

Annex 1:

Measurement diagrams 23-1-0051601T007a-A1-C02

Number of pages:	86	Date of Report:	2024-Oct-29
Testing company:	cetecom advanced GmbH Untertuerkheimer Str. 6-10 66117 Saarbruecken GERMANY	Applicant:	Viessmann Elektronik GmbH
Product: Model:	IoT Gateway Vitoconnect Opto 3		
FCC ID:	2AIZ9-OPTO3	IC: PMN: HVIN:	21680-OPTO3 VITOCONNECT OPTO3 OPTO3
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 3 Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Device		

Measurement diagrams

Emission Bandwidth 20 dB (2405 MHz; DSSS [250kbps] (10 dBm); 5 MHz)

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

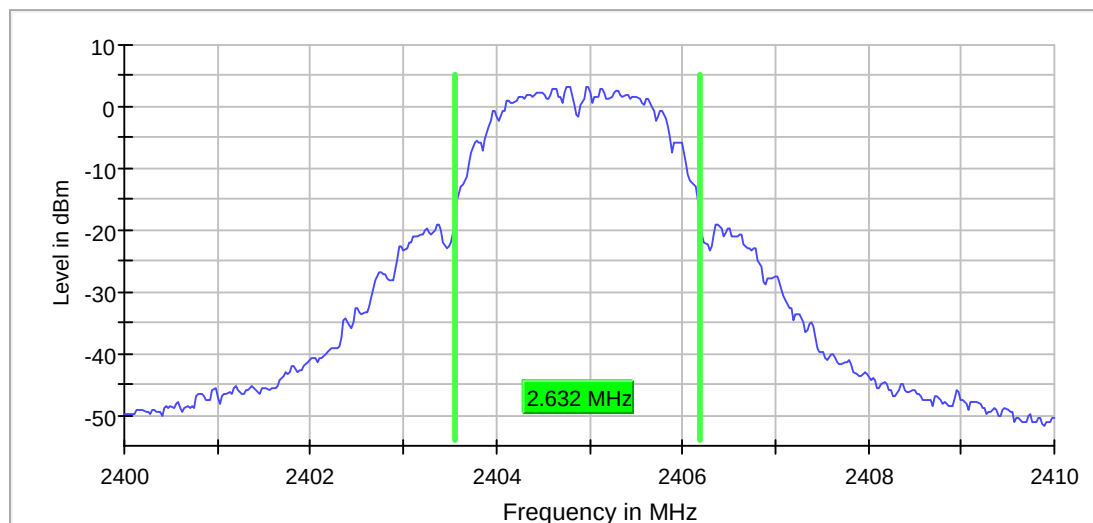
20 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2405.000000	2.631579	---	---	2403.558897	2406.190476

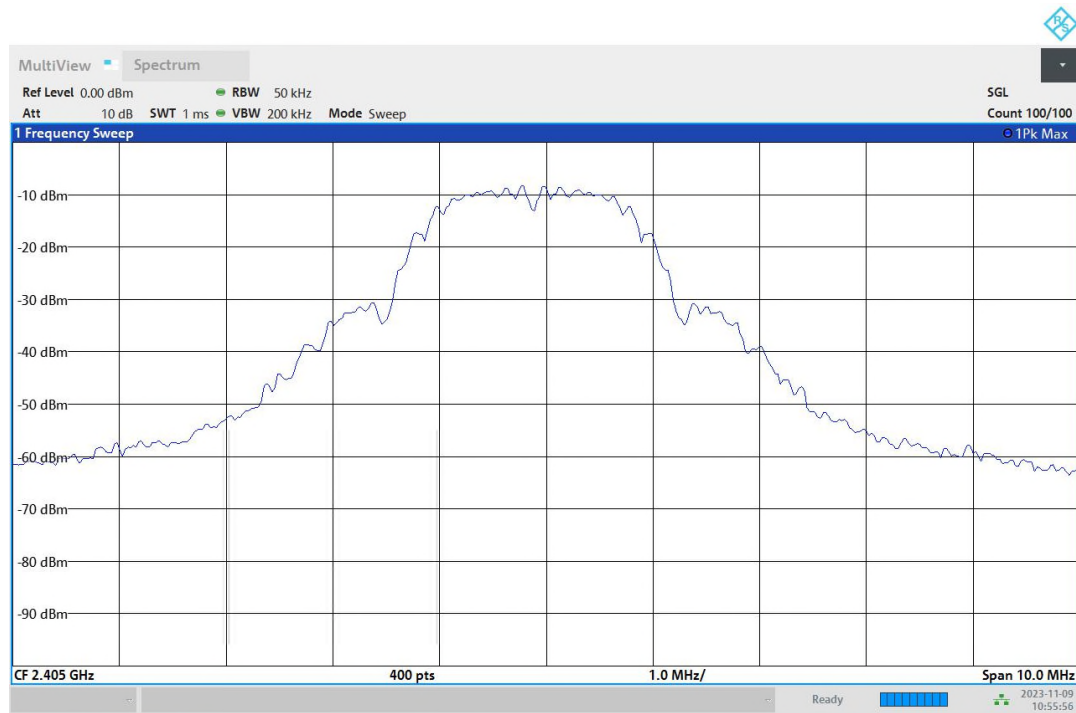
(continuation of the "20 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2405.000000	3.3	PASS

20 dB Bandwidth



Bandwidth



10:55:56 AM 11/09/2023

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.41000 GHz	2.41000 GHz
Span	10.000 MHz	10.000 MHz
RBW	50.000 kHz	>= 50.000 kHz
VBW	200.000 kHz	>= 150.000 kHz
SweepPoints	400	~ 400
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	24 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.02 dB	0.50 dB

Emission Bandwidth 20 dB (2440 MHz; DSSS [250kbps] (10 dBm); 5 MHz)

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

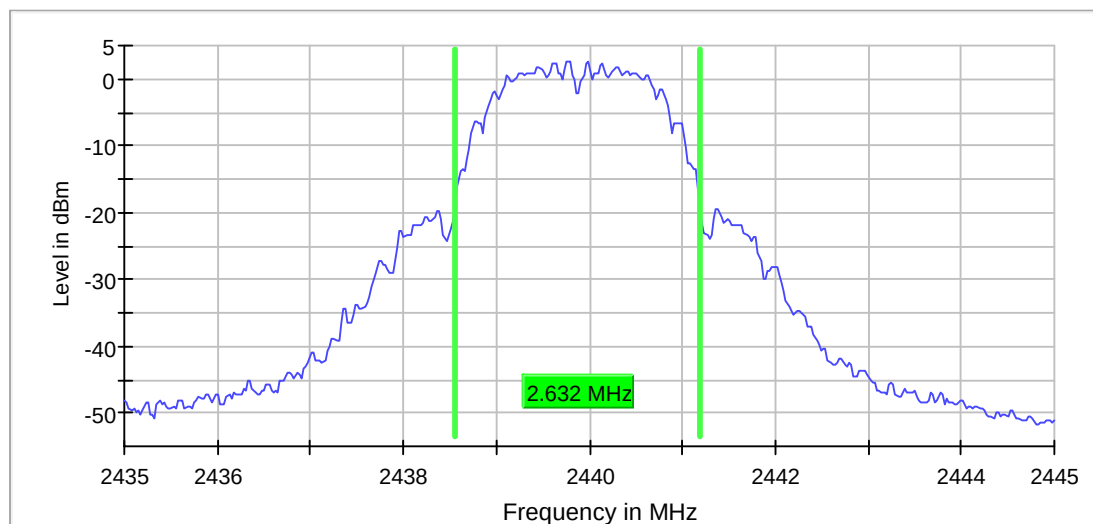
20 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	2.631579	---	---	2438.558897	2441.190476

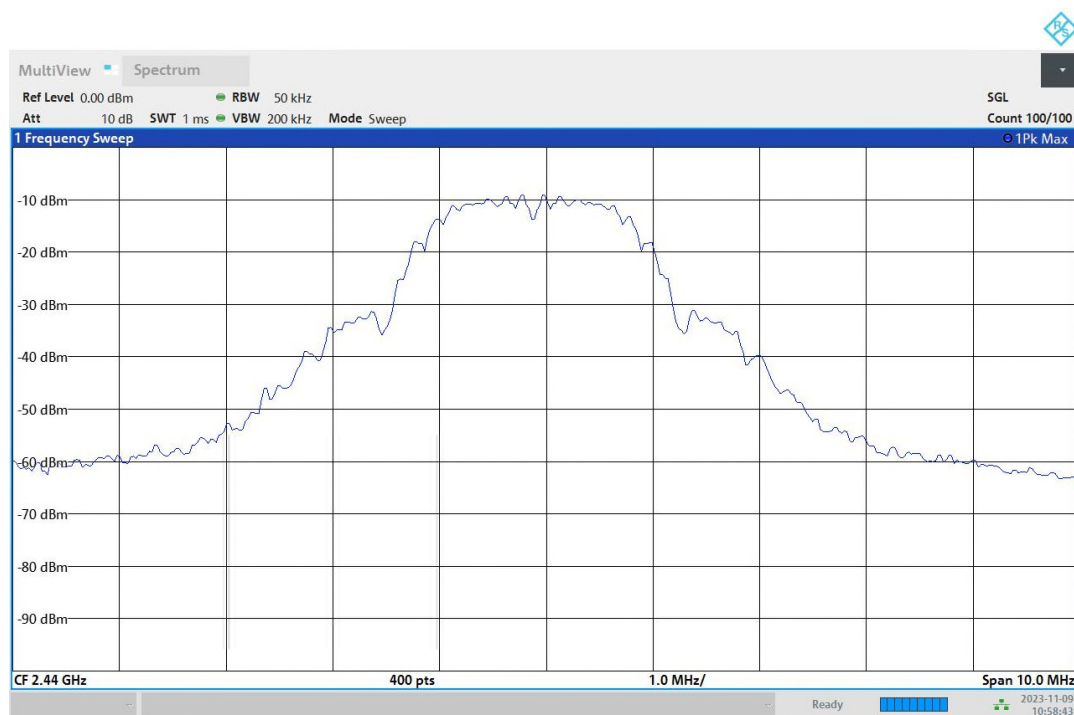
(continuation of the "20 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	2.5	PASS

20 dB Bandwidth



Bandwidth



10:58:43 AM 11/09/2023

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43500 GHz	2.43500 GHz
Stop Frequency	2.44500 GHz	2.44500 GHz
Span	10.000 MHz	10.000 MHz
RBW	50.000 kHz	>= 50.000 kHz
VBW	200.000 kHz	>= 150.000 kHz
SweepPoints	400	~ 400
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	23 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.05 dB	0.50 dB

Emission Bandwidth 20 dB (2480 MHz; DSSS [250kbps] (10 dBm); 5 MHz)

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

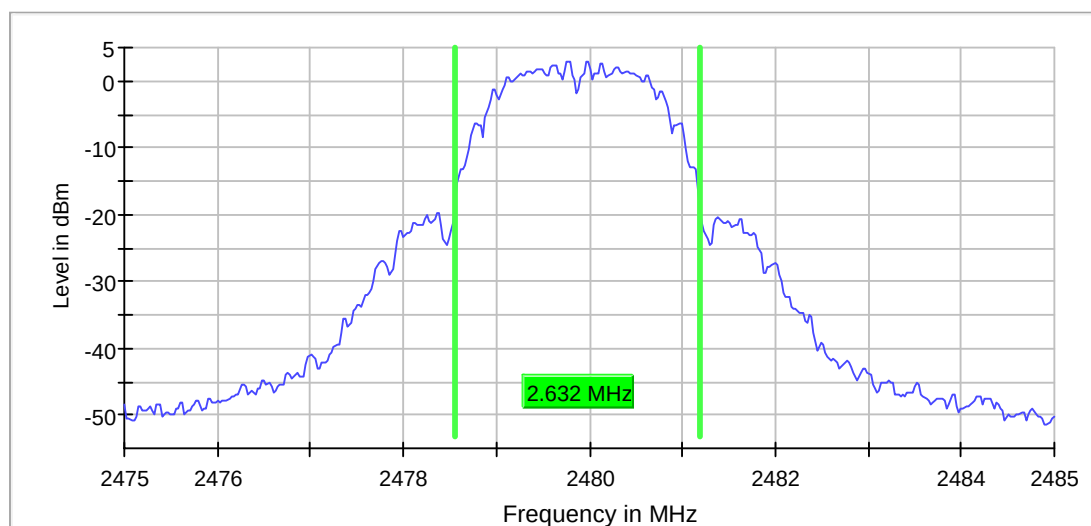
20 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	2.631579	---	---	2478.558897	2481.190476

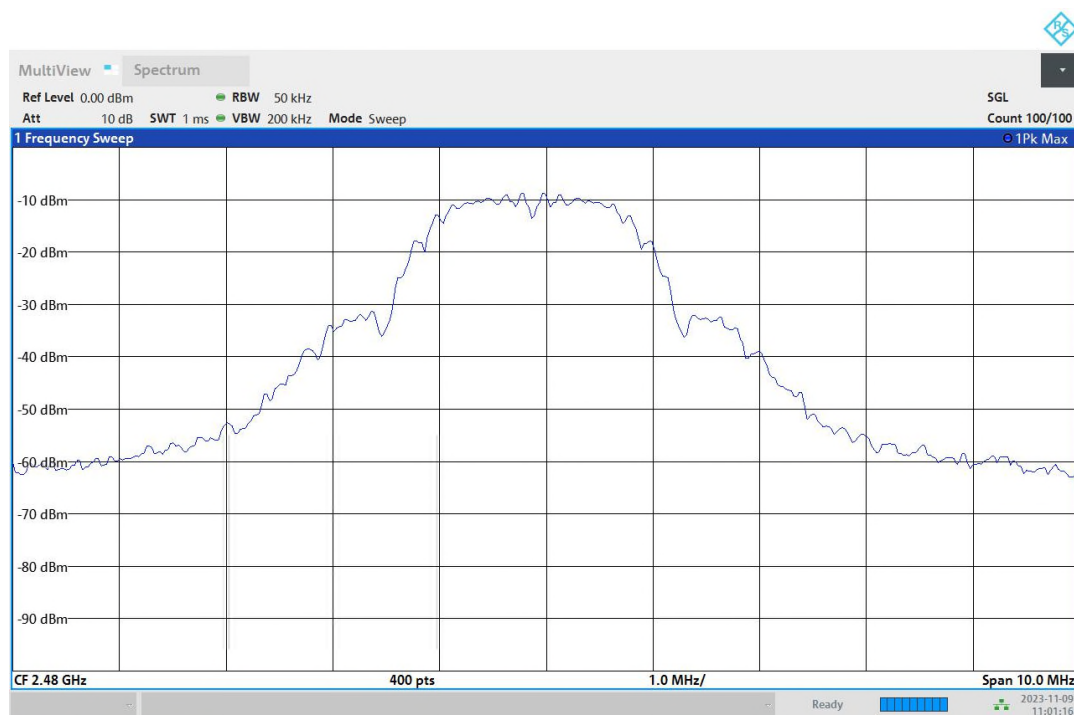
(continuation of the "20 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	2.9	PASS

20 dB Bandwidth



Bandwidth



11:01:17 AM 11/09/2023

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47500 GHz	2.47500 GHz
Stop Frequency	2.48500 GHz	2.48500 GHz
Span	10.000 MHz	10.000 MHz
RBW	50.000 kHz	>= 50.000 kHz
VBW	200.000 kHz	>= 150.000 kHz
SweepPoints	400	~ 400
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	17 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.40 dB	0.50 dB

Minimum Emission Bandwidth 6 dB (2405 MHz; DSSS [250kbps] (10 dBm); 5 MHz)

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

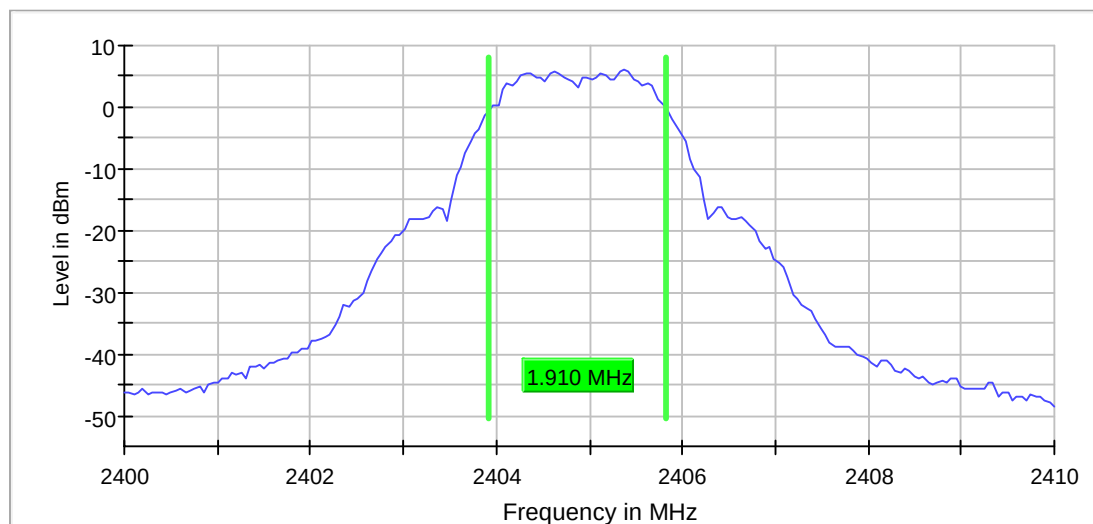
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2405.000000	1.909548	0.500000	---	2403.919598	2405.829146

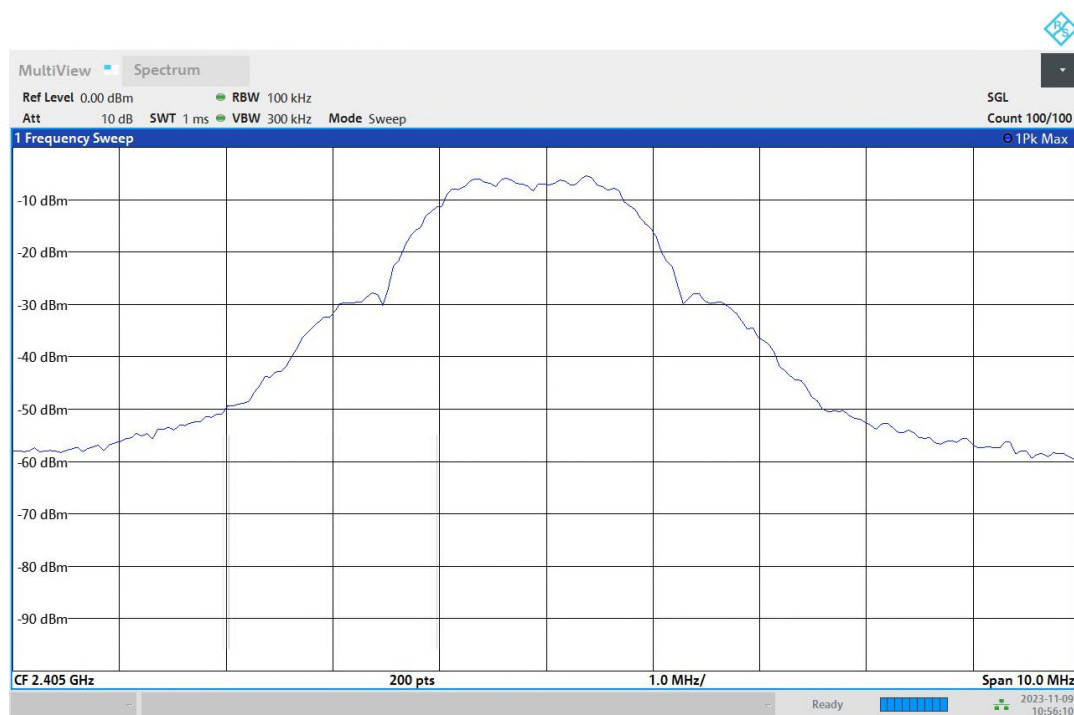
(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2405.000000	6.2	PASS

6 dB Bandwidth



Bandwidth



10:56:11 AM 11/09/2023

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.41000 GHz	2.41000 GHz
Span	10.000 MHz	10.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	200	~ 200
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	23 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.31 dB	0.50 dB

Minimum Emission Bandwidth 6 dB (2440 MHz; DSSS [250kbps] (10 dBm); 5 MHz)

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

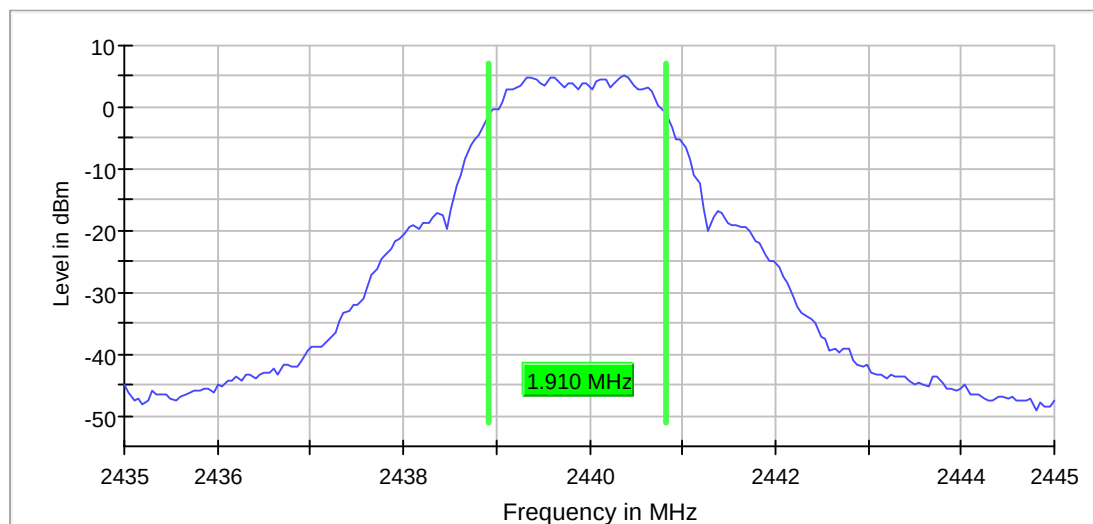
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	1.909548	0.500000	---	2438.919598	2440.829146

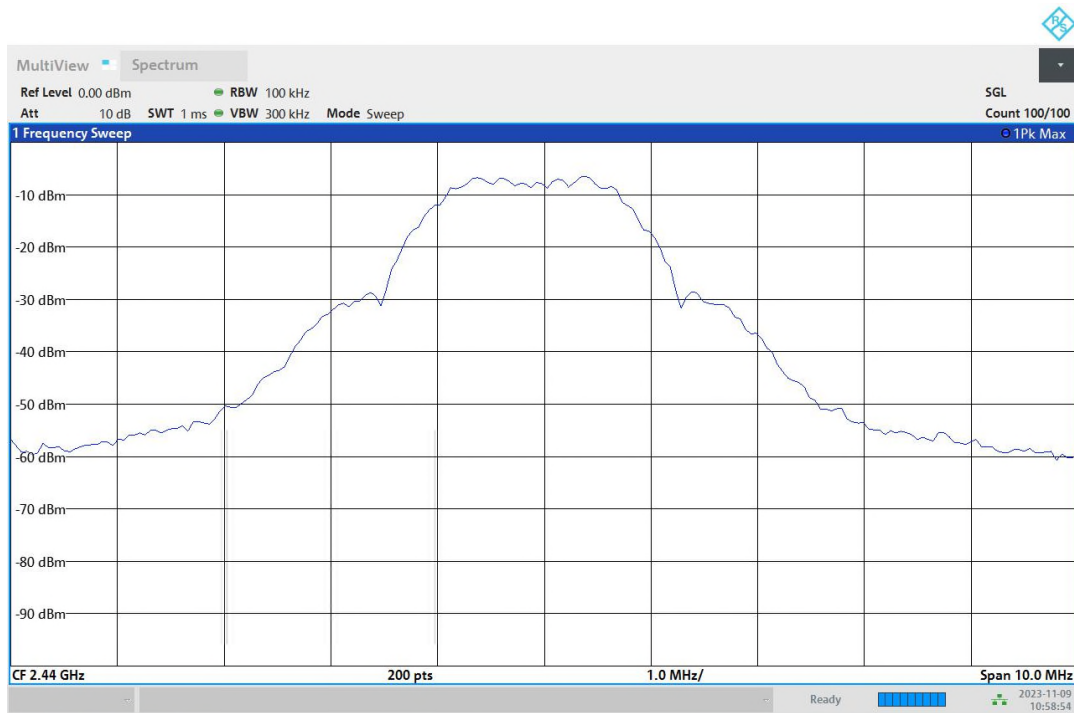
(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	5.2	PASS

6 dB Bandwidth



Bandwidth



10:58:55 AM 11/09/2023

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43500 GHz	2.43500 GHz
Stop Frequency	2.44500 GHz	2.44500 GHz
Span	10.000 MHz	10.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	200	~ 200
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	12 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.03 dB	0.50 dB

Minimum Emission Bandwidth 6 dB (2480 MHz; DSSS [250kbps] (10 dBm); 5 MHz)

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

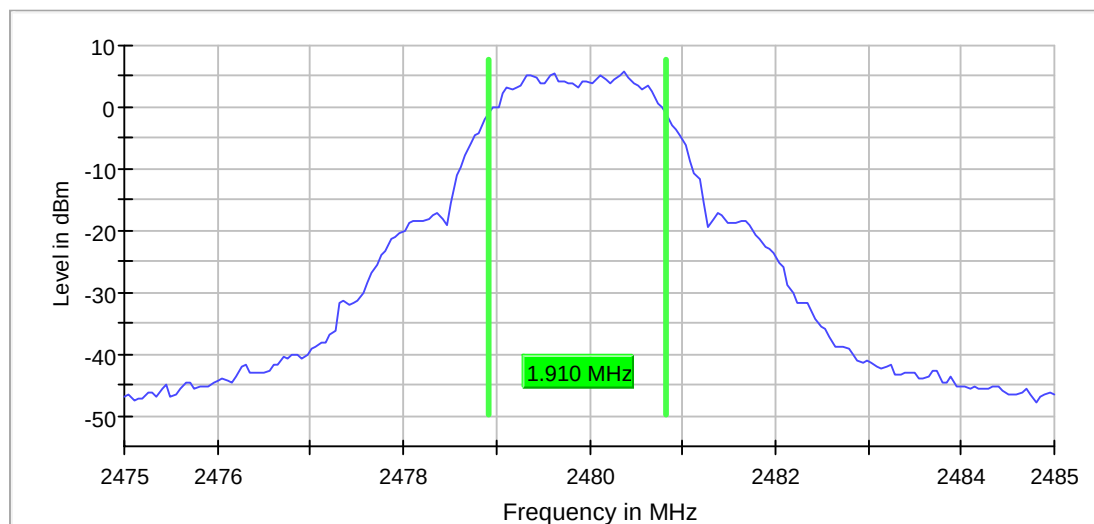
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.909548	0.500000	---	2478.919598	2480.829146

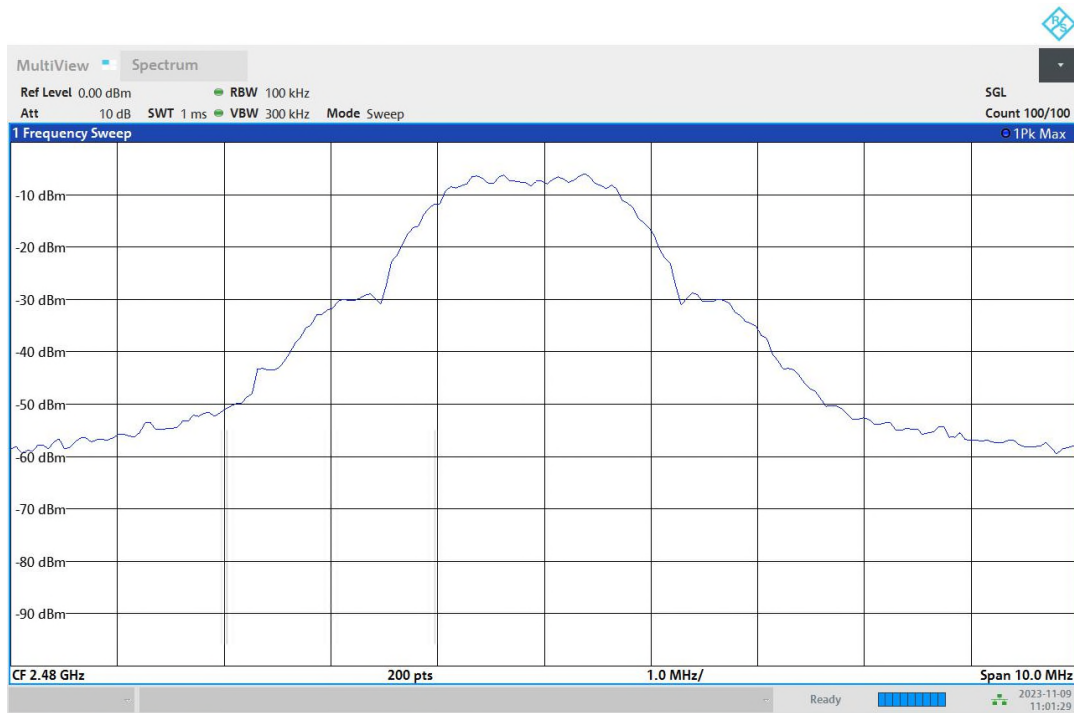
(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	5.7	PASS

6 dB Bandwidth



Bandwidth



11:01:30 AM 11/09/2023

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47500 GHz	2.47500 GHz
Stop Frequency	2.48500 GHz	2.48500 GHz
Span	10.000 MHz	10.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	200	~ 200
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	18 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.05 dB	0.50 dB

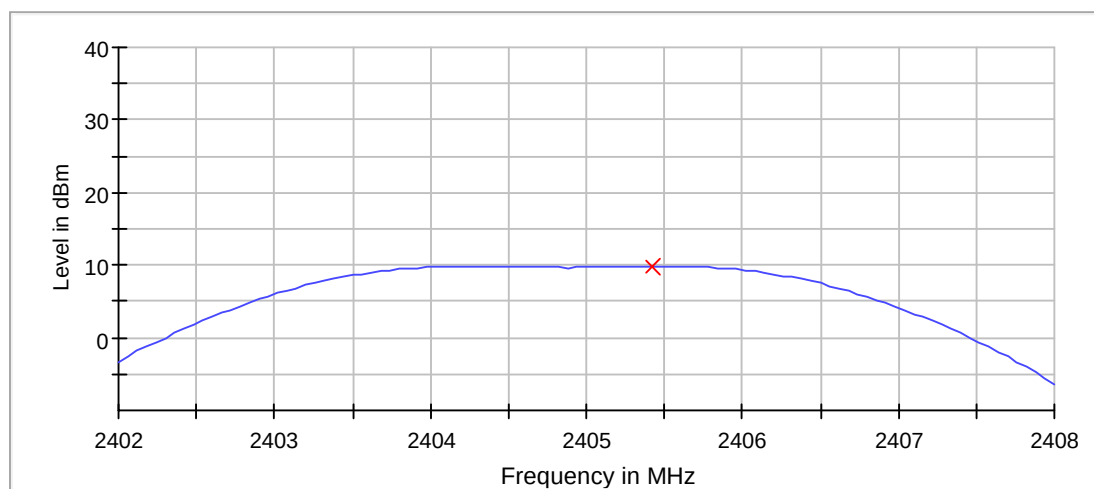
Peak output power (Sweep) (2405 MHz; DSSS [250kbps] (10 dBm); 5 MHz)

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

Result

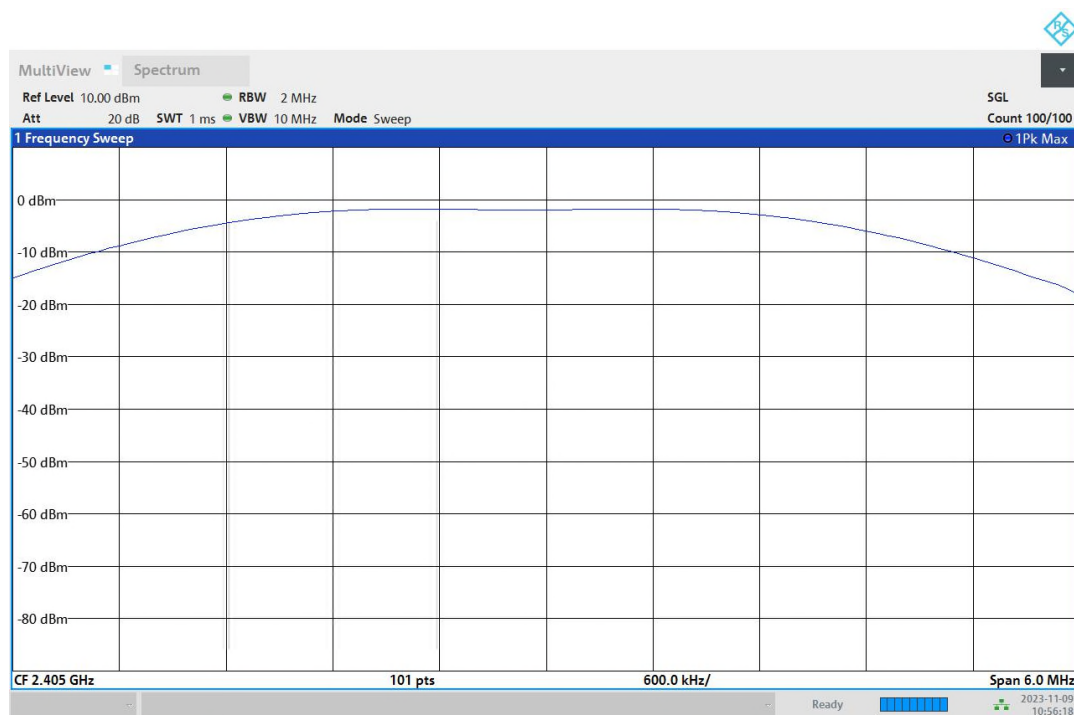
DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2405.000000	9.8	30.0	PASS

Peak Power



— Connector 1 × Peak Connector 1

Peak Power 1



10:56:19 AM 11/09/2023

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40200 GHz	2.40200 GHz
Stop Frequency	2.40800 GHz	2.40800 GHz
Span	6.000 MHz	6.000 MHz
RBW	2.000 MHz	≥ 1.910 MHz
VBW	10.000 MHz	≥ 6.000 MHz
SweepPoints	101	~ 101
SweepTime	1.000 ms	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.08 dB	0.50 dB

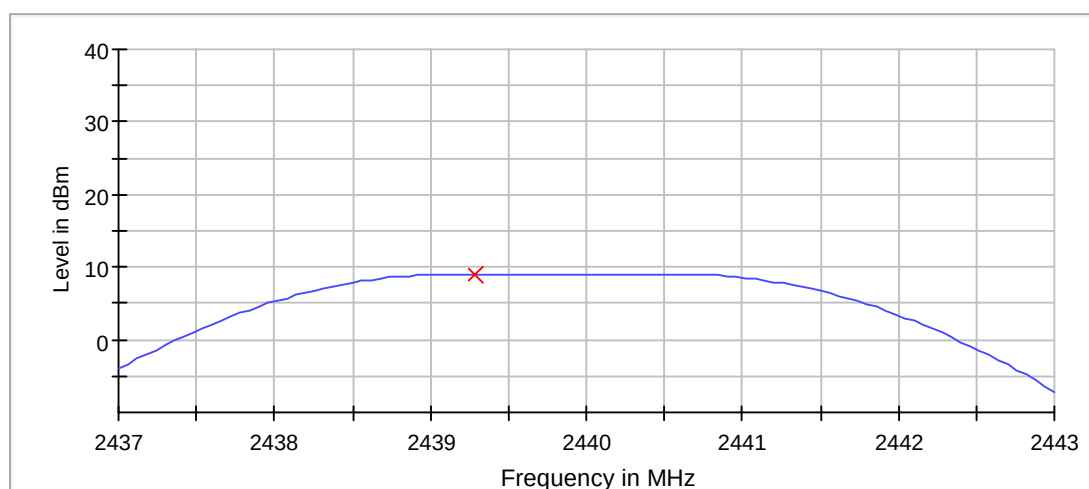
Peak output power (Sweep) (2440 MHz; DSSS [250kbps] (10 dBm); 5 MHz)

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

Result

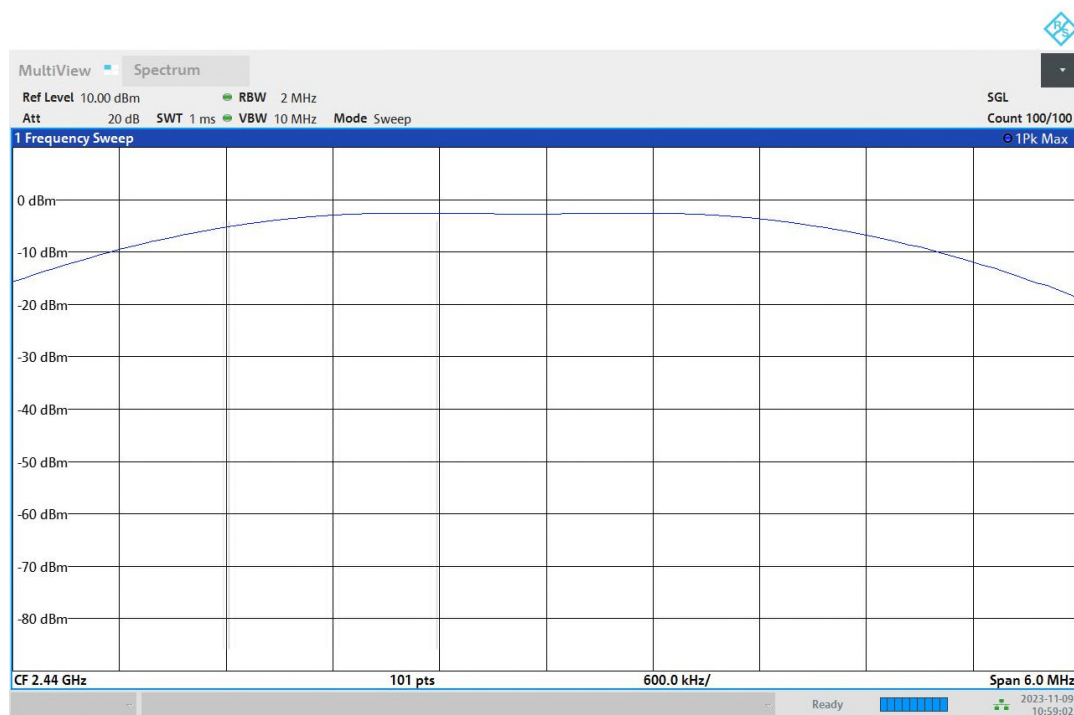
DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2440.000000	9.1	30.0	PASS

Peak Power



— Connector 1 × Peak Connector 1

Peak Power 1



10:59:03 AM 11/09/2023

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43700 GHz	2.43700 GHz
Stop Frequency	2.44300 GHz	2.44300 GHz
Span	6.000 MHz	6.000 MHz
RBW	2.000 MHz	≥ 1.910 MHz
VBW	10.000 MHz	≥ 6.000 MHz
SweepPoints	101	~ 101
SweepTime	1.000 ms	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.03 dB	0.50 dB

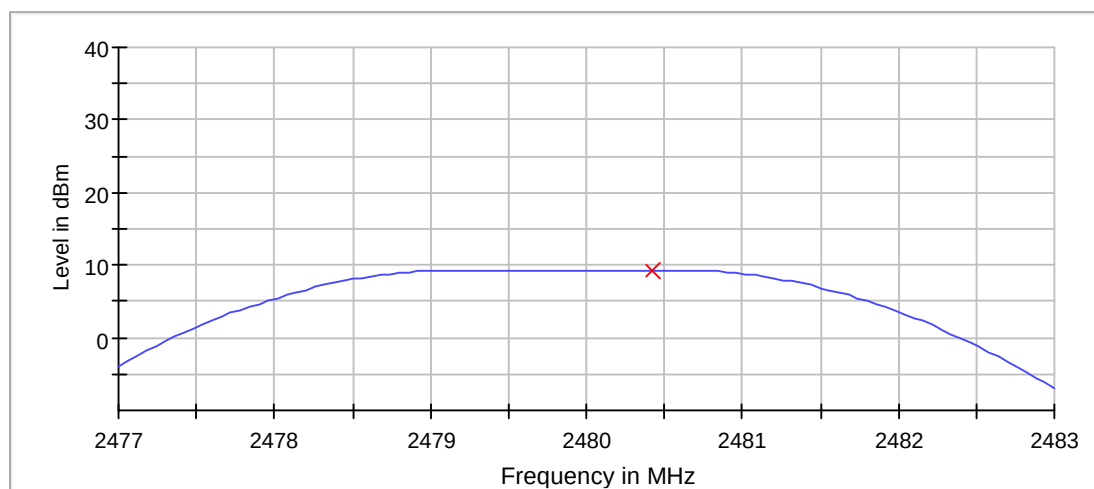
Peak output power (Sweep) (2480 MHz; DSSS [250kbps] (10 dBm); 5 MHz)

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

Result

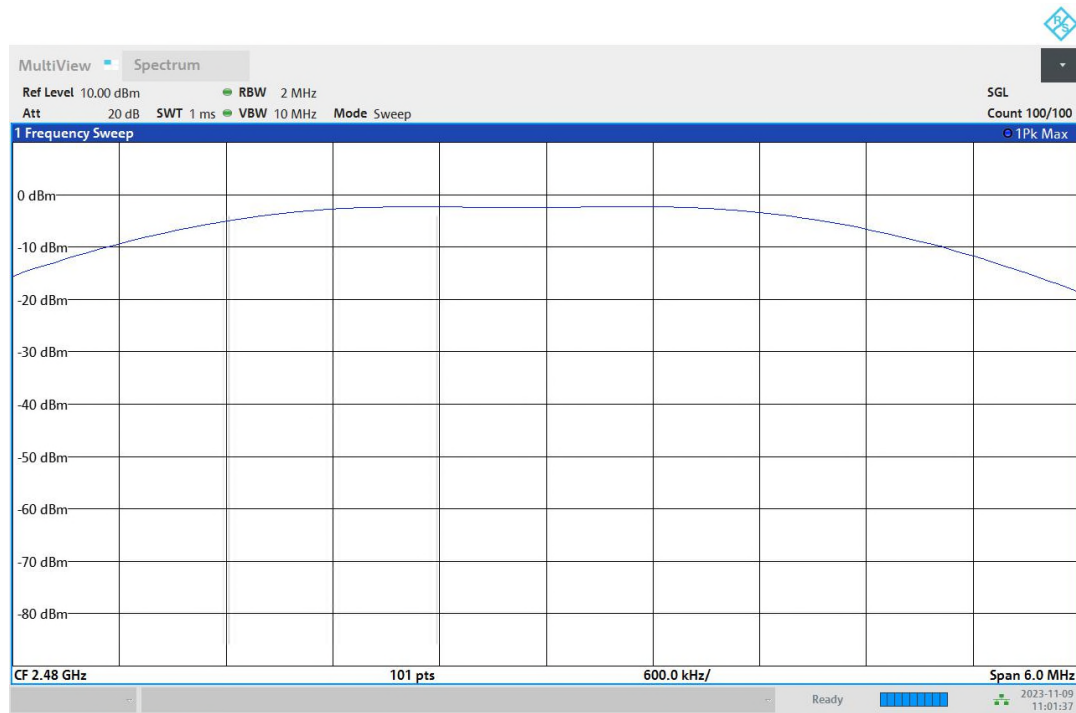
DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2480.000000	9.3	30.0	PASS

Peak Power



— Connector 1 × Peak Connector 1

Peak Power 1



11:01:38 AM 11/09/2023

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47700 GHz	2.47700 GHz
Stop Frequency	2.48300 GHz	2.48300 GHz
Span	6.000 MHz	6.000 MHz
RBW	2.000 MHz	≥ 1.910 MHz
VBW	10.000 MHz	≥ 6.000 MHz
SweepPoints	101	~ 101
SweepTime	1.000 ms	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.05 dB	0.50 dB

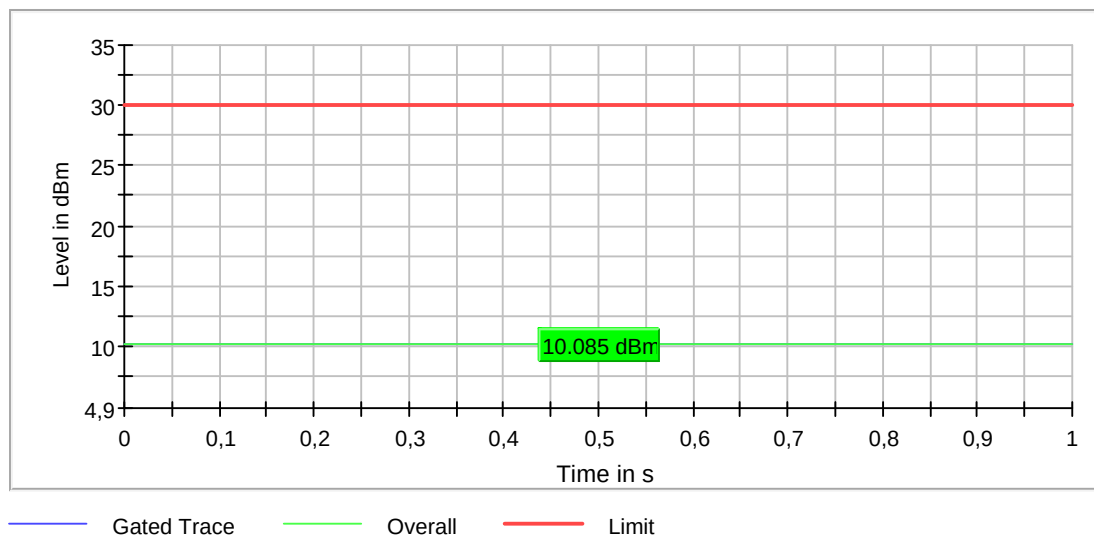
RF output power / Duty Cycle (2405 MHz; DSSS [250kbps] (10 dBm); 5 MHz)

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)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
2405.000000	10.1	30.0	10.1	100.000	PASS

Gated Trace



OSP PowerMeter settings

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

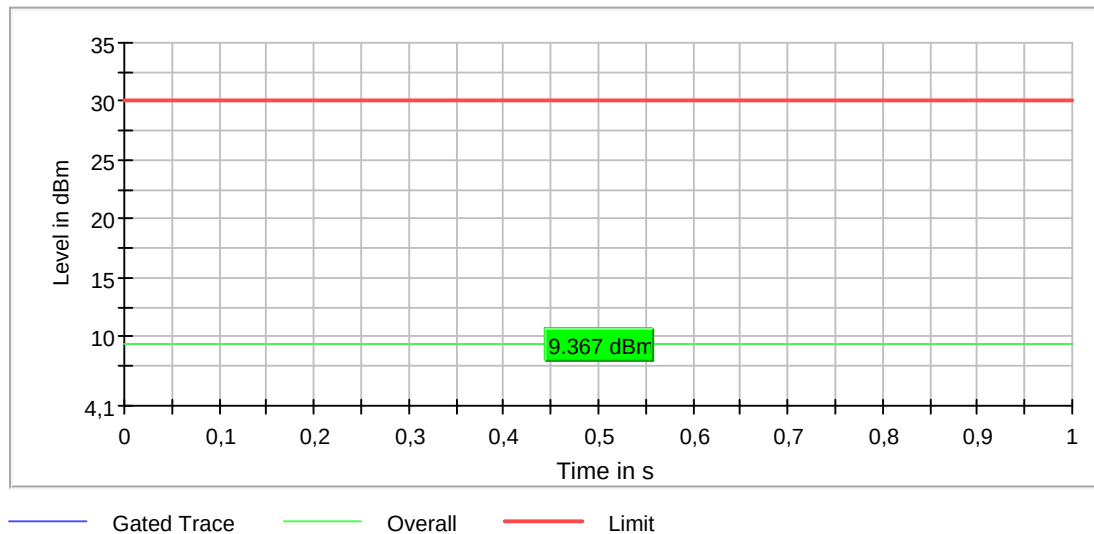
RF output power / Duty Cycle (2440 MHz; DSSS [250kbps] (10 dBm); 5 MHz)

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)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
2440.000000	9.4	30.0	9.4	100.000	PASS

Gated Trace



OSP PowerMeter settings

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

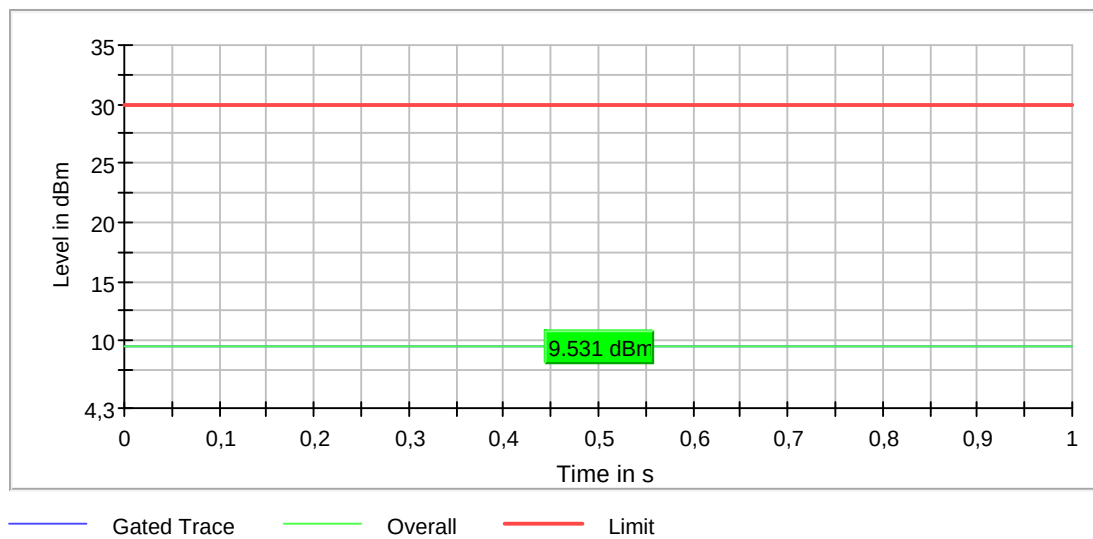
RF output power / Duty Cycle (2480 MHz; DSSS [250kbps] (10 dBm); 5 MHz)

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)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
2480.000000	9.5	30.0	9.5	100.000	PASS

Gated Trace



OSP PowerMeter settings

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

Peak Power Spectral Density (2405 MHz; DSSS [250kbps] (10 dBm); 5 MHz)

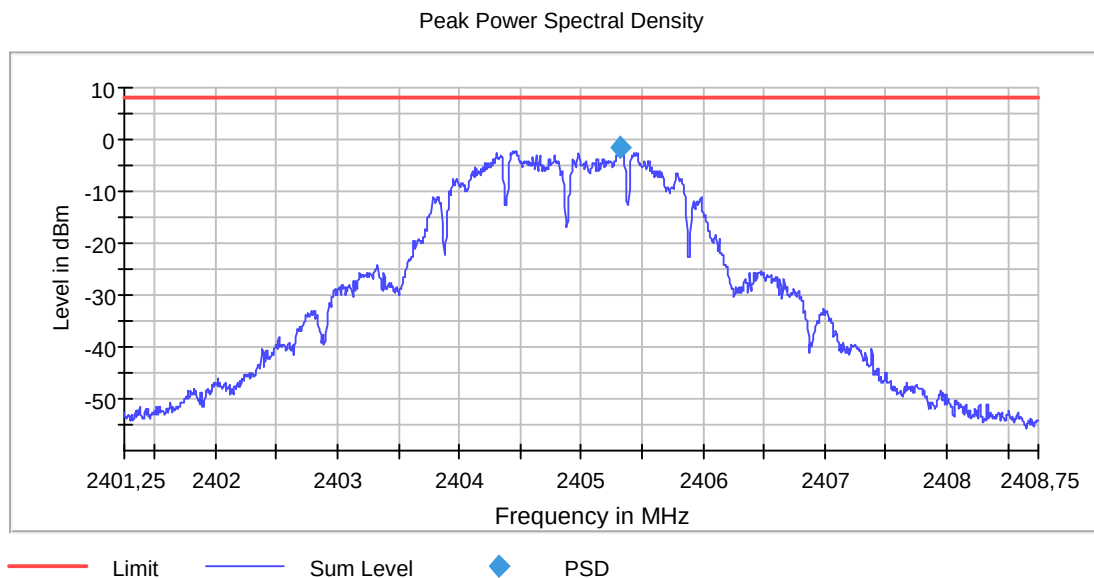
Test according to FCC title 47 part 15 §15.247(a),(e), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

Result

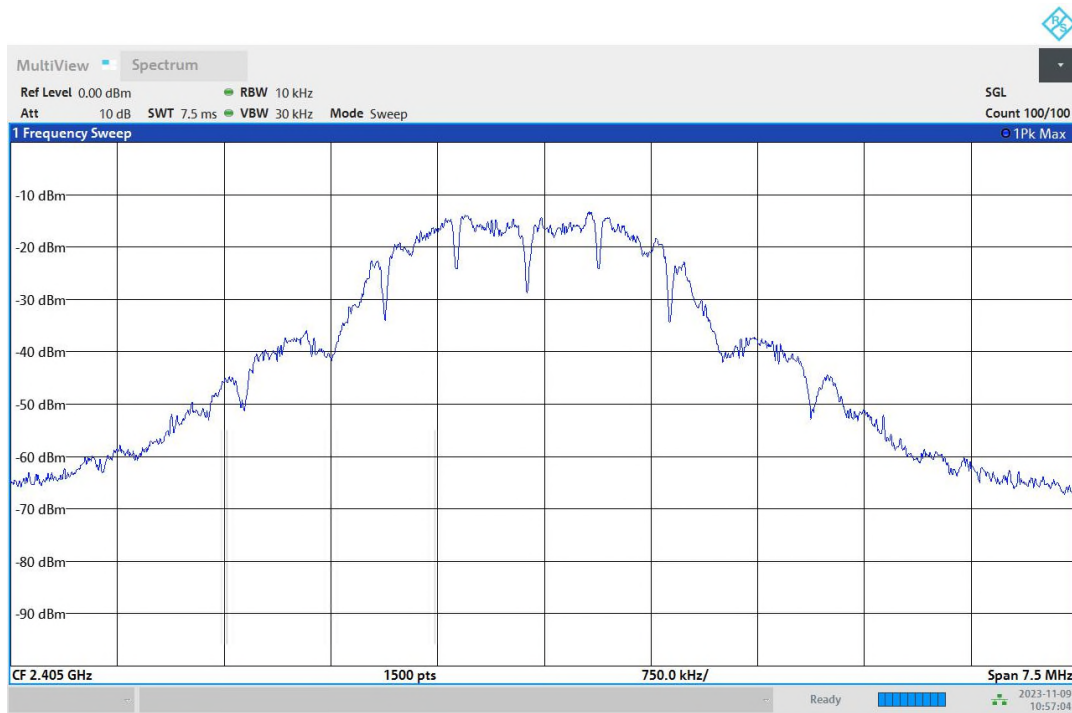
DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2405.000000	2405.317712	-1.700	8.0	PASS

Ports

Port	State
1	used



PSD Connector 1



10:57:05 AM 11/09/2023

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40125 GHz	2.40125 GHz
Stop Frequency	2.40875 GHz	2.40875 GHz
Span	7.500 MHz	7.500 MHz
RBW	10.000 kHz	<= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	1500	~ 1500
SweepTime	7.500 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	22 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.41 dB	0.50 dB

Peak Power Spectral Density (2440 MHz; DSSS [250kbps] (10 dBm); 5 MHz)

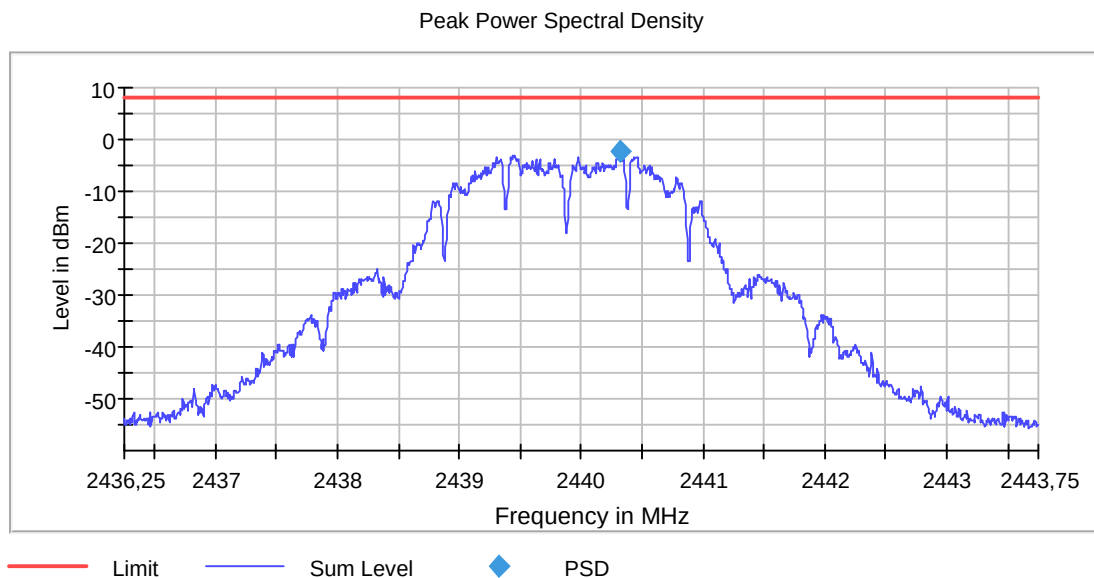
Test according to FCC title 47 part 15 §15.247(a),(e), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2440.000000	2440.312708	-2.478	8.0	PASS

Ports

Port	State
1	used



PSD Connector 1



10:59:40 AM 11/09/2023

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43625 GHz	2.43625 GHz
Stop Frequency	2.44375 GHz	2.44375 GHz
Span	7.500 MHz	7.500 MHz
RBW	10.000 kHz	<= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	1500	~ 1500
SweepTime	7.500 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	16 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.22 dB	0.50 dB

Peak Power Spectral Density (2480 MHz; DSSS [250kbps] (10 dBm); 5 MHz)

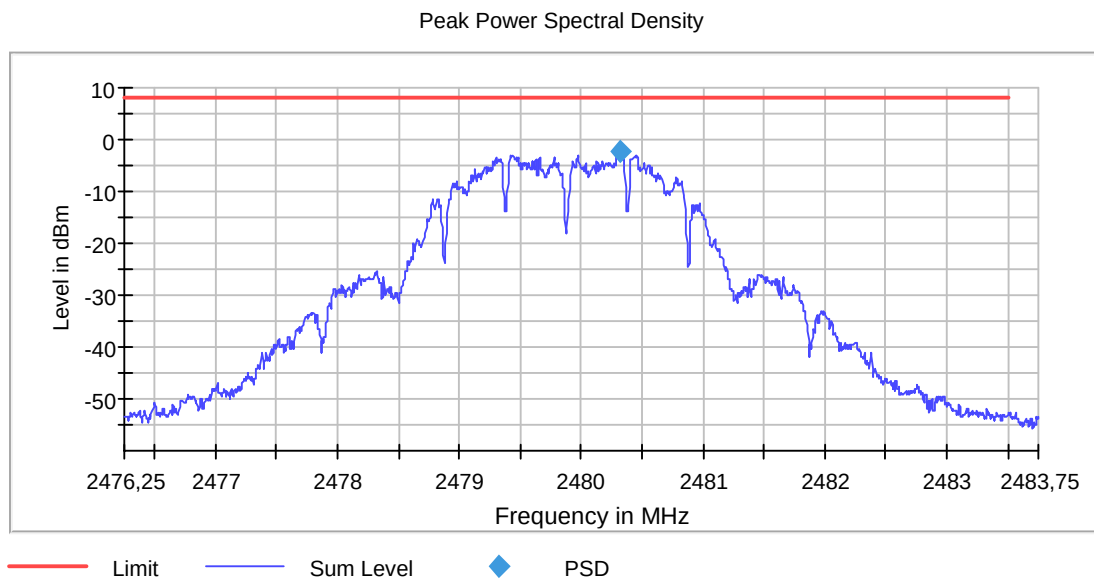
Test according to FCC title 47 part 15 §15.247(a),(e), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

Result

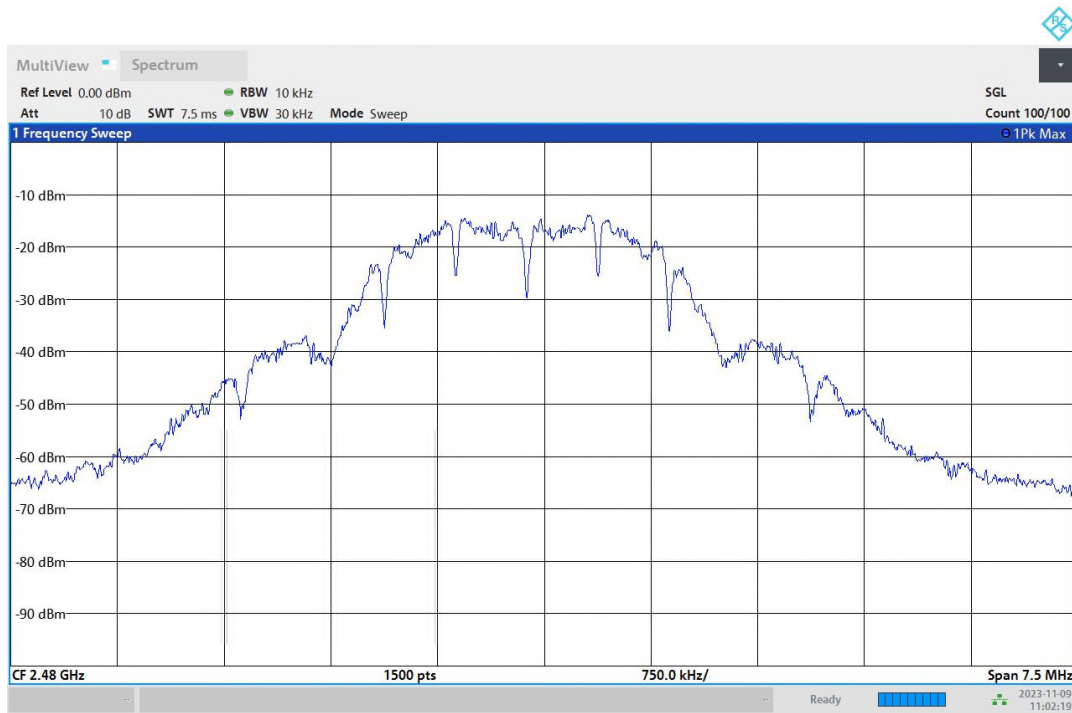
DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2480.000000	2480.312708	-2.223	8.0	PASS

Ports

Port	State
1	used



PSD Connector 1



11:02:19 AM 11/09/2023

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47625 GHz	2.47625 GHz
Stop Frequency	2.48375 GHz	2.48375 GHz
Span	7.500 MHz	7.500 MHz
RBW	10.000 kHz	<= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	1500	~ 1500
SweepTime	7.500 ms	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	20 / max. 150	max. 150
Stable	2 / 2	2
Max Stable Difference	0.22 dB	0.50 dB

Power Spectral Density (2405 MHz; DSSS [250kbps] (10 dBm); 5 MHz)

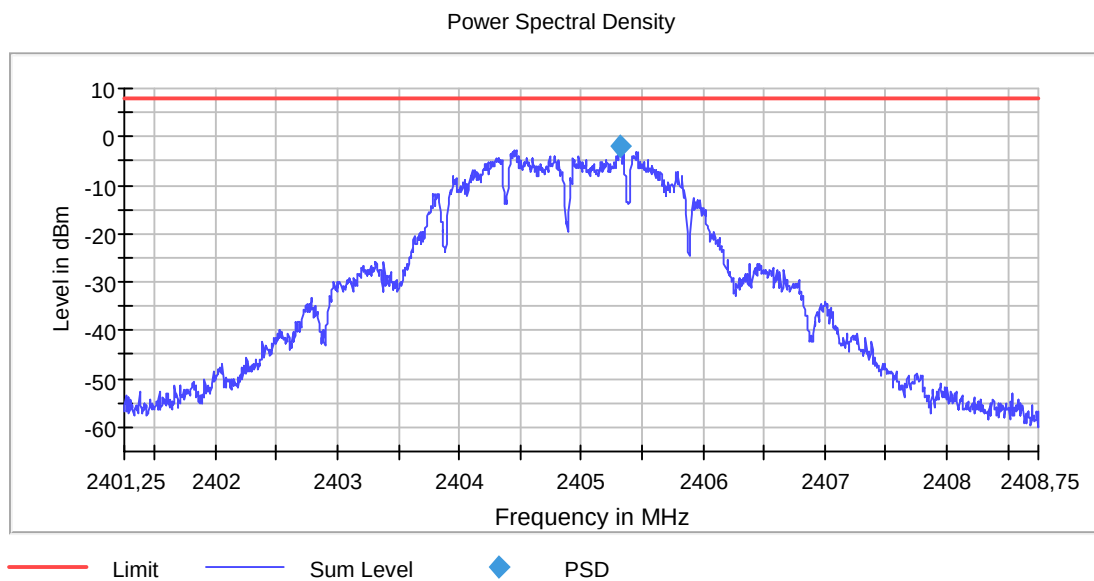
Test according to FCC title 47 part 15 §15.247(a),(e), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

Result

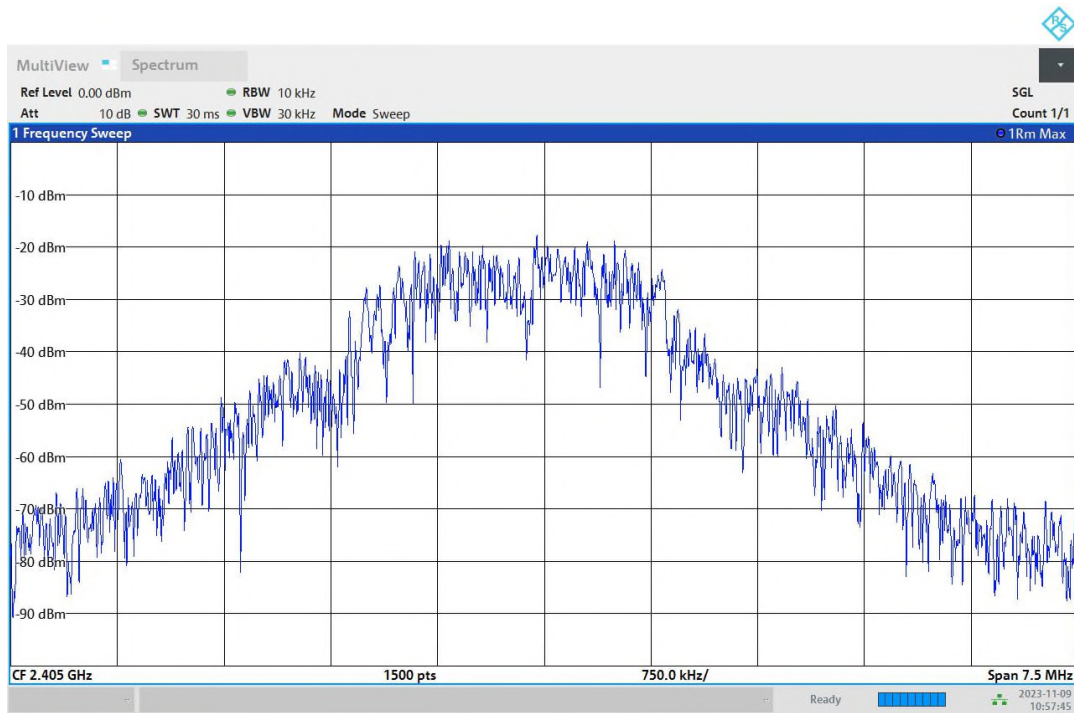
DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2405.000000	2405.317712	-2.033	8.0	PASS

Ports

Port	State
1	used



PSD Connector 1



10:57:46 AM 11/09/2023

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40125 GHz	2.40125 GHz
Stop Frequency	2.40875 GHz	2.40875 GHz
Span	7.500 MHz	7.500 MHz
RBW	10.000 kHz	<= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	1500	~ 1500
SweepTime	30.000 ms	30.000 ms
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	AUTO
Detector	RMS	RMS
SweepCount	1	1
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	84 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.47 dB	0.50 dB

Power Spectral Density (2440 MHz; DSSS [250kbps] (10 dBm); 5 MHz)

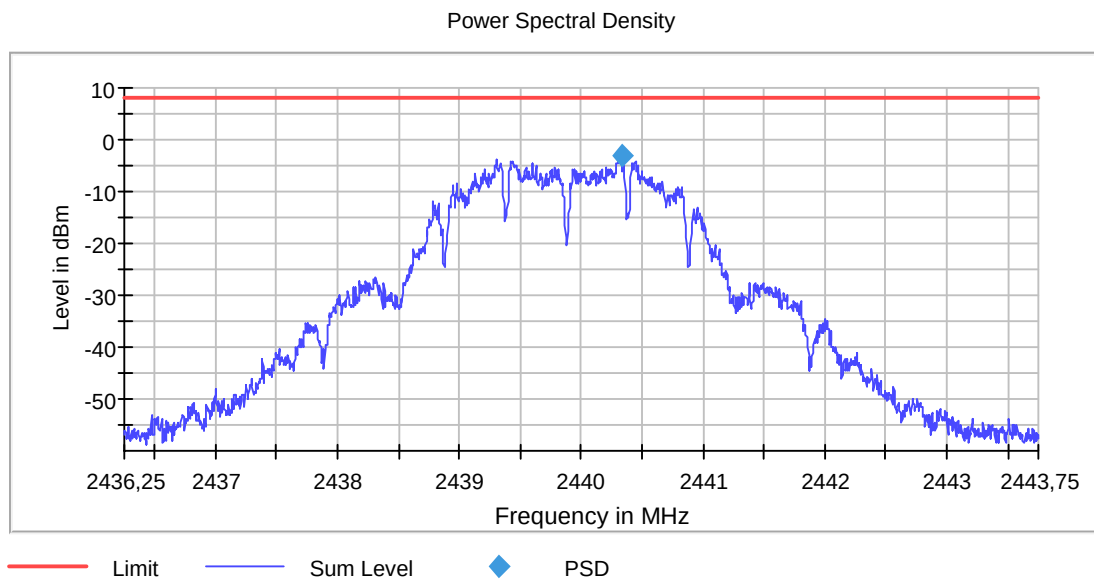
Test according to FCC title 47 part 15 §15.247(a),(e), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

Result

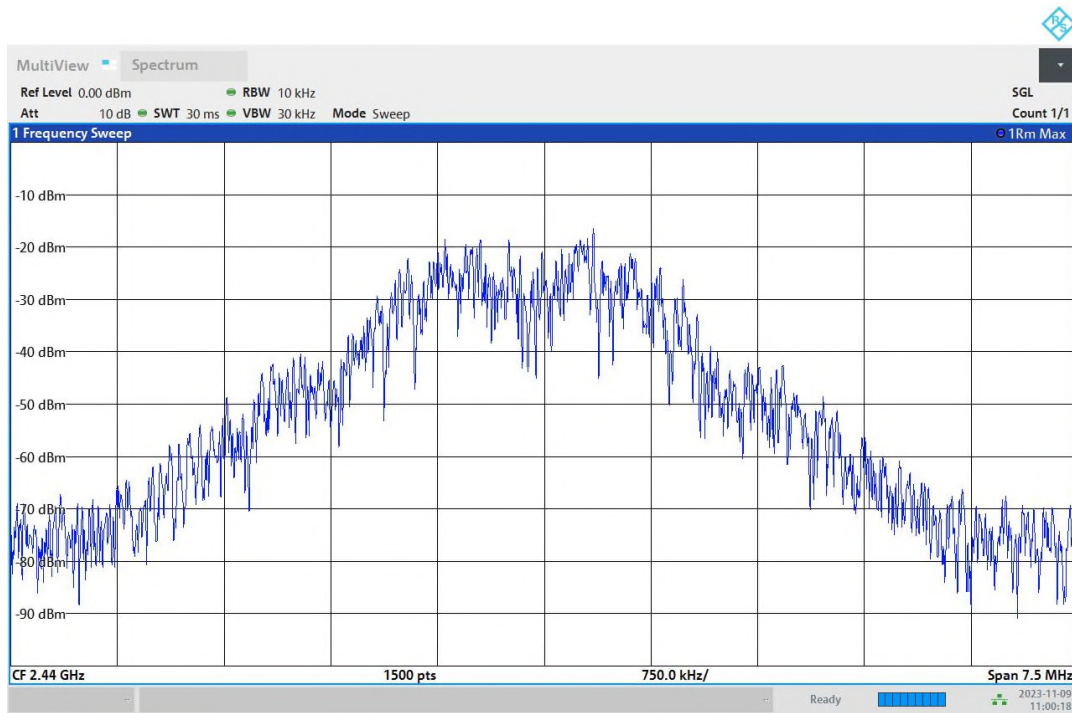
DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2440.000000	2440.327718	-3.140	8.0	PASS

Ports

Port	State
1	used



PSD Connector 1



11:00:18 AM 11/09/2023

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43625 GHz	2.43625 GHz
Stop Frequency	2.44375 GHz	2.44375 GHz
Span	7.500 MHz	7.500 MHz
RBW	10.000 kHz	<= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	1500	~ 1500
SweepTime	30.000 ms	30.000 ms
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	AUTO
Detector	RMS	RMS
SweepCount	1	1
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	81 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.45 dB	0.50 dB

Power Spectral Density (2480 MHz; DSSS [250kbps] (10 dBm); 5 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

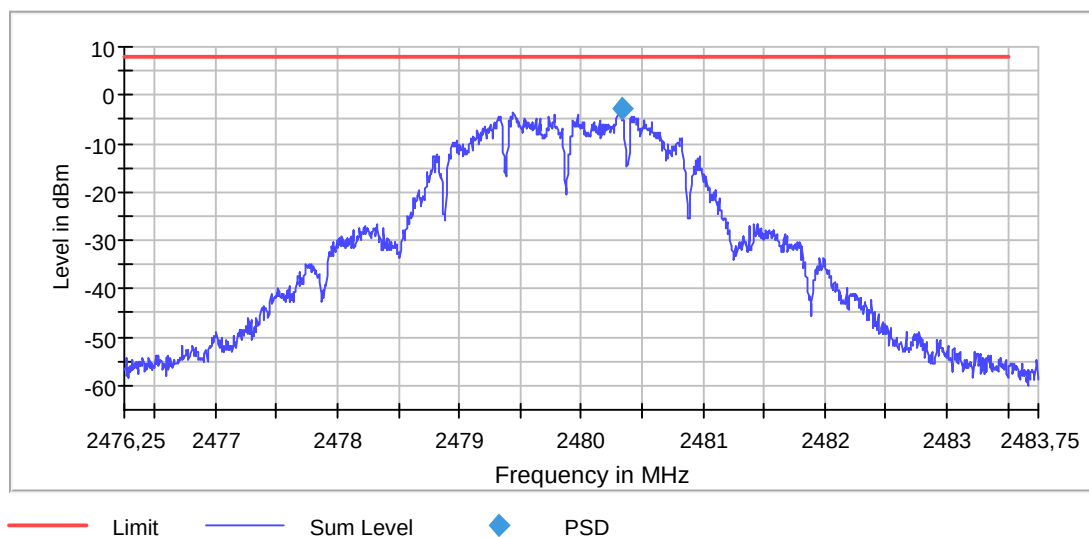
Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2480.000000	2480.327718	-2.941	8.0	PASS

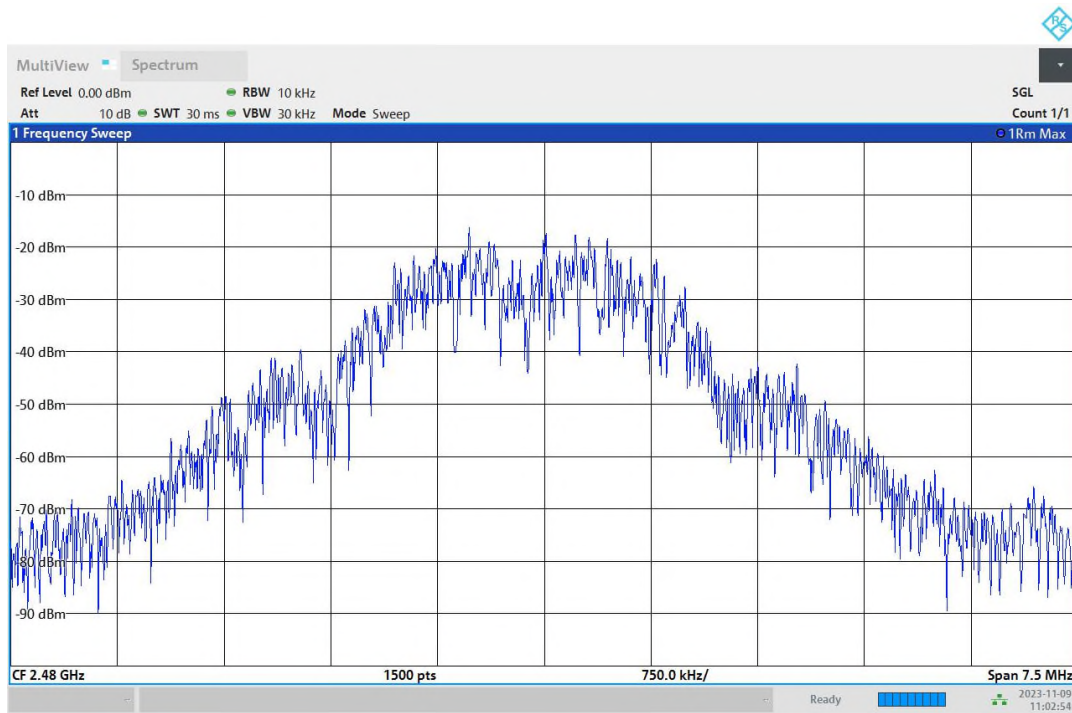
Ports

Port	State
1	used

Power Spectral Density



PSD Connector 1



11:02:55 AM 11/09/2023

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47625 GHz	2.47625 GHz
Stop Frequency	2.48375 GHz	2.48375 GHz
Span	7.500 MHz	7.500 MHz
RBW	10.000 kHz	<= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	1500	~ 1500
SweepTime	30.000 ms	30.000 ms
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	AUTO
Detector	RMS	RMS
SweepCount	1	1
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	78 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.29 dB	0.50 dB

Occupied Channel Bandwidth 99% (2405 MHz; DSSS [250kbps] (10 dBm); 5 MHz)

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

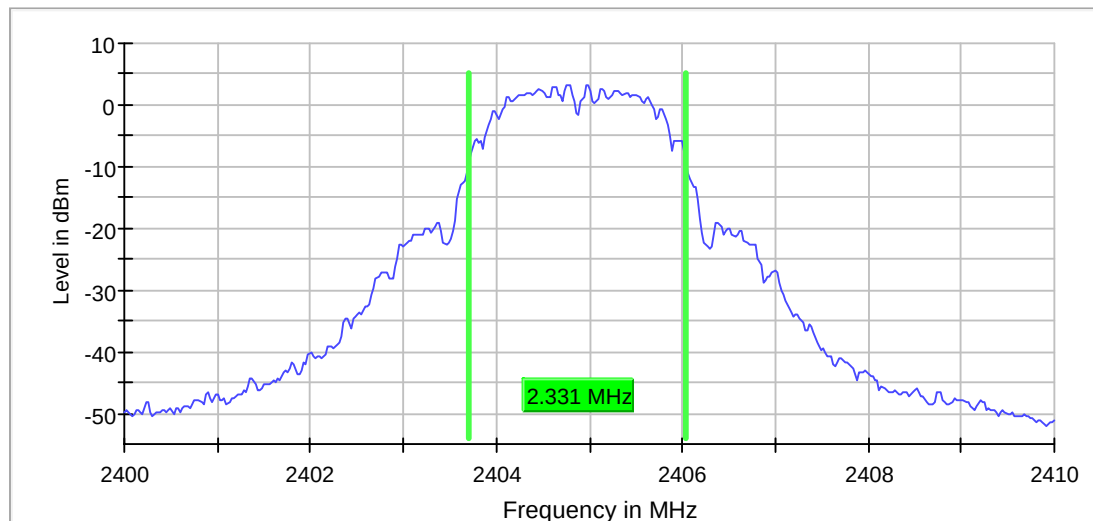
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2405.000000	2.330827	---	---	2403.709273	2406.040100

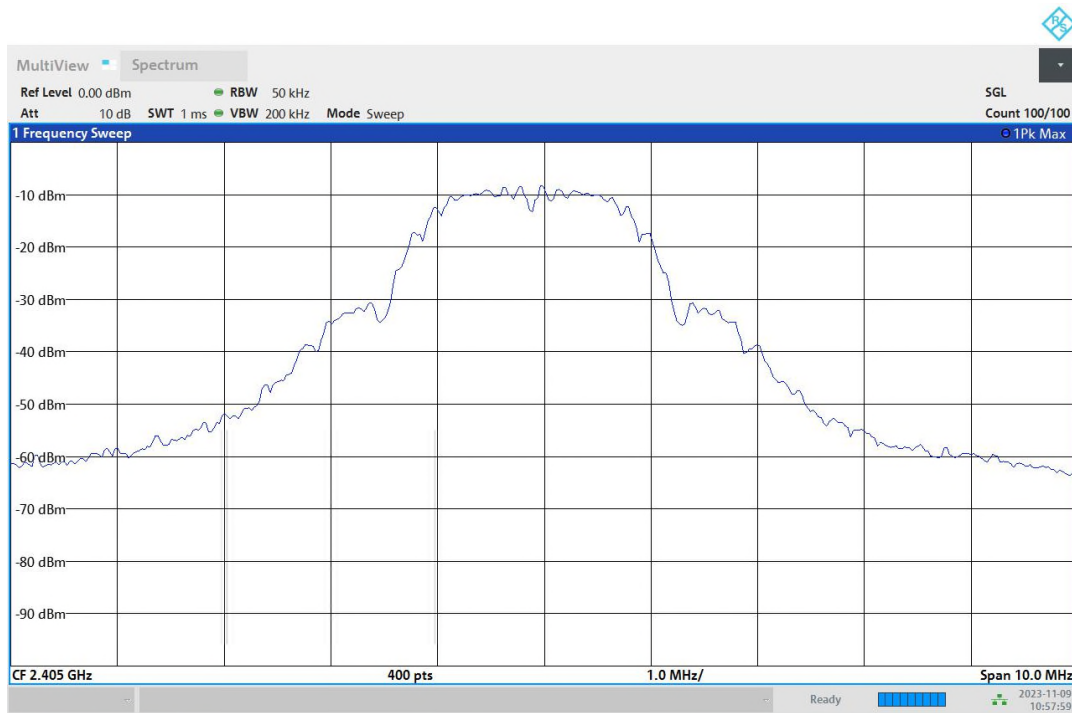
(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2405.000000	PASS

99 % Bandwidth



Bandwidth



10:58:00 AM 11/09/2023

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.41000 GHz	2.41000 GHz
Span	10.000 MHz	10.000 MHz
RBW	50.000 kHz	>= 50.000 kHz
VBW	200.000 kHz	>= 150.000 kHz
SweepPoints	400	~ 400
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	0.30 dB	0.30 dB
Run	18 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.26 dB	0.30 dB

Occupied Channel Bandwidth 99% (2440 MHz; DSSS [250kbps] (10 dBm); 5 MHz)

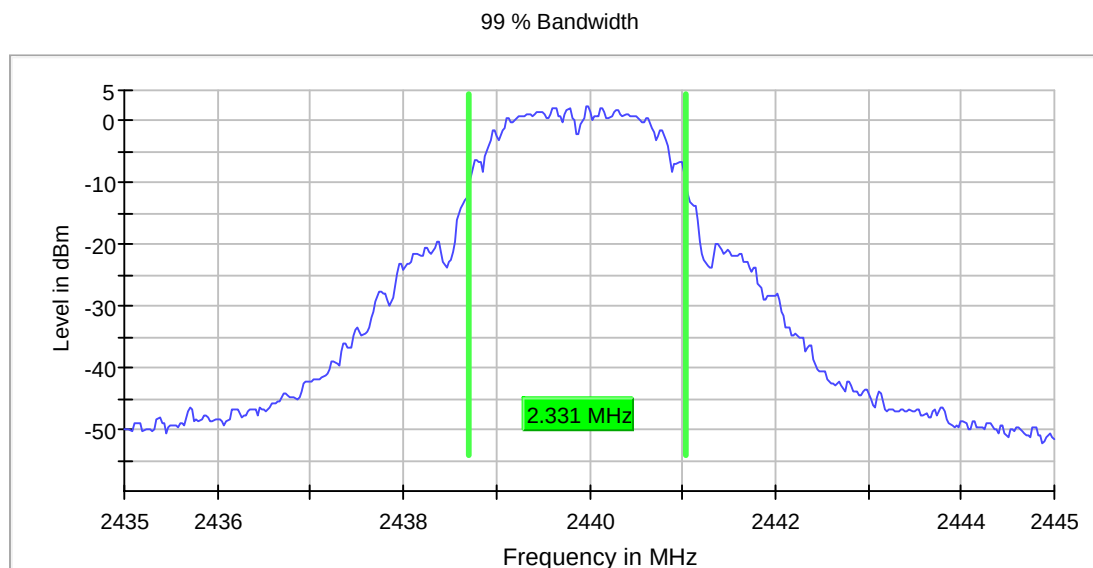
Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

99 % Bandwidth

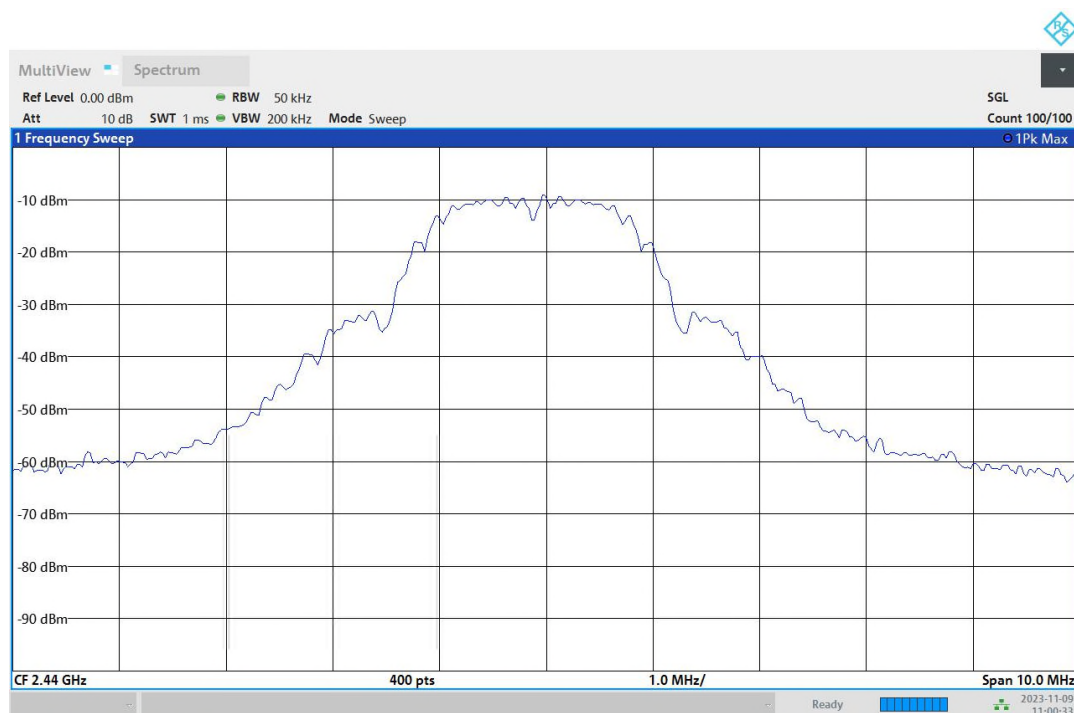
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	2.330827	---	---	2438.709273	2441.040100

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

DUT Frequency (MHz)	Result
2440.000000	PASS



Bandwidth



11:00:33 AM 11/09/2023

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43500 GHz	2.43500 GHz
Stop Frequency	2.44500 GHz	2.44500 GHz
Span	10.000 MHz	10.000 MHz
RBW	50.000 kHz	>= 50.000 kHz
VBW	200.000 kHz	>= 150.000 kHz
SweepPoints	400	~ 400
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	0.30 dB	0.30 dB
Run	22 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.24 dB	0.30 dB

Occupied Channel Bandwidth 99% (2480 MHz; DSSS [250kbps] (10 dBm); 5 MHz)

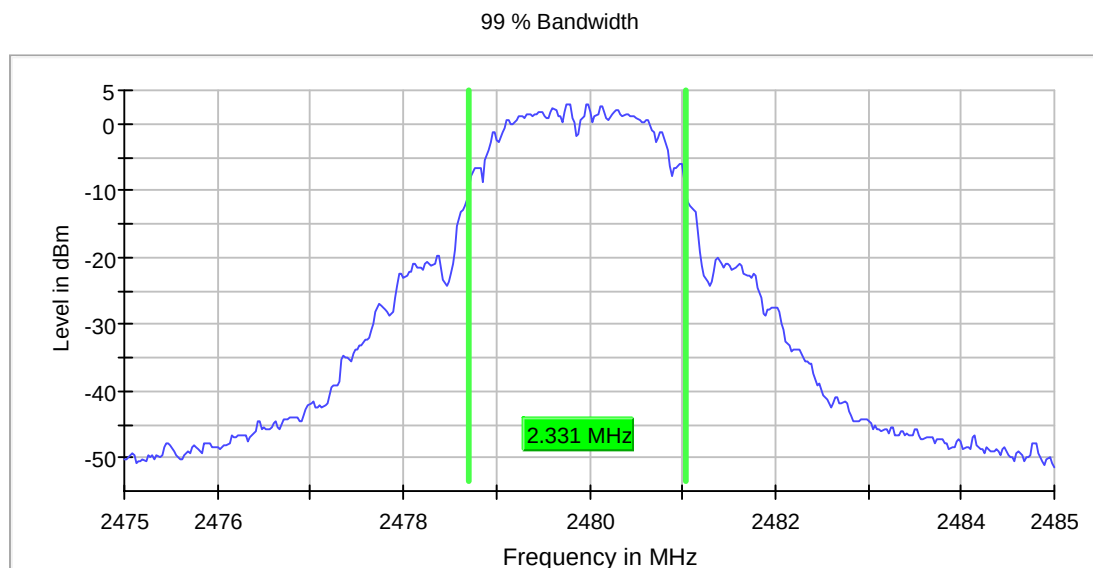
Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

99 % Bandwidth

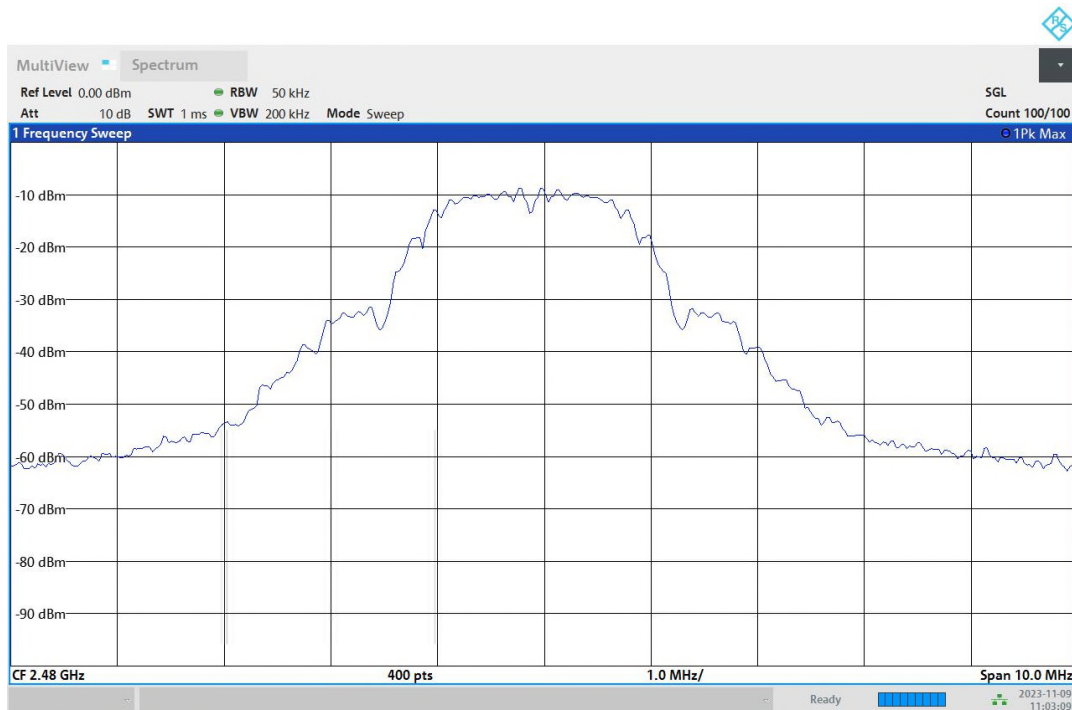
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	2.330827	---	---	2478.709273	2481.040100

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

DUT Frequency (MHz)	Result
2480.000000	PASS



Bandwidth



11:03:09 AM 11/09/2023

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47500 GHz	2.47500 GHz
Stop Frequency	2.48500 GHz	2.48500 GHz
Span	10.000 MHz	10.000 MHz
RBW	50.000 kHz	>= 50.000 kHz
VBW	200.000 kHz	>= 150.000 kHz
SweepPoints	400	~ 400
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	0.30 dB	0.30 dB
Run	19 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.23 dB	0.30 dB

Tx Spurious Emission (2405 MHz; DSSS [250kbps] (10 dBm); 5 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
2405.000000	PASS

Inband Peak

Frequency (MHz)	Level (dBm)
2405.010000	7.8

Final measurements

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

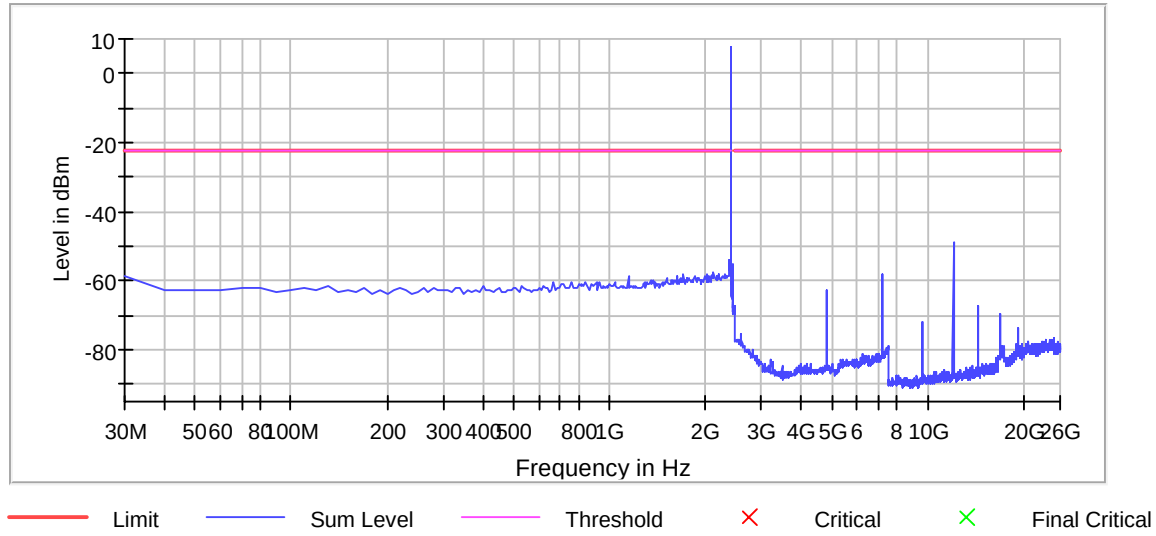
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
12022.080357	-48.7	26.4	-22.2
2370.000000	-54.2	32.0	-22.2
12032.078869	-55.9	33.6	-22.2
2390.000000	-56.6	34.4	-22.2
2380.000000	-57.1	34.9	-22.2
2120.000000	-57.6	35.3	-22.2
7212.796131	-57.9	35.7	-22.2
2100.000000	-58.1	35.9	-22.2
1710.000000	-58.2	35.9	-22.2
2210.000000	-58.3	36.0	-22.2
2320.000000	-58.3	36.0	-22.2
2030.000000	-58.3	36.1	-22.2
2300.000000	-58.4	36.1	-22.2
1850.000000	-58.4	36.2	-22.2
2290.000000	-58.5	36.2	-22.2

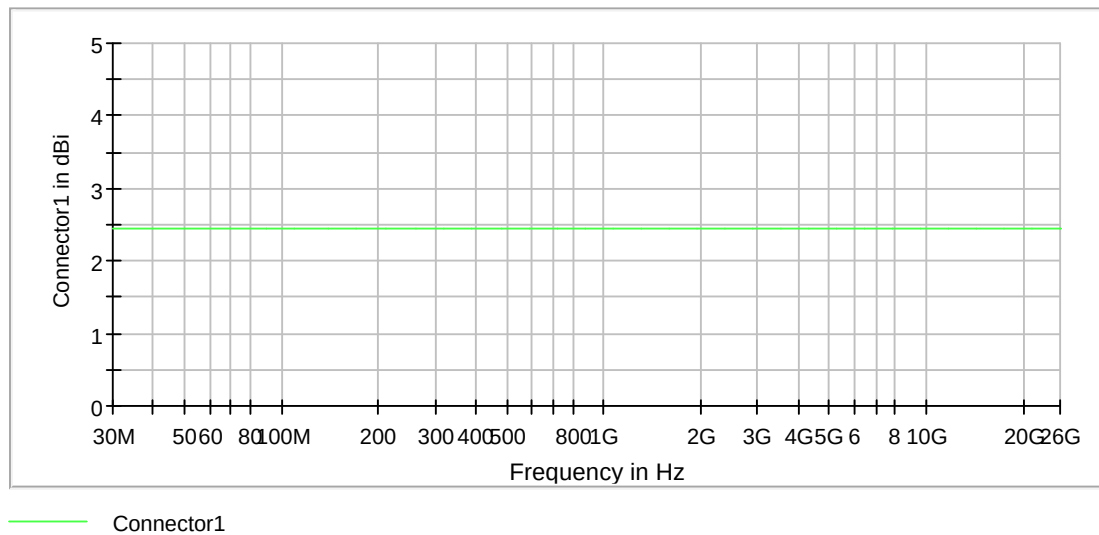
Measurement Settings

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

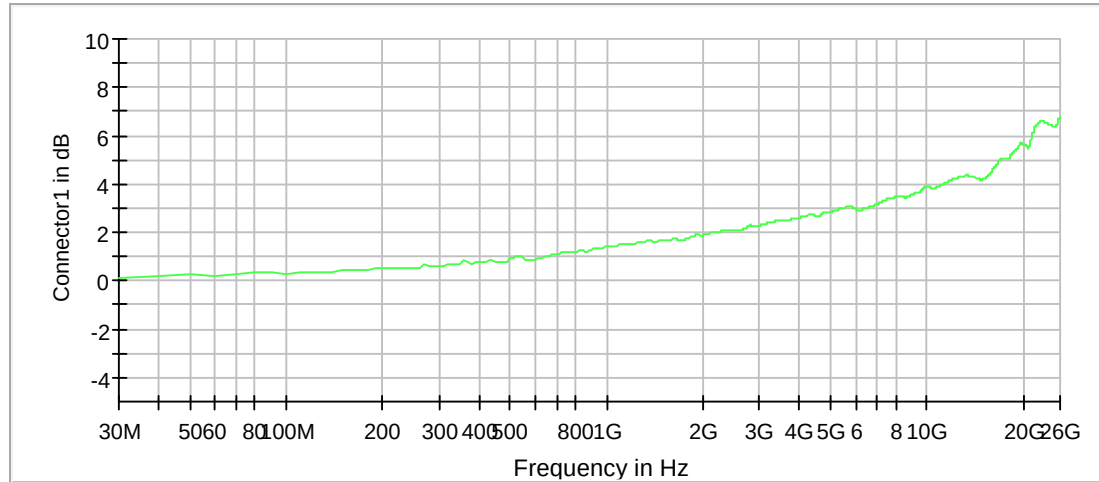
Spurious



Gain

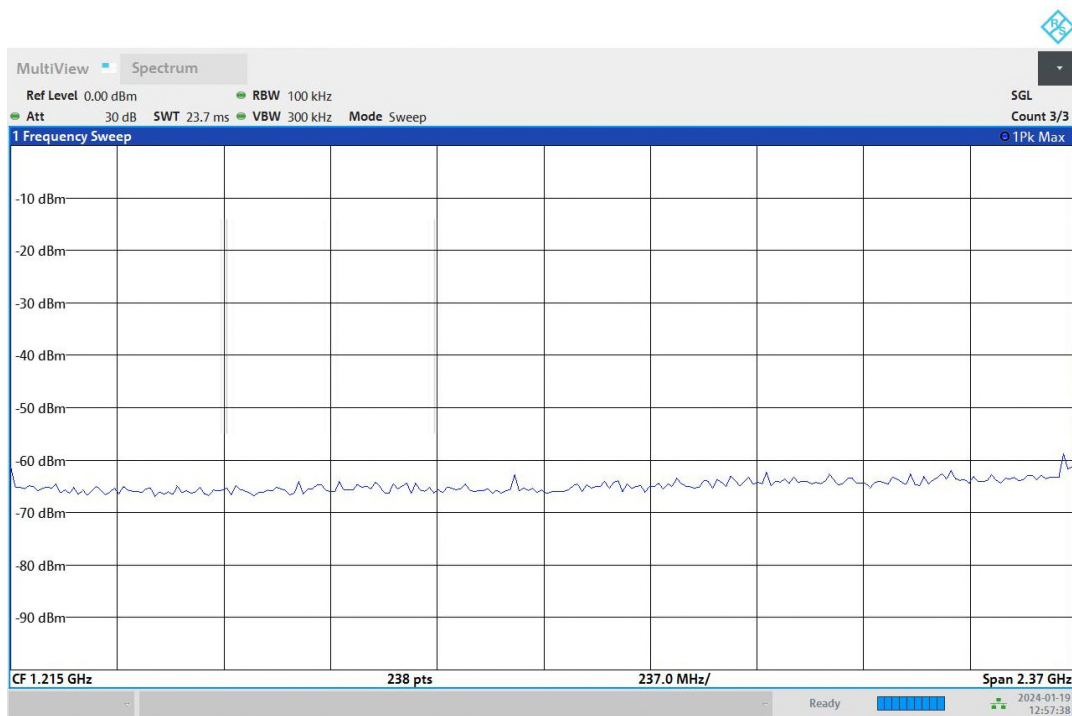


Attenuation

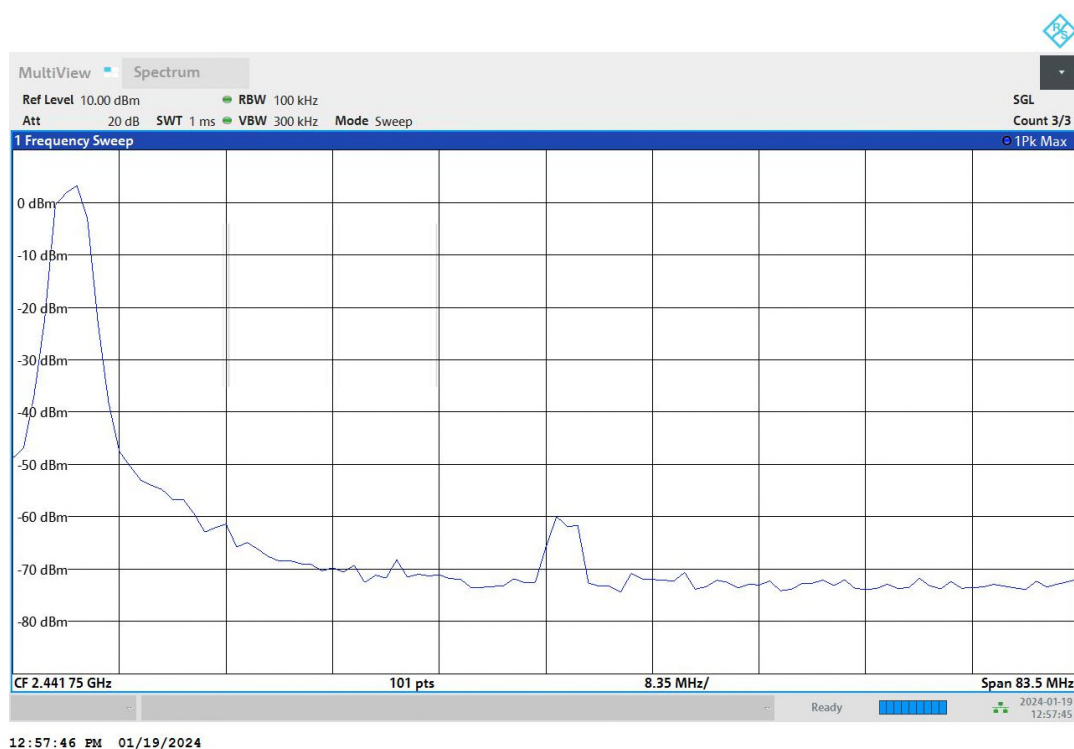


Connector1

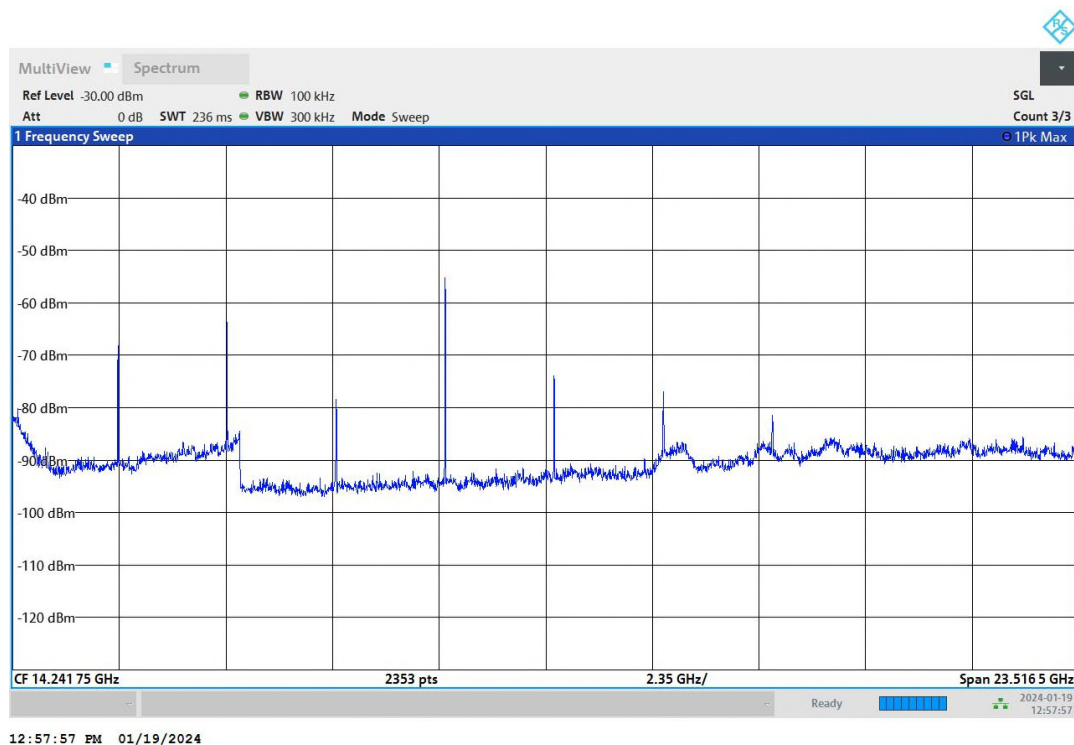
Spurious Connector 1_0



Spurious Connector 1_1



Spurious Connector 1_2



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	0.000 dBm	-30.000 dBm
Attenuation	30.000 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 (2440 MHz; DSSS [250kbps] (10 dBm); 5 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

Inband Peak

Frequency (MHz)	Level (dBm)
2439.245000	6.1

Final measurements

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

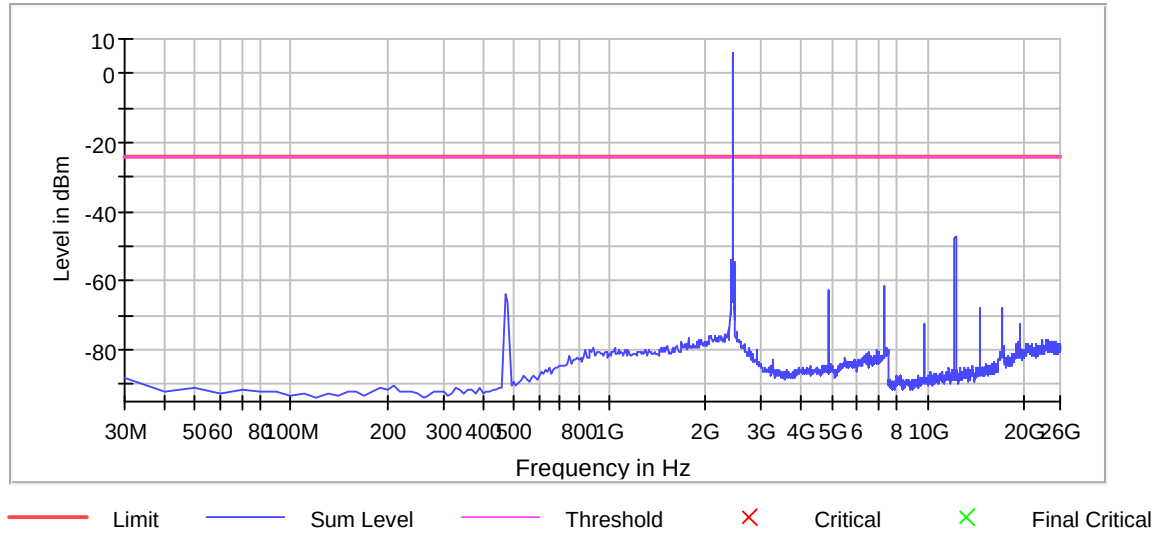
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
12202.053571	-47.1	23.3	-23.9
12192.055060	-47.4	23.6	-23.9
7312.781250	-61.4	37.6	-23.9
7322.779762	-62.0	38.2	-23.9
4873.144345	-62.6	38.7	-23.9
470.000000	-64.1	40.3	-23.9
480.000000	-66.0	42.1	-23.9
14631.691964	-67.9	44.0	-23.9
17081.327381	-67.9	44.0	-23.9
2390.000000	-68.0	44.1	-23.9
14641.690476	-68.6	44.8	-23.9
17071.328869	-69.2	45.3	-23.9
9762.416667	-72.4	48.6	-23.9
19520.964286	-72.5	48.6	-23.9
9752.418155	-72.7	48.8	-23.9

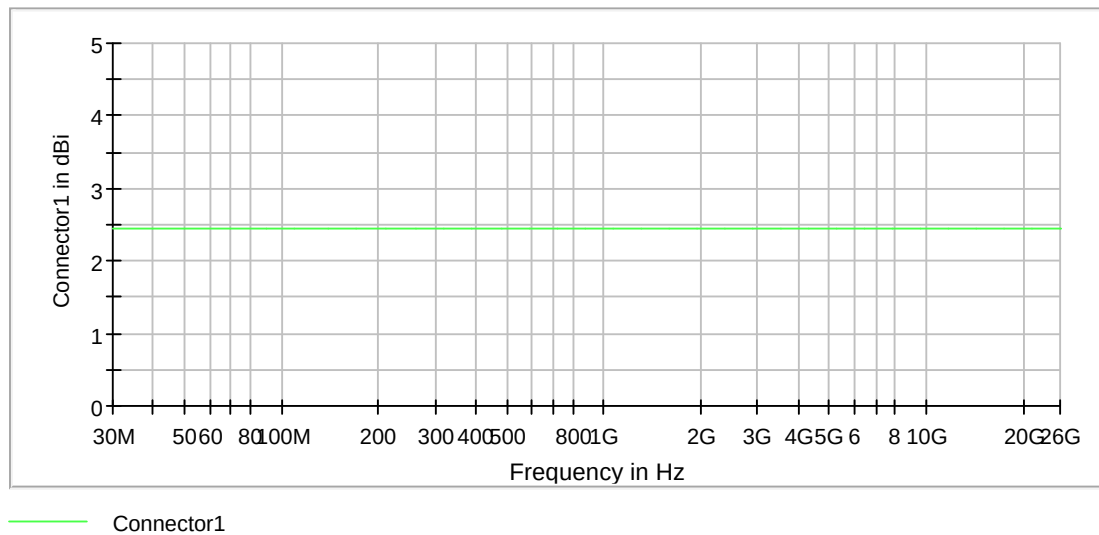
Measurement Settings

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

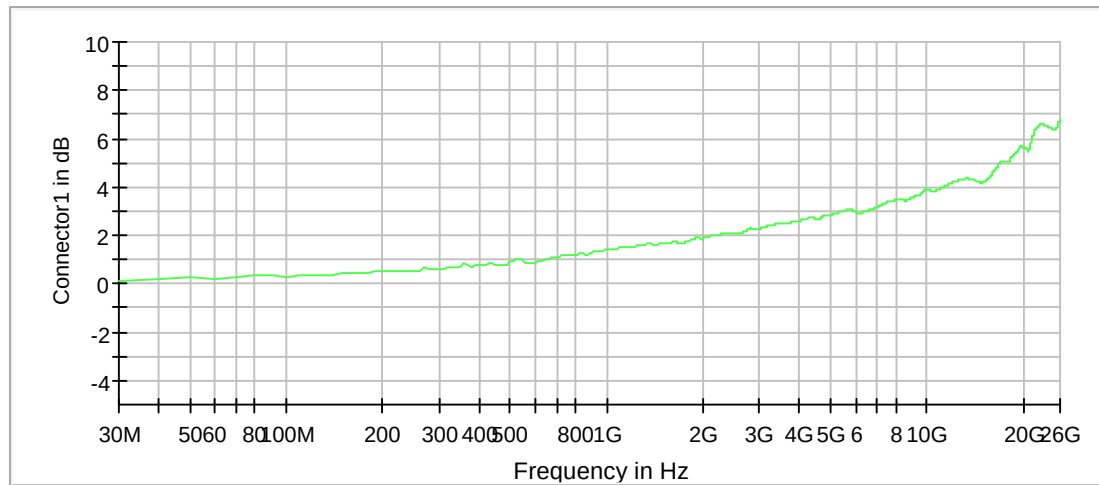
Spurious



Gain

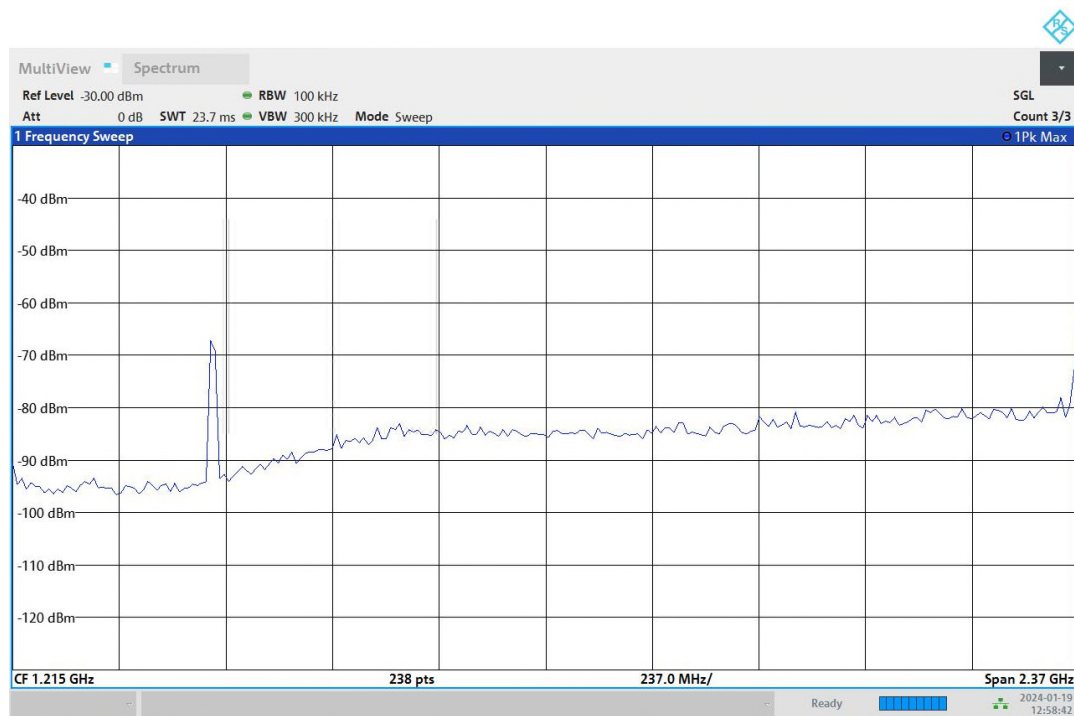


Attenuation



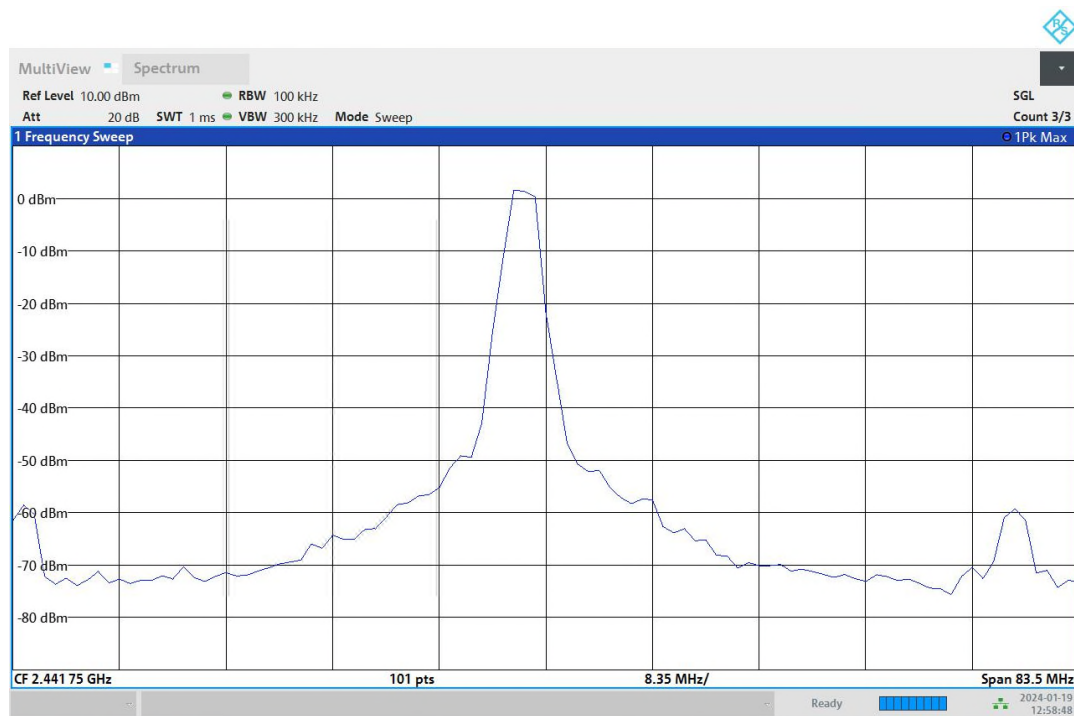
Connector1

Spurious Connector 1_0



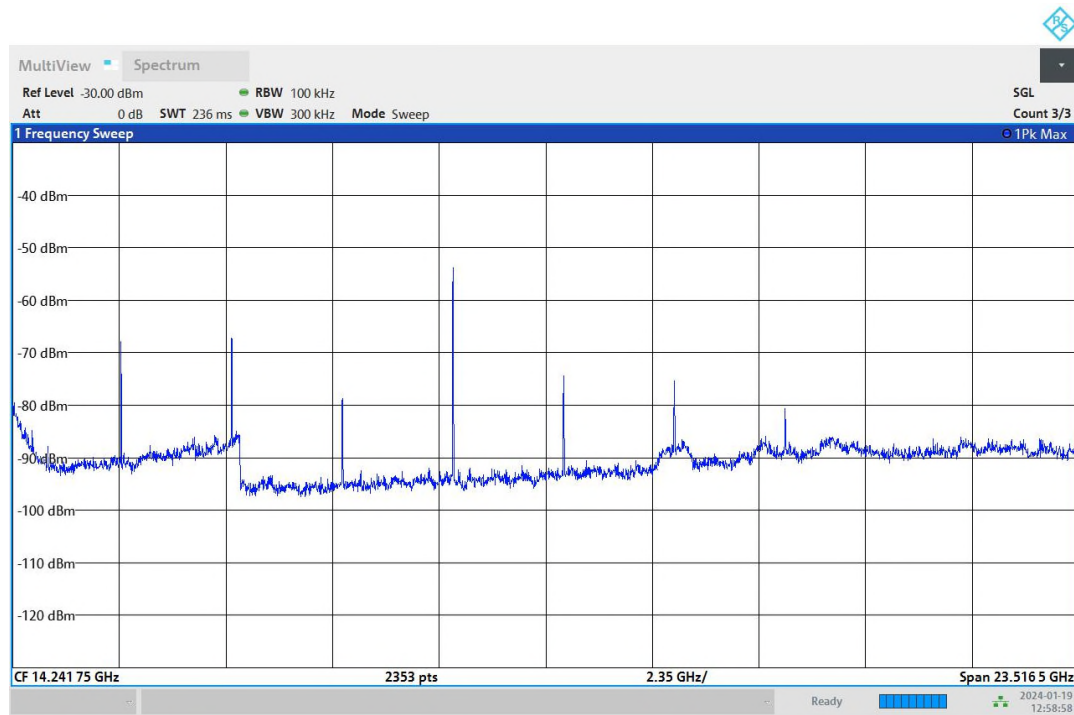
12:58:43 PM 01/19/2024

Spurious Connector 1_1



12:58:49 PM 01/19/2024

Spurious Connector 1_2



12:58:59 PM 01/19/2024

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
Preamplifier	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	0.40 dB	0.50 dB

Tx Spurious Emission (2480 MHz; DSSS [250kbps] (10 dBm); 5 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

Inband Peak

Frequency (MHz)	Level (dBm)
2480.160000	5.7

Final measurements

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

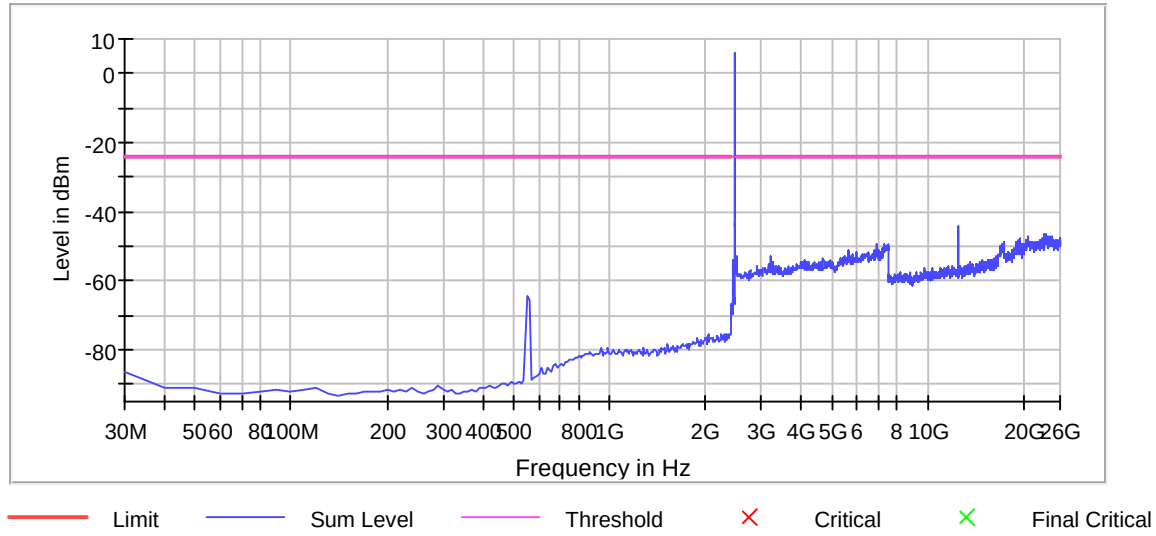
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
12392.025298	-44.2	19.8	-24.3
12402.023810	-44.7	20.4	-24.3
23640.351190	-46.6	22.3	-24.3
23060.437500	-46.7	22.4	-24.3
24640.202381	-47.1	22.8	-24.3
24020.294643	-47.1	22.8	-24.3
20520.815476	-47.1	22.8	-24.3
23490.373512	-47.1	22.8	-24.3
23920.309524	-47.4	23.1	-24.3
24410.236607	-47.5	23.2	-24.3
25840.023810	-47.6	23.3	-24.3
24250.260417	-47.6	23.3	-24.3
24490.224702	-47.7	23.4	-24.3
24540.217262	-47.7	23.4	-24.3
23430.382440	-47.8	23.5	-24.3

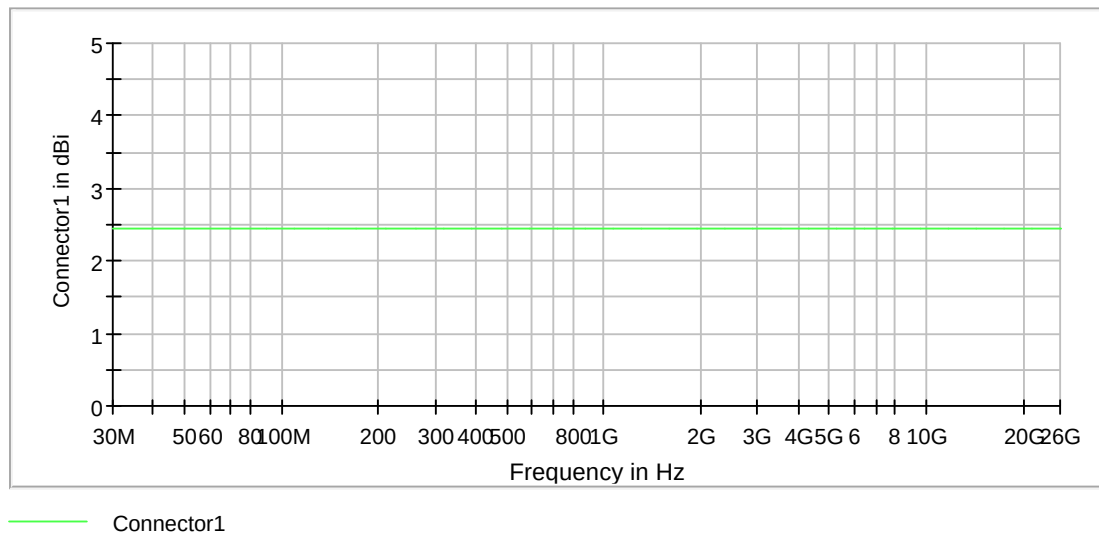
Measurement Settings

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

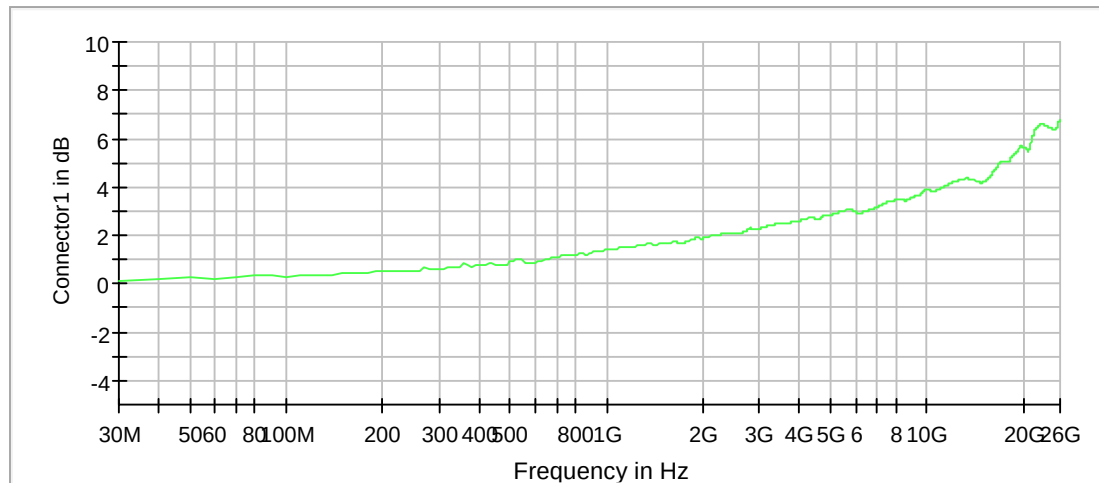
Spurious



Gain

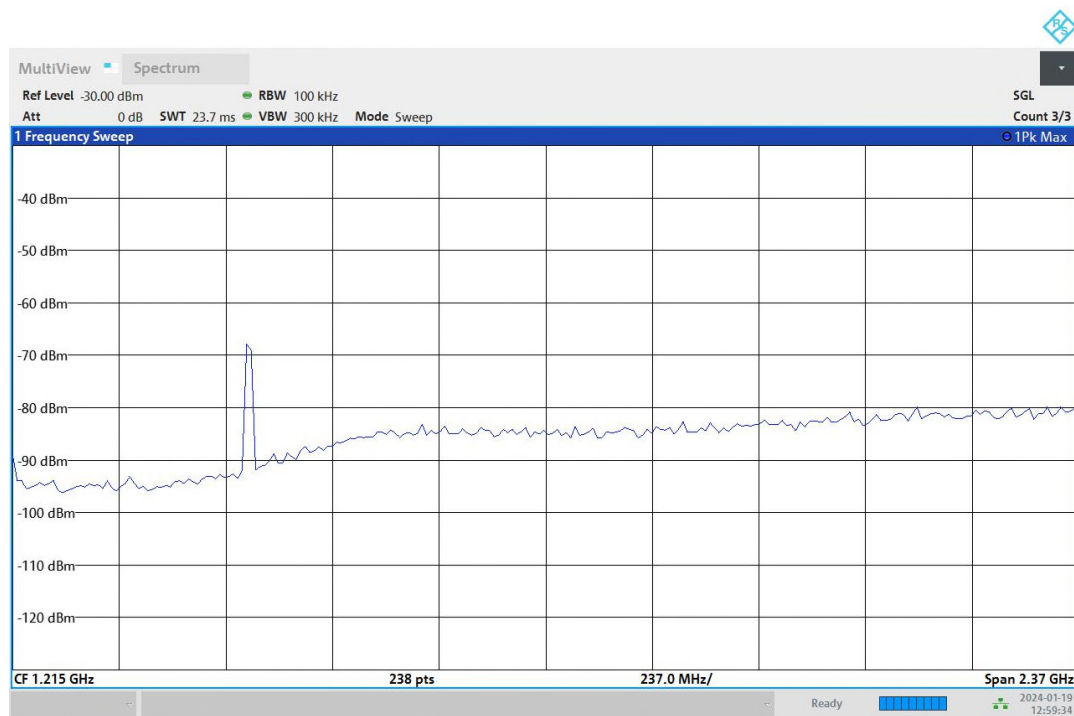


Attenuation



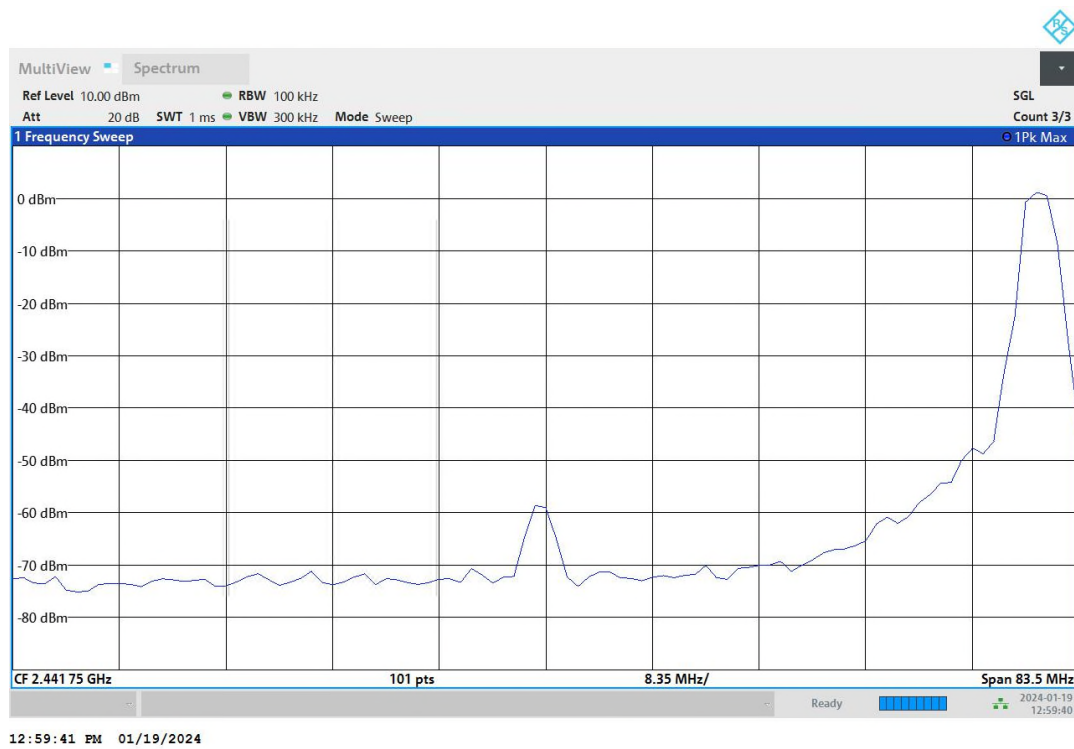
Connector1

Spurious Connector 1_0

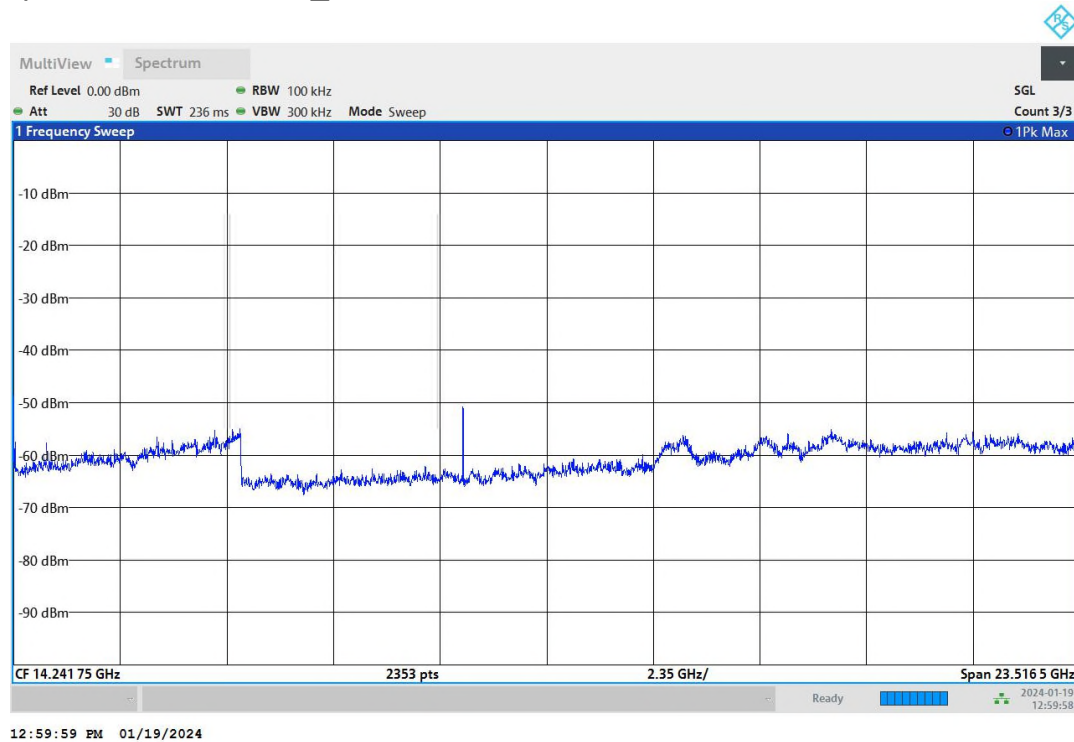


12:59:34 PM 01/19/2024

Spurious Connector 1_1



Spurious Connector 1_2



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

1.01_low

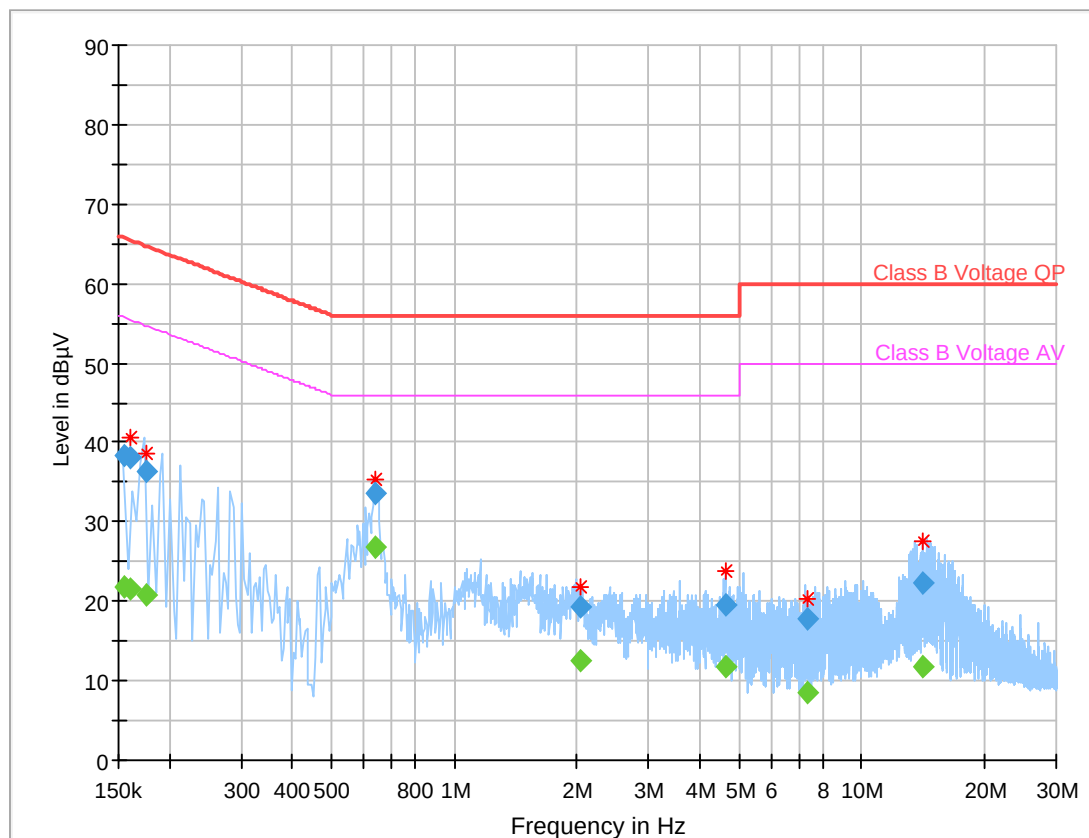
Common Information

Test Description:	Conducted Voltage Measurement Class B
Test Site Location:	Conducted Emission, cetecom advanced GmbH Essen
Test Software:	R&S EMC32 v9.15
Test Standard:	FCC 15.107, FCC 15.207
Operating Mode:	ZigBee CH11
Measured on line:	N/L1
Diagram details:	Shows the peak values as a sum of measured ports in maxhold mode
Environmental Conditions:	Humidity:41%rH; Temperature: 22°C
Operator:	SOz
Comments:	
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	23-1-00516S05_C01
Power:	120 V AC / 60Hz

Full Spectrum



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	PE	Corr. (dB)
0.155000	---	21.75	55.73	33.98	1000.0	9.000	L1	GND	0.1
0.155000	38.28	---	65.73	27.45	1000.0	9.000	L1	GND	0.1
0.160938	---	21.64	55.42	33.78	1000.0	9.000	L1	GND	0.1
0.160938	38.03	---	65.42	27.39	1000.0	9.000	L1	GND	0.1
0.175469	36.40	---	64.70	28.30	1000.0	9.000	N	GND	0.1
0.175469	---	20.73	54.70	33.97	1000.0	9.000	N	GND	0.1
0.641875	33.65	---	56.00	22.35	1000.0	9.000	N	GND	0.2
0.641875	---	26.82	46.00	19.18	1000.0	9.000	N	GND	0.2
2.050469	---	12.63	46.00	33.37	1000.0	9.000	N	GND	0.3
2.050469	19.29	---	56.00	36.71	1000.0	9.000	N	GND	0.3
4.613438	19.48	---	56.00	36.52	1000.0	9.000	N	GND	0.3
4.613438	---	11.80	46.00	34.20	1000.0	9.000	N	GND	0.3
7.365781	17.68	---	60.00	42.32	1000.0	9.000	L1	GND	0.5
7.365781	---	8.61	50.00	41.39	1000.0	9.000	L1	GND	0.5
14.174219	---	11.89	50.00	38.11	1000.0	9.000	N	GND	0.8
14.174219	22.41	---	60.00	37.59	1000.0	9.000	N	GND	0.8

1.02_mid

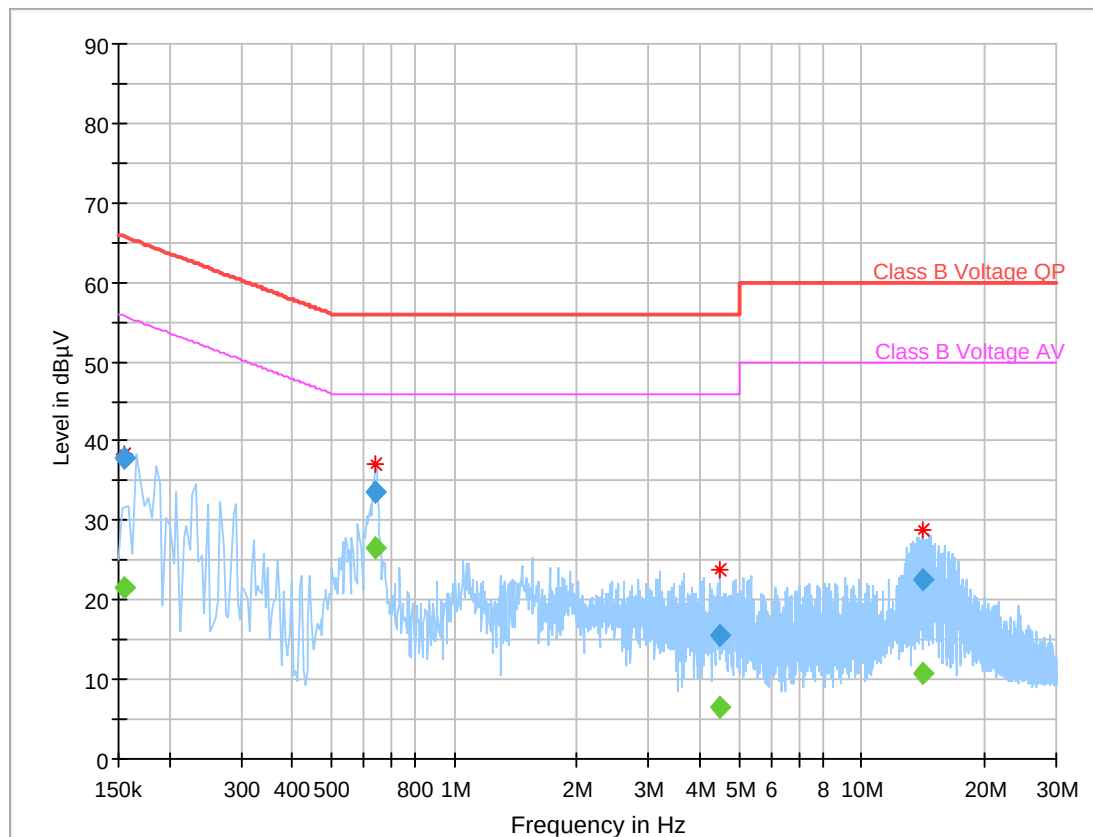
Common Information

Test Description:	Conducted Voltage Measurement Class B
Test Site Location:	Conducted Emission, cetecom advanced GmbH Essen
Test Software:	R&S EMC32 v9.15
Test Standard:	FCC 15.107, FCC 15.207
Operating Mode:	ZigBee CH18
Measured on line:	N/L1
Diagram details:	Shows the peak values as a sum of measured ports in maxhold mode
Environmental Conditions:	Humidity:41%rH; Temperature: 22°C
Operator:	SOz
Comments:	
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	23-1-00516S05_C01
Power:	120 V AC / 60Hz

Full Spectrum



Final Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	PE	Corr. (dB)
0.155000	---	21.61	55.73	34.12	1000.0	9.000	L1	GND	0.1
0.155000	37.90	---	65.73	27.83	1000.0	9.000	L1	GND	0.1
0.643594	---	26.55	46.00	19.45	1000.0	9.000	L1	GND	0.2
0.643594	33.47	---	56.00	22.53	1000.0	9.000	L1	GND	0.2
4.483438	---	6.58	46.00	39.42	1000.0	9.000	L1	GND	0.3
4.483438	15.64	---	56.00	40.36	1000.0	9.000	L1	GND	0.3
14.098281	---	10.74	50.00	39.26	1000.0	9.000	N	GND	0.8
14.098281	22.60	---	60.00	37.40	1000.0	9.000	N	GND	0.8

1.03_high

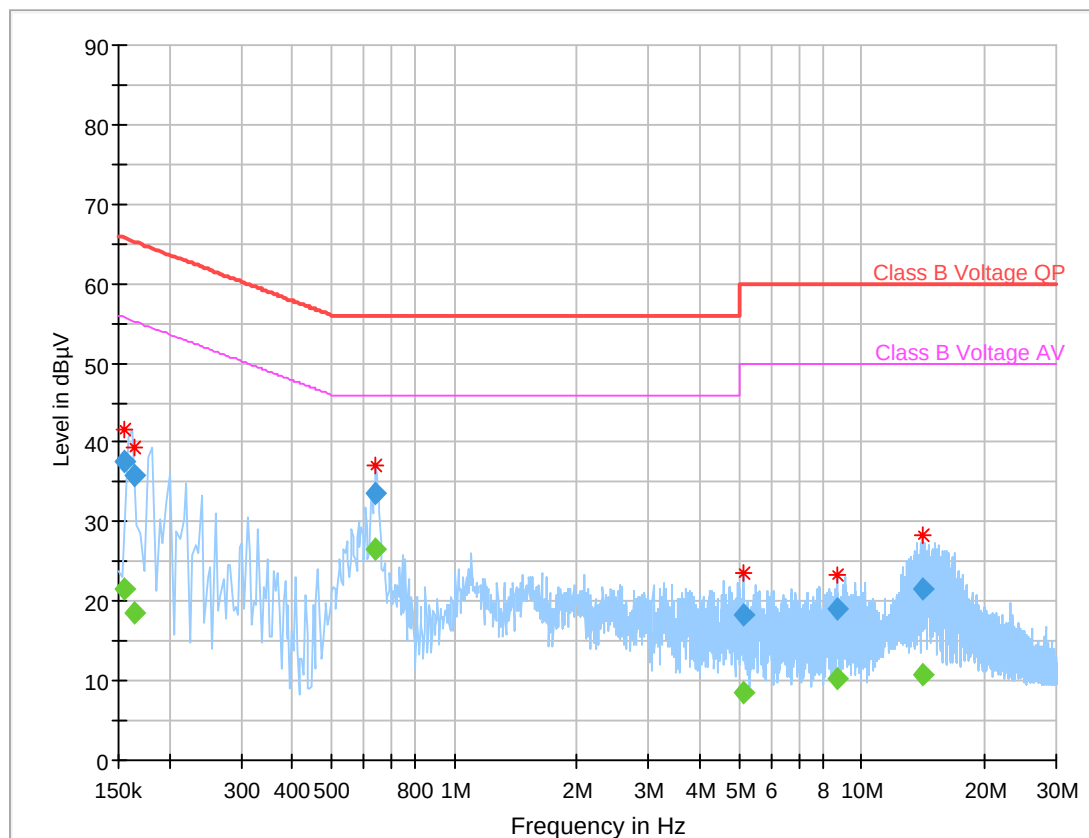
Common Information

Test Description:	Conducted Voltage Measurement Class B
Test Site Location:	Conducted Emission, cetecom advanced GmbH Essen
Test Software:	R&S EMC32 v9.15
Test Standard:	FCC 15.107, FCC 15.207
Operating Mode:	ZigBee CH26
Measured on line:	N/L1
Diagram details:	Shows the peak values as a sum of measured ports in maxhold mode
Environmental Conditions:	Humidity:41%rH; Temperature: 22°C
Operator:	SOz
Comments:	
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	23-1-00516S05_C01
Power:	120 V AC / 60Hz

Full Spectrum



Final Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	PE	Corr. (dB)
0.155000	---	21.55	55.73	34.18	1000.0	9.000	L1	GND	0.1
0.155000	37.68	---	65.73	28.05	1000.0	9.000	L1	GND	0.1
0.163750	---	18.59	55.27	36.68	1000.0	9.000	L1	GND	0.1
0.163750	35.78	---	65.27	29.49	1000.0	9.000	L1	GND	0.1
0.639688	33.57	---	56.00	22.43	1000.0	9.000	N	GND	0.2
0.639688	---	26.63	46.00	19.37	1000.0	9.000	N	GND	0.2
5.122969	---	8.54	50.00	41.46	1000.0	9.000	N	GND	0.3
5.122969	18.24	---	60.00	41.76	1000.0	9.000	N	GND	0.3
8.717813	---	10.21	50.00	39.79	1000.0	9.000	N	GND	0.5
8.717813	19.06	---	60.00	40.94	1000.0	9.000	N	GND	0.5
14.080625	21.54	---	60.00	38.46	1000.0	9.000	L1	GND	0.8
14.080625	---	10.66	50.00	39.34	1000.0	9.000	L1	GND	0.8

2.01a_ZigBee_low_standing

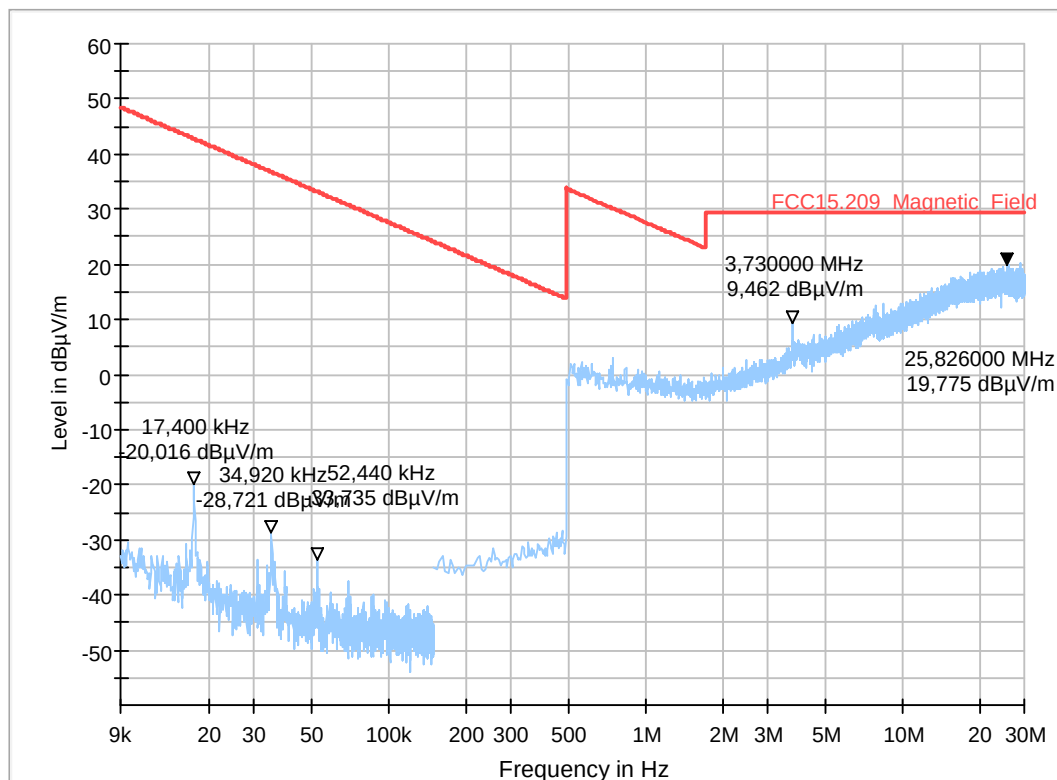
Common Information

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:	SOz
Operating Mode:	TX-on
Power during tests:	120V AC / 60Hz
Comment 1:	Channel low
Environmental Conditions:	Humidity: 40% rH; Temperature: 20 °C
EUT Setup:	01
Verdict:	Passed

EUT Information

PMT number:	23-1-00516S05_C01
Power:	120V AC / 60Hz

Full Spectrum



2.01b_ZigBee_low_laying

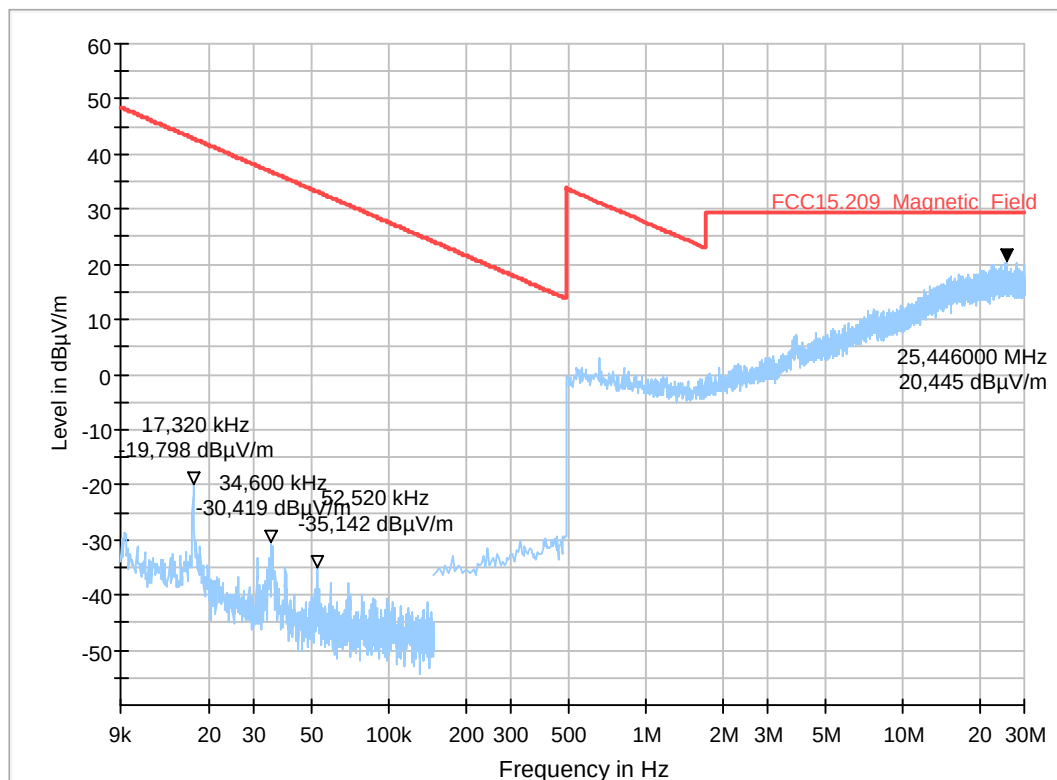
Common Information

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:	SOz
Operating Mode:	TX-on
Power during tests:	120V AC / 60Hz
Comment 1:	Channel low
Environmental Conditions:	Humidity: 40% rH; Temperature: 20 °C
EUT Setup:	01
Verdict:	Passed

EUT Information

PMT number:	23-1-00516S05_C01
Power:	120 V AC / 60Hz

Full Spectrum



2.02a_ZigBee_mid_standing

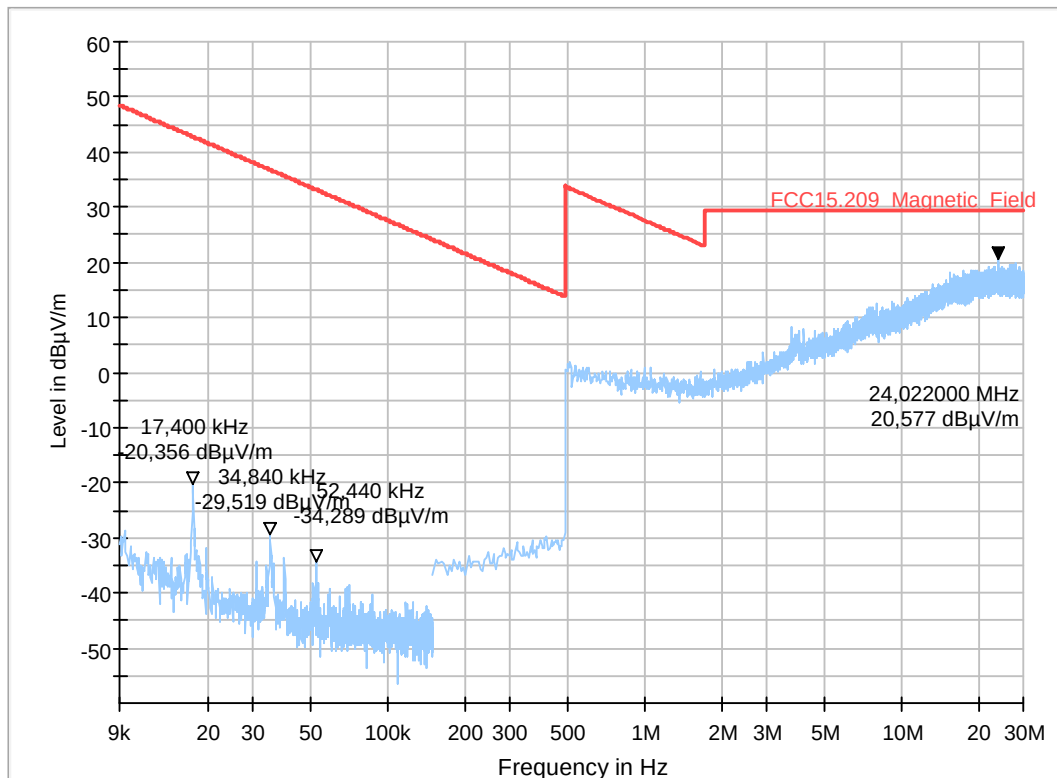
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
Operator:	SOz
Operating Mode:	TX-on
Power during tests:	120V AC / 60Hz
Comment 1:	Channel middle
Environmental Conditions:	Humidity: 40% rH; Temperature: 20 °C
EUT Setup:	01
Verdict:	Passed

EUT Information

PMT number:	23-1-00516S05_C01
Power:	120V AC / 60Hz

Full Spectrum



2.02b_ZigBee_mid_laying

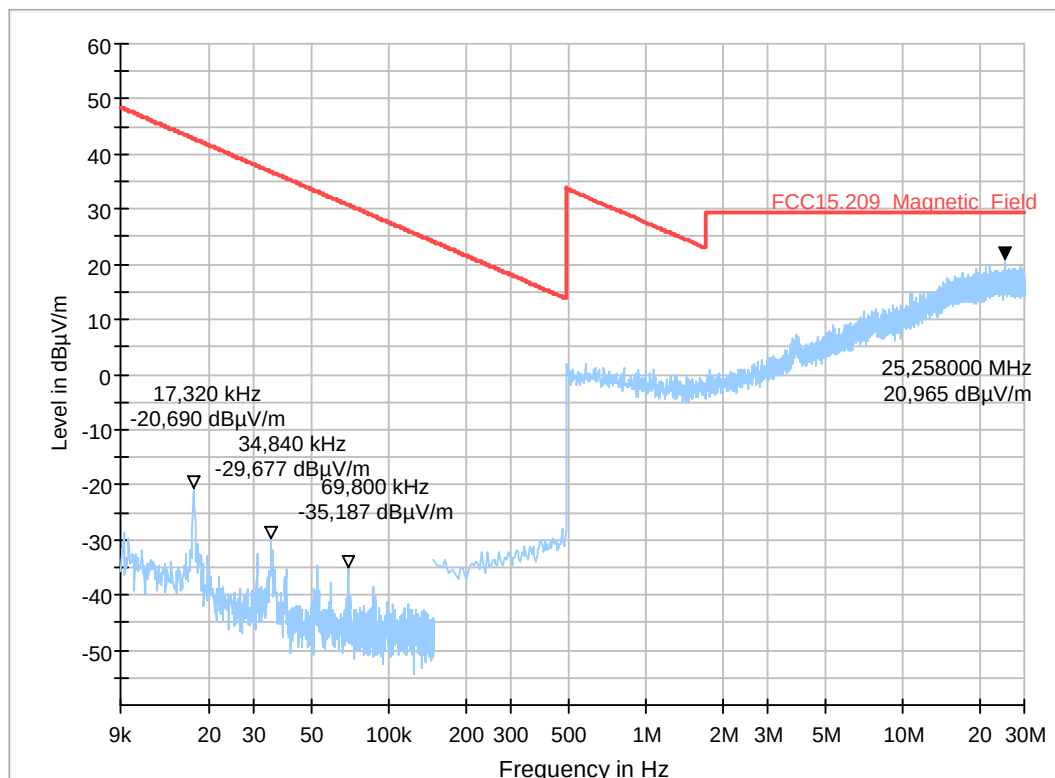
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
Operator:	SOz
Operating Mode:	TX-on
Power during tests:	120V AC / 60Hz
Comment 1:	Channel middle
Environmental Conditions:	Humidity: 40% rH; Temperature: 20 °C
EUT Setup:	01
Verdict:	Passed

EUT Information

PMT number:	23-1-00516S05_C01
Power:	120V AC / 60Hz

Full Spectrum



2.03a_ZigBee_high_standing

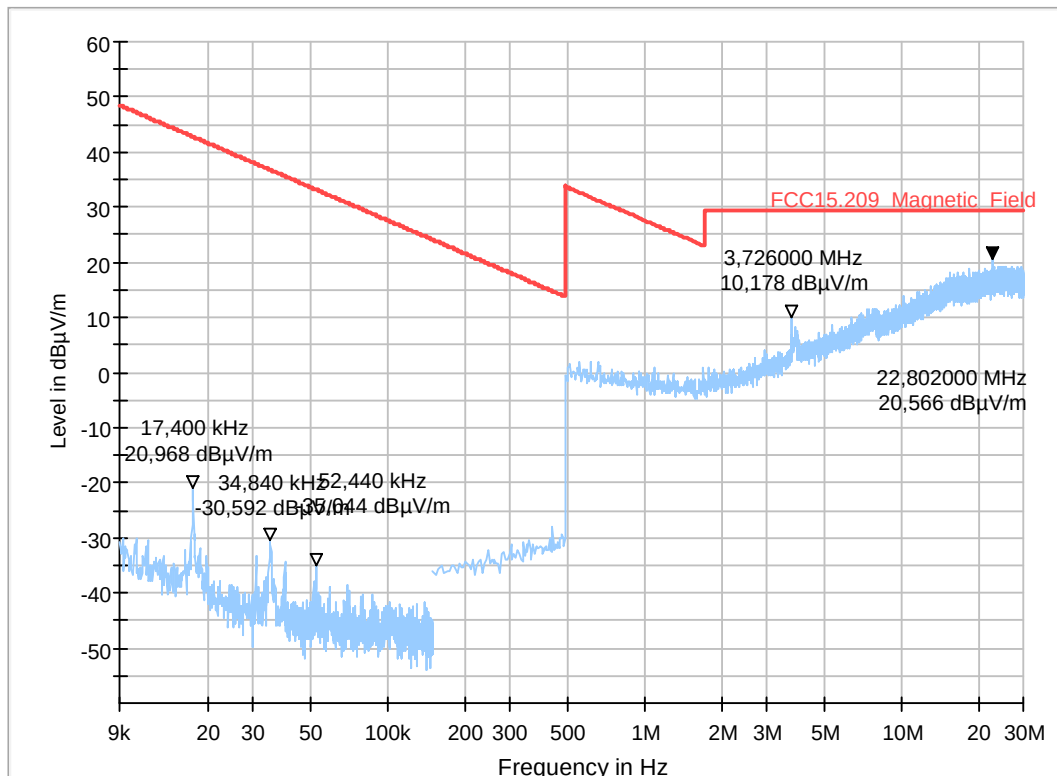
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
Operator:	SOz
Operating Mode:	TX-on
Power during tests:	120V AC / 60Hz
Comment 1:	Channel high
Environmental Conditions:	Humidity: 40% rH; Temperature: 20 °C
EUT Setup:	01
Verdict:	Passed

EUT Information

PMT number:	23-1-00516S05_C01
Power:	120V AC / 60Hz

Full Spectrum



2.03b_ZigBee_high_laying

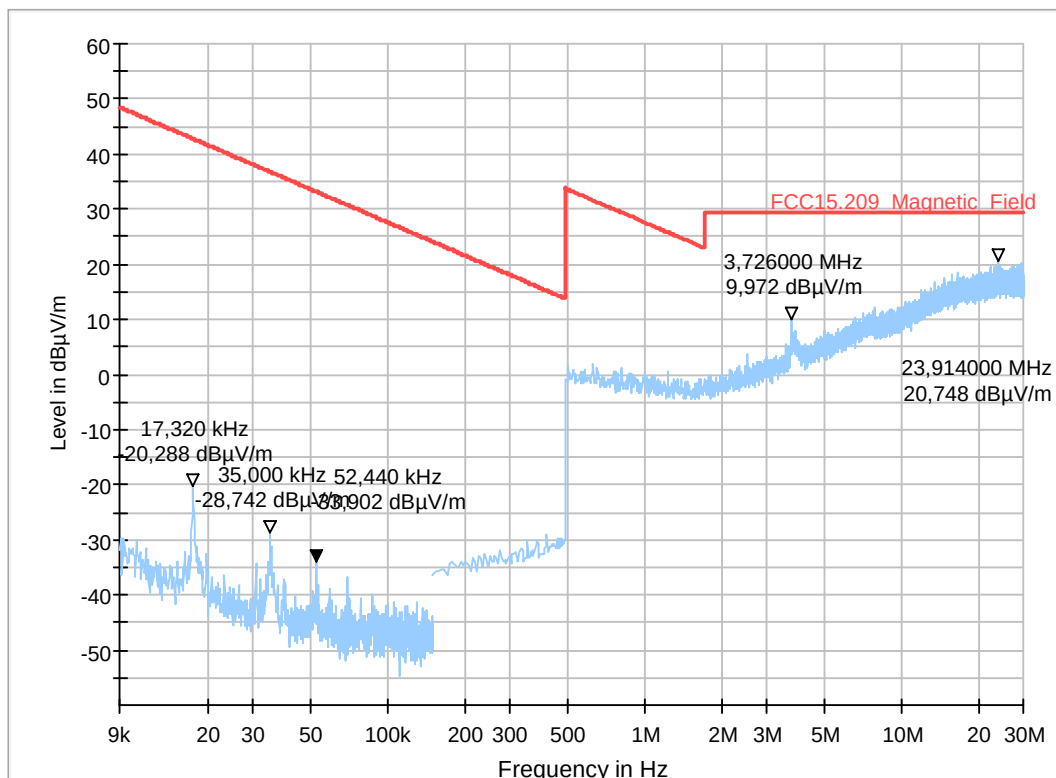
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209; RSS-Gen: Issue 5
Operator:	SOz
Operating Mode:	TX-on
Power during tests:	120V AC / 60Hz
Comment 1:	Channel high
Environmental Conditions:	Humidity: 40% rH; Temperature: 20 °C
EUT Setup:	01
Verdict:	Passed

EUT Information

PMT number:	23-1-00516S05_C01
Power:	120V AC / 60Hz

Full Spectrum



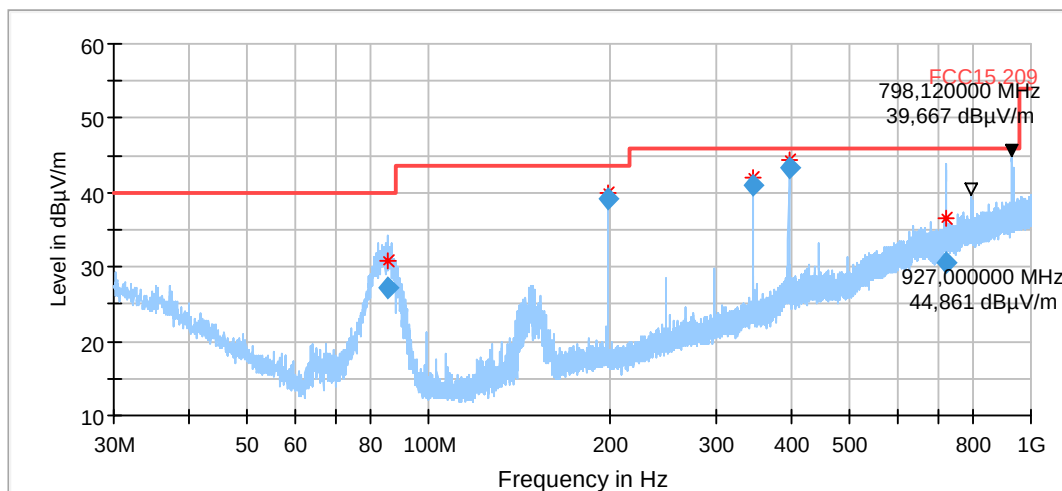
3.01a_ZigBee_low_standing

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	cetekom advanced 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:	SOz
EUT:	S05_C01
Operating Mode:	TX
Power supply:	120V AC / 60Hz
Comment:	Channel no. low
Verdict:	Passed

EUT Information

PMT number:	23-1-00516S05_C01
Power:	120V AC / 60Hz



Remark: Emission at 798.12 MHz and 927 MHz are outside from chamber and not related to results.

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)
85.270000	27.27	40.00	12.73	120.000	105.0	V	261.0	7.5	0.0	0.9
197.990000	39.14	43.50	4.36	120.000	109.0	V	6.0	11.0	0.0	1.4
346.510000	40.86	46.00	5.14	120.000	104.0	H	342.0	16.6	0.0	1.8
395.990000	43.39	46.00	2.61	120.000	209.0	H	156.0	19.6	0.0	2.2
724.110000	30.62	46.00	15.38	120.000	105.0	V	312.0	25.1	0.0	2.9

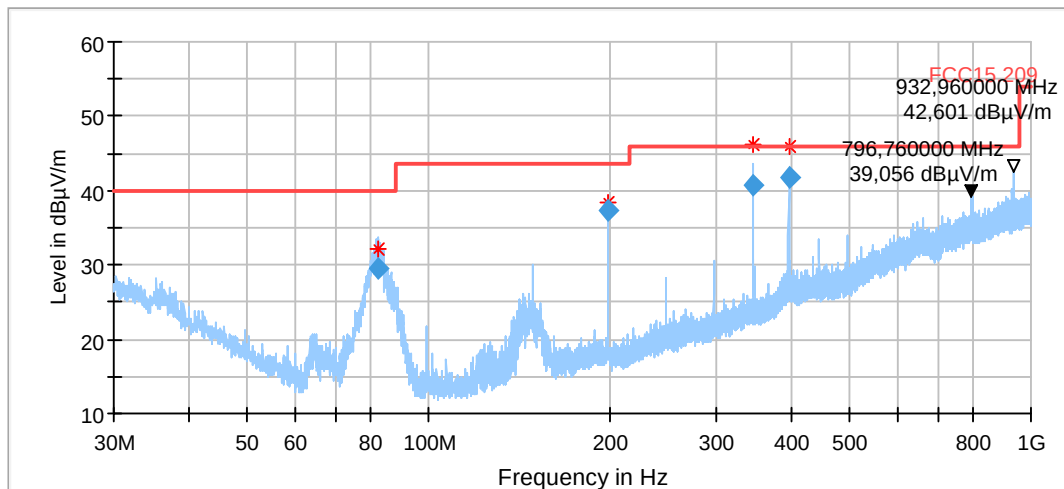
3.01b_ZigBee_low_laying

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	cetekom advanced 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:	ASa
EUT:	S05_C01
Operating Mode:	TX
Power supply:	120V AC / 60Hz
Comment:	Channel no. low
Verdict:	Passed

EUT Information

PMT number:	23-1-00516S05_C01
Power:	120V AC / 60Hz



Remark: Emission at 796.76 MHz and 932.96 MHz are outside from chamber and not related to results.

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)
82.350000	29.49	40.00	10.51	120.000	117.0	V	220.0	7.3	0.0	1.0
197.990000	37.47	43.50	6.03	120.000	165.0	H	44.0	11.0	0.0	1.4
346.510000	40.71	46.00	5.29	120.000	302.0	H	21.0	16.6	0.0	1.8
395.990000	41.68	46.00	4.32	120.000	277.0	H	41.0	19.6	0.0	2.2

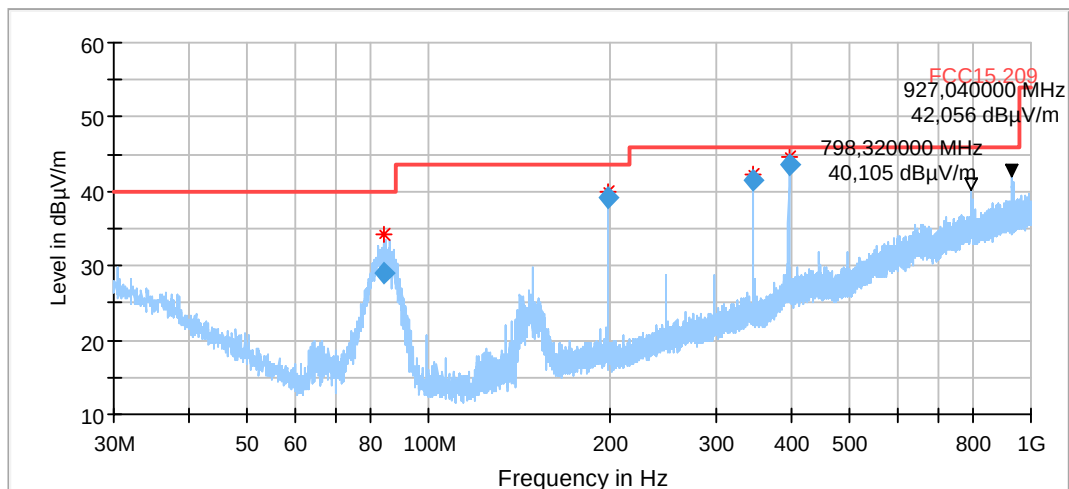
3.02a_ZigBee_mid_standing

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	cetekom advanced 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:	SOz
EUT:	S05_C01
Operating Mode:	TX
Power supply:	120V AC / 60Hz
Comment:	Channel no. mid
Verdict:	Passed

EUT Information

PMT number:	23-1-00516S05_C01
Power:	120V AC / 60Hz



Remark: Emission at 798.32 MHz and 927.04 MHz are outside from chamber and not related to results.

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)
84.570000	29.12	40.00	10.88	120.000	153.0	V	280.0	7.5	0.0	0.9
197.990000	39.26	43.50	4.24	120.000	105.0	V	10.0	11.0	0.0	1.4
346.510000	41.50	46.00	4.50	120.000	100.0	H	332.0	16.6	0.0	1.8
395.990000	43.56	46.00	2.44	120.000	210.0	H	159.0	19.6	0.0	2.2

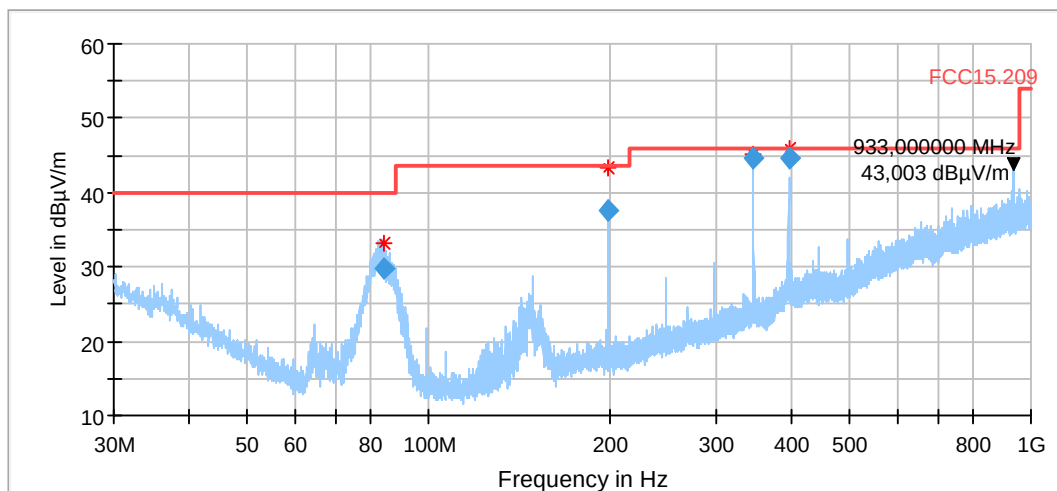
3.02b_ZigBee_mid_laying

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	cetekom advanced 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:	SOz
EUT:	S05_C01
Operating Mode:	TX
Power supply:	120V AC / 60Hz
Comment:	Channel no. mid
Verdict:	Passed

EUT Information

PMT number:	23-1-00516S05_C01
Power:	120V AC / 60Hz



Remark: Emission at 933 MHz is outside from chamber and not related to results.

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)
84.430000	29.78	40.00	10.22	120.000	109.0	V	272.0	7.5	0.0	0.9
197.990000	37.65	43.50	5.85	120.000	142.0	H	52.0	11.0	0.0	1.4
346.510000	44.57	46.00	1.43	120.000	100.0	H	26.0	16.6	0.0	1.8
395.990000	44.61	46.00	1.39	120.000	231.0	H	194.0	19.6	0.0	2.2

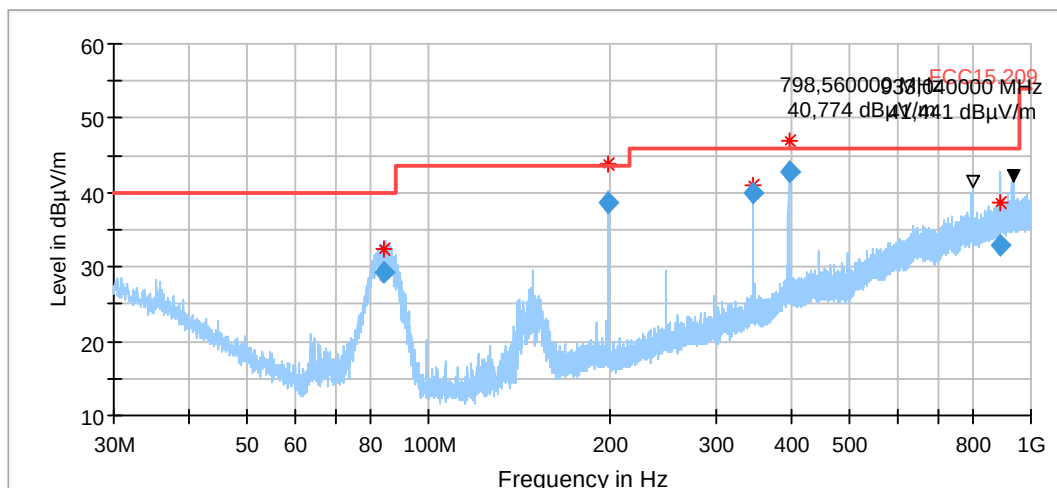
3.03a_ZigBee_high_standing

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	cetekom advanced 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:	SOz
EUT:	S05_C01
Operating Mode:	TX
Power supply:	120V AC / 60Hz
Comment:	Channel no. high
Verdict:	Passed

EUT Information

PMT number:	23-1-00516S05_C01
Power:	120V AC / 60Hz



Remark: Emission at 798.56 MHz and 933.04 MHz are outside from chamber and not related to results.

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)
84.470000	29.24	40.00	10.76	120.000	109.0	V	254.0	7.5	0.0	0.9
197.990000	38.64	43.50	4.86	120.000	130.0	V	6.0	11.0	0.0	1.4
346.510000	40.06	46.00	5.94	120.000	100.0	H	328.0	16.6	0.0	1.8
395.990000	42.94	46.00	3.06	120.000	200.0	H	139.0	19.6	0.0	2.2
891.390000	32.86	46.00	13.14	120.000	151.0	V	0.0	27.1	0.0	3.4

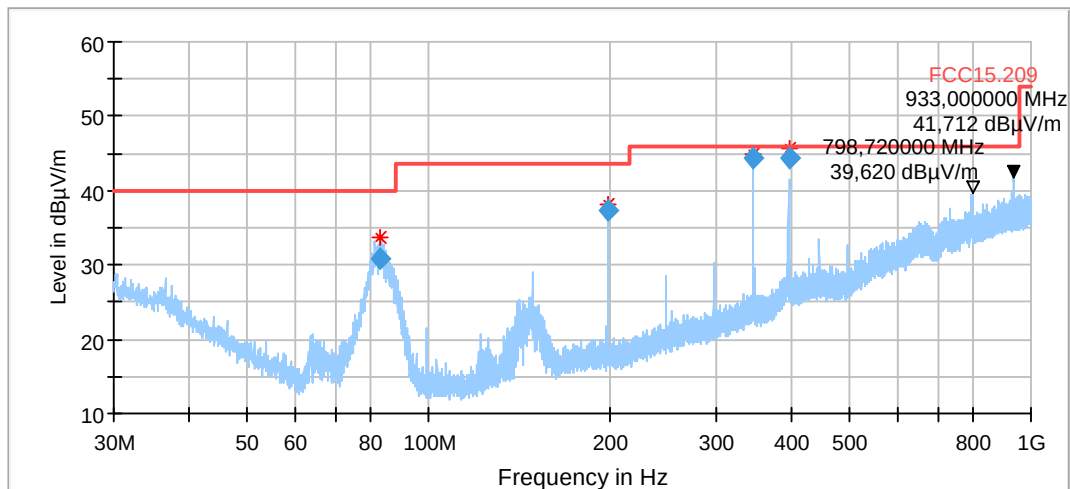
3.03b_ZigBee_high_laying

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	cetekom advanced 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:	SOz
EUT:	S05_C01
Operating Mode:	TX
Power supply:	120V AC / 60Hz
Comment:	Channel no. high
Verdict:	Passed

EUT Information

PMT number:	23-1-00516S05_C01
Power:	120V AC / 60Hz



Remark: Emission at 798.72 MHz and 933 MHz are outside from chamber and not related to results.

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)
83.110000	30.73	40.00	9.27	120.000	105.0	V	246.0	7.4	0.0	1.0
197.990000	37.31	43.50	6.19	120.000	172.0	H	171.0	11.0	0.0	1.4
346.510000	44.43	46.00	1.57	120.000	100.0	H	208.0	16.6	0.0	1.8
395.990000	44.46	46.00	1.54	120.000	225.0	H	192.0	19.6	0.0	2.2

4.01a_ZigBee_low

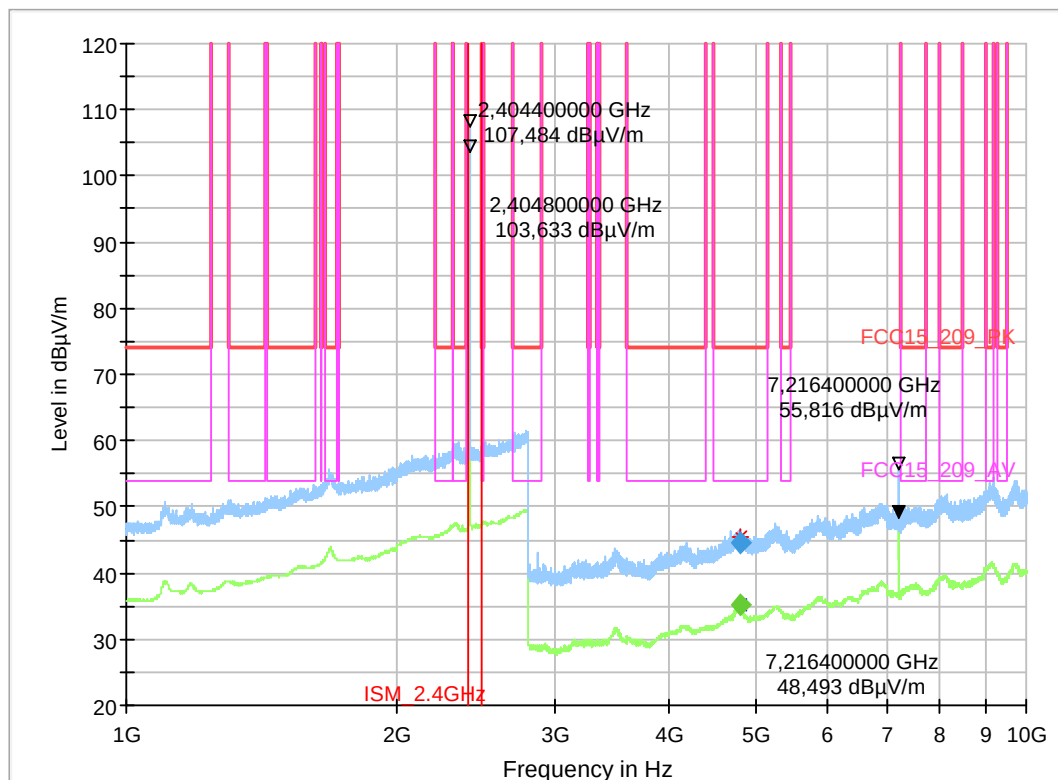
Common Information

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:	ZigBee_TX_ch11
Set-up no.	1
Operator:	SOz
Comment:	Channel no. low
Comment2:	Humidity: 60% rH; Temperature: 20 °C
Verdict:	Passed

EUT Information

PMT Sample Nr:	23-1-0051601S05_C01
Power Supply:	120 V AC / 60 Hz

Full Spectrum



Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth	Height	Pol	Azimuth	Elevation
4819.200000	44.63	---	74.00	29.37	100.0	1000.000	155.0	H	149.0	0.0
4810.800000	---	35.29	54.00	18.71	100.0	1000.000	155.0	H	315.0	90.0

4.01b_ZigBee_low

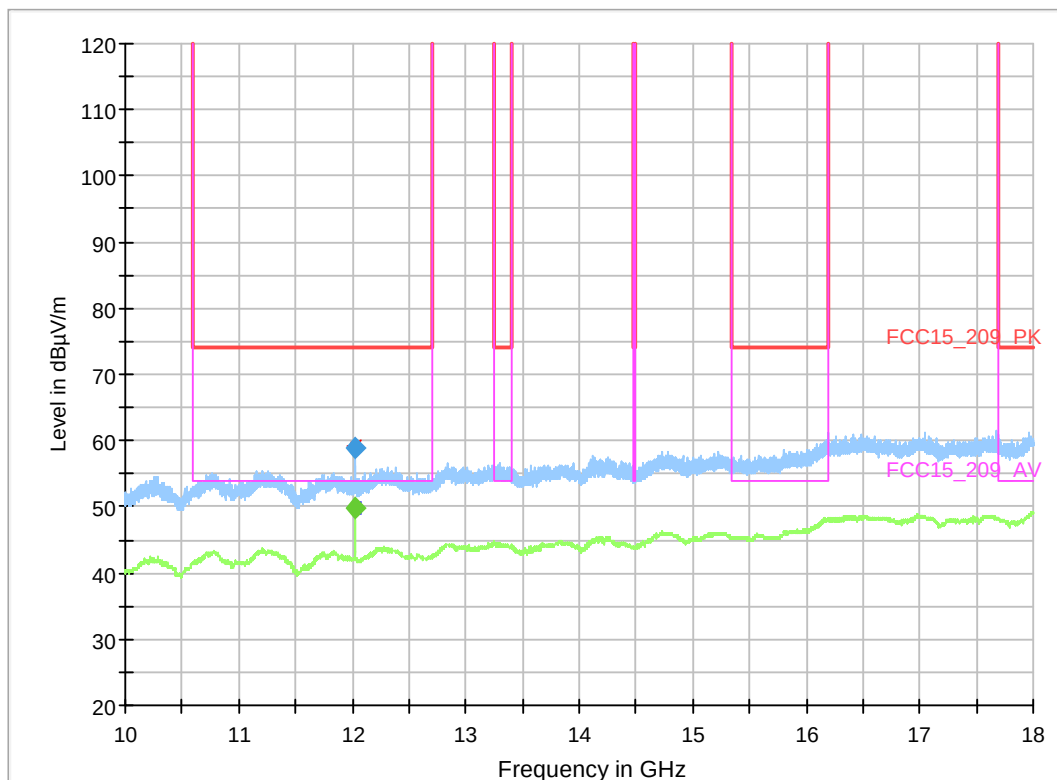
Common Information

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:	ZigBee_TX_ch11
Set-up no.	1
Operator:	SOz/KTe
Comment:	Channel no. low
Environmental Conditions:	Humidity: 60% rH; Temperature: 20 °C
Verdict:	Passed

EUT Information

PMT Sample Nr:	23-1-0051601S05_C01
Power Supply:	120 V AC

Full Spectrum



Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin	Meas. Time (ms)	Bandwidth	Height	Pol	Azimuth	Elevation
12021.600000	---	49.83	54.00	4.17	100.0	1000.000	155.0	H	62.0	90.0
12022.000000	58.97	---	74.00	15.03	100.0	1000.000	155.0	H	62.0	90.0

4.01c_ZigBee_low_H

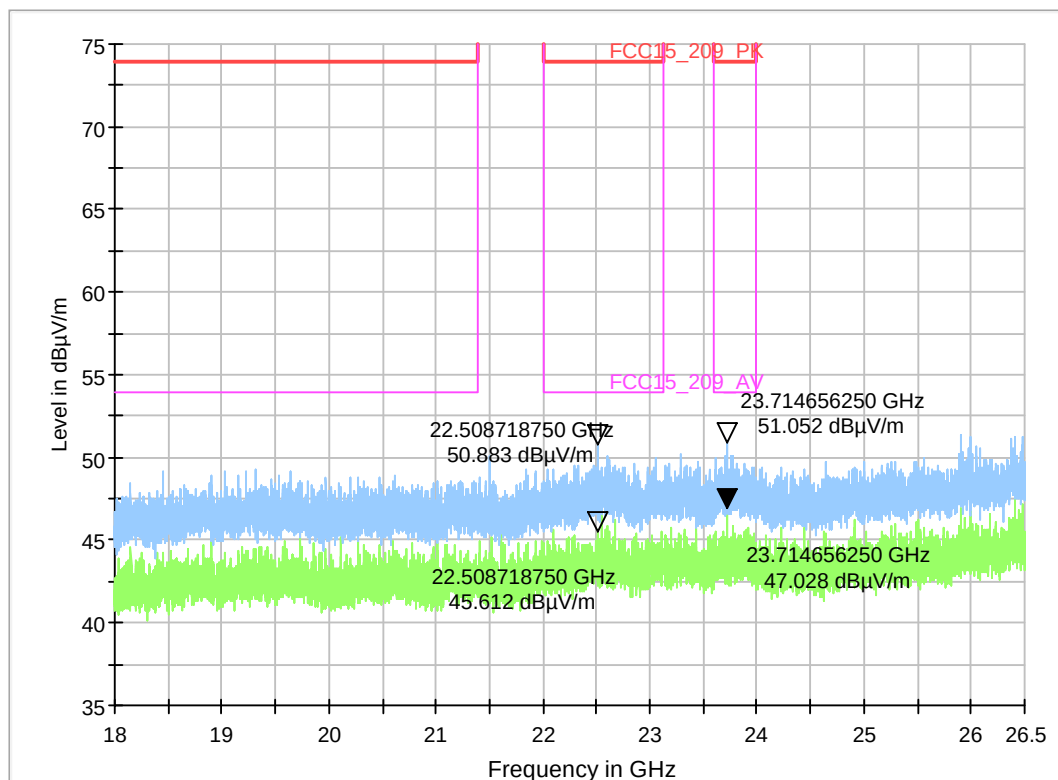
Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	cetekom advanced Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209 & RSS-Gen, Issue 5
Operating Mode:	ZigBee_low_H
Environmental Conditions:	Humidity: 50% rH; Temperature: 20.1 °C
SW-Version:	EMC32 V10.60.20
Operator:	SOz
Verdict:	Passed

EUT Information

PMT Sample Nr.	23-1-00516S05_C01
power:	120 V AC / 60 Hz

Full Spectrum



4.01d_ZigBee_low_V

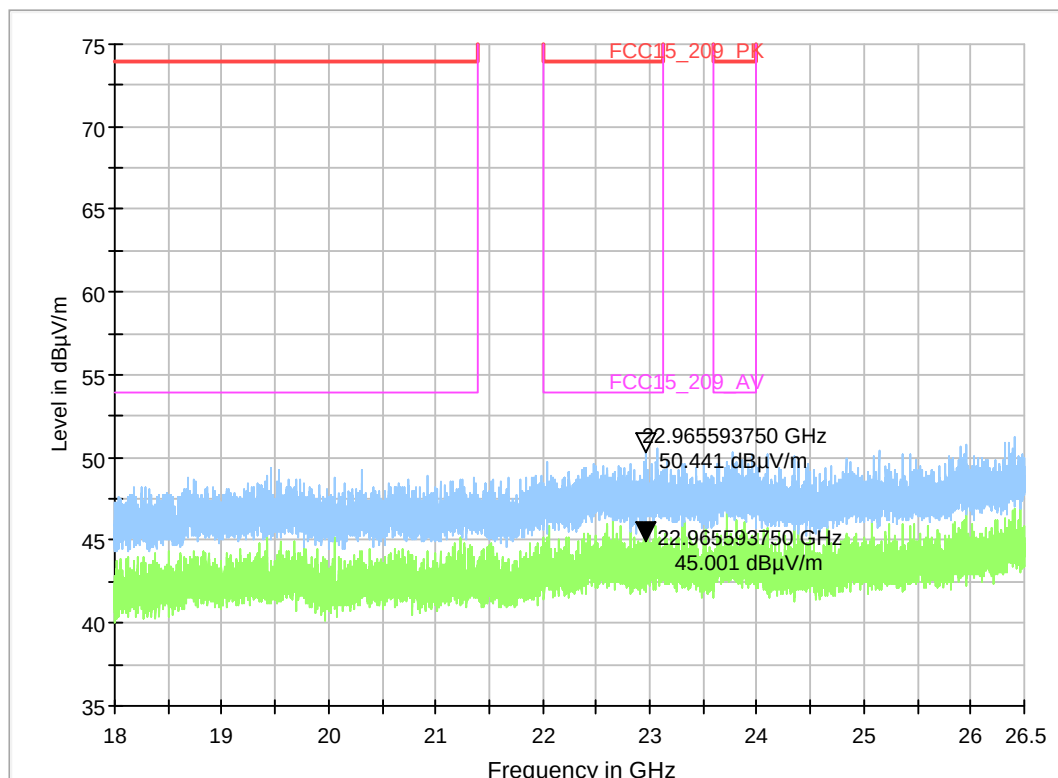
Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	cetekom advanced Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209 & RSS-Gen, Issue 5
Operating Mode:	ZigBee_low_V
Environmental Conditions:	Humidity: 50% rH; Temperature: 20.1 °C
SW-Version:	EMC32 V10.60.20
Operator:	SOz
Verdict:	Passed

EUT Information

PMT Sample Nr.	23-1-00516S05_C01
power:	120V AC / 60 Hz

Full Spectrum



4.02a_ZigBee_mid

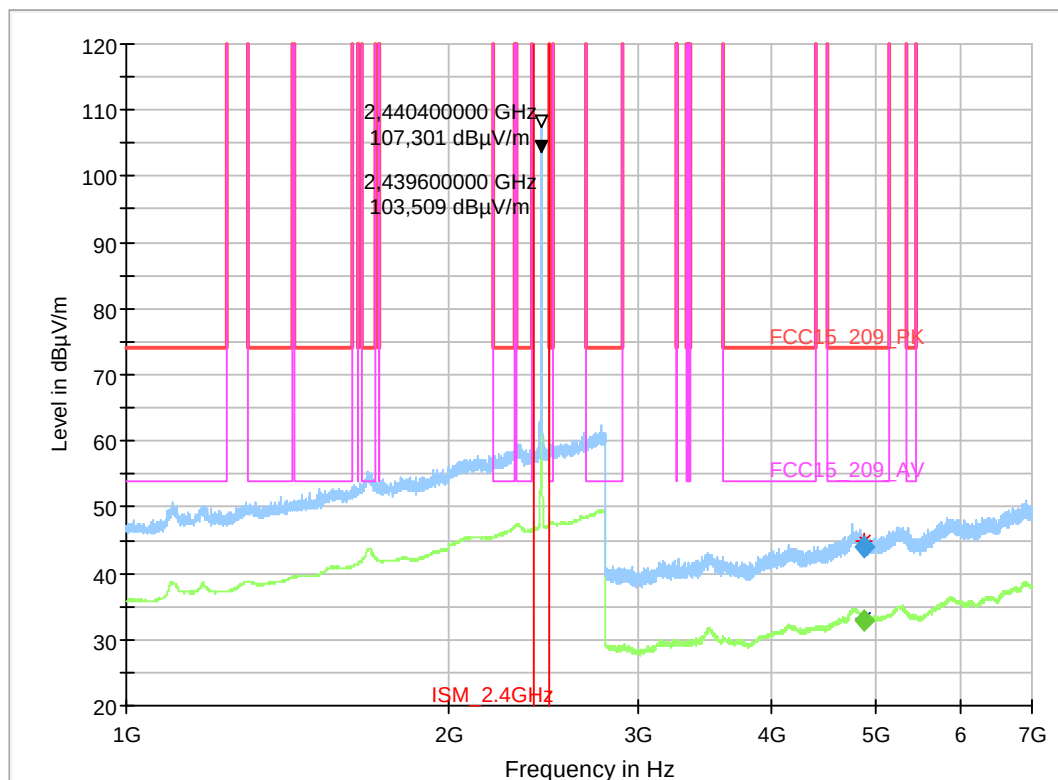
Common Information

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:	ZigBee_TX_ch18
Set-up no.	1
Operator:	KTe
Comment:	Channel no. mid
Environmental Conditions:	Humidity: 60% rH; Temperature: 20 °C
Verdict:	Passed

EUT Information

PMT Sample Nr:	23-1-0051601S05_C01
Power Supply:	120 V AC / 60 Hz

Full Spectrum



Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth (Hz)	Height	Pol	Azimuth	Elevation
4878.800000	---	32.91	54.00	21.09	100.0	1000.000	155.0	H	34.0	90.0
4880.000000	44.12	---	74.00	29.88	100.0	1000.000	155.0	H	66.0	90.0

4.02b_ZigBee_mid

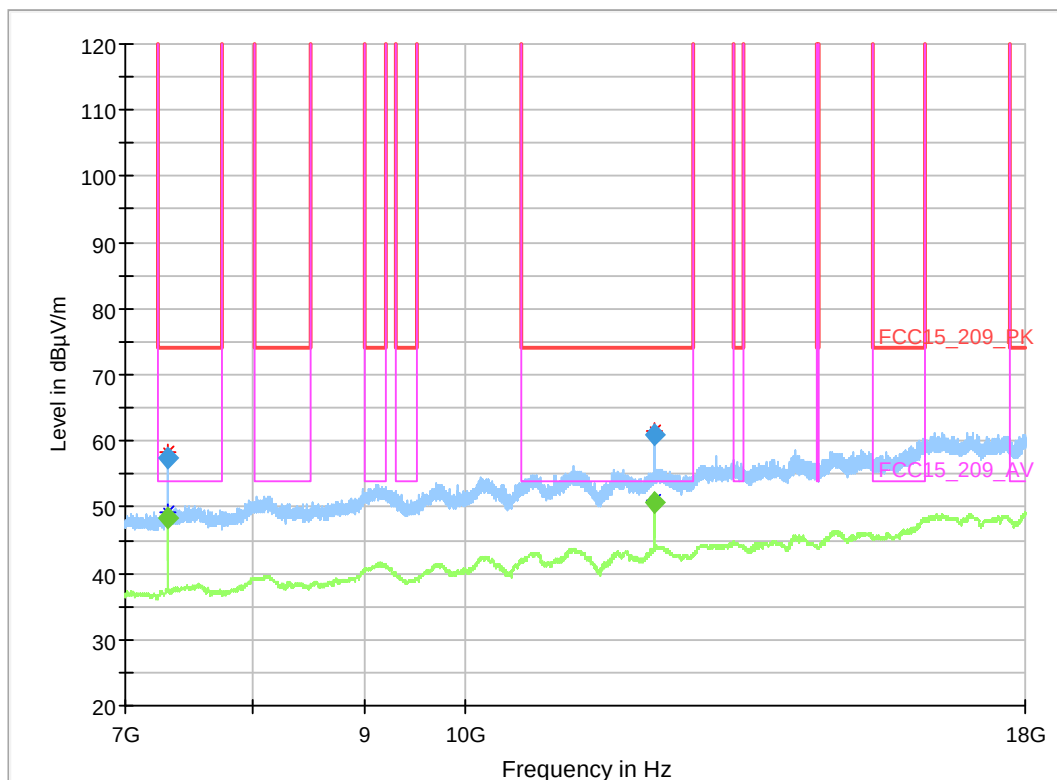
Common Information

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:	ZigBee_TX_ch18
Set-up no.	1
Operator:	KTe
Comment:	Channel no. mid
Environmental Conditions:	Humidity: 60% rH; Temperature: 20 °C
Verdict:	Passed

EUT Information

PMT Sample Nr:	23-1-0051601S05_C01
Power Supply:	120 V AC / 60 Hz

Full Spectrum



Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin	Meas. Time (ms)	Bandwidth (Hz)	Height	Pol	Azimuth	Elevation
7318.000000	---	48.40	54.00	5.60	100.0	1000.000	155.0	V	-1.0	90.0
7318.000000	57.56	---	74.00	16.44	100.0	1000.000	155.0	V	-1.0	90.0
12196.800000	60.80	---	74.00	13.20	100.0	1000.000	155.0	H	65.0	90.0
12196.800000	---	50.69	54.00	3.31	100.0	1000.000	155.0	H	64.0	90.0

4.02c_ZigBee_mid_H

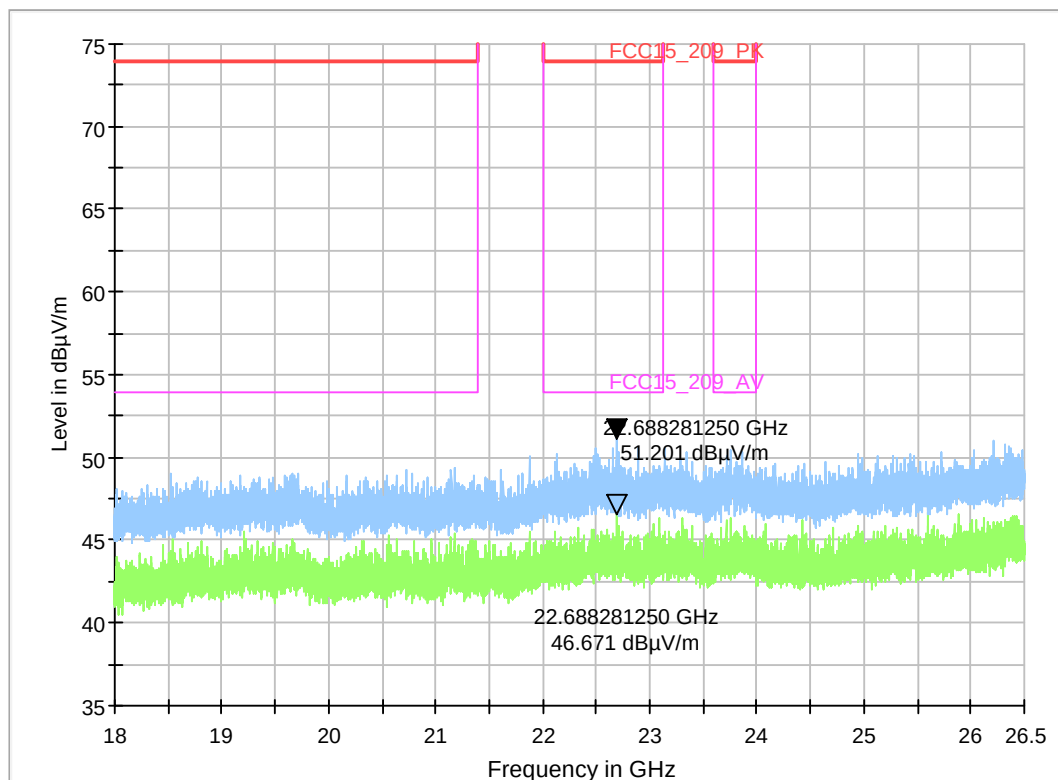
Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	cetekom advanced Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209 & RSS-Gen, Issue 5
Operating Mode:	ZigBee_mid_H
Environmental Conditions:	Humidity: 50% rH; Temperature: 20.1 °C
SW-Version:	EMC32 V10.60.20
Operator:	SOz
Verdict:	Passed

EUT Information

PMT Sample Nr.	23-1-00516S05_C01
power:	120 V AC / 60 Hz

Full Spectrum



4.02d_ZigBee_mid_V

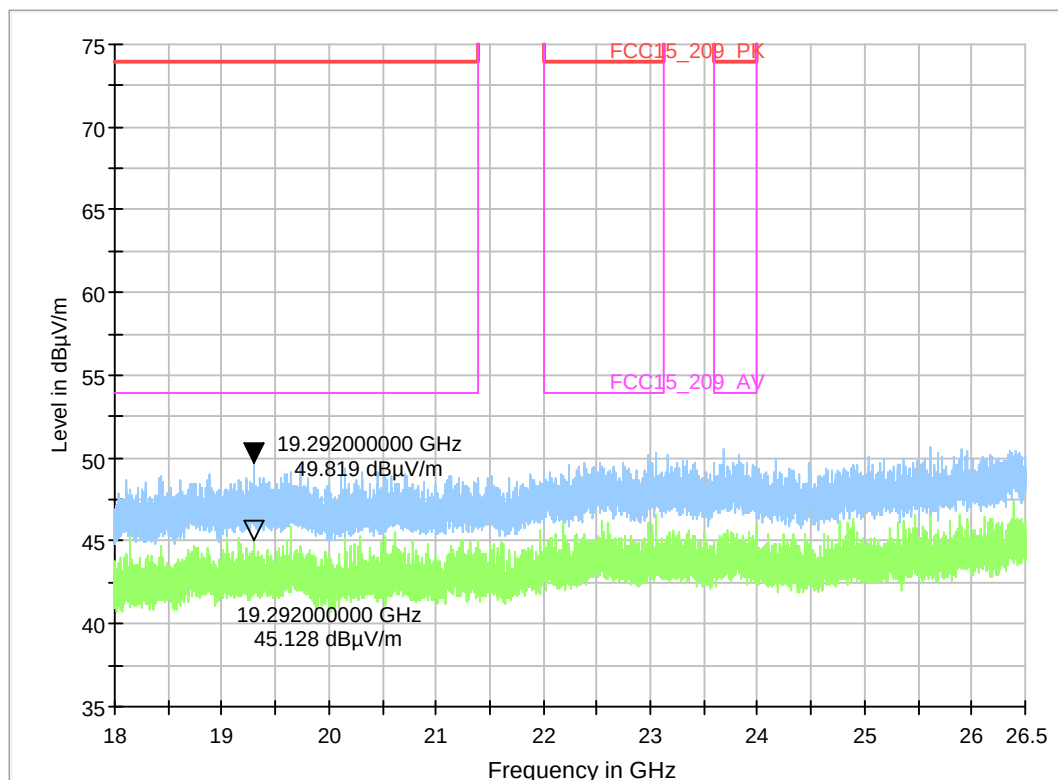
Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	cetekom advanced Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209 & RSS-Gen, Issue 5
Operating Mode:	ZigBee_mid_V
Environmental Conditions:	Humidity: 50% rH; Temperature: 20.1 °C
SW-Version:	EMC32 V10.60.20
Operator:	SOz
Verdict:	Passed

EUT Information

PMT Sample Nr.	23-1-00516S05_C01
power:	120 V AC / 60 Hz

Full Spectrum



4.03a_ZigBee_high

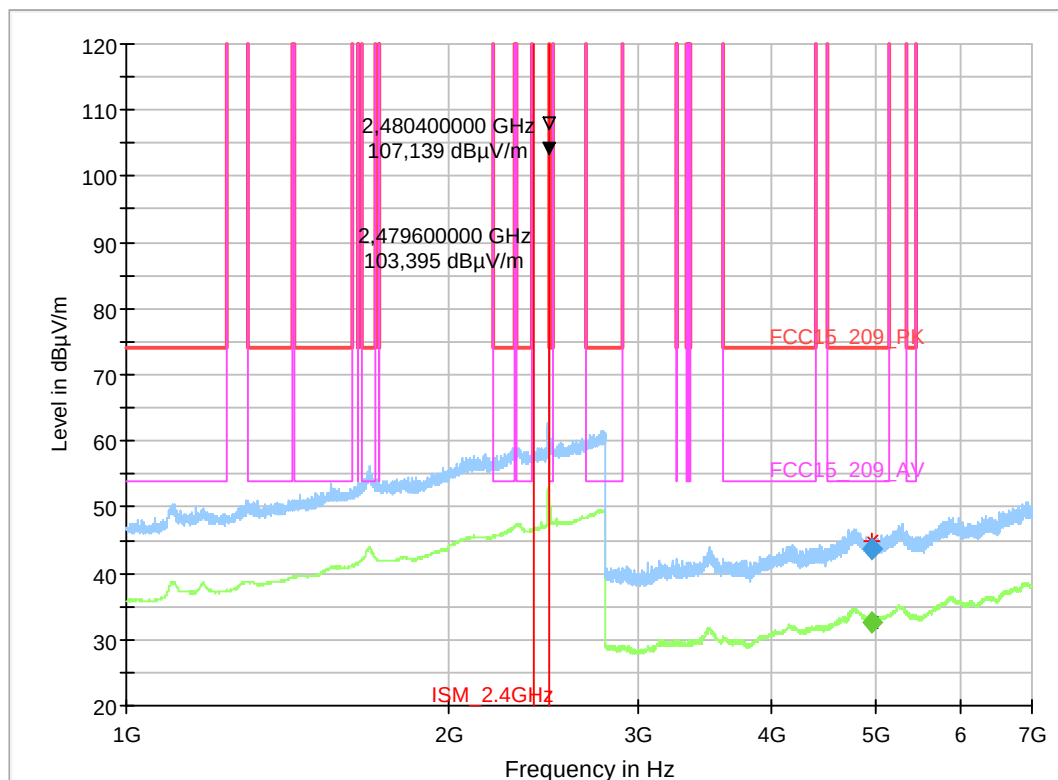
Common Information

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:	ZigBee_TX_ch26
Set-up no.	1
Operator:	KTe
Comment:	Channel no. high
Environmental Conditions:	Humidity: 60% rH; Temperature: 20 °C
Verdict:	Passed

EUT Information

PMT Sample Nr:	23-1-0051601S05_C01
Power Supply:	120 V AC / 60 Hz

Full Spectrum



Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth	Height	Pol	Azimuth	Elevation
4957.600000	43.60	---	74.00	30.40	100.0	1000.000	155.0	H	199.0	90.0
4958.800000	---	32.47	54.00	21.53	100.0	1000.000	155.0	H	311.0	90.0

4.03b_ZigBee_high

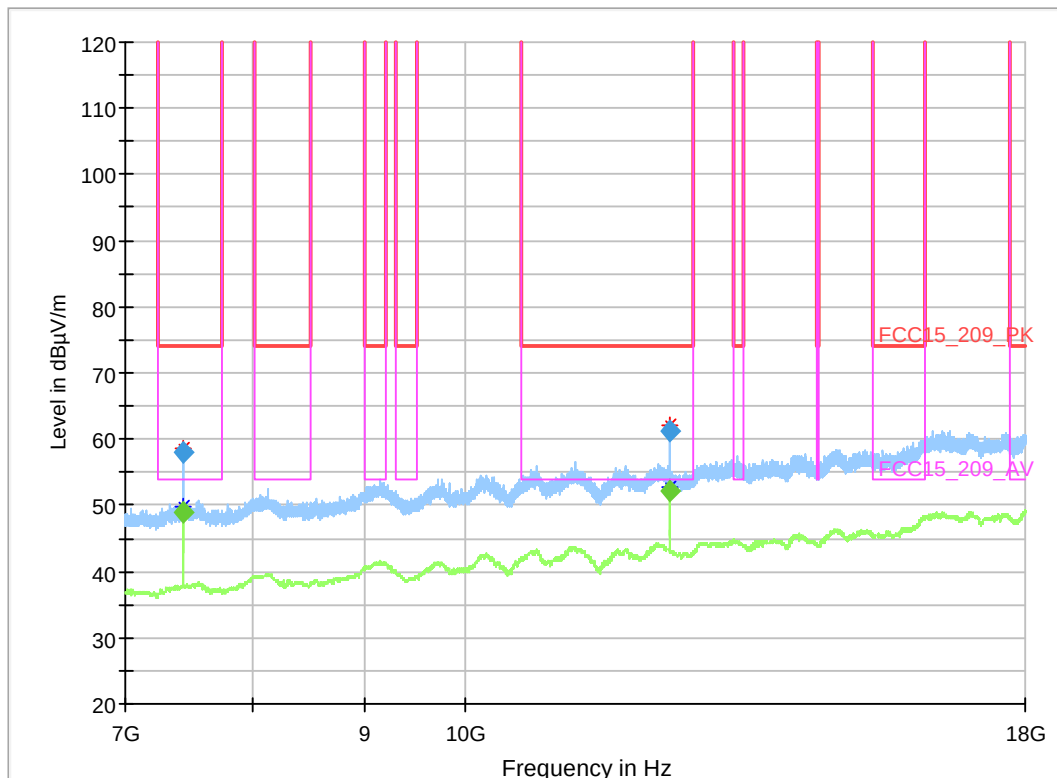
Common Information

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:	ZigBee_TX_ch26
Set-up no.	01
Operator:	KTe
Comment:	Channel no. high
Environmental Conditions:	Humidity: 60% rH; Temperature: 20 °C
Verdict:	Passed

EUT Information

PMT Sample Nr:	23-1-0051601S05_C01
Power Supply:	120 V AC / 60 Hz

Full Spectrum



Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin	Meas. Time (ms)	Bandwidth	Height	Pol	Azimuth	Elevation
7441.200000	57.90	---	74.00	16.10	100.0	1000.000	155.0	V	-1.0	90.0
7441.200000	---	49.00	54.00	5.00	100.0	1000.000	155.0	V	-1.0	90.0
12402.000000	---	52.03	54.00	1.97	100.0	1000.000	155.0	H	64.0	90.0
12402.000000	61.24	---	74.00	12.76	100.0	1000.000	155.0	H	64.0	90.0

4.03c_ZigBee_high_H

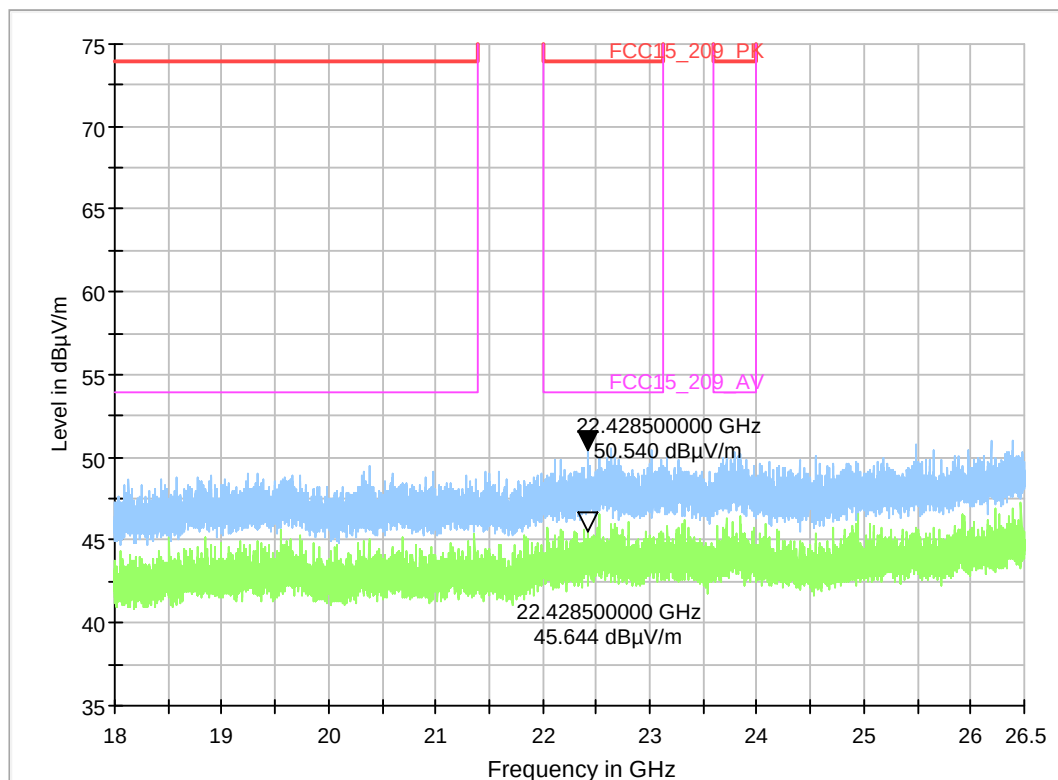
Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	cetecom advanced Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209 & RSS-Gen, Issue 5
Operating Mode:	ZigBee_high_H
Environmental Conditions:	Humidity: 50% rH; Temperature: 20.1 °C
SW-Version:	EMC32 V10.60.20
Operator:	SOz
Verdict:	Passed

EUT Information

PMT Sample Nr.	23-1-00516S05_C01
power:	120 V AC / 60 Hz

Full Spectrum



4.03d_ZigBee_high_V

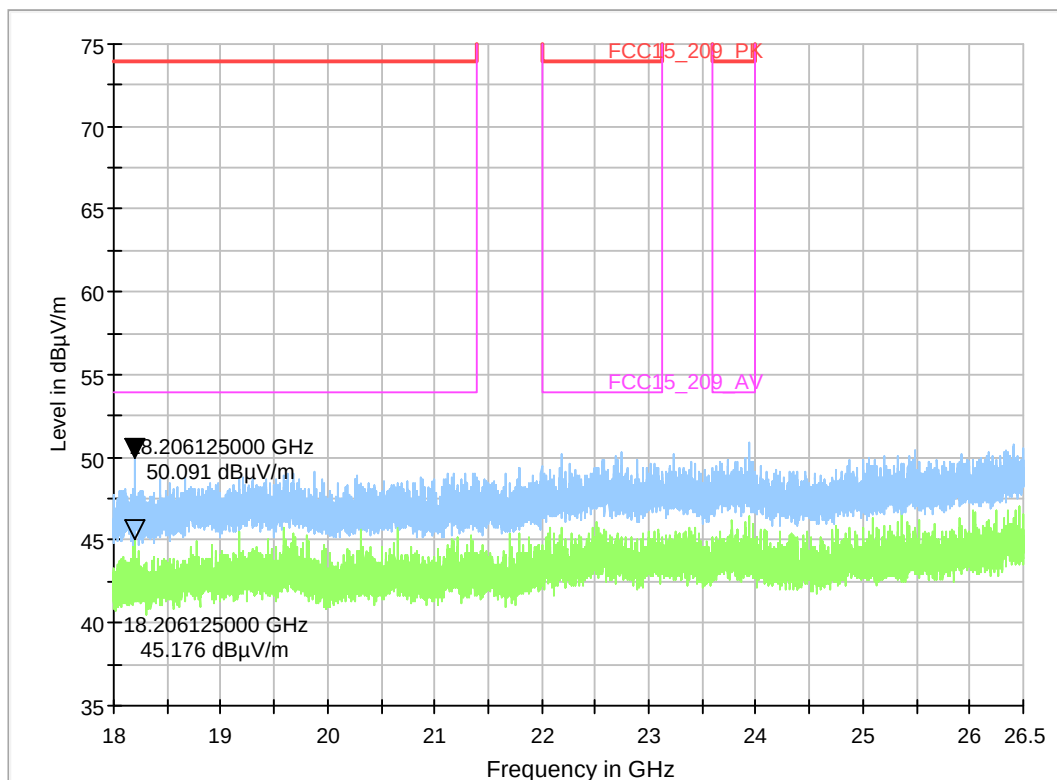
Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	cetecom advanced Essen
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209 & RSS-Gen, Issue 5
Operating Mode:	ZigBee_high_V
Environmental Conditions:	Humidity: 50% rH; Temperature: 20.1 °C
SW-Version:	EMC32 V10.60.20
Operator:	SOz
Verdict:	Passed

EUT Information

PMT Sample Nr.	23-1-00516S05_C01
power:	120 V AC / 60 Hz

Full Spectrum



9.01_BE_ZigBee_low

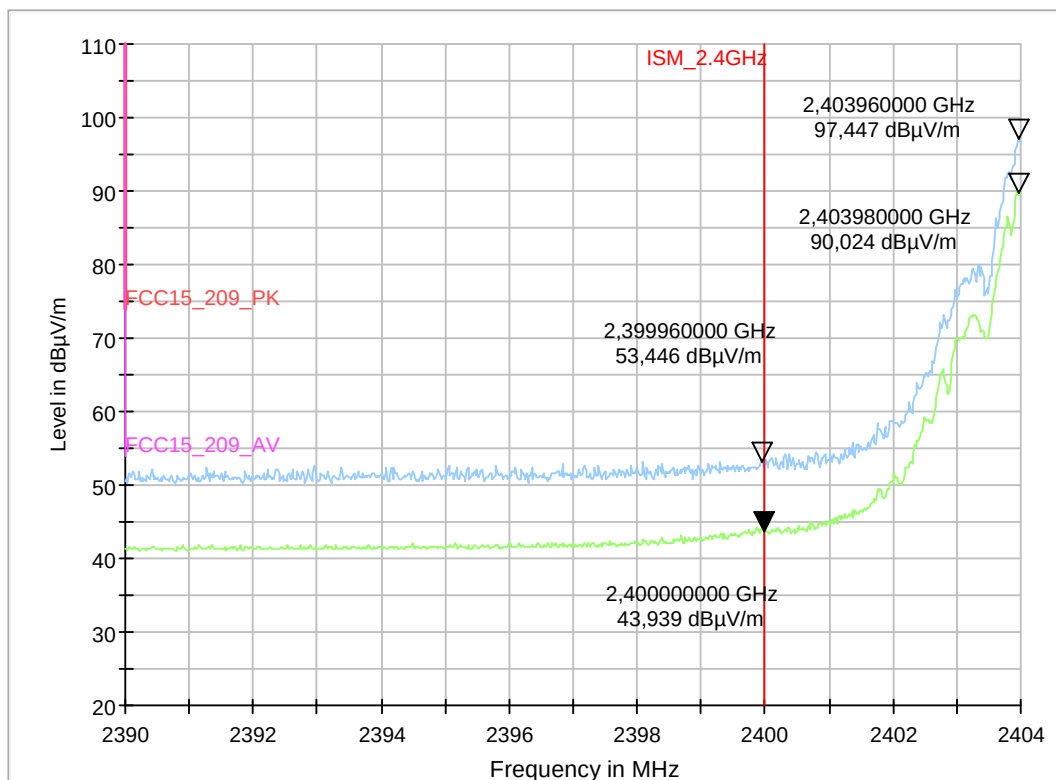
Common Information

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:	ZigBee_TX_ch11
Operator:	KTe
Comment:	Channel no. low
Comment2:	Humidity: 60% rH; Temperature: 20 °C
EUT Setup:	01
Verdict:	Passed

EUT Information

PMT Sample Nr:	23-1-0051601S05_C01
Power Supply:	120 V AC / 60 Hz

Full Spectrum



9.02_BE_ZigBee_high

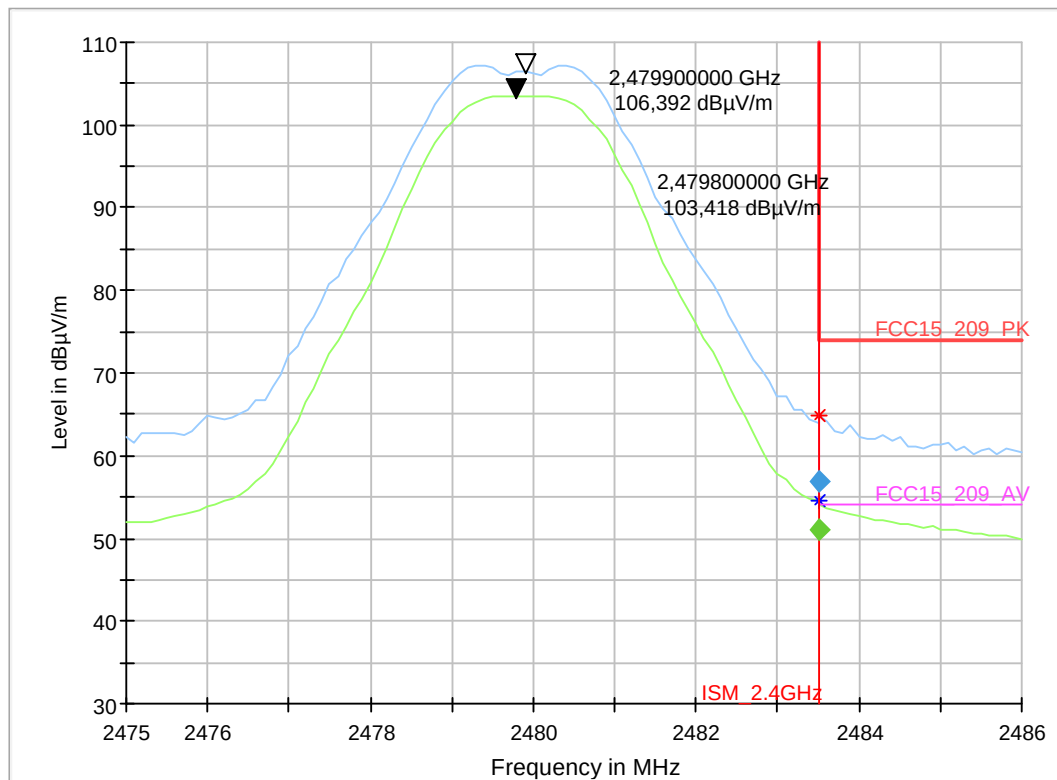
Common Information

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:	ZigBee_TX_ch26
Operator:	Kte
Comment:	Channel no. high
EUT Setup:	Humidity: 60% rH; Temperature: 20 °C
Verdict:	Passed

EUT Information

PMT Sample Nr:	23-1-0051601S05_C01
Power Supply:	120 V AC / 60 Hz

Full Spectrum



Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin	Meas. Time (ms)	Bandwidth (Hz)	Height	Pol	Azimuth	Elevation
2483.500000	---	51.10	54.00	2.90	100.0	1000.000	155.0	V	168.0	90.0
2483.500000	56.89	---	74.00	17.11	100.0	1000.000	155.0	V	145.0	90.0