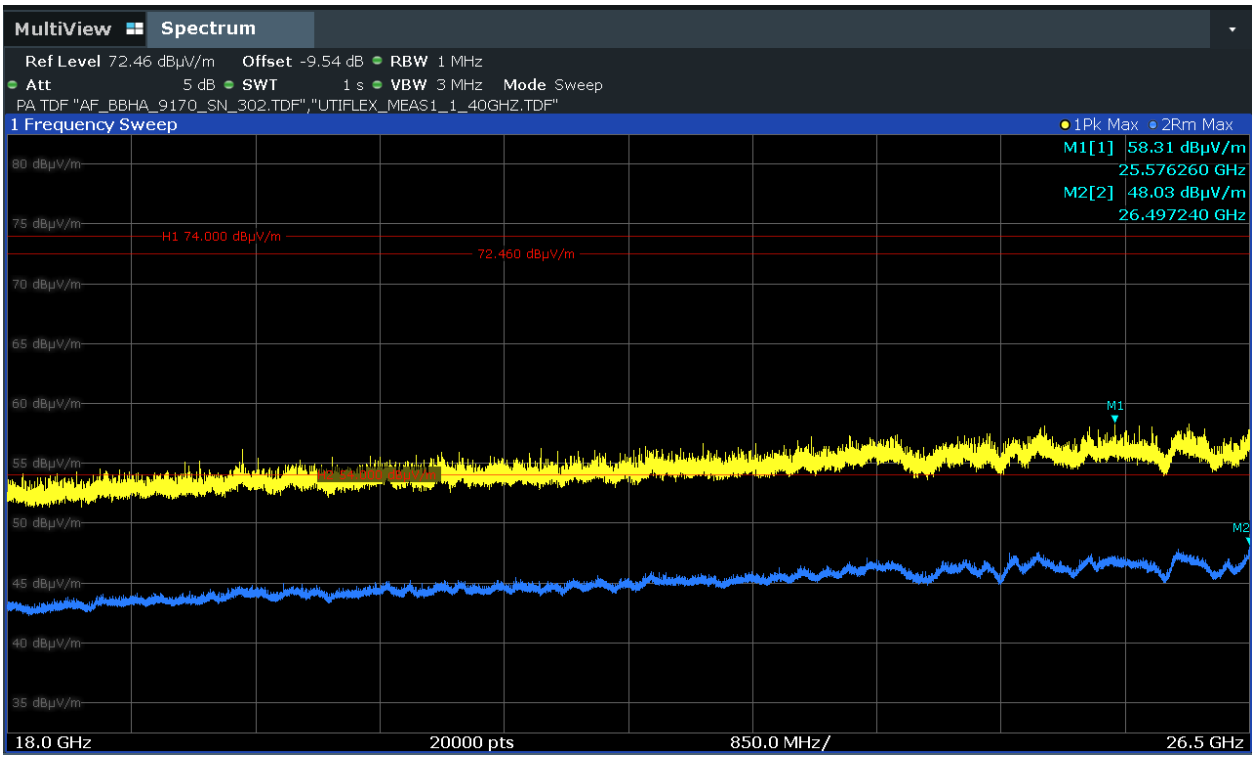
4.03b_BLE_high

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	Fully Anechoic Chamber (FAC2) - EMC32 V10.50.0
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 5
Antenna polarisation:	horizontal/vertical
Operating Mode:	BLE high (2480 MHz)
Operator:	TFra
Comment:	Channel no. high
Comment2:	-
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	20-1-01591S11_C01



9.01_BE_BLE_low

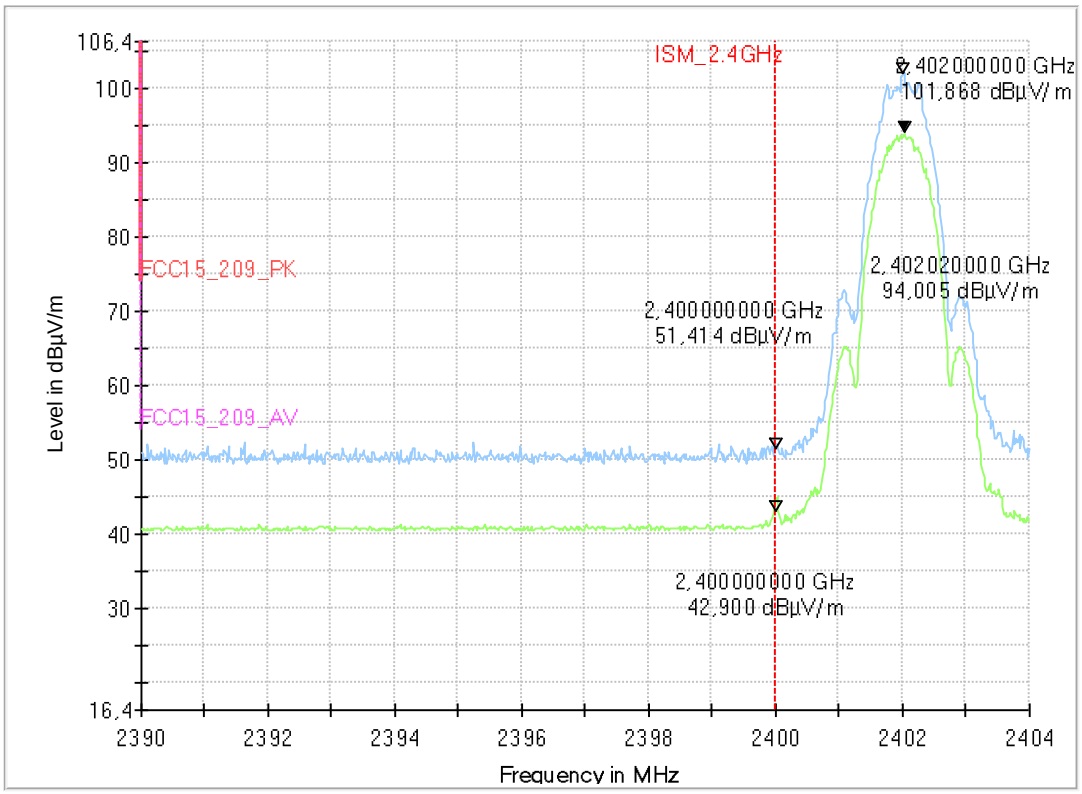
Common Information

Test Description:	Band-Edge: Radiated Field Strength Emissions Emissions in 3m distance
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.50.0
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 5
Antenna polarisation:	horizontal/vertical
Operating Mode:	BLE low (2402MHz | ch 01)
Operator:	TFra
Comment:	Channel no. low
Comment2:	-
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	20-1-01591S11_C01

Full Spectrum



9.02_BE_BLE_high

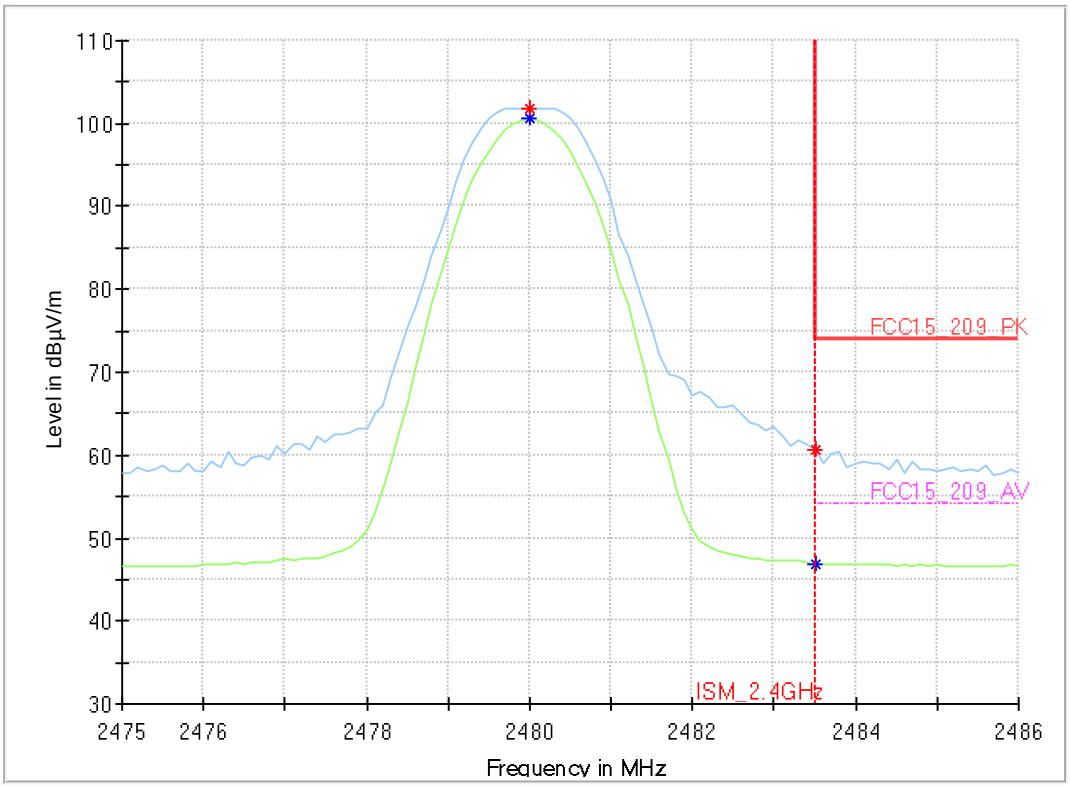
Common Information

Test Description:	Band-Edge: Radiated Field Strength Emissions Emissions in 3m distance
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.50.0
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 5
Antenna polarisation:	horizontal/vertical
Operating Mode:	BLE high (2480MHz)
Operator:	HEI
Comment:	Channel no. high
Comment2:	-
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	20-1-01591S11_C01

Full Spectrum



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	RMS (dBµV/m)	Limit (dBµV/m)	Margin	Meas. Time (ms)	Bandwidth	Height	Pol	Azimuth	Elevation
2480.000000	---	100.53	150.00	49.47	---	---	155.0	H	157.0	90.0
2480.000000	101.77	---	150.00	48.23	---	---	155.0	H	157.0	90.0
2483.500000	---	46.95	54.00	7.05	---	---	155.0	H	154.0	90.0
2483.500000	60.71	---	74.00	13.29	---	---	155.0	H	154.0	90.0

(continuation of the "Critical_Freqs" table from column 16 ...)

Frequency (MHz)	Corr. (dB/m)	Comment
2480.000000	36	18:08:17 - 07.12.2020
2480.000000	36	18:08:14 - 07.12.2020
2483.500000	36	18:08:10 - 07.12.2020
2483.500000	36	18:08:07 - 07.12.2020

1.2 Conducted measurements

Peak output power (Sweep)

Mode	DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
BLE (4dBm; 2402MHz)	2402.000000	3.5	30.0	PASS
BLE (4dBm; 2440MHz)	2440.000000	3.4	30.0	PASS
BLE (4dBm; 2480MHz)	2480.000000	3.4	30.0	PASS

Peak Power Spectral Density

Mode	DUT Frequency	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
BLE (4dBm; 2402MHz)	2402.000000	2402.052500	-4.067	8.0	PASS
BLE (4dBm; 2440MHz)	2440.000000	2440.047500	-5.165	8.0	PASS
BLE (4dBm; 2480MHz)	2480.000000	2479.937500	-5.056	8.0	PASS

Minimum Emission Bandwidth 6 dB

Mode	DUT Frequency	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left	Band Edge Right
BLE (4dBm; 2402MHz)	2402.0000	0.752476	0.500000	---	2401.6237	2402.3762
BLE (4dBm; 2440MHz)	2440.0000	0.772278	0.500000	---	2439.6237	2440.3960
BLE (4dBm; 2480MHz)	2480.0000	0.752476	0.500000	---	2479.6237	2480.3762

Occupied Channel Bandwidth 99%

Mode	DUT Frequency	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left	Band Edge Right
BLE (4dBm; 2402MHz)	2402.0000	1.065000	---	---	2401.4675	2402.5325
BLE (4dBm; 2440MHz)	2440.0000	1.060000	---	---	2439.4775	2440.5375
BLE (4dBm; 2480MHz)	2480.0000	1.065000	---	---	2479.4725	2480.5375

Tx Spurious Emission

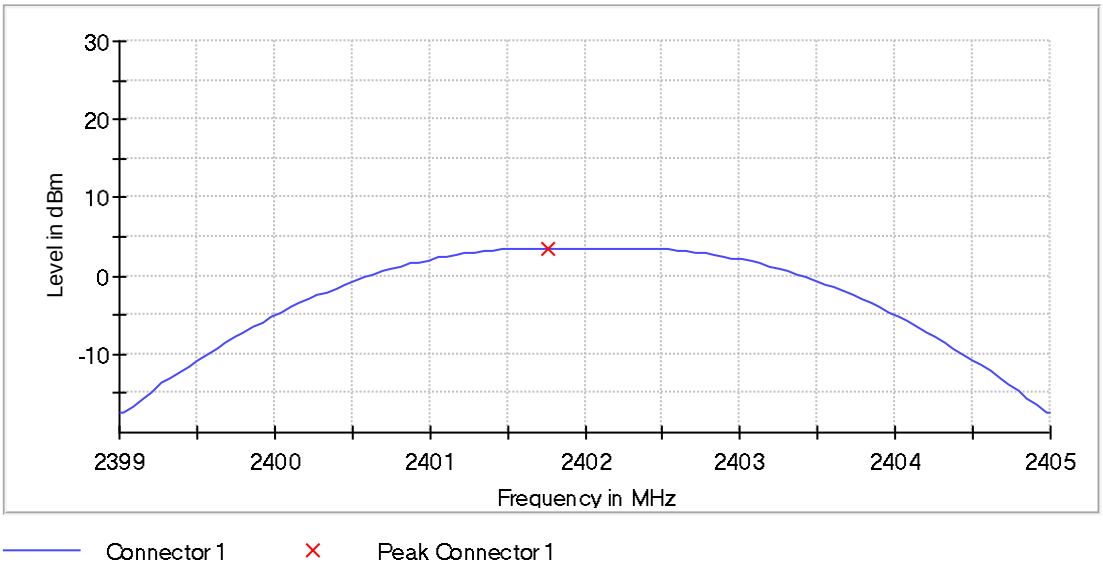
Mode	DUT Frequency (MHz)	Result
BLE (4dBm; 2402MHz)	2402.000000	PASS
BLE (4dBm; 2440MHz)	2440.000000	PASS
BLE (4dBm; 2480MHz)	2480.000000	PASS

Peak output power (Sweep) (2402 MHz; BLE (4 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2402.000000	3.5	30.0	PASS



Measurement

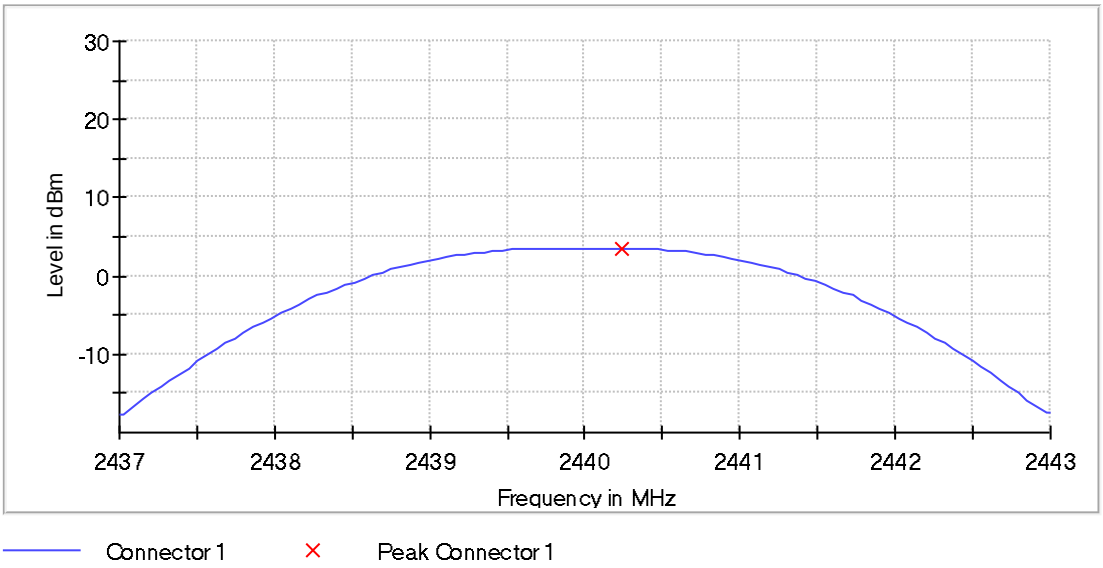
Setting	Instrument Value	Target Value
Start Frequency	2.39900 GHz	2.39900 GHz
Stop Frequency	2.40500 GHz	2.40500 GHz
Span	6.000 MHz	6.000 MHz
RBW	2.000 MHz	>= 1.000 MHz
VBW	10.000 MHz	>= 6.000 MHz
SweepPoints	101	~ 101
Sweeptime	1.000 ms	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.04 dB	0.50 dB

Peak output power (Sweep) (2440 MHz; BLE (4 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2440.000000	3.4	30.0	PASS



Measurement

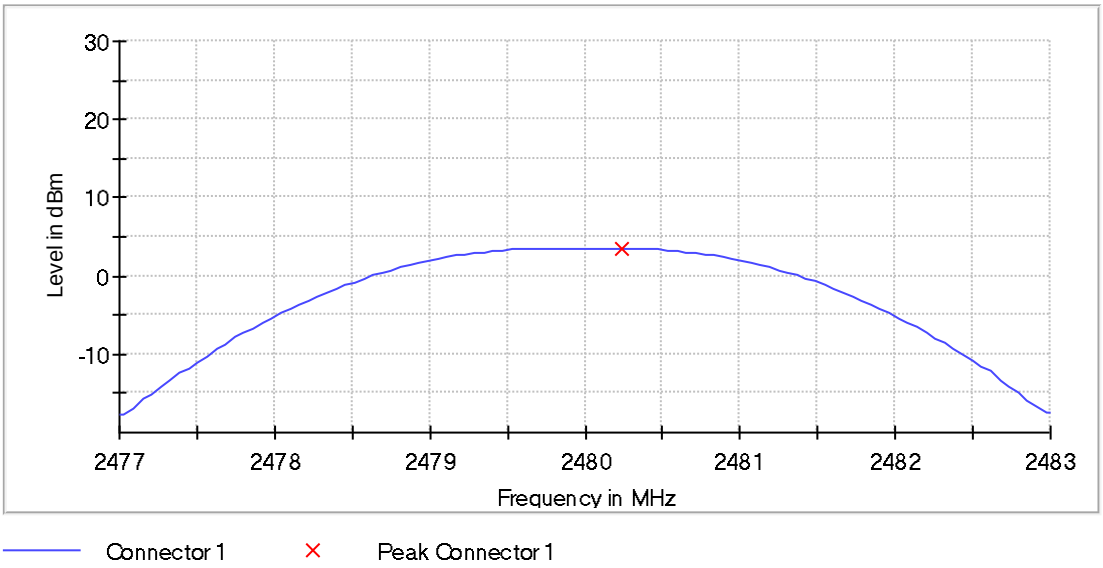
Setting	Instrument Value	Target Value
Start Frequency	2.43700 GHz	2.43700 GHz
Stop Frequency	2.44300 GHz	2.44300 GHz
Span	6.000 MHz	6.000 MHz
RBW	2.000 MHz	>= 1.000 MHz
VBW	10.000 MHz	>= 6.000 MHz
SweepPoints	101	~ 101
Sweeptime	1.000 ms	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.10 dB	0.50 dB

Peak output power (Sweep) (2480 MHz; BLE (4 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2480.000000	3.4	30.0	PASS



Measurement

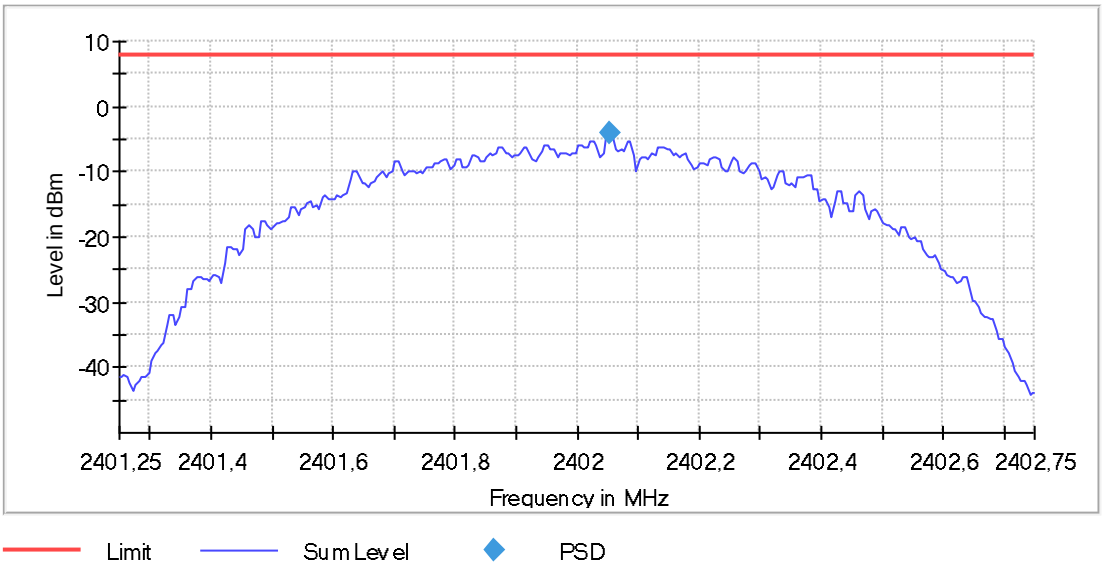
Setting	Instrument Value	Target Value
Start Frequency	2.47700 GHz	2.47700 GHz
Stop Frequency	2.48300 GHz	2.48300 GHz
Span	6.000 MHz	6.000 MHz
RBW	2.000 MHz	>= 1.000 MHz
VBW	10.000 MHz	>= 6.000 MHz
SweepPoints	101	~ 101
Sweeptime	1.000 ms	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.08 dB	0.50 dB

Peak Power Spectral Density (2402 MHz; BLE (4 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a),(e), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2402.000000	2402.052500	-4.067	8.0	PASS



Measurement

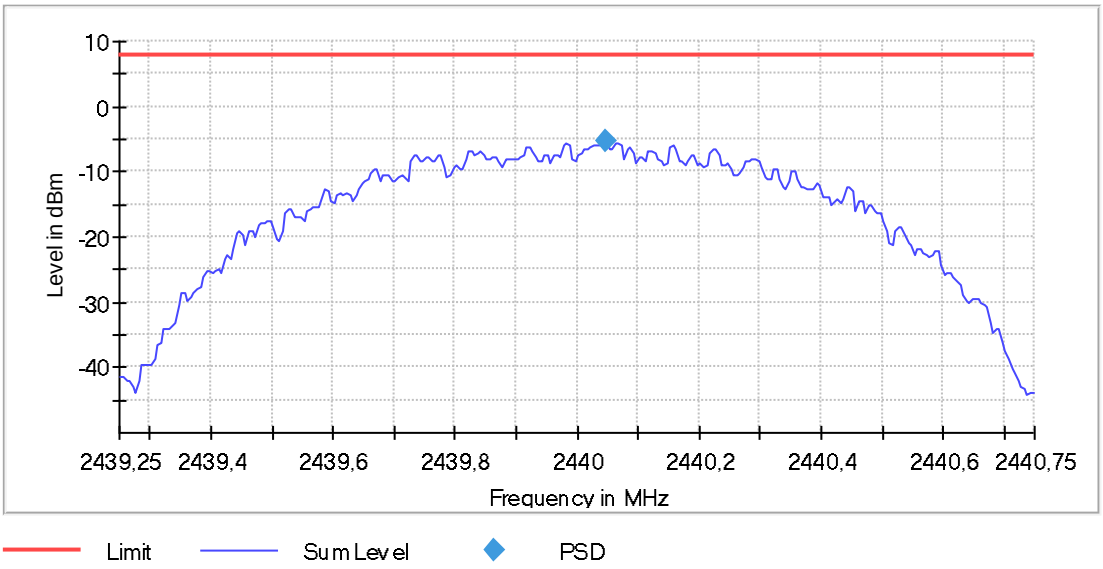
Setting	Instrument Value	Target Value
Start Frequency	2.40125 GHz	2.40125 GHz
Stop Frequency	2.40275 GHz	2.40275 GHz
Span	1.500 MHz	1.500 MHz
RBW	10.000 kHz	<= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	300	~ 300
Sweeptime	1.500 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	7 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.43 dB	0.50 dB

Peak Power Spectral Density (2440 MHz; BLE (4 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a),(e), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2440.000000	2440.047500	-5.165	8.0	PASS



Measurement

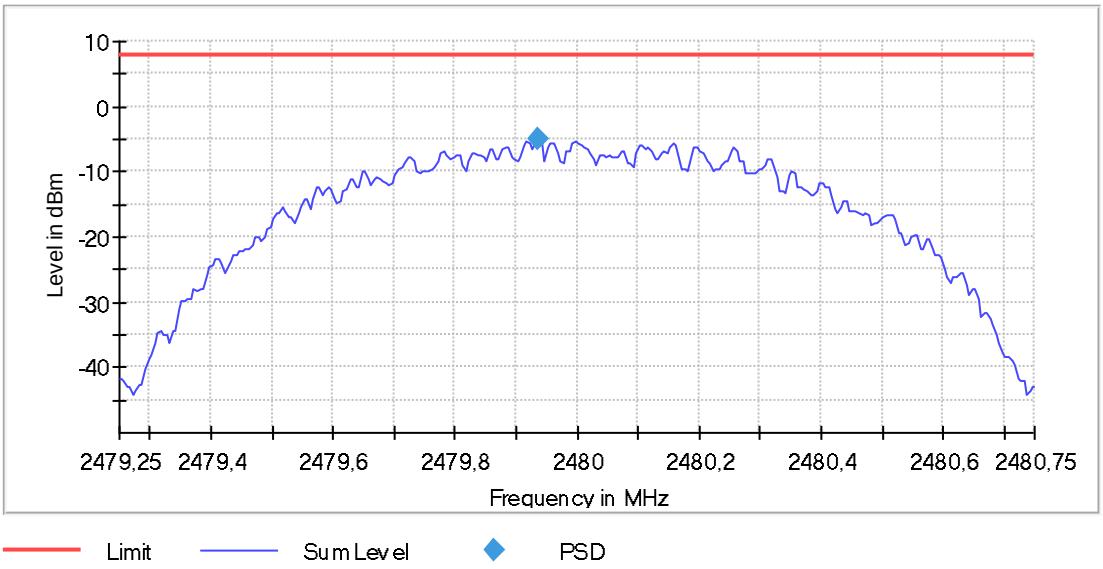
Setting	Instrument Value	Target Value
Start Frequency	2.43925 GHz	2.43925 GHz
Stop Frequency	2.44075 GHz	2.44075 GHz
Span	1.500 MHz	1.500 MHz
RBW	10.000 kHz	<= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	300	~ 300
Sweeptime	1.500 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	8 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.38 dB	0.50 dB

Peak Power Spectral Density (2480 MHz; BLE (4 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a),(e), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2480.000000	2479.937500	-5.056	8.0	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47925 GHz	2.47925 GHz
Stop Frequency	2.48075 GHz	2.48075 GHz
Span	1.500 MHz	1.500 MHz
RBW	10.000 kHz	<= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	300	~ 300
Sweeptime	1.500 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	7 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.30 dB	0.50 dB

Minimum Emission Bandwidth 6 dB (2402 MHz; BLE (4 dBm); 1 MHz)

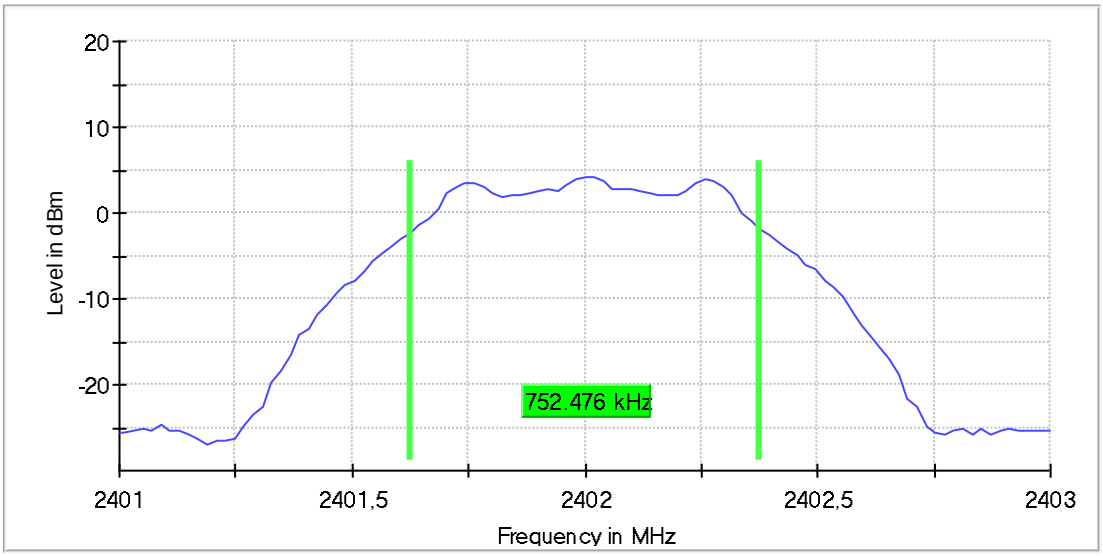
Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	0.752476	0.500000	---	2401.623762	2402.376238

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	4.1	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40100 GHz	2.40100 GHz
Stop Frequency	2.40300 GHz	2.40300 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 40
Sweeptime	1.000 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	9 / max. 150	max. 150
Stable	5 / 5	5

Max Stable Difference	**0.24 dB**	**0.50 dB**

Minimum Emission Bandwidth 6 dB (2440 MHz; BLE (4 dBm); 1 MHz)

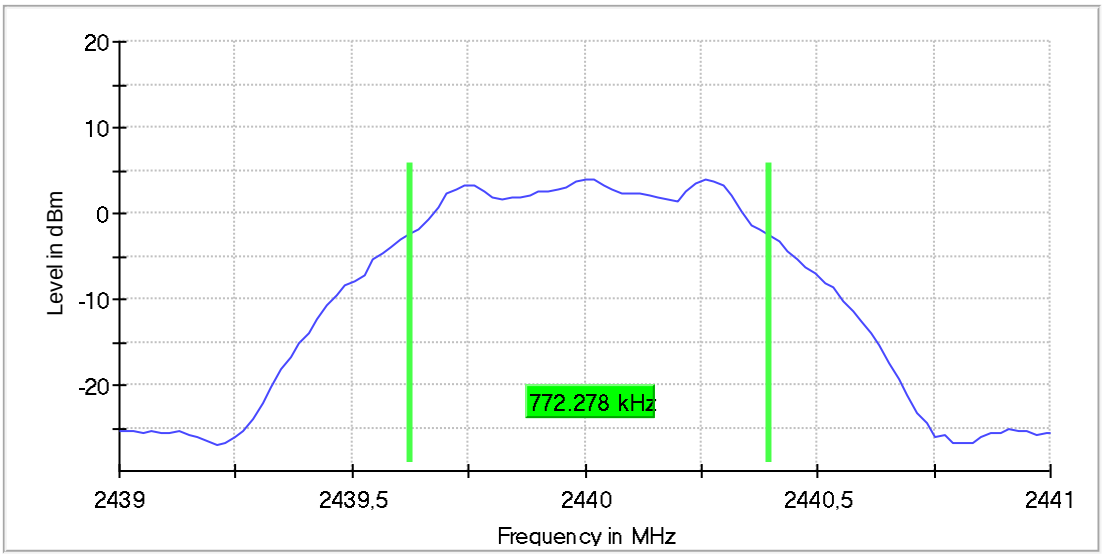
Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	0.772278	0.500000	---	2439.623762	2440.396040

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	3.9	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43900 GHz	2.43900 GHz
Stop Frequency	2.44100 GHz	2.44100 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 40
Sweeptime	1.000 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB

Run	**9 / max. 150**	**max. 150**
Stable	**5 / 5**	**5**
Max Stable Difference	**0.14 dB**	**0.50 dB**

Minimum Emission Bandwidth 6 dB (2480 MHz; BLE (4 dBm); 1 MHz)

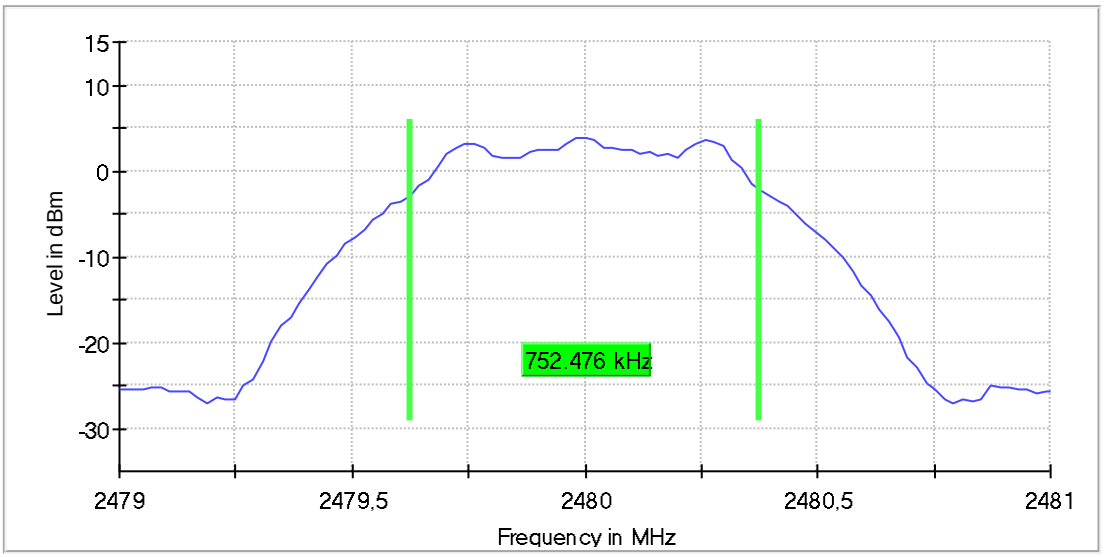
Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	0.752476	0.500000	---	2479.623762	2480.376238

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	3.9	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	**2.47900 GHz**	**2.47900 GHz**
Stop Frequency	**2.48100 GHz**	**2.48100 GHz**
Span	**2.000 MHz**	**2.000 MHz**
RBW	**100.000 kHz**	**~ 100.000 kHz**
VBW	**300.000 kHz**	**~ 300.000 kHz**
SweepPoints	**101**	**~ 40**
Sweeptime	**1.000 ms**	**AUTO**
Reference Level	**0.000 dBm**	**0.000 dBm**
Attenuation	**10.000 dB**	**AUTO**
Detector	**MaxPeak**	**MaxPeak**
SweepCount	**100**	**100**
Filter	**3 dB**	**3 dB**
Trace Mode	**Max Hold**	**Max Hold**
Sweeptype	**Sweep**	**AUTO**
Preamp	**off**	**off**

Stablemode	**Trace**	**Trace**
Stablevalue	**0.50 dB**	**0.50 dB**
Run	**9 / max. 150**	**max. 150**
Stable	**5 / 5**	**5**
Max Stable Difference	**0.10 dB**	**0.50 dB**

Occupied Channel Bandwidth 99% (2402 MHz; BLE (4 dBm); 1 MHz)

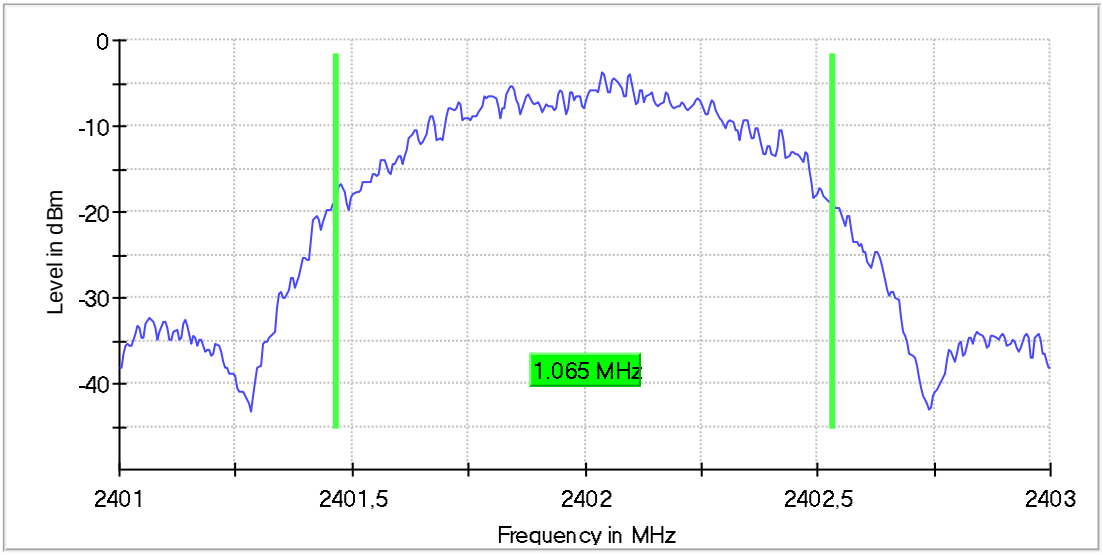
Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	**1.065000**	**---**	**---**	**2401.467500**	**2402.532500**

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2402.000000	**PASS**



Measurement

Setting	Instrument Value	Target Value
Start Frequency	**2.40100 GHz**	**2.40100 GHz**
Stop Frequency	**2.40300 GHz**	**2.40300 GHz**
Span	**2.000 MHz**	**2.000 MHz**
RBW	**10.000 kHz**	**>= 10.000 kHz**
VBW	**30.000 kHz**	**>= 30.000 kHz**
SweepPoints	**400**	**~ 400**
Sweeptime	**419.000 µs**	**AUTO**
Reference Level	**0.000 dBm**	**0.000 dBm**
Attenuation	**10.000 dB**	**AUTO**
Detector	**MaxPeak**	**MaxPeak**
SweepCount	**100**	**100**
Filter	**3 dB**	**3 dB**
Trace Mode	**Max Hold**	**Max Hold**

Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	10 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.25 dB	0.30 dB

Occupied Channel Bandwidth 99% (2440 MHz; BLE (4 dBm); 1 MHz)

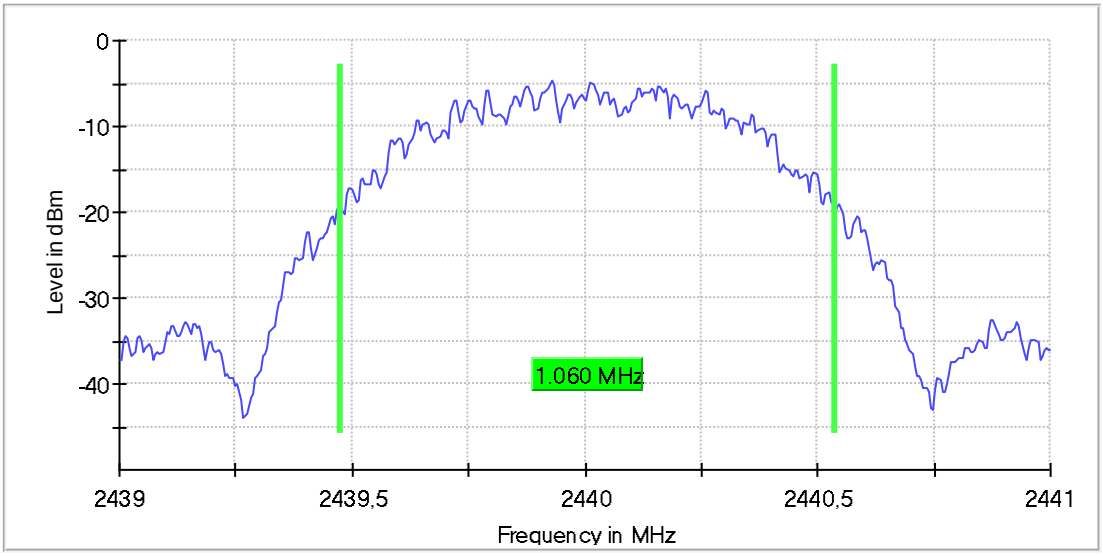
Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	1.060000	---	---	2439.477500	2440.537500

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2440.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43900 GHz	2.43900 GHz
Stop Frequency	2.44100 GHz	2.44100 GHz
Span	2.000 MHz	2.000 MHz
RBW	10.000 kHz	>= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	400	~ 400
Sweeptime	419.000 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100

Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	14 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.16 dB	0.30 dB

Occupied Channel Bandwidth 99% (2480 MHz; BLE (4 dBm); 1 MHz)

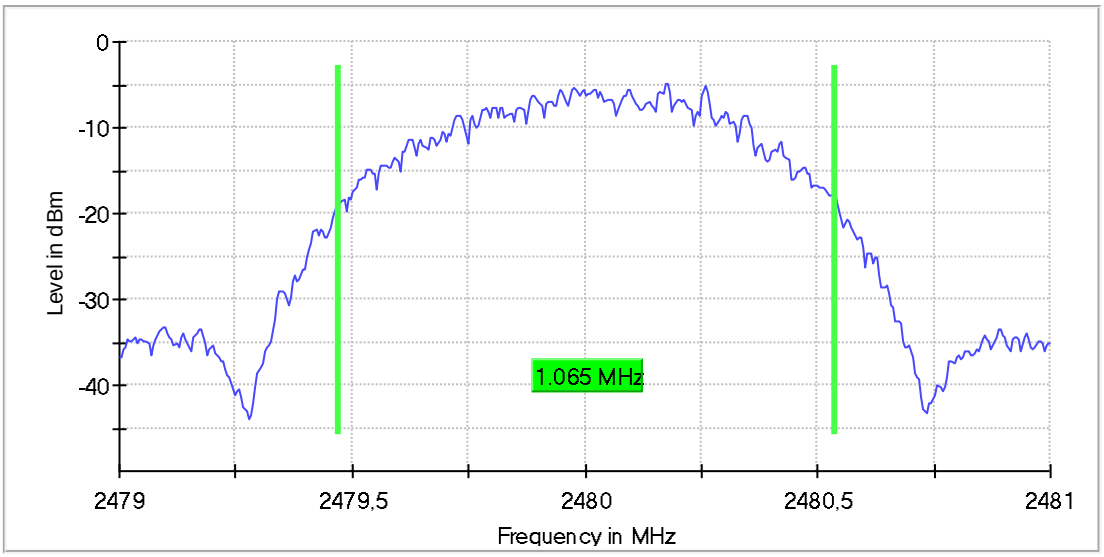
Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.065000	---	---	2479.472500	2480.537500

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2480.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47900 GHz	2.47900 GHz
Stop Frequency	2.48100 GHz	2.48100 GHz
Span	2.000 MHz	2.000 MHz
RBW	10.000 kHz	>= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	400	~ 400
Sweeptime	419.000 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	AUTO

Detector	**MaxPeak**	**MaxPeak**
SweepCount	**100**	**100**
Filter	**3 dB**	**3 dB**
Trace Mode	**Max Hold**	**Max Hold**
Sweeptype	**FFT**	**AUTO**
Preamp	**off**	**off**
Stablemode	**Trace**	**Trace**
Stablevalue	**0.30 dB**	**0.30 dB**
Run	**17 / max. 150**	**max. 150**
Stable	**3 / 3**	**3**
Max Stable Difference	**0.21 dB**	**0.30 dB**

Tx Spurious Emission (2402 MHz; BLE (4 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Result
2402.000000	PASS

Final measurements

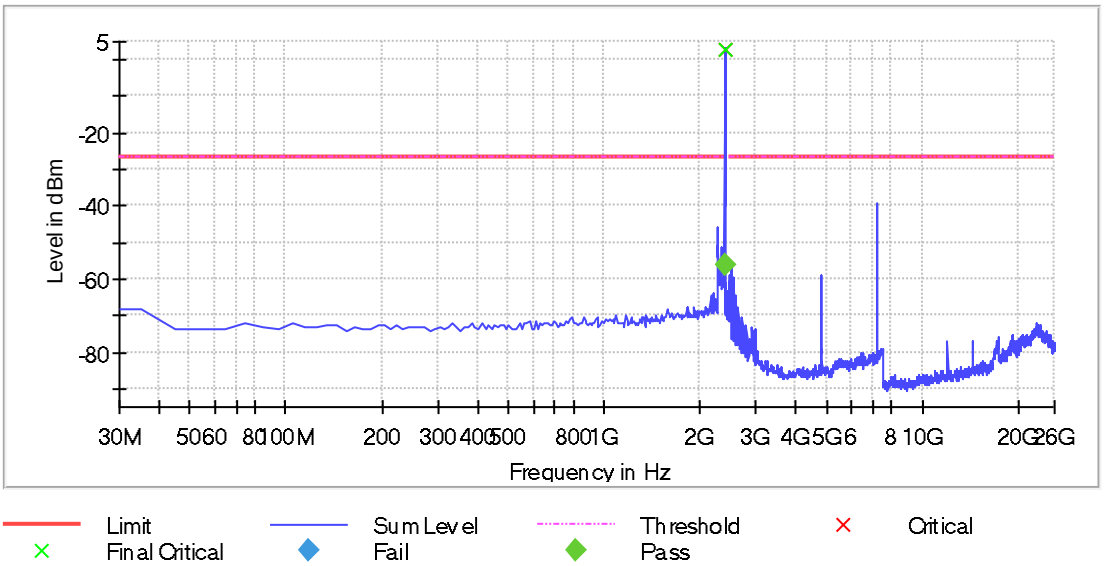
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
2399.958664	1.0	-55.9	-26.6	29.3	PASS

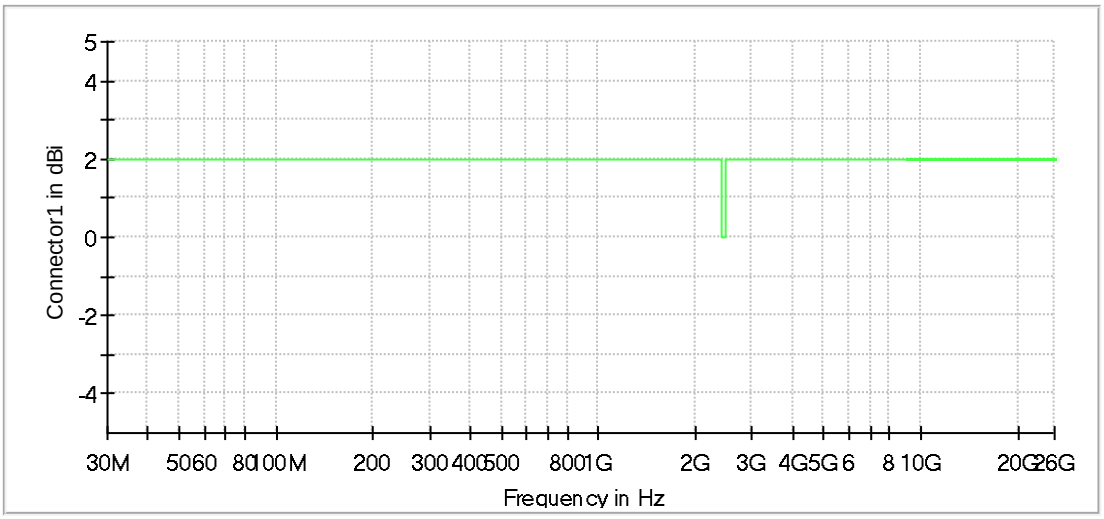
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
2395.021008	2.9	-29.6	-26.6
7205.789099	-39.2	12.6	-26.6
2265.567227	-45.9	19.3	-26.6
2285.483193	-51.0	24.4	-26.6
2335.273109	-51.5	24.9	-26.6
2275.525210	-53.8	27.2	-26.6
2305.399160	-56.0	29.4	-26.6
2508.485657	-56.0	29.4	-26.6
2528.474182	-56.5	29.9	-26.6
2325.315126	-57.3	30.7	-26.6
2315.357143	-58.5	31.9	-26.6
4807.166065	-58.7	32.1	-26.6
2355.189076	-59.5	32.9	-26.6
2558.456970	-59.6	33.0	-26.6
2365.147059	-60.2	33.6	-26.6

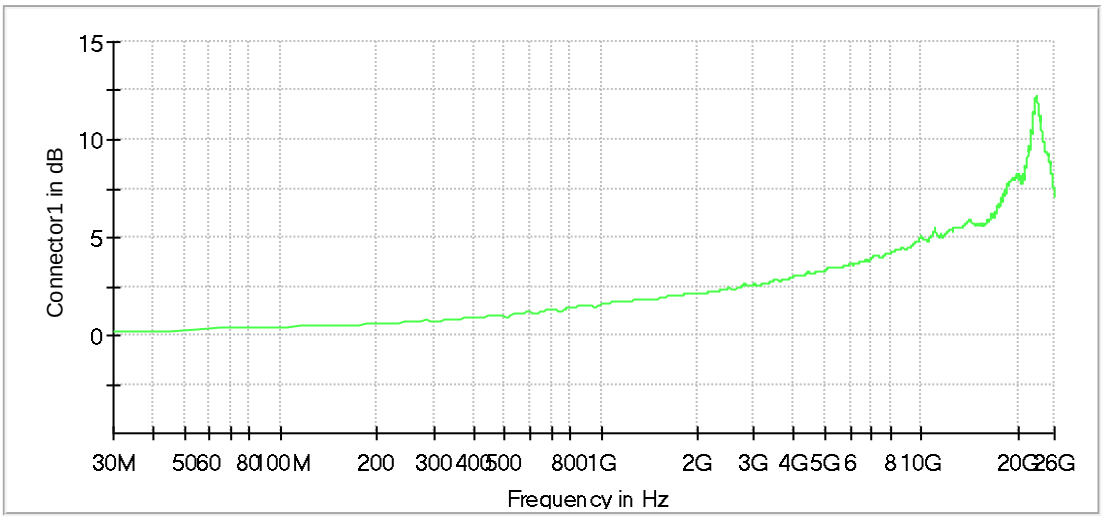
Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	2400.000000	1	1
2400.000000	2483.500000	1	1
2483.500000	26000.000000	1	1

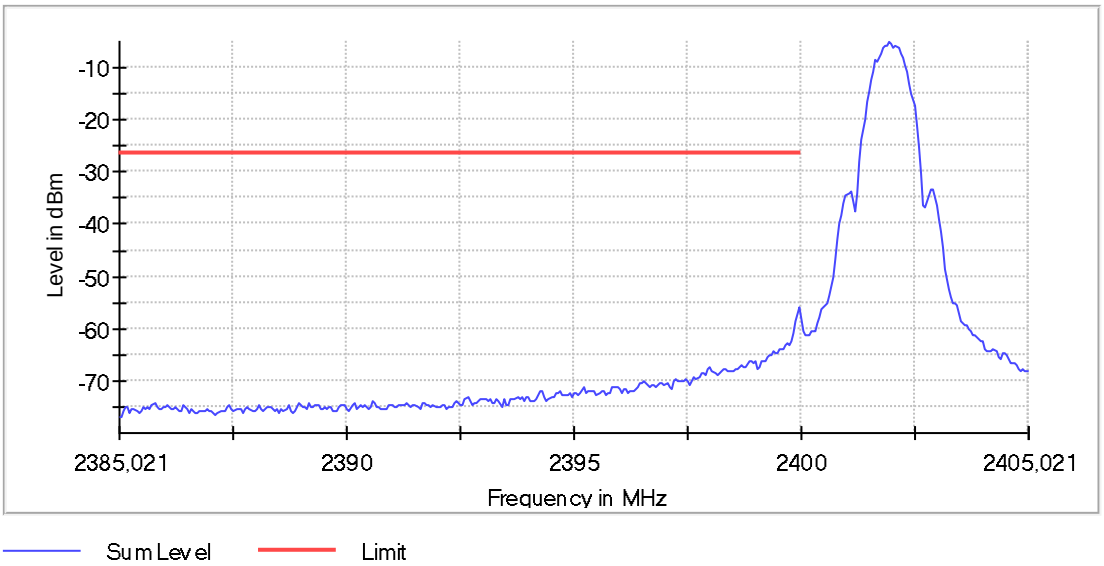

5
-20
-40
-60
-80
Level in dBm
30M
50
60
80
100M
200
300
400
500
800
1G
2G
3G
4G
5G
6
8
10G
20G
26G
Frequency in Hz
Limit
Final Critical
Sum Level
Fail
Threshold
Pass
Critical



Connector1



Connector1



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	238	~ 238
Sweeptime	23.700 ms	AUTO
Reference Level	-10.000 dBm	-30.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	3	3
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 40	max. 40
Stable	3 / 3	3
Max Stable Difference	0.31 dB	0.50 dB

Final Measurement 1

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	401	~ 401
Sweeptime	1.000 ms	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	20.000 dB	AUTO
Detector	Sample	Sample
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Average Linear	Average Linear
Sweeptype	Sweep	AUTO
Preamp	off	off

Tx Spurious Emission (2440 MHz; BLE (4 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Result
2440.000000	PASS

Final measurements

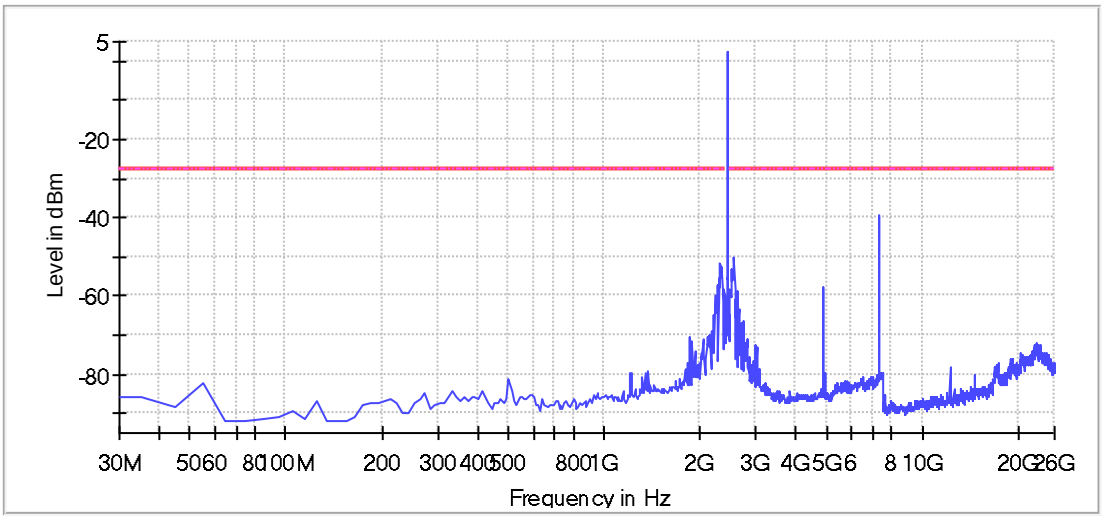
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

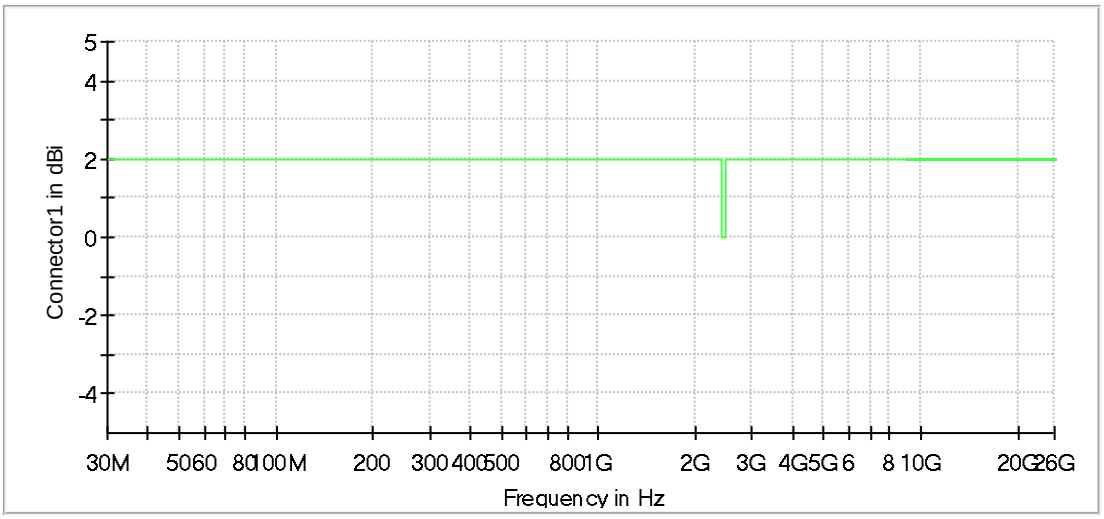
Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
7325.720251	-39.2	11.7	-27.6
7315.725988	-39.7	12.2	-27.6
2558.456970	-50.0	22.5	-27.6
2315.357143	-51.7	24.1	-27.6
2548.462707	-52.2	24.7	-27.6
2325.315126	-52.4	24.9	-27.6
2345.231092	-52.6	25.1	-27.6
2518.479919	-53.0	25.5	-27.6
2335.273109	-55.1	27.5	-27.6
2295.441176	-55.3	27.7	-27.6
2538.468445	-55.6	28.0	-27.6
2528.474182	-56.1	28.5	-27.6
2275.525210	-57.3	29.8	-27.6
2305.399160	-57.9	30.4	-27.6
4877.125903	-57.9	30.4	-27.6

Measurement Settings

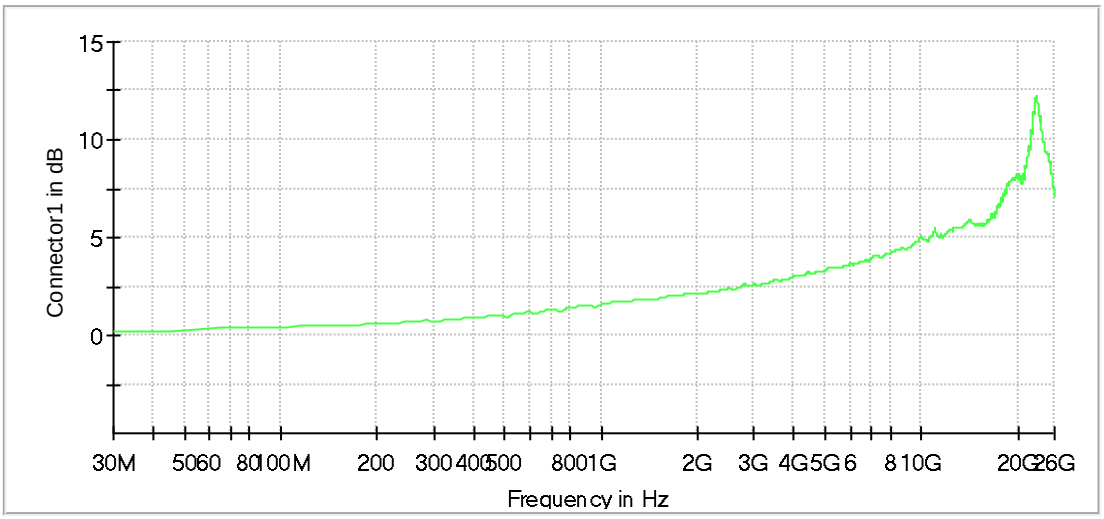
Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	2400.000000	1	1
2400.000000	2483.500000	1	1
2483.500000	26000.000000	1	1



Limit Sum Level Threshold Critical Final Critical



Connector1



Connector1

Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	238	~ 238
Sweeptime	23.700 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	3	3
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	11 / max. 40	max. 40
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Tx Spurious Emission (2480 MHz; BLE (4 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v05r02 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Result
2480.000000	PASS

Final measurements

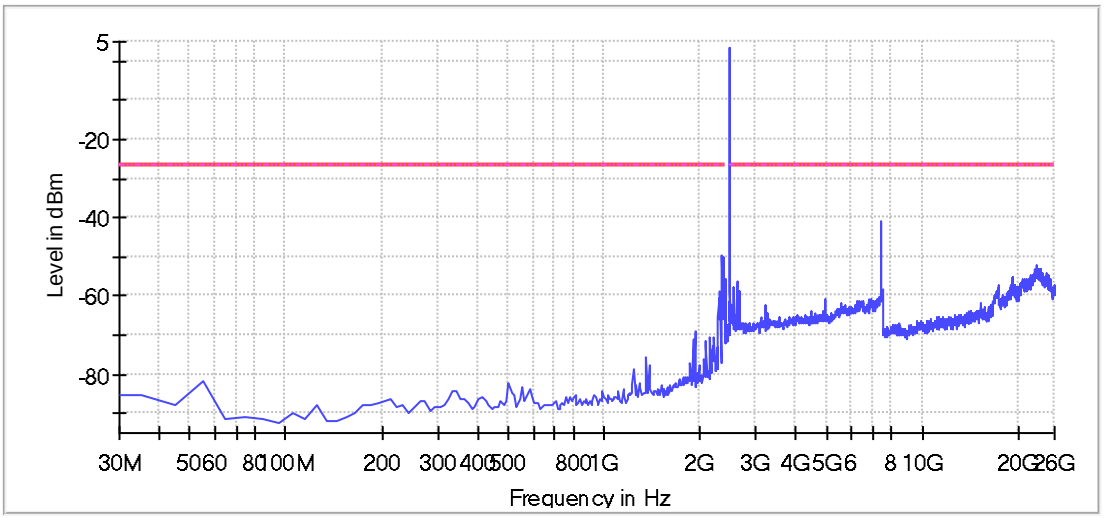
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

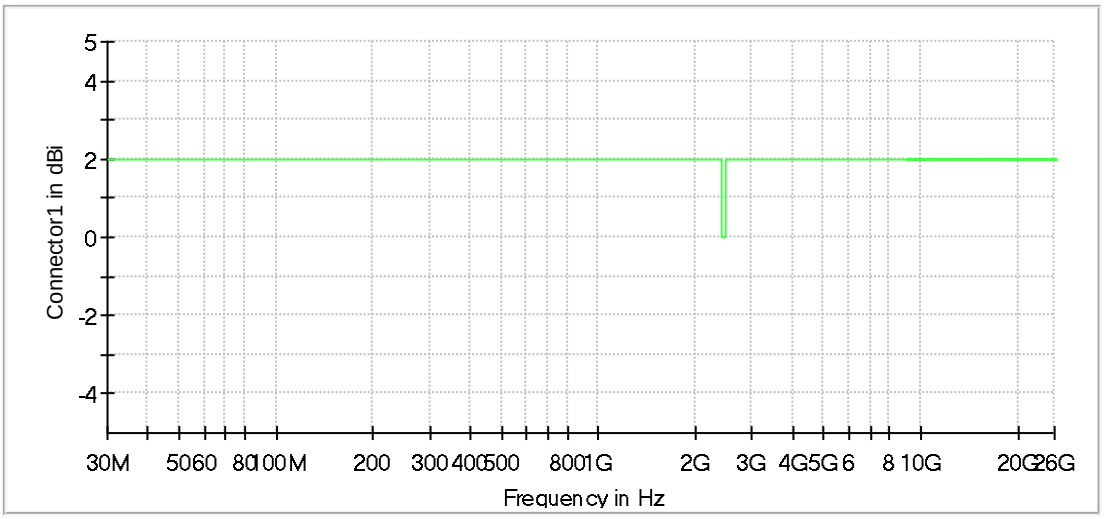
Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
7445.651402	-41.1	14.5	-26.6
7435.657140	-42.8	16.2	-26.6
2345.231092	-49.4	22.8	-26.6
2365.147059	-49.9	23.3	-26.6
22916.769975	-52.2	25.6	-26.6
23116.655227	-53.0	26.4	-26.6
22696.896196	-53.0	26.4	-26.6
23576.391309	-53.0	26.4	-26.6
22906.775712	-53.1	26.5	-26.6
22766.856035	-53.2	26.6	-26.6
23096.666702	-53.2	26.6	-26.6
22666.913408	-53.3	26.7	-26.6
23436.471632	-53.3	26.8	-26.6
23636.356885	-53.4	26.8	-26.6
22946.752762	-53.4	26.9	-26.6

Measurement Settings

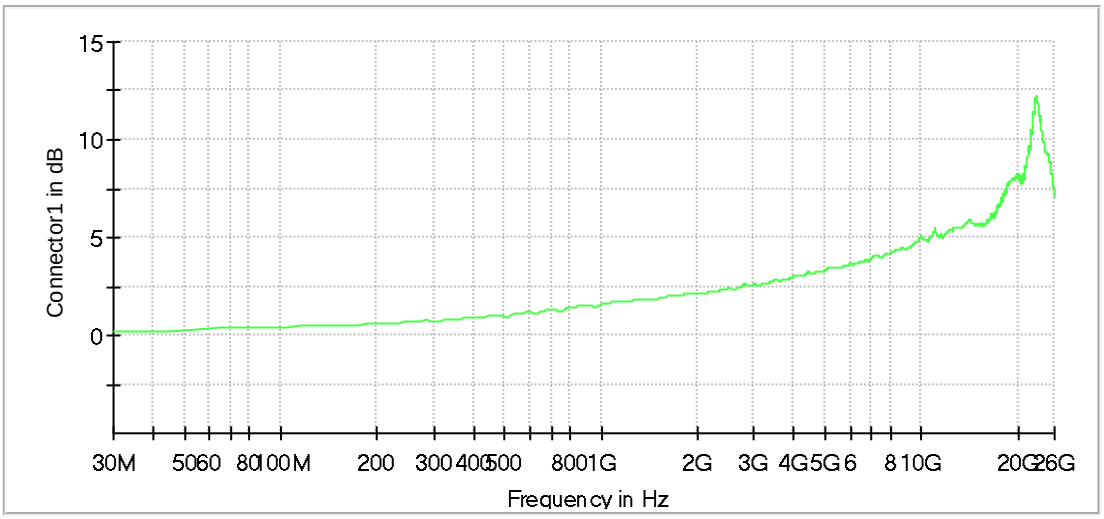
Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	2400.000000	1	1
2400.000000	2483.500000	1	1
2483.500000	26000.000000	1	1



Limit Sum Level Threshold Critical Final Critical



Connector1



Connector1

Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	100.000 kHz	<= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	238	~ 238
Sweeptime	23.700 ms	AUTO
Reference Level	-30.000 dBm	-30.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	3	3
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	9 / max. 40	max. 40
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

End Of Annex 1