

Annex 1: Measurement diagrams to
TEST REPORT
 No.: 18-1-0048201T03a

According to:
FCC Regulations
 Part 15.209
 Part 15.247

ISED-Regulations
 RSS-Gen, Issue 5
 RSS-247, Issue 2

for

Robert Bosch Car Multimedia GmbH

AIVISBX0

Navigationsystem with WLAN and Bluetooth

FCC ID: YBN-AIVISBX0
ISED: 9595A-AIVISBX0







Laboratory Accreditation and Listings		
 <p style="text-align: center; font-size: small;">Accredited EMC-Test Laboratory</p>	 <p style="font-size: small;">Industry Canada Reg. No.: 3462D-1 Reg. No.: 3462D-2 Reg. No.: 3462D-3</p>	 <p style="font-size: small;">Voluntary Controls for Electromagnetic Emissions</p> <p style="font-size: x-small;">Reg. No.: R-4452, C-20009, T-20006, G-20013</p>
 <p style="font-size: x-small;">AUTHORIZED RF LABORATORY</p>	 <p style="font-size: x-small;">Lab Code: 20011130-00</p>	 <p style="font-size: x-small;">MRA US-EU 0003</p>
accredited according to DIN EN ISO/IEC 17025		
<p>Tabelle löschen, wenn nach Normen getestet wurde, die nicht auf unserer Akkreditierungsurkunde stehen</p>		
<p>CETECOM GmbH Laboratory Radio Communications & Electromagnetic Compatibility Im Teelbruch 116 • 45219 Essen • Germany Registered in Essen, Germany, Reg. No.: HRB Essen 8984 Tel.: + 49 (0) 20 54 / 95 19-954 • Fax: + 49 (0) 20 54 / 95 19-964 E-mail: info@cetecom.com • Internet: www.cetecom.com</p>		

Table of contents

1. CONDUCTED RF MEASUREMENTS ON ANTENNA PORT	3
1.1. Duty Cycle	3
1.2. Power Conducted	4
1.3. Number of Hopping Frequencies	11
1.4. 20dB Emission Bandwidth	12
1.5. 99 % Occupied Bandwidth	21
1.6. Carrier Frequency Separation	30
1.7. Time of Channel occupancy	33
1.8. 20dBc Conducted Spurious Emissions	35
2. RADIATED FIELD STRENGTH MEASUREMENTS	45
2.1. Magnetic field emissions radiated Bluetooth BDR below 30 MHz	45
2.2. Spurious emissions radiated Bluetooth BDR 30 MHz to 1 GHz	48
2.3. Spurious emissions radiated Bluetooth BDR 1 GHz to 18 GHz	54
2.4. Spurious emissions radiated Bluetooth BDR 18 GHz to 26.5 GHz	58
3. RADIATED BAND EDGE MEASUREMENTS	60
3.1. Radiated emissions on Bluetooth BDR band-edge low	60
3.2. Radiated emissions on Bluetooth EDR band-edge high	64

1. Conducted RF Measurements on Antenna Port

1.1. Duty Cycle

EUT Information

Manufacturer:	Robert Bosch Car Multimedia
Product:	AIVISBX0
EUT Model:	18-1-00482S06
HW:	tbd
SW:	283C24194R
Serial No.:	0005009
Connected Devices:	13.5VDC

Modulation	DUT Frequency (MHz)	DutyCycle (%)	DutyCycle (dB)	DutyCycle (dB)
DH1	2402	31.276	31,28	5,05
	2441	31.212	31,21	5,06
	2480	31.224	31,22	5,06
DH3	2402	65.865	65,87	1,81
	2441	65.919	65,92	1,81
	2480	65.876	65,88	1,81
DH5	2402	77.221	77,22	1,12
	2441	77.185	77,19	1,12
	2480	77.202	77,20	1,12
2DH1	2402	31.501	31,50	5,02
	2441	31.475	31,48	5,02
	2480	31.566	31,57	5,01
2DH3	2402	66.077	66,08	1,80
	2441	65.815	65,82	1,82
	2480	65.870	65,87	1,81
2DH5	2402	77.161	77,16	1,13
	2441	77.425	77,43	1,11
	2480	77.157	77,16	1,13
3DH1	2402	32.298	32,30	4,91
	2441	31.459	31,46	5,02
	2480	31.407	31,41	5,03
3DH3	2402	65.720	65,72	1,82
	2441	65.708	65,71	1,82
	2480	65.711	65,71	1,82
3DH5	2402	77.168	77,17	1,13
	2441	77.160	77,16	1,13
	2480	77.286	77,29	1,12

1.2. Peak Power Conducted

EUT EUT Information

Manufacturer:	Robert Bosch Car Multimedia
Product:	AIVISBX0
EUT Model:	18-1-00482S06
HW:	tbd
SW:	283C24194R
Serial No.:	0005009
Connected Devices:	13.5VDC

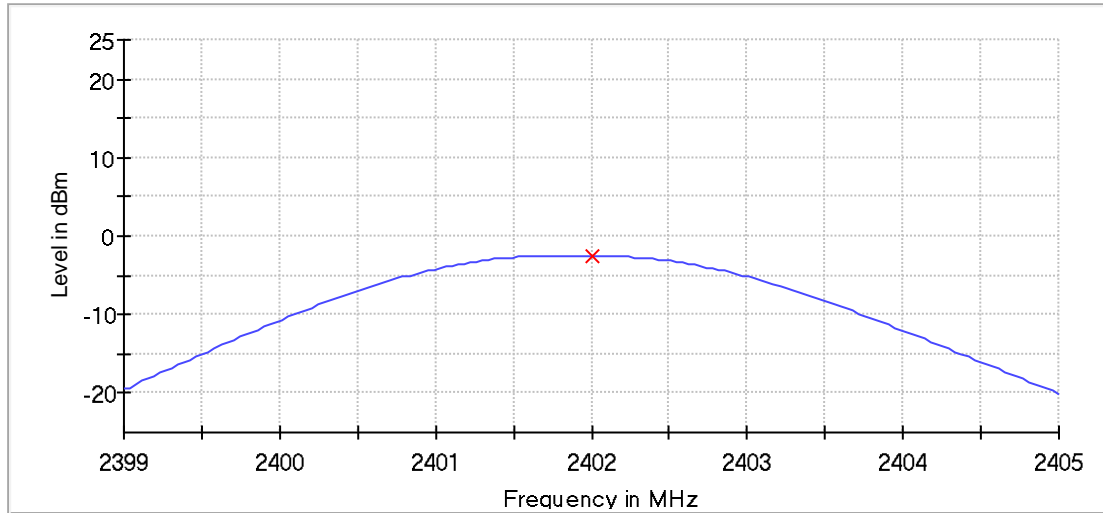
The antenna gain was measured at 3 different frequencies.
-0.38dBi

Modulation	DUT Frequency (MHz)	Peak Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)
DH1	2402	-2,5	-0,61	-3,11
	2441	-3,6	-0,38	-3,98
	2480	-2,6	-0,63	-3,23
DH3	2402	-2,7	-0,61	-3,31
	2441	-3,7	-0,38	-4,08
	2480	-2,7	-0,63	-3,33
DH5	2402	-2,5	-0,61	-3,11
	2441	-3,5	-0,38	-3,88
	2480	-2,5	-0,63	-3,13
2DH1	2402	-3,6	-0,61	-4,21
	2441	-4,3	-0,38	-4,68
	2480	-3,2	-0,63	-3,83
2DH3	2402	-3,6	-0,61	-4,21
	2441	-4,3	-0,38	-4,68
	2480	-3,6	-0,63	-4,23
2DH5	2402	-3,6	-0,61	-4,21
	2441	-4,3	-0,38	-4,68
	2480	-3,2	-0,63	-3,83
3DH1	2402	-3,3	-0,61	-3,91
	2441	-4	-0,38	-4,38
	2480	-2,8	-0,63	-3,43
3DH3	2402	-3,3	-0,61	-3,91
	2441	-4	-0,38	-4,38
	2480	-2,8	-0,63	-3,43
3DH5	2402	-3,3	-0,61	-3,91
	2441	-4	-0,38	-4,38
	2480	-2,8	-0,63	-3,43

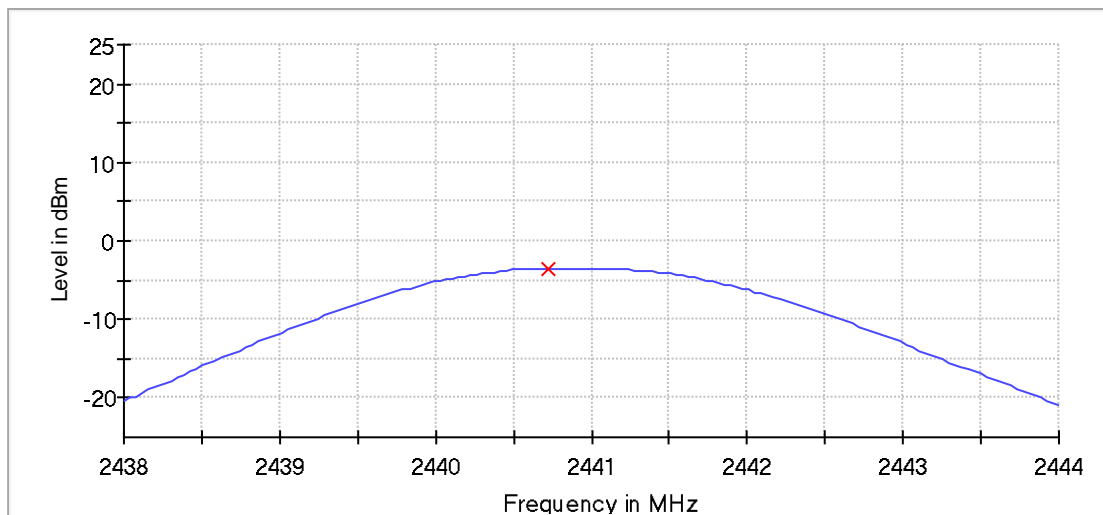
DH5 Channel 0, 39, 78

Result

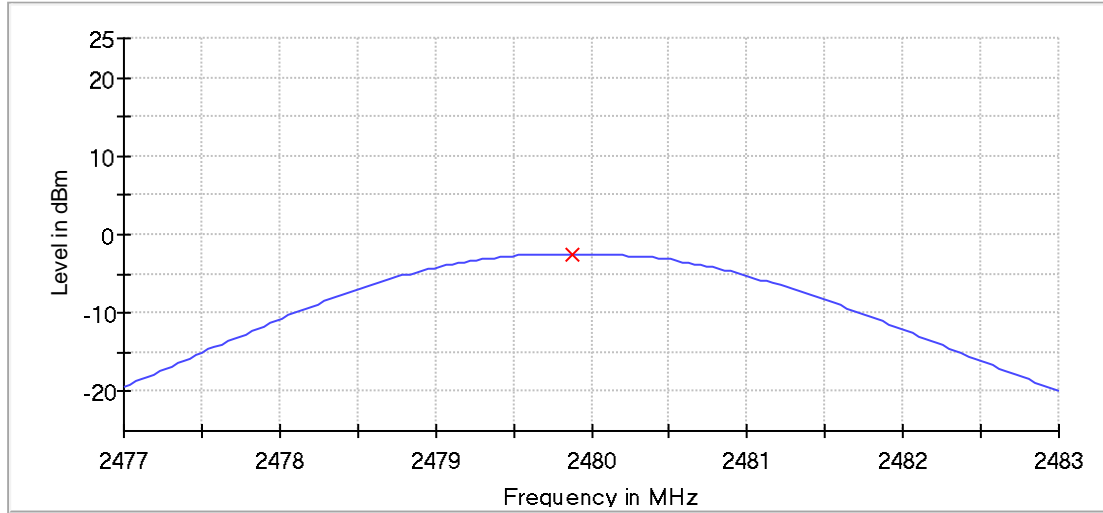
DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2402.000000	-2.5	21.0	PASS



DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2441.000000	-3.5	21.0	PASS



DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2480.000000	-2.5	21.0	PASS

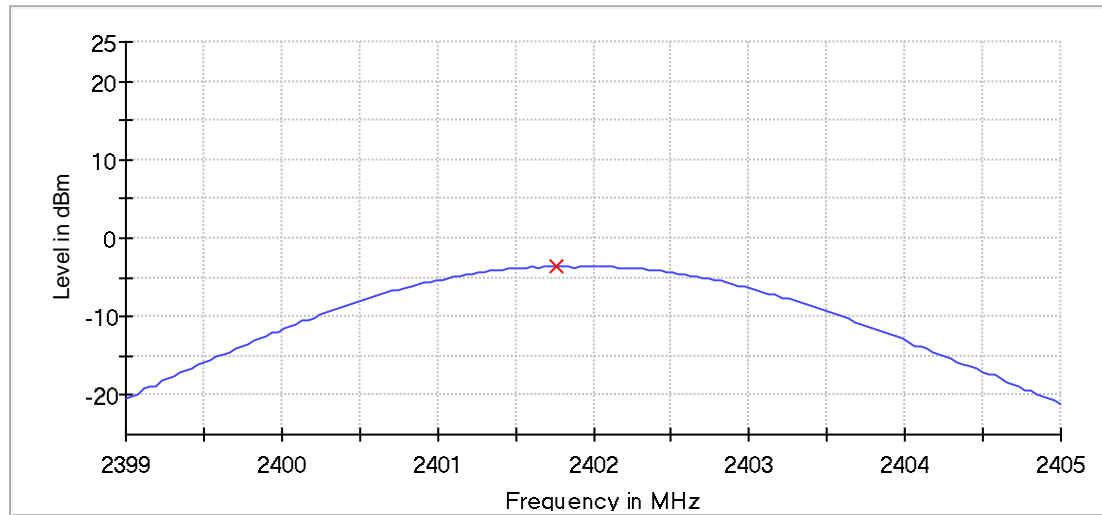


— Connector 1 × Peak Connector 1

2-DH5 Channel 0, 39, 78

Result

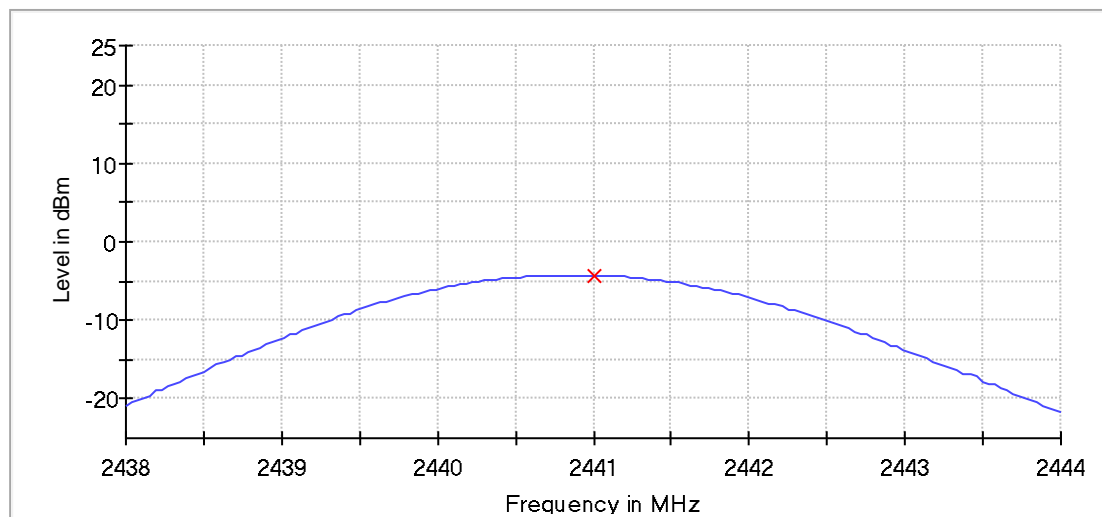
DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2402.000000	-3.6	21.0	PASS



— Connector 1 × Peak Connector 1

Result

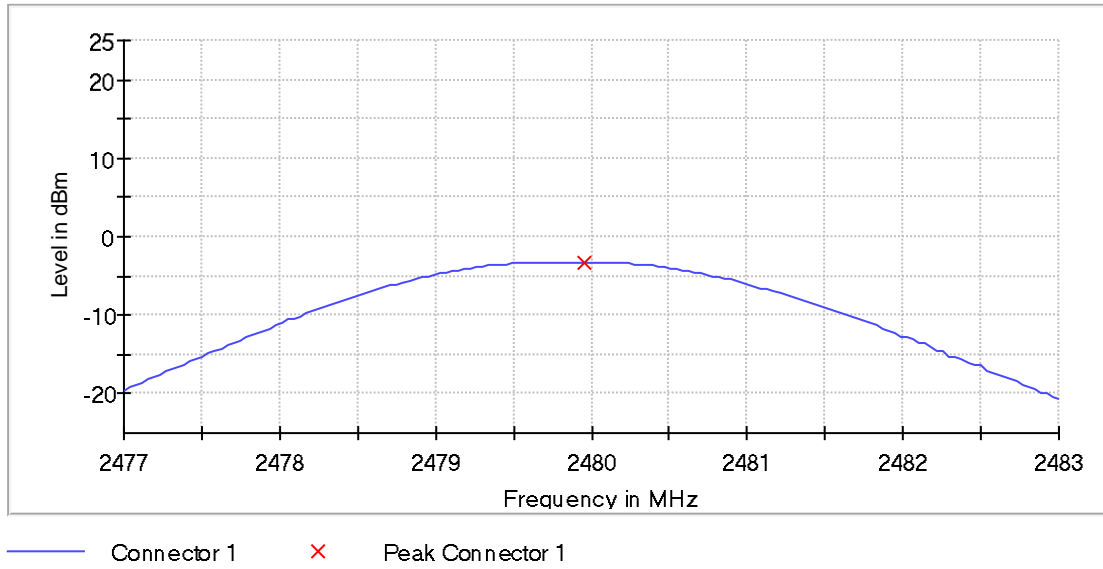
DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2441.000000	-4.3	21.0	PASS



— Connector 1 × Peak Connector 1

Result

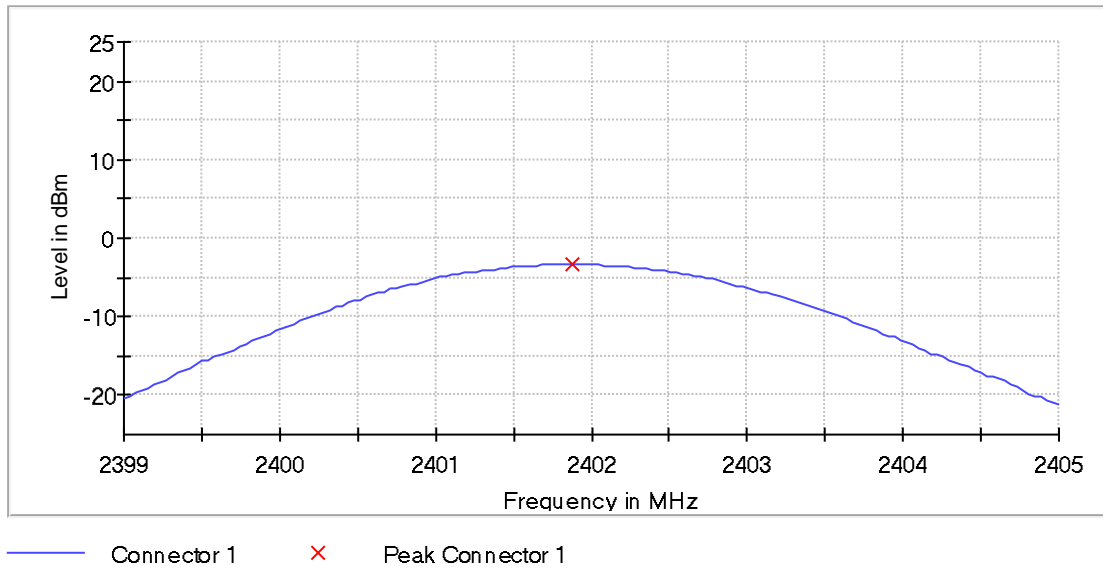
DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2480.000000	-3.2	21.0	PASS



3-DH5 Channel 0, 39, 78

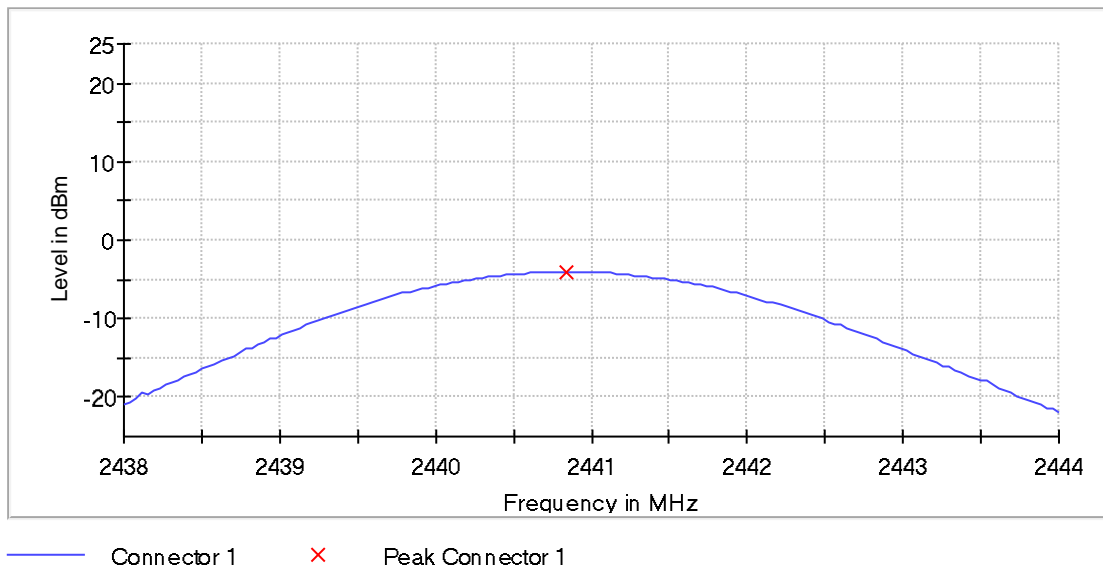
Result

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2402.000000	-3.3	21.0	PASS



Result

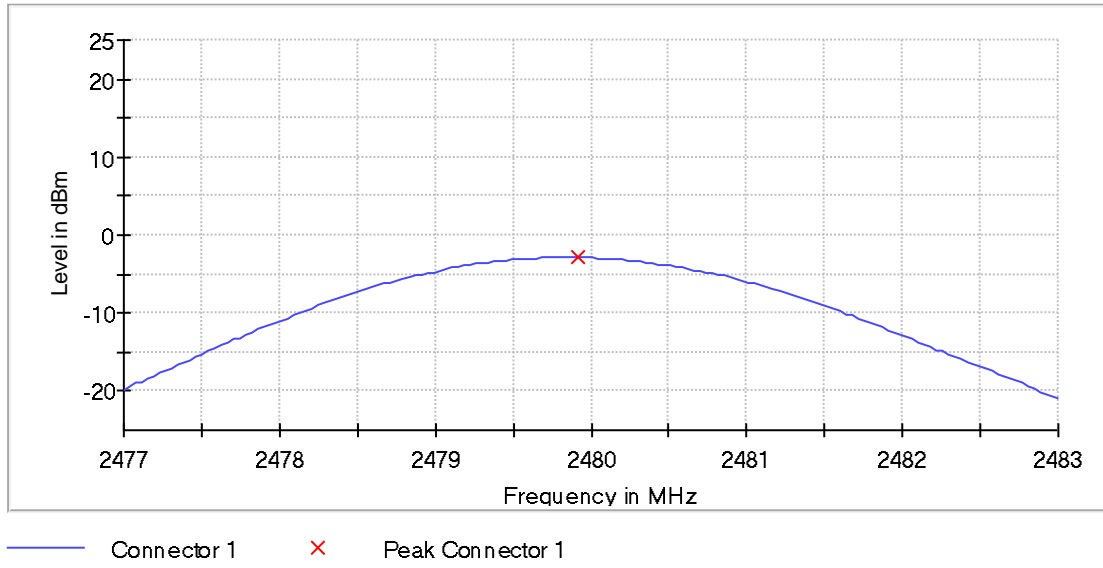
DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2441.000000	-4.0	21.0	PASS



Peak Power 1

Result

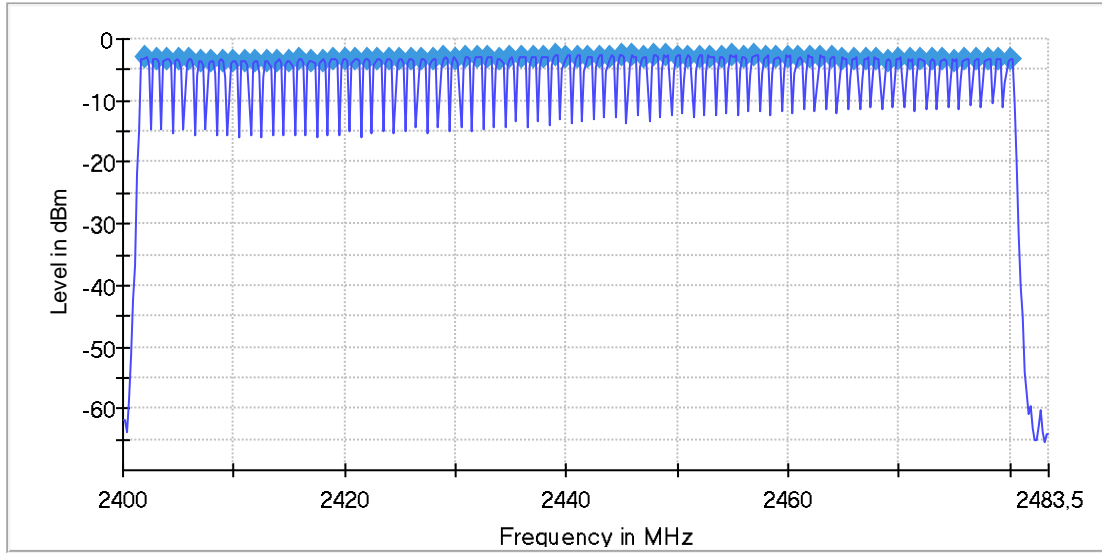
DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2480.000000	-2.8	21.0	PASS



1.3. Number of Hopping Frequencies

Channels

Channels	Limit Min	Limit Max	Result
79	15	---	PASS



1.4. 20dB Emission Bandwidth

1.4.1. DH5

Emission Bandwidth 20 dB (2402 MHz; 4,000 dBm; 1 MHz; Test Mode)

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

Measurement uncertainty calculated in accordance with ETSI TR 100 028-1.

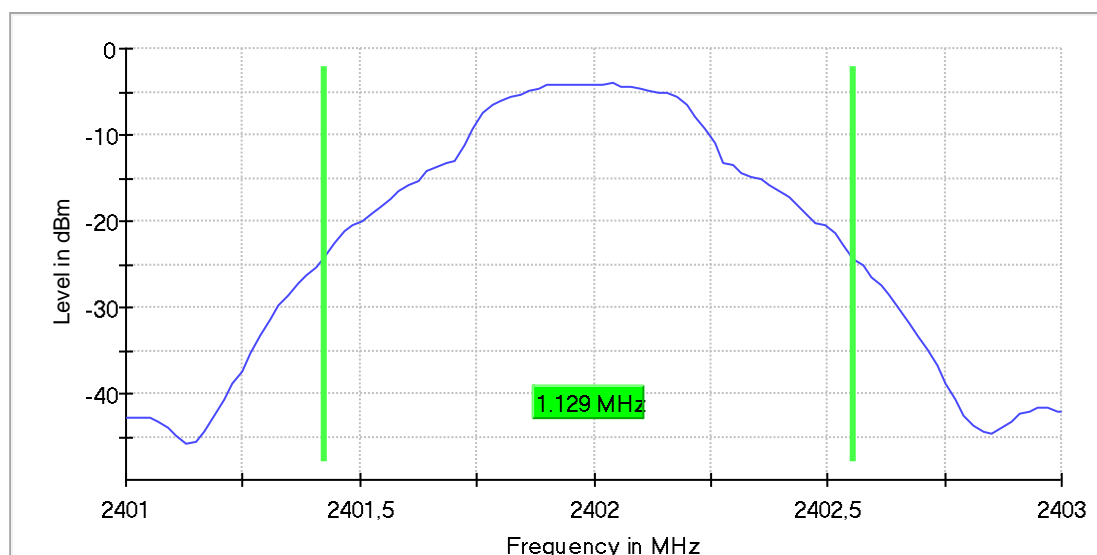
Expanded Uncertainty (K=2) < 2%

20 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	1.128712	---	---	2401.425743	2402.554455

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	-4.0	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40100 GHz	2.40100 GHz
Stop Frequency	2.40300 GHz	2.40300 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	101	~ 40
SweepTime	41.830 μs	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	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	0.26 dB	0.50 dB

Emission Bandwidth 20 dB (2441 MHz; 4,000 dBm; 1 MHz; Test Mode)

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

Measurement uncertainty calculated in accordance with ETSI TR 100 028-1.

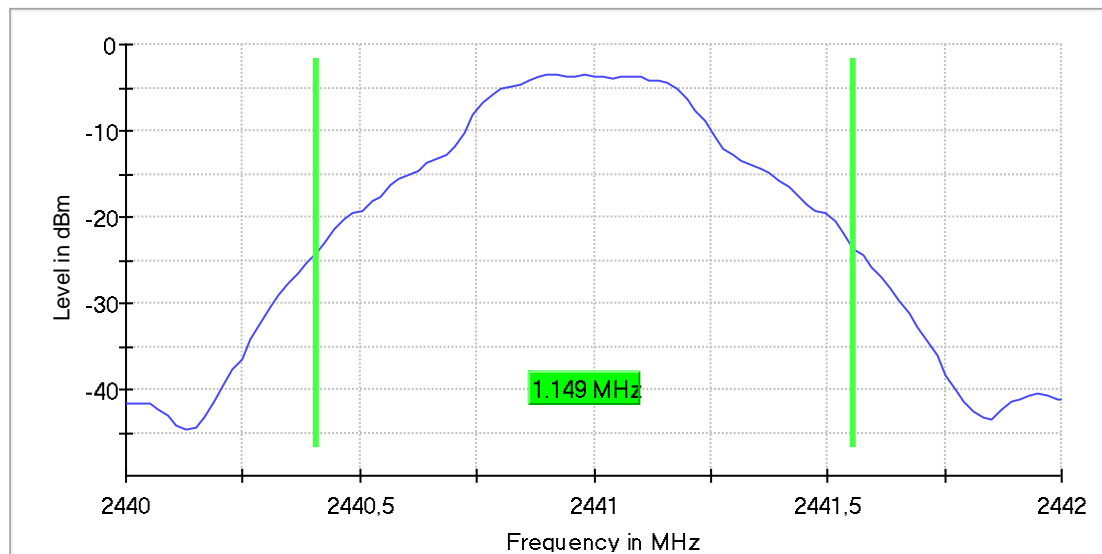
Expanded Uncertainty (K=2) < 2%

20 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2441.000000	1.148514	---	---	2440.405941	2441.554455

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2441.000000	-3.5	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.44000 GHz	2.44000 GHz
Stop Frequency	2.44200 GHz	2.44200 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	101	~ 40
SweepTime	41.830 µs	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	6 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.27 dB	0.50 dB

Emission Bandwidth 20 dB (2480 MHz; 4,000 dBm; 1 MHz; Test Mode)

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

Measurement uncertainty calculated in accordance with ETSI TR 100 028-1.

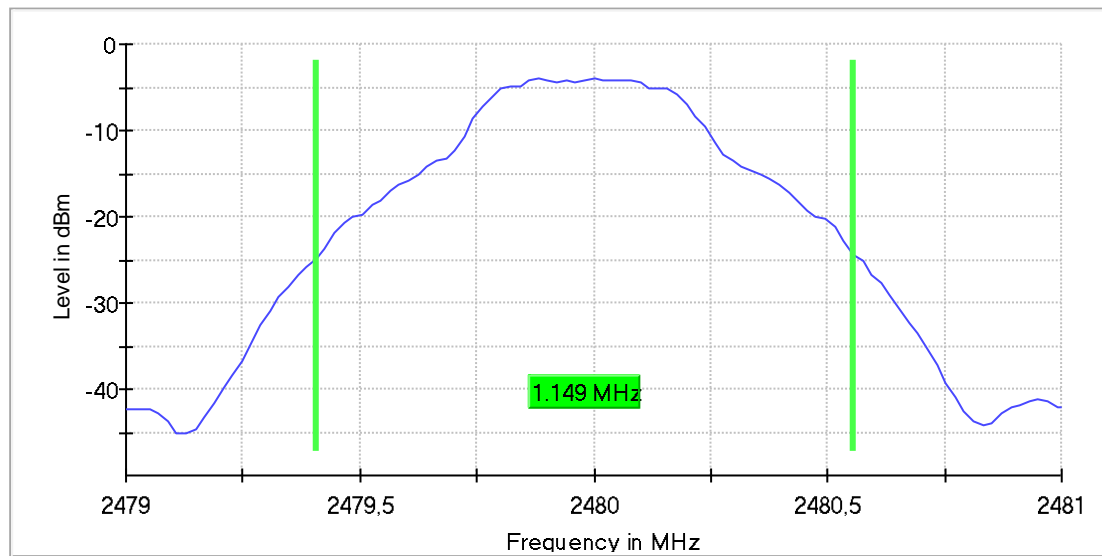
Expanded Uncertainty (K=2) < 2%

20 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.148514	---	---	2479.405941	2480.554455

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	-4.0	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47900 GHz	2.47900 GHz
Stop Frequency	2.48100 GHz	2.48100 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	101	~ 40
Sweeptime	41.830 µs	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	8 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.06 dB	0.50 dB

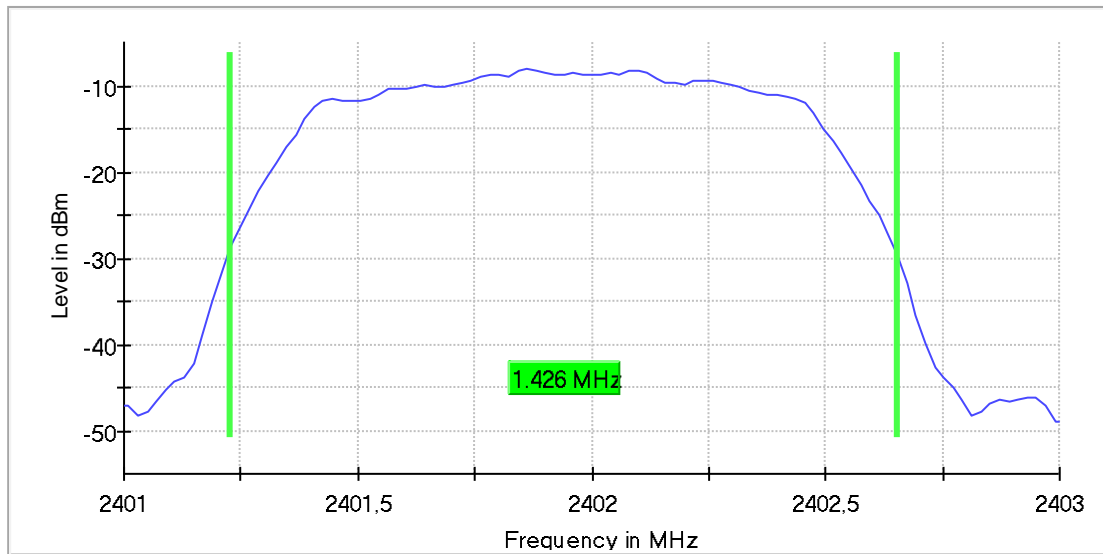
1.4.2. 2-DH5

Emission Bandwidth 20 dB (2402 MHz; 4,000 dBm; 1 MHz; Test Mode)

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	1.425742	---	---	2401.227723	2402.653465

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	-8.0	PASS



Measurement

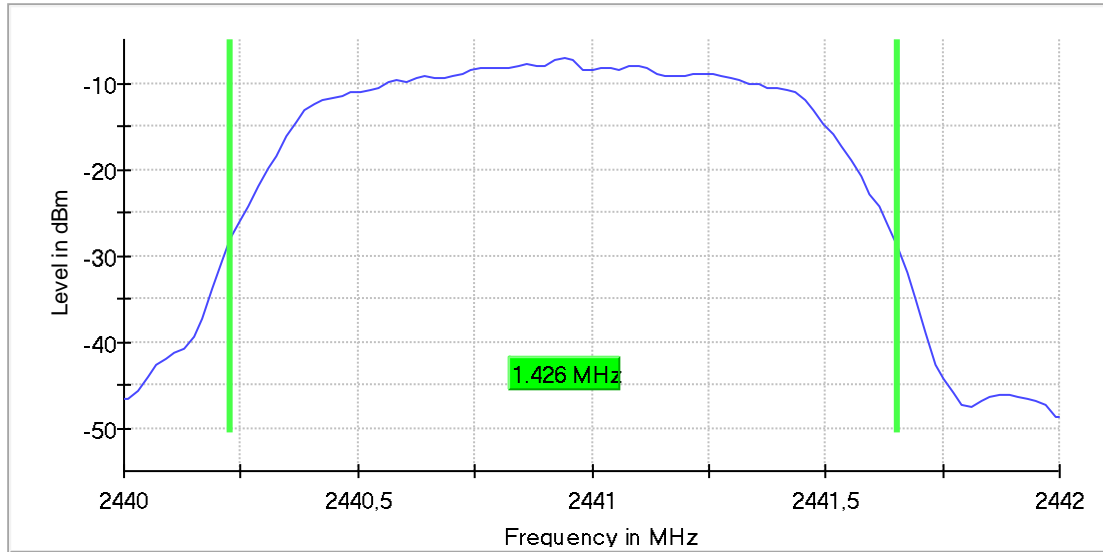
Setting	Instrument Value	Target Value
Start Frequency	2.40100 GHz	2.40100 GHz
Stop Frequency	2.40300 GHz	2.40300 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	101	~ 40
Sweeptime	41.830 μ s	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	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	0.03 dB	0.50 dB

Emission Bandwidth 20 dB (2441 MHz; 4,000 dBm; 1 MHz; Test Mode)

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2441.000000	1.425742	---	---	2440.227723	2441.653465

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2441.000000	-7.1	PASS



Measurement

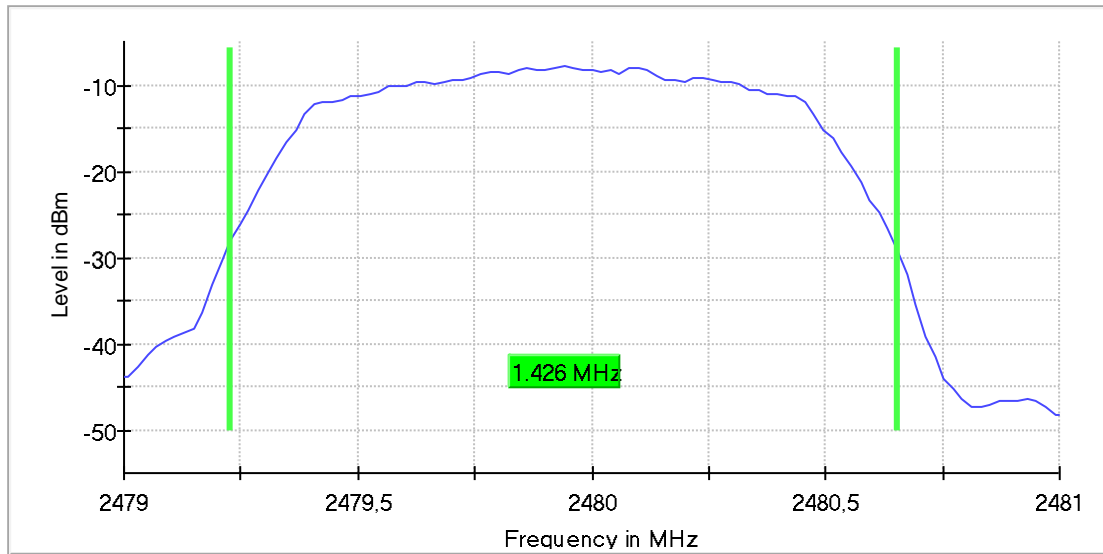
Setting	Instrument Value	Target Value
Start Frequency	2.44000 GHz	2.44000 GHz
Stop Frequency	2.44200 GHz	2.44200 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	101	~ 40
SweepTime	41.830 μ s	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	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	0.29 dB	0.50 dB

Emission Bandwidth 20 dB (2480 MHz; 4,000 dBm; 1 MHz; Test Mode)

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.425742	---	---	2479.227723	2480.653465

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	-7.8	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47900 GHz	2.47900 GHz
Stop Frequency	2.48100 GHz	2.48100 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	101	~ 40
SweepTime	41.830 μ s	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	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	0.04 dB	0.50 dB

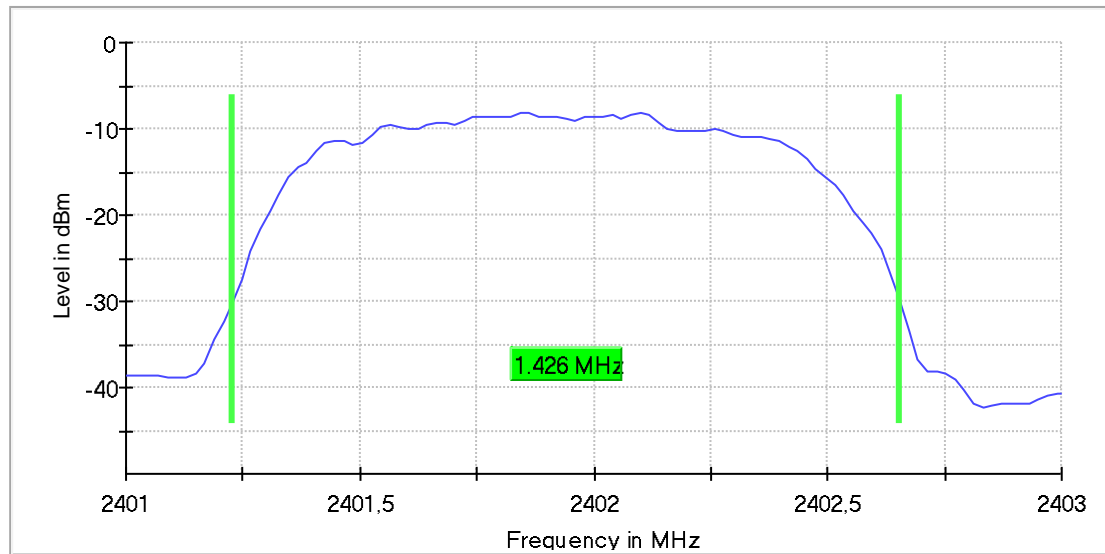
1.4.3. 3-DH5

Emission Bandwidth 20 dB (2402 MHz; 4,000 dBm; 1 MHz; Test Mode)

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	1.425742	---	---	2401.227723	2402.653465

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	-8.1	PASS



Measurement

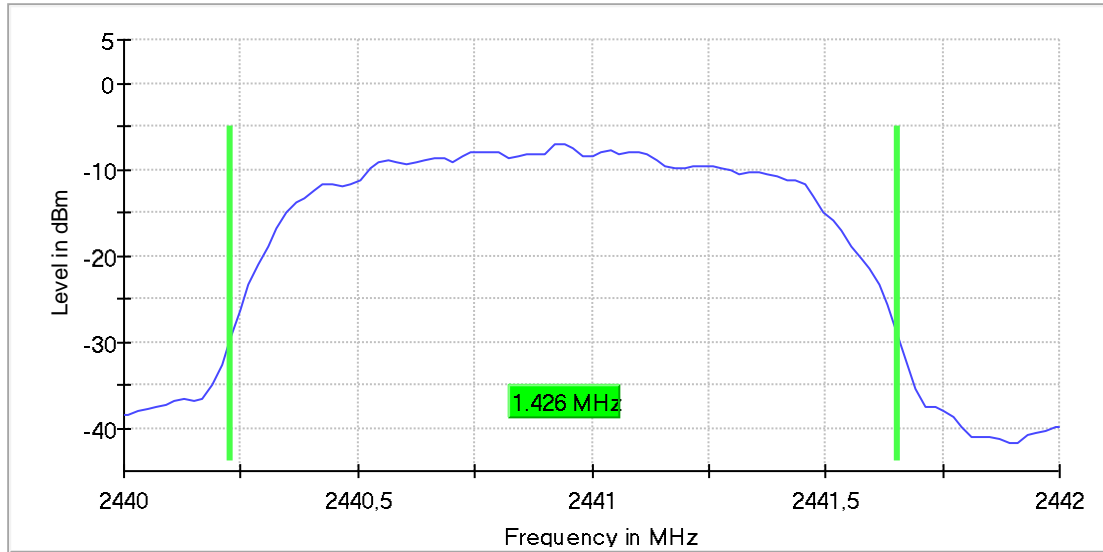
Setting	Instrument Value	Target Value
Start Frequency	2.40100 GHz	2.40100 GHz
Stop Frequency	2.40300 GHz	2.40300 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	101	~ 40
SweepTime	41.830 μ s	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	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	0.17 dB	0.50 dB

Emission Bandwidth 20 dB (2441 MHz; 4,000 dBm; 1 MHz; Test Mode)

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2441.000000	1.425742	---	---	2440.227723	2441.653465

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2441.000000	-7.1	PASS



Measurement

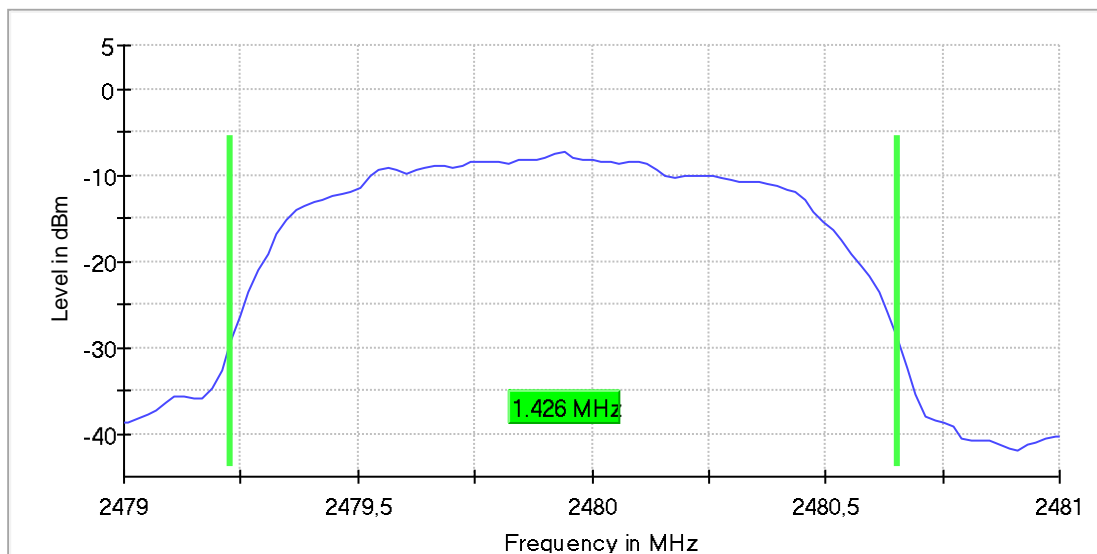
Setting	Instrument Value	Target Value
Start Frequency	2.44000 GHz	2.44000 GHz
Stop Frequency	2.44200 GHz	2.44200 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	101	~ 40
SweepTime	41.830 μ s	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	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	0.18 dB	0.50 dB

Emission Bandwidth 20 dB (2480 MHz; 4,000 dBm; 1 MHz; Test Mode)

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.425742	---	---	2479.227723	2480.653465

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	-7.4	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47900 GHz	2.47900 GHz
Stop Frequency	2.48100 GHz	2.48100 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	101	~ 40
SweepTime	41.830 μ s	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	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	0.16 dB	0.50 dB

1.5. 99 % Occupied Bandwidth

1.5.1. DH5

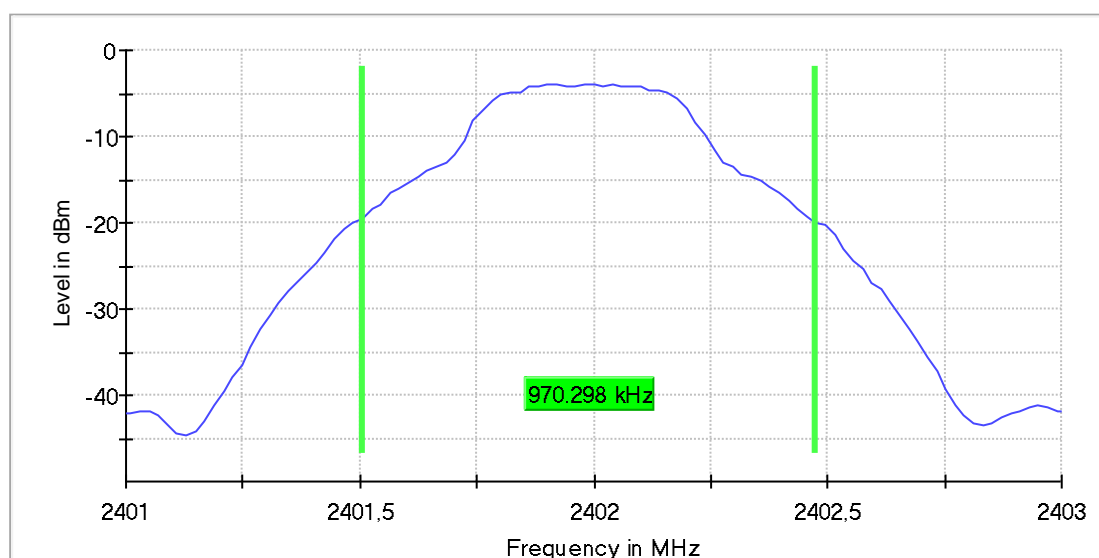
99% Occupied Bandwidth(2402 MHz; 4,000 dBm; 1 MHz; Test Mode)

99% Occupied Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	0.970298	---	---	2401.504950	2402.475248

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	-3.9	PASS



Measurement

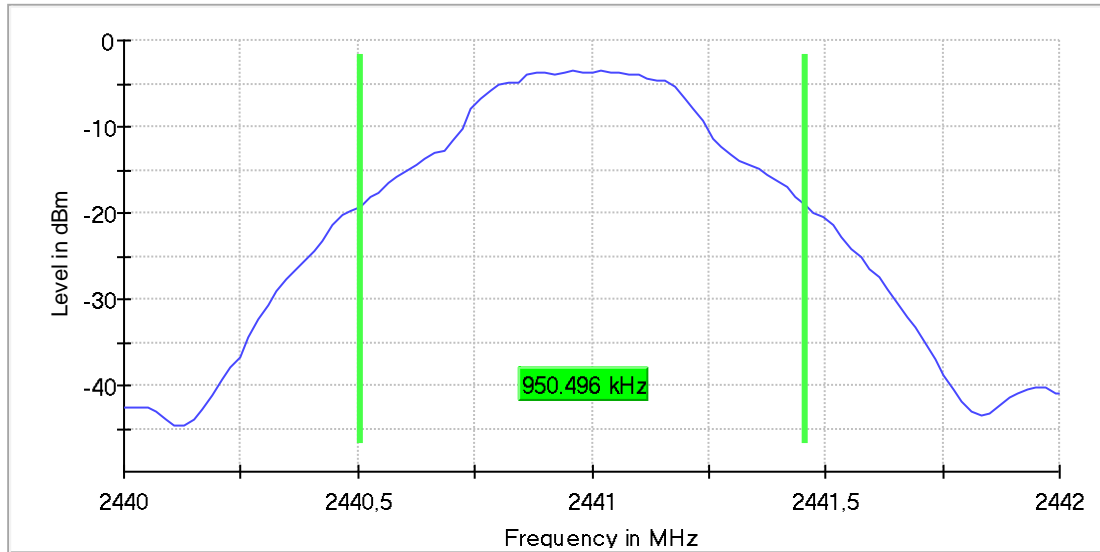
Setting	Instrument Value	Target Value
Start Frequency	2.40100 GHz	2.40100 GHz
Stop Frequency	2.40300 GHz	2.40300 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 20
Sweeptime	41.830 μ s	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	500	500
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	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

99% Occupied Bandwidth(2441 MHz; 4,000 dBm; 1 MHz; Test Mode)

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2441.000000	0.950496	---	---	2440.504950	2441.455446

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2441.000000	-3.5	PASS



Measurement

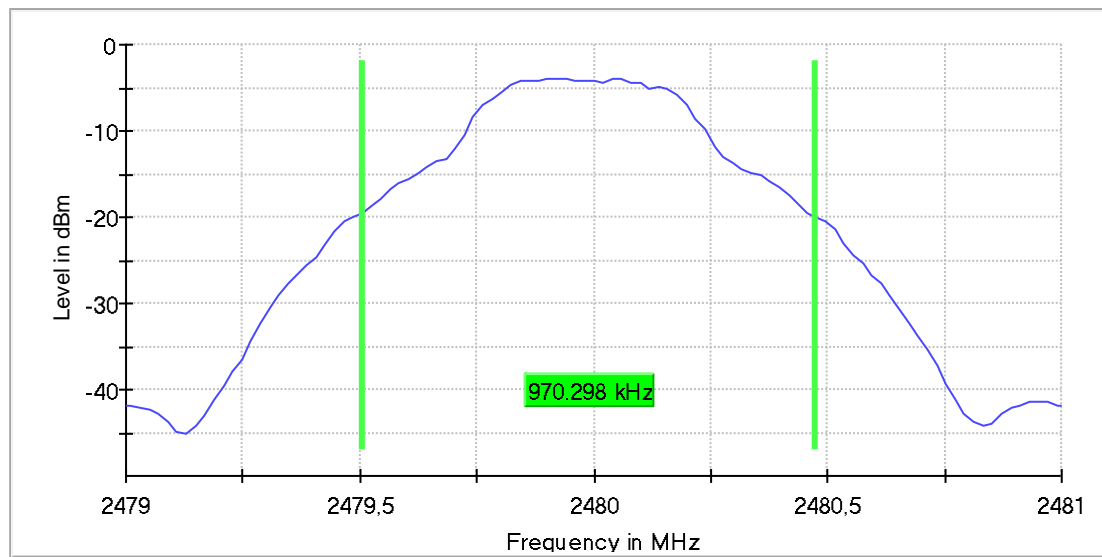
Setting	Instrument Value	Target Value
Start Frequency	2.44000 GHz	2.44000 GHz
Stop Frequency	2.44200 GHz	2.44200 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 20
Sweeptime	41.830 μ s	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	500	500
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	9 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.09 dB	0.50 dB

99% Occupied Bandwidth(2480 MHz; 4,000 dBm; 1 MHz; Test Mode)

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	0.970298	---	---	2479.504950	2480.475248

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	-3.9	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47900 GHz	2.47900 GHz
Stop Frequency	2.48100 GHz	2.48100 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 20
Sweeptime	41.830 μ s	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	500	500
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	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	0.03 dB	0.50 dB

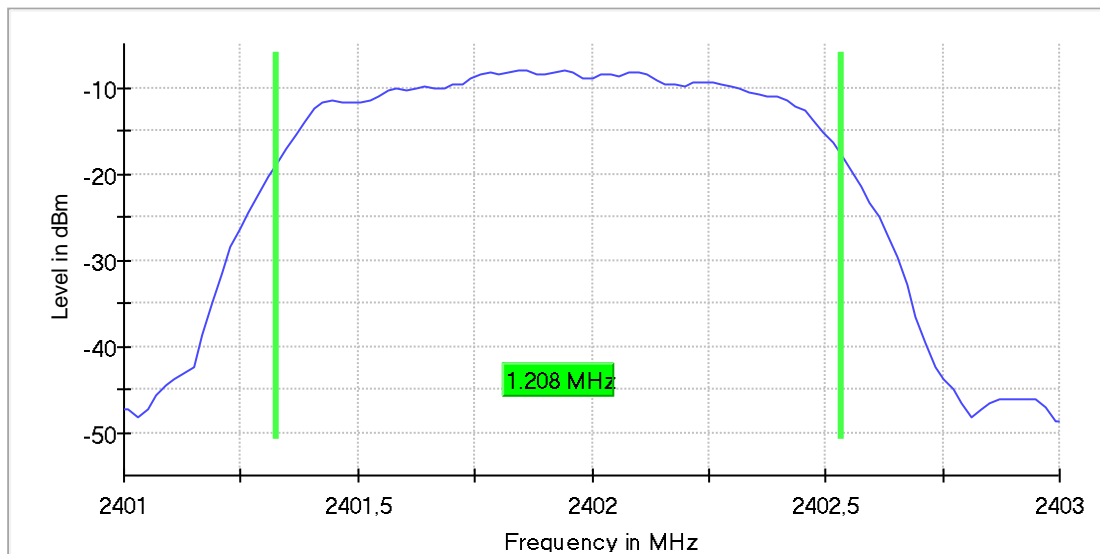
1.5.2. 2-DH5

99% Occupied Bandwidth(2402 MHz; 4,000 dBm; 1 MHz; Test Mode)

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	1.207920	---	---	2401.326733	2402.534653

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	-8.0	PASS



Measurement

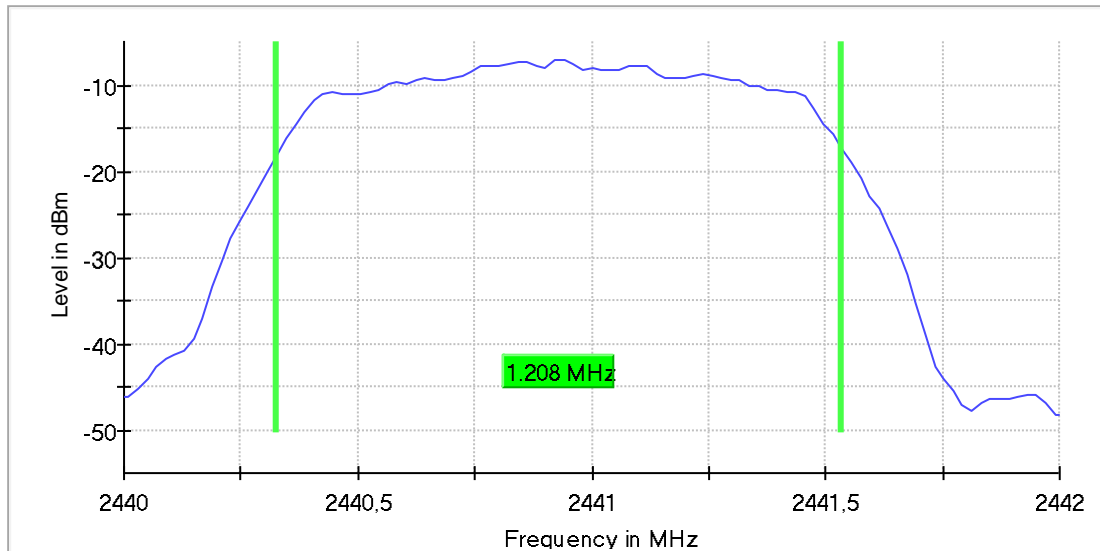
Setting	Instrument Value	Target Value
Start Frequency	2.40100 GHz	2.40100 GHz
Stop Frequency	2.40300 GHz	2.40300 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 20
SweepTime	41.830 μ s	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	500	500
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	8 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.12 dB	0.50 dB

99% Occupied Bandwidth(2441 MHz; 4,000 dBm; 1 MHz; Test Mode)

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2441.000000	1.207920	---	---	2440.326733	2441.534653

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2441.000000	-7.0	PASS



Measurement

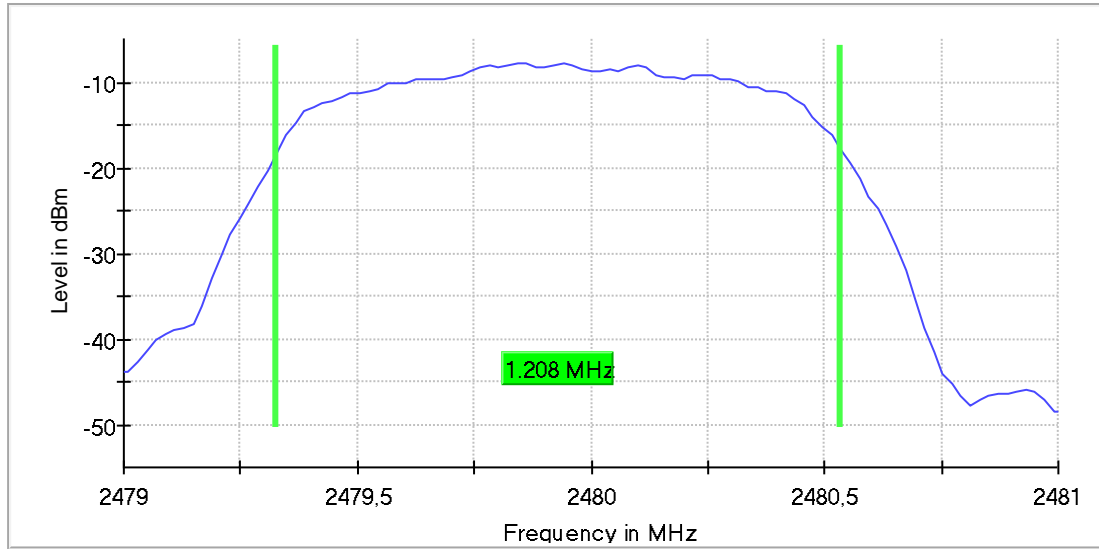
Setting	Instrument Value	Target Value
Start Frequency	2.44000 GHz	2.44000 GHz
Stop Frequency	2.44200 GHz	2.44200 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 20
SweepTime	41.830 μ s	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	500	500
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	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	0.31 dB	0.50 dB

99% Occupied Bandwidth(2480 MHz; 4,000 dBm; 1 MHz; Test Mode)

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.207920	---	---	2479.326733	2480.534653

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	-7.7	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47900 GHz	2.47900 GHz
Stop Frequency	2.48100 GHz	2.48100 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 20
Sweeptime	41.830 μ s	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	500	500
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	9 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.41 dB	0.50 dB

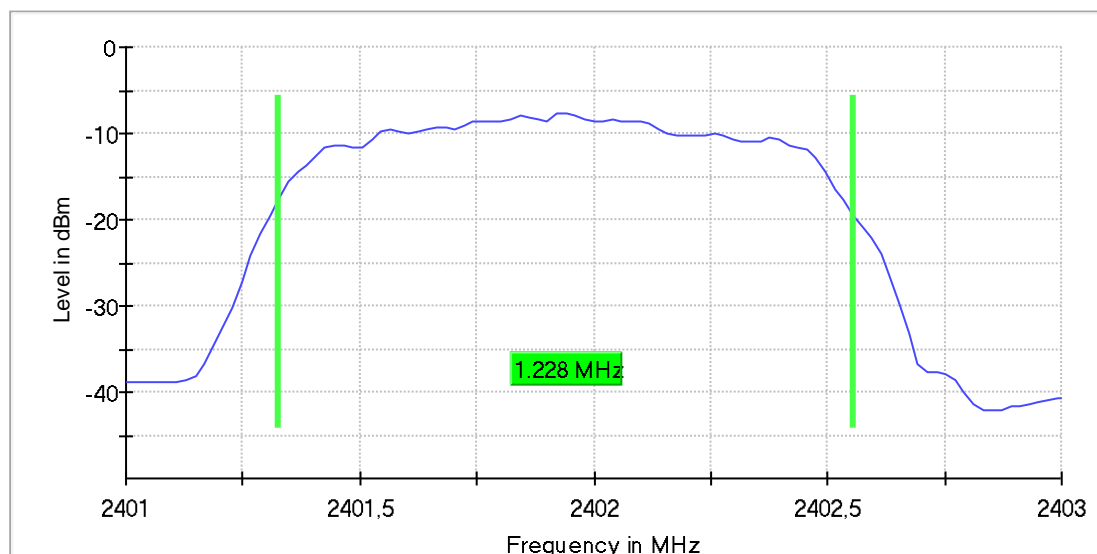
1.5.3. 3-DH5

99% Occupied Bandwidth(2402 MHz; 4,000 dBm; 1 MHz; Test Mode)

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	1.227722	---	---	2401.326733	2402.554455

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	-7.6	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40100 GHz	2.40100 GHz
Stop Frequency	2.40300 GHz	2.40300 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 20
SweepTime	41.830 μ s	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	500	500
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	19 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.01 dB	0.50 dB

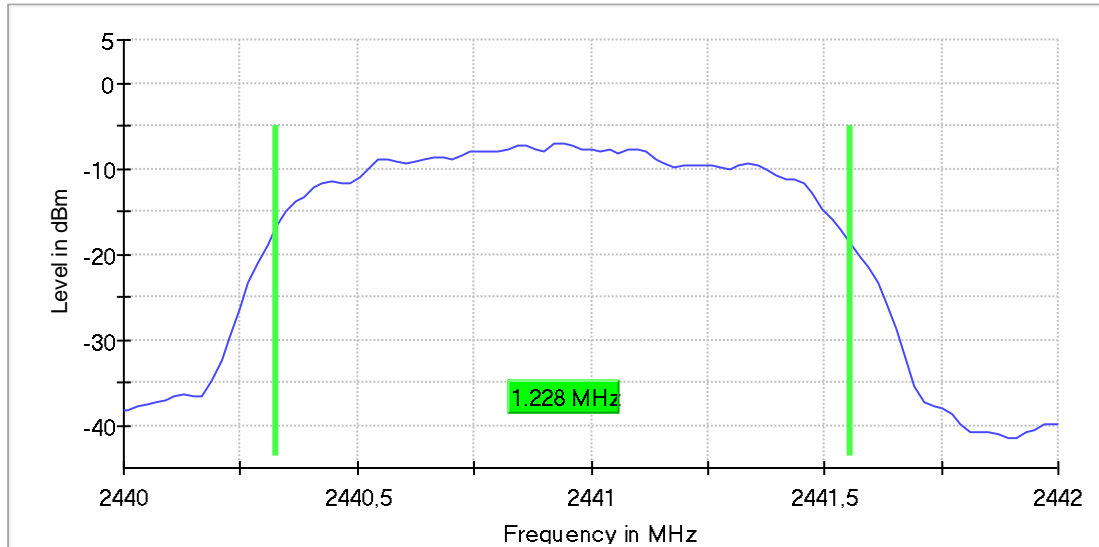
99% Occupied Bandwidth(2441 MHz; 4,000 dBm; 1 MHz; Test Mode)

99% Occupied Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2441.000000	1.227722	---	---	2440.326733	2441.554455

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2441.000000	-7.0	PASS



Measurement

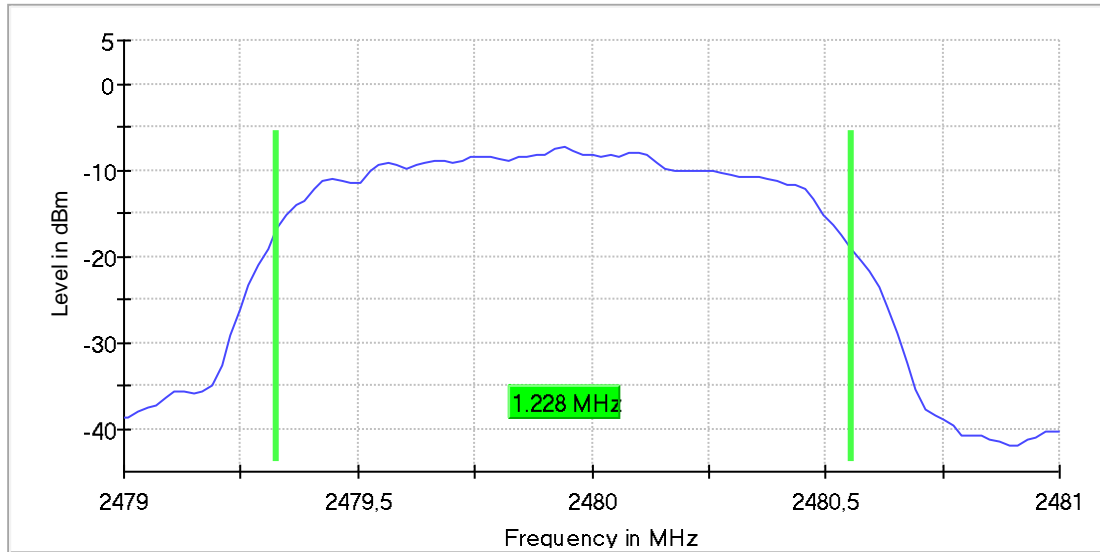
Setting	Instrument Value	Target Value
Start Frequency	2.44000 GHz	2.44000 GHz
Stop Frequency	2.44200 GHz	2.44200 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 20
SweepTime	41.830 μ s	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	500	500
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	17 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.01 dB	0.50 dB

99% Occupied Bandwidth(2480 MHz; 4,000 dBm; 1 MHz; Test Mode)

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.227722	---	---	2479.326733	2480.554455

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

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	-7.4	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47900 GHz	2.47900 GHz
Stop Frequency	2.48100 GHz	2.48100 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 20
SweepTime	41.830 μ s	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	500	500
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	13 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.04 dB	0.50 dB

1.6. Carrier Frequency Separation

Carrier Frequency Separation (2402 MHz; 4,000 dBm; 1 MHz)

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

Measurement uncertainty calculated in accordance with ETSI TR 100 028-1.

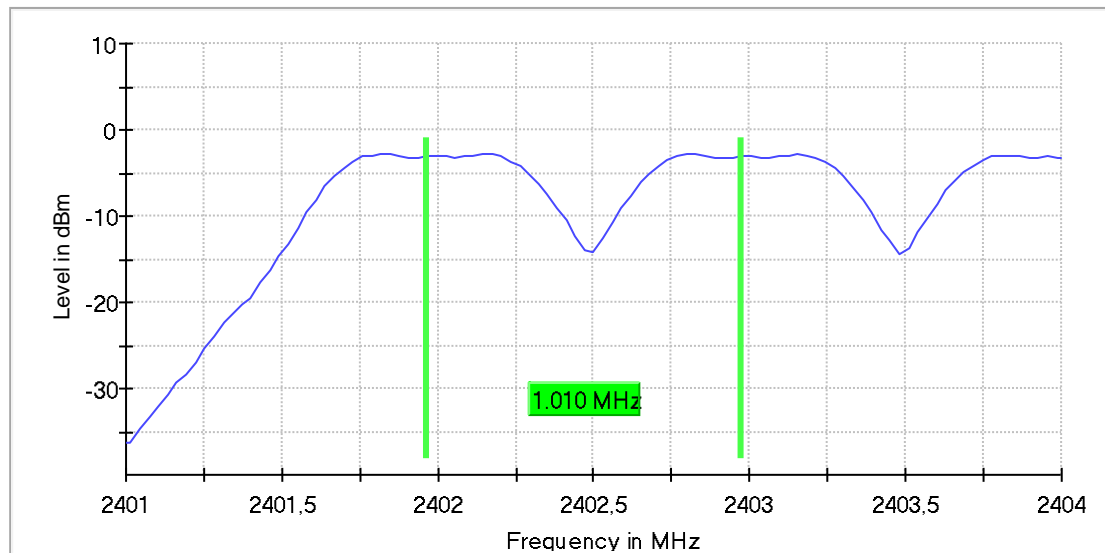
Expanded Uncertainty(k = 2) < 1%

Result

DUT Frequency (MHz)	Frequency Separation (MHz)	Limit Min (MHz)	Limit Max (MHz)	Center Frequency low Channel (MHz)	Center Frequency high Channel (MHz)
2402.000000	1.009901	0.752475	---	2401.965347	2402.975248

(continuation of the "Result" table from column 6 ...)

DUT Frequency (MHz)	Result
2402.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40100 GHz	2.40100 GHz
Stop Frequency	2.40400 GHz	2.40400 GHz
Span	3.000 MHz	3.000 MHz
RBW	300.000 kHz	<= 300.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	101	~ 10
Sweptime	1.000 ms	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	16 / max. 150	max. 150
Stable	10 / 10	10
Max Stable Difference	0.11 dB	0.50 dB

Carrier Frequency Separation (2441 MHz; 4,000 dBm; 1 MHz)

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

Measurement uncertainty calculated in accordance with ETSI TR 100 028-1.

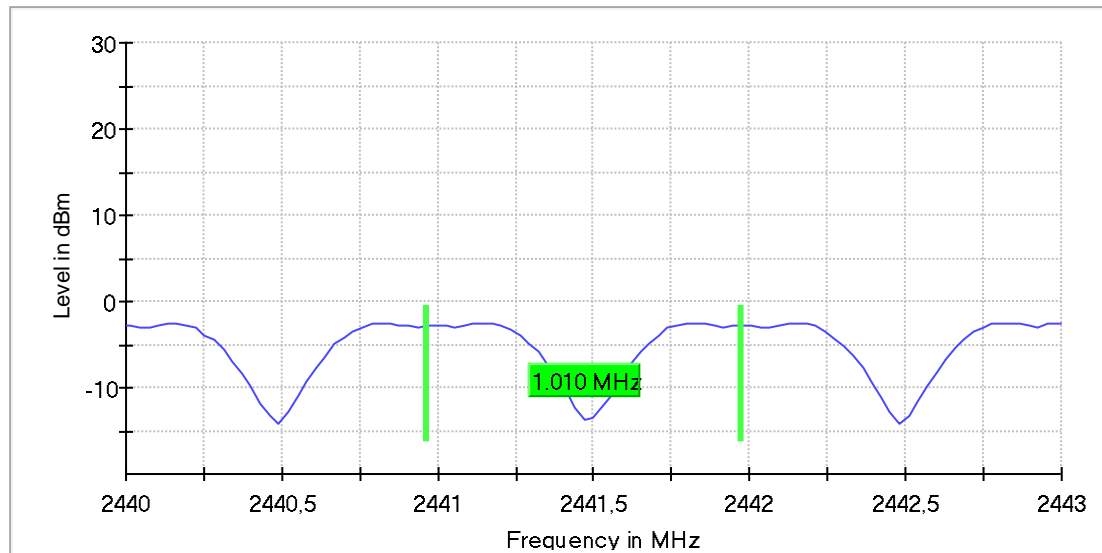
Expanded Uncertainty(k = 2) < 1%

Result

DUT Frequency (MHz)	Frequency Separation (MHz)	Limit Min (MHz)	Limit Max (MHz)	Center Frequency low Channel (MHz)	Center Frequency high Channel (MHz)
2441.000000	1.009901	0.765676	---	2440.965347	2441.975248

(continuation of the "Result" table from column 6 ...)

DUT Frequency (MHz)	Result
2441.000000	PASS



Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.44000 GHz	2.44000 GHz
Stop Frequency	2.44300 GHz	2.44300 GHz
Span	3.000 MHz	3.000 MHz
RBW	300.000 kHz	<= 300.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	101	~ 10
SweepTime	1.000 ms	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
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	12 / max. 150	max. 150
Stable	10 / 10	10
Max Stable Difference	0.00 dB	0.50 dB

Carrier Frequency Separation (2480 MHz; 4,000 dBm; 1 MHz)

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

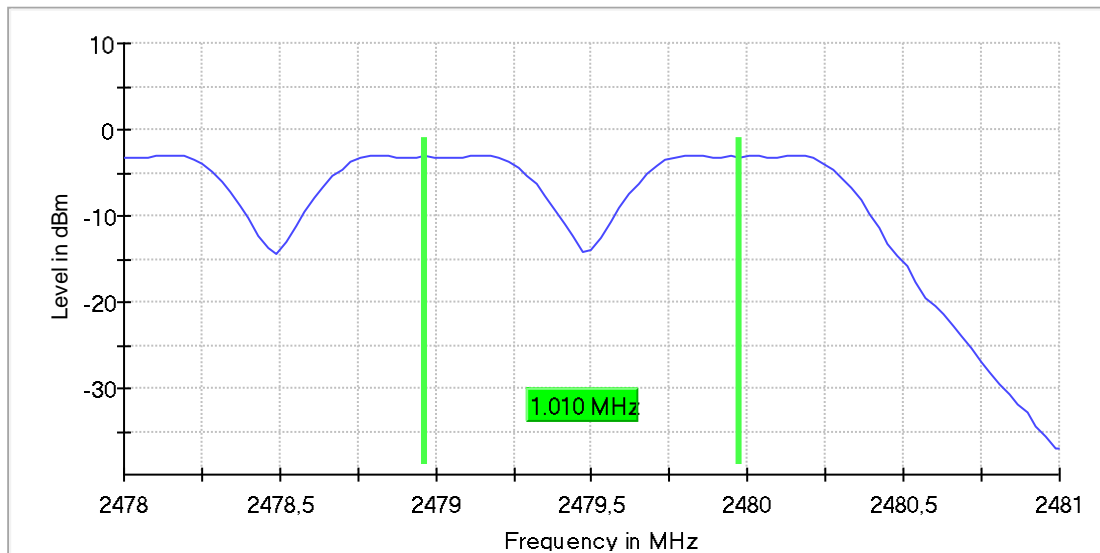
Measurement uncertainty calculated in accordance with ETSI TR 100 028-1.
Expanded Uncertainty(k = 2) < 1%

Result

DUT Frequency (MHz)	Frequency Separation (MHz)	Limit Min (MHz)	Limit Max (MHz)	Center Frequency low Channel (MHz)	Center Frequency high Channel (MHz)
2480.000000	1.009901	0.765676	---	2478.965347	2479.975248

(continuation of the "Result" table from column 6 ...)

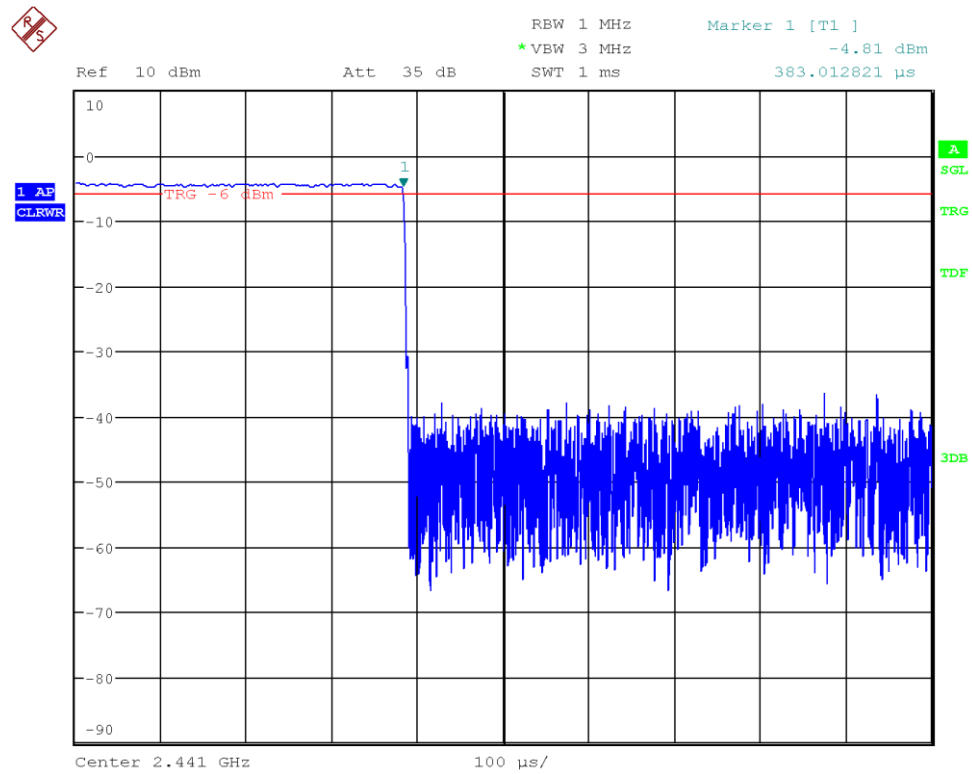
DUT Frequency (MHz)	Result
2480.000000	PASS



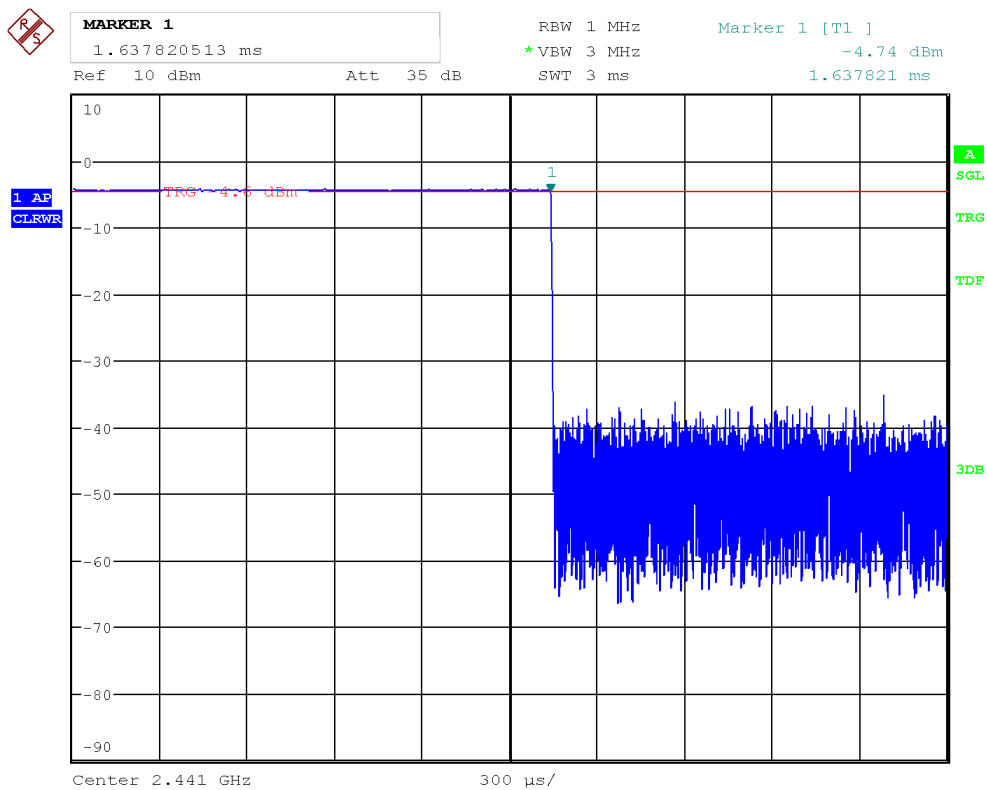
Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47800 GHz	2.47800 GHz
Stop Frequency	2.48100 GHz	2.48100 GHz
Span	3.000 MHz	3.000 MHz
RBW	300.000 kHz	<= 300.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	101	~ 10
SweepTime	1.000 ms	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	Sweep
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	22 / max. 150	max. 150
Stable	10 / 10	10
Max Stable Difference	0.03 dB	0.50 dB

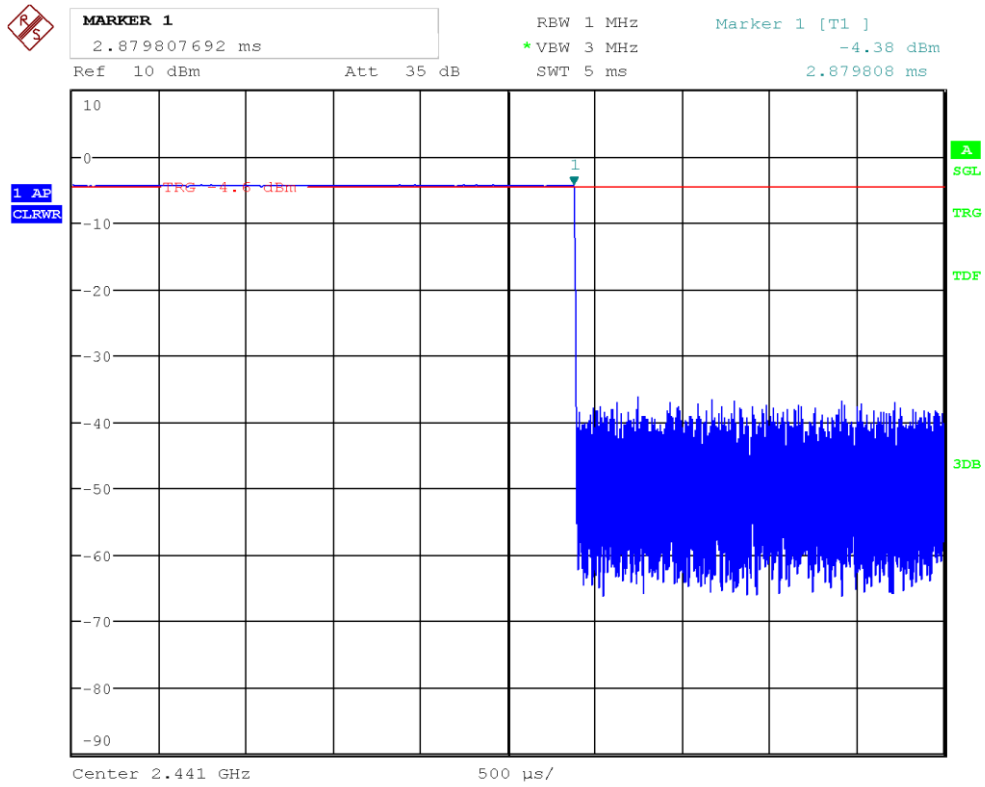
1.7. Time of Channel occupancy



DwT_Hopping_ON_Ch39_DH1

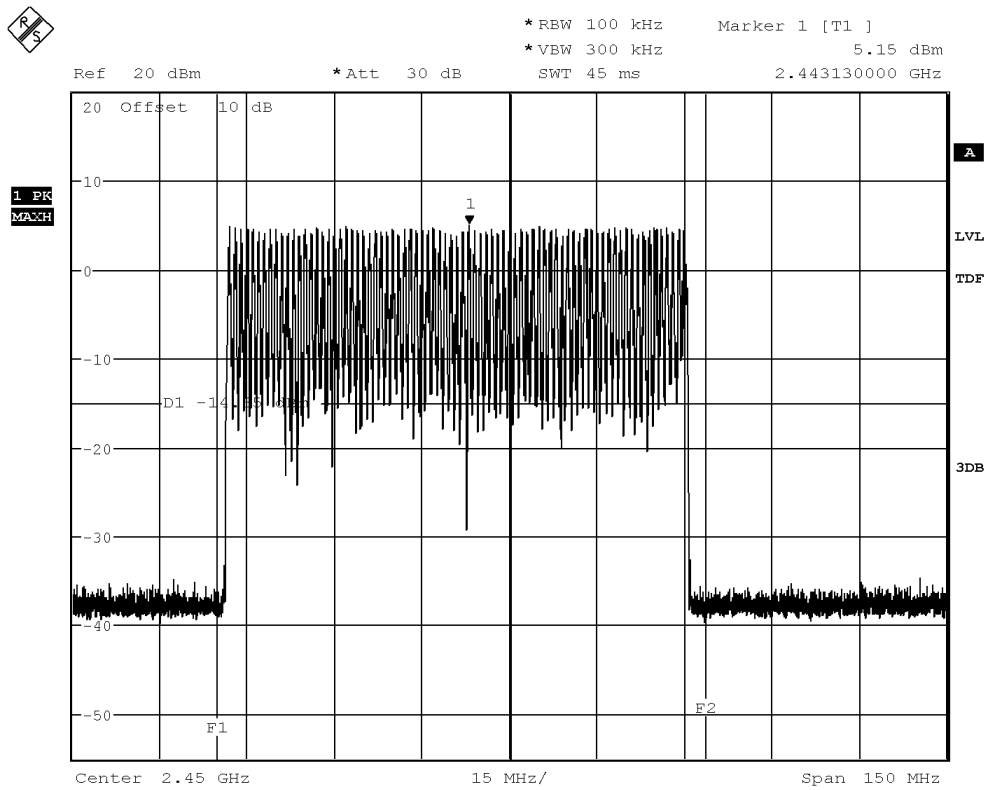


DwT_Hopping_ON_Ch39_DH3

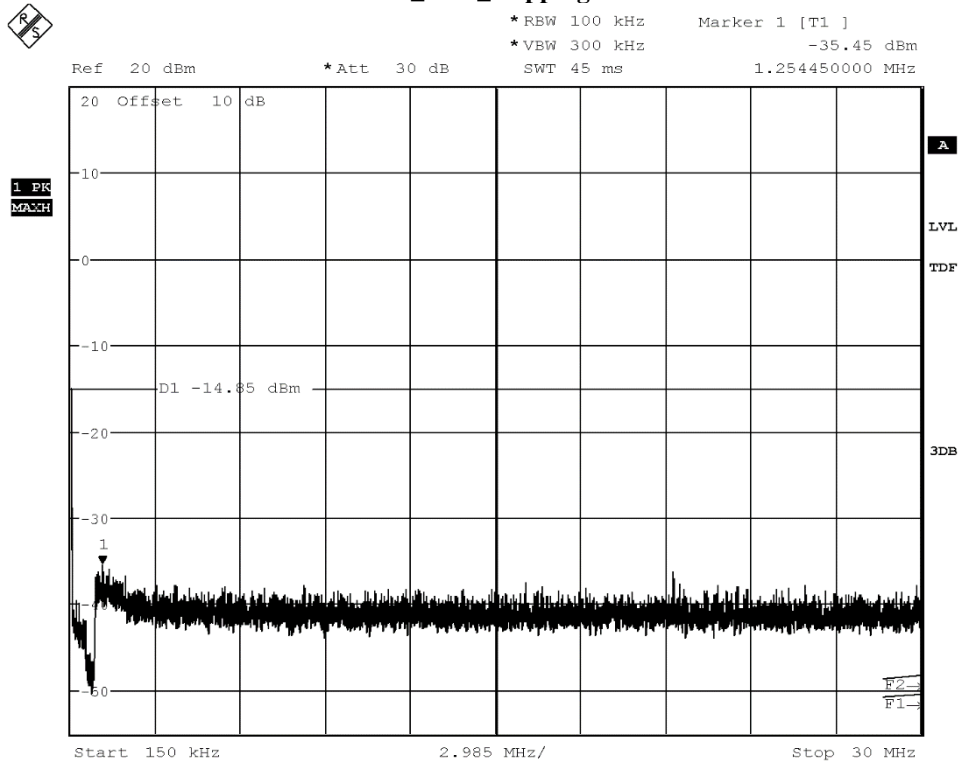


1.8. 20dBc Conducted Spurious Emissions

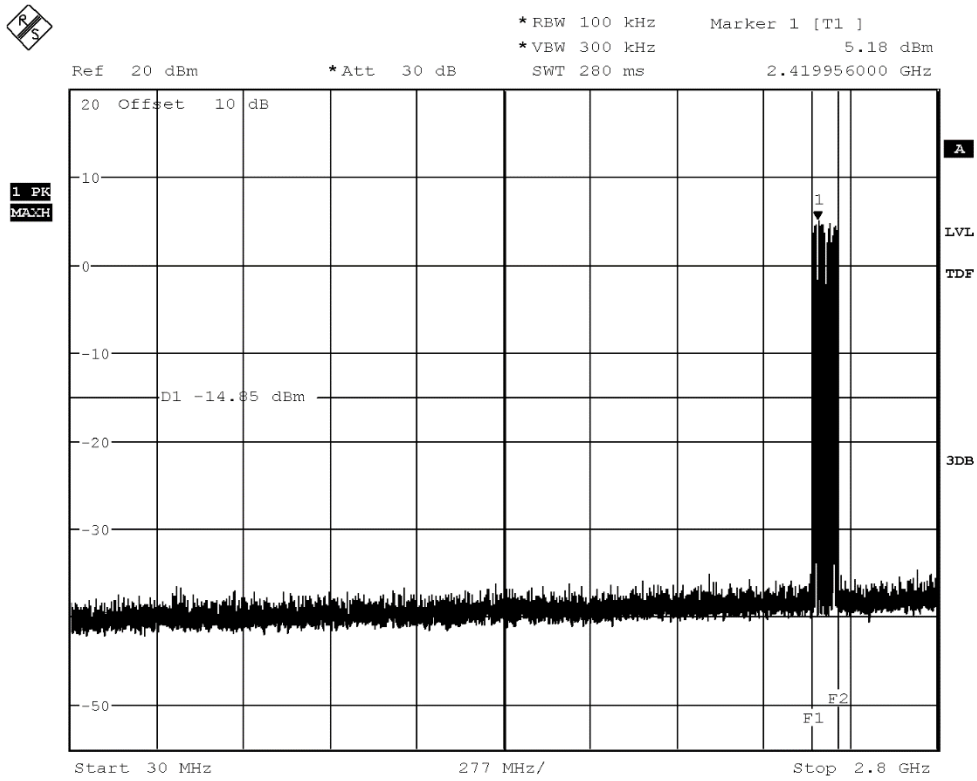
1.8.1. Hopping ON



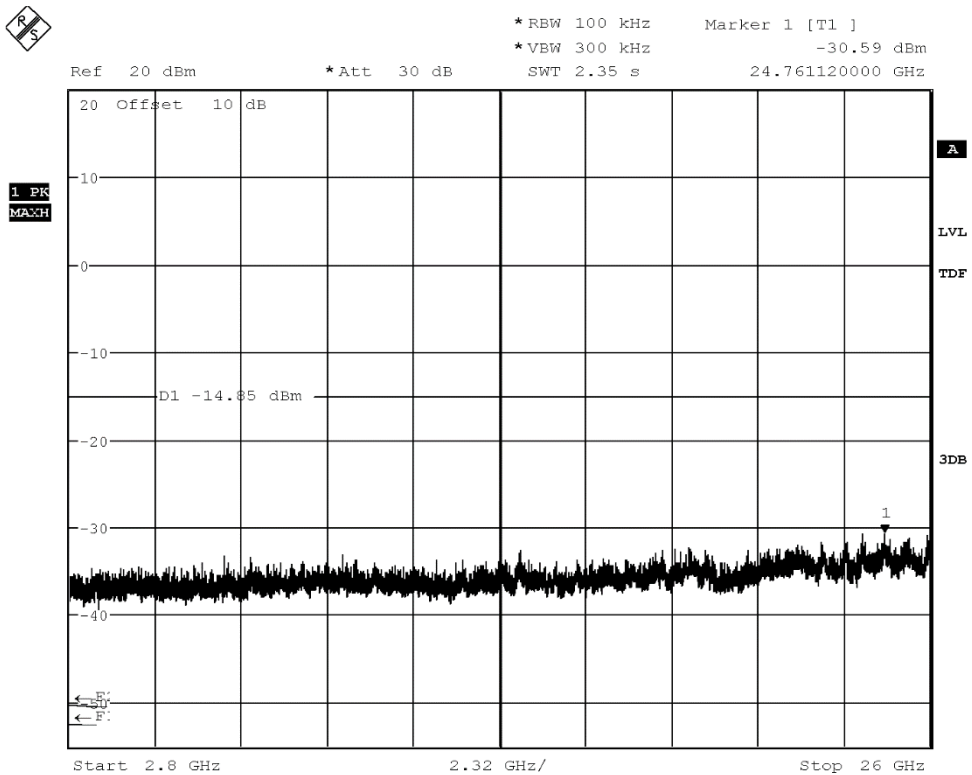
20dBc_REF_Hopping ON



20dBc_0.15MHz-30MHz_Hopping ON

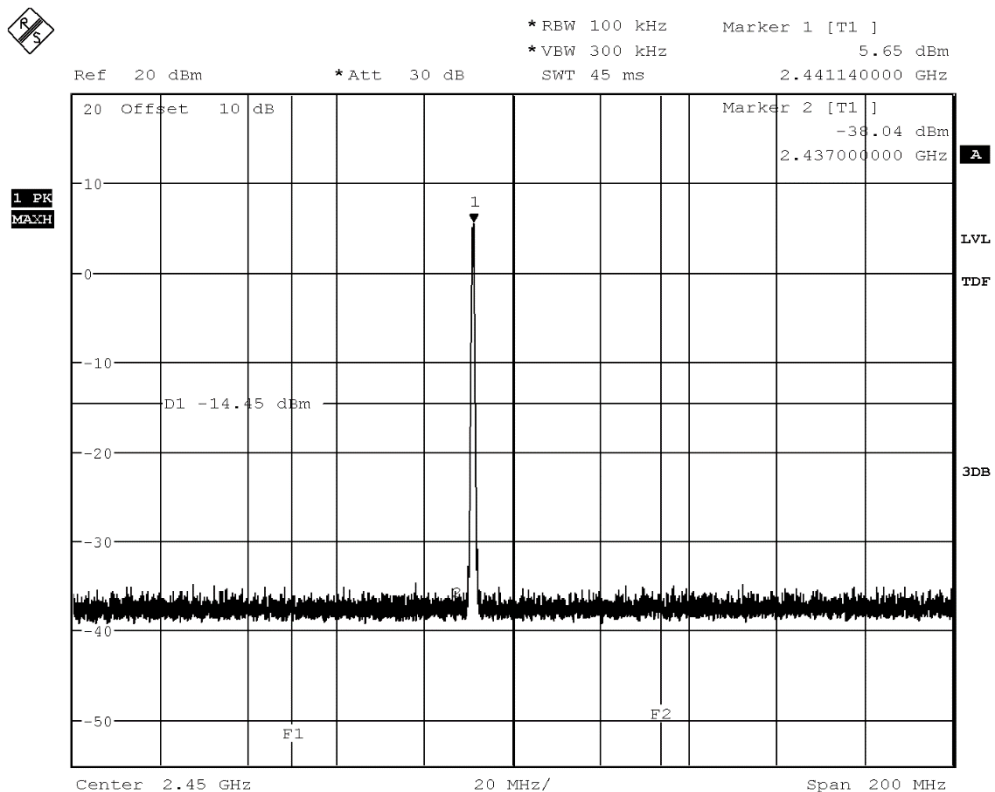


20dBc_0.30MHz-2.8Ghz_Hopping ON

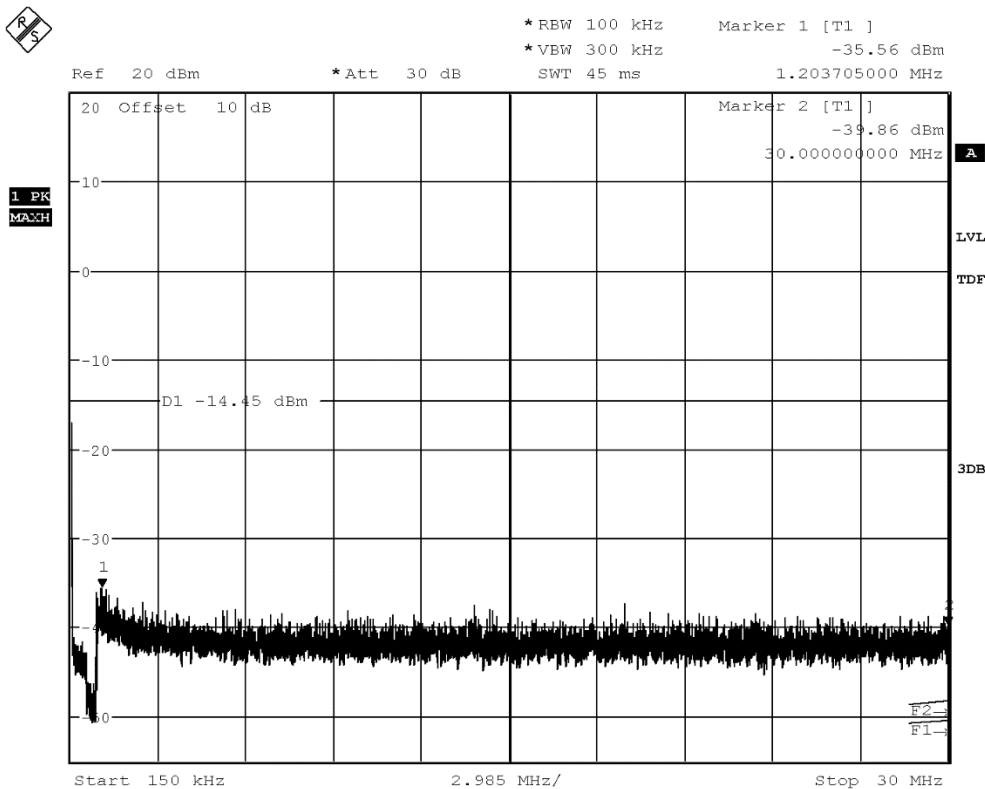


20dBc_2.8GHz-26Ghz_Hopping ON

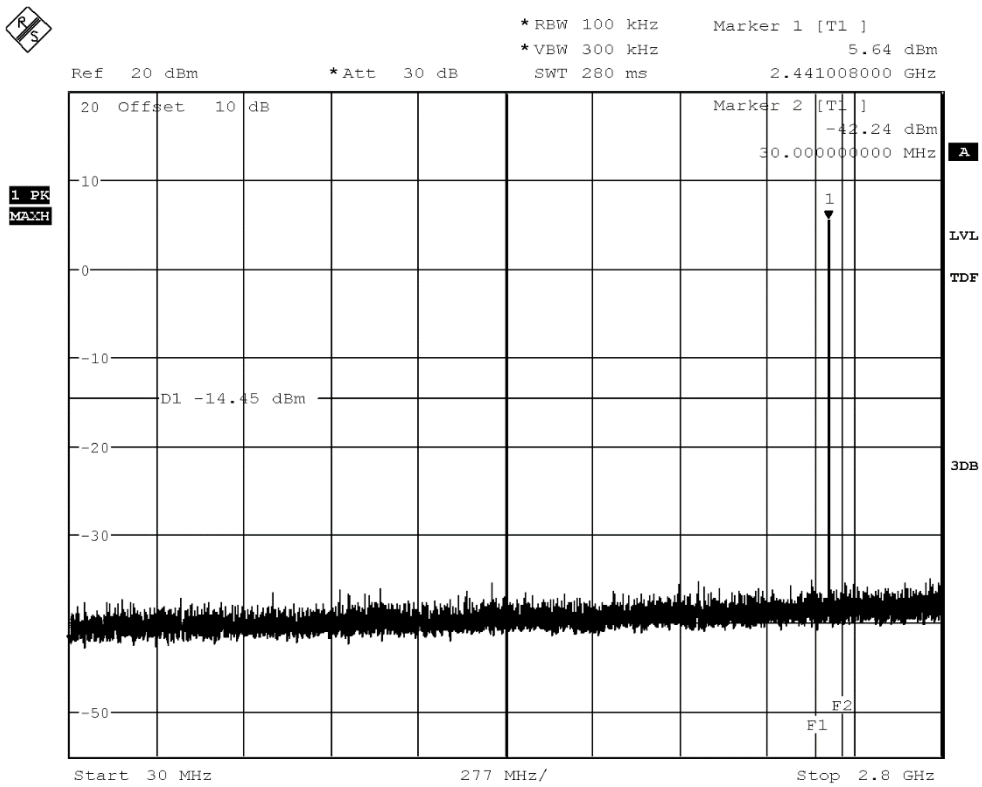
1.8.2. Hopping OFF



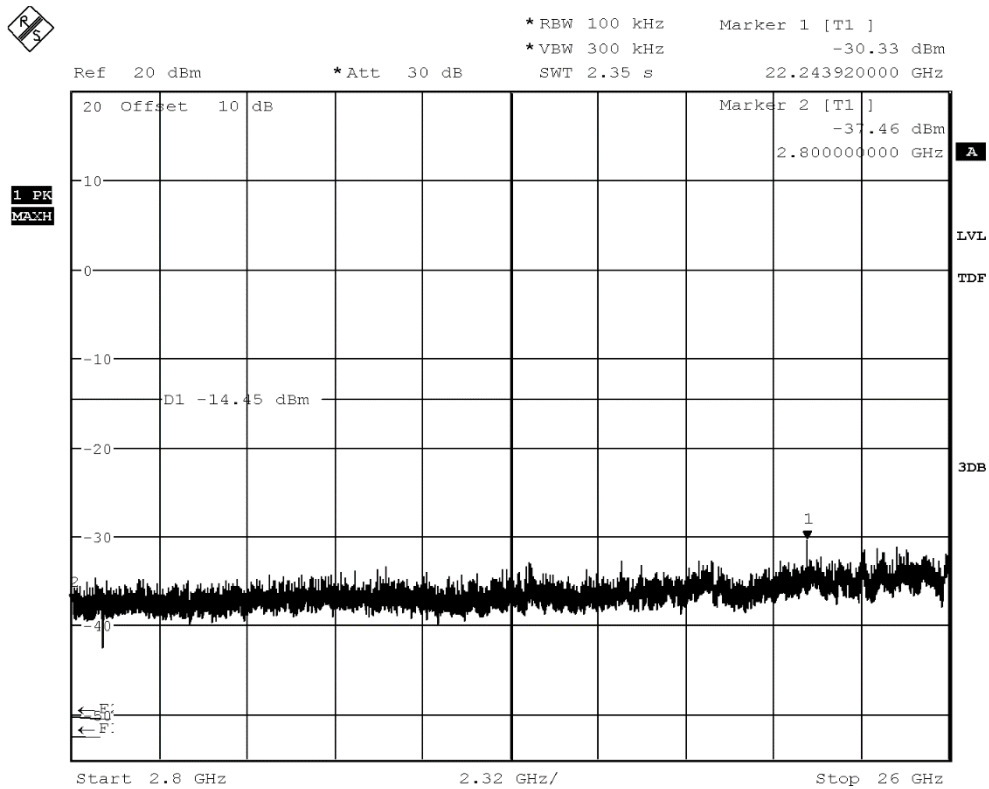
20dBc_REF_2441_DH5



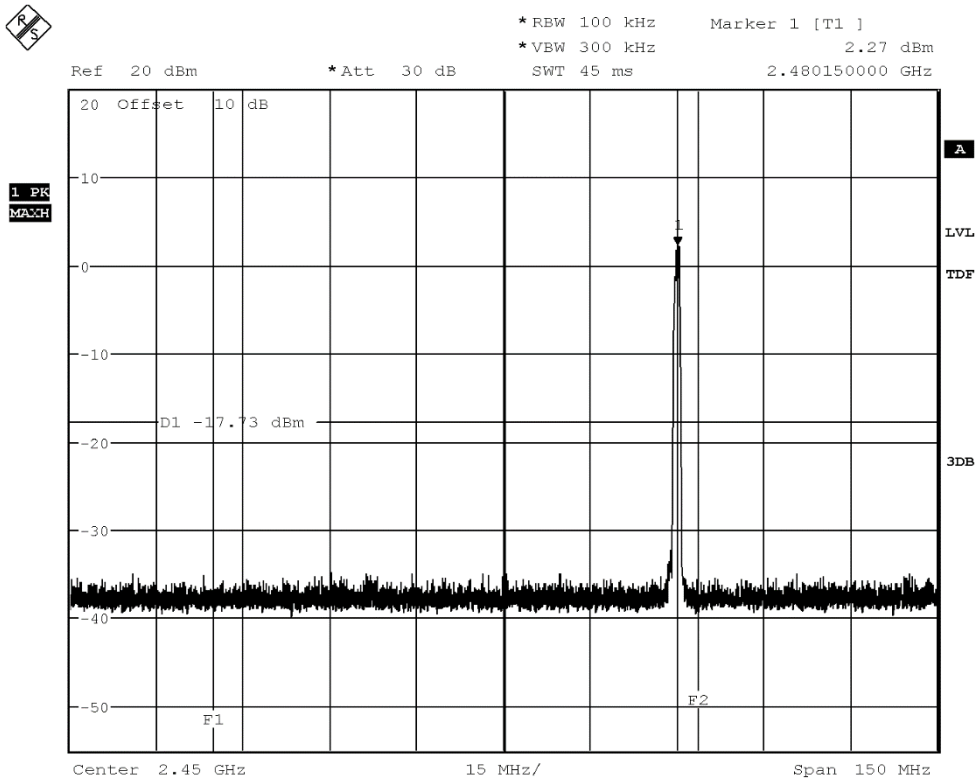
20dBc_0.15MHz-30MHz_2441_DH5



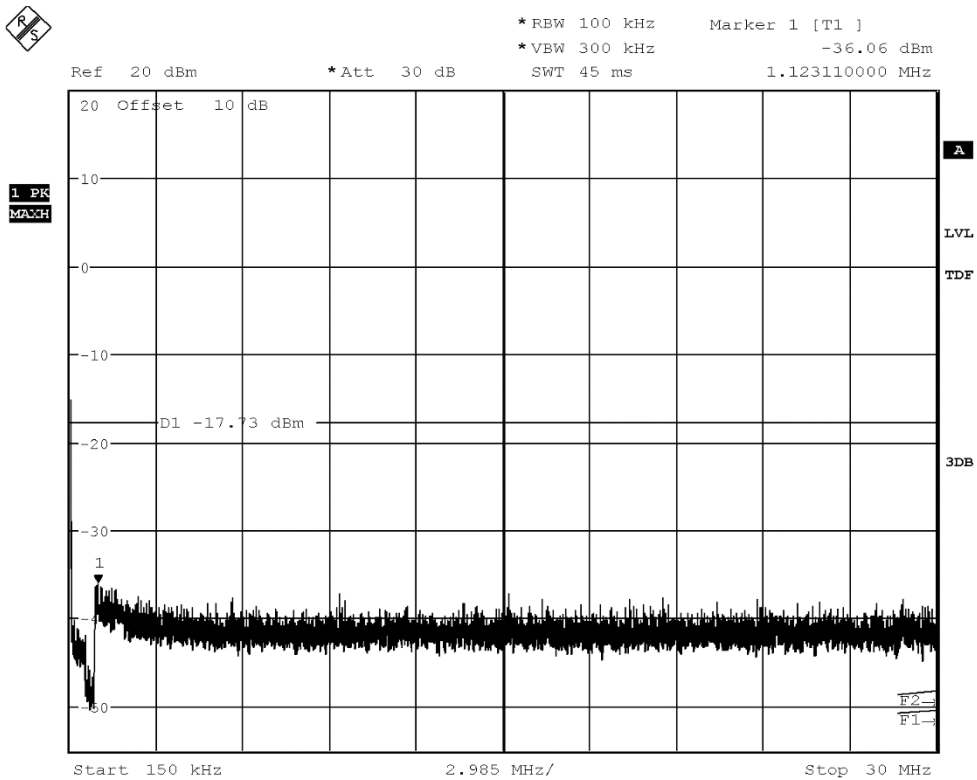
20dBc_0.30MHz-2.8Ghz_2441_DH5



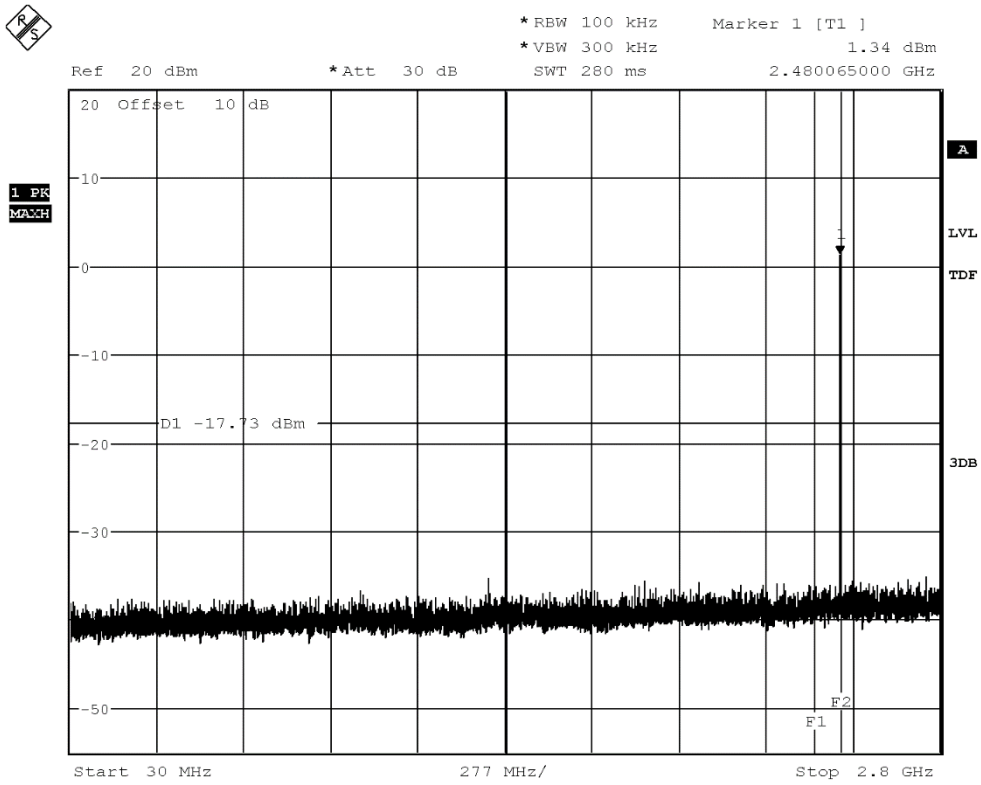
20dBc_2.8GHz-26Ghz_2441_DH5



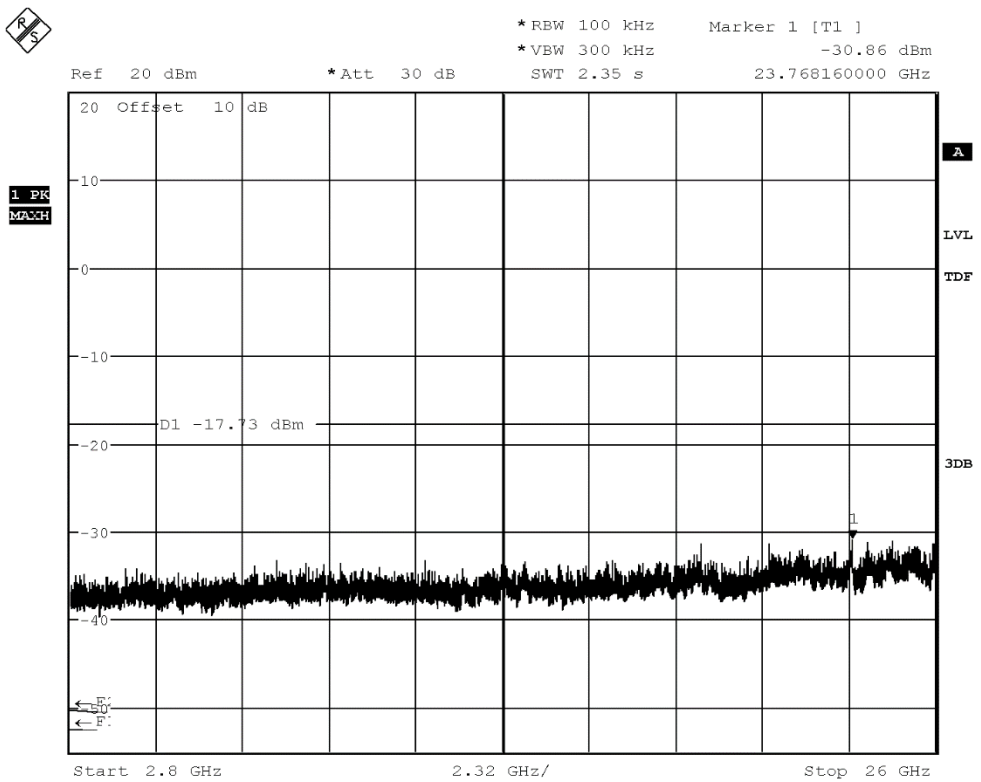
20dBc_REF_2480_2-DH5



20dBc_0.15MHz-30MHz_2480_2-DH5



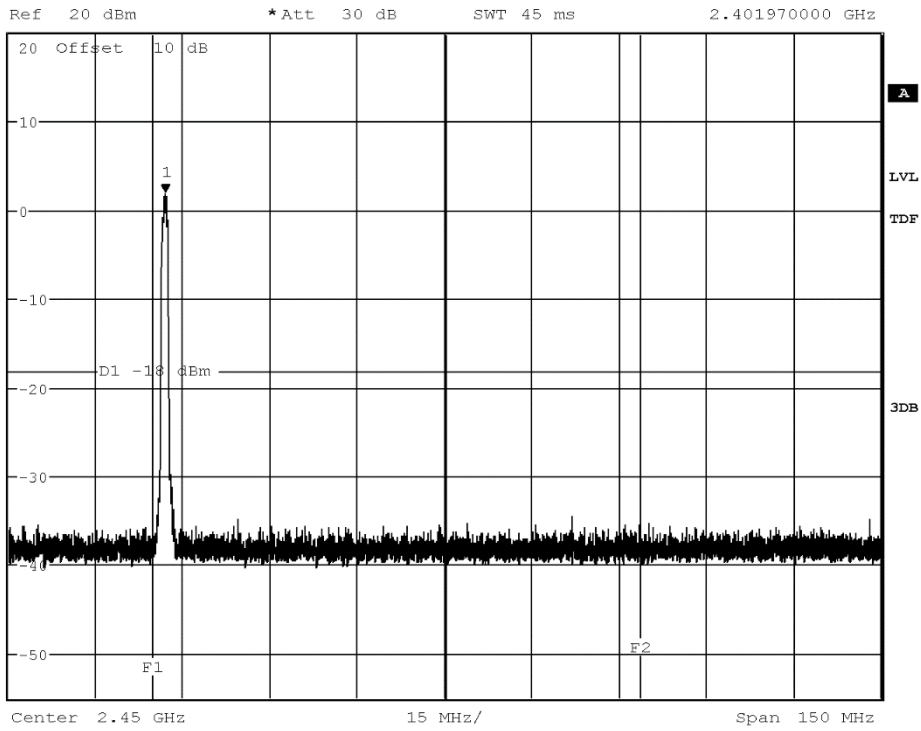
20dBc_0.30MHz-2.8Ghz_2480_2-DH5



20dBc_2.8GHz-26Ghz_2480_2-DH5



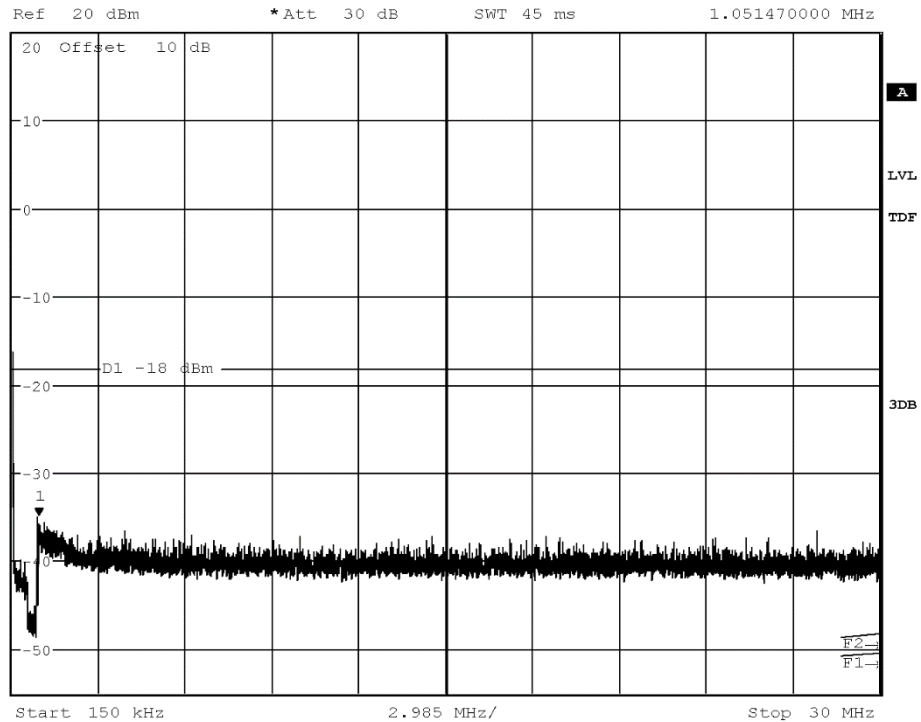
*RBW 100 kHz Marker 1 [T1]
 *VBW 300 kHz 2.00 dBm
 SWT 45 ms 2.401970000 GHz



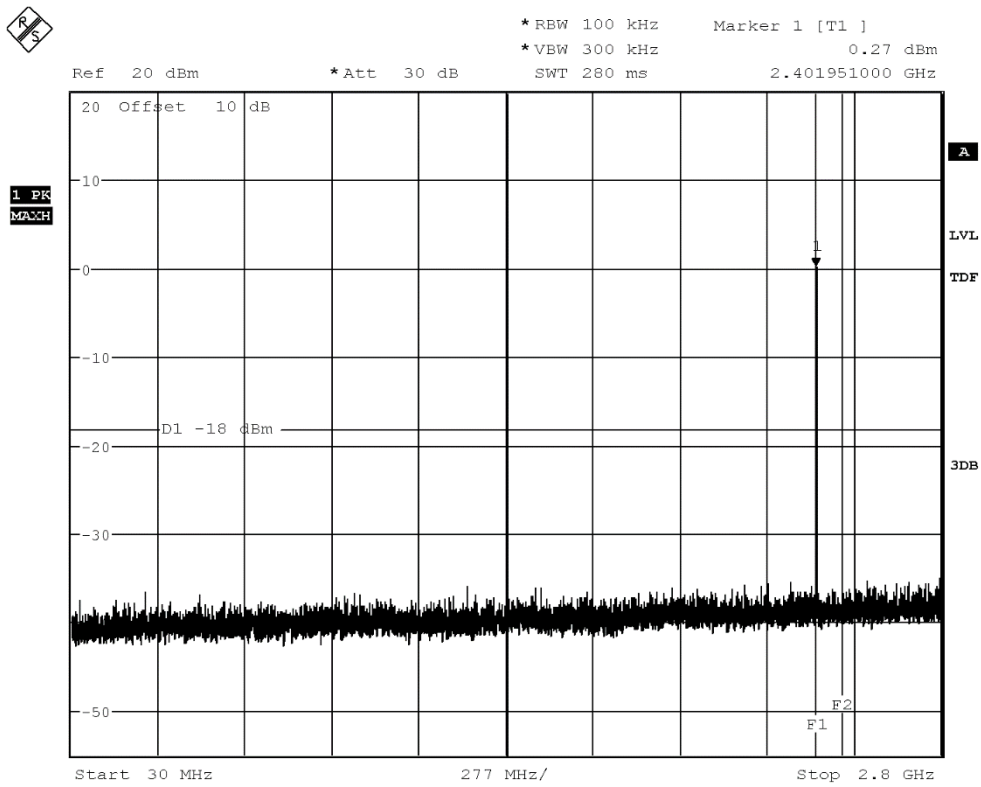
20dBc_REF_2402_3-DH5



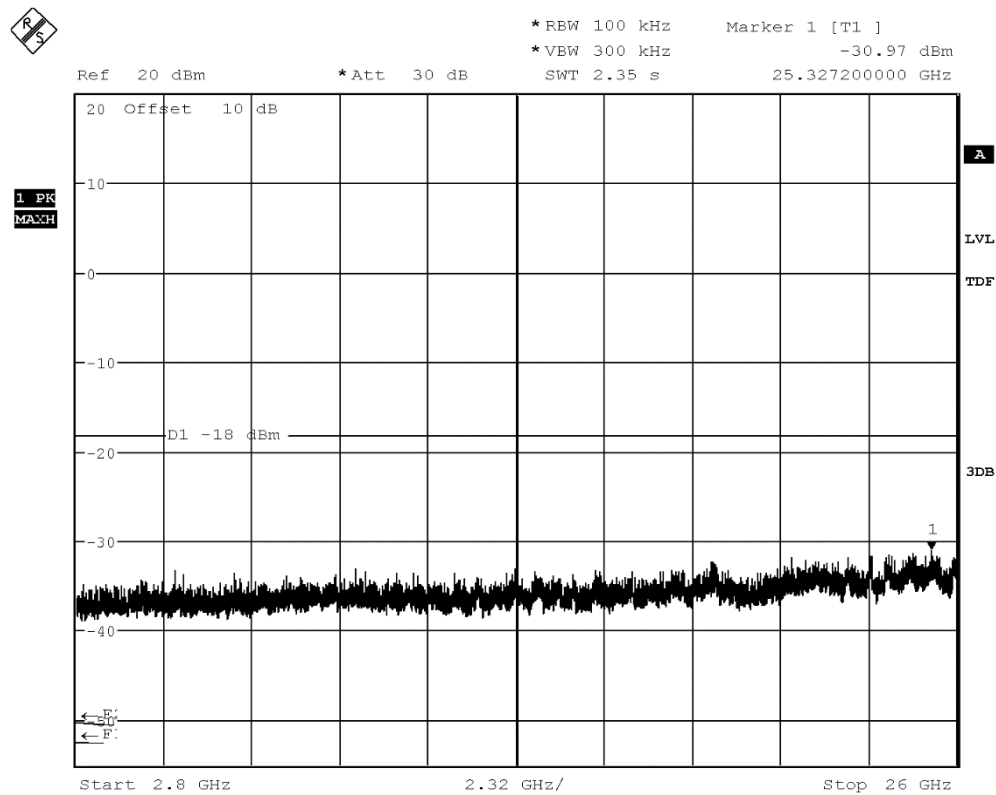
*RBW 100 kHz Marker 1 [T1]
 *VBW 300 kHz -34.95 dBm
 SWT 45 ms 1.051470000 MHz



20dBc_0.15MHz-30MHz_2402_3-DH5



20dBc_0.30MHz-2.8Ghz_2402_3-DH5



20dBc_2.8GHz-26Ghz_2402_3-DH5

1.9. Frequency Stability

1.9.1. Tmin – Vnom

Modulation	Channel	99% OBW	Tnom - Vnom		Vnom -Tnom	
			left Bandedge	right Bandedge	left Bandedge	right Bandedge
	MHZ	in MHZ	in HZ	in HZ	in HZ	in HZ
DH5	2402	0,970298	2401504950	2402475248	2401545455	2402493506
	2441	0,950496	2440504950	2441455446	2440545455	2441493506
	2481	0,970298	2479504950	2480475280	2479545455	2480493506
2-DH5	2402	1,20792	2401326733	2402534653	2401415584	2402623377
	2441	1,20792	2440326733	2441534653	2440415584	2441623377
	2481		2479326733	2480534653	2479415584	2480623377
3-DH5	2402	1,227722	2401326733	2402554455	2401402597	2402623377
	2441	1,227722	2440326733	2441554455	2440402597	2441623377
	2481	1,227722	2479326733	2480554455	2479402597	2480636364

1.9.2. Tmax – Vnom

Modulation	Channel	99% OBW	Tnom - Vnom		Tmax - Vnom	
			left Bandedge	right Bandedge	left Bandedge	right Bandedge
		in MHZ	in HZ	in HZ	in HZ	in HZ
DH5	2402	0,970298	2401504950	2402475248	2401506494	2402454545
	2441	0,950496	2440504950	2441455446	2440506494	2441454545
	2481	0,970298	2479504950	2480475280	2479506494	2480454545
2-DH5	2402	1,20792	2401326733	2402534653	2401376623	2402584416
	2441	1,20792	2440326733	2441534653	2440376623	2441584416
	2481		2479326733	2480534653	2479376623	2480584416
3-DH5	2402	1,227722	2401326733	2402554455	2401363636	2402597403
	2441	1,227722	2440326733	2441554455	2440363636	2441597403
	2481	1,227722	2479326733	2480554455	2479363636	2480597403

1.9.3. Tnom – Vmin

Modulation	Channel	99% OBW	Tnom - Vnom		Tnom - Vmin	
			left Bandedge	right Bandedge	left Bandedge	right Bandedge
		in MHZ	in HZ	in HZ		
DH5	2402	0,970298	2401504950	2402475248	2401506494	2402454545
	2441	0,950496	2440504950	2441455446	2440506494	2441467532
	2481	0,970298	2479504950	2480475280	2479506494	2480467532
2-DH5	2402	1,20792	2401326733	2402534653	2401376623	2402584416
	2441	1,20792	2440326733	2441534653	2440376623	2441597403
	2481		2479326733	2480534653	2479376623	2480597403
3-DH5	2402	1,227722	2401326733	2402554455	2401363636	2402597403
	2441	1,227722	2440326733	2441554455	2440363636	2441597403
	2481	1,227722	2479326733	2480554455	2479363636	2480597403

1.9.4. Tnom – Vmax

Modulation	Channel	99% OBW	Tnom - Vnom		Tnom - Vmax	
			left Bandedge	right Bandedge	left Bandedge	right Bandedge
		in MHZ	in HZ	in HZ		
DH5	2402	0,970298	2401504950	2402475248	2401506494	2402454545
	2441	0,950496	2440504950	2441455446	2440506494	2441454545
	2481	0,970298	2479504950	2480475280	2479506494	2480454545
2-DH5	2402	1,20792	2401326733	2402534653	2.401.376.623	2.402.584.416
	2441	1,20792	2440326733	2441534653	2.440.376.623	2.441.584.416
	2481		2479326733	2480534653	2.479.376.623	2.480.584.416
3-DH5	2402	1,227722	2401326733	2402554455	2401363636	2402584416
	2441	1,227722	2440326733	2441554455	2440363636	2441597403
	2481	1,227722	2479326733	2480554455	2479363636	2480597403

2. Radiated Field Strength Measurements

2.1. Magnetic field emissions radiated Bluetooth BDR below 30 MHz

2.02a_BT_BDR_ch00

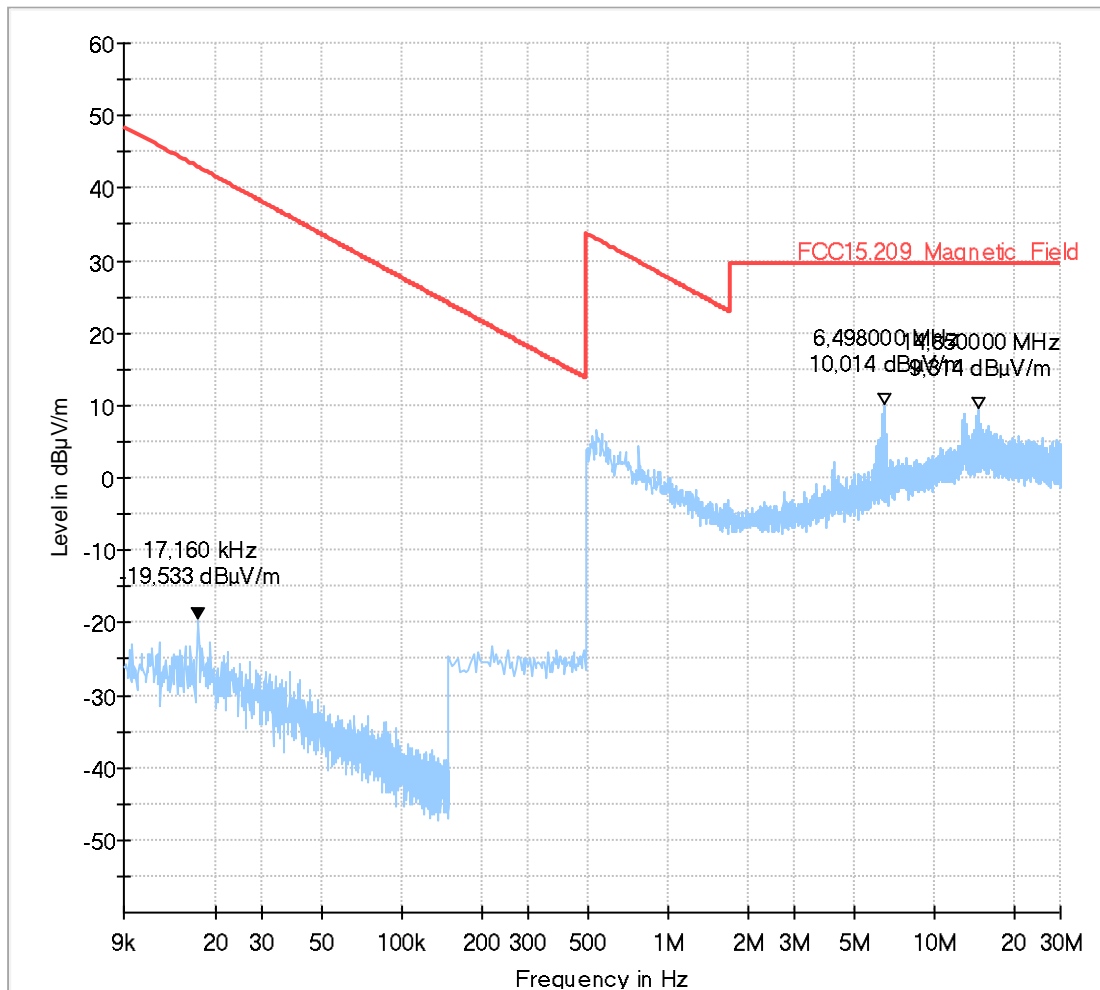
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Version of test software:	EMC32 V9.25.0
Used filter:	bypass
Test specification:	FCC 15.205 § 15.209; RSS-Gen: Issue 4
Operator:	TFR
Operating conditions:	Humidity: 48%rH; Temperature: 20°C
Power during tests:	13.5V DC
Comment:	laying

EUT Information

Manufacturer:	Robert Bosch Car Multimedia
Product:	AIVISBX0
EUT Model:	18-1-00482S06
HW:	tbd
SW:	283C24194R
Serial No.:	0005000
Connected Devices:	13.5VDC

Full Spectrum



2.02b_BT_BDR_ch00

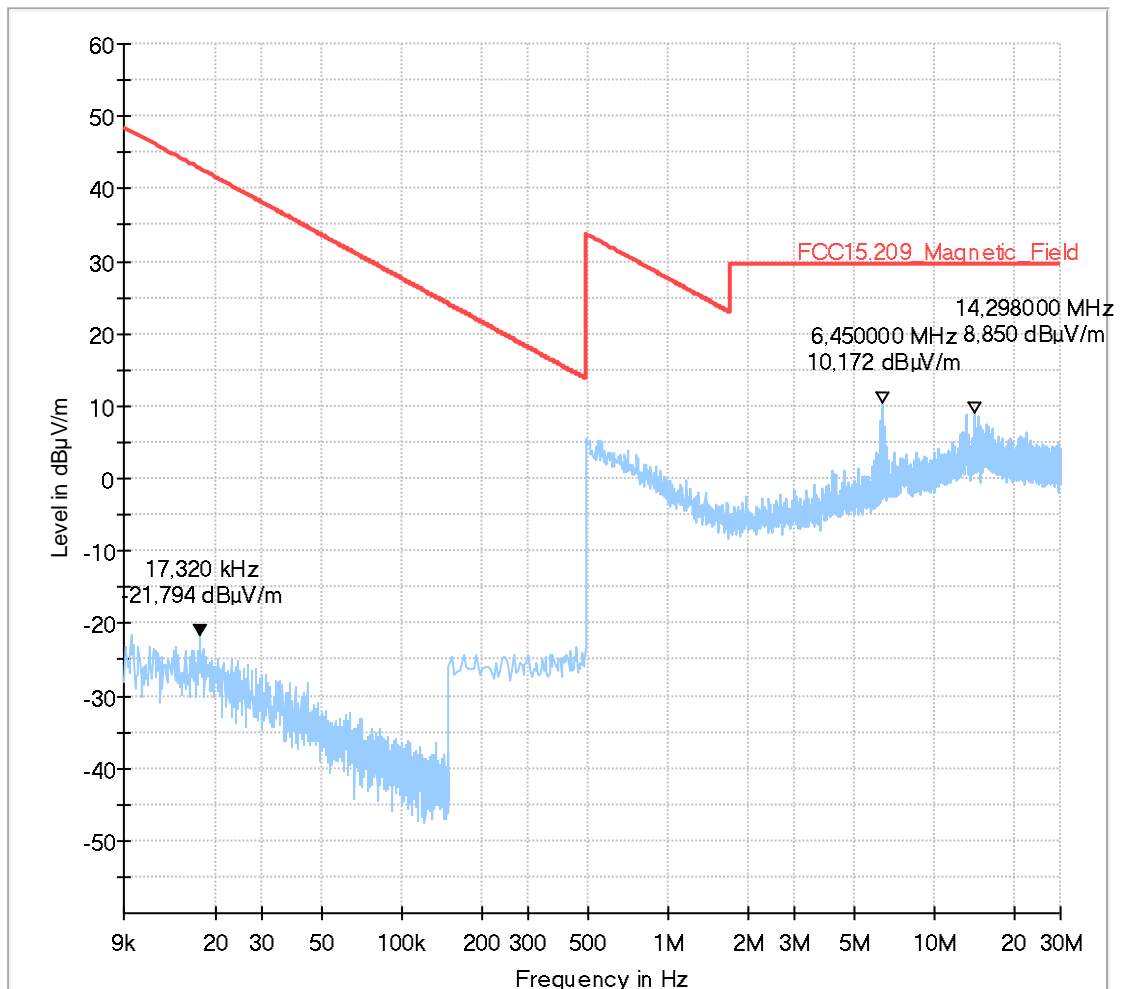
Common Information

Date:	31.08.2018	Page 1 of 5
Test description:	Magnetic Field Strength Measurement related to 30/300 m distance	
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance	
Version of test software:	EMC32 V9.25.0	
Used filter:	bypass	
Test specification:	FCC 15.205 § 15.209; RSS-Gen: Issue 4	
Operator:	TFR	
Operating conditions:	Humidity: 48%rH; Temperature: 20°C	
Power during tests:	13.5V DC	
Comment:	standing	

EUT Information

Manufacturer:	Robert Bosch Car Multimedia
Product:	AIVISBX0
EUT Model:	18-1-00482S06
HW:	tbd
SW:	283C24194R
Serial No.:	0005000
Connected Devices:	13.5VDC

Full Spectrum



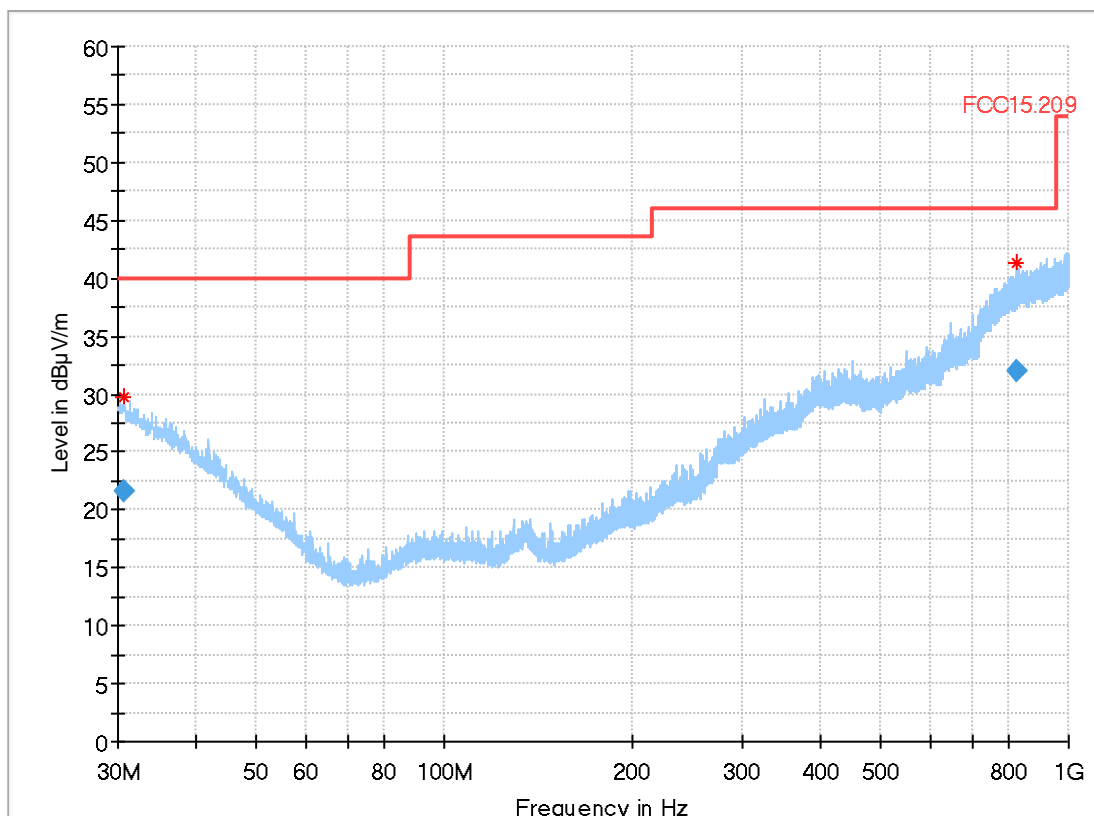
2.2. Spurious emissions radiated Bluetooth BDR 30 MHz to 1 GHz 3.01a_BT_EDR_ch78

Test description:	09.11.2018 Page 1 of 2
Test site and distance:	Electric Field Strength Measurement
Version of Testsoftware:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Distance correction:	EMC32 V9.25.0
Used filter:	not used
Technical Data:	not used
Test specification.:	please see page 2 for detailed data of measurement setup
Operatingmode.:	FCC 15.209; RSS-Gen: Issue 3
Operator:	BT_EDR, 2-DH5, ch78
Operating conditions:	TFra
Comment 1:	Humidity: 48%rH; Temperature: 20°C
	laying_TX

EUT Information

Manufacturer:	Robert Bosch Car Multimedia
Product:	AIVISBX0
EUT Model:	18-1-00482S06
HW:	tbd
SW:	
Serial Nr.:	
Conected Devices:	13.5VDC

Full Spectrum



Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margi n (dB)	Meas. Time (ms)	Bandwidth (kHz)	Heigh t (cm)	Pol	Azimet h (deg)	Corr . (dB)
30.592000	21.65	40.00	18.35	1000.0	120.000	117.0	V	241.0	21.3
826.080000	32.01	46.00	13.99	1000.0	120.000	287.0	H	175.0	25.8

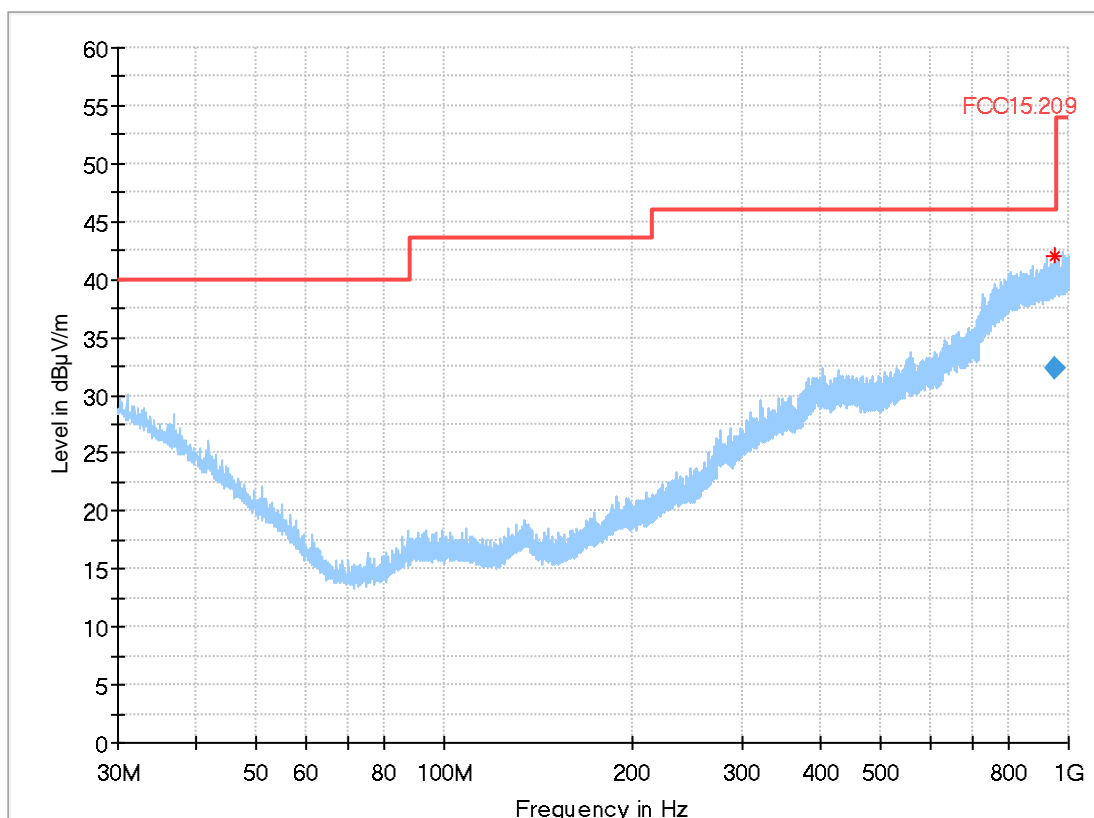
3.01b_BT_EDR_ch78

Test description:	09.11.2018 Page 1 of 2
Test site and distance:	Electric Field Strength Measurement
Version of Testsoftware:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Distance correction:	EMC32 V9.25.0
Used filter:	not used
Technical Data:	not used
Test specification.:	please see page 2 for detailed data of measurement setup
Operatingmode:	FCC 15.209; RSS-Gen: Issue 3
Operator:	BT_EDR, 2-DH5, ch78
Operating conditions:	TFra
Comment 1:	Humidity: 48%rH; Temperature: 20°C
	standing_TX

EUT Information

Manufacturer:	Robert Bosch Car Multimedia
Product:	AIVISBX0
EUT Model:	18-1-00482S06
HW:	tbd
SW:	
Serial Nr.:	
Conected Devices:	13.5VDC

Full Spectrum



Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
948.140000	32.41	46.00	13.59	1000.0	120.000	324.0	V	313.0	27.1

3.02a_BT_BDR_ch00

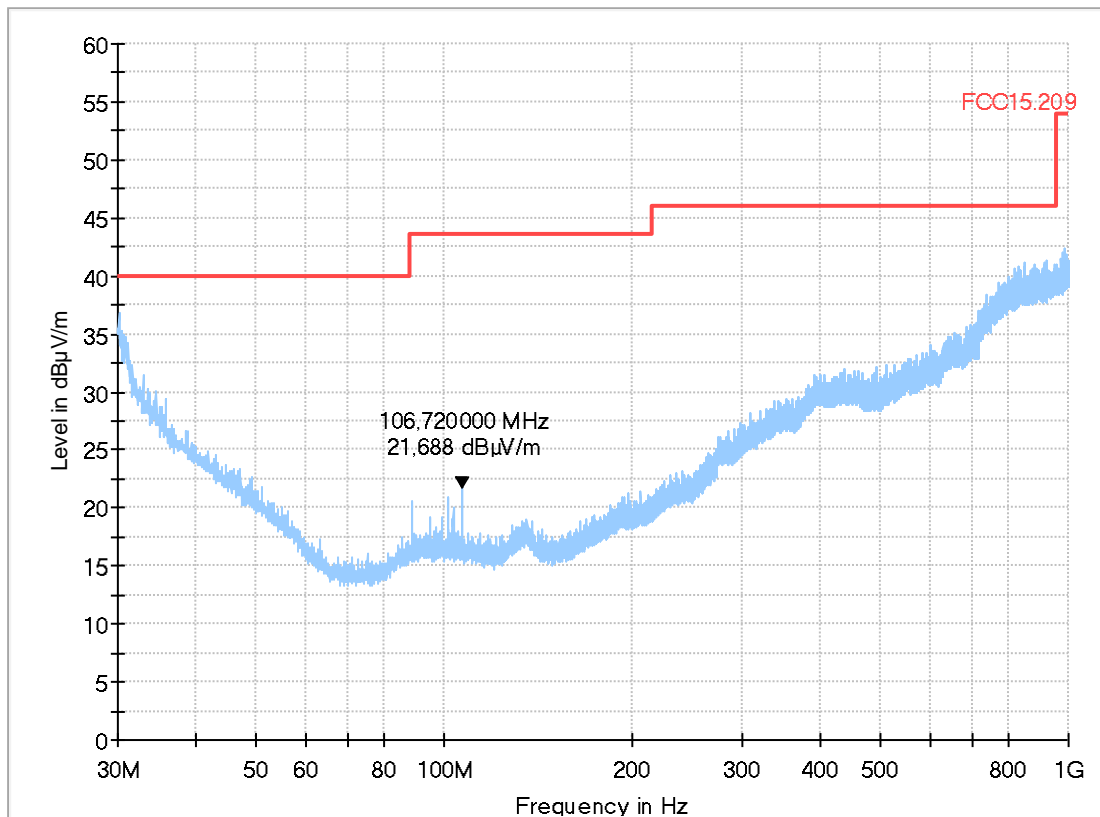
Common Information

Test description:	31.08.2018 Page 1 of 1
Test site and distance:	Electric Field Strength Measurement
Version of test software:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Test specification.:	EMC32 V9.25.0
Operator:	FCC 15.209; RSS-Gen: Issue 3
Operating conditions:	TFR
Power during tests:	Humidity: 55%rH; Temperature: 20°C
Comment 1:	13,5V DC
	Laying

EUT Information

Manufacturer:	Robert Bosch Car Multimedia
Product:	AIVISBX0
EUT Model:	18-1-00482S06
HW:	tbd
SW:	283C24194R
Serial No.:	0005000
Connected Devices:	13.5VDC

Full Spectrum



3.02b_BT_BDR_ch00

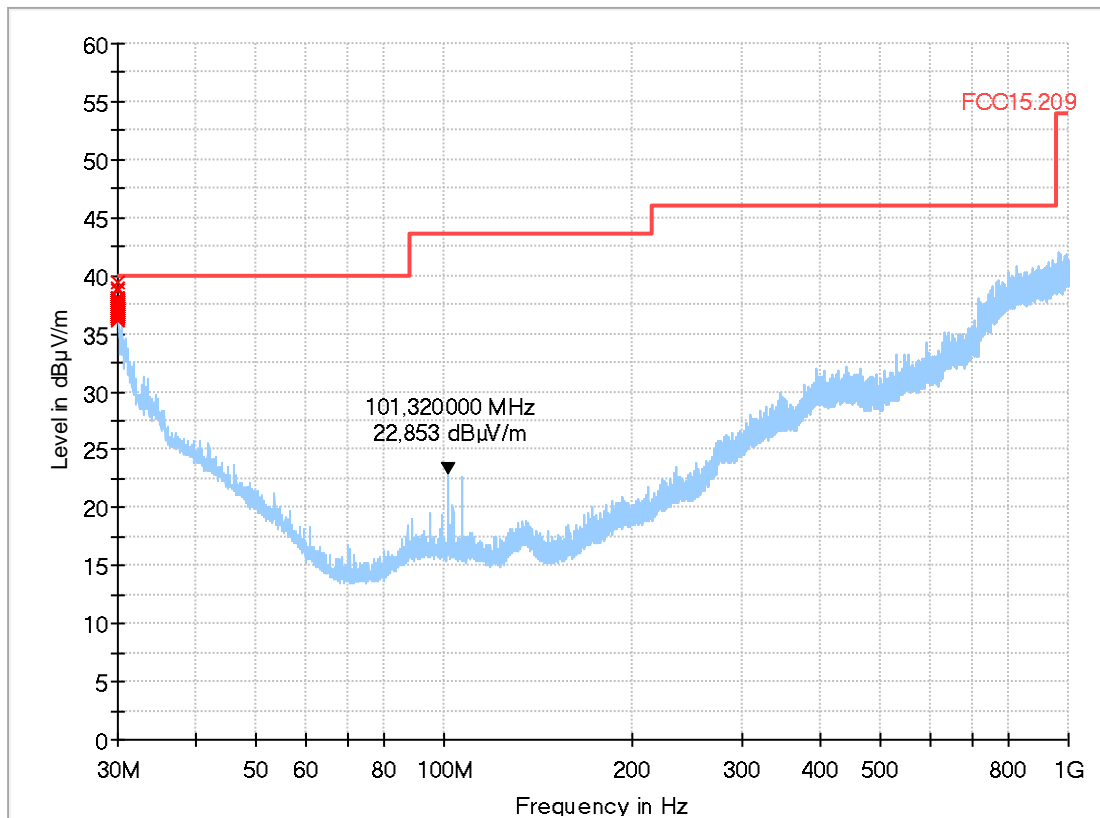
Common Information

Test description:	Electric Field Strength Measurement
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Version of test software:	EMC32 V9.25.0
Test specification.:	FCC 15.209; RSS-Gen: Issue 3
Operator:	TFr
Operating conditions:	Humidity: 55%rH; Temperature: 20°C
Power during tests:	13,5V DC
Comment 1:	standing

EUT Information

Manufacturer:	Robert Bosch Car Multimedia
Product:	AIVISBX0
EUT Model:	18-1-00482S06
HW:	tbd
SW:	283C24194R
Serial No.:	0005000
Connected Devices:	13.5VDC

Full Spectrum



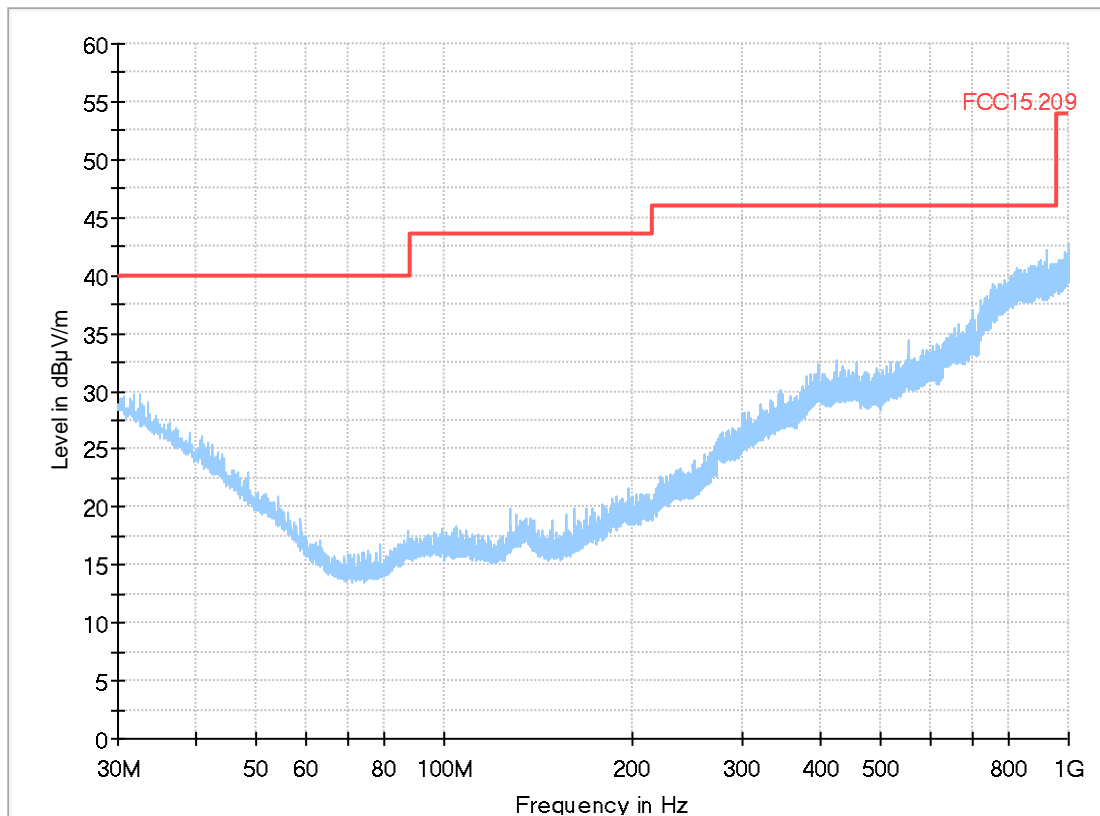
3.03a_BT_EDR_ch39

Test description:	09.11.2018 Page 1 of 2
Test site and distance:	Electric Field Strength Measurement
Version of Testsoftware:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Distance correction:	EMC32 V9.25.0
Used filter:	not used
Technical Data:	not used
Test specification.:	please see page 2 for detailed data of measurement setup
Operatingmode:	FCC 15.209; RSS-Gen: Issue 3
Operator:	BT_EDR, DH5, ch39
Operating conditions:	TFra
Comment 1:	Humidity: 48%rH; Temperature: 20°C
	laying_TX

EUT Information

Manufacturer:	Robert Bosch Car Multimedia
Product:	AIVISBX0
EUT Model:	18-1-00482S06
HW:	tbd
SW:	
Serial Nr.:	
Conected Devices:	13.5VDC

Full Spectrum



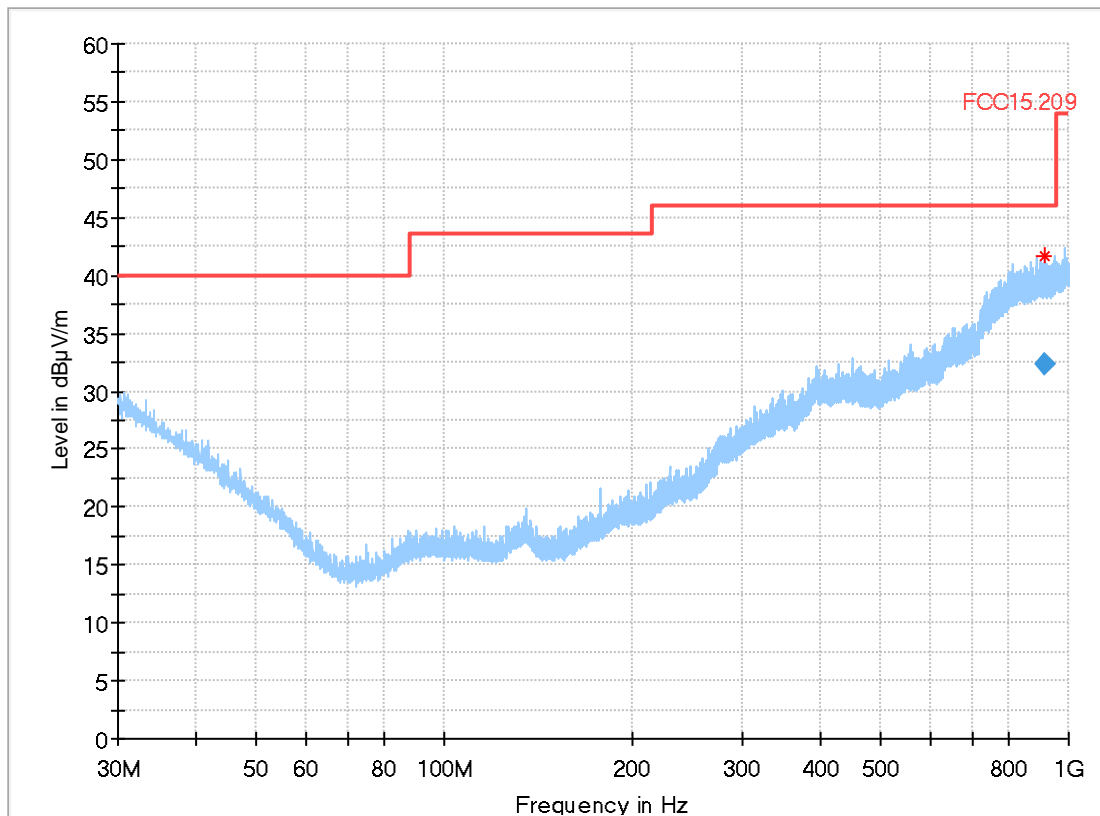
3.03b_BT_EDR_ch39

Test description:	09.11.2018 Page 1 of 2
Test site and distance:	Electric Field Strength Measurement
Version of Testsoftware:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Distance correction:	EMC32 V9.25.0
Used filter:	not used
Technical Data:	not used
Test specification.:	please see page 2 for detailed data of measurement setup
Operatingmode:	FCC 15.209; RSS-Gen: Issue 3
Operator:	BT_EDR, DH5, ch39
Operating conditions:	TFra
Comment 1:	Humidity: 48%rH; Temperature: 20°C
	standing_TX

EUT Information

Manufacturer:	Robert Bosch Car Multimedia
Product:	AIVISBX0
EUT Model:	18-1-00482S06
HW:	tbd
SW:	
Serial Nr.:	
Conected Devices:	13.5VDC

Full Spectrum



Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margi n (dB)	Meas. Time (ms)	Bandwidth (kHz)	Heigh t (cm)	Pol	Azimat h (deg)	Corr . (dB)
913.208000	32.39	46.00	13.61	1000.0	120.000	325.0	H	8.0	27.1

2.3. Spurious emissions radiated Bluetooth BDR 1 GHz to 18 GHz 4.01b_BT_EDR_ch78

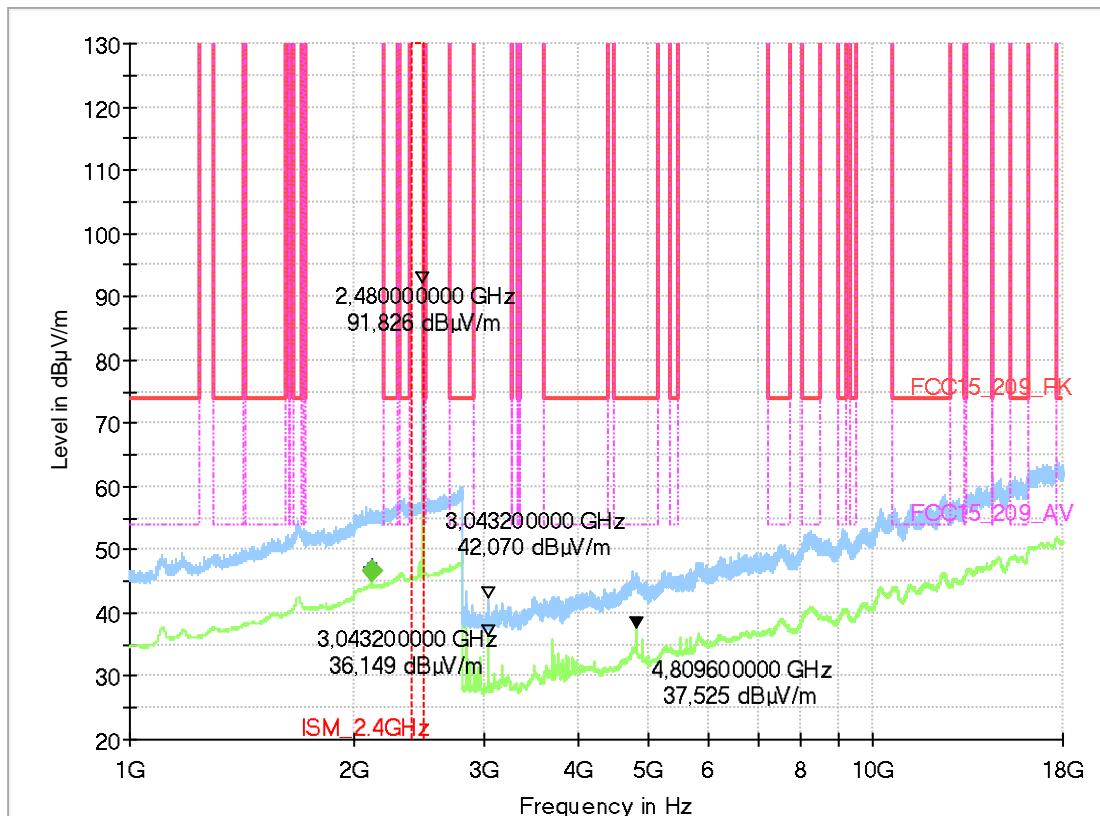
Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	BT_EDR 2-DH5 ch78
Operator Name:	HEI

EUT Information

Manufacturer:	Robert Bosch Car Multimedia
Product:	AIVISBX0
EUT Model:	18-1-00482S06
HW:	tbd
SW:	283C24194R
Serial Nr.:	
Conected Devices:	13.5VDC

Full Spectrum



Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margi n (dB)	Meas. Time (ms)	Bandwidth (kHz)	Heigh t (cm)	Pol	Azimuth (deg)	Elevatio n (deg)
2112.000000	---	46.76	150.00	103.24	100.0	1000.000	155.0	H	89.0	90.0

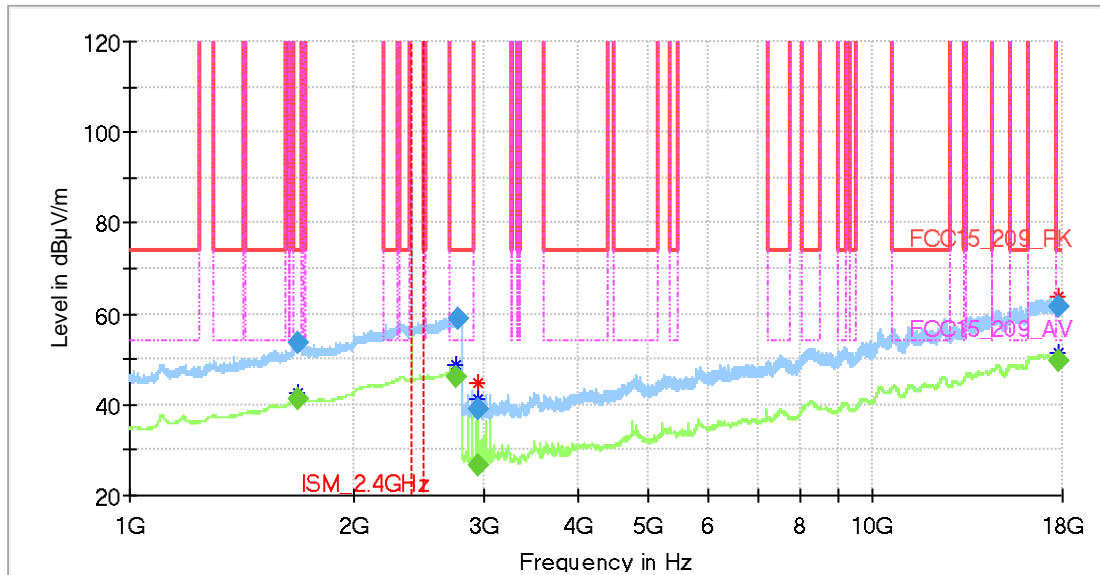
4.02a_BT_BDR_ch00

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Version of test software:	EMC32 V9.26.0
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	TX, continuous
Operator Name:	TFra
Comment:	Channel no. low

EUT Information

Manufacturer:	Robert Bosch Car Multimedia
Product:	AIVISBX0
EUT Model:	18-1-00482S06
HW:	tbd
SW:	283C24194R
Serial No.:	0005000
Connected Devices:	13.5VDC



Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margi n (dB)	Heigh t (cm)	Pol	Azimet h (deg)	Elevatio n (deg)	Corr . (dB)
1686.000000	53.47	---	74.00	20.53	155.0	H	236.0	0.0	33.7
1687.200000	---	41.04	54.00	12.96	155.0	H	144.0	90.0	33.8
2752.400000	---	45.94	54.00	8.06	155.0	H	109.0	90.0	37.7
2764.800000	58.94	---	74.00	15.06	155.0	H	21.0	90.0	37.8
2940.800000	---	26.42	150.00	123.58	155.0	V	174.0	0.0	-1.0
2940.800000	38.93	---	150.00	111.07	155.0	V	172.0	0.0	-1.0
17748.400000	61.69	---	74.00	12.31	155.0	H	139.0	0.0	26.1
17773.200000	---	49.44	54.00	4.56	155.0	V	218.0	0.0	26.1

4.03a_BT_EDR_ch39_1_2.8GHz

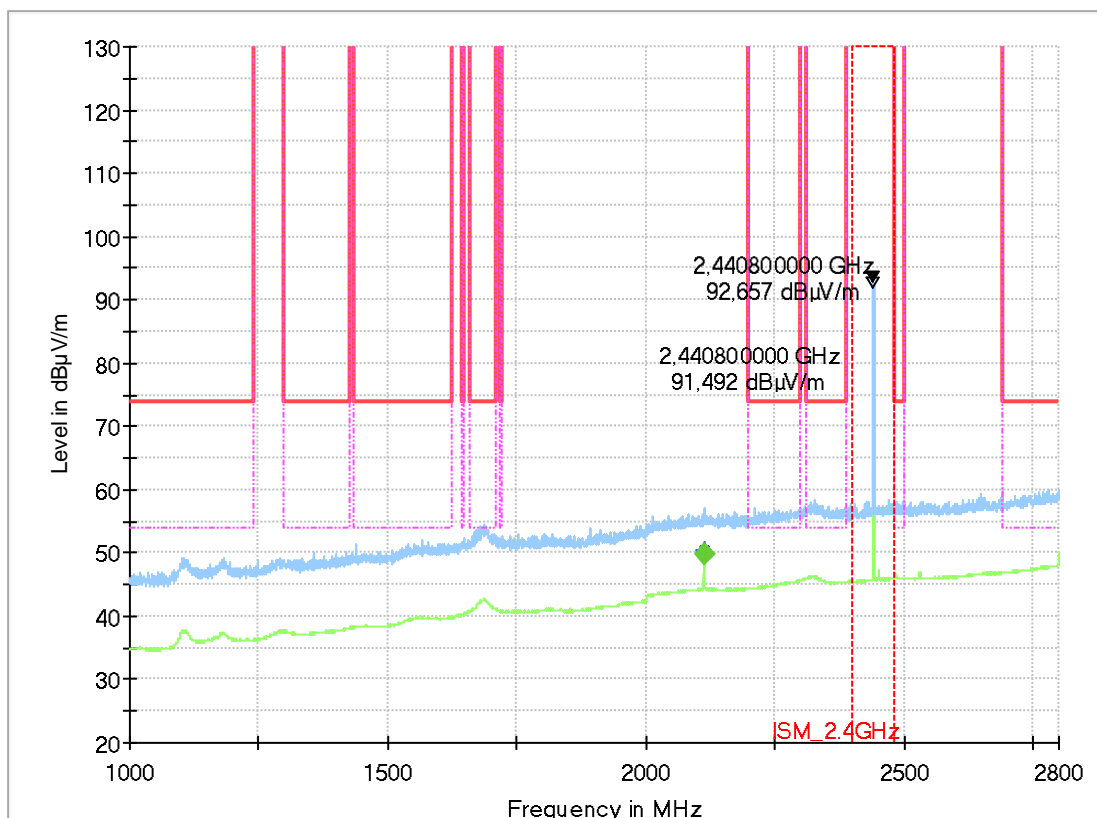
Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	BT_ BT EDR DH5 ch39
Operator Name:	HEI

EUT Information

Manufacturer:	Robert Bosch Car Multimedia
Product:	AIVISBX0
EUT Model:	18-1-00482S06
HW:	tbd
SW:	283C24194R
Serial Nr.:	
Conected Devices:	13.5VDC

Full Spectrum



Final Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margi n (dB)	Meas. Time (ms)	Bandwidth (kHz)	Heigh t (cm)	Pol	Azimuth (deg)	Elevatio n (deg)
2112.000000	---	49.73	150.00	100.27	100.0	1000.000	155.0	H	94.0	90.0

4.03a_BT_EDR_ch39_2.8_18GHz

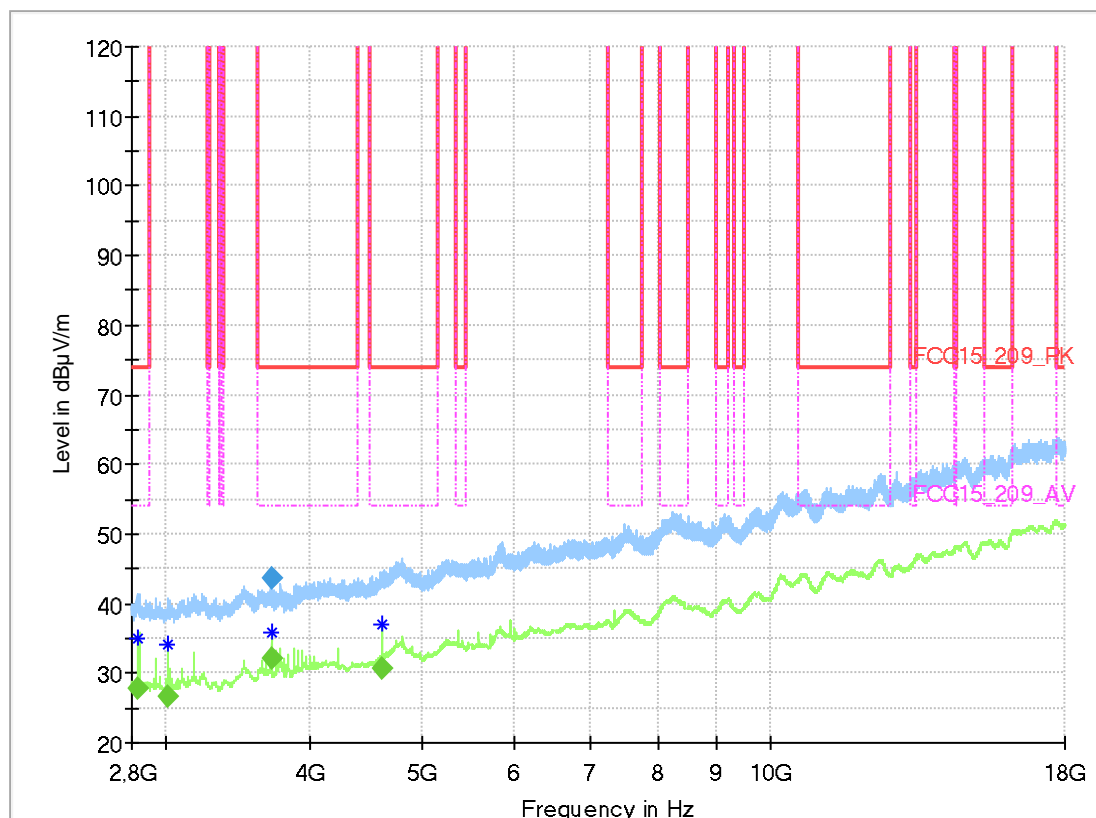
Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	BT_ BT EDR DH5 ch39
Operator Name:	HEI

EUT Information

Manufacturer:	Robert Bosch Car Multimedia
Product:	AIVISBX0
EUT Model:	18-1-00482S06
HW:	tbd
SW:	283C24194R
Serial Nr.:	
Conected Devices:	13.5VDC

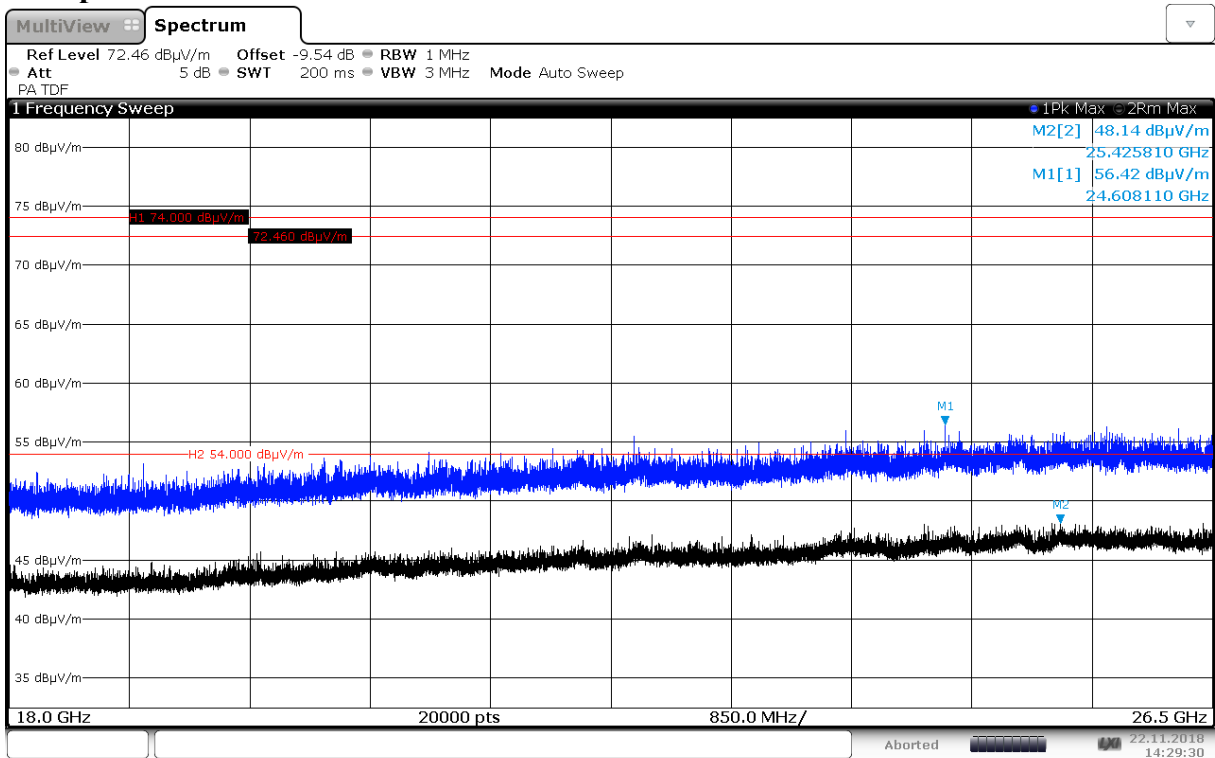
Full Spectrum



Final Result

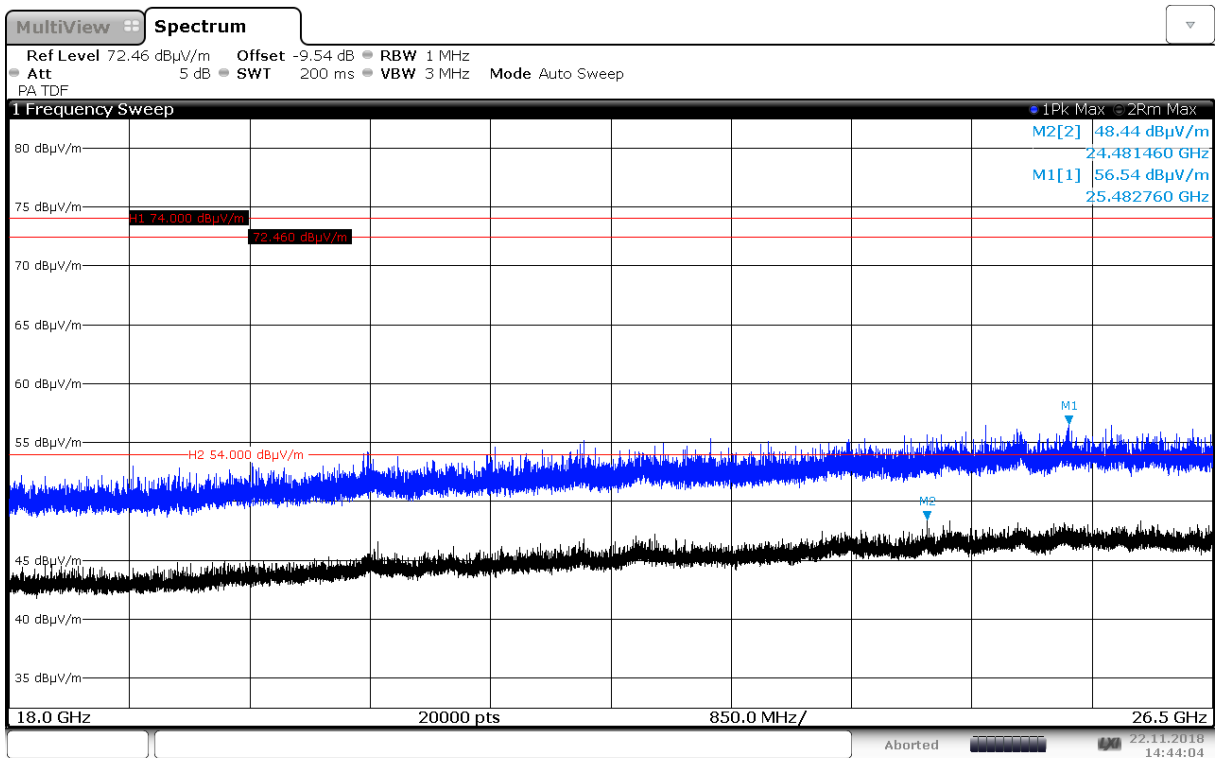
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margi n (dB)	Meas. Time (ms)	Bandwidth (kHz)	Heigh t (cm)	Pol	Azimet h (deg)	Elevatio n (deg)
2830.800000	---	27.77	54.00	26.23	100.0	1000.000	155.0	H	252.0	90.0
3004.400000	---	26.62	150.00	123.38	100.0	1000.000	155.0	H	121.0	90.0
3696.000000	---	31.98	54.00	22.02	100.0	1000.000	155.0	H	277.0	90.0
3696.000000	43.63	---	74.00	30.37	100.0	1000.000	155.0	H	105.0	90.0
4612.800000	---	30.69	54.00	23.31	100.0	1000.000	155.0	H	125.0	90.0

2.4. Spurious emissions radiated Bluetooth BDR 18 GHz to 26.5 GHz



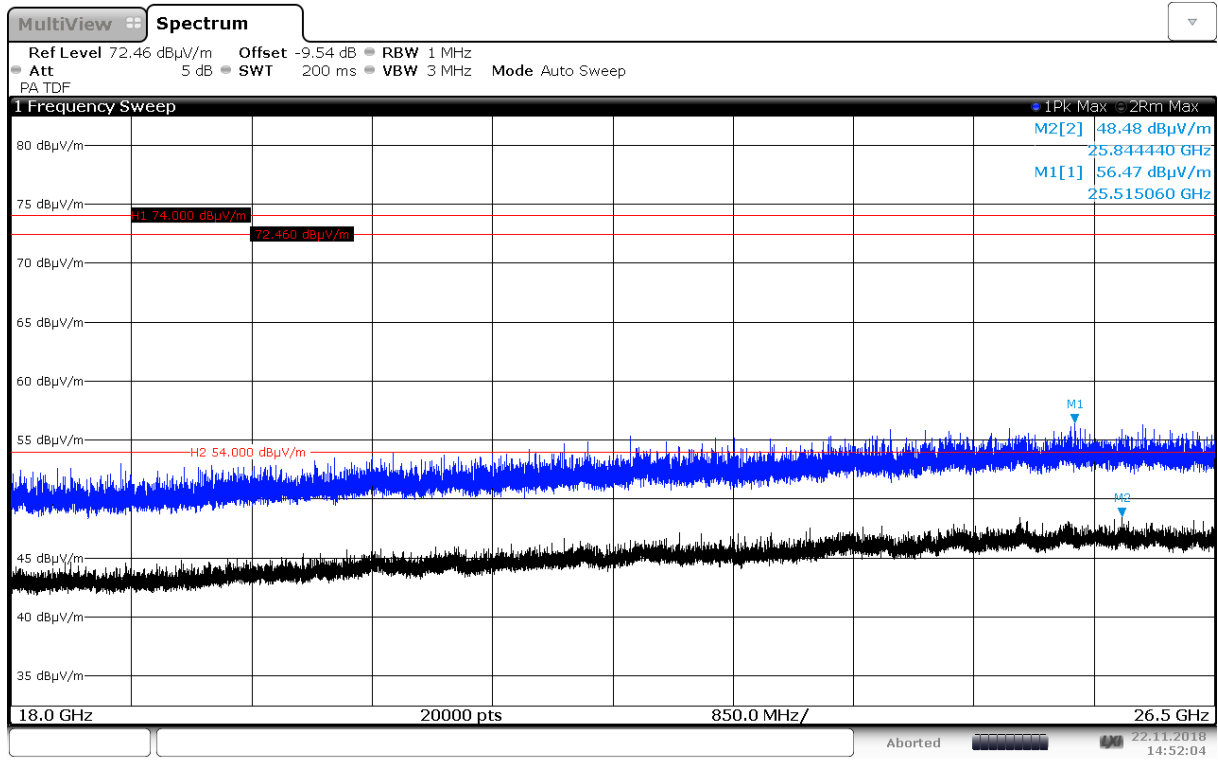
14:29:30 22.11.2018

4.01b_BT_EDR_ch78



14:44:04 22.11.2018

4.02b_BT_EDR_ch00



14:52:04 22.11.2018

4.03b_BT_EDR_ch39

3. Radiated Band Edge Measurements

3.1. Radiated emissions on Bluetooth BDR band-edge low

Diagram No.: 9.01a_BT_EDR_ch00

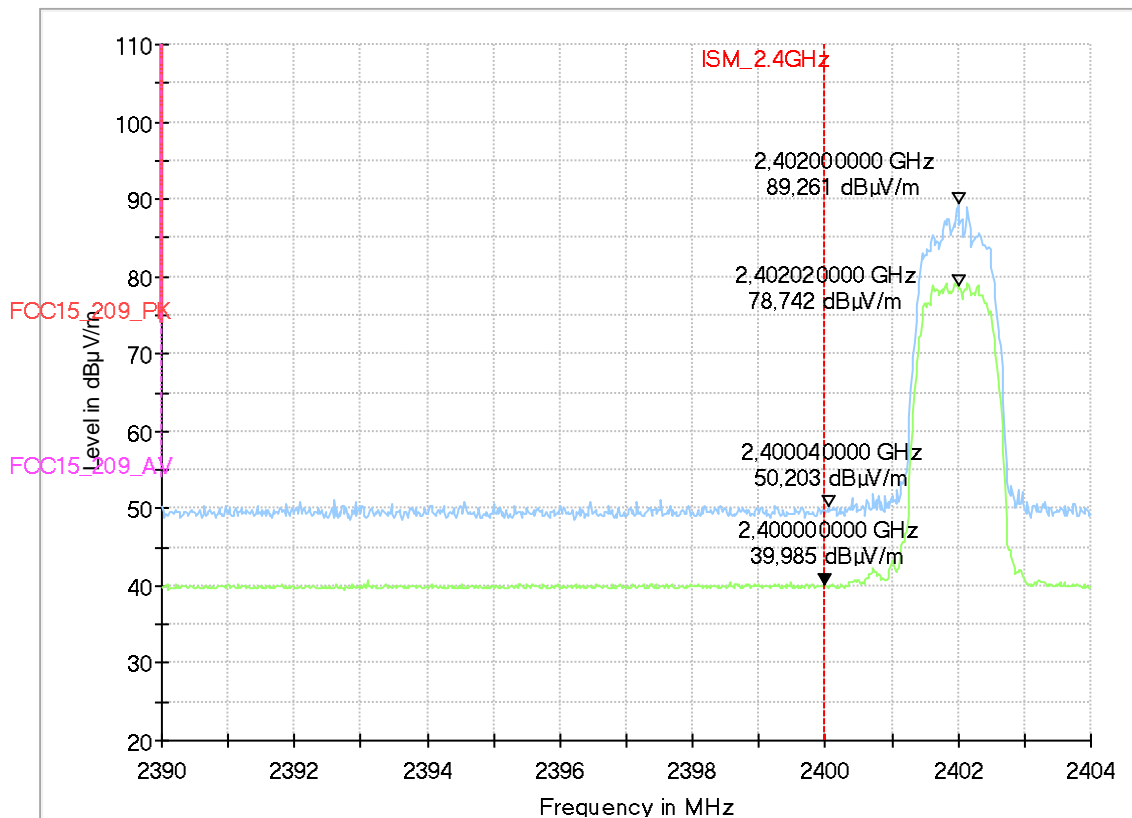
Common Information

Test Description:	Band-Edge: Radiated Field Strength Emissions Emissions in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	BT EDR 2-DH5 ch00
Operator Name:	HEI

EUT Information

Manufacturer:	Robert Bosch Car Multimedia
Product:	AIVISBX0
EUT Model:	18-1-00482S06
HW:	tbd
SW:	283C24194R
Serial Nr.:	
Connected Devices:	13.5VDC

Full Spectrum



9.02a_BT_EDR_ch00

Common Information

Test Description:	Band-Edge: Radiated Field Strength Emissions Emissions in 3m distance
Test Site:	CETECOM GmbH Essen
Version of Testsoftware:	EMC32 V9.26.0
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	BT EDR DH5 ch00
Operator Name:	MSo
Comment:	Channel no. low

EUT Information

Manufacturer:	Robert Bosch Car Multimedia
Product:	AIVISBX0
EUT Model:	18-1-00482S06
HW:	tbd
SW:	283C24194R
Serial No.:	0005000
Connected Devices:	13.5VDC

Full Spectrum

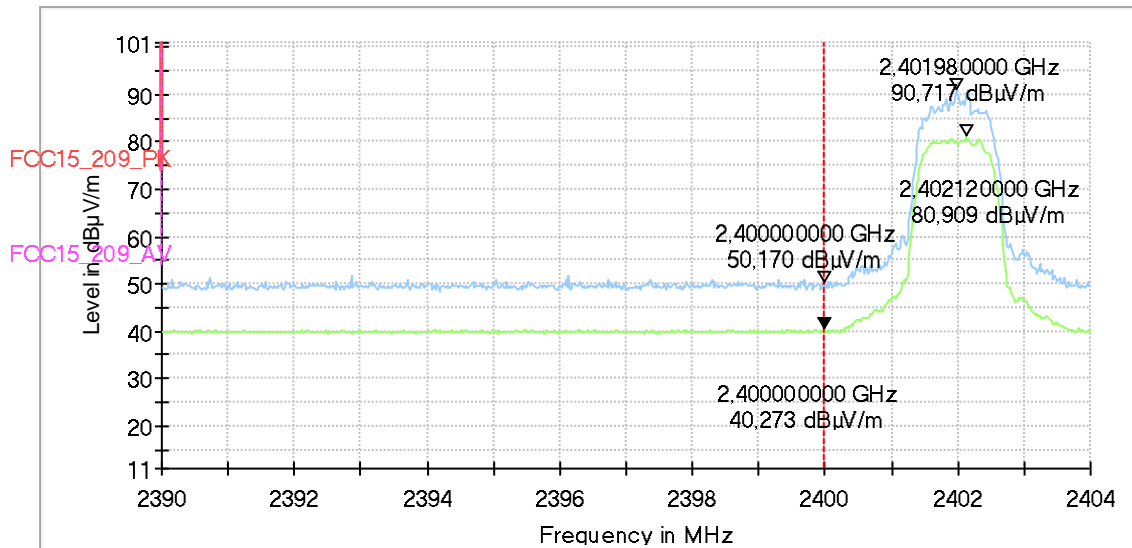


Diagram No.: 9.03a_BT_BR_ch00

Common Information

Test Description:	Band-Edge: Radiated Field Strength Emissions Emissions in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	BT EDR DH5 ch00
Operator Name:	HEI

EUT Information

Manufacturer:	Robert Bosch Car Multimedia
Product:	AIVISBX0
EUT Model:	18-1-00482S06
HW:	tbd
SW:	283C24194R
Serial Nr.:	
Conected Devices:	13.5VDC

Full Spectrum

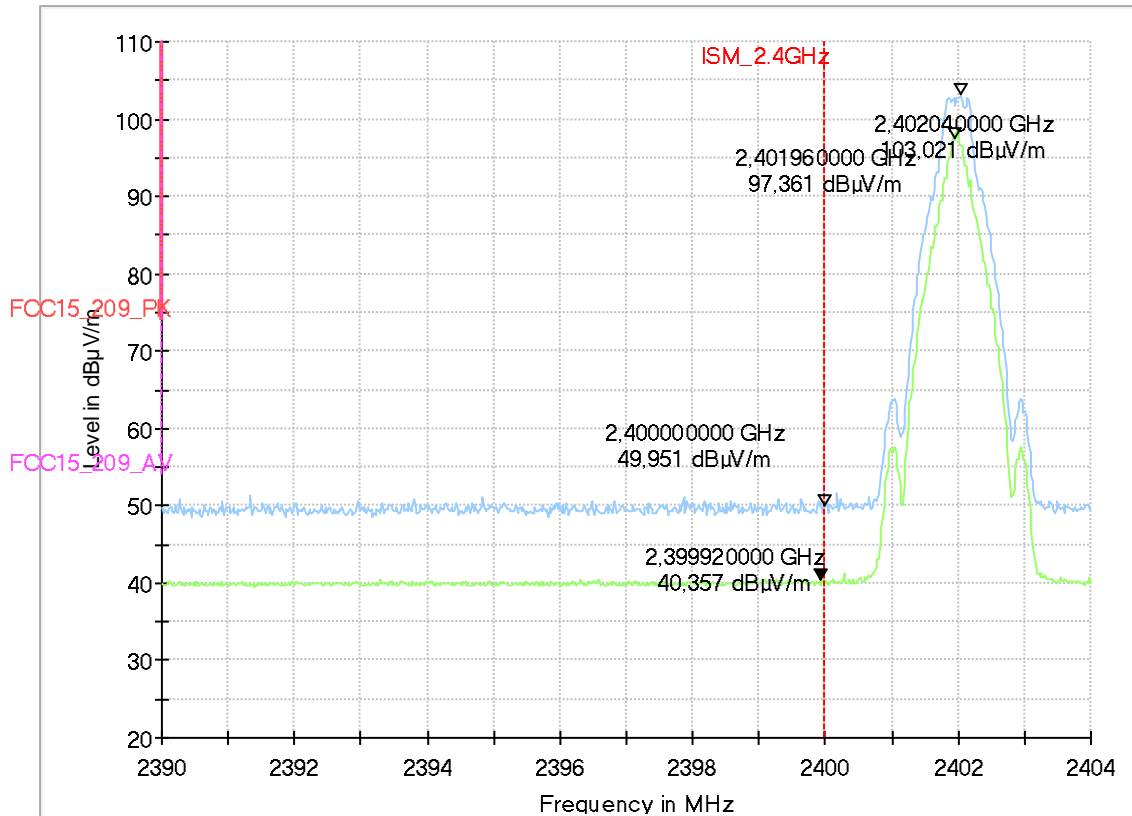


Diagram No.: 9.04a_BT_EDR_ch00

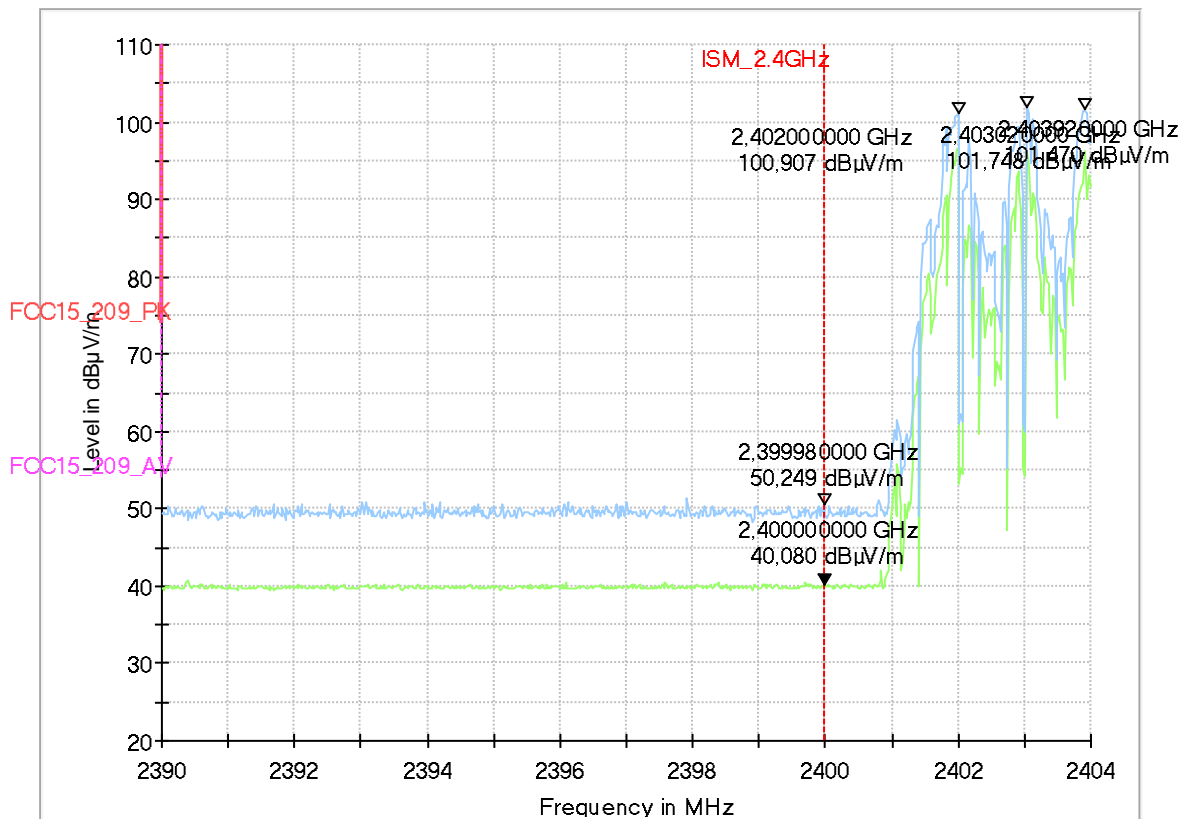
Common Information

Test Description:	Band-Edge: Radiated Field Strength Emissions Emissions in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	BT EDR Hopping ON
Operator Name:	HEI

EUT Information

Manufacturer:	Robert Bosch Car Multimedia
Product:	AIVISBX0
EUT Model:	18-1-00482S06
HW:	tbd
SW:	283C24194R
Serial Nr.:	
Conected Devices:	13.5VDC

Full Spectrum



3.2. Radiated emissions on Bluetooth EDR band-edge high

Diagram No.: 9.01b_BT_EDR_ch78

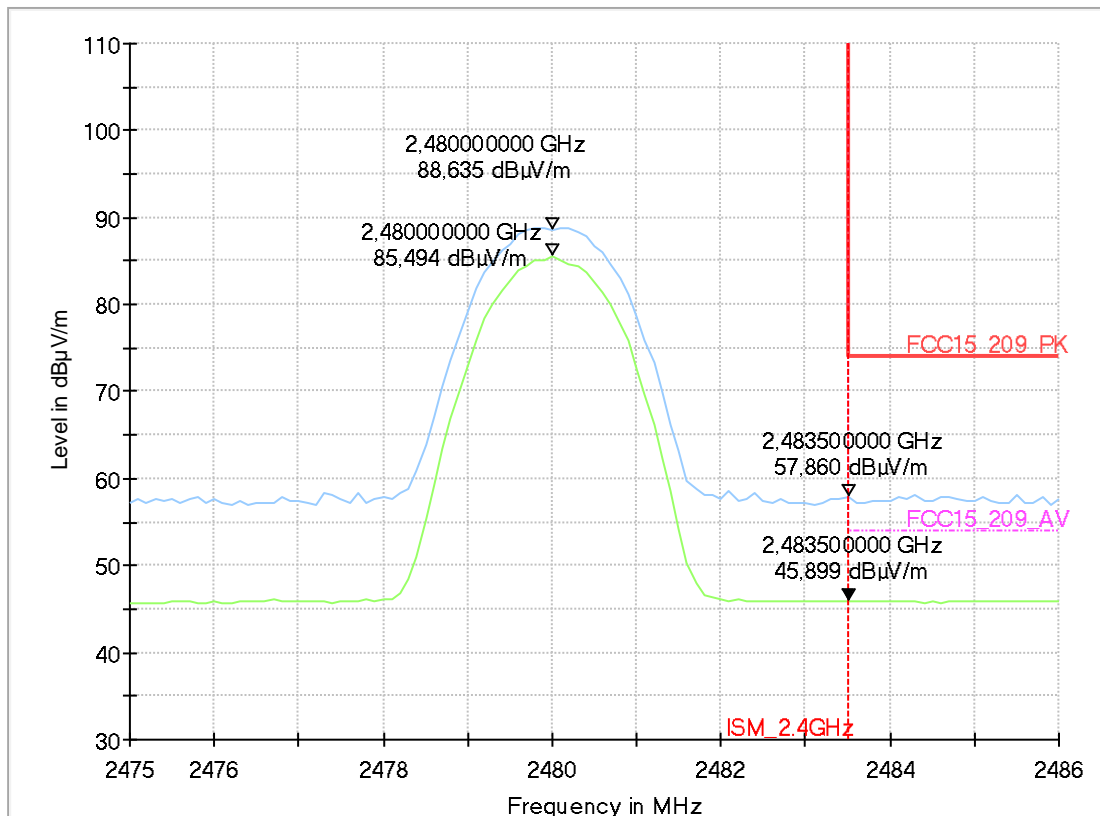
Common Information

Test Description:	Band-Edge: Radiated Field Strength Emissions Emissions in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	BT EDR 2-DH5 ch78
Operator Name:	HEI

EUT Information

Manufacturer:	Robert Bosch Car Multimedia
Product:	AIVISBX0
EUT Model:	18-1-00482S06
HW:	tbd
SW:	283C24194R
Serial Nr.:	
Conected Devices:	13.5VDC

Full Spectrum



9.02b_BT_EDR_ch78

Common Information

Test Description:	Band-Edge: Radiated Field Strength Emissions Emissions in 3m distance
Test Site:	CETECOM GmbH Essen
Version of Testsoftware:	EMC32 V9.26.0
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	BT EDR DH5 ch78
Operator Name:	MSo
Comment:	Channel no. 78 / high

EUT Information

Manufacturer:	Robert Bosch Car Multimedia
Product:	AIVISBX0
EUT Model:	18-1-00482S06
HW:	tbd
SW:	283C24194R
Serial No.:	0005000
Connected Devices:	13.5VDC

Full Spectrum

Full Spectrum

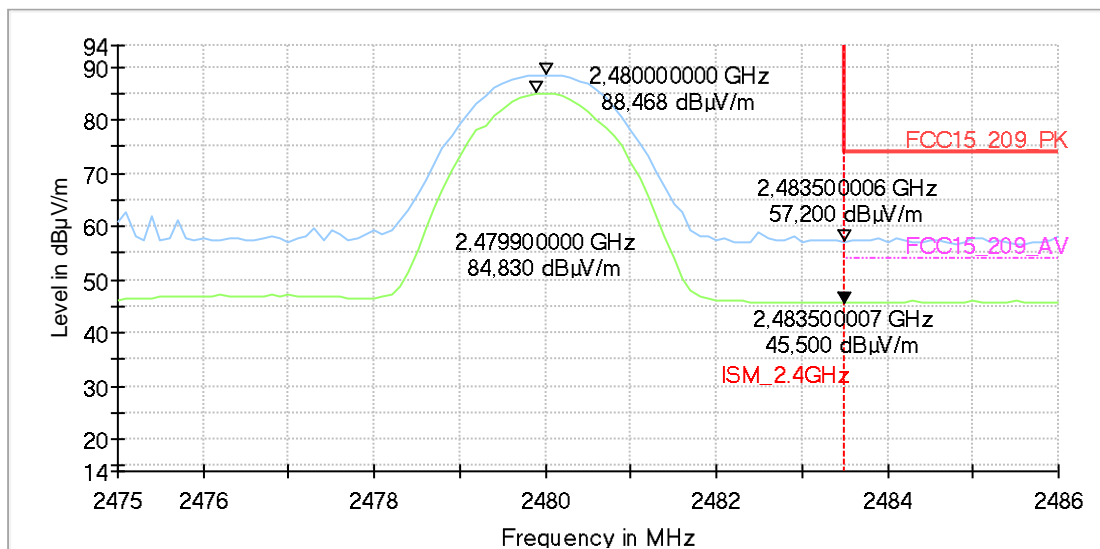


Diagram No.: 9.03b_BT_BR_ch78

Common Information

Test Description:	Band-Edge: Radiated Field Strength Emissions Emissions in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	BT EDR DH5 ch78
Operator Name:	HEI

EUT Information

Manufacturer:	Robert Bosch Car Multimedia
Product:	AIVISBX0
EUT Model:	18-1-00482S06
HW:	tbd
SW:	283C24194R
Serial Nr.:	
Conected Devices:	13.5VDC

Full Spectrum

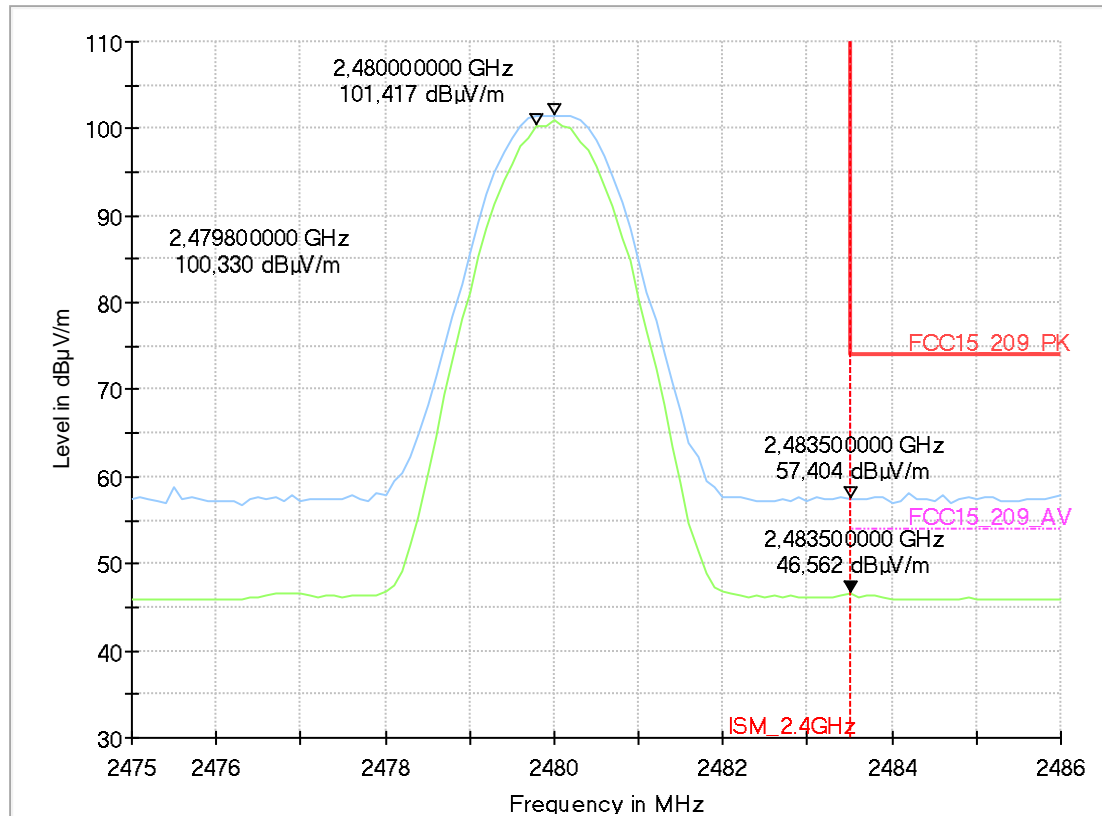


Diagram No.: 9.04b_BT_EDR_ch78

Common Information

Test Description:	Band-Edge: Radiated Field Strength Emissions Emissions in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator / RSS-Gen, Issue 4
Antenna polarisation:	horizontal/vertical
Operation mode:	BT EDR Hopping ON
Operator Name:	HEI

EUT Information

Manufacturer:	Robert Bosch Car Multimedia
Product:	AIVISBX0
EUT Model:	18-1-00482S06
HW:	tbd
SW:	283C24194R
Serial Nr.:	
Conected Devices:	13.5VDC

Full Spectrum

