

Annex 1: Measurement diagrams 22-1-0065302T001a-A1

Number of pages:	49	Date of Report:	2023-Jul-05
Testing company:	cetecom advanced GmbH Im Teelbruch 116 45219 Essen Germany Tel. + 49 (0) 20 54 / 95 19-0 Fax: + 49 (0) 20 54 / 95 19-150	Applicant:	hard&softWERK GmbH
Product: Model:	Bluetooth Beacon 365FarmNet MKII		
FCC ID:	2BBC6-BOE402	IC:	30643-BOE402
Testing has been carried out in accordance with:	FCC Regulations Title 47 CFR, Chapter I, Subchapter A, Part 15 Subpart C Intentional Radiators § 15.247 Operation within the bands 902-928 MHz, 2400-2483.5 MHz and 5725-5850 MHz ISED-Regulations Radio Standards Specification RSS-Gen, Issue 5 General Requirements for Compliance of Radio Apparatus RSS-247, Issue 2 Digital Transmission Systems (DTSS), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Device		

Table of Contents

1	Peak output power (Sweep)	3
2	Power spectral density	6
3	Minimum Emission Bandwidth 6 dB	9
4	Occupied Channel Bandwidth 99%	12
5	Emissions in non-restricted frequency bands	15
6	Radiated field strength emissions below 30 MHz	24
7	Radiated field strength emissions 30 MHz – 1 GHz	30
8	Radiated field strength emissions above 1 GHz	36
9	Radiated Band-Edge emissions	48

1 Peak output power (Sweep)

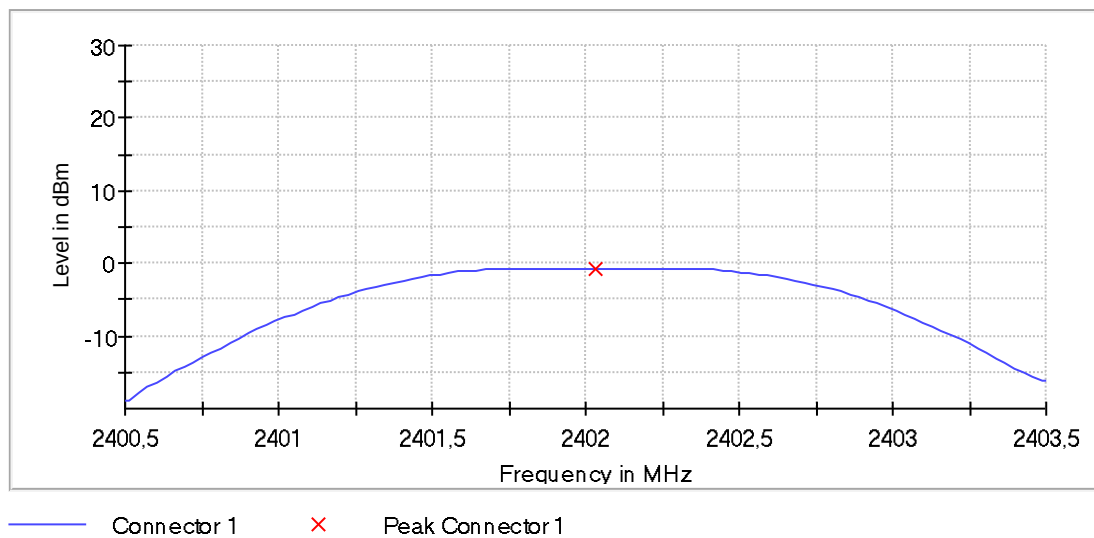
Peak output power (Sweep) (2402 MHz; BT-LE [GFSK] (20 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2402.000000	-0.7	30.0	PASS

Peak Power



Peak Power 1

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40050 GHz	2.40050 GHz
Stop Frequency	2.40350 GHz	2.40350 GHz
Span	3.000 MHz	3.000 MHz
RBW	1.000 MHz	>= 712.873 kHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	101	~ 101
Sweeptime	1.000 ms	AUTO
Reference Level	20.000 dBm	20.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamplifier	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	0.07 dB	0.50 dB

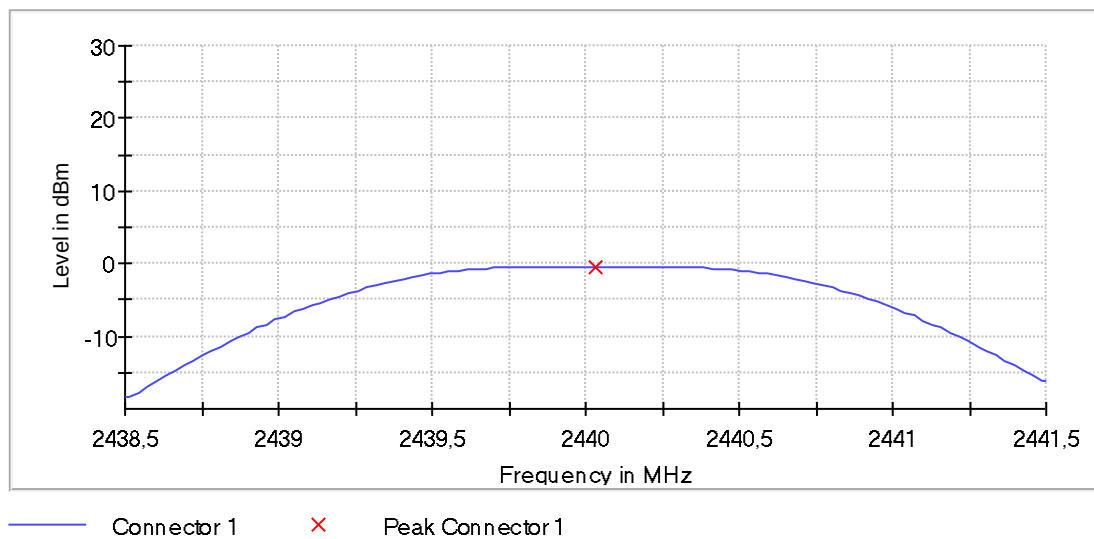
Peak output power (Sweep) (2440 MHz; BT-LE [GFSK] (20 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2440.000000	-0.5	30.0	PASS

Peak Power



Peak Power 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	>= 712.873 kHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	101	~ 101
Sweptime	1.000 ms	AUTO
Reference Level	20.000 dBm	20.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamplifier	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

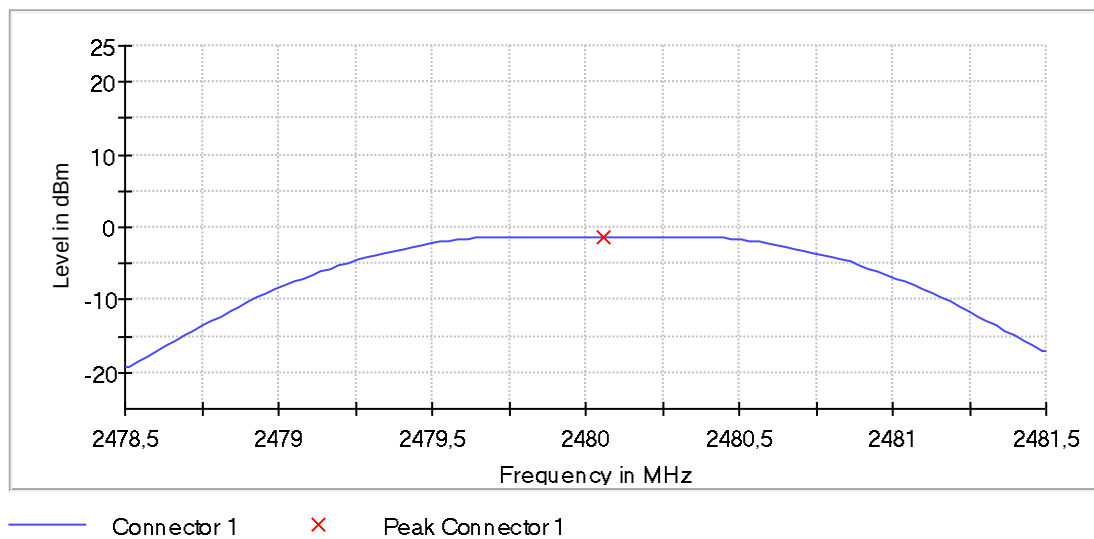
Peak output power (Sweep) (2480 MHz; BT-LE [GFSK] (20 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2480.000000	-1.2	30.0	PASS

Peak Power



Peak Power 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	>= 712.873 kHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	101	~ 101
SweepTime	1.000 ms	AUTO
Reference Level	20.000 dBm	20.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamplifier	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	0.05 dB	0.50 dB

2 Power spectral density

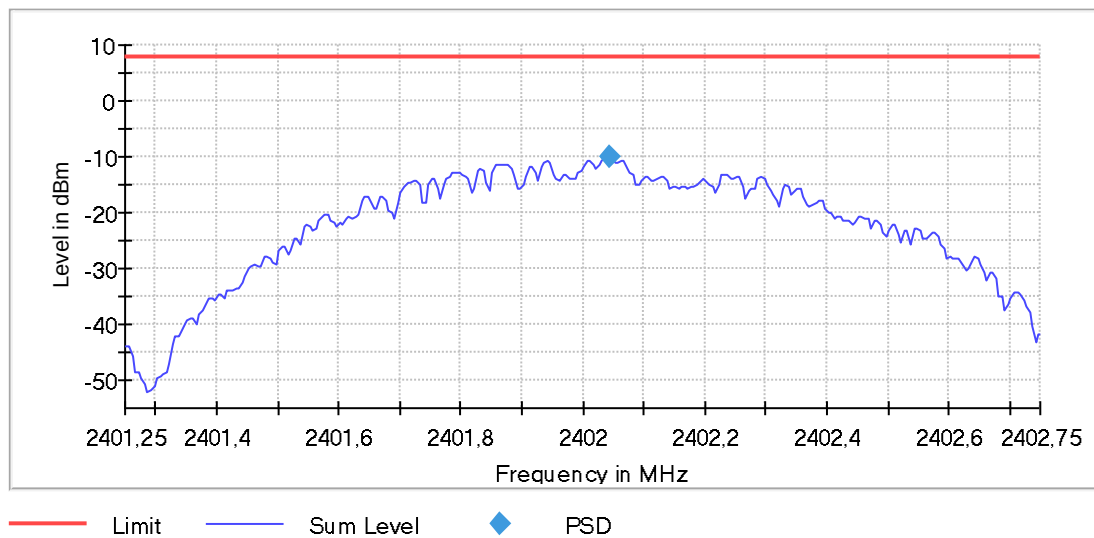
Peak Power Spectral Density (2402 MHz; BT-LE [GFSK] (20 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a),(e), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2402.000000	2402.042500	-10.096	8.0	PASS

Peak Power Spectral Density



PSD Connector 1

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	20.000 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	5 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.40 dB	0.50 dB

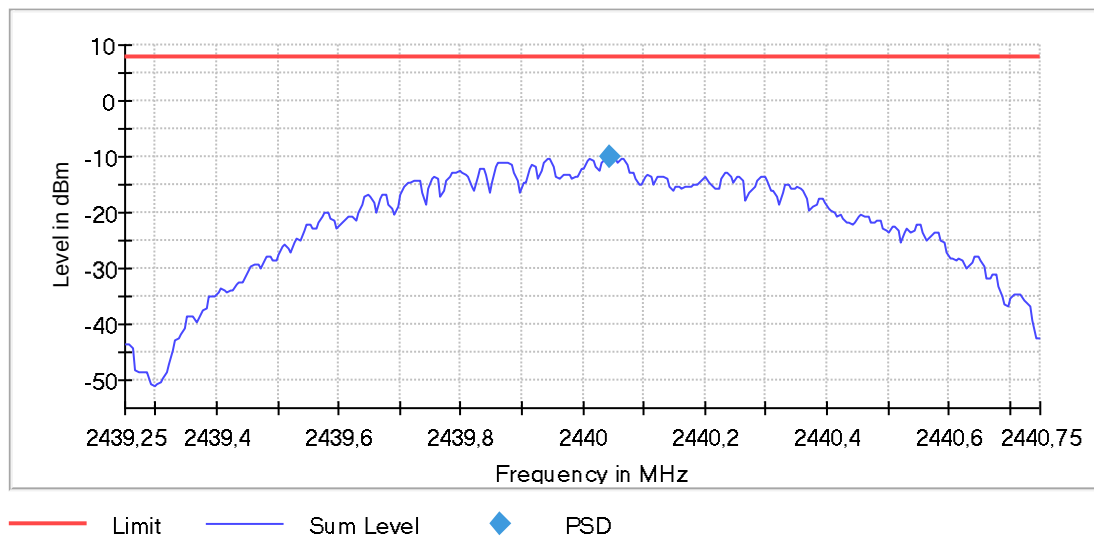
Peak Power Spectral Density (2440 MHz; BT-LE [GFSK] (20 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a),(e), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2440.000000	2440.042500	-10.002	8.0	PASS

Peak Power Spectral Density



PSD Connector 1

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	20.000 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	4 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.39 dB	0.50 dB

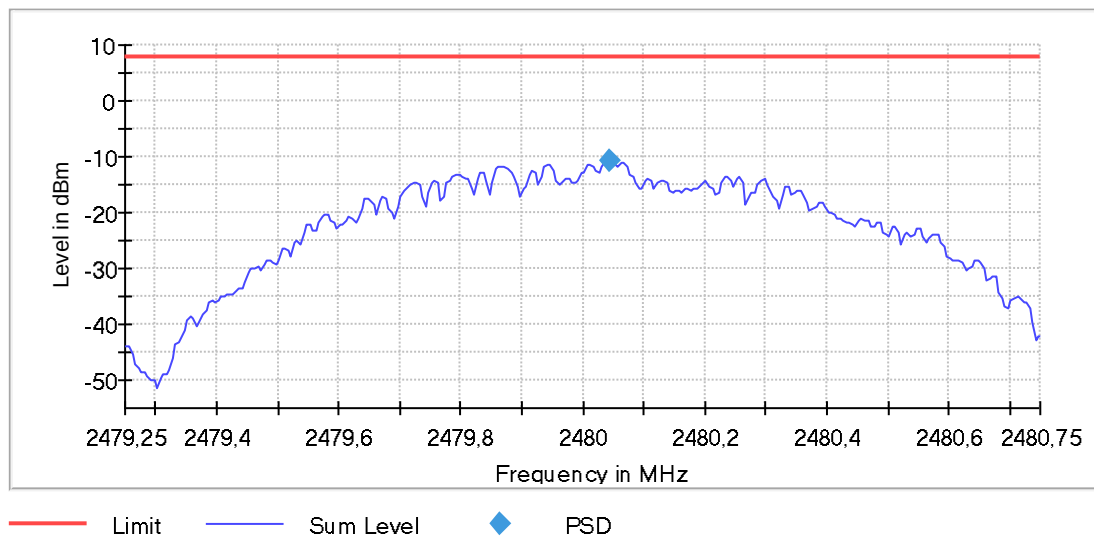
Peak Power Spectral Density (2480 MHz; BT-LE [GFSK] (20 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a),(e), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2480.000000	2480.042500	-10.665	8.0	PASS

Peak Power Spectral Density



PSD Connector 1

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	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	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.45 dB	0.50 dB

3 Minimum Emission Bandwidth 6 dB

Minimum Emission Bandwidth 6 dB (2402 MHz; BT-LE [GFSK] (20 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

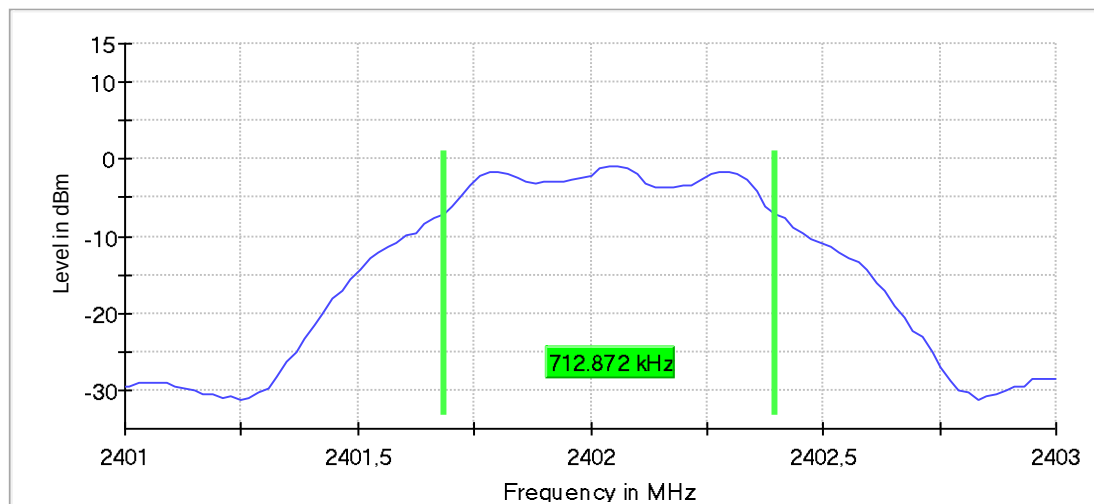
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	0.712872	0.500000	---	2401.683168	2402.396040

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	-0.8	PASS

6 dB Bandwidth



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	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	7 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.09 dB	0.50 dB

Minimum Emission Bandwidth 6 dB (2440 MHz; BT-LE [GFSK] (20 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

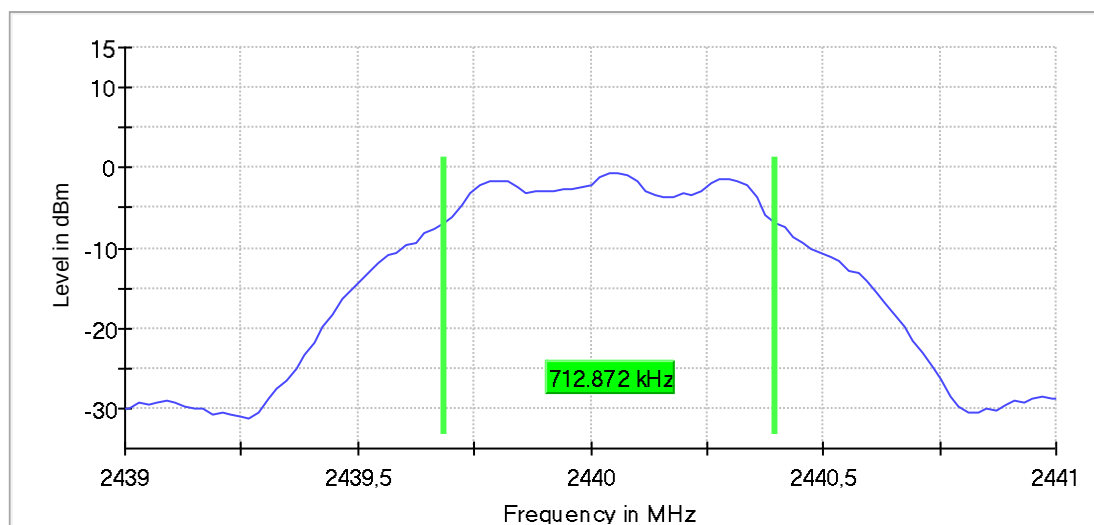
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	0.712872	0.500000	---	2439.683168	2440.396040

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	-0.7	PASS

6 dB Bandwidth



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
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	7 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.09 dB	0.50 dB

Minimum Emission Bandwidth 6 dB (2480 MHz; BT-LE [GFSK] (20 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

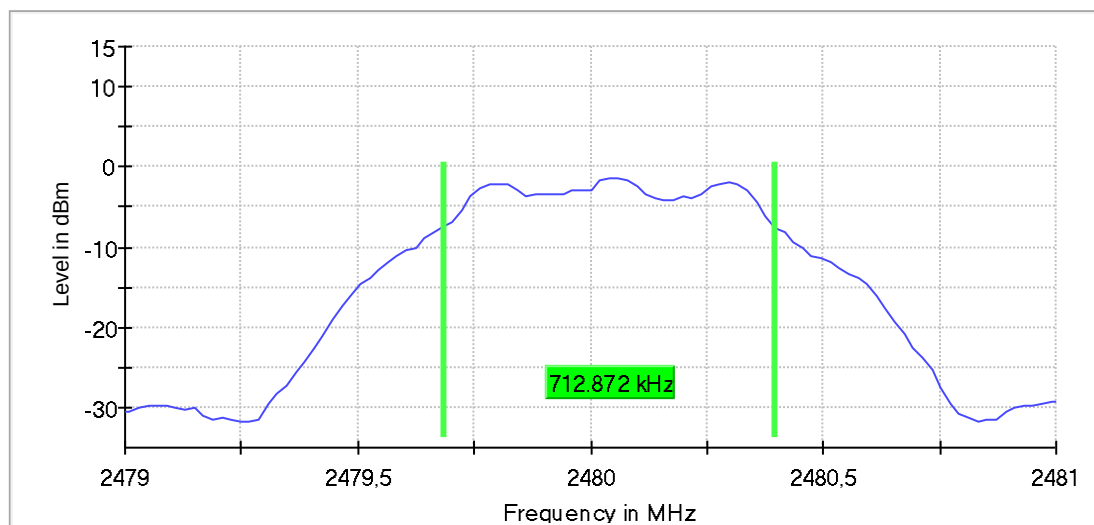
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	0.712872	0.500000	---	2479.683168	2480.396040

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	-1.3	PASS

6 dB Bandwidth



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	8 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.11 dB	0.50 dB

4 Occupied Channel Bandwidth 99%

Occupied Channel Bandwidth 99% (2402 MHz; BT-LE [GFSK] (20 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

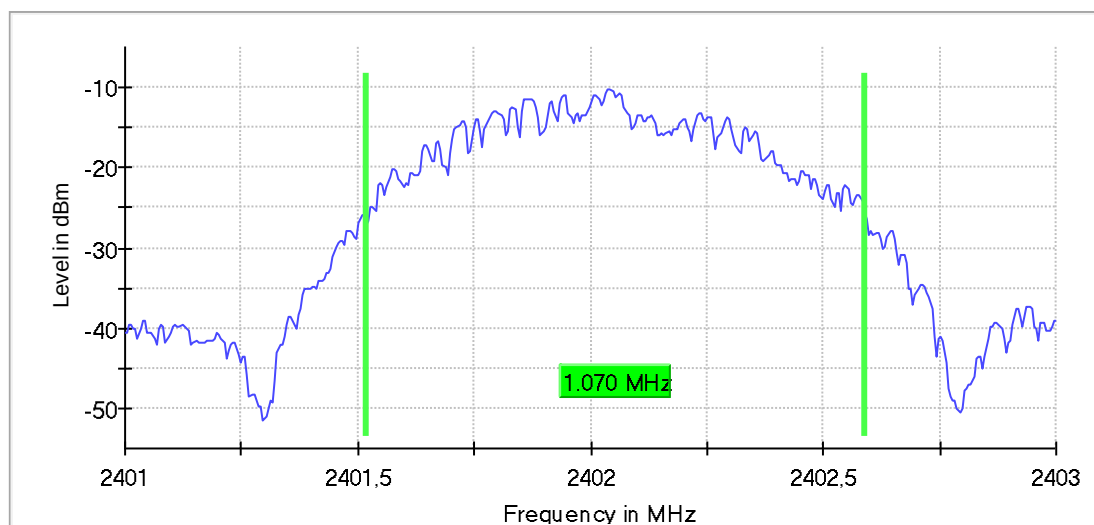
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	1.070000	---	---	2401.517500	2402.587500

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

DUT Frequency (MHz)	Result
2402.000000	PASS

99 % Bandwidth



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	12 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.15 dB	0.30 dB

Occupied Channel Bandwidth 99% (2440 MHz; BT-LE [GFSK] (20 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

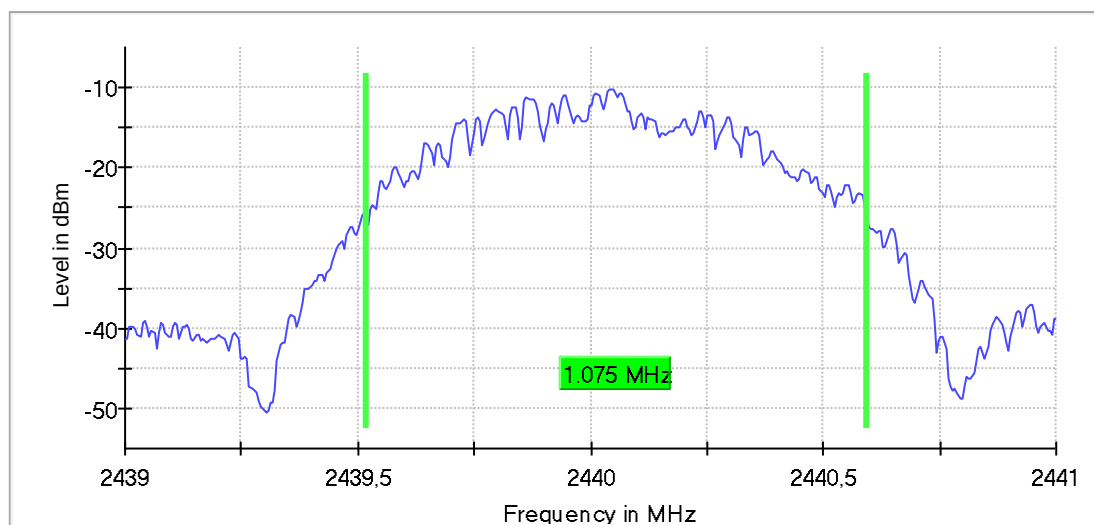
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	1.075000	---	---	2439.517500	2440.592500

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

DUT Frequency (MHz)	Result
2440.000000	PASS

99 % Bandwidth



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
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	9 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.27 dB	0.30 dB

Occupied Channel Bandwidth 99% (2480 MHz; BT-LE [GFSK] (20 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

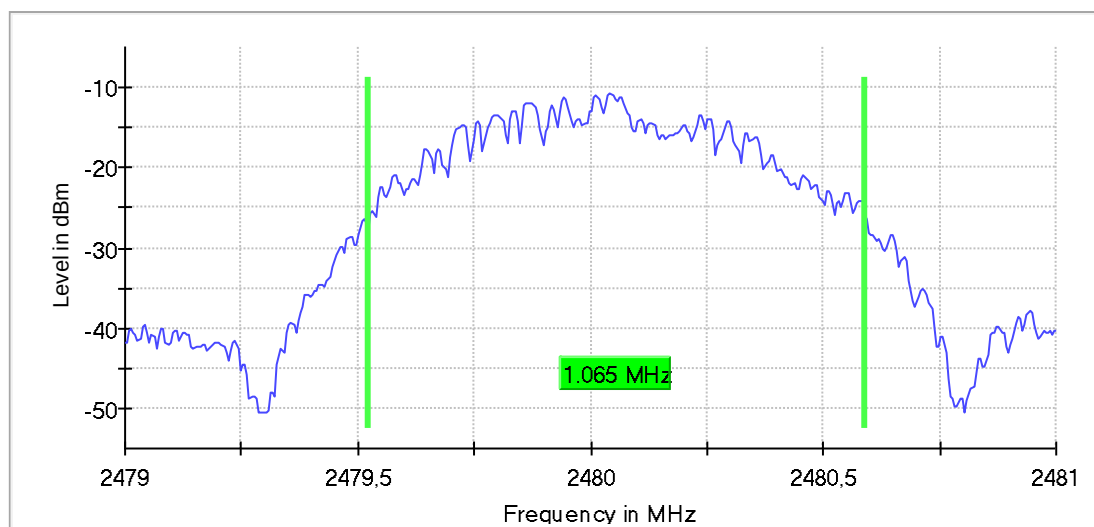
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.065000	---	---	2479.522500	2480.587500

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

DUT Frequency (MHz)	Result
2480.000000	PASS

99 % Bandwidth



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	9 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.22 dB	0.30 dB

5 Emissions in non-restricted frequency bands

Tx Spurious Emission (2402 MHz; BT-LE [GFSK] (20 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v03r05 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	0.8	-55.9	-28.1	27.8	PASS

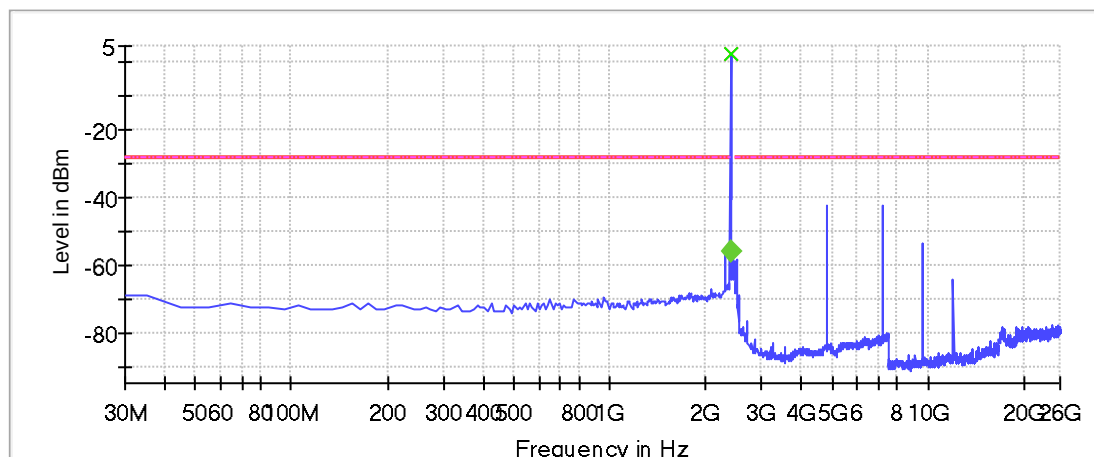
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
2395.021008	2.7	-30.8	-28.1
4807.166065	-42.2	14.1	-28.1
7205.789099	-42.4	14.3	-28.1
9604.412133	-53.6	25.5	-28.1
2305.399160	-56.4	28.4	-28.1
2498.491394	-58.4	30.3	-28.1
2385.063025	-63.9	35.8	-28.1
12013.029431	-64.2	36.1	-28.1
2355.189076	-65.4	37.3	-28.1
2365.147059	-65.7	37.6	-28.1
2345.231092	-66.2	38.2	-28.1
2325.315126	-66.9	38.9	-28.1
2315.357143	-66.9	38.9	-28.1
2375.105042	-67.0	38.9	-28.1
2335.273109	-67.0	39.0	-28.1

Measurement Settings

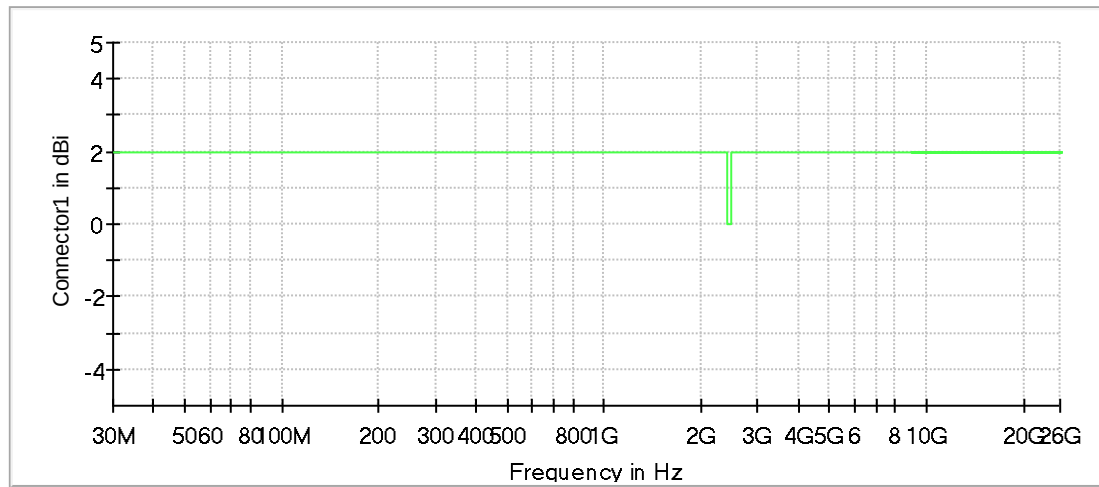
Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	2400.000000	1	1
2400.000000	2483.500000	1	1
2483.500000	26000.000000	1	1

Spurious



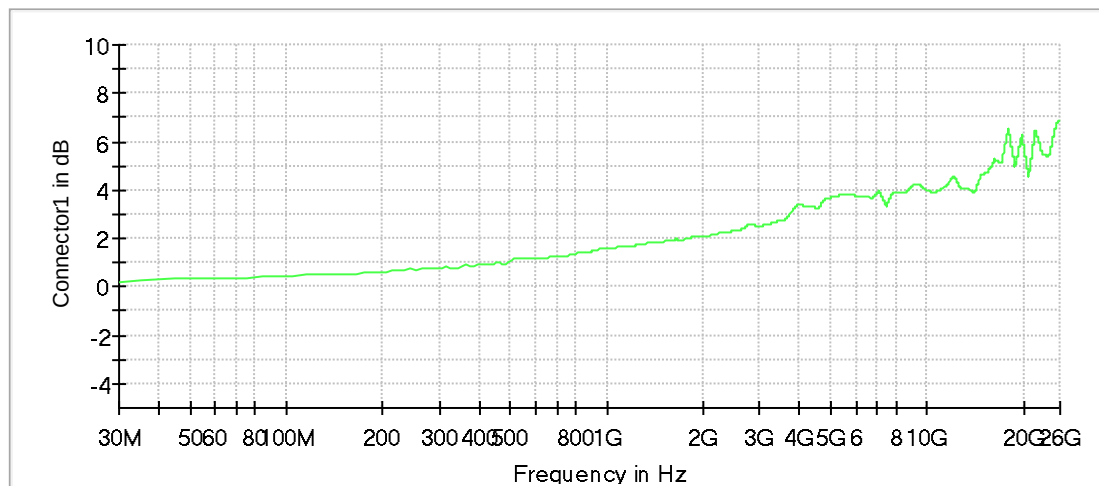
— Limit
X Final Critical
— Sum Level
◆ Fail
◆ Pass
— Threshold
X Critical

Gain



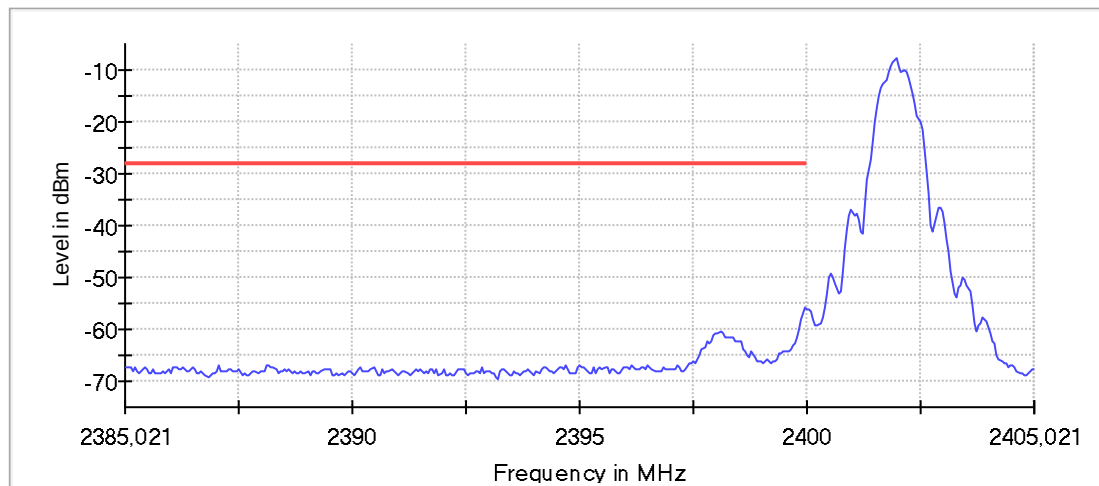
Connector1

Attenuation



Connector1

FinalMeas_2395021008Hz



Sum Level Limit

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	7 / 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	20.000 dBm	20.000 dBm
Attenuation	30.000 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; BT-LE [GFSK] (20 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v03r05 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
---	---	---	---	---	---

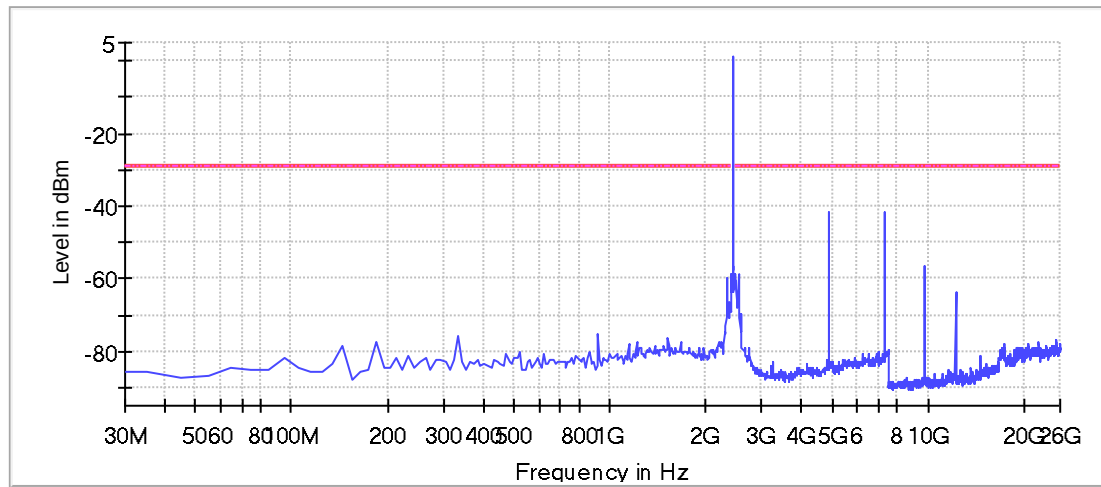
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
7325.720251	-41.5	12.7	-28.8
4877.125903	-41.6	12.7	-28.8
7315.725988	-41.6	12.8	-28.8
9754.326073	-56.4	27.6	-28.8
9764.320336	-56.9	28.1	-28.8
2538.468445	-58.5	29.6	-28.8
2335.273109	-59.6	30.7	-28.8
2488.497131	-60.3	31.5	-28.8
12202.920421	-63.8	35.0	-28.8
2518.479919	-66.0	37.1	-28.8
2498.491394	-66.2	37.4	-28.8
2385.063025	-66.6	37.8	-28.8
2508.485657	-66.9	38.1	-28.8
2528.474182	-68.0	39.2	-28.8
2355.189076	-69.3	40.5	-28.8

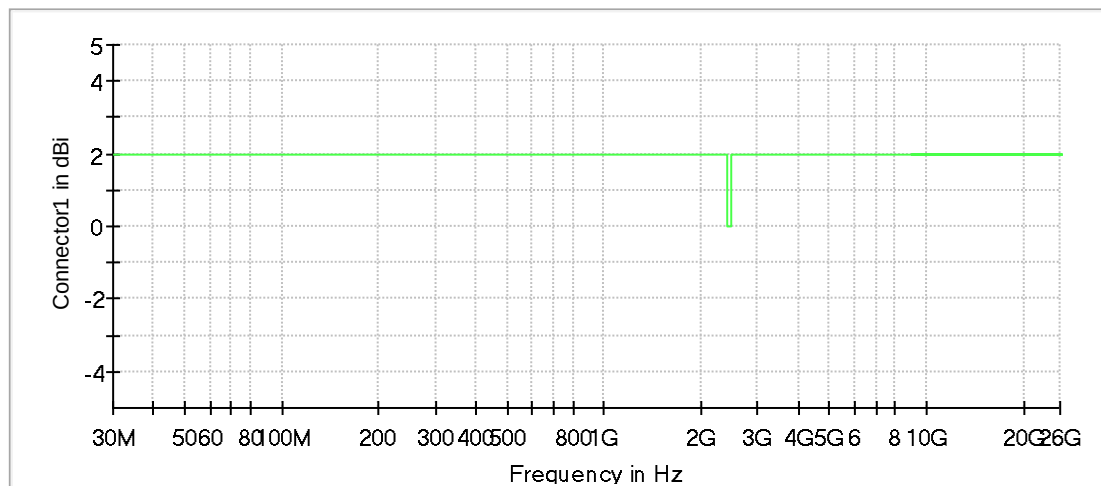
Measurement Settings

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

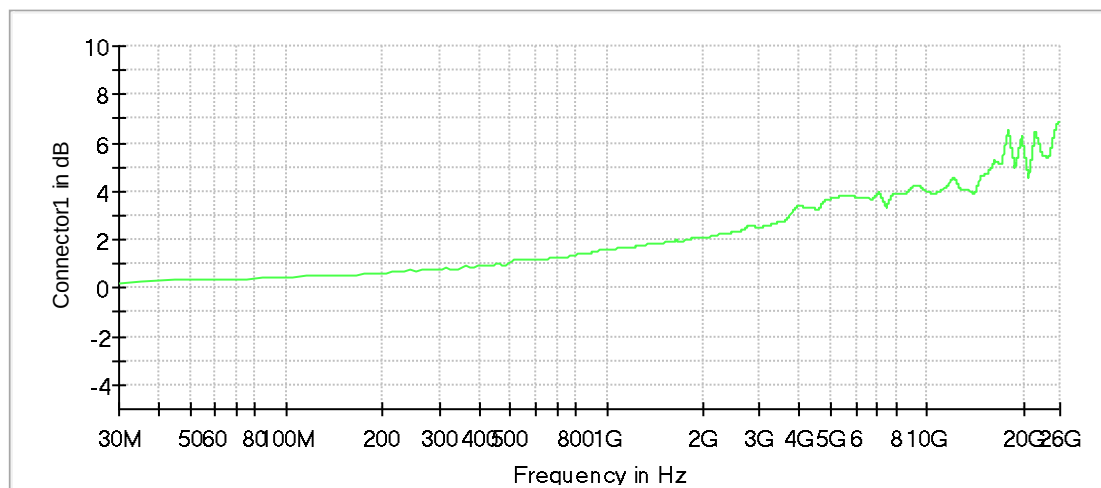
Spurious



Gain



Attenuation



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	4 / max. 40	max. 40
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Tx Spurious Emission (2480 MHz; BT-LE [GFSK] (20 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v03r05 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
---	---	---	---	---	---

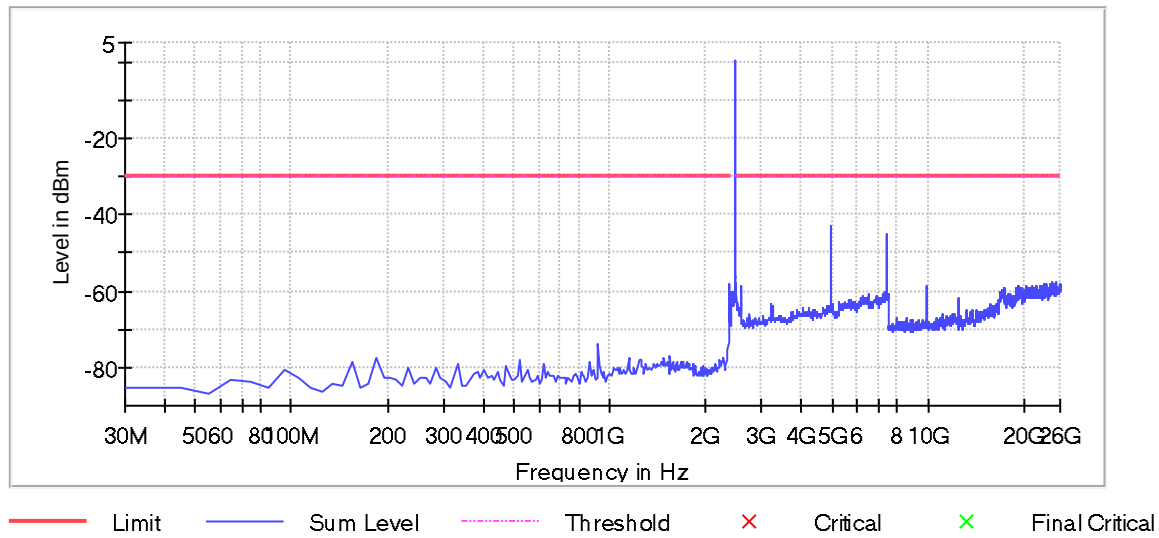
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
4957.080004	-43.1	13.3	-29.8
7435.657140	-45.2	15.4	-29.8
7445.651402	-47.5	17.7	-29.8
24655.771674	-57.6	27.8	-29.8
2488.497131	-57.8	28.0	-29.8
25365.364322	-57.9	28.1	-29.8
25915.048768	-58.0	28.1	-29.8
24735.725776	-58.0	28.2	-29.8
25375.358585	-58.1	28.3	-29.8
23096.666702	-58.1	28.3	-29.8
25945.031555	-58.2	28.4	-29.8
25815.106141	-58.3	28.5	-29.8
24285.983957	-58.3	28.5	-29.8
25975.014343	-58.3	28.5	-29.8
23536.414258	-58.3	28.5	-29.8

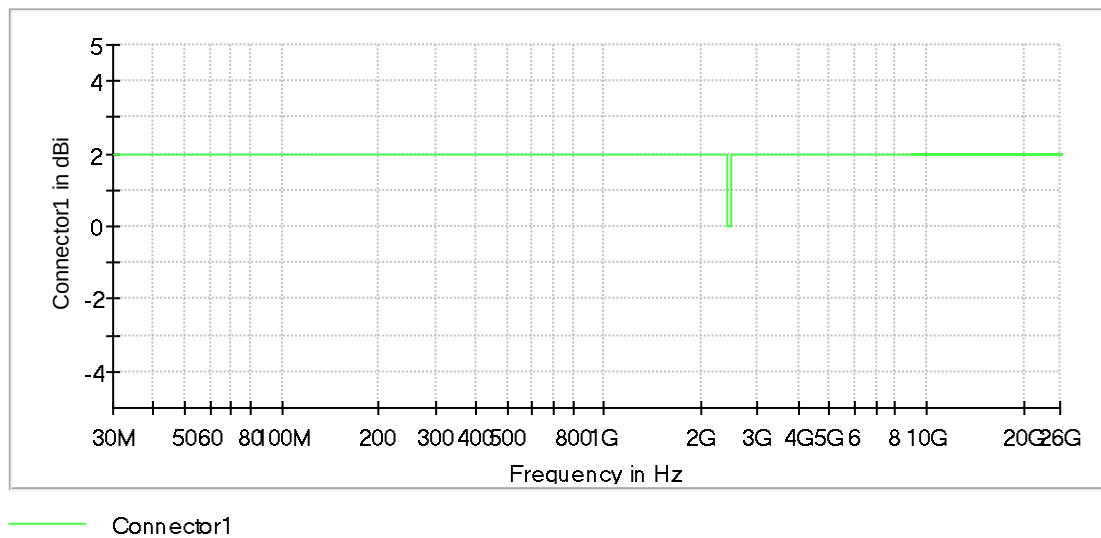
Measurement Settings

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

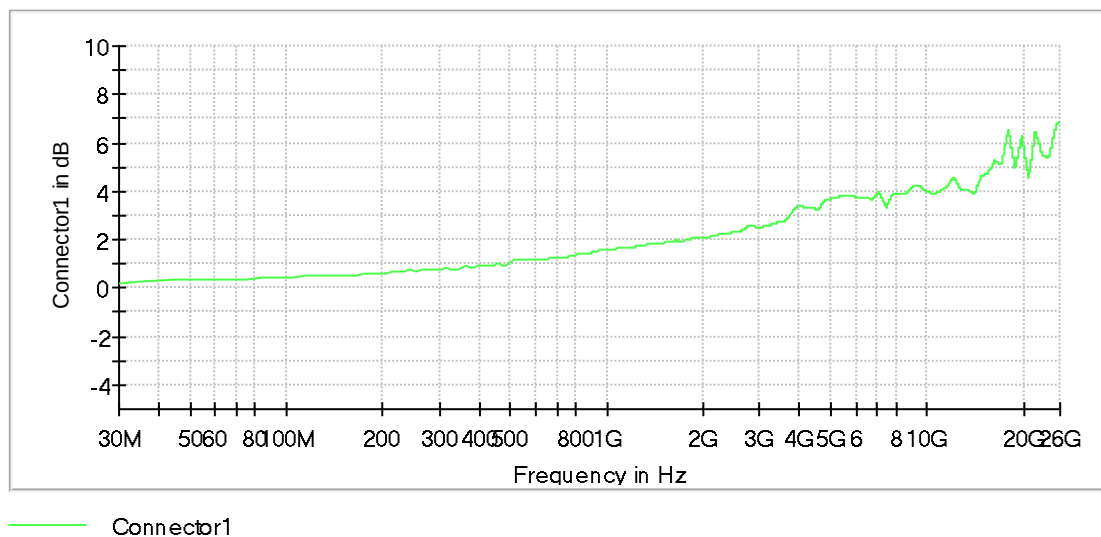
Spurious



Gain



Attenuation



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	4 / max. 40	max. 40
Stable	3 / 3	3
Max Stable Difference	0.31 dB	0.50 dB

6 Radiated field strength emissions below 30 MHz

2.01a_BLE_LE_low_Standing

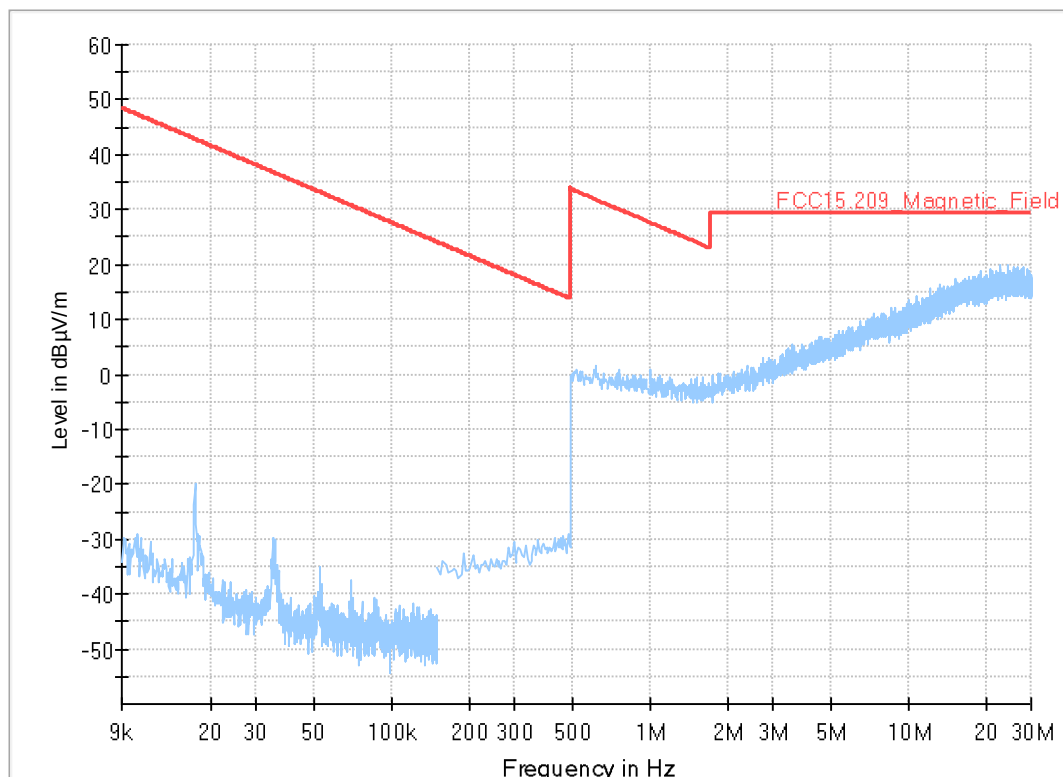
Common Information

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
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:	HLA
Operating Mode:	TX-on
Power during tests:	battery
Comment 1:	Channel low
Environmental Conditions:	Humidity: 40% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	22-1-00653S19_C01
Power supply:	Battery

Full Spectrum



2.01b_BLE_LE_low_Lying

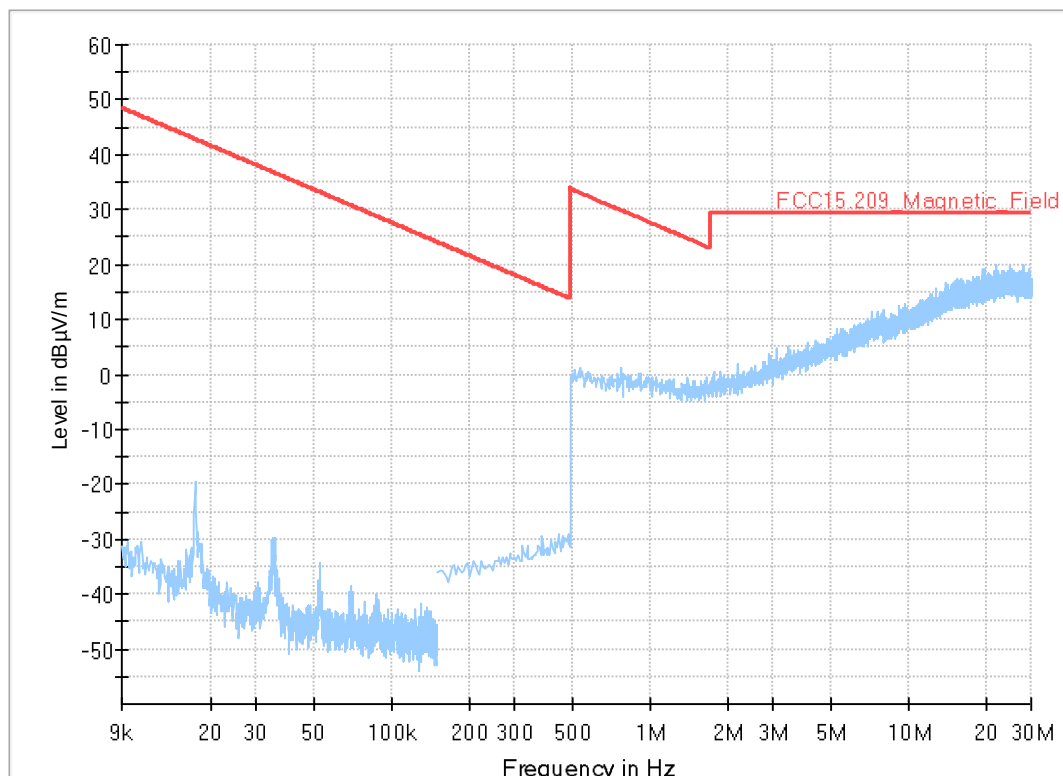
Common Information

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
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:	HLA
Operating Mode:	TX-on
Power during tests:	battery
Comment 1:	Channel low
Environmental Conditions:	Humidity: 40% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	22-1-00653S19_C01
Power supply:	Battery

Full Spectrum



2.02a_BLE_LE_mid_standing

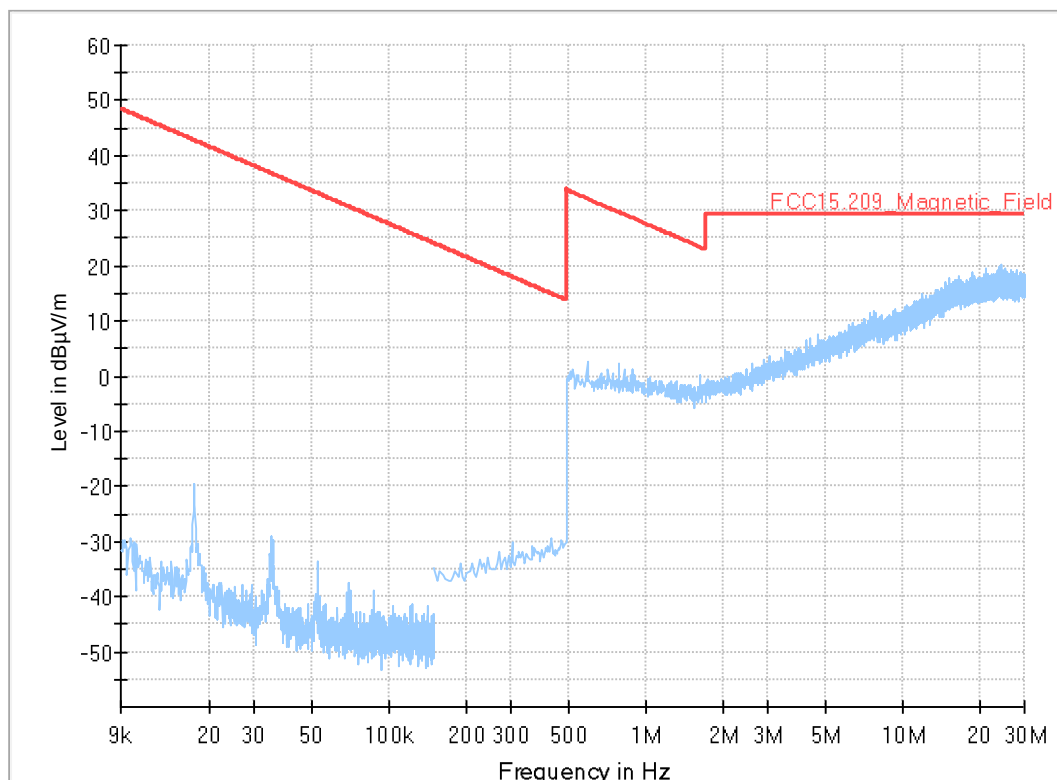
Common Information

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
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:	HLA
Operating Mode:	TX-on
Power during tests:	battery
Comment 1:	Channel low
Environmental Conditions:	Humidity: 40% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	22-1-00653S19_C01
Power supply:	Battery

Full Spectrum



2.02b_BLE_LE_mid_Lying

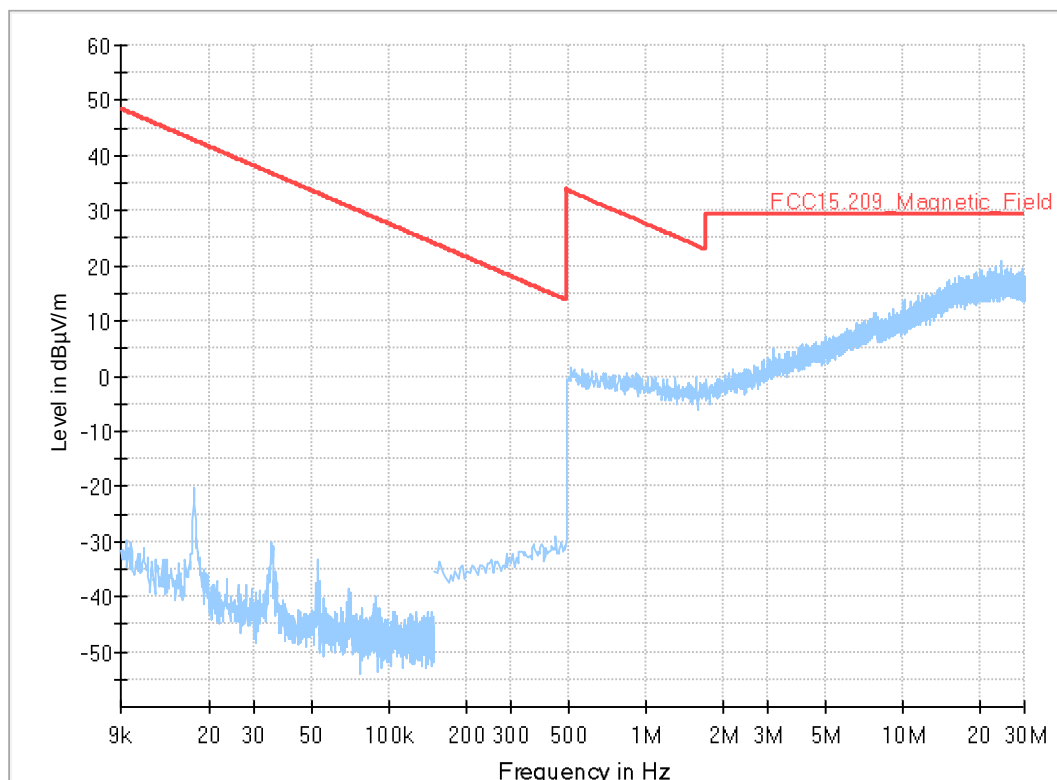
Common Information

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
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:	HLa
Operating Mode:	TX-on
Power during tests:	battery
Comment 1:	Channel low
Environmental Conditions:	Humidity: 40% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	22-1-00653S19_C01
Power supply:	Battery

Full Spectrum



2.03a_BLE_LE_high_standing

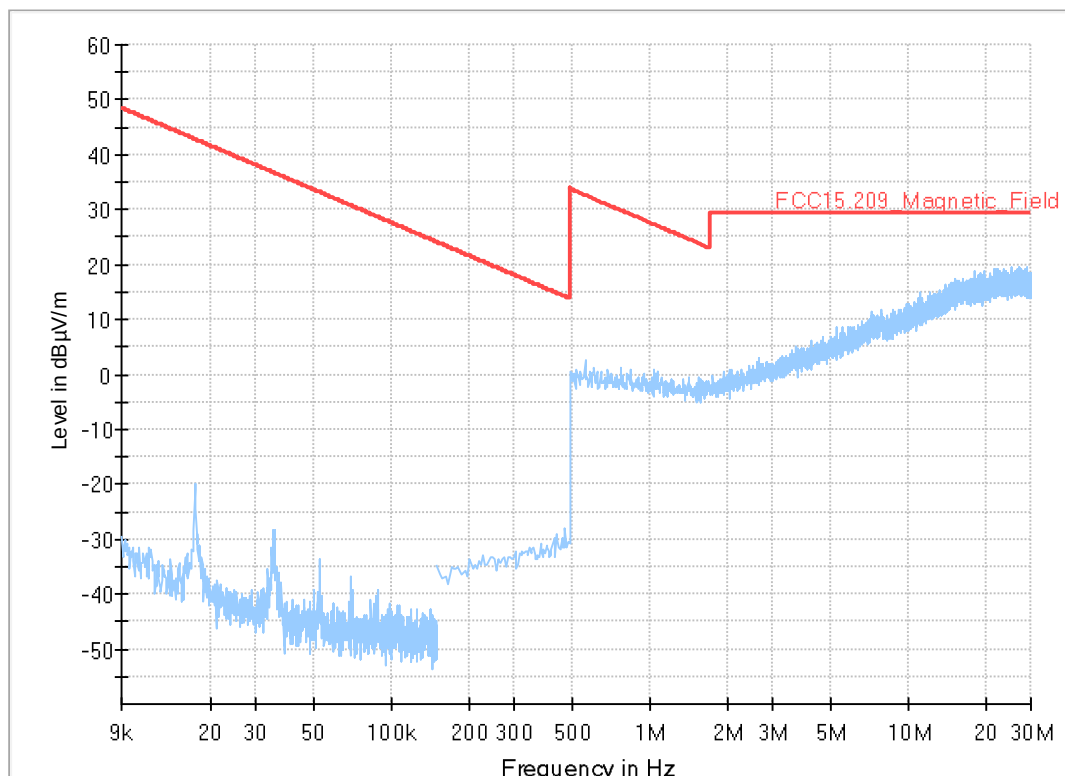
Common Information

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
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:	HLA
Operating Mode:	TX-on
Power during tests:	battery
Comment 1:	Channel low
Environmental Conditions:	Humidity: 40% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	22-1-00653S19_C01
Power supply:	Battery

Full Spectrum



2.03b_BLE_LE_high_laying

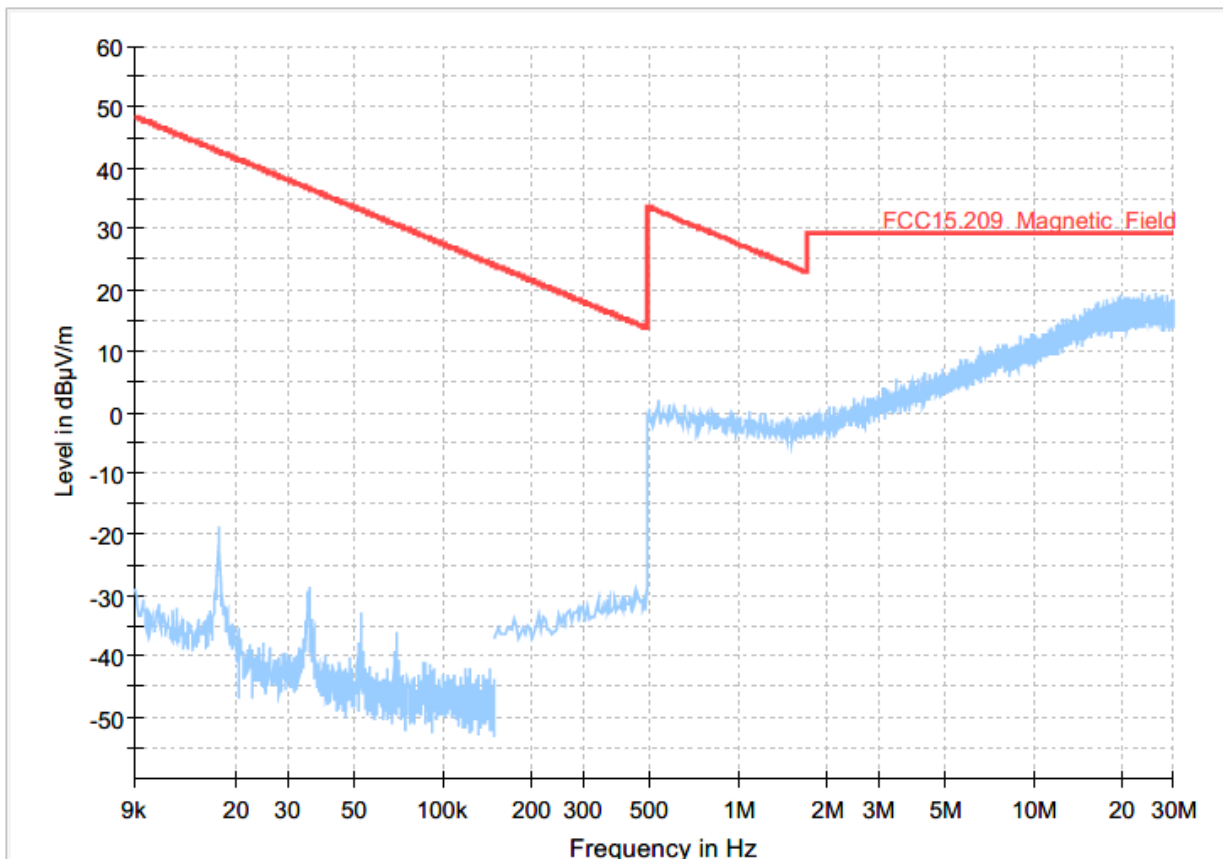
Common Information

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
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:	HLA
Operating Mode:	TX-on
Power during tests:	battery
Comment 1:	Channel low
Environmental Conditions:	Humidity: 40% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	22-1-00653S19_C01
Power supply:	Battery

Full Spectrum



7 Radiated field strength emissions 30 MHz – 1 GHz

3.01a_BLE_LE_low_standing

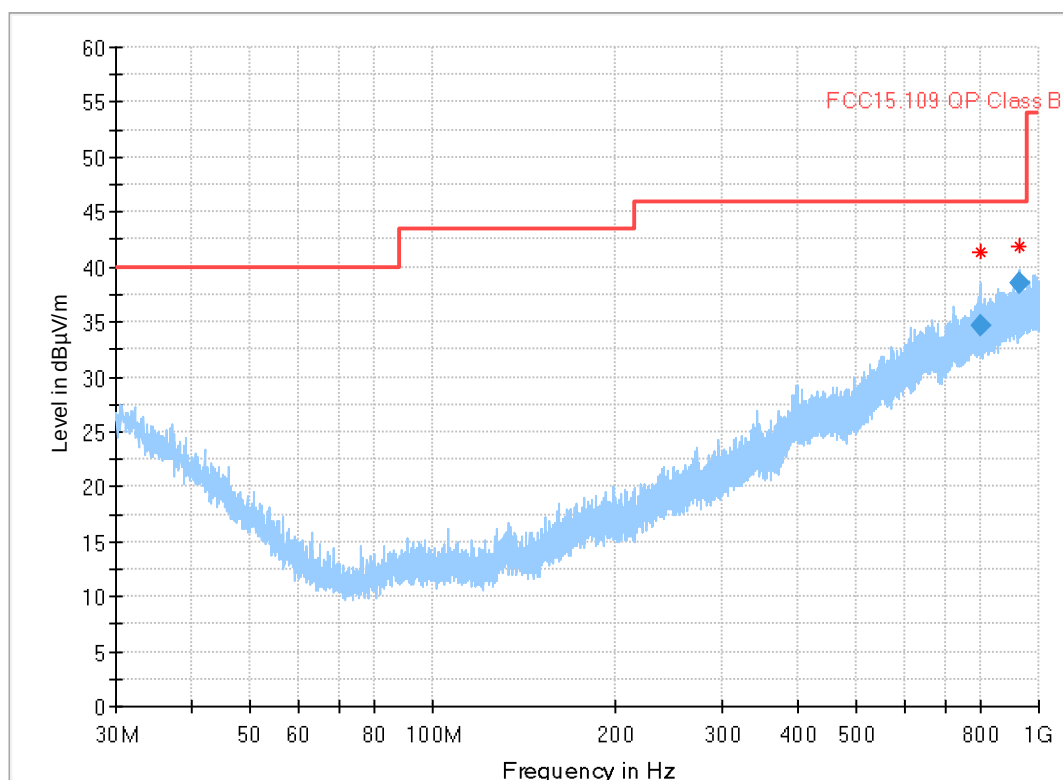
Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.109 Unintentional Radiator / RSS-Gen., Issue 5
Antenna polarisation:	horizontal/vertical
Operation mode:	1
Operator Name:	HLa
Environmental Conditions:	Humidity: 40% rH; Temperature: 20 °C
Verdict:	Passed

EUT Information

PMT number:	22-1-00653S19_C01
Power supply:	Battery

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
799.430000	34.66	46.00	11.34	120.000	146.0	H	236.0	25.5
927.830000	38.61	46.00	7.39	120.000	140.0	H	93.0	27.0

3.01b_BLE_LE_low_laying

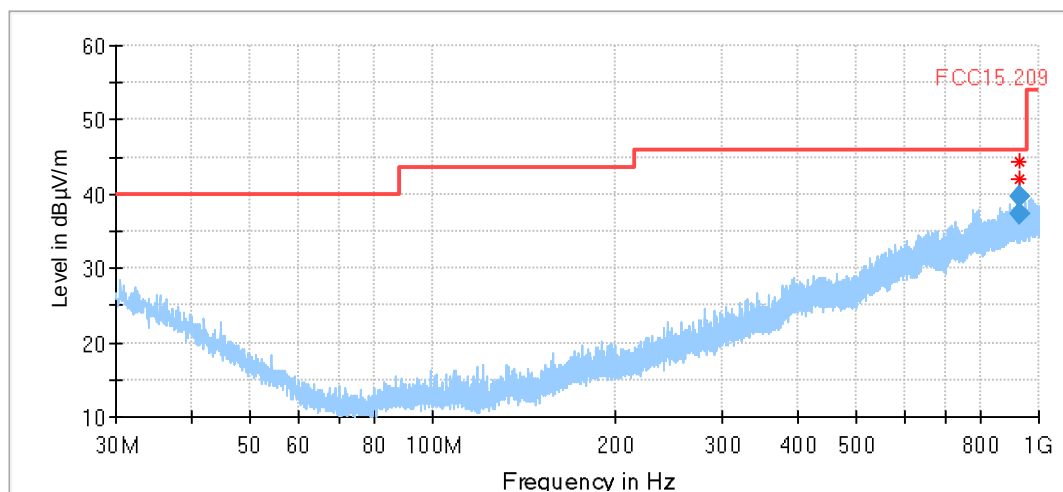
Common Information

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
 Operator Name: HLa / mab
 Operating Mode: TX
 Power supply: battery
 Comment: Channel no. low
 Verdict: Passed

EUT Information

PMT Sample number: 22-1-00653S19_C01
 Power Supply: Battery



Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Sig Path (dB)	Preamp (dB)
926.390000	39.61	46.00	6.39	120.000	289.0	H	181.0	27.0	0.0	3.4
927.870000	37.32	46.00	8.68	120.000	321.0	V	114.0	27.0	0.0	3.4

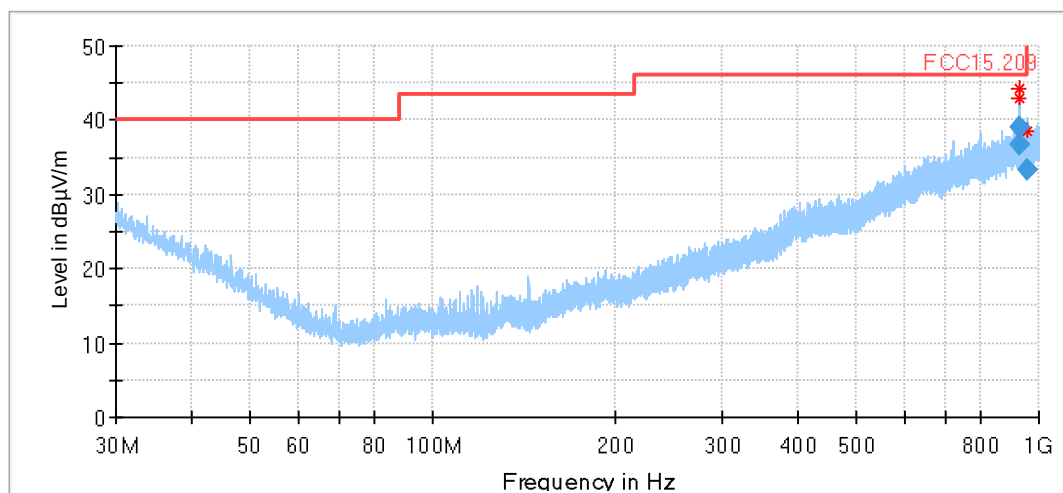
3.02a_BLE_LE_mid_standing

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
Operator Name:	HLA / mab
Operating Mode:	TX
Power supply:	battery
Comment:	Channel no. low
Verdict:	Passed

EUT Information

PMT Sample number:	22-1-00653S19_C01
Power Supply	Battery



Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Sig Path (dB)	Preamp (dB)
926.430000	39.01	46.00	6.99	120.000	160.0	V	48.0	27.0	0.0	3.4
927.870000	36.84	46.00	9.16	120.000	176.0	V	60.0	27.0	0.0	3.4
956.270000	33.27	46.00	12.73	120.000	178.0	V	218.0	27.6	0.0	3.6

3.02b_BLE_LE_mid_laying

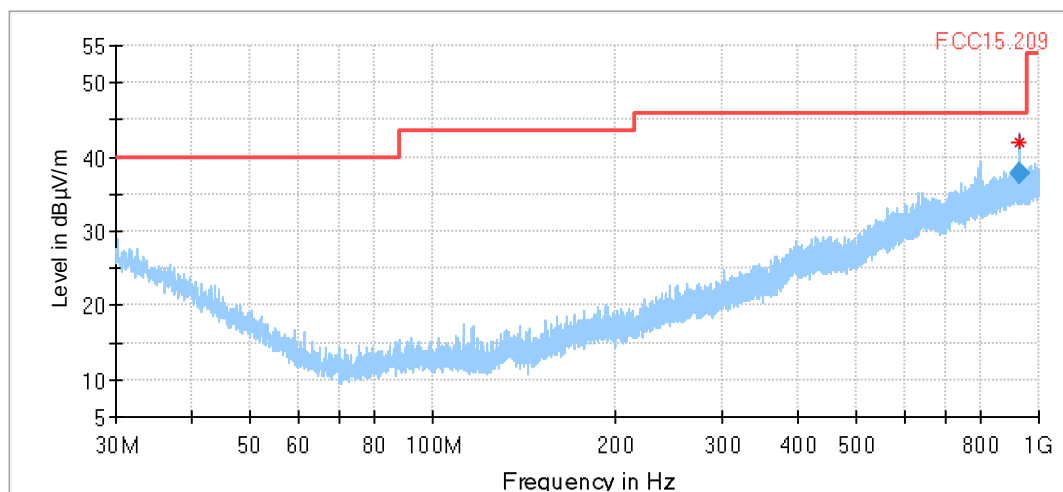
Common Information

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
 Operator Name: HLa / mab
 Operating Mode: TX
 Power supply: battery
 Comment: Channel no. low
 Verdict: Passed

EUT Information

PMT Sample number: 22-1-00653S19_C01
 Power Supply: Battery



Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Sig Path (dB)	Preamp (dB)
926.350000	37.79	46.00	8.21	120.000	368.0	H	289.0	27.0	0.0	3.4

3.03a_BLE_LE_high_standing

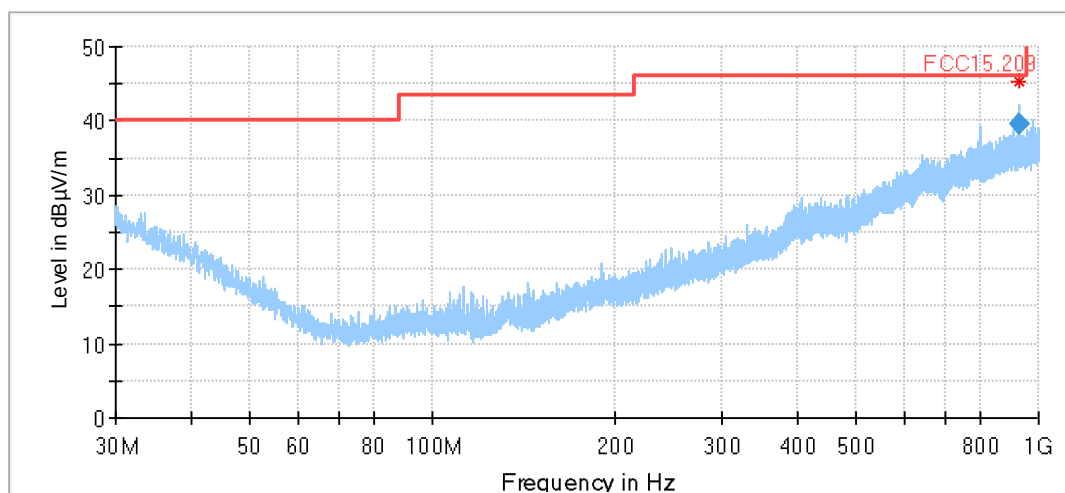
Common Information

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
 Operator Name: HLa / mab
 Operating Mode: TX
 Power supply: battery
 Comment: Channel no. low
 Verdict: Passed

EUT Information

PMT Sample number: 22-1-00653S19_C01
 Power Supply: Battery



Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Sig Path (dB)	Preamp (dB)
926.430000	39.50	46.00	6.50	120.000	212.0	V	356.0	27.0	0.0	3.4

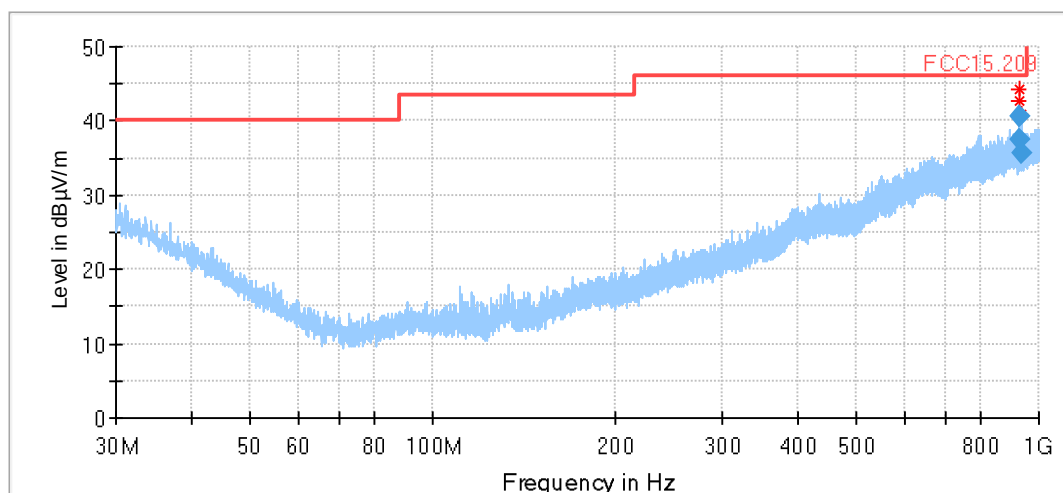
3.03b_BLE_LE_high_laying

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
Operator Name:	HLA / mab
Operating Mode:	TX
Power supply:	battery
Comment:	Channel no. low
Verdict:	Passed

EUT Information

PMT Sample number:	22-1-00653S19_C01
Power Supply	Battery



Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Sig Path (dB)	Preamp (dB)
926.370000	40.69	46.00	5.31	120.000	360.0	V	289.0	27.0	0.0	3.4
927.790000	37.40	46.00	8.60	120.000	304.0	H	111.0	27.0	0.0	3.4
933.790000	35.67	46.00	10.33	120.000	322.0	H	93.0	27.1	0.0	3.4

8 Radiated field strength emissions above 1 GHz

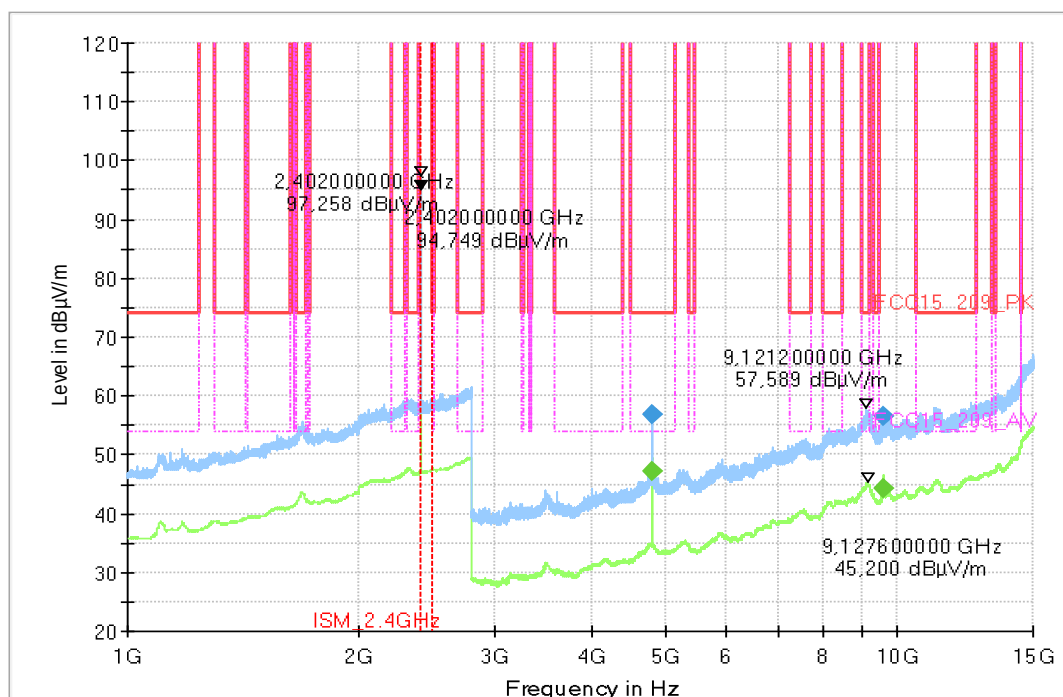
4.01a_BLE_LE_low

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 / RSS-Gen, Issue 5
Antenna polarisation:	horizontal/vertical
Operating Mode:	TX, continuous
EUT Setup	1
Operator:	SOz / Asa
Comment:	Channel no. low
Verdict:	Passed

EUT Information

PMT Sample Nr:	22-1-00653S19_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	---	47.08	54.00	6.92	100.0	1000.000	155.0	H	272.0	0.0
4803.600000	56.83	---	74.00	17.17	100.0	1000.000	155.0	H	273.0	0.0
9607.200000	---	44.27	150.00	105.73	100.0	1000.000	155.0	V	123.0	0.0
9607.200000	56.50	---	150.00	93.50	100.0	1000.000	155.0	V	122.0	0.0

4.01b_BLE_LE_low

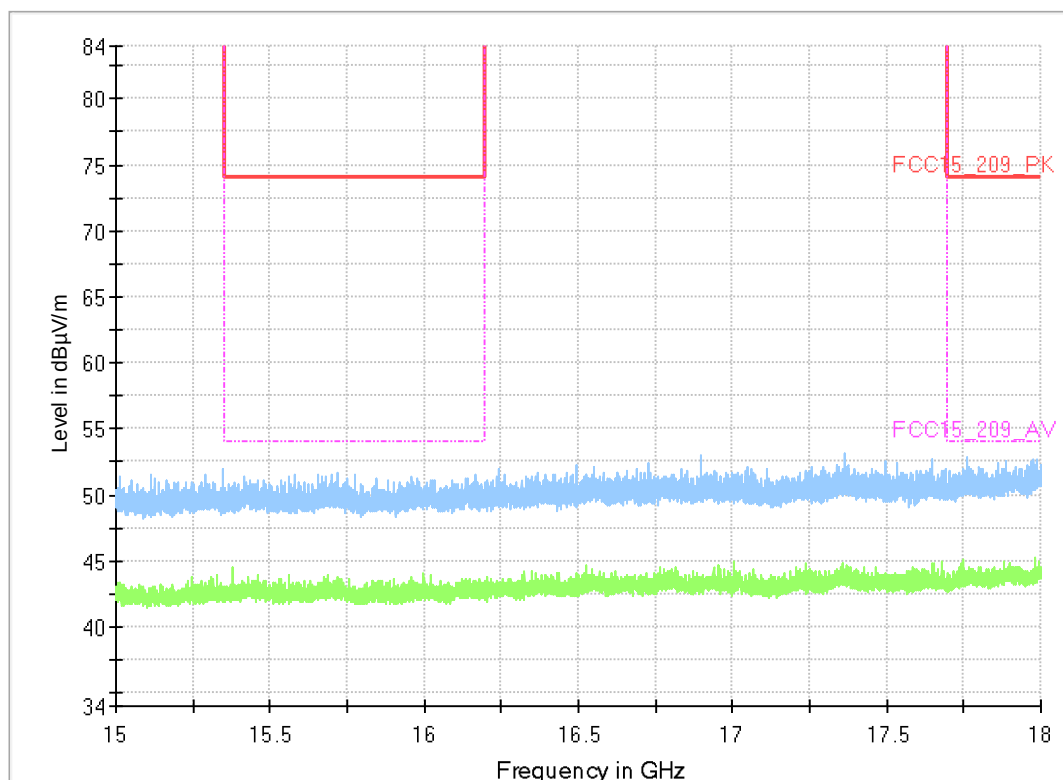
Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209 & RSS-Gen, Issue 5
Operating Mode:	BLE_low
Environmental Conditions:	Humidity: 54% rH; Temperature: 22 °C
SW-Version:	EMC32 V10.60.20
Operator:	ASa
Verdict:	Passed

EUT Information

PMT Sample Nr. 22-1-00653S19_C01

Full Spectrum



4.01c1_BLE_LE_low_laying

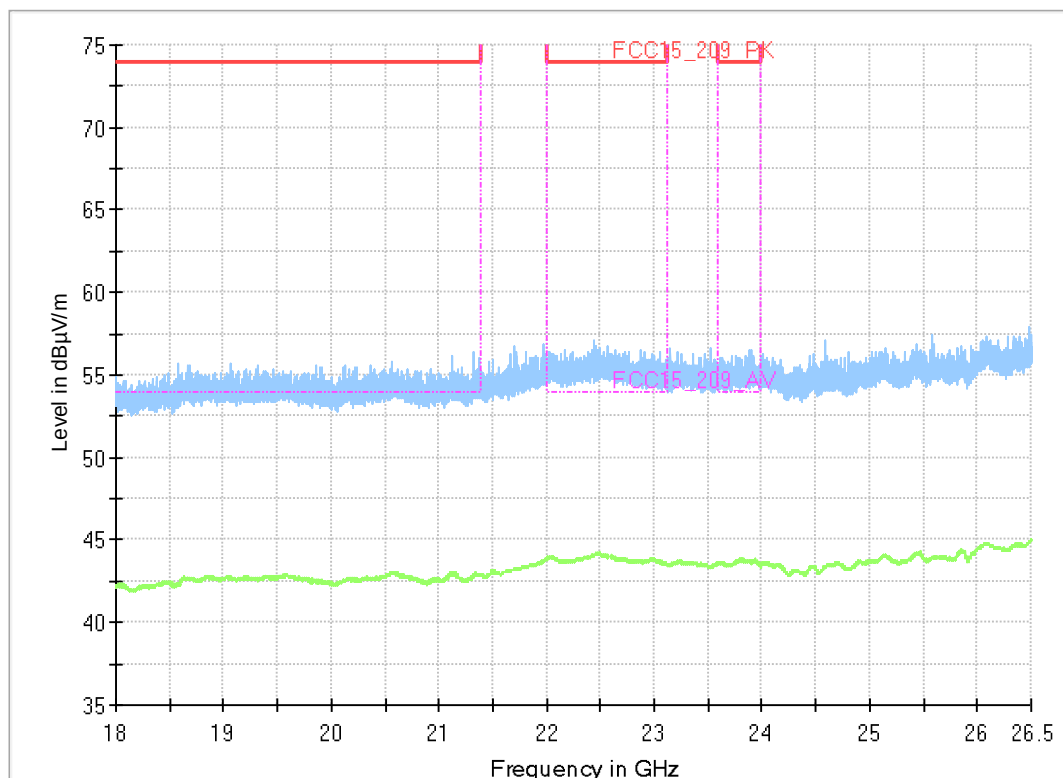
Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209 & RSS-Gen, Issue 5
Operating Mode:	BLE_low
Environmental Conditions:	Humidity: 54% rH; Temperature: 22 °C
SW-Version:	EMC32 V10.60.20
Operator:	ASa
Verdict:	Passed

EUT Information

PMT Sample Nr.	22-1-00653S19_C01
----------------	-------------------

Full Spectrum



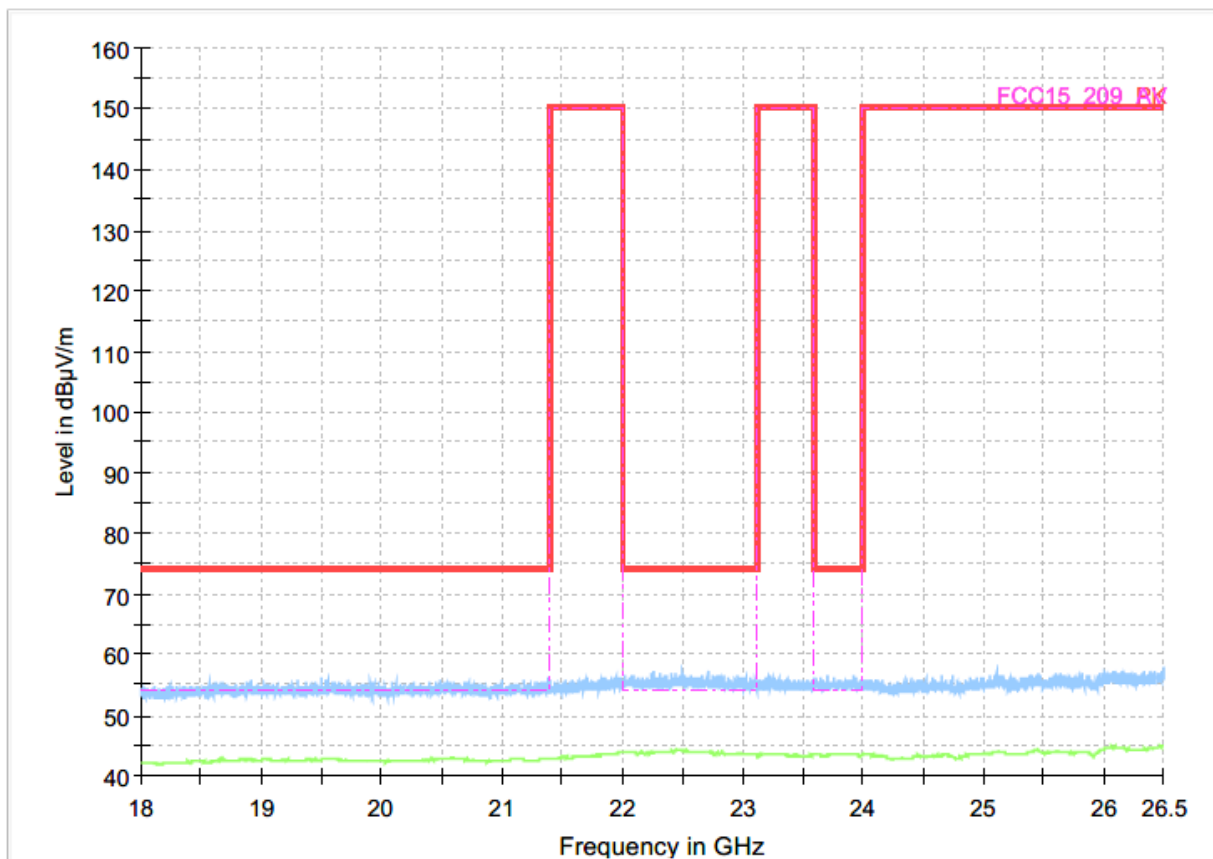
4.01c2_BLE_LE_low_standing

Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209 & RSS-Gen, Issue 5
Operating Mode:	BLE_low
Environmental Conditions:	Humidity: 54% rH; Temperature: 22 °C
SW-Version:	EMC32 V10.60.20
Operator:	HLA
Verdict:	Passed

EUT Information

PMT Sample Nr:	22-1-00653S19_C01
	Full Spectrum



4.02a_BLE_LE_mid

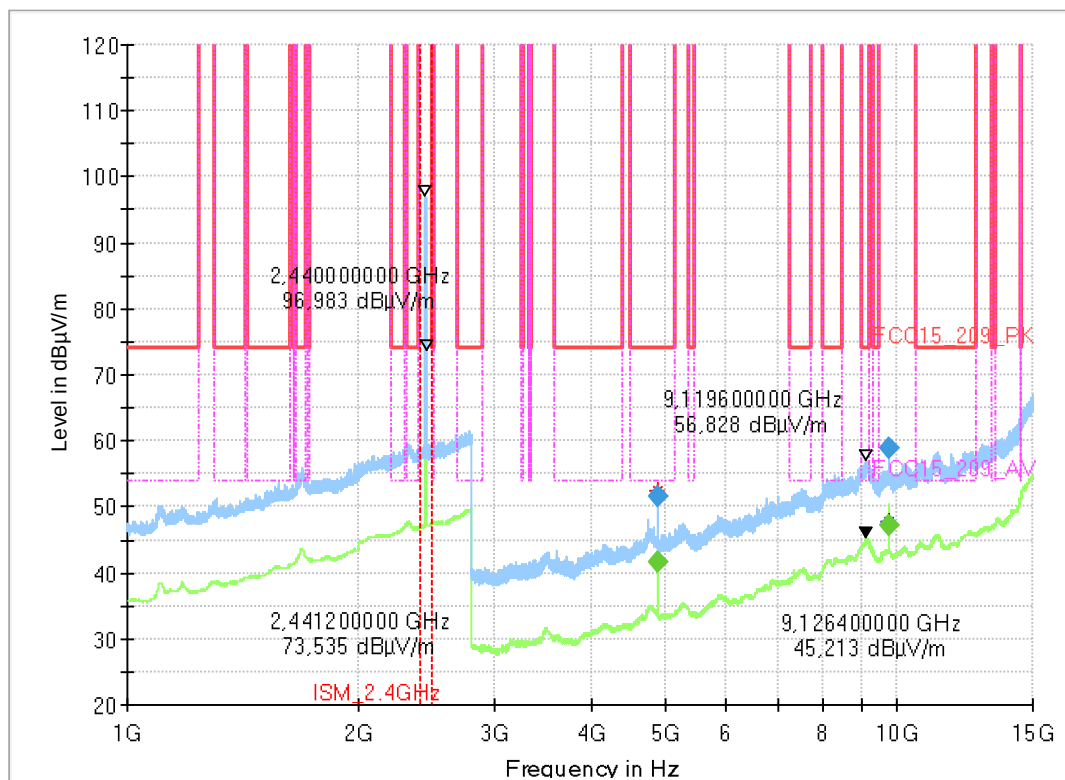
Common Information

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 / RSS-Gen, Issue 5
Antenna polarisation:	horizontal/vertical
Operating Mode:	BLE_mid
EUT Setup	01
Operator:	SOz / Asa
Comment:	Channel no. mid
Verdict:	Passed

EUT Information

PMT Sample Nr:	22-1-00653S19_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)
4879.600000	---	41.53	54.00	12.47	100.0	1000.000	155.0	H	272.0	0.0
4879.600000	51.71	---	74.00	22.29	100.0	1000.000	155.0	H	274.0	0.0
9759.200000	---	47.25	150.00	102.75	100.0	1000.000	155.0	V	122.0	0.0
9759.200000	58.83	---	150.00	91.17	100.0	1000.000	155.0	V	122.0	0.0

4.02b_BLE_LE_mid

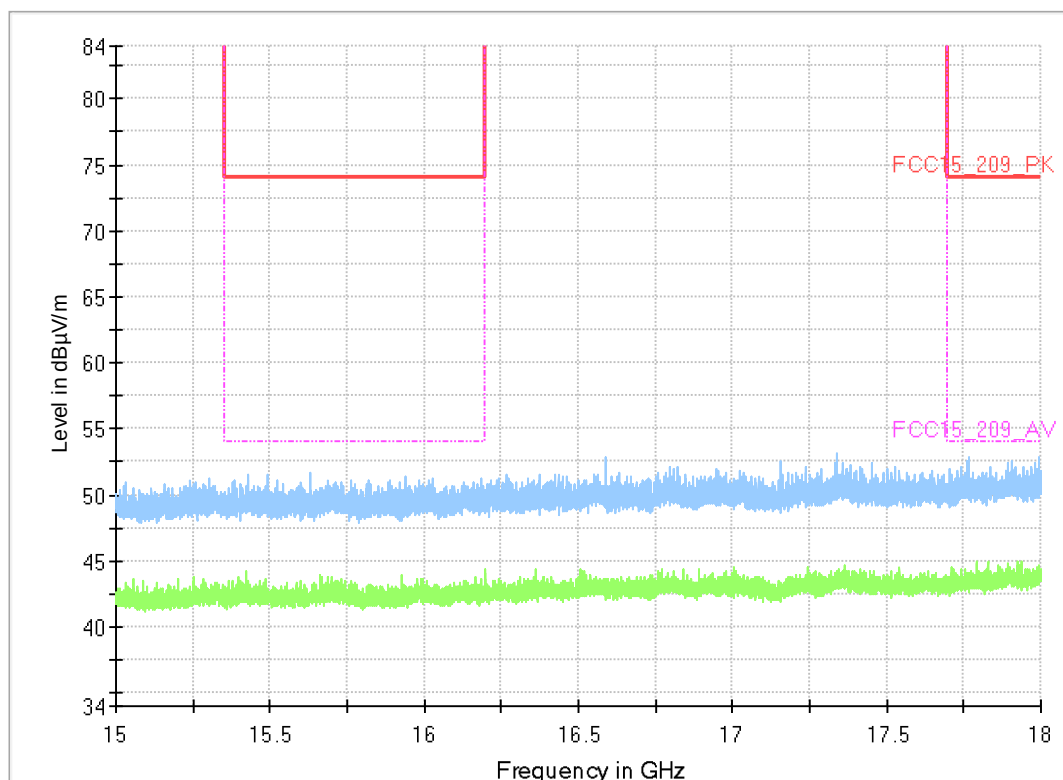
Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209 & RSS-Gen, Issue 5
Operating Mode:	BLE_mid
Environmental Conditions:	Humidity: 54% rH; Temperature: 22 °C
SW-Version:	EMC32 V10.60.20
Operator:	ASa
Verdict:	Passed

EUT Information

PMT Sample Nr. 22-1-00653S19_C01

Full Spectrum



4.02c1_BLE_LE_mid_laying

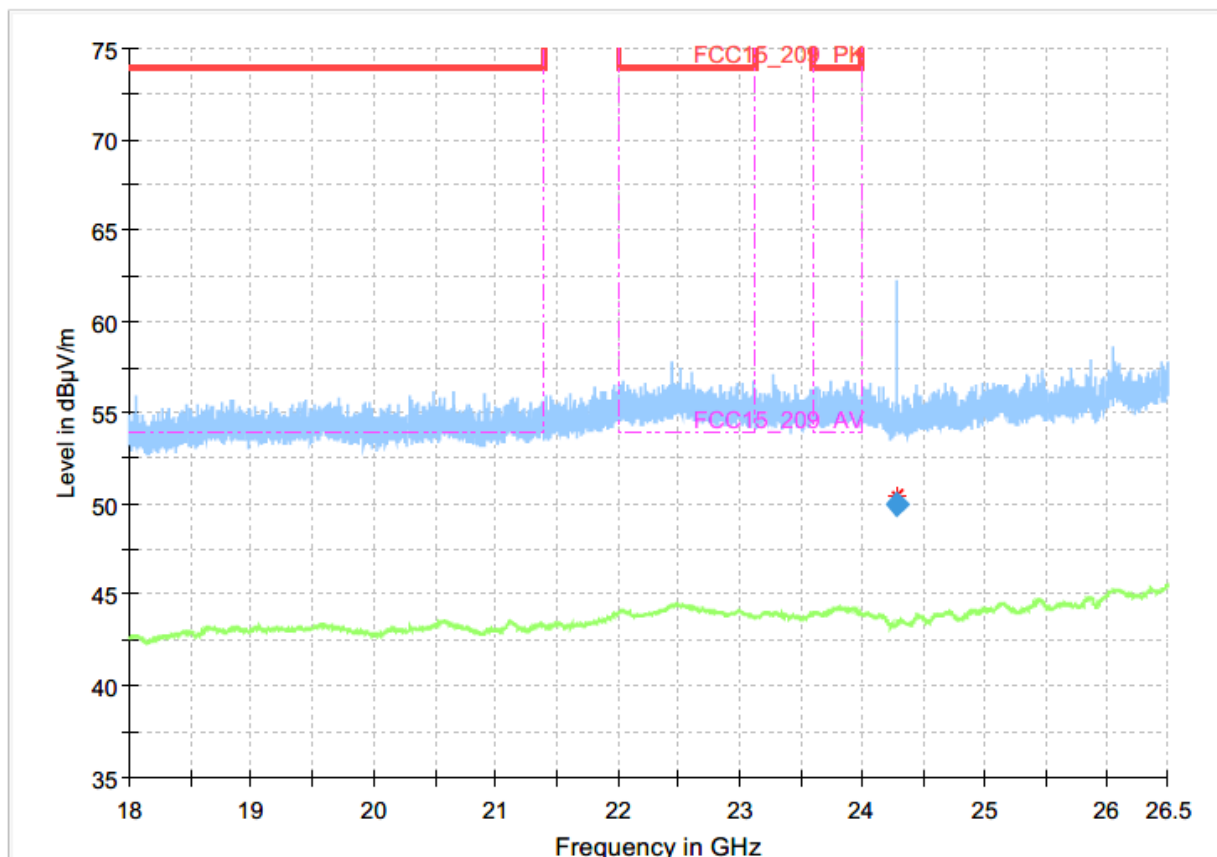
Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209 & RSS-Gen, Issue 5
Operating Mode:	BLE_mid
Environmental Conditions:	Humidity: 54% rH; Temperature: 22 °C
SW-Version:	EMC32 V10.60.20
Operator:	HLA
Verdict:	Passed

EUT Information

PMT Sample Nr: 22-1-00653519_C01

Full Spectrum



4.02c2_BLE_LE_mid_standing

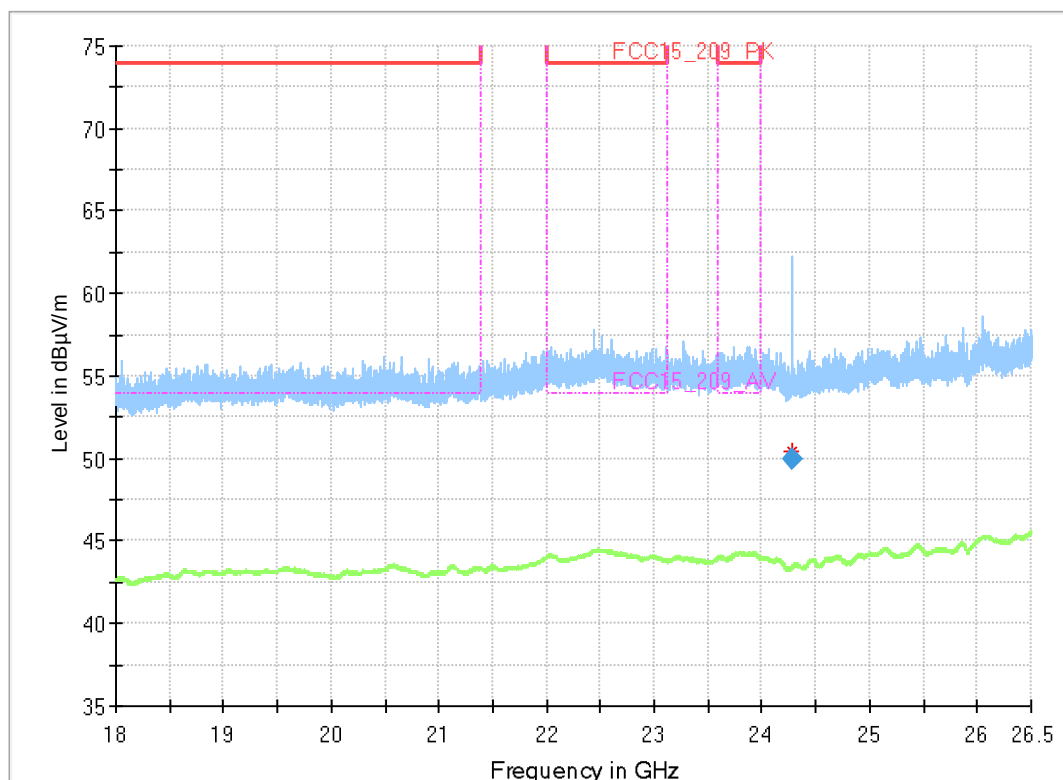
Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209 & RSS-Gen, Issue 5
Operating Mode:	BLE_mid
Environmental Conditions:	Humidity: 54% rH; Temperature: 22 °C
SW-Version:	EMC32 V10.60.20
Operator:	npe
Verdict:	Passed

EUT Information

PMT Sample Nr. 22-1-00653519_C01

Full Spectrum



4.03a_BLE_LE_high

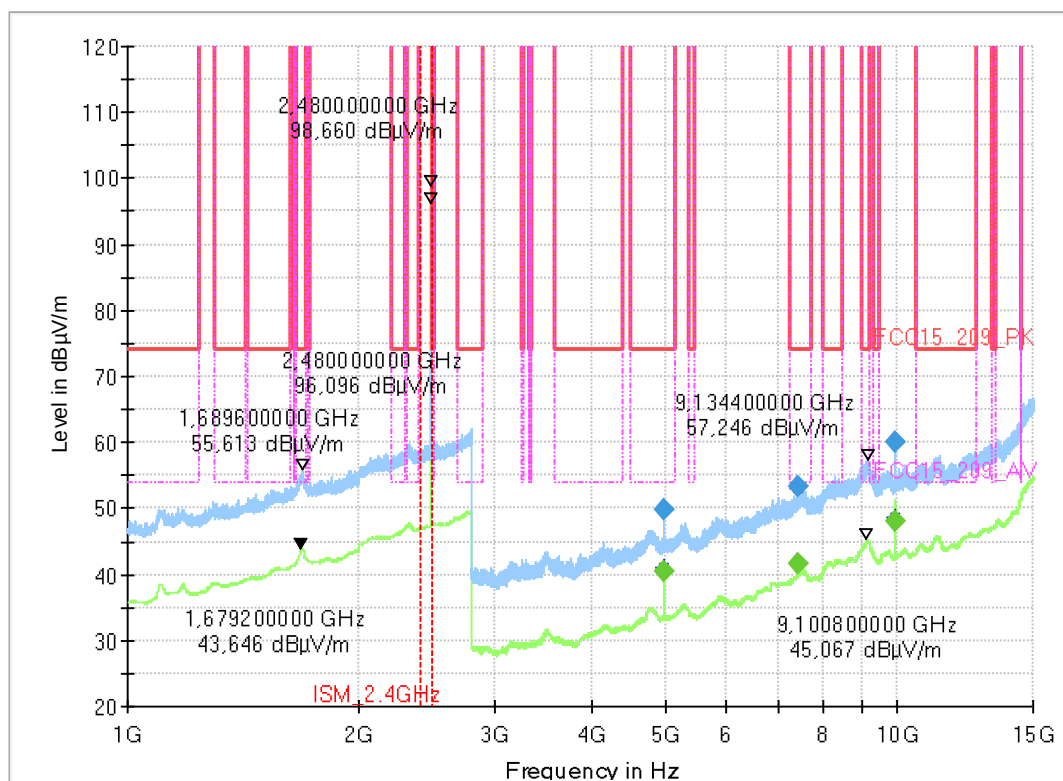
Common Information

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 / RSS-Gen, Issue 5
Antenna polarisation:	horizontal/vertical
Operating Mode:	BLE_high
EUT Setup	1
Operator:	Asa / mab
Comment:	Channel no.high
Verdict:	Passed

EUT Information

PMT Sample Nr: 22-1-00653S19_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)
4960.000000	---	40.45	54.00	13.55	100.0	1000.000	155.0	V	274.0	90.0
4960.000000	49.92	---	74.00	24.08	100.0	1000.000	155.0	H	268.0	0.0
7439.200000	53.29	---	74.00	20.71	100.0	1000.000	155.0	V	92.0	0.0
7439.600000	---	41.57	54.00	12.43	100.0	1000.000	155.0	H	89.0	90.0
9919.200000	60.13	---	150.00	89.87	100.0	1000.000	155.0	V	122.0	0.0
9919.200000	---	48.00	150.00	102.00	100.0	1000.000	155.0	V	123.0	0.0

4.03b_BLE_LE_high

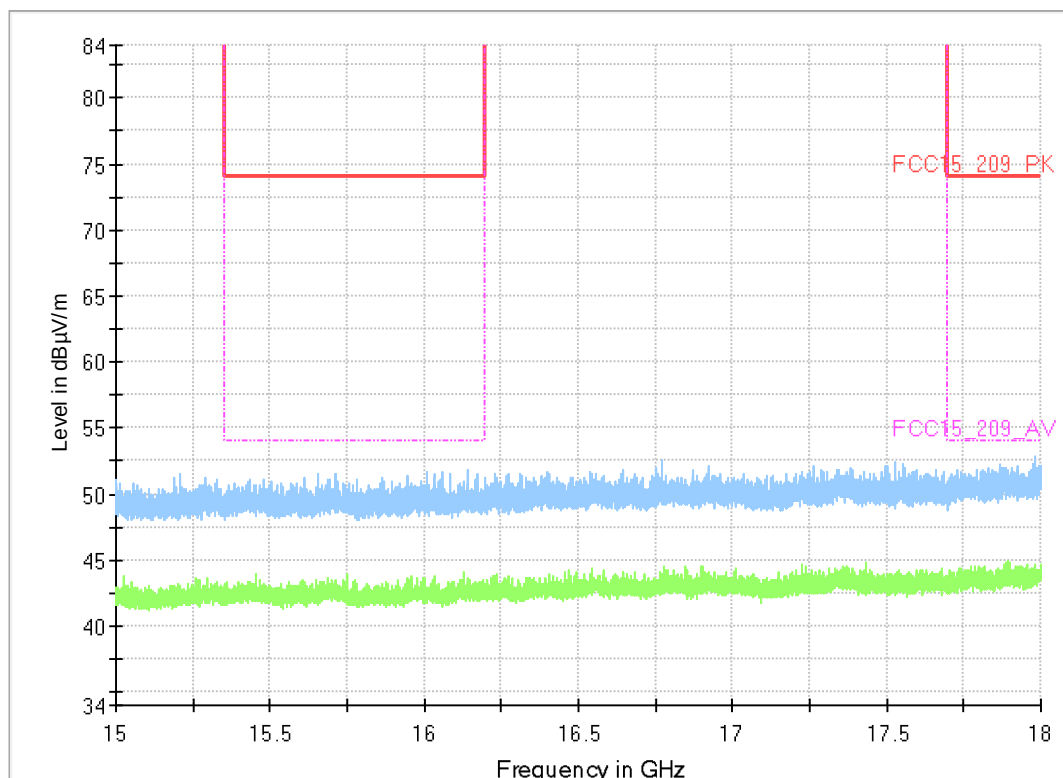
Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209 & RSS-Gen, Issue 5
Operating Mode:	BLE_high
Environmental Conditions:	Humidity: 54% rH; Temperature: 22 °C
SW-Version:	EMC32 V10.60.20
Operator:	ASa
Verdict:	Passed

EUT Information

PMT number:	22-1-00653S19_C01
Power supply:	Battery

Full Spectrum



4.03c1_BLE_LE_high_laying

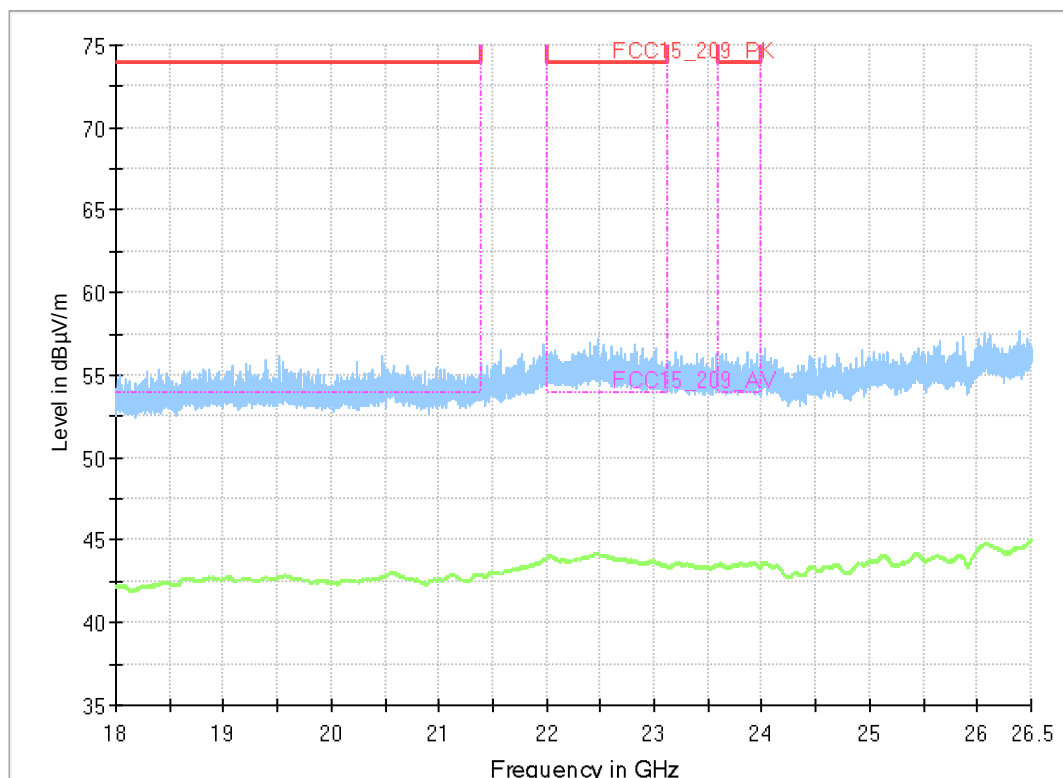
Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209 & RSS-Gen, Issue 5
Operating Mode:	BLE_high
Environmental Conditions:	Humidity: 54% rH; Temperature: 22 °C
SW-Version:	EMC32 V10.60.20
Operator:	ASa
Verdict:	Passed

EUT Information

PMT number:	22-1-00653519_C01
Power supply:	Battery

Full Spectrum



4.03c2_BLE_LE_high_standing

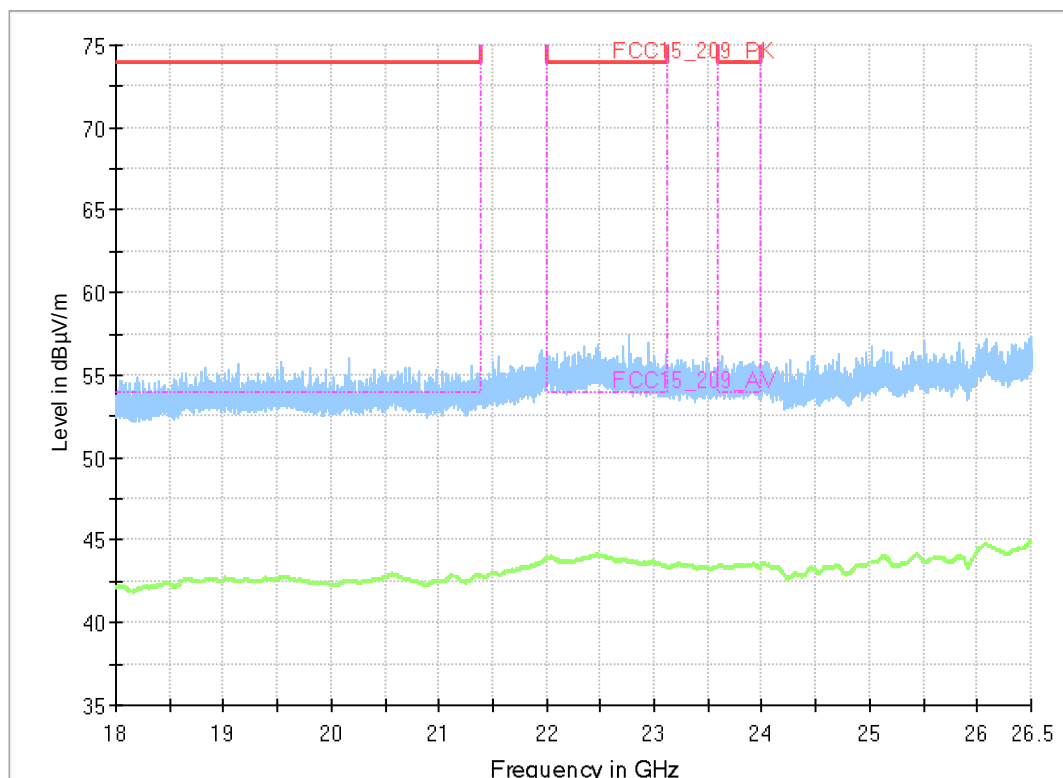
Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209 & RSS-Gen, Issue 5
Operating Mode:	BLE_high
Environmental Conditions:	Humidity: 54% rH; Temperature: 22 °C
SW-Version:	EMC32 V10.60.20
Operator:	ASa
Verdict:	Passed

EUT Information

PMT number:	22-1-00653S19_C01
Power supply:	Battery

Full Spectrum



9 Radiated Band-Edge emissions

9.01_BE_BLE_LE_low

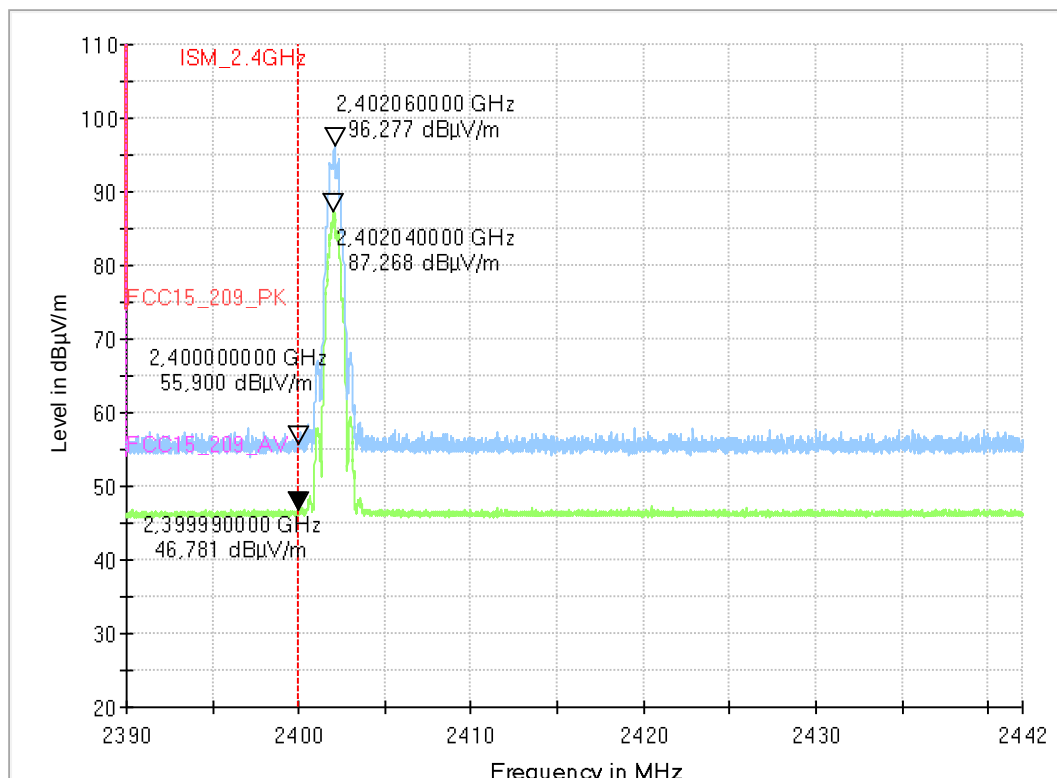
Common Information

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 / RSS-Gen, Issue 5
Antenna polarisation:	horizontal/vertical
Operating Mode:	TX, continuous
Operator:	ASa / MAb
Comment:	Channel no. low
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT Sample Nr:	22-1-00653S19_C01
----------------	-------------------

Full Spectrum



9.02_BE_BLE_LE_high

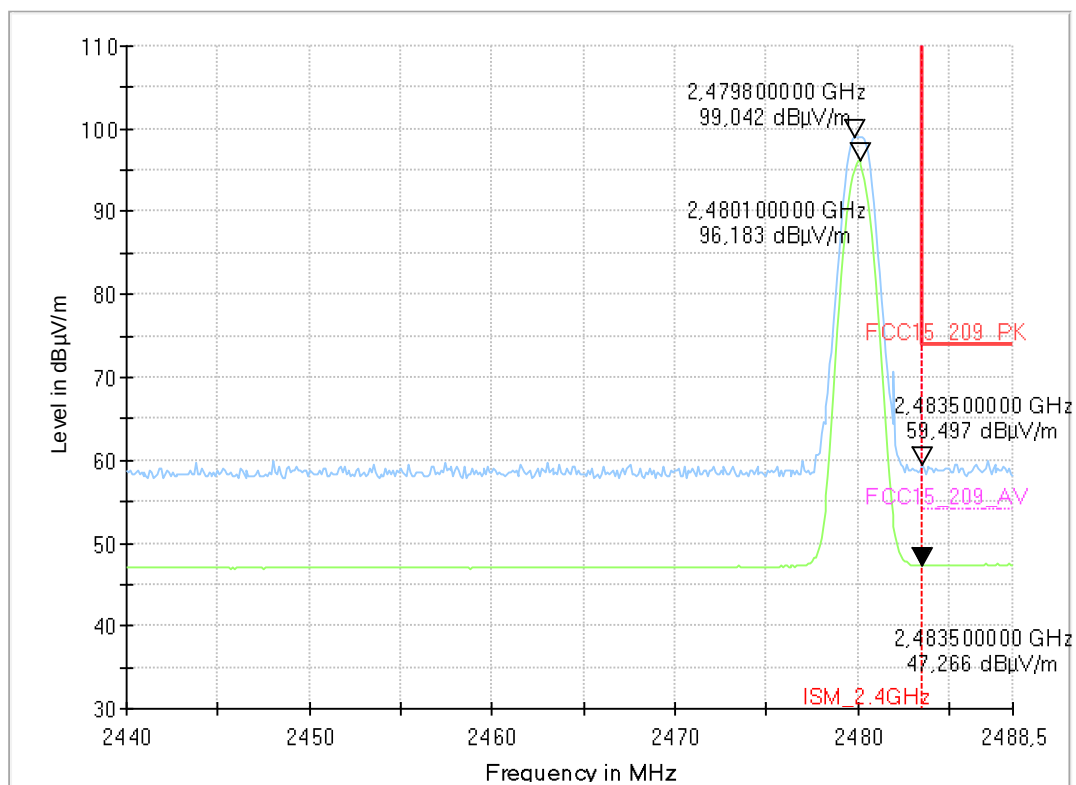
Common Information

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 / RSS-Gen, Issue 5
Antenna polarisation:	horizontal/vertical
Operating Mode:	TX, continuous
Operator:	ASa / MAb
Comment:	Channel no. high
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT Sample Nr:	22-1-00653S19_C01
----------------	-------------------

Full Spectrum



End Of Annex 1