

Annex 1: Measurement diagrams 20-1-0039701T014a-A1-C01

Number of pages:	69	Date of Report:	2023-Feb-28
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:	Actia Nordic AB
Product: Model:	Telematic Device 105560001		
FCC ID:	Bluetooth: 2AGKK105560001	IC:	Bluetooth: 20839-105560001
Testing has been carried out in accordance with:	Title 47 CFR, Chapter I FCC Regulations, Subchapter A Subpart C: §15.247 (DTS) , RSS-247, Issue 2 (DTS) RSS-Gen., Issue 5 Deviations, modifications or clarifications (if any) to above mentioned documents are written in each section under "Test method and limit".method and limit".		

Table of Contents

1	Measurement diagrams.....	3
1.1	Peak output power	3
1.2	Duty Cycle.....	9
1.3	Power spectral density	15
1.4	Minimum Emission Bandwidth 6 dB.....	21
1.5	Occupied Channel Bandwidth 99%.....	27
1.6	Emissions in non-restricted frequency bands.....	33
1.7	Radiated field strength emissions below 30 MHz	47
1.8	Radiated field strength emissions 30 MHz – 1 GHz	51
1.9	Radiated field strength emissions above 1 GHz	55
1.10	Radiated Band-Edge emissions	66

1 Measurement diagrams

1.1 Peak output power

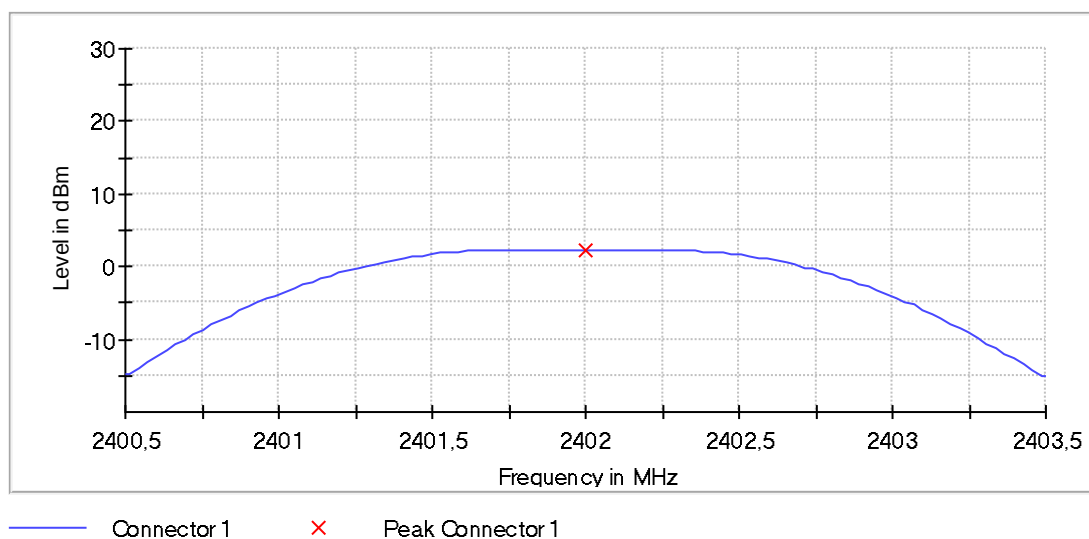
Peak output power (Sweep) (2402 MHz; BT-LE [1MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2402.000000	2.3	30.0	PASS

Peak Power



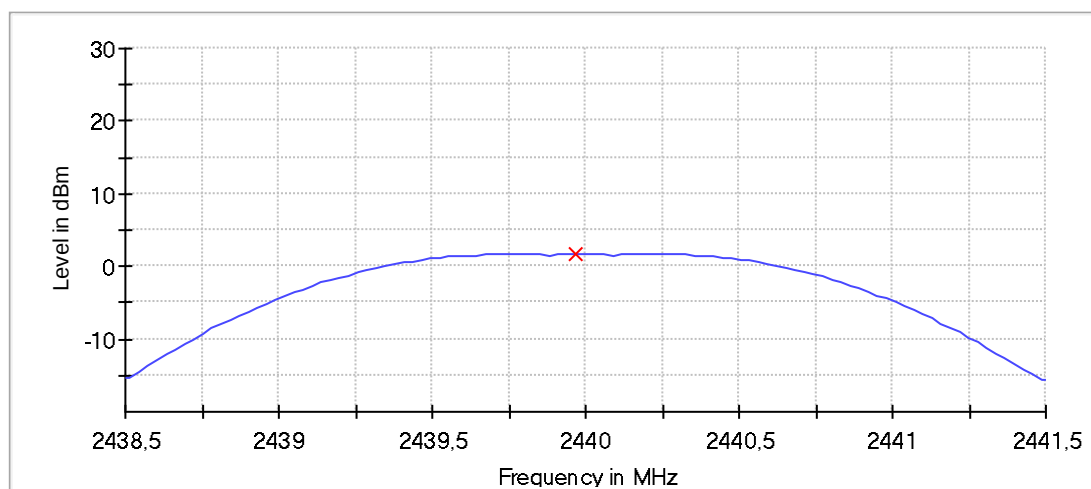
Peak output power (Sweep) (2440 MHz; BT-LE [1MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2440.000000	1.6	30.0	PASS

Peak Power



— Connector 1 × Peak Connector 1

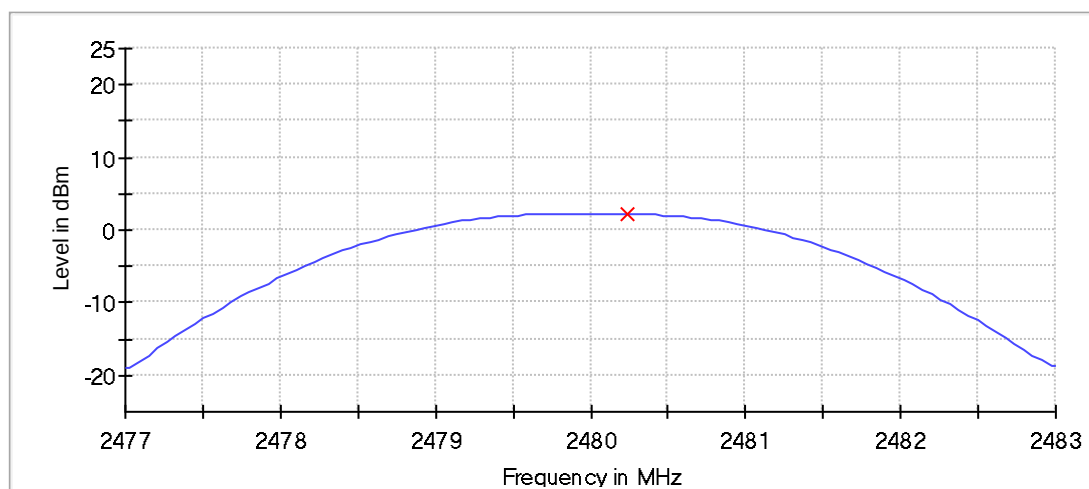
Peak output power (Sweep) (2480 MHz; BT-LE [1MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2480.000000	2.2	30.0	PASS

Peak Power



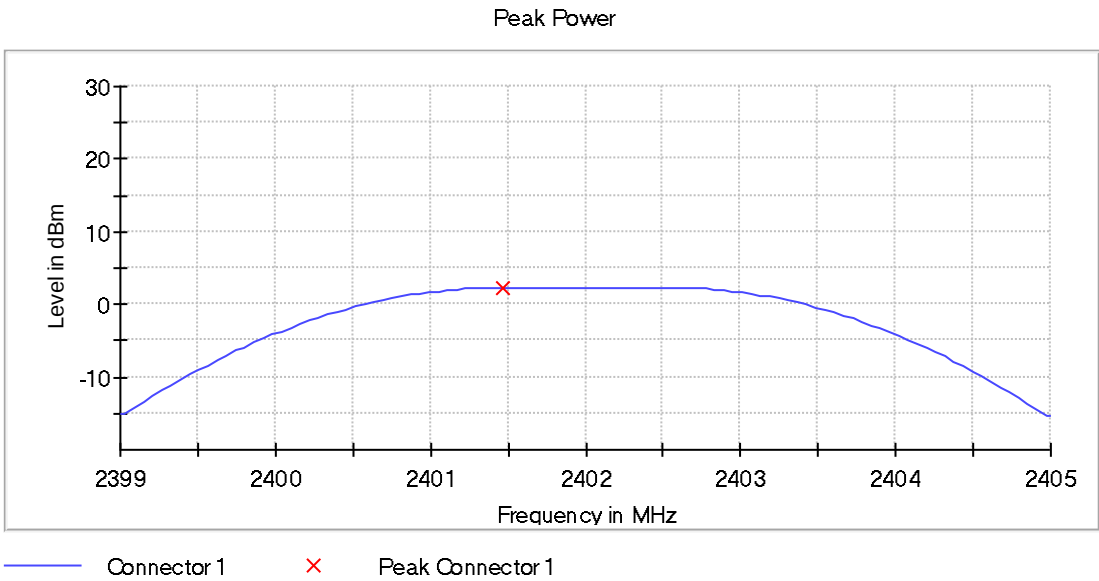
— Connector 1 × Peak Connector 1

Peak output power (Sweep) (2402 MHz; BT-5 [2Mbps] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2402.000000	2.3	30.0	PASS



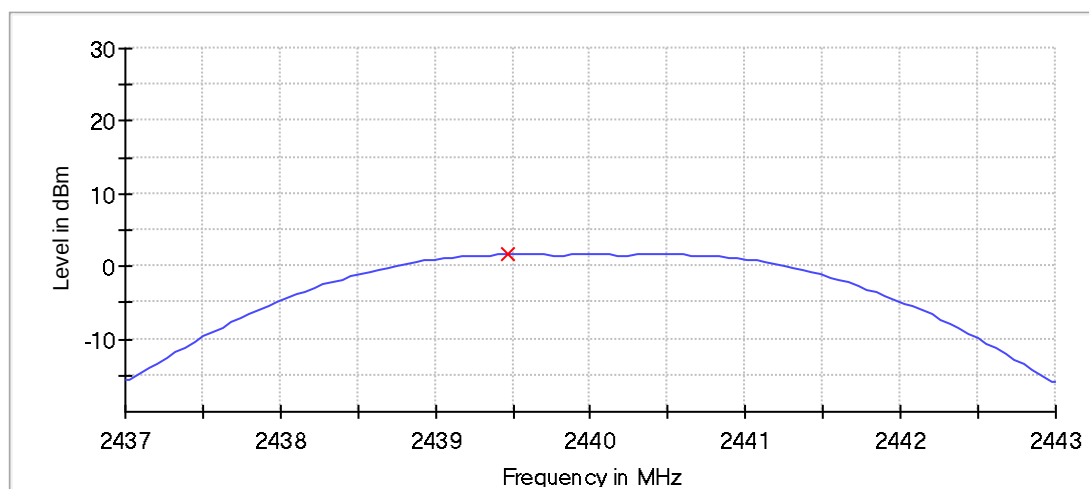
Peak output power (Sweep) (2440 MHz; BT-5 [2Mbps] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2440.000000	1.6	30.0	PASS

Peak Power



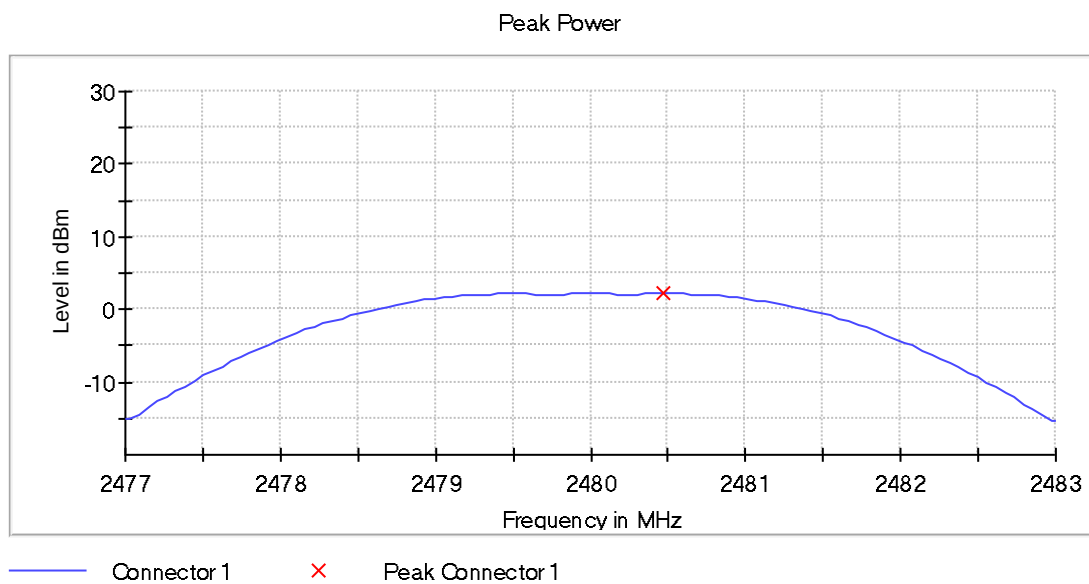
— Connector 1 × Peak Connector 1

Peak output power (Sweep) (2480 MHz; BT-5 [2Mbps] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2480.000000	2.2	30.0	PASS



1.2 Duty Cycle

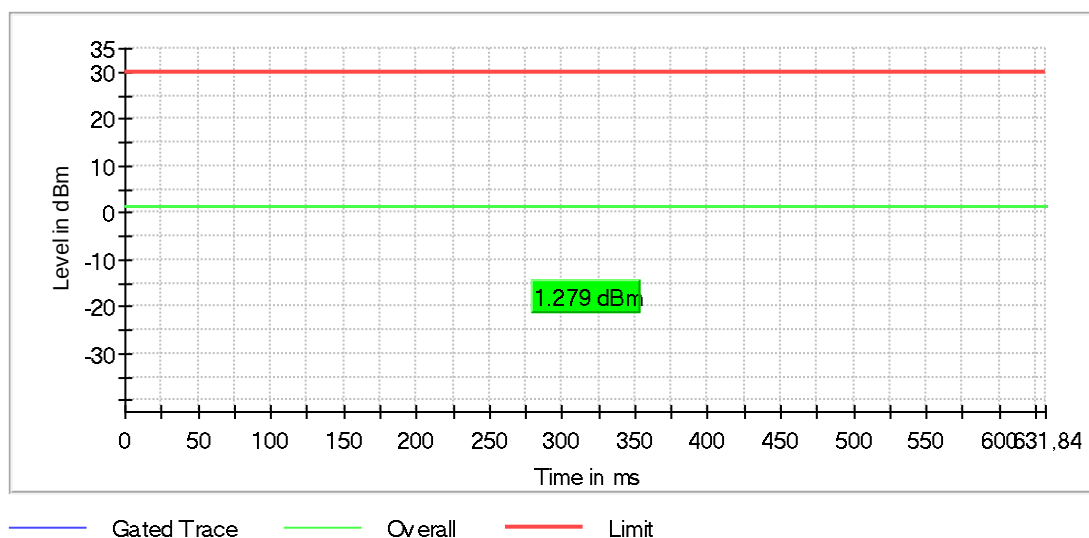
Duty Cycle (2402 MHz; BT-5 [1MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
2402.000000	1.3	30.0	1.3	63.386	PASS

Gated Trace



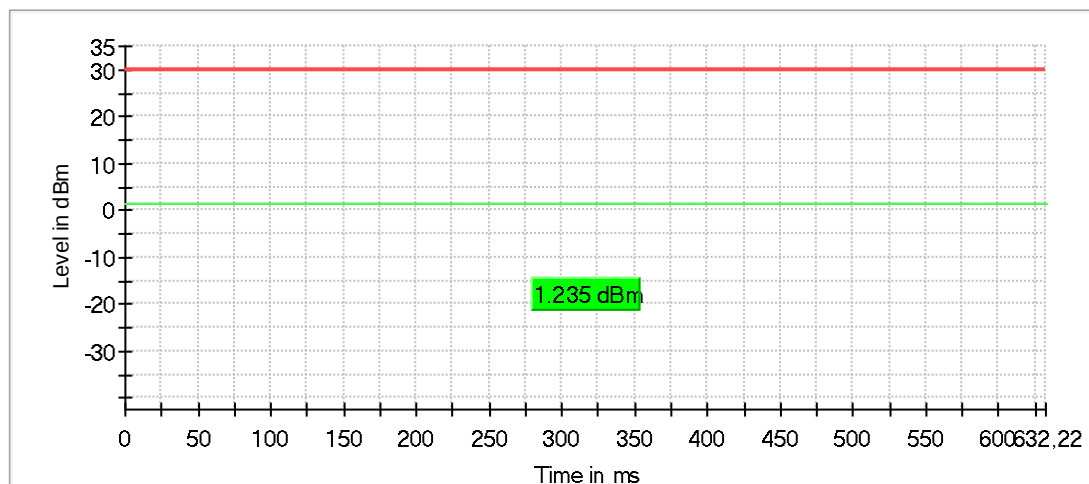
Duty Cycle (2440 MHz; BT-5 [1MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
2440.000000	1.2	30.0	1.2	63.384	PASS

Gated Trace



— Gated Trace — Overall — Limit

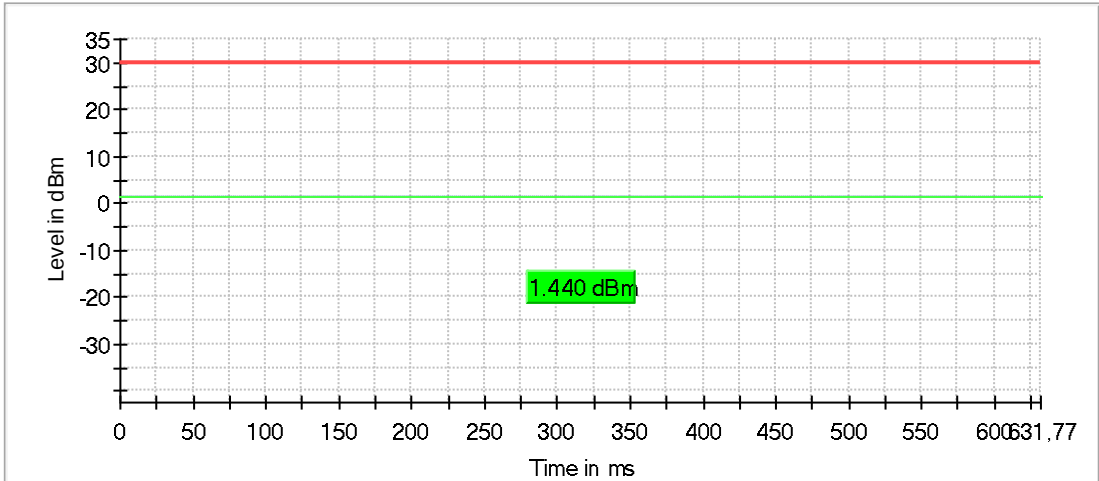
Duty Cycle (2480 MHz; BT-5 [1MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
2480.000000	1.4	30.0	1.4	63.378	PASS

Gated Trace



— Gated Trace — Overall — Limit

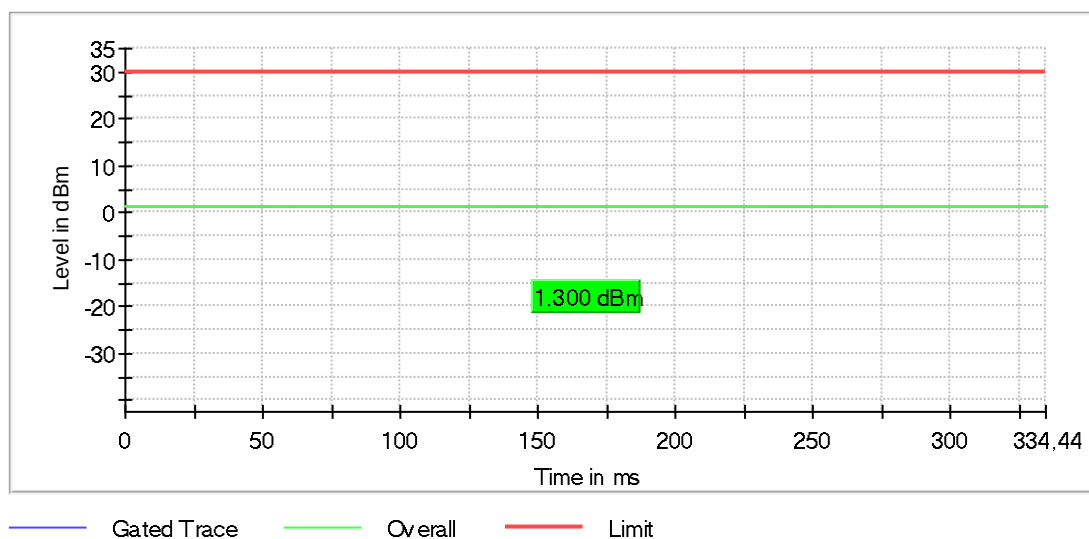
Duty Cycle (2402 MHz; BT-5 [2MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
2402.000000	1.3	30.0	1.3	33.626	PASS

Gated Trace



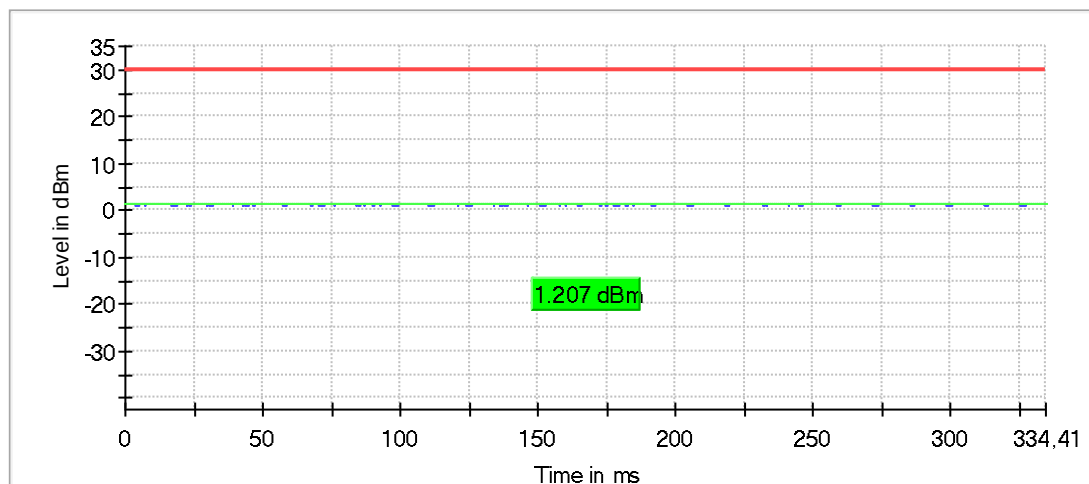
Duty Cycle (2440 MHz; BT-5 [2MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
2440.000000	1.2	30.0	1.2	33.623	PASS

Gated Trace



— Gated Trace — Overall — Limit

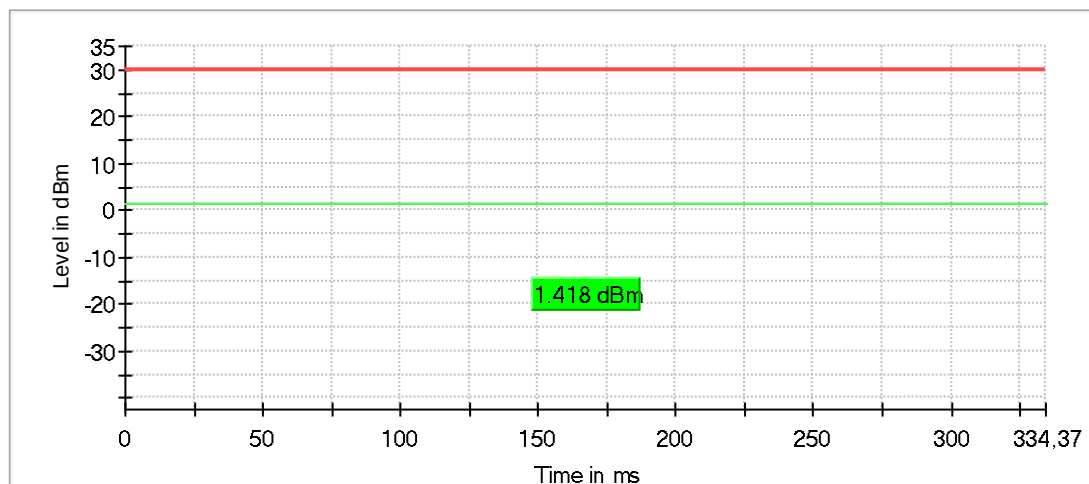
Duty Cycle (2480 MHz; BT-5 [2MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
2480.000000	1.4	30.0	1.4	33.619	PASS

Gated Trace



— Gated Trace — Overall — Limit

1.3 Power spectral density

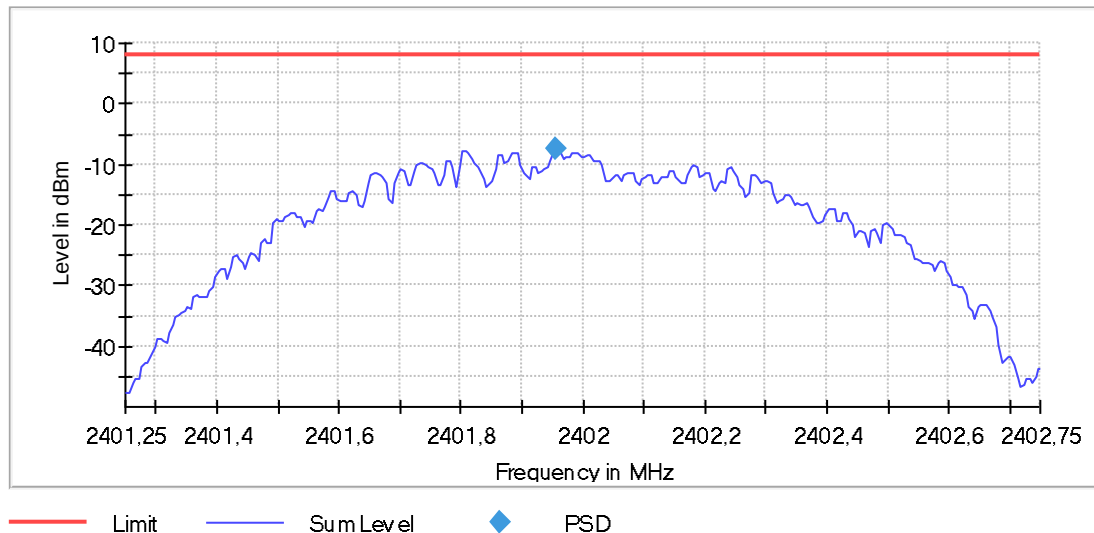
Peak Power Spectral Density (2402 MHz; BT-LE [1MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a),(e), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2402.000000	2401.957500	-7.630	8.0	PASS

Peak Power Spectral Density



— Limit — Sum Level ◆ PSD

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
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	3 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.19 dB	0.50 dB

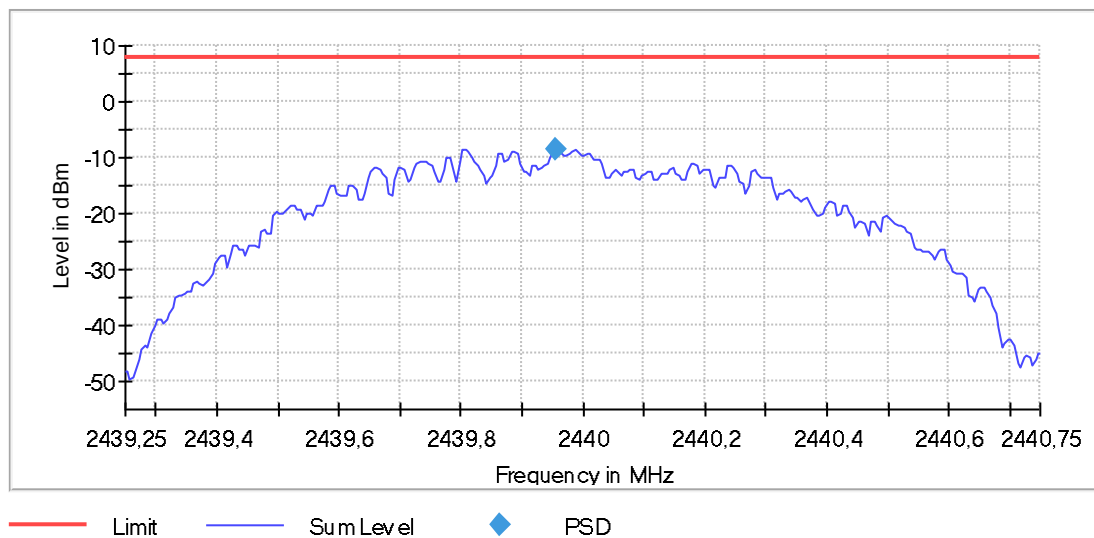
Peak Power Spectral Density (2440 MHz; BT-LE [1MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a),(e), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2440.000000	2439.957500	-8.473	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	4 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.19 dB	0.50 dB

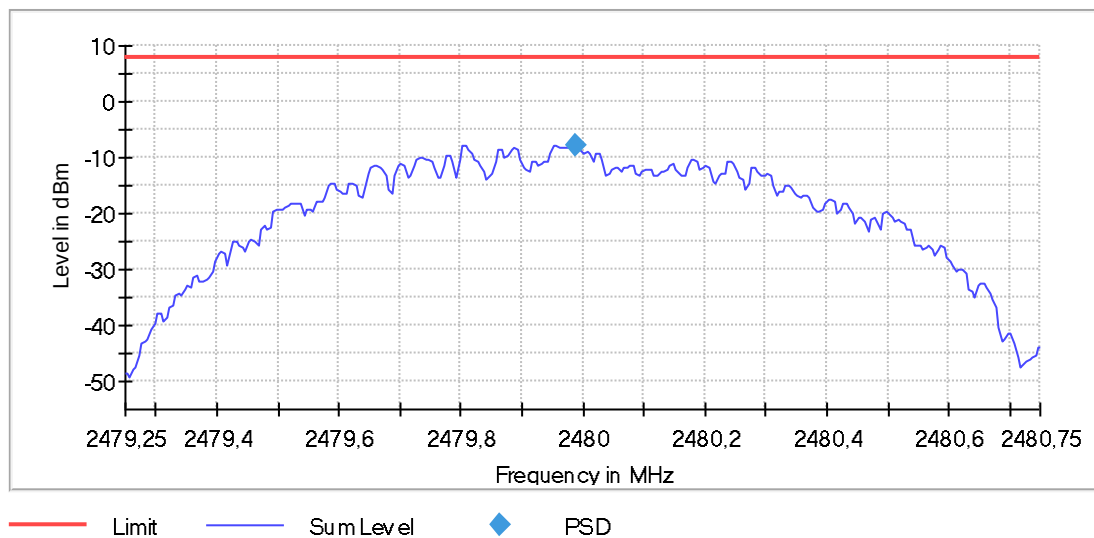
Peak Power Spectral Density (2480 MHz; BT-LE [1MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a),(e), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2480.000000	2479.987500	-7.818	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
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	4 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.18 dB	0.50 dB

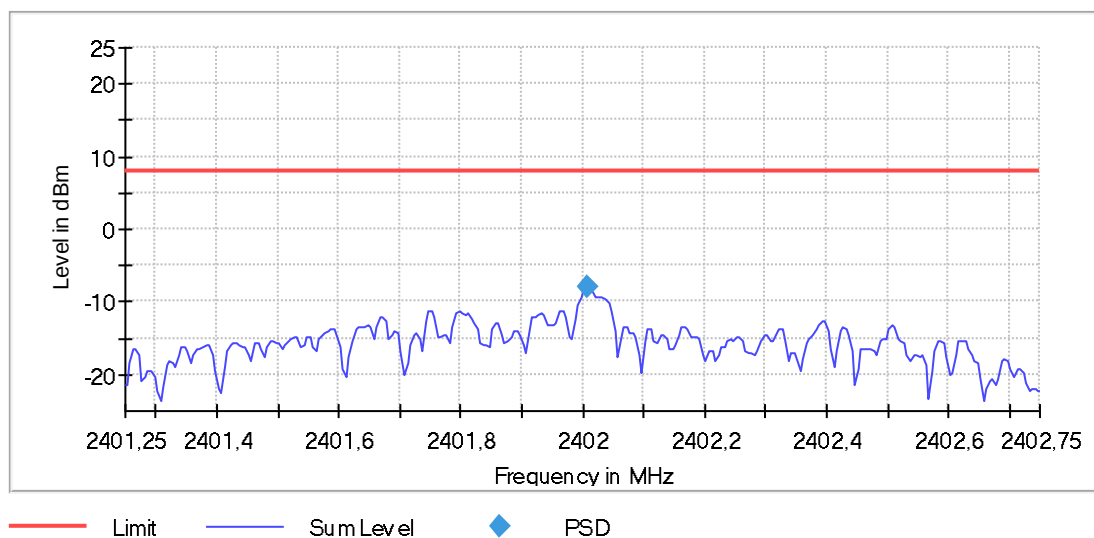
Peak Power Spectral Density (2402 MHz; BT-LE [2MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a),(e), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2402.000000	2402.007500	-7.891	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
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	0.08 dB	0.50 dB

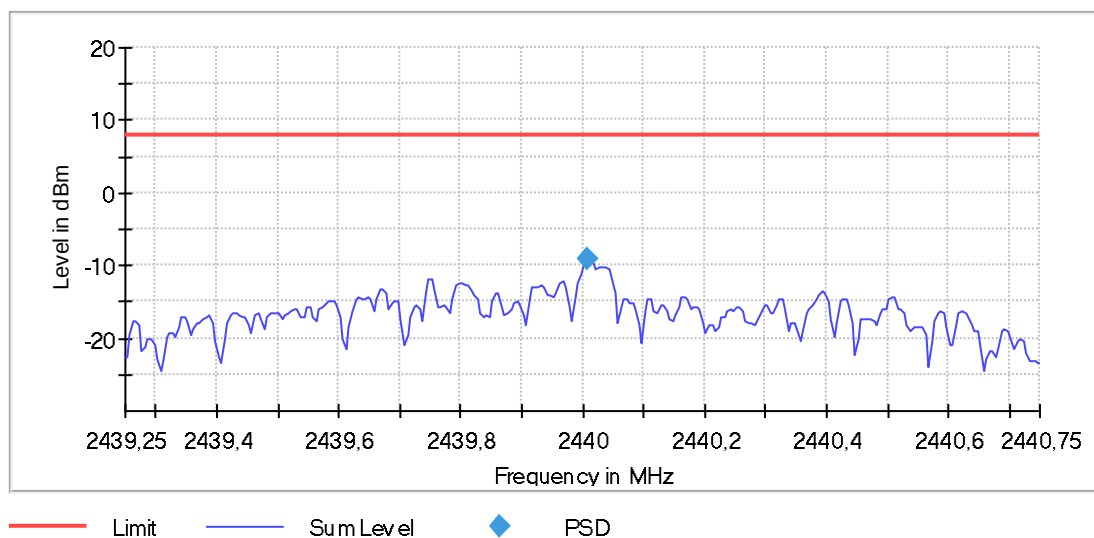
Peak Power Spectral Density (2440 MHz; BT-LE [2MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a),(e), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2440.000000	2440.007500	-9.129	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	4 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.17 dB	0.50 dB

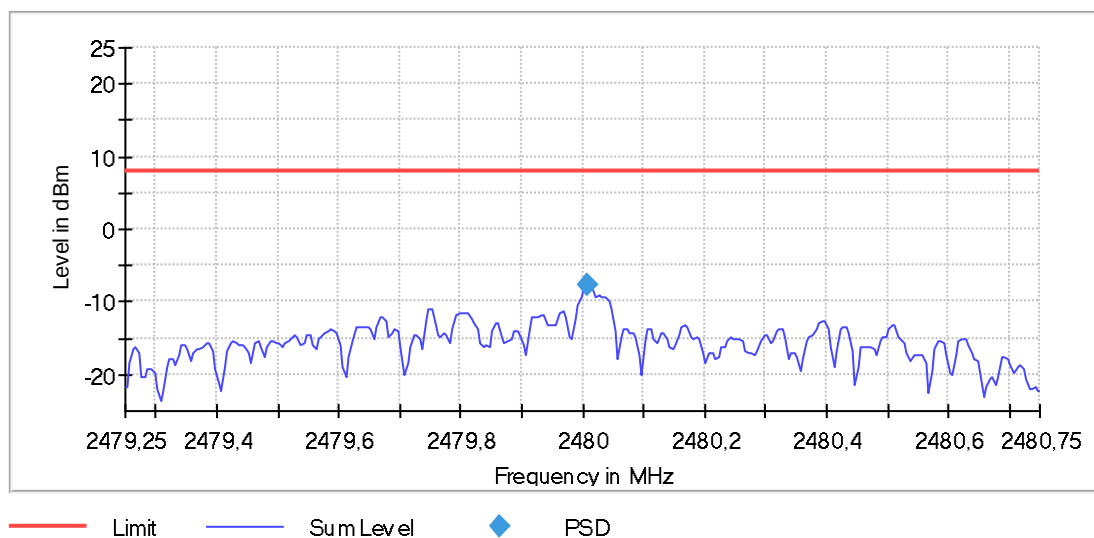
Peak Power Spectral Density (2480 MHz; BT-LE [2MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a),(e), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2480.000000	2480.007500	-7.795	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
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	3 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.31 dB	0.50 dB

1.4 Minimum Emission Bandwidth 6 dB

Minimum Emission Bandwidth 6 dB (2402 MHz; BT-LE [1MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

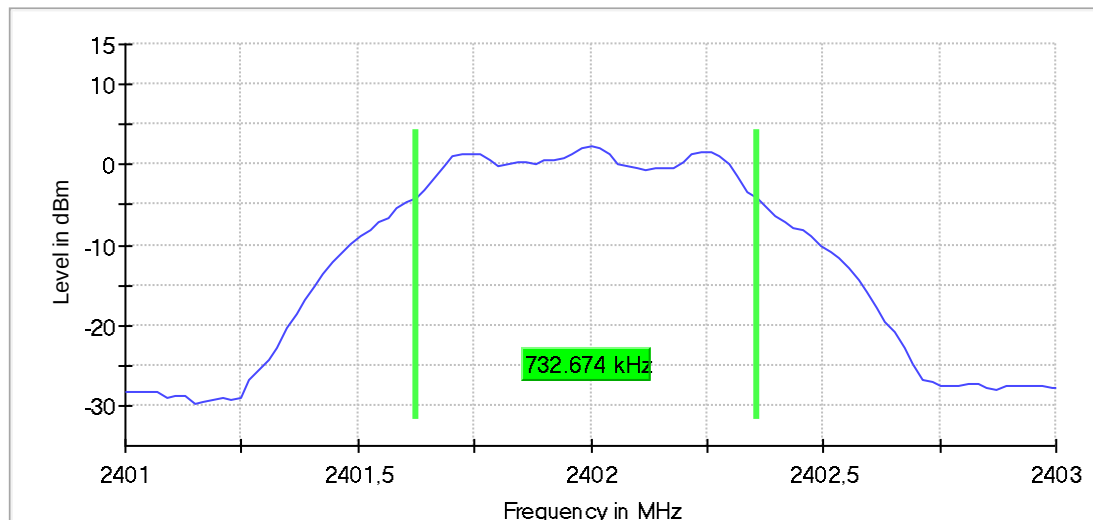
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	0.732674	0.500000	---	2401.623762	2402.356436

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	2.2	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	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	7 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.08 dB	0.50 dB

Minimum Emission Bandwidth 6 dB (2440 MHz; BT-LE [1MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

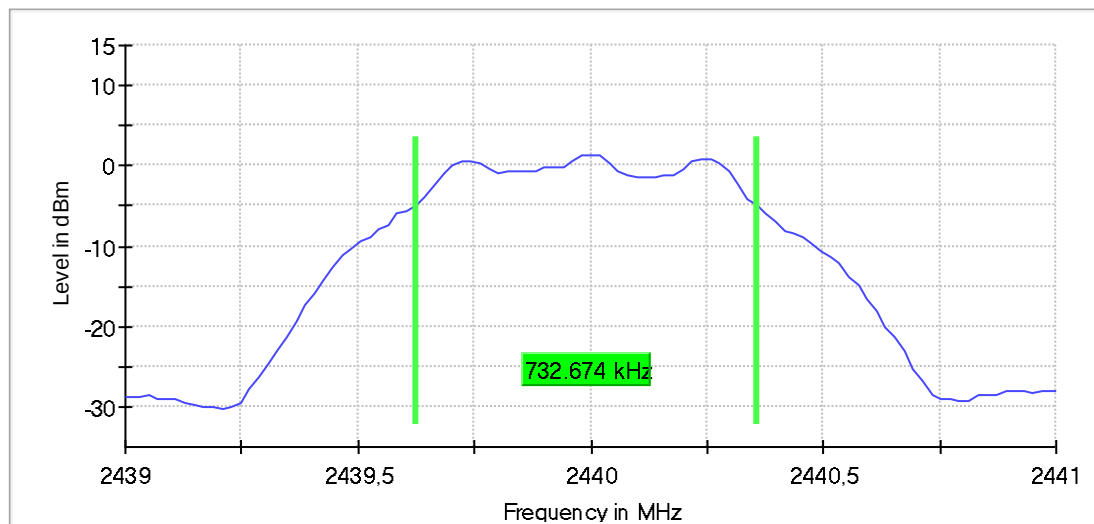
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	0.732674	0.500000	---	2439.623762	2440.356436

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	1.4	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	6 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.03 dB	0.50 dB

Minimum Emission Bandwidth 6 dB (2480 MHz; BT-LE [1MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

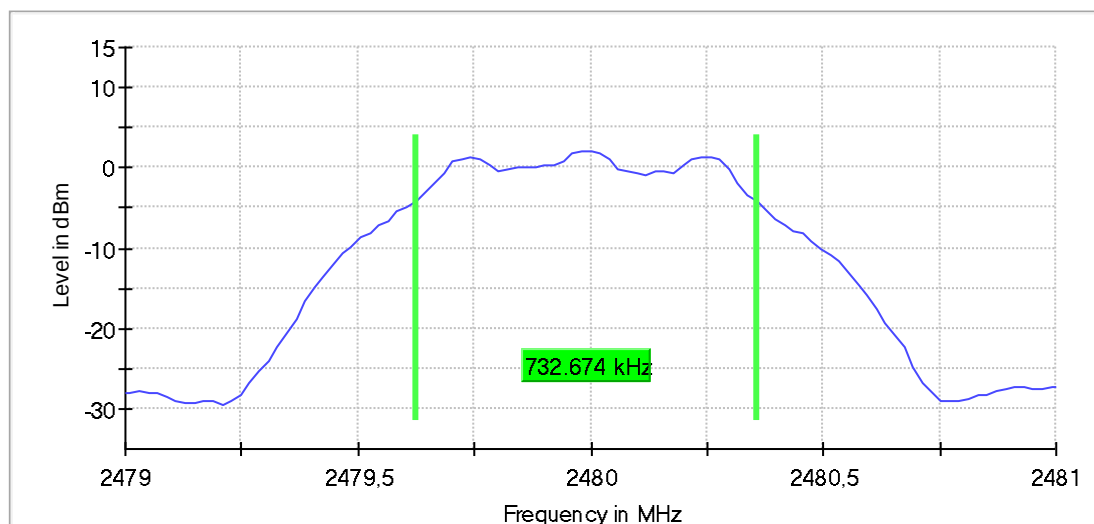
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	0.732674	0.500000	---	2479.623762	2480.356436

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	2.1	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	7 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.15 dB	0.50 dB

Minimum Emission Bandwidth 6 dB (2402 MHz; BT-LE [2MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

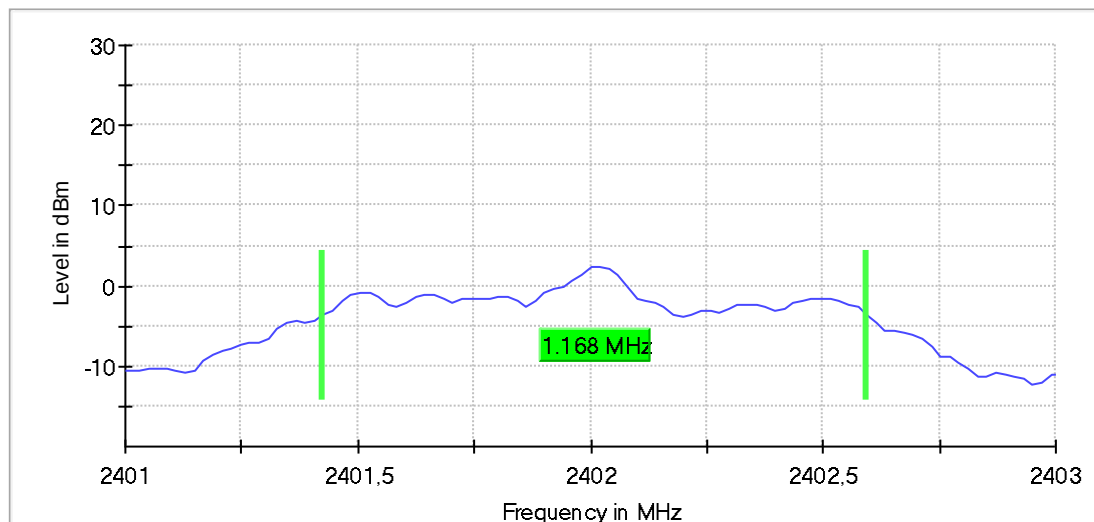
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	1.168316	0.500000	---	2401.425743	2402.594059

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	2.4	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	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	6 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.00 dB	0.50 dB

Minimum Emission Bandwidth 6 dB (2440 MHz; BT-LE [2MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

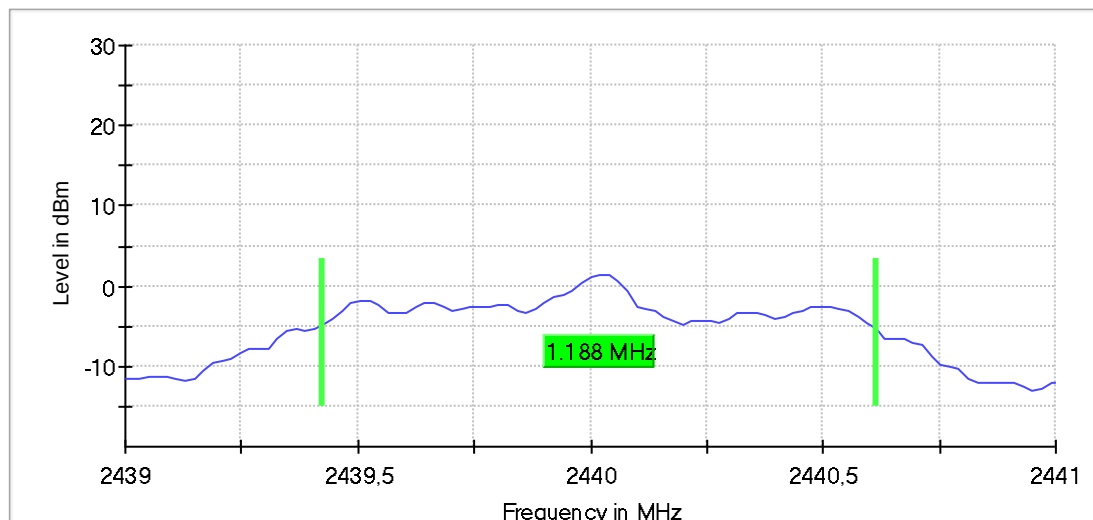
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	1.188118	0.500000	---	2439.425743	2440.613861

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	1.3	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	6 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.00 dB	0.50 dB

Minimum Emission Bandwidth 6 dB (2480 MHz; BT-LE [2MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

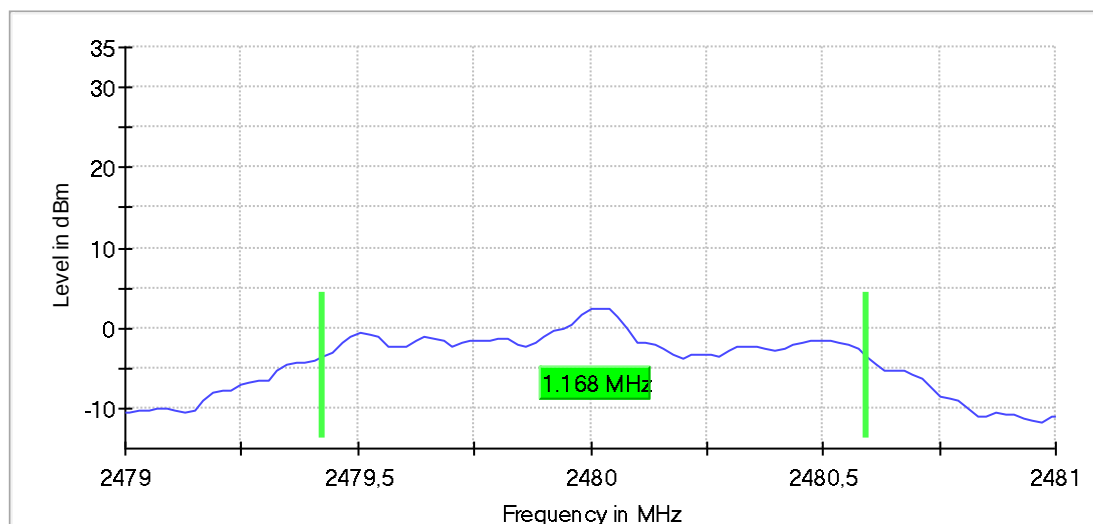
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.168316	0.500000	---	2479.425743	2480.594059

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	2.5	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	7 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.00 dB	0.50 dB

1.5 Occupied Channel Bandwidth 99%

Occupied Channel Bandwidth 99% (2402 MHz; BT-LE [1MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

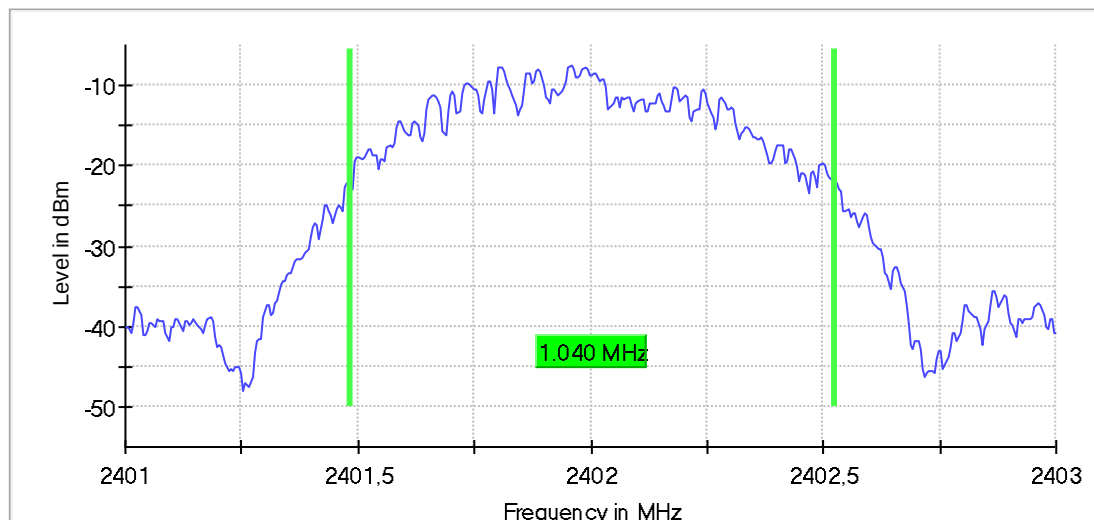
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	1.040000	---	---	2401.482500	2402.522500

(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	5 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.22 dB	0.30 dB

Occupied Channel Bandwidth 99% (2440 MHz; BT-LE [1MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

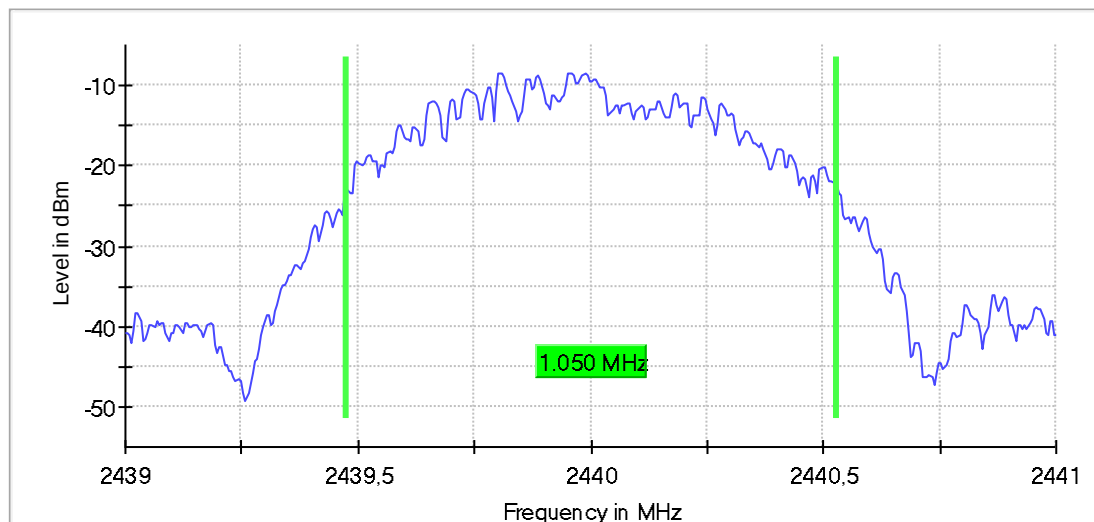
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	1.050000	---	---	2439.477500	2440.527500

(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	5 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.14 dB	0.30 dB

Occupied Channel Bandwidth 99% (2480 MHz; BT-LE [1MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

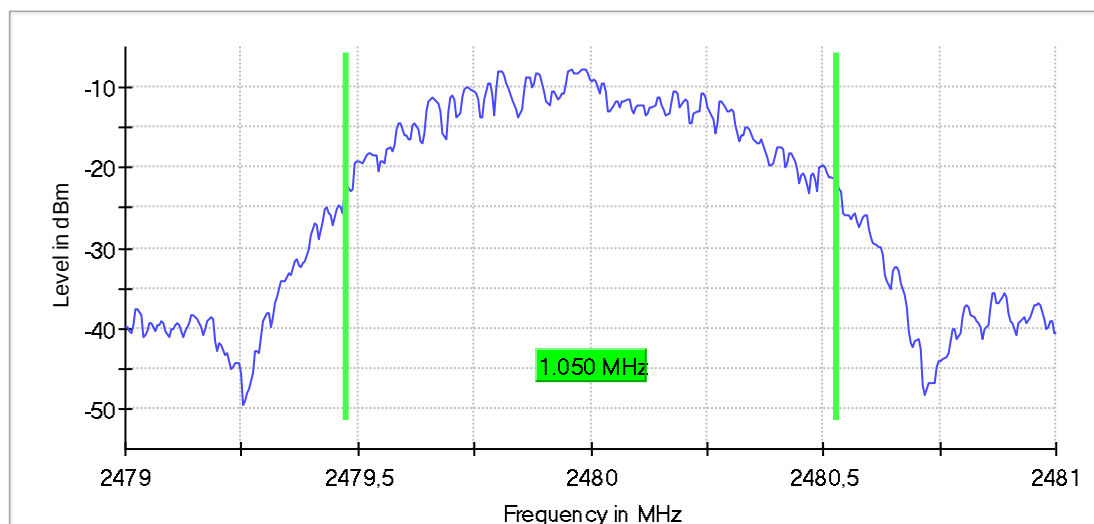
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.050000	---	---	2479.477500	2480.527500

(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	6 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.13 dB	0.30 dB

Occupied Channel Bandwidth 99% (2402 MHz; BT-LE [2MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

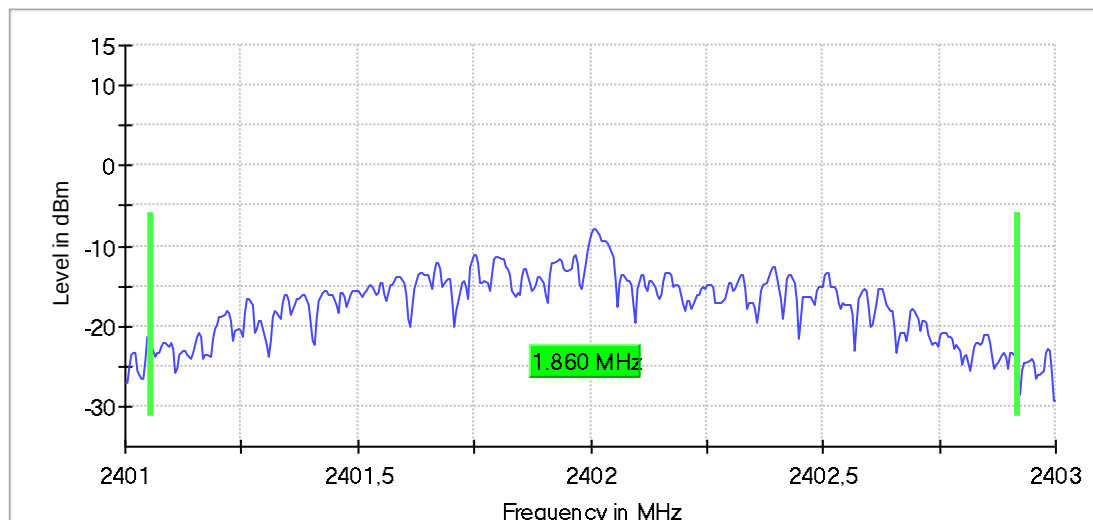
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	1.860000	---	---	2401.057500	2402.917500

(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	5 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.13 dB	0.30 dB

Occupied Channel Bandwidth 99% (2440 MHz; BT-LE [2MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

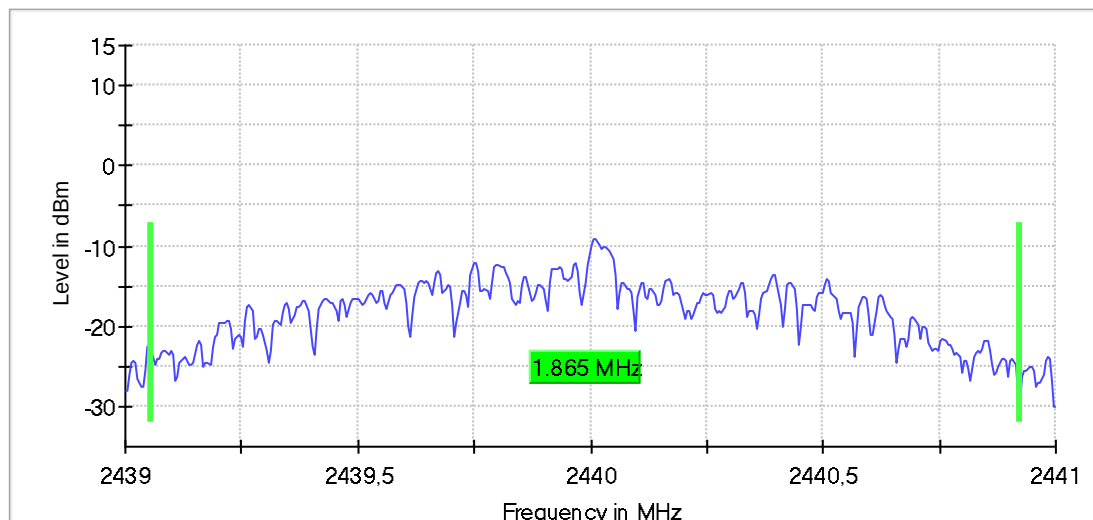
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	1.865000	---	---	2439.057500	2440.922500

(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	5 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.11 dB	0.30 dB

Occupied Channel Bandwidth 99% (2480 MHz; BT-LE [2MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

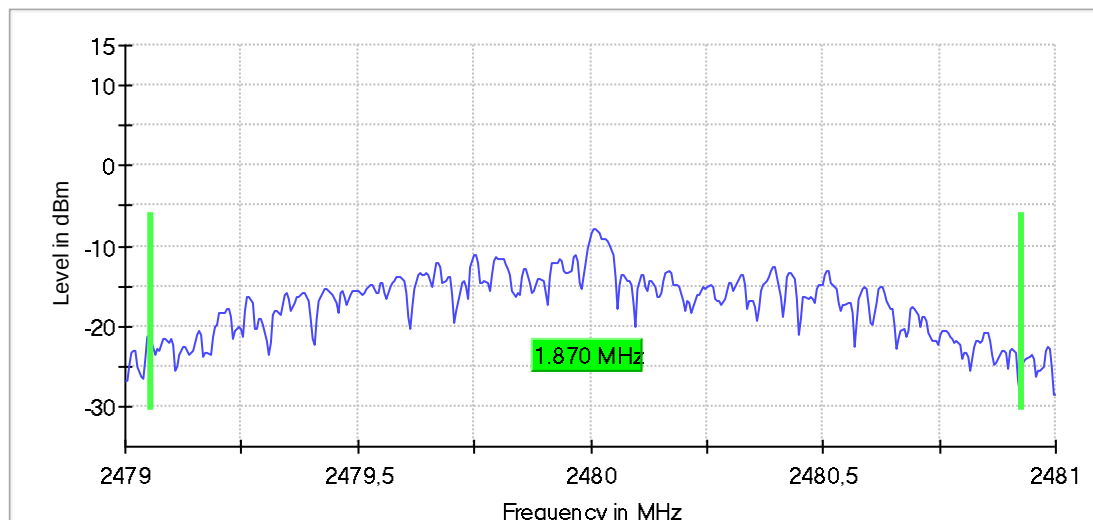
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.870000	---	---	2479.057500	2480.927500

(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	5 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.05 dB	0.30 dB

1.6 Emissions in non-restricted frequency bands

Tx Spurious Emission (2402 MHz; BT-LE [1MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v04 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	0.9	-58.4	-18.2	40.2	PASS

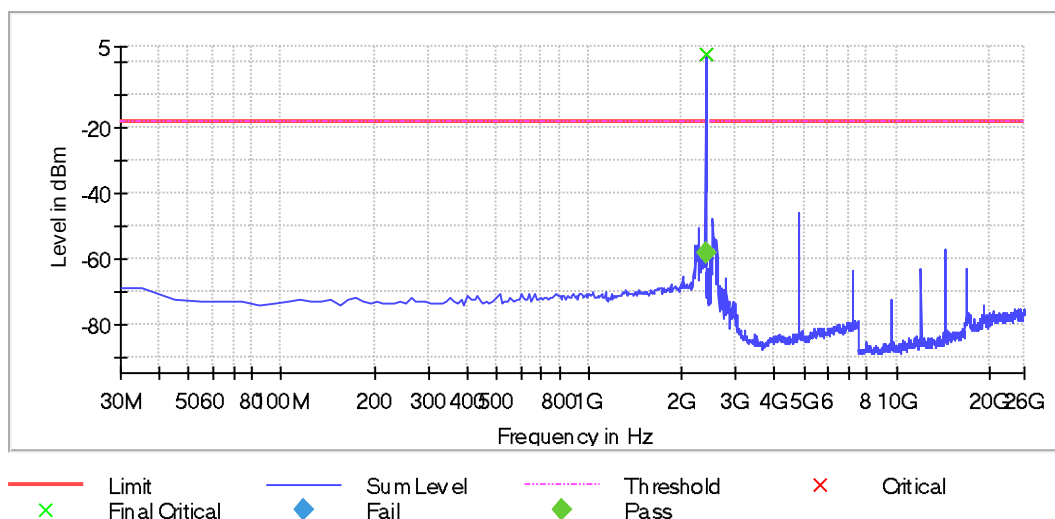
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
2395.021008	2.9	-21.1	-18.2
4807.166065	-46.1	27.9	-18.2
2528.474182	-47.5	29.3	-18.2
2265.567227	-50.4	32.2	-18.2
2558.456970	-53.9	35.7	-18.2
2598.434020	-54.0	35.8	-18.2
2255.609244	-55.4	37.1	-18.2
2538.468445	-55.8	37.6	-18.2
2205.819328	-56.0	37.8	-18.2
2225.735294	-56.1	37.9	-18.2
2548.462707	-56.5	38.3	-18.2
2578.445495	-56.8	38.6	-18.2
14411.652465	-56.9	38.6	-18.2
2245.651261	-57.4	39.2	-18.2
2335.273109	-57.5	39.3	-18.2

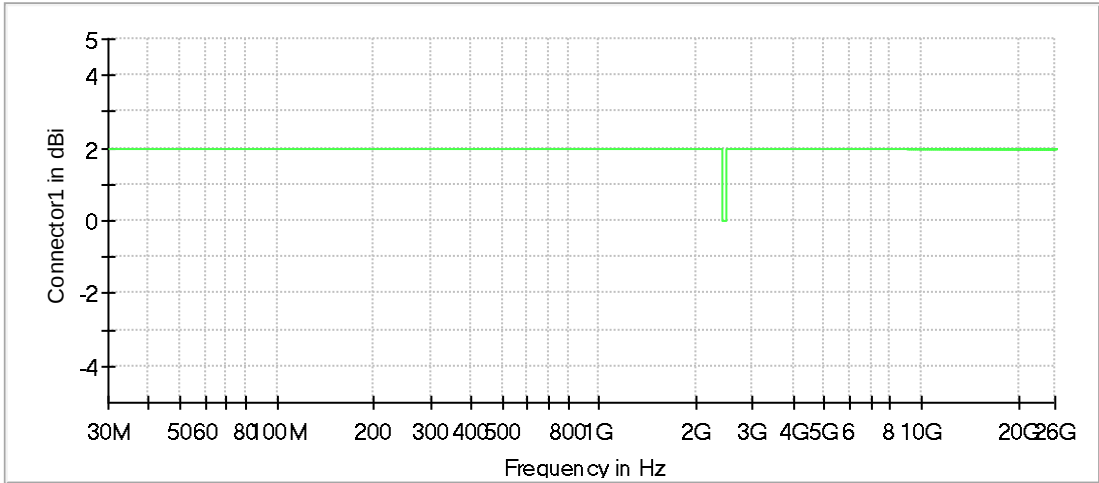
Measurement Settings

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

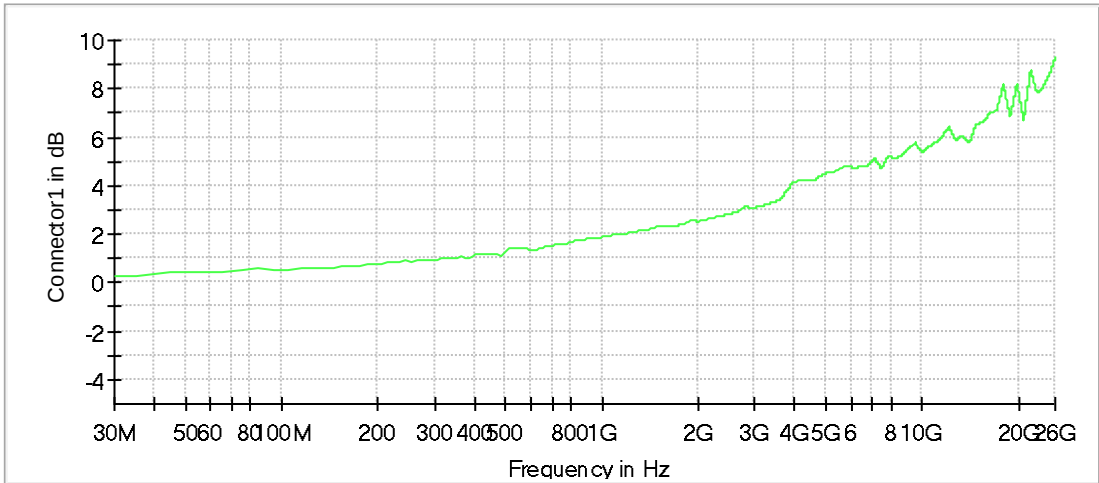


Gain



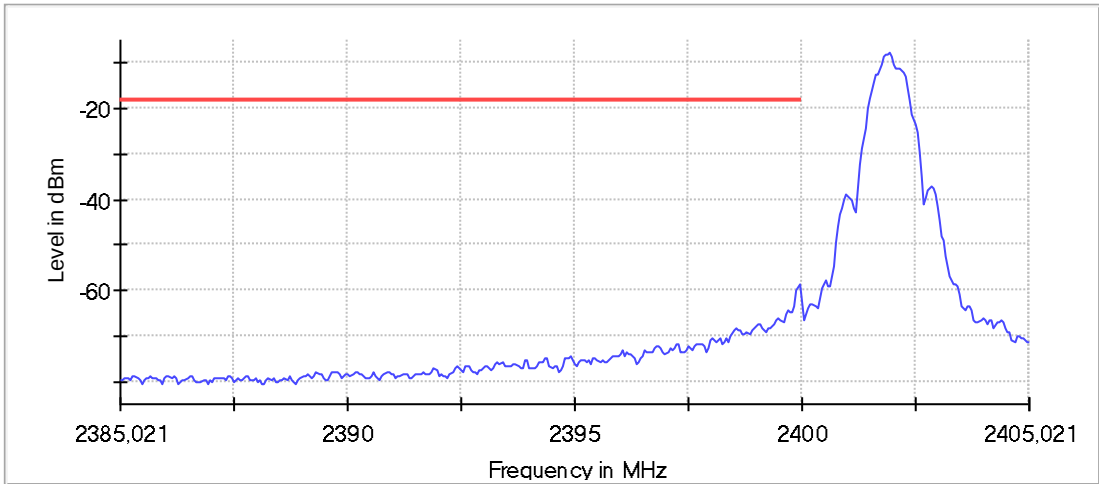
Connector1

Attenuation



Connector1

FinalMeas_2395021008Hz



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	6 / 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; BT-LE [1MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v04 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
---	---	---	---	---	---

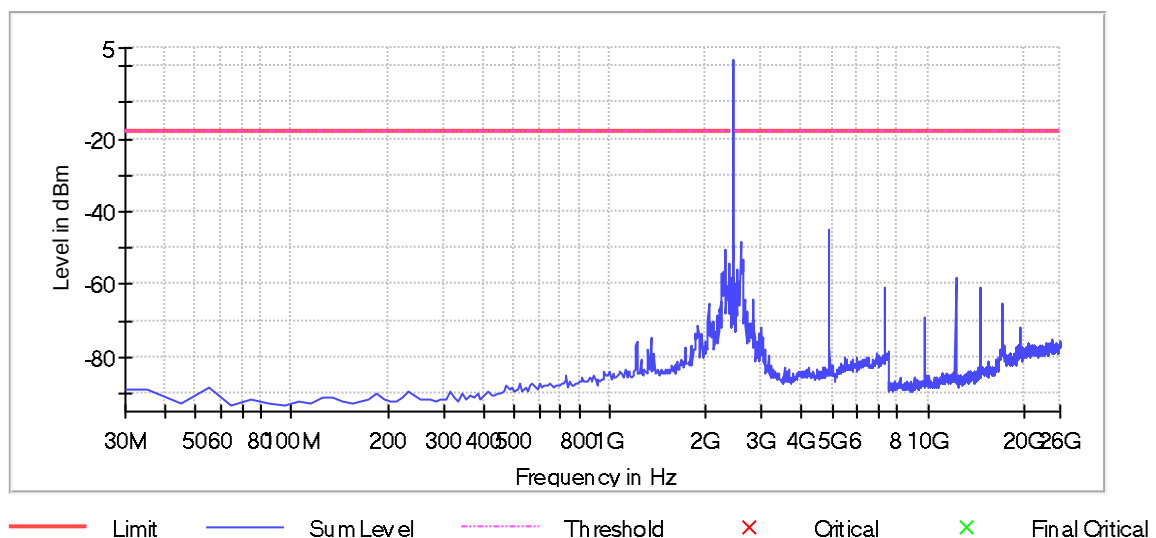
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
4877.125903	-44.7	26.4	-18.3
2568.451232	-48.2	29.8	-18.3
2305.399160	-50.3	32.0	-18.3
2628.416808	-53.2	34.9	-18.3
2375.105042	-54.3	36.0	-18.3
2598.434020	-55.1	36.8	-18.3
2578.445495	-55.6	37.2	-18.3
2508.485657	-55.9	37.5	-18.3
2608.428283	-56.4	38.0	-18.3
2285.483193	-56.7	38.4	-18.3
2618.422546	-56.8	38.4	-18.3
2245.651261	-56.9	38.6	-18.3
2588.439758	-57.2	38.9	-18.3
2255.609244	-57.8	39.5	-18.3
2395.021008	-58.3	39.9	-18.3

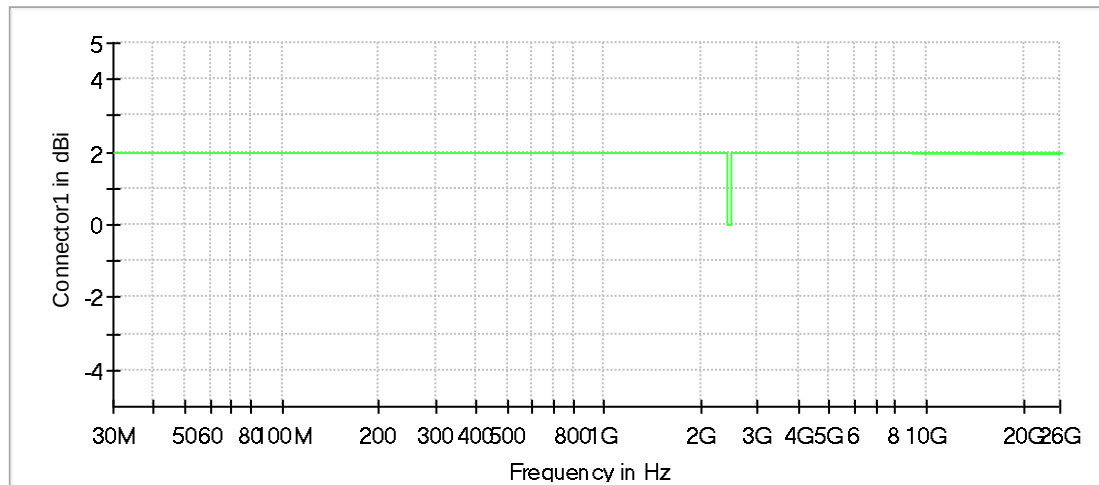
Measurement Settings

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

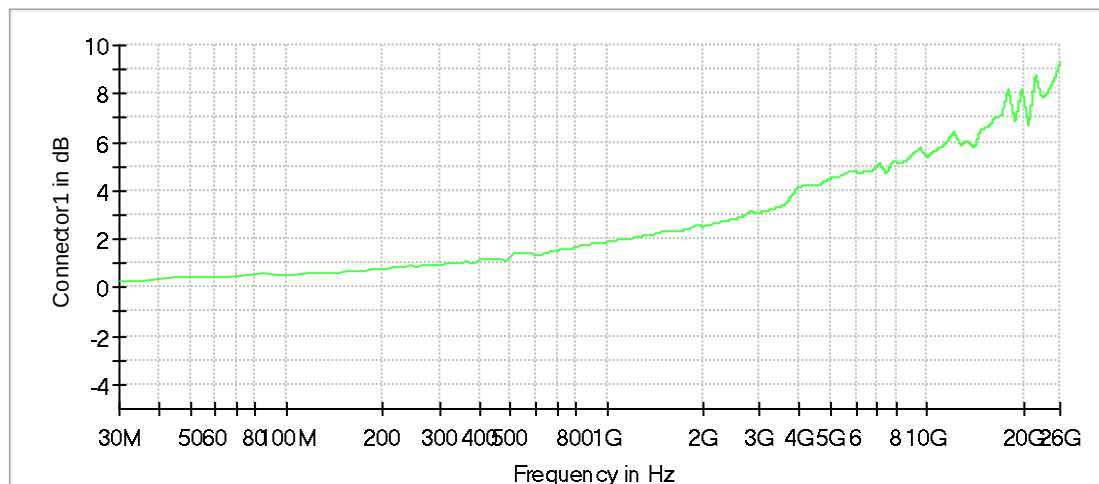


Gain



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
Max Stable Difference	0.00 dB	0.50 dB

Tx Spurious Emission (2480 MHz; BT-LE [1MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v04 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
---	---	---	---	---	---

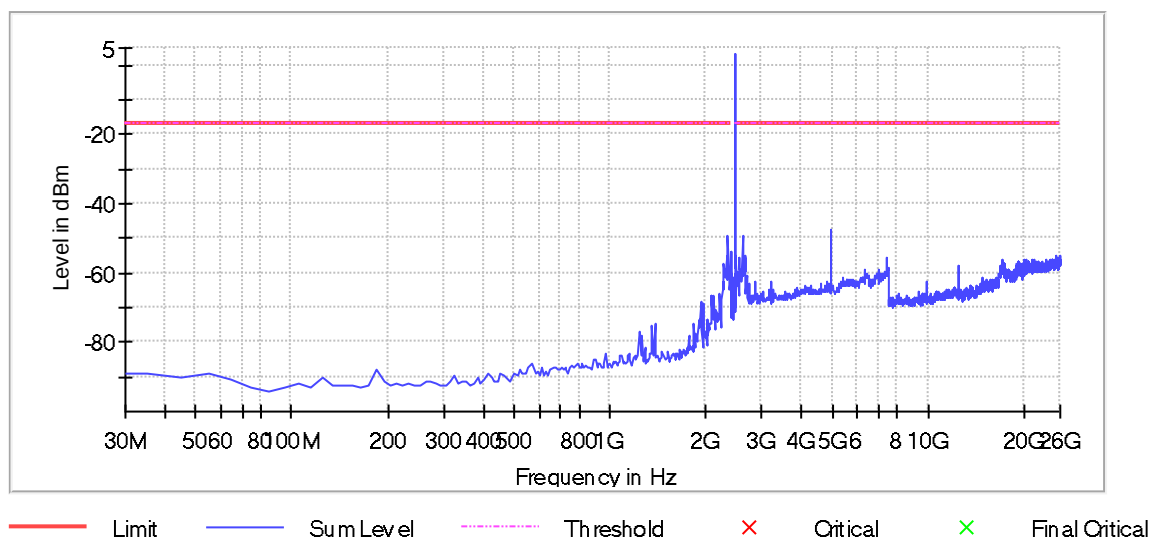
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
4957.080004	-47.3	30.6	-16.8
2345.231092	-49.4	32.6	-16.8
2608.428283	-49.5	32.7	-16.8
2488.497131	-54.4	37.6	-16.8
2325.315126	-54.8	38.1	-16.8
2668.393859	-54.8	38.1	-16.8
2628.416808	-54.8	38.1	-16.8
25395.347110	-55.0	38.2	-16.8
25895.060242	-55.2	38.5	-16.8
7435.657140	-55.4	38.6	-16.8
2548.462707	-55.4	38.6	-16.8
2648.405334	-55.7	38.9	-16.8
25725.157777	-55.9	39.1	-16.8
17190.057480	-55.9	39.1	-16.8
25835.094666	-55.9	39.1	-16.8

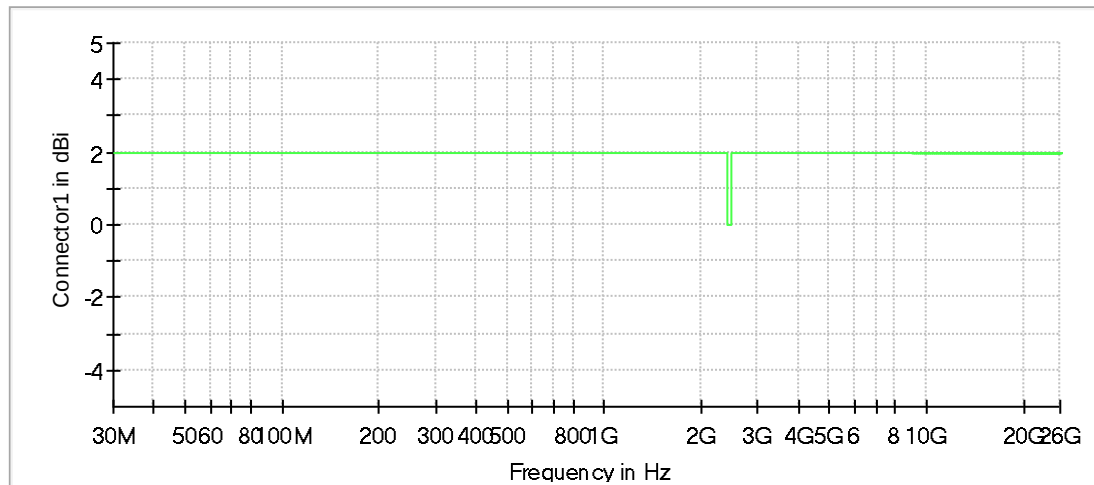
Measurement Settings

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

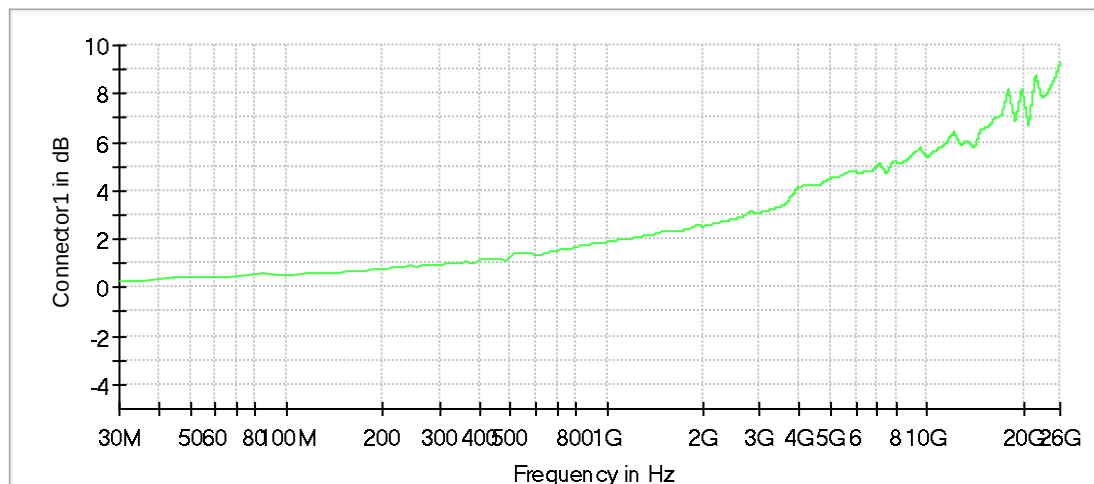


Gain



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	0.00 dB	0.50 dB

Tx Spurious Emission (2402 MHz; BT-LE [2MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Result
2402.000000	PASS

Final measurements

Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
2399.958664	-1.1	-46.8	-16.7	30.2	PASS

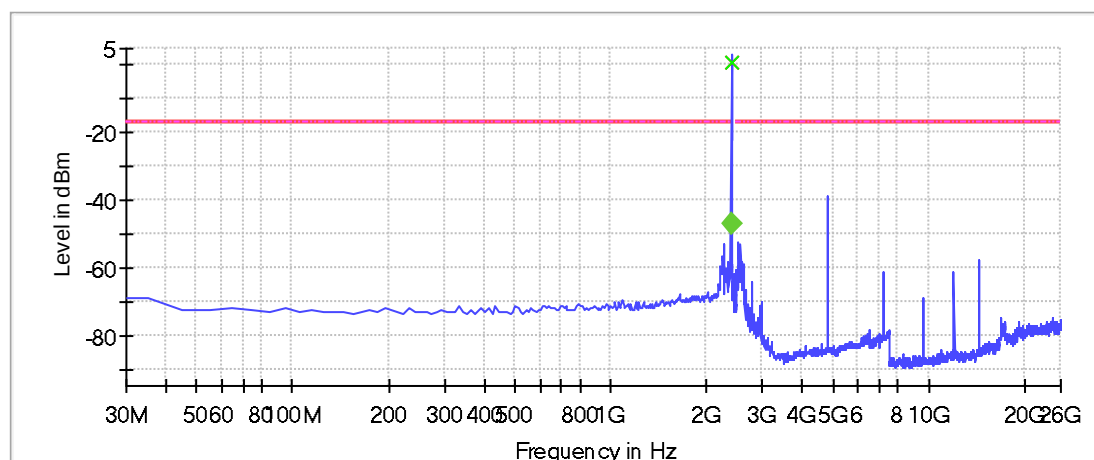
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
2395.021008	0.9	-17.5	-16.7
4807.166065	-38.8	22.1	-16.7
2528.474182	-52.4	35.7	-16.7
2265.567227	-53.2	36.5	-16.7
2558.456970	-53.3	36.6	-16.7
2245.651261	-56.4	39.7	-16.7
2548.462707	-57.5	40.8	-16.7
14411.652465	-57.6	40.9	-16.7
2578.445495	-58.4	41.7	-16.7
2335.273109	-58.5	41.8	-16.7
2385.063025	-58.8	42.1	-16.7
2608.428283	-59.0	42.3	-16.7
2508.485657	-59.2	42.5	-16.7
2215.777311	-59.8	43.1	-16.7
2315.357143	-59.9	43.2	-16.7

Measurement Settings

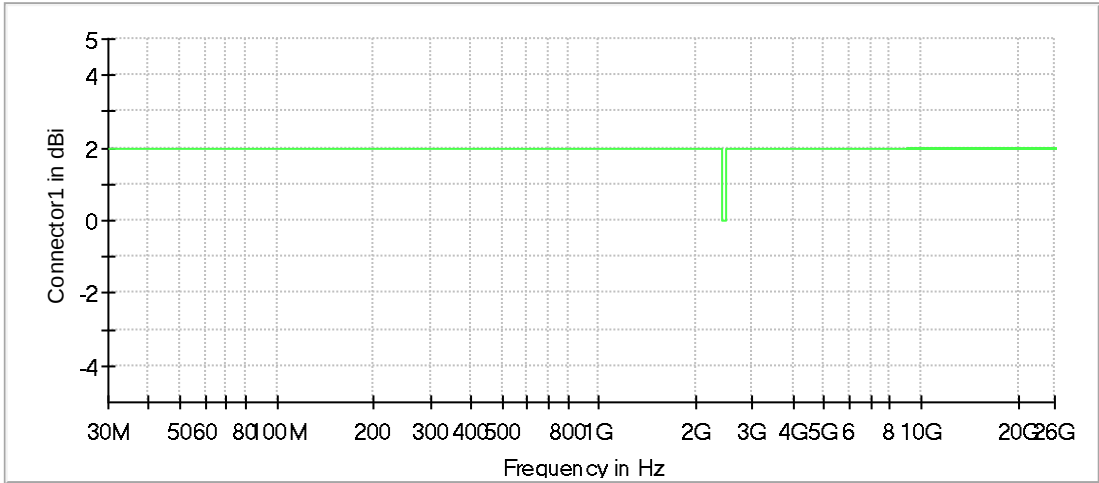
Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
30.000000	2400.000000	1	1
2400.000000	2483.500000	1	1
2483.500000	26000.000000	1	1

Spurious



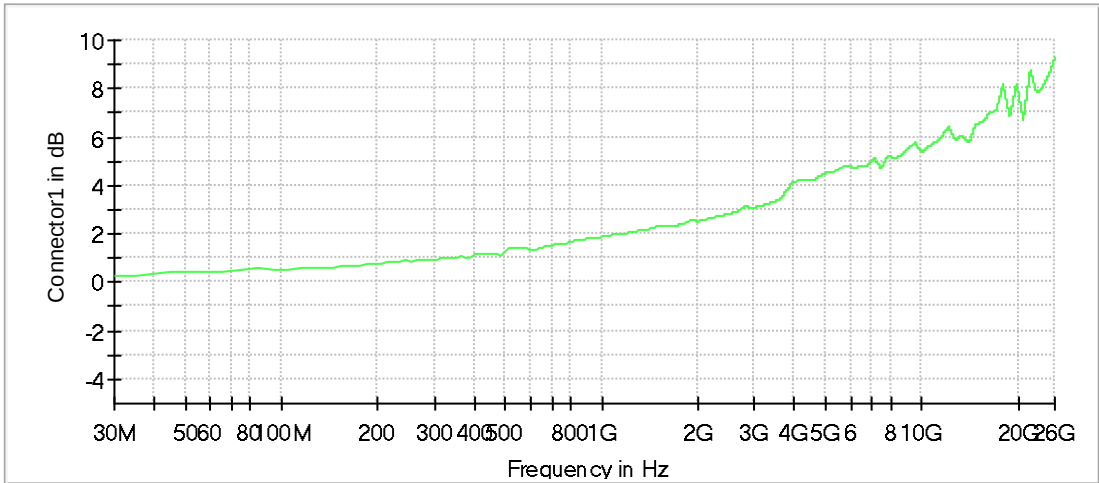
x Limit Final Critical ◆ Sum Level Fail x Threshold Pass x Critical

Gain



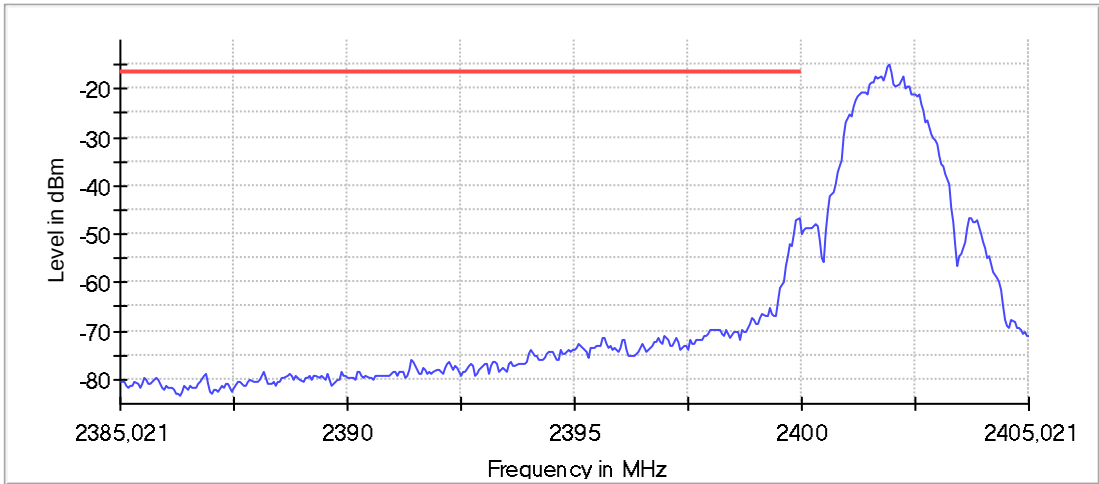
Connector1

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	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; BT-LE [2MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v04 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
---	---	---	---	---	---

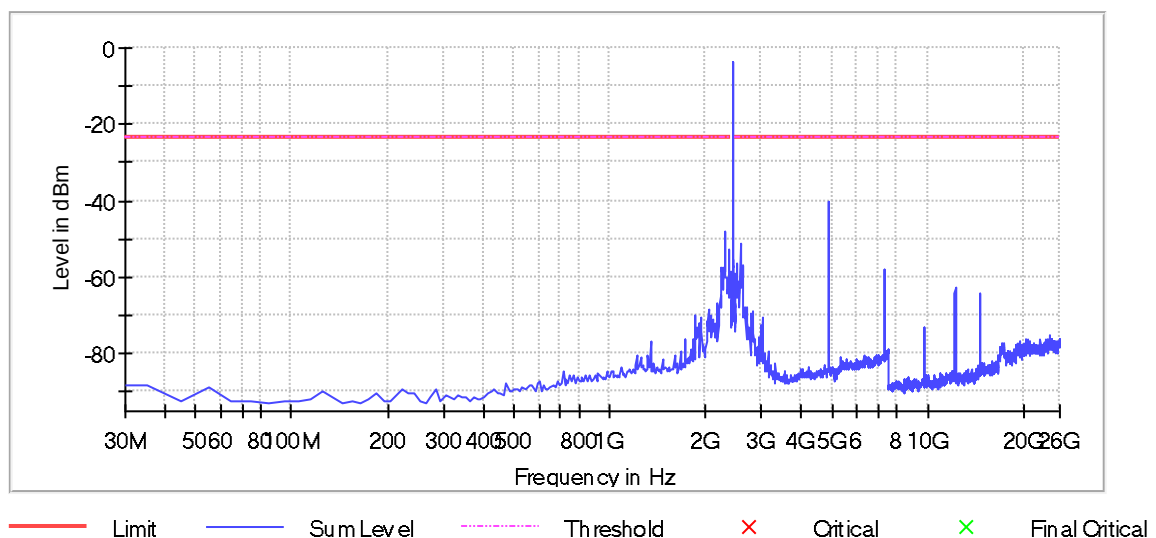
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
4877.125903	-40.2	16.8	-23.4
2305.399160	-48.1	24.7	-23.4
2568.451232	-51.2	27.8	-23.4
2375.105042	-52.8	29.4	-23.4
2578.445495	-55.4	32.0	-23.4
2508.485657	-56.6	33.2	-23.4
2628.416808	-56.8	33.4	-23.4
2608.428283	-56.9	33.5	-23.4
2245.651261	-57.4	34.0	-23.4
2285.483193	-57.6	34.2	-23.4
7315.725988	-58.0	34.6	-23.4
2395.021008	-58.3	34.9	-23.4
2295.441176	-58.5	35.1	-23.4
2265.567227	-58.8	35.4	-23.4
2488.497131	-59.0	35.6	-23.4

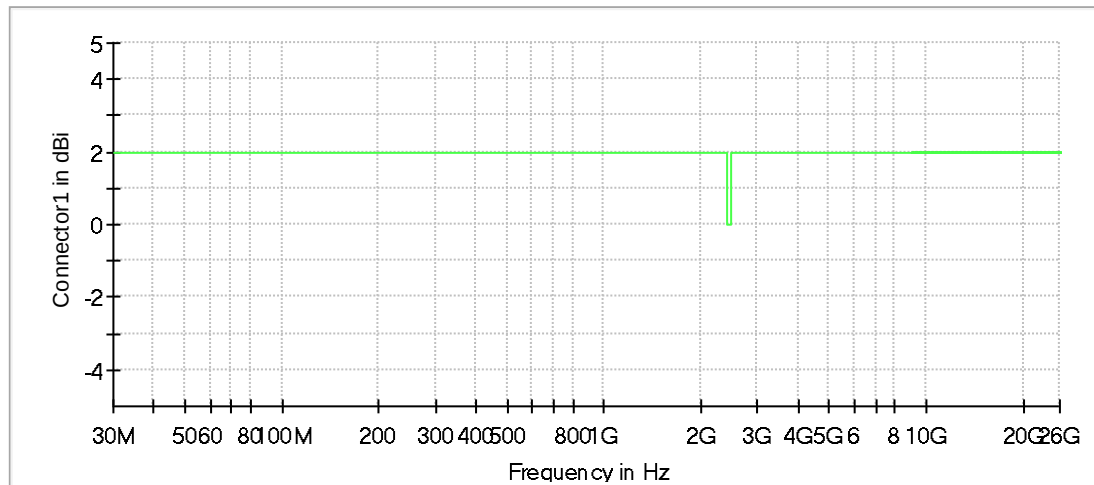
Measurement Settings

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

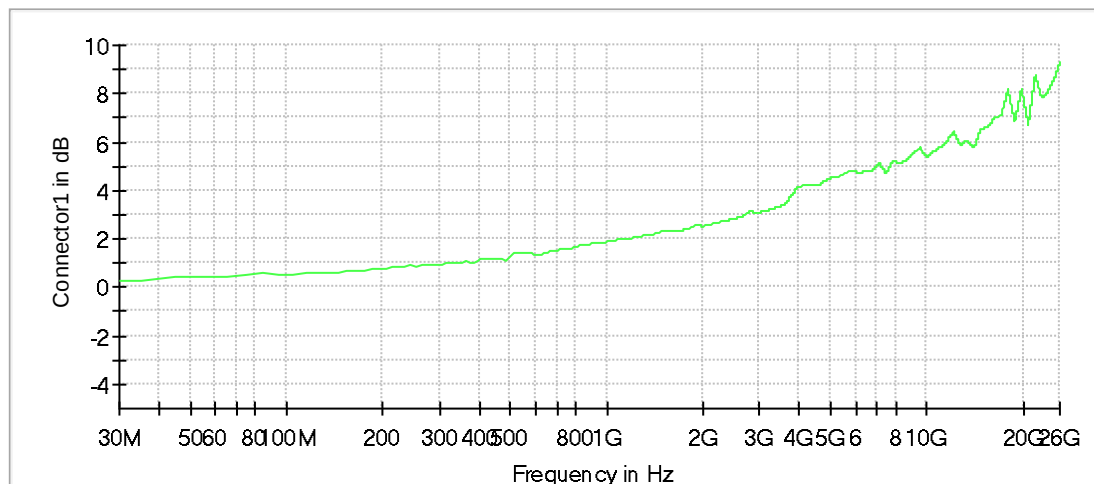


Gain



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

Tx Spurious Emission (2480 MHz; BT-LE [2MBIT] (10 dBm); 1 MHz)

Test according to FCC title 47 part 15 §15.247(d), KDB 558074 D01 DTS Meas Guidance v04 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
---	---	---	---	---	---

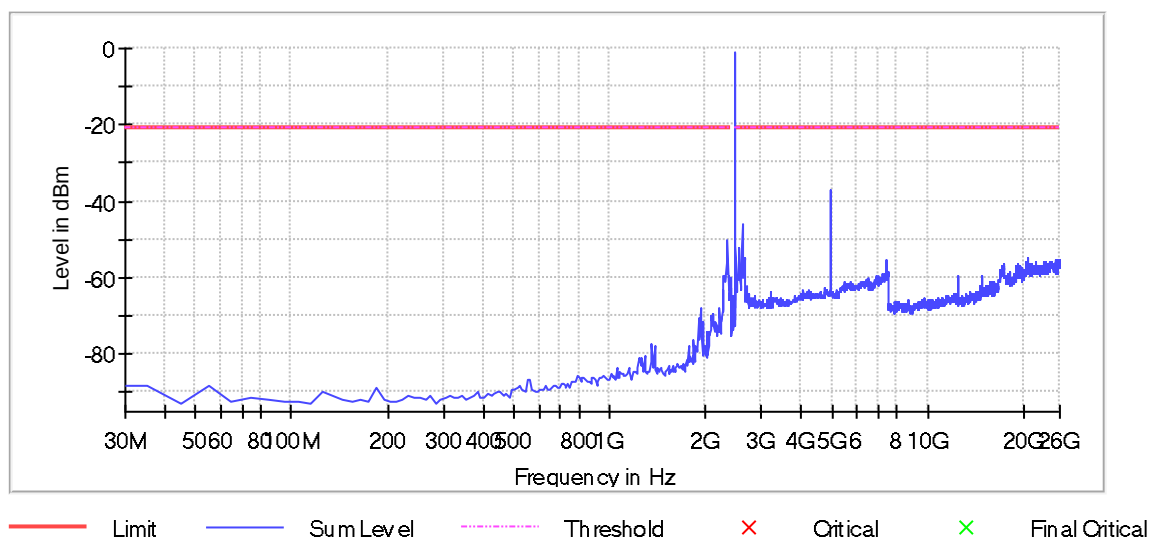
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
4957.080004	-37.3	16.4	-20.8
2608.428283	-46.0	25.2	-20.8
2345.231092	-50.1	29.3	-20.8
2488.497131	-51.8	30.9	-20.8
2548.462707	-52.1	31.2	-20.8
2618.422546	-54.0	33.1	-20.8
2648.405334	-54.6	33.8	-20.8
20648.072354	-54.8	33.9	-20.8
2668.393859	-55.0	34.2	-20.8
7435.657140	-55.1	34.3	-20.8
2628.416808	-55.2	34.3	-20.8
25885.065980	-55.2	34.4	-20.8
25835.094666	-55.2	34.4	-20.8
7445.651402	-55.3	34.5	-20.8
25785.123353	-55.4	34.5	-20.8

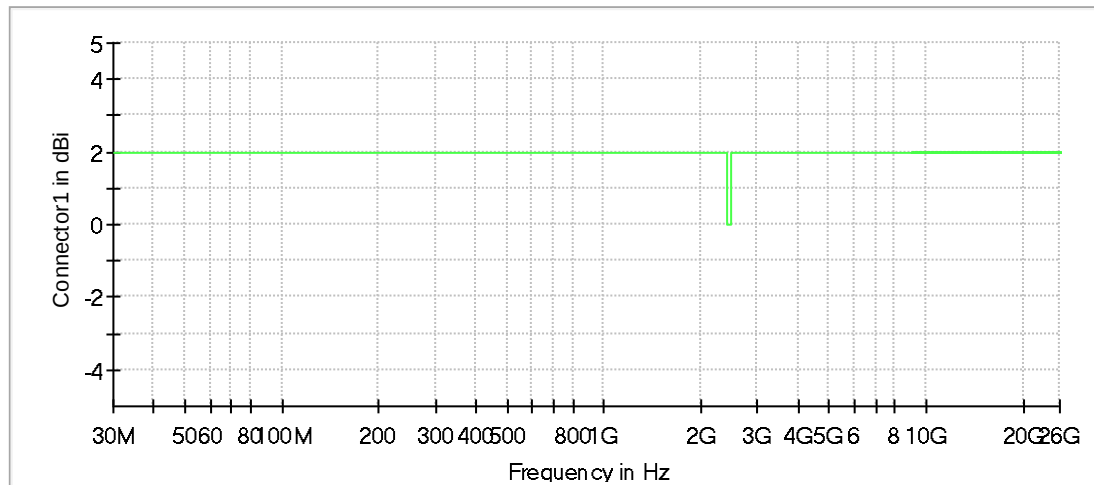
Measurement Settings

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

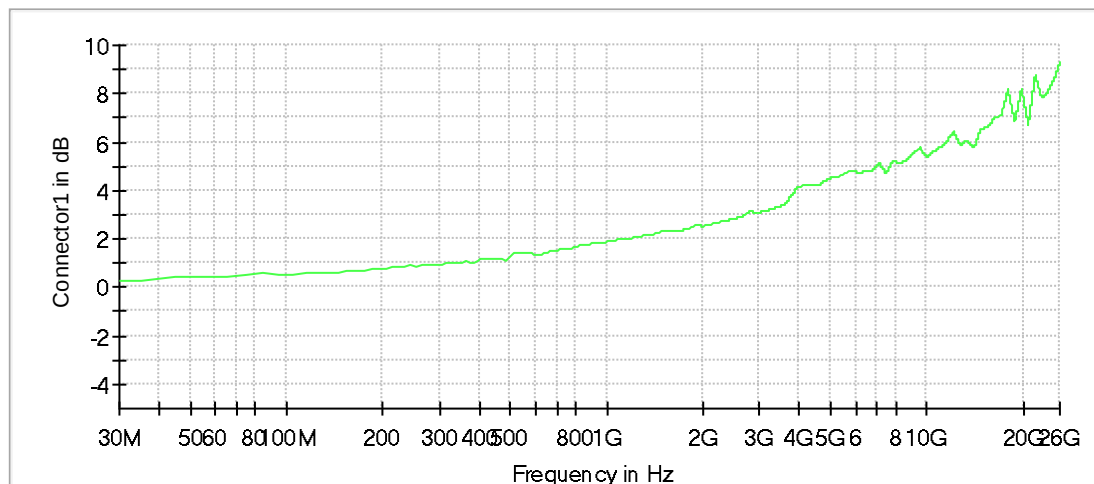


Gain



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

1.7 Radiated field strength emissions below 30 MHz

2.01a_BLE_low_standing

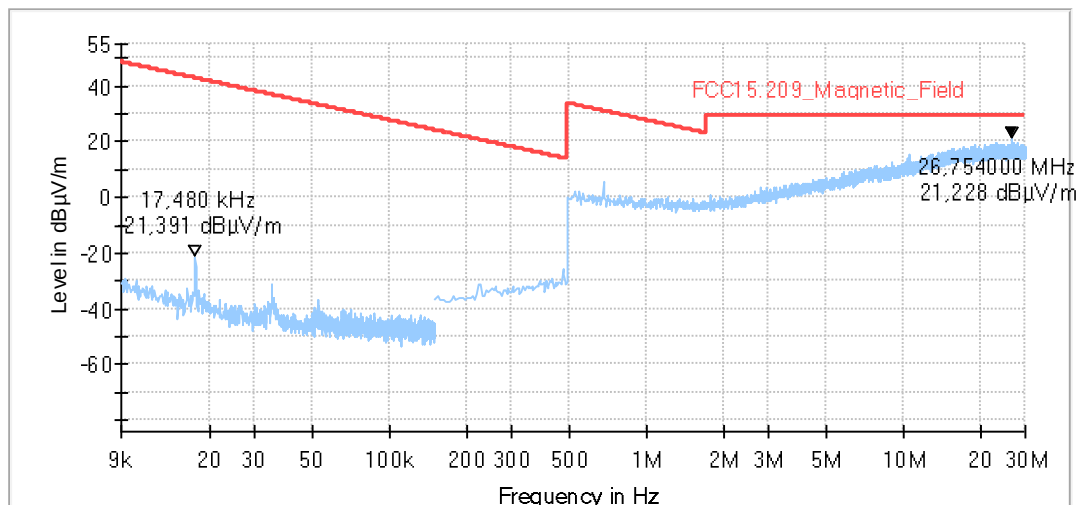
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
Operator:	HLa
Operating Mode:	BLE_low_standing; 1Mbps
Environmental Conditions:	Humidity: 35 % rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number	21-1-00397S18_C01
------------	-------------------

Full Spectrum



2.01b_BLE_low_laying

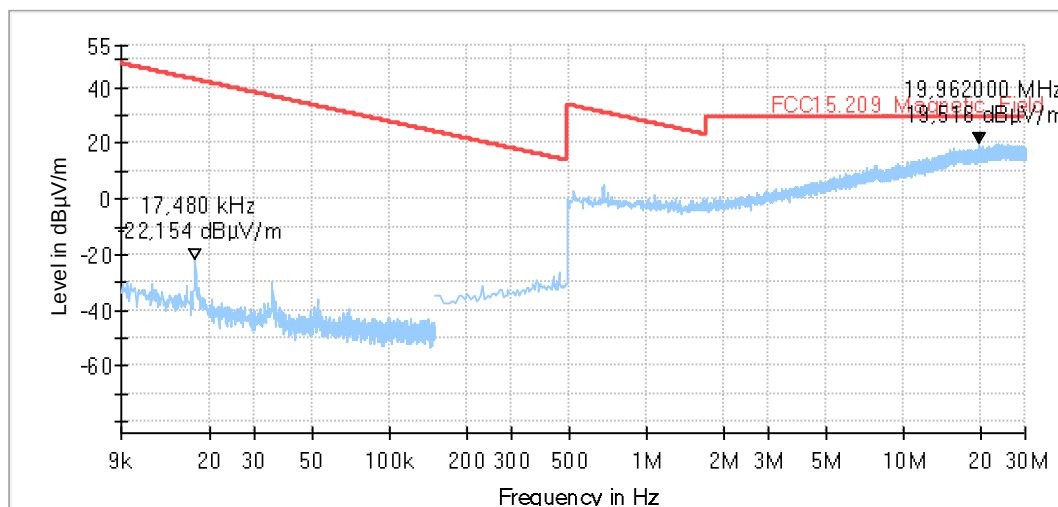
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
Operator:	HLA
Operating Mode:	BLE_low_laying; 1Mbps
Environmental Conditions:	Humidity : 35% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number	21-1-00397S18_C01
------------	-------------------

Full Spectrum



2.02_BLE_mid

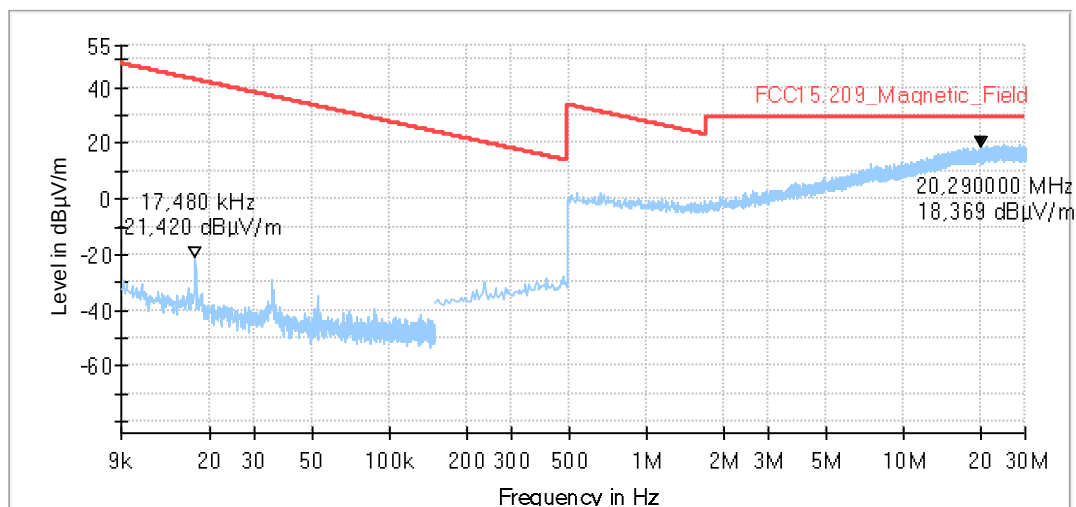
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
Operator:	HLA
Operating Mode:	BLE_mid; 2Mbps
Environmental Conditions:	Humidity : 35% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number	21-1-00397S18_C01
------------	-------------------

Full Spectrum



2.03_BLE_high

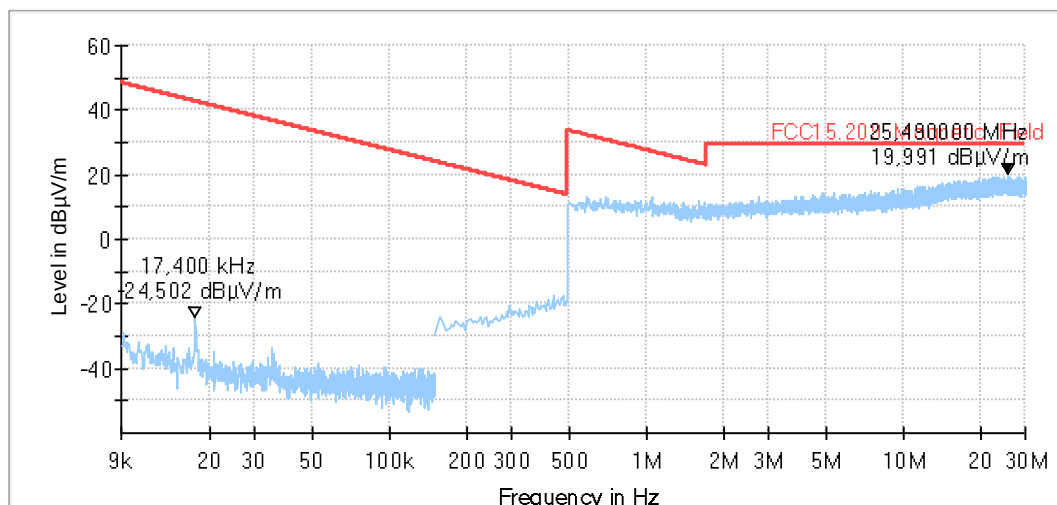
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
Operator:	HLA
Operating Mode:	BLE_high; 2Mbps
Environmental Conditions:	Humidity : 35% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number 21-1-00397S18_C01

Full Spectrum



1.8 Radiated field strength emissions 30 MHz – 1 GHz

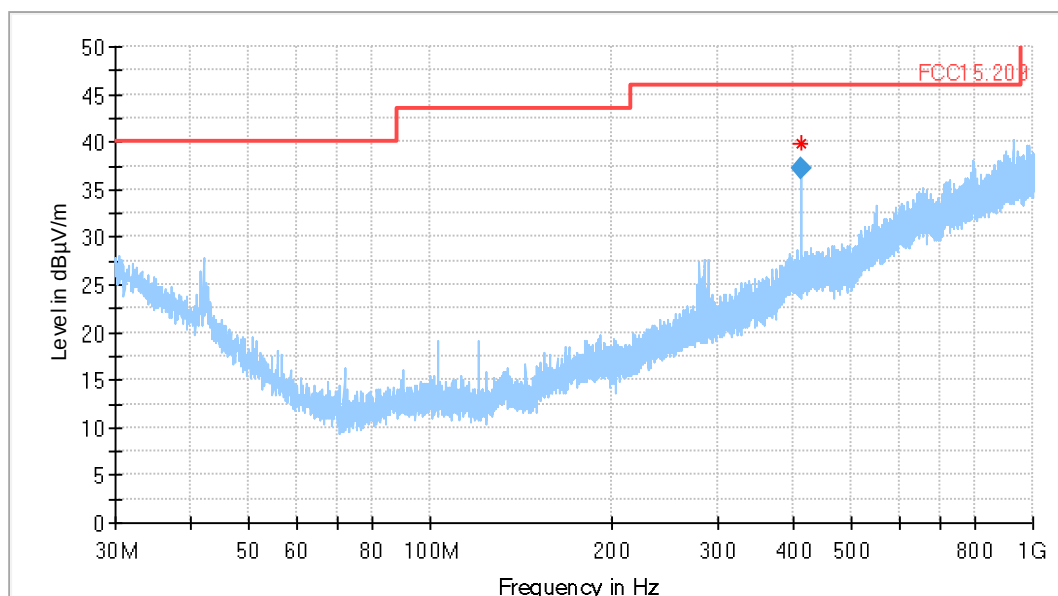
3.01a_BLE_low_standing

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.205&15.209 & RSS Gen. Issue 5
Antenna polarisation:	horizontal/vertical
Environmental Conditions:	Humidity :40% rH; Temperature: 20 °C
Operator Name:	HLA
Operating Mode:	BLE_low; 1Mbps
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number	21-1-00397518_C01
------------	-------------------



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)
411.390000	37.23	46.00	8.77	120.000	138.0	H	55.0	19.3	0.0	2.1

(continuation of the "Final_Result" table from column 18 ...)

Frequency (MHz)	Trd Corr. (dB/m)	Raw Rec (dBµV)
411.390000	17.2	18.0

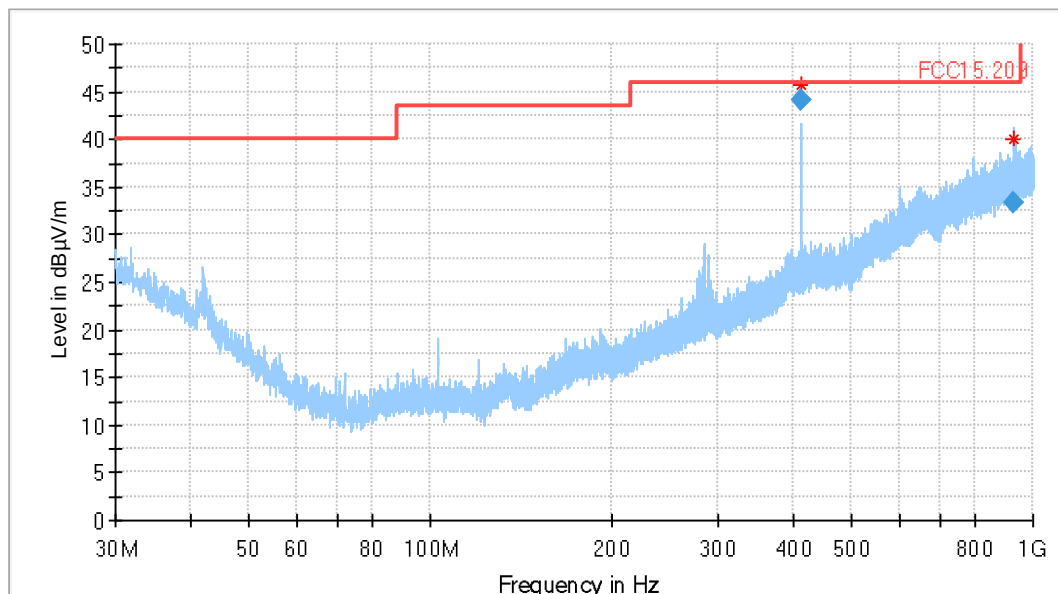
3.01b_BLE_low_laying

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.205&15.209 & RSS Gen. Issue 5
Antenna polarisation:	horizontal/vertical
Environmental Conditions:	Humidity :40% rH; Temperature: 20 °C
Operator Name:	HLa
Operating Mode:	BLE_low; 1Mbps
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number	21-1-00397S18_C01
------------	-------------------



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)
411.390000	44.21	46.00	1.79	120.000	100.0	H	34.0	19.3	0.0	2.1
930.030000	33.25	46.00	12.75	120.000	161.0	V	50.0	27.0	0.0	3.4

(continuation of the "Final_Result" table from column 18 ...)

Frequency (MHz)	Trd Corr. (dB/m)	Raw Rec (dBµV)
411.390000	17.2	24.9
930.030000	23.6	6.3

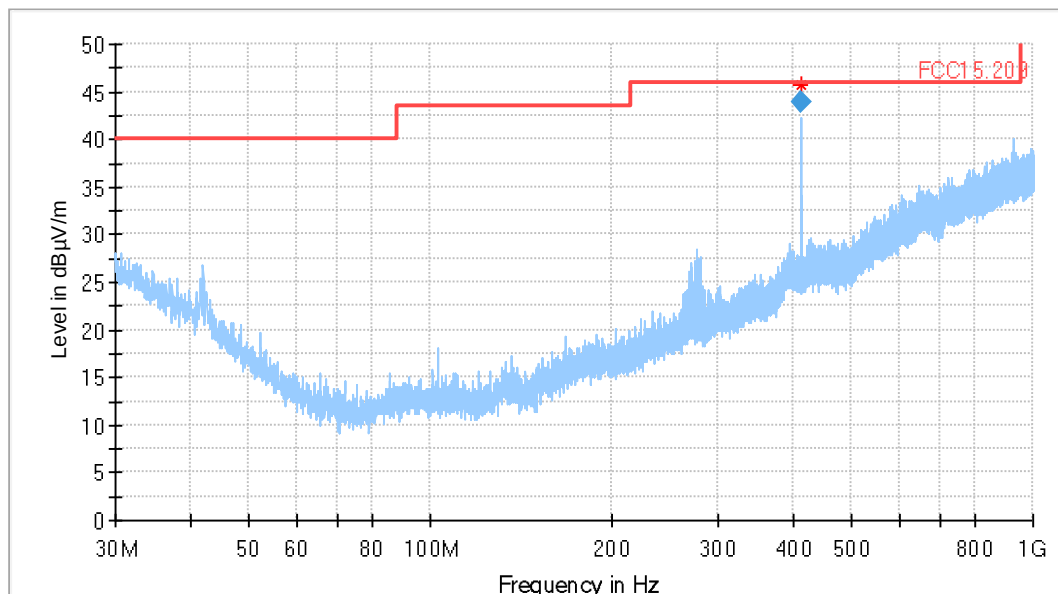
3.02_BLE_mid

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
Operating Mode:	BLE_mid; 2Mbps
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number	21-1-00397S18_C01
------------	-------------------



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)	Preampl (dB)
411.410000	43.82	46.00	2.18	120.000	133.0	H	8.0	19.3	0.0	2.1

(continuation of the "Final_Result" table from column 18 ...)

Frequency (MHz)	Trd Corr. (dB/m)	Raw Rec (dBµV)
411.410000	17.2	24.6

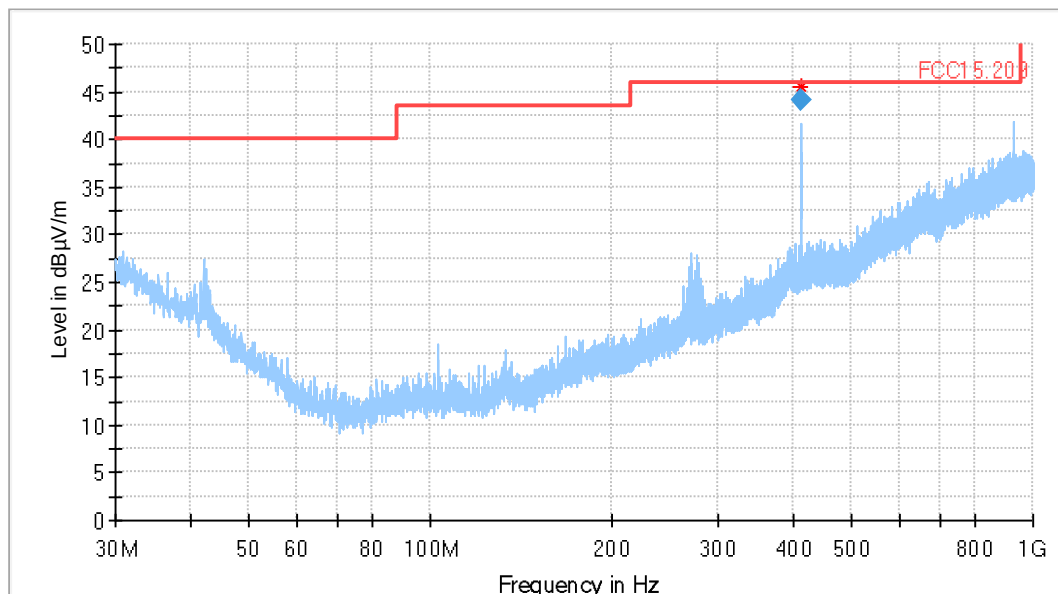
3.03_BLE_high

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
Operating Mode:	BLE_high; 1Mbps
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number	21-1-00397S18_C01
------------	-------------------



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)	Preampl (dB)
411.390000	44.06	46.00	1.94	120.000	117.0	V	56.0	19.3	0.0	2.1

(continuation of the "Final_Result" table from column 18 ...)

Frequency (MHz)	Trd Corr. (dB/m)	Raw Rec (dBµV)
411.390000	17.2	24.8

1.9 Radiated field strength emissions above 1 GHz

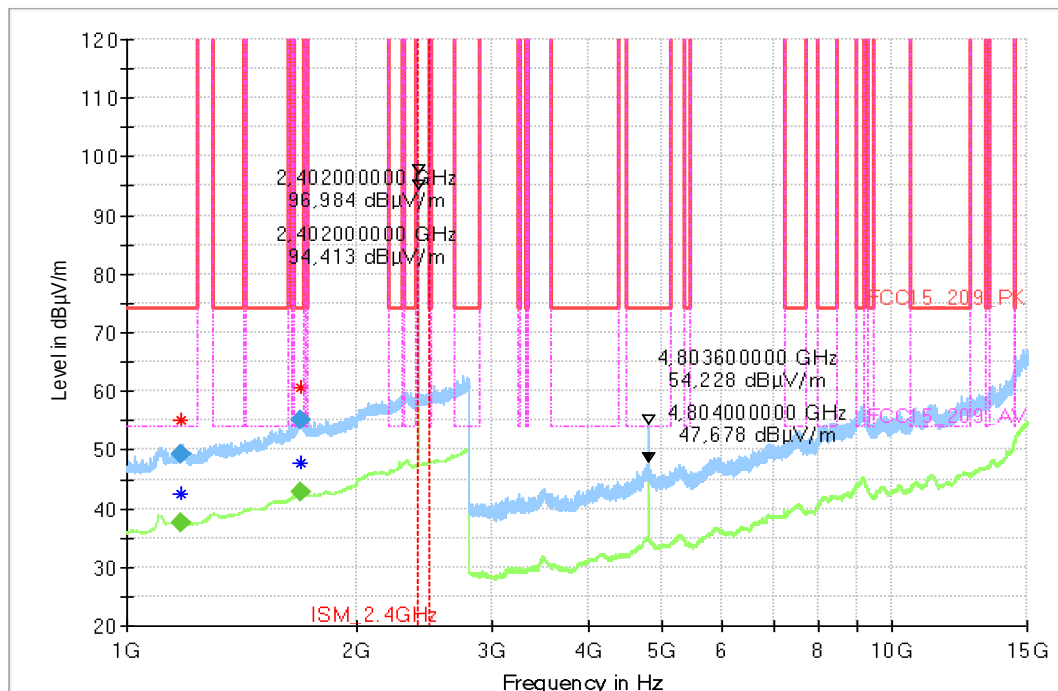
4.01a_BLE_low

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:	GFSK 1 Mbps 2402 MHz
Operator:	SOz
Comment:	Channel no. low
Environmental Conditions:	Humidity: 50% rH; Temperature: 21 °C
EUT Setup:	2
Verdict:	Passed

EUT Information

PMT number:	20-1-00397S19_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)
1688.000000	55.02	---	74.00	18.98	100.0	1000.000	155.0	H	259.0	90.0
1176.400000	49.12	---	74.00	24.88	100.0	1000.000	155.0	V	246.0	90.0
1180.000000	---	37.44	54.00	16.56	100.0	1000.000	155.0	H	89.0	0.0
1685.600000	---	42.75	54.00	11.25	100.0	1000.000	155.0	V	287.0	0.0

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

Frequency (MHz)	Corr. (dB/m)	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)	Raw Rec (dBµV)
1688.000000	35	7	0	29	---
1176.400000	30	5	0	25	---
1180.000000	30	5	0	25	---
1685.600000	35	7	0	29	---

4.01b_BLE_low

Common Information

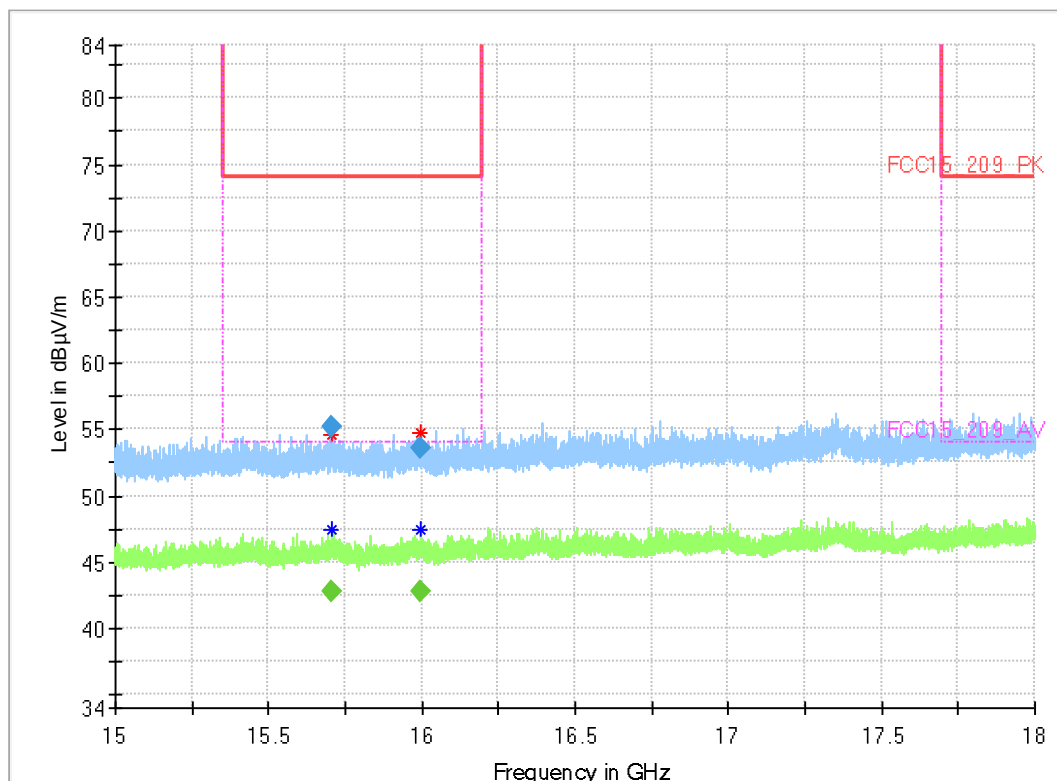
Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209 & RSS-Gen, Issue 5
Operating Mode:	GFSK 1 Mbps 2402 MHz
Environmental Conditions:	Humidity: 47% rH; Temperature: 19.8 °C
SW-Version:	EMC32 V10.60.20
Operator:	Lor
EUT Setup:	3
Verdict:	Passed

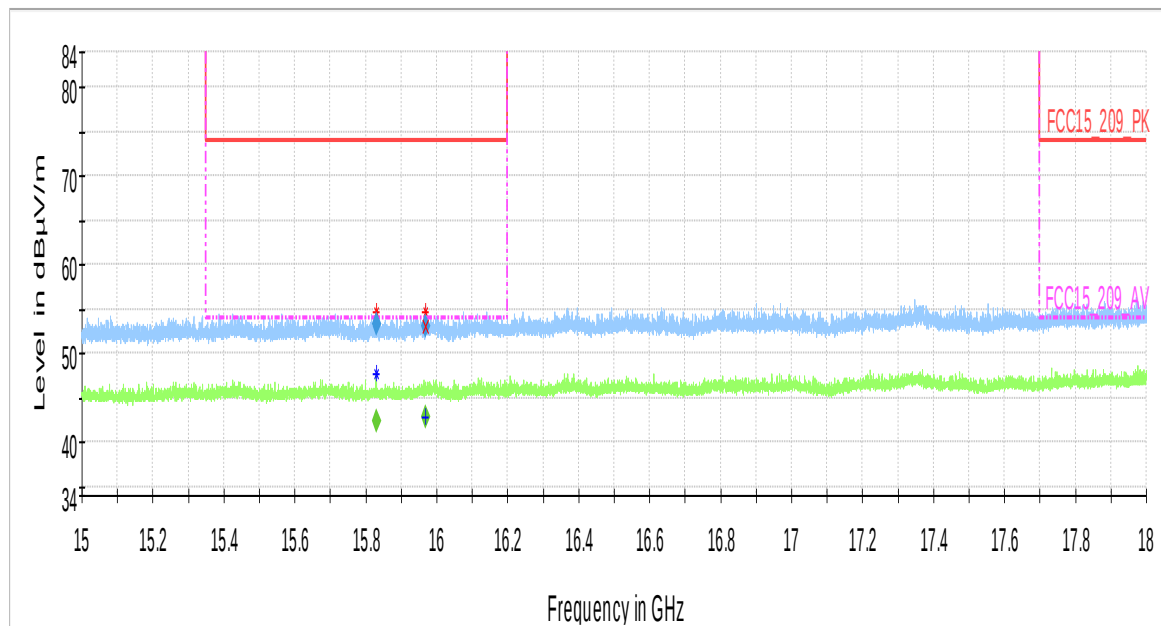
EUT Information

PMT Sample Nr.	20-1-00397S20_C01
----------------	-------------------

EUT standing

Full Spectrum



EUT laying

4.01c_BLE_low

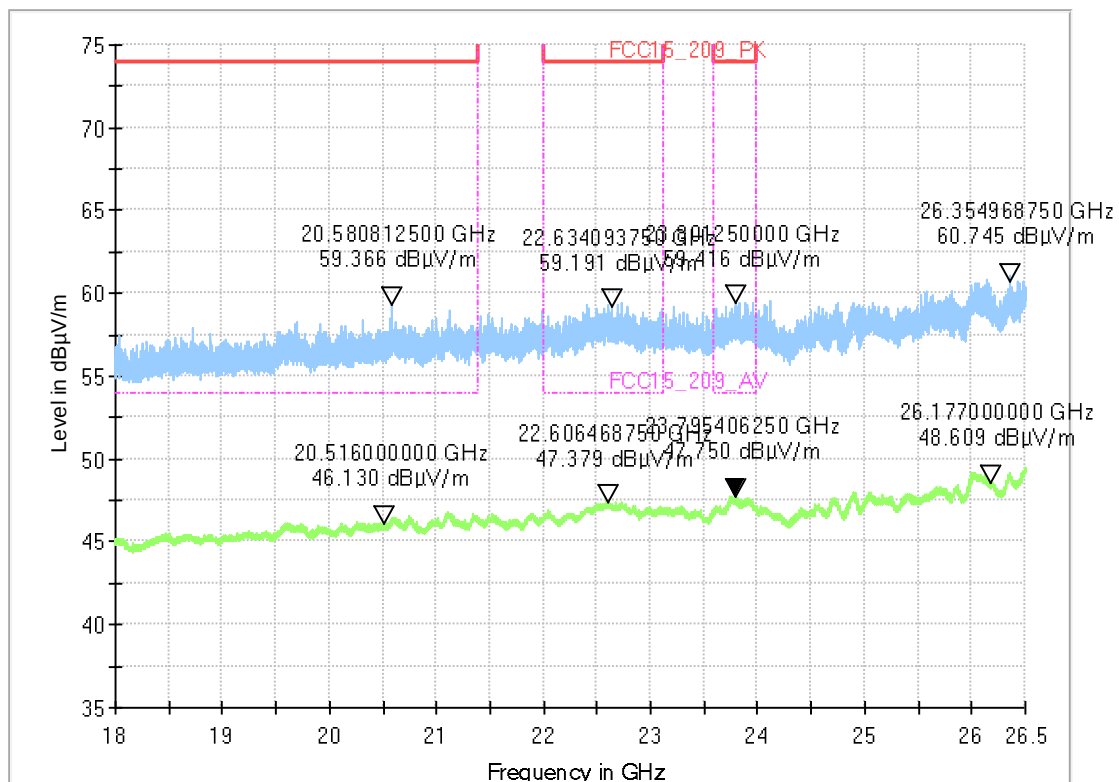
Common Information

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:	Operator, please fill in the operating mode
Environmental Conditions:	Humidity: 32% rH; Temperature: 19.2 °C
SW-Version:	EMC32 V10.60.20
Operator:	SOz
EUT Setup:	3
Verdict:	Passed

EUT Information

PMT Sample Nr.	20-1-00397S20_C01
----------------	-------------------

Full Spectrum



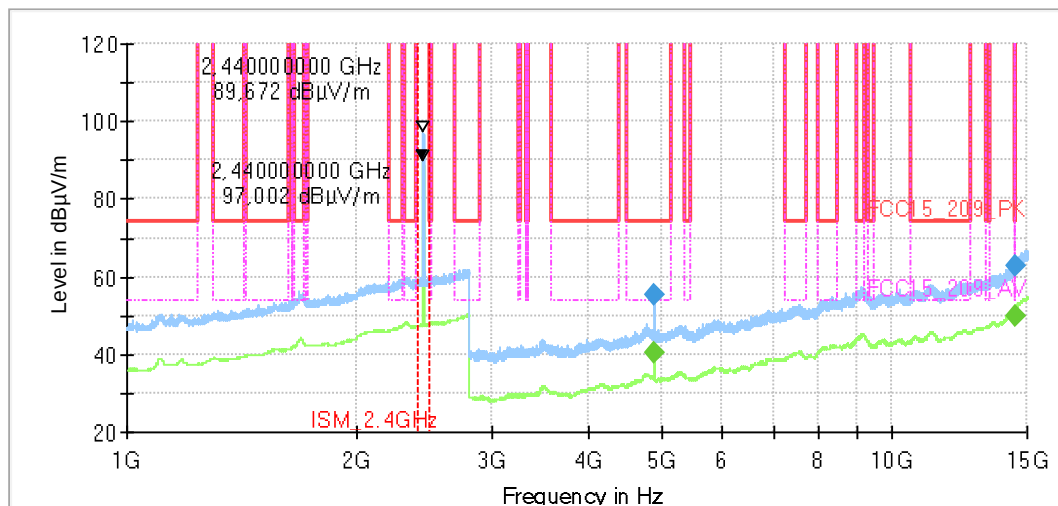
4.02a_BLE_mid

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:	GFSK 2 Mbps 2440 MHz
Operator:	SOz
Comment:	Channel no. middle
Environmental Conditions::	Humidity: 50% rH; Temperature: 19 °C
EUT Setup:	2
Verdict:	Passed

EUT Information

PMT number:	20-1-00397S19_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)
4879.200000	---	40.45	54.00	13.55	100.0	1000.000	155.0	H	48.0	90.0
4881.200000	55.27	---	74.00	18.73	100.0	1000.000	155.0	H	47.0	90.0
14487.600000	62.91	---	74.00	11.09	100.0	1000.000	155.0	H	70.0	90.0
14492.400000	---	50.09	54.00	3.91	100.0	1000.000	155.0	V	172.0	90.0

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

Frequency (MHz)	Corr. (dB/m)	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)	Raw Rec (dBµV)	Comment
4879.200000	9	-27	0	36	---	23:58:12 - 12.12.2022
4881.200000	9	-27	0	36	---	23:55:30 - 12.12.2022
14487.600000	32	-13	0	45	---	23:56:50 - 12.12.2022
14492.400000	32	-13	0	45	---	23:59:51 - 12.12.2022

4.02b_BLE_mid_laying

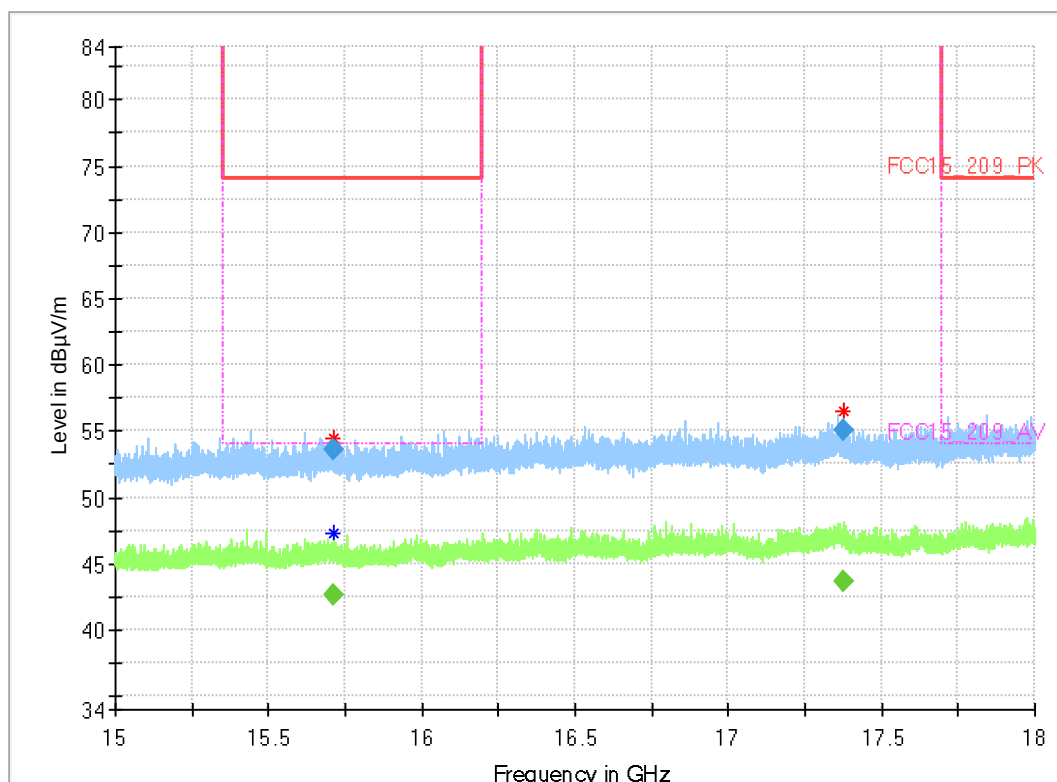
Common Information

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:	GFSK 2 Mbps 2440 MHz
Environmental Conditions:	Humidity: 47% rH; Temperature: 19.8 °C
SW-Version:	EMC32 V10.60.20
Operator:	Lor
EUT Setup:	3
Verdict:	Passed

EUT Information

PMT Sample Nr.	20-1-00397S20_C01
----------------	-------------------

Full Spectrum



4.02b_BLE_mid_standing

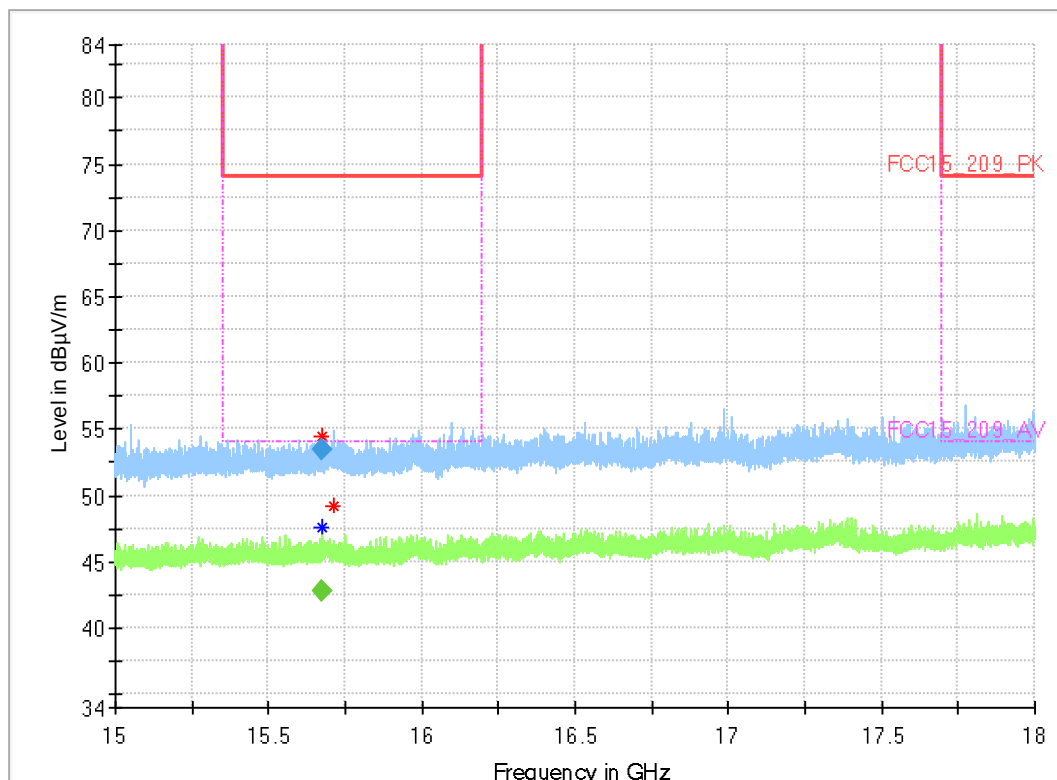
Common Information

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:	GFSK 2 Mbps 2440 MHz
Environmental Conditions:	Humidity: 47% rH; Temperature: 19.8 °C
SW-Version:	EMC32 V10.60.20
Operator:	Lor
EUT Setup:	3
Verdict:	Passed

EUT Information

PMT Sample Nr.	20-1-00397S20_C01
----------------	-------------------

Full Spectrum



4.02c_BLE_mid

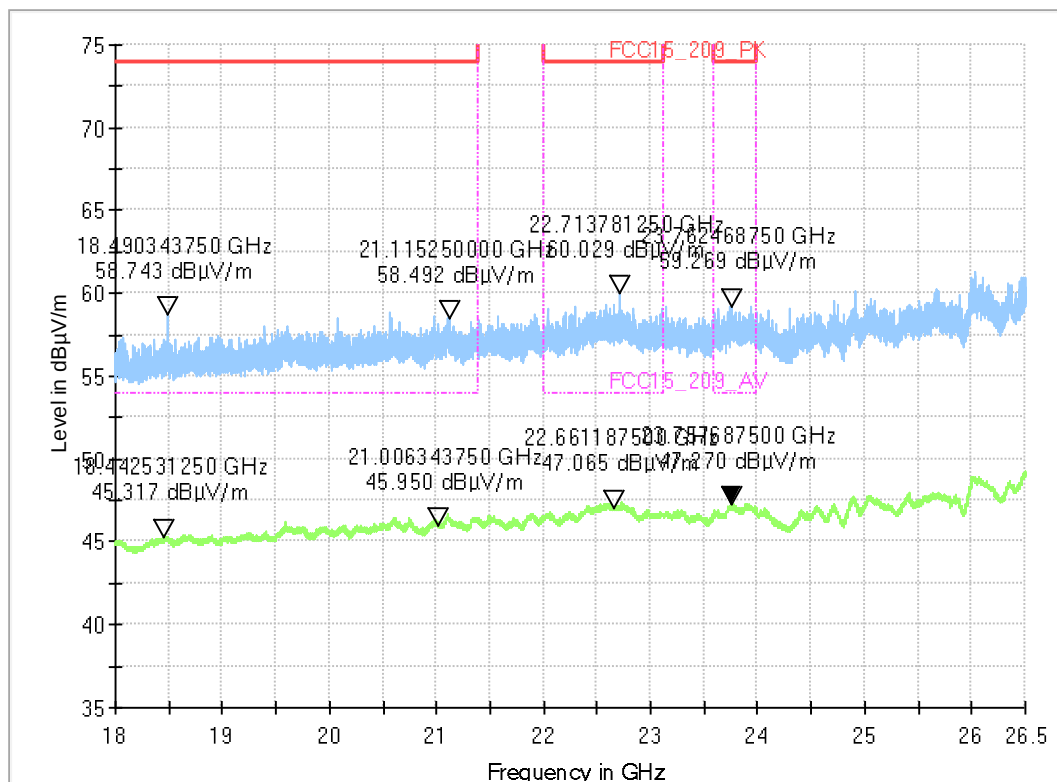
Common Information

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:	GFSK 2 Mbps 2440 MHz
Environmental Conditions:	Humidity: 32% rH; Temperature: 19.2 °C
SW-Version:	EMC32 V10.60.20
Operator:	SOz
EUT Setup:	3
Verdict:	Pass

EUT Information

PMT Sample Nr.	20-1-00397S20_C01
----------------	-------------------

Full Spectrum



4.03a_BLE_high

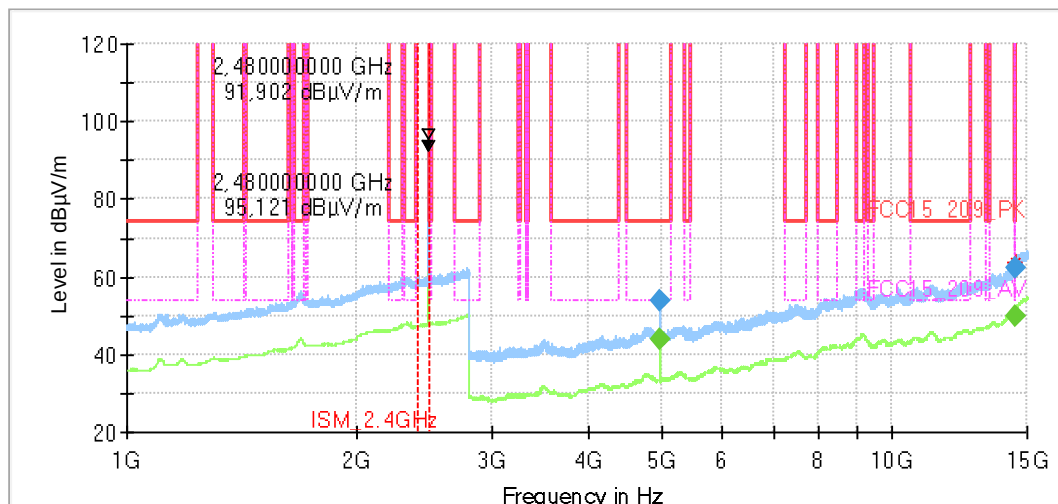
Common Information

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:	GFSK 1 Mbps 2480 MHz
Operator:	TFra
Comment:	Channel no. middle
Environmental Conditions::	Humidity: 45% rH; Temperature: 20 °C
EUT Setup:	2
Verdict:	Passed

EUT Information

PMT number:	20-1-00397S19_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)
4959.600000	---	43.98	54.00	10.02	100.0	1000.000	155.0	H	46.0	90.0
4960.000000	53.94	---	74.00	20.06	100.0	1000.000	155.0	H	45.0	90.0
14484.000000	62.32	---	74.00	11.68	100.0	1000.000	155.0	H	286.0	0.0
14486.000000	---	50.04	54.00	3.96	100.0	1000.000	155.0	V	160.0	0.0

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

Frequency (MHz)	Corr. (dB/m)	Sig Path (dB)	Preamp (dB)	Trd Corr. (dB/m)	Raw Rec (dBµV)
4959.600000	9	-27	0	36	---
4960.000000	9	-27	0	36	---
14484.000000	32	-13	0	45	---
14486.000000	32	-13	0	45	---

4.03b_BLE_high

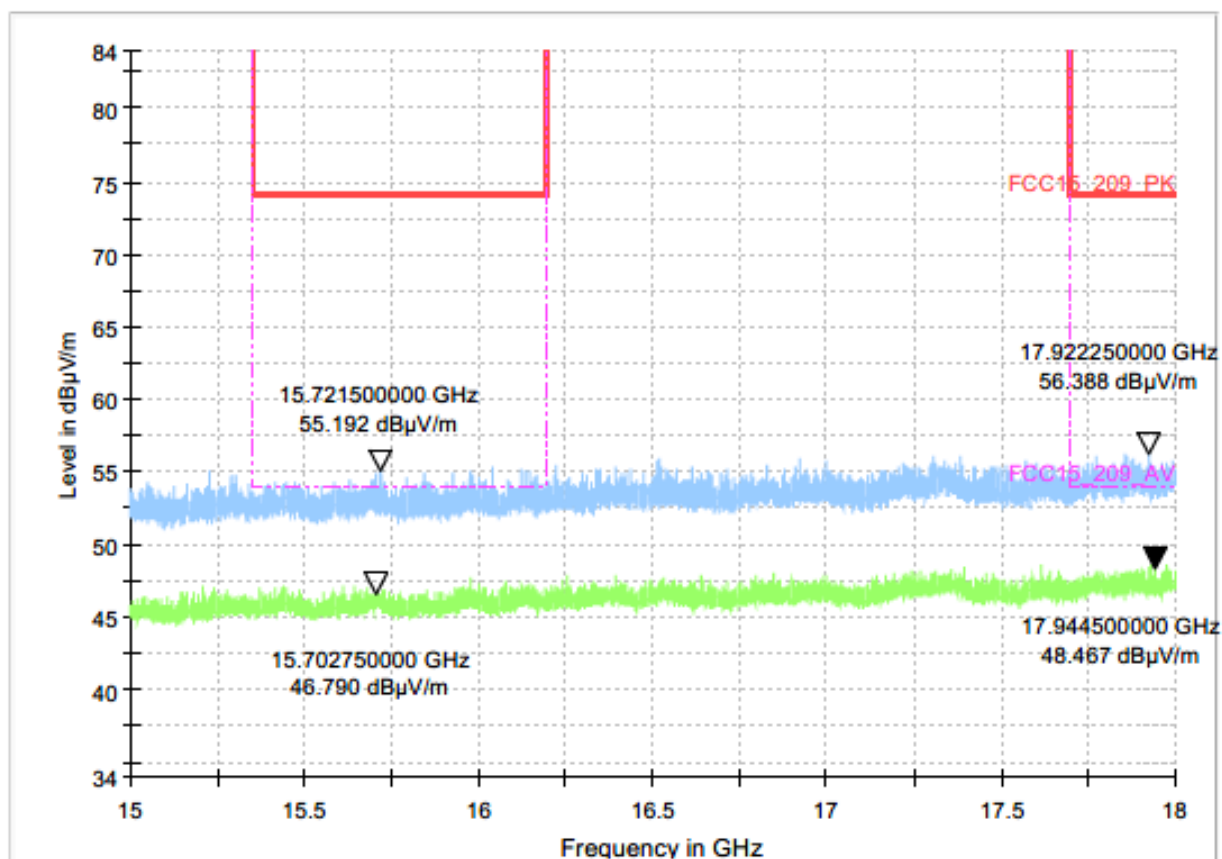
Common Information

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:	Operator, please fill in the operating mode
Environmental Conditions:	Humidity: 32% rH; Temperature: 19.2 °C
SW-Version:	EMC32 V10.60.20
Operator:	SOz
EUT Setup:	1
Verdict:	Passes

EUT Information

PMT Sample Nr.	20-1-00397S20_C01
----------------	-------------------

Full Spectrum



4.03c_BLE_high

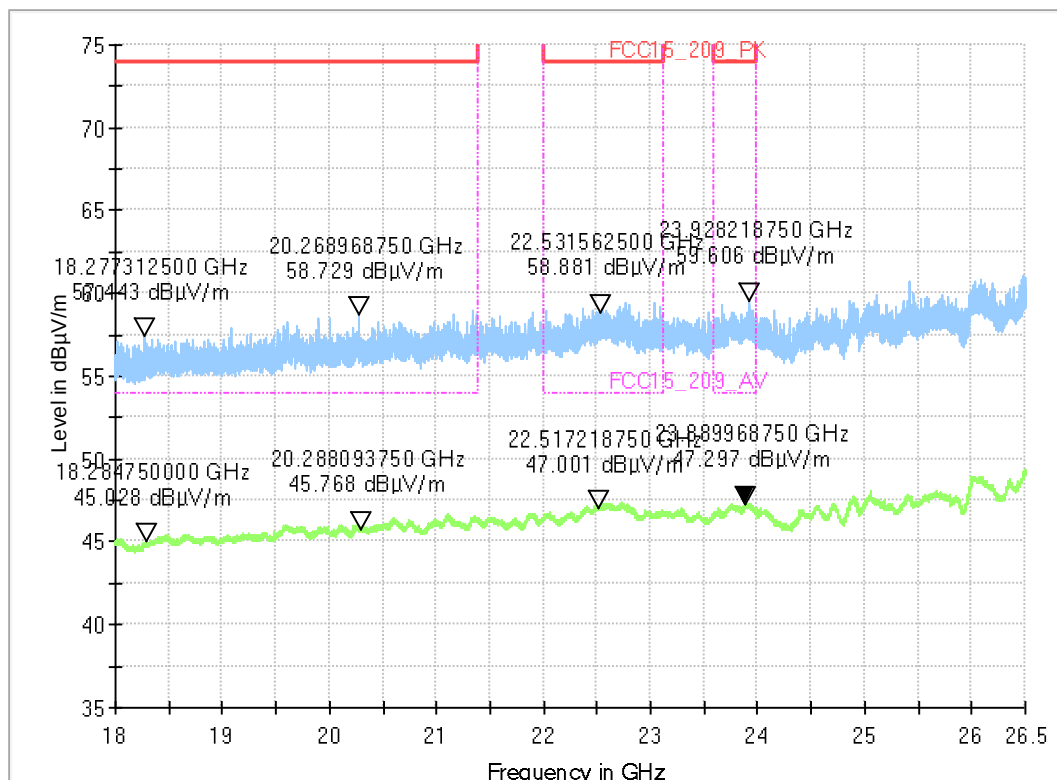
Common Information

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:	GFSK 1 Mbps 2480 MHz
Environmental Conditions:	Humidity: 32% rH; Temperature: 19.2 °C
SW-Version:	EMC32 V10.60.20
Operator:	SOz
EUT Setup:	3
Verdict:	Passed

EUT Information

PMT Sample Nr.	20-1-00397S20_C01
----------------	-------------------

Full Spectrum



1.10 Radiated Band-Edge emissions

9.01_BE_low_BLE_1 Mbps

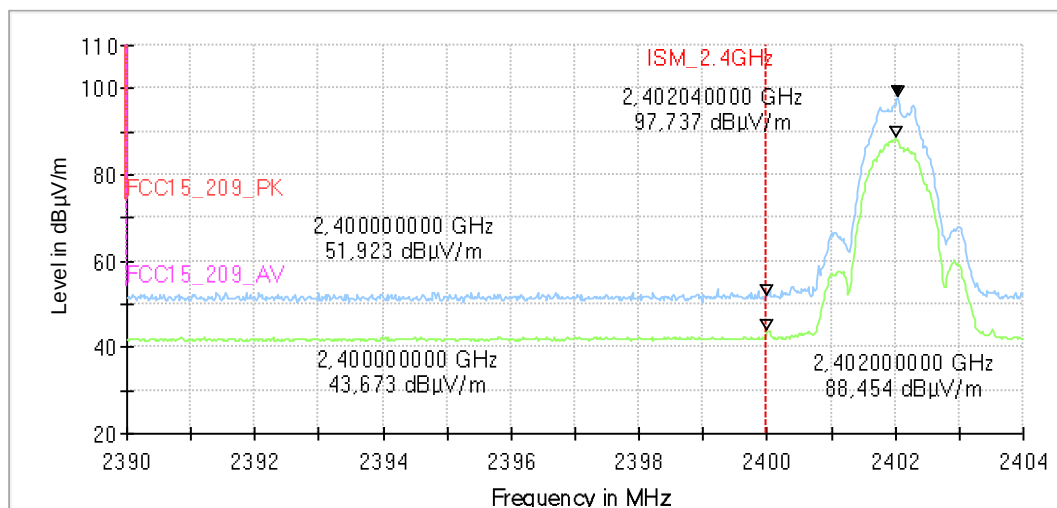
Common Information

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 4
Antenna polarisation:	horizontal/vertical
Operating Mode:	GFSK 1 Mbps 2402 MHz
Operator:	TFra
Comment:	Channel no. low
EUT Setup:	2
Verdict:	Passed

EUT Information

PMT number:	20-1-00397S19_C01
-------------	-------------------

Full Spectrum



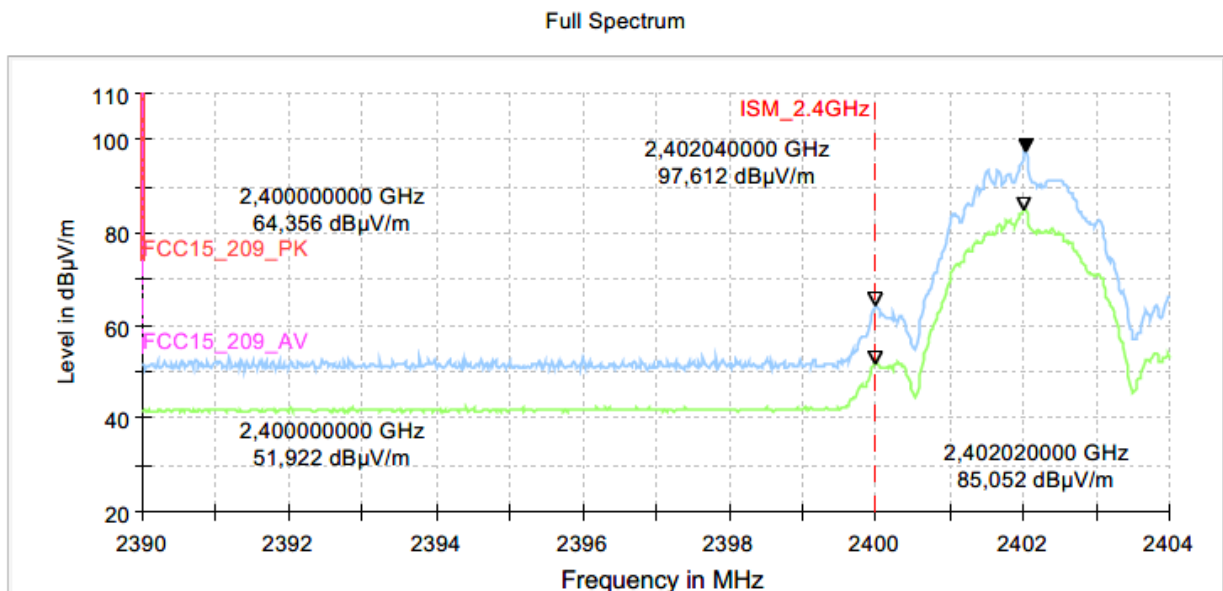
9.02_BE_low_BLE_2 Mbps

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 4
Antenna polarisation:	horizontal/vertical
Operating Mode:	GFSK 2 Mbps 2402 MHz
Operator:	TFra
Comment:	Channel no. low
EUT Setup:	2
Verdict:	Passed

EUT Information

PMT number:	20-1-00397519_C01
-------------	-------------------



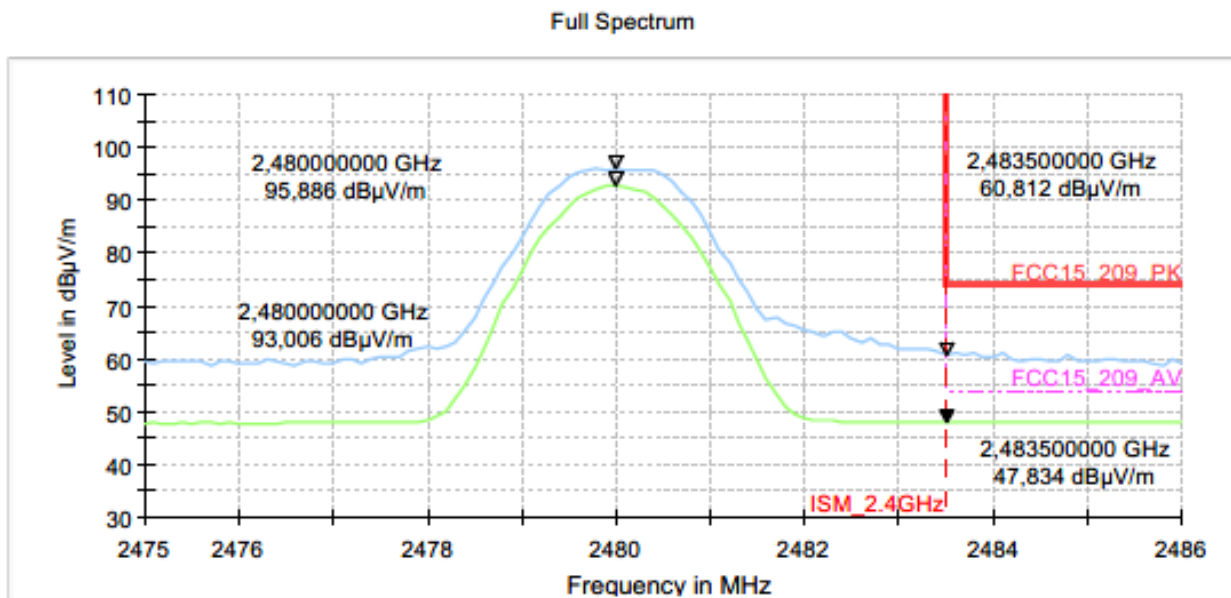
9.03_BE_high_BLE_1 Mbps

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 4
Antenna polarisation:	horizontal/vertical
Operating Mode:	GFSK 1 Mbps 2480 MHz
Operator:	TFra
Comment:	Channel no. high
EUT Setup:	2
Verdict:	Passed

EUT Information

PMT number:	20-1-00397S19_C01
-------------	-------------------



9.04_BE_high_BLE_2 Mbps

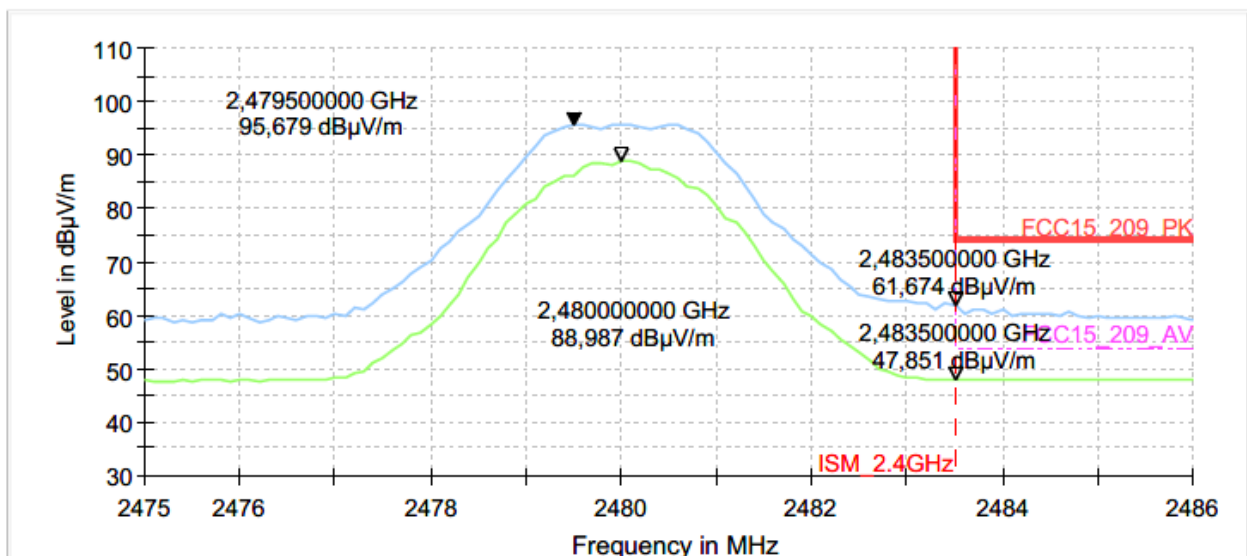
Common Information

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 4
Antenna polarisation:	horizontal/vertical
Operating Mode:	GFSK 2 Mbps 2480 MHz
Operator:	TFra
Comment:	Channel no. high
EUT Setup:	2
Verdict:	Passed

EUT Information

PMT number:	20-1-00397S19_C01
-------------	-------------------

Full Spectrum



End Of Annex 1