

Annex 1: Measurement diagrams 21-1-0167501T01a-A1-C2

Number of pages:	60	Date of Report:	2022-Jun-15
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:	UAB Pulsetto
Product: Model:	Nerve stimulator Pulsetto		
FCC ID:	2A5T3-BXN-PU-22V001		
Testing has been carried out in accordance with:	Title 47 CFR, Chapter I FCC Regulations, Subchapter A Subpart C: §15.247 (DTS) Deviations, modifications or clarifications (if any) to above mentioned documents are written in each section under "Test method and limit".		

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1 Measurement diagrams

1.1 AC-Power Lines Conducted Emissions

1.01

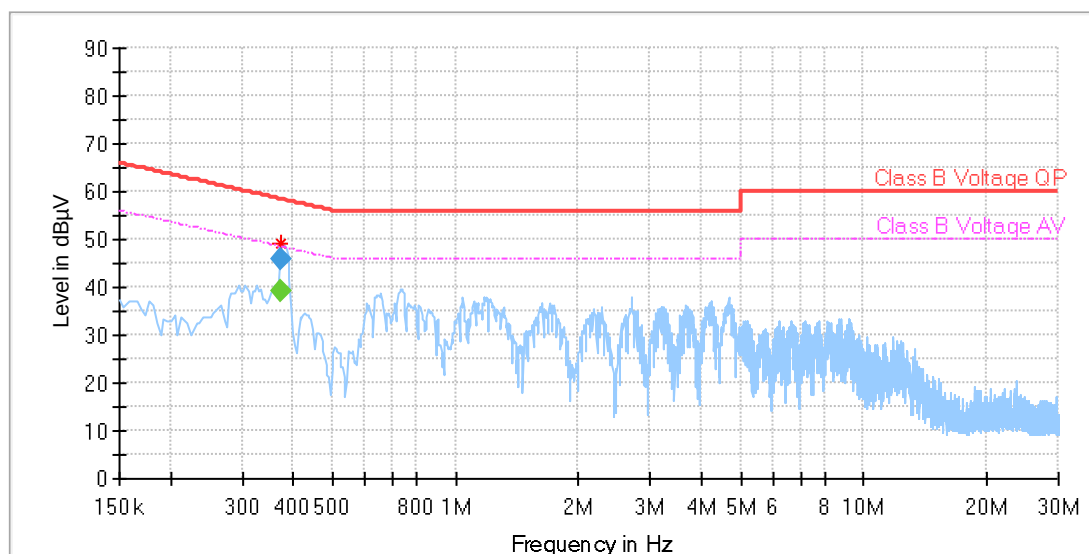
Common Information

Test Description:	Conducted Voltage Measurement Class B
Test Site Location:	Conducted Emission, CETECOM GmbH Essen
Test Software:	R&S EMC32 v9.15
Test Standard:	FCC 15.107, FCC 15.207
Operating Mode:	Operating Mode:
Measured on line:	N/L1
Diagram details:	Shows the peak values as a sum of measured ports in maxhold mode
Environmental Conditions:	Humidity: 31%rH; Temperature: 20.2°C
Operator:	HLA
Verdict:	Passed

EUT Information

PMT number:	22-1-0026901
Date received:	--

Full Spectrum



Final Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	PE	Corr. (dB)
0.374063	---	39.14	48.41	9.27	1000.0	9.000	L1	GND	0.1
0.374063	45.91	---	58.41	12.50	1000.0	9.000	L1	GND	0.1

1.2 Radiated measurements

2.01a_BLE_low_laying

Common Information

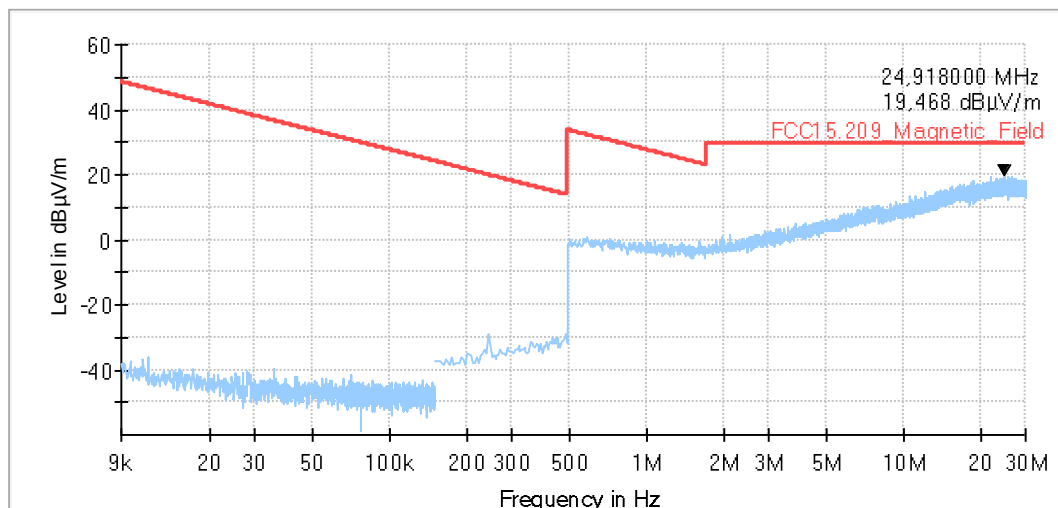
Test Description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see 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

Operator:	PMa/LKnopp
Operating Mode:	1
Power during tests:	Battery
Comment 1:	-
Environmental Conditions:	Humidity : 41%rH; Temperature: 22°C
EUT Setup:	1
Verdict:	Passed
Comment:	-

EUT Information

PMT number:	21-1-01675S02_C01
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Full Spectrum



2.01b_BLE_low_standing

Common Information

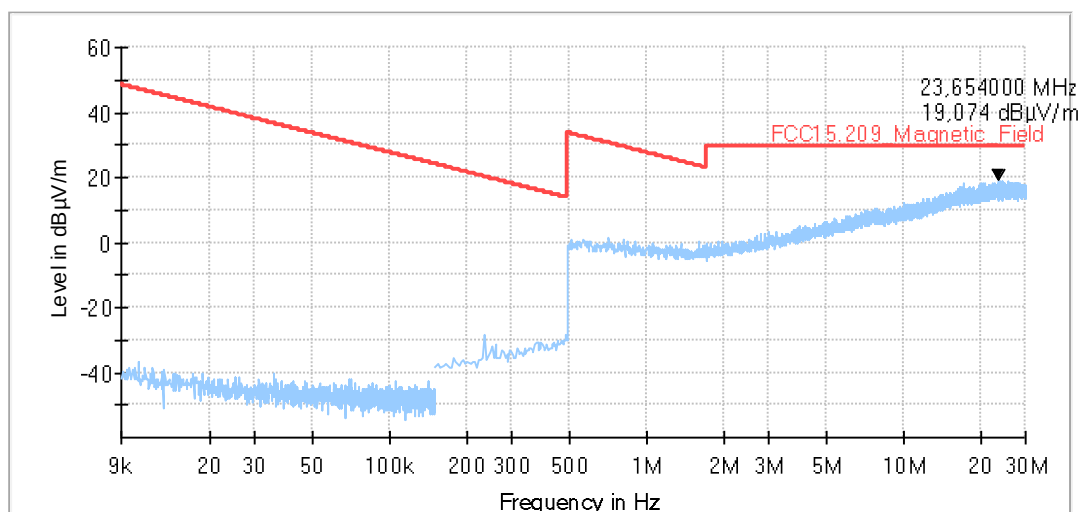
Test Description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see 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

Operator:	PMa/LKnopp
Operating Mode:	1
Power during tests:	Battery
Comment 1:	-
Environmental Conditions:	Humidity : 41%rH; Temperature: 22°C
EUT Setup:	1
Verdict:	Passed
Comment:	-

EUT Information

PMT number:	21-1-01675S02_C01
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Full Spectrum



2.02a_BLE_mid_standing

Common Information

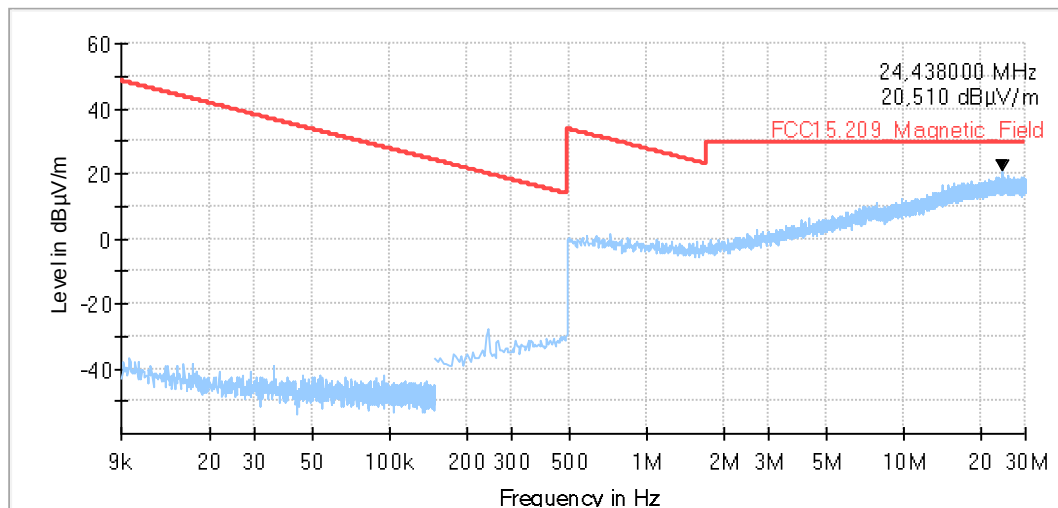
Test Description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see 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

Operator:	PMa/LKnopp
Operating Mode:	1
Power during tests:	Battery
Comment 1:	-
Environmental Conditions:	Humidity : 41%rH; Temperature: 22°C
EUT Setup:	1
Verdict:	Passed
Comment:	-

EUT Information

PMT number:	21-1-01675S02_C01
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Full Spectrum



2.02b_BLE_mid_laying

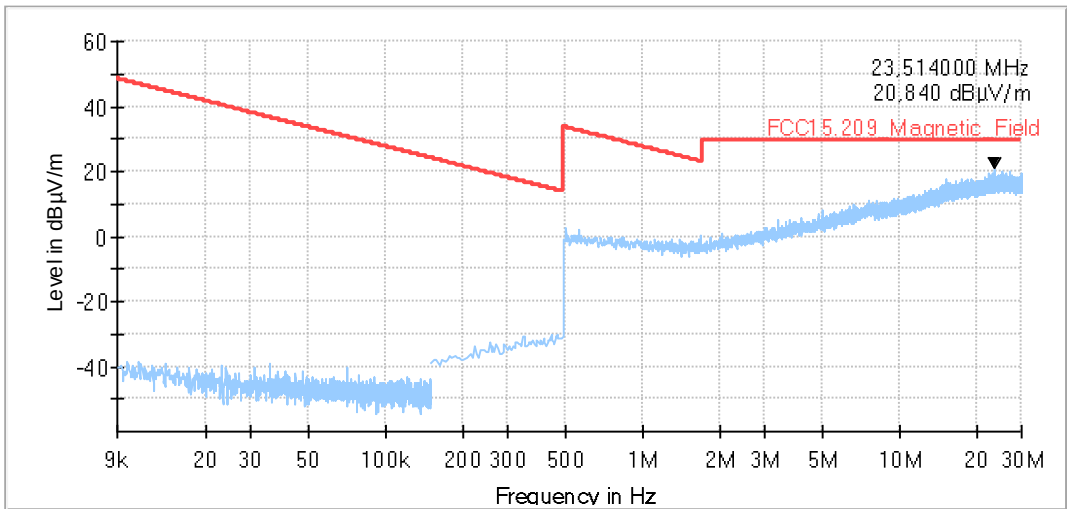
Common Information

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
Operator:	PMa/LKnopp
Operating Mode:	1
Power during tests:	Battery
Comment 1:	-
Environmental Conditions::	Humidity : 41%rH; Temperature: 22°C
EUT Setup:	1
Verdict:	Passed
Comment:	-

EUT Information

PMT number:	21-1-01675S02_C01
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Full Spectrum



2.03a_BLE_high_laying

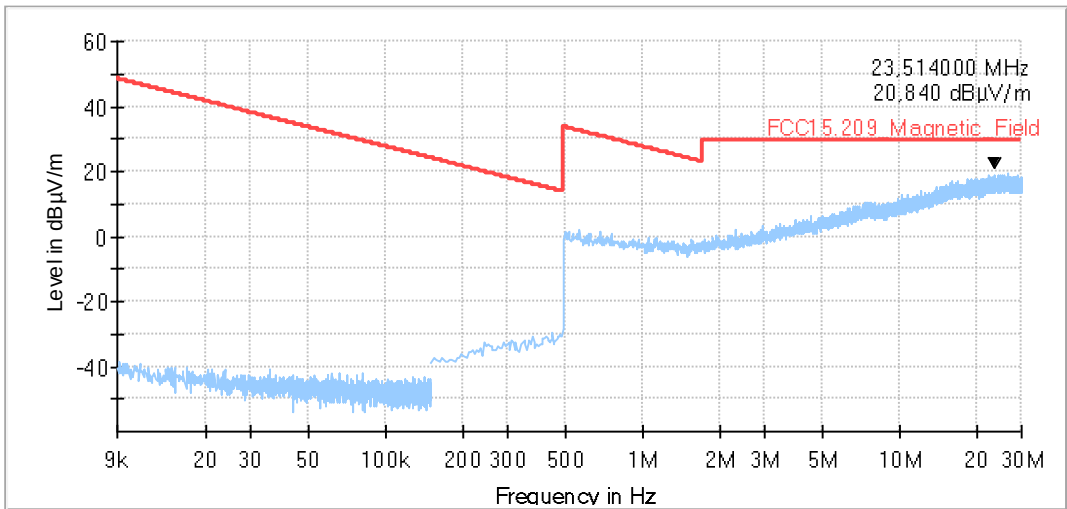
Common Information

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
Operator:	PMa/LKnopp
Operating Mode:	1
Power during tests:	Battery
Comment 1:	-
Environmental Conditions::	Humidity : 41%rH; Temperature: 22°C
EUT Setup:	1
Verdict:	Passed
Comment:	-

EUT Information

PMT number:	21-1-01675S02_C01
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Full Spectrum



2.03b_BLE_mid_standing

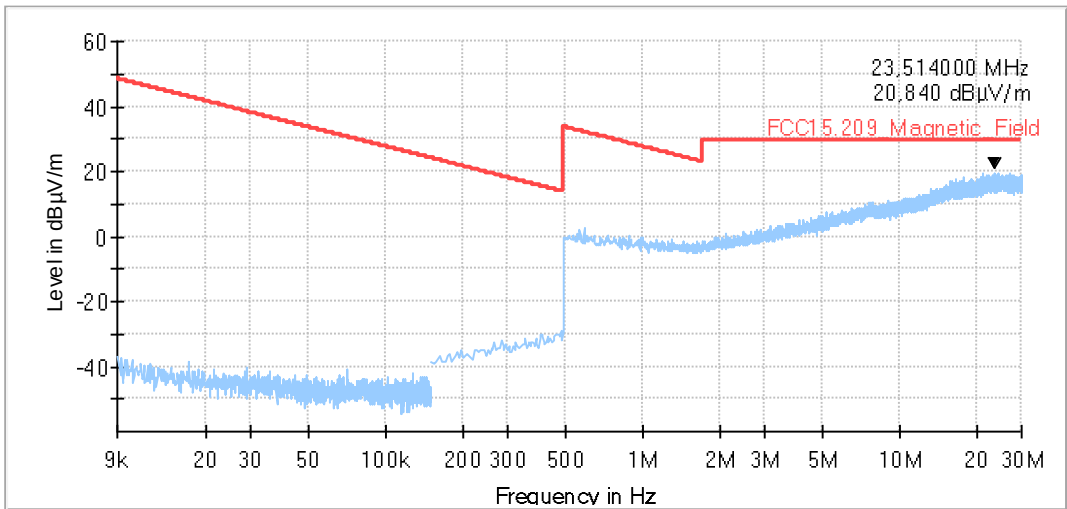
Common Information

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
Operator:	PMa/LKnopp
Operating Mode:	1
Power during tests:	Battery
Comment 1:	-
Environmental Conditions::	Humidity : 41%rH; Temperature: 22°C
EUT Setup:	1
Verdict:	Passed
Comment:	-

EUT Information

PMT number:	21-1-01675S02_C01
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Full Spectrum



3.01a_BLE_low_laying

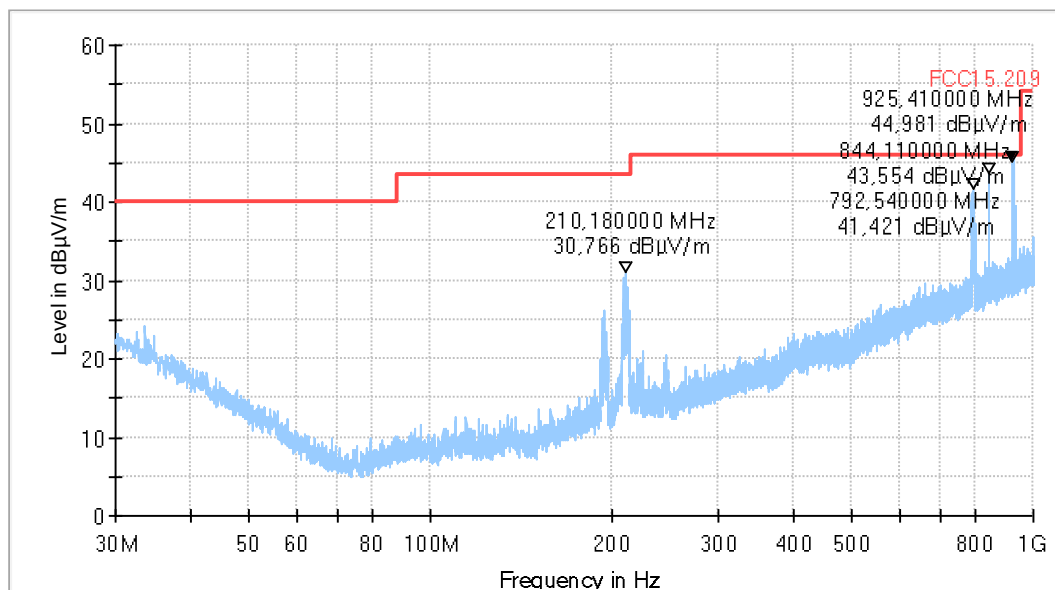
Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.205&15.209
Antenna polarisation:	horizontal/vertical
Environmental Conditions::	Humidity : 41%rH; Temperature: 22°C
Operator Name:	PMa/LKnopp
Operating Mode:	1
Power supply:	Battery
Comment:	Channel no. low
Verdict:	Passed

EUT Information

PMT number:	21-1-01675S02_C01
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Full Spectrum



Remark: Peaks @ 792, 844 and 925 MHz are caused by external interferers.

3.01b_BLE_low_standing

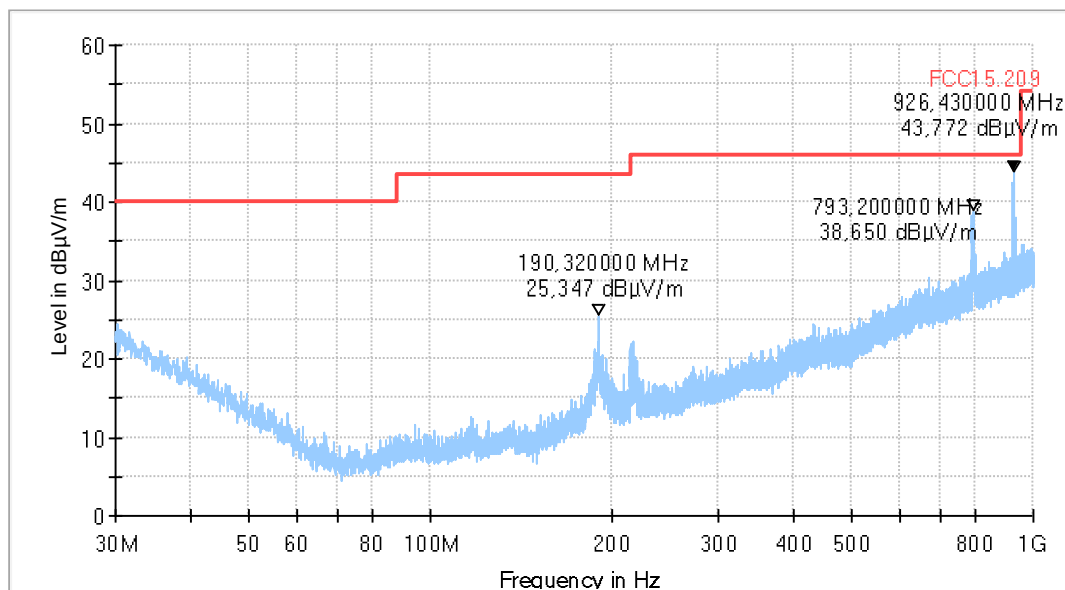
Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.205&15.209
Antenna polarisation:	horizontal/vertical
Environmental Conditions:	Humidity : 41%rH; Temperature: 22°C
Operator Name:	PMa/LKnopp
Operating Mode:	1
Power supply:	Battery
Comment:	Channel no. low
Verdict:	Passed

EUT Information

PMT number:	21-1-01675S02_C01
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Full Spectrum



Remark: Peaks @ 793 and 926 MHz are caused by external interferers.

3.02a_BLE_mid_laying

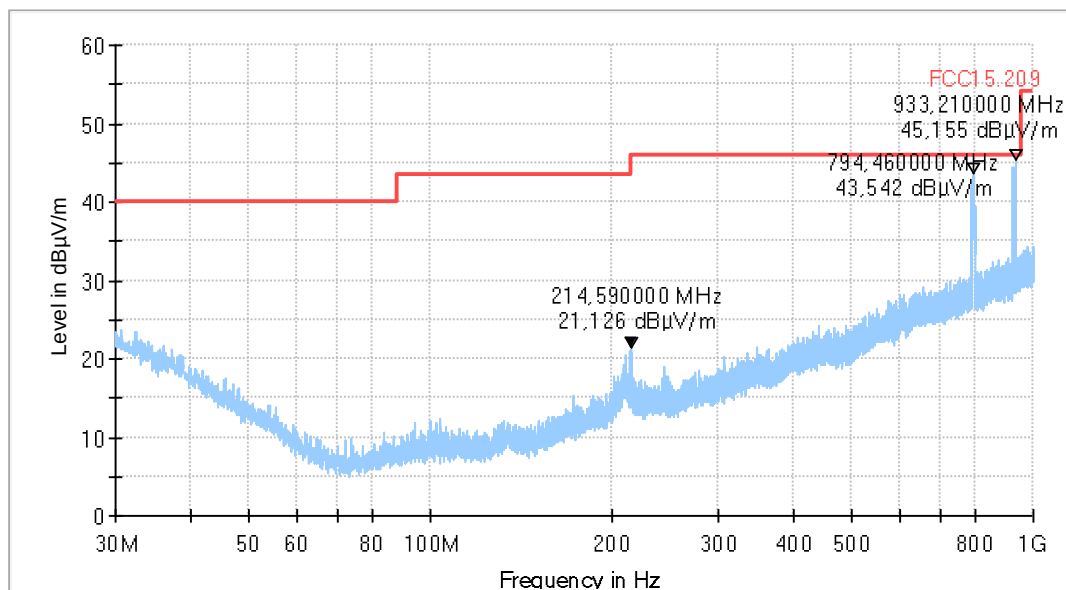
Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.205&15.209
Antenna polarisation:	horizontal/vertical
Environmental Conditions:	Humidity : 41%rH; Temperature: 22°C
Operator Name:	PMa/LKnopp
Operating Mode:	1
Power supply:	Battery
Comment:	Channel no. mid
Verdict:	Passed

EUT Information

PMT number:	21-1-01675S02_C01
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Full Spectrum



Remark: Peaks @ 794 and 933 MHz are caused by external interferers.

3.02b_BLE_mid_standing

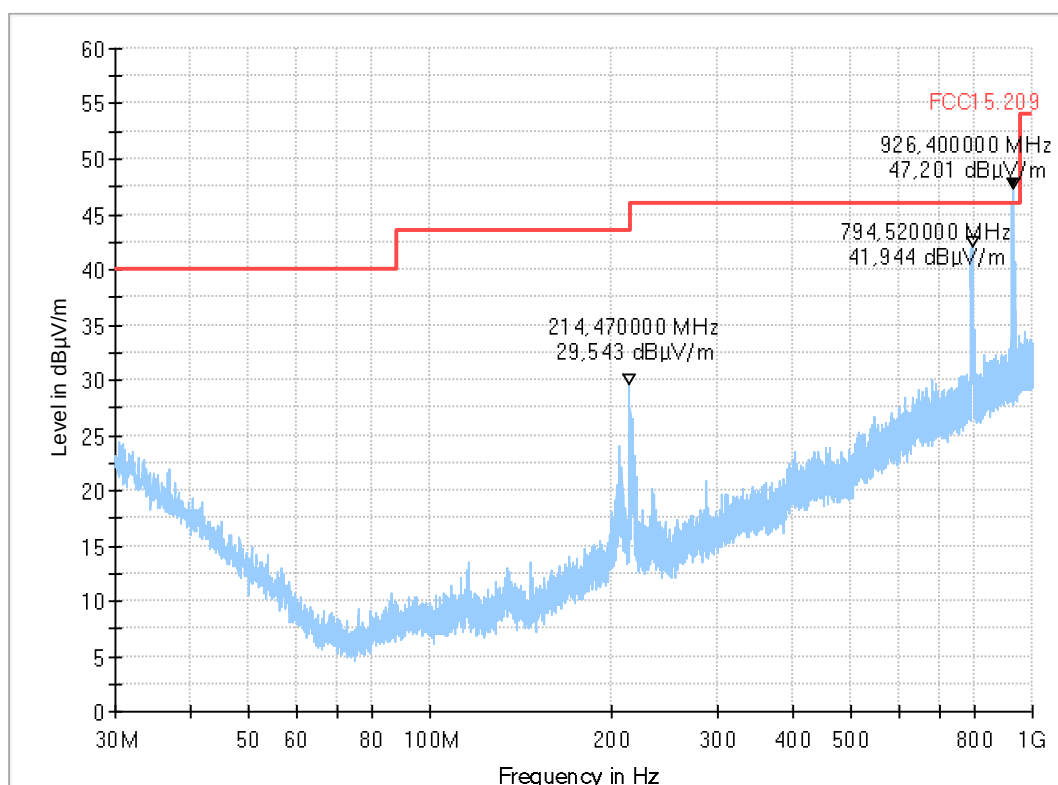
Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.205&15.209
Antenna polarisation:	horizontal/vertical
Environmental Conditions:	Humidity : 41%rH; Temperature: 22°C
Operator Name:	PMa/LKnopp
Operating Mode:	1
Power supply:	Battery
Comment:	Channel no. mid
Verdict:	Passed

EUT Information

PMT number: 21-1-01675S02_C01

Full Spectrum



Remark: Peaks @ 794 and 926 MHz are caused by external interferers.

3.03a_BLE_high_laying

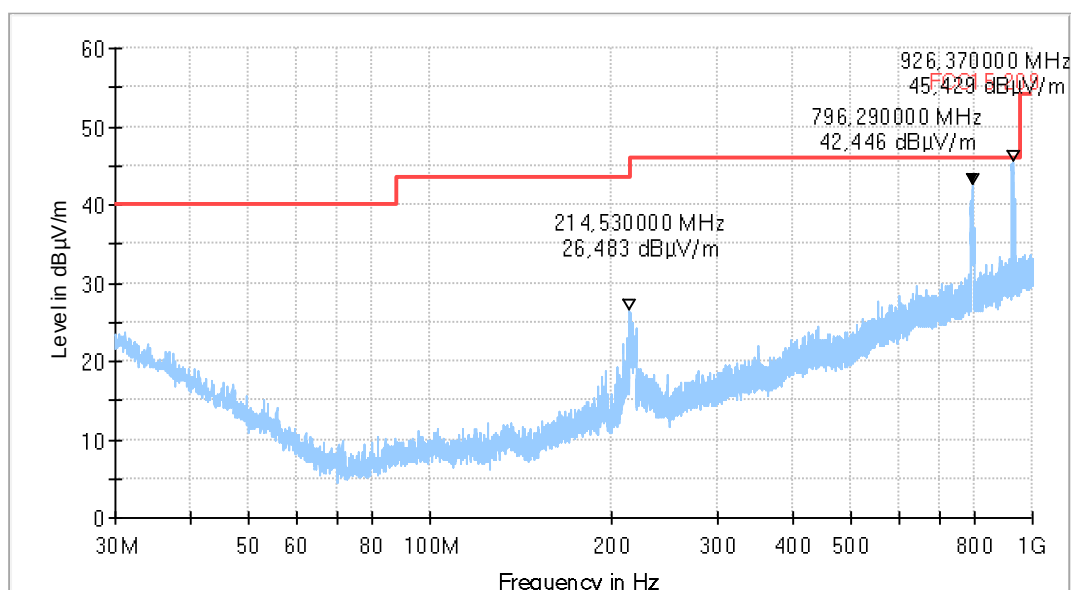
Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.205&15.209
Antenna polarisation:	horizontal/vertical
Environmental Conditions:	Humidity : 41%rH; Temperature: 22°C
Operator Name:	PMa/LKnopp
Operating Mode:	1
Power supply:	Battery
Comment:	Channel no. high
Verdict:	Passed

EUT Information

PMT number:	21-1-01675S02_C01
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Full Spectrum



Remark: Peaks @ 796 and 926 MHz are caused by external interferers.

3.03b_ BLE_high_standing

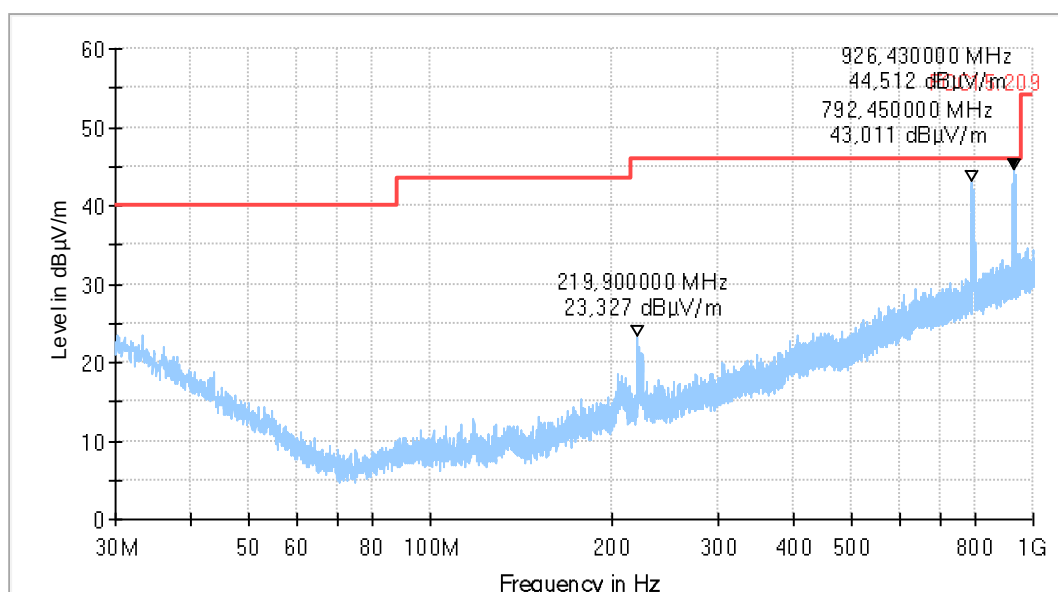
Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.205&15.209
Antenna polarisation:	horizontal/vertical
Environmental Conditions:	Humidity : 41%rH; Temperature: 22°C
Operator Name:	PMa/LKnopp
Operating Mode:	1
Power supply:	Battery
Comment:	Channel no. high
Verdict:	Passed

EUT Information

PMT number:	21-1-01675S02_C01
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Full Spectrum



Remark: Peaks @ 792 and 926 MHz are caused by external interferers.

4.01a_BLE_low_1-15GHz

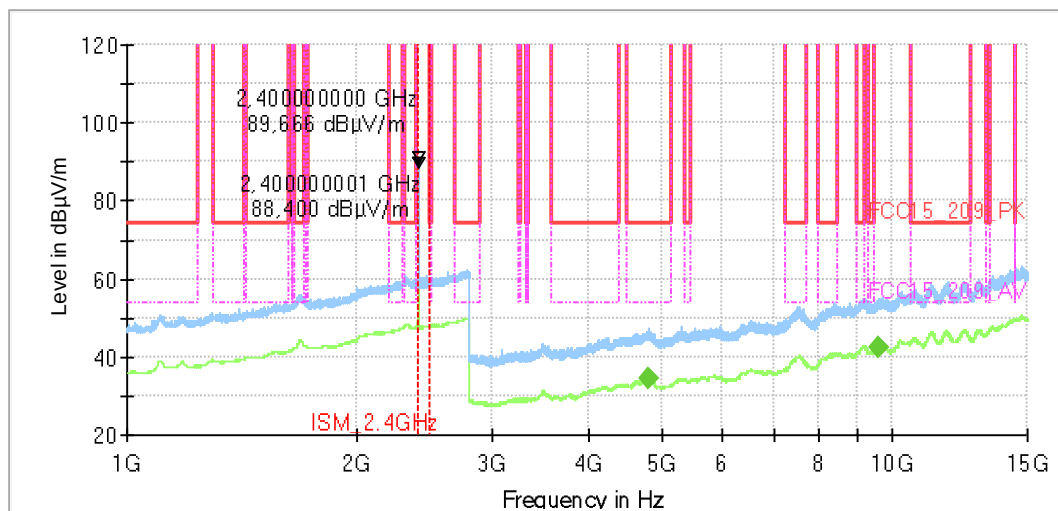
Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC 15.247&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operating Mode:	1
Set-up no.	1
Operator:	SSanthakum
Comment:	Channel no. low
Comment2:	-
Environmental Conditions:	Humidity : 40%rH; Temperature: 20°C
Verdict:	Passed

EUT Information

PMT number:	21-1-01675S02_C01
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Full Spectrum



Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin	Meas. Time (ms)	Bandwidth	Height	Pol	Azimuth	Elevation
4800.800000	---	34.42	54.00	19.58	100.0	1000.000	155.0	H	233.0	90.0
9599.200000	---	42.59	150.00	107.41	100.0	1000.000	155.0	V	157.0	0.0

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

Frequency (MHz)	Corr. (dB/m)	Sig Path (dB)	Pream p	Trd Corr. (dB/m)	Raw Rec (dBµV)	Comment
4800.800000	7	-29	0	36	---	14:00:27 - 28.04.2022
9599.200000	18	-24	0	41	---	13:58:45 - 28.04.2022

4.02a_BLE_mid_1-15GHz

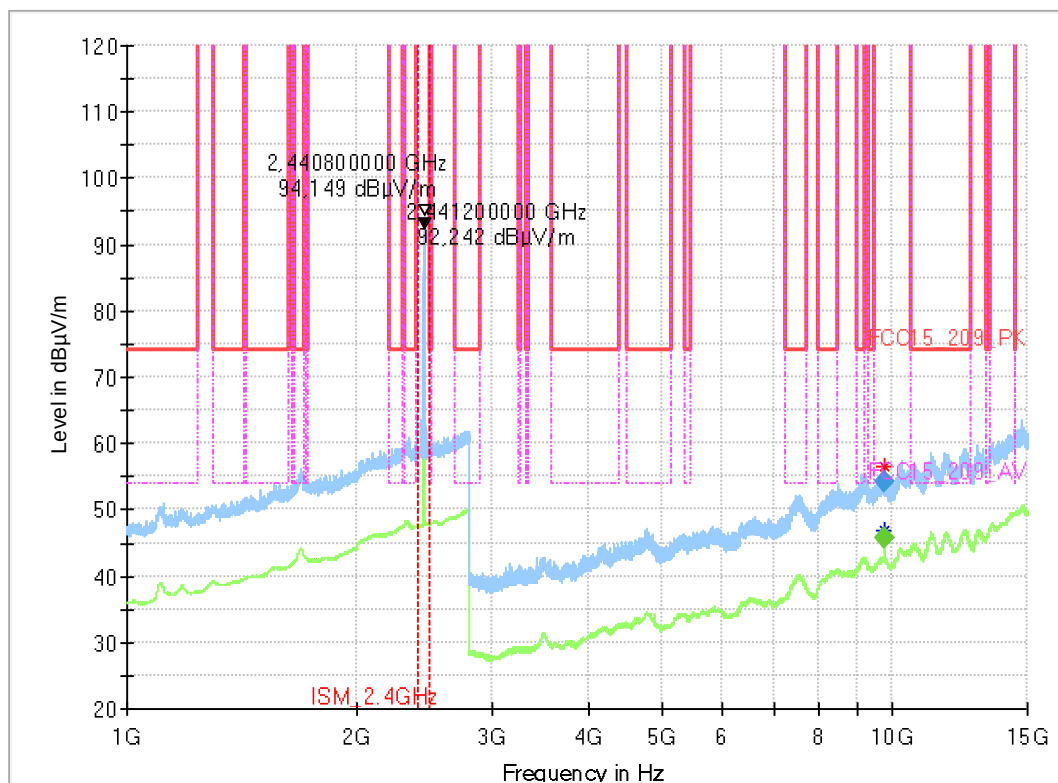
Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC 15.247&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operating Mode:	1
Set-up no.	1
Operator:	SSanthakum/ HEI
Comment:	Channel no. middle
Comment2:	-
Environmental Conditions:	Humidity : 40%RH; Temperature: 20°C
Verdict:	Passed

EUT Information

PMT number:	21-1-01675S02_C01
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Full Spectrum



Final_Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth	Height	Pol	Azimuth	Elevation
9763.200000	---	45.70	150.00	104.30	100.0	1000.000	155.0	H	333.0	0.0
9764.000000	54.36	---	150.00	95.64	100.0	1000.000	155.0	V	255.0	90.0

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

Frequency (MHz)	Corr. (dB/m)	Sig Path (dB)	Pream p	Trd Corr. (dB/m)	Raw Rec (dBμV)	Comment
9763.200000	18	-24	0	42	---	19:06:44 - 28.04.2022
9764.000000	18	-24	0	42	---	19:04:54 - 28.04.2022

4.03a_BLE_high_1-15GHz

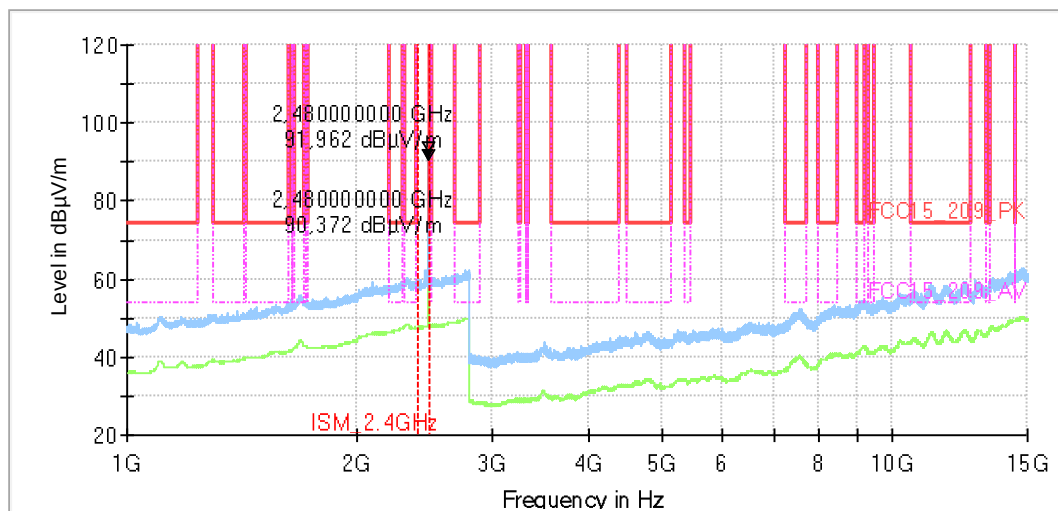
Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC 15.247&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operating Mode:	1
Set-up no.	1
Operator:	SSanthakum
Comment:	Channel no. high
Comment2:	-
Environmental Conditions:	Humidity : 40%rH; Temperature: 20°C
Verdict:	Passed

EUT Information

PMT number:	21-1-01675S02_C01
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Full Spectrum



Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin	Meas. Time (ms)	Bandwidth	Height	Pol	Azimuth	Elevation
---	---	---	---	---	---	---	---	---	---	---

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

Frequency (MHz)	Corr. (dB/m)	Sig Path (dB)	Preamplifier	Trd Corr. (dB/m)	Raw Rec (dBµV)	Comment
---	---	---	---	---	---	---

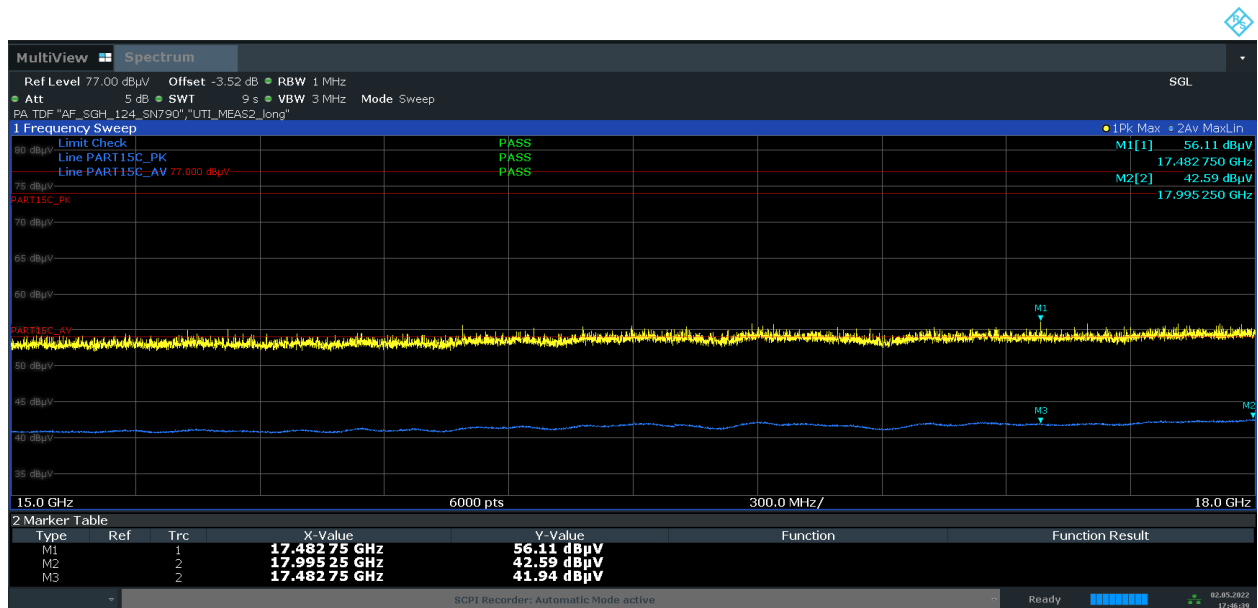
4.01b_BLE_low_15-18GHz_AntH

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC 15.247&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operating Mode:	1
Set-up no.	1
Operator:	SSanthakum
Comment:	Channel no. low
Comment2:	-
Environmental Conditions:	Humidity : 40%rH; Temperature: 20°C
Verdict:	Passed

EUT Information

PMT number:	21-1-01675S02_C01
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17:46:40 02.05.2022

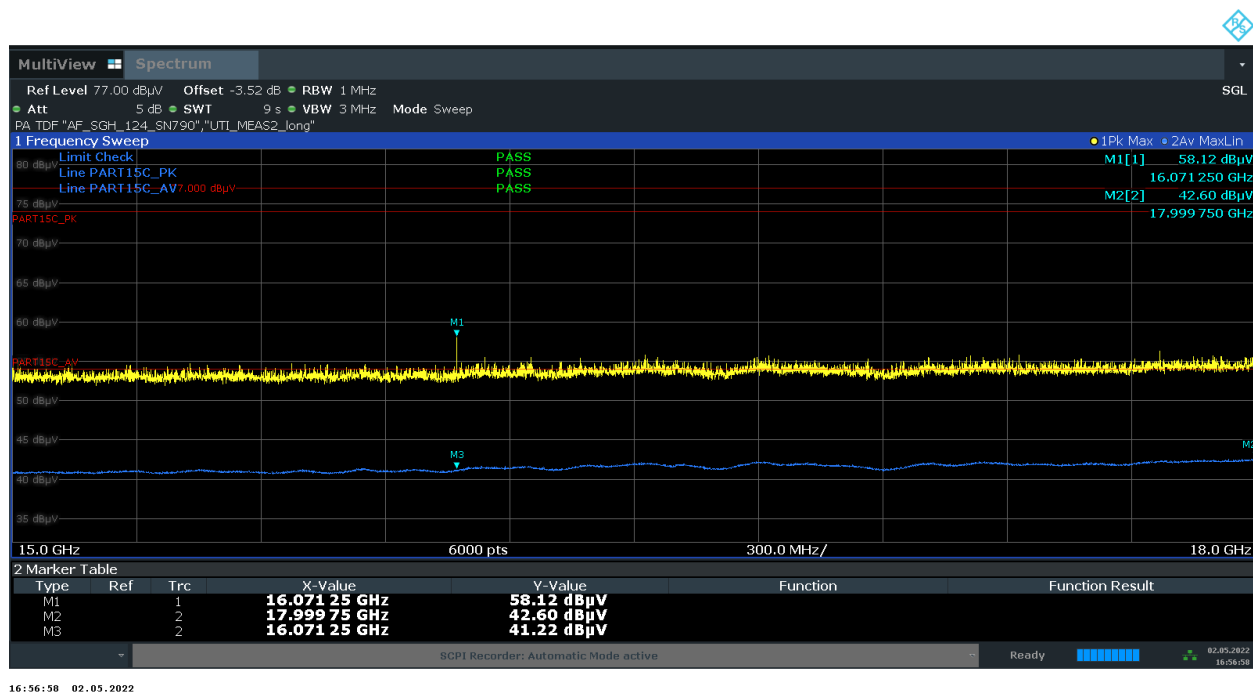
4.01c_BLE_low_15-18GHz_AntV

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC 15.247&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operating Mode:	1
Set-up no.	1
Operator:	SSanthakum
Comment:	Channel no. low
Comment2:	-
Environmental Conditions:	Humidity : 40%rH; Temperature: 20°C
Verdict:	Passed

EUT Information

PMT number:	21-1-01675S02_C01
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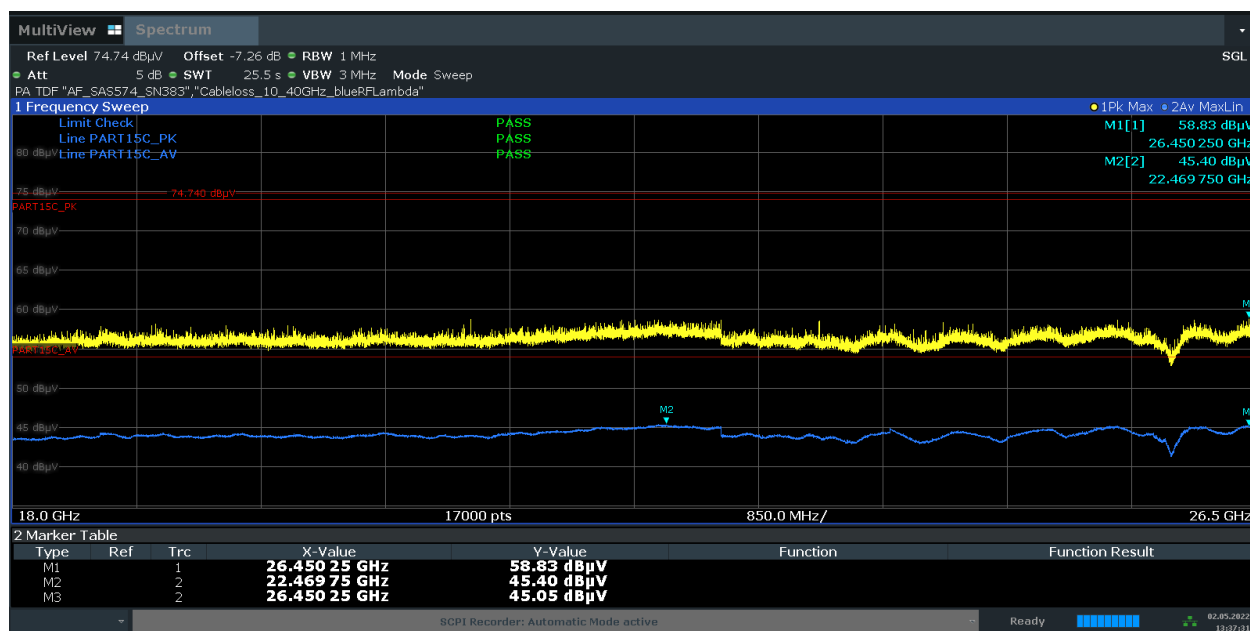
4.01d_BLE_low_18-26.5GHz_AntH

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC 15.247&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operating Mode:	1
Set-up no.	1
Operator:	SSanthakum
Comment:	Channel no. low
Comment2:	-
Environmental Conditions:	Humidity : 40%rH; Temperature: 20°C
Verdict:	Passed

EUT Information

PMT number:	21-1-01675S02_C01
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13:37:31 02.05.2022

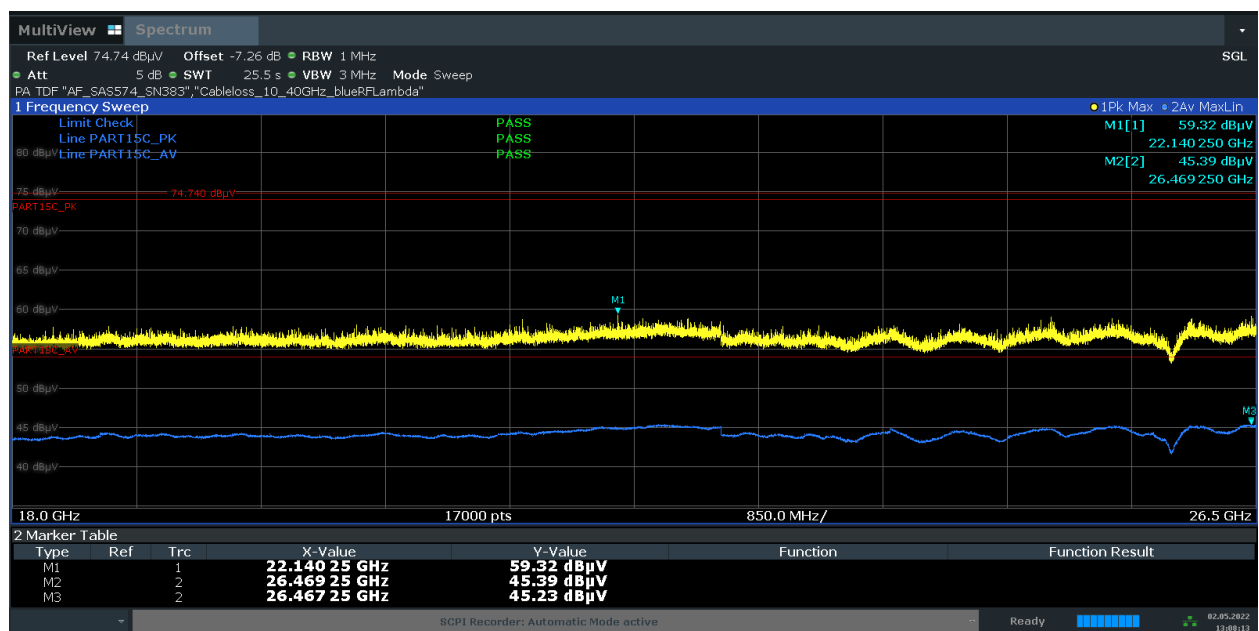
4.01e_BLE_low_18-26.5GHz_AntV

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC 15.247&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operating Mode:	1
Set-up no.	1
Operator:	SSanthakum
Comment:	Channel no. low
Comment2:	-
Environmental Conditions:	Humidity : 40%rH; Temperature: 20°C
Verdict:	Passed

EUT Information

PMT number:	21-1-01675S02_C01
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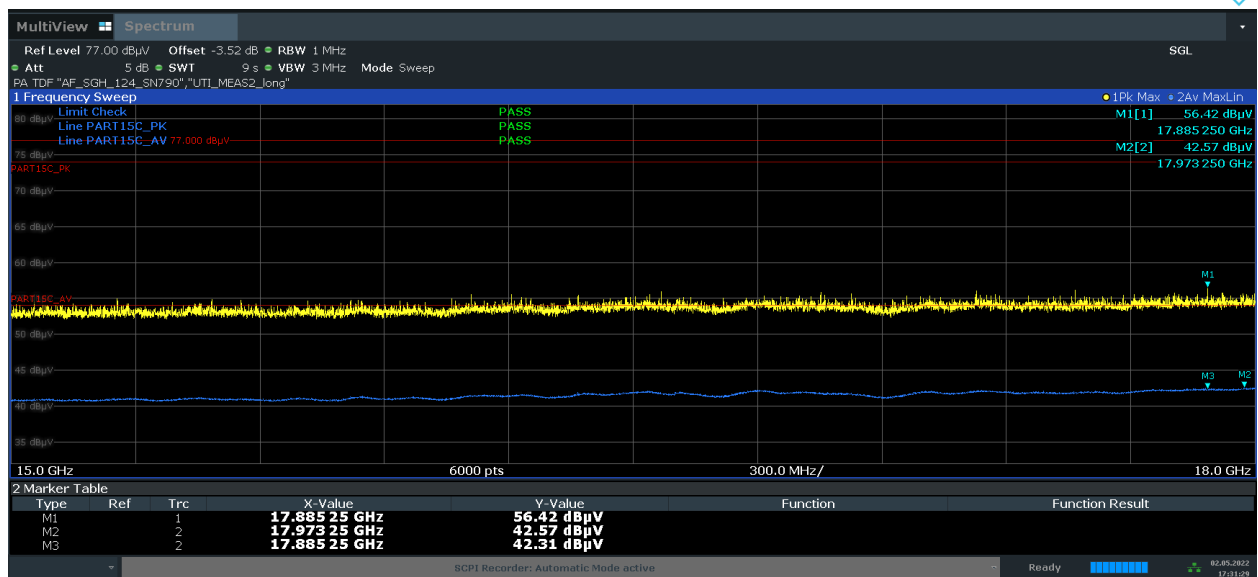
4.02b_BLE_mid_15-18GHz_AntH

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC 15.247&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operating Mode:	1
Set-up no.	1
Operator:	SSanthakum/ HEI
Comment:	Channel no. middle
Comment2:	-
Environmental Conditions:	Humidity : 40%rH; Temperature: 20°C
Verdict:	Passed

EUT Information

PMT number:	21-1-01675S02_C01
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17:31:30 02.05.2022

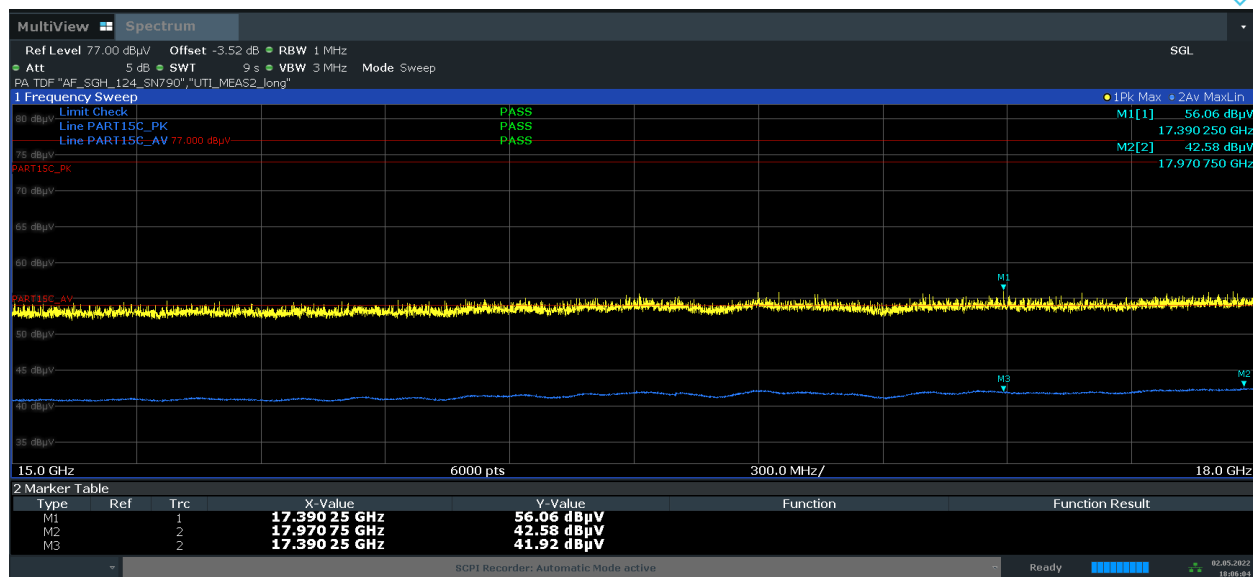
4.02c_BLE_mid_15-18GHz_AntV

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC 15.247&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operating Mode:	1
Set-up no.	1
Operator:	SSanthakum/ HEI
Comment:	Channel no. middle
Comment2:	-
Environmental Conditions:	Humidity : 40%rH; Temperature: 20°C
Verdict:	Passed

EUT Information

PMT number:	21-1-01675S02_C01
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18:06:04 02.05.2022

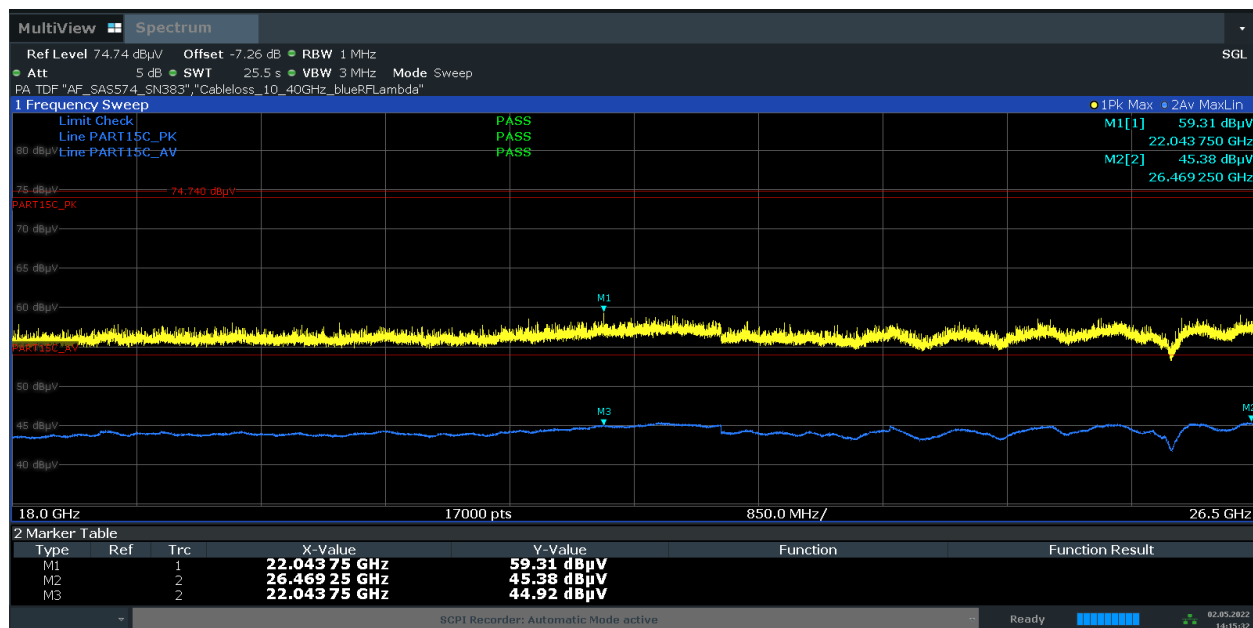
4.02d_BLE_mid_18-26.5GHz_AntH

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC 15.247&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operating Mode:	1
Set-up no.	1
Operator:	SSanthakum/ HEI
Comment:	Channel no. middle
Comment2:	-
Environmental Conditions:	Humidity : 40%rH; Temperature: 20°C
Verdict:	Passed

EUT Information

PMT number:	21-1-01675S02_C01
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14:15:32 02.05.2022

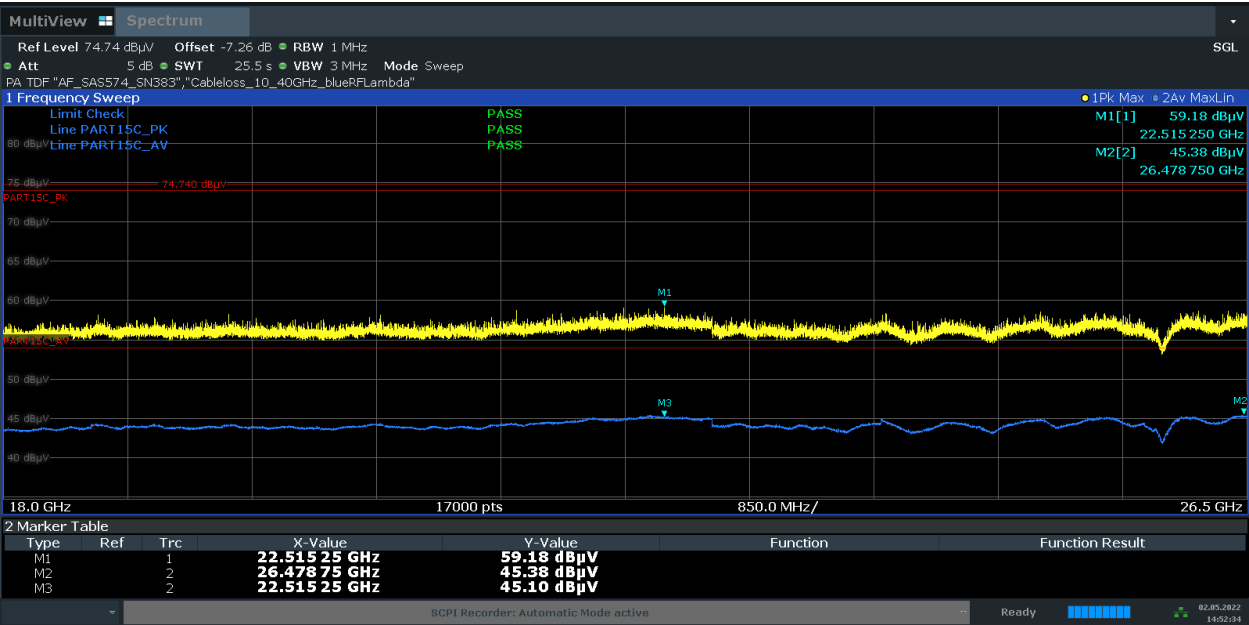
4.02e_BLE_mid_18-26.5GHz_AntV

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC 15.247&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operating Mode:	1
Set-up no.	1
Operator:	SSanthakum/ HEI
Comment:	Channel no. middle
Comment2:	-
Environmental Conditions:	Humidity : 40%rH; Temperature: 20°C
Verdict:	Passed

EUT Information

PMT number:	21-1-01675S02_C01
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14:52:35 02.05.2022

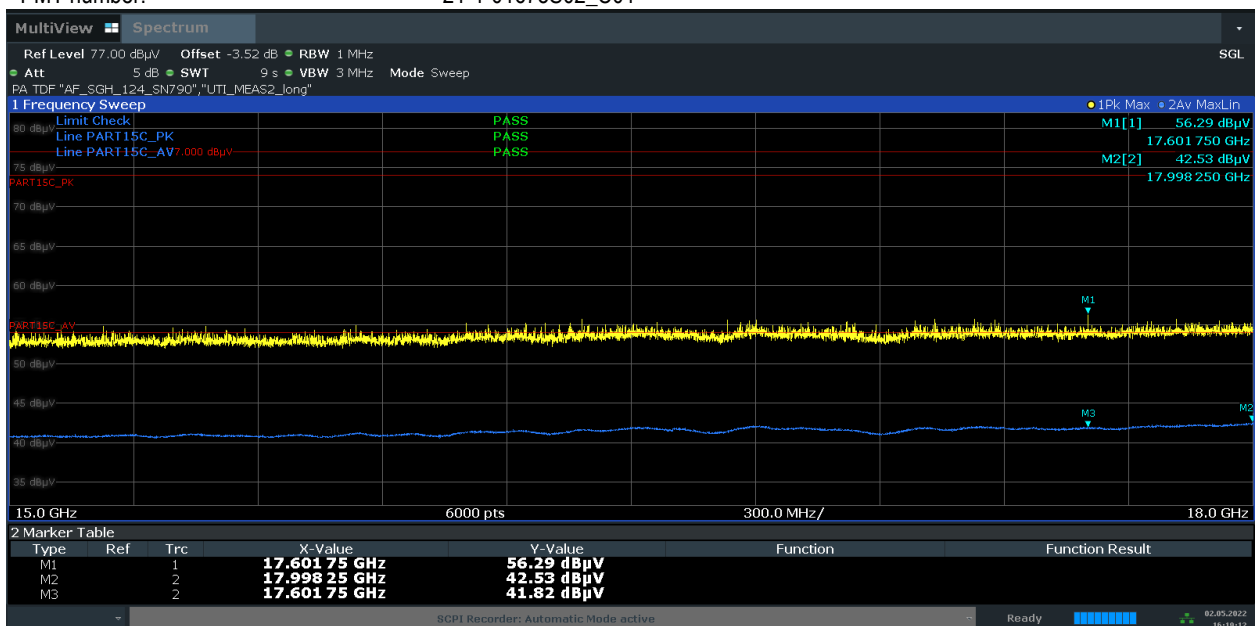
4.03b_BLE_high_15-18GHz_AntH

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC 15.247&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operating Mode:	1
Set-up no.	1
Operator:	SSanthakum
Comment:	Channel no. high
Comment2:	-
Environmental Conditions:	Humidity : 40%rH; Temperature: 20°C
Verdict:	Passed

EUT Information

PMT number: 21-1-01675S02_C01



16:19:13 02.05.2022

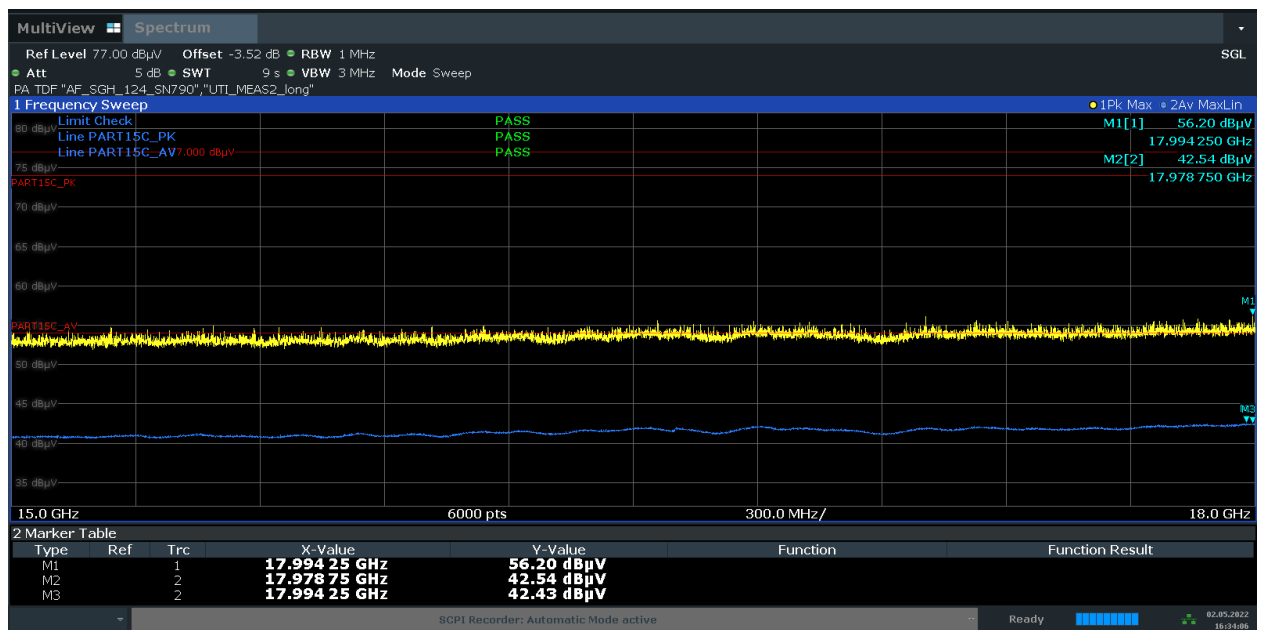
4.03c_BLE_high_15-18GHz_AntH

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC 15.247&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operating Mode:	1
Set-up no.	1
Operator:	SSanthakum
Comment:	Channel no. high
Comment2:	-
Environmental Conditions:	Humidity : 40%rH; Temperature: 20°C
Verdict:	Passed

EUT Information

PMT number:	21-1-01675S02_C01
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4.03d_BLE_high_18-26.5GHz_Anth

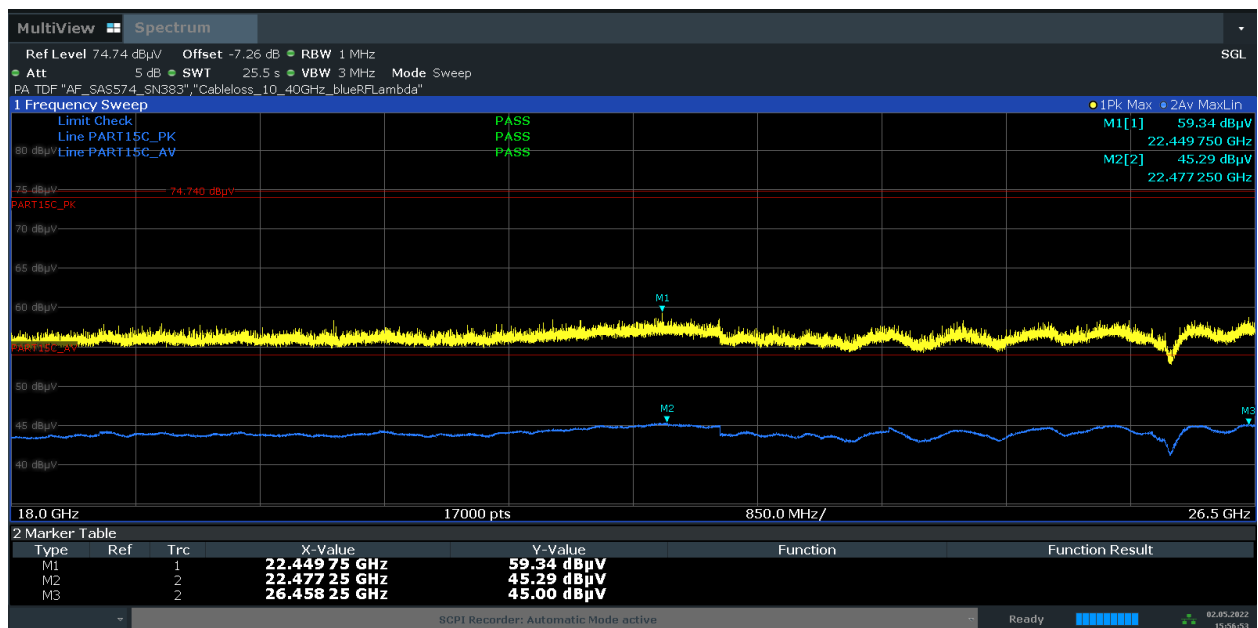
Common Information

Test Description: Radiated field strength emission in 3m distance
 Test Site: Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
 Test Standard: FCC 15.247&15.209 Intentional Radiator
 Antenna polarisation: horizontal/vertical

 Operating Mode: 1
 Set-up no. 1
 Operator: SSanthakum
 Comment: Channel no. high
 Comment2: -
 Environmental Conditions: Humidity : 40%rH; Temperature: 20°C
 Verdict: Passed

EUT Information

PMT number: 21-1-01675S02_C01



15:56:54 02.05.2022

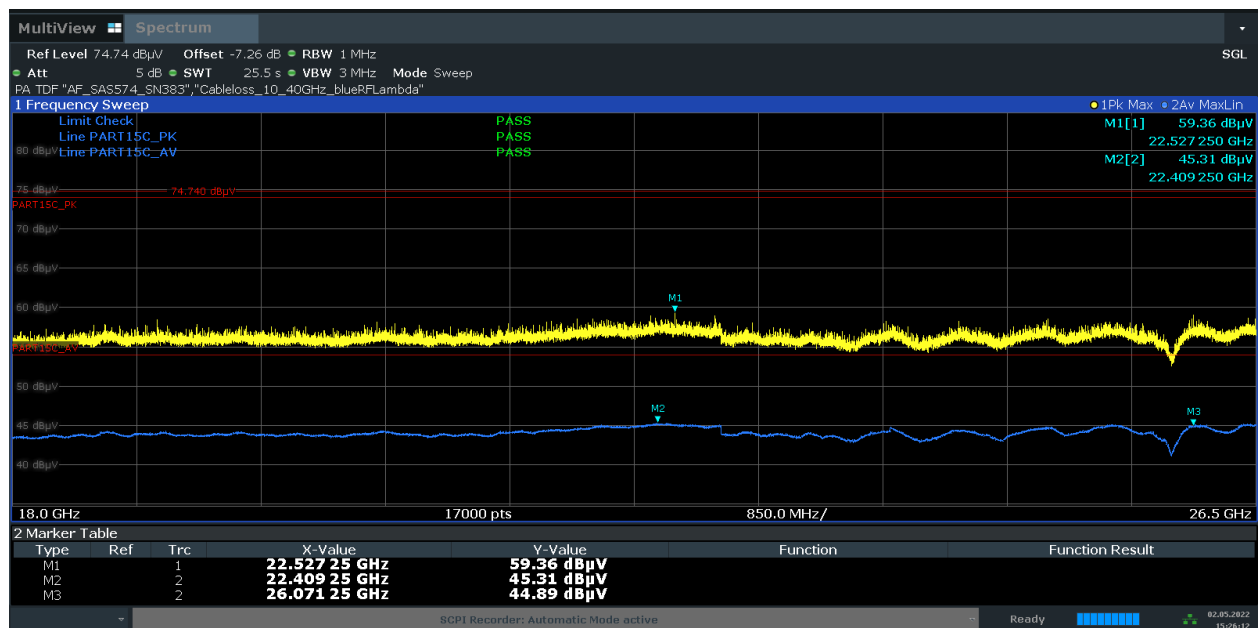
4.03e_BLE_high_18-26.5GHz_AntV

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC 15.247&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operating Mode:	1
Set-up no.	
Operator:	SSanthakum
Comment:	Channel no. high
Comment2:	-
Environmental Conditions:	Humidity : 40%rH; Temperature: 20°C
Verdict:	Passed

EUT Information

PMT number:	21-1-01675S02_C01
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15:26:12 02.05.2022

9.01_BE_BLE_low

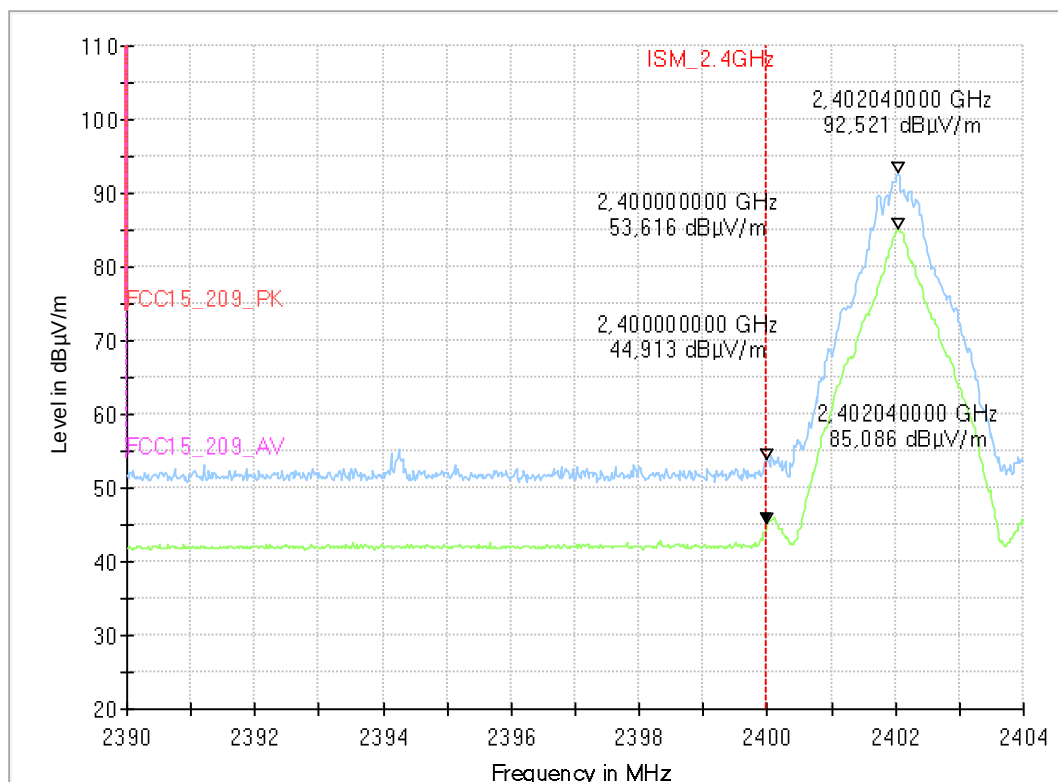
Common Information

Test Description:	Band-Edge: Radiated Field Strength Emissions Emissions in 3m distance
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC 15.247&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operating Mode:	1
Operator:	SSanthakum
Comment:	Channel no. low
Comment2:	-
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	21-1-01675S02_C01
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Full Spectrum



9.02_BE_BLE_high

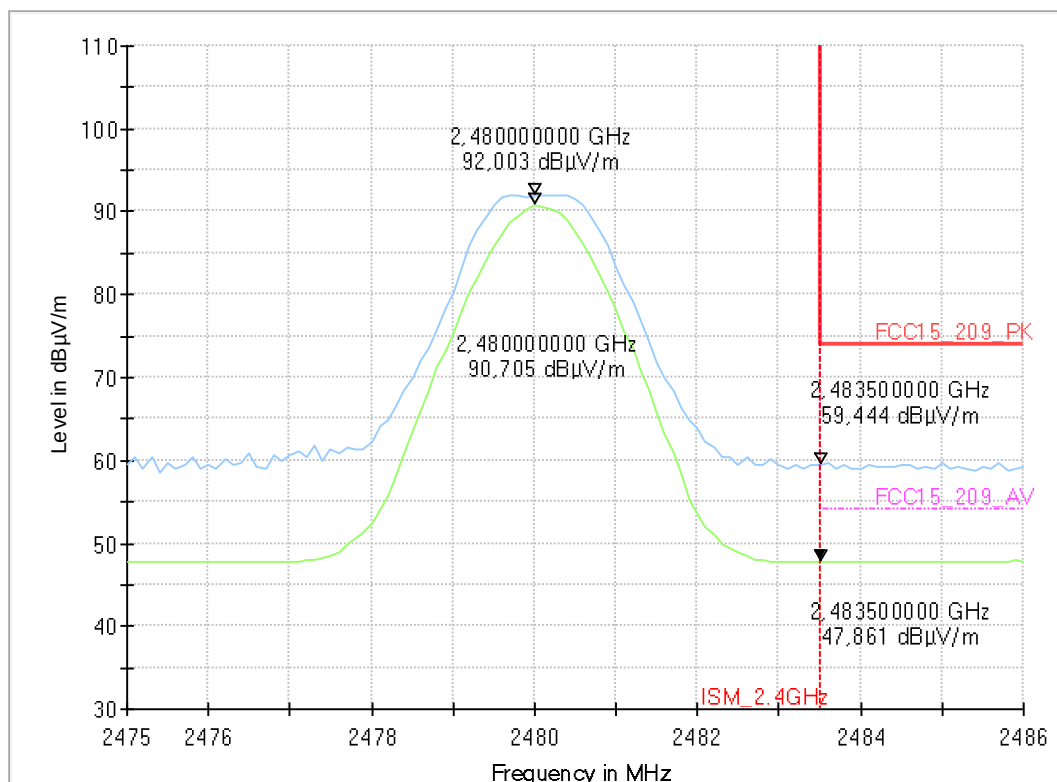
Common Information

Test Description:	Band-Edge: Radiated Field Strength Emissions Emissions in 3m distance
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.60.20
Test Standard:	FCC 15.247&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operating Mode:	1
Operator:	SSanthakum
Comment:	Channel no. high
Comment2:	-
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	21-1-01675S02_C01
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Full Spectrum



1.3 Conducted measurements

RF output power

Mode	DUT Frequency	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
BLE [GFSK]; 2402MHz	2402.0000	-2.7	30.0	-2.7	96.247	PASS
BLE [GFSK]; 2440MHz	2440.0000	-3.6	30.0	-3.6	96.250	PASS
BLE [GFSK]; 2480MHz	2480.0000	-3.9	30.0	-3.9	96.251	PASS

Peak output power (Sweep)

Mode	DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
BLE [GFSK]; 2402MHz	2402.000000	-2.5	30.0	PASS
BLE [GFSK]; 2440MHz	2440.000000	-3.0	30.0	PASS
BLE [GFSK]; 2480MHz	2480.000000	-3.1	30.0	PASS

Minimum Emission Bandwidth 6 dB

Mode	DUT Frequency	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left	Band Edge Right
BLE [GFSK]; 2402MHz	2402.0000	0.534654	0.500000	---	2401.7821	2402.3168
BLE [GFSK]; 2440MHz	2440.0000	0.554456	0.500000	---	2439.7623	2440.3168
BLE [GFSK]; 2480MHz	2480.0000	0.554456	0.500000	---	2479.7623	2480.3168

Peak Power Spectral Density

Mode	DUT Frequency	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
BLE [GFSK]; 2402MHz	2402.000000	2402.067500	-6.063	8.0	PASS
BLE [GFSK]; 2440MHz	2440.000000	2440.052500	-7.665	8.0	PASS
BLE [GFSK]; 2480MHz	2480.000000	2480.042500	-7.980	8.0	PASS

Occupied Channel Bandwidth 99%

Mode	DUT Frequency	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left	Band Edge Right
BLE [GFSK]; 2402MHz	2402.0000	0.850000	---	---	2401.6225	2402.4725
BLE [GFSK]; 2440MHz	2440.0000	0.875000	---	---	2439.6175	2440.4925
BLE [GFSK]; 2480MHz	2480.0000	0.895000	---	---	2479.5925	2480.4875

Tx Spurious Emission

Mode	DUT Frequency (MHz)	Result
BLE [GFSK]; 2402MHz	2402.000000	PASS
BLE [GFSK]; 2440MHz	2440.000000	PASS
BLE [GFSK]; 2480MHz	2480.000000	PASS

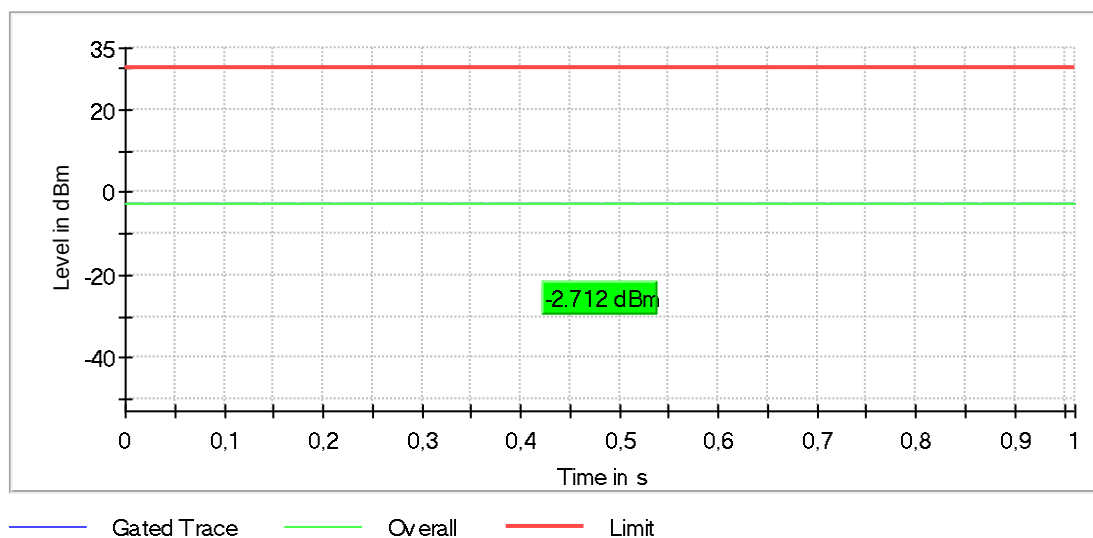
RF output power (2402 MHz; BLE [GFSK] (0 dBm); 1 MHz)

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)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
2402.000000	-2.7	30.0	-2.7	96.247	PASS

Gated Trace



OSP PowerMeter settings

Setting	Instrument Value	Target Value
Measurement Time	1.000 s	1.000 s
Points	1000000	1000000
Time resolution	1.000 μ s	1.000 μ s

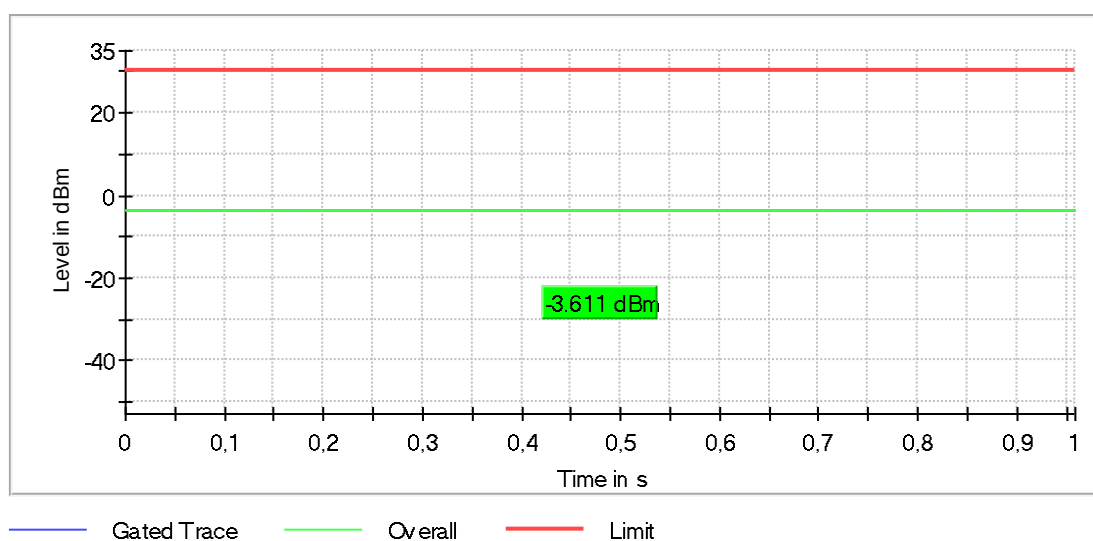
RF output power (2440 MHz; BLE [GFSK] (0 dBm); 1 MHz)

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)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
2440.000000	-3.6	30.0	-3.6	96.250	PASS

Gated Trace



OSP PowerMeter settings

Setting	Instrument Value	Target Value
Measurement Time	1.000 s	1.000 s
Points	1000000	1000000
Time resolution	1.000 μ s	1.000 μ s

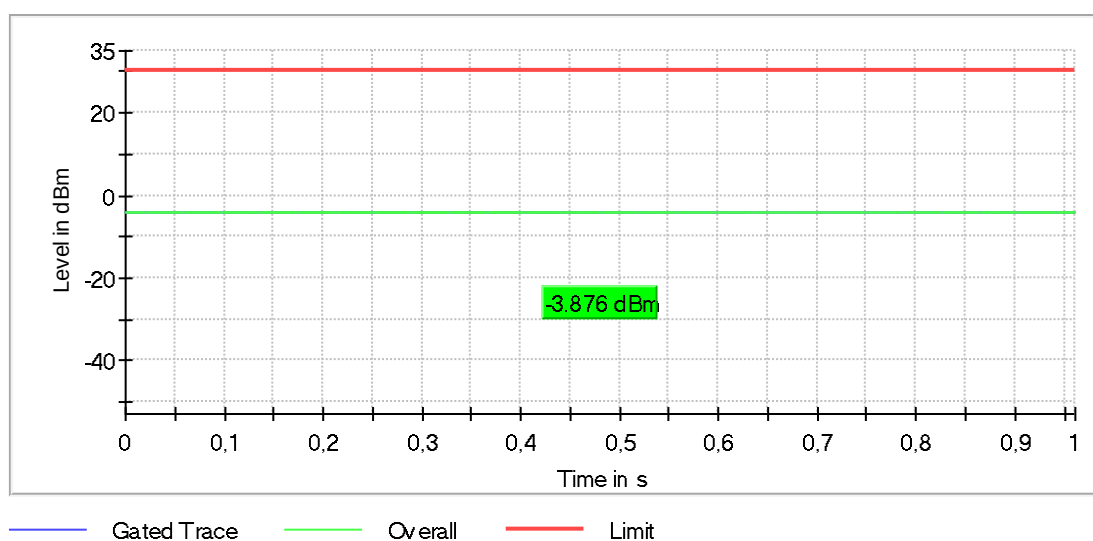
RF output power (2480 MHz; BLE [GFSK] (0 dBm); 1 MHz)

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)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
2480.000000	-3.9	30.0	-3.9	96.251	PASS

Gated Trace



OSP PowerMeter settings

Setting	Instrument Value	Target Value
Measurement Time	1.000 s	1.000 s
Points	1000000	1000000
Time resolution	1.000 μ s	1.000 μ s

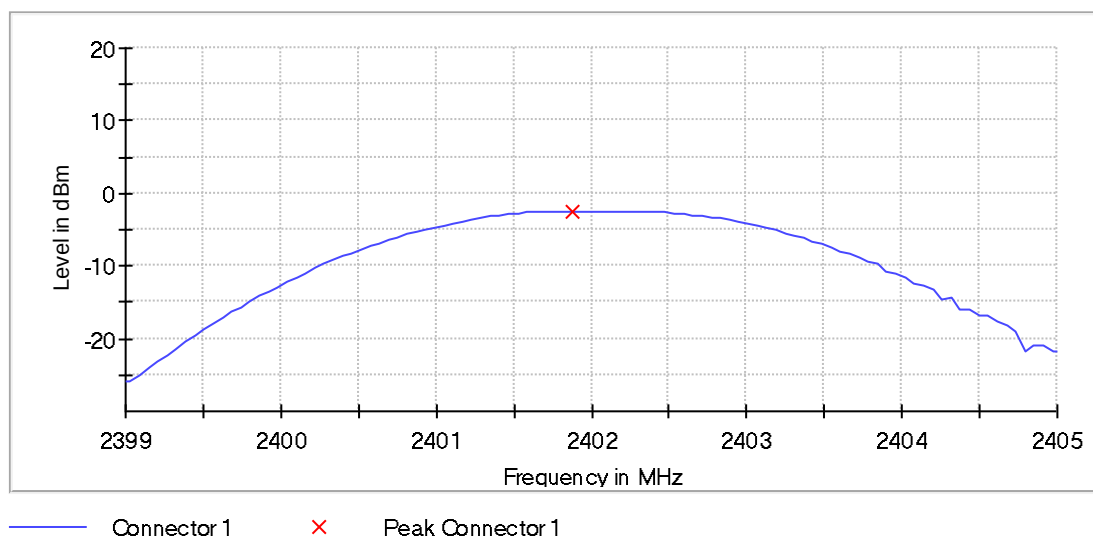
Peak output power (Sweep) (2402 MHz; BLE [GFSK] (0 dBm); 1 MHz)

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	-2.5	30.0	PASS

Peak Power



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	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	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.02 dB	0.50 dB

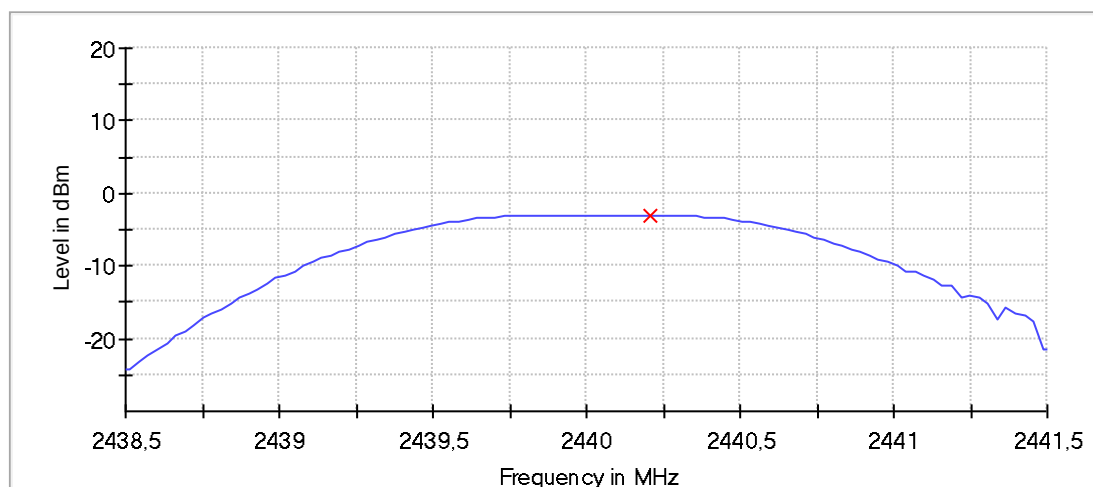
Peak output power (Sweep) (2440 MHz; BLE [GFSK] (0 dBm); 1 MHz)

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	-3.0	30.0	PASS

Peak Power



— Connector 1 × Peak Connector 1

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43850 GHz	2.43850 GHz
Stop Frequency	2.44150 GHz	2.44150 GHz
Span	3.000 MHz	3.000 MHz
RBW	1.000 MHz	>= 534.655 kHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	101	~ 101
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	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.02 dB	0.50 dB

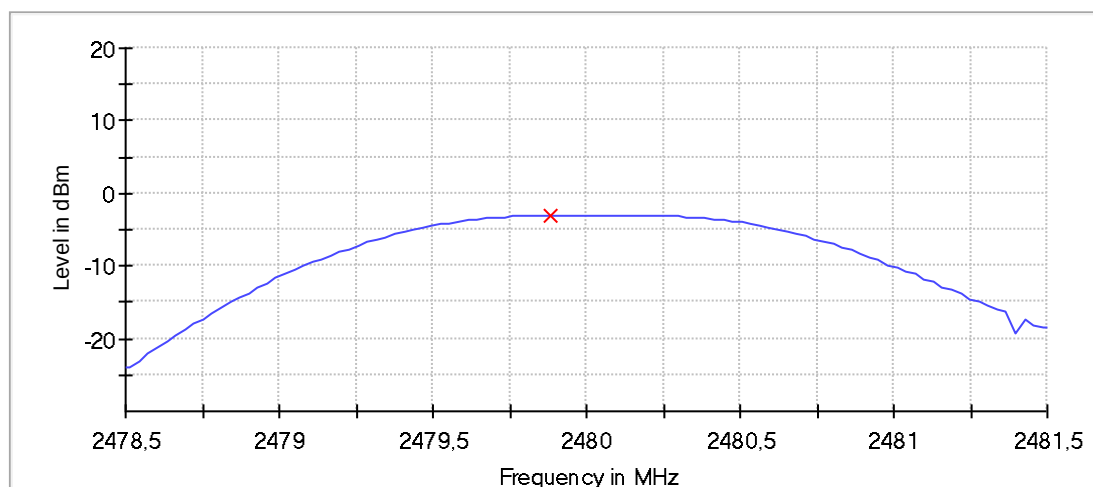
Peak output power (Sweep) (2480 MHz; BLE [GFSK] (0 dBm); 1 MHz)

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	-3.1	30.0	PASS

Peak Power



— Connector 1 × Peak Connector 1

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47850 GHz	2.47850 GHz
Stop Frequency	2.48150 GHz	2.48150 GHz
Span	3.000 MHz	3.000 MHz
RBW	1.000 MHz	>= 554.457 kHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	101	~ 101
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	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.09 dB	0.50 dB

Minimum Emission Bandwidth 6 dB (2402 MHz; BLE [GFSK] (0 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

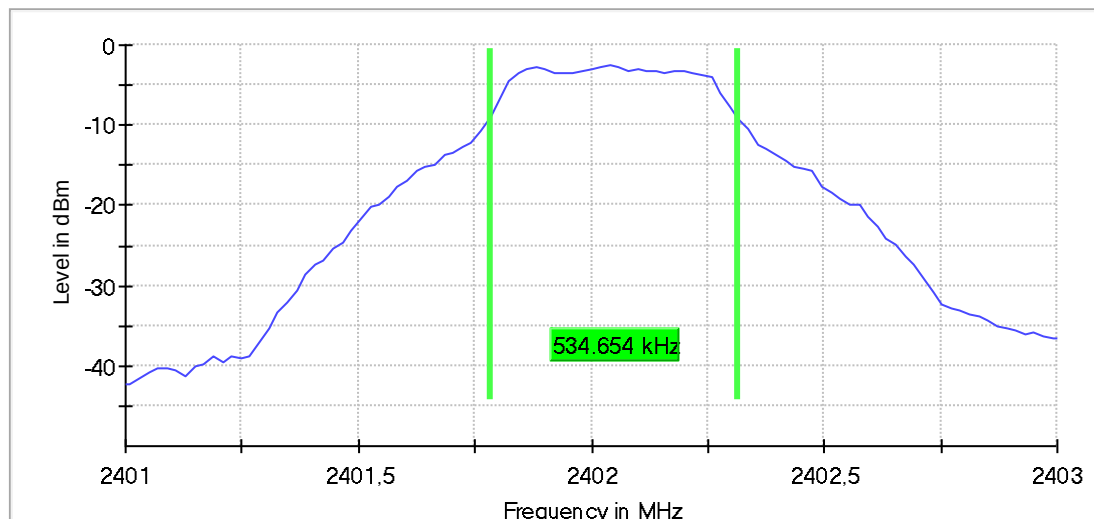
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	0.534654	0.500000	---	2401.782178	2402.316832

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	-2.6	PASS

6 dB Bandwidth



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	-10.000 dBm	-10.000 dBm
Attenuation	0.000 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	0.04 dB	0.50 dB

Minimum Emission Bandwidth 6 dB (2440 MHz; BLE [GFSK] (0 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

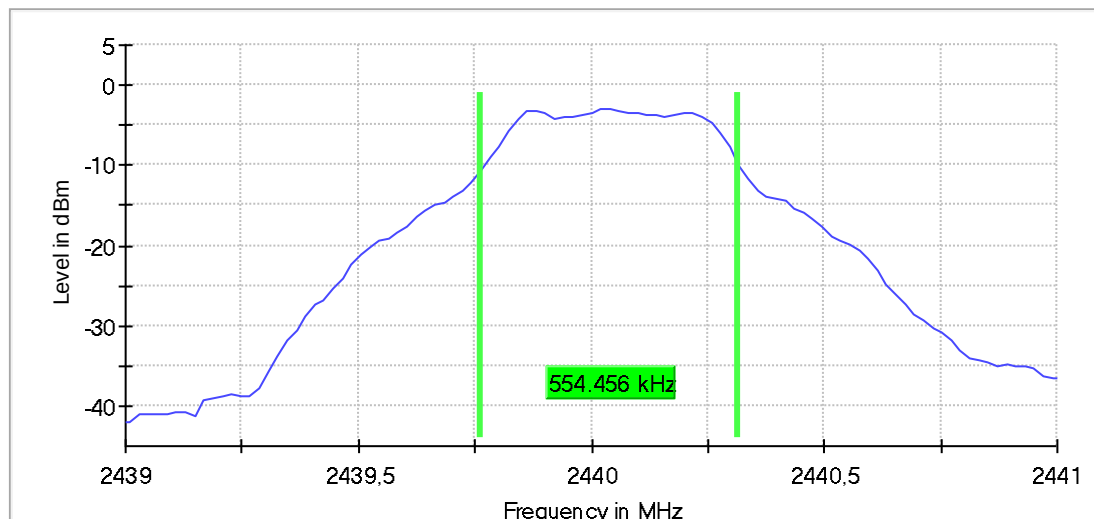
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	0.554456	0.500000	---	2439.762376	2440.316832

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	-3.0	PASS

6 dB Bandwidth



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	-10.000 dBm	-10.000 dBm
Attenuation	0.000 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	8 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.27 dB	0.50 dB

Minimum Emission Bandwidth 6 dB (2480 MHz; BLE [GFSK] (0 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

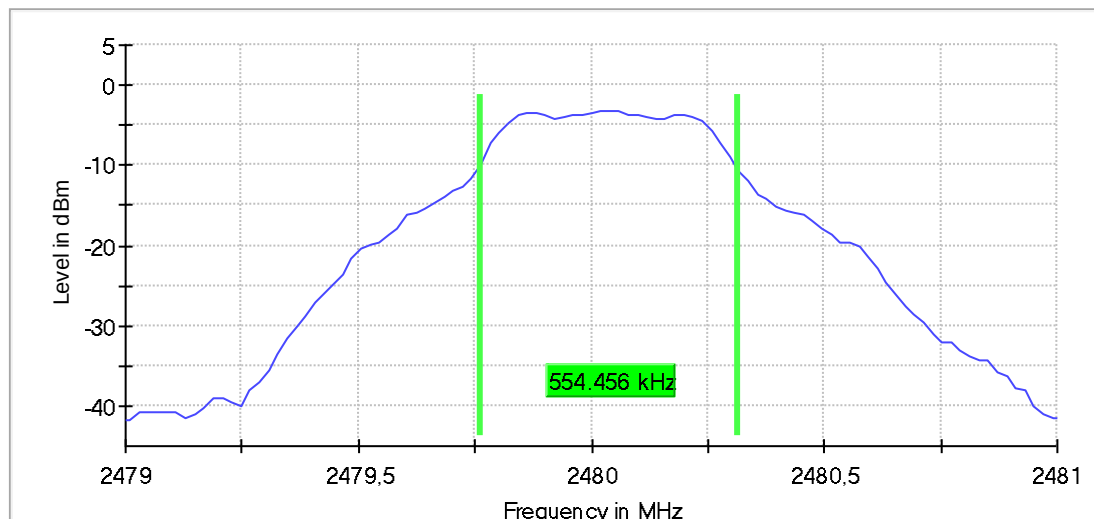
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	0.554456	0.500000	---	2479.762376	2480.316832

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	-3.2	PASS

6 dB Bandwidth



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	-10.000 dBm	-10.000 dBm
Attenuation	0.000 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	17 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.00 dB	0.50 dB

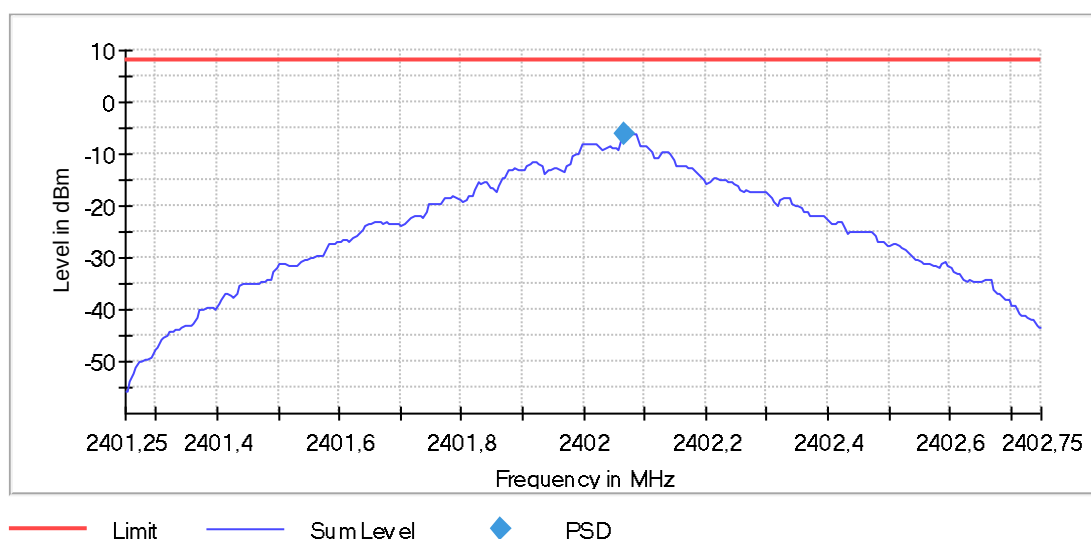
Peak Power Spectral Density (2402 MHz; BLE [GFSK] (0 dBm); 1 MHz)

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	2402.067500	-6.063	8.0	PASS

Peak Power Spectral Density



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	-10.000 dBm	-10.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	Sweep
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	14 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.47 dB	0.50 dB

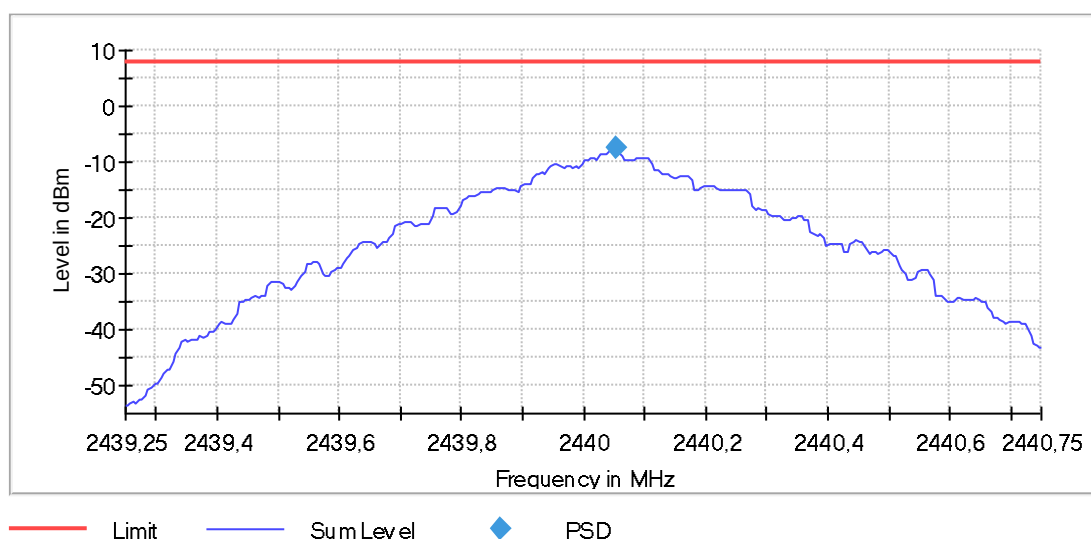
Peak Power Spectral Density (2440 MHz; BLE [GFSK] (0 dBm); 1 MHz)

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	2440.052500	-7.665	8.0	PASS

Peak Power Spectral Density



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	-10.000 dBm	-10.000 dBm
Attenuation	0.000 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	14 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.45 dB	0.50 dB

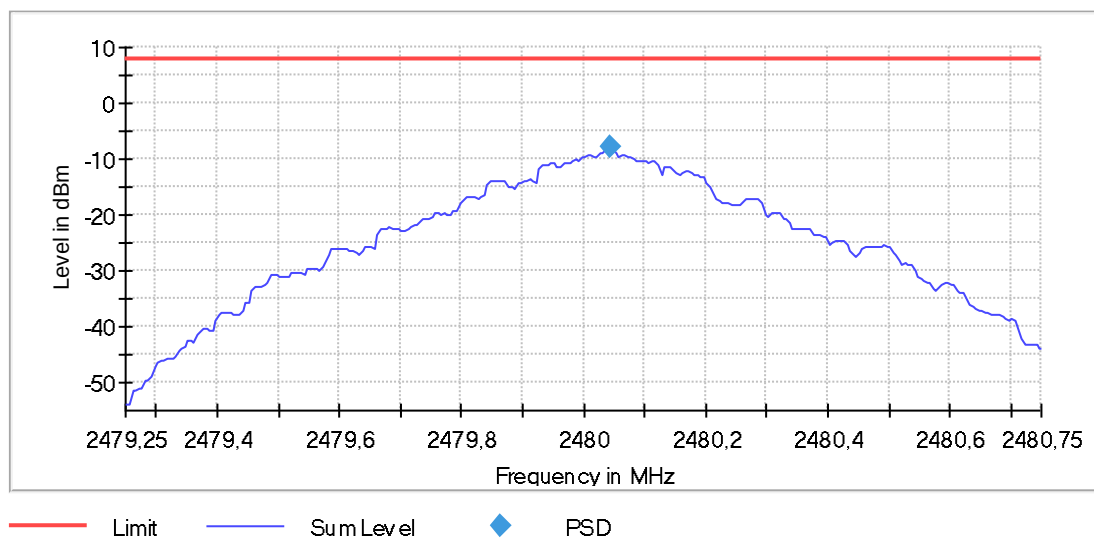
Peak Power Spectral Density (2480 MHz; BLE [GFSK] (0 dBm); 1 MHz)

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	2480.042500	-7.980	8.0	PASS

Peak Power Spectral Density



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
Sweptime	1.500 ms	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	Sweep
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	11 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.16 dB	0.50 dB

Occupied Channel Bandwidth 99% (2402 MHz; BLE [GFSK] (0 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

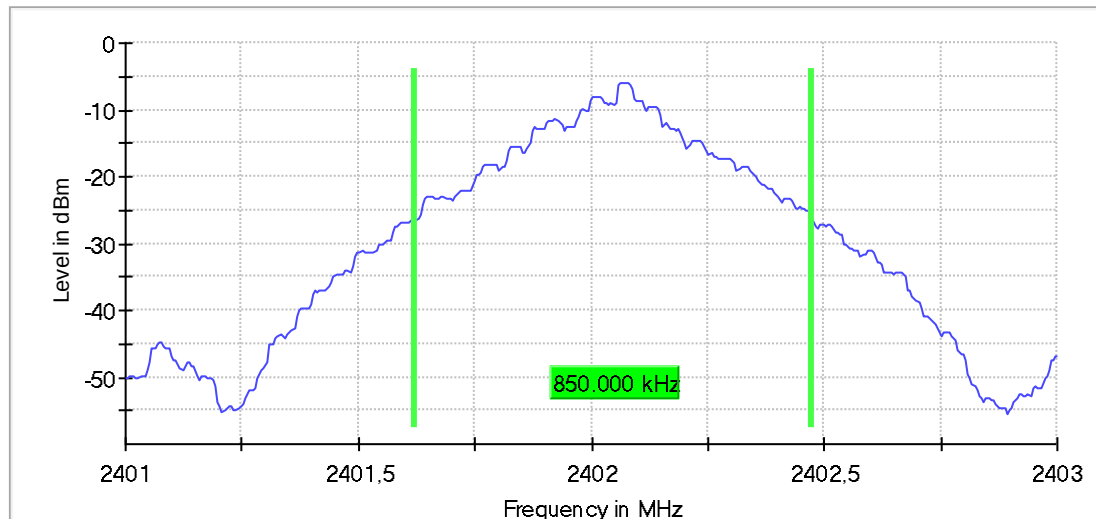
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	0.850000	---	---	2401.622500	2402.472500

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

DUT Frequency (MHz)	Result
2402.000000	PASS

99 %Bandwidth



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	2.000 ms	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	0.000 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	0.30 dB	0.30 dB
Run	26 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.29 dB	0.30 dB

Occupied Channel Bandwidth 99% (2440 MHz; BLE [GFSK] (0 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

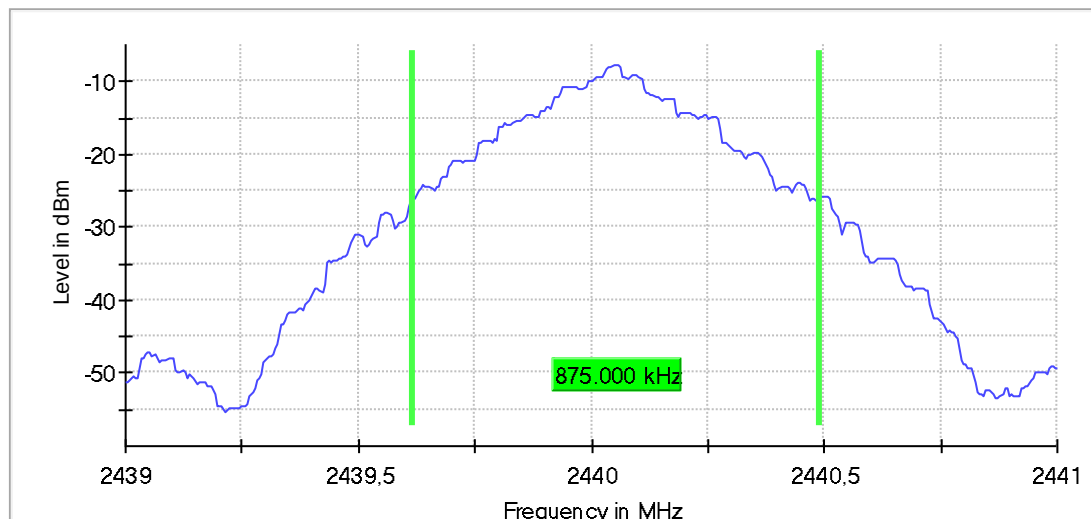
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	0.875000	---	---	2439.617500	2440.492500

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

DUT Frequency (MHz)	Result
2440.000000	PASS

99 %Bandwidth



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	2.000 ms	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	0.000 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	0.30 dB	0.30 dB
Run	31 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.30 dB

Occupied Channel Bandwidth 99% (2480 MHz; BLE [GFSK] (0 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

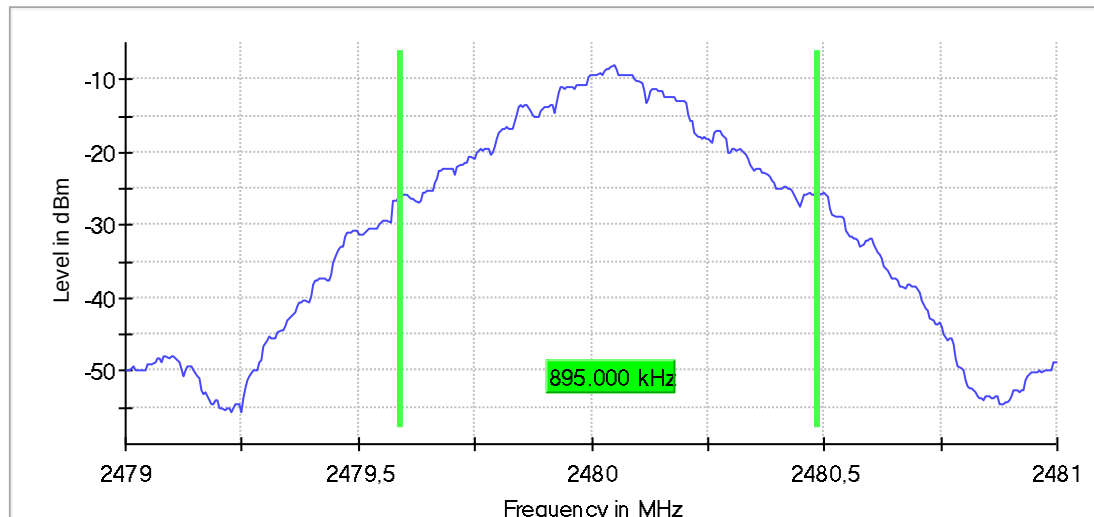
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	0.895000	---	---	2479.592500	2480.487500

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

DUT Frequency (MHz)	Result
2480.000000	PASS

99 %Bandwidth



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	2.000 ms	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	0.000 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	0.30 dB	0.30 dB
Run	24 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.30 dB

Tx Spurious Emission (2402 MHz; BLE [GFSK] (0 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	-4.5	-63.6	-21.4	42.1	PASS

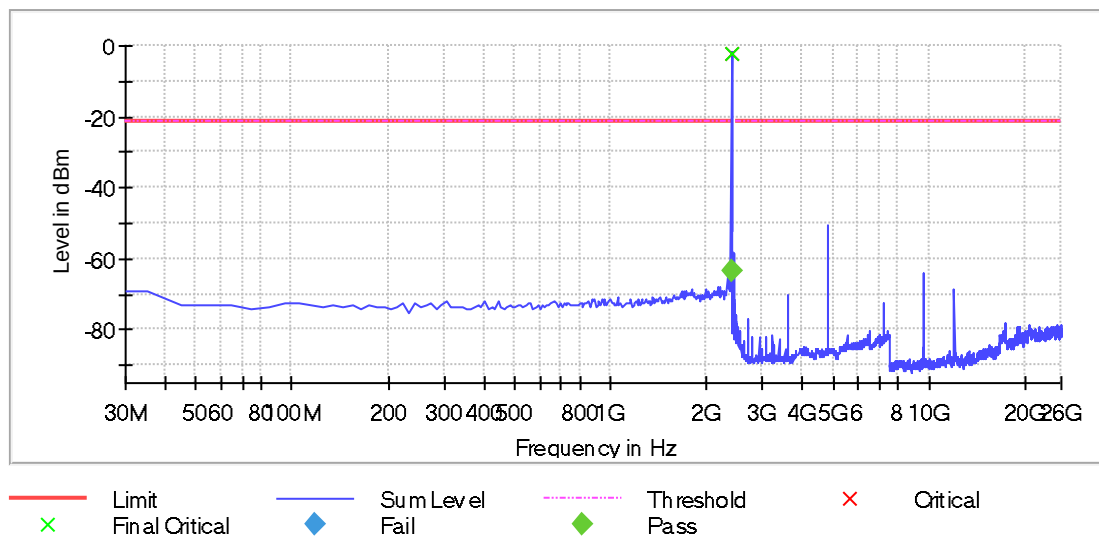
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
2395.021008	-2.5	-19.0	-21.4
4807.166065	-50.7	29.3	-21.4
2365.147059	-61.3	39.9	-21.4
9604.412133	-64.0	42.6	-21.4
2325.315126	-64.5	43.1	-21.4
2385.063025	-65.4	43.9	-21.4
2375.105042	-65.5	44.1	-21.4
2205.819328	-67.9	46.4	-21.4
2175.945378	-68.0	46.5	-21.4
2345.231092	-68.0	46.6	-21.4
2335.273109	-68.1	46.7	-21.4
1797.542017	-68.3	46.9	-21.4
1986.743697	-68.7	47.3	-21.4
12013.029431	-68.8	47.4	-21.4
1668.088235	-68.9	47.5	-21.4

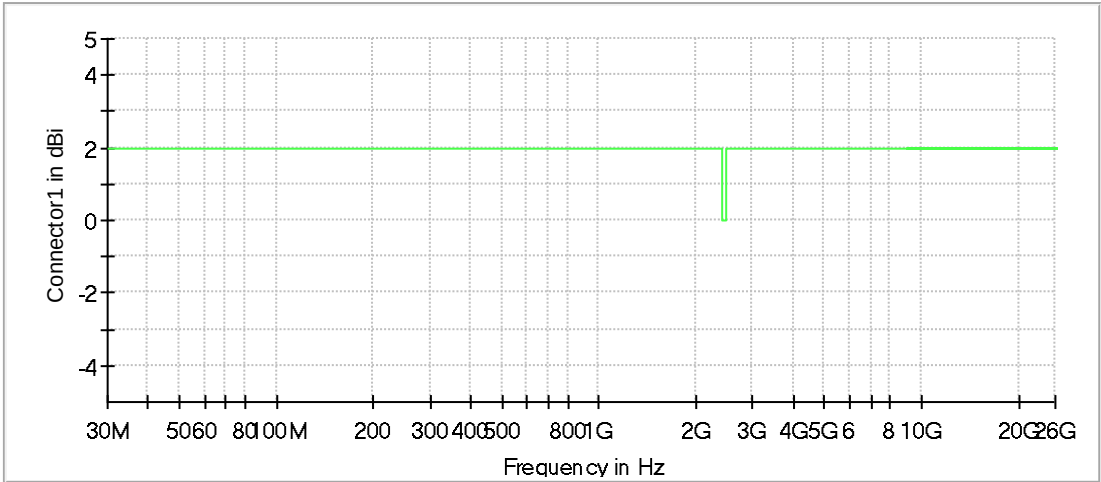
Measurement Settings

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

Spurious

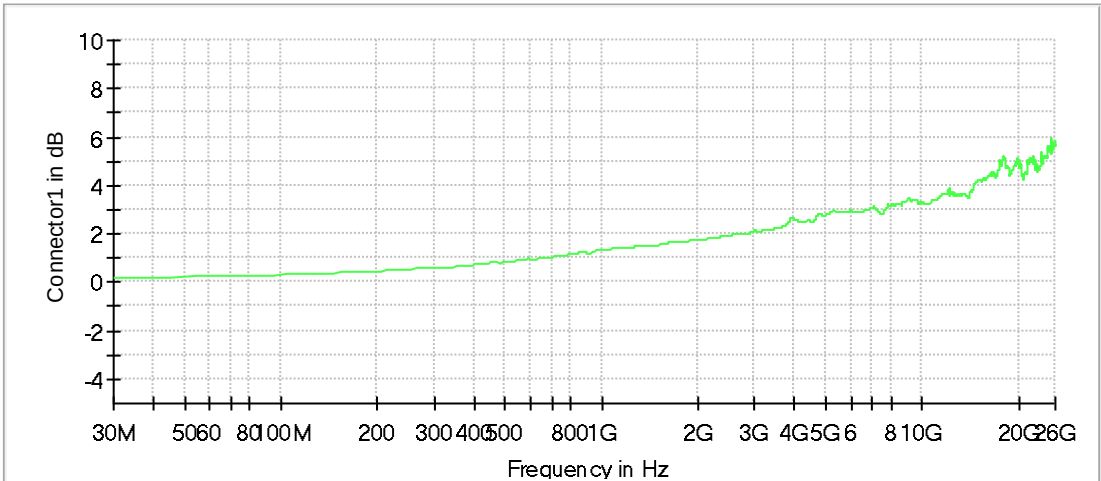


Gain



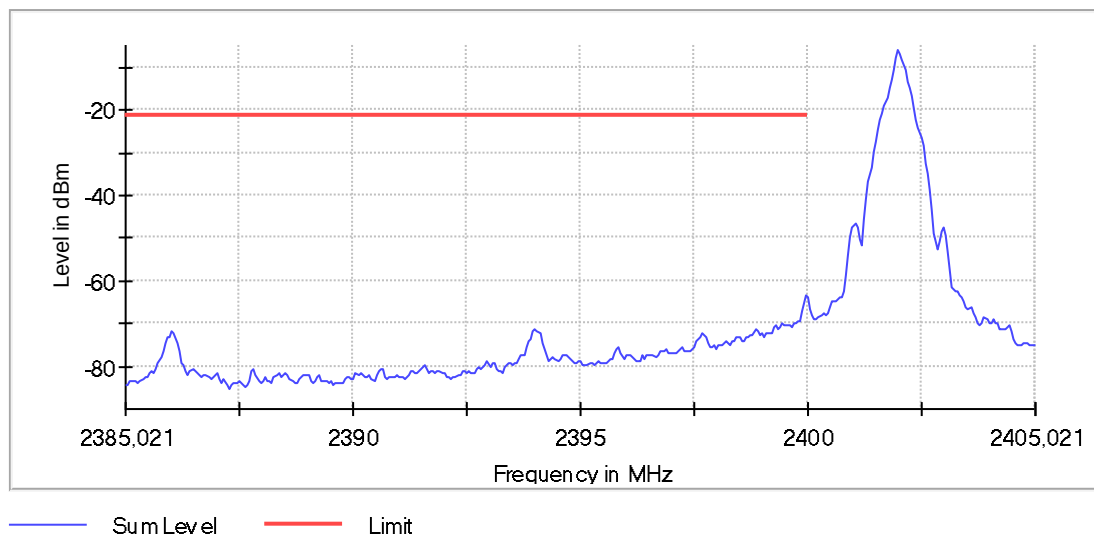
Connector1

Attenuation



Connector1

FinalMeas_2395021008Hz



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	0.00 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	0.000 dBm	0.000 dBm
Attenuation	10.000 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 [GFSK] (0 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
---	---	---	---	---	---

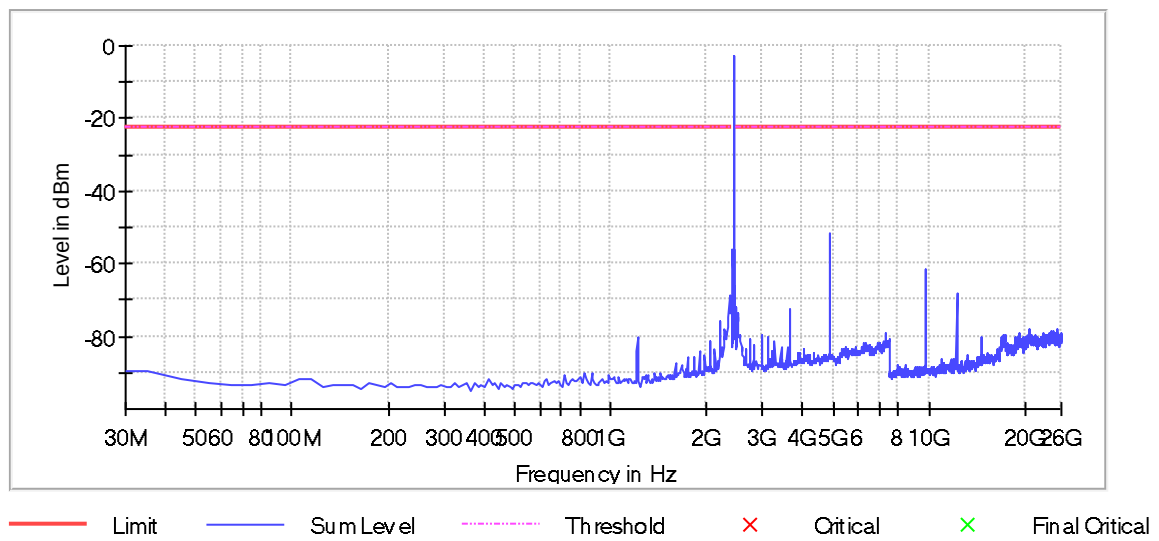
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
4877.125903	-51.6	29.1	-22.5
9764.320336	-61.4	38.9	-22.5
12202.920421	-67.9	45.4	-22.5
2355.189076	-68.6	46.1	-22.5
2395.021008	-72.2	49.7	-22.5
3657.825861	-72.4	49.9	-22.5
2385.063025	-72.4	49.9	-22.5
2375.105042	-73.0	50.5	-22.5
2518.479919	-73.4	51.0	-22.5
9754.326073	-73.5	51.0	-22.5
2365.147059	-73.7	51.2	-22.5
2488.497131	-74.5	52.0	-22.5
2498.491394	-74.8	52.3	-22.5
2345.231092	-74.9	52.4	-22.5
2508.485657	-75.9	53.4	-22.5

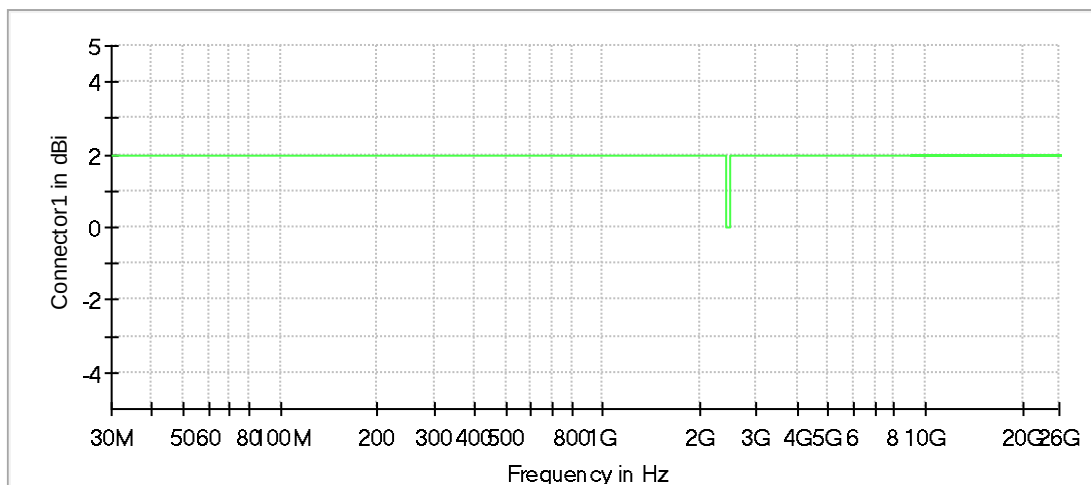
Measurement Settings

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

Spurious

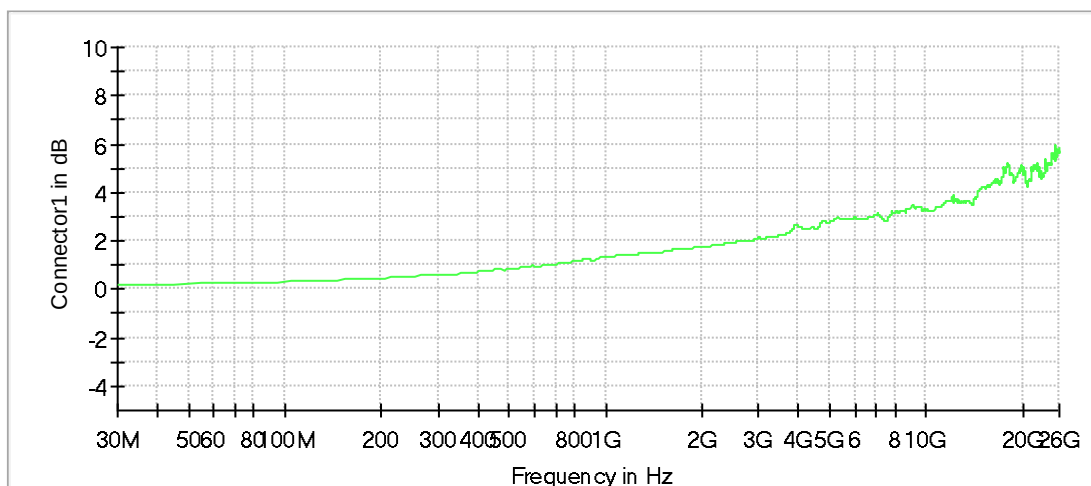


Gain



Connector1

Attenuation



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	5 / max. 40	max. 40
Stable	3 / 3	3
Max Stable Difference	0.08 dB	0.50 dB

Tx Spurious Emission (2480 MHz; BLE [GFSK] (0 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
---	---	---	---	---	---

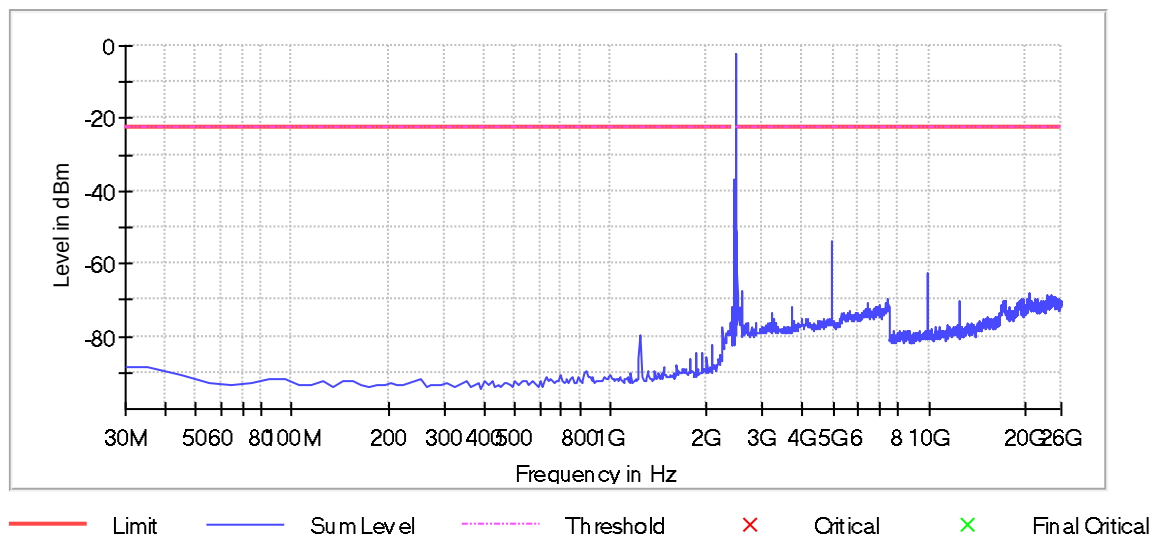
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
4957.080004	-53.9	31.6	-22.4
2488.497131	-58.5	36.1	-22.4
9924.228538	-62.8	40.4	-22.4
2578.445495	-67.7	45.3	-22.4
20598.101041	-68.3	46.0	-22.4
23486.442945	-68.6	46.2	-22.4
24156.058542	-68.8	46.4	-22.4
2498.491394	-68.9	46.6	-22.4
24555.829048	-69.1	46.7	-22.4
20578.112516	-69.2	46.8	-22.4
24775.702826	-69.2	46.8	-22.4
24855.656927	-69.3	46.9	-22.4
23956.173289	-69.4	47.0	-22.4
24585.811836	-69.4	47.1	-22.4
20528.141203	-69.5	47.1	-22.4

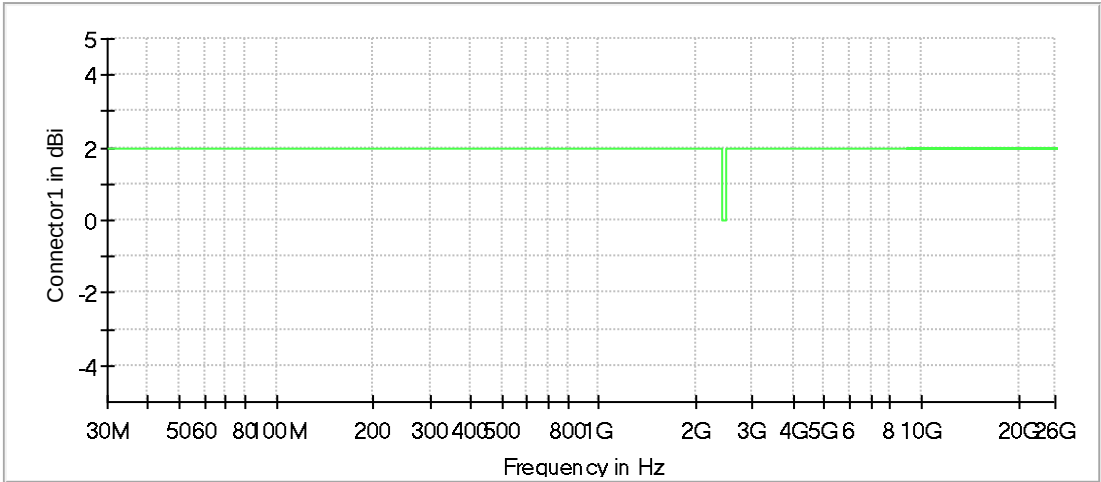
Measurement Settings

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

Spurious

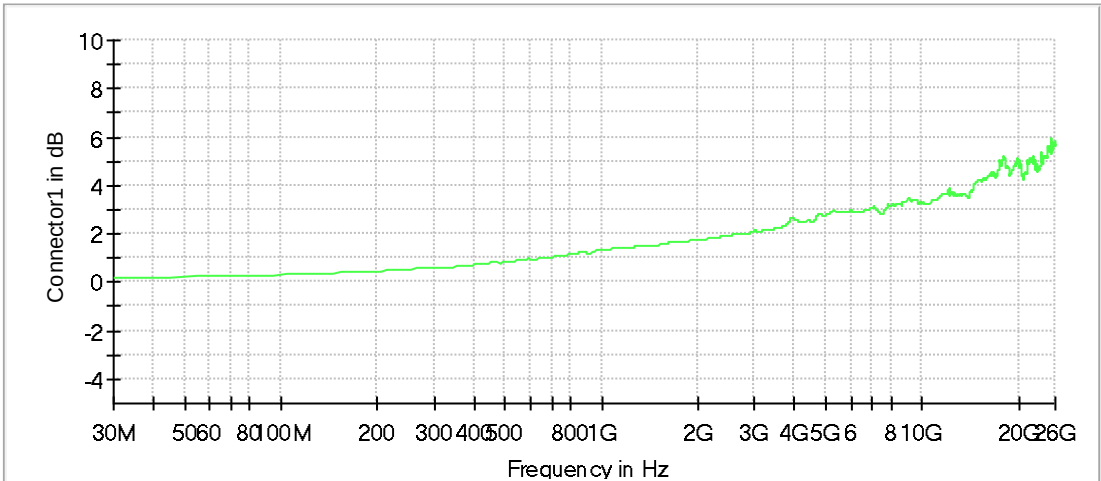


Gain



Connector1

Attenuation



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

End Of Annex 1