

Annex 1: Measurement diagrams 22-1-0057101T022b-A1

Number of pages:	119	Date of Report:	2024-Jul-22
Testing company:	cetecom advanced GmbH Untertuerkheimer Str. 6-10 66117 Saarbruecken GERMANY	Applicant:	ZIGPOS GmbH
Product: Model:	RTLS anchor CorivaSat		
FCC ID:	2AHHJ-ZP-OXSAT1; Contains FCC ID: Z64-CC3135MOD	IC:	IC: 32087-ZPOXSAT1; Contains IC ID: 451I-CC3135MOD
Testing has been carried out in accordance with:	FCC Regulations Title 47 CFR, Chapter I Subpart C Intentional Radiators § 15.247 Operation within the bands 2400-2483.5 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)		

Power spectral density slot antenna

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

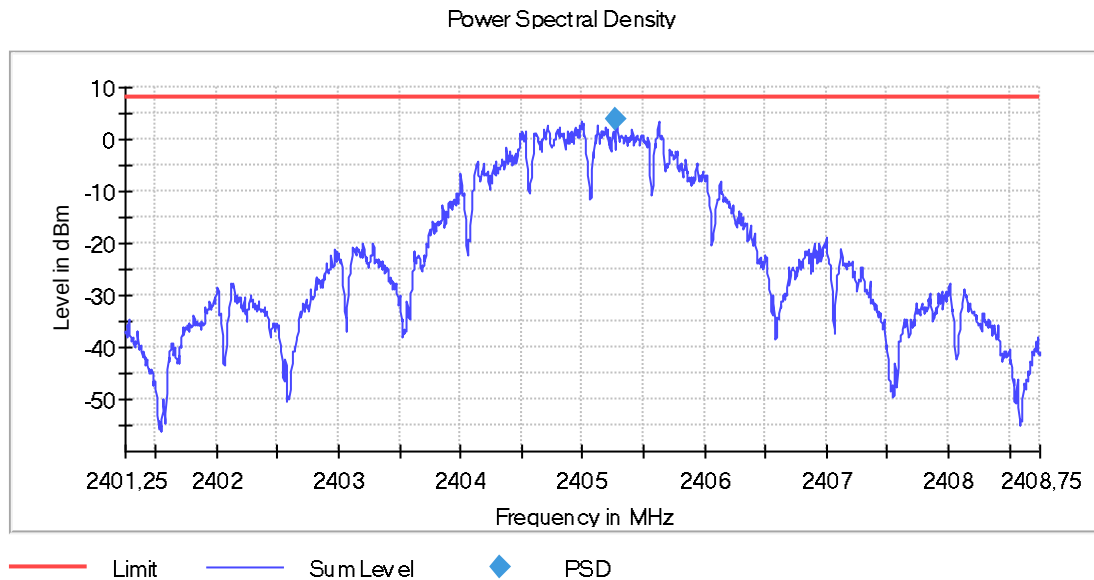
Test according to FCC title 47 part 15 §15.247(a),(e), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

Result

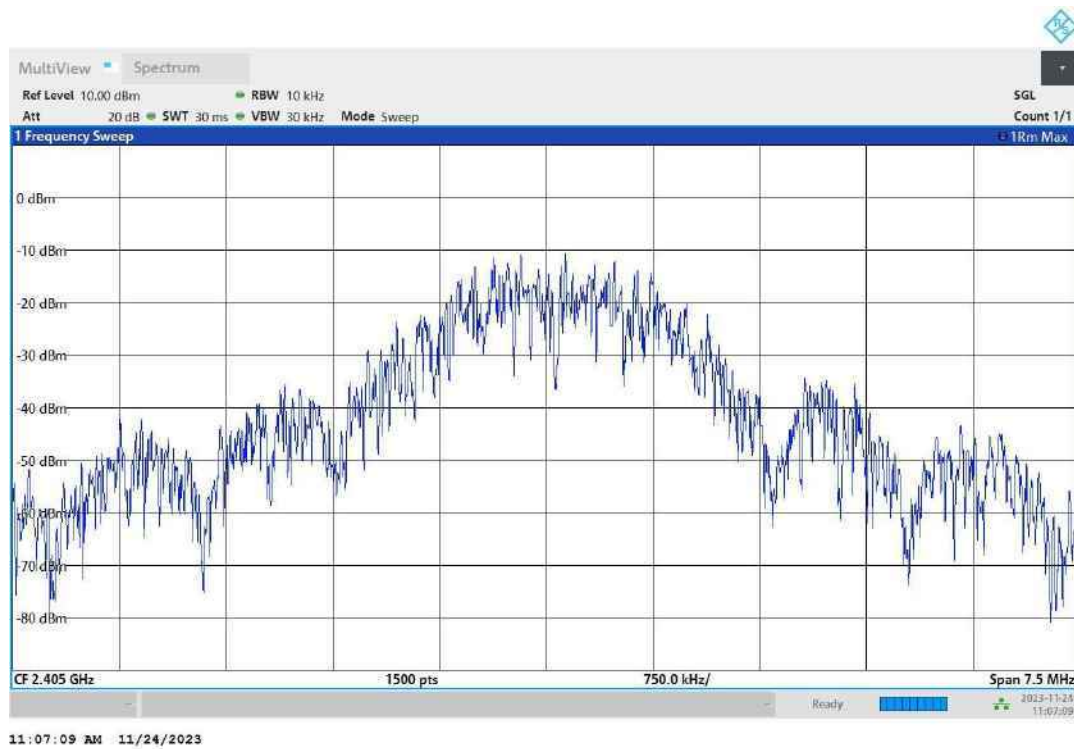
DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2405.000000	2405.277458	5.514	8.0	PASS

Ports

Port	State
1	used



PSD Connector 1



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	10.000 dBm	10.000 dBm
Attenuation	20.000 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	95 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.25 dB	0.50 dB

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

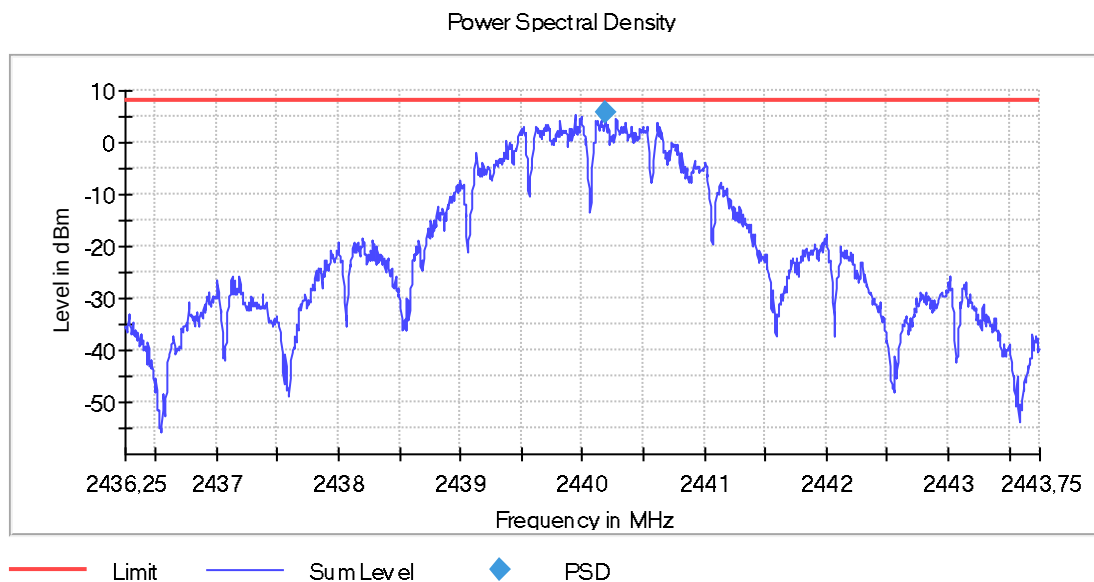
Test according to FCC title 47 part 15 §15.247(a),(e), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

Result

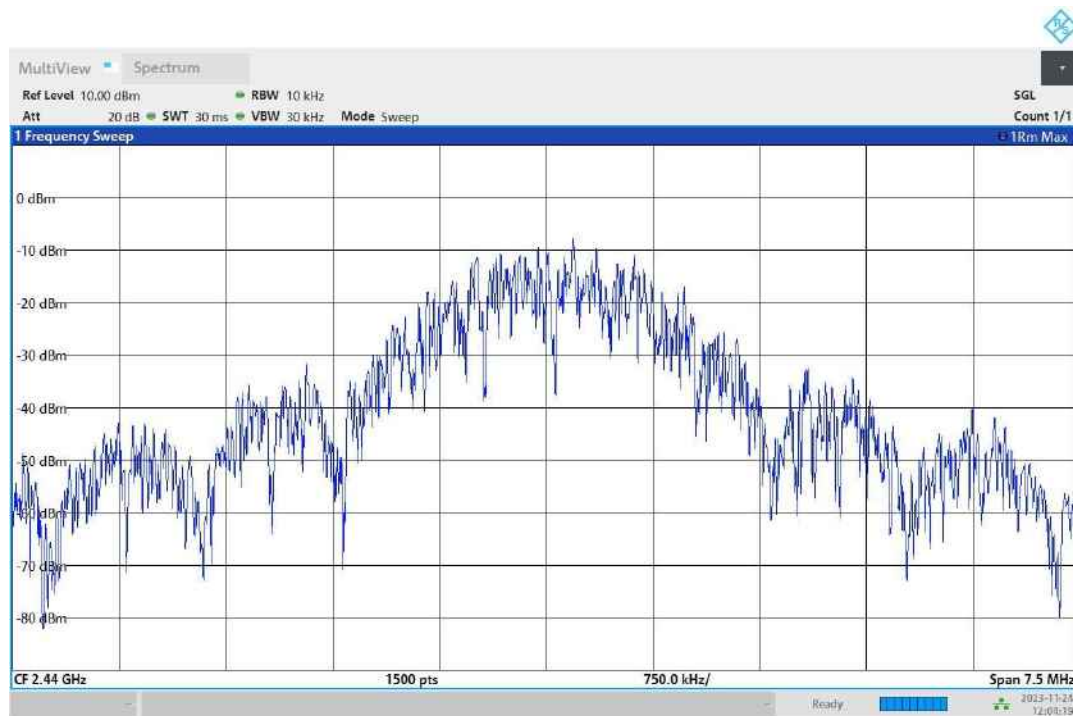
DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2440.000000	2440.187625	5.781	8.0	PASS

Ports

Port	State
1	used



PSD Connector 1



12:04:19 PM 11/24/2023

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	10.000 dBm	10.000 dBm
Attenuation	20.000 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	77 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

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

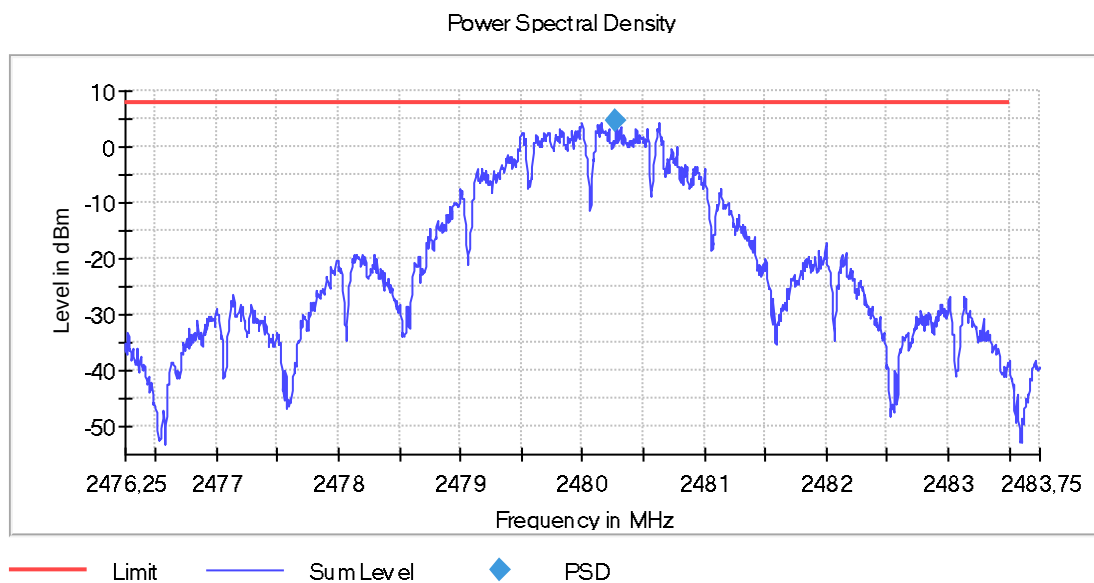
Test according to FCC title 47 part 15 §15.247(a),(e), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

Result

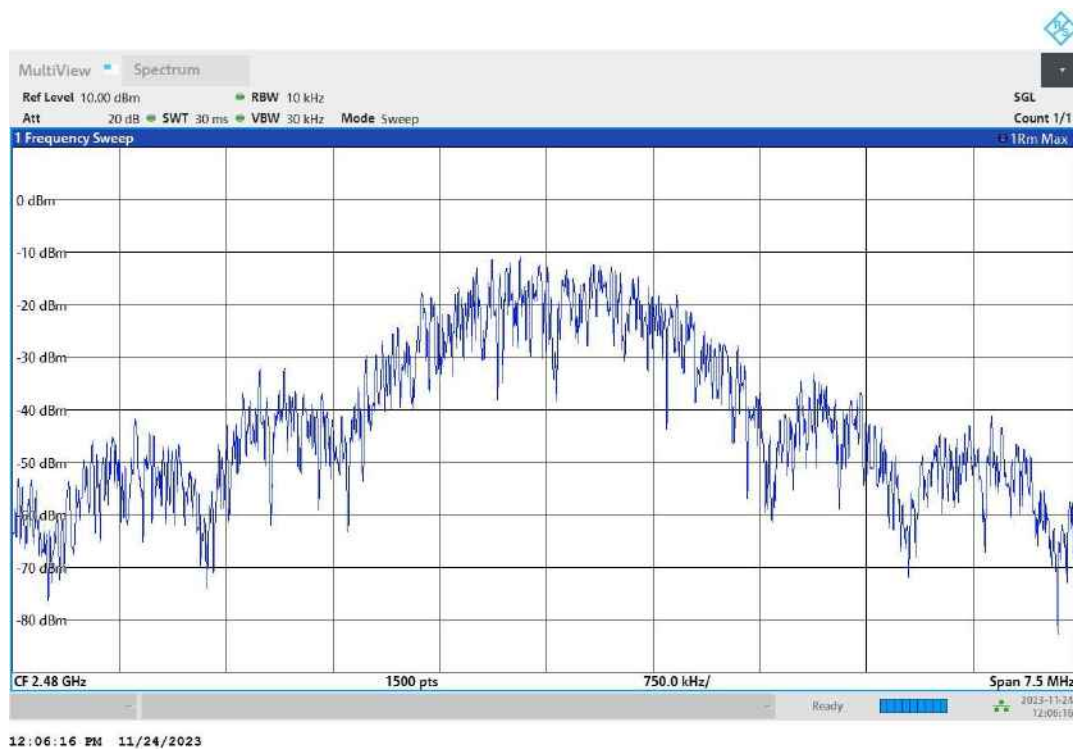
DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2480.000000	2480.277685	4.808	8.0	PASS

Ports

Port	State
1	used



PSD Connector 1



12:06:16 PM 11/24/2023

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	10.000 dBm	10.000 dBm
Attenuation	20.000 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	102 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Power spectral density inverted antenna

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

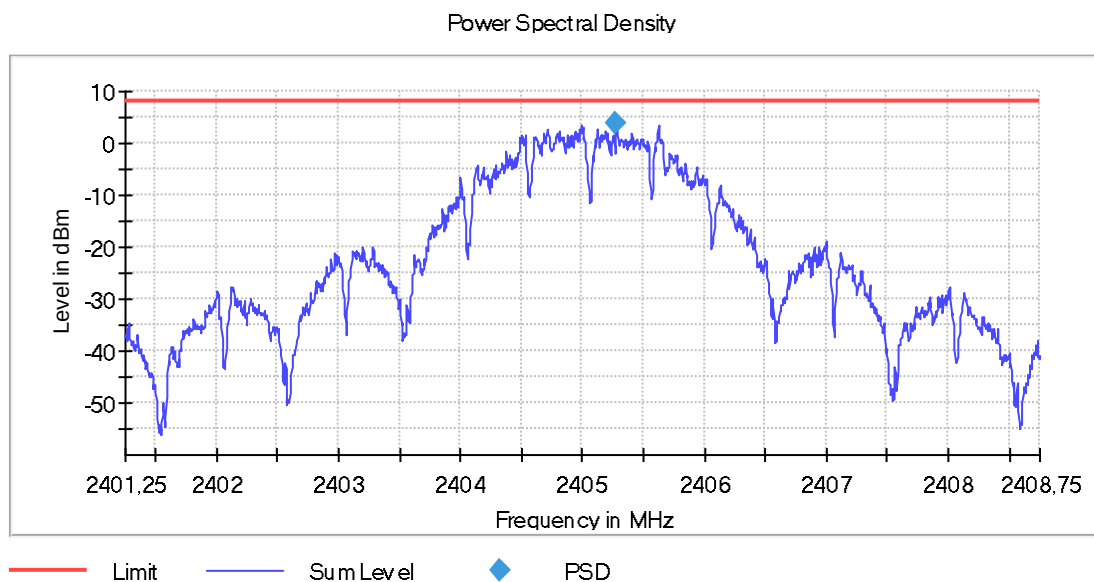
Test according to FCC title 47 part 15 §15.247(a),(e), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

Result

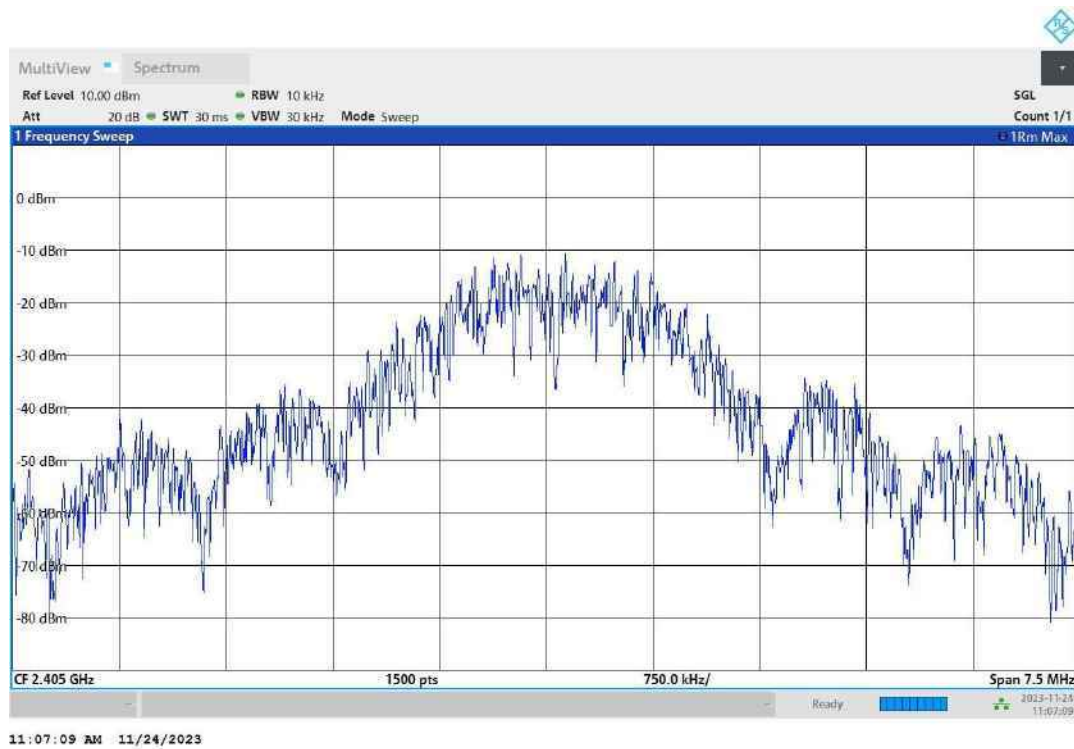
DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2405.000000	2405.277685	3.814	8.0	PASS

Ports

Port	State
1	used



PSD Connector 1



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	10.000 dBm	10.000 dBm
Attenuation	20.000 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	91 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.25 dB	0.50 dB

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

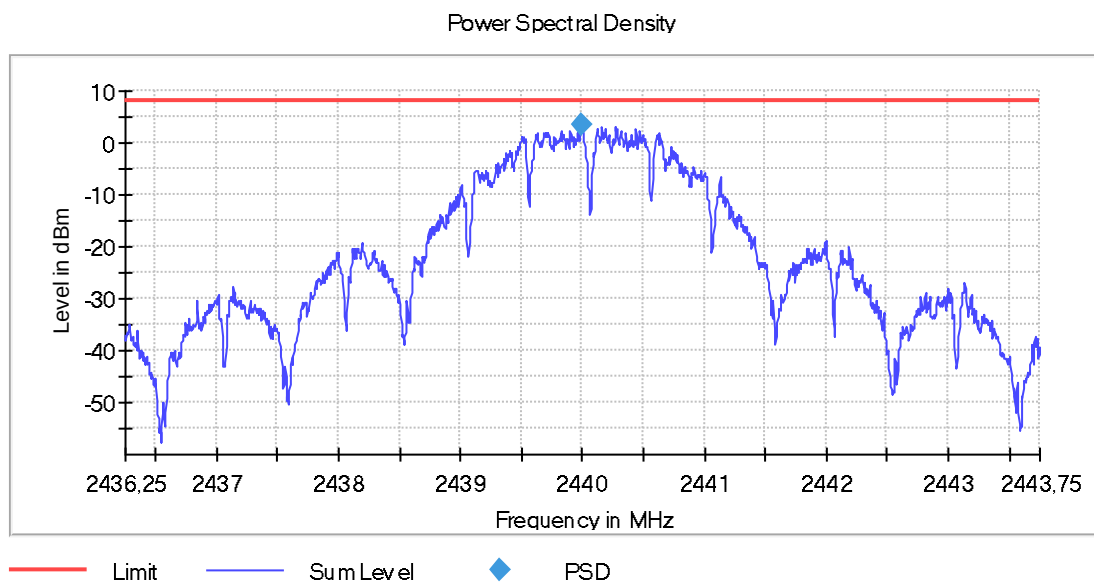
Test according to FCC title 47 part 15 §15.247(a),(e), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

Result

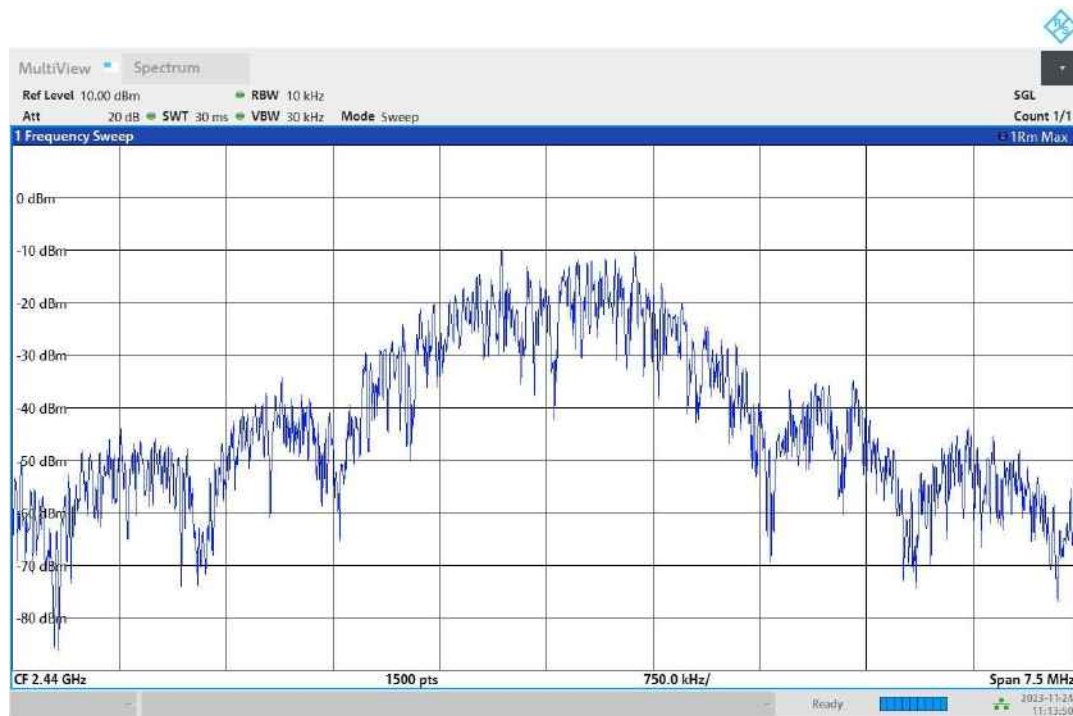
DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2440.000000	2439.992495	3.421	8.0	PASS

Ports

Port	State
1	used



PSD Connector 1



11:13:51 AM 11/24/2023

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	10.000 dBm	10.000 dBm
Attenuation	20.000 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	125 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

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

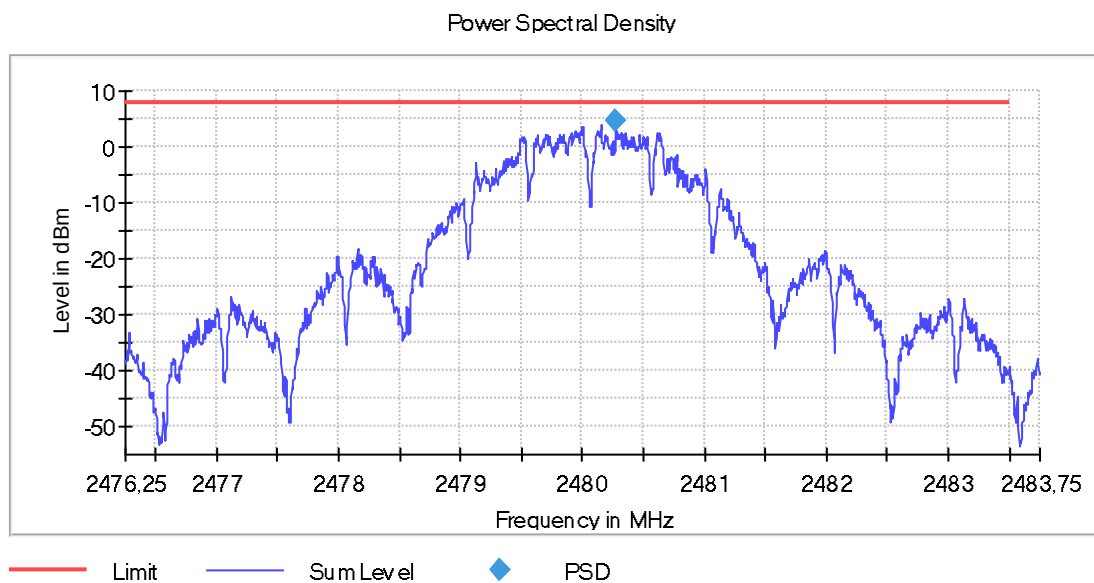
Test according to FCC title 47 part 15 §15.247(a),(e), KDB 558074 D01 DTS Meas Guidance v03r05 and ANSI C63.10-2013

Result

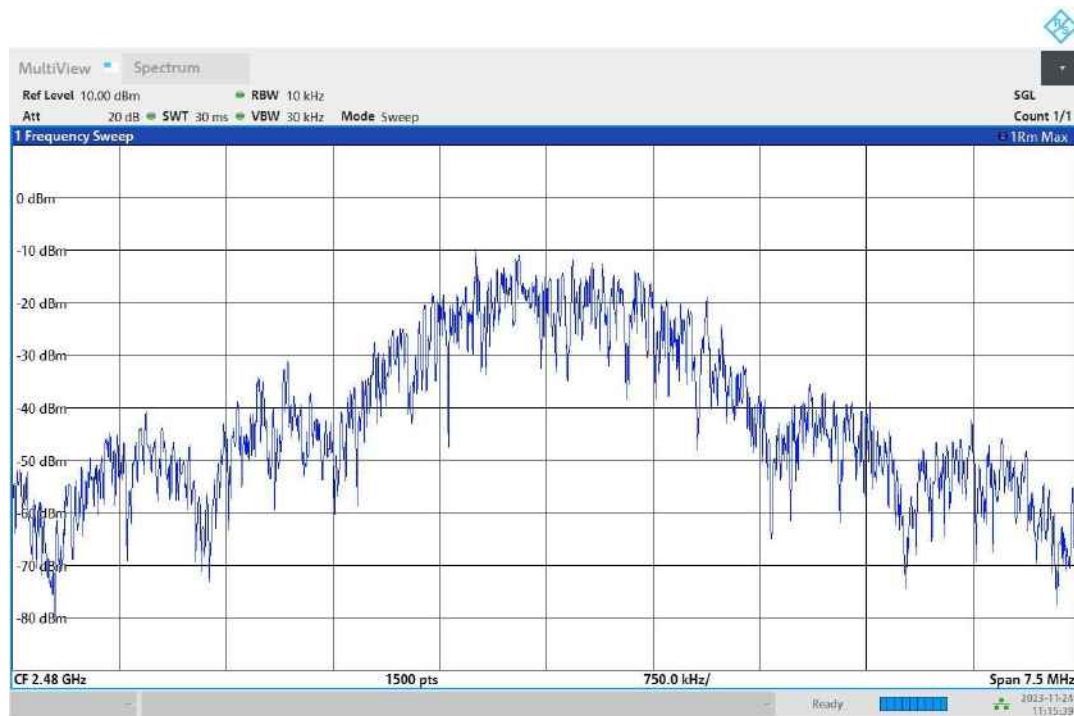
DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
2480.000000	2480.272682	4.714	8.0	PASS

Ports

Port	State
1	used



PSD Connector 1



11:15:40 AM 11/24/2023

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	10.000 dBm	10.000 dBm
Attenuation	20.000 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	85 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.47 dB	0.50 dB

Emission Bandwidth 6 dB slot antenna

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

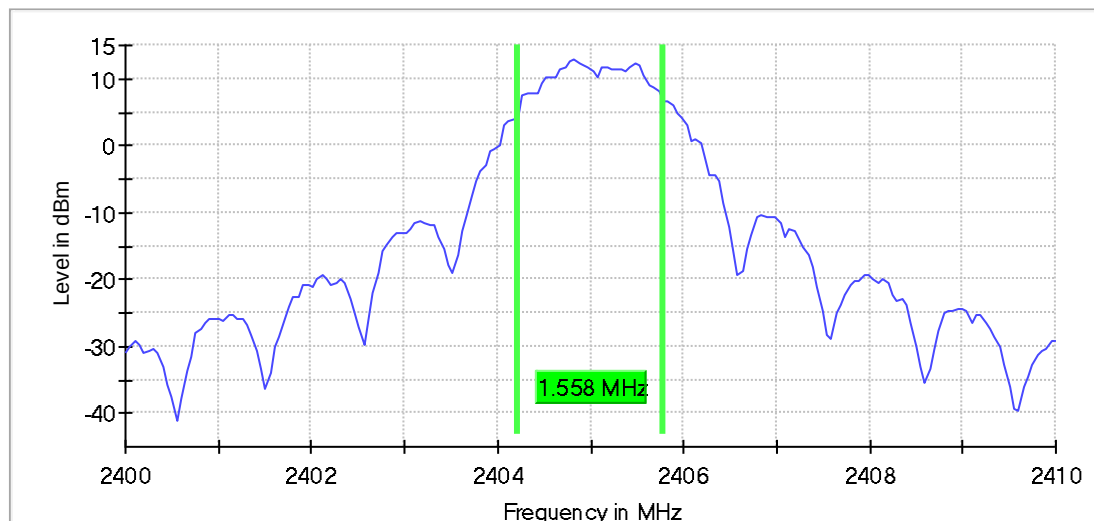
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2405.000000	1.557788	0.500000	---	2404.221106	2405.778894

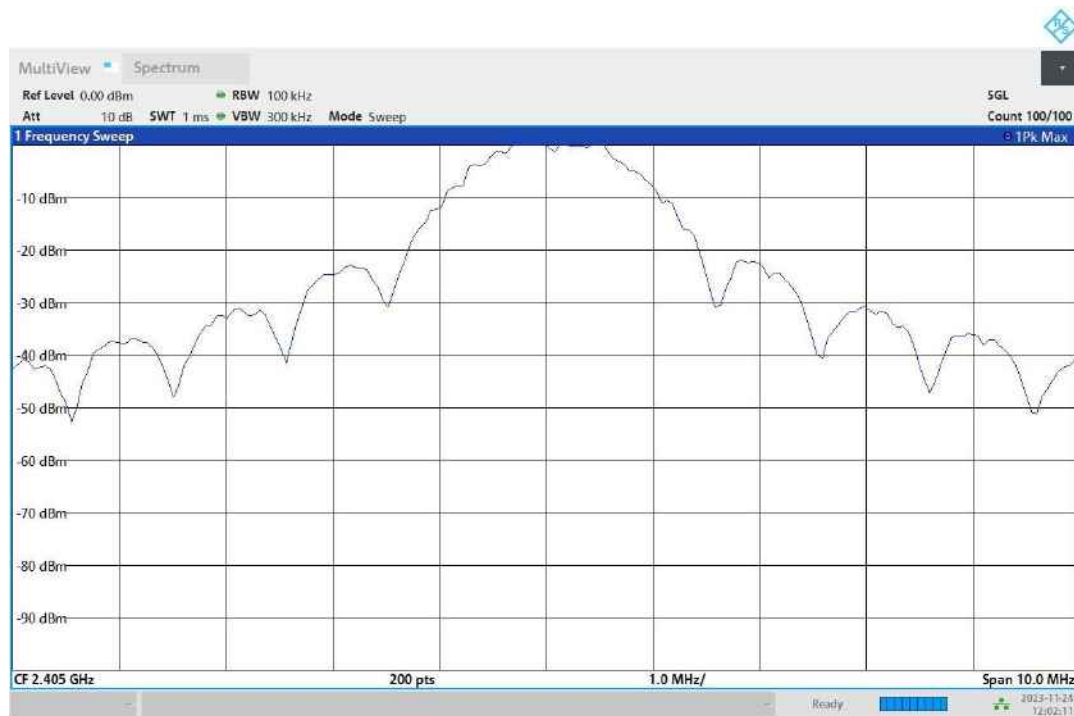
(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2405.000000	12.9	PASS

6 dB Bandwidth



Bandwidth



12:02:12 PM 11/24/2023

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	11 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.49 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

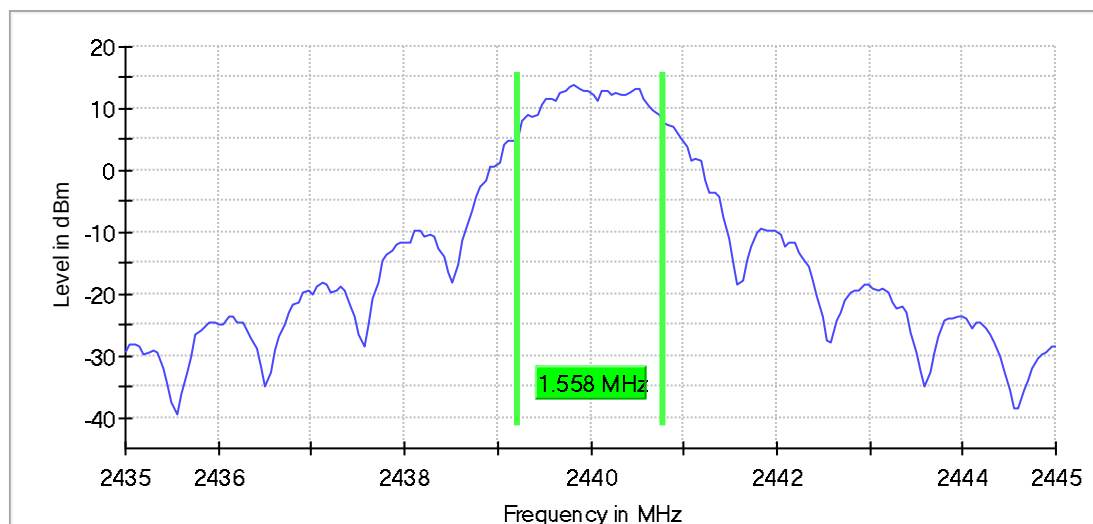
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	1.557788	0.500000	---	2439.221106	2440.778894

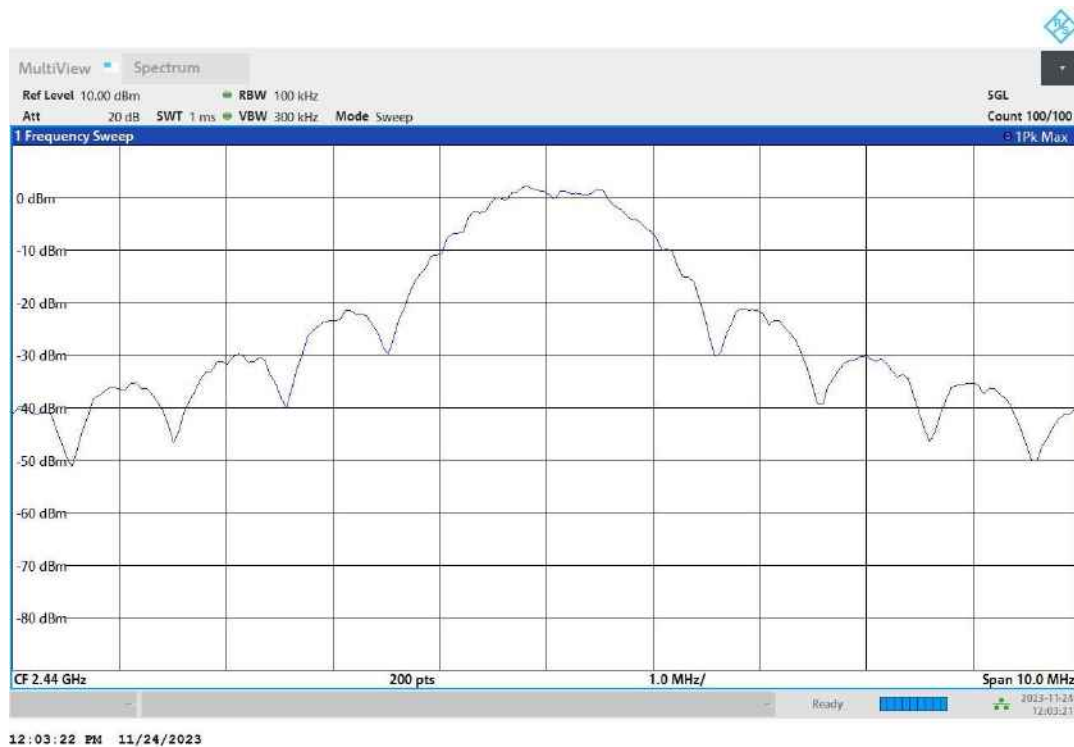
(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	13.8	PASS

6 dB Bandwidth



Bandwidth



12:03:22 PM 11/24/2023

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	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	10 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.00 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

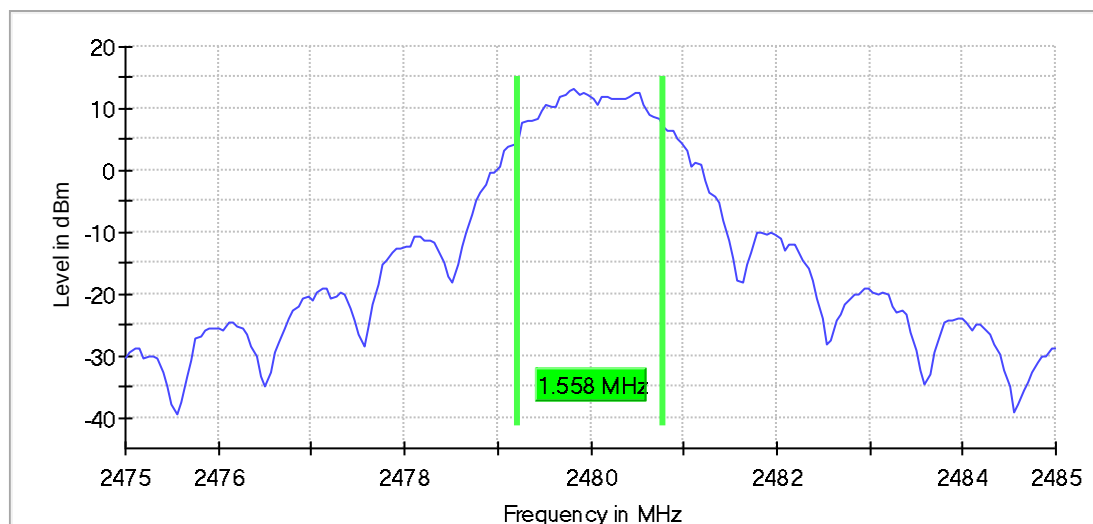
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.557788	0.500000	---	2479.221106	2480.778894

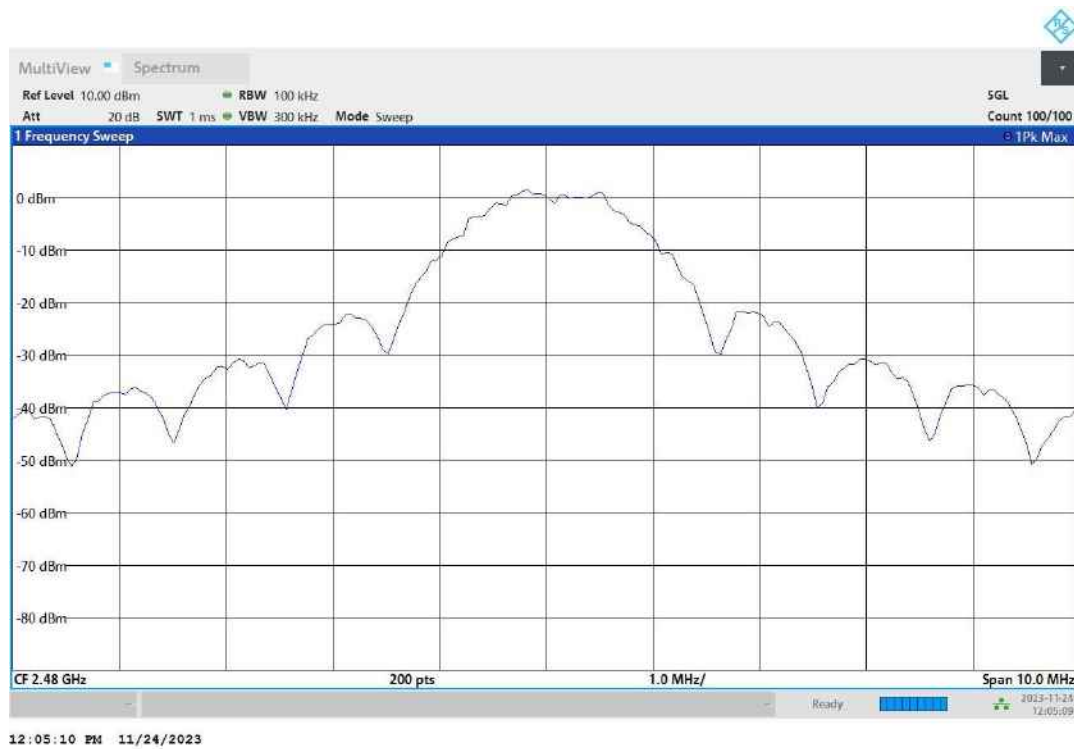
(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	13.1	PASS

6 dB Bandwidth



Bandwidth



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	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	11 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.15 dB	0.50 dB

Emission Bandwidth 6 dB inverted antenna

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

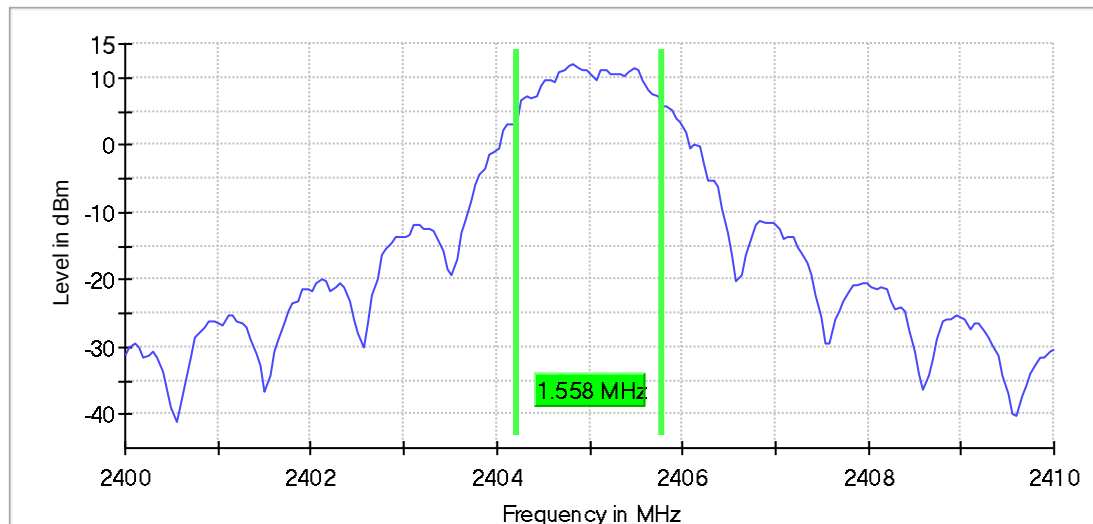
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2405.000000	1.557788	0.500000	---	2404.221106	2405.778894

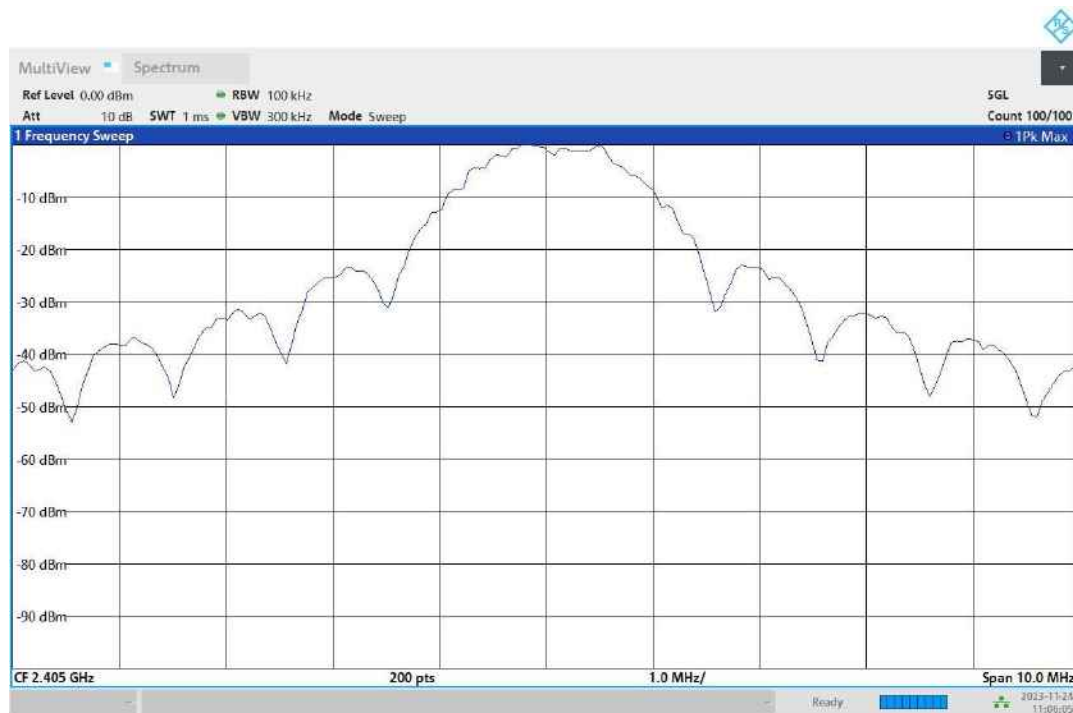
(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2405.000000	12.1	PASS

6 dB Bandwidth



Bandwidth



11:06:06 AM 11/24/2023

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	14 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.01 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

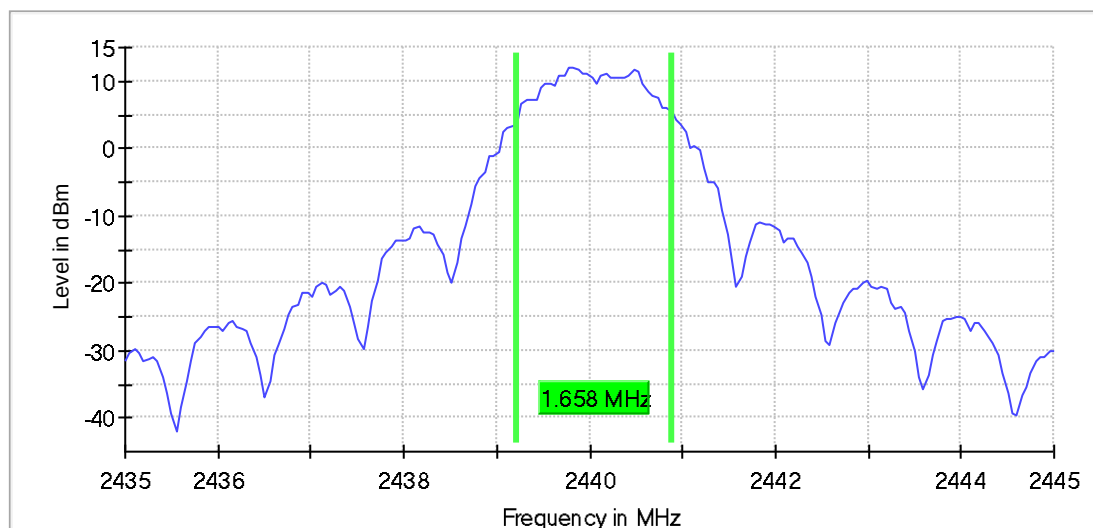
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	1.658291	0.500000	---	2439.221106	2440.879397

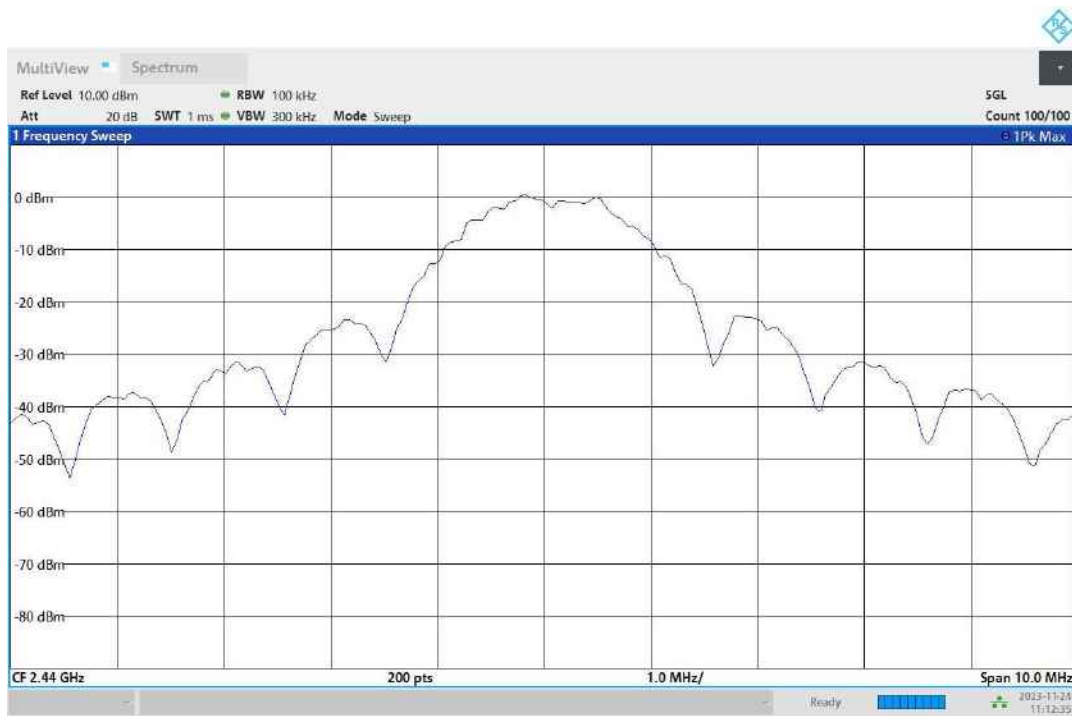
(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	12.1	PASS

6 dB Bandwidth



Bandwidth



11:12:35 AM 11/24/2023

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	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	16 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.12 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

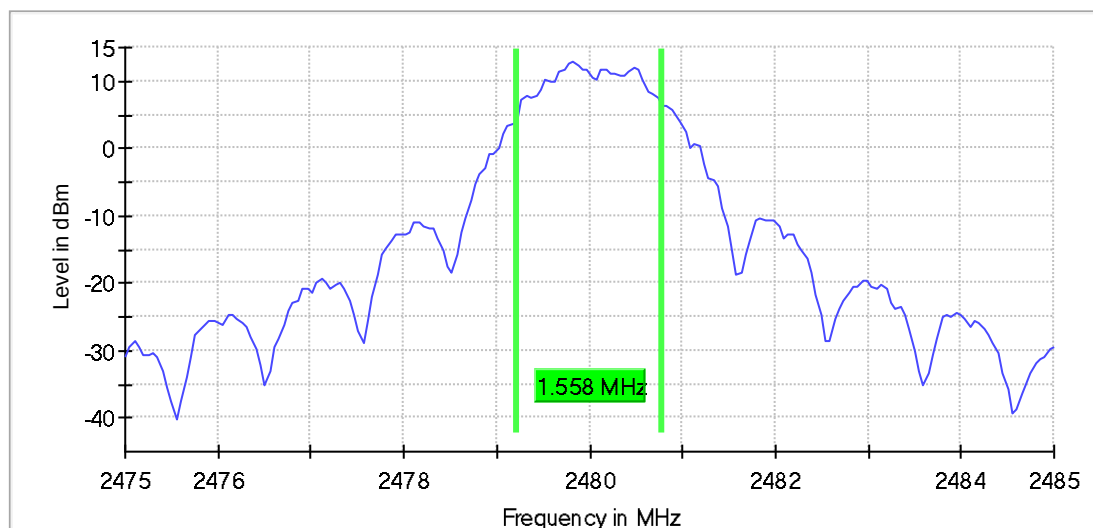
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.557788	0.500000	---	2479.221106	2480.778894

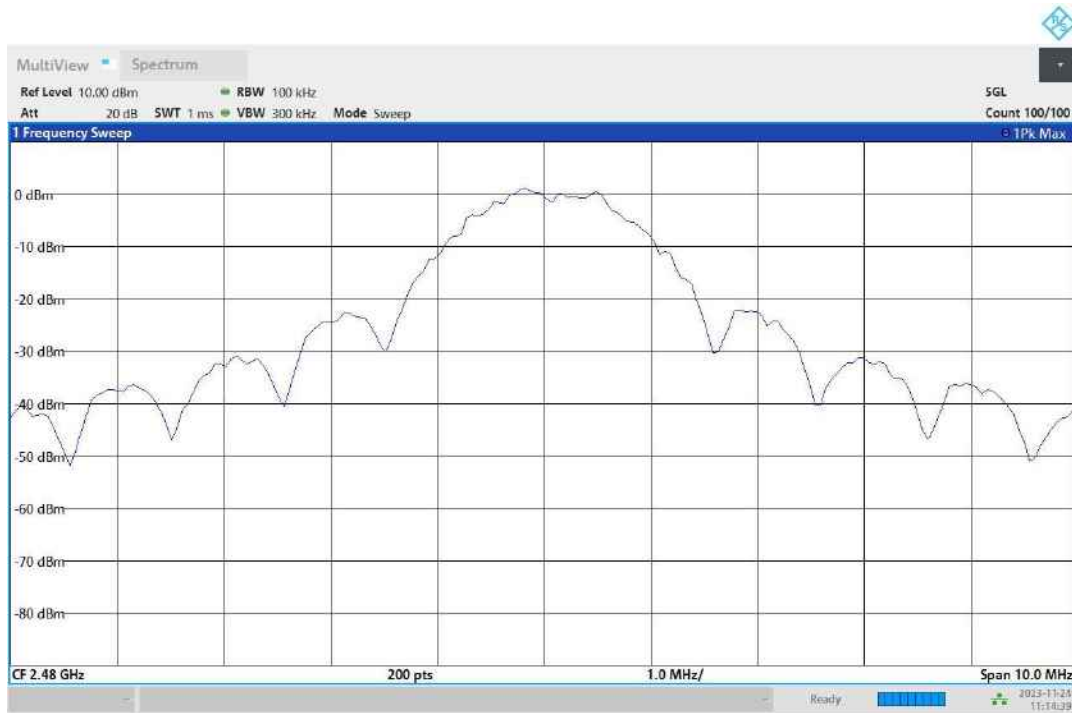
(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	12.8	PASS

6 dB Bandwidth



Bandwidth



11:14:39 AM 11/24/2023

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	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	10 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.31 dB	0.50 dB

Emission Bandwidth 20 dB slot antenna

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

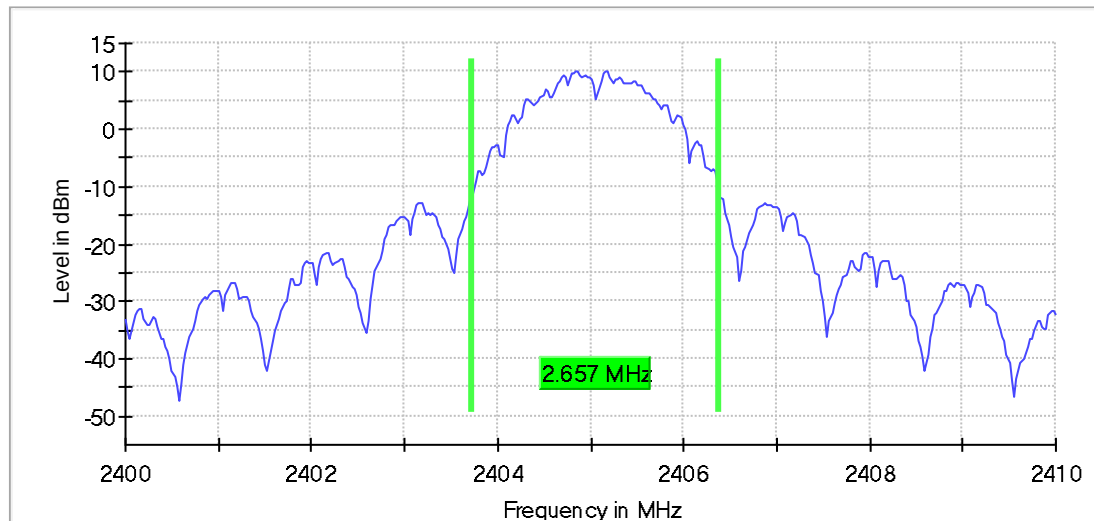
20 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2405.000000	2.656641	---	---	2403.734336	2406.390977

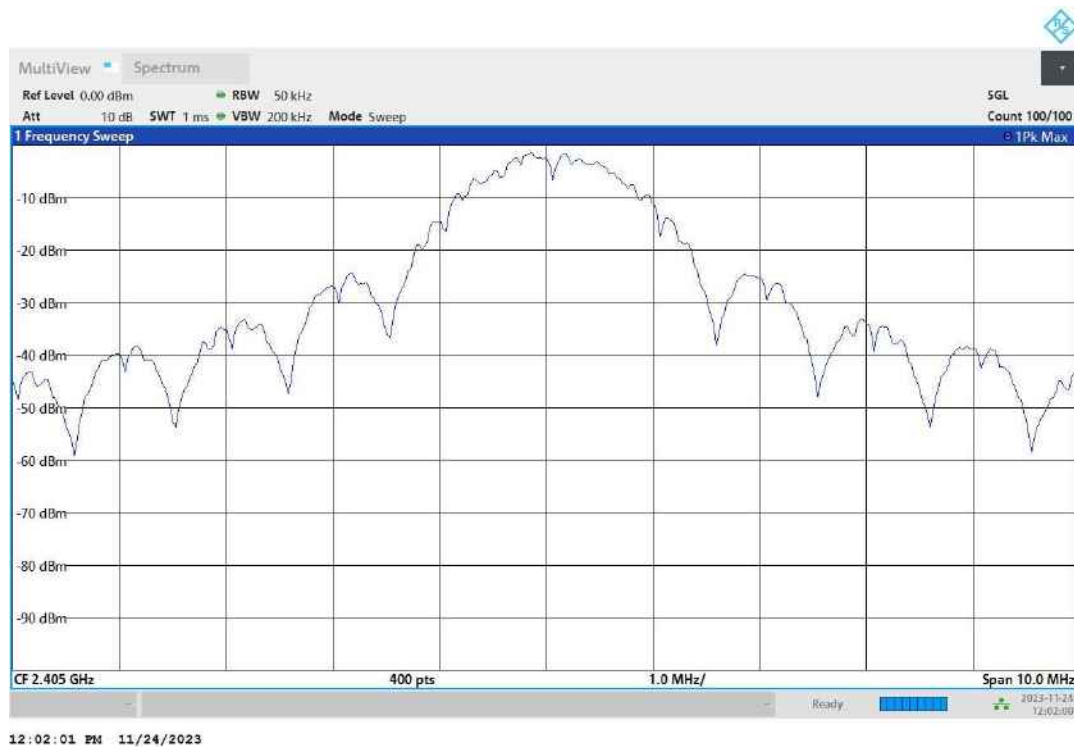
(continuation of the "20 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2405.000000	10.2	PASS

20 dB Bandwidth



Bandwidth



12:02:01 PM 11/24/2023

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	15 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.08 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

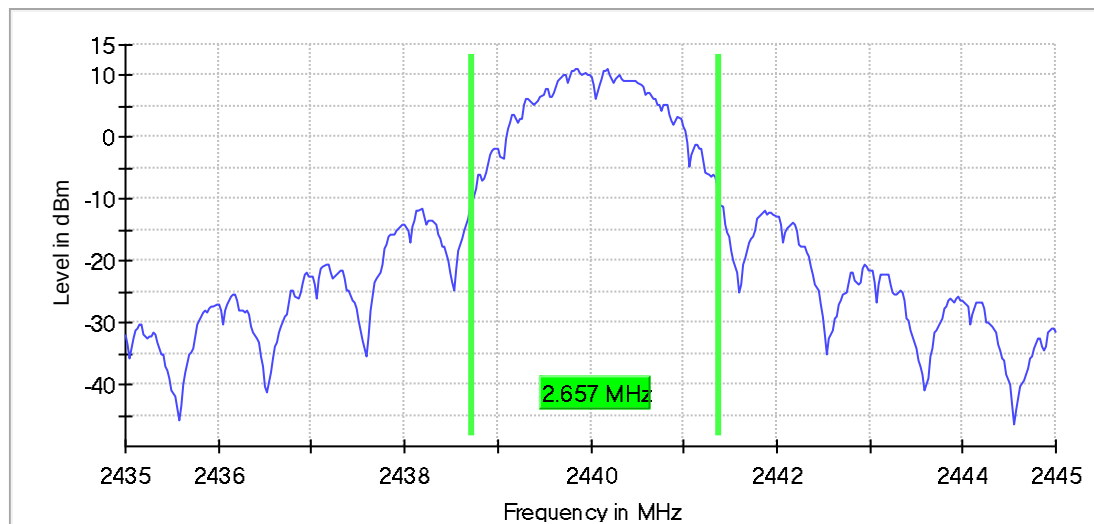
20 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	2.656641	---	---	2438.734336	2441.390977

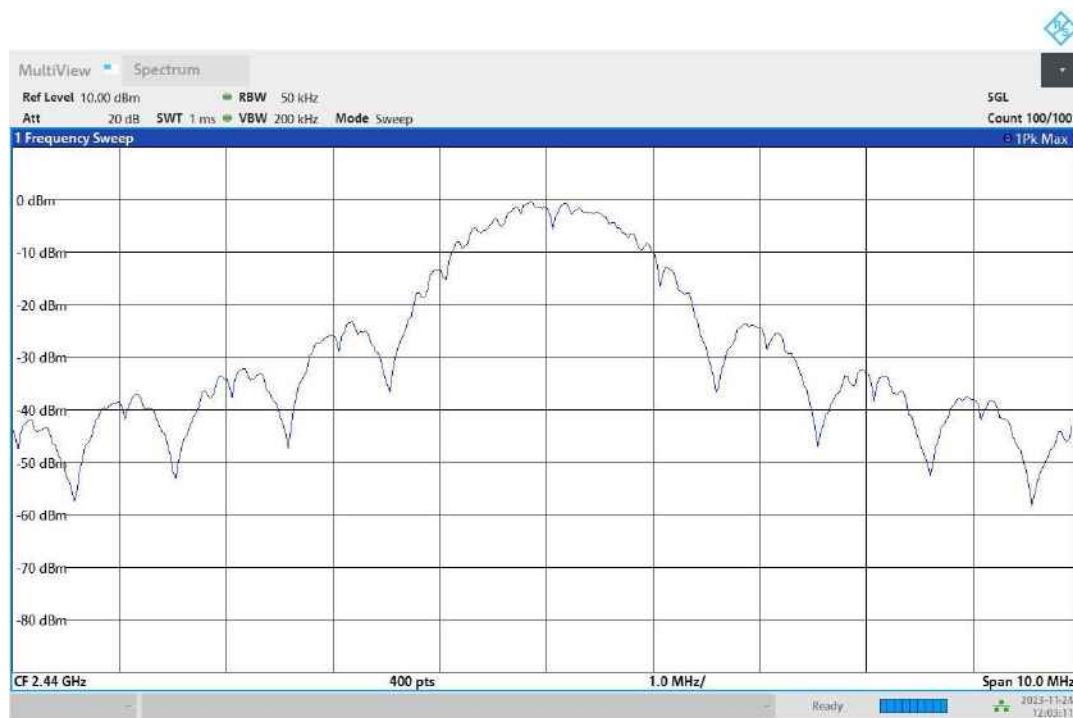
(continuation of the "20 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	11.3	PASS

20 dB Bandwidth



Bandwidth



12:03:12 PM 11/24/2023

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	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	10 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.15 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

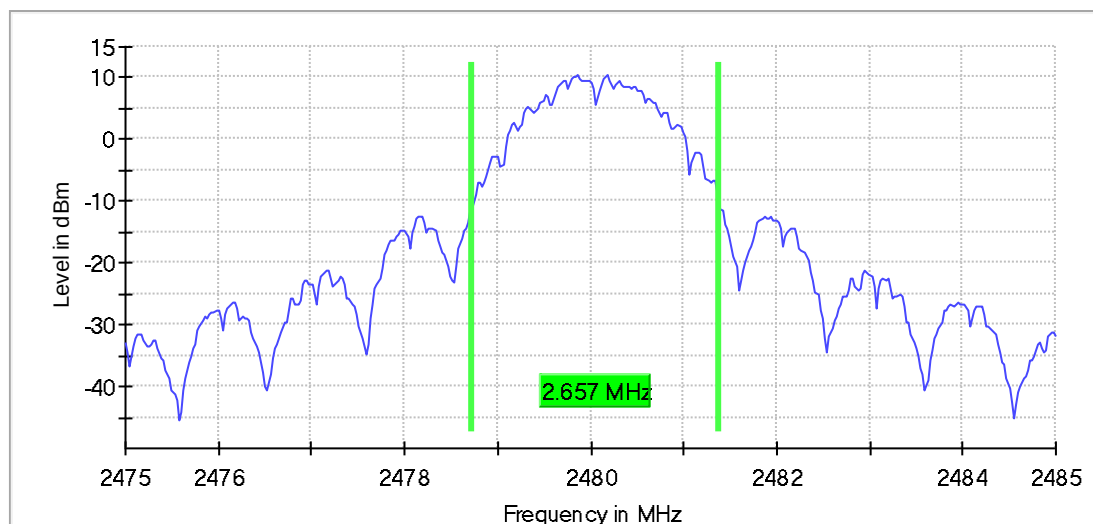
20 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	2.656641	---	---	2478.734336	2481.390977

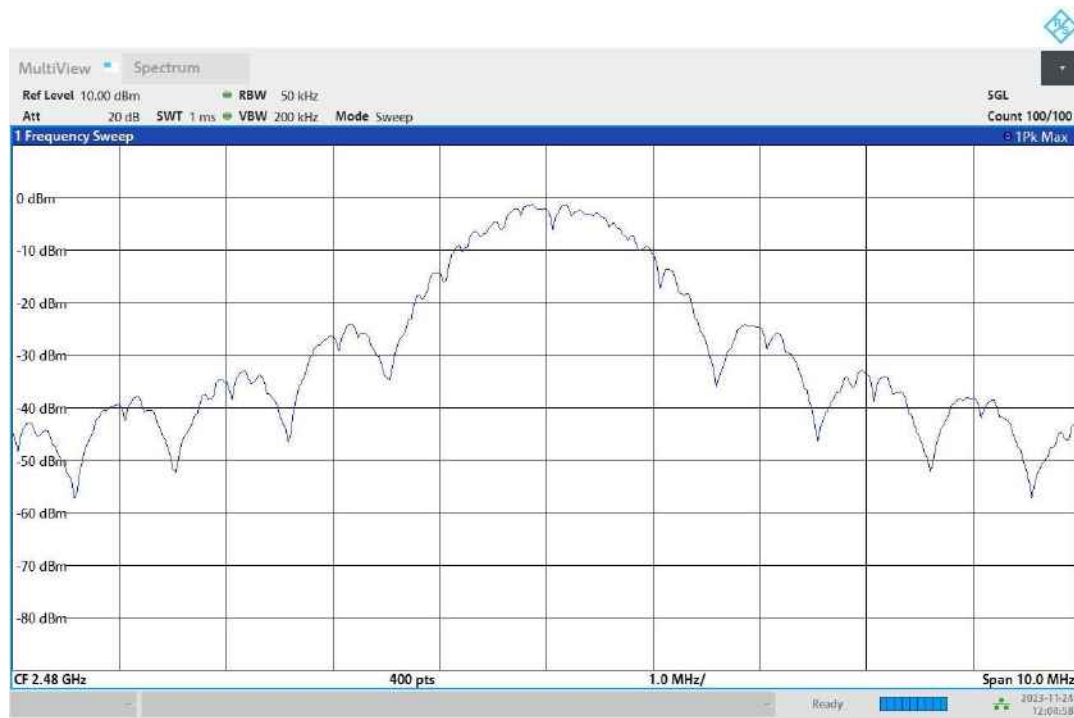
(continuation of the "20 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	10.5	PASS

20 dB Bandwidth



Bandwidth



12:04:59 PM 11/24/2023

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	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	15 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.02 dB	0.50 dB

Emission Bandwidth 20 dB inverted antenna

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

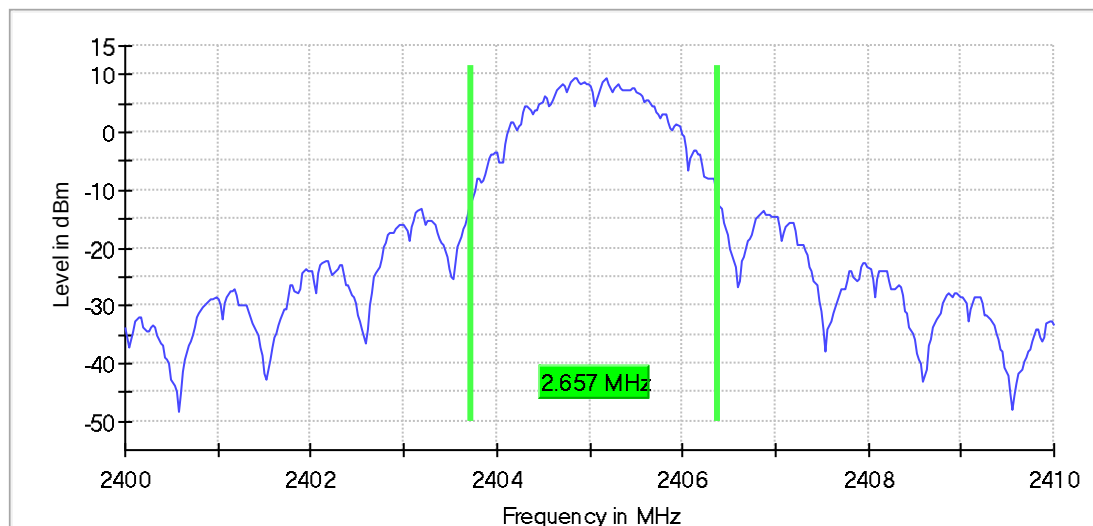
20 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2405.000000	2.656641	---	---	2403.734336	2406.390977

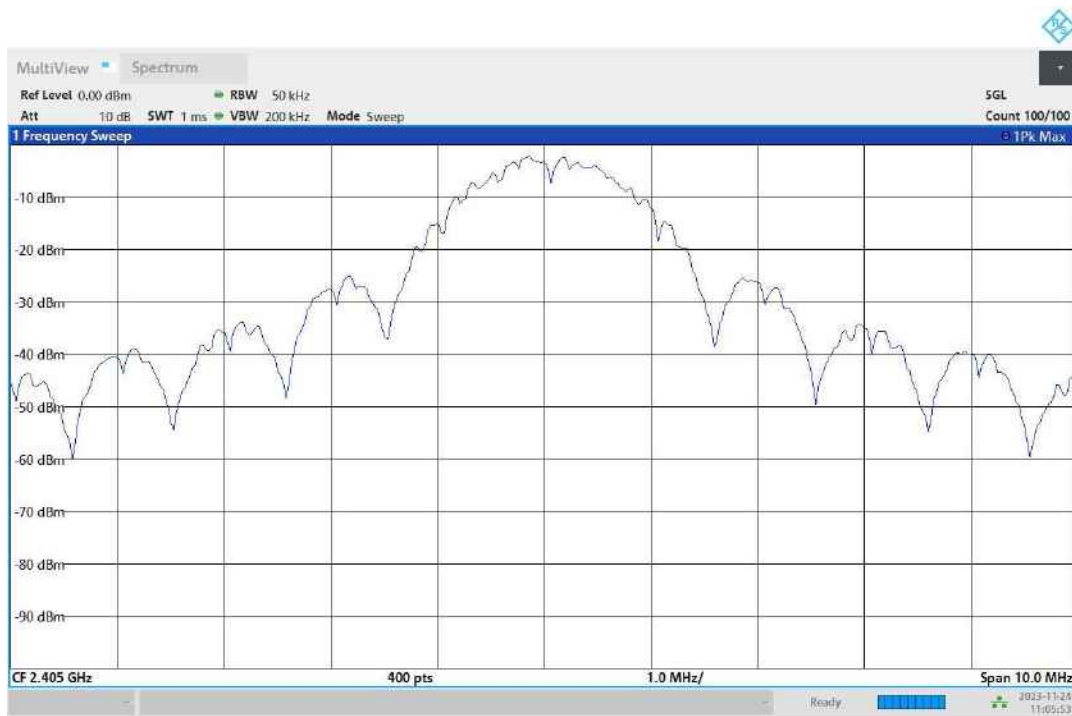
(continuation of the "20 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2405.000000	9.5	PASS

20 dB Bandwidth



Bandwidth



11:05:54 AM 11/24/2023

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	12 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.14 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

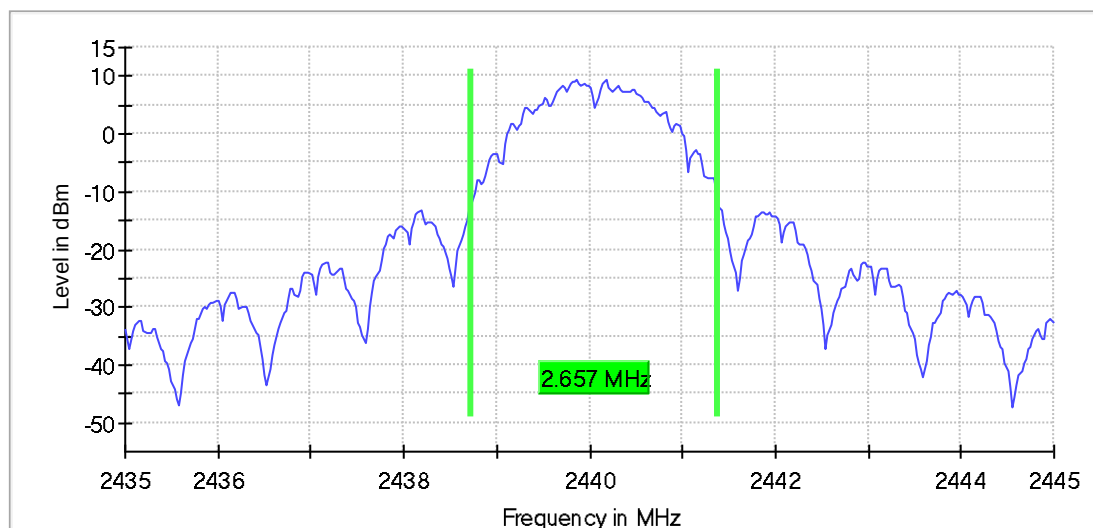
20 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	2.656641	---	---	2438.734336	2441.390977

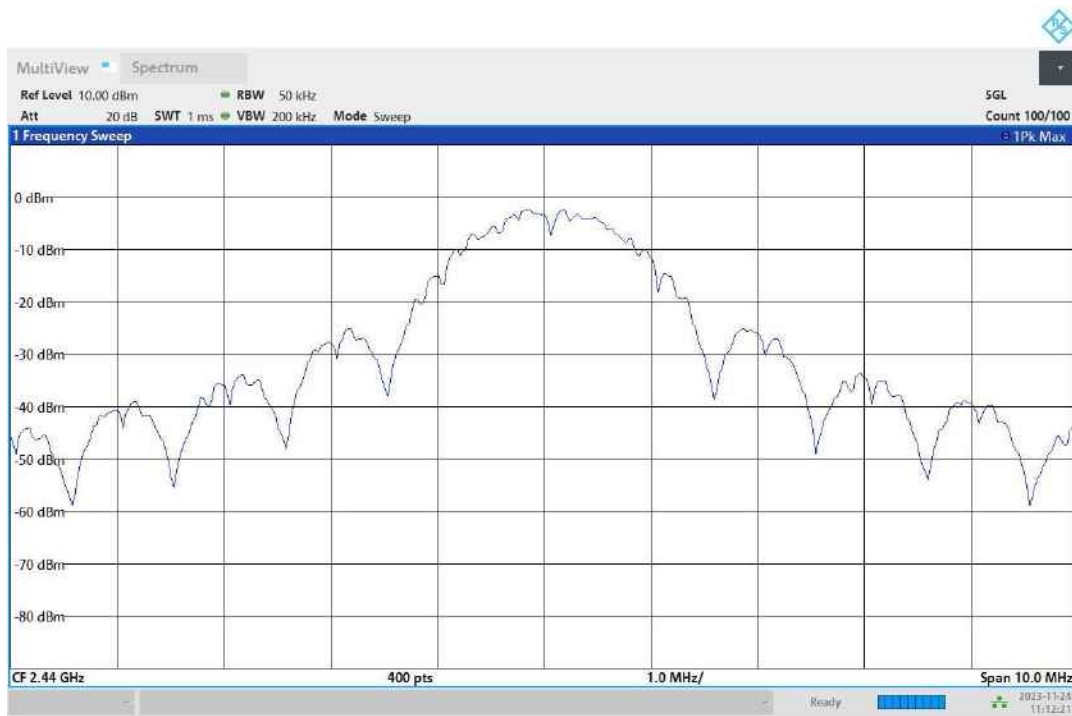
(continuation of the "20 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	9.3	PASS

20 dB Bandwidth



Bandwidth



11:12:22 AM 11/24/2023

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	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	10 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.13 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

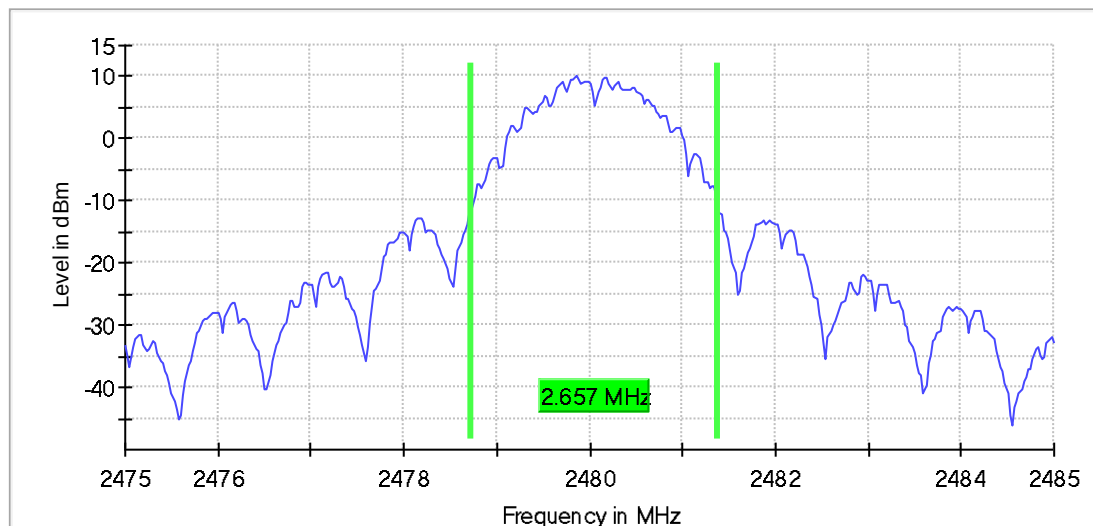
20 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	2.656641	---	---	2478.734336	2481.390977

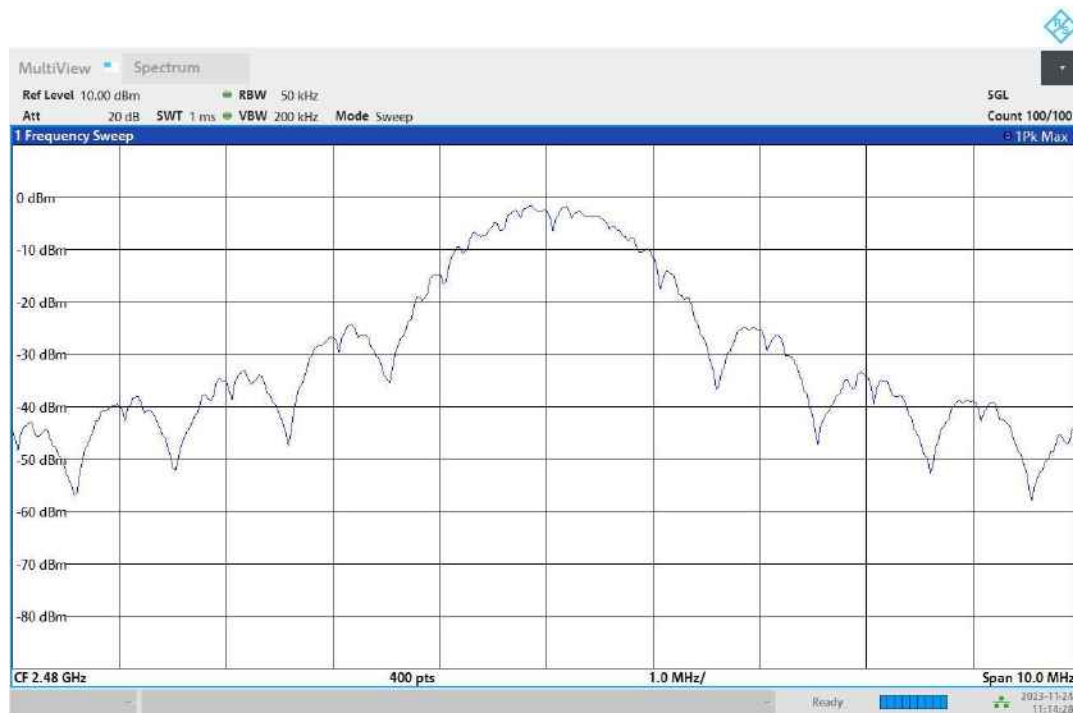
(continuation of the "20 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	10.1	PASS

20 dB Bandwidth



Bandwidth



11:14:28 AM 11/24/2023

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	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	12 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.43 dB	0.50 dB

Occupied Channel Bandwidth 99% slot antenna

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

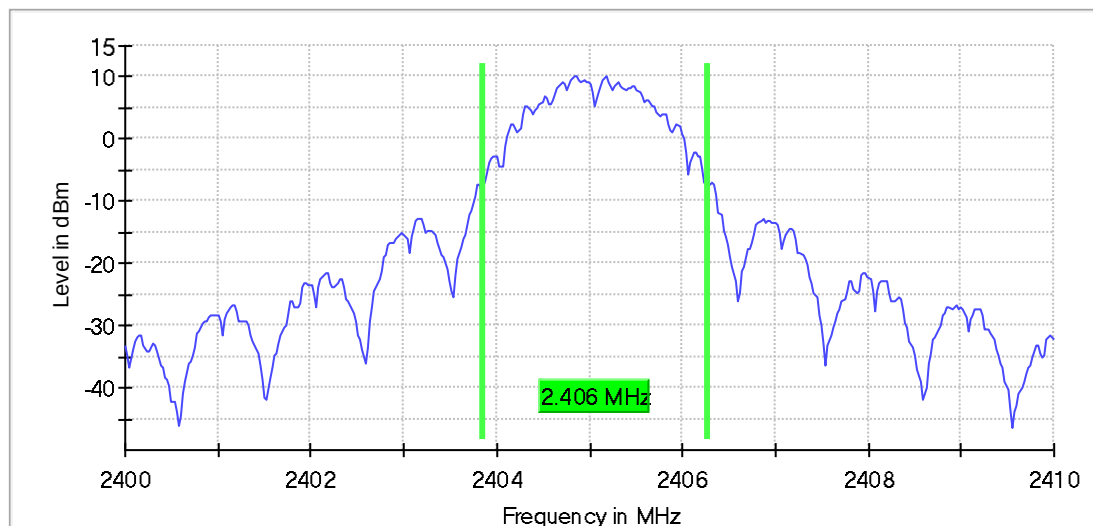
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2405.000000	2.406015	---	---	2403.859649	2406.265664

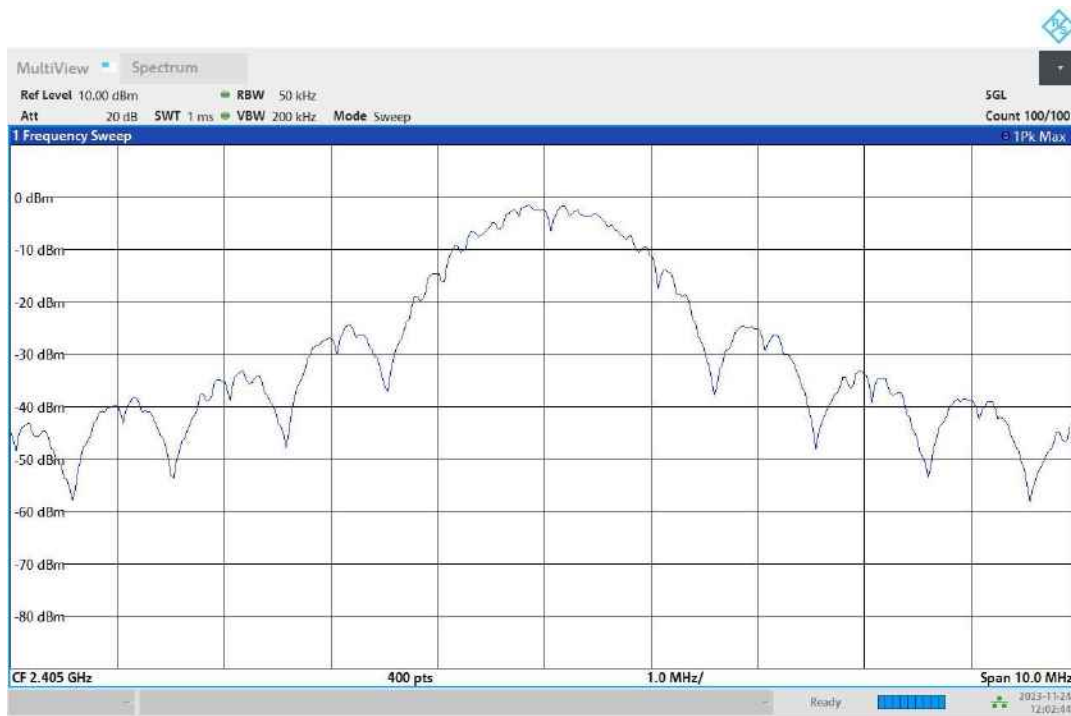
(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2405.000000	PASS

99 %Bandwidth



Bandwidth



12:02:45 PM 11/24/2023

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	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	0.30 dB	0.30 dB
Run	12 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.18 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

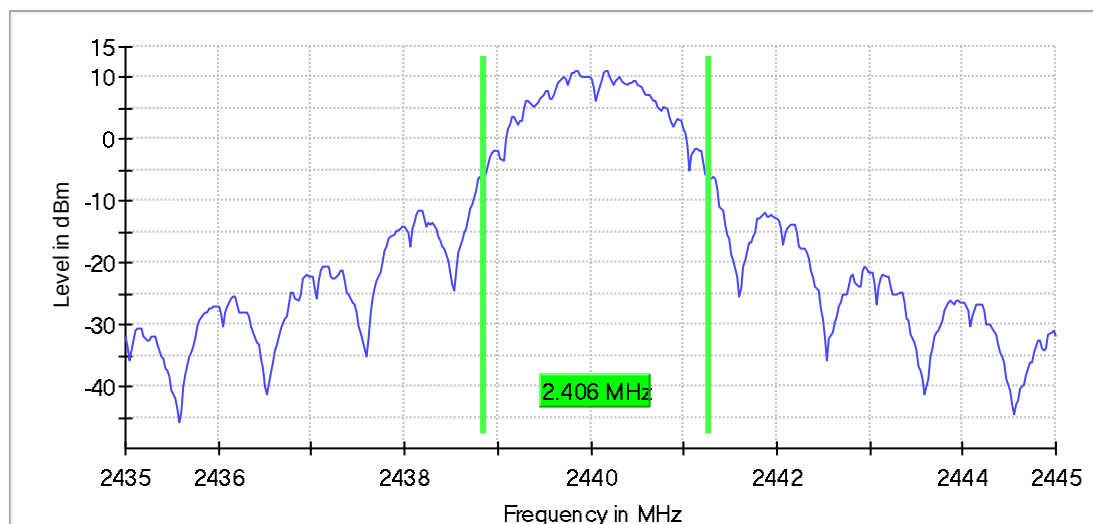
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	2.406015	---	---	2438.859649	2441.265664

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

DUT Frequency (MHz)	Result
2440.000000	PASS

99 %Bandwidth



Bandwidth



12:04:31 PM 11/24/2023

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	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	0.30 dB	0.30 dB
Run	13 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.03 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

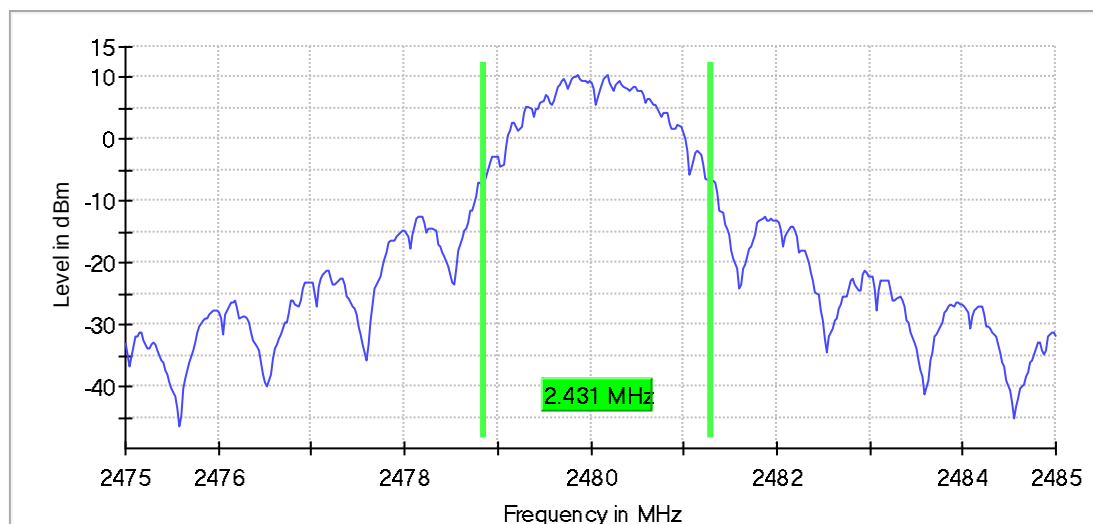
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	2.431078	---	---	2478.859649	2481.290727

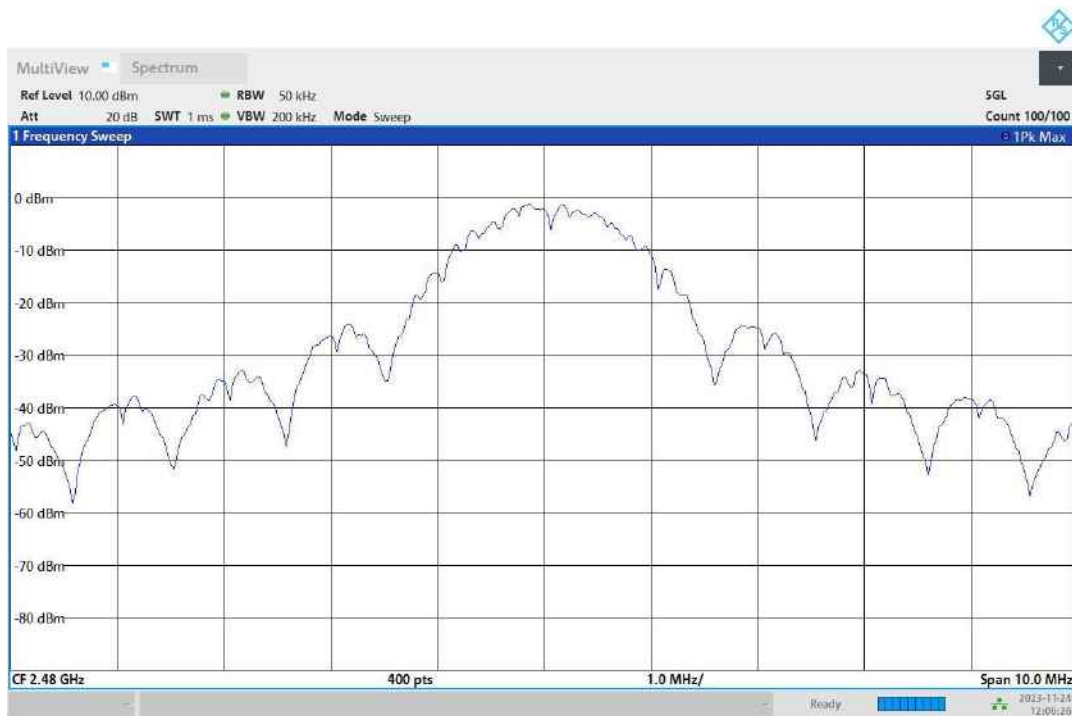
(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2480.000000	PASS

99 %Bandwidth



Bandwidth



12:06:27 PM 11/24/2023

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	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	0.30 dB	0.30 dB
Run	8 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.28 dB	0.30 dB

Occupied Channel Bandwidth 99% inverted antenna

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

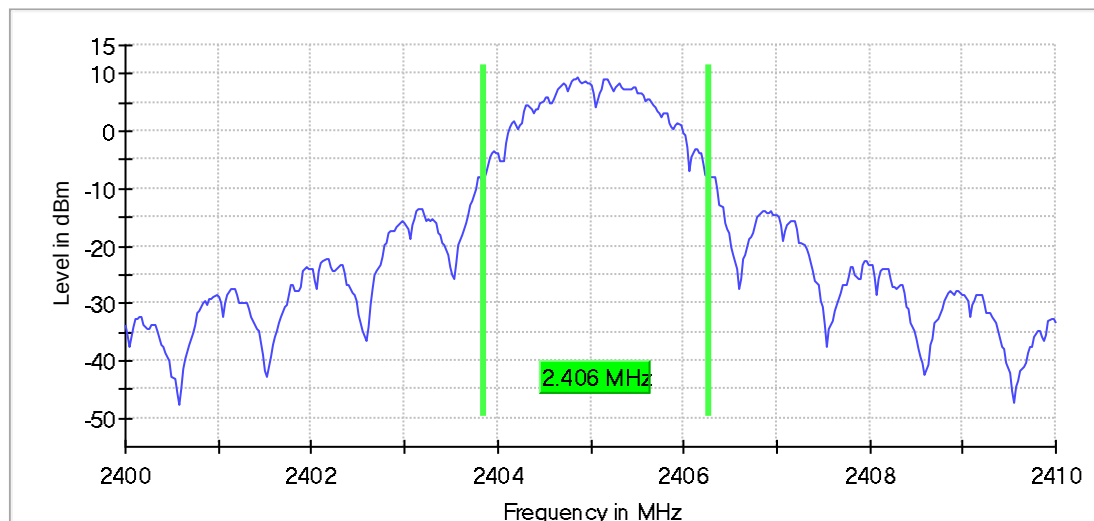
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2405.000000	2.406015	---	---	2403.859649	2406.265664

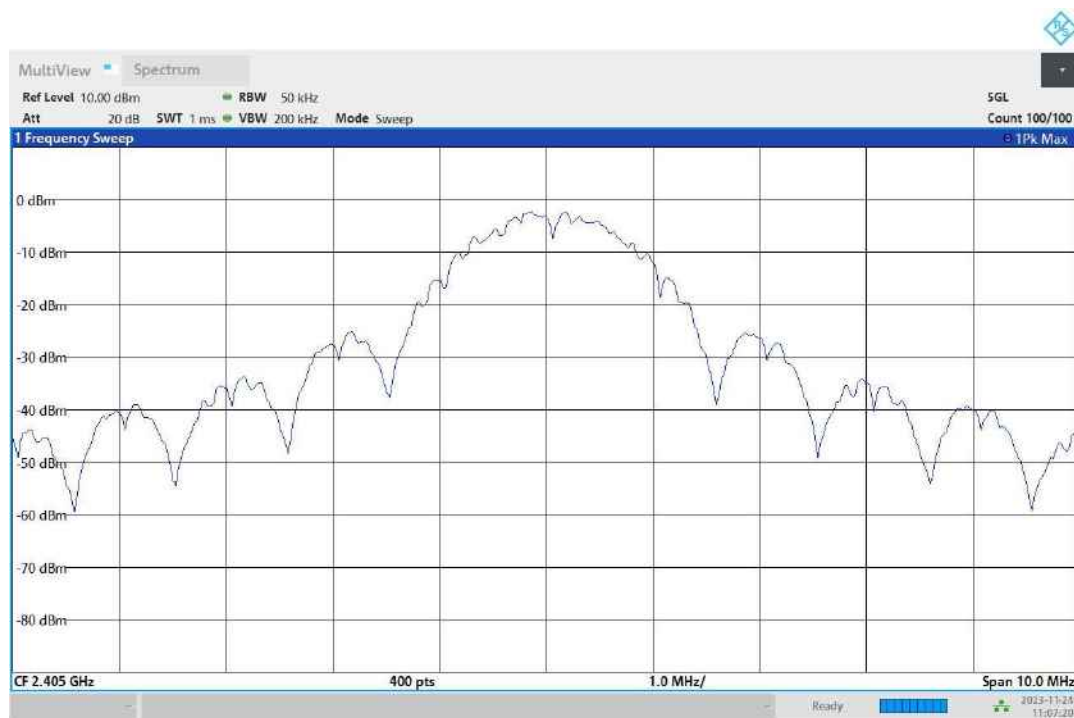
(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2405.000000	PASS

99 %Bandwidth



Bandwidth



11:07:21 AM 11/24/2023

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	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	0.30 dB	0.30 dB
Run	10 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.12 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

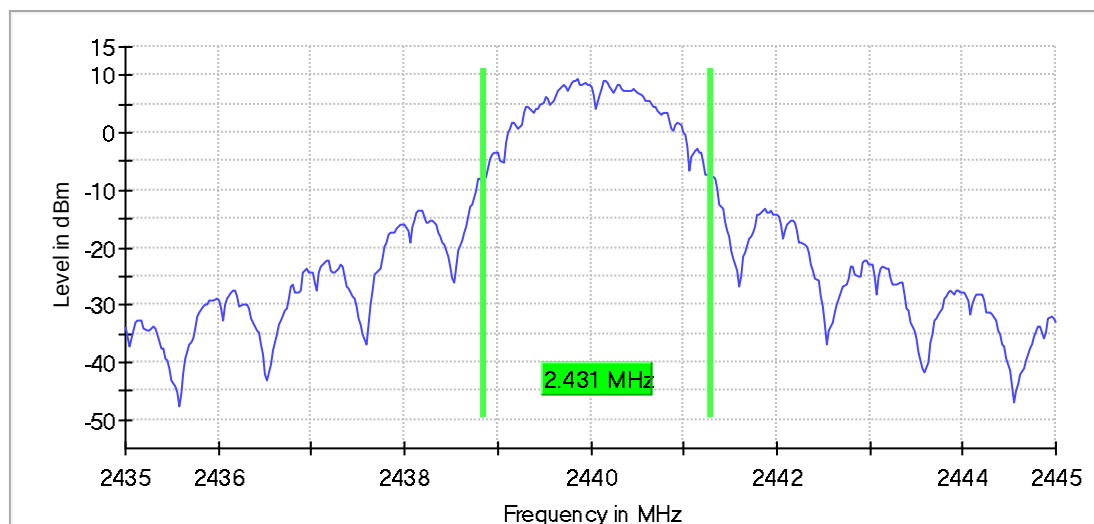
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	2.431078	---	---	2438.859649	2441.290727

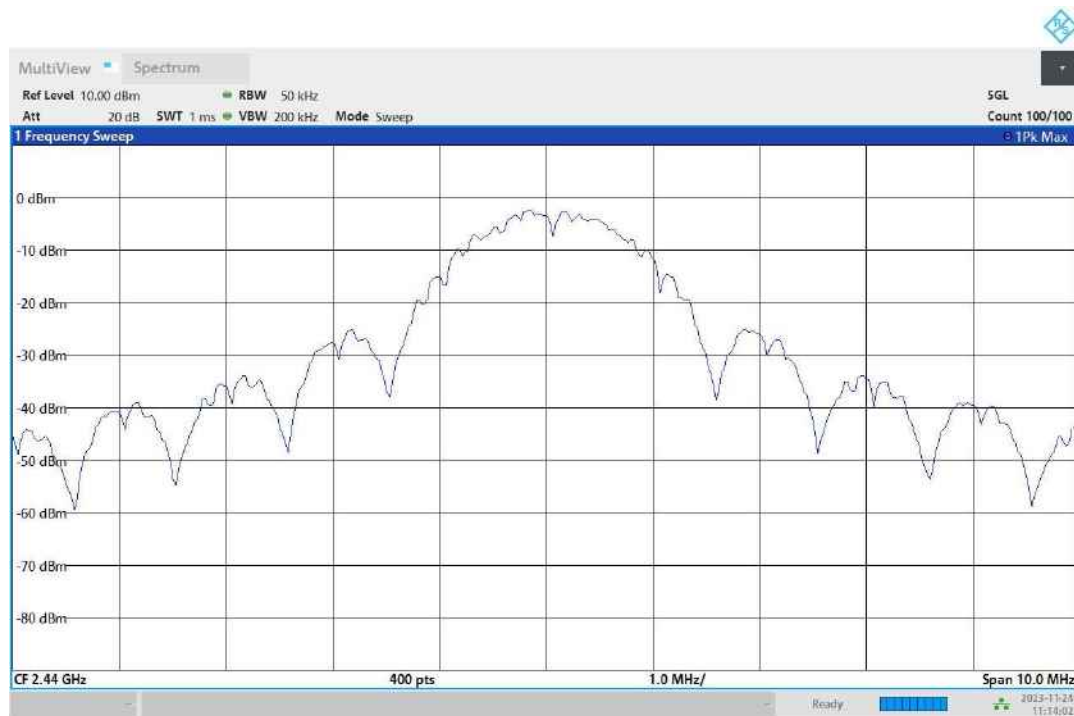
(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2440.000000	PASS

99 %Bandwidth



Bandwidth



11:14:03 AM 11/24/2023

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
Sweptime	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	0.30 dB	0.30 dB
Run	10 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.29 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

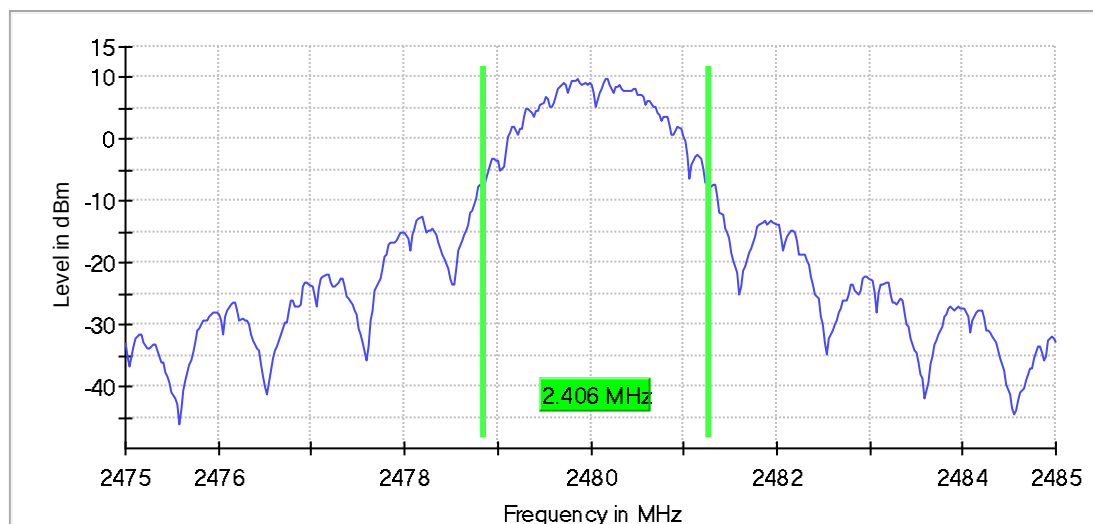
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	2.406015	---	---	2478.859649	2481.265664

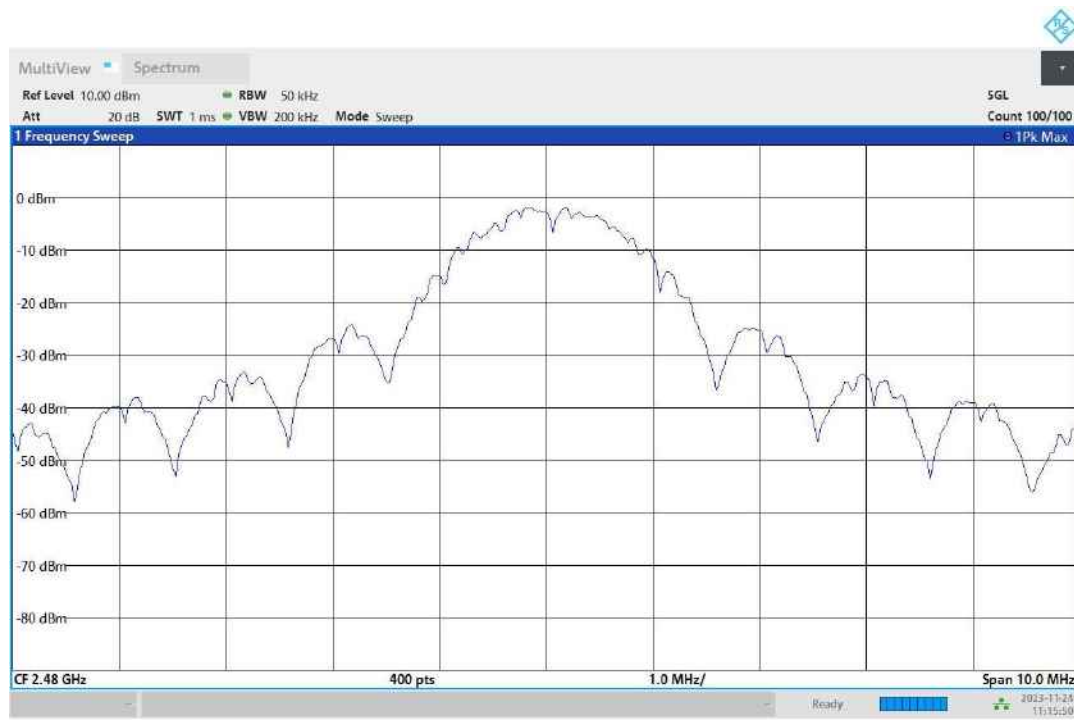
(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2480.000000	PASS

99 %Bandwidth



Bandwidth



11:15:51 AM 11/24/2023

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	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	0.30 dB	0.30 dB
Run	10 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.15 dB	0.30 dB

Emissions in non-restricted frequency bands slot antenna

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)
2404.175000	16.8

Final measurements

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

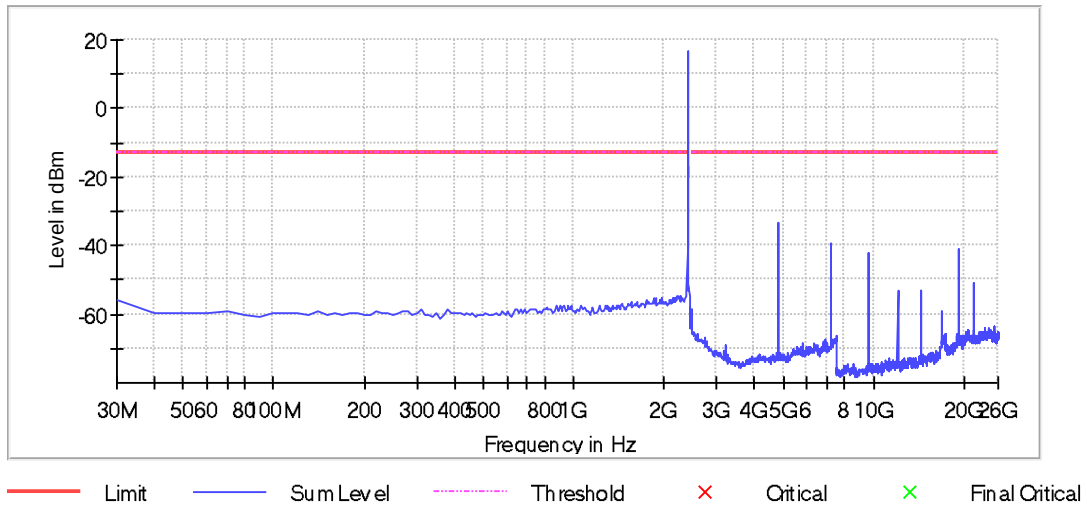
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
4803.154762	-33.5	20.3	-13.2
7212.796131	-39.1	25.9	-13.2
2390.000000	-40.3	27.1	-13.2
19241.005952	-40.8	27.6	-13.2
19251.004464	-41.9	28.7	-13.2
9612.438988	-42.0	28.8	-13.2
9622.437500	-43.1	29.9	-13.2
21650.647321	-51.0	37.8	-13.2
21640.648810	-51.4	38.2	-13.2
4813.153274	-52.1	38.9	-13.2
2380.000000	-52.9	39.7	-13.2
14431.721726	-53.3	40.1	-13.2
12022.080357	-53.3	40.1	-13.2
2220.000000	-54.6	41.5	-13.2
2230.000000	-54.7	41.5	-13.2

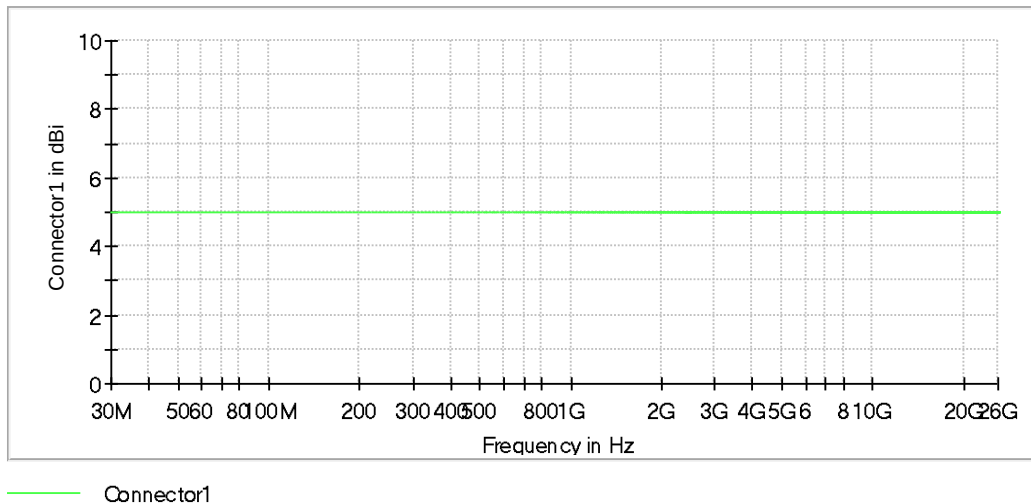
Measurement Settings

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

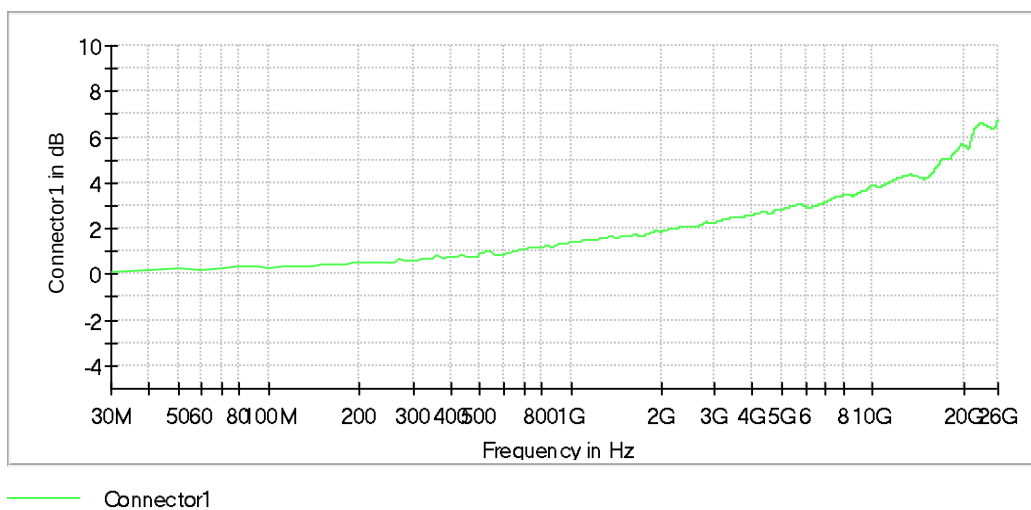
Spurious

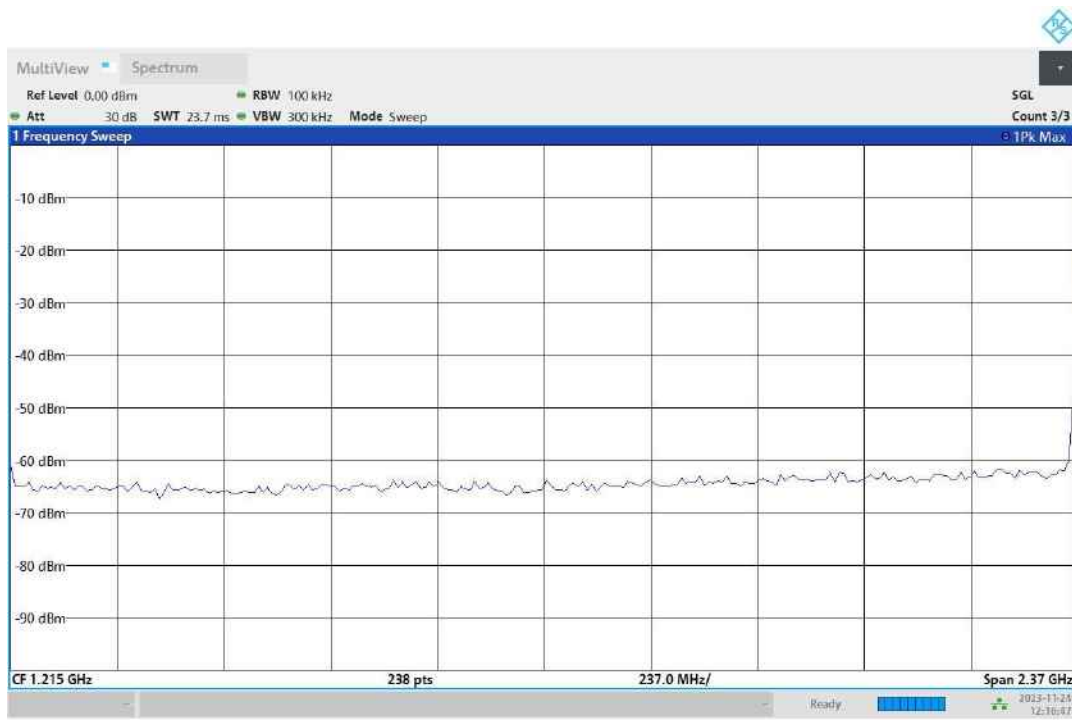


Gain



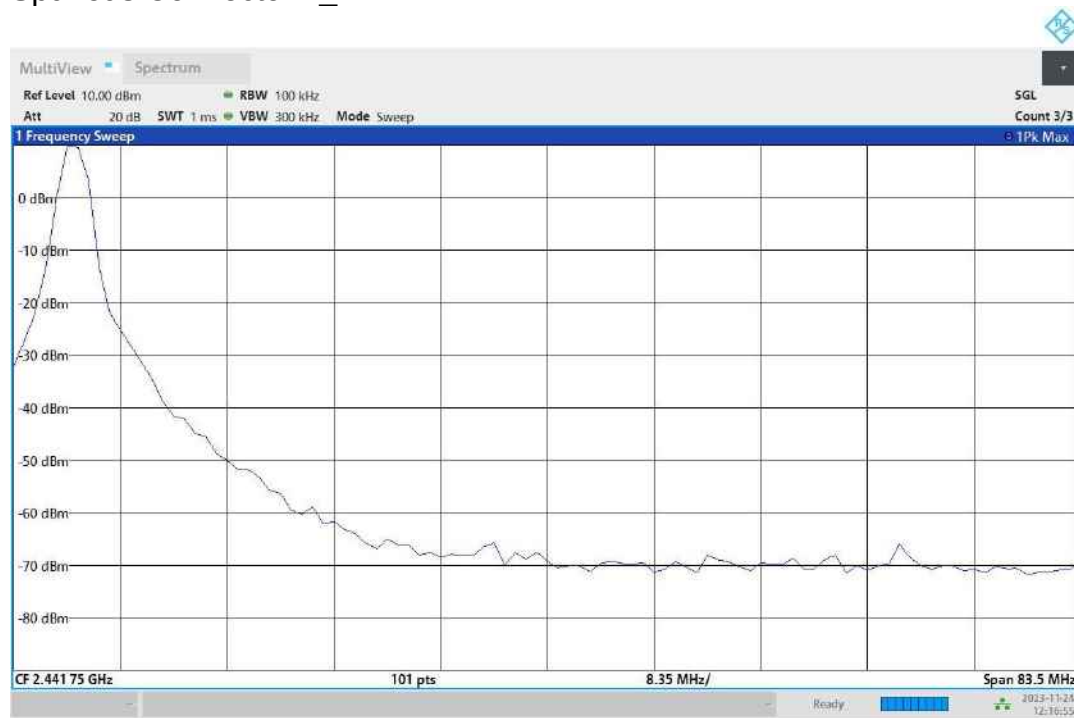
Attenuation





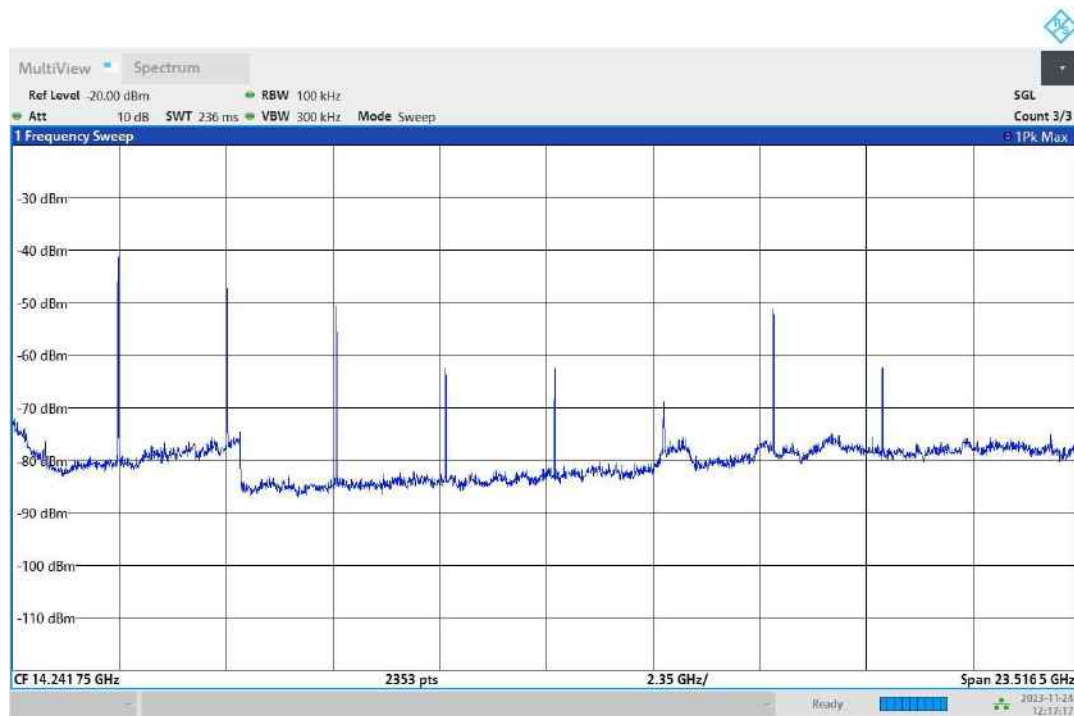
12:16:48 PM 11/24/2023

Spurious Connector 1_1



12:16:55 PM 11/24/2023

Spurious Connector 1_2



12:17:17 PM 11/24/2023

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
Preamplifier	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 (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)
2440.080000	16.6

Final measurements

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

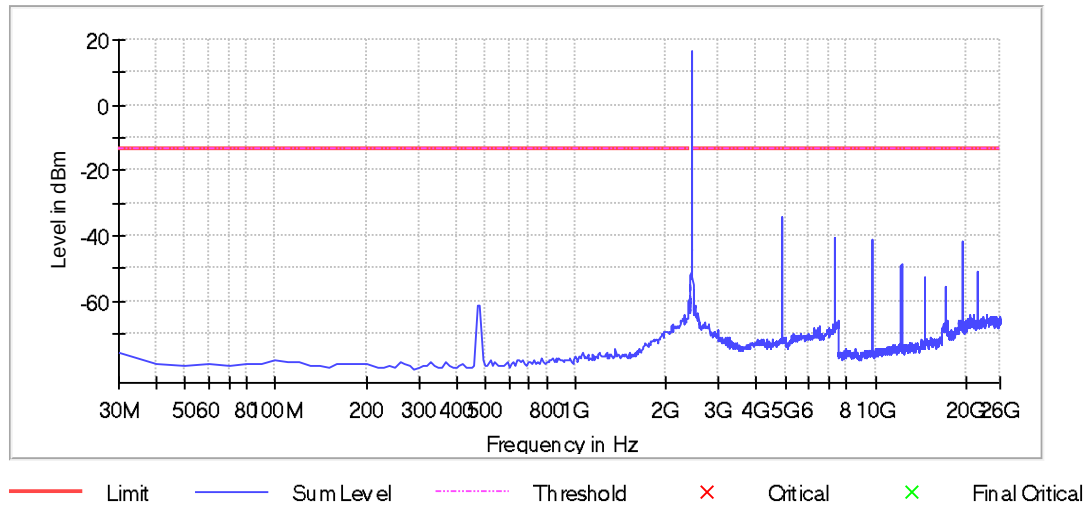
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
4873.144345	-34.5	21.1	-13.4
7312.781250	-40.7	27.3	-13.4
7322.779762	-41.0	27.6	-13.4
9752.418155	-41.0	27.7	-13.4
9762.416667	-41.6	28.2	-13.4
19520.964286	-41.9	28.5	-13.4
19530.962798	-42.2	28.9	-13.4
12202.053571	-48.5	35.1	-13.4
12192.055060	-49.3	35.9	-13.4
21970.599702	-51.2	37.8	-13.4
21960.601190	-51.9	38.6	-13.4
4883.142857	-52.2	38.9	-13.4
14641.690476	-52.6	39.3	-13.4
17081.327381	-55.7	42.3	-13.4
2390.000000	-58.9	45.6	-13.4

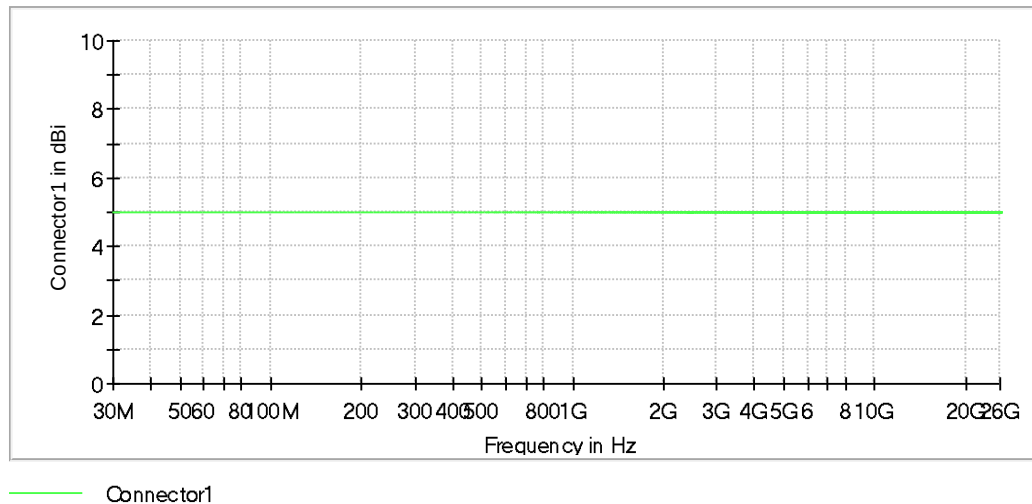
Measurement Settings

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

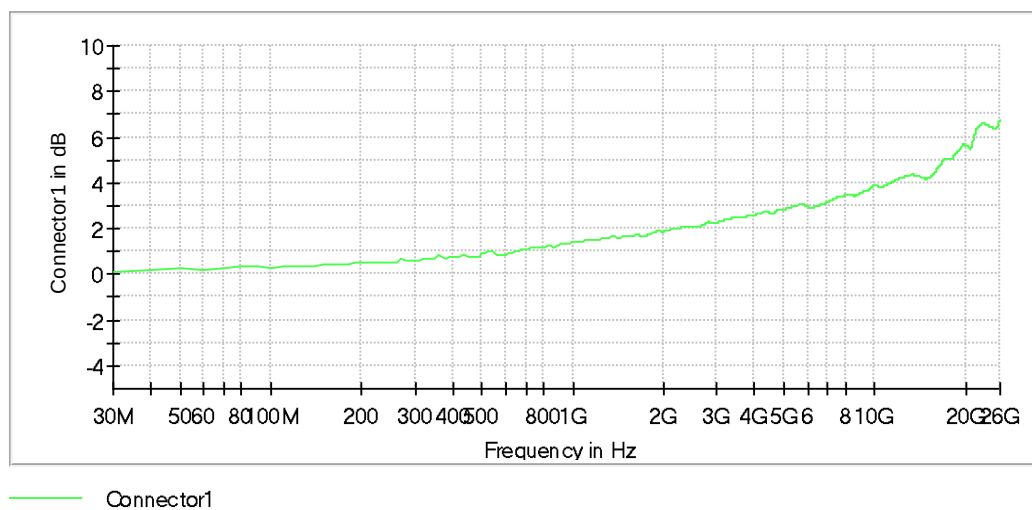
Spurious



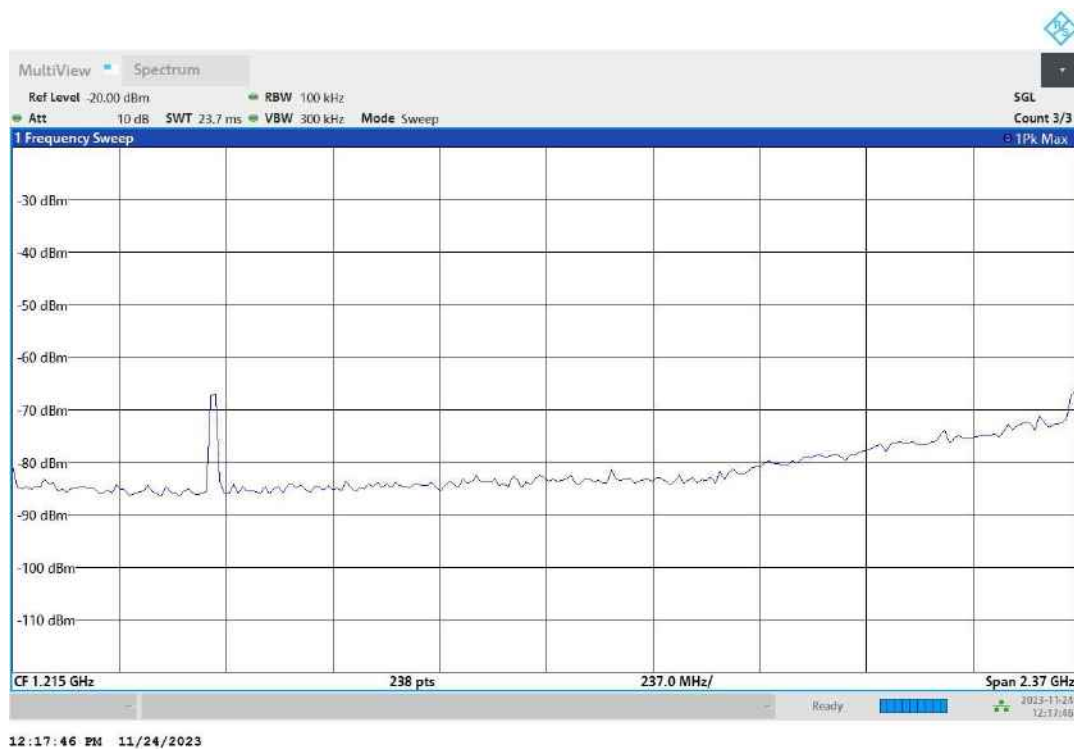
Gain



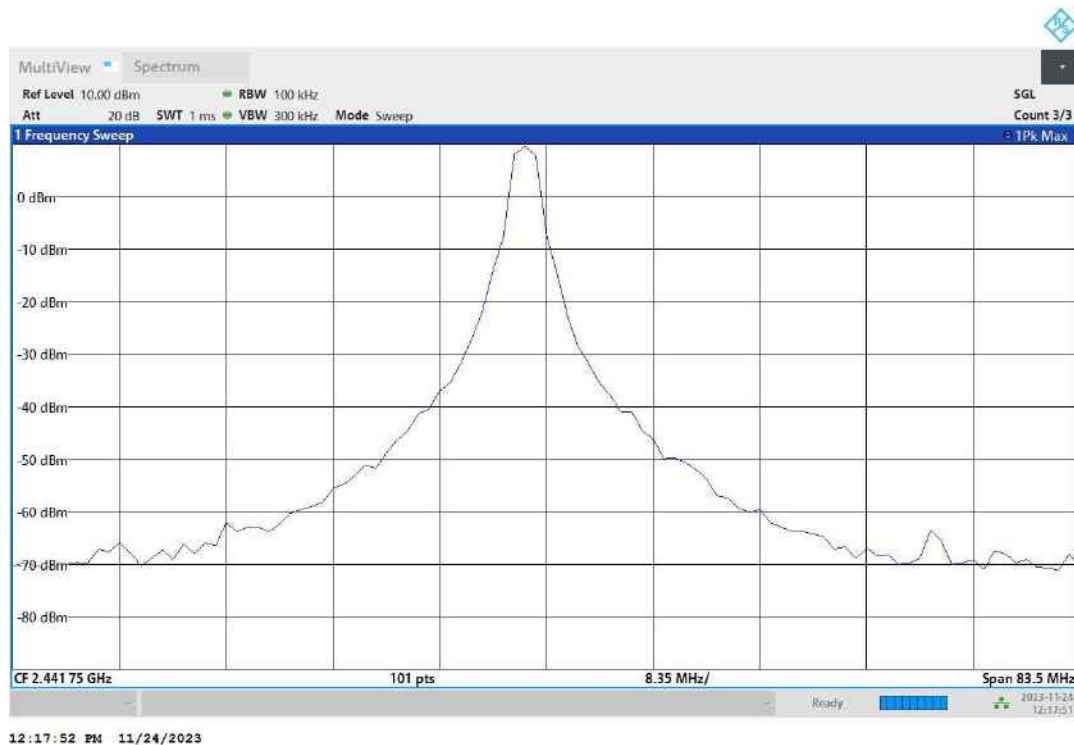
Attenuation



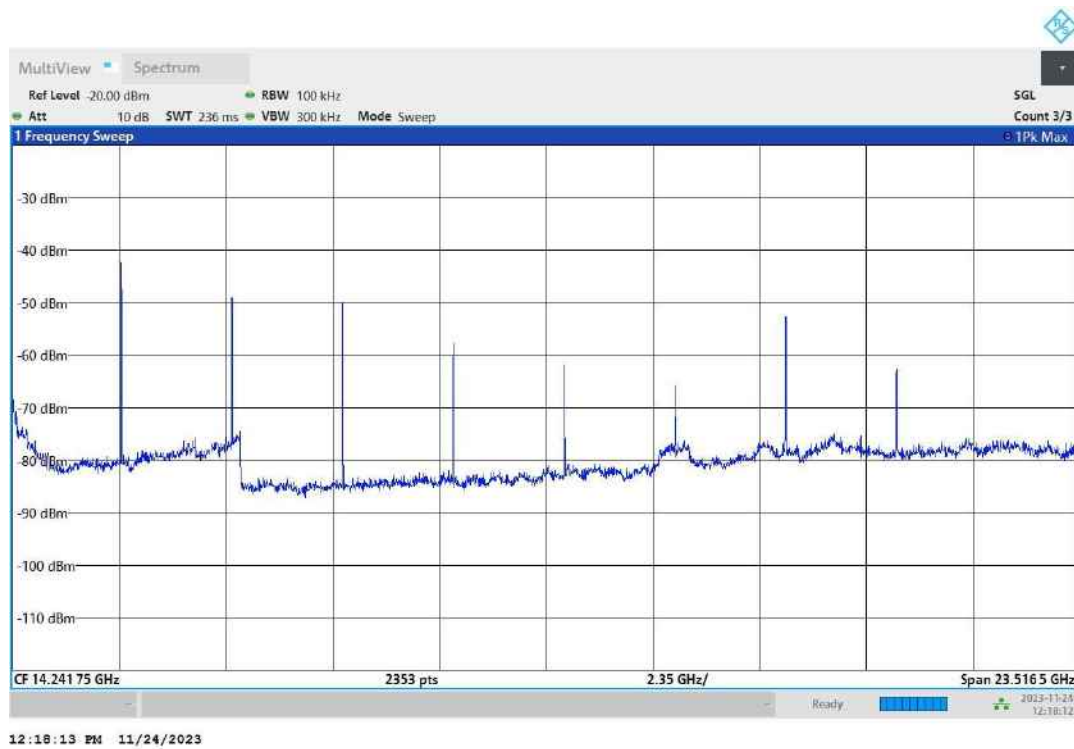
Spurious Connector 1_0



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	-20.000 dBm	-30.000 dBm
Attenuation	10.000 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	10 / max. 40	max. 40
Stable	3 / 3	3
Max Stable Difference	0.18 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)
2480.995000	16.8

Final measurements

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

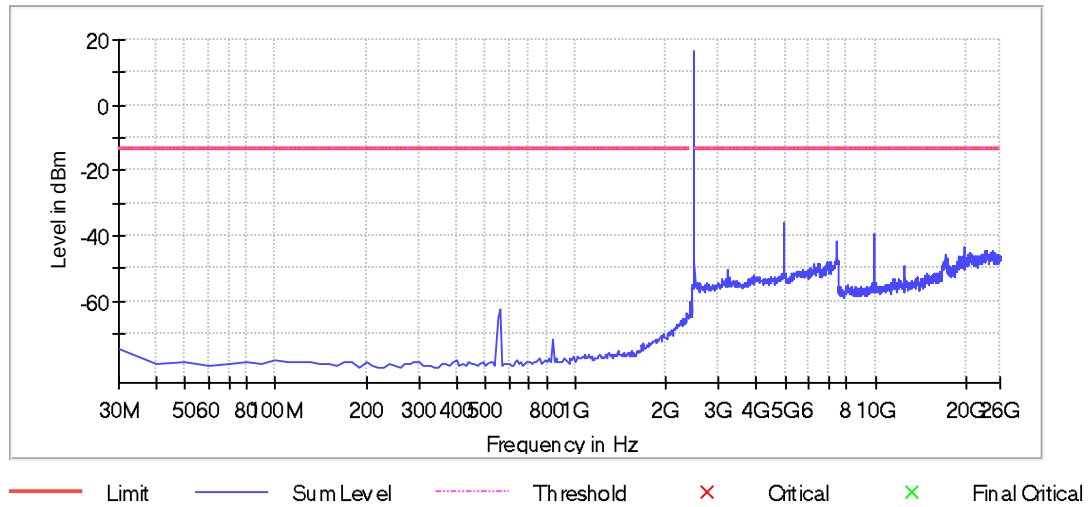
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
4953.132440	-36.2	23.0	-13.2
9922.392857	-39.6	26.4	-13.2
9912.394345	-40.2	27.0	-13.2
7442.761905	-41.4	28.2	-13.2
7432.763393	-42.1	28.9	-13.2
19850.915179	-43.3	30.1	-13.2
19840.916667	-43.9	30.7	-13.2
23150.424107	-44.5	31.3	-13.2
24450.230655	-44.7	31.5	-13.2
23390.388393	-44.9	31.6	-13.2
23510.370536	-44.9	31.7	-13.2
20680.791667	-44.9	31.7	-13.2
24850.171131	-45.1	31.8	-13.2
23570.361607	-45.1	31.8	-13.2
20530.813988	-45.1	31.9	-13.2

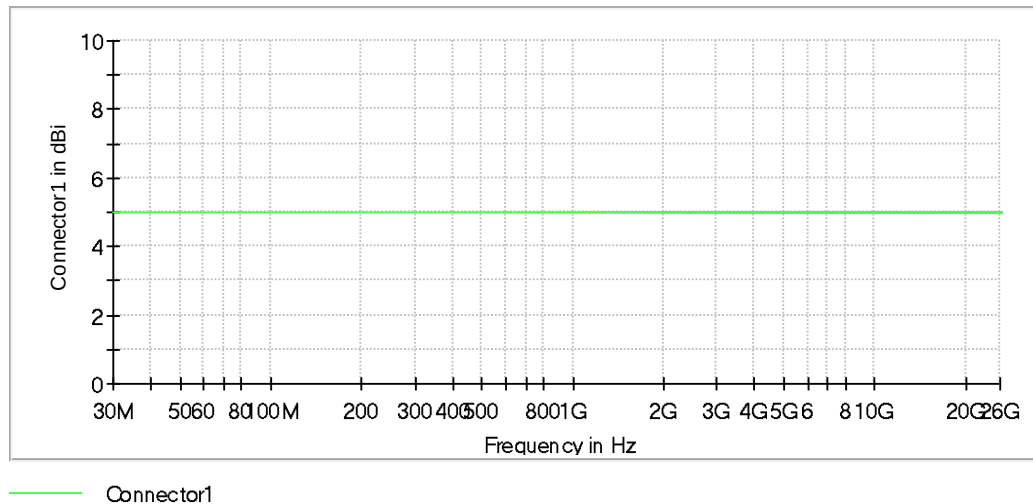
Measurement Settings

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

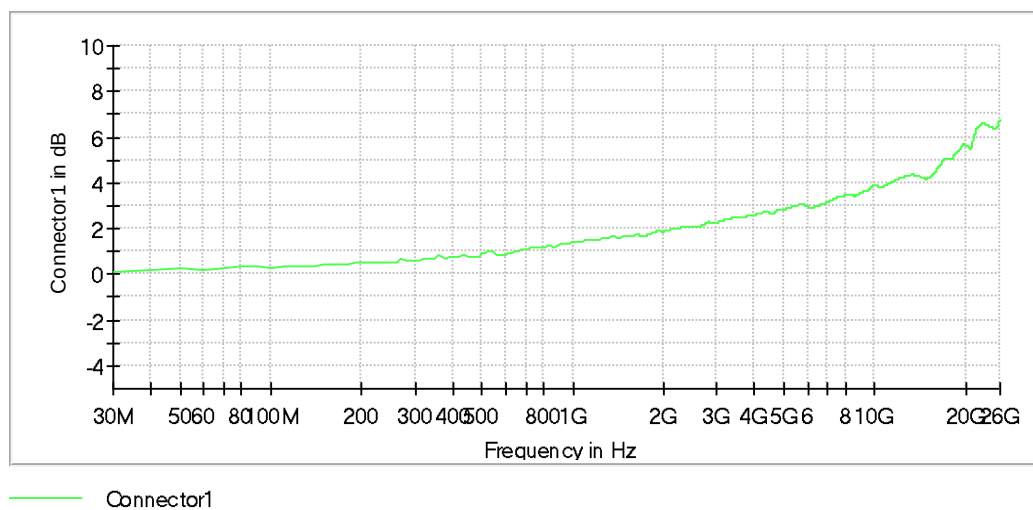
Spurious



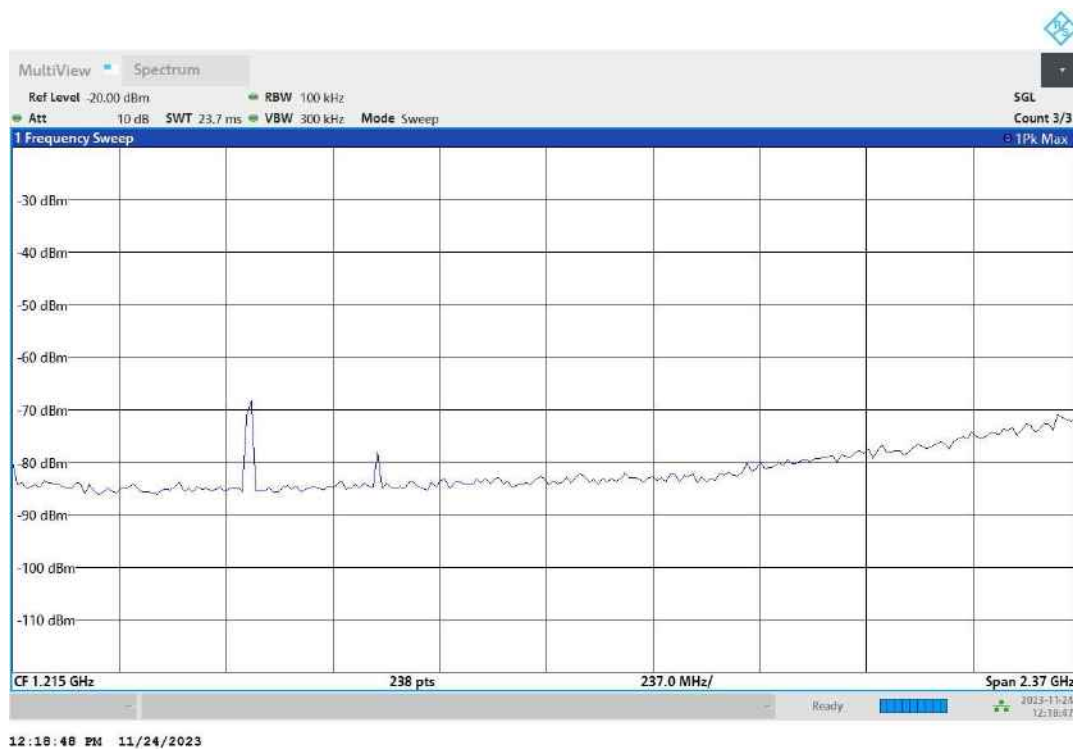
Gain



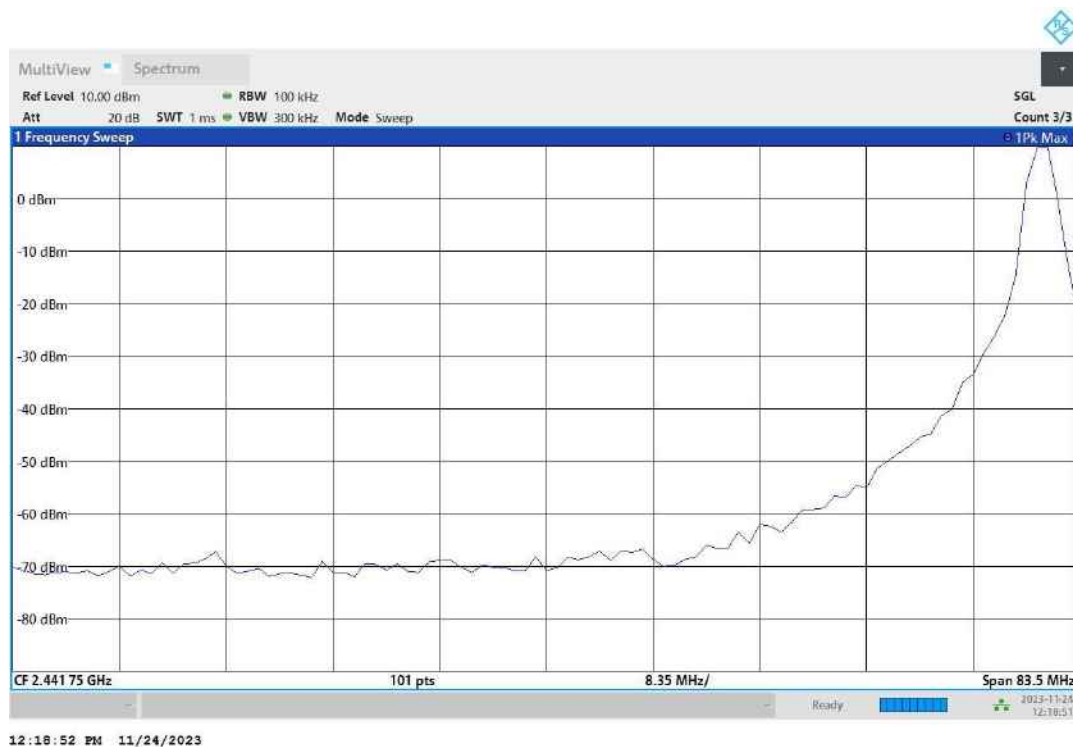
Attenuation



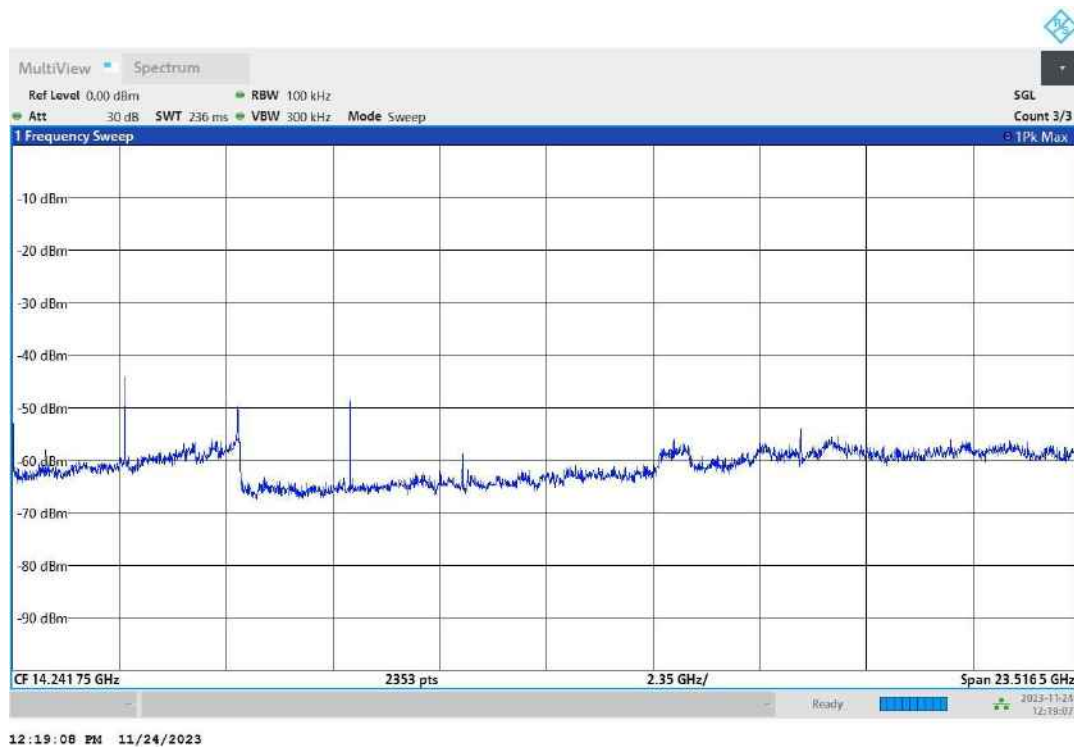
Spurious Connector 1_0



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	-20.000 dBm	-30.000 dBm
Attenuation	10.000 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	0.01 dB	0.50 dB

Emissions in non-restricted frequency bands inverted antenna

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)
2404.175000	16.0

Final measurements

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

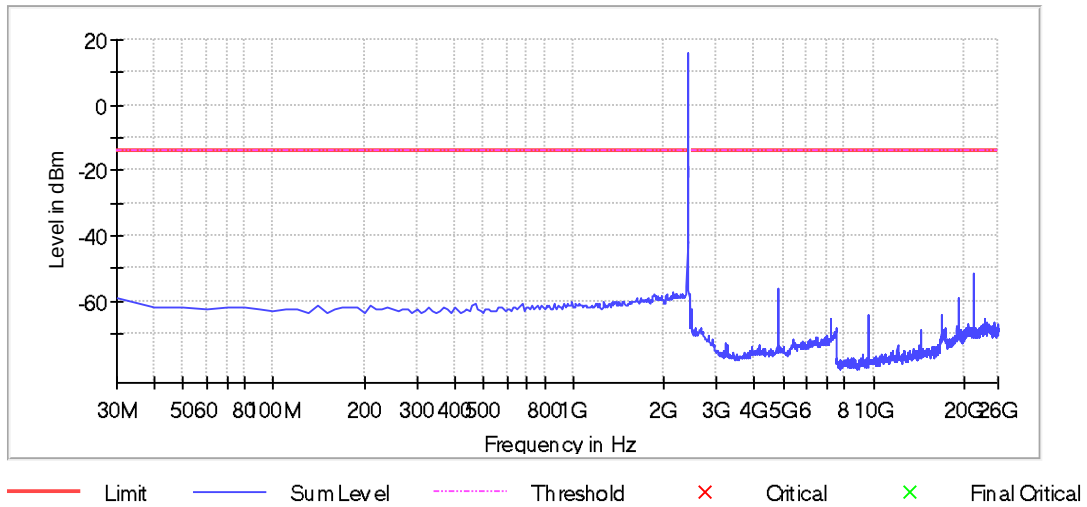
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
2390.000000	-43.5	29.5	-14.0
21640.648810	-51.5	37.6	-14.0
21650.647321	-51.8	37.8	-14.0
2380.000000	-55.7	41.7	-14.0
4803.154762	-55.9	41.9	-14.0
2370.000000	-57.1	43.1	-14.0
2140.000000	-57.2	43.2	-14.0
2280.000000	-57.8	43.8	-14.0
2220.000000	-57.8	43.8	-14.0
2040.000000	-57.8	43.9	-14.0
2200.000000	-57.9	43.9	-14.0
2360.000000	-58.0	44.0	-14.0
2190.000000	-58.1	44.1	-14.0
1860.000000	-58.1	44.1	-14.0
2300.000000	-58.1	44.1	-14.0

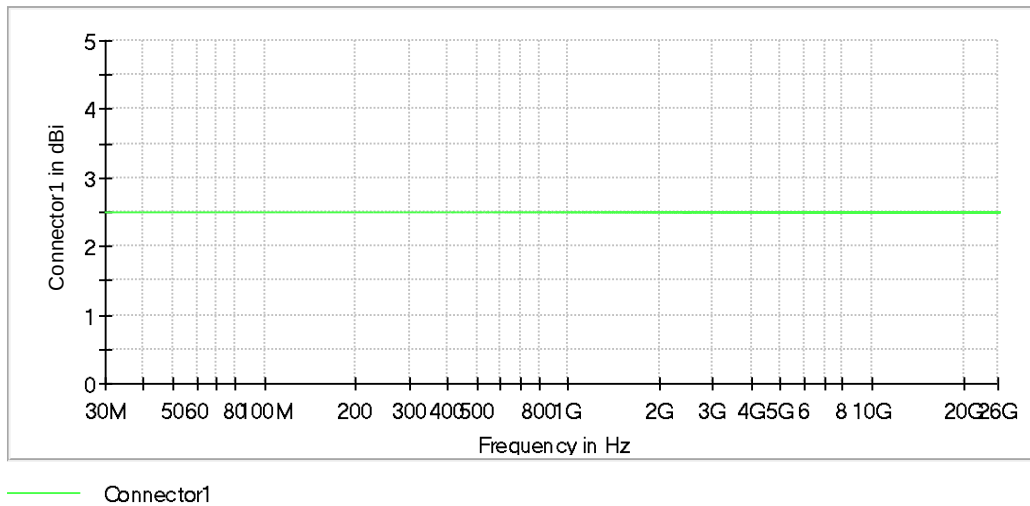
Measurement Settings

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

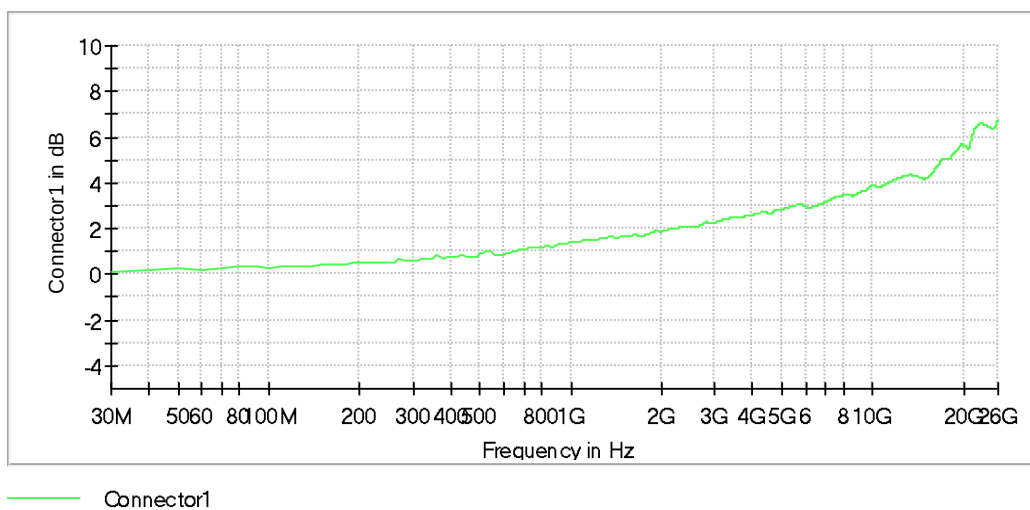
Spurious



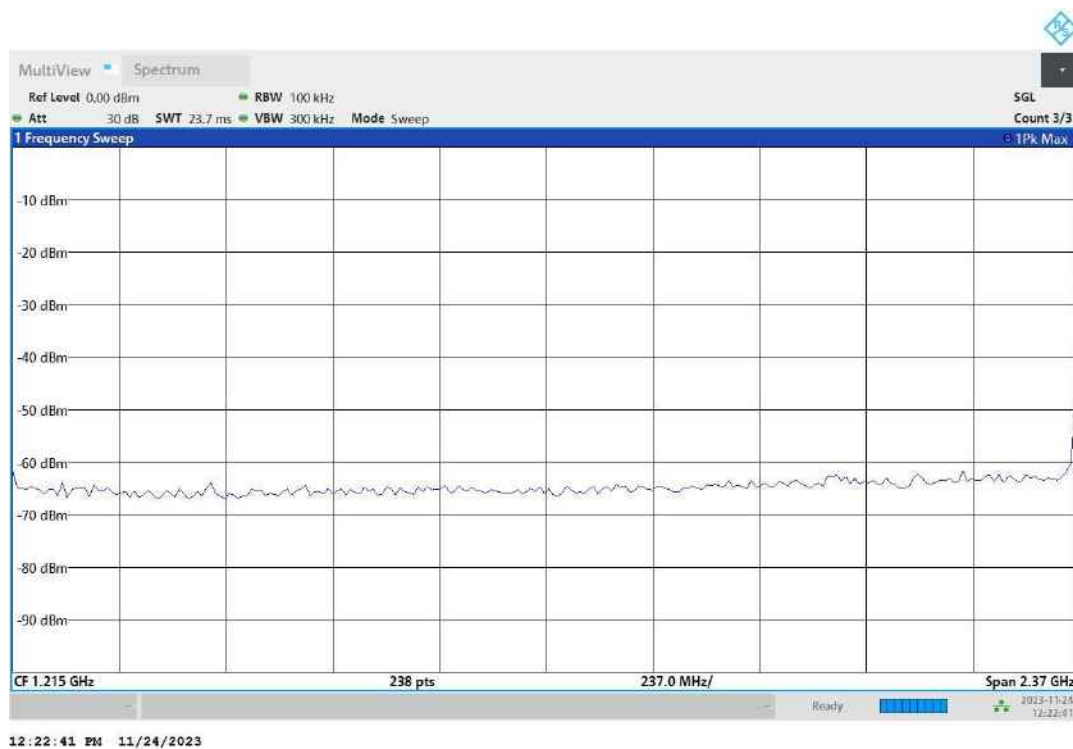
Gain



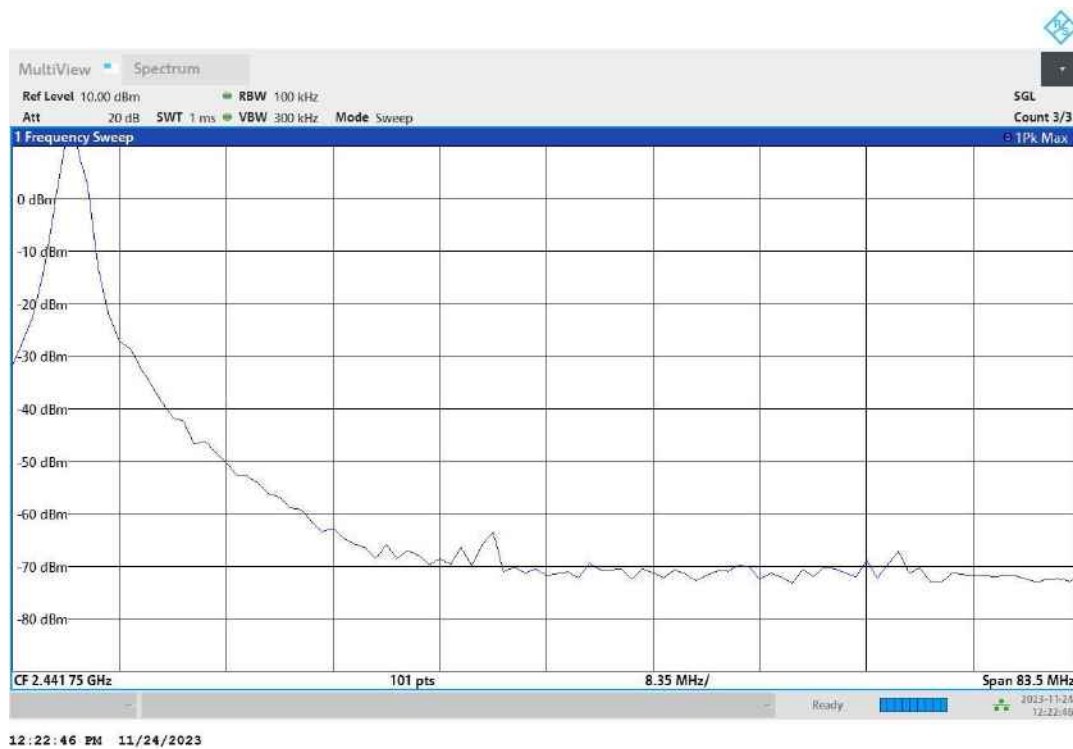
Attenuation



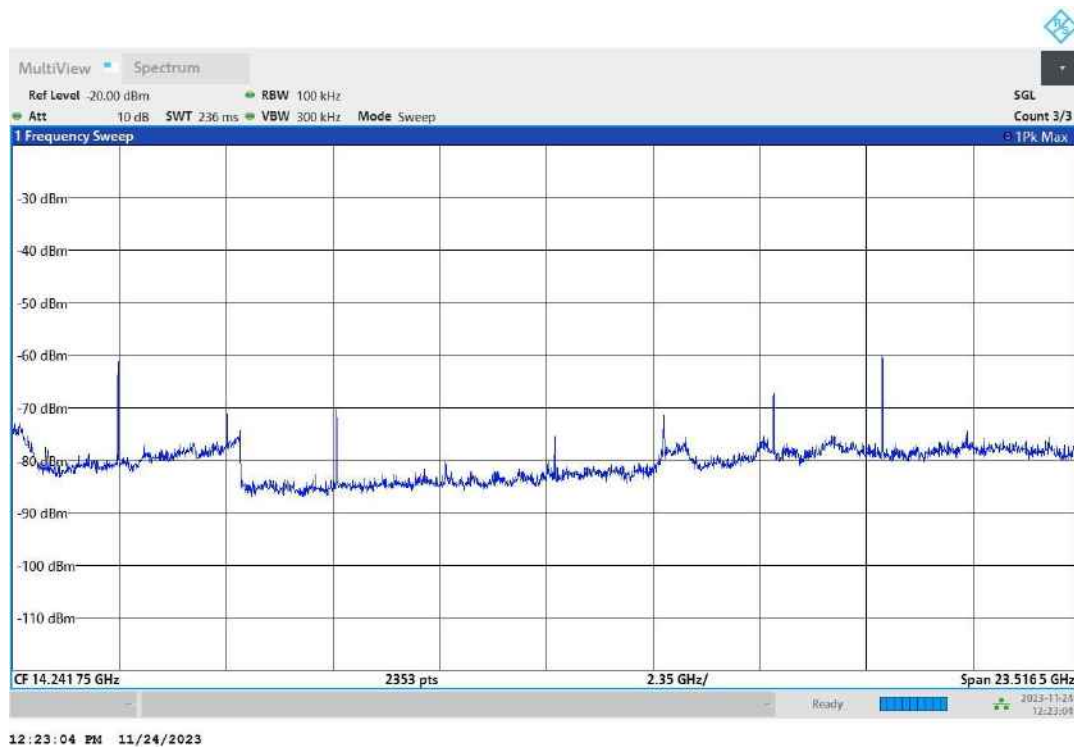
Spurious Connector 1_0



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	6 / 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)
2440.080000	12.9

Final measurements

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

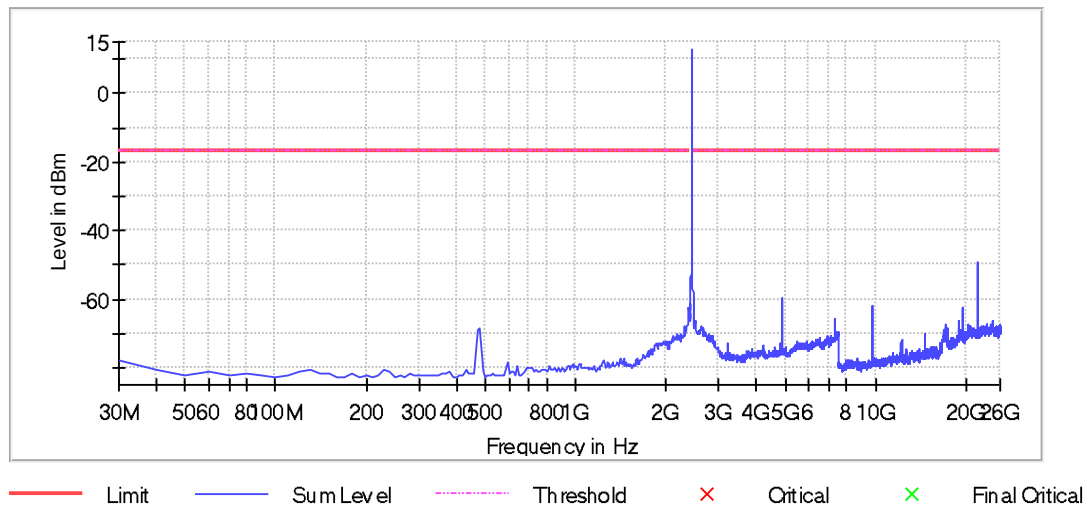
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
21970.599702	-49.1	32.0	-17.1
21960.601190	-49.7	32.6	-17.1
4873.144345	-59.5	42.4	-17.1
9752.418155	-62.0	44.8	-17.1
2380.000000	-62.7	45.6	-17.1
19520.964286	-62.7	45.6	-17.1
19530.962798	-62.9	45.8	-17.1
9762.416667	-64.0	46.9	-17.1
2390.000000	-64.6	47.4	-17.1
7322.779762	-65.5	48.4	-17.1
18991.043155	-66.2	49.0	-17.1
24400.238095	-66.4	49.2	-17.1
2503.497024	-66.6	49.5	-17.1
2370.000000	-67.1	49.9	-17.1
23380.389881	-67.2	50.1	-17.1

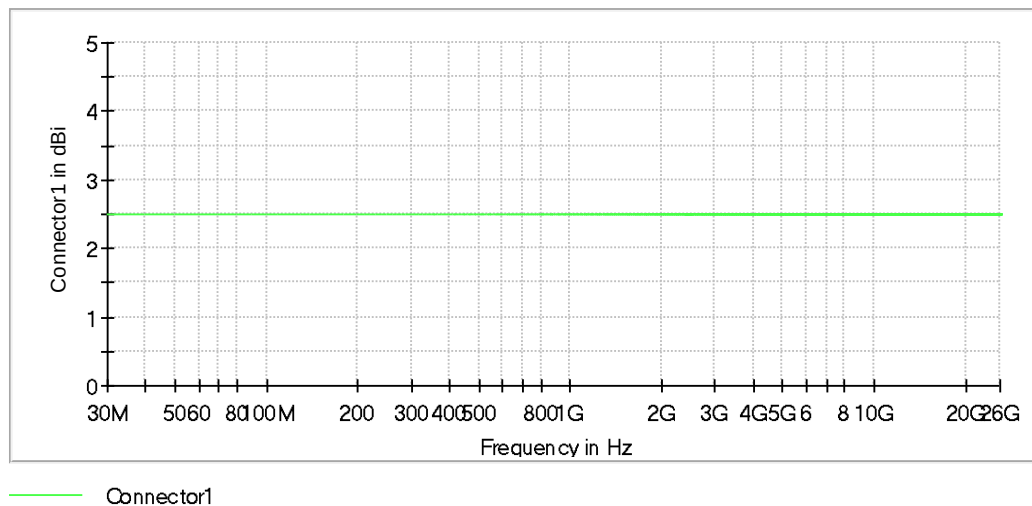
Measurement Settings

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

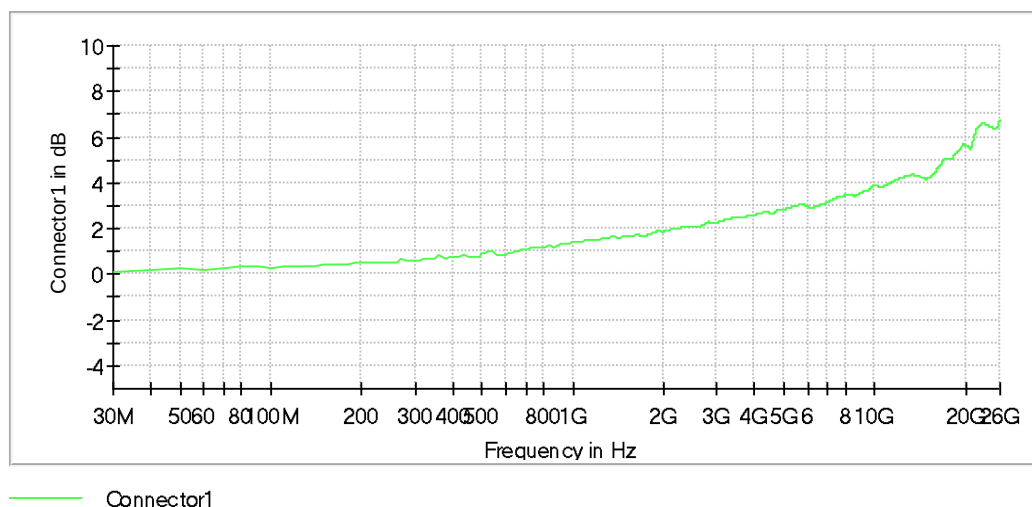
Spurious



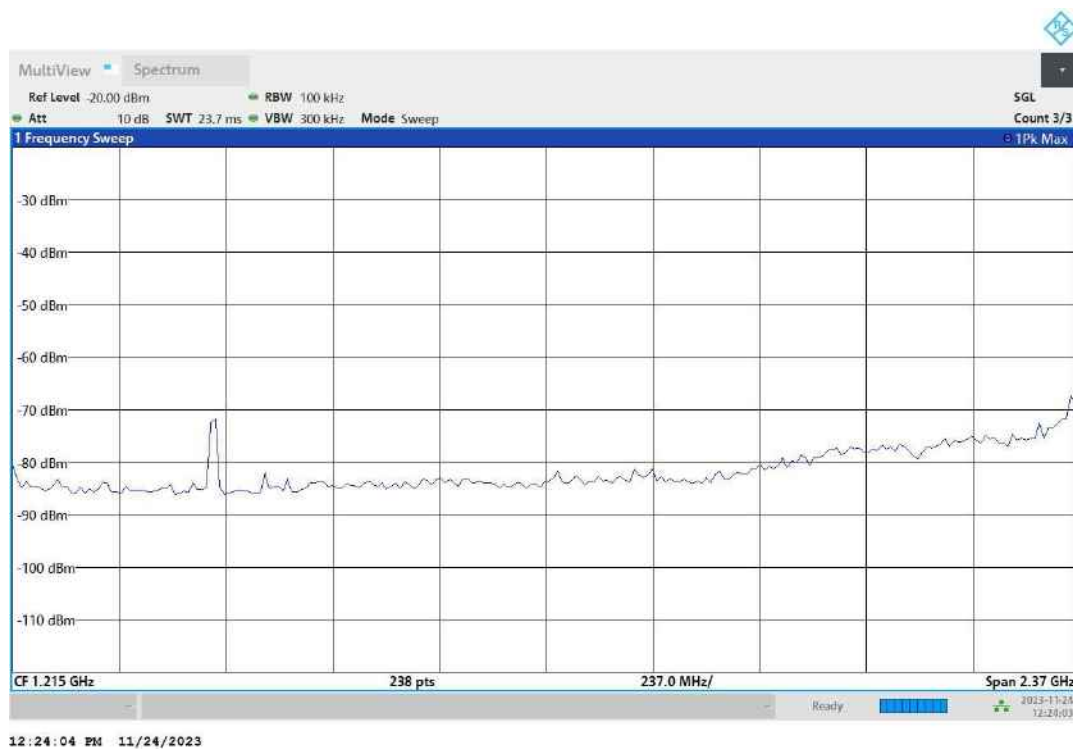
Gain



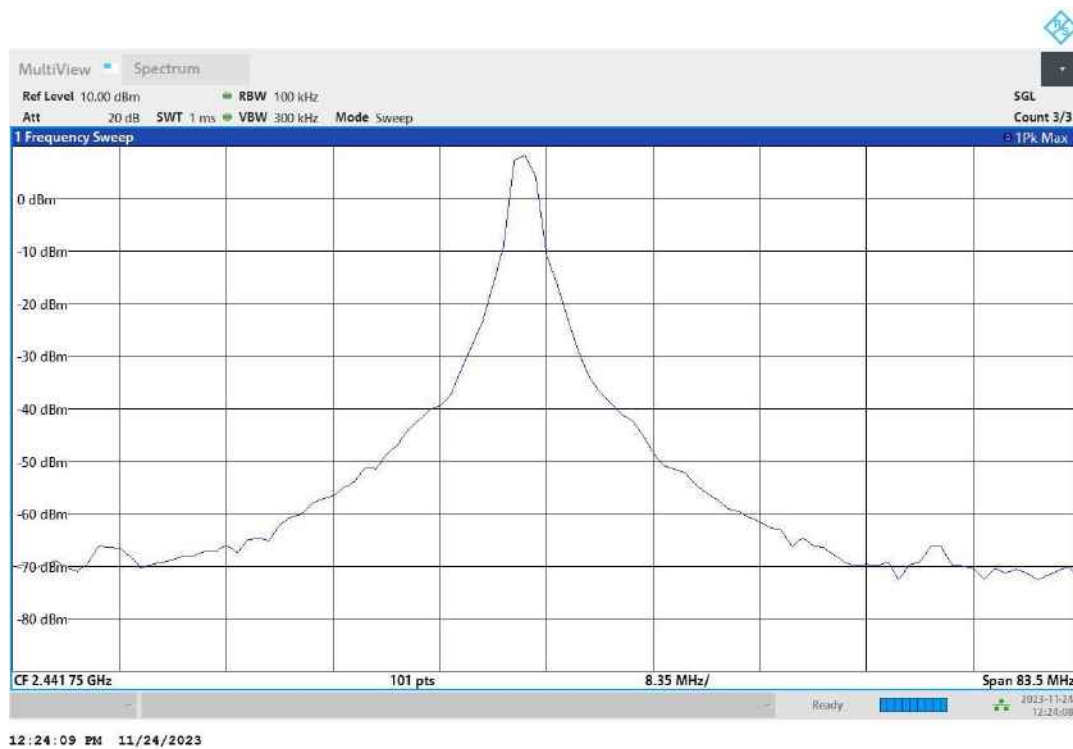
Attenuation



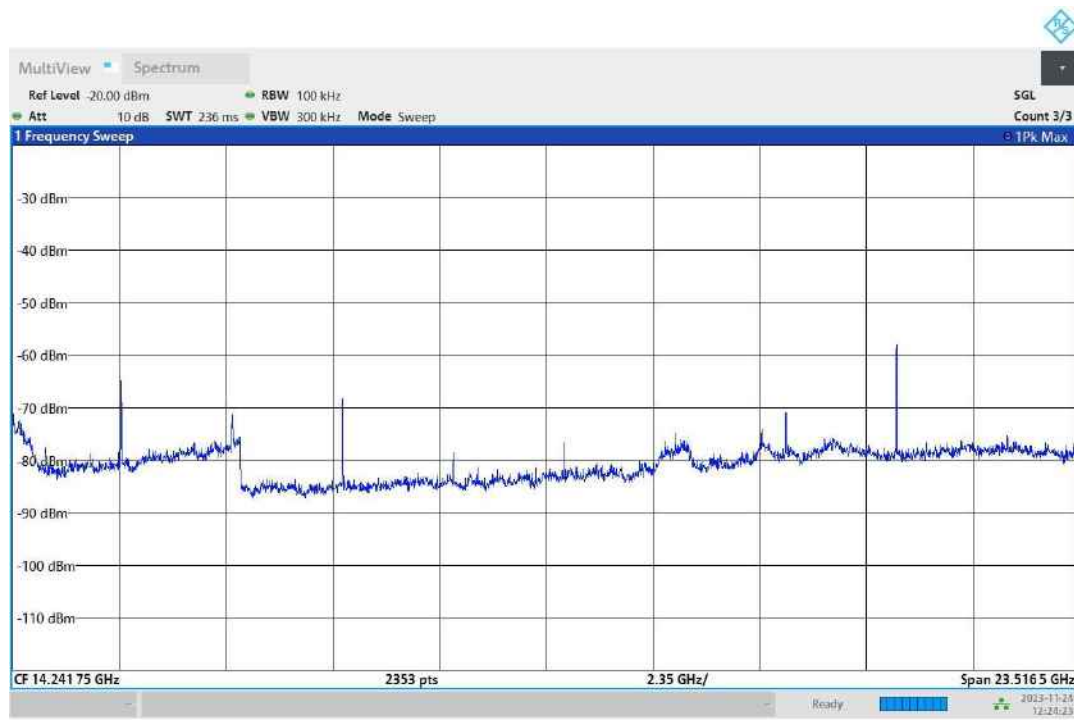
Spurious Connector 1_0



Spurious Connector 1_1



Spurious Connector 1_2



12:24:24 PM 11/24/2023

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	-20.000 dBm	-30.000 dBm
Attenuation	10.000 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	15 / max. 40	max. 40
Stable	3 / 3	3
Max Stable Difference	0.00 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	13.7

Final measurements

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

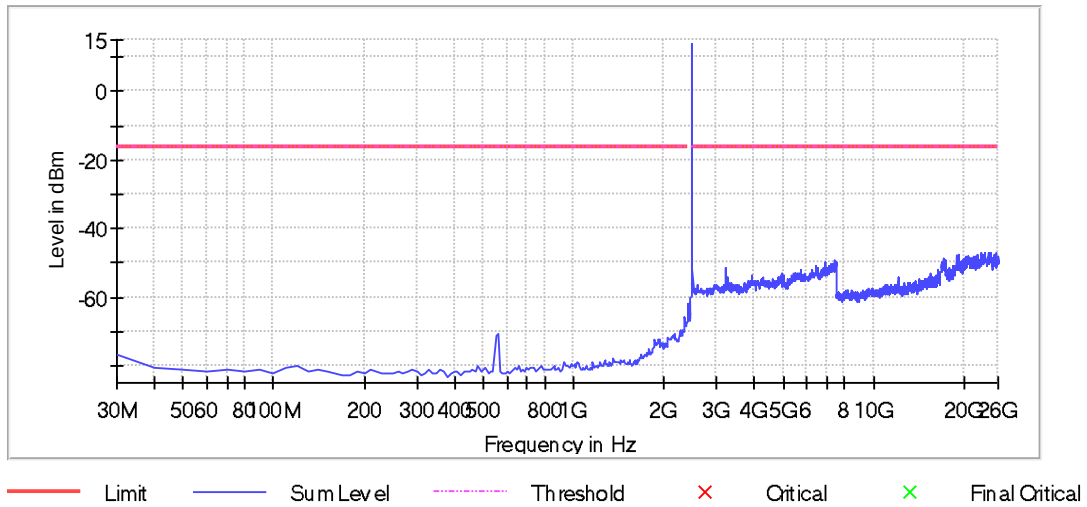
Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
23420.383929	-47.0	30.7	-16.3
24200.267857	-47.1	30.8	-16.3
22950.453869	-47.1	30.8	-16.3
24310.251488	-47.1	30.8	-16.3
25450.081845	-47.2	30.9	-16.3
23530.367560	-47.2	31.0	-16.3
24610.206845	-47.3	31.0	-16.3
19101.026786	-47.6	31.3	-16.3
22320.547619	-47.6	31.3	-16.3
25260.110119	-47.8	31.5	-16.3
24240.261905	-47.8	31.5	-16.3
23460.377976	-47.8	31.5	-16.3
23000.446429	-47.8	31.6	-16.3
19011.040179	-47.8	31.6	-16.3
23400.386905	-47.8	31.6	-16.3

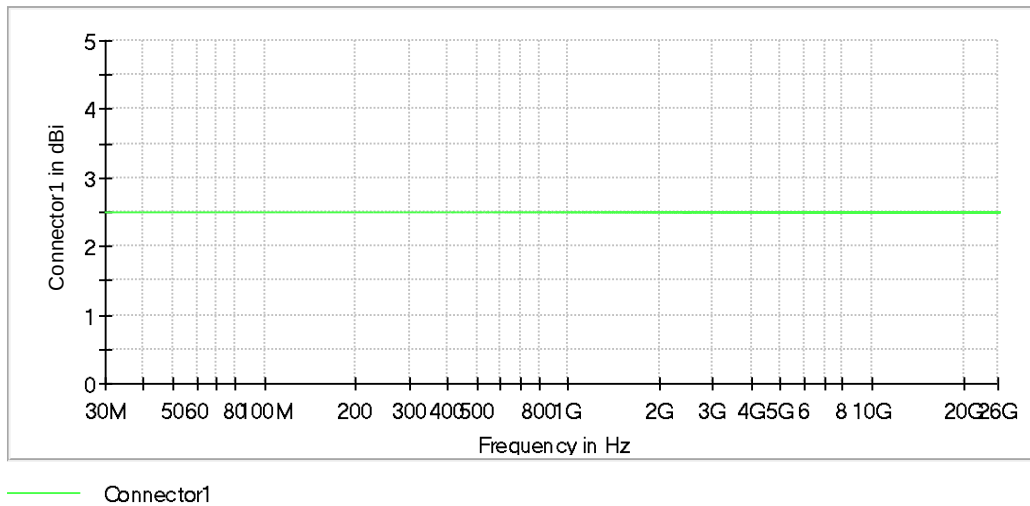
Measurement Settings

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

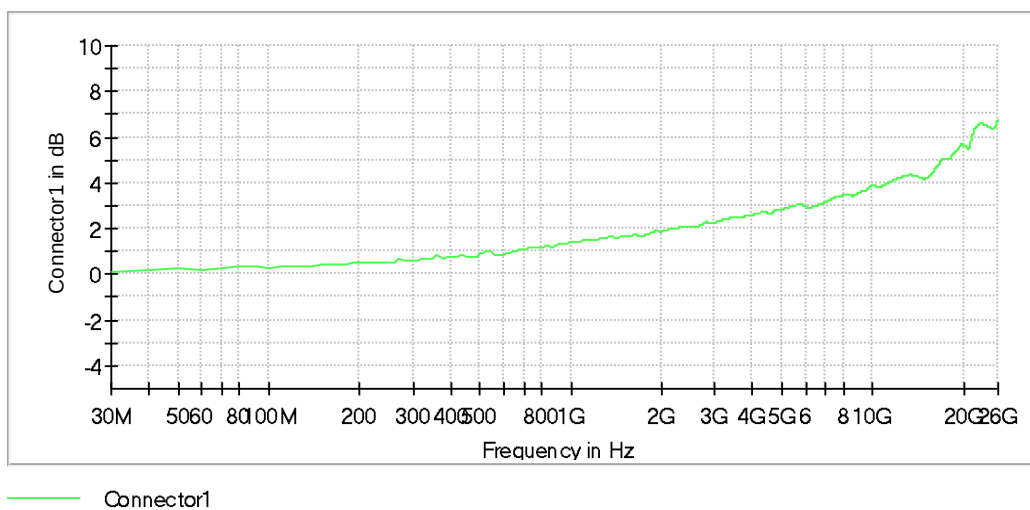
Spurious



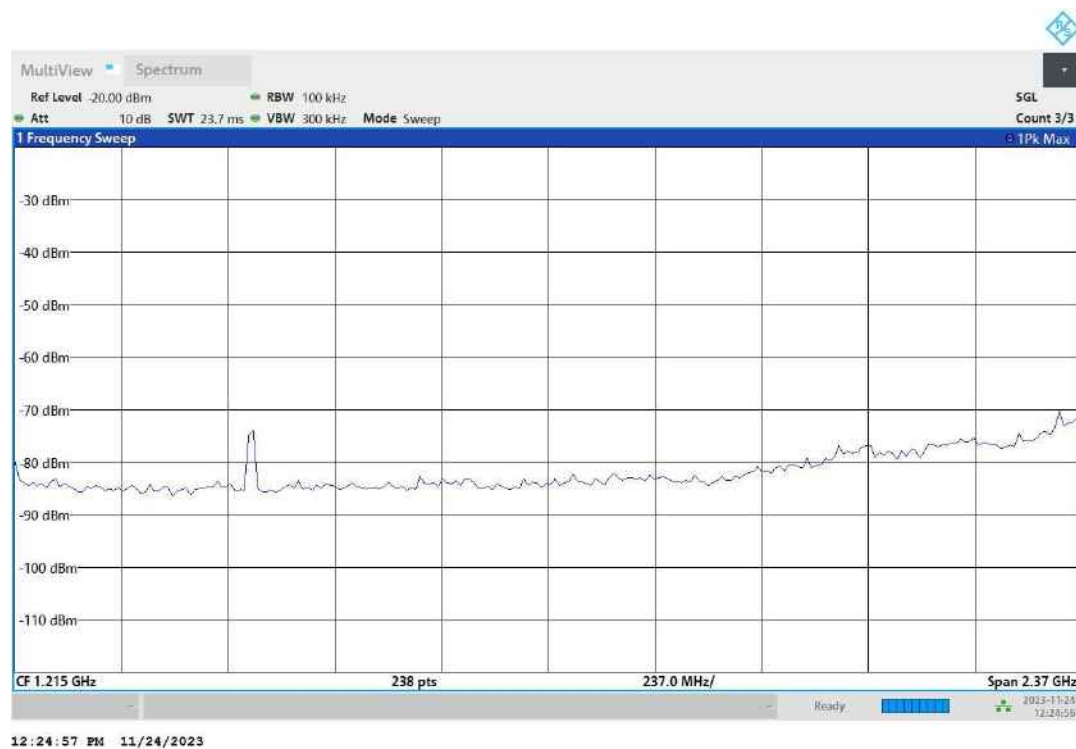
Gain



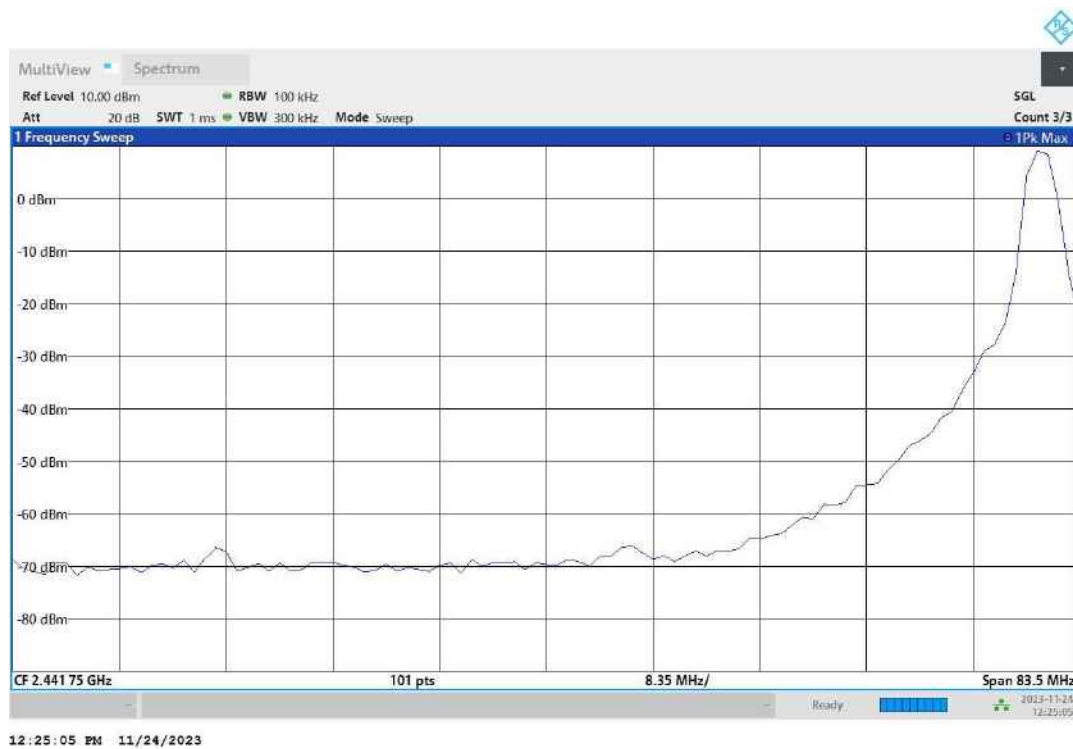
Attenuation



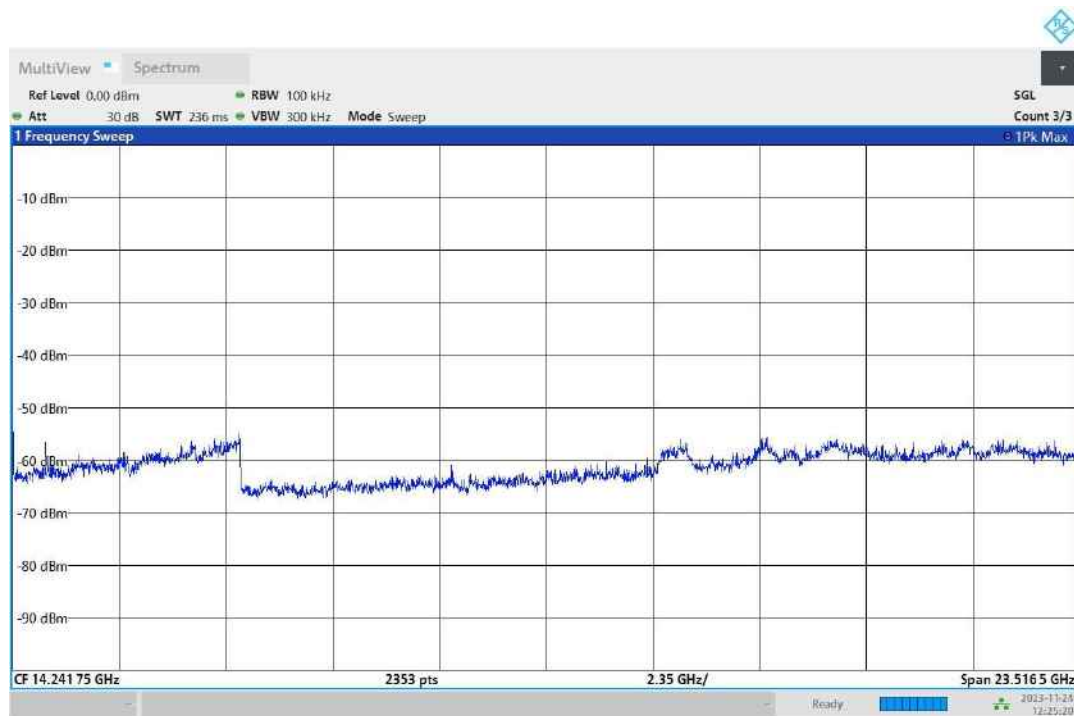
Spurious Connector 1_0



Spurious Connector 1_1



Spurious Connector 1_2



12:25:20 PM 11/24/2023

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	-20.000 dBm	-30.000 dBm
Attenuation	10.000 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	19 / max. 40	max. 40
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

Radiated field strength emissions below 30 MHz inverted F antenna

2.01_802.15.4_low_standing

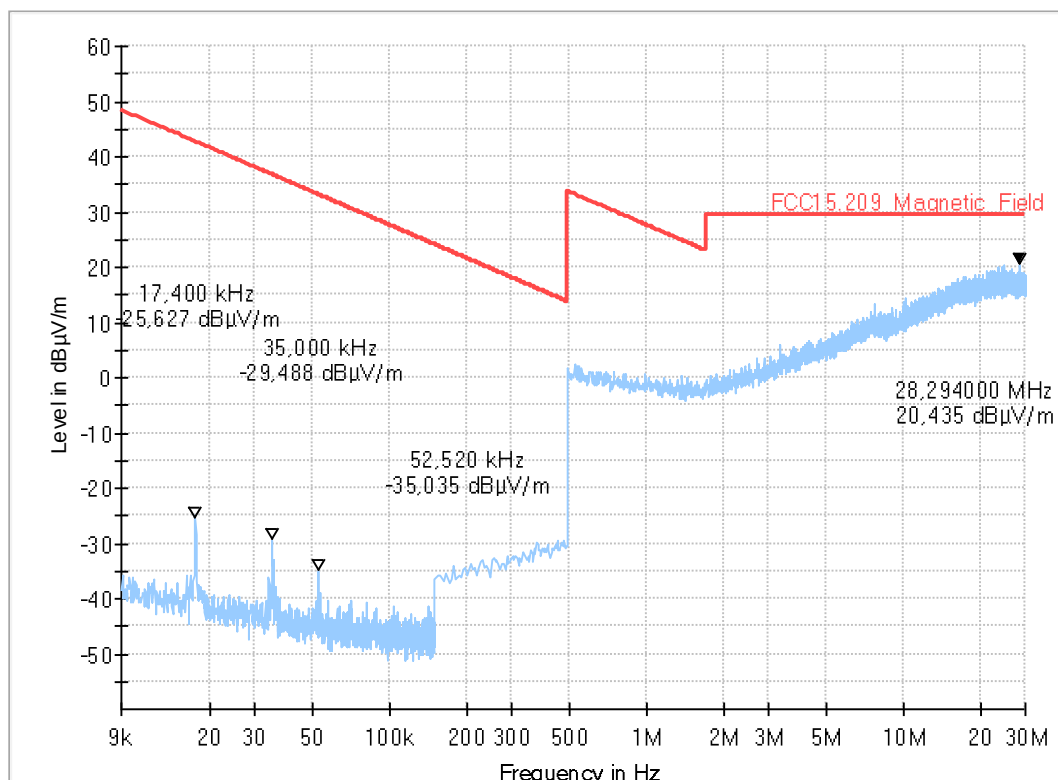
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209
Operator:	SOz
Operating Mode:	TX-on inverted F antenna
Power during tests:	24 V DC
Comment 1:	Channel low
Comment 2:	802.15.4 low standing
Environmental Conditions:	Temperatur: 22 °C, Humidity: 55 % rH
EUT Setup:	2
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC

Full Spectrum



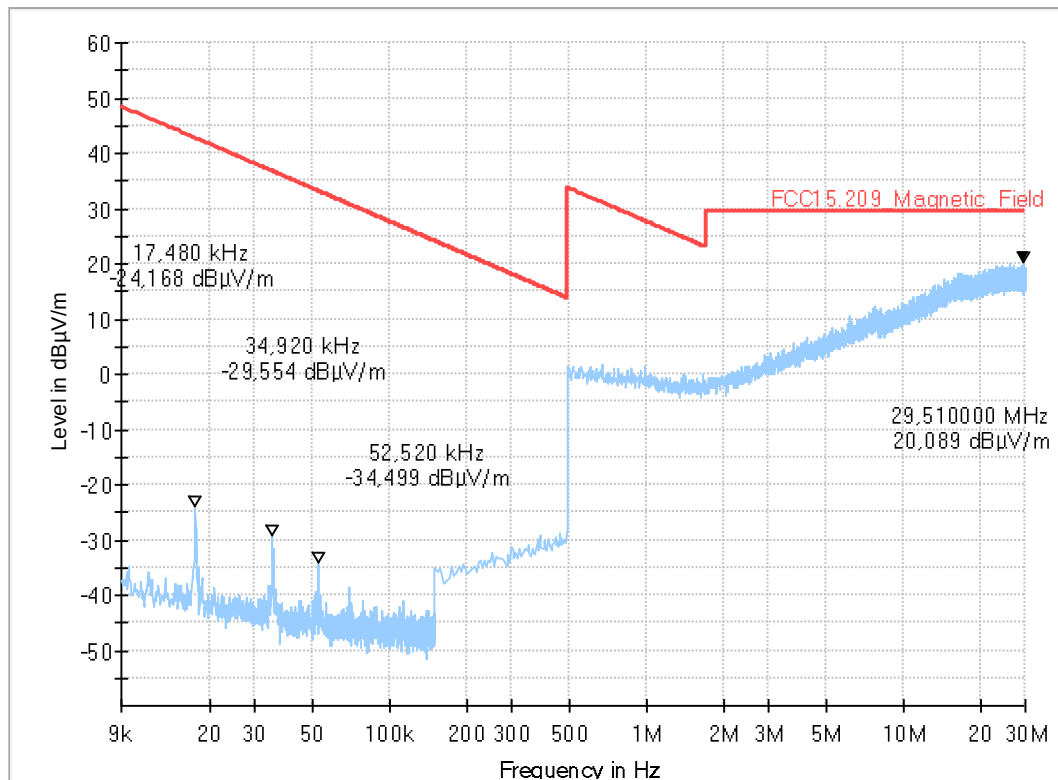
2.02_802.15.4_low_laying

Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209
Operator:	PSt
Operating Mode:	TX-on inverted F antenna
Power during tests:	24 V DC
Comment 1:	Channel low
Comment 2:	802.15.4 low laying
Environmental Conditions:	Temperatur: 22.4 °C, Humidity: 62 % rH
EUT Setup:	2
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC
	Full Spectrum



2.03_802.15.4_mid_standing

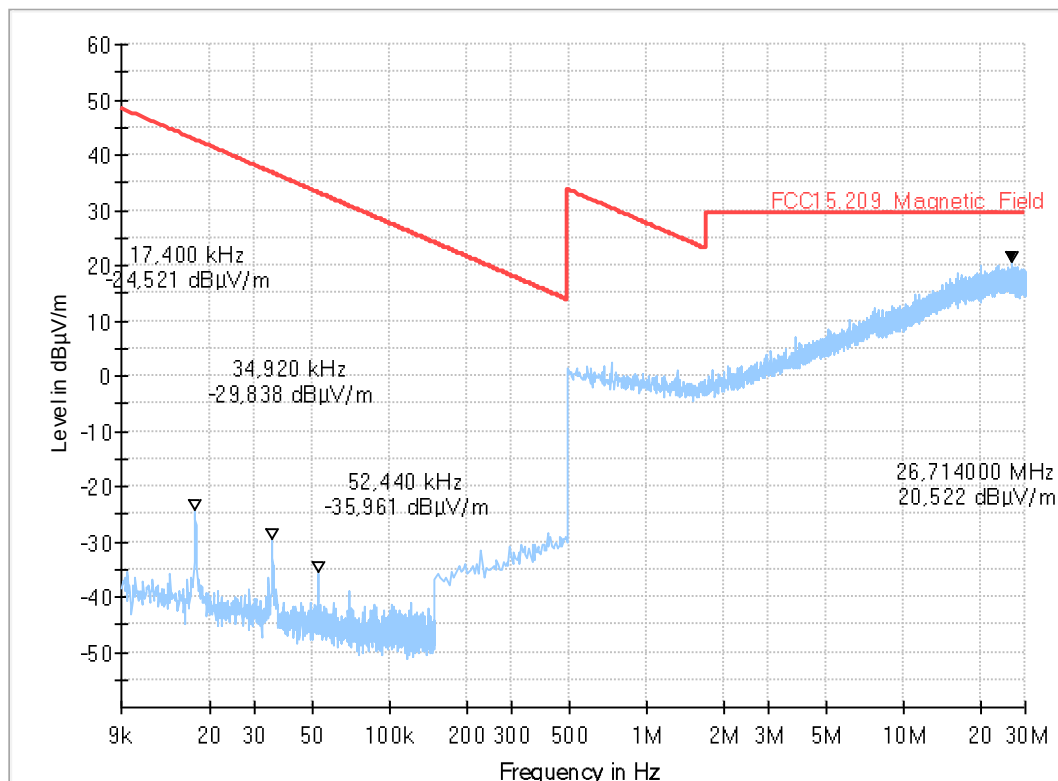
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209
Operator:	SOz/PSt
Operating Mode:	TX 802.15.4 Channel 18
Power during tests:	24 V DC
Environmental Conditions:	Temperatur: 20 °C, Humidity: 50 % rH
EUT Setup:	2
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC

Full Spectrum



2.04_802.15.4_mid_laying

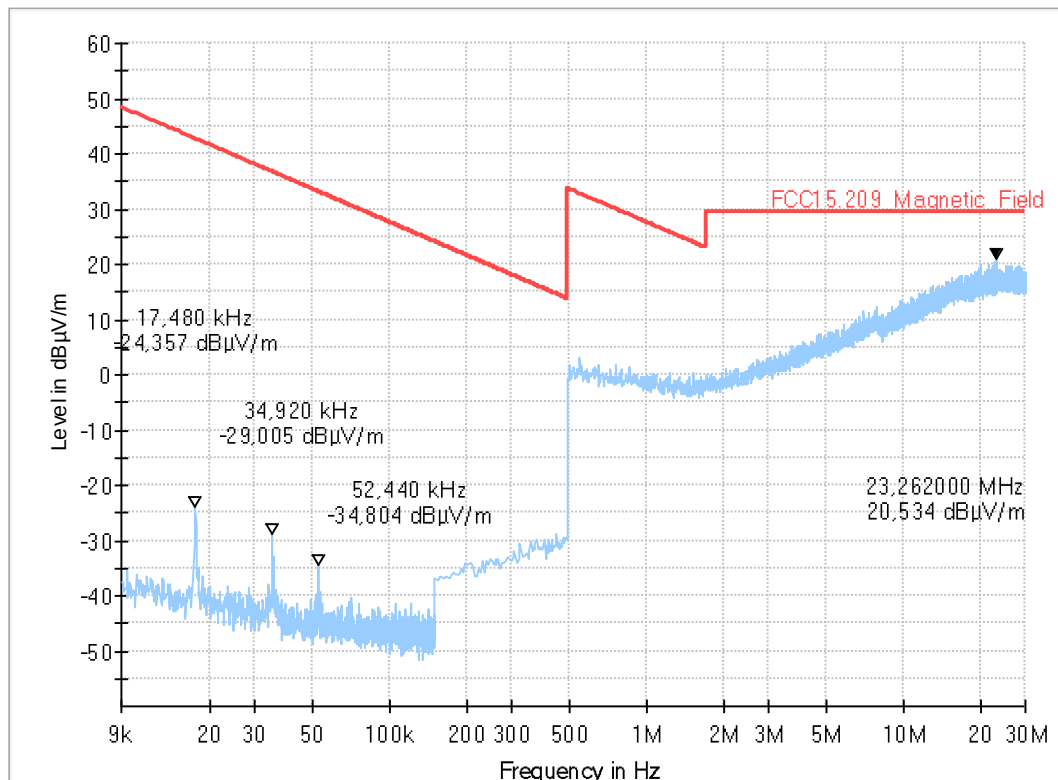
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209
Operator:	SOz/PSt
Operating Mode:	TX 802.15.4 Channel 18
Power during tests:	24 V DC
Environmental Conditions:	Temperatur: 20 °C, Humidity: 50 % rH
EUT Setup:	2
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC

Full Spectrum



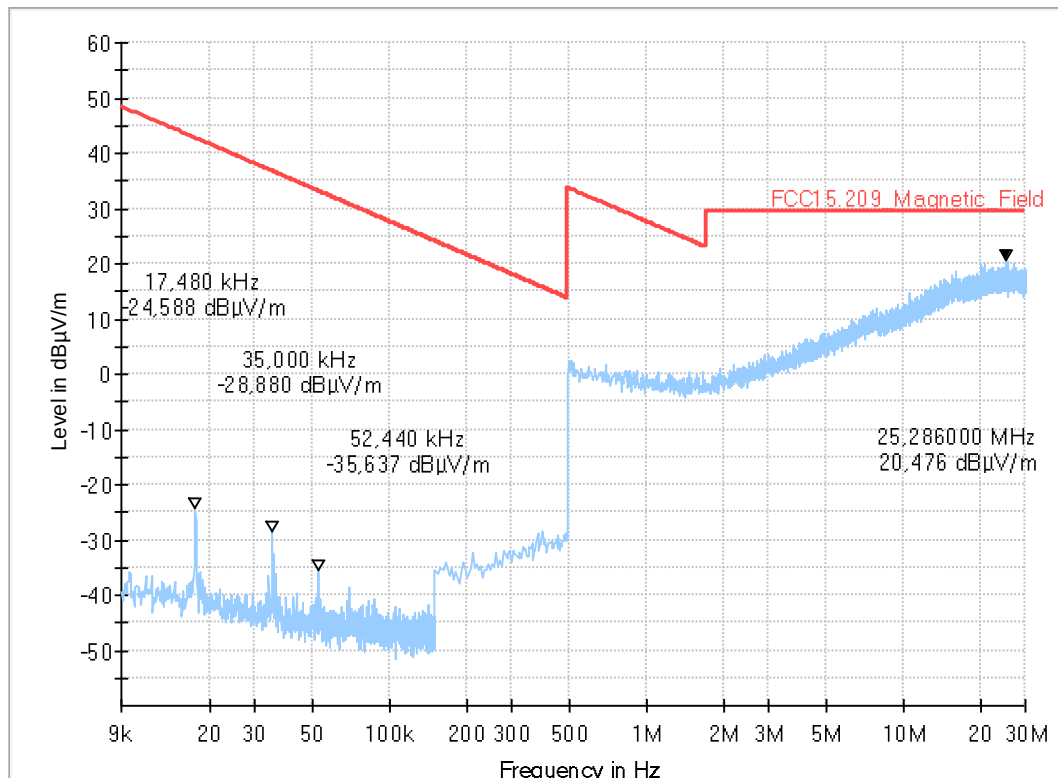
2.05_802.15.4_high_standing

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
Operator:	KTe
Operating Mode:	TX-on inverted F antenna
Power during tests:	24 V DC
Comment 1:	Channel high
Comment 2:	802.15.4 high standing
Environmental Conditions:	Temperatur: 22.4 °C, Humidity: 62 % rH
EUT Setup:	2
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC
	Full Spectrum



2.06_802.15.4_high_laying

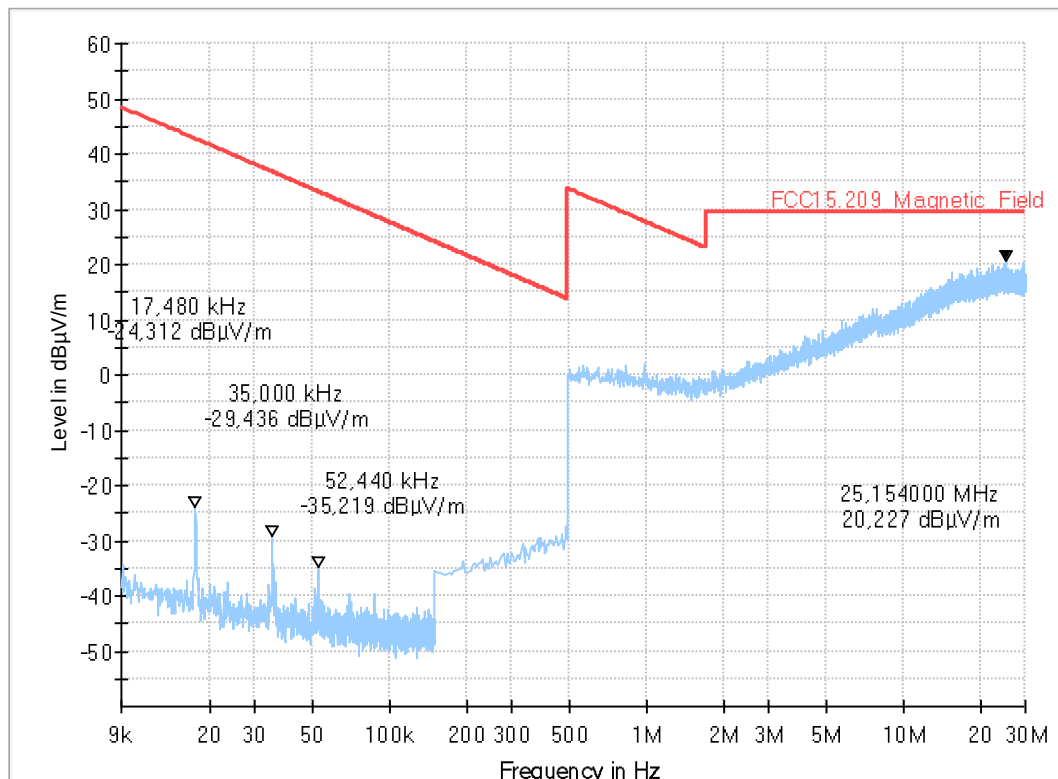
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209
Operator:	SOz/PSt
Operating Mode:	TX 802.15.4 Channel 26; inverted F antenna
Power during tests:	24 V DC
Environmental Conditions:	Temperatur: 20 °C, Humidity: 50 % rH
EUT Setup:	2
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC

Full Spectrum



Radiated field strength emissions below 30 MHz slot antenna

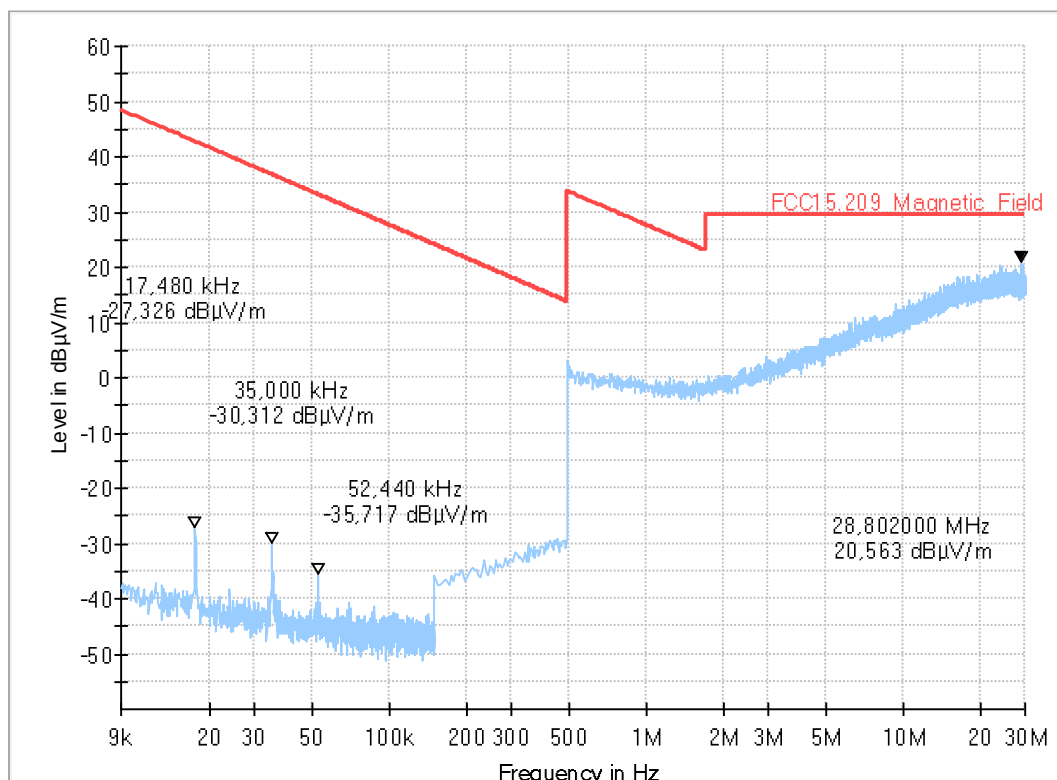
2.07_802.15.4_low_standing

Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209
Operator:	SOz
Operating Mode:	TX-on slot antenna
Power during tests:	24 V DC
Comment 1:	Channel low
Comment 2:	802.15.4 high standing
Environmental Conditions:	Temperatur: 22 °C, Humidity: 55 % rH
EUT Setup:	2
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC
	Full Spectrum



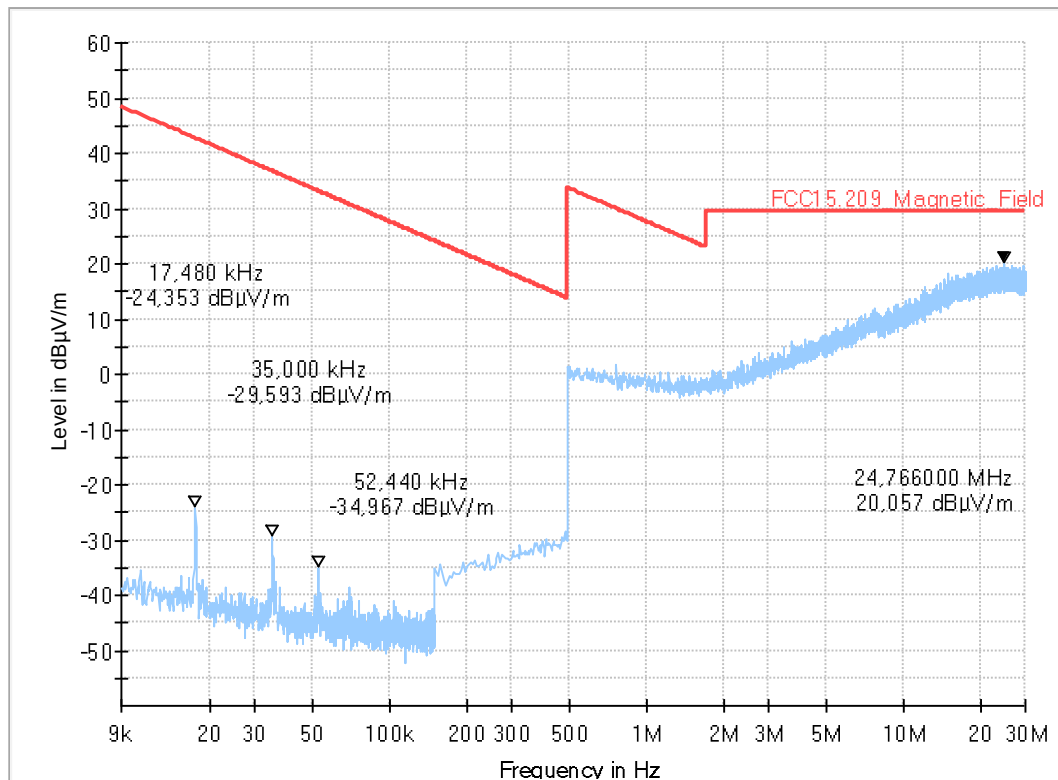
2.08_802.15.4_low_laying

Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209
Operator:	PSt
Operating Mode:	TX-on slot antenna
Power during tests:	24 V DC
Comment 1:	Channel low
Comment 2:	802.15.4 low laying
Environmental Conditions:	Temperatur: 22.4 °C, Humidity: 62 % rH
EUT Setup:	2
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC
	Full Spectrum



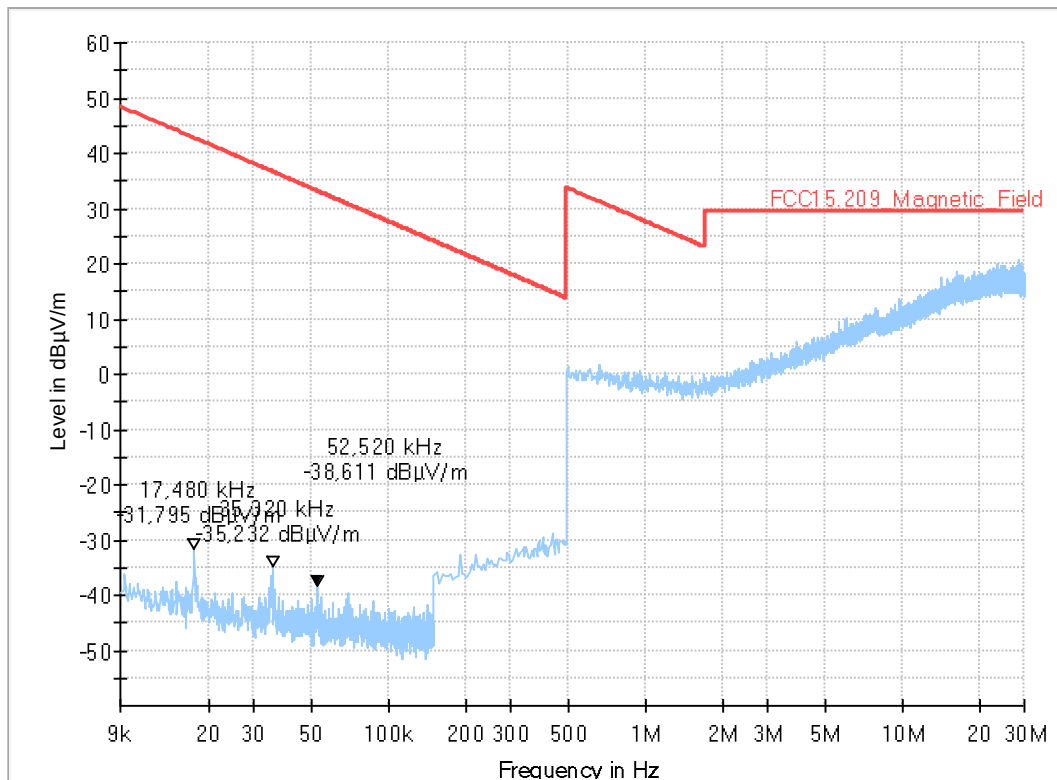
2.09_802.15.4_mid_standing

Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209
Operator:	KTe
Operating Mode:	TX-on slot antenna
Power during tests:	24 V DC
Comment 1:	Channel mid
Comment 2:	802.15.4 mid standing
Environmental Conditions:	Temperatur: 22.4 °C, Humidity: 62% rH
EUT Setup:	2
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC
	Full Spectrum



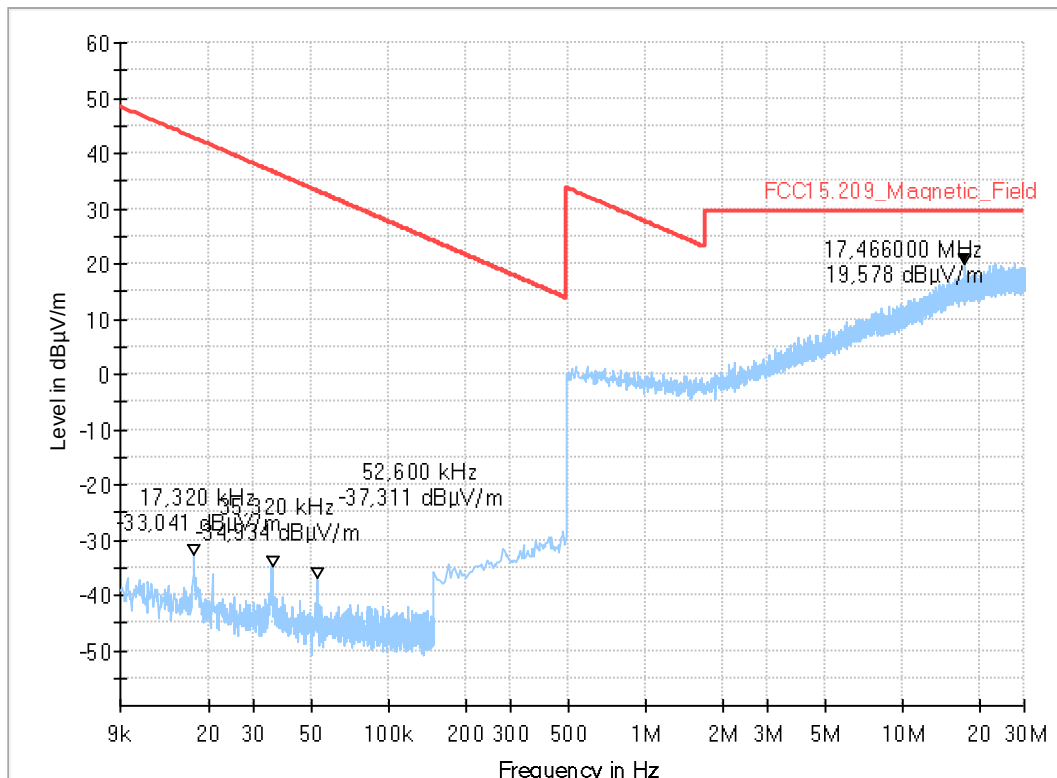
2.10_802.15.4_mid_laying

Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209
Operator:	SOz
Operating Mode:	TX-on slot antenna
Power during tests:	24 V DC
Comment 1:	Channel mid
Comment 2:	802.15.4 mid laying
Environmental Conditions:	Temperatur: 22 °C, Humidity: 55 % rH
EUT Setup:	2
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC
	Full Spectrum



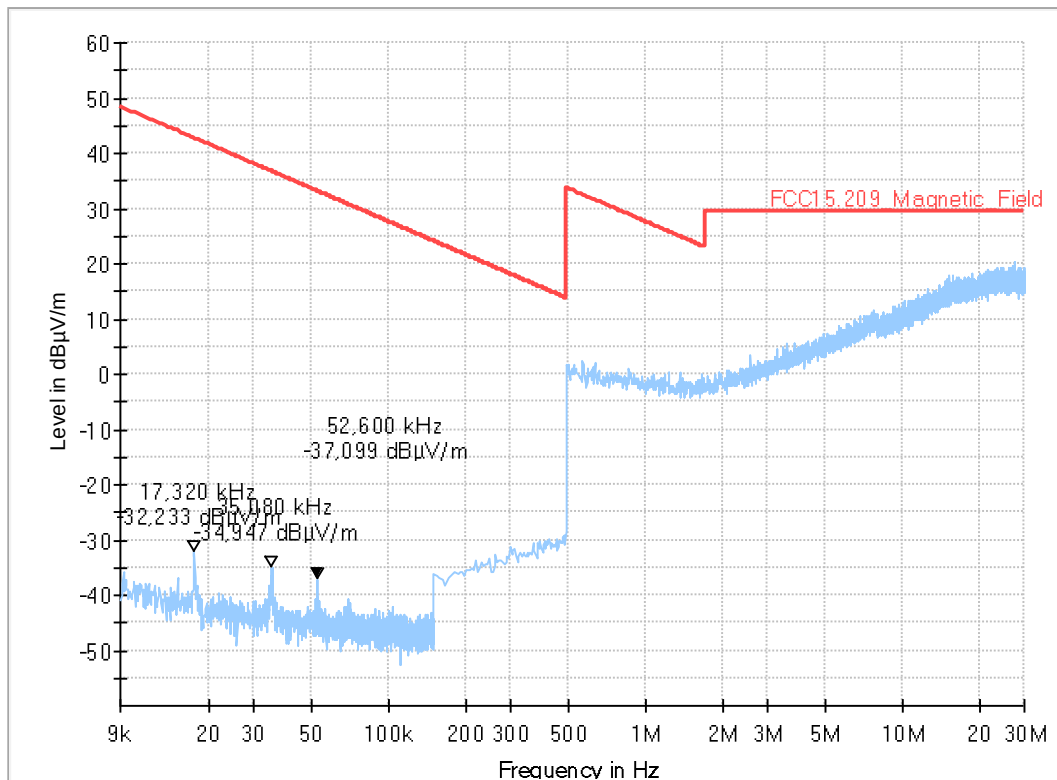
2.11_802.15.4_high_standing

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
Operator:	KTe
Operating Mode:	TX-on slot antenna
Power during tests:	24 V DC
Comment 1:	Channel high
Comment 2:	802.15.4 high standing
Environmental Conditions:	Temperatur: 22.4 °C, Humidity: 62 % rH
EUT Setup:	2
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC
	Full Spectrum



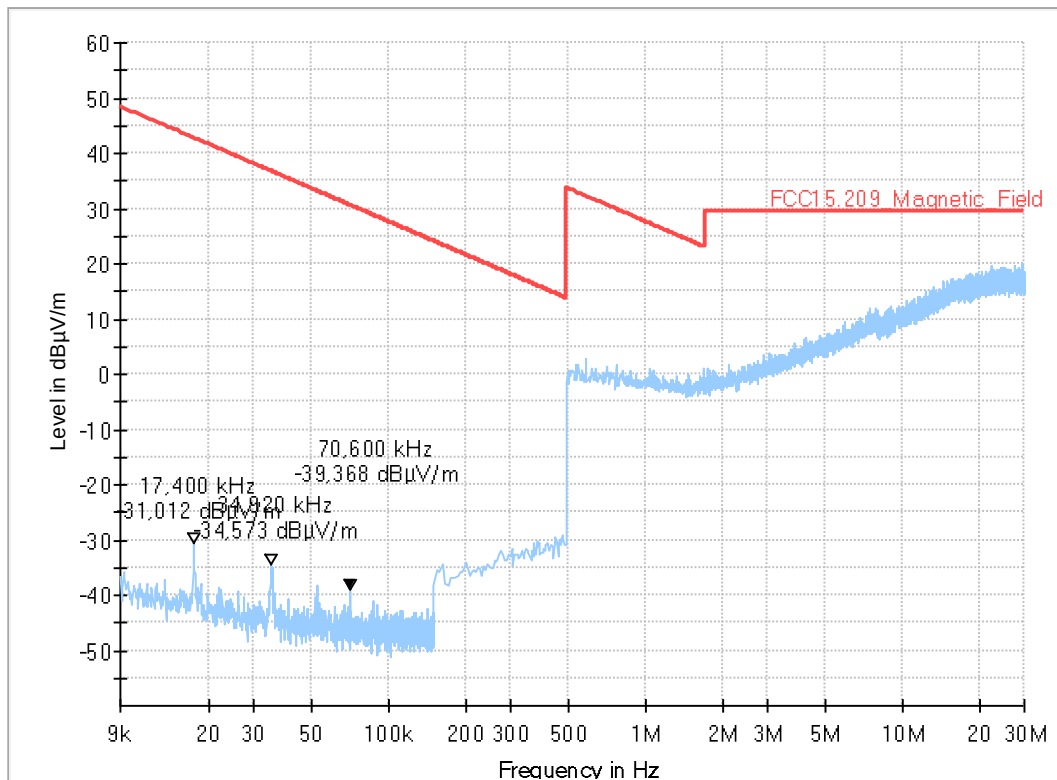
2.12_802.15.4_high_laying

Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Chamber (SAC1) with 3 m measurement distance
Version of Testsoftware:	EMC32 V10.50.0
Distance correction:	used accord. table, pls. see test report
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test Standard:	FCC 15.205 § 15.209
Operator:	SOz
Operating Mode:	TX-on slot antenna
Power during tests:	24 V DC
Comment 1:	Channel high
Comment 2:	802.15.4 high laying
Environmental Conditions:	Temperatur: 22 °C, Humidity: 55 % rH
EUT Setup:	2
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC
	Full Spectrum



Radiated field strength emissions 30 MHz – 1 GHz inverted F antenna

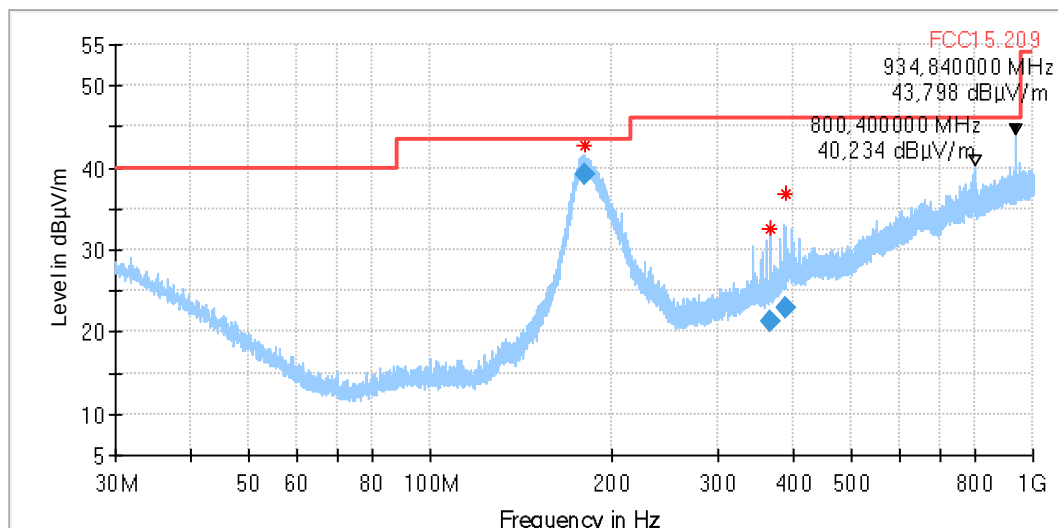
3.01_802.15.4_low

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	cetekom advanced GmbH
Test Standard:	FCC 15.205&15.209
Antenna polarisation:	horizontal/vertical
Environmental Conditions:	Humidity: 40 % rH; Temperature: 20 °C
Operator Name:	SOz / PSt
Operating Mode:	TX 802.15.4 Channel 11; inverted F antenna
Power supply:	24 V DC
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC



Remark: Emission at 800.40 MHz and 934.84 MHz are outside from chamber and not related to results.

Final Result

Frequency (MHz)	Quasi Peak (dBµV /m)	Limit (dBµV /m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Sig Path (dB)
179.786000	39.08	43.50	4.42	120.000	124.0	H	191.0	10.5	0.0
367.390000	21.23	46.00	24.77	120.000	244.0	H	323.0	16.8	0.0
389.234000	22.97	46.00	23.03	120.000	281.0	H	202.0	19.0	0.0

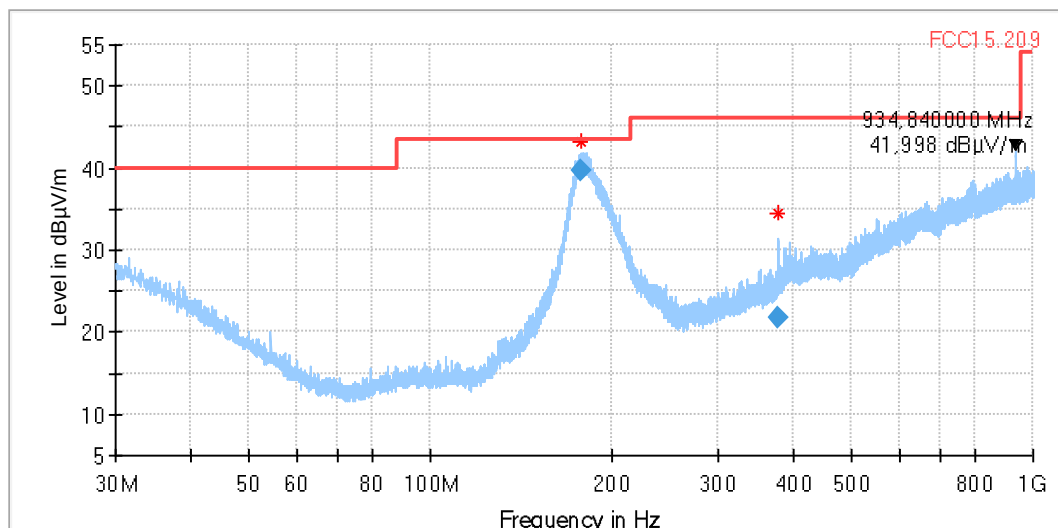
3.02_802.15.4_low

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	cetekom advanced GmbH
Test Standard:	FCC 15.205&15.209
Antenna polarisation:	horizontal/vertical
Environmental Conditions:	Humidity: 40 % rH; Temperature: 20 °C
Operator Name:	SOz
Operating Mode:	TX 802.15.4 Channel 26; inverted F antenna
Power supply:	24 V DC
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC



Remark: Emission at 934.84 MHz is outside from chamber and not related to results.

Final Result

Frequency (MHz)	Quasi Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Sig Path (dB)
177.842000	39.77	43.50	3.73	120.000	165.0	H	189.0	10.4	0.0
377.374000	21.79	46.00	24.21	120.000	230.0	H	345.0	17.7	0.0

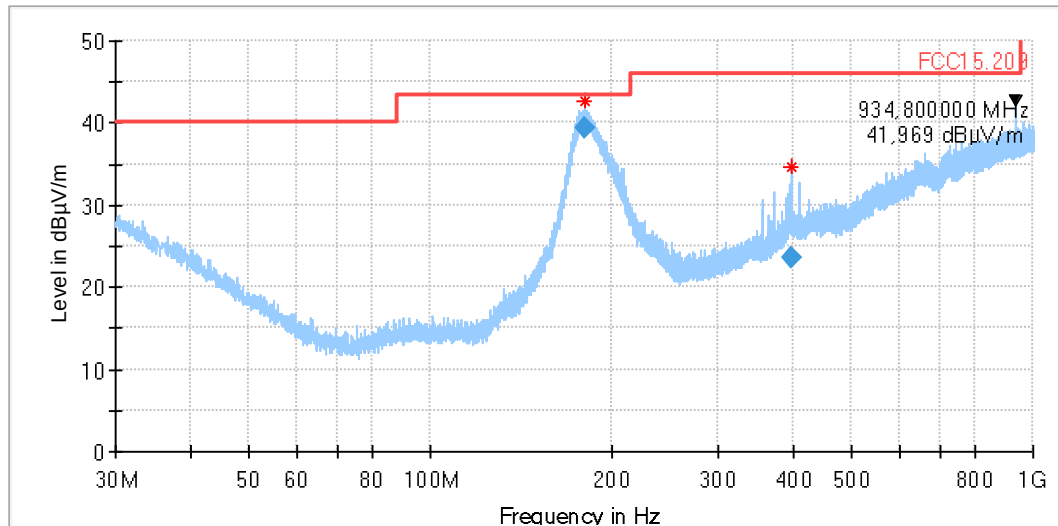
3.03_802.15.4_mid

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	cetekom advanced GmbH
Test Standard:	FCC 15.205&15.209
Antenna polarisation:	horizontal/vertical
Environmental Conditions:	Humidity: 40 % rH; Temperature: 20 °C
Operator Name:	SOz / PSt
Operating Mode:	TX 802.15.4 Channel 18; inverted F antenna
Power supply:	24 V DC
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC



Remark: Emission at 934.80 MHz is outside from chamber and not related to results.

Final Result

Frequency (MHz)	Quasi Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Sig Path (dB)
180.818000	39.35	43.50	4.15	120.000	147.0	H	174.0	10.5	0.0
397.706000	23.53	46.00	22.47	120.000	222.0	H	196.0	19.5	0.0

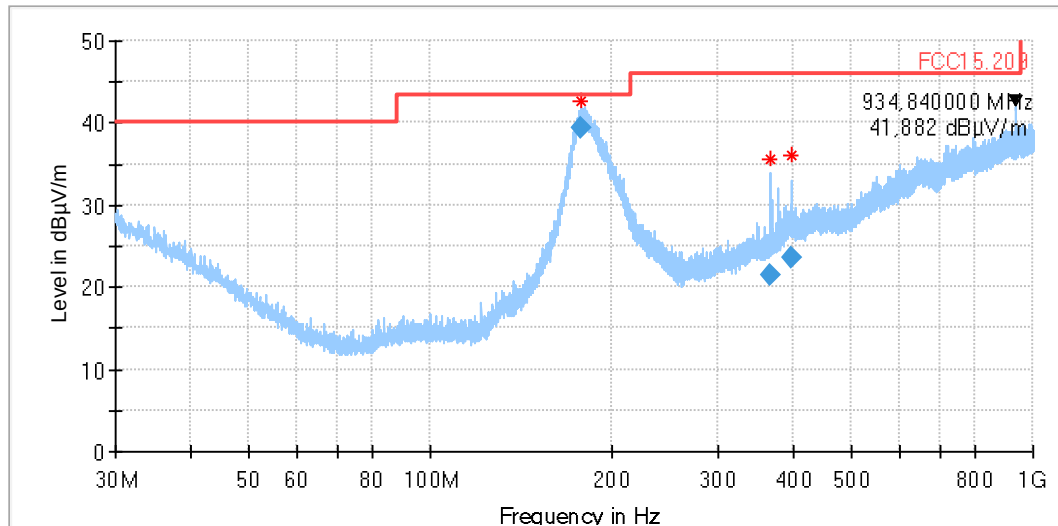
3.04_802.15.4_mid

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	cetecom advanced GmbH
Test Standard:	FCC 15.205&15.209
Antenna polarisation:	horizontal/vertical
Environmental Conditions:	Humidity: 40 % rH; Temperature: 20 °C
Operator Name:	SOz / PSt
Operating Mode:	TX 802.15.4 Channel 18; inverted F antenna
Power supply:	24 V DC
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC



Remark: Emission at 934.84 MHz is outside from chamber and not related to results.

Final Result

Frequency (MHz)	Quasi Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Sig Path (dB)
177.858000	39.40	43.50	4.10	120.000	171.0	H	199.0	10.4	0.0
366.522000	21.39	46.00	24.61	120.000	309.0	H	329.0	16.7	0.0
397.018000	23.50	46.00	22.50	120.000	262.0	H	215.0	19.5	0.0

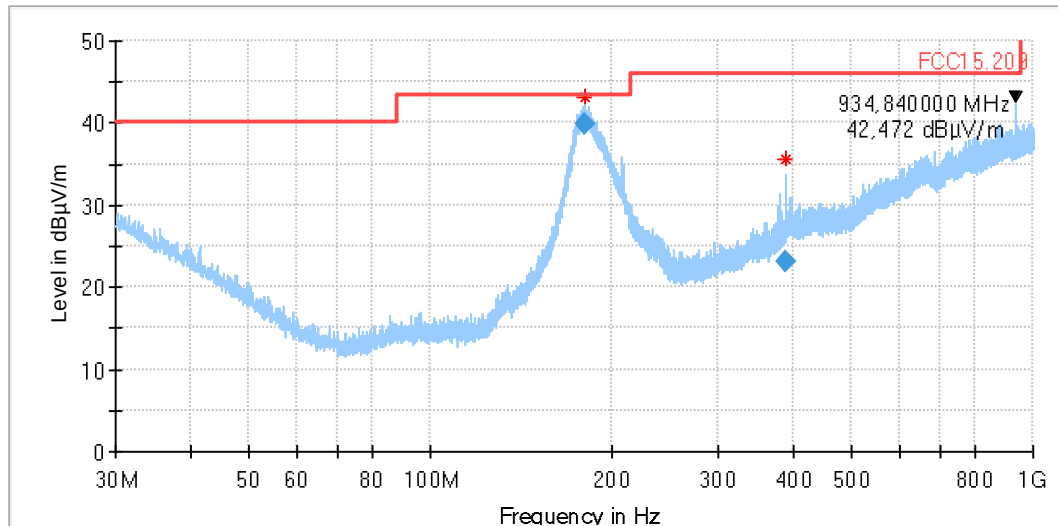
3.05_802.15.4_high

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	cetekom advanced GmbH
Test Standard:	FCC 15.205&15.209
Antenna polarisation:	horizontal/vertical
Environmental Conditions:	Humidity: 40 % rH; Temperature: 20 °C
Operator Name:	SOz
Operating Mode:	TX 802.15.4 Channel 26; inverted F antenna
Power supply:	24 V DC
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC



Remark: Emission at 934.80 MHz is outside from chamber and not related to results.

Final Result

Frequency (MHz)	Quasi Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Sig Path (dB)
180.570000	39.93	43.50	3.57	120.000	165.0	H	197.0	10.5	0.0
389.474000	23.02	46.00	22.98	120.000	197.0	H	214.0	19.0	0.0

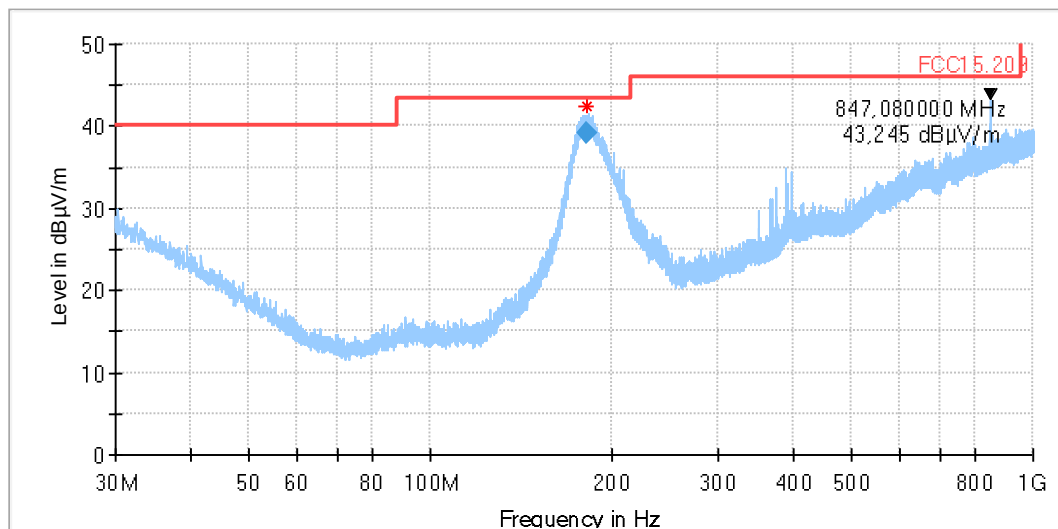
3.06_802.15.4_high

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	cetecom advanced GmbH
Test Standard:	FCC 15.205&15.209
Antenna polarisation:	horizontal/vertical
Environmental Conditions:	Humidity: 40 % rH; Temperature: 20 °C
Operator Name:	SOz / PSt
Operating Mode:	TX 802.15.4 Channel 26; inverted F antenna
Power supply:	24 V DC
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC



Remark: Emission at 847.08 MHz is outside from chamber and not related to results.

Final_Result

Frequency (MHz)	Quasi Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Sig Path (dB)
181.622000	39.17	43.50	4.33	120.000	165.0	H	191.0	10.6	0.0

Radiated field strength emissions 30 MHz – 1 GHz slot antenna

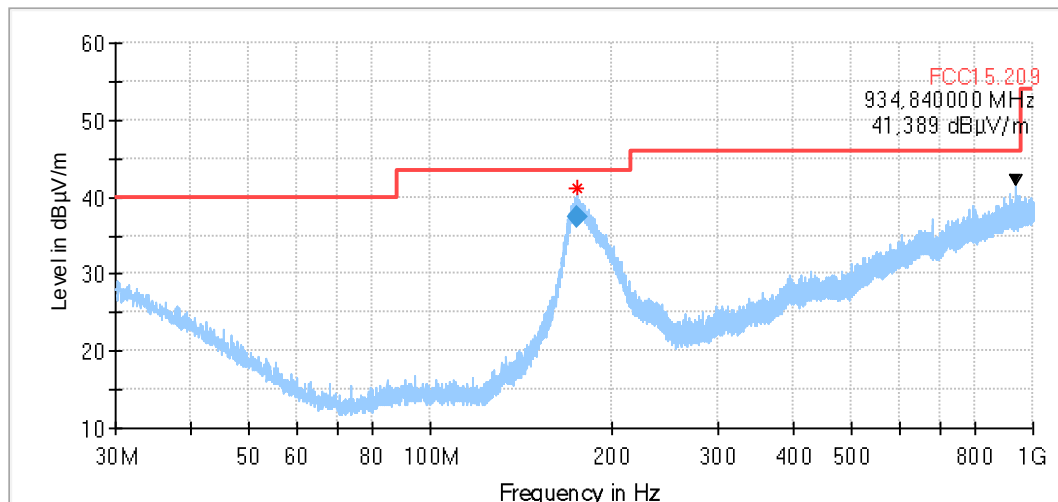
3.07_802.15.4_low

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	cetekom advanced GmbH
Test Standard:	FCC 15.205&15.209
Antenna polarisation:	horizontal/vertical
Environmental Conditions:	Humidity: 40% rH; Temperature: 20 °C
Operator Name:	SOz
Operating Mode:	TX 802.15.4 Channel 11; slot antenna
Power supply:	24 V DC
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC



Remark: Emission at 934.84 MHz is outside from chamber and not related to results.

Final Result

Frequency (MHz)	Quasi Peak (dBµV /m)	Limit (dBµV /m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Sig Path (dB)
174.950000	37.42	43.50	6.08	120.000	188.0	H	72.0	10.2	0.0

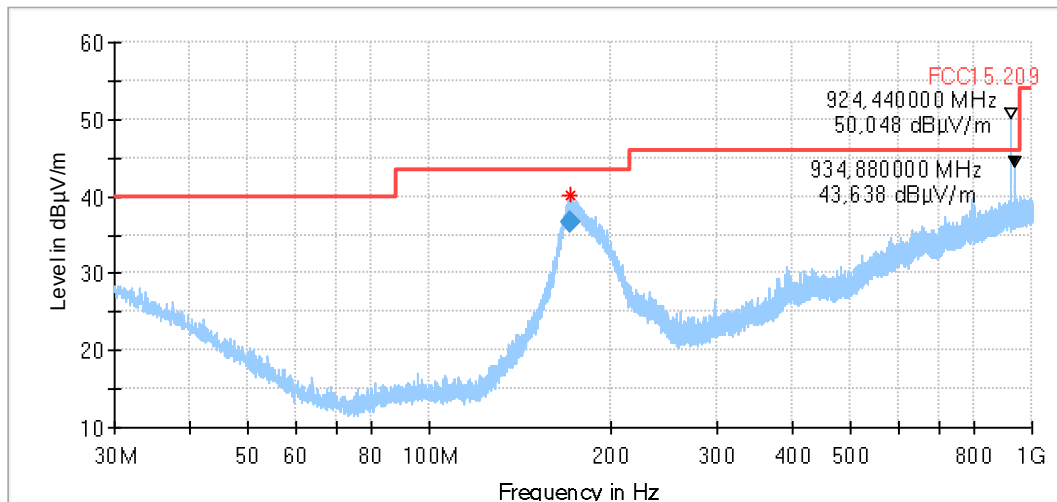
3.08_802.15.4_low

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	cetekom advanced GmbH
Test Standard:	FCC 15.205&15.209
Antenna polarisation:	horizontal/vertical
Environmental Conditions:	Humidity: 40% rH; Temperature: 20 °C
Operator Name:	SOz
Operating Mode:	TX 802.15.4 Channel 11; slot antenna
Power supply:	24 V DC
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC



Remark: Emission at 924.44 MHz and 934.80 MHz are outside from chamber and not related to results.

Final Result

Frequency (MHz)	Quasi Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Sig Path (dB)
170.726000	36.71	43.50	6.79	120.000	154.0	H	79.0	10.1	0.0

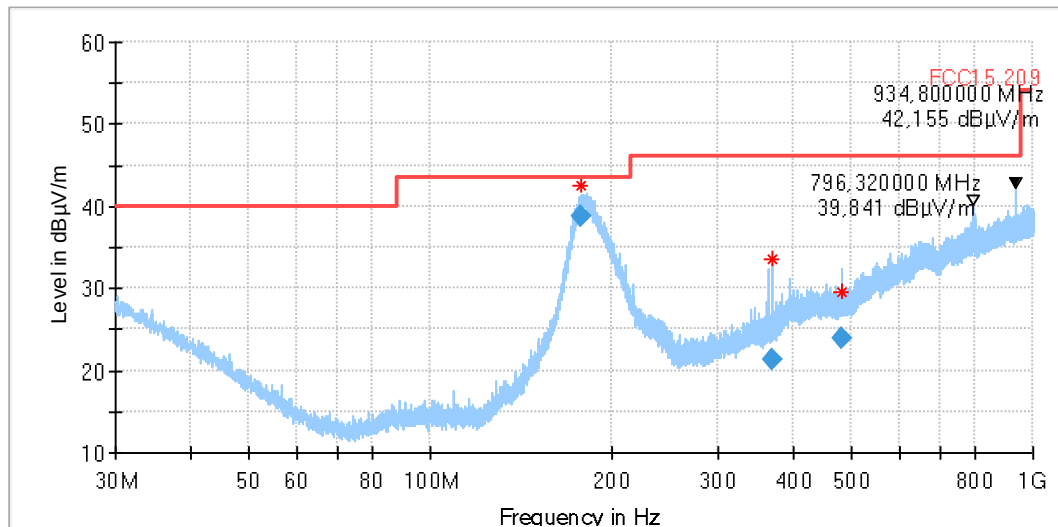
3.09_802.15.4_mid

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	cetekom advanced GmbH
Test Standard:	FCC 15.205&15.209
Antenna polarisation:	horizontal/vertical
Environmental Conditions:	Humidity: 40% rH; Temperature: 20 °C
Operator Name:	SOz / PSt
Operating Mode:	TX 802.15.4 Channel 18; slot antenna
Power supply:	24 V DC
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC



Remark: Emission at 796.32 MHz and 934.80 MHz are outside from chamber and not related to results.

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
177.986000	38.87	43.50	4.63	1000.0	120.000	170.0	H	173.0
368.034000	21.37	46.00	24.63	1000.0	120.000	308.0	H	314.0
482.142000	23.99	46.00	22.01	1000.0	120.000	368.0	H	58.0

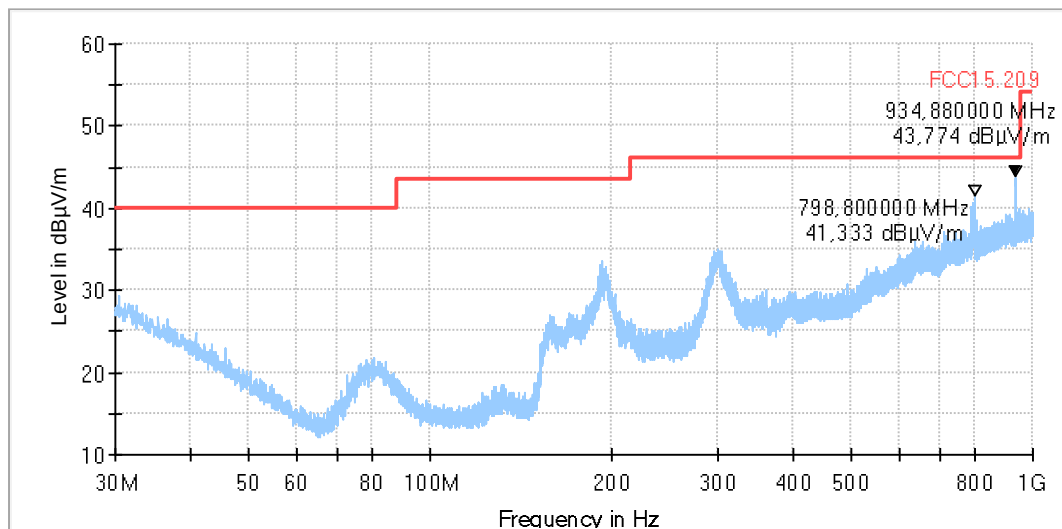
3.10_802.15.4_mid

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	cetecom advanced GmbH
Test Standard:	FCC 15.205&15.209
Antenna polarisation:	horizontal/vertical
Environmental Conditions:	Humidity: 40% rH; Temperature: 20 °C
Operator Name:	SOz / PSt
Operating Mode:	TX 802.15.4 Channel 18; Pwr: 6; slot antenna
Power supply:	24 V DC
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC



Remark: Emission at 798.80 MHz and 934.88 MHz are outside from chamber and not related to results.

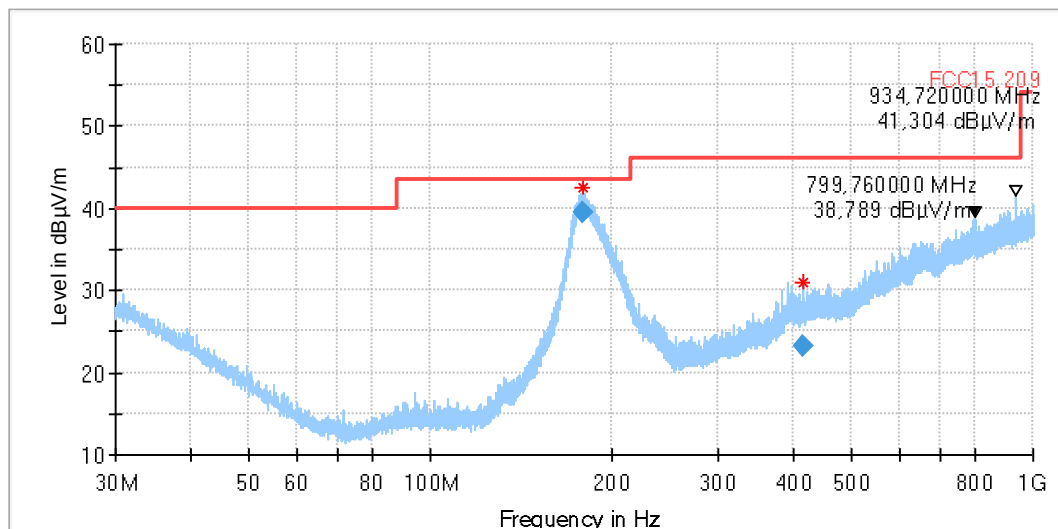
3.11_802.15.4_high

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	cetekom advanced GmbH
Test Standard:	FCC 15.205&15.209
Antenna polarisation:	horizontal/vertical
Environmental Conditions:	Humidity: 40% rH; Temperature: 20 °C
Operator Name:	SOz / PSt
Operating Mode:	TX 802.15.4 Channel 26; slot antenna
Power supply:	24 V DC
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC



Remark: Emission at 799.76 MHz and 934.72 MHz are outside from chamber and not related to results.

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
179.546000	39.45	43.50	4.05	1000.0	120.000	146.0	H	174.0
416.366000	23.32	46.00	22.68	1000.0	120.000	214.0	H	162.0

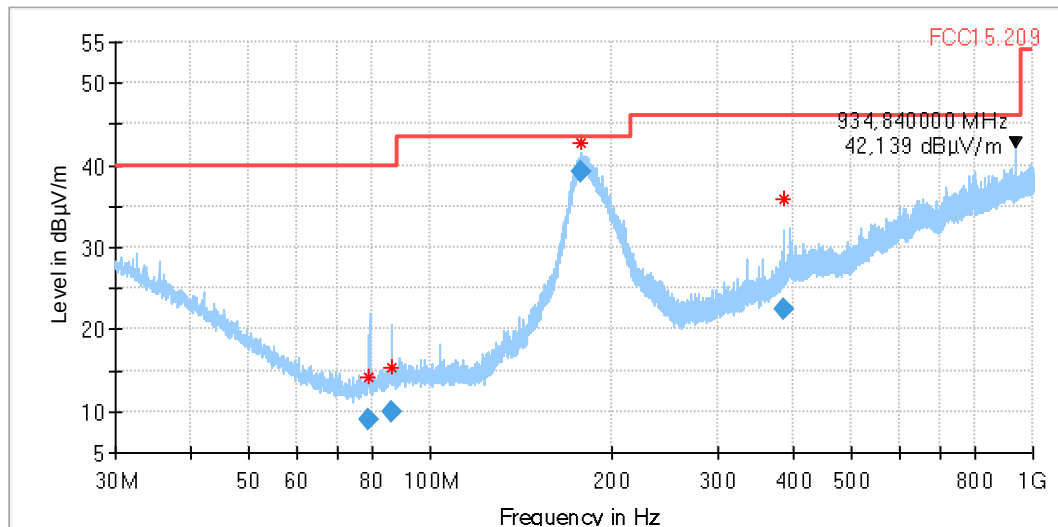
3.12_802.15.4_high

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	cetekom advanced GmbH
Test Standard:	FCC 15.205&15.209
Antenna polarisation:	horizontal/vertical
Environmental Conditions:	Humidity: 40% rH; Temperature: 20 °C
Operator Name:	SOz / PSt
Operating Mode:	TX 802.15.4 Channel 26; slot antenna
Power supply:	24 V DC
Verdict:	Passed

EUT Information

PMT number:	22-1-00571S28_C01
Power:	24 V DC



Remark: Emission at 934.84 MHz is outside from chamber and not related to results.

Final Result

Frequency (MHz)	Quasi Peak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Sig Path (dB)
79.114000	9.02	40.00	30.98	120.000	353.0	V	178.0	6.8	0.0
86.182000	9.96	40.00	30.04	120.000	279.0	V	60.0	7.7	0.0
177.846000	39.24	43.50	4.26	120.000	154.0	H	190.0	10.4	0.0
385.822000	22.48	46.00	23.52	120.000	245.0	H	229.0	18.6	0.0

Radiated field strength emissions above 1 GHz inverted F antenna

4.01_802.15.4_low

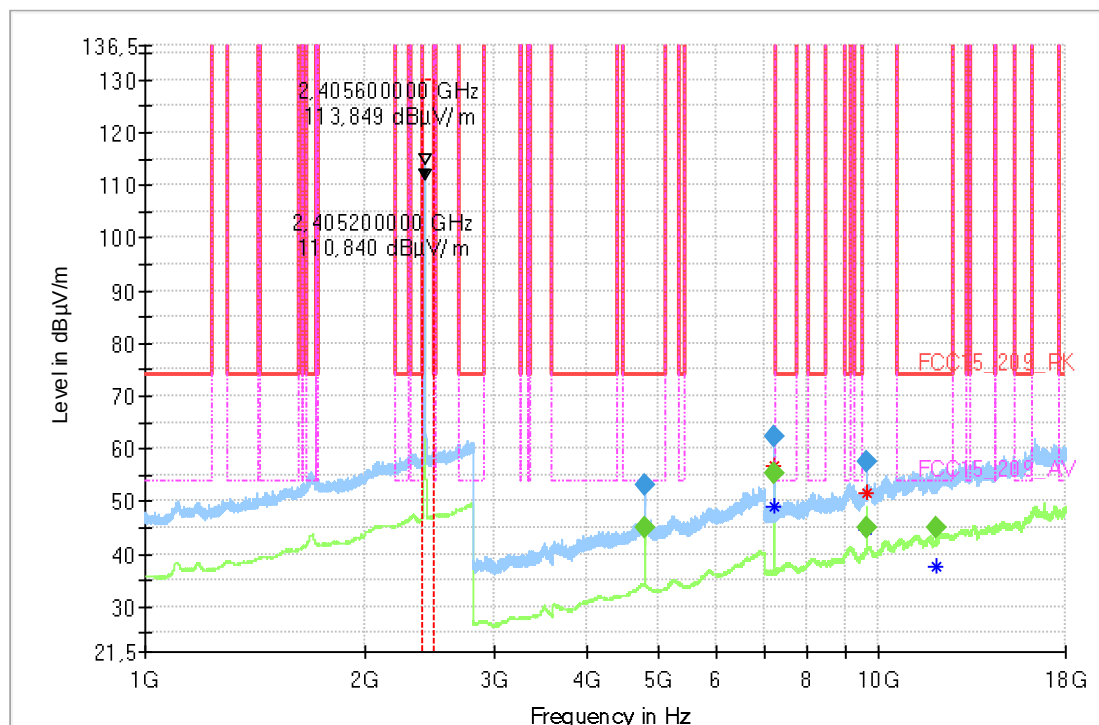
Common Information

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
Antenna polarisation: horizontal/vertical
Operating Mode: 802.15.4_low
Operator: KTe/PSt
Comment: Channel no. low, inverted F antenna
Environmental Conditions: Humidity : 52 % rH; Temperature: 21 °C
Verdict: Passed

EUT Information

PMT Sample Nr: 22-1-00571S28_C01
Power Supply: 24 V DC

Full Spectrum



Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin	Meas. Time (ms)	Bandwidth	Height	Pol	Azimuth	Elevation
4809.130000	---	45.13	54.00	8.87	100.0	1000.000	155.0	H	85.0	0.0
4809.130000	53.21	---	74.00	20.79	100.0	1000.000	155.0	H	82.0	0.0
7216.610000	62.45	---	150.00	87.55	100.0	1000.000	155.0	H	51.0	90.0
7216.770000	---	55.18	150.00	94.82	100.0	1000.000	155.0	H	50.0	90.0
9618.250000	---	44.98	150.00	105.02	100.0	1000.000	155.0	V	226.0	0.0
9618.290000	57.55	---	150.00	92.45	100.0	1000.000	155.0	V	338.0	0.0
12027.450000	---	44.85	54.00	9.15	100.0	1000.000	155.0	V	153.0	0.0

4.02_802.15.4_mid

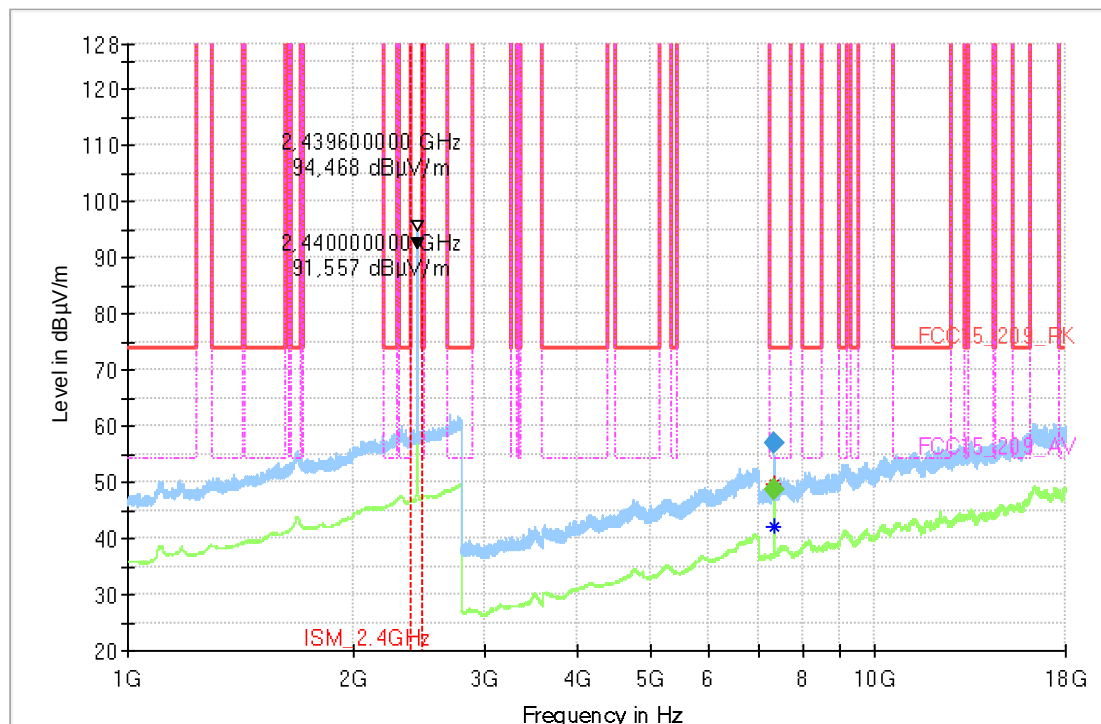
Common Information

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
Antenna polarisation:	horizontal/vertical
Operating Mode:	802.15.4_mid
Set-up no.	2
Operator:	PSt
Comment:	Channel no. middle, inverted F antenna
Environmental Conditions:	Humidity: 60 % rH; Temperature: 20 °C
Verdict:	Passed

EUT Information

PMT Sample Nr:	22-1-00571S28_C01
Power Supply:	24 V DC

Full Spectrum



Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin	Meas. Time (ms)	Bandwidth (h)	Height	Pol	Azimuth	Elevation
7321.330000	---	48.63	54.00	5.37	100.0	1000.000	155.0	H	19.0	0.0
7321.410000	57.05	---	74.00	16.95	100.0	1000.000	155.0	H	20.0	0.0

4.03_802.15.4_high

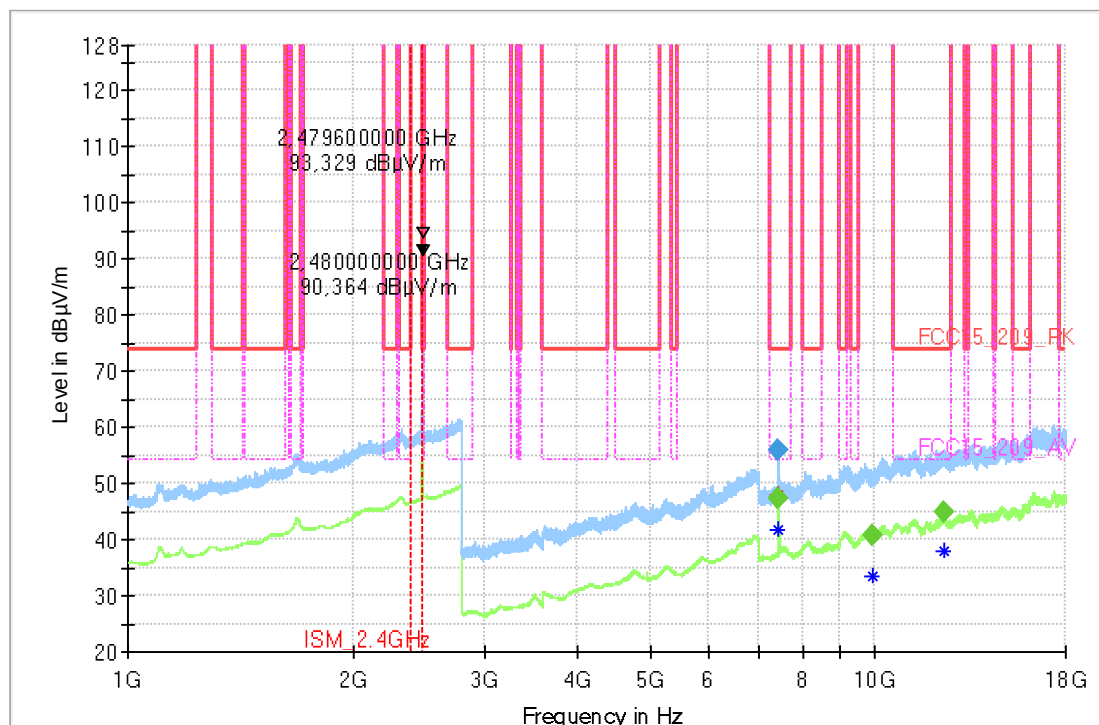
Common Information

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
Antenna polarisation:	horizontal/vertical
Operating Mode:	802.15.4_high
Set-up no.	2
Operator:	PSt
Comment:	Channel no. High, inverted F antenna
Environmental Conditions:	Humidity: 60 % rH; Temperature: 20 °C
Verdict:	Passed

EUT Information

PMT Sample Nr:	22-1-00571S28_C01
Power Supply:	24 V DC

Full Spectrum



Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin	Meas. Time (ms)	Bandwidth (h)	Height	Pol	Azimuth	Elevation
7441.450000	---	47.41	54.00	6.59	100.0	1000.000	155.0	V	10.0	90.0
7441.450000	55.88	---	74.00	18.12	100.0	1000.000	155.0	V	143.0	0.0
9922.290000	---	40.62	150.00	109.38	100.0	1000.000	155.0	V	8.0	90.0
12402.490000	---	44.88	54.00	9.12	100.0	1000.000	155.0	H	323.0	90.0

4.04_802.15.4_low_H

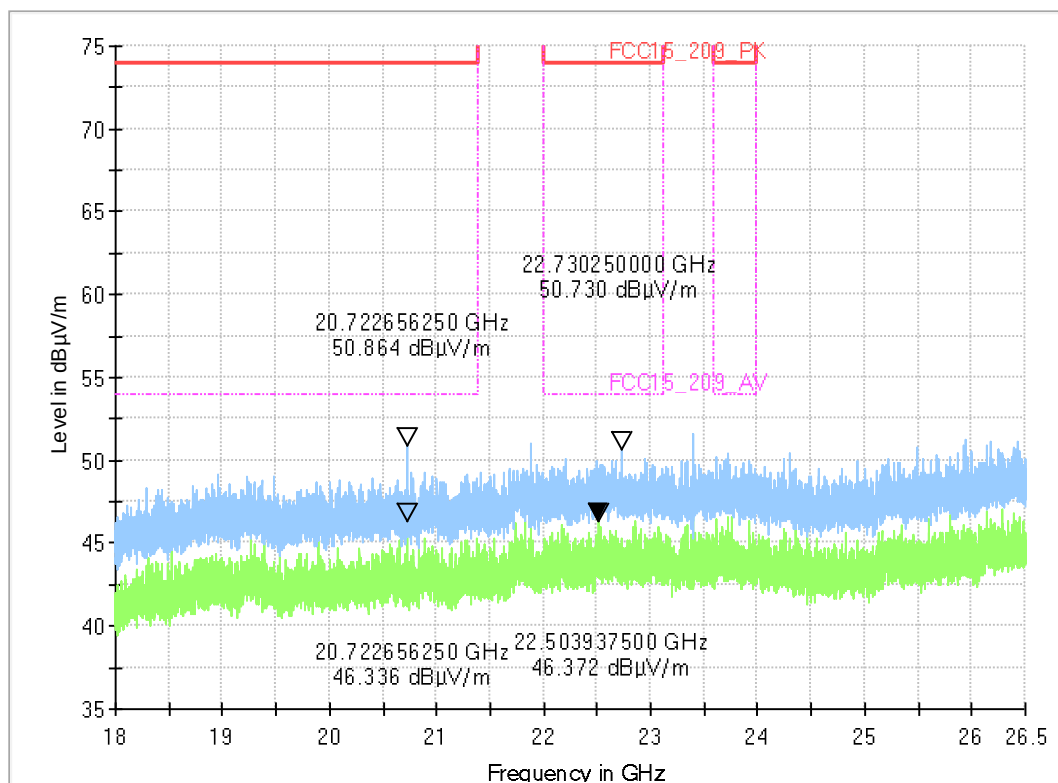
Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	cetekom advanced GmbH
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209
Operating Mode:	802.15.4 ch 11, inverted F antenna
Environmental Conditions:	Humidity: 50 % rH; Temperature: 20.1 °C
SW-Version:	EMC32 V10.60.20
Operator:	SOz
Verdict:	Passed

EUT Information

PMT Sample Nr.	22-1-00571S28_C01
power:	24 V DC

Full Spectrum



4.05_802.15.4_low_V

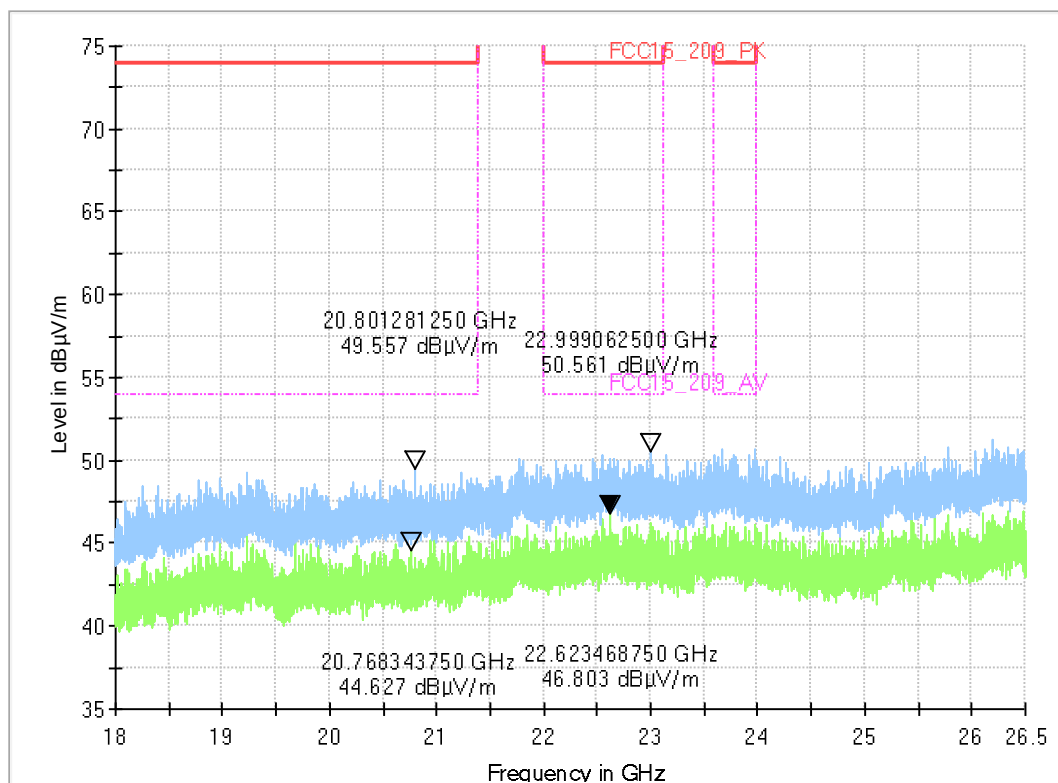
Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	cetekom advanced GmbH
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209
Operating Mode:	802.15.4 ch 11, inverted F antenna
Environmental Conditions:	Humidity: 50 % rH; Temperature: 20.1 °C
SW-Version:	EMC32 V10.60.20
Operator:	SOz
Verdict:	Passed

EUT Information

PMT Sample Nr.	22-1-00571S28_C01
power:	24 V DC

Full Spectrum



4.06_802.15.4_mid_H

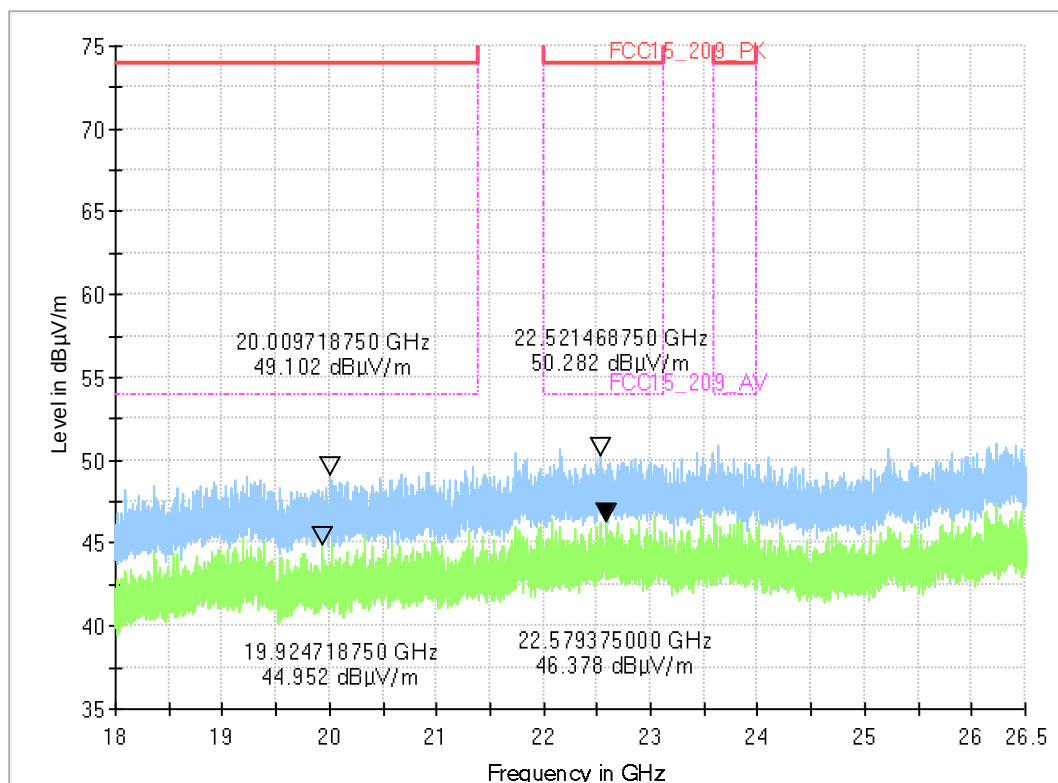
Common Information

Test Description:	Radiated Field Strength Emission
Test Site Location:	cetekom advanced GmbH
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209
Operating Mode:	802.15.4_mid_H, inverted F antenna
Environmental Conditions:	Humidity: 50 % rH; Temperature: 20.1 °C
SW-Version:	EMC32 V10.60.20
Operator:	KTe
Verdict:	Passed

EUT Information

PMT Sample Nr.	22-1-00571S28_C01
power:	24 V DC

Full Spectrum



4.07_802.15.4_mid_V

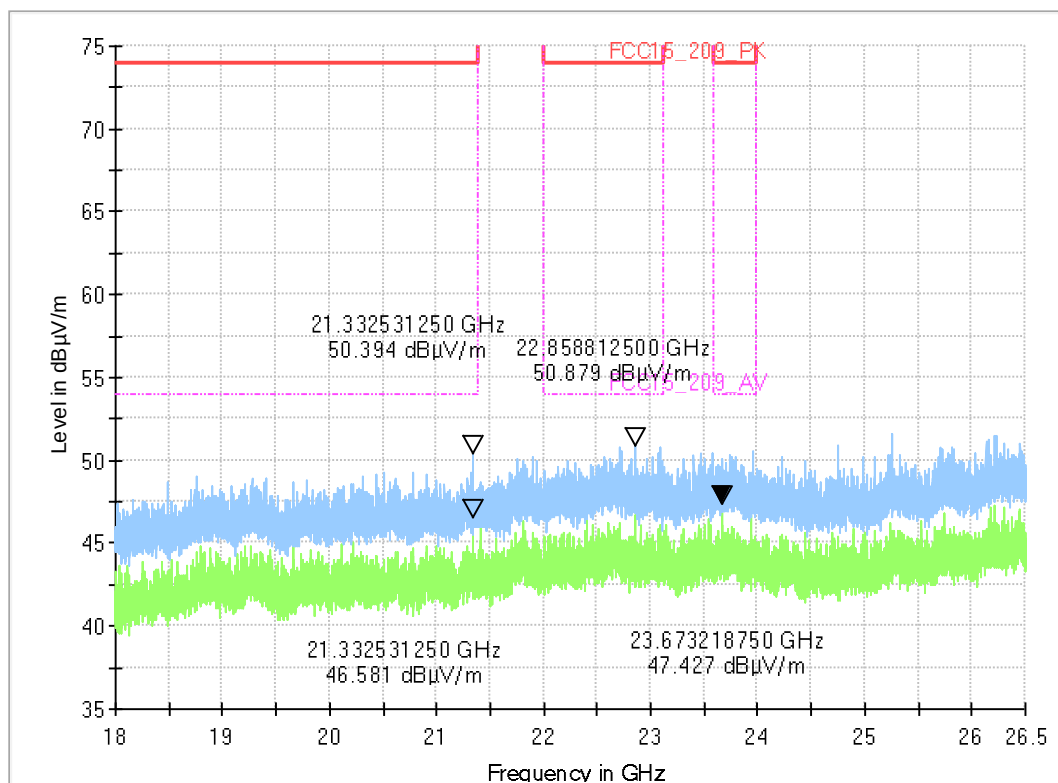
Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	cetekom advanced GmbH
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209
Operating Mode:	802.15.4 ch 18, inverted F antenna
Environmental Conditions:	Humidity: 50 % rH; Temperature: 20.1 °C
SW-Version:	EMC32 V10.60.20
Operator:	SOz
Verdict:	Passed

EUT Information

PMT Sample Nr.	22-1-00571S28_C01
power:	24 V DC

Full Spectrum



4.08_802.15.4_high_H

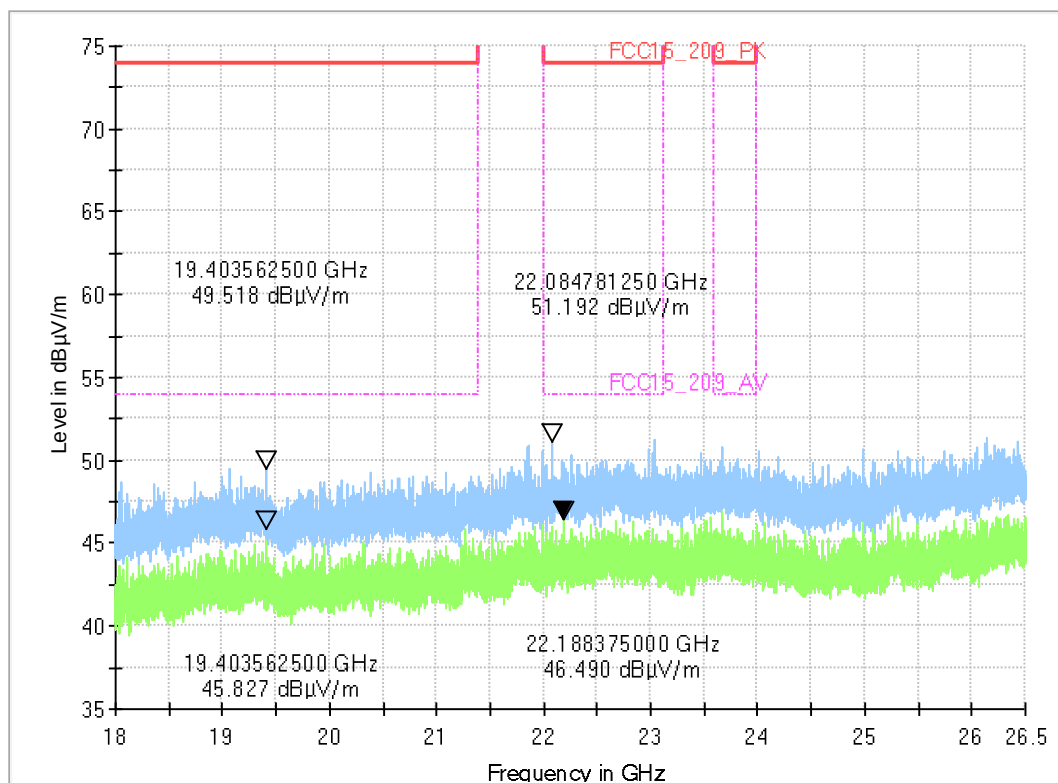
Common Information

Test Description:	Radiated Field Strength Emission
Test Site Location:	cetekom advanced GmbH
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209
Operating Mode:	802.15.4_high_H, inverted F antenna
Environmental Conditions:	Humidity: 50 % rH; Temperature: 20.1 °C
SW-Version:	EMC32 V10.60.20
Operator:	KTe
Verdict:	Passed

EUT Information

PMT Sample Nr.	22-1-00571S28_C01
power:	24 V DC

Full Spectrum



4.09_802.15.4_high_V

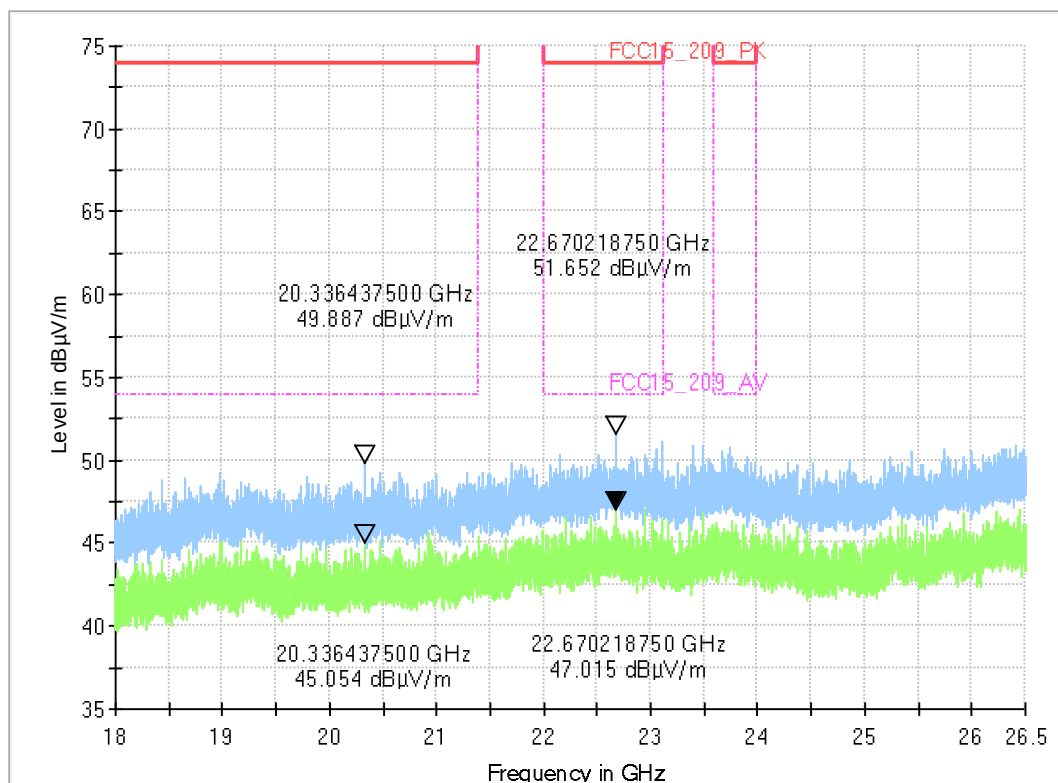
Common Information

Test Description:	Radiated Field Strength Emission
Test Site Location:	cetekom advanced GmbH
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209
Operating Mode:	802.15.4_high_V, inverted F antenna
Environmental Conditions:	Humidity: 50% rH; Temperature: 20.1 °C
SW-Version:	EMC32 V10.60.20
Operator:	KTe
Verdict:	Passed

EUT Information

PMT Sample Nr.	22-1-00571S28_C01
power:	24 V DC

Full Spectrum



Radiated field strength emissions above 1 GHz slot antenna

4.10_802.15.4_low

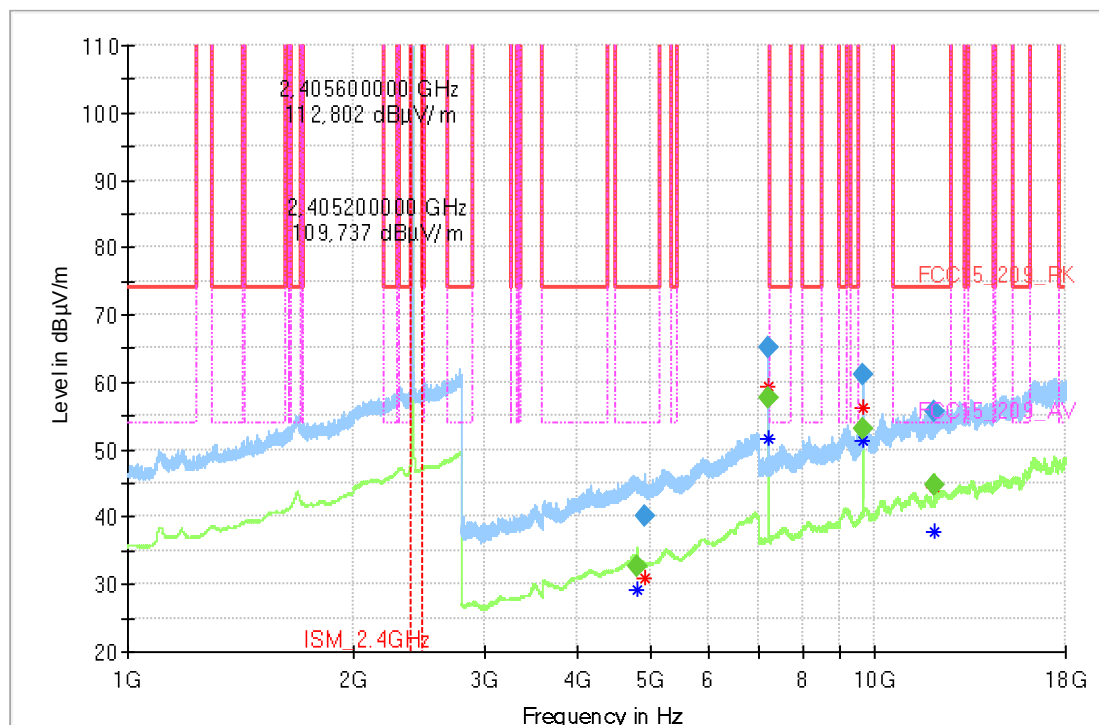
Common Information

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
Antenna polarisation:	horizontal/vertical
Operating Mode:	802.15.4_low, slot antenna
Operator:	KTe
Environmental Conditions:	Humidity: 41 % rH; Temperature: 21 °C
Verdict:	Passed

EUT Information

PMT Sample Nr:	22-1-0057101S28_C01
Power Supply:	24 V DC

Full Spectrum



Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin	Meas. Time (ms)	Bandwidth	Height	Pol	Azimuth	Elevation
4809.130000	---	32.70	54.00	21.30	100.0	1000.000	155.0	H	0.0	0.0
4914.530000	40.15	---	74.00	33.85	100.0	1000.000	155.0	V	94.0	0.0
7213.850000	65.08	---	150.00	84.92	100.0	1000.000	155.0	H	65.0	90.0
7216.770000	---	57.69	150.00	92.31	100.0	1000.000	155.0	H	51.0	90.0
9618.250000	61.10	---	150.00	88.90	100.0	1000.000	155.0	H	298.0	90.0
9618.250000	---	53.12	150.00	96.88	100.0	1000.000	155.0	H	298.0	90.0
12027.450000	---	44.72	54.00	9.28	100.0	1000.000	155.0	H	-1.0	90.0
12027.570000	55.54	---	74.00	18.46	100.0	1000.000	155.0	V	4.0	0.0

4.11_802.15.4_mid

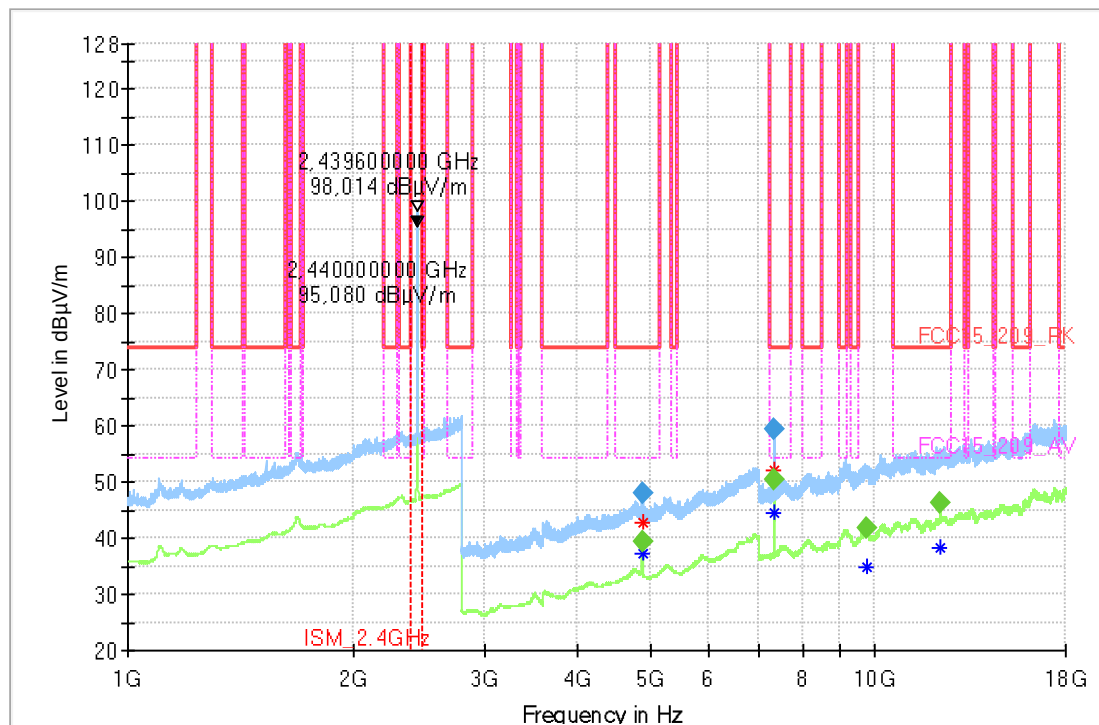
Common Information

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
Antenna polarisation:	horizontal/vertical
Operating Mode:	802.15.4_mid, slot antenna
Operator:	KTe
Environmental Conditions:	Humidity: 41 % rH; Temperature: 21 °C
Verdict:	Passed

EUT Information

PMT Sample Nr:	22-1-0057101S28_C01
Power Supply:	24 V DC

Full Spectrum



Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin	Meas. Time (ms)	Bandwidth (h)	Height (t)	Pol	Azimuth (h)	Elevation (n)
4879.130000	---	39.18	54.00	14.82	100.0	1000.000	155.0	V	310.0	90.0
4879.130000	48.02	---	74.00	25.98	100.0	1000.000	155.0	V	310.0	90.0
7321.610000	59.46	---	74.00	14.54	100.0	1000.000	155.0	H	8.0	0.0
7321.770000	---	50.38	54.00	3.62	100.0	1000.000	155.0	H	9.0	0.0
9758.290000	---	41.58	150.00	108.42	100.0	1000.000	155.0	V	5.0	90.0
12198.210000	---	46.16	54.00	7.84	100.0	1000.000	155.0	H	29.0	90.0

4.12_802.15.4_high

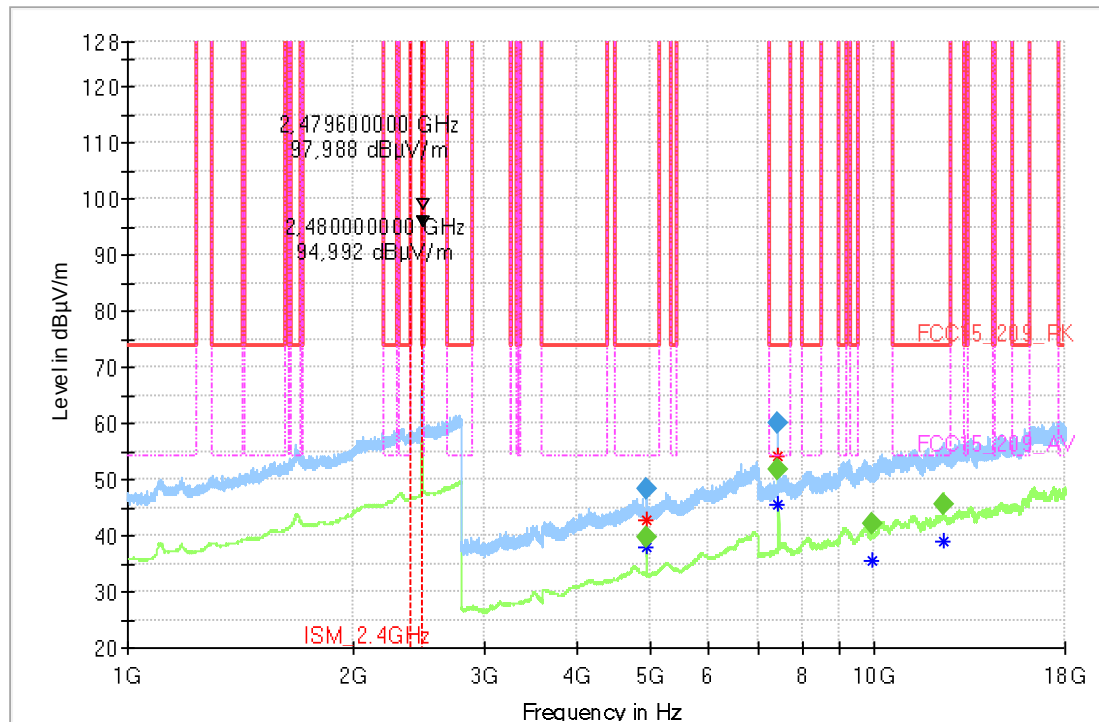
Common Information

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
Antenna polarisation:	horizontal/vertical
Operating Mode:	802.15.4_high, slot antenna
Operator:	KTe
Environmental Conditions:	Humidity: 41 % rH; Temperature: 21 °C
Verdict:	Passed

EUT Information

PMT Sample Nr:	22-1-0057101S28_C01
Power Supply:	24 V DC

Full Spectrum



Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin	Meas. Time (ms)	Bandwidth (h)	Height	Pol	Azimuth	Elevation
4959.130000	---	39.71	54.00	14.29	100.0	1000.000	155.0	H	285.0	0.0
4959.130000	48.40	---	74.00	25.60	100.0	1000.000	155.0	H	283.0	0.0
7438.890000	60.05	---	74.00	13.95	100.0	1000.000	155.0	V	11.0	90.0
7441.770000	---	51.76	54.00	2.24	100.0	1000.000	155.0	V	11.0	90.0
9922.290000	---	41.93	150.00	108.07	100.0	1000.000	155.0	V	9.0	90.0
12402.490000	---	45.66	54.00	8.34	100.0	1000.000	155.0	H	315.0	90.0

4.13_802.15.4_low_V

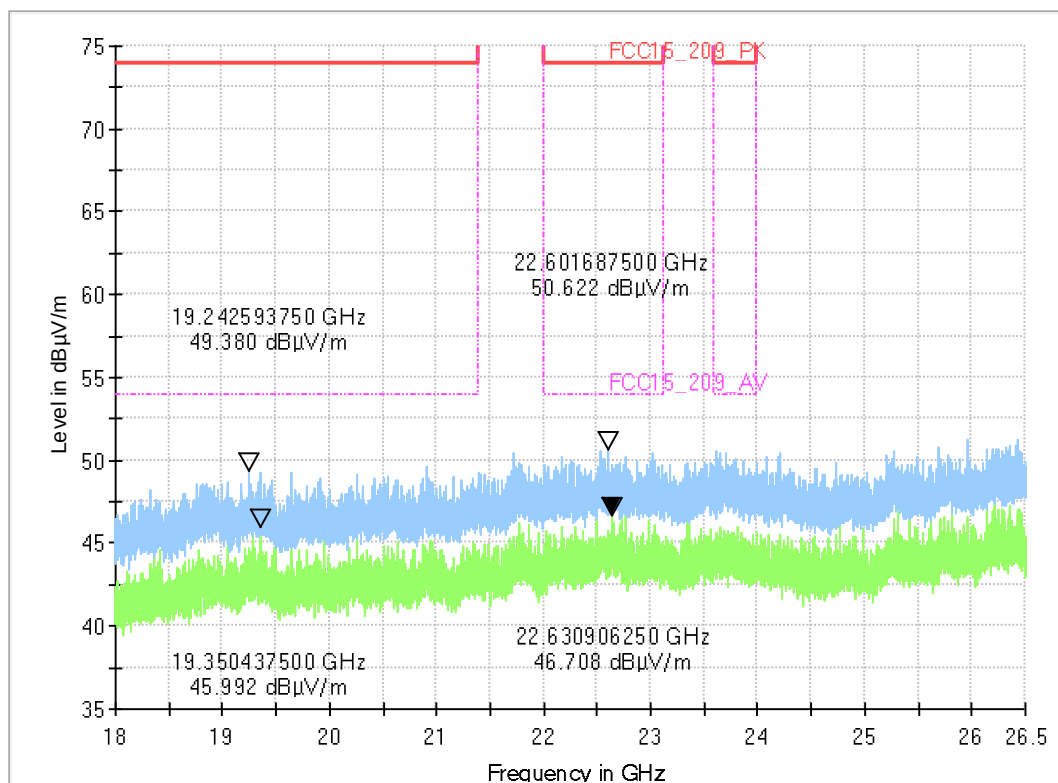
Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	cetecom advanced GmbH
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209
Operating Mode:	802.15.4 ch 11, slot antenna
Environmental Conditions:	Humidity: 50 % rH; Temperature: 20.1 °C
SW-Version:	EMC32 V10.60.20
Operator:	SOz
Verdict:	Passed

EUT Information

PMT Sample Nr.	22-1-00571S28_C01
power:	24 V DC

Full Spectrum



4.14_802.15.4_low_H

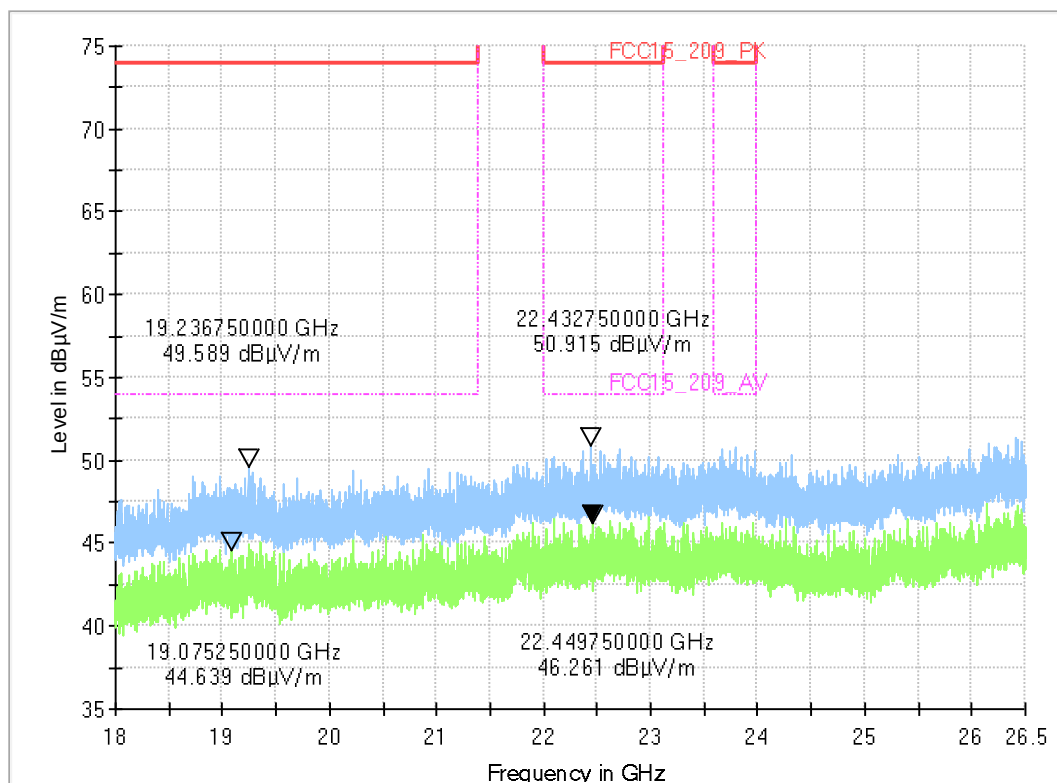
Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	cetecom advanced GmbH
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209
Operating Mode:	802.15.4 ch 11, slot antenna
Environmental Conditions:	Humidity: 50 % rH; Temperature: 20.1 °C
SW-Version:	EMC32 V10.60.20
Operator:	SOz
Verdict:	Passed

EUT Information

PMT Sample Nr.	22-1-00571S28_C01
power:	24 V DC

Full Spectrum



4.15_802.15.4_mid_V

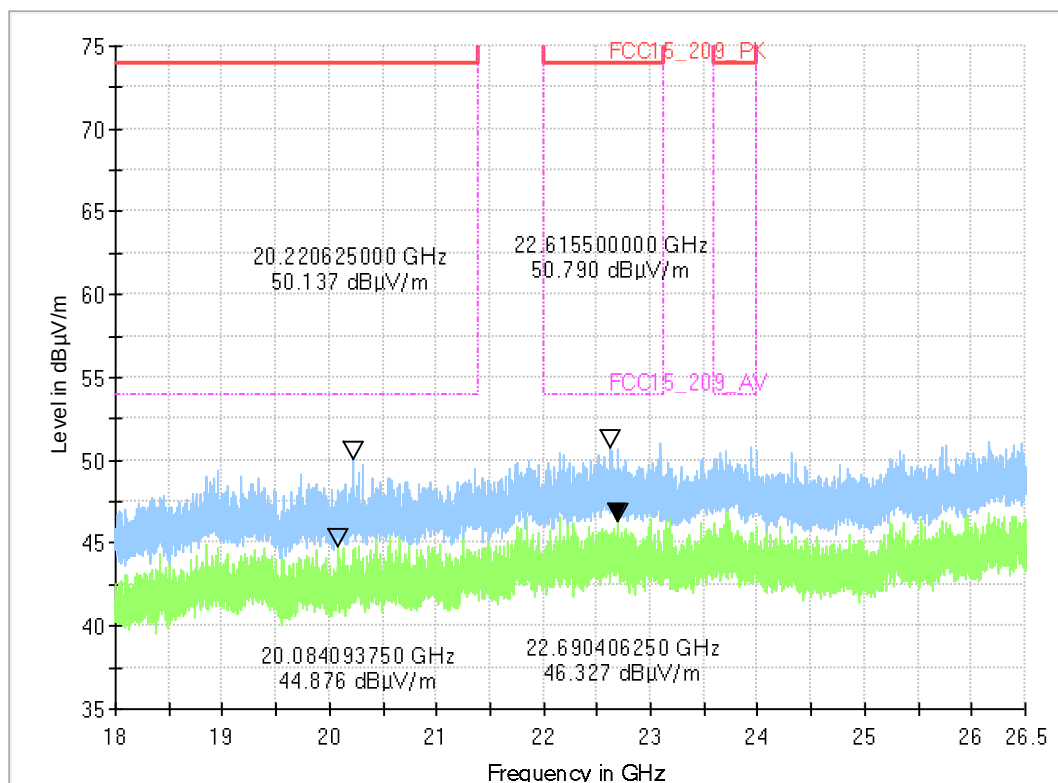
Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	cetecom advanced GmbH
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209
Operating Mode:	802.15.4 ch 18, slot antenna
Environmental Conditions:	Humidity: 50 % rH; Temperature: 20.1 °C
SW-Version:	EMC32 V10.60.20
Operator:	SOz
Verdict:	Passed

EUT Information

PMT Sample Nr.	22-1-00571S28_C01
power:	24 V DC

Full Spectrum



4.16_802.15.4_mid_H

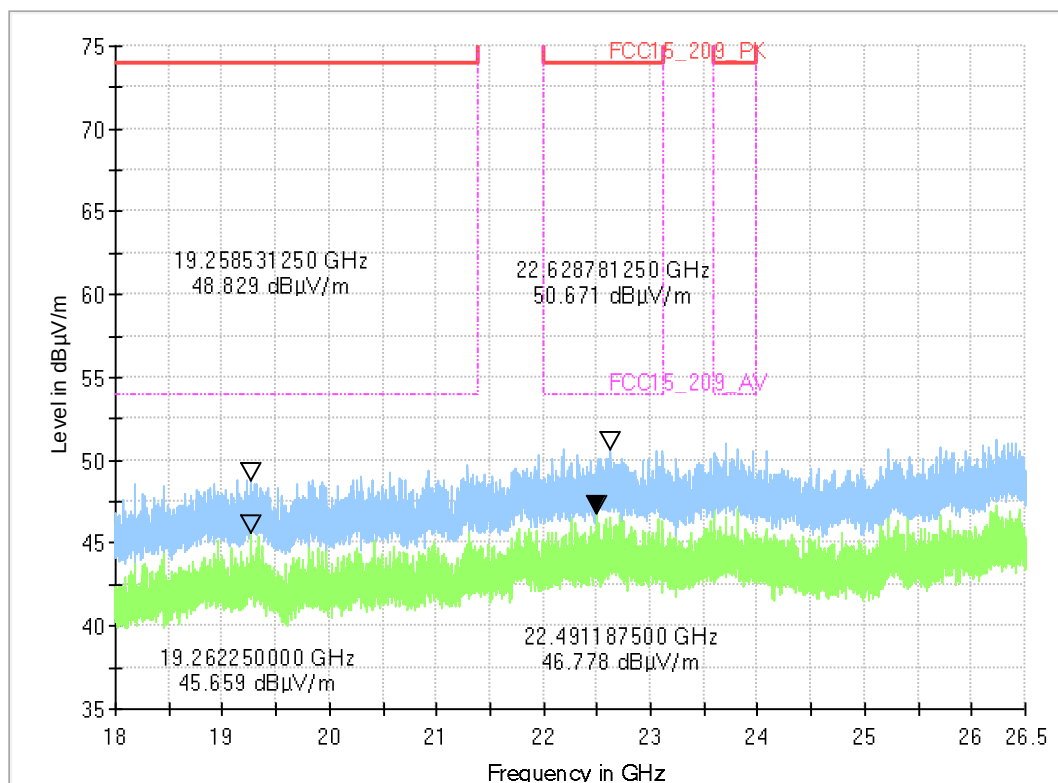
Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	cetecom advanced GmbH
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209
Operating Mode:	802.15.4 ch 18, slot antenna
Environmental Conditions:	Humidity: 50 % rH; Temperature: 20.1 °C
SW-Version:	EMC32 V10.60.20
Operator:	SOz
Verdict:	Passed

EUT Information

PMT Sample Nr.	22-1-00571S28_C01
power:	24 V DC

Full Spectrum



4.17_802.15.4_high_V

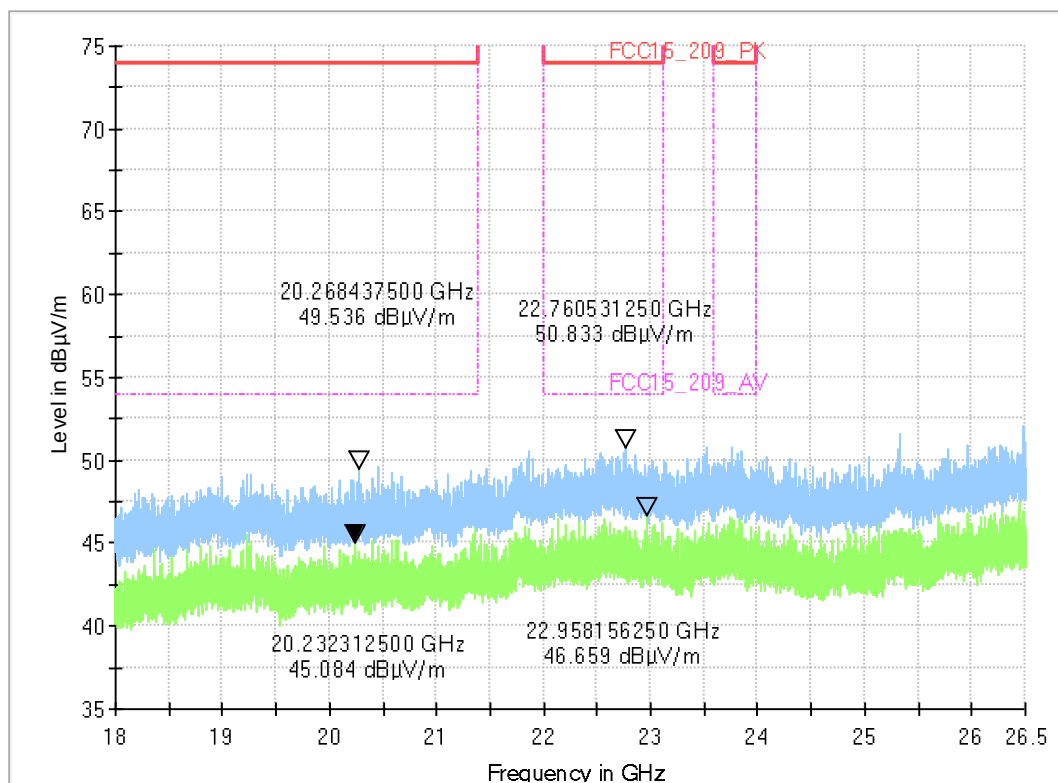
Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	cetecom advanced GmbH
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209
Operating Mode:	802.15.4 ch 26, slot antenna
Environmental Conditions:	Humidity: 50 % rH; Temperature: 20.1 °C
SW-Version:	EMC32 V10.60.20
Operator:	SOz
Verdict:	Passed

EUT Information

PMT Sample Nr.	22-1-00571S28_C01
power:	24 VDC

Full Spectrum



4.18_802.15.4_high_H

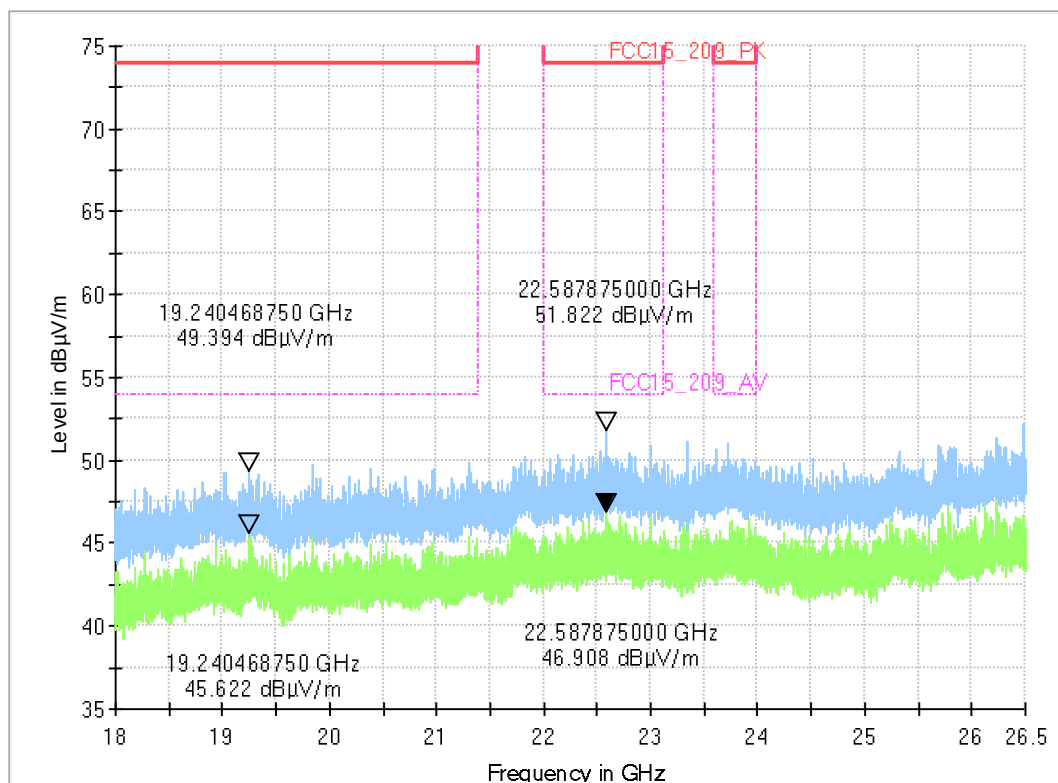
Common Information

Test Description:	Radiated Field Strength Emission@3m distance
Test Site Location:	cetecom advanced GmbH
Test Site:	Fully Anechoic Room (FAR2)
Test Standard:	FCC 15.209
Operating Mode:	802.15.4 ch 26, slot antenna
Environmental Conditions:	Humidity: 50 % rH; Temperature: 20.1 °C
SW-Version:	EMC32 V10.60.20
Operator:	SOz
Verdict:	Passed

EUT Information

PMT Sample Nr.	22-1-00571S28_C01
power:	24 V DC

Full Spectrum



Radiated Band-Edge emissions slot antenna

9.01_802.15.4_low

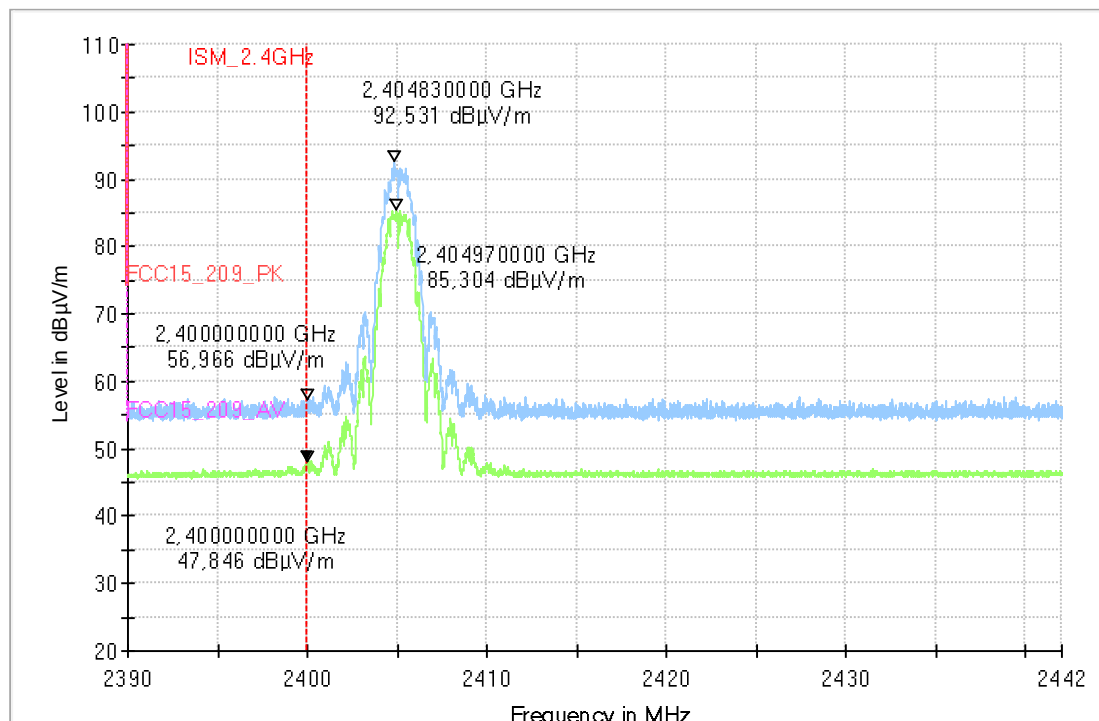
Common Information

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
Antenna polarisation:	horizontal/vertical
Operating Mode:	TX, continuous 802.15.4, slot antenna
Operator:	PSt
Comment:	Channel no. low
Comment2:	Humidity: 52 % rH; Temperature: 21 °C
EUT Setup:	2
Verdict:	Passed

EUT Information

PMT Sample Nr:	22-1-00571S28_C01
Power Supply:	24 V DC

Full Spectrum



9.02_802.15.4_high

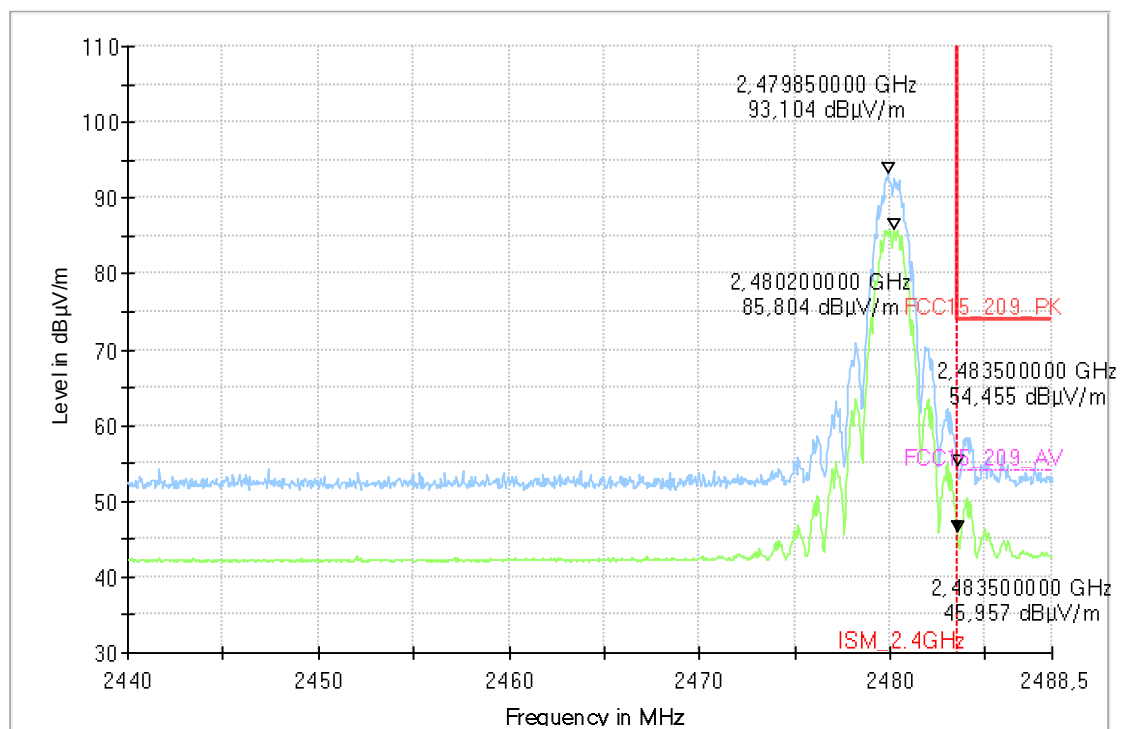
Common Information

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
Antenna polarisation:	horizontal/vertical
Operating Mode:	TX, continuous 802.15.4, slot antenna
Operator:	PSt
Comment:	Channel no. high
EUT Setup:	2
Verdict:	Passed

EUT Information

PMT Sample Nr:	22-1-00571S38_C01
Power Supply:	24 V DC

Full Spectrum



Radiated Band-Edge emissions inverted antenna

9.03_802.15.4_low

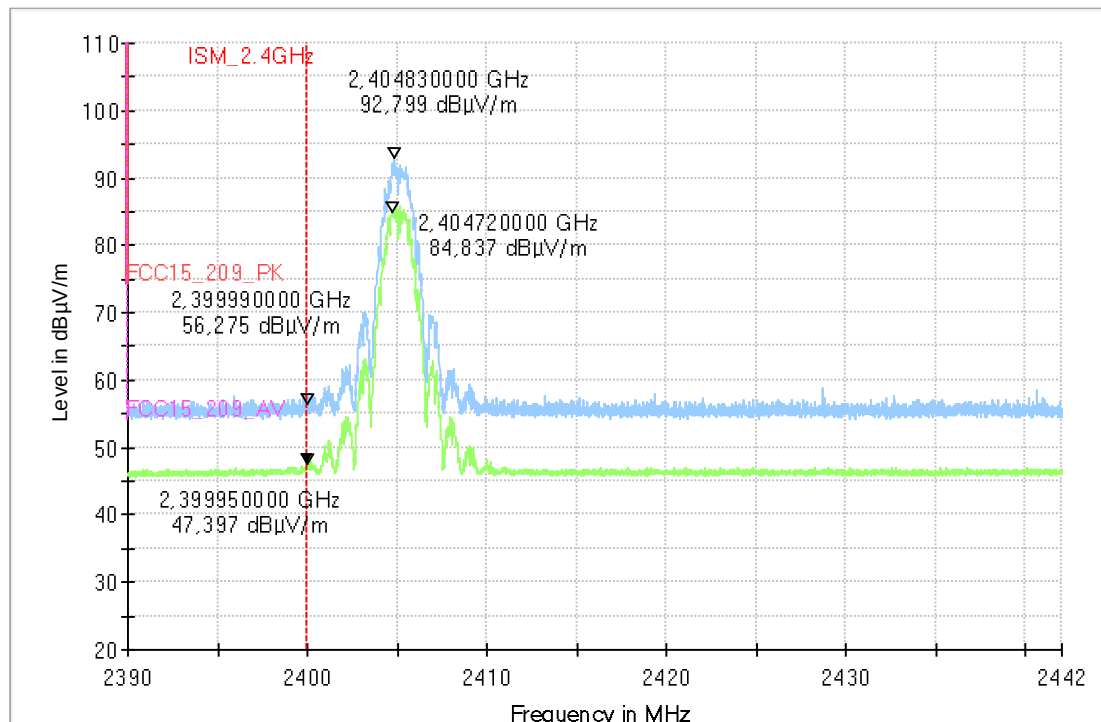
Common Information

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
Antenna polarisation:	horizontal/vertical
Operating Mode:	802.15.4_low / inverted F antenna
Operator:	ASa
Comment2:	Humidity: 41 % rH; Temperature: 21 °C
EUT Setup:	2
Verdict:	Passed

EUT Information

PMT Sample Nr:	22-1-0057101S28_C01
Power Supply:	24 V DC

Full Spectrum



9.04_802.15.4_high

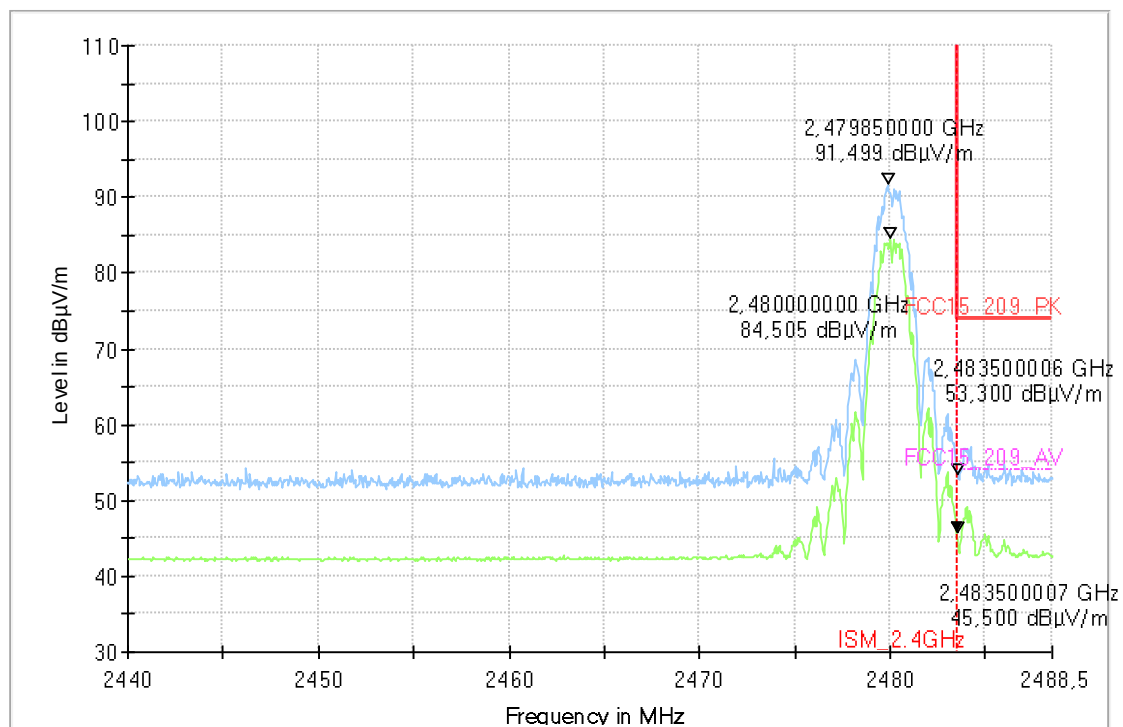
Common Information

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
Antenna polarisation:	horizontal/vertical
Operating Mode:	802.15.4_high / inverted F antenna
Operator:	ASa
Comment2:	Humidity: 41 % rH; Temperature: 21 °C
EUT Setup:	2
Verdict:	Passed

EUT Information

PMT Sample Nr:	22-1-0057101S28_C01
Power Supply:	24 V DC

Full Spectrum



End Of Annex 1